TOWN OF HAVERSTRAW PLANNING BOARD RESOLUTION
Conditional Site Plan Approval
130 W. Ramapo Road, Garnerville

WHEREAS, the Applicant, Ariel Kondov, proposes to redevelop the property known as 130 W. Ramapo Road, Garnerville (tax lot 25.16-3-40) (the "Property") with a two-story, 12,000 square foot building with a basement – the first two floors (8,000 square feet) will be office space and the basement (4,000 square feet) will be amenities and utilities for the existing tenants and will not provide any additional occupancy – along with associated parking, screening and other related improvements (the "Proposed Project"); and

WHEREAS, in connection with the Proposed Project, the Applicant submitted the following applications to the Town:

1. Site Plan Application to the Planning Board dated July 21, 2023
2. Petition for Zone Change to the Town Board dated January 8, 2025 seeking to rezone the Property from the PO zoning district to the C zoning district
3. Application to the Zoning Board of Appeals dated March 3, 2025 seeking area variances from the bulk requirements of the C zoning district

WHEREAS, the Planning Board, as lead agency for a coordinated review of this Unlisted action pursuant to the State Environmental Quality Review Act ("SEQRA"), adopted a Negative Declaration at its March 11, 2026 meeting, thus ending the SEQRA process; and

WHEREAS, at its March 11, 2026 meeting, pursuant to Town Zoning Code § 167-108(B), the Planning Board adopted a zoning report to the Town Board on the proposed rezoning; and

WHEREAS, at its April 14, 2026 meeting, the Town Board adopted Local Law #1 of 2026 rezoning the Property to the C zoning district solely for the Proposed Project; and

WHEREAS, at its May 13, 2026 meeting, the Zoning Board granted certain area variances for the Proposed Project; and

WHEREAS, in connection with the Proposed Project, the Applicant submitted the following:

- Signed and sealed survey map prepared by Civil Tec Engineering & Surveying dated April 20, 2023 and last revised January 8, 2026 ("Survey")
- Signed and sealed site plan set prepared by Weinberglim Engineering DPC ("Site Plan Set") as follows:
    1. Title Sheet dated September 22, 2025 and last revised February 25, 2026
    2. Layout Plan dated October 14, 2024 and last revised February 25, 2026
    3. Grading, Drainage & Utility Plan dated September 22, 2025 and last revised December 29, 2025
    4. Landscaping & Lighting Plan dated July 29, 2025 and last revised September 22, 2025
    5. Sediment & Erosion Control Plan dated September 22, 2025

6. Fire Truck Turn Analysis dated September 22, 2025
7. Construction Details dated September 22, 2025

- Signed and sealed architectural plan set prepared by BILD Architecture ("Architectural Plan Set") dated and last revised February 24, 2026 as follows:
  - Sheet A000 – Cover
  - Sheet A100 – Basement
  - Sheet 101 – First Floor
  - Sheet A102 – Second Floor
  - Sheet A103 – Third Floor
  - Sheet A200 – South Elevation
  - Sheet A201 – North Elevation
  - Sheet A202 – East & West Elevations

(collectively, the Survey, Site Plan Set and Architectural Plan Set are referred to as the "Approved Plans"); and

WHEREAS, the Site Plan Application was referred to the Rockland County Department of Planning ("County Planning") in accordance with General Municipal Law § 239-m ("GML"), in response to which the Planning Board received a response from County Planning dated April 22, 2025 recommending certain "modifications," and are addressed as follows (and with specific approval conditions identified in *italics*):

1. *As a condition of this Resolution*, the Applicant shall comply with comments by the Rockland County Department of Health dated April 9, 2025 regarding decommissioning the existing well and making an application for review of the stormwater management system, and obtain any and all necessary permits and approvals from County DOH.
2. The application was sent to the New York State Department of Transportation at the start of the process and more than 30 days have elapsed without a response. Notwithstanding such, *as a condition of this Resolution*, the Applicant shall obtain any and all necessary permits and approvals from NYSDOT.
3. The Town Fire Inspector and Thiells Roseville Fire Department have reviewed the plans and have no objection to the Proposed Project.
4. The southern zoning boundary is not within 25 feet of a more restrictive zoning district as Route 202 has a right-of-way of at least 50 feet and the zone change extends to its centerline.
5. The Applicant has revised the plans and bulk table to reflect the 25-foot side yard setback along the western property line.
6. The Applicant submitted a landscaping plan with a planting schedule that satisfy the requirements of Zoning Code 167 Attachment 11 and § 167-68(L). The Applicant has also agreed to replace the existing fence along the northern property line that abuts a residential property.
7. The Applicant's planting schedule includes native species.
8. The Property is developed and has been utilized for a variety of purposes in the past. Water is available to the Property and it is not anticipated that the general office use will generate a significantly increased demand for water.

9. As noted in response 1, *as a condition of the Resolution*, the Applicant shall obtain any and all necessary permits and approvals from County DOH, including sanitary sewer improvements.
10. *As a condition of this Resolution*, the Applicant shall implement all required, necessary and appropriate soil and erosion control measures prior to commencing construction or grading.
11. The Applicant has designed the onsite stormwater management system to ensure there will be no net increase in the peak rate of discharge from the site at all design points.
12. The Applicant has implemented additional landscaping into the design of the Proposed Project to reduce impervious coverage.
13. As a condition of this Resolution, and as required by the Town Code generally, any and all proposed signage shall comply with the requirements of the Town Code.
14. The Applicant has indicated the snow storage areas on the plans.
15. *As a condition of this Resolution*, the Applicant shall design and construct the proposed structure to maximize energy efficiency.
16. *As a condition of this Resolution*, the Applicant shall ensure that during construction an electrical conduit is installed in an appropriate location (as determined in consultation with Orange & Rockland Utilities) to allow for the installation of an electric vehicle charging station should one be determined to be necessary in the future.
17. None of the conditions of County Planning's review is being overridden, and therefore no further action is needed to comply with the process for overrides under GML.
18. None of the conditions of County Planning's review is being overridden, and therefore no further action is needed to comply with the process for overrides under County Executive Order 01-2017.

WHEREAS, the Planning Board, having held several duly-noticed public hearings on the Proposed Project, closed the public hearing on May 13, 2026; and

NOW THEREFORE,

BE IT RESOLVED, the applications for preliminary and final site plan approvals for the Proposed Project are granted in accordance with the Approved Plans subject to the following conditions:

1. Prior to the signing of the Approved Plans by the Planning Board Chairman, the following conditions must be met:

    a. Applicant shall comply with all rules, regulations and requirements of any and all agencies, entities, departments, boards and municipalities with jurisdiction over the Proposed Project, and this approval is conditioned upon the Applicant receiving any and all approvals/permits required by such agencies without material deviation from the Approved Plans. Specifically, the Applicant shall make an application to, and obtain approval from, the Town Architectural Review Board.
    b. The Applicant shall indicate on the plans compliance with the conditions of this Resolution set forth above in the responses to County Planning's comments (indicated in italics).

c. The Applicant shall address and/or incorporate into the plans the outstanding comments, if any, from the Town Consulting Engineer, Town Traffic Engineer and Town Planner, to their respective satisfaction.
d. The Applicant shall include as a note on the plan Paragraph 2 below in its entirety.
e. The Applicant shall pay all outstanding monies owed to the Town in connection with the Planning Board and its consultants and staff processing, reviewing and preparing documentation on this application and ensuring satisfaction with the conditions of this Resolution. This condition shall also apply, and be a prerequisite, to the issuance of a building permit and/or certificate of occupancy.
f. No portion of any approval by the Planning Board shall take effect until (1) all of the above-stated conditions are met, (2) the Approved Site Plan is signed by the Chairman of the Planning Board and (3) the Approved Site Plan signed by the Chairman of the Planning Board is filed with the Building Department.

2. Conditions Related to the Use of the Property
   a. The Property and the building shall only be used for general office space and for accessory uses compatible to the general office use.
   b. The Applicant required a parking variance from the Zoning Board of Appeals related to the number of parking spaces associated with the general office use due to the square-footage of the proposed building. In support of the variance and the size of the structure, the Applicant made the following representations to the Planning Board, which are express conditions to the Site Plan Approval:
      1. There shall be no medical or dental office use on the Property or in the building.
      2. There shall be no additional occupancy in the building from the development of the 4,000-square foot basement. There shall be no additional individuals in the building for the basement that are not otherwise utilizing the office space on the first and/or second floors. The only individuals in the basement shall be employees working in the offices on the first and second floors.
   c. The Building Inspector may enter the Property and the building with or without notice to ensure compliance with these conditions and failure to comply with these conditions shall be sufficient grounds for revoking the certificate of occupancy.

3. This Resolution and the requirements and conditions contained herein shall be binding on any assignees or successors of the Applicant, and anyone, including but not limited to tenants, utilizing office space in the building.

4. Prior to issuance of a building permit, the Applicant shall complete the following:

   a. In accordance with Town Code § 137-96(A) and § A173-10(D), the Applicant shall provide a performance bond in a form satisfactory to the Planning Board attorney and in an amount satisfactory to the Town Consulting Engineer based

upon the cost estimate of the site improvements as shown on the Approved Plans to ensure adequate completion of these improvements.

b. In accordance with Town Code § A173-16(B), the Applicant shall provide escrow established based upon a percentage of the Town Consulting Engineer's cost estimate to ensure the site improvements can be inspected for compliance with the Approved Plans.
c. Remove the overgrown brush, weeds and grass along the western property line and maintain the existing landscaping in that area.

5. All new and replacement landscaping shall be installed in a healthy and vigorous state and shall be inspected at the beginning and end of each growing season within the first five years of installation. Individual species that do not survive each of the first five years shall be replaced in the fall following the inspection with another species (native, if possible) suitable for the site conditions. If fall planting is not possible, then spring planting is permissible.

6. The granting of this application shall not be deemed to relieve the Applicant of the need to obtain approvals or permits of any other board, agency or officer as prescribed by law or ordinance with regard to the Approved Plan or construction or any other phase of the project. Further, the granting of this application shall not be deemed to relieve the Applicant of the need to comply with any and all other local, state and federal requirements, including but not limited to compliance with the New York State Uniform Code and any applicable regulations related to the proposed use, location or construction.

7. No work may be commenced on any portion of the site without first contacting the Building Inspector and Town Consulting Engineer to ensure that all permits and approvals have been obtained and all permit fees paid and to establish an inspection schedule. Failure to comply with this provision shall result in the immediate revocation of all permits issued by the Town along with the requirement to reapply (including the payment of application fees) for all such permits, the removal of all work performed and restoration to its original condition of any portion of the site disturbed and such other and additional civil and criminal penalties as the courts may impose.

8. The Property shall be inspected by the Building Inspector, the Town's Consultant Engineer, and any other consultants or professionals deemed necessary or appropriate by the Building Inspector to ensure that all construction, improvements and modifications were done in accordance with all applicable Federal, State and Local laws and regulations and all professional standards and guidelines prior to the field being operational.

9. This application is granted subject to the accuracy of the representations made by the Applicant and its representatives to the Planning Board in its written submissions and during the public hearing and if any material representation, whether or not it is included in this Resolution, is found to be inaccurate, at the discretion of the Planning Board the Applicant shall be required to make an application for an amended approval.

10. This Resolution shall be of no force or effect unless and until there is full compliance with all of its requirements and conditions.

Dated as of May 13, 2026

_____
Chairman

In Favor:
Opposed:
Abstain:
Absent:

DRAFT

FINAL ENVIRONMENTAL IMPACT STATEMENT

Letchworth Road Residential Development

LETCHWORTH ROAD
TOWN OF HAVERSTRAW
ROCKLAND COUNTY, NY

Prepared for:

Haverstraw Group LLC
16 Microlab Road, Suite A
Livingston, NJ 07039
Contact: Mr. Marc Pantirer

Lead Agency:

Town of Haverstraw Planning Board

Prepared by:

Project 21090

Date: *August 15*, 2025
Revised: *March 31*, 2026
May 15, 2026

Letchworth Road Residential Development

Letchworth Road
Town of Haverstraw
Rockland County, NY
Tax Map ID 19.11-1-1

FINAL ENVIRONMENTAL IMPACT STATEMENT

State Environmental Quality Review Act (SEQRA)

Lead Agency:
Town of Haverstraw Planning Board
1 Rosman Road
Garnerville, NY 10923
Contact: Mr. Salvatore Corallo Planning Board Chairman
Telephone: (845) 429-2200

Applicant/Owner:
Haverstraw Group LLC
16 Microlab Road, Suite A
Livingston, NJ 07039
Contact: Mr. Marc Pantirer
Telephone: (973) 488-6402

Date Submitted:
Revised:
Date Accepted:

Preliminary Site Plan Drawings, which include:

Dwg. No.	Title
C-000	"Cover Sheet"
C-010	"Existing Conditions Map"
C-100	"Site Layout Plan"
C-200	"Site Grading Plan"
C-220	"Cross Sections"
C-300	"Site Utilities Plan"
C-400	"Overall Construction Phasing Plan"
C-401	"Site Erosion & Sediment Control Plan - Phase 1A"
C-402	"Site Erosion & Sediment Control Plan - Phase 1B"
C-403	"Site Erosion & Sediment Control Plan - Phase 2"
C-404	"Site Erosion & Sediment Control Plan - Phase 3"
C-900	"Construction Details"
C-901	"Construction Details"
C-902	"Construction Details"
C-903	"Construction Details"
C-904	"Construction Details"
L-100	"Overall Landscape Plan"
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C. JMC Site Plan Drawings

Preliminary Site Plan Drawings, which include:

Dwg. No.	Title
C-000	"Cover Sheet"
C-010	"Existing Conditions Map"
C-100	"Site Layout Plan"
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C-401	"Site Erosion & Sediment Control Plan - Phase 1A"
C-402	"Site Erosion & Sediment Control Plan - Phase 1B"
C-403	"Site Erosion & Sediment Control Plan - Phase 2"
C-404	"Site Erosion & Sediment Control Plan - Phase 3"
C-900	"Construction Details"
C-901	"Construction Details"
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I. PROJECT DESCRIPTION

A. Introduction

This Final Environmental Impact Statement (FEIS) has been prepared pursuant to SEQRA (Article 8 of Environmental Conservation Law) and its implementing regulations (6 NYCRR Part 617). Pursuant to 6 NYCRR Part 617 (specifically §617.9(b)(8)), the purpose of this FEIS is to provide Lead Agency responses to the substantive public comments (both written and verbal) made on the Draft Environmental Impact Statement (DEIS) during the public hearings and formal comment period. As such, this FEIS addresses all substantive comments made on the DEIS during the public comment period and will serve as a basis for making environmental findings for the project described below. Those comments are summarized and responded to in Chapter 3, "Response to Comments."

B. Site Location/Environmental Setting

The subject property is a portion of the Letchworth Village Property in the Town of Haverstraw. Tax Lot 19.16-1-14 NY is a large tract (154.6 acres) bordered by Willow Grove Road and a residential development to the North, Letchworth Village Road to the West and South, and New York State owned landed to the East. This Tax Lot includes many of the remaining buildings of the former Letchworth Village Development Center, including those along East Stewart Circle and West Stewart Circle.

The property to be developed (hereinafter referred to as the "Project Site") consists of ±23.86 acres of vacant and underutilized land on the east side of the tax lot. The Project Site formerly contained a single-family home however the home was previously removed. The site currently contains a driveway, remains of the former home's foundation, a garage, a shed, walls, wooded areas and an open recreational field.

The Project Site sits at a high point, with the terrain rising from the west to a centrally located high point. The terrain then slopes downward to the east toward the State lands and Hammond Road. There are no wetlands, watercourses, or water bodies located on the Project Site.

Small portions of the Project Site contain slopes in excess of 15% and approximately 51% of the Project Site contains wooded areas.

C. DEIS Plan

The DEIS Proposed Action ("the DEIS Plan") proposes the project (hereinafter the "Proposed Action") consists of seven (7) multifamily apartment buildings constructed in accordance with the Type V-A (Protected Wood Frame) construction type standards over one level of garage parking. The buildings will each contain a trash collection room, mail / package room, and storage. Each unit will have its own washer and dryer.

Five (5) buildings (Type A) will have 41 dwelling units (5 one-bedroom units, 36 two-bedroom units) with 18 individual garages for rent at the basement level. Two (2) buildings designated Type B will have 48 dwelling units (14 one-bedroom units, 34 two-bedroom units) with 21 individual garages for rent at the basement level. Type A buildings are proposed to have a building envelope of approximately ±20,540 square feet and Type B buildings are proposed to have a building envelope of approximately ±22,752 square feet. The buildings will provide a total of 300 rental apartments consisting of 52 one-bedroom apartments and 248 two-bedroom apartments with an additional unit to be utilized as a model unit. On-grade, uncovered parking is provided adjacent to the buildings.

The Proposed Action also includes the construction of a clubhouse and recreation areas which will provide amenities for the residents. The clubhouse is approximately 10,625± S.F. and will contain a leasing office, clubroom, fitness

center, yoga studio, lounge, demonstration kitchen, and restrooms. The area outside of the clubhouse will contain a patio and pool for residents. The recreation areas on-site will consist of a tennis court and pickleball courts for the residents.

The architectural character of the buildings is traditional residential with horizontal lap siding, stone veneer, fiber cement trim, cast stone lintels, decorative shutters, and asphalt shingles.

The design of these buildings will meet all adopted energy codes for the state of New York. High-efficiency gas fired MagicPak systems will provide heating and cooling and will be installed in each apartment. Apartment units range in size from approximately 800 square feet for a one-bedroom to approximately 1,500 square feet for a two-bedroom apartment. All paints, primers, and adhesives used will be low Volatile Organic Compounds (VOCs). Exterior gas fired fire pits and grills will be installed for residents use in the clubhouse area but no wood gas or ethanol fireplaces will be included in the Proposed Action.

Fire and life safety will be addressed through the installation of sprinkler systems throughout the buildings. All systems will meet the requirements of the National Fire Protection Association 13 (NFPA 13) guidelines for installation and operation. All building and stair entries will be access controlled for resident safety and the leasing center will be staffed during business hours.

1. Residential Component

The Proposed Action consists of the development of three-hundred (300) multifamily residential rental units within seven (7) a 3.5-story buildings. The buildings are 3 stories from the front side, and 4 stories from the back side, which contains a level of individual garages which will be available for rent by residents in the building. Five (5) buildings (Type A) will have 41 dwelling units (5 one-bedroom units, 36 two-bedroom units) with 18 individual garages for

rent at the basement level. Two (2) buildings designated Type B will have 48 dwelling units (14 one-bedroom units, 34 two-bedroom units) with 21 individual garages for rent at the basement level. One unit will be utilized as a model unit for marketing purposes. On-grade, uncovered parking is provided adjacent to the buildings.

2. Residential Amenities Component

The Proposed Action also includes the construction of a clubhouse and recreation areas which will provide amenities for the residents. The clubhouse is approximately 10,625± S.F. and will contain a leasing office, clubroom, fitness center, yoga studio, lounge, demonstration kitchen, and restrooms. The area outside of the clubhouse will contain a patio and pool for residents.

Recreation areas will be created on-site and will consist of pickleball courts dog run, and other amenities for the residents.

Each building will contain a mail / package room, and each unit will have a washer and dryer within the unit.

3. Green Design and Sustainability Components

The Proposed Action will be built with LED light fixtures, low flow water fixtures, programmable thermostats, low VOC paints, and other modern sustainable features.

4. Site Roadways, Access and Circulation

The Project Site is bounded by Letchworth Village Road to the South and Ridge Road to the West. Access to the Proposed Action is proposed by a single boulevard style driveway which will connect to a small roundabout within Ridge Road as depicted on JMC Drawing C-100, “Site Layout Plan”.

The proposed driveway provides a single entering lane and single exiting lane separated by a landscaped median. An on-site roundabout with three approaches is proposed within Ridge Road to provide access to the Proposed Action, the existing church, as well as any future development that may occur at the Letchworth Village property. In addition, an emergency access drive is proposed which will connect directly to Letchworth Village Road and only be utilized by emergency services personnel during emergencies.

The proposed main driveway connects to a network of access driveways within the site that lead to the proposed buildings. The main boulevard continues east through the center of the site to a T intersection where the clubhouse is located. From there, residents can turn left or right to access the front side of all proposed buildings. In addition, there is a perimeter access drive which provides access to the rear of each building which contains the garages and additional parking spaces behind the buildings. A total of 662 parking spaces are provided, which includes 368 standard parking spaces, 30 ADA compliant accessible parking spaces, 132 garage parking spaces, and 132 garage apron parking spaces.

5. Tree Preservation, Landscaping, and Buffers

Existing trees on the Project Site will be preserved to the greatest extent possible. The placement and orientation of the proposed buildings focuses the development in the center of the site and reduces the area of site disturbance and to preserve large areas of perimeter buffer. The grading limits of disturbance along the southern side of the development allows the preservation of a large wooded buffer adjacent to Letchworth Village Road.

In addition, a detailed landscaping plan has been prepared for the project which identifies proposed foundation plantings, parking lot plantings, and perimeter

plantings. Please refer to the JMC Drawing L-100 “Site Landscaping Plan” which depicts the various proposed plantings throughout the Project Site.

6. Recreation and Open Space

The Proposed Action will provide approximately 6,500 linear feet of sidewalks within the site that connect the various buildings to each other and to the clubhouse. The clubhouse is approximately 10,625± S.F. and will contain a leasing office, clubroom, fitness center, yoga studio, lounge, demonstration kitchen, and restrooms. The area outside of the clubhouse will contain a 6,000± S.F. patio in addition to an 8,000± S.F. patio / pool area for residents. In addition, these sidewalks will connect to an approximately 11,500± S.F. recreation area that includes a dog run and two pickleball courts.

7. Utilities and Support Facilities

Existing utilities in the vicinity of the Project Site include water service provided by Veolia Water, sanitary sewer service provided by the Joint Regional Sewerage Board, and electric and gas service provided by Orange and Rockland Utilities. There are overhead wires that exist along the northern side of Letchworth Village Road. (Electric service within the development will be undergrounded.) In addition, there is a natural gas main that runs within Letchworth Village Road.

a. Sanitary Sewer

An existing 12” sanitary sewer main exists at the intersection of Letchworth Village Road and the driveway for the former Letchworth Village power plant. This main carries flows south parallel to the Minisceongo River through the Philip J. Rotella Municipal Golf Course. These flows are ultimately conveyed to the treatment plant located on Ecology Road in

West Haverstraw. The sewer infrastructure is owned and maintained by the Joint Regional Sewerage Board.

An additional existing sanitary sewer line in the vicinity of the intersection of Theills-Mt. Ivy Road and Letchworth Village Road to the southeast of the site. These flows additionally are ultimately conveyed to the treatment plant located on Ecology Road in West Haverstraw. We are currently coordinating with the Joint Regional Sewerage Board to determine which connection point would be pursued, and analyses of the mains have been provided for their review.

The applicant received a willingness to serve letter from the JRSB on March 6th, 2026.

b. Water

An existing 12" water main is located within Letchworth Village Road. Veolia Water owns and maintains the water infrastructure within this service area. The locations of the existing water main are depicted on the JMC full size drawings located in Appendix C.

c. Electric, Natural Gas, Telephone, Cable

Electric, natural gas, telephone and cable services exist in the vicinity of the Project Site. Electric and natural gas utilities are provided by Orange and Rockland Utilities. The Proposed Action will utilize natural gas for heat, hot water and cooking. High-speed internet access is provided by Optimum and Verizon in this service area.

8. Site Excavation, Grading, and Fill Plans

The layout of the proposed buildings and the site was designed to minimize land disturbance and work with the existing terrain to the maximum extent possible. The proposed buildings and roadways are oriented with the natural terrain and the grading design mimics the existing grade so as to minimize overall earthwork and disturbance.

The intent of the site grading is to achieve a balanced design with no significant quantities of either export or import of material. The total amount of exported material required for the Project Site's current site plan is about ±62,570 cubic yards. The total amount of imported material required is about ±96,470 cubic yards. This results in a net import of approximately ±33,900 cubic yards of material, which is ideal because of the subgrade aggregates required (i.e. sand, gravel & concrete) to implement the Proposed Action. Accordingly, the earthwork is substantially balanced when one considers the excavation required to bring the site to the subgrade of the roads and buildings.

9. Stormwater Management Summary

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the Proposed Action. The development has been designed in accordance with the following:

- Requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-25-001, effective January 25, 2025.
- Chapter 137, Part 3, "Stormwater Management" of the Town of Haverstraw Code.

As per the above requirements of the NYSDEC and the Town, the proposed stormwater management facilities have been designed such that the quantity

and quality of stormwater runoff during and after construction are not adversely altered, and in some instances are enhanced in comparison to pre-development conditions. The proposed stormwater improvements will result in reductions in peak rates of runoff from existing conditions for all storms and analyzed, resulting in no impacts to off-site properties.

The Applicant is proposing several stormwater practices to mitigate stormwater runoff from the proposed improvements. Stormwater runoff will be collected and conveyed through a series of drain inlets and underground pipes to multiple stormwater management areas, including bioretention areas, infiltration basins, and detention basins. In addition, there will be multiple structures known as hydrodynamic separators which will provide water quality pretreatment for stormwater runoff before entering each green practice. These practices will work in conjunction to reduce flows exiting the Project Site as required by the Town of Haverstraw and the NYSDEC, and will result in reductions in peak rates for all storms analyzed, resulting in no adverse impacts to off-site properties.

10. Construction Staging Summary

The construction of the project will be completed in a single phase, and will be sequenced in an efficient way to limit the potential impacts associated with construction. The Project Site will be fully closed in with temporary fences for safety and to prevent anything or anyone from entering the property. Silt fences will also run along the entire Project Site to mitigate off-site environmental impacts.

A construction entrance will be located via Letchworth Village Road, in the same location as the future entrance for the Project Site. Dumpsters will be provided in accordance with changing site conditions. The construction trailer will be placed in the vicinity of the of the construction entrance. Traffic signage

will be provided to provide adequate notice to drivers for the entrances to the Project Site and to keep safety a top priority. Additionally, traffic control plans will be prepared as required during the applicable County permitting process. It is also noted that construction vehicles will not drive on the Church parking lot nor the Church's property. Also, surface parking charging stations will be provided with each private garage having a charging outlet.

A general construction sequence is provided below outlining the general order of operations for the project construction:

1. Demolition of existing buildings and site features as required.
2. Installation of sediment and erosion control measures as indicated on the site plans.
3. Clear undeveloped portion of property which is to be developed.
4. Strip and stockpile topsoil.
5. Begin driveway, building and parking lot construction, rough grading.
6. Install storm drain system complete (immediately install inlet protection on all inlets).
7. Install utilities (gas, electric and telephone) as required.
8. Install concrete and asphalt concrete pavement complete.
9. Finish grading, redistribute topsoil and establish vegetation and/or landscaping.
10. Clean pavements and storm drain system of all accumulated sediment in conjunction with the removal of all temporary sediment and erosion control devices.
11. Complete site and building construction.

D. Description of the FEIS Alternative Plan

The Applicant still strongly believes that the Proposed Action presented in the DEIS Plan is the best project for the Town. The FEIS Alternative Plan ("FEIS

Alternative Plan") was developed in large part due to comments and input received from the Lead Agency and the public during the review of the DEIS. The FEIS Alternative Plan utilizes the existing zoning and proposes a 7 single family lot subdivision of the existing ±23.86 acre site. In addition, a second site plan alternative was submitted under the DEIS or single family residence on the entire existing 154.5 acre Letchworth Village Site.

This FEIS is organized into three chapters:

- Chapter I., "Project Description," describes and states that the site plan from the DEIS will remain the site plan for the FEIS.

- Chapter II., "FEIS Executive Summary," describes any changes made to the site plan from the DEIS.

- Chapter III., "Response to Comments," responds to substantive comments received on the DEIS and is organized by sub-chapter according to the structure of the chapters and analysis within the DEIS. Copies of all comments, including the public hearing transcripts, are provided in the appendices to the FEIS. The Comment Key, contained in Appendix A, identifies each correspondence received which contains substantive comments as an individual appendix, and where the comment and its response may be found in the FEIS.

The Applicant believes that the responses to comments on the site plan are responsive to substantive comments made during the public review period, and provides more clarity that the site plan will not require further potential significant environmental impacts.

E. Review Procedures and Process Background

On August 14th, 2024, the Planning Board declared their intention to be Lead

Agency, and on March 12th, 2025, the Planning Board declared themselves Lead Agency and issued a Positive Declaration declaring that a Draft Environmental Impact Statement be prepared. The Public Hearing on the Draft Scoping Document was held, and the Planning Board adopted the Final Scope on September 11th, 2024.

The Applicant prepared a DEIS which was submitted in sections to the Town of Haverstraw Town Clerk's Office, who in turn submitted sections to the Town's Planning Consultant, Kauker & Kauker, LLC, starting on January 29th, 2025, for purposes of completeness review. The Applicant received written completeness comments from the Town Clerk's Office Department on May 1, 2025.

The Applicant submitted a full DEIS to the Planning Board on January 29th, 2025. The Planning Consultant advised the Town Board on the sufficiency of the document for purposes of commencing public review. The DEIS was accepted as complete by the Planning Board on March 12, 2025 and scheduled the public hearing.

Prior to the Public Hearings on the DEIS, the Applicant met with the Town of Haverstraw Planning Board, Town of Haverstraw Architectural Review Board, Town Consulting Planner, District Fire Chief, as well as the North Rockland Central School District, the Regional Joint Veolia Water, in order to obtain these entities' input on the DEIS Plan.

Public Hearings on the DEIS were held on April 9, 2025 and the Hearing was closed on said date. Written comments were accepted until April 30th, 2025.

The DEIS is hereby incorporated by reference into this FEIS. Any terms relating to the description of the proposed project described in the DEIS are also used within this FEIS.

Pursuant to SEQR regulations, the Planning Board is required to adopt an Environmental Findings Statement based on the environmental review record before it or any other Involved Agency in the SEQRA review may take action on the project.

This FEIS fully anticipates all permitting and/or entitlements required for the project, including, but not limited to, the Applicant's application for a zoning text change, Special Exception Use Approval, Site Plan Approval, a local Wetlands/Watercourse Permit, and a Floodplain Development Permit for the proposed project. Accordingly, this FEIS and related environmental findings will be applicable to the below noted approvals.

The FEIS includes responses to comments received regarding the DEIS as well as any changes to the proposed project that reflect comments made during the public review period.

F. Required Approvals

The list of involved and interested agencies, required permits and approvals, and interested parties is provided below.

Table I-1
Reviews and Approvals

Agency	Approval/Review
1. Town of Haverstraw Planning Board	• SEQRA Determination (§200-3)(*) • Site Plan Approval
2. Town of Haverstraw Town Board	• Rezoning approval (R-120 to LA-17) • Amendment of LA-17 Zone Height
3. Town of Haverstraw Building Department	• Building Permit
4. Town of Haverstraw Department of Public Works	• Department of Public Works Water & Sewer Approval
5. Joint Regional Sewerage Board	• Joint Regional Sewerage Board Approval
6. Veolia Water New York	• Veolia Water New York Approval
7. New York State Department of Environmental Conservation (NYSDEC)	• 2025 SPDES Permit
8. Rockland County Planning Board	• §239-m General Municipal Law Referral
9. New York State Department of Environmental Protection (“NYSDEC”)	• SPDES General Permit GP-0-20-001 for Stormwater Discharges from Construction Activities
10. New York State Department of Transportation (“NYSDOT”)	• Highway Work Permit

*Reference to the Town of Haverstraw Code Section

II. FEIS EXECUTIVE SUMMARY

This Chapter provides an assessment of potential environmental impacts related to the Site Plan and any changes and analyses conducted since the submission and acceptance of the DEIS. There are no proposed changes to the DEIS Plan, which was the plan that was the basis for the Applicant's project and rezoning request. This FEIS shall evaluate the DEIS Plan and the DEIS alternatives that were previously scoped and presented.

A. Land Use, Zoning and Public Policy

The proposed action site is located in the Town's R-120 Zone, "Rural Residence District". Under Town Code Chapter 167, multi-family residences are not a permitted use in this zoning district. The Proposed Action requires a zoning change by the Town Board for the Project to be a permitted use.

Therefore, the proposed action includes a zoning change to the LA-17 Zone "Luxury Apartment Multifamily Residential District" which allows multifamily residences at a density of no more than 17 units per acre. This zone change allows the site plan to conform with Town zoning.

The proposed action conforms with goals of the Town of Haverstraw Urban Renewal Plan from 2006, the 2000 Town of Haverstraw Master Plan of 2000, the 2011 Rockland County Comprehensive Plan, and the 2024 Rockland County Housing Needs Assessment by providing a different housing type and increasing economic activity in the Palisades Parkway corridor along with a needed rental apartment housing option within the Town of Haverstraw.

B. Visual Impacts

The Plan proposes seven 3.5 story residential apartment buildings with surface & garage parking spaces. A 10,625± sf clubhouse, pool area, and multi-sport courts for tennis & pickleball are also included in the design. The architectural character

of the building is a modern residential aesthetic that takes queues from the remaining Letchworth Village buildings.

Lighting & Landscaping will be in accordance with Town Code Section A173 entitled "Site Development Plans", which will ensure that all requirements in the Proposed Action comply. All lighting will be dark-sky compliant, appropriately shielded to prevent light spillage onto adjoining properties. All lighting will utilize high-efficiency lamps (LED). The southern portion of the Project Site will be the only part of the project visible from a public roadway, specifically Letchworth Village Road. The site plan has no changes from a visual or aesthetic perspective.

C. Soils, Topography and Steep Slopes

SESI Consulting Engineers were retained by The Applicant to prepare a thorough subsurface study and investigation of the proposed ±23.86 acre project area. The plan remains the same for the DEIS.

In accordance with NYS requirements, additional testing was performed on the site in areas in which the plan proposes for the stormwater system. On June 25 & 26, additional sub-surface data was collected with 10 test pits and on July 7 and 8, additional soil testing was performed with 9 soil borings. The purpose of this additional testing was to confirm the sub-surface conditions for the design of the proposed stormwater management systems on the site plan.

Additionally, all disturbed areas will be stabilized with native ground covers during post construction operations.

D. Flora, Fauna and Habitat

The Project Site is currently underutilized, vacant land that has experienced various levels of neglect over the past several years and decades. As a former institutional use, the Project Site has gradually returned to a mix of forested and lawn/meadow

areas. Most recently, approximately 1/3 of the Project Site was utilized as natural turf for recreational sport fields. The remaining ± 2/3 of the Project Site contain a mix of forested and meadow areas.

As stated in the DEIS, the NYSDEC Environmental Resource Mapper, the Project Site does not contain any species of plant or animal that is listed by New York State as endangered or threatened, any areas identified as habitat for an endangered or threatened species, nor any species of plant or animal that is listed by New York State as rare, or as a species of special concern.

It is noted that the entire ±23.86 acre site lies within the Significant Biodiversity Area, SBA, known as the "Hudson Highlands West". This SBA is composed of 801,972 acres, an area extending from Orange and Rockland counties in the state of New Jersey.

A small portion of the project site lies within the area for Migratory Fish along the Miniceango Creek. The creek itself is situated south of Letchworth Village Road and runs through the Town of Haverstraw and Village of West Haverstraw into the Hudson River. There are many different uses currently operating within the Miniceango Creek Migratory Fish area in the municipalities of Haverstraw & West Haverstraw, including single family homes, schools, industrial plants, and commercial use buildings. The portion of our site that is situated in the migratory fish area is where the proposed Stormwater Basin 2B is situated. The proposed action will have relatively insignificant impact on the Miniceango Creek Migratory Fish Area.

The proposed landscape plan provides planting species that are native to the Rockland County area. Best management practices are to be utilized and all existing trees that are to be removed from the site are to comply with the Town of Haverstraw Municipal Code.

E. Stormwater Management

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the Proposed Action. The development has been designed in accordance with the following:

- Requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-25-001, effective January 25, 2025.
- Chapter 137, Part 3, "Stormwater Management" of the Town of Haverstraw Code.
- Requirements of the SPDES General Permit 2024 stormwater Design Manual

Since submission and acceptance of the DEIS, the hydrologic model has been revised to update the rainfall distribution curve from the Type III storm distribution to a distribution curve based on rainfall data from the NRCC website. In revising the hydrologic model, the plans and report have been revised for consistency. Additionally, the drainage analysis has been revised to study 3 design points as requested by the Town Consulting Engineer. The analysis now studies pre- and post- conditions at these three locations to meet a zero net increase. Additionally, the relocation of the emergency discharges have been revised to be directed away from the state owned parcel.

F. Water Supply and Sanitary Sewerage

The Project Site is located within a water service area operated and maintained by Veolia New York Water. The property is located within the Haverstraw Joint Regional District which is overseen by the Joint Regional Sewerage Board in West Haverstraw. Will serve applications have been submitted to both agencies.

Since the DEIS, JMC Drawing C-300, "Site Utilities Plan", shows the location of the proposed hydrants which have been coordinated with the Fire District. As requested by Civil Design Works, LLC, on behalf of the Town of Haverstraw, the water and sewer system alignments have been revised accordingly and are detailed on JMC Drawing C-300, "Site Utilities Plan". Additionally, a stubbed connection will be provided for the existing church property to connect into the public water system in the future if they choose to do so.

G. Other Utilities and Services (Gas, Electric, Telecommunications)

The Project Site is served by existing electric, natural gas, telephone, and other telecommunications services in the vicinity. The electric and gas utilities are provided by Orange and Rockland Utilities. High-speed internet access for data, television, and telecommunications is provided by Optimum and Verizon in the vicinity of the Project Site and the service provider will be determined at a later date.

Additionally, as requested by Silverberg Zalantis, LLC, on behalf of the Town of Haverstraw, the proposed roundabout and utilities have been designed to provide connection locations for future developments.

Other than service connections to the Proposed Action, no modifications to the existing utilities are proposed to facilitate the Proposed Action and therefore do not require any mitigations.

H. Traffic, Transportation and Parking

An analysis of the surrounding roadway network under existing and future conditions with and without the proposed action was performed during the peak weekday morning, weekday school afternoon, weekday roadway evening, and Saturday midday hours. Based on intersection capacity analyses as well as accident analysis performed the applicant proposes the following improvements

within the study area:

- Letchworth Village Road and Storrs Road (Intersection 4) is proposed to be modified to an all-way stop-controlled intersection.
- Letchworth Village Road & Ridge Road (Intersection 5) is proposed to be realigned to remove the existing skew between intersection approaches. Additionally, “All-Way” signs are proposed to be added below the “Stop” signs to provide increased awareness of the all-way stop operations to motorists utilizing the intersection.
- US Route 202, Thiells-Mount Ivy Road, NYS Route 45, and Old County Road (Intersections 9 and 10) is proposed to provide traffic signal timing modifications during the hours of 2:00 PM to 7:00 PM on weekdays.
- US Route 202, NYS Route 45, and Old County Road (Intersection 10) is proposed to prohibit right turns on red for the northbound NYS Route 45 approach to the intersection with the installation of signage.
- Warning signage for deer is proposed along Thiells-Mount Ivy Road between Anderson Road and Rosman Road.

The project proposes to provide a total of 667 on-site parking spaces which are categorized into 399 general surface parking spaces, 134 reserved garage parking spaces, and 134 reserved tandem parking spaces in front of the garages.

Since the submission and acceptance of the DEIS, the site plan has been revised to show snow storage areas. Additionally, a bus stop with a shelter has been provided along the primary internal driveway.

As requested by LaBella, additional car counts will be conducted at intersections 5, 6, 12, and 13 at the completion of the construction in these areas. In addition, the site plan has been reviewed with Thiells Roseville Fire District. Pedestrian connectivity has been provided between the church property and the proposed development via additional sidewalk and marked pedestrian crossings.

I. Community Demographics, Facilities and Services

The Proposed Action will create 300-units of new, high-quality multi-family dwellings in the Town of Haverstraw that will provide a needed diversification of housing opportunities in the community. Additionally, the Letchworth Village Property has been extensively studied numerous times in the past for this type of redevelopment and would be a positive change for the area.

The Town services' budgets and personnel were previously provided in the DEIS. The DEIS states the current number of employees in the various service departments and was provided to us by these department chiefs (Police, Fire, and Ambulance Corp). In addition, we have been in communication with the Town's Director of Finance, who has stated that there will be no additional demand on these services. The project sponsor met with the Fire Chief and Assistant Chiefs of the Theills Roseville Fire District on March 5, 2025. The fire truck turning plan was discussed at that time. We then provided a revised Fire Truck Turning Plan for the Department's review to address their concerns and confirm it is to the Department's satisfaction.

The Fire District did not express a need for additional fire apparatus or equipment to serve the proposed action. The proposed action will be constructed in accordance with all applicable NFPA / NYS Fire Codes.

As stated, and discussed in the DEIS, the North Rockland CSD has seen a decline in enrollment by 3.6% over the last 10 years, based on the NYS ED data website. We've communicated with the school district and received the maximum enrollment capacities for each school building in the district and none of the schools are at or near their capacity limitations, as provided in the DEIS.

In addition, as requested by Silverberg Zalantis, LLC, on behalf of the Town of

Haverstraw, the project team reviewed the 2024 Rockland County Housing Needs Assessment. This assessment specifically states that this type of housing is needed throughout the County.

J. Fiscal and Economic Conditions

The Proposed Action is expected to generate $11,745,000.00 in revenue for the Town during a fifteen-year PILOT program that has been agreed to between the Town and the Applicant in the contract of sale. This is in addition to the $14,400,000.00 purchase price that will be provided directly to the Town of Haverstraw.

The Proposed Action is estimated to generate approximately 739 residents, which would create new municipal service costs totaling approximately ±$616,215. This service cost estimate is based on average costs, not marginal increases. The Proposed Action is also estimated to create an average increase of ±$886,677.00 in educational costs for the ±33 school aged children. The actual marginal costs of educating these students will be much lower.

Additionally, on July 1, 2025, the project team had discussions with the Town Director of Finance. It was determined by the Town that the proposed action would not require additional financial resources to any of the Town service departments and districts.

K. Noise and Air Quality

The Noise Analysis reveals that no significant noise impact will occur as a result of the Proposed Project. Despite this, the Applicant has incorporated several mitigating measures.

To provide additional noise abatement, the Applicant will shut-down equipment when it is not in use (i.e. no idling of unused equipment in excess of State

regulations). To the extent practical, noisy equipment shall be kept far from site boundaries and the Applicant shall schedule noise producing operations concurrently to reduce long exposure to noticeable sound levels. In addition, the Proposed Action will conform to the construction time restrictions set forth in Town Code Section 167-40A(1), 7:00AM to 7:00PM on the weekdays and 8:00AM to 5:00PM on Saturdays. No construction operations are to take place on Sundays and Holidays.

It is acknowledged that all of Rockland County is a non-attainment area for 8-Hour Ozone. The traffic study submitted and reviewed by the Town proposes several improvements which will ensure adequate levels of service and reduce congestion, which mitigates any potential increase in ozone levels. In addition, the landscape plans submitted suggest native trees and shrubs to be incorporated into the site plans to address any potential impacts.

L. Historic and Cultural Resources

A consultation with the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP, also known as SHPO), via its Cultural Resources Information System (CRIS) was formally made on December 4th, 2024.

We received additional correspondence from the NYSOPRHP dated December 20th, 2024. Additionally, on July 9th, 2025, the project team made a submission to the NYSOPRHP based on the correspondence dated December 20th, 2024. Any and all follow-up correspondence from SHPO will be submitted to the Lead Agency for their record and review, including the final determination.

M. Construction information

All construction activities will be conducted in compliance with existing regulations, including local day and hour construction limitations. Consistent with Section 114-4B “Noise” of the Town Code, construction will only take place between the hours

of 8:00 am and 6:00 pm Monday through Friday as well as on Saturdays, Sundays, and holidays.

Since the DEIS, a construction phasing plan has been provided in the drawing set consisting of 4 phases, 1A, 1B, 2, & 3. Traffic control plans will be prepared as required during the applicable County permitting process. Additionally, during construction, there will be a security gate installed at the site entry which will be locked after hours. The job trailer, which is the office for the field team, will be located near the site entry within the gated area. A site safety plan will be provided by a third party site safety inspector and additional security measure will include cameras, lighting, and overnight monitoring.

These are all in addition to the other best management practices stated and discussed in the DEIS.

N. Summary of Project Alternatives

1. No Action (No Build) Alternative

The “No-Action” alternative would involve no development of the ±23.86 acre Site. This would result in leaving the Site in its existing vacant, undeveloped condition. This alternative does not meet the goals and objectives of the Applicant or the Town of Haverstraw and does not correlate with its reasonable investment objectives for the Project Site.

Under this alternative, the Project Site would most likely continue to decline and deteriorate in appearance while not providing any of the potential positive opportunities, including no future tax revenues and payment for acquisition, which the Proposed Action will present to the Town and Community.

2. Conventional Subdivision for a Single Family Residential Development

The “Conventional Subdivision” Alternative would involve development of the ±23.86-acre Project Site with seven single family residence lots and an associated right-of-way containing the proposed roadway to access the subdivision. The Conventional Subdivision Alternative would yield seven single family homes on lots that each exceed 120,000 square feet in area. This Alternative does not meet the goals and objectives of the Applicant from an economic and feasibility standpoint nor does it align with the objectives of the Town of Haverstraw.

Under this Alternative, the Project Site would be developed for residential use under the existing R-120 Zoning criteria. It would not provide the same level of potential benefits, which the Proposed Action will provide to the Town and Community.

In addition, a “Conventional Subdivision” Alternative was provided for the entire exiting 154.5 acre Letchworth Village property, as requested by the Town of Haverstraw. Similarly to the seven lot subdivision alternative, the Project Site would be developed for residential use under the existing R-120 Zoning criteria. It would not provide the same level of potential benefits, which the Proposed Action will provide to the Town and Community.

O. List of Involved and Interested Agencies and Required Approvals/Permits

The list of required permits and approvals from involved and interested agencies is provided below in Table II-1.

Table II-1
Reviews and Approvals

Agency	Approval/Review
1. Town of Haverstraw Planning Board	• SEQRA Determination (§200-3)(*) • Site Plan Approval
2. Town of Haverstraw Town Board	• Rezoning approval (R-120 to LA-17) • Amendment of LA-17 Zone Height
3. Town of Haverstraw Building Department	• Building Permit
4. Town of Haverstraw Department of Public Works	• Department of Public Works Water & Sewer Approval
5. Joint Regional Sewerage Board	• Joint Regional Sewerage Board Approval
6. Veolia Water New York	• Veolia Water New York Approval
7. New York State Department of Environmental Conservation (NYSDEC)	• 2025 SPDES Permit
8. Rockland County Planning Board	• §239-m General Municipal Law Referral
9. New York State Department of Environmental Protection (“NYSDEC”)	• SPDES General Permit GP-0-20-001 for Stormwater Discharges from Construction Activities
10. New York State Department of Transportation (“NYSDOT”)	• Highway Work Permit

*Reference to the Town of Haverstraw Code Section

III. RESPONSE TO COMMENTS

A. Introduction

This Chapter of the Final Environmental Impact Statement (FEIS) addresses comments that were made on the DEIS that was accepted as complete and dated March 12, 2025. Comments were provided either verbally at the Public Hearings held on April 9, 2025 and provided in writing through April 30, 2025. This includes all comments made by the public, Rockland County Planning Board, the Town of Haverstraw and interested and involved agencies.

This chapter provides responses to the substantive verbal and written comments submitted on the DEIS. Full transcripts of public testimony and complete correspondence from which these comments are drawn are found in Appendix A, which lists the agencies, Town consultants, and individuals who commented on the DEIS. A total of 7 documents were received, reviewed and their substantive comments put into the FEIS. All these comments have been addressed in Section III of the FEIS.

B. Comment Key

A Comment Key is provided in Appendix A-8. This lists by commenter the type of correspondence received and the appendix in which the comment document is located. The comments are individually numbered by the section in the FEIS where the comment and its response may be found.

III.C.1A Comments Regarding DEIS Executive Summary

Comment No. 1A-1

The DEIS includes a general statement of project purpose and need but lacks a detailed analysis. Additionally, it references a comprehensive market analysis indicating that the proposed actions are driven by a basic imbalance in housing supply and demand. This statement should be expanded to provide further justification for the project, and the referenced market study should be included as an appendix to the document.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 1A-1

The proposed action is driven by an imbalance of housing supply as referenced in both the Rockland County Comprehensive Plan of 2011 and the Rockland County Housing Needs Assessment of 2024.

The Rockland County Comprehensive Plan's Recommendation #9 is titled "Support the Reuse of Abandoned Railways." This is a recommendation to establish more housing and more housing types on specified properties in the County. Letchworth Village is emphasized as one of these properties in the document.

The 2024 Rockland County Housing Needs Assessment cites several goals in the "Summary of Needs" section of the document, including increased housing options that are affordable to very-low, low, moderate, and middle income households, as well as the need for new housing development to honor existing social networks with proximity to existing community assets, such as parks and

schools. Needs for increased production of more multifamily housing is also cited as a need for Rockland County.

The proposed action meets several goals and recommendations in both the Rockland County Comprehensive Plan of 2011 and the 2024 Rockland Housing Needs Assessment as well as the other Town and County documents and studies reviewed and referenced in the DEIS and FEIS.

Comment No. 1A-2

It is noted under Construction Information that "…construction will take place between the hours of 8:00 am and 6:00 pm Monday through Friday as well as on Saturdays, Sundays, and Holidays". However, under the Noise and Air Quality section it states that no construction operations will take place on Sundays or Holidays. It must be clarified if construction will occur on Sundays or Holidays, since conflicting information was provided.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 1A-2

So noted. Construction will occur during the hours permitted in Town Code Section 167-40. No work will be performed on Sundays or legal holidays as described in the code.

Comment No. 1A-3

Tables I-1 and II-2 should be expanded to include the Rockland County Drainage Agency as the Minisceongo Creek, a County regulated stream, is immediately adjacent to the parcel and this project may fall within the

jurisdiction of the Drainage Agency and permits may be required. Additionally, the Rockland County Highway Department should also be included in these tables as there are county roadways that are potentially impacted by this project including, Willow Grove Road (CR 98), Letchworth Village Road (CR 94), Thiells Mount Ivy Road (CR 47), Hammond Road (CR 47and County highway permits may be required.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 1A-3

Tables I-1 and II-1 have been expanded and revised to include the Rockland County Drainage Agency.

Comment No. 1A-4

In addition, we recommend that an 'Interested Agencies' table be created that includes the Rockland County Planning Department, as the rezoning, and any site plan or subdivision approvals will require referral to County Planning under New York State General Municipal Law, Section 239.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 1A-4

Tables I-1 and II-1 have been expanded and revised to include all interested agencies as well as agencies that require approval and permitting for the site.

III.C.1B Comments Regarding DEIS Project Description

Comment No. 1B-1

Multiple pages of the DEIS, including several appendices, lists the Tax Map ID for the site as 19.11-1-1. Our records indicate that the Tax Map ID is 19.16-1-14. The Tax Map ID should be corrected throughout the document.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 1B-1

The Tax Map ID has been corrected in the FEIS document to 19.16-1-14.

Comment No. 1B-2

Part of this project will include a subdivision. However, based on our records, this parent Parcel 19.16-1-14, has yet to be subdivided. It is unclear as to how a DEIS is being prepared for a site that does not yet exist. Therefore, the scope and the DEIS should at this point include the entire parcel in question until such parcel is subdivided.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 1B-2

The proposed action is to take place on the ±23.86 acre site. The subdivision component of this project will consist of a two lot subdivision of the existing tax lot, which has a total area of approximately ±154.6 acres. The remaining area

of the existing lot, approximately 131 acres, will continue to be owned and maintained by the Town of Haverstraw.

Comment No. 1B-3

The property at issue is identified as being +/- 22.93 acre ("Property"). There should be a precise number or a reason for the estimation and the amount of the potential deviation. The Applicant's original proposal contemplated six longer buildings. However, at the request of the Town, the Applicant redesigned the Proposed Action to seven buildings to allow for shorter buildings to accommodate the same number of potential units (300). Please clarify if the proposed acreage takes this change into account, and if not, the exact acreage for the current Proposed Action (with seven buildings) should be identified with an updated metes and bounds description.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 1B-3

The surveyor is working on an updated metes and bounds description and map, and it will be provided as soon as it is available.

Comment No. 1B-4

Further, the Proposed Action includes improvements on property currently contemplated to remain owned by the Town – including removing an existing dilapidated structure, installation of a stormwater management basin, and construction of the round-about to provide access to the Property and the remainder of Letchworth Village. The Applicant must come to an agreement(s) with the Town as to the Applicant's long-term use and maintenance of this area.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 1B-4

Based on conversations with the Town and the Consulting Engineer, Civil Design Works, the proposed improvements on Town property will be dedicated in a 200' right-of-way to include the boulevard, roundabout, driveways, and stormwater management practice. The plans have been revised so that only Town drainage will be conveyed to the practice within the right-of-way. All improvements within the Town right-of-way will be maintained by the Town.

Comment No. 1B-5

There is reference to SESI Consulting Engineers conducting a subsurface study and investigation and the stormwater management both being based upon the 22.93 acres area. Does that include the additional land needed to incorporate the seventh building and the land that will remain owned by the Town but where the Applicant is proposing to do work and make long-term improvements? If not, the study/analysis should be expanded to include those areas. The same applies for any other environmental impacts analysis that was limited to the 22.93 acre area – if that area does not include the expanded property for the seventh building and the Town property where the Applicant proposes to make improvements.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 1B-5

An updated geotechnical analysis was performed by SESI Consulting Engineers including all of the property for the proposed action in addition to the future Town right-of-way and stormwater management practice. This updated report is included in Appendix B.

Comment No. 1B-6

CrossLife Church, which is on the other side of Ridge Road from the Proposed Action, has a recorded easement with the Town for access to its property as Ridge Road is Town property. The Applicant must coordinate with the Town and CrossLife Church to ensure the easement is adhered to or a new easement is recorded. A copy of the existing easement is attached hereto.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 1B-6

The existing easement will not be disturbed or impeded. Once the right-of-way is established for the new boulevard and roundabout, an easement will no longer be required for CrossLife Church as they will have direct access to the new Town right-of-way.

Comment No. 1B-7

What is the basis for the statement that "The Applicant and Town have agreed that the purchase price and entering into the PILOT program sufficiently mitigates any adverse fiscal and economic impacts generated by the Proposed Action." (P. I-10).

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 1B-7

The Applicant and the Town entered a purchase and sale agreement that establishes a purchase price to be paid to the Town, together with an agreed-upon PILOT schedule. Since the Town is prohibited by the N.Y.S. Constitution from making gifts, the agreement, including the PILOT schedule, reflects the fair market value of the land and the PILOT reflects the anticipated revenue needed to offset additional Town expenses related to or generated by the project.

Comment No. 1B-8

Per our review of the DEIS, NYSOGS does not have approvals and as such is an interested agency. Should the project however require any temporary construction impact or permanent structures placed on state-owned parcels, it would require approvals from the NYSOGS State Asset Land Management Office.

(Appendix A-4, NYS Office of General Services State Asset and Land Management, DEIS Review Memorandum, Mark McGlynn)

Response No. 1B-8

The project doesn't propose any temporary construction or permanent structures on State owned land.

Comment No. 1B-9

And it's our new modern age.· Are you going to put some charges around there for cars, because we're going electric, I guess, and so we need to have that?

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Chairman Corallo)

Response No. 1B-9

The project will have EV charging capability within the garages, as well as EV charging spaces scattered throughout the parking lots.

Comment No. 1B-10

I just want to know how many bedrooms are going to be in each of these units?· What's the intended?

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Darla Perrotto, 5 Balsam Road)

Response No. 1B-10

The buildings will contain a mix of one-bedroom and two-bedroom units. The "A" type buildings will have 5 one-bedroom units and 36 two-bedroom units. The "B" type buildings will have 14 one-bedroom units and 34 two-bedroom units.

Comment No. 1B-11

How many bedrooms are going to be in the units?· What are they

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Darla Perrotto, 5 Balsam Road)

Response No. 1B-11

The buildings will contain a mix of one-bedroom and two-bedroom units. The "A" type buildings will have 5 one-bedroom units and 36 two-bedroom units. The "B" type buildings will have 14 one-bedroom units and 34 two-bedroom units.

Comment No. 1B-12

We're blocking -- eliminating Ridge Road, now they're going to come into the roundabout and use up more parking spaces, and I think it could have a negative impact as far as we're concerned with the elimination of Ridge Road.

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Jose Castro, Representative of CrossLife Church)

Response No. 1B-12

The layout plan has been revised to propose a separate parking area for walkers and dog walkers to park in when accessing Letchworth Village, so as not to take parking away from the Church.

Comment No. 1B-13

So our concerns are obviously with the -- and then also it, it kind of -- the new design's going to landlock the parking lot.· Right now we kind of -- the functionality changes with -- by landlocking it as opposed to having Ridge Road.· So the functionality of it now, you know, although Ridge Road is on the east side of the parking lot, people that are parking are able to pull in and out, and in and out without utilizing it on one side of the parking lot.· And now you're landlocking it, so it's going to kind of make it a little tighter, little bit more cumbersome to utilize the parking lot with the new configuration.

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Jose Castro, Representative of CrossLife Church)

Response No. 1B-13

The entrance to the Church parking lot has been coordinated with the Town's consulting engineer, who has provided us with the plans for the Church's parking lot improvements.

Comment No. 1B-14

We do have some space, the green area where the, where the retention pond is. So maybe we could integrate, enlarge the parking lot to the benefit of the church to kind of ease that and make it more beneficial, you know.

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Jose Castro, Representative of CrossLife Church)

Response No. 1B-14

The area outside of the Church property is proposed to be dedicated to the Town as right-of-way.

Comment No. 1B-15

And will the church address remain the same being that that part of Ridge Road is going to be eliminated?· Is it still going to remain 2 Ridge Road?·

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Jose Castro, Representative of CrossLife Church)

Response No. 1B-15

The Church address will remain the same.

Comment No. 1B-16

And the last one would be the access to the remainder of Letchworth Village Road.· You come around the circle, you have the road to the community, the road to the church, and nothing accessing the remainder of Letchworth Village to the north.· A:· Right, for fire truck access, emergency vehicles, as well as the dog walkers.· If we don't have an access road from the circle, that's going to lead ·everybody into the parking lot, they're going to park on the northern end of the parking lot, and create their own little trail into Letchworth Village Road -- Letchworth Village.

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Jose Castro, Representative of CrossLife Church)

Response No. 1B-16

The roundabout has been designed with a connection to the balance of the Letchworth Village property for emergency access. The currently proposed layout also provides a parking area for dog walkers to park in when they enter the property, separate from the Church parking lot.

III.C.2 Land Use and Zoning

Comment No. 2-1

Over-Reliance on Town Policy from 2000 Without Addressing Current Conditions

The DEIS heavily relies on the Town's 2000 Master Plan to justify the rezoning from R-120 (Rural Residence) to LA-17 (Luxury Apartment Multifamily Residential).

However, no updated assessment is provided regarding whether community needs or development priorities have evolved since the 2000 Master Plan, particularly given regional demographic and economic shifts over the past 25 years.

This section should be expanded to include specific goals and objectives that the proposed development is intended to promote.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 2-1

The Town of Haverstraw and the County of Rockland have both expressed that the redevelopment & revitalization of the Letchworth Village property is desired, which is referenced in the currently available Planning Documents such as the Town of Haverstraw Master Plan 2000, the Town of Haverstraw Urban Renewal Plan 2001, the Letchworth Urban Renewal Plan of 2006, and the County of Rockland Comprehensive Plan 2011. These documents were utilized to assess the Town's objectives for the Letchworth Village property.

There are no newer Planning documents available which address the demographic and economic shifts of the Town since the preparation of the available documents.

The proposed development directly promotes specific goals outlined in the Town Master Plan 2000, which includes the following: The development is situated in the area of Town known as the "Palisades Parkway Corridor", which is identified in the Town Master Plan for additional community & economic activity desired in the existing residential zoning districts in this area of the Town. The Letchworth Village property is specifically referenced as a site in the Town to be developed and repurposed. The proposed action brings community development to this area and repurposes the Letchworth Village site, accomplishing both of these specific goals in the Town Master Plan 2000.

The Letchworth Urban Renewal Plan of 2006 outlines several additional objectives for the Letchworth Village property. These objectives include the development of a community that incorporates traditional neighborhood design principles, including the development of new communities with diversified and compatible land uses. Additional design principles include the elimination of blighted properties, and providing open space along with buffering from the surrounding uses. The proposed action provides a residential community with a new housing type for the area with traditional community standards. The project will provide buffering and screening from the surrounding residential neighborhoods, and the existing unutilized buildings on the remaining Letchworth Village Property will continue to be owned and maintained by the Town.

In addition, we reviewed the 2024 Rockland Housing Needs Assessment document. The proposed action falls in line with a number of what the assessment calls out as a "Summary of Needs" for Rockland County.

The Assessment cites that increased housing options that are affordable to very-low, low, moderate, and middle income households is needed for Rockland County. It also cites the need for new housing development to honor existing social networks with proximity to existing community assets, such as parks and schools. Needs for increased production of more multifamily housing is also cited as a goal for Rockland County.

The proposed action meets several goals in the "Summary of Needs" in the 2024 Rockland Housing Needs Assessment as well as the other Town and County Plans and documents reviewed and referenced in the DEIS and FEIS.

Comment No. 2-2

Insufficient Justification for Spot Zoning Concerns

The rezoning applies to a ±22.93-acre portion of a larger ±154.6-acre parcel.

The DEIS does not fully analyze whether the LA-17 designation is appropriate in relation to surrounding R-120 and R-15/R-25 single-family residential districts.

A detailed compatibility analysis should be included to address potential spot zoning concerns, including evaluation of impacts on neighborhood character, infrastructure, and precedent-setting implications.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 2-2

With regard to the spot zoning concern, the Letchworth Urban Renewal Plan states that diversified housing with traditional community standards is desired. The Town Master Plan states that there is a need for economic activity and development in this area. The proposed action is in harmony with the surrounding land use that consists of educational institutions, recreational facilities, parks & open spaces, as well as single family homes which are somewhat remote to the proposed development. In addition, the quality architecture and character of the proposed community is consistent with the desired character of the Town.

We have confirmed with the utility companies for water, sewer, electric & gas that the existing utility infrastructure can serve the proposed project. The redevelopment and repurposing of this property has been envisioned in Town Planning Documents. The uses permitted in the existing R-120 and R-15/25 zoning districts do not meet the planning objectives outlined in these documents. The surrounding land uses are compatible with the LA-17 zone.

Comment No. 2-3

Building Height Text Amendment Raises Precedent and Design Issues

A zoning text amendment is requested to increase the maximum height from 40 feet to approximately 44 feet (averaged from grade).

Although the DEIS states this change is to allow pitched roofs and garages, it does not fully consider how granting increased height might set a precedent for future multifamily developments in the Town or undermine the LA-17 district's originally intended character.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

The mitigation for the potential impacts on Visual Resources and Community Character is discussed on page III.B-7 and III.B-8. The description points out that the architectural aesthetic will take cues from the adjacent Letchworth Village structures but fails to acknowledge that a variance for building height is required. Full compliance with the bulk regulations would decrease the impacts to the surrounding residential neighborhood. This section must address the impacts on the surrounding properties since the maximum building height requirement is exceeded.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 2-3

The original design of the proposed buildings consisted of flat roofs, which was in conformance with the 40 foot building height requirement of the LA-17 Zone. After review by the Town Board, the Board was dissatisfied with the character that a flat roof would provide and requested that the proposed buildings have pitched roofs. The slope of the proposed roofs raises the building height slightly to 44' to accommodate this and the additional height triggers the need for the zoning text amendment. The applicant has prepared cross-sections which are shown on JMC Drawing C-220, as well as renderings demonstrating that the proposed building heights will provide a traditional residential aesthetic consistent with the Town Board's desires for the LA-17 district, which would not be possible without the additional building height.

Comment No. 2-4

Minimal Evaluation of Alternative Zoning Approaches

The DEIS does not sufficiently discuss why alternatives, such as a Planned Unit Development (PUD) or a floating zone, were not considered, which could offer more tailored land use controls to better align with both community goals and site constraints.

Although an analysis of the R-120 zoning was provided, the DEIS should also include an analysis of alternative development scenarios, such as those permitted under the surrounding R-15 and R-20 zoning districts.

Generalized Land Use Compatibility Assessment

The DEIS broadly asserts that the multifamily development is compatible with surrounding institutional, recreational, and residential uses.

However, it lacks a detailed examination of potential land use conflicts, such as increased traffic near schools, changes in visual character, or the intensity of site utilization compared to nearby single-family homes.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 2-4

In coordination with the municipality, it was determined that the LA-17 district would accomplish the goals of the Town as set forth in the Town Master Plan 2000, the Letchworth Urban Renewal Plan, and the 2024 Rockland Housing Needs Assessment.

The analyzed alternative scenarios were based on the existing R-120 zoning district and didn't contemplate a rezoning to the R-15 or R-25 districts.

The DEIS Scope adopted by the Lead Agency was tailored for the site to be rezoned to the LA-17 District.

Comment No. 2-5

Subdivision and Future Development Not Fully Addressed

The DEIS proposes a subdivision to separate the ±22.93-acre development site from the larger property.

There is no analysis of how the remaining ±130 acres will be managed, rezoned, or developed in the future, which presents a major gap in understanding cumulative land use impacts.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 2-5

The proposed action includes a two lot subdivision for our ±23.86 acre site and second proposed lot is to be own and maintained by the Town of Haverstraw as it currently operates and exists. The approved DEIS scope required that we analyze the subject site, and did not include the overall property.

Based on discussions with the Town, we have prepared a conceptual subdivision sketch showing how a development within the R-120 Zone would look for the entire ±154.5 acre property, which is included as Figure 01.

Comment No. 2-6

Incomplete Discussion of Rockland County Planning Policy Context

Although some references to the 2011 Rockland County Comprehensive Plan are made, the DEIS does not sufficiently explain how the Proposed Action meets the County's recommendations for environmental protection, smart growth, and revitalization.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 2-6

The Rockland County Comprehensive Plan of 2011 highlights the Letchworth Village site as a property in need of revitalization and that this property is located in a "prime area" in the County that should be repurposed and developed. The proposed community development takes these ideas instilled in the Rockland County Comprehensive Plan and proposes to revitalize a portion of the Letchworth Village property for a more desired use by the County and the Town of Haverstraw.

As outlined in the "Comprehensive Plan Vision", preservation of open space and other environmental resources is a goal as well as expanding housing opportunities in the County.

Although the entire Letchworth Village Property is ±154.5 acres, the Proposed Action is proposed to be situated on ±23.86 acres specifically to ensure the goals of the Rockland County Comprehensive Plan are met to the greatest amount of satisfaction. The ±23.86 acre project site limits the amount of existing

building in comparison to other areas on the ±154.5 acre parcel. Tree removal is also minimal and less impactful in this area of the ±154.5 acre parcel. The proposed action also meets the goal of expanding housing opportunities in the county with the proposed apartment style housing development

The proposed action's layout, location, and technicalities are all ensured to incorporate the County's visions and recommendations of environmental protection, smart growth development, and revitalization.

Comment No. 2-7

Under Section III.A.1.c. Review of Applicable Town of Haverstraw Documents and Rockland County Planning Documents, we suggest the 2024 Rockland County Housing Needs Assessment be reviewed and included in this analysis as this study provides added context to the need for housing in the County that the Letchworth Project will contribute to alleviating.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

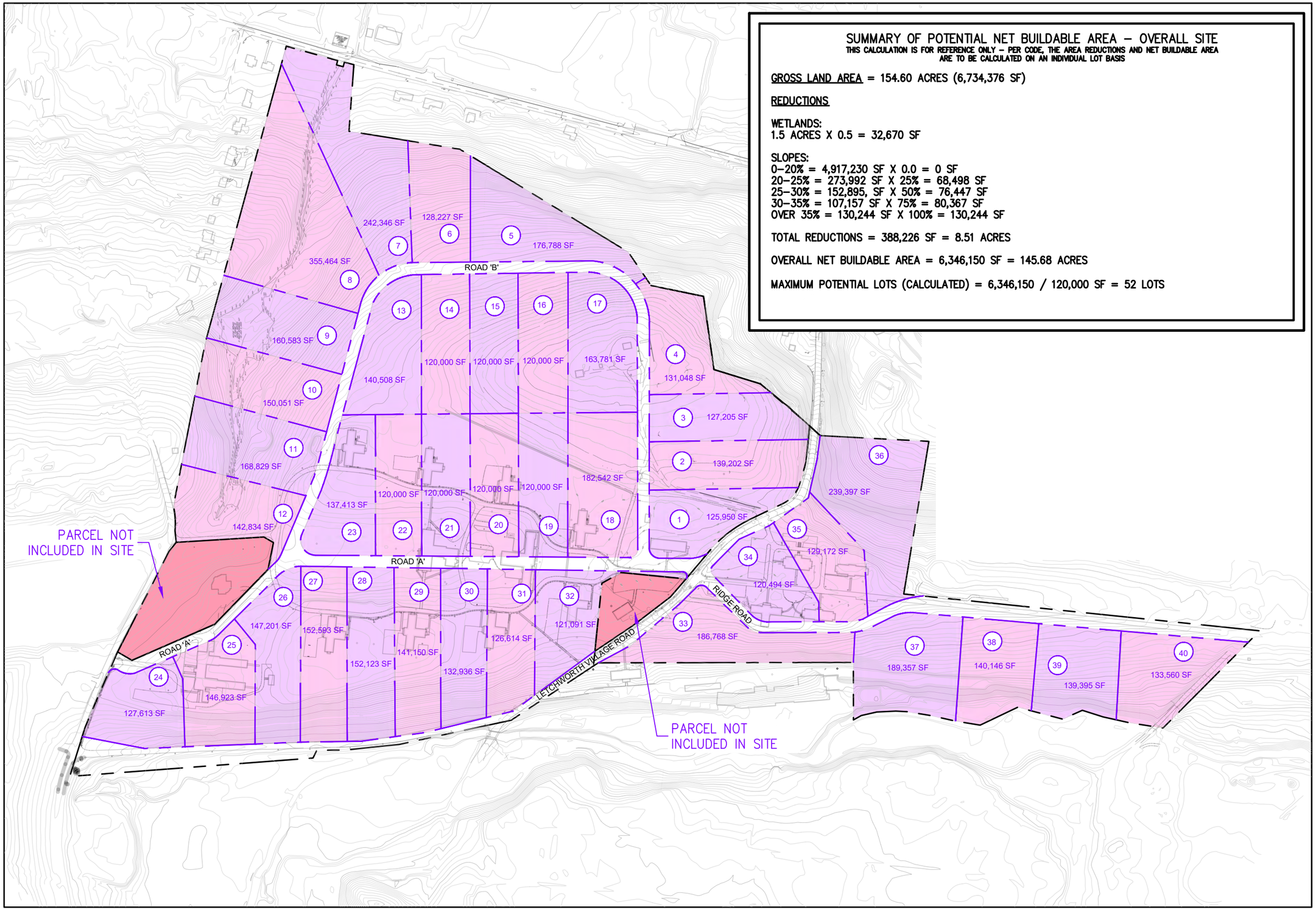
Response No. 2-7

We reviewed the 2024 Rockland Housing Needs Assessment document. The proposed action falls in line with a number of what the assessment calls out as "Summary of Needs" for Rockland County.

The Assessment cites that increased housing options that are affordable to very-low, low, moderate, amend middle income households are needed for Rockland County. It also cites the need for new housing development to honor existing social networks with proximity to existing community assets, such as

parks and schools. A need for additional multifamily housing is also cited as a goal for Rockland County.

The proposed action meets several goals in the "Summary of Needs" in the 2024 Rockland Housing Needs Assessment as well as the other Town and County Plans and documents reviewed and referenced in the DEIS and FEIS.



SUMMARY OF POTENTIAL NET BUILDABLE AREA – OVERALL SITE

THIS CALCULATION IS FOR REFERENCE ONLY – PER CODE, THE AREA REDUCTIONS AND NET BUILDABLE AREA ARE TO BE CALCULATED ON AN INDIVIDUAL LOT BASIS

GROSS LAND AREA = 154.60 ACRES (6,734,376 SF)

REDUCTIONS

WETLANDS:
1.5 ACRES X 0.5 = 32,670 SF

SLOPES:
0–20% = 4,917,230 SF X 0.0 = 0 SF
20–25% = 273,992 SF X 25% = 68,498 SF
25–30% = 152,895, SF X 50% = 76,447 SF
30–35% = 107,157 SF X 75% = 80,367 SF
OVER 35% = 130,244 SF X 100% = 130,244 SF

TOTAL REDUCTIONS = 388,226 SF = 8.51 ACRES

OVERALL NET BUILDABLE AREA = 6,346,150 SF = 145.68 ACRES

MAXIMUM POTENTIAL LOTS (CALCULATED) = 6,346,150 / 120,000 SF = 52 LOTS

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LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

ALTERNATIVE SUBDIVISION PLAN
"EXISTING LETCHWORTH PROPERTY"
JMC PROJECT: 21090

DATE: 08/15/2025

SCALE: 1" = 400'

FIGURE: 01

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21090_SUBDIVISION Auto_ALT_SUB_EXIST.dgn

III.C.3 Visual Resources and Community Character

Comment No. 3-1

Limited Range Analysis

The DEIS largely restricts its visual impact analysis to viewpoints from adjacent roadways and nearby properties.

Broader regional viewpoints, such as long-distance sightlines or views from significant public vantage points (e.g., parks, trails, or historic areas nearby) are not considered. A more comprehensive visual analysis would be appropriate given the site's location within a semi-rural corridor.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 3-1

Figure No 02 has been prepared demonstrating that the project will not be visible from the broader regional viewpoints considering the distance, topography, and vegetation between the project site and surrounding areas.

Comment No. 3-2

One is visibility concerns with the proposed trees along Letchworth Village Road.· It's harder to tell from the design, but how much is it really going to mess with our visibility to the parking lot.· Maybe not so much the church but it looks like you're buffering the parking lot off a little bit.·

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Jose Castro, Representative of CrossLife Church)

Response No. 3-2

Figure III.B-1-P shows a photo simulation from the Church Parking Lot. The rendering shows that the proposed plantings adjacent to the entrance boulevard and roundabout will not obstruct visibility to the church or their parking lot.

Comment No. 3-3

Another one would be additional signage, right.· So now we're restructuring, we're changing the entry to the church, now you have to go in a separate road that looks like you're entering a community as opposed to the church, to a roundabout.· So I think we would benefit from additional signage on Letchworth Village Road to the roundabout, at the roundabout to direct anybody that's visiting, congregants, or new people, whomever it is.· Like, it's going to look like a church that's tucked away in a field with no access, you know.· So we want to really stress the fact I think there should be additional signage in place for that.

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Jose Castro, Representative of CrossLife Church)

Response No. 3-3

The Church will be able to seek additional signage within the newly created right-of-way.

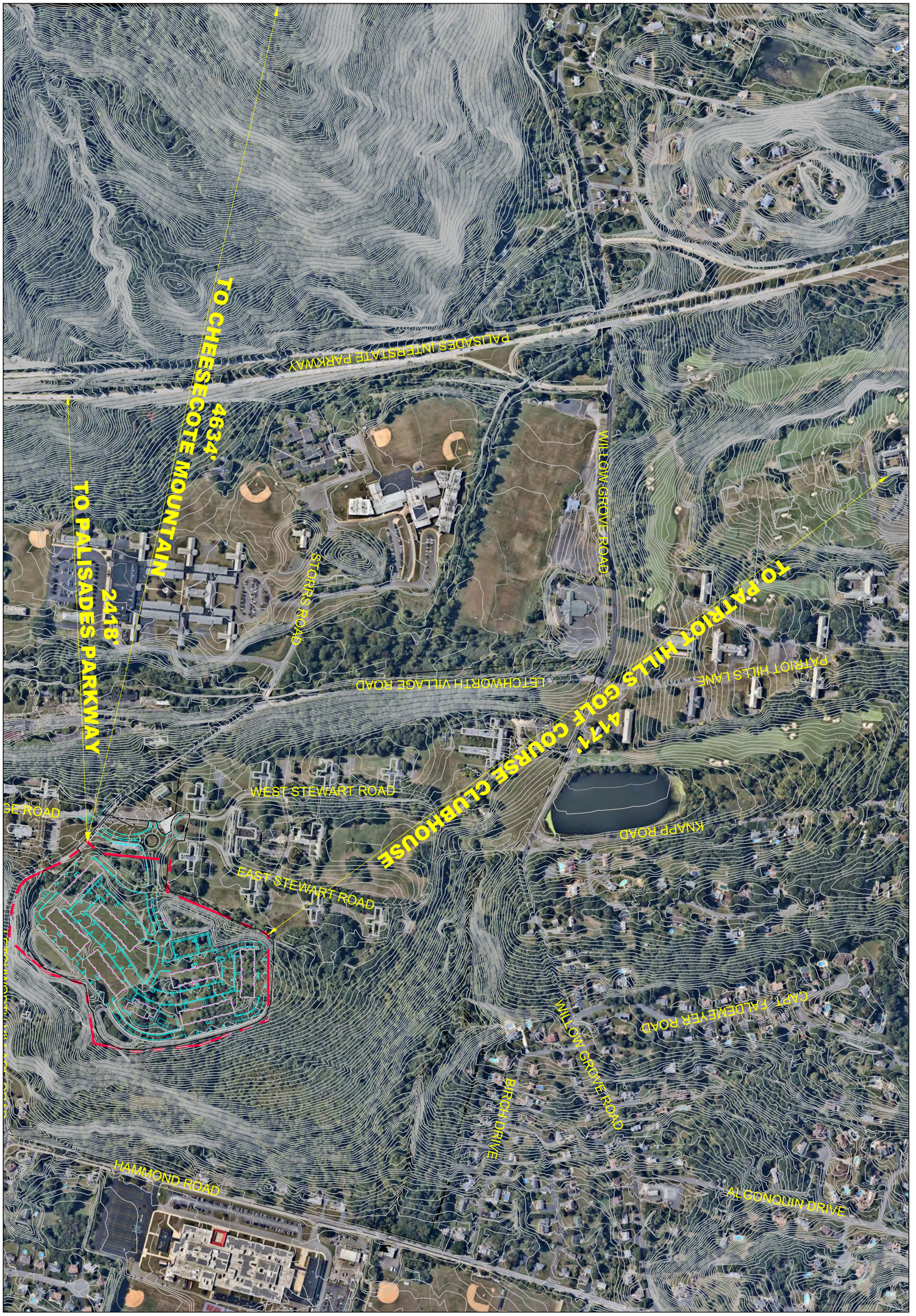
Comment No. 3-4

Lighting concerns. So now with landlocking the parking lot and eliminating Ridge Road, there's going to be -- I think it's going to limit the lighting on the east - more importantly on the east side of the parking lot.· So I think you've got to kind of come up with something for lighting.

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Jose Castro, Representative of CrossLife Church)

Response No. 3-4

There will be new lighting proposed for the boulevard / roundabout.



LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT

LETCHWORTH VILLAGE ROAD — HAVERSTRAW, NY

VISIBILITY ASSESSMENT

DATE: 08/15/2025 — JMC PROJECT: 21090

FIGURE: 02 — SCALE: 1" = 500'

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III.C.4 Soils, Topography and Steep Slopes

Comment No. 4-1

The project will require extensive earthwork to manipulate the topography to achieve the target elevations as identified on the Site Grading Plan. It is understood that the current grading proposed can be considered "preliminary" at this stage of plan development but well within practical target goals.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 4-1

The comment is noted.

Comment No. 4-2

The cut and fill identified on III.C-10 (and 11-8) does not match the cut and fill analysis map provided. This should be corrected.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 4-2

Figure III.C-4 has been updated. The updated analysis results in a ±62,570 sf (Cut), ±96,470 sf (Fill), and ±33,900 sf (Net Fill).

Comment No. 4-3

As a result of the extensive earthwork that is involved, it may be difficult to achieve this amount of disturbance without exceeding the 5-acre threshold per NYSDEC. This should be further expanded upon and if necessary, phasing plans fully developed to illustrate the ability to manage the earthwork without excessive import/export of material offsite temporarily.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 4-3

The proposed action will exceed the NYSDEC 5-acre disturbance threshold. Construction phasing plans have been developed and show the cut & fill quantities for each of the construction phases as well as the limit of disturbance for each phase. The construction phasing plans also include a sequence of construction notes for each set for each phase. Each phase is to be managed by the contractor and inspected by a Professional Engineer. Best Management Practices are to be incorporated in construction.

Comment No. 4-4

The soil movement analysis should also fully expand on the materials that will be imported. It is noted that portions of that fill material will be for the installation of specific infrastructure, utility bedding materials, asphalt paving, landscaping materials, etc. A further evaluation of the fill materials should be detailed and if additional materials outside of base infrastructure are necessary, the points of origin should be provided. A manifest for all imported soil will be required.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 4-4

Revised cut and fill volumes have been created for the various materials present on site.

Comment No. 4-5

Infiltration testing was performed {Table III .C-1) as part of the geotechnical work for the stormwater system however, it does not appear that the elevations of the testing were fully coordinated with the design proposals. The infiltration results can be accepted for conceptual or preliminary design purposes, but further testing will be required within the tolerances of the NYS Stormwater Manual (and must be witnessed by the Town) prior to any design being accepted.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 4-5

Additional infiltration testing was performed as part of the updated geotechnical analysis prepared by SESI Consulting Engineers. A copy of this report is included in Appendix B, as well as the revised Stormwater Pollution Prevention Plan.

Comment No. 4-6

For retaining walls in excess of 4' in height (III.C-11), all walls must be engineered as well as inspected and certified after installation by a NYS Licensed Professional Engineer.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 4-6

All retaining walls above 4' in height are to be designed and inspected by a Professional Engineer.

Comment No. 4-7

Under Section III.C.2.a.3. the applicant describes how they will conduct seeding of the disturbed area to stabilize and prevent soil erosion. It is recommended that the applicant consider using native grasses, or a native ground cover alternative, which could provide the additional benefit of being less water intensive and needing less maintenance than traditional grass seeding.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 4-7

For areas of steep slopes, the applicant proposes to use as native seed mix such as Ernst Seeds Native Steep Slope Mix – ERNMX-181-2 or equal, which is a mix of native grasses and forbs. For areas where lawn is desired near

buildings and open spaces the applicant proposes using Eco-Lawn, or No-Mow mix which is a blend of fine fescue grasses by Wildflower Farm or equal.

Comment No. 4-8

You're going to put some retaining walls around this, the property?

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Chairman Corallo)

Response No. 4-8

The project proposes the construction of retaining walls along the eastern side of the property to accommodate the grade changes and reduce impacts to steep slopes, where possible.

Comment No. 4-9

Are you going to put a fence on those walls?

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Chairman Corallo)

Response No. 4-9

The retaining walls will have fences for fall protection as required by the building code.

III.C.5 Flora and Fauna

Comment No. 5-1

Section III.D.1.b Flora, Fauna and Habitat, Existing Conditions, indicates that the project site is not within an area displayed in the Rare Plants and Rare Animals layer or the Significant Natural Communities layer on the New York State Environmental Resource Mapper , therefore the New York Natural Heritage Program ("NYNHP") has no records to report in the vicinity of the Project Site. The Hudson River Natural Resources Mapper, however, indicates the site is part of a Significant Biodiversity Area (SBA) and a portion of the site is a 'Known Area for Migratory Fish (due to its proximity to the Minisceongo Creek). SBAs are landscape areas in the Hudson River Estuary that contain high concentrations of biodiversity or unique ecological features. Significant natural communities provide an assemblage of interacting plant and animal populations that are considered significant from a statewide perspective because they are rare or high quality based on size, habitat conditions and quality of the surrounding landscape. These areas contribute to and serve as a framework for conservation partnerships and voluntary protection efforts. One of the most significant threats to biodiversity is habitat destruction, alteration, and fragmentation. The DEIS recognizes that the proposed action would cause the direct loss of some habitat for the resident plant and animal populations that could be used for breeding, roosting, feeding, and shelter. Careful consideration should be given to development impacts within an SBA. Proactive planning that avoids or minimizes impact to the habitat of Important Areas and maintains habitat connections for wildlife movement will contribute to the long-term biodiversity of the region. The DEIS must consider the impacts of this development on the biodiversity of the area, specifically habitat fragmentation and the impact of the movement of species to and from and within these sensitive habitats. A site-specific biological inventory or natural resource assessment should be considered. A pdf titled

"An Approach for Conserving Biodiversity in the Hudson River Estuary Corridor" that identifies voluntary, non-regulatory strategies for conserving wildlife and habitat in the region can be found at: https://hudson.dnr.cals.cornell.edu/library

(Appendix A-2, Rockland County Planning Depart, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 5-1

It is noted that the ±23.86 acre project site fully lies within the Significant Biodiversity Area, SBA, known as the "Hudson Highlands West". Which is composed of 801,972 acres, an area extending from Orange and Rockland counties in New York, as well as Passaic, Bergen, and Morris counties in New Jersey. Regarding the area for Migratory Fish along the Miniceango Creek to the south of the site and Letchworth Village Road, only a small portion of the ±23.86 acre project site is to take place in the Migratory Fish Area, based on the Hudson Vallet Natural Resource Mapper. There are many different uses currently operating within the Miniceango Creek Migratory Fish area in the municipalities of Haverstraw & West Haverstraw, including single family homes, schools, industrial plants, and commercial use buildings. Most of the project's ±23.86 acre site is not situated in the delineated migratory fish area. The area of our site that is situated in the migratory fish area is where the proposed Stormwater Basin 2B is situated. The proposed action will have a relatively insignificant impact on the Miniceango Creek Migratory Fish Area.

Comment No. 5-2

It is likely that a significant number of trees will be removed to accommodate the proposed residential development. Mature trees and mature forested areas remove, absorb and store carbon in wood, leaves, and the soil. When

trees and forests are cleared, that carbon is lost. New York's recently adopted New York State's Scoping Plan, required as part of The Climate Leadership and Community Protection Act, calls for protecting the ability of forests to serve as carbon sinks and calls for promoting the most effective methods of increasing New York's carbon sequestration, storage, and climate resilience. The protection of trees, minimization of loss of trees, impacts of the loss of forested area, and forest loss mitigation must be addressed. Additionally, the proposal must comply with Chapter 167 Sections 91 and 92 of the Town Code.

(Appendix A-2, Rockland County Planning Depart, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 5-2

The comment is noted. The New York State Scoping Plan highlights and discusses specific types of management regarding carbon sequestration & storage, including "Promote Sustainable Forest Management" and "Improve Soil Health, Nutrient Management, and Agroforestry". A landscape plan has been provided to the Lead Agency. The plantings and seedings are all to be native to the Rockland County area. It is noted that much of the project site area is currently Town maintained park fields as well as existing unutilized structures. Best management practices are to be utilized for tree protection and to ensure minimizing tree loss. The proposed action will work to The proposed tree removal is to comply with Town Code Chapters 167 Sections 91 & 92.

Comment No. 5-3

To comply with Chapter 167 Section 93 of the Town Code, a significant number of trees will likely need to be planted to replace those lost. The DEIS

indicates that the majority of the ±22.93-acre Project Site is comprised of native tree vegetation and grassland / field areas. We recommend the use of trees as well as other plantings that are native to New York to help preserve and promote biodiversity. Native plants are better adapted to the local climate and soil, making them easier to care for, and results in the need for less fertilizer, pesticides, and use of water. They also have deeper root systems that help prevent erosion and increased runoff into local waterbodies. A pdf titled "Native Plants for Gardening and Landscaping Fact Sheets" that lists native species and the environments in which they can grow can be found on the New York State Department of Environmental Conservation's website: https://www.dec.ny.gov/get-involved/living-green/sustainable-landscaping. Native plants should be incorporated in the design of the site from the outset and may be considered as part of the mitigation of potential negative environmental impacts of the development.

(Appendix A-2, Rockland County Planning Depart, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 5-3

A landscaping plan and planting schedule is provided as part of the site plan set for review and approval by the Town.

III.C.6 Stormwater Management

Comment No. 6-1

Corrections to be noted to the DEIS
Page 1-6, II1.E-4 and App C-1 page 12 identify five stormwater management basins while only (4) are proposed.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-1

The SWPPP has been revised for consistency. The correct number of stormwater management practices are identified within the report.

Comment No. 6-2

Corrections to be noted to the DEIS
Naming conventions for existing and proposed drainage areas are inconsistent throughout the text, mapping and modeling.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-2

The plans, report, and hydrologic model have been revised for consistency.

Comment No. 6-3

Corrections to be noted to the DEIS
II1.E-4 2024 Stormwater Manual must be utilized

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-3

The drainage analysis has been revised to adhere to the requirements of the 2024 Stormwater Design Manual.

Comment No. 6-4

Corrections to be noted to the DEIS
App C-1 page 1- Update Introduction

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-4

The introduction has been updated to reflect the current versions of the SPDES General Permit and the Stormwater Design Manual.

Comment No. 6-5

Corrections to be noted to the DEIS
App C-1 page 1,9,36 - Update reference for SPDES General Permit and Stormwater Manual

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-5

References to the SPDES General Permit and the Stormwater Manual have been updated to reflect the current versions.

Comment No. 6-6

Corrections to be noted to the DEIS
App C-1 page 9 -Type III storm distribution is no longer permitted. In addition to the precipitation data update (which should be included as an appendix of the SWPPP), the rainfall distribution curve must be established from the NRCC website. Guidance is offered in Section 4.9 of the Stormwater Manual.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-6

The hydrologic model has been revised to update the rainfall distribution curve from the Type III storm distribution to a distribution curve based on rainfall data from the NRCC website. The Time-depth curve has been included as part of the hydrologic calculations within Appendix A & B.

Comment No. 6-7

Corrections to be noted to the DEIS
App C-1 page 35 - Remove reference to Westchester County Code

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-7

Reference to the Westchester County Code has been removed accordingly.

Comment No. 6-8

Drainage areas of report text do not match drainage area map. Page 17 references a Proposed Drainage Area 1-G that does not match the drainage area map. Entire analysis must be revised to be consistent throughout.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-8

The plans, report, and hydrologic model have been revised for consistency.

Comment No. 6-9

The applicant has attempted to justify the use of the "project boundary" as the point of evaluation however this does not address impacts directly to properties/areas offsite and direct points of influence. Zero net increase is specific to a point of interest (or location) that is based on topography. Since the project is on a ridge (or peak) of the surrounding area, a broader evaluation needs to be conducted to evaluate the impacts as the runoff leaves the project site at the specific discharge points presented for proposed conditions based on the existing contributions to those locations. If areas

cannot be resolved at specific location, then a broader analysis needs to be provided and potentially offsite stormwater improvements considered to justify the evaluation results.

For example, the impacts associated with the runoff from EDA-IA (discharging toward Hammond Road and Letchworth Village Road) have no relevance to EDA-1B (which ultimately discharges to a drainage ditch along the north side of the property and to the stream passing through the North Rockland High School Campus). Combining those results has no basis for mitigative efforts and does not achieve the goals required to meet zero net increase.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-9

The drainage area analysis has been revised to evaluate three design points (boundaries). The original drainage area has been divided to provide analysis for the three points of: east towards Hammond Road, south towards Letchworth Village Road, and north towards the existing stream. The analysis will now analyze pre- and post- conditions at these three locations to meet a zero net increase.

Comment No. 6-10

For proposed conditions, direct impacts must be evaluated for contributions at the discharge points. The use of level spreaders will be evaluated as a point of discharge location and must be compared to the direct watershed contribution that would be directed along the same path during current conditions.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-10

For the proposed conditions, level spreaders will be used for the discharge points. The level spreaders will be sized/widened to provide more opportunity for sheet flow to occur beyond the discharge point. Level spreaders will be used at two of the three discharge points, while the third will discharge via a rip-rap apron.

Comment No. 6-11

The project has also presented a stormwater mitigation basin on Town property along the boulevard. This will not be permitted. There is sufficient opportunity on the project site to collect and manage the stormwater infrastructure.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-11

The proposed stormwater mitigation basin has been relocated from Town property along the boulevard and revised to be a subsurface chamber system. In place of the basin, bioretention area has been proposed on Town property to treat new impervious areas created within Town Property.

Comment No. 6-12

We recommend that a workshop be set up to further discuss the stormwater analysis/evaluation as well as the impacts of offsite stormwater contribution.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-12

This comment is noted.

Comment No. 6-13

Further review of the critical components of the stormwater design manual (i.e. WQv, RRV, CPv, Qp, Qf) will be assessed once the established points of evaluation have been resolved.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 6-13

This comment is noted.

Comment No. 6-14

The DEIS seems to be lacking an analysis of "Surface and Subsurface Waters". This department strongly urges the Planning Board require that the applicant add this information to Section III. While the DEIS states that no wetlands are present on the site, there are federal wetlands on the norther portion of the

parent parcel, 19.16-1-14. Again, until subdivided an environmental impact analysis should be looking at the entire existing parcel. We also recommend that the Existing Environmental Conditions, Anticipated Impacts and Mitigation be explored, particularly because of the site's proximity to the Minisceongo Creek. The DEIS should address adverse impacts to water resources and proposed mitigation efforts. This analysis should include the potential for non-point sources of pollution including pesticides, deicing agents and other non-point sources of pollutants that may result from both construction and post-construction.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 6-14

The proposed action and associated development is to take place on the ±23.86 acre site. The site is to be subdivided from the existing ±154.5 acre parcel. Our site is well to the south of the existing federal wetlands and adjacent buffer areas and all proposed disturbances will not take place within these wetlands and buffer areas. Pesticides and other landscape pollutants will be utilized in typical nature under the proposed action.

Comment No. 6-15

To help reduce the impact of this development we recommend that the DEIS include an analysis of a reduction of impervious surface to minimize the impacts of stormwater runoff. This analysis should consider the use of green infrastructure such as porous pavers or porous concrete for use in the parking areas to replace the use of conventional asphalt in managing stormwater and minimizing off site impacts. If installed correctly and properly maintained porous pavers have been shown to be effective in helping manage off-site

runoff of stormwater. In addition to permeable pavers, other green infrastructure techniques should be considered such as bioswales, native landscaped islands in the parking areas, rain gardens, and rainwater capture. For long term effectiveness of permeable pavers and other green infrastructure techniques it is recommended that the Town and the applicant review Chapter 5 'Green Infrastructure Practices' of the 2015 NYSDEC Stormwater Design Manual.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 6-15

The project reduces impervious surfaces to the maximum extent practicable. The project incorporates large areas of grass and landscaped areas throughout the proposed parking lots, in between buildings, and throughout the site. The project also proposes a number of green infrastructure practices such as vegetate swales and a bioretention basin.

Comment No.6-16

NYSOGS has concerns regarding the impact of outflow from the two eastern-most stormwater basins onto the state parcel. The presence of stormwater facility emergency spillways and downslope spillway protection are not clarified however any discharge from an emergency spillway onto our parcel may impact safety and future uses of that parcel. The slopes of the state land receiving discharge from these facilities are steep and it is not clear whether ground stability will be impacted beyond the project limits. Relatedly, the landscape plan proposes new trees over the dam embankments which could impact the structure's stability.

To ensure the state parcel and its current or future uses are not at risk, we request the stormwater facility design not direct concentrated erosive flows onto our parcel from the emergency spillway, that the stormwater facilities be sized to safety class standards with consideration that current and future occupiable structures will be present on our parcel, and that trees not be planted on the embankments adjacent to our property line.

(Appendix A-4, NYS Office of General Services State Asset and Land Management, DEIS Review Memorandum, Mark McGlynn)

Response No. 6-16

The locations of the emergency discharges have been revised to be directed away from the state owned parcel. In addition to the relocation of the discharge point, oversized level spreaders have been provided to further ensure sheet flow occurs at the release point to mitigate erosive flows.

Comment No. 6-17

On the west side of the road going in, the new road going in to the roundabout, you're going to build a nice beautiful green area. Who is responsible for that, to take care of it and maintain it later on?

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Chairman Corallo)

Response No. 6-17

The Town will be responsible for the stormwater practice that will be located within the Town right-of-way. This practice has been designed to only accept runoff from the impervious surfaces within the right-of-way.

Comment No. 6-18

On the right side of the road going in, somewhere along there -- I don't have it in front of me, you're going to put a pond in there; right?

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Chairman Corallo)

Response No. 6-18

A bioretention area is proposed to treat the runoff from the impervious surfaces within the Town right-of-way.

Comment No. 6-19

Water basin. ·And that would be on the applicant's watch, that he has to put a fence around it and all that kind of stuff?

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Chairman Corallo)

Response No. 6-19

The stormwater basins will be fenced where required in accordance with the New York State DEC Stormwater Management Design Manual.

Comment No. 6-20

Drainage concerns: With the new roadway, would there be additional drainage on the east side of the parking lot?· And you know, I'm not sure what

the pitch of the roadway would be at the circle going towards the church parking lot.

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Representative of CrossLife Church)

Response No. 6-20

All of the stormwater runoff within the new boulevard / roundabout areas will be directed to a bioretention basin within the right-of-way.

III.C-7 Water Supply and Sanitary Sewerage

Comment No. 7-1

Initial references from section 1-6 identify that the project site is within the service area and operated by Veolia Water New York. Veolia Water does not currently have any infrastructure in the immediate area of the project site. The existing water system that is onsite is reported as out of service and was independent from the Veolia operating system.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 7-1

The project proposed the construction of a water main extension from the intersection of Thiells Mt. Ivy Road to the project site. We have met with Veolia Water to discuss and coordinate this extension. In addition, we have submitted flow calculations and a will serve application to Veolia in February of 2025, which is in the process of being reviewed.

On March 12, 2026, JMC met with Gerardo Moreno (Director of Engineering), Frank McGlynn, and Paula Vina of Veolia Water Company, along with representatives of BNE Development to discuss the status of our application. The following points were confirmed during the meeting:

- The project site is located within Veolia Water Company's service territory, at the northern end of a Veolia hydraulic zone that extends south toward New Jersey.

- Veolia has received the project's water service application and is actively processing it. The project is included in Veolia's hydraulic zone planning analysis.
- Veolia confirmed that water service can be extended to the project site. Offsite infrastructure improvements will be required based on the preliminary results of the hydraulic modelling.
- The cost of the required infrastructure improvements would be borne by the developer through a contribution agreement with Veolia. BNE Real Estate has acknowledged this obligation and is prepared to execute the contribution agreement and provide the associated deposit.
- Veolia is in the process of completing the updated hydraulic analysis for the zone which will include the large amount of new development planned within this pressure zone. The analysis is expected to be finalized within 1 to 3 months. Upon completion, the specific infrastructure requirements and costs for this project will be determined, after which a formal will-serve letter can be issued.

Comment No. 7-2

The project will require an extensive off-site improvement to bring new water supply to the project location. A copy of the willingness to service application was provided in Appendix B of the DEIS but was incomplete and appears unsubmitted. No flow data was provided, references to the number of hydrants proposed do not match the proposed plans.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 7-2

See response 7-1 above.

In addition, JMC Drawing C-300, "Site Utilities Plan", shows the location of the proposed hydrants which have been coordinated with the Fire District.

Comment No. 7-3

Veolia Water must provide documentation that it can support this project in its entirety. A full Engineers Report evaluation shall be prepared and included in accordance with the Recommended Standards for Water Works 2022 Edition. It is important to note that sections 1.1.6 and section 1.1.16 must be addressed.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 7-3

See response 7-1 above.

Comment No. 7-4

Ownership of the on-site water mains shall be resolved. It may impact the current layout of the water main infrastructure.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 7-4

The water mains will be publicly owned.

Comment No. 7-5

The number and location of hydrants shall be coordinated with my office, the Fire Inspector and the Fire Chief. Provisions for additional hydrants may be requested along Letchworth Road along the project frontage.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 7-5

JMC Drawing C-300, "Site Utilities Plan", shows the location of the proposed hydrants which have been coordinated with the Fire District.

Comment No. 7-6

The plans identify an offsite sewer improvement in addition to an on-site collection system. A willingness to serve from Joint Regional is required. A hydraulic capacity analysis of the existing and proposed system shall be provided to justify the acceptance of the additional flow into the system for average and peak flow demands.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 7-6

JMC and BNE originally met with the Joint Regional Sewerage Board (JRSB) on May 23rd, 2024 to review and discuss the project. Subsequently, JMC prepared a full engineering report and hydraulic analysis of the existing and proposed sanitary sewer mains for review by the JRSB. The findings of this

report were presented to the JRSB at a meeting on 10/8/2026, during which it was stated that there was no objection to the connection and a willingness to serve letter would be issued. JMC and BNE met with the JRSB again on 2/2/2026 to follow up on the status of the willingness to serve letter. The willingness to serve letter was issued by the JRSB on 3/4/2026 and is included herewith for review.

Comment No. 7-7

Both the new water and sewer systems must be aligned and established to enter the project location through the new boulevard. This is to better serve the new development but also to provide potential connection for future development of the remaining Letchworth property.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 7-7

The water and sewer system alignments have been revised accordingly and are detailed on JMC Drawing C-300, "Site Utilities Plan".

Comment No. 7-8

Will the construction affect the well?· You know, contamination, dry it out, because now you're installing so much more drainage, so now you're capturing a lot of the groundwater.· So would you -- was there a risk of hitting the vein in the ground that feeds that well or/and you know running it dry, you know, so.· And obviously contamination is a big one, from all the construction.

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Representative of CrossLife Church)

Response No. 7-8

The stormwater facilities have been designed to infiltrate stormwater runoff to the maximum extent practicable, which will minimize any potential impacts to underground aquifers.

Comment No. 7-9

And where would the main water supply be coming in from?· Maybe we could get city water at that point.· I'm not sure if that's an option.

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Representative of CrossLife Church)

Response No. 7-9

The existing water main dead ends in the vicinity of the Thiells Mt. Ivy Road / Letchworth Village Road Intersection. The project proposes a water main extension which will extend the main all the way to Ridge Road. As part of this extension, the project sponsor has agreed to provide a stub for a future connection to the Church to the extent acceptable to the water company.

III.C.8 Other Utilities and Services

Comment No. 8-1

The installation of any utilities should be designed to potentially accommodate future development of the other areas of Letchworth Village.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 8-1

This comment is noted. The proposed roundabout and utilities have been designed to provide connection locations for future developments.

Comment No. 8-2

Will serve letters from Joint Regional Sewerage Board, Veolia New York Water and Orange and Rockland Utilities must be provided.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 8-2

The project proposed the construction of a water main extension from the intersection of Thiells Mt. Ivy Road to the project site. We have met with Veolia Water to discuss and coordinate this extension. In addition, we have submitted flow calculations and a will serve application to Veolia in February of 2025, which is in the process of being reviewed.

JMC and BNE originally met with the Joint Regional Sewerage Board (JRSB) on May 23rd, 2024 to review and discuss the project. Subsequently, JMC prepared a full engineering report and hydraulic analysis of the existing and proposed sanitary sewer mains for review by the JRSB. The findings of this report were presented to the JRSB at a meeting on 10/8/2026, during which it was stated that there was no objection to the connection and a willingness to serve letter would be issued. JMC and BNE met with the JRSB again on 2/2/2026 to follow up on the status of the willingness to serve letter. The willingness to serve letter was issued by the JRSB on 3/4/2026 and is included herewith for review.

III.C.9 Traffic Transportation and Parking

Comment No. 9-1

Sections III.H.4.a and III.H.4.b address the no build and build impact of the proposed action on traffic generation. However, there is no traffic generation information provided if the entire site were to be developed according to the zoning as single-family dwellings. This must be discussed.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 9-1

Figure 04 has been prepared to provide the density of residential development based on the existing zoning for the proposed action. The alternative provides a density of 7 single family homes on the proposed 23.86 acre project site. There is a net addition of 109, 152, 142, and 107 trips for the proposed action development as compared to the 7 single family home alternative during the peak weekday morning hour, weekday afternoon school hour, weekday roadway afternoon hour, and Saturday midday hour, respectively.

TABLE III.C.9-1
DEVELOPMENT VOLUME COMPARISON (1)

Description	Peak Weekday AM Hour			Peak Weekday School Hour			Peak Weekday Roadway PM Hour			Peak Saturday Midday Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
a. Proposed 300 Dwelling Units Multifamily Housing Primary Volumes (ITE Code 220)(2)	28	88	116	100	61	161	95	55	150	62	61	123
b. 7 Single-Family Detached Homes Primary Volumes (ITE Code 210)(3)	2	5	7	6	3	9	5	3	8	9	7	16
c. Net Additional Driveway Volumes (Row c = Row a - Row b)	26	83	109	94	58	152	90	52	142	53	54	107

Notes:

(1) Trip generation is based on Institute of Transportation Engineer (ITE) Trip Generation Manual, 11th Edition.

(2) Multifamily Housing (Low-Rise) (ITE Code 220 is defined by ITE as including apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels). The subject property is not close to rail transit.

(3) Single-Family Detached Housing (ITE Code 210) is defined as any single-family detached home on an individual lot.

Comment No. 9-2

Section III.H.6 described on-site circulation and parking information but fails to provide any information about snow storage areas. We recommend that

the location of snow storage areas be illustrated as they can result in environmental impacts from the weight of the snow and salt intrusion.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 9-2

The site plan has been revised to indicate snow storage areas.

Comment No. 9-3

LaBella finds Section 1. Existing Roadway Inventory & Transportation Data Collection complete and accurate.

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-3

Comment noted.

Comment No. 9-4

Existing Volumes: LaBella finds the existing volumes to be accurate following the considerations taken into account for the detour in place during the count periods. LaBella understands that JMC will conduct additional counts of select intersections once the detour is no longer in place to validate the existing condition volumes developed for this traffic analysis that were reviewed and approved by LaBella. LaBella recommends that the following intersections be included:

- *Intersection No. 5 – Letchworth Village Road and Ridge Road*
- *Intersection No. 6 – Suffern Lane/Letchworth Village Road and Thiells-Mount Ivy Road/Hammond Road*
- *Intersection No. 12 – Thiells-Mount Ivy Road and Ridge Road*
- *Intersection No. 13 - Thiells-Mount Ivy Road and Rosman Road*

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-4

Comment Noted. Counts at the four noted intersections (#5, 6, 12, and 13) will be conducted upon the completion of the construction of roundabout at the intersection of County Routes 47 and 94, removal of posted detours, and while school is in session. The intersections are anticipated to be counted in the fall of 2025 and a summary will be provided under separate cover.

Comment No. 9-5

Accident Analysis: LaBella finds the Accident Analysis to be accurate. LaBella notes the following based on the analysis:

- *There were no reported collisions at the Letchworth Village Road and Ridge Road intersection. This is the location of the proposed access.*

- *At the US Route 202 and NYS Route 45/Old Country Road intersection, there was one collision involving a pedestrian with the pedestrian being outside of the designated crosswalk. The analysis also indicated a predominance of rear collisions at the intersection with descriptions including vehicles in the process of performing a right turn*

on red from the northbound NYS Route 45 approach. JMC evaluated a scenario in the Build condition that considered a right turn on red prohibition for this approach. The findings indicate that the prohibition will have deleterious impacts to the operations of the approach; however, there are safety benefits to the proposed improvement. As noted in the study, the intersection is under the jurisdiction of the NYSDOT, thus any improvements are subject to its review and approval.

- *JMC conducted a signal warrant analysis for the Thiells-Mount Ivy Road and Palisades Interstate Parkway Northbound Off Ramp intersection based on MUTCD Warrant 7, Crash Experience. LaBella agrees with the findings that a signal is not warranted based on the studied warrant. JMC is proposing that Intersection Warning (W2-2) signs be installed on the Thiells-Mount Ivy Road approaches. LaBella agrees with the sign selection and location as shown by JMC. As noted in the study, the roadway is under the jurisdiction of the RCDPW, thus any improvements are subject to its review and approval.*

- *The study indicated that there were two collisions involving pedestrians along Thiells-Mount Ivy Road with one resulting in a pedestrian fatality. This event occurred in proximity to the roadway's intersection with Charles Lane. As noted in the study, the proposed project will represent a marginal increase (less than 10%) in traffic along the roadway. However, it is recommended that pedestrian safety countermeasures on Thiells-Mount Ivy Road be investigated by the Village and County for the roadway in proximity to The Garden at Palisades residential development.*

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-5

Comment noted.

Comment noted.

Comment noted.

Comment noted.

Comment No. 9-6

Sight Distance Analysis: LaBella agrees with the sight distance analysis conducted for the Letchworth Village Road and Ridge Road intersection following the realignment of Ridge Road under the proposed conditions. The analysis indicates that there are adequate sight lines for all approaches with the intersection operating under all-way stop control, which is the existing as well as the proposed intersection control.

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-6

Comment noted.

Comment No. 9-7

Vehicular Trip Generation: LaBella agrees with the projected site-generated trips based on the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, and Land Use Code (LUC) 220 – "Multifamily Housing (Low Rise)" – Not Close to Rail Transit – General Urban/Suburban.

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-7

Comment noted.

Comment No. 9-8

Multi-Modal Trip Generation: LaBella agrees with the projected walk trips based on LUC 220 – "Multifamily Housing (Low Rise)" – Not Close to Rail Transit – General Urban/Suburban. As noted in the study, the applicant will coordinate with North Rockland Central School District to provide a centralized school bus stop on-site as a designated area for the drop-off and pick-up of school children. Coordination with the school district as well as the drop-off and pick-up location and any accommodations (shelter, loading zone, etc.) for the drop-off and pick-up location should be provided during review of the site plan.

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-8

Comment noted. A bus stop with a shelter has been provided along the primary internal access driveway in the vicinity of the proposed 'Dog Run' and 'Stormwater Management Basin A'. A bus turnaround is proposed in the vicinity of the bus stop to provide convenient access to the bus stop location for an entering school bus. Figure 03 has been provided to depict the turning path of a school bus through the bus turnaround and bus stop.

Comment No. 9-9

No-Build Volumes: LaBella agrees with the +0.5% growth rate compounded annually for five (5) years to calculate background traffic volume growth. LaBella also agrees with the inclusion of the Oak Tree Apartments in the traffic forecasting.

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-9

Comment noted.

Comment No. 9-10

Build Volumes: LaBella agrees with the distribution of site-generated trips developed by JMC. LaBella also agrees with the findings of the Build condition operations analysis as well as the mitigation proposed by JMC to address operational and safety concerns. LaBella notes that the Build condition analysis shall be updated based on the turning movement counts collected at select intersections following the complete removal of the detour.

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-10

Comment noted. Modifications to the Build condition volumes will be reviewed after the completion of the additional turning movement counts as discussed in Comment No. 9-17.

Comment No. 9-11

Transportation Mitigation:

- *Intersection 4 – Letchworth Village Road and Storrs Road: LaBella agrees that the existing configuration with stop-control only on the southbound Letchworth Village Road approach is atypical and not preferred given driver expectations based on similar intersection types. JMC explored two options: A) stop-control on Storrs Road with both Letchworth Village Road approaches operating freely, B) all-way stop control.*

The operations analysis of Option A indicates that LOS for the Storrs Road will degrade from a LOS A to LOS D; however, the LOS F on the southbound Letchworth Village Road approach will be mitigated. LaBella agrees with the findings of this analysis. It should be noted that the LOS reports indicate that the queueing during the School Dismissal peak hour for the Storrs Road approach will be approximately five (5) vehicles. This amount of queuing should not obstruct the driveways of the schools located west of the intersections.

The operations analysis of Option B indicates that the approaches will operate at a LOS D or better. LaBella agrees with the findings of this analysis. It should be noted that the LOS reports indicate that the queueing during the School Dismissal peak hour for the Storrs Road approach will be approximately one (1) vehicle. This amount of queuing should not obstruct the driveways of the schools located west of the intersections.

As noted in the study, the intersection is under the joint jurisdiction of the Town of Haverstraw and RCDPW, thus any improvements are subject to their review and approval. However, the applicant is prepared to fund and install the improvements pending said approval.

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-11

Comment noted. The applicant has recommended the installation of Option B, an all-way stop, at the intersection of Letchworth Village Road and Storrs Road. The applicant requests input from the Town of Haverstraw on the desired option for proposed improvements at the intersection.

Comment No. 9-12

Transportation Mitigation:

- *Intersection 5 – Letchworth Village Road and Ridge Road: LaBella agrees with the proposed realignment of Ridge Road to achieve a more perpendicular approach to Letchworth Village Road. LaBella also agrees with the addition of the supplemental All-Way (R1-3P) plaques below the Stop (R1-1) signs. As noted in the study, the intersection is*

under the joint jurisdiction of the Town of Haverstraw and RCDPW, thus any improvements are subject to their review and approval. However, the applicant is prepared to fund and install the improvements pending said approval.

*(*Appendix *A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)*

Response No. 9-12

Comment noted.

Comment No. 9-13

Transportation Mitigation:

- *Intersection 9 – US Route 202 and Thiells-Mount Ivy Road: JMC indicates that using the Weekday AM timing plans for the Weekday PM plan results in the overall intersection operating with less delay than the No-Build conditions. LaBella notes that the southbound Thiells-Mount Ivy Road left-turn movement currently operates at a LOS F during all study periods and the delay will be exacerbated in the No-Build and Build conditions. The delay in this movement can be attributed to the intersection being "clustered" with the US Route 202 and NYS Route 45/Old Country Road intersection to the east and priority being given to the mainline (US Route 202) movements. LaBella agrees that the timing modifications proposed by JMC will result in more favorable operating conditions. As noted in the study, the intersection is under the jurisdiction of the NYSDOT, thus any improvements are subject to its review and approval.*

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-13

Comment noted.

Comment No. 9-14

Transportation Mitigation:

- *Intersection 10 – US Route 202 and NYS Route 45/Old Country Road: LaBella agrees with the proposed implementation of a No Right Turn on Road for the northbound NYS Route 45 approach to address the pattern of rear end collisions identified in the Accident Analysis. As noted in the study, the intersection is under the jurisdiction of the NYSDOT, thus any improvements are subject to its review and approval. It is possible that a span wire analysis will be necessary to ensure that the existing infrastructure can accommodate the addition of the No Turn on Red (R10-11) sign as shown.*

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-14

Comment noted.

Comment No. 9-15

Transportation Mitigation:

- *Intersection 11 – Thiells-Mount Ivy Road and Palisades Interstate Parkway Northbound Off Ramp: As noted earlier, LaBella agrees with the findings that a signal is not warranted based on the studied warrant. JMC is proposing that Intersection Warning (MUTCD Code W2-2) signs be installed on the Thiells-Mount Ivy Road approaches. LaBella agrees with the sign selection and location as shown by JMC. As noted in the study, the roadway is under the jurisdiction of the RCDPW, thus any improvements are subject to its review and approval.*

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-15

Comment noted.

Comment No. 9-16

Transportation Mitigation:

- *Thiells-Mount Ivy Road: JMC proposes the installation of Advance Warning for Deer (W11-3) signs along the roadway. LaBella agrees with the installation of these signs. As noted in the study, the roadway is under the jurisdiction of the RCDPW, thus any improvements are subject to its review and approval. Furthermore, it is recommended that pedestrian safety countermeasures on Thiells-Mount Ivy Road be investigated by the Village and County for the roadway in proximity to The Garden at Palisades residential development.*

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-16

Comment noted.

Comment No. 9-17

Transportation Mitigation:

- *Intersection 13 – Thiells-Mount Ivy Road and Rosman Road: LaBella agrees that this intersection should be re-studied following the collection of turning movement counts with the detour removed. Mitigation should be explored if operational concerns remain evident based on that forthcoming analysis.*

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-17

Comment noted. The Thiells-Mount Ivy Road and Rosman Road intersection will be reviewed after the completion of the additional turning movement counts.

Comment No. 9-18

Circulation: For review of the DEIS, LaBella finds the site plan acceptable in terms of internal circulation. Approval from the appropriate fire department

and other emergency services should be provided to ensure they agree with the access and circulation plan. LaBella recommends that consideration for extending the pedestrian accommodations to the church property located to the west of the proposed roundabout.

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-18

The site plan has been reviewed and coordinated with the Thiells Roseville Fire District.

Pedestrian connectivity has been provided between the church property and the proposed development via additional sidewalk and marked pedestrian crossings.

Comment No. 9-19

Parking: LaBella understands that the required number of parking spaces is 2 spaces/unit, which equates to the 600 parking spaces for the proposed project. As noted by JMC, ITE data indicates that the 85th percentile peak parking demand for the proposed project is 482 spaces. The project proposes 667 parking spaces comprised of:

- *399 General Surface Spaces*
- *134 Garage Spaces*
- *134 Tandem (In front of Garage) Spaces*

The proposed number of spaces exceeds the requirement by 67 spaces and the estimated ITE peak demand by 185 spaces. To reduce the impervious surface area of the project and increase the potential for green space, LaBella recommends that the applicant consider reducing the number of General Surface Spaces to 332.

(Appendix A-7, LaBella, DEIS Traffic Technical Review, Starke W. Hipp, PE, Traffic Engineer and Frank A. Filicotto, PE Principal, Traffic Engineer)

Response No. 9-19

The applicant is proposing to maintain the number of parking spaces that are provided. The amount of parking provided is needed based on the applicant's extensive experience constructing multi-family projects. The parking areas provide ample parking to support the residents as well as potential visitors during peak periods

Comment No. 9-20

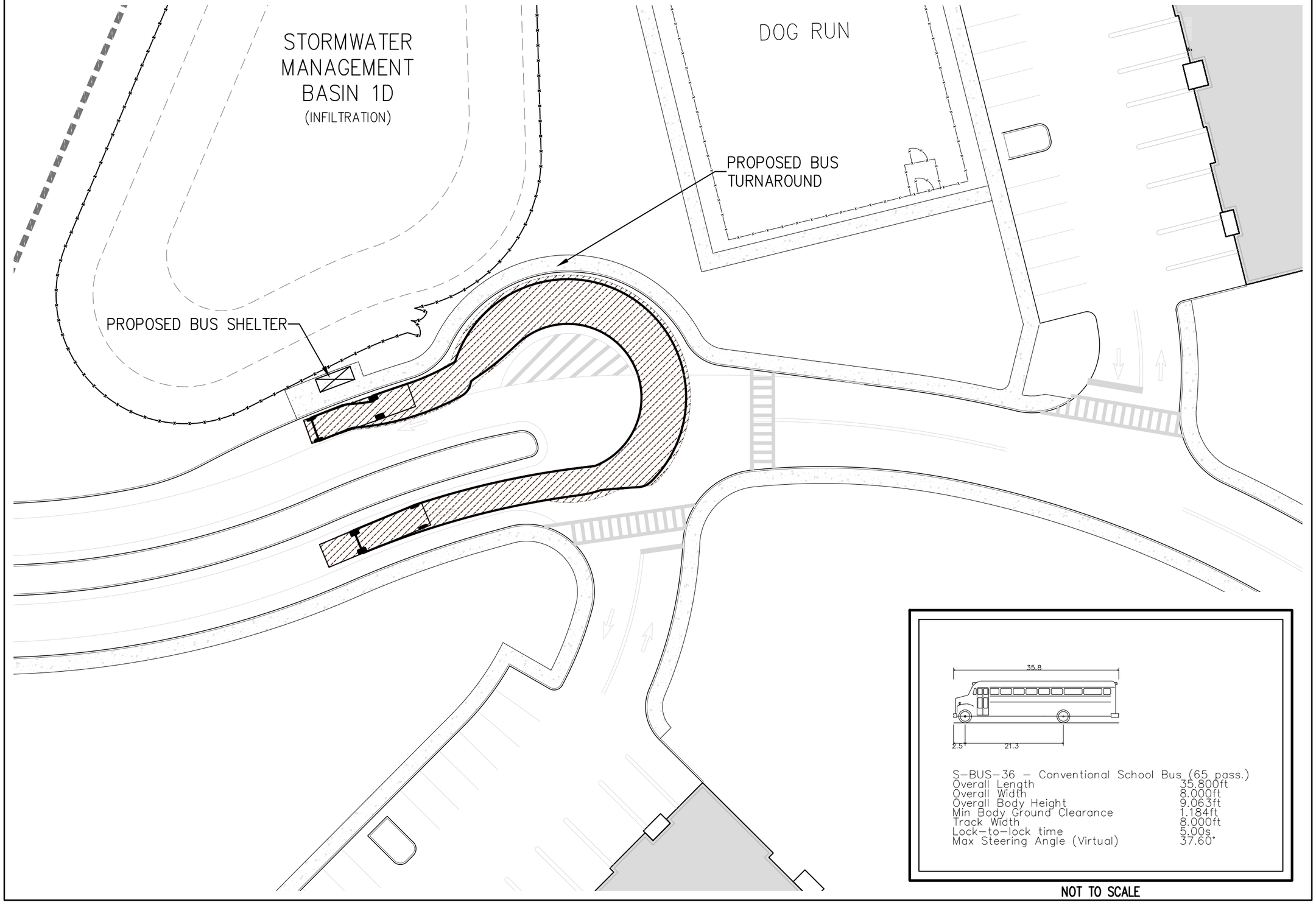
Did you do an analysis going down Letchworth Village Road to the new roundabout that's being built on that road, because that's going to be an important road?

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Chairman Corallo)

Response No. 9-20

The traffic study included key intersections surrounding the site, and the scope was coordinated with the Town's traffic consultant. Now that the roundabout is fully open and all detours have been removed, the applicant will

be conducting additional traffic counts once school opens to affirm the original analysis.



S-BUS-36 - Conventional School Bus (65 pass.)

Overall Length	35.800ft
Overall Width	8.000ft
Overall Body Height	9.063ft
Min Body Ground Clearance	1.184ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	37.60°

NOT TO SCALE

JMC
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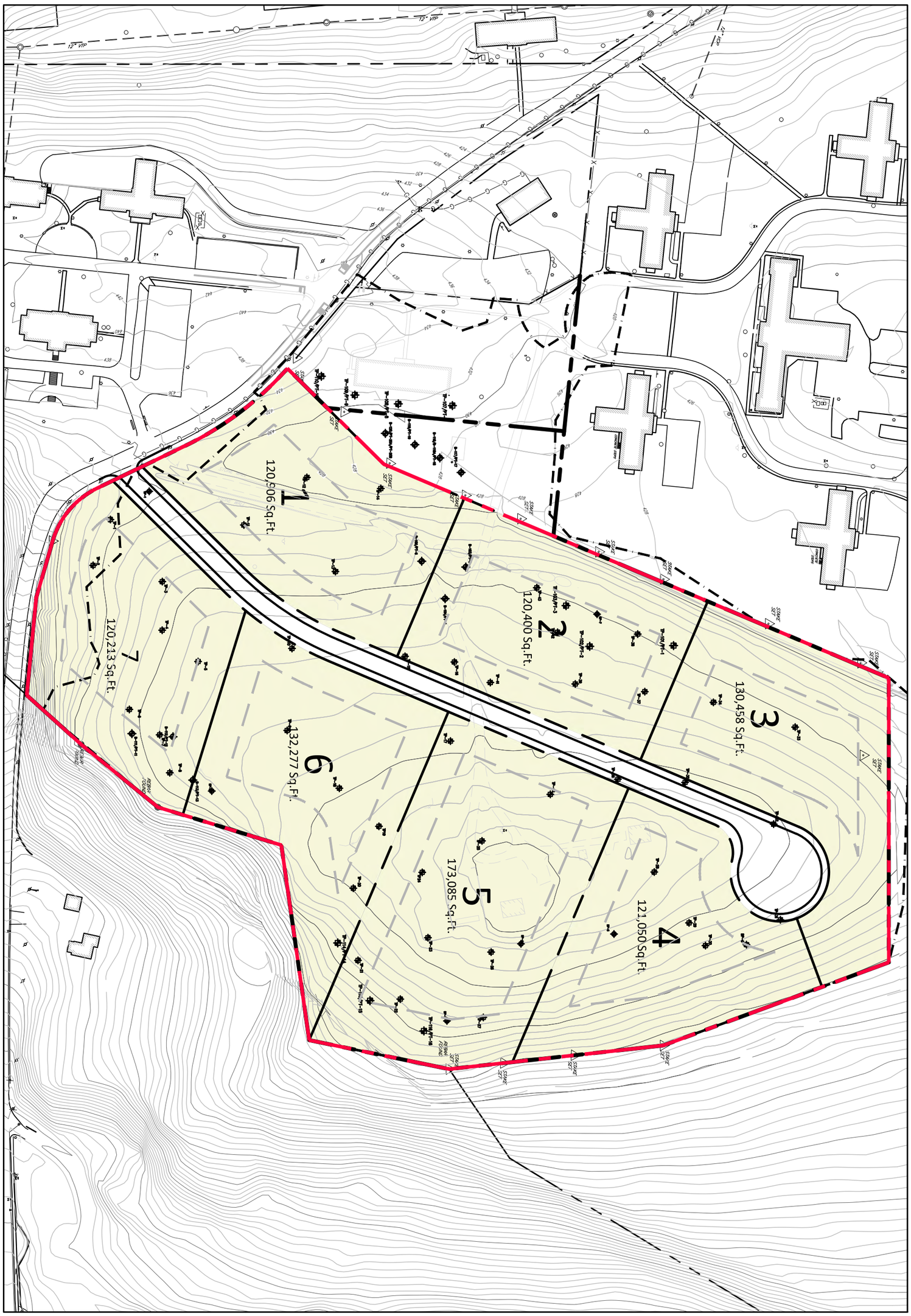
LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
HAVERSTRAW, NY
LETCHWORTH VILLAGE ROAD

SCHOOL BUS TURNING ANALYSIS

JMC PROJECT: 21090
DATE: 08/15/2025
SCALE: 1" = 40'
FIGURE: 03

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21090-TRUCK-TURNING.dwg; BUS.tab



LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT

LETCHWORTH VILLAGE ROAD — HAVERSTRAW, NY

CONVENTIONAL SUBDIVISION PLAN
"PROPOSED ACTION SITE"

DATE: 08/15/2025 — JMC PROJECT: 21090

FIGURE: 04 — SCALE: 1" = 150

120 BEDFORD RD
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21090-CONV-SUB.dwg; ALT-SUB FIG.tab



VIEW FROM STORRS ROAD LOOKING LEFT (NORTH)

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT

LETCHWORTH VILLAGE ROAD HAVERSTRAW, NY

PHOTO EXHIBIT

STORRS ROAD LOOKING LEFT

DATE: 05/2026 JMC PROJECT: 21090

FIGURE: P-1 SCALE: N.T.S.

120 BEDFORD RD
ARMONK
NY 10504

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21090–SIGHT–DISTANCE.dwg



VIEW FROM STORRS ROAD LOOKING RIGHT (SOUTH)

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT

LETCHWORTH VILLAGE ROAD HAVERSTRAW, NY

PHOTO EXHIBIT

STORRS ROAD LOOKING RIGHT

DATE: 05/2026 JMC PROJECT: 21090

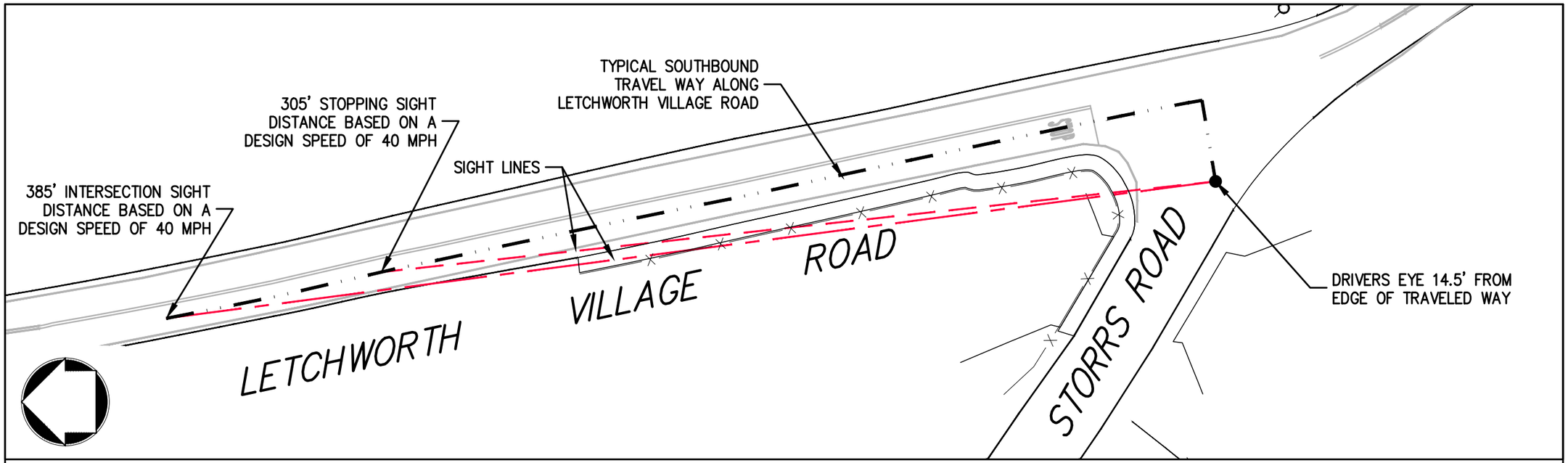
FIGURE: P-2 SCALE: N.T.S.

120 BEDFORD RD
ARMONK
NY 10504

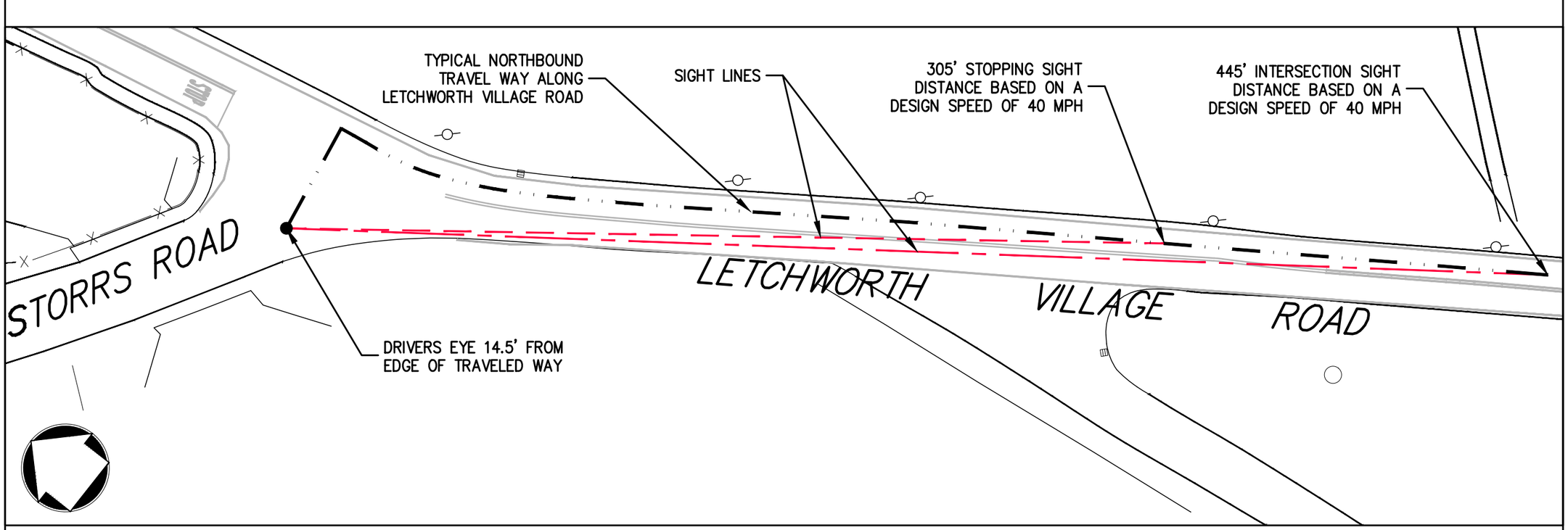
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RIGHT TURN FROM STOP (LOOKING LEFT)



LEFT TURN FROM STOP (LOOKING RIGHT)

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LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
HAVERSTRAW, NY
LETCHWORTH VILLAGE ROAD

SIGHT DISTANCE

DATE: 05/2026

JMC PROJECT: 21090

SCALE: 1" = 40'

FIGURE: SD-1

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21090-SIGHT-DISTANCE.dwg; SIGHT.tab

III.C.10 Community Demographics, Facilities and Services

Comment No. 10-1

Lack of Analysis on Required Additional Services and Personnel

Although the DEIS adequately describes existing Community Demographics, Facilities, and Services and estimates the number of new residents (739) and school-age children (approximately 33), it does not sufficiently address whether additional municipal services, personnel, or resources would be required to support the projected population increase.

The narrative asserts that police, fire, and ambulance services are "robust," but provides no quantitative capacity analysis, operational benchmarks, or discussion of potential service strain, particularly at full build-out.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 10-1

The DEIS states that the proposed project estimates a ±1.9% in Town population increase. The NYS ED data website provides data of the total student enrollment over many years. The DEIS shows that the student enrollment in the North Rockland Schools has decreased over the last 10 years approximately ±3.6%. With the additional students projected with this proposal, it is identified that additional classroom may not be necessary, based on the recent decline in enrollment over the last 10 years. The School District provided us with the maximum capacity of each individual school building in the North Rockland CSD and none of the schools are at or near their capacity limitations, as provided in the DEIS.

The Town services' budgets and personnel were previously provided in the DEIS. The DEIS states the current number of employees in the various service departments and was provided to us by these department chiefs (Police, Fire, and Ambulance Corp). In addition, we have been in communication with the Town's Director of Finance, who has stated that there will be no additional demand on these services.

Comment No. 10-2

Fire Apparatus and Emergency Response Capabilities

The DEIS includes a fire truck turning plan, yet it does not evaluate whether the number, type, and capacity of existing fire apparatus are sufficient to meet the specific needs of the proposed development-particularly a 3.5-story, multifamily apartment complex with garages underneath.

There is no verification of compliance with National Fire Protection Association (NFP A) standards or any formal consultation with the local fire district regarding specialized equipment requirements (e.g., ladder trucks, high-capacity pumpers).

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Figure III-I.1 Fire Truck Turning Plan does not depict the pathway a fire truck will take into the site from the proposed emergency access road. This drawing must be amended to include this path.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 10-2

The project sponsor met with the Fire Chief and Assistant Chiefs of the Theills Roseville Fire District on March 5, 2025. The fire truck turning plan was discussed at that time. We then provided a revised Fire Truck Turning Plan for the Department's review to address their concerns and confirm it is to the Department's satisfaction.

The Fire District did not express a need for additional fire apparatus or equipment to serve the proposed action. The proposed action will be constructed in accordance with all applicable NFPA / NYS Fire Codes.

Comment No. 10-3

Over-Reliance on Broad Assumptions Regarding School Enrollment

The DEIS references a downward trend in emollient in the North Rockland Central School District and suggests minimal impact. However, it does not present official projections from the School District, nor does it evaluate cumulative impacts if additional nearby developments are approved.

There is also no analysis of classroom utilization rates, potential capital improvements, or school bus routing implications.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 10-3

The School District provided us with the maximum capacity for each school building in the North Rockland CSD. As shown in the DEIS, the two

elementary schools in the vicinity, Farley Elementary and Willow Grove Elementary have capacities of 24% and 28%, respectfully. Farley Elementary enrolled 499 students in the 2023 -2024 school year and has a maximum capacity of 2,100. Willow Grove Elementary enrolled 568 students in the 2023-2024 school year and has a maximum capacity of 2,000. Given the number of school children anticipated to be generated by the project (33) and the available capacity in existing schools, there is no basis for assuming that additional capital improvements will be needed.

As far as classroom utilization rates & potential capital improvements, the DEIS Scoping document approved by the Lead Agency did not identify nor require an analysis for these matters concerning additional school enrollment.

Comment No. 10-4

Limited Discussion of Broader Community Facilities Impacts

While recreational amenities are proposed on-site, the DEIS does not evaluate potential secondary impacts on nearby public parks, libraries, or other public facilities from the increased population.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 10-4

The recreational amenities proposed on the site are for residents and their guests. The proposed amenities on the project site will not be for public use.

The small increase in population to be generated by the project, spread over on-site and off-site recreation areas, should have a negligible impact on off-

site areas. Additionally, the applicant will be paying a fee in lieu of land for any necessary acquisition or capital improvements to Town parks.

Comment No. 10-5

"The Town professional staff and the various Boards that serve the Town have communicated that they envision a multi-family dwelling communicate as a great asset for the Town and in this specific area of Haverstraw." (P. III.I-1). There does not seem to be a basis for this broad and definitive statement as the environmental and land use review is still ongoing.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 10-5

The comment is noted. The Town of Haverstraw Master Plan 2000 and the Town of Haverstraw Urban Renewal Plan of 2001 both cite the property and surrounding area as a region in the Town which is ripe for community and/or economic development. The Rockland County Comprehensive Plan of 2011 cites a specific recommendation for the project site as a property in need of revitalization and repurposing, as highlighted in the DEIS.

In addition, the 2024 Rockland County Housing Needs Assessment specifically states that this type of housing is needed in the County.

Comment No. 10-6

What is the analysis for how an additional 739 residents in 300 dwelling units would result in 33 school-aged children? (P.III.I-8-9).

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 10-6

As identified in the DEIS, The 2018 Rutgers for Urban Policy Research Report "Who Lives in New Jersey Housing" was utilized for the population and school children projections for this proposed action.

III.C.11 Fiscal and Economic Conditions

Comment No. 11-1

Fiscal and Economic Conditions should indicate whether the other taxing jurisdictions, namely the School District, have consented to the Applicant's proposed PILOT program. The Applicant should also provide an estimated breakdown of how much of the PILOT each taxing jurisdiction will receive per year during the 15-year PILOT period.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 11-1

At this time, the Applicant and the North Rockland School District have not yet agreed to a PILOT schedule. Discussions are ongoing.

Below is a breakdown based on the PILOT schedule contained in the purchase and sale agreement between the Applicant and the Town, using the proportional tax distribution reported from Harbors at Haverstraw, another multi-family project located in the Town of Haverstraw.

TABLE III.C.11-1
ORIGINAL PILOT PROPOSAL

	Town	School	County
Proportions (per Harbors at Haverstraw)	31%	64%	5%

Year	Formula	Total Payment	Town Payment	School Payment	County Payment
1	Flat rate for entire parcel	$75,000		$48,000	$3,750
2	Flat rate for entire parcel	$75,000		$48,000	$3,750
3	Flat rate for entire parcel	$75,000		$48,000	$3,750
4	Base Value X # units X (1/3)	$384,000		$245,760	$19,200
5	Base Value X # units X (1/3)	$384,000		$245,760	$19,200
6	Base Value X # units X (2/3)	$768,000		$491,520	$38,400
7	Base Value X # units X (2/3)	$768,000		$491,520	$38,400
8	Base Value X # units	$1,152,000	$357,120	$737,280	$57,600
9	Base Value X # units	$1,152,000	$357,120	$737,280	$57,600
10	Base Value X # units	$1,152,000	$357,120	$737,280	$57,600
11	Base Value X # units	$1,152,000	$357,120	$737,280	$57,600
12	Base Value X # units	$1,152,000	$357,120	$737,280	$57,600
13	Base Value X # units	$1,152,000	$357,120	$737,280	$57,600
14	Base Value X # units	$1,152,000	$357,120	$737,280	$57,600
15	Base Value X # units	$1,152,000	$357,120	$737,280	$57,600
16+	Market Value Assessment				
	PILOT Totals Over Time	$11,745,000	$3,640,950	$7,516,800	$587,250

Comment No. 11-2

The analysis of impacts on community services (p. III.J-3-5) and proposed mitigation (p.III.J-6-7) must be expanded. There is no analysis of how the estimated per capita costs will be mitigated by the PILOT. And the generalized statement that "[a] more accurate comparator would be the marginal cost of providing services for each new resident, but that computation is too complex for this purpose" is insufficient to demonstrate mitigation of impacts.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 11-2

On July 1, 2025, the project team had discussions with the Town Director of Finance.

Both the Fire Department and the Ambulance Corp are volunteer organizations, therefore no additional budgeting would be necessary for either of these service departments.

Based on the Proposed Action Plans, it was determined that the Town would not require additional resources or have to increase the budget for the Police Department.

The Proposed Action proposes private roads. Therefore, the Town DPW would not maintain the roadways associated with this development.

It has been determined that no increases in the Town Budget for these services would be necessary to accommodate the Proposed Action.

III.C.12 Noise and Air Quality

Comment No. 12-1

The discussion on air quality is lacking. While it is acknowledged that standards for ozone levels are "occasionally" exceeded, the DEIS fails to recognize that all of Rockland County is a non-attainment area for 8-Hour Ozone (2015). Ground-level ozone, caused by the chemical reaction of oxides of nitrogen and volatile organic compounds, is harmful to human health and the environment. One of the sources of these pollutants are motor vehicles. Potential air quality impacts caused by an increase in traffic should be thoroughly assessed and specific mitigation measures implemented to make sure the increase in automobile use does not result in exacerbating the ozone problem. The project should be consistent with regulatory efforts to reduce ozone levels.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 12-1

It is acknowledged that all of Rockland County is a non-attainment area for 8-Hour Ozone. A traffic study was prepared and submitted to address the traffic increase associated with the proposed action which includes projected vehicle trips during peak hours for weekdays and weekend days. The traffic study proposes several improvements which will ensure adequate levels of service and reduce congestion, which mitigates any potential increase in ozone levels. In addition, the landscape plans submitted suggest native trees and shrubs to be incorporated into the site plans to address any potential are quality impacts.

III.C.13 Historic and Cultural Resources

Comment No. 13-1

The DEIS notes that the State Historic Preservation Office (SHPO) has issued an initial response requesting additional information, including Phase INIB archaeological surveys, visual analyses, and landscape screening drawings. However, the DEIS does not confirm whether the applicant has since submitted this requested documentation, nor does it evaluate the findings or their potential implications on project design or mitigation strategies.

The Final Environmental Impact Statement (FEIS) should include all materials submitted to SHPO in response to their request. This includes:

Completed Phase INIB archaeological surveys and any associated findings.

Supplemental visual impact assessments as requested.

Landscape screening plans that address SHPO's concerns regarding the visual context of any historic resources.

Additionally, the FEIS should document any follow-up correspondence from SHPO, including final determinations, conditions, or additional mitigation measures required. If the applicant has not yet submitted the requested materials, the FEIS should outline a timeline and process for compliance to ensure that historic and cultural resource protections are addressed prior to project approvals.

(Appendix A-1, Kauker & Kauker, LLC, DEIS Review Memorandum, Michael D. Kauker, PP, AICP)

Response No. 13-1

We made a submission on July 9th, 2025, in response the two SHPO letters received and dated December 20th, 2024.

We submitted the following documents to address the comments from the NYSOPRHP:

1. A Site Identification Phase 1B Archeological Survey

2. Building Elevations of both residential building types and the proposed clubhouse building

3. A Preliminary Site Layout Plan that shows the landscaping and the planting schedule that shows the species and their placement on the plan

4. Architectural Concept Site Photos that provide visuals of the proposed development from specific points around the project site, including from CrossLife Church, Letchworth Village Road, and Hammond Road.

Any and all follow-up correspondence from SHPO will be submitted to the Lead Agency for their record and review, including the final determination.

Comment No. 13-2

Confirmation regarding the cultural and archaeological significance of the site should be obtained from the New York State Historic Preservation Office (SHPO) before the DEIS is finalized. The DEIS indicates the New York State

Office of Parks, Recreation, and Historic Preservation is also known as SHPO. This is not completely correct and should be changed. SHPO is part of OPRHP.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 13-2

The final determinations on cultural and archeological significance will be submitted to the Lead Agency for their record and review.

The comment is noted. The FEIS notes that SHPO is a part of the NYSOPRHP.

Comment No. 13-3

Provide all communications to and responses from SHPO. There must be a definitive communication from SHPO as part of the SEQRA process regarding their perspective on the Proposed Action.

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 13-3

The comment is noted. Any and all follow-up correspondence from SHPO will be submitted to the Lead Agency for their record and review, including the final determination.

Comment No. 13-4

Where are the historically eligible structures and four areas with historic and archeological sensitivity in relation to the project site?

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 13-4

All of the buildings on the existing 154.5 acre lot are associated with the Letchworth Village Historic District. This is identified by SHPO as USN Number 08702.000481.

The four areas with historic and archeological sensitivity are not located within the ±23.86 acre project site. Three of the four areas are located along Willow Grove North at the northern portion of the existing 154.5 acre parcel. The fourth and final area of sensitivity is located on the south side of Letchworth Village Road along both the east and west sides of Ridge Road, to the south of the ±23.86 acre project site.

Comment No. 13-5

Where are the historically eligible structures and four areas with historic and archeological sensitivity in relation to the project site?

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 13-5

All of the buildings on the existing 154.5 acre lot are associated with the Letchworth Village Historic District. This is identified by SHPO as USN Number 08702.000481.

The four areas with historic and archeological sensitivity are not located within the ±23.86 acre project site. Three of the four areas are located along Willow Grove North at the northern portion of the existing 154.5 acre parcel. The fourth and final area of sensitivity is located on the south side of Letchworth Village Road along both the east and west sides of Ridge Road, to the south of the ±23.86 acre project site.

III.C.14 Construction

Comment No. 14-1

The project states it will be a single-phase construction. As a result of the size and impacts of the construction, further soil erosion methods must be deployed such as sedimentation areas/basins, construction ditches, diversions, etc. Note that infiltration practices cannot be used for sedimentation storage or be impacted by material storage or soil staging. A construction plan shall be fully developed to deploy runoff diversion and sediment entrapment to mitigate impacts to those locations as well as offsite runoff impacts associated with the reduction in ground cover/vegetation.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 14-1

A construction phasing plan has been provided in the drawing set. The project is now proposed to be constructed and broken down into 4 different construction phases. The phase plans highlight specific notes for each phase that display runoff diversion. The stormwater drainage and detention basins are all to be constructed in phases 1A and 1B, as noted in the construction phasing plan. The 4 phases are noted as 1A, 1B, 2, & 3.

Comment No. 14-2

Impacts for earthwork disturbance levels should be further evaluated as identified above in 111.C.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 14-2

The revised cut and fill volumes have been created for the various materials present on site and Figure III.C-4 has been updated. The updated analysis results in a ±62,570 sf (Cut), ±96,470 sf (Fill), and ±33,900 sf (Net Fill).

Comment No. 14-3

Site safety and security will be a factor since the Letchworth property will continue to be an active recreational area and the church property will continue to operate. A full site safety plan must be prepared and presented.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 14-3

During construction, there will be a security gate installed at the site entry which will be locked after hours. The job trailer, which is the office for the field team, will be located near the site entry within the gated area. Additional security measure will include cameras, lighting, and overnight monitoring. To help control dust/dirt leaving the site during working hours, there will be washdown station at the entry for construction vehicles to use prior to leaving the site. A site safety plan will be provided and we will engage a 3rd party site safety inspector.

Comment No. 14-4

Offsite work may be required within the public roadway system for sewer and water (at a minimum). Appropriate traffic control plans must be. prepared to address traffic impacts during construction. Note that the sequencing of major earthwork operations, material import/export shall be avoided during any significant traffic impacts offsite to avoid additional traffic delays.

(Appendix A-6, Civil Design Works, LLC, DEIS Review Memorandum, Glenn McCreedy)

Response No. 14-4

Traffic control plans will be prepared as required during the applicable County permitting process.

Comment No. 14-5

Is the Applicant intending to hire local contractors and construction workers when possible?

(Appendix A-3, Silverberg Zalantis, LLC, DEIS Review Memorandum, Christie Addona, Town Land Use and Zoning Attorney)

Response No. 14-5

The Applicant will endeavor to hire local contractors and construction workers where and when possible.

Comment No. 14-6

And then also a big one was actually the impact to the existing parking lot by the overall construction,·construction vehicles.· You know, as much as ·we could say you're going to avoid it as much as possible, the parking lot's there, it's a big parking lot.· I drive trucks, I've driven trucks.· You know, ·tractor-trailers are going to be pulling in ·and out, dump trucks are going to be pulling in and out, they're going to be turning around in there, it's an easy enough parking lot to whip trucks around in.· So it's going to get beat up.· It's not in the best of ·condition right now.· So how can we address those concerns?

(Appendix A-5, Town Of Haverstraw Planning Board Meeting, Public Hearing Transcript, Jose Castro, Representative of CrossLife Church)

Response No. 14-6

Construction vehicles will not drive on the Church parking lot / property.

III.C.15 Significant Adverse Environmental Impacts that Cannot be Avoided

There are no comments for this chapter.

III.C.16 Alternatives

There are no comments for this chapter.

III.C.17 Irreversible and Irretrievable Commitment of Resources

There are no comments for this chapter.

III.C.18 Growth Inducing Aspects

There are no comments for this chapter.

III.C.19 Effects on the Use and Conservation of Energy Resources

Comment No. 19-1

While the DEIS indicates that the proposed action is not anticipated to result in significant adverse impacts to utilities, it is recommended that a more thorough assessment be conducted regarding water, wastewater, electricity and fossil fuels, be conducted, particularly an energy assessment, its impact on the local utility infrastructure, as well as a greenhouse gas emissions analysis. Mitigation measures should include a full evaluation of the potential use of renewable energy sources such as solar, as well as electric vehicle charging infrastructure.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 19-1

The project team has had discussions with the utility companies that would serve the proposed action. There are no concerns of significant impacts on the existing utility infrastructure or any concern for any capacity limit from the utility companies.

Comment No. 19-2

As part of the evaluation of energy impacts, we encourage the completion of a greenhouse gas (GHG) emissions inventory of the proposed action. This analysis should include both building and transportation related GHG emissions as well as the loss of mature trees and the associated carbon storage, as referenced in Comment 9. Additionally, the analysis should include a thorough review of energy measures to reduce GHG emissions

such as the use of passive building principles, clean heating and cooling alternatives like air or ground source heat pumps, the use of renewable energy such as solar panels, and the installation of EV charging stations.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 19-2

A traffic analysis has been submitted for the Town to review, and identifies the limited additional congestion the proposed action will add to the roadway network. Additionally, regarding tree removals and proposed plantings, a landscape plan was provided to the Lead Agency. All proposed plantings are native to the County of Rockland and the lower Hudson Valley region. Additionally, each residential garage will have an EV charging adapter, for residents to utilize at home EV charging abilities.

Comment No. 19-3

It is stated that the proposed action will not be designed to meet LEED Certification standards as it does not meet the goals of the applicant. This department urges the Town to ensure that applicants consider complete electrification of proposed housing and utilize energy conservation building features such as energy efficient air conditioning equipment and lighting fixtures. Renewable energy options, such as the use of solar panels, should also be considered not only for electricity, but also for heating and cooling to help meet the State's Climate Act goals of reducing greenhouse gas emissions.

(Appendix A-2, Rockland County Planning Department, DEIS Review Memorandum, Douglas J. Schuetz, Acting Commissioner of Planning)

Response No. 19-3

The comment is noted.

FINAL ENVIRONMENTAL IMPACT STATEMENT

Letchworth Road Residential Development

Letchworth Road
Town Of Haverstraw
Rockland County, NY

APPENDIX A

CORRESPONDENCE

Prepared for: **Haverstraw Group LLC**
16 Microlab Road, Suite A
Livingston, NJ 07039
Contact: Mr. Marc Pantirer

Lead Agency: **Town of Haverstraw Planning Board**

Prepared by:

Project 21090

Date: *August 15*, 2025

FEIS APPENDIX A – CORRESPONDENCE

APPENDIX A-1

KAUKER & KAUKER, LLC

Kauker & Kauker LLC
TOWN PLANNING AND DEVELOPMENT CONSULTANTS

MEMORANDUM

TO:	Town of Haverstraw Planning Board
FROM:	Michael D. Kauker, PP, AICP Principal
DATE:	April 29, 2025
SUBJECT:	**Letchworth Road Residential Development**

The following materials were received and reviewed by this office:

1. DRAFT Environmental Impacts Statement (DEIS) prepared for Haverstraw Group, LLC by JMC dated January 24, 2025.

Planning Comments on the Draft Environmental Impact Statement (DEIS)

The DEIS for the Letchworth Road Residential Development is well-structured and addresses many of the procedural elements required under SEQRA. However, from a professional planning standpoint, we offer the following comments:

General Statement on page II-12 of Project Purpose and Need:

The DEIS includes a general statement of project purpose and need but lacks a detailed analysis. Additionally, it references a comprehensive market analysis indicating that the proposed actions are driven by a basic imbalance in housing supply and demand. This statement should be expanded to provide further justification for the project, and the referenced market study should be included as an appendix to the document.

Land Use and Zoning Compatibility

The DEIS provides a general overview of the land use, zoning, and planning context surrounding the Project Site; however, several concerns and omissions should be addressed:

1. **Over-Reliance on Town Policy from 2000 Without Addressing Current Conditions**
   - The DEIS heavily relies on the Town's 2000 Master Plan to justify the rezoning from R-120 (Rural Residence) to LA-17 (Luxury Apartment Multifamily Residential).
   - However, no updated assessment is provided regarding whether community needs or development priorities have evolved since the 2000 Master Plan, particularly given regional demographic and economic shifts over the past 25 years.

1

- This section should be expanded to include specific goals and objectives that the proposed development is intended to promote.

2. **Insufficient Justification for Spot Zoning Concerns**
   - The rezoning applies to a ±22.93-acre portion of a larger ±154.6-acre parcel.
   - The DEIS does not fully analyze whether the LA-17 designation is appropriate in relation to surrounding R-120 and R-15/R-25 single-family residential districts.
   - A detailed compatibility analysis should be included to address potential spot zoning concerns, including evaluation of impacts on neighborhood character, infrastructure, and precedent-setting implications.

3. **Building Height Text Amendment Raises Precedent and Design Issues**
   - A zoning text amendment is requested to increase the maximum height from 40 feet to approximately 44 feet (averaged from grade).
   - Although the DEIS states this change is to allow pitched roofs and garages, it does not fully consider how granting increased height might set a precedent for future multifamily developments in the Town or undermine the LA-17 district's originally intended character.

4. **Minimal Evaluation of Alternative Zoning Approaches**
   - The DEIS does not sufficiently discuss why alternatives, such as a Planned Unit Development (PUD) or a floating zone, were not considered, which could offer more tailored land use controls to better align with both community goals and site constraints.
   - Although an analysis of the R-120 zoning was provided, the DEIS should also include an analysis of alternative development scenarios, such as those permitted under the surrounding R-15 and R-20 zoning districts.

5. **Generalized Land Use Compatibility Assessment**
   - The DEIS broadly asserts that the multifamily development is compatible with surrounding institutional, recreational, and residential uses.
   - However, it lacks a detailed examination of potential land use conflicts, such as increased traffic near schools, changes in visual character, or the intensity of site utilization compared to nearby single-family homes.

6. **Subdivision and Future Development Not Fully Addressed**
   - The DEIS proposes a subdivision to separate the ±22.93-acre development site from the larger property.
   - There is no analysis of how the remaining ±130 acres will be managed, rezoned, or developed in the future, which presents a major gap in understanding cumulative land use impacts.

7. **Incomplete Discussion of Rockland County Planning Policy Context**
   - Although some references to the 2011 Rockland County Comprehensive Plan are made, the DEIS does not sufficiently explain how the Proposed Action meets the County's recommendations for environmental protection, smart growth, and revitalization.

Visual Resources and Community Character

While the DEIS offers a basic documentation of existing visual conditions and provides photo simulations of the Proposed Action, there are several critical deficiencies that need to be addressed:

1. **Limited Range Analysis**
   - The DEIS largely restricts its visual impact analysis to viewpoints from adjacent roadways and nearby properties.
   - Broader regional viewpoints, such as long-distance sightlines or views from significant public vantage points (e.g., parks, trails, or historic areas nearby) are not considered. A more comprehensive visual analysis would be appropriate given the site's location within a semi-rural corridor.

8

Community Demographics, Facilities and Services

While the DEIS provides a foundational overview of community demographics, existing services, and anticipated impacts from the Proposed Action, several areas require further refinement to ensure a comprehensive and objective analysis:

1. **Lack of Analysis on Required Additional Services and Personnel**
   - Although the DEIS adequately describes existing Community Demographics, Facilities, and Services and estimates the number of new residents (739) and school-age children (approximately 33), it does not sufficiently address whether additional municipal services, personnel, or resources would be required to support the projected population increase.
   - The narrative asserts that police, fire, and ambulance services are "robust," but provides no quantitative capacity analysis, operational benchmarks, or discussion of potential service strain, particularly at full build-out.

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2. **Fire Apparatus and Emergency Response Capabilities**
   - The DEIS includes a fire truck turning plan, yet it does not evaluate whether the number, type, and capacity of existing fire apparatus are sufficient to meet the specific needs of the proposed development — particularly a 3.5-story, multi-family apartment complex with garages underneath.
   - There is no verification of compliance with National Fire Protection Association (NFPA) standards or any formal consultation with the local fire district regarding specialized equipment requirements (e.g., ladder trucks, high-capacity pumpers).

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3. **Over-Reliance on Broad Assumptions Regarding School Enrollment**
   - The DEIS references a downward trend in enrollment in the North Rockland Central School District and suggests minimal impact. However, it does not

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present official projections from the School District, nor does it evaluate cumulative impacts if additional nearby developments are approved.
    - There is also no analysis of classroom utilization rates, potential capital improvements, or school bus routing implications.

4. **Limited Discussion of Broader Community Facilities Impacts**
    - While recreational amenities are proposed on-site, the DEIS does not evaluate potential secondary impacts on nearby public parks, libraries, or other public facilities from the increased population.

12

Historic and Cultural Resources

The DEIS notes that the State Historic Preservation Office (SHPO) has issued an initial response requesting additional information, including Phase 1A/1B archaeological surveys, visual analyses, and landscape screening drawings. However, the DEIS does not confirm whether the applicant has since submitted this requested documentation, nor does it evaluate the findings or their potential implications on project design or mitigation strategies.

13

The Final Environmental Impact Statement (FEIS) should include all materials submitted to SHPO in response to their request. This includes:

- Completed Phase 1A/1B archaeological surveys and any associated findings.
- Supplemental visual impact assessments as requested.
- Landscape screening plans that address SHPO's concerns regarding the visual context of any historic resources.

Additionally, the FEIS should document any follow-up correspondence from SHPO, including final determinations, conditions, or additional mitigation measures required. If the applicant has not yet submitted the requested materials, the FEIS should outline a timeline and process for compliance to ensure that historic and cultural resource protections are addressed prior to project approvals.

cc: Applicant

FEIS APPENDIX A – CORRESPONDENCE

APPENDIX A-2

ROCKLAND COUNTY DEPARTMENT OF PLANNING

Rockland County
Ed Day, Rockland County Executive

DEPARTMENT OF PLANNING
Dr. Robert L. Yeager Health Center
50 Sanatorium Road, Building T
Pomona, New York 10970
Phone: (845) 364-3434 Fax: (845) 364-3435

Douglas J. Schuetz
Acting Commissioner

Richard M. Schiafo
Deputy Commissioner

April 30, 2025

Chairman Salvatore Corallo
Town of Haverstraw Planning Board
One Rosman Road
Garnerville, New York 10923

RE: Letchworth Road Residential Development - Draft Environmental Impact Statement

To Chairman Corallo and Planning Board Members:

As an ongoing interested party for the State Environmental Quality Review Act (SEQRA) process, the Rockland County Department of Planning has reviewed the Draft Environmental Impact Statement (DEIS) for the Letchworth Road Residential Development project, last revised on February 28, 2025. This proposal is also subject to the Planning Department's review as mandated in Sections 239-l and m of the New York State General Municipal Law (GML) as the site is within 500 feet of Hammond Road (County Road 47), Thiells Mount Ivy Road (County Road 47), Letchworth Village Road (County Road 94), Willow Grove Road (County Road 98), Minisceongo Creek, Letchworth Village, and the Town of Stony Point. Below are our comments based on our review of the DEIS:

1. Multiple pages of the DEIS, including several appendices, lists the Tax Map ID for the site as 19.11-1-1. Our records indicate that the Tax Map ID is 19.16-1-14. The Tax Map ID should be corrected throughout the document. **1**

2. Part of this project will include a subdivision. However, based on our records, this parent Parcel 19.16-1-14, has yet to be subdivided. It is unclear as to how a DEIS is being prepared for a site that does not yet exist. Therefore, the scope and the DEIS should at this point include the entire parcel in question until such parcel is subdivided. **2**

Executive Summary

3. It is noted under Construction Information that "…construction will take place between the hours of 8:00 am and 6:00 pm Monday through Friday as well as on Saturdays, Sundays, and Holidays". However, under the Noise and Air Quality section it states that no construction operations will take place on Sundays or Holidays. It must be clarified if construction will occur on Sundays or Holidays, since conflicting information was provided.

3

4. Tables I-1 and II-2 should be expanded to include the Rockland County Drainage Agency as the Minisceongo Creek, a County regulated stream, is immediately adjacent to the parcel and this project may fall within the jurisdiction of the Drainage Agency and permits may be required. Additionally, the Rockland County Highway Department should also be included in these tables as there are county roadways that are potentially impacted by this project including, Willow Grove Road (CR 98), Letchworth Village Road (CR 94), Thiells Mount Ivy Road (CR 47), Hammond Road (CR 47and County highway permits may be required.

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5. In addition, we recommend that an 'Interested Agencies' table be created that includes the Rockland County Planning Department, as the rezoning, and any site plan or subdivision approvals will require referral to County Planning under New York State General Municipal Law, Section 239.

5

Existing Environmental Conditions, Anticipated Impacts and Mitigation

6. Under Section III.A.1.c. Review of Applicable Town of Haverstraw Documents and Rockland County Planning Documents, we suggest the 2024 Rockland County Housing Needs Assessment be reviewed and included in this analysis as this study provides added context to the need for housing in the County that the Letchworth Project will contribute to alleviating.

6

7. The mitigation for the potential impacts on Visual Resources and Community Character is discussed on page III.B-7 and III.B-8. The description points out that the architectural aesthetic will take cues from the adjacent Letchworth Village structures but fails to acknowledge that a variance for building height is required. Full compliance with the bulk regulations would decrease the impacts to the surrounding residential neighborhood. This section must address the impacts on the surrounding properties since the maximum building height requirement is exceeded.

7

8. Under Section III.C.2.a.3. the applicant describes how they will conduct seeding of the disturbed area to stabilize and prevent soil erosion. It is recommended that the applicant consider using native grasses, or a native ground cover alternative, which could provide the additional benefit of being less water intensive and needing less maintenance than traditional grass seeding.

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9. Section III.D.1.b Flora, Fauna and Habitat, Existing Conditions, indicates that the project site is not within an area displayed in the Rare Plants and Rare Animals layer or the Significant Natural Communities layer on the New York State Environmental Resource Mapper , therefore the New York Natural Heritage Program ("NYNHP") has no records to report in the vicinity of the Project Site. The Hudson River Natural Resources Mapper, however, indicates the site is part of a Significant Biodiversity Area (SBA) and a portion of the site is a 'Known Area for Migratory Fish (due to its proximity to the Minisceongo Creek). SBAs are landscape areas in the Hudson River Estuary that contain high concentrations of biodiversity or unique ecological features. Significant natural communities provide an assemblage of interacting plant and animal populations that are considered significant from a statewide perspective because they are rare or high quality based on size, habitat conditions and quality of the surrounding landscape. These areas contribute to and serve as a framework for conservation partnerships and voluntary protection efforts. One of the most significant threats to biodiversity is habitat destruction, alteration, and fragmentation. The DEIS recognizes that the proposed action would cause the direct loss of some habitat for the resident plant and animal populations that could be used for breeding, roosting, feeding, and shelter. Careful consideration should be given to development impacts within an SBA. Proactive planning that avoids or minimizes impact to the habitat of Important Areas and maintains habitat connections for wildlife movement will contribute to the long-term biodiversity of the region. The DEIS must consider the impacts of this development on the biodiversity of the area, specifically habitat fragmentation and the impact of the movement of species to and from and within these sensitive habitats. A site-specific biological inventory or natural resource assessment should be considered. A pdf titled "An Approach for Conserving Biodiversity in the Hudson River Estuary Corridor" that identifies voluntary, non-regulatory strategies for conserving wildlife and habitat in the region can be found at: https://hudson.dnr.cals.cornell.edu/library

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10. It is likely that a significant number of trees will be removed to accommodate the proposed residential development. Mature trees and mature forested areas remove, absorb and store carbon in wood, leaves, and the soil. When trees and forests are cleared, that carbon is lost. New York's recently adopted New York State's Scoping Plan, required as part of The Climate Leadership and Community Protection Act, calls for protecting the ability of forests to serve as carbon sinks and calls for promoting the most effective methods of increasing New York's carbon sequestration, storage, and climate resilience. The protection of trees, minimization of loss of trees, impacts of the loss of forested area, and forest loss mitigation must be addressed. Additionally, the proposal must comply with Chapter 167 Sections 91 and 92 of the Town Code.

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11. To comply with Chapter 167 Section 93 of the Town Code, a significant number of trees will likely need to be planted to replace those lost. The DEIS indicates that the majority of the ±22.93-acre Project Site is comprised of native tree vegetation and grassland / field areas. We recommend the use of trees as well as other plantings that are native to New York to help preserve and promote biodiversity. Native plants are better adapted

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to the local climate and soil, making them easier to care for, and results in the need for less fertilizer, pesticides, and use of water. They also have deeper root systems that help prevent erosion and increased runoff into local waterbodies. A pdf titled "Native Plants for Gardening and Landscaping Fact Sheets" that lists native species and the environments in which they can grow can be found on the New York State Department of Environmental Conservation's website: https://www.dec.ny.gov/get-involved/living-green/sustainable-landscaping. Native plants should be incorporated in the design of the site from the outset and may be considered as part of the mitigation of potential negative environmental impacts of the development.

12

12. The DEIS seems to be lacking an analysis of "Surface and Subsurface Waters". This department strongly urges the Planning Board require that the applicant add this information to Section III. While the DEIS states that no wetlands are present on the site, there are federal wetlands on the norther portion of the parent parcel, 19.16-1-14. Again, until subdivided an environmental impact analysis should be looking at the entire existing parcel. We also recommend that the Existing Environmental Conditions, Anticipated Impacts and Mitigation be explored, particularly because of the site's proximity to the Minisceongo Creek. The DEIS should address adverse impacts to water resources and proposed mitigation efforts. This analysis should include the potential for non-point sources of pollution including pesticides, deicing agents and other non-point sources of pollutants that may result from both construction and post-construction.

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13. To help reduce the impact of this development we recommend that the DEIS include an analysis of a reduction of impervious surface to minimize the impacts of stormwater runoff. This analysis should consider the use of green infrastructure such as porous pavers or porous concrete for use in the parking areas to replace the use of conventional asphalt in managing stormwater and minimizing off site impacts. If installed correctly and properly maintained porous pavers have been shown to be effective in helping manage off-site runoff of stormwater. In addition to permeable pavers, other green infrastructure techniques should be considered such as bioswales, native landscaped islands in the parking areas, rain gardens, and rainwater capture. For long term effectiveness of permeable pavers and other green infrastructure techniques it is recommended that the Town and the applicant review Chapter 5 'Green Infrastructure Practices' of the 2015 NYSDEC Stormwater Design Manual.

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14. Sections III.H.4.a and III.H.4.b address the no build and build impact of the proposed action on traffic generation. However, there is no traffic generation information provided if the entire site were to be developed according to the zoning as single-family dwellings. This must be discussed.

15

15. Section III.H.6 described on-site circulation and parking information but fails to provide any information about snow storage areas. We recommend that the location of snow storage areas be illustrated as they can result in environmental impacts from the weight of the snow and salt intrusion.

16. Figure III-I.1 Fire Truck Turning Plan does not depict the pathway a fire truck will take into the site from the proposed emergency access road. This drawing must be amended to include this path. **16**

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17. The discussion on air quality is lacking. While it is acknowledged that standards for ozone levels are "occasionally" exceeded, the DEIS fails to recognize that all of Rockland County is a non-attainment area for 8-Hour Ozone (2015). Ground-level ozone, caused by the chemical reaction of oxides of nitrogen and volatile organic compounds, is harmful to human health and the environment. One of the sources of these pollutants are motor vehicles. Potential air quality impacts caused by an increase in traffic should be thoroughly assessed and specific mitigation measures implemented to make sure the increase in automobile use does not result in exacerbating the ozone problem. The project should be consistent with regulatory efforts to reduce ozone levels.

18. Confirmation regarding the cultural and archaeological significance of the site should be obtained from the New York State Historic Preservation Office (SHPO) before the DEIS is finalized. The DEIS indicates the New York State Office of Parks, Recreation, and Historic Preservation is also known as SHPO. This is not completely correct and should be changed. SHPO is part of OPRHP. **18**

Effects on the Use and Conservation of Energy Resources, Including LEED Certification Objectives

19

19. While the DEIS indicates that the proposed action is not anticipated to result in significant adverse impacts to utilities, it is recommended that a more thorough assessment be conducted regarding water, wastewater, electricity and fossil fuels, be conducted, particularly an energy assessment, its impact on the local utility infrastructure, as well as a greenhouse gas emissions analysis. Mitigation measures should include a full evaluation of the potential use of renewable energy sources such as solar, as well as electric vehicle charging infrastructure.

20. As part of the evaluation of energy impacts, we encourage the completion of a greenhouse gas (GHG) emissions inventory of the proposed action. This analysis should include both building and transportation related GHG emissions as well as the loss of mature trees and the associated carbon storage, as referenced in Comment 9. Additionally, the analysis should include a thorough review of energy measures to reduce GHG emissions such as the use of passive building principles, clean heating and cooling alternatives like air or ground source heat pumps, the use of renewable energy such as solar panels, and the installation of EV charging stations. **20**

21

21. It is stated that the proposed action will not be designed to meet LEED Certification standards as it does not meet the goals of the applicant. This department urges the Town to ensure that applicants consider complete electrification of proposed housing and utilize energy conservation building features such as energy efficient air

21 conditioning equipment and lighting fixtures. Renewable energy options, such as the use of solar panels, should also be considered not only for electricity, but also for heating and cooling to help meet the State's Climate Act goals of reducing greenhouse gas emissions.

Thank you for giving us the opportunity to review the Draft Environmental Impact Statement for the Letchworth Road Residential Development project.

Very truly yours,



Douglas J. Schuetz
Acting Commissioner of Planning

C: Rockland County Department of Health
Rockland County Department of Highways
Rockland County Department of Public Transportation
Rockland County Drainage Agency
Rockland County Office of Fire and Emergency Services
Thiells Roseville Fire District
Orange & Rockland

FEIS APPENDIX A – CORRESPONDENCE

APPENDIX A-3

SILVERBERG ZALANTIS LLC

SILVERBERG ZALANTIS LLC

Memorandum

TO: Town of Haverstraw Planning Board
Town of Haverstraw Town Board
Haverstraw Group LLC/BNE Acquisitions LLC, Applicant
JMC, Engineers for the Applicant
Ira Emanuel, Attorney for the Applicant

CC: Bill Stein, Town Attorney
George Behn, Building Inspector
Mike Kauker, Town Consulting Planner
Glenn McCreedy, Town Consulting Engineer
Starke Hipp, Town Consulting Traffic Engineer
Annette Hendrie, Planning Board and Zoning Board Clerk

FROM: Christie Addona, Town Land Use and Zoning Attorney

DATE: April 30, 2025

RE: Comments on Draft Environmental Impact Statement for Letchworth Road Residential Development

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As the Town's land use and zoning attorneys, we submit these comments on the Draft Environmental Impact Statement ("DEIS") submitted for the Letchworth Road Residential Development by JMC on behalf of Haverstraw Group LLC and BNE Acquisitions LLC dated January 24, 2025 and revised February 28, 2025 to be substantively addressed to the satisfaction of the Planning Board (as lead agency) in the Final Environmental Impact Statement.

1. The property at issue is identified as being +/- 22.93 acre ("Property"). There should be a precise number or a reason for the estimation and the amount of the potential deviation. The Applicant's original proposal contemplated six longer buildings. However, at the request of the Town, the Applicant redesigned the Proposed Action to seven buildings to allow for shorter buildings to accommodate the same number of potential units (300). Please clarify if the proposed acreage takes this change into account, and if not, the exact acreage for the current Proposed Action (with seven buildings) should be identified with an updated metes and bounds description.
2. Further, the Proposed Action includes improvements on property currently contemplated to remain owned by the Town – including removing an existing dilapidated structure,

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2

installation of a stormwater management basin, and construction of the round-about to provide access to the Property and the remainder of Letchworth Village. The Applicant must come to an agreement(s) with the Town as to the Applicant's long-term use and maintenance of this area.

3. There is reference to SESI Consulting Engineers conducting a subsurface study and investigation and the stormwater management both being based upon the 22.93 acres area. Does that include the additional land needed to incorporate the seventh building and the land that will remain owned by the Town but where the Applicant is proposing to do work and make long-term improvements? If not, the study/analysis should be expanded to include those areas. The same applies for any other environmental impacts analysis that was limited to the 22.93 acre area – if that area does not include the expanded property for the seventh building and the Town property where the Applicant proposes to make improvements.

4. Crosslife Church, which is on the other side of Ridge Road from the Proposed Action, has a recorded easement with the Town for access to its property as Ridge Road is Town property. The Applicant must coordinate with the Town and Crosslife Church to ensure the easement is adhered to or a new easement is recorded. A copy of the existing easement is attached hereto.

5. The installation of any utilities should be designed to potentially accommodate future development of the other areas of Letchworth Village.

6. Will serve letters from Joint Regional Sewerage Board, Veolia New York Water and Orange and Rockland Utilities must be provided.

7. Fiscal and Economic Conditions should indicate whether the other taxing jurisdictions, namely the School District, have consented to the Applicant's proposed PILOT program. The Applicant should also provide an estimated breakdown of how much of the PILOT each taxing jurisdiction will receive per year during the 15-year PILOT period.

8. What is the basis for the statement that "The Applicant **and Town** have agreed that the purchase price and entering into the PILOT program sufficiently mitigates any adverse fiscal and economic impacts generated by the Proposed Action." (P. I-10).

9. Provide all communications to and responses from SHPO. There must be a definitive communication from SHPO as part of the SEQRA process regarding their perspective on the Proposed Action.

10. Where are the historically eligible structures and four areas with historic and archeological sensitivity in relation to the project site?

11. "The Town professional staff and the various Boards that serve the Town have communicated that they envision a multi-family dwelling communicate as a great asset for the Town and in this specific area of Haverstraw." (P. III.I-1). There does not seem to be a basis for this broad and definitive statement as the environmental and land use review is still ongoing.

12. What is the analysis for how an additional 739 residents in 300 dwelling units would result in 33 school-aged children? (P.III.I-8-9).

13. The analysis of impacts on community services (p. III.J-3-5) and proposed mitigation (p.III.J-6-7) must be expanded. There is no analysis of how the estimated per capita costs will be mitigated by the PILOT. And the generalized statement that "[a] more accurate comparator would be the marginal cost of providing services for each new resident, but

that computation is too complex for this purpose" is insufficient to demonstrate mitigation of impacts.

14. Is the Applicant intending to hire local contractors and construction workers when possible?

Donna G. Silberman, County Clerk
1 South Main St., Ste. 100
New City, NY 10956
(845) 638-5070

Rockland County Clerk Recording Cover Sheet

Received From :
THOROUGHBRED TITLE SERVICES LLC
800 WESTCHESTER AVE., STE S434
RYE BROOK, NY 10573

Return To :
THOROUGHBRED TITLE SERVICES LLC
800 WESTCHESTER AVE., STE S434
RYE BROOK, NY 10573

Method Returned : ERECORDING

First GRANTOR
HAVERSTRAW TOWN OF

First GRANTEE
CROSSLIFE CHURCH INC

Index Type : Land Records

Instr Number : 2025-00002152

Book : **Page :**

Type of Instrument : Easement
Type of Transaction : Ease, R-Way, Asmt Rent-Lease

Recording Fee:	$136.00
Recording Pages :	18

The Property affected by this instrument is situated in Haverstraw, in the County of Rockland, New York

Real Estate Transfer Tax	
RETT # :	3362
Deed Amount :	$0.00
RETT Amount :	$0.00
Total Fees :	$136.00

State of New York

County of Rockland

I hereby certify that the within and foregoing was recorded in the Clerk's office for Rockland County, New York

On (Recorded Date) : 01/21/2025

At (Recorded Time) : 7:35:22 AM

Donna G. Silberman
County Clerk

This sheet constitutes the Clerks endorsement required by Section 319 of Real Property Law of the State of New York

Entered By: NYROCKLANDUSER19 Printed On : 01/21/2025 At : 7:35:23AM

2KA52668

NONEXCLUSIVE EASEMENT AGREEMENT

THIS NONEXCLUSIVE EASEMENT AGREEMENT (the "Easement Agreement"), made on 10 day of April, 2024, by and between the Town of Haverstraw, a municipal corporation with offices at One Rosman Road, Garnerville, NY 10923 (the "Town") and CrossLife Church, Inc., a religious corporation with an address at 2 Ridge Road, Thiells, NY 10984 ("CrossLife").

WITNESSETH:

WHEREAS, by deed dated June 6, 2001 and recorded with the Rockland County Clerk on July 18, 2021 under instrument number 2001-00033784, the Town is the owner of real property located in the Town of Haverstraw, County of Rockland as shown on the Town of Haverstraw Tax Map as 19.16-1-14 and as described in the metes and bounds description as set forth in Schedule "A" (the "Town Property"); and

WHEREAS, by deed dated July 19, 2001 and recorded with the Rockland County Clerk on July 20, 2001 under instrument number 2001-00034251, Victory Assembly Full Gospel Church, Inc. acquired real property located in the Town of Haverstraw, County of Rockland known as 2 Ridge Road and shown on the Town of Haverstraw Tax Map as 19.16-1-15 and as described in the metes and bounds description as set forth in Schedule "B" and the survey prepared by Michael J. Davis, P.L.S. dated June 2001 attached hereto as Schedule "C" (the "CrossLife Property"); and

WHEREAS, on March 26, 2013 Victory Assembly Full Gospel Church, Inc. filed a Certificate Of Incorporation Of A Church Of A Denomination Not Specifically Provided For – Amended Religious Corporation, to change the name of the entity to CrossLife Church, Inc., which was recorded with the Rockland County Clerk on April 3, 2013 under instrument number 2013-00000639; and

WHEREAS, as shown on Schedule C, the Town Property includes an "asphalt roadway" immediately east of the CrossLife Property known as Ridge Road, which is not a public road but which CrossLife and its invitees have historically used to access the parking area on the CrossLife Property; and

WHEREAS, by resolution dated December 13, 2023, the Town of Haverstraw Planning Board granted site plan approval for the CrossLife Property to construct an addition to the existing church structure and to make other site improvements, including to the parking area by striping the parking spaces and a buffer between the parking area and Ridge Road; and

WHEREAS, the Parties desire to formalize CrossLife's use of a portion of Ridge Road for access to the CrossLife Property and the terms and conditions under which that use will occur; and

NOW, THEREFORE, in consideration of One Dollar ($1.00) and other good and valuable consideration, the adequacy of which is hereby acknowledged, the Town and CrossLife agree as follows:

1. **Easement Grant**. The Town hereby grants CrossLife a 50-foot wide nonexclusive easement over a portion of Ridge Road as described in the metes and bounds description attached as Schedule "D" and as shown in dash marks on the plan prepared by Anthony R. Celentano, P.E. dated October 23, 2018 and last revised May 20, 2023 attached as Schedule "E" (the "Easement Area").

2. **CrossLife's Authorized Use of Easement Area**.
   (a) CrossLife, its officers, directors, employees, congregants, invitees, visitors, contractors, volunteers and agents (collectively, "CrossLife Grantees") are hereby authorized to utilize the Easement Area for vehicular ingress and egress to the parking area on the CrossLife Property. There shall be no stopping, standing or parking of vehicles, or any other obstruction of the Easement Area by the CrossLife Grantees.
   (b) To the extent there are any existing utilities under the Easement Area serving the CrossLife Property, the utilities are permitted to remain in their current location. CrossLife shall not do any work in the Easement Area to access any existing utilities for maintenance, repair or replacement without obtaining the Town's advanced written consent, which consent shall not be unreasonably withheld provided CrossLife complies with the following:
      i. All work shall be done at CrossLife's sole cost and expense;
      ii. CrossLife shall provide proof of insurance in a form and limits acceptable to the Town and name the Town as an additional insured on the policies;
      iii. CrossLife shall develop a plan to ensure that there will be minimal disruption to use of the Easement Area for access to the CrossLife Property and any other applicable properties;
      iv. CrossLife shall obtain any and all required permits and approvals for the work; and
      v. CrossLife shall return the Easement Area to the same condition it was in prior to the work.

3. **Town's Use of Easement Area**. Nothing contained herein shall preclude the Town, its officers, employees, contractors or agents, or other members of the public, from utilizing the Easement Area for any reason the Town sees fit. Nothing contained herein shall preclude the Town from entering into agreements, for easements or otherwise, related to the Easement Area with third-parties so long as it does not substantially interfere with or impede CrossLife's rights under this Easement Agreement.

4. **Defense and Indemnification**. CrossLife shall defend, indemnify and hold harmless the Town, its officers, employees, contractors and/or agents (collectively, the "Town Indemnitees") from and against any and all liability, damages, claims, demands, costs, judgments, fees, reasonable attorneys' fees or loss arising from CrossLife Grantees' use of the Easement Area and of the acts or omissions by the CrossLife Grantees or third parties acting under their direction or control related to the Easement Area. It is expressly agreed and understood that CrossLife shall have no obligation to defend or indemnify the Town Indemnitees for any acts or omissions caused by or resulting from any Town Indemnitees' negligence. It is further expressly understood and agreed that this defense

and indemnification provision does not apply to any claim to enforce this Easement Agreement.

5. **Perpetual Agreement**. The provisions of this Easement Agreement shall be perpetual and shall be construed to be covenants running with the land and every part thereof and interest therein, and all provisions hereof shall be binding upon and inure to the benefit of the Parties hereto, the owners of all or any part of the Town Property and the CrossLife Property, or any interest therein, and his, her, its or their heirs, trustees, executors, administrators, grantees, successors and assigns.

6. **Insurance; Waiver of Claims.** CrossLife shall each purchase and maintain at their sole cost and expense one or more policies of insurance covering the Easement Area against loss or losses from liabilities imposed by law or assumed in any written contract or arising from personal injury or death or damage to property, with limits of not less than $1 million per accident or occurrence on account of personal injury, including death resulting therefrom, and $1 million per accident or occurrence on account of damage to the property of others. All such policies of insurance shall name the Town, its successors and assigns as additional insureds, and proof of such shall be provided promptly upon request by the Town.

7. **Remedies in the Event of Default.** In the event any Party shall default in the performance of its obligations hereunder then the non-defaulting party may seek such remedies as may be available at law or in equity, including an action for damages, injunctive relief or specific performance. The prevailing Party shall be entitled to recover its costs incurred, including reasonable attorneys' fees. Notwithstanding the foregoing, in no event shall either Party be entitled to recover punitive damages.

8. **Recording**. The Town shall cause this Easement Agreement to be recorded with the Rockland County Clerk's Office and indexed against the Town Property and the CrossLife Property, with all associated costs to be paid by the Town. The Parties shall execute and deliver all documents reasonably required in order to effect such recording. This Easement Agreement shall be effective for all purposes regardless of when or if the Easement Agreement is recorded.

9. **Governing Law**. This Easement Agreement is being executed and delivered, and is intended to be performed, in the State of New York, and the laws of such state shall govern the rights and duties of the parties hereto and the validity, construction, enforcement and interpretation of this Easement Agreement. The parties consent to the jurisdiction of the Supreme Court, Rockland County.

10. **Severability**. If any provision of this Easement Agreement, or any section, sentence, clause, phrase or word, or the application thereof, shall in any circumstance be judicially held in conflict with the laws of the State of New York, then said laws shall be deemed controlling, and the validity, force and effect of the remainder of this easement agreement and the application of any such provisions, section, clause, phrase or word in other circumstances shall not be affected thereby.

11. **Counterparts**. This Easement Agreement may be executed and delivered in multiple original counterparts, all of which taken together will be an original for all purposes, including admissibility in evidence.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

TOWN OF HAVERSTRAW

By: Howard T. Phillips, Jr.
Title: Supervisor

CROSSLIFE CHURCH, INC.

By: Jose Castro
Title: Deacon

STATE OF NEW YORK)
ss:
COUNTY OF ROCKLAND)

On the 19 day of April in the year 2024, before me, the undersigned, personally appeared Howard T. Phillips, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Raquel Ventura
Notary Public

RAQUEL VENTURA
Notary Public, State of New York
No. 01VE6340753
Qualified in Rockland County
Commission Expires April 25, 20 28

STATE OF NEW YORK)
ss:
COUNTY OF ROCKLAND)

On the 23 day of April in the year 2024, before me, the undersigned, personally appeared Jose A. CASTRO, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Raquel Ventura
Notary Public

RAQUEL VENTURA
Notary Public, State of New York
No. 01VE6340753
Qualified in Rockland County
Commission Expires April 25, 20 24

97
COMMEXP 4/25/2024

SCHEDULE "A"

SCHEDULE A

All that parcel of land situate in the Town of Haverstraw, County of Rockland, State of New York, as shown on a map entitled "Map Showing Subdivision Lands N\F People of the State of New York Known as Letchworth Village" as prepared by ABD Engineers and Surveyors, Schenectady, New York, dated June 1999, revised 2/16/00, being more particularly described as follows:

Beginning at a point located on the easterly bounds of Hammond Road at its intersection with the division line between lands now or formerly of John R. & Neil Lombardi (L. 386, P. 1632) on the north and lands now or formerly of the People of the State of New York known as Letchworth Village on the south; thence along the westerly bounds of Hammond Road the following seven (7) courses and distances:

1) *South 15°-43'-11" West, a distance of 211.19 feet to a point;*
2) *South 14°-35'-13" West, a distance of 20.11 feet to a point;*
3) *North 75°-24'-47" West, a distance of 20.00 feet to a point;*
4) *South 14°-35'-13" West, a distance of 30.00 feet to a point;*
5) *South 75°-24'-47" East, a distance of 20.00 feet to a point;*
6) *South 14°-35'-13" West, a distance of 25.24 feet to a point;*
7) *South 14°-30'-08" West, a distance of 17.28 feet to a point;*

thence through said lands of the People of the State of New York the following eleven (11) courses and distances:

1) *North 85°-42'-16" West, passing through a capped iron rod set, a distance of 289.62 feet to a point marked by a capped iron rod set;*
2) *South 09°-05'-21" West, a distance of 185.07 feet to a point marked by a capped iron rod set;*
3) *South 09°-28'-19" West, a distance of 302.22 feet to a point marked by a capped iron rod set;*
4) *South 31°-30'-26" West, a distance of 854.95 feet to a point marked by a capped iron rod set;*
5) *South 55°-54'-14" West, a distance of 175.29 feet to a point marked by a capped iron rod set;*
6) *South 11°-47'-37" West, a distance of 232.42 feet to a point marked by a capped iron rod set;*
7) *South 81°-57'-59" West, a distance of 320.47 feet to a point marked by a capped iron rod set;*
8) *South 17°-11'-29" West, a distance of 210.19 feet to a point marked by a capped iron rod set;*
9) *South 39°-24'-37" West, a distance of 161.12 feet to a point marked by a capped iron rod set;*
10) *South 42°-14'-13" West, a distance of 182.67 feet to a point marked by a capped iron rod set;*

11) *South 03°-08'-14" West, a distance of 471.31 feet to a point located in the northerly division line of lands now or formerly of the Town of Haverstraw (L. 1013, P. 867);*

thence along said lands the following three (3) courses and distances:

1) *North 80°-33'-47" West, a distance of 670.66 feet to a point located in the easterly bounds of Ridge Road;*
2) *South 06°-00'-18" West, a distance of 1,551.03 feet along said road to a point;*
3) *North 45°-04'-31" West, a distance of 594.54 feet to a point located in the southerly bounds of Underpass Road;*

thence through said lands now or formerly of the People of the State of New York, following the centerline of a stream, the following thirteen (13) courses and distances:

1) *North 09°-03'-24" East, a distance of 146.66 feet to a point;*
2) *North 12°-39'-09" East, a distance of 117.30 feet to a point;*
3) *North 17°-41'-28" East, a distance of 94.80 feet to a point;*
4) *North 24°-06'-15" West, a distance of 93.24 feet to a point;*
5) *North 14°-52'-20" East, a distance of 201.66 feet to a point;*
6) *North 25°-22'-28" West, a distance of 180.47 feet to a point;*
7) *North 09°-24'-41" East, a distance of 108.43 feet to a point;*
8) *North 12°-49'-33" East, a distance of 109.20 feet to a point;*
9) *North 09°-21'-15" East, a distance of 103.83 feet to a point;*
10) *North 03°-02'-03" East, a distance of 49.46 feet to a point;*
11) *North 02°-37'-13" West, a distance of 82.31 feet to a point;*
12) *North 12°-41'-17" West, a distance of 68.99 feet to a point;*
13) *North 29°-02'-19" West, a distance of 39.14 feet to a point;*

thence continuing through said lands the following two (2) courses and distances:

1) *South 90°-00'-00" East, a distance of 249.30 feet to a point;*
2) *North 00°-00'-00" East, a distance of 1,106.18 feet to a point located in the southerly bounds of Letchworth Village Road;*

thence along said road boundary the following six (6) courses and distances:

1) *North 33°-20'-00" West, a distance of 451.17 feet to a point;*
2) *North 12°-05'-22" West, a distance of 496.69 feet to a point;*
3) *North 05°-52'-22" West, a distance of 234.76 feet to a point;*
4) *North 00°-43'-22" West, a distance of 124.21 feet to a point;*
5) *North 63°-48'-22" West, a distance of 36.89 feet to a point;*
6) *North 04°-14'-22" West, a distance of 1,057.46 feet to a point located in the southerly bounds of Willow Grove Road;*

thence along said road boundary the following three (3) courses and distances:

1) *South 72°-33'-49" East, a distance of 223.39 feet to a point;*
2) *South 67°-05'-49" East, a distance of 168.97 feet to a point;*
3) *South 66°-07'-49" East, a distance of 186.68 feet to a point;*

thence through said lands now or formerly of the People of the State of New York the following seven (7) courses and distances:

1) *South 30°-17'-50" West, a distance of 72.20 feet to a point;*
2) *South 23°-28'-32" East, a distance of 390.52 feet to a point;*
3) *South 45°-43'-24" East, a distance of 332.62 feet to a point;*
4) *South 78°-29'-57" East, a distance of 118.23 feet to a point;*
5) *North 30°-14'-50" East, a distance of 48.27 feet to a point;*
6) *North 03°-24'-42" West, a distance of 380.49 feet to a point;*
7) *North 51°-01'-45" West, a distance of 49.00 feet to a point located in the southerly bounds of Willow Grove Road;*

thence along said road along a curve to the left having a radius of 269.92 feet, an arc distance of 202.89 feet to a point, said curve containing a chord of South 84°-22'-49" East, 198.15 feet; thence South 78°-53'-35" East, through said lands now or formerly of the People of the State of New York, a distance of 717.51 feet to a point being the southwest corner of lands now or formerly of Robert A. & Nancy P. Lankau (L. 913, P. 516) marked by a stone wall intersection; thence South 74°-37'-56" East, along said lands and partially following a stone wall, a distance of 1,335.18 feet to the Point of Beginning.

EXCEPTING AND RESERVING *to the parties of the first part, their successors and assigns, the following parcel:*

Beginning at a point located in the northerly bounds of Letchworth Village Road, a distance of approximately 1,985 feet westerly from its intersection with the centerline of Hammond Road; thence along said Letchworth Village Road the following three (3) courses and distances:

1) *North 49°-06'-58" West, a distance of 103.59 feet to a point;*
2) *North 37°-22'-58" West, a distance of 203.69 feet to a point;*
3) *North 33°-58'-44" West, a distance of 199.44 feet to a point;*

thence through lands now or formerly of the People of the State of New York known as Letchworth Village the following three (3) courses and distances:

1) *South 84°-09'-39" East, a distance of 296.05 feet to a point;*
2) *South 29°-21'-11" East, a distance of 95.11 feet to a point;*
3) *South 05°-36'-21" West, a distance of 283.38 feet to the Point of Beginning, containing 67,222 square feet or 1.54 acres*

Total parcel containing 6,844,219 SF or 157.13 acres.

ALSO EXCEPTING AND RESERVING to the parties of the first part, their successors and assigns forever, for purposes of use, operation, maintenance, repair and replacement, access to those existing utilities which service the remaining property of the party of the first part and run through, upon, over and under the property described above. Such utilities include but are not limited to water, sewer, communications, gas and electricity. The reserved access shall include the right to relocate any of said utilities, providing that the relocation is without harm to either party.

ALSO EXCEPTING AND RESERVING to the parties of the first part, their successors and assigns forever, a right of way for ingress to and egress from said remaining property, as shown on the attached map, providing that the ingress and egress is without harm to either property.

VJM/0730 LT

VINCENT J. MONTE AGENCY, INC.
Title Insurance
67 NORTH MAIN STREET
NEW CITY, NEW YORK 10956
914-634-0606

SCHEDULE "B"

SCHEDULE A

All that parcel of land situate in the Town of Haverstraw, County of Rockland, State of New York, as shown on a map entitled "Map of Survey Lands of Hope Chapel Church" as prepared by ABD Engineers and Surveyors, Schenectady, New York, dated June 2001, (attached as Appendix A), being more particularly described as follows:

Beginning at a point located in the northerly bounds of Letchworth Village Road, a distance of approximately 1,985 feet westerly from its intersection with the centerline of Hammond Road; thence along said Letchworth Village Road the following three (3) courses and distances:

1) *North 49°-06'-58" West, a distance of 103.59 feet to a point;*
2) *North 37°-22'-58" West, a distance of 203.69 feet to a point;*
3) *North 33°-58'-44" West, a distance of 199.44 feet to a point;*

thence through lands now or formerly of the People of the State of New York known as Letchworth Village the following three (3) courses and distances:

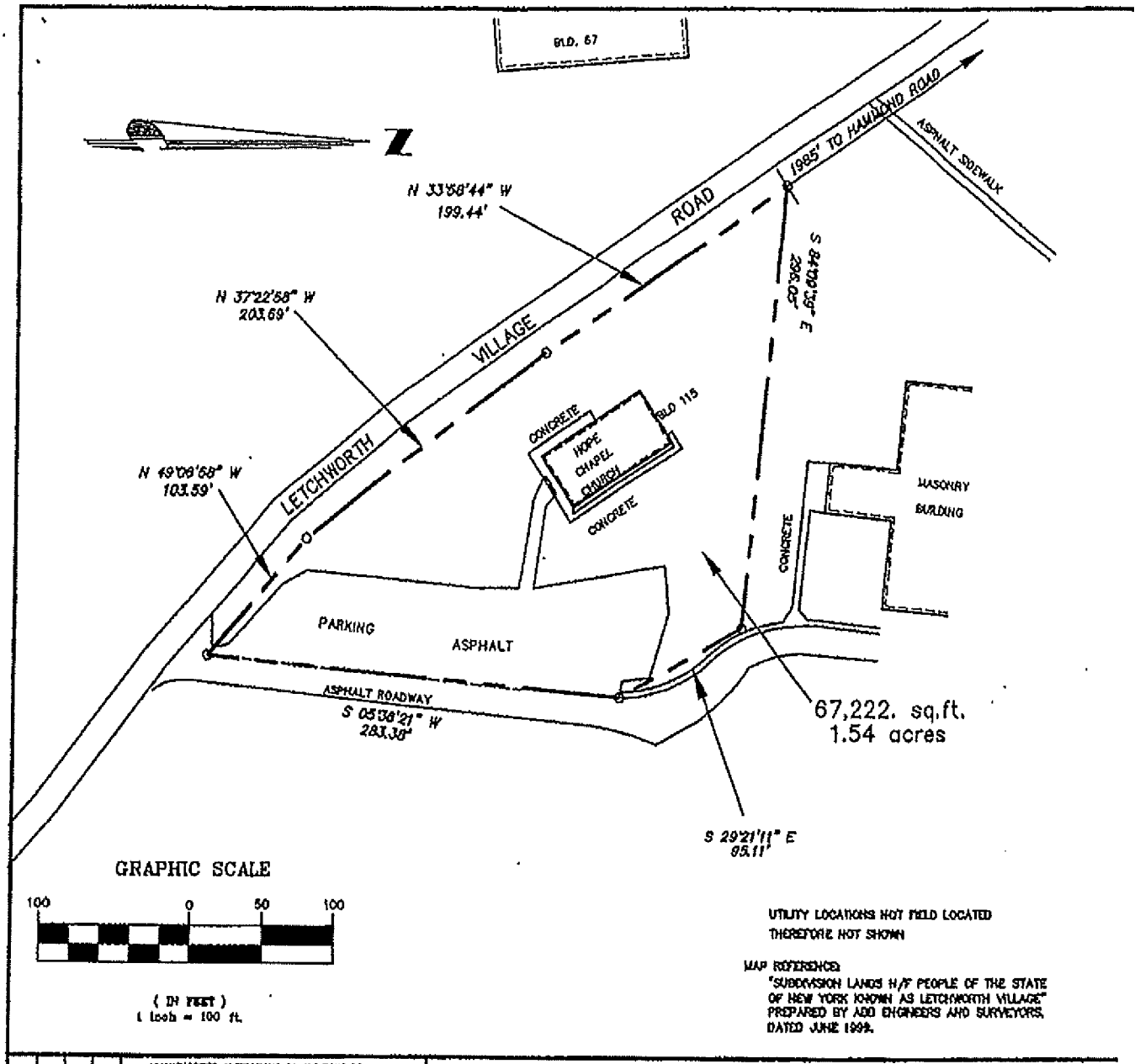
1) *South 84°-09'-39" East, a distance of 296.05 feet to a point;*
2) *South 29°-21'-11" East, a distance of 95.11 feet to a point;*
3) *South 05°-36'-21" West, a distance of 283.38 feet to the Point of Beginning, containing 67,222 square feet or 1.54 acres.*

EXCEPTING AND RESERVING *to the parties of the first part, their successors and assigns forever, for purposes of use, operation, maintenance, repair and replacement, access to those existing utilities which service the remaining property of the party of the first part and run through, upon, over and under the property described above. Such utilities include but are not limited to water, sewer, communications, gas and electricity. The reserved access shall include the right to relocate any of said utilities, providing that the relocation is without harm to either party.*

Subject to any easements, restrictions and/or covenants of record, if any.

SCHEDULE "C"

APPENDIX A



GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.

UTILITY LOCATIONS NOT FIELD LOCATED
THEREFORE NOT SHOWN

MAP REFERENCE:
"SUBDIVISION LANDS H/F PEOPLE OF THE STATE OF NEW YORK KNOWN AS LETCHWORTH VILLAGE" PREPARED BY ABD ENGINEERS AND SURVEYORS, DATED JUNE 1998.

NO.	REVISION	BY	DATE

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE VALID COPIES.
CERTIFICATIONS INDICATED OR APPLIED HEREON SHALL ONLY RUN TO THE PARTY FOR WHOM THE SURVEY WAS PREPARED, & ON HIS BEHALF TO THE ADDITIONAL PARTIES LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERRABLE TO ADDITIONAL PARTIES OR SUBSEQUENT OWNERS NOT LISTED HEREON.

MICHAEL J. DAVIS, P.L.S.
N.Y.S. LICENSE NO. 49297

MAP OF SURVEY
LANDS OF
HOPE CHAPEL CHURCH

TOWN OF HAVERSTRAW | COUNTY OF ROCKLAND
STATE OF NEW YORK

ABD ENGINEERS & SURVEYORS
411 Union Street Schenectady, N.Y. 12305
518-377-0315 Fax.518-377-0379

DATE:	SCALE:	DWG.	SHEET OF
JUNE 2001	1" = 100'	846-115	1 1

SCHEDULE "D"

50' WIDE ACCESS & UTILITY EASEMENT
FROM TOWN OF HAVERSTRAW
IN FAVOR OF CROSS LIFE CHURCH

ALL That certain plot, piece or parcel of land, with the building and improvements Thereon erected, situate, lying, and being in the Town of Haverstraw, County of Rockland and State of New York more particularly bounded and described as follows:

BEGINNING at a point on the Northerly line Letchworth Village Road said point being the Southeasterly corner of tax lot 19.16-1-15 and Southwesterly corner of the easement herein described;

RUNNING THENCE along the Easterly line of tax lot 19.16-1-15

N 05°33'30"E, a distance of 283.38'

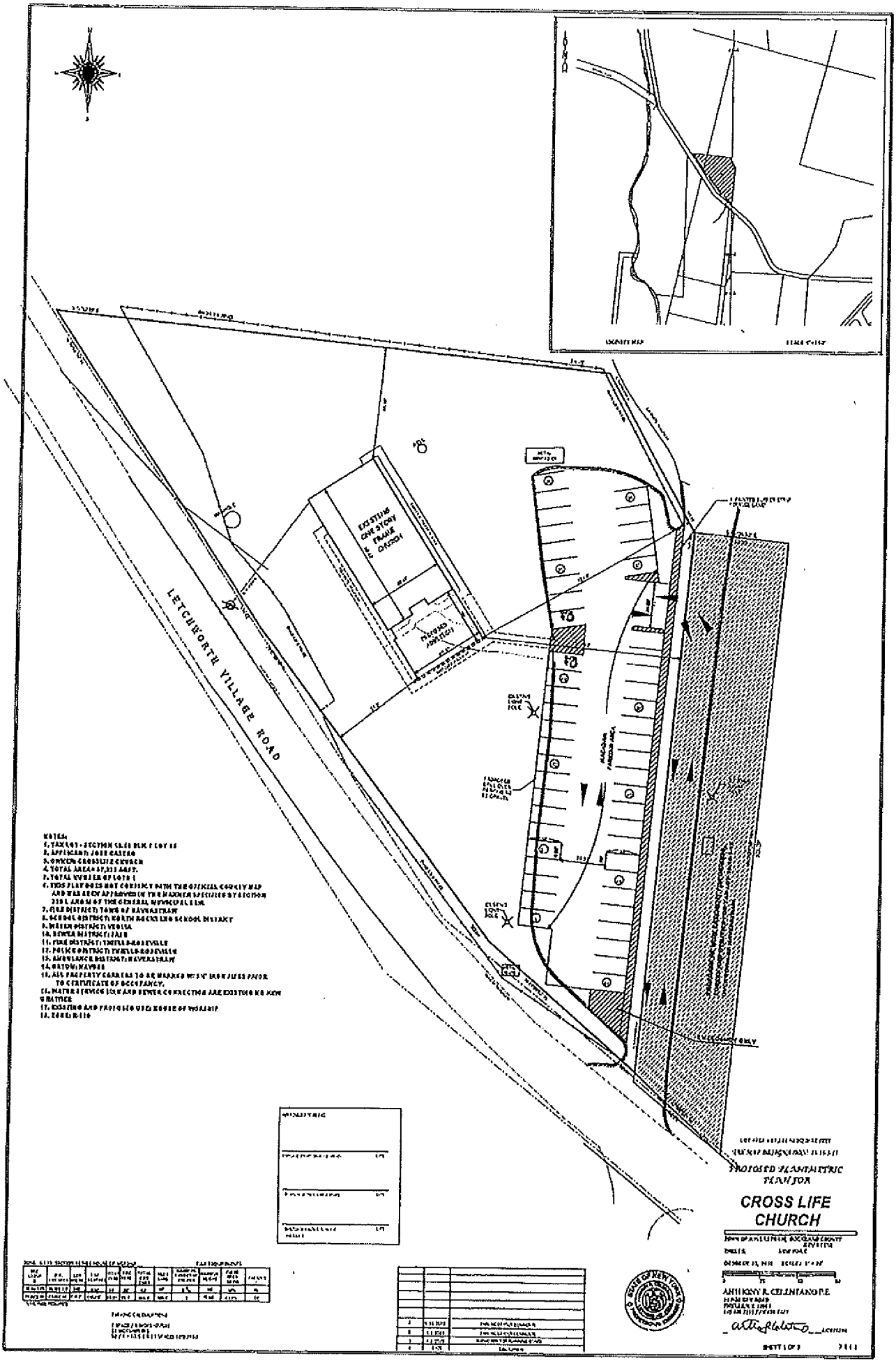
THENCE through tax lot 19.16-1-14 the following courses and distance:

1. N 84°26'30"E, a distance of 50.00'
2. S 05°33'30"W, a distance of 321.23'

To the Northerly line of Letchworth Village Road;

THENCE along the Northerly line of Letchworth Village Road
S 47°18'58"W, a distance of 62.71' To the point of beginning containing
15,115.03 SQFT.

SCHEDULE "E"


LETCHWORTH VILLAGE ROAD
EXISTING ONE STORY FRAME & CHURCH
PROPOSED PLANIMETRIC PLAN FOR
CROSS LIFE CHURCH

FEIS APPENDIX A – CORRESPONDENCE

APPENDIX A-4

NYS OFFICE OF GENERAL SERVICES

NEW YORK STATE | Office of General Services
State Asset and Land Management

March 28, 2025

Town of Haverstraw Planning Board
One Rosman Road
Garnerville, NY 10923
Attn: Anette Hendrie, Chief Clerk
atorres@townofhaverstraw.org

Dear Ms. Hendrie:

Re: DEIS Public Comments

This letter is in response to your communication regarding the State Environmental Quality Review (SEQR) requirements under Article 8 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 617 for the projects listed above.

Name of Action	BNE / Letchworth Road Residential Development
Action Type	Type I Action
OGS Contact Person	Mark McGlynn, Environmental Analyst 2

Comments:

1 Per our review of the DEIS, NYSOGS does not have approvals and as such is an interested agency. Should the project however require any temporary construction impact or permanent structures placed on state-owned parcels, it would require approvals from the NYSOGS State Asset Land Management Office.

NYSOGS has concerns regarding the impact of outflow from the two eastern-most stormwater basins onto the state parcel. The presence of stormwater facility emergency spillways and downslope spillway protection are not clarified however any discharge from an emergency spillway onto our parcel may impact safety and future uses of that parcel. The slopes of the state land receiving discharge from these facilities are steep and it is not clear whether ground stability will be impacted beyond the project limits. Relatedly, the landscape plan proposes new trees over the dam embankments which could impact the structure's stability. 2

To ensure the state parcel and its current or future uses are not at risk, we request the stormwater facility design not direct concentrated erosive flows onto our parcel from the emergency spillway, that the stormwater facilities be sized to safety class standards with

consideration that current and future occupiable structures will be present on our parcel, and that trees not be planted on the embankments adjacent to our property line.

Please continue to keep OGS apprised of the progress in both the project and the environmental reviews. Do not hesitate to contact me at (518) 474-6238 if you have questions regarding the above information. Thank you.

Sincerely,

Mark McGlynn

Mark McGlynn
State Asset and Land Management

FEIS APPENDIX A – CORRESPONDENCE

APPENDIX A-5

TOWN OF HAVERSTRAW PLANNING BOARD MEETING

----------X

CONDENSED

In Re:

TOWN OF HAVERSTRAW PLANNING BOARD MEETING

----------X

April 9, 2025

7:30 p.m.

PLANNING BOARD MEETING held at One Rosman Road, Garnerville, New York, before a Notary Public of the State of New York.

SANDY SAUNDERS REPORTING
254 South Main Street, Suite 216
New City, New York 10956
(845) 634-7561

A P P E A R A N C E S:

SAL CORALLO, CHAIRMAN

GLENN WIDMER

ROBERT SAMBRATO

ANTHONY GIZZI

WILLIAM RICCALDO

JAMES MONTE

ANNETTE HENDRIE, CHIEF CLERK

CHRISTIE TOMM ADDONA, ZONING BOARD ATTORNEY

GLENN McCREEDY, CONSULTING ENGINEER

MICHAEL KAUKER, PLANNING CONSULTANT

GEORGE BEHN, BUILDING INSPECTOR

Proceedings

CHAIRMAN CORALLO: Good evening, everyone. Welcome to the Town of Haverstraw Planning Board, April 9, 2025, 7:30 p.m.

Would everyone please stand for the pledge?

(Whereupon, everyone rose for the Pledge of Allegiance.)

CHAIRMAN CORALLO: Ms. Hendrie, would you please read the roll call?

MS. HENDRIE: Sal Corallo.

CHAIRMAN CORALLO: Present.

MS. HENDRIE: Glenn Widmer.

MR. WIDMER: Here.

MS. HENDRIE: Robert Sambrato.

MR. SAMBRATO: Here.

MS. HENDRIE: Anthony Gizzi.

MR. GIZZI: Here.

MS. HENDRIE: William Riccaldo.

MR. RICCALDO: Here.

MS. HENDRIE: James Monte.

MR. MONTE: Present.

CHAIRMAN CORALLO: Thank you. Quorum is present.

Will someone move the adoption of

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minutes of March 13, 2025?

MR. WIDMER: Mr. Chairman, I have two minor changes.

CHAIRMAN CORALLO: What page?

MR. WIDMER: Page 9: Hyde Park should be High Tor Park. And page 32: 1,000 foot -- square foot footprint should be 4,000-square-foot footprint.

CHAIRMAN CORALLO: Okay. Would someone approve adoption of the minutes with those changes?

MR. WIDMER: I'll move that motion.

CHAIRMAN CORALLO: Moved by Mr. Widmer.

MR. SAMBRATO: I'll second.

CHAIRMAN CORALLO: Second by Mr. Sambrato.

All those in favor signify by saying "Aye."

(Whereupon, all the Board members responded "Aye.")

CHAIRMAN CORALLO: Opposed? So carried.

First item on the agenda is BNE

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Letchworth - 100 Secor Road - (Thiells). Section: 19.16, Block: 01, Lot(s): 14. Site Plan Approval: Proposed multiple-family dwellings. That should be seven buildings --

MS. TOMM ADDONA: Yep.

CHAIRMAN CORALLO: Seven, not six. Seven buildings and a clubhouse. Approximately 300 units.

It's a public hearing today for the DEIS. Will applicant's representative please come up?

Give the young lady your name.

MR. LOFTUS: Good evening, Mr. Chairman, Planning Board members.

Patrick Loftus, 4 Laurel Road, New City, New York. Appearing for the attorney of record, Ira Emanuel, who is representing the applicant, BNE Acquisitions LLC.

CHAIRMAN CORALLO: Thank you.

MS. TOMM ADDONA: Mr. Chairman, if you'd like, I can give a brief overview of where we are procedurally.

MR. LOFTUS: Please.

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MS. TOMM ADDONA: So we are still in the SEQRA process, which is the State Environmental Quality Review Act.

The Planning Board issued a positive declaration, which means that there were -- there was at least one environmental issue that was identified as having the potential for a significant adverse environmental impact. As a result of which, this Board held the scoping session in August and then adopted it in September of 2024 -- which basically set the outline for the issues that the applicant would have to address in the Draft Environmental Impact Statement.

The applicant has spent the last several months working on that, has submitted it to the Town and its consultants, which was reviewed for completeness -- meaning that the applicant has addressed substantively all of the issues that were set forth in the scoping document.

Not necessarily that the Planning

Proceedings

Board or the consultants agree with their -- or disagree with the analyses, but just that it was ready to come before this Board and the public to have a public hearing in order to assess -- in order to receive comments on that document, the Draft Environmental Impact Statement.

At which point -- the Board will hold the public hearing tonight. The written notice -- written comment period will be left open until the end of the month, April 30th, to end of the business and then it will be incumbent upon the applicant to prepare the Final Environmental Impact Statement -- the function of which will be to address all of the substantive comments that are received during this process.

CHAIRMAN CORALLO: Thank you.

MR. LOFTUS: Thank you.

So I know that the Board is familiar with this project. Although we haven't been here recently.

The -- it is a development of the

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old Letchworth Village Property. The proposal is 300 multi-family residential units.

As pointed out, we are on with our -- for the hearing on our draft EIS this evening. We have the entire team assembled, so without wasting any more time, I'm going to turn it over to the team at this point.

CHAIRMAN CORALLO: Thank you.

MR. LOFTUS: Thanks.

CHAIRMAN CORALLO: Same thing. She has your name?

MR. VILLAREALE: I'm giving it.

Good evening. For the record, again, Diego Villareale, V-I-L-L-A-R-E-A-L-E. I'm a licensed professional engineer with JMC, here on behalf of the applicant this evening.

As was indicated, we do have the entire project team here tonight.

Marc Pantirer is just going to come up, say a few words. Tom Witheral is also with Marc's office, with BNE. We have the project architect, Jack Raker. And then

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Paul Dumont is also from JMC.

Before I dive into the site plan, I just know Marc wanted to say two words.

MR. PANTIRER: Marc Pantirer with the applicant.

Just wanted to say thank you for having us and letting us appear before the Board. I'm a third-generation member of the applicant. We've been building apartments since the 60s and 70s. We act as our own general contractor. We build the projects, we manage them, we hold them long term.

Most of our assets are in North Jersey and here in Rockland County. The closest asset's really the club at Pearl River and its affiliated properties, the Club West and the reserve, if you're familiar with those.

And our goal here is to build a similar quality product that we've built elsewhere and to have a long-term relationship here in this town.

So thank you and I'm going to let the professionals run with it.

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CHAIRMAN CORALLO: Thank you.

MR. VILLAREALE: So I have a couple of boards. Is that okay the way it's set up or would you like them pivoted just a bit more so everybody can both see them? Is that all right?

CHAIRMAN CORALLO: Can everybody see?

MR. VILLAREALE: I don't know if you can see from up there. That's all. I wasn't sure.

CHAIRMAN CORALLO: You can't see?

MR. SAMBRATO: We can't see.

MR. VILLAREALE: Let's turn around.

CHAIRMAN CORALLO: Give it more -- I think that's good. All right.

MR. VILLAREALE: How's that? Good?

CHAIRMAN CORALLO: Yeah. I think that's good.

MS. TOMM ADDONA: And members of the public, you're welcome to move over to this side if that's easier, if you want, to be able to see as well.

MR. VILLAREALE: Would you like me

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here or should I be next to the board?

CHAIRMAN CORALLO: No, no. Be by the microphone so the young lady can hear you and everybody else can hear you well.

MR. VILLAREALE: Understood.

So just again, a couple of boards just to take you through the overall project.

I do think it's important just to step back. Understanding that this is a public hearing, we're here just to give a presentation for everybody that's here to see the project as well as the Board. It has been sometime since we've been before you.

The property that we're looking at right now, the bottom portion of the page, is about 23 acres. It's a portion of the overall Letchworth Village property. It's on the southeast corner of it closest to Letchworth Village Road.

As has been indicated, this has been time in the making, we've been working on this for some time. We've been working

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with the applicant, BNE Group, on the development of the site plan. This is not something that's just been submitted overnight.

There's been a lot of thought, there's been a lot of work that has gone into -- just the first stages, coming up with a concept plan that really worked with the product that BNE is trying to construct here. And also took a lot of input from the municipality, there was a lot of preliminary meetings, we had a work session with your Board, we met with staff. There was a lot of things that went into the final plan that was developed and ultimately submitted as part of the DEIS.

So I just think it's important to identify all the work that's gone into it to the point where now, as has been indicated, we're in the DEIS process.

So we're going to take all of your comments that you have this evening, we're going to respond to them in the DEI -- FEIS, any comments that are made by the public.

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We're happy to answer any questions that you might have tonight but, again, we're going to try to formalize it in the FEIS document itself.

So again, the bottom portion of the page is the existing conditions. It's an aerial photograph of the property. You can see there's a large open area on the bottom portion of the page, that's where the fields were located just north of Letchworth Village Road.

And then the balance of the property, there was an old house that was constructed there. It's been since demolished but you see remnants of it -- there's foundations, there's walls, there's an old garage, et cetera -- as well as the driveways that lead up to that portion of the property.

Then the topography starts to steepen a little bit, it starts to drop off in that hillside, and that's the wooded area that you see on the northern and eastern portions of the property itself.

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The property is currently zoned R-120. And as part of this process, there is a rezoning to the LA-17 district.

MS. TOMM ADDONA: There is a rezoning application.

MR. VILLAREALE: Rezoning application, yes.

MS. TOMM ADDONA: Just to be clear.

MR. VILLAREALE: That's pending. Of course.

As part of this project, it requires a rezoning to the LA-17 district.

In addition to that, there's a subdivision that needs to be created to subdivide off this portion of the property. And then obviously there's the site plan portion of it as well.

As has been indicated earlier, the project consists of 300 market-rate apartments that would be constructed in a total of seven residential buildings, and then there's the eighth building that is the clubhouse that's situated on the middle portion of the property.

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So you can see the seven residential buildings that are scattered throughout the property there. There's four buildings located south of the main entry drive and then three buildings located just north of the entry drive.

All them are facing each other. It's really, again, a very intentional design where the buildings themselves, the front entries, they all face the main roadway that cuts between them; and then the garages are all located on the back side of the property or the back sides of the buildings so that the garages don't have that front entryway look along the driveways themselves.

When you come into the property, you can see the roundabout that's just to the east of the church that's on the property that you see there. That's just to orient everyone a little bit. The church is on the left-hand side of Letchworth Village Road, cuts down along the bottom portion of the page. And then you can see a number of

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the existing buildings on the upper left hand corner of the property there.

As you come in, there's the roundabout. The roundabout is more of a planning guide. There's a roundabout that would be constructed there that could provide access to any future development on the property. But then on the right-hand side of the roundabout is the main entrance to this development and this residential community.

You have a main driveway that would come in, it's a boulevard entrance -- significant amount of landscaping -- that would lead up to the clubhouse.

The clubhouse is the smallest building on the right-hand side of the page.

And then again, you can see the three residential buildings to the north and the four residential buildings to the south.

Access and circulation: There are driveways located both within the front and the back sides of each of these buildings. Again, the front is more of just some

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on-street parking and is the front of the residential buildings themselves; the back is the driveways that lead to the garages.

Each building does have garage spaces within them on the lowest level. And it's important that you just understand the topography of this site. Because the slope starts to drop off, these buildings were able to be constructed into the hillside so that the garage sits at a lower elevation and the front of the building, which is at the clubhouse level, sits at a higher elevation.

So the garage is on the lowest level of each building and then the front door, the front location of it where the residential units are, all face that middle roadway inside the building there.

As far as access and circulation, again a lot of thought went into it. We actually worked with, again, town staff, we also had a meeting with your fire department to try to address any fire access issues that we wanted to incorporate into the plan.

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We received a number of comments from them which we incorporated into the plan, and we've had follow-up meetings where we received additional comments from them -- more about fire hydrant locations and things like that, that would all be coordinated with your fire department.

But it was important that we address the access and circulation, where they did not provide any substantive comments on the circulation. They just wanted to make sure it worked with their fire truck, which we confirmed that it does. It's all been designed in accordance with their latest equipment so a fire truck has access and circulation around the perimeter of each of these buildings, which was something that the fire department was looking for in this case.

The buildings themselves: There are two types of buildings. One's a little bit smaller than the other one. One's a 22,000-square-foot footprint and one's a 20,000-square-foot footprint. Again, from

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the site plan standpoint, it's virtually negligible. It's very hard to see the difference when you're looking at a plan from this, from this location here.

But there are -- the buildings are slightly different with the unit counts and the number of units that there are within them. But again, the total number is 300 units.

There are 658 parking spaces that are provided on the property, so that's little over two per unit. Again, that exceeds your code requirement. A number of the parking spaces are within garages.

So there's 130 garages that are provided. So there's a number -- either 18 or 21 garages, depending on the unit that you're looking at. But each building does have a significant number of garages.

All of the parking is proximate to the building. So if you're not parking within a garage space, you're parking immediately adjacent to it. And then there's entrances both in the front side and

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the back sides of the building for the residents to go in and access their units.

The clubhouse that's located centrally on the property is about 10,000, little over -- little under 11,000, about 10,600 square feet.

That is an amenity space that is critical to the residential community. They have it at all their other communities that we worked with them, that was referenced in Pearl River.

It has gaming rooms, there's other things -- spaces that can be utilized, fitness center, et cetera. All of that is open to the community.

And then there's parking that's directly adjacent to the amenity building as well.

It does have a pool, outdoor seating areas, barbecues, et cetera. It's, again, a common space within the development itself.

In addition to the amenity building, there's also some outdoor areas as

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well: Tennis court, pickleball courts, things like that, dog run. Those are incorporated into the plan and have additional amenities that are outside the building as well.

In addition to the layout plan, the DEIS includes a full set of site plans that looks at grading, utilities, topography, and how this all works.

So there's a detailed grading plan that shows the cuts and fills and how the site gets balanced on-site so there's not any significant earth work or significant export or import of material that would be required as part of the project.

So that's an overview of the site plan. Now, I'm just going to touch quickly on the DEIS.

The DEIS is a document, basically, that looks at a number of environmental items that are -- need to be addressed as part of the document. It looks at land use and zoning, visual, stormwater management, traffic, et cetera. There's chapter after

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chapter that was included in the document that you received.

We're going to touch on a couple this evening, couple of more critical ones that really get addressed both within the site plans, but within the document themselves.

The first one: The stormwater piece of it. As part of the project, in addition to the DEIS, we developed a full stormwater-pollution prevention plan. The stormwater-pollution prevention plan addresses how stormwater's going to be managed on-site: The new buildings, the new parking areas, the new impervious areas, all of which is going to be collected, detained, treated on-site, and then ultimately discharged.

This bottom line is -- and what's required by both the state as well as your municipality, and I know your engineer will be looking at this as well -- no additional water can discharge off this site than what's there today. So there's no increase

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in rates of runoff off of this property.

So there's a number of stormwater management features that have been installed or are proposed to be installed as part of the project.

Stormwater basins located on the southern side, there's stormwater basins located on the northwestern side, all of which are designed to collect, contain, treat, and then ultimately discharge stormwater offsite, but again, at no more than what is happening under its current existing conditions.

Another chapter in the DEIS, a pretty significant one, is the traffic analysis that was completed.

We prepared a full traffic study that included an analysis of 13 intersections during four peak hours. So we looked at a number of different intersections surrounding this entire community, and we looked at it at several times throughout the day, as well as on Saturdays.

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So without getting into too much detail, the analysis revealed that there was really not any significant impact to the operations of the existing roadways that are there.

There's going to be additional analyses that will be completed because some of the counts -- and there was construction of the roundabout that was happening during the preparation. All of this is summarized in the DEIS. And there's certain things, there are sensitivity analyses that will be completed as part of the FEIS that looks at some of the traffic volumes to confirm some of the assumptions that we're making.

But at the end of the day, the project itself is residential, it's just not a significant generator of traffic. It is 300 units, but it's not a commercial development so it doesn't have those peaks and bows. You have residential commuters that will be coming to and from, and they will be utilizing the surrounding roadways.

As part of the project, we did

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identify a number of improvements that would be constructed as part of the project. But the improvements are limited to signal-timing modifications, things like that, additional signage at certain locations, restrictions or -- restrictions of right turns on reds or left -- or not permitting certain movements. All things that are working within the confines of the existing intersections, but they are improvements that are suggested or recommended as part of the project that we believe could improve the efficiency or improve the operations at these individual intersections.

So those were summarized in the traffic study as well. But again, there was a detailed analysis. I know the town has hired a traffic consultant as well that will complete a review of our traffic study. And any comments that are received, will again, be responded to in the FEIS or the Final Environmental Impact Statement.

Finally, "visual" is another

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chapter of the DEIS that we spent a lot of time on. It was a lot of work that went in, preparing elevations of the different buildings but also preparing photo simulations and photo renderings.

There was a point where we extended mechanical lifts to show the heights of the individual buildings at very specific locations on the property, and then we took photos from several locations around the perimeter of the property to show where the buildings would be situated with both leaf-on and leaf-off conditions. So these were done during the leaf-off conditions so that you can see through certain areas and see how the buildings would be blended into that.

So there was a number of visual renderings that were prepared as part of the project, all of which were included in the DEIS.

At this point, I do want to turn it over to Jack just to speak about the architecture of the buildings and just give

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you a presentation on the building design themselves and to speak a little bit more about the photo simulations and the renderings that were prepared.

CHAIRMAN CORALLO: Okay. Thank you.

MS. TOMM ADDONA: And just while we have a brief transfer, just for the Board's information, the town consultants will be submitting their memoranda in writing prior to the April 30th date. And we do have Starke Hipp from LaBella here who is your traffic engineering consultant on this project.

I apologize for not acknowledging you earlier.

MR. HIPP: No worries. I was a little late.

MS. TOMM ADDONA: As the applicant was indicating, we're all looking at the respective aspects of the project. Obviously you will be looking at the project as a whole.

But prior to the deadline for the

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comments to be received to be addressed in the FEIS, we will all be submitting comments.

And we are very fortunate to have our stenographer here who is recording everything that's being said. So anything that's stated tonight at the meeting will be provided to the applicant, and that can also be part of the record that the applicant will be responding to in the FEIS.

MR. VILLAREALE: Absolutely. Thank you.

MR. RAKER: Good evening.

CHAIRMAN CORALLO: Does she have your name?

MR. RAKER: My name is Jack Raker. I'm a principal at Minno & Wasko Architects and Planners, an architect for the applicant.

CHAIRMAN CORALLO: Thank you.

MR. RAKER: Thank you for having me tonight. I'm just going to review some of the elevation work that we've done. We've worked with the town and we've worked very

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hard to get an aesthetic that we feel works very well in the Letchworth Village area.

We've utilized some of the similar materials that were on some of the existing buildings, the stone and the siding, so. And we've kept a very traditional look. We didn't go with a more modern or contemporary look that could be popular for some of these buildings.

And you could see on the top, we have -- the top elevation there on the board is the rear elevation. So that's the elevation where you'd see the garages, those individual garages. It's not one big garage that's underneath the buildings, it's simply -- like residential garages: You hit a button, your garage door opens up, and you pull in just like a residential garage.

Then there are -- those garages have access to a hallway where they can then go to any one of the apartments in the building. So you're not locked into any particular apartment if you're in one of those garages. Any person in the building

Proceedings

in any apartment can get one of the garages.

You can see the next two elevations, you can see how the buildings managed to take up some of the grade on-site. So the site is sloping. Rather than flatten it out and build retaining walls, we've utilized that extra slope to do the tuck-under garages and allow the building to take up some of the grade.

And then the elevation at the bottom there is the front elevation, the form elevations, the one that you'll see if you drive around that center road. It's the one with the main entry, the main front entry. And you don't see any of the garages from that view.

All high quality materials: Fiber cement siding, metal accent roofs, and the stone base.

And we've utilized the materials in such a way that it's not horizontally broken up, and just vertically broken up. But we sort of let your eye carry up and down through the building, it really helps break

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up the mass of the building.

In the exhibit to the bottom, you can see is a view from the entry. It's the view of one of the buildings that's closest to the access road. And you can see the garages, you can also see how the grade slopes up and around the building allowing, allowing one side to be the three-story side.

That's really the extent of my presentation on the aesthetics. If anybody has any questions or wants to go into any more detail?

CHAIRMAN CORALLO: I don't have any at this time, no.

You'll have to answer questions when the architectural board looks at it.

MR. RAKER: Sure. Thank you.

CHAIRMAN CORALLO: Thank you.

Is that it from your presentation?

MR. VILLAREALE: Yes. Sorry. Didn't mention that before.

Yeah, that kind of puts a bow on the package. We just wanted to wrap up

Proceedings

there with the architecture of the building.

Again, happy to answer any questions that the board might have. Not sure if you want to hear from the public first, but I'm happy to do whatever you want.

CHAIRMAN CORALLO: I have a couple of questions.

On the entrance, up by where the church is, you, you were going to make an entrance. I looked at it.

My question is, can you take that bottom -- no, the bottom picture out too because I want to...

The red line that goes around there, that is the, the agreement that you have with the Town -- of purchase; right?

MR. VILLAREALE: It's approximately 23 acres.

CHAIRMAN CORALLO: 23 acres.

MR. VILLAREALE: That identifies the 23 acres.

CHAIRMAN CORALLO: Now outside that line -- when we had a kind of a workshop

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meeting somewhat, we worked on -- there's a building in the lower left side that you worked out another agreement with the Town that you're going to take down. And that, that area is where you're going to move the road around, bring the roundabout.

And my question, when I was looking at that: There's no line of what area that you have an agreement with for that portion. Follow what I'm saying?

You got the red line coming down and you got the white part there which is the building that's going to be demolished.

MR. VILLAREALE: Yeah.

CHAIRMAN CORALLO: Now when you go up to the top where you're going to put the roundabout -- yeah, up there -- and you're going to put a -- and you're going to have a --

MR. VILLAREALE: That line is still there.

CHAIRMAN CORALLO: Right. But you're not --

MR. VILLAREALE: It goes like that.

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CHAIRMAN CORALLO: -- the roundabout's there and you're going to have a -- excuse me -- one of your places where you're going to store some water for drainage.

MR. VILLAREALE: There's a stormwater basin.

CHAIRMAN CORALLO: And you're going to move the road, Ridge Road -- if you drive down Ridge Road which we all are doing now because of the roundabout, you go straight across into that area. From what I saw in the drawings, you're moving that over to the right a little bit. It's not going straight.

MR. VILLAREALE: It's not that it's being moved over to the right, it's -- right now it comes in on an angle to Letchworth Village Road. We're making it perpendicular to it so that it's no longer coming in at an angle, it's coming in perpendicular.

So to do that, when you come in perpendicular, it's going to curve back in, as you see, there's a radius that turns it.

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CHAIRMAN CORALLO: The plan I saw -- we have the church on the -- I'm going to call it the west side, okay? To make it easy.

MR. VILLAREALE: Yes.

CHAIRMAN CORALLO: And we just reviewed everything with the church a couple of months ago, with the new entrance and so on and so forth. They haven't done any work yet.

Now you're putting a roundabout in there, is that -- whose property is it? That's what I'm trying to get at.

MR. VILLAREALE: The roundabout --

CHAIRMAN CORALLO: Is this your property? Is it Town's property? Who is going to be responsible for that portion of moving that road over?

MR. VILLAREALE: So to start with, two things --

CHAIRMAN CORALLO: So I'm a little confused where -- I'm not objecting to it, I just want to know who owns it.

MR. VILLAREALE: I'll start --

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CHAIRMAN CORALLO: -- you're going change things, alter -- just one more thing -- and you're going to do something to the other part, Letchworth Village Road is a county road so you need approvals from them too, whatever you're going to do.

So can you straighten me out on that?

MR. VILLAREALE: I'll start, and then it sounds like your counsel wants to jump in too.

So I will --

CHAIRMAN CORALLO: I'm going to tell her to hold off.

MR. VILLAREALE: I can go?

MS. TOMM ADDONA: Go ahead, Diego.

MR. VILLAREALE: First thing: Just with the alignments, I think it's important that the shifting of it, again, is not -- we're not moving it because we want to move it. It's to create a perpendicular driveway to Letchworth Village Road. So that's the first piece: Where now when you approach it, it's at 90 degrees, so that you're not

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on an awkward angle when you're looking to your left or looking to your right when you're approaching that. So that's Number 1.

CHAIRMAN CORALLO: The sight distance is still good?

MR. VILLAREALE: Sight distance, that's what gets addressed as part of that. And it helps because you're not -- again, your angles are just better from a 90-degree standpoint when you're perpendicular to each other from an intersection. That's Number 1 with the movement piece of it.

The second piece of it: The portion of the property where the roundabout is on, that is still part of the Town-owned property. We are not acquiring that piece of it. However, the applicant will be constructing all of those improvements. The roundabout, the driveway, the realignment, all of that will be constructed as part of this project.

And again, it's planning -- depending -- it will be coordinated with the

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church. So whatever improvements that they are constructing on their property, the roundabout will be designed to accommodate that.

We actually worked with Mr. McCreedy, he provided a copy of the plan that the church had -- what we understood was approved by the church. And we identified the location on where their entrance was going to be into the new parking area, and we kept it with that.

If that is wrong for some reason, we will continue to coordinate with them and we could accommodate it anyway.

CHAIRMAN CORALLO: We'll check on it.

MR. VILLAREALE: Yeah.

But as far as answering a couple of your questions, it's really, again, improving the intersection, making it perpendicular to each other. The applicant will construct the roundabout and all of the improvements, and that will continue to be Town-owned property.

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MS. TOMM ADDONA: And I think part of the objective of keeping that as Town property is to leave open the possibility of access to the remainder of the Letchworth Village property that's to the north and to the west, as you can see on that rendering. Because there is a lot more property that's back there.

And so there would have to be some sort of legal mechanism in place, which I think is, is easily achievable in the form of an easement, and will certainly be achieved throughout the process.

And just for the benefit of anyone from the public who is here who may not understand where we are in this process: This is currently Town property and there is a conditional contract of sale for the applicant to purchase it, but it is conditioned upon the applicant receiving all the necessary discretionary land-use approvals. And we have been going through that process diligently.

But I don't think the intention is

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for the portion of the roundabout or where the building is located -- which the applicant agreed in discussions with the Town to remove because frankly, it would be an eyesore -- I think that is all going -- intended to remain Town property with some sort of access and maintenance easement that will be agreed upon prior to any final approvals.

CHAIRMAN CORALLO: I thank my attorney for that.

But you still have to answer my question.

On the west side of the road going in, the new road going in to the roundabout, you're going to build a nice beautiful green area.

Who is responsible for that, to take care of it and maintain it later on?

MR. VILLAREALE: Again, that, I believe, is what your counsel was referring to with the agreement that's going to be put in place. There has to be some type of agreement regarding maintenance of

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whatever's done there.

CHAIRMAN CORALLO: Okay. All right. That's --

MS. TOMM ADDONA: But the applicant is going to be the one to build it out and put it in place.

MR. VILLAREALE: 100 percent, yes.

MS. TOMM ADDONA: And then there would have to be discussions -- because currently, that is intended to remain Town property -- as to what the mechanism will be for the long term.

MR. VILLAREALE: Correct.

CHAIRMAN CORALLO: The roundabout will not be completed at this point because you have to leave it open so people that go up there, fire trucks -- because there's buildings behind that and there's people go behind there. We have to be able to have fire trucks and ambulances because people use that for a walking trail and so on.

MR. VILLAREALE: We jotted that down from our work session, Mr. Chairman, and that will certainly be something that

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we'll adjust and we'll --

CHAIRMAN CORALLO: Okay. Understood.

MR. VILLAREALE: Yeah. That was a comment that you made at the work session. Understood, and we will adjust that so that it continues to maintain access.

CHAIRMAN CORALLO: To the same token: On the right side of the road going in, somewhere along there -- I don't have it in front of me, you're going to put a pond in there; right?

2

MR. VILLAREALE: On the right side. Yes, there's a stormwater basin.

CHAIRMAN CORALLO: Water basin.

3

And that would be on the applicant's watch, that he has to put a fence around it and all that kind of stuff?

MR. VILLAREALE: Correct. That would be as part of the site plan, as we do with all the stormwater basins.

CHAIRMAN CORALLO: Okay. That's all I want to say at this time.

MR. VILLAREALE: Understood.

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CHAIRMAN CORALLO: Anybody have anything to say here?

MS. TOMM ADDONA: The Planning Board members are also welcome, if you have any comments that you want to formulate after the meeting tonight, to submit them as -- prior to April 30th to be included in the Final Environmental Impact Statement.

And just a reminder: Once SEQRA is complete, we will still have to go through the site plan review process. So there is -- there will be other opportunities for the Board to review and comment on this plan.

What we're focusing on in the function of this review is more of the, the global environmental issues like Mr. Villareale was discussing earlier, traffic, stormwater, zoning, municipal services, those types of large-scale issues.

And then obviously, when we get to the site plan review, we will talk about that in greater detail.

CHAIRMAN CORALLO: And you will discuss with the County stop signs or

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traffic lights at the intersection of Ridge Road and Letchworth Village Road, whichever you choose. I have no --

MR. VILLAREALE: Any improvements constructed within the County right of way would be subject to their approval and permit.

CHAIRMAN CORALLO: Did you do an analysis going down Letchworth Village Road to the new roundabout that's being built on that road, because that's going to be an important road?

4

MR. VILLAREALE: Yes.

Between us and the roundabout?

Absolutely.

CHAIRMAN CORALLO: The roundabout.

MR. VILLAREALE: Yeah, that was part of the, the roadways in that area down and the intersection, yes, that was all included in the traffic analysis.

CHAIRMAN CORALLO: Okay. You answered a lot of my questions about inside the area right now, about fire trucks and fire hydrants and so on at this time, so.

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Let me see my notes. I made some notes here.

You're going to put some retaining walls around this, the property?

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MR. VILLAREALE: There are a few retaining walls on the east side.

CHAIRMAN CORALLO: East side, right.

MR. VILLAREALE: That's where the topography starts to drop off. Again, we utilized the buildings as those step-downs with the tuck-unders with the garages in the back.

And -- but you still have some retaining walls to make up the grade there so we don't have to continue going down the hillside.

CHAIRMAN CORALLO: Are you going to put a fence on those walls?

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MR. VILLAREALE: Yeah. Any retaining wall that has access to pedestrian areas, everything will have fall protection in accordance with state codes.

CHAIRMAN CORALLO: And if they're

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over a certain height, you're going to have engineering --

MR. VILLAREALE: All, all of the walls will have structural engineers --

CHAIRMAN CORALLO: For designs.

MR. VILLAREALE: 100 percent, yeah.

CHAIRMAN CORALLO: Okay. All right. Then we can get into all the landscaping at a later date. I know you have everything on there, so.

MR. VILLAREALE: I didn't even mention too much about that. I mean, obviously you see the rendering that's there. But there is a robust landscaping plan that was included as part of the DEIS package that will be further developed as part of the site plan.

CHAIRMAN CORALLO: And it's our new modern age. Are you going to put some charges around there for cars, because we're going electric, I guess, and so we need to have that?

MR. VILLAREALE: Yes. Electric charging stations would be included as part

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of the project.

CHAIRMAN CORALLO: I don't have any other questions other than that. Anybody? What's that? Public?

Anybody in the public would like to submit a comment?

Come on up, please.

MS. PERROTTO: I do have a quick question.

CHAIRMAN CORALLO: Give the young lady your name.

MS. PERROTTO: Darla Perrotto, 5 Balsam Road.

I just want to know how many bedrooms are going to be in each of these units? What's the intended?

CHAIRMAN CORALLO: Excuse me. I didn't hear the question.

MS. PERROTTO: How many bedrooms are going to be in the units? What are they --

CHAIRMAN CORALLO: I'll let you answer. Yeah, it's fine.

MR. VILLAREALE: It's one and two

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bedrooms. All the units are one and two bedrooms.

MS. PERROTTO: Thank you.

CHAIRMAN CORALLO: Thank you. Do you have a question? Yeah, come on up.

MR. CASTRO: Jose Castro. I'm a representative of CrossLife Church.

So we have some questions and concerns with the project overall. We are in favor of it, we do like it, we think it's going to be positive for the area.

And I think we're the most affected by it, so. I think we're probably your only neighbors right now.

So some of the concerns are:

One is visibility concerns with the proposed trees along Letchworth Village Road. It's harder to tell from the design, but how much is it really going to mess with our visibility to the parking lot. Maybe not so much the church but it looks like you're buffering the parking lot off a little bit. So that's one of the concerns.

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Another one would be additional signage, right. So now we're restructuring, we're changing the entry to the church, now you have to go in a separate road that looks like you're entering a community as opposed to the church, to a roundabout. So I think we would benefit from additional signage on Letchworth Village Road to the roundabout, at the roundabout to direct anybody that's visiting, congregants, or new people, whomever it is. Like, it's going to look like a church that's tucked away in a field with no access, you know. So we want to really stress the fact I think there should be additional signage in place for that.

Right now, I think with the newest configuration with the roundabout, with that proposal, the parking lot will -- we feel will be impacted by the loss of Ridge Road. Currently you have a lot of dog walkers, constituents from the community that park along Ridge Road and actually utilize the parking lot currently.

Not really a big deal, right,

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because the church is minimal use, you know, so, but. We're blocking -- eliminating Ridge Road, now they're going to come into the roundabout and use up more parking spaces, and I think it could have a negative impact as far as we're concerned with the elimination of Ridge Road.

So our concerns are obviously with the -- and then also it, it kind of -- the new design's going to landlock the parking lot. Right now we kind of -- the functionality changes with -- by landlocking it as opposed to having Ridge Road. So the functionality of it now, you know, although Ridge Road is on the east side of the parking lot, people that are parking are able to pull in and out, and in and out without utilizing it on one side of the parking lot. And now you're landlocking it, so it's going to kind of make it a little tighter, little bit more cumbersome to utilize the parking lot with the new configuration.

We do have some space, the green

area where the, where the retention pond is. So maybe we could integrate, enlargen the parking lot to the benefit of the church to kind of ease that and make it more beneficial, you know.

And like I said, the dog walkers -- at times, you could have five, ten, fifteen, even twenty cars at times of dog walkers and just residents on a nice Sunday, Saturday walking, even more at times. So I think it's really going to change the whole dynamic with the, with the proposal. So it's something that should be addressed.

Lighting concerns. So now with landlocking the parking lot and eliminating Ridge Road, there's going to be -- I think it's going to limit the lighting on the east -- more importantly on the east side of the parking lot. So I think you've got to kind of come up with something for lighting. Because now you have people that come to the roundabout: Oh, they missed the turn to go into the development or whatever, just people driving around just taking a drive,

they take the circle, they go into the church parking lot. So I think it could create a potential for more traffic. You know, how bad would it be?

We don't know, right. But I think there's definitely that potential. So there should -- on the east side of the lot, there should be some additional lighting in place to kind of light up the lot for any of that.

Drainage concerns: With the new roadway, would there be additional drainage on the east side of the parking lot? And you know, I'm not sure what the pitch of the roadway would be at the circle going towards the church parking lot.

Right now the church is currently on well water. Will the construction affect the well? You know, contamination, dry it out, because now you're installing so much more drainage, so now you're capturing a lot of the groundwater. So would you -- was there a risk of hitting the vein in the ground that feeds that well or/and you know running it dry, you know, so. And obviously

contamination is a big one, from all the construction.

And where would the main water supply be coming in from? Maybe we could get city water at that point. I'm not sure if that's an option.

Considerations for -- and I'm sure it's all in your contingencies that you're going to make accommodations for the church throughout the construction phases of this, and access, so that way the parking lot's not fully disturbed. We're willing to be good neighbors and help out throughout the process and the construction as long as we're able to have access and maintain our schedule and do what we have to do.

And then also a big one was actually the impact to the existing parking lot by the overall construction, construction vehicles. You know, as much as we could say you're going to avoid it as much as possible, the parking lot's there, it's a big parking lot. I drive trucks, I've driven trucks. You know,

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tractor-trailers are going to be pulling in and out, dump trucks are going to be pulling in and out, they're going to be turning around in there, it's an easy enough parking lot to whip trucks around in. So it's going to get beat up. It's not in the best of condition right now. So how can we address those concerns?

And will the church address remain the same being that that part of Ridge Road is going to be eliminated? Is it still going to remain 2 Ridge Road? I'm sure it would, but just one of the questions that came up.

And the last one would be the access to the remainder of Letchworth Village Road. You come around the circle, you have the road to the community, the road to the church, and nothing accessing the remainder of Letchworth Village to the north. A: Right, for fire truck access, emergency vehicles, as well as the dog walkers. If we don't have an access road from the circle, that's going to lead

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everybody into the parking lot, they're going to park on the northern end of the parking lot, and create their own little trail into Letchworth Village Road -- Letchworth Village.

I think that's everything I have, so.

CHAIRMAN CORALLO: Thank you.

MR. CASTRO: Thank you.

CHAIRMAN CORALLO: Does anyone else have anything from the public? Anyone on the Board? Consultants? Attorney?

Okay. So we'll, we'll leave this part of the -- open to continue the public hearing in the future for --

MS. TOMM ADDONA: No. The, the public hearing process is intended to be closed tonight with written comments to be received by the Board until April 30.

CHAIRMAN CORALLO: By April 30th.

MS. TOMM ADDONA: That was the way it was noticed. And if the Board feels differently --

CHAIRMAN CORALLO: We haven't heard

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too much about -- I don't know what our engineers will come up with.

MS. TOMM ADDONA: Well, like I said, all of your consultants are going to submit written comments by April 30th. So they will be included in the record to be responded to by the applicant.

CHAIRMAN CORALLO: And then our next meeting will be -- we will know what they say?

MS. TOMM ADDONA: Absolutely. With everything that's --

CHAIRMAN CORALLO: -- have that in the public hearing -- I mean, public comment?

MS. TOMM ADDONA: Everything that's prepared by the consultants will be provided to the Planning Board. But the objective is, once all of the comments that you've heard tonight and that the consultants and if any of the Planning Board members or any other members of the public that want to submit anything before April 30th submit it, then that's when the applicant will start --

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I'm sure they'll start before then, but that will be the deadline for submissions for them to start preparing the Final Environmental Impact Statement, which is going to address substantively all of those comments. And then once they've done that, then they'll come back to the Planning Board and we will have to review that document.

So after tonight, unless the Board decides you want to keep it open, the public hearing, even though that's not how it was noticed and discussed last month, we probably won't see applicant until, I would say, July, August, optimistically.

MR. VILLAREALE: He's going to tell me earlier. We'll be back as quickly as we possibly can.

MR. McCREEDY: I have a procedural question.

MS. TOMM ADDONA: Yeah.

MR. McCREEDY: Just to be clear, this is not the last public hearing for this project; correct?

MR. PANTIRER: No, no.

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MS. TOMM ADDONA: No.

MR. McCREEDY: I think that was the point that you were trying to drive to, that this is not the last public hearing.

MS. TOMM ADDONA: No. Sorry. I mentioned that earlier. We're still going to have to -- there will be public review of the Final Environmental Impact Statement, and then there's still site plan review. So there's going to be the opportunity for public comment at that point as well.

CHAIRMAN CORALLO: Now I feel better.

MS. TOMM ADDONA: I'm sorry. I thought I said that.

MR. PANTIRER: You did.

CHAIRMAN CORALLO: So, accept the --

MS. TOMM ADDONA: Just motion to close the public hearing and leave written comment open until 4 p.m. on April 30, 2025.

CHAIRMAN CORALLO: Okay.

MR. WIDMER: I'll move that.

CHAIRMAN CORALLO: Moved by

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Mr. Widmer.

MR. RICCALDO: Second.

CHAIRMAN CORALLO: Second by Mr. Riccaldo.

All those in favor signify by saying "Aye."

(Whereupon, all the Board members responded "Aye.")

CHAIRMAN CORALLO: Very good. Thank you very much.

Thank you, gentlemen.

MR. VILLAREALE: Thank you.

(Pause in proceedings.)

CHAIRMAN CORALLO: Next item on the agenda is 130 West Ramapo Road - (Old Lavinia's) (Garnerville). Section: 25.16, Block: 03; Lot(s) 40.

Site plan approval: Two-story office building utilized as professional office space. 12,000 square foot building with on-site parking (4,000 square foot of which is to be used as ancillary basement space for existing tenants.)

Okay. So, any --

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MS. TOMM ADDONA: This is noticed for a public hearing this evening so I'll just read for the record the public hearing notice.

Please take notice that the Town of Haverstraw Planning Board does hereby schedule a Public Hearing to consider the application of Artur Kondov, 130 West Ramapo Road, Garnerville for Site Plan Approval to construct a two-story, 12,000-square-foot professional office building - 4,000 square feet of which will be used as ancillary basement space for existing tenants.

Said property being located on the north side of West Ramapo Road and zero feet west of Balsam Road.

Said property is located on the Town of Haverstraw Tax Map as Section 25.16, Block 03, Lot 40.

Said Public Hearing shall be held on Wednesday, April 9, 2025 at 7:30 p.m. in the large meeting room of Haverstraw Town Hall, One Rosman Road, Garnerville.

All interested parties are invited

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to attend and will be heard by the Board.

By Order of the Planning Board of the Town Of Haverstraw.

Sal Corallo, Chairman.

CHAIRMAN CORALLO: Thank you. Hand over the paper with the information. Okay. All right. Thank you.

You're the representative? Okay.

Does she have your name? No? Okay.

MR. BEHRENS: Good evening. Matt Behrens from Zarin & Steinmetz for the record. Good evening.

CHAIRMAN CORALLO: Can I?

MR. BEHRENS: Sure.

CHAIRMAN CORALLO: Normally, when we start a public hearing, I have the applicant explain everything that's going on. But this application to me has been very confusing.

We started out with an 8,000-square-foot building when we had a meeting, all right, workshop meeting. We had a couple of questions about some parking

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spots, variance, and so on which was no problem.

Then when you came to the Planning Board meeting, which unfortunately I wasn't here because I was sick and Mr. Widmer here was handling it, that whole meeting was all discussed about an 8,000-square-foot building.

And then we didn't have the next meeting because the applicant decided to come back to the workshop. At that workshop, we discussed a -- you discussed a 10,000-square-foot building, 5,000 and 5,000. So at that point we said, you know, we're not in favor. We'll come back to an 8,000-square-foot building.

You're going to come here for that meeting. So when we came to this meeting here and I sat in the back room and you're in front of the ZBA and I'm listening, and we're talking about 12,000 square feet, that totally confused me.

I said: Wait. Where we going? Are we going 8? Then it was 10. Then it

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wasn't 10, it was 12 because now we have a basement.

At the meeting that Mr. Widmer was at and we still discussed 8,000 square foot, there was never a mention of a basement at that point either. That's why I'm confused.

MR. BEHRENS: Totally understood.

CHAIRMAN CORALLO: If I'm wrong --

MR. BEHRENS: Totally understood.

CHAIRMAN CORALLO: -- I won't say I'm wrong, maybe I didn't have it.

So it kept on going. And at the last meeting, we discussed, again -- because you went to ZBA first because you have to get variances from them.

And so we listened to you about going -- the building inspector came in, you had to have outside exits, you sent us another plan. So just, am I up to --

MR. BEHRENS: Totally up-to-date. And that's why we're here. We want to confirm everything, make sure we're all completely on the same page.

CHAIRMAN CORALLO: That's what I

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want to get to.

MS. TOMM ADDONA: Let's just talk one at a time so that the stenographer can get what everyone's saying.

CHAIRMAN CORALLO: So now --

MR. BEHRENS: Totally understand.

CHAIRMAN CORALLO: -- and you sent us a plan. You got to remember that last meeting, we did not -- this Board did not have any indication that we were going to go to 12,000 square feet. We came in cold.

Normally I would say to you: We don't have the plans, we're not discussing it tonight, you got to come back the next meeting because we have -- now you sent us the plans. I have a copy, I assume everybody has. So, okay. I just want you to --

MR. BEHRENS: Totally understood.

CHAIRMAN CORALLO: -- understand where we are. And so, tell us what you want and where we're going to go.

MR. BEHRENS: This is the same 8,000 first two floors, we've just added now

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4,000 of ancillary basement space. The footprint of the building has not changed, we're just adding going down as ancillary basement space.

So totally -- and that's why we're here tonight, to help clarify, confirm everything.

CHAIRMAN CORALLO: Yes. That's what I need.

MR. BEHRENS: So thank you, Mr. Chairman, Members of the Board.

Let me just introduce briefly our applicant team. Aaron Machlis from BILD Architecture is here; he's going to walk through the basement space because I know this is the first time we're presenting on the interior layout of the basement space. So we'll make sure we're all comfortable and the Board has the opportunity to ask any questions there.

Justin Lim from Weinberg Engineering is here as well to talk about any engineering, landscaping details, things like that.

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Joseph Muccin from Colliers Engineering and Design is here. If there's any traffic or parking study related questions. We did commission a parking and traffic study, which Stonefield, the Town's traffic engineer did review and did concur with our findings as well. That was circulated, I believe, on Tuesday or Monday.

And Dan Richmond from the law firm Zarin & Steinmetz.

So first, again, just to reiterate, to confirm the plan. This is a 12,000-square-feet total building, 8,000 square feet of which will be the first two floors of leasable square feet. Two floors of leasable square feet, 4,000 each.

The bottom basement 4,000 will be ancillary -- will be additional amenity space for the tenants, interior tenants of the building.

This is a small building to begin with, the common corridors, the common areas take up a large size of the leasable -- of the actual square footage. So when you

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reduce down what's actually leasable, what's going to generate tenants, it's actually much smaller than we would have liked. Therefore we're adding additional amenity space to the basement that wouldn't have otherwise been provided.

So we're putting a kitchenette, storage room, mechanicals down there, a yoga workout room. Those are all things that we wouldn't have otherwise provided if not for this basement space. So that's why we're calling it ancillary amenity space.

Like I said, we commissioned a traffic and parking report off of the 12,000, so off of the total amount which is required under code and required -- you know, industry standard.

And what the traffic consultant from Colliers -- and what was confirmed with Stonefield -- found, was that with the 12,000-square-foot office building, the 48 spaces we're providing is more than enough for the anticipated traffic demand, even at peak hours.

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So what Colliers found and what Stonefield reviewed and concurred with, was that, quote, "The proposed development would be expected to generate a peak parking demand of 36 vehicles." And park -- the peak park demand -- "Peak demand would be satisfied by the parking supply of 48 spaces that is proposed."

So that's what Stonefield concurred with in their traffic memo dated April 7th, No. 4 and 5.

We've said this all along, we'll say it again. We are willing to restrict the use of this building to professional, general office. No medical, no retail, no dental. This would be professional office use. And we are -- you know, the applicant is willing to put that in any condition of site plan as we so get there.

Just to take a step back, because I don't know if we really touched on it before. But we do feel like there is some positive overall benefits to the neighboring community with this.

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The current -- this is a very key location for the town. It's almost a marquee, if you will, in the 202 corridor, with the shopping center right nearby. So with this proposed plan, we do feel like we are enhancing that gateway corridor, making it more attractive, providing landscape -- manicured landscaping in the back where the single-family homes are and making it more appealing in the 202 corridor. So we do feel that this is an overall positive for the community.

And it also provides a responsible owner/operator of this building who has an incentive to take care of it, to landscape it, to keep it cleaned, to keep it maintained well, to make sure there's no trash. So we do feel like -- taking a step back -- there are many community and planning positives that come from this, this development.

With that, I'll turn it over to Aaron who is going to walk through the interior, starting with the basement as well

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as the first two floors, like I said just because we want to make sure we get on board.

CHAIRMAN CORALLO: Thank you, thank you.

MR. MACHLIS: Good evening. Aaron Machlis from BILD Architecture. Thank you. So I'll -- if it's okay, I will walk you through.

I'm just going to start from the top down, because that's very important in terms of how we planned the egress --

(Stenographer clarification.)

MR. MACHLIS: So I'm going to walk through the building from the top down because that's how we planned the egress. Essentially we're providing two means of egress for the building. We're providing an elevator, some common areas.

So as Matt mentioned, that area, the corridor and the two means of egress, takes away, as common area, from the leasable space of the building. We're providing three suites per floor, so a total

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of six suites in the building.

Each suite is between 800 and 1,000 square feet, which is not, not large at all to any extent. So there's a very big loss factor that we have.

Now the building is also going to be fully sprinklered, it's going to be fully up to code.

Downstairs on the first floor, we also have a lobby, that entrance, which is facing the parking area which also takes up additional space. The two egresses, one is going to exit directly out at grade; the other, the other stair also is going to exit directly out at grade.

And then we have a lobby area, just for, you know, patrons of the building to enter and to, to just be able to access all of the spaces.

In terms of the basement area --

In terms of the basement area, besides for the two means of egress that we have from the space, which is up to code in terms of travel distances -- and like I

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mentioned -- is fully, the building is fully sprinklered, we're also providing a third means of egress, which is an exterior stair that's egressing directly outside at grade. So it's more than the required for the space. Because we do need to provide two means of egress, which the travel distance between the two complies. We're also providing this third egress there, which is directly outside.

In terms of the spaces themselves, like Matt mentioned, we have such a large loss factor; we're providing 5,800 square feet of leasable space in the building out of the 8,000 square feet that we're providing for the first floor and second floor. So we're trying to regain some of that loss by providing, in the basement, some storage areas and amenity spaces. So this way the offices themselves, the suites themselves, which are between 800 and 1,000 square feet, can maximize the amount of space that they have there by providing any secondary uses, whatever they have in terms

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of storage, to be used here in the basement.

So most of the basement -- besides for the storage areas, we have -- we're going to have electric and low-voltage room, we have an IT space, and we have a sprinkler, water meter room. About 800 square feet of the basement itself is going to be just utilities.

And then we're providing this kitchen seating area with direct access to grade, just for anybody -- it's an amenity space, something nice provided for people in the building. This way they don't have to sit by their desk and sit and eat; they can come down here and use the space just to take a break.

CHAIRMAN CORALLO: That space is going to be used during the day while we -- the tenants are in there? Is that how --

MR. MACHLIS: Yes.

CHAIRMAN CORALLO: I have a question though. On the note right there where you have it -- I'm going to look at my attorney's -- it says, capacity, I saw, 45

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people.

MR. MACHLIS: Yeah, correct.

CHAIRMAN CORALLO: So if you could put 45 people in there and they're coming from -- they're working and you say you're going to give us 48 parking spots, but you only need 36, that don't jive. Is everybody going to be down there?

I think that's too large. That room is not necessary -- people don't eat lunch -- all 45 -- all the tenants are going to go downstairs at twelve o'clock or eleven o'clock --

MR. MACHLIS: Correct.

CHAIRMAN CORALLO: -- time. So you don't need anything as large as that. I mean, you have a kitchen there, but.

MR. MACHLIS: Correct. So this -- sorry. This is based on providing 15 square feet per person, which is per code. But it's never going to be used by that many people.

CHAIRMAN CORALLO: I see -- there's an occupancy outside this room here, it

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tells you you could put so many people in the room --

MR. MACHLIS: Right. So actually --

CHAIRMAN CORALLO: I'm just questioning that, that you have that and that can be a smaller room. You set up two, four, six -- I think for four, five, six -- six times four is 24, plus you got a booth on the side where you can put another four people. You're set for 28 people, I think, already without even --

MR. MACHLIS: Right. Correct.

So just as an example, so the occupancy sign outside says for the building, the maximum occupancy is 64 people. But obviously the space is much larger, it can hold a lot more people.

CHAIRMAN CORALLO: -- more than 64 in here at a time, so I know that it's not -- out there. That's not what I'm saying. But that's at different times.

MR. MACHLIS: Correct.

CHAIRMAN CORALLO: Is this going to

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be used at any time other than when the office is open? You're not going to rent it out or anything like that?

MR. MACHLIS: No, no. We could put a note on that. No.

CHAIRMAN CORALLO: Anybody have -- on the Board have any questions?

MR. WIDMER: Does each office get a space there? Is that how you're doing that?

MR. MACHLIS: Yeah. Each office will have a storage space, which is only -- each one is below 200 square feet.

CHAIRMAN CORALLO: All right. The building is going to be sprinklered; is that correct?

MR. MACHLIS: Yes.

CHAIRMAN CORALLO: The basement and the two -- all three floors are going to be?

MR. MACHLIS: Correct.

CHAIRMAN CORALLO: All going to be sprinklered.

You're going to have the mechanical room -- the mechanical room is downstairs? Yeah.

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MR. MACHLIS: And they're going to have fire-rated doors, so it's going to be fully compliant.

CHAIRMAN CORALLO: Well, all right. Anything else?

MR. SAMBRATO: There's only going to be one entrance -- there's only going to be one entrance in and one entrance out?

MR. MACHLIS: To?

MR. SAMBRATO: To get to the street.

MR. MACHLIS: No. So here we have the exterior stair, which is leading directly at grade. This stair goes up and exits -- Stair B exits directly at grade over here, and then Stair A exits out the back in the parking directly at grade. And then we have the lobby which is at the corner.

MR. SAMBRATO: Is all the parking behind the building?

MR. MACHLIS: The parking is all behind the building, correct.

MR. SAMBRATO: So to get out of the

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parking lot, there's only going to be one way out?

MR. MACHLIS: Yes. Right, it currently exists.

CHAIRMAN CORALLO: It's the same entrance and exit that exists right now in the same spot.

MR. MACHLIS: Correct, correct.

MR. WIDMER: I thought you had said you're going to make that curb cut wider, in the same location but wider?

MR. MACHLIS: Yes. And I could let Justin speak on that, but we're going to keep it in the same location, we're just going to modify as per what's needed.

MR. WIDMER: I mean, like -- I think at the first meeting you came to us as, like, it seems awful big for -- even before the basement, the building seems awful big for that lot. You know, then you add in all this parking space, there's no lawn or greenery left. I mean, it's all going to be structure or parking lot.

That's one of my concerns. Then --

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MR. MACHLIS: I'll show the rendering.

MR. WIDMER: The other concern is the parking. I don't think you have enough parking. And I think I've said it before, you're running the parking lot right up against the motel property. There's -- what? -- five feet distance.

MR. MACHLIS: Right. The motel, though, is a lot higher.

MR. WIDMER: I know where it is but you're still -- it's still not your property. You're going to be five feet away from somebody else's property.

You know, then the other thing is, you're coming out on Balsam Road. And I don't know if you looked into if you could turn Balsam Road, which is one-way in/one-way out into a -- make it a left and a right-hand turn onto 202. I don't know if it's wide enough, if anybody looked at that.

Because I mean, Balsam Road's not a real long -- if you have a bunch of cars leaving at the same time, it's going to get

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stacked up. There's a lot of issues on this.

MR. BEHRENS: We can certainly look at that. Remember, the motel property is fairly steep up there, very wooded. So we would -- we're pushing that out to get only five feet more than is allowed in code to maximize the parking.

In terms of the building size, totally understand that that's the gut reaction, which is why we studied it with Colliers Engineering -- Colliers, if you want to speak more to the traffic study, which, again, was reviewed by Stonefield, the Town's own consulting engineer, who did conclude that what we're proposing is sufficient for even park -- peak demand for this full 12,000-sized building.

MS. TOMM ADDONA: I don't think Mr. Widmer was talking about parking, he was talking more ingress and egress and access.

MR. WIDMER: Also about parking. I don't think there's enough parking and I think the building's just going to dwarf

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that property. I mean if you look at the photos right there, it's all going -- not even going to be able to put any trees or anything in front or --

MR. BEHRENS: So we'll talk to landscaping -- your question about the landscaping. Justin, if you want to talk about the landscaping, especially towards the back and what that will...

MR. LIM: Good evening, Mr. Chairman and members of the Board. My name is Justin Lim from WeinbergLim Engineering.

So I just want to touch on the driveway where you mentioned that the -- the location, which we're widening it. We're using the same -- roughly the same location, the center line, widen it to 25 feet.

(Stenographer clarification).

MR. LIM: So 25 feet, within the town code. We put it in the location where the existing driveway is already there so that the traffic in that location is realized, maybe not to full extent of the

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new parking lot. But traffic in and out is there already so there's a pattern there, so we're going to maintain that.

Now as far as the stacking to Route 202 where there's a traffic light there, I don't know -- traffic engineer, do you have any comments on that --

MR. MUCCIN: Sure.

MR. LIM: -- the stacking? Just want to get this out of the way first.

MR. MUCCIN: Good evening. Joe Muccin, Colliers Engineering.

So our office prepared the parking study for this redevelopment here. And I'll just speak to the question of trips generated from it, because I know that that was something that the Board had asked about.

So in the peak a.m. hour, were expected between 18 to 27 trips; and during the peak p.m. hour, it's expected 17 to 29 trips.

And in our memo that we put together, we had noted that DOT, they

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quantify anything below 100 peak-hour vehicle trips to be something where -- sorry. Let me say that again.

Anything north of 100 vehicle trips is something where adverse impacts may occur. So we're below the DOT requirements for trip generation. So in total here, in short, the expected impact to this is going to be insignificant based on traffic.

And I can speak to parking. I know it was kind of summarized already. But we're anticipating between 23 to 36 parking spaces, is the demand. And our site plan here shows 48 spaces, so the supply -- supply exceeds the demand for this redevelopment.

MR. BEHRENS: Justin, can you, again, touch on the landscaping -- because I know that was mentioned -- on the back about the single-family homes.

MR. LIM: Yeah, sure.

So we haven't done the full engineering, full engineering design on the plan yet but we have the concept of what

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we're going to do there just by looking at the sopo -- the topo and the site in general.

We realize that there are residential neighbors, one, two, three, four, abutting the project. And my thought is that we're going to create a berm, a 25-foot -- in the 25-foot buffer area in two ways.

First we lower the parking lot. The grade that we have right now in the parking lot, we can lower it by at least a couple of feet. And at the same time, build a berm along the backyard -- not the backyard, but the buffer area so that you can effectively get possibly -- I don't, I don't know yet their design -- say, about, like, seven-foot berm. And effectively the parking is not, you know -- hopefully make it not visible.

I've done similar project off College Road, Yeshiva of Spring Valley, where we've done a berm, and the berm's only five feet. And with landscaping, you drive

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along College Road and look at the site, you can't see it. You can see the top of the building but not the cars. So we'd like to have the same effect so that there will be no glaring and hopefully we will mitigate some noise from the parking lot to the residential neighbors.

So again, the 25-foot area is going to create a berm, and we're going to enhance the effect of the berm by lowering the parking lot. So that will be the goal.

Elsewhere --

CHAIRMAN CORALLO: I'm a little confused what you're saying here.

The parking lot that exists right now behind the building that's there -- in the front, when you go up the little -- from Balsam going up, that's kind of flat, the whole area going towards the back, which would be north.

Back there now, the grade starts going up. When you go up that parking lot, as you go into where the motel is, that parking lot starts -- the road -- the

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elevation goes up; right?

MR. LIM: Correct.

CHAIRMAN CORALLO: So you -- to level that lawn, you're going to take a lot of that dirt out; is that what you're saying?

MR. LIM: Yeah. We're going to lower it.

CHAIRMAN CORALLO: Take the dirt out so now you -- you have to show us what you're doing with the grades.

MR. LIM: I know.

CHAIRMAN CORALLO: I don't see --

MR. LIM: As I said --

CHAIRMAN CORALLO: The elevations and grades and so on. I understand that, but I'm just saying.

How the parking is going to work? When you lower that all out, what happens to the building? There's no -- the elevations and the building -- is the basement still going to be a basement or is it partially -- I don't know. I can't visualize that right now.

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MR. LIM: Well, the grade, the grade, we're going to limit it to about five percent because anything greater than five percent is a hazard in the parking lot. That's No. 1.

So by doing that, I kind of roughly figure out that we can actually lower it a couple of feet at the point furthest away from the driveway.

CHAIRMAN CORALLO: All that parking lot where you need a five-foot variance, where you're going to park the cars?

MR. LIM: Yeah.

CHAIRMAN CORALLO: You're going to have to dig that all out because that's all going up. The grade's going up; doesn't it?

MR. LIM: Yes.

CHAIRMAN CORALLO: So you're going to have to dig that out to make it level or else you're going to have the cars parked like this.

MR. LIM: No. We can create retaining walls.

CHAIRMAN CORALLO: You're going to

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put a wall up there?

MR. LIM: Yeah. If we run out of room there, we can create a retaining wall. All I'm saying is the 25-foot buffer area, that area is kind of wide and --

CHAIRMAN CORALLO: 25 foot is wide. That's what I said, the other place is only five. You don't need a variance on that side, you need a variance on the other side.

MR. LIM: When we design those things that I mentioned, which will be on the plan, and we'll provide cross section, you'll see it. We haven't designed it. It's just the thought that we put in when we did the layout. I mean, usually I like to do the grading too, to visualize how the grade's going to work. And therefore the plan, when it comes later, the detail builds in, it's doable. So that's it. I can only describe to you what I can --

CHAIRMAN CORALLO: Go ahead.

MR. WIDMER: The parking lot's going to go five feet to the boundary line.

MR. LIM: Yes.

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MR. WIDMER: So in between the end of the parking lot and the lot line, you're going to have a retaining wall?

MR. LIM: Yes.

MR. WIDMER: So that retaining wall is going to be right on that lot line basically?

MR. LIM: Well, we have five feet. We have calculated the retaining wall so that the foundation of it is underneath the parking, not towards the neighbor -- sorry?

MR. WIDMER: Continue.

MR. LIM: Just to continue on the landscaping. Along 202 and along Balsam Road, we have an idea of creating a landscaping, again berming is going to be the key, you know, build up some grade, build grade, and put some significant landscaping there. So the -- along the perimeter of the project, you have --

CHAIRMAN CORALLO: You have to see what I'm looking at. I'm looking at that it's a flat piece of property. From here, that looks like it's flat. That's why I'm

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saying: Grade goes up, there's no -- I don't know -- I don't remember seeing a site plan with any kind of grades --

MR. McCREEDY: Chair, if you don't mind me asking.

I think at this point, the questions that are being asked are being directly relative to the materials that have been submitted to date. So we have yet to see a fully-engineered set of plans.

And a lot of the questions that you're getting are questions that could be resolved with a full set of plans. So I think it's more than appropriate at this point in time that the applicant needs to start showing how this is going to work, and how you're going to satisfy some of the questions that the Board has.

MR. LIM: Absolutely.

MR. McCREEDY: Because all we've seen to date is a layout plan. And we're into the SEQRA process at this point and there's no way to provide an evaluation any further than what we've done. And I know

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there's been questions about the logistics of the building footprint and the dynamics of the use of the building. I think that you've done, you know, a good enough job tonight to present the philosophies behind the architectural design, enough for the Board to consume that and digest that for the next meeting.

But there's not much further that we can really evaluate this project until the site plan is developed and the EAF has some merit, in order to produce a Part 2.

We can't even do a Part 2 because there's nothing to found it on. We have no design.

So a lot of the questions about traffic -- yes, you have your professionals here, but the queuing, the grading, the entranceway, landscaping, the grading of the berm, all of these things could be addressed with a comprehensive evaluation by your engineer. So at this point, I turn it back to you, Justin, to do your job.

MR. RICHMOND: For the record,

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Mr. Chair: Dan Richmond, Zarin & Steinmetz.

Glenn, I appreciate your -- can you hear me?

Glenn, I appreciate your comments. I think that's what we're here for, is we wanted to get feedback from the Board to understand that we're heading in the direction that the Board's comfortable with.

The last time we were here, the Board had some questions about the basement. I think we've answered your questions about the basement, if there are any further questions. But I would -- again, it's amenity space that wouldn't otherwise be provided.

But in any event, I think the most important thing or one of the key things that's come out of this meeting is the Board had questions about the 12,000-square-foot building, about the parking, and the traffic related to that, the impacts. And our consultant showed and your Board's consultant concurred that even if this were considered a fully -- you know, a

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12,000-square-foot office building, it would only need 36 spaces; we're providing 48. And that the traffic impacts are, you know, not significant.

But again, I think to Glenn's point, I understand, yes. But I think that's why we're here, to get feedback from you on landscaping, and the like, to hear what your Board's concerns are so that we can address them.

MS. PERROTTO: Can I speak?

CHAIRMAN CORALLO: Yeah, sure.

MS. PERROTTO: 5 Balsam Road. I sit behind the building.

I'm 5 Balsam Road.

CHAIRMAN CORALLO: You have her name; right? Okay. Thank you.

MS. PERROTTO: So does anybody have roughly an idea -- I don't know how this goes in here -- how big Lavinia's is currently? That property, how many square feet is Lavinia's? Does anybody have a clue?

CHAIRMAN CORALLO: How many square

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feet is the house?

MS. PERROTTO: Yeah.

CHAIRMAN CORALLO: The existing --

MS. PERROTTO: Maybe 2000?

So you want to put something that's -- what? -- six times as big?

CHAIRMAN CORALLO: Yeah.

MR. McCREEDY: I think the footprint's probably about half the footprint, if I had to guess.

MS. PERROTTO: I have a big objection.

MS. TOMM ADDONA: Let's not guess. I mean, they have building department records on file. So we can certainly take a look at that.

MS. PERROTTO: Here's my point. I object to the reduction with regard to the parking.

CHAIRMAN CORALLO: Does that house have a basement now?

MS. PERROTTO: What's that?

CHAIRMAN CORALLO: Does that house have a basement now?

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MS. PERROTTO: I have no idea -- (Overlapping speakers.)

THE STENOGRAPHER: One at a time. One at a time.

MS. PERROTTO: Obviously based on the square footage of the property, the parking is consistent with that, right. So you'd have to reduce the size of the project in order to have added parking there.

I live at 5 Balsam Road. I can show you a video of what happens at my house with people going up and down that street. If you'd like to see it, I can show it to you right now.

I can't get in or out of my driveway, it is a dead stop. There are cars just sitting waiting for other cars to pass them. Whoever's doing the traffic study, I'll show you the video too.

When I came home in April from vacation, I had a car parked across my driveway. Other occasions, I have cars parked on my driveway. I don't know how long the owner of the building has had it.

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But since Lavinia has left, there's been absolute disrespect for me as a resident and my property.

I find hubcaps on my property, I find parts from people's cars on my lawn. I understand you're saying it will be office space, but the reality is the basement and the nature of the basement doesn't sound like ancillary, ancillary extra space to me. It sounds like a meeting space, it sounds like a gathering space.

So I at this point would say I would not agree to any of the variances that are required for this size of the building on that property.

MS. TOMM ADDONA: So what I would say in terms of the videos that you have or the photographs, please submit those. The public hearing --

MS. PERROTTO: Who can I send them to? Because what happens on my property is insane.

MS. TOMM ADDONA: That's what I'm saying. Please -- you're saying you have

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them --

MS. PERROTTO: I have them right here.

MS. TOMM ADDONA: I'm saying, submit them. Please call the building department, coordinate with Annette to provide them and make them part of the record.

MS. PERROTTO: I spoke with George yesterday. So if somebody gives me an email, I will certainly send them.

MS. TOMM ADDONA: So please call the building --

MS. PERROTTO: But I would be very hesitant to say reduce the parking required by -- what is it? -- 80 spaces required, and you want to reduce it by 40 percent?

MR. RICHMOND: I'll respond if you're done.

MS. PERROTTO: I just want to make -- I mean, again, I just want to make sure that's all in.

Oh, and by the way, there's fencing in between my property and this property

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that was put up when Lavinia's was put there and I was told it was -- and I think Gene Barnum was the inspector at the time -- and I was told it was for my privacy as well as a sound barrier. And I was also told the depth of the parking lot between me and them was also privacy and sound barrier.

That fence is in such disarray. And I've spoken to George through the years and he's had somebody -- he's called the homeowner and had somebody come out and repair it.

And when I spoke to the gentleman last time, probably about two years ago, they said they don't want to put any money into repairing this fence.

I mean, literally the fence between me and them is waving. And I have a pool in the yard so I am required to have a fence there. So I was actually going to call somebody this year and have them just put a chain link between me and them because they have not maintained that fence as they were supposed to.

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So I'm sorry to whoever owns the property, but the reality is, since Lavinia's been gone, my property has not been respected and I as an owner have not been respected.

So I would be very very -- it would be a hard press for me to give them any okays or any variances to reduce off-street parking or to limit the space required between me and -- or go from the ten foot to the five foot for the parking space -- for the parking lot.

And just another note: 6 Balsam Road, which is within 500 feet, did not get any kind of certified notice regarding this meeting tonight.

CHAIRMAN CORALLO: You did not?

MS. PERROTTO: I did. I'm 5 Balsam, but 6 did not. Yeah, 6 did not.

MS. TOMM ADDONA: The way the code is drafted, it's only abutting properties.

MS. PERROTTO: Just want to make sure.

All right. Thank you.

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MR. KAUKER: Just for the Board's information: The footprint of the existing building is approximately 1,500 square feet. That's measured, that's measured from Nearmap, which is a software program that we can evaluate that. It's not exact but it's approximate.

MS. PERROTTO: So we're going from 15 to 12,000.

MR. McCREEDY: Well, it's 4,000. Footprint, footprint.

MS. PERROTTO: Okay. To the.

MR. McCREEDY: That's three floors of 4,000.

CHAIRMAN CORALLO: Going from 15 to 4,000.

MS. PERROTTO: Well, still. It's pretty sizeable. And again, the basement concerns me, the nature of the basement space concerns me.

I don't know who owns the property, I don't know who did own the property. But obviously the prior use was not a proper use of the property and it impacted my property

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greatly. So I do have my concerns.

MR. KONDOV: Thank you so much. Hi.

CHAIRMAN CORALLO: Give her your name.

MR. KONDOV: Sure. Ariel Kondov, applicant.

So Mrs. --

CHAIRMAN CORALLO: Can you address us? And she can hear you. Address us.

You want to complain, whatever you want to do but look at us; all right?

MR. KONDOV: Sure.

CHAIRMAN CORALLO: Okay. Tell us what you want to say.

MR. KONDOV: I just wanted to respond to her comments.

CHAIRMAN CORALLO: Okay. All right. That's all.

MR. KONDOV: First of all: I wanted to thank you all for being here today. I know it's not the first time that we're meeting about this particular project, and it's been some of a -- somewhat of a

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journey as me being the applicant for the first time. I'm definitely learning a lot about the process, about different challenges and concerns people may have, be it the Board members, be it the consultants, be it the neighbors. And I'm happy to take on this challenge and to take it to the finish line.

So as far as the concern from the neighbor -- I'm sorry, I didn't --

MS. PERROTTO: Perrotto.

MR. KONDOV: Ms. Perrotto. So I am the applicant, I am the current owner of this property. I cannot speak for the previous tenants, how it was used or how you were treated by them. I do want to apologize for that.

But now that I'm the owner of the property, it will be much different. So whatever concerns you have, I can give you my number, you could reach out to me. We will handle those. I can promise you that whatever happened in the past is history, and let's just kind of start the page clean.

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Let's move forward, you know. Let's start fresh.

In terms of the -- you had mentioned that the size of the building is -- right? You also have to understand that this is a one-acre property. So the fact that it was small until now, for whatever reason it was built this way, right, doesn't mean it has to stay that way.

And the way it currently looks in the neighborhood and when you drive on the 202, it's not the most appealing view. We must agree on that.

As a matter of fact, someone made a comment to me, I felt very offended by it, "This is a knock-down." When I paid a lot of money for it.

So obviously it's not -- it doesn't give the look that the town would like, especially now in 2025. We would definitely -- it's due for an upgrade. So I guess, Dan, take it.

MR. RICHMOND: Again. I want to thank the speaker for coming out.

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Just, I think, to add to what Ariel said. Again, the project, I would concur with the speaker is dilapidated now. And the aim of this is to improve the site, to make it much more improved, and make it less of an eyesore, far less.

In terms of -- I don't know what the current traffic situation or what happened in the past. But again, this is a different use than -- what is being proposed. And again, we've got the empirical analysis, as verified by the Board's own consultant that shows that we're providing adequate parking and so that should not be an issue.

Again, we're looking forward to continuing this dialogue with your Board and looking for direction on --

CHAIRMAN CORALLO: I have a question though.

MR. RICHMOND: Yes, sir.

CHAIRMAN CORALLO: You keep on bringing up our consultant.

In the letter they have, on page 2,

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Item No. 5. I'll read it to you.

It says: "It is noted that the peak parking demand projection provided by the applicant of 36 spaces is based on 12,000 square feet of office space, inclusive of the proposed 4,000-square-foot basement as general office space."

MR. RICHMOND: Yes, sir.

CHAIRMAN CORALLO: The basement is not general office space.

MR. RICHMOND: No. What they're saying --

CHAIRMAN CORALLO: Tell me what they're saying. Because I'm reading it that it could be office space.

MR. RICHMOND: I think what they're saying is that our consultant -- and they based it on -- took the most conservative analysis, assuming that the basement was office space.

It's not going to be, if you want to note it on the plan or whatever that it's not going to be.

But their point is: Even if you

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assume that the entire 12-foot 1,000 -- 12,000-square-foot building was going to be leasable office space, the peak parking demand would be 38 -- 36 spaces.

If you look at Paragraph 4 immediately before it --

CHAIRMAN CORALLO: Is that based on our code? The town code?

MR. RICHMOND: Your code requires -- yeah. One space per 150 square feet of gross floor area.

CHAIRMAN CORALLO: Floor area. So 150 and 12,000 is -- what's that? Sorry?

150 square feet for 12,000 square foot of space, how many parking spots would that be?

MS. TOMM ADDONA: 80.

MR. RICHMOND: That's 80 spaces. That's the variance. 80 spaces, that's the variance.

CHAIRMAN CORALLO: 80 spaces?

MR. RICHMOND: Yes.

CHAIRMAN CORALLO: All right. So now we're down to -- you're saying -- he's

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saying 36 and you're saying you're giving us 48. So the numbers are all --

MR. RICHMOND: No, no. We're -- they're --

CHAIRMAN CORALLO: You're using a different formula.

You're using the -- do you have it?

MR. RICHMOND: I'm going to read from the Board's consultant's memo, where it says, based on -- again, the parking and trip evaluation memo from our -- Colliers, "The proposed development would be expected to generate a peak parking demand of 36 spaces; and the peak demand would be satisfied by a parking supply of 48 spaces that is proposed. Stonefield agrees with this finding."

I mean, that's the empirical analysis.

CHAIRMAN CORALLO: Because you're using --

MR. RICHMOND: I could tell you about what substantial evidence means in terms of the land-use board. But

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ultimately, your decision needs to be based on empirical, not a gut, not neighborhood opposition, but what the facts show.

MR. McCREEDY: Mr. Chairman --

CHAIRMAN CORALLO: He's using an ITE fact and we have a town code.

MR. McCREEDY: I don't think the applicant's refuting what our code requires. They documented that thoroughly in their bulk table. I think the justification of the analysis is to assist in their argument that the 48 parking spaces they're proposing is justifiable based upon historical data that's, I think, founded in the ITE formula. So it's being used as an argument, not necessarily as a benchmark that we have to hold to.

And that really is really more for the Zoning Board than I think it is for this Board to justify.

MR. RICHMOND: I mean, we understand that the Zoning Board granted a similar variance for the Eastgate office complex based on the same type of analysis.

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MR. BEHRENS: And that didn't have a basement.

MR. RICHMOND: And that didn't --

CHAIRMAN CORALLO: What did the Zoning Board do? Which one?

MR. BEHRENS: Eastgate in Pomona.

CHAIRMAN CORALLO: Where was it?

MR. BEHRENS: Eastgate. It's in one of the cover letters.

CHAIRMAN CORALLO: The one in Mount Ivy?

MR. BEHRENS: Right.

MR. WIDMER: I mean, it seems to me a lot of these problems, if you reduce the size of the building, it would relieve a lot of these problems that you're encountering.

MR. RICHMOND: Again --

MR. WIDMER: I know you've gone up, I don't know if you've ever gone down and took a look at it that way.

MR. RICHMOND: I think reducing the project size makes it an unfeasible project. I mean, ultimately to improve the site, someone's going to need to invest money to

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make something that's marketable and has a profit.

I think if you reduce it to the size that it's unfeasible, I mean.

MR. WIDMER: If you look at it here, it's all building or parking lot.

MR. RICHMOND: Well, again --

MR. WIDMER: -- there is no greenery, no -- except for the berm between the houses in the back.

MR. RICHMOND: Again, as we discussed with the Town in the workshop with the Town Board, the idea is to include this as part -- similar to the shopping center across the street, that's the type of development. I think the Board is anticipating a certain gateway to the town in this area.

MS. TOMM ADDONA: Speaking of the Town Board, you know, I don't think the Town Board has seen this proposal either with the basement with the 12,000 square feet; correct?

I mean, I think you guys went to

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them last year. And this does require a discretionary zone text amendment -- zone change from the C -- from the P-O to the C.

So it may behoove you guys to go back to the Town Board to update them on what you're proposing, because they may feel differently with this additional square footage.

MR. RICHMOND: We'd be happy to present to the Town Board. I mean, I think they were enthusiastic about the project when we originally supposed.

We don't -- I think -- the basement, in our mind, doesn't add much to the project in terms of impact, doesn't add to it visually, doesn't add to it in terms of parking impacts or the traffic impacts. So we'd be happy to meet with the Town Board.

MR. KAUKER: One other thing that you should do: Since you submitted the initial application, it's still -- the initial application and the EAF Part 1 still indicate that there's an 8,000-square-foot

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building. So if you could update that, that would be helpful as well.

MS. HENDRIE: I did send Matt an email asking him to update the application.

CHAIRMAN CORALLO: And as far as basement is concerned, sir, the basement is concerned, I think that the kitchenette room is too large. You don't need to have it that big. You can make another storage room down there.

MS. TOMM ADDONA: It just seems like -- to have a two-to-one ratio of office space to amenity space -- I don't know. I'm not a commercial realtor but that just seems like a very high amount of amenity space.

MR. RICHMOND: Again, I could have the architect speak to why that's a rational amount of amenity space. There's another --

CHAIRMAN CORALLO: Sure.

MR. RICHMOND: -- person that's indicating he wants to speak.

CHAIRMAN CORALLO: We listen to everybody.

MR. ARYEH: Good evening,

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gentlemen.

CHAIRMAN CORALLO: Good evening. Please give her your name. She has to get your name.

MR. ARYEH: My name is Raphael Aryeh. And I just wanted to say my friend Ariel, he's a great guy. We all like him in the community. He's a very fine person, very kind to other people.

And I think it's a good place over here, modern place instead of looking the way it looks. It would add a lot of dignity to this place. And I really feel it's important to have something -- especially in such a way, because if not for this way, maybe someone will make it into retail or something more.

If I'm not mistaken, the code allows it. So it would be nice to have it this way. And all I can do is --

CHAIRMAN CORALLO: Listen. We're trying to work with him. It's a P-O zone, they want to go to a C zone. The C zone makes it a little bit better for them to

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operate with boundaries and so on. And we're working with them, so we're not -- that we're against it. We were trying to work, and then we kind of got out of -- 8,000, and the 10,00, and 12,000, basement, no basement, and so on and so forth. So it got a little confusing here.

So we have to try to get this all put together. I think what our engineer said: You have to continue getting the work, with grades and so on, and show us exactly what you're going to do.

Because you're looking at a plan like that, I look at it as a flat piece of property and it's not. It loops up, you're going to cut down or you're going to -- all those parking spots, if you don't cut it down, cars are going to be parked on the slope and you don't want to have that.

MR. BEHRENS: We'll certainly develop those details. I think as Dan said, we wanted to get --

CHAIRMAN CORALLO: I have one question, something else.

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MR. BEHRENS: Sure.

CHAIRMAN CORALLO: Go ahead. Say what you have to say.

MR. BEHRENS: What the applicant told me: Potentially reducing the kitchenette, maybe putting an office conference area for people to do Teams calls and things like that might be more appropriate, a low-impact use as well.

Just to again reiterate so we're all on the same page. The initial concept was 8,000. We've just -- from that initial concept, just dropped 4,000 for that basement space.

MS. TOMM ADDONA: You did go up to 10.

MR. BEHRENS: We proposed 10 to discuss at a workshop, which we heard the Board --

CHAIRMAN CORALLO: And there was no basement at the point.

MR. BEHRENS: There was no discussion of the basement then. So we understand --

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CHAIRMAN CORALLO: That's what happening. There was no basement, all of the sudden there's a basement.

MR. BEHRENS: So we went back to that 8,000, we just added an additional basement.

MR. KAUKER: I'm sorry. You were just talking about converting a portion of the basement into a conference room?

MR. BEHRENS: A conference area -- Ariel? -- just like in a normal conference room --

MR. KAUKER: I think that's going in the opposite direction. I think because then you're providing more office use in the basement. What you're proposing --

MR. KONDOV: It's not leasable.

MR. KAUKER: -- storage.

MR. BEHRENS: -- additional --

(Overlapping speakers.)

THE STENOGRAPHER: One at a time.

MR. BEHRENS: It wouldn't be additional users. It would be --

MR. KAUKER: I understand that, but

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that's just --

MR. BEHRENS: A Zoom, a Zoom area or something --

MR. KAUKER: It's more, it's more of an office use.

MR. KONDOV: Mr. Kauker, I find that you're just trying to nitpick this project. It's not that complicated. I was trying to make this place --

MR. KAUKER: Excuse me. I need --

MR. KONDOV: I was trying to make this place useable.

MR. KAUKER: I made one comment.

MR. KONDOV: If you have -- I'm trying to find -- make this place useable. I'm trying to get creative. All you're doing is trying to pop my bubbles here. Don't do that; okay?

This is going to be a place where people can have a professional office space. And I'm trying to make it -- give amenities that they have, otherwise they wouldn't have --

MR. KAUKER: Excuse me.

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How do you think I'm nitpicking if I made one comment?

(Overlapping speakers.)

THE STENOGRAPHER: One at a time.

CHAIRMAN CORALLO: Slow down, slow down.

MR. WIDMER: Excuse me. Maybe it'd be best if you guys came back with a full set of plans, then we could take a hard look at this.

MR. KONDOV: We've given you --

MR. WIDMER: You don't have grading, you don't have landscaping --

MR. KONDOV: We've given you --

MR. WIDMER: You don't have a full set of plans.

MR. KONDOV: Mr. Widmer, we have given you what you've asked for us to bring today. Every time we come, you need more stuff and more stuff. We can never come prepared like that. You have to understand that.

MR. WIDMER: Do we have a grading plan?

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MR. KAUKER: No.

MR. WIDMER: But have you asked for it? But have you asked for it --

MS. TOMM ADDONA: That is part of a site plan application.

(Overlapping speakers.)

THE STENOGRAPHER: One at a time.

Thank you.

MR. KONDOV: All I was just saying: In terms of the -- Mr. Kauker -- office space, conference room, it is normal in nowaday and age, modern offices have conference rooms because each suite cannot afford to have a conference room within it. So what you do is you offer a common area for tenants to use as a conference room. That's all I wanted to say. And I don't think it's outrageous. I don't think we have to nitpick it.

Mr. Chairman had a concern that the lunchroom was too big? Okay. Fine. So let's find other ways to use the space that could benefit the tenants.

MR. McCREEDY: You've made your

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point. You've made your point. We understand what you're trying to say. Thank you very much.

CHAIRMAN CORALLO: I have one more thing. Totally different than what we've been discussing.

But go ahead. I'll let you go.

You want to hear what I have to say?

MR. RICHMOND: Always.

CHAIRMAN CORALLO: Who is your architect?

MR. RICHMOND: What's that?

CHAIRMAN CORALLO: Who is your architect? You?

Go by the plan here. The entrance to the building is on the northeast corner; right?

MR. MACHLIS: Yeah, correct.

CHAIRMAN CORALLO: You see that?

Now let me see your elevations.

MR. MACHLIS: So the rendering -- we actually switched it. Because in terms of convenience, we didn't want to have

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people walking from the parking lot all the way around to the corner.

CHAIRMAN CORALLO: So that drawing of the building shows it on 202.

MR. MACHLIS: Correct. This is old.

CHAIRMAN CORALLO: I just want you to -- you agree with me?

MR. MACHLIS: Yeah, yeah. I apologize we're going to update the rendering.

CHAIRMAN CORALLO: I thought maybe I was looking at something one way and then something else the other way.

MR. MACHLIS: The rendering --

CHAIRMAN CORALLO: So that drawing, that elevation is not proper.

MR. MACHLIS: Yeah.

CHAIRMAN CORALLO: And then you don't show, you don't show the doors also coming off the road for that new doorway there.

MR. MACHLIS: Correct.

CHAIRMAN CORALLO: I'm just saying,

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when you're going to do something, fix it all up together.

MR. MACHLIS: 100 percent. But what we really wanted to provide, first of all: This was to give context for the project. And we've had this ever since Day 1. But we wanted to understand that we're in the right direction.

Now that we're in the right direction, of course, we're going to update everything to be as per the plan.

CHAIRMAN CORALLO: Just wanted to know what I was looking at.

MR. MACHLIS: It's just in terms of safety, this didn't make sense because everybody's pulling into the lot. We wanted the main entrance to be from the parking lot.

CHAIRMAN CORALLO: Thank you. Go ahead, sir.

MR. RICHMOND: No. Again, we thank your Board for the time. I think -- again, as I said several minutes ago in response to Glenn's comments, we hear you, you need more

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detailed plans.

Of course, before we developed those, what we wanted was understanding that we're on the same page. I think we all understand now we're looking at a 12,000-square-foot building.

CHAIRMAN CORALLO: Well, I don't know about that.

MR. RICHMOND: Well, that's what we're -- again, that's what we're proposing.

CHAIRMAN CORALLO: That's what you're proposing. So I'm not going to tell you that I'm agreeable to that right now. I'm not sure.

Because I thought 8,000 was what I was going to go with. And then at 10,000, I said "Absolutely not." And then I turned around, I came into a room, and you were at 12,000. So that kind of annoyed me, that you went from 8, I told you "Not 10," and then you're at 12.

You said: Well, he didn't say he didn't want 12; he just said he didn't want 10. And if I knew you're going to have a

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basement at 10 -- I mean, that's 5,000 and then another 5,000, you would have had 15,000.

MR. RICHMOND: Well, I don't think -- again, I think the idea that came for the basement was the idea because we were boxed in at 8,000. We understood your Board wanting that as the maximum leasable space, which we understood was based on parking. So that was the idea to come up with that.

But I understand you need -- you're asking for more plans to show how that works, and I think we can provide that to your Board.

MS. TOMM ADDONA: That's not how that conversation went. You came to the workshop proposing 10,000, we told you that that was not feasible. And then at the end of the conversation, the existence of the basement came out.

So it wasn't that after the 10,000, you went into the basement. That's not my recollection from the February workshop. I just want to make the record clear on that.

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MS. PERROTTO: And the basement doesn't drive any more revenue. So it's not --

MR. WIDMER: At our first meeting, when you came in, you were 8,000, you said we were amenable to it. We never said yes or no to it. I mean, that doesn't mean we're giving you 8,000. Personally, I think it's too big.

But, you know -- but don't say that, you know, we, we agreed to 8,000 as a maximum, because we never did. At least, not in any meetings I was at.

MR. RICHMOND: I guess we're looking for some constructive direction from the Board. That's why we're here tonight. And I think that the primary concern we heard from your Board at the last meeting was about parking and traffic.

So this plan was referred at 12,000 feet -- 12,000 square feet to your consultant, and I think we've shown that parking and traffic aren't the concern here. Your Board may have other concerns. But

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again, based on our consultant, your consultant, the only empirical analysis here, that's not the issue.

But again, we're happy to work with your Board. We hear you about landscaping, we think we can come in with more detailed plans that should satisfy you. Other issues, you know, you're concerned about -- again, landscaping I think is the primary one and how the project looks visually. We're happy to work with your Board on that, and I think we can come up with plans that I think you'll be comfortable with.

CHAIRMAN CORALLO: Anybody else have any questions right now?

MS. PERROTTO: Can I just make one more comment?

CHAIRMAN CORALLO: Yes. Sure. Come on up. Everybody else --

MS. PERROTTO: Because mine is not necessarily a visual concern. Mine is not necessarily a visual concern, mine is more a safety concern with the traffic on Balsam Road.

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And I had suggested or maybe thought about yesterday: Is there any way to put an island at the beginning of Balsam Road? I don't know if that's the Town or that's the builder but -- to prohibit cars from going up and down at excessive speeds.

CHAIRMAN CORALLO: Well, I think Balsam -- that's not my neighborhood. I think Balsam Road's too narrow to put an island in between to separate going north and south there. I don't think so. I'm not, I'm not a highway guy but it's kind of narrow.

I think what Mr. Widmer had -- he would like to see with -- coming out of this development there, when you came out, if you want to make a right turn, you can get over to the right side of the road and make a turn.

MR. WIDMER: Make a right and left exit and that would help the flow of traffic.

MS. PERROTTO: It's been incredibly dangerous.

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CHAIRMAN CORALLO: The first car wants to make a left-hand turn and he can't make it for some reason, it backs up on the road. That's a normal thing. But I don't think -- that would be the Town would have to decide to do that. I mean, it's a town road.

MS. PERROTTO: Yeah, okay.

CHAIRMAN CORALLO: Put a island there.

MS. PERROTTO: It was just a thought. Because I'm not trying to prohibit somebody from doing what they want with their land. But obviously, I have a property on the street and I need to maintain safety.

CHAIRMAN CORALLO: Were they parking in that street at the time? Did you have a lot of parking on the street? Because they're not supposed to be --

MS. PERROTTO: I could show you -- they had cars on both sides of the road and cars going either way up and down the road with people walking.

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CHAIRMAN CORALLO: It's a different use.

MS. PERROTTO: And again, that's with Lavinia's at the size it's at currently. So it concerns me obviously, and then the debris and things of that nature.

CHAIRMAN CORALLO: Well, Lavinia's and whatever they were before that, that was a smaller-use type thing, Lavinia's --

MS. PERROTTO: I mean, cars all over the road. Cars everywhere.

And that's -- sorry for the bad history there but it reflects now. But all right. That's all I have to say. And I don't know how to get your mic back in.

MR. RICHMOND: Mr. Widmer, if you could clarify the traffic concern you had or.

MR. WIDMER: Well, what I was saying was, I don't know if it's wide enough, but Balsam Road is fairly wide where it intersects with 202. So I don't know if you could make a left-hand turn and a right-hand turn leaving Balsam Road onto 202

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with the --

MR. RICHMOND: You're saying to see if it's possible to restripe it?

MR. WIDMER: Make it three lanes. So I don't know if it's possible --

(Overlapping speakers.)

THE STENOGRAPHER: One at a time.

MR. WIDMER: -- to tell you the truth.

MR. RICHMOND: All right. We can look into that.

CHAIRMAN CORALLO: Do you have anything? Anyone else from the public want to say anything?

Okay. We're going to keep this public hearing open.

MS. TOMM ADDONA: May 14th.

CHAIRMAN CORALLO: May 14th will be our next meeting, okay.

Can I have a motion that we're going to keep the public hearing open until May 14th?

MR. GIZZI: I'll make a motion.

CHAIRMAN CORALLO: Make that

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motion, Mr. Gizzi.

MR. WIDMER: Second.

CHAIRMAN CORALLO: Second by Mr. Widmer.

We're going to keep it open.

MR. RICHMOND: Thank you very much.

CHAIRMAN CORALLO: May 14th.

MR. RICHMOND: Thank you very much.

CHAIRMAN CORALLO: Do we have anything else?

MR. WIDMER: Motion to adjourn?

CHAIRMAN CORALLO: You're doing my job.

Adjourn, Mr. Widmer.

MR. SAMBRATO: I'll second.

CHAIRMAN CORALLO: Second by Mr. Sambrato.

All those in favor signify by saying "Aye."

(Whereupon, all the Board members responded "Aye.")

CHAIRMAN CORALLO: Opposed?

So carried.

(Time noted: 9:24 p.m.)

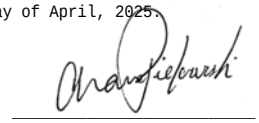
CERTIFICATION

STATE OF NEW YORK)
) ss
COUNTY OF KINGS)

I, CHANA PIEKARKSI, a Shorthand Reporter and Notary Public within and for the State of New York, do hereby certify:

THAT the foregoing transcript is a true and accurate transcript of my original stenographic notes.

IN WITNESS WHEREOF, I have hereunto set my hand this 24th day of April, 2025.



CHANA PIEKARSKI

Errata Sheet

NAME OF CASE: In Re: TOWN OF HAVERSTRAW PLANNING BOARD MEETING
DATE OF DEPOSITION: 04/09/2025
NAME OF WITNESS:
Reason Codes:
1. To clarify the record.
2. To conform to the facts.
3. To correct transcription errors.

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FEIS APPENDIX A – CORRESPONDENCE

APPENDIX A-6

CIVIL DESIGN WORKS LLC

CIVIL DESIGN WORKS LLC

Glenn McCreedy, P.E., C.M.E
Stuart Strow, P.E., C.F.M.

April 29, 2025

Town of Haverstraw Building Department
One Rosman Road
Garnerville, New York 10923

Attn: Annette Hendrie – Planning Board Secretary

Re: DEIS Technical Review
Letchworth Road Residential Development
Haverstraw, New York
Portion of Tax Lot 19.16-1-14
CDW #THAV23-602

Ms. Hendrie,

We are in receipt of the following submission documents for review:

- Draft Environmental Impact Statement Letchworth Road Residential Development, prepared by Haverstraw Group, LLC, dated January 24, 2025.
- Draft Environmental Impact Statement Letchworth Road Residential Development, Appendix C-1 Stormwater Pollution Prevention Plan (SWPPP), prepared by Haverstraw Group, LLC, last revised February 28, 2025.
- Plan Set:
  - C-000 – Cover Sheet – Last revised 1/24/2024
  - C-010 – Existing Conditions Map – Last revised 1/24/2025
  - C-100 – Site Layout Plan – Last revised 2/28/2025
  - C-200 – Site Grading Plan – Dated 1/24/2025
  - C-220 – Cross Sections – Dated 1/24/2025
  - C-300 – Site Utilities Plan – Last revised 2/28/2025
  - C-400 – Site Erosion & Sediment Control Plan – Dated 1/24/2025
  - C-900 – Construction Details – Dated 1/24/2025
  - C-901 – Construction Details – Dated 1/24/2025
  - C-902 – Construction Details – Dated 1/24/2025
  - C-903 – Construction Details – Dated 1/24/2025
  - L-100 – Overall Landscape Plan – Dated 1/24/2025
  - L-110 – Typical Unit Landscape Plan – Dated 1/24/2025

It should be first noted that the submitted materials have been reflecting this property as tax lot ID 19.11-1-1. The current tax map records and County GIS reflect the property as 19.16-1-14. This should be resolved with the Tax Assessor prior to the next submission.

Our office has reviewed the referenced materials for an evaluation of project impacts for the following areas of significance:

- III.C. Soils, Topography and Steep Slopes
- III.E. Stormwater Management
- III.F. Water Supply and Sanitary Sewerage
- III.M. Construction Impacts

This evaluation is not a comprehensive site plan review. It should be noted however that modifications to the site plan may further resolve several critical points that are identified.

This project is the first project that is being entertained by the Town of Haverstraw for the revitalization of the Letchworth Property. As discussed earlier in the initial workshop meetings, this project will be visual to the public and should be the cornerstone of potential future development of the large 154.6-acre property.

The elements outlined in the DEIS Scope provide the necessary environmental components that should set the standard for any remaining development of this property.

One critical component that must be fully evaluated is the entrance to the property. Through workshop discussions, the applicant has proposed a "Boulevard" entrance with round-about traffic infrastructure which will create the main entrance to the entire campus property. Although this could be considered a site plan evaluation, it does pose some integral components that should be further evaluated (and may address further SEQRA related issues).

"Ridge Road" currently is a driveway access on Town owner property that leads to the intersection of the Steward Road east/east access roads. The applicant has proposed upgrading Ridge Road to a boulevard to provide access to the new development, the existing church property as well as to the existing access roads of the remaining Letchworth northern property. This upgrade will be improved to meet Town standards and should be dedicated as a public road *within a public right of way*. The dedication as a public road and within a public right of way (as opposed to just Town owned property) will open an opportunity for public utilities to access this area without requiring dedicated/individual easements. This will also allow direct vehicular access to the development and cross life church since the right of way along this land will become frontage and an access easement will not be required.

It should be noted that the location of Cross Life Church access is depicted incorrectly based on the final site plan approval. We will provide an updated location for integration.

All public utilities, water, sewer, gas, electric, etc. should be proposed to enter from the boulevard right of way or provide infrastructure within the boulevard for future extension to the northern property area.

III.C. Soils, Topography and Steep Slopes

1 The project will require extensive earthwork to manipulate the topography to achieve the target elevations as identified on the Site Grading Plan. It is understood that the current grading proposed can be considered "preliminary" at this stage of plan development but well within practical target goals.

The cut and fill identified on III.C-10 (and II-8) does not match the cut and fill analysis map provided. This should be corrected. 2

3 As a result of the extensive earthwork that is involved, it may be difficult to achieve this amount of disturbance without exceeding the 5-acre threshold per NYSDEC. This should be further expanded upon and if necessary, phasing plans fully developed to illustrate the ability to manage the earthwork without excessive import/export of material offsite temporarily.

The soil movement analysis should also fully expand on the materials that will be imported. It is noted that portions of that fill material will be for the installation of specific infrastructure, utility bedding materials, asphalt paving, landscaping materials, etc. A further evaluation of the fill materials should be detailed and if additional materials outside of base infrastructure are necessary, the points of origin should be provided. A manifest for all imported soil will be required. 4

5 Infiltration testing was performed (Table III.C-1) as part of the geotechnical work for the stormwater system however, it does not appear that the elevations of the testing were fully coordinated with the design proposals. The infiltration results can be accepted for conceptual or preliminary design purposes, but further testing will be required within the tolerances of the NYS Stormwater Manual (and must be witnessed by the Town) prior to any design being accepted.

For retaining walls in excess of 4' in height (III.C-11) , all walls must be engineered as well as inspected and certified after installation by a NYS Licensed Professional Engineer. 6

III.E. Stormwater Management

Corrections to be noted to the DEIS

7
- Page I-6, III.E-4 and App C-1 page 12 identify five stormwater management basins while only (4) are proposed.
- Naming conventions for existing and proposed drainage areas are inconsistent throughout the text, mapping and modeling. 8

9
- III.E-4 2024 Stormwater Manual must be utilized
- App C-1 page 1 – Update Introduction 10

11
- App C-1 page 1,9,36 - Update reference for SPDES General Permit and Stormwater Manual.
- App C-1 page 9 – Type III storm distribution is no longer permitted. In addition to the precipitation data update (which should be included as an appendix of the SWPPP), the rainfall distribution curve must be established from the NRCC website. Guidance is offered in Section 4.9 of the Stormwater Manual. 12

13
- App C-1 page 35 – Remove reference to Westchester County Code

Drainage areas of report text do not match drainage area map. Page 17 references a Proposed Drainage Area 1-G that does not match the drainage area map. Entire analysis must be revised to be consistent throughout. 14

The stormwater evaluation as presented does not meet the objectives of the 2024 Stormwater Manual or the Town of Haverstraw Code.

15 The applicant has attempted to justify the use of the "project boundary" as the point of evaluation however this does not address impacts directly to properties/areas offsite and direct points of influence. Zero net increase is specific to a point of interest (or location) that is based on topography. Since the project is on a ridge (or peak) of the surrounding area, a broader evaluation needs to be conducted to evaluate the impacts as the runoff leaves the project site at the specific discharge points presented for proposed conditions based on the existing contributions to those locations. If areas cannot be resolved at specific location, then a broader analysis needs to be provided and potentially offsite stormwater improvements considered to justify the evaluation results.

For example, the impacts associated with the runoff from EDA-1A (discharging toward Hammond Road and Letchworth Village Road) have no relevance to EDA-1B (which ultimately discharges to a drainage ditch along the north side of the property and to the stream passing through the North Rockland High School Campus). Combining those results has no basis for mitigative efforts and does not achieve the goals required to meet zero net increase.

16 For proposed conditions, direct impacts must be evaluated for contributions at the discharge points. The use of level spreaders will be evaluated as a point of discharge location and must be compared to the direct watershed contribution that would be directed along the same path during current conditions.

The project has also presented a stormwater mitigation basin on Town property along the boulevard. This will not be permitted. There is sufficient opportunity on the project site to collect and manage the stormwater infrastructure. 17

18 We recommend that a workshop be set up to further discuss the stormwater analysis/evaluation as well as the impacts of offsite stormwater contribution.

Further review of the critical components of the stormwater design manual (i.e. WQv, RRV, CPv, Qp, Qf) will be assessed once the established points of evaluation have been resolved. 19

III.F. Water Supply and Sanitary Sewerage

20 Initial references from section I-6 identify that the project site is within the service area and operated by Veolia Water New York. Veolia Water does not currently have any infrastructure in the immediate area of the project site. The existing water system that is onsite is reported as out of service and was independent from the Veolia operating system.

The project will require an extensive off-site improvement to bring new water supply to the project location. A copy of the willingness to service application was provided in Appendix B of the DEIS but was incomplete and 21

appears unsubmitted. No flow data was provided, references to the number of hydrants proposed do not match the proposed plans. 21

22 Veolia Water must provide documentation that it can support this project in its entirety. A full Engineers Report evaluation shall be prepared and included in accordance with the Recommended Standards for Water Works 2022 Edition. It is important to note that sections 1.1.6 and section 1.1.16 must be addressed.

Ownership of the on-site water mains shall be resolved. It may impact the current layout of the water main infrastructure. 23

24 The number and location of hydrants shall be coordinated with my office, the Fire Inspector and the Fire Chief. Provisions for additional hydrants may be requested along Letchworth Road along the project frontage.

The plans identify an offsite sewer improvement in addition to an on-site collection system. A willingness to serve from Joint Regional is required. A hydraulic capacity analysis of the existing and proposed system shall be provided to justify the acceptance of the additional flow into the system for average and peak flow demands. 25

26 Both the new water and sewer systems must be aligned and established to enter the project location through the new boulevard. This is to better serve the new development but also to provide potential connection for future development of the remaining Letchworth property.

III.M. Construction Impacts

The project states it will be a single-phase construction. As a result of the size and impacts of the construction, further soil erosion methods must be deployed such as sedimentation areas/basins, construction ditches, diversions, etc. Note that infiltration practices cannot be used for sedimentation storage or be impacted by material storage or soil staging. A construction plan shall be fully developed to deploy runoff diversion and sediment entrapment to mitigate impacts to those locations as well as offsite runoff impacts associated with the reduction in ground cover/vegetation. 27

28 Impacts for earthwork disturbance levels should be further evaluated as identified above in III.C.

Site safety and security will be a factor since the Letchworth property will continue to be an active recreational area and the church property will continue to operate. A full site safety plan must be prepared and presented. 29

30 Offsite work may be required within the public roadway system for sewer and water (at a minimum). Appropriate traffic control plans must be prepared to address traffic impacts during construction. Note that the sequencing of major earthwork operations, material import/export shall be avoided during any significant traffic impacts offsite to avoid additional traffic delays.

Our office will require additional information/evaluations to resolve open issues identified. We have no objection to meeting directly with the applicant's engineers to discuss items openly if necessary to avoid unnecessary revisions and submission cycles.

Very truly yours,

Civil Design Works, LLC
Glenn McCreedy, P.E., President
Town of Haverstraw Consulting Engineer

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FEIS APPENDIX A – CORRESPONDENCE

APPENDIX A-7

LABELLA

April 18, 2025

Town of Haverstraw Planning Board
One Rosman Road
Garnerville, NY 10923
Attn: Salvatore Corallo, Chairperson

RE: Traffic Review #2 – DEIS Technical Review
Letchworth Road Residential Development
Letchworth Village Road, Town of Haverstraw, Rockland County, New York
LaBella Project No.: 2243683

Dear Chairperson Corallo and Board Members:

On behalf of the Town of Haverstraw, LaBella Associates DPC (LaBella) has performed a Technical Review of the Draft Environmental Impact Statement (DEIS) for the Letchworth Road Residential Development, prepared by JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC (JMC), last revised February 28, 2025. LaBella reviewed the following documents:

1. Section III.H Traffic, Transportation, and Parking Study of the DEIS
2. Appendix C-2 Traffic Data of the DEIS
3. Appendix D Detailed Site Plans of the DEIS

Based on our Technical Review, we offer the following comments:

1. LaBella finds Section 1. Existing Roadway Inventory & Transportation Data Collection complete and accurate.

2. Existing Volumes: LaBella finds the existing volumes to be accurate following the considerations taken into account for the detour in place during the count periods. LaBella understands that JMC will conduct additional counts of select intersections once the detour is no longer in place to validate the existing condition volumes developed for this traffic analysis that were reviewed and approved by LaBella. LaBella recommends that the following intersections be included:
   - Intersection No. 5 – Letchworth Village Road and Ridge Road
   - Intersection No. 6 – Suffern Lane/Letchworth Village Road and Thiells-Mount Ivy Road/Hammond Road
   - Intersection No. 12 – Thiells-Mount Ivy Road and Ridge Road
   - Intersection No. 13 - Thiells-Mount Ivy Road and Rosman Road

3. Accident Analysis: LaBella finds the Accident Analysis to be accurate. LaBella notes the following based on the analysis:
   - There were no reported collisions at the Letchworth Village Road and Ridge Road intersection. This is the location of the proposed access.

- At the US Route 202 and NYS Route 45/Old Country Road intersection, there was one collision involving a pedestrian with the pedestrian being outside of the designated crosswalk. The analysis also indicated a predominance of rear collisions at the intersection with descriptions including vehicles in the process of performing a right turn on red from the northbound NYS Route 45 approach. JMC evaluated a scenario in the Build condition that considered a right turn on red prohibition for this approach. The findings indicate that the prohibition will have deleterious impacts to the operations of the approach; however, there are safety benefits to the proposed improvement. As noted in the study, the intersection is under the jurisdiction of the NYSDOT, thus any improvements are subject to its review and approval.

3

- JMC conducted a signal warrant analysis for the Thiells-Mount Ivy Road and Palisades Interstate Parkway Northbound Off Ramp intersection based on MUTCD Warrant 7, Crash Experience. LaBella agrees with the findings that a signal is not warranted based on the studied warrant. JMC is proposing that Intersection Warning (W2-2) signs be installed on the Thiells-Mount Ivy Road approaches. LaBella agrees with the sign selection and location as shown by JMC. As noted in the study, the roadway is under the jurisdiction of the RCDPW, thus any improvements are subject to its review and approval.

- The study indicated that there were two collisions involving pedestrians along Thiells-Mount Ivy Road with one resulting in a pedestrian fatality. This event occurred in proximity to the roadway's intersection with Charles Lane. As noted in the study, the proposed project will represent a marginal increase (less than 10%) in traffic along the roadway. However, it is recommended that pedestrian safety countermeasures on Thiells-Mount Ivy Road be investigated by the Village and County for the roadway in proximity to The Garden at Palisades residential development.

4. Sight Distance Analysis: LaBella agrees with the sight distance analysis conducted for the Letchworth Village Road and Ridge Road intersection following the realignment of Ridge Road under the proposed conditions. The analysis indicates that there are adequate sight lines for all approaches with the intersection operating under all-way stop control, which is the existing as well as the proposed intersection control.

4

5

5. Vehicular Trip Generation: LaBella agrees with the projected site-generated trips based on the Institute of Transportation Engineers' (ITE) *Trip Generation Manual,* 11th Edition, and Land Use Code (LUC) 220 – "Multifamily Housing (Low Rise)" – Not Close to Rail Transit – General Urban/Suburban.

6. Multi-Modal Trip Generation: LaBella agrees with the projected walk trips based on LUC 220 – "Multifamily Housing (Low Rise)" – Not Close to Rail Transit – General Urban/Suburban. As noted in the study, the applicant will coordinate with North Rockland Central School District to provide a centralized school bus stop on-site as a designated area for the drop-off and pick-up of school children. Coordination with the school district as well as the drop-off and pick-up location and any accommodations (shelter, loading zone, etc.) for the drop-off and pick-up location should be provided during review of the site plan.

6

7

7. No-Build Volumes: LaBella agrees with the +0.5% growth rate compounded annually for five (5) years to calculate background traffic volume growth. LaBella also agrees with the inclusion of the Oak Tree Apartments in the traffic forecasting.

8

8. Build Volumes: LaBella agrees with the distribution of site-generated trips developed by JMC. LaBella also agrees with the findings of the Build condition operations analysis as well as the mitigation proposed by JMC to address operational and safety concerns. LaBella notes that the Build condition analysis shall be updated based on the turning movement counts collected at select intersections following the complete removal of the detour.

9

9. Transportation Mitigation:
    - Intersection 4 – Letchworth Village Road and Storrs Road: LaBella agrees that the existing configuration with stop-control only on the southbound Letchworth Village Road approach is atypical and not preferred given driver expectations based on similar intersection types. JMC explored two options: A) stop-control on Storrs Road with both Letchworth Village Road approaches operating freely, B) all-way stop control.

      The operations analysis of Option A indicates that LOS for the Storrs Road will degrade from a LOS A to LOS D; however, the LOS F on the southbound Letchworth Village Road approach will be mitigated. LaBella agrees with the findings of this analysis. It should be noted that the LOS reports indicate that the queueing during the School Dismissal peak hour for the Storrs Road approach will be approximately five (5) vehicles. This amount of queuing should not obstruct the driveways of the schools located west of the intersections.

      The operations analysis of Option B indicates that the approaches will operate at a LOS D or better. LaBella agrees with the findings of this analysis. It should be noted that the LOS reports indicate that the queueing during the School Dismissal peak hour for the Storrs Road approach will be approximately one (1) vehicle. This amount of queuing should not obstruct the driveways of the schools located west of the intersections.

      As noted in the study, the intersection is under the joint jurisdiction of the Town of Haverstraw and RCDPW, thus any improvements are subject to their review and approval. However, the applicant is prepared to fund and install the improvements pending said approval.

    - Intersection 5 – Letchworth Village Road and Ridge Road: LaBella agrees with the proposed realignment of Ridge Road to achieve a more perpendicular approach to Letchworth Village Road. LaBella also agrees with the addition of the supplemental All-Way (R1-3P) plaques below the Stop (R1-1) signs. As noted in the study, the intersection is under the joint jurisdiction of the Town of Haverstraw and RCDPW, thus any improvements are subject to their review and approval. However, the applicant is prepared to fund and install the improvements pending said approval.

10

- Intersection 9 – US Route 202 and Thiells-Mount Ivy Road: JMC indicates that using the Weekday AM timing plans for the Weekday PM plan results in the overall intersection operating with less delay than the No-Build conditions. LaBella notes that the southbound Thiells-Mount Ivy Road left-turn movement currently operates at a LOS F during all study periods and the delay will be exacerbated in the No-Build and Build conditions. The delay in this movement can be attributed to the intersection being "clustered" with the US Route 202 and NYS Route 45/Old Country Road intersection to the east and priority being given to the mainline (US Route 202) movements. LaBella agrees that the timing modifications proposed by JMC will result in more favorable operating conditions. As noted in the study, the intersection is under the jurisdiction of the NYSDOT, thus any improvements are subject to its review and approval.

11

- Intersection 10 – US Route 202 and NYS Route 45/Old Country Road: LaBella agrees with the proposed implementation of a No Right Turn on Road for the northbound NYS Route 45 approach to address the pattern of rear end collisions identified in the Accident Analysis. As noted in the study, the intersection is under the jurisdiction of the NYSDOT, thus any improvements are subject to its review and approval. It is possible that a span wire analysis will be necessary to ensure that the existing infrastructure can accommodate the addition of the No Turn on Red (R10-11) sign as shown.

12

- Intersection 11 – Thiells-Mount Ivy Road and Palisades Interstate Parkway Northbound Off Ramp: As noted earlier, LaBella agrees with the findings that a signal is not warranted based on the studied warrant. JMC is proposing that Intersection Warning (MUTCD Code W2-2) signs be installed on the Thiells-Mount Ivy Road approaches. LaBella agrees with the sign selection and location as shown by JMC. As noted in the study, the roadway is under the jurisdiction of the RCDPW, thus any improvements are subject to its review and approval.

13

- Thiells-Mount Ivy Road: JMC proposes the installation of Advance Warning for Deer (W11-3) signs along the roadway. LaBella agrees with the installation of these signs. As noted in the study, the roadway is under the jurisdiction of the RCDPW, thus any improvements are subject to its review and approval. Furthermore, it is recommended that pedestrian safety countermeasures on Thiells-Mount Ivy Road be investigated by the Village and County for the roadway in proximity to The Garden at Palisades residential development.

14

- Intersection 13 – Thiells-Mount Ivy Road and Rosman Road: LaBella agrees that this intersection should be re-studied following the collection of turning movement counts with the detour removed. Mitigation should be explored if operational concerns remain evident based on that forthcoming analysis.

15

10. Circulation: For review of the DEIS, LaBella finds the site plan acceptable in terms of internal circulation. Approval from the appropriate fire department and other emergency services should be provided to ensure they agree with the access and circulation plan. LaBella recommends that consideration for extending the pedestrian accommodations to the church property located to the west of the proposed roundabout.

16

11. Parking: LaBella understands that the required number of parking spaces is 2 spaces/unit, which equates to the 600 parking spaces for the proposed project. As noted by JMC, ITE data indicates that the 85th percentile peak parking demand for the proposed project is 482 spaces. The project proposes 667 parking spaces comprised of:

17

- 399 General Surface Spaces
- 134 Garage Spaces
- 134 Tandem (In front of Garage) Spaces

The proposed number of spaces exceeds the requirement by 67 spaces and the estimated ITE peak demand by 185 spaces. To reduce the impervious surface area of the project and increase the potential for green space, LaBella recommends that the applicant consider reducing the number of General Surface Spaces to 332.

Please contact me at shipp@labellapc.com or at (914 269-5604 if there are any questions regarding the comments provided.

Respectfully submitted,
LaBella Associates

Starke W. Hipp, PE
Traffic Engineer

Frank A. Filicotto, PE
Principal Traffic Engineer

FEIS APPENDIX A – CORRESPONDENCE

APPENDIX A-8

COMMENT KEY

COMMENT KEY

The table below notes the source of each comment from the correspondence within Appendix A and the corresponding FEIS Comment Response Number in the FEIS which contains the responses. Transcript from the public hearing on April 9, 2025 is also included within Appendix A.

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-1	1	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Land Use and Zoning	III.C.2-1
Memorandum	A-1	2	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Land Use and Zoning	III.C.2-2
Memorandum	A-1	3	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Land Use and Zoning	III.C.2-3
Memorandum	A-1	4 & 5	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Land Use and Zoning	III.C.2-4
Memorandum	A-1	6	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Land Use and Zoning	III.C.2-5
Memorandum	A-1	7	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Land Use and Zoning	III.C.2-6

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-1	8	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Visual Resources and Community Character	III.C.3-1
Memorandum	A-1	9	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Community Demographics, Facilities and Services	III.C.10-1
Memorandum	A-1	10	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Community Demographics, Facilities and Services	III.C.10-2
Memorandum	A-1	11	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Community Demographics, Facilities and Services	III.C.10-3
Memorandum	A-1	12	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Community Demographics, Facilities and Services	III.C.10-4
Memorandum	A-1	13	Kauker & Kauker, LLC, Michael D. Kauker, PP, AICP	Historic and Cultural Resources	III.C.13-1
Memorandum	A-2	1	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Comments Regarding DEIS Project	III.C.1B-1

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-2	2	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Comments Regarding DEIS Project	III.C.1B-2
Memorandum	A-2	3	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Comments Regarding DEIS Executive Summary	III.C.1A-2
Memorandum	A-2	4	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Comments Regarding DEIS Executive Summary	III.C.1A-3
Memorandum	A-2	5	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Comments Regarding DEIS Executive Summary	III.C.1A-4
Memorandum	A-2	6	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Land Use and Zoning	III.C.2-7
Memorandum	A-2	7	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Land Use and Zoning	III.C.2-3

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-2	8	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Soils, Topography and Steep Slopes	III.C.4-7
Memorandum	A-2	9	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Flora and Fauna	III.C.5-1
Memorandum	A-2	10	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Flora and Fauna	III.C.5-2
Memorandum	A-2	11	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Flora and Fauna	III.C.5-3
Memorandum	A-2	12	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Stormwater Management	III.C.6-14
Memorandum	A-2	13	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Stormwater Management	III.C.6-15

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-2	14	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Traffic, Transportation, and Parking	III.C.9-1
Memorandum	A-2	15	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Traffic, Transportation, and Parking	III.C.9-2
Memorandum	A-2	16	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Community Demographics, Facilities and Services	III.C.10-2
Memorandum	A-2	17	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Noise and Air Quality	III.C.12-1
Memorandum	A-2	18	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Historic and Cultural Resources	III.C.13-2
Memorandum	A-2	19	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Effects on the Use and Conservation of Energy Resources	III.C.19-1

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-2	20	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Effects on the Use and Conservation of Energy Resources	III.C.19-2
Memorandum	A-2	21	Rockland County Planning Department, Douglas J. Schuetz, Acting Commissioner of Planning	Effects on the Use and Conservation of Energy Resources	III.C.19-3
Memorandum	A-3	1	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Comments Regarding DEIS Project	III.C.1B-3
Memorandum	A-3	2	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Comments Regarding DEIS Project	III.C.1B-4
Memorandum	A-3	3	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Comments Regarding DEIS Project	III.C.1B-5
Memorandum	A-3	4	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Comments Regarding DEIS Project	III.C.1B-6

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-3	5	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Other Utilities and Services	III.C.8-1
Memorandum	A-3	6	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Other Utilities and Services	III.C.8-2
Memorandum	A-3	7	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Fiscal and Economic Conditions	III.C.11-1
Memorandum	A-3	8	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Comments Regarding DEIS Project	III.C.1B-7
Memorandum	A-3	9	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Historic and Cultural Resources	III.C.13-3
Memorandum	A-3	10	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Historic and Cultural Resources	III.C.13-4
Memorandum	A-3	11	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Community Demographics, Facilities and Services	III.C.10-5

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-3	12	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Community Demographics, Facilities and Services	III.C.10-6
Memorandum	A-3	13	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Fiscal and Economic Conditions	III.C.11-2
Memorandum	A-3	14	Silverberg Zalantis, LLC, Christie Addona, Town Land Use and Zoning Attorney	Construction	III.C.14-5
Memorandum	A-4	1	NYS Office of General Services, Mark McGlynn, State Asset and Land Management	Comments Regarding DEIS Project	III.C.1B-8
Memorandum	A-4	2	NYS Office of General Services, Mark McGlynn, State Asset and Land Management	Stormwater Management	III.C.6-16
Public Hearing Transcript	A-5	1	Town of Haverstraw Planning Board, Chairman Corallo	Stormwater Management	III.C.6-17
Public Hearing Transcript	A-5	2	Town of Haverstraw Planning Board, Chairman Corallo	Stormwater Management	III.C.6-18

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Public Hearing Transcript	A-5	3	Town of Haverstraw Planning Board, Chairman Corallo	Stormwater Management	III.C.6-19
Public Hearing Transcript	A-5	4	Town of Haverstraw Planning Board, Chairman Corallo	Traffic, Transportation, and Parking	III.C.9-20
Public Hearing Transcript	A-5	5	Town of Haverstraw Planning Board, Chairman Corallo	Soils, Topography and Steep Slopes	III.C.4-8
Public Hearing Transcript	A-5	6	Town of Haverstraw Planning Board, Chairman Corallo	Soils, Topography and Steep Slopes	III.C.4-9
Public Hearing Transcript	A-5	7	Town of Haverstraw Planning Board, Chairman Corallo	Comments Regarding DEIS Project	III.C.1B-9
Public Hearing Transcript	A-5	8	Darla Perrotto, 5 Balsam Road	Comments Regarding DEIS Project	III.C.1B-10
Public Hearing Transcript	A-5	9	Darla Perrotto, 5 Balsam Road	Comments Regarding DEIS Project	III.C.1B-11
Public Hearing Transcript	A-5	10	Jose Castro, Representative of CrossLife Church	Visual Resources and Community Character	III.C.3-2
Public Hearing Transcript	A-5	11	Jose Castro, Representative of CrossLife Church	Visual Resources and Community Character	III.C.3-3

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Public Hearing Transcript	A-5	12	Jose Castro, Representative of CrossLife Church	Comments Regarding DEIS Project	III.C.1B-12
Public Hearing Transcript	A-5	13	Jose Castro, Representative of CrossLife Church	Comments Regarding DEIS Project	III.C.1B-13
Public Hearing Transcript	A-5	14	Jose Castro, Representative of CrossLife Church	Comments Regarding DEIS Project	III.C.1B-14
Public Hearing Transcript	A-5	15	Jose Castro, Representative of CrossLife Church	Visual Resources and Community Character	III.C.3-4
Public Hearing Transcript	A-5	16	Jose Castro, Representative of CrossLife Church	Stormwater Management	III.C.6-17
Public Hearing Transcript	A-5	17	Jose Castro, Representative of CrossLife Church	Water Supply and Sanitary Sewerage	III.C.7-8
Public Hearing Transcript	A-5	18	Jose Castro, Representative of CrossLife Church	Water Supply and Sanitary Sewerage	III.C.7-9
Public Hearing Transcript	A-5	19	Jose Castro, Representative of CrossLife Church	Construction	III.C.14-6
Public Hearing Transcript	A-5	20	Jose Castro, Representative of CrossLife Church	Comments Regarding DEIS Project	III.C.1B-15
Public Hearing Transcript	A-5	21	Jose Castro, Representative of CrossLife Church	Comments Regarding DEIS Project	III.C.1B-16

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-6	1	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Soils, Topography & Steep Slopes	III.C.4-1
Memorandum	A-6	2	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Soils, Topography & Steep Slopes	III.C.4-2
Memorandum	A-6	3	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Soils, Topography & Steep Slopes	III.C.4-3
Memorandum	A-6	4	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Soils, Topography & Steep Slopes	III.C.4-4
Memorandum	A-6	5	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Soils, Topography & Steep Slopes	III.C.4-5
Memorandum	A-6	6	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Soils, Topography & Steep Slopes	III.C.4-6
Memorandum	A-6	7	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-1
Memorandum	A-6	8	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-2
Memorandum	A-6	9	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-3
Memorandum	A-6	10	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-4

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-6	11	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-5
Memorandum	A-6	12	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-6
Memorandum	A-6	13	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-7
Memorandum	A-6	14	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-8
Memorandum	A-6	15	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-9
Memorandum	A-6	16	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-10
Memorandum	A-6	17	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-11
Memorandum	A-6	18	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-12
Memorandum	A-6	19	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Stormwater Management	III.C.6-13
Memorandum	A-6	20	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Water Supply and Sanitary Sewerage	III.C.7-1

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-6	21	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Water Supply and Sanitary Sewerage	III.C.7-2
Memorandum	A-6	22	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Water Supply and Sanitary Sewerage	III.C.7-3
Memorandum	A-6	23	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Water Supply and Sanitary Sewerage	III.C.7-4
Memorandum	A-6	24	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Water Supply and Sanitary Sewerage	III.C.7-5
Memorandum	A-6	25	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Water Supply and Sanitary Sewerage	III.C.7-6
Memorandum	A-6	26	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Water Supply and Sanitary Sewerage	III.C.7-7
Memorandum	A-6	27	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Construction	III.C.14-1
Memorandum	A-6	28	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Construction	III.C.14-2
Memorandum	A-6	29	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Construction	III.C.14-3
Memorandum	A-6	30	Civil Design Works, LLC, Glenn Mccreedy, P.E.	Construction	III.C.14-4

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-7	1	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-3
Memorandum	A-7	2	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-4
Memorandum	A-7	3	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-5
Memorandum	A-7	4	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-6
Memorandum	A-7	5	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-7
Memorandum	A-7	6	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-8
Memorandum	A-7	7	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-9
Memorandum	A-7	8	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-10
Memorandum	A-7	9	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-11
Memorandum	A-7	10	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-12

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	FEIS RESPONSE SUBSECTION	FEIS COMMENT RESPONSE NUMBER
Memorandum	A-7	11	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-13
Memorandum	A-7	12	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-14
Memorandum	A-7	13	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-15
Memorandum	A-7	14	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-16
Memorandum	A-7	15	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-17
Memorandum	A-7	16	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-18
Memorandum	A-7	17	LaBella, Starke W. Hipp, PE, and Frank A. Filicotto, PE	Traffic, Transportation, and Parking	III.C.9-19

FINAL ENVIRONMENTAL IMPACT STATEMENT

Letchworth Road Residential Development

Letchworth Road
Town Of Haverstraw
Rockland County, NY

APPENDIX B

STORMWATER POLLUTION PREVENTION PLAN (SWPPP), LAST REVISED 08/15/2025

Prepared for:

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16 Microlab Road, Suite A
Livingston, NJ 07039
Contact: Mr. Marc Pantirer

Lead Agency:

Town of Haverstraw Planning Board

Prepared by:

Project 21090

Date: *August 15, 2025*

STORMWATER POLLUTION PREVENTION PLAN

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT

LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

Applicant/Operator/ Owner: **BNE Real Estate Group**
16 Micolab Road
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Prepared by:

JMC Project 21090

Date: 01/24/2025
Revised: 02/28/2025
08/15/2025

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JMC SITE PLANS

Dwg. No.	Title	Rev. No.	/Date
C-000	Cover Sheet	3	08/15/2025
C-010	Existing Conditions Map	3	08/15/2025
C-100	Site Layout Plan	3	08/15/2025
C-200	Site Grading Plan	3	08/15/2025
C-220	Cross Sections	3	08/15/2025
C-300	Site Utilities Plan	3	08/15/2025
C-400	Overall Construction Phasing Plan		08/15/2025
C-401	Site Erosion & Sediment Control Plan – Phase 1A		08/15/2025
C-402	Site Erosion & Sediment Control Plan – Phase 1B		08/15/2025
C-403	Site Erosion & Sediment Control Plan – Phase 2		08/15/2025
C-404	Site Erosion & Sediment Control Plan – Phase 3		08/15/2025
C-900	Construction Details	3	08/15/2025
C-901	Construction Details	3	08/15/2025
C-902	Construction Details	3	08/15/2025
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L-100	Overall Landscaping Plan	3	08/15/2025
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I. INTRODUCTION

This Stormwater Pollution Prevention Plan has been prepared for the 27.10-acre Letchworth Residential site, located in Haverstraw, Rockland County**,** New York (hereinafter referred to as the "Site"). The site is bordered by Birch Dr. to the north, Historic Letchworth Village to the south, North Rockland High School to the east, and Stewart Hall to the west. The development has been designed in accordance with the following:

- Requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-25-001, effective January 29, 2025.
- Requirements of the New York State Department of Environmental Conservation Stormwater Management Design Manual, dated July 31, 2024
- Chapter 140 "Soil Erosion and Sediment Control" of the Town of Haverstraw Zoning Code

The applicant is proposing to construct five (5) 18,688 SF apartment buildings, two (2) 20,850 SF apartment buildings, and one (1) 10,265 SF clubhouse for a total of 300 rental apartments as well as associated surface parking and garage spaces located at the bottom of each residential building.

II. STORMWATER MANAGEMENT PLANNING

In order to be eligible for coverage under the NYSDEC SPDES General Permit No. GP-0-25-001 for Stormwater Discharges from Construction Activities, the Stormwater Pollution Prevention Plan (SWPPP) includes stormwater management practices (SMP's) from the publication "New York State Stormwater Management Design Manual," last revised July 2024.

A Stormwater Pollution Prevention Plan has been prepared for this project because it is a construction activity that involves:

- Soil disturbances of one (1) or more acres of land.

The proposed project type falls under Table 2 of Appendix B of GP-0-25-001. As a result, this SWPPP includes post-construction stormwater management practices (SMPs).

The proposed stormwater facilities have been designed such that the quantity and quality of stormwater runoff during and after construction are not adversely altered or are enhanced when compared to pre-development conditions.

Based on the GIS information provided by the website of the New York State Office of Parks, Recreation and Historic Places, the site does not contain, nor is it immediately adjacent to any properties listed on the State or National Register of Historic Places

The Six Step Process for Stormwater Site Planning and Practice Selection

Stormwater management using green infrastructure is summarized in the six-step process described below. The six-step process was adhered to when developing this SWPPP. Information is provided in this SWPPP which documents compliance with the required process as follows:

Step 1: Site Planning

Implement planning practices that protect natural resources and utilize the hydrology of the site. Strong consideration must be given to reducing impervious cover to aid in the preservation of natural resources including protecting natural areas, avoiding sensitive areas and minimizing grading and soil disturbance.

Step 2: Determine Water Quality Treatment Volume (WQv)

Determine the required WQv for the site based on the site layout, impervious areas and sub-catchments. This initial calculation of WQv will have to be revised after green infrastructure techniques are applied. The following method has been used to calculate the WQv.

- **90% Rule -** According to the New York State Stormwater Design Manual, Section 4.1, the water quality volume is determined from the 90% rule. The method is based on 90% of the average annual stormwater runoff volume which must be provided due to impervious surfaces. The Water Quality Volume (denoted as the WQv) is designed to improve water quality sizing to capture and treat 90% of the average annual stormwater runoff volume. The WQv is directly related to the amount of impervious cover created at a site. The average rainfall storm depth for 90% of storms in New York State in one year is used to calculate the volume of runoff. The rainfall depth depends on the location of the site within the state. From this depth of rainfall, the required water quality volume is calculated.

Step 3: Runoff Reduction Volumes (RRv) by Applying Green Infrastructure Techniques and Standard SMP's

RRv is required for this project since it is a new development.

Green infrastructure techniques or standard SMP's with RRv capacity can potentially reduce the required WQv by incorporating combinations of green infrastructure techniques and standard SMP's within each drainage area on the site.

Green infrastructure techniques are grouped into two categories:

- Practices resulting in a reduction of contributing area such as preservation/restoration of conservation areas, vegetated channels, etc.
- Practices resulting in a reduction of contributing volume such as green roofs, stormwater planters, and rain gardens.

Apply a combination of green infrastructure techniques and standard SMPs with RRv capacity to provide 100% of the WQv calculated in Step 2. If the RRv calculated in this step is greater than or equal to the WQv in Step 2, the RRv requirement has been met and Step 4 can be skipped. If the RRv provided cannot meet or exceed 100% of the WQv, the project must, at a minimum, reduce

a percentage of the runoff from impervious areas to be constructed on the site. The percent reduction is based on the Hydrologic Soil Group(s) (HSG) of the site and is defined as Specific Reduction Factor (S).

The Minimum RRv capacity required must be provided by green infrastructure techniques to verify that the RRv requirement has been met. The RRv that is provided by the green infrastructure techniques can then be subtracted from the Total Required WQv that must be provided by the SMP's.

Step 4: Determine the minimum RRv Required

The minimum RRv is calculated similar to the WQv. However, it is determined using only the new impervious cover and accounts for the hydrologic soil group present. In no case shall the runoff reduction achieved from the newly constructed impervious area be less than the minimum runoff reduction volume (RRv_{min}).

Step 5: Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

Apply the standard SMP's to meet additional water quality volume requirements that cannot be addressed by applying the green infrastructure techniques. The standard SMP's with RRv capacity must be implemented to verify that the RRv requirement has been met.

Step 6: Apply Volume and Peak Rate Control Practices to Meet Water Quantity Requirements

The Channel Protection Volume (CPv), Overbank Flood Control (Qp) and Extreme Flood Control (Qf) must be met for the plan to be completed. This is accomplished by using practices such as infiltration basins, dry detention basins, etc. to meet water quantity requirements. The following standards must be met:

1. Stream Channel Protection (CPv)

Stream Channel Protection Volume Requirements (CPv) are designed to protect stream channels from erosion. In New York State this goal is accomplished by providing 24-hour extended detention of the one-year, 24-hour storm event, remaining from runoff reduction. Reduction of runoff for meeting stream channel protection objectives, where site conditions allow, is encouraged and the volume reduction achieved through green infrastructure can be deducted from CPv. Trout waters may be exempted from the 24-hour ED requirement, with only 12 hours of extended detention required to meet this criterion. Detention time may be calculated using either a center of mass method or plug flow calculation method. Where a CPv control orifice is provided, the minimum orifice size shall be 3 inches, with acceptable external trash rack or orifice protection. CPv shall be addressed for the entire site. If a site consists of multiple design points, CPv shall be determined and provided for each design point.

2. Overbank Flood Control (Qp) which is the 10-year storm.

Overbank Flood Control requires storage to attenuate the post development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. Overbank Flood Control shall be addressed for the entire site. If the site consist of multiple design points, Overbank Flood Control shall be determined and provided for each design point.

The overbank flood control requirement (Qp) does not apply in certain conditions, including:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams.
- A downstream analysis reveals that overbank control is not needed.

3. Extreme Flood Control (Qf) which is the 100-year storm.

Extreme Flood Control requires storage to attenuate the post development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. Extreme Flood Control shall be addressed for the entire site. If the site consists of multiple design points, Extreme Flood Control shall be determined and provided for each design point.

The 100-year storm control requirement can be waived if:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams, where the increase in smaller flows will not impact the sream bank or channel integrity. The point of discharge must be protected against scour and erosion by the increased peak discharge.
- A downstream analysis reveals that 100-year control is not needed.
- If redevelopment results in no increase in impervious area or changes to hydrology that increase the discharge rate from the site, the hundred-year criteria does not apply.

Climate Change Considerations

I. Increasing temperature

The proposed project implements design and landscaping practices to consider the increasing temperatures as they relate to Climate Change. Landscaped areas are located to provide mitigation for extreme heat and the urban heat island effect by providing the most amount of shade and/or through the cooling effect of evapotranspiration, which releases water vapor and heat energy to the atmosphere. These landscaped areas include and are in addition to specific green infrastructure practices proposed throughout the project's design. Additional considerations were made in selecting plants species for the project. Species that are native to the surrounding area, as well as species that are resilient to the warmer temperatures were selected. Stormwater discharge locations have been selected to direct runoff to undisturbed and/or riparian areas that will aid in the cooling of

stormwater runoff. There are proposed trees adjacent to the open ponds and their outfalls which would provide shade. Detaining water within underground practices will also help keep temperatures down.

II. Increasing precipitation

The proposed hydrologic modeling accounts for the potential increase in precipitation due to climate change by utilizing the upper confidence limits of the Extreme Precipitation Estimates from the NRCC rainfall data. There is generally an 5-20 % increase in precipitation for the typically analyzed 1-, 10-, 100-yr 24hr rainfall events when compared to the average value previously used. This increase will result in systems being oversized during design by providing additional freeboard and storage volume so that they can accommodate the increased depths in the future due to the potential climate changes.

III. Increasing variability in precipitation, including chance of drought

The proposed hydrologic modeling accounts for variability in the precipitation, including chance of drought, by analyzing our conveyance systems under different tailwater conditions to simulate either multiple large storm events in a row or longer rainfall periods. Analyzing storm events back-to-back can also be considered. As far as drought conditions, the proposed landscape plantings are native and any areas of the site that are not irrigated have proposed drought tolerant species.

IV. Increasing frequency and severity of flooding

The proposed hydraulic modeling accounts for the potential increase in precipitation due to climate change by utilizing the upper confidence limits of the Intensity Frequency Duration Estimates from the NRCC rainfall data. The above increase will allow for systems to be oversized during design by providing additional capacity to accommodate the increased flow rates in the future. Site design has been prepared to provide potential flood routes for stormwater runoff. The grading and drainage have been designed to ensure that stormwater runoff will be directed away from buildings and structures and towards landscaped areas, undeveloped areas and/or the on-site stormwater infrastructure. The stormwater infrastructure is also designed with emergency spillways that will direct the

runoff towards the aforementioned grassed, undisturbed, and/or undisturbed riparian areas away from buildings and established structures. The site is not within the 100-year flood zone according to the National Flood Insurance Program Flood Insurance Rate Map (FIRM) No. 36087C0084G effective date 03/03/2014 Therefore, the project is located in an area where flooding is not a concern.

V. Rising sea level

Site design of grading and drainage has been prepared to ensure that buildings and structures are located above the Base Flood Elevations. Grading and drainage have been prepared to ensure that stormwater runoff will be directed away from buildings and structures and towards landscaped areas, undeveloped areas and/or the on-site stormwater infrastructure. The site is not within a tidal area according to the Coastal New York Future Floodplain Mapper and the National Flood Insurance Program Flood Insurance Rate Map (FIRM). Therefore, the project is located in an area where flooding from rising sea levels is not a concern. The proposed building and facilities are designed to be at an elevation approximately 136 feet above the 500 year flood zone.

VI. Increasing storm surge

The proposed project incorporates a design that maintains undisturbed areas, which include but are not limited to (from Table 4.1 in the NYSDEC's Using Natural Measures to Reduce the Risk and Flooding and Erosion):

- Stream – a natural waterway with a detectable current, having defined bed and banks, with perennial, intermittent or ephemeral flow.
- Forests – an ecosystem characterized by at least 10 percent tree canopy cover, at least 1 acre in size and 120 feet in width, which is not primarily under agricultural or other specific non-forest land use.

In addition to the preservation of existing features, constructed stormwater green infrastructure techniques have been utilized to mimic, accommodate or enhance the natural capture and infiltration of stormwater into the ground to reduce the risk of flooding and

erosion to buildings and structures in upland areas. The proposed hydraulic modeling accounts for the potential increase in storm surge due to climate change by utilizing the upper confidence limits of the Intensity Frequency Duration Estimates from the NRCC rainfall data. The above increase will allow for systems to be oversized during design by providing additional capacity to accommodate the increased flow rates in the future.

VII. Shifting ecology

The proposed project implements design and landscaping practices that consider the potential shifting of the local ecology. While landscaping has been selected to provide species native to the area, due to the potential change in climate temperature, species resilient to the change have also been selected. These selections may introduce plant species not typically native to the surrounding areas. Considerations were made to ensure that planting species selected may still support the significant and natural communities or areas with rare or high quality wetlands, forests, grasslands, ponds, streams, and other habitat that are essential for the conservation of rare / endangered species.

Based on the foregoing, this project is eligible for coverage under NYSDEC SPDES General Permit No. GP-0-25-001.

III. STUDY METHODOLOGY

Runoff rates were calculated based upon the standards set forth by the United States Department of Agriculture Natural Resources Conservation Service Technical Release 55, Urban Hydrology for Small Watersheds (TR-55), dated June 1986. The methodology set forth in TR-55 considers a multitude of characteristics for watershed areas including soil types, soil permeability, vegetative cover, time of concentration, topography, rainfall intensity, ponding areas, etc.

The 1-, 10-, 100-year storm recurrence intervals were reviewed in the design of the stormwater management facilities (see Appendices A 'Existing Hydrologic Calculations' & B 'Proposed Hydrologic Calculations').

Anticipated drainage conditions were analyzed considering the rate of runoff which will result from the construction of buildings, parking areas and other impervious surfaces associated with the site development.

Base Data and Design Criteria

For the stormwater management analysis, the following base information and methodology were used:

1. The site drainage patterns, and outfall facilities were reviewed by JMC personnel for the purpose of gathering background data and confirming existing mapping of the watershed areas.

2. An Existing Drainage Area Map was developed from the topographical survey. The drainage area map reflects the existing conditions within and around the project area.

3. A Proposed Drainage Area Map was developed from the proposed grading design superimposed over the topographical survey. The drainage area map reflects the proposed conditions within the project area and the existing conditions to remain in the surrounding area.

4. The United States Department of Agriculture (USDA) Web Soil Survey of the site available on its website at http://websoilsurvey.nrcd.usda.gov.

5. Soil Survey of Putnam and Westchester Counties, 1994.

6. The United States Department of Agriculture Natural Resources Conservation Service Technical Report No. 55, Urban Hydrology for Small Watersheds (TR-55), dated June 1986.

7. The time of concentration was calculated using the methods described in Chapter 3 of TR-55, Second Edition, June 1986. Manning's kinematics wave equation was used to determine

the travel time of sheet flow. The 2-year 24-hour precipitation amount of 3.50 inches was used in the equation for all storm events. The travel time for shallow concentrated flow was computed using Figure 3-1 and Table 3-1 of TR-55. Manning's Equation was used to determine the travel time for channel reaches.

8. All hydrologic calculations were performed with the Bentley PondPack software package version 10.0.

9. The New York State Stormwater Management Design Manual, revised July 2024.

10. New York Standards and Specifications for Erosion and Sediment Control, November 2016.

11. The storm flows for the 1-, 10-, & 100-year recurrence interval storms were analyzed for the total watershed areas. The distribution curves were developed from rainfall data and describe how a storm's total rainfall amount will be distributed over a specific length of time. Rainfall curves were generated using the NRCC and NRCS website and HydroCAD. The rainfall amounts are as follows:

24 Hour Rainfall Amounts

Design Storm Recurrence Interval	Inches of Rainfall Typically Analyzed (Extreme Precipitation Estimates)	Inches of Rainfall "Future Conditions" (Upper Confidence Limits)	Percent Increase (%)
1 Year	2.75	2.93	6.55
10 Year	5.03	5.49	9.15
25 Year	6.34	7.17	13.09
100 Year	9.02	10.77	19.40

IV. EXISTING CONDITIONS

The existing conditions of the project site is that of a vacant lot consisting of mostly wooded and grassed areas, with an asphalt paved driveway, multiple abandoned buildings, and a mowed sports

field located in the center of the lot. The site is bordered by Birch Dr. to the north, Historic Letchworth Village to the south, North Rockland High School to the east, and Stewart Hall to the west. After stormwater runoff exits the project site, it flows to a stream located to the north, Hammond Road to the east, or to Letchworth Village Rd, which flows into Garnerville Reservoir.

The following natural features, conservation areas, resource areas and drainage patterns of the project site have been identified and utilized to develop Drawing DA-1 "Existing Drainage Area Map" which is included in Appendix I:

- Wetlands (jurisdictional, wetland of special concern)
- Waterways (major, perennial, intermittent, springs)
- Buffers (stream, wetland, forest, etc.)
- Floodplains
- Forest, vegetative cover
- Critical areas
- Topography (contour lines, existing flow paths, steep slopes, etc.)
- Soil (hydrologic soil groups, highly erodible soils, etc.)
- Bedrock, significant geology features

Based on the USDA soil survey, all on-site soils are well drained and belong to hydrological groups B**.** The soil types, boundaries and drainage areas/designations are depicted on Drawing DA-1 within Appendix I.

Three (3) Design Boundaries (DP-1, 2, and 3) were identified for comparing peak rates of runoff in existing and proposed conditions. Similarly, three (3) separate drainage areas were identified in existing conditions based on the existing drainage divides at the site.

The following is a description of each of the drainage areas analyzed in the existing conditions analysis:

Existing Drainage Area 1 (EDA-1) is 15.30 acres in size and is located on the western portion of the site along Letchworth Village Road and adjacent to Stewart Hall. This area consists of pavement, buildings, sidewalks, driveways, roadways, lawn, meadows, woods, and brush. This drainage area drains towards East Stewarts Road. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 60.90 and 23.10 minutes, respectively. Refer to Drawing DA-1 in Appendix I.

Existing Drainage Area 2 (EDA-2) is 6.59 acres in size and is located on the southern portion of the site. This area consists of building foundation and associated feature remains, roadways, lawn, meadows, woods, and brush. This drainage area drains towards Letchworth Village Road. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 58.75 and 30.06 minutes, respectively. Refer to Drawing DA-1 in Appendix I.

Existing Drainage Area 3 (EDA-3) is 5.20 acres in size and is located on the eastern portion of the site adjacent to North Rockland Highschool. This area consists of building foundation and associated feature remains, roadways, lawn, meadows, woods, and brush. This drainage area drains towards Hammond Road. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 56.01 and 31.92 minutes, respectively. Refer to Drawing DA-1 in Appendix I. The peak rates of runoff to the design points from the drainage areas for each storm are shown in the table below:

Table 1
Summary of Peak Rates of Runoff in Existing Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1	DP-2	DP-3
1 year	2.00	0.57	0.25
10 year	15.88	5.34	3.31
100 year	53.40	19.48	13.61

V. PROPOSED CONDITIONS

The proposed improvements consist of the 7 multifamily apartment buildings (5 type A, 2 Type B) with a total of 300 rental apartments, and one (1) community clubhouse. The proposed

development will also include asphalt driveways and roadways, surface parking areas, interior garage spaces, and associated landscaping. In general, the site topography is consistent with the existing conditions, graded to peak near the center of the site and sloping away in all directions. The on-site stormwater runoff from impervious coverages will be picked up by a network of catch basins, running to one (1) of five (5) basins; two (2) infiltration basins to the East-Southeast, one (1) infiltration basin to the West, and two (2) infiltration bioretention basins to the Southwest.

After treatment for water quality and peak rate attenuation, stormwater discharges from the ponds will utilize low velocity level-spreaders and rock outlet protection which will drain overland similarly to existing conditions. The overland discharges provide multiple opportunities for water quality enhancement and infiltration in addition to the proposed stormwater management basins.

Furthermore, in addition to these practices, the overall design of the project is consistent with the latest trends in Low Impact Development. The project minimizes the use of piped stormwater to convey runoff to the stormwater management infiltration ponds and does not include any piped connections to existing storm sewer infrastructure after treatment. The combination of stormwater ponds, and level-spreader discharges provide redundant opportunities to enhance water quality and mitigate stormwater runoff rates from the development areas. The overland conveyances of stormwater runoff will result in additional infiltration not considered in the SWPPP's hydrologic model, resulting in a conservative analysis.

This section describes the design and analysis of the proposed conditions used to demonstrate that the SWPPP meets the requirements of the General Permit.

The Six Step Process for Stormwater Site Planning and Practice Selection

Step 1: Site Planning

The following practices and site features were incorporated in the site design:

- Preserving hydrology - Maintaining drainage divides

- Floodplain considerations - The site does not lie within the 100-year flood zone according to the National Flood Insurance Program Flood Insurance Rate Map (FIRM) No. 36087C0084G, amended date 03/30/2015.
- Waterways (major, perennial, intermittent, springs) – The location, setback, cross section, etc. of the existing waterway has been maintained.
- Forest, vegetative cover – The maximum amount of forest and vegetative cover has been maintained and/or provided.
- Critical areas have been preserved.
- Topography (contour lines, existing flow paths, steep slopes, etc.) has been maintained or disturbed to the minimum extent practicable.
- Soil (hydrologic soil groups, highly erodible soils, etc.)
- Bedrock and significant geology features have been accounted for.

Step 2: Determine Water Quality Treatment Volume (WQv)

- **90% Rule:** According to the New York State Stormwater Design Manual, Section 4.1, the water quality volume is determined from the 90% rule.
  WQv Required = 65,950 CF See Appendix C

Step 3: Runoff Reduction Volumes (RRv) by Applying Green Infrastructure Techniques and Standard SMP's

- **Green Infrastructure Practices**
  - **Vegetated Swale –** One (1) vegetated swalle is proposed to treat runoff from a portion of the site as well as receive discharges from some of the standard practices.
- **Standard Practices with RRv Capacity**
  - **Infiltration Practices –** Three (3) infiltration basins are proposed to treat and retain runoff from a portion of the site.

- **Filtration Bioretention –** Two (2) infiltration bioretention areas are proposed to treat and retain runoff from a portion of the site.

Step 4: Determine the minimum RRv Required

RRv_{min} calculations can be found in Appendix C. RRv_{min} was met through the infiltration basins and the vegetated swale.

Step 5: Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

- **Infiltration Practices**
  - Infiltration Basin (I-2)

    Infiltration basins are vegetated excavations designed to capture and temporarily store stormwater runoff to promote infiltration into the surrounding native soils.
- **Filtering Practices**
  - Infiltration Bioretention (F-4)

    Infiltration bioretention areas are shallow stormwater controls that utilize vegetation and engineered filter media to capture, treat, and infiltrate stormwater runoff into the underlying soils
- **Non-Standard/Alternative SMP's to Address Remaining Water Quality Volume**
  - Hydrodynamic Separators

Step 6: Apply Volume and Peak Rate Control Practices to Meet Water Quantity Requirements

- **Infiltration Practices**
  - Infiltration Basin (I-2)

    Infiltration basins are vegetated excavations designed to capture and temporarily store stormwater runoff to promote infiltration into the surrounding native soils.

- **Filtering Practices**
    - o Infiltration Bioretention (F-4)

      Infiltration bioretention areas are shallow stormwater controls that utilize vegetation and engineered filter media to capture, treat, and infiltrate stormwater runoff into the underlying soils

All practices exceed the required elements of SMP criteria as outlined in Chapter 6 of the NYS Stormwater Management Design Manual. A summary of each category is provided below.

1. Feasibility – Stormwater practices are designed based upon unique physical environmental considerations noted in the NYS Stormwater Management Design Manual (NYSSMDM).

2. Conveyance – The design conveys runoff to the designed stormwater practice in a manner that is safe, minimizes erosion and disruption to natural drainage channel and promotes filtering and infiltration.

3. Pretreatment – All stormwater practices provide pretreatment as required in accordance with NYSSMDM design guidelines.

4. Treatment Geometry – The plan provides water quality treatment in accordance with NYSSMDM guidelines.

5. Landscaping –Extensive landscaping has been provided for each proposed stormwater practice to enhance pollutant removal and provide aesthetic enhancement to the property.

6. Maintenance – Maintenance for the environment practices has been provided and is detain the SWPPP Report as required. Maintenance access is provided in the design plans.

In order to determine the post-development rates of runoff generated on-site, the following drainage areas were analyzed in the post-development conditions. These areas are graphically depicted on Drawing DA-2 "Proposed Drainage Area Map" located in Appendix I.

Three (3) Design Boundaries (DP-1, 2, and 3) were identified for comparing peak rates of runoff in existing and proposed conditions. Similarly, eight (8) separate drainage areas were identified in proposed conditions based on the proposed drainage divides at the site.

The following is a description of each of the drainage areas analyzed in the proposed conditions analysis:

Proposed Drainage Area 1A (1) (PDA-1A) is 3.43 acres in size and is located on the north-western portion of the site adjacent to Stewart Hall . This area consists of existing driveways, roadways, a portion of the proposed roundabout, lawn, meadows, woods, and brush. Runoff from this drainage area is conveyed towards and beyond Design Boundary 1 (DP-1) via a vegetated swale and sheetflow. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 65.19 and 5 minutes, respectively.

Proposed Drainage Area 1B (2) (PDA-1B) is 1.36 acres in size and is located on the south-western portion of the site along Letchworth Village Road. This area mainly consists of driveways, roadways, a portion of the proposed roundabout, sidewalks, lawn, and water features. Runoff from this drainage area is captured by on-site stormwater infrastructure such as inlets and is then conveyed through proposed HDPE piping to the infiltration bioretention basin 1B. The captured stormwater will then be attenuated through ground infiltration and an outlet control structure within the basin. Any runoff that is not infiltrated and flows through the outlet control structure will flow through proposed HDPE pipes, eventually discharging overland North of the site past Design Boundary 1 (DP-1). The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 71.82 and 5 minutes, respectively.

Proposed Drainage Area 1C (3) (PDA-1C) is 3.54 acres in size and is located on the south-western portion of the site along Letchworth Village Road. This area mainly consists of driveways, roadways, sidewalks, lawn, parking lots, and water features. Runoff from this drainage area is captured by on-site stormwater infrastructure such as inlets and is then conveyed through proposed HDPE piping to the infiltration bioretention basin 1C. The captured stormwater will then be attenuated through

ground infiltration and an outlet control structure within the basin. Any runoff that is not infiltrated and flows through the outlet control structure will flow through proposed HDPE pipes, eventually discharging overland North of the site past Design Boundary 1 (DP-1). The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 75.23 and 5 minutes, respectively.

Proposed Drainage Area 1D (4) (PDA-1D) is 5.29 acres in size and is located within the north-center portion of the site. This area consists of one (1) Type A building, recreational areas, pavement, sidewalks, driveways, roadways, parking lots, lawn, and water features. Runoff from this drainage area is captured by on-site stormwater infrastructure such as inlets and is then conveyed through proposed HDPE piping to Infiltration Basin 1D. The captured stormwater will then be attenuated through ground infiltration and an outlet control structure within the basin. Any runoff that is not infiltrated and flows through the outlet control structure will be discharged overland towards Design Boundary 1 (DP-1) along a vegetated swale. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 79.41 and 5 minutes, respectively.

Proposed Drainage Area 2A (PDA-2A) is 1.34 acres in size and is located on the southern portion of the site along Letchworth Village Road and adjacent to the Historic Letchworth Village. This area mainly consists of lawn, meadows, woods, and brush. Runoff from this drainage area sheet flows overland to Design Boundary 2 (DP-2). The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 58.54 and 5 minutes, respectively.

Proposed Drainage Area 2B (4) (PDA-2B) is 6.09 acres in size and is located within the south-center portion of the site. This area consists of three (3) Type A buildings, one (1) Type B building, pavement, sidewalks, driveways, roadways, parking lots, lawn, and water features. Runoff from this drainage area is captured by on-site stormwater infrastructure such as inlets. The runoff is then conveyed through HDPE piping to Infiltration Basin 2B. The captured stormwater will be attenuated through ground infiltration and an outlet control structure. Any runoff that is not infiltrated and flows through the outlet control structure will be discharged overland towards Design Boundary 2 (DP-2). The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 86.00 and 5 minutes, respectively.

Proposed Drainage Area 3A (5) (PDA-3A) is 5.06 acres in size and is within the northern and some of the eastern portion of the site adjacent to the North Rockland High School. This area consists of one (1) Type A building, one (1) Type B building, the clubhouse and its associated improvements, pavement, sidewalks, driveways, roadways, parking lots, lawn, and water features. Runoff from this drainage area is captured by on-site stormwater infrastructure such as inlets. The runoff is then conveyed through HDPE piping to Infiltration Basin 3A. The captured stormwater will be attenuated through ground infiltration and an outlet control structure. Any runoff that is not infiltrated and flows through the outlet control structure will be discharged overland towards Design Boundary 3 (DP-3). The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 83.42 and 5 minutes, respectively.

Proposed Drainage Area 3B (6) (PDA-3B) is 0.98 acres in size and is located on the most eastern portion of the site adjacent to North Rockland High School. This area consists of lawn, meadows, woods, and brush. Runoff from this drainage area sheet flows overland to Design Boundary 3 (DP-3). The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 59.34 and 5 minutes, respectively.

Refer to Drawing DA-2 in Appendix I.

The peak rates of runoff to the design point of each of the analyzed drainage areas for each storm are shown on the table below:

Table 2
Summary of Proposed Peak Rates of Runoff in Proposed Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1	DP-2	DP-3
1 year	1.51	0.17	0.12
10 year	7.81	2.13	1.51
100 year	44.95	19.33	8.47

The reductions in peak rates of runoff from proposed to existing conditions are shown on the table below:

Table 3
Percent Reductions in Peak Rates of Runoff (Existing vs. Proposed Conditions)
(Cubic Feet per Second)

Design Point	Storm Recurrence Frequency (Years)	Existing Peak Runoff Rate (cfs)	Proposed Peak Runoff Rate (cfs)	Percent Reduction (%)
1	1 year	2.00	1.51	24.50
	10 year	15.88	7.81	50.82
	100 year	53.40	44.95	15.82
2	1 year	0.57	0.17	70.18
	10 year	5.34	2.13	60.11
	100 year	19.48	19.33	0.77
3	1 year	0.25	0.12	52.00
	10 year	3.31	1.51	54.38
	100 year	13.61	8.47	37.77

VI. SOIL EROSION & SEDIMENT CONTROL

A potential impact of the proposed development on any soils or slopes will be that of erosion and transport of sediment during construction. An Erosion and Sediment Control Management Program will be established for the proposed development, beginning at the start of construction and continuing throughout its course, as outlined in the "New York State Standards and Specifications for Erosion and Sediment Control," November 2016. A continuing maintenance program will be implemented for the control of sediment transport and erosion control after construction and throughout the useful life of the project.

The Operator shall have a qualified professional assess the site prior to the commencement of construction and certify that the appropriate erosion and sediment controls, as shown on the Sediment & Erosion Control Plans, have been adequately installed to ensure overall preparedness of the site for the commencement of construction. In addition, the Operator shall have a qualified professional conduct one site inspection at least every seven calendar days and at least two site inspections every seven calendar days when greater than five acres of soil is disturbed at any one time.

Prior to the commencement of construction activity, the owner or operator must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The owner or operator shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the trained contractor. The owner or operator shall ensure that at least one trained contractor is on site on a daily basis when soil disturbance activities are being performed. The owner or operator shall have each of the contractors and subcontractors identified above sign a copy of the certification statement provided in Appendix G before they commence any construction activity.

Soil Description

As provided by the United States Department of Agriculture, Soil Conservation Service "Web Soil Survey," soil classifications which exist on the subject site are described below.

Soils are placed into four hydrologic groups: A, B, C, and D. In the definitions of the classes, infiltration rate is the rate at which water enters the soil at the surface and is controlled by the surface conditions. Transmission rate is the rate at which water moves in the soil and is controlled by soil properties. Definitions of the classes are as follows:

A. (Low runoff potential). The soils have a high infiltration rate even when thoroughly wetted. They chiefly consist of deep, well drained to excessively drained sands or gravels. They have a high rate of water transmission.

B. The soils have a moderate infiltration rate when thoroughly wetted. They chiefly are moderately deep to deep, moderately well drained to well drained soils that have moderately fine to moderately coarse textures. They have a moderate rate of water transmission.

C. The soils have a slow infiltration rate when thoroughly wetted. They chiefly have a layer that impedes downward movement of water or have moderately fine to fine texture. They have a slow rate of water transmission.

D. (High runoff potential). The soils have a very slow infiltration rate when thoroughly wetted. They chiefly consist of clay soils that have a high swelling potential, soils that have a permanent high water table, soils that have a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. They have a very slow rate of water transmission.

A soil's tendency to erode is also described in the USDA web soil survey. The ratings in this interpretation indicate the hazard of soil loss from unsurfaced areas. The ratings are based on soil erosion factor K, slope, and content of rock fragments. The hazard is described as "slight," "moderate," or "SEVERE." A rating of "slight" indicates that little or no erosion is likely; "moderate" indicates that some erosion is likely, that the temporarily unsurfaced / unstabilized during construction may require occasional maintenance, and that simple erosion-control measures are needed; and "SEVERE" indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that erosion-control measures are needed.

Per the Soil Survey, the following soils listed below are present at the site. Following this list is a detailed description of each soil type found on the property:

SYM.	HYDRO. SOIL GROUP	DESCRIPTION
CeB	B	Charlton fine sandy loam, 3-8% slopes
CeC	B	Charlton fine sandy loam, 8-15% slopes
CeD	B	Charlton fine sandy loam, 15-25% slopes

CeB, Charlton fine sandy loam, 3 TO 8 PERCENT SLOPE

This soil is very deep, gently sloping, and well drained. It consists of sandy to gravelly loam. The depth of the high water table is more than 6 feet, with moderate water capacity.

Hydrologic Soil Group: B

Erosion Hazard Rating: Slight

CeC, Charlton fine sandy loam, 8 TO 15 PERCENT SLOPE

This soil is very deep, strongly sloping, and well drained. It consists of sandy to gravelly loam. The depth of the high water table is more than 6 feet, with moderate water capacity.
Hydrologic Soil Group: B
Erosion Hazard Rating: Medium

CeD, Charlton fine sandy loam, 15 TO 25 PERCENT SLOPE

This soil is very deep, moderately steep, and well drained. It consists of sandy to gravelly loam. The depth of the high water table is more than 6 feet, with moderate water capacity.
Hydrologic Soil Group: B
Erosion Hazard Rating: Severe

On-Site Pollution Prevention

There are temporary pollution prevention measures used to control litter and construction debris on site, such as:

- Temporary Riser and Anti-Vortex Device
- Silt Fence
- Manufactured Insert Inlet Protection
- Excavated Drop Inlet Protection
- Level Spreaders

There will be inlet protection provided for all storm drains and inlets with the use of curb gutter inlet protection structures and stone & block drop inlet protection, which keep silt, sediment and construction litter and debris out of the on-site stormwater drainage system.

Temporary Control Measures

Temporary control measures and facilities will include silt fences, construction ditches, stabilized construction access, temporary seeding, mulching and sediment traps with temporary riser and anti-vortex devices.

Throughout the construction of the proposed development, temporary control facilities will be implemented to control on-site erosion and sediment transfer. Construction ditches, if required, will be used to direct stormwater runoff to the on-site sediment control practices. Sediment traps constructed as part of this project will serve as temporary sediment basins to remove sediment and pollutants from the stormwater runoff produced during construction.

Descriptions of the temporary sediment & erosion controls that will be used during the development of the site including silt fence, stabilized construction access, seeding, mulching and inlet protection are as follows:

1. Silt Fence is constructed using a geotextile fabric. The fence will be either 18 inches or 30 inches high. The height of the fence can be increased in the event of placing these devices on uncompacted fills or extremely loose undisturbed soils. The fences will not be placed in areas which receive concentrated flows such as ditches, swales and channels nor will the filter fabric material be placed across the entrance to pipes, culverts, spillway structures, sediment traps or basins.

2. Stabilized Construction Access consists of AASHTO No. 1 rock. The rock entrance will be a minimum of 50 feet in length by 24 feet in width by 6 inches in depth.

3. Seeding will be used to create a vegetative surface to stabilize disturbed earth until at least 80% of the disturbed area has a perennial vegetative cover. This amount is required to adequately function as a sediment and erosion control facility. Grass lining will also be used to line temporary channels and the surrounding disturbed areas.

4. Mulching is used as an anchor for seeding and disturbed areas to reduce soil loss due to storm events. These areas will be mulched with straw at a rate of 3 tons per acre such that the mulch forms a continuous blanket. Mulch must be placed after seeding or within 48 hours after seeding is completed.

5. Inlet Protection will be provided for all stormwater basins and inlets with the use of curb & gutter inlet protection and stone & block inlet protection structures, which will keep silt, sediment and construction debris out of the storm system. Existing structures within existing paved areas will be protected using "Manufactured Insert Inlet Protection" inside the structures.

6. Erosion Control Matting will be utilized on slopes and within swales, where applicable, to provide stabilization in advance of vegetation being established. Such matting will be biodegradable to facilitate long term growth of vegetation in swales, on slopes and within stormwater management facilities.

7. Temporary Sediment Basins will be constructed to intercept sediment laden runoff and trap and retain the sediment. The sediment basins are sized to provide a sediment storage volume of 3,600 cubic feet per acre draining to the basin. The Sediment Basins will be used with the permanent SMP's until their contributing drainage areas are stabilized. For Sediment Basins constructed in the location of the Infiltration Basins shall be carried to a minimum of 18 inches above the final permanent grade. The rough excavation to 18 inches above the final permanent grade will provide and additional layer of soil to protect the future bottom of basins soils form being exposed to sediment debris, etc. that is not detained by the temporary sediment basin. All disturbed areas upstream of the temporary sediment basin must be stabilized and protected from erosion prior to final excavation to finished grade. The final excavation shall remove all intended accumulated sediment, debris, etc. in the basin plus any unintended accumulated sediment. After final grading, the basin should retain a highly porous surface texture. Once stabilized, the temporary risers will be removed, permanent outlet control structures will be installed, and final grading/planting of the sediment basins will be completed for permanent use as Stormwater management Basins. Sediment Basin sizing standards, details and calculations are provided in Appendix H.

8. Sediments Traps will be used with the permanent SMP's until their contributing areas drainage are stabilized. Once stabilized, the temporary risers will be removed, and final grading/planting of the basins will be completed for permanent use as Stormwater Management basins.

9. Temporary Riser and Anti-Vortex Devices- are placed at the bottom of the temporary sediment basins where they intercept and collect debris and litter from the pond before they can enter the off-site storm drainage system.

10. Construction ditches are temporary swales proposed to intercept sediment laden runoff and divert it through stone check dams to promote an increase in travel time to settle any solids prior to runoff reaching the nearest drain inlet which will have inlet protection.

The contractor shall be responsible for maintaining the temporary sediment and erosion control measures throughout construction. This maintenance will include, but not be limited to, the following tasks:

1. For dust control purposes, moisten all exposed graded areas with water at least twice a day in those areas where soil is exposed and cannot be planted with a temporary cover due to construction operations or the season (December through March).

2. Inspection of erosion and sediment control measures shall be performed at the end of each construction day and immediately following each rainfall event. All required repairs shall be immediately executed by the contractor.

3. Sediment deposits shall be removed when they reach approximately ⅓ the height of the silt fence. All such sediment shall be properly disposed of in fill areas on the site, as directed by the Owner's Field Representative. Fill shall be protected following disposal with mulch, temporary and/or permanent vegetation and be completely circumscribed on the downhill side by silt fence.

4. Rake all exposed areas parallel to the slope during earthwork operations.

5. Following final grading, the disturbed area shall be stabilized with a permanent surface treatment (i.e. turf grass, pavement or sidewalk). During rough grading, areas which are not to be disturbed for seven or more days shall be stabilized with the temporary seed mixture, as defined on the plans. Seed all piles of dirt in exposed soil areas that will not receive a permanent surface treatment.

Concrete Material and Equipment Management

Concrete washouts shall be used to contain concrete and liquids when the chutes of concrete mixers and hoppers of concrete pumps are rinsed out after delivery. The washout facilities consolidate solids for easier disposal and prevent runoff of liquids. The wash water is alkaline and contains high levels of chromium, which can leach into the ground and contaminate groundwater. It can also migrate to a storm drain, which can increase the pH of area waters and harm aquatic life. Solids that are improperly disposed of can clog storm drain pipes and cause flooding. Installing concrete washout facilities not only prevents pollution but also is a matter of good housekeeping at your construction site.

Prefabricated concrete washout containers can be delivered to the site to provide maintenance and disposal of materials. Regular pick-ups of solid and liquid waste materials will be necessary. To prevent leaks on the job site, ensure that prefabricated washout containers are watertight. A self-installed concrete washout facility can be utilized although they are much less reliable than prefabricated containers and are prone to leaks. There are many design options for the washout, but they are preferably built below-grade to prevent breaches and reduce the likelihood of runoff. Above-grade structures can also be used if they are sized and constructed correctly and are diligently maintained. One of the most common problems with self-installed concrete washout facilities is that they can leak or be breached as a result of constant use, therefore the contractor shall be sure to use quality materials and inspect the facilities on a daily basis.

Washouts must be sized to handle solids, wash water, and rainfall to prevent overflow. Concrete Washout Systems, Inc. estimates that 7 gallons of wash water are used to wash one truck chute, and 50 gallons are used to wash out the hopper of a concrete pump truck.

For larger sites, a below-grade washout should be at least 10 feet wide and sized to contain all liquid and solid waste expected to be generated in between cleanout periods. A minimum of 12-inches of freeboard must be provided. The pit must be lined with plastic sheeting of at least 10-mil thickness without holes or tears to prevent leaching of liquids into the ground. Concrete wash water should never be placed in a pit that is connected to the storm drain system or that drains to nearby waterways.

An above-grade washout can be constructed at least 10 feet wide by 10 feet long and sized to contain all liquid and solid waste expected to be generated in between cleanout periods. A minimum of 4-inches of freeboard must be provided. The washout structures can be constructed with staked straw bales or sandbags double-or triple lined with plastic sheeting of at least 10-mil thickness without holes or tears.

Concrete washout facilities shall not be located within 100 feet of storm drains, open ditches, or water bodies and should be placed in locations that allow for convenient access for concrete trucks. The contractor shall check all concrete washout facilities daily to determine if they have been filled to 75 percent capacity, which is when materials need to be removed. Both above-and below-ground self-installed washouts should be inspected daily to ensure that plastic linings are intact, and sidewalls have not been damaged by construction activities. Prefabricated washout containers should be inspected daily as well as to ensure the container is not leaking or nearing 75 percent capacity. Inspectors should also note whether the facilities are being used regularly. Additional signage for washouts may be needed in more convenient locations if concrete truck operators are not utilizing them.

The washout structures must be drained or covered prior to predicted rainstorms to prevent overflows. Hardened solids either whole or broken must be removed and then they may be reused onsite or hauled away for recycling.

Once materials are removed from the concrete washout, a new structure must be built or excavated, or if the previous structure is still intact, inspect it for signs of weakening or damage and make any necessary repairs. Line the structure with new plastic that is free of holes or tears

and replace signage if necessary. It is very important that new plastic be used after every cleaning because pumps and concrete removal equipment can damage the existing liner.

Construction Site Chemical Control

The purpose of this management measure is to prevent the generation of nonpoint source pollution from construction sites due to improper handling and usage of nutrients and toxic substances, and to prevent the movement of toxic substances from the construction site.

Many potential pollutants other than sediment are associated with construction activities. These pollutants include pesticides; fertilizers used for vegetative stabilization; petrochemicals; construction chemicals such as concrete products, sealers, and paints; wash water associated with these products; paper; wood; garbage; and sanitary waste.

Disposal of excess pesticides and pesticide-related wastes should conform to registered label directions for the disposal and storage of pesticides and pesticide containers set forth in applicable Federal, State and local regulations that govern their usage, handling, storage, and disposal.

Pesticides should be disposed of through either a licensed waste management firm or a treatment, storage and disposal (TSD) facility. Containers should be triple rinsed before disposal, and rinse waters should be reused as product.

Other practices include setting aside a locked storage area, tightly closing lids, storing in a cool, dry place, checking containers periodically for leaks or deterioration, maintaining a list of products in storage, using plastic sheeting to line the storage areas, and notifying neighboring property owners prior to spraying.

When storing petroleum products, follow these guidelines:

- Create a shelter around the area with cover and wind protection;
- Line the storage area with a double layer of plastic sheeting or similar material;

- Create an impervious berm around the perimeter with a capacity of 110 percent greater than that of the largest container;
- Clearly label all products;
- Keep tanks off the ground; and
- Keep lids securely fastened.

Post spill procedure information and have persons trained in spill handling on site or on call at all times. Materials for cleaning up spills should be kept on site and easily available. Spills should be cleaned up immediately and the contaminated material properly disposed of. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff.

Thinners or solvents should not be discharged into sanitary or storm systems when cleaning machinery. Use alternative methods for cleaning larger equipment parts, such as high-pressure, high-temperature water washes, or steam cleaning. Equipment-washing detergents can be used, and wash water may be discharged into sanitary sewers if solids are removed from the solution first. (This practice should be verified with the local sewer authority.) Small parts can be cleaned with degreasing solvents, which can then be reused or recycled.

Solid Waste Management and Portable Sanitary Management

The purpose of this management measure is to prevent the potential for solid waste such as construction debris, trash, etc. from construction sites due to improper handling and storage. Debris and litter should be removed periodically from the BMP's and surrounding areas to prevent clogging of pipes and structures. All construction material shall be stored in designated staging areas. Roll-off containers shall be placed on site and all empty containers, construction debris and litter shall be placed in the containers.

Portable sanitary units may be utilized on-site, or bathrooms will be provided within construction trailers. A sanitation removal company will be hired to pump/remove any sanitary waste. In the event that portable sanitary units are used and then cleaned after being emptied, the rinse water may not be disposed of to the storm drain system. It shall be contained for later disposal if it can't

be disposed of on-site. Remove paper and trash before cleaning the portable sanitary units. The portable sanitary units shall be located away from the storm drain system if possible. Provide over head cover for wash areas if possible. Maintain spill response material and equipment on site to eliminate the potential for contaminants and wash water from entering the storm drain system.

Permanent Control Measures and Facilities for Long Term Protection

Towards the completion of construction, permanent sediment and erosion control measures will be developed for long term erosion protection. The following permanent control measures and facilities have been proposed to be implemented for the project:

1. Vegetated Swales will function to provide additional treatment of stormwater runoff by removal of pollutants and will promote a reduction of peak flows and provide runoff infiltration.

2. Infiltration Basins will be used to treat the runoff volume generated from the developed area and provide improvement to water quality control. The proposed basins will provide water quality for 90% of the average annual stormwater runoff volume. The water quality volume will be retained, and higher storms will be released gradually. Refer to the water quality volume calculations, in Appendix C.

3. Catch Basins will be used to remove some of the coarse sand and grit sediment before entering the drainage system. Each catch basin will be constructed with an 18-inch-deep sump.

4. Rip-Rap Energy Dissipators At discharge points from the stormwater drainage system into the storm18-inch-deepment basins, rip-rap pads consisting of angular rocks will be placed to dissipate velocity and reduce the risk of erosion. Sizing of the rip-rap energy dissipators are included in Appendix C.

5. Seeding of at least 80% perennial vegetative cover will be used to produce a permanent uniform erosion resistant surface. The seeded areas will be mulched with straw at a rate of 2 tons per acre such that the mulch forms a continuous blanket.

6. Hydrodynamic Water Quality Structure will be used to provide pretreatment of the water quality flow rate for separating sediment, debris, floatables, etc. from the runoff prior to discharge to the SMP's.

Specifications for Soil Restoration

Prior to the final stabilization of the disturbed areas, soil restoration will be required for all vegetated areas to recover the original properties and porosity of the soil. Soil Restoration Requirements are provided on Table 4 below:

Table 4

Soil Restoration Requirements

Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only – no change in grade	HSG A&B	HSG C&D	Protect area from any ongoing construction activities
	apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A&B	HSG C&D	Clearing and grubbing
	Aerate and apply 6 inches of topsoil	Apply full Soil Restoration**	
Heavy traffic areas on site (especially) in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (decompaction and compost enhancement)		
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area.

Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.	

* Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

** Per "Deep Ripping and De-compaction, DEC 2008."

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following full soil restoration steps applied:

1. Apply 3 inches of compost over subsoil.

2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.

3. Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site.

Specifications for Final Stabilization of Graded Areas

Final stabilization of graded areas consists of the placement of topsoil and installation of landscaping (unless the area is to be paved, or a building is to be constructed in the location). Topsoil is to be spread as soon as grading operations are completed. Topsoil is to be placed to a minimum depth of six inches on all embankments, planting areas and seeding/sod areas. The subgrade is to be scarified to a depth of two inches to provide a bond of the topsoil with the subsoil. Topsoil is to be raked to an even surface and cleared of all debris, roots, stones and other unsatisfactory material.

Planting operations shall be conducted under favorable weather conditions as follows:

- Permanent Lawns - April 15 (provided soil is frost-free and not excessively moist) to May 15; August 15 to October 15.
- Temporary Lawn Seeding - if outside of the time periods noted above, the areas shall be seeded immediately on completion of topsoil operations with annual ryegrass (Italian rye) at a rate of six pounds per 1,000 square feet. Temporary lawn installation is permitted provided the soil is frost-free and not excessively moist. The permanent lawn is to be installed the next planting season.

On slopes with a grade of 3 horizontal to 1 vertical or greater, and in swales, a geotextile netting or mat shall be installed for stabilization purposes as shown on the Plans. Seeded areas are to be mulched with straw or hay at an application rate of 70-90 pounds per 1,000 s.f. Straw or hay mulch must be spread uniformly and anchored immediately after spreading to prevent wind blowing. Mulches must be inspected periodically and in particular after rainstorms to check for erosion. If erosion is observed, additional mulch must be applied. Netting shall be inspected after rainstorms for dislocation or failure; any damage shall be repaired immediately.

All denuded surfaces which will be exposed for a period of over two months or more shall be temporarily hydroseeded with (a) perennial ryegrass at a rate of 40 lbs per acre (1.0 lb per 1000 square feet); (b) Certified "Aroostook" winter rye (cereal rye) @ 100 lb per acre (2.5 lb/1000 s.f.) to be used in the months of October and November.

Permanent turfgrass cover is to consist of a seed mixture as follows:

(a) Sunny sites

Kentucky Bluegrass	2.0-2.6 pounds/1000 square feet
Perennial Ryegrass	0.6-0.7 pounds/1000 square feet
Fine Fescue	0.4-0.6 pounds/1000 square feet

(b) Shady sites

Kentucky Bluegrass	0.8-1.0 pounds/1000 square feet
Perennial Ryegrass	0.6-0.7 pounds/1000 square feet
Fine Fescue	2.6-3.3 pounds/1000 square feet

All plant materials shall comply with the standards of the American Association Of Nurserymen with respect to height and caliper as described in its publication American Standard for Nursery Stock, latest edition.

VII. CONSTRUCTION PHASE AND POST-CONSTRUCTION MAINTENANCE

During the construction phase and following construction of the project, a number of maintenance measures will be taken with respect to the site maintenance. Measures to be taken included the following:

1. During Construction

A comprehensive sediment and erosion control plan will be in place during the construction period. Maintenance measures for sediment and erosion controls will include:

A qualified professional acceptable to the municipality will be hired by the owner or operator to monitor the installation and maintenance of the sediment and erosion control plans. The qualified professional shall report directly to the Engineering Consultant and shall be responsible for ensuring compliance with the design of the sediment and erosion control plans.

The qualified professional so hired will inspect all sediment and erosion control measures at least every seven calendar days. In the event that there has been a variance with the design of the sediment and erosion control measures so that the ability of the measures to adequately perform the intended function is lessened or compromised and/or the facilities are not adequately maintained, the qualified professional shall be required to report such variance to the Engineering Consultant within 48 hours and shall be empowered to order immediate repairs to the sediment and erosion control measures.

The qualified professional will also be responsible for observing the adequacy of the vegetation growth (trees, shrubs, groundcovers and turfgrasses) in newly graded areas and for ordering additional plantings in the event that the established plant materials do not adequately protect the ground surface from erosion.

2. Following Construction

Site maintenance activities on the property will include:

- Grounds maintenance, including mowing of lawns;
- Planting of trees, shrubs and groundcovers; pruning of trees and shrubs;
- Application of fertilizer and herbicides;
- Maintenance of stormwater management area;

Ground maintenance on the site will be performed by landscaping contractor.

Fertilizer is typically applied twice in the year - once in the spring and once in the fall. The application of fertilizer is usually necessary to maintain healthy lawn growth due to competition for nutrients with trees and shrubs and since the clippings are often removed. It is not recommended that fertilizer be applied during the summer. It is at this time that lawns are typically dormant.

Fertilizers come in three basic types: (1) Organic; (2) Soluble synthetic and (3) Slow release.

Organic fertilizers are derived from plant or animal waste. Since they are heavier and bulkier than other fertilizers, it is necessary to apply a much greater amount at one time. Soluble synthetic fertilizers are predictable with determining the exact impact on a lawn. However more applications are necessary since their effect is often short term. Slow-release fertilizers have a high percentage of nitrogen so quantities that need be handled at one time are smaller. Slow release fertilizers will be utilized by the project. No fertilizer containing more than 0% phosphorus shall be used, unless testing confirms the need for additional phosphorus.

Fertilizer shall be applied by the landscape contractor in accordance with the manufacturer's instructions. The application of fertilizer does require some skill on the part of the operator. Should there be a spill of fertilizer, the landscape contractor shall be required to scrape or vacuum it up. The area will then be watered in accordance with the manufacturer's instructions to ensure that the fertilizer becomes soluble and available to plants and does not run off.

BNE Real Estate Group will be responsible for the long-term operation and maintenance of the permanent stormwater management practices. The permanent stormwater management practices shall be maintained in accordance with the Maintenance Inspection Checklists provided in Appendix F.

VIII. CONCLUSION

This Stormwater Pollution Prevention Plan has been prepared to describe the project's pre- and post-development stormwater management improvements and its sediment and erosion control improvements to be utilized during construction. The proposed permanent improvements and the interim improvements to be utilized during construction have been designed in accordance with the requirements of the:

- Requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-25-001, effective January 29, 2025.
- Chapter 140 "Soil Erosion and Sediment Control" of the Town of Haverstraw Zoning Code
- Requirements of the NYSDEC Stormwater Management Design Manual, last revised July 2024.

The project employs a variety of practices to enhance stormwater quality and reduce peak rates of runoff associated with the proposed improvements. These measures include infiltration and detention basins with outlet control structures to attenuate flows prior to discharging overland via rip-rap energy dissipators. These improvements will mitigate runoff volumes from the proposed improvements as runoff volumes will be slightly reduced or maintained in all the analyzed storms.

Based on the foregoing, it is our professional opinion that the proposed improvements will provide water quantity and quality enhancements which exceed the above-mentioned requirements and are not anticipated to have any adverse impacts to the site or any surrounding areas.

APPENDIX A

EXISTING HYDROLOGIC CALCULATIONS

Scenario: Pre-Development 1 Year Storm

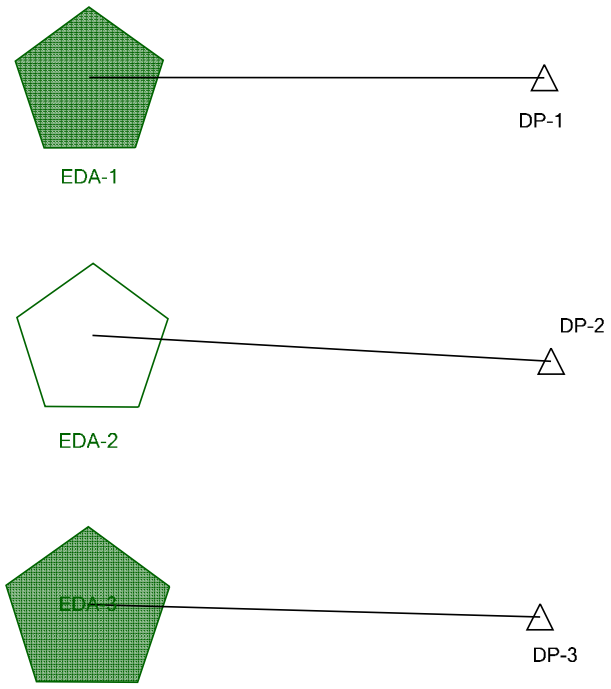


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Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
EDA-1	Pre-Development 1 Year Storm	1	18,824.000	12.350	2.00
EDA-1	Pre-Development 10 Year Storm	10	92,868.000	12.250	15.88
EDA-1	Pre-Development 100 Year Storm	100	314,934.000	12.250	53.40
EDA-2	Pre-Development 1 Year Storm	1	6,684.000	12.600	0.57
EDA-2	Pre-Development 10 Year Storm	10	36,393.000	12.350	5.34
EDA-2	Pre-Development 100 Year Storm	100	128,887.000	12.300	19.48
EDA-3	Pre-Development 1 Year Storm	1	3,783.000	12.700	0.25
EDA-3	Pre-Development 10 Year Storm	10	24,631.000	12.400	3.31
EDA-3	Pre-Development 100 Year Storm	100	93,709.000	12.350	13.61

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DP-1	Pre-Development 1 Year Storm	1	18,824.000	12.350	2.00
DP-1	Pre-Development 10 Year Storm	10	92,868.000	12.250	15.88
DP-1	Pre-Development 100 Year Storm	100	314,934.000	12.250	53.40
DP-2	Pre-Development 1 Year Storm	1	6,684.000	12.600	0.57
DP-2	Pre-Development 10 Year Storm	10	36,393.000	12.350	5.34
DP-2	Pre-Development 100 Year Storm	100	128,887.000	12.300	19.48
DP-3	Pre-Development 1 Year Storm	1	3,783.000	12.700	0.25
DP-3	Pre-Development 10 Year Storm	10	24,631.000	12.400	3.31
DP-3	Pre-Development 100 Year Storm	100	93,709.000	12.350	13.61

Subsection: Time-Depth Curve Return Event: 1 years

Label: NRCC (UCL) - 1.10.25.100 Yr Storm Storm Event: 1 Year Storm

Scenario: Pre-Development 1 Year Storm

Time-Depth Curve: 1 Year Storm	
Label	1 Year Storm
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	1 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.0	0.0
1.000	0.0	0.0	0.0	0.1	0.1
1.500	0.1	0.1	0.1	0.1	0.1
2.000	0.1	0.1	0.1	0.1	0.1
2.500	0.1	0.1	0.1	0.1	0.1
3.000	0.1	0.1	0.1	0.1	0.1
3.500	0.1	0.2	0.2	0.2	0.2
4.000	0.2	0.2	0.2	0.2	0.2
4.500	0.2	0.2	0.2	0.2	0.2
5.000	0.2	0.2	0.2	0.2	0.2
5.500	0.2	0.3	0.3	0.3	0.3
6.000	0.3	0.3	0.3	0.3	0.3
6.500	0.3	0.3	0.3	0.3	0.3
7.000	0.3	0.3	0.4	0.4	0.4
7.500	0.4	0.4	0.4	0.4	0.4
8.000	0.4	0.4	0.4	0.4	0.4
8.500	0.5	0.5	0.5	0.5	0.5
9.000	0.5	0.5	0.5	0.5	0.5
9.500	0.5	0.6	0.6	0.6	0.6
10.000	0.6	0.6	0.6	0.6	0.7
10.500	0.7	0.7	0.7	0.7	0.7
11.000	0.8	0.8	0.8	0.8	0.9
11.500	0.9	1.0	1.0	1.1	1.2
12.000	1.6	1.8	1.9	1.9	2.0
12.500	2.1	2.1	2.1	2.1	2.2
13.000	2.2	2.2	2.2	2.2	2.3
13.500	2.3	2.3	2.3	2.3	2.3
14.000	2.3	2.3	2.4	2.4	2.4
14.500	2.4	2.4	2.4	2.4	2.4
15.000	2.4	2.5	2.5	2.5	2.5
15.500	2.5	2.5	2.5	2.5	2.5
16.000	2.5	2.5	2.5	2.6	2.6
16.500	2.6	2.6	2.6	2.6	2.6
17.000	2.6	2.6	2.6	2.6	2.6

Subsection: Time-Depth Curve Return Event: 1 years

Label: NRCC (UCL) - 1.10.25.100 Yr Storm Storm Event: 1 Year Storm

Scenario: Pre-Development 1 Year Storm

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	2.6	2.6	2.6	2.7	2.7
18.000	2.7	2.7	2.7	2.7	2.7
18.500	2.7	2.7	2.7	2.7	2.7
19.000	2.7	2.7	2.7	2.7	2.7
19.500	2.7	2.8	2.8	2.8	2.8
20.000	2.8	2.8	2.8	2.8	2.8
20.500	2.8	2.8	2.8	2.8	2.8
21.000	2.8	2.8	2.8	2.8	2.8
21.500	2.8	2.8	2.8	2.9	2.9
22.000	2.9	2.9	2.9	2.9	2.9
22.500	2.9	2.9	2.9	2.9	2.9
23.000	2.9	2.9	2.9	2.9	2.9
23.500	2.9	2.9	2.9	2.9	2.9
24.000	2.9	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time-Depth Curve
Label: NRCC (UCL) - 1.10.25.100 Yr Storm
Scenario: Pre-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time-Depth Curve: 10 Year Storm	
Label	10 Year Storm
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	10 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.1	0.1	0.1
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.1	0.1	0.2
2.000	0.2	0.2	0.2	0.2	0.2
2.500	0.2	0.2	0.2	0.2	0.2
3.000	0.2	0.3	0.3	0.3	0.3
3.500	0.3	0.3	0.3	0.3	0.3
4.000	0.3	0.3	0.4	0.4	0.4
4.500	0.4	0.4	0.4	0.4	0.4
5.000	0.4	0.4	0.5	0.5	0.5
5.500	0.5	0.5	0.5	0.5	0.5
6.000	0.5	0.6	0.6	0.6	0.6
6.500	0.6	0.6	0.6	0.6	0.7
7.000	0.7	0.7	0.7	0.7	0.7
7.500	0.7	0.8	0.8	0.8	0.8
8.000	0.8	0.8	0.8	0.9	0.9
8.500	0.9	0.9	0.9	0.9	1.0
9.000	1.0	1.0	1.0	1.0	1.1
9.500	1.1	1.1	1.1	1.1	1.2
10.000	1.2	1.2	1.2	1.3	1.3
10.500	1.3	1.4	1.4	1.4	1.5
11.000	1.5	1.5	1.6	1.6	1.7
11.500	1.8	1.9	2.0	2.1	2.3
12.000	3.0	3.2	3.4	3.5	3.7
12.500	3.8	3.8	3.9	3.9	4.0
13.000	4.0	4.0	4.1	4.1	4.1
13.500	4.2	4.2	4.2	4.3	4.3
14.000	4.3	4.3	4.4	4.4	4.4
14.500	4.4	4.4	4.5	4.5	4.5
15.000	4.5	4.5	4.6	4.6	4.6
15.500	4.6	4.6	4.6	4.7	4.7
16.000	4.7	4.7	4.7	4.7	4.8
16.500	4.8	4.8	4.8	4.8	4.8
17.000	4.8	4.8	4.9	4.9	4.9

Subsection: Time-Depth Curve
Label: NRCC (UCL) - 1.10.25.100 Yr Storm
Scenario: Pre-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	4.9	4.9	4.9	4.9	4.9
18.000	5.0	5.0	5.0	5.0	5.0
18.500	5.0	5.0	5.0	5.0	5.1
19.000	5.1	5.1	5.1	5.1	5.1
19.500	5.1	5.1	5.1	5.1	5.2
20.000	5.2	5.2	5.2	5.2	5.2
20.500	5.2	5.2	5.2	5.2	5.2
21.000	5.3	5.3	5.3	5.3	5.3
21.500	5.3	5.3	5.3	5.3	5.3
22.000	5.3	5.3	5.4	5.4	5.4
22.500	5.4	5.4	5.4	5.4	5.4
23.000	5.4	5.4	5.4	5.4	5.5
23.500	5.5	5.5	5.5	5.5	5.5
24.000	5.5	(N/A)	(N/A)	(N/A)	(N/A)

Time-Depth Curve: 100 Year Storm	
Label	100 Year Storm
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	100 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.1	0.1
0.500	0.1	0.1	0.1	0.1	0.1
1.000	0.2	0.2	0.2	0.2	0.2
1.500	0.2	0.3	0.3	0.3	0.3
2.000	0.3	0.3	0.4	0.4	0.4
2.500	0.4	0.4	0.4	0.5	0.5
3.000	0.5	0.5	0.5	0.6	0.6
3.500	0.6	0.6	0.6	0.7	0.7
4.000	0.7	0.7	0.7	0.7	0.8
4.500	0.8	0.8	0.8	0.9	0.9
5.000	0.9	0.9	0.9	1.0	1.0
5.500	1.0	1.0	1.1	1.1	1.1
6.000	1.1	1.1	1.2	1.2	1.2
6.500	1.2	1.3	1.3	1.3	1.3
7.000	1.4	1.4	1.4	1.5	1.5
7.500	1.5	1.5	1.6	1.6	1.6
8.000	1.7	1.7	1.7	1.8	1.8
8.500	1.8	1.9	1.9	1.9	2.0
9.000	2.0	2.0	2.1	2.1	2.2
9.500	2.2	2.3	2.3	2.3	2.4
10.000	2.4	2.5	2.5	2.6	2.7
10.500	2.7	2.8	2.8	2.9	3.0
11.000	3.1	3.1	3.2	3.3	3.4
11.500	3.6	3.8	4.0	4.3	4.7
12.000	5.8	6.3	6.6	6.8	7.1
12.500	7.3	7.4	7.5	7.6	7.7
13.000	7.8	7.8	7.9	8.0	8.0
13.500	8.1	8.1	8.2	8.3	8.3
14.000	8.4	8.4	8.5	8.5	8.5
14.500	8.6	8.6	8.7	8.7	8.7
15.000	8.8	8.8	8.9	8.9	8.9
15.500	9.0	9.0	9.0	9.1	9.1
16.000	9.1	9.2	9.2	9.2	9.2
16.500	9.3	9.3	9.3	9.4	9.4
17.000	9.4	9.4	9.5	9.5	9.5

Subsection: Time-Depth Curve Return Event: 100 years

Label: NRCC (UCL) - 1.10.25.100 Yr Storm Storm Event: 100 Year Storm

Scenario: Pre-Development 100 Year Storm

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	9.5	9.6	9.6	9.6	9.6
18.000	9.7	9.7	9.7	9.7	9.8
18.500	9.8	9.8	9.8	9.8	9.9
19.000	9.9	9.9	9.9	10.0	10.0
19.500	10.0	10.0	10.0	10.1	10.1
20.000	10.1	10.1	10.1	10.2	10.2
20.500	10.2	10.2	10.2	10.2	10.3
21.000	10.3	10.3	10.3	10.3	10.4
21.500	10.4	10.4	10.4	10.4	10.4
22.000	10.5	10.5	10.5	10.5	10.5
22.500	10.5	10.6	10.6	10.6	10.6
23.000	10.6	10.6	10.7	10.7	10.7
23.500	10.7	10.7	10.7	10.7	10.8
24.000	10.8	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time of Concentration Calculations
Return Event: 1 years
Label: EDA-1
Storm Event: 1 Year Storm
Scenario: Pre-Development 1 Year Storm

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	150.00 ft
Manning's n	0.400
Slope	0.044 ft/ft
2 Year 24 Hour Depth	3.5 in
Average Velocity	0.12 ft/s
Segment Time of Concentration	0.345 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	515.00 ft
Is Paved?	False
Slope	0.049 ft/ft
Average Velocity	3.58 ft/s
Segment Time of Concentration	0.040 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.385 hours

==== SCS Channel Flow

Tc = R = Qa / Wp
V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n

(Lf / V) / 3600

Where:
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
V = 16.1345 * (Sf**0.5)

Paved Surface:
V = 20.3282 * (Sf**0.5)

(Lf / V) / 3600

Where:
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Subsection: Time of Concentration Calculations
Return Event: 1 years
Label: EDA-2
Storm Event: 1 Year Storm
Scenario: Pre-Development 1 Year Storm

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	150.00 ft
Manning's n	0.400
Slope	0.030 ft/ft
2 Year 24 Hour Depth	3.5 in
Average Velocity	0.10 ft/s
Segment Time of Concentration	0.403 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	986.00 ft
Is Paved?	False
Slope	0.030 ft/ft
Average Velocity	2.79 ft/s
Segment Time of Concentration	0.098 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.501 hours

==== SCS Channel Flow

Tc = R = Qa / Wp
V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n

(Lf / V) / 3600

Where:
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
V = 16.1345 * (Sf**0.5)

Paved Surface:
V = 20.3282 * (Sf**0.5)

(Lf / V) / 3600

Where:
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Subsection: Time of Concentration Calculations
Return Event: 1 years
Label: EDA-3
Storm Event: 1 Year Storm
Scenario: Pre-Development 1 Year Storm

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	150.00 ft
Manning's n	0.400
Slope	0.017 ft/ft
2 Year 24 Hour Depth	3.5 in
Average Velocity	0.08 ft/s
Segment Time of Concentration	0.509 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	378.00 ft
Is Paved?	False
Slope	0.079 ft/ft
Average Velocity	4.53 ft/s
Segment Time of Concentration	0.023 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.532 hours

==== SCS Channel Flow

Tc = R = Qa / Wp
V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n

(Lf / V) / 3600

Where:
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
V = 16.1345 * (Sf**0.5)

Paved Surface:
V = 20.3282 * (Sf**0.5)

(Lf / V) / 3600

Where:
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Subsection: Runoff CN-Area
Return Event: 1 years
Label: EDA-1
Storm Event: 1 Year Storm
Scenario: Pre-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil B	55.000	360,879.502	0.0	0.0	55.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	248,878.583	0.0	0.0	61.000
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	56,757.001	0.0	0.0	98.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	666,515.086	(N/A)	(N/A)	60.902

Subsection: Runoff CN-Area
Return Event: 1 years
Label: EDA-2
Storm Event: 1 Year Storm
Scenario: Pre-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil B	55.000	117,376.320	0.0	0.0	55.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	168,084.544	0.0	0.0	61.000
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	1,579.565	0.0	0.0	98.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	287,040.428	(N/A)	(N/A)	58.750

Subsection: Runoff CN-Area
Return Event: 1 years
Label: EDA-3
Storm Event: 1 Year Storm
Scenario: Pre-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil B	55.000	194,970.413	0.0	0.0	55.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	30,672.778	0.0	0.0	61.000
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	1,017.624	0.0	0.0	98.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	226,660.816	(N/A)	(N/A)	56.005

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: EDA-1 Storm Event: 1 Year Storm

Scenario: Pre-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.385 hours
Area (User Defined)	666,515.086 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.900	0.00	0.02	0.11	0.32	0.68
12.150	1.10	1.48	1.77	1.94	2.00
12.400	1.98	1.94	1.90	1.85	1.79
12.650	1.70	1.58	1.46	1.33	1.20
12.900	1.09	1.00	0.92	0.86	0.81
13.150	0.78	0.76	0.75	0.74	0.74
13.400	0.74	0.73	0.72	0.69	0.66
13.650	0.64	0.63	0.61	0.60	0.60
13.900	0.60	0.59	0.57	0.54	0.51
14.150	0.49	0.49	0.50	0.53	0.54
14.400	0.54	0.53	0.51	0.48	0.47
14.650	0.45	0.45	0.44	0.44	0.43
14.900	0.43	0.43	0.43	0.43	0.43
15.150	0.43	0.44	0.44	0.44	0.44
15.400	0.44	0.44	0.44	0.44	0.42
15.650	0.39	0.35	0.33	0.32	0.34
15.900	0.36	0.39	0.41	0.41	0.40
16.150	0.38	0.35	0.33	0.33	0.34
16.400	0.36	0.38	0.38	0.36	0.34
16.650	0.32	0.32	0.33	0.34	0.33
16.900	0.31	0.31	0.31	0.33	0.33
17.150	0.33	0.31	0.31	0.31	0.33
17.400	0.34	0.33	0.31	0.31	0.32
17.650	0.33	0.34	0.34	0.32	0.30
17.900	0.29	0.28	0.27	0.27	0.29
18.150	0.32	0.33	0.33	0.32	0.30
18.400	0.29	0.28	0.27	0.27	0.27
18.650	0.26	0.26	0.26	0.26	0.26
18.900	0.25	0.27	0.29	0.32	0.33
19.150	0.33	0.32	0.31	0.30	0.28
19.400	0.27	0.27	0.27	0.27	0.26
19.650	0.26	0.27	0.26	0.26	0.26
19.900	0.27	0.26	0.26	0.26	0.26
20.150	0.25	0.23	0.20	0.19	0.18

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: EDA-1 Storm Event: 1 Year Storm

Scenario: Pre-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
20.400	0.20	0.21	0.22	0.24	0.25
20.650	0.25	0.25	0.26	0.26	0.26
20.900	0.26	0.27	0.27	0.27	0.26
21.150	0.27	0.27	0.26	0.23	0.20
21.400	0.18	0.19	0.20	0.22	0.23
21.650	0.24	0.26	0.26	0.26	0.26
21.900	0.27	0.26	0.23	0.21	0.19
22.150	0.19	0.20	0.22	0.23	0.25
22.400	0.26	0.25	0.23	0.20	0.19
22.650	0.19	0.20	0.22	0.23	0.25
22.900	0.26	0.25	0.23	0.20	0.19
23.150	0.19	0.21	0.21	0.20	0.18
23.400	0.17	0.18	0.20	0.22	0.23
23.650	0.25	0.26	0.25	0.23	0.21
23.900	0.19	0.19	0.20	0.21	0.20
24.150	0.17	0.14	0.10	0.07	0.05
24.400	0.04	0.03	0.02	0.01	0.01
24.650	0.01	0.01	0.00	0.00	0.00
24.900	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1 Storm Event: 10 Year Storm
Scenario: Pre-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.385 hours
Area (User Defined)	666,515.086 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
10.400	0.00	0.00	0.01	0.01	0.02
10.650	0.03	0.05	0.06	0.08	0.11
10.900	0.13	0.16	0.19	0.22	0.25
11.150	0.29	0.33	0.38	0.44	0.50
11.400	0.56	0.62	0.69	0.78	0.91
11.650	1.12	1.40	1.76	2.18	2.67
11.900	3.27	4.29	6.03	8.62	11.60
12.150	14.06	15.50	15.88	15.37	14.30
12.400	13.11	12.04	11.10	10.25	9.43
12.650	8.60	7.76	6.95	6.22	5.59
12.900	5.08	4.66	4.31	4.02	3.79
13.150	3.60	3.46	3.36	3.26	3.15
13.400	3.02	2.89	2.77	2.67	2.60
13.650	2.55	2.52	2.50	2.48	2.46
13.900	2.42	2.36	2.29	2.23	2.19
14.150	2.14	2.08	2.03	1.99	1.98
14.400	2.00	2.00	1.99	1.95	1.90
14.650	1.85	1.80	1.78	1.76	1.74
14.900	1.73	1.73	1.73	1.72	1.72
15.150	1.72	1.72	1.71	1.67	1.61
15.400	1.54	1.49	1.49	1.50	1.51
15.650	1.49	1.46	1.44	1.45	1.48
15.900	1.49	1.48	1.45	1.43	1.40
16.150	1.38	1.36	1.36	1.36	1.35
16.400	1.34	1.34	1.34	1.32	1.28
16.650	1.24	1.21	1.21	1.23	1.24
16.900	1.22	1.19	1.18	1.19	1.22
17.150	1.23	1.22	1.19	1.18	1.19
17.400	1.22	1.24	1.22	1.18	1.13
17.650	1.08	1.08	1.12	1.18	1.21
17.900	1.20	1.17	1.12	1.07	1.03
18.150	1.00	0.98	0.98	1.01	1.07
18.400	1.14	1.18	1.19	1.16	1.12
18.650	1.07	1.03	1.00	0.98	0.97

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1 Storm Event: 10 Year Storm
Scenario: Pre-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
18.900	0.96	0.95	0.94	0.94	0.94
19.150	0.94	0.94	0.94	0.94	0.94
19.400	0.94	0.94	0.94	0.94	0.94
19.650	0.94	0.94	0.94	0.94	0.94
19.900	0.94	0.94	0.94	0.94	0.94
20.150	0.94	0.94	0.94	0.95	0.95
20.400	0.95	0.95	0.95	0.95	0.95
20.650	0.95	0.95	0.93	0.89	0.82
20.900	0.74	0.69	0.69	0.71	0.76
21.150	0.81	0.85	0.88	0.90	0.92
21.400	0.93	0.92	0.89	0.82	0.74
21.650	0.69	0.69	0.71	0.76	0.81
21.900	0.86	0.89	0.90	0.90	0.87
22.150	0.81	0.74	0.70	0.69	0.72
22.400	0.76	0.82	0.86	0.87	0.85
22.650	0.79	0.73	0.69	0.69	0.71
22.900	0.76	0.82	0.86	0.88	0.85
23.150	0.80	0.72	0.68	0.68	0.72
23.400	0.77	0.81	0.81	0.76	0.70
23.650	0.67	0.67	0.71	0.76	0.80
23.900	0.80	0.76	0.70	0.65	0.61
24.150	0.55	0.48	0.40	0.31	0.23
24.400	0.17	0.12	0.09	0.06	0.05
24.650	0.03	0.02	0.02	0.01	0.01
24.900	0.01	0.00	0.00	0.00	0.00
25.150	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.385 hours
Area (User Defined)	666,515.086 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
6.750	0.00	0.00	0.01	0.01	0.02
7.000	0.03	0.04	0.06	0.07	0.09
7.250	0.10	0.11	0.13	0.15	0.17
7.500	0.19	0.21	0.23	0.25	0.27
7.750	0.29	0.31	0.33	0.35	0.37
8.000	0.39	0.41	0.43	0.45	0.47
8.250	0.49	0.52	0.55	0.59	0.62
8.500	0.64	0.66	0.68	0.70	0.73
8.750	0.76	0.79	0.83	0.87	0.91
9.000	0.94	0.96	0.98	1.00	1.04
9.250	1.07	1.12	1.16	1.21	1.25
9.500	1.30	1.36	1.42	1.47	1.50
9.750	1.53	1.56	1.60	1.67	1.75
10.000	1.83	1.90	1.96	2.02	2.07
10.250	2.12	2.17	2.22	2.28	2.36
10.500	2.47	2.58	2.69	2.80	2.91
10.750	3.04	3.17	3.32	3.45	3.59
11.000	3.73	3.88	4.04	4.22	4.41
11.250	4.61	4.83	5.06	5.31	5.62
11.500	5.99	6.50	7.24	8.34	9.76
11.750	11.40	13.18	15.16	17.46	20.99
12.000	26.63	34.59	43.29	50.00	53.34
12.250	53.40	50.76	46.62	42.32	38.49
12.500	35.18	32.22	29.45	26.72	23.99
12.750	21.39	19.03	16.98	15.31	14.00
13.000	12.97	12.12	11.38	10.72	10.13
13.250	9.63	9.24	8.92	8.65	8.40
13.500	8.14	7.90	7.69	7.52	7.39
13.750	7.29	7.18	7.03	6.85	6.66
14.000	6.49	6.35	6.24	6.16	6.11
14.250	6.05	5.97	5.87	5.76	5.67
14.500	5.60	5.52	5.43	5.32	5.21
14.750	5.11	5.03	4.98	4.94	4.92
15.000	4.89	4.86	4.80	4.70	4.60

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1 Storm Event: 100 Year Storm

Scenario: Pre-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
15.250	4.54	4.53	4.54	4.55	4.52
15.500	4.47	4.43	4.40	4.34	4.25
15.750	4.16	4.05	3.97	3.95	3.99
16.000	4.06	4.09	4.08	4.04	3.97
16.250	3.90	3.84	3.80	3.78	3.76
16.500	3.74	3.73	3.72	3.70	3.64
16.750	3.55	3.45	3.39	3.38	3.41
17.000	3.46	3.51	3.51	3.46	3.38
17.250	3.32	3.27	3.22	3.18	3.19
17.500	3.24	3.30	3.33	3.33	3.29
17.750	3.25	3.22	3.17	3.09	3.01
18.000	2.97	2.96	2.98	2.99	2.96
18.250	2.93	2.90	2.92	2.95	2.97
18.500	2.95	2.92	2.90	2.91	2.95
18.750	2.97	2.95	2.90	2.82	2.74
19.000	2.68	2.64	2.61	2.61	2.65
19.250	2.73	2.83	2.89	2.90	2.86
19.500	2.79	2.72	2.67	2.63	2.60
19.750	2.59	2.57	2.56	2.55	2.55
20.000	2.55	2.54	2.54	2.54	2.54
20.250	2.54	2.54	2.54	2.54	2.51
20.500	2.46	2.37	2.27	2.20	2.19
20.750	2.23	2.29	2.35	2.41	2.45
21.000	2.47	2.47	2.43	2.35	2.25
21.250	2.19	2.18	2.22	2.29	2.36
21.500	2.41	2.43	2.40	2.33	2.24
21.750	2.18	2.18	2.19	2.20	2.18
22.000	2.14	2.11	2.13	2.18	2.26
22.250	2.31	2.32	2.27	2.20	2.16
22.500	2.16	2.18	2.20	2.18	2.13
22.750	2.09	2.05	2.01	1.98	2.00
23.000	2.05	2.11	2.15	2.14	2.10
23.250	2.07	2.04	2.00	1.97	1.97
23.500	1.97	1.95	1.94	1.94	1.95
23.750	1.94	1.93	1.94	1.95	1.94
24.000	1.93	1.91	1.85	1.70	1.47
24.250	1.20	0.93	0.69	0.49	0.36
24.500	0.26	0.19	0.14	0.10	0.07
24.750	0.05	0.04	0.03	0.02	0.01
25.000	0.01	0.01	0.00	0.00	0.00

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: EDA-2 Storm Event: 1 Year Storm

Scenario: Pre-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.501 hours
Area (User Defined)	287,040.428 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.950	0.00	0.01	0.03	0.07	0.14
12.200	0.22	0.30	0.39	0.45	0.50
12.450	0.54	0.56	0.57	0.57	0.56
12.700	0.55	0.53	0.50	0.47	0.43
12.950	0.40	0.37	0.35	0.33	0.31
13.200	0.30	0.29	0.28	0.28	0.28
13.450	0.27	0.27	0.26	0.25	0.25
13.700	0.24	0.23	0.23	0.23	0.22
13.950	0.22	0.22	0.21	0.20	0.20
14.200	0.19	0.19	0.19	0.19	0.19
14.450	0.19	0.19	0.19	0.18	0.18
14.700	0.17	0.17	0.17	0.16	0.16
14.950	0.16	0.16	0.16	0.16	0.16
15.200	0.16	0.16	0.16	0.16	0.16
15.450	0.16	0.16	0.16	0.16	0.15
15.700	0.15	0.14	0.13	0.13	0.13
15.950	0.14	0.14	0.15	0.15	0.14
16.200	0.14	0.13	0.13	0.13	0.13
16.450	0.14	0.14	0.14	0.13	0.13
16.700	0.13	0.13	0.13	0.13	0.12
16.950	0.12	0.12	0.12	0.12	0.12
17.200	0.12	0.12	0.12	0.12	0.12
17.450	0.12	0.12	0.12	0.12	0.12
17.700	0.12	0.12	0.12	0.12	0.12
17.950	0.11	0.11	0.11	0.11	0.11
18.200	0.12	0.12	0.12	0.12	0.12
18.450	0.11	0.11	0.11	0.10	0.10
18.700	0.10	0.10	0.10	0.10	0.10
18.950	0.10	0.10	0.11	0.12	0.12
19.200	0.12	0.12	0.12	0.11	0.11
19.450	0.11	0.10	0.10	0.10	0.10
19.700	0.10	0.10	0.10	0.10	0.10
19.950	0.10	0.10	0.10	0.10	0.10
20.200	0.09	0.09	0.08	0.08	0.08

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: EDA-2 Storm Event: 1 Year Storm

Scenario: Pre-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
20.450	0.08	0.08	0.08	0.09	0.09
20.700	0.09	0.10	0.10	0.10	0.10
20.950	0.10	0.10	0.10	0.10	0.10
21.200	0.10	0.10	0.10	0.09	0.08
21.450	0.08	0.08	0.08	0.08	0.09
21.700	0.09	0.09	0.10	0.10	0.10
21.950	0.10	0.09	0.09	0.08	0.08
22.200	0.08	0.08	0.08	0.09	0.09
22.450	0.09	0.09	0.09	0.08	0.08
22.700	0.08	0.08	0.08	0.09	0.09
22.950	0.09	0.09	0.09	0.08	0.08
23.200	0.08	0.08	0.08	0.07	0.07
23.450	0.07	0.08	0.08	0.08	0.09
23.700	0.09	0.09	0.09	0.09	0.08
23.950	0.08	0.08	0.08	0.08	0.07
24.200	0.07	0.06	0.05	0.04	0.03
24.450	0.02	0.02	0.01	0.01	0.01
24.700	0.01	0.01	0.00	0.00	0.00
24.950	0.00	0.00	0.00	0.00	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-2 Storm Event: 10 Year Storm
Scenario: Pre-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.501 hours
Area (User Defined)	287,040.428 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
10.800	0.00	0.00	0.00	0.01	0.01
11.050	0.01	0.02	0.03	0.04	0.05
11.300	0.07	0.09	0.10	0.12	0.15
11.550	0.17	0.21	0.26	0.33	0.42
11.800	0.53	0.67	0.84	1.13	1.57
12.050	2.17	2.93	3.76	4.45	4.97
12.300	5.28	5.34	5.22	4.99	4.70
12.550	4.40	4.12	3.84	3.55	3.25
12.800	2.97	2.71	2.46	2.25	2.07
13.050	1.91	1.78	1.67	1.59	1.51
13.300	1.45	1.39	1.33	1.28	1.22
13.550	1.17	1.13	1.10	1.07	1.05
13.800	1.03	1.02	1.00	0.98	0.96
14.050	0.94	0.92	0.90	0.88	0.86
14.300	0.84	0.83	0.82	0.82	0.81
14.550	0.80	0.79	0.77	0.76	0.74
14.800	0.73	0.72	0.71	0.71	0.70
15.050	0.70	0.70	0.70	0.70	0.69
15.300	0.68	0.67	0.65	0.64	0.63
15.550	0.62	0.62	0.61	0.60	0.60
15.800	0.60	0.60	0.60	0.60	0.59
16.050	0.59	0.58	0.57	0.56	0.56
16.300	0.55	0.55	0.55	0.55	0.54
16.550	0.54	0.53	0.52	0.51	0.51
16.800	0.51	0.50	0.50	0.49	0.49
17.050	0.49	0.49	0.49	0.49	0.49
17.300	0.49	0.49	0.49	0.50	0.49
17.550	0.49	0.48	0.47	0.46	0.46
17.800	0.46	0.47	0.48	0.47	0.47
18.050	0.46	0.44	0.43	0.42	0.41
18.300	0.41	0.42	0.44	0.45	0.46
18.550	0.46	0.46	0.45	0.44	0.43
18.800	0.42	0.41	0.40	0.40	0.39
19.050	0.39	0.39	0.39	0.38	0.38

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-2 Storm Event: 10 Year Storm
Scenario: Pre-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
19.300	0.38	0.38	0.38	0.38	0.38
19.550	0.38	0.38	0.38	0.38	0.38
19.800	0.38	0.38	0.38	0.38	0.38
20.050	0.38	0.38	0.38	0.38	0.38
20.300	0.38	0.38	0.39	0.39	0.39
20.550	0.39	0.39	0.39	0.39	0.38
20.800	0.37	0.36	0.34	0.32	0.31
21.050	0.30	0.31	0.32	0.33	0.34
21.300	0.35	0.36	0.37	0.37	0.36
21.550	0.35	0.33	0.31	0.30	0.30
21.800	0.31	0.31	0.33	0.34	0.35
22.050	0.36	0.35	0.34	0.33	0.31
22.300	0.30	0.30	0.31	0.31	0.33
22.550	0.33	0.34	0.33	0.32	0.31
22.800	0.30	0.30	0.30	0.31	0.33
23.050	0.34	0.34	0.33	0.32	0.31
23.300	0.30	0.30	0.30	0.31	0.31
23.550	0.31	0.31	0.30	0.29	0.29
23.800	0.30	0.31	0.31	0.31	0.30
24.050	0.29	0.27	0.26	0.23	0.20
24.300	0.18	0.15	0.12	0.09	0.07
24.550	0.06	0.04	0.04	0.03	0.02
24.800	0.02	0.01	0.01	0.01	0.01
25.050	0.00	0.00	0.00	0.00	0.00
25.300	0.00	0.00	(N/A)	(N/A)	(N/A)

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.501 hours
Area (User Defined)	287,040.428 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
7.250	0.00	0.00	0.00	0.01	0.01
7.500	0.01	0.02	0.03	0.03	0.04
7.750	0.05	0.05	0.06	0.07	0.08
8.000	0.08	0.09	0.10	0.11	0.12
8.250	0.12	0.13	0.14	0.15	0.17
8.500	0.18	0.19	0.19	0.20	0.22
8.750	0.23	0.24	0.25	0.26	0.28
9.000	0.29	0.30	0.31	0.32	0.34
9.250	0.35	0.36	0.38	0.39	0.41
9.500	0.43	0.45	0.47	0.49	0.51
9.750	0.52	0.54	0.55	0.57	0.60
10.000	0.62	0.65	0.67	0.70	0.72
10.250	0.75	0.77	0.79	0.81	0.84
10.500	0.87	0.91	0.95	0.99	1.03
10.750	1.07	1.12	1.17	1.23	1.28
11.000	1.33	1.39	1.45	1.52	1.58
11.250	1.66	1.73	1.82	1.91	2.02
11.500	2.14	2.31	2.53	2.83	3.21
11.750	3.71	4.29	4.95	5.71	6.84
12.000	8.43	10.48	12.95	15.52	17.51
12.250	18.85	19.48	19.26	18.49	17.42
12.500	16.19	15.00	13.90	12.83	11.76
12.750	10.72	9.72	8.80	7.94	7.22
13.000	6.61	6.09	5.64	5.27	4.94
13.250	4.66	4.41	4.20	4.02	3.86
13.500	3.71	3.57	3.45	3.35	3.26
13.750	3.19	3.12	3.05	2.99	2.91
14.000	2.84	2.78	2.71	2.67	2.63
14.250	2.59	2.56	2.52	2.48	2.44
14.500	2.40	2.37	2.33	2.29	2.25
14.750	2.21	2.18	2.15	2.12	2.10
15.000	2.08	2.06	2.04	2.01	1.98
15.250	1.95	1.93	1.93	1.92	1.91
15.500	1.90	1.88	1.87	1.85	1.82

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
15.750	1.79	1.75	1.73	1.70	1.70
16.000	1.70	1.70	1.70	1.70	1.68
16.250	1.67	1.65	1.63	1.61	1.60
16.500	1.59	1.58	1.57	1.56	1.55
16.750	1.52	1.49	1.47	1.45	1.45
17.000	1.45	1.45	1.46	1.45	1.44
17.250	1.42	1.40	1.38	1.37	1.36
17.500	1.36	1.37	1.38	1.39	1.38
17.750	1.38	1.37	1.35	1.33	1.30
18.000	1.28	1.27	1.26	1.26	1.25
18.250	1.24	1.24	1.24	1.24	1.24
18.500	1.24	1.23	1.23	1.23	1.23
18.750	1.23	1.23	1.22	1.21	1.19
19.000	1.17	1.15	1.13	1.12	1.12
19.250	1.13	1.15	1.17	1.18	1.19
19.500	1.18	1.17	1.15	1.13	1.12
19.750	1.11	1.10	1.09	1.08	1.08
20.000	1.08	1.07	1.07	1.07	1.07
20.250	1.07	1.07	1.07	1.07	1.06
20.500	1.05	1.03	1.00	0.97	0.96
20.750	0.95	0.96	0.97	0.98	1.00
21.000	1.02	1.02	1.02	1.00	0.98
21.250	0.96	0.95	0.95	0.95	0.96
21.500	0.98	0.99	1.00	0.99	0.97
21.750	0.96	0.94	0.94	0.93	0.92
22.000	0.91	0.91	0.91	0.92	0.93
22.250	0.94	0.95	0.95	0.94	0.93
22.500	0.93	0.92	0.92	0.92	0.91
22.750	0.90	0.88	0.87	0.86	0.85
23.000	0.86	0.87	0.88	0.89	0.89
23.250	0.88	0.87	0.86	0.85	0.84
23.500	0.84	0.83	0.83	0.82	0.82
23.750	0.82	0.82	0.82	0.82	0.82
24.000	0.82	0.81	0.79	0.76	0.71
24.250	0.63	0.54	0.45	0.37	0.29
24.500	0.22	0.17	0.14	0.11	0.08
24.750	0.07	0.05	0.04	0.03	0.02
25.000	0.02	0.01	0.01	0.01	0.01
25.250	0.00	0.00	0.00	0.00	0.00
25.500	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: EDA-3 Storm Event: 1 Year Storm

Scenario: Pre-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.532 hours
Area (User Defined)	226,660.816 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
12.000	0.00	0.00	0.01	0.02	0.03
12.250	0.06	0.09	0.12	0.15	0.17
12.500	0.20	0.22	0.23	0.24	0.25
12.750	0.24	0.24	0.23	0.22	0.21
13.000	0.20	0.18	0.18	0.17	0.16
13.250	0.16	0.16	0.16	0.15	0.15
13.500	0.15	0.15	0.15	0.14	0.14
13.750	0.14	0.13	0.13	0.13	0.13
14.000	0.13	0.12	0.12	0.12	0.11
14.250	0.11	0.11	0.11	0.12	0.12
14.500	0.11	0.11	0.11	0.11	0.10
14.750	0.10	0.10	0.10	0.10	0.10
15.000	0.10	0.10	0.10	0.10	0.10
15.250	0.10	0.10	0.10	0.10	0.10
15.500	0.10	0.10	0.10	0.09	0.09
15.750	0.09	0.08	0.08	0.08	0.08
16.000	0.09	0.09	0.09	0.09	0.09
16.250	0.08	0.08	0.08	0.08	0.08
16.500	0.08	0.08	0.08	0.08	0.08
16.750	0.08	0.08	0.08	0.08	0.08
17.000	0.08	0.08	0.08	0.08	0.08
17.250	0.08	0.08	0.08	0.08	0.08
17.500	0.08	0.08	0.08	0.08	0.08
17.750	0.08	0.08	0.08	0.07	0.07
18.000	0.07	0.07	0.07	0.07	0.07
18.250	0.07	0.07	0.07	0.07	0.07
18.500	0.07	0.07	0.07	0.06	0.06
18.750	0.06	0.06	0.06	0.06	0.06
19.000	0.07	0.07	0.07	0.08	0.08
19.250	0.08	0.07	0.07	0.07	0.07
19.500	0.07	0.07	0.07	0.07	0.06
19.750	0.06	0.07	0.06	0.06	0.06
20.000	0.07	0.07	0.06	0.06	0.06
20.250	0.06	0.05	0.05	0.05	0.05

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: EDA-3 Storm Event: 1 Year Storm

Scenario: Pre-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
20.500	0.05	0.05	0.06	0.06	0.06
20.750	0.06	0.06	0.06	0.06	0.06
21.000	0.06	0.06	0.06	0.06	0.06
21.250	0.06	0.06	0.06	0.06	0.05
21.500	0.05	0.05	0.05	0.06	0.06
21.750	0.06	0.06	0.06	0.06	0.06
22.000	0.06	0.06	0.06	0.05	0.05
22.250	0.05	0.05	0.06	0.06	0.06
22.500	0.06	0.06	0.05	0.05	0.05
22.750	0.05	0.05	0.06	0.06	0.06
23.000	0.06	0.06	0.05	0.05	0.05
23.250	0.05	0.05	0.05	0.05	0.05
23.500	0.05	0.05	0.05	0.06	0.06
23.750	0.06	0.06	0.06	0.05	0.05
24.000	0.05	0.05	0.05	0.05	0.04
24.250	0.04	0.03	0.03	0.02	0.02
24.500	0.01	0.01	0.01	0.01	0.01
24.750	0.00	0.00	0.00	0.00	0.00
25.000	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-3 Storm Event: 10 Year Storm
Scenario: Pre-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.532 hours
Area (User Defined)	226,660.816 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.250	0.00	0.00	0.00	0.01	0.01
11.500	0.02	0.03	0.04	0.06	0.09
11.750	0.14	0.19	0.26	0.37	0.54
12.000	0.78	1.12	1.59	2.07	2.56
12.250	2.91	3.15	3.30	3.31	3.23
12.500	3.10	2.95	2.78	2.61	2.44
12.750	2.26	2.08	1.91	1.75	1.61
13.000	1.48	1.37	1.28	1.20	1.14
13.250	1.08	1.04	0.99	0.95	0.91
13.500	0.88	0.84	0.81	0.78	0.76
13.750	0.74	0.73	0.72	0.71	0.70
14.000	0.68	0.67	0.65	0.64	0.62
14.250	0.61	0.60	0.59	0.58	0.58
14.500	0.57	0.57	0.56	0.55	0.54
14.750	0.53	0.52	0.51	0.51	0.50
15.000	0.50	0.50	0.50	0.50	0.50
15.250	0.49	0.49	0.48	0.47	0.46
15.500	0.45	0.44	0.44	0.43	0.43
15.750	0.43	0.42	0.43	0.43	0.43
16.000	0.42	0.42	0.42	0.41	0.41
16.250	0.40	0.40	0.39	0.39	0.39
16.500	0.39	0.39	0.38	0.37	0.37
16.750	0.36	0.36	0.36	0.36	0.35
17.000	0.35	0.35	0.35	0.35	0.35
17.250	0.35	0.35	0.35	0.35	0.35
17.500	0.35	0.35	0.34	0.34	0.33
17.750	0.33	0.33	0.34	0.34	0.34
18.000	0.33	0.33	0.32	0.31	0.30
18.250	0.30	0.30	0.30	0.31	0.32
18.500	0.33	0.33	0.33	0.32	0.32
18.750	0.31	0.30	0.29	0.29	0.29
19.000	0.28	0.28	0.28	0.28	0.28
19.250	0.28	0.28	0.28	0.27	0.27
19.500	0.27	0.27	0.27	0.27	0.27

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-3 Storm Event: 10 Year Storm
Scenario: Pre-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
19.750	0.27	0.28	0.28	0.28	0.28
20.000	0.28	0.28	0.28	0.28	0.28
20.250	0.28	0.28	0.28	0.28	0.28
20.500	0.28	0.28	0.28	0.28	0.28
20.750	0.28	0.27	0.26	0.25	0.24
21.000	0.23	0.22	0.22	0.23	0.23
21.250	0.24	0.25	0.26	0.26	0.26
21.500	0.26	0.25	0.24	0.23	0.22
21.750	0.22	0.22	0.23	0.23	0.24
22.000	0.25	0.26	0.25	0.25	0.24
22.250	0.23	0.22	0.22	0.22	0.23
22.500	0.23	0.24	0.24	0.24	0.23
22.750	0.22	0.22	0.22	0.22	0.23
23.000	0.23	0.24	0.24	0.24	0.23
23.250	0.23	0.22	0.22	0.22	0.22
23.500	0.23	0.23	0.22	0.22	0.21
23.750	0.21	0.22	0.22	0.22	0.22
24.000	0.22	0.21	0.20	0.19	0.17
24.250	0.16	0.14	0.12	0.10	0.08
24.500	0.06	0.05	0.04	0.03	0.02
24.750	0.02	0.02	0.01	0.01	0.01
25.000	0.01	0.00	0.00	0.00	0.00
25.250	0.00	0.00	0.00	(N/A)	(N/A)

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.532 hours
Area (User Defined)	226,660.816 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
7.850	0.00	0.00	0.00	0.00	0.01
8.100	0.01	0.01	0.02	0.02	0.03
8.350	0.03	0.04	0.04	0.05	0.06
8.600	0.06	0.07	0.08	0.08	0.09
8.850	0.10	0.11	0.12	0.13	0.13
9.100	0.14	0.15	0.16	0.17	0.18
9.350	0.19	0.20	0.21	0.22	0.23
9.600	0.25	0.26	0.27	0.28	0.30
9.850	0.31	0.32	0.34	0.35	0.37
10.100	0.39	0.41	0.42	0.44	0.46
10.350	0.47	0.49	0.51	0.53	0.55
10.600	0.58	0.60	0.63	0.66	0.70
10.850	0.73	0.77	0.80	0.84	0.88
11.100	0.92	0.97	1.02	1.07	1.12
11.350	1.18	1.24	1.31	1.40	1.51
11.600	1.66	1.85	2.09	2.42	2.80
11.850	3.23	3.78	4.58	5.61	6.96
12.100	8.64	10.32	11.91	12.87	13.43
12.350	13.61	13.32	12.72	11.98	11.18
12.600	10.41	9.66	8.91	8.18	7.47
12.850	6.80	6.18	5.63	5.15	4.73
13.100	4.40	4.10	3.83	3.61	3.41
13.350	3.24	3.09	2.96	2.85	2.74
13.600	2.64	2.56	2.49	2.42	2.37
13.850	2.31	2.26	2.21	2.16	2.10
14.100	2.06	2.02	1.99	1.96	1.93
14.350	1.90	1.87	1.85	1.82	1.79
14.600	1.76	1.73	1.70	1.67	1.65
14.850	1.62	1.60	1.58	1.57	1.55
15.100	1.54	1.52	1.50	1.48	1.46
15.350	1.45	1.44	1.44	1.43	1.42
15.600	1.41	1.39	1.38	1.35	1.33
15.850	1.31	1.29	1.28	1.28	1.28
16.100	1.28	1.28	1.27	1.26	1.25

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
16.350	1.23	1.22	1.21	1.20	1.19
16.600	1.19	1.18	1.17	1.16	1.14
16.850	1.12	1.10	1.10	1.10	1.10
17.100	1.10	1.09	1.09	1.08	1.06
17.350	1.05	1.04	1.03	1.03	1.03
17.600	1.04	1.04	1.04	1.04	1.03
17.850	1.02	1.01	0.99	0.98	0.97
18.100	0.96	0.96	0.95	0.94	0.94
18.350	0.94	0.94	0.94	0.94	0.93
18.600	0.93	0.93	0.93	0.93	0.93
18.850	0.92	0.91	0.90	0.89	0.87
19.100	0.86	0.85	0.85	0.86	0.87
19.350	0.88	0.89	0.89	0.89	0.89
19.600	0.88	0.86	0.85	0.84	0.83
19.850	0.83	0.82	0.82	0.82	0.81
20.100	0.81	0.81	0.81	0.81	0.81
20.350	0.81	0.81	0.80	0.80	0.78
20.600	0.76	0.74	0.73	0.73	0.73
20.850	0.73	0.74	0.76	0.77	0.77
21.100	0.77	0.76	0.75	0.74	0.73
21.350	0.72	0.72	0.73	0.74	0.75
21.600	0.75	0.75	0.74	0.73	0.72
21.850	0.71	0.71	0.70	0.69	0.69
22.100	0.69	0.69	0.70	0.71	0.72
22.350	0.72	0.72	0.71	0.71	0.70
22.600	0.70	0.70	0.69	0.68	0.68
22.850	0.67	0.66	0.65	0.65	0.66
23.100	0.66	0.67	0.67	0.67	0.66
23.350	0.66	0.65	0.64	0.64	0.63
23.600	0.63	0.63	0.62	0.62	0.62
23.850	0.62	0.62	0.62	0.62	0.61
24.100	0.60	0.58	0.55	0.50	0.43
24.350	0.37	0.31	0.25	0.20	0.16
24.600	0.12	0.10	0.08	0.06	0.05
24.850	0.04	0.03	0.02	0.02	0.01
25.100	0.01	0.01	0.01	0.01	0.00
25.350	0.00	0.00	0.00	0.00	0.00

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-1	18,824.132	12.350	2.00
Flow (In)	DP-1	18,824.132	12.350	2.00

Subsection: Addition Summary
Label: DP-1
Scenario: Pre-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-1	92,868.491	12.250	15.88
Flow (In)	DP-1	92,868.491	12.250	15.88

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-1	314,933.694	12.250	53.40
Flow (In)	DP-1	314,933.694	12.250	53.40

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-2	6,683.741	12.600	0.57
Flow (In)	DP-2	6,683.741	12.600	0.57

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-2

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-2	36,393.316	12.350	5.34
Flow (In)	DP-2	36,393.316	12.350	5.34

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-2

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-2	128,886.763	12.300	19.48
Flow (In)	DP-2	128,886.763	12.300	19.48

Summary for Hydrograph Addition at 'DP-3'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-3

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-3	3,782.919	12.700	0.25
Flow (In)	DP-3	3,782.919	12.700	0.25

Subsection: Addition Summary
Label: DP-3
Scenario: Pre-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Summary for Hydrograph Addition at 'DP-3'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-3

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-3	24,630.786	12.400	3.31
Flow (In)	DP-3	24,630.786	12.400	3.31

Summary for Hydrograph Addition at 'DP-3'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-3

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-3	93,708.672	12.350	13.61
Flow (In)	DP-3	93,708.672	12.350	13.61

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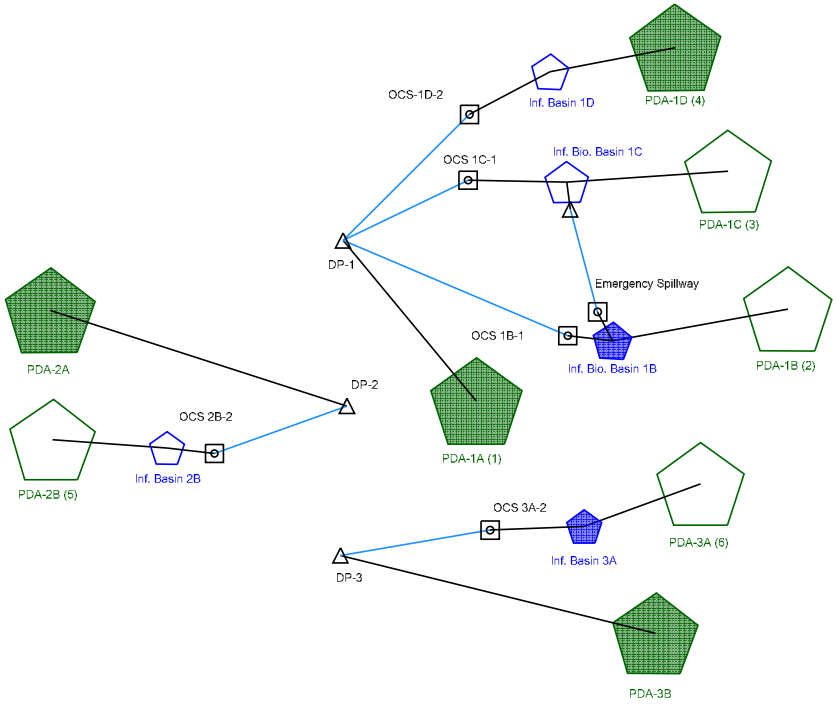
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APPENDIX B

PROPOSED HYDROLOGIC CALCULATIONS

Scenario: Post-Development 1 Year Storm



Project Summary	
Title	
Engineer	
Company	
Date	1/5/2024

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Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
EDA-1	Pre-Development 1 Year Storm	1	18,824.000	12.350	2.00
EDA-1	Pre-Development 10 Year Storm	10	92,868.000	12.250	15.88
EDA-1	Pre-Development 100 Year Storm	100	314,934.000	12.250	53.40
EDA-2	Pre-Development 1 Year Storm	1	6,684.000	12.600	0.57
EDA-2	Pre-Development 10 Year Storm	10	36,393.000	12.350	5.34
EDA-2	Pre-Development 100 Year Storm	100	128,887.000	12.300	19.48
PDA-1B (2)	Post-Development 1 Year Storm	1	3,776.000	12.000	1.25
PDA-1B (2)	Post-Development 10 Year Storm	10	12,715.000	12.000	4.22
PDA-1B (2)	Post-Development 100 Year Storm	100	35,428.000	12.000	10.44
PDA-1A (1)	Post-Development 1 Year Storm	1	5,904.000	12.050	1.51
PDA-1A (1)	Post-Development 10 Year Storm	10	24,740.000	12.000	7.81
PDA-1A (1)	Post-Development 100 Year Storm	100	77,565.000	12.000	22.90
PDA-2B (5)	Post-Development 1 Year Storm	1	35,405.000	12.000	14.14
PDA-2B (5)	Post-Development 10 Year Storm	10	86,750.000	12.000	29.06
PDA-2B (5)	Post-Development 100 Year Storm	100	199,632.000	12.000	56.40
PDA-3B	Post-Development 1 Year Storm	1	962.000	12.100	0.12
PDA-3B	Post-Development 10 Year Storm	10	5,238.000	12.000	1.51
PDA-3B	Post-Development 100 Year Storm	100	18,552.000	12.000	5.42
PDA-3A (6)	Post-Development 1 Year Storm	1	25,472.000	12.000	10.02
PDA-3A (6)	Post-Development 10 Year Storm	10	66,334.000	12.000	22.37
PDA-3A (6)	Post-Development 100 Year Storm	100	158,487.000	12.000	45.39
PDA-2A	Post-Development 1 Year Storm	1	1,351.000	12.100	0.17
PDA-2A	Post-Development 10 Year Storm	10	7,358.000	12.000	2.13
PDA-2A	Post-Development 100 Year Storm	100	26,063.000	12.000	7.62

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
PDA-1C (3)	Post-Development 1 Year Storm	1	11,642.000	12.000	4.16
PDA-1C (3)	Post-Development 10 Year Storm	10	36,283.000	12.000	12.16
PDA-1C (3)	Post-Development 100 Year Storm	100	96,646.000	12.000	28.36
PDA-1D (4)	Post-Development 1 Year Storm	1	21,782.000	12.000	8.27
PDA-1D (4)	Post-Development 10 Year Storm	10	61,813.000	12.000	20.87
PDA-1D (4)	Post-Development 100 Year Storm	100	155,657.000	12.000	45.22
EDA-3	Pre-Development 1 Year Storm	1	3,783.000	12.700	0.25
EDA-3	Pre-Development 10 Year Storm	10	24,631.000	12.400	3.31
EDA-3	Pre-Development 100 Year Storm	100	93,709.000	12.350	13.61

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DP-1	Pre-Development 1 Year Storm	1	18,824.000	12.350	2.00
DP-1	Post-Development 1 Year Storm	1	5,904.000	12.050	1.51
DP-1	Pre-Development 10 Year Storm	10	92,868.000	12.250	15.88
DP-1	Post-Development 10 Year Storm	10	25,014.000	12.000	7.81
DP-1	Pre-Development 100 Year Storm	100	314,934.000	12.250	53.40
DP-1	Post-Development 100 Year Storm	100	142,789.000	12.100	45.38
DP-2	Pre-Development 1 Year Storm	1	6,684.000	12.600	0.57
DP-2	Post-Development 1 Year Storm	1	1,351.000	12.100	0.17
DP-2	Pre-Development 10 Year Storm	10	36,393.000	12.350	5.34
DP-2	Post-Development 10 Year Storm	10	7,358.000	12.000	2.13
DP-2	Pre-Development 100 Year Storm	100	128,887.000	12.300	19.48
DP-2	Post-Development 100 Year Storm	100	89,334.000	12.200	19.33

Subsection: Master Network Summary

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DP-3	Pre-Development 1 Year Storm	1	3,783.000	12.700	0.25
DP-3	Post-Development 1 Year Storm	1	962.000	12.100	0.12
DP-3	Pre-Development 10 Year Storm	10	24,631.000	12.400	3.31
DP-3	Post-Development 10 Year Storm	10	5,238.000	12.000	1.51
DP-3	Pre-Development 100 Year Storm	100	93,709.000	12.350	13.61
DP-3	Post-Development 100 Year Storm	100	35,876.000	12.400	8.47

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
Inf. Basin 1D (IN)	Post-Development 1 Year Storm	1	21,782.000	12.000	8.27	(N/A)	(N/A)
Inf. Basin 1D (OUT)	Post-Development 1 Year Storm	1	0.000	0.000	0.00	440.32	3,641.000
Inf. Basin 1D (IN)	Post-Development 10 Year Storm	10	61,813.000	12.000	20.87	(N/A)	(N/A)
Inf. Basin 1D (OUT)	Post-Development 10 Year Storm	10	0.000	0.000	0.00	441.45	17,886.000
Inf. Basin 1D (IN)	Post-Development 100 Year Storm	100	155,657.000	12.000	45.22	(N/A)	(N/A)
Inf. Basin 1D (OUT)	Post-Development 100 Year Storm	100	32,772.000	12.250	11.97	442.79	37,616.000
Inf. Basin 3A (IN)	Post-Development 1 Year Storm	1	25,472.000	12.000	10.02	(N/A)	(N/A)
Inf. Basin 3A (OUT)	Post-Development 1 Year Storm	1	0.000	0.000	0.00	434.32	4,490.000

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
Inf. Basin 3A (IN)	Post-Development 10 Year Storm	10	66,334.000	12.000	22.37	(N/A)	(N/A)
Inf. Basin 3A (OUT)	Post-Development 10 Year Storm	10	0.000	0.000	0.00	435.26	18,547.000
Inf. Basin 3A (IN)	Post-Development 100 Year Storm	100	158,487.000	12.000	45.39	(N/A)	(N/A)
Inf. Basin 3A (OUT)	Post-Development 100 Year Storm	100	17,324.000	12.450	6.99	436.79	45,255.000
Inf. Basin 2B (IN)	Post-Development 1 Year Storm	1	35,405.000	12.000	14.14	(N/A)	(N/A)
Inf. Basin 2B (OUT)	Post-Development 1 Year Storm	1	0.000	0.000	0.00	432.81	13,103.000
Inf. Basin 2B (IN)	Post-Development 10 Year Storm	10	86,750.000	12.000	29.06	(N/A)	(N/A)
Inf. Basin 2B (OUT)	Post-Development 10 Year Storm	10	0.000	0.000	0.00	434.23	39,373.000
Inf. Basin 2B (IN)	Post-Development 100 Year Storm	100	199,632.000	12.000	56.40	(N/A)	(N/A)
Inf. Basin 2B (OUT)	Post-Development 100 Year Storm	100	63,272.000	12.250	16.54	435.63	69,179.000
Inf. Bio. Basin 1B (IN)	Post-Development 1 Year Storm	1	3,776.000	12.000	1.25	(N/A)	(N/A)
Inf. Bio. Basin 1B (OUT)	Post-Development 1 Year Storm	1	0.000	0.000	0.00	428.03	248.000
Inf. Bio. Basin 1B (IN)	Post-Development 10 Year Storm	10	12,715.000	12.000	4.22	(N/A)	(N/A)
Inf. Bio. Basin 1B (OUT)	Post-Development 10 Year Storm	10	0.000	0.000	0.00	428.23	1,687.000

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft^3)	Time to Peak (hours)	Peak Flow (ft^3/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft^3)
Inf. Bio. Basin 1B (IN)	Post-Development 100 Year Storm	100	35,428.000	12.000	10.44	(N/A)	(N/A)
Inf. Bio. Basin 1B (OUT)	Post-Development 100 Year Storm	100	3,856.000	12.200	2.47	428.82	6,340.000
Inf. Bio. Basin 1C (IN)	Post-Development 1 Year Storm	1	11,642.000	12.000	4.16	(N/A)	(N/A)
Inf. Bio. Basin 1C (OUT)	Post-Development 1 Year Storm	1	0.000	0.000	0.00	427.16	1,657.000
Inf. Bio. Basin 1C (IN)	Post-Development 10 Year Storm	10	36,283.000	12.000	12.16	(N/A)	(N/A)
Inf. Bio. Basin 1C (OUT)	Post-Development 10 Year Storm	10	274.000	12.550	0.32	427.93	10,123.000
Inf. Bio. Basin 1C (IN)	Post-Development 100 Year Storm	100	96,646.000	12.000	28.36	(N/A)	(N/A)
Inf. Bio. Basin 1C (OUT)	Post-Development 100 Year Storm	100	28,597.000	12.100	17.93	428.44	16,148.000

Time-Depth Curve: 1 Year Storm	
Label	1 Year Storm
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	1 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.0	0.0
1.000	0.0	0.0	0.0	0.1	0.1
1.500	0.1	0.1	0.1	0.1	0.1
2.000	0.1	0.1	0.1	0.1	0.1
2.500	0.1	0.1	0.1	0.1	0.1
3.000	0.1	0.1	0.1	0.1	0.1
3.500	0.1	0.2	0.2	0.2	0.2
4.000	0.2	0.2	0.2	0.2	0.2
4.500	0.2	0.2	0.2	0.2	0.2
5.000	0.2	0.2	0.2	0.2	0.2
5.500	0.2	0.3	0.3	0.3	0.3
6.000	0.3	0.3	0.3	0.3	0.3
6.500	0.3	0.3	0.3	0.3	0.3
7.000	0.3	0.3	0.4	0.4	0.4
7.500	0.4	0.4	0.4	0.4	0.4
8.000	0.4	0.4	0.4	0.4	0.4
8.500	0.5	0.5	0.5	0.5	0.5
9.000	0.5	0.5	0.5	0.5	0.5
9.500	0.5	0.6	0.6	0.6	0.6
10.000	0.6	0.6	0.6	0.6	0.7
10.500	0.7	0.7	0.7	0.7	0.7
11.000	0.8	0.8	0.8	0.8	0.9
11.500	0.9	1.0	1.0	1.1	1.2
12.000	1.6	1.8	1.9	1.9	2.0
12.500	2.1	2.1	2.1	2.1	2.2
13.000	2.2	2.2	2.2	2.2	2.3
13.500	2.3	2.3	2.3	2.3	2.3
14.000	2.3	2.3	2.4	2.4	2.4
14.500	2.4	2.4	2.4	2.4	2.4
15.000	2.4	2.5	2.5	2.5	2.5
15.500	2.5	2.5	2.5	2.5	2.5
16.000	2.5	2.5	2.5	2.6	2.6
16.500	2.6	2.6	2.6	2.6	2.6
17.000	2.6	2.6	2.6	2.6	2.6

Subsection: Time-Depth Curve Return Event: 1 years

Label: NRCC (UCL) - 1.10.25.100 Yr Storm Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	2.6	2.6	2.6	2.7	2.7
18.000	2.7	2.7	2.7	2.7	2.7
18.500	2.7	2.7	2.7	2.7	2.7
19.000	2.7	2.7	2.7	2.7	2.7
19.500	2.7	2.8	2.8	2.8	2.8
20.000	2.8	2.8	2.8	2.8	2.8
20.500	2.8	2.8	2.8	2.8	2.8
21.000	2.8	2.8	2.8	2.8	2.8
21.500	2.8	2.8	2.8	2.9	2.9
22.000	2.9	2.9	2.9	2.9	2.9
22.500	2.9	2.9	2.9	2.9	2.9
23.000	2.9	2.9	2.9	2.9	2.9
23.500	2.9	2.9	2.9	2.9	2.9
24.000	2.9	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time-Depth Curve
Label: NRCC (UCL) - 1.10.25.100 Yr Storm
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time-Depth Curve: 10 Year Storm	
Label	10 Year Storm
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	10 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.1	0.1	0.1
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.1	0.1	0.2
2.000	0.2	0.2	0.2	0.2	0.2
2.500	0.2	0.2	0.2	0.2	0.2
3.000	0.2	0.3	0.3	0.3	0.3
3.500	0.3	0.3	0.3	0.3	0.3
4.000	0.3	0.3	0.4	0.4	0.4
4.500	0.4	0.4	0.4	0.4	0.4
5.000	0.4	0.4	0.5	0.5	0.5
5.500	0.5	0.5	0.5	0.5	0.5
6.000	0.5	0.6	0.6	0.6	0.6
6.500	0.6	0.6	0.6	0.6	0.7
7.000	0.7	0.7	0.7	0.7	0.7
7.500	0.7	0.8	0.8	0.8	0.8
8.000	0.8	0.8	0.8	0.9	0.9
8.500	0.9	0.9	0.9	0.9	1.0
9.000	1.0	1.0	1.0	1.0	1.1
9.500	1.1	1.1	1.1	1.1	1.2
10.000	1.2	1.2	1.2	1.3	1.3
10.500	1.3	1.4	1.4	1.4	1.5
11.000	1.5	1.5	1.6	1.6	1.7
11.500	1.8	1.9	2.0	2.1	2.3
12.000	3.0	3.2	3.4	3.5	3.7
12.500	3.8	3.8	3.9	3.9	4.0
13.000	4.0	4.0	4.1	4.1	4.1
13.500	4.2	4.2	4.2	4.3	4.3
14.000	4.3	4.3	4.4	4.4	4.4
14.500	4.4	4.4	4.5	4.5	4.5
15.000	4.5	4.5	4.6	4.6	4.6
15.500	4.6	4.6	4.6	4.7	4.7
16.000	4.7	4.7	4.7	4.7	4.8
16.500	4.8	4.8	4.8	4.8	4.8
17.000	4.8	4.8	4.9	4.9	4.9

Subsection: Time-Depth Curve
Label: NRCC (UCL) - 1.10.25.100 Yr Storm
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	4.9	4.9	4.9	4.9	4.9
18.000	5.0	5.0	5.0	5.0	5.0
18.500	5.0	5.0	5.0	5.0	5.1
19.000	5.1	5.1	5.1	5.1	5.1
19.500	5.1	5.1	5.1	5.1	5.2
20.000	5.2	5.2	5.2	5.2	5.2
20.500	5.2	5.2	5.2	5.2	5.2
21.000	5.3	5.3	5.3	5.3	5.3
21.500	5.3	5.3	5.3	5.3	5.3
22.000	5.3	5.3	5.4	5.4	5.4
22.500	5.4	5.4	5.4	5.4	5.4
23.000	5.4	5.4	5.4	5.4	5.5
23.500	5.5	5.5	5.5	5.5	5.5
24.000	5.5	(N/A)	(N/A)	(N/A)	(N/A)

Time-Depth Curve: 100 Year Storm	
Label	100 Year Storm
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	100 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.1	0.1
0.500	0.1	0.1	0.1	0.1	0.1
1.000	0.2	0.2	0.2	0.2	0.2
1.500	0.2	0.3	0.3	0.3	0.3
2.000	0.3	0.3	0.4	0.4	0.4
2.500	0.4	0.4	0.4	0.5	0.5
3.000	0.5	0.5	0.5	0.6	0.6
3.500	0.6	0.6	0.6	0.7	0.7
4.000	0.7	0.7	0.7	0.7	0.8
4.500	0.8	0.8	0.8	0.9	0.9
5.000	0.9	0.9	0.9	1.0	1.0
5.500	1.0	1.0	1.1	1.1	1.1
6.000	1.1	1.1	1.2	1.2	1.2
6.500	1.2	1.3	1.3	1.3	1.3
7.000	1.4	1.4	1.4	1.5	1.5
7.500	1.5	1.5	1.6	1.6	1.6
8.000	1.7	1.7	1.7	1.8	1.8
8.500	1.8	1.9	1.9	1.9	2.0
9.000	2.0	2.0	2.1	2.1	2.2
9.500	2.2	2.3	2.3	2.3	2.4
10.000	2.4	2.5	2.5	2.6	2.7
10.500	2.7	2.8	2.8	2.9	3.0
11.000	3.1	3.1	3.2	3.3	3.4
11.500	3.6	3.8	4.0	4.3	4.7
12.000	5.8	6.3	6.6	6.8	7.1
12.500	7.3	7.4	7.5	7.6	7.7
13.000	7.8	7.8	7.9	8.0	8.0
13.500	8.1	8.1	8.2	8.3	8.3
14.000	8.4	8.4	8.5	8.5	8.5
14.500	8.6	8.6	8.7	8.7	8.7
15.000	8.8	8.8	8.9	8.9	8.9
15.500	9.0	9.0	9.0	9.1	9.1
16.000	9.1	9.2	9.2	9.2	9.2
16.500	9.3	9.3	9.3	9.4	9.4
17.000	9.4	9.4	9.5	9.5	9.5

Subsection: Time-Depth Curve Return Event: 100 years
Label: NRCC (UCL) - 1.10.25.100 Yr Storm Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	9.5	9.6	9.6	9.6	9.6
18.000	9.7	9.7	9.7	9.7	9.8
18.500	9.8	9.8	9.8	9.8	9.9
19.000	9.9	9.9	9.9	10.0	10.0
19.500	10.0	10.0	10.0	10.1	10.1
20.000	10.1	10.1	10.1	10.2	10.2
20.500	10.2	10.2	10.2	10.2	10.3
21.000	10.3	10.3	10.3	10.3	10.4
21.500	10.4	10.4	10.4	10.4	10.4
22.000	10.5	10.5	10.5	10.5	10.5
22.500	10.5	10.6	10.6	10.6	10.6
23.000	10.6	10.6	10.7	10.7	10.7
23.500	10.7	10.7	10.7	10.7	10.8
24.000	10.8	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Runoff CN-Area
Return Event: 1 years
Label: PDA-1A (1)
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil B	55.000	22,518.807	0.0	0.0	55.000
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	20,553.443	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	106,304.627	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	149,376.877	(N/A)	(N/A)	65.186

Subsection: Runoff CN-Area
Return Event: 1 years
Label: PDA-1B (2)
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	17,285.285	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	41,823.555	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	59,108.840	(N/A)	(N/A)	71.820

Subsection: Runoff CN-Area
Return Event: 1 years

Label: PDA-1C (3)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft^2)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil B	55.000	4,974.874	0.0	0.0	55.000
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	59,520.867	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	88,170.305	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	152,666.045	(N/A)	(N/A)	75.230

Subsection: Runoff CN-Area
Return Event: 1 years
Label: PDA-1D (4)
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	114,360.669	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	115,453.516	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	229,814.185	(N/A)	(N/A)	79.412

Subsection: Runoff CN-Area
Return Event: 1 years

Label: PDA-2A
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil B	55.000	23,793.785	0.0	0.0	55.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	34,253.352	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	58,047.137	(N/A)	(N/A)	58.541

Subsection: Runoff CN-Area
Return Event: 1 years
Label: PDA-2B (5)
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil B	55.000	954.895	0.0	0.0	55.000
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	179,328.013	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	84,836.643	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	265,119.551	(N/A)	(N/A)	86.005

Subsection: Runoff CN-Area
Return Event: 1 years
Label: PDA-3A (6)
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	133,227.267	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	86,637.001	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	219,864.268	(N/A)	(N/A)	83.420

Subsection: Runoff CN-Area
Return Event: 1 years
Label: PDA-3B
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil B	55.000	11,456.467	0.0	0.0	55.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	29,863.777	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	41,320.244	(N/A)	(N/A)	59.336

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1A (1) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	149,376.877 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.800	0.00	0.03	0.09	0.46	1.33
12.050	1.51	1.14	0.94	0.76	0.68
12.300	0.62	0.58	0.55	0.56	0.57
12.550	0.47	0.34	0.31	0.30	0.27
12.800	0.22	0.21	0.21	0.21	0.21
13.050	0.21	0.21	0.22	0.22	0.22
13.300	0.22	0.22	0.22	0.18	0.13
13.550	0.16	0.21	0.18	0.13	0.16
13.800	0.22	0.19	0.13	0.12	0.12
14.050	0.12	0.12	0.16	0.22	0.19
14.300	0.14	0.12	0.12	0.12	0.12
14.550	0.12	0.12	0.12	0.12	0.12
14.800	0.12	0.12	0.12	0.12	0.13
15.050	0.13	0.13	0.13	0.13	0.13
15.300	0.13	0.13	0.13	0.13	0.13
15.550	0.08	0.02	0.05	0.11	0.13
15.800	0.13	0.13	0.13	0.13	0.13
16.050	0.08	0.02	0.05	0.11	0.13
16.300	0.13	0.13	0.13	0.08	0.02
16.550	0.05	0.11	0.13	0.13	0.08
16.800	0.02	0.06	0.12	0.13	0.13
17.050	0.08	0.02	0.06	0.12	0.13
17.300	0.14	0.09	0.02	0.06	0.12
17.550	0.13	0.14	0.09	0.02	0.06
17.800	0.12	0.08	0.02	0.06	0.12
18.050	0.13	0.14	0.09	0.02	0.06
18.300	0.12	0.08	0.02	0.06	0.12
18.550	0.08	0.02	0.06	0.12	0.08
18.800	0.02	0.06	0.12	0.14	0.14
19.050	0.09	0.02	0.06	0.12	0.08
19.300	0.02	0.06	0.12	0.09	0.02
19.550	0.06	0.12	0.09	0.02	0.06
19.800	0.12	0.09	0.02	0.06	0.12
20.050	0.09	0.02	0.00	0.00	0.05

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1A (1) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
20.300	0.12	0.09	0.02	0.06	0.13
20.550	0.09	0.02	0.06	0.13	0.09
20.800	0.02	0.06	0.13	0.09	0.02
21.050	0.06	0.13	0.09	0.02	0.01
21.300	0.00	0.06	0.13	0.09	0.02
21.550	0.06	0.13	0.09	0.02	0.06
21.800	0.13	0.09	0.02	0.01	0.00
22.050	0.06	0.13	0.09	0.02	0.06
22.300	0.13	0.09	0.02	0.01	0.00
22.550	0.06	0.13	0.09	0.02	0.06
22.800	0.13	0.09	0.02	0.01	0.00
23.050	0.06	0.13	0.09	0.02	0.01
23.300	0.00	0.06	0.13	0.09	0.02
23.550	0.06	0.13	0.09	0.02	0.01
23.800	0.00	0.06	0.13	0.09	0.02
24.050	0.01	0.00	0.00	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1A (1) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	149,376.877 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
9.550	0.00	0.00	0.01	0.01	0.01
9.800	0.01	0.02	0.03	0.03	0.03
10.050	0.03	0.04	0.04	0.04	0.05
10.300	0.06	0.07	0.07	0.08	0.08
10.550	0.09	0.09	0.10	0.10	0.12
10.800	0.15	0.15	0.13	0.15	0.18
11.050	0.19	0.20	0.23	0.26	0.28
11.300	0.30	0.31	0.32	0.36	0.40
11.550	0.57	0.78	0.94	1.09	1.25
11.800	1.43	1.74	2.12	4.43	7.81
12.050	7.16	4.97	3.96	3.19	2.78
12.300	2.45	2.32	2.25	2.11	1.95
12.550	1.63	1.27	1.12	1.01	0.98
12.800	0.98	0.91	0.82	0.80	0.80
13.050	0.80	0.80	0.81	0.81	0.74
13.300	0.64	0.62	0.62	0.62	0.62
13.550	0.62	0.62	0.62	0.62	0.62
13.800	0.63	0.55	0.45	0.51	0.60
14.050	0.55	0.45	0.43	0.42	0.50
14.300	0.61	0.55	0.46	0.43	0.43
14.550	0.43	0.43	0.43	0.43	0.43
14.800	0.43	0.43	0.43	0.43	0.43
15.050	0.43	0.43	0.44	0.44	0.35
15.300	0.25	0.31	0.41	0.43	0.44
15.550	0.36	0.25	0.31	0.41	0.43
15.800	0.44	0.36	0.25	0.31	0.41
16.050	0.35	0.25	0.31	0.41	0.35
16.300	0.25	0.31	0.41	0.36	0.26
16.550	0.23	0.23	0.31	0.41	0.36
16.800	0.26	0.23	0.23	0.31	0.42
17.050	0.36	0.26	0.23	0.23	0.31
17.300	0.42	0.36	0.26	0.23	0.23
17.550	0.23	0.23	0.31	0.42	0.36
17.800	0.26	0.24	0.23	0.23	0.23

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1A (1) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
18.050	0.23	0.23	0.23	0.23	0.32
18.300	0.42	0.37	0.26	0.24	0.23
18.550	0.23	0.23	0.23	0.23	0.23
18.800	0.23	0.23	0.23	0.23	0.23
19.050	0.23	0.23	0.23	0.23	0.23
19.300	0.23	0.23	0.23	0.23	0.23
19.550	0.23	0.23	0.23	0.23	0.23
19.800	0.23	0.23	0.23	0.23	0.23
20.050	0.23	0.23	0.23	0.23	0.23
20.300	0.23	0.23	0.23	0.23	0.23
20.550	0.24	0.24	0.24	0.24	0.15
20.800	0.04	0.10	0.20	0.23	0.23
21.050	0.24	0.24	0.24	0.24	0.24
21.300	0.24	0.24	0.24	0.15	0.04
21.550	0.10	0.20	0.23	0.24	0.24
21.800	0.24	0.24	0.24	0.24	0.24
22.050	0.15	0.04	0.10	0.20	0.23
22.300	0.24	0.24	0.24	0.24	0.24
22.550	0.15	0.04	0.10	0.20	0.23
22.800	0.24	0.24	0.24	0.24	0.24
23.050	0.15	0.04	0.10	0.21	0.23
23.300	0.24	0.24	0.24	0.15	0.04
23.550	0.10	0.21	0.23	0.24	0.24
23.800	0.24	0.15	0.04	0.10	0.21
24.050	0.14	0.03	0.01	0.00	0.00

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	149,376.877 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
5.900	0.00	0.00	0.01	0.01	0.01
6.150	0.02	0.02	0.02	0.03	0.03
6.400	0.03	0.04	0.05	0.05	0.04
6.650	0.05	0.07	0.08	0.08	0.07
6.900	0.06	0.08	0.09	0.10	0.11
7.150	0.10	0.08	0.10	0.12	0.13
7.400	0.13	0.14	0.14	0.15	0.15
7.650	0.16	0.16	0.17	0.17	0.17
7.900	0.18	0.18	0.19	0.19	0.20
8.150	0.20	0.20	0.23	0.27	0.26
8.400	0.23	0.23	0.23	0.27	0.31
8.650	0.29	0.26	0.29	0.33	0.35
8.900	0.36	0.33	0.29	0.32	0.37
9.150	0.38	0.39	0.40	0.40	0.41
9.400	0.42	0.46	0.52	0.50	0.46
9.650	0.45	0.46	0.50	0.57	0.59
9.900	0.60	0.61	0.62	0.63	0.63
10.150	0.64	0.65	0.66	0.67	0.72
10.400	0.80	0.82	0.84	0.85	0.86
10.650	0.93	1.01	1.04	1.05	1.07
10.900	1.08	1.15	1.24	1.28	1.30
11.150	1.38	1.47	1.51	1.54	1.69
11.400	1.87	2.01	2.13	2.88	3.83
11.650	4.28	4.61	5.16	5.77	6.75
11.900	7.86	14.37	22.90	20.30	14.29
12.150	11.31	8.99	7.90	7.09	6.63
12.400	6.25	5.88	5.51	4.62	3.59
12.650	3.14	2.83	2.65	2.51	2.48
12.900	2.48	2.38	2.25	2.12	1.98
13.150	1.95	1.95	1.95	1.95	1.85
13.400	1.72	1.69	1.68	1.68	1.68
13.650	1.69	1.69	1.58	1.45	1.42
13.900	1.41	1.41	1.41	1.42	1.42
14.150	1.42	1.42	1.31	1.18	1.25

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1A (1) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
14.400	1.38	1.31	1.18	1.15	1.14
14.650	1.14	1.14	1.14	1.15	1.15
14.900	1.15	1.15	1.15	1.04	0.91
15.150	0.98	1.11	1.14	1.15	1.04
15.400	0.91	0.98	1.11	1.04	0.91
15.650	0.88	0.87	0.87	0.87	0.98
15.900	1.12	1.04	0.91	0.88	0.87
16.150	0.87	0.87	0.87	0.87	0.87
16.400	0.87	0.87	0.87	0.87	0.87
16.650	0.77	0.63	0.70	0.83	0.87
16.900	0.87	0.88	0.88	0.77	0.63
17.150	0.71	0.84	0.76	0.63	0.71
17.400	0.84	0.87	0.88	0.77	0.63
17.650	0.71	0.84	0.76	0.63	0.60
17.900	0.59	0.70	0.84	0.76	0.63
18.150	0.60	0.59	0.70	0.84	0.76
18.400	0.63	0.60	0.59	0.70	0.84
18.650	0.77	0.63	0.60	0.59	0.59
18.900	0.59	0.59	0.59	0.59	0.59
19.150	0.70	0.84	0.77	0.64	0.60
19.400	0.60	0.59	0.59	0.59	0.59
19.650	0.59	0.59	0.59	0.59	0.59
19.900	0.59	0.59	0.59	0.59	0.59
20.150	0.60	0.60	0.60	0.60	0.60
20.400	0.60	0.48	0.34	0.42	0.55
20.650	0.59	0.59	0.60	0.60	0.60
20.900	0.60	0.60	0.60	0.49	0.34
21.150	0.42	0.55	0.59	0.60	0.60
21.400	0.60	0.60	0.60	0.49	0.34
21.650	0.42	0.56	0.59	0.60	0.49
21.900	0.34	0.42	0.56	0.59	0.60
22.150	0.60	0.60	0.49	0.35	0.42
22.400	0.56	0.59	0.60	0.49	0.35
22.650	0.42	0.56	0.48	0.34	0.42
22.900	0.56	0.59	0.60	0.49	0.35
23.150	0.42	0.56	0.48	0.34	0.42
23.400	0.56	0.48	0.34	0.42	0.56
23.650	0.48	0.34	0.42	0.56	0.48
23.900	0.35	0.42	0.56	0.37	0.09
24.150	0.02	0.00	0.00	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1B (2) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	59,108.840 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.100	0.00	0.00	0.00	0.01	0.01
11.350	0.01	0.01	0.02	0.02	0.03
11.600	0.05	0.06	0.09	0.11	0.14
11.850	0.18	0.24	0.62	1.25	1.21
12.100	0.83	0.65	0.51	0.44	0.39
12.350	0.37	0.35	0.34	0.35	0.29
12.600	0.20	0.19	0.18	0.16	0.13
12.850	0.12	0.12	0.12	0.12	0.13
13.100	0.13	0.13	0.13	0.13	0.13
13.350	0.13	0.13	0.11	0.07	0.09
13.600	0.12	0.10	0.08	0.09	0.12
13.850	0.11	0.08	0.07	0.07	0.07
14.100	0.07	0.09	0.12	0.11	0.08
14.350	0.07	0.07	0.07	0.07	0.07
14.600	0.07	0.07	0.07	0.07	0.07
14.850	0.07	0.07	0.07	0.07	0.07
15.100	0.07	0.07	0.07	0.07	0.07
15.350	0.07	0.07	0.07	0.07	0.04
15.600	0.01	0.03	0.06	0.07	0.07
15.850	0.07	0.07	0.07	0.07	0.04
16.100	0.01	0.03	0.06	0.07	0.07
16.350	0.07	0.07	0.05	0.01	0.03
16.600	0.06	0.07	0.07	0.05	0.01
16.850	0.03	0.06	0.07	0.07	0.05
17.100	0.01	0.03	0.06	0.07	0.07
17.350	0.05	0.01	0.03	0.06	0.07
17.600	0.07	0.05	0.01	0.03	0.06
17.850	0.04	0.01	0.03	0.06	0.07
18.100	0.07	0.05	0.01	0.03	0.06
18.350	0.04	0.01	0.03	0.06	0.04
18.600	0.01	0.03	0.06	0.04	0.01
18.850	0.03	0.06	0.07	0.08	0.05
19.100	0.01	0.03	0.07	0.05	0.01
19.350	0.03	0.07	0.05	0.01	0.03

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1B (2) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
19.600	0.07	0.05	0.01	0.03	0.07
19.850	0.05	0.01	0.03	0.07	0.05
20.100	0.01	0.00	0.00	0.03	0.07
20.350	0.05	0.01	0.03	0.07	0.05
20.600	0.01	0.03	0.07	0.05	0.01
20.850	0.03	0.07	0.05	0.01	0.03
21.100	0.07	0.05	0.01	0.00	0.00
21.350	0.03	0.07	0.05	0.01	0.03
21.600	0.07	0.05	0.01	0.03	0.07
21.850	0.05	0.01	0.00	0.00	0.03
22.100	0.07	0.05	0.01	0.03	0.07
22.350	0.05	0.01	0.00	0.00	0.03
22.600	0.07	0.05	0.01	0.03	0.07
22.850	0.05	0.01	0.00	0.00	0.03
23.100	0.07	0.05	0.01	0.00	0.00
23.350	0.03	0.07	0.05	0.01	0.03
23.600	0.07	0.05	0.01	0.00	0.00
23.850	0.03	0.07	0.05	0.01	0.00
24.100	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1B (2) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	59,108.840 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
7.900	0.00	0.00	0.00	0.00	0.00
8.150	0.00	0.01	0.01	0.01	0.01
8.400	0.01	0.01	0.01	0.01	0.02
8.650	0.01	0.01	0.01	0.02	0.02
8.900	0.02	0.02	0.02	0.03	0.03
9.150	0.03	0.03	0.03	0.03	0.03
9.400	0.03	0.04	0.04	0.04	0.04
9.650	0.04	0.04	0.04	0.04	0.05
9.900	0.07	0.06	0.05	0.06	0.07
10.150	0.07	0.06	0.07	0.08	0.09
10.400	0.09	0.09	0.09	0.10	0.10
10.650	0.10	0.10	0.12	0.14	0.13
10.900	0.12	0.13	0.15	0.16	0.16
11.150	0.18	0.20	0.21	0.22	0.22
11.400	0.23	0.25	0.28	0.39	0.52
11.650	0.61	0.69	0.78	0.87	1.03
11.900	1.23	2.48	4.22	3.76	2.56
12.150	2.01	1.60	1.39	1.21	1.15
12.400	1.10	1.03	0.95	0.79	0.62
12.650	0.54	0.49	0.47	0.47	0.44
12.900	0.39	0.38	0.38	0.38	0.38
13.150	0.39	0.39	0.35	0.31	0.29
13.400	0.29	0.29	0.29	0.29	0.29
13.650	0.29	0.29	0.30	0.30	0.26
13.900	0.21	0.24	0.28	0.26	0.21
14.150	0.20	0.20	0.24	0.28	0.26
14.400	0.21	0.20	0.20	0.20	0.20
14.650	0.20	0.20	0.20	0.20	0.20
14.900	0.20	0.20	0.20	0.20	0.20
15.150	0.20	0.20	0.17	0.12	0.14
15.400	0.19	0.20	0.20	0.17	0.12
15.650	0.14	0.19	0.20	0.20	0.17
15.900	0.12	0.14	0.19	0.16	0.12
16.150	0.14	0.19	0.16	0.12	0.15

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1B (2) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
16.400	0.19	0.16	0.12	0.11	0.10
16.650	0.14	0.19	0.16	0.12	0.11
16.900	0.10	0.14	0.19	0.17	0.12
17.150	0.11	0.10	0.14	0.19	0.17
17.400	0.12	0.11	0.11	0.10	0.10
17.650	0.14	0.19	0.17	0.12	0.11
17.900	0.11	0.10	0.10	0.10	0.11
18.150	0.11	0.11	0.14	0.19	0.17
18.400	0.12	0.11	0.11	0.11	0.11
18.650	0.11	0.11	0.11	0.11	0.11
18.900	0.11	0.11	0.11	0.11	0.11
19.150	0.11	0.11	0.11	0.11	0.11
19.400	0.11	0.11	0.11	0.11	0.11
19.650	0.11	0.11	0.11	0.11	0.11
19.900	0.11	0.11	0.11	0.11	0.11
20.150	0.11	0.11	0.11	0.11	0.11
20.400	0.11	0.11	0.11	0.11	0.11
20.650	0.11	0.11	0.07	0.02	0.04
20.900	0.09	0.10	0.11	0.11	0.11
21.150	0.11	0.11	0.11	0.11	0.11
21.400	0.11	0.07	0.02	0.04	0.09
21.650	0.10	0.11	0.11	0.11	0.11
21.900	0.11	0.11	0.11	0.07	0.02
22.150	0.04	0.09	0.10	0.11	0.11
22.400	0.11	0.11	0.11	0.07	0.02
22.650	0.04	0.09	0.10	0.11	0.11
22.900	0.11	0.11	0.11	0.07	0.02
23.150	0.04	0.09	0.10	0.11	0.11
23.400	0.11	0.07	0.02	0.04	0.09
23.650	0.10	0.11	0.11	0.11	0.07
23.900	0.02	0.04	0.09	0.06	0.02
24.150	0.00	0.00	(N/A)	(N/A)	(N/A)

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	59,108.840 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
4.550	0.00	0.00	0.00	0.01	0.01
4.800	0.01	0.01	0.01	0.01	0.01
5.050	0.01	0.02	0.02	0.02	0.02
5.300	0.03	0.03	0.03	0.03	0.03
5.550	0.03	0.03	0.04	0.05	0.04
5.800	0.04	0.04	0.04	0.05	0.06
6.050	0.05	0.05	0.04	0.05	0.06
6.300	0.07	0.06	0.05	0.06	0.08
6.550	0.07	0.06	0.07	0.08	0.09
6.800	0.09	0.08	0.07	0.08	0.09
7.050	0.10	0.10	0.09	0.08	0.09
7.300	0.10	0.11	0.11	0.12	0.12
7.550	0.12	0.12	0.12	0.12	0.13
7.800	0.13	0.13	0.13	0.13	0.14
8.050	0.14	0.14	0.14	0.14	0.16
8.300	0.19	0.18	0.16	0.15	0.15
8.550	0.17	0.20	0.19	0.17	0.18
8.800	0.21	0.22	0.22	0.20	0.18
9.050	0.20	0.22	0.23	0.24	0.24
9.300	0.24	0.24	0.25	0.27	0.30
9.550	0.29	0.27	0.26	0.26	0.29
9.800	0.32	0.33	0.34	0.34	0.34
10.050	0.35	0.35	0.35	0.36	0.36
10.300	0.36	0.39	0.43	0.44	0.45
10.550	0.45	0.46	0.49	0.53	0.54
10.800	0.55	0.56	0.56	0.60	0.64
11.050	0.66	0.66	0.70	0.75	0.76
11.300	0.77	0.84	0.94	1.00	1.05
11.550	1.42	1.87	2.08	2.23	2.47
11.800	2.74	3.18	3.68	6.64	10.44
12.050	9.15	6.39	5.02	3.97	3.48
12.300	3.11	2.90	2.73	2.56	2.40
12.550	2.01	1.56	1.36	1.22	1.15
12.800	1.09	1.07	1.07	1.03	0.97

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
13.050	0.91	0.85	0.84	0.84	0.84
13.300	0.84	0.79	0.74	0.72	0.72
13.550	0.72	0.72	0.72	0.72	0.68
13.800	0.62	0.61	0.61	0.60	0.60
14.050	0.61	0.61	0.61	0.61	0.56
14.300	0.50	0.54	0.59	0.56	0.50
14.550	0.49	0.49	0.49	0.49	0.49
14.800	0.49	0.49	0.49	0.49	0.49
15.050	0.44	0.39	0.42	0.47	0.49
15.300	0.49	0.44	0.39	0.42	0.47
15.550	0.44	0.39	0.37	0.37	0.37
15.800	0.37	0.41	0.47	0.44	0.39
16.050	0.37	0.37	0.37	0.37	0.37
16.300	0.37	0.37	0.37	0.37	0.37
16.550	0.37	0.37	0.32	0.27	0.30
16.800	0.35	0.37	0.37	0.37	0.37
17.050	0.32	0.27	0.30	0.35	0.32
17.300	0.27	0.30	0.35	0.37	0.37
17.550	0.33	0.27	0.30	0.35	0.32
17.800	0.27	0.25	0.25	0.29	0.35
18.050	0.32	0.27	0.25	0.25	0.30
18.300	0.35	0.32	0.27	0.25	0.25
18.550	0.30	0.35	0.32	0.27	0.25
18.800	0.25	0.25	0.25	0.25	0.25
19.050	0.25	0.25	0.30	0.36	0.32
19.300	0.27	0.25	0.25	0.25	0.25
19.550	0.25	0.25	0.25	0.25	0.25
19.800	0.25	0.25	0.25	0.25	0.25
20.050	0.25	0.25	0.25	0.25	0.25
20.300	0.25	0.25	0.25	0.20	0.14
20.550	0.18	0.23	0.25	0.25	0.25
20.800	0.25	0.25	0.25	0.25	0.25
21.050	0.20	0.14	0.18	0.23	0.25
21.300	0.25	0.25	0.25	0.25	0.25
21.550	0.20	0.14	0.18	0.23	0.25
21.800	0.25	0.20	0.14	0.18	0.23
22.050	0.25	0.25	0.25	0.25	0.20
22.300	0.14	0.18	0.23	0.25	0.25
22.550	0.20	0.14	0.18	0.23	0.20
22.800	0.14	0.18	0.23	0.25	0.25
23.050	0.20	0.14	0.18	0.23	0.20
23.300	0.14	0.18	0.23	0.20	0.14
23.550	0.18	0.23	0.20	0.14	0.18

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1B (2) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
23.800	0.23	0.20	0.14	0.18	0.23
24.050	0.15	0.04	0.01	0.00	0.00

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1C (3) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	152,666.045 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
10.500	0.00	0.00	0.00	0.01	0.01
10.750	0.01	0.01	0.02	0.02	0.03
11.000	0.03	0.04	0.06	0.06	0.06
11.250	0.07	0.09	0.09	0.08	0.10
11.500	0.15	0.19	0.23	0.30	0.39
11.750	0.46	0.54	0.69	0.87	2.14
12.000	4.16	3.89	2.62	2.03	1.56
12.250	1.35	1.20	1.11	1.04	1.04
12.500	1.04	0.86	0.61	0.55	0.54
12.750	0.47	0.39	0.37	0.37	0.37
13.000	0.37	0.37	0.37	0.37	0.37
13.250	0.38	0.38	0.38	0.38	0.31
13.500	0.22	0.27	0.36	0.31	0.22
13.750	0.27	0.36	0.31	0.22	0.20
14.000	0.20	0.20	0.20	0.27	0.36
14.250	0.31	0.23	0.21	0.20	0.20
14.500	0.20	0.20	0.20	0.20	0.20
14.750	0.20	0.20	0.20	0.20	0.20
15.000	0.20	0.20	0.20	0.20	0.20
15.250	0.20	0.20	0.20	0.20	0.21
15.500	0.21	0.13	0.03	0.08	0.18
15.750	0.20	0.21	0.21	0.21	0.21
16.000	0.21	0.13	0.03	0.09	0.18
16.250	0.20	0.21	0.21	0.21	0.13
16.500	0.03	0.09	0.18	0.20	0.21
16.750	0.13	0.03	0.09	0.18	0.20
17.000	0.21	0.13	0.03	0.09	0.18
17.250	0.21	0.21	0.13	0.03	0.09
17.500	0.18	0.21	0.21	0.13	0.03
17.750	0.09	0.18	0.13	0.03	0.09
18.000	0.18	0.21	0.21	0.13	0.03
18.250	0.09	0.18	0.13	0.03	0.09
18.500	0.19	0.13	0.03	0.09	0.19
18.750	0.13	0.03	0.09	0.19	0.21

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1C (3) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
19.000	0.22	0.14	0.03	0.09	0.19
19.250	0.13	0.03	0.09	0.19	0.13
19.500	0.03	0.09	0.19	0.13	0.03
19.750	0.09	0.19	0.13	0.03	0.09
20.000	0.19	0.13	0.03	0.01	0.00
20.250	0.08	0.19	0.13	0.03	0.09
20.500	0.19	0.13	0.03	0.09	0.19
20.750	0.13	0.03	0.09	0.19	0.13
21.000	0.03	0.09	0.19	0.13	0.03
21.250	0.01	0.00	0.08	0.19	0.13
21.500	0.03	0.09	0.19	0.13	0.03
21.750	0.09	0.19	0.13	0.03	0.01
22.000	0.00	0.08	0.19	0.13	0.03
22.250	0.09	0.19	0.13	0.03	0.01
22.500	0.00	0.08	0.19	0.13	0.03
22.750	0.09	0.19	0.13	0.03	0.01
23.000	0.00	0.08	0.19	0.13	0.03
23.250	0.01	0.00	0.09	0.19	0.13
23.500	0.03	0.09	0.19	0.13	0.03
23.750	0.01	0.00	0.09	0.19	0.13
24.000	0.03	0.01	0.00	0.00	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1C (3) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	152,666.045 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
7.050	0.00	0.00	0.00	0.00	0.01
7.300	0.01	0.01	0.01	0.01	0.01
7.550	0.02	0.03	0.03	0.02	0.03
7.800	0.04	0.03	0.03	0.03	0.05
8.050	0.04	0.03	0.04	0.06	0.05
8.300	0.04	0.05	0.07	0.08	0.08
8.550	0.08	0.09	0.07	0.05	0.07
8.800	0.09	0.10	0.10	0.11	0.11
9.050	0.12	0.12	0.12	0.12	0.13
9.300	0.13	0.13	0.14	0.14	0.14
9.550	0.15	0.15	0.15	0.16	0.16
9.800	0.16	0.20	0.24	0.22	0.19
10.050	0.21	0.26	0.24	0.20	0.23
10.300	0.28	0.29	0.30	0.31	0.32
10.550	0.32	0.33	0.33	0.34	0.39
10.800	0.45	0.43	0.38	0.42	0.48
11.050	0.50	0.51	0.57	0.65	0.67
11.300	0.69	0.70	0.72	0.78	0.87
11.550	1.19	1.60	1.86	2.10	2.34
11.800	2.59	3.06	3.63	7.25	12.16
12.050	10.75	7.26	5.67	4.51	3.89
12.300	3.39	3.20	3.08	2.87	2.64
12.550	2.21	1.71	1.50	1.35	1.32
12.800	1.31	1.21	1.09	1.06	1.06
13.050	1.06	1.06	1.06	1.07	0.97
13.300	0.84	0.81	0.81	0.81	0.81
13.550	0.81	0.81	0.81	0.81	0.81
13.800	0.81	0.71	0.58	0.66	0.78
14.050	0.71	0.59	0.56	0.55	0.65
14.300	0.78	0.71	0.59	0.56	0.55
14.550	0.55	0.55	0.55	0.55	0.55
14.800	0.55	0.55	0.55	0.55	0.55
15.050	0.55	0.56	0.56	0.56	0.45
15.300	0.32	0.39	0.52	0.55	0.56

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1C (3) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
15.550	0.45	0.32	0.39	0.52	0.55
15.800	0.56	0.46	0.32	0.40	0.52
16.050	0.45	0.32	0.40	0.52	0.45
16.300	0.32	0.40	0.52	0.45	0.32
16.550	0.29	0.28	0.39	0.52	0.45
16.800	0.32	0.29	0.28	0.39	0.52
17.050	0.45	0.32	0.29	0.29	0.39
17.300	0.53	0.45	0.33	0.29	0.29
17.550	0.28	0.28	0.39	0.53	0.45
17.800	0.33	0.29	0.29	0.29	0.29
18.050	0.29	0.29	0.29	0.29	0.39
18.300	0.53	0.46	0.33	0.30	0.29
18.550	0.29	0.29	0.29	0.29	0.29
18.800	0.29	0.29	0.29	0.29	0.29
19.050	0.29	0.29	0.29	0.29	0.29
19.300	0.29	0.29	0.29	0.29	0.29
19.550	0.29	0.29	0.29	0.29	0.29
19.800	0.29	0.29	0.29	0.29	0.29
20.050	0.29	0.29	0.29	0.29	0.29
20.300	0.29	0.29	0.29	0.29	0.29
20.550	0.29	0.29	0.29	0.29	0.18
20.800	0.04	0.12	0.25	0.28	0.29
21.050	0.29	0.29	0.29	0.29	0.29
21.300	0.29	0.29	0.29	0.18	0.04
21.550	0.12	0.25	0.28	0.29	0.29
21.800	0.29	0.29	0.29	0.29	0.29
22.050	0.18	0.04	0.12	0.25	0.28
22.300	0.29	0.29	0.29	0.29	0.29
22.550	0.18	0.04	0.12	0.25	0.28
22.800	0.29	0.29	0.29	0.29	0.29
23.050	0.18	0.04	0.12	0.25	0.28
23.300	0.29	0.29	0.29	0.18	0.04
23.550	0.12	0.25	0.28	0.29	0.29
23.800	0.29	0.18	0.04	0.12	0.25
24.050	0.17	0.04	0.01	0.00	0.00

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	152,666.045 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
3.950	0.00	0.00	0.00	0.01	0.01
4.200	0.02	0.02	0.02	0.03	0.03
4.450	0.04	0.04	0.05	0.07	0.07
4.700	0.06	0.06	0.07	0.07	0.07
4.950	0.08	0.08	0.08	0.09	0.09
5.200	0.10	0.12	0.15	0.14	0.12
5.450	0.12	0.12	0.12	0.12	0.15
5.700	0.19	0.18	0.15	0.15	0.15
5.950	0.18	0.22	0.20	0.17	0.17
6.200	0.17	0.20	0.25	0.23	0.19
6.450	0.22	0.27	0.25	0.21	0.24
6.700	0.29	0.30	0.31	0.28	0.23
6.950	0.26	0.31	0.33	0.34	0.30
7.200	0.25	0.28	0.34	0.36	0.37
7.450	0.37	0.38	0.38	0.39	0.39
7.700	0.40	0.40	0.41	0.41	0.42
7.950	0.42	0.43	0.43	0.43	0.44
8.200	0.44	0.50	0.58	0.55	0.48
8.450	0.47	0.47	0.53	0.61	0.58
8.700	0.51	0.56	0.64	0.66	0.67
8.950	0.62	0.54	0.59	0.67	0.70
9.200	0.71	0.71	0.72	0.73	0.73
9.450	0.81	0.90	0.86	0.78	0.77
9.700	0.77	0.85	0.94	0.97	0.99
9.950	1.00	1.00	1.01	1.02	1.03
10.200	1.03	1.04	1.05	1.13	1.24
10.450	1.28	1.29	1.30	1.31	1.40
10.700	1.52	1.56	1.57	1.59	1.60
10.950	1.69	1.82	1.86	1.88	1.98
11.200	2.11	2.15	2.17	2.37	2.62
11.450	2.80	2.95	3.96	5.21	5.78
11.700	6.17	6.82	7.57	8.75	10.09
11.950	18.12	28.36	24.75	17.21	13.50
12.200	10.66	9.31	8.33	7.76	7.30

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
12.450	6.85	6.40	5.36	4.15	3.62
12.700	3.26	3.06	2.89	2.85	2.85
12.950	2.73	2.58	2.43	2.27	2.23
13.200	2.23	2.23	2.23	2.11	1.96
13.450	1.92	1.92	1.92	1.92	1.92
13.700	1.92	1.80	1.65	1.61	1.60
13.950	1.60	1.60	1.60	1.61	1.61
14.200	1.61	1.49	1.34	1.42	1.56
14.450	1.48	1.34	1.30	1.29	1.29
14.700	1.29	1.29	1.29	1.29	1.29
14.950	1.29	1.29	1.17	1.02	1.10
15.200	1.25	1.28	1.29	1.17	1.02
15.450	1.11	1.25	1.16	1.02	0.98
15.700	0.98	0.97	0.97	1.10	1.25
15.950	1.17	1.02	0.99	0.98	0.98
16.200	0.98	0.98	0.98	0.98	0.98
16.450	0.98	0.98	0.98	0.98	0.86
16.700	0.70	0.79	0.93	0.97	0.98
16.950	0.98	0.98	0.86	0.70	0.79
17.200	0.93	0.85	0.70	0.79	0.93
17.450	0.97	0.98	0.86	0.70	0.79
17.700	0.93	0.85	0.70	0.67	0.66
17.950	0.78	0.93	0.85	0.70	0.67
18.200	0.66	0.78	0.93	0.85	0.70
18.450	0.67	0.66	0.78	0.93	0.85
18.700	0.70	0.67	0.66	0.66	0.66
18.950	0.66	0.66	0.66	0.66	0.78
19.200	0.94	0.85	0.70	0.67	0.66
19.450	0.66	0.66	0.66	0.66	0.66
19.700	0.66	0.66	0.66	0.66	0.66
19.950	0.66	0.66	0.66	0.66	0.66
20.200	0.66	0.66	0.66	0.66	0.66
20.450	0.54	0.38	0.46	0.61	0.65
20.700	0.66	0.66	0.66	0.66	0.66
20.950	0.66	0.66	0.54	0.38	0.47
21.200	0.61	0.65	0.66	0.66	0.66
21.450	0.66	0.66	0.54	0.38	0.47
21.700	0.61	0.65	0.66	0.54	0.38
21.950	0.47	0.61	0.65	0.66	0.66
22.200	0.66	0.54	0.38	0.47	0.61
22.450	0.65	0.66	0.54	0.38	0.47
22.700	0.61	0.53	0.38	0.47	0.61
22.950	0.65	0.66	0.54	0.38	0.47

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1C (3) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
23.200	0.61	0.53	0.38	0.47	0.61
23.450	0.53	0.38	0.47	0.61	0.53
23.700	0.38	0.47	0.62	0.53	0.38
23.950	0.47	0.62	0.40	0.10	0.02
24.200	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1D (4) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	229,814.185 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
9.500	0.00	0.00	0.00	0.01	0.02
9.750	0.02	0.02	0.02	0.02	0.02
10.000	0.02	0.04	0.05	0.05	0.04
10.250	0.04	0.04	0.06	0.08	0.07
10.500	0.06	0.07	0.10	0.11	0.12
10.750	0.10	0.08	0.10	0.13	0.14
11.000	0.15	0.19	0.24	0.23	0.20
11.250	0.23	0.28	0.27	0.23	0.31
11.500	0.43	0.52	0.61	0.76	0.95
11.750	1.10	1.25	1.54	1.90	4.46
12.000	8.27	7.50	4.95	3.77	2.89
12.250	2.48	2.19	2.02	1.88	1.87
12.500	1.88	1.54	1.09	0.99	0.97
12.750	0.85	0.69	0.66	0.65	0.65
13.000	0.65	0.66	0.66	0.66	0.66
13.250	0.66	0.67	0.67	0.67	0.54
13.500	0.39	0.47	0.63	0.54	0.39
13.750	0.48	0.63	0.54	0.39	0.35
14.000	0.34	0.34	0.34	0.47	0.64
14.250	0.55	0.40	0.36	0.35	0.35
14.500	0.35	0.35	0.35	0.35	0.35
14.750	0.35	0.35	0.35	0.35	0.35
15.000	0.35	0.35	0.35	0.35	0.35
15.250	0.35	0.35	0.35	0.35	0.35
15.500	0.36	0.22	0.05	0.15	0.30
15.750	0.34	0.35	0.36	0.36	0.36
16.000	0.36	0.22	0.05	0.15	0.31
16.250	0.35	0.36	0.36	0.36	0.23
16.500	0.05	0.15	0.31	0.35	0.36
16.750	0.23	0.05	0.15	0.31	0.35
17.000	0.36	0.23	0.05	0.15	0.31
17.250	0.35	0.36	0.23	0.06	0.15
17.500	0.31	0.35	0.36	0.23	0.06
17.750	0.15	0.31	0.22	0.05	0.15

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1D (4) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
18.000	0.31	0.36	0.37	0.23	0.06
18.250	0.15	0.32	0.22	0.05	0.15
18.500	0.32	0.22	0.05	0.15	0.32
18.750	0.22	0.05	0.15	0.32	0.36
19.000	0.37	0.23	0.06	0.15	0.32
19.250	0.22	0.05	0.15	0.32	0.22
19.500	0.05	0.15	0.32	0.22	0.05
19.750	0.15	0.32	0.22	0.05	0.15
20.000	0.32	0.22	0.05	0.01	0.00
20.250	0.14	0.32	0.22	0.05	0.15
20.500	0.32	0.22	0.05	0.15	0.32
20.750	0.22	0.05	0.15	0.32	0.22
21.000	0.05	0.15	0.32	0.22	0.05
21.250	0.01	0.00	0.14	0.32	0.22
21.500	0.05	0.15	0.32	0.22	0.05
21.750	0.16	0.33	0.22	0.05	0.01
22.000	0.00	0.14	0.32	0.22	0.05
22.250	0.16	0.33	0.23	0.06	0.01
22.500	0.00	0.14	0.32	0.23	0.06
22.750	0.16	0.33	0.23	0.06	0.01
23.000	0.00	0.14	0.32	0.23	0.06
23.250	0.01	0.00	0.14	0.33	0.23
23.500	0.06	0.16	0.33	0.23	0.06
23.750	0.01	0.00	0.14	0.33	0.23
24.000	0.06	0.01	0.00	0.00	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1D (4) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	229,814.185 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
6.000	0.00	0.00	0.00	0.01	0.01
6.250	0.02	0.03	0.03	0.02	0.02
6.500	0.02	0.03	0.03	0.04	0.06
6.750	0.06	0.04	0.04	0.04	0.06
7.000	0.09	0.08	0.06	0.06	0.06
7.250	0.08	0.11	0.10	0.07	0.07
7.500	0.07	0.10	0.14	0.12	0.09
7.750	0.11	0.15	0.14	0.10	0.13
8.000	0.17	0.15	0.11	0.14	0.19
8.250	0.16	0.12	0.15	0.20	0.22
8.500	0.23	0.24	0.24	0.20	0.14
8.750	0.18	0.24	0.26	0.27	0.27
9.000	0.28	0.28	0.29	0.29	0.30
9.250	0.30	0.31	0.31	0.32	0.32
9.500	0.33	0.33	0.34	0.34	0.34
9.750	0.35	0.35	0.43	0.52	0.48
10.000	0.40	0.46	0.55	0.51	0.42
10.250	0.48	0.58	0.61	0.62	0.63
10.500	0.64	0.65	0.66	0.67	0.67
10.750	0.77	0.89	0.84	0.74	0.82
11.000	0.93	0.97	0.99	1.10	1.24
11.250	1.28	1.31	1.33	1.35	1.47
11.500	1.62	2.21	2.94	3.40	3.81
11.750	4.22	4.64	5.44	6.39	12.61
12.000	20.87	18.24	12.22	9.49	7.51
12.250	6.45	5.62	5.28	5.07	4.73
12.500	4.34	3.62	2.81	2.45	2.21
12.750	2.15	2.14	1.98	1.78	1.74
13.000	1.73	1.73	1.73	1.73	1.73
13.250	1.57	1.37	1.32	1.31	1.31
13.500	1.31	1.31	1.31	1.31	1.32
13.750	1.32	1.32	1.15	0.95	1.06
14.000	1.26	1.14	0.95	0.90	0.89
14.250	1.05	1.26	1.15	0.95	0.90

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1D (4) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
14.500	0.89	0.89	0.89	0.89	0.89
14.750	0.89	0.89	0.89	0.89	0.89
15.000	0.89	0.89	0.89	0.89	0.90
15.250	0.73	0.52	0.63	0.83	0.88
15.500	0.89	0.73	0.52	0.63	0.83
15.750	0.88	0.90	0.73	0.52	0.64
16.000	0.84	0.72	0.52	0.64	0.84
16.250	0.72	0.52	0.64	0.84	0.72
16.500	0.52	0.47	0.46	0.62	0.84
16.750	0.72	0.52	0.47	0.46	0.62
17.000	0.84	0.72	0.52	0.47	0.46
17.250	0.63	0.84	0.72	0.52	0.47
17.500	0.46	0.46	0.46	0.63	0.84
17.750	0.73	0.52	0.47	0.46	0.46
18.000	0.46	0.46	0.46	0.46	0.46
18.250	0.63	0.85	0.73	0.52	0.47
18.500	0.46	0.46	0.46	0.46	0.46
18.750	0.46	0.46	0.46	0.46	0.46
19.000	0.46	0.46	0.46	0.46	0.46
19.250	0.46	0.46	0.46	0.46	0.46
19.500	0.46	0.46	0.46	0.46	0.46
19.750	0.46	0.46	0.46	0.46	0.46
20.000	0.46	0.46	0.46	0.46	0.46
20.250	0.46	0.46	0.46	0.46	0.46
20.500	0.46	0.46	0.46	0.46	0.46
20.750	0.29	0.07	0.19	0.40	0.45
21.000	0.46	0.46	0.46	0.46	0.46
21.250	0.46	0.46	0.46	0.46	0.29
21.500	0.07	0.19	0.40	0.45	0.46
21.750	0.46	0.46	0.46	0.46	0.46
22.000	0.46	0.29	0.07	0.19	0.40
22.250	0.45	0.46	0.46	0.46	0.47
22.500	0.47	0.29	0.07	0.19	0.40
22.750	0.45	0.46	0.47	0.47	0.47
23.000	0.47	0.29	0.07	0.19	0.40
23.250	0.45	0.46	0.47	0.47	0.29
23.500	0.07	0.19	0.40	0.45	0.46
23.750	0.47	0.47	0.29	0.07	0.19
24.000	0.40	0.28	0.07	0.02	0.00
24.250	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	229,814.185 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
3.250	0.00	0.01	0.01	0.02	0.03
3.500	0.04	0.04	0.05	0.06	0.06
3.750	0.07	0.08	0.07	0.05	0.07
4.000	0.09	0.11	0.11	0.12	0.13
4.250	0.13	0.14	0.15	0.15	0.16
4.500	0.17	0.21	0.26	0.24	0.21
4.750	0.21	0.21	0.21	0.22	0.22
5.000	0.23	0.24	0.24	0.25	0.25
5.250	0.31	0.38	0.35	0.30	0.29
5.500	0.29	0.29	0.30	0.36	0.44
5.750	0.41	0.34	0.33	0.33	0.40
6.000	0.49	0.45	0.38	0.36	0.36
6.250	0.44	0.53	0.49	0.41	0.47
6.500	0.56	0.52	0.43	0.49	0.59
6.750	0.62	0.63	0.56	0.47	0.53
7.000	0.63	0.66	0.68	0.60	0.50
7.250	0.56	0.67	0.70	0.72	0.73
7.500	0.73	0.74	0.75	0.75	0.76
7.750	0.77	0.78	0.78	0.79	0.79
8.000	0.80	0.81	0.81	0.82	0.83
8.250	0.94	1.08	1.01	0.89	0.87
8.500	0.87	0.98	1.13	1.06	0.93
8.750	1.02	1.16	1.20	1.22	1.11
9.000	0.97	1.06	1.21	1.25	1.27
9.250	1.28	1.28	1.29	1.30	1.43
9.500	1.60	1.52	1.38	1.35	1.35
9.750	1.48	1.65	1.70	1.72	1.73
10.000	1.75	1.76	1.77	1.77	1.78
10.250	1.79	1.80	1.95	2.13	2.19
10.500	2.21	2.22	2.24	2.39	2.58
10.750	2.64	2.66	2.68	2.70	2.86
11.000	3.06	3.12	3.15	3.32	3.52
11.250	3.59	3.62	3.95	4.35	4.63
11.500	4.88	6.53	8.58	9.47	10.09

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.750	11.12	12.29	14.17	16.28	29.08
12.000	45.22	39.28	27.21	21.27	16.77
12.250	14.62	13.06	12.16	11.42	10.71
12.500	9.99	8.36	6.48	5.65	5.08
12.750	4.76	4.51	4.45	4.43	4.25
13.000	4.02	3.78	3.53	3.47	3.46
13.250	3.46	3.46	3.28	3.05	2.99
13.500	2.98	2.98	2.98	2.98	2.98
13.750	2.79	2.56	2.50	2.49	2.49
14.000	2.49	2.49	2.49	2.49	2.49
14.250	2.30	2.07	2.20	2.42	2.29
14.500	2.07	2.01	2.00	2.00	2.00
14.750	2.00	2.00	2.00	2.00	2.00
15.000	2.00	1.81	1.58	1.71	1.93
15.250	1.99	2.00	1.82	1.58	1.71
15.500	1.93	1.80	1.58	1.52	1.51
15.750	1.51	1.51	1.69	1.93	1.80
16.000	1.58	1.52	1.51	1.51	1.51
16.250	1.51	1.51	1.51	1.51	1.51
16.500	1.51	1.51	1.51	1.32	1.08
16.750	1.21	1.44	1.49	1.51	1.51
17.000	1.51	1.32	1.08	1.21	1.44
17.250	1.31	1.08	1.21	1.44	1.50
17.500	1.51	1.32	1.09	1.22	1.44
17.750	1.31	1.08	1.03	1.01	1.20
18.000	1.44	1.31	1.08	1.03	1.01
18.250	1.20	1.44	1.31	1.08	1.03
18.500	1.01	1.20	1.44	1.31	1.08
18.750	1.03	1.01	1.01	1.01	1.01
19.000	1.01	1.01	1.01	1.20	1.44
19.250	1.31	1.09	1.03	1.02	1.01
19.500	1.01	1.01	1.01	1.01	1.01
19.750	1.01	1.01	1.01	1.01	1.01
20.000	1.01	1.01	1.01	1.01	1.01
20.250	1.01	1.01	1.01	1.01	0.82
20.500	0.58	0.71	0.94	1.00	1.01
20.750	1.01	1.01	1.01	1.01	1.01
21.000	1.02	0.82	0.58	0.72	0.94
21.250	1.00	1.01	1.02	1.02	1.02
21.500	1.02	0.83	0.58	0.72	0.94
21.750	1.00	1.01	0.83	0.58	0.72
22.000	0.94	1.00	1.01	1.02	1.02
22.250	0.83	0.59	0.72	0.94	1.00

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1D (4) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
22.500	1.01	0.83	0.59	0.72	0.94
22.750	0.81	0.58	0.72	0.94	1.00
23.000	1.01	0.83	0.59	0.72	0.94
23.250	0.81	0.58	0.72	0.94	0.81
23.500	0.58	0.72	0.94	0.81	0.58
23.750	0.72	0.94	0.81	0.58	0.72
24.000	0.95	0.62	0.15	0.03	0.01
24.250	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: PDA-2A Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	58,047.137 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.950	0.00	0.06	0.16	0.17	0.16
12.200	0.14	0.13	0.13	0.12	0.12
12.450	0.12	0.13	0.11	0.08	0.07
12.700	0.07	0.06	0.05	0.05	0.05
12.950	0.05	0.05	0.05	0.05	0.05
13.200	0.05	0.05	0.05	0.05	0.06
13.450	0.05	0.03	0.04	0.05	0.05
13.700	0.03	0.04	0.05	0.05	0.03
13.950	0.03	0.03	0.03	0.03	0.04
14.200	0.06	0.05	0.04	0.03	0.03
14.450	0.03	0.03	0.03	0.03	0.03
14.700	0.03	0.03	0.03	0.03	0.03
14.950	0.03	0.03	0.03	0.03	0.03
15.200	0.03	0.03	0.03	0.03	0.03
15.450	0.03	0.03	0.02	0.01	0.01
15.700	0.03	0.03	0.03	0.03	0.03
15.950	0.03	0.04	0.02	0.01	0.01
16.200	0.03	0.03	0.04	0.04	0.04
16.450	0.02	0.01	0.01	0.03	0.03
16.700	0.04	0.02	0.01	0.01	0.03
16.950	0.04	0.04	0.02	0.01	0.02
17.200	0.03	0.04	0.04	0.02	0.01
17.450	0.02	0.03	0.04	0.04	0.02
17.700	0.01	0.02	0.03	0.02	0.01
17.950	0.02	0.03	0.04	0.04	0.02
18.200	0.01	0.02	0.03	0.02	0.01
18.450	0.02	0.03	0.02	0.01	0.02
18.700	0.03	0.02	0.01	0.02	0.03
18.950	0.04	0.04	0.02	0.01	0.02
19.200	0.03	0.02	0.01	0.02	0.03
19.450	0.02	0.01	0.02	0.03	0.02
19.700	0.01	0.02	0.03	0.02	0.01
19.950	0.02	0.03	0.02	0.01	0.00
20.200	0.00	0.02	0.03	0.02	0.01

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: PDA-2A Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
20.450	0.02	0.04	0.02	0.01	0.02
20.700	0.04	0.02	0.01	0.02	0.04
20.950	0.02	0.01	0.02	0.04	0.02
21.200	0.01	0.00	0.00	0.02	0.04
21.450	0.02	0.01	0.02	0.04	0.03
21.700	0.01	0.02	0.04	0.03	0.01
21.950	0.00	0.00	0.02	0.04	0.03
22.200	0.01	0.02	0.04	0.03	0.01
22.450	0.00	0.00	0.02	0.04	0.03
22.700	0.01	0.02	0.04	0.03	0.01
22.950	0.00	0.00	0.02	0.04	0.03
23.200	0.01	0.00	0.00	0.02	0.04
23.450	0.03	0.01	0.02	0.04	0.03
23.700	0.01	0.00	0.00	0.02	0.04
23.950	0.03	0.01	0.00	0.00	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-2A Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	58,047.137 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
10.750	0.00	0.00	0.00	0.01	0.01
11.000	0.01	0.02	0.02	0.02	0.03
11.250	0.04	0.04	0.04	0.05	0.06
11.500	0.07	0.10	0.15	0.19	0.23
11.750	0.27	0.32	0.41	0.52	1.15
12.000	2.13	2.02	1.44	1.17	0.95
12.250	0.84	0.74	0.71	0.69	0.65
12.500	0.60	0.51	0.40	0.35	0.32
12.750	0.31	0.31	0.29	0.26	0.25
13.000	0.25	0.25	0.25	0.26	0.26
13.250	0.23	0.20	0.20	0.20	0.20
13.500	0.20	0.20	0.20	0.20	0.20
13.750	0.20	0.20	0.18	0.14	0.16
14.000	0.19	0.18	0.15	0.14	0.14
14.250	0.16	0.19	0.18	0.15	0.14
14.500	0.14	0.14	0.14	0.14	0.14
14.750	0.14	0.14	0.14	0.14	0.14
15.000	0.14	0.14	0.14	0.14	0.14
15.250	0.12	0.08	0.10	0.13	0.14
15.500	0.14	0.12	0.08	0.10	0.13
15.750	0.14	0.14	0.12	0.08	0.10
16.000	0.13	0.12	0.08	0.10	0.14
16.250	0.12	0.08	0.10	0.14	0.12
16.500	0.08	0.08	0.07	0.10	0.14
16.750	0.12	0.08	0.08	0.07	0.10
17.000	0.14	0.12	0.08	0.08	0.07
17.250	0.10	0.14	0.12	0.09	0.08
17.500	0.08	0.07	0.07	0.10	0.14
17.750	0.12	0.09	0.08	0.08	0.08
18.000	0.08	0.08	0.08	0.08	0.08
18.250	0.10	0.14	0.12	0.09	0.08
18.500	0.08	0.08	0.08	0.08	0.08
18.750	0.08	0.08	0.08	0.08	0.08
19.000	0.08	0.08	0.08	0.08	0.08

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-2A Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
19.250	0.08	0.08	0.08	0.08	0.08
19.500	0.08	0.08	0.08	0.08	0.08
19.750	0.08	0.08	0.08	0.08	0.08
20.000	0.08	0.08	0.08	0.08	0.08
20.250	0.08	0.08	0.08	0.08	0.08
20.500	0.08	0.08	0.08	0.08	0.08
20.750	0.05	0.01	0.03	0.07	0.08
21.000	0.08	0.08	0.08	0.08	0.08
21.250	0.08	0.08	0.08	0.08	0.05
21.500	0.01	0.03	0.07	0.08	0.08
21.750	0.08	0.08	0.08	0.08	0.08
22.000	0.08	0.05	0.01	0.03	0.07
22.250	0.08	0.08	0.08	0.08	0.08
22.500	0.08	0.05	0.01	0.03	0.07
22.750	0.08	0.08	0.08	0.08	0.08
23.000	0.08	0.05	0.01	0.03	0.07
23.250	0.08	0.08	0.08	0.08	0.05
23.500	0.01	0.03	0.07	0.08	0.08
23.750	0.08	0.08	0.05	0.01	0.03
24.000	0.07	0.05	0.01	0.00	0.00

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	58,047.137 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
7.150	0.00	0.00	0.00	0.00	0.01
7.400	0.01	0.01	0.01	0.01	0.01
7.650	0.02	0.02	0.02	0.02	0.02
7.900	0.02	0.03	0.03	0.03	0.03
8.150	0.03	0.03	0.04	0.05	0.05
8.400	0.04	0.04	0.04	0.05	0.06
8.650	0.06	0.05	0.06	0.07	0.07
8.900	0.08	0.07	0.06	0.07	0.08
9.150	0.09	0.09	0.09	0.09	0.10
9.400	0.10	0.11	0.13	0.12	0.11
9.650	0.11	0.11	0.13	0.14	0.15
9.900	0.15	0.16	0.16	0.16	0.17
10.150	0.17	0.17	0.18	0.18	0.20
10.400	0.22	0.23	0.23	0.24	0.24
10.650	0.26	0.28	0.29	0.30	0.31
10.900	0.31	0.33	0.36	0.37	0.38
11.150	0.41	0.44	0.45	0.46	0.51
11.400	0.56	0.61	0.65	0.88	1.18
11.650	1.33	1.44	1.63	1.84	2.16
11.900	2.54	4.71	7.62	6.84	4.86
12.150	3.87	3.09	2.73	2.46	2.30
12.400	2.18	2.05	1.93	1.62	1.26
12.650	1.10	0.99	0.93	0.88	0.87
12.900	0.87	0.84	0.79	0.75	0.70
13.150	0.69	0.69	0.69	0.69	0.65
13.400	0.61	0.60	0.60	0.60	0.60
13.650	0.60	0.60	0.56	0.52	0.50
13.900	0.50	0.50	0.50	0.50	0.50
14.150	0.51	0.51	0.47	0.42	0.45
14.400	0.49	0.47	0.42	0.41	0.41
14.650	0.41	0.41	0.41	0.41	0.41
14.900	0.41	0.41	0.41	0.37	0.32
15.150	0.35	0.40	0.41	0.41	0.37
15.400	0.33	0.35	0.40	0.37	0.33

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-2A Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
15.650	0.31	0.31	0.31	0.31	0.35
15.900	0.40	0.37	0.33	0.32	0.31
16.150	0.31	0.31	0.31	0.31	0.31
16.400	0.31	0.31	0.31	0.31	0.31
16.650	0.28	0.23	0.25	0.30	0.31
16.900	0.31	0.32	0.32	0.28	0.23
17.150	0.25	0.30	0.27	0.23	0.25
17.400	0.30	0.31	0.32	0.28	0.23
17.650	0.26	0.30	0.27	0.23	0.22
17.900	0.21	0.25	0.30	0.28	0.23
18.150	0.22	0.21	0.25	0.30	0.28
18.400	0.23	0.22	0.21	0.25	0.30
18.650	0.28	0.23	0.22	0.21	0.21
18.900	0.21	0.21	0.21	0.21	0.21
19.150	0.25	0.31	0.28	0.23	0.22
19.400	0.22	0.21	0.21	0.22	0.22
19.650	0.22	0.22	0.22	0.22	0.22
19.900	0.22	0.22	0.22	0.22	0.22
20.150	0.22	0.22	0.22	0.22	0.22
20.400	0.22	0.18	0.12	0.15	0.20
20.650	0.21	0.22	0.22	0.22	0.22
20.900	0.22	0.22	0.22	0.18	0.12
21.150	0.15	0.20	0.21	0.22	0.22
21.400	0.22	0.22	0.22	0.18	0.13
21.650	0.15	0.20	0.21	0.22	0.18
21.900	0.13	0.15	0.20	0.21	0.22
22.150	0.22	0.22	0.18	0.13	0.15
22.400	0.20	0.21	0.22	0.18	0.13
22.650	0.15	0.20	0.17	0.13	0.15
22.900	0.20	0.22	0.22	0.18	0.13
23.150	0.15	0.20	0.17	0.13	0.15
23.400	0.20	0.17	0.13	0.15	0.20
23.650	0.17	0.13	0.15	0.20	0.17
23.900	0.13	0.15	0.20	0.13	0.03
24.150	0.01	0.00	0.00	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-2B (5) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	265,119.551 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
7.000	0.00	0.00	0.01	0.01	0.01
7.250	0.01	0.00	0.01	0.02	0.02
7.500	0.03	0.03	0.03	0.02	0.01
7.750	0.02	0.04	0.04	0.05	0.05
8.000	0.05	0.04	0.01	0.02	0.05
8.250	0.06	0.07	0.07	0.07	0.08
8.500	0.08	0.08	0.09	0.05	0.01
8.750	0.04	0.08	0.09	0.10	0.10
9.000	0.10	0.11	0.11	0.11	0.11
9.250	0.12	0.12	0.12	0.13	0.13
9.500	0.13	0.13	0.14	0.19	0.27
9.750	0.23	0.17	0.16	0.16	0.16
10.000	0.16	0.23	0.31	0.27	0.20
10.250	0.18	0.18	0.25	0.34	0.30
10.500	0.22	0.28	0.37	0.40	0.41
10.750	0.34	0.24	0.30	0.41	0.44
11.000	0.45	0.55	0.67	0.62	0.52
11.250	0.60	0.72	0.67	0.56	0.74
11.500	1.00	1.19	1.37	1.67	2.01
11.750	2.26	2.50	3.00	3.60	8.04
12.000	14.14	12.34	7.93	5.92	4.47
12.250	3.80	3.33	3.06	2.83	2.79
12.500	2.80	2.28	1.62	1.46	1.43
12.750	1.24	1.02	0.97	0.96	0.95
13.000	0.96	0.96	0.96	0.96	0.96
13.250	0.96	0.96	0.97	0.97	0.79
13.500	0.56	0.68	0.90	0.77	0.56
13.750	0.69	0.91	0.78	0.56	0.51
14.000	0.49	0.49	0.49	0.68	0.91
14.250	0.78	0.56	0.51	0.50	0.49
14.500	0.49	0.49	0.49	0.49	0.50
14.750	0.50	0.50	0.50	0.50	0.50
15.000	0.50	0.50	0.50	0.50	0.50
15.250	0.50	0.50	0.50	0.50	0.50

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-2B (5) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
15.500	0.50	0.31	0.08	0.20	0.43
15.750	0.48	0.50	0.50	0.50	0.50
16.000	0.50	0.31	0.08	0.21	0.43
16.250	0.49	0.50	0.50	0.50	0.32
16.500	0.08	0.21	0.43	0.49	0.50
16.750	0.32	0.08	0.21	0.43	0.49
17.000	0.50	0.32	0.08	0.21	0.43
17.250	0.49	0.50	0.32	0.08	0.21
17.500	0.43	0.49	0.51	0.32	0.08
17.750	0.21	0.44	0.30	0.07	0.21
18.000	0.44	0.49	0.51	0.32	0.08
18.250	0.21	0.44	0.30	0.07	0.21
18.500	0.44	0.30	0.07	0.21	0.44
18.750	0.30	0.07	0.21	0.44	0.50
19.000	0.51	0.32	0.08	0.21	0.44
19.250	0.30	0.07	0.21	0.44	0.30
19.500	0.07	0.21	0.44	0.30	0.07
19.750	0.21	0.44	0.30	0.07	0.21
20.000	0.44	0.30	0.07	0.02	0.00
20.250	0.19	0.44	0.30	0.07	0.21
20.500	0.44	0.31	0.07	0.21	0.44
20.750	0.31	0.07	0.21	0.44	0.31
21.000	0.07	0.21	0.44	0.31	0.07
21.250	0.02	0.00	0.19	0.44	0.31
21.500	0.07	0.21	0.44	0.31	0.07
21.750	0.21	0.44	0.31	0.07	0.02
22.000	0.00	0.20	0.44	0.31	0.08
22.250	0.21	0.44	0.31	0.08	0.02
22.500	0.00	0.20	0.44	0.31	0.08
22.750	0.21	0.45	0.31	0.08	0.02
23.000	0.00	0.20	0.44	0.31	0.08
23.250	0.02	0.00	0.20	0.44	0.31
23.500	0.08	0.21	0.45	0.31	0.08
23.750	0.02	0.00	0.20	0.44	0.31
24.000	0.08	0.02	0.00	0.00	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-2B (5) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	265,119.551 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
4.000	0.00	0.00	0.01	0.01	0.01
4.250	0.02	0.02	0.02	0.03	0.03
4.500	0.03	0.04	0.04	0.04	0.05
4.750	0.05	0.05	0.06	0.06	0.06
5.000	0.07	0.07	0.07	0.08	0.08
5.250	0.08	0.09	0.09	0.09	0.09
5.500	0.10	0.14	0.20	0.18	0.13
5.750	0.12	0.12	0.12	0.13	0.13
6.000	0.13	0.13	0.14	0.14	0.14
6.250	0.20	0.28	0.24	0.18	0.16
6.500	0.16	0.16	0.17	0.23	0.32
6.750	0.28	0.20	0.19	0.19	0.26
7.000	0.35	0.31	0.22	0.21	0.20
7.250	0.28	0.38	0.33	0.24	0.22
7.500	0.22	0.30	0.41	0.36	0.26
7.750	0.33	0.43	0.38	0.27	0.34
8.000	0.45	0.39	0.29	0.36	0.47
8.250	0.41	0.30	0.37	0.49	0.53
8.500	0.54	0.55	0.55	0.45	0.32
8.750	0.40	0.53	0.57	0.58	0.59
9.000	0.60	0.60	0.61	0.61	0.62
9.250	0.62	0.63	0.63	0.64	0.64
9.500	0.65	0.65	0.66	0.66	0.67
9.750	0.67	0.68	0.81	0.98	0.90
10.000	0.75	0.85	1.01	0.92	0.77
10.250	0.87	1.04	1.09	1.11	1.12
10.500	1.13	1.13	1.14	1.15	1.16
10.750	1.31	1.51	1.42	1.25	1.36
11.000	1.55	1.61	1.63	1.80	2.01
11.250	2.08	2.10	2.12	2.14	2.32
11.500	2.54	3.44	4.55	5.21	5.77
11.750	6.32	6.88	7.99	9.27	17.94
12.000	29.06	24.97	16.53	12.71	9.98
12.250	8.54	7.40	6.94	6.64	6.17

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-2B (5) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
12.500	5.65	4.71	3.64	3.18	2.86
12.750	2.78	2.77	2.56	2.30	2.24
13.000	2.22	2.22	2.22	2.23	2.23
13.250	2.02	1.76	1.69	1.68	1.68
13.500	1.68	1.68	1.68	1.68	1.68
13.750	1.68	1.68	1.47	1.21	1.35
14.000	1.60	1.46	1.21	1.14	1.13
14.250	1.34	1.60	1.46	1.21	1.15
14.500	1.13	1.13	1.13	1.13	1.13
14.750	1.13	1.13	1.13	1.13	1.13
15.000	1.13	1.13	1.13	1.13	1.13
15.250	0.92	0.65	0.80	1.05	1.11
15.500	1.13	0.92	0.65	0.80	1.05
15.750	1.12	1.13	0.92	0.65	0.80
16.000	1.05	0.90	0.65	0.80	1.06
16.250	0.91	0.65	0.80	1.06	0.91
16.500	0.65	0.59	0.57	0.78	1.05
16.750	0.91	0.65	0.59	0.57	0.78
17.000	1.05	0.91	0.65	0.59	0.57
17.250	0.79	1.06	0.91	0.65	0.59
17.500	0.58	0.57	0.57	0.79	1.06
17.750	0.91	0.65	0.59	0.58	0.57
18.000	0.57	0.57	0.57	0.57	0.57
18.250	0.79	1.06	0.91	0.66	0.59
18.500	0.58	0.57	0.57	0.57	0.57
18.750	0.57	0.57	0.57	0.57	0.57
19.000	0.57	0.57	0.57	0.57	0.57
19.250	0.57	0.57	0.57	0.57	0.57
19.500	0.57	0.57	0.57	0.57	0.57
19.750	0.57	0.57	0.57	0.57	0.57
20.000	0.57	0.57	0.57	0.57	0.57
20.250	0.57	0.58	0.58	0.58	0.58
20.500	0.58	0.58	0.58	0.58	0.58
20.750	0.36	0.09	0.24	0.49	0.56
21.000	0.57	0.58	0.58	0.58	0.58
21.250	0.58	0.58	0.58	0.58	0.36
21.500	0.09	0.24	0.49	0.56	0.57
21.750	0.58	0.58	0.58	0.58	0.58
22.000	0.58	0.36	0.09	0.24	0.49
22.250	0.56	0.57	0.58	0.58	0.58
22.500	0.58	0.36	0.09	0.24	0.49
22.750	0.56	0.57	0.58	0.58	0.58
23.000	0.58	0.36	0.09	0.24	0.49

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-2B (5) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
23.250	0.56	0.57	0.58	0.58	0.36
23.500	0.09	0.24	0.49	0.56	0.57
23.750	0.58	0.58	0.36	0.09	0.24
24.000	0.49	0.34	0.08	0.02	0.00
24.250	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	265,119.551 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
2.050	0.00	0.01	0.01	0.01	0.03
2.300	0.04	0.06	0.07	0.09	0.10
2.550	0.09	0.07	0.09	0.13	0.15
2.800	0.16	0.18	0.19	0.16	0.12
3.050	0.15	0.21	0.23	0.24	0.26
3.300	0.27	0.28	0.29	0.30	0.31
3.550	0.32	0.33	0.33	0.34	0.35
3.800	0.36	0.30	0.22	0.27	0.36
4.050	0.39	0.40	0.41	0.42	0.43
4.300	0.44	0.45	0.45	0.46	0.47
4.550	0.57	0.69	0.64	0.54	0.52
4.800	0.52	0.52	0.53	0.54	0.54
5.050	0.55	0.55	0.56	0.57	0.68
5.300	0.83	0.76	0.64	0.61	0.61
5.550	0.61	0.62	0.74	0.90	0.82
5.800	0.69	0.66	0.65	0.78	0.95
6.050	0.87	0.72	0.69	0.69	0.82
6.300	0.99	0.91	0.76	0.86	1.02
6.550	0.94	0.78	0.88	1.05	1.10
6.800	1.12	0.99	0.81	0.92	1.09
7.050	1.14	1.16	1.02	0.84	0.95
7.300	1.13	1.18	1.20	1.21	1.22
7.550	1.22	1.23	1.24	1.24	1.25
7.800	1.25	1.26	1.27	1.27	1.28
8.050	1.28	1.29	1.29	1.30	1.47
8.300	1.68	1.58	1.39	1.34	1.34
8.550	1.51	1.73	1.62	1.42	1.55
8.800	1.76	1.81	1.83	1.67	1.46
9.050	1.58	1.80	1.85	1.87	1.88
9.300	1.89	1.90	1.90	2.09	2.32
9.550	2.21	2.00	1.95	1.95	2.13
9.800	2.37	2.44	2.46	2.47	2.48
10.050	2.49	2.49	2.50	2.51	2.52
10.300	2.52	2.72	2.97	3.04	3.06

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
10.550	3.07	3.08	3.28	3.54	3.61
10.800	3.64	3.65	3.66	3.87	4.13
11.050	4.20	4.23	4.45	4.71	4.79
11.300	4.82	5.24	5.76	6.11	6.42
11.550	8.56	11.20	12.32	13.06	14.33
11.800	15.76	18.07	20.66	36.60	56.40
12.050	48.63	33.50	26.07	20.49	17.83
12.300	15.89	14.78	13.85	12.97	12.10
12.550	10.11	7.83	6.82	6.14	5.75
12.800	5.43	5.36	5.34	5.12	4.84
13.050	4.55	4.25	4.18	4.16	4.16
13.300	4.16	3.94	3.66	3.59	3.57
13.550	3.57	3.57	3.57	3.57	3.35
13.800	3.07	3.00	2.98	2.98	2.98
14.050	2.98	2.98	2.98	2.98	2.76
14.300	2.48	2.63	2.90	2.74	2.47
14.550	2.41	2.39	2.39	2.39	2.39
14.800	2.39	2.39	2.39	2.39	2.39
15.050	2.17	1.88	2.04	2.31	2.37
15.300	2.39	2.17	1.88	2.04	2.31
15.550	2.15	1.88	1.82	1.80	1.80
15.800	1.80	2.02	2.30	2.15	1.88
16.050	1.82	1.80	1.80	1.80	1.80
16.300	1.80	1.80	1.80	1.80	1.80
16.550	1.80	1.80	1.57	1.29	1.44
16.800	1.71	1.78	1.79	1.80	1.80
17.050	1.57	1.29	1.44	1.71	1.55
17.300	1.29	1.44	1.71	1.78	1.80
17.550	1.57	1.29	1.45	1.71	1.55
17.800	1.29	1.22	1.20	1.43	1.71
18.050	1.55	1.29	1.22	1.20	1.43
18.300	1.71	1.56	1.29	1.22	1.20
18.550	1.43	1.71	1.56	1.29	1.22
18.800	1.21	1.20	1.20	1.20	1.20
19.050	1.20	1.20	1.43	1.71	1.56
19.300	1.29	1.22	1.21	1.20	1.20
19.550	1.20	1.20	1.20	1.20	1.20
19.800	1.20	1.20	1.20	1.20	1.20
20.050	1.20	1.20	1.20	1.20	1.20
20.300	1.20	1.20	1.20	0.98	0.69
20.550	0.85	1.12	1.18	1.20	1.20
20.800	1.20	1.20	1.20	1.20	1.20
21.050	0.98	0.69	0.85	1.12	1.18

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-2B (5) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
21.300	1.20	1.20	1.20	1.20	1.20
21.550	0.98	0.69	0.85	1.12	1.18
21.800	1.20	0.98	0.69	0.85	1.12
22.050	1.18	1.20	1.20	1.20	0.98
22.300	0.69	0.85	1.12	1.18	1.20
22.550	0.98	0.69	0.85	1.12	0.96
22.800	0.69	0.85	1.12	1.18	1.20
23.050	0.98	0.69	0.85	1.12	0.96
23.300	0.69	0.85	1.12	0.96	0.69
23.550	0.85	1.12	0.96	0.69	0.85
23.800	1.12	0.96	0.69	0.85	1.12
24.050	0.73	0.18	0.04	0.01	0.00

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-3A (6) Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	219,864.268 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
8.150	0.00	0.00	0.00	0.01	0.01
8.400	0.01	0.01	0.02	0.02	0.02
8.650	0.01	0.00	0.01	0.02	0.03
8.900	0.03	0.03	0.03	0.04	0.04
9.150	0.04	0.04	0.05	0.05	0.05
9.400	0.05	0.05	0.06	0.06	0.06
9.650	0.09	0.12	0.11	0.08	0.08
9.900	0.08	0.08	0.08	0.11	0.16
10.150	0.14	0.10	0.10	0.10	0.13
10.400	0.19	0.16	0.12	0.15	0.21
10.650	0.22	0.23	0.20	0.14	0.18
10.900	0.24	0.26	0.27	0.33	0.40
11.150	0.38	0.32	0.37	0.45	0.41
11.400	0.35	0.46	0.63	0.76	0.88
11.650	1.08	1.32	1.50	1.67	2.02
11.900	2.45	5.58	10.02	8.88	5.77
12.150	4.34	3.29	2.81	2.47	2.28
12.400	2.11	2.09	2.09	1.71	1.22
12.650	1.10	1.07	0.94	0.77	0.73
12.900	0.72	0.72	0.72	0.72	0.72
13.150	0.73	0.73	0.73	0.73	0.73
13.400	0.73	0.60	0.42	0.52	0.68
13.650	0.59	0.42	0.52	0.69	0.59
13.900	0.43	0.39	0.38	0.37	0.37
14.150	0.51	0.69	0.60	0.43	0.39
14.400	0.38	0.38	0.38	0.38	0.38
14.650	0.38	0.38	0.38	0.38	0.38
14.900	0.38	0.38	0.38	0.38	0.38
15.150	0.38	0.38	0.38	0.38	0.38
15.400	0.38	0.38	0.38	0.24	0.06
15.650	0.16	0.33	0.37	0.38	0.38
15.900	0.39	0.39	0.39	0.24	0.06
16.150	0.16	0.33	0.37	0.38	0.39
16.400	0.39	0.24	0.06	0.16	0.33

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: PDA-3A (6) Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
16.650	0.38	0.39	0.24	0.06	0.16
16.900	0.33	0.38	0.39	0.24	0.06
17.150	0.16	0.33	0.38	0.39	0.24
17.400	0.06	0.16	0.33	0.38	0.39
17.650	0.24	0.06	0.16	0.34	0.23
17.900	0.06	0.16	0.34	0.38	0.39
18.150	0.25	0.06	0.16	0.34	0.23
18.400	0.06	0.16	0.34	0.23	0.06
18.650	0.16	0.34	0.23	0.06	0.16
18.900	0.34	0.38	0.39	0.25	0.06
19.150	0.16	0.34	0.23	0.06	0.16
19.400	0.34	0.24	0.06	0.16	0.34
19.650	0.24	0.06	0.16	0.34	0.24
19.900	0.06	0.16	0.34	0.24	0.06
20.150	0.01	0.00	0.15	0.34	0.24
20.400	0.06	0.16	0.34	0.24	0.06
20.650	0.16	0.34	0.24	0.06	0.16
20.900	0.34	0.24	0.06	0.16	0.34
21.150	0.24	0.06	0.01	0.00	0.15
21.400	0.34	0.24	0.06	0.16	0.34
21.650	0.24	0.06	0.16	0.34	0.24
21.900	0.06	0.01	0.00	0.15	0.34
22.150	0.24	0.06	0.16	0.35	0.24
22.400	0.06	0.01	0.00	0.15	0.34
22.650	0.24	0.06	0.17	0.35	0.24
22.900	0.06	0.01	0.00	0.15	0.34
23.150	0.24	0.06	0.01	0.00	0.15
23.400	0.34	0.24	0.06	0.17	0.35
23.650	0.24	0.06	0.01	0.00	0.15
23.900	0.34	0.24	0.06	0.01	0.00
24.150	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-3A (6) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	219,864.268 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
4.850	0.00	0.00	0.00	0.01	0.01
5.100	0.01	0.01	0.02	0.02	0.02
5.350	0.02	0.03	0.03	0.03	0.05
5.600	0.07	0.06	0.05	0.05	0.05
5.850	0.05	0.05	0.05	0.06	0.06
6.100	0.06	0.06	0.06	0.09	0.13
6.350	0.12	0.09	0.08	0.08	0.08
6.600	0.08	0.12	0.17	0.15	0.11
6.850	0.10	0.10	0.14	0.19	0.17
7.100	0.12	0.11	0.11	0.16	0.22
7.350	0.19	0.14	0.13	0.13	0.18
7.600	0.24	0.21	0.15	0.19	0.26
7.850	0.23	0.17	0.21	0.28	0.24
8.100	0.18	0.22	0.29	0.25	0.19
8.350	0.23	0.31	0.33	0.34	0.35
8.600	0.35	0.29	0.21	0.26	0.34
8.850	0.37	0.38	0.38	0.39	0.39
9.100	0.40	0.40	0.41	0.41	0.42
9.350	0.42	0.43	0.43	0.43	0.44
9.600	0.44	0.45	0.45	0.46	0.46
9.850	0.55	0.67	0.61	0.51	0.58
10.100	0.70	0.64	0.53	0.60	0.72
10.350	0.76	0.77	0.78	0.79	0.80
10.600	0.80	0.81	0.82	0.93	1.07
10.850	1.01	0.89	0.98	1.11	1.16
11.100	1.17	1.30	1.45	1.51	1.53
11.350	1.55	1.56	1.70	1.86	2.53
11.600	3.35	3.86	4.29	4.72	5.16
11.850	6.02	7.02	13.69	22.37	19.36
12.100	12.88	9.94	7.83	6.71	5.83
12.350	5.47	5.24	4.88	4.47	3.73
12.600	2.89	2.52	2.27	2.21	2.20
12.850	2.03	1.83	1.78	1.77	1.77
13.100	1.77	1.77	1.77	1.61	1.40

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-3A (6) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
13.350	1.35	1.34	1.33	1.34	1.34
13.600	1.34	1.34	1.34	1.34	1.34
13.850	1.17	0.96	1.08	1.28	1.16
14.100	0.96	0.91	0.90	1.07	1.28
14.350	1.17	0.97	0.92	0.90	0.90
14.600	0.90	0.90	0.90	0.90	0.90
14.850	0.90	0.90	0.90	0.90	0.91
15.100	0.91	0.91	0.91	0.74	0.52
15.350	0.64	0.84	0.89	0.90	0.74
15.600	0.52	0.64	0.84	0.89	0.91
15.850	0.74	0.52	0.64	0.85	0.72
16.100	0.52	0.64	0.85	0.73	0.52
16.350	0.64	0.85	0.73	0.52	0.47
16.600	0.46	0.63	0.85	0.73	0.52
16.850	0.47	0.46	0.63	0.85	0.73
17.100	0.52	0.47	0.46	0.63	0.85
17.350	0.73	0.52	0.47	0.46	0.46
17.600	0.46	0.63	0.85	0.73	0.53
17.850	0.47	0.46	0.46	0.46	0.46
18.100	0.46	0.46	0.46	0.63	0.85
18.350	0.73	0.53	0.48	0.46	0.46
18.600	0.46	0.46	0.46	0.46	0.46
18.850	0.46	0.46	0.46	0.46	0.46
19.100	0.46	0.46	0.46	0.46	0.46
19.350	0.46	0.46	0.46	0.46	0.46
19.600	0.46	0.46	0.46	0.46	0.46
19.850	0.46	0.46	0.46	0.46	0.46
20.100	0.46	0.46	0.46	0.46	0.46
20.350	0.46	0.46	0.46	0.46	0.46
20.600	0.46	0.46	0.46	0.29	0.07
20.850	0.19	0.40	0.45	0.46	0.46
21.100	0.46	0.46	0.46	0.46	0.46
21.350	0.46	0.46	0.29	0.07	0.19
21.600	0.40	0.45	0.46	0.46	0.46
21.850	0.46	0.46	0.46	0.47	0.29
22.100	0.07	0.19	0.40	0.45	0.46
22.350	0.47	0.47	0.47	0.47	0.29
22.600	0.07	0.19	0.40	0.45	0.46
22.850	0.47	0.47	0.47	0.47	0.29
23.100	0.07	0.19	0.40	0.45	0.46
23.350	0.47	0.47	0.29	0.07	0.19
23.600	0.40	0.45	0.46	0.47	0.47
23.850	0.29	0.07	0.19	0.40	0.28

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-3A (6) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
24.100	0.07	0.02	0.00	0.00	(N/A)

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	219,864.268 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
2.550	0.00	0.00	0.01	0.02	0.03
2.800	0.04	0.05	0.05	0.05	0.04
3.050	0.05	0.08	0.09	0.10	0.11
3.300	0.12	0.12	0.13	0.14	0.15
3.550	0.16	0.16	0.17	0.18	0.19
3.800	0.19	0.16	0.12	0.15	0.20
4.050	0.22	0.23	0.23	0.24	0.25
4.300	0.25	0.26	0.27	0.27	0.28
4.550	0.34	0.42	0.39	0.33	0.32
4.800	0.32	0.33	0.33	0.34	0.34
5.050	0.35	0.35	0.36	0.36	0.44
5.300	0.54	0.50	0.42	0.40	0.40
5.550	0.40	0.41	0.49	0.60	0.55
5.800	0.46	0.44	0.44	0.53	0.64
6.050	0.59	0.49	0.47	0.47	0.56
6.300	0.68	0.62	0.52	0.59	0.71
6.550	0.65	0.54	0.61	0.73	0.77
6.800	0.78	0.69	0.57	0.65	0.77
7.050	0.81	0.82	0.73	0.60	0.68
7.300	0.81	0.84	0.86	0.87	0.87
7.550	0.88	0.88	0.89	0.90	0.90
7.800	0.91	0.91	0.92	0.93	0.93
8.050	0.94	0.94	0.95	0.95	1.08
8.300	1.24	1.16	1.02	0.99	0.99
8.550	1.11	1.28	1.20	1.05	1.15
8.800	1.31	1.35	1.37	1.25	1.09
9.050	1.18	1.35	1.39	1.41	1.42
9.300	1.42	1.43	1.44	1.58	1.76
9.550	1.67	1.52	1.48	1.48	1.62
9.800	1.80	1.85	1.87	1.88	1.89
10.050	1.90	1.91	1.92	1.92	1.93
10.300	1.94	2.09	2.29	2.34	2.36
10.550	2.37	2.38	2.54	2.74	2.80
10.800	2.82	2.84	2.85	3.01	3.22

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-3A (6) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.050	3.28	3.30	3.48	3.69	3.75
11.300	3.78	4.11	4.53	4.81	5.06
11.550	6.75	8.85	9.75	10.35	11.39
11.800	12.55	14.42	16.51	29.35	45.39
12.050	39.25	27.10	21.13	16.63	14.48
12.300	12.92	12.02	11.27	10.56	9.85
12.550	8.24	6.38	5.56	5.00	4.69
12.800	4.43	4.37	4.36	4.18	3.95
13.050	3.71	3.47	3.41	3.40	3.40
13.300	3.40	3.22	2.99	2.93	2.92
13.550	2.92	2.92	2.92	2.92	2.74
13.800	2.51	2.45	2.44	2.44	2.44
14.050	2.44	2.44	2.44	2.44	2.26
14.300	2.03	2.15	2.37	2.24	2.02
14.550	1.97	1.96	1.95	1.95	1.96
14.800	1.96	1.96	1.96	1.96	1.96
15.050	1.77	1.54	1.67	1.89	1.94
15.300	1.95	1.77	1.54	1.67	1.89
15.550	1.76	1.54	1.49	1.47	1.47
15.800	1.47	1.65	1.89	1.76	1.54
16.050	1.49	1.47	1.47	1.47	1.47
16.300	1.47	1.47	1.47	1.47	1.47
16.550	1.47	1.47	1.29	1.06	1.18
16.800	1.40	1.46	1.47	1.47	1.47
17.050	1.29	1.06	1.18	1.40	1.27
17.300	1.05	1.18	1.40	1.46	1.47
17.550	1.29	1.06	1.19	1.40	1.27
17.800	1.06	1.00	0.99	1.17	1.40
18.050	1.28	1.06	1.00	0.99	1.17
18.300	1.40	1.28	1.06	1.00	0.99
18.550	1.17	1.40	1.28	1.06	1.00
18.800	0.99	0.99	0.99	0.99	0.99
19.050	0.99	0.99	1.17	1.40	1.28
19.300	1.06	1.00	0.99	0.99	0.99
19.550	0.99	0.99	0.99	0.99	0.99
19.800	0.99	0.99	0.99	0.99	0.99
20.050	0.99	0.99	0.99	0.99	0.99
20.300	0.99	0.99	0.99	0.80	0.57
20.550	0.70	0.92	0.97	0.98	0.99
20.800	0.99	0.99	0.99	0.99	0.99
21.050	0.80	0.57	0.70	0.92	0.97
21.300	0.98	0.99	0.99	0.99	0.99
21.550	0.80	0.57	0.70	0.92	0.97

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-3A (6) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
21.800	0.99	0.80	0.57	0.70	0.92
22.050	0.97	0.99	0.99	0.99	0.80
22.300	0.57	0.70	0.92	0.97	0.99
22.550	0.80	0.57	0.70	0.92	0.79
22.800	0.57	0.70	0.92	0.97	0.99
23.050	0.80	0.57	0.70	0.92	0.79
23.300	0.57	0.70	0.92	0.79	0.57
23.550	0.70	0.92	0.79	0.57	0.70
23.800	0.92	0.79	0.57	0.70	0.92
24.050	0.60	0.15	0.03	0.01	0.00

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: PDA-3B Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Storm Event	1 Year Storm
Return Event	1 years
Duration	72.000 hours
Depth	2.9 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	41,320.244 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.950	0.00	0.04	0.11	0.12	0.11
12.200	0.10	0.10	0.09	0.09	0.08
12.450	0.09	0.09	0.08	0.06	0.05
12.700	0.05	0.04	0.04	0.04	0.04
12.950	0.04	0.04	0.04	0.04	0.04
13.200	0.04	0.04	0.04	0.04	0.04
13.450	0.03	0.02	0.03	0.04	0.03
13.700	0.02	0.03	0.04	0.03	0.02
13.950	0.02	0.02	0.02	0.02	0.03
14.200	0.04	0.03	0.03	0.02	0.02
14.450	0.02	0.02	0.02	0.02	0.02
14.700	0.02	0.02	0.02	0.02	0.02
14.950	0.02	0.02	0.02	0.02	0.02
15.200	0.02	0.02	0.02	0.02	0.02
15.450	0.02	0.02	0.02	0.00	0.01
15.700	0.02	0.02	0.02	0.02	0.02
15.950	0.02	0.02	0.02	0.00	0.01
16.200	0.02	0.02	0.03	0.03	0.03
16.450	0.02	0.00	0.01	0.02	0.02
16.700	0.03	0.02	0.00	0.01	0.02
16.950	0.03	0.03	0.02	0.00	0.01
17.200	0.02	0.03	0.03	0.02	0.00
17.450	0.01	0.02	0.03	0.03	0.02
17.700	0.00	0.01	0.02	0.02	0.00
17.950	0.01	0.02	0.03	0.03	0.02
18.200	0.00	0.01	0.02	0.02	0.00
18.450	0.01	0.02	0.02	0.00	0.01
18.700	0.02	0.02	0.00	0.01	0.02
18.950	0.03	0.03	0.02	0.00	0.01
19.200	0.02	0.02	0.00	0.01	0.02
19.450	0.02	0.00	0.01	0.02	0.02
19.700	0.00	0.01	0.02	0.02	0.00
19.950	0.01	0.02	0.02	0.00	0.00
20.200	0.00	0.01	0.02	0.02	0.00

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years

Label: PDA-3B Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
20.450	0.01	0.03	0.02	0.00	0.01
20.700	0.03	0.02	0.00	0.01	0.03
20.950	0.02	0.00	0.01	0.03	0.02
21.200	0.00	0.00	0.00	0.01	0.03
21.450	0.02	0.00	0.01	0.03	0.02
21.700	0.00	0.01	0.03	0.02	0.00
21.950	0.00	0.00	0.01	0.03	0.02
22.200	0.00	0.01	0.03	0.02	0.00
22.450	0.00	0.00	0.01	0.03	0.02
22.700	0.00	0.01	0.03	0.02	0.00
22.950	0.00	0.00	0.01	0.03	0.02
23.200	0.00	0.00	0.00	0.01	0.03
23.450	0.02	0.00	0.01	0.03	0.02
23.700	0.00	0.00	0.00	0.01	0.03
23.950	0.02	0.00	0.00	0.00	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-3B Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Storm Event	10 Year Storm
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	41,320.244 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
10.750	0.00	0.00	0.00	0.00	0.01
11.000	0.01	0.01	0.01	0.02	0.02
11.250	0.03	0.03	0.03	0.03	0.04
11.500	0.05	0.07	0.10	0.13	0.16
11.750	0.19	0.23	0.29	0.37	0.82
12.000	1.51	1.44	1.03	0.83	0.68
12.250	0.60	0.53	0.50	0.49	0.46
12.500	0.43	0.36	0.28	0.25	0.22
12.750	0.22	0.22	0.20	0.18	0.18
13.000	0.18	0.18	0.18	0.18	0.18
13.250	0.17	0.15	0.14	0.14	0.14
13.500	0.14	0.14	0.14	0.14	0.14
13.750	0.14	0.14	0.13	0.10	0.12
14.000	0.14	0.12	0.10	0.10	0.10
14.250	0.12	0.14	0.13	0.10	0.10
14.500	0.10	0.10	0.10	0.10	0.10
14.750	0.10	0.10	0.10	0.10	0.10
15.000	0.10	0.10	0.10	0.10	0.10
15.250	0.08	0.06	0.07	0.09	0.10
15.500	0.10	0.08	0.06	0.07	0.09
15.750	0.10	0.10	0.08	0.06	0.07
16.000	0.10	0.08	0.06	0.07	0.10
16.250	0.08	0.06	0.07	0.10	0.08
16.500	0.06	0.05	0.05	0.07	0.10
16.750	0.08	0.06	0.05	0.05	0.07
17.000	0.10	0.08	0.06	0.05	0.05
17.250	0.07	0.10	0.08	0.06	0.06
17.500	0.05	0.05	0.05	0.07	0.10
17.750	0.09	0.06	0.06	0.05	0.05
18.000	0.05	0.05	0.05	0.05	0.05
18.250	0.07	0.10	0.09	0.06	0.06
18.500	0.05	0.05	0.05	0.05	0.05
18.750	0.05	0.05	0.05	0.05	0.05
19.000	0.05	0.05	0.05	0.05	0.05

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-3B Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
19.250	0.05	0.05	0.05	0.05	0.05
19.500	0.06	0.06	0.06	0.06	0.06
19.750	0.06	0.06	0.06	0.06	0.06
20.000	0.06	0.06	0.06	0.06	0.06
20.250	0.06	0.06	0.06	0.06	0.06
20.500	0.06	0.06	0.06	0.06	0.06
20.750	0.03	0.01	0.02	0.05	0.05
21.000	0.06	0.06	0.06	0.06	0.06
21.250	0.06	0.06	0.06	0.06	0.04
21.500	0.01	0.02	0.05	0.05	0.06
21.750	0.06	0.06	0.06	0.06	0.06
22.000	0.06	0.04	0.01	0.02	0.05
22.250	0.05	0.06	0.06	0.06	0.06
22.500	0.06	0.04	0.01	0.02	0.05
22.750	0.06	0.06	0.06	0.06	0.06
23.000	0.06	0.04	0.01	0.02	0.05
23.250	0.06	0.06	0.06	0.06	0.04
23.500	0.01	0.02	0.05	0.06	0.06
23.750	0.06	0.06	0.04	0.01	0.02
24.000	0.05	0.03	0.01	0.00	0.00

Storm Event	100 Year Storm
Return Event	100 years
Duration	72.000 hours
Depth	10.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	41,320.244 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
7.200	0.00	0.00	0.00	0.00	0.01
7.450	0.01	0.01	0.01	0.01	0.01
7.700	0.01	0.01	0.02	0.02	0.02
7.950	0.02	0.02	0.02	0.02	0.02
8.200	0.02	0.03	0.03	0.03	0.03
8.450	0.03	0.03	0.04	0.04	0.04
8.700	0.04	0.04	0.05	0.05	0.05
8.950	0.05	0.05	0.05	0.06	0.06
9.200	0.06	0.07	0.07	0.07	0.07
9.450	0.08	0.09	0.09	0.08	0.08
9.700	0.08	0.09	0.10	0.11	0.11
9.950	0.11	0.11	0.12	0.12	0.12
10.200	0.12	0.13	0.13	0.14	0.15
10.450	0.16	0.16	0.17	0.17	0.18
10.700	0.20	0.21	0.21	0.22	0.22
10.950	0.24	0.26	0.27	0.27	0.29
11.200	0.31	0.32	0.33	0.36	0.40
11.450	0.43	0.46	0.63	0.84	0.95
11.700	1.03	1.16	1.31	1.54	1.81
11.950	3.35	5.42	4.87	3.46	2.75
12.200	2.20	1.94	1.75	1.64	1.55
12.450	1.46	1.37	1.15	0.90	0.78
12.700	0.71	0.66	0.63	0.62	0.62
12.950	0.60	0.57	0.53	0.50	0.49
13.200	0.49	0.49	0.49	0.47	0.43
13.450	0.43	0.42	0.42	0.43	0.43
13.700	0.43	0.40	0.37	0.36	0.36
13.950	0.36	0.36	0.36	0.36	0.36
14.200	0.36	0.33	0.30	0.32	0.35
14.450	0.33	0.30	0.29	0.29	0.29
14.700	0.29	0.29	0.29	0.29	0.29
14.950	0.29	0.29	0.27	0.23	0.25
15.200	0.28	0.29	0.29	0.27	0.23
15.450	0.25	0.28	0.26	0.23	0.22

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-3B Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
15.700	0.22	0.22	0.22	0.25	0.29
15.950	0.27	0.23	0.23	0.22	0.22
16.200	0.22	0.22	0.22	0.22	0.22
16.450	0.22	0.22	0.22	0.22	0.20
16.700	0.16	0.18	0.21	0.22	0.22
16.950	0.22	0.22	0.20	0.16	0.18
17.200	0.21	0.19	0.16	0.18	0.21
17.450	0.22	0.23	0.20	0.16	0.18
17.700	0.22	0.20	0.16	0.15	0.15
17.950	0.18	0.22	0.20	0.16	0.15
18.200	0.15	0.18	0.22	0.20	0.16
18.450	0.15	0.15	0.18	0.22	0.20
18.700	0.16	0.15	0.15	0.15	0.15
18.950	0.15	0.15	0.15	0.15	0.18
19.200	0.22	0.20	0.16	0.16	0.15
19.450	0.15	0.15	0.15	0.15	0.15
19.700	0.15	0.15	0.15	0.15	0.15
19.950	0.15	0.15	0.15	0.15	0.15
20.200	0.15	0.15	0.15	0.15	0.15
20.450	0.13	0.09	0.11	0.14	0.15
20.700	0.15	0.15	0.15	0.15	0.15
20.950	0.15	0.15	0.13	0.09	0.11
21.200	0.14	0.15	0.15	0.15	0.15
21.450	0.15	0.15	0.13	0.09	0.11
21.700	0.14	0.15	0.15	0.13	0.09
21.950	0.11	0.14	0.15	0.15	0.16
22.200	0.16	0.13	0.09	0.11	0.14
22.450	0.15	0.16	0.13	0.09	0.11
22.700	0.14	0.12	0.09	0.11	0.14
22.950	0.15	0.16	0.13	0.09	0.11
23.200	0.14	0.12	0.09	0.11	0.14
23.450	0.12	0.09	0.11	0.15	0.12
23.700	0.09	0.11	0.15	0.12	0.09
23.950	0.11	0.15	0.10	0.02	0.01
24.200	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Addition Summary
Return Event: 1 years
Label: DP-1
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
	Inf. Basin 1D
	Inf. Bio. Basin 1C
	Inf. Bio. Basin 1B
<Catchment to Outflow Node>	PDA-1A (1)

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)		0.000	0.000	0.00
Flow (From)		0.000	0.000	0.00
Flow (From)		0.000	0.000	0.00
Flow (From)	PDA-1A (1)	5,903.900	12.050	1.51
Flow (In)	DP-1	5,903.900	12.050	1.51

Subsection: Addition Summary
Label: DP-1
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
	Inf. Basin 1D
	Inf. Bio. Basin 1C
	Inf. Bio. Basin 1B
<Catchment to Outflow Node>	PDA-1A (1)

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		0.000	0.000	0.00
Flow (From)		274.172	12.550	0.32
Flow (From)		0.000	0.000	0.00
Flow (From)	PDA-1A (1)	24,740.062	12.000	7.81
Flow (In)	DP-1	25,014.233	12.000	7.81

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
	Inf. Basin 1D
	Inf. Bio. Basin 1C
	Inf. Bio. Basin 1B
<Catchment to Outflow Node>	PDA-1A (1)

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		32,771.550	12.250	11.97
Flow (From)		28,596.631	12.100	17.93
Flow (From)		3,856.289	12.200	2.47
Flow (From)	PDA-1A (1)	77,564.674	12.000	22.90
Flow (In)	DP-1	142,789.144	12.100	45.38

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
	Inf. Basin 2B
<Catchment to Outflow Node>	PDA-2A

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		0.000	0.000	0.00
Flow (From)	PDA-2A	1,351.080	12.100	0.17
Flow (In)	DP-2	1,351.080	12.100	0.17

Subsection: Addition Summary
Label: DP-2
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
	Inf. Basin 2B
<Catchment to Outflow Node>	PDA-2A

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		0.000	0.000	0.00
Flow (From)	PDA-2A	7,358.496	12.000	2.13
Flow (In)	DP-2	7,358.496	12.000	2.13

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
	Inf. Basin 2B
<Catchment to Outflow Node>	PDA-2A

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		63,271.644	12.250	16.54
Flow (From)	PDA-2A	26,062.650	12.000	7.62
Flow (In)	DP-2	89,334.294	12.200	19.33

Summary for Hydrograph Addition at 'DP-3'

Upstream Link	Upstream Node
	Inf. Basin 3A
<Catchment to Outflow Node>	PDA-3B

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		0.000	0.000	0.00
Flow (From)	PDA-3B	961.752	12.100	0.12
Flow (In)	DP-3	961.752	12.100	0.12

Subsection: Addition Summary
Label: DP-3
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Summary for Hydrograph Addition at 'DP-3'

Upstream Link	Upstream Node
	Inf. Basin 3A
<Catchment to Outflow Node>	PDA-3B

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		0.000	0.000	0.00
Flow (From)	PDA-3B	5,238.068	12.000	1.51
Flow (In)	DP-3	5,238.068	12.000	1.51

Summary for Hydrograph Addition at 'DP-3'

Upstream Link	Upstream Node
	Inf. Basin 3A
<Catchment to Outflow Node>	PDA-3B

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		17,323.655	12.450	6.99
Flow (From)	PDA-3B	18,552.423	12.000	5.42
Flow (In)	DP-3	35,876.079	12.400	8.47

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Basin 1D (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	440.00	440.00	440.00	440.00	440.00
0.250	440.00	440.00	440.00	440.00	440.00
0.500	440.00	440.00	440.00	440.00	440.00
0.750	440.00	440.00	440.00	440.00	440.00
1.000	440.00	440.00	440.00	440.00	440.00
1.250	440.00	440.00	440.00	440.00	440.00
1.500	440.00	440.00	440.00	440.00	440.00
1.750	440.00	440.00	440.00	440.00	440.00
2.000	440.00	440.00	440.00	440.00	440.00
2.250	440.00	440.00	440.00	440.00	440.00
2.500	440.00	440.00	440.00	440.00	440.00
2.750	440.00	440.00	440.00	440.00	440.00
3.000	440.00	440.00	440.00	440.00	440.00
3.250	440.00	440.00	440.00	440.00	440.00
3.500	440.00	440.00	440.00	440.00	440.00
3.750	440.00	440.00	440.00	440.00	440.00
4.000	440.00	440.00	440.00	440.00	440.00
4.250	440.00	440.00	440.00	440.00	440.00
4.500	440.00	440.00	440.00	440.00	440.00
4.750	440.00	440.00	440.00	440.00	440.00
5.000	440.00	440.00	440.00	440.00	440.00
5.250	440.00	440.00	440.00	440.00	440.00
5.500	440.00	440.00	440.00	440.00	440.00
5.750	440.00	440.00	440.00	440.00	440.00
6.000	440.00	440.00	440.00	440.00	440.00
6.250	440.00	440.00	440.00	440.00	440.00
6.500	440.00	440.00	440.00	440.00	440.00
6.750	440.00	440.00	440.00	440.00	440.00
7.000	440.00	440.00	440.00	440.00	440.00
7.250	440.00	440.00	440.00	440.00	440.00
7.500	440.00	440.00	440.00	440.00	440.00
7.750	440.00	440.00	440.00	440.00	440.00
8.000	440.00	440.00	440.00	440.00	440.00
8.250	440.00	440.00	440.00	440.00	440.00
8.500	440.00	440.00	440.00	440.00	440.00
8.750	440.00	440.00	440.00	440.00	440.00
9.000	440.00	440.00	440.00	440.00	440.00
9.250	440.00	440.00	440.00	440.00	440.00
9.500	440.00	440.00	440.00	440.00	440.00
9.750	440.00	440.00	440.00	440.00	440.00
10.000	440.00	440.00	440.00	440.00	440.00
10.250	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Basin 1D (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	440.00	440.00	440.00	440.00	440.00
10.750	440.00	440.00	440.00	440.00	440.00
11.000	440.00	440.00	440.00	440.00	440.00
11.250	440.00	440.01	440.01	440.01	440.01
11.500	440.01	440.01	440.01	440.01	440.02
11.750	440.02	440.02	440.03	440.03	440.05
12.000	440.12	440.21	440.27	440.30	440.32
12.250	440.32	440.32	440.32	440.31	440.30
12.500	440.30	440.29	440.27	440.25	440.23
12.750	440.21	440.18	440.16	440.13	440.10
13.000	440.08	440.05	440.03	440.02	440.02
13.250	440.02	440.02	440.02	440.01	440.01
13.500	440.01	440.01	440.01	440.01	440.01
13.750	440.01	440.01	440.01	440.01	440.01
14.000	440.01	440.01	440.01	440.01	440.01
14.250	440.01	440.01	440.01	440.01	440.01
14.500	440.01	440.01	440.01	440.01	440.01
14.750	440.01	440.01	440.01	440.01	440.01
15.000	440.01	440.01	440.01	440.01	440.01
15.250	440.01	440.01	440.01	440.01	440.01
15.500	440.01	440.01	440.00	440.00	440.00
15.750	440.01	440.01	440.01	440.01	440.01
16.000	440.01	440.01	440.00	440.00	440.00
16.250	440.01	440.01	440.01	440.01	440.01
16.500	440.00	440.00	440.00	440.01	440.01
16.750	440.01	440.00	440.00	440.00	440.01
17.000	440.01	440.01	440.00	440.00	440.00
17.250	440.01	440.01	440.01	440.00	440.00
17.500	440.00	440.01	440.01	440.01	440.00
17.750	440.00	440.00	440.01	440.00	440.00
18.000	440.00	440.01	440.01	440.01	440.00
18.250	440.00	440.00	440.01	440.00	440.00
18.500	440.00	440.01	440.00	440.00	440.00
18.750	440.01	440.00	440.00	440.00	440.01
19.000	440.01	440.01	440.00	440.00	440.00
19.250	440.01	440.00	440.00	440.00	440.01
19.500	440.00	440.00	440.00	440.01	440.00
19.750	440.00	440.00	440.01	440.00	440.00
20.000	440.00	440.01	440.00	440.00	440.00
20.250	440.00	440.00	440.00	440.00	440.00
20.500	440.00	440.01	440.00	440.00	440.00
20.750	440.01	440.00	440.00	440.00	440.01

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 1D (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	440.00	440.00	440.00	440.01	440.00
21.250	440.00	440.00	440.00	440.00	440.00
21.500	440.00	440.00	440.00	440.01	440.00
21.750	440.00	440.00	440.01	440.00	440.00
22.000	440.00	440.00	440.00	440.00	440.00
22.250	440.00	440.00	440.01	440.00	440.00
22.500	440.00	440.00	440.00	440.00	440.00
22.750	440.00	440.00	440.01	440.00	440.00
23.000	440.00	440.00	440.00	440.00	440.00
23.250	440.00	440.00	440.00	440.00	440.00
23.500	440.00	440.00	440.00	440.01	440.00
23.750	440.00	440.00	440.00	440.00	440.00
24.000	440.00	440.00	440.00	440.00	440.00
24.250	440.00	440.00	440.00	440.00	440.00
24.500	440.00	440.00	440.00	440.00	440.00
24.750	440.00	440.00	440.00	440.00	440.00
25.000	440.00	440.00	440.00	440.00	440.00
25.250	440.00	440.00	440.00	440.00	440.00
25.500	440.00	440.00	440.00	440.00	440.00
25.750	440.00	440.00	440.00	440.00	440.00
26.000	440.00	440.00	440.00	440.00	440.00
26.250	440.00	440.00	440.00	440.00	440.00
26.500	440.00	440.00	440.00	440.00	440.00
26.750	440.00	440.00	440.00	440.00	440.00
27.000	440.00	440.00	440.00	440.00	440.00
27.250	440.00	440.00	440.00	440.00	440.00
27.500	440.00	440.00	440.00	440.00	440.00
27.750	440.00	440.00	440.00	440.00	440.00
28.000	440.00	440.00	440.00	440.00	440.00
28.250	440.00	440.00	440.00	440.00	440.00
28.500	440.00	440.00	440.00	440.00	440.00
28.750	440.00	440.00	440.00	440.00	440.00
29.000	440.00	440.00	440.00	440.00	440.00
29.250	440.00	440.00	440.00	440.00	440.00
29.500	440.00	440.00	440.00	440.00	440.00
29.750	440.00	440.00	440.00	440.00	440.00
30.000	440.00	440.00	440.00	440.00	440.00
30.250	440.00	440.00	440.00	440.00	440.00
30.500	440.00	440.00	440.00	440.00	440.00
30.750	440.00	440.00	440.00	440.00	440.00
31.000	440.00	440.00	440.00	440.00	440.00
31.250	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Basin 1D (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	440.00	440.00	440.00	440.00	440.00
31.750	440.00	440.00	440.00	440.00	440.00
32.000	440.00	440.00	440.00	440.00	440.00
32.250	440.00	440.00	440.00	440.00	440.00
32.500	440.00	440.00	440.00	440.00	440.00
32.750	440.00	440.00	440.00	440.00	440.00
33.000	440.00	440.00	440.00	440.00	440.00
33.250	440.00	440.00	440.00	440.00	440.00
33.500	440.00	440.00	440.00	440.00	440.00
33.750	440.00	440.00	440.00	440.00	440.00
34.000	440.00	440.00	440.00	440.00	440.00
34.250	440.00	440.00	440.00	440.00	440.00
34.500	440.00	440.00	440.00	440.00	440.00
34.750	440.00	440.00	440.00	440.00	440.00
35.000	440.00	440.00	440.00	440.00	440.00
35.250	440.00	440.00	440.00	440.00	440.00
35.500	440.00	440.00	440.00	440.00	440.00
35.750	440.00	440.00	440.00	440.00	440.00
36.000	440.00	440.00	440.00	440.00	440.00
36.250	440.00	440.00	440.00	440.00	440.00
36.500	440.00	440.00	440.00	440.00	440.00
36.750	440.00	440.00	440.00	440.00	440.00
37.000	440.00	440.00	440.00	440.00	440.00
37.250	440.00	440.00	440.00	440.00	440.00
37.500	440.00	440.00	440.00	440.00	440.00
37.750	440.00	440.00	440.00	440.00	440.00
38.000	440.00	440.00	440.00	440.00	440.00
38.250	440.00	440.00	440.00	440.00	440.00
38.500	440.00	440.00	440.00	440.00	440.00
38.750	440.00	440.00	440.00	440.00	440.00
39.000	440.00	440.00	440.00	440.00	440.00
39.250	440.00	440.00	440.00	440.00	440.00
39.500	440.00	440.00	440.00	440.00	440.00
39.750	440.00	440.00	440.00	440.00	440.00
40.000	440.00	440.00	440.00	440.00	440.00
40.250	440.00	440.00	440.00	440.00	440.00
40.500	440.00	440.00	440.00	440.00	440.00
40.750	440.00	440.00	440.00	440.00	440.00
41.000	440.00	440.00	440.00	440.00	440.00
41.250	440.00	440.00	440.00	440.00	440.00
41.500	440.00	440.00	440.00	440.00	440.00
41.750	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Basin 1D (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	440.00	440.00	440.00	440.00	440.00
42.250	440.00	440.00	440.00	440.00	440.00
42.500	440.00	440.00	440.00	440.00	440.00
42.750	440.00	440.00	440.00	440.00	440.00
43.000	440.00	440.00	440.00	440.00	440.00
43.250	440.00	440.00	440.00	440.00	440.00
43.500	440.00	440.00	440.00	440.00	440.00
43.750	440.00	440.00	440.00	440.00	440.00
44.000	440.00	440.00	440.00	440.00	440.00
44.250	440.00	440.00	440.00	440.00	440.00
44.500	440.00	440.00	440.00	440.00	440.00
44.750	440.00	440.00	440.00	440.00	440.00
45.000	440.00	440.00	440.00	440.00	440.00
45.250	440.00	440.00	440.00	440.00	440.00
45.500	440.00	440.00	440.00	440.00	440.00
45.750	440.00	440.00	440.00	440.00	440.00
46.000	440.00	440.00	440.00	440.00	440.00
46.250	440.00	440.00	440.00	440.00	440.00
46.500	440.00	440.00	440.00	440.00	440.00
46.750	440.00	440.00	440.00	440.00	440.00
47.000	440.00	440.00	440.00	440.00	440.00
47.250	440.00	440.00	440.00	440.00	440.00
47.500	440.00	440.00	440.00	440.00	440.00
47.750	440.00	440.00	440.00	440.00	440.00
48.000	440.00	440.00	440.00	440.00	440.00
48.250	440.00	440.00	440.00	440.00	440.00
48.500	440.00	440.00	440.00	440.00	440.00
48.750	440.00	440.00	440.00	440.00	440.00
49.000	440.00	440.00	440.00	440.00	440.00
49.250	440.00	440.00	440.00	440.00	440.00
49.500	440.00	440.00	440.00	440.00	440.00
49.750	440.00	440.00	440.00	440.00	440.00
50.000	440.00	440.00	440.00	440.00	440.00
50.250	440.00	440.00	440.00	440.00	440.00
50.500	440.00	440.00	440.00	440.00	440.00
50.750	440.00	440.00	440.00	440.00	440.00
51.000	440.00	440.00	440.00	440.00	440.00
51.250	440.00	440.00	440.00	440.00	440.00
51.500	440.00	440.00	440.00	440.00	440.00
51.750	440.00	440.00	440.00	440.00	440.00
52.000	440.00	440.00	440.00	440.00	440.00
52.250	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 1D (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	440.00	440.00	440.00	440.00	440.00
52.750	440.00	440.00	440.00	440.00	440.00
53.000	440.00	440.00	440.00	440.00	440.00
53.250	440.00	440.00	440.00	440.00	440.00
53.500	440.00	440.00	440.00	440.00	440.00
53.750	440.00	440.00	440.00	440.00	440.00
54.000	440.00	440.00	440.00	440.00	440.00
54.250	440.00	440.00	440.00	440.00	440.00
54.500	440.00	440.00	440.00	440.00	440.00
54.750	440.00	440.00	440.00	440.00	440.00
55.000	440.00	440.00	440.00	440.00	440.00
55.250	440.00	440.00	440.00	440.00	440.00
55.500	440.00	440.00	440.00	440.00	440.00
55.750	440.00	440.00	440.00	440.00	440.00
56.000	440.00	440.00	440.00	440.00	440.00
56.250	440.00	440.00	440.00	440.00	440.00
56.500	440.00	440.00	440.00	440.00	440.00
56.750	440.00	440.00	440.00	440.00	440.00
57.000	440.00	440.00	440.00	440.00	440.00
57.250	440.00	440.00	440.00	440.00	440.00
57.500	440.00	440.00	440.00	440.00	440.00
57.750	440.00	440.00	440.00	440.00	440.00
58.000	440.00	440.00	440.00	440.00	440.00
58.250	440.00	440.00	440.00	440.00	440.00
58.500	440.00	440.00	440.00	440.00	440.00
58.750	440.00	440.00	440.00	440.00	440.00
59.000	440.00	440.00	440.00	440.00	440.00
59.250	440.00	440.00	440.00	440.00	440.00
59.500	440.00	440.00	440.00	440.00	440.00
59.750	440.00	440.00	440.00	440.00	440.00
60.000	440.00	440.00	440.00	440.00	440.00
60.250	440.00	440.00	440.00	440.00	440.00
60.500	440.00	440.00	440.00	440.00	440.00
60.750	440.00	440.00	440.00	440.00	440.00
61.000	440.00	440.00	440.00	440.00	440.00
61.250	440.00	440.00	440.00	440.00	440.00
61.500	440.00	440.00	440.00	440.00	440.00
61.750	440.00	440.00	440.00	440.00	440.00
62.000	440.00	440.00	440.00	440.00	440.00
62.250	440.00	440.00	440.00	440.00	440.00
62.500	440.00	440.00	440.00	440.00	440.00
62.750	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 1D (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	440.00	440.00	440.00	440.00	440.00
63.250	440.00	440.00	440.00	440.00	440.00
63.500	440.00	440.00	440.00	440.00	440.00
63.750	440.00	440.00	440.00	440.00	440.00
64.000	440.00	440.00	440.00	440.00	440.00
64.250	440.00	440.00	440.00	440.00	440.00
64.500	440.00	440.00	440.00	440.00	440.00
64.750	440.00	440.00	440.00	440.00	440.00
65.000	440.00	440.00	440.00	440.00	440.00
65.250	440.00	440.00	440.00	440.00	440.00
65.500	440.00	440.00	440.00	440.00	440.00
65.750	440.00	440.00	440.00	440.00	440.00
66.000	440.00	440.00	440.00	440.00	440.00
66.250	440.00	440.00	440.00	440.00	440.00
66.500	440.00	440.00	440.00	440.00	440.00
66.750	440.00	440.00	440.00	440.00	440.00
67.000	440.00	440.00	440.00	440.00	440.00
67.250	440.00	440.00	440.00	440.00	440.00
67.500	440.00	440.00	440.00	440.00	440.00
67.750	440.00	440.00	440.00	440.00	440.00
68.000	440.00	440.00	440.00	440.00	440.00
68.250	440.00	440.00	440.00	440.00	440.00
68.500	440.00	440.00	440.00	440.00	440.00
68.750	440.00	440.00	440.00	440.00	440.00
69.000	440.00	440.00	440.00	440.00	440.00
69.250	440.00	440.00	440.00	440.00	440.00
69.500	440.00	440.00	440.00	440.00	440.00
69.750	440.00	440.00	440.00	440.00	440.00
70.000	440.00	440.00	440.00	440.00	440.00
70.250	440.00	440.00	440.00	440.00	440.00
70.500	440.00	440.00	440.00	440.00	440.00
70.750	440.00	440.00	440.00	440.00	440.00
71.000	440.00	440.00	440.00	440.00	440.00
71.250	440.00	440.00	440.00	440.00	440.00
71.500	440.00	440.00	440.00	440.00	440.00
71.750	440.00	440.00	440.00	440.00	440.00
72.000	440.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Inf. Basin 1D (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	440.00	440.00	440.00	440.00	440.00
0.250	440.00	440.00	440.00	440.00	440.00
0.500	440.00	440.00	440.00	440.00	440.00
0.750	440.00	440.00	440.00	440.00	440.00
1.000	440.00	440.00	440.00	440.00	440.00
1.250	440.00	440.00	440.00	440.00	440.00
1.500	440.00	440.00	440.00	440.00	440.00
1.750	440.00	440.00	440.00	440.00	440.00
2.000	440.00	440.00	440.00	440.00	440.00
2.250	440.00	440.00	440.00	440.00	440.00
2.500	440.00	440.00	440.00	440.00	440.00
2.750	440.00	440.00	440.00	440.00	440.00
3.000	440.00	440.00	440.00	440.00	440.00
3.250	440.00	440.00	440.00	440.00	440.00
3.500	440.00	440.00	440.00	440.00	440.00
3.750	440.00	440.00	440.00	440.00	440.00
4.000	440.00	440.00	440.00	440.00	440.00
4.250	440.00	440.00	440.00	440.00	440.00
4.500	440.00	440.00	440.00	440.00	440.00
4.750	440.00	440.00	440.00	440.00	440.00
5.000	440.00	440.00	440.00	440.00	440.00
5.250	440.00	440.00	440.00	440.00	440.00
5.500	440.00	440.00	440.00	440.00	440.00
5.750	440.00	440.00	440.00	440.00	440.00
6.000	440.00	440.00	440.00	440.00	440.00
6.250	440.00	440.00	440.00	440.00	440.00
6.500	440.00	440.00	440.00	440.00	440.00
6.750	440.00	440.00	440.00	440.00	440.00
7.000	440.00	440.00	440.00	440.00	440.00
7.250	440.00	440.00	440.00	440.00	440.00
7.500	440.00	440.00	440.00	440.00	440.00
7.750	440.00	440.00	440.00	440.00	440.00
8.000	440.00	440.00	440.00	440.00	440.00
8.250	440.00	440.00	440.00	440.00	440.00
8.500	440.00	440.00	440.01	440.00	440.00
8.750	440.00	440.00	440.00	440.01	440.01
9.000	440.01	440.01	440.01	440.01	440.01
9.250	440.01	440.01	440.01	440.01	440.01
9.500	440.01	440.01	440.01	440.01	440.01
9.750	440.01	440.01	440.01	440.01	440.01
10.000	440.01	440.01	440.01	440.01	440.01
10.250	440.01	440.01	440.01	440.01	440.01

Subsection: Time vs. Elevation
Label: Inf. Basin 1D (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	440.01	440.01	440.01	440.01	440.01
10.750	440.02	440.02	440.02	440.02	440.02
11.000	440.02	440.02	440.02	440.02	440.02
11.250	440.03	440.03	440.03	440.03	440.03
11.500	440.03	440.04	440.05	440.06	440.08
11.750	440.11	440.15	440.19	440.25	440.36
12.000	440.57	440.83	441.01	441.12	441.20
12.250	441.26	441.31	441.34	441.38	441.41
12.500	441.43	441.45	441.45	441.45	441.45
12.750	441.44	441.43	441.42	441.41	441.40
13.000	441.38	441.37	441.36	441.34	441.33
13.250	441.32	441.30	441.28	441.26	441.25
13.500	441.23	441.21	441.19	441.17	441.15
13.750	441.14	441.12	441.10	441.08	441.05
14.000	441.03	441.01	440.99	440.97	440.94
14.250	440.92	440.90	440.88	440.86	440.84
14.500	440.81	440.79	440.77	440.74	440.72
14.750	440.70	440.67	440.65	440.63	440.60
15.000	440.58	440.56	440.53	440.51	440.49
15.250	440.46	440.44	440.41	440.38	440.36
15.500	440.34	440.31	440.29	440.26	440.24
15.750	440.21	440.19	440.17	440.14	440.11
16.000	440.09	440.06	440.04	440.03	440.02
16.250	440.02	440.02	440.01	440.02	440.02
16.500	440.01	440.01	440.01	440.01	440.01
16.750	440.02	440.01	440.01	440.01	440.01
17.000	440.01	440.02	440.01	440.01	440.01
17.250	440.01	440.01	440.02	440.01	440.01
17.500	440.01	440.01	440.01	440.01	440.01
17.750	440.02	440.01	440.01	440.01	440.01
18.000	440.01	440.01	440.01	440.01	440.01
18.250	440.01	440.01	440.02	440.01	440.01
18.500	440.01	440.01	440.01	440.01	440.01
18.750	440.01	440.01	440.01	440.01	440.01
19.000	440.01	440.01	440.01	440.01	440.01
19.250	440.01	440.01	440.01	440.01	440.01
19.500	440.01	440.01	440.01	440.01	440.01
19.750	440.01	440.01	440.01	440.01	440.01
20.000	440.01	440.01	440.01	440.01	440.01
20.250	440.01	440.01	440.01	440.01	440.01
20.500	440.01	440.01	440.01	440.01	440.01
20.750	440.01	440.01	440.00	440.01	440.01

Subsection: Time vs. Elevation
Label: Inf. Basin 1D (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	440.01	440.01	440.01	440.01	440.01
21.250	440.01	440.01	440.01	440.01	440.01
21.500	440.01	440.00	440.01	440.01	440.01
21.750	440.01	440.01	440.01	440.01	440.01
22.000	440.01	440.01	440.01	440.00	440.01
22.250	440.01	440.01	440.01	440.01	440.01
22.500	440.01	440.01	440.01	440.00	440.01
22.750	440.01	440.01	440.01	440.01	440.01
23.000	440.01	440.01	440.01	440.00	440.01
23.250	440.01	440.01	440.01	440.01	440.01
23.500	440.01	440.00	440.01	440.01	440.01
23.750	440.01	440.01	440.01	440.01	440.00
24.000	440.01	440.01	440.01	440.00	440.00
24.250	440.00	440.00	440.00	440.00	440.00
24.500	440.00	440.00	440.00	440.00	440.00
24.750	440.00	440.00	440.00	440.00	440.00
25.000	440.00	440.00	440.00	440.00	440.00
25.250	440.00	440.00	440.00	440.00	440.00
25.500	440.00	440.00	440.00	440.00	440.00
25.750	440.00	440.00	440.00	440.00	440.00
26.000	440.00	440.00	440.00	440.00	440.00
26.250	440.00	440.00	440.00	440.00	440.00
26.500	440.00	440.00	440.00	440.00	440.00
26.750	440.00	440.00	440.00	440.00	440.00
27.000	440.00	440.00	440.00	440.00	440.00
27.250	440.00	440.00	440.00	440.00	440.00
27.500	440.00	440.00	440.00	440.00	440.00
27.750	440.00	440.00	440.00	440.00	440.00
28.000	440.00	440.00	440.00	440.00	440.00
28.250	440.00	440.00	440.00	440.00	440.00
28.500	440.00	440.00	440.00	440.00	440.00
28.750	440.00	440.00	440.00	440.00	440.00
29.000	440.00	440.00	440.00	440.00	440.00
29.250	440.00	440.00	440.00	440.00	440.00
29.500	440.00	440.00	440.00	440.00	440.00
29.750	440.00	440.00	440.00	440.00	440.00
30.000	440.00	440.00	440.00	440.00	440.00
30.250	440.00	440.00	440.00	440.00	440.00
30.500	440.00	440.00	440.00	440.00	440.00
30.750	440.00	440.00	440.00	440.00	440.00
31.000	440.00	440.00	440.00	440.00	440.00
31.250	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Label: Inf. Basin 1D (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	440.00	440.00	440.00	440.00	440.00
31.750	440.00	440.00	440.00	440.00	440.00
32.000	440.00	440.00	440.00	440.00	440.00
32.250	440.00	440.00	440.00	440.00	440.00
32.500	440.00	440.00	440.00	440.00	440.00
32.750	440.00	440.00	440.00	440.00	440.00
33.000	440.00	440.00	440.00	440.00	440.00
33.250	440.00	440.00	440.00	440.00	440.00
33.500	440.00	440.00	440.00	440.00	440.00
33.750	440.00	440.00	440.00	440.00	440.00
34.000	440.00	440.00	440.00	440.00	440.00
34.250	440.00	440.00	440.00	440.00	440.00
34.500	440.00	440.00	440.00	440.00	440.00
34.750	440.00	440.00	440.00	440.00	440.00
35.000	440.00	440.00	440.00	440.00	440.00
35.250	440.00	440.00	440.00	440.00	440.00
35.500	440.00	440.00	440.00	440.00	440.00
35.750	440.00	440.00	440.00	440.00	440.00
36.000	440.00	440.00	440.00	440.00	440.00
36.250	440.00	440.00	440.00	440.00	440.00
36.500	440.00	440.00	440.00	440.00	440.00
36.750	440.00	440.00	440.00	440.00	440.00
37.000	440.00	440.00	440.00	440.00	440.00
37.250	440.00	440.00	440.00	440.00	440.00
37.500	440.00	440.00	440.00	440.00	440.00
37.750	440.00	440.00	440.00	440.00	440.00
38.000	440.00	440.00	440.00	440.00	440.00
38.250	440.00	440.00	440.00	440.00	440.00
38.500	440.00	440.00	440.00	440.00	440.00
38.750	440.00	440.00	440.00	440.00	440.00
39.000	440.00	440.00	440.00	440.00	440.00
39.250	440.00	440.00	440.00	440.00	440.00
39.500	440.00	440.00	440.00	440.00	440.00
39.750	440.00	440.00	440.00	440.00	440.00
40.000	440.00	440.00	440.00	440.00	440.00
40.250	440.00	440.00	440.00	440.00	440.00
40.500	440.00	440.00	440.00	440.00	440.00
40.750	440.00	440.00	440.00	440.00	440.00
41.000	440.00	440.00	440.00	440.00	440.00
41.250	440.00	440.00	440.00	440.00	440.00
41.500	440.00	440.00	440.00	440.00	440.00
41.750	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Label: Inf. Basin 1D (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	440.00	440.00	440.00	440.00	440.00
42.250	440.00	440.00	440.00	440.00	440.00
42.500	440.00	440.00	440.00	440.00	440.00
42.750	440.00	440.00	440.00	440.00	440.00
43.000	440.00	440.00	440.00	440.00	440.00
43.250	440.00	440.00	440.00	440.00	440.00
43.500	440.00	440.00	440.00	440.00	440.00
43.750	440.00	440.00	440.00	440.00	440.00
44.000	440.00	440.00	440.00	440.00	440.00
44.250	440.00	440.00	440.00	440.00	440.00
44.500	440.00	440.00	440.00	440.00	440.00
44.750	440.00	440.00	440.00	440.00	440.00
45.000	440.00	440.00	440.00	440.00	440.00
45.250	440.00	440.00	440.00	440.00	440.00
45.500	440.00	440.00	440.00	440.00	440.00
45.750	440.00	440.00	440.00	440.00	440.00
46.000	440.00	440.00	440.00	440.00	440.00
46.250	440.00	440.00	440.00	440.00	440.00
46.500	440.00	440.00	440.00	440.00	440.00
46.750	440.00	440.00	440.00	440.00	440.00
47.000	440.00	440.00	440.00	440.00	440.00
47.250	440.00	440.00	440.00	440.00	440.00
47.500	440.00	440.00	440.00	440.00	440.00
47.750	440.00	440.00	440.00	440.00	440.00
48.000	440.00	440.00	440.00	440.00	440.00
48.250	440.00	440.00	440.00	440.00	440.00
48.500	440.00	440.00	440.00	440.00	440.00
48.750	440.00	440.00	440.00	440.00	440.00
49.000	440.00	440.00	440.00	440.00	440.00
49.250	440.00	440.00	440.00	440.00	440.00
49.500	440.00	440.00	440.00	440.00	440.00
49.750	440.00	440.00	440.00	440.00	440.00
50.000	440.00	440.00	440.00	440.00	440.00
50.250	440.00	440.00	440.00	440.00	440.00
50.500	440.00	440.00	440.00	440.00	440.00
50.750	440.00	440.00	440.00	440.00	440.00
51.000	440.00	440.00	440.00	440.00	440.00
51.250	440.00	440.00	440.00	440.00	440.00
51.500	440.00	440.00	440.00	440.00	440.00
51.750	440.00	440.00	440.00	440.00	440.00
52.000	440.00	440.00	440.00	440.00	440.00
52.250	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Label: Inf. Basin 1D (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	440.00	440.00	440.00	440.00	440.00
52.750	440.00	440.00	440.00	440.00	440.00
53.000	440.00	440.00	440.00	440.00	440.00
53.250	440.00	440.00	440.00	440.00	440.00
53.500	440.00	440.00	440.00	440.00	440.00
53.750	440.00	440.00	440.00	440.00	440.00
54.000	440.00	440.00	440.00	440.00	440.00
54.250	440.00	440.00	440.00	440.00	440.00
54.500	440.00	440.00	440.00	440.00	440.00
54.750	440.00	440.00	440.00	440.00	440.00
55.000	440.00	440.00	440.00	440.00	440.00
55.250	440.00	440.00	440.00	440.00	440.00
55.500	440.00	440.00	440.00	440.00	440.00
55.750	440.00	440.00	440.00	440.00	440.00
56.000	440.00	440.00	440.00	440.00	440.00
56.250	440.00	440.00	440.00	440.00	440.00
56.500	440.00	440.00	440.00	440.00	440.00
56.750	440.00	440.00	440.00	440.00	440.00
57.000	440.00	440.00	440.00	440.00	440.00
57.250	440.00	440.00	440.00	440.00	440.00
57.500	440.00	440.00	440.00	440.00	440.00
57.750	440.00	440.00	440.00	440.00	440.00
58.000	440.00	440.00	440.00	440.00	440.00
58.250	440.00	440.00	440.00	440.00	440.00
58.500	440.00	440.00	440.00	440.00	440.00
58.750	440.00	440.00	440.00	440.00	440.00
59.000	440.00	440.00	440.00	440.00	440.00
59.250	440.00	440.00	440.00	440.00	440.00
59.500	440.00	440.00	440.00	440.00	440.00
59.750	440.00	440.00	440.00	440.00	440.00
60.000	440.00	440.00	440.00	440.00	440.00
60.250	440.00	440.00	440.00	440.00	440.00
60.500	440.00	440.00	440.00	440.00	440.00
60.750	440.00	440.00	440.00	440.00	440.00
61.000	440.00	440.00	440.00	440.00	440.00
61.250	440.00	440.00	440.00	440.00	440.00
61.500	440.00	440.00	440.00	440.00	440.00
61.750	440.00	440.00	440.00	440.00	440.00
62.000	440.00	440.00	440.00	440.00	440.00
62.250	440.00	440.00	440.00	440.00	440.00
62.500	440.00	440.00	440.00	440.00	440.00
62.750	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Label: Inf. Basin 1D (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	440.00	440.00	440.00	440.00	440.00
63.250	440.00	440.00	440.00	440.00	440.00
63.500	440.00	440.00	440.00	440.00	440.00
63.750	440.00	440.00	440.00	440.00	440.00
64.000	440.00	440.00	440.00	440.00	440.00
64.250	440.00	440.00	440.00	440.00	440.00
64.500	440.00	440.00	440.00	440.00	440.00
64.750	440.00	440.00	440.00	440.00	440.00
65.000	440.00	440.00	440.00	440.00	440.00
65.250	440.00	440.00	440.00	440.00	440.00
65.500	440.00	440.00	440.00	440.00	440.00
65.750	440.00	440.00	440.00	440.00	440.00
66.000	440.00	440.00	440.00	440.00	440.00
66.250	440.00	440.00	440.00	440.00	440.00
66.500	440.00	440.00	440.00	440.00	440.00
66.750	440.00	440.00	440.00	440.00	440.00
67.000	440.00	440.00	440.00	440.00	440.00
67.250	440.00	440.00	440.00	440.00	440.00
67.500	440.00	440.00	440.00	440.00	440.00
67.750	440.00	440.00	440.00	440.00	440.00
68.000	440.00	440.00	440.00	440.00	440.00
68.250	440.00	440.00	440.00	440.00	440.00
68.500	440.00	440.00	440.00	440.00	440.00
68.750	440.00	440.00	440.00	440.00	440.00
69.000	440.00	440.00	440.00	440.00	440.00
69.250	440.00	440.00	440.00	440.00	440.00
69.500	440.00	440.00	440.00	440.00	440.00
69.750	440.00	440.00	440.00	440.00	440.00
70.000	440.00	440.00	440.00	440.00	440.00
70.250	440.00	440.00	440.00	440.00	440.00
70.500	440.00	440.00	440.00	440.00	440.00
70.750	440.00	440.00	440.00	440.00	440.00
71.000	440.00	440.00	440.00	440.00	440.00
71.250	440.00	440.00	440.00	440.00	440.00
71.500	440.00	440.00	440.00	440.00	440.00
71.750	440.00	440.00	440.00	440.00	440.00
72.000	440.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 1D (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	440.00	440.00	440.00	440.00	440.00
0.250	440.00	440.00	440.00	440.00	440.00
0.500	440.00	440.00	440.00	440.00	440.00
0.750	440.00	440.00	440.00	440.00	440.00
1.000	440.00	440.00	440.00	440.00	440.00
1.250	440.00	440.00	440.00	440.00	440.00
1.500	440.00	440.00	440.00	440.00	440.00
1.750	440.00	440.00	440.00	440.00	440.00
2.000	440.00	440.00	440.00	440.00	440.00
2.250	440.00	440.00	440.00	440.00	440.00
2.500	440.00	440.00	440.00	440.00	440.00
2.750	440.00	440.00	440.00	440.00	440.00
3.000	440.00	440.00	440.00	440.00	440.00
3.250	440.00	440.00	440.00	440.00	440.00
3.500	440.00	440.00	440.00	440.00	440.00
3.750	440.00	440.00	440.00	440.00	440.00
4.000	440.00	440.00	440.00	440.00	440.00
4.250	440.00	440.00	440.00	440.00	440.00
4.500	440.00	440.00	440.00	440.01	440.01
4.750	440.00	440.00	440.00	440.00	440.00
5.000	440.00	440.01	440.01	440.01	440.01
5.250	440.01	440.01	440.01	440.01	440.01
5.500	440.01	440.01	440.01	440.01	440.01
5.750	440.01	440.01	440.01	440.01	440.01
6.000	440.01	440.01	440.01	440.01	440.01
6.250	440.01	440.01	440.01	440.01	440.01
6.500	440.01	440.01	440.01	440.01	440.01
6.750	440.01	440.01	440.01	440.01	440.01
7.000	440.01	440.01	440.01	440.01	440.01
7.250	440.01	440.01	440.01	440.01	440.02
7.500	440.02	440.02	440.02	440.02	440.02
7.750	440.02	440.02	440.02	440.02	440.02
8.000	440.02	440.02	440.02	440.02	440.02
8.250	440.02	440.02	440.02	440.02	440.02
8.500	440.02	440.02	440.02	440.02	440.02
8.750	440.02	440.02	440.02	440.03	440.03
9.000	440.02	440.02	440.02	440.03	440.03
9.250	440.03	440.03	440.03	440.03	440.03
9.500	440.03	440.03	440.03	440.03	440.03
9.750	440.03	440.03	440.04	440.04	440.04
10.000	440.04	440.04	440.04	440.04	440.04
10.250	440.04	440.04	440.04	440.04	440.05

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 1D (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	440.05	440.05	440.05	440.05	440.05
10.750	440.06	440.07	440.07	440.08	440.09
11.000	440.10	440.11	440.12	440.14	440.16
11.250	440.18	440.20	440.22	440.25	440.28
11.500	440.32	440.37	440.45	440.55	440.66
11.750	440.78	440.91	441.06	441.23	441.50
12.000	441.94	442.38	442.63	442.74	442.78
12.250	442.79	442.78	442.75	442.71	442.66
12.500	442.61	442.56	442.50	442.45	442.39
12.750	442.35	442.32	442.29	442.26	442.24
13.000	442.22	442.20	442.19	442.17	442.16
13.250	442.14	442.14	442.13	442.12	442.11
13.500	442.10	442.09	442.08	442.07	442.07
13.750	442.06	442.05	442.05	442.04	442.03
14.000	442.02	442.01	442.01	442.00	442.00
14.250	441.99	441.98	441.97	441.96	441.96
14.500	441.95	441.94	441.92	441.91	441.90
14.750	441.89	441.88	441.87	441.86	441.84
15.000	441.83	441.82	441.81	441.79	441.78
15.250	441.77	441.75	441.74	441.73	441.71
15.500	441.70	441.69	441.67	441.66	441.64
15.750	441.62	441.61	441.59	441.58	441.57
16.000	441.55	441.53	441.52	441.50	441.49
16.250	441.47	441.45	441.44	441.42	441.40
16.500	441.39	441.37	441.35	441.34	441.32
16.750	441.30	441.28	441.26	441.24	441.23
17.000	441.21	441.20	441.18	441.16	441.14
17.250	441.12	441.10	441.08	441.06	441.05
17.500	441.03	441.01	440.99	440.97	440.96
17.750	440.94	440.92	440.90	440.88	440.86
18.000	440.84	440.82	440.80	440.78	440.76
18.250	440.74	440.72	440.71	440.69	440.67
18.500	440.65	440.63	440.61	440.59	440.57
18.750	440.55	440.53	440.51	440.49	440.47
19.000	440.45	440.43	440.41	440.39	440.37
19.250	440.35	440.34	440.32	440.30	440.28
19.500	440.25	440.23	440.21	440.19	440.17
19.750	440.15	440.13	440.11	440.09	440.07
20.000	440.05	440.04	440.03	440.03	440.02
20.250	440.02	440.02	440.02	440.02	440.02
20.500	440.02	440.02	440.02	440.02	440.02
20.750	440.02	440.02	440.02	440.02	440.02

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 1D (IN)
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	440.02	440.02	440.02	440.02	440.02
21.250	440.02	440.02	440.02	440.02	440.02
21.500	440.02	440.02	440.02	440.02	440.02
21.750	440.02	440.02	440.02	440.02	440.02
22.000	440.02	440.02	440.02	440.02	440.02
22.250	440.02	440.02	440.02	440.02	440.02
22.500	440.02	440.02	440.02	440.02	440.02
22.750	440.02	440.02	440.02	440.02	440.02
23.000	440.02	440.02	440.02	440.02	440.02
23.250	440.02	440.02	440.02	440.02	440.02
23.500	440.02	440.02	440.02	440.02	440.02
23.750	440.02	440.02	440.02	440.02	440.02
24.000	440.02	440.02	440.01	440.01	440.00
24.250	440.00	440.00	440.00	440.00	440.00
24.500	440.00	440.00	440.00	440.00	440.00
24.750	440.00	440.00	440.00	440.00	440.00
25.000	440.00	440.00	440.00	440.00	440.00
25.250	440.00	440.00	440.00	440.00	440.00
25.500	440.00	440.00	440.00	440.00	440.00
25.750	440.00	440.00	440.00	440.00	440.00
26.000	440.00	440.00	440.00	440.00	440.00
26.250	440.00	440.00	440.00	440.00	440.00
26.500	440.00	440.00	440.00	440.00	440.00
26.750	440.00	440.00	440.00	440.00	440.00
27.000	440.00	440.00	440.00	440.00	440.00
27.250	440.00	440.00	440.00	440.00	440.00
27.500	440.00	440.00	440.00	440.00	440.00
27.750	440.00	440.00	440.00	440.00	440.00
28.000	440.00	440.00	440.00	440.00	440.00
28.250	440.00	440.00	440.00	440.00	440.00
28.500	440.00	440.00	440.00	440.00	440.00
28.750	440.00	440.00	440.00	440.00	440.00
29.000	440.00	440.00	440.00	440.00	440.00
29.250	440.00	440.00	440.00	440.00	440.00
29.500	440.00	440.00	440.00	440.00	440.00
29.750	440.00	440.00	440.00	440.00	440.00
30.000	440.00	440.00	440.00	440.00	440.00
30.250	440.00	440.00	440.00	440.00	440.00
30.500	440.00	440.00	440.00	440.00	440.00
30.750	440.00	440.00	440.00	440.00	440.00
31.000	440.00	440.00	440.00	440.00	440.00
31.250	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 1D (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	440.00	440.00	440.00	440.00	440.00
31.750	440.00	440.00	440.00	440.00	440.00
32.000	440.00	440.00	440.00	440.00	440.00
32.250	440.00	440.00	440.00	440.00	440.00
32.500	440.00	440.00	440.00	440.00	440.00
32.750	440.00	440.00	440.00	440.00	440.00
33.000	440.00	440.00	440.00	440.00	440.00
33.250	440.00	440.00	440.00	440.00	440.00
33.500	440.00	440.00	440.00	440.00	440.00
33.750	440.00	440.00	440.00	440.00	440.00
34.000	440.00	440.00	440.00	440.00	440.00
34.250	440.00	440.00	440.00	440.00	440.00
34.500	440.00	440.00	440.00	440.00	440.00
34.750	440.00	440.00	440.00	440.00	440.00
35.000	440.00	440.00	440.00	440.00	440.00
35.250	440.00	440.00	440.00	440.00	440.00
35.500	440.00	440.00	440.00	440.00	440.00
35.750	440.00	440.00	440.00	440.00	440.00
36.000	440.00	440.00	440.00	440.00	440.00
36.250	440.00	440.00	440.00	440.00	440.00
36.500	440.00	440.00	440.00	440.00	440.00
36.750	440.00	440.00	440.00	440.00	440.00
37.000	440.00	440.00	440.00	440.00	440.00
37.250	440.00	440.00	440.00	440.00	440.00
37.500	440.00	440.00	440.00	440.00	440.00
37.750	440.00	440.00	440.00	440.00	440.00
38.000	440.00	440.00	440.00	440.00	440.00
38.250	440.00	440.00	440.00	440.00	440.00
38.500	440.00	440.00	440.00	440.00	440.00
38.750	440.00	440.00	440.00	440.00	440.00
39.000	440.00	440.00	440.00	440.00	440.00
39.250	440.00	440.00	440.00	440.00	440.00
39.500	440.00	440.00	440.00	440.00	440.00
39.750	440.00	440.00	440.00	440.00	440.00
40.000	440.00	440.00	440.00	440.00	440.00
40.250	440.00	440.00	440.00	440.00	440.00
40.500	440.00	440.00	440.00	440.00	440.00
40.750	440.00	440.00	440.00	440.00	440.00
41.000	440.00	440.00	440.00	440.00	440.00
41.250	440.00	440.00	440.00	440.00	440.00
41.500	440.00	440.00	440.00	440.00	440.00
41.750	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 1D (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	440.00	440.00	440.00	440.00	440.00
42.250	440.00	440.00	440.00	440.00	440.00
42.500	440.00	440.00	440.00	440.00	440.00
42.750	440.00	440.00	440.00	440.00	440.00
43.000	440.00	440.00	440.00	440.00	440.00
43.250	440.00	440.00	440.00	440.00	440.00
43.500	440.00	440.00	440.00	440.00	440.00
43.750	440.00	440.00	440.00	440.00	440.00
44.000	440.00	440.00	440.00	440.00	440.00
44.250	440.00	440.00	440.00	440.00	440.00
44.500	440.00	440.00	440.00	440.00	440.00
44.750	440.00	440.00	440.00	440.00	440.00
45.000	440.00	440.00	440.00	440.00	440.00
45.250	440.00	440.00	440.00	440.00	440.00
45.500	440.00	440.00	440.00	440.00	440.00
45.750	440.00	440.00	440.00	440.00	440.00
46.000	440.00	440.00	440.00	440.00	440.00
46.250	440.00	440.00	440.00	440.00	440.00
46.500	440.00	440.00	440.00	440.00	440.00
46.750	440.00	440.00	440.00	440.00	440.00
47.000	440.00	440.00	440.00	440.00	440.00
47.250	440.00	440.00	440.00	440.00	440.00
47.500	440.00	440.00	440.00	440.00	440.00
47.750	440.00	440.00	440.00	440.00	440.00
48.000	440.00	440.00	440.00	440.00	440.00
48.250	440.00	440.00	440.00	440.00	440.00
48.500	440.00	440.00	440.00	440.00	440.00
48.750	440.00	440.00	440.00	440.00	440.00
49.000	440.00	440.00	440.00	440.00	440.00
49.250	440.00	440.00	440.00	440.00	440.00
49.500	440.00	440.00	440.00	440.00	440.00
49.750	440.00	440.00	440.00	440.00	440.00
50.000	440.00	440.00	440.00	440.00	440.00
50.250	440.00	440.00	440.00	440.00	440.00
50.500	440.00	440.00	440.00	440.00	440.00
50.750	440.00	440.00	440.00	440.00	440.00
51.000	440.00	440.00	440.00	440.00	440.00
51.250	440.00	440.00	440.00	440.00	440.00
51.500	440.00	440.00	440.00	440.00	440.00
51.750	440.00	440.00	440.00	440.00	440.00
52.000	440.00	440.00	440.00	440.00	440.00
52.250	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 1D (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	440.00	440.00	440.00	440.00	440.00
52.750	440.00	440.00	440.00	440.00	440.00
53.000	440.00	440.00	440.00	440.00	440.00
53.250	440.00	440.00	440.00	440.00	440.00
53.500	440.00	440.00	440.00	440.00	440.00
53.750	440.00	440.00	440.00	440.00	440.00
54.000	440.00	440.00	440.00	440.00	440.00
54.250	440.00	440.00	440.00	440.00	440.00
54.500	440.00	440.00	440.00	440.00	440.00
54.750	440.00	440.00	440.00	440.00	440.00
55.000	440.00	440.00	440.00	440.00	440.00
55.250	440.00	440.00	440.00	440.00	440.00
55.500	440.00	440.00	440.00	440.00	440.00
55.750	440.00	440.00	440.00	440.00	440.00
56.000	440.00	440.00	440.00	440.00	440.00
56.250	440.00	440.00	440.00	440.00	440.00
56.500	440.00	440.00	440.00	440.00	440.00
56.750	440.00	440.00	440.00	440.00	440.00
57.000	440.00	440.00	440.00	440.00	440.00
57.250	440.00	440.00	440.00	440.00	440.00
57.500	440.00	440.00	440.00	440.00	440.00
57.750	440.00	440.00	440.00	440.00	440.00
58.000	440.00	440.00	440.00	440.00	440.00
58.250	440.00	440.00	440.00	440.00	440.00
58.500	440.00	440.00	440.00	440.00	440.00
58.750	440.00	440.00	440.00	440.00	440.00
59.000	440.00	440.00	440.00	440.00	440.00
59.250	440.00	440.00	440.00	440.00	440.00
59.500	440.00	440.00	440.00	440.00	440.00
59.750	440.00	440.00	440.00	440.00	440.00
60.000	440.00	440.00	440.00	440.00	440.00
60.250	440.00	440.00	440.00	440.00	440.00
60.500	440.00	440.00	440.00	440.00	440.00
60.750	440.00	440.00	440.00	440.00	440.00
61.000	440.00	440.00	440.00	440.00	440.00
61.250	440.00	440.00	440.00	440.00	440.00
61.500	440.00	440.00	440.00	440.00	440.00
61.750	440.00	440.00	440.00	440.00	440.00
62.000	440.00	440.00	440.00	440.00	440.00
62.250	440.00	440.00	440.00	440.00	440.00
62.500	440.00	440.00	440.00	440.00	440.00
62.750	440.00	440.00	440.00	440.00	440.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 1D (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	440.00	440.00	440.00	440.00	440.00
63.250	440.00	440.00	440.00	440.00	440.00
63.500	440.00	440.00	440.00	440.00	440.00
63.750	440.00	440.00	440.00	440.00	440.00
64.000	440.00	440.00	440.00	440.00	440.00
64.250	440.00	440.00	440.00	440.00	440.00
64.500	440.00	440.00	440.00	440.00	440.00
64.750	440.00	440.00	440.00	440.00	440.00
65.000	440.00	440.00	440.00	440.00	440.00
65.250	440.00	440.00	440.00	440.00	440.00
65.500	440.00	440.00	440.00	440.00	440.00
65.750	440.00	440.00	440.00	440.00	440.00
66.000	440.00	440.00	440.00	440.00	440.00
66.250	440.00	440.00	440.00	440.00	440.00
66.500	440.00	440.00	440.00	440.00	440.00
66.750	440.00	440.00	440.00	440.00	440.00
67.000	440.00	440.00	440.00	440.00	440.00
67.250	440.00	440.00	440.00	440.00	440.00
67.500	440.00	440.00	440.00	440.00	440.00
67.750	440.00	440.00	440.00	440.00	440.00
68.000	440.00	440.00	440.00	440.00	440.00
68.250	440.00	440.00	440.00	440.00	440.00
68.500	440.00	440.00	440.00	440.00	440.00
68.750	440.00	440.00	440.00	440.00	440.00
69.000	440.00	440.00	440.00	440.00	440.00
69.250	440.00	440.00	440.00	440.00	440.00
69.500	440.00	440.00	440.00	440.00	440.00
69.750	440.00	440.00	440.00	440.00	440.00
70.000	440.00	440.00	440.00	440.00	440.00
70.250	440.00	440.00	440.00	440.00	440.00
70.500	440.00	440.00	440.00	440.00	440.00
70.750	440.00	440.00	440.00	440.00	440.00
71.000	440.00	440.00	440.00	440.00	440.00
71.250	440.00	440.00	440.00	440.00	440.00
71.500	440.00	440.00	440.00	440.00	440.00
71.750	440.00	440.00	440.00	440.00	440.00
72.000	440.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Basin 2B (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	432.00	432.00	432.00	432.00	432.00
0.250	432.00	432.00	432.00	432.00	432.00
0.500	432.00	432.00	432.00	432.00	432.00
0.750	432.00	432.00	432.00	432.00	432.00
1.000	432.00	432.00	432.00	432.00	432.00
1.250	432.00	432.00	432.00	432.00	432.00
1.500	432.00	432.00	432.00	432.00	432.00
1.750	432.00	432.00	432.00	432.00	432.00
2.000	432.00	432.00	432.00	432.00	432.00
2.250	432.00	432.00	432.00	432.00	432.00
2.500	432.00	432.00	432.00	432.00	432.00
2.750	432.00	432.00	432.00	432.00	432.00
3.000	432.00	432.00	432.00	432.00	432.00
3.250	432.00	432.00	432.00	432.00	432.00
3.500	432.00	432.00	432.00	432.00	432.00
3.750	432.00	432.00	432.00	432.00	432.00
4.000	432.00	432.00	432.00	432.00	432.00
4.250	432.00	432.00	432.00	432.00	432.00
4.500	432.00	432.00	432.00	432.00	432.00
4.750	432.00	432.00	432.00	432.00	432.00
5.000	432.00	432.00	432.00	432.00	432.00
5.250	432.00	432.00	432.00	432.00	432.00
5.500	432.00	432.00	432.00	432.00	432.00
5.750	432.00	432.00	432.00	432.00	432.00
6.000	432.00	432.00	432.00	432.00	432.00
6.250	432.00	432.00	432.00	432.00	432.00
6.500	432.00	432.00	432.00	432.00	432.00
6.750	432.00	432.00	432.00	432.00	432.00
7.000	432.00	432.00	432.00	432.00	432.00
7.250	432.00	432.00	432.00	432.00	432.00
7.500	432.00	432.00	432.00	432.00	432.00
7.750	432.00	432.00	432.00	432.00	432.00
8.000	432.00	432.00	432.00	432.00	432.00
8.250	432.00	432.00	432.00	432.00	432.00
8.500	432.00	432.00	432.00	432.00	432.00
8.750	432.00	432.00	432.00	432.00	432.00
9.000	432.00	432.00	432.00	432.00	432.00
9.250	432.00	432.01	432.01	432.01	432.01
9.500	432.01	432.01	432.01	432.01	432.01
9.750	432.01	432.01	432.01	432.01	432.01
10.000	432.01	432.01	432.01	432.01	432.01
10.250	432.01	432.01	432.01	432.01	432.01

Subsection: Time vs. Elevation
Return Event: 1 years
Label: Inf. Basin 2B (IN)
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	432.01	432.01	432.01	432.01	432.02
10.750	432.02	432.02	432.01	432.02	432.02
11.000	432.02	432.02	432.02	432.02	432.02
11.250	432.02	432.03	432.03	432.03	432.03
11.500	432.03	432.04	432.04	432.05	432.06
11.750	432.07	432.09	432.11	432.13	432.19
12.000	432.30	432.44	432.54	432.60	432.64
12.250	432.68	432.70	432.72	432.74	432.76
12.500	432.78	432.79	432.80	432.81	432.81
12.750	432.81	432.81	432.81	432.81	432.81
13.000	432.80	432.80	432.80	432.80	432.79
13.250	432.79	432.79	432.79	432.79	432.78
13.500	432.78	432.77	432.77	432.77	432.76
13.750	432.76	432.75	432.75	432.74	432.74
14.000	432.73	432.72	432.72	432.71	432.71
14.250	432.70	432.70	432.69	432.69	432.68
14.500	432.67	432.67	432.66	432.65	432.64
14.750	432.64	432.63	432.62	432.62	432.61
15.000	432.60	432.60	432.59	432.58	432.58
15.250	432.57	432.56	432.56	432.55	432.54
15.500	432.54	432.53	432.52	432.51	432.50
15.750	432.49	432.48	432.48	432.47	432.46
16.000	432.46	432.45	432.44	432.43	432.42
16.250	432.41	432.41	432.40	432.39	432.39
16.500	432.38	432.37	432.36	432.35	432.34
16.750	432.34	432.33	432.32	432.31	432.30
17.000	432.29	432.29	432.28	432.26	432.26
17.250	432.25	432.24	432.24	432.23	432.21
17.500	432.21	432.20	432.19	432.19	432.18
17.750	432.16	432.16	432.15	432.14	432.13
18.000	432.12	432.11	432.11	432.10	432.09
18.250	432.08	432.07	432.06	432.05	432.04
18.500	432.04	432.03	432.03	432.02	432.02
18.750	432.02	432.02	432.02	432.02	432.02
19.000	432.02	432.02	432.02	432.01	432.01
19.250	432.02	432.01	432.01	432.01	432.01
19.500	432.01	432.01	432.01	432.01	432.01
19.750	432.01	432.01	432.01	432.01	432.01
20.000	432.01	432.01	432.01	432.01	432.01
20.250	432.01	432.01	432.01	432.01	432.01
20.500	432.01	432.01	432.01	432.01	432.01
20.750	432.01	432.01	432.01	432.01	432.01

Subsection: Time vs. Elevation
Return Event: 1 years
Label: Inf. Basin 2B (IN)
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	432.01	432.01	432.01	432.01	432.01
21.250	432.01	432.01	432.01	432.01	432.01
21.500	432.01	432.01	432.01	432.01	432.01
21.750	432.01	432.01	432.01	432.01	432.01
22.000	432.01	432.01	432.01	432.01	432.01
22.250	432.01	432.01	432.01	432.01	432.01
22.500	432.01	432.01	432.01	432.01	432.01
22.750	432.01	432.01	432.01	432.01	432.01
23.000	432.01	432.01	432.01	432.01	432.01
23.250	432.01	432.01	432.01	432.01	432.01
23.500	432.01	432.01	432.01	432.01	432.01
23.750	432.01	432.01	432.01	432.01	432.01
24.000	432.01	432.01	432.01	432.01	432.00
24.250	432.00	432.00	432.00	432.00	432.00
24.500	432.00	432.00	432.00	432.00	432.00
24.750	432.00	432.00	432.00	432.00	432.00
25.000	432.00	432.00	432.00	432.00	432.00
25.250	432.00	432.00	432.00	432.00	432.00
25.500	432.00	432.00	432.00	432.00	432.00
25.750	432.00	432.00	432.00	432.00	432.00
26.000	432.00	432.00	432.00	432.00	432.00
26.250	432.00	432.00	432.00	432.00	432.00
26.500	432.00	432.00	432.00	432.00	432.00
26.750	432.00	432.00	432.00	432.00	432.00
27.000	432.00	432.00	432.00	432.00	432.00
27.250	432.00	432.00	432.00	432.00	432.00
27.500	432.00	432.00	432.00	432.00	432.00
27.750	432.00	432.00	432.00	432.00	432.00
28.000	432.00	432.00	432.00	432.00	432.00
28.250	432.00	432.00	432.00	432.00	432.00
28.500	432.00	432.00	432.00	432.00	432.00
28.750	432.00	432.00	432.00	432.00	432.00
29.000	432.00	432.00	432.00	432.00	432.00
29.250	432.00	432.00	432.00	432.00	432.00
29.500	432.00	432.00	432.00	432.00	432.00
29.750	432.00	432.00	432.00	432.00	432.00
30.000	432.00	432.00	432.00	432.00	432.00
30.250	432.00	432.00	432.00	432.00	432.00
30.500	432.00	432.00	432.00	432.00	432.00
30.750	432.00	432.00	432.00	432.00	432.00
31.000	432.00	432.00	432.00	432.00	432.00
31.250	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 2B (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	432.00	432.00	432.00	432.00	432.00
31.750	432.00	432.00	432.00	432.00	432.00
32.000	432.00	432.00	432.00	432.00	432.00
32.250	432.00	432.00	432.00	432.00	432.00
32.500	432.00	432.00	432.00	432.00	432.00
32.750	432.00	432.00	432.00	432.00	432.00
33.000	432.00	432.00	432.00	432.00	432.00
33.250	432.00	432.00	432.00	432.00	432.00
33.500	432.00	432.00	432.00	432.00	432.00
33.750	432.00	432.00	432.00	432.00	432.00
34.000	432.00	432.00	432.00	432.00	432.00
34.250	432.00	432.00	432.00	432.00	432.00
34.500	432.00	432.00	432.00	432.00	432.00
34.750	432.00	432.00	432.00	432.00	432.00
35.000	432.00	432.00	432.00	432.00	432.00
35.250	432.00	432.00	432.00	432.00	432.00
35.500	432.00	432.00	432.00	432.00	432.00
35.750	432.00	432.00	432.00	432.00	432.00
36.000	432.00	432.00	432.00	432.00	432.00
36.250	432.00	432.00	432.00	432.00	432.00
36.500	432.00	432.00	432.00	432.00	432.00
36.750	432.00	432.00	432.00	432.00	432.00
37.000	432.00	432.00	432.00	432.00	432.00
37.250	432.00	432.00	432.00	432.00	432.00
37.500	432.00	432.00	432.00	432.00	432.00
37.750	432.00	432.00	432.00	432.00	432.00
38.000	432.00	432.00	432.00	432.00	432.00
38.250	432.00	432.00	432.00	432.00	432.00
38.500	432.00	432.00	432.00	432.00	432.00
38.750	432.00	432.00	432.00	432.00	432.00
39.000	432.00	432.00	432.00	432.00	432.00
39.250	432.00	432.00	432.00	432.00	432.00
39.500	432.00	432.00	432.00	432.00	432.00
39.750	432.00	432.00	432.00	432.00	432.00
40.000	432.00	432.00	432.00	432.00	432.00
40.250	432.00	432.00	432.00	432.00	432.00
40.500	432.00	432.00	432.00	432.00	432.00
40.750	432.00	432.00	432.00	432.00	432.00
41.000	432.00	432.00	432.00	432.00	432.00
41.250	432.00	432.00	432.00	432.00	432.00
41.500	432.00	432.00	432.00	432.00	432.00
41.750	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 2B (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	432.00	432.00	432.00	432.00	432.00
42.250	432.00	432.00	432.00	432.00	432.00
42.500	432.00	432.00	432.00	432.00	432.00
42.750	432.00	432.00	432.00	432.00	432.00
43.000	432.00	432.00	432.00	432.00	432.00
43.250	432.00	432.00	432.00	432.00	432.00
43.500	432.00	432.00	432.00	432.00	432.00
43.750	432.00	432.00	432.00	432.00	432.00
44.000	432.00	432.00	432.00	432.00	432.00
44.250	432.00	432.00	432.00	432.00	432.00
44.500	432.00	432.00	432.00	432.00	432.00
44.750	432.00	432.00	432.00	432.00	432.00
45.000	432.00	432.00	432.00	432.00	432.00
45.250	432.00	432.00	432.00	432.00	432.00
45.500	432.00	432.00	432.00	432.00	432.00
45.750	432.00	432.00	432.00	432.00	432.00
46.000	432.00	432.00	432.00	432.00	432.00
46.250	432.00	432.00	432.00	432.00	432.00
46.500	432.00	432.00	432.00	432.00	432.00
46.750	432.00	432.00	432.00	432.00	432.00
47.000	432.00	432.00	432.00	432.00	432.00
47.250	432.00	432.00	432.00	432.00	432.00
47.500	432.00	432.00	432.00	432.00	432.00
47.750	432.00	432.00	432.00	432.00	432.00
48.000	432.00	432.00	432.00	432.00	432.00
48.250	432.00	432.00	432.00	432.00	432.00
48.500	432.00	432.00	432.00	432.00	432.00
48.750	432.00	432.00	432.00	432.00	432.00
49.000	432.00	432.00	432.00	432.00	432.00
49.250	432.00	432.00	432.00	432.00	432.00
49.500	432.00	432.00	432.00	432.00	432.00
49.750	432.00	432.00	432.00	432.00	432.00
50.000	432.00	432.00	432.00	432.00	432.00
50.250	432.00	432.00	432.00	432.00	432.00
50.500	432.00	432.00	432.00	432.00	432.00
50.750	432.00	432.00	432.00	432.00	432.00
51.000	432.00	432.00	432.00	432.00	432.00
51.250	432.00	432.00	432.00	432.00	432.00
51.500	432.00	432.00	432.00	432.00	432.00
51.750	432.00	432.00	432.00	432.00	432.00
52.000	432.00	432.00	432.00	432.00	432.00
52.250	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 2B (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	432.00	432.00	432.00	432.00	432.00
52.750	432.00	432.00	432.00	432.00	432.00
53.000	432.00	432.00	432.00	432.00	432.00
53.250	432.00	432.00	432.00	432.00	432.00
53.500	432.00	432.00	432.00	432.00	432.00
53.750	432.00	432.00	432.00	432.00	432.00
54.000	432.00	432.00	432.00	432.00	432.00
54.250	432.00	432.00	432.00	432.00	432.00
54.500	432.00	432.00	432.00	432.00	432.00
54.750	432.00	432.00	432.00	432.00	432.00
55.000	432.00	432.00	432.00	432.00	432.00
55.250	432.00	432.00	432.00	432.00	432.00
55.500	432.00	432.00	432.00	432.00	432.00
55.750	432.00	432.00	432.00	432.00	432.00
56.000	432.00	432.00	432.00	432.00	432.00
56.250	432.00	432.00	432.00	432.00	432.00
56.500	432.00	432.00	432.00	432.00	432.00
56.750	432.00	432.00	432.00	432.00	432.00
57.000	432.00	432.00	432.00	432.00	432.00
57.250	432.00	432.00	432.00	432.00	432.00
57.500	432.00	432.00	432.00	432.00	432.00
57.750	432.00	432.00	432.00	432.00	432.00
58.000	432.00	432.00	432.00	432.00	432.00
58.250	432.00	432.00	432.00	432.00	432.00
58.500	432.00	432.00	432.00	432.00	432.00
58.750	432.00	432.00	432.00	432.00	432.00
59.000	432.00	432.00	432.00	432.00	432.00
59.250	432.00	432.00	432.00	432.00	432.00
59.500	432.00	432.00	432.00	432.00	432.00
59.750	432.00	432.00	432.00	432.00	432.00
60.000	432.00	432.00	432.00	432.00	432.00
60.250	432.00	432.00	432.00	432.00	432.00
60.500	432.00	432.00	432.00	432.00	432.00
60.750	432.00	432.00	432.00	432.00	432.00
61.000	432.00	432.00	432.00	432.00	432.00
61.250	432.00	432.00	432.00	432.00	432.00
61.500	432.00	432.00	432.00	432.00	432.00
61.750	432.00	432.00	432.00	432.00	432.00
62.000	432.00	432.00	432.00	432.00	432.00
62.250	432.00	432.00	432.00	432.00	432.00
62.500	432.00	432.00	432.00	432.00	432.00
62.750	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Basin 2B (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	432.00	432.00	432.00	432.00	432.00
63.250	432.00	432.00	432.00	432.00	432.00
63.500	432.00	432.00	432.00	432.00	432.00
63.750	432.00	432.00	432.00	432.00	432.00
64.000	432.00	432.00	432.00	432.00	432.00
64.250	432.00	432.00	432.00	432.00	432.00
64.500	432.00	432.00	432.00	432.00	432.00
64.750	432.00	432.00	432.00	432.00	432.00
65.000	432.00	432.00	432.00	432.00	432.00
65.250	432.00	432.00	432.00	432.00	432.00
65.500	432.00	432.00	432.00	432.00	432.00
65.750	432.00	432.00	432.00	432.00	432.00
66.000	432.00	432.00	432.00	432.00	432.00
66.250	432.00	432.00	432.00	432.00	432.00
66.500	432.00	432.00	432.00	432.00	432.00
66.750	432.00	432.00	432.00	432.00	432.00
67.000	432.00	432.00	432.00	432.00	432.00
67.250	432.00	432.00	432.00	432.00	432.00
67.500	432.00	432.00	432.00	432.00	432.00
67.750	432.00	432.00	432.00	432.00	432.00
68.000	432.00	432.00	432.00	432.00	432.00
68.250	432.00	432.00	432.00	432.00	432.00
68.500	432.00	432.00	432.00	432.00	432.00
68.750	432.00	432.00	432.00	432.00	432.00
69.000	432.00	432.00	432.00	432.00	432.00
69.250	432.00	432.00	432.00	432.00	432.00
69.500	432.00	432.00	432.00	432.00	432.00
69.750	432.00	432.00	432.00	432.00	432.00
70.000	432.00	432.00	432.00	432.00	432.00
70.250	432.00	432.00	432.00	432.00	432.00
70.500	432.00	432.00	432.00	432.00	432.00
70.750	432.00	432.00	432.00	432.00	432.00
71.000	432.00	432.00	432.00	432.00	432.00
71.250	432.00	432.00	432.00	432.00	432.00
71.500	432.00	432.00	432.00	432.00	432.00
71.750	432.00	432.00	432.00	432.00	432.00
72.000	432.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Inf. Basin 2B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	432.00	432.00	432.00	432.00	432.00
0.250	432.00	432.00	432.00	432.00	432.00
0.500	432.00	432.00	432.00	432.00	432.00
0.750	432.00	432.00	432.00	432.00	432.00
1.000	432.00	432.00	432.00	432.00	432.00
1.250	432.00	432.00	432.00	432.00	432.00
1.500	432.00	432.00	432.00	432.00	432.00
1.750	432.00	432.00	432.00	432.00	432.00
2.000	432.00	432.00	432.00	432.00	432.00
2.250	432.00	432.00	432.00	432.00	432.00
2.500	432.00	432.00	432.00	432.00	432.00
2.750	432.00	432.00	432.00	432.00	432.00
3.000	432.00	432.00	432.00	432.00	432.00
3.250	432.00	432.00	432.00	432.00	432.00
3.500	432.00	432.00	432.00	432.00	432.00
3.750	432.00	432.00	432.00	432.00	432.00
4.000	432.00	432.00	432.00	432.00	432.00
4.250	432.00	432.00	432.00	432.00	432.00
4.500	432.00	432.00	432.00	432.00	432.00
4.750	432.00	432.00	432.00	432.00	432.00
5.000	432.00	432.00	432.00	432.00	432.00
5.250	432.00	432.00	432.00	432.00	432.00
5.500	432.00	432.00	432.01	432.01	432.01
5.750	432.01	432.01	432.01	432.01	432.01
6.000	432.01	432.01	432.01	432.01	432.01
6.250	432.01	432.01	432.01	432.01	432.01
6.500	432.01	432.01	432.01	432.01	432.01
6.750	432.01	432.01	432.01	432.01	432.01
7.000	432.01	432.01	432.01	432.01	432.01
7.250	432.01	432.01	432.01	432.01	432.01
7.500	432.01	432.01	432.01	432.01	432.01
7.750	432.01	432.02	432.02	432.02	432.02
8.000	432.02	432.02	432.02	432.02	432.02
8.250	432.02	432.02	432.02	432.02	432.02
8.500	432.02	432.02	432.02	432.02	432.02
8.750	432.02	432.02	432.02	432.02	432.02
9.000	432.03	432.03	432.03	432.03	432.03
9.250	432.03	432.03	432.03	432.03	432.03
9.500	432.03	432.03	432.03	432.03	432.03
9.750	432.03	432.03	432.03	432.03	432.04
10.000	432.04	432.04	432.04	432.04	432.04
10.250	432.04	432.04	432.04	432.05	432.05

Subsection: Time vs. Elevation
Label: Inf. Basin 2B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	432.05	432.05	432.05	432.05	432.05
10.750	432.06	432.06	432.06	432.07	432.07
11.000	432.08	432.08	432.09	432.10	432.11
11.250	432.12	432.13	432.14	432.15	432.17
11.500	432.18	432.20	432.24	432.28	432.33
11.750	432.39	432.45	432.52	432.60	432.73
12.000	432.97	433.23	433.43	433.56	433.66
12.250	433.73	433.80	433.85	433.90	433.95
12.500	433.99	434.03	434.06	434.08	434.09
12.750	434.10	434.12	434.13	434.14	434.15
13.000	434.16	434.16	434.17	434.18	434.19
13.250	434.20	434.20	434.20	434.21	434.21
13.500	434.21	434.22	434.22	434.22	434.22
13.750	434.23	434.23	434.23	434.23	434.23
14.000	434.23	434.23	434.23	434.23	434.23
14.250	434.23	434.23	434.23	434.23	434.23
14.500	434.23	434.23	434.23	434.22	434.22
14.750	434.22	434.22	434.22	434.21	434.21
15.000	434.21	434.21	434.21	434.20	434.20
15.250	434.20	434.19	434.19	434.18	434.18
15.500	434.18	434.18	434.17	434.17	434.16
15.750	434.16	434.16	434.16	434.15	434.14
16.000	434.14	434.14	434.13	434.13	434.12
16.250	434.12	434.11	434.11	434.11	434.10
16.500	434.10	434.09	434.08	434.08	434.07
16.750	434.07	434.07	434.06	434.05	434.05
17.000	434.04	434.04	434.03	434.03	434.02
17.250	434.02	434.01	434.01	434.00	434.00
17.500	433.99	433.98	433.98	433.97	433.97
17.750	433.96	433.96	433.95	433.95	433.94
18.000	433.93	433.92	433.92	433.91	433.90
18.250	433.90	433.89	433.89	433.89	433.88
18.500	433.87	433.87	433.86	433.85	433.85
18.750	433.84	433.83	433.83	433.82	433.81
19.000	433.81	433.80	433.79	433.79	433.78
19.250	433.77	433.76	433.76	433.75	433.74
19.500	433.74	433.73	433.72	433.72	433.71
19.750	433.70	433.70	433.69	433.68	433.68
20.000	433.67	433.66	433.66	433.65	433.64
20.250	433.64	433.63	433.62	433.62	433.61
20.500	433.60	433.60	433.59	433.58	433.58
20.750	433.57	433.56	433.55	433.54	433.53

Subsection: Time vs. Elevation
Label: Inf. Basin 2B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	433.53	433.52	433.51	433.51	433.50
21.250	433.49	433.49	433.48	433.47	433.47
21.500	433.46	433.45	433.44	433.43	433.42
21.750	433.42	433.41	433.40	433.40	433.39
22.000	433.38	433.38	433.37	433.36	433.35
22.250	433.34	433.33	433.33	433.32	433.31
22.500	433.31	433.30	433.29	433.28	433.27
22.750	433.26	433.26	433.25	433.25	433.24
23.000	433.23	433.23	433.22	433.20	433.20
23.250	433.19	433.18	433.18	433.17	433.16
23.500	433.15	433.14	433.13	433.13	433.12
23.750	433.11	433.11	433.10	433.09	433.08
24.000	433.07	433.06	433.05	433.04	433.03
24.250	433.02	433.01	432.99	432.98	432.97
24.500	432.96	432.94	432.93	432.92	432.91
24.750	432.90	432.88	432.87	432.86	432.85
25.000	432.83	432.82	432.81	432.80	432.79
25.250	432.77	432.76	432.75	432.74	432.72
25.500	432.71	432.70	432.69	432.68	432.66
25.750	432.65	432.64	432.63	432.62	432.60
26.000	432.59	432.58	432.57	432.55	432.54
26.250	432.53	432.52	432.51	432.49	432.48
26.500	432.47	432.46	432.44	432.43	432.42
26.750	432.41	432.40	432.38	432.37	432.36
27.000	432.35	432.33	432.32	432.31	432.30
27.250	432.29	432.27	432.26	432.25	432.24
27.500	432.22	432.21	432.20	432.19	432.18
27.750	432.16	432.15	432.14	432.13	432.11
28.000	432.10	432.09	432.08	432.07	432.05
28.250	432.04	432.03	432.03	432.02	432.02
28.500	432.01	432.01	432.01	432.01	432.00
28.750	432.00	432.00	432.00	432.00	432.00
29.000	432.00	432.00	432.00	432.00	432.00
29.250	432.00	432.00	432.00	432.00	432.00
29.500	432.00	432.00	432.00	432.00	432.00
29.750	432.00	432.00	432.00	432.00	432.00
30.000	432.00	432.00	432.00	432.00	432.00
30.250	432.00	432.00	432.00	432.00	432.00
30.500	432.00	432.00	432.00	432.00	432.00
30.750	432.00	432.00	432.00	432.00	432.00
31.000	432.00	432.00	432.00	432.00	432.00
31.250	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Label: Inf. Basin 2B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	432.00	432.00	432.00	432.00	432.00
31.750	432.00	432.00	432.00	432.00	432.00
32.000	432.00	432.00	432.00	432.00	432.00
32.250	432.00	432.00	432.00	432.00	432.00
32.500	432.00	432.00	432.00	432.00	432.00
32.750	432.00	432.00	432.00	432.00	432.00
33.000	432.00	432.00	432.00	432.00	432.00
33.250	432.00	432.00	432.00	432.00	432.00
33.500	432.00	432.00	432.00	432.00	432.00
33.750	432.00	432.00	432.00	432.00	432.00
34.000	432.00	432.00	432.00	432.00	432.00
34.250	432.00	432.00	432.00	432.00	432.00
34.500	432.00	432.00	432.00	432.00	432.00
34.750	432.00	432.00	432.00	432.00	432.00
35.000	432.00	432.00	432.00	432.00	432.00
35.250	432.00	432.00	432.00	432.00	432.00
35.500	432.00	432.00	432.00	432.00	432.00
35.750	432.00	432.00	432.00	432.00	432.00
36.000	432.00	432.00	432.00	432.00	432.00
36.250	432.00	432.00	432.00	432.00	432.00
36.500	432.00	432.00	432.00	432.00	432.00
36.750	432.00	432.00	432.00	432.00	432.00
37.000	432.00	432.00	432.00	432.00	432.00
37.250	432.00	432.00	432.00	432.00	432.00
37.500	432.00	432.00	432.00	432.00	432.00
37.750	432.00	432.00	432.00	432.00	432.00
38.000	432.00	432.00	432.00	432.00	432.00
38.250	432.00	432.00	432.00	432.00	432.00
38.500	432.00	432.00	432.00	432.00	432.00
38.750	432.00	432.00	432.00	432.00	432.00
39.000	432.00	432.00	432.00	432.00	432.00
39.250	432.00	432.00	432.00	432.00	432.00
39.500	432.00	432.00	432.00	432.00	432.00
39.750	432.00	432.00	432.00	432.00	432.00
40.000	432.00	432.00	432.00	432.00	432.00
40.250	432.00	432.00	432.00	432.00	432.00
40.500	432.00	432.00	432.00	432.00	432.00
40.750	432.00	432.00	432.00	432.00	432.00
41.000	432.00	432.00	432.00	432.00	432.00
41.250	432.00	432.00	432.00	432.00	432.00
41.500	432.00	432.00	432.00	432.00	432.00
41.750	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Label: Inf. Basin 2B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	432.00	432.00	432.00	432.00	432.00
42.250	432.00	432.00	432.00	432.00	432.00
42.500	432.00	432.00	432.00	432.00	432.00
42.750	432.00	432.00	432.00	432.00	432.00
43.000	432.00	432.00	432.00	432.00	432.00
43.250	432.00	432.00	432.00	432.00	432.00
43.500	432.00	432.00	432.00	432.00	432.00
43.750	432.00	432.00	432.00	432.00	432.00
44.000	432.00	432.00	432.00	432.00	432.00
44.250	432.00	432.00	432.00	432.00	432.00
44.500	432.00	432.00	432.00	432.00	432.00
44.750	432.00	432.00	432.00	432.00	432.00
45.000	432.00	432.00	432.00	432.00	432.00
45.250	432.00	432.00	432.00	432.00	432.00
45.500	432.00	432.00	432.00	432.00	432.00
45.750	432.00	432.00	432.00	432.00	432.00
46.000	432.00	432.00	432.00	432.00	432.00
46.250	432.00	432.00	432.00	432.00	432.00
46.500	432.00	432.00	432.00	432.00	432.00
46.750	432.00	432.00	432.00	432.00	432.00
47.000	432.00	432.00	432.00	432.00	432.00
47.250	432.00	432.00	432.00	432.00	432.00
47.500	432.00	432.00	432.00	432.00	432.00
47.750	432.00	432.00	432.00	432.00	432.00
48.000	432.00	432.00	432.00	432.00	432.00
48.250	432.00	432.00	432.00	432.00	432.00
48.500	432.00	432.00	432.00	432.00	432.00
48.750	432.00	432.00	432.00	432.00	432.00
49.000	432.00	432.00	432.00	432.00	432.00
49.250	432.00	432.00	432.00	432.00	432.00
49.500	432.00	432.00	432.00	432.00	432.00
49.750	432.00	432.00	432.00	432.00	432.00
50.000	432.00	432.00	432.00	432.00	432.00
50.250	432.00	432.00	432.00	432.00	432.00
50.500	432.00	432.00	432.00	432.00	432.00
50.750	432.00	432.00	432.00	432.00	432.00
51.000	432.00	432.00	432.00	432.00	432.00
51.250	432.00	432.00	432.00	432.00	432.00
51.500	432.00	432.00	432.00	432.00	432.00
51.750	432.00	432.00	432.00	432.00	432.00
52.000	432.00	432.00	432.00	432.00	432.00
52.250	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Label: Inf. Basin 2B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	432.00	432.00	432.00	432.00	432.00
52.750	432.00	432.00	432.00	432.00	432.00
53.000	432.00	432.00	432.00	432.00	432.00
53.250	432.00	432.00	432.00	432.00	432.00
53.500	432.00	432.00	432.00	432.00	432.00
53.750	432.00	432.00	432.00	432.00	432.00
54.000	432.00	432.00	432.00	432.00	432.00
54.250	432.00	432.00	432.00	432.00	432.00
54.500	432.00	432.00	432.00	432.00	432.00
54.750	432.00	432.00	432.00	432.00	432.00
55.000	432.00	432.00	432.00	432.00	432.00
55.250	432.00	432.00	432.00	432.00	432.00
55.500	432.00	432.00	432.00	432.00	432.00
55.750	432.00	432.00	432.00	432.00	432.00
56.000	432.00	432.00	432.00	432.00	432.00
56.250	432.00	432.00	432.00	432.00	432.00
56.500	432.00	432.00	432.00	432.00	432.00
56.750	432.00	432.00	432.00	432.00	432.00
57.000	432.00	432.00	432.00	432.00	432.00
57.250	432.00	432.00	432.00	432.00	432.00
57.500	432.00	432.00	432.00	432.00	432.00
57.750	432.00	432.00	432.00	432.00	432.00
58.000	432.00	432.00	432.00	432.00	432.00
58.250	432.00	432.00	432.00	432.00	432.00
58.500	432.00	432.00	432.00	432.00	432.00
58.750	432.00	432.00	432.00	432.00	432.00
59.000	432.00	432.00	432.00	432.00	432.00
59.250	432.00	432.00	432.00	432.00	432.00
59.500	432.00	432.00	432.00	432.00	432.00
59.750	432.00	432.00	432.00	432.00	432.00
60.000	432.00	432.00	432.00	432.00	432.00
60.250	432.00	432.00	432.00	432.00	432.00
60.500	432.00	432.00	432.00	432.00	432.00
60.750	432.00	432.00	432.00	432.00	432.00
61.000	432.00	432.00	432.00	432.00	432.00
61.250	432.00	432.00	432.00	432.00	432.00
61.500	432.00	432.00	432.00	432.00	432.00
61.750	432.00	432.00	432.00	432.00	432.00
62.000	432.00	432.00	432.00	432.00	432.00
62.250	432.00	432.00	432.00	432.00	432.00
62.500	432.00	432.00	432.00	432.00	432.00
62.750	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Label: Inf. Basin 2B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	432.00	432.00	432.00	432.00	432.00
63.250	432.00	432.00	432.00	432.00	432.00
63.500	432.00	432.00	432.00	432.00	432.00
63.750	432.00	432.00	432.00	432.00	432.00
64.000	432.00	432.00	432.00	432.00	432.00
64.250	432.00	432.00	432.00	432.00	432.00
64.500	432.00	432.00	432.00	432.00	432.00
64.750	432.00	432.00	432.00	432.00	432.00
65.000	432.00	432.00	432.00	432.00	432.00
65.250	432.00	432.00	432.00	432.00	432.00
65.500	432.00	432.00	432.00	432.00	432.00
65.750	432.00	432.00	432.00	432.00	432.00
66.000	432.00	432.00	432.00	432.00	432.00
66.250	432.00	432.00	432.00	432.00	432.00
66.500	432.00	432.00	432.00	432.00	432.00
66.750	432.00	432.00	432.00	432.00	432.00
67.000	432.00	432.00	432.00	432.00	432.00
67.250	432.00	432.00	432.00	432.00	432.00
67.500	432.00	432.00	432.00	432.00	432.00
67.750	432.00	432.00	432.00	432.00	432.00
68.000	432.00	432.00	432.00	432.00	432.00
68.250	432.00	432.00	432.00	432.00	432.00
68.500	432.00	432.00	432.00	432.00	432.00
68.750	432.00	432.00	432.00	432.00	432.00
69.000	432.00	432.00	432.00	432.00	432.00
69.250	432.00	432.00	432.00	432.00	432.00
69.500	432.00	432.00	432.00	432.00	432.00
69.750	432.00	432.00	432.00	432.00	432.00
70.000	432.00	432.00	432.00	432.00	432.00
70.250	432.00	432.00	432.00	432.00	432.00
70.500	432.00	432.00	432.00	432.00	432.00
70.750	432.00	432.00	432.00	432.00	432.00
71.000	432.00	432.00	432.00	432.00	432.00
71.250	432.00	432.00	432.00	432.00	432.00
71.500	432.00	432.00	432.00	432.00	432.00
71.750	432.00	432.00	432.00	432.00	432.00
72.000	432.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 2B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	432.00	432.00	432.00	432.00	432.00
0.250	432.00	432.00	432.00	432.00	432.00
0.500	432.00	432.00	432.00	432.00	432.00
0.750	432.00	432.00	432.00	432.00	432.00
1.000	432.00	432.00	432.00	432.00	432.00
1.250	432.00	432.00	432.00	432.00	432.00
1.500	432.00	432.00	432.00	432.00	432.00
1.750	432.00	432.00	432.00	432.00	432.00
2.000	432.00	432.00	432.00	432.00	432.00
2.250	432.00	432.00	432.00	432.00	432.00
2.500	432.00	432.00	432.00	432.00	432.00
2.750	432.00	432.01	432.01	432.01	432.01
3.000	432.01	432.01	432.01	432.01	432.01
3.250	432.01	432.01	432.01	432.01	432.01
3.500	432.01	432.01	432.01	432.01	432.01
3.750	432.01	432.02	432.02	432.01	432.01
4.000	432.01	432.02	432.02	432.02	432.02
4.250	432.02	432.02	432.02	432.02	432.02
4.500	432.02	432.02	432.02	432.03	432.03
4.750	432.03	432.03	432.03	432.03	432.03
5.000	432.03	432.03	432.03	432.03	432.03
5.250	432.03	432.03	432.03	432.03	432.03
5.500	432.03	432.03	432.03	432.03	432.03
5.750	432.03	432.03	432.03	432.03	432.03
6.000	432.04	432.04	432.04	432.04	432.04
6.250	432.04	432.04	432.04	432.04	432.04
6.500	432.04	432.04	432.04	432.04	432.04
6.750	432.04	432.05	432.05	432.05	432.05
7.000	432.05	432.05	432.05	432.05	432.05
7.250	432.05	432.05	432.05	432.05	432.05
7.500	432.05	432.06	432.06	432.06	432.06
7.750	432.07	432.07	432.07	432.07	432.08
8.000	432.08	432.08	432.08	432.09	432.09
8.250	432.09	432.10	432.11	432.11	432.11
8.500	432.12	432.12	432.13	432.13	432.14
8.750	432.14	432.15	432.16	432.17	432.18
9.000	432.18	432.19	432.19	432.20	432.21
9.250	432.22	432.23	432.24	432.25	432.26
9.500	432.27	432.29	432.30	432.31	432.32
9.750	432.33	432.34	432.36	432.37	432.39
10.000	432.40	432.42	432.43	432.45	432.46
10.250	432.48	432.50	432.51	432.53	432.55

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 2B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	432.57	432.59	432.62	432.64	432.66
10.750	432.69	432.72	432.74	432.77	432.80
11.000	432.83	432.86	432.89	432.92	432.96
11.250	433.00	433.03	433.07	433.12	433.17
11.500	433.22	433.28	433.37	433.47	433.58
11.750	433.70	433.83	433.98	434.15	434.39
12.000	434.78	435.19	435.45	435.57	435.62
12.250	435.63	435.62	435.60	435.58	435.56
12.500	435.54	435.51	435.47	435.43	435.39
12.750	435.35	435.32	435.29	435.27	435.25
13.000	435.23	435.21	435.19	435.18	435.16
13.250	435.15	435.14	435.13	435.12	435.11
13.500	435.10	435.10	435.09	435.08	435.08
13.750	435.07	435.07	435.06	435.05	435.05
14.000	435.04	435.04	435.04	435.03	435.03
14.250	435.03	435.02	435.02	435.01	435.01
14.500	435.01	435.00	435.00	435.00	434.99
14.750	434.99	434.99	434.99	434.98	434.98
15.000	434.98	434.98	434.97	434.97	434.97
15.250	434.97	434.97	434.96	434.96	434.96
15.500	434.96	434.96	434.95	434.95	434.95
15.750	434.94	434.94	434.94	434.94	434.94
16.000	434.94	434.94	434.94	434.93	434.93
16.250	434.93	434.93	434.93	434.92	434.92
16.500	434.92	434.92	434.92	434.92	434.91
16.750	434.91	434.91	434.91	434.91	434.91
17.000	434.91	434.91	434.90	434.90	434.90
17.250	434.90	434.90	434.89	434.89	434.89
17.500	434.89	434.89	434.89	434.89	434.89
17.750	434.89	434.89	434.88	434.88	434.88
18.000	434.88	434.88	434.88	434.87	434.87
18.250	434.87	434.87	434.87	434.87	434.87
18.500	434.86	434.86	434.86	434.86	434.86
18.750	434.86	434.86	434.86	434.85	434.85
19.000	434.85	434.85	434.85	434.85	434.85
19.250	434.85	434.85	434.85	434.84	434.84
19.500	434.84	434.84	434.84	434.83	434.83
19.750	434.83	434.83	434.83	434.82	434.82
20.000	434.82	434.82	434.82	434.81	434.81
20.250	434.81	434.81	434.81	434.80	434.80
20.500	434.80	434.79	434.79	434.79	434.78
20.750	434.78	434.78	434.78	434.78	434.77

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 2B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	434.77	434.77	434.76	434.76	434.75
21.250	434.75	434.75	434.75	434.75	434.74
21.500	434.74	434.74	434.73	434.73	434.73
21.750	434.72	434.72	434.72	434.71	434.71
22.000	434.70	434.70	434.70	434.70	434.70
22.250	434.69	434.69	434.68	434.68	434.68
22.500	434.67	434.67	434.67	434.66	434.66
22.750	434.65	434.65	434.64	434.64	434.64
23.000	434.64	434.63	434.63	434.62	434.62
23.250	434.62	434.61	434.61	434.60	434.60
23.500	434.59	434.59	434.58	434.58	434.58
23.750	434.57	434.57	434.56	434.56	434.55
24.000	434.55	434.55	434.54	434.53	434.51
24.250	434.50	434.49	434.48	434.47	434.45
24.500	434.44	434.43	434.42	434.40	434.39
24.750	434.38	434.37	434.36	434.34	434.33
25.000	434.32	434.31	434.29	434.28	434.27
25.250	434.26	434.25	434.23	434.22	434.21
25.500	434.20	434.18	434.17	434.16	434.15
25.750	434.14	434.12	434.11	434.10	434.09
26.000	434.07	434.06	434.05	434.04	434.03
26.250	434.01	434.00	433.99	433.98	433.96
26.500	433.95	433.94	433.93	433.92	433.90
26.750	433.89	433.88	433.87	433.86	433.84
27.000	433.83	433.82	433.81	433.79	433.78
27.250	433.77	433.76	433.75	433.73	433.72
27.500	433.71	433.70	433.68	433.67	433.66
27.750	433.65	433.64	433.62	433.61	433.60
28.000	433.59	433.57	433.56	433.55	433.54
28.250	433.53	433.51	433.50	433.49	433.48
28.500	433.46	433.45	433.44	433.43	433.42
28.750	433.40	433.39	433.38	433.37	433.35
29.000	433.34	433.33	433.32	433.31	433.29
29.250	433.28	433.27	433.26	433.24	433.23
29.500	433.22	433.21	433.20	433.18	433.17
29.750	433.16	433.15	433.13	433.12	433.11
30.000	433.10	433.09	433.07	433.06	433.05
30.250	433.04	433.02	433.01	433.00	432.99
30.500	432.98	432.96	432.95	432.94	432.93
30.750	432.92	432.90	432.89	432.88	432.87
31.000	432.85	432.84	432.83	432.82	432.81
31.250	432.79	432.78	432.77	432.76	432.74

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 2B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	432.73	432.72	432.71	432.70	432.68
31.750	432.67	432.66	432.65	432.63	432.62
32.000	432.61	432.60	432.59	432.57	432.56
32.250	432.55	432.54	432.52	432.51	432.50
32.500	432.49	432.48	432.46	432.45	432.44
32.750	432.43	432.41	432.40	432.39	432.38
33.000	432.37	432.35	432.34	432.33	432.32
33.250	432.30	432.29	432.28	432.27	432.26
33.500	432.24	432.23	432.22	432.21	432.19
33.750	432.18	432.17	432.16	432.15	432.13
34.000	432.12	432.11	432.10	432.08	432.07
34.250	432.06	432.05	432.04	432.03	432.02
34.500	432.02	432.01	432.01	432.01	432.01
34.750	432.01	432.00	432.00	432.00	432.00
35.000	432.00	432.00	432.00	432.00	432.00
35.250	432.00	432.00	432.00	432.00	432.00
35.500	432.00	432.00	432.00	432.00	432.00
35.750	432.00	432.00	432.00	432.00	432.00
36.000	432.00	432.00	432.00	432.00	432.00
36.250	432.00	432.00	432.00	432.00	432.00
36.500	432.00	432.00	432.00	432.00	432.00
36.750	432.00	432.00	432.00	432.00	432.00
37.000	432.00	432.00	432.00	432.00	432.00
37.250	432.00	432.00	432.00	432.00	432.00
37.500	432.00	432.00	432.00	432.00	432.00
37.750	432.00	432.00	432.00	432.00	432.00
38.000	432.00	432.00	432.00	432.00	432.00
38.250	432.00	432.00	432.00	432.00	432.00
38.500	432.00	432.00	432.00	432.00	432.00
38.750	432.00	432.00	432.00	432.00	432.00
39.000	432.00	432.00	432.00	432.00	432.00
39.250	432.00	432.00	432.00	432.00	432.00
39.500	432.00	432.00	432.00	432.00	432.00
39.750	432.00	432.00	432.00	432.00	432.00
40.000	432.00	432.00	432.00	432.00	432.00
40.250	432.00	432.00	432.00	432.00	432.00
40.500	432.00	432.00	432.00	432.00	432.00
40.750	432.00	432.00	432.00	432.00	432.00
41.000	432.00	432.00	432.00	432.00	432.00
41.250	432.00	432.00	432.00	432.00	432.00
41.500	432.00	432.00	432.00	432.00	432.00
41.750	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 2B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	432.00	432.00	432.00	432.00	432.00
42.250	432.00	432.00	432.00	432.00	432.00
42.500	432.00	432.00	432.00	432.00	432.00
42.750	432.00	432.00	432.00	432.00	432.00
43.000	432.00	432.00	432.00	432.00	432.00
43.250	432.00	432.00	432.00	432.00	432.00
43.500	432.00	432.00	432.00	432.00	432.00
43.750	432.00	432.00	432.00	432.00	432.00
44.000	432.00	432.00	432.00	432.00	432.00
44.250	432.00	432.00	432.00	432.00	432.00
44.500	432.00	432.00	432.00	432.00	432.00
44.750	432.00	432.00	432.00	432.00	432.00
45.000	432.00	432.00	432.00	432.00	432.00
45.250	432.00	432.00	432.00	432.00	432.00
45.500	432.00	432.00	432.00	432.00	432.00
45.750	432.00	432.00	432.00	432.00	432.00
46.000	432.00	432.00	432.00	432.00	432.00
46.250	432.00	432.00	432.00	432.00	432.00
46.500	432.00	432.00	432.00	432.00	432.00
46.750	432.00	432.00	432.00	432.00	432.00
47.000	432.00	432.00	432.00	432.00	432.00
47.250	432.00	432.00	432.00	432.00	432.00
47.500	432.00	432.00	432.00	432.00	432.00
47.750	432.00	432.00	432.00	432.00	432.00
48.000	432.00	432.00	432.00	432.00	432.00
48.250	432.00	432.00	432.00	432.00	432.00
48.500	432.00	432.00	432.00	432.00	432.00
48.750	432.00	432.00	432.00	432.00	432.00
49.000	432.00	432.00	432.00	432.00	432.00
49.250	432.00	432.00	432.00	432.00	432.00
49.500	432.00	432.00	432.00	432.00	432.00
49.750	432.00	432.00	432.00	432.00	432.00
50.000	432.00	432.00	432.00	432.00	432.00
50.250	432.00	432.00	432.00	432.00	432.00
50.500	432.00	432.00	432.00	432.00	432.00
50.750	432.00	432.00	432.00	432.00	432.00
51.000	432.00	432.00	432.00	432.00	432.00
51.250	432.00	432.00	432.00	432.00	432.00
51.500	432.00	432.00	432.00	432.00	432.00
51.750	432.00	432.00	432.00	432.00	432.00
52.000	432.00	432.00	432.00	432.00	432.00
52.250	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 2B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	432.00	432.00	432.00	432.00	432.00
52.750	432.00	432.00	432.00	432.00	432.00
53.000	432.00	432.00	432.00	432.00	432.00
53.250	432.00	432.00	432.00	432.00	432.00
53.500	432.00	432.00	432.00	432.00	432.00
53.750	432.00	432.00	432.00	432.00	432.00
54.000	432.00	432.00	432.00	432.00	432.00
54.250	432.00	432.00	432.00	432.00	432.00
54.500	432.00	432.00	432.00	432.00	432.00
54.750	432.00	432.00	432.00	432.00	432.00
55.000	432.00	432.00	432.00	432.00	432.00
55.250	432.00	432.00	432.00	432.00	432.00
55.500	432.00	432.00	432.00	432.00	432.00
55.750	432.00	432.00	432.00	432.00	432.00
56.000	432.00	432.00	432.00	432.00	432.00
56.250	432.00	432.00	432.00	432.00	432.00
56.500	432.00	432.00	432.00	432.00	432.00
56.750	432.00	432.00	432.00	432.00	432.00
57.000	432.00	432.00	432.00	432.00	432.00
57.250	432.00	432.00	432.00	432.00	432.00
57.500	432.00	432.00	432.00	432.00	432.00
57.750	432.00	432.00	432.00	432.00	432.00
58.000	432.00	432.00	432.00	432.00	432.00
58.250	432.00	432.00	432.00	432.00	432.00
58.500	432.00	432.00	432.00	432.00	432.00
58.750	432.00	432.00	432.00	432.00	432.00
59.000	432.00	432.00	432.00	432.00	432.00
59.250	432.00	432.00	432.00	432.00	432.00
59.500	432.00	432.00	432.00	432.00	432.00
59.750	432.00	432.00	432.00	432.00	432.00
60.000	432.00	432.00	432.00	432.00	432.00
60.250	432.00	432.00	432.00	432.00	432.00
60.500	432.00	432.00	432.00	432.00	432.00
60.750	432.00	432.00	432.00	432.00	432.00
61.000	432.00	432.00	432.00	432.00	432.00
61.250	432.00	432.00	432.00	432.00	432.00
61.500	432.00	432.00	432.00	432.00	432.00
61.750	432.00	432.00	432.00	432.00	432.00
62.000	432.00	432.00	432.00	432.00	432.00
62.250	432.00	432.00	432.00	432.00	432.00
62.500	432.00	432.00	432.00	432.00	432.00
62.750	432.00	432.00	432.00	432.00	432.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 2B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	432.00	432.00	432.00	432.00	432.00
63.250	432.00	432.00	432.00	432.00	432.00
63.500	432.00	432.00	432.00	432.00	432.00
63.750	432.00	432.00	432.00	432.00	432.00
64.000	432.00	432.00	432.00	432.00	432.00
64.250	432.00	432.00	432.00	432.00	432.00
64.500	432.00	432.00	432.00	432.00	432.00
64.750	432.00	432.00	432.00	432.00	432.00
65.000	432.00	432.00	432.00	432.00	432.00
65.250	432.00	432.00	432.00	432.00	432.00
65.500	432.00	432.00	432.00	432.00	432.00
65.750	432.00	432.00	432.00	432.00	432.00
66.000	432.00	432.00	432.00	432.00	432.00
66.250	432.00	432.00	432.00	432.00	432.00
66.500	432.00	432.00	432.00	432.00	432.00
66.750	432.00	432.00	432.00	432.00	432.00
67.000	432.00	432.00	432.00	432.00	432.00
67.250	432.00	432.00	432.00	432.00	432.00
67.500	432.00	432.00	432.00	432.00	432.00
67.750	432.00	432.00	432.00	432.00	432.00
68.000	432.00	432.00	432.00	432.00	432.00
68.250	432.00	432.00	432.00	432.00	432.00
68.500	432.00	432.00	432.00	432.00	432.00
68.750	432.00	432.00	432.00	432.00	432.00
69.000	432.00	432.00	432.00	432.00	432.00
69.250	432.00	432.00	432.00	432.00	432.00
69.500	432.00	432.00	432.00	432.00	432.00
69.750	432.00	432.00	432.00	432.00	432.00
70.000	432.00	432.00	432.00	432.00	432.00
70.250	432.00	432.00	432.00	432.00	432.00
70.500	432.00	432.00	432.00	432.00	432.00
70.750	432.00	432.00	432.00	432.00	432.00
71.000	432.00	432.00	432.00	432.00	432.00
71.250	432.00	432.00	432.00	432.00	432.00
71.500	432.00	432.00	432.00	432.00	432.00
71.750	432.00	432.00	432.00	432.00	432.00
72.000	432.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 3A (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	434.00	434.00	434.00	434.00	434.00
0.250	434.00	434.00	434.00	434.00	434.00
0.500	434.00	434.00	434.00	434.00	434.00
0.750	434.00	434.00	434.00	434.00	434.00
1.000	434.00	434.00	434.00	434.00	434.00
1.250	434.00	434.00	434.00	434.00	434.00
1.500	434.00	434.00	434.00	434.00	434.00
1.750	434.00	434.00	434.00	434.00	434.00
2.000	434.00	434.00	434.00	434.00	434.00
2.250	434.00	434.00	434.00	434.00	434.00
2.500	434.00	434.00	434.00	434.00	434.00
2.750	434.00	434.00	434.00	434.00	434.00
3.000	434.00	434.00	434.00	434.00	434.00
3.250	434.00	434.00	434.00	434.00	434.00
3.500	434.00	434.00	434.00	434.00	434.00
3.750	434.00	434.00	434.00	434.00	434.00
4.000	434.00	434.00	434.00	434.00	434.00
4.250	434.00	434.00	434.00	434.00	434.00
4.500	434.00	434.00	434.00	434.00	434.00
4.750	434.00	434.00	434.00	434.00	434.00
5.000	434.00	434.00	434.00	434.00	434.00
5.250	434.00	434.00	434.00	434.00	434.00
5.500	434.00	434.00	434.00	434.00	434.00
5.750	434.00	434.00	434.00	434.00	434.00
6.000	434.00	434.00	434.00	434.00	434.00
6.250	434.00	434.00	434.00	434.00	434.00
6.500	434.00	434.00	434.00	434.00	434.00
6.750	434.00	434.00	434.00	434.00	434.00
7.000	434.00	434.00	434.00	434.00	434.00
7.250	434.00	434.00	434.00	434.00	434.00
7.500	434.00	434.00	434.00	434.00	434.00
7.750	434.00	434.00	434.00	434.00	434.00
8.000	434.00	434.00	434.00	434.00	434.00
8.250	434.00	434.00	434.00	434.00	434.00
8.500	434.00	434.00	434.00	434.00	434.00
8.750	434.00	434.00	434.00	434.00	434.00
9.000	434.00	434.00	434.00	434.00	434.00
9.250	434.00	434.00	434.00	434.00	434.00
9.500	434.00	434.00	434.00	434.00	434.00
9.750	434.00	434.00	434.00	434.00	434.00
10.000	434.00	434.00	434.00	434.00	434.00
10.250	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Return Event: 1 years
Label: Inf. Basin 3A (IN)
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	434.00	434.00	434.00	434.00	434.00
10.750	434.00	434.00	434.00	434.00	434.00
11.000	434.00	434.01	434.01	434.01	434.01
11.250	434.01	434.01	434.01	434.01	434.01
11.500	434.01	434.01	434.01	434.02	434.02
11.750	434.02	434.03	434.03	434.04	434.06
12.000	434.13	434.22	434.28	434.31	434.32
12.250	434.32	434.32	434.32	434.31	434.31
12.500	434.30	434.29	434.27	434.25	434.23
12.750	434.21	434.19	434.16	434.14	434.11
13.000	434.09	434.06	434.04	434.03	434.02
13.250	434.02	434.02	434.01	434.01	434.01
13.500	434.01	434.01	434.01	434.01	434.01
13.750	434.01	434.01	434.01	434.01	434.01
14.000	434.01	434.01	434.01	434.01	434.01
14.250	434.01	434.01	434.01	434.01	434.01
14.500	434.01	434.01	434.01	434.01	434.01
14.750	434.01	434.01	434.01	434.01	434.01
15.000	434.01	434.01	434.01	434.01	434.01
15.250	434.01	434.01	434.01	434.01	434.01
15.500	434.01	434.01	434.00	434.00	434.00
15.750	434.01	434.01	434.01	434.01	434.01
16.000	434.01	434.01	434.00	434.00	434.00
16.250	434.01	434.01	434.01	434.01	434.01
16.500	434.00	434.00	434.00	434.01	434.01
16.750	434.01	434.00	434.00	434.00	434.01
17.000	434.01	434.01	434.00	434.00	434.00
17.250	434.01	434.01	434.01	434.00	434.00
17.500	434.00	434.01	434.01	434.01	434.00
17.750	434.00	434.00	434.00	434.00	434.00
18.000	434.00	434.01	434.01	434.01	434.00
18.250	434.00	434.00	434.00	434.00	434.00
18.500	434.00	434.00	434.00	434.00	434.00
18.750	434.00	434.00	434.00	434.00	434.01
19.000	434.01	434.01	434.00	434.00	434.00
19.250	434.00	434.00	434.00	434.00	434.00
19.500	434.00	434.00	434.00	434.00	434.00
19.750	434.00	434.00	434.00	434.00	434.00
20.000	434.00	434.00	434.00	434.00	434.00
20.250	434.00	434.00	434.00	434.00	434.00
20.500	434.00	434.00	434.00	434.00	434.00
20.750	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 3A (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	434.00	434.00	434.00	434.00	434.00
21.250	434.00	434.00	434.00	434.00	434.00
21.500	434.00	434.00	434.00	434.00	434.00
21.750	434.00	434.00	434.00	434.00	434.00
22.000	434.00	434.00	434.00	434.00	434.00
22.250	434.00	434.00	434.00	434.00	434.00
22.500	434.00	434.00	434.00	434.00	434.00
22.750	434.00	434.00	434.00	434.00	434.00
23.000	434.00	434.00	434.00	434.00	434.00
23.250	434.00	434.00	434.00	434.00	434.00
23.500	434.00	434.00	434.00	434.00	434.00
23.750	434.00	434.00	434.00	434.00	434.00
24.000	434.00	434.00	434.00	434.00	434.00
24.250	434.00	434.00	434.00	434.00	434.00
24.500	434.00	434.00	434.00	434.00	434.00
24.750	434.00	434.00	434.00	434.00	434.00
25.000	434.00	434.00	434.00	434.00	434.00
25.250	434.00	434.00	434.00	434.00	434.00
25.500	434.00	434.00	434.00	434.00	434.00
25.750	434.00	434.00	434.00	434.00	434.00
26.000	434.00	434.00	434.00	434.00	434.00
26.250	434.00	434.00	434.00	434.00	434.00
26.500	434.00	434.00	434.00	434.00	434.00
26.750	434.00	434.00	434.00	434.00	434.00
27.000	434.00	434.00	434.00	434.00	434.00
27.250	434.00	434.00	434.00	434.00	434.00
27.500	434.00	434.00	434.00	434.00	434.00
27.750	434.00	434.00	434.00	434.00	434.00
28.000	434.00	434.00	434.00	434.00	434.00
28.250	434.00	434.00	434.00	434.00	434.00
28.500	434.00	434.00	434.00	434.00	434.00
28.750	434.00	434.00	434.00	434.00	434.00
29.000	434.00	434.00	434.00	434.00	434.00
29.250	434.00	434.00	434.00	434.00	434.00
29.500	434.00	434.00	434.00	434.00	434.00
29.750	434.00	434.00	434.00	434.00	434.00
30.000	434.00	434.00	434.00	434.00	434.00
30.250	434.00	434.00	434.00	434.00	434.00
30.500	434.00	434.00	434.00	434.00	434.00
30.750	434.00	434.00	434.00	434.00	434.00
31.000	434.00	434.00	434.00	434.00	434.00
31.250	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Basin 3A (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	434.00	434.00	434.00	434.00	434.00
31.750	434.00	434.00	434.00	434.00	434.00
32.000	434.00	434.00	434.00	434.00	434.00
32.250	434.00	434.00	434.00	434.00	434.00
32.500	434.00	434.00	434.00	434.00	434.00
32.750	434.00	434.00	434.00	434.00	434.00
33.000	434.00	434.00	434.00	434.00	434.00
33.250	434.00	434.00	434.00	434.00	434.00
33.500	434.00	434.00	434.00	434.00	434.00
33.750	434.00	434.00	434.00	434.00	434.00
34.000	434.00	434.00	434.00	434.00	434.00
34.250	434.00	434.00	434.00	434.00	434.00
34.500	434.00	434.00	434.00	434.00	434.00
34.750	434.00	434.00	434.00	434.00	434.00
35.000	434.00	434.00	434.00	434.00	434.00
35.250	434.00	434.00	434.00	434.00	434.00
35.500	434.00	434.00	434.00	434.00	434.00
35.750	434.00	434.00	434.00	434.00	434.00
36.000	434.00	434.00	434.00	434.00	434.00
36.250	434.00	434.00	434.00	434.00	434.00
36.500	434.00	434.00	434.00	434.00	434.00
36.750	434.00	434.00	434.00	434.00	434.00
37.000	434.00	434.00	434.00	434.00	434.00
37.250	434.00	434.00	434.00	434.00	434.00
37.500	434.00	434.00	434.00	434.00	434.00
37.750	434.00	434.00	434.00	434.00	434.00
38.000	434.00	434.00	434.00	434.00	434.00
38.250	434.00	434.00	434.00	434.00	434.00
38.500	434.00	434.00	434.00	434.00	434.00
38.750	434.00	434.00	434.00	434.00	434.00
39.000	434.00	434.00	434.00	434.00	434.00
39.250	434.00	434.00	434.00	434.00	434.00
39.500	434.00	434.00	434.00	434.00	434.00
39.750	434.00	434.00	434.00	434.00	434.00
40.000	434.00	434.00	434.00	434.00	434.00
40.250	434.00	434.00	434.00	434.00	434.00
40.500	434.00	434.00	434.00	434.00	434.00
40.750	434.00	434.00	434.00	434.00	434.00
41.000	434.00	434.00	434.00	434.00	434.00
41.250	434.00	434.00	434.00	434.00	434.00
41.500	434.00	434.00	434.00	434.00	434.00
41.750	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 3A (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	434.00	434.00	434.00	434.00	434.00
42.250	434.00	434.00	434.00	434.00	434.00
42.500	434.00	434.00	434.00	434.00	434.00
42.750	434.00	434.00	434.00	434.00	434.00
43.000	434.00	434.00	434.00	434.00	434.00
43.250	434.00	434.00	434.00	434.00	434.00
43.500	434.00	434.00	434.00	434.00	434.00
43.750	434.00	434.00	434.00	434.00	434.00
44.000	434.00	434.00	434.00	434.00	434.00
44.250	434.00	434.00	434.00	434.00	434.00
44.500	434.00	434.00	434.00	434.00	434.00
44.750	434.00	434.00	434.00	434.00	434.00
45.000	434.00	434.00	434.00	434.00	434.00
45.250	434.00	434.00	434.00	434.00	434.00
45.500	434.00	434.00	434.00	434.00	434.00
45.750	434.00	434.00	434.00	434.00	434.00
46.000	434.00	434.00	434.00	434.00	434.00
46.250	434.00	434.00	434.00	434.00	434.00
46.500	434.00	434.00	434.00	434.00	434.00
46.750	434.00	434.00	434.00	434.00	434.00
47.000	434.00	434.00	434.00	434.00	434.00
47.250	434.00	434.00	434.00	434.00	434.00
47.500	434.00	434.00	434.00	434.00	434.00
47.750	434.00	434.00	434.00	434.00	434.00
48.000	434.00	434.00	434.00	434.00	434.00
48.250	434.00	434.00	434.00	434.00	434.00
48.500	434.00	434.00	434.00	434.00	434.00
48.750	434.00	434.00	434.00	434.00	434.00
49.000	434.00	434.00	434.00	434.00	434.00
49.250	434.00	434.00	434.00	434.00	434.00
49.500	434.00	434.00	434.00	434.00	434.00
49.750	434.00	434.00	434.00	434.00	434.00
50.000	434.00	434.00	434.00	434.00	434.00
50.250	434.00	434.00	434.00	434.00	434.00
50.500	434.00	434.00	434.00	434.00	434.00
50.750	434.00	434.00	434.00	434.00	434.00
51.000	434.00	434.00	434.00	434.00	434.00
51.250	434.00	434.00	434.00	434.00	434.00
51.500	434.00	434.00	434.00	434.00	434.00
51.750	434.00	434.00	434.00	434.00	434.00
52.000	434.00	434.00	434.00	434.00	434.00
52.250	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 3A (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	434.00	434.00	434.00	434.00	434.00
52.750	434.00	434.00	434.00	434.00	434.00
53.000	434.00	434.00	434.00	434.00	434.00
53.250	434.00	434.00	434.00	434.00	434.00
53.500	434.00	434.00	434.00	434.00	434.00
53.750	434.00	434.00	434.00	434.00	434.00
54.000	434.00	434.00	434.00	434.00	434.00
54.250	434.00	434.00	434.00	434.00	434.00
54.500	434.00	434.00	434.00	434.00	434.00
54.750	434.00	434.00	434.00	434.00	434.00
55.000	434.00	434.00	434.00	434.00	434.00
55.250	434.00	434.00	434.00	434.00	434.00
55.500	434.00	434.00	434.00	434.00	434.00
55.750	434.00	434.00	434.00	434.00	434.00
56.000	434.00	434.00	434.00	434.00	434.00
56.250	434.00	434.00	434.00	434.00	434.00
56.500	434.00	434.00	434.00	434.00	434.00
56.750	434.00	434.00	434.00	434.00	434.00
57.000	434.00	434.00	434.00	434.00	434.00
57.250	434.00	434.00	434.00	434.00	434.00
57.500	434.00	434.00	434.00	434.00	434.00
57.750	434.00	434.00	434.00	434.00	434.00
58.000	434.00	434.00	434.00	434.00	434.00
58.250	434.00	434.00	434.00	434.00	434.00
58.500	434.00	434.00	434.00	434.00	434.00
58.750	434.00	434.00	434.00	434.00	434.00
59.000	434.00	434.00	434.00	434.00	434.00
59.250	434.00	434.00	434.00	434.00	434.00
59.500	434.00	434.00	434.00	434.00	434.00
59.750	434.00	434.00	434.00	434.00	434.00
60.000	434.00	434.00	434.00	434.00	434.00
60.250	434.00	434.00	434.00	434.00	434.00
60.500	434.00	434.00	434.00	434.00	434.00
60.750	434.00	434.00	434.00	434.00	434.00
61.000	434.00	434.00	434.00	434.00	434.00
61.250	434.00	434.00	434.00	434.00	434.00
61.500	434.00	434.00	434.00	434.00	434.00
61.750	434.00	434.00	434.00	434.00	434.00
62.000	434.00	434.00	434.00	434.00	434.00
62.250	434.00	434.00	434.00	434.00	434.00
62.500	434.00	434.00	434.00	434.00	434.00
62.750	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Basin 3A (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	434.00	434.00	434.00	434.00	434.00
63.250	434.00	434.00	434.00	434.00	434.00
63.500	434.00	434.00	434.00	434.00	434.00
63.750	434.00	434.00	434.00	434.00	434.00
64.000	434.00	434.00	434.00	434.00	434.00
64.250	434.00	434.00	434.00	434.00	434.00
64.500	434.00	434.00	434.00	434.00	434.00
64.750	434.00	434.00	434.00	434.00	434.00
65.000	434.00	434.00	434.00	434.00	434.00
65.250	434.00	434.00	434.00	434.00	434.00
65.500	434.00	434.00	434.00	434.00	434.00
65.750	434.00	434.00	434.00	434.00	434.00
66.000	434.00	434.00	434.00	434.00	434.00
66.250	434.00	434.00	434.00	434.00	434.00
66.500	434.00	434.00	434.00	434.00	434.00
66.750	434.00	434.00	434.00	434.00	434.00
67.000	434.00	434.00	434.00	434.00	434.00
67.250	434.00	434.00	434.00	434.00	434.00
67.500	434.00	434.00	434.00	434.00	434.00
67.750	434.00	434.00	434.00	434.00	434.00
68.000	434.00	434.00	434.00	434.00	434.00
68.250	434.00	434.00	434.00	434.00	434.00
68.500	434.00	434.00	434.00	434.00	434.00
68.750	434.00	434.00	434.00	434.00	434.00
69.000	434.00	434.00	434.00	434.00	434.00
69.250	434.00	434.00	434.00	434.00	434.00
69.500	434.00	434.00	434.00	434.00	434.00
69.750	434.00	434.00	434.00	434.00	434.00
70.000	434.00	434.00	434.00	434.00	434.00
70.250	434.00	434.00	434.00	434.00	434.00
70.500	434.00	434.00	434.00	434.00	434.00
70.750	434.00	434.00	434.00	434.00	434.00
71.000	434.00	434.00	434.00	434.00	434.00
71.250	434.00	434.00	434.00	434.00	434.00
71.500	434.00	434.00	434.00	434.00	434.00
71.750	434.00	434.00	434.00	434.00	434.00
72.000	434.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Inf. Basin 3A (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	434.00	434.00	434.00	434.00	434.00
0.250	434.00	434.00	434.00	434.00	434.00
0.500	434.00	434.00	434.00	434.00	434.00
0.750	434.00	434.00	434.00	434.00	434.00
1.000	434.00	434.00	434.00	434.00	434.00
1.250	434.00	434.00	434.00	434.00	434.00
1.500	434.00	434.00	434.00	434.00	434.00
1.750	434.00	434.00	434.00	434.00	434.00
2.000	434.00	434.00	434.00	434.00	434.00
2.250	434.00	434.00	434.00	434.00	434.00
2.500	434.00	434.00	434.00	434.00	434.00
2.750	434.00	434.00	434.00	434.00	434.00
3.000	434.00	434.00	434.00	434.00	434.00
3.250	434.00	434.00	434.00	434.00	434.00
3.500	434.00	434.00	434.00	434.00	434.00
3.750	434.00	434.00	434.00	434.00	434.00
4.000	434.00	434.00	434.00	434.00	434.00
4.250	434.00	434.00	434.00	434.00	434.00
4.500	434.00	434.00	434.00	434.00	434.00
4.750	434.00	434.00	434.00	434.00	434.00
5.000	434.00	434.00	434.00	434.00	434.00
5.250	434.00	434.00	434.00	434.00	434.00
5.500	434.00	434.00	434.00	434.00	434.00
5.750	434.00	434.00	434.00	434.00	434.00
6.000	434.00	434.00	434.00	434.00	434.00
6.250	434.00	434.00	434.00	434.00	434.00
6.500	434.00	434.00	434.00	434.00	434.00
6.750	434.00	434.00	434.00	434.00	434.00
7.000	434.00	434.00	434.00	434.00	434.00
7.250	434.00	434.00	434.00	434.00	434.00
7.500	434.00	434.00	434.00	434.00	434.00
7.750	434.00	434.00	434.00	434.00	434.00
8.000	434.00	434.00	434.00	434.00	434.00
8.250	434.00	434.00	434.00	434.00	434.01
8.500	434.01	434.01	434.01	434.01	434.01
8.750	434.00	434.01	434.01	434.01	434.01
9.000	434.01	434.01	434.01	434.01	434.01
9.250	434.01	434.01	434.01	434.01	434.01
9.500	434.01	434.01	434.01	434.01	434.01
9.750	434.01	434.01	434.01	434.01	434.01
10.000	434.01	434.01	434.01	434.01	434.01
10.250	434.01	434.01	434.01	434.01	434.01

Subsection: Time vs. Elevation
Label: Inf. Basin 3A (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	434.01	434.01	434.02	434.02	434.02
10.750	434.02	434.02	434.02	434.02	434.02
11.000	434.02	434.02	434.02	434.02	434.02
11.250	434.03	434.03	434.03	434.03	434.03
11.500	434.03	434.04	434.05	434.06	434.08
11.750	434.10	434.14	434.17	434.22	434.32
12.000	434.51	434.74	434.89	434.99	435.06
12.250	435.11	435.15	435.18	435.20	435.23
12.500	435.25	435.26	435.26	435.26	435.25
12.750	435.24	435.23	435.22	435.21	435.19
13.000	435.18	435.16	435.15	435.14	435.12
13.250	435.11	435.09	435.07	435.05	435.03
13.500	435.01	434.99	434.98	434.96	434.94
13.750	434.92	434.90	434.88	434.86	434.84
14.000	434.82	434.80	434.77	434.75	434.73
14.250	434.70	434.68	434.66	434.64	434.62
14.500	434.60	434.57	434.55	434.53	434.50
14.750	434.48	434.46	434.43	434.41	434.39
15.000	434.36	434.34	434.32	434.29	434.27
15.250	434.25	434.22	434.19	434.17	434.15
15.500	434.12	434.10	434.07	434.05	434.03
15.750	434.02	434.02	434.02	434.01	434.01
16.000	434.01	434.01	434.01	434.01	434.01
16.250	434.01	434.01	434.01	434.01	434.01
16.500	434.01	434.01	434.01	434.01	434.01
16.750	434.01	434.01	434.01	434.01	434.01
17.000	434.01	434.01	434.01	434.01	434.01
17.250	434.01	434.01	434.01	434.01	434.01
17.500	434.01	434.01	434.01	434.01	434.01
17.750	434.01	434.01	434.01	434.01	434.01
18.000	434.01	434.01	434.01	434.01	434.01
18.250	434.01	434.01	434.01	434.01	434.01
18.500	434.01	434.01	434.01	434.01	434.01
18.750	434.01	434.01	434.01	434.01	434.01
19.000	434.01	434.01	434.01	434.01	434.01
19.250	434.01	434.01	434.01	434.01	434.01
19.500	434.01	434.01	434.01	434.01	434.01
19.750	434.01	434.01	434.01	434.01	434.01
20.000	434.01	434.01	434.01	434.01	434.01
20.250	434.01	434.01	434.01	434.01	434.01
20.500	434.01	434.01	434.01	434.01	434.01
20.750	434.01	434.01	434.00	434.00	434.01

Subsection: Time vs. Elevation
Label: Inf. Basin 3A (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	434.01	434.01	434.01	434.01	434.01
21.250	434.01	434.01	434.01	434.01	434.01
21.500	434.01	434.00	434.00	434.01	434.01
21.750	434.01	434.01	434.01	434.01	434.01
22.000	434.01	434.01	434.01	434.00	434.00
22.250	434.01	434.01	434.01	434.01	434.01
22.500	434.01	434.01	434.01	434.00	434.00
22.750	434.01	434.01	434.01	434.01	434.01
23.000	434.01	434.01	434.01	434.00	434.00
23.250	434.01	434.01	434.01	434.01	434.01
23.500	434.01	434.00	434.00	434.01	434.01
23.750	434.01	434.01	434.01	434.01	434.00
24.000	434.00	434.01	434.00	434.00	434.00
24.250	434.00	434.00	434.00	434.00	434.00
24.500	434.00	434.00	434.00	434.00	434.00
24.750	434.00	434.00	434.00	434.00	434.00
25.000	434.00	434.00	434.00	434.00	434.00
25.250	434.00	434.00	434.00	434.00	434.00
25.500	434.00	434.00	434.00	434.00	434.00
25.750	434.00	434.00	434.00	434.00	434.00
26.000	434.00	434.00	434.00	434.00	434.00
26.250	434.00	434.00	434.00	434.00	434.00
26.500	434.00	434.00	434.00	434.00	434.00
26.750	434.00	434.00	434.00	434.00	434.00
27.000	434.00	434.00	434.00	434.00	434.00
27.250	434.00	434.00	434.00	434.00	434.00
27.500	434.00	434.00	434.00	434.00	434.00
27.750	434.00	434.00	434.00	434.00	434.00
28.000	434.00	434.00	434.00	434.00	434.00
28.250	434.00	434.00	434.00	434.00	434.00
28.500	434.00	434.00	434.00	434.00	434.00
28.750	434.00	434.00	434.00	434.00	434.00
29.000	434.00	434.00	434.00	434.00	434.00
29.250	434.00	434.00	434.00	434.00	434.00
29.500	434.00	434.00	434.00	434.00	434.00
29.750	434.00	434.00	434.00	434.00	434.00
30.000	434.00	434.00	434.00	434.00	434.00
30.250	434.00	434.00	434.00	434.00	434.00
30.500	434.00	434.00	434.00	434.00	434.00
30.750	434.00	434.00	434.00	434.00	434.00
31.000	434.00	434.00	434.00	434.00	434.00
31.250	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Label: Inf. Basin 3A (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	434.00	434.00	434.00	434.00	434.00
31.750	434.00	434.00	434.00	434.00	434.00
32.000	434.00	434.00	434.00	434.00	434.00
32.250	434.00	434.00	434.00	434.00	434.00
32.500	434.00	434.00	434.00	434.00	434.00
32.750	434.00	434.00	434.00	434.00	434.00
33.000	434.00	434.00	434.00	434.00	434.00
33.250	434.00	434.00	434.00	434.00	434.00
33.500	434.00	434.00	434.00	434.00	434.00
33.750	434.00	434.00	434.00	434.00	434.00
34.000	434.00	434.00	434.00	434.00	434.00
34.250	434.00	434.00	434.00	434.00	434.00
34.500	434.00	434.00	434.00	434.00	434.00
34.750	434.00	434.00	434.00	434.00	434.00
35.000	434.00	434.00	434.00	434.00	434.00
35.250	434.00	434.00	434.00	434.00	434.00
35.500	434.00	434.00	434.00	434.00	434.00
35.750	434.00	434.00	434.00	434.00	434.00
36.000	434.00	434.00	434.00	434.00	434.00
36.250	434.00	434.00	434.00	434.00	434.00
36.500	434.00	434.00	434.00	434.00	434.00
36.750	434.00	434.00	434.00	434.00	434.00
37.000	434.00	434.00	434.00	434.00	434.00
37.250	434.00	434.00	434.00	434.00	434.00
37.500	434.00	434.00	434.00	434.00	434.00
37.750	434.00	434.00	434.00	434.00	434.00
38.000	434.00	434.00	434.00	434.00	434.00
38.250	434.00	434.00	434.00	434.00	434.00
38.500	434.00	434.00	434.00	434.00	434.00
38.750	434.00	434.00	434.00	434.00	434.00
39.000	434.00	434.00	434.00	434.00	434.00
39.250	434.00	434.00	434.00	434.00	434.00
39.500	434.00	434.00	434.00	434.00	434.00
39.750	434.00	434.00	434.00	434.00	434.00
40.000	434.00	434.00	434.00	434.00	434.00
40.250	434.00	434.00	434.00	434.00	434.00
40.500	434.00	434.00	434.00	434.00	434.00
40.750	434.00	434.00	434.00	434.00	434.00
41.000	434.00	434.00	434.00	434.00	434.00
41.250	434.00	434.00	434.00	434.00	434.00
41.500	434.00	434.00	434.00	434.00	434.00
41.750	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Label: Inf. Basin 3A (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	434.00	434.00	434.00	434.00	434.00
42.250	434.00	434.00	434.00	434.00	434.00
42.500	434.00	434.00	434.00	434.00	434.00
42.750	434.00	434.00	434.00	434.00	434.00
43.000	434.00	434.00	434.00	434.00	434.00
43.250	434.00	434.00	434.00	434.00	434.00
43.500	434.00	434.00	434.00	434.00	434.00
43.750	434.00	434.00	434.00	434.00	434.00
44.000	434.00	434.00	434.00	434.00	434.00
44.250	434.00	434.00	434.00	434.00	434.00
44.500	434.00	434.00	434.00	434.00	434.00
44.750	434.00	434.00	434.00	434.00	434.00
45.000	434.00	434.00	434.00	434.00	434.00
45.250	434.00	434.00	434.00	434.00	434.00
45.500	434.00	434.00	434.00	434.00	434.00
45.750	434.00	434.00	434.00	434.00	434.00
46.000	434.00	434.00	434.00	434.00	434.00
46.250	434.00	434.00	434.00	434.00	434.00
46.500	434.00	434.00	434.00	434.00	434.00
46.750	434.00	434.00	434.00	434.00	434.00
47.000	434.00	434.00	434.00	434.00	434.00
47.250	434.00	434.00	434.00	434.00	434.00
47.500	434.00	434.00	434.00	434.00	434.00
47.750	434.00	434.00	434.00	434.00	434.00
48.000	434.00	434.00	434.00	434.00	434.00
48.250	434.00	434.00	434.00	434.00	434.00
48.500	434.00	434.00	434.00	434.00	434.00
48.750	434.00	434.00	434.00	434.00	434.00
49.000	434.00	434.00	434.00	434.00	434.00
49.250	434.00	434.00	434.00	434.00	434.00
49.500	434.00	434.00	434.00	434.00	434.00
49.750	434.00	434.00	434.00	434.00	434.00
50.000	434.00	434.00	434.00	434.00	434.00
50.250	434.00	434.00	434.00	434.00	434.00
50.500	434.00	434.00	434.00	434.00	434.00
50.750	434.00	434.00	434.00	434.00	434.00
51.000	434.00	434.00	434.00	434.00	434.00
51.250	434.00	434.00	434.00	434.00	434.00
51.500	434.00	434.00	434.00	434.00	434.00
51.750	434.00	434.00	434.00	434.00	434.00
52.000	434.00	434.00	434.00	434.00	434.00
52.250	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Label: Inf. Basin 3A (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	434.00	434.00	434.00	434.00	434.00
52.750	434.00	434.00	434.00	434.00	434.00
53.000	434.00	434.00	434.00	434.00	434.00
53.250	434.00	434.00	434.00	434.00	434.00
53.500	434.00	434.00	434.00	434.00	434.00
53.750	434.00	434.00	434.00	434.00	434.00
54.000	434.00	434.00	434.00	434.00	434.00
54.250	434.00	434.00	434.00	434.00	434.00
54.500	434.00	434.00	434.00	434.00	434.00
54.750	434.00	434.00	434.00	434.00	434.00
55.000	434.00	434.00	434.00	434.00	434.00
55.250	434.00	434.00	434.00	434.00	434.00
55.500	434.00	434.00	434.00	434.00	434.00
55.750	434.00	434.00	434.00	434.00	434.00
56.000	434.00	434.00	434.00	434.00	434.00
56.250	434.00	434.00	434.00	434.00	434.00
56.500	434.00	434.00	434.00	434.00	434.00
56.750	434.00	434.00	434.00	434.00	434.00
57.000	434.00	434.00	434.00	434.00	434.00
57.250	434.00	434.00	434.00	434.00	434.00
57.500	434.00	434.00	434.00	434.00	434.00
57.750	434.00	434.00	434.00	434.00	434.00
58.000	434.00	434.00	434.00	434.00	434.00
58.250	434.00	434.00	434.00	434.00	434.00
58.500	434.00	434.00	434.00	434.00	434.00
58.750	434.00	434.00	434.00	434.00	434.00
59.000	434.00	434.00	434.00	434.00	434.00
59.250	434.00	434.00	434.00	434.00	434.00
59.500	434.00	434.00	434.00	434.00	434.00
59.750	434.00	434.00	434.00	434.00	434.00
60.000	434.00	434.00	434.00	434.00	434.00
60.250	434.00	434.00	434.00	434.00	434.00
60.500	434.00	434.00	434.00	434.00	434.00
60.750	434.00	434.00	434.00	434.00	434.00
61.000	434.00	434.00	434.00	434.00	434.00
61.250	434.00	434.00	434.00	434.00	434.00
61.500	434.00	434.00	434.00	434.00	434.00
61.750	434.00	434.00	434.00	434.00	434.00
62.000	434.00	434.00	434.00	434.00	434.00
62.250	434.00	434.00	434.00	434.00	434.00
62.500	434.00	434.00	434.00	434.00	434.00
62.750	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Label: Inf. Basin 3A (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	434.00	434.00	434.00	434.00	434.00
63.250	434.00	434.00	434.00	434.00	434.00
63.500	434.00	434.00	434.00	434.00	434.00
63.750	434.00	434.00	434.00	434.00	434.00
64.000	434.00	434.00	434.00	434.00	434.00
64.250	434.00	434.00	434.00	434.00	434.00
64.500	434.00	434.00	434.00	434.00	434.00
64.750	434.00	434.00	434.00	434.00	434.00
65.000	434.00	434.00	434.00	434.00	434.00
65.250	434.00	434.00	434.00	434.00	434.00
65.500	434.00	434.00	434.00	434.00	434.00
65.750	434.00	434.00	434.00	434.00	434.00
66.000	434.00	434.00	434.00	434.00	434.00
66.250	434.00	434.00	434.00	434.00	434.00
66.500	434.00	434.00	434.00	434.00	434.00
66.750	434.00	434.00	434.00	434.00	434.00
67.000	434.00	434.00	434.00	434.00	434.00
67.250	434.00	434.00	434.00	434.00	434.00
67.500	434.00	434.00	434.00	434.00	434.00
67.750	434.00	434.00	434.00	434.00	434.00
68.000	434.00	434.00	434.00	434.00	434.00
68.250	434.00	434.00	434.00	434.00	434.00
68.500	434.00	434.00	434.00	434.00	434.00
68.750	434.00	434.00	434.00	434.00	434.00
69.000	434.00	434.00	434.00	434.00	434.00
69.250	434.00	434.00	434.00	434.00	434.00
69.500	434.00	434.00	434.00	434.00	434.00
69.750	434.00	434.00	434.00	434.00	434.00
70.000	434.00	434.00	434.00	434.00	434.00
70.250	434.00	434.00	434.00	434.00	434.00
70.500	434.00	434.00	434.00	434.00	434.00
70.750	434.00	434.00	434.00	434.00	434.00
71.000	434.00	434.00	434.00	434.00	434.00
71.250	434.00	434.00	434.00	434.00	434.00
71.500	434.00	434.00	434.00	434.00	434.00
71.750	434.00	434.00	434.00	434.00	434.00
72.000	434.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 3A (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	434.00	434.00	434.00	434.00	434.00
0.250	434.00	434.00	434.00	434.00	434.00
0.500	434.00	434.00	434.00	434.00	434.00
0.750	434.00	434.00	434.00	434.00	434.00
1.000	434.00	434.00	434.00	434.00	434.00
1.250	434.00	434.00	434.00	434.00	434.00
1.500	434.00	434.00	434.00	434.00	434.00
1.750	434.00	434.00	434.00	434.00	434.00
2.000	434.00	434.00	434.00	434.00	434.00
2.250	434.00	434.00	434.00	434.00	434.00
2.500	434.00	434.00	434.00	434.00	434.00
2.750	434.00	434.00	434.00	434.00	434.00
3.000	434.00	434.00	434.00	434.00	434.00
3.250	434.00	434.00	434.00	434.00	434.00
3.500	434.00	434.00	434.00	434.00	434.00
3.750	434.00	434.00	434.00	434.00	434.00
4.000	434.00	434.00	434.00	434.00	434.00
4.250	434.00	434.00	434.00	434.00	434.01
4.500	434.01	434.01	434.01	434.01	434.01
4.750	434.01	434.01	434.01	434.01	434.01
5.000	434.01	434.01	434.01	434.01	434.01
5.250	434.01	434.01	434.01	434.01	434.01
5.500	434.01	434.01	434.01	434.01	434.01
5.750	434.01	434.01	434.01	434.01	434.01
6.000	434.01	434.01	434.01	434.01	434.01
6.250	434.01	434.01	434.01	434.01	434.01
6.500	434.01	434.01	434.01	434.01	434.01
6.750	434.01	434.01	434.01	434.01	434.01
7.000	434.01	434.01	434.01	434.01	434.01
7.250	434.01	434.01	434.01	434.02	434.02
7.500	434.02	434.02	434.02	434.02	434.02
7.750	434.02	434.02	434.02	434.02	434.02
8.000	434.02	434.02	434.02	434.02	434.02
8.250	434.02	434.02	434.02	434.02	434.02
8.500	434.02	434.02	434.02	434.02	434.02
8.750	434.02	434.02	434.02	434.03	434.03
9.000	434.02	434.02	434.02	434.02	434.03
9.250	434.03	434.03	434.03	434.03	434.03
9.500	434.03	434.03	434.03	434.03	434.03
9.750	434.03	434.03	434.03	434.03	434.04
10.000	434.04	434.04	434.04	434.04	434.04
10.250	434.04	434.04	434.04	434.04	434.04

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 3A (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	434.04	434.04	434.04	434.05	434.05
10.750	434.05	434.05	434.06	434.06	434.06
11.000	434.07	434.08	434.09	434.10	434.11
11.250	434.12	434.14	434.15	434.18	434.20
11.500	434.23	434.27	434.34	434.42	434.51
11.750	434.61	434.72	434.85	435.00	435.23
12.000	435.61	436.02	436.32	436.52	436.64
12.250	436.71	436.75	436.77	436.79	436.79
12.500	436.79	436.77	436.75	436.72	436.68
12.750	436.65	436.63	436.60	436.58	436.57
13.000	436.55	436.53	436.51	436.50	436.49
13.250	436.47	436.46	436.45	436.44	436.43
13.500	436.42	436.41	436.40	436.39	436.38
13.750	436.38	436.37	436.36	436.34	436.33
14.000	436.32	436.31	436.30	436.29	436.28
14.250	436.27	436.26	436.25	436.23	436.22
14.500	436.21	436.19	436.18	436.16	436.15
14.750	436.14	436.12	436.11	436.09	436.08
15.000	436.06	436.05	436.03	436.01	436.00
15.250	435.98	435.97	435.95	435.93	435.92
15.500	435.90	435.88	435.87	435.85	435.83
15.750	435.81	435.79	435.77	435.76	435.74
16.000	435.73	435.71	435.69	435.67	435.65
16.250	435.63	435.61	435.59	435.58	435.56
16.500	435.54	435.52	435.50	435.48	435.46
16.750	435.44	435.42	435.40	435.38	435.36
17.000	435.34	435.33	435.30	435.28	435.26
17.250	435.24	435.22	435.20	435.18	435.16
17.500	435.14	435.13	435.10	435.08	435.06
17.750	435.04	435.02	435.00	434.98	434.96
18.000	434.94	434.92	434.90	434.87	434.85
18.250	434.83	434.81	434.79	434.77	434.75
18.500	434.73	434.70	434.69	434.67	434.65
18.750	434.63	434.60	434.58	434.56	434.54
19.000	434.51	434.49	434.47	434.45	434.43
19.250	434.41	434.39	434.37	434.35	434.33
19.500	434.30	434.28	434.26	434.24	434.22
19.750	434.19	434.17	434.15	434.13	434.11
20.000	434.09	434.06	434.04	434.03	434.02
20.250	434.02	434.02	434.02	434.02	434.02
20.500	434.02	434.01	434.01	434.02	434.02
20.750	434.02	434.02	434.02	434.02	434.02

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 3A (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	434.02	434.02	434.02	434.01	434.01
21.250	434.02	434.02	434.02	434.02	434.02
21.500	434.02	434.02	434.02	434.01	434.01
21.750	434.02	434.02	434.02	434.02	434.01
22.000	434.01	434.02	434.02	434.02	434.02
22.250	434.02	434.02	434.01	434.01	434.02
22.500	434.02	434.02	434.02	434.01	434.01
22.750	434.02	434.01	434.01	434.01	434.02
23.000	434.02	434.02	434.02	434.01	434.01
23.250	434.02	434.01	434.01	434.01	434.02
23.500	434.01	434.01	434.01	434.02	434.01
23.750	434.01	434.01	434.02	434.01	434.01
24.000	434.01	434.01	434.01	434.01	434.00
24.250	434.00	434.00	434.00	434.00	434.00
24.500	434.00	434.00	434.00	434.00	434.00
24.750	434.00	434.00	434.00	434.00	434.00
25.000	434.00	434.00	434.00	434.00	434.00
25.250	434.00	434.00	434.00	434.00	434.00
25.500	434.00	434.00	434.00	434.00	434.00
25.750	434.00	434.00	434.00	434.00	434.00
26.000	434.00	434.00	434.00	434.00	434.00
26.250	434.00	434.00	434.00	434.00	434.00
26.500	434.00	434.00	434.00	434.00	434.00
26.750	434.00	434.00	434.00	434.00	434.00
27.000	434.00	434.00	434.00	434.00	434.00
27.250	434.00	434.00	434.00	434.00	434.00
27.500	434.00	434.00	434.00	434.00	434.00
27.750	434.00	434.00	434.00	434.00	434.00
28.000	434.00	434.00	434.00	434.00	434.00
28.250	434.00	434.00	434.00	434.00	434.00
28.500	434.00	434.00	434.00	434.00	434.00
28.750	434.00	434.00	434.00	434.00	434.00
29.000	434.00	434.00	434.00	434.00	434.00
29.250	434.00	434.00	434.00	434.00	434.00
29.500	434.00	434.00	434.00	434.00	434.00
29.750	434.00	434.00	434.00	434.00	434.00
30.000	434.00	434.00	434.00	434.00	434.00
30.250	434.00	434.00	434.00	434.00	434.00
30.500	434.00	434.00	434.00	434.00	434.00
30.750	434.00	434.00	434.00	434.00	434.00
31.000	434.00	434.00	434.00	434.00	434.00
31.250	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 3A (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	434.00	434.00	434.00	434.00	434.00
31.750	434.00	434.00	434.00	434.00	434.00
32.000	434.00	434.00	434.00	434.00	434.00
32.250	434.00	434.00	434.00	434.00	434.00
32.500	434.00	434.00	434.00	434.00	434.00
32.750	434.00	434.00	434.00	434.00	434.00
33.000	434.00	434.00	434.00	434.00	434.00
33.250	434.00	434.00	434.00	434.00	434.00
33.500	434.00	434.00	434.00	434.00	434.00
33.750	434.00	434.00	434.00	434.00	434.00
34.000	434.00	434.00	434.00	434.00	434.00
34.250	434.00	434.00	434.00	434.00	434.00
34.500	434.00	434.00	434.00	434.00	434.00
34.750	434.00	434.00	434.00	434.00	434.00
35.000	434.00	434.00	434.00	434.00	434.00
35.250	434.00	434.00	434.00	434.00	434.00
35.500	434.00	434.00	434.00	434.00	434.00
35.750	434.00	434.00	434.00	434.00	434.00
36.000	434.00	434.00	434.00	434.00	434.00
36.250	434.00	434.00	434.00	434.00	434.00
36.500	434.00	434.00	434.00	434.00	434.00
36.750	434.00	434.00	434.00	434.00	434.00
37.000	434.00	434.00	434.00	434.00	434.00
37.250	434.00	434.00	434.00	434.00	434.00
37.500	434.00	434.00	434.00	434.00	434.00
37.750	434.00	434.00	434.00	434.00	434.00
38.000	434.00	434.00	434.00	434.00	434.00
38.250	434.00	434.00	434.00	434.00	434.00
38.500	434.00	434.00	434.00	434.00	434.00
38.750	434.00	434.00	434.00	434.00	434.00
39.000	434.00	434.00	434.00	434.00	434.00
39.250	434.00	434.00	434.00	434.00	434.00
39.500	434.00	434.00	434.00	434.00	434.00
39.750	434.00	434.00	434.00	434.00	434.00
40.000	434.00	434.00	434.00	434.00	434.00
40.250	434.00	434.00	434.00	434.00	434.00
40.500	434.00	434.00	434.00	434.00	434.00
40.750	434.00	434.00	434.00	434.00	434.00
41.000	434.00	434.00	434.00	434.00	434.00
41.250	434.00	434.00	434.00	434.00	434.00
41.500	434.00	434.00	434.00	434.00	434.00
41.750	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 3A (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	434.00	434.00	434.00	434.00	434.00
42.250	434.00	434.00	434.00	434.00	434.00
42.500	434.00	434.00	434.00	434.00	434.00
42.750	434.00	434.00	434.00	434.00	434.00
43.000	434.00	434.00	434.00	434.00	434.00
43.250	434.00	434.00	434.00	434.00	434.00
43.500	434.00	434.00	434.00	434.00	434.00
43.750	434.00	434.00	434.00	434.00	434.00
44.000	434.00	434.00	434.00	434.00	434.00
44.250	434.00	434.00	434.00	434.00	434.00
44.500	434.00	434.00	434.00	434.00	434.00
44.750	434.00	434.00	434.00	434.00	434.00
45.000	434.00	434.00	434.00	434.00	434.00
45.250	434.00	434.00	434.00	434.00	434.00
45.500	434.00	434.00	434.00	434.00	434.00
45.750	434.00	434.00	434.00	434.00	434.00
46.000	434.00	434.00	434.00	434.00	434.00
46.250	434.00	434.00	434.00	434.00	434.00
46.500	434.00	434.00	434.00	434.00	434.00
46.750	434.00	434.00	434.00	434.00	434.00
47.000	434.00	434.00	434.00	434.00	434.00
47.250	434.00	434.00	434.00	434.00	434.00
47.500	434.00	434.00	434.00	434.00	434.00
47.750	434.00	434.00	434.00	434.00	434.00
48.000	434.00	434.00	434.00	434.00	434.00
48.250	434.00	434.00	434.00	434.00	434.00
48.500	434.00	434.00	434.00	434.00	434.00
48.750	434.00	434.00	434.00	434.00	434.00
49.000	434.00	434.00	434.00	434.00	434.00
49.250	434.00	434.00	434.00	434.00	434.00
49.500	434.00	434.00	434.00	434.00	434.00
49.750	434.00	434.00	434.00	434.00	434.00
50.000	434.00	434.00	434.00	434.00	434.00
50.250	434.00	434.00	434.00	434.00	434.00
50.500	434.00	434.00	434.00	434.00	434.00
50.750	434.00	434.00	434.00	434.00	434.00
51.000	434.00	434.00	434.00	434.00	434.00
51.250	434.00	434.00	434.00	434.00	434.00
51.500	434.00	434.00	434.00	434.00	434.00
51.750	434.00	434.00	434.00	434.00	434.00
52.000	434.00	434.00	434.00	434.00	434.00
52.250	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 3A (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	434.00	434.00	434.00	434.00	434.00
52.750	434.00	434.00	434.00	434.00	434.00
53.000	434.00	434.00	434.00	434.00	434.00
53.250	434.00	434.00	434.00	434.00	434.00
53.500	434.00	434.00	434.00	434.00	434.00
53.750	434.00	434.00	434.00	434.00	434.00
54.000	434.00	434.00	434.00	434.00	434.00
54.250	434.00	434.00	434.00	434.00	434.00
54.500	434.00	434.00	434.00	434.00	434.00
54.750	434.00	434.00	434.00	434.00	434.00
55.000	434.00	434.00	434.00	434.00	434.00
55.250	434.00	434.00	434.00	434.00	434.00
55.500	434.00	434.00	434.00	434.00	434.00
55.750	434.00	434.00	434.00	434.00	434.00
56.000	434.00	434.00	434.00	434.00	434.00
56.250	434.00	434.00	434.00	434.00	434.00
56.500	434.00	434.00	434.00	434.00	434.00
56.750	434.00	434.00	434.00	434.00	434.00
57.000	434.00	434.00	434.00	434.00	434.00
57.250	434.00	434.00	434.00	434.00	434.00
57.500	434.00	434.00	434.00	434.00	434.00
57.750	434.00	434.00	434.00	434.00	434.00
58.000	434.00	434.00	434.00	434.00	434.00
58.250	434.00	434.00	434.00	434.00	434.00
58.500	434.00	434.00	434.00	434.00	434.00
58.750	434.00	434.00	434.00	434.00	434.00
59.000	434.00	434.00	434.00	434.00	434.00
59.250	434.00	434.00	434.00	434.00	434.00
59.500	434.00	434.00	434.00	434.00	434.00
59.750	434.00	434.00	434.00	434.00	434.00
60.000	434.00	434.00	434.00	434.00	434.00
60.250	434.00	434.00	434.00	434.00	434.00
60.500	434.00	434.00	434.00	434.00	434.00
60.750	434.00	434.00	434.00	434.00	434.00
61.000	434.00	434.00	434.00	434.00	434.00
61.250	434.00	434.00	434.00	434.00	434.00
61.500	434.00	434.00	434.00	434.00	434.00
61.750	434.00	434.00	434.00	434.00	434.00
62.000	434.00	434.00	434.00	434.00	434.00
62.250	434.00	434.00	434.00	434.00	434.00
62.500	434.00	434.00	434.00	434.00	434.00
62.750	434.00	434.00	434.00	434.00	434.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Basin 3A (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	434.00	434.00	434.00	434.00	434.00
63.250	434.00	434.00	434.00	434.00	434.00
63.500	434.00	434.00	434.00	434.00	434.00
63.750	434.00	434.00	434.00	434.00	434.00
64.000	434.00	434.00	434.00	434.00	434.00
64.250	434.00	434.00	434.00	434.00	434.00
64.500	434.00	434.00	434.00	434.00	434.00
64.750	434.00	434.00	434.00	434.00	434.00
65.000	434.00	434.00	434.00	434.00	434.00
65.250	434.00	434.00	434.00	434.00	434.00
65.500	434.00	434.00	434.00	434.00	434.00
65.750	434.00	434.00	434.00	434.00	434.00
66.000	434.00	434.00	434.00	434.00	434.00
66.250	434.00	434.00	434.00	434.00	434.00
66.500	434.00	434.00	434.00	434.00	434.00
66.750	434.00	434.00	434.00	434.00	434.00
67.000	434.00	434.00	434.00	434.00	434.00
67.250	434.00	434.00	434.00	434.00	434.00
67.500	434.00	434.00	434.00	434.00	434.00
67.750	434.00	434.00	434.00	434.00	434.00
68.000	434.00	434.00	434.00	434.00	434.00
68.250	434.00	434.00	434.00	434.00	434.00
68.500	434.00	434.00	434.00	434.00	434.00
68.750	434.00	434.00	434.00	434.00	434.00
69.000	434.00	434.00	434.00	434.00	434.00
69.250	434.00	434.00	434.00	434.00	434.00
69.500	434.00	434.00	434.00	434.00	434.00
69.750	434.00	434.00	434.00	434.00	434.00
70.000	434.00	434.00	434.00	434.00	434.00
70.250	434.00	434.00	434.00	434.00	434.00
70.500	434.00	434.00	434.00	434.00	434.00
70.750	434.00	434.00	434.00	434.00	434.00
71.000	434.00	434.00	434.00	434.00	434.00
71.250	434.00	434.00	434.00	434.00	434.00
71.500	434.00	434.00	434.00	434.00	434.00
71.750	434.00	434.00	434.00	434.00	434.00
72.000	434.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1B (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	428.00	428.00	428.00	428.00	428.00
0.250	428.00	428.00	428.00	428.00	428.00
0.500	428.00	428.00	428.00	428.00	428.00
0.750	428.00	428.00	428.00	428.00	428.00
1.000	428.00	428.00	428.00	428.00	428.00
1.250	428.00	428.00	428.00	428.00	428.00
1.500	428.00	428.00	428.00	428.00	428.00
1.750	428.00	428.00	428.00	428.00	428.00
2.000	428.00	428.00	428.00	428.00	428.00
2.250	428.00	428.00	428.00	428.00	428.00
2.500	428.00	428.00	428.00	428.00	428.00
2.750	428.00	428.00	428.00	428.00	428.00
3.000	428.00	428.00	428.00	428.00	428.00
3.250	428.00	428.00	428.00	428.00	428.00
3.500	428.00	428.00	428.00	428.00	428.00
3.750	428.00	428.00	428.00	428.00	428.00
4.000	428.00	428.00	428.00	428.00	428.00
4.250	428.00	428.00	428.00	428.00	428.00
4.500	428.00	428.00	428.00	428.00	428.00
4.750	428.00	428.00	428.00	428.00	428.00
5.000	428.00	428.00	428.00	428.00	428.00
5.250	428.00	428.00	428.00	428.00	428.00
5.500	428.00	428.00	428.00	428.00	428.00
5.750	428.00	428.00	428.00	428.00	428.00
6.000	428.00	428.00	428.00	428.00	428.00
6.250	428.00	428.00	428.00	428.00	428.00
6.500	428.00	428.00	428.00	428.00	428.00
6.750	428.00	428.00	428.00	428.00	428.00
7.000	428.00	428.00	428.00	428.00	428.00
7.250	428.00	428.00	428.00	428.00	428.00
7.500	428.00	428.00	428.00	428.00	428.00
7.750	428.00	428.00	428.00	428.00	428.00
8.000	428.00	428.00	428.00	428.00	428.00
8.250	428.00	428.00	428.00	428.00	428.00
8.500	428.00	428.00	428.00	428.00	428.00
8.750	428.00	428.00	428.00	428.00	428.00
9.000	428.00	428.00	428.00	428.00	428.00
9.250	428.00	428.00	428.00	428.00	428.00
9.500	428.00	428.00	428.00	428.00	428.00
9.750	428.00	428.00	428.00	428.00	428.00
10.000	428.00	428.00	428.00	428.00	428.00
10.250	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Bio. Basin 1B (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	428.00	428.00	428.00	428.00	428.00
10.750	428.00	428.00	428.00	428.00	428.00
11.000	428.00	428.00	428.00	428.00	428.00
11.250	428.00	428.00	428.00	428.00	428.00
11.500	428.00	428.00	428.00	428.00	428.00
11.750	428.00	428.00	428.00	428.01	428.01
12.000	428.02	428.03	428.03	428.03	428.03
12.250	428.02	428.02	428.02	428.01	428.01
12.500	428.01	428.01	428.01	428.01	428.01
12.750	428.01	428.01	428.01	428.00	428.00
13.000	428.00	428.00	428.00	428.00	428.00
13.250	428.00	428.00	428.00	428.00	428.00
13.500	428.00	428.00	428.00	428.00	428.00
13.750	428.00	428.00	428.00	428.00	428.00
14.000	428.00	428.00	428.00	428.00	428.00
14.250	428.00	428.00	428.00	428.00	428.00
14.500	428.00	428.00	428.00	428.00	428.00
14.750	428.00	428.00	428.00	428.00	428.00
15.000	428.00	428.00	428.00	428.00	428.00
15.250	428.00	428.00	428.00	428.00	428.00
15.500	428.00	428.00	428.00	428.00	428.00
15.750	428.00	428.00	428.00	428.00	428.00
16.000	428.00	428.00	428.00	428.00	428.00
16.250	428.00	428.00	428.00	428.00	428.00
16.500	428.00	428.00	428.00	428.00	428.00
16.750	428.00	428.00	428.00	428.00	428.00
17.000	428.00	428.00	428.00	428.00	428.00
17.250	428.00	428.00	428.00	428.00	428.00
17.500	428.00	428.00	428.00	428.00	428.00
17.750	428.00	428.00	428.00	428.00	428.00
18.000	428.00	428.00	428.00	428.00	428.00
18.250	428.00	428.00	428.00	428.00	428.00
18.500	428.00	428.00	428.00	428.00	428.00
18.750	428.00	428.00	428.00	428.00	428.00
19.000	428.00	428.00	428.00	428.00	428.00
19.250	428.00	428.00	428.00	428.00	428.00
19.500	428.00	428.00	428.00	428.00	428.00
19.750	428.00	428.00	428.00	428.00	428.00
20.000	428.00	428.00	428.00	428.00	428.00
20.250	428.00	428.00	428.00	428.00	428.00
20.500	428.00	428.00	428.00	428.00	428.00
20.750	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1B (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	428.00	428.00	428.00	428.00	428.00
21.250	428.00	428.00	428.00	428.00	428.00
21.500	428.00	428.00	428.00	428.00	428.00
21.750	428.00	428.00	428.00	428.00	428.00
22.000	428.00	428.00	428.00	428.00	428.00
22.250	428.00	428.00	428.00	428.00	428.00
22.500	428.00	428.00	428.00	428.00	428.00
22.750	428.00	428.00	428.00	428.00	428.00
23.000	428.00	428.00	428.00	428.00	428.00
23.250	428.00	428.00	428.00	428.00	428.00
23.500	428.00	428.00	428.00	428.00	428.00
23.750	428.00	428.00	428.00	428.00	428.00
24.000	428.00	428.00	428.00	428.00	428.00
24.250	428.00	428.00	428.00	428.00	428.00
24.500	428.00	428.00	428.00	428.00	428.00
24.750	428.00	428.00	428.00	428.00	428.00
25.000	428.00	428.00	428.00	428.00	428.00
25.250	428.00	428.00	428.00	428.00	428.00
25.500	428.00	428.00	428.00	428.00	428.00
25.750	428.00	428.00	428.00	428.00	428.00
26.000	428.00	428.00	428.00	428.00	428.00
26.250	428.00	428.00	428.00	428.00	428.00
26.500	428.00	428.00	428.00	428.00	428.00
26.750	428.00	428.00	428.00	428.00	428.00
27.000	428.00	428.00	428.00	428.00	428.00
27.250	428.00	428.00	428.00	428.00	428.00
27.500	428.00	428.00	428.00	428.00	428.00
27.750	428.00	428.00	428.00	428.00	428.00
28.000	428.00	428.00	428.00	428.00	428.00
28.250	428.00	428.00	428.00	428.00	428.00
28.500	428.00	428.00	428.00	428.00	428.00
28.750	428.00	428.00	428.00	428.00	428.00
29.000	428.00	428.00	428.00	428.00	428.00
29.250	428.00	428.00	428.00	428.00	428.00
29.500	428.00	428.00	428.00	428.00	428.00
29.750	428.00	428.00	428.00	428.00	428.00
30.000	428.00	428.00	428.00	428.00	428.00
30.250	428.00	428.00	428.00	428.00	428.00
30.500	428.00	428.00	428.00	428.00	428.00
30.750	428.00	428.00	428.00	428.00	428.00
31.000	428.00	428.00	428.00	428.00	428.00
31.250	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Bio. Basin 1B (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	428.00	428.00	428.00	428.00	428.00
31.750	428.00	428.00	428.00	428.00	428.00
32.000	428.00	428.00	428.00	428.00	428.00
32.250	428.00	428.00	428.00	428.00	428.00
32.500	428.00	428.00	428.00	428.00	428.00
32.750	428.00	428.00	428.00	428.00	428.00
33.000	428.00	428.00	428.00	428.00	428.00
33.250	428.00	428.00	428.00	428.00	428.00
33.500	428.00	428.00	428.00	428.00	428.00
33.750	428.00	428.00	428.00	428.00	428.00
34.000	428.00	428.00	428.00	428.00	428.00
34.250	428.00	428.00	428.00	428.00	428.00
34.500	428.00	428.00	428.00	428.00	428.00
34.750	428.00	428.00	428.00	428.00	428.00
35.000	428.00	428.00	428.00	428.00	428.00
35.250	428.00	428.00	428.00	428.00	428.00
35.500	428.00	428.00	428.00	428.00	428.00
35.750	428.00	428.00	428.00	428.00	428.00
36.000	428.00	428.00	428.00	428.00	428.00
36.250	428.00	428.00	428.00	428.00	428.00
36.500	428.00	428.00	428.00	428.00	428.00
36.750	428.00	428.00	428.00	428.00	428.00
37.000	428.00	428.00	428.00	428.00	428.00
37.250	428.00	428.00	428.00	428.00	428.00
37.500	428.00	428.00	428.00	428.00	428.00
37.750	428.00	428.00	428.00	428.00	428.00
38.000	428.00	428.00	428.00	428.00	428.00
38.250	428.00	428.00	428.00	428.00	428.00
38.500	428.00	428.00	428.00	428.00	428.00
38.750	428.00	428.00	428.00	428.00	428.00
39.000	428.00	428.00	428.00	428.00	428.00
39.250	428.00	428.00	428.00	428.00	428.00
39.500	428.00	428.00	428.00	428.00	428.00
39.750	428.00	428.00	428.00	428.00	428.00
40.000	428.00	428.00	428.00	428.00	428.00
40.250	428.00	428.00	428.00	428.00	428.00
40.500	428.00	428.00	428.00	428.00	428.00
40.750	428.00	428.00	428.00	428.00	428.00
41.000	428.00	428.00	428.00	428.00	428.00
41.250	428.00	428.00	428.00	428.00	428.00
41.500	428.00	428.00	428.00	428.00	428.00
41.750	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1B (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	428.00	428.00	428.00	428.00	428.00
42.250	428.00	428.00	428.00	428.00	428.00
42.500	428.00	428.00	428.00	428.00	428.00
42.750	428.00	428.00	428.00	428.00	428.00
43.000	428.00	428.00	428.00	428.00	428.00
43.250	428.00	428.00	428.00	428.00	428.00
43.500	428.00	428.00	428.00	428.00	428.00
43.750	428.00	428.00	428.00	428.00	428.00
44.000	428.00	428.00	428.00	428.00	428.00
44.250	428.00	428.00	428.00	428.00	428.00
44.500	428.00	428.00	428.00	428.00	428.00
44.750	428.00	428.00	428.00	428.00	428.00
45.000	428.00	428.00	428.00	428.00	428.00
45.250	428.00	428.00	428.00	428.00	428.00
45.500	428.00	428.00	428.00	428.00	428.00
45.750	428.00	428.00	428.00	428.00	428.00
46.000	428.00	428.00	428.00	428.00	428.00
46.250	428.00	428.00	428.00	428.00	428.00
46.500	428.00	428.00	428.00	428.00	428.00
46.750	428.00	428.00	428.00	428.00	428.00
47.000	428.00	428.00	428.00	428.00	428.00
47.250	428.00	428.00	428.00	428.00	428.00
47.500	428.00	428.00	428.00	428.00	428.00
47.750	428.00	428.00	428.00	428.00	428.00
48.000	428.00	428.00	428.00	428.00	428.00
48.250	428.00	428.00	428.00	428.00	428.00
48.500	428.00	428.00	428.00	428.00	428.00
48.750	428.00	428.00	428.00	428.00	428.00
49.000	428.00	428.00	428.00	428.00	428.00
49.250	428.00	428.00	428.00	428.00	428.00
49.500	428.00	428.00	428.00	428.00	428.00
49.750	428.00	428.00	428.00	428.00	428.00
50.000	428.00	428.00	428.00	428.00	428.00
50.250	428.00	428.00	428.00	428.00	428.00
50.500	428.00	428.00	428.00	428.00	428.00
50.750	428.00	428.00	428.00	428.00	428.00
51.000	428.00	428.00	428.00	428.00	428.00
51.250	428.00	428.00	428.00	428.00	428.00
51.500	428.00	428.00	428.00	428.00	428.00
51.750	428.00	428.00	428.00	428.00	428.00
52.000	428.00	428.00	428.00	428.00	428.00
52.250	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1B (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	428.00	428.00	428.00	428.00	428.00
52.750	428.00	428.00	428.00	428.00	428.00
53.000	428.00	428.00	428.00	428.00	428.00
53.250	428.00	428.00	428.00	428.00	428.00
53.500	428.00	428.00	428.00	428.00	428.00
53.750	428.00	428.00	428.00	428.00	428.00
54.000	428.00	428.00	428.00	428.00	428.00
54.250	428.00	428.00	428.00	428.00	428.00
54.500	428.00	428.00	428.00	428.00	428.00
54.750	428.00	428.00	428.00	428.00	428.00
55.000	428.00	428.00	428.00	428.00	428.00
55.250	428.00	428.00	428.00	428.00	428.00
55.500	428.00	428.00	428.00	428.00	428.00
55.750	428.00	428.00	428.00	428.00	428.00
56.000	428.00	428.00	428.00	428.00	428.00
56.250	428.00	428.00	428.00	428.00	428.00
56.500	428.00	428.00	428.00	428.00	428.00
56.750	428.00	428.00	428.00	428.00	428.00
57.000	428.00	428.00	428.00	428.00	428.00
57.250	428.00	428.00	428.00	428.00	428.00
57.500	428.00	428.00	428.00	428.00	428.00
57.750	428.00	428.00	428.00	428.00	428.00
58.000	428.00	428.00	428.00	428.00	428.00
58.250	428.00	428.00	428.00	428.00	428.00
58.500	428.00	428.00	428.00	428.00	428.00
58.750	428.00	428.00	428.00	428.00	428.00
59.000	428.00	428.00	428.00	428.00	428.00
59.250	428.00	428.00	428.00	428.00	428.00
59.500	428.00	428.00	428.00	428.00	428.00
59.750	428.00	428.00	428.00	428.00	428.00
60.000	428.00	428.00	428.00	428.00	428.00
60.250	428.00	428.00	428.00	428.00	428.00
60.500	428.00	428.00	428.00	428.00	428.00
60.750	428.00	428.00	428.00	428.00	428.00
61.000	428.00	428.00	428.00	428.00	428.00
61.250	428.00	428.00	428.00	428.00	428.00
61.500	428.00	428.00	428.00	428.00	428.00
61.750	428.00	428.00	428.00	428.00	428.00
62.000	428.00	428.00	428.00	428.00	428.00
62.250	428.00	428.00	428.00	428.00	428.00
62.500	428.00	428.00	428.00	428.00	428.00
62.750	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Bio. Basin 1B (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	428.00	428.00	428.00	428.00	428.00
63.250	428.00	428.00	428.00	428.00	428.00
63.500	428.00	428.00	428.00	428.00	428.00
63.750	428.00	428.00	428.00	428.00	428.00
64.000	428.00	428.00	428.00	428.00	428.00
64.250	428.00	428.00	428.00	428.00	428.00
64.500	428.00	428.00	428.00	428.00	428.00
64.750	428.00	428.00	428.00	428.00	428.00
65.000	428.00	428.00	428.00	428.00	428.00
65.250	428.00	428.00	428.00	428.00	428.00
65.500	428.00	428.00	428.00	428.00	428.00
65.750	428.00	428.00	428.00	428.00	428.00
66.000	428.00	428.00	428.00	428.00	428.00
66.250	428.00	428.00	428.00	428.00	428.00
66.500	428.00	428.00	428.00	428.00	428.00
66.750	428.00	428.00	428.00	428.00	428.00
67.000	428.00	428.00	428.00	428.00	428.00
67.250	428.00	428.00	428.00	428.00	428.00
67.500	428.00	428.00	428.00	428.00	428.00
67.750	428.00	428.00	428.00	428.00	428.00
68.000	428.00	428.00	428.00	428.00	428.00
68.250	428.00	428.00	428.00	428.00	428.00
68.500	428.00	428.00	428.00	428.00	428.00
68.750	428.00	428.00	428.00	428.00	428.00
69.000	428.00	428.00	428.00	428.00	428.00
69.250	428.00	428.00	428.00	428.00	428.00
69.500	428.00	428.00	428.00	428.00	428.00
69.750	428.00	428.00	428.00	428.00	428.00
70.000	428.00	428.00	428.00	428.00	428.00
70.250	428.00	428.00	428.00	428.00	428.00
70.500	428.00	428.00	428.00	428.00	428.00
70.750	428.00	428.00	428.00	428.00	428.00
71.000	428.00	428.00	428.00	428.00	428.00
71.250	428.00	428.00	428.00	428.00	428.00
71.500	428.00	428.00	428.00	428.00	428.00
71.750	428.00	428.00	428.00	428.00	428.00
72.000	428.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	428.00	428.00	428.00	428.00	428.00
0.250	428.00	428.00	428.00	428.00	428.00
0.500	428.00	428.00	428.00	428.00	428.00
0.750	428.00	428.00	428.00	428.00	428.00
1.000	428.00	428.00	428.00	428.00	428.00
1.250	428.00	428.00	428.00	428.00	428.00
1.500	428.00	428.00	428.00	428.00	428.00
1.750	428.00	428.00	428.00	428.00	428.00
2.000	428.00	428.00	428.00	428.00	428.00
2.250	428.00	428.00	428.00	428.00	428.00
2.500	428.00	428.00	428.00	428.00	428.00
2.750	428.00	428.00	428.00	428.00	428.00
3.000	428.00	428.00	428.00	428.00	428.00
3.250	428.00	428.00	428.00	428.00	428.00
3.500	428.00	428.00	428.00	428.00	428.00
3.750	428.00	428.00	428.00	428.00	428.00
4.000	428.00	428.00	428.00	428.00	428.00
4.250	428.00	428.00	428.00	428.00	428.00
4.500	428.00	428.00	428.00	428.00	428.00
4.750	428.00	428.00	428.00	428.00	428.00
5.000	428.00	428.00	428.00	428.00	428.00
5.250	428.00	428.00	428.00	428.00	428.00
5.500	428.00	428.00	428.00	428.00	428.00
5.750	428.00	428.00	428.00	428.00	428.00
6.000	428.00	428.00	428.00	428.00	428.00
6.250	428.00	428.00	428.00	428.00	428.00
6.500	428.00	428.00	428.00	428.00	428.00
6.750	428.00	428.00	428.00	428.00	428.00
7.000	428.00	428.00	428.00	428.00	428.00
7.250	428.00	428.00	428.00	428.00	428.00
7.500	428.00	428.00	428.00	428.00	428.00
7.750	428.00	428.00	428.00	428.00	428.00
8.000	428.00	428.00	428.00	428.00	428.00
8.250	428.00	428.00	428.00	428.00	428.00
8.500	428.00	428.00	428.00	428.00	428.00
8.750	428.00	428.00	428.00	428.00	428.00
9.000	428.00	428.00	428.00	428.00	428.00
9.250	428.00	428.00	428.00	428.00	428.00
9.500	428.00	428.00	428.00	428.00	428.00
9.750	428.00	428.00	428.00	428.00	428.00
10.000	428.00	428.00	428.00	428.00	428.00
10.250	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	428.00	428.00	428.00	428.00	428.00
10.750	428.00	428.00	428.00	428.00	428.00
11.000	428.00	428.01	428.01	428.01	428.01
11.250	428.01	428.01	428.01	428.01	428.01
11.500	428.01	428.01	428.01	428.02	428.02
11.750	428.02	428.03	428.03	428.04	428.05
12.000	428.10	428.16	428.20	428.22	428.23
12.250	428.23	428.23	428.22	428.21	428.20
12.500	428.19	428.18	428.16	428.14	428.11
12.750	428.09	428.07	428.04	428.03	428.02
13.000	428.02	428.02	428.01	428.01	428.01
13.250	428.01	428.01	428.01	428.01	428.01
13.500	428.01	428.01	428.01	428.01	428.01
13.750	428.01	428.01	428.01	428.01	428.01
14.000	428.01	428.01	428.01	428.01	428.01
14.250	428.01	428.01	428.01	428.01	428.01
14.500	428.01	428.01	428.01	428.01	428.01
14.750	428.01	428.01	428.01	428.01	428.01
15.000	428.01	428.01	428.01	428.01	428.01
15.250	428.01	428.01	428.01	428.01	428.01
15.500	428.01	428.01	428.01	428.01	428.01
15.750	428.01	428.01	428.01	428.01	428.01
16.000	428.01	428.01	428.01	428.01	428.01
16.250	428.01	428.01	428.01	428.01	428.01
16.500	428.01	428.00	428.00	428.00	428.01
16.750	428.01	428.01	428.00	428.00	428.00
17.000	428.01	428.01	428.01	428.00	428.00
17.250	428.00	428.01	428.01	428.01	428.00
17.500	428.00	428.00	428.00	428.00	428.01
17.750	428.01	428.01	428.00	428.00	428.00
18.000	428.00	428.00	428.00	428.00	428.00
18.250	428.00	428.01	428.01	428.01	428.00
18.500	428.00	428.00	428.00	428.00	428.00
18.750	428.00	428.00	428.00	428.00	428.00
19.000	428.00	428.00	428.00	428.00	428.00
19.250	428.00	428.00	428.00	428.00	428.00
19.500	428.00	428.00	428.00	428.00	428.00
19.750	428.00	428.00	428.00	428.00	428.00
20.000	428.00	428.00	428.00	428.00	428.00
20.250	428.00	428.00	428.00	428.00	428.00
20.500	428.00	428.00	428.00	428.00	428.00
20.750	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	428.00	428.00	428.00	428.00	428.00
21.250	428.00	428.00	428.00	428.00	428.00
21.500	428.00	428.00	428.00	428.00	428.00
21.750	428.00	428.00	428.00	428.00	428.00
22.000	428.00	428.00	428.00	428.00	428.00
22.250	428.00	428.00	428.00	428.00	428.00
22.500	428.00	428.00	428.00	428.00	428.00
22.750	428.00	428.00	428.00	428.00	428.00
23.000	428.00	428.00	428.00	428.00	428.00
23.250	428.00	428.00	428.00	428.00	428.00
23.500	428.00	428.00	428.00	428.00	428.00
23.750	428.00	428.00	428.00	428.00	428.00
24.000	428.00	428.00	428.00	428.00	428.00
24.250	428.00	428.00	428.00	428.00	428.00
24.500	428.00	428.00	428.00	428.00	428.00
24.750	428.00	428.00	428.00	428.00	428.00
25.000	428.00	428.00	428.00	428.00	428.00
25.250	428.00	428.00	428.00	428.00	428.00
25.500	428.00	428.00	428.00	428.00	428.00
25.750	428.00	428.00	428.00	428.00	428.00
26.000	428.00	428.00	428.00	428.00	428.00
26.250	428.00	428.00	428.00	428.00	428.00
26.500	428.00	428.00	428.00	428.00	428.00
26.750	428.00	428.00	428.00	428.00	428.00
27.000	428.00	428.00	428.00	428.00	428.00
27.250	428.00	428.00	428.00	428.00	428.00
27.500	428.00	428.00	428.00	428.00	428.00
27.750	428.00	428.00	428.00	428.00	428.00
28.000	428.00	428.00	428.00	428.00	428.00
28.250	428.00	428.00	428.00	428.00	428.00
28.500	428.00	428.00	428.00	428.00	428.00
28.750	428.00	428.00	428.00	428.00	428.00
29.000	428.00	428.00	428.00	428.00	428.00
29.250	428.00	428.00	428.00	428.00	428.00
29.500	428.00	428.00	428.00	428.00	428.00
29.750	428.00	428.00	428.00	428.00	428.00
30.000	428.00	428.00	428.00	428.00	428.00
30.250	428.00	428.00	428.00	428.00	428.00
30.500	428.00	428.00	428.00	428.00	428.00
30.750	428.00	428.00	428.00	428.00	428.00
31.000	428.00	428.00	428.00	428.00	428.00
31.250	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	428.00	428.00	428.00	428.00	428.00
31.750	428.00	428.00	428.00	428.00	428.00
32.000	428.00	428.00	428.00	428.00	428.00
32.250	428.00	428.00	428.00	428.00	428.00
32.500	428.00	428.00	428.00	428.00	428.00
32.750	428.00	428.00	428.00	428.00	428.00
33.000	428.00	428.00	428.00	428.00	428.00
33.250	428.00	428.00	428.00	428.00	428.00
33.500	428.00	428.00	428.00	428.00	428.00
33.750	428.00	428.00	428.00	428.00	428.00
34.000	428.00	428.00	428.00	428.00	428.00
34.250	428.00	428.00	428.00	428.00	428.00
34.500	428.00	428.00	428.00	428.00	428.00
34.750	428.00	428.00	428.00	428.00	428.00
35.000	428.00	428.00	428.00	428.00	428.00
35.250	428.00	428.00	428.00	428.00	428.00
35.500	428.00	428.00	428.00	428.00	428.00
35.750	428.00	428.00	428.00	428.00	428.00
36.000	428.00	428.00	428.00	428.00	428.00
36.250	428.00	428.00	428.00	428.00	428.00
36.500	428.00	428.00	428.00	428.00	428.00
36.750	428.00	428.00	428.00	428.00	428.00
37.000	428.00	428.00	428.00	428.00	428.00
37.250	428.00	428.00	428.00	428.00	428.00
37.500	428.00	428.00	428.00	428.00	428.00
37.750	428.00	428.00	428.00	428.00	428.00
38.000	428.00	428.00	428.00	428.00	428.00
38.250	428.00	428.00	428.00	428.00	428.00
38.500	428.00	428.00	428.00	428.00	428.00
38.750	428.00	428.00	428.00	428.00	428.00
39.000	428.00	428.00	428.00	428.00	428.00
39.250	428.00	428.00	428.00	428.00	428.00
39.500	428.00	428.00	428.00	428.00	428.00
39.750	428.00	428.00	428.00	428.00	428.00
40.000	428.00	428.00	428.00	428.00	428.00
40.250	428.00	428.00	428.00	428.00	428.00
40.500	428.00	428.00	428.00	428.00	428.00
40.750	428.00	428.00	428.00	428.00	428.00
41.000	428.00	428.00	428.00	428.00	428.00
41.250	428.00	428.00	428.00	428.00	428.00
41.500	428.00	428.00	428.00	428.00	428.00
41.750	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	428.00	428.00	428.00	428.00	428.00
42.250	428.00	428.00	428.00	428.00	428.00
42.500	428.00	428.00	428.00	428.00	428.00
42.750	428.00	428.00	428.00	428.00	428.00
43.000	428.00	428.00	428.00	428.00	428.00
43.250	428.00	428.00	428.00	428.00	428.00
43.500	428.00	428.00	428.00	428.00	428.00
43.750	428.00	428.00	428.00	428.00	428.00
44.000	428.00	428.00	428.00	428.00	428.00
44.250	428.00	428.00	428.00	428.00	428.00
44.500	428.00	428.00	428.00	428.00	428.00
44.750	428.00	428.00	428.00	428.00	428.00
45.000	428.00	428.00	428.00	428.00	428.00
45.250	428.00	428.00	428.00	428.00	428.00
45.500	428.00	428.00	428.00	428.00	428.00
45.750	428.00	428.00	428.00	428.00	428.00
46.000	428.00	428.00	428.00	428.00	428.00
46.250	428.00	428.00	428.00	428.00	428.00
46.500	428.00	428.00	428.00	428.00	428.00
46.750	428.00	428.00	428.00	428.00	428.00
47.000	428.00	428.00	428.00	428.00	428.00
47.250	428.00	428.00	428.00	428.00	428.00
47.500	428.00	428.00	428.00	428.00	428.00
47.750	428.00	428.00	428.00	428.00	428.00
48.000	428.00	428.00	428.00	428.00	428.00
48.250	428.00	428.00	428.00	428.00	428.00
48.500	428.00	428.00	428.00	428.00	428.00
48.750	428.00	428.00	428.00	428.00	428.00
49.000	428.00	428.00	428.00	428.00	428.00
49.250	428.00	428.00	428.00	428.00	428.00
49.500	428.00	428.00	428.00	428.00	428.00
49.750	428.00	428.00	428.00	428.00	428.00
50.000	428.00	428.00	428.00	428.00	428.00
50.250	428.00	428.00	428.00	428.00	428.00
50.500	428.00	428.00	428.00	428.00	428.00
50.750	428.00	428.00	428.00	428.00	428.00
51.000	428.00	428.00	428.00	428.00	428.00
51.250	428.00	428.00	428.00	428.00	428.00
51.500	428.00	428.00	428.00	428.00	428.00
51.750	428.00	428.00	428.00	428.00	428.00
52.000	428.00	428.00	428.00	428.00	428.00
52.250	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	428.00	428.00	428.00	428.00	428.00
52.750	428.00	428.00	428.00	428.00	428.00
53.000	428.00	428.00	428.00	428.00	428.00
53.250	428.00	428.00	428.00	428.00	428.00
53.500	428.00	428.00	428.00	428.00	428.00
53.750	428.00	428.00	428.00	428.00	428.00
54.000	428.00	428.00	428.00	428.00	428.00
54.250	428.00	428.00	428.00	428.00	428.00
54.500	428.00	428.00	428.00	428.00	428.00
54.750	428.00	428.00	428.00	428.00	428.00
55.000	428.00	428.00	428.00	428.00	428.00
55.250	428.00	428.00	428.00	428.00	428.00
55.500	428.00	428.00	428.00	428.00	428.00
55.750	428.00	428.00	428.00	428.00	428.00
56.000	428.00	428.00	428.00	428.00	428.00
56.250	428.00	428.00	428.00	428.00	428.00
56.500	428.00	428.00	428.00	428.00	428.00
56.750	428.00	428.00	428.00	428.00	428.00
57.000	428.00	428.00	428.00	428.00	428.00
57.250	428.00	428.00	428.00	428.00	428.00
57.500	428.00	428.00	428.00	428.00	428.00
57.750	428.00	428.00	428.00	428.00	428.00
58.000	428.00	428.00	428.00	428.00	428.00
58.250	428.00	428.00	428.00	428.00	428.00
58.500	428.00	428.00	428.00	428.00	428.00
58.750	428.00	428.00	428.00	428.00	428.00
59.000	428.00	428.00	428.00	428.00	428.00
59.250	428.00	428.00	428.00	428.00	428.00
59.500	428.00	428.00	428.00	428.00	428.00
59.750	428.00	428.00	428.00	428.00	428.00
60.000	428.00	428.00	428.00	428.00	428.00
60.250	428.00	428.00	428.00	428.00	428.00
60.500	428.00	428.00	428.00	428.00	428.00
60.750	428.00	428.00	428.00	428.00	428.00
61.000	428.00	428.00	428.00	428.00	428.00
61.250	428.00	428.00	428.00	428.00	428.00
61.500	428.00	428.00	428.00	428.00	428.00
61.750	428.00	428.00	428.00	428.00	428.00
62.000	428.00	428.00	428.00	428.00	428.00
62.250	428.00	428.00	428.00	428.00	428.00
62.500	428.00	428.00	428.00	428.00	428.00
62.750	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	428.00	428.00	428.00	428.00	428.00
63.250	428.00	428.00	428.00	428.00	428.00
63.500	428.00	428.00	428.00	428.00	428.00
63.750	428.00	428.00	428.00	428.00	428.00
64.000	428.00	428.00	428.00	428.00	428.00
64.250	428.00	428.00	428.00	428.00	428.00
64.500	428.00	428.00	428.00	428.00	428.00
64.750	428.00	428.00	428.00	428.00	428.00
65.000	428.00	428.00	428.00	428.00	428.00
65.250	428.00	428.00	428.00	428.00	428.00
65.500	428.00	428.00	428.00	428.00	428.00
65.750	428.00	428.00	428.00	428.00	428.00
66.000	428.00	428.00	428.00	428.00	428.00
66.250	428.00	428.00	428.00	428.00	428.00
66.500	428.00	428.00	428.00	428.00	428.00
66.750	428.00	428.00	428.00	428.00	428.00
67.000	428.00	428.00	428.00	428.00	428.00
67.250	428.00	428.00	428.00	428.00	428.00
67.500	428.00	428.00	428.00	428.00	428.00
67.750	428.00	428.00	428.00	428.00	428.00
68.000	428.00	428.00	428.00	428.00	428.00
68.250	428.00	428.00	428.00	428.00	428.00
68.500	428.00	428.00	428.00	428.00	428.00
68.750	428.00	428.00	428.00	428.00	428.00
69.000	428.00	428.00	428.00	428.00	428.00
69.250	428.00	428.00	428.00	428.00	428.00
69.500	428.00	428.00	428.00	428.00	428.00
69.750	428.00	428.00	428.00	428.00	428.00
70.000	428.00	428.00	428.00	428.00	428.00
70.250	428.00	428.00	428.00	428.00	428.00
70.500	428.00	428.00	428.00	428.00	428.00
70.750	428.00	428.00	428.00	428.00	428.00
71.000	428.00	428.00	428.00	428.00	428.00
71.250	428.00	428.00	428.00	428.00	428.00
71.500	428.00	428.00	428.00	428.00	428.00
71.750	428.00	428.00	428.00	428.00	428.00
72.000	428.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Bio. Basin 1B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	428.00	428.00	428.00	428.00	428.00
0.250	428.00	428.00	428.00	428.00	428.00
0.500	428.00	428.00	428.00	428.00	428.00
0.750	428.00	428.00	428.00	428.00	428.00
1.000	428.00	428.00	428.00	428.00	428.00
1.250	428.00	428.00	428.00	428.00	428.00
1.500	428.00	428.00	428.00	428.00	428.00
1.750	428.00	428.00	428.00	428.00	428.00
2.000	428.00	428.00	428.00	428.00	428.00
2.250	428.00	428.00	428.00	428.00	428.00
2.500	428.00	428.00	428.00	428.00	428.00
2.750	428.00	428.00	428.00	428.00	428.00
3.000	428.00	428.00	428.00	428.00	428.00
3.250	428.00	428.00	428.00	428.00	428.00
3.500	428.00	428.00	428.00	428.00	428.00
3.750	428.00	428.00	428.00	428.00	428.00
4.000	428.00	428.00	428.00	428.00	428.00
4.250	428.00	428.00	428.00	428.00	428.00
4.500	428.00	428.00	428.00	428.00	428.00
4.750	428.00	428.00	428.00	428.00	428.00
5.000	428.00	428.00	428.00	428.00	428.00
5.250	428.00	428.00	428.00	428.00	428.00
5.500	428.00	428.00	428.00	428.00	428.00
5.750	428.00	428.00	428.00	428.00	428.00
6.000	428.00	428.00	428.00	428.00	428.00
6.250	428.00	428.00	428.00	428.00	428.00
6.500	428.00	428.00	428.00	428.00	428.00
6.750	428.00	428.00	428.00	428.00	428.00
7.000	428.00	428.00	428.00	428.00	428.00
7.250	428.00	428.00	428.00	428.00	428.00
7.500	428.00	428.00	428.00	428.00	428.00
7.750	428.00	428.00	428.00	428.00	428.00
8.000	428.00	428.00	428.00	428.00	428.00
8.250	428.01	428.01	428.01	428.01	428.01
8.500	428.01	428.01	428.01	428.01	428.01
8.750	428.01	428.01	428.01	428.01	428.01
9.000	428.01	428.01	428.01	428.01	428.01
9.250	428.01	428.01	428.01	428.01	428.01
9.500	428.01	428.01	428.01	428.01	428.01
9.750	428.01	428.01	428.01	428.01	428.01
10.000	428.01	428.01	428.01	428.01	428.01
10.250	428.01	428.01	428.01	428.01	428.01

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Bio. Basin 1B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	428.02	428.02	428.02	428.02	428.02
10.750	428.02	428.02	428.02	428.02	428.02
11.000	428.02	428.02	428.02	428.02	428.02
11.250	428.03	428.03	428.03	428.03	428.03
11.500	428.03	428.04	428.05	428.06	428.08
11.750	428.10	428.13	428.17	428.22	428.31
12.000	428.47	428.65	428.77	428.81	428.82
12.250	428.81	428.80	428.78	428.77	428.76
12.500	428.74	428.73	428.71	428.69	428.67
12.750	428.65	428.64	428.62	428.61	428.59
13.000	428.58	428.57	428.55	428.53	428.52
13.250	428.50	428.49	428.47	428.45	428.43
13.500	428.41	428.39	428.37	428.36	428.34
13.750	428.32	428.30	428.28	428.26	428.24
14.000	428.21	428.19	428.17	428.15	428.13
14.250	428.11	428.09	428.06	428.04	428.03
14.500	428.02	428.02	428.02	428.02	428.02
14.750	428.02	428.02	428.02	428.02	428.02
15.000	428.02	428.02	428.02	428.01	428.02
15.250	428.02	428.02	428.02	428.02	428.01
15.500	428.02	428.02	428.02	428.01	428.01
15.750	428.01	428.01	428.01	428.01	428.02
16.000	428.01	428.01	428.01	428.01	428.01
16.250	428.01	428.01	428.01	428.01	428.01
16.500	428.01	428.01	428.01	428.01	428.01
16.750	428.01	428.01	428.01	428.01	428.01
17.000	428.01	428.01	428.01	428.01	428.01
17.250	428.01	428.01	428.01	428.01	428.01
17.500	428.01	428.01	428.01	428.01	428.01
17.750	428.01	428.01	428.01	428.01	428.01
18.000	428.01	428.01	428.01	428.01	428.01
18.250	428.01	428.01	428.01	428.01	428.01
18.500	428.01	428.01	428.01	428.01	428.01
18.750	428.01	428.01	428.01	428.01	428.01
19.000	428.01	428.01	428.01	428.01	428.01
19.250	428.01	428.01	428.01	428.01	428.01
19.500	428.01	428.01	428.01	428.01	428.01
19.750	428.01	428.01	428.01	428.01	428.01
20.000	428.01	428.01	428.01	428.01	428.01
20.250	428.01	428.01	428.01	428.01	428.01
20.500	428.01	428.01	428.01	428.01	428.01
20.750	428.01	428.01	428.01	428.01	428.01

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Bio. Basin 1B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	428.01	428.01	428.01	428.01	428.01
21.250	428.01	428.01	428.01	428.01	428.01
21.500	428.01	428.01	428.01	428.01	428.01
21.750	428.01	428.01	428.01	428.01	428.01
22.000	428.01	428.01	428.01	428.01	428.01
22.250	428.01	428.01	428.01	428.01	428.01
22.500	428.01	428.01	428.01	428.01	428.01
22.750	428.01	428.01	428.01	428.01	428.01
23.000	428.01	428.01	428.01	428.01	428.01
23.250	428.01	428.01	428.01	428.01	428.01
23.500	428.01	428.01	428.01	428.01	428.01
23.750	428.01	428.01	428.01	428.01	428.01
24.000	428.01	428.01	428.00	428.00	428.00
24.250	428.00	428.00	428.00	428.00	428.00
24.500	428.00	428.00	428.00	428.00	428.00
24.750	428.00	428.00	428.00	428.00	428.00
25.000	428.00	428.00	428.00	428.00	428.00
25.250	428.00	428.00	428.00	428.00	428.00
25.500	428.00	428.00	428.00	428.00	428.00
25.750	428.00	428.00	428.00	428.00	428.00
26.000	428.00	428.00	428.00	428.00	428.00
26.250	428.00	428.00	428.00	428.00	428.00
26.500	428.00	428.00	428.00	428.00	428.00
26.750	428.00	428.00	428.00	428.00	428.00
27.000	428.00	428.00	428.00	428.00	428.00
27.250	428.00	428.00	428.00	428.00	428.00
27.500	428.00	428.00	428.00	428.00	428.00
27.750	428.00	428.00	428.00	428.00	428.00
28.000	428.00	428.00	428.00	428.00	428.00
28.250	428.00	428.00	428.00	428.00	428.00
28.500	428.00	428.00	428.00	428.00	428.00
28.750	428.00	428.00	428.00	428.00	428.00
29.000	428.00	428.00	428.00	428.00	428.00
29.250	428.00	428.00	428.00	428.00	428.00
29.500	428.00	428.00	428.00	428.00	428.00
29.750	428.00	428.00	428.00	428.00	428.00
30.000	428.00	428.00	428.00	428.00	428.00
30.250	428.00	428.00	428.00	428.00	428.00
30.500	428.00	428.00	428.00	428.00	428.00
30.750	428.00	428.00	428.00	428.00	428.00
31.000	428.00	428.00	428.00	428.00	428.00
31.250	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Bio. Basin 1B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	428.00	428.00	428.00	428.00	428.00
31.750	428.00	428.00	428.00	428.00	428.00
32.000	428.00	428.00	428.00	428.00	428.00
32.250	428.00	428.00	428.00	428.00	428.00
32.500	428.00	428.00	428.00	428.00	428.00
32.750	428.00	428.00	428.00	428.00	428.00
33.000	428.00	428.00	428.00	428.00	428.00
33.250	428.00	428.00	428.00	428.00	428.00
33.500	428.00	428.00	428.00	428.00	428.00
33.750	428.00	428.00	428.00	428.00	428.00
34.000	428.00	428.00	428.00	428.00	428.00
34.250	428.00	428.00	428.00	428.00	428.00
34.500	428.00	428.00	428.00	428.00	428.00
34.750	428.00	428.00	428.00	428.00	428.00
35.000	428.00	428.00	428.00	428.00	428.00
35.250	428.00	428.00	428.00	428.00	428.00
35.500	428.00	428.00	428.00	428.00	428.00
35.750	428.00	428.00	428.00	428.00	428.00
36.000	428.00	428.00	428.00	428.00	428.00
36.250	428.00	428.00	428.00	428.00	428.00
36.500	428.00	428.00	428.00	428.00	428.00
36.750	428.00	428.00	428.00	428.00	428.00
37.000	428.00	428.00	428.00	428.00	428.00
37.250	428.00	428.00	428.00	428.00	428.00
37.500	428.00	428.00	428.00	428.00	428.00
37.750	428.00	428.00	428.00	428.00	428.00
38.000	428.00	428.00	428.00	428.00	428.00
38.250	428.00	428.00	428.00	428.00	428.00
38.500	428.00	428.00	428.00	428.00	428.00
38.750	428.00	428.00	428.00	428.00	428.00
39.000	428.00	428.00	428.00	428.00	428.00
39.250	428.00	428.00	428.00	428.00	428.00
39.500	428.00	428.00	428.00	428.00	428.00
39.750	428.00	428.00	428.00	428.00	428.00
40.000	428.00	428.00	428.00	428.00	428.00
40.250	428.00	428.00	428.00	428.00	428.00
40.500	428.00	428.00	428.00	428.00	428.00
40.750	428.00	428.00	428.00	428.00	428.00
41.000	428.00	428.00	428.00	428.00	428.00
41.250	428.00	428.00	428.00	428.00	428.00
41.500	428.00	428.00	428.00	428.00	428.00
41.750	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Bio. Basin 1B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	428.00	428.00	428.00	428.00	428.00
42.250	428.00	428.00	428.00	428.00	428.00
42.500	428.00	428.00	428.00	428.00	428.00
42.750	428.00	428.00	428.00	428.00	428.00
43.000	428.00	428.00	428.00	428.00	428.00
43.250	428.00	428.00	428.00	428.00	428.00
43.500	428.00	428.00	428.00	428.00	428.00
43.750	428.00	428.00	428.00	428.00	428.00
44.000	428.00	428.00	428.00	428.00	428.00
44.250	428.00	428.00	428.00	428.00	428.00
44.500	428.00	428.00	428.00	428.00	428.00
44.750	428.00	428.00	428.00	428.00	428.00
45.000	428.00	428.00	428.00	428.00	428.00
45.250	428.00	428.00	428.00	428.00	428.00
45.500	428.00	428.00	428.00	428.00	428.00
45.750	428.00	428.00	428.00	428.00	428.00
46.000	428.00	428.00	428.00	428.00	428.00
46.250	428.00	428.00	428.00	428.00	428.00
46.500	428.00	428.00	428.00	428.00	428.00
46.750	428.00	428.00	428.00	428.00	428.00
47.000	428.00	428.00	428.00	428.00	428.00
47.250	428.00	428.00	428.00	428.00	428.00
47.500	428.00	428.00	428.00	428.00	428.00
47.750	428.00	428.00	428.00	428.00	428.00
48.000	428.00	428.00	428.00	428.00	428.00
48.250	428.00	428.00	428.00	428.00	428.00
48.500	428.00	428.00	428.00	428.00	428.00
48.750	428.00	428.00	428.00	428.00	428.00
49.000	428.00	428.00	428.00	428.00	428.00
49.250	428.00	428.00	428.00	428.00	428.00
49.500	428.00	428.00	428.00	428.00	428.00
49.750	428.00	428.00	428.00	428.00	428.00
50.000	428.00	428.00	428.00	428.00	428.00
50.250	428.00	428.00	428.00	428.00	428.00
50.500	428.00	428.00	428.00	428.00	428.00
50.750	428.00	428.00	428.00	428.00	428.00
51.000	428.00	428.00	428.00	428.00	428.00
51.250	428.00	428.00	428.00	428.00	428.00
51.500	428.00	428.00	428.00	428.00	428.00
51.750	428.00	428.00	428.00	428.00	428.00
52.000	428.00	428.00	428.00	428.00	428.00
52.250	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Bio. Basin 1B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	428.00	428.00	428.00	428.00	428.00
52.750	428.00	428.00	428.00	428.00	428.00
53.000	428.00	428.00	428.00	428.00	428.00
53.250	428.00	428.00	428.00	428.00	428.00
53.500	428.00	428.00	428.00	428.00	428.00
53.750	428.00	428.00	428.00	428.00	428.00
54.000	428.00	428.00	428.00	428.00	428.00
54.250	428.00	428.00	428.00	428.00	428.00
54.500	428.00	428.00	428.00	428.00	428.00
54.750	428.00	428.00	428.00	428.00	428.00
55.000	428.00	428.00	428.00	428.00	428.00
55.250	428.00	428.00	428.00	428.00	428.00
55.500	428.00	428.00	428.00	428.00	428.00
55.750	428.00	428.00	428.00	428.00	428.00
56.000	428.00	428.00	428.00	428.00	428.00
56.250	428.00	428.00	428.00	428.00	428.00
56.500	428.00	428.00	428.00	428.00	428.00
56.750	428.00	428.00	428.00	428.00	428.00
57.000	428.00	428.00	428.00	428.00	428.00
57.250	428.00	428.00	428.00	428.00	428.00
57.500	428.00	428.00	428.00	428.00	428.00
57.750	428.00	428.00	428.00	428.00	428.00
58.000	428.00	428.00	428.00	428.00	428.00
58.250	428.00	428.00	428.00	428.00	428.00
58.500	428.00	428.00	428.00	428.00	428.00
58.750	428.00	428.00	428.00	428.00	428.00
59.000	428.00	428.00	428.00	428.00	428.00
59.250	428.00	428.00	428.00	428.00	428.00
59.500	428.00	428.00	428.00	428.00	428.00
59.750	428.00	428.00	428.00	428.00	428.00
60.000	428.00	428.00	428.00	428.00	428.00
60.250	428.00	428.00	428.00	428.00	428.00
60.500	428.00	428.00	428.00	428.00	428.00
60.750	428.00	428.00	428.00	428.00	428.00
61.000	428.00	428.00	428.00	428.00	428.00
61.250	428.00	428.00	428.00	428.00	428.00
61.500	428.00	428.00	428.00	428.00	428.00
61.750	428.00	428.00	428.00	428.00	428.00
62.000	428.00	428.00	428.00	428.00	428.00
62.250	428.00	428.00	428.00	428.00	428.00
62.500	428.00	428.00	428.00	428.00	428.00
62.750	428.00	428.00	428.00	428.00	428.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Bio. Basin 1B (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	428.00	428.00	428.00	428.00	428.00
63.250	428.00	428.00	428.00	428.00	428.00
63.500	428.00	428.00	428.00	428.00	428.00
63.750	428.00	428.00	428.00	428.00	428.00
64.000	428.00	428.00	428.00	428.00	428.00
64.250	428.00	428.00	428.00	428.00	428.00
64.500	428.00	428.00	428.00	428.00	428.00
64.750	428.00	428.00	428.00	428.00	428.00
65.000	428.00	428.00	428.00	428.00	428.00
65.250	428.00	428.00	428.00	428.00	428.00
65.500	428.00	428.00	428.00	428.00	428.00
65.750	428.00	428.00	428.00	428.00	428.00
66.000	428.00	428.00	428.00	428.00	428.00
66.250	428.00	428.00	428.00	428.00	428.00
66.500	428.00	428.00	428.00	428.00	428.00
66.750	428.00	428.00	428.00	428.00	428.00
67.000	428.00	428.00	428.00	428.00	428.00
67.250	428.00	428.00	428.00	428.00	428.00
67.500	428.00	428.00	428.00	428.00	428.00
67.750	428.00	428.00	428.00	428.00	428.00
68.000	428.00	428.00	428.00	428.00	428.00
68.250	428.00	428.00	428.00	428.00	428.00
68.500	428.00	428.00	428.00	428.00	428.00
68.750	428.00	428.00	428.00	428.00	428.00
69.000	428.00	428.00	428.00	428.00	428.00
69.250	428.00	428.00	428.00	428.00	428.00
69.500	428.00	428.00	428.00	428.00	428.00
69.750	428.00	428.00	428.00	428.00	428.00
70.000	428.00	428.00	428.00	428.00	428.00
70.250	428.00	428.00	428.00	428.00	428.00
70.500	428.00	428.00	428.00	428.00	428.00
70.750	428.00	428.00	428.00	428.00	428.00
71.000	428.00	428.00	428.00	428.00	428.00
71.250	428.00	428.00	428.00	428.00	428.00
71.500	428.00	428.00	428.00	428.00	428.00
71.750	428.00	428.00	428.00	428.00	428.00
72.000	428.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1C (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	427.00	427.00	427.00	427.00	427.00
0.250	427.00	427.00	427.00	427.00	427.00
0.500	427.00	427.00	427.00	427.00	427.00
0.750	427.00	427.00	427.00	427.00	427.00
1.000	427.00	427.00	427.00	427.00	427.00
1.250	427.00	427.00	427.00	427.00	427.00
1.500	427.00	427.00	427.00	427.00	427.00
1.750	427.00	427.00	427.00	427.00	427.00
2.000	427.00	427.00	427.00	427.00	427.00
2.250	427.00	427.00	427.00	427.00	427.00
2.500	427.00	427.00	427.00	427.00	427.00
2.750	427.00	427.00	427.00	427.00	427.00
3.000	427.00	427.00	427.00	427.00	427.00
3.250	427.00	427.00	427.00	427.00	427.00
3.500	427.00	427.00	427.00	427.00	427.00
3.750	427.00	427.00	427.00	427.00	427.00
4.000	427.00	427.00	427.00	427.00	427.00
4.250	427.00	427.00	427.00	427.00	427.00
4.500	427.00	427.00	427.00	427.00	427.00
4.750	427.00	427.00	427.00	427.00	427.00
5.000	427.00	427.00	427.00	427.00	427.00
5.250	427.00	427.00	427.00	427.00	427.00
5.500	427.00	427.00	427.00	427.00	427.00
5.750	427.00	427.00	427.00	427.00	427.00
6.000	427.00	427.00	427.00	427.00	427.00
6.250	427.00	427.00	427.00	427.00	427.00
6.500	427.00	427.00	427.00	427.00	427.00
6.750	427.00	427.00	427.00	427.00	427.00
7.000	427.00	427.00	427.00	427.00	427.00
7.250	427.00	427.00	427.00	427.00	427.00
7.500	427.00	427.00	427.00	427.00	427.00
7.750	427.00	427.00	427.00	427.00	427.00
8.000	427.00	427.00	427.00	427.00	427.00
8.250	427.00	427.00	427.00	427.00	427.00
8.500	427.00	427.00	427.00	427.00	427.00
8.750	427.00	427.00	427.00	427.00	427.00
9.000	427.00	427.00	427.00	427.00	427.00
9.250	427.00	427.00	427.00	427.00	427.00
9.500	427.00	427.00	427.00	427.00	427.00
9.750	427.00	427.00	427.00	427.00	427.00
10.000	427.00	427.00	427.00	427.00	427.00
10.250	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1C (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	427.00	427.00	427.00	427.00	427.00
10.750	427.00	427.00	427.00	427.00	427.00
11.000	427.00	427.00	427.00	427.00	427.00
11.250	427.00	427.00	427.00	427.00	427.00
11.500	427.00	427.00	427.01	427.01	427.01
11.750	427.01	427.01	427.02	427.02	427.03
12.000	427.07	427.11	427.14	427.16	427.16
12.250	427.16	427.16	427.15	427.14	427.13
12.500	427.13	427.12	427.10	427.09	427.07
12.750	427.05	427.04	427.03	427.02	427.02
13.000	427.02	427.01	427.01	427.01	427.01
13.250	427.01	427.01	427.01	427.01	427.01
13.500	427.01	427.01	427.01	427.01	427.01
13.750	427.01	427.01	427.01	427.01	427.01
14.000	427.01	427.01	427.01	427.01	427.01
14.250	427.01	427.01	427.01	427.01	427.01
14.500	427.01	427.01	427.01	427.01	427.01
14.750	427.01	427.01	427.01	427.01	427.01
15.000	427.01	427.01	427.01	427.01	427.01
15.250	427.01	427.01	427.01	427.01	427.01
15.500	427.01	427.01	427.00	427.00	427.00
15.750	427.00	427.01	427.01	427.01	427.01
16.000	427.01	427.01	427.00	427.00	427.00
16.250	427.00	427.01	427.01	427.01	427.01
16.500	427.00	427.00	427.00	427.01	427.01
16.750	427.01	427.00	427.00	427.00	427.00
17.000	427.01	427.01	427.00	427.00	427.00
17.250	427.01	427.01	427.01	427.00	427.00
17.500	427.00	427.01	427.01	427.01	427.00
17.750	427.00	427.00	427.00	427.00	427.00
18.000	427.00	427.00	427.01	427.01	427.00
18.250	427.00	427.00	427.00	427.00	427.00
18.500	427.00	427.00	427.00	427.00	427.00
18.750	427.00	427.00	427.00	427.00	427.00
19.000	427.01	427.01	427.00	427.00	427.00
19.250	427.00	427.00	427.00	427.00	427.00
19.500	427.00	427.00	427.00	427.00	427.00
19.750	427.00	427.00	427.00	427.00	427.00
20.000	427.00	427.00	427.00	427.00	427.00
20.250	427.00	427.00	427.00	427.00	427.00
20.500	427.00	427.00	427.00	427.00	427.00
20.750	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1C (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	427.00	427.00	427.00	427.00	427.00
21.250	427.00	427.00	427.00	427.00	427.00
21.500	427.00	427.00	427.00	427.00	427.00
21.750	427.00	427.00	427.00	427.00	427.00
22.000	427.00	427.00	427.00	427.00	427.00
22.250	427.00	427.00	427.00	427.00	427.00
22.500	427.00	427.00	427.00	427.00	427.00
22.750	427.00	427.00	427.00	427.00	427.00
23.000	427.00	427.00	427.00	427.00	427.00
23.250	427.00	427.00	427.00	427.00	427.00
23.500	427.00	427.00	427.00	427.00	427.00
23.750	427.00	427.00	427.00	427.00	427.00
24.000	427.00	427.00	427.00	427.00	427.00
24.250	427.00	427.00	427.00	427.00	427.00
24.500	427.00	427.00	427.00	427.00	427.00
24.750	427.00	427.00	427.00	427.00	427.00
25.000	427.00	427.00	427.00	427.00	427.00
25.250	427.00	427.00	427.00	427.00	427.00
25.500	427.00	427.00	427.00	427.00	427.00
25.750	427.00	427.00	427.00	427.00	427.00
26.000	427.00	427.00	427.00	427.00	427.00
26.250	427.00	427.00	427.00	427.00	427.00
26.500	427.00	427.00	427.00	427.00	427.00
26.750	427.00	427.00	427.00	427.00	427.00
27.000	427.00	427.00	427.00	427.00	427.00
27.250	427.00	427.00	427.00	427.00	427.00
27.500	427.00	427.00	427.00	427.00	427.00
27.750	427.00	427.00	427.00	427.00	427.00
28.000	427.00	427.00	427.00	427.00	427.00
28.250	427.00	427.00	427.00	427.00	427.00
28.500	427.00	427.00	427.00	427.00	427.00
28.750	427.00	427.00	427.00	427.00	427.00
29.000	427.00	427.00	427.00	427.00	427.00
29.250	427.00	427.00	427.00	427.00	427.00
29.500	427.00	427.00	427.00	427.00	427.00
29.750	427.00	427.00	427.00	427.00	427.00
30.000	427.00	427.00	427.00	427.00	427.00
30.250	427.00	427.00	427.00	427.00	427.00
30.500	427.00	427.00	427.00	427.00	427.00
30.750	427.00	427.00	427.00	427.00	427.00
31.000	427.00	427.00	427.00	427.00	427.00
31.250	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1C (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	427.00	427.00	427.00	427.00	427.00
31.750	427.00	427.00	427.00	427.00	427.00
32.000	427.00	427.00	427.00	427.00	427.00
32.250	427.00	427.00	427.00	427.00	427.00
32.500	427.00	427.00	427.00	427.00	427.00
32.750	427.00	427.00	427.00	427.00	427.00
33.000	427.00	427.00	427.00	427.00	427.00
33.250	427.00	427.00	427.00	427.00	427.00
33.500	427.00	427.00	427.00	427.00	427.00
33.750	427.00	427.00	427.00	427.00	427.00
34.000	427.00	427.00	427.00	427.00	427.00
34.250	427.00	427.00	427.00	427.00	427.00
34.500	427.00	427.00	427.00	427.00	427.00
34.750	427.00	427.00	427.00	427.00	427.00
35.000	427.00	427.00	427.00	427.00	427.00
35.250	427.00	427.00	427.00	427.00	427.00
35.500	427.00	427.00	427.00	427.00	427.00
35.750	427.00	427.00	427.00	427.00	427.00
36.000	427.00	427.00	427.00	427.00	427.00
36.250	427.00	427.00	427.00	427.00	427.00
36.500	427.00	427.00	427.00	427.00	427.00
36.750	427.00	427.00	427.00	427.00	427.00
37.000	427.00	427.00	427.00	427.00	427.00
37.250	427.00	427.00	427.00	427.00	427.00
37.500	427.00	427.00	427.00	427.00	427.00
37.750	427.00	427.00	427.00	427.00	427.00
38.000	427.00	427.00	427.00	427.00	427.00
38.250	427.00	427.00	427.00	427.00	427.00
38.500	427.00	427.00	427.00	427.00	427.00
38.750	427.00	427.00	427.00	427.00	427.00
39.000	427.00	427.00	427.00	427.00	427.00
39.250	427.00	427.00	427.00	427.00	427.00
39.500	427.00	427.00	427.00	427.00	427.00
39.750	427.00	427.00	427.00	427.00	427.00
40.000	427.00	427.00	427.00	427.00	427.00
40.250	427.00	427.00	427.00	427.00	427.00
40.500	427.00	427.00	427.00	427.00	427.00
40.750	427.00	427.00	427.00	427.00	427.00
41.000	427.00	427.00	427.00	427.00	427.00
41.250	427.00	427.00	427.00	427.00	427.00
41.500	427.00	427.00	427.00	427.00	427.00
41.750	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation
Return Event: 1 years

Label: Inf. Bio. Basin 1C (IN)
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	427.00	427.00	427.00	427.00	427.00
42.250	427.00	427.00	427.00	427.00	427.00
42.500	427.00	427.00	427.00	427.00	427.00
42.750	427.00	427.00	427.00	427.00	427.00
43.000	427.00	427.00	427.00	427.00	427.00
43.250	427.00	427.00	427.00	427.00	427.00
43.500	427.00	427.00	427.00	427.00	427.00
43.750	427.00	427.00	427.00	427.00	427.00
44.000	427.00	427.00	427.00	427.00	427.00
44.250	427.00	427.00	427.00	427.00	427.00
44.500	427.00	427.00	427.00	427.00	427.00
44.750	427.00	427.00	427.00	427.00	427.00
45.000	427.00	427.00	427.00	427.00	427.00
45.250	427.00	427.00	427.00	427.00	427.00
45.500	427.00	427.00	427.00	427.00	427.00
45.750	427.00	427.00	427.00	427.00	427.00
46.000	427.00	427.00	427.00	427.00	427.00
46.250	427.00	427.00	427.00	427.00	427.00
46.500	427.00	427.00	427.00	427.00	427.00
46.750	427.00	427.00	427.00	427.00	427.00
47.000	427.00	427.00	427.00	427.00	427.00
47.250	427.00	427.00	427.00	427.00	427.00
47.500	427.00	427.00	427.00	427.00	427.00
47.750	427.00	427.00	427.00	427.00	427.00
48.000	427.00	427.00	427.00	427.00	427.00
48.250	427.00	427.00	427.00	427.00	427.00
48.500	427.00	427.00	427.00	427.00	427.00
48.750	427.00	427.00	427.00	427.00	427.00
49.000	427.00	427.00	427.00	427.00	427.00
49.250	427.00	427.00	427.00	427.00	427.00
49.500	427.00	427.00	427.00	427.00	427.00
49.750	427.00	427.00	427.00	427.00	427.00
50.000	427.00	427.00	427.00	427.00	427.00
50.250	427.00	427.00	427.00	427.00	427.00
50.500	427.00	427.00	427.00	427.00	427.00
50.750	427.00	427.00	427.00	427.00	427.00
51.000	427.00	427.00	427.00	427.00	427.00
51.250	427.00	427.00	427.00	427.00	427.00
51.500	427.00	427.00	427.00	427.00	427.00
51.750	427.00	427.00	427.00	427.00	427.00
52.000	427.00	427.00	427.00	427.00	427.00
52.250	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1C (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	427.00	427.00	427.00	427.00	427.00
52.750	427.00	427.00	427.00	427.00	427.00
53.000	427.00	427.00	427.00	427.00	427.00
53.250	427.00	427.00	427.00	427.00	427.00
53.500	427.00	427.00	427.00	427.00	427.00
53.750	427.00	427.00	427.00	427.00	427.00
54.000	427.00	427.00	427.00	427.00	427.00
54.250	427.00	427.00	427.00	427.00	427.00
54.500	427.00	427.00	427.00	427.00	427.00
54.750	427.00	427.00	427.00	427.00	427.00
55.000	427.00	427.00	427.00	427.00	427.00
55.250	427.00	427.00	427.00	427.00	427.00
55.500	427.00	427.00	427.00	427.00	427.00
55.750	427.00	427.00	427.00	427.00	427.00
56.000	427.00	427.00	427.00	427.00	427.00
56.250	427.00	427.00	427.00	427.00	427.00
56.500	427.00	427.00	427.00	427.00	427.00
56.750	427.00	427.00	427.00	427.00	427.00
57.000	427.00	427.00	427.00	427.00	427.00
57.250	427.00	427.00	427.00	427.00	427.00
57.500	427.00	427.00	427.00	427.00	427.00
57.750	427.00	427.00	427.00	427.00	427.00
58.000	427.00	427.00	427.00	427.00	427.00
58.250	427.00	427.00	427.00	427.00	427.00
58.500	427.00	427.00	427.00	427.00	427.00
58.750	427.00	427.00	427.00	427.00	427.00
59.000	427.00	427.00	427.00	427.00	427.00
59.250	427.00	427.00	427.00	427.00	427.00
59.500	427.00	427.00	427.00	427.00	427.00
59.750	427.00	427.00	427.00	427.00	427.00
60.000	427.00	427.00	427.00	427.00	427.00
60.250	427.00	427.00	427.00	427.00	427.00
60.500	427.00	427.00	427.00	427.00	427.00
60.750	427.00	427.00	427.00	427.00	427.00
61.000	427.00	427.00	427.00	427.00	427.00
61.250	427.00	427.00	427.00	427.00	427.00
61.500	427.00	427.00	427.00	427.00	427.00
61.750	427.00	427.00	427.00	427.00	427.00
62.000	427.00	427.00	427.00	427.00	427.00
62.250	427.00	427.00	427.00	427.00	427.00
62.500	427.00	427.00	427.00	427.00	427.00
62.750	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation | Return Event: 1 years

Label: Inf. Bio. Basin 1C (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	427.00	427.00	427.00	427.00	427.00
63.250	427.00	427.00	427.00	427.00	427.00
63.500	427.00	427.00	427.00	427.00	427.00
63.750	427.00	427.00	427.00	427.00	427.00
64.000	427.00	427.00	427.00	427.00	427.00
64.250	427.00	427.00	427.00	427.00	427.00
64.500	427.00	427.00	427.00	427.00	427.00
64.750	427.00	427.00	427.00	427.00	427.00
65.000	427.00	427.00	427.00	427.00	427.00
65.250	427.00	427.00	427.00	427.00	427.00
65.500	427.00	427.00	427.00	427.00	427.00
65.750	427.00	427.00	427.00	427.00	427.00
66.000	427.00	427.00	427.00	427.00	427.00
66.250	427.00	427.00	427.00	427.00	427.00
66.500	427.00	427.00	427.00	427.00	427.00
66.750	427.00	427.00	427.00	427.00	427.00
67.000	427.00	427.00	427.00	427.00	427.00
67.250	427.00	427.00	427.00	427.00	427.00
67.500	427.00	427.00	427.00	427.00	427.00
67.750	427.00	427.00	427.00	427.00	427.00
68.000	427.00	427.00	427.00	427.00	427.00
68.250	427.00	427.00	427.00	427.00	427.00
68.500	427.00	427.00	427.00	427.00	427.00
68.750	427.00	427.00	427.00	427.00	427.00
69.000	427.00	427.00	427.00	427.00	427.00
69.250	427.00	427.00	427.00	427.00	427.00
69.500	427.00	427.00	427.00	427.00	427.00
69.750	427.00	427.00	427.00	427.00	427.00
70.000	427.00	427.00	427.00	427.00	427.00
70.250	427.00	427.00	427.00	427.00	427.00
70.500	427.00	427.00	427.00	427.00	427.00
70.750	427.00	427.00	427.00	427.00	427.00
71.000	427.00	427.00	427.00	427.00	427.00
71.250	427.00	427.00	427.00	427.00	427.00
71.500	427.00	427.00	427.00	427.00	427.00
71.750	427.00	427.00	427.00	427.00	427.00
72.000	427.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1C (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	427.00	427.00	427.00	427.00	427.00
0.250	427.00	427.00	427.00	427.00	427.00
0.500	427.00	427.00	427.00	427.00	427.00
0.750	427.00	427.00	427.00	427.00	427.00
1.000	427.00	427.00	427.00	427.00	427.00
1.250	427.00	427.00	427.00	427.00	427.00
1.500	427.00	427.00	427.00	427.00	427.00
1.750	427.00	427.00	427.00	427.00	427.00
2.000	427.00	427.00	427.00	427.00	427.00
2.250	427.00	427.00	427.00	427.00	427.00
2.500	427.00	427.00	427.00	427.00	427.00
2.750	427.00	427.00	427.00	427.00	427.00
3.000	427.00	427.00	427.00	427.00	427.00
3.250	427.00	427.00	427.00	427.00	427.00
3.500	427.00	427.00	427.00	427.00	427.00
3.750	427.00	427.00	427.00	427.00	427.00
4.000	427.00	427.00	427.00	427.00	427.00
4.250	427.00	427.00	427.00	427.00	427.00
4.500	427.00	427.00	427.00	427.00	427.00
4.750	427.00	427.00	427.00	427.00	427.00
5.000	427.00	427.00	427.00	427.00	427.00
5.250	427.00	427.00	427.00	427.00	427.00
5.500	427.00	427.00	427.00	427.00	427.00
5.750	427.00	427.00	427.00	427.00	427.00
6.000	427.00	427.00	427.00	427.00	427.00
6.250	427.00	427.00	427.00	427.00	427.00
6.500	427.00	427.00	427.00	427.00	427.00
6.750	427.00	427.00	427.00	427.00	427.00
7.000	427.00	427.00	427.00	427.00	427.00
7.250	427.00	427.00	427.00	427.00	427.00
7.500	427.00	427.00	427.00	427.00	427.00
7.750	427.00	427.00	427.00	427.00	427.00
8.000	427.00	427.00	427.00	427.00	427.00
8.250	427.00	427.00	427.00	427.00	427.00
8.500	427.00	427.00	427.00	427.00	427.00
8.750	427.00	427.00	427.00	427.00	427.00
9.000	427.00	427.00	427.00	427.00	427.00
9.250	427.00	427.00	427.00	427.00	427.00
9.500	427.00	427.00	427.00	427.00	427.01
9.750	427.01	427.01	427.01	427.01	427.01
10.000	427.01	427.01	427.01	427.01	427.01
10.250	427.01	427.01	427.01	427.01	427.01

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1C (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	427.01	427.01	427.01	427.01	427.01
10.750	427.01	427.01	427.01	427.01	427.01
11.000	427.01	427.02	427.02	427.02	427.02
11.250	427.02	427.02	427.02	427.02	427.02
11.500	427.03	427.03	427.04	427.05	427.06
11.750	427.07	427.09	427.11	427.14	427.21
12.000	427.35	427.51	427.63	427.71	427.77
12.250	427.81	427.84	427.86	427.89	427.91
12.500	427.92	427.93	427.93	427.92	427.92
12.750	427.91	427.90	427.90	427.89	427.88
13.000	427.87	427.86	427.85	427.84	427.83
13.250	427.82	427.81	427.80	427.79	427.77
13.500	427.76	427.75	427.73	427.72	427.71
13.750	427.70	427.68	427.67	427.65	427.64
14.000	427.62	427.61	427.59	427.58	427.56
14.250	427.55	427.53	427.52	427.50	427.49
14.500	427.47	427.45	427.44	427.42	427.40
14.750	427.39	427.37	427.35	427.34	427.32
15.000	427.30	427.29	427.27	427.25	427.24
15.250	427.22	427.20	427.18	427.16	427.15
15.500	427.13	427.11	427.09	427.07	427.06
15.750	427.04	427.03	427.03	427.02	427.02
16.000	427.02	427.02	427.01	427.01	427.01
16.250	427.02	427.01	427.01	427.01	427.02
16.500	427.01	427.01	427.01	427.01	427.01
16.750	427.01	427.01	427.01	427.01	427.01
17.000	427.01	427.01	427.01	427.01	427.01
17.250	427.01	427.01	427.01	427.01	427.01
17.500	427.01	427.01	427.01	427.01	427.01
17.750	427.01	427.01	427.01	427.01	427.01
18.000	427.01	427.01	427.01	427.01	427.01
18.250	427.01	427.01	427.01	427.01	427.01
18.500	427.01	427.01	427.01	427.01	427.01
18.750	427.01	427.01	427.01	427.01	427.01
19.000	427.01	427.01	427.01	427.01	427.01
19.250	427.01	427.01	427.01	427.01	427.01
19.500	427.01	427.01	427.01	427.01	427.01
19.750	427.01	427.01	427.01	427.01	427.01
20.000	427.01	427.01	427.01	427.01	427.01
20.250	427.01	427.01	427.01	427.01	427.01
20.500	427.01	427.01	427.01	427.01	427.01
20.750	427.01	427.01	427.01	427.01	427.01

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1C (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	427.01	427.01	427.01	427.01	427.01
21.250	427.01	427.01	427.01	427.01	427.01
21.500	427.01	427.01	427.01	427.01	427.01
21.750	427.01	427.01	427.01	427.01	427.01
22.000	427.01	427.01	427.01	427.01	427.01
22.250	427.01	427.01	427.01	427.01	427.01
22.500	427.01	427.01	427.01	427.01	427.01
22.750	427.01	427.01	427.01	427.01	427.01
23.000	427.01	427.01	427.01	427.01	427.01
23.250	427.01	427.01	427.01	427.01	427.01
23.500	427.01	427.01	427.01	427.01	427.01
23.750	427.01	427.01	427.01	427.01	427.01
24.000	427.01	427.01	427.01	427.00	427.00
24.250	427.00	427.00	427.00	427.00	427.00
24.500	427.00	427.00	427.00	427.00	427.00
24.750	427.00	427.00	427.00	427.00	427.00
25.000	427.00	427.00	427.00	427.00	427.00
25.250	427.00	427.00	427.00	427.00	427.00
25.500	427.00	427.00	427.00	427.00	427.00
25.750	427.00	427.00	427.00	427.00	427.00
26.000	427.00	427.00	427.00	427.00	427.00
26.250	427.00	427.00	427.00	427.00	427.00
26.500	427.00	427.00	427.00	427.00	427.00
26.750	427.00	427.00	427.00	427.00	427.00
27.000	427.00	427.00	427.00	427.00	427.00
27.250	427.00	427.00	427.00	427.00	427.00
27.500	427.00	427.00	427.00	427.00	427.00
27.750	427.00	427.00	427.00	427.00	427.00
28.000	427.00	427.00	427.00	427.00	427.00
28.250	427.00	427.00	427.00	427.00	427.00
28.500	427.00	427.00	427.00	427.00	427.00
28.750	427.00	427.00	427.00	427.00	427.00
29.000	427.00	427.00	427.00	427.00	427.00
29.250	427.00	427.00	427.00	427.00	427.00
29.500	427.00	427.00	427.00	427.00	427.00
29.750	427.00	427.00	427.00	427.00	427.00
30.000	427.00	427.00	427.00	427.00	427.00
30.250	427.00	427.00	427.00	427.00	427.00
30.500	427.00	427.00	427.00	427.00	427.00
30.750	427.00	427.00	427.00	427.00	427.00
31.000	427.00	427.00	427.00	427.00	427.00
31.250	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1C (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	427.00	427.00	427.00	427.00	427.00
31.750	427.00	427.00	427.00	427.00	427.00
32.000	427.00	427.00	427.00	427.00	427.00
32.250	427.00	427.00	427.00	427.00	427.00
32.500	427.00	427.00	427.00	427.00	427.00
32.750	427.00	427.00	427.00	427.00	427.00
33.000	427.00	427.00	427.00	427.00	427.00
33.250	427.00	427.00	427.00	427.00	427.00
33.500	427.00	427.00	427.00	427.00	427.00
33.750	427.00	427.00	427.00	427.00	427.00
34.000	427.00	427.00	427.00	427.00	427.00
34.250	427.00	427.00	427.00	427.00	427.00
34.500	427.00	427.00	427.00	427.00	427.00
34.750	427.00	427.00	427.00	427.00	427.00
35.000	427.00	427.00	427.00	427.00	427.00
35.250	427.00	427.00	427.00	427.00	427.00
35.500	427.00	427.00	427.00	427.00	427.00
35.750	427.00	427.00	427.00	427.00	427.00
36.000	427.00	427.00	427.00	427.00	427.00
36.250	427.00	427.00	427.00	427.00	427.00
36.500	427.00	427.00	427.00	427.00	427.00
36.750	427.00	427.00	427.00	427.00	427.00
37.000	427.00	427.00	427.00	427.00	427.00
37.250	427.00	427.00	427.00	427.00	427.00
37.500	427.00	427.00	427.00	427.00	427.00
37.750	427.00	427.00	427.00	427.00	427.00
38.000	427.00	427.00	427.00	427.00	427.00
38.250	427.00	427.00	427.00	427.00	427.00
38.500	427.00	427.00	427.00	427.00	427.00
38.750	427.00	427.00	427.00	427.00	427.00
39.000	427.00	427.00	427.00	427.00	427.00
39.250	427.00	427.00	427.00	427.00	427.00
39.500	427.00	427.00	427.00	427.00	427.00
39.750	427.00	427.00	427.00	427.00	427.00
40.000	427.00	427.00	427.00	427.00	427.00
40.250	427.00	427.00	427.00	427.00	427.00
40.500	427.00	427.00	427.00	427.00	427.00
40.750	427.00	427.00	427.00	427.00	427.00
41.000	427.00	427.00	427.00	427.00	427.00
41.250	427.00	427.00	427.00	427.00	427.00
41.500	427.00	427.00	427.00	427.00	427.00
41.750	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1C (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	427.00	427.00	427.00	427.00	427.00
42.250	427.00	427.00	427.00	427.00	427.00
42.500	427.00	427.00	427.00	427.00	427.00
42.750	427.00	427.00	427.00	427.00	427.00
43.000	427.00	427.00	427.00	427.00	427.00
43.250	427.00	427.00	427.00	427.00	427.00
43.500	427.00	427.00	427.00	427.00	427.00
43.750	427.00	427.00	427.00	427.00	427.00
44.000	427.00	427.00	427.00	427.00	427.00
44.250	427.00	427.00	427.00	427.00	427.00
44.500	427.00	427.00	427.00	427.00	427.00
44.750	427.00	427.00	427.00	427.00	427.00
45.000	427.00	427.00	427.00	427.00	427.00
45.250	427.00	427.00	427.00	427.00	427.00
45.500	427.00	427.00	427.00	427.00	427.00
45.750	427.00	427.00	427.00	427.00	427.00
46.000	427.00	427.00	427.00	427.00	427.00
46.250	427.00	427.00	427.00	427.00	427.00
46.500	427.00	427.00	427.00	427.00	427.00
46.750	427.00	427.00	427.00	427.00	427.00
47.000	427.00	427.00	427.00	427.00	427.00
47.250	427.00	427.00	427.00	427.00	427.00
47.500	427.00	427.00	427.00	427.00	427.00
47.750	427.00	427.00	427.00	427.00	427.00
48.000	427.00	427.00	427.00	427.00	427.00
48.250	427.00	427.00	427.00	427.00	427.00
48.500	427.00	427.00	427.00	427.00	427.00
48.750	427.00	427.00	427.00	427.00	427.00
49.000	427.00	427.00	427.00	427.00	427.00
49.250	427.00	427.00	427.00	427.00	427.00
49.500	427.00	427.00	427.00	427.00	427.00
49.750	427.00	427.00	427.00	427.00	427.00
50.000	427.00	427.00	427.00	427.00	427.00
50.250	427.00	427.00	427.00	427.00	427.00
50.500	427.00	427.00	427.00	427.00	427.00
50.750	427.00	427.00	427.00	427.00	427.00
51.000	427.00	427.00	427.00	427.00	427.00
51.250	427.00	427.00	427.00	427.00	427.00
51.500	427.00	427.00	427.00	427.00	427.00
51.750	427.00	427.00	427.00	427.00	427.00
52.000	427.00	427.00	427.00	427.00	427.00
52.250	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1C (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	427.00	427.00	427.00	427.00	427.00
52.750	427.00	427.00	427.00	427.00	427.00
53.000	427.00	427.00	427.00	427.00	427.00
53.250	427.00	427.00	427.00	427.00	427.00
53.500	427.00	427.00	427.00	427.00	427.00
53.750	427.00	427.00	427.00	427.00	427.00
54.000	427.00	427.00	427.00	427.00	427.00
54.250	427.00	427.00	427.00	427.00	427.00
54.500	427.00	427.00	427.00	427.00	427.00
54.750	427.00	427.00	427.00	427.00	427.00
55.000	427.00	427.00	427.00	427.00	427.00
55.250	427.00	427.00	427.00	427.00	427.00
55.500	427.00	427.00	427.00	427.00	427.00
55.750	427.00	427.00	427.00	427.00	427.00
56.000	427.00	427.00	427.00	427.00	427.00
56.250	427.00	427.00	427.00	427.00	427.00
56.500	427.00	427.00	427.00	427.00	427.00
56.750	427.00	427.00	427.00	427.00	427.00
57.000	427.00	427.00	427.00	427.00	427.00
57.250	427.00	427.00	427.00	427.00	427.00
57.500	427.00	427.00	427.00	427.00	427.00
57.750	427.00	427.00	427.00	427.00	427.00
58.000	427.00	427.00	427.00	427.00	427.00
58.250	427.00	427.00	427.00	427.00	427.00
58.500	427.00	427.00	427.00	427.00	427.00
58.750	427.00	427.00	427.00	427.00	427.00
59.000	427.00	427.00	427.00	427.00	427.00
59.250	427.00	427.00	427.00	427.00	427.00
59.500	427.00	427.00	427.00	427.00	427.00
59.750	427.00	427.00	427.00	427.00	427.00
60.000	427.00	427.00	427.00	427.00	427.00
60.250	427.00	427.00	427.00	427.00	427.00
60.500	427.00	427.00	427.00	427.00	427.00
60.750	427.00	427.00	427.00	427.00	427.00
61.000	427.00	427.00	427.00	427.00	427.00
61.250	427.00	427.00	427.00	427.00	427.00
61.500	427.00	427.00	427.00	427.00	427.00
61.750	427.00	427.00	427.00	427.00	427.00
62.000	427.00	427.00	427.00	427.00	427.00
62.250	427.00	427.00	427.00	427.00	427.00
62.500	427.00	427.00	427.00	427.00	427.00
62.750	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation
Label: Inf. Bio. Basin 1C (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	427.00	427.00	427.00	427.00	427.00
63.250	427.00	427.00	427.00	427.00	427.00
63.500	427.00	427.00	427.00	427.00	427.00
63.750	427.00	427.00	427.00	427.00	427.00
64.000	427.00	427.00	427.00	427.00	427.00
64.250	427.00	427.00	427.00	427.00	427.00
64.500	427.00	427.00	427.00	427.00	427.00
64.750	427.00	427.00	427.00	427.00	427.00
65.000	427.00	427.00	427.00	427.00	427.00
65.250	427.00	427.00	427.00	427.00	427.00
65.500	427.00	427.00	427.00	427.00	427.00
65.750	427.00	427.00	427.00	427.00	427.00
66.000	427.00	427.00	427.00	427.00	427.00
66.250	427.00	427.00	427.00	427.00	427.00
66.500	427.00	427.00	427.00	427.00	427.00
66.750	427.00	427.00	427.00	427.00	427.00
67.000	427.00	427.00	427.00	427.00	427.00
67.250	427.00	427.00	427.00	427.00	427.00
67.500	427.00	427.00	427.00	427.00	427.00
67.750	427.00	427.00	427.00	427.00	427.00
68.000	427.00	427.00	427.00	427.00	427.00
68.250	427.00	427.00	427.00	427.00	427.00
68.500	427.00	427.00	427.00	427.00	427.00
68.750	427.00	427.00	427.00	427.00	427.00
69.000	427.00	427.00	427.00	427.00	427.00
69.250	427.00	427.00	427.00	427.00	427.00
69.500	427.00	427.00	427.00	427.00	427.00
69.750	427.00	427.00	427.00	427.00	427.00
70.000	427.00	427.00	427.00	427.00	427.00
70.250	427.00	427.00	427.00	427.00	427.00
70.500	427.00	427.00	427.00	427.00	427.00
70.750	427.00	427.00	427.00	427.00	427.00
71.000	427.00	427.00	427.00	427.00	427.00
71.250	427.00	427.00	427.00	427.00	427.00
71.500	427.00	427.00	427.00	427.00	427.00
71.750	427.00	427.00	427.00	427.00	427.00
72.000	427.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Return Event: 100 years

Label: Inf. Bio. Basin 1C (IN)
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	427.00	427.00	427.00	427.00	427.00
0.250	427.00	427.00	427.00	427.00	427.00
0.500	427.00	427.00	427.00	427.00	427.00
0.750	427.00	427.00	427.00	427.00	427.00
1.000	427.00	427.00	427.00	427.00	427.00
1.250	427.00	427.00	427.00	427.00	427.00
1.500	427.00	427.00	427.00	427.00	427.00
1.750	427.00	427.00	427.00	427.00	427.00
2.000	427.00	427.00	427.00	427.00	427.00
2.250	427.00	427.00	427.00	427.00	427.00
2.500	427.00	427.00	427.00	427.00	427.00
2.750	427.00	427.00	427.00	427.00	427.00
3.000	427.00	427.00	427.00	427.00	427.00
3.250	427.00	427.00	427.00	427.00	427.00
3.500	427.00	427.00	427.00	427.00	427.00
3.750	427.00	427.00	427.00	427.00	427.00
4.000	427.00	427.00	427.00	427.00	427.00
4.250	427.00	427.00	427.00	427.00	427.00
4.500	427.00	427.00	427.00	427.00	427.00
4.750	427.00	427.00	427.00	427.00	427.00
5.000	427.00	427.00	427.00	427.00	427.00
5.250	427.00	427.00	427.00	427.00	427.00
5.500	427.00	427.00	427.00	427.00	427.00
5.750	427.01	427.01	427.01	427.01	427.01
6.000	427.01	427.01	427.01	427.01	427.01
6.250	427.01	427.01	427.01	427.01	427.01
6.500	427.01	427.01	427.01	427.01	427.01
6.750	427.01	427.01	427.01	427.01	427.01
7.000	427.01	427.01	427.01	427.01	427.01
7.250	427.01	427.01	427.01	427.01	427.01
7.500	427.01	427.01	427.01	427.01	427.01
7.750	427.01	427.01	427.01	427.01	427.01
8.000	427.01	427.01	427.01	427.01	427.01
8.250	427.02	427.02	427.02	427.02	427.02
8.500	427.02	427.02	427.02	427.02	427.02
8.750	427.02	427.02	427.02	427.02	427.02
9.000	427.02	427.02	427.02	427.02	427.02
9.250	427.02	427.02	427.02	427.02	427.02
9.500	427.03	427.03	427.03	427.03	427.03
9.750	427.03	427.03	427.03	427.03	427.03
10.000	427.03	427.03	427.03	427.03	427.03
10.250	427.03	427.03	427.04	427.04	427.04

Subsection: Time vs. Elevation
Return Event: 100 years

Label: Inf. Bio. Basin 1C (IN)
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	427.04	427.04	427.04	427.04	427.05
10.750	427.05	427.05	427.05	427.05	427.06
11.000	427.06	427.07	427.07	427.08	427.09
11.250	427.10	427.11	427.13	427.14	427.17
11.500	427.19	427.22	427.27	427.34	427.41
11.750	427.50	427.59	427.69	427.82	428.00
12.000	428.24	428.41	428.44	428.38	428.32
12.250	428.27	428.23	428.20	428.17	428.16
12.500	428.14	428.12	428.10	428.07	428.05
12.750	428.03	428.02	428.01	428.00	428.00
13.000	427.99	427.98	427.98	427.97	427.97
13.250	427.96	427.96	427.96	427.95	427.95
13.500	427.94	427.94	427.94	427.94	427.93
13.750	427.93	427.93	427.92	427.92	427.92
14.000	427.91	427.91	427.91	427.91	427.90
14.250	427.90	427.90	427.89	427.89	427.89
14.500	427.89	427.88	427.87	427.87	427.86
14.750	427.86	427.85	427.85	427.84	427.84
15.000	427.83	427.82	427.82	427.81	427.80
15.250	427.79	427.79	427.78	427.77	427.76
15.500	427.76	427.75	427.74	427.73	427.72
15.750	427.71	427.70	427.69	427.68	427.68
16.000	427.67	427.66	427.65	427.64	427.63
16.250	427.62	427.61	427.60	427.59	427.58
16.500	427.57	427.56	427.55	427.54	427.53
16.750	427.51	427.50	427.49	427.48	427.47
17.000	427.46	427.45	427.44	427.42	427.41
17.250	427.40	427.39	427.38	427.36	427.35
17.500	427.34	427.33	427.32	427.31	427.30
17.750	427.29	427.27	427.26	427.24	427.23
18.000	427.22	427.21	427.20	427.18	427.17
18.250	427.15	427.14	427.13	427.12	427.11
18.500	427.09	427.08	427.07	427.06	427.05
18.750	427.04	427.03	427.03	427.03	427.02
19.000	427.02	427.02	427.02	427.02	427.03
19.250	427.03	427.03	427.03	427.02	427.02
19.500	427.02	427.02	427.02	427.02	427.02
19.750	427.02	427.02	427.02	427.02	427.02
20.000	427.02	427.02	427.02	427.02	427.02
20.250	427.02	427.02	427.02	427.02	427.02
20.500	427.02	427.02	427.02	427.02	427.02
20.750	427.02	427.02	427.02	427.02	427.02

Subsection: Time vs. Elevation
Return Event: 100 years

Label: Inf. Bio. Basin 1C (IN)
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	427.02	427.02	427.02	427.02	427.02
21.250	427.02	427.02	427.02	427.02	427.02
21.500	427.02	427.02	427.02	427.02	427.02
21.750	427.02	427.02	427.02	427.02	427.02
22.000	427.02	427.02	427.02	427.02	427.02
22.250	427.02	427.02	427.02	427.02	427.02
22.500	427.02	427.02	427.02	427.02	427.02
22.750	427.02	427.02	427.02	427.02	427.02
23.000	427.02	427.02	427.02	427.02	427.02
23.250	427.02	427.02	427.02	427.02	427.02
23.500	427.02	427.02	427.02	427.02	427.02
23.750	427.02	427.02	427.02	427.02	427.02
24.000	427.02	427.02	427.01	427.01	427.01
24.250	427.00	427.00	427.00	427.00	427.00
24.500	427.00	427.00	427.00	427.00	427.00
24.750	427.00	427.00	427.00	427.00	427.00
25.000	427.00	427.00	427.00	427.00	427.00
25.250	427.00	427.00	427.00	427.00	427.00
25.500	427.00	427.00	427.00	427.00	427.00
25.750	427.00	427.00	427.00	427.00	427.00
26.000	427.00	427.00	427.00	427.00	427.00
26.250	427.00	427.00	427.00	427.00	427.00
26.500	427.00	427.00	427.00	427.00	427.00
26.750	427.00	427.00	427.00	427.00	427.00
27.000	427.00	427.00	427.00	427.00	427.00
27.250	427.00	427.00	427.00	427.00	427.00
27.500	427.00	427.00	427.00	427.00	427.00
27.750	427.00	427.00	427.00	427.00	427.00
28.000	427.00	427.00	427.00	427.00	427.00
28.250	427.00	427.00	427.00	427.00	427.00
28.500	427.00	427.00	427.00	427.00	427.00
28.750	427.00	427.00	427.00	427.00	427.00
29.000	427.00	427.00	427.00	427.00	427.00
29.250	427.00	427.00	427.00	427.00	427.00
29.500	427.00	427.00	427.00	427.00	427.00
29.750	427.00	427.00	427.00	427.00	427.00
30.000	427.00	427.00	427.00	427.00	427.00
30.250	427.00	427.00	427.00	427.00	427.00
30.500	427.00	427.00	427.00	427.00	427.00
30.750	427.00	427.00	427.00	427.00	427.00
31.000	427.00	427.00	427.00	427.00	427.00
31.250	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation
Return Event: 100 years

Label: Inf. Bio. Basin 1C (IN)
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
31.500	427.00	427.00	427.00	427.00	427.00
31.750	427.00	427.00	427.00	427.00	427.00
32.000	427.00	427.00	427.00	427.00	427.00
32.250	427.00	427.00	427.00	427.00	427.00
32.500	427.00	427.00	427.00	427.00	427.00
32.750	427.00	427.00	427.00	427.00	427.00
33.000	427.00	427.00	427.00	427.00	427.00
33.250	427.00	427.00	427.00	427.00	427.00
33.500	427.00	427.00	427.00	427.00	427.00
33.750	427.00	427.00	427.00	427.00	427.00
34.000	427.00	427.00	427.00	427.00	427.00
34.250	427.00	427.00	427.00	427.00	427.00
34.500	427.00	427.00	427.00	427.00	427.00
34.750	427.00	427.00	427.00	427.00	427.00
35.000	427.00	427.00	427.00	427.00	427.00
35.250	427.00	427.00	427.00	427.00	427.00
35.500	427.00	427.00	427.00	427.00	427.00
35.750	427.00	427.00	427.00	427.00	427.00
36.000	427.00	427.00	427.00	427.00	427.00
36.250	427.00	427.00	427.00	427.00	427.00
36.500	427.00	427.00	427.00	427.00	427.00
36.750	427.00	427.00	427.00	427.00	427.00
37.000	427.00	427.00	427.00	427.00	427.00
37.250	427.00	427.00	427.00	427.00	427.00
37.500	427.00	427.00	427.00	427.00	427.00
37.750	427.00	427.00	427.00	427.00	427.00
38.000	427.00	427.00	427.00	427.00	427.00
38.250	427.00	427.00	427.00	427.00	427.00
38.500	427.00	427.00	427.00	427.00	427.00
38.750	427.00	427.00	427.00	427.00	427.00
39.000	427.00	427.00	427.00	427.00	427.00
39.250	427.00	427.00	427.00	427.00	427.00
39.500	427.00	427.00	427.00	427.00	427.00
39.750	427.00	427.00	427.00	427.00	427.00
40.000	427.00	427.00	427.00	427.00	427.00
40.250	427.00	427.00	427.00	427.00	427.00
40.500	427.00	427.00	427.00	427.00	427.00
40.750	427.00	427.00	427.00	427.00	427.00
41.000	427.00	427.00	427.00	427.00	427.00
41.250	427.00	427.00	427.00	427.00	427.00
41.500	427.00	427.00	427.00	427.00	427.00
41.750	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation
Return Event: 100 years

Label: Inf. Bio. Basin 1C (IN)
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
42.000	427.00	427.00	427.00	427.00	427.00
42.250	427.00	427.00	427.00	427.00	427.00
42.500	427.00	427.00	427.00	427.00	427.00
42.750	427.00	427.00	427.00	427.00	427.00
43.000	427.00	427.00	427.00	427.00	427.00
43.250	427.00	427.00	427.00	427.00	427.00
43.500	427.00	427.00	427.00	427.00	427.00
43.750	427.00	427.00	427.00	427.00	427.00
44.000	427.00	427.00	427.00	427.00	427.00
44.250	427.00	427.00	427.00	427.00	427.00
44.500	427.00	427.00	427.00	427.00	427.00
44.750	427.00	427.00	427.00	427.00	427.00
45.000	427.00	427.00	427.00	427.00	427.00
45.250	427.00	427.00	427.00	427.00	427.00
45.500	427.00	427.00	427.00	427.00	427.00
45.750	427.00	427.00	427.00	427.00	427.00
46.000	427.00	427.00	427.00	427.00	427.00
46.250	427.00	427.00	427.00	427.00	427.00
46.500	427.00	427.00	427.00	427.00	427.00
46.750	427.00	427.00	427.00	427.00	427.00
47.000	427.00	427.00	427.00	427.00	427.00
47.250	427.00	427.00	427.00	427.00	427.00
47.500	427.00	427.00	427.00	427.00	427.00
47.750	427.00	427.00	427.00	427.00	427.00
48.000	427.00	427.00	427.00	427.00	427.00
48.250	427.00	427.00	427.00	427.00	427.00
48.500	427.00	427.00	427.00	427.00	427.00
48.750	427.00	427.00	427.00	427.00	427.00
49.000	427.00	427.00	427.00	427.00	427.00
49.250	427.00	427.00	427.00	427.00	427.00
49.500	427.00	427.00	427.00	427.00	427.00
49.750	427.00	427.00	427.00	427.00	427.00
50.000	427.00	427.00	427.00	427.00	427.00
50.250	427.00	427.00	427.00	427.00	427.00
50.500	427.00	427.00	427.00	427.00	427.00
50.750	427.00	427.00	427.00	427.00	427.00
51.000	427.00	427.00	427.00	427.00	427.00
51.250	427.00	427.00	427.00	427.00	427.00
51.500	427.00	427.00	427.00	427.00	427.00
51.750	427.00	427.00	427.00	427.00	427.00
52.000	427.00	427.00	427.00	427.00	427.00
52.250	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation
Return Event: 100 years
Label: Inf. Bio. Basin 1C (IN)
Storm Event: 100 Year Storm
Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
52.500	427.00	427.00	427.00	427.00	427.00
52.750	427.00	427.00	427.00	427.00	427.00
53.000	427.00	427.00	427.00	427.00	427.00
53.250	427.00	427.00	427.00	427.00	427.00
53.500	427.00	427.00	427.00	427.00	427.00
53.750	427.00	427.00	427.00	427.00	427.00
54.000	427.00	427.00	427.00	427.00	427.00
54.250	427.00	427.00	427.00	427.00	427.00
54.500	427.00	427.00	427.00	427.00	427.00
54.750	427.00	427.00	427.00	427.00	427.00
55.000	427.00	427.00	427.00	427.00	427.00
55.250	427.00	427.00	427.00	427.00	427.00
55.500	427.00	427.00	427.00	427.00	427.00
55.750	427.00	427.00	427.00	427.00	427.00
56.000	427.00	427.00	427.00	427.00	427.00
56.250	427.00	427.00	427.00	427.00	427.00
56.500	427.00	427.00	427.00	427.00	427.00
56.750	427.00	427.00	427.00	427.00	427.00
57.000	427.00	427.00	427.00	427.00	427.00
57.250	427.00	427.00	427.00	427.00	427.00
57.500	427.00	427.00	427.00	427.00	427.00
57.750	427.00	427.00	427.00	427.00	427.00
58.000	427.00	427.00	427.00	427.00	427.00
58.250	427.00	427.00	427.00	427.00	427.00
58.500	427.00	427.00	427.00	427.00	427.00
58.750	427.00	427.00	427.00	427.00	427.00
59.000	427.00	427.00	427.00	427.00	427.00
59.250	427.00	427.00	427.00	427.00	427.00
59.500	427.00	427.00	427.00	427.00	427.00
59.750	427.00	427.00	427.00	427.00	427.00
60.000	427.00	427.00	427.00	427.00	427.00
60.250	427.00	427.00	427.00	427.00	427.00
60.500	427.00	427.00	427.00	427.00	427.00
60.750	427.00	427.00	427.00	427.00	427.00
61.000	427.00	427.00	427.00	427.00	427.00
61.250	427.00	427.00	427.00	427.00	427.00
61.500	427.00	427.00	427.00	427.00	427.00
61.750	427.00	427.00	427.00	427.00	427.00
62.000	427.00	427.00	427.00	427.00	427.00
62.250	427.00	427.00	427.00	427.00	427.00
62.500	427.00	427.00	427.00	427.00	427.00
62.750	427.00	427.00	427.00	427.00	427.00

Subsection: Time vs. Elevation
Return Event: 100 years

Label: Inf. Bio. Basin 1C (IN)
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Elevation (ft)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
63.000	427.00	427.00	427.00	427.00	427.00
63.250	427.00	427.00	427.00	427.00	427.00
63.500	427.00	427.00	427.00	427.00	427.00
63.750	427.00	427.00	427.00	427.00	427.00
64.000	427.00	427.00	427.00	427.00	427.00
64.250	427.00	427.00	427.00	427.00	427.00
64.500	427.00	427.00	427.00	427.00	427.00
64.750	427.00	427.00	427.00	427.00	427.00
65.000	427.00	427.00	427.00	427.00	427.00
65.250	427.00	427.00	427.00	427.00	427.00
65.500	427.00	427.00	427.00	427.00	427.00
65.750	427.00	427.00	427.00	427.00	427.00
66.000	427.00	427.00	427.00	427.00	427.00
66.250	427.00	427.00	427.00	427.00	427.00
66.500	427.00	427.00	427.00	427.00	427.00
66.750	427.00	427.00	427.00	427.00	427.00
67.000	427.00	427.00	427.00	427.00	427.00
67.250	427.00	427.00	427.00	427.00	427.00
67.500	427.00	427.00	427.00	427.00	427.00
67.750	427.00	427.00	427.00	427.00	427.00
68.000	427.00	427.00	427.00	427.00	427.00
68.250	427.00	427.00	427.00	427.00	427.00
68.500	427.00	427.00	427.00	427.00	427.00
68.750	427.00	427.00	427.00	427.00	427.00
69.000	427.00	427.00	427.00	427.00	427.00
69.250	427.00	427.00	427.00	427.00	427.00
69.500	427.00	427.00	427.00	427.00	427.00
69.750	427.00	427.00	427.00	427.00	427.00
70.000	427.00	427.00	427.00	427.00	427.00
70.250	427.00	427.00	427.00	427.00	427.00
70.500	427.00	427.00	427.00	427.00	427.00
70.750	427.00	427.00	427.00	427.00	427.00
71.000	427.00	427.00	427.00	427.00	427.00
71.250	427.00	427.00	427.00	427.00	427.00
71.500	427.00	427.00	427.00	427.00	427.00
71.750	427.00	427.00	427.00	427.00	427.00
72.000	427.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 1D | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	0.000
4.750	0.000	0.000	0.000	0.000	0.000
5.000	0.000	0.000	0.000	0.000	0.000
5.250	0.000	0.000	0.000	0.000	0.000
5.500	0.000	0.000	0.000	0.000	0.000
5.750	0.000	0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000	0.000	0.000
6.250	0.000	0.000	0.000	0.000	0.000
6.500	0.000	0.000	0.000	0.000	0.000
6.750	0.000	0.000	0.000	0.000	0.000
7.000	0.000	0.000	0.000	0.000	0.000
7.250	0.000	0.000	0.000	0.000	0.000
7.500	0.000	0.000	0.000	0.000	0.000
7.750	0.000	0.000	0.000	0.000	0.000
8.000	0.000	0.000	0.000	0.000	0.000
8.250	0.000	0.000	0.000	0.000	0.000
8.500	0.000	0.000	0.000	0.000	0.000
8.750	0.000	0.000	0.000	0.000	0.000
9.000	0.000	0.000	0.000	0.000	0.000
9.250	0.000	0.000	0.000	0.000	0.000
9.500	0.000	0.000	0.000	1.000	3.000
9.750	4.000	4.000	4.000	5.000	5.000
10.000	5.000	6.000	9.000	11.000	11.000
10.250	10.000	10.000	11.000	14.000	17.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 1D | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	16.000	16.000	19.000	23.000	26.000
10.750	27.000	24.000	22.000	25.000	30.000
11.000	33.000	38.000	46.000	52.000	52.000
11.250	52.000	58.000	63.000	62.000	64.000
11.500	78.000	98.000	120.000	146.000	180.000
11.750	218.000	255.000	302.000	366.000	600.000
12.000	1,335.000	2,340.000	3,042.000	3,406.000	3,582.000
12.250	3,641.000	3,637.000	3,592.000	3,521.000	3,435.000
12.500	3,349.000	3,234.000	3,050.000	2,817.000	2,574.000
12.750	2,320.000	2,042.000	1,749.000	1,454.000	1,160.000
13.000	867.000	577.000	359.000	253.000	204.000
13.250	182.000	172.000	167.000	166.000	157.000
13.500	134.000	119.000	127.000	136.000	124.000
13.750	114.000	126.000	136.000	124.000	107.000
14.000	95.000	89.000	87.000	94.000	116.000
14.250	132.000	123.000	107.000	96.000	90.000
14.500	87.000	86.000	86.000	86.000	86.000
14.750	86.000	86.000	86.000	86.000	86.000
15.000	86.000	86.000	86.000	86.000	86.000
15.250	86.000	87.000	87.000	87.000	87.000
15.500	87.000	78.000	54.000	38.000	47.000
15.750	65.000	76.000	82.000	85.000	86.000
16.000	87.000	79.000	55.000	39.000	48.000
16.250	65.000	77.000	83.000	86.000	78.000
16.500	55.000	39.000	48.000	66.000	77.000
16.750	74.000	53.000	38.000	48.000	66.000
17.000	77.000	74.000	53.000	38.000	48.000
17.250	66.000	77.000	75.000	53.000	38.000
17.500	48.000	66.000	78.000	75.000	53.000
17.750	38.000	48.000	57.000	44.000	34.000
18.000	46.000	65.000	78.000	75.000	54.000
18.250	38.000	49.000	58.000	45.000	34.000
18.500	47.000	57.000	44.000	34.000	47.000
18.750	57.000	44.000	34.000	47.000	66.000
19.000	78.000	76.000	54.000	39.000	49.000
19.250	58.000	45.000	34.000	47.000	57.000
19.500	45.000	34.000	47.000	57.000	45.000
19.750	34.000	47.000	57.000	45.000	34.000
20.000	47.000	57.000	45.000	25.000	13.000
20.250	15.000	37.000	53.000	43.000	33.000
20.500	47.000	57.000	45.000	34.000	47.000
20.750	58.000	45.000	35.000	47.000	58.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 1D | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	45.000	35.000	47.000	58.000	45.000
21.250	25.000	13.000	15.000	38.000	53.000
21.500	43.000	34.000	47.000	58.000	45.000
21.750	35.000	48.000	58.000	45.000	26.000
22.000	13.000	16.000	38.000	54.000	43.000
22.250	34.000	47.000	58.000	45.000	26.000
22.500	13.000	16.000	38.000	54.000	43.000
22.750	34.000	48.000	58.000	46.000	26.000
23.000	13.000	16.000	38.000	54.000	43.000
23.250	25.000	12.000	15.000	38.000	54.000
23.500	44.000	34.000	48.000	59.000	46.000
23.750	26.000	13.000	16.000	38.000	54.000
24.000	44.000	25.000	13.000	6.000	3.000
24.250	1.000	0.000	0.000	0.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 1D | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 1D | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 1D | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Return Event: 1 years

Label: Inf. Basin 1D
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	0.000
4.750	0.000	0.000	0.000	0.000	0.000
5.000	0.000	0.000	0.000	0.000	0.000
5.250	0.000	0.000	0.000	0.000	0.000
5.500	0.000	0.000	0.000	0.000	0.000
5.750	0.000	0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000	0.000	1.000
6.250	2.000	4.000	5.000	6.000	6.000
6.500	6.000	6.000	6.000	7.000	10.000
6.750	12.000	12.000	11.000	11.000	12.000
7.000	15.000	18.000	17.000	16.000	15.000
7.250	16.000	20.000	23.000	22.000	20.000
7.500	18.000	20.000	24.000	28.000	27.000
7.750	26.000	30.000	33.000	31.000	29.000
8.000	33.000	37.000	34.000	32.000	36.000
8.250	40.000	37.000	35.000	40.000	46.000
8.500	51.000	54.000	57.000	55.000	48.000
8.750	44.000	48.000	55.000	60.000	63.000
9.000	66.000	67.000	69.000	70.000	71.000
9.250	73.000	74.000	75.000	76.000	77.000
9.500	79.000	80.000	81.000	82.000	83.000
9.750	84.000	85.000	91.000	104.000	114.000
10.000	111.000	108.000	116.000	123.000	118.000
10.250	114.000	123.000	135.000	144.000	149.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	153.000	156.000	158.000	160.000	162.000
10.750	170.000	188.000	201.000	197.000	194.000
11.000	205.000	221.000	232.000	245.000	268.000
11.250	290.000	305.000	315.000	322.000	335.000
11.500	359.000	419.000	534.000	705.000	945.000
11.750	1,257.000	1,641.000	2,134.000	2,781.000	4,069.000
12.000	6,650.000	9,722.000	12,004.000	13,489.000	14,544.000
12.250	15,320.000	15,923.000	16,418.000	16,861.000	17,253.000
12.500	17,577.000	17,801.000	17,886.000	17,865.000	17,790.000
12.750	17,689.000	17,583.000	17,462.000	17,309.000	17,136.000
13.000	16,957.000	16,779.000	16,601.000	16,426.000	16,251.000
13.250	16,063.000	15,843.000	15,601.000	15,355.000	15,110.000
13.500	14,865.000	14,622.000	14,381.000	14,140.000	13,902.000
13.750	13,664.000	13,428.000	13,179.000	12,897.000	12,608.000
14.000	12,349.000	12,098.000	11,821.000	11,523.000	11,221.000
14.250	10,934.000	10,683.000	10,441.000	10,172.000	9,883.000
14.500	9,590.000	9,297.000	9,005.000	8,716.000	8,427.000
14.750	8,140.000	7,854.000	7,571.000	7,288.000	7,007.000
15.000	6,727.000	6,449.000	6,173.000	5,898.000	5,624.000
15.250	5,337.000	5,017.000	4,691.000	4,394.000	4,121.000
15.500	3,856.000	3,577.000	3,267.000	2,950.000	2,662.000
15.750	2,399.000	2,142.000	1,873.000	1,572.000	1,263.000
16.000	985.000	715.000	456.000	287.000	230.000
16.250	209.000	178.000	159.000	171.000	182.000
16.500	166.000	142.000	126.000	130.000	156.000
16.750	175.000	163.000	140.000	126.000	130.000
17.000	156.000	175.000	163.000	141.000	126.000
17.250	130.000	157.000	176.000	163.000	141.000
17.500	127.000	119.000	115.000	125.000	154.000
17.750	175.000	163.000	141.000	127.000	119.000
18.000	115.000	114.000	113.000	112.000	112.000
18.250	123.000	154.000	175.000	164.000	141.000
18.500	127.000	119.000	116.000	114.000	113.000
18.750	113.000	113.000	113.000	113.000	113.000
19.000	113.000	113.000	113.000	113.000	113.000
19.250	113.000	113.000	113.000	113.000	113.000
19.500	113.000	113.000	113.000	113.000	113.000
19.750	113.000	113.000	113.000	113.000	113.000
20.000	113.000	113.000	113.000	113.000	113.000
20.250	113.000	113.000	113.000	113.000	113.000
20.500	113.000	113.000	113.000	113.000	113.000
20.750	102.000	71.000	50.000	62.000	84.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	99.000	106.000	110.000	112.000	113.000
21.250	113.000	113.000	114.000	114.000	102.000
21.500	71.000	50.000	62.000	84.000	99.000
21.750	107.000	110.000	112.000	113.000	114.000
22.000	114.000	102.000	71.000	50.000	62.000
22.250	84.000	99.000	107.000	111.000	112.000
22.500	113.000	102.000	71.000	50.000	62.000
22.750	84.000	99.000	107.000	111.000	113.000
23.000	114.000	102.000	71.000	50.000	62.000
23.250	85.000	99.000	107.000	111.000	101.000
23.500	71.000	50.000	62.000	85.000	99.000
23.750	107.000	111.000	101.000	71.000	50.000
24.000	62.000	73.000	57.000	32.000	16.000
24.250	8.000	4.000	2.000	0.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Return Event: 100 years
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	1.000	3.000	4.000
3.500	6.000	8.000	10.000	12.000	13.000
3.750	15.000	17.000	18.000	16.000	15.000
4.000	18.000	21.000	24.000	27.000	29.000
4.250	30.000	32.000	34.000	35.000	37.000
4.500	39.000	42.000	50.000	56.000	56.000
4.750	53.000	52.000	52.000	52.000	54.000
5.000	55.000	56.000	57.000	59.000	60.000
5.250	65.000	75.000	83.000	81.000	76.000
5.500	73.000	72.000	72.000	77.000	88.000
5.750	97.000	95.000	88.000	85.000	87.000
6.000	99.000	108.000	104.000	97.000	93.000
6.250	96.000	108.000	117.000	114.000	110.000
6.500	119.000	126.000	121.000	117.000	125.000
6.750	138.000	146.000	147.000	136.000	128.000
7.000	136.000	148.000	157.000	157.000	145.000
7.250	137.000	144.000	157.000	167.000	172.000
7.500	176.000	179.000	181.000	183.000	185.000
7.750	186.000	188.000	190.000	191.000	193.000
8.000	194.000	196.000	198.000	199.000	201.000
8.250	209.000	229.000	244.000	239.000	227.000
8.500	219.000	223.000	242.000	256.000	250.000
8.750	244.000	257.000	274.000	287.000	286.000
9.000	270.000	259.000	269.000	287.000	298.000
9.250	306.000	310.000	313.000	316.000	326.000
9.500	351.000	368.000	362.000	348.000	339.000
9.750	344.000	366.000	391.000	407.000	417.000
10.000	423.000	427.000	430.000	433.000	435.000
10.250	438.000	440.000	451.000	478.000	507.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Return Event: 100 years
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	525.000	536.000	542.000	557.000	596.000
10.750	657.000	726.000	798.000	873.000	963.000
11.000	1,085.000	1,230.000	1,382.000	1,551.000	1,753.000
11.250	1,978.000	2,211.000	2,474.000	2,803.000	3,191.000
11.500	3,624.000	4,225.000	5,155.000	6,345.000	7,665.000
11.750	9,125.000	10,777.000	12,695.000	14,961.000	18,555.000
12.000	24,731.000	31,280.000	35,148.000	36,829.000	37,527.000
12.250	37,616.000	37,372.000	36,917.000	36,328.000	35,625.000
12.500	34,843.000	34,000.000	33,093.000	32,211.000	31,441.000
12.750	30,786.000	30,234.000	29,777.000	29,411.000	29,103.000
13.000	28,821.000	28,555.000	28,298.000	28,060.000	27,857.000
13.250	27,687.000	27,542.000	27,404.000	27,252.000	27,098.000
13.500	26,960.000	26,838.000	26,731.000	26,636.000	26,553.000
13.750	26,464.000	26,350.000	26,223.000	26,099.000	25,983.000
14.000	25,875.000	25,775.000	25,681.000	25,594.000	25,512.000
14.250	25,414.000	25,278.000	25,134.000	25,023.000	24,920.000
14.500	24,786.000	24,627.000	24,463.000	24,299.000	24,135.000
14.750	23,972.000	23,809.000	23,648.000	23,487.000	23,327.000
15.000	23,168.000	22,993.000	22,781.000	22,560.000	22,372.000
15.250	22,209.000	22,055.000	21,885.000	21,678.000	21,462.000
15.500	21,280.000	21,106.000	20,901.000	20,673.000	20,439.000
15.750	20,204.000	19,971.000	19,756.000	19,579.000	19,414.000
16.000	19,218.000	18,997.000	18,771.000	18,546.000	18,320.000
16.250	18,096.000	17,873.000	17,651.000	17,430.000	17,210.000
16.500	16,991.000	16,774.000	16,558.000	16,325.000	16,055.000
16.750	15,778.000	15,532.000	15,314.000	15,103.000	14,894.000
17.000	14,687.000	14,464.000	14,203.000	13,935.000	13,699.000
17.250	13,472.000	13,215.000	12,950.000	12,720.000	12,515.000
17.500	12,318.000	12,106.000	11,858.000	11,600.000	11,376.000
17.750	11,162.000	10,915.000	10,646.000	10,371.000	10,113.000
18.000	9,895.000	9,687.000	9,449.000	9,186.000	8,918.000
18.250	8,668.000	8,457.000	8,256.000	8,025.000	7,770.000
18.500	7,510.000	7,266.000	7,062.000	6,869.000	6,644.000
18.750	6,396.000	6,143.000	5,889.000	5,637.000	5,385.000
19.000	5,136.000	4,887.000	4,640.000	4,410.000	4,221.000
19.250	4,043.000	3,833.000	3,599.000	3,360.000	3,121.000
19.500	2,883.000	2,646.000	2,410.000	2,175.000	1,942.000
19.750	1,710.000	1,479.000	1,249.000	1,021.000	793.000
20.000	568.000	399.000	319.000	281.000	264.000
20.250	256.000	252.000	250.000	250.000	237.000
20.500	202.000	179.000	192.000	217.000	233.000
20.750	241.000	245.000	247.000	248.000	249.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Return Event: 100 years
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	249.000	237.000	202.000	179.000	192.000
21.250	217.000	233.000	241.000	246.000	248.000
21.500	249.000	236.000	202.000	179.000	192.000
21.750	217.000	233.000	229.000	199.000	178.000
22.000	192.000	217.000	233.000	242.000	246.000
22.250	235.000	202.000	179.000	192.000	217.000
22.500	233.000	229.000	199.000	178.000	192.000
22.750	204.000	186.000	172.000	189.000	216.000
23.000	233.000	229.000	199.000	178.000	192.000
23.250	204.000	186.000	172.000	189.000	203.000
23.500	186.000	172.000	189.000	203.000	186.000
23.750	172.000	189.000	203.000	186.000	172.000
24.000	189.000	191.000	139.000	77.000	38.000
24.250	18.000	9.000	4.000	2.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Return Event: 100 years
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 1D
Return Event: 100 years
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 2B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	0.000
4.750	0.000	0.000	0.000	0.000	0.000
5.000	0.000	0.000	0.000	0.000	0.000
5.250	0.000	0.000	0.000	0.000	0.000
5.500	0.000	0.000	0.000	0.000	0.000
5.750	0.000	0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000	0.000	0.000
6.250	0.000	0.000	0.000	0.000	0.000
6.500	0.000	0.000	0.000	0.000	0.000
6.750	0.000	0.000	0.000	0.000	0.000
7.000	0.000	0.000	0.000	2.000	3.000
7.250	4.000	4.000	4.000	5.000	8.000
7.500	10.000	12.000	15.000	16.000	15.000
7.750	13.000	15.000	18.000	21.000	25.000
8.000	28.000	29.000	26.000	23.000	24.000
8.250	28.000	32.000	36.000	40.000	43.000
8.500	46.000	49.000	52.000	52.000	46.000
8.750	40.000	41.000	45.000	51.000	55.000
9.000	60.000	63.000	67.000	70.000	73.000
9.250	76.000	78.000	81.000	83.000	85.000
9.500	87.000	89.000	91.000	98.000	113.000
9.750	128.000	133.000	130.000	127.000	125.000
10.000	123.000	127.000	142.000	158.000	161.000
10.250	157.000	152.000	153.000	167.000	182.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 2B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	184.000	184.000	195.000	214.000	232.000
10.750	242.000	236.000	228.000	235.000	252.000
11.000	268.000	289.000	324.000	357.000	371.000
11.250	380.000	403.000	426.000	431.000	441.000
11.500	485.000	555.000	640.000	744.000	889.000
11.750	1,085.000	1,324.000	1,630.000	2,033.000	2,889.000
12.000	4,692.000	6,878.000	8,503.000	9,549.000	10,281.000
12.250	10,822.000	11,260.000	11,629.000	11,954.000	12,255.000
12.500	12,552.000	12,802.000	12,947.000	13,017.000	13,070.000
12.750	13,103.000	13,100.000	13,072.000	13,038.000	13,003.000
13.000	12,968.000	12,933.000	12,898.000	12,864.000	12,830.000
13.250	12,797.000	12,764.000	12,731.000	12,698.000	12,650.000
13.500	12,564.000	12,470.000	12,406.000	12,351.000	12,265.000
13.750	12,171.000	12,109.000	12,055.000	11,970.000	11,860.000
14.000	11,745.000	11,628.000	11,512.000	11,412.000	11,350.000
14.250	11,298.000	11,215.000	11,107.000	10,993.000	10,878.000
14.500	10,763.000	10,649.000	10,534.000	10,421.000	10,306.000
14.750	10,192.000	10,079.000	9,965.000	9,852.000	9,740.000
15.000	9,627.000	9,515.000	9,402.000	9,290.000	9,178.000
15.250	9,067.000	8,955.000	8,845.000	8,734.000	8,623.000
15.500	8,512.000	8,385.000	8,220.000	8,046.000	7,903.000
15.750	7,786.000	7,675.000	7,566.000	7,457.000	7,349.000
16.000	7,241.000	7,116.000	6,953.000	6,780.000	6,640.000
16.250	6,525.000	6,416.000	6,310.000	6,203.000	6,080.000
16.500	5,919.000	5,748.000	5,609.000	5,496.000	5,389.000
16.750	5,267.000	5,107.000	4,937.000	4,800.000	4,689.000
17.000	4,583.000	4,462.000	4,303.000	4,135.000	3,999.000
17.250	3,889.000	3,785.000	3,666.000	3,508.000	3,341.000
17.500	3,206.000	3,098.000	2,995.000	2,877.000	2,720.000
17.750	2,555.000	2,421.000	2,297.000	2,139.000	1,974.000
18.000	1,841.000	1,735.000	1,635.000	1,519.000	1,365.000
18.250	1,201.000	1,070.000	947.000	793.000	645.000
18.500	555.000	493.000	416.000	348.000	324.000
18.750	312.000	274.000	237.000	237.000	260.000
19.000	284.000	288.000	257.000	224.000	227.000
19.250	237.000	215.000	191.000	201.000	217.000
19.500	200.000	179.000	192.000	210.000	194.000
19.750	175.000	189.000	207.000	192.000	173.000
20.000	187.000	206.000	191.000	157.000	124.000
20.250	113.000	139.000	168.000	162.000	149.000
20.500	169.000	192.000	180.000	164.000	180.000
20.750	201.000	187.000	169.000	185.000	204.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 2B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	190.000	172.000	186.000	206.000	191.000
21.250	157.000	124.000	113.000	139.000	168.000
21.500	162.000	150.000	169.000	193.000	181.000
21.750	164.000	181.000	202.000	188.000	155.000
22.000	122.000	112.000	138.000	168.000	162.000
22.250	149.000	169.000	193.000	181.000	149.000
22.500	118.000	108.000	136.000	166.000	160.000
22.750	148.000	169.000	192.000	181.000	149.000
23.000	118.000	108.000	136.000	166.000	161.000
23.250	133.000	106.000	98.000	128.000	160.000
23.500	156.000	145.000	166.000	190.000	180.000
23.750	148.000	117.000	108.000	135.000	166.000
24.000	161.000	133.000	106.000	83.000	65.000
24.250	51.000	40.000	31.000	24.000	19.000
24.500	15.000	12.000	9.000	7.000	6.000
24.750	4.000	3.000	3.000	2.000	2.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 2B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 2B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 2B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 2B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	2.000	3.000
4.250	5.000	7.000	9.000	11.000	13.000
4.500	16.000	18.000	20.000	23.000	25.000
4.750	28.000	30.000	33.000	35.000	37.000
5.000	40.000	42.000	45.000	47.000	49.000
5.250	51.000	54.000	56.000	58.000	61.000
5.500	63.000	68.000	80.000	92.000	97.000
5.750	96.000	94.000	93.000	93.000	93.000
6.000	93.000	94.000	95.000	96.000	98.000
6.250	104.000	119.000	134.000	139.000	136.000
6.500	132.000	129.000	128.000	132.000	147.000
6.750	163.000	166.000	161.000	156.000	157.000
7.000	172.000	187.000	189.000	182.000	175.000
7.250	175.000	190.000	206.000	207.000	199.000
7.500	191.000	191.000	207.000	223.000	224.000
7.750	222.000	235.000	248.000	246.000	242.000
8.000	253.000	265.000	262.000	256.000	267.000
8.250	279.000	275.000	268.000	279.000	300.000
8.500	320.000	337.000	352.000	356.000	341.000
8.750	324.000	328.000	345.000	362.000	377.000
9.000	389.000	400.000	410.000	418.000	425.000
9.250	432.000	438.000	443.000	448.000	453.000
9.500	457.000	462.000	466.000	470.000	474.000
9.750	478.000	481.000	495.000	531.000	565.000
10.000	574.000	576.000	599.000	624.000	623.000
10.250	619.000	637.000	669.000	699.000	725.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	747.000	765.000	782.000	799.000	818.000
10.750	852.000	916.000	990.000	1,041.000	1,087.000
11.000	1,160.000	1,256.000	1,358.000	1,477.000	1,631.000
11.250	1,808.000	1,994.000	2,184.000	2,377.000	2,586.000
11.500	2,832.000	3,179.000	3,705.000	4,389.000	5,182.000
11.750	6,074.000	7,065.000	8,203.000	9,556.000	11,801.000
12.000	15,823.000	20,472.000	23,986.000	26,394.000	28,209.000
12.250	29,645.000	30,849.000	31,906.000	32,894.000	33,812.000
12.500	34,640.000	35,334.000	35,848.000	36,222.000	36,526.000
12.750	36,794.000	37,053.000	37,293.000	37,490.000	37,657.000
13.000	37,817.000	37,976.000	38,134.000	38,293.000	38,452.000
13.250	38,592.000	38,690.000	38,758.000	38,819.000	38,878.000
13.500	38,937.000	38,996.000	39,055.000	39,114.000	39,174.000
13.750	39,233.000	39,293.000	39,333.000	39,331.000	39,318.000
14.000	39,341.000	39,373.000	39,370.000	39,338.000	39,299.000
14.250	39,278.000	39,299.000	39,331.000	39,328.000	39,297.000
14.500	39,259.000	39,219.000	39,179.000	39,139.000	39,099.000
14.750	39,059.000	39,020.000	38,980.000	38,941.000	38,901.000
15.000	38,862.000	38,823.000	38,784.000	38,746.000	38,707.000
15.250	38,649.000	38,548.000	38,436.000	38,360.000	38,313.000
15.500	38,273.000	38,216.000	38,116.000	38,005.000	37,930.000
15.750	37,884.000	37,845.000	37,788.000	37,689.000	37,578.000
16.000	37,504.000	37,439.000	37,338.000	37,228.000	37,154.000
16.250	37,090.000	36,990.000	36,881.000	36,808.000	36,744.000
16.500	36,644.000	36,516.000	36,380.000	36,263.000	36,189.000
16.750	36,126.000	36,027.000	35,900.000	35,765.000	35,649.000
17.000	35,575.000	35,513.000	35,415.000	35,288.000	35,155.000
17.250	35,039.000	34,967.000	34,906.000	34,809.000	34,683.000
17.500	34,551.000	34,416.000	34,282.000	34,167.000	34,096.000
17.750	34,037.000	33,941.000	33,817.000	33,685.000	33,552.000
18.000	33,419.000	33,287.000	33,154.000	33,022.000	32,890.000
18.250	32,777.000	32,708.000	32,651.000	32,557.000	32,434.000
18.500	32,305.000	32,174.000	32,044.000	31,913.000	31,783.000
18.750	31,652.000	31,522.000	31,392.000	31,262.000	31,133.000
19.000	31,004.000	30,875.000	30,745.000	30,616.000	30,488.000
19.250	30,359.000	30,231.000	30,103.000	29,976.000	29,848.000
19.500	29,720.000	29,592.000	29,465.000	29,338.000	29,212.000
19.750	29,086.000	28,959.000	28,833.000	28,707.000	28,581.000
20.000	28,455.000	28,330.000	28,205.000	28,080.000	27,955.000
20.250	27,830.000	27,705.000	27,581.000	27,457.000	27,333.000
20.500	27,209.000	27,086.000	26,962.000	26,839.000	26,716.000
20.750	26,573.000	26,388.000	26,191.000	26,030.000	25,899.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	25,775.000	25,653.000	25,532.000	25,411.000	25,290.000
21.250	25,169.000	25,049.000	24,928.000	24,808.000	24,668.000
21.500	24,485.000	24,291.000	24,133.000	24,005.000	23,884.000
21.750	23,765.000	23,646.000	23,528.000	23,410.000	23,292.000
22.000	23,174.000	23,037.000	22,856.000	22,664.000	22,509.000
22.250	22,383.000	22,264.000	22,147.000	22,031.000	21,915.000
22.500	21,799.000	21,665.000	21,485.000	21,295.000	21,142.000
22.750	21,018.000	20,902.000	20,787.000	20,673.000	20,559.000
23.000	20,445.000	20,311.000	20,135.000	19,947.000	19,796.000
23.250	19,674.000	19,559.000	19,446.000	19,334.000	19,202.000
23.500	19,027.000	18,841.000	18,691.000	18,570.000	18,457.000
23.750	18,346.000	18,236.000	18,106.000	17,932.000	17,747.000
24.000	17,599.000	17,461.000	17,286.000	17,083.000	16,872.000
24.250	16,660.000	16,448.000	16,236.000	16,024.000	15,813.000
24.500	15,602.000	15,392.000	15,181.000	14,971.000	14,762.000
24.750	14,552.000	14,343.000	14,134.000	13,926.000	13,718.000
25.000	13,510.000	13,302.000	13,095.000	12,888.000	12,681.000
25.250	12,475.000	12,269.000	12,063.000	11,857.000	11,652.000
25.500	11,447.000	11,243.000	11,039.000	10,834.000	10,631.000
25.750	10,428.000	10,224.000	10,022.000	9,819.000	9,617.000
26.000	9,415.000	9,213.000	9,012.000	8,812.000	8,611.000
26.250	8,410.000	8,210.000	8,011.000	7,811.000	7,612.000
26.500	7,413.000	7,214.000	7,016.000	6,818.000	6,620.000
26.750	6,423.000	6,226.000	6,029.000	5,832.000	5,636.000
27.000	5,440.000	5,244.000	5,049.000	4,854.000	4,660.000
27.250	4,465.000	4,270.000	4,077.000	3,883.000	3,690.000
27.500	3,497.000	3,304.000	3,112.000	2,919.000	2,727.000
27.750	2,536.000	2,345.000	2,154.000	1,963.000	1,773.000
28.000	1,583.000	1,393.000	1,203.000	1,014.000	825.000
28.250	651.000	509.000	397.000	311.000	243.000
28.500	190.000	148.000	116.000	91.000	71.000
28.750	55.000	43.000	34.000	26.000	21.000
29.000	16.000	13.000	10.000	8.000	6.000
29.250	5.000	4.000	3.000	2.000	2.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	2.000	3.000
2.250	6.000	10.000	16.000	23.000	31.000
2.500	39.000	46.000	49.000	51.000	58.000
2.750	68.000	78.000	88.000	98.000	104.000
3.000	104.000	103.000	109.000	120.000	132.000
3.250	143.000	153.000	163.000	173.000	182.000
3.500	190.000	198.000	206.000	214.000	222.000
3.750	229.000	236.000	238.000	227.000	217.000
4.000	220.000	232.000	245.000	257.000	268.000
4.250	277.000	286.000	294.000	302.000	309.000
4.500	316.000	330.000	358.000	387.000	397.000
4.750	395.000	392.000	389.000	389.000	389.000
5.000	391.000	393.000	395.000	398.000	402.000
5.250	414.000	445.000	475.000	483.000	478.000
5.500	471.000	466.000	463.000	471.000	499.000
5.750	528.000	534.000	526.000	516.000	519.000
6.000	544.000	571.000	574.000	562.000	550.000
6.250	551.000	576.000	602.000	604.000	602.000
6.500	621.000	643.000	640.000	633.000	650.000
6.750	680.000	710.000	724.000	710.000	694.000
7.000	703.000	729.000	755.000	765.000	748.000
7.250	728.000	736.000	761.000	788.000	815.000
7.500	845.000	875.000	907.000	939.000	973.000
7.750	1,008.000	1,044.000	1,081.000	1,119.000	1,158.000
8.000	1,198.000	1,239.000	1,282.000	1,325.000	1,368.000
8.250	1,428.000	1,522.000	1,626.000	1,702.000	1,758.000
8.500	1,809.000	1,874.000	1,975.000	2,085.000	2,168.000
8.750	2,244.000	2,351.000	2,481.000	2,617.000	2,741.000
9.000	2,831.000	2,913.000	3,025.000	3,161.000	3,304.000
9.250	3,450.000	3,596.000	3,744.000	3,893.000	4,059.000
9.500	4,262.000	4,476.000	4,661.000	4,822.000	4,977.000
9.750	5,149.000	5,359.000	5,596.000	5,840.000	6,087.000
10.000	6,336.000	6,584.000	6,835.000	7,087.000	7,339.000
10.250	7,592.000	7,846.000	8,118.000	8,430.000	8,770.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	9,118.000	9,468.000	9,820.000	10,191.000	10,602.000
10.750	11,041.000	11,489.000	11,940.000	12,392.000	12,864.000
11.000	13,376.000	13,918.000	14,469.000	15,040.000	15,654.000
11.250	16,298.000	16,949.000	17,641.000	18,417.000	19,270.000
11.500	20,181.000	21,311.000	22,869.000	24,764.000	26,822.000
11.750	29,059.000	31,535.000	34,345.000	37,592.000	42,500.000
12.000	50,618.000	59,376.000	65,065.000	67,828.000	68,959.000
12.250	69,179.000	68,983.000	68,587.000	68,114.000	67,601.000
12.500	67,057.000	66,399.000	65,533.000	64,579.000	63,677.000
12.750	62,864.000	62,146.000	61,528.000	61,012.000	60,566.000
13.000	60,154.000	59,765.000	59,390.000	59,045.000	58,747.000
13.250	58,494.000	58,279.000	58,077.000	57,863.000	57,651.000
13.500	57,463.000	57,300.000	57,159.000	57,037.000	56,931.000
13.750	56,821.000	56,683.000	56,535.000	56,399.000	56,279.000
14.000	56,174.000	56,082.000	56,000.000	55,929.000	55,866.000
14.250	55,792.000	55,684.000	55,578.000	55,520.000	55,478.000
14.500	55,406.000	55,314.000	55,226.000	55,146.000	55,074.000
14.750	55,010.000	54,952.000	54,900.000	54,853.000	54,812.000
15.000	54,774.000	54,722.000	54,631.000	54,539.000	54,492.000
15.250	54,478.000	54,473.000	54,451.000	54,388.000	54,321.000
15.500	54,297.000	54,284.000	54,237.000	54,166.000	54,094.000
15.750	54,027.000	53,965.000	53,927.000	53,936.000	53,956.000
16.000	53,937.000	53,892.000	53,843.000	53,796.000	53,752.000
16.250	53,713.000	53,676.000	53,642.000	53,611.000	53,583.000
16.500	53,557.000	53,533.000	53,511.000	53,471.000	53,391.000
16.750	53,306.000	53,264.000	53,255.000	53,253.000	53,254.000
17.000	53,254.000	53,236.000	53,174.000	53,107.000	53,082.000
17.250	53,067.000	53,016.000	52,958.000	52,940.000	52,952.000
17.500	52,971.000	52,971.000	52,926.000	52,873.000	52,858.000
17.750	52,855.000	52,813.000	52,745.000	52,672.000	52,620.000
18.000	52,616.000	52,623.000	52,592.000	52,534.000	52,471.000
18.250	52,428.000	52,433.000	52,448.000	52,426.000	52,375.000
18.500	52,319.000	52,284.000	52,295.000	52,317.000	52,300.000
18.750	52,255.000	52,205.000	52,156.000	52,108.000	52,062.000
19.000	52,019.000	51,976.000	51,934.000	51,912.000	51,936.000
19.250	51,972.000	51,969.000	51,936.000	51,896.000	51,854.000
19.500	51,812.000	51,770.000	51,728.000	51,686.000	51,644.000
19.750	51,603.000	51,561.000	51,519.000	51,477.000	51,436.000
20.000	51,394.000	51,353.000	51,312.000	51,270.000	51,229.000
20.250	51,188.000	51,147.000	51,106.000	51,065.000	51,004.000
20.500	50,896.000	50,778.000	50,697.000	50,647.000	50,604.000
20.750	50,563.000	50,523.000	50,483.000	50,442.000	50,402.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Return Event: 100 years
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	50,362.000	50,302.000	50,196.000	50,078.000	49,999.000
21.250	49,950.000	49,908.000	49,868.000	49,828.000	49,789.000
21.500	49,749.000	49,690.000	49,584.000	49,467.000	49,388.000
21.750	49,340.000	49,299.000	49,240.000	49,135.000	49,019.000
22.000	48,941.000	48,893.000	48,852.000	48,814.000	48,776.000
22.250	48,717.000	48,613.000	48,497.000	48,419.000	48,372.000
22.500	48,333.000	48,274.000	48,171.000	48,056.000	47,979.000
22.750	47,912.000	47,807.000	47,691.000	47,615.000	47,569.000
23.000	47,530.000	47,473.000	47,370.000	47,256.000	47,180.000
23.250	47,114.000	47,010.000	46,896.000	46,820.000	46,755.000
23.500	46,651.000	46,537.000	46,462.000	46,396.000	46,293.000
23.750	46,180.000	46,105.000	46,041.000	45,938.000	45,825.000
24.000	45,751.000	45,666.000	45,497.000	45,266.000	45,020.000
24.250	44,771.000	44,521.000	44,272.000	44,023.000	43,774.000
24.500	43,525.000	43,277.000	43,029.000	42,782.000	42,534.000
24.750	42,287.000	42,040.000	41,794.000	41,548.000	41,302.000
25.000	41,056.000	40,811.000	40,566.000	40,321.000	40,077.000
25.250	39,833.000	39,589.000	39,345.000	39,102.000	38,860.000
25.500	38,617.000	38,375.000	38,133.000	37,891.000	37,650.000
25.750	37,409.000	37,168.000	36,927.000	36,688.000	36,447.000
26.000	36,208.000	35,968.000	35,730.000	35,491.000	35,252.000
26.250	35,014.000	34,777.000	34,539.000	34,301.000	34,065.000
26.500	33,829.000	33,592.000	33,356.000	33,120.000	32,886.000
26.750	32,650.000	32,416.000	32,181.000	31,948.000	31,714.000
27.000	31,480.000	31,247.000	31,015.000	30,783.000	30,550.000
27.250	30,319.000	30,087.000	29,857.000	29,625.000	29,395.000
27.500	29,165.000	28,935.000	28,706.000	28,476.000	28,248.000
27.750	28,019.000	27,791.000	27,563.000	27,335.000	27,109.000
28.000	26,881.000	26,654.000	26,428.000	26,203.000	25,977.000
28.250	25,751.000	25,526.000	25,302.000	25,077.000	24,853.000
28.500	24,629.000	24,406.000	24,182.000	23,959.000	23,737.000
28.750	23,515.000	23,293.000	23,071.000	22,850.000	22,629.000
29.000	22,408.000	22,188.000	21,968.000	21,748.000	21,529.000
29.250	21,310.000	21,091.000	20,873.000	20,654.000	20,436.000
29.500	20,219.000	20,002.000	19,785.000	19,568.000	19,352.000
29.750	19,136.000	18,920.000	18,705.000	18,489.000	18,275.000
30.000	18,061.000	17,846.000	17,632.000	17,419.000	17,206.000
30.250	16,993.000	16,780.000	16,568.000	16,356.000	16,144.000
30.500	15,932.000	15,721.000	15,511.000	15,300.000	15,090.000
30.750	14,880.000	14,671.000	14,461.000	14,252.000	14,043.000
31.000	13,835.000	13,627.000	13,419.000	13,212.000	13,005.000
31.250	12,798.000	12,591.000	12,385.000	12,179.000	11,974.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	11,768.000	11,563.000	11,359.000	11,154.000	10,950.000
31.750	10,746.000	10,543.000	10,340.000	10,136.000	9,934.000
32.000	9,731.000	9,530.000	9,328.000	9,126.000	8,925.000
32.250	8,725.000	8,524.000	8,323.000	8,123.000	7,924.000
32.500	7,724.000	7,525.000	7,326.000	7,128.000	6,930.000
32.750	6,732.000	6,534.000	6,337.000	6,140.000	5,943.000
33.000	5,747.000	5,551.000	5,355.000	5,159.000	4,964.000
33.250	4,770.000	4,575.000	4,380.000	4,186.000	3,993.000
33.500	3,799.000	3,606.000	3,413.000	3,221.000	3,028.000
33.750	2,836.000	2,644.000	2,453.000	2,262.000	2,071.000
34.000	1,880.000	1,690.000	1,500.000	1,310.000	1,121.000
34.250	932.000	746.000	583.000	456.000	356.000
34.500	278.000	217.000	170.000	133.000	104.000
34.750	81.000	63.000	50.000	39.000	30.000
35.000	24.000	19.000	14.000	11.000	9.000
35.250	7.000	5.000	4.000	3.000	3.000
35.500	2.000	2.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Return Event: 100 years
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 2B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 3A | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	0.000
4.750	0.000	0.000	0.000	0.000	0.000
5.000	0.000	0.000	0.000	0.000	0.000
5.250	0.000	0.000	0.000	0.000	0.000
5.500	0.000	0.000	0.000	0.000	0.000
5.750	0.000	0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000	0.000	0.000
6.250	0.000	0.000	0.000	0.000	0.000
6.500	0.000	0.000	0.000	0.000	0.000
6.750	0.000	0.000	0.000	0.000	0.000
7.000	0.000	0.000	0.000	0.000	0.000
7.250	0.000	0.000	0.000	0.000	0.000
7.500	0.000	0.000	0.000	0.000	0.000
7.750	0.000	0.000	0.000	0.000	0.000
8.000	0.000	0.000	0.000	0.000	0.000
8.250	0.000	0.000	2.000	2.000	3.000
8.500	3.000	4.000	5.000	5.000	3.000
8.750	3.000	3.000	5.000	6.000	7.000
9.000	8.000	9.000	9.000	10.000	10.000
9.250	11.000	12.000	12.000	13.000	13.000
9.500	14.000	14.000	15.000	17.000	22.000
9.750	26.000	26.000	23.000	21.000	21.000
10.000	21.000	23.000	29.000	34.000	33.000
10.250	29.000	27.000	28.000	35.000	40.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 3A | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	39.000	37.000	42.000	49.000	54.000
10.750	55.000	49.000	45.000	49.000	57.000
11.000	62.000	70.000	82.000	92.000	91.000
11.250	90.000	98.000	105.000	102.000	103.000
11.500	123.000	153.000	184.000	220.000	266.000
11.750	317.000	365.000	423.000	504.000	816.000
12.000	1,747.000	2,970.000	3,805.000	4,229.000	4,428.000
12.250	4,490.000	4,477.000	4,416.000	4,323.000	4,214.000
12.500	4,104.000	3,960.000	3,737.000	3,462.000	3,174.000
12.750	2,873.000	2,546.000	2,202.000	1,856.000	1,510.000
13.000	1,166.000	823.000	533.000	355.000	269.000
13.250	227.000	208.000	198.000	194.000	183.000
13.500	157.000	139.000	147.000	156.000	143.000
13.750	132.000	145.000	156.000	143.000	123.000
14.000	111.000	103.000	100.000	108.000	133.000
14.250	150.000	141.000	123.000	111.000	104.000
14.500	101.000	99.000	98.000	98.000	98.000
14.750	98.000	98.000	98.000	98.000	98.000
15.000	98.000	98.000	98.000	98.000	99.000
15.250	99.000	99.000	99.000	99.000	99.000
15.500	99.000	89.000	63.000	45.000	54.000
15.750	73.000	85.000	93.000	96.000	98.000
16.000	99.000	90.000	63.000	45.000	54.000
16.250	73.000	86.000	93.000	97.000	89.000
16.500	63.000	45.000	55.000	74.000	86.000
16.750	84.000	61.000	44.000	54.000	73.000
17.000	86.000	84.000	61.000	44.000	54.000
17.250	74.000	87.000	84.000	61.000	44.000
17.500	54.000	74.000	87.000	84.000	61.000
17.750	44.000	55.000	64.000	50.000	39.000
18.000	52.000	73.000	87.000	84.000	61.000
18.250	44.000	55.000	65.000	51.000	39.000
18.500	52.000	63.000	50.000	39.000	52.000
18.750	63.000	50.000	39.000	52.000	73.000
19.000	87.000	85.000	62.000	45.000	55.000
19.250	65.000	51.000	39.000	53.000	64.000
19.500	50.000	39.000	52.000	64.000	50.000
19.750	39.000	52.000	64.000	50.000	39.000
20.000	53.000	64.000	51.000	29.000	15.000
20.250	18.000	41.000	58.000	48.000	38.000
20.500	52.000	64.000	51.000	39.000	53.000
20.750	64.000	51.000	39.000	53.000	64.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 3A | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	51.000	39.000	53.000	64.000	51.000
21.250	29.000	15.000	18.000	41.000	59.000
21.500	48.000	38.000	52.000	64.000	51.000
21.750	39.000	53.000	65.000	51.000	30.000
22.000	15.000	18.000	41.000	59.000	48.000
22.250	38.000	53.000	64.000	51.000	30.000
22.500	15.000	18.000	42.000	59.000	48.000
22.750	38.000	53.000	65.000	51.000	30.000
23.000	15.000	18.000	42.000	59.000	48.000
23.250	28.000	15.000	18.000	42.000	59.000
23.500	48.000	38.000	53.000	65.000	51.000
23.750	30.000	15.000	18.000	42.000	59.000
24.000	49.000	28.000	15.000	7.000	4.000
24.250	2.000	0.000	0.000	0.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 3A | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 3A | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 3A | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Basin 3A | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	0.000
4.750	0.000	0.000	0.000	0.000	0.000
5.000	0.000	2.000	2.000	3.000	3.000
5.250	4.000	5.000	5.000	6.000	6.000
5.500	7.000	8.000	12.000	14.000	15.000
5.750	13.000	13.000	13.000	13.000	13.000
6.000	14.000	14.000	15.000	15.000	16.000
6.250	18.000	24.000	28.000	27.000	24.000
6.500	23.000	22.000	22.000	24.000	31.000
6.750	36.000	34.000	31.000	28.000	30.000
7.000	36.000	42.000	40.000	35.000	32.000
7.250	34.000	41.000	47.000	45.000	40.000
7.500	36.000	38.000	46.000	53.000	50.000
7.750	47.000	53.000	58.000	54.000	51.000
8.000	57.000	62.000	58.000	54.000	60.000
8.250	66.000	61.000	57.000	64.000	74.000
8.500	81.000	85.000	88.000	86.000	75.000
8.750	67.000	73.000	83.000	90.000	94.000
9.000	97.000	99.000	101.000	102.000	104.000
9.250	105.000	106.000	107.000	108.000	110.000
9.500	111.000	112.000	113.000	114.000	115.000
9.750	116.000	117.000	124.000	142.000	154.000
10.000	150.000	146.000	156.000	165.000	158.000
10.250	152.000	162.000	177.000	188.000	195.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	199.000	202.000	205.000	207.000	209.000
10.750	218.000	239.000	255.000	250.000	246.000
11.000	258.000	277.000	289.000	305.000	332.000
11.250	358.000	376.000	388.000	395.000	409.000
11.500	436.000	505.000	638.000	830.000	1,091.000
11.750	1,429.000	1,843.000	2,372.000	3,065.000	4,444.000
12.000	7,195.000	10,443.000	12,823.000	14,348.000	15,412.000
12.250	16,182.000	16,768.000	17,241.000	17,659.000	18,022.000
12.500	18,315.000	18,502.000	18,547.000	18,482.000	18,363.000
12.750	18,216.000	18,063.000	17,895.000	17,695.000	17,473.000
13.000	17,246.000	17,020.000	16,795.000	16,570.000	16,347.000
13.250	16,111.000	15,841.000	15,550.000	15,255.000	14,959.000
13.500	14,665.000	14,372.000	14,080.000	13,791.000	13,502.000
13.750	13,215.000	12,930.000	12,630.000	12,298.000	11,959.000
14.000	11,650.000	11,350.000	11,022.000	10,675.000	10,322.000
14.250	9,985.000	9,684.000	9,393.000	9,075.000	8,735.000
14.500	8,392.000	8,049.000	7,708.000	7,368.000	7,030.000
14.750	6,693.000	6,358.000	6,024.000	5,692.000	5,361.000
15.000	5,033.000	4,705.000	4,380.000	4,056.000	3,733.000
15.250	3,397.000	3,027.000	2,651.000	2,305.000	1,983.000
15.500	1,669.000	1,342.000	982.000	632.000	405.000
15.750	312.000	271.000	241.000	201.000	175.000
16.000	184.000	194.000	177.000	163.000	178.000
16.250	191.000	176.000	163.000	178.000	191.000
16.500	176.000	152.000	136.000	138.000	165.000
16.750	185.000	173.000	150.000	135.000	138.000
17.000	165.000	185.000	173.000	150.000	135.000
17.250	138.000	166.000	185.000	173.000	151.000
17.500	135.000	127.000	123.000	132.000	163.000
17.750	184.000	173.000	151.000	135.000	127.000
18.000	123.000	121.000	120.000	119.000	119.000
18.250	131.000	162.000	184.000	173.000	151.000
18.500	136.000	127.000	123.000	121.000	120.000
18.750	120.000	119.000	119.000	119.000	119.000
19.000	119.000	119.000	119.000	119.000	119.000
19.250	119.000	119.000	119.000	119.000	119.000
19.500	119.000	119.000	119.000	120.000	120.000
19.750	120.000	120.000	120.000	120.000	120.000
20.000	120.000	120.000	120.000	120.000	120.000
20.250	120.000	120.000	120.000	120.000	120.000
20.500	120.000	120.000	120.000	120.000	120.000
20.750	108.000	76.000	54.000	65.000	88.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	103.000	112.000	116.000	118.000	119.000
21.250	120.000	120.000	120.000	120.000	108.000
21.500	77.000	54.000	66.000	88.000	103.000
21.750	112.000	116.000	118.000	119.000	120.000
22.000	120.000	109.000	77.000	55.000	66.000
22.250	88.000	104.000	112.000	116.000	118.000
22.500	119.000	108.000	77.000	55.000	66.000
22.750	88.000	104.000	112.000	116.000	119.000
23.000	120.000	108.000	77.000	55.000	66.000
23.250	88.000	104.000	112.000	117.000	107.000
23.500	76.000	54.000	66.000	88.000	104.000
23.750	112.000	117.000	107.000	76.000	54.000
24.000	66.000	77.000	60.000	35.000	18.000
24.250	9.000	4.000	2.000	0.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	2.000
2.750	4.000	6.000	8.000	11.000	12.000
3.000	12.000	12.000	14.000	18.000	21.000
3.250	24.000	26.000	29.000	31.000	33.000
3.500	35.000	37.000	39.000	41.000	43.000
3.750	45.000	47.000	46.000	41.000	38.000
4.000	41.000	48.000	53.000	56.000	59.000
4.250	61.000	63.000	65.000	67.000	68.000
4.500	70.000	75.000	87.000	96.000	95.000
4.750	89.000	86.000	85.000	85.000	86.000
5.000	87.000	88.000	90.000	91.000	92.000
5.250	98.000	113.000	123.000	121.000	113.000
5.500	108.000	106.000	105.000	111.000	126.000
5.750	138.000	134.000	125.000	119.000	122.000
6.000	137.000	148.000	144.000	134.000	128.000
6.250	130.000	146.000	158.000	153.000	148.000
6.500	158.000	167.000	160.000	155.000	165.000
6.750	180.000	191.000	191.000	177.000	167.000
7.000	175.000	190.000	201.000	201.000	186.000
7.250	175.000	184.000	199.000	210.000	217.000
7.500	221.000	224.000	226.000	228.000	230.000
7.750	231.000	233.000	234.000	236.000	237.000
8.000	239.000	240.000	242.000	243.000	244.000
8.250	254.000	277.000	294.000	288.000	274.000
8.500	265.000	268.000	290.000	306.000	298.000
8.750	292.000	305.000	325.000	339.000	339.000
9.000	320.000	307.000	317.000	336.000	350.000
9.250	358.000	363.000	366.000	369.000	380.000
9.500	407.000	426.000	419.000	403.000	393.000
9.750	397.000	421.000	448.000	466.000	477.000
10.000	483.000	487.000	491.000	493.000	495.000
10.250	497.000	499.000	511.000	540.000	571.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Return Event: 100 years
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	591.000	603.000	610.000	625.000	656.000
10.750	692.000	726.000	764.000	805.000	860.000
11.000	949.000	1,061.000	1,181.000	1,318.000	1,488.000
11.250	1,682.000	1,884.000	2,117.000	2,416.000	2,777.000
11.500	3,183.000	3,762.000	4,679.000	5,861.000	7,173.000
11.750	8,625.000	10,268.000	12,177.000	14,432.000	18,019.000
12.000	24,185.000	31,213.000	36,570.000	40,132.000	42,405.000
12.250	43,753.000	44,548.000	44,985.000	45,201.000	45,255.000
12.500	45,184.000	44,939.000	44,463.000	43,864.000	43,267.000
12.750	42,709.000	42,202.000	41,757.000	41,378.000	41,042.000
13.000	40,725.000	40,415.000	40,109.000	39,821.000	39,563.000
13.250	39,335.000	39,135.000	38,945.000	38,739.000	38,529.000
13.500	38,334.000	38,156.000	37,995.000	37,845.000	37,704.000
13.750	37,555.000	37,379.000	37,188.000	36,998.000	36,810.000
14.000	36,623.000	36,436.000	36,251.000	36,066.000	35,882.000
14.250	35,682.000	35,447.000	35,203.000	34,990.000	34,786.000
14.500	34,553.000	34,295.000	34,033.000	33,770.000	33,509.000
14.750	33,247.000	32,988.000	32,729.000	32,472.000	32,215.000
15.000	31,960.000	31,689.000	31,382.000	31,067.000	30,784.000
15.250	30,526.000	30,276.000	30,013.000	29,712.000	29,404.000
15.500	29,129.000	28,862.000	28,565.000	28,245.000	27,920.000
15.750	27,595.000	27,271.000	26,965.000	26,698.000	26,442.000
16.000	26,155.000	25,845.000	25,531.000	25,216.000	24,903.000
16.250	24,590.000	24,279.000	23,970.000	23,661.000	23,355.000
16.500	23,049.000	22,744.000	22,442.000	22,123.000	21,769.000
16.750	21,407.000	21,077.000	20,774.000	20,477.000	20,184.000
17.000	19,892.000	19,584.000	19,242.000	18,890.000	18,571.000
17.250	18,262.000	17,922.000	17,577.000	17,263.000	16,977.000
17.500	16,697.000	16,403.000	16,074.000	15,736.000	15,432.000
17.750	15,136.000	14,810.000	14,462.000	14,108.000	13,772.000
18.000	13,473.000	13,186.000	12,870.000	12,529.000	12,185.000
18.250	11,856.000	11,567.000	11,288.000	10,979.000	10,648.000
18.500	10,311.000	9,992.000	9,710.000	9,440.000	9,140.000
18.750	8,816.000	8,488.000	8,160.000	7,833.000	7,507.000
19.000	7,183.000	6,861.000	6,540.000	6,237.000	5,972.000
19.250	5,719.000	5,436.000	5,129.000	4,818.000	4,506.000
19.500	4,196.000	3,887.000	3,580.000	3,274.000	2,969.000
19.750	2,666.000	2,364.000	2,064.000	1,765.000	1,467.000
20.000	1,171.000	876.000	607.000	426.000	338.000
20.250	295.000	275.000	265.000	260.000	245.000
20.500	210.000	186.000	198.000	222.000	238.000
20.750	247.000	251.000	254.000	255.000	255.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	255.000	243.000	209.000	186.000	198.000
21.250	222.000	238.000	247.000	251.000	254.000
21.500	255.000	243.000	209.000	186.000	198.000
21.750	222.000	238.000	235.000	205.000	184.000
22.000	197.000	221.000	238.000	247.000	252.000
22.250	241.000	209.000	185.000	198.000	222.000
22.500	238.000	235.000	205.000	184.000	197.000
22.750	209.000	192.000	177.000	193.000	220.000
23.000	237.000	234.000	205.000	184.000	197.000
23.250	209.000	192.000	177.000	194.000	208.000
23.500	191.000	177.000	193.000	207.000	191.000
23.750	177.000	193.000	207.000	191.000	177.000
24.000	193.000	195.000	144.000	82.000	42.000
24.250	21.000	10.000	5.000	2.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Return Event: 100 years
Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Basin 3A
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	0.000
4.750	0.000	0.000	0.000	0.000	0.000
5.000	0.000	0.000	0.000	0.000	0.000
5.250	0.000	0.000	0.000	0.000	0.000
5.500	0.000	0.000	0.000	0.000	0.000
5.750	0.000	0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000	0.000	0.000
6.250	0.000	0.000	0.000	0.000	0.000
6.500	0.000	0.000	0.000	0.000	0.000
6.750	0.000	0.000	0.000	0.000	0.000
7.000	0.000	0.000	0.000	0.000	0.000
7.250	0.000	0.000	0.000	0.000	0.000
7.500	0.000	0.000	0.000	0.000	0.000
7.750	0.000	0.000	0.000	0.000	0.000
8.000	0.000	0.000	0.000	0.000	0.000
8.250	0.000	0.000	0.000	0.000	0.000
8.500	0.000	0.000	0.000	0.000	0.000
8.750	0.000	0.000	0.000	0.000	0.000
9.000	0.000	0.000	0.000	0.000	0.000
9.250	0.000	0.000	0.000	0.000	0.000
9.500	0.000	0.000	0.000	0.000	0.000
9.750	0.000	0.000	0.000	0.000	0.000
10.000	0.000	0.000	0.000	0.000	0.000
10.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	0.000	0.000	0.000	0.000	0.000
10.750	0.000	0.000	0.000	0.000	0.000
11.000	0.000	0.000	0.000	0.000	0.000
11.250	0.000	1.000	2.000	2.000	3.000
11.500	4.000	6.000	8.000	11.000	15.000
11.750	20.000	26.000	33.000	43.000	76.000
12.000	160.000	239.000	248.000	215.000	178.000
12.250	147.000	125.000	109.000	99.000	92.000
12.500	89.000	84.000	72.000	60.000	52.000
12.750	47.000	41.000	36.000	34.000	32.000
13.000	32.000	31.000	31.000	31.000	31.000
13.250	32.000	32.000	32.000	32.000	31.000
13.500	26.000	23.000	25.000	27.000	24.000
13.750	23.000	25.000	27.000	25.000	21.000
14.000	19.000	18.000	17.000	19.000	23.000
14.250	26.000	25.000	21.000	19.000	18.000
14.500	18.000	17.000	17.000	17.000	17.000
14.750	17.000	17.000	17.000	17.000	17.000
15.000	17.000	17.000	17.000	17.000	17.000
15.250	17.000	17.000	18.000	18.000	18.000
15.500	18.000	16.000	11.000	8.000	10.000
15.750	13.000	15.000	17.000	17.000	18.000
16.000	18.000	16.000	11.000	8.000	10.000
16.250	13.000	16.000	17.000	17.000	16.000
16.500	11.000	8.000	10.000	13.000	16.000
16.750	15.000	11.000	8.000	10.000	13.000
17.000	16.000	15.000	11.000	8.000	10.000
17.250	13.000	16.000	15.000	11.000	8.000
17.500	10.000	14.000	16.000	15.000	11.000
17.750	8.000	10.000	12.000	9.000	7.000
18.000	10.000	13.000	16.000	16.000	11.000
18.250	8.000	10.000	12.000	9.000	7.000
18.500	10.000	12.000	9.000	7.000	10.000
18.750	12.000	9.000	7.000	10.000	14.000
19.000	16.000	16.000	11.000	8.000	10.000
19.250	12.000	9.000	7.000	10.000	12.000
19.500	9.000	7.000	10.000	12.000	9.000
19.750	7.000	10.000	12.000	9.000	7.000
20.000	10.000	12.000	9.000	5.000	3.000
20.250	3.000	8.000	11.000	9.000	7.000
20.500	10.000	12.000	9.000	7.000	10.000
20.750	12.000	9.000	7.000	10.000	12.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	9.000	7.000	10.000	12.000	9.000
21.250	5.000	3.000	3.000	8.000	11.000
21.500	9.000	7.000	10.000	12.000	10.000
21.750	7.000	10.000	12.000	10.000	5.000
22.000	3.000	3.000	8.000	11.000	9.000
22.250	7.000	10.000	12.000	10.000	5.000
22.500	3.000	3.000	8.000	11.000	9.000
22.750	7.000	10.000	12.000	10.000	5.000
23.000	3.000	3.000	8.000	11.000	9.000
23.250	5.000	3.000	3.000	8.000	11.000
23.500	9.000	7.000	10.000	12.000	10.000
23.750	6.000	3.000	3.000	8.000	11.000
24.000	9.000	5.000	3.000	1.000	0.000
24.250	0.000	0.000	0.000	0.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1B | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	0.000
4.750	0.000	0.000	0.000	0.000	0.000
5.000	0.000	0.000	0.000	0.000	0.000
5.250	0.000	0.000	0.000	0.000	0.000
5.500	0.000	0.000	0.000	0.000	0.000
5.750	0.000	0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000	0.000	0.000
6.250	0.000	0.000	0.000	0.000	0.000
6.500	0.000	0.000	0.000	0.000	0.000
6.750	0.000	0.000	0.000	0.000	0.000
7.000	0.000	0.000	0.000	0.000	0.000
7.250	0.000	0.000	0.000	0.000	0.000
7.500	0.000	0.000	0.000	0.000	0.000
7.750	0.000	0.000	0.000	0.000	0.000
8.000	0.000	0.000	0.000	1.000	1.000
8.250	1.000	1.000	1.000	2.000	2.000
8.500	3.000	3.000	4.000	4.000	3.000
8.750	3.000	4.000	4.000	5.000	5.000
9.000	6.000	6.000	6.000	7.000	7.000
9.250	7.000	8.000	8.000	8.000	8.000
9.500	9.000	9.000	9.000	10.000	10.000
9.750	10.000	10.000	11.000	13.000	15.000
10.000	14.000	14.000	15.000	17.000	16.000
10.250	16.000	17.000	19.000	20.000	21.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	22.000	23.000	23.000	24.000	25.000
10.750	26.000	29.000	31.000	31.000	31.000
11.000	33.000	35.000	38.000	40.000	44.000
11.250	48.000	51.000	53.000	55.000	58.000
11.500	62.000	73.000	94.000	119.000	142.000
11.750	164.000	186.000	213.000	250.000	367.000
12.000	713.000	1,171.000	1,477.000	1,624.000	1,683.000
12.250	1,687.000	1,655.000	1,602.000	1,540.000	1,469.000
12.500	1,383.000	1,277.000	1,143.000	986.000	819.000
12.750	647.000	476.000	317.000	204.000	148.000
13.000	120.000	107.000	101.000	99.000	97.000
13.250	95.000	88.000	81.000	77.000	75.000
13.500	74.000	74.000	73.000	73.000	73.000
13.750	74.000	74.000	71.000	65.000	60.000
14.000	63.000	65.000	62.000	57.000	53.000
14.250	54.000	60.000	64.000	61.000	57.000
14.500	53.000	52.000	51.000	51.000	50.000
14.750	50.000	50.000	50.000	50.000	50.000
15.000	50.000	51.000	51.000	51.000	51.000
15.250	48.000	41.000	37.000	39.000	44.000
15.500	47.000	47.000	41.000	36.000	39.000
15.750	44.000	48.000	47.000	41.000	37.000
16.000	39.000	42.000	38.000	35.000	39.000
16.250	42.000	38.000	35.000	39.000	42.000
16.500	38.000	33.000	29.000	30.000	36.000
16.750	41.000	38.000	33.000	29.000	30.000
17.000	36.000	41.000	38.000	33.000	30.000
17.250	30.000	36.000	41.000	38.000	33.000
17.500	30.000	28.000	27.000	29.000	36.000
17.750	41.000	38.000	33.000	30.000	28.000
18.000	27.000	27.000	26.000	26.000	26.000
18.250	29.000	36.000	41.000	38.000	33.000
18.500	30.000	28.000	27.000	27.000	27.000
18.750	26.000	26.000	26.000	26.000	26.000
19.000	26.000	26.000	26.000	26.000	26.000
19.250	26.000	26.000	26.000	26.000	26.000
19.500	26.000	26.000	27.000	27.000	27.000
19.750	27.000	27.000	27.000	27.000	27.000
20.000	27.000	27.000	27.000	27.000	27.000
20.250	27.000	27.000	27.000	27.000	27.000
20.500	27.000	27.000	27.000	27.000	27.000
20.750	24.000	17.000	12.000	15.000	20.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	23.000	25.000	26.000	26.000	27.000
21.250	27.000	27.000	27.000	27.000	24.000
21.500	17.000	12.000	15.000	20.000	23.000
21.750	25.000	26.000	26.000	27.000	27.000
22.000	27.000	24.000	17.000	12.000	15.000
22.250	20.000	23.000	25.000	26.000	27.000
22.500	27.000	24.000	17.000	12.000	15.000
22.750	20.000	23.000	25.000	26.000	27.000
23.000	27.000	24.000	17.000	12.000	15.000
23.250	20.000	23.000	25.000	26.000	24.000
23.500	17.000	12.000	15.000	20.000	23.000
23.750	25.000	26.000	24.000	17.000	12.000
24.000	15.000	17.000	13.000	8.000	4.000
24.250	2.000	1.000	0.000	0.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	1.000
4.750	1.000	2.000	2.000	2.000	3.000
5.000	3.000	3.000	4.000	4.000	4.000
5.250	5.000	6.000	7.000	7.000	7.000
5.500	7.000	7.000	7.000	8.000	9.000
5.750	10.000	10.000	10.000	10.000	10.000
6.000	12.000	13.000	13.000	12.000	12.000
6.250	12.000	14.000	15.000	15.000	15.000
6.500	16.000	17.000	17.000	16.000	18.000
6.750	20.000	21.000	21.000	20.000	19.000
7.000	20.000	22.000	24.000	24.000	22.000
7.250	21.000	23.000	25.000	26.000	28.000
7.500	28.000	29.000	29.000	30.000	30.000
7.750	31.000	31.000	32.000	32.000	33.000
8.000	33.000	34.000	34.000	35.000	35.000
8.250	37.000	40.000	43.000	42.000	40.000
8.500	39.000	40.000	44.000	46.000	45.000
8.750	45.000	47.000	51.000	53.000	53.000
9.000	50.000	49.000	51.000	54.000	56.000
9.250	58.000	59.000	60.000	61.000	63.000
9.500	68.000	71.000	70.000	68.000	66.000
9.750	68.000	72.000	77.000	81.000	83.000
10.000	84.000	85.000	86.000	87.000	88.000
10.250	89.000	89.000	92.000	98.000	104.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	108.000	110.000	112.000	115.000	122.000
10.750	129.000	133.000	136.000	138.000	142.000
11.000	148.000	156.000	161.000	166.000	174.000
11.250	182.000	187.000	195.000	210.000	227.000
11.500	243.000	278.000	349.000	451.000	582.000
11.750	747.000	957.000	1,230.000	1,584.000	2,246.000
12.000	3,508.000	4,961.000	5,892.000	6,264.000	6,340.000
12.250	6,275.000	6,166.000	6,044.000	5,928.000	5,820.000
12.500	5,716.000	5,595.000	5,438.000	5,267.000	5,105.000
12.750	4,959.000	4,826.000	4,704.000	4,595.000	4,493.000
13.000	4,386.000	4,270.000	4,145.000	4,013.000	3,881.000
13.250	3,751.000	3,621.000	3,488.000	3,347.000	3,201.000
13.500	3,055.000	2,909.000	2,765.000	2,622.000	2,479.000
13.750	2,334.000	2,182.000	2,023.000	1,865.000	1,708.000
14.000	1,552.000	1,397.000	1,243.000	1,091.000	939.000
14.250	786.000	623.000	460.000	319.000	226.000
14.500	177.000	149.000	135.000	128.000	125.000
14.750	123.000	123.000	122.000	122.000	122.000
15.000	122.000	119.000	111.000	105.000	108.000
15.250	114.000	118.000	117.000	110.000	105.000
15.500	108.000	111.000	107.000	101.000	96.000
15.750	94.000	93.000	96.000	104.000	109.000
16.000	106.000	100.000	96.000	94.000	93.000
16.250	93.000	93.000	92.000	92.000	92.000
16.500	92.000	92.000	92.000	89.000	81.000
16.750	75.000	78.000	84.000	88.000	91.000
17.000	92.000	89.000	81.000	75.000	79.000
17.250	82.000	77.000	74.000	78.000	84.000
17.500	88.000	88.000	80.000	75.000	79.000
17.750	82.000	77.000	71.000	66.000	67.000
18.000	74.000	80.000	76.000	70.000	66.000
18.250	67.000	75.000	80.000	76.000	70.000
18.500	66.000	67.000	75.000	80.000	77.000
18.750	70.000	66.000	64.000	63.000	63.000
19.000	62.000	62.000	62.000	65.000	74.000
19.250	80.000	76.000	70.000	66.000	64.000
19.500	63.000	63.000	63.000	62.000	62.000
19.750	62.000	62.000	62.000	62.000	62.000
20.000	62.000	62.000	62.000	62.000	62.000
20.250	62.000	62.000	62.000	62.000	59.000
20.500	51.000	45.000	48.000	54.000	58.000
20.750	60.000	62.000	62.000	62.000	62.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	63.000	59.000	51.000	45.000	48.000
21.250	54.000	58.000	61.000	62.000	62.000
21.500	62.000	59.000	51.000	45.000	48.000
21.750	54.000	58.000	58.000	50.000	45.000
22.000	48.000	54.000	58.000	61.000	62.000
22.250	59.000	51.000	45.000	48.000	55.000
22.500	59.000	58.000	50.000	45.000	48.000
22.750	51.000	47.000	43.000	48.000	54.000
23.000	58.000	58.000	50.000	45.000	48.000
23.250	51.000	47.000	43.000	48.000	51.000
23.500	47.000	43.000	48.000	51.000	47.000
23.750	43.000	48.000	51.000	47.000	43.000
24.000	48.000	48.000	35.000	20.000	10.000
24.250	5.000	2.000	1.000	0.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1B
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1C | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	0.000
4.750	0.000	0.000	0.000	0.000	0.000
5.000	0.000	0.000	0.000	0.000	0.000
5.250	0.000	0.000	0.000	0.000	0.000
5.500	0.000	0.000	0.000	0.000	0.000
5.750	0.000	0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000	0.000	0.000
6.250	0.000	0.000	0.000	0.000	0.000
6.500	0.000	0.000	0.000	0.000	0.000
6.750	0.000	0.000	0.000	0.000	0.000
7.000	0.000	0.000	0.000	0.000	0.000
7.250	0.000	0.000	0.000	0.000	0.000
7.500	0.000	0.000	0.000	0.000	0.000
7.750	0.000	0.000	0.000	0.000	0.000
8.000	0.000	0.000	0.000	0.000	0.000
8.250	0.000	0.000	0.000	0.000	0.000
8.500	0.000	0.000	0.000	0.000	0.000
8.750	0.000	0.000	0.000	0.000	0.000
9.000	0.000	0.000	0.000	0.000	0.000
9.250	0.000	0.000	0.000	0.000	0.000
9.500	0.000	0.000	0.000	0.000	0.000
9.750	0.000	0.000	0.000	0.000	0.000
10.000	0.000	0.000	0.000	0.000	0.000
10.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1C | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	0.000	0.000	0.000	1.000	2.000
10.750	3.000	4.000	4.000	5.000	7.000
11.000	8.000	10.000	14.000	17.000	18.000
11.250	19.000	22.000	26.000	26.000	28.000
11.500	35.000	45.000	56.000	71.000	91.000
11.750	114.000	138.000	169.000	210.000	339.000
12.000	684.000	1,140.000	1,457.000	1,605.000	1,657.000
12.250	1,649.000	1,608.000	1,546.000	1,470.000	1,387.000
12.500	1,304.000	1,206.000	1,069.000	906.000	736.000
12.750	561.000	401.000	290.000	223.000	183.000
13.000	160.000	147.000	139.000	135.000	133.000
13.250	132.000	131.000	131.000	131.000	126.000
13.500	112.000	101.000	104.000	108.000	101.000
13.750	95.000	101.000	107.000	101.000	90.000
14.000	81.000	76.000	72.000	76.000	90.000
14.250	101.000	98.000	88.000	81.000	76.000
14.500	73.000	71.000	70.000	70.000	70.000
14.750	70.000	70.000	70.000	70.000	70.000
15.000	70.000	70.000	70.000	70.000	70.000
15.250	70.000	70.000	70.000	71.000	71.000
15.500	71.000	65.000	50.000	37.000	41.000
15.750	51.000	59.000	64.000	67.000	69.000
16.000	70.000	65.000	50.000	38.000	41.000
16.250	51.000	59.000	64.000	68.000	64.000
16.500	49.000	37.000	41.000	51.000	59.000
16.750	59.000	46.000	36.000	40.000	51.000
17.000	59.000	59.000	47.000	36.000	40.000
17.250	51.000	60.000	60.000	47.000	36.000
17.500	40.000	51.000	60.000	60.000	47.000
17.750	36.000	41.000	46.000	38.000	31.000
18.000	38.000	50.000	59.000	60.000	47.000
18.250	36.000	41.000	46.000	38.000	31.000
18.500	38.000	44.000	37.000	31.000	37.000
18.750	44.000	37.000	31.000	38.000	50.000
19.000	60.000	60.000	48.000	37.000	41.000
19.250	47.000	39.000	31.000	38.000	45.000
19.500	38.000	31.000	38.000	45.000	38.000
19.750	31.000	38.000	45.000	38.000	31.000
20.000	38.000	45.000	38.000	25.000	15.000
20.250	15.000	28.000	39.000	35.000	29.000
20.500	37.000	45.000	38.000	31.000	38.000
20.750	45.000	38.000	31.000	38.000	45.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1C | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	38.000	31.000	38.000	46.000	38.000
21.250	25.000	16.000	15.000	28.000	40.000
21.500	35.000	29.000	37.000	45.000	38.000
21.750	31.000	39.000	46.000	39.000	26.000
22.000	16.000	15.000	29.000	40.000	35.000
22.250	30.000	38.000	45.000	38.000	25.000
22.500	16.000	15.000	29.000	40.000	35.000
22.750	30.000	38.000	46.000	39.000	26.000
23.000	16.000	15.000	29.000	40.000	35.000
23.250	24.000	15.000	15.000	28.000	40.000
23.500	35.000	30.000	38.000	46.000	39.000
23.750	26.000	16.000	15.000	29.000	40.000
24.000	36.000	24.000	15.000	9.000	5.000
24.250	3.000	2.000	1.000	0.000	0.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1C | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1C | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1C | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume | Return Event: 1 years

Label: Inf. Bio. Basin 1C | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	0.000
4.250	0.000	0.000	0.000	0.000	0.000
4.500	0.000	0.000	0.000	0.000	0.000
4.750	0.000	0.000	0.000	0.000	0.000
5.000	0.000	0.000	0.000	0.000	0.000
5.250	0.000	0.000	0.000	0.000	0.000
5.500	0.000	0.000	0.000	0.000	0.000
5.750	0.000	0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000	0.000	0.000
6.250	0.000	0.000	0.000	0.000	0.000
6.500	0.000	0.000	0.000	0.000	0.000
6.750	0.000	0.000	0.000	0.000	0.000
7.000	0.000	0.000	0.000	0.000	0.000
7.250	1.000	2.000	3.000	3.000	4.000
7.500	4.000	4.000	6.000	7.000	7.000
7.750	8.000	9.000	11.000	11.000	11.000
8.000	12.000	14.000	14.000	13.000	15.000
8.250	17.000	16.000	16.000	18.000	21.000
8.500	24.000	26.000	27.000	28.000	25.000
8.750	24.000	25.000	29.000	31.000	34.000
9.000	36.000	37.000	38.000	40.000	41.000
9.250	42.000	43.000	44.000	45.000	46.000
9.500	48.000	49.000	50.000	51.000	52.000
9.750	53.000	54.000	57.000	64.000	71.000
10.000	71.000	70.000	75.000	80.000	78.000
10.250	77.000	82.000	89.000	95.000	99.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	103.000	106.000	108.000	111.000	113.000
10.750	118.000	129.000	138.000	138.000	138.000
11.000	145.000	155.000	164.000	174.000	189.000
11.250	205.000	218.000	228.000	235.000	245.000
11.500	262.000	301.000	376.000	468.000	569.000
11.750	701.000	877.000	1,117.000	1,450.000	2,157.000
12.000	3,629.000	5,410.000	6,746.000	7,621.000	8,246.000
12.250	8,708.000	9,069.000	9,366.000	9,634.000	9,865.000
12.500	10,035.000	10,123.000	10,120.000	10,059.000	9,977.000
12.750	9,893.000	9,819.000	9,746.000	9,656.000	9,553.000
13.000	9,447.000	9,342.000	9,237.000	9,132.000	9,028.000
13.250	8,916.000	8,785.000	8,640.000	8,491.000	8,343.000
13.500	8,196.000	8,049.000	7,902.000	7,757.000	7,612.000
13.750	7,468.000	7,324.000	7,172.000	7,000.000	6,823.000
14.000	6,664.000	6,510.000	6,340.000	6,156.000	5,970.000
14.250	5,793.000	5,637.000	5,488.000	5,321.000	5,142.000
14.500	4,959.000	4,777.000	4,595.000	4,414.000	4,234.000
14.750	4,054.000	3,875.000	3,696.000	3,518.000	3,341.000
15.000	3,165.000	2,989.000	2,814.000	2,640.000	2,466.000
15.250	2,283.000	2,080.000	1,872.000	1,683.000	1,508.000
15.500	1,338.000	1,159.000	960.000	756.000	571.000
15.750	424.000	328.000	265.000	211.000	175.000
16.000	168.000	168.000	153.000	141.000	148.000
16.250	156.000	147.000	138.000	146.000	155.000
16.500	146.000	130.000	117.000	117.000	134.000
16.750	148.000	142.000	127.000	116.000	116.000
17.000	133.000	148.000	142.000	128.000	116.000
17.250	117.000	134.000	148.000	143.000	128.000
17.500	117.000	109.000	105.000	110.000	130.000
17.750	146.000	142.000	128.000	116.000	109.000
18.000	105.000	102.000	101.000	100.000	100.000
18.250	107.000	129.000	146.000	142.000	128.000
18.500	117.000	110.000	105.000	103.000	101.000
18.750	100.000	100.000	100.000	100.000	99.000
19.000	99.000	99.000	99.000	99.000	99.000
19.250	100.000	100.000	100.000	100.000	100.000
19.500	100.000	100.000	100.000	100.000	100.000
19.750	100.000	100.000	100.000	100.000	100.000
20.000	100.000	100.000	100.000	100.000	100.000
20.250	100.000	100.000	100.000	100.000	100.000
20.500	100.000	100.000	100.000	100.000	100.000
20.750	93.000	70.000	53.000	57.000	71.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	83.000	90.000	94.000	97.000	98.000
21.250	99.000	100.000	100.000	100.000	93.000
21.500	71.000	53.000	57.000	72.000	83.000
21.750	90.000	95.000	97.000	99.000	100.000
22.000	100.000	93.000	71.000	53.000	58.000
22.250	72.000	83.000	90.000	95.000	97.000
22.500	99.000	92.000	70.000	53.000	58.000
22.750	72.000	83.000	90.000	95.000	98.000
23.000	99.000	92.000	70.000	53.000	58.000
23.250	72.000	83.000	91.000	95.000	90.000
23.500	69.000	52.000	57.000	72.000	83.000
23.750	91.000	95.000	90.000	69.000	52.000
24.000	57.000	64.000	53.000	35.000	21.000
24.250	13.000	7.000	4.000	3.000	2.000
24.500	0.000	0.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.250	0.000	0.000	0.000	0.000	0.000
0.500	0.000	0.000	0.000	0.000	0.000
0.750	0.000	0.000	0.000	0.000	0.000
1.000	0.000	0.000	0.000	0.000	0.000
1.250	0.000	0.000	0.000	0.000	0.000
1.500	0.000	0.000	0.000	0.000	0.000
1.750	0.000	0.000	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	0.000
2.250	0.000	0.000	0.000	0.000	0.000
2.500	0.000	0.000	0.000	0.000	0.000
2.750	0.000	0.000	0.000	0.000	0.000
3.000	0.000	0.000	0.000	0.000	0.000
3.250	0.000	0.000	0.000	0.000	0.000
3.500	0.000	0.000	0.000	0.000	0.000
3.750	0.000	0.000	0.000	0.000	0.000
4.000	0.000	0.000	1.000	2.000	3.000
4.250	5.000	6.000	7.000	9.000	10.000
4.500	11.000	13.000	17.000	20.000	21.000
4.750	22.000	22.000	23.000	24.000	25.000
5.000	26.000	27.000	28.000	29.000	31.000
5.250	33.000	38.000	43.000	44.000	43.000
5.500	42.000	42.000	42.000	44.000	50.000
5.750	56.000	56.000	54.000	53.000	54.000
6.000	60.000	65.000	65.000	62.000	61.000
6.250	62.000	68.000	74.000	74.000	73.000
6.500	78.000	82.000	81.000	79.000	84.000
6.750	91.000	97.000	99.000	94.000	91.000
7.000	94.000	101.000	108.000	109.000	103.000
7.250	99.000	103.000	110.000	117.000	121.000
7.500	125.000	128.000	130.000	132.000	134.000
7.750	136.000	138.000	139.000	141.000	142.000
8.000	144.000	146.000	147.000	149.000	150.000
8.250	156.000	169.000	180.000	179.000	173.000
8.500	169.000	171.000	182.000	192.000	191.000
8.750	188.000	196.000	208.000	218.000	220.000
9.000	212.000	205.000	210.000	221.000	230.000
9.250	237.000	242.000	245.000	248.000	256.000
9.500	272.000	286.000	285.000	278.000	273.000
9.750	276.000	290.000	307.000	321.000	330.000
10.000	337.000	342.000	346.000	349.000	352.000
10.250	355.000	358.000	366.000	385.000	406.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	422.000	433.000	441.000	453.000	475.000
10.750	499.000	518.000	535.000	555.000	584.000
11.000	632.000	696.000	764.000	843.000	943.000
11.250	1,058.000	1,178.000	1,318.000	1,498.000	1,715.000
11.500	1,960.000	2,309.000	2,860.000	3,574.000	4,370.000
11.750	5,258.000	6,268.000	7,449.000	8,852.000	10,954.000
12.000	13,821.000	15,859.000	16,148.000	15,524.000	14,747.000
12.250	14,094.000	13,607.000	13,247.000	12,980.000	12,769.000
12.500	12,586.000	12,373.000	12,089.000	11,790.000	11,539.000
12.750	11,336.000	11,172.000	11,048.000	10,961.000	10,892.000
13.000	10,821.000	10,745.000	10,666.000	10,592.000	10,535.000
13.250	10,492.000	10,461.000	10,429.000	10,384.000	10,336.000
13.500	10,293.000	10,256.000	10,225.000	10,199.000	10,177.000
13.750	10,149.000	10,103.000	10,049.000	10,000.000	9,957.000
14.000	9,921.000	9,891.000	9,866.000	9,845.000	9,828.000
14.250	9,803.000	9,757.000	9,708.000	9,679.000	9,655.000
14.500	9,611.000	9,551.000	9,488.000	9,424.000	9,359.000
14.750	9,296.000	9,232.000	9,169.000	9,106.000	9,043.000
15.000	8,980.000	8,907.000	8,810.000	8,707.000	8,625.000
15.250	8,559.000	8,497.000	8,425.000	8,330.000	8,228.000
15.500	8,148.000	8,073.000	7,978.000	7,866.000	7,752.000
15.750	7,636.000	7,521.000	7,417.000	7,339.000	7,266.000
16.000	7,174.000	7,066.000	6,954.000	6,842.000	6,729.000
16.250	6,617.000	6,506.000	6,395.000	6,284.000	6,174.000
16.500	6,064.000	5,955.000	5,846.000	5,726.000	5,582.000
16.750	5,432.000	5,304.000	5,192.000	5,084.000	4,978.000
17.000	4,873.000	4,757.000	4,616.000	4,469.000	4,344.000
17.250	4,225.000	4,085.000	3,940.000	3,816.000	3,710.000
17.500	3,608.000	3,496.000	3,359.000	3,218.000	3,097.000
17.750	2,982.000	2,846.000	2,695.000	2,540.000	2,395.000
18.000	2,276.000	2,164.000	2,031.000	1,882.000	1,730.000
18.250	1,589.000	1,473.000	1,363.000	1,233.000	1,088.000
18.500	938.000	799.000	686.000	579.000	465.000
18.750	371.000	313.000	278.000	257.000	245.000
19.000	237.000	233.000	231.000	238.000	262.000
19.250	282.000	277.000	261.000	248.000	240.000
19.500	235.000	232.000	230.000	229.000	228.000
19.750	228.000	228.000	228.000	228.000	228.000
20.000	228.000	228.000	228.000	228.000	228.000
20.250	228.000	228.000	228.000	228.000	219.000
20.500	194.000	174.000	179.000	195.000	208.000
20.750	216.000	221.000	224.000	226.000	227.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	227.000	219.000	194.000	174.000	179.000
21.250	195.000	208.000	216.000	221.000	224.000
21.500	226.000	218.000	194.000	174.000	179.000
21.750	195.000	208.000	208.000	187.000	170.000
22.000	177.000	194.000	208.000	216.000	221.000
22.250	216.000	192.000	173.000	179.000	195.000
22.500	208.000	208.000	188.000	171.000	177.000
22.750	186.000	174.000	162.000	172.000	192.000
23.000	206.000	207.000	187.000	170.000	177.000
23.250	186.000	174.000	162.000	173.000	183.000
23.500	172.000	161.000	172.000	183.000	172.000
23.750	161.000	172.000	183.000	172.000	161.000
24.000	172.000	174.000	138.000	90.000	55.000
24.250	32.000	19.000	11.000	7.000	4.000
24.500	2.000	1.000	0.000	0.000	0.000
24.750	0.000	0.000	0.000	0.000	0.000
25.000	0.000	0.000	0.000	0.000	0.000
25.250	0.000	0.000	0.000	0.000	0.000
25.500	0.000	0.000	0.000	0.000	0.000
25.750	0.000	0.000	0.000	0.000	0.000
26.000	0.000	0.000	0.000	0.000	0.000
26.250	0.000	0.000	0.000	0.000	0.000
26.500	0.000	0.000	0.000	0.000	0.000
26.750	0.000	0.000	0.000	0.000	0.000
27.000	0.000	0.000	0.000	0.000	0.000
27.250	0.000	0.000	0.000	0.000	0.000
27.500	0.000	0.000	0.000	0.000	0.000
27.750	0.000	0.000	0.000	0.000	0.000
28.000	0.000	0.000	0.000	0.000	0.000
28.250	0.000	0.000	0.000	0.000	0.000
28.500	0.000	0.000	0.000	0.000	0.000
28.750	0.000	0.000	0.000	0.000	0.000
29.000	0.000	0.000	0.000	0.000	0.000
29.250	0.000	0.000	0.000	0.000	0.000
29.500	0.000	0.000	0.000	0.000	0.000
29.750	0.000	0.000	0.000	0.000	0.000
30.000	0.000	0.000	0.000	0.000	0.000
30.250	0.000	0.000	0.000	0.000	0.000
30.500	0.000	0.000	0.000	0.000	0.000
30.750	0.000	0.000	0.000	0.000	0.000
31.000	0.000	0.000	0.000	0.000	0.000
31.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
31.500	0.000	0.000	0.000	0.000	0.000
31.750	0.000	0.000	0.000	0.000	0.000
32.000	0.000	0.000	0.000	0.000	0.000
32.250	0.000	0.000	0.000	0.000	0.000
32.500	0.000	0.000	0.000	0.000	0.000
32.750	0.000	0.000	0.000	0.000	0.000
33.000	0.000	0.000	0.000	0.000	0.000
33.250	0.000	0.000	0.000	0.000	0.000
33.500	0.000	0.000	0.000	0.000	0.000
33.750	0.000	0.000	0.000	0.000	0.000
34.000	0.000	0.000	0.000	0.000	0.000
34.250	0.000	0.000	0.000	0.000	0.000
34.500	0.000	0.000	0.000	0.000	0.000
34.750	0.000	0.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000	0.000	0.000
35.250	0.000	0.000	0.000	0.000	0.000
35.500	0.000	0.000	0.000	0.000	0.000
35.750	0.000	0.000	0.000	0.000	0.000
36.000	0.000	0.000	0.000	0.000	0.000
36.250	0.000	0.000	0.000	0.000	0.000
36.500	0.000	0.000	0.000	0.000	0.000
36.750	0.000	0.000	0.000	0.000	0.000
37.000	0.000	0.000	0.000	0.000	0.000
37.250	0.000	0.000	0.000	0.000	0.000
37.500	0.000	0.000	0.000	0.000	0.000
37.750	0.000	0.000	0.000	0.000	0.000
38.000	0.000	0.000	0.000	0.000	0.000
38.250	0.000	0.000	0.000	0.000	0.000
38.500	0.000	0.000	0.000	0.000	0.000
38.750	0.000	0.000	0.000	0.000	0.000
39.000	0.000	0.000	0.000	0.000	0.000
39.250	0.000	0.000	0.000	0.000	0.000
39.500	0.000	0.000	0.000	0.000	0.000
39.750	0.000	0.000	0.000	0.000	0.000
40.000	0.000	0.000	0.000	0.000	0.000
40.250	0.000	0.000	0.000	0.000	0.000
40.500	0.000	0.000	0.000	0.000	0.000
40.750	0.000	0.000	0.000	0.000	0.000
41.000	0.000	0.000	0.000	0.000	0.000
41.250	0.000	0.000	0.000	0.000	0.000
41.500	0.000	0.000	0.000	0.000	0.000
41.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
42.000	0.000	0.000	0.000	0.000	0.000
42.250	0.000	0.000	0.000	0.000	0.000
42.500	0.000	0.000	0.000	0.000	0.000
42.750	0.000	0.000	0.000	0.000	0.000
43.000	0.000	0.000	0.000	0.000	0.000
43.250	0.000	0.000	0.000	0.000	0.000
43.500	0.000	0.000	0.000	0.000	0.000
43.750	0.000	0.000	0.000	0.000	0.000
44.000	0.000	0.000	0.000	0.000	0.000
44.250	0.000	0.000	0.000	0.000	0.000
44.500	0.000	0.000	0.000	0.000	0.000
44.750	0.000	0.000	0.000	0.000	0.000
45.000	0.000	0.000	0.000	0.000	0.000
45.250	0.000	0.000	0.000	0.000	0.000
45.500	0.000	0.000	0.000	0.000	0.000
45.750	0.000	0.000	0.000	0.000	0.000
46.000	0.000	0.000	0.000	0.000	0.000
46.250	0.000	0.000	0.000	0.000	0.000
46.500	0.000	0.000	0.000	0.000	0.000
46.750	0.000	0.000	0.000	0.000	0.000
47.000	0.000	0.000	0.000	0.000	0.000
47.250	0.000	0.000	0.000	0.000	0.000
47.500	0.000	0.000	0.000	0.000	0.000
47.750	0.000	0.000	0.000	0.000	0.000
48.000	0.000	0.000	0.000	0.000	0.000
48.250	0.000	0.000	0.000	0.000	0.000
48.500	0.000	0.000	0.000	0.000	0.000
48.750	0.000	0.000	0.000	0.000	0.000
49.000	0.000	0.000	0.000	0.000	0.000
49.250	0.000	0.000	0.000	0.000	0.000
49.500	0.000	0.000	0.000	0.000	0.000
49.750	0.000	0.000	0.000	0.000	0.000
50.000	0.000	0.000	0.000	0.000	0.000
50.250	0.000	0.000	0.000	0.000	0.000
50.500	0.000	0.000	0.000	0.000	0.000
50.750	0.000	0.000	0.000	0.000	0.000
51.000	0.000	0.000	0.000	0.000	0.000
51.250	0.000	0.000	0.000	0.000	0.000
51.500	0.000	0.000	0.000	0.000	0.000
51.750	0.000	0.000	0.000	0.000	0.000
52.000	0.000	0.000	0.000	0.000	0.000
52.250	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
52.500	0.000	0.000	0.000	0.000	0.000
52.750	0.000	0.000	0.000	0.000	0.000
53.000	0.000	0.000	0.000	0.000	0.000
53.250	0.000	0.000	0.000	0.000	0.000
53.500	0.000	0.000	0.000	0.000	0.000
53.750	0.000	0.000	0.000	0.000	0.000
54.000	0.000	0.000	0.000	0.000	0.000
54.250	0.000	0.000	0.000	0.000	0.000
54.500	0.000	0.000	0.000	0.000	0.000
54.750	0.000	0.000	0.000	0.000	0.000
55.000	0.000	0.000	0.000	0.000	0.000
55.250	0.000	0.000	0.000	0.000	0.000
55.500	0.000	0.000	0.000	0.000	0.000
55.750	0.000	0.000	0.000	0.000	0.000
56.000	0.000	0.000	0.000	0.000	0.000
56.250	0.000	0.000	0.000	0.000	0.000
56.500	0.000	0.000	0.000	0.000	0.000
56.750	0.000	0.000	0.000	0.000	0.000
57.000	0.000	0.000	0.000	0.000	0.000
57.250	0.000	0.000	0.000	0.000	0.000
57.500	0.000	0.000	0.000	0.000	0.000
57.750	0.000	0.000	0.000	0.000	0.000
58.000	0.000	0.000	0.000	0.000	0.000
58.250	0.000	0.000	0.000	0.000	0.000
58.500	0.000	0.000	0.000	0.000	0.000
58.750	0.000	0.000	0.000	0.000	0.000
59.000	0.000	0.000	0.000	0.000	0.000
59.250	0.000	0.000	0.000	0.000	0.000
59.500	0.000	0.000	0.000	0.000	0.000
59.750	0.000	0.000	0.000	0.000	0.000
60.000	0.000	0.000	0.000	0.000	0.000
60.250	0.000	0.000	0.000	0.000	0.000
60.500	0.000	0.000	0.000	0.000	0.000
60.750	0.000	0.000	0.000	0.000	0.000
61.000	0.000	0.000	0.000	0.000	0.000
61.250	0.000	0.000	0.000	0.000	0.000
61.500	0.000	0.000	0.000	0.000	0.000
61.750	0.000	0.000	0.000	0.000	0.000
62.000	0.000	0.000	0.000	0.000	0.000
62.250	0.000	0.000	0.000	0.000	0.000
62.500	0.000	0.000	0.000	0.000	0.000
62.750	0.000	0.000	0.000	0.000	0.000

Subsection: Time vs. Volume
Label: Inf. Bio. Basin 1C
Scenario: Post-Development 100 Year Storm

Return Event: 100 years
Storm Event: 100 Year Storm

Time vs. Volume (ft³)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
63.000	0.000	0.000	0.000	0.000	0.000
63.250	0.000	0.000	0.000	0.000	0.000
63.500	0.000	0.000	0.000	0.000	0.000
63.750	0.000	0.000	0.000	0.000	0.000
64.000	0.000	0.000	0.000	0.000	0.000
64.250	0.000	0.000	0.000	0.000	0.000
64.500	0.000	0.000	0.000	0.000	0.000
64.750	0.000	0.000	0.000	0.000	0.000
65.000	0.000	0.000	0.000	0.000	0.000
65.250	0.000	0.000	0.000	0.000	0.000
65.500	0.000	0.000	0.000	0.000	0.000
65.750	0.000	0.000	0.000	0.000	0.000
66.000	0.000	0.000	0.000	0.000	0.000
66.250	0.000	0.000	0.000	0.000	0.000
66.500	0.000	0.000	0.000	0.000	0.000
66.750	0.000	0.000	0.000	0.000	0.000
67.000	0.000	0.000	0.000	0.000	0.000
67.250	0.000	0.000	0.000	0.000	0.000
67.500	0.000	0.000	0.000	0.000	0.000
67.750	0.000	0.000	0.000	0.000	0.000
68.000	0.000	0.000	0.000	0.000	0.000
68.250	0.000	0.000	0.000	0.000	0.000
68.500	0.000	0.000	0.000	0.000	0.000
68.750	0.000	0.000	0.000	0.000	0.000
69.000	0.000	0.000	0.000	0.000	0.000
69.250	0.000	0.000	0.000	0.000	0.000
69.500	0.000	0.000	0.000	0.000	0.000
69.750	0.000	0.000	0.000	0.000	0.000
70.000	0.000	0.000	0.000	0.000	0.000
70.250	0.000	0.000	0.000	0.000	0.000
70.500	0.000	0.000	0.000	0.000	0.000
70.750	0.000	0.000	0.000	0.000	0.000
71.000	0.000	0.000	0.000	0.000	0.000
71.250	0.000	0.000	0.000	0.000	0.000
71.500	0.000	0.000	0.000	0.000	0.000
71.750	0.000	0.000	0.000	0.000	0.000
72.000	0.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Elevation-Area Volume Curve
Return Event: 1 years

Label: Inf. Basin 1D
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Elevation (ft)	Planimeter (ft^2)	Area (ft^2)	A1+A2+sqr (A1*A2) (ft^2)	Volume (ft^3)	Volume (Total) (ft^3)
440.00	0.0	11,106.908	0.000	0.000	0.000
442.00	0.0	14,531.250	38,342.380	25,562.000	25,562.000
444.00	0.0	18,349.557	49,209.983	32,807.000	58,368.000
446.00	0.0	22,274.163	60,840.570	40,560.000	98,929.000

Pond Volume Equations
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Subsection: Elevation-Area Volume Curve
Return Event: 1 years
Label: Inf. Basin 2B
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Elevation (ft)	Planimeter (ft^2)	Area (ft^2)	A1+A2+sqr (A1*A2) (ft^2)	Volume (ft^3)	Volume (Total) (ft^3)
432.00	0.0	15,362.204	0.000	0.000	0.000
434.00	0.0	19,464.658	52,119.059	34,746.000	34,746.000
436.00	0.0	23,629.004	64,539.653	43,026.000	77,772.000
437.00	0.0	25,793.187	74,109.583	24,703.000	102,476.000

Pond Volume Equations
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Subsection: Elevation-Area Volume Curve
Return Event: 1 years
Label: Inf. Basin 3A
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
434.00	0.0	13,523.629	0.000	0.000	0.000
436.00	0.0	17,428.535	46,304.592	30,870.000	30,870.000
438.00	0.0	21,681.485	58,549.065	39,033.000	69,902.000
438.25	0.0	22,181.010	65,792.319	5,483.000	75,385.000

Pond Volume Equations
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Subsection: Elevation-Area Volume Curve
Return Event: 1 years

Label: Inf. Bio. Basin 1B
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
428.00	0.0	7,072.330	0.000	0.000	0.000
428.75	0.0	8,305.597	23,042.125	5,761.000	5,761.000
429.50	0.0	10,254.257	27,788.490	6,947.000	12,708.000
430.00	0.0	10,466.057	31,079.929	5,180.000	17,888.000

Pond Volume Equations
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Subsection: Elevation-Area Volume Curve
Return Event: 1 years

Label: Inf. Bio. Basin 1C
Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
427.00	0.0	10,246.886	0.000	0.000	0.000
428.50	0.0	12,382.754	33,893.950	16,947.000	16,947.000
429.00	0.0	13,122.984	38,253.235	6,376.000	23,323.000

Pond Volume Equations
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Subsection: Outlet Input Data | Return Event: 1 years

Label: OCS 1B-1 | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Requested Pond Water Surface Elevations	
Minimum (Headwater)	428.00 ft
Increment (Headwater)	0.05 ft
Maximum (Headwater)	430.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Inlet Box	Riser - 1	Forward	Culvert - 1	428.60	430.00
Culvert-Circular	Culvert - 1	Forward	TW	424.80	430.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data | Return Event: 1 years

Label: OCS 1B-1 | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	18.0 in
Length	85.50 ft
Length (Computed Barrel)	85.52 ft
Slope (Computed)	0.021 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.018
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.085
T2 ratio (HW/D)	1.187
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	426.43 ft	T1 Flow	7.58 ft³/s
T2 Elevation	426.58 ft	T2 Flow	8.66 ft³/s

Structure ID: Riser - 1 Structure Type: Inlet Box	
Number of Openings	1
Elevation	428.60 ft
Orifice Area	4.0 ft²
Orifice Coefficient	0.600
Weir Length	8.00 ft
Weir Coefficient	3.00 (ft^0.5)/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: TW Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

Requested Pond Water Surface Elevations	
Minimum (Headwater)	427.00 ft
Increment (Headwater)	0.05 ft
Maximum (Headwater)	429.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Inlet Box	Riser - 1	Forward	Culvert - 1	427.90	429.00
Culvert-Circular	Culvert - 1	Forward	TW	423.80	429.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data | Return Event: 1 years

Label: OCS 1C-1 | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	18.0 in
Length	64.50 ft
Length (Computed Barrel)	64.50 ft
Slope (Computed)	0.012 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.018
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.089
T2 ratio (HW/D)	1.191
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	425.43 ft	T1 Flow	7.58 ft³/s
T2 Elevation	425.59 ft	T2 Flow	8.66 ft³/s

Structure ID: Riser - 1 Structure Type: Inlet Box	
Number of Openings	1
Elevation	427.90 ft
Orifice Area	16.0 ft²
Orifice Coefficient	0.600
Weir Length	16.00 ft
Weir Coefficient	3.00 (ft^0.5)/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: TW Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

Subsection: Outlet Input Data | Return Event: 1 years

Label: OCS 1D-2 | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Requested Pond Water Surface Elevations	
Minimum (Headwater)	440.00 ft
Increment (Headwater)	0.05 ft
Maximum (Headwater)	446.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Inlet Box	Riser - 1	Forward	Culvert - 1	442.00	446.00
Culvert-Circular	Culvert - 1	Forward	TW	439.00	446.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data | Return Event: 1 years

Label: OCS 1D-2 | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	15.0 in
Length	123.55 ft
Length (Computed Barrel)	124.84 ft
Slope (Computed)	0.145 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.023
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	0.000
T2 ratio (HW/D)	1.125
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	439.00 ft	T1 Flow	4.80 ft³/s
T2 Elevation	440.41 ft	T2 Flow	5.49 ft³/s

Structure ID: Riser - 1 Structure Type: Inlet Box	
Number of Openings	1
Elevation	442.00 ft
Orifice Area	4.0 ft²
Orifice Coefficient	0.600
Weir Length	8.00 ft
Weir Coefficient	3.00 (ft^0.5)/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: TW Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

Subsection: Outlet Input Data | Return Event: 1 years

Label: OCS 2B-2 | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Requested Pond Water Surface Elevations	
Minimum (Headwater)	432.00 ft
Increment (Headwater)	0.05 ft
Maximum (Headwater)	437.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Inlet Box	Riser - 1	Forward	Culvert - 1	434.85	437.00
Culvert-Circular	Culvert - 1	Forward	TW	430.00	437.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Riser - 1 Structure Type: Inlet Box	
Number of Openings	1
Elevation	434.85 ft
Orifice Area	4.0 ft²
Orifice Coefficient	0.600
Weir Length	8.00 ft
Weir Coefficient	3.00 (ft^0.5)/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	18.0 in
Length	45.53 ft
Length (Computed Barrel)	45.53 ft
Slope (Computed)	0.011 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.018
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.090
T2 ratio (HW/D)	1.192
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	431.63 ft	T1 Flow	7.58 ft³/s
T2 Elevation	431.79 ft	T2 Flow	8.66 ft³/s

Structure ID: TW
Structure Type: TW Setup, DS Channel

Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

Subsection: Outlet Input Data | Return Event: 1 years

Label: OCS 3A-2 | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Requested Pond Water Surface Elevations	
Minimum (Headwater)	434.00 ft
Increment (Headwater)	0.05 ft
Maximum (Headwater)	438.25 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Inlet Box	Riser - 1	Forward	Culvert - 1	436.35	438.25
Culvert-Circular	Culvert - 1	Forward	TW	432.30	438.25
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data | Return Event: 1 years

Label: OCS 3A-2 | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Structure ID: Riser - 1 Structure Type: Inlet Box	
Number of Openings	1
Elevation	436.35 ft
Orifice Area	4.0 ft²
Orifice Coefficient	0.600
Weir Length	8.00 ft
Weir Coefficient	3.00 (ft^0.5)/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	15.0 in
Length	53.35 ft
Length (Computed Barrel)	53.40 ft
Slope (Computed)	0.043 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.023
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.074
T2 ratio (HW/D)	1.176
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	433.64 ft	T1 Flow	4.80 ft³/s
T2 Elevation	433.77 ft	T2 Flow	5.49 ft³/s

Structure ID: TW
Structure Type: TW Setup, DS Channel

Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

Subsection: Outlet Input Data | Return Event: 1 years

Label: Spillway [Bio-1B > Bio-1C] | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Requested Pond Water Surface Elevations	
Minimum (Headwater)	428.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	430.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Irregular Weir	Spillway	Forward	TW	429.50	430.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Spillway
Structure Type: Irregular Weir

Station (ft)	Elevation (ft)
0.00	430.00
1.50	429.50
21.50	429.50
23.00	430.00

Lowest Elevation	429.50 ft
Weir Coefficient	3.00 (ft^0.5)/s

Structure ID: TW
Structure Type: TW Setup, DS Channel

Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

Subsection: Elevation-Volume-Flow Table (Pond)
Label: Inf. Basin 1D
Scenario: Post-Development 1 Year Storm

Return Event: 1 years
Storm Event: 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.7500 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	440.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
440.00	0.00	0.000	11,106.908	0.00	0.00	0.00
440.05	0.00	557.344	11,186.917	2.27	2.27	8.46
440.10	0.00	1,118.697	11,267.214	2.28	2.28	14.71
440.15	0.00	1,684.071	11,347.797	2.30	2.30	21.01
440.20	0.00	2,253.481	11,428.668	2.31	2.31	27.35
440.25	0.00	2,826.942	11,509.826	2.33	2.33	33.74
440.30	0.00	3,404.468	11,591.271	2.35	2.35	40.18
440.35	0.00	3,986.074	11,673.003	2.36	2.36	46.65
440.40	0.00	4,571.773	11,755.022	2.38	2.38	53.18
440.45	0.00	5,161.581	11,837.329	2.40	2.40	59.75
440.50	0.00	5,755.511	11,919.922	2.41	2.41	66.36
440.55	0.00	6,353.578	12,002.803	2.43	2.43	73.03
440.60	0.00	6,955.796	12,085.971	2.45	2.45	79.73
440.65	0.00	7,562.180	12,169.426	2.46	2.46	86.49
440.70	0.00	8,172.744	12,253.168	2.48	2.48	93.29
440.75	0.00	8,787.501	12,337.197	2.50	2.50	100.14
440.80	0.00	9,406.468	12,421.513	2.52	2.52	107.03
440.85	0.00	10,029.658	12,506.117	2.53	2.53	113.97
440.90	0.00	10,657.084	12,591.008	2.55	2.55	120.96
440.95	0.00	11,288.763	12,676.185	2.57	2.57	128.00
441.00	0.00	11,924.708	12,761.650	2.58	2.58	135.08
441.05	0.00	12,564.933	12,847.403	2.60	2.60	142.21
441.10	0.00	13,209.453	12,933.442	2.62	2.62	149.39
441.15	0.00	13,858.282	13,019.768	2.64	2.64	156.62
441.20	0.00	14,511.434	13,106.382	2.65	2.65	163.89
441.25	0.00	15,168.925	13,193.282	2.67	2.67	171.22
441.30	0.00	15,830.768	13,280.470	2.69	2.69	178.59
441.35	0.00	16,496.977	13,367.945	2.71	2.71	186.01
441.40	0.00	17,167.567	13,455.707	2.73	2.73	193.48

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years

Label: Inf. Basin 1D Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
441.45	0.00	17,842.552	13,543.757	2.74	2.74	200.99
441.50	0.00	18,521.947	13,632.093	2.76	2.76	208.56
441.55	0.00	19,205.766	13,720.717	2.78	2.78	216.18
441.60	0.00	19,894.024	13,809.627	2.80	2.80	223.84
441.65	0.00	20,586.734	13,898.825	2.82	2.82	231.56
441.70	0.00	21,283.911	13,988.310	2.83	2.83	239.32
441.75	0.00	21,985.570	14,078.082	2.85	2.85	247.14
441.80	0.00	22,691.724	14,168.141	2.87	2.87	255.00
441.85	0.00	23,402.389	14,258.488	2.89	2.89	262.91
441.90	0.00	24,117.578	14,349.121	2.91	2.91	270.88
441.95	0.00	24,837.305	14,440.042	2.92	2.92	278.89
442.00	0.00	25,561.587	14,531.250	2.94	2.94	286.96
442.05	0.27	26,290.399	14,621.285	2.96	3.23	295.35
442.10	0.76	27,023.720	14,711.599	2.98	3.74	304.00
442.15	1.39	27,761.563	14,802.190	3.00	4.39	312.85
442.20	2.15	28,503.943	14,893.060	3.02	5.16	321.87
442.25	3.00	29,250.874	14,984.207	3.03	6.03	331.04
442.30	3.94	30,002.369	15,075.633	3.05	7.00	340.36
442.35	4.97	30,758.442	15,167.337	3.07	8.04	349.80
442.40	6.07	31,519.107	15,259.319	3.09	9.16	359.37
442.45	7.25	32,284.378	15,351.579	3.11	10.36	369.07
442.50	8.49	33,054.270	15,444.117	3.13	11.62	378.89
442.55	9.79	33,828.795	15,536.933	3.15	12.93	388.81
442.60	11.15	34,607.967	15,630.027	3.17	14.32	398.85
442.65	11.69	35,391.802	15,723.399	3.18	14.88	408.12
442.70	11.79	36,180.312	15,817.049	3.20	15.00	417.00
442.75	11.89	36,973.511	15,910.977	3.22	15.11	425.93
442.80	11.99	37,771.414	16,005.184	3.24	15.23	434.92
442.85	12.09	38,574.034	16,099.668	3.26	15.35	443.95
442.90	12.19	39,381.386	16,194.431	3.28	15.47	453.04
442.95	12.28	40,193.482	16,289.471	3.30	15.58	462.18
443.00	12.38	41,010.338	16,384.790	3.32	15.70	471.37
443.05	12.48	41,831.966	16,480.387	3.34	15.81	480.61
443.10	12.57	42,658.381	16,576.261	3.36	15.93	489.91
443.15	12.67	43,489.597	16,672.414	3.38	16.04	499.26
443.20	12.76	44,325.627	16,768.845	3.40	16.16	508.66
443.25	12.85	45,166.486	16,865.554	3.42	16.27	518.12
443.30	12.95	46,012.187	16,962.541	3.44	16.38	527.63
443.35	13.04	46,862.745	17,059.806	3.46	16.49	537.19
443.40	13.13	47,718.172	17,157.350	3.48	16.60	546.80
443.45	13.21	48,578.484	17,255.171	3.49	16.71	556.47
443.50	13.31	49,443.694	17,353.270	3.51	16.82	566.20
443.55	13.40	50,313.816	17,451.648	3.53	16.93	575.97
443.60	13.49	51,188.863	17,550.303	3.55	17.04	585.81
443.65	13.57	52,068.851	17,649.237	3.57	17.15	595.69

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years

Label: Inf. Basin 1D Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
443.70	13.66	52,953.792	17,748.448	3.59	17.26	605.63
443.75	13.75	53,843.700	17,847.938	3.62	17.36	615.63
443.80	13.83	54,738.590	17,947.706	3.64	17.47	625.68
443.85	13.92	55,638.475	18,047.751	3.66	17.57	635.78
443.90	14.00	56,543.370	18,148.075	3.68	17.68	645.94
443.95	14.09	57,453.288	18,248.677	3.70	17.78	656.15
444.00	14.17	58,368.242	18,349.557	3.72	17.89	666.43
444.05	14.26	59,288.056	18,443.041	3.74	17.99	676.75
444.10	14.34	60,212.550	18,536.762	3.75	18.10	687.12
444.15	14.42	61,141.736	18,630.720	3.77	18.19	697.55
444.20	14.50	62,075.626	18,724.916	3.79	18.30	708.03
444.25	14.59	63,014.232	18,819.349	3.81	18.40	718.56
444.30	14.67	63,957.565	18,914.021	3.83	18.50	729.14
444.35	14.75	64,905.638	19,008.929	3.85	18.60	739.77
444.40	14.83	65,858.462	19,104.075	3.87	18.70	750.46
444.45	14.91	66,816.049	19,199.459	3.89	18.80	761.20
444.50	14.99	67,778.412	19,295.080	3.91	18.90	771.99
444.55	15.07	68,745.561	19,390.939	3.93	18.99	782.83
444.60	15.15	69,717.510	19,487.035	3.95	19.09	793.73
444.65	15.22	70,694.269	19,583.368	3.97	19.19	804.68
444.70	15.30	71,675.850	19,679.940	3.99	19.29	815.68
444.75	15.38	72,662.267	19,776.748	4.01	19.38	826.74
444.80	15.46	73,653.529	19,873.795	4.03	19.48	837.85
444.85	15.53	74,649.650	19,971.079	4.05	19.58	849.02
444.90	15.61	75,650.641	20,068.600	4.06	19.67	860.23
444.95	15.68	76,656.514	20,166.359	4.08	19.77	871.51
445.00	15.76	77,667.281	20,264.355	4.10	19.86	882.83
445.05	15.83	78,682.954	20,362.589	4.12	19.96	894.21
445.10	15.91	79,703.544	20,461.060	4.14	20.05	905.65
445.15	15.98	80,729.064	20,559.769	4.16	20.15	917.14
445.20	16.06	81,759.525	20,658.716	4.18	20.24	928.68
445.25	16.13	82,794.939	20,757.900	4.20	20.34	940.28
445.30	16.21	83,835.319	20,857.321	4.22	20.43	951.93
445.35	16.28	84,880.675	20,956.981	4.24	20.52	963.64
445.40	16.35	85,931.021	21,056.877	4.26	20.62	975.41
445.45	16.42	86,986.367	21,157.011	4.29	20.71	987.22
445.50	16.50	88,046.726	21,257.383	4.31	20.80	999.10
445.55	16.57	89,112.109	21,357.992	4.33	20.89	1,011.03
445.60	16.64	90,182.529	21,458.839	4.35	20.99	1,023.01
445.65	16.71	91,257.997	21,559.923	4.37	21.08	1,035.05
445.70	16.78	92,338.525	21,661.245	4.39	21.17	1,047.15
445.75	16.85	93,424.125	21,762.804	4.41	21.26	1,059.31
445.80	16.92	94,514.809	21,864.601	4.43	21.35	1,071.51
445.85	16.99	95,610.589	21,966.635	4.45	21.44	1,083.78
445.90	17.06	96,711.477	22,068.907	4.47	21.53	1,096.10

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years
Label: Inf. Basin 1D Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
445.95	17.13	97,817.484	22,171.416	4.49	21.62	1,108.48
446.00	17.20	98,928.623	22,274.163	4.51	21.71	1,120.92

Subsection: Level Pool Pond Routing Summary | Return Event: 1 years

Label: Inf. Basin 1D (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.7500 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	440.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	8.27 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	2.35 ft³/s	Time to Peak (Infiltration)	12.250 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	440.32 ft
Volume (Peak)	3,641.135 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	21,782.000 ft³
Volume (Total Infiltration)	21,782.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Pond Routed Hydrograph (total out) Return Event: 1 years

Label: Inf. Basin 1D (OUT) Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Peak Discharge	0.00 ft³/s
Time to Peak	24.000 hours
Hydrograph Volume	0.000 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Elevation-Volume-Flow Table (Pond)
Label: Inf. Basin 2B
Scenario: Post-Development 1 Year Storm

Return Event: 1 years
Storm Event: 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	2.9300 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	432.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
432.00	0.00	0.000	15,362.204	0.00	0.00	0.00
432.05	0.00	770.525	15,458.855	1.05	1.05	9.61
432.10	0.00	1,545.891	15,555.810	1.06	1.06	18.23
432.15	0.00	2,326.111	15,653.067	1.06	1.06	26.91
432.20	0.00	3,111.202	15,750.627	1.07	1.07	35.64
432.25	0.00	3,901.179	15,848.491	1.07	1.07	44.42
432.30	0.00	4,696.056	15,946.657	1.08	1.08	53.26
432.35	0.00	5,495.850	16,045.127	1.09	1.09	62.15
432.40	0.00	6,300.574	16,143.900	1.09	1.09	71.10
432.45	0.00	7,110.245	16,242.976	1.10	1.10	80.10
432.50	0.00	7,924.877	16,342.355	1.11	1.11	89.16
432.55	0.00	8,744.485	16,442.037	1.12	1.12	98.28
432.60	0.00	9,569.086	16,542.022	1.12	1.12	107.45
432.65	0.00	10,398.693	16,642.310	1.13	1.13	116.67
432.70	0.00	11,233.322	16,742.901	1.14	1.14	125.95
432.75	0.00	12,072.988	16,843.796	1.14	1.14	135.29
432.80	0.00	12,917.706	16,944.993	1.15	1.15	144.68
432.85	0.00	13,767.492	17,046.494	1.16	1.16	154.13
432.90	0.00	14,622.361	17,148.297	1.16	1.16	163.63
432.95	0.00	15,482.327	17,250.404	1.17	1.17	173.20
433.00	0.00	16,347.406	17,352.814	1.18	1.18	182.81
433.05	0.00	17,217.613	17,455.527	1.18	1.18	192.49
433.10	0.00	18,092.964	17,558.543	1.19	1.19	202.22
433.15	0.00	18,973.473	17,661.862	1.20	1.20	212.01
433.20	0.00	19,859.155	17,765.484	1.20	1.20	221.86
433.25	0.00	20,750.026	17,869.409	1.21	1.21	231.77
433.30	0.00	21,646.101	17,973.637	1.22	1.22	241.73
433.35	0.00	22,547.395	18,078.169	1.23	1.23	251.75
433.40	0.00	23,453.923	18,183.003	1.23	1.23	261.83

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years

Label: Inf. Basin 2B Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
433.45	0.00	24,365.700	18,288.141	1.24	1.24	271.97
433.50	0.00	25,282.742	18,393.582	1.25	1.25	282.17
433.55	0.00	26,205.064	18,499.325	1.25	1.25	292.42
433.60	0.00	27,132.680	18,605.372	1.26	1.26	302.74
433.65	0.00	28,065.606	18,711.722	1.27	1.27	313.11
433.70	0.00	29,003.857	18,818.375	1.28	1.28	323.54
433.75	0.00	29,947.448	18,925.331	1.28	1.28	334.03
433.80	0.00	30,896.395	19,032.591	1.29	1.29	344.58
433.85	0.00	31,850.713	19,140.153	1.30	1.30	355.19
433.90	0.00	32,810.416	19,248.018	1.31	1.31	365.87
433.95	0.00	33,775.519	19,356.187	1.31	1.31	376.60
434.00	0.00	34,746.039	19,464.658	1.32	1.32	387.39
434.05	0.00	35,721.751	19,563.851	1.33	1.33	398.24
434.10	0.00	36,702.429	19,663.296	1.33	1.33	409.14
434.15	0.00	37,688.085	19,762.993	1.34	1.34	420.10
434.20	0.00	38,678.732	19,862.942	1.35	1.35	431.11
434.25	0.00	39,674.383	19,963.143	1.35	1.35	442.18
434.30	0.00	40,675.050	20,063.596	1.36	1.36	453.31
434.35	0.00	41,680.747	20,164.301	1.37	1.37	464.49
434.40	0.00	42,691.485	20,265.258	1.37	1.37	475.72
434.45	0.00	43,707.277	20,366.468	1.38	1.38	487.02
434.50	0.00	44,728.136	20,467.929	1.39	1.39	498.37
434.55	0.00	45,754.074	20,569.643	1.40	1.40	509.77
434.60	0.00	46,785.104	20,671.609	1.40	1.40	521.24
434.65	0.00	47,821.239	20,773.827	1.41	1.41	532.76
434.70	0.00	48,862.491	20,876.297	1.42	1.42	544.33
434.75	0.00	49,908.873	20,979.019	1.42	1.42	555.97
434.80	0.00	50,960.397	21,081.993	1.43	1.43	567.66
434.85	0.00	52,017.076	21,185.219	1.44	1.44	579.40
434.90	0.27	53,078.923	21,288.698	1.44	1.71	591.48
434.95	0.76	54,145.950	21,392.428	1.45	2.21	603.83
435.00	1.39	55,218.170	21,496.411	1.46	2.85	616.39
435.05	2.15	56,295.596	21,600.645	1.47	3.61	629.12
435.10	3.00	57,378.239	21,705.132	1.47	4.47	642.01
435.15	3.94	58,466.113	21,809.871	1.48	5.42	655.05
435.20	4.97	59,559.230	21,914.862	1.49	6.45	668.22
435.25	6.07	60,657.604	22,020.105	1.49	7.56	681.54
435.30	7.24	61,761.245	22,125.601	1.50	8.74	694.97
435.35	8.48	62,870.168	22,231.348	1.51	9.99	708.55
435.40	9.79	63,984.384	22,337.347	1.52	11.30	722.24
435.45	11.16	65,103.907	22,443.599	1.52	12.68	736.06
435.50	12.58	66,228.748	22,550.102	1.53	14.11	749.98
435.55	14.05	67,358.921	22,656.858	1.54	15.59	764.02
435.60	15.59	68,494.438	22,763.866	1.54	17.13	778.18
435.65	17.17	69,635.312	22,871.126	1.55	18.72	792.45

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years
Label: Inf. Basin 2B Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
435.70	17.75	70,781.555	22,978.638	1.56	19.31	805.77
435.75	18.26	71,933.180	23,086.402	1.57	19.83	819.09
435.80	18.76	73,090.199	23,194.418	1.57	20.34	832.45
435.85	19.25	74,252.626	23,302.687	1.58	20.83	845.86
435.90	19.73	75,420.472	23,411.207	1.59	21.32	859.32
435.95	20.19	76,593.751	23,519.980	1.60	21.79	872.83
436.00	20.65	77,772.475	23,629.004	1.60	22.25	886.39
436.05	21.09	78,956.573	23,734.962	1.61	22.70	899.99
436.10	21.52	80,145.975	23,841.156	1.62	23.14	913.65
436.15	21.95	81,340.692	23,947.587	1.62	23.58	927.36
436.20	22.37	82,540.737	24,054.256	1.63	24.00	941.12
436.25	22.68	83,746.122	24,161.161	1.64	24.32	954.83
436.30	22.79	84,956.857	24,268.304	1.65	24.43	968.40
436.35	22.90	86,172.956	24,375.683	1.65	24.55	982.03
436.40	23.01	87,394.430	24,483.300	1.66	24.67	995.72
436.45	23.11	88,621.290	24,591.153	1.67	24.78	1,009.46
436.50	23.22	89,853.549	24,699.244	1.68	24.89	1,023.27
436.55	23.32	91,091.218	24,807.571	1.68	25.01	1,037.13
436.60	23.43	92,334.310	24,916.136	1.69	25.12	1,051.06
436.65	23.53	93,582.836	25,024.938	1.70	25.23	1,065.04
436.70	23.64	94,836.808	25,133.977	1.70	25.34	1,079.09
436.75	23.74	96,096.237	25,243.252	1.71	25.45	1,093.19
436.80	23.85	97,361.137	25,352.765	1.72	25.57	1,107.36
436.85	23.95	98,631.518	25,462.515	1.73	25.68	1,121.58
436.90	24.05	99,907.392	25,572.502	1.73	25.78	1,135.87
436.95	24.15	101,188.772	25,682.726	1.74	25.90	1,150.22
437.00	24.26	102,475.669	25,793.187	1.75	26.01	1,164.62

Subsection: Level Pool Pond Routing Summary
Return Event: 1 years
Label: Inf. Basin 2B (IN)
Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	2.9300 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	432.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	14.14 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	1.15 ft³/s	Time to Peak (Infiltration)	12.750 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	432.81 ft
Volume (Peak)	13,103.137 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	35,405.000 ft³
Volume (Total Infiltration)	35,405.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Level Pool Pond Routing Summary
Label: Inf. Basin 2B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	2.9300 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	432.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	29.06 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	1.35 ft³/s	Time to Peak (Infiltration)	14.050 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	434.23 ft
Volume (Peak)	39,373.378 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	86,750.000 ft³
Volume (Total Infiltration)	86,750.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Scenario: Post-Development 100 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	2.9300 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	432.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	56.40 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	1.55 ft³/s	Time to Peak (Infiltration)	12.250 hours
Flow (Peak Outlet)	16.54 ft³/s	Time to Peak (Flow, Outlet)	12.250 hours

Elevation (Water Surface, Peak)	435.63 ft
Volume (Peak)	69,179.348 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	199,632.000 ft³
Volume (Total Infiltration)	136,361.000 ft³
Volume (Total Outlet Outflow)	63,272.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Pond Routed Hydrograph (total out) Return Event: 1 years

Label: Inf. Basin 2B (OUT) Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Peak Discharge	0.00 ft³/s
Time to Peak	24.000 hours
Hydrograph Volume	0.000 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Pond Routed Hydrograph (total out) Return Event: 10 years
Label: Inf. Basin 2B (OUT) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Peak Discharge	0.00 ft³/s
Time to Peak	24.000 hours
Hydrograph Volume	0.000 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Pond Routed Hydrograph (total out) Return Event: 100 years

Label: Inf. Basin 2B (OUT) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Peak Discharge	16.54 ft³/s
Time to Peak	12.250 hours
Hydrograph Volume	63,271.601 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
12.000	0.00	4.80	11.11	14.69	16.23
12.250	16.54	16.27	15.72	15.07	14.38
12.500	13.66	12.80	11.70	10.52	9.43
12.750	8.47	7.67	6.99	6.45	5.98
13.000	5.57	5.18	4.81	4.49	4.21
13.250	3.97	3.78	3.61	3.42	3.24
13.500	3.07	2.94	2.83	2.73	2.65
13.750	2.56	2.45	2.34	2.23	2.14
14.000	2.06	2.00	1.94	1.89	1.85
14.250	1.80	1.72	1.65	1.61	1.58
14.500	1.53	1.46	1.40	1.35	1.31
14.750	1.27	1.24	1.21	1.18	1.15
15.000	1.13	1.10	1.05	0.99	0.96
15.250	0.96	0.95	0.94	0.90	0.86
15.500	0.85	0.84	0.81	0.77	0.74
15.750	0.70	0.68	0.66	0.66	0.67
16.000	0.66	0.64	0.62	0.60	0.58
16.250	0.56	0.54	0.53	0.51	0.50
16.500	0.49	0.48	0.47	0.45	0.41
16.750	0.37	0.35	0.35	0.35	0.35
17.000	0.35	0.34	0.31	0.28	0.27
17.250	0.27	0.25	0.24	0.23	0.24
17.500	0.24	0.24	0.23	0.22	0.21
17.750	0.21	0.20	0.18	0.17	0.15
18.000	0.15	0.15	0.15	0.13	0.12
18.250	0.10	0.11	0.11	0.10	0.09
18.500	0.08	0.07	0.07	0.08	0.07
18.750	0.06	0.05	0.04	0.02	0.01
19.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Elevation-Volume-Flow Table (Pond)
Label: Inf. Basin 3A
Scenario: Post-Development 1 Year Storm

Return Event: 1 years
Storm Event: 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.3000 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	434.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
434.00	0.00	0.000	13,523.629	0.00	0.00	0.00
434.05	0.00	678.470	13,615.224	2.62	2.62	10.15
434.10	0.00	1,361.528	13,707.128	2.63	2.63	17.76
434.15	0.00	2,049.188	13,799.340	2.65	2.65	25.42
434.20	0.00	2,741.467	13,891.862	2.67	2.67	33.13
434.25	0.00	3,438.379	13,984.693	2.69	2.69	40.89
434.30	0.00	4,139.941	14,077.833	2.70	2.70	48.70
434.35	0.00	4,846.168	14,171.283	2.72	2.72	56.57
434.40	0.00	5,557.075	14,265.041	2.74	2.74	64.49
434.45	0.00	6,272.677	14,359.109	2.76	2.76	72.46
434.50	0.00	6,992.991	14,453.485	2.78	2.78	80.48
434.55	0.00	7,718.031	14,548.171	2.80	2.80	88.55
434.60	0.00	8,447.813	14,643.166	2.81	2.81	96.68
434.65	0.00	9,182.353	14,738.470	2.83	2.83	104.86
434.70	0.00	9,921.665	14,834.084	2.85	2.85	113.09
434.75	0.00	10,665.766	14,930.006	2.87	2.87	121.38
434.80	0.00	11,414.671	15,026.238	2.89	2.89	129.72
434.85	0.00	12,168.395	15,122.778	2.91	2.91	138.11
434.90	0.00	12,926.954	15,219.628	2.92	2.92	146.56
434.95	0.00	13,690.363	15,316.787	2.94	2.94	155.06
435.00	0.00	14,458.638	15,414.255	2.96	2.96	163.61
435.05	0.00	15,231.794	15,512.032	2.98	2.98	172.22
435.10	0.00	16,009.846	15,610.119	3.00	3.00	180.89
435.15	0.00	16,792.811	15,708.514	3.02	3.02	189.60
435.20	0.00	17,580.703	15,807.219	3.04	3.04	198.38
435.25	0.00	18,373.538	15,906.232	3.06	3.06	207.21
435.30	0.00	19,171.331	16,005.555	3.08	3.08	216.09
435.35	0.00	19,974.098	16,105.187	3.09	3.09	225.03
435.40	0.00	20,781.855	16,205.129	3.11	3.11	234.02

Subsection: Elevation-Volume-Flow Table (Pond) | Return Event: 1 years
Label: Inf. Basin 3A | Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
435.45	0.00	21,594.616	16,305.379	3.13	3.13	243.07
435.50	0.00	22,412.398	16,405.938	3.15	3.15	252.18
435.55	0.00	23,235.215	16,506.807	3.17	3.17	261.34
435.60	0.00	24,063.084	16,607.984	3.19	3.19	270.56
435.65	0.00	24,896.019	16,709.471	3.21	3.21	279.83
435.70	0.00	25,734.036	16,811.267	3.23	3.23	289.16
435.75	0.00	26,577.151	16,913.372	3.25	3.25	298.55
435.80	0.00	27,425.379	17,015.787	3.27	3.27	308.00
435.85	0.00	28,278.735	17,118.510	3.29	3.29	317.50
435.90	0.00	29,137.235	17,221.542	3.31	3.31	327.06
435.95	0.00	30,000.894	17,324.884	3.33	3.33	336.67
436.00	0.00	30,869.728	17,428.535	3.35	3.35	346.35
436.05	0.00	31,743.671	17,529.205	3.37	3.37	356.08
436.10	0.00	32,622.654	17,630.166	3.39	3.39	365.86
436.15	0.00	33,506.692	17,731.416	3.41	3.41	375.70
436.20	0.00	34,395.800	17,832.956	3.43	3.43	385.60
436.25	0.00	35,289.992	17,934.787	3.45	3.45	395.56
436.30	0.00	36,189.284	18,036.907	3.47	3.47	405.57
436.35	0.00	37,093.688	18,139.317	3.49	3.49	415.64
436.40	0.27	38,003.220	18,242.016	3.50	3.77	426.03
436.45	0.76	38,917.894	18,345.006	3.52	4.28	436.70
436.50	1.39	39,837.725	18,448.286	3.54	4.94	447.58
436.55	2.15	40,762.728	18,551.856	3.56	5.71	458.63
436.60	3.00	41,692.916	18,655.715	3.58	6.58	469.84
436.65	3.94	42,628.304	18,759.864	3.60	7.55	481.19
436.70	4.97	43,568.907	18,864.304	3.62	8.59	492.69
436.75	6.07	44,514.739	18,969.033	3.64	9.72	504.33
436.80	7.25	45,465.815	19,074.052	3.66	10.91	516.09
436.85	8.49	46,422.149	19,179.361	3.68	12.17	527.97
436.90	9.79	47,383.756	19,284.960	3.71	13.49	539.98
436.95	11.16	48,350.650	19,390.849	3.73	14.88	552.11
437.00	12.58	49,322.846	19,497.028	3.75	16.32	564.35
437.05	13.64	50,300.358	19,603.497	3.77	17.40	576.30
437.10	13.72	51,283.200	19,710.255	3.79	17.51	587.32
437.15	13.81	52,271.388	19,817.304	3.81	17.62	598.41
437.20	13.89	53,264.936	19,924.642	3.83	17.72	609.55
437.25	13.98	54,263.857	20,032.270	3.85	17.83	620.76
437.30	14.06	55,268.168	20,140.189	3.87	17.93	632.02
437.35	14.15	56,277.881	20,248.397	3.89	18.04	643.35
437.40	14.23	57,293.012	20,356.895	3.91	18.14	654.73
437.45	14.31	58,313.575	20,465.683	3.93	18.25	666.17
437.50	14.40	59,339.585	20,574.761	3.95	18.35	677.68
437.55	14.48	60,371.056	20,684.128	3.97	18.45	689.24
437.60	14.56	61,408.003	20,793.786	4.00	18.56	700.87
437.65	14.64	62,450.440	20,903.734	4.02	18.66	712.55

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years
Label: Inf. Basin 3A Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
437.70	14.72	63,498.381	21,013.971	4.04	18.76	724.30
437.75	14.80	64,551.842	21,124.499	4.06	18.86	736.10
437.80	14.88	65,610.836	21,235.316	4.08	18.96	747.97
437.85	14.96	66,675.378	21,346.423	4.10	19.07	759.90
437.90	15.04	67,745.483	21,457.820	4.12	19.16	771.89
437.95	15.12	68,821.165	21,569.508	4.14	19.27	783.95
438.00	15.20	69,902.438	21,681.485	4.17	19.36	796.06
438.05	15.28	70,988.998	21,780.934	4.18	19.46	808.23
438.10	15.36	72,080.536	21,880.612	4.20	19.56	820.46
438.15	15.43	73,177.063	21,980.517	4.22	19.66	832.74
438.20	15.51	74,278.591	22,080.650	4.24	19.75	845.07
438.25	15.59	75,385.132	22,181.010	4.26	19.85	857.46

Subsection: Level Pool Pond Routing Summary | Return Event: 1 years

Label: Inf. Basin 3A (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.3000 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	434.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	10.02 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	2.71 ft³/s	Time to Peak (Infiltration)	12.250 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	434.32 ft
Volume (Peak)	4,489.878 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	25,472.000 ft³
Volume (Total Infiltration)	25,472.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Level Pool Pond Routing Summary
Label: Inf. Basin 3A (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.3000 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	434.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	22.37 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	3.06 ft³/s	Time to Peak (Infiltration)	12.600 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	435.26 ft
Volume (Peak)	18,546.539 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	66,334.000 ft³
Volume (Total Infiltration)	66,334.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Scenario: Post-Development 100 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.3000 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	434.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	45.39 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	3.66 ft³/s	Time to Peak (Infiltration)	12.450 hours
Flow (Peak Outlet)	6.99 ft³/s	Time to Peak (Flow, Outlet)	12.450 hours

Elevation (Water Surface, Peak)	436.79 ft
Volume (Peak)	45,255.107 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	158,487.000 ft³
Volume (Total Infiltration)	141,163.000 ft³
Volume (Total Outlet Outflow)	17,324.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Pond Routed Hydrograph (total out) Return Event: 1 years

Label: Inf. Basin 3A (OUT) Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Peak Discharge	0.00 ft³/s
Time to Peak	24.000 hours
Hydrograph Volume	0.000 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Pond Routed Hydrograph (total out) Return Event: 10 years
Label: Inf. Basin 3A (OUT) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Peak Discharge	0.00 ft³/s
Time to Peak	24.000 hours
Hydrograph Volume	0.000 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Pond Routed Hydrograph (total out) Return Event: 100 years
Label: Inf. Basin 3A (OUT) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Peak Discharge	6.99 ft³/s
Time to Peak	12.450 hours
Hydrograph Volume	17,323.655 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
12.100	0.00	1.63	3.72	5.18	6.11
12.350	6.65	6.92	6.99	6.90	6.60
12.600	6.01	5.31	4.64	4.03	3.51
12.850	3.06	2.71	2.40	2.12	1.86
13.100	1.62	1.38	1.20	1.05	0.91
13.350	0.78	0.66	0.55	0.45	0.35
13.600	0.27	0.22	0.18	0.14	0.08
13.850	0.03	0.00	(N/A)	(N/A)	(N/A)

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years

Label: Inf. Bio. Basin 1B Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.5600 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	428.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
428.00	0.00	0.000	7,072.330	0.00	0.00	0.00
428.05	0.00	355.593	7,151.466	1.42	1.42	5.37
428.10	0.00	715.154	7,231.042	1.43	1.43	9.38
428.15	0.00	1,078.705	7,311.058	1.45	1.45	13.43
428.20	0.00	1,446.267	7,391.515	1.46	1.46	17.53
428.25	0.00	1,817.863	7,472.412	1.48	1.48	21.68
428.30	0.00	2,193.516	7,553.749	1.50	1.50	25.87
428.35	0.00	2,573.246	7,635.527	1.51	1.51	30.10
428.40	0.00	2,957.076	7,717.744	1.53	1.53	34.39
428.45	0.00	3,345.027	7,800.403	1.55	1.55	38.71
428.50	0.00	3,737.123	7,883.501	1.56	1.56	43.09
428.55	0.00	4,133.385	7,967.040	1.58	1.58	47.51
428.60	0.00	4,533.834	8,051.019	1.60	1.60	51.97
428.65	0.27	4,938.494	8,135.438	1.61	1.88	56.75
428.70	0.76	5,347.386	8,220.298	1.63	2.39	61.80
428.75	1.39	5,760.531	8,305.597	1.65	3.04	67.05
428.80	2.15	6,178.895	8,429.125	1.67	3.82	72.47
428.85	3.00	6,603.459	8,553.565	1.69	4.69	78.07
428.90	3.94	7,034.267	8,678.916	1.72	5.66	83.82
428.95	4.97	7,471.366	8,805.179	1.74	6.71	89.73
429.00	6.07	7,914.800	8,932.355	1.77	7.84	95.78
429.05	7.24	8,364.616	9,060.442	1.80	9.04	101.98
429.10	8.48	8,820.860	9,189.440	1.82	10.30	108.31
429.15	9.79	9,283.576	9,319.351	1.85	11.63	114.78
429.20	11.16	9,752.810	9,450.173	1.87	13.03	121.40
429.25	12.58	10,228.608	9,581.908	1.90	14.48	128.13
429.30	14.05	10,711.016	9,714.554	1.92	15.98	134.99
429.35	15.59	11,200.079	9,848.112	1.95	17.54	141.98
429.40	17.17	11,695.842	9,982.582	1.98	19.15	149.10

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years
Label: Inf. Bio. Basin 1B Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
429.45	17.75	12,198.352	10,117.963	2.00	19.76	155.29
429.50	18.26	12,707.654	10,254.257	2.03	20.29	161.49
429.55	21.00	13,220.894	10,275.339	2.04	23.03	169.93
429.60	23.70	13,735.188	10,296.443	2.04	25.74	178.36
429.65	26.10	14,250.538	10,317.569	2.04	28.14	186.48
429.70	28.43	14,766.945	10,338.717	2.05	30.48	194.55
429.75	30.75	15,284.410	10,359.886	2.05	32.81	202.63
429.80	33.10	15,802.934	10,381.077	2.06	35.16	210.74
429.85	35.40	16,322.518	10,402.289	2.06	37.47	218.83
429.90	37.73	16,843.164	10,423.523	2.07	39.80	226.94
429.95	40.06	17,364.871	10,444.779	2.07	42.13	235.07
430.00	42.38	17,887.642	10,466.057	2.07	44.45	243.21

Subsection: Level Pool Pond Routing Summary | Return Event: 1 years

Label: Inf. Bio. Basin 1B (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.5600 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	428.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	1.25 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	0.99 ft³/s	Time to Peak (Infiltration)	12.100 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	428.03 ft
Volume (Peak)	247.924 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	3,776.000 ft³
Volume (Total Infiltration)	3,776.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Level Pool Pond Routing Summary
Label: Inf. Bio. Basin 1B (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.5600 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	428.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	4.22 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	1.48 ft³/s	Time to Peak (Infiltration)	12.250 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	428.23 ft
Volume (Peak)	1,686.876 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	12,715.000 ft³
Volume (Total Infiltration)	12,715.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Scenario: Post-Development 100 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	8.5600 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	428.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	10.44 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	1.68 ft³/s	Time to Peak (Infiltration)	12.200 hours
Flow (Peak Outlet)	2.47 ft³/s	Time to Peak (Flow, Outlet)	12.200 hours

Elevation (Water Surface, Peak)	428.82 ft
Volume (Peak)	6,339.783 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	35,428.000 ft³
Volume (Total Infiltration)	31,572.000 ft³
Volume (Total Outlet Outflow)	3,856.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Pond Routed Hydrograph (total out) Return Event: 1 years

Label: Inf. Bio. Basin 1B (OUT) Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Peak Discharge	0.00 ft³/s
Time to Peak	24.000 hours
Hydrograph Volume	0.000 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Pond Routed Hydrograph (total out) Return Event: 10 years
Label: Inf. Bio. Basin 1B (OUT) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Peak Discharge	0.00 ft³/s
Time to Peak	24.000 hours
Hydrograph Volume	0.000 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Pond Routed Hydrograph (total out) Return Event: 100 years
Label: Inf. Bio. Basin 1B (OUT) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Peak Discharge	2.47 ft³/s
Time to Peak	12.200 hours
Hydrograph Volume	3,856.289 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
12.000	0.00	0.30	1.63	2.32	2.47
12.250	2.34	2.12	1.91	1.70	1.50
12.500	1.33	1.14	0.90	0.66	0.47
12.750	0.29	0.19	0.11	0.04	0.00

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years

Label: Inf. Bio. Basin 1C Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	6.2100 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	427.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
427.00	0.00	0.000	10,246.886	0.00	0.00	0.00
427.05	0.00	514.042	10,314.827	1.48	1.48	7.19
427.10	0.00	1,031.486	10,382.992	1.49	1.49	12.95
427.15	0.00	1,552.345	10,451.381	1.50	1.50	18.75
427.20	0.00	2,076.628	10,519.995	1.51	1.51	24.59
427.25	0.00	2,604.348	10,588.834	1.52	1.52	30.46
427.30	0.00	3,135.515	10,657.897	1.53	1.53	36.37
427.35	0.00	3,670.141	10,727.184	1.54	1.54	42.32
427.40	0.00	4,208.238	10,796.696	1.55	1.55	48.31
427.45	0.00	4,749.815	10,866.432	1.56	1.56	54.34
427.50	0.00	5,294.884	10,936.393	1.57	1.57	60.40
427.55	0.00	5,843.458	11,006.579	1.58	1.58	66.51
427.60	0.00	6,395.546	11,076.988	1.59	1.59	72.65
427.65	0.00	6,951.160	11,147.623	1.60	1.60	78.84
427.70	0.00	7,510.312	11,218.482	1.61	1.61	85.06
427.75	0.00	8,073.012	11,289.565	1.62	1.62	91.32
427.80	0.00	8,639.272	11,360.873	1.63	1.63	97.63
427.85	0.00	9,209.103	11,432.405	1.64	1.64	103.97
427.90	0.00	9,782.517	11,504.162	1.65	1.65	110.35
427.95	0.54	10,359.523	11,576.143	1.66	2.20	117.31
428.00	1.52	10,940.135	11,648.349	1.67	3.19	124.75
428.05	2.79	11,524.362	11,720.779	1.68	4.47	132.52
428.10	4.29	12,112.216	11,793.434	1.70	5.99	140.57
428.15	6.00	12,703.709	11,866.313	1.71	7.71	148.86
428.20	7.88	13,298.851	11,939.417	1.72	9.60	157.36
428.25	9.94	13,897.655	12,012.745	1.73	11.67	166.09
428.30	12.14	14,500.130	12,086.298	1.74	13.88	174.99
428.35	14.49	15,106.288	12,160.075	1.75	16.24	184.09
428.40	16.97	15,716.141	12,234.077	1.76	18.73	193.36

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years
Label: Inf. Bio. Basin 1C Storm Event: 1 Year Storm
Scenario: Post-Development 1 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
428.45	18.34	16,329.700	12,308.303	1.77	20.11	201.55
428.50	18.44	16,946.975	12,382.754	1.78	20.22	208.52
428.55	18.55	17,567.938	12,455.810	1.79	20.34	215.54
428.60	18.66	18,192.560	12,529.081	1.80	20.46	222.60
428.65	18.77	18,820.850	12,602.567	1.81	20.59	229.71
428.70	18.88	19,452.820	12,676.267	1.82	20.71	236.85
428.75	19.00	20,088.480	12,750.183	1.83	20.83	244.03
428.80	19.11	20,727.842	12,824.313	1.84	20.95	251.26
428.85	19.22	21,370.915	12,898.659	1.85	21.07	258.52
428.90	19.32	22,017.711	12,973.219	1.86	21.19	265.83
428.95	19.43	22,668.241	13,047.994	1.88	21.31	273.18
429.00	19.54	23,322.514	13,122.984	1.89	21.43	280.57

Subsection: Level Pool Pond Routing Summary | Return Event: 1 years

Label: Inf. Bio. Basin 1C (IN) | Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	6.2100 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	427.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	4.16 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	1.50 ft³/s	Time to Peak (Infiltration)	12.200 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	427.16 ft
Volume (Peak)	1,657.239 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	11,642.000 ft³
Volume (Total Infiltration)	11,642.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Level Pool Pond Routing Summary
Label: Inf. Bio. Basin 1C (IN)
Scenario: Post-Development 10 Year Storm

Return Event: 10 years
Storm Event: 10 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	6.2100 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	427.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	12.16 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	1.66 ft³/s	Time to Peak (Infiltration)	12.550 hours
Flow (Peak Outlet)	0.32 ft³/s	Time to Peak (Flow, Outlet)	12.550 hours

Elevation (Water Surface, Peak)	427.93 ft
Volume (Peak)	10,123.121 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	36,283.000 ft³
Volume (Total Infiltration)	36,009.000 ft³
Volume (Total Outlet Outflow)	274.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Level Pool Pond Routing Summary | Return Event: 100 years

Label: Inf. Bio. Basin 1C (IN) | Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	6.2100 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	427.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	28.36 ft³/s	Time to Peak (Flow, In)	12.000 hours
Infiltration (Peak)	1.77 ft³/s	Time to Peak (Infiltration)	12.100 hours
Flow (Peak Outlet)	17.93 ft³/s	Time to Peak (Flow, Outlet)	12.100 hours

Elevation (Water Surface, Peak)	428.44 ft
Volume (Peak)	16,148.293 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	96,646.000 ft³
Volume (Total Infiltration)	68,049.000 ft³
Volume (Total Outlet Outflow)	28,597.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Pond Routed Hydrograph (total out) Return Event: 1 years

Label: Inf. Bio. Basin 1C (OUT) Storm Event: 1 Year Storm

Scenario: Post-Development 1 Year Storm

Peak Discharge	0.00 ft³/s
Time to Peak	24.000 hours
Hydrograph Volume	0.000 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Pond Routed Hydrograph (total out) Return Event: 10 years
Label: Inf. Bio. Basin 1C (OUT) Storm Event: 10 Year Storm
Scenario: Post-Development 10 Year Storm

Peak Discharge	0.32 ft³/s
Time to Peak	12.550 hours
Hydrograph Volume	274.172 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
12.400	0.00	0.08	0.24	0.32	0.31
12.650	0.26	0.18	0.10	0.03	0.00

Subsection: Pond Routed Hydrograph (total out) Return Event: 100 years

Label: Inf. Bio. Basin 1C (OUT) Storm Event: 100 Year Storm

Scenario: Post-Development 100 Year Storm

Peak Discharge	17.93 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	28,596.631 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.900	0.00	1.55	9.68	17.29	17.93
12.150	16.19	13.10	10.66	8.94	7.72
12.400	6.88	6.21	5.66	5.05	4.23
12.650	3.47	2.83	2.38	2.02	1.75
12.900	1.56	1.44	1.32	1.19	1.06
13.150	0.93	0.83	0.76	0.71	0.65
13.400	0.58	0.52	0.48	0.44	0.41
13.650	0.39	0.37	0.34	0.30	0.25
13.900	0.20	0.16	0.13	0.10	0.08
14.150	0.06	0.04	0.02	0.00	(N/A)

APPENDIX C

NYSDEC STORMWATER & BLUE BOOK SIZING CALCULATIONS

Step 1 - Site Planning

Practice		Description	Applicable	Project Specific Evaluation
Preservation of Natural Features and Conservation Design	**Preservation of Undisturbed Areas**	Delineate and protect undisturbed forests, native vegetated areas, riparian corridors, water bodies, wetlands, and natural terrain.	Yes	Approximately +/-1.80 Acres of land will remain undisturbed, in its natural state, which accounts for 6.63% of the total project parcel.
	Preservation of Buffers	Delineate and protect naturally vegetated buffers along perennial streams, rivers, shorelines, and wetlands.	N/A	There are no water bodies located on or adjacent to the project site.
	Reduction of Clearing and Grading	Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	Yes	Clearing and grading will be limited to the area of disturbance and will be minimized to the greatest extent practical. The limits of all proposed clearing will be demarcated in the field with orange construction fencing, prior to construction, to prevent unnecessary removal of trees.
	Locating Development in Less Sensitive Areas	Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	Yes	The site has been designed to avoid sensitive resource areas, such as but not limited to, steep slopes and erodible soils to the greatest extent practical.
	Open Space Design	Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	Yes	The site layout has been designed to maximize open space. Impervious surfaces have been minimized to the greatest extent practical and approximately +/-13.52 Acres will be maintained as vegetated open space.
	Soil Restoration	Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of post construction practices.	Yes	All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual.

Step 1 - Site Planning

Reduction of Impervious Cover	**Roadway Reduction**	Minimize roadway widths and lengths, below local requirements, to reduce site impervious area	No	Reducing the roadway width is not feasible for the project's intended use.
	Sidewalk Reduction	Minimize sidewalk lengths and widths, below local requirements, to reduce site impervious area	Yes	The quantity of sidewalk has been reduced to that required to ensure safe pedestrian access throughout the site.
	Driveway Reduction	Minimize driveway lengths and widths, below local requirements, to reduce site impervious area	N/A	No new driveways are proposed as part of this project.
	Cul-de-sac Reduction	Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	N/A	No cul-de-sacs are proposed as part of this project.
	Building Footprint Reduction	Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	Yes	All new building area has been allocated to efficiently implement the intended use.
	Parking Reduction	Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, reducing stall dimensions below local requirements, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	N/A	Reducing the parking stall dimensions or number of stalls is not feasible for the intended use.

Step 2 - Calculate Water Quality Volume (OV)

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	No
What is the nature of this construction project?	New Construction

Design Point:	1, 2, & 3		
P=	1.50	inches	*Enter 90% Rainfall Event as P*

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description		
1	3.43	0.47	14	0.17	3,246	Vegetated Swale		
2	1.36	0.40	29	0.31	2,314	Infiltration Bioretention		
3	3.50	1.37	39	0.40	7,650	Infiltration Bioretention		
4	5.28	2.63	50	0.50	14,302	Infiltration Basin		
5	6.09	4.12	68	0.66	21,831	Infiltration Basin		
6	5.05	3.06	61	0.60	16,362	Infiltration Basin		
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
Total	24.70	12.04	49	0.49	**65706**	**Required WQv**	**1.51**	**af**

Steps 3 and 5 - Apply RR Techniques and Standard SMPs (OV)

Runoff Reduction Volume and Treated Volumes						
	Runoff Reduction Techiques/Standard SMPs		**Total Contributing Area**	**Total Contributing Impervious Area**	**WQv Reduced (RRv)**	**WQv Treated**
			(acres)	**(acres)**	**(cf)**	**(cf)**
RR Techniques	Conservation of Natural Areas	RR-1	0.00		0	
	Sheet Flow to Riparian Buffer/Filter Strip	RR-2	0.00	0.00	0	
	Tree Planting/Tree Pit/Tree Trench	RR-3	0.00	0.00	0	
	Disconnection of Rooftop Runoff	RR-4		0.00	0	
	Vegetated Swale	RR-5	3.43	0.47	649	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rainwater Harvesting Systems	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Extensive & Intensive)	RR-10	0.00	0.00	0	
	Stream Daylighting	RR-11				
Standard SMPs w/ RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	16.41	9.80	52,495	0
	Dry Well	I-3	0.00	0.00	0	0
	Underground Infiltration System	I-4	0.00	0.00	0	0
	Infiltration Bioretention	F-4	4.86	1.76	9,964	0
	Filtration Bioretention	F-5	0.00	0.00	0	0
	Bioslope	F-6	0.00	0.00	0	0
	Dry swale	O-1	0.00	0.00	0	0
Standard SMPs	Micropool Extended Detention	P-1	0.00	0.00		0
	Wet Pond	P-2	0.00	0.00		0
	Wet Extended Detention	P-3	0.00	0.00		0
	Multiple Pond System	P-4	0.00	0.00		0
	Shallow Wetland	W-1	0.00	0.00		0
	Extended Detention Shallow Wetland	W-2	0.00	0.00		0
	Pond/Wetland System	W-3	0.00	0.00		0
	Pocket Wetland	W-4	0.00	0.00		0
	Gravel Wetland	W-5	0.00	0.00		0
	Surface Sand Filter	F-1	0.00	0.00		0
	Underground Sand Filter	F-2	0.00	0.00		0
	Perimeter Sand Filter	F-3	0.00	0.00		0
	Wet Swale	O-2	0.00	0.00		0
Alt. SMPs	Flow Based Alternative Practice	-	21.27	11.56		62,459
	Volume Based Alternative Practice	-				
	Totals by RR Technique	→	3.43	0.47	649	
	Totals by Standard SMP w/RRV	→	21.27	11.56	62,459	0
	Totals by Standard SMP	→	0.00	0.00		0
	Totals by Alternative SMP	→	21.27	11.56		62,459
	Totals (RR Techniques + all SMPs)	→	45.97	23.60	63,108	62,459

Step 3 - Evaluation of RR Techniques and Standard SMPs with RRv Capacity

	Practice	Description	Applicable	Project Specific Evaluation
RR Techniques	**Conservation of Natural Areas (RR-1)**	Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas by permanently conserving these areas on a site. Undisturbed natural areas include: forest retention areas; reforestation areas; stream and river corridors; shorelines; wetlands, vernal pools, and associated vegetated buffers; and undisturbed open space.	N/A	The project does not propose permanent conservation of these areas at this time.
	Sheet Flow to Riparian Buffer/Filter Strip (RR-2)	Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control stormwater runoff from some areas of a development project.	N/A	The project site does not contain any riparian buffers.
	Tree Planting/Tree Pit/Tree Trench (RR-3)	Plant or conserve trees to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, stormwater management practice areas, conservation areas and erosion and sediment control.	N/A	Tree plantings are proposed on site. However, credit for these trees will not be taken toward area reduction or volume reuction in the RRv calculations.
	Disconnection of Rooftop Runoff (RR-4)	Direct runoff from rooftop areas and upland overland runoff flow to designated pervious areas to reduce runoff volumes and rates.	N/A	The building roof(s) will be directed to downspouts with splash blocks and vegetated areas, which will promote sheet flow and filtering. However, credit for rooftop disconnect will not be taken toward an impervious area reduction in the RRv calculations.
	Vegetated Swale (RR-5)	The natural drainage paths, or properly designed vegetated channels, can be used instead of constructing underground storm sewers or concrete open channels to increase time of concentration, reduce the peak discharge, and provide infiltration.	Yes	Vegetated swale(s) will be used to treat +/- 0.47 acres of impervious area. Calculations have been provided in the SWPPP.

Step 3 - Evaluation of RR Techniques and Standard SMPs with RRv Capacity

RR Techniques	**Rain Garden (RR-6)**	Manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression.	N/A	Rain gardens are not proposed for the project site.
	Stormwater Planter (RR-7)	Small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve water quality.	N/A	Stormwater planters are not proposed for the project.
	Rainwater Harvesting System (RR-8)	Capture and store stormwater runoff to be used for irrigation systems or filtered and reused for non-contact activities.	N/A	A rain harvesting system is not proposed for the project.
	Porous Pavement (RR-9)	Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils.	N/A	Porous pavement is not proposed for the project.
	Green Roof (RR-10)	Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system.	N/A	Green roofs are not proposed for the project.
	Stream Daylighting (RR-11)	Stream Daylight previously-culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.	N/A	Stream daylighting is not proposed for the project.

Step 3 - Evaluation of RR Techniques and Standard SMPs with RRv Capacity

Standard SMPs with RRv Capacity	**Infiltration Trench (I-1)**	An infiltration practice that stores the water quality volume in the void spaces of a gravel trench before it is infiltrated into the ground.	N/A	An infiltration trench is not proposed for the project.
	Infiltration Basin (I-2)	An infiltration practice that stores the water quality volume in a shallow depression, before it is infiltrated it into the ground.	Yes	Infiltration basins are proposed on-site to treat 9.83 acres of impervious area. Calculations have been provided in the SWPPP.
	Dry Well (I-3)	An infiltration practice similar in design to the infiltration trench, and best suited for treatment of rooftop runoff.	N/A	Dry Wells are not proposed for the project.
	Underground Infiltration System (I-4)	An infiltration practice below grade that stores the water quality volume in pre-manufactured pipes, vaults or other modular structures, before it is infiltrated into the ground.	N/A	An underground infiltration system is not propsoed for the poject.
	Infiltration Bioretention (F-4)	A shallow depression that treats stormwater as it flows through a soil matrix, before it is infiltrated into the ground.	No	Infiltration bioretention will be used to treat 1.78 acres of impervious area. Calculations have been provided in the SWPPP
	Filtration Bioretention (F-5)	A shallow depression that treats stormwater as it flows through a soil matrix and is returned to the storm drain system.	Yes	Due to favorable infiltration rates at the site, an infiltration bioretention will be implemented, instead of a filtration bioretention
	Bioslope (F-6)	Permeable engineered soil media that is installed along embankments or other slopes, designed to capture and treat stormwater runoff from adjacent paved areas.	N/A	Bioslopes are not proposed for the project.
	Dry Swale (O-1)	An open drainage channel or depression explicitly designed to detain and promote the filtration of stormwater runoff into the soil media.	N/A	Dry swales are not proposed for the project.

Step 4 - Calcuate Minimum RRv Required (OV)

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B	12.04	40%
C		30%
D		20%
Total Area	12.03573333	

Calculate the Minimum RRv		
S =	**0.40**	
Impervious =	12.04	*acres*
Precipitation	1.50	*inches*
Rv	0.95	
Minimum RRv	**0.572**	***af***
	24916	cf

Step 2 - Calculate Water Quality Volume (DP1)

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	No
What is the nature of this construction project?	New Construction

Design Point:	1		
P=	1.50	inches	*Enter 90% Rainfall Event as P*

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description		
1	3.43	0.47	14	0.17	3,246	Vegetated Swale		
2	1.36	0.40	29	0.31	2,314	Infiltration Bioretention		
3	3.50	1.37	39	0.40	7,650	Infiltration Bioretention		
4	5.28	2.63	50	0.50	14,302	Infiltration Basin		
5								
6								
7								
8								
9								
10								
11								
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24								
25								
26								
27								
28								
29								
30								
Total	13.57	4.86	36	0.37	**27512**	**Required WQv**	**0.63**	**af**

Steps 3 and 5 - Apply RR Techniques and Standard SMPs (DP1)

Runoff Reduction Volume and Treated Volumes						
	Runoff Reduction Techiques/Standard SMPs		**Total Contributing Area**	**Total Contributing Impervious Area**	**WQv Reduced (RRv)**	**WQv Treated**
			(acres)	**(acres)**	**(cf)**	**(cf)**
RR Techniques	Conservation of Natural Areas	RR-1	0.00		0	
	Sheet Flow to Riparian Buffer/Filter Strip	RR-2	0.00	0.00	0	
	Tree Planting/Tree Pit/Tree Trench	RR-3	0.00	0.00	0	
	Disconnection of Rooftop Runoff	RR-4		0.00	0	
	Vegetated Swale	RR-5	3.43	0.47	649	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rainwater Harvesting Systems	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Extensive & Intensive)	RR-10	0.00	0.00	0	
	Stream Daylighting	RR-11				
Standard SMPs w/ RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	5.28	2.63	14,302	0
	Dry Well	I-3	0.00	0.00	0	0
	Underground Infiltration System	I-4	0.00	0.00	0	0
	Infiltration Bioretention	F-4	4.86	1.76	9,964	0
	Filtration Bioretention	F-5	0.00	0.00	0	0
	Bioslope	F-6	0.00	0.00	0	0
	Dry swale	O-1	0.00	0.00	0	0
Standard SMPs	Micropool Extended Detention	P-1	0.00	0.00		0
	Wet Pond	P-2	0.00	0.00		0
	Wet Extended Detention	P-3	0.00	0.00		0
	Multiple Pond System	P-4	0.00	0.00		0
	Shallow Wetland	W-1	0.00	0.00		0
	Extended Detention Shallow Wetland	W-2	0.00	0.00		0
	Pond/Wetland System	W-3	0.00	0.00		0
	Pocket Wetland	W-4	0.00	0.00		0
	Gravel Wetland	W-5	0.00	0.00		0
	Surface Sand Filter	F-1	0.00	0.00		0
	Underground Sand Filter	F-2	0.00	0.00		0
	Perimeter Sand Filter	F-3	0.00	0.00		0
	Wet Swale	O-2	0.00	0.00		0
Alt. SMPs	Flow Based Alternative Practice	-	10.14	4.39		24,266
	Volume Based Alternative Practice	-				
	Totals by RR Technique	→	3.43	0.47	649	
	Totals by Standard SMP w/RRV	→	10.14	4.39	24,266	0
	Totals by Standard SMP	→	0.00	0.00		0
	Totals by Alternative SMP	→	10.14	4.39		24,266
	Totals (RR Techniques + all SMPs)	→	23.70	9.25	24,915	24,266

Step 4 - Calcuate Minimum RRv Required (DP1)

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B	4.86	40%
C		30%
D		20%
Total Area	4.860451423	

Calculate the Minimum RRv		
S =	**0.40**	
Impervious =	4.86	*acres*
Precipitation	1.50	*inches*
Rv	0.95	
Minimum RRv	**0.231**	***af***
	10062	cf

Vegetated Swale (RR-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	3.43	0.47	14	0.17	3,246	1.50	Vegetated Swale

Design Criteria		
Select HSG	B	
Is contributing area greater than 5 acres?	No	
Is the contributing area a designated hotspot?	No	

Sizing Criteria				
		Value	Units	Notes
Water Quality Peak Flow Rate	WQf	1.51	cfs	Taken from hydrologic modeling
Enter Bottom Width	b	6.00	ft	
WQv Maximum Flow Depth	d	0.33	ft	Taken from hydrologic modeling
Side Slope	X:1	3.00	:1	
WQv Flow Top Width	Wwqv	8.00	ft	
WQv Flow Wetted Perimeter	Pw	8.22	ft	
Area of the WQv Flow	Awqv	2.33	sf	
WQv Peak Discharge Velocity	V	0.65	fps	
WQv Retention Time		10.00	min	
Required Swale Length	Lr	388.29	ft	
Provided Swale Length	Lp	1188.00	ft	
Longitudinal Slope of Channel	SL	0.01	ft/ft	
Enter Check Dam Height	Ch	2.00	ft	
Check Dam Spacing	Cs	400.00	ft	
Number of Check Dams Required	C	2.97		
10-yr 24-hr Flow Depth	d10	0.68	ft	Taken from hydrologic modeling
10-yr Storm Flow Top Width	W10	10.05	ft	
Area of 10-yr 24-hr Flow	A10	2.68	sf	
10-yr Flow Wetted Perimeter	Pw10	10.96	ft	
Manning's Coefficient	n	0.03		0.03 to 0.15 (Refer to Appendix G)
10-yr Peak Discharge Velocity	V10	1.37	fps	
10-yr Peak Discharge Freeboard		1.33	ft	Taken from hydrologic modeling

Determine Runoff Reduction		
RRv Provided	**649**	***cf***

Vegetated Swale (RR-5)

Total Area	3.43	acres
Total Impervious	0	acres
Total RRv Provided	649	cf

Infiltration Basin (I-2)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
4	5.28	2.63	50	0.50	14,302	1.50	Infiltration Basin

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	8.75	
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?	No	
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?	No	
Maximum contributing area (acres)	25	
Is the contributing area greater than the maximum allowed contributing area?	No	
Enter depth to seasonal high water table (ft)	NE	
Enter depth to bedrock (ft)	NE	
Enter pretreatment volume provided (cf)	14,368	
Enter depth of freeboard (ft)	>1	
Enter depth of basin (ft)	6	
Enter slope of maintenance access (%)	12	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv	14302	cf	
Basin depth	db	6.0	ft	
Required Surface Area	Ab	2,384	sf	
Enter Surface Area Provided	Ab	11148.9751	sf	

Determine Runoff Reduction		
RRv Provided	**14,302**	***cf***

Infiltration Basin (I-2)

Total Area	5.28	acres
Total Impervious	3	acres
Total RRv Provided	14,302	cf
Total WQv Provided	0	cf

Infiltration Bioretention (F-4)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
2	1.36	0.40	29	0.31	2,314	1.50	Infiltration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	8.56	
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?	No	
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	4	
Enter depth to bedrock (ft)	NE	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.3	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	6	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	1033	sf	
Enter Provided Filter Area	Af	7072.3297	sf	

Calculate Runoff Reduction		
RRv Provided	**2,314**	***cf***

Infiltration Bioretention (F-4)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
3	3.50	1.37	39	0.40	7,650	1.50	Infiltration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	6.21	
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?	No	
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	NE	
Enter depth to bedrock (ft)	NE	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.45	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	6	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	3242	sf	
Enter Provided Filter Area	Af	10246.8863	sf	

Calculate Runoff Reduction		
RRv Provided	**7,650**	***cf***

Infiltration Bioretention (F-4)

Total Area	4.86	acres
Total Impervious	2	acres
Total RRv Provided	9,964	cf
Total WQv Provided	0	cf

Flow Based Alternative Practice

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (ft^3)	**Precipitation** (in)	**Description**
2	1.36	0.40	29	0.31	2,314	1.50	Infiltration Bioretention

Design Criteria		
Is the alternative practice included in the NJCAT Verification Database, NJDEP list of approved Manufactured Treatment Devices or TAPE list of Approved Technologies for General Use Level?	Yes	
Is the flow based practice proposed for area of new development?	Yes	Practice must be included on NYSDEC list for Verified Proprietary Practices for New Development
If proposed for new development, is the practice included on NYSDEC list for Verified Proprietary Practices for New Development?	Yes	
Is the practice being designed off-line?	No	Practice must have adequate bypass capacity
If designed off-line, has flow diversion been		Not applicable
Enter Extreme Flood peak flow rate (cfs)	6.34	
Enter alternative practice bypass capacity (cfs)	11	
Enter name and manufacturer of alternative practice	Contech - CDS2025-5	

Sizing Criteria				
		Value	Units	Notes
Water Quality Peak Flow Rate	WQf	1.27	cfs	Taken from hydrologic modeling
Enter Maximum Treatment Flow Rate (MTFR) of Alternative Practice	Q	1.6	cfs	
Determine the Water Quality Volume Treated				
Water Quality Volume Treated		**2,314**	**cf**	

Flow Based Alternative Practice

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (ft^3)	**Precipitation** (in)	**Description**
3	3.50	1.37	39	0.40	7,650	1.50	Infiltration Bioretention

Design Criteria		
Is the alternative practice included in the NJCAT Verification Database, NJDEP list of approved Manufactured Treatment Devices or TAPE list of	Yes	
Is the flow based practice proposed for area of new development?	Yes	Practice must be included on NYSDEC list for Verified Proprietary Practices for New Development
If proposed for new development, is the practice included on NYSDEC list for Verified Proprietary	Yes	
Is the practice being designed off-line?	No	Practice must have adequate bypass capacity
If designed off-line, has flow diversion been		Not applicable
Enter Extreme Flood peak flow rate (cfs)	17.16	
Enter alternative practice bypass capacity (cfs)	17.7	
Enter name and manufacturer of alternative practice	Contech - CDS4030-8	

Sizing Criteria				
		Value	Units	Notes
Water Quality Peak Flow Rate	WQf	4.28	cfs	Taken from hydrologic modeling
Enter Maximum Treatment Flow Rate	Q	4.5	cfs	

Determine the Water Quality Volume Treated			
Water Quality Volume Treated	**7,650**	**cf**	

Flow Based Alternative Practice

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (ft^3)	**Precipitation** (in)	**Description**
4	5.28	2.63	50	0.50	14,302	1.50	Infiltration Basin

Design Criteria		
Is the alternative practice included in the NJCAT Verification Database, NJDEP list of approved Manufactured Treatment Devices or TAPE list of	Yes	
Is the flow based practice proposed for area of new development?	Yes	Practice must be included on NYSDEC list for Verified Proprietary Practices for New Development
If proposed for new development, is the practice included on NYSDEC list for Verified Proprietary	Yes	
Is the practice being designed off-line?	No	Practice must have adequate bypass capacity
If designed off-line, has flow diversion been		Not applicable
Enter Extreme Flood peak flow rate (cfs)	29.02	
Enter alternative practice bypass capacity (cfs)	29.11	
Enter name and manufacturer of alternative practice	Contech - CDS5640-10	

Sizing Criteria				
		Value	Units	Notes
Water Quality Peak Flow Rate	WQf	8.27	cfs	Taken from hydrologic modeling
Enter Maximum Treatment Flow Rate	Q	9	cfs	

Determine the Water Quality Volume Treated			
Water Quality Volume Treated	**14,302**	**cf**	

Flow Based Alternative Practice

Total Area	10.14	acres
Total Impervious	4.39	acres
Total RRv Provided	0	cf
Total WQv Provided	24,266	cf

Step 2 - Calculate Water Quality Volume (DP2)

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	No
What is the nature of this construction project?	New Construction

Design Point:	2		
P=	1.50	inches	*Enter 90% Rainfall Event as P*

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description		
1	6.09	4.12	68	0.66	21,831	Infiltration Basin		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
Total	6.09	4.12	68	0.66	**21831**	**Required WQv**	**0.50**	**af**

Steps 3 and 5 - Apply RR Techniques and Standard SMPs (DP2)

Runoff Reduction Volume and Treated Volumes						
	Runoff Reduction Techiques/Standard SMPs		**Total Contributing Area**	**Total Contributing Impervious Area**	**WQv Reduced (RRv)**	**WQv Treated**
			(acres)	**(acres)**	**(cf)**	**(cf)**
RR Techniques	Conservation of Natural Areas	RR-1	0.00		0	
	Sheet Flow to Riparian Buffer/Filter Strip	RR-2	0.00	0.00	0	
	Tree Planting/Tree Pit/Tree Trench	RR-3	0.00	0.00	0	
	Disconnection of Rooftop Runoff	RR-4		0.00	0	
	Vegetated Swale	RR-5	0.00	0.00	0	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rainwater Harvesting Systems	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Extensive & Intensive)	RR-10	0.00	0.00	0	
	Stream Daylighting	RR-11				
Standard SMPs w/ RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	6.09	4.12	21,831	0
	Dry Well	I-3	0.00	0.00	0	0
	Underground Infiltration System	I-4	0.00	0.00	0	0
	Infiltration Bioretention	F-4	0.00	0.00	0	0
	Filtration Bioretention	F-5	0.00	0.00	0	0
	Bioslope	F-6	0.00	0.00	0	0
	Dry swale	O-1	0.00	0.00	0	0
Standard SMPs	Micropool Extended Detention	P-1	0.00	0.00		0
	Wet Pond	P-2	0.00	0.00		0
	Wet Extended Detention	P-3	0.00	0.00		0
	Multiple Pond System	P-4	0.00	0.00		0
	Shallow Wetland	W-1	0.00	0.00		0
	Extended Detention Shallow Wetland	W-2	0.00	0.00		0
	Pond/Wetland System	W-3	0.00	0.00		0
	Pocket Wetland	W-4	0.00	0.00		0
	Gravel Wetland	W-5	0.00	0.00		0
	Surface Sand Filter	F-1	0.00	0.00		0
	Underground Sand Filter	F-2	0.00	0.00		0
	Perimeter Sand Filter	F-3	0.00	0.00		0
	Wet Swale	O-2	0.00	0.00		0
Alt. SMPs	Flow Based Alternative Practice	-	6.09	4.12		21,831
	Volume Based Alternative Practice	-				
	Totals by RR Technique	→	0.00	0.00	0	
	Totals by Standard SMP w/RRV	→	6.09	4.12	21,831	0
	Totals by Standard SMP	→	0.00	0.00		0
	Totals by Alternative SMP	→	6.09	4.12		21,831
	Totals (RR Techniques + all SMPs)	→	12.17	8.23	21,831	21,831

Step 4 - Calcuate Minimum RRv Required (DP2)

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B	4.12	40%
C		30%
D		20%
Total Area	4.116804706	

Calculate the Minimum RRv		
S =	**0.40**	
Impervious =	4.12	*acres*
Precipitation	1.50	*inches*
Rv	0.95	
Minimum RRv	**0.196**	***af***
	8538	cf

Infiltration Basin (I-2)

Design Point:	2

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	6.09	4.12	68	0.66	21,831	1.50	Infiltration Basin

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	2.925	
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?	No	
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?	No	
Maximum contributing area (acres)	10	
Is the contributing area greater than the maximum allowed contributing area?	No	
Enter depth to seasonal high water table (ft)	2	
Enter depth to bedrock (ft)	>2	
Enter pretreatment volume provided (cf)	21,858	
Enter depth of freeboard (ft)	>1	
Enter depth of basin (ft)	5	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv	21831	cf	
Basin depth	db	5.0	ft	
Required Surface Area	Ab	4,366	sf	
Enter Surface Area Provided	Ab	15362.2042	sf	

Determine Runoff Reduction		
RRv Provided	**21,831**	***cf***

Infiltration Basin (I-2)

Total Area	6.09	acres
Total Impervious	4	acres
Total RRv Provided	21,831	cf
Total WQv Provided	0	cf

Flow Based Alternative Practice

Design Point:	2

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (ft^3)	**Precipitation** (in)	**Description**
1	6.09	4.12	68	0.66	21,831	1.50	Infiltration Basin

Design Criteria		
Is the alternative practice included in the NJCAT Verification Database, NJDEP list of approved Manufactured Treatment Devices or TAPE list of Approved Technologies for General Use Level?	Yes	
Is the flow based practice proposed for area of new development?	Yes	Practice must be included on NYSDEC list for Verified Proprietary Practices for New Development
If proposed for new development, is the practice included on NYSDEC list for Verified Proprietary Practices for New Development?	Yes	
Is the practice being designed off-line?	No	Practice must have adequate bypass capacity
If designed off-line, has flow diversion been		Not applicable
Enter Extreme Flood peak flow rate (cfs)	38.32	
Enter alternative practice bypass capacity (cfs)	38.32	
Enter name and manufacturer of alternative practice	Contech - CDS5668-10	

Sizing Criteria				
		Value	Units	Notes
Water Quality Peak Flow Rate	WQf	14.14	cfs	Taken from hydrologic modeling
Enter Maximum Treatment Flow Rate (MTFR) of Alternative Practice	Q	19	cfs	

Determine the Water Quality Volume Treated			
Water Quality Volume Treated	**21,831**	**cf**	

Flow Based Alternative Practice

Total Area	6.09	acres
Total Impervious	4.12	acres
Total RRv Provided	0	cf
Total WQv Provided	21,831	cf

Step 2 - Calculate Water Quality Volume (DP3)

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	No
What is the nature of this construction project?	New Construction

Design Point:	3	
P=	1.50	inches

Enter 90% Rainfall Event as P

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1	5.05	3.06	61	0.60	16,362	Infiltration Basin
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	5.05	3.06	61	0.60	**16362**	**Required WQv**	**0.38**	**af**

Steps 3 and 5 - Apply RR Techniques and Standard SMPs (DP3)

Runoff Reduction Volume and Treated Volumes						
	Runoff Reduction Techiques/Standard SMPs		**Total Contributing Area**	**Total Contributing Impervious Area**	**WQv Reduced (RRv)**	**WQv Treated**
			(acres)	**(acres)**	**(cf)**	**(cf)**
RR Techniques	Conservation of Natural Areas	RR-1	0.00		0	
	Sheet Flow to Riparian Buffer/Filter Strip	RR-2	0.00	0.00	0	
	Tree Planting/Tree Pit/Tree Trench	RR-3	0.00	0.00	0	
	Disconnection of Rooftop Runoff	RR-4		0.00	0	
	Vegetated Swale	RR-5	0.00	0.00	0	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rainwater Harvesting Systems	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Extensive & Intensive)	RR-10	0.00	0.00	0	
	Stream Daylighting	RR-11				
Standard SMPs w/ RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	5.05	3.06	16,362	0
	Dry Well	I-3	0.00	0.00	0	0
	Underground Infiltration System	I-4	0.00	0.00	0	0
	Infiltration Bioretention	F-4	0.00	0.00	0	0
	Filtration Bioretention	F-5	0.00	0.00	0	0
	Bioslope	F-6	0.00	0.00	0	0
	Dry swale	O-1	0.00	0.00	0	0
Standard SMPs	Micropool Extended Detention	P-1	0.00	0.00		0
	Wet Pond	P-2	0.00	0.00		0
	Wet Extended Detention	P-3	0.00	0.00		0
	Multiple Pond System	P-4	0.00	0.00		0
	Shallow Wetland	W-1	0.00	0.00		0
	Extended Detention Shallow Wetland	W-2	0.00	0.00		0
	Pond/Wetland System	W-3	0.00	0.00		0
	Pocket Wetland	W-4	0.00	0.00		0
	Gravel Wetland	W-5	0.00	0.00		0
	Surface Sand Filter	F-1	0.00	0.00		0
	Underground Sand Filter	F-2	0.00	0.00		0
	Perimeter Sand Filter	F-3	0.00	0.00		0
	Wet Swale	O-2	0.00	0.00		0
Alt. SMPs	Flow Based Alternative Practice	-	5.05	3.06		16,362
	Volume Based Alternative Practice	-				
	Totals by RR Technique	→	0.00	0.00	0	
	Totals by Standard SMP w/RRV	→	5.05	3.06	16,362	0
	Totals by Standard SMP	→	0.00	0.00		0
	Totals by Alternative SMP	→	5.05	3.06		16,362
	Totals (RR Techniques + all SMPs)	→	10.09	6.12	16,362	16,362

Step 4 - Calcuate Minimum RRv Required (DP3)

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B	3.06	40%
C		30%
D		20%
Total Area	3.058477204	

Calculate the Minimum RRv		
S =	**0.40**	
Impervious =	3.06	*acres*
Precipitation	1.50	*inches*
Rv	0.95	
Minimum RRv	**0.145**	***af***
	6316	cf

Infiltration Basin (I-2)

Design Point:	3

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	5.05	3.06	61	0.60	16,362	1.50	Infiltration Basin

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	8.3	
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?	No	
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?	No	
Maximum contributing area (acres)	25	
Is the contributing area greater than the maximum allowed contributing area?	No	
Enter depth to seasonal high water table (ft)	NE	
Enter depth to bedrock (ft)	NE	
Enter pretreatment volume provided (cf)	16,431	
Enter depth of freeboard (ft)	>1	
Enter depth of basin (ft)	4	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv	16362	cf	
Basin depth	db	4.0	ft	
Required Surface Area	Ab	4,091	sf	
Enter Surface Area Provided	Ab	10898.0437	sf	

Determine Runoff Reduction		
RRv Provided	**16,362**	***cf***

Infiltration Basin (I-2)

Design Point:	3

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
						1.50	

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)		
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?		
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?		This practice cannot be used for hotspot treatment
Maximum contributing area (acres)	0	
Is the contributing area greater than the maximum allowed contributing area?		
Enter depth to seasonal high water table (ft)		
Enter depth to bedrock (ft)		
Enter pretreatment volume provided (cf)		
Enter depth of freeboard (ft)		
Enter depth of basin (ft)		
Enter slope of maintenance access (%)		
Enter width of maintenance access (ft)		

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv		cf	
Basin depth	db	0.0	ft	
Required Surface Area	Ab	#VALUE!	sf	
Enter Surface Area Provided	Ab		sf	

Determine Runoff Reduction		
RRv Provided	**0**	***cf***

Infiltration Basin (I-2)

Design Point:	3

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
						1.50	

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)		
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?		
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?		This practice cannot be used for hotspot treatment
Maximum contributing area (acres)	0	
Is the contributing area greater than the maximum allowed contributing area?		
Enter depth to seasonal high water table (ft)		
Enter depth to bedrock (ft)		
Enter pretreatment volume provided (cf)		
Enter depth of freeboard (ft)		
Enter depth of basin (ft)		
Enter slope of maintenance access (%)		
Enter width of maintenance access (ft)		

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv		cf	
Basin depth	db	0.0	ft	
Required Surface Area	Ab	#VALUE!	sf	
Enter Surface Area Provided	Ab		sf	

Determine Runoff Reduction		
RRv Provided	**0**	***cf***

Infiltration Basin (I-2)

Design Point:	3

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
						1.50	

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)		
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?		
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?		This practice cannot be used for hotspot treatment
Maximum contributing area (acres)	0	
Is the contributing area greater than the maximum allowed contributing area?		
Enter depth to seasonal high water table (ft)		
Enter depth to bedrock (ft)		
Enter pretreatment volume provided (cf)		
Enter depth of freeboard (ft)		
Enter depth of basin (ft)		
Enter slope of maintenance access (%)		
Enter width of maintenance access (ft)		

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv		cf	
Basin depth	db	0.0	ft	
Required Surface Area	Ab	#VALUE!	sf	
Enter Surface Area Provided	Ab		sf	

Determine Runoff Reduction		
RRv Provided	**0**	***cf***

Infiltration Basin (I-2)

Design Point:	3

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
						1.50	

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)		
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?		
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?		This practice cannot be used for hotspot treatment
Maximum contributing area (acres)	0	
Is the contributing area greater than the maximum allowed contributing area?		
Enter depth to seasonal high water table (ft)		
Enter depth to bedrock (ft)		
Enter pretreatment volume provided (cf)		
Enter depth of freeboard (ft)		
Enter depth of basin (ft)		
Enter slope of maintenance access (%)		
Enter width of maintenance access (ft)		

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv		cf	
Basin depth	db	0.0	ft	
Required Surface Area	Ab	#VALUE!	sf	
Enter Surface Area Provided	Ab		sf	

Determine Runoff Reduction		
RRv Provided	**0**	***cf***

Infiltration Basin (I-2)

Total Area	5.05	acres
Total Impervious	3	acres
Total RRv Provided	16,362	cf
Total WQv Provided	0	cf

Flow Based Alternative Practice

Design Point:	3

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (ft^3)	**Precipitation** (in)	**Description**
1	5.05	3.06	61	0.60	16,362	1.50	Infiltration Basin

Design Criteria		
Is the alternative practice included in the NJCAT Verification Database, NJDEP list of approved Manufactured Treatment Devices or TAPE list of Approved Technologies for General Use Level?	Yes	
Is the flow based practice proposed for area of new development?	Yes	Practice must be included on NYSDEC list for Verified Proprietary Practices for New Development
If proposed for new development, is the practice included on NYSDEC list for Verified Proprietary Practices for New Development?	Yes	
Is the practice being designed off-line?	No	Practice must have adequate bypass capacity
If designed off-line, has flow diversion been		Not applicable
Enter Extreme Flood peak flow rate (cfs)	30.24	
Enter alternative practice bypass capacity (cfs)	30.25	
Enter name and manufacturer of alternative practice	Contech - CDS5653-10	

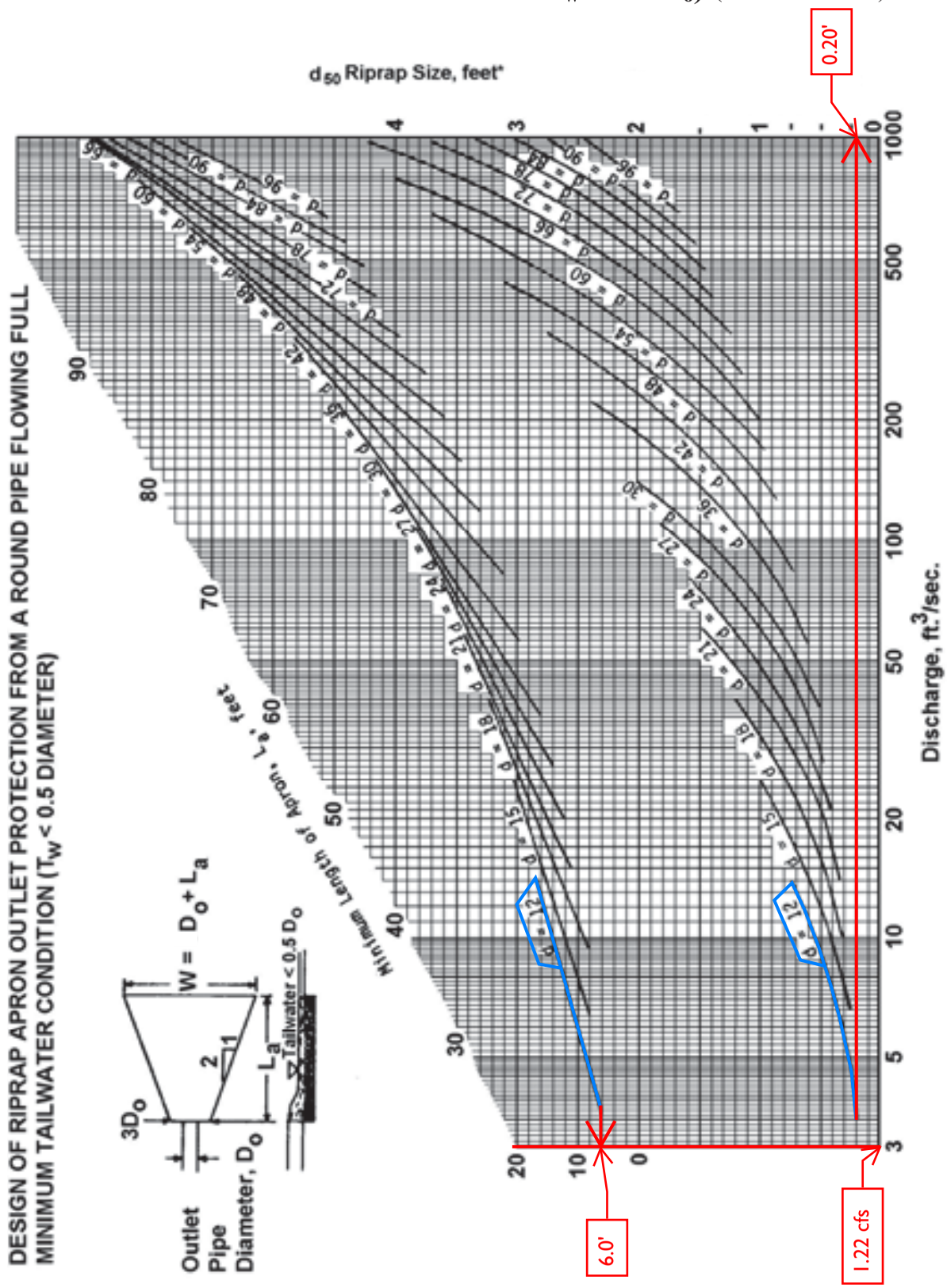
Sizing Criteria				
		Value	Units	Notes
Water Quality Peak Flow Rate	WQf	10.05	cfs	Taken from hydrologic modeling
Enter Maximum Treatment Flow Rate (MTFR) of Alternative Practice	Q	14	cfs	

Determine the Water Quality Volume Treated			
Water Quality Volume Treated	**16,362**	**cf**	

Flow Based Alternative Practice

Total Area	5.05	acres
Total Impervious	3.06	acres
Total RRv Provided	0	cf
Total WQv Provided	16,362	cf

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)



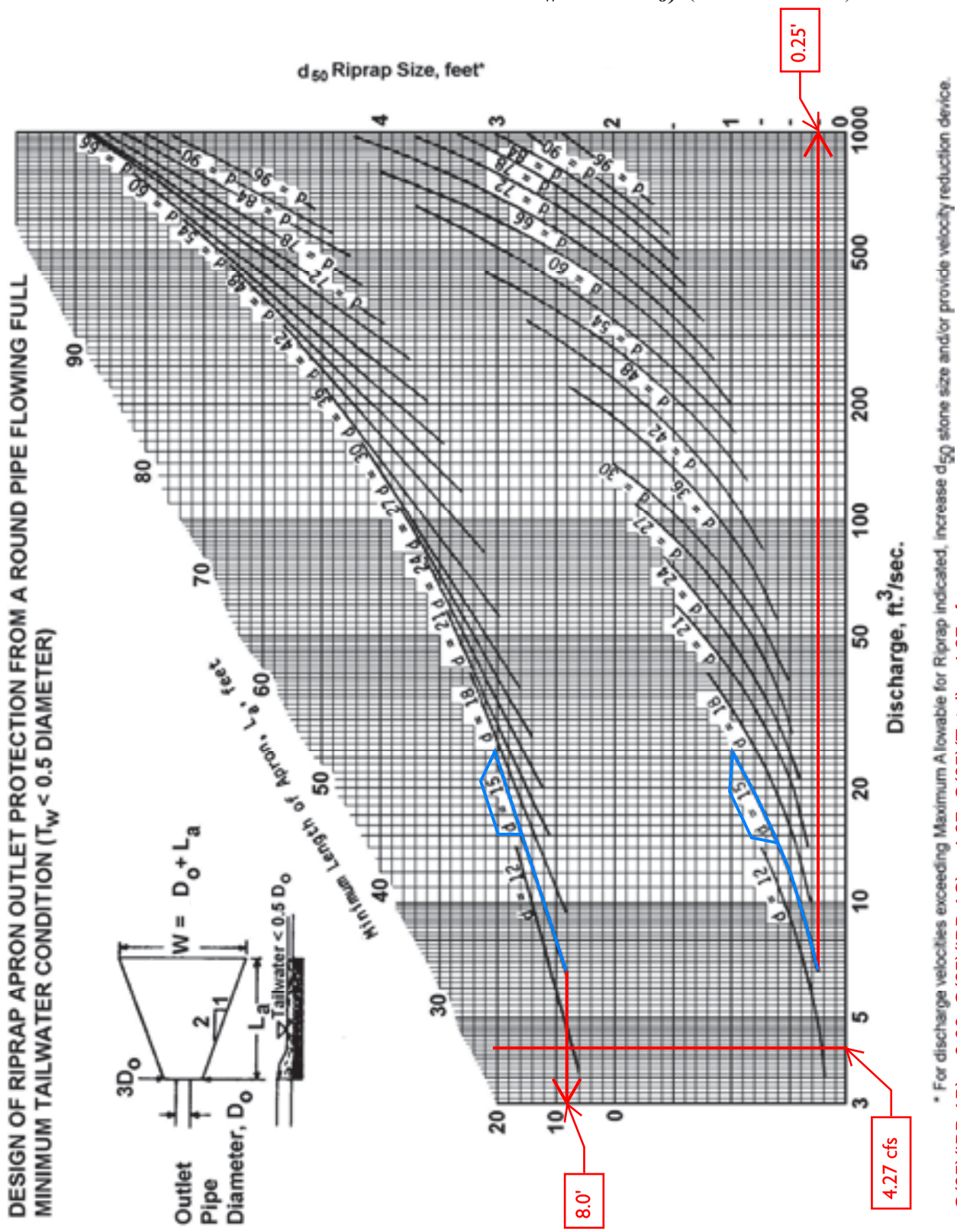
* For discharge velocities exceeding Maximum Allowable for Riprap indicated, increase d_{50} stone size and/or provide velocity reduction device.

Trapezoidal Channel: W = 6', Z = 3:1, Flow area = 9.1 sf, Flow depth (25) = 12.1" = 1.0' use 12" diameter pipe for equivalent flow.
Q(25)(VS) = 12.59, Q(25)(IB-1D) = 1.63, Q(25)(Total) = 14.22 cfs
V = Q/A = 14.22 / 9.1 = 1.56 fps -> Q = $\pi D^2/4$ * V = $\pi(1^2)/4$ * 1.56 = 1.22 cfs
3Do = 3(1.0') = 3.0'
La = 6.0'
W = Do + La = (1.0') + (6.0') = 7.0'
d_{50} = 0.20' (2.4") use 0.25' (3"), dmax = 0.375' (4.5"), T = 0.5625' (6.75") use 0.58' (7")

July 2025

21090 Vegetated Swale

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

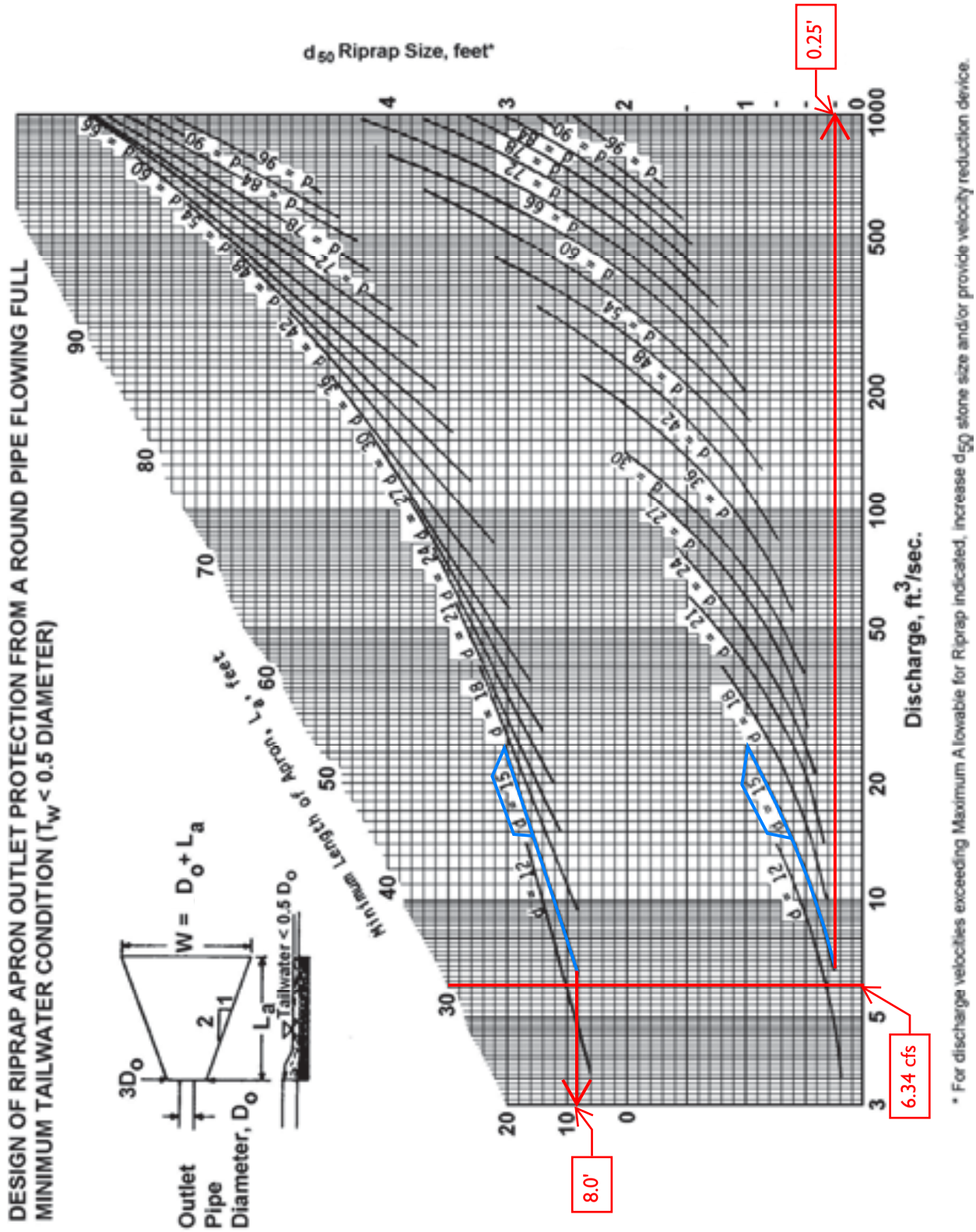


Q(25)(IBB-1B) = 0.00, Q(25)(IBB-1C) = 4.27, Q(25)(Total) = 4.27 cfs
3Do = 3(1.25') = 3.75'
La = 8.0'
W = Do + La = (1.25') + (8.0') = 9.25'
d_{50} = 0.25' (3"), dmax = 0.375' (4.5"), T = 0.5625' (6.75") use 0.58' (7")

July 2025

21090 ES A-1
Infiltration Bioretention Basin 1B, Infiltration Bioretention Basin 1C

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

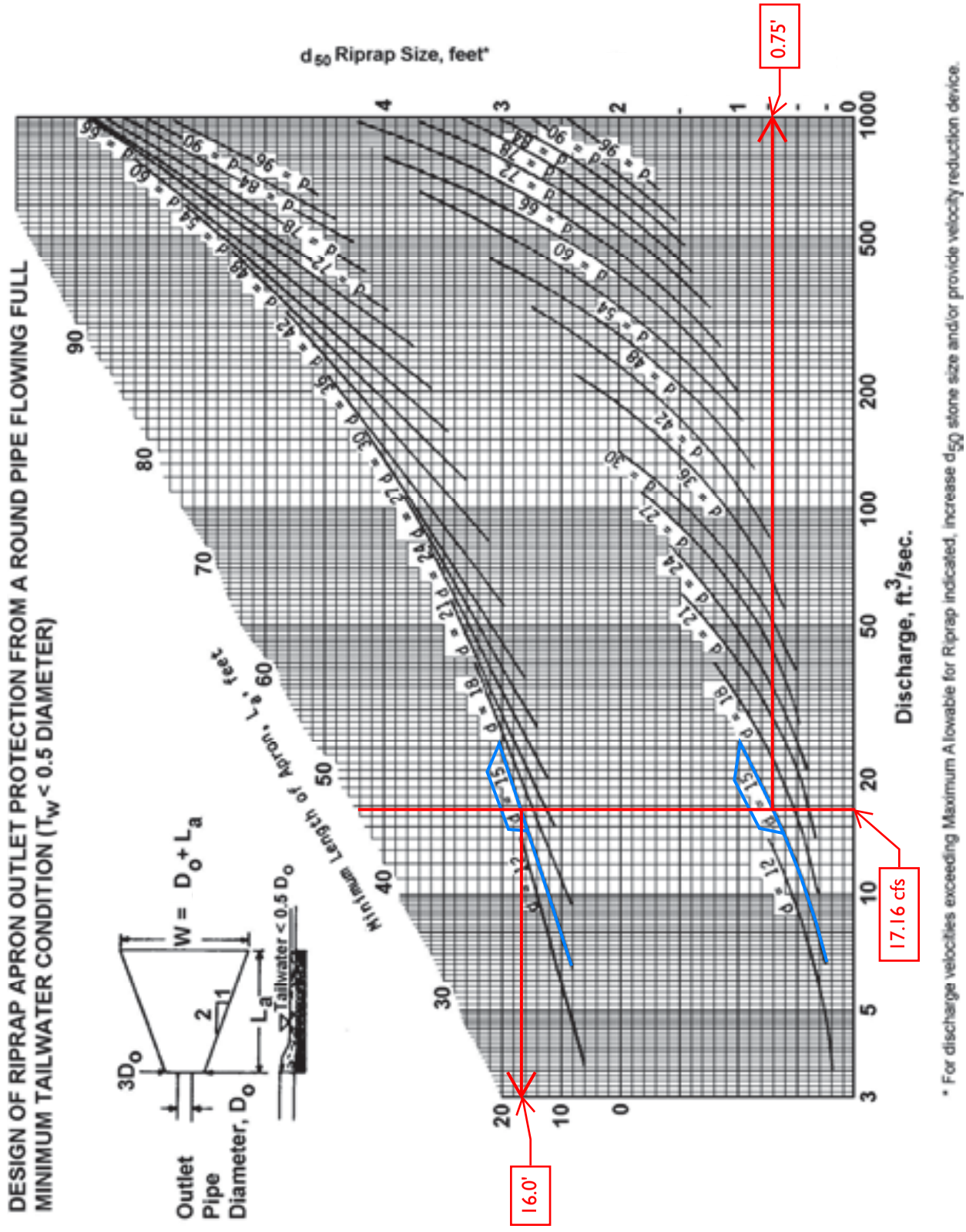


July 2025

21090 ES 1B-2 Outfall
Infiltration Bioretention Area 1B

Do = 15" = 1.25'
Q(25) = 6.34 cfs
3Do = 3(1.25') = 3.75'
La = 8.0'
W = Do + La = (1.25') + (8.0') = 9.25'
d_{50} = 0.25' (3"), dmax = 0.375' (4.5"), T = 0.5625' (6.75") use 0.58' (7")

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

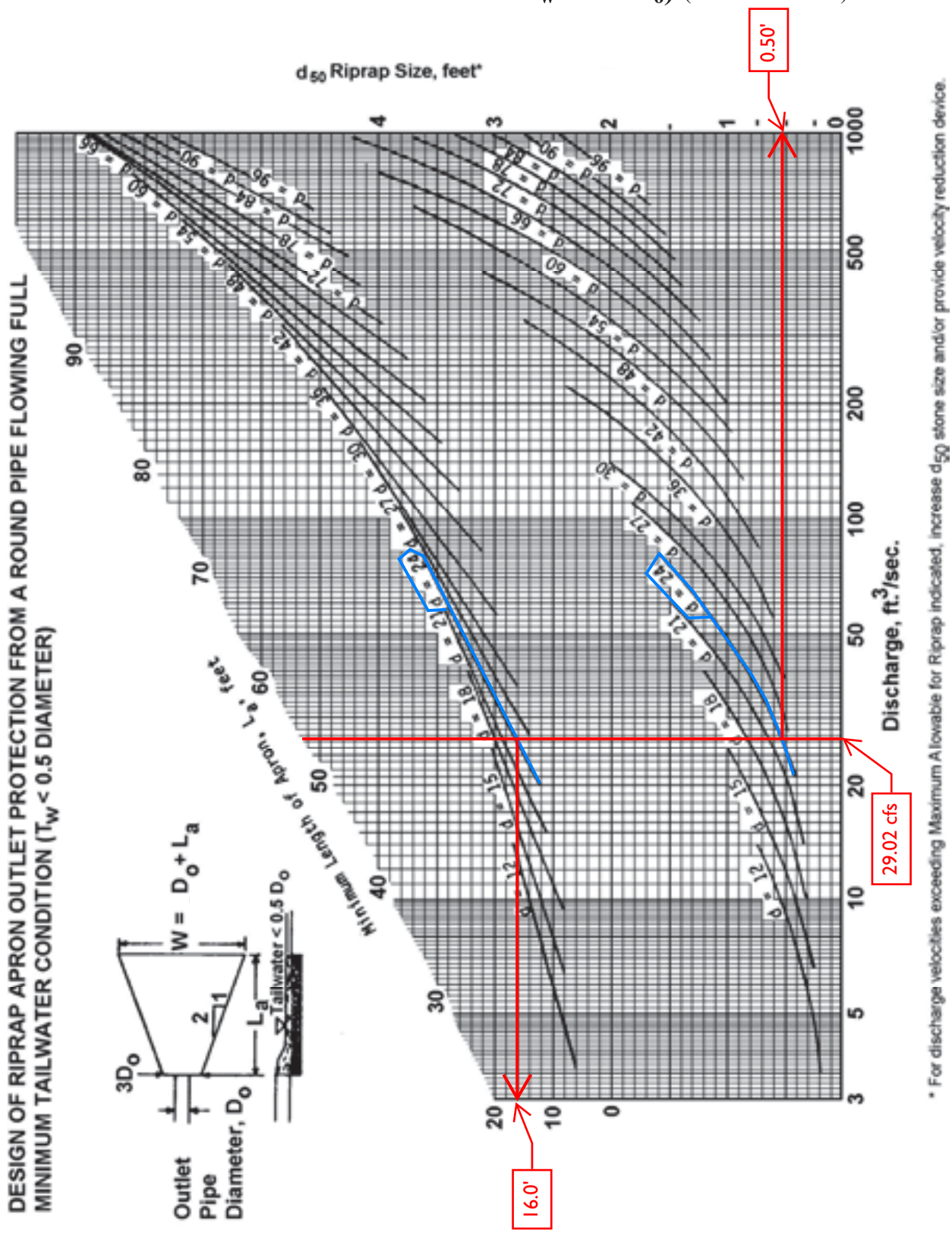


Do = 15" = 1.25'
Q(25) = 17.16 cfs
3Do = 3(1.25') = 3.75'
La = 16.0'
W = Do + La = (1.25') + (16.0') = 17.25'
d_{50} = 0.75' (9"), dmax = 1.13' (13.5") use 1.17' (14") , T = 1.75' (21")

July 2025

21090 Infiltration Bioretention Area 1C Outfalls

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

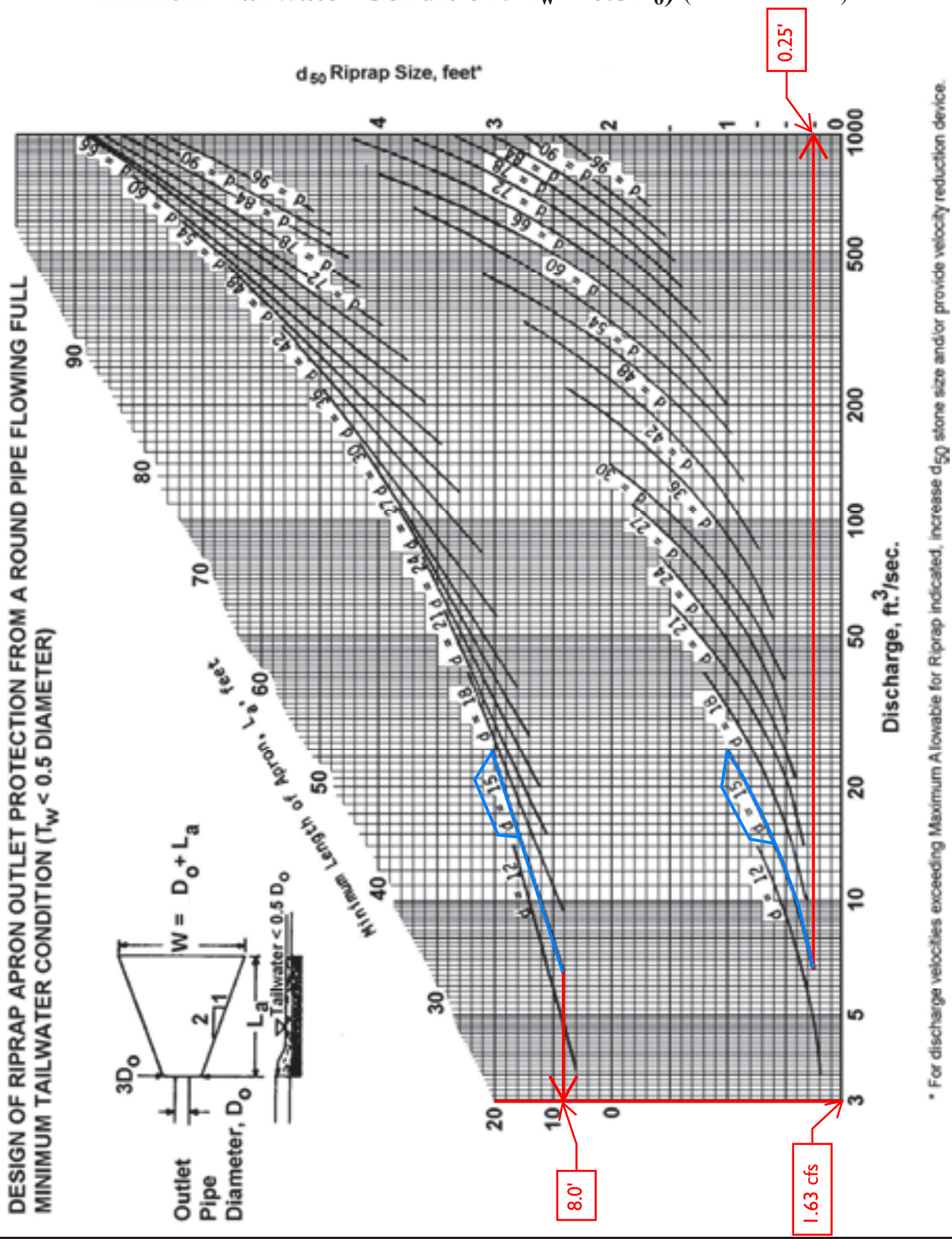


Do = 24" = 2.0'
Q(25) = 29.02
3Do = 3(2.0') = 6.0'
La = 16.0'
W = Do + La = (2.0') + (16.0') = 18.0'
d_{50} = 0.50' (6"), dmax = 0.75' (9"), T = 1.13' (13.5"), use 1.17' (14")

July 2025

21090 ES 1D-3 Outfall
Stormwater Management Basin (1D - Infiltration)

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

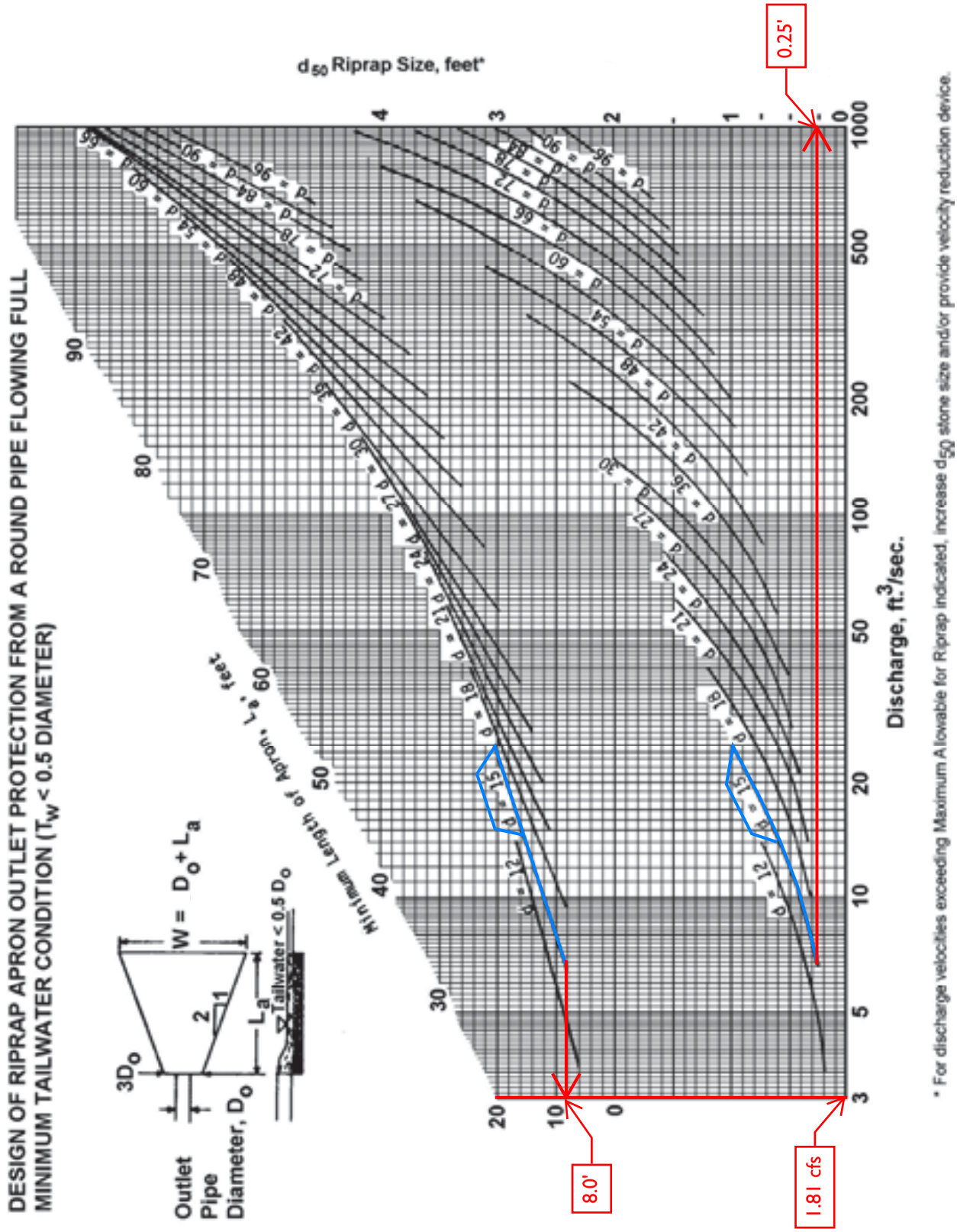


July 2025

21090 ES 1D-1 Outfall
Stormwater Management Basin (1D - Infiltration)

Do = 15" = 1.25'
Q(25) = 1.63 cfs
3Do = 3(1.25') = 3.75'
La = 8.0'
W = Do + La = (1.25') + (8.0') = 9.25'
d_{50} = 0.25' (3"), dmax = 0.38' (4.5"), T = 0.5625' (6.75") use 0.58' (7")

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

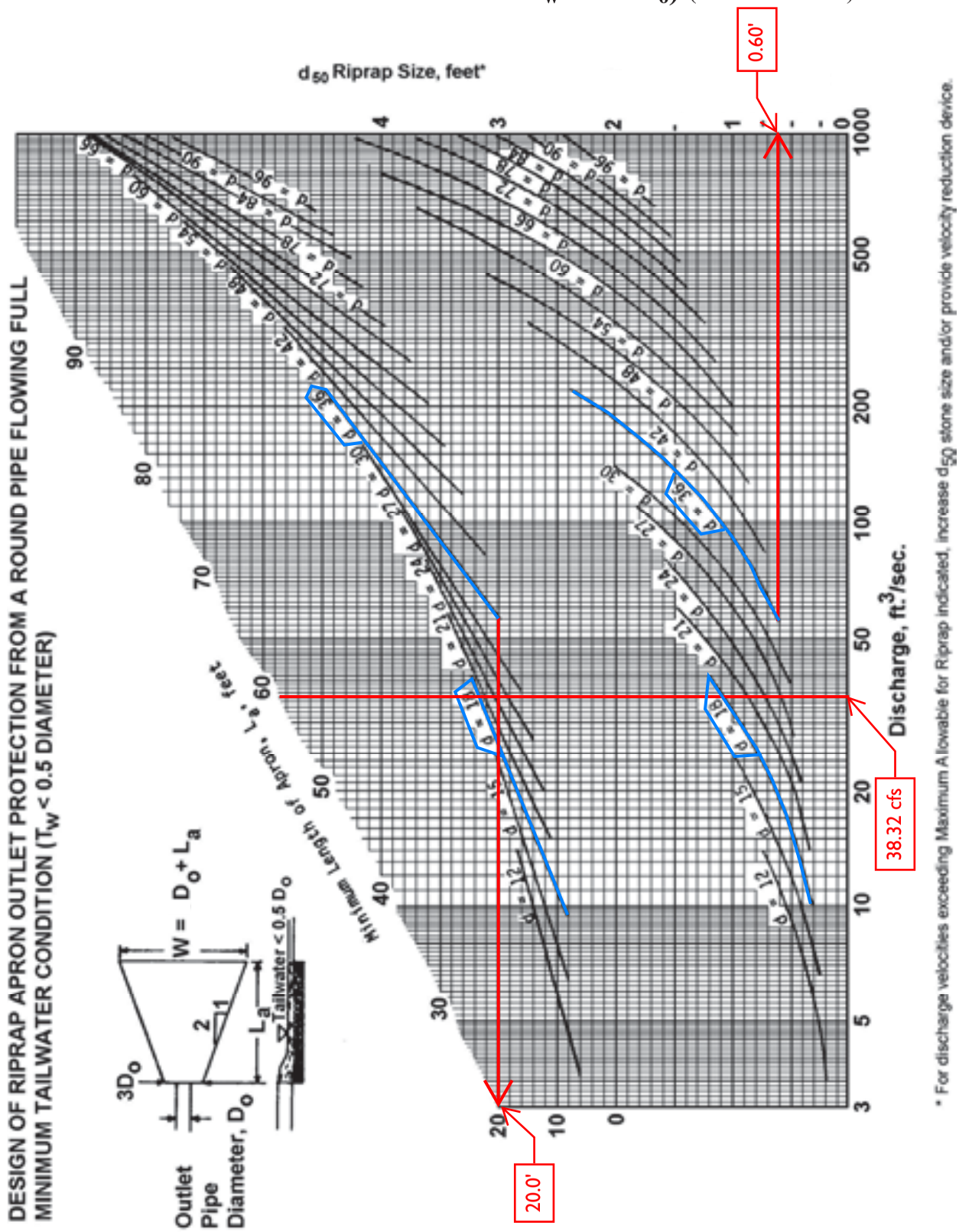


Do = 15" = 1.25'
Q(25) = 1.81
3Do = 3(1.25') = 4.75'
La = 8.0'
W = Do + La = (1.25') + (8.0') = 9.25'
d_{50} = 0.25' (3"), dmax = 0.38' (4.5"), T = 0.5625' (6.75") use 0.58' (7")

July 2025

21090 ES 2B-1 Outfall
Stormwater Management Basin (2B - Infiltration)

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

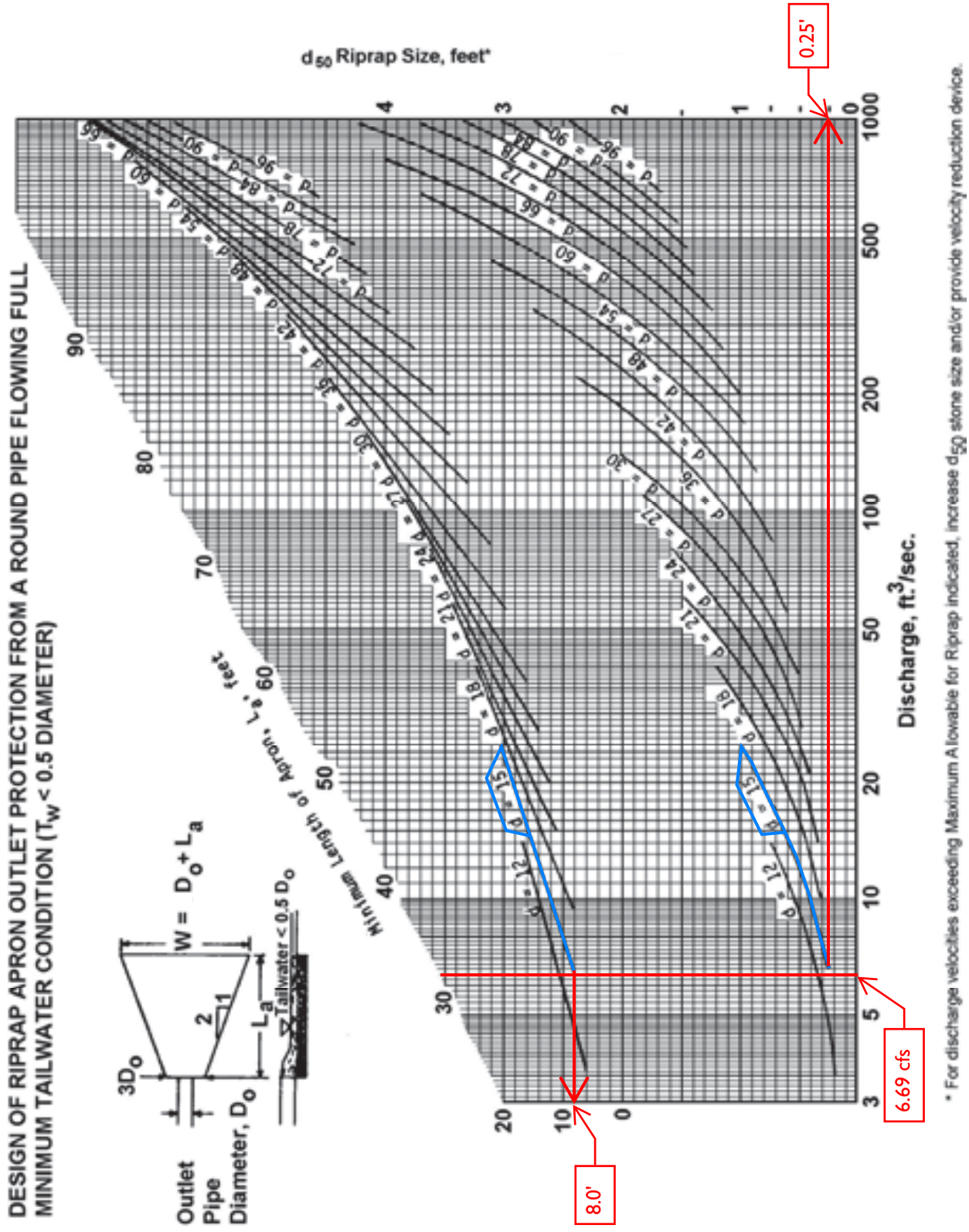


Do = 36" = 3.0'
Q(25) = 38.32
3Do = 3(3.0') = 9.0'
La = 20.0'
W = Do + La = (3.0') + (20.0') = 23.0'
d_{50} = 0.60' (7.2") 0.67' (8"), dmax = 1.00' (12"), T = 1.5' (18")

July 2025

21090 ES 2B-3 Outfall
Stormwater Management Basin (2B - Infiltration)

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

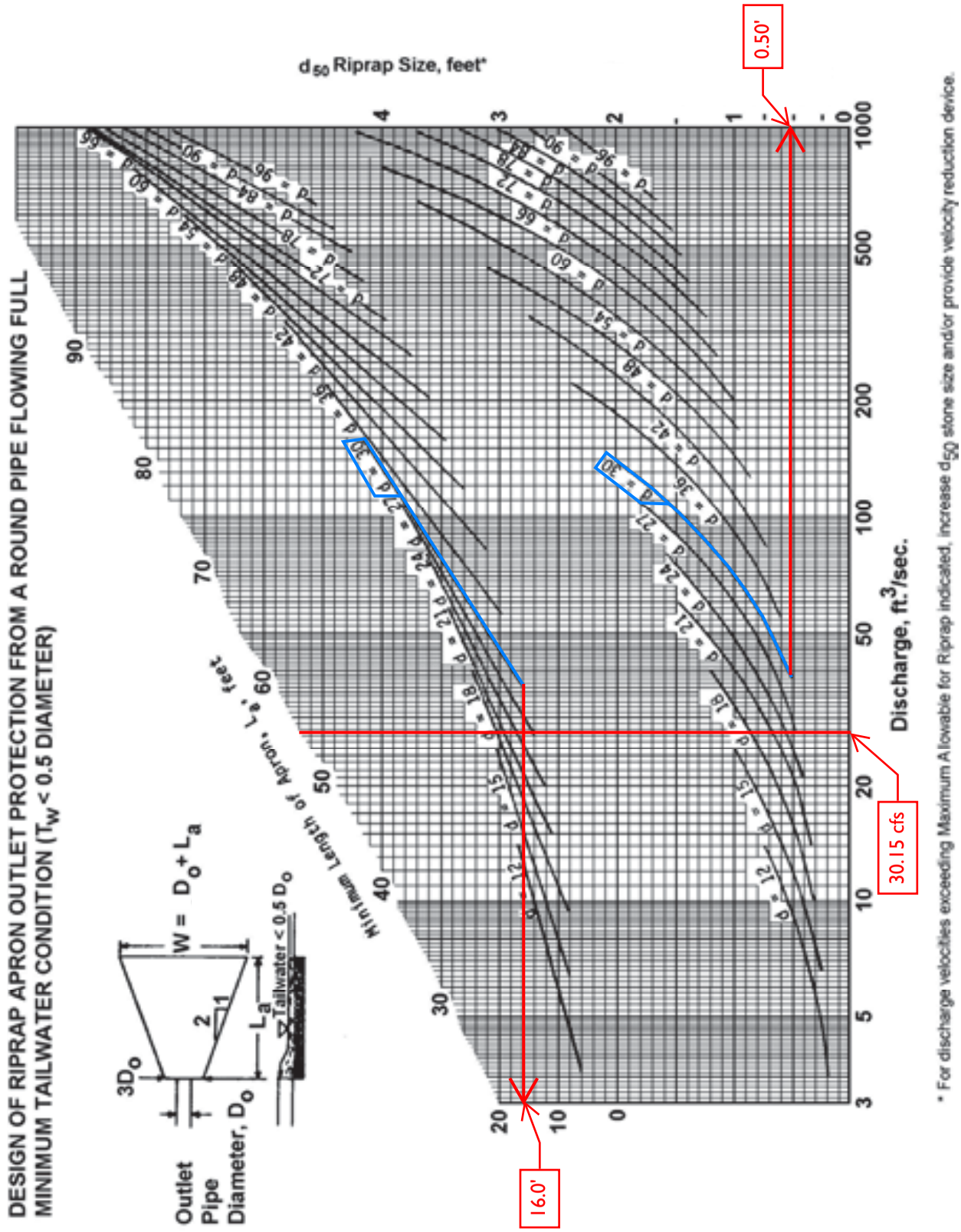


July 2025

21090 ES 3A-1 Outfall
Stormwater Management Basin (3A - Infiltration)

Do = 15" = 1.25'
Q(25) = 0.00 ; using Q(100) = 6.69
3Do = 3(1.25') = 4.75'
La = 8.0'
W = Do + La = (1.25') + (8.0') = 9.25'
d_{50} = 0.25' (3"), dmax = 0.375' (4.5"), T = 0.5625' (6.75") use 0.58' (7")

Figure 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)



July 2025

21090 ES 3A-3 Outfall
Stormwater Management Basin (3A - Infiltration)

Do = 30" = 2.5'
Q(25) = 30.15
3Do = 3(2.5') = 7.5'
La = 16.0'
W = Do + La = (1.25') + (16.0') = 17.25'
d_{50} = 0.50' (6"), dmax = 0.75' (9"), T = 1.125' (13.5") use 1.17' (14")

Appendix 'C' – NYSDEC Blue Book Calculations - Proposed Level Spreader

The proposed level spreader has been designed in accordance with Section 3-19, "Flow Spreader", of the New York State Standards and Specifications for Erosion and Sediment Control (2016) (Blue Book). Per this design manual, the 10-year storm is the design flow, however, the 25-year or 100-year storm was used in the calculations.

The peak stormwater flow rate to a flow spreader due to runoff from a 10-year, 24-hour storm event must be less than 0.5 cubic feet per second per foot length of the flow spreader lip.

Stormwater Management Basin 2B - Infiltration

$Q_{25} = 1.81\ cfs$ (Based on the outflow into the level spreader)

The required flow spreader lip length is:

$$L_R = \frac{Q_{25}\ cfs}{0.5\ {}^{cfs}/_{ft}} = \frac{1.81\ cfs}{0.5\ {}^{cfs}/_{ft}} = 3.62\ ft$$

Based on the proposed design, the provided flow spreader lip length is:

$L_P = 30\ ft$

Therefore, the proposed flow spreader meets the requirements of Section 3-19, "Flow Spreader", of the Blue Book.

Stormwater Management Basin 3A - Infiltration

$Q_{25} = 0.00\ cfs$ (Based on the outflow into the level spreader) ;
Using the 100-year storm $Q_{100} = 6.69\ cfs$

The required flow spreader lip length is:

$$L_R = \frac{Q_{100}\ cfs}{0.5\ {}^{cfs}/_{ft}} = \frac{6.69\ cfs}{0.5\ {}^{cfs}/_{ft}} = 13.38\ ft$$

Based on the proposed design, the provided flow spreader lip length is:

$L_P = 30\ ft$

Therefore, the proposed flow spreader meets the requirements of Section 3-19, "Flow Spreader", of the Blue Book.

APPENDIX D

SOIL TESTING DATA & WEB SOIL SURVEY

SESI
CONSULTING ENGINEERS

Geotechnical
Environmental
Site Civil

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Parsippany, NJ 07054
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GEOTECHNICAL INVESTIGATION REPORT

For

Proposed Mixed-Use Development
Letchworth Institution
2 Ridge Road, Haverstraw, NY 10927

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Assistant Project Engineer I

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Prepared for:
BNE Real Estate

March 6, 2024

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SESI Project No:
13390

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DRAWING

DRAWING NO. 1 Exploration Location Plan

APPENDICES

APPENDIX A SESI Test Pit Logs
SESI Test Boring Logs
SESI Soil Classification and Exploration Log Key

APPENDIX B SESI Laboratory Test Data

1.0 INTRODUCTION

SESI Consulting Engineers (SESI) recently completed a geotechnical investigation and infiltration testing program for the Proposed Mixed-Use Development to be located at 2 Ridge Road, Haverstraw, New York. This report summarizes SESI's geotechnical investigation, our findings, and our foundation design recommendations for the proposed development. The report also presents recommendations regarding other construction-related aspects of the proposed development, such as site preparation, groundwater control, and utility support. All elevations given in this report are referenced from the North American Vertical Datum of 1988 (NAVD-88) unless otherwise noted.

2.0 PROJECT DESCRIPTION

2.1 Site and Surrounding Conditions

According to the *Test Pit Map (Existing Conditions)*, prepared by JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC, dated November 9, 2023, the overall site covers approximately 22.7± acres and is bounded to the north by Letchworth National Historic preserve, to the east by unoccupied wooded land and commercial and residential buildings beyond, to the south by Letchworth Village Road, and to the west by the Letchworth Village campus. The site is mostly open grassed areas with asphaltic pavement and gravel roadways. An abandoned garage structure is located in the northern portion of the site. The north and east sides of the site are densely wooded. According to the existing conditions plan, the site has a high elevation of approximately EL +460 near the center of the site, moderately grading down to a low elevation of approximately EL +420 toward the southeast corner of the site. Along the south edge, the slope sharply drops to approximately EL +392.

2.2 Proposed Development

According to the *Test Pit Map (Proposed Conditions)*, prepared by JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC, dated November 9, 2023, we understand the proposed development consists of six (6) proposed four-story apartment buildings with three residential stories above the below grade garages, one (1) single-story clubhouse with an outdoor pool, a tennis court, a pickleball court, parking lots, and typical appurtenant site improvements. The proposed apartment buildings are labeled Buildings 1 through 6, with two layouts labelled "Building Type A" and "Building Type B". Buildings 1, 4, 5, and 6 are Type A with a footprint area of approximately 25,570± square feet, and Buildings 2 and 3 are Type B with a footprint area of approximately 19,700± square feet. The proposed clubhouse has a footprint of approximately 8,000± square feet. We understand the proposed finished floor elevations for the garage floor slabs of the proposed apartment buildings range from EL +431 to EL +449. In addition, there are four (4) proposed stormwater infiltration basins with elevations ranging from EL +424 to EL +434. The northwest basin was eliminated due to the groundwater level encountered during the exploration. Based on the provided existing grades, the proposed finished floor elevations, and the proposed bottom of basin elevations, we anticipate cuts and fills of approximately 21± feet and 11± feet, respectively to reach the proposed grades.

We were not provided with any structural foundation loads for the proposed construction. For the purposes of this report, we have assumed typical lightly loaded wall, floor, and column loading for the proposed buildings. Once final plans are completed, we should be provided with an opportunity to review the plans to confirm that our recommendations remain valid.

3.0 AVAILABLE INFORMATION REVIEW

We obtained and reviewed available FEMA flood map, historic topographic maps, and geologic maps for the site.

- FEMA Flood Insurance Rate Map - We researched and reviewed FEMA Preliminary Flood Insurance Rate Maps, Community Panel Number 36087C0084G (Effective as of March 3, 2014). The flood map indicates the site is located beyond the 0.2% annual chance flood plain. The Civil Engineer should confirm this.

- Historic Aerial Photographs – Historic aerial photographs indicate that the site was only partially developed prior to 1952. A structure located toward the center east of the site, at the end of the access road, was constructed prior to 1952. The building was demolished between 2010 and 2011.

- Geological Mapping – We reviewed the *Surficial Geologic Map of New York, Lower Hudson Sheet*, by Donald H. Cadwell, dated 1989, which indicates that the surficial geology of the site most likely contains glacial till soils consisting of poorly sorted loamy sands deposited beneath glacier ice, and outwash sands and gravels. According to the *Geologic Map of New York State, Lower Hudson Sheet*, by Fisher, D.W. et al, dated 1970, the glacial soils are underlain by hornblende granite and granitic gneiss.

4.0 SUBSURFACE INVESTIGATION AND LABORATORY PROGRAM

4.1 Field Investigation

Our engineering study consisted of a review of existing soils and geologic data, and a field investigation consisting of forty-one (41) test pits and six (6) test borings performed between January 29, 2024, and February 2, 2024. The test pits were excavated to depths ranging from approximately 11± to 15± feet below the existing ground surface using a track-mounted Komatsu PC 200 excavator, provided by BNE Real Estate (BNE). The test borings were drilled to depths ranging from approximately 12± to 20± feet below the existing ground surface using a subcontracted track-mounted Bombardier CME Rig. The approximate locations of the test pits and test borings are shown on the *Exploration Location Plan*, which is included as **Drawing 1**. The explorations performed within the proposed basins and infiltration test areas were documented per USDA classification, and the explorations performed throughout the rest of the site were classified using the modified Burmister system as shown on the SESI Soils Classification and Exploration Log Key. The individual test pit logs and test boring logs, which describe the materials encountered, along with the SESI Soils Classification and Exploration Log Key, are presented in **Appendix A**.

Soil samples suitable for identification purposes were extracted from the test pits at various intervals, and from the SPT borings at closely spaced intervals in accordance with the Standard Penetration Test (ASTM D1586-11). For the Standard Penetration Test, a standard split-spoon sampler (2 inches outside diameter, one and three-eighths inches inside diameter) is driven into the soil by a 140-pound weight falling 30 inches. After discounting the initial six inches of penetration due to possible disturbance of the material resulting from the drilling operation, the number of blows required to advance the sampler a distance of 12 inches is recorded and designated as the standard penetration resistance or “N” value. The “N” value is an indication of the relative compactness of the soil in-situ.

All field work was performed under the full-time technical observation of geotechnical engineers from SESI Consulting Engineers. Our representatives located previously staked exploration locations in the field, noted the marked elevations, maintained continuous logs of the explorations as work proceeded, and coordinated the soil sampling operations in order to develop the required subsurface information. Ground surface elevations were surveyed previously and provided on the *Sketch Map,* prepared by Ward Carpenters Engineers, Inc., dated January 25, 2024.

4.2 Stormwater Management Feasibility Infiltration Testing

Four (4) of the six (6) profile test borings and ten (10) of the 41 profile test pits, were performed in the proposed basins and other proposed infiltration areas requested by BNE. A total of eleven (11) soil infiltration tests were performed in the exploration locations. Initially one (1) test was performed in each of the infiltration areas. Based on favorable soil conditions, additional tests were performed to meet NYS stormwater management requirements.

The profile test borings were drilled using a track-mounted Bombardier CME Rig. The profile test pits were explored using a track-mounted Komatsu PC 200 excavator. The soil infiltration tests were performed at depths ranging from approximately 2± to 11± feet below the ground surface, which correlates to elevations ranging from approximately EL +425.5 to EL +441. Soils observed in these explorations were documented per the USDA classification system.

The initial stormwater management feasibility testing was done in general accordance with the requirements of the 2015 New York State Stormwater Management Design Manual, which requires a frequency of at least one (1) field test per basin. Table 1 presents a summary of the test results.

Table 1: Infiltration Test Result Summary Table

Basin Location	Bottom of Basin EL (ft)	Location Number	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Infiltration Test EL (ft)	Infiltration Rate (in/hr)
Southwest Basin	424 (original)	BP-1	2.0	427.5	Cancelled[1]	-
		TP-1	5.0	423.2	425.5	**13.25**
		TP-2	7.0	422.5	425.5	**15.50**
Southeast Basin	432 (original)	BP-2	N.E.	N.E.	432.0	**>24**
		TP-6	8.5[3]	430.2	432.0	**10.50**
		TP-7	8.0[3]	436.2	432.0	**0.50**
		TP-8	N.E.	N.E.	432.0	**9.75**
Northeast Basin	434	BP-3	N.E.	N.E.	432.0	**9.50**
		TP-21	N.E.	N.E.	432.0	**9.50**
		TP-22	N.E.	N.E.	432.0	**8.75**
		TP-27	N.E.	N.E.	Cancelled[2]	-
Additional Tests	N/A	BP-6	6.0	437.4	441.0	**3.00**
		TP-36	11.0	440.4	442.5	**0.25**

[1]: BP-1 Cancelled per email from JMC
[2]: TP-27 cancelled due to rapid infiltration at location and test depth, greater than 24 in/hr
[3]: Perched conditions observed at depths ranging from 8 to 8.5-ft below existing grade
[4]: Northwest basin cancelled per email with JMC, high groundwater EL, approx. 2-ft below existing grade

The testing was performed by installing a 4-inch diameter PVC casing in each test location to the test depths. The casings were then filled with 24 inches of water, and allowed to pre-soak for 24-hours. Once the pre-soak was completed, the casings were refilled with another 24 inches of water and the water level was monitored for one (1) hour to obtain the infiltration rate at each location. This procedure was repeated three (3) times for a total of four (4) observations per infiltration test. The last of the four (4) observations for each test location were reported to provide an unfactored field infiltration rate in inches per hour. We recommend that the Civil Engineer apply a standard factor of safety to the field measured results.

4.3 Geotechnical Laboratory Program

Soil samples suitable for identification purposes were extracted from the explorations at various intervals. The soil samples were brought to our soil mechanics laboratory for additional classification and appropriate geotechnical testing. The laboratory testing program consisted of five (5) mechanical grain size analyses, one (1) percent passing the sieve No. 200 test, and six (6) water content determinations. The results of the percent passing sieve No. 200 test and the water content determinations are presented on the individual test pit logs. The results of the mechanical grain size analyses are presented on the individual test pit logs and in graphical form as **Figures 1** through **5** in **Appendix B**.

4.4 Subsurface Conditions

The investigation data indicates the subsurface conditions at the site generally consist of surficial materials, underlain by glacial ground moraine which includes sands, gravels, and silts/clayey silts with cobbles and boulders. The following generalized strata are listed in the order of increasing depth.

4.4.1 Surface Materials

Topsoil was observed at the surface of all explorations with thicknesses ranging from approximately 2± inches to 8± inches. The remainder of the site has topsoil, asphalt, or gravel at the surface.

4.4.2 Natural Soils

Beneath the surface materials in all locations, natural soils were encountered. The soils generally consisted of silt/clayey silt with varying amounts of sand and gravel, or coarse to fine sand with varying amounts of gravel and silt/clayey silt. Cobbles were noted in several of the test pits and were potentially indicated by high SPT N-Values in several of the borings. Pockets of silty clay were observed in test pits TP-12 and TP-14 at depths ranging from approximately 1± to 4± feet below the existing grade. Additionally, a stratum of primarily coarse to fine gravel was observed in boring BP-4 at a depth of approximately 9.5± feet below existing grade. All explorations were terminated within the natural soils. The fine-grained soils were observed to be in a soft to very hard condition, and the granular soils were observed to be in a medium dense to very dense condition based on the observed bucket resistance and SPT N-values. Each of the borings, with the exception of BP-2 were complete due to split spoon and auger refusal.

4.4.3 Groundwater

Where encountered, groundwater was observed seeping into the explorations at depths ranging from 1± foot to 13± feet below existing grade. Groundwater was observed at elevations ranging from approximately EL +422.5 to EL +441.6 with lower elevations noted in the southern area of the site. Perched water conditions were observed in test pit TP-7 at a depth of approximately 8± feet (EL434.2). Groundwater variations were attributed to the variations in site topography from

north to south, the relatively short period of time the explorations were left open, and varied seepage rates due to the variation in soil gradation and density. Locally, however, (i.e., at building and basin locations) groundwater levels were more consistent.

Fluctuations in the groundwater levels should be anticipated based on the time of year and amount of recent precipitation. If more accurate groundwater elevations are required, SESI recommends that groundwater monitoring wells be installed and monitored during the seasonal high groundwater time of year (January to April) to confirm the seasonal high groundwater elevation.

5.0 EVALUATION AND RECOMMENDATIONS

5.1 Introduction

The recommended site preparation and building support considerations discussed in this report are based on the subsurface information obtained during our subsurface exploration program and geotechnical engineering considerations. Our geotechnical design considerations may require modifications to address environmental and/or legal considerations. This may include reuse of on-site materials, handling and disposal of soils, pumping/treating of groundwater or runoff, etc.

Based on the results of our geotechnical study, the natural site subsurface soils will allow the structures to be supported on conventional spread foundations and conventional slab on grade construction. Some of the natural soils contain high percentages of fine-grained material, which will make the soils moisture sensitive, especially during periods of rain, snow melt, etc. Moisture sensitive soils may be difficult to compact when wet and may require moisture conditioning. The earthwork contractor should consider methods to protect moisture sensitive subgrades and stockpiles from excessive moisture. It may be prudent to overexcavate moisture sensitive soils and place a minimum six (6) inch layer of ¾ inch clean crushed stone to replace the overexcavated material. Additionally, groundwater was encountered in test pit TP-18 (Building 6) above the proposed finished floor elevation (EL 431) for the garage slab. In Building 1, groundwater was encountered less than 1 foot below the garage floor. It may be necessary to design and install a sub-slab drainage system and/or moisture barrier to prevent flooding and dampness, respectively, in the garage for both structures.

5.2 Site Preparation Procedures

5.2.1 Initial Site preparations

Site preparation should begin by demolishing the existing buildings including removing the existing foundations, removing the topsoil, asphalt, vegetation and existing subsurface improvements. The site preparations should extend to at least 10± feet beyond the limits of the proposed building areas. Subsurface utilities that will be abandoned should be completely removed, or filled solid, from within the limits of the proposed building and paved areas of the site.

Excavations resulting from the removal of the existing building elements should be backfilled in a controlled manner. Any controlled compacted fill should be placed in accordance with the recommendations of this report under the observation of a geotechnical engineer. Foundations and other concrete excavated from the subgrade should be staged onsite until proper environmental evaluation and disposal, if necessary, can be arranged. The topsoil may be stockpiled and reused in future landscaped areas.

The asphalt pavement could be milled and temporarily stockpiled onsite and incorporated into the design of future pavement areas. The reuse of asphalt millings at this site should be reviewed by your environmental consultant.

All clearing activities should be performed in accordance with approved soil erosion and sediment control plans prepared for the project. All site preparation work should be performed in accordance with environmental regulations and requirements established for the site, as well as Local, State, and Federal regulations. Once clearing activities have been completed, the site preparation should continue by cutting and filling the site to grade. Prior to placing any fill material on the site, the entire area should be proofrolled with a heavy vibratory roller (minimum 10-ton static drum weight) under the observation of a qualified geotechnical engineer. The proofrolling should consist of making a minimum of 4 complete coverages of the area. Soft areas disclosed during the proofrolling should be excavated to stable material and backfilled with suitable material in compacted lifts to achieve a minimum of 92 percent with an average greater than 95 percent of Modified Proctor density (ASTM D 1557).

5.3 Earthwork

5.3.1 Re-use of Existing On-site Soils

The existing on-site soils may be used as structural fill provided that organic and other deleterious materials are removed. Some of these materials are considered moisture sensitive due to a high silt/clay content. The soils may be over optimum moisture in their current condition, requiring drying or treatment prior to their reuse. Moisture sensitive soils can be difficult to compact when significantly over optimum water content. Moisture conditioning, wetting or drying of the fill soils may be required prior to their reuse. The ease with which soil fills can be placed will, to a degree, depend on the time of year in which construction takes place and the construction procedures utilized by the earthwork contractor.

Fill considered unsuitable for re-use as structural fill may be used as non-structural fill, in the proposed landscaped areas, or removed from the site. All wood, trash, metal, vegetation, and other deleterious materials should be removed prior to reuse of the fill material. Cobbles, boulders, and concrete debris encountered can be stockpiled and crushed on-site for re-use as compacted fill. The use of crushed concrete should be evaluated and approved by the geotechnical and environmental engineers.

We recommend minimizing the exposure of on-site soil to wet weather conditions; fill soil should be placed as soon as possible once they are excavated, with stockpiling of on-site soil minimized where construction permits. Stockpiled soil should be protected from rain/snow.

5.3.2 Imported Fill

Imported fill should have a maximum particle size of 3 inches and the maximum amount of fines (percentage passing a No. 200 mesh sieve) should be 15% to help facilitate construction during wet weather. The “fines” should be non-plastic. The use of any imported fill containing a higher percentage of fines should be evaluated by the geotechnical engineer during construction. Imported fill should be free of organic, frozen, and other deleterious materials. It should be verified to be free of chemical constituents and approved by your environmental consultant and SESI prior to import.

Grain size distribution and Modified Proctor density tests (ASTM D1557) should be performed on representative samples of the imported fill. The contractor should provide a sample of the imported fill material, along with any laboratory testing results, and should obtain approval from the geotechnical and environmental engineers prior to moving material on-site.

5.3.3 Fill Compaction and Protection of Subgrade

Care should be taken to limit the disturbance of proof-rolled areas and soil subgrades prior to finished construction. At a minimum, all subgrade areas should be sealed and graded by rolling with a smooth-drum roller at the end of each working day to maximize surface water runoff and minimize potential ponding and infiltration.

We anticipate that shallow and perched groundwater may be encountered in excavations at various locations on site. In these excavations, it may be necessary to place an initial lift of shot rock/clean stone to provide a stabilized working surface. A filter fabric may be necessary above the shot rock/clean stone layer to prevent migration of fines, if significant voids are present.

Granular fill should be properly compacted in loose lifts not exceeding 12 inches in thickness. The lifts should be compacted to at least 92 percent with an average of greater than 95 percent of the Modified Proctor density (ASTM D1557). In-place field density tests should be performed to determine the adequacy of the compacted fill.

Backfill in confined areas, such as utility trenches, and foundations within load bearing or paved areas, should be placed in maximum 6-inch-thick layers and compacted to a minimum of 92 percent with an average of 95 percent density as described above.

Areas, which will not have any foundations or other structural loads, may be compacted to a minimum of 90 percent of the maximum Modified Proctor density (ASTM D 1557).

5.4 Control of Groundwater

Due to the presence of groundwater at depths ranging from approximately 1± to 13± feet below the ground surface, we anticipate groundwater seepage will be encountered during excavation of the natural soils to reach proposed footing grades and utility installation depths. In most of the building areas, groundwater was encountered at depths approximately 6± feet below the proposed garage finished floor elevations. In areas where shallow or perched groundwater was encountered, it may be necessary to use gravel-filled sumps with pumps below the subgrade elevation to allow for temporary dewatering of the excavation. Dewatering should be done in accordance with the environmental engineer's requirements for treatment and disposal.

A permanent sub-slab drainage system design should be included due to the presence of shallow groundwater encountered at elevations above or near the proposed garage floor elevations as observed in Buildings 6 and 1. The drainage system should consist of a stone layer and piping, installed below the slab and tied into the nearest stormdrain or a proposed stormwater basin.

Rainwater can also enter open excavations. The fine-grained soils encountered throughout the soil profile are expected to be moisture-sensitive and should be maintained in a dry condition prior to fill placement. All exposed subgrade soils should be graded to drain and tight rolled at the end of the day, particularly if wet weather is anticipated. During rainfall events, surface run-off should be prevented from entering open foundation excavations by properly grading the surrounding areas to divert surface water away from such excavations.

5.5 Slopes and Excavations

OSHA requires that all excavations in excess of 4 feet be shored, braced, or adequately benched/sloped in order to provide protection from sidewall collapses, with all excavations conducted in accordance with 29 CFR Part 1926 "Safety and Health Regulations for Construction", Subpart P "Excavations".

In accordance with the 2020 New York State Building Code, Chapter 33, Section 3304.1.1, permanent soil slopes should be limited to a maximum of 2-horizontal to 1-vertical. Steeper slopes would need to be evaluated by a Geotechnical Engineer and the Building Official.

5.6 Utility Lines

The site's soils will provide suitable support for utility lines. Cobbles greater than 4 inches in diameter should be removed from the utility line subgrade or a minimum 4-inch thick sand layer placed beneath the utility lines. If utility lines fall within soft soils, the excavation should be extended an additional 12 inches and replaced with ¾-inch clean crushed stone or clean sand and gravel.

Backfill placed around and 6-inches above utility lines should have a maximum particle size of 1.5 inches. The backfill of utility trenches that fall within load-bearing areas (e.g., beneath slabs and roadway/parking areas) should be placed in maximum 6-inch thick lifts and compacted to the same density requirements as in the building/parking areas. Trench backfills, in non-load bearing areas, should be compacted to 90 percent of Modified Proctor density (ASTM D1557).

5.7 Retaining Walls

Based on a review of the grading plans, two (2) retaining walls will be required in order to reach the anticipated final site grades. The retaining wall leveling course may be placed on the natural inorganic soil or controlled compacted fill. The excavation for the retaining wall subgrade should extend through any fill and organic soil, if encountered, to the natural soils. Areas of over excavation should be backfilled in lifts with a suitable granular fill and compacted with a vibratory roller, to the subgrade elevation.

The retaining wall foundation and backfill material should be placed in accordance with the design specifications. Retaining wall backfill should consist of a free-draining granular material with less than 15 percent non-plastic fines. The maximum particle size for the retaining wall backfill should be 3 inches or as specified by the design engineer. Retaining wall backfill should be placed in maximum 8-inch lifts and compacted with hand-operated compaction equipment to achieve 95 percent of the Modified Proctor density (ASTM D1557). Some of the existing site soils may be suitable for use as retaining wall backfill and should be evaluated by the geotechnical engineer prior to retaining wall construction. The subgrade and wall backfill material must meet the design specifications and/or the wall manufacturers guidelines.

All retaining walls should be designed with positive drainage behind the wall to preclude hydrostatic pressures from developing. If water is encountered at the back of the reinforced zone when constructing the walls, it may be necessary to install a heel drain at the back of the reinforced zone.

A licensed Professional Engineer should design the proposed retaining walls. SESI can provide these design services, if requested.

5.8 On-Grade Pavement Construction

The proposed conditions plan indicates on-grade parking and roadways around the proposed buildings. After stripping the surface vegetation, topsoil, pavement, and existing site improvements, where encountered, the parking lot/roadway area subgrade should be graded and then proofrolled using a large vibratory roller (minimum 10-ton static drum weight). The proofrolling should consist of making 4 complete coverages of the area. If any soft areas are encountered during the compacting/proofrolling, they should be excavated to stable material and replaced with a controlled compacted fill. The thickness of individual lifts of soil fill should be

limited to 12 inches. The fill should be compacted using a large vibratory roller (minimum 10-ton static weight) to achieve a minimum dry density of 92 percent and an average density of greater than 95 percent, except in the upper 2 feet where a minimum of 95 percent of Modified Proctor density, as determined from laboratory test ASTM D 1557, should be achieved to provide suitable pavement support. Visual observations and in-place field density tests should be performed to determine the adequacy of the compaction. The proofrolling should be observed by the geotechnical engineer.

Upon completion of the stripping/excavation/proofrolling operations, the fill required to attain finished subgrade elevation should be placed in lifts and compacted with the same or similar compactor as used for the proofrolling.

Fill materials may be obtained from the existing inorganic on-site soils or from off-site borrow. If off-site borrow material is required, it should have a maximum particle size of 3 inches and the maximum amount of fines (percentage passing a No. 200 mesh sieve) should be 15% to help facilitate construction during wet weather. The “fines” should be non-plastic. Moisture conditioning, wetting or drying of the fill material should be performed as necessary to achieve the required density.

The existing asphalt pavement could be milled and temporarily stockpiled on-site and incorporated into the design of future pavement areas. The subbase materials may consist of Item 4, Recycled Concrete Aggregate (RCA) or Asphalt Millings. All subbase materials must be approved by the geotechnical and environmental engineers prior to their placement.

5.9 Testing Requirements

During the placement of all fill, visual observations and in-place density tests should be performed to determine the adequacy of the fill. Density testing should be done in accordance with the following minimum frequency requirements or as determined by the geotechnical engineer.

Building Areas: Minimum of 4 tests per 12-inch lift; spacing not to exceed 50 feet between test locations.

Parking/Roadway Areas: Minimum of 3 tests per 12-inch lift; spacing not to exceed 100 feet between test locations.

Minimum density requirements are outlined in the previous sections of this report.

6.0 FOUNDATION DESIGN CRITERIA

6.1 Shallow Foundation Support

The proposed building foundations may be supported on conventional spread/strip footings and slab-on-grade construction bearing within the natural inorganic soils or controlled compacted fills. Footings founded on natural inorganic soils or controlled compacted fill may be designed for a maximum net allowable bearing pressure of 2.0 tons per square foot, tsf (4,000 pounds per square foot, psf).

Regardless of the loads, the minimum plan dimension of isolated footings should be 36 inches and the minimum width of continuous footings should be 24 inches. Exterior footings and those footings potentially exposed to frost action should bear a minimum of 4 feet below adjacent exterior grade or as required by the local building code. Interior footings within heated building areas may bear at conventional depths below the slab provided they are placed on natural soils or controlled compacted fill.

Some of the soil is considered moisture sensitive. Footing excavations should therefore be left open for as short a time as practical to avoid excessive disturbance to the exposed subgrade. Should the bottom of a footing excavation become softened during construction, the soft material should be excavated and replaced with clean ¾-inch crushed stone. It may be prudent to over-excavate all footing locations and place a minimum six (6) inch layer of ¾-inch clean crushed stone. The stone will provide a stable working mat and a medium through which to pump stormwater runoff. In areas with shallow groundwater, it will be required to over-excavate the footing locations and place a minimum six (6) inch layer of ¾-inch clean crushed stone.

6.2 Below-Grade Wall and Slab Construction

Below-grade walls should be assumed to be fixed against rotation and designed to sustain soil and surcharge loading. The surcharge loads should include temporary loads from construction equipment and temporary stockpiles. Permanent loads include backfills and other improvements that are located above a 1H:1V theoretical influence line extending upward from the base of the below-grade wall.

The below-grade walls should be properly braced against unequal loads, and the concrete given sufficient curing time before backfilling with controlled compacted fill. Over-compaction should be avoided behind the below-grade walls.

We recommend an exterior drainage system be installed to mitigate hydrostatic pressure along the below grade exterior walls. The exterior drains should extend to the bottom of the foundation and consist of 4-inch ADS piping wrapped in filter fabric, backfilled with 12-inches of ¾-inch diameter clean crushed stone. The use of drainage board along the exterior walls could also facilitate the drainage of groundwater near the foundation walls. The exterior drains should be gravity fed to the nearest stormwater inlet or basin, if possible. The installation of a one-way valve could mitigate the risk of storm sewer backup into the drainage piping.

The floor slabs should be designed as a slab-on-grade using a subgrade modulus of 175 pounds per cubic inch (pci), assuming that a 6-inch-thick layer of granular material with a maximum particle size of 1.5 inches and a maximum percent passing the No. 200 mesh sieve of 15 percent is placed beneath the floor slab. In areas where the floor finishes could be damaged by water vapors, a polyethylene vapor barrier should be provided to interrupt the rise of capillary moisture through the slab. The need for a vapor barrier should be evaluated by the design engineer or architect based on the final design and floor finishes.

In the areas of Buildings 6 and 1, where groundwater was encountered above or near the proposed garage floor elevations, the installation of a sub-slab drainage system should be considered below the basement slab. We recommend that the system consist of a minimum 12-inch-thick layer of ¾-inch clean stone placed below the slab with a network of 4-inch perforated ADS piping draining to a sump pit or chamber with dual alternating pumps and a back-up power supply, or be gravity fed to the nearest stormwater inlet or basin. Additionally, water stops should be used at joints where foundation wall sections and the slab come together such as in Buildings 1 and 6. Dewatering should be done in accordance with the environmental engineer's requirements for treatment and disposal.

6.3 Seismic Design

In accordance with ASCE 7-16 and the 2020 Building Code of New York State, Seismic Site Class C can be used for seismic design purposes. Based on a structural occupancy/risk category of II/III, and information provided by the American Society of Civil Engineers, the following seismic design criteria should be used for the site.

Seismic Design	
2020 Building Code of New York State and ASCE 7-16 Seismic Design Parameter	**Value**
Seismic Site Class	Site Class C
Mapped Spectral Response Acceleration	S_s = 0.287 g (short periods) S_1 = 0.061 g (1-second period)
Site Coefficients	F_a = 1.3 (short periods) F_v = 1.5 (1-second period)
Spectral Responses	S_{MS} = 0.374 g (short periods) S_{M1} = 0.091 g (1-second period)
Design Spectral Response Accelerations	S_{DS} = 0.249 g (short periods) S_{D1} = 0.061 g (1-second period)

6.4 Settlements

After satisfactory completion of the outlined building area preparation procedures, footings and floor slabs founded on controlled compacted fill and/or natural soils should have post-construction total settlements of less than ¾-inch and maximum differential settlements over a 30-foot span of less than ½-inch.

7.0 INSPECTION

SESI should inspect the proofrolling operations, the placement of the compacted fill, and the bottom of the footing excavations prior to the placement of concrete and/or stone. Visual observations and in-place density testing should be done throughout fill construction to determine that the work is done in accordance with our recommendations.

SESI has interpreted the site subsurface conditions and developed the foundation design recommendations contained herein and is therefore best suited to perform the above-mentioned quality assurance observation and testing. Recognizing that construction is essentially the completion of design, SESIs quality assurance observation and testing during construction is necessary to maintain our continuity of responsibility as it relates to the geotechnical aspects of this project.

8.0 CLOSURE

The recommendations given in this report are based on the explored test pits and test borings performed at the site to date. Once the proposed development plans are finalized, we should review these recommendations and provide any supplemental recommendations, if necessary.

The conclusions and recommendations given in this report represent our best engineering judgment as to the appropriate foundation systems for the proposed construction based on currently available investigation data and architectural information. Recommendations given are contingent upon one another and no recommendation should be followed independently of the others. Any changes in the location, elevation, and/or loading of the proposed building(s) should be brought to our attention and we should be provided with the site, structural and architectural drawings once they are finalized, so we can review, confirm, or modify (if necessary) the recommendations provided herein.

This report has been prepared to assist the Architect and Structural Engineer in their initial design. The recommendations given should be incorporated in the project design through inclusion in the Project Construction Drawings. SESI should be provided with the final foundation drawings and details prepared by the Structural Engineer and Architect, so we can confirm our recommendations are properly incorporated in the construction documents. Our office should also review foundation-related contractor submittals and construction procedures related to the geotechnical aspects of construction. SESI cannot assume responsibility for use of this report for any areas beyond the limits of this study.

9.0 LIMITATIONS

The subsurface investigation performed identifies the subsurface conditions only at the locations of the explorations and at the depths where the samples were taken. Test pit locations were laid out based on existing site features. SESI Consulting Engineers reviews the published geologic data and the field and laboratory data and uses their professional judgment and experience to render an opinion on the subsurface conditions throughout the site. Because the actual subsurface conditions may differ, we recommend that SESI be retained to provide construction inspection in order to minimize the risks associated with unanticipated conditions. This report should not be used:

- When the nature of the proposed construction is changed.
- When the size or configuration of the proposed construction is altered.
- When the location or orientation of the proposed construction is modified.
- When there is a change in ownership; or
- For application to an adjacent or any other site.

SESI shall not accept any responsibility for problems which may occur if SESI is not consulted when there are changes to the factors considered in this report's development. The soil logs should not be separated from the Engineering Report in order to minimize the possibility of soil log misinterpretation.

10.0 DISCLAIMER

This Report was prepared by SESI for the sole and exclusive use of BNE Real Estate. Nothing under the Professional Services Agreement between SESI and its client BNE Real Estate shall be construed to give any rights or benefits to anyone other than Client and SESI, and all duties and responsibilities undertaken pursuant to the Agreement will be for the sole and exclusive benefit of Client and SESI and not for the benefit of any other party. This Report has been prepared and issued subject to the express condition that the same is not to be disseminated to anyone other than Client, without the advance written consent of SESI (which SESI, in its sole discretion, is free to grant or withhold). Use of the Report by any other person is unauthorized and such use is at the sole risk of the user.



NOTE:
THIS PLAN IS FOR LOCATION BORINGS AND TEST PITS ONLY. OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

REFERENCE:
EXISTING CONDITIONS, BOUNDARIES, AND PROPOSED CONSTRUCTION ARE TAKEN FROM "TEST PIT MAP (PROPOSED CONDITIONS)" PREPARED BY JMC, DATED NOVEMBER 9, 2023.

NYS Education Law
Unauthorized alterations or additions to this plan are a violation of section 7209 (2) of the New York State Education Law. Copies of this map not having the seal of the engineer shall not be valid.

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chk by: NO
scale: AS NOTED
date: 02/05/2024

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL
959 ROUTE 46E, 3RD FLOOR, PARSIPPANY, NJ 07054 PH: 973.808.9050

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, N.Y.

EXPLORATION LOCATION PLAN

title:

job no. 13390
drawing no.

DWG-1

APPENDIX A

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-1

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±428.9-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.211611 **LONGITUDE** -74.022710

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 5.00 ft
AT END OF EXCAVATION 5.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown (10YR 4/3) Sandy Loam, 15% Gravel, Subangular blocky, slightly hard, with roots		Moist	Slightly Hard	
	424	Brown (10YR 4/3) Sandy Loam, 15% Gravel, 10% Cobbles, Subangular blocky, Firm	5	Wet		
	419		10		Firm	
	414	TEST PIT COMPLETED AT 15± FEET	15			
	409		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-2

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±429.5-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.211768 **LONGITUDE** -74.022576

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 7.00 ft
AT END OF EXCAVATION 7.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown (10YR 4/3) Sandy Loam, 15% Gravel, subangular blocky, slightly hard, with roots		Dry	Slightly Hard	
	425		5			
		Brown (10YR 4/3) Sandy Loam, 15% Gravel, subangular blocky, Firm		Wet		
	420		10		Firm	
	415		15			
		TEST PIT COMPLETED AT 15± FEET				
	410		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-3

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-31-2024 **COMPLETED** 01-31-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±437.2-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.211789 **LONGITUDE** -74.021961

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 14.00 ft
AT END OF EXCAVATION 14.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown coarse to fine SAND, some medium to fine Gravel, little Silt				
	433		5	Dry	Medium Dense	
	428		10			
	423		15	Wet	Medium Dense	
		TEST PIT COMPLETED AT 15± FEET				
	418		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-4

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-31-2024 **COMPLETED** 01-31-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±439.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212055 **LONGITUDE** -74.022002

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 13.00 ft
AT END OF EXCAVATION 13.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown coarse to fine Sand, some coarse to fine Gravel, some Silt		Moist	Medium Dense	
	434		5			
		Brown coarse to fine SAND, some Silt, little coarse to fine Gravel		Moist	Medium Dense	
	429		10			
				Wet	Medium Dense	
	424	TEST PIT COMPLETED AT 15± FEET	15			
	419		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-5

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-31-2024 **COMPLETED** 01-31-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±443.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212055 **LONGITUDE** -74.021735

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 11.00 ft
AT END OF EXCAVATION 11.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown coarse to fine Sand, some medium to fine Gravel, some Silt				
	439		5	Dry	Medium Dense	
	434		10	Wet		
	429		15		Medium Dense	
		TEST PIT COMPLETED AT 15± FEET				
	424		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-6

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-29-2024 **COMPLETED** 01-29-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±438.7-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.211952 **LONGITUDE** -74.021361

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Dark yellowish brown (10YR 4/4) Silt Loam, 15% Gravel, subangular blocky, Slightly Hard				
	434		5	Dry	Slightly Hard	
		Same as above		Wet		Perched water observed
	429		10			
				Moist	Firm	
	424		15			
		TEST PIT COMPLETED AT 15± FEET				
	419		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-7

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±442.2-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212018 **LONGITUDE** -74.021410

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
	438	Brown (10YR 4/3) Sandy Loam, 20% Gravel, Subangular Blocky, slightly hard	5	Dry	Slightly Hard	W.C. = 12.2% (-200) = 33.6%
		Brown (10YR 4/3) Silty Loam, 15% Gravel, Subangular Blocky, firm		Wet Moist	Firm	
	433 428	Brown (10YR 4/3) Sand, 5% Gravel, Single Grained, very firm	10	Moist	Very Firm	
		TEST PIT COMPLETED AT 15± FEET	15			
	423		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-8

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±442.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.211920 **LONGITUDE** -74.021184

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown (10YR 4/3) Sand Loam, 15% Gravel, Subangular Blocky, very firm				
	438		5		Firm	
				Moist		
	433		10		Very Firm	
	428		15			
		TEST PIT COMPLETED AT 15± FEET				
	423		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-9

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-31-2024 **COMPLETED** 01-31-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±446.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212574 **LONGITUDE** -74.021373

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 12.00 ft
AT END OF EXCAVATION 12.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown coarse to fine SAND, little coarse to fine Gravel, little Silt				
	442		5	Dry	Medium Dense	
	437		10	Wet		
	432		15		Medium Dense	
		TEST PIT COMPLETED AT 15± FEET				
	427		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-10

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-31-2024 **COMPLETED** 01-31-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±443.7-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212168 **LONGITUDE** -74.021789

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 10.00 ft
AT END OF EXCAVATION 10.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown Clayey SILT, some coarse to fine Sand, little medium to fine Gravel				
	439		5	Moist	Stiff	
	434		10	Wet		
					Stiff	
	429		15			
		TEST PIT COMPLETED AT 15± FEET				
	424		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-11

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±432.4-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212378 **LONGITUDE** -74.022405

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 4.00 ft
AT END OF EXCAVATION 4.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown Clayey SILT, some coarse to fine Sand, little medium to fine Gravel		Dry	Stiff	
	428	Brown Clayey Silt, and coarse to fine Sand, trace fine Gravel	5	Wet		W.C. = 19.2% (-200) = 47.6%
	423		10		Stiff	
	418		15			
		TEST PIT COMPLETED AT 15± FEET				
	413		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-12

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-02-2024 **COMPLETED** 02-02-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±428.1-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212620 **LONGITUDE** -74.022888

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 1.00 ft
AT END OF EXCAVATION 1.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown Clayey Silt, some coarse to fine Sand, little medium to fine Gravel, with pockets of light brown Silty CLAY		Wet	Stiff	
	424	Brown Clayey SILT, some coarse to fine Sand, trace fine Gravel	5			
	419		10	Wet	Stiff	
	414		15			
		TEST PIT COMPLETED AT 15± FEET				
	409		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-13

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±437.2-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212786 **LONGITUDE** -74.022216

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 5.00 ft
AT END OF EXCAVATION 5.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown Clayey SILT, some coarse to fine Sand, little medium to fine Gravel		Moist	Stiff	
	433		5	Wet		
	428		10		Stiff	
	423		15			
		TEST PIT COMPLETED AT 15± FEET				
	418		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-14

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-02-2024 **COMPLETED** 02-02-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±427.4-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 13.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213005 **LONGITUDE** -74.022737

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 1.00 ft
AT END OF EXCAVATION 1.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown Silt, some coarse to fine Sand, little medium to fine Gravel, with pockets of light brown Silty CLAY		Wet	Stiff	
	423	Brown SILT, some coarse to fine Sand, little medium to fine Gravel	5			
	418		10	Wet	Stiff	
	413	TEST PIT COMPLETED AT 13± FEET DUE TO BUCKET REFUSAL	15			
	408		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-15

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-29-2024 **COMPLETED** 01-29-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±444.1-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213443 **LONGITUDE** -74.021647

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 9.00 ft
AT END OF EXCAVATION 9.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown coarse to fine Sand, and Clayey Silt, some medium to fine Gravel				
	440		5	Moist	Medium Dense	
	435		10	Wet		W.C. = 15.3% (-200) = 36.6%
	430		15		Medium Dense	
		TEST PIT COMPLETED AT 15± FEET				
	425		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-16

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-29-2024 **COMPLETED** 01-29-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±444.4-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213332 **LONGITUDE** -74.021721

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 8.00 ft
AT END OF EXCAVATION 8.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown coarse to fine Sand, and Clayey Silt, some medium to fine Gravel				
	440		5	Moist	Medium Dense	
				Wet		
	435		10			
					Medium Dense	
	430		15			
		TEST PIT COMPLETED AT 15± FEET				
	425		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-17

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±447.1-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213480 **LONGITUDE** -74.020768

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 11.00 ft
AT END OF EXCAVATION 11.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown coarse to fine Sand, and Clayey Silt, little medium to fine Gravel				
	443		5	Dry	Medium Dense	
	438		10			
		Brown coarse to fine Sand, and Clayey Silt, trace medium to fine Gravel, with Cobbles		Wet	Medium Dense	
	433		15			
		TEST PIT COMPLETED AT 15± FEET				
	428		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-18

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±449.5-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 11.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212734 **LONGITUDE** -74.021099

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 9.50 ft
AT END OF EXCAVATION 9.50 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
	445	Brown coarse to fine SAND, some Silt, little medium to fine Gravel	5	Dry	Medium Dense	
	440		10	Wet	Medium Dense	
		TEST PIT COMPLETED AT 11± FEET DUE TO BUCKET REFUSAL				
	435		15			
	430		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-19

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±452.6-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 11.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213140 **LONGITUDE** -74.020551

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 11.00 ft
AT END OF EXCAVATION 11.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown Clayey SILT, some coarse to fine Sand, trace medium to fine Gravel				
	448		5	Dry	Stiff	
	443		10			
		TEST PIT COMPLETED AT 11± FEET DUE TO BUCKET REFUSAL				Water observed seeping in at refusal depth
	438		15			
	433		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-20

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±450.2-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212808 **LONGITUDE** -74.020362

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 13.00 ft
AT END OF EXCAVATION 13.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8-in Topsoil		Dry		
		Brown coarse to fine SAND, little Silt, trace fine Gravel		Dry	Medium Dense	
	446		5			
	441		10			
		Red-brown coarse to fine SAND, little Silt, little coarse to fine Gravel, with Cobbles		Wet	Medium Dense	
	436		15			
		TEST PIT COMPLETED AT 15± FEET DUE TO BUCKET REFUSAL				
	431		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-21

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±443.1-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 11.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212963 **LONGITUDE** -74.020148

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8-in Topsoil		Dry		
	439	Yellowish brown (10YR 5/6) Sand, 20% Gravel, single grain, Loose to Slightly Hard	5	Dry	Loose	
	434		10		Slightly Hard	
		TEST PIT COMPLETED AT 11± FEET DUE TO BUCKET REFUSAL				
	429		15			
	424		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-22

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±443.7-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 11.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.212990 **LONGITUDE** -74.019812

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
	439	Dark yellowish brown (10YR 4/4) Sandy Loam, 5% Gravel, subangular blocky, loose	5	Dry	Loose	
	434		10			
		Dark yellowish brown (10YR 4/4) Sandy Loam, 15% Gravel, 10% Cobbles, subangular blocky, firm			Moderately Hard	
		TEST PIT COMPLETED AT 11± FEET DUE TO BUCKET REFUSAL				
	429		15			
	424		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-23

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±454.4-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213041 **LONGITUDE** -74.020178

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8-in Topsoil		Dry		
	450	Brown coarse to fine SAND, some Silt, little coarse to fine Gravel	5	Dry	Medium Dense	
	445		10			
	440		15			
		TEST PIT COMPLETED AT 15± FEET				
	435		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-24

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±456.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213072 **LONGITUDE** -74.020477

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8-in Topsoil		Dry		
		Brown coarse to fine SAND, some coarse to fine Gravel, trace Silt		Dry	Medium Dense	Location offset 8 feet due to obstruction
	451	Gray-brown coarse to fine SAND, some coarse to fine Gravel, trace Silt, with Cobbles	5			
				Dry	Medium Dense	
	446		10			
				Moist	Medium Dense	
	441	TEST PIT COMPLETED AT 15± FEET	15			
	436		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-25

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±459.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213286 **LONGITUDE** -74.020613

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown coarse to fine SAND, some Silt, trace medium to fine Gravel				
	455		5	Dry	Medium Dense	
	450	Brown coarse to fine Sand, some Silt, little coarse to fine Gravel, with Cobbles	10			
	445		15	Dry	Medium Dense	
		TEST PIT COMPLETED AT 15± FEET				
	440		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-26

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±453.6-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 11.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213354 **LONGITUDE** -74.020079

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8-in Topsoil		Dry		
	449	Brown coarse to fine Gravel, and coarse to fine Sand, some Silt	5	Moist	Medium Dense	W.C. = 13.4% (-200) = 29.2%
	444		10			
		TEST PIT COMPLETED AT 11± FEET DUE TO BUCKET REFUSAL				
	439		15			
	434		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-27

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±443.2-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 11.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213367 **LONGITUDE** -74.019611

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8-in Topsoil		Dry		
		Brown (10YR 4/3) Sandy Loam, 10% Gravel, subangular blocky, soft		Dry	Soft	
	439	Brown (10YR 4/3) Sandy Loam, 35% Gravel, 15% Cobbles, subangular blocky, firm	5	Dry	Hard	
	434		10			
		TEST PIT COMPLETED AT 11± FEET DUE TO BUCKET REFUSAL				
	429		15			
	424		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-28

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-02-2024 **COMPLETED** 02-02-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±455.8-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213917 **LONGITUDE** -74.020192

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown coarse to fine SAND, some medium to fine Gravel, little Silt				
	451		5			
				Dry	Medium Dense	
	446		10			
	441		15			
		TEST PIT COMPLETED AT 15± FEET				
	436		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-29

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-02-2024 **COMPLETED** 02-02-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±449.5-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 11.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214390 **LONGITUDE** -74.020044

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
	445	Brown coarse to fine SAND, some Silt, little medium to fine Gravel	5	Dry	Medium Dense	
	440	Brown coarse to fine Sand, some coarse to fine Gravel, little Silt, with Cobbles	10	Dry	Medium Dense	
	435	TEST PIT COMPLETED AT 11± FEET DUE TO BUCKET REFUSAL	15			
	430		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-30

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-02-2024 **COMPLETED** 02-02-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±445.4-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 12.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214417 **LONGITUDE** -74.020091

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 10.00 ft
AT END OF EXCAVATION 10.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8-in Topsoil		Dry		
	441	Brown coarse to fine SAND, some Silt, little medium to fine Gravel	5	Dry	Medium Dense	
	436		10	Wet	Medium Dense	
		Brown coarse to fine SAND, some coarse to fine Gravel, little Silt, with Cobbles				
	431	TEST PIT COMPLETED AT 12± FEET DUE TO BUCKET REFUSAL	15			
	426		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-31

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-02-2024 **COMPLETED** 02-02-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±446.5-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 13.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214858 **LONGITUDE** -74.020263

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 10.00 ft
AT END OF EXCAVATION 10.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
	442	Brown coarse to fine SAND, some Silt, little coarse to fine Gravel	5	Dry	Medium Dense	W.C. = 12.8% (-200) = 31.1%
	437	Brown coarse to fine Sand, some Silt, some coarse to fine Gravel, with cobbles	10	Wet	Medium Dense	
		Brown coarse to fine Sand, some coarse to fine Gravel, little Silt, with Cobbles		Wet	Very Dense	
	432	TEST PIT COMPLETED AT 13± FEET DUE TO BUCKET REFUSAL	15			
	427		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-32

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±450.9-ft
EXPLORATION WIDTH 4.0-ft **EXPLORATION LENGTH** 6.0-ft
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214746 **LONGITUDE** -74.020823

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8-in Topsoil		Dry		
		Brown coarse to fine Sand, some Silt, some coarse to fine Gravel				
	446		5			
				Dry	Medium Dense	
	441		10			
	436	TEST PIT COMPLETED AT 15± FEET	15			
	431		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-33

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±439.9-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214754 **LONGITUDE** -74.021456

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 5.00 ft
AT END OF EXCAVATION 5.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown Clayey SILT, some coarse to fine Sand, little coarse to fine Gravel		Dry	Stiff	
	435		5	Wet		
	430		10		Stiff	
	425	TEST PIT COMPLETED AT 15± FEET	15			
	420		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-34

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-29-2024 **COMPLETED** 01-29-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±442.1-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214159 **LONGITUDE** -74.021367

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 5.00 ft
AT END OF EXCAVATION 5.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8-in Topsoil		Moist		
		Light brown Clayey SILT, some coarse to fine Sand little coarse to fine Gravel		Moist	Stiff	
	438		5	Wet		
	433		10		Stiff	
	428		15			
		TEST PIT COMPLETED AT 15± FEET				
	423		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-35

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±451.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214114 **LONGITUDE** -74.021306

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 12.00 ft
AT END OF EXCAVATION 12.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown coarse to fine SAND, some Silt, little coarse to fine Gravel				
	446		5	Dry	Medium Dense	
	441		10	Wet		
					Medium Dense	
	436	TEST PIT COMPLETED AT 15± FEET	15			
	431		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-36

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±451.4-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214044 **LONGITUDE** -74.021070

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 11.00 ft
AT END OF EXCAVATION 11.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown Clayey Silt, and coarse to fine Sand, little medium to fine Gravel				
	447		5	Dry	Stiff	
	442		10	Wet		
	437		15		Stiff	
		TEST PIT COMPLETED AT 15± FEET				
	432		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-37

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-29-2024 **COMPLETED** 01-29-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±442.4-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214284 **LONGITUDE** -74.021608

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 4.00 ft
AT END OF EXCAVATION 4.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Light brown Clayey SILT, some coarse to fine Sand, little coarse to fine Gravel		Moist	Stiff	
	438		5	Wet		
	433		10		Stiff	
	428		15			
		TEST PIT COMPLETED AT 15± FEET				
	423		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-39

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-29-2024 **COMPLETED** 01-29-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±444.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213724 **LONGITUDE** -74.021690

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 5.00 ft
AT END OF EXCAVATION 5.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Brown Clayey SILT, some coarse to fine Sand, trace medium to fine Gravel		Moist	Stiff	
	439	Brown Clayey SILT, some coarse to fine Sand, little medium to fine Gravel	5	Wet		
	434		10		Stiff	
	429	TEST PIT COMPLETED AT 15± FEET	15			
	424		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-40

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 02-01-2024 **COMPLETED** 02-01-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±453.2-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213762 **LONGITUDE** -74.020872

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown coarse to fine SAND, little coarse to fine Gravel, little Silt				
	449		5	Dry	Medium Dense	
	444		10	Moist	Medium Dense	
	439		15			
		TEST PIT COMPLETED AT 15± FEET				
	434		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-41

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-29-2024 **COMPLETED** 01-29-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±444.7-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 15.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.213618 **LONGITUDE** -74.021653

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 8.00 ft
AT END OF EXCAVATION 8.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Dry		
		Brown coarse to fine Sand, and Clayey Silt, some coarse to fine Gravel, with Roots		Dry	Stiff	
	440	Brown coarse to fine Sand, and Clayey Silt, little medium to fine Gravel	5	Moist		
				Wet		
	435		10		Stiff	
	430		15			
		TEST PIT COMPLETED AT 15± FEET				
	425		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-44

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-29-2024 **COMPLETED** 01-29-2024
EXCAVATION CONTRACTOR PM Construction

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±439.5-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 9.0-ft

EQUIPMENT Komatsu PC 200
EXCAVATION FOREMAN Bruno
LOGGED BY B. Favino **CHECKED BY** N. Ohrynowicz
LATITUDE 41.214104 **LONGITUDE** -74.021866

GROUNDWATER LEVELS:
AT TIME OF EXCAVATION 2.00 ft
AT END OF EXCAVATION 2.00 ft
AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6-in Topsoil		Moist		
		Light brown SILT, little coarse to fine Sand, little coarse to fine Gravel, with Roots		Moist	Stiff	
		Same as above, trace coarse to fine Gravel		Wet		
	435		5		Stiff	
	430	TEST PIT COMPLETED AT 9± FEET DUE TO FLOODING IN EXPLORATION	10			
	425		15			
	420		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: BP-1

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
DRILLING CONTRACTOR General Borings
SAMPLER 2 Inch Split Spoon
EQUIPMENT Bombardier CME Rig
DRILLING FOREMAN Jim **HELPER** Howard
LOGGED BY J. Hans **CHECKED BY** N. Ohrynowicz
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 429.5±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 4.25 in **OUTER DIAMETER** 7.62 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 13.3± ft

GROUNDWATER LEVELS:
AT TIME OF DRILLING 4.00± ft
AT END OF DRILLING 4.00± ft
AFTER DRILLING 2.00± ft

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		4-in Topsoil							
		Very dark brown (10YR 2/2) Silty Loam, 15% Gravel, Subangular Blocky, Soft, with Roots		S-1		5	1-2-2-5 (4)		
		Dark brown (10YR 3/4) Silty Loam, 15% Gravel, Subangular Blocky, Friable		S-2		8	25-13-7-7 (20)		Moist
	425	Dark yellowish brown (10YR 4/4) Silty Loam, 15% Gravel, Subangular Blocky, Extremely Firm	5	S-3		13	16-39-53-51 (92)		Wet, Hard Spooning
		Dark grayish brown (10YR 4/2) Silty Loam, 5% Gravel, Subangular Blocky, Extremely Firm							Possible Cobbles
		No Recovery		S-4		0	50-24-11-12 (35)		No Recovery
		Dark yellowish brown (10YR 4/4) Silty Loam, 15% Gravel, Subangular Blocky, Firm		S-5		3	16-11-15-36 (26)		Rock in Shoe
	420	Yellowish brown (10YR 5/4) Silty Loam, 15% Gravel, Subangular Blocky, Firm	10	S-6		11	23-18-18-25 (36)		
		Dark yellowish brown (10YR 4/4) Silty Loam, 15% Gravel, Subangular Blocky, Extremely Firm		S-7		15	26-34-64/4"		Spoon Bouncing, Spoon Refusal, Auger Chattering
		BORING COMPLETED AT 13.33± FEET DUE TO AUGER & SPLIT SPOON REFUSAL							
	415		15						
	410		20						
	405		25						
	400		30						
	395								

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BOREHOLE NUMBER: BP-2

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
DRILLING CONTRACTOR General Borings
SAMPLER 2-inch Split Spoon
EQUIPMENT Bombardier CME Rig
DRILLING FOREMAN Jim **HELPER** Howard
LOGGED BY J. Hans **CHECKED BY** N. Ohrynowicz
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 443.4±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 4.25 in **OUTER DIAMETER** 7.62 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 20.0± ft

GROUNDWATER LEVELS:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered
AFTER DRILLING

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		3-in Topsoil							
		Dark yellowish brown (10YR 4/4) Silty Loam, 5% Gravel, Subangular Blocky, Slightly Hard, with Roots		S-1		6	3-11-4-10 (15)		
		Dark yellowish brown (10YR 4/4) Silty Loam, 5% Gravel, Subangular Blocky, Hard		S-2		11	12-13-16-18 (29)		
	439	No Recovery	5	S-3		0	30-26-21-32 (47)		Rock in Shoe
		Yellowish brown (10YR 5/4) Silty Loam, 5% Gravel, Sub Angular Blocky, Hard		S-4		2	46-23-16-19 (39)		Rock in Shoe
		No Recovery		S-5		0	27-33-44-68 (77)		
	434	Dark yellowish brown (10YR 4/4) Silty Loam, 25% Gravel, Sub Angular Blocky, Very Hard	10	S-6		14	33-32-33-43 (65)		W.C. = 7.4% (-200) = 18.7%
		Dark yellowish brown (10YR 4/4) Loamy Sand, 2% Gravel, Single Grained, Very Hard		S-7		18	60-46-53-47 (99)		
		Dark yellowish brown (10YR 3/4) Sand, 5% Gravel, Single Grained, Very Hard		S-8		15	19-33-37-44 (70)		
	429	Same as above	15	S-9		12	41-33-34-49 (67)		
		Same as above		S-10		10	57-44-47-50 (91)		
	424	Same as above							
		BORING COMPLETED AT 20± FEET	20						
	419		25						
	414		30						
	409								

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BOREHOLE NUMBER: BP-3

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-31-2024 **COMPLETED** 01-31-2024
DRILLING CONTRACTOR General Borings
SAMPLER 2-inch Split Spoon
EQUIPMENT Bombardier CME Rig
DRILLING FOREMAN Jim **HELPER** Dave
LOGGED BY J. Hans **CHECKED BY** N. Ohrynowicz
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 442.3±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 4.25 in **OUTER DIAMETER** 7.62 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 15.2± ft

GROUNDWATER LEVELS:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered
AFTER DRILLING

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		2-in Topsoil							
		No Recovery		S-1		0	1-2-2-4 (4)		
		Dark yellowish brown (10YR 4/4) Sandy Loam, 15% Gravel, Subangular Blocky, Very Hard, with Roots		S-2		20	23-36-27-16 (63)		Possible Cobbles
	438								
		Dark Yellowish brown (10YR 4/4) Silty Loam, 5% Gravel, Sub Angular Blocky, Very Hard	5	S-3		1	19-31-49-27 (80)		Rock in shoe
		Dark Yellowish brown (10YR 4/4) Silty Loam, 5% Gravel, Sub Angular Blocky, Hard		S-4		2	13-13-14-24 (27)		
	433								
		Yellowish brown (10YR 5/8) Silt, Angular Blocky, Hard	10	S-5		22	15-12-19-25 (31)		
		Yellowish Brown (10YR 5/6) Silt Loam, 5% Gravel, Angular Blocky, Very Hard		S-6		18	42-47-43-49 (90)		
	428								
		No Recovery	15	S-7		0	50/2"		Spoon Bouncing, Grinding
		BORING COMPLETED AT 15.17± FEET DUE TO SPLIT SPOON REFUSAL							
	423		20						
	418		25						
	413		30						
	408								

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BOREHOLE NUMBER: BP-4

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-31-2024 **COMPLETED** 01-31-2024
DRILLING CONTRACTOR General Borings
SAMPLER 2-inch Split Spoon
EQUIPMENT Bombardier CME Rig
DRILLING FOREMAN Jim **HELPER** Dave
LOGGED BY J. Hans **CHECKED BY** N. Ohrynowicz
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 455.4±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 4.25 in **OUTER DIAMETER** 7.62 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 15.0± ft

GROUNDWATER LEVELS:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered
AFTER DRILLING

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		2-in Topsoil							
		Brown Clayey SILT, some coarse to fine Sand , little coarse to fine Gravel Medium Stiff		S-1		13	1-2-4-4 (6)		
		Brown Clayey SILT, some coarse to fine Sand , little fine Gravel Very Stiff		S-2		10	8-12-10-4 (22)		
	451		5						
		Brown Clayey SILT, some coarse to fine Sand , little coarse to fine Gravel Hard		S-3		17	17-22-24-17 (46)		
		Brown Clayey SILT, some coarse to fine Sand , trace fine Gravel Very Stiff		S-4		1	19-17-12-18 (29)		
	446		10						
		Brown coarse to fine GRAVEL, trace coarse to fine Sand, trace Silt Very Dense		S-5		2	65-70/4"		Augered to 15'
	441	No Recovery	15	S-6		0	50/0"		
		BORING COMPLETED AT 15± FEET DUE TO AUGER & SPLIT SPOON REFUSAL							
	436		20						
	431		25						
	426		30						
	421								

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BOREHOLE NUMBER: BP-5

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-31-2024 **COMPLETED** 01-31-2024
DRILLING CONTRACTOR General Borings
SAMPLER 2-inch Split Spoon
EQUIPMENT Bombardier CME Rig
DRILLING FOREMAN Jim **HELPER** Dave
LOGGED BY J. Hans **CHECKED BY** N. Ohrynowicz
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 453.8±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 4.25 in **OUTER DIAMETER** 7.62 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 15.0± ft

GROUNDWATER LEVELS:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered
AFTER DRILLING

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		2-in Topsoil							
		Brown Clayey SILT, some coarse to fine Sand , trace medium to fine Gravel with roots Medium Stiff		S-1		3	2-3-5-3 (8)		
		Brown Clayey SILT, some coarse to fine Sand , trace coarse to fine Gravel Very Hard		S-2		5	9-44-61-45 (105)		Encountered cobble or obstruction Hard drilling to 5-ft
	449		5						
		Brown Clayey SILT, some coarse to fine Gravel , little coarse to fine Sand Very Hard		S-3		15	31-50-38-44 (88)		
		Brown, orange-brown Clayey SILT, some coarse to fine Gravel , little coarse to fine Sand Very Hard		S-4		12	36-54-29-27 (83)		
	444		10						
		Orange-brown coarse to fine SAND, some fine Gravel , trace Silt Very Dense		S-5		19	20-40-59-60/4" (99)		Spoon Refusal, Augered to 15'
	439	No Recovery	15	S-6		0	50/0"		Chattering/Grinding
		BORING COMPLETED AT 15± FEET DUE TO AUGER & SPLIT SPOON REFUSAL							
	434		20						
	429		25						
	424		30						

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BOREHOLE NUMBER: BP-6

PROJECT NAME Proposed Mixed-Use Development
PROJECT NO. 13390
DATE STARTED 01-30-2024 **COMPLETED** 01-30-2024
DRILLING CONTRACTOR General Borings
SAMPLER 2-inch Split Spoon
EQUIPMENT Bombardier CME Rig
DRILLING FOREMAN Jim **HELPER** Howard
LOGGED BY J. Hans **CHECKED BY** N. Ohrynowicz
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 443.4±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER **OUTER DIAMETER**
ROTARY BIT DIAMETER **GROUNDWATER LEVELS:**
CASING DIAMETER ▽ **AT TIME OF DRILLING** 8.00± ft
CASING DEPTH ▼ **AT END OF DRILLING** 8.00± ft
FINAL DEPTH 12.0± ft ▼ **AFTER DRILLING**

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		3-in Topsoil							
		No Recovery		S-1		0	1-4-4-10 (8)		
		Dark yellowish brown (10YR 4/4) Silty Loam, 15% Gravel, Subangular Blocky, Soft		S-2		1	5-2-6-18 (8)		Rock in shoe
	439	Dark yellowish brown (10YR 4/4) Silty Loam, 15% Gravel, Subangular Blocky, Hard	5	S-3		5	9-20-20-15 (40)		
		Dark yellowish brown (10YR 4/4) Silt Loam, 15% Gravel, Subangular Blocky, Firm		S-4		18	13-7-4-9 (11)		Moist
		Dark yellowish brown (10YR 4/4) Silt Loam, 15% Gravel, Subangular Blocky, Very Firm		S-5		9	5-16-31-41 (47)		Wet
	434	Dark yellowish brown (10YR 4/6) Sand, 25% Gravel, Single Grained, Very Firm	10	S-6		9	22-35-48/2"		Spoon Refusal, Auger to 12'
		BORING COMPLETED AT 12± FEET DUE TO AUGER REFUSAL							Auger Grinding
	429		15						
	424		20						
	419		25						
	414		30						
	409								

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SOILS CLASSIFICATION AND EXPLORATION LOG KEY

Our experience has shown that the following field identification system, which is pattered somewhat after the Burmister System, permits a more detailed breakdown of the components within a soil sample than other identification systems allow. It also compels the supervising technician to examine a sample quite closely in order to accurately describe the components within the sample.

Grain Size and Classifications

Gravel:
Coarse gravel ranges from 3-in to 1-in
Medium gravel ranges from 1-in to 3/8-in
Fine gravel ranges from 3/8-in to No. 10 sieve

Sand:
Coarse sand ranges from No. 10 to No. 30 sieve
Medium sand ranges from No. 30 to No. 60 sieve
Fine sand ranges from No. 60 to No. 200 sieve

Silt:
Material which passes the No. 200 sieve
Exhibits little to no plasticity

Clay:
Material which passes the No. 200 Sieve
Exhibits varying degrees of plasticity

Component Classification

CAPITALS	More than 50% of the sample by weight
Proper Case	Less than 50% of the sample by weight

Proportion Terms

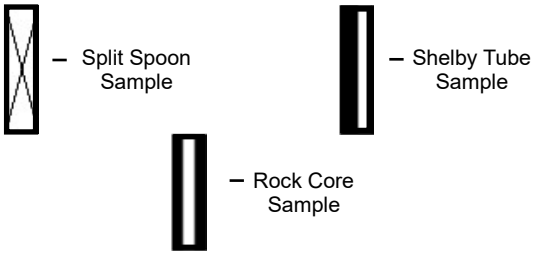
and	Component ranges from 35% to 50% of the sample by weight
some	Component ranges from 20% to 35% of the sample by weight
little	Component ranges from 10% to 20% of the sample by weight
trace	Component ranges from 0% to 10% of the sample by weight

Gradation Designation

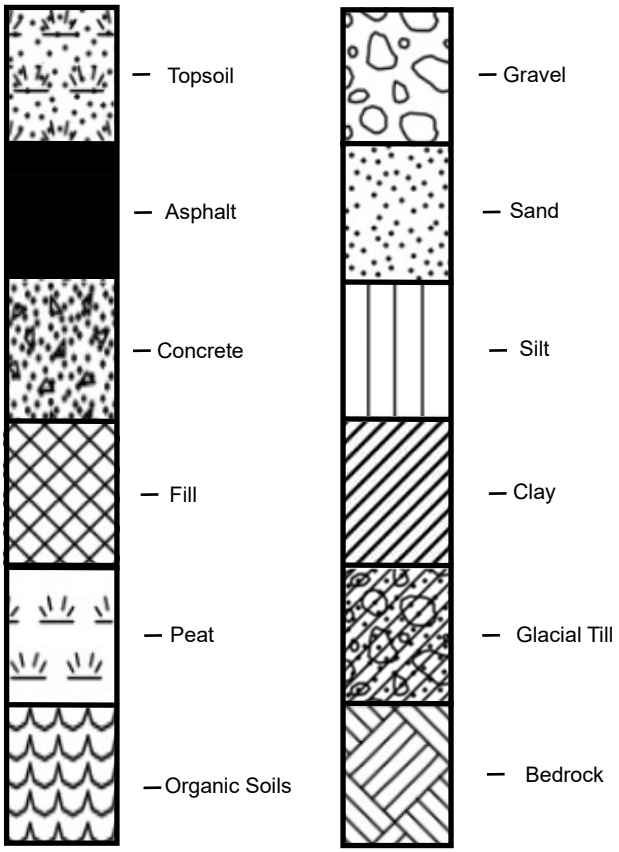
Coarse to fine (c-f)	All fractions greater than 10% of the component
Coarse to Medium (c-m)	Less than 10% of the component is fine
Medium to fine (m-f)	Less than 10% of the component is coarse
Coarse (c)	Less than 10% of the component is medium or fine
Medium (m)	Less than 10% of the component is coarse or fine
Fine (f)	Less than 10% of the component is coarse or medium

The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineer's recommendations contained in the report from which these logs were extracted.

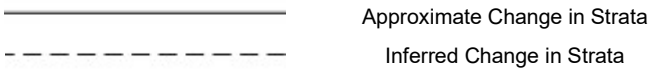
Sampling Types



Generalized Stratum Types



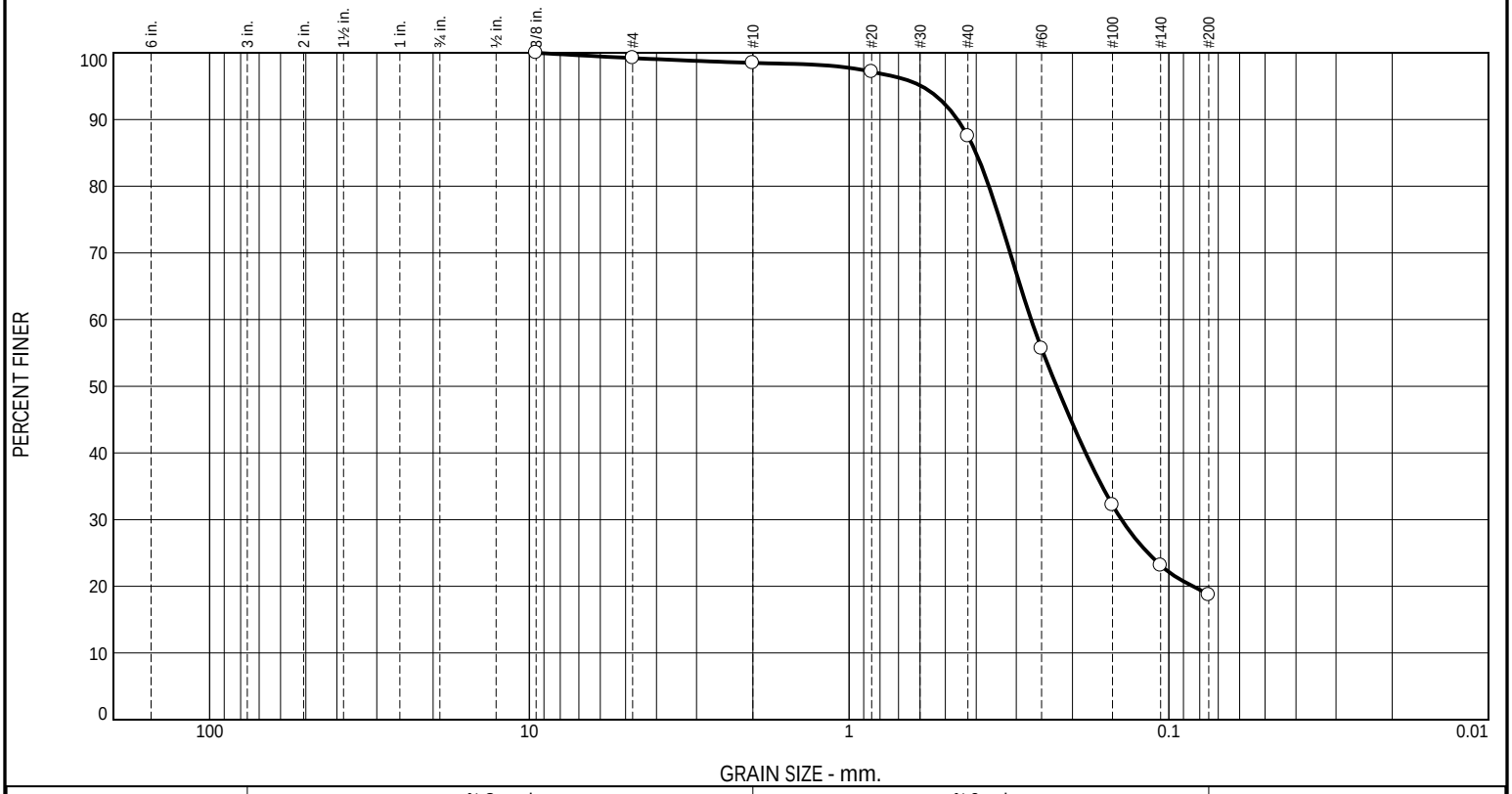
Strata Separation



APPENDIX B

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel=**1.5**			% Sand=**79.8**			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	0.0	0.0	1.5	3.4	39.4	37.0	18.7

Test Results (ASTM D6913)

Sieve Size or Diam. (**in.**)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
.375	100.0			
#4	99.2			
#10	98.5			
#20	97.2			
#40	87.5			
#60	55.7			
#100	32.2			
#140	23.1			
#200	18.7			

* (no specification provided)

Material Description

Brown medium to fine SAND, little Silt, trace fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4581 D_{85}= 0.4006 D_{60}= 0.2696
D_{50}= 0.2242 D_{30}= 0.1406 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Test Remarks

Water Content(%)= 7.4

Location: BP-2
Sample Number: S-5 Depth: 11-12 Sample Date: 02/20/2024

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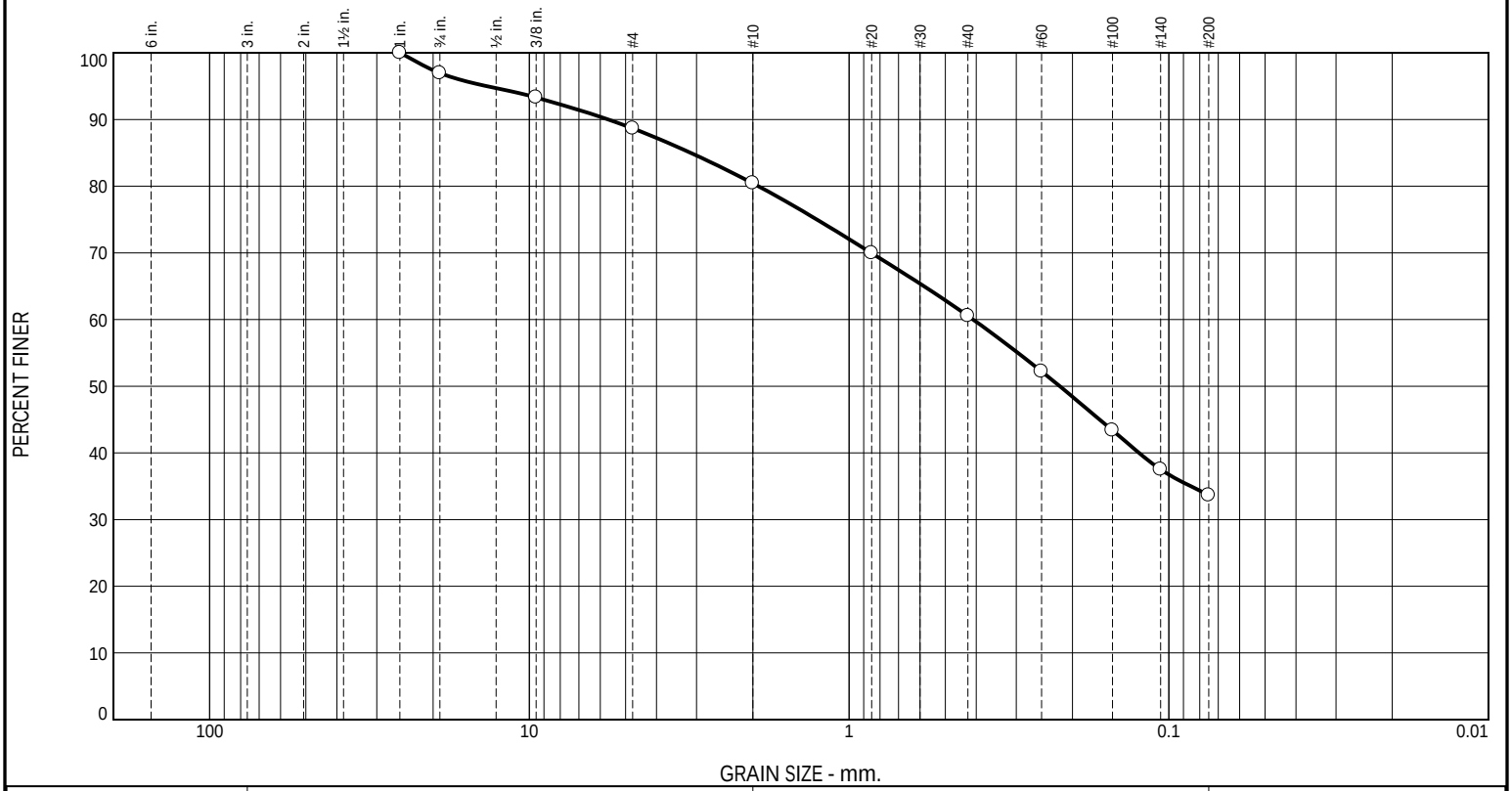
Client: BNE Real Estate
Project: Proposed Mixed-Use Development

Project No: 13390 Figure 1

Tested By: MLT Checked By: MLT

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel=**19.6**			% Sand=**46.8**			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	0.0	6.7	12.9	15.0	13.2	18.6	33.6

Test Results (ASTM D6913)

Sieve Size or Diam. (**in.**)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
1	100.0			
.75	97.0			
.375	93.3			
#4	88.7			
#10	80.4			
#20	70.0			
#40	60.6			
#60	52.2			
#100	43.4			
#140	37.5			
#200	33.6			

* (no specification provided)

Material Description

Brown coarse to fine Sand, some Silt, little medium to fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 5.6546 D_{85}= 3.1278 D_{60}= 0.4093
D_{50}= 0.2192 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Test Remarks

Water Content(%)= 12.2

Location: TP-7
Sample Number: S-1 Depth: 6 Sample Date: 02/20/2024

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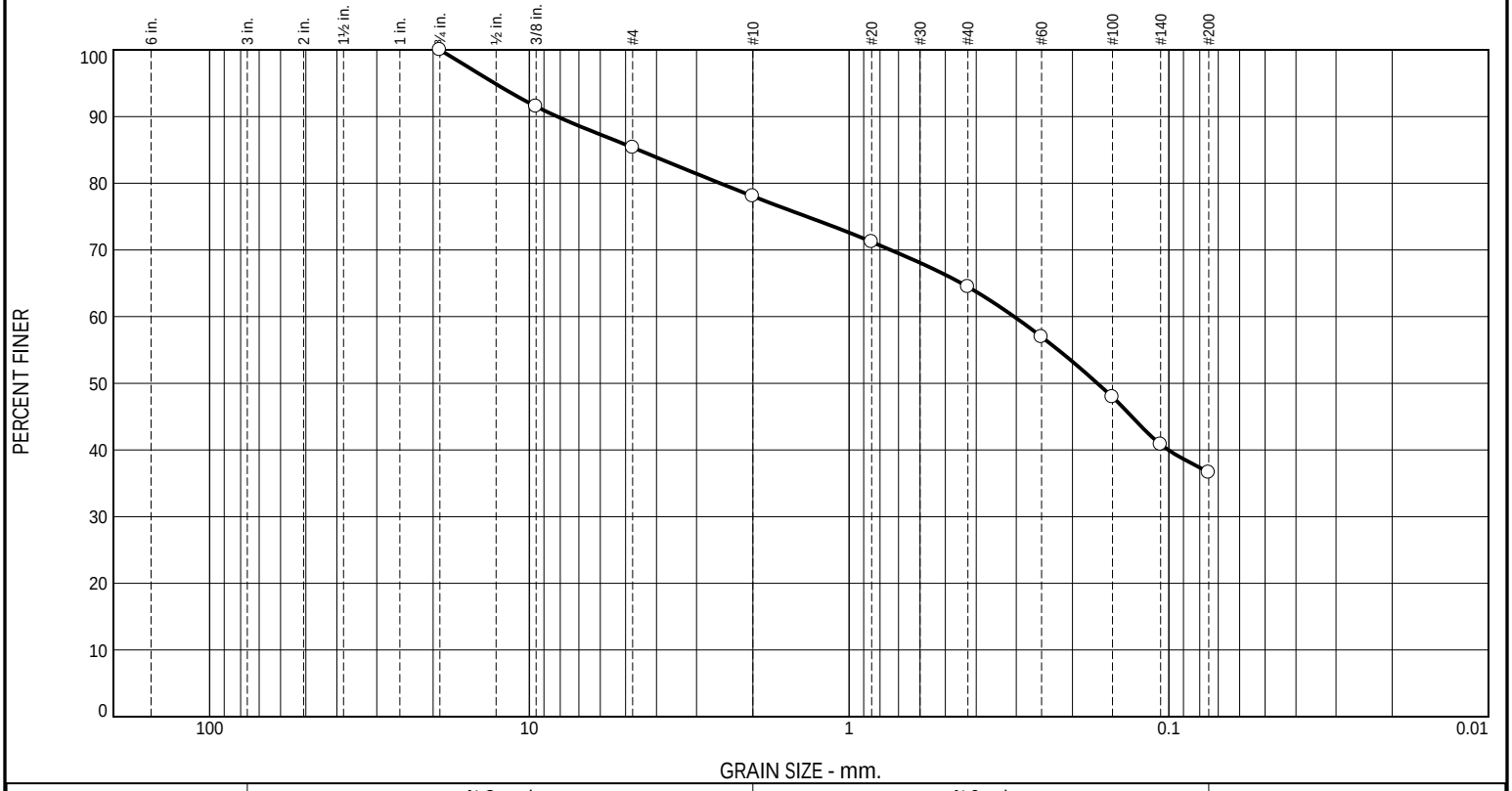
Client: BNE Real Estate
Project: Proposed Mixed-Use Development

Project No: 13390 Figure 2

Tested By: MLT Checked By: MLT

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel=**21.9**			% Sand=**41.5**			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	0.0	8.5	13.4	10.0	11.1	20.4	36.6

Test Results (ASTM D6913)

Sieve Size or Diam. (**in.**)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
.75	100.0			
.375	91.5			
#4	85.4			
#10	78.1			
#20	71.2			
#40	64.5			
#60	57.0			
#100	47.9			
#140	40.8			
#200	36.6			

* (no specification provided)

Material Description

Brown coarse to fine Sand, and Clayey Silt, some medium to fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 8.1709 D_{85}= 4.5562 D_{60}= 0.3046
D_{50}= 0.1673 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Test Remarks

Water Content(%)= 15.3

Location: TP-15
Sample Number: S-2 Depth: 8 Sample Date: 02/20/2024

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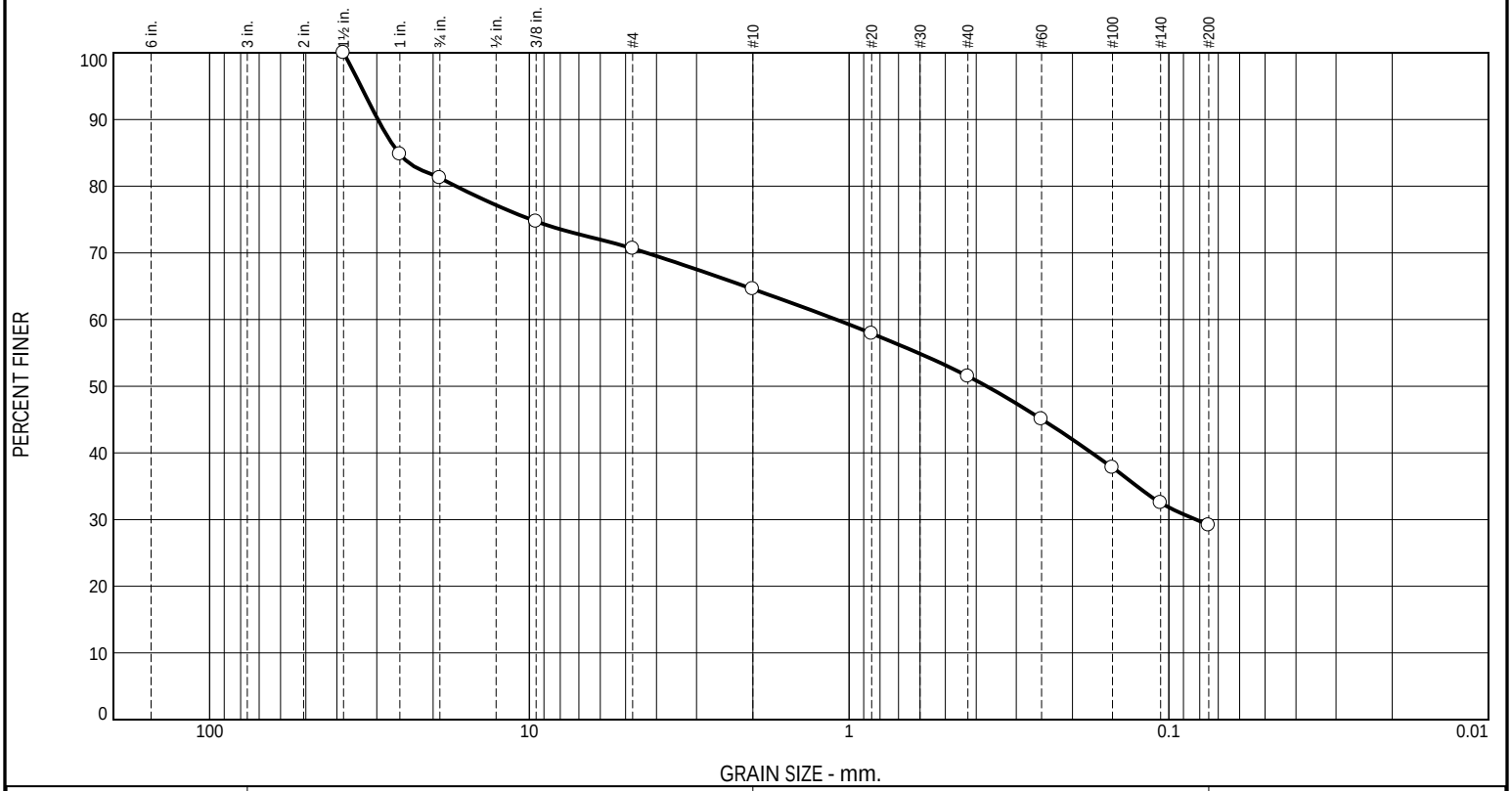
Client: BNE Real Estate
Project: Proposed Mixed-Use Development

Project No: 13390 Figure 3

Tested By: MLT Checked By: MLT

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel=**35.4**			% Sand=**35.4**			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	15.2	10.1	10.1	9.7	9.8	15.9	29.2

Test Results (ASTM D6913)

Sieve Size or Diam. (**in.**)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
1.5	100.0			
1	84.8			
.75	81.2			
.375	74.7			
#4	70.7			94.6
#10	64.6			86.4
#20	57.9			77.5
#40	51.5			68.9
#60	45.1			60.3
#100	37.8			50.6
#140	32.5			43.5
#200	29.2			39.0

* (no specification provided)

Material Description

Brown coarse to fine Gravel, and coarse to fine Sand, some Silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 29.7640 D_{85}= 25.6067 D_{60}= 1.0959
D_{50}= 0.3715 D_{30}= 0.0823 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Test Remarks

Water Content(%)= 13.4

Location: TP-26
Sample Number: S-1 Depth: 7 Sample Date: 02/20/2024

SESI CONSULTING ENGINEERS

Client: BNE Real Estate
Project: Proposed Mixed-Use Development

Project No: 13390 Figure 4

Tested By: MLT Checked By: MLT

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel=**29.9**			% Sand=**39.0**			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	8.5	8.6	12.8	11.0	11.0	17.0	31.1

Test Results (ASTM D6913)

Sieve Size or Diam. (**in.**)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
1.5	100.0			
1	91.5			
.75	87.2			
.375	82.9			
#4	77.1			92.9
#10	70.1			84.5
#20	62.5			75.4
#40	55.3			66.7
#60	48.1			58.0
#100	40.1			48.4
#140	34.6			41.7
#200	31.1			37.5

* (no specification provided)

Material Description

Brown coarse to fine Sand, some Silt, some coarse to fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 23.2989 D_{85}= 14.2180 D_{60}= 0.6556
D_{50}= 0.2852 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Test Remarks

Water Content(%)= 12.8

Location: TP-32
Sample Number: S-1 Depth: 7 Sample Date: 02/20/2024

SESI CONSULTING ENGINEERS

Client: BNE Real Estate
Project: Proposed Mixed-Use Development

Project No: 13390 Figure 5

Tested By: MLT Checked By: MLT

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Principals
Anthony Castillo, PE
Fuad Dahan, PhD, PE, LSRP
Franz W. Laki, PE
John M. Nederfield, PE
Justin M. Protasiewicz, PE
Michael St. Pierre, PE

July 21, 2025 ***via email:*** ***cthomas@bnerealestate.com***

Mr. Charles Thomas
BNE Real Estate
16 Microlab Road, Suite A
Livingston, NJ 07039

RE: **Geotechnical Data Summary Letter**
Proposed Stormwater Management Systems
2 Ridge Road
Haverstraw, New York 10927
SESI Project No.: 13390

Dear Mr. Thomas,

In accordance with our Professional Service Agreement, Addendum #2, dated June 16, 2025, we have completed our geotechnical investigation and in-situ infiltration testing program in support of the proposed stormwater management improvements to be constructed at the subject site located in Haverstraw, New York. SESI has previously prepared a Geotechnical Investigation Report for the subject site, dated March 6, 2024.

PROJECT DESCRIPTION

According to the *Test Pit Map (Existing Conditions)*, prepared by JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC (JMC), dated November 9, 2023, the overall site covers approximately 22.7± acres and is bounded to the north by Letchworth National Historic preserve, to the east by unoccupied wooded land and commercial and residential buildings beyond, to the south by Letchworth Village Road, and to the west by the Letchworth Village campus. The site is mostly open grassed areas with asphaltic pavement and gravel roadways. An abandoned garage structure is located in the northern portion of the site. The north and east sides of the site are densely wooded. According to the existing conditions plan, the site has a high elevation of approximately EL +460 near the center of the site, moderately grading down to a low elevation of approximately EL +420 toward the southeast corner of the site. Along the southern edge of the property, the slope sharply drops to approximately EL +392.

According to the *Site Grading Plan*, prepared by JMC, dated January 24, 2025, last revised February 28, 2025, we understand the proposed development consists of seven (7) proposed four-story apartment buildings, one (1) single-story clubhouse with an outdoor pool, a dog run, a pickleball court, parking lots, multiple stormwater management basins, and typical appurtenant site improvements.

FIELD INVESTIGATION, IN-SITU TESTING, AND LABORATORY TESTING PROGRAM

Our engineering study consisted of a field investigation comprised of the excavation of test pits, the drilling of borings, and the performance of in-situ permeability testing in support of the proposed stormwater management basins which may be constructed at the subject site.

SESI observed the excavation of ten (10) test pits, the advancement of nine (9) soil borings, and performed 18 in-situ soil permeability tests at locations provided by JMC. The borings and test pits were performed in order to characterize the subsurface conditions for the design of the proposed stormwater management systems and were advanced to the depths provided by JMC, or refusal. The test pits were excavated using a track-mounted CAT 321 DLCR excavator between June 25 and June 26, 2025. The test borings were drilled using a track-mounted GeoProbe 7822DT between July 7 and July 8, 2025.

At each of the exploration locations, an offset exploration was advanced to the proposed test depth provided by JMC, and an in-situ permeability test was performed at each of these locations. It should be noted that due to encountering groundwater higher than the proposed test depth at boring location B-104, JMC instructed SESI to not perform an in-situ permeability test at this location. As a result of our findings at boring B-104, JMC also instructed SESI to abandon boring location B-105 (abandoned at 4 feet below grade) and to not perform any exploration or testing at the proposed boring B-106/PT-6 location.

The stormwater management testing was done in general accordance with the requirements of the 2024 New York State Stormwater Management Design Manual. The testing was performed by installing a 4-inch diameter PVC casing in each test location to the test depths. The casings were then filled with 24 inches of water, and allowed to pre-soak for 24 hours. Once the pre-soak was completed, the casings were refilled with another 24 inches of water, and the water level was monitored for one (1) hour to obtain the infiltration rate at each location. This procedure was repeated a minimum of three (3) times for a total of four (4) observations per infiltration test. The last of the four (4) observations for each test location were reported to provide an unfactored field infiltration rate in inches per hour. We recommend that the Civil Engineer apply a standard factor of safety to the field measured results. The soil infiltration tests were performed at depths ranging from approximately 2± to 13.5± feet below the ground surface, which correlates to elevations ranging from approximately EL +425 to EL +438.

The approximate locations of the borings, test pits, and in-situ tests are shown on the attached **Exploration Location Plan** which is included as **Figure 1**. Individual boring and test pit logs, which describe the materials encountered, are presented in **Appendix A**. The site soils were classified according to the Modified Burmister classification system. In accordance with the 2024 New York State Stormwater Management Design Manual, the soils were also classified according to the USDA Soil Classification System. A key to soil terminology, for the Modified Burmister system, is included in **Appendix A**. The results of the permeability tests are included on the individual boring and test pit logs, and summarized in the **Soil Permeability Test Summary Table (Table 1)**, attached.

All field work was performed under the direct technical observation of a geotechnical engineer from SESI Consulting Engineers. Our representative located the boring and test pit locations in the field (locations surveyed by others), maintained continuous logs of the explorations as work proceeded, and coordinated the soil sampling and testing operations in order to develop the required subsurface information. Ground surface elevations were provided by JMC and were verified from the topographic information provided on the *Test Pit Map (Existing Conditions)*.

Soil samples suitable for identification purposes were extracted from the explorations at various intervals. All soil samples were taken to our soils laboratory for classification and appropriate geotechnical testing. Laboratory testing consisted of two (2) mechanical grain size analysis, two (2) percent passing the sieve No. 200 tests, and four (4) moisture content determinations. The results of the percent passing sieve No. 200 tests and the water content determinations are presented on the individual test pit logs. The results of the mechanical grain size analyses are presented on the individual test pit logs and in graphical form in **Appendix B**.

GENERALIZED SUBSURFACE CONDITIONS

The following subsurface conditions were encountered in order of increasing depth:

Surface Materials: Topsoil was observed at the surface of all explorations with thicknesses ranging from approximately 4± inches to 12± inches. The remainder of the site has topsoil, asphalt, or gravel at the surface.

Fill: Beneath the surface materials, fill materials were encountered in all of the borings performed as part of this investigation. The fill materials generally consisted of coarse to fine sand with varying amounts of gravel and silt with roots, and in B-119/PT-19 consisted of primarily slag. The fill materials were observed to be in a loose to medium dense condition based on the SPT N-values. It should be noted that fill materials were not encountered within the test pits; however, it was often difficult to discern the difference between the fill materials and the underlying natural soils due to the nature of the fill materials and the similarity to the underlying natural soils.

Natural Soils: Beneath the surface materials and fill materials, where encountered, natural soils were encountered. The natural soils generally consisted of coarse to fine sand with varying amounts of gravel, silt, and clay or they consisted of coarse to fine gravel with varying amounts of sand, silt, and clay. Cobbles were noted in several of the test pits and were potentially indicated by high SPT N-Values in several of the borings. It should be noted that pockets of predominately silty clay/clayey silt were occasionally observed. All explorations were terminated within the natural soils. The natural granular soils were observed to be in a medium dense to very dense condition based on the observed bucket resistance and SPT N-values.

Groundwater: Where encountered, groundwater was observed in the explorations at depths ranging from 8.5± feet to 10.75± feet below existing grade. Groundwater was observed at elevations ranging from approximately EL +421.5 to EL +431.3 Groundwater variations were attributed to the variations in site topography from north to south, the relatively short period of time the explorations were left open, and varied seepage rates due to the variation in soil gradation and density. Locally, however, (i.e., at basin locations) groundwater levels were more consistent. It should be noted that mottling was encountered at depths ranging from 2 to 8 feet below existing grades at boring locations B-117/PT-17 through B-120/PT-20A/PT-20B.

Fluctuations in the groundwater levels should be anticipated based on the time of year and amount of recent precipitation. If more accurate groundwater elevations are required, SESI recommends that groundwater monitoring wells be installed and monitored during the seasonal high groundwater time of year (January to April) to confirm the seasonal high groundwater elevation.

If you have any questions, please call.

Sincerely,

SESI CONSULTING ENGINEERS

Michael St. Pierre, P.E.
President

Michael A. Felicetta
Assistant Project Engineer II

Attachments:

Figure 1 – Exploration Location Plan
Table 1 – Soil Permeability Test Summary Table
Appendix A – Test Pit Logs and Soils Classification and Exploration Log Key
Appendix B – Geotechnical Laboratory Test Results

N:\PROJECTS\13390- Haverstraw, NY (BNE)\Letters & Memos\SWM Inv. Geotech Summary Letter\13390_Geotechnical Summary Letter.mf.docx

NOTE:
THIS PLAN IS FOR LOCATING SOIL BORINGS & TEST PITS ONLY.
OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

REFERENCE:
EXISTING CONDITIONS & BOUNDARY ARE TAKEN FROM "SITE GRADING PLAN - C-200" PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC., DATED 01-24-25, REV 08-11-1025.

NYS Education Law
Unauthorized alterations or additions to this plan are a violation of section 7209 (2) of the New York State Education Law. Copies of this map not having the seal of the engineer shall not be valid.

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LEGEND:

- B-105/PT-5 — SOIL BORING AND PERMEABILITY TEST AND APPROX. LOCATION (JULY 2025)
- TP-101/PT-1 — TEST PIT AND PERMEABILITY TEST AND APPROX. LOCATION (JUNE 2025)
- BP6 — SOIL BORING AND APPROX. LOCATION (JANUARY 2024)
- TP-33 — TEST PIT AND APPROX. LOCATION (JANUARY & FEBRUARY 2024)
- (442.27) — SURFACE ELEVATION
- [427.47] — GROUNDWATER ELEVATION
- SITE BOUNDARY

Scale: 1"= 60'
0 30 60 120 180 240

rev	date	description	by

drawn by: AW
checked by: MF
scale: AS NOTED
date: 06/30/2025

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959 ROUTE 46E. 3RD FLOOR, PARSIPPANY, NJ 07054 PH: 973.808.9050

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
TOWN OF HAVERSTRAW
ROCKLAND COUNTY, NEW YORK

title:
EXPLORATION LOCATION PLAN

job no. 13390
drawing no.
FIG-1
1 of 1

N:\PROJ\13390\CAD\GEOTECH\LOCATION PLANS\13390.GPJ - EXPO PLAN.DWG 07/31/25 05:13:12PM stephen.ward LAYOUT1 EXPLORATION

Project Number: 13390
Project Location: Haverstraw, NY

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TABLE 1: SOIL PERMEABILITY TEST SUMMARY TABLE

Exploration Location I.D.	Exploration Type	Approximate Ex. Ground El.*	Depth to Groundwater (ft)	Elevation of Groundwater	Exploration Termination Depth (ft)	Exploration Termination Elevation	Depth to Bottom of Perm Test (ft)	Elevation of Bottom of Perm Test	Lowest Recorded Stabilized Rate (in/hr) **	NOTES
TP-101/PT-1	Test Pit	439.0	Not Encountered	Not Encountered	3	436.0	2	437.0	18.00	
TP-102/PT-2	Test Pit	442.0	Not Encountered	Not Encountered	6	436.0	4	438.0	17.75	
TP-103/PT-3	Test Pit	441.0	Not Encountered	Not Encountered	5	436.0	3	438.0	16.75	
B-104/PT-4	Boring	442.0	10.75	431.3	18.5	423.5	Cancelled by JMC	Cancelled by JMC	Cancelled by JMC	Test not performed at Civil Engineer's request
B-105/PT-5	Boring	438.0	Not Encountered	Not Encountered	4	434.0	Cancelled by JMC	Cancelled by JMC	Cancelled by JMC	Hole abandoned at Civil Engineer's request
B-106/PT-6	Boring	N/A	N/A	N/A	Cancelled by JMC	Cancelled by JMC	Cancelled by JMC	Cancelled by JMC	Cancelled by JMC	Hole not performed at Civil Engineer's request
TP-107/PT-7	Test Pit	431.0	9.5	421.5	10	421.0	5	426.0	15.75	
TP-108/PT-8	Test Pit	432.5	8.5	424	9	423.5	6.5	426.0	10.75	
TP-109/PT-9	Test Pit	432.5	8.5	424	9	423.5	6.5	426.0	18.50	
TP-110/PT-10	Test Pit	433.0	Not Encountered	Not Encountered	9	424.0	7	426.0	24.00	
B-111/PT-11	Boring	440.5	Not Encountered	Not Encountered	14	426.5	10.5	430.0	3.00	
B-112/PT-12	Boring	442.5	Not Encountered	Not Encountered	16	426.5	12.5	430.0	4.80	
B-113/PT-13	Boring	443.5	Not Encountered	Not Encountered	16	427.5	13.5	430.0	1.20	
TP-114/PT-14	Test Pit	441.0	Not Encountered	Not Encountered	11	430.0	9	432.0	24.00	
TP-115/PT-15	Test Pit	438.5	Not Encountered	Not Encountered	9.5	429.0	6.5	432.0	16.25	
TP-116/PT-16	Test Pit	439.5	Not Encountered	Not Encountered	9.5	430.0	7.5	432.0	10.50	
B-117/PT-17	Boring	427.0	Not Encountered	Not Encountered	6	421.0	2	425.0	5.50	Mottling observed from 2'-6' below grade
B-118/PT-18/B-18A/PT-18A	Boring	428.0	Not Encountered	Not Encountered	8	420.0	2	426.0	0.75	Mottling observed from 2'-8' below grade
B-119/PT-19	Boring	429.0	Not Encountered	Not Encountered	8	421.0	2	427.0	22.75	Mottling observed from 4'-6' below grade
B-120/PT-20A	Boring	429.0	Not Encountered	Not Encountered	8	421.0	4	425.0	9.00	Mottling observed from 4'-6' below grade
B-120/PT-20B	Boring	429.0	Not Encountered	Not Encountered	8	421.0	2	427.0	24.00	Mottling observed from 4'-6' below grade

*** Approximate Existing Ground Elevations provided by others.**

**** A rate is considered stabilized when two successive tests are approximately equal. All results from permeability testing shall be reported utilizing the lowest reported stabilized rate per test. Testing units shall be in inches/hour.**

APPENDIX A

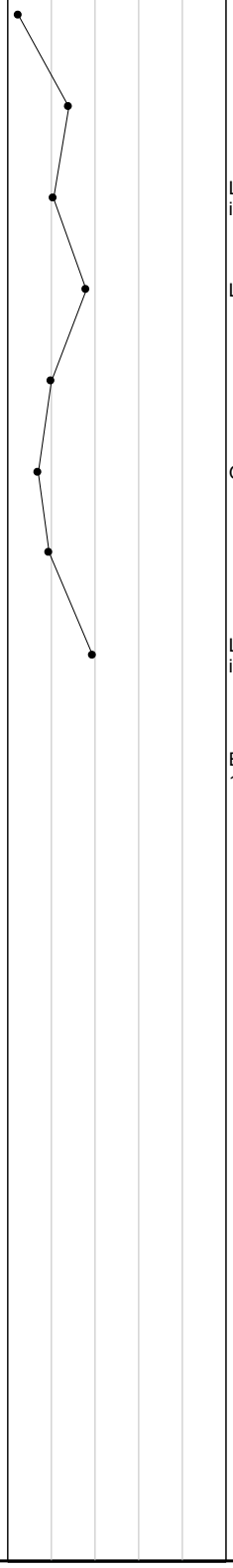
SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-104/PT-4

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-07-2025 **COMPLETED** 07-08-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 442.0±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER **DEPTH TO GROUNDWATER:**
CASING DIAMETER ▽ **AT TIME OF DRILLING** 8.00± ft
CASING DEPTH ▼ **AT END OF DRILLING** 10.75± ft
FINAL DEPTH 18.5± ft ⧩ **24 HR AFTER DRILLING** 10.75± ft

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		5" Topsoil								
		MB: Fill: Brown coarse to fine SAND, little medium to fine Gravel, little Silt		S-1		12	Dry	1-2-3-4 (5)		
		MB: Brown coarse to fine Sand, and coarse to fine Gravel, little Silt USDA: Strong brown (10YR 4/6) Loamy Sand, 35% Gravel, Subangular Blocky		S-2		20	Dry	3-13-15-16 (28)		
	437	MB: Brown coarse to fine Sand, some Clayey Silt, some coarse to fine Gravel USDA: Dark yellowish brown (10YR 4/6) Sandy Loam, 20% Gravel, Subangular Blocky	5	S-3		20	Moist	3-6-15-15 (21)		Low recovery due to Gravel in tip
		MB: Brown coarse to fine Sand, some Clayey Silt, some coarse to fine Gravel USDA: Dark yellowish brown (10YR 4/6) Sandy Loam, 20% Gravel, Subangular Blocky		S-4		5	Moist	12-20-16-15 (36)		Low recovery
		MB: Brown coarse to fine Gravel, some coarse to fine Sand, some Clayey Silt USDA: Brown (7.5YR 4/4) Sandy Loam, 50% Gravel, Subangular Blocky		S-5		20	Wet	3-5-15-9 (20)		
	432	No Recovery	10	S-6		0	Wet	5-7-7-7 (14)		Gravel in tip
		MB: Brown coarse to fine Gravel, and Silty Clay, little coarse to fine Sand USDA: Dark yellowish brown (10YR 4/6) Silty Clay Loam, 50% Gravel, Subangular Blocky		S-7		10	Wet	11-10-9-50/0" (19)		
	427	MB: Brown coarse to fine Gravel, and Silty Clay, little coarse to fine Sand USDA: Dark yellowish brown (10YR 4/6) Silty Clay Loam, 50% Gravel, Subangular Blocky	15	S-8		6	Wet	12-17-22-30 (39)		Low recovery due to Gravel in tip
		MB: Brown coarse to fine Gravel, and Silty Clay, little coarse to fine Sand USDA: Dark yellowish brown (10YR 4/6) Silty Clay Loam, 50% Gravel, Subangular Blocky		S-9		11	Wet	25-48-50/0"/6"		Extremely hard grinding 17'-18'
				S-10		0		50/0"		
		BORING COMPLETED AT 18.5± FEET								
	422		20							
	417		25							
	412		30							



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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-105/PT-5

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-07-2025 **COMPLETED** 07-07-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 438.0±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 4.0± ft

DEPTH TO GROUNDWATER:
▽ **AT TIME OF DRILLING** Not Encountered
▼ **AT END OF DRILLING** Not Encountered
⧩ **24 HR AFTER DRILLING**

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		6" Topsoil								
		Fill: MB: Brown coarse to fine SAND, little medium to fine Gravel, little Silt, with Roots, occasional Cobbles		S-1		12	Dry	2-2-6-6 (8)		
		MB: Brown coarse to fine SAND, and medium to fine Gravel, little Silt, occasional Cobbles USDA: Yellowish brown (10YR 5/6) Loamy Sand, 45% Gravel, 10% Cobbles, Subangular Blocky		S-2		18	Dry	11-15-22-23 (37)		Grinding at 1'-4'
		BORING COMPLETED AT 4± FEET								Boring abandoned at request of civil engineer
	433		5							
	428		10							
	423		15							
	418		20							
	413		25							
	408		30							

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-111/PT-11

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-07-2025 **COMPLETED** 07-07-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 440.5±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER **DEPTH TO GROUNDWATER:**
CASING DIAMETER **AT TIME OF DRILLING** Not Encountered
CASING DEPTH **AT END OF DRILLING** Not Encountered
FINAL DEPTH 14.0± ft **24 HR AFTER DRILLING**

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		6" Topsoil								
		MB: Fill: Brown coarse to fine Sand, and coarse to fine Gravel, little Silt, with Roots		S-1			Dry	2-4-5-8 (9)		
		MB: Brown coarse to fine Sand, and coarse to fine Gravel, little Silt, occasional Cobbles, with Roots USDA: Strong brown (7.5YR 4/6) Loamy Sand, 40% Gravel, 10% Cobbles, Single Grained		S-2			Dry	5-12-32-21 (44)		Grinding from 2'-4' Rock in tip
	436	MB: Light brown coarse to fine GRAVEL some coarse to fine Sand, little Clayey Silt USDA: Brown (10YR 4/3) Sandy Loam, 60% Gravel, Subangular Blocky	5	S-3			Dry	9-14-14-11 (28)		
		MB: Brown coarse to fine GRAVEL, some coarse to fine Sand, little Silt USDA: Brown (10YR 4/3) Sandy Loam, 60% Gravel, Subangular Blocky		S-4			Moist	10-13-21-28 (34)		Low recovery, gravel in tip
		MB: Light brown coarse to fine GRAVEL, some coarse to fine Sand, little Clayey Silt USDA: Brown (10YR 5/3) Loamy Sand, 60% Gravel, Subangular Blocky		S-5			Wet	7-10-22-19 (32)		
	431	MB: Light brown coarse to fine GRAVEL, some coarse to fine Sand, little Clayey Silt USDA: Brown (10YR 5/3) Loamy Sand, 60% Gravel, Subangular Blocky	10	S-6			Wet	3-13-19-28 (32)		Test bottom at ±10.5'; Perm Rate = 3.0 in/hr
		MB: Light brown Decomposed Rock: coarse to fine Sand, some coarse to fine Gravel, some Clayey Silt USDA: Strong brown (7.5YR 5/6) Loamy Sand, 30% Gravel, Subangular Blocky		S-7			Moist	41-44-44-50/0" (88)		
		BORING COMPLETED AT 14± FEET								
	426		15							
	421		20							
	416		25							
	411		30							
	406									

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-112/PT-12

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-07-2025 **COMPLETED** 07-07-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 442.5±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER **DEPTH TO GROUNDWATER:**
CASING DIAMETER **AT TIME OF DRILLING** Not Encountered
CASING DEPTH **AT END OF DRILLING** Not Encountered
FINAL DEPTH 16.0± ft **24 HR AFTER DRILLING**

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft)	Remarks
		6" Topsoil								
		MB: Fill: Brown coarse to fine Sand, some medium to fine Gravel, little Silt, with Roots		S-1		18	Dry	1-3-3-8 (6)		
		MB: Brown coarse to fine Gravel, some coarse to fine Sand, some Clayey Silt USDA: Dark yellowish brown (10YR 4/6) Loam, 50% Gravel, Single Grained		S-2		16	Dry	8-10-19-25 (29)		
	438	MB: Light brown coarse to fine Sand, and coarse to fine Gravel, little Clayey Silt USDA: Dark yellowish brown (10YR 4/4) Loamy Sand, 35% Gravel, Subangular Blocky	5	S-3		19	Dry	12-19-15-16 (34)		
		MB: Light brown coarse to fine Sand, some coarse to fine Gravel, some Clayey Silt USDA: Yellowish brown (10YR 5/6) Sandy Loam, 25% Gravel, Subangular Blocky		S-4		17	Moist	15-13-14-13 (27)		
		...same as above USDA: Yellowish brown (10YR 5/6) Sandy Loam, 25% Gravel, Subangular Blocky		S-5		20	Moist	9-8-12-13 (20)		
	433		10							
		MB: Light brown Clayey Silt, some coarse to fine Gravel, some coarse to fine Sand USDA: Brown (7.5YR 5/4) Silty Loam, 30% Gravel, Platy		S-6		22	Moist	5-9-15-16 (24)		W.C. = 11.4%; (-200) = 40.6%
		MB: Light brown Clayey Silt, some coarse to fine Gravel, some coarse to fine Sand USDA: Brown (7.5YR 5/4) Silty Loam, 30% Gravel, Platy		S-7		21	Moist	17-16-35-38 (51)		Test bottom at ±12.5'; Perm Rate = 4.80 in/hr
	428	MB: Brown coarse to fine SAND, little Silt USDA: Dark yellowish brown (10YR 4/6) Loamy Sand, Single Grained	15	S-8		23	Moist	18-16-19-20 (35)		
		BORING COMPLETED AT 16± FEET								
	423		20							
	418		25							
	413		30							
	408									

N-Value (Blows/ft) scale: 20 40 60 80

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-113/PT-13

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-07-2025 **COMPLETED** 07-07-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 443.5±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER **DEPTH TO GROUNDWATER:**
CASING DIAMETER **AT TIME OF DRILLING** Not Encountered
CASING DEPTH **AT END OF DRILLING** Not Encountered
FINAL DEPTH 16.0± ft **24 HR AFTER DRILLING**

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		4" Topsoil								
		MB: Fill: Brown coarse to fine SAND, some Silt, with Roots		S-1		10	Dry	1-3-3-3 (6)		
		MB: Light brown coarse to fine SAND, some coarse to fine Gravel, little Silt USDA: Yellowish brown (10YR 5/8) Loamy Sand, 20% Gravel, 5% Cobbles, Single Grained		S-2		15	Dry	4-8-15-18 (23)		
	439	MB: Light brown coarse to fine Gravel, and coarse to fine Sand, little Clayey Silt USDA: Strong brown (7.5YR 5/6) Sand, 45% Gravel, Subangular Blocky	5	S-3		18	Dry	14-12-11-11 (23)		Auger to 4', griding to 3'-4'
		No Recovery		S-4		0		50/3"		Hard grinding at 7' on possible cobble
		MB: Light brown coarse to fine Gravel, and coarse to fine Sand, little Clayey Silt USDA: Strong brown (7.5YR 5/6) Sand, 45% Gravel, Subangular Blocky		S-5		24	Dry Moist	11-7-10-8 (17)		Drill to 8' Grinding 7-10'
	434	MB: Brown Silty CLAY, little coarse to fine Sand, trace medium to fine Gravel USDA: Yellowish brown (10YR 5/6) Silty Clay Loam, 5% Gravel, Granular	10	S-6		22	Moist	14-22-21-20 (43)		
		MB: Brown coarse to fine Gravel, some coarse to fine Sand, some Clayey Silt USDA: Strong brown (7.5YR 5/6) Loam, 40% Gravel, Subangular Blocky		S-7		12	Moist	15-16-24-25 (40)		Perm. Test bottom ±13.5'; Perm Rate = 1.20 in/hr
	429	MB: Gray-brown coarse to fine SAND, little medium to fine Gravel, trace Silt USDA: Yellowish brown (10YR 5/8) Sand, 15% Gravel, Single Grained	15	S-8		18	Moist	9-15-16-16 (31)		
		MB: Gray-brown coarse to fine SAND, little medium to fine Gravel, trace Silt USDA: Yellowish brown (10YR 5/8) Sand, 15% Gravel, Single Grained								
		BORING COMPLETED AT 16± FEET								
	424		20							
	419		25							
	414		30							
	409									

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-117/PT-17

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-08-2025 **COMPLETED** 07-08-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 427.0±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 6.0± ft

DEPTH TO GROUNDWATER:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered
24 HR AFTER DRILLING

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		6" Topsoil								
		MB: Fill: Brown coarse to fine Sand, some Silt, little medium to fine Gravel, with Roots		S-1		20	Dry	2-1-3-4 (4)		
		MB: Light/gray/orange brown coarse to fine SAND, some Clayey Silt, trace fine Gravel USDA: Dark yellowish brown (10YR 4/6)/very dark gray brown Silt Loam, many mottling abundance, coarse mottling, distinct mottling, Single Grained, 5% Gravel		S-2		18	Moist	6-7-7-9 (14)		Perm Test bottom at ±2'; Perm Rate = 5.5 in/hr Mottling at 2'-4'
	422	MB: Light/gray/orange brown coarse to fine SAND, some Clayey Silt, trace fine Gravel USDA: Dark yellowish brown (10YR 4/6)/very dark gray brown Silt Loam, many mottling abundance, coarse mottling, distinct mottling, Single Grained, 5% Gravel	5	S-3		20	Moist	12-14-16-17 (30)		Mottling at 4'-6'
		BORING COMPLETED AT 6± FEET								
	417		10							
	412		15							
	407		20							
	402		25							
	397		30							

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-118

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-07-2025 **COMPLETED** 07-07-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 428.0±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 4.0± ft

DEPTH TO GROUNDWATER:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered
24 HR AFTER DRILLING

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		6" Topsoil								
		MB: Fill: Brown coarse to fine Sand, some coarse to fine Gravel, little Silt, with Roots, occasional Cobbles		S-1		18	Dry	3-4-6-11 (10)		
		MB: Brown coarse to fine GRAVEL, some coarse to fine Sand, little Silt, occasional Cobbles USDA: Dark yellowish brown (10YR 2/2) Loamy Sand, Single Grained, 60% Gravel, 10% Cobbles		S-2		8	Dry	11-11-11-12 (22)		Grinding at 1'-4' Low recovery and grinding in tip Offset 5' north and resampled
		BORING COMPLETED AT 4± FEET DUE TO AUGER REFUSAL								
	423		5							
	418		10							
	413		15							
	408		20							
	403		25							
	398		30							

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-118A/PT-18

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-08-2025 **COMPLETED** 07-08-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 428.0±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER **DEPTH TO GROUNDWATER:**
CASING DIAMETER **AT TIME OF DRILLING** Not Encountered
CASING DEPTH **AT END OF DRILLING** Not Encountered
FINAL DEPTH 8.0± ft **24 HR AFTER DRILLING**

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		6" Topsoil								
		MB: Fill: Brown coarse to fine SAND, some coarse to fine Gravel, little Silt, with Roots		S-1		18	Dry	1-3-3-5 (6)		Perm bottom Test at ±2'; Perm Rate = 0.75 in/hr
		MB: Light brown/gray/tan coarse to fine GRAVEL, some coarse to fine Sand, little Clayey Silt USDA: Dark yellowish brown (10YR 4/6)/very dark brown (10YR 2/2) Loamy Sand, many mottling abundance, coarse mottling size, faint mottling contrast, 50% Gravel, Subangular Blocky		S-2		11	Dry	10-14-13-12 (27)		Mottling at 2'-4'
	423	MB: Orange/brown/gray coarse to fine Sand, and Clayey Silt, little medium to fine Gravel USDA: Dark yellowish brown (10YR 4/6)/very dark brown (10YR 2/2) Loam, few mottling abundance, fine mottling size, distinct mottling contrast, 15% Gravel, Single Grained ...same as above	5	S-3		20	Moist	5-10-13-15 (23)		
				S-4		16	Moist	16-18-29-50/0" (47)		
		BORING COMPLETED AT 8± FEET								
	418		10							
	413		15							
	408		20							
	403		25							
	398		30							

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-119/PT-19

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-07-2025 **COMPLETED** 07-07-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 429.0±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 8.0± ft

DEPTH TO GROUNDWATER:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered
24 HR AFTER DRILLING

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		12" Topsoil								
		Fill: 6" Slag		S-1		22	Moist	2-6-14-19 (20)		
		Fill: 6" Gravel								Perm. Test bottom at ±2'; Perm Rate = 22.75 in/hr
		MB: Brown coarse to fine GRAVEL, some coarse to fine Sand, little Silt USDA: Yellowish brown (10YR 5/4) Sandy Loam, Subangular Blocky, 60% Gravel, common mottling abundance, coarse mottling size, Faint		S-2		8	Moist	11-9-9-7 (18)		
	424	MB: Brown/orange/gray coarse to fine Sand, and Silty Clay, trace coarse to fine Gravel USDA: Yellowish brown (10YR 5/4) Sandy Clay Loam, Platy, 10% Gravel, many mottling abundance, coarse mottling size, faint	5	S-3			Moist	5-8-8-9 (16)		Mottling at 4'-6'
				S-4			Moist	14-13-13-14 (26)		
		BORING COMPLETED AT 8± FEET								
	419		10							
	414		15							
	409		20							
	404		25							
	399		30							

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

BOREHOLE NUMBER: B-120/PT-20

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 07-07-2025 **COMPLETED** 07-07-2025
DRILLING CONTRACTOR ETD
SAMPLER 2-inch split spoon
EQUIPMENT Geoprobe 7822DT
DRILLING FOREMAN Scott **HELPER** Dave
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** 429.0±
DRILLING METHOD HSA
SAMPLE HAMMER Auto
AUGER INNER DIAMETER 2.88 in **OUTER DIAMETER** 4.75 in
ROTARY BIT DIAMETER
CASING DIAMETER
CASING DEPTH
FINAL DEPTH 8.0± ft

DEPTH TO GROUNDWATER:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered
24 HR AFTER DRILLING

Material Symbol	EL (ft)	Sample Description	Depth (ft)	Sample Data: Number	Type	Rec. (in)	Moisture	Blows/6-in Core time/ft	N-Value (Blows/ft) 20 40 60 80	Remarks
		Fill: 12" Topsoil over gray coarse to fine Gravel, trace coarse to fine Sand, trace Silt		S-1		17	Dry	2-8-13-13 (21)		Perm Test bottom at ±2' Perm Rate = 9.0 in/hr Hard grinding 1 to 4 feet
		MB: Fill: Dark brown coarse to fine Gravel, some coarse to fine Sand, little Clayey Silt, with Brick		S-2		10	Dry	7-7-16-19 (23)		Perm Test bottom at ±4' Perm Rate = 24.0 in/hr
	424	MB: Brown/gray/orange Silty CLAY, and coarse to fine Sand, little medium to fine Gravel USDA: Light gray (10YR 7/1) Silty Clay, 15% Gravel, Platy, many mottling abundance, coarse mottling size, distinct	5	S-3		23	Moist	3-3-4-4 (7)		Mottling at 4'-6'
		MB: Brown/gray/orange Silty CLAY, and coarse to fine Sand, little medium to fine Gravel USDA: Light gray (10YR 7/1) Silty Clay, 15% Gravel, Platy, many mottling abundance, coarse mottling size, distinct		S-4		23	Moist	3-5-8-8 (13)		
		BORING COMPLETED AT 8± FEET								
	419		10							
	414		15							
	409		20							
	404		25							
	399		30							

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-101/PT-1

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±439.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 3.0-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6" Topsoil/Roots		Moist	Loose	
		MB: Yellow-brown coarse to fine SAND, some coarse to fine Gravel, little Silt USDA: Yellowish brown (10YR 5/6) Sandy Loam, Subangular Blocky, 20% Gravel		Moist	Medium Dense	Perm. Test bottom at ±2'; Perm Rate = 18.0 in/hr
		TEST PIT COMPLETED AT 3± FEET				
	434		5			
	429		10			
	424		15			
	419		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-102/PT-2

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±442.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 6.0-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6" Topsoil		Moist	Loose	
		MB: Brown coarse to fine Sand, and Silty Clay, some coarse to fine Gravel, occasional Cobbles, with Roots USDA: Yellowish brown (10YR 5/4) Sandy Clay Loam, Subangular Blocky, 22% Gravel, 10% Cobbles				W.C. = 13.1%; (-200) = 38.0%
				Dry	Dense	
						Perm. Test bottom at ±4'; Perm Rate = 17.75 in/hr
	437		5			
		TEST PIT COMPLETED AT 6± FEET				
	432		10			
	427		15			
	422		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-103/PT-3

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±441.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 5.0-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6" Topsoil		Moist	Loose	
		MB: Yellow-brown coarse to fine Sand, some coarse to fine Gravel, some Silt USDA: Dark yellowish brown (10YR 4/4) Sandy Loam, Subangular Blocky, 20% Gravel		Moist	Medium Dense	Perm. Test bottom at ±3'; Perm Rate = 16.75 in/hr
	436	TEST PIT COMPLETED AT 5± FEET	5			
	431		10			
	426		15			
	421		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-107/PT-7

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±431.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 10.0-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION 9.50 ft
AT END OF EXCAVATION
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6" Topsoil		Moist	Loose	
		Fill: Light brown coarse to fine Sand, and coarse to fine Gravel, trace Sand, occasional Cobbles, Bricks and Roots				
				Dry	Medium Dense	
	426	MB: Brown coarse to fine Gravel, some Silt, some coarse to fine Sand USDA: Dark yellowish brown (10YR 3/4) Silt Loam, Platy, 42% Gravel	5			Perm. Test bottom at ±5'; Perm Rate = 15.75 in/hr W.C. = 13.2%; (-200) = 32.9%
				Moist	Dense	
				Wet	Dense	
	421	TEST PIT COMPLETED AT 10± FEET	10			
	416		15			
	411		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-108/PT-8

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±432.5-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 9.0-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION 8.50 ft
AT END OF EXCAVATION
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6" Topsoil		Moist	Loose	
		MB: Yellow-brown coarse to fine Sand, some coarse to fine Gravel, some Silt, occasional Cobbles USDA: Dark yellowish brown (10YR 4/4) Sandy Loam, Subangular Blocky, 25% Gravel, 10% Cobbles		Moist	Medium Dense	
	428		5			Perm. Test bottom at ±6.5'; Perm Rate = 10.75 in/hr
				Wet	Medium Dense	
		TEST PIT COMPLETED AT 9± FEET				
	423		10			
	418		15			
	413		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-109/PT-9

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±432.5-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 9.0-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION 8.50 ft
AT END OF EXCAVATION
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6" Topsoil		Moist	Loose	
		MB: Yellow-brown medium to fine SAND, some coarse to fine Gravel, little Silt, occasional Cobbles USDA: Dark yellowish brown (4/6) Loamy Sand, Subangular Blocky, 25% Gravel, 10% Cobbles		Moist	Medium Dense	
	428		5			Perm. Test bottom at ±6.5'; Perm Rate = 18.50 in/hr
				Wet	Medium Dense	
		TEST PIT COMPLETED AT 9± FEET				
	423		10			
	418		15			
	413		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-110/PT-10

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±433.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 9.0-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6" Topsoil		Moist	Loose	
		MB: Yellow-brown coarse to fine Sand, and coarse to fine Gravel, little Silt USDA: Dark yellowish brown (10YR 4/4) Loamy Sand, Subangular Blocky, 35% Gravel				
	428		5	Moist	Dense	
						Perm. Test bottom at ±7'; Perm Rate = 24.0 in/hr
		TEST PIT COMPLETED AT 9± FEET				
	423		10			
	418		15			
	413		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-114/PT-14

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±441.0-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 11.0-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6" Topsoil		Moist	Loose	
		MB: Yellow-brown coarse to fine SAND, little coarse to fine Gravel, little Silt, occasional Cobbles USDA: Dark yellowish brown (10YR 4/6) Loamy Sand, 15% Gravel, 10% Cobbles, Subangular Blocky		Dry	Medium Dense	
	436		5	Moist	Dense	
				Moist	Medium Dense	Perm. Test bottom at ±9'; Perm Rate = 24 in/hr
	431		10			
		TEST PIT COMPLETED AT 11± FEET				
	426		15			
	421		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-115/PT-15

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±438.5-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 9.5-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		6" Topsoil		Moist	Loose	
		MB: Yellow-brown coarse to fine Sand, and coarse to fine Gravel, little Silt, occasional Cobbles USDA: Dark yellowish brown (10YR 4/6) Loamy Sand, Subangular Blocky, 35% Gravel, 10% Cobbles		Dry	Medium Dense	
	434		5			
				Dry	Dense	Perm. Test bottom at ±6.5'; Perm Rate = 16.25 in/hr
	429	TEST PIT COMPLETED AT 9.5± FEET	10			
	424		15			
	419		20			

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

TEST PIT NUMBER: TP-116/PT-16

PROJECT NAME Proposed Residential Development
PROJECT NO. 13390
DATE STARTED 06-25-2025 **COMPLETED** 06-26-2025
EXCAVATION CONTRACTOR PM Construction Co.

PROJECT LOCATION 2 Ridge Road, Haverstraw, NY
ELEVATION DATUM NAVD-88 **GROUND ELEVATION** ±439.5-ft
EXPLORATION WIDTH **EXPLORATION LENGTH**
FINAL DEPTH 9.5-ft

EQUIPMENT CAT 321 DLCR
EXCAVATION FOREMAN
LOGGED BY J. Tangen **CHECKED BY** M. Felicetta
LATITUDE **LONGITUDE**

DEPTH TO GROUNDWATER:
AT TIME OF EXCAVATION Not Encountered
AT END OF EXCAVATION Not Encountered
24 HR AFTER EXCAVATION

Material Symbol	EL (ft)	Soil Description	Depth Scale (ft)	Moisture	Relative Density	Remarks
		8" Topsoil		Moist	Loose	
		MB: Yellow-brown coarse to fine Sand, and coarse to fine Gravel, little Silt, occasional Cobbles USDA: Yellowish brown (10YR 5/6) Loamy Sand, Subangular Blocky, 35% Gravel, 10% Cobbles		Dry	Medium Dense	
	435		5	Dry	Dense	
		MB: Brown coarse to fine Gravel, some Silty Clay, some coarse to fine Sand USDAS: Pale brown (10YR 6/3) Sandy Clay Loam, Platy, 40% Gravel, 20% Cobbles		Dry	Very Dense	Perm. Test bottom at ±7.5'; Perm Rate = 10.50 in/hr W.C. = 12.9%; (-200) = 30.6%
	430	TEST PIT COMPLETED AT 9.5± FEET	10			
	425		15			
	420		20			

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL

SOILS CLASSIFICATION AND EXPLORATION LOG KEY

Our experience has shown that the following field identification system, which is pattered somewhat after the Burmister System, permits a more detailed breakdown of the components within a soil sample than other identification systems allow. It also compels the supervising technician to examine a sample quite closely in order to accurately describe the components within the sample.

Grain Size and Classifications

Gravel:
Coarse gravel ranges from 3-in to 1-in
Medium gravel ranges from 1-in to 3/8-in
Fine gravel ranges from 3/8-in to No. 10 sieve

Sand:
Coarse sand ranges from No. 10 to No. 30 sieve
Medium sand ranges from No. 30 to No. 60 sieve
Fine sand ranges from No. 60 to No. 200 sieve

Silt:
Material which passes the No. 200 sieve
Exhibits little to no plasticity

Clay:
Material which passes the No. 200 Sieve
Exhibits varying degrees of plasticity

Component Classification

CAPITALS	More than 50% of the sample by weight
Proper Case	Less than 50% of the sample by weight

Proportion Terms

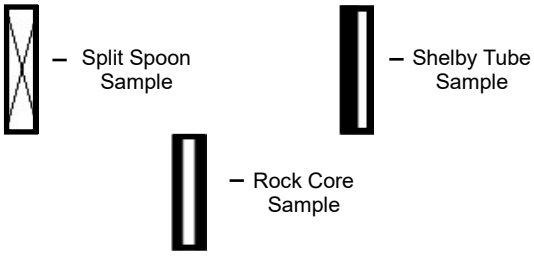
and	Component ranges from 35% to 50% of the sample by weight
some	Component ranges from 20% to 35% of the sample by weight
little	Component ranges from 10% to 20% of the sample by weight
trace	Component ranges from 0% to 10% of the sample by weight

Gradation Designation

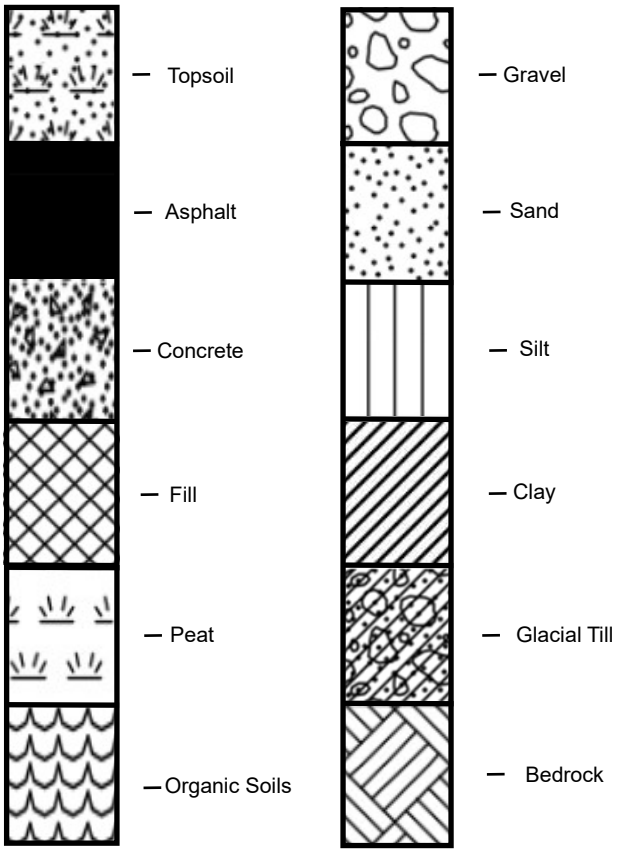
Coarse to fine (c-f)	All fractions greater than 10% of the component
Coarse to Medium (c-m)	Less than 10% of the component is fine
Medium to fine (m-f)	Less than 10% of the component is coarse
Coarse (c)	Less than 10% of the component is medium or fine
Medium (m)	Less than 10% of the component is coarse or fine
Fine (f)	Less than 10% of the component is coarse or medium

The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineer's recommendations contained in the report from which these logs were extracted.

Sampling Types



Generalized Stratum Types



Strata Separation



APPENDIX B

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel=21.8			% Sand=40.2			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	6.5	3.6	11.7	11.9	11.5	16.8	38.0

Test Results (ASTM D6913)

Sieve Size or Diam. (in.)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
2	100.0			
1.5	95.1			
1	93.5			
.75	92.6			
.375	89.9			
#4	85.9			
#10	78.2			
#20	70.0			
#40	62.3			
#60	54.8			
#100	46.7			
#140	41.1			
#200	38.0			

* (no specification provided)

Material Description

Brown coarse to fine Sand, and Silty Clay, some coarse to fine Gravel, with Roots

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 9.6793 D_{85}= 4.2072 D_{60}= 0.3576
D_{50}= 0.1842 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Test Remarks

Water Content(%)= 13.1

Location: TP-102
Sample Number: S-1 Depth: 1 Sample Date: 07/15/2025

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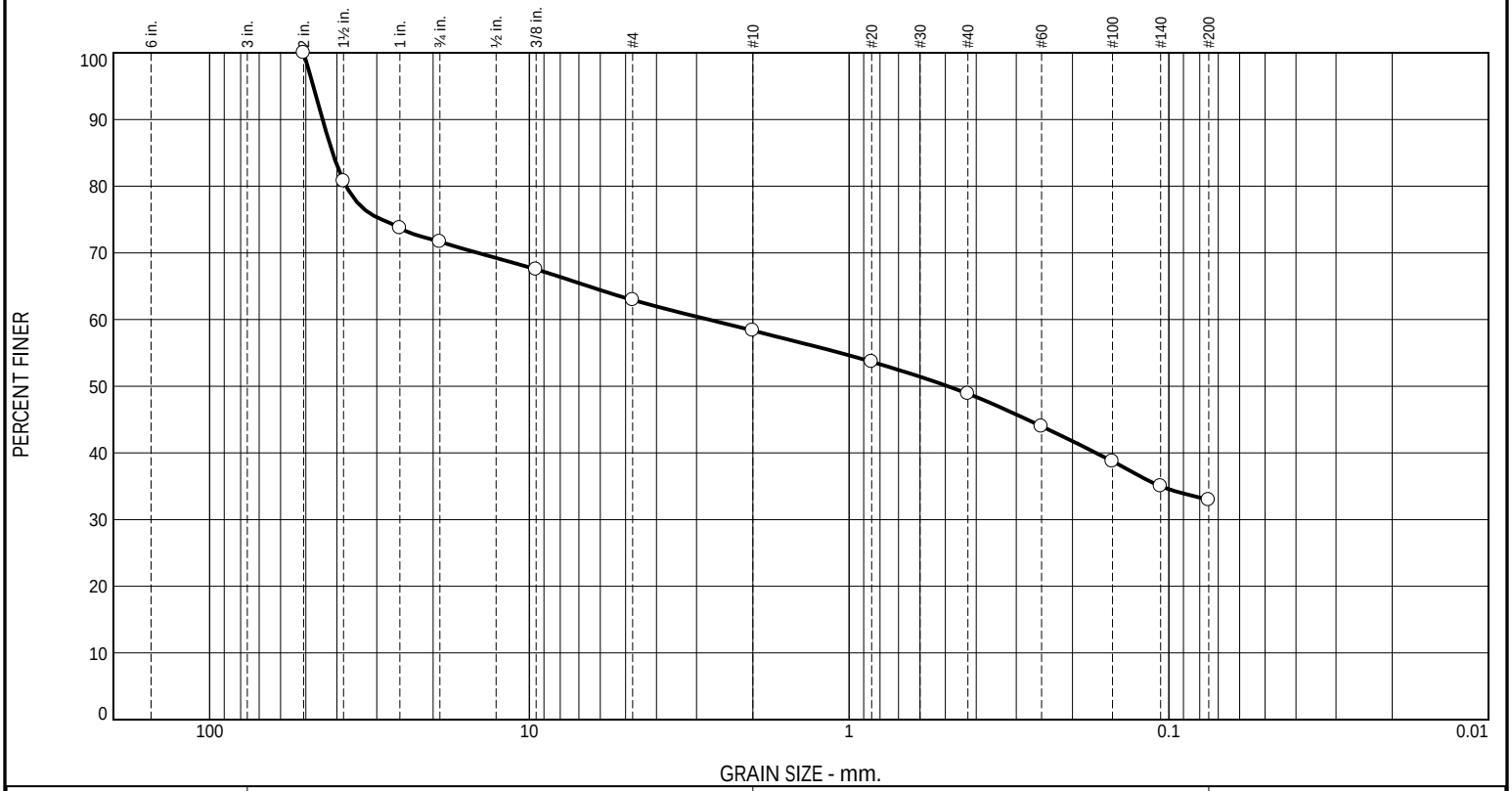
Client: BNE Real Estate
Project: Proposed Mixed-Use Development

Project No: 13390 Figure 1

Tested By: MLT Checked By: MLT

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel=41.7			% Sand=25.4			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	26.3	6.2	9.2	6.9	7.4	11.1	32.9

Test Results (ASTM D6913)

Sieve Size or Diam. (in.)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
2	100.0			
1.5	80.8			
1	73.7			
.75	71.7			
.375	67.5			
#4	62.9			
#10	58.3			
#20	53.7			
#40	48.9			
#60	44.0			
#100	38.7			
#140	35.0			
#200	32.9			

* (no specification provided)

Material Description

Brown coarse to fine Gravel, some Silt, some coarse to fine Sand, trace Roots

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 44.3046 D_{85}= 41.2278 D_{60}= 2.7501
D_{50}= 0.4912 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Test Remarks

Water Content(%)= 13.2

Location: TP-107
Sample Number: S-2 Depth: 7 Sample Date: 07/15/2025

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Client: BNE Real Estate
Project: Proposed Mixed-Use Development

Project No: 13390 Figure 2

Tested By: MLT Checked By: MLT

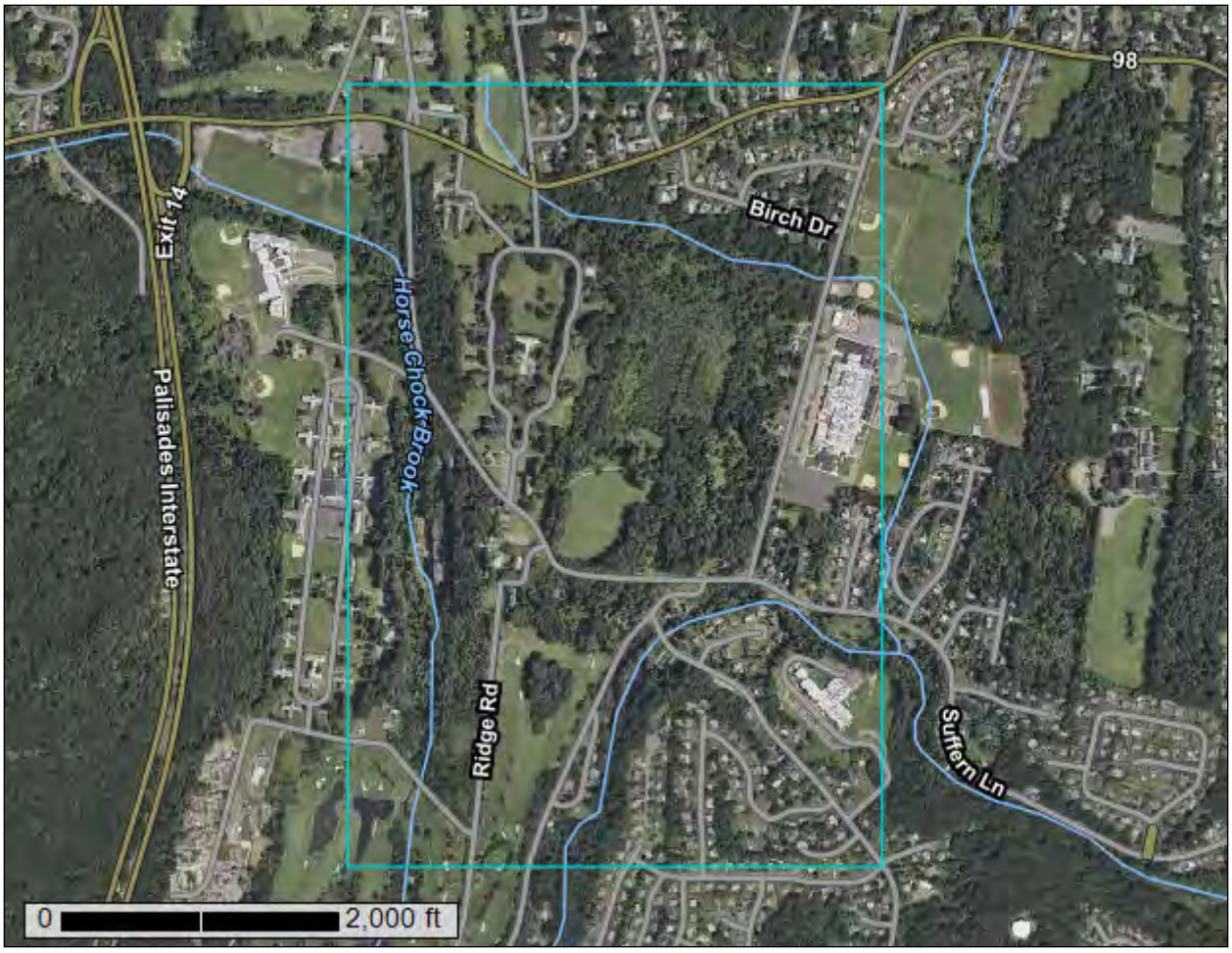
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Rockland County, New York



December 8, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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WeB—Wethersfield gravelly silt loam, 3 to 8 percent slopes..... 27
WeD—Wethersfield gravelly silt loam, 15 to 25 percent slope s.....29

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:9,980 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockland County, New York
Survey Area Data: Version 19, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 13, 2021—Sep 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ad	Alden silt loam	23.7	4.8%
CeB	Charlton fine sandy loam, 3 to 8 percent slopes	145.6	29.5%
CeC	Charlton fine sandy loam, 8 to 15 percent slopes	82.6	16.7%
CeD	Charlton fine sandy loam, 15 to 25 percent slopes	67.0	13.6%
CmB	Charlton-Urban land complex, 3 to 8 percent slopes	13.9	2.8%
Ra	Rippowam sandy loam	42.1	8.5%
ReA	Riverhead fine sandy loam, 0 to 3 percent slopes	0.6	0.1%
ReB	Riverhead fine sandy loam, 3 to 8 percent slopes	28.4	5.8%
Us	Udorthents, smoothed	14.3	2.9%
Uw	Udorthents, wet substratum	12.1	2.5%
W	Water	4.8	1.0%
Wc	Watchaug fine sandy loam	0.7	0.1%
WeB	Wethersfield gravelly silt loam, 3 to 8 percent slopes	35.8	7.2%
WeD	Wethersfield gravelly silt loam, 15 to 25 percent slope s	22.0	4.5%
Totals for Area of Interest		**493.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion

of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Rockland County, New York

Ad—Alden silt loam

Map Unit Setting

National map unit symbol: 9v3r
Elevation: 300 to 1,500 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Alden and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alden

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: A silty mantle of local deposition overlying loamy till

Typical profile

H1 - 0 to 9 inches: silt loam
H2 - 9 to 33 inches: silt loam
H3 - 33 to 60 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 10 percent
Available water supply, 0 to 60 inches: High (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C/D
Ecological site: F144AY040NY - Semi-Rich Very Wet Till Depressions
Hydric soil rating: Yes

Minor Components

Rippowam

Percent of map unit: 5 percent
Landform: Flood plains

Hydric soil rating: Yes

Sloan

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: Yes

Alden, very stony

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Adrian

Percent of map unit: 5 percent
Landform: Marshes, swamps
Hydric soil rating: Yes

CeB—Charlton fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2wh0n
Elevation: 0 to 1,440 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Charlton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Ridges, ground moraines, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw - 7 to 22 inches: gravelly fine sandy loam
C - 22 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained

Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.9 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Sutton
Percent of map unit: 8 percent
Landform: Hills, ground moraines
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Paxton
Percent of map unit: 5 percent
Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Chatfield
Percent of map unit: 1 percent
Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Leicester
Percent of map unit: 1 percent
Landform: Depressions, drainageways
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

CeC—Charlton fine sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2wh0q
Elevation: 0 to 1,440 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Charlton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Ridges, ground moraines, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw - 7 to 22 inches: gravelly fine sandy loam
C - 22 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Sutton, fine sandy loam
Percent of map unit: 5 percent
Landform: Ridges, hills, ground moraines
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Paxton
Percent of map unit: 5 percent
Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Chatfield
Percent of map unit: 3 percent
Landform: Ridges, hills
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Crest, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Canton
Percent of map unit: 2 percent
Landform: Ridges, ground moraines, hills
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Side slope, nose slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

CeD—Charlton fine sandy loam, 15 to 25 percent slopes

Map Unit Setting
National map unit symbol: 2wh0t
Elevation: 0 to 1,290 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition
Charlton and similar soils: 85 percent

Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Ridges, ground moraines, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw - 7 to 22 inches: gravelly fine sandy loam
C - 22 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Paxton

Percent of map unit: 5 percent
Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Sutton, fine sandy loam

Percent of map unit: 5 percent
Landform: Ridges, hills, ground moraines
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear

Hydric soil rating: No

Chatfield

Percent of map unit: 3 percent
Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Nose slope, crest, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Canton

Percent of map unit: 2 percent
Landform: Moraines, hills, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

CmB—Charlton-Urban land complex, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2xff7
Elevation: 0 to 1,020 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton and similar soils: 40 percent
Urban land: 35 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Ridges, ground moraines, hills
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw - 7 to 22 inches: gravelly fine sandy loam
C - 22 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Urban Land

Typical profile

M - 0 to 10 inches: cemented material

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 0 inches to manufactured layer
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Chatfield

Percent of map unit: 10 percent
Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Nose slope, side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Leicester

Percent of map unit: 5 percent
Landform: Hills, ground moraines, drainageways, depressions
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave

Hydric soil rating: Yes

Sutton

Percent of map unit: 5 percent
Landform: Ground moraines, hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Udorthents

Percent of map unit: 5 percent
Landform: Ridges
Landform position (three-dimensional): Tread
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Ra—Rippowam sandy loam

Map Unit Setting

National map unit symbol: 9v52
Elevation: 20 to 740 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Rippowam and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rippowam

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy over sandy alluvium derived mainly from crystalline rock

Typical profile

H1 - 0 to 10 inches: sandy loam
H2 - 10 to 35 inches: fine sandy loam
H3 - 35 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: F144AY014CT - Wet Sandy Low Floodplain
Hydric soil rating: Yes

Minor Components

Hinckley

Percent of map unit: 5 percent
Hydric soil rating: No

Watchaug

Percent of map unit: 5 percent
Hydric soil rating: No

Haven

Percent of map unit: 5 percent
Hydric soil rating: No

Sloan

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: Yes

ReA—Riverhead fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9v53
Elevation: 50 to 460 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Riverhead and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Riverhead

Setting

Landform: Terraces, deltas
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy glaciofluvial deposits overlying stratified sand and gravel

Typical profile

H1 - 0 to 9 inches: fine sandy loam
H2 - 9 to 24 inches: sandy loam
H3 - 24 to 30 inches: loamy fine sand
H4 - 30 to 60 inches: stratified very gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Charlton

Percent of map unit: 5 percent
Hydric soil rating: No

Haven

Percent of map unit: 5 percent
Hydric soil rating: No

Wethersfield

Percent of map unit: 5 percent
Hydric soil rating: No

Fredon

Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Rippowam

Percent of map unit: 1 percent
Landform: Flood plains
Hydric soil rating: Yes

ReB—Riverhead fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9v54
Elevation: 20 to 440 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Riverhead and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Riverhead

Setting

Landform: Terraces, deltas
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy glaciofluvial deposits overlying stratified sand and gravel

Typical profile

H1 - 0 to 9 inches: fine sandy loam
H2 - 9 to 24 inches: sandy loam
H3 - 24 to 30 inches: loamy fine sand
H4 - 30 to 60 inches: stratified very gravelly sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Wethersfield
Percent of map unit: 5 percent
Hydric soil rating: No

Haven
Percent of map unit: 5 percent
Hydric soil rating: No

Charlton
Percent of map unit: 5 percent
Hydric soil rating: No

Fredon
Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Rippowam
Percent of map unit: 1 percent
Landform: Flood plains
Hydric soil rating: Yes

Us—Udorthents, smoothed

Map Unit Setting
National map unit symbol: 9v5d
Elevation: 0 to 890 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition
Udorthents, smoothed, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Smoothed

Typical profile
H1 - 0 to 20 inches: channery loam
H2 - 20 to 70 inches: very gravelly loam

Properties and qualities
Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)

Depth to water table: About 36 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Udorthents, wet substratum

Percent of map unit: 5 percent
Hydric soil rating: No

Urban land

Percent of map unit: 4 percent
Hydric soil rating: Unranked

Alden

Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

Wallington

Percent of map unit: 2 percent
Hydric soil rating: No

Wethersfield

Percent of map unit: 2 percent
Hydric soil rating: No

Riverhead

Percent of map unit: 2 percent
Hydric soil rating: No

Hollis

Percent of map unit: 2 percent
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Hydric soil rating: Unranked

Uw—Udorthents, wet substratum

Map Unit Setting

National map unit symbol: 9v5f
Elevation: 50 to 2,400 feet
Mean annual precipitation: 47 to 50 inches

Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, wet substratum, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Wet Substratum

Typical profile

H1 - 0 to 20 inches: channery loam
H2 - 20 to 70 inches: very gravelly loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: A
Hydric soil rating: Yes

Minor Components

Udorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Urban land

Percent of map unit: 4 percent
Hydric soil rating: Unranked

Paxton

Percent of map unit: 2 percent
Hydric soil rating: No

Hinckley

Percent of map unit: 2 percent
Hydric soil rating: No

Rippowam

Percent of map unit: 2 percent
Landform: Flood plains
Hydric soil rating: Yes

Sloan

Percent of map unit: 2 percent
Landform: Flood plains

Hydric soil rating: Yes

Palms

Percent of map unit: 2 percent
Landform: Swamps, marshes
Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 1 percent
Hydric soil rating: Unranked

W—Water

Map Unit Setting

National map unit symbol: 9v5s
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Wc—Watchaug fine sandy loam

Map Unit Setting

National map unit symbol: 9v5j
Elevation: 50 to 750 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Watchaug and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Watchaug

Setting

Landform: Till plains, hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Concave
Across-slope shape: Convex

Parent material: Loamy acid till derived mainly from reddish sandstone, shale, and conglomerate, with some basalt

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
H1 - 2 to 7 inches: fine sandy loam
H2 - 7 to 23 inches: gravelly fine sandy loam
H3 - 23 to 64 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Ecological site: F144AY008CT - Moist Till Uplands
Hydric soil rating: No

Minor Components

Cheshire

Percent of map unit: 5 percent
Hydric soil rating: No

Wethersfield

Percent of map unit: 5 percent
Hydric soil rating: No

Alden

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

WeB—Wethersfield gravelly silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9v5l
Elevation: 30 to 690 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Wethersfield and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wethersfield

Setting

Landform: Till plains, hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy acid till derived mainly from reddish sandstone, shale, and conglomerate, with some basalt

Typical profile

H1 - 0 to 13 inches: gravelly silt loam
H2 - 13 to 22 inches: gravelly loam
H3 - 22 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 38 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F145XY012CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Cheshire

Percent of map unit: 5 percent
Hydric soil rating: No

Charlton

Percent of map unit: 5 percent
Hydric soil rating: No

Riverhead

Percent of map unit: 5 percent
Hydric soil rating: No

Wallington

Percent of map unit: 5 percent
Hydric soil rating: No

WeD—Wethersfield gravelly silt loam, 15 to 25 percent slope s

Map Unit Setting

National map unit symbol: 9v5n
Elevation: 0 to 640 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Wethersfield and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wethersfield

Setting

Landform: Till plains, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy acid till derived mainly from reddish sandstone, shale, and conglomerate, with some basalt

Typical profile

H1 - 0 to 13 inches: gravelly silt loam
H2 - 13 to 22 inches: gravelly loam
H3 - 22 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 38 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: F145XY012CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Riverhead
Percent of map unit: 5 percent
Hydric soil rating: No

Charlton
Percent of map unit: 5 percent
Hydric soil rating: No

Cheshire
Percent of map unit: 5 percent
Hydric soil rating: No

Wallington
Percent of map unit: 3 percent
Hydric soil rating: No

Yalesville
Percent of map unit: 2 percent
Hydric soil rating: No

APPENDIX E

STORMWATER PRACTICE CONSTRUCTION INSPECTION CHECKLISTS

Infiltration Basin Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Runoff diverted		
Soil permeability tested		
Groundwater / bedrock depth		
2. Excavation		
Size and location		
Side slopes stable		
Excavation does not compact subsoils		
3. Embankment		
Barrel		
Anti-seep collar or Filter diaphragm		
Fill material		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
4. Final Excavation		
Drainage area stabilized		
Sediment removed from facility		
Basin floor tilled		
Facility stabilized		
5. Final Inspection		
Pretreatment facility in place		
Inlets / outlets		
Contributing watershed stabilized before flow is routed to the factility		

Comments:

Actions to be Taken:

Bioretention Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
If designed as exfilter, soil testing for permeability		
Facility location staked out		
2. Excavation		
Size and location		
Lateral slopes completely level		
If designed as exfilter, ensure that excavation does not compact susoils.		
Longitudinal slopes within design range		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
3. Structural Components		
Stone diaphragm installed correctly		
Outlets installed correctly		
Underdrain		
Pretreatment devices installed		
Soil bed composition and texture		
4. Vegetation		
Complies with planting specs		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
5. Final Inspection		
Dimensions		
Proper stone diaphragm		
Proper outlet		
Soil/ filter bed permeability testing		
Effective stand of vegetation and stabilization		
Construction generated sediments removed		
Contributing watershed stabilized before flow is diverted to the practice		

Comments:

Actions to be Taken:

Open Channel System Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Facility location staked out		
2. Excavation		
Size and location		
Side slope stable		
Soil permeability		
Groundwater / bedrock		
Lateral slopes completely level		
Longitudinal slopes within design range		
Excavation does not compact subsoils		
3. Check dams		
Dimensions		
Spacing		
Materials		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
4. Structural Components		
Underdrain installed correctly		
Inflow installed correctly		
Pretreatment devices installed		
5. Vegetation		
Complies with planting specifications		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
6. Final inspection		
Dimensions		
Check dams		
Proper outlet		
Effective stand of vegetation and stabilization		
Contributing watershed stabilized before flow is routed to the factility		

Comments:

Actions to be Taken:

APPENDIX F

TEMPORARY EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENACE CHECKLIST, PERMANENT STORMWATER PRACTICE OPERATION, MAINTENANCE, AND MANAGEMENT, & HYDRODYNAMIC SEPARATOR MAINTENANCE GUIDE

JMC Project 21090
Letchworth Village Residential Development
Letchworth Village Road
Town of Haverstraw, New York

Temporary Erosion and Sediment Control Inspection and Maintenance Checklist

Erosion and Sediment Control Measure	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Stabilized Construction Entrance	Daily	• Periodic top dressing with additional aggregate as required • Clean sediment in public right-of-ways immediately
Silt Fence	Weekly + After Each Rain	• Remove & redistribute sediment when bulges develop in the silt fence.
Inlet Protection	Weekly + After Each Rain	• Remove sediment as necessary and replace filter fabric, crushed stone etc. • Any broken and damaged components should be replaced. • Check all materials for proper anchorage and secure as necessary.
Concrete Washout	Daily	• Damaged or leaking facilities shall be deactivated and repaired or replaced immediately.
	After Each Rain	• Pump excess rainwater that has accumulated over hardened concrete to a stabilized area.
		• Remove accumulated hardened material when 75% of the storage capacity of the structure is filled. Replace plastic liner with each cleaning of the washout facility.
Temporary Sediment Traps / Basins	Weekly + After Each Rain	• Remove and redistribute sediment when it reaches an elevation indicated on the construction documents. • Check for rilling within and around the sediment basin and repair as required. • Remove all sediment and debris from the outlet control structure as may be required.

Temporary Erosion and Sediment Control Inspection and Maintenance Checklist (Cont'd)

Erosion and Sediment Control Measure	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Level Spreader	Weekly + After Each Rain	• Remove sediment accumulated as needed to ensure the level spreader operates properly and large flows are prevented from carrying sediment over the level lip • Check for rilling within/around the level spreader and repair as required
Temporary Swale	Weekly + After Each Rain	• Immediately remove any sediment and reestablish vegetative cover as required. • Inspect entire swale and surrounding area for rilling and repair as required with the placement of additional topsoil, then seeding and mulching, as outlined in Figure No. 3.14 of the NYSDEC New York State Standards and Specifications for Erosion and Sediment Control.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist

Stormwater Management Practice	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Vegetated Swale	Monthly	• Check that contributing area is clean of debris • Confirm vegetation is adequately maintained (mowing, fertilizer, etc.) • Check for rilling/erosion and repair as needed • Confirm dewatering occurs between storms
	Annually + Major Storms	• Clean sediment and re-vegetate as necessary. • Check condition of outlet and repair as necessary
Rip-Rap Apron/Energy Dissipator and Check Dams	Annually + After Major Storms	• Check for evidence of flows going around the structure. • Check for evidence at downstream toe and repair as needed. • Clean sediment and install additional aggregate as necessary.
Drain Inlets	Monthly	• Check for blockage and/or erosion at top of each inlet. Repair/remove as necessary. • Check for sediment and debris collected within sumps and clean out as necessary.
Hydrodynamic Water Quality Structure	(See Maintenance Guidelines in Appendix G)	• Open access cover for visual inspection and measure the distance from the standing water surface to the sediment pile with a measuring stick or tape. If less than 4 feet, insert hose from vacuum truck into the sump and screen through both access covers to clean out the standing water, layer of oil, sediment, trash, etc. • The screen must be powerwashed to ensure it is free of trash and debris.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist (Cont'd)

Stormwater Management Practice	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Stormwater Management Basin	Monthly	• Check Dry Pond areas for adequate vegetation, undesirable vegetative growth, low flow channels are clear of obstructions, standing water or wet spots and sediment and/or trash accumulation. Repair/remove as necessary.
	Annually + After Major Storms	• Check adequacy of vegetation and ground cover; for evidence of embankment erosion, animal burrows, unauthorized plantings and cracking, bulging or sliding of dam, clear/properly functioning drains, seeps/leaks on downstream face, failure of slope protection or riprap. Repair/remove as necessary. • Confirm emergency spillway is clear of obstructions and debris. • Confirm all inlets and outlet structures/pipes are operating properly.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist (Cont'd)

Stormwater Management Practice	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Bioretention Area	Routine and as Needed	• Mowing - Frequency depends upon location and desired aesthetic appeal. • Watering - If droughty, watering after the initial year may be required. • Miscellaneous Upkeep-Tasks include trash collection, spot weeding, and removing mulch from overflow device.
	Semi-Annually	• Pruning - Nutrients in runoff often cause bioretention vegetation to flourish. • Mulching – Remulch bare areas with fresh mulch
	Annually	• Mulch Removal – Mulch accumulation reduces available water storage volume. Removal of mulch also increases surface infiltration rate of fill soil. • Remove and Replace Dead Plants – Within the first year, 10 percent of plants may die. Survival rates increase with time

The owner/operator responsible for inspection and maintenance as outlined above:
BNE Real Estate Group
Charles Thomes, Jr., PE, PP
16 Microlab Road
Livingston, NJ 07039
Phone: (973) 846-1138
Email: cthomas@bnerealestate.com

p:\2021\21090\drainage\reports\2025-07-02_cdf (feis swppp)\appendix f - temp and permanent practice insp. checklist, hydro separator\temporary & permanent s&e inspection and maintenance checklist.docx

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ENGINEERED SOLUTIONS

CDS® Inspection and Maintenance Guide



CDS TECHNOLOGIES

Maintenance

The CDS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit. For example, unstable soils or heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (e.g. spring and fall) however more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment washdown areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided.

Access to the CDS unit is typically achieved through two manhole access covers. One opening allows for inspection and cleanout of the separation chamber (cylinder and screen) and isolated sump. The other allows for inspection and cleanout of sediment captured and retained outside the screen. For deep units, a single manhole access point would allows both sump cleanout and access outside the screen.

The CDS system should be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated. If absorbent material is used, it should be replaced when significant discoloration has occurred. Performance will not be impacted until 100% of the sump capacity is exceeded however it is recommended that the system be cleaned prior to that for easier removal of sediment. The level of sediment is easily determined by measuring from finished grade down to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Particles at the top of the pile typically offer less resistance to the end of the rod than consolidated particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the as-built drawing for the unit to determine weather the height of the sediment pile off the bottom of the sump floor exceeds 75% of the total height of isolated sump.

Cleaning

Cleaning of a CDS systems should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole covers and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill should be cleaned out immediately. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. The screen should be power washed to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure that proper safety precautions have been followed. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the CDS system should be done in accordance with local regulations. In many jurisdictions, disposal of the sediments may be handled in the same manner as the disposal of sediments removed from catch basins or deep sump manholes.



CDS Model	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	y^3	m^3
CDS1515	3	0.9	3.0	0.9	0.5	0.4
CDS2015	4	1.2	3.0	0.9	0.9	0.7
CDS2015	5	1.3	3.0	0.9	1.3	1.0
CDS2020	5	1.3	3.5	1.1	1.3	1.0
CDS2025	5	1.3	4.0	1.2	1.3	1.0
CDS3020	6	1.8	4.0	1.2	2.1	1.6
CDS3025	6	1.8	4.0	1.2	2.1	1.6
CDS3030	6	1.8	4.6	1.4	2.1	1.6
CDS3035	6	1.8	5.0	1.5	2.1	1.6
CDS4030	8	2.4	4.6	1.4	5.6	4.3
CDS4040	8	2.4	5.7	1.7	5.6	4.3
CDS4045	8	2.4	6.2	1.9	5.6	4.3
CDS5640	10	3.0	6.3	1.9	8.7	6.7
CDS5653	10	3.0	7.7	2.3	8.7	6.7
CDS5668	10	3.0	9.3	2.8	8.7	6.7
CDS5678	10	3.0	10.3	3.1	8.7	6.7

Table 1: CDS Maintenance Indicators and Sediment Storage Capacities



Support

- Drawings and specifications are available at www.contechstormwater.com.
- Site-specific design support is available from our engineers.

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CDS Inspection & Maintenance Log

CDS Model: _____ Location: _____

Date	Water depth to sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement from the manhole opening to the top of the sediment pile and the other from the manhole opening to the water surface. If the difference between these measurements is less than the values listed in table 1 the system should be cleaned out. **Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile.**

2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

APPENDIX G

CONTRACTOR'S & OWNER'S CERTIFICATION

JMC Project 21090
Letchworth Road Residential Development
Letchworth Village Road
Haverstraw, New York

OWNER'S CERTIFICATION

"I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that the Notice of Intent (NOI) and corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting the NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting the NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which the NOI is being submitted."

Company Name: _____

Address: _____

Telephone Number: _____

Name and Title: _____

Signature: _____ Date: _____

Permit Identification No.:_____

JMC Planning Engineering Landscape Architecture & Land Surveying, PLLC | JMC Site Development Consultants, LLC
120 BEDFORD ROAD | ARMONK, NY 10504 | 914.273.5225 | MAIL@JMCPLLC.COM | JMCPLLC.COM

JMC Project 21090
Letchworth Road Residential Development
Letchworth Village Road
Haverstraw, New York

CONTRACTOR'S CERTIFICATION

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

Company Name: _____

Address: _____

Telephone Number: _____

Name and Title: _____

Signature: _____Date: _____

Permit Identification No.:_____

Name and Title of Trained Contractor:_____

Elements of the SWPPP Contractor is responsible for:_____

JMC Planning Engineering Landscape Architecture & Land Surveying, PLLC | JMC Site Development Consultants, LLC
120 BEDFORD ROAD | ARMONK, NY 10504 | 914.273.5225 | MAIL@JMCPLLC.COM | JMCPLLC.COM

APPENDIX H

TEMPORARY SEDIMENT BASIN DESIGN SHEETS

TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by CDF Date 07/03/2025 Checked by _____ Date _____
Project Letchworth Road Residential Development Basin # TSB-1B
Location Letchworth Village Road, Haverstraw, NY Total Area draining to basin (≤50 Ac.) 5.24 Acres

BASIN SIZE DESIGN

5.24

1. Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 5,240 cu. ft., Top of Zone Elev. 425.70
2. Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 18,864 cu. ft., Top of Zone Elev. 428.55
3. Length to width ratio = 115.36 L : 57.76 W = 2.00
4. A. Cleanout at 50% of sediment storage zone volume, Elev. 425.11
   B. Distance below top of riser 2.89 feet
5. Minimum surface area is larger of 0.01 $Q_{(10)}$ 0.25 or, 0.015 DA = 0.08 use 0.25 acres

Q_{10}=25.00

DESIGN OF SPILLWAYS & ELEVATIONS

Runoff

6. $Q_{p(10)}$ = 25.00 cfs (Attach runoff computation sheets)

Pipe Spillway (Q_{ps})

7. Min. pipe spillway cap., Q_{ps} = 0.2 x 5.24 Drainage Area, acres = 1.05 cfs
   Note: If there is no emergency spillway, then required Q_{ps} = $Q_{p(10)}$ = N/A cfs.
8. H, head = 4.38 ft. Barrel length = 100.38 ft
9. Barrel: Diam. 15 inches; Q_{ps} = (Q) 1.05 x (cor.fac.) 0.91 = 0.96 cfs.
10. Riser: Diam. 15 inches; Length 4 ft.; h = 0.20 ft. Crest Elev. 428
11. Trash Rack: Diameter = 21 inches; H, height = 7 inches

Emergency Spillway Design

12. Emergency Spillway Flow, Q_{es} = Q_p - Q_{ps} = 25.00 - 0.58 = 24.42 cfs.
13. Width 20 ft.; H_p 0.79 ft Crest elevation 429.00; Design High Water Elev. 429.63
    Entrance channel slope 33.33 % ; Top of Dam Elev. 430.00
    Exit channel slope - %

ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

Collars: N/A

14. y = _____ft.; z = _____:1; pipe slope = _____%, L_s = _____ft.
    Use _____ collars, _____ x _____ feet square; projection = _____ft.

Diaphragms: N/A

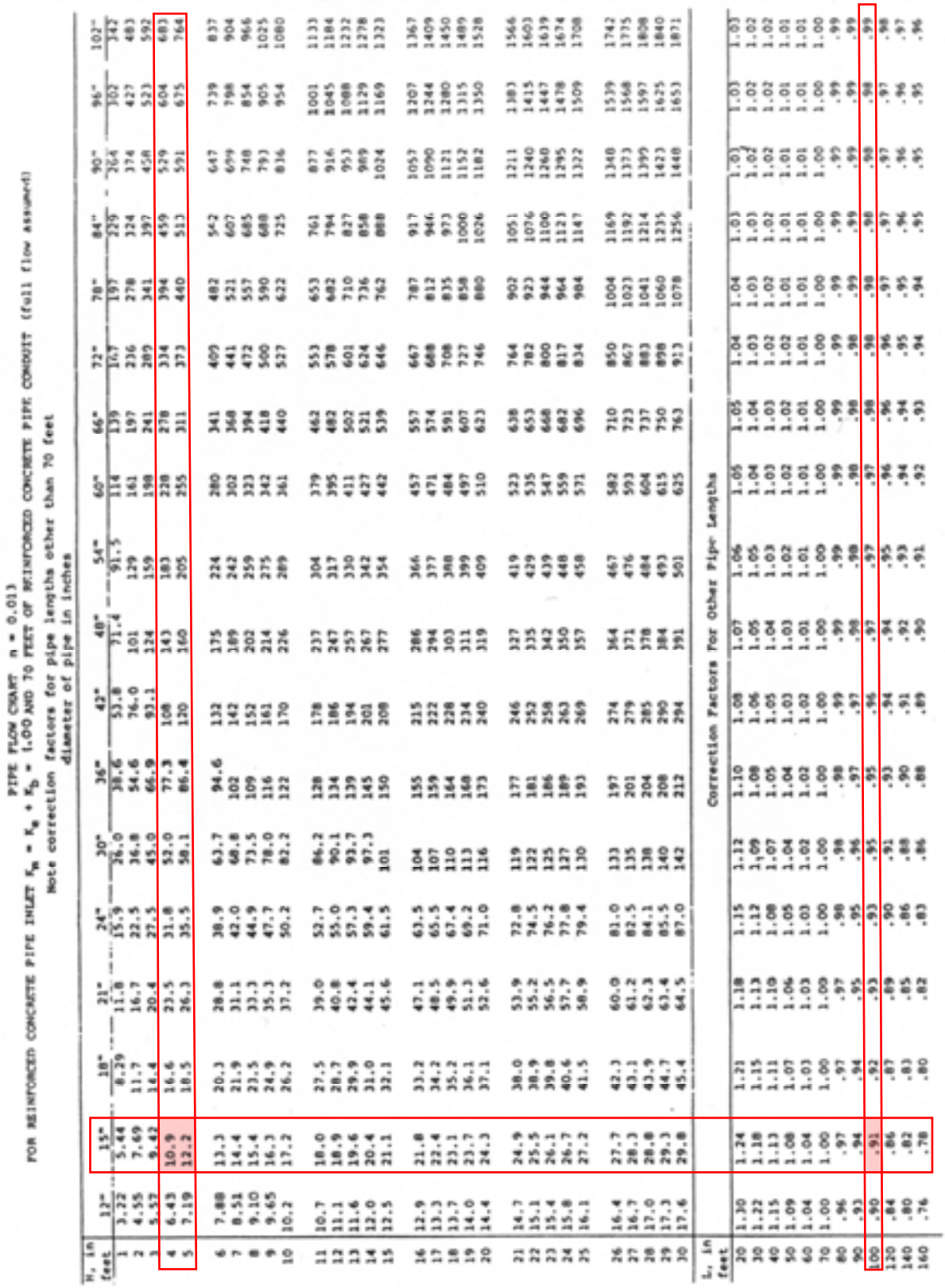
#_____ width_____ ft. height _____ft.

DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = 4 inches. Skimmer X or Riser ____ (check one)
16. Design dewatering time 2 days (Min. 2 days required)

Figure 5.12
Pipe Flow Chart; "n" = 0.013 (USDA - NRCS)

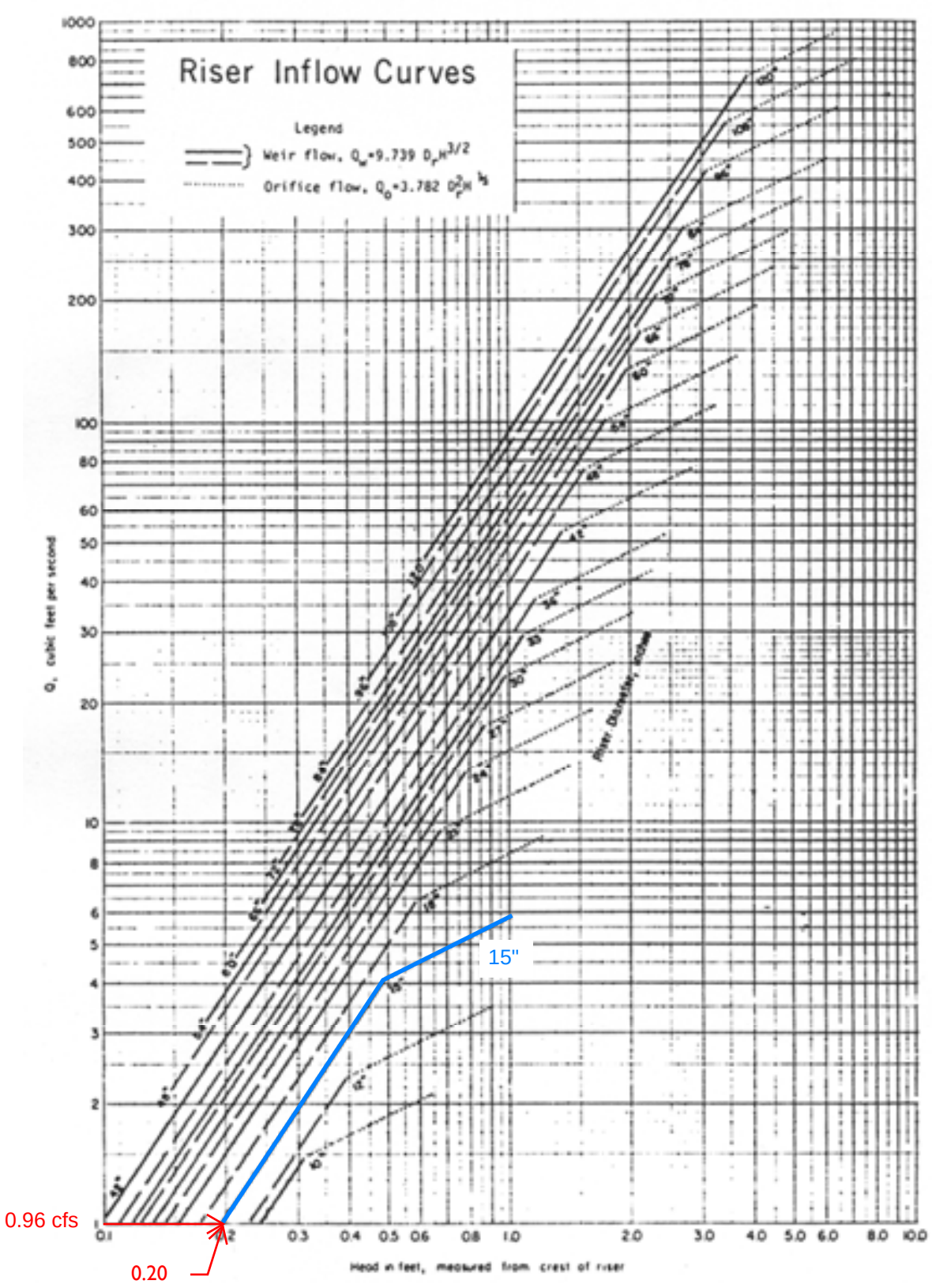


PIPE FLOW CHART n = 0.013
FOR REINFORCED CONCRETE PIPE INLET $K_m = K_e + K_b = 1.00$ AND 70 FEET OF REINFORCED CONCRETE PIPE CONDUIT (full flow assumed)
Note correction factors for pipe lengths other than 70 feet

H, in feet	12"	15"	18"	21"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"
1	3.22	5.44	8.29	11.8	15.9	26.0	38.6	53.8	71.4	91.5	114	139	167	197	229	264	302	342
2	4.55	7.69	11.7	16.7	22.5	36.8	54.6	76.0	101	129	161	197	236	278	324	374	427	483
3	5.57	9.42	14.4	20.4	27.5	45.0	66.9	93.1	124	159	198	241	289	341	397	458	523	592
4	6.45	10.9	16.6	23.5	31.8	52.0	77.3	108	143	183	228	278	334	394	459	529	604	683
5	7.19	12.2	18.5	26.3	35.5	58.1	86.4	120	160	205	255	311	373	440	513	591	675	764
6	7.88	13.3	20.3	28.8	38.9	63.7	94.6	132	175	224	280	341	409	482	562	647	739	837
7	8.51	14.4	21.9	31.1	42.0	68.8	102	142	189	242	302	368	441	521	607	699	798	904
8	9.10	15.4	23.5	33.3	44.9	73.5	109	152	202	259	323	394	472	557	685	748	854	966
9	9.65	16.3	24.9	35.3	47.7	78.0	116	161	214	275	342	418	500	590	688	793	905	1025
10	10.2	17.2	26.2	37.2	50.2	82.2	122	170	226	289	361	440	527	622	725	836	954	1080
11	10.7	18.0	27.5	39.0	52.7	86.2	128	178	237	304	379	462	553	653	761	877	1001	1133
12	11.1	18.9	28.7	40.8	55.0	90.1	134	186	247	317	395	482	578	682	794	916	1045	1184
13	11.6	19.6	29.9	42.4	57.3	93.7	139	194	257	330	411	502	601	710	827	953	1088	1232
14	12.0	20.4	31.0	44.1	59.4	97.3	145	201	267	342	427	521	624	736	858	989	1129	1278
15	12.5	21.1	32.1	45.6	61.5	101	150	208	277	354	442	539	646	762	888	1024	1169	1323
16	12.9	21.8	33.2	47.1	63.5	104	155	215	286	366	457	557	667	787	917	1057	1207	1367
17	13.3	22.4	34.2	48.5	65.5	107	159	222	294	377	471	574	688	812	946	1090	1244	1409
18	13.7	23.1	35.2	49.9	67.4	110	164	228	303	388	484	591	708	835	973	1121	1280	1450
19	14.0	23.7	36.1	51.3	69.2	113	168	234	311	399	497	607	727	858	1000	1152	1315	1489
20	14.4	24.3	37.1	52.6	71.0	116	173	240	319	409	510	623	746	880	1026	1182	1350	1528
21	14.7	24.9	38.0	53.9	72.8	119	177	246	327	419	523	638	764	902	1051	1211	1383	1566
22	15.1	25.5	38.9	55.2	74.5	122	181	252	335	429	535	653	782	923	1076	1240	1415	1603
23	15.4	26.1	39.8	56.5	76.2	125	186	258	342	439	547	668	800	944	1100	1268	1447	1639
24	15.8	26.7	40.6	57.7	77.8	127	189	263	350	448	559	682	817	964	1123	1295	1478	1674
25	16.1	27.2	41.5	58.9	79.4	130	193	269	357	458	571	696	834	984	1147	1322	1509	1708
26	16.4	27.7	42.3	60.0	81.0	133	197	274	364	467	582	710	850	1004	1169	1348	1539	1742
27	16.7	28.3	43.1	61.2	82.5	135	201	279	371	476	593	723	867	1023	1192	1373	1568	1775
28	17.0	28.8	43.9	62.3	84.1	138	204	285	378	484	604	737	883	1041	1214	1399	1597	1808
29	17.3	29.3	44.7	63.4	85.5	140	208	290	384	493	615	750	898	1060	1235	1423	1625	1840
30	17.6	29.8	45.4	64.5	87.0	142	212	294	391	501	625	763	913	1078	1256	1448	1653	1871
L, in feet	Correction Factors for Other Pipe Lengths																	
30	1.30	1.24	1.21	1.18	1.15	1.12	1.10	1.08	1.07	1.06	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.03
40	1.22	1.18	1.15	1.13	1.12	1.09	1.08	1.06	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02
50	1.15	1.13	1.11	1.10	1.08	1.07	1.05	1.05	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.02
60	1.09	1.08	1.07	1.06	1.05	1.04	1.04	1.03	1.03	1.02	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01
70	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
90	.96	.97	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
100	.90	.91	.92	.93	.93	.95	.95	.96	.97	.97	.97	.98	.98	.98	.98	.98	.98	.99
120	.84	.86	.87	.89	.90	.91	.93	.94	.94	.95	.96	.96	.96	.97	.97	.97	.97	.98
140	.80	.82	.83	.85	.86	.88	.90	.91	.92	.93	.94	.94	.95	.95	.96	.96	.96	.97
160	.76	.78	.80	.82	.83	.84	.88	.89	.90	.91	.92	.93	.94	.94	.95	.95	.95	.96

PIPE LENGTH = 100.38 = 0.91

Figure 5.10
Riser Inflow Chart (USDA - NRCS)



Therefore, the minimum A_o formula for 48 hrs. reduces to:

$$A_o = \frac{A_s \times 2h^{0.5}}{588{,}326}$$

Material Specifications

1. Skimmer Devices - These devices shall be constructed with Schedule 40 PVC pipe with diameters of 4 to 6 inches. The flexible arm shall be equal diameter of non-perforated, corrugated, plastic tubing.

2. Riser-pipe Devices - These devices shall be constructed of Schedule 40 PVC if plastic pipe is used or galvanized corrugated steel or aluminum pipe. The minimum diameter shall be 6 inches if the device is used in conjunction with another permanent riser. All perforations will be at the interior of the corrugations.

Maintenance

1. Dewatering devices shall be inspected weekly and after each runoff event.

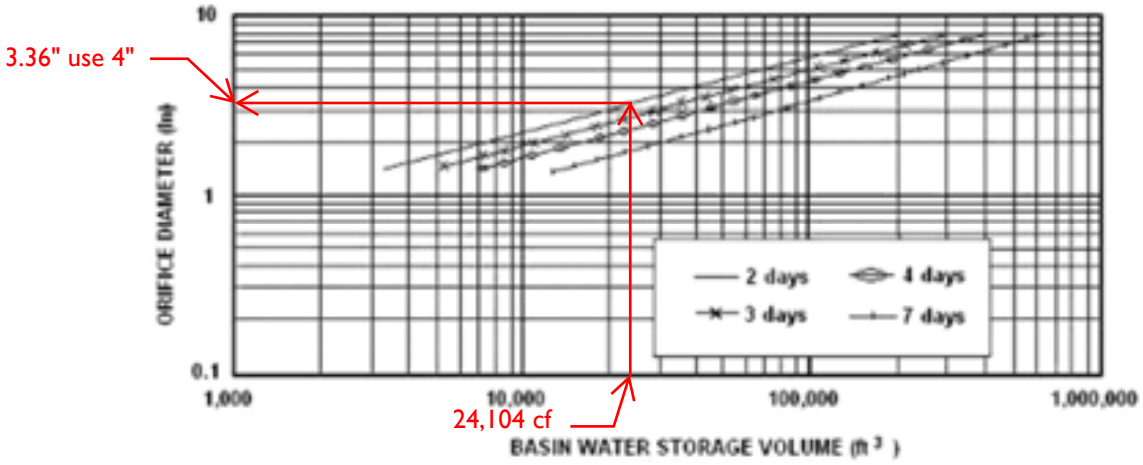
2. Filter fabric or media will be replaced as needed.

3. Any malfunctioning skimmer or its components shall be repaired or replaced within 24 hours of inspection notification.

4. Sediment shall be removed from the system when it reaches the level marked in a sediment cleanout stake or the top of the skimmer landing area.

5. The structure shall only be removed when the tributary area has been properly stabilized.

Figure 5.3 - Skimmer Orifice Design Chart



* Figure adapted from Penn State Agricultural and Biological Fact Sheet F-253

Notes:

1. Figure 5.3 is for use in designing the orifice plate for the skimmer shown in Figure 5.4. It assumes 3" to 5" head (depending upon the size of the skimmer). The required head for use of Figure 5.3 varies as follows: For a skimmer with a dewatering tube ≤ 2 1/2" diameter, use a 2" head. For a 3" diameter tube, use a 2.5" head; 4" tube, use 3.3" head, 5" tube use 4" head, and 6" diameter tube use 5" head.

2. Find the vertical line representing the basin's dewatering zone volume. At the intersection of the vertical line with the desired dewatering time, read horizontally to the left to find the required skimmer orifice diameter.

Figure 5.21
Design Table for Vegetated Earth Spillways in Very Erodible Soils, K = 0.36 - 0.80, Side Slopes = 3:1
(USDA - NRCS)

Discharge Q CFS	Slope Range		Bottom Width Feet	Stage Feet
	Minimum Percent	Maximum Percent		
10	3.5	4.7	8	.68
15	3.4	4.4	12	.69
	3.4	5.9	16	.60
20	3.3	3.3	12	.80
	3.3	4.1	16	.70
	3.5	5.3	20	.62
25	3.3	3.3	16	.79
	3.3	4.0	20	.70
	3.5	4.9	24	.64
30	3.3	3.3	20	.78
	3.3	4.0	24	.71
	3.4	4.7	28	.65
	3.4	5.5	32	.61
35	3.2	3.2	24	.77
	3.3	3.9	28	.71
	3.5	4.6	32	.66
	3.5	5.2	36	.62
40	3.3	3.3	28	.76
	3.4	3.8	32	.71
	3.4	4.4	36	.67
	3.4	5.0	40	.64
45	3.3	3.3	32	.76
	3.4	3.8	36	.71
	3.4	4.3	40	.67
	3.4	4.8	44	.64
50	3.3	3.3	36	.75
	3.3	3.8	40	.71
	3.3	4.3	44	.68
60	3.2	3.2	44	.75
	3.2	3.7	48	.72
70	3.3	3.3	52	.75
80	3.1	3.1	56	.78

TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by CDF Date 07/07/2025 Checked by _____ Date _____
Project Letchworth Road Residential Development Basin # TSB-1D
Location Letchworth Village Road, Haverstraw, NY Total Area draining to basin (≤50 Ac.) 5.29 Acres

BASIN SIZE DESIGN

5.29

1. Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 5,290 cu. ft., Top of Zone Elev. 440.41
2. Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 19,044 cu. ft., Top of Zone Elev. 441.88
3. Length to width ratio = 170.4 L : 83.39 W = 2.04
4. A. Cleanout at 50% of sediment storage zone volume, Elev. 440.21
   B. Distance below top of riser 3.79 feet
5. Minimum surface area is larger of 0.01 $Q_{(10)}$ 0.25 or, 0.015 DA = 0.08 use 0.25 acres

Q_{10} = 25.26

DESIGN OF SPILLWAYS & ELEVATIONS

Runoff

6. $Q_{p(10)}$ = 25.26 cfs (Attach runoff computation sheets)

Pipe Spillway (Q_{ps})

7. Min. pipe spillway cap., Q_{ps} = 0.2 x 5.29 Drainage Area, acres = 1.06 cfs
   Note: If there is no emergency spillway, then required Q_{ps} = $Q_{p(10)}$ = N/A cfs.
8. H, head = 23.28 ft. Barrel length = 125.97 ft
9. Barrel: Diam. 15 inches; Q_{ps} = (Q) 1.06 x (cor.fac.) 0.85 = 0.61 cfs.
10. Riser: Diam. 15 inches; Length 4 ft.; h = 0.20 ft. Crest Elev. 444.00
11. Trash Rack: Diameter = 21 inches; H, height = 7 inches

Emergency Spillway Design

12. Emergency Spillway Flow, Q_{es} = Q_p - Q_{ps} = 25.26 - 0.61 = 24.65 cfs.
13. Width 16 ft.; H_p 0.79 ft Crest elevation 445.00; Design High Water Elev. 443.37
    Entrance channel slope 33.3 % ; Top of Dam Elev. 446.00
    Exit channel slope 33.3 %

ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

Collars:

14. y = 4 ft.; z = 3 :1; pipe slope = 14.21 %, L_s = 64.87 ft.
    Use 2 collars, 6.77 x 6.77 feet square; projection = 2.36 ft.

Diaphragms: N/A

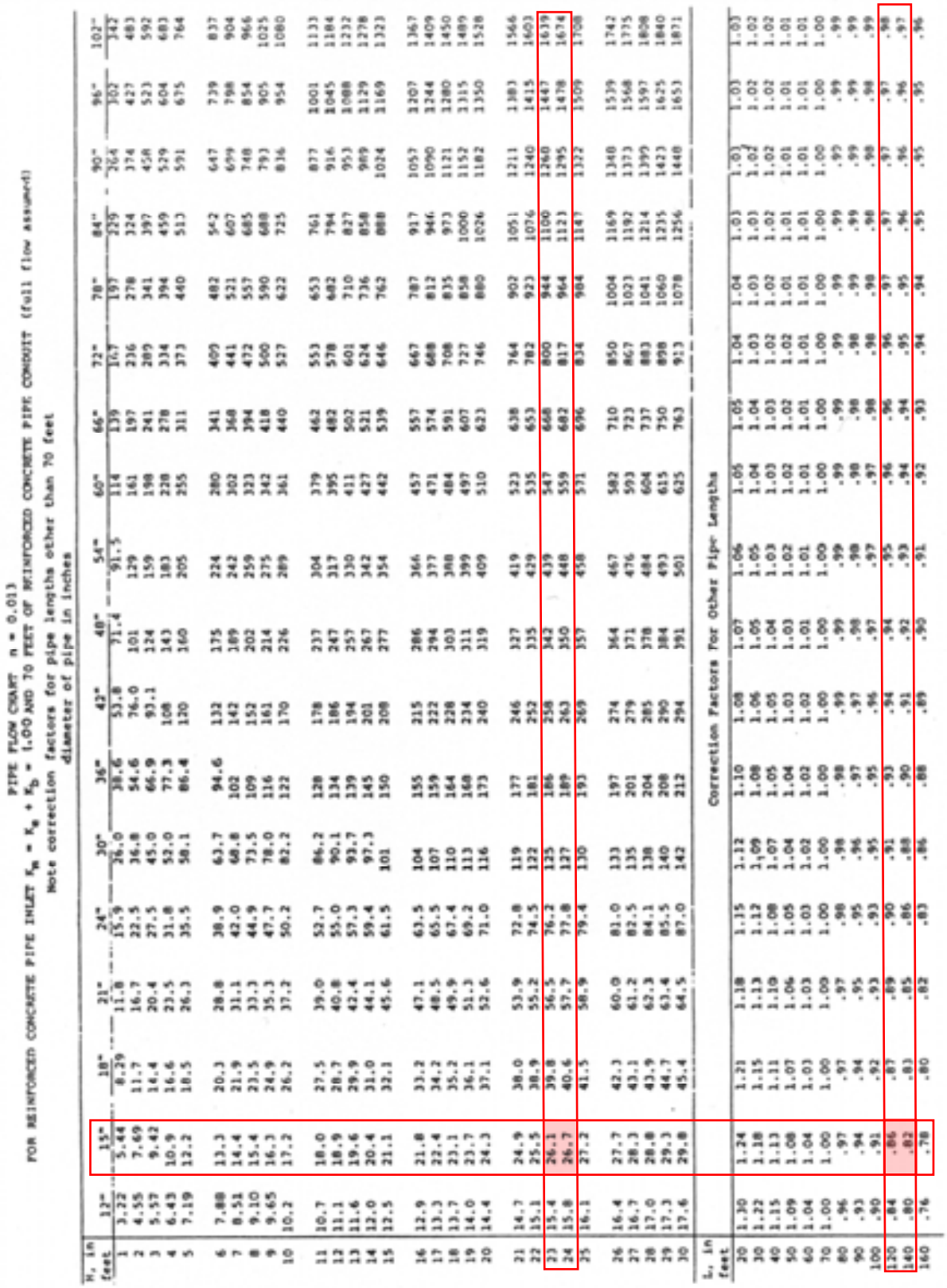
#_____ width_____ ft. height _____ft.

DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = 4 inches. Skimmer X or Riser ____ (check one)
16. Design dewatering time 2 days (Min. 2 days required)

Figure 5.12
Pipe Flow Chart; "n" = 0.013 (USDA - NRCS)



PIPE FLOW CHART n = 0.013
FOR REINFORCED CONCRETE PIPE INLET K_m = K_e + K_b = 1.00 AND 70 FEET OF REINFORCED CONCRETE PIPE CONDUIT (full flow assumed)
Note correction factors for pipe lengths other than 70 feet

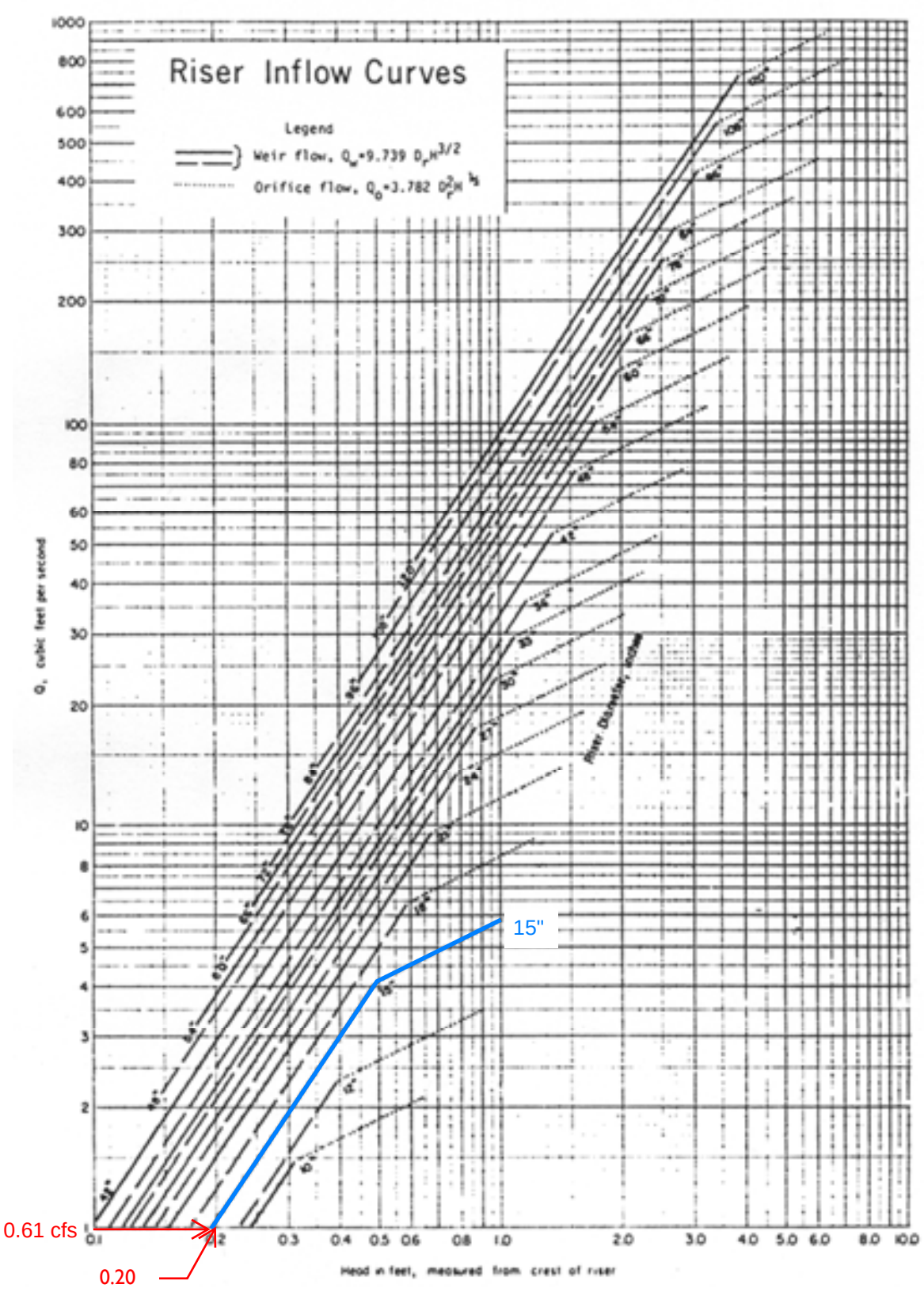
H, in feet	12"	15"	18"	21"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"
1	3.22	5.44	8.29	11.8	15.9	26.0	38.6	53.8	71.4	91.5	114	139	167	197	229	264	302	342
2	4.55	7.69	11.7	16.7	22.5	36.8	54.6	76.0	101	129	161	197	236	278	324	374	427	483
3	5.57	9.42	14.4	20.4	27.5	45.0	66.9	93.1	124	159	198	241	289	341	397	458	523	592
4	6.43	10.9	16.6	23.5	31.8	52.0	77.3	108	143	183	228	278	334	394	459	529	604	683
5	7.19	12.2	18.5	26.3	35.5	58.1	86.4	120	160	205	255	311	373	440	513	591	675	764
6	7.88	13.3	20.3	28.8	38.9	63.7	94.6	132	175	224	280	341	409	482	562	647	739	837
7	8.51	14.4	21.9	31.1	42.0	68.8	102	142	189	242	302	368	441	521	607	699	798	904
8	9.10	15.4	23.5	33.3	44.9	73.5	109	152	202	259	323	394	472	557	685	748	854	966
9	9.65	16.3	24.9	35.3	47.7	78.0	116	161	214	275	342	418	500	590	688	793	905	1025
10	10.2	17.2	26.2	37.2	50.2	82.2	122	170	226	289	361	440	527	622	725	836	954	1080
11	10.7	18.0	27.5	39.0	52.7	86.2	128	178	237	304	379	462	553	653	761	877	1001	1133
12	11.1	18.9	28.7	40.8	55.0	90.1	134	186	247	317	395	482	578	682	794	916	1045	1184
13	11.6	19.6	29.9	42.4	57.3	93.7	139	194	257	330	411	502	601	710	827	953	1088	1232
14	12.0	20.4	31.0	44.1	59.4	97.3	145	201	267	342	427	521	624	736	858	989	1129	1278
15	12.5	21.1	32.1	45.6	61.5	101	150	208	277	354	442	539	646	762	888	1024	1169	1323
16	12.9	21.8	33.2	47.1	63.5	104	155	215	286	366	457	557	667	787	917	1057	1207	1367
17	13.3	22.4	34.2	48.5	65.5	107	159	222	294	377	471	574	688	812	946	1090	1244	1409
18	13.7	23.1	35.2	49.9	67.4	110	164	228	303	388	484	591	708	835	973	1121	1280	1450
19	14.0	23.7	36.1	51.3	69.2	113	168	234	311	399	497	607	727	858	1000	1152	1315	1489
20	14.4	24.3	37.1	52.6	71.0	116	173	240	319	409	510	623	746	880	1026	1182	1350	1528
21	14.7	24.9	38.0	53.9	72.8	119	177	246	327	419	523	638	764	902	1051	1211	1383	1566
22	15.1	25.5	38.9	55.2	74.5	122	181	252	335	429	535	653	782	923	1076	1240	1415	1603
23	15.4	26.1	39.8	56.5	76.2	125	186	258	342	439	547	668	800	944	1100	1268	1447	1639
24	15.8	26.7	40.6	57.7	77.8	127	189	263	350	448	559	682	817	964	1123	1295	1478	1674
25	16.1	27.2	41.5	58.9	79.4	130	193	269	357	458	571	696	834	984	1147	1322	1509	1708
26	16.4	27.7	42.3	60.0	81.0	133	197	274	364	467	582	710	850	1004	1169	1348	1539	1742
27	16.7	28.3	43.1	61.2	82.5	135	201	279	371	476	593	723	867	1023	1192	1373	1568	1775
28	17.0	28.8	43.9	62.3	84.1	138	204	285	378	484	604	737	883	1041	1214	1399	1597	1808
29	17.3	29.3	44.7	63.4	85.5	140	208	290	384	493	615	750	898	1060	1235	1423	1625	1840
30	17.6	29.8	45.4	64.5	87.0	142	212	294	391	501	625	763	913	1078	1256	1448	1653	1871

L, in feet	Correction Factors for Other Pipe Lengths																	
20	1.30	1.24	1.21	1.18	1.15	1.12	1.10	1.08	1.07	1.06	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.03
30	1.22	1.18	1.15	1.13	1.12	1.09	1.08	1.06	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02
40	1.15	1.13	1.11	1.10	1.08	1.07	1.05	1.05	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.02
50	1.09	1.08	1.07	1.06	1.05	1.04	1.04	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.01	1.01	1.01	1.01
60	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
80	.96	.97	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
90	.93	.94	.95	.95	.96	.97	.97	.98	.98	.98	.98	.98	.98	.99	.99	.99	.99	.99
100	.90	.91	.93	.93	.93	.95	.95	.96	.97	.97	.97	.98	.98	.98	.98	.98	.98	.99
120	.84	.86	.87	.89	.90	.91	.93	.94	.94	.95	.96	.96	.96	.97	.97	.97	.97	.98
140	.80	.82	.83	.85	.86	.88	.90	.91	.92	.93	.94	.94	.95	.95	.96	.96	.96	.97
160	.76	.78	.80	.82	.83	.86	.88	.89	.90	.91	.92	.93	.94	.94	.95	.95	.95	.96

PIPE LENGTH = 125.97
INTERPOLATING BETWEEN 120' AND 140' = 0.85

H, Head = 23.28'
INTERPOLATING BETWEEN 23' AND 24' = 26.27

Figure 5.10
Riser Inflow Chart (USDA - NRCS)



Therefore, the minimum A_o formula for 48 hrs. reduces to:

$$A_o = \frac{A_s \times 2h^{0.5}}{588{,}326}$$

Material Specifications

1. Skimmer Devices - These devices shall be constructed with Schedule 40 PVC pipe with diameters of 4 to 6 inches. The flexible arm shall be equal diameter of non-perforated, corrugated, plastic tubing.

2. Riser-pipe Devices - These devices shall be constructed of Schedule 40 PVC if plastic pipe is used or galvanized corrugated steel or aluminum pipe. The minimum diameter shall be 6 inches if the device is used in conjunction with another permanent riser. All perforations will be at the interior of the corrugations.

Maintenance

1. Dewatering devices shall be inspected weekly and after each runoff event.

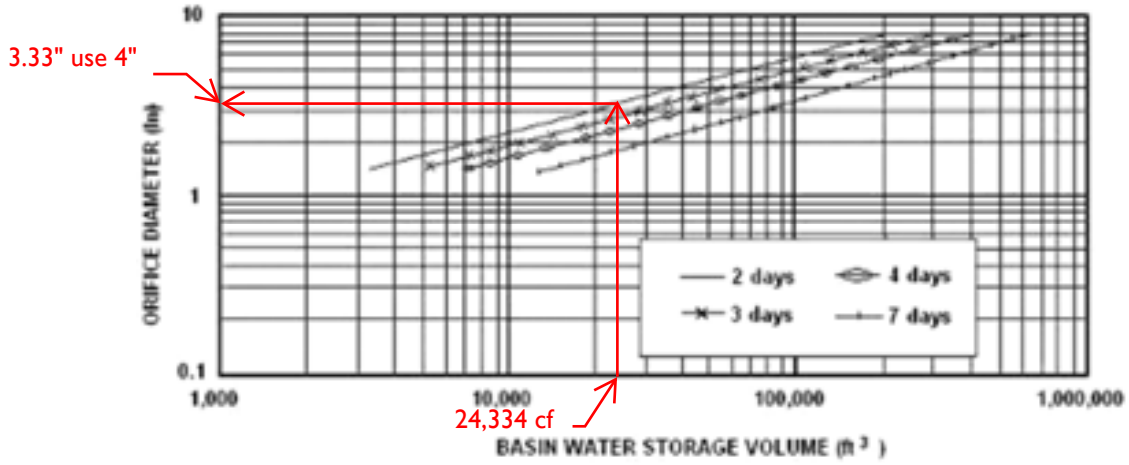
2. Filter fabric or media will be replaced as needed.

3. Any malfunctioning skimmer or its components shall be repaired or replaced within 24 hours of inspection notification.

4. Sediment shall be removed from the system when it reaches the level marked in a sediment cleanout stake or the top of the skimmer landing area.

5. The structure shall only be removed when the tributary area has been properly stabilized.

Figure 5.3 - Skimmer Orifice Design Chart



* Figure adapted from Penn State Agricultural and Biological Fact Sheet F-253

Notes:

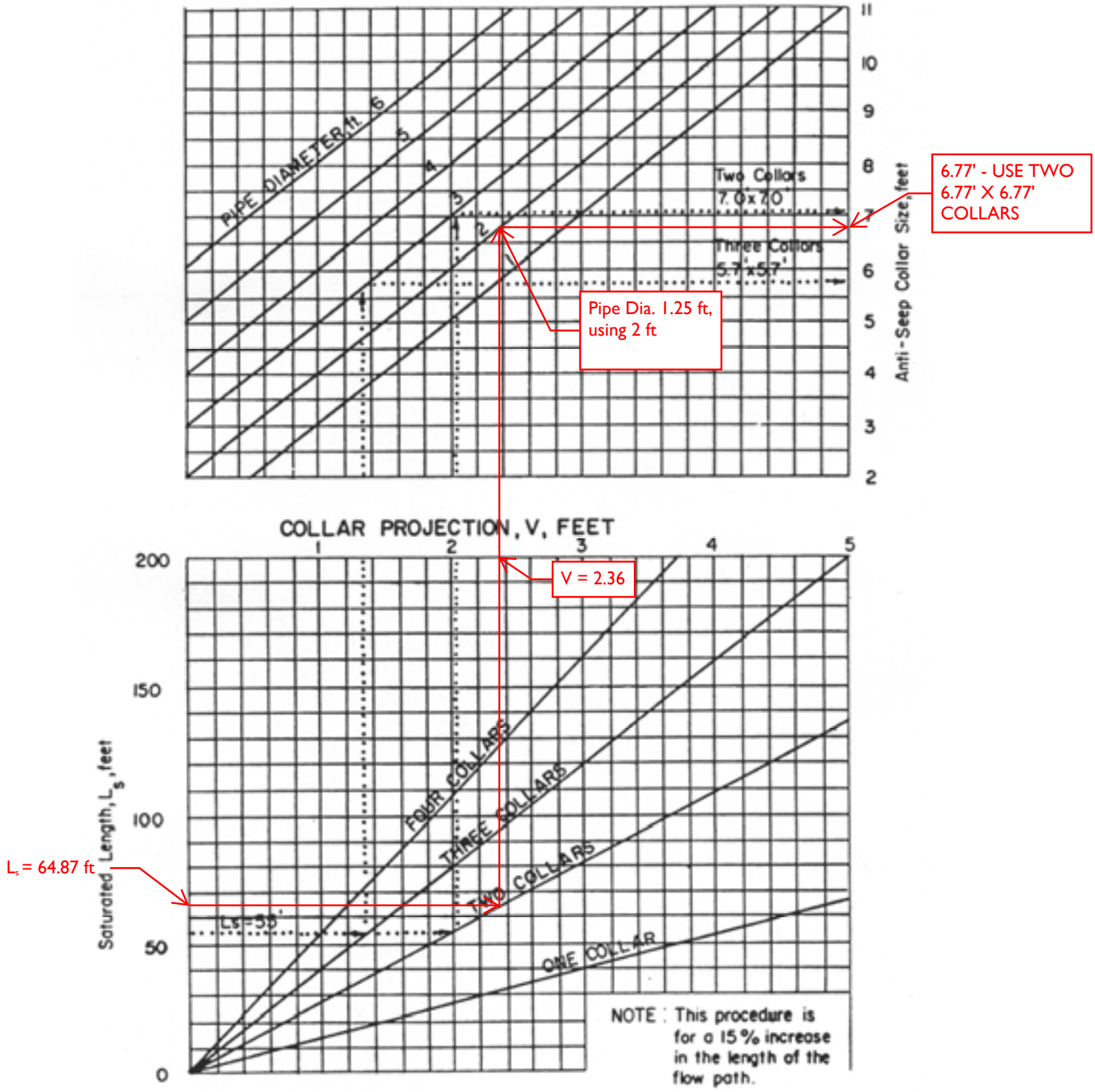
1. Figure 5.3 is for use in designing the orifice plate for the skimmer shown in Figure 5.4. It assumes 3" to 5" head (depending upon the size of the skimmer). The required head for use of Figure 5.3 varies as follows: For a skimmer with a dewatering tube ≤ 2 1/2" diameter, use a 2" head. For a 3" diameter tube, use a 2.5" head; 4" tube, use 3.3" head, 5" tube use 4" head, and 6" diameter tube use 5" head.

2. Find the vertical line representing the basin's dewatering zone volume. At the intersection of the vertical line with the desired dewatering time, read horizontally to the left to find the required skimmer orifice diameter.

Figure 5.21
Design Table for Vegetated Earth Spillways in Very Erodible Soils, K = 0.36 - 0.80, Side Slopes = 3:1
(USDA - NRCS)

Discharge Q CFS	Slope Range		Bottom Width Feet	Stage Feet
	Minimum Percent	Maximum Percent		
10	3.5	4.7	8	.68
15	3.4	4.4	12	.69
	3.4	5.9	16	.60
20	3.3	3.3	12	.80
	3.3	4.1	16	.70
	3.5	5.3	20	.62
25	3.3	3.3	16	.79
	3.3	4.0	20	.70
	3.5	4.9	24	.64
30	3.3	3.3	20	.78
	3.3	4.0	24	.71
	3.4	4.7	28	.65
	3.4	5.5	32	.61
35	3.2	3.2	24	.77
	3.3	3.9	28	.71
	3.5	4.6	32	.66
	3.5	5.2	36	.62
40	3.3	3.3	28	.76
	3.4	3.8	32	.71
	3.4	4.4	36	.67
	3.4	5.0	40	.64
45	3.3	3.3	32	.76
	3.4	3.8	36	.71
	3.4	4.3	40	.67
	3.4	4.8	44	.64
50	3.3	3.3	36	.75
	3.3	3.8	40	.71
	3.3	4.3	44	.68
60	3.2	3.2	44	.75
	3.2	3.7	48	.72
70	3.3	3.3	52	.75
80	3.1	3.1	56	.78

Figure 5.17
Anti-Seep Collar Design Charts (USDA - NRCS)



TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by CDF Date 07/07/2025 Checked by _____ Date _____

Project Letchworth Road Residential Development Basin # TSB-2B

Location Letchworth Village Road, Haverstraw, NY Total Area draining to basin (≤50 Ac.) 6.10 Acres

BASIN SIZE DESIGN

6.10

1. Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 6,100 cu. ft., Top of Zone Elev. 433.83
2. Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 21,960 cu. ft., Top of Zone Elev. 434.88
3. Length to width ratio = 193.09 L : 92.99 W = 2.08
4. A. Cleanout at 50% of sediment storage zone volume, Elev. 433.67
   B. Distance below top of riser 1.33 feet
5. Minimum surface area is larger of 0.01 $Q_{(10)}$ 0.29 or, 0.015 DA = 0.09 use 0.29 acres

Q_{10} = 29.12

DESIGN OF SPILLWAYS & ELEVATIONS

Runoff

6. $Q_{p(10)}$ = 29.12 cfs (Attach runoff computation sheets)

Pipe Spillway (Q_{ps})

7. Min. pipe spillway cap., Q_{ps} = 0.2 x 6.10 Drainage Area, acres = 1.22 cfs
   Note: If there is no emergency spillway, then required Q_{ps} = $Q_{p(10)}$ = NA cfs.
8. H, head = 8.25 ft. Barrel length = 46.2 ft
9. Barrel: Diam. 15 inches; Q_{ps} = (Q) 1.22 x (cor.fac.) 1.10 = 1.34 cfs.
10. Riser: Diam. 15 inches; Length 1.5 ft.; h = 0.23 ft. Crest Elev. 435.00
11. Trash Rack: Diameter = 21 inches; H, height = 7 inches

Emergency Spillway Design

12. Emergency Spillway Flow, Q_{es} = Q_p - Q_{ps} = 29.12 - 1.64 = 27.48 cfs.
13. Width 20 ft.; H_p 0.78 ft Crest elevation 435.00; Design High Water Elev. 435.58
    Entrance channel slope 33.3 % ; Top of Dam Elev. 436.00
    Exit channel slope 33.3 %

ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

Collars: N/A

14. y = _____ft.; z = _____:1; pipe slope = _____%, L_s = _____ft.
    Use _____ collars, _____ - _____inches square; projection = _____ft.

Diaphragms:

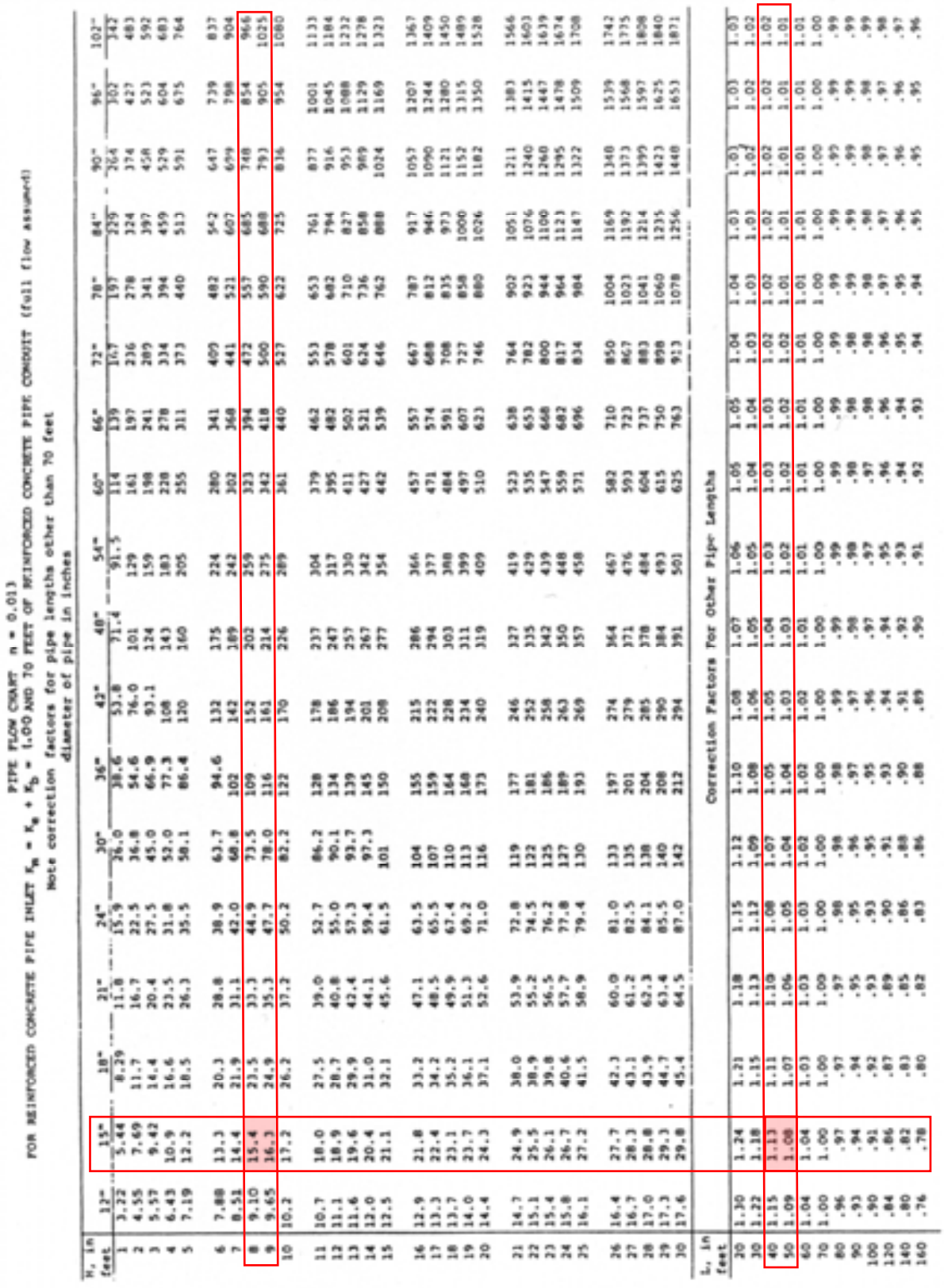
#_____ width_____ ft. height _____ft.

DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = 4 inches. Skimmer X or Riser ____ (check one)
16. Design dewatering time 2 days (Min. 2 days required)

Figure 5.12
Pipe Flow Chart; "n" = 0.013 (USDA - NRCS)



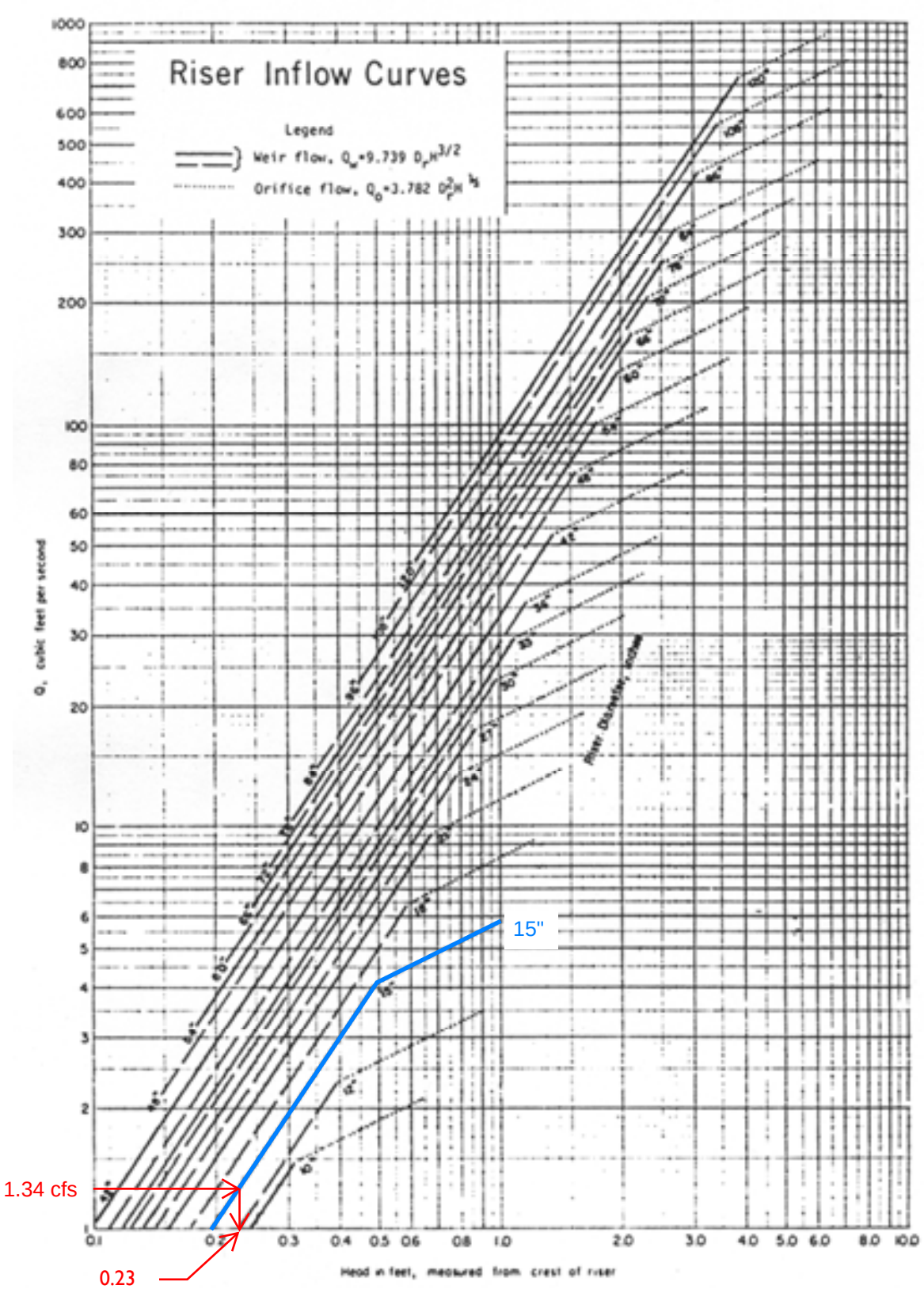
PIPE FLOW CHART n = 0.013
FOR REINFORCED CONCRETE PIPE INLET $K_m = K_e + K_b = 1.00$ AND 70 FEET OF REINFORCED CONCRETE PIPE CONDUIT (full flow assumed)
Note correction factors for pipe lengths other than 70 feet

H, in feet	12"	15"	18"	21"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"
1	3.22	5.44	8.29	11.8	15.9	26.0	38.6	53.8	71.4	91.5	114	139	167	197	229	264	302	342
2	4.55	7.69	11.7	16.7	22.5	36.8	54.6	76.0	101	129	161	197	236	278	324	374	427	483
3	5.57	9.42	14.4	20.4	27.5	45.0	66.9	93.1	124	159	198	241	289	341	397	458	523	592
4	6.43	10.9	16.6	23.5	31.8	52.0	77.3	108	143	183	228	278	334	394	459	529	604	683
5	7.19	12.2	18.5	26.3	35.5	58.1	86.4	120	160	205	255	311	373	440	513	591	675	764
6	7.88	13.3	20.3	28.8	38.9	63.7	94.6	132	175	224	280	341	409	482	562	647	739	837
7	8.51	14.4	21.9	31.1	42.0	68.8	102	142	189	242	302	368	441	521	607	699	798	904
8	9.10	15.4	23.5	33.3	44.9	73.5	109	152	202	259	323	394	472	557	685	748	854	966
9	9.65	16.3	24.9	35.3	47.7	78.0	116	161	214	275	342	418	500	590	688	793	905	1025
10	10.2	17.2	26.2	37.2	50.2	82.2	122	170	226	289	361	440	527	622	725	836	954	1080
11	10.7	18.0	27.5	39.0	52.7	86.2	128	178	237	304	379	462	553	653	761	877	1001	1133
12	11.1	18.9	28.7	40.8	55.0	90.1	134	186	247	317	395	482	578	682	794	916	1045	1184
13	11.6	19.6	29.9	42.4	57.3	93.7	139	194	257	330	411	502	601	710	827	953	1088	1232
14	12.0	20.4	31.0	44.1	59.4	97.3	145	201	267	342	427	521	624	736	858	989	1129	1278
15	12.5	21.1	32.1	45.6	61.5	101	150	208	277	354	442	539	646	762	888	1024	1169	1323
16	12.9	21.8	33.2	47.1	63.5	104	155	215	286	366	457	557	667	787	917	1057	1207	1367
17	13.3	22.4	34.2	48.5	65.5	107	159	222	294	377	471	574	688	812	946	1090	1244	1409
18	13.7	23.1	35.2	49.9	67.4	110	164	228	303	388	484	591	708	835	973	1121	1280	1450
19	14.0	23.7	36.1	51.3	69.2	113	168	234	311	399	497	607	727	858	1000	1152	1315	1489
20	14.4	24.3	37.1	52.6	71.0	116	173	240	319	409	510	623	746	880	1026	1182	1350	1528
21	14.7	24.9	38.0	53.9	72.8	119	177	246	327	419	523	638	764	902	1051	1211	1383	1566
22	15.1	25.5	38.9	55.2	74.5	122	181	252	335	429	535	653	782	923	1076	1240	1415	1603
23	15.4	26.1	39.8	56.5	76.2	125	186	258	342	439	547	668	800	944	1100	1268	1447	1639
24	15.8	26.7	40.6	57.7	77.8	127	189	263	350	448	559	682	817	964	1123	1295	1478	1674
25	16.1	27.2	41.5	58.9	79.4	130	193	269	357	458	571	696	834	984	1147	1322	1509	1708
26	16.4	27.7	42.3	60.0	81.0	133	197	274	364	467	582	710	850	1004	1169	1348	1539	1742
27	16.7	28.3	43.1	61.2	82.5	135	201	279	371	476	593	723	867	1023	1192	1373	1568	1775
28	17.0	28.8	43.9	62.3	84.1	138	204	285	378	484	604	737	883	1041	1214	1399	1597	1808
29	17.3	29.3	44.7	63.4	85.5	140	208	290	384	493	615	750	898	1060	1235	1423	1625	1840
30	17.6	29.8	45.4	64.5	87.0	142	212	294	391	501	625	763	913	1078	1256	1448	1653	1871
L, in feet	Correction Factors for Other Pipe Lengths																	
20	1.30	1.24	1.21	1.18	1.15	1.12	1.10	1.08	1.07	1.06	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.03
30	1.22	1.18	1.15	1.13	1.12	1.09	1.08	1.06	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02
40	1.15	1.13	1.11	1.10	1.08	1.07	1.05	1.05	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.02
50	1.09	1.08	1.07	1.06	1.05	1.04	1.04	1.03	1.03	1.02	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01
60	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
80	.96	.97	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
90	.93	.94	.94	.95	.95	.96	.97	.97	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98
100	.90	.91	.92	.93	.93	.95	.95	.96	.97	.97	.97	.98	.98	.98	.98	.98	.98	.98
120	.84	.86	.87	.89	.90	.91	.93	.94	.94	.95	.96	.96	.96	.97	.97	.97	.97	.98
140	.80	.82	.83	.85	.86	.88	.90	.91	.92	.93	.94	.94	.95	.95	.96	.96	.96	.97
160	.76	.78	.80	.82	.83	.84	.88	.89	.90	.91	.92	.93	.94	.94	.95	.95	.95	.96

PIPE LENGTH = 46.2
EXTRAPOLITING FROM 40' AND 50' = 1.10

H, Head = 8.25'
INTERPOLATING BETWEEN 8' AND 9' = 15.63

Figure 5.10
Riser Inflow Chart (USDA - NRCS)



Therefore, the minimum A_o formula for 48 hrs. reduces to:

$$A_o = \frac{A_s \times 2h^{0.5}}{588{,}326}$$

Material Specifications

1. Skimmer Devices - These devices shall be constructed with Schedule 40 PVC pipe with diameters of 4 to 6 inches. The flexible arm shall be equal diameter of non-perforated, corrugated, plastic tubing.

2. Riser-pipe Devices - These devices shall be constructed of Schedule 40 PVC if plastic pipe is used or galvanized corrugated steel or aluminum pipe. The minimum diameter shall be 6 inches if the device is used in conjunction with another permanent riser. All perforations will be at the interior of the corrugations.

Maintenance

1. Dewatering devices shall be inspected weekly and after each runoff event.

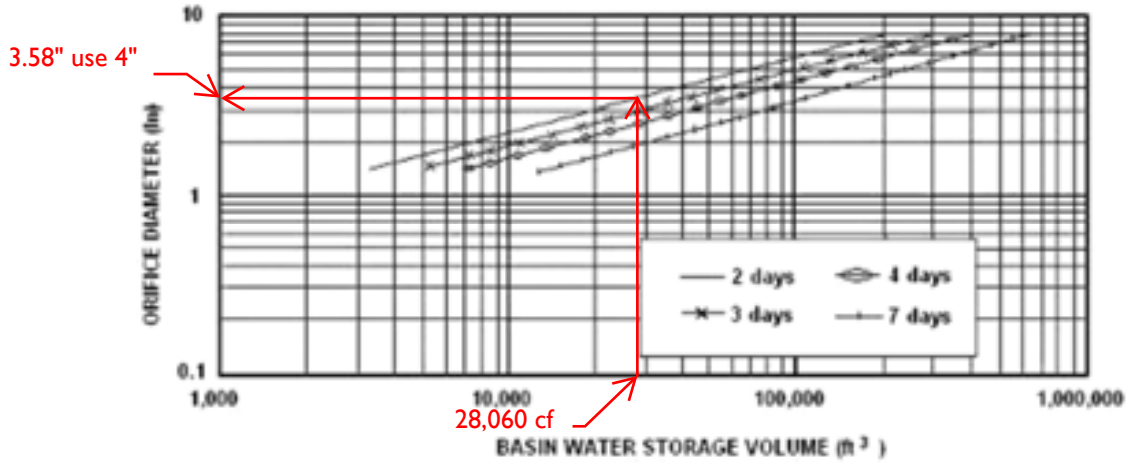
2. Filter fabric or media will be replaced as needed.

3. Any malfunctioning skimmer or its components shall be repaired or replaced within 24 hours of inspection notification.

4. Sediment shall be removed from the system when it reaches the level marked in a sediment cleanout stake or the top of the skimmer landing area.

5. The structure shall only be removed when the tributary area has been properly stabilized.

Figure 5.3 - Skimmer Orifice Design Chart



* Figure adapted from Penn State Agricultural and Biological Fact Sheet F-253

Notes:

1. Figure 5.3 is for use in designing the orifice plate for the skimmer shown in Figure 5.4. It assumes 3" to 5" head (depending upon the size of the skimmer). The required head for use of Figure 5.3 varies as follows: For a skimmer with a dewatering tube ≤ 2 1/2" diameter, use a 2" head. For a 3" diameter tube, use a 2.5" head; 4" tube, use 3.3" head, 5" tube use 4" head, and 6" diameter tube use 5" head.

2. Find the vertical line representing the basin's dewatering zone volume. At the intersection of the vertical line with the desired dewatering time, read horizontally to the left to find the required skimmer orifice diameter.

Figure 5.21
Design Table for Vegetated Earth Spillways in Very Erodible Soils, K = 0.36 - 0.80, Side Slopes = 3:1
(USDA - NRCS)

Discharge Q CFS	Slope Range		Bottom Width Feet	Stage Feet
	Minimum Percent	Maximum Percent		
10	3.5	4.7	8	.68
15	3.4	4.4	12	.69
	3.4	5.9	16	.60
20	3.3	3.3	12	.80
	3.3	4.1	16	.70
	3.5	5.3	20	.62
25	3.3	3.3	16	.79
	3.3	4.0	20	.70
	3.5	4.9	24	.64
30	3.3	3.3	20	.78
	3.3	4.0	24	.71
	3.4	4.7	28	.65
	3.4	5.5	32	.61
35	3.2	3.2	24	.77
	3.3	3.9	28	.71
	3.5	4.6	32	.66
	3.5	5.2	36	.62
40	3.3	3.3	28	.76
	3.4	3.8	32	.71
	3.4	4.4	36	.67
	3.4	5.0	40	.64
45	3.3	3.3	32	.76
	3.4	3.8	36	.71
	3.4	4.3	40	.67
	3.4	4.8	44	.64
50	3.3	3.3	36	.75
	3.3	3.8	40	.71
	3.3	4.3	44	.68
60	3.2	3.2	44	.75
	3.2	3.7	48	.72
70	3.3	3.3	52	.75
80	3.1	3.1	56	.78

TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by CDF Date 07/07/2025 Checked by _____ Date _____
Project Letchworth Road Residential Development Basin # TSB-3A
Location Letchworth Village Road, Haverstraw, NY Total Area draining to basin (≤50 Ac.) 5.06 Acres

BASIN SIZE DESIGN

5.06

1. Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 5,060 cu. ft., Top of Zone Elev. 435.87
2. Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 19,044 cu. ft., Top of Zone Elev. 437.07
3. Length to width ratio = 253.91 L : 83.45 W = 3.04
4. A. Cleanout at 50% of sediment storage zone volume, Elev. 435.68
   B. Distance below top of riser 1.32 feet
5. Minimum surface area is larger of 0.01 $Q_{(10)}$ 0.24 or, 0.015 DA = 0.08 use 0.24 acres

Q_{10} = 24.18

DESIGN OF SPILLWAYS & ELEVATIONS

Runoff

6. $Q_{p(10)}$ = 24.18 cfs (Attach runoff computation sheets)

Pipe Spillway (Q_{ps})

7. Min. pipe spillway cap., Q_{ps} = 0.2 x 5.06 Drainage Area, acres = 1.01 cfs
   Note: If there is no emergency spillway, then required Q_{ps} = $Q_{p(10)}$ = N/A cfs.
8. H, head = 5.38 ft. Barrel length = 70.85 ft
9. Barrel: Diam. 15 inches; Q_{ps} = (Q) 1.06 x (cor.fac.) 1.00 = 1.06 cfs.
10. Riser: Diam. 15 inches; Length 4 ft.; h = 0.20 ft. Crest Elev. 437.00
11. Trash Rack: Diameter = 21 inches; H, height = 7 inches

Emergency Spillway Design

12. Emergency Spillway Flow, Q_{es} = Q_p - Q_{ps} = 24.18 - 1.06 = 23.12 cfs.
13. Width 20 ft.; H_p 0.79 ft Crest elevation 437.00; Design High Water Elev. 437.61
    Entrance channel slope 33.3 % ; Top of Dam Elev. 438.00
    Exit channel slope 33.3 %

ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

Collars: N/A

14. y = _____ft.; z = _____:1; pipe slope = _____%, L_s = _____ft.
    Use _____ collars, _____ - _____inches square; projection = _____ft.

Diaphragms:

#_____ width_____ ft. height _____ft.

DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = 4 inches. Skimmer X or Riser ____ (check one)
16. Design dewatering time 2 days (Min. 2 days required)

Figure 5.12
Pipe Flow Chart; "n" = 0.013 (USDA - NRCS)

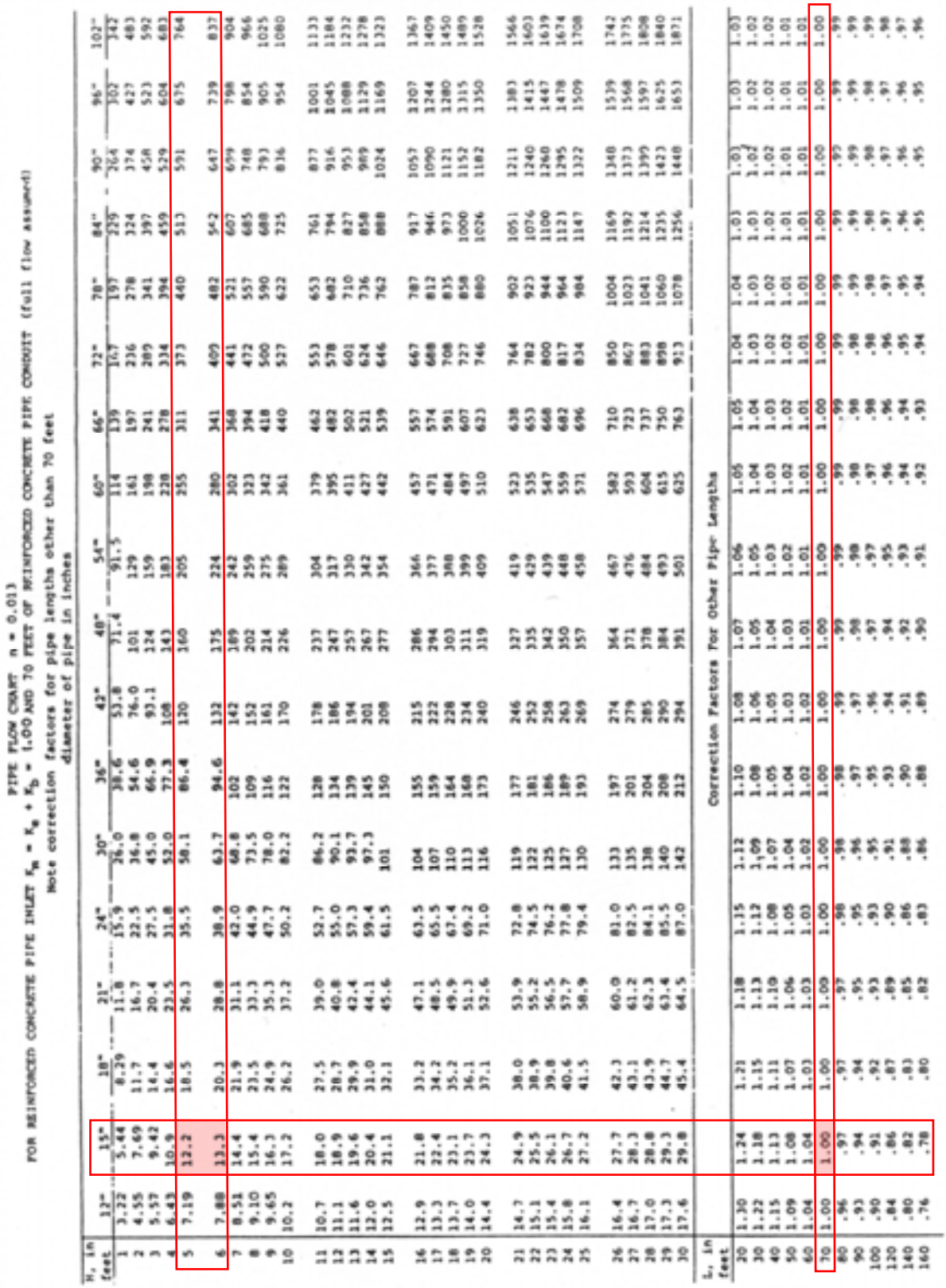
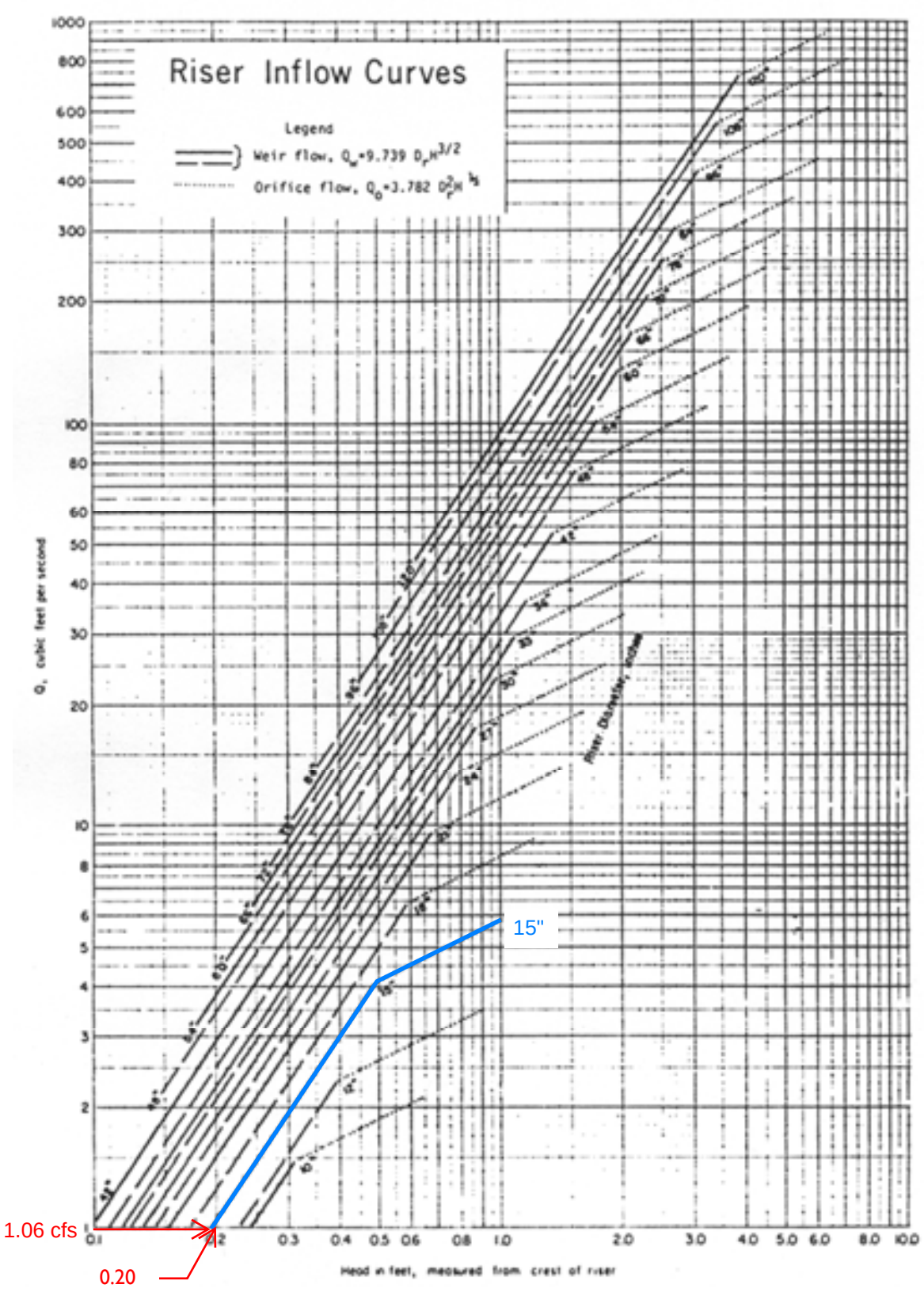


Figure 5.10
Riser Inflow Chart (USDA - NRCS)



Therefore, the minimum A_o formula for 48 hrs. reduces to:

$$A_o = \frac{A_s \times 2h^{0.5}}{588{,}326}$$

Material Specifications

1. Skimmer Devices - These devices shall be constructed with Schedule 40 PVC pipe with diameters of 4 to 6 inches. The flexible arm shall be equal diameter of non-perforated, corrugated, plastic tubing.

2. Riser-pipe Devices - These devices shall be constructed of Schedule 40 PVC if plastic pipe is used or galvanized corrugated steel or aluminum pipe. The minimum diameter shall be 6 inches if the device is used in conjunction with another permanent riser. All perforations will be at the interior of the corrugations.

Maintenance

1. Dewatering devices shall be inspected weekly and after each runoff event.

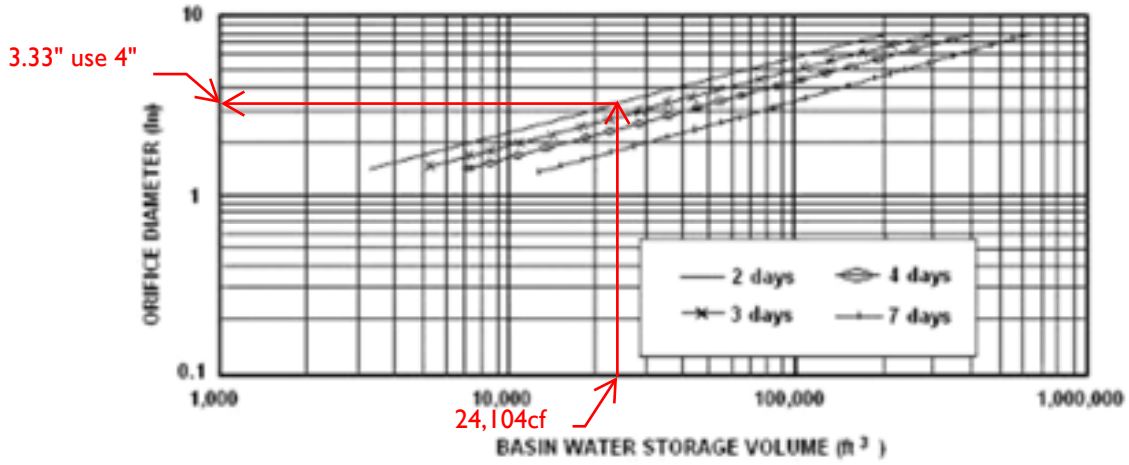
2. Filter fabric or media will be replaced as needed.

3. Any malfunctioning skimmer or its components shall be repaired or replaced within 24 hours of inspection notification.

4. Sediment shall be removed from the system when it reaches the level marked in a sediment cleanout stake or the top of the skimmer landing area.

5. The structure shall only be removed when the tributary area has been properly stabilized.

Figure 5.3 - Skimmer Orifice Design Chart



* Figure adapted from Penn State Agricultural and Biological Fact Sheet F-253

Notes:

1. Figure 5.3 is for use in designing the orifice plate for the skimmer shown in Figure 5.4. It assumes 3" to 5" head (depending upon the size of the skimmer). The required head for use of Figure 5.3 varies as follows: For a skimmer with a dewatering tube ≤ 2 1/2" diameter, use a 2" head. For a 3" diameter tube, use a 2.5" head; 4" tube, use 3.3" head, 5" tube use 4" head, and 6" diameter tube use 5" head.

2. Find the vertical line representing the basin's dewatering zone volume. At the intersection of the vertical line with the desired dewatering time, read horizontally to the left to find the required skimmer orifice diameter.

Figure 5.21
Design Table for Vegetated Earth Spillways in Very Erodible Soils, K = 0.36 - 0.80, Side Slopes = 3:1
(USDA - NRCS)

Discharge Q CFS	Slope Range		Bottom Width Feet	Stage Feet
	Minimum Percent	Maximum Percent		
10	3.5	4.7	8	.68
15	3.4	4.4	12	.69
	3.4	5.9	16	.60
20	3.3	3.3	12	.80
	3.3	4.1	16	.70
	3.5	5.3	20	.62
25	3.3	3.3	16	.79
	3.3	4.0	20	.70
	3.5	4.9	24	.64
30	3.3	3.3	20	.78
	3.3	4.0	24	.71
	3.4	4.7	28	.65
	3.4	5.5	32	.61
35	3.2	3.2	24	.77
	3.3	3.9	28	.71
	3.5	4.6	32	.66
	3.5	5.2	36	.62
40	3.3	3.3	28	.76
	3.4	3.8	32	.71
	3.4	4.4	36	.67
	3.4	5.0	40	.64
45	3.3	3.3	32	.76
	3.4	3.8	36	.71
	3.4	4.3	40	.67
	3.4	4.8	44	.64
50	3.3	3.3	36	.75
	3.3	3.8	40	.71
	3.3	4.3	44	.68
60	3.2	3.2	44	.75
	3.2	3.7	48	.72
70	3.3	3.3	52	.75
80	3.1	3.1	56	.78

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Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
TSB-1B	Post-Development 10 Year Storm	10	74,618.000	12.000	25.00
TSB-1D	Post-Development 10 Year Storm	10	75,406.000	12.000	25.26
TSB-2B	Post-Development 10 Year Storm	10	86,912.000	12.000	29.12
TSB-3A	Post-Development 10 Year Storm	10	72,183.000	12.000	24.18

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DP-1	Post-Development 10 Year Storm	10	149,422.000	12.200	10.82
DP-2	Post-Development 10 Year Storm	10	57,721.000	12.450	6.22
DP-3	Post-Development 10 Year Storm	10	50,204.000	12.250	6.65

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
Temp. Sediment Basin 1B (IN)	Post-Development 10 Year Storm	10	74,618.000	12.000	25.00	(N/A)	(N/A)
Temp. Sediment Basin 1B (OUT)	Post-Development 10 Year Storm	10	74,618.000	12.150	10.18	429.63	20,611.000
Temp. Sediment Basin 1D (IN)	Post-Development 10 Year Storm	10	75,406.000	12.000	25.26	(N/A)	(N/A)
Temp. Sediment Basin 1D (OUT)	Post-Development 10 Year Storm	10	74,804.000	15.850	0.75	443.37	47,197.000
Temp. Sediment Basin 2B (IN)	Post-Development 10 Year Storm	10	86,912.000	12.000	29.12	(N/A)	(N/A)

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
Temp. Sediment Basin 2B (OUT)	Post-Development 10 Year Storm	10	57,721.000	12.450	6.22	435.58	41,748.000
Temp. Sediment Basin 3A (IN)	Post-Development 10 Year Storm	10	72,183.000	12.000	24.18	(N/A)	(N/A)
Temp. Sediment Basin 3A (OUT)	Post-Development 10 Year Storm	10	50,204.000	12.250	6.65	437.61	32,143.000

Time-Depth Curve: 10 Year	
Label	10 Year
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	10 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.1	0.1	0.1
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.1	0.1	0.2
2.000	0.2	0.2	0.2	0.2	0.2
2.500	0.2	0.2	0.2	0.2	0.2
3.000	0.2	0.3	0.3	0.3	0.3
3.500	0.3	0.3	0.3	0.3	0.3
4.000	0.3	0.3	0.4	0.4	0.4
4.500	0.4	0.4	0.4	0.4	0.4
5.000	0.4	0.4	0.5	0.5	0.5
5.500	0.5	0.5	0.5	0.5	0.5
6.000	0.5	0.6	0.6	0.6	0.6
6.500	0.6	0.6	0.6	0.6	0.7
7.000	0.7	0.7	0.7	0.7	0.7
7.500	0.7	0.8	0.8	0.8	0.8
8.000	0.8	0.8	0.8	0.9	0.9
8.500	0.9	0.9	0.9	0.9	1.0
9.000	1.0	1.0	1.0	1.0	1.1
9.500	1.1	1.1	1.1	1.1	1.2
10.000	1.2	1.2	1.2	1.3	1.3
10.500	1.3	1.4	1.4	1.4	1.5
11.000	1.5	1.5	1.6	1.6	1.7
11.500	1.8	1.9	2.0	2.1	2.3
12.000	3.0	3.2	3.4	3.5	3.7
12.500	3.8	3.8	3.9	3.9	4.0
13.000	4.0	4.0	4.1	4.1	4.1
13.500	4.2	4.2	4.2	4.3	4.3
14.000	4.3	4.3	4.4	4.4	4.4
14.500	4.4	4.4	4.5	4.5	4.5
15.000	4.5	4.5	4.6	4.6	4.6
15.500	4.6	4.6	4.6	4.7	4.7
16.000	4.7	4.7	4.7	4.7	4.8
16.500	4.8	4.8	4.8	4.8	4.8
17.000	4.8	4.8	4.9	4.9	4.9

Subsection: Time-Depth Curve
Return Event: 10 years
Label: 10 Year Storm
Storm Event: 10 Year

Scenario: Post-Development 10 Year Storm

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	4.9	4.9	4.9	4.9	4.9
18.000	5.0	5.0	5.0	5.0	5.0
18.500	5.0	5.0	5.0	5.0	5.1
19.000	5.1	5.1	5.1	5.1	5.1
19.500	5.1	5.1	5.1	5.1	5.2
20.000	5.2	5.2	5.2	5.2	5.2
20.500	5.2	5.2	5.2	5.2	5.2
21.000	5.3	5.3	5.3	5.3	5.3
21.500	5.3	5.3	5.3	5.3	5.3
22.000	5.3	5.3	5.4	5.4	5.4
22.500	5.4	5.4	5.4	5.4	5.4
23.000	5.4	5.4	5.4	5.4	5.5
23.500	5.5	5.5	5.5	5.5	5.5
24.000	5.5	(N/A)	(N/A)	(N/A)	(N/A)

Scenario: Post-Development 10 Year Storm

Time of Concentration Results

Segment #1: User Defined Tc	
Time of Concentration	0.083 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.083 hours

==== User Defined

Tc =	Value entered by user
Where:	Tc= Time of concentration, hours

Scenario: Post-Development 10 Year Storm

Time of Concentration Results

Segment #1: User Defined Tc	
Time of Concentration	0.083 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.083 hours

==== User Defined

Tc =	Value entered by user
Where:	Tc= Time of concentration, hours

Scenario: Post-Development 10 Year Storm

Time of Concentration Results

Segment #1: User Defined Tc	
Time of Concentration	0.083 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.083 hours

==== User Defined

Tc =	Value entered by user
Where:	Tc= Time of concentration, hours

Scenario: Post-Development 10 Year Storm

Time of Concentration Results

Segment #1: User Defined Tc	
Time of Concentration	0.083 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.083 hours

==== User Defined

Tc =	Value entered by user
Where:	Tc= Time of concentration, hours

Subsection: Runoff CN-Area
Label: TSB-1B
Return Event: 10 years
Storm Event: 10 Year

Scenario: Post-Development 10 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Newly graded area (pervious only - Newly graded area (pervious only) - Soil B	86.000	228,043.486	0.0	0.0	86.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	228,043.486	(N/A)	(N/A)	86.000

Subsection: Runoff CN-Area
Label: TSB-1D
Return Event: 10 years
Storm Event: 10 Year

Scenario: Post-Development 10 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Newly graded area (pervious only - Newly graded area (pervious only) - Soil B	86.000	230,452.665	0.0	0.0	86.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	230,452.665	(N/A)	(N/A)	86.000

Subsection: Runoff CN-Area
Label: TSB-2B
Return Event: 10 years
Storm Event: 10 Year

Scenario: Post-Development 10 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Newly graded area (pervious only - Newly graded area (pervious only) - Soil B	86.000	265,616.589	0.0	0.0	86.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	265,616.589	(N/A)	(N/A)	86.000

Subsection: Runoff CN-Area
Label: TSB-3A
Return Event: 10 years
Storm Event: 10 Year

Scenario: Post-Development 10 Year Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Newly graded area (pervious only - Newly graded area (pervious only) - Soil B	86.000	220,603.114	0.0	0.0	86.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	220,603.114	(N/A)	(N/A)	86.000

Storm Event	10 Year
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	228,043.486 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.011 hours
Flow (Peak, Computed)	25.71 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.000 hours
Flow (Peak Interpolated Output)	25.00 ft³/s

Drainage Area	
SCS CN (Composite)	86.000
Area (User Defined)	228,043.486 ft²
Maximum Retention (Pervious)	1.6 in
Maximum Retention (Pervious, 20 percent)	0.3 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.9 in
Runoff Volume (Pervious)	74,620.942 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	74,618.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	71.18 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	10 Year
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	230,452.665 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.011 hours
Flow (Peak, Computed)	25.98 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.000 hours
Flow (Peak Interpolated Output)	25.26 ft³/s

Drainage Area	
SCS CN (Composite)	86.000
Area (User Defined)	230,452.665 ft²
Maximum Retention (Pervious)	1.6 in
Maximum Retention (Pervious, 20 percent)	0.3 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.9 in
Runoff Volume (Pervious)	75,409.279 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	75,406.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	71.93 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	10 Year
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	265,616.589 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.011 hours
Flow (Peak, Computed)	29.94 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.000 hours
Flow (Peak Interpolated Output)	29.12 ft³/s

Drainage Area	
SCS CN (Composite)	86.000
Area (User Defined)	265,616.589 ft²
Maximum Retention (Pervious)	1.6 in
Maximum Retention (Pervious, 20 percent)	0.3 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.9 in
Runoff Volume (Pervious)	86,915.703 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	86,912.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	82.91 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	10 Year
Return Event	10 years
Duration	72.000 hours
Depth	5.5 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	220,603.114 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.011 hours
Flow (Peak, Computed)	24.87 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.000 hours
Flow (Peak Interpolated Output)	24.18 ft³/s

Drainage Area	
SCS CN (Composite)	86.000
Area (User Defined)	220,603.114 ft²
Maximum Retention (Pervious)	1.6 in
Maximum Retention (Pervious, 20 percent)	0.3 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.9 in
Runoff Volume (Pervious)	72,186.285 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	72,183.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	68.86 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
	Temp. Sediment Basin 1B
	Temp. Sediment Basin 1D

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		74,617.851	12.150	10.18
Flow (From)		74,804.094	15.850	0.75
Flow (In)	DP-1	149,421.945	12.200	10.82

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
	Temp. Sediment Basin 2B

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		57,720.773	12.450	6.22
Flow (In)	DP-2	57,720.773	12.450	6.22

Summary for Hydrograph Addition at 'DP-3'

Upstream Link	Upstream Node
	Temp. Sediment Basin 3A

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)		50,203.709	12.250	6.65
Flow (In)	DP-3	50,203.709	12.250	6.65

Subsection: Elevation-Area Volume Curve
Return Event: 10 years
Label: Temp. Sediment Basin 1B
Storm Event: 10 Year

Scenario: Post-Development 10 Year Storm

Elevation (ft)	Planimeter (ft^2)	Area (ft^2)	A1+A2+sqr (A1*A2) (ft^2)	Volume (ft^3)	Volume (Total) (ft^3)
424.00	0.0	1,725.873	0.000	0.000	0.000
426.00	0.0	2,849.371	6,792.822	4,529.000	4,529.000
428.00	0.0	4,629.521	11,110.864	7,407.000	11,936.000
430.00	0.0	6,420.637	16,502.173	11,001.000	22,937.000
430.25	0.0	6,660.431	19,620.502	1,635.000	24,572.000

Pond Volume Equations
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Subsection: Elevation-Area Volume Curve Return Event: 10 years
Label: Temp. Sediment Basin 1D Storm Event: 10 Year

Scenario: Post-Development 10 Year Storm

Elevation (ft)	Planimeter (ft^2)	Area (ft^2)	A1+A2+sqr (A1*A2) (ft^2)	Volume (ft^3)	Volume (Total) (ft^3)
440.00	0.0	11,106.908	0.000	0.000	0.000
442.00	0.0	14,531.250	38,342.380	25,562.000	25,562.000
444.00	0.0	18,349.557	49,209.983	32,807.000	58,368.000
446.00	0.0	22,274.163	60,840.570	40,560.000	98,929.000
446.25	0.0	22,761.829	67,552.669	5,629.000	104,558.000

Pond Volume Equations
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Subsection: Elevation-Area Volume Curve
Return Event: 10 years
Label: Temp. Sediment Basin 2B
Storm Event: 10 Year

Scenario: Post-Development 10 Year Storm

Elevation (ft)	Planimeter (ft^2)	Area (ft^2)	A1+A2+sqr (A1*A2) (ft^2)	Volume (ft^3)	Volume (Total) (ft^3)
433.50	0.0	17,621.354	0.000	0.000	0.000
434.00	0.0	18,994.721	54,911.231	9,152.000	9,152.000
436.00	0.0	23,321.698	63,363.727	42,242.000	51,394.000
436.25	0.0	23,836.745	70,736.258	5,895.000	57,289.000

Pond Volume Equations
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Subsection: Elevation-Area Volume Curve
Return Event: 10 years
Label: Temp. Sediment Basin 3A
Storm Event: 10 Year

Scenario: Post-Development 10 Year Storm

Elevation (ft)	Planimeter (ft^2)	Area (ft^2)	A1+A2+sqr (A1*A2) (ft^2)	Volume (ft^3)	Volume (Total) (ft^3)
435.50	0.0	13,351.716	0.000	0.000	0.000
436.00	0.0	14,222.187	41,353.983	6,892.000	6,892.000
438.00	0.0	17,817.504	47,958.355	31,972.000	38,865.000
438.25	0.0	18,281.044	54,146.335	4,512.000	43,377.000

Pond Volume Equations
*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

Volume = (1/3) * (EL2 - El1) * (Area1 + Area2 + sqr(Area1 * Area2))

where:	EL1, EL2	Lower and upper elevations of the increment
	Area1, Area2	Areas computed for EL1, EL2, respectively
	Volume	Incremental volume between EL1 and EL2

Scenario: Post-Development 10 Year Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	424.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
424.00	0.00	0.000	1,725.873	0.00	0.00	0.00
424.05	0.00	86.910	1,750.546	0.00	0.00	0.97
424.10	0.02	175.058	1,775.394	0.00	0.02	1.96
424.15	0.04	264.452	1,800.417	0.00	0.04	2.98
424.20	0.07	355.102	1,825.615	0.00	0.07	4.01
424.25	0.10	447.016	1,850.988	0.00	0.10	5.07
424.30	0.14	540.204	1,876.537	0.00	0.14	6.14
424.35	0.18	634.673	1,902.260	0.00	0.18	7.23
424.40	0.20	730.433	1,928.159	0.00	0.20	8.32
424.45	0.22	827.492	1,954.232	0.00	0.22	9.42
424.50	0.24	925.859	1,980.481	0.00	0.24	10.53
424.55	0.26	1,025.543	2,006.905	0.00	0.26	11.66
424.60	0.28	1,126.552	2,033.504	0.00	0.28	12.79
424.65	0.29	1,228.896	2,060.278	0.00	0.29	13.95
424.70	0.31	1,332.583	2,087.227	0.00	0.31	15.11
424.75	0.32	1,437.622	2,114.352	0.00	0.32	16.29
424.80	0.33	1,544.021	2,141.651	0.00	0.33	17.49
424.85	0.35	1,651.790	2,169.126	0.00	0.35	18.70
424.90	0.36	1,760.937	2,196.775	0.00	0.36	19.93
424.95	0.37	1,871.470	2,224.600	0.00	0.37	21.17
425.00	0.38	1,983.400	2,252.600	0.00	0.38	22.42
425.05	0.39	2,096.733	2,280.775	0.00	0.39	23.69
425.10	0.40	2,211.480	2,309.125	0.00	0.40	24.98
425.15	0.42	2,327.649	2,337.650	0.00	0.42	26.28
425.20	0.43	2,445.248	2,366.351	0.00	0.43	27.60
425.25	0.44	2,564.287	2,395.226	0.00	0.44	28.93
425.30	0.45	2,684.773	2,424.277	0.00	0.45	30.28
425.35	0.46	2,806.717	2,453.502	0.00	0.46	31.64
425.40	0.47	2,930.127	2,482.903	0.00	0.47	33.02
425.45	0.48	3,055.010	2,512.479	0.00	0.48	34.42

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
425.50	0.48	3,181.377	2,542.230	0.00	0.48	35.83
425.55	0.49	3,309.236	2,572.156	0.00	0.49	37.26
425.60	0.50	3,438.596	2,602.257	0.00	0.50	38.71
425.65	0.51	3,569.465	2,632.534	0.00	0.51	40.17
425.70	0.52	3,701.852	2,662.985	0.00	0.52	41.65
425.75	0.53	3,835.766	2,693.611	0.00	0.53	43.15
425.80	0.54	3,971.216	2,724.413	0.00	0.54	44.66
425.85	0.54	4,108.211	2,755.390	0.00	0.54	46.19
425.90	0.55	4,246.758	2,786.542	0.00	0.55	47.74
425.95	0.56	4,386.868	2,817.869	0.00	0.56	49.30
426.00	0.57	4,528.548	2,849.371	0.00	0.57	50.89
426.05	0.58	4,671.997	2,888.635	0.00	0.58	52.49
426.10	0.58	4,817.416	2,928.168	0.00	0.58	54.11
426.15	0.59	4,964.818	2,967.970	0.00	0.59	55.76
426.20	0.60	5,114.217	3,008.041	0.00	0.60	57.42
426.25	0.61	5,265.627	3,048.380	0.00	0.61	59.11
426.30	0.61	5,419.060	3,088.988	0.00	0.61	60.83
426.35	0.62	5,574.530	3,129.864	0.00	0.62	62.56
426.40	0.63	5,732.051	3,171.009	0.00	0.63	64.32
426.45	0.63	5,891.635	3,212.423	0.00	0.63	66.10
426.50	0.64	6,053.298	3,254.106	0.00	0.64	67.90
426.55	0.65	6,217.051	3,296.057	0.00	0.65	69.73
426.60	0.66	6,382.908	3,338.277	0.00	0.66	71.58
426.65	0.66	6,550.883	3,380.765	0.00	0.66	73.45
426.70	0.67	6,720.989	3,423.523	0.00	0.67	75.35
426.75	0.67	6,893.239	3,466.549	0.00	0.67	77.27
426.80	0.68	7,067.648	3,509.843	0.00	0.68	79.21
426.85	0.69	7,244.228	3,553.407	0.00	0.69	81.18
426.90	0.69	7,422.993	3,597.239	0.00	0.69	83.17
426.95	0.70	7,603.957	3,641.340	0.00	0.70	85.19
427.00	0.71	7,787.132	3,685.709	0.00	0.71	87.23
427.05	0.71	7,972.532	3,730.347	0.00	0.71	89.30
427.10	0.72	8,160.171	3,775.254	0.00	0.72	91.39
427.15	0.73	8,350.062	3,820.429	0.00	0.73	93.50
427.20	0.73	8,542.218	3,865.873	0.00	0.73	95.65
427.25	0.74	8,736.654	3,911.586	0.00	0.74	97.81
427.30	0.74	8,933.381	3,957.568	0.00	0.74	100.00
427.35	0.75	9,132.415	4,003.818	0.00	0.75	102.22
427.40	0.75	9,333.768	4,050.337	0.00	0.75	104.46
427.45	0.76	9,537.453	4,097.124	0.00	0.76	106.73
427.50	0.77	9,743.485	4,144.181	0.00	0.77	109.03
427.55	0.77	9,951.876	4,191.506	0.00	0.77	111.35
427.60	0.78	10,162.640	4,239.099	0.00	0.78	113.70
427.65	0.78	10,375.790	4,286.962	0.00	0.78	116.07
427.70	0.79	10,591.340	4,335.093	0.00	0.79	118.47

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 10 years
Label: Temp. Sediment Basin 1B Storm Event: 10 Year
Scenario: Post-Development 10 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
427.75	0.80	10,809.304	4,383.492	0.00	0.80	120.90
427.80	0.80	11,029.694	4,432.161	0.00	0.80	123.35
427.85	0.81	11,252.524	4,481.098	0.00	0.81	125.83
427.90	0.81	11,477.808	4,530.303	0.00	0.81	128.34
427.95	0.82	11,705.559	4,579.778	0.00	0.82	130.88
428.00	0.82	11,935.790	4,629.521	0.00	0.82	133.44
428.05	0.99	12,168.296	4,670.737	0.00	0.99	136.19
428.10	1.28	12,402.867	4,712.136	0.00	1.28	139.09
428.15	1.66	12,639.513	4,753.717	0.00	1.66	142.10
428.20	2.11	12,878.242	4,795.481	0.00	2.11	145.20
428.25	2.62	13,119.064	4,837.428	0.00	2.62	148.38
428.30	3.18	13,361.988	4,879.557	0.00	3.18	151.65
428.35	3.78	13,607.023	4,921.869	0.00	3.78	154.97
428.40	4.43	13,854.178	4,964.364	0.00	4.43	158.36
428.45	5.10	14,103.462	5,007.041	0.00	5.10	161.81
428.50	5.83	14,354.885	5,049.901	0.00	5.83	165.33
428.55	6.58	14,608.455	5,092.944	0.00	6.58	168.90
428.60	7.30	14,864.182	5,136.169	0.00	7.30	172.45
428.65	7.55	15,122.075	5,179.577	0.00	7.55	175.57
428.70	7.78	15,382.143	5,223.168	0.00	7.78	178.69
428.75	8.00	15,644.395	5,266.941	0.00	8.00	181.82
428.80	8.21	15,908.840	5,310.897	0.00	8.21	184.97
428.85	8.41	16,175.488	5,355.035	0.00	8.41	188.14
428.90	8.60	16,444.347	5,399.357	0.00	8.60	191.31
428.95	8.78	16,715.426	5,443.860	0.00	8.78	194.51
429.00	8.96	16,988.736	5,488.547	0.00	8.96	197.73
429.05	9.14	17,264.284	5,533.416	0.00	9.14	200.96
429.10	9.31	17,542.080	5,578.468	0.00	9.31	204.22
429.15	9.45	17,822.134	5,623.703	0.00	9.45	207.48
429.20	9.61	18,104.454	5,669.120	0.00	9.61	210.77
429.25	9.75	18,389.049	5,714.720	0.00	9.75	214.07
429.30	9.87	18,675.929	5,760.502	0.00	9.87	217.38
429.35	9.97	18,965.102	5,806.467	0.00	9.97	220.70
429.40	10.04	19,256.579	5,852.615	0.00	10.04	224.00
429.45	10.07	19,550.367	5,898.946	0.00	10.07	227.30
429.50	10.10	19,846.476	5,945.459	0.00	10.10	230.62
429.55	10.13	20,144.916	5,992.155	0.00	10.13	233.97
429.60	10.17	20,445.695	6,039.033	0.00	10.17	237.34
429.65	10.20	20,748.822	6,086.094	0.00	10.20	240.74
429.70	10.23	21,054.307	6,133.338	0.00	10.23	244.17
429.75	10.26	21,362.159	6,180.765	0.00	10.26	247.62
429.80	10.29	21,672.387	6,228.374	0.00	10.29	251.10
429.85	10.32	21,984.999	6,276.165	0.00	10.32	254.60
429.90	10.35	22,300.006	6,324.140	0.00	10.35	258.13
429.95	10.38	22,617.416	6,372.297	0.00	10.38	261.69

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 10 years
Label: Temp. Sediment Basin 1B Storm Event: 10 Year
Scenario: Post-Development 10 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
430.00	10.41	22,937.239	6,420.637	0.00	10.41	265.27
430.05	10.44	23,259.460	6,468.244	0.00	10.44	268.88
430.10	10.48	23,584.066	6,516.027	0.00	10.48	272.52
430.15	10.51	23,911.066	6,563.985	0.00	10.51	276.18
430.20	10.54	24,240.468	6,612.120	0.00	10.54	279.88
430.25	10.57	24,572.281	6,660.431	0.00	10.57	283.59

Scenario: Post-Development 10 Year Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	424.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	25.00 ft³/s	Time to Peak (Flow, In)	12.000 hours
Flow (Peak Outlet)	10.18 ft³/s	Time to Peak (Flow, Outlet)	12.150 hours

Elevation (Water Surface, Peak)	429.63 ft
Volume (Peak)	20,611.042 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	74,618.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	74,618.000 ft³
Volume (Retained)	0.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Scenario: Post-Development 10 Year Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	440.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
440.00	0.00	0.000	11,106.908	0.00	0.00	0.00
440.05	0.00	557.344	11,186.917	0.00	0.00	6.20
440.10	0.02	1,118.697	11,267.214	0.00	0.02	12.45
440.15	0.04	1,684.071	11,347.797	0.00	0.04	18.75
440.20	0.07	2,253.481	11,428.668	0.00	0.07	25.11
440.25	0.10	2,826.942	11,509.826	0.00	0.10	31.51
440.30	0.14	3,404.468	11,591.271	0.00	0.14	37.97
440.35	0.18	3,986.074	11,673.003	0.00	0.18	44.47
440.40	0.20	4,571.773	11,755.022	0.00	0.20	51.00
440.45	0.22	5,161.581	11,837.329	0.00	0.22	57.57
440.50	0.24	5,755.511	11,919.922	0.00	0.24	64.19
440.55	0.26	6,353.578	12,002.803	0.00	0.26	70.85
440.60	0.28	6,955.796	12,085.971	0.00	0.28	77.56
440.65	0.29	7,562.180	12,169.426	0.00	0.29	84.32
440.70	0.31	8,172.744	12,253.168	0.00	0.31	91.12
440.75	0.32	8,787.501	12,337.197	0.00	0.32	97.96
440.80	0.33	9,406.468	12,421.513	0.00	0.33	104.85
440.85	0.35	10,029.658	12,506.117	0.00	0.35	111.79
440.90	0.36	10,657.084	12,591.008	0.00	0.36	118.77
440.95	0.37	11,288.763	12,676.185	0.00	0.37	125.80
441.00	0.38	11,924.708	12,761.650	0.00	0.38	132.88
441.05	0.39	12,564.933	12,847.403	0.00	0.39	140.01
441.10	0.41	13,209.453	12,933.442	0.00	0.41	147.18
441.15	0.42	13,858.282	13,019.768	0.00	0.42	154.40
441.20	0.43	14,511.434	13,106.382	0.00	0.43	161.67
441.25	0.44	15,168.925	13,193.282	0.00	0.44	168.98
441.30	0.45	15,830.768	13,280.470	0.00	0.45	176.34
441.35	0.46	16,496.977	13,367.945	0.00	0.46	183.76
441.40	0.47	17,167.567	13,455.707	0.00	0.47	191.22
441.45	0.48	17,842.552	13,543.757	0.00	0.48	198.73

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
441.50	0.49	18,521.947	13,632.093	0.00	0.49	206.29
441.55	0.49	19,205.766	13,720.717	0.00	0.49	213.89
441.60	0.50	19,894.024	13,809.627	0.00	0.50	221.55
441.65	0.51	20,586.734	13,898.825	0.00	0.51	229.25
441.70	0.52	21,283.911	13,988.310	0.00	0.52	237.01
441.75	0.53	21,985.570	14,078.082	0.00	0.53	244.81
441.80	0.54	22,691.724	14,168.141	0.00	0.54	252.67
441.85	0.54	23,402.389	14,258.488	0.00	0.54	260.57
441.90	0.55	24,117.578	14,349.121	0.00	0.55	268.53
441.95	0.56	24,837.305	14,440.042	0.00	0.56	276.53
442.00	0.57	25,561.587	14,531.250	0.00	0.57	284.59
442.05	0.58	26,290.399	14,621.285	0.00	0.58	292.69
442.10	0.58	27,023.720	14,711.599	0.00	0.58	300.85
442.15	0.59	27,761.563	14,802.190	0.00	0.59	309.05
442.20	0.60	28,503.943	14,893.060	0.00	0.60	317.31
442.25	0.61	29,250.874	14,984.207	0.00	0.61	325.62
442.30	0.61	30,002.369	15,075.633	0.00	0.61	333.97
442.35	0.62	30,758.442	15,167.337	0.00	0.62	342.38
442.40	0.63	31,519.107	15,259.319	0.00	0.63	350.84
442.45	0.63	32,284.378	15,351.579	0.00	0.63	359.35
442.50	0.64	33,054.270	15,444.117	0.00	0.64	367.91
442.55	0.65	33,828.795	15,536.933	0.00	0.65	376.52
442.60	0.66	34,607.967	15,630.027	0.00	0.66	385.19
442.65	0.66	35,391.802	15,723.399	0.00	0.66	393.90
442.70	0.67	36,180.312	15,817.049	0.00	0.67	402.67
442.75	0.68	36,973.511	15,910.977	0.00	0.68	411.49
442.80	0.68	37,771.414	16,005.184	0.00	0.68	420.36
442.85	0.69	38,574.034	16,099.668	0.00	0.69	429.29
442.90	0.69	39,381.386	16,194.431	0.00	0.69	438.27
442.95	0.70	40,193.482	16,289.471	0.00	0.70	447.29
443.00	0.71	41,010.338	16,384.790	0.00	0.71	456.38
443.05	0.71	41,831.966	16,480.387	0.00	0.71	465.51
443.10	0.72	42,658.381	16,576.261	0.00	0.72	474.70
443.15	0.72	43,489.597	16,672.414	0.00	0.72	483.94
443.20	0.73	44,325.627	16,768.845	0.00	0.73	493.24
443.25	0.74	45,166.486	16,865.554	0.00	0.74	502.59
443.30	0.74	46,012.187	16,962.541	0.00	0.74	511.99
443.35	0.75	46,862.745	17,059.806	0.00	0.75	521.45
443.40	0.76	47,718.172	17,157.350	0.00	0.76	530.96
443.45	0.76	48,578.484	17,255.171	0.00	0.76	540.52
443.50	0.77	49,443.694	17,353.270	0.00	0.77	550.14
443.55	0.77	50,313.816	17,451.648	0.00	0.77	559.82
443.60	0.78	51,188.863	17,550.303	0.00	0.78	569.54
443.65	0.78	52,068.851	17,649.237	0.00	0.78	579.33
443.70	0.79	52,953.792	17,748.448	0.00	0.79	589.16

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
443.75	0.80	53,843.700	17,847.938	0.00	0.80	599.06
443.80	0.80	54,738.590	17,947.706	0.00	0.80	609.01
443.85	0.81	55,638.475	18,047.751	0.00	0.81	619.01
443.90	0.81	56,543.370	18,148.075	0.00	0.81	629.07
443.95	0.82	57,453.288	18,248.677	0.00	0.82	639.19
444.00	0.82	58,368.242	18,349.557	0.00	0.82	649.36
444.05	0.83	59,288.056	18,443.041	0.00	0.83	659.58
444.10	0.83	60,212.550	18,536.762	0.00	0.83	669.86
444.15	0.84	61,141.736	18,630.720	0.00	0.84	680.19
444.20	0.84	62,075.626	18,724.916	0.00	0.84	690.57
444.25	0.85	63,014.232	18,819.349	0.00	0.85	701.01
444.30	0.85	63,957.565	18,914.021	0.00	0.85	711.49
444.35	0.86	64,905.638	19,008.929	0.00	0.86	722.03
444.40	0.86	65,858.462	19,104.075	0.00	0.86	732.62
444.45	0.87	66,816.049	19,199.459	0.00	0.87	743.27
444.50	0.87	67,778.412	19,295.080	0.00	0.87	753.97
444.55	0.88	68,745.561	19,390.939	0.00	0.88	764.72
444.60	0.89	69,717.510	19,487.035	0.00	0.89	775.52
444.65	0.89	70,694.269	19,583.368	0.00	0.89	786.38
444.70	0.89	71,675.850	19,679.940	0.00	0.89	797.29
444.75	0.90	72,662.267	19,776.748	0.00	0.90	808.26
444.80	0.90	73,653.529	19,873.795	0.00	0.90	819.28
444.85	0.91	74,649.650	19,971.079	0.00	0.91	830.35
444.90	0.91	75,650.641	20,068.600	0.00	0.91	841.48
444.95	0.92	76,656.514	20,166.359	0.00	0.92	852.66
445.00	0.92	77,667.281	20,264.355	0.00	0.92	863.89
445.05	1.09	78,682.954	20,362.589	0.00	1.09	875.34
445.10	1.38	79,703.544	20,461.060	0.00	1.38	886.98
445.15	1.76	80,729.064	20,559.769	0.00	1.76	898.75
445.20	2.21	81,759.525	20,658.716	0.00	2.21	910.65
445.25	2.71	82,794.939	20,757.900	0.00	2.71	922.66
445.30	3.27	83,835.319	20,857.321	0.00	3.27	934.78
445.35	3.88	84,880.675	20,956.981	0.00	3.88	947.00
445.40	4.52	85,931.021	21,056.877	0.00	4.52	959.31
445.45	5.21	86,986.367	21,157.011	0.00	5.21	971.72
445.50	5.92	88,046.726	21,257.383	0.00	5.92	984.22
445.55	6.68	89,112.109	21,357.992	0.00	6.68	996.82
445.60	7.47	90,182.529	21,458.839	0.00	7.47	1,009.50
445.65	7.75	91,257.997	21,559.923	0.00	7.75	1,021.73
445.70	8.01	92,338.525	21,661.245	0.00	8.01	1,033.99
445.75	8.26	93,424.125	21,762.804	0.00	8.26	1,046.30
445.80	8.49	94,514.809	21,864.601	0.00	8.49	1,058.66
445.85	8.73	95,610.589	21,966.635	0.00	8.73	1,071.07
445.90	8.95	96,711.477	22,068.907	0.00	8.95	1,083.52
445.95	9.17	97,817.484	22,171.416	0.00	9.17	1,096.03

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 10 years
Label: Temp. Sediment Basin 1D Storm Event: 10 Year
Scenario: Post-Development 10 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
446.00	9.38	98,928.623	22,274.163	0.00	9.38	1,108.58
446.05	9.58	100,044.758	22,371.274	0.00	9.58	1,121.19
446.10	9.78	101,165.753	22,468.596	0.00	9.78	1,133.85
446.15	9.98	102,291.621	22,566.129	0.00	9.98	1,146.56
446.20	10.17	103,422.370	22,663.874	0.00	10.17	1,159.31
446.25	10.37	104,558.012	22,761.829	0.00	10.37	1,172.12

Scenario: Post-Development 10 Year Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	440.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	25.26 ft³/s	Time to Peak (Flow, In)	12.000 hours
Flow (Peak Outlet)	0.75 ft³/s	Time to Peak (Flow, Outlet)	15.850 hours

Elevation (Water Surface, Peak)	443.37 ft
Volume (Peak)	47,197.473 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	75,406.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	74,804.000 ft³
Volume (Retained)	601.000 ft³
Volume (Unrouted)	-1.000 ft³
Error (Mass Balance)	0.0 %

Scenario: Post-Development 10 Year Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	433.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
433.50	0.00	0.000	17,621.354	0.00	0.00	0.00
433.55	0.00	884.441	17,756.372	0.00	0.00	9.83
433.60	0.00	1,775.646	17,891.905	0.00	0.00	19.73
433.65	0.00	2,673.640	18,027.954	0.00	0.00	29.71
433.70	0.00	3,578.450	18,164.517	0.00	0.00	39.76
433.75	0.00	4,490.100	18,301.597	0.00	0.00	49.89
433.80	0.00	5,408.618	18,439.191	0.00	0.00	60.10
433.85	0.00	6,334.028	18,577.301	0.00	0.00	70.38
433.90	0.00	7,266.357	18,715.926	0.00	0.00	80.74
433.95	0.00	8,205.629	18,855.066	0.00	0.00	91.17
434.00	0.00	9,151.872	18,994.721	0.00	0.00	101.69
434.05	0.00	10,104.176	19,097.489	0.00	0.00	112.27
434.10	0.00	11,061.625	19,200.534	0.00	0.00	122.91
434.15	0.00	12,024.234	19,303.857	0.00	0.00	133.60
434.20	0.00	12,992.016	19,407.457	0.00	0.00	144.36
434.25	0.00	13,964.984	19,511.334	0.00	0.00	155.17
434.30	0.00	14,943.154	19,615.488	0.00	0.00	166.04
434.35	0.00	15,926.538	19,719.919	0.00	0.00	176.96
434.40	0.00	16,915.150	19,824.628	0.00	0.00	187.95
434.45	0.00	17,909.005	19,929.614	0.00	0.00	198.99
434.50	0.00	18,908.116	20,034.877	0.00	0.00	210.09
434.55	0.00	19,912.497	20,140.418	0.00	0.00	221.25
434.60	0.00	20,922.163	20,246.235	0.00	0.00	232.47
434.65	0.00	21,937.126	20,352.330	0.00	0.00	243.75
434.70	0.00	22,957.400	20,458.703	0.00	0.00	255.08
434.75	0.00	23,983.000	20,565.352	0.00	0.00	266.48
434.80	0.00	25,013.940	20,672.279	0.00	0.00	277.93
434.85	0.00	26,050.233	20,779.483	0.00	0.00	289.45
434.90	0.00	27,091.893	20,886.964	0.00	0.00	301.02
434.95	0.00	28,138.934	20,994.723	0.00	0.00	312.65

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
435.00	0.00	29,191.370	21,102.758	0.00	0.00	324.35
435.05	0.16	30,249.214	21,211.072	0.00	0.16	336.26
435.10	0.45	31,312.482	21,319.662	0.00	0.45	348.36
435.15	0.82	32,381.185	21,428.529	0.00	0.82	360.61
435.20	1.26	33,455.339	21,537.674	0.00	1.26	372.99
435.25	1.77	34,534.957	21,647.096	0.00	1.77	385.49
435.30	2.32	35,620.053	21,756.796	0.00	2.32	398.10
435.35	2.93	36,710.641	21,866.772	0.00	2.93	410.82
435.40	3.58	37,806.735	21,977.026	0.00	3.58	423.65
435.45	4.27	38,908.349	22,087.557	0.00	4.27	436.59
435.50	5.00	40,015.496	22,198.365	0.00	5.00	449.61
435.55	5.77	41,128.190	22,309.451	0.00	5.77	462.75
435.60	6.57	42,246.445	22,420.814	0.00	6.57	475.98
435.65	6.86	43,370.276	22,532.454	0.00	6.86	488.75
435.70	7.12	44,499.695	22,644.371	0.00	7.12	501.56
435.75	7.37	45,634.718	22,756.566	0.00	7.37	514.42
435.80	7.61	46,775.357	22,869.038	0.00	7.61	527.33
435.85	7.84	47,921.626	22,981.787	0.00	7.84	540.31
435.90	8.07	49,073.540	23,094.813	0.00	8.07	553.33
435.95	8.29	50,231.112	23,208.117	0.00	8.29	566.41
436.00	8.51	51,394.356	23,321.698	0.00	8.51	579.55
436.05	8.71	52,563.004	23,424.257	0.00	8.71	592.75
436.10	8.92	53,736.786	23,527.042	0.00	8.92	606.00
436.15	9.12	54,915.712	23,630.051	0.00	9.12	619.29
436.20	9.32	56,099.794	23,733.286	0.00	9.32	632.65
436.25	9.51	57,289.044	23,836.745	0.00	9.51	646.05

Scenario: Post-Development 10 Year Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	433.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	29.12 ft³/s	Time to Peak (Flow, In)	12.000 hours
Flow (Peak Outlet)	6.22 ft³/s	Time to Peak (Flow, Outlet)	12.450 hours

Elevation (Water Surface, Peak)	435.58 ft
Volume (Peak)	41,747.831 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	86,912.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	57,721.000 ft³
Volume (Retained)	29,191.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Scenario: Post-Development 10 Year Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	435.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
435.50	0.00	0.000	13,351.716	0.00	0.00	0.00
435.55	0.00	669.730	13,437.527	0.00	0.00	7.44
435.60	0.00	1,343.757	13,523.612	0.00	0.00	14.93
435.65	0.00	2,022.096	13,609.971	0.00	0.00	22.47
435.70	0.00	2,704.759	13,696.606	0.00	0.00	30.05
435.75	0.00	3,391.761	13,783.516	0.00	0.00	37.69
435.80	0.00	4,083.115	13,870.700	0.00	0.00	45.37
435.85	0.00	4,778.835	13,958.159	0.00	0.00	53.10
435.90	0.00	5,478.936	14,045.894	0.00	0.00	60.88
435.95	0.00	6,183.429	14,133.903	0.00	0.00	68.70
436.00	0.00	6,892.330	14,222.187	0.00	0.00	76.58
436.05	0.00	7,605.563	14,307.137	0.00	0.00	84.51
436.10	0.00	8,323.048	14,392.340	0.00	0.00	92.48
436.15	0.00	9,044.801	14,477.797	0.00	0.00	100.50
436.20	0.00	9,770.832	14,563.506	0.00	0.00	108.56
436.25	0.00	10,501.156	14,649.468	0.00	0.00	116.68
436.30	0.00	11,235.783	14,735.683	0.00	0.00	124.84
436.35	0.00	11,974.728	14,822.151	0.00	0.00	133.05
436.40	0.00	12,718.003	14,908.872	0.00	0.00	141.31
436.45	0.00	13,465.620	14,995.846	0.00	0.00	149.62
436.50	0.00	14,217.591	15,083.073	0.00	0.00	157.97
436.55	0.00	14,973.931	15,170.553	0.00	0.00	166.38
436.60	0.00	15,734.651	15,258.286	0.00	0.00	174.83
436.65	0.00	16,499.764	15,346.272	0.00	0.00	183.33
436.70	0.00	17,269.282	15,434.510	0.00	0.00	191.88
436.75	0.00	18,043.219	15,523.002	0.00	0.00	200.48
436.80	0.00	18,821.587	15,611.747	0.00	0.00	209.13
436.85	0.00	19,604.398	15,700.744	0.00	0.00	217.83
436.90	0.00	20,391.665	15,789.995	0.00	0.00	226.57
436.95	0.00	21,183.402	15,879.498	0.00	0.00	235.37

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 10 years
Label: Temp. Sediment Basin 3A Storm Event: 10 Year
Scenario: Post-Development 10 Year Storm

Elevation (ft)	Outflow (ft^3/s)	Storage (ft^3)	Area (ft^2)	Infiltration (ft^3/s)	Flow (Total) (ft^3/s)	2S/t + O (ft^3/s)
437.00	0.00	21,979.619	15,969.255	0.00	0.00	244.22
437.05	0.16	22,780.331	16,059.264	0.00	0.16	253.27
437.10	0.45	23,585.550	16,149.527	0.00	0.45	262.51
437.15	0.82	24,395.288	16,240.042	0.00	0.82	271.88
437.20	1.26	25,209.558	16,330.810	0.00	1.26	281.37
437.25	1.77	26,028.373	16,421.831	0.00	1.77	290.97
437.30	2.32	26,851.746	16,513.106	0.00	2.32	300.68
437.35	2.93	27,679.688	16,604.633	0.00	2.93	310.48
437.40	3.57	28,512.213	16,696.413	0.00	3.57	320.38
437.45	4.27	29,349.334	16,788.446	0.00	4.27	330.38
437.50	5.00	30,191.062	16,880.732	0.00	5.00	340.45
437.55	5.77	31,037.411	16,973.271	0.00	5.77	350.63
437.60	6.57	31,888.393	17,066.063	0.00	6.57	360.88
437.65	6.85	32,744.022	17,159.108	0.00	6.85	370.68
437.70	7.12	33,604.308	17,252.405	0.00	7.12	380.50
437.75	7.37	34,469.266	17,345.956	0.00	7.37	390.36
437.80	7.61	35,338.908	17,439.760	0.00	7.61	400.26
437.85	7.84	36,213.247	17,533.817	0.00	7.84	410.21
437.90	8.07	37,092.294	17,628.126	0.00	8.07	420.21
437.95	8.29	37,976.063	17,722.689	0.00	8.29	430.25
438.00	8.51	38,864.567	17,817.504	0.00	8.51	440.33
438.05	8.71	39,757.747	17,909.736	0.00	8.71	450.47
438.10	8.92	40,655.545	18,002.206	0.00	8.92	460.65
438.15	9.12	41,557.972	18,094.914	0.00	9.12	470.87
438.20	9.32	42,465.040	18,187.860	0.00	9.32	481.15
438.25	9.51	43,376.762	18,281.044	0.00	9.51	491.47

Scenario: Post-Development 10 Year Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	435.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	24.18 ft³/s	Time to Peak (Flow, In)	12.000 hours
Flow (Peak Outlet)	6.65 ft³/s	Time to Peak (Flow, Outlet)	12.250 hours

Elevation (Water Surface, Peak)	437.61 ft
Volume (Peak)	32,142.510 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	72,183.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	50,204.000 ft³
Volume (Retained)	21,980.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

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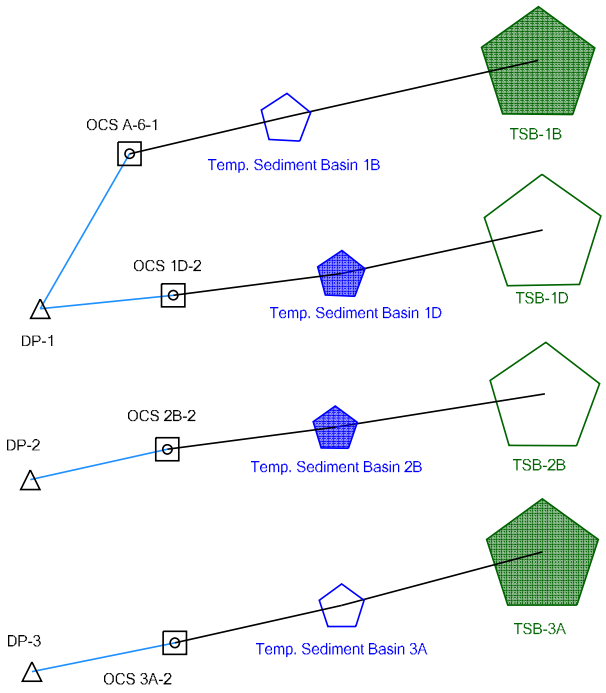
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Scenario: Post-Development 10 Year Storm





LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- PROPOSED FINISHED GRADE
- PROPOSED SPOT GRADE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED TYPE CI DRAIN INLET
- PROPOSED TYPE DI DRAIN INLET
- PROPOSED TRENCH DRAIN
- PROPOSED DRAINAGE DIVIDE
- LIMIT OF SOIL GROUPS LINE
- TEMPORARY SEDIMENT BASINS
- SOIL DESIGNATION AND HYDROLOGIC SOIL GROUP

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "SURVEY OF PROPERTY PREPARED FOR BNE REAL ESTATE," PREPARED BY WARD CARPENTER ENGINEERS, INC, DATED 09/20/2023.
2. GEOTECHNICAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT ENTITLED, "GEOTECHNICAL INVESTIGATION REPORT," DATED 03/06/2024, AND "GEOTECHNICAL DATA SUMMARY LETTER," DATED 07/21/2025, PREPARED BY SESI CONSULTING ENGINEERS.
3. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.

No.	Revision	Date	By
	Practice Edition Obsolete		

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TEMPORARY SEDIMENT BASIN DRAINAGE AREA MAP

LETCHWORTH ROAD
RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

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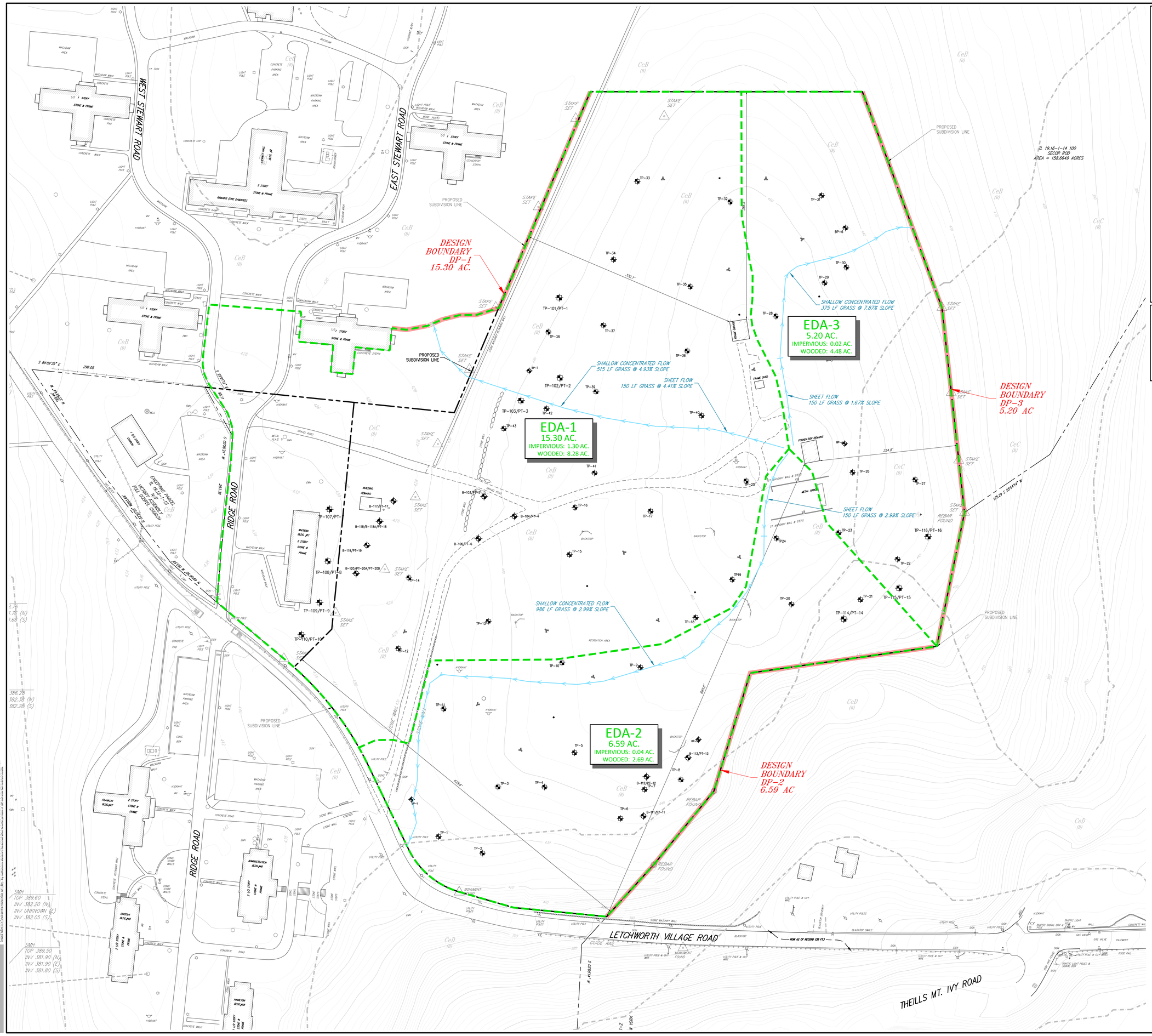
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APPENDIX I

DRAWINGS



EXISTING DRAINAGE LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING MINOR CONTOUR
- EXISTING INDEX CONTOUR
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING STORM DRAIN LINE AND SIZE
- EXISTING SANITARY LINE AND SIZE
- EXISTING GAS LINE
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- WATERSHED BOUNDARY LINE
- LIMIT OF SOIL GROUPS LINE
- FLOW PATH LINE
- SOIL DESIGNATION AND HYDROLOGIC SOIL GROUP

SOIL TYPE TABLE

DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
CeB	B	CHARLTON FINE SANDY LOAM, 3 TO 8 PERCENT
CeC	B	CHARLTON FINE SANDY LOAM, 8 TO 15 PERCENT
CeD	B	CHARLTON FINE SANDY LOAM, 15 TO 25 PERCENT

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "SURVEY OF PROPERTY PREPARED FOR BNE REAL ESTATE," PREPARED BY WARD CARPENTER ENGINEERS, INC, DATED 09/20/2023.
2. GEOTECHNIAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT TITLED, "GEOTECHNICAL INVESTIGATION REPORT" DATED 03/06/2024 PREPARED BY SESI CONSULTING ENGINEERS.
3. THE SOIL TYPES, HYDROLOGIC SOIL GROUPS AND BOUNDARY INFORMATION SHOWN ON THIS PLAN WERE TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) WEB SOIL SURVEY.
4. THE TOPOGRAPHIC CONTOURS DEPICTED ON THIS PLAN HAVE BEEN SUPPLEMENTED BY THE WESTCHESTER COUNTY GIS BASE MAP. THE WESTCHESTER COUNTY GIS DATASET CONTAINS CONTOUR LINES MODELED AT A TWO FOOT INTERVAL. THE SOURCE INFORMATION USED IN THE COLLECTION OF THE DATASET WAS PART OF THE NEW YORK STATE DIGITAL ORTHOIMAGERY PROGRAM; PHOTOS TAKEN IN APRIL 2004. THE VERTICAL DATUM IS NAVD88.

   THE COUNTY OF WESTCHESTER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE COMPLETENESS OR ACCURACY OF THE DATA AND ASSUMES NO LIABILITY WHATSOEVER FOR ANY PRODUCT OR ANALYSIS DERIVED FROM OR BASED ON THE DATA.
5. ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) PANEL 84 OF 207, MAP NUMBER 36087C0084G EFFECTIVE DATE 03/03/2014, THE SITE IS LOCATED IN ZONE X, OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN BOUNDARY.
6. THE VERTICAL DATUM REFERENCED ON THE ABOVE NOTED TOPOGRAPHIC SURVEY AND FLOOD INSURANCE RATE MAP IS NAVD88.
7. ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD STUDY, THE PROFILE OF MINISCEONGO CREEK AT STA 205+75 DEPICTS THE 0.2% ANNUAL CHANCE FLOOD (500 YEAR) AT ELEVATION ±297.00.

No.	Revision	Date	By
1.	ISSUED FOR DES COMPLETENESS	01/24/2025	PK
2.	DES COMPLETENESS SUBMISSION	02/28/2025	NB
3.	ISSUED FOR FEES REVIEW	06/15/2025	NB

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EXISTING DRAINAGE AREA MAP

LETCHWORTH VILLAGE ROAD
LETCHWORTH, VILLAGE ROAD
HAVERSTRAW, NY

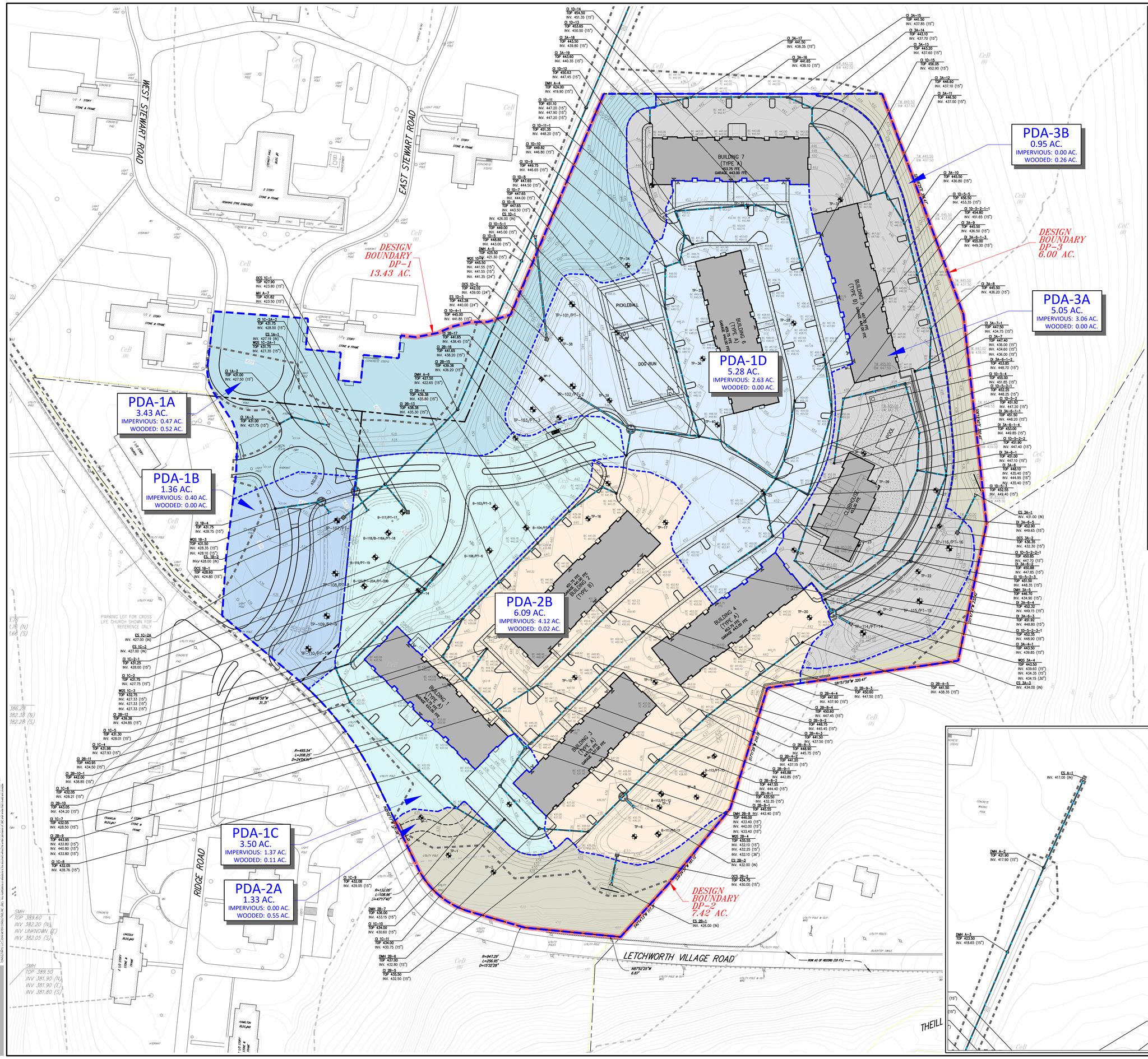
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Date:	01/24/2025
Project No:	21090
21090-DRAINAGE	EDA
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Drawing No: DA-1

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LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- PROPOSED FINISHED GRADE
- PROPOSED SPOT GRADE
- SMH — PROPOSED SANITARY SEWER MANHOLE
- MH — PROPOSED STORM DRAIN MANHOLE
- CI — PROPOSED TYPE CI DRAIN INLET
- DI — PROPOSED TYPE DI DRAIN INLET
- PROPOSED END SECTION
- WQS — PROPOSED WATER QUALITY STRUCTURE
- OCS — PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- OCS — PROPOSED OUTLET CONTROL STRUCTURE
- CO — PROPOSED CLEANOUT
- PROPOSED HYDRANT
- 15" HDPE — PROPOSED STORM DRAIN LINE & SIZE
- 8" PVC — PROPOSED SANITARY SEWER LINE & SIZE
- PROPOSED RIP-RAP APRON
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- WATERSHED BOUNDARY LINE
- LIMIT OF SOIL GROUPS LINE
- SOIL DESIGNATION AND HYDROLOGIC SOIL GROUP

SOIL TYPE TABLE

DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
CeB	B	CHARLTON FINE SANDY LOAM, 3 TO 8 PERCENT
CeC	B	CHARLTON FINE SANDY LOAM, 8 TO 15 PERCENT
CeD	B	CHARLTON FINE SANDY LOAM, 15 TO 25 PERCENT

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "SURVEY OF PROPERTY PREPARED FOR BNE REAL ESTATE," PREPARED BY WARD CARPENTER ENGINEERS, INC, DATED 09/20/2023.
2. GEOTECHNICAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT TITLED, "GEOTECHNICAL INVESTIGATION REPORT" DATED 03/06/2024 PREPARED BY SESI CONSULTING ENGINEERS.
3. THE SOIL TYPES, HYDROLOGIC SOIL GROUPS AND BOUNDARY INFORMATION SHOWN ON THIS PLAN WERE TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) WEB SOIL SURVEY.
4. THE TOPOGRAPHIC CONTOURS DEPICTED ON THIS PLAN HAVE BEEN SUPPLEMENTED BY THE WESTCHESTER COUNTY GIS BASE MAP. THE WESTCHESTER COUNTY GIS DATASET CONTAINS CONTOUR LINES MODELED AT A TWO FOOT INTERVAL. THE SOURCE INFORMATION USED IN THE COLLECTION OF THE DATASET WAS PART OF THE NEW YORK STATE DIGITAL ORTHOIMAGERY PROGRAM; PHOTOS TAKEN IN APRIL 2004. THE VERTICAL DATUM IS NAVD88.

   THE COUNTY OF WESTCHESTER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE COMPLETENESS OR ACCURACY OF THE DATA AND ASSUMES NO LIABILITY WHATSOEVER FOR ANY PRODUCT OR ANALYSIS DERIVED FROM OR BASED ON THE DATA.
5. ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) PANEL 84 OF 207, MAP NUMBER 36087C0084G EFFECTIVE DATE 03/03/2014, THE SITE IS LOCATED IN ZONE X, OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN BOUNDARY.
6. THE VERTICAL DATUM REFERENCED ON THE ABOVE NOTED TOPOGRAPHIC SURVEY AND FLOOD INSURANCE RATE MAP IS NAVD88.
7. ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD STUDY, THE PROFILE OF MINISCEONGO CREEK AT STA 205+75 DEPICTS THE 0.2% ANNUAL CHANCE FLOOD (500 YEAR) AT ELEVATION ±297.00.

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PROPOSED DRAINAGE AREA MAP

LETCHWORTH RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

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Project No.	21090
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Drawing No.	DA-2

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FINAL ENVIRONMENTAL IMPACT STATEMENT

Letchworth Road Residential Development

Letchworth Road
Town Of Haverstraw
Rockland County, NY

APPENDIX C

PRELIMINARY SITE PLAN DRAWING SET

Prepared for:

Haverstraw Group LLC
16 Microlab Road, Suite A
Livingston, NJ 07039
Contact: Mr. Marc Pantirer

Lead Agency:

Town of Haverstraw Planning Board

Prepared by:

Project 21090

Date: *August 15*, 2025

PRELIMINARY SITE PLAN DRAWINGS

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT

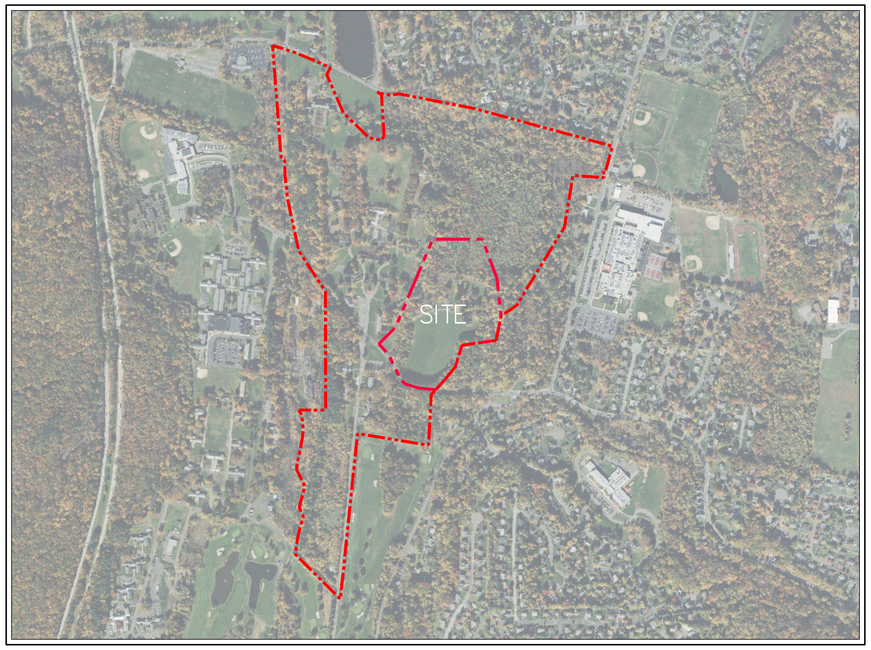
TAX MAP SECTION 19.11 | BLOCK 1 | LOT 1
ROCKLAND COUNTY
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

Site Planner, Civil & Traffic Engineer, and Landscape Architect:
JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC
120 BEDFORD ROAD
ARMONK, NY 10504
(914) 273-5225

Applicant:
HAVERSTRAW GROUP LLC
16 MICROLAB ROAD, SUITE A
LIVINGSTON, NJ 07039

Architect:
MINNO & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE, SUITE 105
LAMBERTVILLE, NJ

Surveyor:
WARD CARPENTER ENGINEERS INC.
76 MAMARONECK AVE #1
WHITE PLAINS, NY 10601
(914) 949-6000



AREA MAP
SCALE: 1" = 500'

JMC Drawing List:

C-000 COVER SHEET
C-010 EXISTING CONDITIONS MAP
C-100 SITE LAYOUT PLAN
C-200 SITE GRADING PLAN
C-220 CROSS SECTIONS
C-300 SITE UTILITIES PLAN
C-400 OVERALL CONSTRUCTION PHASING PLAN
C-401 SITE EROSION & SEDIMENT CONTROL PLAN - PHASE 1A
C-402 SITE EROSION & SEDIMENT CONTROL PLAN - PHASE 1B
C-403 SITE EROSION & SEDIMENT CONTROL PLAN - PHASE 2
C-404 SITE EROSION & SEDIMENT CONTROL PLAN - PHASE 3
C-900 CONSTRUCTION DETAILS
C-901 CONSTRUCTION DETAILS
C-902 CONSTRUCTION DETAILS
C-903 CONSTRUCTION DETAILS
C-904 CONSTRUCTION DETAILS
L-100 OVERALL LANDSCAPE PLAN
L-110 TYPICAL UNIT LANDSCAPE PLAN

ZONING COMPLIANCE CHART

TAX PARCEL: 19.11-1-1
EXISTING ZONE DISTRICT: R-120 - RURAL RESIDENCE DISTRICT
PROPOSED ZONE DISTRICT: LA-17 - LUXURY APARTMENT
PROPOSED USE: RESIDENTIAL APARTMENTS - 300 UNITS

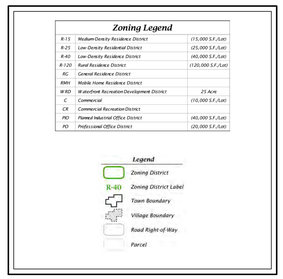
DESCRIPTION		REQUIREMENT (R-120)	EXISTING	REQUIREMENT (LA-17)	PROPOSED
MINIMUM LOT AREA	(S.F./ACRES)	120,000 S.F.	23.86 ACRES	10 ACRES	23.86 ACRES
NET ACREAGE	(ACRES)	-		-	23.34 (1)
MINIMUM LOT WIDTH	(FEET)	200	679	150	±462
MAXIMUM DENSITY	(UNITS/ACRE)	N/A	N/A	17	±13
MAXIMUM BUILDING HEIGHT	(STORIES/FEET)	2.5 / 35	<2.5 / <35	40 FEET	±68
MAXIMUM BUILDING COVERAGE	(%)	8	0.2	NA	16
FLOOR AREA RATIO		NA	N/A	0.6	±0.44
MAXIMUM IMPERVIOUS COVERAGE	(%)	18	3	50	45.29
layfr					
FRONT YARD	(FEET)	50	840.6	35	98
SIDE YARD (ONE/TOTAL)	(FEET)	40/100	234.8/605.5	35/70	45/90
REAR YARD	(FEET)	80	386.5	35	70.8
PARKING SPACES					
STANDARD PARKING SPACES	(SPACES)	-	N/A	-	369
ACCESSIBLE PARKING SPACES	(SPACES)	-	N/A	2% OF TOTAL	30
GARAGE PARKING SPACES	(SPACES)	-	N/A	-	134
GARAGE APRON PARKING SPACES	(SPACES)	-	N/A	-	134
TOTAL PARKING SPACES	(SPACES)	VARIES		2 PER UNIT	667

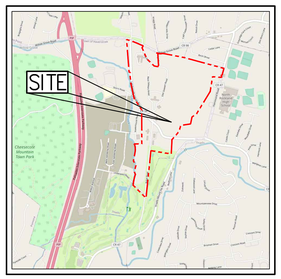
(1) IN ACCORDANCE WITH SECTION 167-62B DEDUCTIONS FOR STEEP SLOPES WERE TAKEN BASED ON THE FOLLOWING CRITERIA:

SLOPES 20 TO 25% - 25% DEDUCTION	11155 SF X 0.25 = 2789 SF
SLOPES 25 TO 30% - 50% DEDUCTION	6465 SF X 0.50 = 3233 SF
SLOPES 30 TO 35% - 75% DEDUCTION	4428 SF X 0.75 = 3321 SF
SLOPES GREATER THAN 35% - 100% DEDUCTION	13499 SF X 1.00 = 13499 SF
TOTAL DEDUCTION = 22842 SF = 0.52 AC	



ZONING MAP
SCALE: NTS
SOURCE: TOWN OF HAVERSTRAW ZONING
ROCKLAND COUNTY, NY
2015





VICINITY MAP
SCALE: NTS
SOURCE: OPENSTREETMAP.ORG

GENERAL CONSTRUCTION NOTES APPLY TO ALL WORK HEREIN:

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CALL 811 "DIG SAFELY" (1-800-962-7962) TO HAVE UNDERGROUND UTILITIES LOCATED. EXPLORATORY EXCAVATIONS SHALL COMPLY WITH CODE 753 REQUIREMENTS. NO WORK SHALL COMMENCE UNTIL ALL THE OPERATORS HAVE NOTIFIED THE CONTRACTOR THAT THEIR UTILITIES HAVE BEEN LOCATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION, INSOFAR AS THEY MAY BE ENDANGERED BY THE CONTRACTOR'S OPERATIONS. THIS SHALL HOLD TRUE WHETHER OR NOT THEY ARE SHOWN ON THE CONTRACT DRAWINGS. IF THEY ARE SHOWN ON THE DRAWINGS, THEIR LOCATIONS ARE NOT GUARANTEED EVEN THOUGH THE INFORMATION WAS OBTAINED FROM THE BEST AVAILABLE SOURCES, AND IN ANY EVENT, OTHER UTILITIES ON THESE PLANS MAY BE ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, IMMEDIATELY REPAIR OR REPLACE ANY STRUCTURES OR UTILITIES THAT HE DAMAGES, AND SHALL CONSTANTLY PROCEED WITH CAUTION TO PREVENT UNDUE INTERRUPTION OF UTILITY SERVICE.

2. CONTRACTOR SHALL HAND DIG TEST PITS TO VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL VERIFY EXISTING UTILITIES DEPTHS AND ADVISE OF ANY CONFLICTS WITH PROPOSED UTILITIES. IF CONFLICTS ARE PRESENT. THE OWNER'S FIELD REPRESENTATIVE, JMC, PLLC AND THE APPLICABLE MUNICIPALITY OR AGENCY SHALL BE NOTIFIED IN WRITING. THE EXISTING/PROPOSED UTILITIES RELOCATION SHALL BE DESIGNED BY JMC, PLLC.

3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL LOCAL PERMITS REQUIRED.

4. ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, STANDARDS, ORDINANCES, RULES, AND REGULATIONS. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL SAFETY CODES. APPLICABLE SAFETY CODES MEAN THE LATEST EDITION INCLUDING ANY AND ALL AMENDMENTS, REVISIONS, AND ADDITIONS THERETO, TO THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S OCCUPATIONAL SAFETY AND HEALTH STANDARDS (OSHA); AND APPLICABLE SAFETY, HEALTH REGULATIONS AND BUILDING CODES FOR CONSTRUCTION IN THE STATE OF NEW YORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GUARDING AND PROTECTING ALL OPEN EXCAVATIONS IN ACCORDANCE WITH THE PROVISION OF SECTION 107-05 (SAFETY AND HEALTH REQUIREMENTS) OF THE NYSDOT STANDARD SPECIFICATIONS. IF THE CONTRACTOR PERFORMS ANY HAZARDOUS CONSTRUCTION PRACTICES, ALL OPERATIONS IN THE AFFECTED AREA SHALL BE DISCONTINUED AND IMMEDIATE ACTION SHALL BE TAKEN TO CORRECT THE SITUATION TO THE SATISFACTION OF THE APPROVAL AUTHORITY HAVING JURISDICTION.

5. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES AFFECTED BY THE SCOPE OF WORK SHOWN HEREON AT ALL TIMES TO THE SATISFACTION OF THE OWNERS REPRESENTATIVE. RAMPING CONSTRUCTION TO PROVIDE ACCESS MAY BE CONSTRUCTED WITH SUBBASE MATERIAL EXCEPT THAT TEMPORARY ASPHALT CONCRETE SHALL BE PLACED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE PEDESTRIAN ACCESS AT ALL TIMES.

6. CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF EXISTING PAVEMENT TO REMAIN.

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SUBSURFACE UTILITY LOCATIONS ARE BASED ON A COMPILATION OF FIELD EVIDENCE, AVAILABLE RECORD PLANS AND/OR UTILITY MARK-OUTS. THE LOCATION OR COMPLETENESS OF UNDERGROUND INFORMATION CANNOT BE GUARANTEED. VERIFY THE ACTUAL LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION.

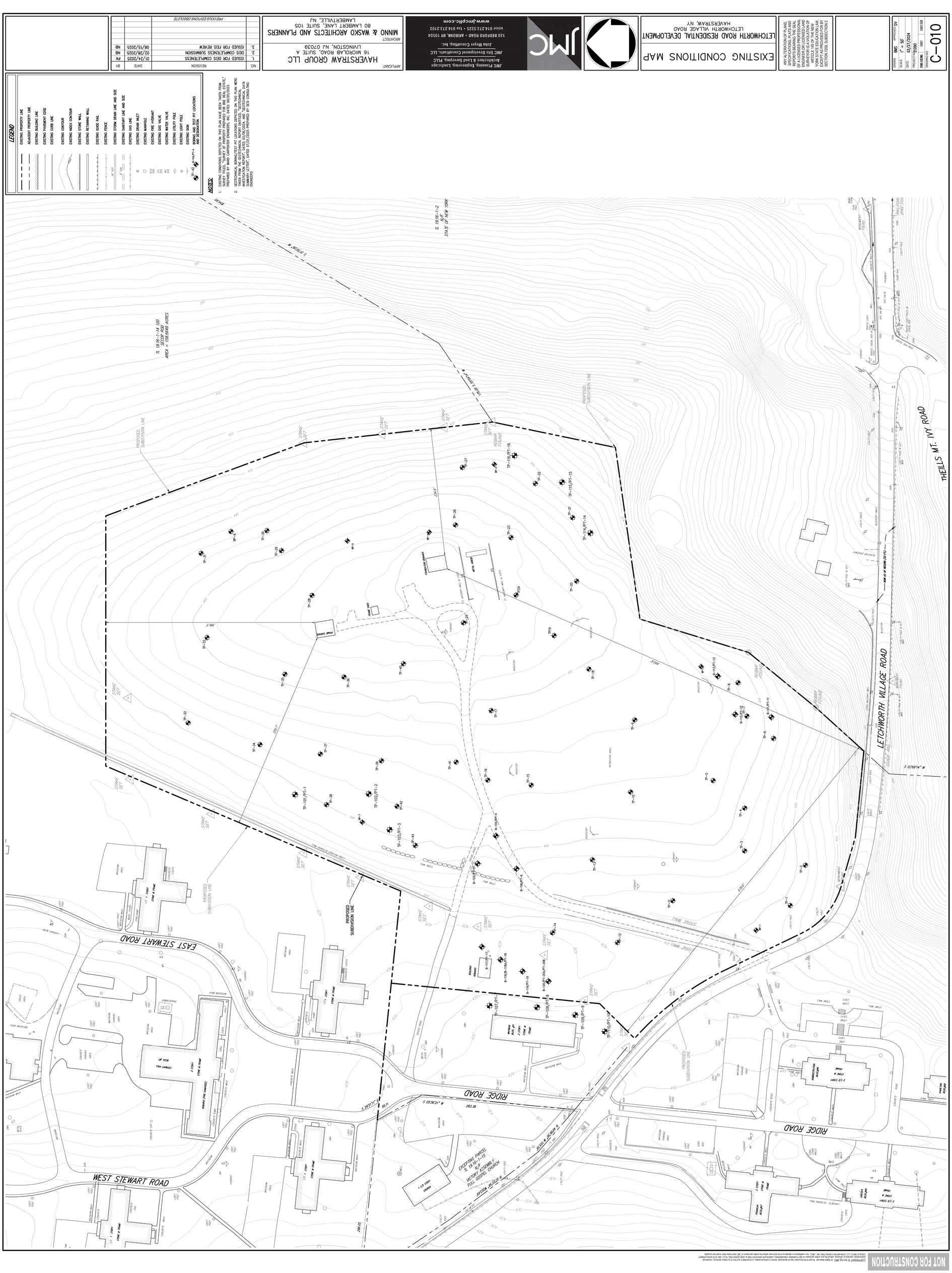
811 Know what's below. Call before you dig.

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John Meyer Consulting, Inc.

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

EXISTING CONDITIONS MAP

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DRAWING: C-010

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LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING SETBACK LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED DROP CURB & RAMP
- PROPOSED SAWCUT LINE
- PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS) (2H)
- PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS) (5)
- PROPOSED CONCRETE SIDEWALK
- PROPOSED MONOLITHIC CONCRETE SIDEWALK & CURB
- PROPOSED DROP CURB AND RAMP
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED GUIDE RAIL
- PROPOSED FENCE
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- TRAFFIC SIGN LOCATION & DESIGNATION
- PEDESTRIAN CROSSING
- PROPOSED TREE LINE
- EXISTING FEATURE TO BE REMOVED
- PROPOSED DOOR LOCATION
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED KNOXBOX LOCATION

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "SURVEY OF PROPERTY PREPARED FOR BNE REAL ESTATE," PREPARED BY WARD CARPENTER ENGINEERS, INC, DATED 09/20/2023.

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SITE LAYOUT PLAN

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

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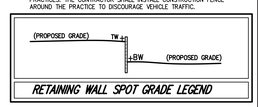


LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- PROPOSED FINISHED GRADE
- PROPOSED SPOT GRADE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED TYPE CI DRAIN INLET
- PROPOSED TYPE DI DRAIN INLET
- PROPOSED TRENCH DRAIN
- PROPOSED HEADWALL
- PROPOSED WATER QUALITY STRUCTURE
- PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED OUTLET CONTROL STRUCTURE
- PROPOSED CLEANOUT
- PROPOSED HYDRANT
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- BORING/TEST PIT LOCATION AND DESIGNATION
- PROPOSED LIMIT OF DISTURBANCE

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "SURVEY OF PROPERTY PREPARED FOR BNE REAL ESTATE," PREPARED BY WARD CARPENTER ENGINEERS, INC. DATED 09/20/2023.
2. GEOTECHNICAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT ENTITLED, "GEOTECHNICAL INVESTIGATION REPORT," DATED 03/06/2024, AND "GEOTECHNICAL DATA SUMMARY LETTER," DATED 07/21/2025, PREPARED BY SESI CONSULTING ENGINEERS.
3. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.



RETAINING WALL SPOT GRADE LEGEND

No.	Reason	Date	By
1.	ISSUED FOR DES COMPLETENESS	01/24/2025	PK
2.	DES COMPLETENESS SUBMISSION	02/28/2025	NB
3.	ISSUED FOR FEES REVIEW	06/15/2025	NB

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SITE GRADING PLAN

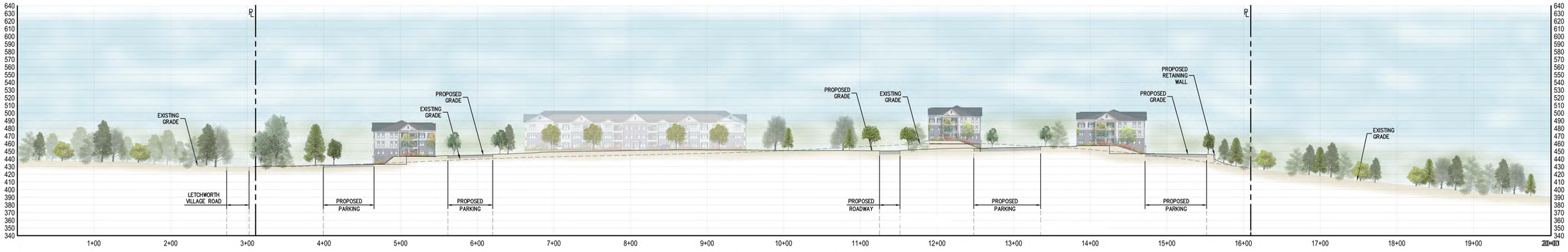
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Date:	01/24/2025
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21090-GRADING	GRAD
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Drawing No:	C-200

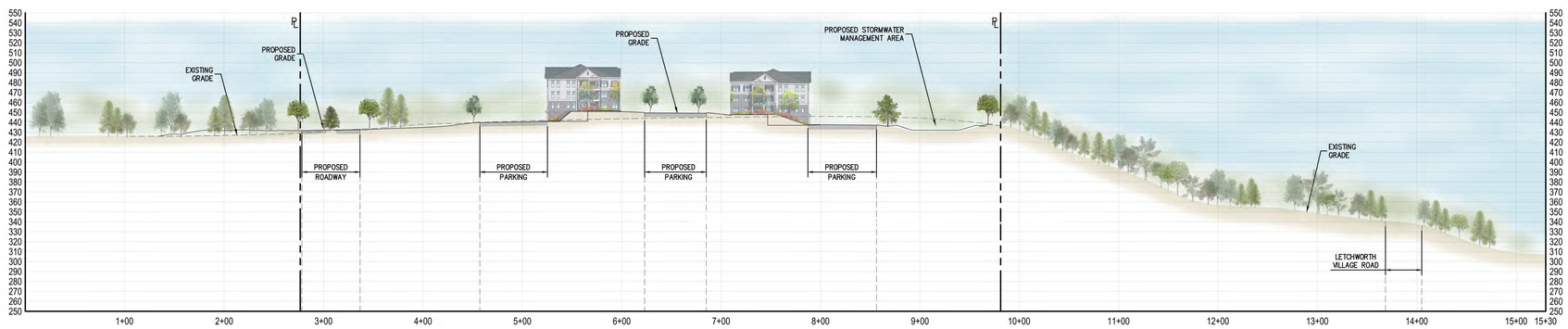
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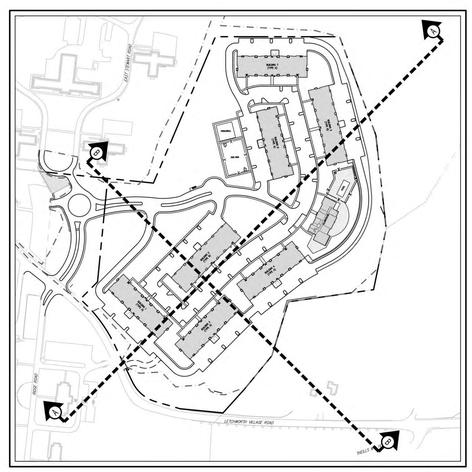
CROSS SECTION A-A

SCALE: HORZ. 1" = 50'
VERT. 1" = 50'



CROSS SECTION B-B

SCALE: HORZ. 1" = 50'
VERT. 1" = 50'



SECTION VIEW MAP
SCALE: 200'

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1.	ISSUED FOR DEIS COMPLETENESS	01/24/2025	PK
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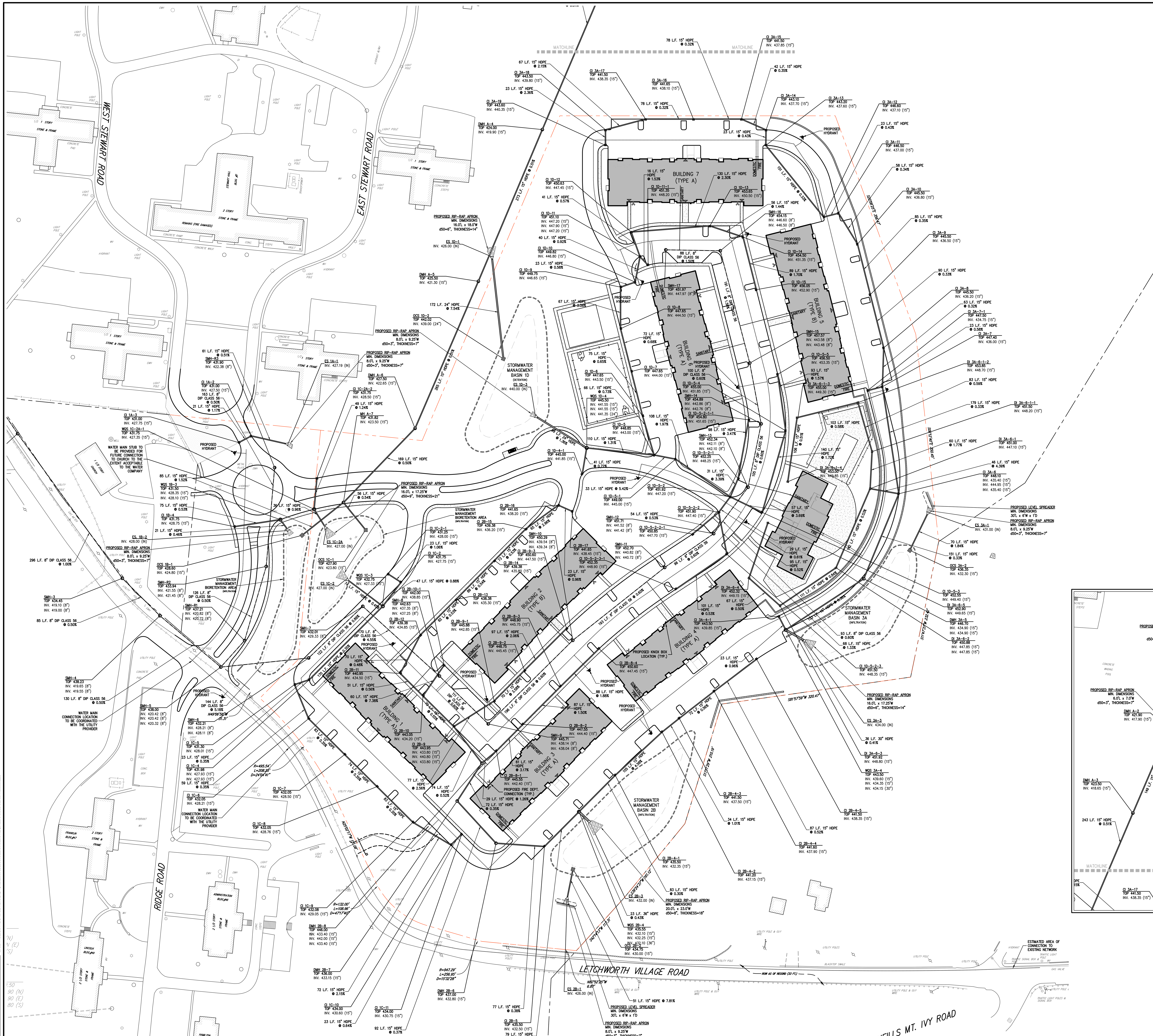
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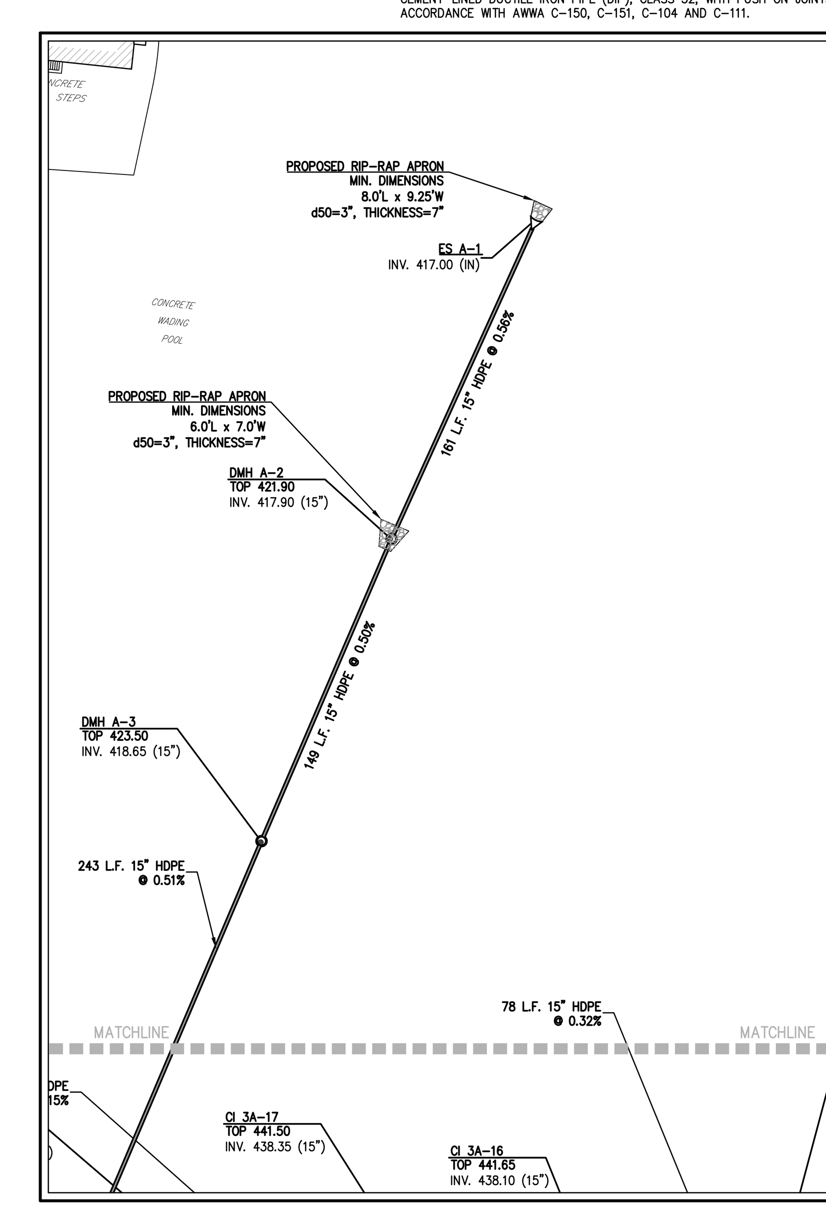
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Date:	03/27/2024		
Project No:	21090		
21090-DRAWING	SECTIONS		-

Drawing No:
C–220





LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED EASEMENT LINE
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- SMH — PROPOSED SANITARY SEWER MANHOLE
- MH — PROPOSED STORM DRAIN MANHOLE
- CI — PROPOSED TYPE CI DRAIN INLET
- DI — PROPOSED TYPE DI DRAIN INLET
- PROPOSED HEADWALL
- WQS — PROPOSED WATER QUALITY STRUCTURE
- OCS — PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- OCS — PROPOSED OUTLET CONTROL STRUCTURE
- CO — PROPOSED CLEANOUT
- PROPOSED HYDRANT
- 15" HDPE — PROPOSED STORM DRAIN LINE & SIZE
- 8" PVC — PROPOSED SANITARY SEWER LINE & SIZE
- 8" WATER — PROPOSED WATER LINE & SIZE
- PROPOSED GAS LINE
- PROPOSED ELECTRIC/TELEPHONE/CABLE
- PROPOSED WATER VALVE
- PROPOSED GAS VALVE
- PROPOSED RIP-RAP APRON
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED UTILITY POLE
- PROPOSED TEMPORARY SWALE

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "SURVEY OF PROPERTY PREPARED FOR BNE REAL ESTATE," PREPARED BY WARD CARPENTER ENGINEERS, INC, DATED 09/20/2023.
2. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
3. UNLESS OTHERWISE SPECIFIED, PIPE FOR STORM DRAINS SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS IN ACCORDANCE WITH ASTM F-2648. JOINTS SHALL BE WATERTIGHT IN ACCORDANCE WITH ASTM D-3212.
4. UNLESS OTHERWISE SPECIFIED, PIPE FOR SANITARY SEWER GRAVITY LINES SHALL BE POLYVINYL CHLORIDE PIPE (PVCP), SDR-35, WITH PUSH-ON JOINTS IN ACCORDANCE WITH ASTM D-3034 AND D-3212.
5. UNLESS OTHERWISE SPECIFIED, PIPE FOR WATER LINES SHALL BE DOUBLE CEMENT-LINED DUCTILE IRON PIPE (DIP), CLASS 52, WITH PUSH ON JOINTS IN ACCORDANCE WITH AWWA C-150, C-151, C-104 AND C-111.

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1.	ISSUED FOR DEIS COMPLETENESS	01/24/2025	PK
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SITE UTILITIES PLAN

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Project No: 21090	
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Drawing No: C-300	

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LEGEND

PHASE 1A
PHASE 1B — PROPOSED DIVIDING LINES AND PHASE NUMBER

PHASING LEGEND	LOD AREA	CUT	FILL	NET
PHASE 1A: (SEE SHEET C-401)	271,313 S.F. (6.23 A.C.)	2,305 C.Y.	17,328 C.Y.	15,023 C.Y. (FILL)
PHASE 1B: (SEE SHEET C-402)	177,612 S.F. (4.08 A.C.)	22,319 C.Y.	3,615 C.Y.	18,704 C.Y. (CUT)
PHASE 2: (SEE SHEET C-403)	415,225 S.F. (9.53 A.C.)	18,354 C.Y.	44,752 C.Y.	26,398 C.Y. (FILL)
PHASE 3: (SEE SHEET C-404)	283,375 S.F. (6.51 A.C.)	20,332 C.Y.	30,242 C.Y.	9,910 C.Y. (FILL)
OVERALL SITE TOTALS	1,147,525 S.F. (26.34 A.C.)	63,310 C.Y.	95,937 C.Y.	32,627 C.Y. (FILL)

SEQUENCE OF CONSTRUCTION:

CONSTRUCTION SHALL BE SEQUENCED IN SUCH A MANNER THAT ANY AREA WHICH IS DISTURBED SHALL FIRST BE PROTECTED WITH SEDIMENT EROSION CONTROLS AS INDICATED ON THIS PLAN.

ALL LOCAL, STATE AND FEDERAL REGULATIONS SHALL BE FOLLOWED BY THE BLASTING CONTRACTOR SHOULD SITE CONDITIONS REQUIRE BLASTING FOR THE PURPOSES OF ROCK REMOVAL.

ANY EARTHWORK PERFORMED SHALL BE SUPERVISED BY THE SITE GEOTECHNICAL ENGINEER. AS DIRECTED BY THE GEOTECHNICAL ENGINEER, SUITABLE MATERIALS SHALL BE STOCKPILED AND REUSED ON-SITE AS APPLICABLE; UNSUITABLE MATERIAL SHALL BE EXPORTED OFF-SITE.

PARTICULAR REQUIREMENTS ARE GIVEN AS FOLLOWS:

PHASE 1A (APPROX. 6.23 AC.)

1. INSTALL ALL SILT FENCES AND STABILIZED CONSTRUCTION ENTRANCE.
2. INSTALL ORANGE CONSTRUCTION FENCING PRIOR TO THE COMMENCEMENT OF EARTHWORK.
3. CLEAR THE AREA TO BE CONSTRUCTED. VEGETATIVE WASTE WILL BE CHIPPED AND SPREAD ON-SITE AS AN INTERIM STABILIZATION METHOD.
4. REMOVE AND STOCKPILE TOPSOIL IN THE DESIGNATED STOCKPILE AREA. SEED, MULCH, AND INSTALL SILT FENCING AROUND THE TEMPORARY TOPSOIL STOCKPILE LOCATION FOR EROSION CONTROL PURPOSES.
5. PROCEED WITH ROUGH GRADING OF THE AREA UNDER ACTIVE CONSTRUCTION. INSTALL EROSION CONTROL MATTING ON SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. BEGIN CONSTRUCTION OF ROADWAY.
6. CONSTRUCT TEMPORARY SEDIMENT BASINS IN THE LOCATION OF INFILTRATION BASIN 1D, AND SEDIMENT TRAP IN THE LOCATION OF THE BIORETENTION BASINS. THE SEDIMENT BASIN SHALL BE CONSTRUCTED TO A MINIMUM OF 18" ABOVE THE BOTTOM OF THE INFILTRATION BASIN THROUGHOUT THE DURATION OF CONSTRUCTION. INSTALL ALL STORMWATER DRAINAGE STRUCTURES AND PIPES LOCATED WITHIN THIS PHASE. CONSTRUCT ASSOCIATED DIVERSIONS SWALES AS REQUIRED.
7. CONTINUE CONSTRUCTION OF ROADWAY, STORM SEWER STRUCTURES, AND PIPES. IMMEDIATELY INSTALL INLET PROTECTION ONCE STRUCTURES ARE IN PLACE.
8. INSTALL SANITARY SEWER SYSTEM FROM EX-SMH-0 THROUGH SMH-7 AND FROM SMH-5 TO SMH-R3. STRUCTURES TO BE PLUGGED UNTIL ENTIRE SANITARY NETWORK IS INSTALLED AND BROUGHT ONLINE.
9. TRENCH AND INSTALL OTHER UTILITIES AS REQUIRED (WATER, GAS, ELECTRIC, TELEPHONE).
10. INSTALL ASPHALT PAVEMENT.
11. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION IN ACCORDANCE WITH THE LANDSCAPE PLAN.
12. CLEAN SURROUNDING AREA AND STORM DRAINAGE SYSTEMS OF ALL ACCUMULATED SEDIMENT.
13. COMPLETE PHASE 1A CONSTRUCTION. ADVANCE GRADING TO NEXT PHASE AS NECESSARY.

PHASE 1B (APPROX. 4.08 AC.)

1. INSTALL ALL SILT FENCES AND STABILIZED CONSTRUCTION ENTRANCE.
2. CLEAR THE AREA TO BE CONSTRUCTED. VEGETATIVE WASTE WILL BE CHIPPED AND SPREAD ON-SITE AS AN INTERIM STABILIZATION METHOD.
3. REMOVE AND STOCKPILE TOPSOIL IN THE DESIGNATED STOCKPILE AREA. SEED, MULCH, AND INSTALL SILT FENCING AROUND THE TEMPORARY TOPSOIL STOCKPILE LOCATION FOR EROSION CONTROL PURPOSES.
4. PROCEED WITH ROUGH GRADING OF THE AREA UNDER ACTIVE CONSTRUCTION. INSTALL EROSION CONTROL MATTING ON SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. CONTINUE ROADWAY CONSTRUCTION.
5. CONSTRUCT TEMPORARY SEDIMENT BASINS IN THE LOCATION OF INFILTRATION BASINS 2B & 3A. THE SEDIMENT BASINS SHALL BE CONSTRUCTED TO A MINIMUM OF 18" ABOVE THE BOTTOM OF THE INFILTRATION BASINS THROUGHOUT THE DURATION OF CONSTRUCTION. INSTALL ALL STORMWATER DRAINAGE STRUCTURES AND PIPES LOCATED WITHIN THIS PHASE. IMMEDIATELY INSTALL INLET PROTECTION ON ALL DRAIN INLETS. CONSTRUCT ASSOCIATED DIVERSIONS SWALES AS REQUIRED.
6. CONTINUE CONSTRUCTION OF ROADWAY, PARKING LOTS, AND ASSOCIATED RETAINING WALLS AS REQUIRED.
7. TRENCH AND INSTALL OTHER UTILITIES AS REQUIRED (WATER, GAS, ELECTRIC, TELEPHONE).
8. INSTALL ASPHALT PAVEMENT.
9. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION IN ACCORDANCE WITH THE LANDSCAPE PLAN.
10. CLEAN SURROUNDING AREA AND STORM DRAINAGE SYSTEMS OF ALL ACCUMULATED SEDIMENT.
11. COMPLETE PHASE 1B CONSTRUCTION. ADVANCE GRADING TO NEXT PHASE AS NECESSARY.

PHASE 2 (APPROX. 9.53 AC.)

1. INSTALL ALL SILT FENCES AND STABILIZED CONSTRUCTION ENTRANCE.
2. CLEAR THE AREA TO BE CONSTRUCTED. VEGETATIVE WASTE WILL BE CHIPPED AND SPREAD ON-SITE AS AN INTERIM STABILIZATION METHOD.
3. REMOVE AND STOCKPILE TOPSOIL IN THE DESIGNATED STOCKPILE AREA. SEED, MULCH, AND INSTALL SILT FENCING AROUND THE TEMPORARY TOPSOIL STOCKPILE LOCATION FOR EROSION CONTROL PURPOSES.
4. PROCEED WITH ROUGH GRADING OF THE AREA UNDER ACTIVE CONSTRUCTION. INSTALL EROSION CONTROL MATTING ON SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. CONTINUE ROADWAY CONSTRUCTION.
5. INSTALL ALL STORMWATER DRAINAGE STRUCTURES AND PIPES LOCATED WITHIN THIS PHASE. IMMEDIATELY INSTALL INLET PROTECTION ON ALL DRAIN INLETS. CONSTRUCT DIVERSION SWALES AS REQUIRED.
6. CONTINUE CONSTRUCTION OF ROADWAY AND BEGIN CONSTRUCTION OF BUILDINGS 5, 6, AND 7, AND THE CLUBHOUE.
7. INSTALL SANITARY SEWER SYSTEM FROM SMH-13 THROUGH SMH-17. STRUCTURES TO BE PLUGGED UNTIL ENTIRE SANITARY NETWORK IS INSTALLED AND BROUGHT ONLINE.
8. TRENCH AND INSTALL OTHER UTILITIES AS REQUIRED (WATER, GAS, ELECTRIC, TELEPHONE).
9. INSTALL ASPHALT PAVEMENT.
10. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION IN ACCORDANCE WITH THE LANDSCAPE PLAN.
11. CLEAN SURROUNDING AREA AND STORM DRAINAGE SYSTEMS OF ALL ACCUMULATED SEDIMENT.
12. COMPLETE PHASE 2 CONSTRUCTION. ADVANCE GRADING TO NEXT PHASE AS NECESSARY.

PHASE 3 (APPROX. 6.51 AC)

1. INSTALL ALL SILT FENCES AND STABILIZED CONSTRUCTION ENTRANCE.
2. CLEAR THE AREA TO BE CONSTRUCTED. VEGETATIVE WASTE WILL BE CHIPPED AND SPREAD ON-SITE AS AN INTERIM STABILIZATION METHOD.
3. REMOVE AND STOCKPILE TOPSOIL IN THE DESIGNATED STOCKPILE AREA OR IN PREVIOUSLY USED STOCKPILE AREAS AS REQUIRED. SEED, MULCH, AND INSTALL SILT FENCING AROUND THE TEMPORARY TOPSOIL STOCKPILE LOCATION FOR EROSION CONTROL PURPOSES.
4. PROCEED WITH ROUGH GRADING OF THE AREA UNDER ACTIVE CONSTRUCTION. INSTALL EROSION CONTROL MATTING ON SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. CONTINUE ROADWAY CONSTRUCTION.
5. INSTALL ALL STORMWATER DRAINAGE STRUCTURES AND PIPES LOCATED WITHIN THIS PHASE. IMMEDIATELY INSTALL INLET PROTECTION ON ALL DRAIN INLETS. CONSTRUCTION DIVERSION SWALES AS REQUIRED.
6. CONTINUE ROADWAY AND PARKING LOT CONSTRUCTION AND BEGIN CONSTRUCTION OF BUILDINGS 1-4.
7. INSTALL SANITARY SEWER SYSTEM FROM SMH-12 THROUGH SMH-8 AND INSTALL ALL CONNECTION PIPES BETWEEN PHASES.
8. TRENCH AND INSTALL OTHER UTILITIES AS REQUIRED (WATER, GAS, ELECTRIC, TELEPHONE).
9. INSTALL ASPHALT PAVEMENT.
10. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION IN ACCORDANCE WITH THE LANDSCAPE PLAN.
11. CLEAN SURROUNDING AREA AND STORM DRAINAGE SYSTEMS OF ALL ACCUMULATED SEDIMENT.
12. COMPLETE SITE AND BUILDING CONSTRUCTION.
13. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCE, INLET PROTECTION, ETC.).
14. COMPLETE CONSTRUCTION OF INFILTRATION BASINS 1D, 2B, & 3A AND INFILTRATION BIORETENTION AREAS 1B & 1C, INCLUDING THE END SECTIONS AND OUTLET CONTROL STRUCTURES ASSOCIATED WITH THEM. BRING THEM AND THE ENTIRE STORMWATER NETWORK ONLINE ONCE SUFFICIENT PERMANENT STABILIZATION OF 80% UNIFORM DENSITY OF THE CONTRIBUTING DRAINAGE AREAS IS ESTABLISHED.

No.	Revision	Date	By
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JMC

OVERALL CONSTRUCTION PHASING PLAN

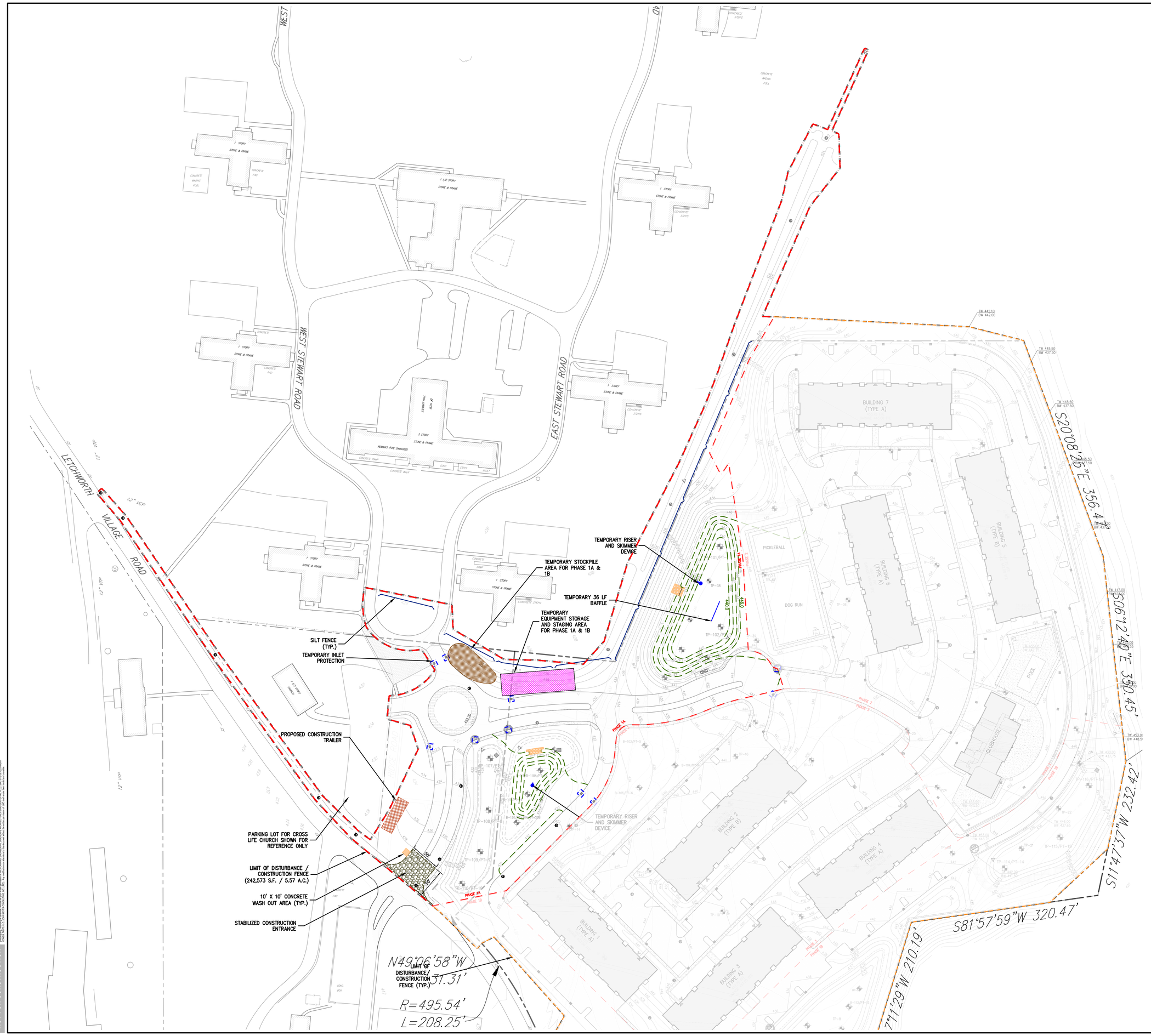
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LEGEND

- PHASE 1A / PHASE 1B — PROPOSED DIVIDING LINES AND PHASE NUMBER
- PROPOSED INLET PROTECTION
- PROPOSED CONSTRUCTION FENCE / LIMIT OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED STOCKPILE AREA
- PROPOSED STAGING/EQUIPMENT AREA
- PROPOSED TEMPORARY SEDIMENT BASIN
- TEMPORARY RISER & ANTI-VORTEX DEVICE
- PROPOSED CONCRETE TRUCK WASHOUT

SEQUENCE OF CONSTRUCTION:

CONSTRUCTION SHALL BE SEQUENCED IN SUCH A MANNER THAT ANY AREA WHICH IS DISTURBED SHALL FIRST BE PROTECTED WITH SEDIMENT EROSION CONTROLS AS INDICATED ON THIS PLAN.

ALL LOCAL, STATE AND FEDERAL REGULATIONS SHALL BE FOLLOWED BY THE BLASTING CONTRACTOR SHOULD SITE CONDITIONS REQUIRE BLASTING FOR THE PURPOSES OF ROCK REMOVAL.

ANY EARTHWORK PERFORMED SHALL BE SUPERVISED BY THE SITE GEOTECHNICAL ENGINEER, AS DIRECTED BY THE GEOTECHNICAL ENGINEER, SUITABLE MATERIALS SHALL BE STOCKPILED AND REUSED ON-SITE AS APPLICABLE. UNSUITABLE MATERIAL SHALL BE EXPORTED OFF-SITE.

PARTICULAR REQUIREMENTS ARE GIVEN AS FOLLOWS:

PHASE 1A (APPROX. 6.23 AC.)

1. INSTALL ALL SILT FENCES AND STABILIZED CONSTRUCTION ENTRANCE.
2. INSTALL ORANGE CONSTRUCTION FENCING PRIOR TO THE COMMENCEMENT OF EARTHWORK.
3. CLEAR THE AREA TO BE CONSTRUCTED. VEGETATIVE WASTE WILL BE CHIPPED AND SPREAD ON-SITE AS AN INTERIM STABILIZATION METHOD.
4. REMOVE AND STOCKPILE TOPSOIL IN THE DESIGNATED STOCKPILE AREA. SEED, MULCH, AND INSTALL SILT FENCING AROUND THE TEMPORARY TOPSOIL STOCKPILE LOCATION FOR EROSION CONTROL PURPOSES.
5. PROCEED WITH ROUGH GRADING OF THE AREA UNDER ACTIVE CONSTRUCTION. INSTALL EROSION CONTROL MATTING ON SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. BEGIN CONSTRUCTION OF ROADWAY.
6. CONSTRUCT TEMPORARY SEDIMENT BASINS IN THE LOCATION OF INFILTRATION BASIN 1O, AND SEDIMENT TRAP IN THE LOCATION OF THE BIORETENTION BASINS. THE SEDIMENT BASIN SHALL BE CONSTRUCTED TO A MINIMUM OF 10' BELOW THE BOTTOM OF THE BASIN AS SHOWN ON THE PLANS. AT THE COMPLETION OF CONSTRUCTION, INSTALL ALL STORMWATER DRAINAGE STRUCTURES AND PIPES LOCATED WITHIN THIS PHASE. CONSTRUCT ASSOCIATED DIVERSIONS SWALES AS REQUIRED.
7. CONTINUE CONSTRUCTION OF ROADWAY, STORM SEWER STRUCTURES, AND PIPES. IMMEDIATELY INSTALL INLET PROTECTION ONCE STRUCTURES ARE IN PLACE.
8. INSTALL SANITARY SEWER SYSTEM FROM EX-SMH-0 THROUGH SMH-7 AND FROM SMH-5 TO SMH-R3. STRUCTURES TO BE PLUGGED UNTIL ENTIRE SANITARY NETWORK IS INSTALLED AND BROUGHT ONLINE.
9. TRENCH AND INSTALL OTHER UTILITIES AS REQUIRED (WATER, GAS, ELECTRIC, TELEPHONE).
10. INSTALL ASPHALT PAVEMENT.
11. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION IN ACCORDANCE WITH THE LANDSCAPE PLAN.
12. CLEAN SURROUNDING AREA AND STORM DRAINAGE SYSTEMS OF ALL ACCUMULATED SEDIMENT.
13. COMPLETE PHASE 1A CONSTRUCTION. ADVANCE GRADING TO NEXT PHASE AS NECESSARY.

No.	Revision	Date	By
	Previous Editions Obsolete		

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SITE EROSION & SEDIMENT CONTROL PLAN – PHASE 1A

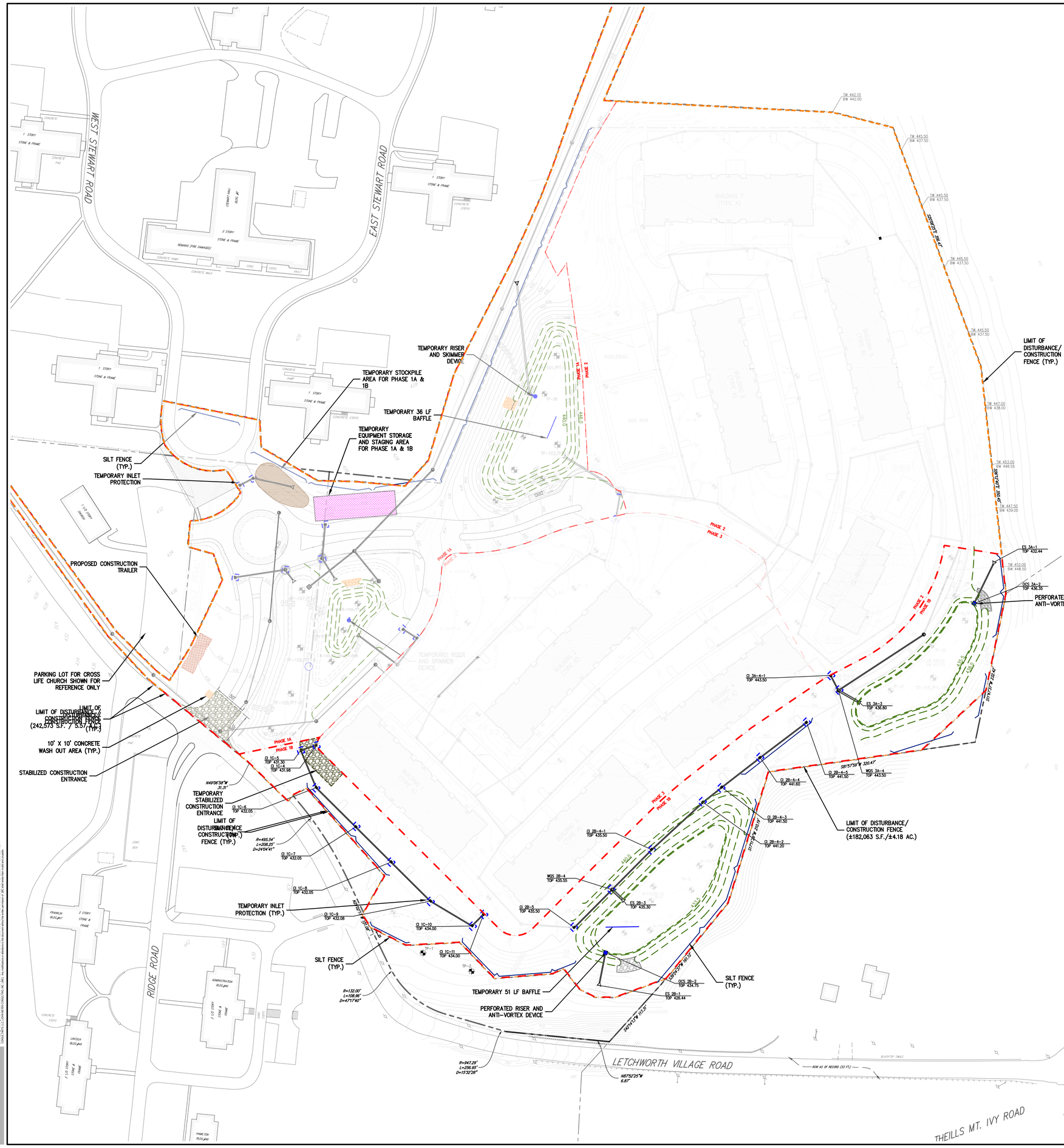
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LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

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Drawn:	BMS
Approved:	DV
Scale:	1" = 50'
Date:	08/15/2025
Project No:	21090
21090-SWE-1A	PHASE 1A
SE.scr	
Drawing No:	C-401

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LEGEND

- PHASE 1A / PHASE 1B — PROPOSED DIVIDING LINES AND PHASE NUMBER
- PROPOSED INLET PROTECTION
- PROPOSED CONSTRUCTION FENCE/ LIMIT OF DISTRUBANCE
- PROPOSED SILT FENCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED STOCKPILE AREA
- PROPOSED STAGING/EQUIPMENT AREA
- PROPOSED TEMPORARY SEDIMENT BASIN
- TEMPORARY RISER & ANTI-VORTEX DEVICE
- PROPOSED CONCRETE TRUCK WASHOUT

SEQUENCE OF CONSTRUCTION:

CONSTRUCTION SHALL BE SEQUENCED IN SUCH A MANNER THAT ANY AREA WHICH IS DISTURBED SHALL FIRST BE PROTECTED WITH SEDIMENT EROSION CONTROLS AS INDICATED ON THIS PLAN.

ALL LOCAL, STATE AND FEDERAL REGULATIONS SHALL BE FOLLOWED BY THE BLASTING CONTRACTOR SHOULD SITE CONDITIONS REQUIRE BLASTING FOR THE PURPOSES OF ROCK REMOVAL.

ANY EARTHWORK PERFORMED SHALL BE SUPERVISED BY THE SITE GEOTECHNICAL ENGINEER. AS DIRECTED BY THE GEOTECHNICAL ENGINEER, SUITABLE MATERIALS SHALL BE STOCKPILED AND REUSED ON-SITE AS APPLICABLE; UNSUITABLE MATERIAL SHALL BE EXPORTED OFF-SITE.

PARTICULAR REQUIREMENTS ARE GIVEN AS FOLLOWS:

PHASE 1B (APPROX. 4.08 AC.)

1. INSTALL ALL SILT FENCES AND STABILIZED CONSTRUCTION ENTRANCE.
2. CLEAR THE AREA TO BE CONSTRUCTED. VEGETATIVE WASTE WILL BE CHIPPED AND SPREAD ON-SITE AS AN INTERIM STABILIZATION METHOD.
3. REMOVE AND STOCKPILE TOPSOIL IN THE DESIGNATED STOCKPILE AREA. SEED, MULCH, AND INSTALL SILT FENCING AROUND THE TEMPORARY TOPSOIL STOCKPILE LOCATION FOR EROSION CONTROL PURPOSES.
4. PROCEED WITH ROUGH GRADING OF THE AREA UNDER ACTIVE CONSTRUCTION. INSTALL EROSION CONTROL MATTING ON SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. CONTINUE ROADWAY CONSTRUCTION.
5. CONSTRUCT TEMPORARY SEDIMENT BASINS IN THE LOCATION OF INFILTRATION BASINS #1 AND #2. EXCAVATE THE SEDIMENT BASINS DOWN TO A MINIMUM OF 18" ABOVE THE BOTTOM OF THE INFILTRATION BASINS THROUGHOUT THE DURATION OF CONSTRUCTION. INSTALL ALL STORMWATER DRAINAGE STRUCTURES AND PIPES LOCATED WITHIN THIS PHASE. IMMEDIATELY INSTALL INLET PROTECTION ON ALL DRAIN INLETS. CONSTRUCT ASSOCIATED DIVERSIONS SWALES AS REQUIRED.
6. CONTINUE CONSTRUCTION OF ROADWAY, PARKING LOTS, AND ASSOCIATED RETAINING WALLS AS REQUIRED.
7. TRENCH AND INSTALL OTHER UTILITIES AS REQUIRED (WATER, GAS, ELECTRIC, TELEPHONE).
8. INSTALL ASPHALT PAVEMENT.
9. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION IN ACCORDANCE WITH THE LANDSCAPE PLAN.
10. CLEAN SURROUNDING AREA AND STORM DRAINAGE SYSTEMS OF ALL ACCUMULATED SEDIMENT.
11. COMPLETE PHASE 1B CONSTRUCTION. ADVANCE GRADING TO NEXT PHASE AS NECESSARY.

No.	Revision	Date	By
	Provisional Editions Obsolete		

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SITE EROSION & SEDIMENT CONTROL PLAN – PHASE 1B

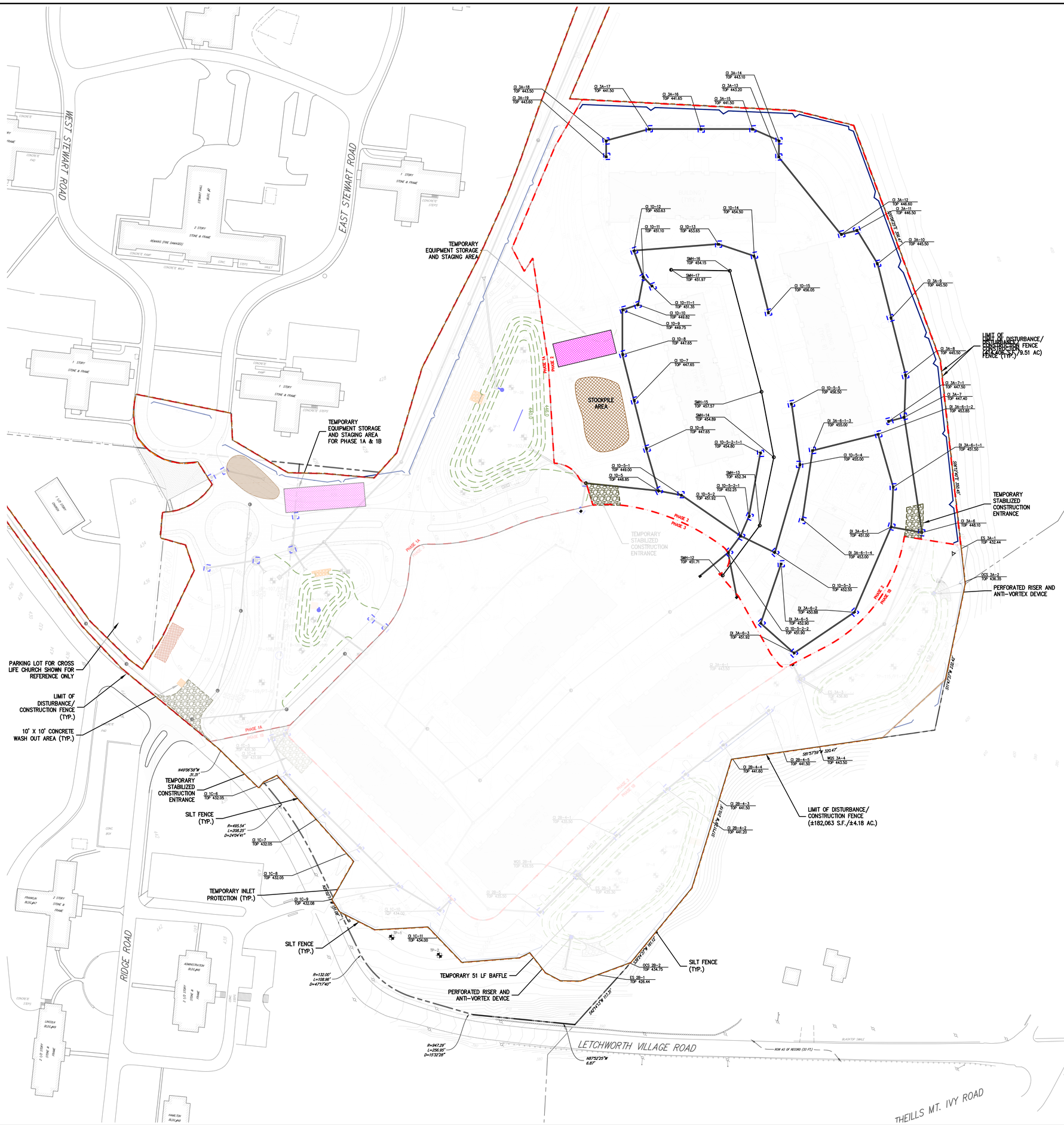
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Drawn:	BMS	Approved:	DV
Scale:	1" = 50'		
Date:	08/15/2025		
Project No:	21090		
21090-SAC-1B	PHASE 1B	SE.wor	
Drawing No:	C-402		

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NOT FOR CONSTRUCTION



LEGEND

- PHASE 1A / PHASE 1B — PROPOSED DIVIDING LINES AND PHASE NUMBER
- PROPOSED INLET PROTECTION
- PROPOSED CONSTRUCTION FENCE/ LIMIT OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED STOCKPILE AREA
- PROPOSED STAGING/EQUIPMENT AREA
- PROPOSED TEMPORARY SEDIMENT BASIN
- TEMPORARY RISER & ANTI-VORTEX DEVICE
- PROPOSED CONCRETE TRUCK WASHOUT

SEQUENCE OF CONSTRUCTION:

CONSTRUCTION SHALL BE SEQUENCED IN SUCH A MANNER THAT ANY AREA WHICH IS DISTURBED SHALL FIRST BE PROTECTED WITH SEDIMENT EROSION CONTROLS AS INDICATED ON THIS PLAN.

ALL LOCAL, STATE AND FEDERAL REGULATIONS SHALL BE FOLLOWED BY THE BLASTING CONTRACTOR SHOULD SITE CONDITIONS REQUIRE BLASTING FOR THE PURPOSES OF ROCK REMOVAL.

ANY EARTHWORK PERFORMED SHALL BE SUPERVISED BY THE SITE GEOTECHNICAL ENGINEER AS DIRECTED BY THE GEOTECHNICAL ENGINEER, SUITABLE MATERIALS SHALL BE STOCKPILED AND REUSED ON-SITE AS APPLICABLE; UNSUITABLE MATERIAL SHALL BE EXPORTED OFF-SITE.

PARTICULAR REQUIREMENTS ARE GIVEN AS FOLLOWS:

PHASE 2 (APPROX. 9.51 AC.)

1. INSTALL ALL SILT FENCES AND STABILIZED CONSTRUCTION ENTRANCE.
2. CLEAR THE AREA TO BE CONSTRUCTED. VEGETATIVE WASTE WILL BE CHIPPED AND SPREAD ON-SITE AS AN INTERIM STABILIZATION METHOD.
3. REMOVE AND STOCKPILE TOPSOIL IN THE DESIGNATED STOCKPILE AREA. SEED, MULCH, AND INSTALL SILT FENCING AROUND THE TEMPORARY TOPSOIL STOCKPILE LOCATION FOR EROSION CONTROL PURPOSES.
4. PROCEED WITH ROUGH GRADING OF THE AREA UNDER ACTIVE CONSTRUCTION, INSTALL EROSION CONTROL MATTING ON SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. CONTINUE ROADWAY CONSTRUCTION.
5. INSTALL ALL STORMWATER DRAINAGE STRUCTURES AND PIPES LOCATED WITHIN THIS PHASE. IMMEDIATELY INSTALL INLET PROTECTION ON ALL DRAIN INLETS. CONSTRUCT DIVERSION SWALES AS REQUIRED.
6. CONTINUE CONSTRUCTION OF ROADWAY AND BEGIN CONSTRUCTION OF BUILDINGS 5, 6, AND 7, AND THE CLUBHOUSE.
7. INSTALL SANITARY SEWER SYSTEM FROM SMH-13 THROUGH SMH-17. STRUCTURES TO BE PLUGGED UNTIL ENTIRE SANITARY NETWORK IS INSTALLED AND BROUGHT ONLINE.
8. TRENCH AND INSTALL OTHER UTILITIES AS REQUIRED (WATER, GAS, ELECTRIC, TELEPHONE).
9. INSTALL ASPHALT PAVEMENT.
10. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION IN ACCORDANCE WITH THE LANDSCAPE PLAN.
11. CLEAN SURROUNDING AREA AND STORM DRAINAGE SYSTEMS OF ALL ACCUMULATED SEDIMENT.
12. COMPLETE PHASE 2 CONSTRUCTION. ADVANCE GRADING TO NEXT PHASE AS NECESSARY.

No.	Revision	Date	By
	Planning Board Submission	08/15/2025	DV

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SITE EROSION & SEDIMENT CONTROL PLAN – PHASE 2

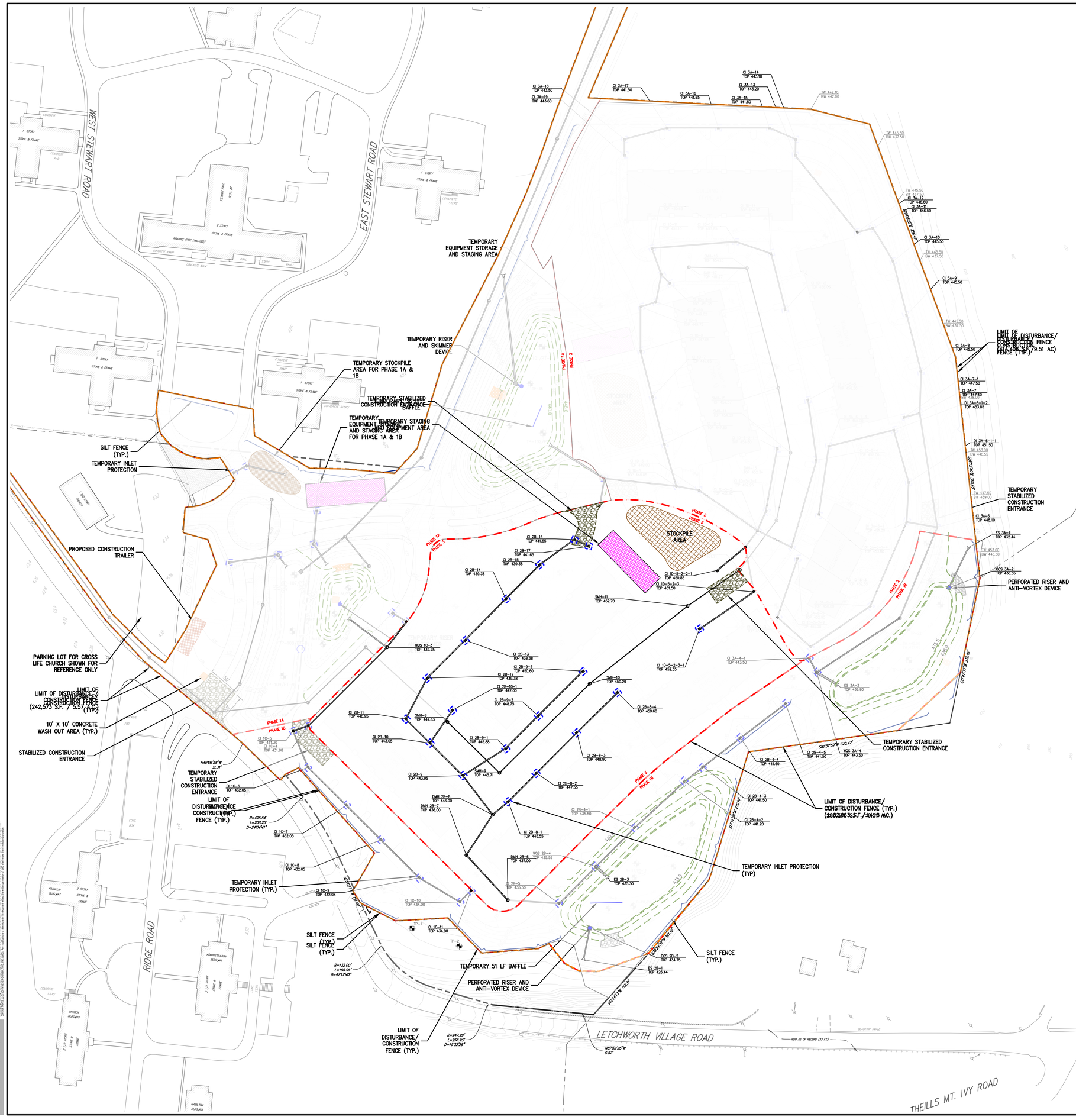
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Drawn:	BMS
Approved:	DV
Scale:	1" = 50'
Date:	08/15/2025
Project No:	21090
21090-SE-2	PHASE 2
SE.tcd	
Drawing No:	C-403

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LEGEND

- PHASE 1A / PHASE 1B — PROPOSED DIVIDING LINES AND PHASE NUMBER
- PROPOSED INLET PROTECTION
- PROPOSED CONSTRUCTION FENCE/ LIMIT OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED STOCKPILE AREA
- PROPOSED STAGING AND EQUIPMENT AREA
- PROPOSED TEMPORARY SEDIMENT BASIN
- TEMPORARY RISER & ANTI-VORTEX DEVICE
- PROPOSED CONCRETE TRUCK WASHOUT

SEQUENCE OF CONSTRUCTION:

CONSTRUCTION SHALL BE SEQUENCED IN SUCH A MANNER THAT ANY AREA WHICH IS DISTURBED SHALL FIRST BE PROTECTED WITH SEDIMENT EROSION CONTROLS AS INDICATED ON THIS PLAN.

ALL LOCAL, STATE AND FEDERAL REGULATIONS SHALL BE FOLLOWED BY THE BLASTING CONTRACTOR SHOULD SITE CONDITIONS REQUIRE BLASTING FOR THE PURPOSES OF ROCK REMOVAL.

ANY EARTHWORK PERFORMED SHALL BE SUPERVISED BY THE SITE GEOTECHNICAL ENGINEER. AS DIRECTED BY THE GEOTECHNICAL ENGINEER, SUITABLE MATERIALS SHALL BE STOCKPILED AND REUSED ON-SITE AS APPLICABLE; UNSUITABLE MATERIAL SHALL BE EXPORTED OFF-SITE.

PARTICULAR REQUIREMENTS ARE GIVEN AS FOLLOWS:

PHASE 1 (APPROX. 6.51 AC)

1. INSTALL ALL SILT FENCES AND STABILIZED CONSTRUCTION ENTRANCE.
2. CLEAR THE AREA TO BE CONSTRUCTED. VEGETATIVE WASTE WILL BE CHIPPED AND SPREAD ON-SITE AS AN INTERIM STABILIZATION METHOD.
3. REMOVE AND STOCKPILE TOPSOIL IN THE DESIGNATED STOCKPILE AREA OR IN PREVIOUSLY USED STOCKPILE AREAS AS REQUIRED. SEED, MULCH, AND INSTALL SILT FENCING AROUND THE TEMPORARY TOPSOIL STOCKPILE LOCATION FOR EROSION CONTROL PURPOSES.
4. PROCEED WITH ROUGH GRADING OF THE AREA UNDER ACTIVE CONSTRUCTION. INSTALL EROSION CONTROL MATTING ON SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. CONTINUE ROADWAY CONSTRUCTION.
5. STAKE OUT AREA OF SUBSURFACE STORMWATER SYSTEM 1C, AND INSTALL ORANGE CONSTRUCTION FENCE AROUND AREA.
6. INSTALL ALL STORMWATER DRAINAGE STRUCTURES AND PIPES LOCATED WITHIN THIS PHASE. IMMEDIATELY INSTALL INLET PROTECTION ON ALL DRAIN INLETS. CONSTRUCTION DIVERSION SWALES AS REQUIRED.
7. CONTINUE ROADWAY AND PARKING LOT CONSTRUCTION AND BEGIN CONSTRUCTION OF BUILDINGS 1–4.
8. INSTALL SANITARY SEWER SYSTEM FROM SMH–12 THROUGH SMH–8 AND INSTALL ALL CONNECTION PIPES BETWEEN PHASES.
9. TRENCH AND INSTALL OTHER UTILITIES AS REQUIRED (WATER, GAS, ELECTRIC, TELEPHONE).
10. INSTALL ASPHALT PAVEMENT.
11. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION IN ACCORDANCE WITH THE LANDSCAPE PLAN.
12. CLEAN SURROUNDING AREA AND STORM DRAINAGE SYSTEMS OF ALL ACCUMULATED SEDIMENT.
13. COMPLETE SITE AND BUILDING CONSTRUCTION.
14. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCE, INLET PROTECTION, ETC.) AND TEMPORARY CONSTRUCTION FENCE FROM SUBSURFACE STORMWATER SYSTEM AREAS.
15. COMPLETE CONSTRUCTION OF INFILTRATION BASINS 1D, 2B, & 3A AND INFILTRATION BIORETENTION AREAS 1B & 1C, INCLUDING THE END SECTIONS AND OUTLET CONTROL STRUCTURES ASSOCIATED WITH THEM. BRING THEM AND THE ENTIRE STORMWATER NETWORK ONLINE ONCE SUFFICIENT PERMANENT STABILIZATION OF 80% UNIFORM DENSITY OF THE CONTRIBUTING DRAINAGE AREAS ARE ESTABLISHED.

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No.	Revision	Date	By
	Revised Edition Obsolete		

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SITE EROSION & SEDIMENT CONTROL PLAN – PHASE 3

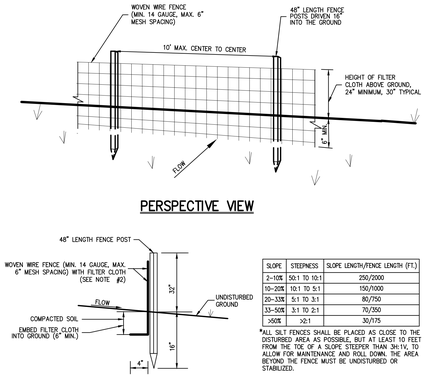
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LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

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Drawn:	BMS	Approved:	DV
Scale:	1" = 50'		
Date:	08/15/2025		
Project No:	21090		
2080-SE-3	PHASE 3	SE.scr	
Drawing No:	C–404		

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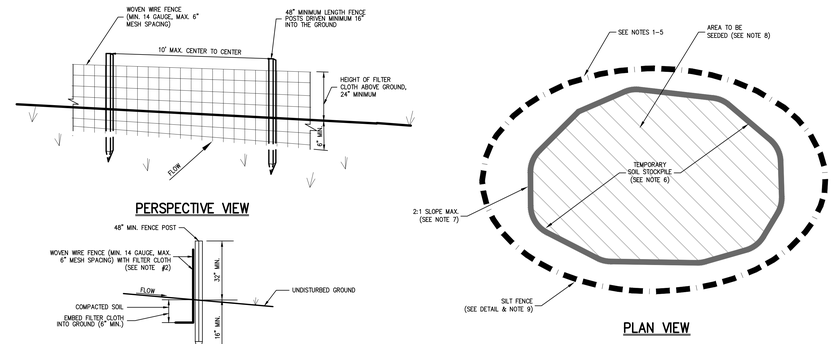
SLOPE	STEEPNESS	SLOPE LENGTH/FENCE LENGTH (FT.)
2–10%	50:1 TO 10:1	250/2000
10–20%	10:1 TO 5:1	150/1000
20–33%	5:1 TO 3:1	80/750
33–50%	3:1 TO 2:1	70/350
>50%	>2:1	30/175

*ALL SILT FENCES SHALL BE PLACED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE, BUT AT LEAST 10 FEET FROM THE TOE OF A SLOPE STEEPER THAN 3H:1V, TO ALLOW FOR MAINTENANCE AND ROLL DOWN. THE AREA BEYOND THE FENCE MUST BE UNDISTURBED OR STABILIZED.

NOTES:

1. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER T OR U TYPE OR HARDWOOD.
2. FILTER CLOTH SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

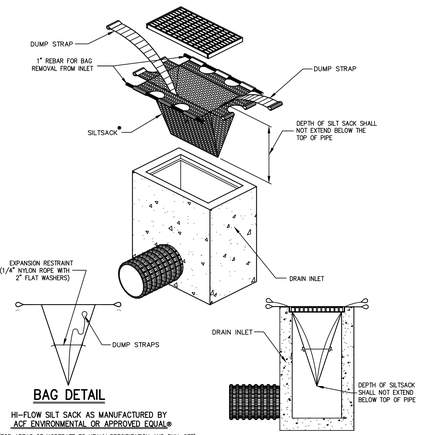
SILT FENCE | 1



NOTES:

1. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER T OR U TYPE OR HARDWOOD.
2. FILTER CLOTH SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
6. THE AREA CHOSEN FOR ALL TEMPORARY SOIL STOCKPILES SHALL BE DRY AND STABLE.
7. ALL STOCKPILED SOIL SHALL NOT CONTAIN SLOPES GREATER THAN 2:1.
8. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SEEDED WITHIN 24 HOURS. PERENNIAL OR ANNUAL RYEGRASS SHALL BE PLANTED DURING SPRING, SUMMER OR EARLY FALL; WINTER RYE (CEREAL RYE) SHALL BE PLANTED DURING LATE FALL OR EARLY WINTER.
9. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED AROUND THE PERIMETER.

TEMPORARY SOIL STOCKPILE WITH SILT FENCE | 2



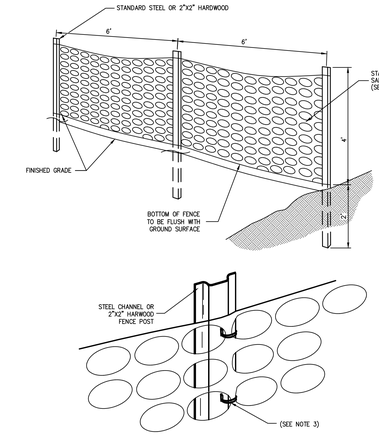
HI-FLOW SILT SACK AS MANUFACTURED BY ACF ENVIRONMENTAL OR APPROVED EQUAL●

(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

NOTE:
CURB INLETS SHALL BE TYPE B WITH CURB DEFLECTOR.

MANUFACTURED INSERT INLET PROTECTION | 3



NOTES:

1. SPACE SUPPORT FENCE POSTS AT 6 FOOT INTERVALS.
2. DRIVE SUPPORT POSTS 2 FEET INTO GROUND.
3. FIRMLY FASTEN FENCE MATERIAL IN PLACE BY WIRING TO FENCE POST WHILE MAINTAINING TENSION ACROSS FULL HEIGHT OF FENCE. WIRING SHALL BE DONE IN A MANNER THAT WILL PREVENT SAGGING OF FENCE MATERIAL.
4. PROVIDE PERIODIC INSPECTION AND MAINTENANCE OF FENCE INCLUDING REPAIRS AS NECESSARY AND REQUIRED.
5. PLASTIC FENCE SHALL BE INTERNATIONAL ORANGE COLOR, AS MANUFACTURED BY ADFI ENTERPRISES, INC. OR APPROVED EQUAL.
6. REMOVE CONSTRUCTION FENCE AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.

CONSTRUCTION FENCE | 4

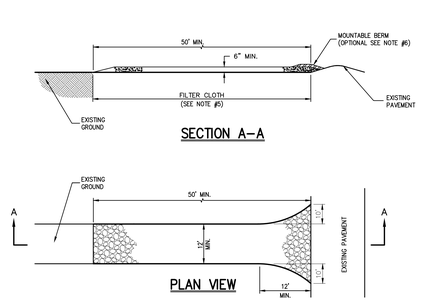
No.	Revision	Date	By
1.	ISSUED FOR DES COMPLETENESS	01/24/2025	PK
2.	DES COMPLETENESS SUBMISSION	02/28/2025	NB
3.	ISSUED FOR FEDS REVIEW	08/15/2025	NB

Previous Editions Obsolete

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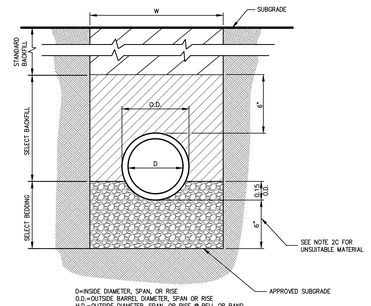
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NOTES

1. STONE SIZE – USE 1" TO 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH TO BE PLACED OVER THE ENTIRE WIDTH AND LENGTH OF AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE | 5

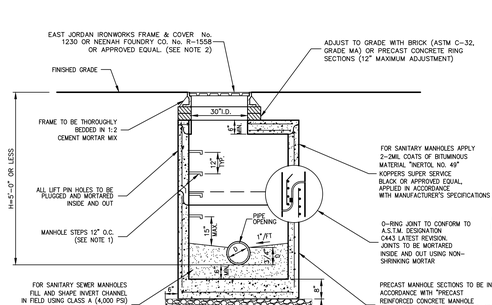


D=INSIDE DIAMETER, SPAN, OR RISE
O.D.=OUTSIDE BARREL DIAMETER, SPAN OR RISE
H.D.=OUTSIDE DIAMETER, SPAN, OR RISE Ø BELL OR BAND
W=H.D. + 2.0" – FOR 48" OR SMALLER DIAMETER, SPAN, OR RISE
W=H.D. + 2.5" – FOR GREATER THAN 48" DIAMETER, SPAN, OR RISE

NOTES:

1. FOR TYPE II TRENCH, MATERIAL FOR SELECT BEDDING AND SELECT BACKFILL SHALL BE:
   A. EITHER SAND OR CRUSHED STONE IF NO WATER IS ENCOUNTERED IN TRENCH.
   B. 3/4"CRUSHED STONE IF WATER IS ENCOUNTERED IN TRENCH.
2. TYPE II TRENCH SHALL BE USED IN ALL OF THE FOLLOWING CASES:
   A. FOR ALL CORRUGATED POLYETHYLENE DRAIN PIPE (CPDP) AND PVC PIPE AND CONDUIT INSTALLATION.
   B. WHEN ROCK OR HARDPAN IS ENCOUNTERED IN BOTTOM OF TRENCH.
   C. WHEN UNSUITABLE MATERIAL IS ENCOUNTERED IN BOTTOM OF TRENCH. IN SUCH CASE DEPTH OF UNDERCUTTING SHALL BE AS DIRECTED BY THE ENGINEER WITH 6" MINIMUM.
3. FOR ALL TRENCH EXCAVATION IN FILL AREAS, ALL EMBANKMENTS SHALL BE CONSTRUCTED TO A MINIMUM OF 2 FEET ABOVE THE OUTSIDE TOP (AT THE BELL) OF THE PIPE PRIOR TO BEGINNING ANY TRENCH EXCAVATION.
4. BACKFILL FOR PIPE AND CONDUIT SHALL BE PLACED EVENLY AND CAREFULLY AROUND AND OVER THE PIPE OR CONDUIT IN SIX (6) INCH MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED UNTIL TWELVE (12) INCHES OF COVER EXISTS OVER THE PIPE OR CONDUIT. THE REMAINDER OF THE BACKFILL MAY THEN BE PLACED AND COMPACTED IN A MAXIMUM OF TWELVE (12) INCH LAYERS. EACH LAYER SHALL BE COMPACTED BY APPROVED MECHANICAL TAMPING MACHINES. UNLESS OTHERWISE SPECIFIED BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 92% MAXIMUM MODIFIED DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D-1557 IN THE MANNER HEREIN DESCRIBED. BACKFILL SHALL PROCEED UP TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS.

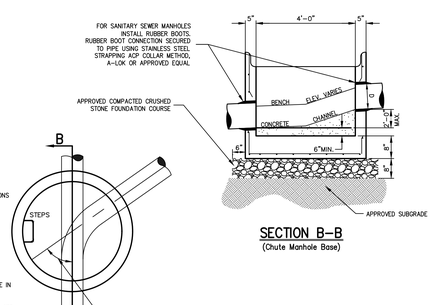
TYPE II TRENCH | 6



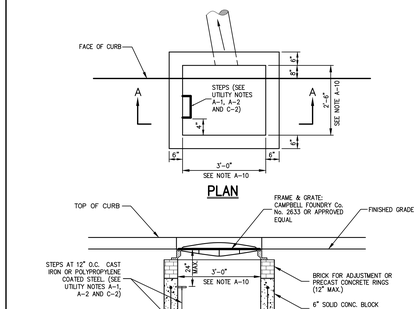
NOTES:

1. MANHOLE STEPS SHALL BE CAST IRON NEENAH No. R-1981-0 OR CAMPBELL FOUNDRY No. 2588-1 OR POLYPROPYLENE COATED STEEL (SEE SPECIFICATIONS) OR APPROVED EQUAL.
2. UNLESS OTHERWISE SPECIFIED, SANITARY SEWER MANHOLES SHALL HAVE LETTERS "SEWER" AND STORM DRAIN MANHOLES SHALL HAVE LETTERS "DRAIN" CAST ON COVER. THE COVERS SHALL HAVE VENT HOLES.
3. MANHOLES WITH DEPTH (h) 10' OR GREATER SHALL BE FIVE (5) FEET IN DIAMETER.
4. MANHOLES SHALL MEET OR EXCEED A.S.T.M. AND O.S.H.A. REQUIREMENTS.
5. SEE "NOTES PERTAINING TO MANHOLES" UNDER "UTILITY NOTES" ON DRAWING XXXX

MANHOLE (TYPE B)
(H > 5'–0"≤10'–0")

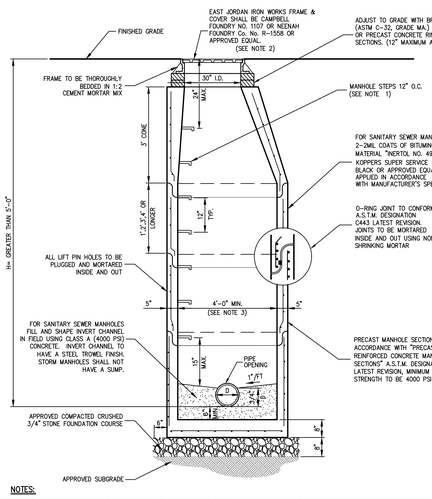


MANHOLE (TYPE A)
(H < 5'–0")



NOTE:
1. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING C–900

DRAIN INLET (TYPE CI)
(with sump–w/o finger underdrains)

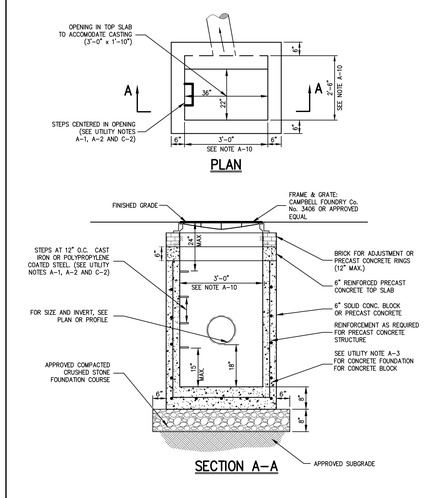


NOTES:

1. MANHOLE STEPS SHALL BE CAST IRON NEENAH No. R-1981-1 OR POLYPROPYLENE COATED STEEL (SEE SPECIFICATIONS) OR APPROVED EQUAL.
2. UNLESS OTHERWISE SPECIFIED, SANITARY SEWER MANHOLES SHALL HAVE LETTERS "SEWER" AND STORM DRAIN MANHOLES SHALL HAVE LETTERS "DRAIN" CAST ON COVER. THE COVERS SHALL HAVE VENT HOLES.
3. MANHOLES SHALL MEET OR EXCEED A.S.T.M. AND O.S.H.A. REQUIREMENTS.
4. SEE "NOTES PERTAINING TO MANHOLES" UNDER "UTILITY NOTES" ON DRAWING XXXX

MANHOLE (TYPE B)
(H > 5'–0"≤10'–0")

MANHOLE (TYPE D)
(H > 10'–0")



NOTE
1. REINFORCE PRECAST CONCRETE TOP SLAB AND REINFORCE PRECAST CONCRETE STRUCTURE SHALL BE DESIGNED TO ACCOMMODATE AN H–20 DESIGN LOAD.
2. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING XXX

DRAIN INLET (TYPE DI)
(with sump–w/o finger underdrains)

CONSTRUCTION DETAILS

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF ARTICLE 145 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

Drawn:	BMS
Approved:	DV
Scale:	NOT TO SCALE
Date:	01/24/2025
Project No:	21090
2080-DETAILS	C-900
Drawing No:	C–900

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NOT FOR CONSTRUCTION

NOTES PERTAINING TO DRAIN INLETS

A-1 STEPS WILL NOT BE REQUIRED IN INLETS LESS THAN FOUR (4) FEET IN DEPTH. STEPS WILL BE REQUIRED IN INLETS FOUR (4) FEET OR GREATER IN DEPTH. DEPTHS FOR DRAIN INLETS SHALL BE MEASURED FROM FINISHED GRADE TO INSIDE BOTTOM OF STRUCTURE (INCLUDING SUMP AS APPLICABLE).

A-2 WHEN STEPS ARE REQUIRED, STEPS SHALL COMPLY WITH THE SAME REQUIREMENTS OF ASTM STANDARD C-478, ARTICLE 13 ENTITLED "MANHOLE STEPS & LADDERS".

A-3 FOR MASONRY STRUCTURES, THE FIRST COURSE OF MASONRY SHALL BE SET IN THE CONCRETE FOUNDATION BEFORE THE CONCRETE HAS SET. CONCRETE FOUNDATION SHALL BE CLASS "A"(4000 psi) CONCRETE, TWELVE (12) INCHES THICK AND SHALL EXTEND SIX (6) INCHES BEYOND THE OUTSIDE FACE THE STRUCTURE.

A-4 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH AND CONSTRUCT THE PROPER SIZE STRUCTURE INCLUDING THE NECESSARY OPENINGS TO ACCOMMODATE THE WORK AS SHOWN ON THE PLANS OR ORDERED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

A-5 ALL NECESSARY PATCHING FOR DRAIN STRUCTURES SHALL BE ACCOMPLISHED WITH NON-SHRINKING CEMENT MORTAR GROUT, APPROVED EQUAL TO SIKA-SET AS MANUFACTURED BY THE SIKA CHEMICAL CORP.

A-6 FOUNDATIONS FOR PRECAST CONCRETE STRUCTURES SHALL BE SET ON A COMPACTED LAYER OF APPROVED CRUSHED STONE HAVING A MINIMUM COMPACTED THICKNESS OF EIGHT (8) INCHES.

A-7 ALL PIPES SHALL BE CUT FLUSH WITH THE INSIDE WALL OF THE STRUCTURE.

A-8 PROVIDE REINFORCED CONCRETE TOP SLAB FOR OVERSIZED DRAIN INLETS WITH PROPER SIZE OPENING TO ACCOMMODATE INSTALLATION OF FRAME & GRATE.

A-9 FOR MASONRY STRUCTURES GREATER THAN TEN (10) FEET IN DEPTH, THICKNESS OF MASONRY WALLS SHALL BE INCREASED TO TWELVE (12) INCHES.

A-10 FOR ALL STRUCTURES GREATER THAN 10 FEET IN DEPTH, STRUCTURES SHALL PROVIDE MINIMUM INSIDE DIMENSIONS OF 4 FEET X 4 FEET.

NOTES PERTAINING TO MANHOLES

B-1 PRECAST CONCRETE MANHOLES SHALL COMPLY WITH ASTM STANDARD C-478. MANHOLE JOINTS SHALL COMPLY WITH ASTM STANDARD C-443.

B-2 FOR PRECAST CONCRETE MANHOLES FIVE (5) FEET OR LESS IN HEIGHT, TOP CONE SECTION SHALL BE REPLACED WITH PRECAST REINFORCED CONCRETE SLAB (6" MIN. THICKNESS) WITH OPENING OF SUFFICIENT SIZE TO ACCOMMODATE MANHOLE CASTING.

B-3 FOR MANHOLES 10 FEET OR MORE IN DEPTH, MANHOLE DIAMETER SHALL BE FIVE (5) FEET.

B-4 TERMINAL MANHOLE FLOORS SHALL BE SLOPED TOWARD OUTFALL PIPE.

B-5 INVERT CHANNELS FOR PRECAST CONCRETE MANHOLES SHALL BE CONSTRUCTED OF CONCRETE.

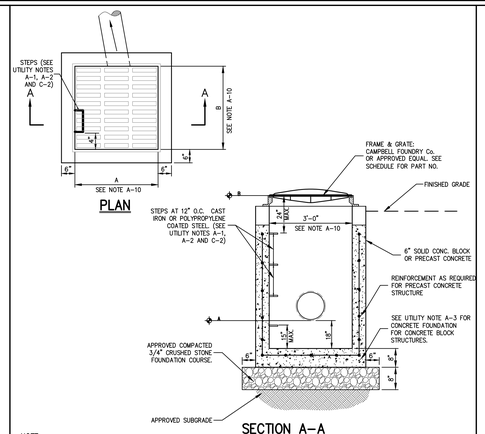
B-6 NOTES A-1, A-2, A-4, A-5, A-6 & A-7 UNDER "NOTES PERTAINING TO DRAIN INLETS" ABOVE SHALL APPLY TO MANHOLES.

NOTES PERTAINING TO PRECAST CONCRETE STRUCTURES FOR STORM DRAINS, SANITARY SEWERS AND WATER LINES

C-1 ALL PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE AN H-20 DESIGN LOAD.

C-2 STEPS SHALL BE LOCATED WITHIN STRUCTURE TO AVOID PLACEMENT OVER PIPES WHEN PRACTICABLE.

UTILITY NOTES — 12

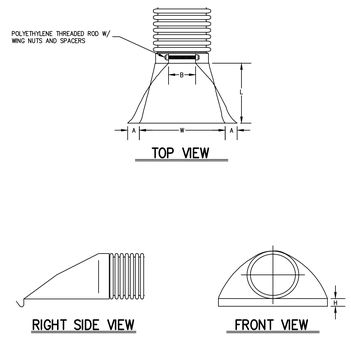


NOTE:
1. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING C-901

INFILTRATION BASIN RISER BOX — 13

STRUCTURE CHART

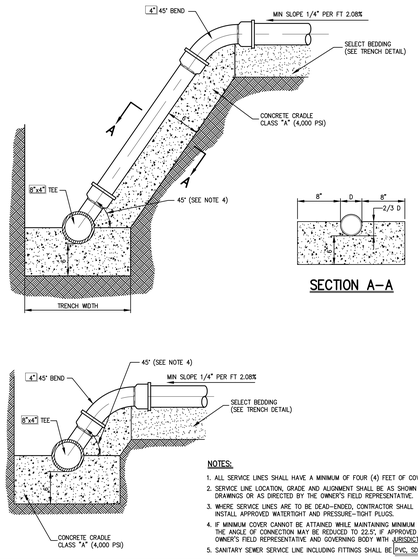
BASIN No.	STRUCTURE No.	ELEV GRATE (B)	DIMENSIONS (A x B)	FRAME & GRATE	PIPE SIZE AND INVERT ELEVATION PIPE OF (A)
1-B	OCS 1B-1	428.60	3' X 3'	2817	15" @ 424.65
1-C	OCS 1C-1	427.90	3' X 3'	2817	15" @ 423.65
1-D	OCS 1D-2	442.02	3' X 3'	2817	15" @ 439.00
2-B	OCS 2B-2	434.75	3' X 3'	2817	15" @ 430.00
3-A	OCS 3A-2	436.30	3' X 3'	2817	15" @ 432.30



NOTES:
1. FASTENERS SHALL BE GALVANIZED STEEL.
2. ALL DIMENSIONS ARE NOMINAL.

PIPE SIZE	A	B (MAX.)	H	L	W
12"	6.5"	10.0"	6.5"	25.0"	29.0"
15"	6.5"	10.0"	6.5"	25.0"	29.0"
18"	7.5"	15.0"	6.5"	32.0"	35.0"
24"	7.5"	18.0"	6.5"	36.0"	45.0"
30"	7.5"	12.0"	8.6"	58.0"	63.0"
36"	7.5"	25.0"	8.6"	58.0"	63.0"

END SECTION (PLASTIC) — 14

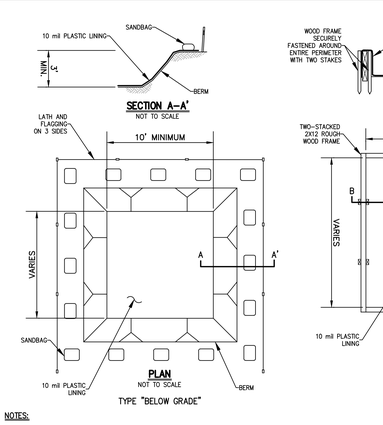


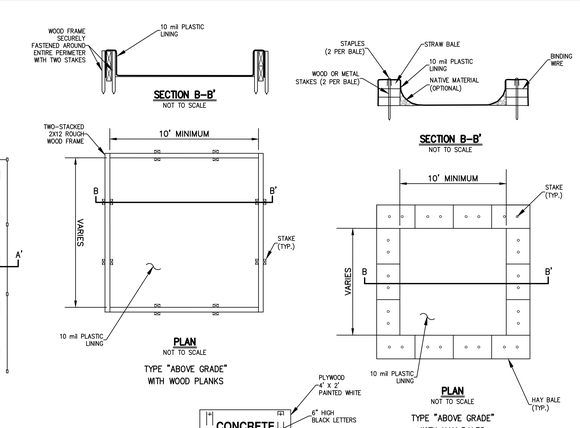
NOTES:
1. ALL SERVICE LINES SHALL HAVE A MINIMUM OF FOUR (4) FEET OF COVER.
2. SERVICE LINE LOCATION, GRADE AND ALIGNMENT SHALL BE AS SHOWN ON DRAWINGS OR AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.
3. WHERE SERVICE LINES ARE TO BE DEAD-ENDED, CONTRACTOR SHALL INSTALL APPROVED WATERTIGHT AND PRESSURE-TIGHT PLUGS.
4. IF MINIMUM COVER CANNOT BE ATTAINED WHILE MAINTAINING MINIMUM SLOPE, THE ANGLE OF CONNECTION MAY BE REDUCED TO 22.5°, IF APPROVED BY THE OWNER'S FIELD REPRESENTATIVE AND GOVERNING BODY WITH JURISDICTION.
5. SANITARY SEWER SERVICE LINE INCLUDING FITTINGS SHALL BE PVC, SDR 35

SANITARY SEWER SERVICE CONNECTION — 19

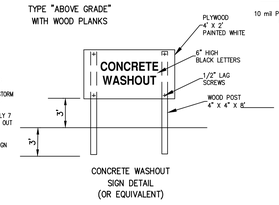
NOTES:
1. ALL CONCRETE THRUST BLOCKS SHALL BEAR ON UNDISTURBED GROUND.
2. RODDING SHALL CONSIST OF TWO 3/4" THREADED STEEL TIE RODS WITH NUTS AND WASHERS COMPLETE WITH ALL NECESSARY AND REQUIRED CLAMPS, CAREFULLY AND THOROUGHLY COVERED WITH ASPHALT OR OTHER ACCEPTABLE CORROSIVE RETARDING MATERIAL. IN GENERAL, THE METHOD AND TYPES OF MATERIALS REQUIRED IN THE INSTALLATION OF CLAMPS AND THE RODS SHALL BE IN ACCORDANCE WITH THE LATEST NATIONAL FIRE PROTECTION STANDARDS.
3. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR WITHIN TEN (10) FEET OF SANITARY SEWERS OR STORM DRAINS.
4. IF GROUND WATER IS FOUND WITHIN SEVEN (7) FEET OF THE SURFACE, HYDRANT DRAINS ARE TO BE PLUGGED. WHEN DRAINS ARE TO BE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. SUCH HYDRANTS SHALL BE IDENTIFIED WITH A VISIBLE MARKING AS APPROVED BY THE WATER AUTHORITY.

HYDRANT INSTALLATION — 20

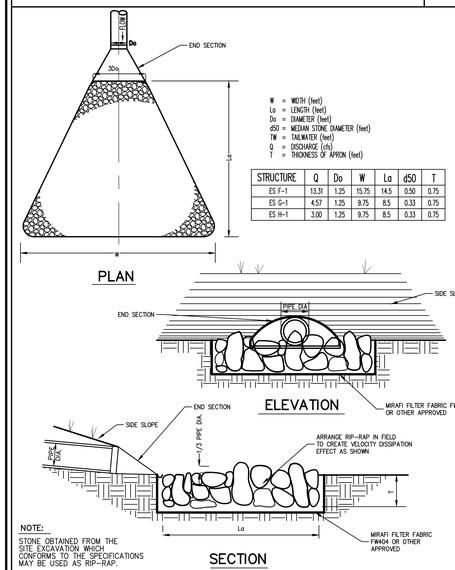




NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE AREAS SUCH AS STORM DRAINS, OPEN DITCHES, OR WATER BODIES, INCLUDING WETLANDS.
3. THE CONSTRUCTION STORMWATER GENERAL PERMIT DOES NOT ALLOW OPERATORS TO DISCHARGE CONCRETE WASH WATER TO WATERWAYS, STORM DRAINS OR GROUNDWATER. OPERATORS MUST MANAGE AND CONTAIN THIS WATER TO PREVENT SPILLS, LEAKS OR DISCHARGES. DO NOT USE SANITARY SEWER WITHOUT LOCAL APPROVAL.
4. WASHOUT FACILITIES SHALL BE SIZED TO CONTAIN ALL LIQUIDS AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. APPROXIMATELY 7 GALLONS OF WASH WATER ARE USED TO WASH ONE TRUCK CHUTE AND APPROXIMATELY 50 GALLONS OF WASH WATER ARE USED TO WASH OUT THE HOPPER OF A CONCRETE PUMP TRUCK.
5. WASHOUT FACILITIES SHALL BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 12 INCHES.
6. THE CONCRETE WASHOUT SIGN (SEE PAGE 6) SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY. A SIGN SHOULD BE INSTALLED ADJACENT TO EACH CONCRETE WASHOUT FACILITY.
7. THE FACILITY NEEDS TO BE INSPECTED DAILY TO ENSURE PLASTIC LININGS ARE STILL INTACT AND SIDEWALLS ARE NOT DAMAGED.
8. THE FACILITY NEEDS TO BE CLEANED OR CHANGED WHEN 75% FULL.
9. IF THE WASHOUT IS NEARING CAPACITY, VACUUM AND DISPOSE OF THE WASTE MATERIAL IN AN APPROVED MANNER AND INSTALL A NEW PLASTIC LINING AFTER EVERY CLEANING.
10. PLACE A SECURE, NON-COLLAPSING, NON-WATER COLLECTING COVER OVER THE CONCRETE WASHOUT FACILITY PRIOR TO PREDICTED WET WEATHER.



CONCRETE WASHOUT — 15

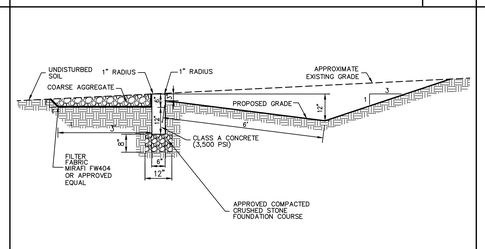


W = WIDTH (feet)
Lo = LENGTH (feet)
Do = DIAMETER (feet)
d50 = MEDIAN STONE DIAMETER (feet)
TW = TAILWATER (feet)
Q = DISCHARGE (cfs)
T = THICKNESS OF APRON (feet)

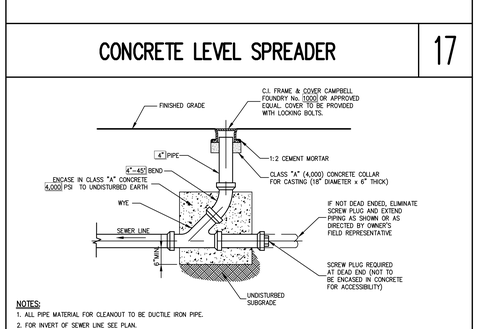
STRUCTURE	Q	Do	W	Lo	d50	T
ES F-1	13.31	1.25	15.75	14.5	0.50	0.75
ES G-1	4.57	1.25	9.75	8.5	0.33	0.75
ES H-1	3.00	1.25	9.75	8.5	0.33	0.75

NOTE:
STONE OBTAINED FROM THE SITE EXCAVATION WHICH CONFORMS TO THE SPECIFICATIONS MAY BE USED AS RIP-RAP.

RIP-RAP APRON/ENERGY DISSIPATOR — 16
END SECTION

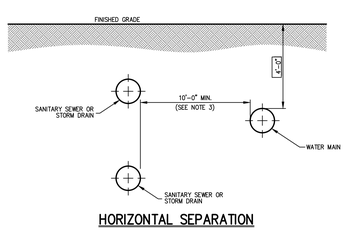


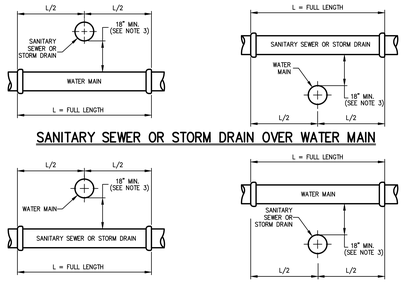
CONCRETE LEVEL SPREADER — 17



NOTES:
1. ALL PIPE MATERIAL FOR CLEANOUT TO BE DUCTILE IRON PIPE.
2. FOR INVERT OF SEWER LINE SEE PLAN.

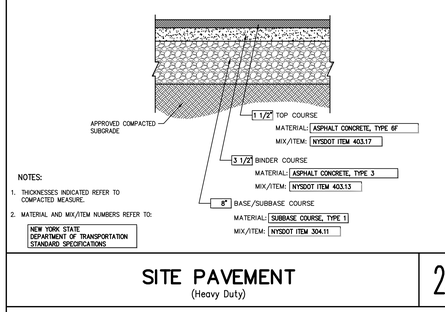
CLEANOUT W/O MANHOLE — 18





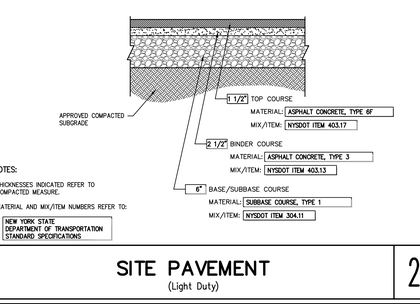
NOTES:
1. NORMAL CONDITIONS:
   A. WHENEVER A WATER MAIN MUST CROSS OVER OR UNDER A SANITARY SEWER OR STORM DRAIN, THE PIPES SHALL BE LAID TO PROVIDE A VERTICAL SEPARATION BETWEEN THEM OF AT LEAST 18 INCHES, AS MEASURED FROM THE BOTTOM OF THE HIGHER PIPE TO THE CROWN OF THE LOWER PIPE.
   B. FULL LENGTH OF WATER PIPE MUST BE CENTERED AT THE POINT OF CROSSING; NO JOINTS WILL BE PERMITTED AT THE POINT OF CROSSING.
2. WATER MAIN CROSSING UNDER SANITARY SEWERS:
   A. VERTICAL SEPARATION OF 18 INCHES MUST BE PROVIDED.
   B. ADEQUATE STRUCTURAL SUPPORT MUST BE PROVIDED FOR THE SANITARY SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING.
   C. FULL LENGTH OF WATER PIPE MUST BE CENTERED AT THE POINT OF CROSSING; NO JOINTS WILL BE PERMITTED AT THE POINT OF CROSSING.
3. IF DURING CONSTRUCTION IT IS FOUND THAT THE REQUIRED SEPARATION OF WATER MAINS, SANITARY SEWERS, STORM SEWERS AND BUILDING SANITARY SEWERS CANNOT BE MET, THE CONTRACTOR OR HIS AUTHORIZED REPRESENTATIVE SHALL IN WRITING ADVISE JOHN MEYER CONSULTING OF THE SPECIFIC CONDITIONS ENCOUNTERED. APPROVAL OF ALTERNATIVE SEPARATION CRITERIA SHALL BE OBTAINED FROM THE [ ] PRIOR TO INSTALLATION.

SEPARATION OF WATER AND SANITARY SEWER/STORM DRAIN LINES — 22



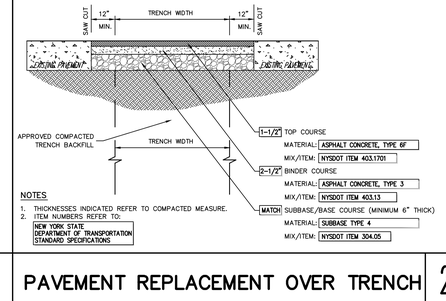
NOTES:
1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. MATERIAL AND MIX/ITEM NUMBERS REFER TO: NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS

SITE PAVEMENT (Heavy Duty) — 23



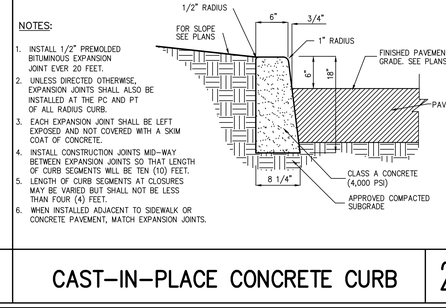
NOTES:
1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. MATERIAL AND MIX/ITEM NUMBERS REFER TO: NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS

SITE PAVEMENT (Light Duty) — 24



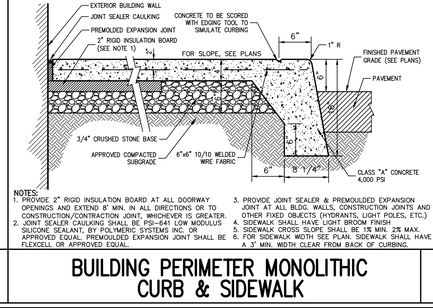
NOTES
1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. ITEM NUMBERS REFER TO: NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS

PAVEMENT REPLACEMENT OVER TRENCH — 25



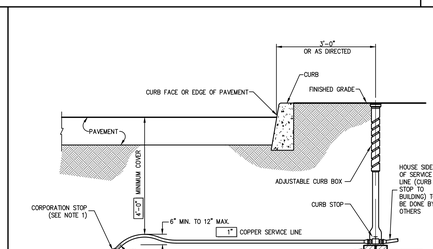
NOTES:
1. INSTALL 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT EVERY 20 FEET.
2. UNLESS DIRECTED OTHERWISE, EXPANSION JOINTS SHALL ALSO BE INSTALLED AT THE PC AND PT OF ALL RADIUS CURB.
3. EACH EXPANSION JOINT SHALL BE LEFT EXPOSED AND NOT COVERED WITH A SKIM COAT OF CONCRETE.
4. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
5. LENGTH OF CURB SEGMENTS AT CLOSURES MAY BE VARIED BUT SHALL NOT BE LESS THAN FOUR (4) FEET.
6. WHEN INSTALLED ADJACENT TO SIDEWALK OR CONCRETE PAVEMENT, MATCH EXPANSION JOINTS.

CAST-IN-PLACE CONCRETE CURB — 26



NOTES:
1. PROVIDE 2" RIGID INSULATION BOARD AT ALL DOORWAY OPENINGS AND EXTEND 8' MIN. IN ALL DIRECTIONS OR TO CONSTRUCTION/CONTRACTION JOINT, WHICHEVER IS GREATER.
2. JOINT SEALER CAULKING SHALL BE PSI-641 LOW MODULUS SILICONE SEALANT, BY POLYMERIC SYSTEMS INC. OR APPROVED EQUAL. PREMOLDED EXPANSION JOINT SHALL BE FLEXCELL OR APPROVED EQUAL.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH
5. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. 2% MAX.
6. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.

BUILDING PERIMETER MONOLITHIC CURB & SIDEWALK — 28

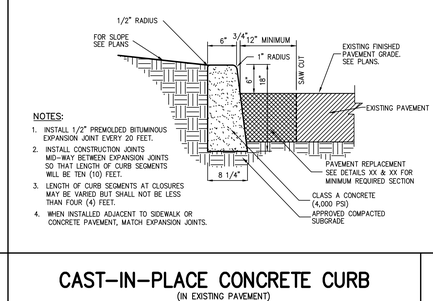


SERVICE LINE REQUIREMENTS

SIZE	SERVICE LINE(MATERIALS)	CORPORATION STOP	CURB STOP	CURB BOX	ENLARGED BASE
3/4"	COPPER, TYPE K	H-15008 N	H-15214 N	H-10308	Not Applicable
1"	COPPER, TYPE K	H-15008 N	H-15214 N	H-10308	Not Applicable
1-1/2"	COPPER, TYPE K	H-15013 N	H-15214 N	H-10310	Not Applicable
2"	COPPER, TYPE K	H-15013 N	H-15214 N	H-10310	H-10349

NOTES:
1. INSTALLATION OF 1-1/2" AND 2" CORPORATION STOPS SHALL BE MADE IN THE UPPER PIPE QUADRANT, BUT MAY BE MADE AT ANGLES LESS THAN 45° IF APPROVED BY THE OWNER'S FIELD REPRESENTATIVE.
2. SERVICE LINE SHALL HAVE NO JOINTS BETWEEN THE WATER MAIN AND CURB STOP.
3. CORPORATION STOP, CURB STOP, CURB BOX AND ENLARGED BASE FOR CURB BOX SHALL BE MUELLER COMPANY OR APPROVED EQUAL. CATALOG NUMBERS SHOWN REFER TO MUELLER COMPANY.
4. ALL SERVICE BRASS SHALL COMPLY WITH AWWA C-800. COMPONENTS IN CONTACT WITH POTABLE WATER SHALL ALSO COMPLY WITH LATEST REQUIREMENTS OF THE FEDERAL SAFE DRINKING WATER ACT.

WATER SERVICE CONNECTION (2" OR LESS) — 21



NOTES:
1. INSTALL 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT EVERY 20 FEET.
2. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
3. LENGTH OF CURB SEGMENTS AT CLOSURES MAY BE VARIED BUT SHALL NOT BE LESS THAN FOUR (4) FEET.
4. WHEN INSTALLED ADJACENT TO SIDEWALK OR CONCRETE PAVEMENT, MATCH EXPANSION JOINTS.

CAST-IN-PLACE CONCRETE CURB (IN EXISTING PAVEMENT) — 27

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NOT FOR CONSTRUCTION

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1.	ISSUED FOR DES COMPLETENESS	01/24/2025	PK
2.	DES COMPLETENESS SUBMISSION	02/28/2025	NB
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Previous Editions Obsolete

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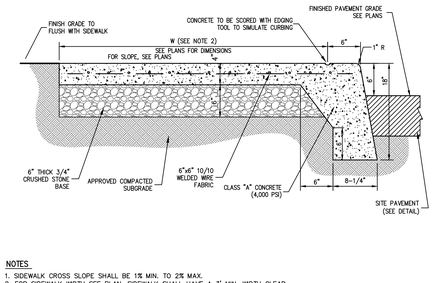
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CONSTRUCTION DETAILS
LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF ARTICLE 145 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

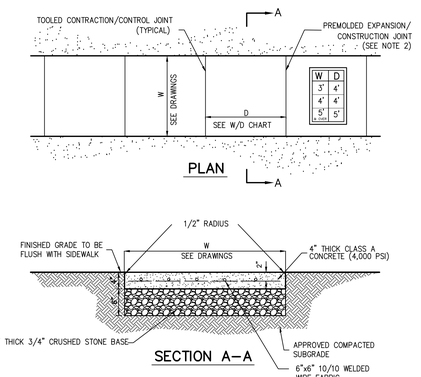
Drawn:	BMS	Approved:	DV
Scale:	NOT TO SCALE		
Date:	01/24/2025		
Project No.	21090		
2080-DETAILS	C-901	-	
Drawing No:	C-901		



NOTES

1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, EXPANSION/CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH.
5. PROVIDE 1/2" PREMOULDED EXPANSION JOINTS AT 20 FOOT INTERVALS UNLESS OTHERWISE DIRECTED.
6. REINFORCEMENT SHALL NOT EXTEND THROUGH EXPANSION JOINTS.
7. ALL CONRTACTION/CONTROL JOINTS AND EXPANSION/CONSTRUCTION JOINTS SHALL BE WELL TOOLED, HAND TROWELED JOINTS.

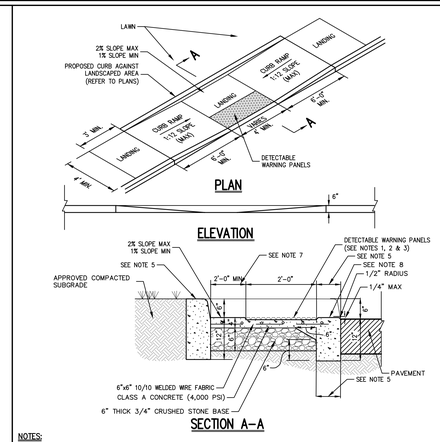
MONOLITHIC CONCRETE CURB AND SIDEWALK 29



NOTES:

1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. PROVIDE 1/2" PREMOLDED EXPANSION JOINTS AT 20' INTERVALS UNLESS OTHERWISE DIRECTED.
3. REINFORCING SHALL NOT EXTEND THROUGH EXPANSION JOINTS.
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH.
5. ALL CONTRACTION/CONTROL JOINTS AND EXPANSION/CONSTRUCTION JOINTS SHALL BE WELL TOOLED, HAND TROWELED JOINTS.

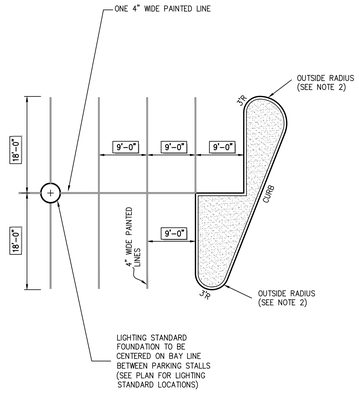
CONCRETE SIDEWALK 30



NOTES:

1. RAMPS SHALL HAVE CAST IN PLACE DETECTABLE/TACTILE WARNING SURFACE TILES AS MANUFACTURED BY ARMOR-TILE (OR APPROVED EQUAL) AND SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES.
2. DETECTABLE WARNING PANELS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT IN ACCORDANCE WITH SECTION 4.29.2, FEDERAL REGISTER, VOLUME 56, NO. 144, RULES AND REGULATIONS, APPENDIX A TO PART 36 – STANDARDS FOR ACCESSIBLE DESIGN (AMERICANS WITH DISABILITIES ACT), LATEST EDITION.
3. 24" WIDTH OF PANELS TO BE INSTALLED DIRECTLY BEHIND CURB AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.)
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE AND SEE CURB DETAIL FOR DIMENSIONS.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. WHEN LANDING OF RAMP ADJOINS A DOORWAY THEN THE MINIMUM DOORWAY MANEUVERING AREA SHALL BE AT LEAST THE WIDTH OF THE DOORWAY AND SHALL HAVE A MINIMUM DEPTH OF:
   MANUAL SWING DOORS = 60" MIN.
   FULL POWERED AUTOMATIC SWING DOORS = 48" MIN.
8. CONTRACTOR TO ENSURE TOP OF CURB MATCHES SLOPE OF RAMP.

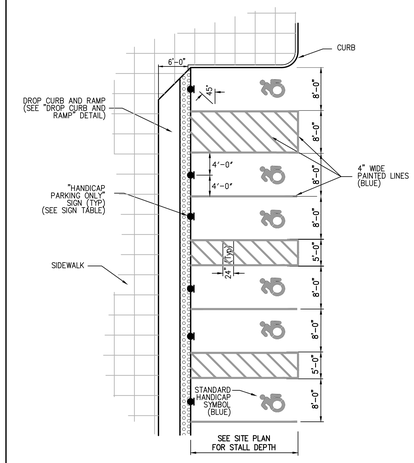
DROP CURB & RAMP (TYPE B)
WITH DETECTABLE WARNING 31



NOTES

1. COLOR OF PAINT SHALL BE WHITE
2. OUTSIDE RADIUS MAY VARY DEPENDING ON SHAPE OF ISLAND. RADIUS SHALL BE AS SHOWN ON LAYOUT PLAN.

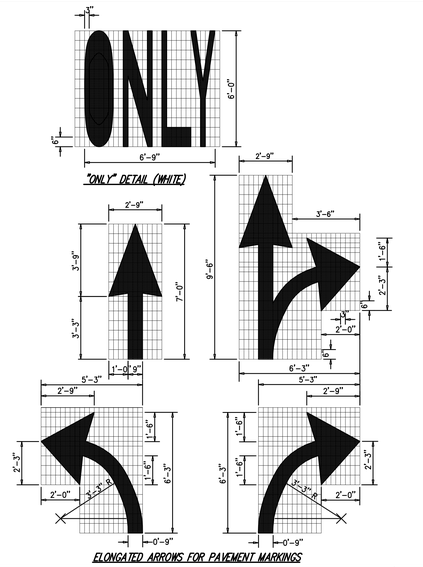
90° PARKING
(SINGLE STRIPING–CURBED END) 32



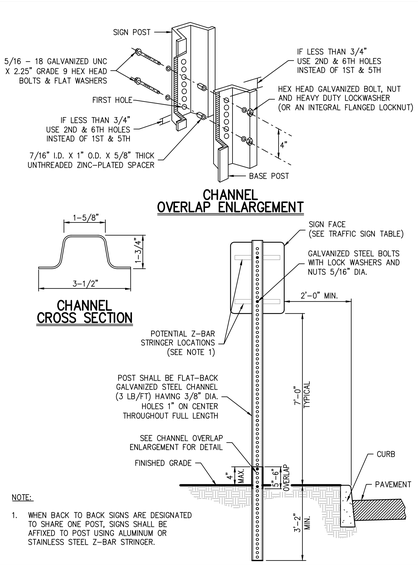
NOTE: SLOPES IN HANDICAP PARKING

1. AREAS SHALL NOT EXCEED 1.5% IN ANY DIRECTION.
2. SEE SITE PLANS / SIGN TABLE FOR SIGN DESIGNATIONS, LOCATORS AND SPECIFICATIONS.

HANDICAP PARKING
(SINGLE STRIPING – CURBLINE ALIGNMENT – W/SIDEWALK) (ADA) 33



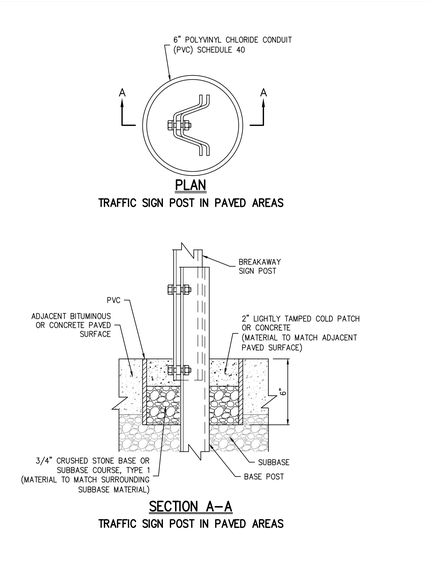
PAVEMENT TEXT & ARROWS
(ON-SITE) 34

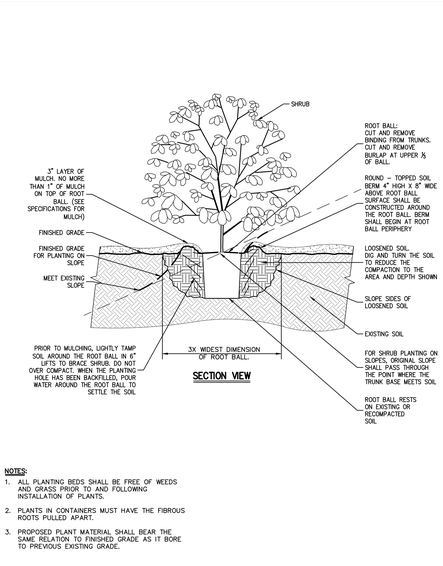


NOTE:

1. WHEN BACK TO BACK SIGNS ARE DESIGNATED TO SHARE ONE POST, SIGNS SHALL BE AFFIXED TO POST USING ALUMINUM OR STAINLESS STEEL Z-BAR STRINGER.

TRAFFIC SIGN POST
(BREAKAWAY STEEL CHANNEL) 35

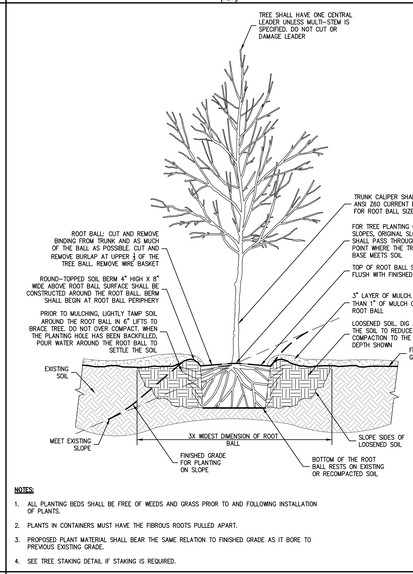




NOTES:

1. ALL PLANTING BEDS SHALL BE FREE OF WEEDS AND GRASS PRIOR TO AND FOLLOWING INSTALLATION OF PLANTS.
2. PLANTS IN CONTAINERS MUST HAVE THE FIBROUS ROOTS PULLED APART.
3. PROPOSED PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.

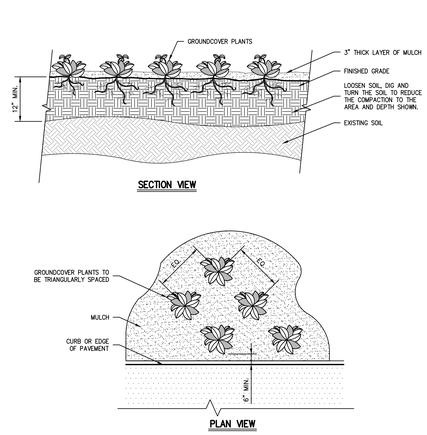
SHRUB PLANTING 36



NOTES:

1. ALL PLANTING BEDS SHALL BE FREE OF WEEDS AND GRASS PRIOR TO AND FOLLOWING INSTALLATION OF PLANTS.
2. PLANTS IN CONTAINERS MUST HAVE THE FIBROUS ROOTS PULLED APART.
3. PROPOSED PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.
4. SEE TREE STAKING DETAIL IF STAKING IS REQUIRED.

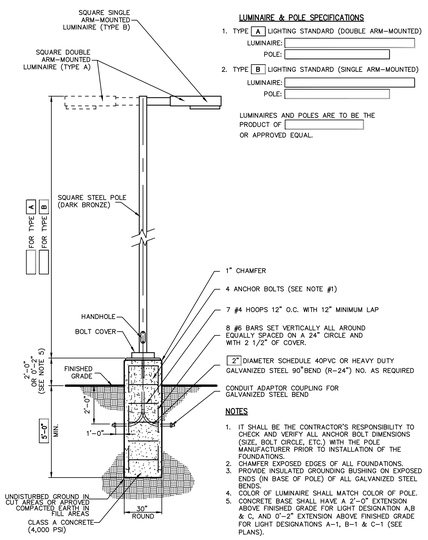
TREE PLANTING
(DECIDUOUS AND EVERGREEN) 37



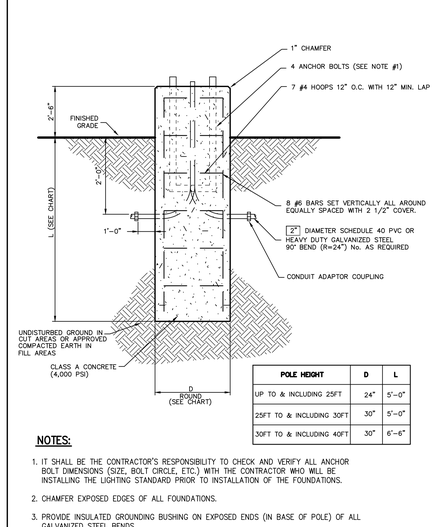
NOTES:

1. SEE PLANTING PLAN FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
2. SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PLANT PRIOR TO MULCHING.
3. ALL PLANTING BEDS SHALL BE FREE OF WEEDS AND GRASS PRIOR TO AND FOLLOWING INSTALLATION OF PLANTS.
4. PLANTS IN CONTAINERS MUST HAVE THE FIBROUS ROOTS PULLED APART.
5. PROPOSED PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.

GROUNDCOVER 38



LIGHTING STANDARD
(Arm Mounted) 39

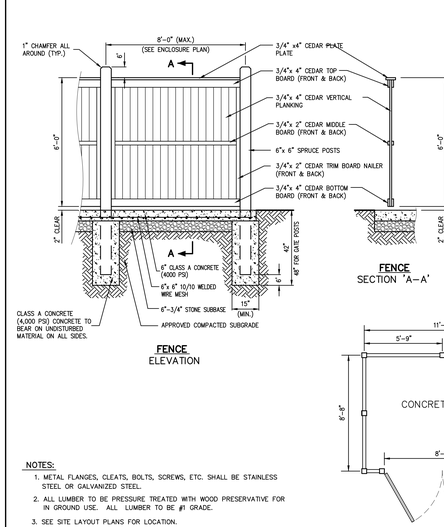


POLE HEIGHT	D	L
UP TO & INCLUDING 25FT	24"	5'-0"
25FT TO & INCLUDING 30FT	30"	5'-0"
30FT TO & INCLUDING 40FT	30"	6'-6"

NOTES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL ANCHOR BOLT DIMENSIONS (SIZE, BOLT CIRCLE, ETC.) WITH THE CONTRACTOR WHO WILL BE INSTALLING THE LIGHTING STANDARD PRIOR TO INSTALLATION OF THE FOUNDATIONS.
2. CHAMFER EXPOSED EDGES OF ALL FOUNDATIONS.
3. PROVIDE INSULATED GROUNDING BUSHING ON EXPOSED ENDS (IN BASE OF POLE) OF ALL GALVANIZED STEEL BENDS.
4. POLES AND LUMINAIRES WILL BE FURNISHED AND INSTALLED BY OTHERS.

LIGHTING STANDARD FOUNDATION
(ROUND) 40



NOTES:

1. METAL FLANGES, CLEATS, BOLTS, SCREWS, ETC. SHALL BE STAINLESS STEEL OR GALVANIZED STEEL.
2. ALL LUMBER TO BE PRESSURE TREATED WITH WOOD PRESERVATIVE FOR IN GROUND USE. ALL LUMBER TO BE #1 GRADE.
3. SEE SITE LAYOUT PLANS FOR LOCATION.

TRASH ENCLOSURE WITH CONCRETE PAD
(WOOD) 41

No.	Revision	Date	By
1.	ISSUED FOR DES COMPLETENESS	01/24/2025	PK
2.	DES COMPLETENESS SUBMISSION	02/28/2025	NB
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LAMBERTVILLE, NJ

CONSTRUCTION DETAILS

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

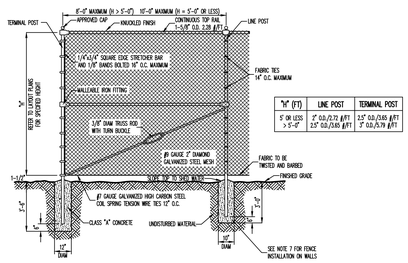
ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF ARTICLE 145 OF THE NEW YORK STATE EDUCATION LAW. EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
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www.jmcpllc.com

Drawn:	BMS
Approved:	DV
Scale:	NOT TO SCALE
Date:	01/24/2025
Project No:	21090
2090-DETAILS	C-902
Drawing No:	C-902

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NOT FOR CONSTRUCTION



NOTES:

1. ALL POSTS, RAILS, FABRIC AND ACCESSORIES SHALL BE GALVANIZED.
2. POST AND RAILS SHALL BE STANDARD FULL WEIGHT GALVANIZED SCHEDULE 40 PIPE MANUFACTURED AND GALVANIZED IN ACCORDANCE WITH ASTM A120. ALL MATERIALS SHALL BE NEW AND FIRST CLASS AND SHALL NOT INCLUDE RECONDITIONED OR REROLLED PIPE.
3. FITTINGS SHALL BE MALLEABLE IRON FITTINGS CONFORMING TO THE REQUIREMENTS OF ASTM A47 GALVANIZED IN ACCORDANCE WITH ASTM A153.
4. FABRIC SHALL BE 9 GAUGE GALVANIZED 2" MESH. TOP SELVAGE SHALL HAVE KNUCKLED FINISH.
5. TENSION WIRE SHALL BE 7 GAUGE MEETING THE REQUIREMENTS OF ASTM A641 AS MODIFIED HEREIN. THE TENSILE STRENGTH SHALL BE AT LEAST 80,000 PSI WITH A GALVANIZED COATING OF NOT LESS THAN 0.7 OZ. PER SQUARE FOOT.
6. FABRIC TIES SHALL BE MINIMUM 9 GAUGE GALVANIZED STEEL OR ALUMINUM. MINIMUM SPACING SHALL BE AS FOLLOWS:
   A. 14" O.C. AT LINE POSTS
   B. 24" O.C. AT TOP RAIL
   C. 12" O.C. AT TENSION WIRE
7. WHERE CHAIN LINK FENCE IS TO BE INSTALLED ON WALLS, THE FENCE POSTS SHALL BE IMBEDDED A MINIMUM OF TWELVE (12) INCHES IN THE WALL. NEWLY CONSTRUCTED WALLS SHALL BE PROVIDED WITH PROPER SIZE SLEEVES TO ACCOMMODATE FENCE POSTS. FENCE POSTS SHALL BE SECURELY GROUTED IN PLACE USING AN APPROVED HIGH STRENGTH, NON-SHRINKING, NON-STAINING GROUT.
8. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT SHOP AND ERECTION DRAWINGS INDICATING MATERIALS, SIZES AND DIMENSIONS OF FENCING TO THE OWNER'S FIELD REPRESENTATIVE PRIOR TO ORDERING MATERIALS FOR HIS REVIEW AND APPROVAL.
9. PRIOR TO INSTALLATION OF THE FENCE, THE CONTRACTOR SHALL CHECK THE FENCE LAYOUT WITH THE OWNER'S FIELD REPRESENTATIVE WHO MUST APPROVE THE LAYOUT BEFORE ANY OF THE WORK IS TO BE DONE.

CHAIN LINK FENCE
(GALVANIZED)

42

MASTERFUL ENGINEERING.

BG790
INDUSTRIAL AC BARRIER GATE OPERATOR



MECHANICS
- 1/2 HP Continuous-Duty Motor
- Wormgear Reduction 60:1 Reducer in Oil Bath

POWER
- 115/230/230VAC Single Phase—60Hz
- 208/230/460/575VAC 3 Phase
- Accessory Power 1—24VAC 1—115VAC (Available Only with the 115V Model)

COMMERCIAL-GRADE DESIGN
- Metal Frame 11-Gauge Pre-Galvanized Steel
- UL® 325: Class I, II, III and IV
- Weight: Operator—350 lbs.

11 Seconds to Open 11 Seconds to Close SPEED

DIMENSIONS
Max. Gate (Length)—24 ft.

CAPACITIES
Max. Gate (Weight)—50 lbs. Cycles—25/Hour

STANDARD FEATURES.

RIGHT- OR LEFT-HANDED OPERATION
Provides Flexibility to Fit Your Application and Ease of Installation

BSOLM RADIO RECEIVER
- Universal Receiver for Commercial Applications

POWER ON/OFF SWITCH

REMOVABLE TOP AND SIDE PANELS FOR EASY ACCESS
- Stores up to 150 Remote Controls

SUPPORT.

For Support Tools and Training Videos, Visit LiftMasterTraining.com

For More Information on Gate Operators, Visit LiftMaster.com/ULS325Gates

To Find the Right Perimeter Access Solution for You, Visit LiftMaster.com/Solution-Generator

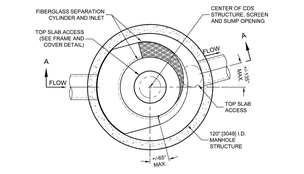
Sales Support: 800.282.6225
Technical Support Center: 800.528.2806
To Order: 800.323.2276

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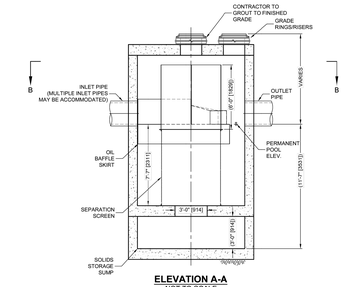
LiftMaster

SWING GATE
(LIFTMASTER BG790 OR APPROVED EQUAL)

43



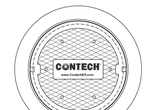
PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CDS5668-10-C DESIGN NOTES

CDS5668-10-C STANDARD CONFIGURATION IS SHOWN.



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH *	HEIGHT *	
NOTES/SPECIAL REQUIREMENTS: * PER ENGINEER OF RECORD			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
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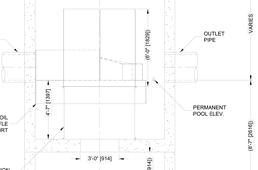
CDS HYDRODYNAMIC SEPARATOR

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No.	Revision	Date	By
1.	ISSUED FOR DES COMPLETENESS	01/24/2025	PK
2.	DES COMPLETENESS SUBMISSION	02/28/2025	NB
3.	ISSUED FOR FEES REVIEW	08/15/2025	NB

Previous Editions Obsolete

X



PLAN VIEW B-B
NOT TO SCALE.

ELEVATION A-A
NOT TO SCALE.

CDS2025-5-C DESIGN NOTES

CDS2025-5-C STANDARD CONFIGURATION IS SHOWN.
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FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
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PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
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OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH *	HEIGHT *	
NOTES/SPECIAL REQUIREMENTS: * PER ENGINEER OF RECORD			

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CDS HYDRODYNAMIC SEPARATOR

45

PLAN VIEW B-B
NOT TO SCALE

ELEVATION A-A
NOT TO SCALE

CDS4030-8-C DESIGN NOTES

CDS4030-8-C STANDARD CONFIGURATION IS SHOWN.

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH *	HEIGHT *	
NOTES/SPECIAL REQUIREMENTS: * PER ENGINEER OF RECORD			

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STANDARD DETAIL

CDS HYDRODYNAMIC SEPARATOR

46

X

PLAN VIEW B-B
NOT TO SCALE

ELEVATION A-A
NOT TO SCALE

CDS5640-10-C DESIGN NOTES

CDS5640-10-C STANDARD CONFIGURATION IS SHOWN.

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
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OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH *	HEIGHT *	
NOTES/SPECIAL REQUIREMENTS: * PER ENGINEER OF RECORD			

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STANDARD DETAIL

CDS HYDRODYNAMIC SEPARATOR

47

PLAN VIEW B-B
NOT TO SCALE

ELEVATION A-A
NOT TO SCALE

CDS5653-10-C DESIGN NOTES

CDS5653-10-C STANDARD CONFIGURATION IS SHOWN.
FOR NJDEP PROJECTS, PLEASE CONTACT YOUR LOCAL CONTECH REPRESENTATIVE FOR APPROVED CONFIGURATIONS.

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
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RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH *	HEIGHT *	
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ONLINE CDS
STANDARD DETAIL

CDS HYDRODYNAMIC SEPARATOR

48

X

APPLICANT:
HAVERSTRAW GROUP LLC
16 MICROLAB ROAD, SUITE A
LIVINGSTON, NJ 07039

ARCHITECT:
MINNO & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE, SUITE 105
LAMBERTVILLE, NJ

CONSTRUCTION DETAILS

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
LETCHWORTH VILLAGE ROAD
HAVERSTRAW, NY

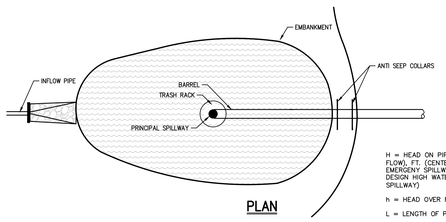
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Project No:	21090
2090-STMS	C-903
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PLAN

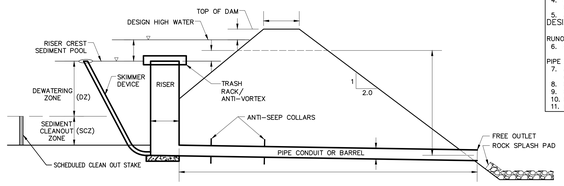
H = HEAD ON PIPE SPILLWAY (PIPE FLOW), FT. (CENTERLINE OF OUTLET TO EMERGENY SPILLWAY CREST OR TO DESIGN HIGH WATER IF NO EMERGENCY SPILLWAY)

h = HEAD OVER RISER CREST, FT.

L = LENGTH OF PIPE IN, FT.

Dp = DIAMETER OF PIPE CONDUIT (BARREL)

Dr = DIAMTER OF RISER



SECTION

NOTES:

1. REFER TO SEDIMENT & EROSION CONTROL PLAN NOTES ON DRAWINGS C-401 AND C-402 "EROSION AND SEDIMENT CONTROL PLAN"

TSB-1B SIZE DESIGN

1. SEDIMENT STORAGE ZONE VOLUME = 1,000 CU. FT * NUMBER OF DISTURBED ACRES = **5,240** CU. FT., TOP OF ZONE ELEV. **425.70**
2. DEWATERING ZONE VOLUME = 3,600 CU. FT. * NUMBER OF DRAINAGE AREA ACRES = **18,864** CU. FT., TOP OF ZONE ELEV. **428.55**
3. LENGTH TO WIDTH RATIO = **2.0**
4. A. CLEANOUT AT 50% OF SEDIMENT STORAGE ZONE VOLUME, ELEV. **425.11**
   B. DISTANCE BELOW TOP OF RISER **2.89** FEET
5. MINIMUM SURFACE AREA IS LARGER OF 0.01 $Q_{(10)}$ **0.25** OR, 0.015 DA = **0.08** USE **0.25** ACRES

DESIGN OF SPILLWAYS & ELEVATIONS

RUNOFF
6. $Q_{P(10)}$ = **25.00** CFS (AS SHOWN ON RUNOFF COMPUTATION SHEETS)

PIPE SPILLWAY (Q_{DP})
7. MIN. PIPE SPILLWAY CAP., Q_{PS} = 0.2 * **5.24** DRAINAGE AREA, ACRES = **1.05** CFS
   NOTE: IF THERE IS NO EMERGENCY SPILLWAY, THEN REQUIRED $Q_{PS} = Q_{P(10)}$ = **N/A** CFS
8. H, HEAD = **4.38** FT. BARREL LENGTH = **100.38** FT
9. BARREL: DIAM. **15** INCHES; Q_{DP} = (Q) **1.05** * (COR.FAC.) **0.91** = **24.42** CFS.
10. RISER: DIAM. **15** INCHES; LENGTH **4** FT.; h = **0.20** FT. CREST ELEV. **428.00**
11. TRASH RACK: DIAMETER = **21** INCHES; H_r, HEIGHT = **7** INCHES

TSB-1D SIZE DESIGN

1. SEDIMENT STORAGE ZONE VOLUME = 1,000 CU. FT * NUMBER OF DISTURBED ACRES = **5,290** CU. FT., TOP OF ZONE ELEV. **440.41**
2. DEWATERING ZONE VOLUME = 3,600 CU. FT. * NUMBER OF DRAINAGE AREA ACRES = **19,044** CU. FT., TOP OF ZONE ELEV. **441.88**
3. LENGTH TO WIDTH RATIO = **2.04**
4. A. CLEANOUT AT 50% OF SEDIMENT STORAGE ZONE VOLUME, ELEV. **440.21**
   B. DISTANCE BELOW TOP OF RISER **3.79** FEET
5. MINIMUM SURFACE AREA IS LARGER OF 0.01 $Q_{(10)}$ **0.25** OR, 0.015 DA = **0.08** USE **0.25** ACRES

DESIGN OF SPILLWAYS & ELEVATIONS

RUNOFF
6. $Q_{P(10)}$ = **25.26** CFS (AS SHOWN ON RUNOFF COMPUTATION SHEETS)

PIPE SPILLWAY (Q_{DP})
7. MIN. PIPE SPILLWAY CAP., Q_{PS} = 0.2 * **5.29** DRAINAGE AREA, ACRES = **1.06** CFS
   NOTE: IF THERE IS NO EMERGENCY SPILLWAY, THEN REQUIRED $Q_{PS} = Q_{P(10)}$ = **N/A** CFS
8. H, HEAD = **23.28** FT. BARREL LENGTH = **125.97** FT
9. BARREL: DIAM. 15 INCHES; Q_{DP} = (Q) **1.06** * (COR.FAC.) **0.85** = **0.61** CFS.
10. RISER: DIAM. **15** INCHES; LENGTH **4** FT.; h = **0.20** FT. CREST ELEV. **444.00**
11. TRASH RACK: DIAMETER = **21** INCHES; H_r, HEIGHT = **7** INCHES

TSB-2B SIZE DESIGN

1. SEDIMENT STORAGE ZONE VOLUME = 1,000 CU. FT * NUMBER OF DISTURBED ACRES = **6,100** CU. FT., TOP OF ZONE ELEV. **433.83**
2. DEWATERING ZONE VOLUME = 3,600 CU. FT. * NUMBER OF DRAINAGE AREA ACRES = **21,960** CU. FT., TOP OF ZONE ELEV. **434.88**
3. LENGTH TO WIDTH RATIO = **2.08**
4. A. CLEANOUT AT 50% OF SEDIMENT STORAGE ZONE VOLUME, ELEV. **433.67**
   B. DISTANCE BELOW TOP OF RISER **1.33** FEET
5. MINIMUM SURFACE AREA IS LARGER OF 0.01 $Q_{(10)}$ **0.29** OR, 0.015 DA = **0.09** USE **0.29** ACRES

DESIGN OF SPILLWAYS & ELEVATIONS

RUNOFF
6. $Q_{P(10)}$ = **29.12** CFS (AS SHOWN ON RUNOFF COMPUTATION SHEETS)

PIPE SPILLWAY (Q_{DP})
7. MIN. PIPE SPILLWAY CAP., Q_{PS} = 0.2 * **6.10** DRAINAGE AREA, ACRES = **1.22** CFS
   NOTE: IF THERE IS NO EMERGENCY SPILLWAY, THEN REQUIRED $Q_{PS} = Q_{P(10)}$ = **N/A** CFS
8. H, HEAD = **8.25** FT. BARREL LENGTH = **46.2** FT
9. BARREL: DIAM. **15** INCHES; Q_{DP} = (Q) **1.5** * (COR.FAC.) **1.10** = **1.34** CFS.
10. RISER: DIAM. **15** INCHES; LENGTH **1.5** FT.; h = **0.23** FT. CREST ELEV. **435.00**
11. TRASH RACK: DIAMETER = **21** INCHES; H_r, HEIGHT = **7** INCHES

TSB-3A SIZE DESIGN

1. SEDIMENT STORAGE ZONE VOLUME = 1,000 CU. FT * NUMBER OF DISTURBED ACRES = **5,060** CU. FT., TOP OF ZONE ELEV. **435.87**
2. DEWATERING ZONE VOLUME = 3,600 CU. FT. * NUMBER OF DRAINAGE AREA ACRES = **19,044** CU. FT., TOP OF ZONE ELEV. **437.07**
3. LENGTH TO WIDTH RATIO = **3.04**
4. A. CLEANOUT AT 50% OF SEDIMENT STORAGE ZONE VOLUME, ELEV. **435.68**
   B. DISTANCE BELOW TOP OF RISER **1.32** FEET
5. MINIMUM SURFACE AREA IS LARGER OF 0.01 $Q_{(10)}$ **0.24** OR, 0.015 DA = **0.08** USE **0.24** ACRES

DESIGN OF SPILLWAYS & ELEVATIONS

RUNOFF
6. $Q_{P(10)}$ = **24.18** CFS (AS SHOWN ON RUNOFF COMPUTATION SHEETS)

PIPE SPILLWAY (Q_{DP})
7. MIN. PIPE SPILLWAY CAP., Q_{PS} = 0.2 * **5.06** DRAINAGE AREA, ACRES = **1.01** CFS
   NOTE: IF THERE IS NO EMERGENCY SPILLWAY, THEN REQUIRED $Q_{PS} = Q_{P(10)}$ = **N/A** CFS
8. H, HEAD = **5.38** FT. BARREL LENGTH = **70.85** FT
9. BARREL: DIAM. **15** INCHES; Q_{DP} = (Q) **1.06** * (COR.FAC.) **1.00** = **1.06** CFS.
10. RISER: DIAM. **15** INCHES; LENGTH **4** FT.; h = **0.20** FT. CREST ELEV. **437.00**
11. TRASH RACK: DIAMETER = **21** INCHES; H_r, HEIGHT = **7** INCHES

TEMPORARY SEDIMENT BASIN DETAIL

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No.	Revision	Date	By
	Revised Edition Obsolete		

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CONSTRUCTION DETAILS

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HAVERSTRAW, NY

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF ARTICLE 145 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2

Drawn:	BMS
Approved:	DV
Scale:	NOT TO SCALE
Date:	08/15/2025
Project No:	21090
21090-DETAILS	C-904
Drawing No:	C-904



PLANT SCHEDULE OVERALL LANDSCAPE PLAN

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT COND.	REMARKS
DECIDUOUS TREES						
AR	54	Acer rubrum 'Franksred'	Red Sunset® Maple	3" - 3 1/2" CAL.	B & B	
AO	48	Acer rubrum 'October Glory'	October Glory Red Maple	3" - 3 1/2" CAL.	B & B	
AX	24	Acer x freemanii	Freeman Maple	3" - 3 1/2" CAL.	B & B	
AF	8	Acer x freemanii 'Armstrong'	Armstrong Freeman Maple	2"- 2 1/2" CAL.	B & B	
NV	18	Nyssa sylvatica	Black gum	3" - 3 1/2" CAL.	B & B	
PO	13	Platanus occidentalis	American Sycamore	3" - 3 1/2" CAL.	B & B	
QA	3	Quercus alba	White Oak	3" - 3 1/2" CAL.	B & B	
QB	11	Quercus bicolor	Swamp White Oak	3" - 3 1/2" CAL.	B & B	
QP	8	Quercus palustris	Pin Oak	3" - 3 1/2" CAL.	B & B	
QR	15	Quercus rubra	Northern Red Oak	3" - 3 1/2" CAL.	B & B	
UA	8	Ulmus americana	American Elm	3" - 3 1/2" CAL.	B & B	
EVERGREEN TREES						
JV	8	Juniperus virginia "Taylor"	Common Taylor Juniper	6' - 7' HT.	B & B	
JE	10	Juniperus virginiana	Eastern Redcedar	7' - 8' HT.	B & B	
PA	48	Picea abies	Norway Spruce	8' - 10' HT.	B & B	
PG	34	Picea glauca	White Spruce	8' - 10' HT.	B & B	
PS	39	Pinus strobus	White Pine	8' - 10' HT.	B & B	
TI	54	Thuja x 'Green Giant'	Green Giant Arborvitae	7' - 8' HT.	B & B	
FLOWERING & UNDERSTORY TREES						
AM	35	Amelanchier canadensis	Canadian Serviceberry	8' - 10' HT.	B & B	
BD	40	Betula nigra 'BNMTF'	Dura Heat® River Birch	8' - 10' HT.	B & B	
CC2	36	Carpinus caroliniana	American Hornbeam	7'-8' HT.	B & B	
CC	33	Cercis canadensis	Eastern Redbud	2" - 2 1/2" CAL.	B & B	
CA	29	Cornus florida 'Cherokee Brave'	Pink Dogwood	2" - 2 1/2" CAL.	B & B	
CF	12	Cornus florida 'Cherokee Chief'	White Dogwood	2" - 2 1/2" CAL.	B & B	

LANDSCAPE LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED SAWCUT LINE
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED FENCE
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- 2–4" WIDE YELLOW LINES 8"O.C.
- 12" WIDE WHITE STOP LINE
- TRAFFIC SIGN LOCATION & DESIGNATION
- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUBS/PERENNIALS
- PROPOSED SHRUB MASSING

LANDSCAPE NOTES:

1. ALL PLANT MATERIAL SPECIFIED ON THE DRAWINGS SHALL BE FIRST QUALITY NURSERY GROWN STOCK, CERTIFIED TRUE TO THEIR GENUS, SPECIES AND VARIETY, ALL OF WHICH SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY AMERICANHORTI (ANSI Z60.1); LATEST EDITION.
2. ALL AREAS OF THE SITE NOT OCCUPIED BY BUILDING, PAVEMENT, OR OTHER IMPERVIOUS SURFACE, AND NOT SPECIFIED AS BEING PLANTED WITH TREES, SHRUBS OR GROUND COVER, SHALL BE LAWN.
3. ALL MULCH TO BE PLACED IN PLANTING BEDS SHALL BE CLEAN, NON-DYED, TOXIC FREE, ORGANIC MATERIAL CONSISTING OF SHREDDED HARDWOOD, ROOT MULCH SHREDDED CEDAR, OR BARK CHIPS, AS APPROVED BY THE OWNERS FIELD REPRESENTATIVE OR PROJECT LANDSCAPE ARCHITECT. THE PLACEMENT THICKNESS OF THE MULCH SHALL BE 3" AND/OR AS DIRECTED IN THE PLANTING DETAILS.
4. PLANT MATERIAL SUBSTITUTIONS SHALL NOT BE PERMITTED WITHOUT THE PROJECT LANDSCAPE ARCHITECTS WRITTEN APPROVAL.
5. ALL LANDSCAPE PLANTINGS SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION THROUGHOUT THE DURATION OF THE PROJECT. ANY PLANTING NOT SO MAINTAINED SHALL BE REPLACED WITH NEW PLANT(S) AT THE BEGINNING OF THE NEXT, IMMEDIATELY FOLLOWING PLANTING SEASON.
6. ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT AND GOVERNMENTAL AUTHORITIES HAVING JURISDICTION.
7. ALL PLANT MATERIAL STOCK SHALL BE WELL-BRANCHED AND WELL-FORMED, SOUND, VIGOROUS, HEALTHY, FREE FROM DISEASE, SUN-SCALE, WINDBURN, ABRASION, AND HARMFUL INSECTS OR INSECTS EGGS, AND SHALL HAVE HEALTHY, NORMAL UNBROKEN ROOT SYSTEMS. DECIDUOUS TREES AND SHRUBS SHALL BE SYMMETRICALLY DEVELOPED, OF UNIFORM HABIT OF GROWTH, WITH STRAIGHT TRUNKS OR STEMS, AND FREE FROM OBJECTIONABLE DISFIGUREMENTS. EVERGREEN TREES AND SHRUBS SHALL HAVE WELL-DEVELOPED SYMMETRICAL TOPS WITH TYPICAL SPREAD OF BRANCHES FOR EACH PARTICULAR SPECIES OR VARIETY. ONLY VINES AND GROUND COVER PLANTS WELL ESTABLISHED IN REMOVAL CONTAINERS, INTEGRAL CONTAINERS, OR FORMED HOMOGENEOUS SOIL SECTIONS SHALL BE USED.
8. PLANTS SHALL BE GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SOURCES OF ALL PLANT MATERIAL SHALL BE DISCLOSED TO PROJECT LANDSCAPE ARCHITECT AND OWNER PRIOR TO DELIVERY.
9. ALL PLANT MATERIAL SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN STOCK, AS SPECIFIED IN THE PLANT LIST. BAREROOT STOCK OF ANY KIND IS UNACCEPTABLE UNLESS SPECIFIED.
10. ALL LAWN AREAS (SOD OR SEED) SHALL RECEIVE A MINIMUM 6" THICK LAYER OF SCREENED TOPSOIL PRIOR TO INSTALLATION OF SOD OR SEED, UNLESS OTHERWISE SPECIFIED. TOPSOIL SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
11. SOIL WITHIN ALL PLANTING BEDS SHALL BE PREPARED AS DIRECTED IN THE PLANTING DETAILS AND PROJECT SPECIFICATIONS PRIOR TO INSTALLATION OF PLANT MATERIALS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN GOOD HEALTH UNTIL THE PROJECT LANDSCAPE ARCHITECT HAS PROVIDED WRITTEN ACCEPTANCE THAT THE PLANTINGS ARE COMPLETE AND IN CONFORMANCE WITH THE PLANS. THE CONTRACTOR SHALL GUARANTEE THE SURVIVAL OF THE PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY THE PROJECT LANDSCAPE ARCHITECT, UNLESS OTHERWISE AGREED TO WITH THE OWNER.
13. ALL AREAS DISTURBED OR DAMAGED DURING THE COURSE OF THE CONTRACTOR'S WORK SHALL BE REPAIRED OR RESTORED TO ORIGINAL OR CONSTRUCTED CONDITION AT NO ADDITIONAL COST TO OWNER.
14. FINAL LOCATION OF ALL PLANT MATERIALS SHALL BE SUBJECT TO APPROVAL BY PROJECT LANDSCAPE ARCHITECT. PROJECT LANDSCAPE ARCHITECT MAY ADJUST SPACING AND LOCATION IN FIELD PRIOR TO OR AFTER PLANTING.
15. CONTRACTOR SHALL IMMEDIATELY REPORT ANY UNSATISFACTORY SITE CONDITIONS TO THE OWNER IN WRITING. CONTRACTOR SHALL RECEIVE NO ADDITIONAL PAYMENT FOR ADDITIONAL WORK ASSOCIATED WITH THE UNSATISFACTORY CONDITIONS IF NOT PROPERLY REPORTED AND WITHOUT PRIOR WRITTEN APPROVAL OF THE OWNER.
16. ALL TREE AND SHRUB PLANTINGS INSTALLED ADJACENT TO PARKING AREAS SHALL BE SETBACK A MINIMUM OF 24" FROM EDGE OF THE PLANT TO EDGE OF PARKING AREA.
17. ALL PLANTINGS ADJACENT TO LAWN AREAS SHALL HAVE A 6" DEEP VERTICAL CUT EDGE ALONG THE OUTSIDE OF THE PLANTING BED.

No.	Revision	Date	By
1.	ISSUED FOR DEIS COMPLETENESS	01/24/2025	PK
2.	DEIS COMPLETENESS SUBMISSION	02/28/2025	NB
3.	ISSUED FOR FEIS REVIEW	06/15/2025	NB

Previous Editions Obsolete

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OVERALL LANDSCAPE PLAN

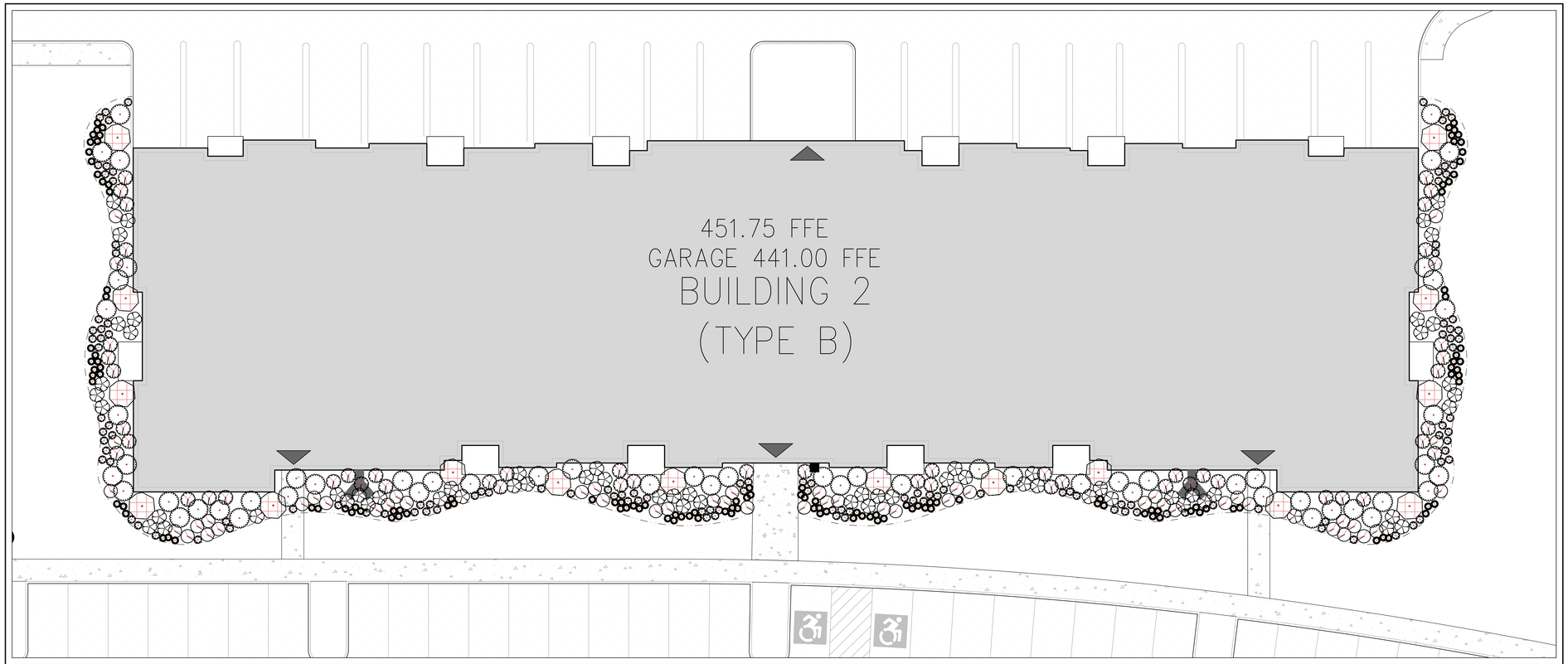
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Drawn:	JJ
Approved:	DV
Scale:	1" = 50'
Date:	01/24/2025
Project No.	21090
2080-LAND	L-100
LAND.bot	
Drawing No:	L–100

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TYPICAL UNIT LANDSCAPE PLAN

PROPOSED PLANTING SCHEDULE FOR UNITS

Symbol	Upright Evergreen Tree/Shrub 4' - 5' HT.	Common Name
	Ilex c aquipernyi 'Meschick' Dragon Lady	Dragon Lady Holly
	Ilex crenata 'Steedi'	Steedi Holly
	Juniperus scopulorum 'Blue Arrow'	Blue Arrow Juniper
	Thuja occidentalis 'Smaragd'	Emerald Green Giant Arborvitae
Symbol	**Shrub A - Medium Evergreen - 3 Gal.**	**Common Name**
	Ilex crenata 'Soft Touch'	Japanese Holly
	Ilex glabra 'Densa'	Dense Inkberry Holly
	Ilex glabra 'Forever Evergreen'	Forever Evergreen Inkberry Holly
	Ilex glabra ' Shamrock'	Inkberry Holly
	Kalmia latifolia 'Elf'	Dwarf Elf Mountain Laurel
	Rhododendron canadens	Dwarf Canadens Rhododenron
	Rhododendron catawbiense	Mountain Rosebay
Symbol	**Shrub B - Small Evergreen - 2 Gal.**	**Common Name**
	Ilex glabra ' Strongbox'	Strongbox Inkberry
	Ilex glabra 'Gembox'	Gembox Inkberry
	Pieris jap. 'Cavatine'	Cavatine Dwarf Andromeda
Symbol	**Shrub C - Medium Decidous - 3 Gal.**	**Common Name**
	Azalea Encore 'Autumn Cheer'	Autumn Cheer Azalea
	Ceanothus americanus	New Jersey Tea
	Clethra alnifolia 'Sweet Sixteen"	Sweet Pepper Bush - Sweet Sixteen
	Cornus stolonifera Artic Fire	Redtwig Dogwood
	Diervilla × **splendens** Red 2.0	Kodiak Red 2.0
	Hydrangea arborescens 'Invincibelle'	Smooth Hydrangea - Invincibelle
	Hydrangea quercifolia 'Ruby Slippers'	Dwarf Oakleaf Hydrangea
	Hydrangea paniculata 'Little Lime'	Little Lime Hydrangea
	Ilex verticillata Berry Poppins	Winter Berry - Berry Poppins
	Itea virginiga 'Little Henry'	Sweetspire - Little Henry
	Physocarpus **opulifolius** - Tiny Wine	Tiny Wine Ninebark
	Rosa rugosa 'Knock out' Pink or White	Knock out Roses
Symbol	**Shrub D - Small Decidous - 2 Gal.**	**Common Name**
	Aronia melanocarpa 'Low Scape Mound'	Dwarf Black chokeberry
	Hydrangea arborescens Invincibelle Mini Mauvette	Mini Mauvette Smooth Hydrangea
	Itea virginiga 'Fizzy Mizzy'	Sweetspire Fizzy Mizzy - Dwarf
	Physocarpus opulifolius 'Summer Wine' or Coppertina'	Ninebark cultivar
	Viburnum **cassinoides** 'Lil Ditty'	Lil Ditty Witherod Viburnum
Symbol	**Perennials - 2 Gal.**	**Common Name**
	Sun/Part Shade	
	Alchemilla mollis 'Thrille'	Lady's Mantle
	Agastache foeniculum	Anise Hyssop
	Amsonia tabernaemontana	Storm Cloud Blue Start
	Asclepias tuberosa 'Hello Yellow'	Butterfly Weed
	Aster novae-angliae	New England Aster
	Baptisia australis	Wild Indigo
	Carex everillo	Japanese Sedge
	Coreopsis verticillata 'Moonbeam'	Tickweed
	Echinacea purpurea	Pink Cone Flower
	Neptata mussini ' 'Little Trudy or Walker's Low'	Catmint
	Perovskia 'Dernin & Lace'	Russian Sage
	Rudbekia fulgida var. 'Little Goldstart'	Blackeyed Susan
	Part Shade/Full Shade	
	Astilbe ' japonica Deutschland	Japanese Astilbe
	Bergenia cordifolia	Heartleaf Bergenia
	Geranium macrorrhizum 'Bevan's Variety'	Cranesbill Geranium
	Heuchera americana Varieties	Coral Bells
	Dryopteris erythrosora	Autumn Fern
	Native woodland ferns	Native ferns
Symbol	**Ornamental Grasses/Ground Covers - 1 Gal.**	**Common Name**
	Sun/Part Sun	
	Sporobolus heterolepis	Prarie Dropseed Grass
	Schizachyrium Standing Ovation	Little Bluestem Grass
	Pennisetum 'Hamelin'	Dwarf Fountain Grass
	Panicum virgatum 'Shenandoah'	Red Switchgrass
	Sedum x 'Vera Jameson'	Creeping sedum
	Thymus Elfin	Creeping thyme
	Part Shade/Full Shade	
	Carex pennsylvanica	Pennsylvania Sedge
	Phlox stolonifera	Creeping Phlox
	Sedum Ternatum	Wild Stonecrop
	Tiarella ' Cutting Edge'	Foam Flower

PLANT LEGEND

- A – UPRIGHT EVERGREEN
- SHRUB B – MEDIUM EVERGREEN SHRUB
- SHRUB C – SMALL EVERGREEN SHRUB
- SHRUB D – MEDIUM DECIDUOUS SHRUB
- SHRUB E – SMALL DECIDUOUS SHRUB
- F – PERENNIALS
- G – ORNAMENTAL GRASSES/ GROUNDCOVERS

TYPICAL UNIT PLANTING NOTES:

1. LAYOUT OF PLANTING BED IS CONCEPTUAL AND MAY VARY DUE TO EXISTING SITE CONDITIONS AND MODEL ELEVATION. SPECIES CHOSEN SHALL CORRELATE WITH EXISTING SITE CONDITIONS OF EACH HOME (IE; SUN/SHADE) TO ENSURE SURVIVABILITY OF PLANT.
2. SHRUBS SHALL BE PLANTED IN GROUPS OF THE SAME SPECIES (3–5 PLANTS) TO MAINTAIN BALANCE THROUGHOUT THE GARDEN.
3. FOUNDATION PLANTS ARE IN ADDITION TO AND ARE TO BE COORDINATED WITH PROPOSED STREET TREES, OPEN SPACE PLANTINGS AND EXISTING VEGETATION TO REMAIN.
4. QUALITY OF PLANT SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARDS FOR NURSERY STOCK.
5. SUBSTITUTIONS PERMITTED WITH WRITTEN APPROVAL BY OWNER'S LANDSCAPE ARCHITECT AND TOWN REPRESENTATIVE PRIOR TO PLANTING.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

NOT FOR CONSTRUCTION

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TYPICAL UNIT LANDSCAPE PLAN

LETCHWORTH ROAD RESIDENTIAL DEVELOPMENT
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Drawn:	JJ	Approved:	DV
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