2700 Westchester Avenue

Final Environmental Impact Statement (FEIS)

Town/Village of Harrison,
Westchester County, New York

Lead Agency:
Harrison Planning Board
1 Heineman Place
Harrison, NY 10528

Contact:
Joseph Stout, Acting Chairman
914.670.3077

Prepared by:
AKRF, Inc.
34 South Broadway, Suite 300
White Plains, New York 10601

DEIS Accepted: November 23, 2021
Public Hearing: December 21, 2021 &
January 25, 2022
DEIS Comments Accepted Through: February 24, 2022
FEIS Accepted: May 3, 2022
FEIS Heaing: May 24, 2022

FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS)

2700 Westchester Avenue
Town/Village of Harrison, Westchester County, New York

DEIS Accepted:	November 23, 2021
DEIS Public Hearings:	December 21, 2021; January 25, 2022
DEIS Comments Accepted Through:	February 24, 2022
FEIS Accepted:	May 3, 2022
FEIS Public Hearing:	May 24, 2022

The FEIS is available at: https://www.harrison-ny.gov/planning-board

Lead Agency:	Harrison Planning Board 1 Heineman Place Harrison, NY 10528 Contact: Joseph Stout, Acting Chairman, 914.670.3077
Applicant	Senlac Ridge Partners 53 Maple Avenue Morristown, NJ 07960 Contact: Matthew Lavell, 973.898.6349, mlavell@senlacpartners.com

Consultants that contributed to this document include:

Project Attorney:	McCullough, Goldberger & Staudt, LLP 1311 Mamaroneck Ave., Suite 340 White Plains, NY 10605 Contact: Seth M. Mandelbaum, Managing Partner, 914.949.6400
Civil & Traffic Engineer, Surveyor and Landscape Architect:	JMC 120 Bedford Road Armonk, NY 10504 Contact: Robert Aiello, PE, Associate Principal, 914.273.5225
Architect:	Minno & Wasko 80 Lambert Lane Lambertville, NJ 08530 Contact: Stuart A. Johnson, AIA, Principal, 609-397-9009
DEIS Preparation and Environmental Consultants:	AKRF, Inc. 34 South Broadway, Suite 300 White Plains, New York 10601 Contact: Peter Feroe, 914.949.7336

Table of Contents

List of Tables

List of Figures

{Figures located at end of Chapter}

A. PROJECT DESCRIPTION

2500/2700 Westchester Avenue Owner SPE LLC (the "Applicant") proposes to construct 69 new townhomes (the "Proposed Project") on a 24.6-acre property located at 2500-2700 Westchester Avenue in the Town/Village of Harrison, New York (the "2500/2700 Parcel", also known as Lot 2, Block 611, Sheet 61 on the Town of Harrison Tax Map) (see **Figure 1-1**). The 2500/2700 Parcel is located in the SB-O "Special Business" Zoning District and is currently improved with two office buildings (2500 and 2700 Westchester Avenue) that were constructed in the 1980s, with associated paved surface parking lots and vegetation/landscaping (see **Figure 1-2** and **Figure 1-3**. The existing 2700 Westchester Avenue building (the "2700 building") would be demolished to accommodate the new development. The existing 2500 Westchester Avenue building (the "2500 building") and associated parking would remain in its present condition, creating a true mixed-use community on the Parcel. The 2500/2700 Parcel would be subdivided into two lots—the "2500 Lot" and the "2700 Lot" (the latter of which is referred to in this Final Environmental Impact Statement [FEIS] as the "Project Site").

The proposed townhome development would be located in largely the same area as the current development on the 2700 Lot and would incorporate landscaping and modern stormwater management improvements (see **Figure 1-4**). The proposed townhomes would be 3-stories and would include 324 parking spaces (see **Figure 1-5**). To accommodate the Proposed Project, the Applicant has petitioned the Harrison Town/Village Board (the "Town Board") to amend the Harrison Zoning Code (the "Zoning Code") to expand the geographic applicability of the existing SB-O Multifamily Residential use to the Project Site and other parcels along the Westchester Avenue corridor (the "Amendment") and is also seeking Special Exception Use approval from the Planning Board and Town Board.

B. PROCEDURAL HISTORY

On March 9, 2021, the Applicant submitted its original petition to the Lead Agency (the Town of Harrison Planning Board) (see DEIS Appendix A-2). On June 22, 2021, the Lead Agency determined that the Proposed Project may have one or more significant adverse environmental impacts and directed the Applicant to prepare a Draft Environmental Impact Statement (DEIS) pursuant to the New York State Environmental Quality Review Act (Article 8 of Environmental Conservation Law) and its implementing regulations (6 NYCRR Part 617) (together "SEQRA"). A document determining the scope of the DEIS was drafted by the Applicant in consultation with Town staff and the Lead Agency. The Lead Agency approved the DEIS Scope on July 27, 2021 (see DEIS Appendix A-4).

On November 2, 2021, the Applicant submitted the first draft of the preliminary DEIS (pDEIS) to the Lead Agency. The Applicant then submitted a revised Chapter 6 of the pDEIS on November 16, 2021, based on information received from the Harrison Central School District. On November 23, 2021, the Lead Agency issued a Notice of Completion of the DEIS. Two duly noticed public hearings were held on the DEIS by the Lead Agency on December 21, 2021, and January 25, 2022, for the purpose of hearing public comment on the DEIS. During the public comment period, which was open from November 21, 2021 through February 24, 2022, which was no less than 30 days following the close of the public hearing, comments were received from the public, Town staff and consultants, and other Involved and Interested Agencies.

C. PURPOSE OF THE FEIS

This document is a FEIS, which has been prepared pursuant to the requirements of SEQRA. The purpose of this FEIS is to provide the Lead Agency's responses to the substantive public comments (both written and verbal) made on the DEIS during the public hearings and formal comment period.

The DEIS is hereby incorporated by reference into this Final EIS (FEIS). Any terms relating to the Proposed Project described in the DEIS are also used in this FEIS. The Proposed Project and Proposed Zoning remain the same as described in the DEIS.

D. ALTERNATIVES

In response to comments received from the Town and the public, the Applicant developed two additional alternatives to the Proposed Project for this FEIS. Pursuant to SEQRA regulations, the Lead Agency may choose, and the Applicant is willing to implement, both, either, or neither of the alternatives. It is important to note that the Proposed Project remains the same as in the DEIS.

The Alternatives can generally be described as:

- Flood Storage Area – With this alternative, the Applicant would construct additional flood storage on the Project Site in the vicinity of the Blind Brook.
- Affordable Housing – With this alternative, the Applicant would provide four units of affordable housing within the Proposed Project.

ALTERNATIVE FLOOD STORAGE AREA

In response to public comment, as well as a comment provided by the Town Engineer outside of the DEIS process, the Applicant's engineer analyzed the Project Site to identify areas where additional flood storage, or other flood mitigation, could be constructed that would have the potential to positively affect the flooding conditions experienced by areas outside of the Project Site. These potential improvements would be in addition to the Applicant's commitment to provide a 50-foot-wide easement to the Town, if desired, for the Town to undertake and fund potential channel improvement work to alleviate flooding conditions in concert with other properties along the Blind Brook (see Chapter 9, Section E, "Mitigation" of the DEIS). As a result of this additional analysis, the Applicant identified an Alternative Flood Storage Area on the Project Site, adjacent to the Blind Brook. As described and illustrated more completely in **Appendix A**, the Applicant is willing to clear and excavate this area in order to create additional areas of flood storage, which may help to reduce flooding conditions adjacent to, and downstream of, the Project Site. This effort is being presented in this FEIS as an "Alternative" to the Proposed Project, which alternative consists of the Proposed Project and the Flood Storage Area construction. The potential environmental impacts of this alternative, which would be in addition to those of the Proposed Project, are discussed in **Appendix A**. For the reasons set forth therein, it is the Applicant's opinion that the Alternative Flood Storage Area would not result in a significant adverse environmental impact.

AFFORDABLE HOUSING ALTERNATIVE

In response to comments from the Lead Agency as well as Interested and Involved Agencies, the Applicant has developed an alternative to the Proposed Project in which four units would be set aside for residents with a maximum income of 80 percent of area median income (AMI). Specifically, the Applicant proposes in this alternative to "convert" the volume of two of the townhomes included in the Proposed Project into four stacked flat units. As such, the site layout, number of buildings, and building architecture would not be changed from the Proposed Project. Instead, the number of townhomes would be reduced from 69 units to 67 units. Two stacked flat units would be constructed within the same building envelope of each of the eliminated townhome units. As a result, the total number of project dwelling units (including the four affordable units constructed as stacked flats) would increase to 71 units, even though the number of townhomes would decrease to 67. The Applicant has developed a conceptual floorplan, to show this potential alternative to the Proposed Project, which the Applicant is willing to develop. The difference in the potential environmental impacts between this alternative compared to the Proposed Project would be *de minimis.* **Appendix B** includes the conceptual floorplan and a description of the changes in potential environmental impacts of this alternative.

E. FEIS STRUCTURE

The organization of the FEIS is as follows:

- <u>**FEIS Chapters & Figures**</u>
  - **Chapter 1, "Introduction."**
  - **Chapter 2, "Response to Comments."** This chapter provides responses to substantive comments on the DEIS received during the public comment period, including the two alternatives.
- <u>**Appendices**</u>
  - **Appendix A, "Alternative Flood Storage Area"**
  - **Appendix B, "Affordable Housing Alternative"**
  - **Appendix C, "Revised Preliminary SWPPP"**
  - **Appendix D, "Revised Preliminary Site Plans"**
  - **Appendix E, "Infrastructure."**
    - Engineering Reports (Sanitary Sewer Report; Fire Flow Calculation)
    - Correspondence with Utility Providers
  - **Appendix F, "DEIS Comments"**

2500/2700 Westchester Avenue Parcel

Project Site

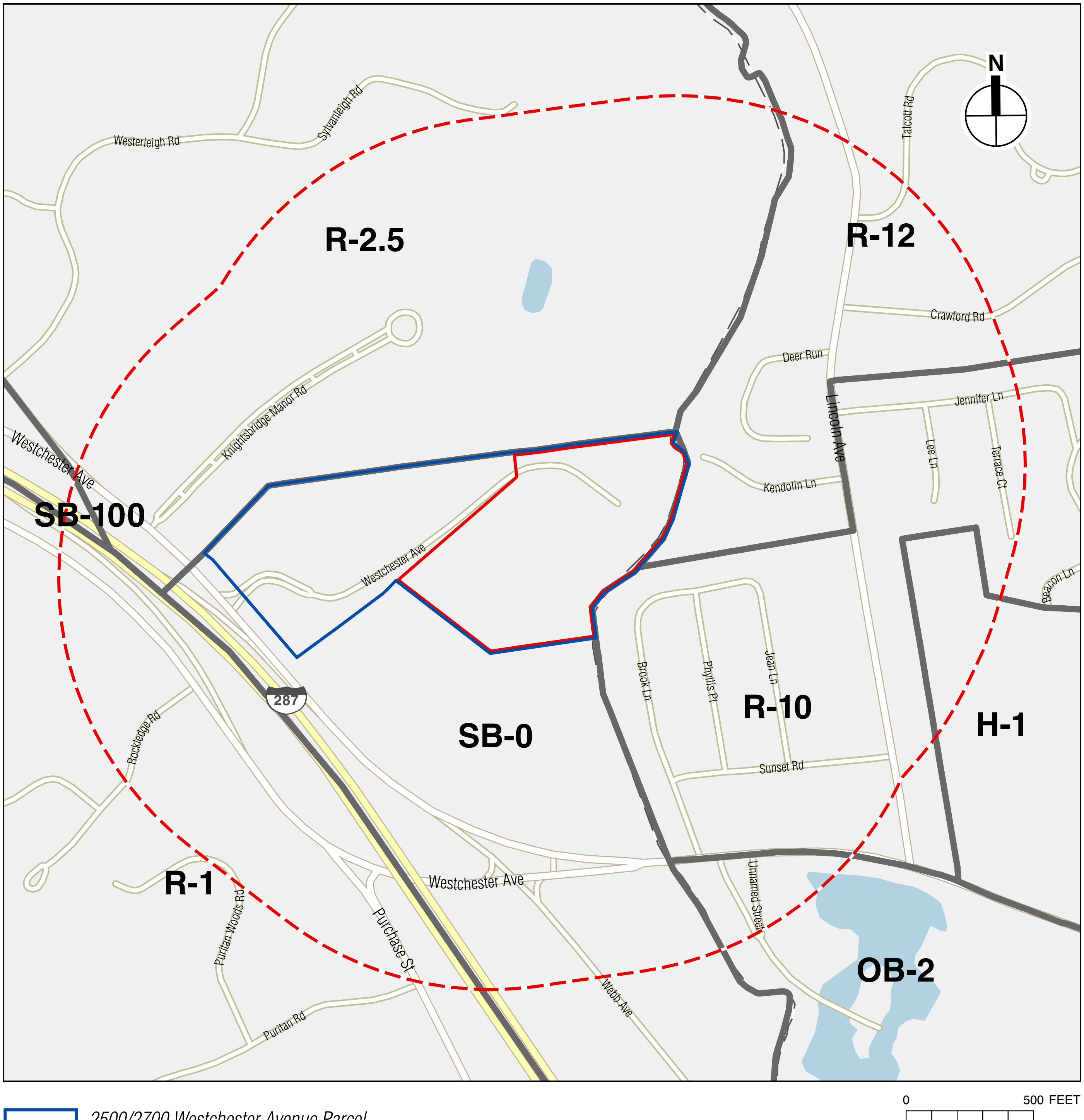
Project Location

Figure 1-1

Aerial

2700 WESTCHESTER AVENUE

Figure 1-2



2500/2700 Westchester Avenue Parcel

Project Site

Study Area (1/4-mile perimeter)

Zoning District Boundary

Zoning
Figure 1-3

11.2.21

Source: Minno & Wasko Architects and Planners

Proposed Site Plan

Figure 1-4

2700 WESTCHESTER AVENUE

11.2.21

Source: Minno & Wasko Architects and Planners

Illustrative Rendering

Figure 1-5

This Final Environmental Impact Statement (FEIS) addresses comments that were made on the Draft EIS (DEIS), either verbally at the Public Hearings held on December 21, 2021 and January 25, 2022 or in writing between November 21, 2021 and February 24, 2022. This includes all comments made by the public, the Planning Board (the "Lead Agency), and Interested and Involved Agencies.

This Chapter provides responses to the substantive comments received. Full transcripts of the public testimony and complete correspondence from which these comments are drawn can be found in **Appendix F**. Responses provided in this chapter concern the potential environmental impacts of the Proposed Project and Proposed Zoning. Information about the potential environmental impacts of the two, new, alternatives is in **Appendix A** and **Appendix B**.

A. EXECUTIVE SUMMARY

Comment 1: A - Introduction - 2nd §, 1st sentence – Quantify "largely in the same area." (Cleary, February 9, 2022)

Response: All of the proposed townhome units, proposed parking areas and any other impervious surfaces will be located within the confines of the existing parking area. Only the proposed stormwater retention pond improvements and the proposed walking path will be outside of this area and those will be permeable surfaces.

Comment 2: 1st partial § - Describe the topography of the area of the Site within the "substantial wooded buffer." (Cleary, February 9, 2022)

Response: The eastern portion of the Project Site is adjacent to and partially includes the Blind Brook. This area of the Project Site is relatively flat and within a floodplain which is substantially wooded. This area is approximately 10 to 15 feet below the proposed grade of the eastern portion of the Proposed Project.

Comment 3: 1st full § - Describe the number of homes and approximate lot sizes of the adjacent residential neighborhoods in Rye Brook and in Knightsbridge Manor. (Cleary, February 9, 2022)

Response: There are 17 houses with addresses on Deer Run in the Village of Rye Brook. As described in Chapter 3 of the DEIS, "Visual and Community Character," "[t]he houses along Deer Run in the Village of Rye Brook are two- to three-stories tall and set closely on roughly ¼- to ½-acre lots."

There are 24 houses with addresses on Brook Lane in Rye Brook. As described in Chapter 3 of the DEIS, "Visual and Community Character," "[t]he houses to the east and southeast of the 2500/2700 Parcel, along Brook Lane in Rye Brook, are a mix of one- and two-story single-family houses, on roughly ¼- to ½-acre -acre lots. These houses tend to be smaller than those along Deer Run…"

There are 17 houses with addresses on Knightsbridge Manor Road in Harrison. As described in Chapter 3 of the DEIS, "Visual and Community Character," the Knightsbridge Manor neighborhood is "composed of detached single-family two- and three-story houses between 5,000 and 10,000 square feet, located on large, multi-acre lots…"

Comment 4: New Buildings and Architectural Design – 1st § - Does the 3,000 square foot townhome size refer to gross floor area (including non-habitable areas such as attic) or habitable floor areas only? (Cleary, February 9, 2022)

Response: The proposed attached townhomes are approximately 24 feet wide and 50 feet deep. The total gross square footage (gsf) calculation for each unit is approximately 3,000 square feet (sf). This number includes some non-habitable areas at each floor level. There would be minimal, non-habitable attic space available for owner storage accessed via a pull-down stair at the third-floor level, which minimal area is not included in the ±3,000 gsf.

Comment 5: 2nd full § - Define all the parties involved with the Declaration of Covenants, and document the process necessary to amend or rescind it. (Cleary, February 9, 2022)

Response: The parties to the original Declaration of Covenants, dated October 6, 1981, were the prior owners to the parcels that now comprise the overall 2500/2700 Westchester Avenue property, the contract vendee for the overall property at the time, and the Town/Village of Harrison. The amendments dated April 20, 1983, and May 17, 1984, were both executed by the Supervisor/Mayor of the Town/Village of Harrison and consented to by the then-property owner Lowell M. Schulman d/b/a Schulman Investment Company. The Declaration provides, in relevant part, that: "The site shall be developed substantially as depicted in the site plan appended hereto . . . with buildings constructed substantially as reflected in the drawings appended hereto…" The 1984 amendment includes drawings depicting the current configuration of two (2) office buildings on the Property. Prior to the execution of the amendments, the Town Board adopted a resolution authorizing the Supervisor/Mayor to do so, and the Planning Board approved a site plan depicting the revised building configuration attached to the amendments.

In order to amend or rescind the Declaration of Covenants, as last amended in 1984, to allow for the proposed townhome development on the 2700 Westchester Avenue property, the Town Board would need to adopt a resolution authorizing the Supervisor/Mayor to sign an additional amendment to be recorded against the

2500/2700 Westchester Avenue properties, depicting the approved townhome plan on the 2700 property, as well as the existing office building to remain on the 2500 property. Alternatively, the Town Board could vote to authorize the Supervisor/Mayor to execute a document terminating the Declaration of Covenants in its entirety.

B. PROJECT DESCRIPTION

Comment 6: The Applicant shall clarify why NYCDEP SWPPP Approval is required for this project as shown in Section F. of the Executive Summary. (Torres, January 24, 2022)

Response: The SWPPP has been revised to indicate the Proposed Project does not require approval by the NYCDEP since the Project Site is outside of the New York City watershed (see **Appendix C**).

Comment 7: The Applicant shall revise the drawings to indicate a net fill as stated in the DEIS. The current cut/fill summary table on Sheet C-210 shows a "cut volume to be imported" of 439 C.Y. (Torres, January 24, 2022)

Response: The earthwork analysis on Sheet C-210 has been revised to include the excavation required for the proposed underground stormwater facility. This results in approximately 528 cubic yards of material to be imported to achieve the proposed grades for the Proposed Project (see **Appendix D**).

Comment 8: The Applicant shall provide a scale bar on all preliminary site plans. (Torres, January 24, 2022)

Response: A graphic scale has been added to the updated Preliminary Site Plans (see **Appendix D**).

Comment 9: 2nd full § - Is the steep drop in elevation a natural site condition, or was it created when the two office budlings were developed? (Cleary, February 9, 2022)

Response: Based on visual observation of the existing site topographic conditions, it appears that the vast majority of the existing elevation drop was a manmade condition resulting from the construction of the existing office building on the Project Site.

Comment 10: 2nd full § - Clarify if the parking area that is described as being "raised above the surrounding areas…" reflects a natural site condition, or was the site filled during the construction of the two office buildings (thereby potentially reducing the natural flood storage of the site)? (Cleary, February 9, 2022)

Response: Based on visual observations by the Applicant's engineer, it appears the Project Site did include the import of fill during construction to create the Project Site's current topography.

Comment 11: Number, Layout, and Anticipated Occupancy of Residential Units – The DEIS describes the 3,000 square foot attached townhomes as "small." The use of the term "small" was used to support the claim that families with school aged children would not likely reside in the units. Provide documentation of other attached townhome developments in the region to justify the claim that the units are in fact "small" and would not generally support school-aged children. (Cleary, February 9, 2022)

Response: While the interior volume of the proposed townhomes is not necessarily "small," other components of the product, such as the width and the size of the private lot, give the townhome product a "small" feel when it is compared to the single-family homes in the community that have larger floor plates and larger lots. As stated in the DEIS, it is the Applicant's opinion, based on the Applicant's experience with similar communities as well as empirical information gathered from similar communities and presented in the DEIS (such as the information related to the number of school-age children in similar townhome developments), that attached townhome products in communities similar to Harrison are generally more attractive to young professionals and empty nesters than they are to families with young children. In general, in communities similar to Harrison, families with young children have generally preferred detached single-family houses rather than attached single-family houses.

Comment 12: Green Design and Sustainability Components – The use of low-flow fixtures, energy efficient appliance and "clean" stormwater practices are standard modern construction practices. These measures do not represent a serious commitment to green building and sustainability as expected by the Planning Board. The Applicant should explore more tangible measures to achieve these goals, including seeking a green building certification from an organization such as the USGBC. (Cleary, February 9, 2022)

Response: The Proposed Project, which replaces an existing underutilized office building and surface parking lot with a new residential townhome community, meets many of the goals and objective outlined in U.S. Green Building Council's (USGBC) checklist of LEED V4 for Neighborhood Development Plan as well as the checklist of LEED v4.1 Residential Single Family and Multifamily. While the Proposed Project does not intend to seek LEED certification, it does comply with many of the credit areas outlined within the following categories: Smart Location & Linkage, Neighborhood Pattern & Design, Green Infrastructure & Buildings, Regional Priority, Location and Transportation, Sustainable Sites, Water Efficiency, Energy and Atmosphere, Material and Resources, and Indoor Environmental Quality. Components of the Proposed Project include:

<u>Smart Location and Linkage:</u>
- Smart Location
- Reduced Parking Footprint
- Site Design for Habitat or Wetland and Water Body Conservation
- Floodplain Avoidance
- Housing and Jobs Proximity

<u>Neighborhood Pattern & Design:</u>
- Walkable Streets
- Compact Development
- Connected and Open Community
- Tree-Lined and Shaded Streetscapes

<u>Green Infrastructure and Buildings:</u>
- Indoor /Outdoor Water Use Reduction – Low Flow Fixtures
- Construction Activity Pollution Reduction
- Optimized Building Energy Performance – Energy Star Appliances
- Rainwater Management
- Heat Island Reduction
- Solar Orientation
- Infrastructure Energy Efficiency
- Light Pollution and Reduction

<u>Location and Transportation:</u>
- Sensitive Land Protection
- Surrounding Density and Diverse Use
- Access to Quality Transit
- Electric Vehicles

<u>Energy and Atmosphere:</u>
- Energy metering and performance
- Fundamental Refrigerant Management
- Optimize Energy Performance

<u>Materials and Resources:</u>
- Storage and Collection of Recyclables
- Construction and Demolition Waste Management Planning
- Building Life-Cycle Impact Reduction
- Environmentally Preferable Products
- Construction and Demolition Waste Management

<u>Indoor Environmental Quality:</u>
- Enhance Indoor Air Quality Assessment
- Combustion Venting
- Radon-Resistant Construction
- Interior Moisture Management
- Thermal Comfort
- Daylight and Quality Views
- Acoustic Performance
- Construction and Demolition Waste Management Planning
- Building Life-Cycle Impact Reduction
- Environmentally Preferable Products
- Construction and Demolition Waste Management

Comment 13: Site Roadways, Access, Circulation, And Connectivity – Who will be responsible for maintaining the shared driveway? Certain maintenance tasks, such as snow plowing, may occur on a different time schedule by a contractor for an office building (which does not necessarily require unrestricted 24/7/365 access) compared to a residential use (which would require that access). (Cleary, February 9, 2022)

Response: The owner of the common areas in the Proposed Project, including the roadways and landscaping (e.g., the master property owner association, or similar), would be responsible for maintenance of those common areas, including snow plowing. As stated in the DEIS, as part of the final subdivision of the 2500/2700 Parcel, a permanent easement in favor of the 2700 Lot would be recorded, guaranteeing access over the future Project Site in the same manner as the 2500/2700 Parcel currently operates. Responsibility for maintenance of the shared driveway could be memorialized as part of that permanent easement.

Comment 14: Parking, 1st Partial § – Do any industry standard metrics, or comparable examples from other similar developments exist that indicate that 48 visitor parking spaces are adequate to support the development? (Cleary, February 9, 2022)

Response: Based on Urban Land Institute data for three-bedroom residential units, visitor spaces represent 3.8 percent and 5.6 percent of the overall parking demand for residential units during a weekday and weekend, respectively. As mentioned in the Traffic Study (see Chapter 10, "Traffic and Transportation," of the DEIS), the proposed 69 townhomes have a projected parking demand of 84 and 91 parking spaces during a weekday and weekend, respectively. Utilizing the Urban Land Institute percentages above, the projected parking demand for visitors is four and six parking spaces during a weekday and weekend, respectively. The projected visitor parking demand can be accommodated in the available 324 parking spaces depicted on the site plans.

Comment 15: Tree Preservation, Landscaping and Buffers – Quantify the number, size and species of the existing landscaping that is proposed to be removed. (Cleary, February 9, 2022)

Response: As noted in the Wetland and Watercourse Delineation Report (see DEIS, Appendix D), the uplands in the northeast, east and southeast of the Project Site are best described as a disturbed successional southern hardwoods forest with a significant non-native/invasive species component. Edinger et al. (2014) describes successional southern hardwoods forest as a hardwood or mixed forest that occurs on sites that have been cleared or otherwise disturbed.[1] This includes the habitat at the northeast corner, southeast edge, and southern corner of the parking lot that would be disturbed with the development of the Proposed Project. The remainder of the vegetated ecological communities that would be disturbed within the proposed project limit of disturbance (LOD) are mowed lawn with trees,[2] mowed lawn,[3] and the isolated freshwater wetland/old stormwater detention basin (Wetland A) as described in the Wetland Watercourse Delineation Report.

Table 2-1 lists the flora species that would likely be disturbed with the development of the Proposed Project (bolded text is for trees, and non-bolded text is for all other landscaping).

Table 2-1
Flora Identified Within the LOD of the Proposed Project

Common Name	Scientific Name
Norway maple	***Acer platanoides***
Red maple	***Acer rubrum***
Silver maple	***Acer saccharinum***
Tree of heaven	***Ailanthus altissima***
Garlic mustard	Alliaria petiolata
Porcelain berry	Ampelopsis brevipedunculata
Common mugwort	Artemesia vulgaris
Gray birch	***Betula populifolia***
Asiatic bittersweet	Celastrus orbiculatus
Japanese knotweed	Fallopia japonica
Green ash	***Fraxinus pennsylvanica***
Honey locust	***Gleditsia triacanthos***
Eastern red cedar	***Juniperus virginiana***
Purple loosestrife	Lythrum salicaria
Common reed	Phragmites australis
Spruce	***Picea sp.***
Eastern white pine	***Pinus strobus***
American sycamore	***Platanus occidentalis***
Eastern cottonwood	***Populus deltoides***
Callery pear	***Pyrus calleryana***
Black locust	***Robinia pseudoacacia***
Narrow-leaf cattail	Typha angustifolia
Grape	Vitis sp.

[1] Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY

[2] Edinger et al. (2014) describes this ecological community as "residential, recreational, or commercial land in which the groundcover is dominated by clipped grasses and forbs, and it is shaded by at least 30 percent cover of trees. Ornamental and/or native shrubs may be present, usually with less than 50 percent cover. The groundcover is maintained by mowing and broadleaf herbicide application."

[3] Edinger et al. (2014) describes this ecological community as "residential, recreational, or commercial land, or unpaved airport runways in which the groundcover is dominated by clipped grasses and there is less than 30 percent cover of trees. Ornamental and/or native shrubs may be present, usually with less than 50 percent cover. The groundcover is maintained by mowing and broadleaf herbicide application."

Comment 16: Recreation and Open Space – Provide the areas (in square feet) of the recreational amenities proposed (perhaps presented in tabular format). (Cleary, February 9, 2022)

Response: A table outlining the sizes of the Amenity Spaces has been added to sheet C-101 and is repeated below (see **Appendix D**).

C. LAND USE, ZONING, AND PUBLIC POLICY

Comment 17: What accommodations are you making for affordable housing? (Stout, PH January 25, 2022)

Response: The Town of Harrison's Zoning Code does not require developers of new housing to set aside a certain number or percentage of newly constructed housing units for occupancy by households meeting certain income thresholds. As such, the Proposed Project does not include any such set aside. The Applicant also notes that the economic viability of providing affordable housing units within a townhome-style community differs markedly from that of providing affordable units within a flat, or apartment, style building.

Notwithstanding, and as described in Chapter 1, "Introduction," the Applicant has developed an alternative to the Proposed Project in which four units would be set aside for residents with a maximum income of 80 percent of area median income (AMI). Specifically, the Applicant proposes in this alternative to "convert" the volume of two of the townhomes included in the Proposed Project into four stacked flat units. As such, the site layout, number of buildings, and building architecture would not be changed from the Proposed Project. Instead, the number of townhomes would be reduced from 69 units to 67 units. Two stacked flat units would be constructed within the same building envelope of each of the eliminated townhome units. As a result, the total number of project dwelling units (including the four affordable units constructed as stacked flats) would increase to 71 units, even though the number of townhomes would decrease to 67. The Applicant has developed a conceptual floorplan/sketch, to show this potential alternative to the Proposed Project. The Applicant is presenting this as an alternative to the Proposed Project, which the Applicant is willing to develop. The difference in the potential environmental impacts between this alternative compared to the Proposed Project would be *de minimis* (see **Appendix B**).

Comment 18: The public policy section did not include a discussion of the County's affordable housing policies. (Drummond, December 23, 2021)

Response: The *2025 Context for County and Municipal Planning and Policies to Guide County Planning* was adopted by the Westchester County Planning Board in 2008 and amended in 2010. This document replaces and updates the "Assumptions and Policies" section of the County's previous Comprehensive Plan, *Patterns of*

Westchester, with new principles and policies for development in the County. One of the policies in the *2025 Context* is to "Support development and preservation of permanently affordable housing." Much of the discussion within the *2025 Context* that follows this policy statement concerns County coordination with municipalities to support local efforts that affirmatively further fair and affordable housing, through methods such as a model ordinance, technical support, and financial support. The Proposed Project, as a private action, is compliant with the Town's Zoning Code, which does not require the provision of affordable housing units. See also the Response to Comment 17.

Comment 19: The Town/Village of Harrison has not updated its comprehensive plan since 2013, and the 2013 plan only discusses the application of mixed-use or residential development within the "teardrop" area of the Westchester Avenue corridor. Because the proposed zoning amendments will essentially open up a second area of the Westchester Avenue corridor with SB-O zoning to residential and mixed-use development, the impacts of these zoning changes go beyond the subject site and should be analyzed as part of a new comprehensive planning effort that should either supplement or replace the 2013 comprehensive plan. (Drummond, December 23, 2021)

Response: Comment noted. As detailed in Chapter 2 of the DEIS, "Land Use, Zoning, and Public Policy," "[w]hile the Plan recommended that the mixed-use zone initially be limited to the 'teardrop' area of the SB-O district, the Plan went on to say that if the 'SB-MX zone is successfully implemented and market forces appear to indicate demand for mixed uses elsewhere in the overall Platinum Mile area, *consideration may be given* to expanding the SB-MX zone, as appropriate.'" It is also noted that the potential environmental impacts of permitting residential uses elsewhere in the SB-O zoning district are evaluated in the DEIS.

Comment 20: The recommendation to include affordable AFFH in all residential development proposals has been consistently made to the Town/Village for over a decade. Because the proposed zoning text amendments will open up a substantial area to the potential for additional mixed-use development, we do not recommend implementing these zoning changes without including a provision for a minimum set-aside of 10% for affordable affirmatively furthering fair housing. The Town/Village should also not approve any proposed residential development on this site unless it has at least 10% of the units set aside as affordable AFFH. (Drummond, December 23, 2021)

Response: Comment noted. See also the Response to Comment 17.

Comment 21: We encourage the Town/Village to include a requirement for green or sustainable building technology into all development along this corridor. Such efforts are increasingly common – and expected. Many communities have begun amending local codes to make "green" design and building practices mandatory. Further, developments that have a type of environmental certification are recognized as environmentally responsible, profitable and healthy places to live and work. These developments are often seen as premium properties. (Drummond, December 23, 2021)

Response: Comment noted. The Proposed Project would include various "green" building technologies designed to reduce the physical impacts of the Proposed Project. As described in Chapter 7 of the DEIS, "Infrastructure and Utilities," "[t]he Proposed Project would incorporate water-saving technologies into the Project design, including the use of low-flow plumbing fixtures. These measures would reduce the demand on the public water supply." As described in Chapter 1 of the DEIS, "Project Description," "[t]he Proposed Project would also implement clean stormwater practices by providing underground stormwater infiltration for the Site with a new infiltration system designed to treat stormwater quality." Furthermore, as described in Chapter 7 of the DEIS, "Infrastructure and Utilities," "[t]o reduce the energy consumption of the Proposed Project, energy efficient lighting and appliances would be used. In addition, high-efficiency building envelope features, including windows and facades, would be included." Also see Response to Comment 12.

Comment 22: The Applicant shall clarify in the DEIS report the proposed maintenance for the permeable walking path. (Torres, January 24, 2022)

Response: On a quarterly basis, debris such as grass clippings, sediment, trash and leaves will be removed from the mulched walking path by the owner of the common areas in the Proposed Project (e.g., the master property association, or similar). Each spring, mulch will be replaced where bare soil is exposed to minimize the potential for erosion of the walking path and to provide a consistent walking surface.

Comment 23: Existing Conditions, 2nd § - Quantify the difference in elevation between the 2700 building and the 2500 building. (Cleary, February 9, 2022)

Response: The first floor of the 2500 building is approximately 65 feet higher than the first floor of the 2700 building.

Comment 24: 1st § - Clarify the height and elevation of the habitable spaces of the buildings of the adjacent residential neighborhoods. Views from the elevation of the upper stories of these homes may not be obscured by the intervening vegetation when the additional building height is taken into consideration. (Cleary, February 9, 2022)

Response: As detailed in Chapter 3 of the DEIS, "Visual and Community Character," the "houses along Deer Run in the Village of Rye Brook are two- to three-stories tall" and "are approximately 5 to 10 feet lower in elevation than the 2700 building." As such, the view from the upper floor of a three-story home on Deer run, given the elevation difference, would be approximately 20 feet above the ground-level of the Proposed Project. Given intervening distance and vegetation, including understory vegetation as well as canopy trees (both on the Project Site and on the private properties along Deer Run), visibility of the Project Site from the upper stories of these houses along Deer Run is anticipated to be minimal. It is also worth noting that the townhomes within the Proposed Project are shorter than the existing 2700 building.

As detailed in Chapter 3 of the DEIS, "Visual and Community Character," the houses "along Brook Lane in Rye Brook, are a mix of one- and two-story single-family houses" and "are approximately 20 feet lower in elevation than the 2700 building." Thus, the view from even the upper floor of a two-story home, given the elevation difference, would be no more than at ground-level of the Proposed Project, or even slightly below. Given intervening distance and vegetation, which includes understory vegetation and canopy trees, both on the Project Site and on the private properties along Brook Lane, visibility of the Project Site from the upper stories of these structures is anticipated to be minimal. It is also worth noting that the townhomes within the Proposed Project are shorter than the existing 2700 building.

As detailed in Chapter 3 of the DEIS, "Visual and Community Character," the houses on Knightsbridge Manor Road are "detached single-family two- and three-story houses" and these "houses to the north and northwest of the 2500/2700 Parcel are 50 to 70 feet higher in elevation than the 2700 building. The area between these houses and the Project Site is wooded." Given the dense vegetation between Knightsbridge Manor Road and the Project Site, as well as steep drop in elevation, the view from the top floor of these homes to the Project Site is currently occluded and would remain so.

Finally, as discussed in Chapter 3 of the DEIS, NYSDEC has developed a methodology for assessing and mitigating visual impacts (DEP-00-2). NYSDEC's guidance on evaluating potential visual impacts draws a sharp distinction between a "public" impact, which could occur as a result of an impact to a public resource, and an "individual" concern, which results from a belief that a property or neighborhood is within the viewshed of a project. Consistent with this policy, and in compliance with the Adopted DEIS Scoping Document, the potential for the Proposed Project to have an adverse visual impact was analyzed from several publicly accessible vantage points. Given the scale of the Proposed Project and the context in which it is located, that analysis concluded that the Proposed Project would not have an adverse visual impact on existing neighborhoods or community character.

Comment 25: Potential Impacts – The DEIS states that the Proposed Action is consistent with the surrounding land uses, and specifically the adjacent residential uses. However, these uses are traditional single-family homes, and the Proposed Action consists of townhomes. No such housing type exists in the vicinity of the Site. The claim of consistency must be further justified. Furthermore, the claim that the Proposed Action is "appropriately scaled" should also be further justified. (Cleary, February 9, 2022)

Response: Both the townhomes and surrounding residential neighborhoods consist of single-family homes; in the case of the Proposed Project, those single-family homes are attached, while in the case of the surrounding neighborhoods, the homes are detached. It is the Applicant's opinion that though the architectural style of housing is different (e.g., attached and detached), the overall character of the use as a single-family residence is quite similar. At the same time, the height of the proposed townhomes, at three-stories, is similar to the height of the surrounding residential uses (e.g., one- to three-stories). It is the Applicant's opinion that both in terms of character and height, the Proposed Project is more consistent with the surrounding residential neighborhoods than a multi-story apartment or commercial building.

Comment 26: Potential Impacts – Document the "overall mixed-use residential and commercial land use character" of the Platinum Mile (by percentage of land use from White Plains to Rye Brook, along Westchester Avenue). This would most likely be best presented in tabular form, by parcel). (Cleary, February 9, 2022)

Response: While not an official designation, the "Platinum Mile" is generally understood to encompass the corridor stretching along Interstate 287 from 333 Westchester Avenue in White Plains to 800 Westchester Avenue in Rye Brook. **Table 2-2** summarizes the land uses within this corridor.

Table 2-2
Platinum Mile Land Uses

Address	Use	Notes
333 Westchester Ave, White Plains	Professional Office	Uses include medical offices, law offices, educational
401, 423, 425, 427, 433, 435, 441, 443 Westchester Ave, White Plains	Residential	Residential neighborhood abutting Westchester Ave between office parks
55, 56 Meadowbrook Road, White Plains	Residential	
210 Westchester Ave, Harrison	Medical Office	Westmed Medical Group
220-230 Westchester Ave, Harrison	Professional Office	4 buildings on one parcel, mix of uses, which include Montessori Children's Center, medical offices
244 Westchester Ave, Harrison	Professional Office	
400 Westchester Ave, Harrison	Education	Fordham University Graduate School of Social Service
500 Westchester Ave, Harrison	Medical Office	Memorial Sloan Kettering

Table 2-2
Platinum Mile Land Uses

701-777 Westchester Ave, White Plains	Professional Office	5 buildings on one parcel, mix of uses
1000-1020 Westchester Ave, Harrison	Institutional / Government	USPS
925 and 1025 Westchester Ave, White Plains	Professional Office	2 buildings on one parcel
1 Westchester Park Drive, Harrison	Recreational	Lifetime Gym
2 and 4 Westchester Park Drive, Harrison	Professional Office	2 buildings on one parcel
3 Westchester Park Drive, Harrison	Residential	450-unit rental product
1101 Westchester Ave, White Plains	Professional Office	
1111 and 1129 Westchester Ave, White Plains	Professional Office	2 buildings on one parcel, PepsiCo offices
1133 Westchester Ave, White Plains	Professional Office	
100 Corporate Park Drive, Harrison	Banking	Chase Bank
101 Corporate Park Drive, Harrison	Hotel	Hyatt House
102 Corporate Park Drive, Harrison	Professional Office	
104 Corporate Park Drive, Harrison	Professional Office	
105 Corporate Park Drive, Harrison	Residential	The Carraway, luxury apartments
106 Corporate Park Drive, Harrison	Retail	Wegmans
109 Corporate Park Drive, Harrison	Educational	Preschool
1 and 4 West Red Oak Lane, Harrison	Professional Office	2 buildings on one parcel
10 West Red Oak Lane, Harrison	Utilities	Verizon
25 West Red Oak Lane, Harrison	Retail	
40 West Red Oak Lane, Harrison	Educational	The Windward School
45 West Red Oak Lane, Harrison	Recreational	Swimming facility
55 West Red Oak Lane, Harrison	Professional Office	
65 West Red Oak Lane, Harrison	Professional Office	
70 West Red Oak Lane, Harrison	Professional Office	
80 West Red Oak Lane, Harrison	Hotel	(closed) Renaissance Westchester Hotel
2000 Westchester Ave, Harrison	Professional Office	
2125 Westchester Ave, Harrison	Religious	Congregation Emanu-El of Westchester
2195 Westchester Ave, Harrison	Religious	Greek Orthodox Church of our Savior
2225 Westchester Ave, Harrison	Religious	Multiple buildings including School of the Holy Child, and a church
1-12, 14-16, 18, 20 Knightsbridge Manor Road	Residential	Residential neighborhood on private road
2500-2700 Westchester Ave, Harrison	Professional Office	
2900 Westchester Ave, Harrison	Professional Office	
3000-3030 Westchester Ave, Harrison	Professional Office	Known as Purchase Professional Park, 4 buildings, including medical and other offices. 5th building approved
2975 Westchester Ave, Harrison	Professional Office	
760 Westchester Ave, Rye Brook	Professional Office	
800 Westchester Ave, Rye Brook	Professional Office	

Table 2-2
Platinum Mile Land Uses

Source: Westchester County GIS

Comment 27: Proposed Mitigation – The various elements of the Proposed Action that allow the development of a residential use within an office park, should be identified (including elements such as the siting of the buildings on the site, design and architecture, buffer landscaping and screening, etc.) (Cleary, February 9, 2022)

Response: In the Applicant's opinion, the Proposed Project is well suited to the Project Site for several reasons. First, the Project Site, while located within a parcel that currently has two office buildings, has the visual appearance of a stand-alone parcel. While accessed from a common driveway on Westchester Avenue, the Project Site is visually, and physically, isolated from the 2500 Site, owing mainly to the significant change in elevation between the two sites. Similarly, the topographical difference between the 2700 Site and the Knightsbridge Manor neighborhood and Purchase Professional Park visually separates the Project Site from its northeastern and southern neighbors. This visual separation is enhanced by the existing wooded buffers surrounding the 2700 Site, which also acts as a visual barrier between the Project Site and the neighborhoods in Rye Brook and the 2900 office building to the south. By siting the three-story townhomes on the developed portion of the 2700 Site, the Proposed Project takes advantage of this visual separation. The Proposed Project also includes a landscaping program that, together with the low-rise and traditional architecture proposed, would reinforce this visual separation as well as help to establish a more residential feel for the interior of the Project Site.

Comment 28: Potential Impacts – It should be clarified that the Comprehensive Plan did not specifically recommend extending the geographic applicability of the SB-O Multi- Family Special Exception Use to areas outside of the "Tear Drop" but rather indicated that it *may be* appropriate. (Cleary, February 9, 2022)

Response: Comment noted. The Town's Comprehensive Plan stated that if the "SB-MX zone is successfully implemented and market forces appear to indicate demand for mixed uses elsewhere in the overall Platinum Mile area, consideration may be given to expanding the SB-MX zone, as appropriate." It is the Applicant's opinion, based on the success of the projects in the "Tear Drop," the market history and outlook for the Project Site, and the continued demand for mixed uses, that expanding the geographic scope of the SB-O Multifamily Use to the Project Site is appropriate.

Comment 29: Parking and Access on Previously Developed Parcels, 1st § – Of any of the other parcels that would become eligible to support an SB-O Multi-Family

Development, how many would result in land-locked parcels? (Cleary, February 9, 2022)

Response: Assuming the same parcels that have the potential to be developed with the adoption of the Proposed Zoning as outlined in Chapter, 14, "Cumulative Zoning Impacts," of the DEIS, the Project Site appears to be the only parcel that could result in a "land locked" parcel if subdivided.

Comment 30: Parking and Access on Previously Developed Parcels, 1st § – Define the scope of the parking survey required to justify the parking space reduction. What mechanism would be employed to address changing office building occupancy rates over time? (Cleary, February 9, 2022)

Response: The Town's Zoning Code requires one parking space per 200 square feet of office while the proposed text amendment proposes one parking space per 300 square feet of office in the SB-O zoning district. The Institute of Transportation Engineers (ITE) publishes the "Parking Generation Manual, 5th Edition" which is an industry standard publication. The ITE publication provides the projected peak parking demand for various land uses which is supported by numerous parking studies conducted at the land uses. For instance, there are over 140 parking studies conducted for office buildings during weekdays incorporated in the publication. Based on the ITE data, the peak weekday parking demand for an office use is one parking space per 418 square feet. The peak parking demand of one parking space per 418 square feet of office use is less than the Town's parking requirement of one parking space per 200 square feet.

Notwithstanding the above, and pursuant to the Proposed Zoning, a parking study will be performed for the 2500 building. This analysis will consist of on-site parking occupancy counts on a typical weekday. Counts will be conducted in half hour intervals during normal business hours of the existing office building. The data collected will be summarized in a report with tables summarizing the witnessed parking utilization, including a percentage of occupied parking spaces versus the total number of spaces on the 2500 Lot.

Interior construction to accommodate a new or different tenant within the 2500 building that would necessarily accompany a change to a more intensive type of office use would require building permits from the Town of Harrison. At that time, the Building Inspector could inquire as to the nature of the use proposed and, if necessary, refer the application to the Planning Board. See also Response to Comment 135.

Comment 31: 2nd full § - The proposed zoning amendment to allow the access drive for an SB-O Multifamily project to be located within a landscaped buffer, must be further justified. It has not been established that the current access configuration for the Proposed Action, or for other potential SB-O Multifamily projects, should be allowed as proposed by this zoning amendment. The landscaped buffer is an important element in defining the character of these sites. (Cleary, February 9, 2022)

Response: The existing landscape buffer around the exterior 2500/2700 Parcel would remain with the Proposed Project. As noted above, the existing landscape buffer to remain helps to define the character of this site as viewed from parcels outside of the Project Site. Neither the Proposed Project nor Proposed Zoning would adversely affect the existing required landscaped buffer around the exterior of the 2500/2700 Parcel.

Upon subdivision of the 2500/2700 Parcel, the SB-O zoning, as currently written, would require the construction of a landscaped buffer along both sides of the new, internal, property line between the 2500 and 2700 Sites (roughly along the driveway to the 2700 Site). The 2500 Site would be required to have a landscaped buffer that is 50 feet wide while the 2700 Site would be required to have a landscaped buffer that is 40 feet wide. It is the Applicant's opinion that requiring these two new, internal, landscaped buffer areas is not needed. The 2500 and 2700 Site are currently separated by a landscaped buffer that, at its narrowest point between the driveway and the 2700 building, is approximately 43 feet wide. In addition to vegetation, this buffer contains a steep drop in elevation that results in a visual separation between the 2500 and 2700 sites. With the Proposed Project, this "internal" landscaped buffer would remain. At its narrowest point, between the closest townhome and the proposed property line, with construction of the Proposed Project, the buffer would be 51 feet wide. As discussed above, the significant change in elevation would remain, adding to the visual separation between the two sites. Requiring an additional 50 feet of landscaped buffer on the 2500 site, in the location of the current parking lot for the 2500 building that is more than 40 feet higher in elevation than the proposed townhomes is, in the Applicant's opinion, not necessary to create adequate buffering between the two sites. As such, the Proposed Zoning would allow the Planning Board the flexibility to account for this unique situation.

Comment 32: SB-O Multifamily Special Exception Use Criteria – 1st bullet – Provide a summary of the market survey findings. (Cleary, February 9, 2022)

Response: As detailed in the Market Study (Appendix E to the DEIS), "[f]or the purposes of [the Market Study], the communities of Harrison, Rye Brook, Port Chester, Rye City, and White Plains [were] identified as the Market Area." The Market Area "is inclusive of major employment centers and represents the likely Market Area within which potential buyers for the Proposed Project would conduct their search."

The Market Study found that "[o]verall, demographic and economic trends support the development of the Proposed Project as a housing product in this area. Despite the population decline in New York City and State, the Market Area and

Westchester County continue to see modest growth, which supports the need for additional housing development. The Proposed Project would cater to empty-nesters and retirees, of which 22.1 percent of the Market Area population are already considered (60+ age grouping). With the majority of the Market Area and the County in the 40-59 age grouping, the empty-nester consumer base is anticipated to grow, thus adding further viability to the Proposed Project. The Proposed Project would have pricing in line with Market Area incomes as nearly one-quarter (24.6 percent) of household incomes are at or above $200,000. Finally, approximately one-third of occupied housing units in the Market Area and the County have had a householder move into the unit in 1999 or earlier, suggesting that this housing stock is likely to turn over in the short term, with those householders potentially seeking a product in the same community that offers less maintenance."

"The majority of housing in the Market Area, Harrison, and the County is owner-occupied, experiences low to negligible vacancy rates, and was built before 1960. The production of housing units over the last two decades throughout the Market Area and the County has been declining. Only 5,741 units have been produced across the Market Area and 25,778 units across Westchester County since 2000. Divided by the 21 years since 2000, that averages just 274 units per year across the Market Area and 1,228 units per year across Westchester County, significantly limiting the overall supply of housing. Currently, only 2 percent of available housing in the Market Area is a townhome product. Other comparable townhome products within the Market Area and Westchester County have performed well and have no to limited availability. The proposed townhome development would fulfill a niche market that is currently limited in supply within an overall housing market that is significantly undersupplied."

Comment 33: SB-O Multifamily Special Exception Use Criteria – 2nd bullet – Specifically state by how much the Project Site exceeds the 5-acre minimum. (Cleary, February 9, 2022)

Response: The Project Site is approximately 13.5 acres, and thus it exceeds the 5-acre minimum by approximately 8.5 acres.

Comment 34: SB-O Multifamily Special Exception Use Criteria – 4th bullet – Compliance with this standard is documented by indicating that the 69 proposed dwelling units is less than the 450 permitted. Is the Applicant willing to imposed [sic] a deed restriction, or other similar legal instrument, limiting the number of dwelling units to the 69 proposed? (Cleary, February 9, 2022)

Response: The Applicant anticipates that any Special Exception Use Permit and Site Plan approvals for the Proposed Project would limit the number of dwelling units permitted on the Project Site. The Applicant notes that no building permit could be issued for units in excess of the limits imposed in the Special Exception Use Permit and Site Plan.

Comment 35: SB-O Multifamily Special Exception Use Criteria – 7th bullet – Do any of the proposed dwelling units contain “bonus rooms” of other rooms that could be easily converted to a bedroom? Is the Applicant willing to imposed [sic] a deed restriction, or other similar legal instrument, limiting the number of bedrooms to 3? (Cleary, February 9, 2022)

Response: The Applicant anticipates that any Special Exception Use Permit and Site Plan approvals for the Proposed Project would be keyed to a Site Plan that lists the number of units and the number of bedrooms per unit. The Applicant notes that no building permit could be issued for units in excess of the limits imposed in the Special Exception Use Permit and Site Plan.

Comment 36: SB-O Multifamily Special Exception Use Criteria – 8th bullet – More fully document and explain how the dwelling units are “geared toward young people, empty nesters and residents without young children.” (Cleary, February 9, 2022)

Response: The Proposed Project would consist of attached, single-family, three-bedroom townhomes. Relative to other single-family homes in Harrison, the Proposed Project would feature houses that have significantly smaller lots and much narrower floor plates. It is anticipated that when comparing houses within Harrison, these features would appeal less to families with young children than would other offerings within the Town that include larger, private yards, and more horizontal space in which to separate various family activities within the house.

Comment 37: SB-O Multifamily Special Exception Use Criteria – 13th bullet – Provide the distance to the mass transit link, in lineal feet. (Cleary, February 9, 2022)

Response: The distance from the nearest Westchester Bee-Line bus stop, which is located on Westchester Avenue, is approximately 170 feet. The distance from the bus stop to the point along the shared driveway beyond the last entrance to the parking lot for the 2500 building (i.e., the point at which the driveway only serves the Proposed Project), is approximately 990 feet along the existing and proposed sidewalk within the 2500/2700 Parcel.

D. VISUAL AND COMMUNITY CHARACTER

Comment 38: In looking at the plan, it looks like you have very limited amount of green space, amenity space, my – and just my opinion. I may be totally off base here in looking at it, but it looks like you’re asking for 69 townhomes, two-car garages. It appears to be over – overbuilt. So I just want to point that out, that it’s something I’m thinking about as I look at the project. (Heaslip, PH December 21, 2021)

Response: The Proposed Project would limit development to the previously developed footprint of the Project Site. The more environmentally sensitive areas of the Project Site, including wetlands and areas adjacent to the Blind Brook, would not be developed and would be preserved as undeveloped open space. Of the approximately 13.5-acre Project Site, approximately 8-acres will be disturbed. An additional, approximately 1-acre portion of the Project Site would be improved with stormwater management areas and the existing Project Site driveway. As a result, approximately 4.5-acres of the Project Site would remain in its current, undisturbed, condition.

As detailed in Chapter 3 of the DEIS, "Visual and Community Character," "[t]he Project Site's current office building and parking lot are contiguous areas of impervious surface. However, the Proposed Project would create areas of landscaping and natural cover interspersed with the new residential townhomes and interior drives, resulting in a development that is of a more human scale and greener than the existing office development. The Proposed Project would include new native canopy/shade trees and native flowering trees throughout the development, including tree planting at the connection with the Westchester Avenue access drive and tree plantings along the interior drives, and the existing wooded buffers around the Project Site, and along Blind Brook, would be maintained." In addition to the 9,524 feet of recreation space that would be developed as part of the Proposed Project, "the proposed site design includes a permeable walking path around the south and east of the Site, located outside of the wetlands/floodplains, connecting to the sidewalks," which further supplements the green space and amenity space proposed. Therefore, it is the Applicant's opinion that the approximately 4.5-acres of environmentally sensitive open space that is being maintained, together with the human-scale site layout and design proposed, result in an appropriate balance of development and open space on the Project Site.

Comment 39: Visibility of the Project Site – Clarify the difference in height between the existing office building and the proposed townhomes. (Cleary, February 9, 2022)

Response: The height of the existing 2700 Building is 49.6 feet. The height of the proposed townhomes will be approximately 42 feet, measured from the average finished grade at each building to the average height of the pitched roof.

Comment 40: Visibility of the Project Site – what is the width of the existing 2700 office building, compared to the cumulative width of the townhomes? (Cleary, February 9, 2022)

Response: The 2700 Building is approximately 194 feet wide. The Proposed Project would include townhomes constructed in groups of four, five, and six attached structures. The width of the four-townhome groupings would be approximately 96 feet, the width of the five-townhome groupings would be approximately 120 feet, and the width of the six-townhome groupings would be approximately 144 feet.

Comment 41: Lighting Program – Identify the illumination levels along the property lines facing adjacent residents (in footcandles)? (Cleary, February 9, 2022)

Response: The Proposed Project would be designed to be International Dark-Sky Association (IDA) Dark Sky Friendly. All lighting fixtures would be Illuminating Engineering Society (IES) full cutoff, and light levels would not exceed Illuminating Engineering Society of North America (IESNA) guidelines document RP-33-99 "Lighting for Exterior Environments" minimums.

Given the anticipated operation of the Proposed Project, night lighting is necessary to accommodate the residential use. However, since the proposed lighting includes the use of full cut-off fixtures, which would direct the light downward, light spill-over to adjacent residential neighborhoods is not anticipated. The lighting of all sidewalks would be designed to provide an average maintained horizontal light level of 1-foot candle. A detailed photometric plan would be reviewed and approved as part of Site Plan review.

E. GEOLOGY, SOILS, TOPOGRAPHY

Comment 42: The Applicant shall revise the existing and proposed building lot coverages shown on Table 4-2 of the DEIS to be consistent with the area takeoff summary tables provided on the drainage area maps in the Stormwater Pollution Prevention Plan (SWPPP). (Torres, January 24, 2022)

Response: The Applicant's engineer has confirmed that the existing building on the 2700 Lot has a footprint of 27,932 square feet and the total footprint for the proposed townhouses is 83,904 square feet, as reflected in the DEIS and within the SWPPP.

Comment 43: Potential Impacts – Will the 1,303 cubic yards of fill be imported at one time, or throughout the duration of the project build-out, as needed? If soil is to be stockpiled, where will that occur? (Cleary, February 9, 2022)

Response: The DEIS stated there would be approximately 439 cubic yards of material imported to construct the Proposed Project, which has been since updated to approximately 528 cubic yards as discussed above. The DEIS estimated that a total of 1,303 cubic yards of fill would be needed throughout the Project Site's filling operations, not the net import. Some of the Project Site's excavated material is anticipated to be reused as fill material on the Project Site. The import of fill will likely take place on an ongoing basis, as needed. If material needs to be temporarily stockpiled during construction, it will be stored within the areas of the Project Site proposed for disturbance and will be surrounded by silt fence and its surface stabilized in accordance with the SPDES General Permit for Construction Activities.

F. SOCIOECONOMIC AND FISCAL IMPACTS

Comment 44: Demographic Characteristics in Harrison – Clarify if the 2020 population numbers derive from the 2020 decennial census or are estimates from the Community Housing Survey or ACS data. (Cleary, February 9, 2022)

Response: The 2020 data were taken from the 2020 U.S. Decennial Census.

Comment 45: Table 5-6 – Does the data documenting the places where residents work reflect pandemic work and commutation patterns? (Cleary, February 9, 2022)

Response: The data documenting where residents work is from the 2018 U.S. Census Bureau's OntheMap data, which was the most recent data set available at the time of the DEIS analysis. As of February 2022, the most recent data available from OntheMap is 2019 data, which also would not reflect the effect of the pandemic on work and commuting patterns. At this time, it would be speculative to estimate long-term (post-pandemic) work-from-home rates, even if comparable data from 2020 and 2021 were available. While the COVID-19 pandemic has disrupted commuting patterns in the short term, it is unlikely to fundamentally alter the centrality of the New York City office market to the region in the long term. While more flexibility in daily commuting appears likely, and the internal layout of workspaces may change, the New York City office market continues to experience major new leasing activity suggesting a long-term confidence in the market as a whole.

Comment 46: Existing Property Tax Revenue – Clarify the assessed value of the site (which is presented as a total for both office buildings). How much of this assessed value does the 2700 building comprise? (Cleary, February 9, 2022)

Response: As is stated in Chapter 5 of the DEIS, "Socioeconomic and Fiscal Conditions," the 2021 assessed value for the 2500/2700 Parcel is $575,000, based on an approximately $39.7 million market value. For purposes of the DEIS analyses, it was assumed that the Project Site accounts for approximately one-third of the overall parcel's value; $13,218,391 of market value or $191,667 of assessed value. This assumption is based on the relative occupancy of the buildings and their associated rent rolls and expenses. At the time of the writing of the DEIS, the 2700 office building was approximately 29 percent leased, while the 2500 office building was approximately 90 percent leased.

Comment 47: Existing Property Tax Revenue – What is the tax certiorari history of the Site? (Cleary, February 9, 2022)

Response: **Table 2-3** presents the Tax Assessment and tax certiorari history of the 2500/2700 Parcel.

Table 2-3
Tax Certiorari History of 2500/2700 Westchester Avenue Parcel

Tax Year	Initial Assessment	Revised Assessment	Assessment Reduction	Comment
2009	$ 850,000	$ 630,000	$ 220,000	Reduction via Settlement
2010	$ 630,000	$ 630,000	--	Freeze Act Applied
2011	$ 630,000	$ 630,000	--	Freeze Act Applied
2012	$ 630,000	$ 560,000	$ 70,000	Reduction via Settlement
2013	$ 630,000	$ 630,000	--	No Appeal Filed
2014	$ 630,000	$ 575,000	$ 55,000	Reduction via Settlement
2015	$ 630,000	$ 575,000	$ 55,000	Reduction via Settlement
2016	$ 575,000	$ 575,000	--	Freeze Act Applied
2017	$ 575,000	$ 575,000	--	Freeze Act Applied
2018	$ 575,000	$ 575,000	--	Freeze Act Applied
2019	$ 575,000	$ 575,000	--	No Appeal Filed
2020	$ 575,000	TBD	TBD	Appeal in Process
2021	$ 575,000	TBD	TBD	Appeal in Process

Source: Senlac Ridge Partners.

Comment 48: Table 5-14 – Provide an assessment of the fact that less than 2% of the housing stock in the Market Area consists of a townhome product. Is this due to an undersupply of this housing type, or a preference for other housing types. (Cleary, February 9, 2022)

Response: Table 5-14 of the DEIS shows current real estate listings in the market area, not total housing stock. At the time of the DEIS analysis, less than two percent of real estate listings were townhomes. However, Table 5-13 shows that 1-unit attached housing (townhomes) are 5.7 percent of the housing stock in the Market Area while 1-unit detached housing makes up 38.1 percent of the housing stock in the Market Area and 53.0 percent of the housing stock in Harrison. This likely reflects both historic market preferences as well as historic market supply.

Comment 49: Future Conditions Without the Proposed Project – The conclusions about overall market conditions make no refence to the pandemic. Have the home sales referenced been influenced by pandemic related real estate trends? (Cleary, February 9, 2022)

Response: It is the Applicant's opinion that long-term impacts of the COVID-19 pandemic on the housing market are not yet known. Over the past year, however, housing sales within the Hudson Valley increased in both volume and price.[4] Whether this is a long-term trend, or a short-term phenomenon, cannot yet be known. However, the characteristics supporting the region's housing market, including proximity to New York City's office market, good regional transit and transportation, and high quality of life, suggest that regardless of the pandemic's impacts on the global housing market, the local housing market is likely to remain quite strong.

Comment 50: Market Study Findings – Document the claim that "the empty-nester consumer base is anticipated to grow." (Cleary, February 9, 2022)

Response: As shown in Table 5-2 in the DEIS, the largest age-cohort in the Market Area is between 40 and 59 years old. As this cohort ages, it is likely that many currently within this age group that have children will become empty nesters.

Comment 51: Market Study Findings – Does any research exist documenting and/or supporting empty nester timing – or when a single-family home may be vacated after the chicks fly the coop, and what are the average ages of the homeowners at that time? (Cleary, February 9, 2022)

Response: The Applicant is not aware of research identifying the likely age at which, or the duration of time after a child leaves the household at which, a family is likely to move. Such a decision is influenced by myriad individual factors. In addition, the availability of appropriate housing options within the community likely impacts the decision for many families.

Comment 52: Footnote 5 – Clarify the "Kingfield development" referenced in this footnote. (Cleary, February 9, 2022)

Response: The Kingfield development is located in Rye Brook, New York, along the New York/Connecticut border, east of Purchase College, south of the Westchester County Airport, and North of the Blind Brook County Club. It is located "behind" the former Reckson office park.

Comment 53: Market Study Findings, 1st partial § – Regarding the other comparable townhome products, define what is meant by the statement that they have "performed well." (Cleary, February 9, 2022)

Response: Comparable townhomes have sold relatively soon after being brought to market at prices at or above what was projected by the developers of those townhomes.

---

[4] *Annual Report on the Hudson Gateway Housing Market: For Residential Real Estate Activity in the Hudson Gateway*. 2021. Hudson Gateway Association of REALTORS. https://www.hgar.com/content/uploads/2022/01/Annual-Report-on-the-HGAR-Housing-Market-presented-by-OneKey%C2%AE-MLS-2021.pdf

Comment 54: Market Study Findings, 1st partial § – Townhomes are described as a "niche market." That phrase suggests that the housing type is unique, and as such more vulnerable to market variations. Having experienced the vulnerability in the office market along the Platinum Mile over the past 20 years, and the consequentially devastating impact on the Town's commercial tax base, a new "niche" housing type that may be potentially vulnerable, would be undesirable. Further clarification is necessary. (Cleary, February 9, 2022)

Response: Townhomes are a "niche market" only in that they meet a specific market need that is not fully met through other offerings in the Town or immediate Market Area. Townhomes are underrepresented as a housing option within the Town and the Market Area likely due to historical land development policies and broader market forces favoring detached single-family housing in the past several decades. Expanding the range of housing options available within a community in response to changing demographics and market demand has been a proven means of increasing the stability of an overall housing market. The Town's Comprehensive Plan noted that "Harrison's household types remain fairly limited. Alternate forms of housing are recommended to help meet the demand for smaller, low-maintenance units, sought by empty-nesters, single parents, and young couples." The Plan went on to recommend that, "Harrison should evaluate the possibility of allowing more varied housing types to increase variety and affordability of housing opportunities. The town should also encourage the provision of housing suited for senior citizens to ensure a housing type choice at every stage of its residents' life cycle."

The Proposed Project would increase the available housing stock of connected townhomes in Harrison, which cater to empty nesters, and can help meet the demand for these housing types that was noted in the Comprehensive Plan and documented more recently in the Market Study in the DEIS.

Comment 55: Market Study Findings, 1st full § – The project's access to transit is described as "excellent." Is this in fact the case? While the site is accessible to Bee Line bus service, the site is particularly auto dependent. It is a stated objective of the Town to increase and enhance access to all forms of transit and forms of circulation, however, this site's access to transit is clearly less than "excellent." A transit-oriented project such as the Avalon development in Downtown Harrison which is constructed at the Metro North train station can properly lay claim to having "excellent" transit accessibility. (Cleary, February 9, 2022)

Response: Comment noted. While a downtown development within walking distance to mixed use neighborhoods and a train station certainly can be characterized as having "excellent" transit, the Project Site also has ready access to transit. Bee-Line Bus service is within walking distance of the Project Site, which provides direct connections to points west, including downtown White Plains. In addition, while not walkable, there are two New Haven line Metro North stations within 2 miles of the Project Site and two Harlem line Metro North stations between 4 and 5 miles away. This proximity to various transit options, including those serving New York City, make the Project Site more desirable than sites that are less proximate to those transit options.

Comment 56: Market Study Findings, 1st full § – The DEIS notes the project's proximity to the downtowns of Harrison, Rye, Port Chester and White Plains as a benefit. Clarify the travel times from the site to these downtowns, and identify any challenges in accessing these areas (for example, how might the one-way (west) circulation on Westchester Avenue influence travel back toward the downtowns of Harrison, Rye and Port Chester (located to the east). (Cleary, February 9, 2022)

Response: To access downtown Port Chester, Rye, or Harrison a driver would need to travel approximately ½-mile to the west on Westchester Avenue before crossing I-287 at Purchase Street and traveling back east to their destination. Downtown Port Chester and Downtown Rye are approximately 2.9 miles from the Project Site, a 7-to-12-minute or 8-to-9-minute drive, respectively, per GoogleMaps™. Downtown Harrison is approximately 4.7 miles from the Project Site, which is an approximately 10-to-15-minute drive. Downtown White Plains is approximately 4.6 miles from the Project Site, which is an approximately 9-to-14-minute drive.

Comment 57: Market Study Findings, 1st full § – The DEIS states "The redevelopment of the Project Site provides an opportunity to effectively respond to long-term changes in market conditions through the continued redevelopment of corporate office buildings in the area." The Town's office park repurposing initiative is predicated on the presumption that redeveloping the underperforming office parks will strengthen and improve the tenancy and economic viability of the remaining office parks. "Continued redevelopment of corporate office buildings" is not a goal of the Town. The applicant should document if this planning strategy is proving to be effective, and that by repurposing the sites in the tear drop, and this site, the remaining office parks have been, and will continue to be bolstered. (Cleary, February 9, 2022)

Response: Comment noted. The Proposed Project targets the re-positioning of a historically underperforming building. Reducing inventory of commercial office buildings will help to increase occupancy of remaining buildings to the extent that other market factors remain constant. Among existing tenants in the 2700 building, several are relocating to the 2500 building. Other tenants have indicated to the Applicant that they will be relocating to other buildings along the Platinum Mile, or to downtown White Plains.

The Applicant notes that Section 3.2, "Zoning," of the Comprehensive Plan states that "[g]iven the recent office development trends discussed above and their resultant impacts on Harrison's tax base, the Town should examine expanding the allowable uses in appropriate areas within the Platinum Mile, with targeted controls, with the purpose of both retaining office complexes and promoting suitable, complementary non-office development."

G. COMMUNITY FACILITIES

Comment 58: In addition, the other question is in terms of fire. The fire district in the Purchase area is a volunteer fire department. Will this now require the full-time in order to meet New York State fire certification requirements? Will there be a requirement to impose full-time fire, just as we have in downtown Harrison? And if so, will this impact our taxes that were incorporated into our town taxes that we all got a bill for? (Demirjian, PH January 25, 2022)

Response: The Proposed Project is not anticipated to require the Purchase Fire Department (PFD) to become a full-time department. As noted in Chapter 6 of the DEIS, "Community Facilities," the Secretary of the Purchase Fire District, Robert Makowski, indicated that he "does not anticipate impending changes to the PFD that might affect response time to the Project Site, or any significant changes to personnel or budget as a result of the Proposed Project." The proposed townhomes would contain fire suppression sprinklers and all construction would adhere to local and state building codes.

Comment 59: Police Services – Proposed Mitigation – In response to the Police Department's concern over the potential for "increased criminal activity," any proposed security measures for the townhomes, and the site in general, should be documented. (Cleary, February 9, 2022)

Response: As indicated the Police Department's letter, included in Appendix G to the DEIS, it is the Department's opinion that "[t]here is also the potential for [the] area to be subject to increased incident of criminal activity due to its close proximity to major highways and thoroughfares." While the Department's comment concerned the Project Site in general, as opposed to the Proposed Project specifically, the Proposed Project would include elements that would improve Project Site security. The Proposed Project would include new Project Site lighting, as well as a new resident population that would, in the Applicant's opinion, reduce the potential for criminal activity as compared to current condition of the Project Site. A detailed security plan, which may include cameras and security lighting, would be developed at the time of a site plan application and would be subject to review and approval of the Planning Board.

Comment 60: Fire Services – Proposed Mitigation – Fire Department site accessibility measures should be documented. Does fire apparatus have access to all sides of all buildings? Is the shared access driveway adequate to accommodate all types of emergency vehicles? Would on-site parking areas interfere with fire apparatus access, etc. (Cleary, February 9, 2022)

Response: The Project Site's fire access has been designed in accordance with Appendix D of the 2020 Fire Code of New York State ("Fire Code").

Regarding fire apparatus access roads, Section D106.1 of the Fire Code states that one fire apparatus access road is required for multi-family residential developments up to 100 units if those units are not sprinklered. The Proposed Project would include 69 units, and therefore the Project Site's driveway meets this requirement. Furthermore, pursuant to the Town Code, the proposed townhomes are required to have fire sprinkler systems, and therefore the Project Site's access drive is sufficient to service up to 200 units. The proposed fire apparatus access road is identified on Drawings C-110, C-111 and C-112 included with the project's Preliminary Site Plan Approval Drawings. Drawing C-112 shows the turning movements of the fire truck used in the analysis, which can traverse the property without interfering with cars parked in the proposed parking spaces in front of the proposed townhouses (see **Appendix D**).

Regarding access to the individual buildings, access from all sides of the building is not required by the Fire Code. Aerial access to the buildings is proposed in accordance with Section D105 entitled "Aerial Apparatus Access Roads" since the proposed townhouses will exceed 30 feet in height, as defined by the Fire Code. As such, the width of the proposed driveway is 26 feet, as required by this section of the Fire Code, as is the existing driveway that currently serves the Project Site. Furthermore, this aerial apparatus access road, as proposed, is not less than nor more than 30 feet from the proposed townhouses, and this road is positioned parallel to one entire side of the building, as required by Section D105.3 of Appendix D.

Comment 61: Recreation and Open Space – Existing Conditions – The Town's purchase of the former Willow Ridge County Club is complete, and the facility is now known as the Harrison Meadows Country Club, and will be open for business this spring. (Cleary, February 9, 2022)

Response: Comment noted.

Comment 62: Recreation and Open Space – Potential Impacts – Clarify why it is assumed empty nesters would prefer passive recreation facilities rather than active recreation facilities at this location. (Cleary, February 9, 2022)

Response: It is the Applicant's opinion that empty nesters, who are generally an older population, are less likely to prefer active recreation facilities such as playgrounds and ballfields, as they are less likely to use those amenities than their younger, child-rearing counterparts that often favor those activities, in part, as a result of their children. In addition, given physical constraints of the Project Site, passive recreation facilities are more appropriately located within the environmentally constrained site. As such, the Proposed Project includes walking paths, open spaces, community gathering spaces, and seating areas to complement the proposed residential neighborhood setting.

Comment 63: Table 6-5 – Are additional examples of actual townhome school generation data available? (Cleary, February 9, 2022)

Response: The number of public-school children living within a particular townhome development varies based on a number of factors, including age of the units, community setting, price of the unit, characteristics of the surrounding community, and many other factors. Because of this variation, the DEIS presented information on public school students within a variety of townhome developments, including those in communities physically close to Harrison or that share other characteristics with Harrison. In addition, the DEIS presented data taken from two state-wide analyses of the number of public-school children within townhome developments.[5] As such, the number of school-age children estimated in the DEIS to live at the Proposed Project included a wide range. Even using the largest number of public-school children estimated by the various multipliers presented in the DEIS, the Proposed Project would "cost" the school district only 58 percent of what it would likely generate in increased property taxes. Moreover, under this highest number of public-school children scenario, the Proposed Project would add 22 children to the school district. For comparison, the District itself anticipates enrollment to decline by 263 students by the year 2030 *after* taking into account the developments pending or recently approved in Town. Given this information, it is clear that the Proposed Project would not have a significant adverse impact on the school district.

Presenting data for other townhome developments may not provide satisfactory additional information to the Lead Agency. The townhomes selected for the case study presented in the DEIS share similar characteristics to those of the Proposed Project (e.g., generalized location, age, market segment, etc.). Other townhouses used for case studies may not share the same characteristics. For this reason, the DEIS presented state-wide data sets in addition to the case-study data

Nevertheless, **Table 2-4**, below, presents a case-study recently completed by the Applicant's planner on the number of school-age children living within townhouse developments within the City of Beacon's school district, which includes the City of Beacon and portions of the Town of Fishkill. Based on a survey that included 582 units, the average ratio of public-school age children per 2- and 3-bedroom townhouse was 0.203. While this is slightly higher than the per-unit estimate developed for the Proposed Project (0.15), it is less than the estimates generated by the state-wide studies included in the DEIS (0.28 and

[5] It should be noted that no townhome development that was directly surveyed by the Applicant had a higher multiplier than the state-wide multipliers cited in the study.

0.318). Therefore, the Applicant remains confident in the analysis of potential impacts to the school district contained in the DEIS.

Table 2-4
Case Study of Townhouses in Beacon City School District

Townhouse Developments	Town/ City	Year Built	Units Size	Market Value	Number of Units	Number of PSAC*	Ratio
Helen Court	C/ Beacon	1989	100% 3-BR	$240-280k	29	13	0.448
Sycamore Drive	C/ Beacon	1975-77	42% 2-BR and 58% 3-BR	$230-270k	52	19	0.365
Roundtree Court	C/ Beacon	1992-93	87% 2-BR and 13% 3-BR	$230-240k	30	13	0.433
Angela Court	C/ Beacon	1988	100% 3-BR	$230-290k	35	5	0.143
Verplanck Ave/ Schenck Ave.	C/ Beacon	1998-2002	100% 3-BR	$290-315k	27	14	0.519
Fishkill Woods	T/ Fishkill	2012-2016	82% 2-BR and 18% 3-BR	$430-500k	93	6	0.065
Sylvan Loop / Huron Court	T/ Fishkill	2011-2013	6% 1-BR 28% 2-BR 52 % 3-BR 4% 4-BR	$320k-600k	48	3	0.063
N. River Road / Clearwater Court	T/ Fishkill	2006-2012	100% 3-BR	$355-400k	88	4	0.045
Hollyridge	T/ Fishkill	2003-2005	41% 2-BR 57% 3-BR 2% 4+BR	$300-390k	180	41	0.238
				Total	**582**	**118**	**0.203**

Notes: * Based on average enrollment of 2016-17 through 2018-19 school years.
Sources: Beacon City School District. Dutchess County GIS.

The student enrollment information within the DEIS is still the most up-to-date information available at the time of publication. Table 6-3 of the DEIS identified other residential projects in Harrison, either under construction or pending approval, that had the potential to add PSAC to the HCSD. Based on data provided by HCSD, it was determined that those pending and approved projects could add approximately 152 PSAC. Since the completion of the DEIS, the HSCD released the "Harrison Central School District Superintendent's Budget Overview," dated February 9, 2022. That budget overview indicated that the same pending and approved projects were anticipated to add 174 PSAC to the HCSD.[6] Even accounting for this difference of 22 PSAC, the conclusion reached in the DEIS that the school district has adequate capacity to serve the Proposed Project remains the same. Specifically, in the Future Without the Proposed Project, and

6 https://resources.finalsite.net/images/v1648128071/harrisoncsdorg/gun7ev8qu5rqr5yh2aar/SuperintendentsBudgetOverview2-9-22.pdf. Accessed March 31, 2022.

taking into consideration the increased enrollment currently predicted for the "No-Build" projects, HCSD is anticipated to experience a decline in enrollment of approximately 241 students by 2030.

Comment 64: Schools – Proposed Mitigation – Document the project's design elements that support the conclusion that the development is not well suited to families with children. (Cleary, February 9, 2022)

Response: As stated in the DEIS, it is the Applicant's opinion, based on the Applicant's experience with similar communities as well as empirical information gathered from similar communities and presented in the DEIS, that attached townhome products in communities similar to Harrison are generally more attractive to young professionals and empty nesters than they are to families with young children. In general, in communities similar to Harrison, families with young children have generally preferred detached single-family houses rather than attached single-family houses. As described above, while the interior volume of the proposed townhomes is not necessarily "small," other components of the product, such as the width and the size of the private lot, give the townhome product a "small" feel when it is compared to the single-family homes in the community that have larger floorplates and larger lots.

H. INFRASTRUCTURE AND UTILITIES

Comment 65: The DEIS did not discuss the County Department of Environmental Facilities' policy that municipal governments require the applicant to identify mitigation measures that will offset the projected increase in sewer flows. (Drummond, December 23, 2021)

Response: In order to mitigate the additional proposed sewage flow from the Project Site, the Applicant will consult with the Town of Harrison during the site plan approval process to discuss potential reduction of inflow and infiltration at the expected ratios of three for one based on the final project demand.

Comment 66: The Applicant shall provide an estimated peak hour water demand for the facility. The adequacy of the water utility design of the proposed development shall be governed by its ability to meet peak hour water demands. (Torres, January 24, 2022)

Response: With 69 three-bedroom units at a demand of 110 gallons per day (GPD) per bedroom, Total daily water demand for the Proposed Project is 22,770 GPD, based on 69 three-bedroom units at an average daily demand of 110 GPD per bedroom. Assuming 18 hours of occupancy (average), the average hourly flow is 1,265 gallons per hour (GPH). Applying a standard peaking factor of 4, the peak hourly flow is 5,060 GPH.

Comment 67: Appendix H, Water and Wastewater Usag [sic] Tables, does not provide fire flow demand for the proposed development. The Applicant shall provide an estimated fire flow demand and all assumptions. (Torres, January 24, 2022)

Response: The Applicant has calculated the fire flow demand for the Proposed Project as 1,000 GPM at 20 psi, as noted in **Appendix E-1**.

Comment 68: The Applicant shall verify that adequate pressure and volume is available for the proposed development. The Applicant shall also include the following in their discussion:

i. Will the proposed hydrants have adequate pressure to meet peak hour demand? Analysis of the ability of the water system to meet the proposed development's demand should account for peak hour demands.

ii. Discuss the anticipated impacts of the proposed development's peak hour water demand on the wider Westchester Joint Water Works system. The American Water Works Association recommends a minimum normal operating pressure of 35 psi, and the Westchester County Department of Health requires an absolute minimum pressure of 20 psi at all points in a water system. Indicate and provide justification to clarify whether the anticipated peak hour water demand at the proposed development site will cause any areas of the Westchester Joint Water Works system to experience pressures less than the recommended minimum pressure of 35 psi during non-fire flow conditions. Indicate and provide justification to clarify whether the anticipated fire flow demand at the proposed development site will cause any areas of the Westchester Joint Water Works system to experience pressures less than the recommended minimum pressure of 20 psi. (Torres, January 24, 2022)

Response: The Proposed Project's fire flow demand has been projected by the Project's MEP Consultant to be 1,000 GPM at 20 psi (see Response to Comment 67 and **Appendix E-1**). Westchester Joint Water Works conducted hydrant flow tests on March 7, 2022, testing the two hydrants nearest the Project Site, which are located along the access road entering the property, identified as hydrant 3639 and hydrant 3640. The observed static pressure measured at hydrant 3639 was 145 psi. Once the hydrant was flowed, the residual pressure measured was 127 psi, meaning there was an 18 psi drop in pressure, with an observed velocity pressure of 38 psi. The observed static pressure measured at hydrant 3640 was 158 psi with a residual pressure of 146 psi, meaning there was a 12 psi drop in pressure from the hydrant opening, with an observed velocity pressure of 24 psi. The Applicant's civil engineer used this information to calculate the change in pressure from the expected domestic and fire demands for both hydrants and at the highest townhouse (i.e., unit 42 on the Site plans) and the lowest townhouse on site (i.e., unit 19 on the Site plans). The flow rate from the hydrants is calculated using the formula $Q = 29.83 \times C \times D^2 \times \sqrt{P}$, where P is the velocity pressure, C is a constant 0.9, and D is the diameter of the pipe: 3.5 inches. The pressure under domestic flow demand for hydrant 3639 and 3640 is 144.93 psi and 157.93 psi, respectively. For the highest and lowest townhouses, the pressure under domestic flow demand was found to be 159.13 psi and 164.70 psi, respectively. Under fire flow demand, the pressure for hydrants 3639 and 3640 was found to be 135.75 psi and 148.73 psi, respectively, and for the highest and lowest townhouse units, the pressure under fire flow demand was found to be 149.95 psi and 155.52 psi, respectively. Based on these results, the Proposed Project would not have an adverse impact on the public water main and there will be sufficient pressure (i.e., well above the minimum 20-35 psi) throughout the Proposed Project.

Comment 69: Appendix H, Water and Wastewater Usage Tables, provides anticipated wastewater usage for each office space floor. The Applicant shall update the Total Daily Water Consumption Rate for the third floor. (Torres, January 24, 2022)

Response: The table in DEIS Appendix H-1, "2500/2700 Westchester Avenue Anticipated Wastewater Usage per NYSDEC Standards 2014 Wastewater Treatment Design Standards," reflects in the 5th column the Total Daily Water Consumption Rate (GPD) for the third-floor office space at 15 GPD per employee. There are estimated to be 209 employees on the third floor, yielding a daily water consumption rate of 3,129 GPD.

Comment 70: On Sheet C-300, the Applicant shall revise their drawing to include direction of each pipe invert entering a manhole. (Torres, January 24, 2022)

Response: Flow direction arrows to each proposed pipe have been added to indicate the direction of each invert (see **Appendix D**).

Comment 71: On Sheet C-300, the Applicant shall revise their drawing to display k-crete where sufficient horizontal coverage is not provided (i.e., above the frost line). (Torres, January 24, 2022)

Response: Project Site utilities have been conceptually designed and verified to be at their depicted location. Detailed profiles that will verify horizontal separations will be prepared during the site plan approval process and k-crete will be provided if required.

Comment 72: The Applicant shall clarify how the connection to the existing Town/Village manhole will be made (e.g., bypass pumping). (Torres, January 24, 2022)

Response: There are no existing public sewers on the property other than the WCDEF Sewer Trunk main along the Blind Brook. Therefore, the sewer that will need to be partially reconstructed for the Proposed Project only serves the 2500 building. It appears this existing sewer can remain in service until the new sewer, which would be a public sewer main, is constructed, tested, and placed into service.

Comment 73: The Applicant shall provide a Will Serve Letter from the WCDEF stating that the Blind Brook WTF can accept wastewater flow from the development. (Torres, January 24, 2022)

Response: WCDEF has provided a Will Serve Letter which states that the County Blind Brook Trunk Sewer will serve and has sufficient capacity to accommodate the proposed flow increase and peak hourly flow rate to be generated by the Proposed Project (see **Appendix E-2**).

Comment 74: The Applicant shall provide copies of the CCTV footage showing the condition of the existing sanitary sewer piping. (Torres, January 24, 2022)

Response: Sewer explorations, such as providing video analysis of the existing sewer, would be discussed, and provided, if required as part of the Project Site's site plan approval process.

Comment 75: The Applicant shall expand the current sanitary sewer language or provide a separate sanitary engineering report that includes supporting calculations of the reported wastewater generation rate for the proposed development in accordance with the NYSDEC Intermediate Sized Wastewater System Design Standards, 2014. The additional discussion shall include, but is not limited to pipe slopes, capacity percentages, pipe materials, and the peaking factor considered for calculation of the peak flow. (Torres, January 24, 2022)

Response: The requested information can be found in **Appendix E-3**.

Comment 76: On Sheet C-300, the Applicant shall revise their drawing to show adequate horizontal separation between utilities (i.e., minimum of 3 feet between water and gas/electric). (Torres, January 24, 2022)

Response: The detailed revisions to the utility drawings will be incorporated into the Proposed Project's final site plans during the site plan approval process.

Comment 77: So the question in addition to that is in terms of utilities. Wegmans has taken a large chunk of utility service, as well as Corporate Drive. This property is located in the vicinity and will also be serviced by the same utility as is Corporate Drive, as is Wegmans, as well as the increase – we haven't seen many of those apartments in Corporate Drive occupied yet. But how will this impact the utility service now just to this development, but to us as residents in the area? (Demirjian, PH January 25, 2022)

Response: Regarding sewer capacity, the Proposed Project does not connect to the Town's sewage infrastructure, as it connects directly to a Westchester County DEF Trunk Main. The Applicant obtained a Will Serve letter from this department indicating the Proposed Project can be accommodated by this existing sewer infrastructure (see **Appendix E-2**). Regarding water capacity, the Applicant has been, and continues to, work with Westchester Joint Water Works on obtaining a Will Serve letter for the Proposed Project.

Comment 78: And as well our water? There's the Westchester Joint Water Works – this is another question – that has concerns over the filtration and pumping during peak hours and during normal operations. Has this study included the water consumption as well as the usage of the pumping stations in the area that the Westchester Joint Water Works has said is not able to meet and is…meeting current demands right now? (Demirjian, PH January 25, 2022)

Response: Regarding water capacity, the Applicant has been, and continue to work with Westchester Joint Water Works on obtaining a Will Serve letter for the Proposed Project.

Comment 79: And, of course, sewer. Once that water is put into the housing units, what about the sewer district? The town board has held several meetings stating that there will be an across-the-board sewer tax rate that we're all going to suffer from because of the overdevelopment and extensive development that the plants cannot handle. How is that going to be addressed? And if not, it should be addressed to look at what will happen to all that excess sewage that's coming in. (Demirjian, PH January 25, 2022)

Response: WCDEF has provided a Will Serve letter which states that the Westchester County Blind Brook Trunk Sewer has sufficient capacity to accommodate the proposed flow increase and peak hourly flow rate to be generated by the Proposed Project (see **Appendix E-2**).

Comment 80: Water Supply - Mitigation – Can greywater be used to offset the 6,711 gpd of irrigation required for the project, which would otherwise be drawn from the public water supply? Can xeriscaping be employed to minimize the need for irrigation? (Cleary, February 9, 2022)

Response: Harvesting greywater from 69 separate plumbing systems on this Project Site is not practical. Native and drought-resistant species will be utilized on the Site as described in the conceptual Landscaping Plan (see **Appendix D**). These will be finalized during site plan review and approval.

Comment 81: Water Supply - Mitigation – How much will he proposed low-flow plumbing fixtures reduce the demand on the public water supply. (Cleary, February 9, 2022)

Response: The NYSDEC publication "Design Standards for Intermediate Sized Wastewater Treatment Systems," dated March 5, 2014, states that the use of low-flow fixtures can reduce water usage by 20 percent.

Comment 82: Sanitary Sewage – Potential Impacts – Verification is required to support the claim that the increase of 10,430 gpd of wastewater can be accommodated in the County trunk main. (Cleary, February 9, 2022)

Response: WCDEF has provided a Will Serve letter which states that the Westchester County Blind Brook Trunk Sewer has sufficient capacity to accommodate the proposed flow increase and peak hourly flow rate to be generated by the Proposed Project (see **Appendix E-2**).

Comment 83: Other Utility Services – Potential Impacts – Has consideration been given to utilizing solar power to support the development? (Cleary, February 9, 2022)

Response: The Applicant has considered solar power to support the Proposed Project; however, the Applicant has determined that including solar power is not practical or feasible for the Project. As is common, photovoltaic panel installation at common roof areas on attached townhome products, such as those on the Proposed Project, is be limited due to site orientation, pitched roofs, and roof design detailing such as decorative dormers or turn gables intended to provide for architectural variety and interest. Additionally, the installation of solar panels can be problematic in terms of a master property owner's association financing, control, ownership, and maintenance. For these reasons, the Applicant is not proposing solar power at the Proposed Project.

I. STORMWATER MANAGEMENT

Comment 84: The Applicant shall indicate in the DEIS report and SWPPP that Blind Brook is a 303d Listed and Impaired Water of the United States based on the Final 2018 Section 303(d) List from the NYSDEC. (Torres, January 24, 2022)

Response: The Applicant's engineer has updated section V of the SWPPP indicating that the Blind Brook is a 303d Listed and Impaired Water of the United States (see **Appendix C**).

Comment 85: The Applicant shall revise the SWPPP to indicate that inspections will need to be two times every seven days separated by a minimum of two calendar days since runoff from the site discharges directly to a 303d impaired waterbody (per the requirements in the SPDES General Permit). (Torres, January 24, 2022)

Response: The Applicant's engineer has updated Section VIII of the SWPPP to state that inspections shall be done twice every seven days, with a minimum of two days in between (see **Appendix C**).

Comment 86: The Applicant shall clarify in the SWPPP that areas where soil disturbance activities are temporarily or permanently ceased shall be stabilized within seven days from the date the current soil disturbance activity ceased. Note that this work shall be completed within seven days and not 14 days since site runoff discharges directly to 303d impaired waterbody. (Torres, January 24, 2022)

Response: The Applicant's engineer has updated the requirements for stabilization in the "Temporary Control Measures" subsection in Section VIII of the SWPPP (see **Appendix C**).

Comment 87: The Applicant shall clarify in the SWPPP that the person responsible for implementation of the SWPPP shall have received four hours of NYSDEC endorsed training in proper erosion and sediment control principles and after the initial training, shall receive four hours of training every 3 years. (Torres, January 24, 2022)

Response: The Applicant's engineer has added the requirement that the Qualified Professional shall have four hours of training on erosion and sediment control measures has been added to Section VIII of the SWPPP (see **Appendix C**).

Comment 88: The Applicant shall revise the EDA-1A drainage area breakdown in the PondPack model to be consistent with the drainage area quantities provided on DA-1. (Torres, January 24, 2022)

Response: EDA-1A has been updated within the PondPack Model to be consistent with the values shown on the Drainage Area Maps (see **Appendix C**).

Comment 89: The Applicant shall revise the description for EDA-1C in the DEIS narrative and the SWPPP. The description says that the entire area drains to the existing pond to the north, but it appears that a portion of that area will be collected by the drainage network discharging to the pond to the south. The PondPack model shall be revised accordingly. (Torres, January 24, 2022)

Response: EDA-1C has been updated to properly reflect the conditions shown on the plan (see **Appendix C**).

Comment 90: The Applicant shall revise the PDA-1A drainage area breakdown in the PondPack model to be consistent with the drainage area quantities provided on DA-2.

i. The Applicant shall revise the description for PDA-1A to indicate that the drainage area consists of four groupings of townhouses per DA-2.

ii. The Applicant shall clarify how the runoff from the northernmost townhouses in PDA-1A will be collected and conveyed to the proposed infiltration system for treatment. (Torres, January 24, 2022)

Response: The Applicant's engineer has updated the PondPack model to be consistent with the Drainage Area Maps, revised the SWPPP to read that PDA-1A contains four groupings of townhouses, and added to the plan HDPE Pipe B-1 to convey the runoff from the northernmost townhouse to the proposed Stormtrap Infiltration System 1A (see **Appendix C**).

Comment 91: The Applicant shall revise the description for PDA-1B in the DEIS narrative and in the SWPPP. The description says that the runoff flows overland to proposed Detention Pond #1B. However, a portion of the drainage area (from the townhome and internal roads) will drain towards the collection system to be routed through a hydrodynamic separator for treatment.

i. The Applicant shall also revise the PDA-1B areas provided in PondPack to be consistent with the summary table provided on DA-2. (Torres, January 24, 2022)

Response: The Applicant's engineer has updated the PondPack model to be consistent with the drainage area maps as well as revising the SWPPP to describe how the stormwater is convey both overland and via water going through a Water Quality Structure (see **Appendix C**).

Comment 92: The Applicant shall revise the description for PDA-1C in the DEIS narrative and in the SWPPP. The description says that the runoff flows overland to proposed Detention Pond #1B. However, the drainage area (from the townhome and internal roads) will drain towards the collection system to be routed through a hydrodynamic separator for treatment. The runoff is then discharged to the detention pond east (downstream) of Detention Pond #1B.

i. The Applicant shall also revise the PDA-1C areas provided in PondPack to be consistent with the summary table provided on DA-2. (Torres, January 24, 2022)

Response: The Applicant's engineer has updated the description of PDA-1C to indicate that the stormwater collected here will pass through a water quality structure before flowing into Detention Pond #1C. The PondPack model has been updated to be consistent with the drainage area maps (see **Appendix C**).

Comment 93: The Applicant shall revise the description for PDA-1D in the DEIS narrative and in the SWPPP to indicate that this drainage area flows overland into the Blind Brook.

i. The Applicant shall discuss whether the areas within PDA-1D can be collected and conveyed to the proposed hydrodynamic separator upstream of Pond #1B so that the impervious areas can be treated.

ii. The Applicant shall also revise the PDA-1D areas provided in PondPack to be consistent with the summary table provided on DA-2. (Torres, January 24, 2022)

Response: PDA-1D consists of four separate areas that total 0.25 acres. Each area drains toward the undeveloped portion of the Project Site, to the east, via overland flow. Most of this drainage area is permeable, except for the proposed sidewalk connections to the proposed perimeter pathway system (approximately 635 sf).

Therefore, it is not practical to collect these areas by pipe in order to route them into a CDS structure. Instead, these areas will drain toward the Blind Brook via overland flow and will pass through a wooded area, which can serve as a filter strip. If additional stormwater management of this area is required during the more detailed Site Plan Approval process, gravel trenches can be installed downgradient of this drainage area to allow for infiltration prior to stormwater runoff flowing into the wooded buffer area.

Comment 94: The Applicant shall revise Table 8-5 in the DEIS to be consistent with the impervious areas shown on the Proposed Drainage Area Map, DA-2. (Torres, January 24, 2022)

Response: The Applicant's engineer has updated Table title "provided town of Harrison stormwater volume" on the updated SWPPP on page 14 of the document (see **Appendix C**).

Comment 95: The Applicant shall revise Table 2 (runoff) in the SWPPP to be consistent with the results provided in the PondPack results. (Torres, January 24, 2022)

Response: The Applicant's engineer has updated Table 2 of the SWPPP to be consistent with results obtained from PondPack (see **Appendix C**).

Comment 96: The Applicant shall revise Table 7 in the SWPPP to be consistent with the WQv/RRv calculations provided in the appendices. (Torres, January 24, 2022)

Response: The Applicant's engineer has updated Table 7 of the SWPPP to be consistent with results obtained from the provided WQv/RRv calculations (see **Appendix C**).

Comment 97: The Applicant shall revise the contributing new impervious areas in Table 8 of the SWPPP to be consistent with the takeoff summary table provided on DA-2. (Torres, January 24, 2022)

Response: The Applicant's engineer has updated Table 8 of the SWPPP to be consistent with the Drainage Area Maps (see **Appendix C**).

Comment 98: In Section IV of the SWPPP, the Applicant notes that the site and downstream outfall facilities were inspected by JMC. The Applicant shall clarify whether a CCTV inspection was performed in this location. The Applicant shall note that CCTV footage may be required by the Town during Site Plan to ensure that the existing infrastructure is in acceptable condition. (Torres, January 24, 2022)

Response: The downstream inspections mentioned in the SWPPP were visual inspections by JMC staff to understand general drainage conditions in the vicinity of the Project Site. The majority of the existing drainage infrastructure on the Project Site will be removed and replaced as part of the Proposed Project.

Comment 99: The Applicant shall revise the reference to the NYSDEC Stormwater Management Design Manual in Section V of the SWPPP to reference the January 2015 version (latest version). (Torres, January 24, 2022)

Response: The reference to the NYSDEC Stormwater Management Design Manual has been updated to reference the January 2015 version (see **Appendix C**).

Comment 100: The Applicant indicated in Section VII of the SWPPP that "[e]ven though there will be a decrease in impervious area, proposed stormwater management systems are being proposed to meet the Town of Harrison Land Development requirements." The Applicant shall clarify that despite the reduction in impervious surfaces, post-construction stormwater quality controls are required per the SPDES General Permit in addition to the requirements of the Town of Harrison Land Development form. (Torres, January 24, 2022)

Response: The Applicant's engineer has clarified in the SWPPP that these practices are proposed to meet Town of Harrison and SPDES General Permit requirements (see **Appendix C**).

Comment 101: The Applicant shall revise the summary of pretreatment in Section VII of the SWPPP. The Applicant shall also provide a description of the proposed pretreatment for the infiltration practice. (Torres, January 24, 2022)

Response: The Applicant's engineer has revised the pretreatment portion of Section VI of the SWPPP to better indicate how stormwater discharge is treated before going to each stormwater practice. Calculations have been added to Appendix C of the SWPPP (see **Appendix C**).

Comment 102: The Applicant is proposing to treat the water quality volume using infiltration practices and hydrodynamic separators. The Applicant shall provide the following information in the SWPPP:

i. The Applicant shall provide delineations for the new development and redevelopment areas.

ii. The Applicant shall demonstrate that all new development areas are treated via the infiltration system.

iii. The Applicant shall provide percolation tests and deep hole test results which demonstrate the feasibility of an infiltration practice per the requirements in Chapter 6 of the New York State Stormwater Management Design Manual.

iv. The Applicant shall provide pretreatment upstream of the discharge into the infiltration practice. The required pretreatment volume shall be based on the infiltration rate as required in the NYSDEC Stormwater Management Design Manual. (Torres, January 24, 2022)

Response: The Applicant's engineer has added Water Quality Structures for pretreatment for each line going to the infiltration system that is not directly from a roof drain leader (see **Appendix C**). Percolation Tests performed on March 31st and April 1st, 2022 found that at the locations of the proposed infiltration practice there was a minimum infiltration rate of 3.5 inches per hour. In the preliminary SWPPP included in the DEIS, the Applicant's Engineer used a conservatively estimated infiltration rate of 2 inches per hour. Pretreatment via water quality structures has been added upstream of each stormwater practice. The geotechnical testing performed also demonstrates adequate separation of groundwater and rock, as required on the NYSDEC guidelines. See Appendix D of the SWPPP for the geotechnical report (see **Appendix C** for the revised preliminary SWPPP).

Comment 103: The Applicant shall clarify the following information for U-INF-1A (infiltration system):

i. The Applicant shall clarify if the pond volume for the infiltration system accounts for stone below the bottom of the proposed stormtrap units. The Applicant shall also provide a detail of the proposed cross-section of the infiltration system.

ii. The plans indicate that the total volume provided by the infiltration system is 22,067 cubic feet. The PondPack results indicate that the volume of the system is 20,051.57 cubic feet. The Applicant shall clarify this discrepancy.

iii. The Applicant shall clarify the storage of the system provided for water quality volume treatment. This storage volume is the total raw volume of the system under the proposed outlet invert of the system.

iv. The Applicant shall provide a calculation for the conversion of the infiltration rate for U-INF-A from inches per hours into cubic feet per second.

v. In the PondPack model, OCS-1A is provided as the outlet control structure for the infiltration system. The Applicant shall provide this structure on the plans. The Applicant shall also clarify the size of the proposed outlet pipe. It appears on the plans that the outlet pipe is a 12-inch diameter pipe.

vi. The Applicant shall clarify the survey data which indicates that the outlet control structure from the existing stormwater pond to the south has the top elevation at 81.05, the invert elevation at 81.31, and the weir elevation at 83.17. (Torres, January 24, 2022

Response: The Volume of the infiltration system does not account for the stone below the stormtrap units. A cross section has been added along with other details for the stormtrap system on sheet C-902 (see **Appendix C**). All items have been revised to indicate the volume provided by the stormtrap system is 20,052 cubic feet. The location of the outlet allows for a minimum treatment volume of 12,542 cubic feet. The Applicant's engineer has calculated the conservatively estimated infiltration rate of the proposed stormtrap system of two inches per hour to be equal to 24.2 cubic feet per minute (see calculations in Section VI, subsection PDA-1A of the revised preliminary SWPPP in **Appendix C**). OCS-1A in the PondPack model has been added to the plan C-300 as “OCS-D-1,” and the detail for the structure has been added to the construction details. 12-inch diameter pipes have been specified for both the inlet and outlet of this system. The survey data indicates that the invert elevation is correct. What was noted as the top elevation was incorrectly identified (the elevation shown was the sump elevation) and has been corrected on the plans (see **Appendix C**).

Comment 104: The Applicant shall clarify where OCS-1B is proposed to be located on the plans. (Torres, January 24, 2022)

Response: OCS-1B has been added to C-300 as Headwall OCS-F-1 (see **Appendix C**).

Comment 105: The Applicant shall provide discussion in the SWPPP about the proposed 0.5 in/hr. infiltration rate for Pond #1B (PO-7). (Torres, January 24, 2022)

Response: The 0.5 in/hr infiltration rate for Pond #1B has been removed from the hydrologic model since this is intended to be a detention area with no infiltration. The hydraulic calculation reflects this change, which was insignificant to the overall numbers.

Comment 106: The Applicant shall provide discussion in the SWPPP of the connection of the new RCP outlet pipe from the proposed outlet control structure of the southeastern pond to the existing RCP discharge pipe to Blind Brook. (Torres, January 24, 2022)

Response: The Applicant’s engineer has added discussion to the SWPPP to indicate how the proposed 36-inch concrete pipe will connect to the existing one and drain the stormwater discharge off the Project Site (see **Appendix C**).

Comment 107: The Applicant shall provide a description in the SWPPP of the proposed stormwater management system which discusses which practices are being used for treatment, which practices are pretreatment, which practices are being used to provide storage of 3 inches over all newly created impervious surfaces, etc. (Torres, January 24, 2022)

Response: Descriptions of pretreatment and treatment practices have been added to section VI of the SWPPP (see **Appendix C**). Delineation of which practices provide storage for 3 inches of run off can be found in Table 8 and Table 9 within section VI of the SWPPP.

Comment 108: The Applicant shall provide a construction detail for the proposed stormwater detention ponds which demonstrates how the western pond discharges to the eastern pond. (Torres, January 24, 2022)

Response: Construction Details have been added for each outlet control structure and water quality structure (see **Appendix C**).

Comment 109: The Applicant claims that the existing stormwater pond will be improved during construction. The Applicant shall discuss in the SWPPP how the proposed stormwater pond is different (i.e., capacity, depth, etc.). (Torres, January 24, 2022)

Response: A description of the improvements to the existing stormwater pond has been added to section VI of the SWPPP, as part of the improvements discussed within PDA-1C (see **Appendix C**).

Comment 110: The Applicant shall provide maintenance requirements for all proposed permanent stormwater controls. (Torres, January 24, 2022)

Response: Proposed permanent maintenance requirements are provided as part of Appendix F of the SWPPP (see **Appendix C**).

Comment 111: The Applicant shall provide concrete washout areas to the erosion and sediment controls in the SWPPP. (Torres, January 24, 2022)

Response: The proposed concrete washout areas are now shown as part of Sediment and Erosion Control Plan (see **Appendix C**).

J. SURFACE WATER, WETLANDS, AND FLOODPLAINS

Comment 112: And as you know, during the last storm, which is now the normal, it's not a hundred-year exception. It's more the standard. All of the residence in the middle school area have been flooded out, because all that water that's being pushed to the sewer system and is being pointed back and saying it's not a town of Harrison problem. It's a Mamaroneck problem. How is that going to be addressed? (Demirjian, PH January 25, 2022)

Response: A portion of the Project Site is partially located within a Designated Flood Hazard Area AE Zone according to the FEMA flood map (see Figure 9-4 of the DEIS). Approximately four acres of the 24.62 acre 2500/2700 Parcel are located within the 100-Year Floodplain, adjacent to the Blind Brook along the Project Site's easterly property line. The existing 2700 building and its parking lot are located outside of this 100-Year Floodplain. The Proposed Project does not propose to build any improvements within the existing 100-Year Floodplain. The proposed townhomes and pavement areas are located within the existing developed portions of the Project Site and outside of the floodplain. In addition, the Proposed Project would result in less impervious areas when compared to existing conditions, and with the proposed stormwater management improvements, would reduce the peak rates and volume of runoff leaving the Project Site. These stormwater improvements are detailed in the SWPPP (see **Appendix C**).

Comment 113: NYSDEC Streams & Wetland – Clarify who conducted the "updated assessment of Blind Brook" – the DEC or the Applicant? (Cleary, February 9, 2022)

Response: The NYSDEC publication "The Proposed Final New York State 2018 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy,"[7] dated June 2020, states in Footnote 2 on page 28 that "An updated assessment for this waterbody [Blind Brook] indicated causes and sources of impairments to this water are not fully understood and it is most appropriate to place it in Part 3b until more sampling is conducted." Part 3b lists waterbodies for which TMDL Development May be Deferred (Requiring Verification of Cause/ Pollutant/ Source).

Comment 114: Floodplains – Does any evidence exist to support the claim that during Hurricane Ida, the developed portions of the Site were not affected by floodwaters? (Cleary, February 9, 2022)

Response: The property manager observed this condition during and after Hurricane Ida, and will attest to this fact if and when requested to do so by the Town.

Comment 115: Surface Waters & Wetlands – Potential Impacts – Is all of the 11,604.27 square feet of reduced impervious surface included within the wetland buffer? (Cleary, February 9, 2022)

Response: The Proposed Project would decrease the impervious area both within and outside the wetland buffers.

Comment 116: Proposed Mitigation – What mechanism will be put in place to ensure that the wetland mitigation plantings are permanently maintained (including mowing, clearing and trimming to preclude the spread of invasive species)? Are pesticides or herbicides proposed to accomplish these tasks? In other instances, the Planning Board has required the submission of regular reports documenting compliance, and associated monitoring by the Town's wetland consultant. (Cleary, February 9, 2022)

Response: At the time of the site plan application, the Applicant will submit a detailed landscaping and wetland mitigation plan, which would include ongoing

[7] 2018 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy (ny.gov)

maintenance activities. The Applicant anticipates that the wetland maintenance plan would include annual reporting to the Planning Board for the first years after planting.

Comment 117: The Applicant provided a list of the invasive species on site and indicated that they will be removed. However, the Applicant shall discuss in the DEIS the means of removal (i.e., by hand, machine, cutting, and herbicide application, etc.). (Torres, February 22, 2022).

Response: It is anticipated that removal of invasive species will be undertaken through a variety of methods, including by hand and machine, depending on location. There is the potential for targeted use of herbicides, but this will be limited to the maximum extent practicable. More detailed removal plans will be submitted as part of a future site plan application.

K. TRAFFIC AND TRANSPORTATION

Comment 118: The traffic impact study provided has been reviewed [by NYSDOT] and concluded that the project has minimal impact on the State Highway system. (Groucher, January 20, 2022)

Response: Comment noted.

Comment 119: The Applicant must ensure that the existing sidewalk, ramps, and pedestrian facilities in the public Right-of-Way are ADA compliant. Please provide NYSDOT standard details for any needed upgrades. (Groucher, January 20, 2022)

Response: The Applicant will ensure that the existing sidewalk along the Project Site driveway and its connection to the existing bus stop on Westchester Avenue meets ADA guidelines as part of a later phase of review in the approval process.

Comment 120: The access – pedestrian access to the – into the Rye Brook shopping centers or along Westchester Avenue. (Stout, PH January 25, 2022)

Response: Pedestrian access is provided from the Project Site to the existing bus stop on Westchester Avenue located near its intersection with the existing Project Site driveway. This sidewalk will be repaired or extended, as needed, to provide a pedestrian route along the west side of the existing driveway to the bus stop. Except for the existing bus stop, this portion of Westchester Avenue is a service road for Interstate 287 and does not include destinations for pedestrians.

Comment 121: So can you just – I apologize if it’s in here, but, Rob, when you did the traffic numbers, you talked about you compared it to full occupancy at 2700. Did you study or if you didn’t, would you study what it is under the existing 30 percent occupancy and what the traffic looks like between what it actually is today and what it would be with the new development? (Stout, PH December 21, 2021)

Response: Based on the approved DEIS Scoping Outline (see DEIS Appendix A), the Traffic Study analyzes three different conditions which are (i) existing, (ii) no-build, and (iii) build. The existing condition analyzes conditions in September 2021 including the then-current occupancy of the 2700 building. The existing traffic volumes at the studied intersections were compared and adjusted conservatively based on record count data. The no-build condition is the future condition in the design year of 2024 without the Proposed Project. Pursuant to the adopted Scoping Document, this condition includes the full occupancy of the 2700 building. The build condition is the future condition in the design year of 2024 with the Proposed Project.

Comment 122: And then the other thing is, I didn't see it, and I know we talked about it in a couple of meetings that you've been here, but is there an alternate entrance tom the site that you could study or at least propose that you looked at to get in. I mean, I would that that that's going to be a little bit of a drawback to folks, because you still have to use the shared driveway and you got to go past the existing 2500 office building. (Stout, PH December 21, 2021)

Response: The Proposed Project would continue utilization of the existing shared driveway from Westchester Avenue. As discussed above, the access meets the criteria of the Fire Code for the Proposed Project (see Response to Comment 60). The continued use of the existing driveway reduces additional environmental impacts, as an alternative access to the Project Site would result in additional environmental impacts or are not feasible. For example, an alternative access to Lincoln Avenue to the east would require wetland buffer and floodplain disturbances given the need to cross the Blind Brook. An alternative point of access through the 2900 Westchester Avenue property would not be feasible due to the 11-foot grade change between the Project Site and the 2900 Westchester Avenue property, as well as wetland and wetland buffer disturbances. The Applicant proposes to provide a section of sidewalk along its driveway to provide a complete sidewalk between the Proposed Project and the existing bus stop at its driveway's intersection with Westchester Avenue.

Comment 123: The DEIS did not sufficiently discuss road connectivity and circulation issues, particularly for non-motorized forms of transportation and transit riders. (Drummond, December 23, 2021)

Response: The Proposed Project would continue to utilize the existing shared driveway from Westchester Avenue. Potential alternative accesses are restricted due to the Blind Brook to the north and east of the Project Site. Additionally, there is an approximately 11-foot grade change between the Proposed Project and the 2900 Westchester Avenue property, making a connection not feasible. The Project Site currently provides a sidewalk along the existing shared driveway for pedestrians to utilize and access public transit via the existing bus stop on Westchester Avenue. The Applicant proposes to repair or extend the existing sidewalk along the Site's driveway, as needed, to provide a pedestrian route along the west side of the existing driveway to the bus stop on Westchester Avenue.

Comment 124: The DEIS includes traffic crash reports within the DEIS study area for the time period between March 1, 2017 and February 29, 2020. During that time period, there were 94 crashes within the study area, one of which resulted in a fatality. The majority of these crashes (68, including the fatality) were located at the intersection of Westchester Avenue and Webb Avenue which is a difficult intersection that contains both traffic signals and merging traffic lanes that are very close the subject site's driveway. This intersection also lacks many safety elements, such as sidewalks and crosswalks, which is of particular concern for Bee-Line bus passengers who need to navigate a complicated series of one-way roads split by a highway to get from bus stops to building entrances. While many of development challenges that were discussed in the 2013 comprehensive plan for the teardrop area remain relevant for this second SB-O zoned area to be opened up to new residential and mixed-use development (as discussed below), this area has the additional obstacle of being centered around difficult, high-volume intersection that lacks any pedestrian facilities. Earlier this year we pointed out in a letter dated July 27, 2021 that the recent expansion of the medical office facilities located in the Purchase Professional Park has placed additional transportation pressures on this area, particularly with respect to Bee-Line bus passengers who have difficulty getting to medical appointments or employment at this site. Because the subject proposal, as well as the proposed 200-unit apartment building on Webb Avenue and the proposed 46,000 square foot expansion of the Purchase Professional Park, will only increase the pressures on this intersection, the Town/Village must work with NYS DOT to improve this intersection so that crashes are reduced and so that all users of our transportation system are accommodated with all future development. (Drummond, December 23, 2021)

Response: See Comment 133 from the Town's Planner.

Comment 125: As we have continued to point out, the sidewalk network along the Westchester Avenue corridor is incomplete. Before any additional development occurs within the study area, bicycle and pedestrian safety concerns should be accounted for. The current driveway for 2500-2700 Westchester Avenue does not have a complete, ADA-compliant sidewalk, which should be remedied as part of the proposed development. In addition, as discussed above, there is a dire need for pedestrian facilities within the study area which includes additional parcels that would be impacted by the proposed zoning. No future development should proceed in this study area without pedestrian facilities, including sidewalks and crosswalks. Bicycle infrastructure, such as bike lanes and bike parking should also be added to this area going forward, particularly since Bee-Line buses now have bike racks and the distances between important destinations in the area are often too far to walk, but suitable for bicycle transportation. For example, it is not uncommon to see bicycles chained to trees within the Purchase Professional Park, so it is clear that this form of transportation is already occurring here. We recommend that the Town/Village consider the work of some of Westchester's other municipalities as guidance. In particular, we point out that the Route 119 and Route 9 corridors have both been studied for non-motorized facilities to remedy conditions that area similar to those of the Westchester Avenue corridor within the study area. We encourage the Town/Village to consider if a similar study can be done in conjunction with NYSDOT for Westchester Avenue. Perhaps a solution would be to re-work this area with multi-use pathways which can accommodate both pedestrians and cyclists. We point out that the County Department of Planning has applied for grant funding twice to explore implementing facilities for pedestrians and bicycles along the Westchester Avenue corridor. These applications had widespread support among local residents, elected officials and property owners along the corridor. (Drummond, December 23, 2021)

Response: The Applicant proposes to provide a section of sidewalk along its driveway to provide a complete sidewalk between the Proposed Project and the existing bus stop at the driveway's intersection with Westchester Avenue. As to the comment that the sidewalk should be "ADA-compliant," based on existing topography, the running slope of the proposed sidewalk would be greater than 5 percent in some areas, which exceeds the threshold for a typical "Accessible Route." However, it should be noted that the Proposed Project is comprised of multistory townhomes and therefore does not fall within the jurisdiction of the Americans with Disabilities Act (ADA), or the Fair Housing Act (FHA). Per the *Fair Housing Act Design Manual*, design requirements, including the requirement for an accessible route to public transportation stops, apply to 'covered multifamily dwellings.' To be a covered multifamily dwelling, all of the finished living space must be on the same floor (i.e., it must be a single-story unit). Multistory dwelling units, as included in the Proposed Project, are not covered by the accessibility requirements of the Fair Housing Act. See also Comment 138 from the Town's Planner that discussed the Town's willingness to work with the County on a collaborative approach to study the Westchester Avenue corridor as it relates to pedestrian and bicycle connectivity.

Comment 126: While the expansion of medical office facilities at the Purchase Professional Park has already resulted in greater transit ridership in this area, the addition of residential uses to the area (as well as additional medical office or commercial spaces) will likely continue that trend, particularly for domestic employees who may need to travel to these residential areas to work, or for children who live in these new developments who may need to access bus transportation since they are too young to drive. It is imperative that transit riders be accommodated as part of the any redevelopment within this area that may result from the proposed zoning amendments. The FEIS should acknowledge these impacts and discuss a plan to work with NYSDOT and transportation staff from the County Department of Planning to address bus passenger access and safety. (Drummond, December 23, 2021)

Response: The Applicant proposes to provide a section of sidewalk along its driveway to provide a complete sidewalk between the Proposed Project and the existing bus stop at the driveway's intersection with Westchester Avenue. The proposed sidewalk along the Project Site's driveway would provide a pedestrian walking path to access the existing bus transit system.

Comment 127: With respect to the "teardrop" area, the 2013 comprehensive plan calls for "sidewalk connections to adjacent properties". This must also be considered for the study area, which is now the focus of similar residential development. In addition to completing the sidewalk along the site's driveway out to Westchester Avenue, there should also be pedestrian access between the subject site and the Purchase Professional Park. This is particularly important for anyone who works in the immediate vicinity and chooses to live in the proposed development, or any other new development that results from the proposed zoning amendments. We point out that the Webb Avenue residential proposal featured pedestrian connections to the adjacent 800 Westchester Avenue office park property. This should be done throughout this SB-O zoned area as it is opened up to more development. As noted above, particular attention must be paid to getting pedestrians across Westchester Avenue. (Drummond, December 23, 2021)

Response: The currently developed area of the Project Site, which is the area proposed for redevelopment, is approximately 15 feet higher than the parking area of the 3000 Westchester Avenue property. In addition, there are wetlands and stormwater management practices in the areas between the two properties that would make such a connection difficult to achieve. Given the Proposed Project only includes 69 townhomes, which is relatively low when compared to the Webb Avenue project and those in the "teardrop," it is unlikely that the Proposed Project would generate enough demand for this type of pedestrian connection, even if the topographical and environmental constraints did not exist.

Comment 128: This is a question regarding the traffic study by this proposed development. Was it done during school? And with school meaning that when schools goes back to – from remote learning to on-site learning. And was the study done in the absence of school traffic or during school traffic? (Demirjian, PH January 25, 2022)

Response: Turning movement counts at the studied intersections were conducted in September 2021 while school was in session. In addition, the counted peak hour traffic volumes collected at the studied intersections were compared to available NYSDOT record count data and base traffic volumes from the traffic study for the proposed Webb Avenue Residential Development. Based on those comparisons, the counted peak hour traffic volumes were increased and balanced conservatively where applicable to reflect typical pre-pandemic traffic volumes.

Comment 129: And then lastly, in terms of the road passages and the bridges across 287, what changes are going to happen to the traffic patterns through 287? Are the 287 traffic routes going to be made one way that cross 287, or are they going to continue? And what assurances do we have with this additional traffic that we won't have people's lives put in danger as we have heard previously, where past Butcher Bridge there were people traveling one way because of poor signage? (Demirjian, PH January 25, 2022)

Response: The traffic flow and circulation on the surrounding area roadways is proposed to remain as currently exists. As shown in the Traffic Study, the Proposed Project generates less traffic than the currently permitted full occupancy of the 2700 building.

Comment 130: Existing Traffic Volumes and Manual Turning Movement Counts - Address the veracity of the traffic counts conducted in September of 2021, during the pandemic. (Cleary, February 9, 2022)

Response: Turning movement counts at the studied intersections were conducted in September 2021 while school was in session. In addition, the counted peak hour traffic volumes collected at the studied intersections were compared to available NYSDOT record count data and base traffic volumes from the traffic study for the proposed Webb Avenue Residential Development. Based on those comparisons, the counted peak hour traffic volumes were increased and balanced conservatively where applicable to reflect typical pre-pandemic traffic volumes. It is these adjusted traffic volumes that served as the basis for the Traffic Study.

Comment 131: Traffic Accident Reports – Was the March 2017 through February 2020 time period accurately reflective of the accident history in the vicinity of the site. It incorporates a period of low office building occupancies and the beginning of the pandemic. (Cleary, February 9, 2022)

Response: The three-year time period followed the requirements of the adopted Scoring Document. A three-year time period is typically the timeframe that is reviewed when conducting a review of accident reports for a study of this nature. While potentially minor variations in traffic could have occurred in the last two months of the 36-month study period, the most precipitous changes in traffic patterns did not occur until March 2020.

Comment 132: Potential Impacts - It is recognized that the Proposed Action will actually result in a decrease in driveway trip volumes compared to the full occupancy of the 2700 office building, however, that building was never fully occupied, so those volumes were never realized. Provide a comparison between the volumes of the Proposed Action with the current volumes of the office building, and with those when the office building supported its maximum occupancy. (Cleary, February 9, 2022)

Response: **Table 2-5** compares the driveway volumes between the Proposed Project, a hypothetical fully-occupied 2700 building, and the currently partially occupied 2700 building. In September 2021, which is when the traffic counts for the Traffic Study were conducted, the 2700 building was 30 percent occupied (or approximately 36,586 square feet was occupied). The driveway volumes depicted in the below table are projected volumes based on information published by the Institute of Transportation Engineers in its publication "Trip Generation Manual, 10th Edition". As shown in **Table 2-5**, the Proposed Project would reduce driveway volumes compared to the partially-occupied and fully-occupied 2700 building during the peak weekday AM and PM hours.

Table 2-5
Trip Generation

	Peak Weekday AM Hour			Peak Weekday PM Hour			Peak Saturday Midday Hour		
Description	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
36,586 S.F. Partially Occupied Office Driveway Volumes (ITE Code 710)	62	8	70	12	60	72	10	9	19
123,000 S.F. Fully Occupied Office Driveway Volumes (ITE Code 710)	122	20	142	22	117	139	35	30	65
69 Unit Multi-family Housing Driveway Volumes (ITE Code 220)	8	26	34	26	16	42	21	20	41
Source: JMC Engineering									

Comment 133: Potential Impacts – In correspondence from the County Planning Board dated December 23, 2001, concerns over the safety of the Westchester Avenue/Webb Avenue intersection were raised. The Town acknowledges that this intersection is very poorly designed, and is a likely contributor to the 94 accidents recorded in the study area. This intersection is located within the County (and/or NYSDOT) right-of-way, over which the Town has no authority. As the level-of-service at this intersection will remain unchanged and at acceptable levels (between A and C) during the build condition (or in the case of the weekday PM peak hour

northbound – Westchester Ave eastbound approach – will actually improve), no mitigation is required as a result of this development. The Town is in full support of the County, independent of the Proposed Action, improving this intersection. (Cleary, February 9, 2022)

Response: Comment Noted.

Comment 134: Access and Sight Distance Requirements – Once clear of the Westchester Avenue/Webb Avenue intersection, vehicles often speed up as they travel west along Westchester Avenue. The sight distance analysis was based on a 50-mph design speed. What is the actual observed speed along this portion of Westchester Avenue? If in excess of 50 mph, the sight distance analysis should be recalibrated to reflect the actual observed speeds. (Cleary, February 9, 2022)

Response: The Applicant's traffic engineer conducted a travel speed survey for vehicles traveling along Westchester Avenue, westbound, on Tuesday, March 8, 2022. The survey measured travel speeds of vehicles utilizing a radar gun. The speed measurements are depicted in **Table 2-6**. Based on the 100 speed measurements taken, the 85th percentile speed of vehicles traveling along Westchester Avenue westbound near the Project Site's driveway was 50 MPH.

Table 2-6
Travel Speed Survey

Number	Speed	Number	Speed	Number	Speed	Number	Speed
1	40	*26*	47	*51*	52	*76*	46
2	40	*27*	40	*52*	50	*77*	38
3	51	*28*	45	*53*	53	*78*	37
4	42	*29*	67	*54*	40	*79*	45
5	46	*30*	48	*55*	32	*80*	35
6	41	*31*	50	*56*	51	*81*	43
7	39	*32*	47	*57*	46	*82*	52
8	44	*33*	45	*58*	46	*83*	46
9	45	*34*	38	*59*	35	*84*	53
10	51	*35*	45	*60*	55	*85*	44
11	38	*36*	46	*61*	30	*86*	46
12	51	*37*	42	*62*	38	*87*	35
13	48	*38*	50	*63*	43	*88*	35
14	47	*39*	39	*64*	46	*89*	37
15	51	*40*	45	*65*	42	*90*	51
16	40	*41*	50	*66*	45	*91*	44
17	43	*42*	42	*67*	42	*92*	44
18	47	*43*	37	*68*	47	*93*	45
19	42	*44*	45	*69*	36	*94*	46
20	49	*45*	35	*70*	48	*95*	35
21	46	*46*	40	*71*	47	*96*	47
22	45	*47*	47	*72*	33	*97*	39
23	43	*48*	46	*73*	41	*98*	49
24	46	*49*	44	*74*	50	*99*	33
25	34	*50*	45	*75*	48	*100*	47

Notes: Survey conducted on Westchester Avenue westbound, 100 feet south Site Driveway on March 8, 2022 at 1:24 P.M. The Posted Speed Limit was 40 mph. The 85th Percentile Speed was 50 mph.
Sources: JMC Engineering.

Comment 135: Project Parking Demand – It is noted that the 2500 office building does not meet the applicable off-street parking requirement. This is permissible though the prior issuance of variances, and is a legally non-conforming condition. While the existing 553 parking spaces adequately serves the building, in the future a more intensive use, such as a medical office, may occupy this space, and the parking inventory may not prove adequate. The proposed zoning amendment includes a provision requiring Planning Board review if a more intensive use is proposed. Provide a summary of the existing building tenants, and provide an assessment of whether a more intensive use, such as medical office, is likely in the future. What is the likelihood that office tenants would change without the knowledge of the town? (Cleary, February 9, 2022)

Response: Construction within the 2500 building that would necessarily accompany a change to a more intensive type of office use would require building permits from the Town of Harrison. At that time, the Building Inspector could inquire as to the nature of the use proposed and, if necessary, refer the application to the Planning Board.

Comment 136: Project Parking Demand – Are the 48 visitor parking spaces adequate to support the townhomes? (Cleary, February 9, 2022)

Response: Based on Urban Land Institute data for three-bedroom residential units, visitor spaces represent 3.8 percent and 5.6 percent of the overall parking demand for residential units during a weekday and weekend, respectively. As mentioned in the Traffic Study, the proposed 69 townhomes have a projected parking demand of 84 and 91 parking spaces during a weekday and weekend, respectively. Utilizing the Urban Land Institute percentages above, the projected parking demand for visitors is four and six parking spaces during a weekday and weekend, respectively. The projected visitor parking demand can be accommodated in the available parking spaces depicted on the site plans, including the 48 surface parking spaces proposed to be shared by the Site's units.

Comment 137: Future Pedestrian Facilities – The Applicant is requested to revisit pedestrian and bicycle connections from the townhouse site, across the office building site, and out to Westchester Avenue. Grades, pavement surfaces, protected lanes, lighting and shade/buffers and ADA compliance are factors that should be taken into consideration. Creating an inviting and fully functional connection is essential. (Cleary, February 9, 2022)

Response: The Applicant proposes to provide a section of sidewalk along its driveway to provide a complete sidewalk between the Proposed Project and the existing bus stop at the driveway's intersection with Westchester Avenue. The proposed sidewalk along the driveway would provide a pedestrian walking path to access the existing bus transit system, which path would include a mixture of asphalt sidewalk, pavers, and concrete sidewalk between the Project Site and Westchester Avenue. The existing site driveway provides either a 15-foot-wide travel lane in the section of the driveway with the existing grass median or a 17-foot-wide travel lane in other sections of the Project Site driveway. Per the New York State Department of Transportation Highway Design Manual, a travel lane having a minimum width of 12 feet provides shared use of the facility by motor vehicles and bicycles. Existing site lighting would provide pedestrians and bicyclists with adequate lighting. Based on the above, the existing driveway provides shared use for bicycles to travel to and from the Proposed Project. Creating a new, separate pedestrian or bicycle connection to Westchester Avenue is not, in the Applicant's opinion, feasible owing to the steep grade, rock outcroppings, and dense vegetation.

Comment 138: Future Pedestrian Facilities – The correspondence from the County Planning Board dated December 23, 2001, was critical of the Town for failing to incorporate pedestrian and bicycle connectivity. It is obvious the County is unaware of the efforts undertaken in the tear drop to create new and improved sidewalks along the entire length of Corporate Park Drive and Westchester Park Drive to connect to Westchester Avenue. Pedestrian and bicycle connectivity is stymied at Westchester Avenue where the Town has no authority over improvements within the County right-of-way. The County seems to suggest that the Town should undertake a study to facilitate improved pedestrian and bicycle circulation within the County right-of- way. The County should explain how this extra-jurisdictional exercise should be undertaken. A primary obstacle to connectivity within the tear drop was surmounted through the provision of a publicly accessible east-west driveway connection through the 3 Westchester Park Drive (Trammel Crow) project on Westchester Park Drive and The Carraway (Toll Brothers) project on Corporate Park Drive, which will allow vehicles and pedestrians to move east from Westchester Park Drive to Corporate Park Drive, without traveling out to Westchester Avenue and following the circuitous one way loop west to go east. The Town of Harrison would be happy to enter into a collaborate effort with the County to facilitate a study of the Westchester Avenue corridor, much the same way that Tarrytown, Elmsford, Greenburgh and White Plains recently collaborated with the NYSDOT for the Route 119 Complete Street Design Plan. (Cleary, February 9, 2022)

Response: Comment noted.

Comment 139: Future Pedestrian Facilities – Internal connections from the townhouse site to the adjacent office parks should be explored and implemented. It is conceivable that some new townhome residents may work in these office buildings. (Cleary, February 9, 2022)

Response: There is significant grade change between the Project Site and the adjacent office parks. The currently developed area of the Project Site, which is the area proposed for redevelopment, is approximately 15 feet higher than the parking area of the 3000 Westchester Avenue property. An alternative point of access through the 2900 Westchester Avenue property would not be feasible due to the 11-foot grade change between the Project Site and the 2900 Westchester Avenue property, as well as wetland and wetland buffer disturbances. If a pedestrian connection were to be made, despite the obstacles mentioned before, such a connection will only lead pedestrians to existing parking lots without sidewalks. Moreover, if pedestrians were to walk on the drive isles, it would lead them out to Westchester Avenue where no additional sidewalks exist.

L. HAZARDOUS MATERIALS

Comment 140: The Phase I Environmental Site Assessment Report conducted by Blackstone Consulting LLC is dated September 27, 2016. The Applicant shall provide an updated ESA for the subject property. (Torres, January 24, 2022)

Response: Since the time of the Phase I ESA conducted in 2016, there have been no material changes to the use, operation, or equipment on the Site. A search of the NYSDEC's Environmental Remediation Database and Spill Incidents Database did not indicate any records of spills or other NYSDEC remediation sites on or adjacent to the Project Site that occurred since the time of the Phase I ESA.

M. CONSTRUCTION

Comment 141: The Applicant shall clarify if a phasing plan will be provided to ensure that no more than 5 acres is open/disturbed at any given time. If the entire site is anticipated to be worked on, the Applicant shall note in the DEIS that authorization from the MS4 is required to disturb more than 5 acres. (Torres, January 24, 2022)

Response: It is likely that construction of the Proposed Project would require disturbance in excess of the 5-acre threshold. For example, the earthwork required to regrade the Project Site would require the removal of the existing pavement to allow for rough grading of the Site. Prior to construction, the Town Engineering Department would need to review the Notice of Intent and sign the MS4 Acceptance Form in order for the Project to be granted coverage under the SPDES General Permit GP-0-20-001. This Notice of Intent, based on the final Site Plan for the Proposed Project, would indicate if concurrent disturbances greater than five acres are proposed. The Town Engineer will determine, before signing the MS4 acceptance form, if the Site Plan Approval Documents, the Project's final SWPPP, and the Project's Sediment and Erosion Control Plans satisfactorily provide the measures required to allow for the concurrent disturbance of areas greater than five acres. If such activities are authorized by the Town Engineer, the Applicant would be required to adhere to the requirements of the SPDES general permit for disturbances of this size, including the requirement of two site inspections each week by a qualified inspector and enhanced stabilization requirements for areas that have not been disturbed in the prior seven days.

Comment 142: In the Sediment and Erosion Control Section of Chapter 12: Construction, the Applicant indicates that silt fence would be placed in areas that receive concentrated flows. The Applicant shall revise this statement to be consistent with the silt fence description in the Preliminary SWPPP. (Torres, January 24, 2022)

Response: Silt fence 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.

Comment 143: The Applicant shall revise the notes section on Sheet C-400 to remove all references to the Connecticut Department of Environmental Protection. The Applicant all ensure that all references to State code are for New York. (Torres, January 24, 2022)

Response: The Applicant's engineer has revised the notes section on Sheet C-400 to only refer to NYSDEC and not CTDEC (see **Appendix D**).

Comment 144: The Applicant shall confirm the drainage area for ST-2. Based on our takeoff, the drainage area is more than 7.0 acres. (Torres, January 24, 2022)

Response: The Applicant's engineer has measured ST-2 to be 7.17 acres, which is now stated on C-400 (see **Appendix D**).

Comment 145: The Applicant shall show construction fencing around the proposed infiltration system to prevent over-compaction during construction. (Torres, January 24, 2022)

Response: The Applicant's engineer has added construction fencing around the perimeter of the proposed stormtrap infiltration system to identify an area where construction activity needs to be minimized or avoided so as not to adversely impact the infiltration capacity of the soils until such time as the system in installed (see **Appendix C**).

N. ALTERNATIVES

Comment 146: The Applicant shall revise Table 13-1 in The DEIS to include the Alternative B impacts. (Torres, January 24, 2022)

Response: The Alternative B, "No Action," impacts are included in the second column of Table 13-1 of the DEIS, "Existing Condition and No Action."

Comment 147: Alternative B: Renovation – Document the Applicant's efforts to attract a medical office tenant to a renovated building, which is an office use that has been demonstratably viable in Town. (Cleary, February 9, 2022)

Response: The Applicant sought to retain an existing medical office tenant, Westmed, but that tenant vacated the 2700 building in favor of a occupying a new executive office at 800 Westchester Avenue, and backfilling pre-existing leased space in its portfolio. The 2700 building does not have the required parking ratio for medical use, which would require construction of a parking garage as require well as significant interior renovations, which would not be economically viable.

Comment 148: The Applicant indicated in the DEIS that a Soil Management Plan is recommended. The Applicant shall clarify the contents of this Soil Management Plan and shall indicate when this Soil Management Plan will be prepared for review by the Town of Harrison. (Torres, February 22, 2022).

Response: A soil management plan (SMP) would be prepared for review by the Town prior to the start of excavation or ground disturbing activities. The SMP would include a protocol for the handling of site soil and other subsurface materials encountered during the proposed excavation work. The SMP would include measures for appropriate soil handling, soil stockpile management, site controls to mitigate sediment and dust, and would include contingency measures to address potential unknown conditions in accordance with prevailing regulations.

O. CUMULATIVE IMPACTS

Comment 149: This Draft Environmental Impact Statement is assessing not only the impacts of 2700 Westchester Avenue, but the change that would occur given the change in the text…This – this development might look great, but I don't know where we came out in the text…The redevelopment of this site I think is prudent. I mean, I'm just going to say right there. I think it's terrific, if you will. But we're – I think this topic has come up so many times that we're seeing – there's so many apartments that are doing beautifully, but we don't really have residents living in them yet. And so while all these proposals have come up, you know, that we've approved, we haven't really tested it yet. So I'm not quite sure where to come out on really accepting a full-blown text amendment, even if it is only dealing with maybe one or two other building sites.

You know, I get it that WESTMED probably isn't going to need any attention on this. And really, does it seem like a big deal, you know, to change the text, but we don't really know. We've approved an awful lot. And again, this site is terrific. And I don't know why we're lumping the two together. I think it could be – it could be fine, but I just don't know why we don't give this a little time to come to fruition and see if all of these projections that we've looked at over the past three years, once we have all those wonderful new people in our community, whether – whether the analyses were correct…

But I'm more concerned with how many kids really are going to be in the schools. I mean, all of those – all of those impacts. How is the traffic really working on Westchester Avenue? How is the flow of – you know, how are shopping and community service, and, you know, how is the whole infrastructure, you know, working. Not only the infrastructure, but kind of the environmental bubble, if you will. (Reich, PH December 21, 2021)

Response: Comment noted. Where appropriate, the Applicant included the potential impacts generated by recently approved, or pending, developments when considering the cumulative impacts of the Proposed Project on certain environmental resources. For example, the number of school age children from the various pending and approved projects within the Town was added to the District's enrollment projections to determine the capacity of the District with these other projects already included. While actual data, as opposed to projected data, may be helpful in certain circumstances, the Applicant utilized the best data that is reasonably available to analyze the impacts of its Proposed Project and the potential cumulative impacts of other projects. The Applicant also notes that, in the example case of school-age children, no adverse impact to the District was identified.

P. OTHER REQUIRED ANALYSES

Comment 150: Use and Conservation of Energy – The proposed use of low-flow fixtures, energy efficient appliance and "clean" stormwater practices are standard modern construction practices. These measures do not represent a serious commitment to green building and sustainability as expected by the Planning Board. The Applicant should explore more tangible measures to achieve these goals, including seeking a green building certification from an organization such as the USGBC. (Cleary, February 9, 2022)

Response: The Proposed Project, which replaces an existing underutilized office building and surface parking lot with a new residential townhome community, meets many of the goals and objective outlined in U.S. Green Building Council's (USGBC) checklist of LEED V4 for Neighborhood Development Plan as well as the checklist of LEED v4.1 Residential Single Family and Multifamily. While the Proposed Project does not intend to seek LEED certification, it does comply with many of the credit areas outlined within the following categories: Smart Location & Linkage, Neighborhood Pattern & Design, Green Infrastructure & Buildings, Regional Priority, Location and Transportation, Sustainable Sites, Water Efficiency, Energy and Atmosphere, Material and Resources, and Indoor Environmental Quality. See Response to Comment 12. ✷

Appendix A
Alternative Flood Storage Area

Appendix A

Additional Flood Storage Narrative

This report provides JMC's findings regarding the Town Engineer's request that the applicant consider providing additional flood storage within the existing 100-year flood plain for the Blind Brook.

The Blind Brook is located along the eastern portions of the 2700 Westchester property. The portion of the Blind Brook along the site's boundary is in a FEMA 100-year flood plain AE Zone. The 100-year flood elevations from the AE Zone have been plotted on the project's site plan to understand how the flood elevations correlate with the site's existing and proposed topography.

This plotting confirms the existing 2700 Westchester Avenue existing parking area and office building is not located within the 100-year flood plain. This is confirmed by the applicant's observations of the Blind Brook during the October 2021 storms associated with the remnants of Hurricane Ida. During these storms, the Blind Brook's flow stayed withing the wooded areas of the 2700 property and did not encroach into the site's existing parking lots, which are immediately adjacent to the plotted floodplain.

Easement for Potential Future Flood Control Improvements by Town / Village of Harrison

The Town of Harrison retained Leonard Jackson Associates Consulting Engineers to perform a preliminary hydraulic analysis of the Blind Brook to determine if a future channel improvement by others could help reduce flooding in the site's vicinity. Their analysis, dated June 21, 2021, recommended the Town / Village of Harrison may wish to secure easements over parcels along the Blind Brook to facilitate future widening of the Brook. Accordingly, Drawing FIG-1 titled "Flood Storage Figure" depicts a proposed 50' wide easement into the 2700 Westchester Avenue property as measured from the approximate centerline of the Blind Brook to facilitate such future improvements, if undertaken by others in the future.

Additional Flood Storage Analysis

The applicant has prepared a grading study to determine the amount of additional flood storage that can be provided in the wooded area between the existing and proposed development and the Blind Brook. This grading analysis is depicted on Drawing FIG-1 titled "Flood Storage Figure."

The existing Westchester County Department of Environmental Facilities Sanitary Sewer Trunk Main runs along the western side of the Blind Brook. This sewer provides a constraint regarding the extent of regrading that can be achieved in the area to provided additional flood storage. This area currently consists of wooded area and includes existing locally regulated wetlands and their associated buffer.

The area studied to be regraded totals approximately 43,000 s.f. Approximately 13,159 SF of this area is currently located within the 100-year flood plain, which in existing conditions provides approximately 980 cubic yards of flood storage.

The regraded area depicted on Figure 1 would increase the potential flood storage in this area by approximately 1,100 cubic yards. This results in a total flood storage capacity of approximately 2,080 cubic yards, which is approximately 1.3-acre feet.

Potential Impacts of Providing Additional Flood Storage on the Property

Implementing these grading revisions would result in disturbance to the existing locally regulated wetland and wetland buffer. The total wetland and buffer disturbance totals approximately 39,000 s.f., of which approximately 3,250 s.f. would be disturbance to the actual wetland.

Additionally, the regrading would result in the removal of existing vegetation within the one-acre additional disturbance area. This wooded area currently provides screening of the existing office park from the existing residences on the opposite side of the Blind Brook and would otherwise remain as screening for the proposed development if the regrading were not to occur.

Table 1 lists the flora that would likely be disturbed with the Alternative Flood Storage Area (bolded text is for trees, and non-bolded text is for all other landscaping).

Table 1
Flora Identified within the LOD of the Alternative Flood Storage Area

Common Name	**Scientific Name**
Norway maple	***Acer platanoides***
Sycamore maple	***Acer pseudoplatanus***
Red maple	***Acer rubrum***
Silver maple	***Acer saccharinum***
Tree of heaven	***Ailanthus altissima***
Garlic mustard	Alliaria petiolata
Porcelain berry	Ampelopsis brevipedunculata
Common mugwort	Artemesia vulgaris
Asiatic bittersweet	Celastrus orbiculatus
Winged Euonymus	Euonymus alatus
Japanese knotweed	Fallopia japonica
Green ash	***Fraxinus pennsylvanica***
Honey locust	***Gleditsia triacanthos***
Virginia creeper	Parthenocissus quinquefolia
Eastern white pine	***Pinus strobus***
American sycamore	***Platanus occidentalis***

Table 1
Flora Identified within the LOD of the Alternative Flood Storage Area

Common Name	Scientific Name
Eastern cottonwood	***Populus deltoides***
Pin oak	***Quercus palustris***
Black locust	***Robinia pseudoacacia***
Elm	***Ulmus* sp.**
Grape	*Vitis* sp.

Source: AKRF, Inc.

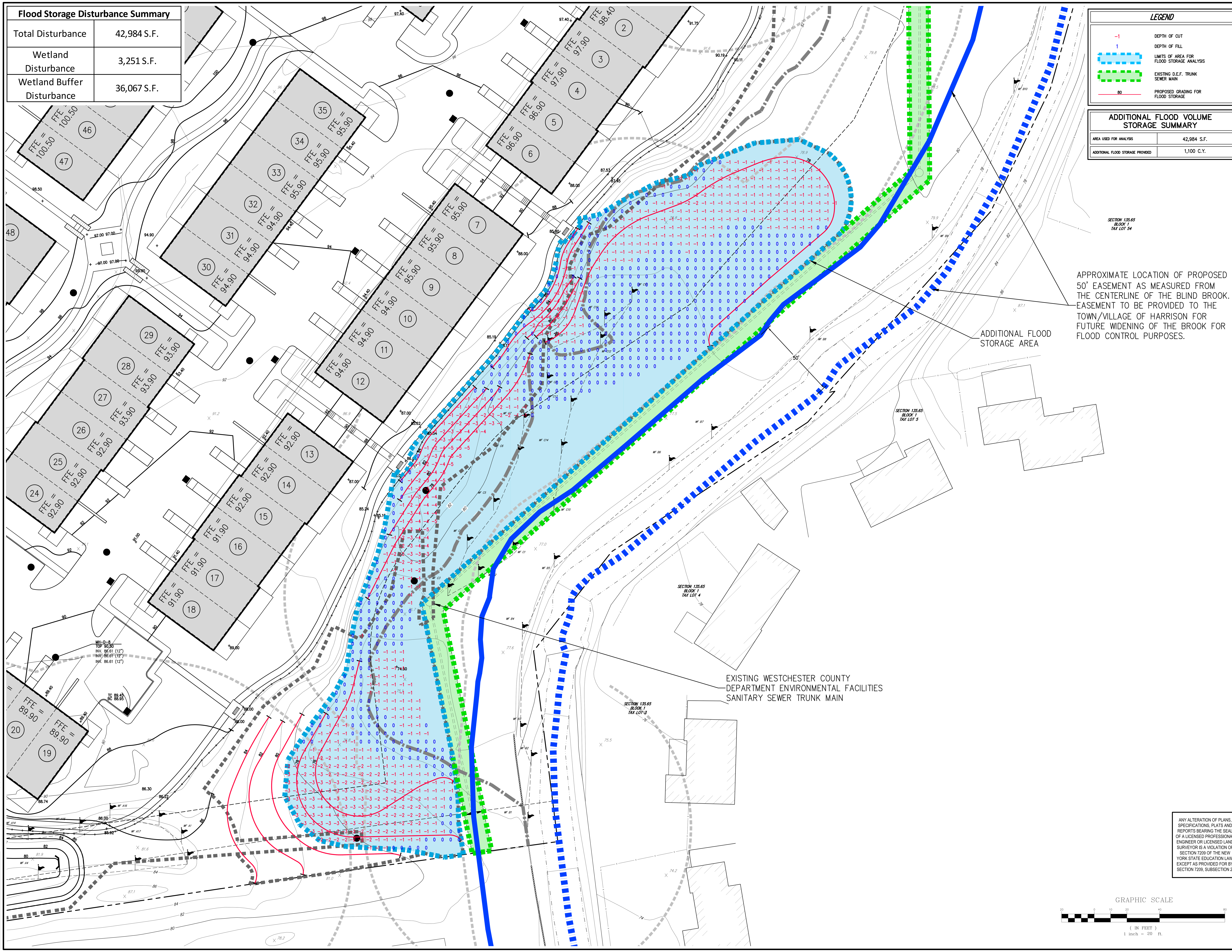
Conclusion:

The proposed regrading of the southeast area between the proposed development and the Blind Brook could result in an additional flood storage capacity of 1,100 cubic yards. The applicant is willing to incorporate these improvements into the site plan for the proposed development, although the additional storage volume that would be provided is de minimis in the context of the overall Blind Brook watershed.

The Town of Harrison will need to assess if the benefit of the additional flood storage volume provided outweighs the loss of screening provided by the existing wooded area, the increased disturbance area and the impacts to the existing locally regulated wetland and buffer itemized above.

Https://jmcpc.sharepoint.com/sites/20105/Shared Documents/General/FEIS/Flood/2022-03-16- Additional Flood Storage Report.docx

Flood Storage Disturbance Summary	
Total Disturbance	42,984 S.F.
Wetland Disturbance	3,251 S.F.
Wetland Buffer Disturbance	36,067 S.F.



LEGEND

-1	DEPTH OF CUT
1	DEPTH OF FILL
	LIMITS OF AREA FOR FLOOD STORAGE ANALYSIS
	EXISTING D.E.F. TRUNK SEWER MAIN
80	PROPOSED GRADING FOR FLOOD STORAGE

ADDITIONAL FLOOD VOLUME STORAGE SUMMARY	
AREA USED FOR ANALYSIS	42,984 S.F.
ADDITIONAL FLOOD STORAGE PROVIDED	1,100 C.Y.

No.	Revision	Date	By

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE– SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

FLOOD STORAGE FIGURE

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

Drawn: JJ		Approved: RA
Scale: 1" = 20'		
Date: 4/4/2022		
Project No: 20105		
20105-GRAD	FLOOD	FLOOD.scr
Drawing No: FIG-1		

NOT FOR CONSTRUCTION

Appendix B
Affordable Housing Alternative

A. DESCRIPTION

In response to comments from the Lead Agency, the Applicant developed an alternative to the Proposed Project in which four units would be set aside for residents with a maximum income of 80 percent of area median income (AMI). Specifically, the Applicant proposes in this alternative to "convert" the volume of two of the townhomes included in the Proposed Project into four stacked flat units. As such, the site layout, number of buildings, and building architecture would not be changed from the Proposed Project. Instead, the number of townhomes would be reduced from 69 units to 67 units. Two stacked flat units would be constructed within the same building envelope of each of the reduced townhome units. (Please see the attached floorplan that illustrates how two stacked flat apartments would be constructed within the volume of what was a single townhome unit.) As a result, the total number of dwelling units (including the four affordable units) would increase to 71 units, even though the number of townhomes would decrease to 67. The architecture of the buildings would be the same in this alternative, with the only differences being that for the two buildings housing the stacked flats (i.e., those buildings that were programmed as townhomes in the Proposed Project that are being eliminated with this alternative) an additional exterior door would be added and the garage would be separated into two bays, as opposed to one double-wide bay. The Applicant has developed a conceptual floorplan to illustrate the potential alternative to the Proposed Project. (Please note that this is an illustrative floorplan only.) Each stacked flat unit would have one interior garage parking space and one parking space in the driveway. As with the townhouse units, guests of the stacked flat units could utilize the several guest parking areas located on-Site.

For procedural purposes related to SEQRA, the Applicant has presented this as an alternative to the Proposed Project. If the Lead Agency chooses this Alternative in its Statement of Findings, the Applicant is willing to implement this Alternative.

B. DISCUSSION OF IMPACTS

As noted above, this alternative retains most aspects of the Proposed Project, including site access and layout, architecture, and visual character. As such, the discussion below only considers those environmental impact categories where this Alternative could result in different impacts than the Proposed Project. The difference in the potential environmental impacts between this alternative and the Proposed Project would be, as described below, *de minimis.*

COMMUNITY FACILITIES

The Affordable Housing Alternative could have a slightly different impact on the number of potential school-age children (PSAC) living at the Project Site. As shown in Table 6-6 of the DEIS, the Proposed Project is anticipated to introduce between 10 and 22 PSAC to the Harrison Central School District (HCSD). As shown in **Table B-1**, 67 townhouses would be anticipated to add between 10 and 21 PSAC to HCSD. Using PSAC multipliers specific to two- to four-unit affordable multifamily buildings from the same Rutgers reports used for the townhouse estimates, the four affordable units would be anticipated to introduce two PSAC to the HCSD (see **Table B-2**). It is noted that the Rutgers multipliers are generally considered to be extremely conservative based the experience of similar products in the region in that the multipliers tend to predict more PSAC than are actually introduced.

Table B-1
Anticipated Number of Public School Age Children for the Affordable Housing Alternative Townhouses

Type of Unit	Number of Townhome Units	Multiplier	Number PSAC
3-BR Single-Family Attached top tercile housing value (New York State 2006)	67	0.28	18.76
3-BR Single-Family Attached above median housing value (New Jersey 2018)	67	0.318	21.31
Case Study Data from DEIS	67	0.15	10.05

Note: BR = Bedroom
Sources: Rutgers University Center for Urban Policy Research: 2006 New York (3-1) All Public School Children, Single-Family Attached, 3 BR; and 2018 New Jersey (II.A-6) All Public School Children, Single-Family Attached, 3 BR. Case Study data included in DEIS.

Table B-2
Anticipated Number of Public School Age Children for the Affordable Housing Alternative Stacked Flats

Type of Unit	Number of Stacked Flat Units	Multiplier	Number PSAC
2-4 Units, 2BR, median tercile housing value (New York State 2006)	4	0.48	1.92
2-4 Units, 2BR, below median housing value (New Jersey 2018)	4	0.50	2

Note: BR = Bedroom
Sources: Rutgers University Center for Urban Policy Research: 2006 New York (3-1) All Public School Children, 2-4 Units, 2BR, median tercile housing value; and 2018 New Jersey (II.A-6) All Public School Children, 2BR, below median housing value.

Using this conservative estimate for the stacked flats, as well as the range of estimates for the reduced number of townhouses, the Affordable Housing Alternative would be anticipated to introduce a total of 12 to 23 PSAC to the HCSD. This compares to the 10 to 22 PSAC estimated for the Proposed Project. This *de minimis* difference would not affect the conclusions of the DEIS or FEIS with respect to the capacity of the HCSD to serve the Proposed Project or the Affordable Housing Alternative nor would it affect the conclusion that the Proposed Project, even with the Affordable Housing Alternative, would generate more in increased property taxes than it may require in additional expenditures.

As with the impacts to the HCSD, potential impacts from the Affordable Housing Alternative to other community services, such as police, fire, EMS, recreation and open space, would be anticipated to be substantially similar to that of the Proposed Project given the *de minimis* change in the number of units proposed and as well as the retention of the proposed site access and layout.

INFRASTRUCTURE AND UTILITIES

As stated in the DEIS, the Proposed Project is anticipated to require approximately 22,770 gallons per day (gpd) of water for domestic purposes and generate an equivalent amount of sanitary sewage. As shown in **Table B-3**, the Affordable Housing Alternative is anticipated to increase domestic water demand by approximately 220 gpd to 22,990 gpd. The less than one percent increase in domestic demand would not impact the conclusions of the DEIS and FEIS with respect to the capacity of the water and sewer systems to serve the Proposed Project or the Affordable Housing Alternative.

Table B-3
Domestic Water Usage for Affordable Housing Alternative

Description	Units	Daily Water Consumption Rate (GPD)	Total Daily Water Consumption Rate (GPD)
3-Bedroom Town Homes (110 GPD per bedroom)	67	330	22,110
2-Bedroom Apartments (110 GPD per bedroom)	4	220	880
Total	**71**	**-**	**22,990**
Sources: JMC Engineering per NYSDEC 2014 Wastewater Treatment Design Standards			

TRAFFIC AND TRANSPORTATION

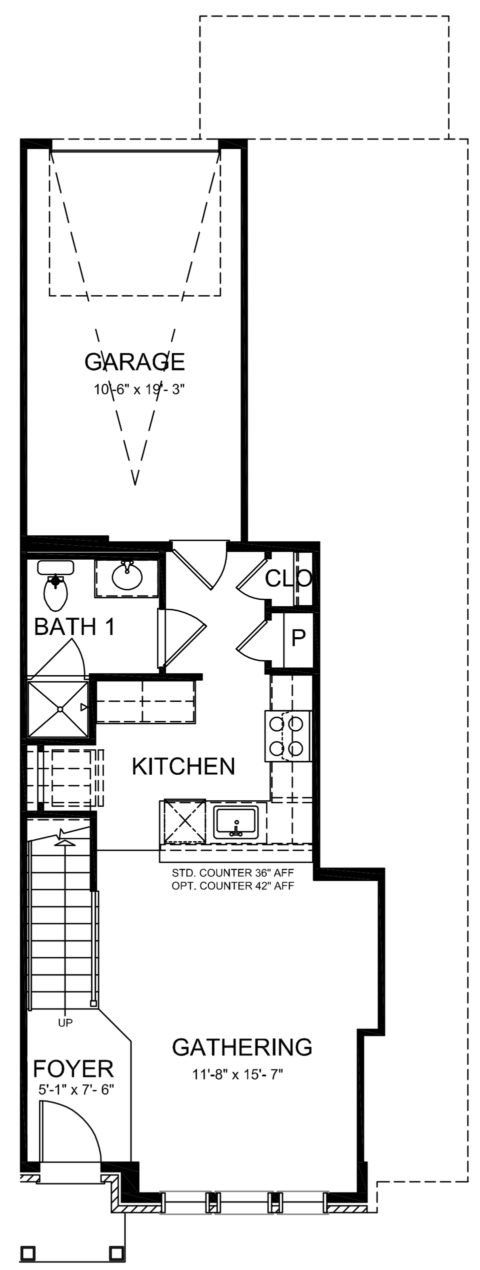
As shown in **Table B-4**, the Affordable Housing Alternative would be anticipated to generate the same number of vehicular tips in the Peak Weekday AM Hour as the Proposed Project and would generate two additional trips in both the Peak Weekday PM Hour and the Peak Saturday Midday Hour. The difference in anticipated trips is *de minimis* and would not change the conclusions of the traffic impact study included in the DEIS.

Table B-4
Alternative Development Volumes

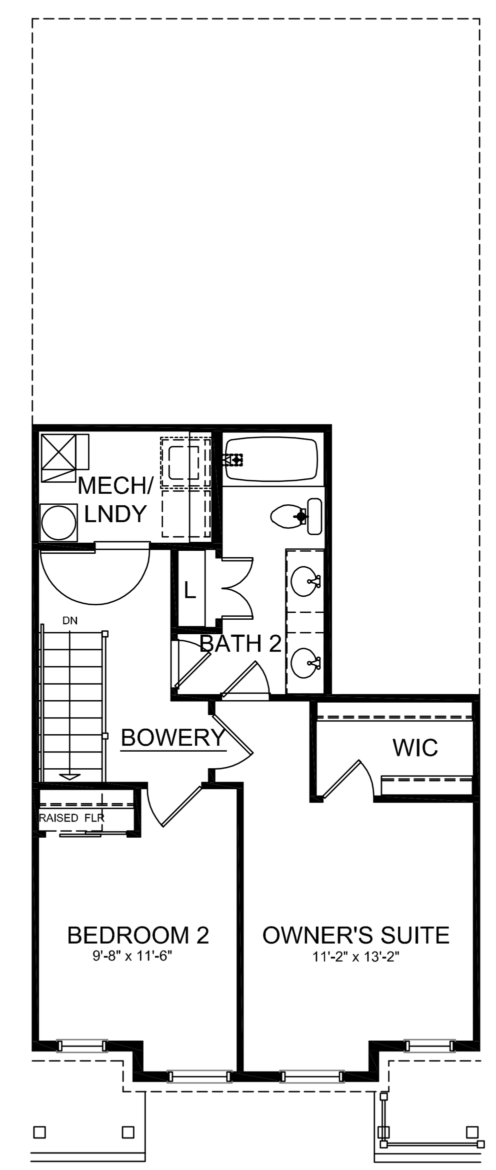
	Peak Weekday AM Hour			Peak Weekday PM Hour			Peak Saturday Midday Hour		
Description	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Proposed Project (69 units)	8	26	34	26	16	42	21	20	41
Affordable Housing Alternative (71 units)	8	26	34	28	16	44	22	21	43

Notes: 1. Trip Generation is based on ITE (Institute of Transportation Engineers) Trip Generation Manual, 10th Edition.
2. Multi-family Housing (Low-Rise) (ITE Code 220) is defined by ITE as apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have one or two levels (floors). Therefore, ITE Code 220 was used for both development alternatives.
Sources: JMC Engineering.

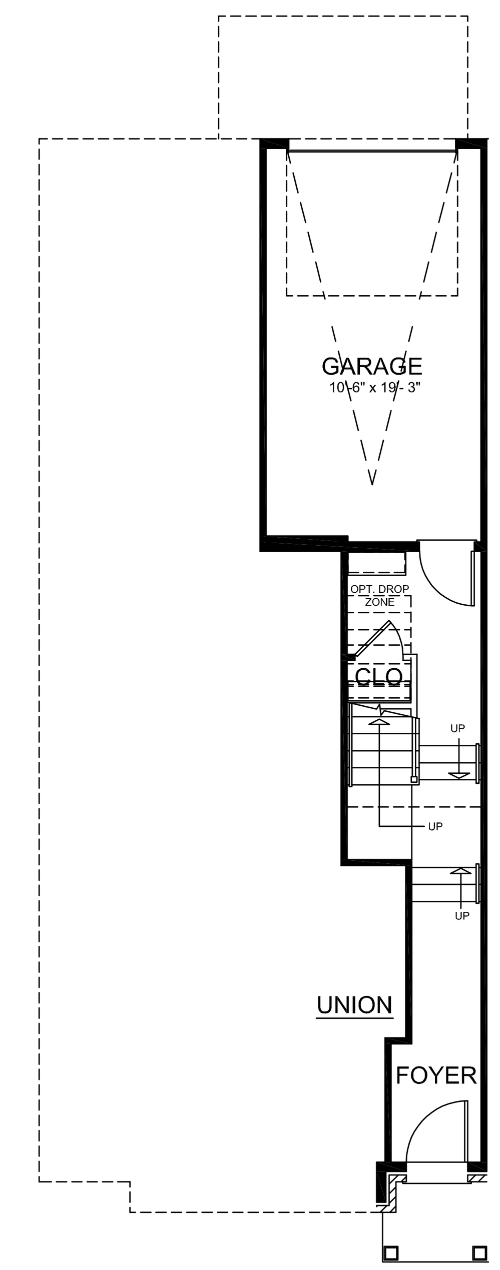
✷



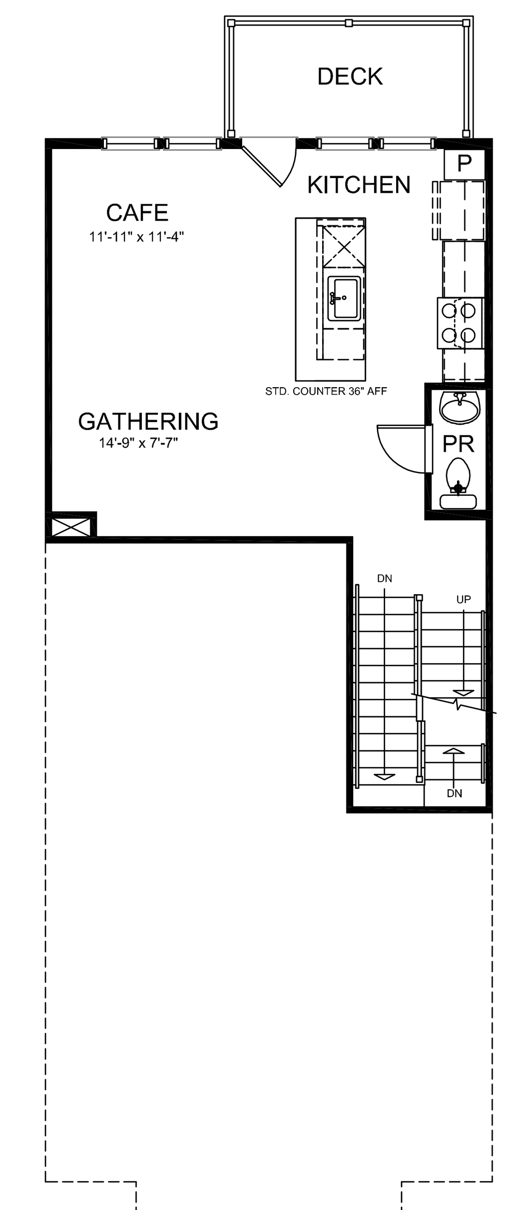
First Floor Plan



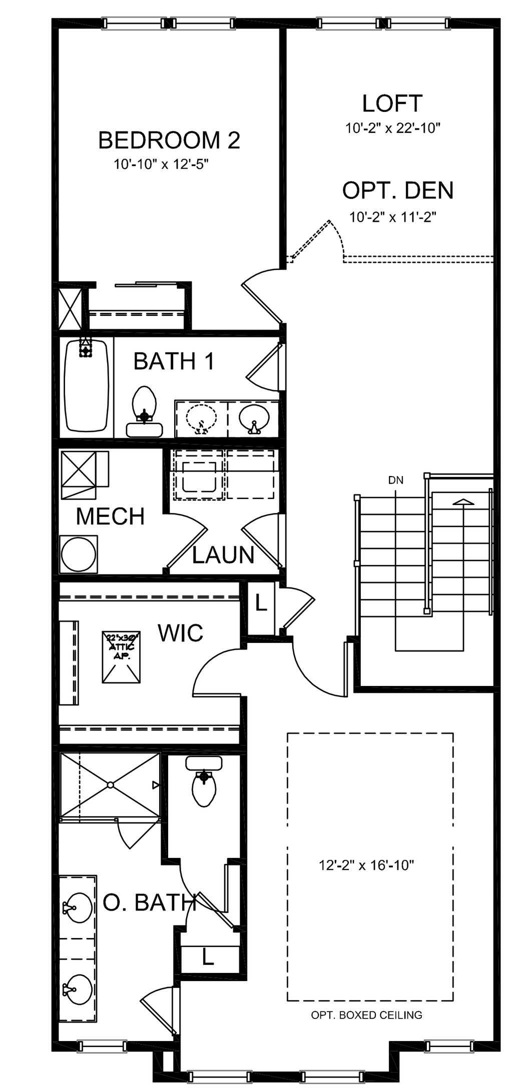
Second Floor Plan



First Floor Plan



Second Floor Plan



Third Floor Plan

Illustrative Stacked Flat Floorplan

Source: Minno & Wasko

Appendix C
Revised Preliminary SWPPP

PRELIMINARY STORMATER POLLUTION PREVENTION PLAN

2700 WESTCHESTER AVENUE REDEVELOPMENT

2500 – 2700 Westchester Avenue
Harrison, NY

Applicant: **2500/2700 Westchester Avenue Owner SPE LLC**

Prepared by:

JMC Planning Engineering Landscape Architecture & Land Surveying, PLLC
120 Bedford Road
Armonk, NY 10504

JMC Project 20105

Date: October 22, 2021
Revised: April 4, 2022
April 18 2022

TABLE OF CONTENTS

REFERENCED DRAWINGS FOR SWPPP DESIGN AND DETAILS

JOHN MEYER CONSULTING, PC SITE PLANS		Rev No. / Date
C-000	Cover Sheet	04/04/2022
C-010	Overall Existing Conditions Plan	04/04/2022
C-011	Existing Conditions Plan	04/04/2022
C-100	Overall Layout Plan	04/04/2022
C-101	Layout Plan (2700 Plan)	04/04/2022
C-110	Fire Access Plan	04/04/2022
C-111	Fire Truck Access Plan	04/04/2022
C-112	Fire Truck Turning Movement Plan	04/04/2022
C-200	Grading Plan (2700 Parcel)	04/04/2022
C-210	Preliminary Cut Fill Analysis	04/04/2022
C-220	Steep Slopes Analysis	04/04/2022
C-300	Utilities Plan (2700 Parcel)	04/04/2022
C-400	Soil and Erosion Control Plan (2700 Parcel)	04/04/2022
L-110	Landscaping Plan	04/04/2022
L-120	Wetland Buffer Area Map	04/04/2022
L-210	Conceptual Lighting Plan	04/04/2022
C-900	Construction Details	04/13/2022
C-901	Construction Details	04/13/2022
C-902	Construction Details	04/13/2022
C-903	Construction Details	04/13/2022
C-904	Construction Details	04/13/2022

I. INTRODUCTION

This Stormwater Pollution Prevention Plan (the SWPPP") has been prepared for the new 13.47 Acre 2700 Westchester Avenue parcel (hereinafter referred to as the "Site") currently located within the 24.6-acre property known as 2500-2700 Westchester Avenue in Harrison, Westchester County, New York (hereinafter referred to as the "Property"). The property is at the intersection of Westchester Avenue and Convent Lane abutted by the residential development of Knightsbridge Manor Road to the north, the Blind Brook to the east, Interstate 287 to the west and commercial development to the south.

The property currently includes two existing office buildings known as 2500 and 2700 Westchester Avenue parking lot, and paved access driveway, and small portions of landscaped area throughout the site.

The property is proposed to be subdivided in to two separate parcels: one which will remain with the existing 2500 building and paved areas with an area of 11.15 Acres; and the remainder of the property consisting of the new 2700 building parcel for the proposed development with an area of 13.47 Acres.

The proposed site improvements consist of the following:

1. Demolition of the existing 2700 Building
2. Construction of 69 townhouse units.
3. Construction of main loop driveway and townhouse driveways
4. Installation of new underground utilities serving the proposed buildings.
5. Underground infiltration system and improvement of existing pond

The stormwater improvements have been designed in accordance with the requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit GP-0-20-001 and the Town/Village of Harrison Chapter 130 “Stormwater Management and Erosion and Sediment Control” and the Town/Village of Harrison Stormwater “Tier 3” requirements from the Land Development Application.

II. SCOPE OF REPORT

The purpose of this report is to examine and mitigate impacts of the proposed townhouses and associated site improvements for 2700 Westchester Avenue Redevelopment. This study includes an analysis of existing drainage conditions within the analysis area and describes proposed drainage conditions after development of the project. It also includes temporary improvements to be used throughout construction to minimize erosion and sediment transport.

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, and 100 year storm recurrence intervals were reviewed in the design of the stormwater management facilities (see Appendices A & B - Hydrologic Calculations).

Anticipated drainage conditions were analyzed considering the rate of runoff which will result from the construction of 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 and downstream outfall facilities were inspected 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. USDA Web Soil Survey of the site available on its website at http://websoilsurvey.nrcd.usda.gov.

5. The United States Department of Agriculture Natural Resources Conservation Service National Engineering Handbook, Section 4 - Hydrology", dated March 1985.

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. United States Department of Commerce Weather Bureau Technical Release No. 40 Rainfall Frequency Atlas of the United States.

8. 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 3.4 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.

9. All hydrologic calculations were performed with the Bentley PondPack software package version 10.0.

10. The New York State Stormwater Design Manual, dated April 2008 and the New York State Stormwater Design Manual, dated August 2010, as identified herein.

11. The storm flows for the 1, 10 and 100 year recurrence interval storms were analyzed for the total watershed areas. The Type III distribution design storm for the 24 hour durations was used and the mass rainfall for each design storm is as follows:

24-Hour Rainfall Amounts

Design Storm Recurrence Interval	Inches of Rainfall
1-Year	2.8
10-Year	5.1
100-Year	9.0

IV. STORMWATER POLLUTION PREVENTION PLANNING CRITERIA

In order to be eligible for coverage under the NYSDEC SPDES General Permit No. GP-0-20-001 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 August 2010.

A Stormwater Pollution Prevention Plan has been prepared for this project because it includes soil disturbance for a Multi-family residential development that involves soil disturbances of one (1) acre or more.

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.

Chapter 130 of the Town/Village of Harrison Code titled "Stormwater Management and Erosion and Sediment Control" also includes stormwater management criteria related to the proposed improvements.

Based on these criteria, the project and its SWPPP are eligible for coverage under SPDES General Permit GP-0-20-001, subject to approval by the Town/Village of Harrison as a designated "MS4" under the general permit.

V. EXISTING CONDITIONS

The site is currently used as a corporate campus containing a 4 story building, parking lot, paved driveway and associated landscaped area located throughout portions of the site. The site is 13.47 acres in size and is located within the Blind Brook Drainage Basin. The Blind Brook is located along the eastern portions of the site Parking Lot, and is classified as a 303d, Listed and Impaired Water of the United States, as stated in the Final 2018 Section 303(d) List from NYSDEC. The portion of the Blind Brook along the site's boundary is in a FEMA 100-year flood plain AE Zone. The elevations from the AE Zone have been plotted on the project's site plan verifying the existing site parking area and office building are not located within the 100-year flood plain.

Based on the Westchester County Soil Survey, all on-site soils are moderately well drained and belong to hydrological group "B". The soil types, boundaries and drainage areas/designations are depicted on the Drainage Areas Maps DA-1 and DA-2 (Appendix H).

One Design Point was identified for comparing peak rates of runoff in existing and proposed conditions. Three separate drainage areas were identified in existing conditions based on the existing drainage divides at the site. The numbers included in the name of each drainage area correspond to the Design Point they drain towards.

The following is a description of each of the drainage areas analyzed in the existing conditions analysis:

<u>Drainage Area EDA-1A</u> is 7.18 acres in size and is located on the northern portion of the site. This drainage area is comprised of a majority of this portion of the site. This area consists of a 4-story building, majority of the parking lot, access road, and associated landscaped areas. Stormwater from this drainage area drains to the south and is collected by stormwater inlet and conveyed by stormwater pipe to the existing pond at the south of the site where the runoff will eventually drain towards Design Point #1. The curve number and time of concentration for this drainage area are 88 and 5 minutes, respectively.

<u>Drainage Area EDA-1B</u> is 1.49 acres in size and is located towards the southern end of the portion of the property. The drainage area includes an existing pond and a small paved area. Stormwater runoff from this area drains overland into the existing pond where the runoff will eventually drain towards Design Point #1. The curve number and time of concentration for this drainage area are 65 and 5 minutes, respectively.

<u>Drainage Area EDA-1C</u> is 0.40 acres in size and is locates at the northeastern portion of the parking lot. This small drainage area consists fully of paved parking lot. Stormwater runoff from this drainage area is collected via drain inlets and conveyed by stormwater pipe to the existing pond at the north of the site where the runoff will eventually drain towards Design Point #1. The curve number and time of concentration for this drainage area are 94 and 5 minutes, respectively.

The peak rates of runoff to the design point of each of the drainage areas for each storm are shown on the following table:

Table 1
Summary of Peak Rates of Runoff in Existing Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1
1 Year	10.22
10 Year	22.75
100 Year	43.23

The volumes of runoff to each design point are shown in the following table below, as well as the total volume of runoff produced by the entire site:

Table 2
Summary of Runoff Volumes in Existing Conditions
(Cubic Feet)

Storm Recurrence Interval	DP-1
1 Year	47,131
10 Year	112,516
100 Year	233,917

VI. PROPOSED CONDITIONS

The proposed improvements consist of the following:

1. Demolition of the existing 2700 Building
2. Construction of 69 townhouse units.
3. Construction of main loop driveway and townhouse driveways
4. Installation of new underground utilities serving the proposed buildings.
5. Underground infiltration system and improvement of existing pond

The proposed conditions on the site will result in a decrease in impervious area of approximately 20,904 square feet, which is about a 9.13% reduction when compared to existing conditions within the 2700 Westchester Ave portion of the property. Even though there will be a decrease in impervious area, proposed stormwater management systems are being proposed to meet the Town of Harrison Land Development requirements. The proposed drainage improvements include a subsurface infiltration system and two surface detention ponds. Percolation tests were conducted on March 31st, 2022 and April 1st, 2022 indicating that the soil for the location of the infiltration system is well drained, with a minimum depth that is suitable for separation from ground water and from rock. Infiltration testing confirmed as well that underlying soil's most restrictive infiltration rate is more than adequate to properly infiltrate the generate stormwater discharge, thus confirming this area is suitable for an infiltration practice. The stormwater runoff will be collected via drain inlets, or roof drain leaders for runoff from the proposed buildings, and conveyed to water quality structures for pretreatment. Once the runoff goes through pretreatment in the Water Quality Structures, it is then conveyed to one of three practices: the proposed Stormtrap Infiltration System #1A, proposed Detention Pond #1B, and proposed Detention Pond #1C.

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 H.

All practices meet 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 – The subsurface infiltration system is designed based upon unique physical environmental considerations noted in the NYS Stormwater Management Design Manual (NYSSMDM) Table 7.2 "Physical Feasibility Matrix".

2. Conveyance – The design conveys runoff to the designed pond in a manner that is safe, minimizes erosion and disruption to natural drainage channel and promotes filtering and infiltration.

3. Pretreatment – All ponds provide pretreatment in accordance with NYSSMDM design guidelines.

4. Treatment Geometry – The plan provides water quality treatment in accordance with NYSSMDM guidelines noted Table 6.1 "Water Quality Volume Distributing in Pond Design".

5. Environmental/Landscaping –Extensive landscaping has been provided for each proposed practice to enhance pollutant removal and provide aesthetic enhancement to the property.

6. Maintenance – Maintenance requirements for the proposed practices have been provided in this SWPPP.

Design Point #1

Design Point #1 is located in the southeast corner of the site. The following areas drain to Design Point No. 1:

Drainage Area PDA-1A is 2.69 acres in size and is located on the Northern portion of the site. This drainage area consists of four groupings of townhouses, their associated driveways, the main access road to the site, and associated landscaped areas. Stormwater form this drainage area is collected and conveyed by drain inlets and HDPE pipes to the proposed subsurface Stormtrap Infiltration System. For the stormwater that flows to Infiltration System 1A, the stormwater will first be conveyed to either WQS-A-5, WQS-B-2, or WQS-C-3 for pretreatment, and then will flow into Infiltration System 1A for treatment. This system consists of 20,052 cubic feet of Stormtrap Single Units for infiltration. The soil testing conducted on site indicates that the soil for the location of the infiltration system is well drained, has a minimum available depth of 7 feet, and has a minimum infiltration rate 3.5 inches per hour. The previously assumed infiltration rate of 2 inches per hour was used for our calculations and is more than adequate to provide the needed treatment for the stormwater discharge. Based on the conservatively estimated infiltration rate of 2 inches per hour, which can be expressed as 0.17 feet per hour, and based on the footprint of the proposed Stormtrap system of 8,537 square feet, this gives the proposed system has an infiltration rate of 1,451 cubic feet per hour, or 24.2 cubic feet per minute. Stormwater from this system is controlled by an outlet control structure with a 3-foot weir at elevation 98.75. Stormwater that leaves via this outlet control structure is then conveyed to Detention Pond #1C, and then off-site to Design Point #1. The curve number and time of concentration for this drainage area are 86 and 5 minutes, respectively.

Drainage Area PDA-1B is 1.74 acres in size and is located on the Southern portion of the site. This drainage area consists of two groupings of townhouses, their associated driveways, and landscaped areas. Portions of stormwater from this area flows overland to the proposed detention pond #1B, while others are collected by drain inlets and HDPE pipes to the proposed detention pond #1B. Stormwater conveyed to this pond is flowed through WQS-E-4 (Contech CDS-5) for pretreatment before discharging into Detention Pond #1B. From here, runoff flows through the outlet control structure to the detention pond #1C at the southern portion of the site. Once detained, stormwater form this drainage area will be conveyed off-site to Design Point #1. The curve number and time of concentration for this drainage area are 72 and 5 minutes, respectively.

Drainage Area PDA-1C is 4.41 acres in size and is located at the eastern side of the site. This drainage area consists of six groupings of townhouses, their associated driveways, and landscaped areas. Stormwater from this area is collected by various drain inlets and flows through HDPE pipes to the proposed detention pond #1C. The stormwater discharge collected from this drainage area is pretreated via WQS-D-11 (Contech CDS-10) before discharging into Detention Pond #1C. This pond was originally 11,504 square feet with a maximum depth of two feet in existing conditions. The proposed improvements to the pond will results in an area of 11,852 square feet with a maximum depth of 5 feet, thereby expanding the pond by approximately 350 square feet and deepening it by 3 feet. Once detained, stormwater form this drainage area will be conveyed via the proposed headwall and 36" reinforced concrete pipe connecting to the proposed manhole to the existing 36" reinforced concrete pipe that drains off-site to Design Point #1. The curve number and time of concentration for this drainage area are 85 and 5 minutes, respectively. The existing pond at the southern end of the property is to be improved and graded into proposed Detention Pond 1C.

Drainage Area PDA-1D is 0.25 acres in size and is located on the eastern portion of the property. This drainage area is made up of multiple areas draining to the same place. These areas consist of minimal improvements including a small amount of proposed sidewalk. Runoff from this small drainage area remain undetained and flows overland to Design Point #1. The curve number and time of concentration for this drainage area are 63 and 5 minutes, respectively.

The peak rates of runoff to the design point of each of the four drainage areas for each storm are shown on the table below:

Table 3

Summary of Proposed Peak Rates of Runoff in Proposed Conditions

(Cubic Feet per Second)

Storm Recurrence Interval	DP-1
1 Year	0.35
10 Year	7.58
100 Year	29.99

The reductions in peak rates of runoff from proposed to existing conditions are shown on the table below:

Table 4

Percent Reductions in Peak Rates of Runoff at Design Point DP-1

(Existing vs. Proposed Conditions)

Design Point	Storm Recurrence Frequency	Existing Peak Runoff Rate (cfs)	Proposed Peak Runoff Rate (cfs)	Percent Reduction (%)
1	1	10.22	0.35	97%
	10	22.75	7.58	67%
	100	43.23	29.99	31%

The volumes of runoff to each design point are shown in the following Table, as well as the total volume of runoff produced by the entire site:

Table 5
Summary of Runoff Volumes in Proposed Conditions
(Cubic Feet)

Storm Recurrence Interval	DP-1
1 Year	14,759
10 Year	58,856
100 Year	164,488

The Reductions in Runoff Volumes when comparing in existing and proposed conditions are shown in the Table 6, below:

Table 6

Percent Reductions in Runoff Volumes at Design Point DP-1

(Existing vs. Proposed Conditions)

Design Point	Storm Recurrence Frequency	Existing Runoff Volumes (CF)	Proposed Runoff Volumes (CF)	Percent Reduction (%)
1	1	47,131	14,759	69%
	10	112,516	58,856	48%
	100	233,917	164,488	30%

The following table summarizes the required and proposed Water Quality Volume (WQv) and Runoff Reduction Volume (RRv)

Table 7

WQv / RRv Calculations Summary

(Refer to Appendix C)

WQv / RRv Calculations Summary	
Initial Required WQv	34,080
Minimum RRv	1,954
RRv Provided	13,856
WQv Provided	53,532

As part of the tier 3 requirements in the Town of Harrison, the proposed development must provide stormwater systems with sufficient capacity to house a volume equal or greater to 3” of water over the newly created impervious areas. Below is a summary of the volume provided in each proposed stormwater management system compared to the required volume:

Table 8
Provided Town of Harrison Stormwater Volume

Stormwater Practice	Contributing New Impervious Area (Square Feet)	3" Volume Over New Impervious Area (Cubic Feet)	Volume of Proposed System Provided (Cubic Feet)	Is Provided Volume Greater Than Required Volume
Infiltration System #1A (PDA 1A)	77,496	19,374	20,052	Yes
Stormwater Management Basin #1B (PDA 1B)	23,047	5,762	11,681	Yes
Stormwater Management Basin #1C (PDA 1C)	125,909	31,477	46,857	Yes
Total	226,452	56,613	78,590	Yes

The following table summarizes the structures that are specified as water quality structures on the proposed Utilities Plan and which Proposed Drainage Area they are designated for pretreatment (see Appendix C for Water Quality Structure Sizing Calculations):

Table 9

Water Quality Structure Sizing Calculations

Water Quality Structure Labeled on Plan	Pre-Treatment Provided for Drainage Area
WQS-A-5	PDA-1A
WQS-B-2	PDA-1A
WQS-C-3	PDA-1A
WQS-D-11	PDA-1C
WQS-E-4	PDA-1B

VII. FLOODPLAIN DISCUSSION

The site is partially located within a Designated Flood Hazard Area AE Zone according to the FEMA flood map, see Appendix "G" of this report. Approximately four (4) acres of the overall 24.62 acres site is located within the 100 Year Flood Plain adjacent to the Blind Brook which is located along the site's easterly property line. The Flood Plain Elevations on the property range from approximately elevation 85 and 74 in the North American Vertical Datum of 1988 (NAVD 88). The existing 2700 Office Building and its parking lot are located outside of this 100-year flood plain.

The project does not propose to build any improvements within the existing 100-year flood plain as the proposed townhomes and pavements areas are located within the existing developed portions of the property. Therefore, the project will not have any adverse impacts on the existing floodplain of the Blind Brook.

The Town of Harrison engaged a consultant to review potential options to enhance the 100-year floodplain on the 2700 Westchester Avenue property, as well as on two nearby proposed projects (3040 Westchester Avenue Office Building and the Webb Avenue Multi-Family Residential project). The Town's consultant recommended a 50' wide easement be provided along the western side of the Blind Brook on all three properties for potential future improvements to the Blind Brook intended to improve flooding in the area. The easement can be provided on the 2700 property without encroaching on the proposed improvements associated with the proposed Townhouse Development.

VIII. 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," dated 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 conduct an assessment of the site prior to the commencement of construction and certify that the appropriate erosion and sediment controls, as shown on the Erosion Control Plan, have been adequately installed to ensure overall preparedness of the site for the commencement of construction. Said qualified professional must have received four hours of NYSDEC endorsed training in proper erosion and sediment control principles, and will receive an additional four hours of training every three years.

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
UID		**Urban land-Charlton-Chatfield complex, hilly, very rocky**
UIC		**Urban land-Charlton-Chatfield complex, rolling, very rocky**
Ub	B	**Udorthents, smoothed**
Ff	A/D	**Fluvaquents-Udifluvents complex, frequently flooded**

UID, Urban land-Charlton-Chatfield complex, hilly, very rocky

Charlton – This soil is very deep and well drained. Slopes range from 15 to 35 percent. The parent material consists acid loamy till derived mainly from schist, gneiss, or granite. Depth to the top of a seasonal high water table is greater than 80 inches. Available water capacity is moderate.
Chatfield – This soil is moderately deep and well drained. Slopes range from 15 to 35 percent. The parent material consists of loamy till derived mainly from granite, gneiss, or schist. Depth to a restrictive feature is 20 to 40 inches to lithic bedrock. Depth to the top of a seasonal high water table is greater than 80 inches. Available water capacity is low.
Hydrologic group: N/A
Erosion Hazard Rating: Very Severe During Construction

UIC, Urban land-Charlton-Chatfield complex, rolling, very rocky

Charlton – This soil is very deep and well drained. Slopes range from 2 to 15 percent. The parent material consists of acid loamy till derived mainly from schist, gneiss, or granite. Depth to the top of a seasonal high water table is greater than 80 inches. Available water capacity is moderate.
Chatfield – This soil is moderately deep and well drained. Slopes range from 2 to 15 percent. The parent material consists of loamy till derived mainly from granite, gneiss, or schist. Depth to a restrictive feature is 20 to 40 inches to bedrock. Depth to the top of a

seasonal high water table is greater than 80 inches. Available water capacity is low.
Hydrologic group: N/A
Erosion Hazard Rating: Very Severe During Construction

Ub, Udorthents, smoothed

This soil very deep and is well drained. Slopes range from 0 to 8 percent. No parent material has been identified. Depth to a restrictive feature is greater than 40 to 60 inches to lithic bedrock. Available water capacity is low.

Hydrologic group: B
Erosion Hazard Rating: N/A

Ff, Fluvaquents-Udifluvents complex, frequently flooded

This soil is poorly drained. Slopes range from 0 to 3 percent. The parent material consists of Alluvium with highly variable texture. Depth to a restrictive feature is 20 to 40 inches to lithic bedrock. Depth to bedrock is greater than 80 inches. Shrink-swell potential is low. Available water capacity is low.
Hydrologic group: A/D
Erosion Hazard Rating: Slight

On-Site Pollution Prevention

The SWPPP includes temporary erosion prevention measures used to control construction activities on site, including:

- Silt Fence
- Excavated Drop Inlet Protection
- Stone & Block Drop Inlet Protection
- Temporary Sediment Trap

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, interceptor swales, stabilized construction entrances, temporary seeding, mulching and sediment traps with temporary riser and anti-vortex devices.

Throughout the construction of the proposed redevelopment, temporary control facilities will be implemented to control on-site erosion and sediment transfer. Interceptor swales, if required, will be used to direct stormwater runoff to temporary sediment traps for settlement. The sediment traps will be 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 entrance, 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 Entrance consists of AASHTO No. 1 rock. The rock entrance will be a minimum of 50 feet in length by 20 feet in width by 8 inches in depth.

3. Seeding will be used to create a vegetative surface to stabilize disturbed earth until at least 70% 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 "Silt Sacks" 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. Sediments Traps the permanent Pocket-Ponds will be used as Sediment Traps until their contributing areas drainage are stabilized.

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. The Operator shall have a qualified professional conduct two site inspections at least every seven calendar days, separated by a minimum of two calendar days since runoff from the site discharges directly to a 303d impaired waterbody.

2. The Operator shall have a qualified professional conduct at least two site inspections every seven calendar days when greater than five acres of soil is disturbed at any one time.

3. 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).

4. 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.

5. 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.

6. Rake all exposed areas parallel to the slope during earthwork operations.

7. 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.

<u>Permanent Control Measures and Facilities for Long Term Protection</u>

Towards the completion of construction of proposed redevelopment, 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. Subsurface Infiltration System will be used to treat the runoff volume generated from the developed area and provide water quantity control. The proposed basins will also provide water quality enhancement.

2. CDS Water Quality Structure will be used to provide pretreatment of the water quality flow rate for separating sediment, debris, floatable, etc. from the runoff prior to discharge to the SMP's

3. Detention Pond will be used to detain stormwater to be release at a slow rate to improve peak rates of runoff being discharged from the site. The detention ponds also help provide the required tier 3 pond volume from the town of Harrison. The required water quality for 90% of the average annual stormwater runoff volume is being provided by the upstream water quality structure. The stormwater will be detained and released gradually.

4. 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.

5. Seeding of at least 70% 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 3 tons per acre such that the mulch forms a continuous blanket.

IX. 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:

- New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-20-001.
- Chapter 130 "Stormwater Management and Erosion and Sediment Control" of the Town/Village of Harrison Zoning Code.
- New York State Stormwater Management Design Manual.

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 a subsurface infiltration system. This will reduce peak rates and volumes of stormwater runoff from the proposed improvements to levels below the existing conditions in the analyzed storms.

Based on the foregoing, it is our professional opinion that the proposed improvements will provide water quantity and quality enhancements. Therefore, with successful implementation of the SWPPP, the project will not have any adverse drainage impacts on the site or downstream properties.

APPENDIX A

EXISTING HYDROLOGIC CALCULATIONS

Scenario: Pre-Development 1-yr storm

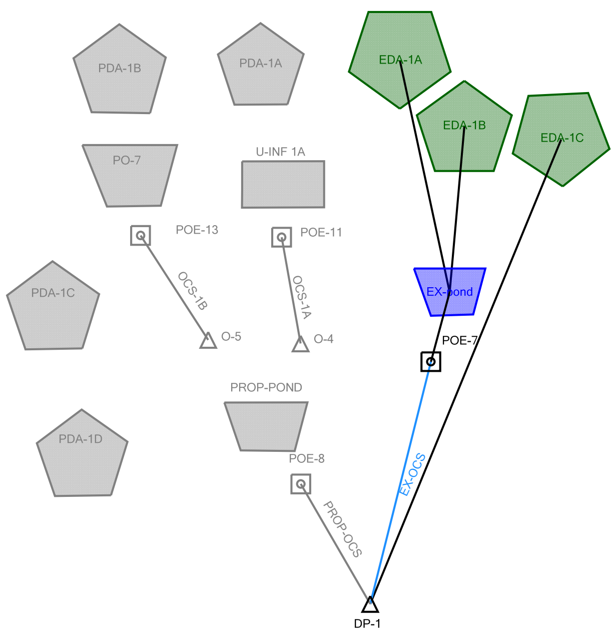


Table of Contents

Table of Contents

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
EDA-1A	Pre-Development 1-yr storm	1	42,765.000	12.100	11.81
EDA-1A	Pre-Development 10-yr storm	10	98,071.000	12.100	26.19
EDA-1A	Pre-Development 100-yr storm	100	197,702.000	12.100	50.61
EDA-1B	Pre-Development 1-yr storm	1	2,257.000	12.100	0.44
EDA-1B	Pre-Development 10-yr storm	10	9,300.000	12.100	2.51
EDA-1B	Pre-Development 100-yr storm	100	25,689.000	12.100	7.13
EDA-1C	Pre-Development 1-yr storm	1	2,833.000	12.100	0.76
EDA-1C	Pre-Development 10-yr storm	10	6,014.000	12.100	1.55
EDA-1C	Pre-Development 100-yr storm	100	11,598.000	12.100	2.88

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DP-1	Pre-Development 1-yr storm	1	47,131.000	12.150	10.22
DP-1	Pre-Development 10-yr storm	10	112,516.000	12.150	22.75
DP-1	Pre-Development 100-yr storm	100	233,917.000	12.150	43.23

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)
EX-pond (IN)	Pre-Development 1-yr storm	1	45,021.000	12.100	12.25	(N/A)	(N/A)
EX-pond (OUT)	Pre-Development 1-yr storm	1	44,297.000	12.150	9.58	82.79	5,122.000

Subsection: Master Network Summary

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)
EX-pond (IN)	Pre-Development 10-yr storm	10	107,372.000	12.100	28.70	(N/A)	(N/A)
EX-pond (OUT)	Pre-Development 10-yr storm	10	106,502.000	12.200	21.47	83.69	11,860.000
EX-pond (IN)	Pre-Development 100-yr storm	100	223,390.000	12.100	57.74	(N/A)	(N/A)
EX-pond (OUT)	Pre-Development 100-yr storm	100	222,319.000	12.200	41.28	84.89	26,228.000

Subsection: Runoff CN-Area
Label: EDA-1A
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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	225,553.695	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	87,390.988	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	312,944.683	(N/A)	(N/A)	87.668

Subsection: Runoff CN-Area
Label: EDA-1B
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft^2)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	7,854.692	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	57,106.371	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	64,961.063	(N/A)	(N/A)	65.474

Subsection: Runoff CN-Area
Label: EDA-1C
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil B	98.000	14,583.175	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	2,666.778	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	17,249.953	(N/A)	(N/A)	92.280

Storm Event	1-yr Storm
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	312,944.683 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)
7.350	0.00	0.00	0.00	0.00	0.01
7.600	0.01	0.01	0.01	0.02	0.02
7.850	0.02	0.02	0.03	0.03	0.03
8.100	0.04	0.04	0.04	0.05	0.05
8.350	0.05	0.06	0.06	0.07	0.07
8.600	0.08	0.08	0.09	0.09	0.10
8.850	0.10	0.11	0.12	0.12	0.13
9.100	0.13	0.14	0.15	0.15	0.16
9.350	0.17	0.18	0.18	0.19	0.20
9.600	0.21	0.21	0.22	0.23	0.24
9.850	0.25	0.26	0.27	0.27	0.29
10.100	0.30	0.31	0.32	0.34	0.35
10.350	0.37	0.38	0.40	0.41	0.43
10.600	0.44	0.46	0.48	0.50	0.51
10.850	0.53	0.55	0.57	0.59	0.62
11.100	0.65	0.70	0.75	0.80	0.86
11.350	0.91	0.97	1.03	1.10	1.32
11.600	1.54	1.99	2.44	3.01	3.58
11.850	4.24	4.90	7.33	9.76	10.79
12.100	11.81	9.89	7.98	6.96	5.94
12.350	5.21	4.47	3.77	3.07	2.61
12.600	2.14	1.97	1.81	1.72	1.63
12.850	1.55	1.48	1.40	1.33	1.28
13.100	1.22	1.20	1.17	1.15	1.13
13.350	1.11	1.09	1.07	1.05	1.04
13.600	1.02	1.00	0.98	0.96	0.94
13.850	0.92	0.90	0.88	0.86	0.85
14.100	0.83	0.82	0.81	0.80	0.79
14.350	0.78	0.77	0.76	0.75	0.74
14.600	0.74	0.73	0.72	0.71	0.70
14.850	0.69	0.68	0.67	0.66	0.65
15.100	0.64	0.63	0.62	0.61	0.60
15.350	0.59	0.58	0.57	0.56	0.55

Subsection: Unit Hydrograph (Hydrograph Table)　　Return Event: 1 years
Label: EDA-1A　　Storm Event: 1-yr Storm
Scenario: Pre-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
15.600	0.54	0.53	0.52	0.52	0.51
15.850	0.50	0.49	0.48	0.47	0.46
16.100	0.45	0.45	0.44	0.44	0.43
16.350	0.43	0.42	0.42	0.42	0.41
16.600	0.41	0.40	0.40	0.39	0.39
16.850	0.39	0.38	0.38	0.37	0.37
17.100	0.37	0.36	0.36	0.35	0.35
17.350	0.34	0.34	0.33	0.33	0.33
17.600	0.32	0.32	0.31	0.31	0.30
17.850	0.30	0.30	0.29	0.29	0.28
18.100	0.28	0.28	0.28	0.28	0.27
18.350	0.27	0.27	0.27	0.27	0.27
18.600	0.27	0.27	0.26	0.26	0.26
18.850	0.26	0.26	0.26	0.26	0.26
19.100	0.25	0.25	0.25	0.25	0.25
19.350	0.25	0.25	0.25	0.24	0.24
19.600	0.24	0.24	0.24	0.24	0.24
19.850	0.24	0.23	0.23	0.23	0.23
20.100	0.23	0.23	0.23	0.23	0.22
20.350	0.22	0.22	0.22	0.22	0.22
20.600	0.22	0.22	0.22	0.22	0.22
20.850	0.21	0.21	0.21	0.21	0.21
21.100	0.21	0.21	0.21	0.21	0.21
21.350	0.20	0.20	0.20	0.20	0.20
21.600	0.20	0.20	0.20	0.20	0.20
21.850	0.20	0.19	0.19	0.19	0.19
22.100	0.19	0.19	0.19	0.19	0.19
22.350	0.19	0.18	0.18	0.18	0.18
22.600	0.18	0.18	0.18	0.18	0.18
22.850	0.18	0.17	0.17	0.17	0.17
23.100	0.17	0.17	0.17	0.17	0.17
23.350	0.17	0.17	0.16	0.16	0.16
23.600	0.16	0.16	0.16	0.16	0.16
23.850	0.16	0.15	0.15	0.15	(N/A)

Storm Event	10-yr Storm
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	312,944.683 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)
4.800	0.00	0.00	0.00	0.01	0.01
5.050	0.01	0.01	0.02	0.02	0.02
5.300	0.03	0.03	0.03	0.03	0.04
5.550	0.04	0.04	0.05	0.05	0.05
5.800	0.06	0.06	0.06	0.07	0.07
6.050	0.07	0.08	0.08	0.08	0.09
6.300	0.09	0.10	0.10	0.11	0.11
6.550	0.12	0.12	0.13	0.13	0.14
6.800	0.14	0.15	0.16	0.16	0.17
7.050	0.17	0.18	0.19	0.19	0.20
7.300	0.21	0.21	0.22	0.23	0.23
7.550	0.24	0.25	0.25	0.26	0.27
7.800	0.28	0.29	0.29	0.30	0.31
8.050	0.32	0.33	0.34	0.35	0.37
8.300	0.38	0.39	0.41	0.42	0.43
8.550	0.45	0.46	0.48	0.49	0.51
8.800	0.53	0.54	0.56	0.57	0.59
9.050	0.61	0.63	0.64	0.66	0.68
9.300	0.70	0.72	0.74	0.76	0.77
9.550	0.79	0.81	0.83	0.85	0.87
9.800	0.89	0.92	0.94	0.96	0.98
10.050	1.00	1.03	1.06	1.10	1.13
10.300	1.17	1.21	1.24	1.28	1.32
10.550	1.36	1.40	1.44	1.48	1.52
10.800	1.56	1.60	1.65	1.69	1.73
11.050	1.81	1.88	2.00	2.12	2.25
11.300	2.38	2.52	2.66	2.81	2.96
11.550	3.51	4.06	5.17	6.27	7.60
11.800	8.92	10.36	11.81	17.15	22.49
12.050	24.34	26.19	21.74	17.29	14.97
12.300	12.65	11.03	9.41	7.91	6.42
12.550	5.44	4.46	4.10	3.75	3.56
12.800	3.37	3.21	3.05	2.90	2.74

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1A Storm Event: 10-yr Storm
Scenario: Pre-Development 10-yr 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)
13.050	2.63	2.52	2.46	2.40	2.36
13.300	2.32	2.28	2.24	2.20	2.16
13.550	2.12	2.08	2.04	2.00	1.96
13.800	1.92	1.87	1.83	1.79	1.75
14.050	1.72	1.69	1.67	1.64	1.62
14.300	1.60	1.58	1.56	1.54	1.52
14.550	1.51	1.49	1.47	1.45	1.43
14.800	1.41	1.39	1.37	1.35	1.33
15.050	1.31	1.29	1.27	1.25	1.23
15.300	1.21	1.19	1.17	1.15	1.13
15.550	1.11	1.09	1.07	1.05	1.04
15.800	1.02	1.00	0.98	0.96	0.94
16.050	0.92	0.91	0.89	0.88	0.88
16.300	0.87	0.86	0.85	0.84	0.83
16.550	0.82	0.81	0.81	0.80	0.79
16.800	0.78	0.77	0.76	0.75	0.74
17.050	0.74	0.73	0.72	0.71	0.70
17.300	0.70	0.69	0.68	0.67	0.66
17.550	0.65	0.64	0.63	0.63	0.62
17.800	0.61	0.60	0.59	0.58	0.57
18.050	0.57	0.56	0.56	0.55	0.55
18.300	0.55	0.54	0.54	0.54	0.54
18.550	0.53	0.53	0.53	0.53	0.52
18.800	0.52	0.52	0.52	0.51	0.51
19.050	0.51	0.51	0.50	0.50	0.50
19.300	0.50	0.49	0.49	0.49	0.48
19.550	0.48	0.48	0.48	0.47	0.47
19.800	0.47	0.47	0.46	0.46	0.46
20.050	0.46	0.45	0.45	0.45	0.45
20.300	0.45	0.44	0.44	0.44	0.44
20.550	0.44	0.44	0.43	0.43	0.43
20.800	0.43	0.43	0.42	0.42	0.42
21.050	0.42	0.42	0.41	0.41	0.41
21.300	0.41	0.41	0.40	0.40	0.40
21.550	0.40	0.40	0.39	0.39	0.39
21.800	0.39	0.39	0.38	0.38	0.38
22.050	0.38	0.38	0.37	0.37	0.37
22.300	0.37	0.37	0.37	0.36	0.36
22.550	0.36	0.36	0.36	0.35	0.35
22.800	0.35	0.35	0.35	0.34	0.34
23.050	0.34	0.34	0.33	0.33	0.33
23.300	0.33	0.33	0.33	0.32	0.32

Subsection: Unit Hydrograph (Hydrograph Table)
Label: EDA-1A
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
23.550	0.32	0.32	0.32	0.31	0.31
23.800	0.31	0.31	0.30	0.30	0.30

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1A Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr storm

Storm Event	100-yr Storm
Return Event	100 years
Duration	24.000 hours
Depth	9.0 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	312,944.683 ft²

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
2.950	0.00	0.00	0.00	0.01	0.01
3.200	0.02	0.03	0.03	0.04	0.04
3.450	0.05	0.06	0.06	0.07	0.07
3.700	0.08	0.09	0.09	0.10	0.11
3.950	0.11	0.12	0.12	0.13	0.14
4.200	0.14	0.15	0.16	0.16	0.17
4.450	0.18	0.18	0.19	0.20	0.20
4.700	0.21	0.22	0.22	0.23	0.24
4.950	0.24	0.25	0.26	0.27	0.27
5.200	0.28	0.29	0.29	0.30	0.31
5.450	0.32	0.32	0.33	0.34	0.34
5.700	0.35	0.36	0.36	0.37	0.38
5.950	0.39	0.39	0.40	0.41	0.42
6.200	0.43	0.45	0.46	0.47	0.48
6.450	0.50	0.51	0.52	0.54	0.55
6.700	0.56	0.58	0.59	0.61	0.62
6.950	0.63	0.65	0.66	0.68	0.69
7.200	0.71	0.73	0.74	0.76	0.77
7.450	0.79	0.81	0.82	0.84	0.85
7.700	0.87	0.89	0.90	0.92	0.94
7.950	0.95	0.97	0.99	1.02	1.04
8.200	1.07	1.10	1.13	1.17	1.20
8.450	1.23	1.26	1.30	1.33	1.36
8.700	1.40	1.43	1.47	1.50	1.54
8.950	1.57	1.61	1.65	1.68	1.72
9.200	1.76	1.79	1.83	1.87	1.91
9.450	1.95	1.99	2.02	2.06	2.10
9.700	2.14	2.18	2.22	2.26	2.30
9.950	2.34	2.38	2.43	2.49	2.55
10.200	2.62	2.70	2.77	2.84	2.92
10.450	2.99	3.07	3.15	3.22	3.30
10.700	3.38	3.46	3.54	3.62	3.70
10.950	3.78	3.86	4.01	4.16	4.40

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1A Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr 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)
11.200	4.64	4.91	5.18	5.46	5.74
11.450	6.03	6.31	7.44	8.58	10.83
11.700	13.08	15.69	18.31	21.06	23.82
11.950	34.07	44.33	47.47	50.61	41.82
12.200	33.03	28.50	23.97	20.85	17.73
12.450	14.89	12.04	10.20	8.35	7.68
12.700	7.01	6.65	6.29	5.99	5.69
12.950	5.40	5.11	4.90	4.69	4.58
13.200	4.47	4.39	4.31	4.23	4.16
13.450	4.08	4.01	3.93	3.86	3.78
13.700	3.70	3.63	3.55	3.48	3.40
13.950	3.32	3.25	3.19	3.12	3.08
14.200	3.04	3.00	2.97	2.93	2.89
14.450	2.86	2.82	2.78	2.75	2.71
14.700	2.67	2.64	2.60	2.57	2.53
14.950	2.49	2.46	2.42	2.38	2.35
15.200	2.31	2.27	2.24	2.20	2.16
15.450	2.13	2.09	2.05	2.02	1.98
15.700	1.94	1.91	1.87	1.83	1.80
15.950	1.76	1.73	1.70	1.67	1.65
16.200	1.63	1.61	1.60	1.58	1.56
16.450	1.55	1.53	1.52	1.50	1.48
16.700	1.47	1.45	1.43	1.42	1.41
16.950	1.39	1.37	1.36	1.34	1.32
17.200	1.31	1.29	1.28	1.26	1.24
17.450	1.23	1.21	1.20	1.18	1.16
17.700	1.15	1.13	1.11	1.10	1.09
17.950	1.07	1.05	1.04	1.03	1.02
18.200	1.02	1.01	1.00	1.00	1.00
18.450	0.99	0.99	0.98	0.98	0.97
18.700	0.97	0.96	0.96	0.95	0.95
18.950	0.94	0.94	0.93	0.93	0.92
19.200	0.92	0.91	0.91	0.90	0.90
19.450	0.90	0.89	0.89	0.88	0.88
19.700	0.87	0.87	0.86	0.86	0.85
19.950	0.85	0.84	0.84	0.83	0.83
20.200	0.83	0.82	0.82	0.82	0.81
20.450	0.81	0.80	0.80	0.80	0.79
20.700	0.79	0.79	0.78	0.78	0.77
20.950	0.77	0.77	0.77	0.76	0.76
21.200	0.75	0.75	0.75	0.74	0.74
21.450	0.74	0.73	0.73	0.73	0.72

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1A Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
21.700	0.72	0.72	0.71	0.71	0.70
21.950	0.70	0.70	0.69	0.69	0.69
22.200	0.68	0.68	0.67	0.67	0.67
22.450	0.66	0.66	0.66	0.66	0.65
22.700	0.65	0.64	0.64	0.64	0.63
22.950	0.63	0.63	0.62	0.61	0.61
23.200	0.61	0.61	0.60	0.60	0.60
23.450	0.59	0.59	0.58	0.58	0.58
23.700	0.57	0.57	0.57	0.56	0.56
23.950	0.56	0.55	(N/A)	(N/A)	(N/A)

Storm Event	1-yr Storm
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	64,961.063 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	0.01	0.02	0.10	0.19
12.050	0.31	0.44	0.41	0.38	0.36
12.300	0.33	0.30	0.28	0.24	0.20
12.550	0.17	0.15	0.14	0.13	0.12
12.800	0.12	0.11	0.11	0.10	0.10
13.050	0.09	0.09	0.09	0.09	0.09
13.300	0.09	0.09	0.08	0.08	0.08
13.550	0.08	0.08	0.08	0.08	0.08
13.800	0.08	0.07	0.07	0.07	0.07
14.050	0.07	0.07	0.07	0.07	0.07
14.300	0.07	0.07	0.06	0.06	0.06
14.550	0.06	0.06	0.06	0.06	0.06
14.800	0.06	0.06	0.06	0.06	0.06
15.050	0.06	0.06	0.05	0.05	0.05
15.300	0.05	0.05	0.05	0.05	0.05
15.550	0.05	0.05	0.05	0.05	0.05
15.800	0.05	0.04	0.04	0.04	0.04
16.050	0.04	0.04	0.04	0.04	0.04
16.300	0.04	0.04	0.04	0.04	0.04
16.550	0.04	0.04	0.04	0.04	0.04
16.800	0.04	0.04	0.04	0.03	0.03
17.050	0.03	0.03	0.03	0.03	0.03
17.300	0.03	0.03	0.03	0.03	0.03
17.550	0.03	0.03	0.03	0.03	0.03
17.800	0.03	0.03	0.03	0.03	0.03
18.050	0.03	0.03	0.03	0.03	0.03
18.300	0.03	0.03	0.03	0.03	0.03
18.550	0.03	0.03	0.03	0.03	0.03
18.800	0.02	0.02	0.02	0.02	0.02
19.050	0.02	0.02	0.02	0.02	0.02
19.300	0.02	0.02	0.02	0.02	0.02
19.550	0.02	0.02	0.02	0.02	0.02
19.800	0.02	0.02	0.02	0.02	0.02

Subsection: Unit Hydrograph (Hydrograph Table)
Label: EDA-1B
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
20.050	0.02	0.02	0.02	0.02	0.02
20.300	0.02	0.02	0.02	0.02	0.02
20.550	0.02	0.02	0.02	0.02	0.02
20.800	0.02	0.02	0.02	0.02	0.02
21.050	0.02	0.02	0.02	0.02	0.02
21.300	0.02	0.02	0.02	0.02	0.02
21.550	0.02	0.02	0.02	0.02	0.02
21.800	0.02	0.02	0.02	0.02	0.02
22.050	0.02	0.02	0.02	0.02	0.02
22.300	0.02	0.02	0.02	0.02	0.02
22.550	0.02	0.02	0.02	0.02	0.02
22.800	0.02	0.02	0.02	0.02	0.02
23.050	0.02	0.02	0.02	0.02	0.02
23.300	0.02	0.02	0.02	0.02	0.02
23.550	0.02	0.02	0.02	0.02	0.02
23.800	0.02	0.02	0.02	0.02	0.02

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1B Storm Event: 10-yr Storm
Scenario: Pre-Development 10-yr storm

Storm Event	10-yr Storm
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	64,961.063 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)
10.450	0.00	0.00	0.00	0.01	0.01
10.700	0.01	0.01	0.02	0.02	0.03
10.950	0.03	0.03	0.04	0.04	0.05
11.200	0.06	0.06	0.07	0.08	0.09
11.450	0.10	0.11	0.15	0.18	0.25
11.700	0.32	0.42	0.52	0.66	0.81
11.950	1.33	1.85	2.18	2.51	2.16
12.200	1.80	1.61	1.41	1.25	1.09
12.450	0.93	0.76	0.65	0.54	0.50
12.700	0.46	0.44	0.42	0.40	0.38
12.950	0.36	0.34	0.33	0.32	0.31
13.200	0.31	0.30	0.30	0.29	0.29
13.450	0.28	0.28	0.27	0.27	0.26
13.700	0.26	0.26	0.25	0.25	0.24
13.950	0.24	0.23	0.23	0.22	0.22
14.200	0.22	0.22	0.21	0.21	0.21
14.450	0.21	0.20	0.20	0.20	0.20
14.700	0.19	0.19	0.19	0.19	0.19
14.950	0.18	0.18	0.18	0.18	0.17
15.200	0.17	0.17	0.17	0.16	0.16
15.450	0.16	0.16	0.15	0.15	0.15
15.700	0.15	0.14	0.14	0.14	0.13
15.950	0.13	0.13	0.13	0.13	0.12
16.200	0.12	0.12	0.12	0.12	0.12
16.450	0.12	0.12	0.11	0.11	0.11
16.700	0.11	0.11	0.11	0.11	0.11
16.950	0.11	0.10	0.10	0.10	0.10
17.200	0.10	0.10	0.10	0.10	0.10
17.450	0.09	0.09	0.09	0.09	0.09
17.700	0.09	0.09	0.09	0.08	0.08
17.950	0.08	0.08	0.08	0.08	0.08
18.200	0.08	0.08	0.08	0.08	0.08
18.450	0.08	0.08	0.08	0.08	0.08

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1B Storm Event: 10-yr Storm
Scenario: Pre-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
18.700	0.07	0.07	0.07	0.07	0.07
18.950	0.07	0.07	0.07	0.07	0.07
19.200	0.07	0.07	0.07	0.07	0.07
19.450	0.07	0.07	0.07	0.07	0.07
19.700	0.07	0.07	0.07	0.07	0.07
19.950	0.07	0.07	0.07	0.07	0.07
20.200	0.07	0.06	0.06	0.06	0.06
20.450	0.06	0.06	0.06	0.06	0.06
20.700	0.06	0.06	0.06	0.06	0.06
20.950	0.06	0.06	0.06	0.06	0.06
21.200	0.06	0.06	0.06	0.06	0.06
21.450	0.06	0.06	0.06	0.06	0.06
21.700	0.06	0.06	0.06	0.06	0.06
21.950	0.06	0.06	0.06	0.05	0.05
22.200	0.05	0.05	0.05	0.05	0.05
22.450	0.05	0.05	0.05	0.05	0.05
22.700	0.05	0.05	0.05	0.05	0.05
22.950	0.05	0.05	0.05	0.05	0.05
23.200	0.05	0.05	0.05	0.05	0.05
23.450	0.05	0.05	0.05	0.05	0.05
23.700	0.05	0.05	0.05	0.05	0.04
23.950	0.04	0.04	(N/A)	(N/A)	(N/A)

Storm Event	100-yr Storm
Return Event	100 years
Duration	24.000 hours
Depth	9.0 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	64,961.063 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)
8.250	0.00	0.00	0.00	0.01	0.01
8.500	0.01	0.01	0.01	0.02	0.02
8.750	0.02	0.02	0.03	0.03	0.03
9.000	0.04	0.04	0.04	0.05	0.05
9.250	0.06	0.06	0.06	0.07	0.07
9.500	0.08	0.08	0.08	0.09	0.09
9.750	0.10	0.10	0.11	0.11	0.12
10.000	0.12	0.13	0.14	0.14	0.15
10.250	0.16	0.17	0.17	0.18	0.19
10.500	0.20	0.21	0.22	0.23	0.24
10.750	0.25	0.26	0.27	0.28	0.29
11.000	0.31	0.32	0.34	0.37	0.40
11.250	0.43	0.46	0.49	0.52	0.56
11.500	0.60	0.72	0.85	1.11	1.36
11.750	1.70	2.03	2.43	2.83	4.31
12.000	5.78	6.45	7.13	6.00	4.87
12.250	4.26	3.66	3.21	2.77	2.34
12.500	1.91	1.62	1.33	1.23	1.13
12.750	1.07	1.02	0.97	0.92	0.88
13.000	0.83	0.80	0.77	0.75	0.73
13.250	0.72	0.71	0.70	0.69	0.67
13.500	0.66	0.65	0.64	0.63	0.62
13.750	0.60	0.59	0.58	0.57	0.56
14.000	0.54	0.53	0.52	0.52	0.51
14.250	0.50	0.50	0.49	0.49	0.48
14.500	0.48	0.47	0.46	0.46	0.45
14.750	0.45	0.44	0.44	0.43	0.42
15.000	0.42	0.41	0.41	0.40	0.39
15.250	0.39	0.38	0.38	0.37	0.36
15.500	0.36	0.35	0.35	0.34	0.33
15.750	0.33	0.32	0.31	0.31	0.30
16.000	0.30	0.29	0.29	0.28	0.28
16.250	0.28	0.27	0.27	0.27	0.27

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1B Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr 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)
16.500	0.26	0.26	0.26	0.26	0.25
16.750	0.25	0.25	0.25	0.24	0.24
17.000	0.24	0.23	0.23	0.23	0.23
17.250	0.22	0.22	0.22	0.22	0.21
17.500	0.21	0.21	0.20	0.20	0.20
17.750	0.20	0.19	0.19	0.19	0.19
18.000	0.18	0.18	0.18	0.18	0.18
18.250	0.18	0.17	0.17	0.17	0.17
18.500	0.17	0.17	0.17	0.17	0.17
18.750	0.17	0.17	0.17	0.17	0.16
19.000	0.16	0.16	0.16	0.16	0.16
19.250	0.16	0.16	0.16	0.16	0.16
19.500	0.16	0.15	0.15	0.15	0.15
19.750	0.15	0.15	0.15	0.15	0.15
20.000	0.15	0.15	0.15	0.15	0.15
20.250	0.14	0.14	0.14	0.14	0.14
20.500	0.14	0.14	0.14	0.14	0.14
20.750	0.14	0.14	0.14	0.14	0.14
21.000	0.14	0.13	0.13	0.13	0.13
21.250	0.13	0.13	0.13	0.13	0.13
21.500	0.13	0.13	0.13	0.13	0.13
21.750	0.13	0.13	0.12	0.12	0.12
22.000	0.12	0.12	0.12	0.12	0.12
22.250	0.12	0.12	0.12	0.12	0.12
22.500	0.12	0.12	0.12	0.11	0.11
22.750	0.11	0.11	0.11	0.11	0.11
23.000	0.11	0.11	0.11	0.11	0.11
23.250	0.11	0.11	0.11	0.11	0.10
23.500	0.10	0.10	0.10	0.10	0.10
23.750	0.10	0.10	0.10	0.10	0.10
24.000	0.10	(N/A)	(N/A)	(N/A)	(N/A)

Storm Event	1-yr Storm
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	17,249.953 ft²

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
6.050	0.00	0.00	0.00	0.00	0.00
6.300	0.00	0.00	0.00	0.00	0.00
6.550	0.00	0.00	0.00	0.00	0.00
6.800	0.00	0.00	0.00	0.00	0.00
7.050	0.00	0.00	0.00	0.00	0.00
7.300	0.00	0.00	0.00	0.01	0.01
7.550	0.01	0.01	0.01	0.01	0.01
7.800	0.01	0.01	0.01	0.01	0.01
8.050	0.01	0.01	0.01	0.01	0.01
8.300	0.01	0.01	0.01	0.01	0.01
8.550	0.01	0.01	0.01	0.01	0.01
8.800	0.01	0.01	0.01	0.01	0.02
9.050	0.02	0.02	0.02	0.02	0.02
9.300	0.02	0.02	0.02	0.02	0.02
9.550	0.02	0.02	0.02	0.02	0.02
9.800	0.02	0.02	0.02	0.03	0.03
10.050	0.03	0.03	0.03	0.03	0.03
10.300	0.03	0.03	0.03	0.03	0.04
10.550	0.04	0.04	0.04	0.04	0.04
10.800	0.04	0.04	0.05	0.05	0.05
11.050	0.05	0.05	0.06	0.06	0.06
11.300	0.07	0.07	0.07	0.08	0.08
11.550	0.10	0.11	0.15	0.18	0.22
11.800	0.25	0.30	0.34	0.50	0.65
12.050	0.71	0.76	0.64	0.51	0.44
12.300	0.37	0.32	0.28	0.23	0.19
12.550	0.16	0.13	0.12	0.11	0.11
12.800	0.10	0.09	0.09	0.09	0.08
13.050	0.08	0.07	0.07	0.07	0.07
13.300	0.07	0.07	0.07	0.07	0.06
13.550	0.06	0.06	0.06	0.06	0.06
13.800	0.06	0.06	0.05	0.05	0.05
14.050	0.05	0.05	0.05	0.05	0.05

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: EDA-1C Storm Event: 1-yr Storm
Scenario: Pre-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
14.300	0.05	0.05	0.05	0.05	0.05
14.550	0.04	0.04	0.04	0.04	0.04
14.800	0.04	0.04	0.04	0.04	0.04
15.050	0.04	0.04	0.04	0.04	0.04
15.300	0.04	0.04	0.03	0.03	0.03
15.550	0.03	0.03	0.03	0.03	0.03
15.800	0.03	0.03	0.03	0.03	0.03
16.050	0.03	0.03	0.03	0.03	0.03
16.300	0.03	0.03	0.03	0.03	0.02
16.550	0.02	0.02	0.02	0.02	0.02
16.800	0.02	0.02	0.02	0.02	0.02
17.050	0.02	0.02	0.02	0.02	0.02
17.300	0.02	0.02	0.02	0.02	0.02
17.550	0.02	0.02	0.02	0.02	0.02
17.800	0.02	0.02	0.02	0.02	0.02
18.050	0.02	0.02	0.02	0.02	0.02
18.300	0.02	0.02	0.02	0.02	0.02
18.550	0.02	0.02	0.02	0.02	0.02
18.800	0.02	0.02	0.02	0.02	0.02
19.050	0.02	0.02	0.02	0.01	0.01
19.300	0.01	0.01	0.01	0.01	0.01
19.550	0.01	0.01	0.01	0.01	0.01
19.800	0.01	0.01	0.01	0.01	0.01
20.050	0.01	0.01	0.01	0.01	0.01
20.300	0.01	0.01	0.01	0.01	0.01
20.550	0.01	0.01	0.01	0.01	0.01
20.800	0.01	0.01	0.01	0.01	0.01
21.050	0.01	0.01	0.01	0.01	0.01
21.300	0.01	0.01	0.01	0.01	0.01
21.550	0.01	0.01	0.01	0.01	0.01
21.800	0.01	0.01	0.01	0.01	0.01
22.050	0.01	0.01	0.01	0.01	0.01
22.300	0.01	0.01	0.01	0.01	0.01
22.550	0.01	0.01	0.01	0.01	0.01
22.800	0.01	0.01	0.01	0.01	0.01
23.050	0.01	0.01	0.01	0.01	0.01
23.300	0.01	0.01	0.01	0.01	0.01
23.550	0.01	0.01	0.01	0.01	0.01
23.800	0.01	0.01	0.01	0.01	0.01

Storm Event	10-yr Storm
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	17,249.953 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)
3.650	0.00	0.00	0.00	0.00	0.00
3.900	0.00	0.00	0.00	0.00	0.00
4.150	0.00	0.00	0.00	0.00	0.00
4.400	0.00	0.00	0.00	0.00	0.00
4.650	0.00	0.00	0.01	0.01	0.01
4.900	0.01	0.01	0.01	0.01	0.01
5.150	0.01	0.01	0.01	0.01	0.01
5.400	0.01	0.01	0.01	0.01	0.01
5.650	0.01	0.01	0.01	0.01	0.01
5.900	0.01	0.01	0.01	0.01	0.01
6.150	0.01	0.01	0.01	0.01	0.01
6.400	0.01	0.01	0.01	0.01	0.01
6.650	0.01	0.02	0.02	0.02	0.02
6.900	0.02	0.02	0.02	0.02	0.02
7.150	0.02	0.02	0.02	0.02	0.02
7.400	0.02	0.02	0.02	0.02	0.02
7.650	0.02	0.02	0.02	0.03	0.03
7.900	0.03	0.03	0.03	0.03	0.03
8.150	0.03	0.03	0.03	0.03	0.03
8.400	0.03	0.04	0.04	0.04	0.04
8.650	0.04	0.04	0.04	0.04	0.04
8.900	0.04	0.05	0.05	0.05	0.05
9.150	0.05	0.05	0.05	0.05	0.05
9.400	0.06	0.06	0.06	0.06	0.06
9.650	0.06	0.06	0.06	0.07	0.07
9.900	0.07	0.07	0.07	0.07	0.07
10.150	0.08	0.08	0.08	0.08	0.08
10.400	0.09	0.09	0.09	0.09	0.10
10.650	0.10	0.10	0.10	0.11	0.11
10.900	0.11	0.11	0.12	0.12	0.12
11.150	0.13	0.14	0.15	0.16	0.16
11.400	0.17	0.18	0.19	0.23	0.26
11.650	0.33	0.40	0.48	0.56	0.64

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1C Storm Event: 10-yr Storm
Scenario: Pre-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
11.900	0.73	1.04	1.36	1.46	1.55
12.150	1.28	1.02	0.88	0.74	0.64
12.400	0.55	0.46	0.37	0.31	0.26
12.650	0.24	0.22	0.21	0.19	0.18
12.900	0.18	0.17	0.16	0.15	0.14
13.150	0.14	0.14	0.14	0.13	0.13
13.400	0.13	0.13	0.12	0.12	0.12
13.650	0.12	0.11	0.11	0.11	0.11
13.900	0.11	0.10	0.10	0.10	0.10
14.150	0.10	0.09	0.09	0.09	0.09
14.400	0.09	0.09	0.09	0.09	0.08
14.650	0.08	0.08	0.08	0.08	0.08
14.900	0.08	0.08	0.08	0.07	0.07
15.150	0.07	0.07	0.07	0.07	0.07
15.400	0.07	0.07	0.06	0.06	0.06
15.650	0.06	0.06	0.06	0.06	0.06
15.900	0.06	0.05	0.05	0.05	0.05
16.150	0.05	0.05	0.05	0.05	0.05
16.400	0.05	0.05	0.05	0.05	0.05
16.650	0.05	0.05	0.04	0.04	0.04
16.900	0.04	0.04	0.04	0.04	0.04
17.150	0.04	0.04	0.04	0.04	0.04
17.400	0.04	0.04	0.04	0.04	0.04
17.650	0.04	0.04	0.04	0.03	0.03
17.900	0.03	0.03	0.03	0.03	0.03
18.150	0.03	0.03	0.03	0.03	0.03
18.400	0.03	0.03	0.03	0.03	0.03
18.650	0.03	0.03	0.03	0.03	0.03
18.900	0.03	0.03	0.03	0.03	0.03
19.150	0.03	0.03	0.03	0.03	0.03
19.400	0.03	0.03	0.03	0.03	0.03
19.650	0.03	0.03	0.03	0.03	0.03
19.900	0.03	0.03	0.03	0.03	0.03
20.150	0.03	0.03	0.03	0.03	0.03
20.400	0.03	0.03	0.02	0.02	0.02
20.650	0.02	0.02	0.02	0.02	0.02
20.900	0.02	0.02	0.02	0.02	0.02
21.150	0.02	0.02	0.02	0.02	0.02
21.400	0.02	0.02	0.02	0.02	0.02
21.650	0.02	0.02	0.02	0.02	0.02
21.900	0.02	0.02	0.02	0.02	0.02
22.150	0.02	0.02	0.02	0.02	0.02

Subsection: Unit Hydrograph (Hydrograph Table)
Label: EDA-1C
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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)
22.400	0.02	0.02	0.02	0.02	0.02
22.650	0.02	0.02	0.02	0.02	0.02
22.900	0.02	0.02	0.02	0.02	0.02
23.150	0.02	0.02	0.02	0.02	0.02
23.400	0.02	0.02	0.02	0.02	0.02
23.650	0.02	0.02	0.02	0.02	0.02
23.900	0.02	0.02	0.02	(N/A)	(N/A)

Storm Event	100-yr Storm
Return Event	100 years
Duration	24.000 hours
Depth	9.0 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	17,249.953 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)
2.100	0.00	0.00	0.00	0.00	0.00
2.350	0.00	0.00	0.00	0.00	0.00
2.600	0.00	0.00	0.01	0.01	0.01
2.850	0.01	0.01	0.01	0.01	0.01
3.100	0.01	0.01	0.01	0.01	0.01
3.350	0.01	0.01	0.01	0.01	0.01
3.600	0.01	0.01	0.01	0.01	0.01
3.850	0.01	0.02	0.02	0.02	0.02
4.100	0.02	0.02	0.02	0.02	0.02
4.350	0.02	0.02	0.02	0.02	0.02
4.600	0.02	0.02	0.02	0.02	0.02
4.850	0.02	0.02	0.02	0.02	0.02
5.100	0.03	0.03	0.03	0.03	0.03
5.350	0.03	0.03	0.03	0.03	0.03
5.600	0.03	0.03	0.03	0.03	0.03
5.850	0.03	0.03	0.03	0.03	0.03
6.100	0.03	0.03	0.04	0.04	0.04
6.350	0.04	0.04	0.04	0.04	0.04
6.600	0.04	0.04	0.04	0.04	0.05
6.850	0.05	0.05	0.05	0.05	0.05
7.100	0.05	0.05	0.05	0.05	0.05
7.350	0.06	0.06	0.06	0.06	0.06
7.600	0.06	0.06	0.06	0.06	0.06
7.850	0.07	0.07	0.07	0.07	0.07
8.100	0.07	0.07	0.07	0.08	0.08
8.350	0.08	0.08	0.08	0.09	0.09
8.600	0.09	0.09	0.09	0.10	0.10
8.850	0.10	0.10	0.10	0.11	0.11
9.100	0.11	0.11	0.12	0.12	0.12
9.350	0.12	0.12	0.13	0.13	0.13
9.600	0.13	0.13	0.14	0.14	0.14
9.850	0.14	0.15	0.15	0.15	0.15
10.100	0.16	0.16	0.16	0.17	0.17

Subsection: Unit Hydrograph (Hydrograph Table)
Label: EDA-1C
Scenario: Pre-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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)
10.350	0.18	0.18	0.19	0.19	0.19
10.600	0.20	0.20	0.21	0.21	0.22
10.850	0.22	0.22	0.23	0.23	0.24
11.100	0.25	0.26	0.28	0.29	0.31
11.350	0.33	0.34	0.36	0.37	0.44
11.600	0.51	0.64	0.77	0.92	1.07
11.850	1.22	1.38	1.96	2.54	2.71
12.100	2.88	2.37	1.87	1.61	1.35
12.350	1.18	1.00	0.84	0.68	0.57
12.600	0.47	0.43	0.39	0.37	0.35
12.850	0.34	0.32	0.30	0.29	0.27
13.100	0.26	0.26	0.25	0.25	0.24
13.350	0.24	0.23	0.23	0.22	0.22
13.600	0.22	0.21	0.21	0.20	0.20
13.850	0.19	0.19	0.19	0.18	0.18
14.100	0.17	0.17	0.17	0.17	0.17
14.350	0.16	0.16	0.16	0.16	0.16
14.600	0.15	0.15	0.15	0.15	0.15
14.850	0.14	0.14	0.14	0.14	0.14
15.100	0.13	0.13	0.13	0.13	0.12
15.350	0.12	0.12	0.12	0.12	0.11
15.600	0.11	0.11	0.11	0.11	0.10
15.850	0.10	0.10	0.10	0.10	0.09
16.100	0.09	0.09	0.09	0.09	0.09
16.350	0.09	0.09	0.09	0.09	0.08
16.600	0.08	0.08	0.08	0.08	0.08
16.850	0.08	0.08	0.08	0.08	0.08
17.100	0.07	0.07	0.07	0.07	0.07
17.350	0.07	0.07	0.07	0.07	0.07
17.600	0.07	0.06	0.06	0.06	0.06
17.850	0.06	0.06	0.06	0.06	0.06
18.100	0.06	0.06	0.06	0.06	0.06
18.350	0.06	0.06	0.06	0.05	0.05
18.600	0.05	0.05	0.05	0.05	0.05
18.850	0.05	0.05	0.05	0.05	0.05
19.100	0.05	0.05	0.05	0.05	0.05
19.350	0.05	0.05	0.05	0.05	0.05
19.600	0.05	0.05	0.05	0.05	0.05
19.850	0.05	0.05	0.05	0.05	0.05
20.100	0.05	0.05	0.05	0.05	0.05
20.350	0.05	0.05	0.05	0.04	0.04
20.600	0.04	0.04	0.04	0.04	0.04

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1C Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
20.850	0.04	0.04	0.04	0.04	0.04
21.100	0.04	0.04	0.04	0.04	0.04
21.350	0.04	0.04	0.04	0.04	0.04
21.600	0.04	0.04	0.04	0.04	0.04
21.850	0.04	0.04	0.04	0.04	0.04
22.100	0.04	0.04	0.04	0.04	0.04
22.350	0.04	0.04	0.04	0.04	0.04
22.600	0.04	0.04	0.04	0.04	0.04
22.850	0.04	0.04	0.04	0.03	0.03
23.100	0.03	0.03	0.03	0.03	0.03
23.350	0.03	0.03	0.03	0.03	0.03
23.600	0.03	0.03	0.03	0.03	0.03
23.850	0.03	0.03	0.03	0.03	(N/A)

Subsection: Addition Summary | Return Event: 1 years
Label: DP-1 | Storm Event: 1-yr Storm
Scenario: Pre-Development 1-yr storm

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1C
EX-OCS	EX-pond

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-1C	2,833.290	12.100	0.76
Flow (From)	EX-OCS	44,297.458	12.150	9.58
Flow (In)	DP-1	47,130.747	12.150	10.22

Subsection: Addition Summary | Return Event: 10 years
Label: DP-1 | Storm Event: 10-yr Storm
Scenario: Pre-Development 10-yr storm

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1C
EX-OCS	EX-pond

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-1C	6,013.754	12.100	1.55
Flow (From)	EX-OCS	106,501.776	12.200	21.47
Flow (In)	DP-1	112,515.530	12.150	22.75

Subsection: Addition Summary
Label: DP-1
Scenario: Pre-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1C
EX-OCS	EX-pond

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-1C	11,597.574	12.100	2.88
Flow (From)	EX-OCS	222,319.150	12.200	41.28
Flow (In)	DP-1	233,916.724	12.150	43.23

Subsection: Time vs. Elevation
Label: EX-pond (OUT)
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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	81.00	81.00	81.00	81.00	81.00
0.250	81.00	81.00	81.00	81.00	81.00
0.500	81.00	81.00	81.00	81.00	81.00
0.750	81.00	81.00	81.00	81.00	81.00
1.000	81.00	81.00	81.00	81.00	81.00
1.250	81.00	81.00	81.00	81.00	81.00
1.500	81.00	81.00	81.00	81.00	81.00
1.750	81.00	81.00	81.00	81.00	81.00
2.000	81.00	81.00	81.00	81.00	81.00
2.250	81.00	81.00	81.00	81.00	81.00
2.500	81.00	81.00	81.00	81.00	81.00
2.750	81.00	81.00	81.00	81.00	81.00
3.000	81.00	81.00	81.00	81.00	81.00
3.250	81.00	81.00	81.00	81.00	81.00
3.500	81.00	81.00	81.00	81.00	81.00
3.750	81.00	81.00	81.00	81.00	81.00
4.000	81.00	81.00	81.00	81.00	81.00
4.250	81.00	81.00	81.00	81.00	81.00
4.500	81.00	81.00	81.00	81.00	81.00
4.750	81.00	81.00	81.00	81.00	81.00
5.000	81.00	81.00	81.00	81.00	81.00
5.250	81.00	81.00	81.00	81.00	81.00
5.500	81.00	81.00	81.00	81.00	81.00
5.750	81.00	81.00	81.00	81.00	81.00
6.000	81.00	81.00	81.00	81.00	81.00
6.250	81.00	81.00	81.00	81.00	81.00
6.500	81.00	81.00	81.00	81.00	81.00
6.750	81.00	81.00	81.00	81.00	81.00
7.000	81.00	81.00	81.00	81.00	81.00
7.250	81.00	81.00	81.00	81.00	81.00
7.500	81.00	81.00	81.00	81.00	81.01
7.750	81.01	81.01	81.01	81.02	81.02
8.000	81.03	81.03	81.04	81.04	81.05
8.250	81.06	81.06	81.07	81.08	81.09
8.500	81.10	81.11	81.12	81.13	81.14
8.750	81.15	81.16	81.18	81.19	81.20
9.000	81.22	81.23	81.25	81.27	81.28
9.250	81.30	81.32	81.34	81.35	81.37
9.500	81.39	81.40	81.42	81.43	81.44
9.750	81.45	81.46	81.47	81.48	81.49

Subsection: Time vs. Elevation | Return Event: 1 years
Label: EX-pond (OUT) | Storm Event: 1-yr Storm
Scenario: Pre-Development 1-yr 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)
10.000	81.50	81.51	81.51	81.52	81.53
10.250	81.53	81.54	81.54	81.55	81.55
10.500	81.56	81.57	81.57	81.58	81.58
10.750	81.59	81.60	81.60	81.61	81.62
11.000	81.62	81.63	81.63	81.64	81.65
11.250	81.66	81.67	81.69	81.70	81.71
11.500	81.73	81.75	81.77	81.81	81.87
11.750	81.93	82.01	82.08	82.16	82.27
12.000	82.44	82.59	82.72	82.79	82.78
12.250	82.74	82.67	82.60	82.52	82.44
12.500	82.36	82.27	82.19	82.12	82.06
12.750	82.01	81.98	81.95	81.92	81.90
13.000	81.88	81.87	81.85	81.84	81.83
13.250	81.82	81.81	81.80	81.80	81.79
13.500	81.79	81.78	81.78	81.77	81.77
13.750	81.76	81.76	81.75	81.75	81.75
14.000	81.74	81.74	81.73	81.73	81.73
14.250	81.72	81.72	81.72	81.71	81.71
14.500	81.71	81.71	81.71	81.70	81.70
14.750	81.70	81.70	81.69	81.69	81.69
15.000	81.69	81.68	81.68	81.68	81.67
15.250	81.67	81.67	81.67	81.66	81.66
15.500	81.66	81.65	81.65	81.65	81.64
15.750	81.64	81.64	81.64	81.63	81.63
16.000	81.63	81.62	81.62	81.62	81.62
16.250	81.61	81.61	81.61	81.61	81.61
16.500	81.61	81.60	81.60	81.60	81.60
16.750	81.60	81.60	81.60	81.59	81.59
17.000	81.59	81.59	81.59	81.59	81.58
17.250	81.58	81.58	81.58	81.58	81.58
17.500	81.57	81.57	81.57	81.57	81.57
17.750	81.56	81.56	81.56	81.56	81.56
18.000	81.56	81.55	81.55	81.55	81.55
18.250	81.55	81.55	81.55	81.54	81.54
18.500	81.54	81.54	81.54	81.54	81.54
18.750	81.54	81.54	81.54	81.54	81.54
19.000	81.54	81.54	81.54	81.54	81.53
19.250	81.53	81.53	81.53	81.53	81.53
19.500	81.53	81.53	81.53	81.53	81.53
19.750	81.53	81.53	81.53	81.53	81.53
20.000	81.53	81.53	81.52	81.52	81.52

Subsection: Time vs. Elevation

Return Event: 1 years

Label: EX-pond (OUT)

Storm Event: 1-yr Storm

Scenario: Pre-Development 1-yr 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)
20.250	81.52	81.52	81.52	81.52	81.52
20.500	81.52	81.52	81.52	81.52	81.52
20.750	81.52	81.52	81.52	81.52	81.52
21.000	81.52	81.52	81.52	81.52	81.52
21.250	81.51	81.51	81.51	81.51	81.51
21.500	81.51	81.51	81.51	81.51	81.51
21.750	81.51	81.51	81.51	81.51	81.51
22.000	81.51	81.51	81.51	81.51	81.51
22.250	81.51	81.51	81.51	81.51	81.50
22.500	81.50	81.50	81.50	81.50	81.50
22.750	81.50	81.50	81.50	81.50	81.50
23.000	81.50	81.50	81.50	81.50	81.50
23.250	81.50	81.50	81.50	81.50	81.50
23.500	81.49	81.49	81.49	81.49	81.49
23.750	81.49	81.49	81.49	81.49	81.49
24.000	81.49	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: EX-pond (OUT)
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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	81.00	81.00	81.00	81.00	81.00
0.250	81.00	81.00	81.00	81.00	81.00
0.500	81.00	81.00	81.00	81.00	81.00
0.750	81.00	81.00	81.00	81.00	81.00
1.000	81.00	81.00	81.00	81.00	81.00
1.250	81.00	81.00	81.00	81.00	81.00
1.500	81.00	81.00	81.00	81.00	81.00
1.750	81.00	81.00	81.00	81.00	81.00
2.000	81.00	81.00	81.00	81.00	81.00
2.250	81.00	81.00	81.00	81.00	81.00
2.500	81.00	81.00	81.00	81.00	81.00
2.750	81.00	81.00	81.00	81.00	81.00
3.000	81.00	81.00	81.00	81.00	81.00
3.250	81.00	81.00	81.00	81.00	81.00
3.500	81.00	81.00	81.00	81.00	81.00
3.750	81.00	81.00	81.00	81.00	81.00
4.000	81.00	81.00	81.00	81.00	81.00
4.250	81.00	81.00	81.00	81.00	81.00
4.500	81.00	81.00	81.00	81.00	81.00
4.750	81.00	81.00	81.00	81.00	81.00
5.000	81.00	81.00	81.01	81.01	81.01
5.250	81.01	81.02	81.02	81.03	81.03
5.500	81.04	81.04	81.05	81.06	81.06
5.750	81.07	81.08	81.09	81.10	81.10
6.000	81.11	81.12	81.13	81.14	81.15
6.250	81.17	81.18	81.19	81.20	81.22
6.500	81.23	81.24	81.26	81.27	81.29
6.750	81.31	81.32	81.34	81.35	81.37
7.000	81.38	81.39	81.41	81.42	81.43
7.250	81.44	81.45	81.46	81.47	81.47
7.500	81.48	81.49	81.49	81.50	81.51
7.750	81.51	81.51	81.52	81.52	81.53
8.000	81.53	81.53	81.54	81.54	81.54
8.250	81.55	81.55	81.56	81.56	81.57
8.500	81.57	81.58	81.58	81.59	81.59
8.750	81.60	81.60	81.61	81.61	81.62
9.000	81.62	81.63	81.63	81.64	81.64
9.250	81.65	81.65	81.66	81.66	81.67
9.500	81.67	81.68	81.69	81.69	81.70
9.750	81.70	81.71	81.71	81.72	81.72

Subsection: Time vs. Elevation | Return Event: 10 years
Label: EX-pond (OUT) | Storm Event: 10-yr Storm
Scenario: Pre-Development 10-yr 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)
10.000	81.73	81.73	81.74	81.74	81.75
10.250	81.75	81.76	81.77	81.78	81.78
10.500	81.79	81.80	81.81	81.82	81.82
10.750	81.83	81.84	81.85	81.86	81.87
11.000	81.87	81.88	81.90	81.91	81.93
11.250	81.94	81.96	81.98	82.00	82.03
11.500	82.05	82.08	82.13	82.20	82.29
11.750	82.40	82.51	82.63	82.75	82.92
12.000	83.16	83.39	83.58	83.69	83.69
12.250	83.63	83.54	83.43	83.30	83.17
12.500	83.03	82.89	82.75	82.62	82.51
12.750	82.42	82.35	82.30	82.25	82.21
13.000	82.18	82.15	82.12	82.10	82.09
13.250	82.07	82.06	82.05	82.04	82.03
13.500	82.02	82.02	82.01	82.00	82.00
13.750	81.99	81.98	81.97	81.97	81.96
14.000	81.95	81.94	81.94	81.93	81.93
14.250	81.92	81.92	81.91	81.91	81.91
14.500	81.90	81.90	81.89	81.89	81.89
14.750	81.88	81.88	81.87	81.87	81.87
15.000	81.86	81.86	81.85	81.85	81.84
15.250	81.84	81.84	81.83	81.83	81.82
15.500	81.82	81.81	81.81	81.80	81.80
15.750	81.80	81.79	81.79	81.78	81.78
16.000	81.77	81.77	81.76	81.76	81.75
16.250	81.75	81.75	81.75	81.74	81.74
16.500	81.74	81.74	81.73	81.73	81.73
16.750	81.73	81.73	81.72	81.72	81.72
17.000	81.72	81.71	81.71	81.71	81.71
17.250	81.71	81.70	81.70	81.70	81.70
17.500	81.69	81.69	81.69	81.69	81.68
17.750	81.68	81.68	81.68	81.67	81.67
18.000	81.67	81.66	81.66	81.66	81.66
18.250	81.66	81.65	81.65	81.65	81.65
18.500	81.65	81.65	81.65	81.65	81.65
18.750	81.65	81.64	81.64	81.64	81.64
19.000	81.64	81.64	81.64	81.64	81.64
19.250	81.64	81.64	81.64	81.63	81.63
19.500	81.63	81.63	81.63	81.63	81.63
19.750	81.63	81.63	81.63	81.63	81.63
20.000	81.62	81.62	81.62	81.62	81.62

Subsection: Time vs. Elevation | Return Event: 10 years
Label: EX-pond (OUT) | Storm Event: 10-yr Storm
Scenario: Pre-Development 10-yr 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)
20.250	81.62	81.62	81.62	81.62	81.62
20.500	81.62	81.62	81.62	81.62	81.61
20.750	81.61	81.61	81.61	81.61	81.61
21.000	81.61	81.61	81.61	81.61	81.61
21.250	81.61	81.61	81.61	81.61	81.61
21.500	81.60	81.60	81.60	81.60	81.60
21.750	81.60	81.60	81.60	81.60	81.60
22.000	81.60	81.60	81.60	81.60	81.60
22.250	81.59	81.59	81.59	81.59	81.59
22.500	81.59	81.59	81.59	81.59	81.59
22.750	81.59	81.58	81.58	81.58	81.58
23.000	81.58	81.58	81.58	81.58	81.58
23.250	81.58	81.58	81.57	81.57	81.57
23.500	81.57	81.57	81.57	81.57	81.57
23.750	81.57	81.57	81.57	81.57	81.56
24.000	81.56	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 100 years
Label: EX-pond (OUT) | Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr 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	81.00	81.00	81.00	81.00	81.00
0.250	81.00	81.00	81.00	81.00	81.00
0.500	81.00	81.00	81.00	81.00	81.00
0.750	81.00	81.00	81.00	81.00	81.00
1.000	81.00	81.00	81.00	81.00	81.00
1.250	81.00	81.00	81.00	81.00	81.00
1.500	81.00	81.00	81.00	81.00	81.00
1.750	81.00	81.00	81.00	81.00	81.00
2.000	81.00	81.00	81.00	81.00	81.00
2.250	81.00	81.00	81.00	81.00	81.00
2.500	81.00	81.00	81.00	81.00	81.00
2.750	81.00	81.00	81.00	81.00	81.00
3.000	81.00	81.00	81.00	81.00	81.01
3.250	81.01	81.01	81.02	81.03	81.03
3.500	81.04	81.05	81.06	81.07	81.08
3.750	81.09	81.10	81.12	81.13	81.15
4.000	81.16	81.18	81.19	81.21	81.23
4.250	81.25	81.26	81.28	81.30	81.32
4.500	81.34	81.36	81.38	81.40	81.41
4.750	81.43	81.44	81.45	81.46	81.47
5.000	81.48	81.49	81.50	81.50	81.51
5.250	81.52	81.52	81.52	81.53	81.53
5.500	81.54	81.54	81.54	81.55	81.55
5.750	81.55	81.55	81.56	81.56	81.56
6.000	81.57	81.57	81.57	81.58	81.58
6.250	81.58	81.59	81.59	81.60	81.60
6.500	81.60	81.61	81.61	81.62	81.62
6.750	81.62	81.63	81.63	81.64	81.64
7.000	81.64	81.65	81.65	81.66	81.66
7.250	81.66	81.67	81.67	81.68	81.68
7.500	81.69	81.69	81.69	81.70	81.70
7.750	81.71	81.71	81.72	81.72	81.72
8.000	81.73	81.73	81.73	81.74	81.74
8.250	81.75	81.76	81.76	81.77	81.78
8.500	81.78	81.79	81.80	81.80	81.81
8.750	81.82	81.83	81.83	81.84	81.85
9.000	81.86	81.86	81.87	81.88	81.89
9.250	81.89	81.90	81.91	81.92	81.92
9.500	81.93	81.94	81.94	81.95	81.96
9.750	81.96	81.97	81.98	81.99	81.99

Subsection: Time vs. Elevation
Label: EX-pond (OUT)
Scenario: Pre-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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)
10.000	82.00	82.01	82.01	82.02	82.03
10.250	82.04	82.05	82.06	82.08	82.09
10.500	82.10	82.11	82.12	82.13	82.15
10.750	82.16	82.17	82.18	82.19	82.20
11.000	82.21	82.23	82.24	82.26	82.29
11.250	82.31	82.34	82.37	82.40	82.43
11.500	82.46	82.51	82.58	82.69	82.82
11.750	82.97	83.14	83.31	83.48	83.72
12.000	84.05	84.38	84.68	84.87	84.89
12.250	84.82	84.70	84.55	84.38	84.20
12.500	84.01	83.81	83.61	83.41	83.23
12.750	83.08	82.95	82.84	82.75	82.67
13.000	82.60	82.55	82.50	82.46	82.43
13.250	82.41	82.39	82.37	82.35	82.34
13.500	82.33	82.32	82.31	82.30	82.29
13.750	82.28	82.26	82.25	82.24	82.23
14.000	82.22	82.21	82.20	82.19	82.18
14.250	82.18	82.17	82.16	82.16	82.15
14.500	82.14	82.14	82.13	82.13	82.12
14.750	82.12	82.11	82.10	82.10	82.09
15.000	82.09	82.08	82.07	82.07	82.06
15.250	82.05	82.05	82.04	82.04	82.03
15.500	82.02	82.02	82.01	82.00	82.00
15.750	81.99	81.98	81.98	81.97	81.96
16.000	81.96	81.95	81.94	81.94	81.93
16.250	81.93	81.92	81.92	81.92	81.91
16.500	81.91	81.91	81.91	81.90	81.90
16.750	81.90	81.89	81.89	81.89	81.88
17.000	81.88	81.87	81.87	81.87	81.86
17.250	81.86	81.86	81.85	81.85	81.85
17.500	81.84	81.84	81.83	81.83	81.83
17.750	81.82	81.82	81.82	81.81	81.81
18.000	81.81	81.80	81.80	81.79	81.79
18.250	81.79	81.79	81.79	81.78	81.78
18.500	81.78	81.78	81.78	81.78	81.78
18.750	81.78	81.77	81.77	81.77	81.77
19.000	81.77	81.77	81.77	81.77	81.76
19.250	81.76	81.76	81.76	81.76	81.76
19.500	81.76	81.76	81.75	81.75	81.75
19.750	81.75	81.75	81.75	81.75	81.75
20.000	81.74	81.74	81.74	81.74	81.74

Subsection: Time vs. Elevation
Label: EX-pond (OUT)
Scenario: Pre-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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)
20.250	81.74	81.74	81.74	81.74	81.74
20.500	81.73	81.73	81.73	81.73	81.73
20.750	81.73	81.73	81.73	81.73	81.73
21.000	81.72	81.72	81.72	81.72	81.72
21.250	81.72	81.72	81.72	81.72	81.72
21.500	81.72	81.71	81.71	81.71	81.71
21.750	81.71	81.71	81.71	81.71	81.71
22.000	81.71	81.71	81.70	81.70	81.70
22.250	81.70	81.70	81.70	81.70	81.70
22.500	81.70	81.70	81.69	81.69	81.69
22.750	81.69	81.69	81.69	81.69	81.69
23.000	81.69	81.68	81.68	81.68	81.68
23.250	81.68	81.68	81.68	81.68	81.67
23.500	81.67	81.67	81.67	81.67	81.67
23.750	81.67	81.67	81.66	81.66	81.66
24.000	81.66	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: EX-pond
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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	1.000
7.500	1.000	2.000	4.000	5.000	8.000
7.750	10.000	13.000	17.000	21.000	26.000
8.000	31.000	36.000	43.000	49.000	57.000
8.250	65.000	73.000	83.000	93.000	104.000
8.500	116.000	128.000	141.000	155.000	170.000
8.750	186.000	203.000	221.000	241.000	262.000
9.000	282.000	304.000	327.000	352.000	379.000
9.250	407.000	434.000	461.000	489.000	517.000
9.500	545.000	572.000	597.000	620.000	641.000
9.750	661.000	679.000	697.000	714.000	730.000

Subsection: Time vs. Volume | Return Event: 1 years
Label: EX-pond | Storm Event: 1-yr Storm
Scenario: Pre-Development 1-yr 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)
10.000	746.000	759.000	771.000	783.000	794.000
10.250	806.000	817.000	828.000	839.000	850.000
10.500	862.000	874.000	886.000	898.000	911.000
10.750	924.000	937.000	950.000	962.000	974.000
11.000	985.000	998.000	1,012.000	1,029.000	1,048.000
11.250	1,071.000	1,097.000	1,125.000	1,155.000	1,185.000
11.500	1,215.000	1,257.000	1,321.000	1,417.000	1,551.000
11.750	1,719.000	1,917.000	2,136.000	2,378.000	2,775.000
12.000	3,410.000	4,107.000	4,745.000	5,122.000	5,082.000
12.250	4,828.000	4,498.000	4,141.000	3,780.000	3,427.000
12.500	3,085.000	2,769.000	2,491.000	2,257.000	2,077.000
12.750	1,941.000	1,837.000	1,755.000	1,691.000	1,639.000
13.000	1,590.000	1,546.000	1,508.000	1,475.000	1,449.000
13.250	1,427.000	1,409.000	1,394.000	1,380.000	1,367.000
13.500	1,354.000	1,343.000	1,331.000	1,321.000	1,310.000
13.750	1,299.000	1,289.000	1,278.000	1,268.000	1,257.000
14.000	1,247.000	1,237.000	1,228.000	1,219.000	1,211.000
14.250	1,204.000	1,198.000	1,192.000	1,186.000	1,181.000
14.500	1,176.000	1,171.000	1,166.000	1,161.000	1,156.000
14.750	1,151.000	1,145.000	1,140.000	1,134.000	1,128.000
15.000	1,122.000	1,116.000	1,110.000	1,103.000	1,097.000
15.250	1,091.000	1,085.000	1,078.000	1,072.000	1,066.000
15.500	1,060.000	1,053.000	1,047.000	1,041.000	1,035.000
15.750	1,028.000	1,022.000	1,016.000	1,010.000	1,003.000
16.000	997.000	991.000	985.000	980.000	975.000
16.250	971.000	967.000	964.000	960.000	957.000
16.500	954.000	951.000	948.000	945.000	943.000
16.750	940.000	937.000	933.000	930.000	927.000
17.000	923.000	920.000	916.000	913.000	909.000
17.250	906.000	902.000	899.000	895.000	891.000
17.500	888.000	884.000	880.000	877.000	873.000
17.750	870.000	866.000	862.000	859.000	855.000
18.000	852.000	848.000	845.000	842.000	839.000
18.250	837.000	834.000	832.000	831.000	829.000
18.500	828.000	826.000	825.000	824.000	823.000
18.750	821.000	820.000	819.000	818.000	817.000
19.000	816.000	815.000	814.000	813.000	812.000
19.250	811.000	810.000	809.000	808.000	806.000
19.500	805.000	804.000	803.000	802.000	801.000
19.750	800.000	799.000	798.000	797.000	796.000
20.000	795.000	794.000	793.000	792.000	791.000

Subsection: Time vs. Volume | Return Event: 1 years
Label: EX-pond | Storm Event: 1-yr Storm
Scenario: Pre-Development 1-yr 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)
20.250	790.000	789.000	788.000	787.000	787.000
20.500	786.000	785.000	784.000	783.000	782.000
20.750	782.000	781.000	780.000	779.000	779.000
21.000	778.000	777.000	776.000	776.000	775.000
21.250	774.000	773.000	772.000	772.000	771.000
21.500	770.000	769.000	768.000	768.000	767.000
21.750	766.000	765.000	765.000	764.000	763.000
22.000	762.000	761.000	761.000	760.000	759.000
22.250	758.000	757.000	757.000	756.000	755.000
22.500	754.000	753.000	753.000	752.000	751.000
22.750	751.000	750.000	749.000	748.000	747.000
23.000	747.000	746.000	745.000	744.000	743.000
23.250	742.000	740.000	739.000	738.000	737.000
23.500	736.000	735.000	733.000	732.000	731.000
23.750	730.000	728.000	727.000	726.000	724.000
24.000	723.000	(N/A)	(N/A)	(N/A)	(N/A)

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	1.000	1.000
5.000	3.000	4.000	7.000	9.000	13.000
5.250	16.000	21.000	26.000	31.000	37.000
5.500	43.000	51.000	58.000	66.000	75.000
5.750	84.000	94.000	104.000	116.000	127.000
6.000	139.000	151.000	164.000	178.000	193.000
6.250	208.000	225.000	243.000	261.000	279.000
6.500	298.000	319.000	340.000	363.000	387.000
6.750	412.000	437.000	461.000	485.000	509.000
7.000	534.000	558.000	581.000	601.000	620.000
7.250	637.000	653.000	669.000	683.000	697.000
7.500	710.000	722.000	734.000	746.000	756.000
7.750	765.000	773.000	781.000	789.000	796.000
8.000	803.000	810.000	817.000	824.000	832.000
8.250	840.000	848.000	857.000	866.000	876.000
8.500	886.000	896.000	907.000	918.000	929.000
8.750	941.000	951.000	961.000	972.000	982.000
9.000	992.000	1,002.000	1,012.000	1,022.000	1,033.000
9.250	1,043.000	1,054.000	1,065.000	1,076.000	1,087.000
9.500	1,099.000	1,110.000	1,122.000	1,134.000	1,146.000
9.750	1,158.000	1,169.000	1,180.000	1,190.000	1,201.000

Subsection: Time vs. Volume
Label: EX-pond
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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)
10.000	1,211.000	1,222.000	1,234.000	1,247.000	1,260.000
10.250	1,276.000	1,292.000	1,308.000	1,326.000	1,344.000
10.500	1,363.000	1,383.000	1,402.000	1,421.000	1,441.000
10.750	1,461.000	1,481.000	1,503.000	1,524.000	1,546.000
11.000	1,568.000	1,594.000	1,624.000	1,658.000	1,699.000
11.250	1,746.000	1,798.000	1,854.000	1,913.000	1,972.000
11.500	2,035.000	2,133.000	2,282.000	2,514.000	2,838.000
11.750	3,246.000	3,726.000	4,270.000	4,878.000	5,864.000
12.000	7,450.000	9,213.000	10,843.000	11,856.000	11,860.000
12.250	11,283.000	10,454.000	9,500.000	8,522.000	7,536.000
12.500	6,573.000	5,683.000	4,893.000	4,242.000	3,742.000
12.750	3,362.000	3,079.000	2,868.000	2,698.000	2,565.000
13.000	2,450.000	2,352.000	2,271.000	2,206.000	2,152.000
13.250	2,107.000	2,071.000	2,041.000	2,014.000	1,991.000
13.500	1,969.000	1,948.000	1,928.000	1,909.000	1,889.000
13.750	1,868.000	1,848.000	1,828.000	1,808.000	1,789.000
14.000	1,769.000	1,750.000	1,733.000	1,717.000	1,703.000
14.250	1,690.000	1,679.000	1,668.000	1,658.000	1,648.000
14.500	1,639.000	1,629.000	1,619.000	1,609.000	1,598.000
14.750	1,588.000	1,577.000	1,566.000	1,555.000	1,545.000
15.000	1,534.000	1,523.000	1,512.000	1,502.000	1,491.000
15.250	1,480.000	1,470.000	1,459.000	1,448.000	1,438.000
15.500	1,427.000	1,416.000	1,406.000	1,396.000	1,385.000
15.750	1,374.000	1,362.000	1,351.000	1,339.000	1,328.000
16.000	1,317.000	1,306.000	1,295.000	1,286.000	1,277.000
16.250	1,270.000	1,263.000	1,257.000	1,251.000	1,246.000
16.500	1,240.000	1,235.000	1,230.000	1,225.000	1,220.000
16.750	1,216.000	1,211.000	1,206.000	1,201.000	1,196.000
17.000	1,191.000	1,187.000	1,182.000	1,177.000	1,172.000
17.250	1,168.000	1,163.000	1,158.000	1,153.000	1,148.000
17.500	1,143.000	1,137.000	1,131.000	1,125.000	1,119.000
17.750	1,113.000	1,107.000	1,101.000	1,095.000	1,089.000
18.000	1,083.000	1,077.000	1,072.000	1,067.000	1,063.000
18.250	1,059.000	1,056.000	1,053.000	1,050.000	1,048.000
18.500	1,046.000	1,044.000	1,042.000	1,040.000	1,038.000
18.750	1,036.000	1,034.000	1,033.000	1,031.000	1,029.000
19.000	1,027.000	1,025.000	1,024.000	1,022.000	1,020.000
19.250	1,018.000	1,017.000	1,015.000	1,013.000	1,011.000
19.500	1,010.000	1,008.000	1,006.000	1,004.000	1,003.000
19.750	1,001.000	999.000	997.000	996.000	994.000
20.000	992.000	990.000	989.000	987.000	986.000

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)
20.250	984.000	983.000	981.000	980.000	978.000
20.500	977.000	976.000	975.000	973.000	972.000
20.750	970.000	969.000	968.000	966.000	965.000
21.000	964.000	963.000	962.000	960.000	959.000
21.250	958.000	956.000	955.000	954.000	952.000
21.500	951.000	950.000	948.000	947.000	946.000
21.750	944.000	943.000	942.000	941.000	939.000
22.000	938.000	936.000	935.000	933.000	931.000
22.250	930.000	928.000	926.000	924.000	922.000
22.500	921.000	919.000	917.000	916.000	914.000
22.750	912.000	910.000	909.000	907.000	905.000
23.000	903.000	902.000	900.000	898.000	896.000
23.250	894.000	893.000	891.000	889.000	888.000
23.500	886.000	884.000	882.000	881.000	879.000
23.750	877.000	875.000	874.000	872.000	870.000
24.000	868.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume	Return Event: 100 years
Label: EX-pond	Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr 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	1.000	2.000	4.000	7.000
3.250	11.000	16.000	22.000	29.000	38.000
3.500	47.000	58.000	69.000	82.000	96.000
3.750	111.000	127.000	143.000	161.000	180.000
4.000	201.000	223.000	247.000	271.000	295.000
4.250	321.000	349.000	379.000	410.000	439.000
4.500	469.000	499.000	529.000	559.000	587.000
4.750	611.000	634.000	655.000	674.000	692.000
5.000	709.000	725.000	740.000	753.000	764.000
5.250	774.000	783.000	792.000	800.000	807.000
5.500	814.000	820.000	827.000	833.000	839.000
5.750	845.000	851.000	856.000	862.000	868.000
6.000	874.000	879.000	886.000	892.000	899.000
6.250	906.000	914.000	923.000	931.000	940.000
6.500	949.000	957.000	965.000	973.000	982.000
6.750	990.000	998.000	1,006.000	1,015.000	1,023.000
7.000	1,031.000	1,040.000	1,049.000	1,058.000	1,067.000
7.250	1,076.000	1,085.000	1,095.000	1,104.000	1,113.000
7.500	1,123.000	1,133.000	1,143.000	1,153.000	1,162.000
7.750	1,171.000	1,180.000	1,188.000	1,197.000	1,205.000
8.000	1,214.000	1,222.000	1,232.000	1,242.000	1,254.000
8.250	1,267.000	1,281.000	1,295.000	1,311.000	1,327.000
8.500	1,344.000	1,361.000	1,378.000	1,396.000	1,413.000
8.750	1,430.000	1,447.000	1,465.000	1,483.000	1,502.000
9.000	1,520.000	1,539.000	1,559.000	1,578.000	1,598.000
9.250	1,618.000	1,638.000	1,657.000	1,675.000	1,693.000
9.500	1,712.000	1,730.000	1,748.000	1,767.000	1,786.000
9.750	1,805.000	1,824.000	1,843.000	1,863.000	1,882.000

Subsection: Time vs. Volume | Return Event: 100 years
Label: EX-pond | Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr 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)
10.000	1,902.000	1,922.000	1,943.000	1,967.000	1,993.000
10.250	2,023.000	2,054.000	2,087.000	2,122.000	2,158.000
10.500	2,195.000	2,230.000	2,265.000	2,301.000	2,338.000
10.750	2,375.000	2,413.000	2,452.000	2,492.000	2,531.000
11.000	2,568.000	2,612.000	2,665.000	2,734.000	2,820.000
11.250	2,918.000	3,025.000	3,143.000	3,270.000	3,395.000
11.500	3,528.000	3,736.000	4,062.000	4,565.000	5,287.000
11.750	6,202.000	7,296.000	8,555.000	9,959.000	12,175.000
12.000	15,730.000	19,729.000	23,466.000	25,904.000	26,228.000
12.250	25,270.000	23,694.000	21,753.000	19,664.000	17,487.000
12.500	15,262.000	13,102.000	11,109.000	9,379.000	7,981.000
12.750	6,881.000	6,030.000	5,378.000	4,874.000	4,477.000
13.000	4,159.000	3,895.000	3,689.000	3,517.000	3,388.000
13.250	3,289.000	3,207.000	3,138.000	3,081.000	3,030.000
13.500	2,985.000	2,942.000	2,902.000	2,863.000	2,822.000
13.750	2,782.000	2,743.000	2,704.000	2,666.000	2,629.000
14.000	2,592.000	2,556.000	2,523.000	2,490.000	2,462.000
14.250	2,436.000	2,412.000	2,391.000	2,371.000	2,351.000
14.500	2,332.000	2,314.000	2,296.000	2,278.000	2,260.000
14.750	2,242.000	2,225.000	2,208.000	2,190.000	2,170.000
15.000	2,152.000	2,133.000	2,114.000	2,095.000	2,076.000
15.250	2,058.000	2,039.000	2,021.000	2,003.000	1,984.000
15.500	1,966.000	1,948.000	1,930.000	1,913.000	1,894.000
15.750	1,875.000	1,856.000	1,838.000	1,819.000	1,800.000
16.000	1,782.000	1,764.000	1,748.000	1,733.000	1,720.000
16.250	1,708.000	1,698.000	1,689.000	1,680.000	1,671.000
16.500	1,663.000	1,655.000	1,647.000	1,639.000	1,631.000
16.750	1,623.000	1,614.000	1,605.000	1,596.000	1,587.000
17.000	1,578.000	1,568.000	1,559.000	1,550.000	1,541.000
17.250	1,532.000	1,523.000	1,514.000	1,504.000	1,495.000
17.500	1,486.000	1,477.000	1,468.000	1,459.000	1,450.000
17.750	1,441.000	1,432.000	1,423.000	1,415.000	1,406.000
18.000	1,397.000	1,388.000	1,380.000	1,372.000	1,366.000
18.250	1,360.000	1,356.000	1,351.000	1,348.000	1,344.000
18.500	1,341.000	1,338.000	1,335.000	1,332.000	1,329.000
18.750	1,326.000	1,323.000	1,320.000	1,317.000	1,314.000
19.000	1,311.000	1,308.000	1,306.000	1,303.000	1,300.000
19.250	1,297.000	1,294.000	1,291.000	1,289.000	1,286.000
19.500	1,283.000	1,280.000	1,277.000	1,274.000	1,272.000
19.750	1,269.000	1,266.000	1,263.000	1,260.000	1,257.000
20.000	1,255.000	1,252.000	1,249.000	1,246.000	1,244.000

Subsection: Time vs. Volume
Label: EX-pond
Scenario: Pre-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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)
20.250	1,242.000	1,240.000	1,238.000	1,235.000	1,233.000
20.500	1,231.000	1,229.000	1,227.000	1,225.000	1,222.000
20.750	1,220.000	1,218.000	1,216.000	1,214.000	1,212.000
21.000	1,210.000	1,208.000	1,206.000	1,204.000	1,202.000
21.250	1,200.000	1,198.000	1,196.000	1,194.000	1,191.000
21.500	1,189.000	1,187.000	1,185.000	1,183.000	1,181.000
21.750	1,179.000	1,177.000	1,175.000	1,173.000	1,171.000
22.000	1,169.000	1,167.000	1,165.000	1,163.000	1,161.000
22.250	1,159.000	1,156.000	1,154.000	1,152.000	1,150.000
22.500	1,147.000	1,145.000	1,142.000	1,140.000	1,138.000
22.750	1,135.000	1,132.000	1,130.000	1,127.000	1,124.000
23.000	1,122.000	1,119.000	1,116.000	1,113.000	1,111.000
23.250	1,108.000	1,106.000	1,103.000	1,101.000	1,099.000
23.500	1,096.000	1,093.000	1,090.000	1,088.000	1,085.000
23.750	1,083.000	1,080.000	1,077.000	1,074.000	1,072.000
24.000	1,069.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Elevation-Area Volume Curve | Return Event: 1 years
Label: EX-pond | Storm Event: 1-yr Storm
Scenario: Pre-Development 1-yr storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
81.00	0.00	1,142.000	0.000	0.000	0.000
82.00	0.00	2,781.000	5,705.106	1,902.000	1,902.000
84.00	0.00	11,497.000	19,932.481	13,288.000	15,190.000
86.00	0.00	15,681.600	40,605.862	27,071.000	42,261.000

Subsection: Elevation-Area Volume Curve
Label: EX-pond
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
81.00	0.00	1,142.000	0.000	0.000	0.000
82.00	0.00	2,781.000	5,705.106	1,902.000	1,902.000
84.00	0.00	11,497.000	19,932.481	13,288.000	15,190.000
86.00	0.00	15,681.600	40,605.862	27,071.000	42,261.000

Subsection: Elevation-Area Volume Curve | Return Event: 100 years
Label: EX-pond | Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
81.00	0.00	1,142.000	0.000	0.000	0.000
82.00	0.00	2,781.000	5,705.106	1,902.000	1,902.000
84.00	0.00	11,497.000	19,932.481	13,288.000	15,190.000
86.00	0.00	15,681.600	40,605.862	27,071.000	42,261.000

Requested Pond Water Surface Elevations	
Minimum (Headwater)	81.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	86.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Rectangular Weir	Weir - 1	Forward	Culvert - 1	81.05	86.00
Culvert-Circular	Culvert - 1	Forward	TW	81.31	86.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	36.0 in
Length	215.00 ft
Length (Computed Barrel)	215.19 ft
Slope (Computed)	0.042 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.007
Kr	0.200
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)	1.176
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	81.31 ft	T1 Flow	42.85 ft³/s
T2 Elevation	84.84 ft	T2 Flow	48.97 ft³/s

Structure ID: Weir - 1
Structure Type: Rectangular Weir

Number of Openings	1
Elevation	81.05 ft
Weir Length	4.00 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

Requested Pond Water Surface Elevations	
Minimum (Headwater)	81.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	86.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Rectangular Weir	Weir - 1	Forward	Culvert - 1	81.05	86.00
Culvert-Circular	Culvert - 1	Forward	TW	81.31	86.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	36.0 in
Length	215.00 ft
Length (Computed Barrel)	215.19 ft
Slope (Computed)	0.042 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.007
Kr	0.200
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)	1.176
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	81.31 ft	T1 Flow	42.85 ft³/s
T2 Elevation	84.84 ft	T2 Flow	48.97 ft³/s

Structure ID: Weir - 1
Structure Type: Rectangular Weir

Number of Openings	1
Elevation	81.05 ft
Weir Length	4.00 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 ft^3/s
Flow Tolerance (Maximum)	10.000 ft^3/s

Requested Pond Water Surface Elevations	
Minimum (Headwater)	81.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	86.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Rectangular Weir	Weir - 1	Forward	Culvert - 1	81.05	86.00
Culvert-Circular	Culvert - 1	Forward	TW	81.31	86.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Culvert - 1
Structure Type: Culvert-Circular

Number of Barrels	1
Diameter	36.0 in
Length	215.00 ft
Length (Computed Barrel)	215.19 ft
Slope (Computed)	0.042 ft/ft

Outlet Control Data

Manning's n	0.013
Ke	0.200
Kb	0.007
Kr	0.200
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)	1.176
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	81.31 ft	T1 Flow	42.85 ft³/s
T2 Elevation	84.84 ft	T2 Flow	48.97 ft³/s

Structure ID: Weir - 1 Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	81.05 ft
Weir Length	4.00 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 ft^3/s
Flow Tolerance (Maximum)	10.000 ft^3/s

Subsection: Diverted Hydrograph
Label: EX-OCS
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	9.58 ft³/s
Time to Peak	12.150 hours
Hydrograph Volume	44,297.457 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)
9.250	0.00	0.00	0.01	0.02	0.03
9.500	0.04	0.05	0.07	0.09	0.11
9.750	0.12	0.14	0.15	0.17	0.18
10.000	0.19	0.21	0.23	0.24	0.26
10.250	0.27	0.29	0.30	0.32	0.33
10.500	0.35	0.36	0.38	0.39	0.41
10.750	0.43	0.44	0.46	0.48	0.50
11.000	0.52	0.55	0.57	0.60	0.63
11.250	0.67	0.71	0.75	0.80	0.86
11.500	0.93	1.01	1.14	1.33	1.61
11.750	1.97	2.43	2.94	3.51	4.43
12.000	5.89	7.44	8.80	9.58	9.50
12.250	8.98	8.28	7.51	6.72	5.93
12.500	5.15	4.42	3.76	3.22	2.81
12.750	2.49	2.25	2.06	1.91	1.78
13.000	1.68	1.60	1.52	1.45	1.39
13.250	1.35	1.31	1.28	1.25	1.23
13.500	1.20	1.18	1.16	1.14	1.11
13.750	1.09	1.07	1.05	1.03	1.01
14.000	0.99	0.97	0.95	0.93	0.92
14.250	0.90	0.89	0.88	0.87	0.86
14.500	0.85	0.84	0.83	0.82	0.81
14.750	0.80	0.79	0.78	0.77	0.76
15.000	0.75	0.74	0.73	0.72	0.71
15.250	0.70	0.69	0.68	0.67	0.66
15.500	0.65	0.64	0.63	0.62	0.61
15.750	0.60	0.59	0.58	0.56	0.55
16.000	0.54	0.53	0.52	0.52	0.51
16.250	0.50	0.49	0.49	0.48	0.48
16.500	0.47	0.47	0.46	0.46	0.45
16.750	0.45	0.44	0.44	0.43	0.43
17.000	0.43	0.42	0.42	0.41	0.41
17.250	0.40	0.40	0.39	0.39	0.39
17.500	0.38	0.38	0.37	0.37	0.36
17.750	0.36	0.35	0.35	0.34	0.34
18.000	0.33	0.33	0.33	0.32	0.32
18.250	0.31	0.31	0.31	0.31	0.31

Subsection: Diverted Hydrograph
Label: EX-OCS
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
18.500	0.30	0.30	0.30	0.30	0.30
18.750	0.29	0.29	0.29	0.29	0.29
19.000	0.29	0.29	0.28	0.28	0.28
19.250	0.28	0.28	0.28	0.28	0.27
19.500	0.27	0.27	0.27	0.27	0.27
19.750	0.27	0.27	0.26	0.26	0.26
20.000	0.26	0.26	0.26	0.26	0.25
20.250	0.25	0.25	0.25	0.25	0.25
20.500	0.25	0.25	0.25	0.24	0.24
20.750	0.24	0.24	0.24	0.24	0.24
21.000	0.24	0.24	0.23	0.23	0.23
21.250	0.23	0.23	0.23	0.23	0.23
21.500	0.23	0.22	0.22	0.22	0.22
21.750	0.22	0.22	0.22	0.22	0.22
22.000	0.22	0.21	0.21	0.21	0.21
22.250	0.21	0.21	0.21	0.21	0.21
22.500	0.20	0.20	0.20	0.20	0.20
22.750	0.20	0.20	0.20	0.20	0.20
23.000	0.19	0.19	0.19	0.19	0.19
23.250	0.19	0.19	0.19	0.19	0.19
23.500	0.19	0.18	0.18	0.18	0.18
23.750	0.18	0.18	0.18	0.18	0.18
24.000	0.18	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Diverted Hydrograph | Return Event: 10 years
Label: EX-OCS | Storm Event: 10-yr Storm
Scenario: Pre-Development 10-yr storm

Peak Discharge	21.47 ft³/s
Time to Peak	12.200 hours
Hydrograph Volume	106,501.776 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)
6.750	0.00	0.01	0.01	0.02	0.03
7.000	0.04	0.04	0.06	0.07	0.09
7.250	0.10	0.12	0.13	0.14	0.15
7.500	0.16	0.17	0.18	0.19	0.21
7.750	0.22	0.23	0.24	0.25	0.26
8.000	0.27	0.28	0.29	0.30	0.31
8.250	0.32	0.33	0.34	0.35	0.37
8.500	0.38	0.39	0.41	0.42	0.43
8.750	0.45	0.47	0.48	0.50	0.52
9.000	0.53	0.55	0.57	0.59	0.60
9.250	0.62	0.64	0.66	0.67	0.69
9.500	0.71	0.73	0.75	0.77	0.79
9.750	0.81	0.83	0.85	0.88	0.90
10.000	0.92	0.94	0.96	0.99	1.02
10.250	1.05	1.08	1.11	1.15	1.18
10.500	1.22	1.26	1.30	1.34	1.38
10.750	1.42	1.46	1.51	1.55	1.60
11.000	1.64	1.69	1.75	1.83	1.93
11.250	2.04	2.16	2.29	2.42	2.56
11.500	2.71	2.93	3.28	3.82	4.57
11.750	5.51	6.60	7.80	9.08	11.08
12.000	14.10	17.21	19.88	21.47	21.47
12.250	20.58	19.26	17.70	16.01	14.26
12.500	12.46	10.72	9.11	7.74	6.64
12.750	5.78	5.13	4.64	4.25	3.94
13.000	3.67	3.45	3.26	3.10	2.98
13.250	2.88	2.79	2.72	2.66	2.61
13.500	2.56	2.51	2.46	2.41	2.37
13.750	2.32	2.27	2.23	2.18	2.14
14.000	2.09	2.05	2.01	1.97	1.94
14.250	1.91	1.88	1.85	1.83	1.81
14.500	1.78	1.76	1.74	1.72	1.70
14.750	1.68	1.66	1.64	1.61	1.59
15.000	1.57	1.55	1.53	1.50	1.48
15.250	1.46	1.44	1.42	1.39	1.37
15.500	1.35	1.33	1.31	1.28	1.26
15.750	1.24	1.22	1.19	1.17	1.15

Subsection: Diverted Hydrograph
Label: EX-OCS
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
16.000	1.13	1.11	1.09	1.07	1.05
16.250	1.04	1.02	1.01	1.00	0.99
16.500	0.98	0.97	0.96	0.95	0.94
16.750	0.93	0.92	0.91	0.90	0.89
17.000	0.88	0.87	0.86	0.85	0.84
17.250	0.83	0.82	0.81	0.80	0.79
17.500	0.78	0.77	0.76	0.75	0.75
17.750	0.74	0.73	0.72	0.71	0.70
18.000	0.69	0.68	0.67	0.66	0.65
18.250	0.65	0.64	0.64	0.63	0.63
18.500	0.63	0.62	0.62	0.62	0.61
18.750	0.61	0.61	0.60	0.60	0.60
19.000	0.59	0.59	0.59	0.59	0.58
19.250	0.58	0.58	0.57	0.57	0.57
19.500	0.56	0.56	0.56	0.56	0.55
19.750	0.55	0.55	0.54	0.54	0.54
20.000	0.54	0.53	0.53	0.53	0.52
20.250	0.52	0.52	0.52	0.51	0.51
20.500	0.51	0.51	0.51	0.50	0.50
20.750	0.50	0.50	0.49	0.49	0.49
21.000	0.49	0.49	0.48	0.48	0.48
21.250	0.48	0.47	0.47	0.47	0.47
21.500	0.47	0.46	0.46	0.46	0.46
21.750	0.45	0.45	0.45	0.45	0.45
22.000	0.44	0.44	0.44	0.44	0.44
22.250	0.43	0.43	0.43	0.43	0.42
22.500	0.42	0.42	0.42	0.42	0.41
22.750	0.41	0.41	0.41	0.41	0.40
23.000	0.40	0.40	0.40	0.39	0.39
23.250	0.39	0.39	0.38	0.38	0.38
23.500	0.38	0.38	0.37	0.37	0.37
23.750	0.37	0.36	0.36	0.36	0.36
24.000	0.36	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Diverted Hydrograph
Label: EX-OCS
Scenario: Pre-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Peak Discharge	41.28 ft³/s
Time to Peak	12.200 hours
Hydrograph Volume	222,319.151 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)
4.400	0.00	0.01	0.02	0.02	0.03
4.650	0.04	0.06	0.08	0.10	0.12
4.900	0.14	0.15	0.16	0.18	0.19
5.150	0.20	0.22	0.23	0.24	0.26
5.400	0.27	0.28	0.28	0.29	0.30
5.650	0.31	0.32	0.33	0.33	0.34
5.900	0.35	0.36	0.36	0.37	0.38
6.150	0.39	0.40	0.40	0.41	0.43
6.400	0.44	0.45	0.46	0.48	0.49
6.650	0.50	0.52	0.53	0.55	0.56
6.900	0.57	0.59	0.60	0.62	0.63
7.150	0.65	0.66	0.67	0.69	0.71
7.400	0.72	0.74	0.75	0.77	0.78
7.650	0.80	0.82	0.84	0.85	0.87
7.900	0.89	0.91	0.92	0.94	0.96
8.150	0.98	1.00	1.03	1.06	1.09
8.400	1.12	1.15	1.18	1.21	1.25
8.650	1.28	1.32	1.36	1.39	1.43
8.900	1.47	1.50	1.54	1.58	1.62
9.150	1.66	1.70	1.74	1.78	1.83
9.400	1.87	1.91	1.96	2.00	2.04
9.650	2.09	2.13	2.17	2.22	2.26
9.900	2.31	2.35	2.40	2.44	2.50
10.150	2.55	2.61	2.68	2.76	2.83
10.400	2.91	2.99	3.07	3.16	3.24
10.650	3.33	3.41	3.50	3.59	3.68
10.900	3.77	3.86	3.95	4.05	4.18
11.150	4.34	4.53	4.76	5.01	5.28
11.400	5.56	5.86	6.16	6.63	7.34
11.650	8.42	9.92	11.75	13.82	16.07
11.900	18.46	21.96	27.05	32.55	37.60
12.150	40.85	41.28	40.01	37.90	35.32
12.400	32.46	29.48	26.41	23.35	20.30
12.650	17.49	15.06	13.05	11.41	10.11
12.900	9.07	8.24	7.55	6.98	6.52
13.150	6.14	5.84	5.61	5.42	5.27
13.400	5.14	5.02	4.92	4.82	4.72

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
13.650	4.63	4.54	4.45	4.36	4.27
13.900	4.18	4.09	4.00	3.92	3.84
14.150	3.76	3.70	3.64	3.59	3.54
14.400	3.49	3.45	3.40	3.36	3.31
14.650	3.27	3.23	3.19	3.14	3.10
14.900	3.06	3.02	2.98	2.93	2.89
15.150	2.85	2.81	2.76	2.72	2.68
15.400	2.64	2.59	2.55	2.51	2.47
15.650	2.42	2.38	2.34	2.29	2.25
15.900	2.21	2.16	2.12	2.08	2.04
16.150	2.01	1.98	1.95	1.93	1.90
16.400	1.88	1.86	1.84	1.82	1.80
16.650	1.78	1.77	1.75	1.73	1.71
16.900	1.70	1.68	1.66	1.64	1.62
17.150	1.60	1.58	1.57	1.55	1.53
17.400	1.51	1.49	1.47	1.45	1.44
17.650	1.42	1.40	1.38	1.36	1.34
17.900	1.32	1.30	1.29	1.27	1.25
18.150	1.24	1.22	1.21	1.20	1.20
18.400	1.19	1.18	1.18	1.17	1.16
18.650	1.16	1.15	1.15	1.14	1.13
18.900	1.13	1.12	1.12	1.11	1.11
19.150	1.10	1.10	1.09	1.08	1.08
19.400	1.07	1.07	1.06	1.06	1.05
19.650	1.05	1.04	1.03	1.03	1.02
19.900	1.02	1.01	1.01	1.00	0.99
20.150	0.99	0.98	0.98	0.98	0.97
20.400	0.97	0.96	0.96	0.95	0.95
20.650	0.95	0.94	0.94	0.93	0.93
20.900	0.92	0.92	0.92	0.91	0.91
21.150	0.90	0.90	0.89	0.89	0.89
21.400	0.88	0.88	0.87	0.87	0.86
21.650	0.86	0.86	0.85	0.85	0.84
21.900	0.84	0.84	0.83	0.83	0.82
22.150	0.82	0.81	0.81	0.81	0.80
22.400	0.80	0.79	0.79	0.79	0.78
22.650	0.78	0.77	0.77	0.77	0.76
22.900	0.76	0.75	0.75	0.75	0.74
23.150	0.74	0.73	0.73	0.72	0.72
23.400	0.72	0.71	0.71	0.70	0.70
23.650	0.69	0.69	0.69	0.68	0.68
23.900	0.67	0.67	0.66	(N/A)	(N/A)

Subsection: Elevation-Volume-Flow Table (Pond)
Label: EX-pond
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	81.00 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)
81.00	0.00	0.000	1,142.000	0.00	0.00	0.00
81.05	0.00	58.715	1,206.908	0.00	0.00	0.65
81.10	0.00	120.721	1,273.609	0.00	0.00	1.34
81.20	0.00	254.961	1,412.394	0.00	0.00	2.83
81.30	0.00	403.439	1,558.355	0.00	0.00	4.48
81.31	0.00	419.097	1,573.345	0.00	0.00	4.66
81.40	0.04	566.871	1,711.491	0.00	0.04	6.34
81.50	0.19	745.976	1,871.803	0.00	0.19	8.48
81.60	0.45	941.471	2,039.291	0.00	0.45	10.91
81.70	0.80	1,154.073	2,213.955	0.00	0.80	13.62
81.80	1.26	1,384.501	2,395.794	0.00	1.26	16.64
81.90	1.77	1,633.471	2,584.809	0.00	1.77	19.92
82.00	2.40	1,901.702	2,781.000	0.00	2.40	23.53
82.10	3.07	2,194.417	3,075.771	0.00	3.07	27.45
82.20	3.82	2,517.351	3,385.387	0.00	3.82	31.79
82.30	4.65	2,871.989	3,709.848	0.00	4.65	36.56
82.40	5.54	3,259.815	4,049.154	0.00	5.54	41.76
82.50	6.50	3,682.315	4,403.305	0.00	6.50	47.42
82.60	7.51	4,140.971	4,772.302	0.00	7.51	53.52
82.70	8.57	4,637.270	5,156.144	0.00	8.57	60.09
82.80	9.68	5,172.695	5,554.831	0.00	9.68	67.16
82.90	10.85	5,748.731	5,968.363	0.00	10.85	74.73
83.00	12.06	6,366.862	6,396.741	0.00	12.06	82.80
83.10	13.32	7,028.574	6,839.963	0.00	13.32	91.42
83.20	14.61	7,735.350	7,298.031	0.00	14.61	100.56
83.30	15.95	8,488.675	7,770.944	0.00	15.95	110.27
83.40	17.34	9,290.034	8,258.702	0.00	17.34	120.56
83.50	18.75	10,140.910	8,761.305	0.00	18.75	131.43
83.60	20.20	11,042.789	9,278.754	0.00	20.20	142.90

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years
Label: EX-pond Storm Event: 1-yr Storm
Scenario: Pre-Development 1-yr storm

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (ft²)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
83.70	21.68	11,997.156	9,811.048	0.00	21.68	154.98
83.80	23.21	13,005.494	10,358.187	0.00	23.21	167.71
83.90	24.74	14,069.288	10,920.171	0.00	24.74	181.06
84.00	26.31	15,190.023	11,497.000	0.00	26.31	195.09
84.10	27.90	16,349.401	11,690.836	0.00	27.90	209.56
84.20	29.53	17,528.244	11,886.293	0.00	29.53	224.29
84.30	31.16	18,726.714	12,083.370	0.00	31.16	239.24
84.40	32.84	19,944.972	12,282.068	0.00	32.84	254.45
84.50	34.54	21,183.181	12,482.386	0.00	34.54	269.91
84.60	36.25	22,441.503	12,684.324	0.00	36.25	285.60
84.70	37.94	23,720.100	12,887.883	0.00	37.94	301.49
84.80	39.68	25,019.134	13,093.062	0.00	39.68	317.67
84.90	41.43	26,338.766	13,299.861	0.00	41.43	334.08
85.00	43.17	27,679.160	13,508.281	0.00	43.17	350.72
85.10	44.93	29,040.477	13,718.321	0.00	44.93	367.60
85.20	46.70	30,422.878	13,929.982	0.00	46.70	384.73
85.30	48.50	31,826.527	14,143.263	0.00	48.50	402.13
85.40	50.26	33,251.585	14,358.164	0.00	50.26	419.73
85.50	52.03	34,698.214	14,574.686	0.00	52.03	437.56
85.60	53.82	36,166.576	14,792.828	0.00	53.82	455.67
85.70	55.53	37,656.833	15,012.590	0.00	55.53	473.94
85.80	56.91	39,169.148	15,233.973	0.00	56.91	492.12
85.90	58.27	40,703.682	15,456.976	0.00	58.27	510.53
86.00	59.63	42,260.597	15,681.600	0.00	59.63	529.19

Subsection: Elevation-Volume-Flow Table (Pond)
Label: EX-pond
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	81.00 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)
81.00	0.00	0.000	1,142.000	0.00	0.00	0.00
81.05	0.00	58.715	1,206.908	0.00	0.00	0.65
81.10	0.00	120.721	1,273.609	0.00	0.00	1.34
81.20	0.00	254.961	1,412.394	0.00	0.00	2.83
81.30	0.00	403.439	1,558.355	0.00	0.00	4.48
81.31	0.00	419.097	1,573.345	0.00	0.00	4.66
81.40	0.04	566.871	1,711.491	0.00	0.04	6.34
81.50	0.19	745.976	1,871.803	0.00	0.19	8.48
81.60	0.45	941.471	2,039.291	0.00	0.45	10.91
81.70	0.80	1,154.073	2,213.955	0.00	0.80	13.62
81.80	1.26	1,384.501	2,395.794	0.00	1.26	16.64
81.90	1.77	1,633.471	2,584.809	0.00	1.77	19.92
82.00	2.40	1,901.702	2,781.000	0.00	2.40	23.53
82.10	3.07	2,194.417	3,075.771	0.00	3.07	27.45
82.20	3.82	2,517.351	3,385.387	0.00	3.82	31.79
82.30	4.65	2,871.989	3,709.848	0.00	4.65	36.56
82.40	5.54	3,259.815	4,049.154	0.00	5.54	41.76
82.50	6.50	3,682.315	4,403.305	0.00	6.50	47.42
82.60	7.51	4,140.971	4,772.302	0.00	7.51	53.52
82.70	8.57	4,637.270	5,156.144	0.00	8.57	60.09
82.80	9.68	5,172.695	5,554.831	0.00	9.68	67.16
82.90	10.85	5,748.731	5,968.363	0.00	10.85	74.73
83.00	12.06	6,366.862	6,396.741	0.00	12.06	82.80
83.10	13.32	7,028.574	6,839.963	0.00	13.32	91.42
83.20	14.61	7,735.350	7,298.031	0.00	14.61	100.56
83.30	15.95	8,488.675	7,770.944	0.00	15.95	110.27
83.40	17.34	9,290.034	8,258.702	0.00	17.34	120.56
83.50	18.75	10,140.910	8,761.305	0.00	18.75	131.43
83.60	20.20	11,042.789	9,278.754	0.00	20.20	142.90

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 10 years
Label: EX-pond Storm Event: 10-yr Storm
Scenario: Pre-Development 10-yr 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)
83.70	21.68	11,997.156	9,811.048	0.00	21.68	154.98
83.80	23.21	13,005.494	10,358.187	0.00	23.21	167.71
83.90	24.74	14,069.288	10,920.171	0.00	24.74	181.06
84.00	26.31	15,190.023	11,497.000	0.00	26.31	195.09
84.10	27.90	16,349.401	11,690.836	0.00	27.90	209.56
84.20	29.53	17,528.244	11,886.293	0.00	29.53	224.29
84.30	31.16	18,726.714	12,083.370	0.00	31.16	239.24
84.40	32.84	19,944.972	12,282.068	0.00	32.84	254.45
84.50	34.54	21,183.181	12,482.386	0.00	34.54	269.91
84.60	36.25	22,441.503	12,684.324	0.00	36.25	285.60
84.70	37.94	23,720.100	12,887.883	0.00	37.94	301.49
84.80	39.68	25,019.134	13,093.062	0.00	39.68	317.67
84.90	41.43	26,338.766	13,299.861	0.00	41.43	334.08
85.00	43.17	27,679.160	13,508.281	0.00	43.17	350.72
85.10	44.93	29,040.477	13,718.321	0.00	44.93	367.60
85.20	46.70	30,422.878	13,929.982	0.00	46.70	384.73
85.30	48.50	31,826.527	14,143.263	0.00	48.50	402.13
85.40	50.26	33,251.585	14,358.164	0.00	50.26	419.73
85.50	52.03	34,698.214	14,574.686	0.00	52.03	437.56
85.60	53.82	36,166.576	14,792.828	0.00	53.82	455.67
85.70	55.53	37,656.833	15,012.590	0.00	55.53	473.94
85.80	56.91	39,169.148	15,233.973	0.00	56.91	492.12
85.90	58.27	40,703.682	15,456.976	0.00	58.27	510.53
86.00	59.63	42,260.597	15,681.600	0.00	59.63	529.19

Subsection: Elevation-Volume-Flow Table (Pond)
Label: EX-pond
Scenario: Pre-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	81.00 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)
81.00	0.00	0.000	1,142.000	0.00	0.00	0.00
81.05	0.00	58.715	1,206.908	0.00	0.00	0.65
81.10	0.00	120.721	1,273.609	0.00	0.00	1.34
81.20	0.00	254.961	1,412.394	0.00	0.00	2.83
81.30	0.00	403.439	1,558.355	0.00	0.00	4.48
81.31	0.00	419.097	1,573.345	0.00	0.00	4.66
81.40	0.04	566.871	1,711.491	0.00	0.04	6.34
81.50	0.19	745.976	1,871.803	0.00	0.19	8.48
81.60	0.45	941.471	2,039.291	0.00	0.45	10.91
81.70	0.80	1,154.073	2,213.955	0.00	0.80	13.62
81.80	1.26	1,384.501	2,395.794	0.00	1.26	16.64
81.90	1.77	1,633.471	2,584.809	0.00	1.77	19.92
82.00	2.40	1,901.702	2,781.000	0.00	2.40	23.53
82.10	3.07	2,194.417	3,075.771	0.00	3.07	27.45
82.20	3.82	2,517.351	3,385.387	0.00	3.82	31.79
82.30	4.65	2,871.989	3,709.848	0.00	4.65	36.56
82.40	5.54	3,259.815	4,049.154	0.00	5.54	41.76
82.50	6.50	3,682.315	4,403.305	0.00	6.50	47.42
82.60	7.51	4,140.971	4,772.302	0.00	7.51	53.52
82.70	8.57	4,637.270	5,156.144	0.00	8.57	60.09
82.80	9.68	5,172.695	5,554.831	0.00	9.68	67.16
82.90	10.85	5,748.731	5,968.363	0.00	10.85	74.73
83.00	12.06	6,366.862	6,396.741	0.00	12.06	82.80
83.10	13.32	7,028.574	6,839.963	0.00	13.32	91.42
83.20	14.61	7,735.350	7,298.031	0.00	14.61	100.56
83.30	15.95	8,488.675	7,770.944	0.00	15.95	110.27
83.40	17.34	9,290.034	8,258.702	0.00	17.34	120.56
83.50	18.75	10,140.910	8,761.305	0.00	18.75	131.43
83.60	20.20	11,042.789	9,278.754	0.00	20.20	142.90

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 100 years
Label: EX-pond Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr 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)
83.70	21.68	11,997.156	9,811.048	0.00	21.68	154.98
83.80	23.21	13,005.494	10,358.187	0.00	23.21	167.71
83.90	24.74	14,069.288	10,920.171	0.00	24.74	181.06
84.00	26.31	15,190.023	11,497.000	0.00	26.31	195.09
84.10	27.90	16,349.401	11,690.836	0.00	27.90	209.56
84.20	29.53	17,528.244	11,886.293	0.00	29.53	224.29
84.30	31.16	18,726.714	12,083.370	0.00	31.16	239.24
84.40	32.84	19,944.972	12,282.068	0.00	32.84	254.45
84.50	34.54	21,183.181	12,482.386	0.00	34.54	269.91
84.60	36.25	22,441.503	12,684.324	0.00	36.25	285.60
84.70	37.94	23,720.100	12,887.883	0.00	37.94	301.49
84.80	39.68	25,019.134	13,093.062	0.00	39.68	317.67
84.90	41.43	26,338.766	13,299.861	0.00	41.43	334.08
85.00	43.17	27,679.160	13,508.281	0.00	43.17	350.72
85.10	44.93	29,040.477	13,718.321	0.00	44.93	367.60
85.20	46.70	30,422.878	13,929.982	0.00	46.70	384.73
85.30	48.50	31,826.527	14,143.263	0.00	48.50	402.13
85.40	50.26	33,251.585	14,358.164	0.00	50.26	419.73
85.50	52.03	34,698.214	14,574.686	0.00	52.03	437.56
85.60	53.82	36,166.576	14,792.828	0.00	53.82	455.67
85.70	55.53	37,656.833	15,012.590	0.00	55.53	473.94
85.80	56.91	39,169.148	15,233.973	0.00	56.91	492.12
85.90	58.27	40,703.682	15,456.976	0.00	58.27	510.53
86.00	59.63	42,260.597	15,681.600	0.00	59.63	529.19

Subsection: Level Pool Pond Routing Summary | Return Event: 1 years
Label: EX-pond (IN) | Storm Event: 1-yr Storm
Scenario: Pre-Development 1-yr storm

Infiltration

Infiltration Method (Computed)	No Infiltration

Initial Conditions

Elevation (Water Surface, Initial)	81.00 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)	12.25 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	9.58 ft³/s	Time to Peak (Flow, Outlet)	12.150 hours

Elevation (Water Surface, Peak)	82.79 ft
Volume (Peak)	5,121.653 ft³

Mass Balance (ft³)

Volume (Initial)	0.000 ft³
Volume (Total Inflow)	45,021.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	44,297.000 ft³
Volume (Retained)	693.000 ft³
Volume (Unrouted)	-31.000 ft³
Error (Mass Balance)	0.1 %

Subsection: Level Pool Pond Routing Summary

Label: EX-pond (IN)

Scenario: Pre-Development 10-yr storm

Return Event: 10 years

Storm Event: 10-yr Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	81.00 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)	28.70 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	21.47 ft³/s	Time to Peak (Flow, Outlet)	12.200 hours

Elevation (Water Surface, Peak)	83.69 ft
Volume (Peak)	11,860.020 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	107,372.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	106,502.000 ft³
Volume (Retained)	811.000 ft³
Volume (Unrouted)	-59.000 ft³
Error (Mass Balance)	0.1 %

Subsection: Level Pool Pond Routing Summary | Return Event: 100 years
Label: EX-pond (IN) | Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	81.00 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)	57.74 ft³/s	Time to Peak (Flow, In)	12.100 hours
Flow (Peak Outlet)	41.28 ft³/s	Time to Peak (Flow, Outlet)	12.200 hours

Elevation (Water Surface, Peak)	84.89 ft
Volume (Peak)	26,227.744 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	223,390.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	222,319.000 ft³
Volume (Retained)	966.000 ft³
Volume (Unrouted)	-105.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Pond Routed Hydrograph (total out)
Label: EX-pond (OUT)
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	9.58 ft³/s
Time to Peak	12.150 hours
Hydrograph Volume	44,297.457 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)
9.250	0.00	0.00	0.01	0.02	0.03
9.500	0.04	0.05	0.07	0.09	0.11
9.750	0.12	0.14	0.15	0.17	0.18
10.000	0.19	0.21	0.23	0.24	0.26
10.250	0.27	0.29	0.30	0.32	0.33
10.500	0.35	0.36	0.38	0.39	0.41
10.750	0.43	0.44	0.46	0.48	0.50
11.000	0.52	0.55	0.57	0.60	0.63
11.250	0.67	0.71	0.75	0.80	0.86
11.500	0.93	1.01	1.14	1.33	1.61
11.750	1.97	2.43	2.94	3.51	4.43
12.000	5.89	7.44	8.80	9.58	9.50
12.250	8.98	8.28	7.51	6.72	5.93
12.500	5.15	4.42	3.76	3.22	2.81
12.750	2.49	2.25	2.06	1.91	1.78
13.000	1.68	1.60	1.52	1.45	1.39
13.250	1.35	1.31	1.28	1.25	1.23
13.500	1.20	1.18	1.16	1.14	1.11
13.750	1.09	1.07	1.05	1.03	1.01
14.000	0.99	0.97	0.95	0.93	0.92
14.250	0.90	0.89	0.88	0.87	0.86
14.500	0.85	0.84	0.83	0.82	0.81
14.750	0.80	0.79	0.78	0.77	0.76
15.000	0.75	0.74	0.73	0.72	0.71
15.250	0.70	0.69	0.68	0.67	0.66
15.500	0.65	0.64	0.63	0.62	0.61
15.750	0.60	0.59	0.58	0.56	0.55
16.000	0.54	0.53	0.52	0.52	0.51
16.250	0.50	0.49	0.49	0.48	0.48
16.500	0.47	0.47	0.46	0.46	0.45
16.750	0.45	0.44	0.44	0.43	0.43
17.000	0.43	0.42	0.42	0.41	0.41
17.250	0.40	0.40	0.39	0.39	0.39
17.500	0.38	0.38	0.37	0.37	0.36
17.750	0.36	0.35	0.35	0.34	0.34
18.000	0.33	0.33	0.33	0.32	0.32
18.250	0.31	0.31	0.31	0.31	0.31

Subsection: Pond Routed Hydrograph (total out)
Label: EX-pond (OUT)
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
18.500	0.30	0.30	0.30	0.30	0.30
18.750	0.29	0.29	0.29	0.29	0.29
19.000	0.29	0.29	0.28	0.28	0.28
19.250	0.28	0.28	0.28	0.28	0.27
19.500	0.27	0.27	0.27	0.27	0.27
19.750	0.27	0.27	0.26	0.26	0.26
20.000	0.26	0.26	0.26	0.26	0.25
20.250	0.25	0.25	0.25	0.25	0.25
20.500	0.25	0.25	0.25	0.24	0.24
20.750	0.24	0.24	0.24	0.24	0.24
21.000	0.24	0.24	0.23	0.23	0.23
21.250	0.23	0.23	0.23	0.23	0.23
21.500	0.23	0.22	0.22	0.22	0.22
21.750	0.22	0.22	0.22	0.22	0.22
22.000	0.22	0.21	0.21	0.21	0.21
22.250	0.21	0.21	0.21	0.21	0.21
22.500	0.20	0.20	0.20	0.20	0.20
22.750	0.20	0.20	0.20	0.20	0.20
23.000	0.19	0.19	0.19	0.19	0.19
23.250	0.19	0.19	0.19	0.19	0.19
23.500	0.19	0.18	0.18	0.18	0.18
23.750	0.18	0.18	0.18	0.18	0.18
24.000	0.18	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Pond Routed Hydrograph (total out)
Label: EX-pond (OUT)
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	21.47 ft³/s
Time to Peak	12.200 hours
Hydrograph Volume	106,501.776 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)
6.750	0.00	0.01	0.01	0.02	0.03
7.000	0.04	0.04	0.06	0.07	0.09
7.250	0.10	0.12	0.13	0.14	0.15
7.500	0.16	0.17	0.18	0.19	0.21
7.750	0.22	0.23	0.24	0.25	0.26
8.000	0.27	0.28	0.29	0.30	0.31
8.250	0.32	0.33	0.34	0.35	0.37
8.500	0.38	0.39	0.41	0.42	0.43
8.750	0.45	0.47	0.48	0.50	0.52
9.000	0.53	0.55	0.57	0.59	0.60
9.250	0.62	0.64	0.66	0.67	0.69
9.500	0.71	0.73	0.75	0.77	0.79
9.750	0.81	0.83	0.85	0.88	0.90
10.000	0.92	0.94	0.96	0.99	1.02
10.250	1.05	1.08	1.11	1.15	1.18
10.500	1.22	1.26	1.30	1.34	1.38
10.750	1.42	1.46	1.51	1.55	1.60
11.000	1.64	1.69	1.75	1.83	1.93
11.250	2.04	2.16	2.29	2.42	2.56
11.500	2.71	2.93	3.28	3.82	4.57
11.750	5.51	6.60	7.80	9.08	11.08
12.000	14.10	17.21	19.88	21.47	21.47
12.250	20.58	19.26	17.70	16.01	14.26
12.500	12.46	10.72	9.11	7.74	6.64
12.750	5.78	5.13	4.64	4.25	3.94
13.000	3.67	3.45	3.26	3.10	2.98
13.250	2.88	2.79	2.72	2.66	2.61
13.500	2.56	2.51	2.46	2.41	2.37
13.750	2.32	2.27	2.23	2.18	2.14
14.000	2.09	2.05	2.01	1.97	1.94
14.250	1.91	1.88	1.85	1.83	1.81
14.500	1.78	1.76	1.74	1.72	1.70
14.750	1.68	1.66	1.64	1.61	1.59
15.000	1.57	1.55	1.53	1.50	1.48
15.250	1.46	1.44	1.42	1.39	1.37
15.500	1.35	1.33	1.31	1.28	1.26
15.750	1.24	1.22	1.19	1.17	1.15

Subsection: Pond Routed Hydrograph (total out)
Label: EX-pond (OUT)
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
16.000	1.13	1.11	1.09	1.07	1.05
16.250	1.04	1.02	1.01	1.00	0.99
16.500	0.98	0.97	0.96	0.95	0.94
16.750	0.93	0.92	0.91	0.90	0.89
17.000	0.88	0.87	0.86	0.85	0.84
17.250	0.83	0.82	0.81	0.80	0.79
17.500	0.78	0.77	0.76	0.75	0.75
17.750	0.74	0.73	0.72	0.71	0.70
18.000	0.69	0.68	0.67	0.66	0.65
18.250	0.65	0.64	0.64	0.63	0.63
18.500	0.63	0.62	0.62	0.62	0.61
18.750	0.61	0.61	0.60	0.60	0.60
19.000	0.59	0.59	0.59	0.59	0.58
19.250	0.58	0.58	0.57	0.57	0.57
19.500	0.56	0.56	0.56	0.56	0.55
19.750	0.55	0.55	0.54	0.54	0.54
20.000	0.54	0.53	0.53	0.53	0.52
20.250	0.52	0.52	0.52	0.51	0.51
20.500	0.51	0.51	0.51	0.50	0.50
20.750	0.50	0.50	0.49	0.49	0.49
21.000	0.49	0.49	0.48	0.48	0.48
21.250	0.48	0.47	0.47	0.47	0.47
21.500	0.47	0.46	0.46	0.46	0.46
21.750	0.45	0.45	0.45	0.45	0.45
22.000	0.44	0.44	0.44	0.44	0.44
22.250	0.43	0.43	0.43	0.43	0.42
22.500	0.42	0.42	0.42	0.42	0.41
22.750	0.41	0.41	0.41	0.41	0.40
23.000	0.40	0.40	0.40	0.39	0.39
23.250	0.39	0.39	0.38	0.38	0.38
23.500	0.38	0.38	0.37	0.37	0.37
23.750	0.37	0.36	0.36	0.36	0.36
24.000	0.36	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Pond Routed Hydrograph (total out)
Label: EX-pond (OUT)
Scenario: Pre-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Peak Discharge	41.28 ft³/s
Time to Peak	12.200 hours
Hydrograph Volume	222,319.151 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)
4.400	0.00	0.01	0.02	0.02	0.03
4.650	0.04	0.06	0.08	0.10	0.12
4.900	0.14	0.15	0.16	0.18	0.19
5.150	0.20	0.22	0.23	0.24	0.26
5.400	0.27	0.28	0.28	0.29	0.30
5.650	0.31	0.32	0.33	0.33	0.34
5.900	0.35	0.36	0.36	0.37	0.38
6.150	0.39	0.40	0.40	0.41	0.43
6.400	0.44	0.45	0.46	0.48	0.49
6.650	0.50	0.52	0.53	0.55	0.56
6.900	0.57	0.59	0.60	0.62	0.63
7.150	0.65	0.66	0.67	0.69	0.71
7.400	0.72	0.74	0.75	0.77	0.78
7.650	0.80	0.82	0.84	0.85	0.87
7.900	0.89	0.91	0.92	0.94	0.96
8.150	0.98	1.00	1.03	1.06	1.09
8.400	1.12	1.15	1.18	1.21	1.25
8.650	1.28	1.32	1.36	1.39	1.43
8.900	1.47	1.50	1.54	1.58	1.62
9.150	1.66	1.70	1.74	1.78	1.83
9.400	1.87	1.91	1.96	2.00	2.04
9.650	2.09	2.13	2.17	2.22	2.26
9.900	2.31	2.35	2.40	2.44	2.50
10.150	2.55	2.61	2.68	2.76	2.83
10.400	2.91	2.99	3.07	3.16	3.24
10.650	3.33	3.41	3.50	3.59	3.68
10.900	3.77	3.86	3.95	4.05	4.18
11.150	4.34	4.53	4.76	5.01	5.28
11.400	5.56	5.86	6.16	6.63	7.34
11.650	8.42	9.92	11.75	13.82	16.07
11.900	18.46	21.96	27.05	32.55	37.60
12.150	40.85	41.28	40.01	37.90	35.32
12.400	32.46	29.48	26.41	23.35	20.30
12.650	17.49	15.06	13.05	11.41	10.11
12.900	9.07	8.24	7.55	6.98	6.52
13.150	6.14	5.84	5.61	5.42	5.27
13.400	5.14	5.02	4.92	4.82	4.72

Subsection: Pond Routed Hydrograph (total out) Return Event: 100 years
Label: EX-pond (OUT) Storm Event: 100-yr Storm
Scenario: Pre-Development 100-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
13.650	4.63	4.54	4.45	4.36	4.27
13.900	4.18	4.09	4.00	3.92	3.84
14.150	3.76	3.70	3.64	3.59	3.54
14.400	3.49	3.45	3.40	3.36	3.31
14.650	3.27	3.23	3.19	3.14	3.10
14.900	3.06	3.02	2.98	2.93	2.89
15.150	2.85	2.81	2.76	2.72	2.68
15.400	2.64	2.59	2.55	2.51	2.47
15.650	2.42	2.38	2.34	2.29	2.25
15.900	2.21	2.16	2.12	2.08	2.04
16.150	2.01	1.98	1.95	1.93	1.90
16.400	1.88	1.86	1.84	1.82	1.80
16.650	1.78	1.77	1.75	1.73	1.71
16.900	1.70	1.68	1.66	1.64	1.62
17.150	1.60	1.58	1.57	1.55	1.53
17.400	1.51	1.49	1.47	1.45	1.44
17.650	1.42	1.40	1.38	1.36	1.34
17.900	1.32	1.30	1.29	1.27	1.25
18.150	1.24	1.22	1.21	1.20	1.20
18.400	1.19	1.18	1.18	1.17	1.16
18.650	1.16	1.15	1.15	1.14	1.13
18.900	1.13	1.12	1.12	1.11	1.11
19.150	1.10	1.10	1.09	1.08	1.08
19.400	1.07	1.07	1.06	1.06	1.05
19.650	1.05	1.04	1.03	1.03	1.02
19.900	1.02	1.01	1.01	1.00	0.99
20.150	0.99	0.98	0.98	0.98	0.97
20.400	0.97	0.96	0.96	0.95	0.95
20.650	0.95	0.94	0.94	0.93	0.93
20.900	0.92	0.92	0.92	0.91	0.91
21.150	0.90	0.90	0.89	0.89	0.89
21.400	0.88	0.88	0.87	0.87	0.86
21.650	0.86	0.86	0.85	0.85	0.84
21.900	0.84	0.84	0.83	0.83	0.82
22.150	0.82	0.81	0.81	0.81	0.80
22.400	0.80	0.79	0.79	0.79	0.78
22.650	0.78	0.77	0.77	0.77	0.76
22.900	0.76	0.75	0.75	0.75	0.74
23.150	0.74	0.73	0.73	0.72	0.72
23.400	0.72	0.71	0.71	0.70	0.70
23.650	0.69	0.69	0.69	0.68	0.68
23.900	0.67	0.67	0.66	(N/A)	(N/A)

Subsection: Pond Inflow Summary
Label: EX-pond (IN)
Scenario: Pre-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Summary for Hydrograph Addition at 'EX-pond'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1A
<Catchment to Outflow Node>	EDA-1B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-1A	42,764.521	12.100	11.81
Flow (From)	EDA-1B	2,256.746	12.100	0.44
Flow (In)	EX-pond	45,021.267	12.100	12.25

Subsection: Pond Inflow Summary
Label: EX-pond (IN)
Scenario: Pre-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Summary for Hydrograph Addition at 'EX-pond'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1A
<Catchment to Outflow Node>	EDA-1B

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-1A	98,071.484	12.100	26.19
Flow (From)	EDA-1B	9,300.327	12.100	2.51
Flow (In)	EX-pond	107,371.812	12.100	28.70

Summary for Hydrograph Addition at 'EX-pond'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1A
<Catchment to Outflow Node>	EDA-1B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-1A	197,701.723	12.100	50.61
Flow (From)	EDA-1B	25,688.699	12.100	7.13
Flow (In)	EX-pond	223,390.423	12.100	57.74

Index

APPENDIX B

PROPOSED HYDROLOGIC CALCULATIONS

Scenario: Post-Development 1-yr storm

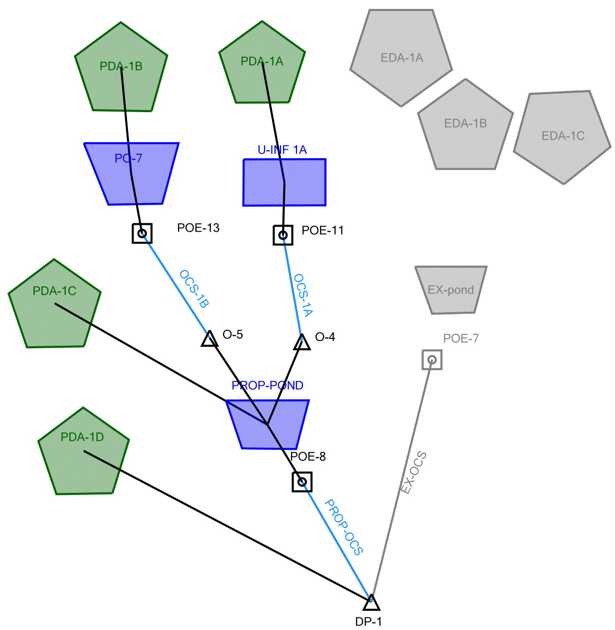


Table of Contents

Table of Contents

Table of Contents

Table of Contents

Table of Contents

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
PDA-1C	Post-Development 1-yr storm	1	22,719.000	12.100	6.31
PDA-1C	Post-Development 10-yr storm	10	55,308.000	12.100	15.02
PDA-1C	Post-Development 100-yr storm	100	115,409.000	12.100	30.12
PDA-1A	Post-Development 1-yr storm	1	13,856.000	12.100	3.85
PDA-1A	Post-Development 10-yr storm	10	33,731.000	12.100	9.16
PDA-1A	Post-Development 100-yr storm	100	70,385.000	12.100	18.37
PDA-1B	Post-Development 1-yr storm	1	4,374.000	12.100	1.16
PDA-1B	Post-Development 10-yr storm	10	14,391.000	12.100	4.14
PDA-1B	Post-Development 100-yr storm	100	35,542.000	12.100	10.07
PDA-1D	Post-Development 1-yr storm	1	316.000	12.150	0.06
PDA-1D	Post-Development 10-yr storm	10	1,413.000	12.100	0.39
PDA-1D	Post-Development 100-yr storm	100	4,046.000	12.100	1.16

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DP-1	Post-Development 1-yr storm	1	14,759.000	15.850	0.35
DP-1	Post-Development 10-yr storm	10	58,856.000	12.400	7.58
DP-1	Post-Development 100-yr storm	100	164,488.000	12.250	29.99

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)

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)
PROP-POND (IN)	Post-Development 1-yr storm	1	26,740.000	12.100	6.39	(N/A)	(N/A)
PROP-POND (OUT)	Post-Development 1-yr storm	1	14,442.000	16.750	0.34	82.36	15,719.000
PROP-POND (IN)	Post-Development 10-yr storm	10	74,340.000	12.100	15.37	(N/A)	(N/A)
PROP-POND (OUT)	Post-Development 10-yr storm	10	57,443.000	12.400	7.42	83.35	24,604.000
PROP-POND (IN)	Post-Development 100-yr storm	100	178,180.000	12.100	41.44	(N/A)	(N/A)
PROP-POND (OUT)	Post-Development 100-yr storm	100	160,442.000	12.250	29.37	84.69	38,084.000
U-INF 1A (IN)	Post-Development 1-yr storm	1	13,856.000	12.100	3.85	(N/A)	(N/A)
U-INF 1A (OUT)	Post-Development 1-yr storm	1	0.000	0.000	0.00	97.72	5,426.000
U-INF 1A (IN)	Post-Development 10-yr storm	10	33,731.000	12.100	9.16	(N/A)	(N/A)
U-INF 1A (OUT)	Post-Development 10-yr storm	10	5,609.000	12.700	0.97	98.97	14,827.000
U-INF 1A (IN)	Post-Development 100-yr storm	100	70,385.000	12.100	18.37	(N/A)	(N/A)
U-INF 1A (OUT)	Post-Development 100-yr storm	100	29,429.000	12.100	5.45	99.67	20,052.000
PO-7 (IN)	Post-Development 1-yr storm	1	4,374.000	12.100	1.16	(N/A)	(N/A)
PO-7 (OUT)	Post-Development 1-yr storm	1	4,021.000	13.150	0.16	88.68	1,588.000
PO-7 (IN)	Post-Development 10-yr storm	10	14,391.000	12.100	4.14	(N/A)	(N/A)

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)
PO-7 (OUT)	Post-Development 10-yr storm	10	13,423.000	12.300	2.10	89.85	4,335.000
PO-7 (IN)	Post-Development 100-yr storm	100	35,542.000	12.100	10.07	(N/A)	(N/A)
PO-7 (OUT)	Post-Development 100-yr storm	100	33,342.000	12.200	6.29	90.78	7,466.000

Subsection: Runoff CN-Area
Label: PDA-1A
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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	77,496.186	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	39,581.428	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	117,077.614	(N/A)	(N/A)	85.491

Subsection: Runoff CN-Area
Label: PDA-1B
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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	23,047.358	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	52,938.713	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	75,986.071	(N/A)	(N/A)	72.222

Subsection: Runoff CN-Area
Label: PDA-1C
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	66,062.059	0.0	0.0	61.000
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	125,908.843	0.0	0.0	98.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	191,970.902	(N/A)	(N/A)	85.267

Subsection: Runoff CN-Area
Label: PDA-1D
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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	635.419	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	10,157.636	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	10,793.055	(N/A)	(N/A)	63.178

Storm Event	1-yr Storm
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	117,077.614 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)
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.01	0.01	0.01	0.01	0.01
9.000	0.01	0.02	0.02	0.02	0.02
9.250	0.02	0.03	0.03	0.03	0.03
9.500	0.03	0.04	0.04	0.04	0.04
9.750	0.05	0.05	0.05	0.05	0.06
10.000	0.06	0.06	0.07	0.07	0.07
10.250	0.08	0.08	0.09	0.09	0.10
10.500	0.10	0.11	0.11	0.12	0.12
10.750	0.13	0.13	0.14	0.14	0.15
11.000	0.16	0.17	0.18	0.19	0.20
11.250	0.22	0.24	0.25	0.27	0.29
11.500	0.31	0.38	0.44	0.58	0.72
11.750	0.90	1.08	1.29	1.51	2.30
12.000	3.10	3.47	3.85	3.24	2.64
12.250	2.31	1.99	1.75	1.51	1.27
12.500	1.04	0.88	0.73	0.67	0.61
12.750	0.58	0.55	0.53	0.50	0.48
13.000	0.45	0.44	0.42	0.41	0.40
13.250	0.39	0.39	0.38	0.37	0.37
13.500	0.36	0.36	0.35	0.34	0.34
13.750	0.33	0.32	0.32	0.31	0.30
14.000	0.30	0.29	0.29	0.28	0.28
14.250	0.28	0.27	0.27	0.27	0.26
14.500	0.26	0.26	0.25	0.25	0.25
14.750	0.24	0.24	0.24	0.23	0.23
15.000	0.23	0.23	0.22	0.22	0.22
15.250	0.21	0.21	0.21	0.20	0.20
15.500	0.20	0.19	0.19	0.19	0.18
15.750	0.18	0.18	0.17	0.17	0.17
16.000	0.16	0.16	0.16	0.16	0.15
16.250	0.15	0.15	0.15	0.15	0.15
16.500	0.14	0.14	0.14	0.14	0.14

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1A Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
16.750	0.14	0.14	0.13	0.13	0.13
17.000	0.13	0.13	0.13	0.13	0.12
17.250	0.12	0.12	0.12	0.12	0.12
17.500	0.12	0.11	0.11	0.11	0.11
17.750	0.11	0.11	0.10	0.10	0.10
18.000	0.10	0.10	0.10	0.10	0.10
18.250	0.10	0.10	0.10	0.10	0.09
18.500	0.09	0.09	0.09	0.09	0.09
18.750	0.09	0.09	0.09	0.09	0.09
19.000	0.09	0.09	0.09	0.09	0.09
19.250	0.09	0.09	0.09	0.09	0.09
19.500	0.09	0.09	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	0.08	0.08	0.08	0.07	0.07
21.000	0.07	0.07	0.07	0.07	0.07
21.250	0.07	0.07	0.07	0.07	0.07
21.500	0.07	0.07	0.07	0.07	0.07
21.750	0.07	0.07	0.07	0.07	0.07
22.000	0.07	0.07	0.07	0.07	0.07
22.250	0.07	0.07	0.06	0.06	0.06
22.500	0.06	0.06	0.06	0.06	0.06
22.750	0.06	0.06	0.06	0.06	0.06
23.000	0.06	0.06	0.06	0.06	0.06
23.250	0.06	0.06	0.06	0.06	0.06
23.500	0.06	0.06	0.06	0.06	0.06
23.750	0.06	0.06	0.05	0.05	0.05
24.000	0.05	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1A Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

Storm Event	10-yr Storm
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	117,077.614 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	0.00	0.00	0.00
6.150	0.01	0.01	0.01	0.01	0.01
6.400	0.01	0.01	0.01	0.02	0.02
6.650	0.02	0.02	0.02	0.02	0.02
6.900	0.03	0.03	0.03	0.03	0.03
7.150	0.04	0.04	0.04	0.04	0.04
7.400	0.05	0.05	0.05	0.05	0.05
7.650	0.06	0.06	0.06	0.06	0.07
7.900	0.07	0.07	0.07	0.08	0.08
8.150	0.08	0.09	0.09	0.09	0.10
8.400	0.10	0.11	0.11	0.12	0.12
8.650	0.13	0.13	0.14	0.14	0.15
8.900	0.15	0.16	0.16	0.17	0.17
9.150	0.18	0.18	0.19	0.20	0.20
9.400	0.21	0.22	0.22	0.23	0.24
9.650	0.24	0.25	0.26	0.26	0.27
9.900	0.28	0.28	0.29	0.30	0.31
10.150	0.32	0.33	0.34	0.36	0.37
10.400	0.38	0.39	0.41	0.42	0.43
10.650	0.45	0.46	0.48	0.49	0.50
10.900	0.52	0.53	0.55	0.57	0.60
11.150	0.64	0.68	0.72	0.77	0.82
11.400	0.86	0.91	0.96	1.15	1.33
11.650	1.71	2.08	2.54	2.99	3.50
11.900	4.01	5.89	7.76	8.46	9.16
12.150	7.63	6.10	5.29	4.49	3.92
12.400	3.35	2.82	2.29	1.94	1.59
12.650	1.47	1.34	1.28	1.21	1.15
12.900	1.09	1.04	0.98	0.94	0.90
13.150	0.88	0.86	0.85	0.83	0.82
13.400	0.80	0.79	0.78	0.76	0.75
13.650	0.73	0.72	0.70	0.69	0.68
13.900	0.66	0.65	0.63	0.62	0.61

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
14.150	0.60	0.59	0.59	0.58	0.57
14.400	0.57	0.56	0.55	0.54	0.54
14.650	0.53	0.52	0.52	0.51	0.50
14.900	0.50	0.49	0.48	0.47	0.47
15.150	0.46	0.45	0.45	0.44	0.43
15.400	0.42	0.42	0.41	0.40	0.40
15.650	0.39	0.38	0.37	0.37	0.36
15.900	0.35	0.35	0.34	0.33	0.33
16.150	0.32	0.32	0.32	0.31	0.31
16.400	0.31	0.30	0.30	0.30	0.30
16.650	0.29	0.29	0.29	0.28	0.28
16.900	0.28	0.27	0.27	0.27	0.26
17.150	0.26	0.26	0.26	0.25	0.25
17.400	0.25	0.24	0.24	0.24	0.23
17.650	0.23	0.23	0.22	0.22	0.22
17.900	0.21	0.21	0.21	0.21	0.20
18.150	0.20	0.20	0.20	0.20	0.20
18.400	0.20	0.20	0.19	0.19	0.19
18.650	0.19	0.19	0.19	0.19	0.19
18.900	0.19	0.19	0.19	0.18	0.18
19.150	0.18	0.18	0.18	0.18	0.18
19.400	0.18	0.18	0.18	0.18	0.17
19.650	0.17	0.17	0.17	0.17	0.17
19.900	0.17	0.17	0.17	0.17	0.17
20.150	0.16	0.16	0.16	0.16	0.16
20.400	0.16	0.16	0.16	0.16	0.16
20.650	0.16	0.16	0.16	0.16	0.15
20.900	0.15	0.15	0.15	0.15	0.15
21.150	0.15	0.15	0.15	0.15	0.15
21.400	0.15	0.15	0.14	0.14	0.14
21.650	0.14	0.14	0.14	0.14	0.14
21.900	0.14	0.14	0.14	0.14	0.14
22.150	0.14	0.14	0.13	0.13	0.13
22.400	0.13	0.13	0.13	0.13	0.13
22.650	0.13	0.13	0.13	0.13	0.13
22.900	0.13	0.13	0.12	0.12	0.12
23.150	0.12	0.12	0.12	0.12	0.12
23.400	0.12	0.12	0.12	0.12	0.12
23.650	0.11	0.11	0.11	0.11	0.11
23.900	0.11	0.11	0.11	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1A Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

Storm Event	100-yr Storm
Return Event	100 years
Duration	24.000 hours
Depth	9.0 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	117,077.614 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)
3.750	0.00	0.00	0.00	0.01	0.01
4.000	0.01	0.01	0.01	0.02	0.02
4.250	0.02	0.02	0.02	0.03	0.03
4.500	0.03	0.03	0.03	0.04	0.04
4.750	0.04	0.04	0.05	0.05	0.05
5.000	0.05	0.06	0.06	0.06	0.06
5.250	0.06	0.07	0.07	0.07	0.07
5.500	0.08	0.08	0.08	0.08	0.09
5.750	0.09	0.09	0.09	0.10	0.10
6.000	0.10	0.10	0.11	0.11	0.11
6.250	0.12	0.12	0.13	0.13	0.13
6.500	0.14	0.14	0.15	0.15	0.16
6.750	0.16	0.16	0.17	0.17	0.18
7.000	0.18	0.19	0.19	0.20	0.20
7.250	0.21	0.22	0.22	0.23	0.23
7.500	0.24	0.24	0.25	0.25	0.26
7.750	0.26	0.27	0.28	0.28	0.29
8.000	0.29	0.30	0.31	0.32	0.33
8.250	0.34	0.35	0.36	0.37	0.38
8.500	0.39	0.40	0.42	0.43	0.44
8.750	0.45	0.46	0.48	0.49	0.50
9.000	0.51	0.53	0.54	0.55	0.57
9.250	0.58	0.59	0.61	0.62	0.63
9.500	0.65	0.66	0.68	0.69	0.70
9.750	0.72	0.73	0.75	0.76	0.78
10.000	0.79	0.81	0.83	0.85	0.88
10.250	0.90	0.93	0.96	0.98	1.01
10.500	1.04	1.07	1.10	1.12	1.15
10.750	1.18	1.21	1.24	1.27	1.30
11.000	1.33	1.38	1.43	1.52	1.61
11.250	1.70	1.80	1.90	2.00	2.10
11.500	2.21	2.61	3.01	3.81	4.61
11.750	5.56	6.50	7.50	8.51	12.24

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	15.97	17.17	18.37	15.20	12.04
12.250	10.40	8.76	7.63	6.49	5.46
12.500	4.42	3.74	3.06	2.82	2.57
12.750	2.44	2.31	2.20	2.09	1.99
13.000	1.88	1.80	1.72	1.69	1.65
13.250	1.62	1.59	1.56	1.53	1.50
13.500	1.48	1.45	1.42	1.39	1.36
13.750	1.34	1.31	1.28	1.25	1.22
14.000	1.20	1.17	1.15	1.14	1.12
14.250	1.11	1.09	1.08	1.07	1.05
14.500	1.04	1.03	1.01	1.00	0.99
14.750	0.97	0.96	0.95	0.93	0.92
15.000	0.91	0.89	0.88	0.87	0.85
15.250	0.84	0.83	0.81	0.80	0.79
15.500	0.77	0.76	0.75	0.73	0.72
15.750	0.70	0.69	0.68	0.66	0.65
16.000	0.64	0.63	0.62	0.61	0.60
16.250	0.60	0.59	0.58	0.58	0.57
16.500	0.57	0.56	0.55	0.55	0.54
16.750	0.54	0.53	0.52	0.52	0.51
17.000	0.51	0.50	0.50	0.49	0.48
17.250	0.48	0.47	0.47	0.46	0.45
17.500	0.45	0.44	0.44	0.43	0.42
17.750	0.42	0.41	0.41	0.40	0.39
18.000	0.39	0.38	0.38	0.38	0.38
18.250	0.37	0.37	0.37	0.37	0.37
18.500	0.36	0.36	0.36	0.36	0.36
18.750	0.36	0.35	0.35	0.35	0.35
19.000	0.35	0.35	0.34	0.34	0.34
19.250	0.34	0.34	0.33	0.33	0.33
19.500	0.33	0.33	0.33	0.32	0.32
19.750	0.32	0.32	0.32	0.31	0.31
20.000	0.31	0.31	0.31	0.31	0.31
20.250	0.30	0.30	0.30	0.30	0.30
20.500	0.30	0.30	0.30	0.29	0.29
20.750	0.29	0.29	0.29	0.29	0.29
21.000	0.29	0.28	0.28	0.28	0.28
21.250	0.28	0.28	0.28	0.27	0.27
21.500	0.27	0.27	0.27	0.27	0.27
21.750	0.26	0.26	0.26	0.26	0.26
22.000	0.26	0.26	0.26	0.25	0.25
22.250	0.25	0.25	0.25	0.25	0.25

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
22.500	0.24	0.24	0.24	0.24	0.24
22.750	0.24	0.24	0.24	0.23	0.23
23.000	0.23	0.23	0.23	0.23	0.23
23.250	0.22	0.22	0.22	0.22	0.22
23.500	0.22	0.22	0.22	0.21	0.21
23.750	0.21	0.21	0.21	0.21	0.21
24.000	0.20	(N/A)	(N/A)	(N/A)	(N/A)

Storm Event	1-yr Storm
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	75,986.071 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)
11.350	0.00	0.00	0.01	0.01	0.02
11.600	0.03	0.05	0.07	0.11	0.16
11.850	0.22	0.29	0.49	0.80	1.00
12.100	1.16	1.05	0.80	0.71	0.64
12.350	0.58	0.51	0.43	0.35	0.30
12.600	0.25	0.23	0.22	0.21	0.21
12.850	0.20	0.19	0.18	0.17	0.16
13.100	0.16	0.16	0.15	0.15	0.15
13.350	0.15	0.15	0.14	0.14	0.14
13.600	0.14	0.14	0.13	0.13	0.13
13.850	0.13	0.12	0.12	0.12	0.12
14.100	0.11	0.11	0.11	0.11	0.11
14.350	0.11	0.11	0.11	0.11	0.10
14.600	0.10	0.10	0.10	0.10	0.10
14.850	0.10	0.10	0.10	0.09	0.09
15.100	0.09	0.09	0.09	0.09	0.09
15.350	0.09	0.08	0.08	0.08	0.08
15.600	0.08	0.08	0.08	0.07	0.07
15.850	0.07	0.07	0.07	0.07	0.07
16.100	0.07	0.07	0.06	0.06	0.06
16.350	0.06	0.06	0.06	0.06	0.06
16.600	0.06	0.06	0.06	0.06	0.06
16.850	0.06	0.06	0.06	0.06	0.05
17.100	0.05	0.05	0.05	0.05	0.05
17.350	0.05	0.05	0.05	0.05	0.05
17.600	0.05	0.05	0.05	0.05	0.05
17.850	0.04	0.04	0.04	0.04	0.04
18.100	0.04	0.04	0.04	0.04	0.04
18.350	0.04	0.04	0.04	0.04	0.04
18.600	0.04	0.04	0.04	0.04	0.04
18.850	0.04	0.04	0.04	0.04	0.04
19.100	0.04	0.04	0.04	0.04	0.04
19.350	0.04	0.04	0.04	0.04	0.04

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1B Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr 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	0.04	0.04	0.04	0.04	0.04
19.850	0.04	0.04	0.04	0.04	0.04
20.100	0.03	0.03	0.03	0.03	0.03
20.350	0.03	0.03	0.03	0.03	0.03
20.600	0.03	0.03	0.03	0.03	0.03
20.850	0.03	0.03	0.03	0.03	0.03
21.100	0.03	0.03	0.03	0.03	0.03
21.350	0.03	0.03	0.03	0.03	0.03
21.600	0.03	0.03	0.03	0.03	0.03
21.850	0.03	0.03	0.03	0.03	0.03
22.100	0.03	0.03	0.03	0.03	0.03
22.350	0.03	0.03	0.03	0.03	0.03
22.600	0.03	0.03	0.03	0.03	0.03
22.850	0.03	0.03	0.03	0.03	0.03
23.100	0.03	0.03	0.03	0.03	0.03
23.350	0.03	0.03	0.03	0.03	0.03
23.600	0.03	0.02	0.02	0.02	0.02
23.850	0.02	0.02	0.02	0.02	(N/A)

Storm Event	10-yr Storm
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	75,986.071 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)
9.250	0.00	0.00	0.00	0.01	0.01
9.500	0.01	0.01	0.01	0.02	0.02
9.750	0.02	0.02	0.03	0.03	0.03
10.000	0.04	0.04	0.04	0.05	0.05
10.250	0.05	0.06	0.06	0.07	0.07
10.500	0.08	0.08	0.08	0.09	0.10
10.750	0.10	0.11	0.11	0.12	0.13
11.000	0.13	0.14	0.15	0.16	0.18
11.250	0.19	0.21	0.23	0.25	0.27
11.500	0.29	0.35	0.42	0.55	0.71
11.750	0.89	1.08	1.30	1.55	2.33
12.000	3.36	3.83	4.14	3.54	2.62
12.250	2.24	1.99	1.76	1.53	1.29
12.500	1.04	0.88	0.73	0.67	0.64
12.750	0.62	0.59	0.56	0.54	0.51
13.000	0.48	0.47	0.45	0.44	0.43
13.250	0.43	0.42	0.41	0.41	0.40
13.500	0.39	0.39	0.38	0.37	0.36
13.750	0.36	0.35	0.34	0.34	0.33
14.000	0.32	0.32	0.31	0.31	0.30
14.250	0.30	0.30	0.29	0.29	0.29
14.500	0.28	0.28	0.28	0.27	0.27
14.750	0.27	0.26	0.26	0.26	0.25
15.000	0.25	0.25	0.24	0.24	0.24
15.250	0.23	0.23	0.22	0.22	0.22
15.500	0.21	0.21	0.21	0.20	0.20
15.750	0.20	0.19	0.19	0.18	0.18
16.000	0.18	0.17	0.17	0.17	0.17
16.250	0.17	0.17	0.16	0.16	0.16
16.500	0.16	0.16	0.16	0.15	0.15
16.750	0.15	0.15	0.15	0.15	0.14
17.000	0.14	0.14	0.14	0.14	0.14
17.250	0.13	0.13	0.13	0.13	0.13

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1B Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
17.500	0.13	0.13	0.12	0.12	0.12
17.750	0.12	0.12	0.12	0.11	0.11
18.000	0.11	0.11	0.11	0.11	0.11
18.250	0.11	0.11	0.11	0.11	0.10
18.500	0.10	0.10	0.10	0.10	0.10
18.750	0.10	0.10	0.10	0.10	0.10
19.000	0.10	0.10	0.10	0.10	0.10
19.250	0.10	0.10	0.10	0.10	0.10
19.500	0.09	0.09	0.09	0.09	0.09
19.750	0.09	0.09	0.09	0.09	0.09
20.000	0.09	0.09	0.09	0.09	0.09
20.250	0.09	0.09	0.09	0.09	0.09
20.500	0.09	0.09	0.09	0.08	0.08
20.750	0.08	0.08	0.08	0.08	0.08
21.000	0.08	0.08	0.08	0.08	0.08
21.250	0.08	0.08	0.08	0.08	0.08
21.500	0.08	0.08	0.08	0.08	0.08
21.750	0.08	0.08	0.08	0.08	0.08
22.000	0.07	0.07	0.07	0.07	0.07
22.250	0.07	0.07	0.07	0.07	0.07
22.500	0.07	0.07	0.07	0.07	0.07
22.750	0.07	0.07	0.07	0.07	0.07
23.000	0.07	0.07	0.07	0.07	0.07
23.250	0.07	0.06	0.06	0.06	0.06
23.500	0.06	0.06	0.06	0.06	0.06
23.750	0.06	0.06	0.06	0.06	0.06
24.000	0.06	(N/A)	(N/A)	(N/A)	(N/A)

Storm Event	100-yr Storm
Return Event	100 years
Duration	24.000 hours
Depth	9.0 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	75,986.071 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)
6.850	0.00	0.00	0.00	0.00	0.01
7.100	0.01	0.01	0.01	0.01	0.02
7.350	0.02	0.02	0.02	0.02	0.03
7.600	0.03	0.03	0.03	0.03	0.04
7.850	0.04	0.04	0.04	0.05	0.05
8.100	0.05	0.05	0.06	0.06	0.07
8.350	0.07	0.07	0.08	0.08	0.09
8.600	0.09	0.09	0.10	0.10	0.11
8.850	0.11	0.12	0.12	0.13	0.13
9.100	0.14	0.15	0.15	0.16	0.16
9.350	0.17	0.18	0.18	0.19	0.20
9.600	0.20	0.21	0.22	0.22	0.23
9.850	0.24	0.25	0.25	0.26	0.27
10.100	0.28	0.29	0.30	0.32	0.33
10.350	0.34	0.35	0.37	0.38	0.39
10.600	0.41	0.42	0.44	0.45	0.47
10.850	0.48	0.50	0.51	0.53	0.56
11.100	0.59	0.63	0.67	0.72	0.77
11.350	0.81	0.87	0.92	0.97	1.16
11.600	1.38	1.77	2.21	2.69	3.20
11.850	3.73	4.31	6.26	8.72	9.61
12.100	10.07	8.43	6.13	5.19	4.56
12.350	4.00	3.45	2.89	2.33	1.95
12.600	1.62	1.49	1.42	1.36	1.30
12.850	1.24	1.18	1.12	1.06	1.02
13.100	0.98	0.96	0.94	0.93	0.91
13.350	0.90	0.88	0.86	0.85	0.83
13.600	0.82	0.80	0.79	0.77	0.76
13.850	0.74	0.72	0.71	0.69	0.68
14.100	0.67	0.66	0.65	0.64	0.64
14.350	0.63	0.62	0.61	0.61	0.60
14.600	0.59	0.58	0.58	0.57	0.56
14.850	0.55	0.54	0.54	0.53	0.52

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1B
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
15.100	0.51	0.51	0.50	0.49	0.48
15.350	0.48	0.47	0.46	0.45	0.44
15.600	0.44	0.43	0.42	0.41	0.41
15.850	0.40	0.39	0.38	0.37	0.37
16.100	0.36	0.36	0.35	0.35	0.35
16.350	0.34	0.34	0.34	0.33	0.33
16.600	0.33	0.32	0.32	0.32	0.31
16.850	0.31	0.31	0.30	0.30	0.30
17.100	0.29	0.29	0.28	0.28	0.28
17.350	0.28	0.27	0.27	0.27	0.26
17.600	0.26	0.25	0.25	0.25	0.24
17.850	0.24	0.24	0.23	0.23	0.23
18.100	0.22	0.22	0.22	0.22	0.22
18.350	0.22	0.22	0.22	0.22	0.22
18.600	0.21	0.21	0.21	0.21	0.21
18.850	0.21	0.21	0.21	0.21	0.21
19.100	0.20	0.20	0.20	0.20	0.20
19.350	0.20	0.20	0.20	0.20	0.19
19.600	0.19	0.19	0.19	0.19	0.19
19.850	0.19	0.19	0.19	0.19	0.18
20.100	0.18	0.18	0.18	0.18	0.18
20.350	0.18	0.18	0.18	0.18	0.18
20.600	0.18	0.17	0.17	0.17	0.17
20.850	0.17	0.17	0.17	0.17	0.17
21.100	0.17	0.17	0.17	0.17	0.16
21.350	0.16	0.16	0.16	0.16	0.16
21.600	0.16	0.16	0.16	0.16	0.16
21.850	0.16	0.16	0.15	0.15	0.15
22.100	0.15	0.15	0.15	0.15	0.15
22.350	0.15	0.15	0.15	0.15	0.15
22.600	0.15	0.14	0.14	0.14	0.14
22.850	0.14	0.14	0.14	0.14	0.14
23.100	0.14	0.14	0.14	0.13	0.13
23.350	0.13	0.13	0.13	0.13	0.13
23.600	0.13	0.13	0.13	0.13	0.13
23.850	0.12	0.12	0.12	0.12	(N/A)

Storm Event	1-yr Storm
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	191,970.902 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)
8.500	0.00	0.00	0.00	0.01	0.01
8.750	0.01	0.01	0.02	0.02	0.02
9.000	0.02	0.03	0.03	0.03	0.04
9.250	0.04	0.04	0.05	0.05	0.05
9.500	0.06	0.06	0.06	0.07	0.07
9.750	0.08	0.08	0.08	0.09	0.09
10.000	0.10	0.10	0.11	0.11	0.12
10.250	0.13	0.13	0.14	0.15	0.16
10.500	0.17	0.17	0.18	0.19	0.20
10.750	0.21	0.22	0.23	0.24	0.25
11.000	0.26	0.27	0.29	0.31	0.33
11.250	0.36	0.39	0.42	0.45	0.48
11.500	0.51	0.62	0.73	0.95	1.18
11.750	1.47	1.77	2.12	2.47	3.78
12.000	5.08	5.69	6.31	5.32	4.32
12.250	3.79	3.26	2.86	2.47	2.09
12.500	1.70	1.45	1.19	1.10	1.01
12.750	0.96	0.91	0.87	0.83	0.79
13.000	0.75	0.72	0.69	0.67	0.66
13.250	0.65	0.64	0.63	0.61	0.60
13.500	0.59	0.58	0.57	0.56	0.55
13.750	0.54	0.53	0.52	0.51	0.50
14.000	0.49	0.48	0.47	0.46	0.46
14.250	0.45	0.45	0.44	0.44	0.43
14.500	0.43	0.42	0.42	0.41	0.41
14.750	0.40	0.40	0.39	0.39	0.38
15.000	0.37	0.37	0.36	0.36	0.35
15.250	0.35	0.34	0.34	0.33	0.33
15.500	0.32	0.32	0.31	0.30	0.30
15.750	0.29	0.29	0.28	0.28	0.27
16.000	0.27	0.26	0.26	0.25	0.25
16.250	0.25	0.25	0.24	0.24	0.24
16.500	0.24	0.23	0.23	0.23	0.23

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1C Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
16.750	0.23	0.22	0.22	0.22	0.22
17.000	0.21	0.21	0.21	0.21	0.20
17.250	0.20	0.20	0.20	0.19	0.19
17.500	0.19	0.19	0.18	0.18	0.18
17.750	0.18	0.17	0.17	0.17	0.17
18.000	0.16	0.16	0.16	0.16	0.16
18.250	0.16	0.16	0.16	0.16	0.16
18.500	0.15	0.15	0.15	0.15	0.15
18.750	0.15	0.15	0.15	0.15	0.15
19.000	0.15	0.15	0.15	0.15	0.14
19.250	0.14	0.14	0.14	0.14	0.14
19.500	0.14	0.14	0.14	0.14	0.14
19.750	0.14	0.14	0.14	0.13	0.13
20.000	0.13	0.13	0.13	0.13	0.13
20.250	0.13	0.13	0.13	0.13	0.13
20.500	0.13	0.13	0.13	0.13	0.12
20.750	0.12	0.12	0.12	0.12	0.12
21.000	0.12	0.12	0.12	0.12	0.12
21.250	0.12	0.12	0.12	0.12	0.12
21.500	0.12	0.12	0.12	0.11	0.11
21.750	0.11	0.11	0.11	0.11	0.11
22.000	0.11	0.11	0.11	0.11	0.11
22.250	0.11	0.11	0.11	0.11	0.11
22.500	0.10	0.10	0.10	0.10	0.10
22.750	0.10	0.10	0.10	0.10	0.10
23.000	0.10	0.10	0.10	0.10	0.10
23.250	0.10	0.10	0.10	0.10	0.09
23.500	0.09	0.09	0.09	0.09	0.09
23.750	0.09	0.09	0.09	0.09	0.09
24.000	0.09	(N/A)	(N/A)	(N/A)	(N/A)

Storm Event	10-yr Storm
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	191,970.902 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	0.00	0.00	0.01
6.150	0.01	0.01	0.01	0.01	0.02
6.400	0.02	0.02	0.02	0.02	0.03
6.650	0.03	0.03	0.03	0.04	0.04
6.900	0.04	0.05	0.05	0.05	0.05
7.150	0.06	0.06	0.06	0.07	0.07
7.400	0.07	0.08	0.08	0.09	0.09
7.650	0.09	0.10	0.10	0.10	0.11
7.900	0.11	0.12	0.12	0.13	0.13
8.150	0.14	0.14	0.15	0.15	0.16
8.400	0.17	0.18	0.18	0.19	0.20
8.650	0.21	0.21	0.22	0.23	0.24
8.900	0.25	0.26	0.27	0.27	0.28
9.150	0.29	0.30	0.31	0.32	0.33
9.400	0.34	0.35	0.36	0.37	0.39
9.650	0.40	0.41	0.42	0.43	0.44
9.900	0.45	0.47	0.48	0.49	0.51
10.150	0.53	0.54	0.56	0.58	0.60
10.400	0.62	0.65	0.67	0.69	0.71
10.650	0.73	0.76	0.78	0.80	0.83
10.900	0.85	0.88	0.90	0.94	0.98
11.150	1.05	1.11	1.19	1.26	1.34
11.400	1.42	1.50	1.58	1.89	2.19
11.650	2.80	3.41	4.16	4.91	5.74
11.900	6.57	9.65	12.73	13.88	15.02
12.150	12.51	10.00	8.68	7.36	6.43
12.400	5.50	4.63	3.76	3.19	2.61
12.650	2.41	2.20	2.09	1.98	1.89
12.900	1.79	1.70	1.61	1.55	1.48
13.150	1.45	1.42	1.39	1.37	1.34
13.400	1.32	1.30	1.27	1.25	1.23
13.650	1.20	1.18	1.16	1.13	1.11
13.900	1.08	1.06	1.04	1.02	1.00

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1C Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
14.150	0.99	0.97	0.96	0.95	0.94
14.400	0.93	0.91	0.90	0.89	0.88
14.650	0.87	0.86	0.85	0.84	0.82
14.900	0.81	0.80	0.79	0.78	0.77
15.150	0.75	0.74	0.73	0.72	0.71
15.400	0.70	0.68	0.67	0.66	0.65
15.650	0.64	0.63	0.61	0.60	0.59
15.900	0.58	0.57	0.56	0.55	0.54
16.150	0.53	0.52	0.52	0.52	0.51
16.400	0.50	0.50	0.50	0.49	0.48
16.650	0.48	0.47	0.47	0.46	0.46
16.900	0.45	0.45	0.44	0.44	0.43
17.150	0.43	0.42	0.42	0.41	0.41
17.400	0.40	0.40	0.39	0.39	0.38
17.650	0.38	0.37	0.37	0.36	0.36
17.900	0.35	0.35	0.34	0.34	0.33
18.150	0.33	0.33	0.33	0.33	0.32
18.400	0.32	0.32	0.32	0.32	0.32
18.650	0.32	0.31	0.31	0.31	0.31
18.900	0.31	0.31	0.30	0.30	0.30
19.150	0.30	0.30	0.30	0.30	0.29
19.400	0.29	0.29	0.29	0.29	0.29
19.650	0.28	0.28	0.28	0.28	0.28
19.900	0.28	0.28	0.27	0.27	0.27
20.150	0.27	0.27	0.27	0.27	0.27
20.400	0.26	0.26	0.26	0.26	0.26
20.650	0.26	0.26	0.26	0.26	0.25
20.900	0.25	0.25	0.25	0.25	0.25
21.150	0.25	0.25	0.24	0.24	0.24
21.400	0.24	0.24	0.24	0.24	0.24
21.650	0.24	0.23	0.23	0.23	0.23
21.900	0.23	0.23	0.23	0.23	0.22
22.150	0.22	0.22	0.22	0.22	0.22
22.400	0.22	0.22	0.21	0.21	0.21
22.650	0.21	0.21	0.21	0.21	0.21
22.900	0.21	0.21	0.20	0.20	0.20
23.150	0.20	0.20	0.20	0.20	0.20
23.400	0.20	0.19	0.19	0.19	0.19
23.650	0.19	0.19	0.19	0.19	0.18
23.900	0.18	0.18	0.18	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1C Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

Storm Event	100-yr Storm
Return Event	100 years
Duration	24.000 hours
Depth	9.0 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	191,970.902 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)
3.700	0.00	0.00	0.00	0.01	0.01
3.950	0.01	0.02	0.02	0.02	0.03
4.200	0.03	0.03	0.04	0.04	0.04
4.450	0.05	0.05	0.05	0.06	0.06
4.700	0.06	0.07	0.07	0.08	0.08
4.950	0.08	0.09	0.09	0.09	0.10
5.200	0.10	0.11	0.11	0.11	0.12
5.450	0.12	0.13	0.13	0.13	0.14
5.700	0.14	0.15	0.15	0.15	0.16
5.950	0.16	0.17	0.17	0.18	0.18
6.200	0.19	0.19	0.20	0.21	0.21
6.450	0.22	0.23	0.23	0.24	0.25
6.700	0.26	0.26	0.27	0.28	0.29
6.950	0.29	0.30	0.31	0.32	0.33
7.200	0.33	0.34	0.35	0.36	0.37
7.450	0.38	0.39	0.40	0.41	0.42
7.700	0.43	0.43	0.44	0.45	0.46
7.950	0.47	0.48	0.50	0.51	0.52
8.200	0.54	0.56	0.57	0.59	0.61
8.450	0.63	0.65	0.66	0.68	0.70
8.700	0.72	0.74	0.76	0.78	0.80
8.950	0.82	0.84	0.86	0.89	0.91
9.200	0.93	0.95	0.97	0.99	1.02
9.450	1.04	1.06	1.08	1.11	1.13
9.700	1.16	1.18	1.20	1.23	1.25
9.950	1.27	1.30	1.33	1.36	1.40
10.200	1.44	1.48	1.53	1.57	1.61
10.450	1.66	1.70	1.75	1.80	1.84
10.700	1.89	1.94	1.98	2.03	2.08
10.950	2.13	2.18	2.26	2.35	2.49
11.200	2.64	2.79	2.95	3.12	3.28
11.450	3.45	3.62	4.28	4.94	6.25
11.700	7.57	9.11	10.65	12.30	13.95

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1C
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
11.950	20.07	26.19	28.15	30.12	24.93
12.200	19.74	17.05	14.37	12.51	10.65
12.450	8.95	7.24	6.13	5.02	4.62
12.700	4.22	4.01	3.79	3.61	3.43
12.950	3.26	3.08	2.95	2.83	2.76
13.200	2.70	2.65	2.60	2.55	2.51
13.450	2.46	2.42	2.37	2.33	2.28
13.700	2.24	2.19	2.15	2.10	2.05
13.950	2.01	1.96	1.93	1.89	1.86
14.200	1.84	1.82	1.79	1.77	1.75
14.450	1.73	1.70	1.68	1.66	1.64
14.700	1.62	1.60	1.57	1.55	1.53
14.950	1.51	1.49	1.46	1.44	1.42
15.200	1.40	1.38	1.35	1.33	1.31
15.450	1.29	1.26	1.24	1.22	1.20
15.700	1.18	1.15	1.13	1.11	1.09
15.950	1.07	1.04	1.03	1.01	1.00
16.200	0.98	0.98	0.97	0.96	0.95
16.450	0.94	0.93	0.92	0.91	0.90
16.700	0.89	0.88	0.87	0.86	0.85
16.950	0.84	0.83	0.82	0.81	0.80
17.200	0.79	0.78	0.77	0.76	0.75
17.450	0.74	0.74	0.72	0.71	0.71
17.700	0.70	0.69	0.68	0.67	0.66
17.950	0.65	0.64	0.63	0.62	0.62
18.200	0.62	0.61	0.61	0.61	0.60
18.450	0.60	0.60	0.59	0.59	0.59
18.700	0.59	0.58	0.58	0.58	0.57
18.950	0.57	0.57	0.57	0.56	0.56
19.200	0.56	0.55	0.55	0.55	0.55
19.450	0.54	0.54	0.54	0.53	0.53
19.700	0.53	0.53	0.52	0.52	0.52
19.950	0.51	0.51	0.51	0.50	0.50
20.200	0.50	0.50	0.50	0.49	0.49
20.450	0.49	0.49	0.49	0.48	0.48
20.700	0.48	0.48	0.48	0.47	0.47
20.950	0.47	0.47	0.46	0.46	0.46
21.200	0.46	0.46	0.45	0.45	0.45
21.450	0.45	0.44	0.44	0.44	0.44
21.700	0.43	0.43	0.43	0.43	0.43
21.950	0.42	0.42	0.42	0.42	0.42
22.200	0.41	0.41	0.41	0.41	0.41

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1C
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
22.450	0.40	0.40	0.40	0.40	0.40
22.700	0.39	0.39	0.39	0.39	0.38
22.950	0.38	0.38	0.38	0.37	0.37
23.200	0.37	0.37	0.36	0.36	0.36
23.450	0.36	0.36	0.35	0.35	0.35
23.700	0.35	0.35	0.34	0.34	0.34
23.950	0.34	0.34	(N/A)	(N/A)	(N/A)

Storm Event	1-yr Storm
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	10,793.055 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	0.00	0.02	0.04	0.06
12.150	0.06	0.05	0.05	0.04	0.04
12.400	0.04	0.03	0.03	0.02	0.02
12.650	0.02	0.02	0.02	0.02	0.02
12.900	0.02	0.01	0.01	0.01	0.01
13.150	0.01	0.01	0.01	0.01	0.01
13.400	0.01	0.01	0.01	0.01	0.01
13.650	0.01	0.01	0.01	0.01	0.01
13.900	0.01	0.01	0.01	0.01	0.01
14.150	0.01	0.01	0.01	0.01	0.01
14.400	0.01	0.01	0.01	0.01	0.01
14.650	0.01	0.01	0.01	0.01	0.01
14.900	0.01	0.01	0.01	0.01	0.01
15.150	0.01	0.01	0.01	0.01	0.01
15.400	0.01	0.01	0.01	0.01	0.01
15.650	0.01	0.01	0.01	0.01	0.01
15.900	0.01	0.01	0.01	0.01	0.01
16.150	0.01	0.01	0.01	0.01	0.01
16.400	0.01	0.01	0.01	0.01	0.01
16.650	0.01	0.01	0.01	0.01	0.01
16.900	0.01	0.01	0.01	0.01	0.01
17.150	0.00	0.00	0.00	0.00	0.00
17.400	0.00	0.00	0.00	0.00	0.00
17.650	0.00	0.00	0.00	0.00	0.00
17.900	0.00	0.00	0.00	0.00	0.00
18.150	0.00	0.00	0.00	0.00	0.00
18.400	0.00	0.00	0.00	0.00	0.00
18.650	0.00	0.00	0.00	0.00	0.00
18.900	0.00	0.00	0.00	0.00	0.00
19.150	0.00	0.00	0.00	0.00	0.00
19.400	0.00	0.00	0.00	0.00	0.00
19.650	0.00	0.00	0.00	0.00	0.00
19.900	0.00	0.00	0.00	0.00	0.00

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1D Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
20.150	0.00	0.00	0.00	0.00	0.00
20.400	0.00	0.00	0.00	0.00	0.00
20.650	0.00	0.00	0.00	0.00	0.00
20.900	0.00	0.00	0.00	0.00	0.00
21.150	0.00	0.00	0.00	0.00	0.00
21.400	0.00	0.00	0.00	0.00	0.00
21.650	0.00	0.00	0.00	0.00	0.00
21.900	0.00	0.00	0.00	0.00	0.00
22.150	0.00	0.00	0.00	0.00	0.00
22.400	0.00	0.00	0.00	0.00	0.00
22.650	0.00	0.00	0.00	0.00	0.00
22.900	0.00	0.00	0.00	0.00	0.00
23.150	0.00	0.00	0.00	0.00	0.00
23.400	0.00	0.00	0.00	0.00	0.00
23.650	0.00	0.00	0.00	0.00	0.00
23.900	0.00	0.00	0.00	(N/A)	(N/A)

Storm Event	10-yr Storm
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	10,793.055 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)
10.850	0.00	0.00	0.00	0.00	0.00
11.100	0.00	0.00	0.01	0.01	0.01
11.350	0.01	0.01	0.01	0.01	0.02
11.600	0.02	0.03	0.04	0.06	0.08
11.850	0.10	0.12	0.19	0.29	0.35
12.100	0.39	0.35	0.26	0.23	0.21
12.350	0.18	0.16	0.14	0.11	0.09
12.600	0.08	0.07	0.07	0.07	0.06
12.850	0.06	0.06	0.06	0.05	0.05
13.100	0.05	0.05	0.05	0.05	0.05
13.350	0.05	0.04	0.04	0.04	0.04
13.600	0.04	0.04	0.04	0.04	0.04
13.850	0.04	0.04	0.04	0.04	0.04
14.100	0.03	0.03	0.03	0.03	0.03
14.350	0.03	0.03	0.03	0.03	0.03
14.600	0.03	0.03	0.03	0.03	0.03
14.850	0.03	0.03	0.03	0.03	0.03
15.100	0.03	0.03	0.03	0.03	0.03
15.350	0.03	0.03	0.02	0.02	0.02
15.600	0.02	0.02	0.02	0.02	0.02
15.850	0.02	0.02	0.02	0.02	0.02
16.100	0.02	0.02	0.02	0.02	0.02
16.350	0.02	0.02	0.02	0.02	0.02
16.600	0.02	0.02	0.02	0.02	0.02
16.850	0.02	0.02	0.02	0.02	0.02
17.100	0.02	0.02	0.02	0.02	0.02
17.350	0.02	0.01	0.01	0.01	0.01
17.600	0.01	0.01	0.01	0.01	0.01
17.850	0.01	0.01	0.01	0.01	0.01
18.100	0.01	0.01	0.01	0.01	0.01
18.350	0.01	0.01	0.01	0.01	0.01
18.600	0.01	0.01	0.01	0.01	0.01
18.850	0.01	0.01	0.01	0.01	0.01

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1D Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.100	0.01	0.01	0.01	0.01	0.01
19.350	0.01	0.01	0.01	0.01	0.01
19.600	0.01	0.01	0.01	0.01	0.01
19.850	0.01	0.01	0.01	0.01	0.01
20.100	0.01	0.01	0.01	0.01	0.01
20.350	0.01	0.01	0.01	0.01	0.01
20.600	0.01	0.01	0.01	0.01	0.01
20.850	0.01	0.01	0.01	0.01	0.01
21.100	0.01	0.01	0.01	0.01	0.01
21.350	0.01	0.01	0.01	0.01	0.01
21.600	0.01	0.01	0.01	0.01	0.01
21.850	0.01	0.01	0.01	0.01	0.01
22.100	0.01	0.01	0.01	0.01	0.01
22.350	0.01	0.01	0.01	0.01	0.01
22.600	0.01	0.01	0.01	0.01	0.01
22.850	0.01	0.01	0.01	0.01	0.01
23.100	0.01	0.01	0.01	0.01	0.01
23.350	0.01	0.01	0.01	0.01	0.01
23.600	0.01	0.01	0.01	0.01	0.01
23.850	0.01	0.01	0.01	0.01	(N/A)

Storm Event	100-yr Storm
Return Event	100 years
Duration	24.000 hours
Depth	9.0 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	10,793.055 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)
8.700	0.00	0.00	0.00	0.00	0.00
8.950	0.00	0.00	0.00	0.00	0.00
9.200	0.01	0.01	0.01	0.01	0.01
9.450	0.01	0.01	0.01	0.01	0.01
9.700	0.01	0.01	0.01	0.01	0.01
9.950	0.02	0.02	0.02	0.02	0.02
10.200	0.02	0.02	0.02	0.02	0.03
10.450	0.03	0.03	0.03	0.03	0.03
10.700	0.03	0.04	0.04	0.04	0.04
10.950	0.04	0.04	0.05	0.05	0.05
11.200	0.06	0.06	0.07	0.07	0.08
11.450	0.09	0.09	0.11	0.13	0.17
11.700	0.22	0.27	0.33	0.39	0.46
11.950	0.68	0.97	1.09	1.16	0.99
12.200	0.73	0.62	0.55	0.48	0.42
12.450	0.35	0.28	0.24	0.20	0.18
12.700	0.17	0.17	0.16	0.15	0.15
12.950	0.14	0.13	0.13	0.12	0.12
13.200	0.12	0.12	0.11	0.11	0.11
13.450	0.11	0.11	0.10	0.10	0.10
13.700	0.10	0.10	0.09	0.09	0.09
13.950	0.09	0.09	0.09	0.08	0.08
14.200	0.08	0.08	0.08	0.08	0.08
14.450	0.08	0.08	0.08	0.07	0.07
14.700	0.07	0.07	0.07	0.07	0.07
14.950	0.07	0.07	0.07	0.07	0.06
15.200	0.06	0.06	0.06	0.06	0.06
15.450	0.06	0.06	0.06	0.06	0.05
15.700	0.05	0.05	0.05	0.05	0.05
15.950	0.05	0.05	0.05	0.05	0.05
16.200	0.04	0.04	0.04	0.04	0.04
16.450	0.04	0.04	0.04	0.04	0.04
16.700	0.04	0.04	0.04	0.04	0.04

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1D Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
16.950	0.04	0.04	0.04	0.04	0.04
17.200	0.04	0.04	0.04	0.04	0.03
17.450	0.03	0.03	0.03	0.03	0.03
17.700	0.03	0.03	0.03	0.03	0.03
17.950	0.03	0.03	0.03	0.03	0.03
18.200	0.03	0.03	0.03	0.03	0.03
18.450	0.03	0.03	0.03	0.03	0.03
18.700	0.03	0.03	0.03	0.03	0.03
18.950	0.03	0.03	0.03	0.03	0.03
19.200	0.03	0.03	0.03	0.03	0.03
19.450	0.03	0.03	0.03	0.02	0.02
19.700	0.02	0.02	0.02	0.02	0.02
19.950	0.02	0.02	0.02	0.02	0.02
20.200	0.02	0.02	0.02	0.02	0.02
20.450	0.02	0.02	0.02	0.02	0.02
20.700	0.02	0.02	0.02	0.02	0.02
20.950	0.02	0.02	0.02	0.02	0.02
21.200	0.02	0.02	0.02	0.02	0.02
21.450	0.02	0.02	0.02	0.02	0.02
21.700	0.02	0.02	0.02	0.02	0.02
21.950	0.02	0.02	0.02	0.02	0.02
22.200	0.02	0.02	0.02	0.02	0.02
22.450	0.02	0.02	0.02	0.02	0.02
22.700	0.02	0.02	0.02	0.02	0.02
22.950	0.02	0.02	0.02	0.02	0.02
23.200	0.02	0.02	0.02	0.02	0.02
23.450	0.02	0.02	0.02	0.02	0.02
23.700	0.02	0.02	0.02	0.02	0.02
23.950	0.02	0.02	(N/A)	(N/A)	(N/A)

Subsection: Addition Summary
Label: DP-1
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-1D
PROP-OCS	PROP-POND

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-1D	316.250	12.150	0.06
Flow (From)	PROP-OCS	14,442.256	16.750	0.34
Flow (In)	DP-1	14,758.506	15.850	0.35

Subsection: Addition Summary | Return Event: 10 years
Label: DP-1 | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-1D
PROP-OCS	PROP-POND

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-1D	1,412.503	12.100	0.39
Flow (From)	PROP-OCS	57,443.100	12.400	7.42
Flow (In)	DP-1	58,855.603	12.400	7.58

Subsection: Addition Summary
Label: DP-1
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Summary for Hydrograph Addition at 'DP-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-1D
PROP-OCS	PROP-POND

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-1D	4,045.959	12.100	1.16
Flow (From)	PROP-OCS	160,441.665	12.250	29.37
Flow (In)	DP-1	164,487.624	12.250	29.99

Subsection: Hydrograph
Label: OCS-1A
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	0.00 ft³/s
Time to Peak	8.000 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.750	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.250	0.00	0.00	0.00	0.00	0.00
11.500	0.00	0.00	0.00	0.00	0.00
11.750	0.00	0.00	0.00	0.00	0.00
12.000	0.00	0.00	0.00	0.00	0.00
12.250	0.00	0.00	0.00	0.00	0.00
12.500	0.00	0.00	0.00	0.00	0.00
12.750	0.00	0.00	0.00	0.00	0.00
13.000	0.00	0.00	0.00	0.00	0.00
13.250	0.00	0.00	0.00	0.00	0.00
13.500	0.00	0.00	0.00	0.00	0.00
13.750	0.00	0.00	0.00	0.00	0.00
14.000	0.00	0.00	0.00	0.00	0.00
14.250	0.00	0.00	0.00	0.00	0.00
14.500	0.00	0.00	0.00	0.00	0.00
14.750	0.00	0.00	0.00	0.00	0.00
15.000	0.00	0.00	0.00	0.00	0.00
15.250	0.00	0.00	0.00	0.00	0.00
15.500	0.00	0.00	0.00	0.00	0.00
15.750	0.00	0.00	0.00	0.00	0.00
16.000	0.00	0.00	0.00	0.00	0.00
16.250	0.00	0.00	0.00	0.00	0.00
16.500	0.00	0.00	0.00	0.00	0.00
16.750	0.00	0.00	0.00	0.00	0.00
17.000	0.00	0.00	0.00	0.00	0.00
17.250	0.00	0.00	0.00	0.00	0.00
17.500	0.00	0.00	0.00	0.00	0.00
17.750	0.00	0.00	0.00	0.00	0.00
18.000	0.00	0.00	0.00	0.00	0.00
18.250	0.00	0.00	0.00	0.00	0.00
18.500	0.00	0.00	0.00	0.00	0.00
18.750	0.00	0.00	0.00	0.00	0.00
19.000	0.00	0.00	0.00	0.00	0.00
19.250	0.00	0.00	0.00	0.00	0.00
19.500	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph | Return Event: 1 years
Label: OCS-1A | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.00	0.00	0.00	0.00	0.00
20.000	0.00	0.00	0.00	0.00	0.00
20.250	0.00	0.00	0.00	0.00	0.00
20.500	0.00	0.00	0.00	0.00	0.00
20.750	0.00	0.00	0.00	0.00	0.00
21.000	0.00	0.00	0.00	0.00	0.00
21.250	0.00	0.00	0.00	0.00	0.00
21.500	0.00	0.00	0.00	0.00	0.00
21.750	0.00	0.00	0.00	0.00	0.00
22.000	0.00	0.00	0.00	0.00	0.00
22.250	0.00	0.00	0.00	0.00	0.00
22.500	0.00	0.00	0.00	0.00	0.00
22.750	0.00	0.00	0.00	0.00	0.00
23.000	0.00	0.00	0.00	0.00	0.00
23.250	0.00	0.00	0.00	0.00	0.00
23.500	0.00	0.00	0.00	0.00	0.00
23.750	0.00	0.00	0.00	0.00	0.00
24.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: OCS-1A
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	0.97 ft³/s
Time to Peak	12.700 hours
Hydrograph Volume	5,603.344 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph | Return Event: 10 years
Label: OCS-1A | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.750	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.250	0.00	0.00	0.00	0.00	0.00
11.500	0.00	0.00	0.00	0.00	0.00
11.750	0.00	0.00	0.00	0.00	0.00
12.000	0.00	0.00	0.00	0.00	0.00
12.250	0.00	0.00	0.06	0.32	0.55
12.500	0.75	0.87	0.94	0.96	0.97
12.750	0.96	0.95	0.93	0.90	0.88
13.000	0.84	0.81	0.78	0.74	0.71
13.250	0.68	0.65	0.62	0.60	0.57
13.500	0.55	0.53	0.51	0.50	0.48
13.750	0.47	0.45	0.44	0.42	0.41
14.000	0.39	0.38	0.37	0.35	0.34
14.250	0.33	0.31	0.30	0.29	0.28
14.500	0.27	0.26	0.25	0.24	0.23
14.750	0.22	0.21	0.20	0.19	0.19
15.000	0.18	0.17	0.16	0.15	0.14
15.250	0.14	0.13	0.12	0.11	0.11
15.500	0.10	0.10	0.09	0.09	0.08
15.750	0.08	0.08	0.07	0.07	0.07
16.000	0.06	0.06	0.06	0.06	0.05
16.250	0.05	0.05	0.05	0.04	0.04
16.500	0.04	0.04	0.04	0.04	0.03
16.750	0.03	0.03	0.03	0.03	0.03
17.000	0.03	0.03	0.02	0.02	0.02
17.250	0.02	0.02	0.02	0.02	0.02
17.500	0.02	0.02	0.02	0.02	0.01
17.750	0.01	0.01	0.01	0.01	0.01
18.000	0.01	0.01	0.01	0.01	0.01
18.250	0.01	0.01	0.01	0.01	0.01
18.500	0.01	0.01	0.01	0.01	0.01
18.750	0.01	0.01	0.01	0.01	0.00
19.000	0.00	0.00	0.00	0.00	0.00
19.250	0.00	0.00	0.00	0.00	0.00
19.500	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph Return Event: 10 years
Label: OCS-1A Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.00	0.00	0.00	0.00	0.00
20.000	0.00	0.00	0.00	0.00	0.00
20.250	0.00	0.00	0.00	0.00	0.00
20.500	0.00	0.00	0.00	0.00	0.00
20.750	0.00	0.00	0.00	0.00	0.00
21.000	0.00	0.00	0.00	0.00	0.00
21.250	0.00	0.00	0.00	0.00	0.00
21.500	0.00	0.00	0.00	0.00	0.00
21.750	0.00	0.00	0.00	0.00	0.00
22.000	0.00	0.00	0.00	0.00	0.00
22.250	0.00	0.00	0.00	0.00	0.00
22.500	0.00	0.00	0.00	0.00	0.00
22.750	0.00	0.00	0.00	0.00	0.00
23.000	0.00	0.00	0.00	0.00	0.00
23.250	0.00	0.00	0.00	0.00	0.00
23.500	0.00	0.00	0.00	0.00	0.00
23.750	0.00	0.00	0.00	0.00	0.00
24.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Peak Discharge	5.45 ft³/s
Time to Peak	12.300 hours
Hydrograph Volume	29,428.957 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph
Label: OCS-1A
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.750	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.250	0.00	0.00	0.00	0.00	0.00
11.500	0.00	0.00	0.00	0.00	0.00
11.750	0.00	0.00	0.00	0.00	0.38
12.000	2.22	4.56	5.45	5.45	5.45
12.250	5.45	5.45	5.45	5.45	5.45
12.500	5.39	5.29	5.12	4.92	4.68
12.750	4.41	4.02	3.67	3.32	3.01
13.000	2.73	2.51	2.32	2.15	2.00
13.250	1.87	1.77	1.68	1.60	1.53
13.500	1.47	1.41	1.35	1.30	1.25
13.750	1.21	1.17	1.13	1.10	1.06
14.000	1.03	1.00	0.97	0.95	0.92
14.250	0.90	0.87	0.85	0.83	0.81
14.500	0.79	0.77	0.75	0.74	0.72
14.750	0.70	0.69	0.67	0.66	0.64
15.000	0.63	0.61	0.60	0.58	0.57
15.250	0.55	0.54	0.53	0.51	0.50
15.500	0.49	0.48	0.47	0.46	0.45
15.750	0.44	0.43	0.41	0.40	0.39
16.000	0.38	0.36	0.35	0.34	0.33
16.250	0.32	0.31	0.30	0.29	0.28
16.500	0.27	0.26	0.25	0.24	0.23
16.750	0.23	0.22	0.21	0.20	0.20
17.000	0.19	0.18	0.18	0.17	0.16
17.250	0.16	0.15	0.14	0.14	0.13
17.500	0.12	0.12	0.11	0.10	0.10
17.750	0.10	0.09	0.09	0.09	0.08
18.000	0.08	0.08	0.07	0.07	0.07
18.250	0.06	0.06	0.06	0.05	0.05
18.500	0.05	0.05	0.05	0.04	0.04
18.750	0.04	0.04	0.04	0.03	0.03
19.000	0.03	0.03	0.03	0.03	0.03
19.250	0.03	0.02	0.02	0.02	0.02
19.500	0.02	0.02	0.02	0.02	0.02

Subsection: Hydrograph
Label: OCS-1A
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.02	0.02	0.01	0.01	0.01
20.000	0.01	0.01	0.01	0.01	0.01
20.250	0.01	0.01	0.01	0.01	0.01
20.500	0.01	0.01	0.01	0.01	0.01
20.750	0.01	0.01	0.01	0.01	0.01
21.000	0.01	0.01	0.01	0.00	0.00
21.250	0.00	0.00	0.00	0.00	0.00
21.500	0.00	0.00	0.00	0.00	0.00
21.750	0.00	0.00	0.00	0.00	0.00
22.000	0.00	0.00	0.00	0.00	0.00
22.250	0.00	0.00	0.00	0.00	0.00
22.500	0.00	0.00	0.00	0.00	0.00
22.750	0.00	0.00	0.00	0.00	0.00
23.000	0.00	0.00	0.00	0.00	0.00
23.250	0.00	0.00	0.00	0.00	0.00
23.500	0.00	0.00	0.00	0.00	0.00
23.750	0.00	0.00	0.00	0.00	0.00
24.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: OCS-1B
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	0.16 ft³/s
Time to Peak	13.150 hours
Hydrograph Volume	4,020.747 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.750	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.250	0.00	0.00	0.00	0.00	0.00
11.500	0.00	0.00	0.00	0.00	0.00
11.750	0.00	0.00	0.01	0.01	0.01
12.000	0.03	0.05	0.08	0.10	0.11
12.250	0.12	0.13	0.14	0.14	0.15
12.500	0.15	0.15	0.15	0.15	0.15
12.750	0.15	0.16	0.16	0.16	0.16
13.000	0.16	0.16	0.16	0.16	0.16
13.250	0.16	0.16	0.16	0.16	0.16
13.500	0.16	0.16	0.16	0.16	0.16
13.750	0.16	0.15	0.15	0.15	0.15
14.000	0.15	0.15	0.15	0.15	0.15
14.250	0.15	0.15	0.15	0.15	0.15
14.500	0.15	0.15	0.15	0.15	0.15
14.750	0.15	0.15	0.14	0.14	0.14
15.000	0.14	0.14	0.14	0.14	0.14
15.250	0.14	0.14	0.14	0.14	0.14
15.500	0.14	0.14	0.13	0.13	0.13
15.750	0.13	0.13	0.13	0.13	0.13
16.000	0.13	0.13	0.13	0.13	0.13
16.250	0.12	0.12	0.12	0.12	0.12
16.500	0.12	0.12	0.12	0.12	0.12
16.750	0.12	0.11	0.11	0.11	0.11
17.000	0.11	0.11	0.11	0.11	0.11
17.250	0.11	0.11	0.11	0.10	0.10
17.500	0.10	0.10	0.10	0.10	0.10
17.750	0.10	0.10	0.10	0.10	0.09
18.000	0.09	0.09	0.09	0.09	0.09
18.250	0.09	0.09	0.09	0.09	0.09
18.500	0.09	0.08	0.08	0.08	0.08
18.750	0.08	0.08	0.08	0.08	0.08
19.000	0.07	0.07	0.07	0.07	0.07
19.250	0.07	0.07	0.07	0.07	0.07
19.500	0.07	0.06	0.06	0.06	0.06

Subsection: Hydrograph	Return Event: 1 years
Label: OCS-1B	Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
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	0.05	0.05	0.05	0.05
20.500	0.05	0.05	0.05	0.05	0.05
20.750	0.05	0.05	0.05	0.05	0.05
21.000	0.05	0.05	0.05	0.05	0.05
21.250	0.05	0.05	0.05	0.05	0.04
21.500	0.04	0.04	0.04	0.04	0.04
21.750	0.04	0.04	0.04	0.04	0.04
22.000	0.04	0.04	0.04	0.04	0.04
22.250	0.04	0.04	0.04	0.04	0.04
22.500	0.04	0.04	0.04	0.04	0.04
22.750	0.04	0.04	0.04	0.04	0.04
23.000	0.04	0.04	0.04	0.04	0.03
23.250	0.03	0.03	0.03	0.03	0.03
23.500	0.03	0.03	0.03	0.03	0.03
23.750	0.03	0.03	0.03	0.03	0.03
24.000	0.03	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: OCS-1B
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	2.10 ft^3/s
Time to Peak	12.300 hours
Hydrograph Volume	13,422.454 ft^3

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
0.000	0.00	0.00	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph | Return Event: 10 years
Label: OCS-1B | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.01	0.01	0.01	0.01
10.500	0.01	0.01	0.01	0.01	0.01
10.750	0.01	0.01	0.01	0.02	0.02
11.000	0.02	0.03	0.03	0.03	0.04
11.250	0.04	0.04	0.05	0.05	0.06
11.500	0.06	0.07	0.08	0.09	0.10
11.750	0.11	0.12	0.14	0.15	0.17
12.000	0.20	0.23	0.34	1.25	1.88
12.250	2.09	2.10	2.02	1.88	1.70
12.500	1.52	1.33	1.15	1.01	0.91
12.750	0.83	0.77	0.71	0.67	0.63
13.000	0.59	0.56	0.53	0.52	0.50
13.250	0.49	0.48	0.47	0.46	0.45
13.500	0.44	0.43	0.42	0.41	0.40
13.750	0.40	0.39	0.38	0.37	0.37
14.000	0.36	0.35	0.35	0.34	0.33
14.250	0.33	0.32	0.32	0.31	0.31
14.500	0.31	0.30	0.30	0.29	0.29
14.750	0.29	0.28	0.28	0.28	0.27
15.000	0.27	0.26	0.26	0.26	0.26
15.250	0.26	0.26	0.26	0.26	0.26
15.500	0.26	0.26	0.26	0.26	0.26
15.750	0.26	0.26	0.26	0.26	0.26
16.000	0.26	0.26	0.27	0.27	0.27
16.250	0.27	0.26	0.26	0.26	0.26
16.500	0.25	0.25	0.25	0.25	0.25
16.750	0.24	0.24	0.24	0.24	0.24
17.000	0.24	0.24	0.24	0.23	0.23
17.250	0.23	0.23	0.23	0.23	0.23
17.500	0.23	0.23	0.23	0.22	0.22
17.750	0.22	0.22	0.22	0.22	0.22
18.000	0.22	0.22	0.22	0.22	0.21
18.250	0.21	0.21	0.21	0.21	0.21
18.500	0.21	0.21	0.21	0.21	0.20
18.750	0.20	0.20	0.20	0.20	0.20
19.000	0.20	0.20	0.20	0.20	0.20
19.250	0.19	0.19	0.19	0.19	0.19
19.500	0.19	0.19	0.19	0.19	0.19

Subsection: Hydrograph
Label: OCS-1B
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.18	0.18	0.18	0.18	0.18
20.000	0.18	0.18	0.18	0.18	0.18
20.250	0.18	0.17	0.17	0.17	0.17
20.500	0.17	0.17	0.17	0.17	0.17
20.750	0.17	0.16	0.16	0.16	0.16
21.000	0.16	0.16	0.16	0.16	0.16
21.250	0.16	0.15	0.15	0.15	0.15
21.500	0.15	0.15	0.15	0.15	0.15
21.750	0.15	0.15	0.15	0.14	0.14
22.000	0.14	0.14	0.14	0.14	0.14
22.250	0.14	0.14	0.14	0.14	0.13
22.500	0.13	0.13	0.13	0.13	0.13
22.750	0.13	0.13	0.13	0.13	0.13
23.000	0.13	0.13	0.12	0.12	0.12
23.250	0.12	0.12	0.12	0.12	0.12
23.500	0.12	0.12	0.12	0.12	0.11
23.750	0.11	0.11	0.11	0.11	0.11
24.000	0.11	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: OCS-1B
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Peak Discharge	6.29 ft³/s
Time to Peak	12.200 hours
Hydrograph Volume	33,323.910 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.01	0.01	0.01	0.01
8.250	0.01	0.01	0.01	0.01	0.01
8.500	0.01	0.01	0.01	0.01	0.01
8.750	0.02	0.02	0.02	0.02	0.03
9.000	0.03	0.03	0.03	0.04	0.04

Subsection: Hydrograph
Label: OCS-1B
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.04	0.05	0.05	0.05	0.06
9.500	0.06	0.06	0.07	0.07	0.07
9.750	0.08	0.08	0.09	0.09	0.09
10.000	0.09	0.10	0.10	0.10	0.11
10.250	0.11	0.11	0.12	0.12	0.12
10.500	0.13	0.13	0.13	0.14	0.14
10.750	0.15	0.15	0.15	0.16	0.16
11.000	0.17	0.17	0.18	0.18	0.18
11.250	0.19	0.19	0.20	0.21	0.21
11.500	0.22	0.23	0.24	0.26	0.30
11.750	0.77	1.45	2.17	2.90	3.75
12.000	4.69	5.37	5.87	6.19	6.29
12.250	6.23	6.10	5.94	5.71	5.42
12.500	5.04	4.52	3.80	3.01	2.39
12.750	2.02	1.76	1.59	1.46	1.36
13.000	1.27	1.19	1.13	1.07	1.03
13.250	1.01	0.98	0.96	0.94	0.92
13.500	0.90	0.89	0.87	0.85	0.84
13.750	0.82	0.80	0.79	0.77	0.76
14.000	0.74	0.73	0.71	0.70	0.69
14.250	0.67	0.66	0.66	0.65	0.64
14.500	0.63	0.62	0.61	0.61	0.60
14.750	0.59	0.58	0.58	0.57	0.56
15.000	0.55	0.55	0.54	0.53	0.53
15.250	0.52	0.52	0.51	0.50	0.50
15.500	0.49	0.48	0.47	0.47	0.46
15.750	0.45	0.44	0.44	0.43	0.42
16.000	0.41	0.41	0.40	0.39	0.39
16.250	0.38	0.37	0.37	0.36	0.36
16.500	0.36	0.35	0.35	0.34	0.34
16.750	0.34	0.33	0.33	0.32	0.32
17.000	0.32	0.31	0.31	0.31	0.30
17.250	0.30	0.30	0.29	0.29	0.29
17.500	0.28	0.28	0.28	0.27	0.27
17.750	0.27	0.26	0.26	0.26	0.26
18.000	0.26	0.26	0.26	0.26	0.26
18.250	0.26	0.26	0.26	0.26	0.26
18.500	0.26	0.26	0.26	0.26	0.26
18.750	0.26	0.26	0.26	0.26	0.26
19.000	0.26	0.27	0.27	0.27	0.27
19.250	0.27	0.27	0.26	0.26	0.26
19.500	0.26	0.26	0.26	0.26	0.25

Subsection: Hydrograph | Return Event: 100 years
Label: OCS-1B | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.25	0.25	0.25	0.25	0.25
20.000	0.25	0.25	0.24	0.24	0.24
20.250	0.24	0.24	0.24	0.24	0.24
20.500	0.24	0.24	0.24	0.23	0.23
20.750	0.23	0.23	0.23	0.23	0.23
21.000	0.23	0.23	0.23	0.23	0.23
21.250	0.23	0.23	0.23	0.23	0.23
21.500	0.22	0.22	0.22	0.22	0.22
21.750	0.22	0.22	0.22	0.22	0.22
22.000	0.22	0.22	0.22	0.22	0.22
22.250	0.22	0.22	0.22	0.21	0.21
22.500	0.21	0.21	0.21	0.21	0.21
22.750	0.21	0.21	0.21	0.21	0.21
23.000	0.21	0.21	0.21	0.21	0.20
23.250	0.20	0.20	0.20	0.20	0.20
23.500	0.20	0.20	0.20	0.20	0.20
23.750	0.20	0.20	0.20	0.20	0.19
24.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: PO-7 (OUT)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	0.16 ft³/s
Time to Peak	13.150 hours
Hydrograph Volume	4,020.936 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph
Label: PO-7 (OUT)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.750	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.250	0.00	0.00	0.00	0.00	0.00
11.500	0.00	0.00	0.00	0.00	0.00
11.750	0.00	0.00	0.01	0.01	0.01
12.000	0.03	0.05	0.08	0.10	0.11
12.250	0.12	0.13	0.14	0.14	0.15
12.500	0.15	0.15	0.15	0.15	0.15
12.750	0.15	0.16	0.16	0.16	0.16
13.000	0.16	0.16	0.16	0.16	0.16
13.250	0.16	0.16	0.16	0.16	0.16
13.500	0.16	0.16	0.16	0.16	0.16
13.750	0.16	0.15	0.15	0.15	0.15
14.000	0.15	0.15	0.15	0.15	0.15
14.250	0.15	0.15	0.15	0.15	0.15
14.500	0.15	0.15	0.15	0.15	0.15
14.750	0.15	0.15	0.14	0.14	0.14
15.000	0.14	0.14	0.14	0.14	0.14
15.250	0.14	0.14	0.14	0.14	0.14
15.500	0.14	0.14	0.13	0.13	0.13
15.750	0.13	0.13	0.13	0.13	0.13
16.000	0.13	0.13	0.13	0.13	0.13
16.250	0.12	0.12	0.12	0.12	0.12
16.500	0.12	0.12	0.12	0.12	0.12
16.750	0.12	0.11	0.11	0.11	0.11
17.000	0.11	0.11	0.11	0.11	0.11
17.250	0.11	0.11	0.11	0.10	0.10
17.500	0.10	0.10	0.10	0.10	0.10
17.750	0.10	0.10	0.10	0.10	0.09
18.000	0.09	0.09	0.09	0.09	0.09
18.250	0.09	0.09	0.09	0.09	0.09
18.500	0.09	0.08	0.08	0.08	0.08
18.750	0.08	0.08	0.08	0.08	0.08
19.000	0.07	0.07	0.07	0.07	0.07
19.250	0.07	0.07	0.07	0.07	0.07
19.500	0.07	0.06	0.06	0.06	0.06

Subsection: Hydrograph
Label: PO-7 (OUT)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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	0.06	0.06	0.06	0.06	0.06
20.000	0.06	0.06	0.06	0.06	0.06
20.250	0.06	0.05	0.05	0.05	0.05
20.500	0.05	0.05	0.05	0.05	0.05
20.750	0.05	0.05	0.05	0.05	0.05
21.000	0.05	0.05	0.05	0.05	0.05
21.250	0.05	0.05	0.05	0.05	0.04
21.500	0.04	0.04	0.04	0.04	0.04
21.750	0.04	0.04	0.04	0.04	0.04
22.000	0.04	0.04	0.04	0.04	0.04
22.250	0.04	0.04	0.04	0.04	0.04
22.500	0.04	0.04	0.04	0.04	0.04
22.750	0.04	0.04	0.04	0.04	0.04
23.000	0.04	0.04	0.04	0.04	0.03
23.250	0.03	0.03	0.03	0.03	0.03
23.500	0.03	0.03	0.03	0.03	0.03
23.750	0.03	0.03	0.03	0.03	0.03
24.000	0.03	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: PO-7 (OUT)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	2.10 ft³/s
Time to Peak	12.300 hours
Hydrograph Volume	13,422.885 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph
Label: PO-7 (OUT)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.01	0.01	0.01	0.01
10.500	0.01	0.01	0.01	0.01	0.01
10.750	0.01	0.01	0.01	0.02	0.02
11.000	0.02	0.03	0.03	0.03	0.04
11.250	0.04	0.04	0.05	0.05	0.06
11.500	0.06	0.07	0.08	0.09	0.10
11.750	0.11	0.12	0.14	0.15	0.17
12.000	0.20	0.23	0.34	1.25	1.88
12.250	2.09	2.10	2.02	1.88	1.70
12.500	1.52	1.33	1.15	1.01	0.91
12.750	0.83	0.77	0.71	0.67	0.63
13.000	0.59	0.56	0.53	0.52	0.50
13.250	0.49	0.48	0.47	0.46	0.45
13.500	0.44	0.43	0.42	0.41	0.40
13.750	0.40	0.39	0.38	0.37	0.37
14.000	0.36	0.35	0.35	0.34	0.33
14.250	0.33	0.32	0.32	0.31	0.31
14.500	0.31	0.30	0.30	0.29	0.29
14.750	0.29	0.28	0.28	0.28	0.27
15.000	0.27	0.26	0.26	0.26	0.26
15.250	0.26	0.26	0.26	0.26	0.26
15.500	0.26	0.26	0.26	0.26	0.26
15.750	0.26	0.26	0.26	0.26	0.26
16.000	0.26	0.26	0.27	0.27	0.27
16.250	0.27	0.26	0.26	0.26	0.26
16.500	0.25	0.25	0.25	0.25	0.25
16.750	0.24	0.24	0.24	0.24	0.24
17.000	0.24	0.24	0.24	0.23	0.23
17.250	0.23	0.23	0.23	0.23	0.23
17.500	0.23	0.23	0.23	0.22	0.22
17.750	0.22	0.22	0.22	0.22	0.22
18.000	0.22	0.22	0.22	0.22	0.21
18.250	0.21	0.21	0.21	0.21	0.21
18.500	0.21	0.21	0.21	0.21	0.20
18.750	0.20	0.20	0.20	0.20	0.20
19.000	0.20	0.20	0.20	0.20	0.20
19.250	0.19	0.19	0.19	0.19	0.19
19.500	0.19	0.19	0.19	0.19	0.19

Subsection: Hydrograph Return Event: 10 years
Label: PO-7 (OUT) Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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 (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.18	0.18	0.18	0.18	0.18
20.000	0.18	0.18	0.18	0.18	0.18
20.250	0.18	0.17	0.17	0.17	0.17
20.500	0.17	0.17	0.17	0.17	0.17
20.750	0.17	0.16	0.16	0.16	0.16
21.000	0.16	0.16	0.16	0.16	0.16
21.250	0.16	0.15	0.15	0.15	0.15
21.500	0.15	0.15	0.15	0.15	0.15
21.750	0.15	0.15	0.15	0.14	0.14
22.000	0.14	0.14	0.14	0.14	0.14
22.250	0.14	0.14	0.14	0.14	0.13
22.500	0.13	0.13	0.13	0.13	0.13
22.750	0.13	0.13	0.13	0.13	0.13
23.000	0.13	0.13	0.12	0.12	0.12
23.250	0.12	0.12	0.12	0.12	0.12
23.500	0.12	0.12	0.12	0.12	0.11
23.750	0.11	0.11	0.11	0.11	0.11
24.000	0.11	(N/A)	(N/A)	(N/A)	(N/A)

Peak Discharge	6.29 ft³/s
Time to Peak	12.200 hours
Hydrograph Volume	33,341.803 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.01	0.01	0.01	0.01
8.250	0.01	0.01	0.01	0.01	0.01
8.500	0.01	0.01	0.01	0.01	0.01
8.750	0.02	0.02	0.02	0.02	0.03
9.000	0.03	0.03	0.03	0.04	0.04

Subsection: Hydrograph
Label: PO-7 (OUT)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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)
9.250	0.04	0.05	0.05	0.05	0.06
9.500	0.06	0.06	0.07	0.07	0.07
9.750	0.08	0.08	0.09	0.09	0.09
10.000	0.09	0.10	0.10	0.10	0.11
10.250	0.11	0.11	0.12	0.12	0.12
10.500	0.13	0.13	0.13	0.14	0.14
10.750	0.15	0.15	0.15	0.16	0.16
11.000	0.17	0.17	0.18	0.18	0.18
11.250	0.19	0.19	0.20	0.21	0.21
11.500	0.22	0.23	0.24	0.26	0.30
11.750	0.77	1.45	2.17	2.90	3.75
12.000	4.69	5.37	5.87	6.19	6.29
12.250	6.23	6.10	5.94	5.71	5.42
12.500	5.04	4.52	3.80	3.01	2.39
12.750	2.02	1.76	1.59	1.46	1.36
13.000	1.27	1.19	1.13	1.07	1.03
13.250	1.01	0.98	0.96	0.94	0.92
13.500	0.90	0.89	0.87	0.85	0.84
13.750	0.82	0.80	0.79	0.77	0.76
14.000	0.74	0.73	0.71	0.70	0.69
14.250	0.67	0.66	0.66	0.65	0.64
14.500	0.63	0.62	0.61	0.61	0.60
14.750	0.59	0.58	0.58	0.57	0.56
15.000	0.55	0.55	0.54	0.53	0.53
15.250	0.52	0.52	0.51	0.50	0.50
15.500	0.49	0.48	0.47	0.47	0.46
15.750	0.45	0.44	0.44	0.43	0.42
16.000	0.41	0.41	0.40	0.39	0.39
16.250	0.38	0.37	0.37	0.36	0.36
16.500	0.36	0.35	0.35	0.34	0.34
16.750	0.34	0.33	0.33	0.32	0.32
17.000	0.32	0.31	0.31	0.31	0.30
17.250	0.30	0.30	0.29	0.29	0.29
17.500	0.28	0.28	0.28	0.27	0.27
17.750	0.27	0.26	0.26	0.26	0.26
18.000	0.26	0.26	0.26	0.26	0.26
18.250	0.26	0.26	0.26	0.26	0.26
18.500	0.26	0.26	0.26	0.26	0.26
18.750	0.26	0.26	0.26	0.26	0.26
19.000	0.26	0.27	0.27	0.27	0.27
19.250	0.27	0.27	0.26	0.26	0.26
19.500	0.26	0.26	0.26	0.26	0.25

Subsection: Hydrograph
Label: PO-7 (OUT)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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	0.25	0.25	0.25	0.25	0.25
20.000	0.25	0.25	0.24	0.24	0.24
20.250	0.24	0.24	0.24	0.24	0.24
20.500	0.24	0.24	0.24	0.23	0.23
20.750	0.23	0.23	0.23	0.23	0.23
21.000	0.23	0.23	0.23	0.23	0.23
21.250	0.23	0.23	0.23	0.23	0.23
21.500	0.22	0.22	0.22	0.22	0.22
21.750	0.22	0.22	0.22	0.22	0.22
22.000	0.22	0.22	0.22	0.22	0.22
22.250	0.22	0.22	0.22	0.21	0.21
22.500	0.21	0.21	0.21	0.21	0.21
22.750	0.21	0.21	0.21	0.21	0.21
23.000	0.21	0.21	0.21	0.21	0.20
23.250	0.20	0.20	0.20	0.20	0.20
23.500	0.20	0.20	0.20	0.20	0.20
23.750	0.20	0.20	0.20	0.20	0.19
24.000	0.19	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph | Return Event: 1 years
Label: PO-7 (IN) | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

Peak Discharge	1.16 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	4,374.086 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph
Label: PO-7 (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.750	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.250	0.00	0.00	0.00	0.00	0.01
11.500	0.01	0.02	0.03	0.05	0.07
11.750	0.11	0.16	0.22	0.29	0.49
12.000	0.80	1.00	1.16	1.05	0.80
12.250	0.71	0.64	0.58	0.51	0.43
12.500	0.35	0.30	0.25	0.23	0.22
12.750	0.21	0.21	0.20	0.19	0.18
13.000	0.17	0.16	0.16	0.16	0.15
13.250	0.15	0.15	0.15	0.15	0.14
13.500	0.14	0.14	0.14	0.14	0.13
13.750	0.13	0.13	0.13	0.12	0.12
14.000	0.12	0.12	0.11	0.11	0.11
14.250	0.11	0.11	0.11	0.11	0.11
14.500	0.11	0.10	0.10	0.10	0.10
14.750	0.10	0.10	0.10	0.10	0.10
15.000	0.09	0.09	0.09	0.09	0.09
15.250	0.09	0.09	0.09	0.08	0.08
15.500	0.08	0.08	0.08	0.08	0.08
15.750	0.07	0.07	0.07	0.07	0.07
16.000	0.07	0.07	0.07	0.07	0.06
16.250	0.06	0.06	0.06	0.06	0.06
16.500	0.06	0.06	0.06	0.06	0.06
16.750	0.06	0.06	0.06	0.06	0.06
17.000	0.06	0.05	0.05	0.05	0.05
17.250	0.05	0.05	0.05	0.05	0.05
17.500	0.05	0.05	0.05	0.05	0.05
17.750	0.05	0.05	0.04	0.04	0.04
18.000	0.04	0.04	0.04	0.04	0.04
18.250	0.04	0.04	0.04	0.04	0.04
18.500	0.04	0.04	0.04	0.04	0.04
18.750	0.04	0.04	0.04	0.04	0.04
19.000	0.04	0.04	0.04	0.04	0.04
19.250	0.04	0.04	0.04	0.04	0.04
19.500	0.04	0.04	0.04	0.04	0.04

Subsection: Hydrograph | Return Event: 1 years
Label: PO-7 (IN) | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.04	0.04	0.04	0.04	0.04
20.000	0.04	0.04	0.03	0.03	0.03
20.250	0.03	0.03	0.03	0.03	0.03
20.500	0.03	0.03	0.03	0.03	0.03
20.750	0.03	0.03	0.03	0.03	0.03
21.000	0.03	0.03	0.03	0.03	0.03
21.250	0.03	0.03	0.03	0.03	0.03
21.500	0.03	0.03	0.03	0.03	0.03
21.750	0.03	0.03	0.03	0.03	0.03
22.000	0.03	0.03	0.03	0.03	0.03
22.250	0.03	0.03	0.03	0.03	0.03
22.500	0.03	0.03	0.03	0.03	0.03
22.750	0.03	0.03	0.03	0.03	0.03
23.000	0.03	0.03	0.03	0.03	0.03
23.250	0.03	0.03	0.03	0.03	0.03
23.500	0.03	0.03	0.03	0.02	0.02
23.750	0.02	0.02	0.02	0.02	0.02
24.000	0.02	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph | Return Event: 10 years
Label: PO-7 (IN) | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

Peak Discharge	4.14 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	14,390.882 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph
Label: PO-7 (IN)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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)
9.250	0.00	0.00	0.00	0.01	0.01
9.500	0.01	0.01	0.01	0.02	0.02
9.750	0.02	0.02	0.03	0.03	0.03
10.000	0.04	0.04	0.04	0.05	0.05
10.250	0.05	0.06	0.06	0.07	0.07
10.500	0.08	0.08	0.08	0.09	0.10
10.750	0.10	0.11	0.11	0.12	0.13
11.000	0.13	0.14	0.15	0.16	0.18
11.250	0.19	0.21	0.23	0.25	0.27
11.500	0.29	0.35	0.42	0.55	0.71
11.750	0.89	1.08	1.30	1.55	2.33
12.000	3.36	3.83	4.14	3.54	2.62
12.250	2.24	1.99	1.76	1.53	1.29
12.500	1.04	0.88	0.73	0.67	0.64
12.750	0.62	0.59	0.56	0.54	0.51
13.000	0.48	0.47	0.45	0.44	0.43
13.250	0.43	0.42	0.41	0.41	0.40
13.500	0.39	0.39	0.38	0.37	0.36
13.750	0.36	0.35	0.34	0.34	0.33
14.000	0.32	0.32	0.31	0.31	0.30
14.250	0.30	0.30	0.29	0.29	0.29
14.500	0.28	0.28	0.28	0.27	0.27
14.750	0.27	0.26	0.26	0.26	0.25
15.000	0.25	0.25	0.24	0.24	0.24
15.250	0.23	0.23	0.22	0.22	0.22
15.500	0.21	0.21	0.21	0.20	0.20
15.750	0.20	0.19	0.19	0.18	0.18
16.000	0.18	0.17	0.17	0.17	0.17
16.250	0.17	0.17	0.16	0.16	0.16
16.500	0.16	0.16	0.16	0.15	0.15
16.750	0.15	0.15	0.15	0.15	0.14
17.000	0.14	0.14	0.14	0.14	0.14
17.250	0.13	0.13	0.13	0.13	0.13
17.500	0.13	0.13	0.12	0.12	0.12
17.750	0.12	0.12	0.12	0.11	0.11
18.000	0.11	0.11	0.11	0.11	0.11
18.250	0.11	0.11	0.11	0.11	0.10
18.500	0.10	0.10	0.10	0.10	0.10
18.750	0.10	0.10	0.10	0.10	0.10
19.000	0.10	0.10	0.10	0.10	0.10
19.250	0.10	0.10	0.10	0.10	0.10
19.500	0.09	0.09	0.09	0.09	0.09

Subsection: Hydrograph Return Event: 10 years
Label: PO-7 (IN) Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.09	0.09	0.09	0.09	0.09
20.000	0.09	0.09	0.09	0.09	0.09
20.250	0.09	0.09	0.09	0.09	0.09
20.500	0.09	0.09	0.09	0.08	0.08
20.750	0.08	0.08	0.08	0.08	0.08
21.000	0.08	0.08	0.08	0.08	0.08
21.250	0.08	0.08	0.08	0.08	0.08
21.500	0.08	0.08	0.08	0.08	0.08
21.750	0.08	0.08	0.08	0.08	0.08
22.000	0.07	0.07	0.07	0.07	0.07
22.250	0.07	0.07	0.07	0.07	0.07
22.500	0.07	0.07	0.07	0.07	0.07
22.750	0.07	0.07	0.07	0.07	0.07
23.000	0.07	0.07	0.07	0.07	0.07
23.250	0.07	0.06	0.06	0.06	0.06
23.500	0.06	0.06	0.06	0.06	0.06
23.750	0.06	0.06	0.06	0.06	0.06
24.000	0.06	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: PO-7 (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Peak Discharge	10.07 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	35,542.393 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.01	0.01	0.01	0.01
7.250	0.01	0.02	0.02	0.02	0.02
7.500	0.02	0.03	0.03	0.03	0.03
7.750	0.03	0.04	0.04	0.04	0.04
8.000	0.05	0.05	0.05	0.05	0.06
8.250	0.06	0.07	0.07	0.07	0.08
8.500	0.08	0.09	0.09	0.09	0.10
8.750	0.10	0.11	0.11	0.12	0.12
9.000	0.13	0.13	0.14	0.15	0.15

Subsection: Hydrograph
Label: PO-7 (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.16	0.16	0.17	0.18	0.18
9.500	0.19	0.20	0.20	0.21	0.22
9.750	0.22	0.23	0.24	0.25	0.25
10.000	0.26	0.27	0.28	0.29	0.30
10.250	0.32	0.33	0.34	0.35	0.37
10.500	0.38	0.39	0.41	0.42	0.44
10.750	0.45	0.47	0.48	0.50	0.51
11.000	0.53	0.56	0.59	0.63	0.67
11.250	0.72	0.77	0.81	0.87	0.92
11.500	0.97	1.16	1.38	1.77	2.21
11.750	2.69	3.20	3.73	4.31	6.26
12.000	8.72	9.61	10.07	8.43	6.13
12.250	5.19	4.56	4.00	3.45	2.89
12.500	2.33	1.95	1.62	1.49	1.42
12.750	1.36	1.30	1.24	1.18	1.12
13.000	1.06	1.02	0.98	0.96	0.94
13.250	0.93	0.91	0.90	0.88	0.86
13.500	0.85	0.83	0.82	0.80	0.79
13.750	0.77	0.76	0.74	0.72	0.71
14.000	0.69	0.68	0.67	0.66	0.65
14.250	0.64	0.64	0.63	0.62	0.61
14.500	0.61	0.60	0.59	0.58	0.58
14.750	0.57	0.56	0.55	0.54	0.54
15.000	0.53	0.52	0.51	0.51	0.50
15.250	0.49	0.48	0.48	0.47	0.46
15.500	0.45	0.44	0.44	0.43	0.42
15.750	0.41	0.41	0.40	0.39	0.38
16.000	0.37	0.37	0.36	0.36	0.35
16.250	0.35	0.35	0.34	0.34	0.34
16.500	0.33	0.33	0.33	0.32	0.32
16.750	0.32	0.31	0.31	0.31	0.30
17.000	0.30	0.30	0.29	0.29	0.28
17.250	0.28	0.28	0.28	0.27	0.27
17.500	0.27	0.26	0.26	0.25	0.25
17.750	0.25	0.24	0.24	0.24	0.23
18.000	0.23	0.23	0.22	0.22	0.22
18.250	0.22	0.22	0.22	0.22	0.22
18.500	0.22	0.22	0.21	0.21	0.21
18.750	0.21	0.21	0.21	0.21	0.21
19.000	0.21	0.21	0.20	0.20	0.20
19.250	0.20	0.20	0.20	0.20	0.20
19.500	0.20	0.19	0.19	0.19	0.19

Subsection: Hydrograph
Label: PO-7 (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.19	0.19	0.19	0.19	0.19
20.000	0.19	0.18	0.18	0.18	0.18
20.250	0.18	0.18	0.18	0.18	0.18
20.500	0.18	0.18	0.18	0.17	0.17
20.750	0.17	0.17	0.17	0.17	0.17
21.000	0.17	0.17	0.17	0.17	0.17
21.250	0.17	0.16	0.16	0.16	0.16
21.500	0.16	0.16	0.16	0.16	0.16
21.750	0.16	0.16	0.16	0.16	0.15
22.000	0.15	0.15	0.15	0.15	0.15
22.250	0.15	0.15	0.15	0.15	0.15
22.500	0.15	0.15	0.15	0.14	0.14
22.750	0.14	0.14	0.14	0.14	0.14
23.000	0.14	0.14	0.14	0.14	0.14
23.250	0.13	0.13	0.13	0.13	0.13
23.500	0.13	0.13	0.13	0.13	0.13
23.750	0.13	0.13	0.12	0.12	0.12
24.000	0.12	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: PROP-POND (OUT)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	0.34 ft³/s
Time to Peak	16.750 hours
Hydrograph Volume	14,442.256 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph
Label: PROP-POND (OUT)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.01	0.01	0.01	0.01	0.01
10.250	0.01	0.01	0.01	0.01	0.01
10.500	0.01	0.01	0.01	0.01	0.01
10.750	0.01	0.02	0.02	0.02	0.02
11.000	0.03	0.03	0.03	0.03	0.04
11.250	0.04	0.04	0.05	0.05	0.06
11.500	0.06	0.07	0.08	0.08	0.10
11.750	0.10	0.11	0.12	0.14	0.15
12.000	0.17	0.19	0.21	0.23	0.25
12.250	0.26	0.27	0.28	0.28	0.29
12.500	0.29	0.30	0.30	0.30	0.31
12.750	0.31	0.31	0.31	0.31	0.31
13.000	0.32	0.32	0.32	0.32	0.32
13.250	0.32	0.32	0.32	0.32	0.32
13.500	0.32	0.32	0.33	0.33	0.33
13.750	0.33	0.33	0.33	0.33	0.33
14.000	0.33	0.33	0.33	0.33	0.33
14.250	0.33	0.33	0.33	0.33	0.33
14.500	0.33	0.33	0.34	0.34	0.34
14.750	0.34	0.34	0.34	0.34	0.34
15.000	0.34	0.34	0.34	0.34	0.34
15.250	0.34	0.34	0.34	0.34	0.34
15.500	0.34	0.34	0.34	0.34	0.34
15.750	0.34	0.34	0.34	0.34	0.34
16.000	0.34	0.34	0.34	0.34	0.34
16.250	0.34	0.34	0.34	0.34	0.34
16.500	0.34	0.34	0.34	0.34	0.34
16.750	0.34	0.34	0.34	0.34	0.34
17.000	0.34	0.34	0.34	0.34	0.34
17.250	0.34	0.34	0.34	0.34	0.34
17.500	0.34	0.34	0.34	0.34	0.34
17.750	0.34	0.34	0.34	0.34	0.34
18.000	0.34	0.34	0.34	0.34	0.34
18.250	0.34	0.34	0.34	0.34	0.34
18.500	0.34	0.34	0.34	0.34	0.34
18.750	0.34	0.34	0.34	0.34	0.34
19.000	0.34	0.34	0.34	0.34	0.34
19.250	0.34	0.34	0.34	0.34	0.34
19.500	0.34	0.34	0.33	0.33	0.33

Subsection: Hydrograph | Return Event: 1 years
Label: PROP-POND (OUT) | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.33	0.33	0.33	0.33	0.33
20.000	0.33	0.33	0.33	0.33	0.33
20.250	0.33	0.33	0.33	0.33	0.33
20.500	0.33	0.33	0.33	0.33	0.33
20.750	0.33	0.33	0.33	0.33	0.33
21.000	0.33	0.33	0.33	0.33	0.33
21.250	0.33	0.33	0.33	0.33	0.33
21.500	0.33	0.33	0.32	0.32	0.32
21.750	0.32	0.32	0.32	0.32	0.32
22.000	0.32	0.32	0.32	0.32	0.32
22.250	0.32	0.32	0.32	0.32	0.32
22.500	0.32	0.32	0.32	0.32	0.32
22.750	0.32	0.32	0.32	0.32	0.32
23.000	0.32	0.32	0.32	0.32	0.32
23.250	0.32	0.31	0.31	0.31	0.31
23.500	0.31	0.31	0.31	0.31	0.31
23.750	0.31	0.31	0.31	0.31	0.31
24.000	0.31	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: PROP-POND (OUT)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	7.42 ft³/s
Time to Peak	12.400 hours
Hydrograph Volume	57,443.100 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.01	0.01	0.01	0.01
7.750	0.01	0.01	0.01	0.01	0.01
8.000	0.01	0.01	0.01	0.01	0.01
8.250	0.01	0.01	0.01	0.01	0.01
8.500	0.01	0.02	0.02	0.02	0.02
8.750	0.02	0.03	0.03	0.03	0.03
9.000	0.04	0.04	0.04	0.05	0.05

Subsection: Hydrograph	Return Event: 10 years
Label: PROP-POND (OUT)	Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.05	0.05	0.06	0.06	0.06
9.500	0.07	0.07	0.07	0.08	0.08
9.750	0.09	0.09	0.09	0.10	0.10
10.000	0.10	0.10	0.11	0.11	0.11
10.250	0.11	0.12	0.12	0.12	0.13
10.500	0.13	0.13	0.14	0.14	0.14
10.750	0.14	0.15	0.15	0.15	0.16
11.000	0.16	0.16	0.17	0.17	0.18
11.250	0.18	0.18	0.19	0.19	0.20
11.500	0.20	0.21	0.22	0.22	0.24
11.750	0.25	0.26	0.28	0.29	0.31
12.000	0.33	0.35	1.45	3.26	4.86
12.250	6.05	6.82	7.25	7.42	7.40
12.500	7.21	6.91	6.55	6.17	5.80
12.750	5.46	5.16	4.89	4.63	4.40
13.000	4.18	3.98	3.79	3.62	3.47
13.250	3.33	3.21	3.09	2.99	2.89
13.500	2.80	2.71	2.63	2.56	2.50
13.750	2.43	2.37	2.31	2.26	2.20
14.000	2.15	2.10	2.05	2.00	1.95
14.250	1.91	1.86	1.82	1.79	1.76
14.500	1.73	1.70	1.66	1.63	1.61
14.750	1.58	1.55	1.52	1.49	1.47
15.000	1.44	1.41	1.39	1.36	1.34
15.250	1.31	1.29	1.27	1.25	1.22
15.500	1.20	1.18	1.16	1.14	1.13
15.750	1.11	1.10	1.08	1.07	1.05
16.000	1.04	1.02	1.01	0.99	0.98
16.250	0.97	0.95	0.94	0.93	0.92
16.500	0.91	0.89	0.88	0.87	0.86
16.750	0.85	0.84	0.83	0.82	0.81
17.000	0.80	0.79	0.78	0.77	0.77
17.250	0.76	0.75	0.74	0.73	0.72
17.500	0.72	0.71	0.70	0.69	0.69
17.750	0.68	0.67	0.66	0.66	0.65
18.000	0.64	0.63	0.63	0.63	0.62
18.250	0.62	0.62	0.61	0.61	0.61
18.500	0.60	0.60	0.59	0.59	0.59
18.750	0.58	0.58	0.58	0.57	0.57
19.000	0.57	0.56	0.56	0.56	0.55
19.250	0.55	0.55	0.54	0.54	0.54
19.500	0.54	0.53	0.53	0.53	0.52

Subsection: Hydrograph | Return Event: 10 years
Label: PROP-POND (OUT) | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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 (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.52	0.52	0.52	0.51	0.51
20.000	0.51	0.50	0.50	0.50	0.50
20.250	0.49	0.49	0.49	0.49	0.48
20.500	0.48	0.48	0.47	0.47	0.47
20.750	0.47	0.46	0.46	0.46	0.46
21.000	0.46	0.45	0.45	0.45	0.45
21.250	0.44	0.44	0.44	0.44	0.43
21.500	0.43	0.43	0.43	0.42	0.42
21.750	0.42	0.42	0.42	0.41	0.41
22.000	0.41	0.41	0.41	0.40	0.40
22.250	0.40	0.40	0.39	0.39	0.39
22.500	0.39	0.39	0.38	0.38	0.38
22.750	0.38	0.38	0.37	0.37	0.37
23.000	0.37	0.37	0.36	0.36	0.36
23.250	0.36	0.35	0.35	0.35	0.35
23.500	0.35	0.35	0.35	0.35	0.35
23.750	0.35	0.35	0.35	0.35	0.35
24.000	0.35	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: PROP-POND (OUT)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Peak Discharge	29.37 ft³/s
Time to Peak	12.250 hours
Hydrograph Volume	160,441.665 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.01	0.01	0.01
5.250	0.01	0.01	0.01	0.01	0.01
5.500	0.01	0.01	0.01	0.01	0.01
5.750	0.01	0.01	0.01	0.01	0.01
6.000	0.01	0.02	0.02	0.02	0.02
6.250	0.02	0.02	0.03	0.03	0.03
6.500	0.03	0.04	0.04	0.04	0.04
6.750	0.04	0.05	0.05	0.05	0.06
7.000	0.06	0.06	0.06	0.07	0.07
7.250	0.07	0.08	0.08	0.08	0.09
7.500	0.09	0.09	0.10	0.10	0.10
7.750	0.10	0.10	0.11	0.11	0.11
8.000	0.11	0.12	0.12	0.12	0.12
8.250	0.13	0.13	0.13	0.13	0.14
8.500	0.14	0.14	0.14	0.15	0.15
8.750	0.15	0.16	0.16	0.16	0.16
9.000	0.17	0.17	0.17	0.18	0.18

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.18	0.19	0.19	0.19	0.20
9.500	0.20	0.20	0.21	0.21	0.21
9.750	0.22	0.22	0.22	0.23	0.23
10.000	0.24	0.24	0.24	0.25	0.25
10.250	0.26	0.26	0.26	0.27	0.27
10.500	0.28	0.28	0.28	0.29	0.29
10.750	0.30	0.30	0.31	0.31	0.32
11.000	0.32	0.32	0.33	0.33	0.33
11.250	0.34	0.34	0.35	0.35	0.48
11.500	0.67	1.00	1.42	1.97	2.70
11.750	3.66	4.91	6.46	8.30	10.93
12.000	15.06	19.72	24.25	27.71	29.15
12.250	29.37	28.90	27.99	26.80	25.39
12.500	23.82	22.22	20.59	18.98	17.45
12.750	15.91	14.48	13.23	12.13	11.19
13.000	10.34	9.58	8.92	8.33	7.82
13.250	7.38	7.00	6.66	6.37	6.10
13.500	5.87	5.65	5.46	5.29	5.12
13.750	4.97	4.83	4.69	4.56	4.44
14.000	4.33	4.23	4.12	4.03	3.93
14.250	3.85	3.77	3.69	3.62	3.55
14.500	3.48	3.43	3.37	3.31	3.26
14.750	3.21	3.15	3.10	3.05	3.00
15.000	2.95	2.91	2.86	2.81	2.77
15.250	2.72	2.68	2.63	2.59	2.55
15.500	2.51	2.47	2.43	2.39	2.35
15.750	2.31	2.27	2.23	2.19	2.15
16.000	2.11	2.07	2.03	1.99	1.95
16.250	1.92	1.88	1.85	1.82	1.79
16.500	1.76	1.73	1.71	1.68	1.66
16.750	1.63	1.61	1.59	1.56	1.54
17.000	1.52	1.49	1.47	1.45	1.43
17.250	1.41	1.39	1.36	1.34	1.32
17.500	1.30	1.28	1.26	1.24	1.22
17.750	1.20	1.18	1.16	1.15	1.13
18.000	1.12	1.10	1.09	1.08	1.06
18.250	1.05	1.04	1.03	1.02	1.01
18.500	1.00	0.99	0.98	0.98	0.97
18.750	0.96	0.95	0.95	0.94	0.93
19.000	0.93	0.92	0.91	0.91	0.90
19.250	0.90	0.89	0.89	0.88	0.88
19.500	0.87	0.87	0.86	0.86	0.85

Subsection: Hydrograph
Label: PROP-POND (OUT)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.85	0.84	0.84	0.83	0.83
20.000	0.82	0.82	0.81	0.81	0.80
20.250	0.80	0.79	0.79	0.78	0.78
20.500	0.77	0.77	0.77	0.76	0.76
20.750	0.75	0.75	0.75	0.74	0.74
21.000	0.74	0.73	0.73	0.73	0.72
21.250	0.72	0.72	0.71	0.71	0.71
21.500	0.70	0.70	0.70	0.70	0.69
21.750	0.69	0.69	0.68	0.68	0.68
22.000	0.67	0.67	0.67	0.67	0.66
22.250	0.66	0.66	0.65	0.65	0.65
22.500	0.64	0.64	0.64	0.64	0.63
22.750	0.63	0.63	0.63	0.63	0.63
23.000	0.62	0.62	0.62	0.62	0.62
23.250	0.61	0.61	0.61	0.61	0.60
23.500	0.60	0.60	0.60	0.59	0.59
23.750	0.59	0.59	0.58	0.58	0.58
24.000	0.58	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: PROP-POND (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	6.39 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	26,739.674 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.01	0.01
8.750	0.01	0.01	0.02	0.02	0.02
9.000	0.02	0.03	0.03	0.03	0.04

Subsection: Hydrograph
Label: PROP-POND (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
9.250	0.04	0.04	0.05	0.05	0.05
9.500	0.06	0.06	0.06	0.07	0.07
9.750	0.08	0.08	0.08	0.09	0.09
10.000	0.10	0.10	0.11	0.11	0.12
10.250	0.13	0.13	0.14	0.15	0.16
10.500	0.17	0.17	0.18	0.19	0.20
10.750	0.21	0.22	0.23	0.24	0.25
11.000	0.26	0.27	0.29	0.31	0.33
11.250	0.36	0.39	0.42	0.45	0.48
11.500	0.51	0.62	0.73	0.95	1.18
11.750	1.47	1.77	2.13	2.48	3.79
12.000	5.11	5.74	6.39	5.41	4.43
12.250	3.91	3.39	3.00	2.61	2.23
12.500	1.85	1.60	1.34	1.25	1.16
12.750	1.11	1.07	1.02	0.98	0.94
13.000	0.90	0.87	0.84	0.83	0.81
13.250	0.80	0.79	0.78	0.77	0.76
13.500	0.75	0.74	0.73	0.72	0.71
13.750	0.70	0.69	0.67	0.66	0.65
14.000	0.64	0.63	0.62	0.62	0.61
14.250	0.60	0.60	0.59	0.59	0.58
14.500	0.58	0.57	0.56	0.56	0.55
14.750	0.55	0.54	0.54	0.53	0.52
15.000	0.52	0.51	0.51	0.50	0.49
15.250	0.49	0.48	0.48	0.47	0.46
15.500	0.46	0.45	0.44	0.44	0.43
15.750	0.43	0.42	0.41	0.41	0.40
16.000	0.39	0.39	0.38	0.38	0.38
16.250	0.37	0.37	0.37	0.36	0.36
16.500	0.36	0.35	0.35	0.35	0.34
16.750	0.34	0.34	0.33	0.33	0.33
17.000	0.32	0.32	0.32	0.31	0.31
17.250	0.31	0.31	0.30	0.30	0.29
17.500	0.29	0.29	0.28	0.28	0.28
17.750	0.27	0.27	0.27	0.26	0.26
18.000	0.26	0.25	0.25	0.25	0.25
18.250	0.25	0.25	0.24	0.24	0.24
18.500	0.24	0.24	0.24	0.23	0.23
18.750	0.23	0.23	0.23	0.22	0.22
19.000	0.22	0.22	0.22	0.22	0.22
19.250	0.21	0.21	0.21	0.21	0.21
19.500	0.21	0.20	0.20	0.20	0.20

Subsection: Hydrograph
Label: PROP-POND (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.20	0.20	0.20	0.19	0.19
20.000	0.19	0.19	0.19	0.19	0.19
20.250	0.19	0.18	0.18	0.18	0.18
20.500	0.18	0.18	0.18	0.18	0.18
20.750	0.17	0.17	0.17	0.17	0.17
21.000	0.17	0.17	0.17	0.17	0.17
21.250	0.17	0.16	0.16	0.16	0.16
21.500	0.16	0.16	0.16	0.16	0.16
21.750	0.16	0.16	0.15	0.15	0.15
22.000	0.15	0.15	0.15	0.15	0.15
22.250	0.15	0.15	0.15	0.15	0.14
22.500	0.14	0.14	0.14	0.14	0.14
22.750	0.14	0.14	0.14	0.14	0.14
23.000	0.14	0.13	0.13	0.13	0.13
23.250	0.13	0.13	0.13	0.13	0.13
23.500	0.13	0.13	0.13	0.13	0.12
23.750	0.12	0.12	0.12	0.12	0.12
24.000	0.12	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: PROP-POND (IN)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	15.37 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	74,340.070 ft³

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
0.000	0.00	0.00	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.01	0.01	0.01
6.250	0.01	0.01	0.02	0.02	0.02
6.500	0.02	0.02	0.03	0.03	0.03
6.750	0.03	0.04	0.04	0.04	0.05
7.000	0.05	0.05	0.05	0.06	0.06
7.250	0.06	0.07	0.07	0.07	0.08
7.500	0.08	0.09	0.09	0.09	0.10
7.750	0.10	0.10	0.11	0.11	0.12
8.000	0.12	0.13	0.13	0.14	0.14
8.250	0.15	0.15	0.16	0.17	0.18
8.500	0.18	0.19	0.20	0.21	0.21
8.750	0.22	0.23	0.24	0.25	0.26
9.000	0.27	0.27	0.28	0.29	0.30

Subsection: Hydrograph
Label: PROP-POND (IN)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.31	0.32	0.33	0.34	0.35
9.500	0.36	0.38	0.39	0.40	0.41
9.750	0.42	0.43	0.44	0.46	0.47
10.000	0.48	0.50	0.51	0.53	0.55
10.250	0.57	0.59	0.61	0.63	0.65
10.500	0.67	0.70	0.72	0.74	0.77
10.750	0.79	0.82	0.84	0.87	0.90
11.000	0.92	0.97	1.01	1.08	1.15
11.250	1.23	1.30	1.39	1.47	1.56
11.500	1.65	1.96	2.27	2.89	3.51
11.750	4.27	5.03	5.88	6.73	9.83
12.000	12.93	14.11	15.37	13.76	11.88
12.250	10.77	9.46	8.51	7.70	6.88
12.500	6.03	5.39	4.70	4.38	4.08
12.750	3.89	3.70	3.53	3.37	3.21
13.000	3.05	2.92	2.79	2.71	2.63
13.250	2.56	2.49	2.43	2.37	2.32
13.500	2.26	2.21	2.16	2.11	2.07
13.750	2.02	1.97	1.93	1.88	1.84
14.000	1.79	1.75	1.71	1.68	1.64
14.250	1.61	1.59	1.56	1.53	1.50
14.500	1.48	1.45	1.43	1.40	1.38
14.750	1.35	1.33	1.31	1.28	1.26
15.000	1.23	1.21	1.19	1.16	1.15
15.250	1.13	1.11	1.09	1.07	1.05
15.500	1.03	1.02	1.00	0.99	0.97
15.750	0.96	0.94	0.93	0.91	0.90
16.000	0.88	0.87	0.86	0.85	0.85
16.250	0.84	0.83	0.82	0.81	0.80
16.500	0.79	0.78	0.77	0.76	0.76
16.750	0.75	0.74	0.73	0.72	0.71
17.000	0.71	0.70	0.69	0.69	0.68
17.250	0.67	0.67	0.66	0.65	0.64
17.500	0.64	0.63	0.62	0.62	0.61
17.750	0.60	0.60	0.59	0.58	0.58
18.000	0.57	0.56	0.56	0.56	0.55
18.250	0.55	0.55	0.54	0.54	0.54
18.500	0.54	0.53	0.53	0.53	0.52
18.750	0.52	0.52	0.52	0.51	0.51
19.000	0.51	0.51	0.50	0.50	0.50
19.250	0.50	0.49	0.49	0.49	0.48
19.500	0.48	0.48	0.48	0.47	0.47

Subsection: Hydrograph
Label: PROP-POND (IN)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.47	0.47	0.46	0.46	0.46
20.000	0.46	0.45	0.45	0.45	0.45
20.250	0.45	0.44	0.44	0.44	0.44
20.500	0.43	0.43	0.43	0.43	0.42
20.750	0.42	0.42	0.42	0.42	0.41
21.000	0.41	0.41	0.41	0.41	0.40
21.250	0.40	0.40	0.40	0.40	0.39
21.500	0.39	0.39	0.39	0.38	0.38
21.750	0.38	0.38	0.38	0.37	0.37
22.000	0.37	0.37	0.37	0.36	0.36
22.250	0.36	0.36	0.36	0.35	0.35
22.500	0.35	0.35	0.35	0.34	0.34
22.750	0.34	0.34	0.34	0.33	0.33
23.000	0.33	0.33	0.33	0.32	0.32
23.250	0.32	0.32	0.32	0.31	0.31
23.500	0.31	0.31	0.31	0.30	0.30
23.750	0.30	0.30	0.30	0.29	0.29
24.000	0.29	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: PROP-POND (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Peak Discharge	41.44 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	178,179.684 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.01	0.01	0.01
4.000	0.02	0.02	0.02	0.03	0.03
4.250	0.03	0.04	0.04	0.04	0.05
4.500	0.05	0.05	0.06	0.06	0.06
4.750	0.07	0.07	0.08	0.08	0.08
5.000	0.09	0.09	0.09	0.10	0.10
5.250	0.11	0.11	0.11	0.12	0.12
5.500	0.13	0.13	0.13	0.14	0.14
5.750	0.15	0.15	0.15	0.16	0.16
6.000	0.17	0.17	0.18	0.18	0.19
6.250	0.19	0.20	0.21	0.21	0.22
6.500	0.23	0.23	0.24	0.25	0.26
6.750	0.26	0.27	0.28	0.29	0.29
7.000	0.30	0.31	0.32	0.33	0.34
7.250	0.34	0.35	0.36	0.37	0.38
7.500	0.39	0.40	0.41	0.42	0.43
7.750	0.44	0.45	0.46	0.47	0.48
8.000	0.49	0.50	0.51	0.53	0.55
8.250	0.56	0.58	0.60	0.62	0.64
8.500	0.66	0.68	0.69	0.72	0.74
8.750	0.76	0.78	0.80	0.83	0.85
9.000	0.87	0.89	0.92	0.94	0.97

Subsection: Hydrograph
Label: PROP-POND (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.99	1.02	1.04	1.07	1.09
9.500	1.12	1.15	1.17	1.20	1.23
9.750	1.26	1.28	1.31	1.34	1.37
10.000	1.39	1.43	1.46	1.50	1.55
10.250	1.59	1.64	1.69	1.73	1.78
10.500	1.83	1.88	1.93	1.98	2.03
10.750	2.08	2.13	2.18	2.24	2.29
11.000	2.34	2.43	2.53	2.67	2.82
11.250	2.98	3.15	3.32	3.49	3.66
11.500	3.84	4.50	5.17	6.51	7.87
11.750	9.88	12.10	14.48	16.85	24.20
12.000	33.10	38.08	41.44	36.56	31.47
12.250	28.73	25.92	23.90	21.81	19.81
12.500	17.67	15.94	13.94	12.56	11.29
12.750	10.43	9.57	8.87	8.21	7.62
13.000	7.08	6.66	6.27	5.99	5.73
13.250	5.53	5.35	5.20	5.05	4.92
13.500	4.79	4.67	4.55	4.44	4.33
13.750	4.22	4.12	4.02	3.92	3.83
14.000	3.74	3.65	3.57	3.51	3.44
14.250	3.39	3.33	3.28	3.23	3.18
14.500	3.13	3.08	3.03	2.98	2.94
14.750	2.89	2.85	2.80	2.75	2.71
15.000	2.67	2.62	2.58	2.54	2.49
15.250	2.45	2.41	2.37	2.33	2.29
15.500	2.25	2.21	2.17	2.13	2.08
15.750	2.04	2.00	1.96	1.92	1.88
16.000	1.83	1.80	1.76	1.73	1.70
16.250	1.67	1.65	1.62	1.60	1.57
16.500	1.55	1.53	1.50	1.48	1.46
16.750	1.44	1.42	1.40	1.38	1.36
17.000	1.34	1.32	1.30	1.28	1.26
17.250	1.24	1.22	1.20	1.18	1.16
17.500	1.14	1.12	1.10	1.08	1.06
17.750	1.05	1.03	1.01	1.00	0.99
18.000	0.97	0.96	0.95	0.95	0.94
18.250	0.94	0.93	0.92	0.92	0.91
18.500	0.91	0.90	0.90	0.89	0.89
18.750	0.89	0.88	0.88	0.87	0.87
19.000	0.87	0.86	0.86	0.85	0.85
19.250	0.85	0.84	0.84	0.83	0.83
19.500	0.82	0.82	0.81	0.80	0.80

Subsection: Hydrograph
Label: PROP-POND (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.79	0.79	0.79	0.78	0.78
20.000	0.77	0.77	0.76	0.76	0.76
20.250	0.75	0.75	0.74	0.74	0.74
20.500	0.73	0.73	0.73	0.72	0.72
20.750	0.72	0.72	0.71	0.71	0.71
21.000	0.70	0.70	0.70	0.69	0.69
21.250	0.69	0.68	0.68	0.68	0.68
21.500	0.67	0.67	0.67	0.66	0.66
21.750	0.66	0.66	0.65	0.65	0.65
22.000	0.64	0.64	0.64	0.64	0.63
22.250	0.63	0.63	0.62	0.62	0.62
22.500	0.61	0.61	0.61	0.61	0.60
22.750	0.60	0.60	0.60	0.59	0.59
23.000	0.59	0.58	0.58	0.58	0.58
23.250	0.57	0.57	0.57	0.57	0.56
23.500	0.56	0.56	0.55	0.55	0.55
23.750	0.54	0.54	0.54	0.53	0.53
24.000	0.53	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: U-INF 1A (INF)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	0.39 ft³/s
Time to Peak	12.500 hours
Hydrograph Volume	8,424.280 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.01	0.01	0.01	0.01
9.000	0.01	0.01	0.02	0.02	0.02

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)
9.250	0.02	0.02	0.03	0.03	0.03
9.500	0.03	0.03	0.04	0.04	0.04
9.750	0.04	0.05	0.05	0.05	0.05
10.000	0.06	0.06	0.06	0.07	0.07
10.250	0.07	0.08	0.08	0.09	0.09
10.500	0.10	0.10	0.11	0.11	0.12
10.750	0.12	0.13	0.13	0.14	0.14
11.000	0.15	0.16	0.17	0.18	0.19
11.250	0.20	0.22	0.24	0.25	0.27
11.500	0.29	0.31	0.38	0.39	0.39
11.750	0.39	0.39	0.39	0.39	0.39
12.000	0.39	0.39	0.39	0.39	0.39
12.250	0.39	0.39	0.39	0.39	0.39
12.500	0.39	0.39	0.39	0.39	0.39
12.750	0.39	0.39	0.39	0.39	0.39
13.000	0.39	0.39	0.39	0.39	0.39
13.250	0.39	0.39	0.38	0.37	0.37
13.500	0.36	0.36	0.35	0.34	0.34
13.750	0.33	0.32	0.32	0.31	0.30
14.000	0.30	0.29	0.29	0.28	0.28
14.250	0.28	0.27	0.27	0.27	0.26
14.500	0.26	0.26	0.25	0.25	0.25
14.750	0.24	0.24	0.24	0.23	0.23
15.000	0.23	0.23	0.22	0.22	0.22
15.250	0.21	0.21	0.21	0.20	0.20
15.500	0.20	0.19	0.19	0.19	0.18
15.750	0.18	0.18	0.17	0.17	0.17
16.000	0.16	0.16	0.16	0.16	0.15
16.250	0.15	0.15	0.15	0.15	0.15
16.500	0.14	0.14	0.14	0.14	0.14
16.750	0.14	0.14	0.13	0.13	0.13
17.000	0.13	0.13	0.13	0.13	0.12
17.250	0.12	0.12	0.12	0.12	0.12
17.500	0.12	0.11	0.11	0.11	0.11
17.750	0.11	0.11	0.10	0.10	0.10
18.000	0.10	0.10	0.10	0.10	0.10
18.250	0.10	0.10	0.10	0.10	0.09
18.500	0.09	0.09	0.09	0.09	0.09
18.750	0.09	0.09	0.09	0.09	0.09
19.000	0.09	0.09	0.09	0.09	0.09
19.250	0.09	0.09	0.09	0.09	0.09
19.500	0.09	0.09	0.08	0.08	0.08

Subsection: Hydrograph | Return Event: 1 years
Label: U-INF 1A (INF) | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
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	0.08	0.08	0.08	0.07	0.07
21.000	0.07	0.07	0.07	0.07	0.07
21.250	0.07	0.07	0.07	0.07	0.07
21.500	0.07	0.07	0.07	0.07	0.07
21.750	0.07	0.07	0.07	0.07	0.07
22.000	0.07	0.07	0.07	0.07	0.07
22.250	0.07	0.07	0.06	0.06	0.06
22.500	0.06	0.06	0.06	0.06	0.06
22.750	0.06	0.06	0.06	0.06	0.06
23.000	0.06	0.06	0.06	0.06	0.06
23.250	0.06	0.06	0.06	0.06	0.06
23.500	0.06	0.06	0.06	0.06	0.06
23.750	0.06	0.06	0.05	0.05	0.05
24.000	0.05	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: U-INF 1A (INF)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	0.39 ft³/s
Time to Peak	13.800 hours
Hydrograph Volume	14,967.887 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.01
6.250	0.01	0.01	0.01	0.01	0.01
6.500	0.01	0.01	0.02	0.02	0.02
6.750	0.02	0.02	0.02	0.02	0.03
7.000	0.03	0.03	0.03	0.03	0.04
7.250	0.04	0.04	0.04	0.04	0.05
7.500	0.05	0.05	0.05	0.05	0.06
7.750	0.06	0.06	0.06	0.07	0.07
8.000	0.07	0.07	0.08	0.08	0.08
8.250	0.09	0.09	0.09	0.10	0.10
8.500	0.11	0.11	0.12	0.12	0.13
8.750	0.13	0.14	0.14	0.15	0.15
9.000	0.16	0.16	0.17	0.17	0.18

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.18	0.19	0.20	0.20	0.21
9.500	0.22	0.22	0.23	0.24	0.24
9.750	0.25	0.26	0.26	0.27	0.28
10.000	0.28	0.29	0.30	0.31	0.32
10.250	0.33	0.34	0.36	0.37	0.38
10.500	0.39	0.39	0.39	0.39	0.39
10.750	0.39	0.39	0.39	0.39	0.39
11.000	0.39	0.39	0.39	0.39	0.39
11.250	0.39	0.39	0.39	0.39	0.39
11.500	0.39	0.39	0.39	0.39	0.39
11.750	0.39	0.39	0.39	0.39	0.39
12.000	0.39	0.39	0.39	0.39	0.39
12.250	0.39	0.39	0.39	0.39	0.39
12.500	0.39	0.39	0.39	0.39	0.39
12.750	0.39	0.39	0.39	0.39	0.39
13.000	0.39	0.39	0.39	0.39	0.39
13.250	0.39	0.39	0.39	0.39	0.39
13.500	0.39	0.39	0.39	0.39	0.39
13.750	0.39	0.39	0.39	0.39	0.39
14.000	0.39	0.39	0.39	0.39	0.39
14.250	0.39	0.39	0.39	0.39	0.39
14.500	0.39	0.39	0.39	0.39	0.39
14.750	0.39	0.39	0.39	0.39	0.39
15.000	0.39	0.39	0.39	0.39	0.39
15.250	0.39	0.39	0.39	0.39	0.39
15.500	0.39	0.39	0.39	0.39	0.38
15.750	0.37	0.37	0.36	0.35	0.35
16.000	0.34	0.33	0.33	0.32	0.32
16.250	0.32	0.31	0.31	0.31	0.30
16.500	0.30	0.30	0.30	0.29	0.29
16.750	0.29	0.28	0.28	0.28	0.27
17.000	0.27	0.27	0.26	0.26	0.26
17.250	0.26	0.25	0.25	0.25	0.24
17.500	0.24	0.24	0.23	0.23	0.23
17.750	0.22	0.22	0.22	0.21	0.21
18.000	0.21	0.21	0.20	0.20	0.20
18.250	0.20	0.20	0.20	0.20	0.20
18.500	0.19	0.19	0.19	0.19	0.19
18.750	0.19	0.19	0.19	0.19	0.19
19.000	0.19	0.18	0.18	0.18	0.18
19.250	0.18	0.18	0.18	0.18	0.18
19.500	0.18	0.18	0.17	0.17	0.17

Subsection: Hydrograph
Label: U-INF 1A (INF)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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	0.17	0.17	0.17	0.17	0.17
20.000	0.17	0.17	0.17	0.16	0.16
20.250	0.16	0.16	0.16	0.16	0.16
20.500	0.16	0.16	0.16	0.16	0.16
20.750	0.16	0.16	0.15	0.15	0.15
21.000	0.15	0.15	0.15	0.15	0.15
21.250	0.15	0.15	0.15	0.15	0.15
21.500	0.14	0.14	0.14	0.14	0.14
21.750	0.14	0.14	0.14	0.14	0.14
22.000	0.14	0.14	0.14	0.14	0.14
22.250	0.13	0.13	0.13	0.13	0.13
22.500	0.13	0.13	0.13	0.13	0.13
22.750	0.13	0.13	0.13	0.13	0.13
23.000	0.12	0.12	0.12	0.12	0.12
23.250	0.12	0.12	0.12	0.12	0.12
23.500	0.12	0.12	0.12	0.11	0.11
23.750	0.11	0.11	0.11	0.11	0.11
24.000	0.11	(N/A)	(N/A)	(N/A)	(N/A)

Peak Discharge	0.39 ft³/s
Time to Peak	13.700 hours
Hydrograph Volume	21,839.129 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.01
4.000	0.01	0.01	0.01	0.01	0.02
4.250	0.02	0.02	0.02	0.02	0.03
4.500	0.03	0.03	0.03	0.03	0.04
4.750	0.04	0.04	0.04	0.05	0.05
5.000	0.05	0.05	0.06	0.06	0.06
5.250	0.06	0.06	0.07	0.07	0.07
5.500	0.07	0.08	0.08	0.08	0.08
5.750	0.09	0.09	0.09	0.09	0.10
6.000	0.10	0.10	0.10	0.11	0.11
6.250	0.11	0.12	0.12	0.13	0.13
6.500	0.13	0.14	0.14	0.15	0.15
6.750	0.16	0.16	0.16	0.17	0.17
7.000	0.18	0.18	0.19	0.19	0.20
7.250	0.20	0.21	0.22	0.22	0.23
7.500	0.23	0.24	0.24	0.25	0.25
7.750	0.26	0.26	0.27	0.28	0.28
8.000	0.29	0.29	0.30	0.31	0.32
8.250	0.33	0.34	0.35	0.36	0.37
8.500	0.38	0.39	0.39	0.39	0.39
8.750	0.39	0.39	0.39	0.39	0.39
9.000	0.39	0.39	0.39	0.39	0.39

Subsection: Hydrograph
Label: U-INF 1A (INF)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.39	0.39	0.39	0.39	0.39
9.500	0.39	0.39	0.39	0.39	0.39
9.750	0.39	0.39	0.39	0.39	0.39
10.000	0.39	0.39	0.39	0.39	0.39
10.250	0.39	0.39	0.39	0.39	0.39
10.500	0.39	0.39	0.39	0.39	0.39
10.750	0.39	0.39	0.39	0.39	0.39
11.000	0.39	0.39	0.39	0.39	0.39
11.250	0.39	0.39	0.39	0.39	0.39
11.500	0.39	0.39	0.39	0.39	0.39
11.750	0.39	0.39	0.39	0.39	0.39
12.000	0.39	0.39	0.39	0.39	0.39
12.250	0.39	0.39	0.39	0.39	0.39
12.500	0.39	0.39	0.39	0.39	0.39
12.750	0.39	0.39	0.39	0.39	0.39
13.000	0.39	0.39	0.39	0.39	0.39
13.250	0.39	0.39	0.39	0.39	0.39
13.500	0.39	0.39	0.39	0.39	0.39
13.750	0.39	0.39	0.39	0.39	0.39
14.000	0.39	0.39	0.39	0.39	0.39
14.250	0.39	0.39	0.39	0.39	0.39
14.500	0.39	0.39	0.39	0.39	0.39
14.750	0.39	0.39	0.39	0.39	0.39
15.000	0.39	0.39	0.39	0.39	0.39
15.250	0.39	0.39	0.39	0.39	0.39
15.500	0.39	0.39	0.39	0.39	0.39
15.750	0.39	0.39	0.39	0.39	0.39
16.000	0.39	0.39	0.39	0.39	0.39
16.250	0.39	0.39	0.39	0.39	0.39
16.500	0.39	0.39	0.39	0.39	0.39
16.750	0.39	0.39	0.39	0.39	0.39
17.000	0.39	0.39	0.39	0.39	0.39
17.250	0.39	0.39	0.39	0.39	0.39
17.500	0.39	0.39	0.39	0.39	0.39
17.750	0.39	0.39	0.39	0.39	0.39
18.000	0.39	0.38	0.38	0.38	0.38
18.250	0.37	0.37	0.37	0.37	0.37
18.500	0.36	0.36	0.36	0.36	0.36
18.750	0.36	0.35	0.35	0.35	0.35
19.000	0.35	0.35	0.34	0.34	0.34
19.250	0.34	0.34	0.33	0.33	0.33
19.500	0.33	0.33	0.33	0.32	0.32

Subsection: Hydrograph
Label: U-INF 1A (INF)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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	0.32	0.32	0.32	0.31	0.31
20.000	0.31	0.31	0.31	0.31	0.31
20.250	0.30	0.30	0.30	0.30	0.30
20.500	0.30	0.30	0.30	0.29	0.29
20.750	0.29	0.29	0.29	0.29	0.29
21.000	0.29	0.28	0.28	0.28	0.28
21.250	0.28	0.28	0.28	0.27	0.27
21.500	0.27	0.27	0.27	0.27	0.27
21.750	0.26	0.26	0.26	0.26	0.26
22.000	0.26	0.26	0.26	0.25	0.25
22.250	0.25	0.25	0.25	0.25	0.25
22.500	0.24	0.24	0.24	0.24	0.24
22.750	0.24	0.24	0.24	0.23	0.23
23.000	0.23	0.23	0.23	0.23	0.23
23.250	0.22	0.22	0.22	0.22	0.22
23.500	0.22	0.22	0.22	0.21	0.21
23.750	0.21	0.21	0.21	0.21	0.21
24.000	0.20	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: U-INF 1A (OUT)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	0.00 ft³/s
Time to Peak	8.000 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph
Label: U-INF 1A (OUT)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.750	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.250	0.00	0.00	0.00	0.00	0.00
11.500	0.00	0.00	0.00	0.00	0.00
11.750	0.00	0.00	0.00	0.00	0.00
12.000	0.00	0.00	0.00	0.00	0.00
12.250	0.00	0.00	0.00	0.00	0.00
12.500	0.00	0.00	0.00	0.00	0.00
12.750	0.00	0.00	0.00	0.00	0.00
13.000	0.00	0.00	0.00	0.00	0.00
13.250	0.00	0.00	0.00	0.00	0.00
13.500	0.00	0.00	0.00	0.00	0.00
13.750	0.00	0.00	0.00	0.00	0.00
14.000	0.00	0.00	0.00	0.00	0.00
14.250	0.00	0.00	0.00	0.00	0.00
14.500	0.00	0.00	0.00	0.00	0.00
14.750	0.00	0.00	0.00	0.00	0.00
15.000	0.00	0.00	0.00	0.00	0.00
15.250	0.00	0.00	0.00	0.00	0.00
15.500	0.00	0.00	0.00	0.00	0.00
15.750	0.00	0.00	0.00	0.00	0.00
16.000	0.00	0.00	0.00	0.00	0.00
16.250	0.00	0.00	0.00	0.00	0.00
16.500	0.00	0.00	0.00	0.00	0.00
16.750	0.00	0.00	0.00	0.00	0.00
17.000	0.00	0.00	0.00	0.00	0.00
17.250	0.00	0.00	0.00	0.00	0.00
17.500	0.00	0.00	0.00	0.00	0.00
17.750	0.00	0.00	0.00	0.00	0.00
18.000	0.00	0.00	0.00	0.00	0.00
18.250	0.00	0.00	0.00	0.00	0.00
18.500	0.00	0.00	0.00	0.00	0.00
18.750	0.00	0.00	0.00	0.00	0.00
19.000	0.00	0.00	0.00	0.00	0.00
19.250	0.00	0.00	0.00	0.00	0.00
19.500	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph | Return Event: 1 years
Label: U-INF 1A (OUT) | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.00	0.00	0.00	0.00	0.00
20.000	0.00	0.00	0.00	0.00	0.00
20.250	0.00	0.00	0.00	0.00	0.00
20.500	0.00	0.00	0.00	0.00	0.00
20.750	0.00	0.00	0.00	0.00	0.00
21.000	0.00	0.00	0.00	0.00	0.00
21.250	0.00	0.00	0.00	0.00	0.00
21.500	0.00	0.00	0.00	0.00	0.00
21.750	0.00	0.00	0.00	0.00	0.00
22.000	0.00	0.00	0.00	0.00	0.00
22.250	0.00	0.00	0.00	0.00	0.00
22.500	0.00	0.00	0.00	0.00	0.00
22.750	0.00	0.00	0.00	0.00	0.00
23.000	0.00	0.00	0.00	0.00	0.00
23.250	0.00	0.00	0.00	0.00	0.00
23.500	0.00	0.00	0.00	0.00	0.00
23.750	0.00	0.00	0.00	0.00	0.00
24.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: U-INF 1A (OUT)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	0.97 ft³/s
Time to Peak	12.700 hours
Hydrograph Volume	5,609.100 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph
Label: U-INF 1A (OUT)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.750	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.250	0.00	0.00	0.00	0.00	0.00
11.500	0.00	0.00	0.00	0.00	0.00
11.750	0.00	0.00	0.00	0.00	0.00
12.000	0.00	0.00	0.00	0.00	0.00
12.250	0.00	0.00	0.06	0.32	0.55
12.500	0.75	0.87	0.94	0.96	0.97
12.750	0.96	0.95	0.93	0.90	0.88
13.000	0.84	0.81	0.78	0.74	0.71
13.250	0.68	0.65	0.62	0.60	0.57
13.500	0.55	0.53	0.51	0.50	0.48
13.750	0.47	0.45	0.44	0.42	0.41
14.000	0.39	0.38	0.37	0.35	0.34
14.250	0.33	0.31	0.30	0.29	0.28
14.500	0.27	0.26	0.25	0.24	0.23
14.750	0.22	0.21	0.20	0.19	0.19
15.000	0.18	0.17	0.16	0.15	0.14
15.250	0.14	0.13	0.12	0.11	0.11
15.500	0.10	0.10	0.09	0.09	0.08
15.750	0.08	0.08	0.07	0.07	0.07
16.000	0.06	0.06	0.06	0.06	0.05
16.250	0.05	0.05	0.05	0.04	0.04
16.500	0.04	0.04	0.04	0.04	0.03
16.750	0.03	0.03	0.03	0.03	0.03
17.000	0.03	0.03	0.02	0.02	0.02
17.250	0.02	0.02	0.02	0.02	0.02
17.500	0.02	0.02	0.02	0.02	0.01
17.750	0.01	0.01	0.01	0.01	0.01
18.000	0.01	0.01	0.01	0.01	0.01
18.250	0.01	0.01	0.01	0.01	0.01
18.500	0.01	0.01	0.01	0.01	0.01
18.750	0.01	0.01	0.01	0.01	0.00
19.000	0.00	0.00	0.00	0.00	0.00
19.250	0.00	0.00	0.00	0.00	0.00
19.500	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph | Return Event: 10 years
Label: U-INF 1A (OUT) | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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	0.00	0.00	0.00	0.00	0.00
20.000	0.00	0.00	0.00	0.00	0.00
20.250	0.00	0.00	0.00	0.00	0.00
20.500	0.00	0.00	0.00	0.00	0.00
20.750	0.00	0.00	0.00	0.00	0.00
21.000	0.00	0.00	0.00	0.00	0.00
21.250	0.00	0.00	0.00	0.00	0.00
21.500	0.00	0.00	0.00	0.00	0.00
21.750	0.00	0.00	0.00	0.00	0.00
22.000	0.00	0.00	0.00	0.00	0.00
22.250	0.00	0.00	0.00	0.00	0.00
22.500	0.00	0.00	0.00	0.00	0.00
22.750	0.00	0.00	0.00	0.00	0.00
23.000	0.00	0.00	0.00	0.00	0.00
23.250	0.00	0.00	0.00	0.00	0.00
23.500	0.00	0.00	0.00	0.00	0.00
23.750	0.00	0.00	0.00	0.00	0.00
24.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph Return Event: 100 years
Label: U-INF 1A (OUT) Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

Peak Discharge	5.45 ft³/s
Time to Peak	12.300 hours
Hydrograph Volume	29,428.957 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00

Subsection: Hydrograph
Label: U-INF 1A (OUT)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.750	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.250	0.00	0.00	0.00	0.00	0.00
11.500	0.00	0.00	0.00	0.00	0.00
11.750	0.00	0.00	0.00	0.00	0.38
12.000	2.22	4.56	5.45	5.45	5.45
12.250	5.45	5.45	5.45	5.45	5.45
12.500	5.39	5.29	5.12	4.92	4.68
12.750	4.41	4.02	3.67	3.32	3.01
13.000	2.73	2.51	2.32	2.15	2.00
13.250	1.87	1.77	1.68	1.60	1.53
13.500	1.47	1.41	1.35	1.30	1.25
13.750	1.21	1.17	1.13	1.10	1.06
14.000	1.03	1.00	0.97	0.95	0.92
14.250	0.90	0.87	0.85	0.83	0.81
14.500	0.79	0.77	0.75	0.74	0.72
14.750	0.70	0.69	0.67	0.66	0.64
15.000	0.63	0.61	0.60	0.58	0.57
15.250	0.55	0.54	0.53	0.51	0.50
15.500	0.49	0.48	0.47	0.46	0.45
15.750	0.44	0.43	0.41	0.40	0.39
16.000	0.38	0.36	0.35	0.34	0.33
16.250	0.32	0.31	0.30	0.29	0.28
16.500	0.27	0.26	0.25	0.24	0.23
16.750	0.23	0.22	0.21	0.20	0.20
17.000	0.19	0.18	0.18	0.17	0.16
17.250	0.16	0.15	0.14	0.14	0.13
17.500	0.12	0.12	0.11	0.10	0.10
17.750	0.10	0.09	0.09	0.09	0.08
18.000	0.08	0.08	0.07	0.07	0.07
18.250	0.06	0.06	0.06	0.05	0.05
18.500	0.05	0.05	0.05	0.04	0.04
18.750	0.04	0.04	0.04	0.03	0.03
19.000	0.03	0.03	0.03	0.03	0.03
19.250	0.03	0.02	0.02	0.02	0.02
19.500	0.02	0.02	0.02	0.02	0.02

Subsection: Hydrograph | Return Event: 100 years
Label: U-INF 1A (OUT) | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
19.750	0.02	0.02	0.01	0.01	0.01
20.000	0.01	0.01	0.01	0.01	0.01
20.250	0.01	0.01	0.01	0.01	0.01
20.500	0.01	0.01	0.01	0.01	0.01
20.750	0.01	0.01	0.01	0.01	0.01
21.000	0.01	0.01	0.01	0.00	0.00
21.250	0.00	0.00	0.00	0.00	0.00
21.500	0.00	0.00	0.00	0.00	0.00
21.750	0.00	0.00	0.00	0.00	0.00
22.000	0.00	0.00	0.00	0.00	0.00
22.250	0.00	0.00	0.00	0.00	0.00
22.500	0.00	0.00	0.00	0.00	0.00
22.750	0.00	0.00	0.00	0.00	0.00
23.000	0.00	0.00	0.00	0.00	0.00
23.250	0.00	0.00	0.00	0.00	0.00
23.500	0.00	0.00	0.00	0.00	0.00
23.750	0.00	0.00	0.00	0.00	0.00
24.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: U-INF 1A (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	3.85 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	13,855.515 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.250	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.750	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.250	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.750	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.250	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.750	0.01	0.01	0.01	0.01	0.01
9.000	0.01	0.02	0.02	0.02	0.02

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.02	0.03	0.03	0.03	0.03
9.500	0.03	0.04	0.04	0.04	0.04
9.750	0.05	0.05	0.05	0.05	0.06
10.000	0.06	0.06	0.07	0.07	0.07
10.250	0.08	0.08	0.09	0.09	0.10
10.500	0.10	0.11	0.11	0.12	0.12
10.750	0.13	0.13	0.14	0.14	0.15
11.000	0.16	0.17	0.18	0.19	0.20
11.250	0.22	0.24	0.25	0.27	0.29
11.500	0.31	0.38	0.44	0.58	0.72
11.750	0.90	1.08	1.29	1.51	2.30
12.000	3.10	3.47	3.85	3.24	2.64
12.250	2.31	1.99	1.75	1.51	1.27
12.500	1.04	0.88	0.73	0.67	0.61
12.750	0.58	0.55	0.53	0.50	0.48
13.000	0.45	0.44	0.42	0.41	0.40
13.250	0.39	0.39	0.38	0.37	0.37
13.500	0.36	0.36	0.35	0.34	0.34
13.750	0.33	0.32	0.32	0.31	0.30
14.000	0.30	0.29	0.29	0.28	0.28
14.250	0.28	0.27	0.27	0.27	0.26
14.500	0.26	0.26	0.25	0.25	0.25
14.750	0.24	0.24	0.24	0.23	0.23
15.000	0.23	0.23	0.22	0.22	0.22
15.250	0.21	0.21	0.21	0.20	0.20
15.500	0.20	0.19	0.19	0.19	0.18
15.750	0.18	0.18	0.17	0.17	0.17
16.000	0.16	0.16	0.16	0.16	0.15
16.250	0.15	0.15	0.15	0.15	0.15
16.500	0.14	0.14	0.14	0.14	0.14
16.750	0.14	0.14	0.13	0.13	0.13
17.000	0.13	0.13	0.13	0.13	0.12
17.250	0.12	0.12	0.12	0.12	0.12
17.500	0.12	0.11	0.11	0.11	0.11
17.750	0.11	0.11	0.10	0.10	0.10
18.000	0.10	0.10	0.10	0.10	0.10
18.250	0.10	0.10	0.10	0.10	0.09
18.500	0.09	0.09	0.09	0.09	0.09
18.750	0.09	0.09	0.09	0.09	0.09
19.000	0.09	0.09	0.09	0.09	0.09
19.250	0.09	0.09	0.09	0.09	0.09
19.500	0.09	0.09	0.08	0.08	0.08

Subsection: Hydrograph
Label: U-INF 1A (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
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	0.08	0.08	0.08	0.07	0.07
21.000	0.07	0.07	0.07	0.07	0.07
21.250	0.07	0.07	0.07	0.07	0.07
21.500	0.07	0.07	0.07	0.07	0.07
21.750	0.07	0.07	0.07	0.07	0.07
22.000	0.07	0.07	0.07	0.07	0.07
22.250	0.07	0.07	0.06	0.06	0.06
22.500	0.06	0.06	0.06	0.06	0.06
22.750	0.06	0.06	0.06	0.06	0.06
23.000	0.06	0.06	0.06	0.06	0.06
23.250	0.06	0.06	0.06	0.06	0.06
23.500	0.06	0.06	0.06	0.06	0.06
23.750	0.06	0.06	0.05	0.05	0.05
24.000	0.05	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: U-INF 1A (IN)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	9.16 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	33,730.834 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.750	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.01	0.01
6.250	0.01	0.01	0.01	0.01	0.01
6.500	0.01	0.02	0.02	0.02	0.02
6.750	0.02	0.02	0.02	0.03	0.03
7.000	0.03	0.03	0.03	0.04	0.04
7.250	0.04	0.04	0.04	0.05	0.05
7.500	0.05	0.05	0.05	0.06	0.06
7.750	0.06	0.06	0.07	0.07	0.07
8.000	0.07	0.08	0.08	0.08	0.09
8.250	0.09	0.09	0.10	0.10	0.11
8.500	0.11	0.12	0.12	0.13	0.13
8.750	0.14	0.14	0.15	0.15	0.16
9.000	0.16	0.17	0.17	0.18	0.18

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)
9.250	0.19	0.20	0.20	0.21	0.22
9.500	0.22	0.23	0.24	0.24	0.25
9.750	0.26	0.26	0.27	0.28	0.28
10.000	0.29	0.30	0.31	0.32	0.33
10.250	0.34	0.36	0.37	0.38	0.39
10.500	0.41	0.42	0.43	0.45	0.46
10.750	0.48	0.49	0.50	0.52	0.53
11.000	0.55	0.57	0.60	0.64	0.68
11.250	0.72	0.77	0.82	0.86	0.91
11.500	0.96	1.15	1.33	1.71	2.08
11.750	2.54	2.99	3.50	4.01	5.89
12.000	7.76	8.46	9.16	7.63	6.10
12.250	5.29	4.49	3.92	3.35	2.82
12.500	2.29	1.94	1.59	1.47	1.34
12.750	1.28	1.21	1.15	1.09	1.04
13.000	0.98	0.94	0.90	0.88	0.86
13.250	0.85	0.83	0.82	0.80	0.79
13.500	0.78	0.76	0.75	0.73	0.72
13.750	0.70	0.69	0.68	0.66	0.65
14.000	0.63	0.62	0.61	0.60	0.59
14.250	0.59	0.58	0.57	0.57	0.56
14.500	0.55	0.54	0.54	0.53	0.52
14.750	0.52	0.51	0.50	0.50	0.49
15.000	0.48	0.47	0.47	0.46	0.45
15.250	0.45	0.44	0.43	0.42	0.42
15.500	0.41	0.40	0.40	0.39	0.38
15.750	0.37	0.37	0.36	0.35	0.35
16.000	0.34	0.33	0.33	0.32	0.32
16.250	0.32	0.31	0.31	0.31	0.30
16.500	0.30	0.30	0.30	0.29	0.29
16.750	0.29	0.28	0.28	0.28	0.27
17.000	0.27	0.27	0.26	0.26	0.26
17.250	0.26	0.25	0.25	0.25	0.24
17.500	0.24	0.24	0.23	0.23	0.23
17.750	0.22	0.22	0.22	0.21	0.21
18.000	0.21	0.21	0.20	0.20	0.20
18.250	0.20	0.20	0.20	0.20	0.20
18.500	0.19	0.19	0.19	0.19	0.19
18.750	0.19	0.19	0.19	0.19	0.19
19.000	0.19	0.18	0.18	0.18	0.18
19.250	0.18	0.18	0.18	0.18	0.18
19.500	0.18	0.18	0.17	0.17	0.17

Subsection: Hydrograph | Return Event: 10 years
Label: U-INF 1A (IN) | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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	0.17	0.17	0.17	0.17	0.17
20.000	0.17	0.17	0.17	0.16	0.16
20.250	0.16	0.16	0.16	0.16	0.16
20.500	0.16	0.16	0.16	0.16	0.16
20.750	0.16	0.16	0.15	0.15	0.15
21.000	0.15	0.15	0.15	0.15	0.15
21.250	0.15	0.15	0.15	0.15	0.15
21.500	0.14	0.14	0.14	0.14	0.14
21.750	0.14	0.14	0.14	0.14	0.14
22.000	0.14	0.14	0.14	0.14	0.14
22.250	0.13	0.13	0.13	0.13	0.13
22.500	0.13	0.13	0.13	0.13	0.13
22.750	0.13	0.13	0.13	0.13	0.13
23.000	0.12	0.12	0.12	0.12	0.12
23.250	0.12	0.12	0.12	0.12	0.12
23.500	0.12	0.12	0.12	0.11	0.11
23.750	0.11	0.11	0.11	0.11	0.11
24.000	0.11	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Hydrograph
Label: U-INF 1A (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Peak Discharge	18.37 ft³/s
Time to Peak	12.100 hours
Hydrograph Volume	70,384.633 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	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.750	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.250	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.01	0.01
4.000	0.01	0.01	0.01	0.02	0.02
4.250	0.02	0.02	0.02	0.03	0.03
4.500	0.03	0.03	0.03	0.04	0.04
4.750	0.04	0.04	0.05	0.05	0.05
5.000	0.05	0.06	0.06	0.06	0.06
5.250	0.06	0.07	0.07	0.07	0.07
5.500	0.08	0.08	0.08	0.08	0.09
5.750	0.09	0.09	0.09	0.10	0.10
6.000	0.10	0.10	0.11	0.11	0.11
6.250	0.12	0.12	0.13	0.13	0.13
6.500	0.14	0.14	0.15	0.15	0.16
6.750	0.16	0.16	0.17	0.17	0.18
7.000	0.18	0.19	0.19	0.20	0.20
7.250	0.21	0.22	0.22	0.23	0.23
7.500	0.24	0.24	0.25	0.25	0.26
7.750	0.26	0.27	0.28	0.28	0.29
8.000	0.29	0.30	0.31	0.32	0.33
8.250	0.34	0.35	0.36	0.37	0.38
8.500	0.39	0.40	0.42	0.43	0.44
8.750	0.45	0.46	0.48	0.49	0.50
9.000	0.51	0.53	0.54	0.55	0.57

Subsection: Hydrograph
Label: U-INF 1A (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
9.250	0.58	0.59	0.61	0.62	0.63
9.500	0.65	0.66	0.68	0.69	0.70
9.750	0.72	0.73	0.75	0.76	0.78
10.000	0.79	0.81	0.83	0.85	0.88
10.250	0.90	0.93	0.96	0.98	1.01
10.500	1.04	1.07	1.10	1.12	1.15
10.750	1.18	1.21	1.24	1.27	1.30
11.000	1.33	1.38	1.43	1.52	1.61
11.250	1.70	1.80	1.90	2.00	2.10
11.500	2.21	2.61	3.01	3.81	4.61
11.750	5.56	6.50	7.50	8.51	12.24
12.000	15.97	17.17	18.37	15.20	12.04
12.250	10.40	8.76	7.63	6.49	5.46
12.500	4.42	3.74	3.06	2.82	2.57
12.750	2.44	2.31	2.20	2.09	1.99
13.000	1.88	1.80	1.72	1.69	1.65
13.250	1.62	1.59	1.56	1.53	1.50
13.500	1.48	1.45	1.42	1.39	1.36
13.750	1.34	1.31	1.28	1.25	1.22
14.000	1.20	1.17	1.15	1.14	1.12
14.250	1.11	1.09	1.08	1.07	1.05
14.500	1.04	1.03	1.01	1.00	0.99
14.750	0.97	0.96	0.95	0.93	0.92
15.000	0.91	0.89	0.88	0.87	0.85
15.250	0.84	0.83	0.81	0.80	0.79
15.500	0.77	0.76	0.75	0.73	0.72
15.750	0.70	0.69	0.68	0.66	0.65
16.000	0.64	0.63	0.62	0.61	0.60
16.250	0.60	0.59	0.58	0.58	0.57
16.500	0.57	0.56	0.55	0.55	0.54
16.750	0.54	0.53	0.52	0.52	0.51
17.000	0.51	0.50	0.50	0.49	0.48
17.250	0.48	0.47	0.47	0.46	0.45
17.500	0.45	0.44	0.44	0.43	0.42
17.750	0.42	0.41	0.41	0.40	0.39
18.000	0.39	0.38	0.38	0.38	0.38
18.250	0.37	0.37	0.37	0.37	0.37
18.500	0.36	0.36	0.36	0.36	0.36
18.750	0.36	0.35	0.35	0.35	0.35
19.000	0.35	0.35	0.34	0.34	0.34
19.250	0.34	0.34	0.33	0.33	0.33
19.500	0.33	0.33	0.33	0.32	0.32

Subsection: Hydrograph
Label: U-INF 1A (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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	0.32	0.32	0.32	0.31	0.31
20.000	0.31	0.31	0.31	0.31	0.31
20.250	0.30	0.30	0.30	0.30	0.30
20.500	0.30	0.30	0.30	0.29	0.29
20.750	0.29	0.29	0.29	0.29	0.29
21.000	0.29	0.28	0.28	0.28	0.28
21.250	0.28	0.28	0.28	0.27	0.27
21.500	0.27	0.27	0.27	0.27	0.27
21.750	0.26	0.26	0.26	0.26	0.26
22.000	0.26	0.26	0.26	0.25	0.25
22.250	0.25	0.25	0.25	0.25	0.25
22.500	0.24	0.24	0.24	0.24	0.24
22.750	0.24	0.24	0.24	0.23	0.23
23.000	0.23	0.23	0.23	0.23	0.23
23.250	0.22	0.22	0.22	0.22	0.22
23.500	0.22	0.22	0.22	0.21	0.21
23.750	0.21	0.21	0.21	0.21	0.21
24.000	0.20	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 1 years
Label: PO-7 (IN) | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr 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	88.00	88.00	88.00	88.00	88.00
0.250	88.00	88.00	88.00	88.00	88.00
0.500	88.00	88.00	88.00	88.00	88.00
0.750	88.00	88.00	88.00	88.00	88.00
1.000	88.00	88.00	88.00	88.00	88.00
1.250	88.00	88.00	88.00	88.00	88.00
1.500	88.00	88.00	88.00	88.00	88.00
1.750	88.00	88.00	88.00	88.00	88.00
2.000	88.00	88.00	88.00	88.00	88.00
2.250	88.00	88.00	88.00	88.00	88.00
2.500	88.00	88.00	88.00	88.00	88.00
2.750	88.00	88.00	88.00	88.00	88.00
3.000	88.00	88.00	88.00	88.00	88.00
3.250	88.00	88.00	88.00	88.00	88.00
3.500	88.00	88.00	88.00	88.00	88.00
3.750	88.00	88.00	88.00	88.00	88.00
4.000	88.00	88.00	88.00	88.00	88.00
4.250	88.00	88.00	88.00	88.00	88.00
4.500	88.00	88.00	88.00	88.00	88.00
4.750	88.00	88.00	88.00	88.00	88.00
5.000	88.00	88.00	88.00	88.00	88.00
5.250	88.00	88.00	88.00	88.00	88.00
5.500	88.00	88.00	88.00	88.00	88.00
5.750	88.00	88.00	88.00	88.00	88.00
6.000	88.00	88.00	88.00	88.00	88.00
6.250	88.00	88.00	88.00	88.00	88.00
6.500	88.00	88.00	88.00	88.00	88.00
6.750	88.00	88.00	88.00	88.00	88.00
7.000	88.00	88.00	88.00	88.00	88.00
7.250	88.00	88.00	88.00	88.00	88.00
7.500	88.00	88.00	88.00	88.00	88.00
7.750	88.00	88.00	88.00	88.00	88.00
8.000	88.00	88.00	88.00	88.00	88.00
8.250	88.00	88.00	88.00	88.00	88.00
8.500	88.00	88.00	88.00	88.00	88.00
8.750	88.00	88.00	88.00	88.00	88.00
9.000	88.00	88.00	88.00	88.00	88.00
9.250	88.00	88.00	88.00	88.00	88.00
9.500	88.00	88.00	88.00	88.00	88.00
9.750	88.00	88.00	88.00	88.00	88.00

Subsection: Time vs. Elevation
Label: PO-7 (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
10.000	88.00	88.00	88.00	88.00	88.00
10.250	88.00	88.00	88.00	88.00	88.00
10.500	88.00	88.00	88.00	88.00	88.00
10.750	88.00	88.00	88.00	88.00	88.00
11.000	88.00	88.00	88.00	88.00	88.00
11.250	88.00	88.00	88.00	88.00	88.00
11.500	88.00	88.00	88.00	88.01	88.01
11.750	88.02	88.03	88.04	88.06	88.09
12.000	88.14	88.20	88.28	88.36	88.42
12.250	88.47	88.51	88.55	88.58	88.60
12.500	88.62	88.64	88.64	88.65	88.66
12.750	88.66	88.67	88.67	88.67	88.67
13.000	88.68	88.68	88.68	88.68	88.68
13.250	88.68	88.68	88.68	88.68	88.67
13.500	88.67	88.67	88.67	88.67	88.67
13.750	88.67	88.66	88.66	88.66	88.66
14.000	88.65	88.65	88.65	88.65	88.64
14.250	88.64	88.64	88.63	88.63	88.63
14.500	88.62	88.62	88.62	88.61	88.61
14.750	88.61	88.60	88.60	88.60	88.59
15.000	88.59	88.59	88.58	88.58	88.57
15.250	88.57	88.57	88.56	88.56	88.55
15.500	88.55	88.55	88.54	88.54	88.53
15.750	88.53	88.52	88.52	88.51	88.51
16.000	88.51	88.50	88.50	88.49	88.49
16.250	88.48	88.48	88.47	88.47	88.46
16.500	88.46	88.46	88.45	88.45	88.44
16.750	88.44	88.43	88.43	88.42	88.42
17.000	88.42	88.41	88.41	88.40	88.40
17.250	88.40	88.39	88.39	88.38	88.38
17.500	88.37	88.37	88.37	88.36	88.36
17.750	88.35	88.35	88.35	88.34	88.34
18.000	88.34	88.33	88.33	88.32	88.32
18.250	88.32	88.31	88.31	88.31	88.30
18.500	88.30	88.30	88.29	88.29	88.29
18.750	88.28	88.28	88.28	88.28	88.27
19.000	88.27	88.27	88.26	88.26	88.26
19.250	88.26	88.25	88.25	88.25	88.25
19.500	88.25	88.24	88.24	88.24	88.24
19.750	88.24	88.23	88.23	88.23	88.23
20.000	88.23	88.22	88.22	88.22	88.22

Subsection: Time vs. Elevation
Label: PO-7 (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
20.250	88.22	88.22	88.21	88.21	88.21
20.500	88.21	88.21	88.21	88.21	88.20
20.750	88.20	88.20	88.20	88.20	88.20
21.000	88.20	88.20	88.20	88.19	88.19
21.250	88.19	88.19	88.19	88.19	88.19
21.500	88.19	88.19	88.18	88.18	88.18
21.750	88.18	88.18	88.18	88.18	88.18
22.000	88.18	88.18	88.18	88.17	88.17
22.250	88.17	88.17	88.17	88.17	88.17
22.500	88.17	88.17	88.17	88.17	88.17
22.750	88.17	88.16	88.16	88.16	88.16
23.000	88.16	88.16	88.16	88.16	88.16
23.250	88.16	88.16	88.16	88.16	88.16
23.500	88.16	88.15	88.15	88.15	88.15
23.750	88.15	88.15	88.15	88.15	88.15
24.000	88.15	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 10 years
Label: PO-7 (IN) | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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	88.00	88.00	88.00	88.00	88.00
0.250	88.00	88.00	88.00	88.00	88.00
0.500	88.00	88.00	88.00	88.00	88.00
0.750	88.00	88.00	88.00	88.00	88.00
1.000	88.00	88.00	88.00	88.00	88.00
1.250	88.00	88.00	88.00	88.00	88.00
1.500	88.00	88.00	88.00	88.00	88.00
1.750	88.00	88.00	88.00	88.00	88.00
2.000	88.00	88.00	88.00	88.00	88.00
2.250	88.00	88.00	88.00	88.00	88.00
2.500	88.00	88.00	88.00	88.00	88.00
2.750	88.00	88.00	88.00	88.00	88.00
3.000	88.00	88.00	88.00	88.00	88.00
3.250	88.00	88.00	88.00	88.00	88.00
3.500	88.00	88.00	88.00	88.00	88.00
3.750	88.00	88.00	88.00	88.00	88.00
4.000	88.00	88.00	88.00	88.00	88.00
4.250	88.00	88.00	88.00	88.00	88.00
4.500	88.00	88.00	88.00	88.00	88.00
4.750	88.00	88.00	88.00	88.00	88.00
5.000	88.00	88.00	88.00	88.00	88.00
5.250	88.00	88.00	88.00	88.00	88.00
5.500	88.00	88.00	88.00	88.00	88.00
5.750	88.00	88.00	88.00	88.00	88.00
6.000	88.00	88.00	88.00	88.00	88.00
6.250	88.00	88.00	88.00	88.00	88.00
6.500	88.00	88.00	88.00	88.00	88.00
6.750	88.00	88.00	88.00	88.00	88.00
7.000	88.00	88.00	88.00	88.00	88.00
7.250	88.00	88.00	88.00	88.00	88.00
7.500	88.00	88.00	88.00	88.00	88.00
7.750	88.00	88.00	88.00	88.00	88.00
8.000	88.00	88.00	88.00	88.00	88.00
8.250	88.00	88.00	88.00	88.00	88.00
8.500	88.00	88.00	88.00	88.00	88.00
8.750	88.00	88.00	88.00	88.00	88.00
9.000	88.00	88.00	88.00	88.00	88.00
9.250	88.00	88.00	88.00	88.00	88.00
9.500	88.00	88.00	88.00	88.01	88.01
9.750	88.01	88.01	88.01	88.01	88.02

Subsection: Time vs. Elevation | Return Event: 10 years
Label: PO-7 (IN) | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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)
10.000	88.02	88.02	88.02	88.03	88.03
10.250	88.03	88.04	88.04	88.05	88.05
10.500	88.06	88.06	88.07	88.07	88.08
10.750	88.08	88.09	88.10	88.11	88.11
11.000	88.12	88.13	88.14	88.15	88.16
11.250	88.17	88.18	88.20	88.21	88.23
11.500	88.24	88.26	88.29	88.32	88.36
11.750	88.41	88.48	88.56	88.66	88.79
12.000	88.99	89.25	89.53	89.73	89.82
12.250	89.85	89.85	89.84	89.82	89.80
12.500	89.77	89.74	89.72	89.69	89.67
12.750	89.66	89.64	89.63	89.63	89.62
13.000	89.61	89.60	89.60	89.59	89.59
13.250	89.58	89.58	89.57	89.57	89.57
13.500	89.56	89.56	89.56	89.55	89.55
13.750	89.55	89.55	89.54	89.54	89.54
14.000	89.54	89.53	89.53	89.53	89.53
14.250	89.52	89.52	89.52	89.52	89.52
14.500	89.52	89.52	89.51	89.51	89.51
14.750	89.51	89.51	89.51	89.51	89.50
15.000	89.50	89.50	89.50	89.50	89.50
15.250	89.50	89.49	89.49	89.49	89.49
15.500	89.48	89.48	89.47	89.47	89.47
15.750	89.46	89.46	89.45	89.44	89.44
16.000	89.43	89.42	89.42	89.41	89.40
16.250	89.40	89.39	89.38	89.37	89.37
16.500	89.36	89.35	89.34	89.34	89.33
16.750	89.32	89.32	89.31	89.30	89.29
17.000	89.29	89.28	89.27	89.27	89.26
17.250	89.25	89.24	89.24	89.23	89.22
17.500	89.21	89.20	89.20	89.19	89.18
17.750	89.17	89.17	89.16	89.15	89.14
18.000	89.13	89.12	89.12	89.11	89.10
18.250	89.09	89.08	89.08	89.07	89.06
18.500	89.05	89.04	89.04	89.03	89.02
18.750	89.01	89.00	89.00	88.99	88.98
19.000	88.97	88.97	88.96	88.95	88.94
19.250	88.94	88.93	88.92	88.91	88.91
19.500	88.90	88.89	88.88	88.88	88.87
19.750	88.86	88.86	88.85	88.84	88.83
20.000	88.83	88.82	88.81	88.81	88.80

Subsection: Time vs. Elevation Return Event: 10 years
Label: PO-7 (IN) Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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)
20.250	88.79	88.79	88.78	88.77	88.77
20.500	88.76	88.75	88.75	88.74	88.74
20.750	88.73	88.72	88.72	88.71	88.71
21.000	88.70	88.69	88.69	88.68	88.68
21.250	88.67	88.66	88.66	88.65	88.65
21.500	88.64	88.64	88.63	88.62	88.62
21.750	88.61	88.61	88.60	88.60	88.59
22.000	88.59	88.58	88.58	88.57	88.57
22.250	88.56	88.56	88.55	88.55	88.54
22.500	88.54	88.53	88.53	88.52	88.52
22.750	88.51	88.51	88.50	88.50	88.50
23.000	88.49	88.49	88.48	88.48	88.47
23.250	88.47	88.47	88.46	88.46	88.45
23.500	88.45	88.44	88.44	88.44	88.43
23.750	88.43	88.42	88.42	88.42	88.41
24.000	88.41	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 100 years
Label: PO-7 (IN) | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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	88.00	88.00	88.00	88.00	88.00
0.250	88.00	88.00	88.00	88.00	88.00
0.500	88.00	88.00	88.00	88.00	88.00
0.750	88.00	88.00	88.00	88.00	88.00
1.000	88.00	88.00	88.00	88.00	88.00
1.250	88.00	88.00	88.00	88.00	88.00
1.500	88.00	88.00	88.00	88.00	88.00
1.750	88.00	88.00	88.00	88.00	88.00
2.000	88.00	88.00	88.00	88.00	88.00
2.250	88.00	88.00	88.00	88.00	88.00
2.500	88.00	88.00	88.00	88.00	88.00
2.750	88.00	88.00	88.00	88.00	88.00
3.000	88.00	88.00	88.00	88.00	88.00
3.250	88.00	88.00	88.00	88.00	88.00
3.500	88.00	88.00	88.00	88.00	88.00
3.750	88.00	88.00	88.00	88.00	88.00
4.000	88.00	88.00	88.00	88.00	88.00
4.250	88.00	88.00	88.00	88.00	88.00
4.500	88.00	88.00	88.00	88.00	88.00
4.750	88.00	88.00	88.00	88.00	88.00
5.000	88.00	88.00	88.00	88.00	88.00
5.250	88.00	88.00	88.00	88.00	88.00
5.500	88.00	88.00	88.00	88.00	88.00
5.750	88.00	88.00	88.00	88.00	88.00
6.000	88.00	88.00	88.00	88.00	88.00
6.250	88.00	88.00	88.00	88.00	88.00
6.500	88.00	88.00	88.00	88.00	88.00
6.750	88.00	88.00	88.00	88.00	88.00
7.000	88.00	88.00	88.00	88.00	88.00
7.250	88.00	88.00	88.01	88.01	88.01
7.500	88.01	88.01	88.01	88.02	88.02
7.750	88.02	88.02	88.03	88.03	88.03
8.000	88.03	88.04	88.04	88.04	88.05
8.250	88.05	88.06	88.06	88.07	88.07
8.500	88.08	88.08	88.09	88.09	88.10
8.750	88.11	88.11	88.12	88.13	88.13
9.000	88.14	88.15	88.16	88.16	88.17
9.250	88.18	88.19	88.20	88.21	88.22
9.500	88.23	88.24	88.25	88.26	88.27
9.750	88.28	88.29	88.30	88.32	88.33

Subsection: Time vs. Elevation | Return Event: 100 years
Label: PO-7 (IN) | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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)
10.000	88.34	88.35	88.37	88.38	88.40
10.250	88.41	88.43	88.44	88.46	88.48
10.500	88.50	88.52	88.54	88.56	88.58
10.750	88.60	88.63	88.65	88.68	88.71
11.000	88.73	88.76	88.79	88.82	88.86
11.250	88.90	88.94	88.99	89.03	89.09
11.500	89.14	89.21	89.29	89.39	89.52
11.750	89.65	89.76	89.86	89.95	90.04
12.000	90.18	90.38	90.58	90.73	90.78
12.250	90.76	90.69	90.61	90.51	90.39
12.500	90.27	90.15	90.05	89.96	89.89
12.750	89.84	89.81	89.78	89.76	89.75
13.000	89.73	89.72	89.71	89.70	89.70
13.250	89.69	89.69	89.68	89.68	89.67
13.500	89.67	89.67	89.66	89.66	89.66
13.750	89.66	89.65	89.65	89.65	89.64
14.000	89.64	89.64	89.63	89.63	89.63
14.250	89.63	89.62	89.62	89.62	89.62
14.500	89.62	89.62	89.61	89.61	89.61
14.750	89.61	89.61	89.61	89.61	89.60
15.000	89.60	89.60	89.60	89.60	89.60
15.250	89.59	89.59	89.59	89.59	89.58
15.500	89.58	89.58	89.58	89.57	89.57
15.750	89.57	89.57	89.56	89.56	89.56
16.000	89.56	89.55	89.55	89.55	89.55
16.250	89.54	89.54	89.54	89.54	89.54
16.500	89.53	89.53	89.53	89.53	89.53
16.750	89.53	89.53	89.52	89.52	89.52
17.000	89.52	89.52	89.52	89.52	89.52
17.250	89.51	89.51	89.51	89.51	89.51
17.500	89.51	89.51	89.51	89.50	89.50
17.750	89.50	89.50	89.50	89.50	89.50
18.000	89.49	89.49	89.49	89.49	89.48
18.250	89.48	89.48	89.48	89.47	89.47
18.500	89.47	89.46	89.46	89.45	89.45
18.750	89.45	89.44	89.44	89.43	89.43
19.000	89.43	89.42	89.42	89.41	89.41
19.250	89.40	89.40	89.39	89.39	89.38
19.500	89.38	89.37	89.37	89.36	89.36
19.750	89.35	89.35	89.34	89.34	89.33
20.000	89.33	89.32	89.32	89.32	89.31

Subsection: Time vs. Elevation | Return Event: 100 years
Label: PO-7 (IN) | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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)
20.250	89.31	89.30	89.30	89.29	89.29
20.500	89.28	89.28	89.27	89.27	89.27
20.750	89.26	89.26	89.25	89.25	89.24
21.000	89.24	89.23	89.23	89.22	89.22
21.250	89.21	89.21	89.20	89.20	89.20
21.500	89.19	89.19	89.18	89.18	89.17
21.750	89.17	89.16	89.16	89.15	89.15
22.000	89.14	89.14	89.13	89.13	89.12
22.250	89.12	89.11	89.11	89.10	89.10
22.500	89.09	89.09	89.08	89.08	89.07
22.750	89.06	89.06	89.05	89.05	89.04
23.000	89.04	89.03	89.03	89.02	89.02
23.250	89.01	89.01	89.00	89.00	88.99
23.500	88.99	88.98	88.97	88.97	88.96
23.750	88.96	88.95	88.95	88.94	88.94
24.000	88.93	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 1 years
Label: PROP-POND (IN) | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr 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	80.00	80.00	80.00	80.00	80.00
0.250	80.00	80.00	80.00	80.00	80.00
0.500	80.00	80.00	80.00	80.00	80.00
0.750	80.00	80.00	80.00	80.00	80.00
1.000	80.00	80.00	80.00	80.00	80.00
1.250	80.00	80.00	80.00	80.00	80.00
1.500	80.00	80.00	80.00	80.00	80.00
1.750	80.00	80.00	80.00	80.00	80.00
2.000	80.00	80.00	80.00	80.00	80.00
2.250	80.00	80.00	80.00	80.00	80.00
2.500	80.00	80.00	80.00	80.00	80.00
2.750	80.00	80.00	80.00	80.00	80.00
3.000	80.00	80.00	80.00	80.00	80.00
3.250	80.00	80.00	80.00	80.00	80.00
3.500	80.00	80.00	80.00	80.00	80.00
3.750	80.00	80.00	80.00	80.00	80.00
4.000	80.00	80.00	80.00	80.00	80.00
4.250	80.00	80.00	80.00	80.00	80.00
4.500	80.00	80.00	80.00	80.00	80.00
4.750	80.00	80.00	80.00	80.00	80.00
5.000	80.00	80.00	80.00	80.00	80.00
5.250	80.00	80.00	80.00	80.00	80.00
5.500	80.00	80.00	80.00	80.00	80.00
5.750	80.00	80.00	80.00	80.00	80.00
6.000	80.00	80.00	80.00	80.00	80.00
6.250	80.00	80.00	80.00	80.00	80.00
6.500	80.00	80.00	80.00	80.00	80.00
6.750	80.00	80.00	80.00	80.00	80.00
7.000	80.00	80.00	80.00	80.00	80.00
7.250	80.00	80.00	80.00	80.00	80.00
7.500	80.00	80.00	80.00	80.00	80.00
7.750	80.00	80.00	80.00	80.00	80.00
8.000	80.00	80.00	80.00	80.00	80.00
8.250	80.00	80.00	80.00	80.00	80.00
8.500	80.00	80.00	80.00	80.00	80.00
8.750	80.00	80.00	80.00	80.00	80.00
9.000	80.00	80.00	80.00	80.01	80.01
9.250	80.01	80.01	80.01	80.01	80.01
9.500	80.01	80.02	80.02	80.02	80.02
9.750	80.02	80.03	80.03	80.03	80.03

Subsection: Time vs. Elevation
Label: PROP-POND (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
10.000	80.03	80.04	80.04	80.04	80.05
10.250	80.05	80.05	80.06	80.06	80.07
10.500	80.07	80.07	80.08	80.08	80.09
10.750	80.09	80.10	80.11	80.11	80.12
11.000	80.13	80.13	80.14	80.15	80.16
11.250	80.16	80.17	80.18	80.19	80.21
11.500	80.22	80.23	80.25	80.27	80.30
11.750	80.34	80.38	80.43	80.49	80.58
12.000	80.70	80.85	81.02	81.18	81.32
12.250	81.43	81.53	81.61	81.68	81.75
12.500	81.80	81.84	81.87	81.90	81.93
12.750	81.95	81.97	81.99	82.01	82.02
13.000	82.03	82.05	82.06	82.07	82.08
13.250	82.09	82.10	82.11	82.12	82.12
13.500	82.13	82.14	82.15	82.16	82.17
13.750	82.17	82.18	82.19	82.19	82.20
14.000	82.21	82.21	82.22	82.22	82.23
14.250	82.24	82.24	82.25	82.25	82.26
14.500	82.26	82.27	82.27	82.28	82.28
14.750	82.28	82.29	82.29	82.30	82.30
15.000	82.30	82.31	82.31	82.31	82.32
15.250	82.32	82.32	82.33	82.33	82.33
15.500	82.33	82.34	82.34	82.34	82.34
15.750	82.34	82.35	82.35	82.35	82.35
16.000	82.35	82.35	82.35	82.35	82.35
16.250	82.36	82.36	82.36	82.36	82.36
16.500	82.36	82.36	82.36	82.36	82.36
16.750	82.36	82.36	82.36	82.36	82.36
17.000	82.36	82.36	82.36	82.36	82.36
17.250	82.35	82.35	82.35	82.35	82.35
17.500	82.35	82.35	82.35	82.35	82.35
17.750	82.34	82.34	82.34	82.34	82.34
18.000	82.34	82.34	82.33	82.33	82.33
18.250	82.33	82.33	82.32	82.32	82.32
18.500	82.32	82.32	82.31	82.31	82.31
18.750	82.31	82.31	82.30	82.30	82.30
19.000	82.30	82.29	82.29	82.29	82.29
19.250	82.28	82.28	82.28	82.28	82.27
19.500	82.27	82.27	82.27	82.26	82.26
19.750	82.26	82.26	82.25	82.25	82.25
20.000	82.24	82.24	82.24	82.24	82.23

Subsection: Time vs. Elevation
Label: PROP-POND (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
20.250	82.23	82.23	82.22	82.22	82.22
20.500	82.22	82.21	82.21	82.21	82.20
20.750	82.20	82.20	82.19	82.19	82.19
21.000	82.18	82.18	82.18	82.17	82.17
21.250	82.17	82.17	82.16	82.16	82.16
21.500	82.15	82.15	82.15	82.14	82.14
21.750	82.14	82.13	82.13	82.12	82.12
22.000	82.12	82.11	82.11	82.11	82.10
22.250	82.10	82.10	82.09	82.09	82.09
22.500	82.08	82.08	82.08	82.07	82.07
22.750	82.07	82.06	82.06	82.05	82.05
23.000	82.05	82.04	82.04	82.04	82.03
23.250	82.03	82.03	82.02	82.02	82.01
23.500	82.01	82.01	82.00	82.00	81.99
23.750	81.99	81.98	81.98	81.97	81.97
24.000	81.96	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: PROP-POND (IN)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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	80.00	80.00	80.00	80.00	80.00
0.250	80.00	80.00	80.00	80.00	80.00
0.500	80.00	80.00	80.00	80.00	80.00
0.750	80.00	80.00	80.00	80.00	80.00
1.000	80.00	80.00	80.00	80.00	80.00
1.250	80.00	80.00	80.00	80.00	80.00
1.500	80.00	80.00	80.00	80.00	80.00
1.750	80.00	80.00	80.00	80.00	80.00
2.000	80.00	80.00	80.00	80.00	80.00
2.250	80.00	80.00	80.00	80.00	80.00
2.500	80.00	80.00	80.00	80.00	80.00
2.750	80.00	80.00	80.00	80.00	80.00
3.000	80.00	80.00	80.00	80.00	80.00
3.250	80.00	80.00	80.00	80.00	80.00
3.500	80.00	80.00	80.00	80.00	80.00
3.750	80.00	80.00	80.00	80.00	80.00
4.000	80.00	80.00	80.00	80.00	80.00
4.250	80.00	80.00	80.00	80.00	80.00
4.500	80.00	80.00	80.00	80.00	80.00
4.750	80.00	80.00	80.00	80.00	80.00
5.000	80.00	80.00	80.00	80.00	80.00
5.250	80.00	80.00	80.00	80.00	80.00
5.500	80.00	80.00	80.00	80.00	80.00
5.750	80.00	80.00	80.00	80.00	80.00
6.000	80.00	80.00	80.00	80.00	80.00
6.250	80.00	80.00	80.00	80.00	80.00
6.500	80.00	80.00	80.01	80.01	80.01
6.750	80.01	80.01	80.01	80.01	80.01
7.000	80.01	80.01	80.02	80.02	80.02
7.250	80.02	80.02	80.02	80.03	80.03
7.500	80.03	80.03	80.04	80.04	80.04
7.750	80.04	80.05	80.05	80.05	80.05
8.000	80.06	80.06	80.06	80.07	80.07
8.250	80.08	80.08	80.08	80.09	80.09
8.500	80.10	80.10	80.11	80.11	80.12
8.750	80.12	80.13	80.14	80.14	80.15
9.000	80.15	80.16	80.17	80.17	80.18
9.250	80.19	80.20	80.20	80.21	80.22
9.500	80.23	80.24	80.25	80.26	80.26
9.750	80.27	80.28	80.29	80.30	80.31

Subsection: Time vs. Elevation Return Event: 10 years
Label: PROP-POND (IN) Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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)
10.000	80.33	80.34	80.35	80.36	80.37
10.250	80.38	80.40	80.41	80.43	80.44
10.500	80.46	80.47	80.49	80.51	80.52
10.750	80.54	80.56	80.58	80.60	80.62
11.000	80.64	80.66	80.69	80.71	80.74
11.250	80.77	80.80	80.83	80.87	80.91
11.500	80.95	80.99	81.05	81.12	81.20
11.750	81.31	81.43	81.58	81.75	81.98
12.000	82.21	82.48	82.74	82.97	83.13
12.250	83.24	83.30	83.34	83.35	83.35
12.500	83.33	83.31	83.28	83.25	83.22
12.750	83.19	83.16	83.13	83.11	83.09
13.000	83.07	83.05	83.03	83.01	82.99
13.250	82.98	82.96	82.95	82.94	82.93
13.500	82.92	82.91	82.90	82.89	82.88
13.750	82.88	82.87	82.86	82.85	82.85
14.000	82.84	82.83	82.83	82.82	82.82
14.250	82.81	82.80	82.80	82.79	82.79
14.500	82.78	82.78	82.78	82.77	82.77
14.750	82.76	82.76	82.75	82.75	82.75
15.000	82.74	82.74	82.73	82.73	82.73
15.250	82.72	82.72	82.72	82.71	82.71
15.500	82.71	82.70	82.70	82.70	82.69
15.750	82.69	82.69	82.69	82.68	82.68
16.000	82.68	82.67	82.67	82.67	82.67
16.250	82.66	82.66	82.66	82.66	82.65
16.500	82.65	82.65	82.65	82.65	82.64
16.750	82.64	82.64	82.64	82.64	82.63
17.000	82.63	82.63	82.63	82.63	82.62
17.250	82.62	82.62	82.62	82.62	82.62
17.500	82.61	82.61	82.61	82.61	82.61
17.750	82.61	82.61	82.60	82.60	82.60
18.000	82.60	82.60	82.60	82.60	82.60
18.250	82.59	82.59	82.59	82.59	82.59
18.500	82.59	82.59	82.58	82.58	82.58
18.750	82.58	82.58	82.58	82.58	82.58
19.000	82.57	82.57	82.57	82.57	82.57
19.250	82.57	82.57	82.57	82.57	82.56
19.500	82.56	82.56	82.56	82.56	82.56
19.750	82.56	82.56	82.56	82.56	82.55
20.000	82.55	82.55	82.55	82.55	82.55

Subsection: Time vs. Elevation
Label: PROP-POND (IN)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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)
20.250	82.55	82.55	82.55	82.55	82.55
20.500	82.54	82.54	82.54	82.54	82.54
20.750	82.54	82.54	82.54	82.54	82.54
21.000	82.54	82.53	82.53	82.53	82.53
21.250	82.53	82.53	82.53	82.53	82.53
21.500	82.53	82.53	82.53	82.52	82.52
21.750	82.52	82.52	82.52	82.52	82.52
22.000	82.52	82.52	82.52	82.52	82.52
22.250	82.52	82.51	82.51	82.51	82.51
22.500	82.51	82.51	82.51	82.51	82.51
22.750	82.51	82.51	82.51	82.51	82.51
23.000	82.50	82.50	82.50	82.50	82.50
23.250	82.50	82.50	82.50	82.50	82.50
23.500	82.50	82.50	82.50	82.49	82.49
23.750	82.49	82.49	82.49	82.49	82.49
24.000	82.49	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: PROP-POND (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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	80.00	80.00	80.00	80.00	80.00
0.250	80.00	80.00	80.00	80.00	80.00
0.500	80.00	80.00	80.00	80.00	80.00
0.750	80.00	80.00	80.00	80.00	80.00
1.000	80.00	80.00	80.00	80.00	80.00
1.250	80.00	80.00	80.00	80.00	80.00
1.500	80.00	80.00	80.00	80.00	80.00
1.750	80.00	80.00	80.00	80.00	80.00
2.000	80.00	80.00	80.00	80.00	80.00
2.250	80.00	80.00	80.00	80.00	80.00
2.500	80.00	80.00	80.00	80.00	80.00
2.750	80.00	80.00	80.00	80.00	80.00
3.000	80.00	80.00	80.00	80.00	80.00
3.250	80.00	80.00	80.00	80.00	80.00
3.500	80.00	80.00	80.00	80.00	80.00
3.750	80.00	80.00	80.00	80.00	80.00
4.000	80.00	80.00	80.00	80.00	80.00
4.250	80.00	80.01	80.01	80.01	80.01
4.500	80.01	80.01	80.01	80.01	80.02
4.750	80.02	80.02	80.02	80.02	80.03
5.000	80.03	80.03	80.03	80.04	80.04
5.250	80.04	80.04	80.05	80.05	80.05
5.500	80.06	80.06	80.06	80.07	80.07
5.750	80.08	80.08	80.08	80.09	80.09
6.000	80.10	80.10	80.10	80.11	80.11
6.250	80.12	80.12	80.13	80.13	80.14
6.500	80.14	80.15	80.16	80.16	80.17
6.750	80.17	80.18	80.19	80.19	80.20
7.000	80.21	80.21	80.22	80.23	80.24
7.250	80.24	80.25	80.26	80.27	80.28
7.500	80.28	80.29	80.30	80.31	80.32
7.750	80.33	80.34	80.35	80.36	80.37
8.000	80.38	80.39	80.40	80.41	80.43
8.250	80.44	80.45	80.46	80.48	80.49
8.500	80.51	80.52	80.54	80.55	80.57
8.750	80.59	80.61	80.62	80.64	80.66
9.000	80.68	80.70	80.72	80.74	80.77
9.250	80.79	80.81	80.84	80.86	80.89
9.500	80.91	80.94	80.97	81.00	81.03
9.750	81.05	81.08	81.12	81.15	81.18

Subsection: Time vs. Elevation | Return Event: 100 years
Label: PROP-POND (IN) | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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)
10.000	81.21	81.25	81.28	81.32	81.35
10.250	81.39	81.43	81.47	81.51	81.55
10.500	81.60	81.64	81.69	81.74	81.79
10.750	81.84	81.89	81.94	82.00	82.04
11.000	82.08	82.12	82.16	82.21	82.26
11.250	82.31	82.36	82.42	82.48	82.54
11.500	82.61	82.67	82.74	82.82	82.91
11.750	83.01	83.14	83.27	83.42	83.61
12.000	83.89	84.17	84.42	84.60	84.68
12.250	84.69	84.67	84.62	84.55	84.48
12.500	84.40	84.31	84.22	84.12	84.03
12.750	83.94	83.85	83.77	83.70	83.63
13.000	83.57	83.52	83.47	83.42	83.38
13.250	83.35	83.32	83.29	83.26	83.24
13.500	83.22	83.20	83.19	83.17	83.15
13.750	83.14	83.13	83.11	83.10	83.09
14.000	83.08	83.07	83.06	83.05	83.04
14.250	83.03	83.02	83.02	83.01	83.00
14.500	82.99	82.99	82.98	82.98	82.97
14.750	82.96	82.96	82.95	82.95	82.94
15.000	82.94	82.93	82.93	82.92	82.92
15.250	82.91	82.91	82.90	82.90	82.89
15.500	82.89	82.88	82.88	82.87	82.87
15.750	82.86	82.86	82.85	82.85	82.84
16.000	82.84	82.83	82.83	82.82	82.82
16.250	82.81	82.81	82.80	82.80	82.79
16.500	82.79	82.79	82.78	82.78	82.77
16.750	82.77	82.77	82.76	82.76	82.76
17.000	82.75	82.75	82.75	82.74	82.74
17.250	82.74	82.73	82.73	82.73	82.72
17.500	82.72	82.72	82.72	82.71	82.71
17.750	82.71	82.70	82.70	82.70	82.70
18.000	82.69	82.69	82.69	82.68	82.68
18.250	82.68	82.68	82.68	82.67	82.67
18.500	82.67	82.67	82.67	82.66	82.66
18.750	82.66	82.66	82.66	82.66	82.66
19.000	82.66	82.65	82.65	82.65	82.65
19.250	82.65	82.65	82.65	82.65	82.65
19.500	82.65	82.64	82.64	82.64	82.64
19.750	82.64	82.64	82.64	82.64	82.64
20.000	82.64	82.63	82.63	82.63	82.63

Subsection: Time vs. Elevation

Label: PROP-POND (IN)

Scenario: Post-Development 100-yr storm

Return Event: 100 years

Storm Event: 100-yr 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)
20.250	82.63	82.63	82.63	82.63	82.63
20.500	82.63	82.63	82.62	82.62	82.62
20.750	82.62	82.62	82.62	82.62	82.62
21.000	82.62	82.62	82.62	82.62	82.62
21.250	82.62	82.62	82.61	82.61	82.61
21.500	82.61	82.61	82.61	82.61	82.61
21.750	82.61	82.61	82.61	82.61	82.61
22.000	82.61	82.61	82.61	82.61	82.60
22.250	82.60	82.60	82.60	82.60	82.60
22.500	82.60	82.60	82.60	82.60	82.60
22.750	82.60	82.60	82.60	82.60	82.60
23.000	82.60	82.59	82.59	82.59	82.59
23.250	82.59	82.59	82.59	82.59	82.59
23.500	82.59	82.59	82.59	82.58	82.58
23.750	82.58	82.58	82.58	82.58	82.58
24.000	82.58	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: U-INF 1A (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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	97.00	97.00	97.00	97.00	97.00
0.250	97.00	97.00	97.00	97.00	97.00
0.500	97.00	97.00	97.00	97.00	97.00
0.750	97.00	97.00	97.00	97.00	97.00
1.000	97.00	97.00	97.00	97.00	97.00
1.250	97.00	97.00	97.00	97.00	97.00
1.500	97.00	97.00	97.00	97.00	97.00
1.750	97.00	97.00	97.00	97.00	97.00
2.000	97.00	97.00	97.00	97.00	97.00
2.250	97.00	97.00	97.00	97.00	97.00
2.500	97.00	97.00	97.00	97.00	97.00
2.750	97.00	97.00	97.00	97.00	97.00
3.000	97.00	97.00	97.00	97.00	97.00
3.250	97.00	97.00	97.00	97.00	97.00
3.500	97.00	97.00	97.00	97.00	97.00
3.750	97.00	97.00	97.00	97.00	97.00
4.000	97.00	97.00	97.00	97.00	97.00
4.250	97.00	97.00	97.00	97.00	97.00
4.500	97.00	97.00	97.00	97.00	97.00
4.750	97.00	97.00	97.00	97.00	97.00
5.000	97.00	97.00	97.00	97.00	97.00
5.250	97.00	97.00	97.00	97.00	97.00
5.500	97.00	97.00	97.00	97.00	97.00
5.750	97.00	97.00	97.00	97.00	97.00
6.000	97.00	97.00	97.00	97.00	97.00
6.250	97.00	97.00	97.00	97.00	97.00
6.500	97.00	97.00	97.00	97.00	97.00
6.750	97.00	97.00	97.00	97.00	97.00
7.000	97.00	97.00	97.00	97.00	97.00
7.250	97.00	97.00	97.00	97.00	97.00
7.500	97.00	97.00	97.00	97.00	97.00
7.750	97.00	97.00	97.00	97.00	97.00
8.000	97.00	97.00	97.00	97.00	97.00
8.250	97.00	97.00	97.00	97.00	97.00
8.500	97.00	97.00	97.00	97.00	97.00
8.750	97.00	97.00	97.00	97.00	97.00
9.000	97.00	97.00	97.00	97.00	97.00
9.250	97.00	97.00	97.00	97.00	97.00
9.500	97.00	97.00	97.00	97.00	97.00
9.750	97.00	97.00	97.00	97.00	97.00

Subsection: Time vs. Elevation | Return Event: 1 years
Label: U-INF 1A (IN) | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr 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)
10.000	97.00	97.00	97.00	97.00	97.00
10.250	97.00	97.00	97.00	97.00	97.00
10.500	97.00	97.00	97.00	97.00	97.00
10.750	97.00	97.00	97.00	97.00	97.00
11.000	97.00	97.00	97.00	97.00	97.00
11.250	97.00	97.00	97.00	97.00	97.00
11.500	97.00	97.00	97.01	97.01	97.01
11.750	97.02	97.04	97.06	97.08	97.12
12.000	97.17	97.24	97.32	97.40	97.46
12.250	97.51	97.55	97.59	97.62	97.64
12.500	97.66	97.67	97.68	97.69	97.69
12.750	97.70	97.70	97.71	97.71	97.71
13.000	97.72	97.72	97.72	97.72	97.72
13.250	97.72	97.72	97.72	97.72	97.72
13.500	97.72	97.72	97.72	97.72	97.72
13.750	97.72	97.72	97.72	97.72	97.72
14.000	97.72	97.72	97.72	97.72	97.72
14.250	97.72	97.72	97.72	97.72	97.72
14.500	97.72	97.72	97.72	97.72	97.72
14.750	97.72	97.72	97.72	97.72	97.72
15.000	97.72	97.72	97.72	97.72	97.72
15.250	97.72	97.72	97.72	97.72	97.72
15.500	97.72	97.72	97.72	97.72	97.72
15.750	97.72	97.72	97.72	97.72	97.72
16.000	97.72	97.72	97.72	97.72	97.72
16.250	97.72	97.72	97.72	97.72	97.72
16.500	97.72	97.72	97.72	97.72	97.72
16.750	97.72	97.72	97.72	97.72	97.72
17.000	97.72	97.72	97.72	97.72	97.72
17.250	97.72	97.72	97.72	97.72	97.72
17.500	97.72	97.72	97.72	97.72	97.72
17.750	97.72	97.72	97.72	97.72	97.72
18.000	97.72	97.72	97.72	97.72	97.72
18.250	97.72	97.72	97.72	97.72	97.72
18.500	97.72	97.72	97.72	97.72	97.72
18.750	97.72	97.72	97.72	97.72	97.72
19.000	97.72	97.72	97.72	97.72	97.72
19.250	97.72	97.72	97.72	97.72	97.72
19.500	97.72	97.72	97.72	97.72	97.72
19.750	97.72	97.72	97.72	97.72	97.72
20.000	97.72	97.72	97.72	97.72	97.72

Subsection: Time vs. Elevation
Label: U-INF 1A (IN)
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
20.250	97.72	97.72	97.72	97.72	97.72
20.500	97.72	97.72	97.72	97.72	97.72
20.750	97.72	97.72	97.72	97.72	97.72
21.000	97.72	97.72	97.72	97.72	97.72
21.250	97.72	97.72	97.72	97.72	97.72
21.500	97.72	97.72	97.72	97.72	97.72
21.750	97.72	97.72	97.72	97.72	97.72
22.000	97.72	97.72	97.72	97.72	97.72
22.250	97.72	97.72	97.72	97.72	97.72
22.500	97.72	97.72	97.72	97.72	97.72
22.750	97.72	97.72	97.72	97.72	97.72
23.000	97.72	97.72	97.72	97.72	97.72
23.250	97.72	97.72	97.72	97.72	97.72
23.500	97.72	97.72	97.72	97.72	97.72
23.750	97.72	97.72	97.72	97.72	97.72
24.000	97.72	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: U-INF 1A (IN)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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	97.00	97.00	97.00	97.00	97.00
0.250	97.00	97.00	97.00	97.00	97.00
0.500	97.00	97.00	97.00	97.00	97.00
0.750	97.00	97.00	97.00	97.00	97.00
1.000	97.00	97.00	97.00	97.00	97.00
1.250	97.00	97.00	97.00	97.00	97.00
1.500	97.00	97.00	97.00	97.00	97.00
1.750	97.00	97.00	97.00	97.00	97.00
2.000	97.00	97.00	97.00	97.00	97.00
2.250	97.00	97.00	97.00	97.00	97.00
2.500	97.00	97.00	97.00	97.00	97.00
2.750	97.00	97.00	97.00	97.00	97.00
3.000	97.00	97.00	97.00	97.00	97.00
3.250	97.00	97.00	97.00	97.00	97.00
3.500	97.00	97.00	97.00	97.00	97.00
3.750	97.00	97.00	97.00	97.00	97.00
4.000	97.00	97.00	97.00	97.00	97.00
4.250	97.00	97.00	97.00	97.00	97.00
4.500	97.00	97.00	97.00	97.00	97.00
4.750	97.00	97.00	97.00	97.00	97.00
5.000	97.00	97.00	97.00	97.00	97.00
5.250	97.00	97.00	97.00	97.00	97.00
5.500	97.00	97.00	97.00	97.00	97.00
5.750	97.00	97.00	97.00	97.00	97.00
6.000	97.00	97.00	97.00	97.00	97.00
6.250	97.00	97.00	97.00	97.00	97.00
6.500	97.00	97.00	97.00	97.00	97.00
6.750	97.00	97.00	97.00	97.00	97.00
7.000	97.00	97.00	97.00	97.00	97.00
7.250	97.00	97.00	97.00	97.00	97.00
7.500	97.00	97.00	97.00	97.00	97.00
7.750	97.00	97.00	97.00	97.00	97.00
8.000	97.00	97.00	97.00	97.00	97.00
8.250	97.00	97.00	97.00	97.00	97.00
8.500	97.00	97.00	97.00	97.00	97.00
8.750	97.00	97.00	97.00	97.00	97.00
9.000	97.00	97.00	97.00	97.00	97.00
9.250	97.00	97.00	97.00	97.00	97.00
9.500	97.00	97.00	97.00	97.00	97.00
9.750	97.00	97.00	97.00	97.00	97.00

Subsection: Time vs. Elevation Return Event: 10 years
Label: U-INF 1A (IN) Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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)
10.000	97.00	97.00	97.00	97.00	97.00
10.250	97.00	97.00	97.00	97.00	97.00
10.500	97.00	97.01	97.01	97.01	97.01
10.750	97.01	97.01	97.02	97.02	97.02
11.000	97.03	97.03	97.03	97.04	97.05
11.250	97.05	97.06	97.07	97.08	97.09
11.500	97.11	97.12	97.14	97.17	97.21
11.750	97.25	97.31	97.38	97.46	97.57
12.000	97.72	97.91	98.11	98.30	98.46
12.250	98.58	98.69	98.78	98.85	98.90
12.500	98.94	98.96	98.97	98.97	98.97
12.750	98.97	98.97	98.97	98.96	98.96
13.000	98.95	98.95	98.94	98.94	98.93
13.250	98.93	98.92	98.92	98.91	98.91
13.500	98.90	98.90	98.90	98.89	98.89
13.750	98.89	98.88	98.88	98.88	98.87
14.000	98.87	98.87	98.86	98.86	98.86
14.250	98.85	98.85	98.85	98.85	98.84
14.500	98.84	98.84	98.84	98.83	98.83
14.750	98.83	98.83	98.82	98.82	98.82
15.000	98.82	98.82	98.81	98.81	98.81
15.250	98.81	98.81	98.81	98.80	98.80
15.500	98.80	98.80	98.80	98.79	98.79
15.750	98.79	98.79	98.79	98.79	98.78
16.000	98.78	98.78	98.78	98.78	98.78
16.250	98.78	98.77	98.77	98.77	98.77
16.500	98.77	98.77	98.77	98.77	98.77
16.750	98.77	98.77	98.77	98.76	98.76
17.000	98.76	98.76	98.76	98.76	98.76
17.250	98.76	98.76	98.76	98.76	98.76
17.500	98.76	98.76	98.76	98.76	98.76
17.750	98.76	98.76	98.76	98.76	98.76
18.000	98.76	98.76	98.76	98.75	98.75
18.250	98.75	98.75	98.75	98.75	98.75
18.500	98.75	98.75	98.75	98.75	98.75
18.750	98.75	98.75	98.75	98.75	98.75
19.000	98.75	98.75	98.75	98.75	98.75
19.250	98.75	98.75	98.75	98.75	98.75
19.500	98.75	98.75	98.75	98.75	98.75
19.750	98.75	98.75	98.75	98.75	98.75
20.000	98.75	98.75	98.75	98.75	98.75

Subsection: Time vs. Elevation
Label: U-INF 1A (IN)
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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)
20.250	98.75	98.75	98.75	98.75	98.75
20.500	98.75	98.75	98.75	98.75	98.75
20.750	98.75	98.75	98.75	98.75	98.75
21.000	98.75	98.75	98.75	98.75	98.75
21.250	98.75	98.75	98.75	98.75	98.75
21.500	98.75	98.75	98.75	98.75	98.75
21.750	98.75	98.75	98.75	98.75	98.75
22.000	98.75	98.75	98.75	98.75	98.75
22.250	98.75	98.75	98.75	98.75	98.75
22.500	98.75	98.75	98.75	98.75	98.75
22.750	98.75	98.75	98.75	98.75	98.75
23.000	98.75	98.75	98.75	98.75	98.75
23.250	98.75	98.75	98.75	98.75	98.75
23.500	98.75	98.75	98.75	98.75	98.75
23.750	98.75	98.75	98.75	98.75	98.75
24.000	98.75	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation	Return Event: 100 years
Label: U-INF 1A (IN)	Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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	97.00	97.00	97.00	97.00	97.00
0.250	97.00	97.00	97.00	97.00	97.00
0.500	97.00	97.00	97.00	97.00	97.00
0.750	97.00	97.00	97.00	97.00	97.00
1.000	97.00	97.00	97.00	97.00	97.00
1.250	97.00	97.00	97.00	97.00	97.00
1.500	97.00	97.00	97.00	97.00	97.00
1.750	97.00	97.00	97.00	97.00	97.00
2.000	97.00	97.00	97.00	97.00	97.00
2.250	97.00	97.00	97.00	97.00	97.00
2.500	97.00	97.00	97.00	97.00	97.00
2.750	97.00	97.00	97.00	97.00	97.00
3.000	97.00	97.00	97.00	97.00	97.00
3.250	97.00	97.00	97.00	97.00	97.00
3.500	97.00	97.00	97.00	97.00	97.00
3.750	97.00	97.00	97.00	97.00	97.00
4.000	97.00	97.00	97.00	97.00	97.00
4.250	97.00	97.00	97.00	97.00	97.00
4.500	97.00	97.00	97.00	97.00	97.00
4.750	97.00	97.00	97.00	97.00	97.00
5.000	97.00	97.00	97.00	97.00	97.00
5.250	97.00	97.00	97.00	97.00	97.00
5.500	97.00	97.00	97.00	97.00	97.00
5.750	97.00	97.00	97.00	97.00	97.00
6.000	97.00	97.00	97.00	97.00	97.00
6.250	97.00	97.00	97.00	97.00	97.00
6.500	97.00	97.00	97.00	97.00	97.00
6.750	97.00	97.00	97.00	97.00	97.00
7.000	97.00	97.00	97.00	97.00	97.00
7.250	97.00	97.00	97.00	97.00	97.00
7.500	97.00	97.00	97.00	97.00	97.00
7.750	97.00	97.00	97.00	97.00	97.00
8.000	97.00	97.00	97.00	97.00	97.00
8.250	97.00	97.00	97.00	97.00	97.00
8.500	97.00	97.00	97.01	97.01	97.01
8.750	97.01	97.01	97.01	97.01	97.02
9.000	97.02	97.02	97.03	97.03	97.03
9.250	97.04	97.04	97.05	97.05	97.06
9.500	97.07	97.07	97.08	97.09	97.09
9.750	97.10	97.11	97.12	97.13	97.13

Subsection: Time vs. Elevation | Return Event: 100 years
Label: U-INF 1A (IN) | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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)
10.000	97.14	97.15	97.16	97.18	97.19
10.250	97.20	97.21	97.22	97.24	97.25
10.500	97.27	97.28	97.30	97.32	97.34
10.750	97.35	97.37	97.39	97.41	97.44
11.000	97.46	97.48	97.51	97.53	97.56
11.250	97.59	97.62	97.66	97.69	97.73
11.500	97.78	97.83	97.88	97.96	98.05
11.750	98.16	98.30	98.45	98.64	98.87
12.000	99.14	99.42	99.67	99.67	99.67
12.250	99.67	99.67	99.67	99.67	99.67
12.500	99.65	99.61	99.56	99.50	99.45
12.750	99.39	99.34	99.30	99.26	99.23
13.000	99.20	99.18	99.15	99.13	99.12
13.250	99.10	99.09	99.08	99.06	99.06
13.500	99.05	99.04	99.03	99.02	99.02
13.750	99.01	99.01	99.00	99.00	98.99
14.000	98.99	98.98	98.98	98.97	98.97
14.250	98.96	98.96	98.95	98.95	98.95
14.500	98.94	98.94	98.94	98.94	98.93
14.750	98.93	98.93	98.92	98.92	98.92
15.000	98.92	98.91	98.91	98.91	98.91
15.250	98.91	98.90	98.90	98.90	98.90
15.500	98.89	98.89	98.89	98.89	98.88
15.750	98.88	98.88	98.87	98.87	98.87
16.000	98.87	98.86	98.86	98.86	98.85
16.250	98.85	98.85	98.85	98.84	98.84
16.500	98.84	98.84	98.84	98.83	98.83
16.750	98.83	98.83	98.83	98.82	98.82
17.000	98.82	98.82	98.82	98.82	98.81
17.250	98.81	98.81	98.81	98.81	98.81
17.500	98.81	98.80	98.80	98.80	98.80
17.750	98.80	98.80	98.79	98.79	98.79
18.000	98.79	98.79	98.79	98.78	98.78
18.250	98.78	98.78	98.78	98.78	98.78
18.500	98.78	98.77	98.77	98.77	98.77
18.750	98.77	98.77	98.77	98.77	98.77
19.000	98.77	98.77	98.76	98.76	98.76
19.250	98.76	98.76	98.76	98.76	98.76
19.500	98.76	98.76	98.76	98.76	98.76
19.750	98.76	98.76	98.76	98.76	98.76
20.000	98.76	98.76	98.76	98.76	98.76

Subsection: Time vs. Elevation
Label: U-INF 1A (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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)
20.250	98.76	98.75	98.75	98.75	98.75
20.500	98.75	98.75	98.75	98.75	98.75
20.750	98.75	98.75	98.75	98.75	98.75
21.000	98.75	98.75	98.75	98.75	98.75
21.250	98.75	98.75	98.75	98.75	98.75
21.500	98.75	98.75	98.75	98.75	98.75
21.750	98.75	98.75	98.75	98.75	98.75
22.000	98.75	98.75	98.75	98.75	98.75
22.250	98.75	98.75	98.75	98.75	98.75
22.500	98.75	98.75	98.75	98.75	98.75
22.750	98.75	98.75	98.75	98.75	98.75
23.000	98.75	98.75	98.75	98.75	98.75
23.250	98.75	98.75	98.75	98.75	98.75
23.500	98.75	98.75	98.75	98.75	98.75
23.750	98.75	98.75	98.75	98.75	98.75
24.000	98.75	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: PO-7
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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

Subsection: Time vs. Volume Return Event: 1 years
Label: PO-7 Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr 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)
10.000	0.000	0.000	0.000	0.000	0.000
10.250	0.000	0.000	0.000	0.000	0.000
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	0.000	0.000	0.000	1.000
11.500	2.000	5.000	9.000	15.000	26.000
11.750	42.000	66.000	99.000	143.000	211.000
12.000	322.000	475.000	655.000	837.000	983.000
12.250	1,098.000	1,196.000	1,282.000	1,354.000	1,413.000
12.500	1,457.000	1,489.000	1,511.000	1,527.000	1,540.000
12.750	1,551.000	1,561.000	1,570.000	1,576.000	1,581.000
13.000	1,585.000	1,587.000	1,588.000	1,588.000	1,587.000
13.250	1,587.000	1,586.000	1,584.000	1,583.000	1,581.000
13.500	1,578.000	1,575.000	1,572.000	1,569.000	1,565.000
13.750	1,561.000	1,556.000	1,551.000	1,546.000	1,540.000
14.000	1,534.000	1,528.000	1,521.000	1,514.000	1,507.000
14.250	1,500.000	1,493.000	1,486.000	1,478.000	1,471.000
14.500	1,463.000	1,456.000	1,448.000	1,440.000	1,432.000
14.750	1,424.000	1,415.000	1,407.000	1,399.000	1,390.000
15.000	1,381.000	1,373.000	1,364.000	1,355.000	1,346.000
15.250	1,336.000	1,327.000	1,318.000	1,308.000	1,298.000
15.500	1,289.000	1,279.000	1,269.000	1,259.000	1,249.000
15.750	1,238.000	1,228.000	1,218.000	1,207.000	1,196.000
16.000	1,185.000	1,175.000	1,164.000	1,153.000	1,142.000
16.250	1,131.000	1,121.000	1,110.000	1,099.000	1,089.000
16.500	1,078.000	1,068.000	1,057.000	1,047.000	1,037.000
16.750	1,027.000	1,016.000	1,006.000	996.000	986.000
17.000	976.000	966.000	956.000	946.000	936.000
17.250	927.000	917.000	907.000	898.000	888.000
17.500	879.000	869.000	860.000	851.000	841.000
17.750	832.000	823.000	814.000	805.000	796.000
18.000	787.000	778.000	769.000	760.000	751.000
18.250	743.000	734.000	726.000	718.000	710.000
18.500	702.000	694.000	687.000	679.000	672.000
18.750	665.000	658.000	651.000	645.000	638.000
19.000	632.000	626.000	620.000	614.000	608.000
19.250	602.000	597.000	591.000	586.000	581.000
19.500	576.000	571.000	566.000	561.000	557.000
19.750	552.000	547.000	543.000	539.000	534.000
20.000	530.000	526.000	522.000	518.000	515.000

Subsection: Time vs. Volume Return Event: 1 years
Label: PO-7 Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

Time vs. Volume (ft^3)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)
20.250	511.000	507.000	504.000	500.000	497.000
20.500	493.000	490.000	487.000	484.000	480.000
20.750	477.000	474.000	471.000	468.000	466.000
21.000	463.000	460.000	457.000	455.000	452.000
21.250	450.000	447.000	445.000	442.000	440.000
21.500	437.000	435.000	433.000	431.000	428.000
21.750	426.000	424.000	422.000	420.000	418.000
22.000	416.000	414.000	412.000	410.000	408.000
22.250	406.000	404.000	402.000	400.000	398.000
22.500	397.000	395.000	393.000	391.000	390.000
22.750	388.000	386.000	385.000	383.000	381.000
23.000	380.000	378.000	377.000	375.000	373.000
23.250	372.000	370.000	369.000	367.000	366.000
23.500	364.000	363.000	362.000	360.000	359.000
23.750	357.000	356.000	354.000	353.000	352.000
24.000	350.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 10 years
Label: PO-7 | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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	1.000	2.000	3.000
9.500	5.000	7.000	9.000	12.000	15.000
9.750	19.000	23.000	27.000	32.000	37.000

Subsection: Time vs. Volume | Return Event: 10 years
Label: PO-7 | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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)
10.000	43.000	49.000	55.000	62.000	70.000
10.250	78.000	87.000	97.000	107.000	118.000
10.500	130.000	142.000	155.000	169.000	184.000
10.750	199.000	216.000	233.000	251.000	269.000
11.000	288.000	308.000	329.000	352.000	376.000
11.250	403.000	431.000	462.000	495.000	531.000
11.500	569.000	614.000	669.000	741.000	837.000
11.750	961.000	1,116.000	1,306.000	1,535.000	1,852.000
12.000	2,328.000	2,933.000	3,588.000	4,055.000	4,270.000
12.250	4,332.000	4,335.000	4,310.000	4,269.000	4,216.000
12.500	4,152.000	4,084.000	4,021.000	3,966.000	3,921.000
12.750	3,884.000	3,855.000	3,830.000	3,809.000	3,791.000
13.000	3,774.000	3,759.000	3,745.000	3,732.000	3,720.000
13.250	3,709.000	3,699.000	3,690.000	3,681.000	3,673.000
13.500	3,665.000	3,658.000	3,651.000	3,644.000	3,638.000
13.750	3,631.000	3,625.000	3,619.000	3,613.000	3,607.000
14.000	3,601.000	3,595.000	3,589.000	3,583.000	3,579.000
14.250	3,574.000	3,570.000	3,566.000	3,562.000	3,558.000
14.500	3,555.000	3,552.000	3,548.000	3,545.000	3,542.000
14.750	3,539.000	3,536.000	3,533.000	3,530.000	3,527.000
15.000	3,524.000	3,521.000	3,518.000	3,515.000	3,511.000
15.250	3,507.000	3,502.000	3,496.000	3,489.000	3,482.000
15.500	3,474.000	3,466.000	3,456.000	3,446.000	3,436.000
15.750	3,424.000	3,412.000	3,399.000	3,385.000	3,371.000
16.000	3,355.000	3,339.000	3,323.000	3,306.000	3,288.000
16.250	3,271.000	3,253.000	3,236.000	3,219.000	3,201.000
16.500	3,184.000	3,167.000	3,150.000	3,133.000	3,116.000
16.750	3,100.000	3,083.000	3,066.000	3,050.000	3,033.000
17.000	3,017.000	3,000.000	2,983.000	2,966.000	2,948.000
17.250	2,931.000	2,914.000	2,896.000	2,878.000	2,860.000
17.500	2,842.000	2,824.000	2,806.000	2,788.000	2,769.000
17.750	2,751.000	2,732.000	2,713.000	2,694.000	2,675.000
18.000	2,656.000	2,636.000	2,617.000	2,597.000	2,578.000
18.250	2,559.000	2,540.000	2,521.000	2,502.000	2,483.000
18.500	2,464.000	2,446.000	2,427.000	2,409.000	2,390.000
18.750	2,372.000	2,354.000	2,336.000	2,317.000	2,299.000
19.000	2,282.000	2,264.000	2,246.000	2,228.000	2,211.000
19.250	2,193.000	2,176.000	2,159.000	2,141.000	2,124.000
19.500	2,107.000	2,090.000	2,073.000	2,056.000	2,040.000
19.750	2,023.000	2,006.000	1,990.000	1,973.000	1,957.000
20.000	1,941.000	1,925.000	1,909.000	1,893.000	1,877.000

Subsection: Time vs. Volume
Label: PO-7
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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)
20.250	1,861.000	1,845.000	1,830.000	1,815.000	1,799.000
20.500	1,784.000	1,769.000	1,754.000	1,739.000	1,725.000
20.750	1,710.000	1,695.000	1,681.000	1,667.000	1,653.000
21.000	1,639.000	1,625.000	1,611.000	1,597.000	1,583.000
21.250	1,570.000	1,556.000	1,543.000	1,530.000	1,516.000
21.500	1,503.000	1,490.000	1,477.000	1,465.000	1,452.000
21.750	1,439.000	1,427.000	1,414.000	1,402.000	1,390.000
22.000	1,377.000	1,365.000	1,353.000	1,341.000	1,330.000
22.250	1,318.000	1,306.000	1,295.000	1,283.000	1,272.000
22.500	1,260.000	1,249.000	1,238.000	1,227.000	1,216.000
22.750	1,205.000	1,194.000	1,184.000	1,173.000	1,162.000
23.000	1,152.000	1,141.000	1,131.000	1,121.000	1,110.000
23.250	1,100.000	1,090.000	1,080.000	1,071.000	1,061.000
23.500	1,051.000	1,042.000	1,032.000	1,023.000	1,013.000
23.750	1,004.000	995.000	985.000	976.000	967.000
24.000	958.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 100 years
Label: PO-7 | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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	1.000
7.000	1.000	2.000	4.000	5.000	7.000
7.250	9.000	11.000	14.000	17.000	21.000
7.500	24.000	28.000	33.000	37.000	42.000
7.750	48.000	53.000	59.000	66.000	72.000
8.000	80.000	87.000	95.000	103.000	112.000
8.250	122.000	131.000	142.000	153.000	165.000
8.500	177.000	190.000	203.000	217.000	232.000
8.750	247.000	263.000	279.000	296.000	313.000
9.000	330.000	349.000	367.000	386.000	406.000
9.250	426.000	447.000	468.000	490.000	512.000
9.500	535.000	559.000	583.000	607.000	632.000
9.750	658.000	684.000	711.000	739.000	767.000

Subsection: Time vs. Volume
Label: PO-7
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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)
10.000	797.000	827.000	859.000	892.000	926.000
10.250	962.000	999.000	1,039.000	1,079.000	1,122.000
10.500	1,167.000	1,213.000	1,261.000	1,311.000	1,363.000
10.750	1,417.000	1,473.000	1,531.000	1,591.000	1,653.000
11.000	1,717.000	1,784.000	1,856.000	1,933.000	2,016.000
11.250	2,107.000	2,205.000	2,311.000	2,425.000	2,548.000
11.500	2,678.000	2,829.000	3,015.000	3,251.000	3,554.000
11.750	3,856.000	4,125.000	4,358.000	4,560.000	4,835.000
12.000	5,338.000	6,022.000	6,735.000	7,287.000	7,466.000
12.250	7,363.000	7,141.000	6,843.000	6,485.000	6,081.000
12.500	5,644.000	5,215.000	4,853.000	4,590.000	4,422.000
12.750	4,310.000	4,233.000	4,175.000	4,130.000	4,093.000
13.000	4,062.000	4,035.000	4,012.000	3,993.000	3,978.000
13.250	3,965.000	3,954.000	3,943.000	3,934.000	3,926.000
13.500	3,917.000	3,909.000	3,902.000	3,894.000	3,887.000
13.750	3,879.000	3,872.000	3,865.000	3,857.000	3,850.000
14.000	3,843.000	3,836.000	3,829.000	3,823.000	3,817.000
14.250	3,812.000	3,808.000	3,804.000	3,800.000	3,796.000
14.500	3,792.000	3,788.000	3,785.000	3,781.000	3,778.000
14.750	3,774.000	3,771.000	3,767.000	3,764.000	3,760.000
15.000	3,756.000	3,753.000	3,749.000	3,745.000	3,741.000
15.250	3,736.000	3,730.000	3,725.000	3,719.000	3,714.000
15.500	3,708.000	3,702.000	3,696.000	3,689.000	3,683.000
15.750	3,677.000	3,671.000	3,664.000	3,658.000	3,651.000
16.000	3,645.000	3,639.000	3,633.000	3,627.000	3,621.000
16.250	3,617.000	3,612.000	3,608.000	3,604.000	3,600.000
16.500	3,597.000	3,593.000	3,590.000	3,586.000	3,583.000
16.750	3,580.000	3,577.000	3,574.000	3,571.000	3,568.000
17.000	3,565.000	3,562.000	3,559.000	3,556.000	3,553.000
17.250	3,550.000	3,548.000	3,545.000	3,542.000	3,539.000
17.500	3,536.000	3,533.000	3,530.000	3,527.000	3,524.000
17.750	3,522.000	3,519.000	3,516.000	3,512.000	3,508.000
18.000	3,503.000	3,498.000	3,491.000	3,485.000	3,479.000
18.250	3,472.000	3,465.000	3,457.000	3,450.000	3,442.000
18.500	3,434.000	3,426.000	3,417.000	3,409.000	3,400.000
18.750	3,391.000	3,381.000	3,372.000	3,362.000	3,351.000
19.000	3,341.000	3,330.000	3,319.000	3,308.000	3,297.000
19.250	3,285.000	3,273.000	3,262.000	3,250.000	3,238.000
19.500	3,227.000	3,215.000	3,204.000	3,193.000	3,182.000
19.750	3,170.000	3,159.000	3,148.000	3,137.000	3,126.000
20.000	3,115.000	3,104.000	3,094.000	3,083.000	3,072.000

Subsection: Time vs. Volume | Return Event: 100 years
Label: PO-7 | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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)
20.250	3,062.000	3,051.000	3,041.000	3,030.000	3,020.000
20.500	3,009.000	2,999.000	2,988.000	2,978.000	2,967.000
20.750	2,956.000	2,945.000	2,934.000	2,923.000	2,912.000
21.000	2,902.000	2,891.000	2,880.000	2,869.000	2,858.000
21.250	2,846.000	2,835.000	2,824.000	2,813.000	2,802.000
21.500	2,790.000	2,779.000	2,767.000	2,756.000	2,745.000
21.750	2,733.000	2,722.000	2,710.000	2,699.000	2,687.000
22.000	2,675.000	2,664.000	2,652.000	2,640.000	2,628.000
22.250	2,616.000	2,604.000	2,592.000	2,581.000	2,569.000
22.500	2,557.000	2,544.000	2,532.000	2,520.000	2,508.000
22.750	2,496.000	2,484.000	2,472.000	2,459.000	2,447.000
23.000	2,435.000	2,423.000	2,410.000	2,398.000	2,385.000
23.250	2,373.000	2,360.000	2,348.000	2,335.000	2,323.000
23.500	2,310.000	2,298.000	2,285.000	2,272.000	2,260.000
23.750	2,247.000	2,234.000	2,222.000	2,209.000	2,196.000
24.000	2,183.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume Return Event: 1 years
Label: PROP-POND Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr 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	1.000	2.000	3.000
8.750	5.000	7.000	9.000	12.000	16.000
9.000	20.000	24.000	29.000	34.000	40.000
9.250	46.000	53.000	61.000	69.000	78.000
9.500	87.000	97.000	108.000	119.000	131.000
9.750	144.000	157.000	171.000	186.000	202.000

Subsection: Time vs. Volume
Label: PROP-POND
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
10.000	218.000	235.000	253.000	272.000	292.000
10.250	313.000	335.000	359.000	383.000	409.000
10.500	436.000	465.000	495.000	526.000	559.000
10.750	593.000	628.000	665.000	703.000	743.000
11.000	784.000	826.000	871.000	919.000	970.000
11.250	1,026.000	1,085.000	1,149.000	1,217.000	1,290.000
11.500	1,368.000	1,458.000	1,566.000	1,702.000	1,877.000
11.750	2,097.000	2,368.000	2,696.000	3,086.000	3,624.000
12.000	4,394.000	5,336.000	6,389.000	7,409.000	8,251.000
12.250	8,955.000	9,563.000	10,088.000	10,542.000	10,925.000
12.500	11,240.000	11,496.000	11,707.000	11,886.000	12,048.000
12.750	12,197.000	12,338.000	12,470.000	12,594.000	12,711.000
13.000	12,820.000	12,923.000	13,020.000	13,114.000	13,204.000
13.250	13,292.000	13,378.000	13,462.000	13,544.000	13,623.000
13.500	13,701.000	13,777.000	13,851.000	13,922.000	13,992.000
13.750	14,059.000	14,125.000	14,188.000	14,250.000	14,309.000
14.000	14,366.000	14,421.000	14,474.000	14,526.000	14,577.000
14.250	14,626.000	14,674.000	14,722.000	14,768.000	14,813.000
14.500	14,857.000	14,900.000	14,941.000	14,982.000	15,022.000
14.750	15,060.000	15,097.000	15,134.000	15,169.000	15,203.000
15.000	15,236.000	15,268.000	15,298.000	15,328.000	15,356.000
15.250	15,383.000	15,410.000	15,435.000	15,458.000	15,481.000
15.500	15,503.000	15,523.000	15,542.000	15,561.000	15,578.000
15.750	15,593.000	15,608.000	15,622.000	15,634.000	15,645.000
16.000	15,655.000	15,664.000	15,673.000	15,680.000	15,687.000
16.250	15,692.000	15,698.000	15,703.000	15,707.000	15,710.000
16.500	15,713.000	15,716.000	15,717.000	15,719.000	15,719.000
16.750	15,719.000	15,719.000	15,717.000	15,716.000	15,713.000
17.000	15,711.000	15,707.000	15,703.000	15,698.000	15,693.000
17.250	15,687.000	15,681.000	15,674.000	15,667.000	15,658.000
17.500	15,650.000	15,640.000	15,630.000	15,620.000	15,609.000
17.750	15,597.000	15,585.000	15,572.000	15,559.000	15,545.000
18.000	15,530.000	15,515.000	15,499.000	15,483.000	15,467.000
18.250	15,450.000	15,434.000	15,417.000	15,399.000	15,382.000
18.500	15,364.000	15,346.000	15,328.000	15,309.000	15,290.000
18.750	15,271.000	15,251.000	15,231.000	15,211.000	15,191.000
19.000	15,170.000	15,149.000	15,128.000	15,106.000	15,085.000
19.250	15,063.000	15,040.000	15,018.000	14,995.000	14,972.000
19.500	14,949.000	14,926.000	14,902.000	14,878.000	14,854.000
19.750	14,830.000	14,805.000	14,780.000	14,755.000	14,730.000
20.000	14,705.000	14,679.000	14,654.000	14,628.000	14,602.000

Subsection: Time vs. Volume | Return Event: 1 years
Label: PROP-POND | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr 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)
20.250	14,575.000	14,549.000	14,522.000	14,496.000	14,469.000
20.500	14,442.000	14,415.000	14,387.000	14,360.000	14,332.000
20.750	14,305.000	14,277.000	14,249.000	14,221.000	14,192.000
21.000	14,164.000	14,136.000	14,107.000	14,078.000	14,049.000
21.250	14,020.000	13,991.000	13,962.000	13,933.000	13,903.000
21.500	13,874.000	13,844.000	13,814.000	13,784.000	13,754.000
21.750	13,724.000	13,694.000	13,663.000	13,633.000	13,602.000
22.000	13,572.000	13,541.000	13,510.000	13,479.000	13,448.000
22.250	13,417.000	13,385.000	13,354.000	13,323.000	13,291.000
22.500	13,259.000	13,228.000	13,196.000	13,164.000	13,132.000
22.750	13,100.000	13,068.000	13,035.000	13,003.000	12,970.000
23.000	12,938.000	12,905.000	12,872.000	12,840.000	12,807.000
23.250	12,774.000	12,741.000	12,707.000	12,674.000	12,641.000
23.500	12,608.000	12,574.000	12,540.000	12,507.000	12,473.000
23.750	12,439.000	12,406.000	12,372.000	12,338.000	12,304.000
24.000	12,270.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume Return Event: 10 years
Label: PROP-POND Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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	1.000	2.000	3.000	4.000	6.000
6.250	8.000	10.000	12.000	15.000	19.000
6.500	23.000	27.000	31.000	36.000	42.000
6.750	48.000	54.000	61.000	68.000	76.000
7.000	84.000	92.000	101.000	111.000	121.000
7.250	132.000	143.000	155.000	167.000	180.000
7.500	194.000	208.000	223.000	238.000	254.000
7.750	270.000	288.000	305.000	324.000	343.000
8.000	363.000	383.000	404.000	426.000	449.000
8.250	474.000	499.000	525.000	552.000	581.000
8.500	610.000	641.000	673.000	705.000	739.000
8.750	774.000	810.000	847.000	885.000	924.000
9.000	964.000	1,006.000	1,048.000	1,092.000	1,137.000
9.250	1,183.000	1,231.000	1,279.000	1,329.000	1,381.000
9.500	1,433.000	1,487.000	1,542.000	1,599.000	1,657.000
9.750	1,716.000	1,777.000	1,839.000	1,902.000	1,968.000

Time vs. Volume (ft^3)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)
10.000	2,035.000	2,104.000	2,175.000	2,249.000	2,326.000
10.250	2,406.000	2,489.000	2,575.000	2,664.000	2,757.000
10.500	2,853.000	2,953.000	3,057.000	3,164.000	3,274.000
10.750	3,389.000	3,507.000	3,629.000	3,755.000	3,885.000
11.000	4,020.000	4,160.000	4,308.000	4,465.000	4,634.000
11.250	4,816.000	5,010.000	5,219.000	5,441.000	5,678.000
11.500	5,929.000	6,216.000	6,557.000	6,980.000	7,514.000
11.750	8,170.000	8,961.000	9,893.000	10,975.000	12,409.000
12.000	14,397.000	16,767.000	19,160.000	21,194.000	22,626.000
12.250	23,576.000	24,169.000	24,481.000	24,604.000	24,584.000
12.500	24,448.000	24,232.000	23,962.000	23,670.000	23,387.000
12.750	23,121.000	22,874.000	22,645.000	22,433.000	22,233.000
13.000	22,043.000	21,863.000	21,694.000	21,537.000	21,394.000
13.250	21,261.000	21,138.000	21,025.000	20,920.000	20,822.000
13.500	20,731.000	20,646.000	20,565.000	20,489.000	20,416.000
13.750	20,346.000	20,278.000	20,213.000	20,150.000	20,088.000
14.000	20,028.000	19,969.000	19,912.000	19,857.000	19,805.000
14.250	19,755.000	19,707.000	19,662.000	19,618.000	19,574.000
14.500	19,532.000	19,490.000	19,450.000	19,410.000	19,371.000
14.750	19,333.000	19,295.000	19,259.000	19,222.000	19,187.000
15.000	19,152.000	19,117.000	19,083.000	19,049.000	19,016.000
15.250	18,984.000	18,953.000	18,922.000	18,892.000	18,863.000
15.500	18,834.000	18,806.000	18,779.000	18,752.000	18,725.000
15.750	18,698.000	18,671.000	18,645.000	18,618.000	18,592.000
16.000	18,566.000	18,541.000	18,516.000	18,491.000	18,468.000
16.250	18,445.000	18,424.000	18,402.000	18,381.000	18,361.000
16.500	18,341.000	18,322.000	18,302.000	18,284.000	18,265.000
16.750	18,247.000	18,229.000	18,212.000	18,195.000	18,178.000
17.000	18,162.000	18,145.000	18,130.000	18,115.000	18,099.000
17.250	18,085.000	18,070.000	18,056.000	18,042.000	18,028.000
17.500	18,014.000	18,001.000	17,988.000	17,975.000	17,962.000
17.750	17,949.000	17,936.000	17,923.000	17,911.000	17,899.000
18.000	17,886.000	17,874.000	17,861.000	17,849.000	17,836.000
18.250	17,824.000	17,812.000	17,799.000	17,788.000	17,776.000
18.500	17,764.000	17,753.000	17,741.000	17,730.000	17,719.000
18.750	17,708.000	17,698.000	17,687.000	17,676.000	17,666.000
19.000	17,656.000	17,646.000	17,635.000	17,625.000	17,615.000
19.250	17,606.000	17,596.000	17,586.000	17,577.000	17,567.000
19.500	17,558.000	17,548.000	17,539.000	17,530.000	17,521.000
19.750	17,511.000	17,502.000	17,493.000	17,484.000	17,475.000
20.000	17,467.000	17,458.000	17,449.000	17,440.000	17,432.000

Subsection: Time vs. Volume | Return Event: 10 years
Label: PROP-POND | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr 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)
20.250	17,423.000	17,415.000	17,407.000	17,398.000	17,390.000
20.500	17,382.000	17,374.000	17,366.000	17,358.000	17,350.000
20.750	17,342.000	17,334.000	17,327.000	17,319.000	17,311.000
21.000	17,304.000	17,296.000	17,289.000	17,281.000	17,274.000
21.250	17,267.000	17,259.000	17,252.000	17,245.000	17,238.000
21.500	17,230.000	17,223.000	17,216.000	17,209.000	17,202.000
21.750	17,195.000	17,188.000	17,181.000	17,174.000	17,168.000
22.000	17,161.000	17,154.000	17,147.000	17,140.000	17,134.000
22.250	17,127.000	17,120.000	17,113.000	17,106.000	17,100.000
22.500	17,093.000	17,086.000	17,080.000	17,073.000	17,067.000
22.750	17,060.000	17,054.000	17,047.000	17,041.000	17,034.000
23.000	17,028.000	17,021.000	17,015.000	17,008.000	17,002.000
23.250	16,995.000	16,989.000	16,982.000	16,976.000	16,968.000
23.500	16,961.000	16,953.000	16,944.000	16,936.000	16,927.000
23.750	16,917.000	16,908.000	16,898.000	16,887.000	16,876.000
24.000	16,865.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: PROP-POND
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr 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	1.000	1.000	3.000	4.000
4.000	7.000	10.000	13.000	18.000	22.000
4.250	28.000	34.000	40.000	47.000	55.000
4.500	63.000	72.000	82.000	92.000	103.000
4.750	114.000	126.000	139.000	152.000	166.000
5.000	181.000	196.000	211.000	228.000	245.000
5.250	262.000	280.000	299.000	319.000	339.000
5.500	359.000	381.000	403.000	425.000	448.000
5.750	472.000	496.000	521.000	547.000	573.000
6.000	600.000	628.000	656.000	684.000	714.000
6.250	744.000	775.000	807.000	839.000	872.000
6.500	907.000	942.000	978.000	1,014.000	1,052.000
6.750	1,091.000	1,130.000	1,171.000	1,212.000	1,254.000
7.000	1,297.000	1,341.000	1,387.000	1,433.000	1,480.000
7.250	1,528.000	1,577.000	1,627.000	1,678.000	1,730.000
7.500	1,783.000	1,837.000	1,892.000	1,949.000	2,007.000
7.750	2,066.000	2,127.000	2,189.000	2,253.000	2,318.000
8.000	2,384.000	2,452.000	2,522.000	2,594.000	2,669.000
8.250	2,746.000	2,826.000	2,909.000	2,994.000	3,083.000
8.500	3,174.000	3,269.000	3,366.000	3,467.000	3,571.000
8.750	3,678.000	3,788.000	3,902.000	4,019.000	4,140.000
9.000	4,265.000	4,393.000	4,525.000	4,661.000	4,801.000
9.250	4,944.000	5,091.000	5,243.000	5,398.000	5,557.000
9.500	5,721.000	5,888.000	6,060.000	6,236.000	6,416.000
9.750	6,600.000	6,789.000	6,983.000	7,180.000	7,382.000

Subsection: Time vs. Volume
Label: PROP-POND
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Time vs. Volume (ft^3)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)
10.000	7,587.000	7,798.000	8,014.000	8,236.000	8,466.000
10.250	8,702.000	8,947.000	9,198.000	9,458.000	9,726.000
10.500	10,001.000	10,285.000	10,576.000	10,876.000	11,184.000
10.750	11,500.000	11,825.000	12,158.000	12,499.000	12,850.000
11.000	13,209.000	13,581.000	13,969.000	14,377.000	14,812.000
11.250	15,273.000	15,763.000	16,282.000	16,831.000	17,388.000
11.500	17,941.000	18,511.000	19,126.000	19,824.000	20,633.000
11.750	21,572.000	22,666.000	23,895.000	25,220.000	26,948.000
12.000	29,395.000	32,252.000	35,045.000	37,077.000	37,953.000
12.250	38,084.000	37,800.000	37,246.000	36,536.000	35,712.000
12.500	34,797.000	33,823.000	32,807.000	31,776.000	30,781.000
12.750	29,872.000	29,065.000	28,344.000	27,697.000	27,108.000
13.000	26,571.000	26,083.000	25,641.000	25,244.000	24,891.000
13.250	24,575.000	24,295.000	24,046.000	23,822.000	23,621.000
13.500	23,438.000	23,272.000	23,118.000	22,975.000	22,841.000
13.750	22,716.000	22,598.000	22,485.000	22,379.000	22,276.000
14.000	22,177.000	22,082.000	21,990.000	21,902.000	21,820.000
14.250	21,742.000	21,669.000	21,599.000	21,534.000	21,472.000
14.500	21,412.000	21,353.000	21,297.000	21,242.000	21,188.000
14.750	21,136.000	21,084.000	21,034.000	20,985.000	20,936.000
15.000	20,888.000	20,840.000	20,794.000	20,747.000	20,702.000
15.250	20,657.000	20,613.000	20,569.000	20,525.000	20,481.000
15.500	20,437.000	20,392.000	20,348.000	20,303.000	20,258.000
15.750	20,213.000	20,168.000	20,122.000	20,077.000	20,031.000
16.000	19,984.000	19,939.000	19,893.000	19,849.000	19,806.000
16.250	19,765.000	19,725.000	19,687.000	19,650.000	19,613.000
16.500	19,578.000	19,543.000	19,508.000	19,474.000	19,441.000
16.750	19,408.000	19,376.000	19,344.000	19,313.000	19,283.000
17.000	19,252.000	19,222.000	19,193.000	19,164.000	19,135.000
17.250	19,106.000	19,078.000	19,050.000	19,022.000	18,995.000
17.500	18,967.000	18,940.000	18,913.000	18,886.000	18,860.000
17.750	18,833.000	18,807.000	18,782.000	18,757.000	18,732.000
18.000	18,708.000	18,683.000	18,660.000	18,637.000	18,615.000
18.250	18,595.000	18,575.000	18,556.000	18,538.000	18,522.000
18.500	18,505.000	18,490.000	18,475.000	18,461.000	18,448.000
18.750	18,435.000	18,422.000	18,410.000	18,399.000	18,387.000
19.000	18,377.000	18,367.000	18,356.000	18,347.000	18,337.000
19.250	18,328.000	18,319.000	18,311.000	18,302.000	18,293.000
19.500	18,284.000	18,275.000	18,266.000	18,257.000	18,248.000
19.750	18,239.000	18,230.000	18,221.000	18,213.000	18,204.000
20.000	18,195.000	18,187.000	18,178.000	18,169.000	18,161.000

Subsection: Time vs. Volume | Return Event: 100 years
Label: PROP-POND | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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)
20.250	18,153.000	18,145.000	18,137.000	18,130.000	18,122.000
20.500	18,115.000	18,108.000	18,101.000	18,094.000	18,088.000
20.750	18,081.000	18,075.000	18,068.000	18,062.000	18,056.000
21.000	18,050.000	18,045.000	18,039.000	18,033.000	18,027.000
21.250	18,022.000	18,016.000	18,011.000	18,005.000	18,000.000
21.500	17,994.000	17,988.000	17,983.000	17,978.000	17,973.000
21.750	17,967.000	17,962.000	17,957.000	17,952.000	17,947.000
22.000	17,942.000	17,937.000	17,932.000	17,927.000	17,922.000
22.250	17,917.000	17,911.000	17,906.000	17,901.000	17,896.000
22.500	17,891.000	17,886.000	17,881.000	17,877.000	17,872.000
22.750	17,866.000	17,860.000	17,854.000	17,848.000	17,842.000
23.000	17,836.000	17,829.000	17,822.000	17,815.000	17,809.000
23.250	17,802.000	17,794.000	17,787.000	17,780.000	17,773.000
23.500	17,765.000	17,758.000	17,750.000	17,742.000	17,735.000
23.750	17,727.000	17,719.000	17,711.000	17,703.000	17,694.000
24.000	17,686.000	(N/A)	(N/A)	(N/A)	(N/A)

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	1.000	1.000	1.000	1.000	1.000
9.000	1.000	1.000	2.000	2.000	2.000
9.250	2.000	2.000	2.000	3.000	3.000
9.500	3.000	3.000	3.000	4.000	4.000
9.750	4.000	4.000	5.000	5.000	5.000

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)
10.000	5.000	6.000	6.000	6.000	7.000
10.250	7.000	7.000	8.000	8.000	9.000
10.500	9.000	10.000	10.000	10.000	11.000
10.750	11.000	12.000	12.000	13.000	14.000
11.000	14.000	15.000	16.000	17.000	18.000
11.250	20.000	21.000	23.000	25.000	26.000
11.500	28.000	34.000	40.000	62.000	109.000
11.750	184.000	291.000	434.000	616.000	889.000
12.000	1,305.000	1,826.000	2,415.000	2,983.000	3,441.000
12.250	3,816.000	4,133.000	4,399.000	4,621.000	4,801.000
12.500	4,939.000	5,042.000	5,116.000	5,172.000	5,218.000
12.750	5,255.000	5,288.000	5,315.000	5,338.000	5,356.000
13.000	5,370.000	5,380.000	5,387.000	5,392.000	5,394.000
13.250	5,396.000	5,396.000	5,397.000	5,397.000	5,398.000
13.500	5,399.000	5,399.000	5,400.000	5,400.000	5,401.000
13.750	5,402.000	5,402.000	5,403.000	5,403.000	5,404.000
14.000	5,404.000	5,405.000	5,405.000	5,406.000	5,406.000
14.250	5,406.000	5,407.000	5,407.000	5,407.000	5,408.000
14.500	5,408.000	5,408.000	5,408.000	5,409.000	5,409.000
14.750	5,409.000	5,409.000	5,410.000	5,410.000	5,410.000
15.000	5,411.000	5,411.000	5,411.000	5,412.000	5,412.000
15.250	5,412.000	5,412.000	5,413.000	5,413.000	5,413.000
15.500	5,414.000	5,414.000	5,414.000	5,415.000	5,415.000
15.750	5,415.000	5,415.000	5,416.000	5,416.000	5,416.000
16.000	5,417.000	5,417.000	5,417.000	5,417.000	5,417.000
16.250	5,418.000	5,418.000	5,418.000	5,418.000	5,418.000
16.500	5,418.000	5,418.000	5,418.000	5,419.000	5,419.000
16.750	5,419.000	5,419.000	5,419.000	5,419.000	5,419.000
17.000	5,420.000	5,420.000	5,420.000	5,420.000	5,420.000
17.250	5,420.000	5,420.000	5,420.000	5,421.000	5,421.000
17.500	5,421.000	5,421.000	5,421.000	5,421.000	5,421.000
17.750	5,422.000	5,422.000	5,422.000	5,422.000	5,422.000
18.000	5,422.000	5,422.000	5,422.000	5,422.000	5,423.000
18.250	5,423.000	5,423.000	5,423.000	5,423.000	5,423.000
18.500	5,423.000	5,423.000	5,423.000	5,423.000	5,423.000
18.750	5,423.000	5,423.000	5,423.000	5,423.000	5,423.000
19.000	5,423.000	5,423.000	5,423.000	5,423.000	5,423.000
19.250	5,423.000	5,423.000	5,423.000	5,423.000	5,424.000
19.500	5,424.000	5,424.000	5,424.000	5,424.000	5,424.000
19.750	5,424.000	5,424.000	5,424.000	5,424.000	5,424.000
20.000	5,424.000	5,424.000	5,424.000	5,424.000	5,424.000

Subsection: Time vs. Volume
Label: U-INF 1A
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr 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)
20.250	5,424.000	5,424.000	5,424.000	5,424.000	5,424.000
20.500	5,424.000	5,424.000	5,424.000	5,424.000	5,424.000
20.750	5,424.000	5,424.000	5,424.000	5,425.000	5,425.000
21.000	5,425.000	5,425.000	5,425.000	5,425.000	5,425.000
21.250	5,425.000	5,425.000	5,425.000	5,425.000	5,425.000
21.500	5,425.000	5,425.000	5,425.000	5,425.000	5,425.000
21.750	5,425.000	5,425.000	5,425.000	5,425.000	5,425.000
22.000	5,425.000	5,425.000	5,425.000	5,425.000	5,425.000
22.250	5,425.000	5,425.000	5,425.000	5,425.000	5,425.000
22.500	5,425.000	5,425.000	5,426.000	5,426.000	5,426.000
22.750	5,426.000	5,426.000	5,426.000	5,426.000	5,426.000
23.000	5,426.000	5,426.000	5,426.000	5,426.000	5,426.000
23.250	5,426.000	5,426.000	5,426.000	5,426.000	5,426.000
23.500	5,426.000	5,426.000	5,426.000	5,426.000	5,426.000
23.750	5,426.000	5,426.000	5,426.000	5,426.000	5,426.000
24.000	5,426.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: U-INF 1A
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr 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	1.000	1.000	1.000	1.000	1.000
6.500	1.000	1.000	1.000	2.000	2.000
6.750	2.000	2.000	2.000	2.000	3.000
7.000	3.000	3.000	3.000	3.000	3.000
7.250	4.000	4.000	4.000	4.000	4.000
7.500	4.000	5.000	5.000	5.000	5.000
7.750	6.000	6.000	6.000	6.000	6.000
8.000	7.000	7.000	7.000	7.000	8.000
8.250	8.000	9.000	9.000	9.000	10.000
8.500	10.000	10.000	11.000	11.000	12.000
8.750	12.000	13.000	13.000	14.000	14.000
9.000	15.000	15.000	16.000	16.000	17.000
9.250	17.000	18.000	18.000	19.000	19.000
9.500	20.000	21.000	21.000	22.000	22.000
9.750	23.000	24.000	24.000	25.000	26.000

Subsection: Time vs. Volume
Label: U-INF 1A
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Time vs. Volume (ft^3)

Output Time increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)	Volume (ft^3)
10.000	26.000	27.000	28.000	29.000	30.000
10.250	31.000	32.000	33.000	34.000	35.000
10.500	37.000	41.000	48.000	57.000	69.000
10.750	83.000	100.000	119.000	141.000	165.000
11.000	192.000	223.000	259.000	300.000	349.000
11.250	405.000	469.000	542.000	623.000	713.000
11.500	812.000	932.000	1,085.000	1,289.000	1,560.000
11.750	1,905.000	2,333.000	2,847.000	3,453.000	4,273.000
12.000	5,431.000	6,821.000	8,337.000	9,778.000	10,944.000
12.250	11,899.000	12,709.000	13,384.000	13,911.000	14,299.000
12.500	14,554.000	14,708.000	14,787.000	14,819.000	14,827.000
12.750	14,819.000	14,802.000	14,777.000	14,746.000	14,710.000
13.000	14,670.000	14,628.000	14,584.000	14,542.000	14,501.000
13.250	14,463.000	14,428.000	14,394.000	14,363.000	14,333.000
13.500	14,305.000	14,278.000	14,251.000	14,225.000	14,199.000
13.750	14,172.000	14,146.000	14,120.000	14,094.000	14,068.000
14.000	14,042.000	14,016.000	13,991.000	13,966.000	13,942.000
14.250	13,920.000	13,898.000	13,877.000	13,857.000	13,837.000
14.500	13,819.000	13,800.000	13,783.000	13,766.000	13,749.000
14.750	13,733.000	13,717.000	13,701.000	13,686.000	13,671.000
15.000	13,656.000	13,641.000	13,627.000	13,612.000	13,598.000
15.250	13,584.000	13,570.000	13,557.000	13,543.000	13,530.000
15.500	13,516.000	13,502.000	13,487.000	13,472.000	13,458.000
15.750	13,444.000	13,431.000	13,418.000	13,406.000	13,395.000
16.000	13,384.000	13,373.000	13,363.000	13,354.000	13,344.000
16.250	13,335.000	13,327.000	13,319.000	13,311.000	13,304.000
16.500	13,296.000	13,290.000	13,283.000	13,277.000	13,271.000
16.750	13,266.000	13,260.000	13,255.000	13,250.000	13,246.000
17.000	13,241.000	13,237.000	13,233.000	13,229.000	13,225.000
17.250	13,222.000	13,218.000	13,215.000	13,212.000	13,209.000
17.500	13,206.000	13,204.000	13,201.000	13,199.000	13,197.000
17.750	13,194.000	13,192.000	13,190.000	13,188.000	13,187.000
18.000	13,185.000	13,183.000	13,181.000	13,180.000	13,178.000
18.250	13,177.000	13,175.000	13,174.000	13,172.000	13,171.000
18.500	13,170.000	13,169.000	13,168.000	13,166.000	13,165.000
18.750	13,164.000	13,164.000	13,163.000	13,162.000	13,161.000
19.000	13,160.000	13,160.000	13,159.000	13,158.000	13,157.000
19.250	13,157.000	13,156.000	13,156.000	13,155.000	13,155.000
19.500	13,154.000	13,154.000	13,153.000	13,153.000	13,153.000
19.750	13,152.000	13,152.000	13,151.000	13,151.000	13,151.000
20.000	13,150.000	13,150.000	13,150.000	13,150.000	13,149.000

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)
20.250	13,149.000	13,149.000	13,149.000	13,148.000	13,148.000
20.500	13,148.000	13,148.000	13,148.000	13,147.000	13,147.000
20.750	13,147.000	13,147.000	13,147.000	13,147.000	13,147.000
21.000	13,146.000	13,146.000	13,146.000	13,146.000	13,146.000
21.250	13,146.000	13,146.000	13,146.000	13,146.000	13,146.000
21.500	13,145.000	13,145.000	13,145.000	13,145.000	13,145.000
21.750	13,145.000	13,145.000	13,145.000	13,145.000	13,145.000
22.000	13,145.000	13,145.000	13,145.000	13,145.000	13,145.000
22.250	13,145.000	13,145.000	13,145.000	13,144.000	13,144.000
22.500	13,144.000	13,144.000	13,144.000	13,144.000	13,144.000
22.750	13,144.000	13,144.000	13,144.000	13,144.000	13,144.000
23.000	13,144.000	13,144.000	13,144.000	13,144.000	13,144.000
23.250	13,144.000	13,144.000	13,144.000	13,144.000	13,144.000
23.500	13,144.000	13,144.000	13,144.000	13,144.000	13,144.000
23.750	13,144.000	13,144.000	13,144.000	13,144.000	13,144.000
24.000	13,144.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 100 years
Label: U-INF 1A | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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	1.000
4.000	1.000	1.000	1.000	1.000	2.000
4.250	2.000	2.000	2.000	2.000	3.000
4.500	3.000	3.000	3.000	3.000	4.000
4.750	4.000	4.000	4.000	4.000	5.000
5.000	5.000	5.000	5.000	5.000	6.000
5.250	6.000	6.000	6.000	6.000	7.000
5.500	7.000	7.000	7.000	8.000	8.000
5.750	8.000	8.000	8.000	9.000	9.000
6.000	9.000	9.000	10.000	10.000	10.000
6.250	11.000	11.000	11.000	12.000	12.000
6.500	12.000	13.000	13.000	14.000	14.000
6.750	14.000	15.000	15.000	16.000	16.000
7.000	17.000	17.000	18.000	18.000	18.000
7.250	19.000	19.000	20.000	20.000	21.000
7.500	21.000	22.000	22.000	23.000	23.000
7.750	24.000	24.000	25.000	25.000	26.000
8.000	26.000	27.000	28.000	29.000	30.000
8.250	31.000	31.000	32.000	33.000	34.000
8.500	35.000	37.000	41.000	47.000	55.000
8.750	65.000	77.000	91.000	108.000	127.000
9.000	148.000	171.000	197.000	225.000	256.000
9.250	289.000	324.000	362.000	402.000	444.000
9.500	489.000	537.000	587.000	640.000	695.000
9.750	753.000	814.000	877.000	942.000	1,011.000

Subsection: Time vs. Volume | Return Event: 100 years
Label: U-INF 1A | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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)
10.000	1,082.000	1,156.000	1,233.000	1,315.000	1,401.000
10.250	1,491.000	1,586.000	1,686.000	1,790.000	1,900.000
10.500	2,014.000	2,133.000	2,258.000	2,387.000	2,522.000
10.750	2,662.000	2,806.000	2,957.000	3,112.000	3,273.000
11.000	3,439.000	3,612.000	3,795.000	3,991.000	4,202.000
11.250	4,430.000	4,675.000	4,938.000	5,219.000	5,518.000
11.500	5,836.000	6,199.000	6,634.000	7,178.000	7,866.000
11.750	8,711.000	9,726.000	10,916.000	12,287.000	14,015.000
12.000	16,085.000	18,177.000	20,052.000	20,052.000	20,052.000
12.250	20,052.000	20,052.000	20,052.000	20,052.000	20,052.000
12.500	19,899.000	19,611.000	19,232.000	18,805.000	18,379.000
12.750	17,967.000	17,601.000	17,275.000	16,994.000	16,750.000
13.000	16,535.000	16,343.000	16,173.000	16,023.000	15,892.000
13.250	15,778.000	15,677.000	15,587.000	15,506.000	15,434.000
13.500	15,367.000	15,307.000	15,251.000	15,200.000	15,152.000
13.750	15,107.000	15,065.000	15,024.000	14,985.000	14,946.000
14.000	14,908.000	14,870.000	14,834.000	14,799.000	14,766.000
14.250	14,735.000	14,706.000	14,678.000	14,652.000	14,627.000
14.500	14,603.000	14,580.000	14,558.000	14,536.000	14,515.000
14.750	14,495.000	14,475.000	14,456.000	14,436.000	14,417.000
15.000	14,399.000	14,381.000	14,362.000	14,344.000	14,327.000
15.250	14,309.000	14,291.000	14,274.000	14,256.000	14,238.000
15.500	14,219.000	14,199.000	14,179.000	14,159.000	14,139.000
15.750	14,118.000	14,097.000	14,075.000	14,053.000	14,032.000
16.000	14,009.000	13,987.000	13,966.000	13,945.000	13,924.000
16.250	13,905.000	13,886.000	13,868.000	13,850.000	13,834.000
16.500	13,818.000	13,802.000	13,787.000	13,772.000	13,758.000
16.750	13,744.000	13,730.000	13,717.000	13,704.000	13,691.000
17.000	13,678.000	13,666.000	13,654.000	13,642.000	13,630.000
17.250	13,618.000	13,606.000	13,595.000	13,583.000	13,572.000
17.500	13,560.000	13,549.000	13,538.000	13,527.000	13,516.000
17.750	13,504.000	13,492.000	13,479.000	13,466.000	13,453.000
18.000	13,439.000	13,426.000	13,414.000	13,401.000	13,390.000
18.250	13,379.000	13,368.000	13,358.000	13,348.000	13,339.000
18.500	13,330.000	13,322.000	13,314.000	13,306.000	13,299.000
18.750	13,292.000	13,285.000	13,279.000	13,273.000	13,267.000
19.000	13,261.000	13,256.000	13,251.000	13,246.000	13,242.000
19.250	13,237.000	13,233.000	13,229.000	13,225.000	13,222.000
19.500	13,218.000	13,215.000	13,212.000	13,209.000	13,206.000
19.750	13,203.000	13,200.000	13,198.000	13,196.000	13,193.000
20.000	13,191.000	13,189.000	13,187.000	13,185.000	13,183.000

Subsection: Time vs. Volume | Return Event: 100 years
Label: U-INF 1A | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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)
20.250	13,182.000	13,180.000	13,178.000	13,177.000	13,175.000
20.500	13,174.000	13,173.000	13,171.000	13,170.000	13,169.000
20.750	13,168.000	13,167.000	13,166.000	13,165.000	13,164.000
21.000	13,163.000	13,162.000	13,161.000	13,161.000	13,160.000
21.250	13,159.000	13,159.000	13,158.000	13,157.000	13,157.000
21.500	13,156.000	13,156.000	13,155.000	13,155.000	13,154.000
21.750	13,154.000	13,153.000	13,153.000	13,153.000	13,152.000
22.000	13,152.000	13,152.000	13,151.000	13,151.000	13,151.000
22.250	13,151.000	13,150.000	13,150.000	13,150.000	13,150.000
22.500	13,149.000	13,149.000	13,149.000	13,149.000	13,149.000
22.750	13,148.000	13,148.000	13,148.000	13,148.000	13,148.000
23.000	13,148.000	13,148.000	13,148.000	13,147.000	13,147.000
23.250	13,147.000	13,147.000	13,147.000	13,147.000	13,147.000
23.500	13,147.000	13,147.000	13,147.000	13,146.000	13,146.000
23.750	13,146.000	13,146.000	13,146.000	13,146.000	13,146.000
24.000	13,146.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Elevation-Area Volume Curve | Return Event: 1 years
Label: PO-7 | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
88.00	0.00	1,822.107	0.000	0.000	0.000
90.00	0.00	2,907.944	7,031.916	4,688.000	4,688.000
92.00	0.00	4,213.801	10,622.244	7,081.000	11,769.000

Subsection: Elevation-Area Volume Curve

Label: PO-7

Scenario: Post-Development 10-yr storm

Return Event: 10 years

Storm Event: 10-yr Storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
88.00	0.00	1,822.107	0.000	0.000	0.000
90.00	0.00	2,907.944	7,031.916	4,688.000	4,688.000
92.00	0.00	4,213.801	10,622.244	7,081.000	11,769.000

Subsection: Elevation-Area Volume Curve | Return Event: 100 years
Label: PO-7 | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
88.00	0.00	1,822.107	0.000	0.000	0.000
90.00	0.00	2,907.944	7,031.916	4,688.000	4,688.000
92.00	0.00	4,213.801	10,622.244	7,081.000	11,769.000

Subsection: Elevation-Area Volume Curve

Return Event: 1 years

Label: PROP-POND

Storm Event: 1-yr Storm

Scenario: Post-Development 1-yr storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
80.00	0.00	5,019.878	0.000	0.000	0.000
82.00	0.00	7,583.280	18,773.015	12,515.000	12,515.000
84.00	0.00	10,372.930	26,825.304	17,884.000	30,399.000
85.00	0.00	11,852.586	33,313.619	11,105.000	41,503.000

Subsection: Elevation-Area Volume Curve
Label: PROP-POND
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
80.00	0.00	5,019.878	0.000	0.000	0.000
82.00	0.00	7,583.280	18,773.015	12,515.000	12,515.000
84.00	0.00	10,372.930	26,825.304	17,884.000	30,399.000
85.00	0.00	11,852.586	33,313.619	11,105.000	41,503.000

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
80.00	0.00	5,019.878	0.000	0.000	0.000
82.00	0.00	7,583.280	18,773.015	12,515.000	12,515.000
84.00	0.00	10,372.930	26,825.304	17,884.000	30,399.000
85.00	0.00	11,852.586	33,313.619	11,105.000	41,503.000

Subsection: Elevation vs. Volume Curve
Label: U-INF 1A
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ft^3)
97.00	0.000
97.25	1,877.490
97.50	3,754.980
97.75	5,632.460
98.00	7,509.950
98.25	9,387.440
98.50	11,264.930
98.75	13,142.410
99.00	15,019.900
99.25	16,897.390
99.50	18,774.880
99.67	20,051.570

Subsection: Elevation vs. Volume Curve | Return Event: 10 years
Label: U-INF 1A | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ft^3)
97.00	0.000
97.25	1,877.490
97.50	3,754.980
97.75	5,632.460
98.00	7,509.950
98.25	9,387.440
98.50	11,264.930
98.75	13,142.410
99.00	15,019.900
99.25	16,897.390
99.50	18,774.880
99.67	20,051.570

Subsection: Elevation vs. Volume Curve
Label: U-INF 1A
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ft^3)
97.00	0.000
97.25	1,877.490
97.50	3,754.980
97.75	5,632.460
98.00	7,509.950
98.25	9,387.440
98.50	11,264.930
98.75	13,142.410
99.00	15,019.900
99.25	16,897.390
99.50	18,774.880
99.67	20,051.570

Requested Pond Water Surface Elevations	
Minimum (Headwater)	97.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	99.67 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Rectangular Weir	Weir - 1	Forward	F-2	98.75	99.67
Culvert-Circular	F-2	Forward + Reverse	TW	97.21	99.67
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: F-2
Structure Type: Culvert-Circular

Number of Barrels	1
Diameter	12.0 in
Length	187.52 ft
Length (Computed Barrel)	187.58 ft
Slope (Computed)	0.025 ft/ft

Outlet Control Data

Manning's n	0.013
Ke	0.200
Kb	0.031
Kr	0.200
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)	1.083
T2 ratio (HW/D)	1.185
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	98.29 ft	T1 Flow	2.75 ft³/s
T2 Elevation	98.39 ft	T2 Flow	3.14 ft³/s

Structure ID: Weir - 1
Structure Type: Rectangular Weir

Number of Openings	1
Elevation	98.75 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Subsection: Outlet Input Data
Label: OCS-1A
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Requested Pond Water Surface Elevations	
Minimum (Headwater)	97.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	99.67 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Rectangular Weir	Weir - 1	Forward	F-2	98.75	99.67
Culvert-Circular	F-2	Forward + Reverse	TW	97.21	99.67
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: F-2
Structure Type: Culvert-Circular

Number of Barrels	1
Diameter	12.0 in
Length	187.52 ft
Length (Computed Barrel)	187.58 ft
Slope (Computed)	0.025 ft/ft

Outlet Control Data

Manning's n	0.013
Ke	0.200
Kb	0.031
Kr	0.200
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)	1.083
T2 ratio (HW/D)	1.185
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	98.29 ft	T1 Flow	2.75 ft³/s
T2 Elevation	98.39 ft	T2 Flow	3.14 ft³/s

Subsection: Outlet Input Data
Label: OCS-1A
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Structure ID: Weir - 1
Structure Type: Rectangular Weir

Number of Openings	1
Elevation	98.75 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Subsection: Outlet Input Data | Return Event: 100 years
Label: OCS-1A | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

Requested Pond Water Surface Elevations	
Minimum (Headwater)	97.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	99.67 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Rectangular Weir	Weir - 1	Forward	F-2	98.75	99.67
Culvert-Circular	F-2	Forward + Reverse	TW	97.21	99.67
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: F-2
Structure Type: Culvert-Circular

Number of Barrels	1
Diameter	12.0 in
Length	187.52 ft
Length (Computed Barrel)	187.58 ft
Slope (Computed)	0.025 ft/ft

Outlet Control Data

Manning's n	0.013
Ke	0.200
Kb	0.031
Kr	0.200
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)	1.083
T2 ratio (HW/D)	1.185
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	98.29 ft	T1 Flow	2.75 ft³/s
T2 Elevation	98.39 ft	T2 Flow	3.14 ft³/s

Structure ID: Weir - 1
Structure Type: Rectangular Weir

Number of Openings	1
Elevation	98.75 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Requested Pond Water Surface Elevations	
Minimum (Headwater)	88.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	92.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	H-1	88.00	92.00
Rectangular Weir	Weir - 1	Forward	H-1	89.50	92.00
Culvert-Circular	H-1	Forward	TW	88.00	92.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data | Return Event: 1 years
Label: OCS-1B | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

Structure ID: Weir - 1
Structure Type: Rectangular Weir

Number of Openings	1
Elevation	89.50 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Structure ID: H-1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	12.0 in
Length	63.15 ft
Length (Computed Barrel)	63.65 ft
Slope (Computed)	0.127 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.031
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)	1.032
T2 ratio (HW/D)	1.134
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	89.03 ft	T1 Flow	2.75 ft³/s
T2 Elevation	89.13 ft	T2 Flow	3.14 ft³/s

Subsection: Outlet Input Data | Return Event: 1 years
Label: OCS-1B | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

Structure ID: Orifice - 1
Structure Type: Orifice-Circular

Number of Openings	1
Elevation	88.00 ft
Orifice Diameter	3.0 in
Orifice Coefficient	0.600

Subsection: Outlet Input Data
Label: OCS-1B
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Requested Pond Water Surface Elevations	
Minimum (Headwater)	88.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	92.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	H-1	88.00	92.00
Rectangular Weir	Weir - 1	Forward	H-1	89.50	92.00
Culvert-Circular	H-1	Forward	TW	88.00	92.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Weir - 1
Structure Type: Rectangular Weir

Number of Openings	1
Elevation	89.50 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Structure ID: H-1
Structure Type: Culvert-Circular

Number of Barrels	1
Diameter	12.0 in
Length	63.15 ft
Length (Computed Barrel)	63.65 ft
Slope (Computed)	0.127 ft/ft

Outlet Control Data

Manning's n	0.013
Ke	0.200
Kb	0.031
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)	1.032
T2 ratio (HW/D)	1.134
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	89.03 ft	T1 Flow	2.75 ft³/s
T2 Elevation	89.13 ft	T2 Flow	3.14 ft³/s

Structure ID: Orifice - 1
Structure Type: Orifice-Circular

Number of Openings	1
Elevation	88.00 ft
Orifice Diameter	3.0 in
Orifice Coefficient	0.600

Subsection: Outlet Input Data | Return Event: 100 years
Label: OCS-1B | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

Requested Pond Water Surface Elevations	
Minimum (Headwater)	88.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	92.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	H-1	88.00	92.00
Rectangular Weir	Weir - 1	Forward	H-1	89.50	92.00
Culvert-Circular	H-1	Forward	TW	88.00	92.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Weir - 1
Structure Type: Rectangular Weir

Number of Openings	1
Elevation	89.50 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Subsection: Outlet Input Data	Return Event: 100 years
Label: OCS-1B	Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm	

Structure ID: H-1
Structure Type: Culvert-Circular

Number of Barrels	1
Diameter	12.0 in
Length	63.15 ft
Length (Computed Barrel)	63.65 ft
Slope (Computed)	0.127 ft/ft

Outlet Control Data

Manning's n	0.013
Ke	0.200
Kb	0.031
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)	1.032
T2 ratio (HW/D)	1.134
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	89.03 ft	T1 Flow	2.75 ft³/s
T2 Elevation	89.13 ft	T2 Flow	3.14 ft³/s

Structure ID: Orifice - 1
Structure Type: Orifice-Circular

Number of Openings	1
Elevation	88.00 ft
Orifice Diameter	3.0 in
Orifice Coefficient	0.600

Requested Pond Water Surface Elevations	
Minimum (Headwater)	80.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	85.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	Culvert - 1	80.00	85.00
Rectangular Weir	Weir - 1	Forward	Culvert - 1	82.50	85.00
Culvert-Circular	Culvert - 1	Forward	TW	80.00	85.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Culvert - 1
Structure Type: Culvert-Circular

Number of Barrels	1
Diameter	36.0 in
Length	181.30 ft
Length (Computed Barrel)	181.33 ft
Slope (Computed)	0.018 ft/ft

Outlet Control Data

Manning's n	0.013
Ke	0.200
Kb	0.007
Kr	0.200
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)	1.086
T2 ratio (HW/D)	1.188
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	83.26 ft	T1 Flow	42.85 ft³/s
T2 Elevation	83.56 ft	T2 Flow	48.97 ft³/s

Structure ID: Weir - 1
Structure Type: Rectangular Weir

Number of Openings	1
Elevation	82.50 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Structure ID: Orifice - 1
Structure Type: Orifice-Circular

Number of Openings	1
Elevation	80.00 ft
Orifice Diameter	3.0 in
Orifice Coefficient	0.600

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)	80.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	85.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	Culvert - 1	80.00	85.00
Rectangular Weir	Weir - 1	Forward	Culvert - 1	82.50	85.00
Culvert-Circular	Culvert - 1	Forward	TW	80.00	85.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Culvert - 1
Structure Type: Culvert-Circular

Number of Barrels	1
Diameter	36.0 in
Length	181.30 ft
Length (Computed Barrel)	181.33 ft
Slope (Computed)	0.018 ft/ft

Outlet Control Data

Manning's n	0.013
Ke	0.200
Kb	0.007
Kr	0.200
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)	1.086
T2 ratio (HW/D)	1.188
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	83.26 ft	T1 Flow	42.85 ft³/s
T2 Elevation	83.56 ft	T2 Flow	48.97 ft³/s

Structure ID: Weir - 1 Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	82.50 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Structure ID: Orifice - 1 Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	80.00 ft
Orifice Diameter	3.0 in
Orifice Coefficient	0.600

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 ft^3/s
Flow Tolerance (Maximum)	10.000 ft^3/s

Requested Pond Water Surface Elevations	
Minimum (Headwater)	80.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	85.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	Culvert - 1	80.00	85.00
Rectangular Weir	Weir - 1	Forward	Culvert - 1	82.50	85.00
Culvert-Circular	Culvert - 1	Forward	TW	80.00	85.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Culvert - 1 Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	36.0 in
Length	181.30 ft
Length (Computed Barrel)	181.33 ft
Slope (Computed)	0.018 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.007
Kr	0.200
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)	1.086
T2 ratio (HW/D)	1.188
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	83.26 ft	T1 Flow	42.85 ft³/s
T2 Elevation	83.56 ft	T2 Flow	48.97 ft³/s

Structure ID: Weir - 1 Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	82.50 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft^0.5)/s

Structure ID: Orifice - 1 Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	80.00 ft
Orifice Diameter	3.0 in
Orifice Coefficient	0.600

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 ft^3/s
Flow Tolerance (Maximum)	10.000 ft^3/s

Subsection: Interconnected Pond Routing Summary | Return Event: 1 years
Label: PO-7 | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	88.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0.000	ft³	Maximum Iterations	35	
Outflow (Starting)	0.00	ft³/s	ICPM Time Step	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft³)
13.150	88.68	1,588.000

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	12.100	1.16	0.000	0.00
Pond Outflow...	13.150	0.16	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	4,374.000	Forward	0.000	Reverse
Pond Outflow...	0.000	Reverse	4,021.000	Forward

Mass Balance (ft³)	
Volume (Initial ICPM)	0.000 ft³
Volume (Total In ICPM)	4,374.000 ft³
Volume (Total Out ICPM)	4,021.000 ft³
Volume (Ending)	350.000 ft³
Elevation (Ending)	88.15 ft
Difference	3.000 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.1 %

Subsection: Interconnected Pond Routing Summary | Return Event: 10 years
Label: PO-7 | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

Infiltration

Infiltration Method (Computed)	No Infiltration

Initial Conditions / Calculation Tolerances

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	88.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0.000	ft³	Maximum Iterations	35	
Outflow (Starting)	0.00	ft³/s	ICPM Time Step	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft³)
12.300	89.85	4,335.000

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	12.100	4.14	0.000	0.00
Pond Outflow...	12.300	2.10	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	14,391.000	Forward	0.000	Reverse
Pond Outflow...	0.000	Reverse	13,423.000	Forward

Mass Balance (ft³)

Volume (Initial ICPM)	0.000 ft³
Volume (Total In ICPM)	14,391.000 ft³
Volume (Total Out ICPM)	13,423.000 ft³
Volume (Ending)	958.000 ft³
Elevation (Ending)	88.41 ft
Difference	10.000 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.1 %

Subsection: Interconnected Pond Routing Summary — Return Event: 100 years
Label: PO-7 — Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

Infiltration

Infiltration Method (Computed)	No Infiltration

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	88.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0.000	ft³	Maximum Iterations	35	
Outflow (Starting)	0.00	ft³/s	ICPM Time Step	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft³)
12.200	90.78	7,466.000

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	12.100	10.07	0.000	0.00
Pond Outflow...	12.200	6.29	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	35,542.000	Forward	0.000	Reverse
Pond Outflow...	0.000	Reverse	33,342.000	Forward

Mass Balance (ft³)

Volume (Initial ICPM)	0.000 ft³
Volume (Total In ICPM)	35,542.000 ft³
Volume (Total Out ICPM)	33,342.000 ft³
Volume (Ending)	2,183.000 ft³
Elevation (Ending)	88.93 ft
Difference	17.000 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Subsection: Diverted Hydrograph
Label: PROP-OCS
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Peak Discharge	0.34 ft³/s
Time to Peak	16.750 hours
Hydrograph Volume	14,441.466 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)
9.200	0.00	0.00	0.00	0.00	0.00
9.450	0.00	0.00	0.00	0.00	0.00
9.700	0.00	0.00	0.00	0.00	0.00
9.950	0.00	0.01	0.01	0.01	0.01
10.200	0.01	0.01	0.01	0.01	0.01
10.450	0.01	0.01	0.01	0.01	0.01
10.700	0.01	0.01	0.02	0.02	0.02
10.950	0.02	0.03	0.03	0.03	0.03
11.200	0.04	0.04	0.04	0.05	0.05
11.450	0.06	0.06	0.07	0.08	0.08
11.700	0.10	0.10	0.11	0.12	0.14
11.950	0.15	0.17	0.19	0.21	0.23
12.200	0.25	0.26	0.27	0.28	0.28
12.450	0.29	0.29	0.30	0.30	0.30
12.700	0.31	0.31	0.31	0.31	0.31
12.950	0.31	0.32	0.32	0.32	0.32
13.200	0.32	0.32	0.32	0.32	0.32
13.450	0.32	0.32	0.32	0.33	0.33
13.700	0.33	0.33	0.33	0.33	0.33
13.950	0.33	0.33	0.33	0.33	0.33
14.200	0.33	0.33	0.33	0.33	0.33
14.450	0.33	0.33	0.33	0.34	0.34
14.700	0.34	0.34	0.34	0.34	0.34
14.950	0.34	0.34	0.34	0.34	0.34
15.200	0.34	0.34	0.34	0.34	0.34
15.450	0.34	0.34	0.34	0.34	0.34
15.700	0.34	0.34	0.34	0.34	0.34
15.950	0.34	0.34	0.34	0.34	0.34
16.200	0.34	0.34	0.34	0.34	0.34
16.450	0.34	0.34	0.34	0.34	0.34
16.700	0.34	0.34	0.34	0.34	0.34
16.950	0.34	0.34	0.34	0.34	0.34
17.200	0.34	0.34	0.34	0.34	0.34
17.450	0.34	0.34	0.34	0.34	0.34
17.700	0.34	0.34	0.34	0.34	0.34
17.950	0.34	0.34	0.34	0.34	0.34
18.200	0.34	0.34	0.34	0.34	0.34

Subsection: Diverted Hydrograph | Return Event: 1 years
Label: PROP-OCS | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
18.450	0.34	0.34	0.34	0.34	0.34
18.700	0.34	0.34	0.34	0.34	0.34
18.950	0.34	0.34	0.34	0.34	0.34
19.200	0.34	0.34	0.34	0.34	0.34
19.450	0.34	0.34	0.34	0.33	0.33
19.700	0.33	0.33	0.33	0.33	0.33
19.950	0.33	0.33	0.33	0.33	0.33
20.200	0.33	0.33	0.33	0.33	0.33
20.450	0.33	0.33	0.33	0.33	0.33
20.700	0.33	0.33	0.33	0.33	0.33
20.950	0.33	0.33	0.33	0.33	0.33
21.200	0.33	0.33	0.33	0.33	0.33
21.450	0.33	0.33	0.33	0.32	0.32
21.700	0.32	0.32	0.32	0.32	0.32
21.950	0.32	0.32	0.32	0.32	0.32
22.200	0.32	0.32	0.32	0.32	0.32
22.450	0.32	0.32	0.32	0.32	0.32
22.700	0.32	0.32	0.32	0.32	0.32
22.950	0.32	0.32	0.32	0.32	0.32
23.200	0.32	0.32	0.31	0.31	0.31
23.450	0.31	0.31	0.31	0.31	0.31
23.700	0.31	0.31	0.31	0.31	0.31
23.950	0.31	0.31	(N/A)	(N/A)	(N/A)

Subsection: Diverted Hydrograph
Label: PROP-OCS
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

Peak Discharge	7.42 ft³/s
Time to Peak	12.400 hours
Hydrograph Volume	57,442.156 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)
6.700	0.00	0.00	0.00	0.00	0.00
6.950	0.00	0.00	0.00	0.00	0.00
7.200	0.00	0.00	0.00	0.00	0.00
7.450	0.00	0.00	0.01	0.01	0.01
7.700	0.01	0.01	0.01	0.01	0.01
7.950	0.01	0.01	0.01	0.01	0.01
8.200	0.01	0.01	0.01	0.01	0.01
8.450	0.01	0.01	0.02	0.02	0.02
8.700	0.02	0.02	0.03	0.03	0.03
8.950	0.03	0.04	0.04	0.04	0.05
9.200	0.05	0.05	0.05	0.06	0.06
9.450	0.06	0.07	0.07	0.07	0.08
9.700	0.08	0.09	0.09	0.09	0.10
9.950	0.10	0.10	0.10	0.11	0.11
10.200	0.11	0.11	0.12	0.12	0.12
10.450	0.13	0.13	0.13	0.14	0.14
10.700	0.14	0.14	0.15	0.15	0.15
10.950	0.16	0.16	0.16	0.17	0.17
11.200	0.18	0.18	0.18	0.19	0.19
11.450	0.20	0.20	0.21	0.22	0.22
11.700	0.24	0.25	0.26	0.28	0.29
11.950	0.31	0.33	0.35	1.45	3.26
12.200	4.86	6.05	6.82	7.25	7.42
12.450	7.40	7.21	6.91	6.55	6.17
12.700	5.80	5.46	5.16	4.89	4.63
12.950	4.40	4.18	3.98	3.79	3.62
13.200	3.47	3.33	3.21	3.09	2.99
13.450	2.89	2.80	2.71	2.63	2.56
13.700	2.50	2.43	2.37	2.31	2.26
13.950	2.20	2.15	2.10	2.05	2.00
14.200	1.95	1.91	1.86	1.82	1.79
14.450	1.76	1.73	1.70	1.66	1.63
14.700	1.61	1.58	1.55	1.52	1.49
14.950	1.47	1.44	1.41	1.39	1.36
15.200	1.34	1.31	1.29	1.27	1.25
15.450	1.22	1.20	1.18	1.16	1.14
15.700	1.13	1.11	1.10	1.08	1.07

Subsection: Diverted Hydrograph
Label: PROP-OCS
Scenario: Post-Development 10-yr storm

Return Event: 10 years
Storm Event: 10-yr Storm

HYDROGRAPH ORDINATES (ft^3/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)	Flow (ft^3/s)
15.950	1.05	1.04	1.02	1.01	0.99
16.200	0.98	0.97	0.95	0.94	0.93
16.450	0.92	0.91	0.89	0.88	0.87
16.700	0.86	0.85	0.84	0.83	0.82
16.950	0.81	0.80	0.79	0.78	0.77
17.200	0.77	0.76	0.75	0.74	0.73
17.450	0.72	0.72	0.71	0.70	0.69
17.700	0.69	0.68	0.67	0.66	0.66
17.950	0.65	0.64	0.63	0.63	0.63
18.200	0.62	0.62	0.62	0.61	0.61
18.450	0.61	0.60	0.60	0.59	0.59
18.700	0.59	0.58	0.58	0.58	0.57
18.950	0.57	0.57	0.56	0.56	0.56
19.200	0.55	0.55	0.55	0.54	0.54
19.450	0.54	0.54	0.53	0.53	0.53
19.700	0.52	0.52	0.52	0.52	0.51
19.950	0.51	0.51	0.50	0.50	0.50
20.200	0.50	0.49	0.49	0.49	0.49
20.450	0.48	0.48	0.48	0.47	0.47
20.700	0.47	0.47	0.46	0.46	0.46
20.950	0.46	0.46	0.45	0.45	0.45
21.200	0.45	0.44	0.44	0.44	0.44
21.450	0.43	0.43	0.43	0.43	0.42
21.700	0.42	0.42	0.42	0.42	0.41
21.950	0.41	0.41	0.41	0.41	0.40
22.200	0.40	0.40	0.40	0.39	0.39
22.450	0.39	0.39	0.39	0.38	0.38
22.700	0.38	0.38	0.38	0.37	0.37
22.950	0.37	0.37	0.37	0.36	0.36
23.200	0.36	0.36	0.35	0.35	0.35
23.450	0.35	0.35	0.35	0.35	0.35
23.700	0.35	0.35	0.35	0.35	0.35
23.950	0.35	0.35	(N/A)	(N/A)	(N/A)

Subsection: Diverted Hydrograph | Return Event: 100 years
Label: PROP-OCS | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

Peak Discharge	29.37 ft³/s
Time to Peak	12.250 hours
Hydrograph Volume	160,440.971 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)
4.350	0.00	0.00	0.00	0.00	0.00
4.600	0.00	0.00	0.00	0.00	0.00
4.850	0.00	0.00	0.00	0.00	0.00
5.100	0.01	0.01	0.01	0.01	0.01
5.350	0.01	0.01	0.01	0.01	0.01
5.600	0.01	0.01	0.01	0.01	0.01
5.850	0.01	0.01	0.01	0.01	0.02
6.100	0.02	0.02	0.02	0.02	0.02
6.350	0.03	0.03	0.03	0.03	0.04
6.600	0.04	0.04	0.04	0.04	0.05
6.850	0.05	0.05	0.06	0.06	0.06
7.100	0.06	0.07	0.07	0.07	0.08
7.350	0.08	0.08	0.09	0.09	0.09
7.600	0.10	0.10	0.10	0.10	0.10
7.850	0.11	0.11	0.11	0.11	0.12
8.100	0.12	0.12	0.12	0.13	0.13
8.350	0.13	0.13	0.14	0.14	0.14
8.600	0.14	0.15	0.15	0.15	0.16
8.850	0.16	0.16	0.16	0.17	0.17
9.100	0.17	0.18	0.18	0.18	0.19
9.350	0.19	0.19	0.20	0.20	0.20
9.600	0.21	0.21	0.21	0.22	0.22
9.850	0.22	0.23	0.23	0.24	0.24
10.100	0.24	0.25	0.25	0.26	0.26
10.350	0.26	0.27	0.27	0.28	0.28
10.600	0.28	0.29	0.29	0.30	0.30
10.850	0.31	0.31	0.32	0.32	0.32
11.100	0.33	0.33	0.33	0.34	0.34
11.350	0.35	0.35	0.48	0.67	1.00
11.600	1.42	1.97	2.70	3.66	4.91
11.850	6.46	8.30	10.93	15.06	19.72
12.100	24.25	27.71	29.15	29.37	28.90
12.350	27.99	26.80	25.39	23.82	22.22
12.600	20.59	18.98	17.45	15.91	14.48
12.850	13.23	12.13	11.19	10.34	9.58
13.100	8.92	8.33	7.82	7.38	7.00
13.350	6.66	6.37	6.10	5.87	5.65

Subsection: Diverted Hydrograph | Return Event: 100 years
Label: PROP-OCS | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr 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)
13.600	5.46	5.29	5.12	4.97	4.83
13.850	4.69	4.56	4.44	4.33	4.23
14.100	4.12	4.03	3.93	3.85	3.77
14.350	3.69	3.62	3.55	3.48	3.43
14.600	3.37	3.31	3.26	3.21	3.15
14.850	3.10	3.05	3.00	2.95	2.91
15.100	2.86	2.81	2.77	2.72	2.68
15.350	2.63	2.59	2.55	2.51	2.47
15.600	2.43	2.39	2.35	2.31	2.27
15.850	2.23	2.19	2.15	2.11	2.07
16.100	2.03	1.99	1.95	1.92	1.88
16.350	1.85	1.82	1.79	1.76	1.73
16.600	1.71	1.68	1.66	1.63	1.61
16.850	1.59	1.56	1.54	1.52	1.49
17.100	1.47	1.45	1.43	1.41	1.39
17.350	1.36	1.34	1.32	1.30	1.28
17.600	1.26	1.24	1.22	1.20	1.18
17.850	1.16	1.15	1.13	1.12	1.10
18.100	1.09	1.08	1.06	1.05	1.04
18.350	1.03	1.02	1.01	1.00	0.99
18.600	0.98	0.98	0.97	0.96	0.95
18.850	0.95	0.94	0.93	0.93	0.92
19.100	0.91	0.91	0.90	0.90	0.89
19.350	0.89	0.88	0.88	0.87	0.87
19.600	0.86	0.86	0.85	0.85	0.84
19.850	0.84	0.83	0.83	0.82	0.82
20.100	0.81	0.81	0.80	0.80	0.79
20.350	0.79	0.78	0.78	0.77	0.77
20.600	0.77	0.76	0.76	0.75	0.75
20.850	0.75	0.74	0.74	0.74	0.73
21.100	0.73	0.73	0.72	0.72	0.72
21.350	0.71	0.71	0.71	0.70	0.70
21.600	0.70	0.70	0.69	0.69	0.69
21.850	0.68	0.68	0.68	0.67	0.67
22.100	0.67	0.67	0.66	0.66	0.66
22.350	0.65	0.65	0.65	0.64	0.64
22.600	0.64	0.64	0.63	0.63	0.63
22.850	0.63	0.63	0.63	0.62	0.62
23.100	0.62	0.62	0.62	0.61	0.61
23.350	0.61	0.61	0.60	0.60	0.60
23.600	0.60	0.59	0.59	0.59	0.59
23.850	0.58	0.58	0.58	0.58	(N/A)

Subsection: Interconnected Pond Routing Summary
Label: PROP-POND
Scenario: Post-Development 1-yr storm

Return Event: 1 years
Storm Event: 1-yr Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	80.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0.000	ft³	Maximum Iterations	35	
Outflow (Starting)	0.00	ft³/s	ICPM Time Step	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft³)
16.700	82.36	15,719.000

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	12.100	6.39	8.400	0.00
Pond Outflow...	16.750	0.34	0.002	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	26,740.000	Forward	0.000	Reverse
Pond Outflow...	0.000	Reverse	14,442.000	Forward

Mass Balance (ft³)	
Volume (Initial ICPM)	0.000 ft³
Volume (Total In ICPM)	26,740.000 ft³
Volume (Total Out ICPM)	14,442.000 ft³
Volume (Ending)	12,270.000 ft³
Elevation (Ending)	81.96 ft
Difference	28.000 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.1 %

Subsection: Detention Time | Return Event: 1 years
Label: PROP-POND (IN) | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Approximate Detention Times	
Time to Peak (Outflow + Infiltration, Peak to Peak Detention Time)	16.750 hours
Time to Peak (Inflow, Peak to Peak Detention Time)	12.100 hours
Detention Time (Peak to Peak)	4.650 hours
Time to Centroid (Outflow)	17.884 hours
Time to Centroid (Inflow)	14.236 hours
Detention Time (Centroid to Centroid)	3.648 hours
Weighted Average Plug Time	6.560 hours
Maximum Plug Volume Plug Time	5.428 hours
Maximum Inflow Plug Volume	1,091.702 ft^3
Time (Maximum Plug Volume, Start)	12.050 hours
Time (Maximum Plug Volume, End)	12.100 hours

Infiltration

Infiltration Method (Computed)	No Infiltration

Initial Conditions

Elevation (Starting Water Surface Computed)	80.00	ft
Volume (Starting)	0.000	ft³
Outflow (Starting)	0.00	ft³/s

Calculation Tolerances

Flow Tolerance (Minimum)	0.000	ft³/s
Maximum Iterations	35	
ICPM Time Step	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft³)
12.400	83.35	24,604.000

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	12.100	15.37	5.800	0.00
Pond Outflow...	12.400	7.42	0.002	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	74,340.000	Forward	0.000	Reverse
Pond Outflow...	0.000	Reverse	57,443.000	Forward

Mass Balance (ft³)

Volume (Initial ICPM)	0.000 ft³
Volume (Total In ICPM)	74,340.000 ft³
Volume (Total Out ICPM)	57,443.000 ft³
Volume (Ending)	16,865.000 ft³
Elevation (Ending)	82.49 ft
Difference	32.000 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Infiltration	
Infiltration Method (Computed)	No Infiltration

Approximate Detention Times	
Time to Peak (Outflow + Infiltration, Peak to Peak Detention Time)	12.400 hours
Time to Peak (Inflow, Peak to Peak Detention Time)	12.100 hours
Detention Time (Peak to Peak)	0.300 hours
Time to Centroid (Outflow)	14.964 hours
Time to Centroid (Inflow)	13.848 hours
Detention Time (Centroid to Centroid)	1.117 hours
Weighted Average Plug Time	3.200 hours
Maximum Plug Volume Plug Time	0.950 hours
Maximum Inflow Plug Volume	2,652.946 ft^3
Time (Maximum Plug Volume, Start)	12.050 hours
Time (Maximum Plug Volume, End)	12.100 hours

Subsection: Interconnected Pond Routing Summary
Label: PROP-POND
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Infiltration

Infiltration Method (Computed)	No Infiltration

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	80.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0.000	ft³	Maximum Iterations	35	
Outflow (Starting)	0.00	ft³/s	ICPM Time Step	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft³)
12.250	84.69	38,084.000

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	12.100	41.44	3.700	0.00
Pond Outflow...	12.250	29.37	0.001	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	178,180.000	Forward	0.000	Reverse
Pond Outflow...	0.000	Reverse	160,442.000	Forward

Mass Balance (ft³)

Volume (Initial ICPM)	0.000 ft³
Volume (Total In ICPM)	178,180.000 ft³
Volume (Total Out ICPM)	160,442.000 ft³
Volume (Ending)	17,686.000 ft³
Elevation (Ending)	82.58 ft
Difference	52.000 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Subsection: Detention Time
Label: PROP-POND (IN)
Scenario: Post-Development 100-yr storm

Return Event: 100 years
Storm Event: 100-yr Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Approximate Detention Times	
Time to Peak (Outflow + Infiltration, Peak to Peak Detention Time)	12.250 hours
Time to Peak (Inflow, Peak to Peak Detention Time)	12.100 hours
Detention Time (Peak to Peak)	0.150 hours
Time to Centroid (Outflow)	13.983 hours
Time to Centroid (Inflow)	13.347 hours
Detention Time (Centroid to Centroid)	0.636 hours
Weighted Average Plug Time	1.644 hours
Maximum Plug Volume Plug Time	0.375 hours
Maximum Inflow Plug Volume	7,156.957 ft^3
Time (Maximum Plug Volume, Start)	12.050 hours
Time (Maximum Plug Volume, End)	12.100 hours

Subsection: Interconnected Pond Routing Summary | Return Event: 1 years
Label: U-INF 1A | Storm Event: 1-yr Storm
Scenario: Post-Development 1-yr storm

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	0.39 ft^3/s

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	97.00	ft	Flow Tolerance (Minimum)	0.000	ft^3/s
Volume (Starting)	0.000	ft^3	Maximum Iterations	35	
Infiltration (Starting ICPM)	0.00	ft^3/s	ICPM Time Step	0.050	hours
Outflow (Starting)	0.00	ft^3/s	Output Increment	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft^3)
23.900	97.72	5,426.000

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft^3/s)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Pond Inflow....	12.100	3.85	8.400	0.00
Infiltration...	11.650	0.39	0.000	0.00
Pond Outflow...	0.000	0.00	0.002	0.00

	Total Volume In		Total Volume Out	
	Volume (ft^3)	Direction	Volume (ft^3)	Direction
Pond Inflow....	13,856.000	Forward	0.000	Reverse
Infiltration...	0.000	Reverse	8,424.000	Forward
Pond Outflow...	0.000	Reverse	0.000	Forward

Mass Balance (ft^3)	
Volume (Initial ICPM)	0.000 ft^3
Volume (Total In ICPM)	13,856.000 ft^3
Volume (Total Out ICPM)	8,424.000 ft^3
Volume (Ending)	5,426.000 ft^3
Elevation (Ending)	97.72 ft
Difference	5.000 ft^3
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Subsection: Interconnected Pond Routing Summary | Return Event: 10 years
Label: U-INF 1A | Storm Event: 10-yr Storm
Scenario: Post-Development 10-yr storm

Infiltration

Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	0.39 ft³/s

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	97.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0.000	ft³	Maximum Iterations	35	
Infiltration (Starting ICPM)	0.00	ft³/s	ICPM Time Step	0.050	hours
Outflow (Starting)	0.00	ft³/s	Output Increment	0.050	hours

Time to Peak (hours)	Maximum Storage Elevation (ft)	Maximum Storage Volume (ft³)
12.700	98.97	14,827.000

	Forward Flow Peaks Time to Peak (hours)	Forward Flow Peaks Flow (Peak) (ft³/s)	Reverse Flow Peaks Time to Peak (hours)	Reverse Flow Peaks Flow (Peak) (ft³/s)
Pond Inflow....	12.100	9.16	5.800	0.00
Infiltration...	10.500	0.39	0.000	0.00
Pond Outflow...	12.700	0.97	0.002	0.00

	Total Volume In Volume (ft³)	Total Volume In Direction	Total Volume Out Volume (ft³)	Total Volume Out Direction
Pond Inflow....	33,731.000	Forward	0.000	Reverse
Infiltration...	0.000	Reverse	14,968.000	Forward
Pond Outflow...	0.000	Reverse	5,609.000	Forward

Mass Balance (ft³)

Volume (Initial ICPM)	0.000 ft³
Volume (Total In ICPM)	33,731.000 ft³
Volume (Total Out ICPM)	20,577.000 ft³
Volume (Ending)	13,144.000 ft³
Elevation (Ending)	98.75 ft
Difference	10.000 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Subsection: Interconnected Pond Routing Summary | Return Event: 100 years
Label: U-INF 1A | Storm Event: 100-yr Storm
Scenario: Post-Development 100-yr storm

Infiltration

Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	0.39 ft^3/s

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	97.00	ft	Flow Tolerance (Minimum)	0.000	ft^3/s
Volume (Starting)	0.000	ft^3	Maximum Iterations	35	
Infiltration (Starting ICPM)	0.00	ft^3/s	ICPM Time Step	0.050	hours
Outflow (Starting)	0.00	ft^3/s	Output Increment	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft^3)
12.100	99.67	20,052.000

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft^3/s)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Pond Inflow....	12.100	18.37	3.700	0.00
Infiltration...	8.550	0.39	0.000	0.00
Pond Outflow...	12.100	5.45	0.001	0.00

	Total Volume In		Total Volume Out	
	Volume (ft^3)	Direction	Volume (ft^3)	Direction
Pond Inflow....	70,385.000	Forward	0.000	Reverse
Infiltration...	0.000	Reverse	21,839.000	Forward
Pond Outflow...	0.000	Reverse	29,429.000	Forward

Mass Balance (ft^3)

Volume (Initial ICPM)	0.000 ft^3
Volume (Total In ICPM)	70,385.000 ft^3
Volume (Total Out ICPM)	51,268.000 ft^3
Volume (Ending)	13,146.000 ft^3
Elevation (Ending)	98.75 ft
Difference	5,971.000 ft^3
Percent of Inflow Volume (Interconnected Pond Mass Balance)	8.5 %

Index

U

APPENDIX C

NYSDEC CALCULATIONS

WATER QUALITY VOLUME WORKSHEET
FOR REDEVELOPMENT PROJECTS

	JMC Project:	**20105**
	Design Point:	**1**
2700 Westchester Avenue Redevelopment	Drainage Area:	**1A, 1B, 1C**

Initial Water Quality Treatment Volume

DESCRIPTION	Design Storm	Area	Existing Impervious Area	New Impervious Area	Percent Impervious	Runoff Coefficient	Total Required WQ Volume
SYMBOL	P	A	I_E	I_N	%I	R_V	WQ_V
VALUE	1.5	9.07	5.69	0.76	71.11	0.689951608	**34,080**
UNITS	In	Ac	Ac	Ac	%	CF	CF
VALUE	Enhanced Phosphorus Removal (WQ_V = 1-yr Storm Runoff)						

Runoff Reduction Techniques (Area)

DESCRIPTION	Total Area	Impervious Area
SYMBOL	A	I
Conservation of Natural Areas		
Sheetflow to Riparian Buffers or Filter Strips		
Vegetated Swale		
Tree Planting / Tree Pit		
Disconnection of Rooftop Runoff		
Stream Daylighting		
TOTAL		
UNITS	Ac	Ac

Adjusted Water Quality Treatment Volume from Runoff Reduction Techniques

DESCRIPTION	Design Storm	Area	Adjusted Existing Impervious Area	New Impervious Area	Percent Impervious	Runoff Coefficient	Total Required WQ Volume
SYMBOL	P	A	I_{EA}	I_N	%I	R_V	WQ_V
VALUE	1.5	9.07	5.69	0.76	71.11	0.689951608	**34,080**
UNITS	In	Ac	Ac	Ac	%	CF	CF
VALUE	Enhanced Phosphorus Removal (WQ_V = 1-yr Storm Runoff)						

Net Water Quality Treatment Volume = Adjusted WQv - Provided RRv

Initial Water Quality Treatment Volume	34,080	CF
Adjusted Water Quality Treatment Volume	34,080	CF
Provided Runoff Reduction Volume	13,856	CF
Net Water Quality Treatment Volume	20,224	CF

Water Quality Volume Provided

PRACTICE / SMP	*VALUE*	*UNITS*
Subsurface Infiltration System #1A	13,856	CF
Continuous Deflective Separation Unit 1A1	4,944	
Continuous Deflective Separation Unit 1A2	4,482	
Continuous Deflective Separation Unit 1A3	5,131	
Continuous Deflective Separation Unit 1B	4,863	CF
Continuous Deflective Separation Unit 1C	20,255	CF
Water Quality Volume Provided	53,532	CF

Date Printed: 4/12/2022

RUNOFF REDUCTION VOLUME WORKSHEET

		JMC Project:	**20105**
		Design Point:	**1**
2700 Westchester Avenue Redevelopment	Drainage Area:	**1A**	

Total Water Quality Treatment Volume			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Initial Water Quality Volume	WQ_V	**34,080**	CF
Adjusted Water Quality Volume	WQ_V	**20,224**	CF

Minimum Runoff Reduction Volume			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Design Storm [90% Rainfall Event Number] **or** [1-yr Storm Depth]	P	1.5	In
Total Area of *new* Impervious Cover	Aic	0.94	Ac
Hydrologic Soil Group (HSG) Specific Reduction Factor	S	0.40	
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.95	CF
Impervious Cover targeted for Runoff Reduction [S x Aic]	Ai	0.38	Ac
TOTAL VOLUME Required [RR_V = (P x R_V x Ai) / 12]	RR_V	**1,954**	CF

Runoff Reduction Techniques (Volume)			
GREEN INFRASTRUCTURE PRACTICE / SMP	*SYMBOL*	*VALUE*	*UNITS*
Subsurface Infiltration System #1A	RR_V	13,856	CF
	RR_V		CF
	RR_V		CF
	RR_V		CF
	RR_V		CF
	RR_V		CF
	RR_V		CF
	RR_V		CF
	RR_V		CF
	RR_V		CF
	RR_V		CF
TOTAL	RR_V	**13,856**	CF

Runoff Reduction	
Is Total RR_V > Adjusted WQ_V?	**NO**
Is Total RR_V > Minimum RR_V?	**YES**

Date Printed: 4/12/2022

INFILTRATION WORKSHEET

JMC Project:	**20105**
Design Point:	**1**
Drainage Area:	**1A**

Subsurface Infiltration System #1A

Site Data for Drainage Area to be Treated by Practice			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Design Storm [90% Rainfall Event Number]	P	1.5	In
Impervious Area	I	1.78	Ac
Area	A	2.69	Ac
Percent Impervious	%I	66.19	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.65	CF
TOTAL VOLUME Required [WQ_V = (P x R_V x A) / 12]	WQ_V	**9,450**	CF
Design Storm [1-yr Storm Depth]	P		In
TOTAL VOLUME Required *(TMDL)* [WQ_V = 1-yr Storm Runoff]	WQ_V		CF

Provided Volume and infiltration			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Total volume provide on subsurface system		20,052.00	SF
Total infiltration on 1 Year Storm		**13,856.00**	CF

Runoff Reduction			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Runoff Reduction capacity	RR_V	**9,450**	CF

Date Printed: 4/12/2022

PROPRIETARY PRACTICE WORKSHEET

JMC Project:	**20105**
Design Point:	**1**
Drainage Area:	**1A**

Continuous Deflective Separation Unit 1A1

Rainfall Distribution Type:	**III**

Coefficients for the equation unit peak
$[R = I_a / P]$
$[C_i = A \times R^2 + B \times R + C]$

	A	**B**	**C**
C_0	-1.774	0.3301	2.4577
C_1	1.8622	-0.7397	-0.4627
C_2	-0.0648	0.2276	-0.1932

Site Data for Drainage Area to be Treated by Practice

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Design Storm [90% Rainfall Event Number]	P	1.5	In
Impervious Area	I	0.73	Ac
Area	A	2.69	Ac
Percent Impervious	%I	27.29	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.30	CF
TOTAL VOLUME Required $[WQ_V = (P \times R_V \times A) / 12]$	WQ_V	**4,326**	CF

Water Quality Peak Flow Calculation

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	4,326	CF
Design Storm [90% Rainfall Event Number] **or** [1-yr Storm Depth]	P	1.5	In
Time of Concentration	t_c	0.0833	Hr
Runoff Volume $[Q = WQ_V / (A \times 3630)]$	Q	0.44	In
Curve Number $[CN = 1000 / (10 + 5P + 10Q - 10 \times (Q^2 + 1.25\ QP)^{½}]$	CN	84.78	
Curve Number	CN	85	
Initial Abstraction $[I_a = 200 / CN - 2]$	I_a	0.36	In
Ratio $[R = I_a / P]$	R	0.24	
$C_0 = A \times R^2 + B \times R + C$	C_0	2.44	
$C_1 = A \times R2 + B \times R + C$	C_1	-0.53	
$C_2 = A \times R2 + B \times R + C$	C_2	-0.14	
Unit Peak Discharge	q_u	698.98	$cfs/mi^2/in$
Peak Discharge $[Q_p = q_u \times A \times Q / 640]$	Q_p	**1.30**	cfs

Proposed Device

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Peak Flow Provided	Q_p	**1.5**	cfs
Water Quality Volume Provided $[WQ_V = 640 \times 3600 \times Q_P / q_u]$	WQ_V	**4,944**	CF
Model Designation		CDS-5	
Quantity		1	

Date Printed: 4/12/2022

PROPRIETARY PRACTICE WORKSHEET

JMC Project:	**20105**
Design Point:	**1**
Drainage Area:	**1A**

Continuous Deflective Separation Unit 1A2

Rainfall Distribution Type: **III**

Coefficients for the equation unit peak $[R = I_a / P]$ $[C_i = A \times R^2 + B \times R + C]$

	A	B	C
C_0	-1.774	0.3301	2.4577
C_1	1.8622	-0.7397	-0.4627
C_2	-0.0648	0.2276	-0.1932

Site Data for Drainage Area to be Treated by Practice

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Design Storm [90% Rainfall Event Number]	P	1.5	In
Impervious Area	I	0.08	Ac
Area	A	2.69	Ac
Percent Impervious	%I	3.00	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.08	CF
TOTAL VOLUME Required $[WQ_V = (P \times R_V \times A) / 12]$	WQ_V	**1,127**	CF

Water Quality Peak Flow Calculation

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	1,127	CF
Design Storm [90% Rainfall Event Number] **or** [1-yr Storm Depth]	P	1.5	In
Time of Concentration	t_c	0.0833	Hr
Runoff Volume $[Q = WQ_V / (A \times 3630)]$	Q	0.12	In
Curve Number $[CN = 1000 / (10 + 5P + 10Q - 10 \times (Q^2 + 1.25\, QP)^{½}]$	CN	72.15	
Curve Number	CN	72	
Initial Abstraction $[I_a = 200 / CN - 2]$	I_a	0.77	In
Ratio $[R = I_a / P]$	R	0.51	
$C_0 = A \times R^2 + B \times R + C$	C_0	2.16	
$C_1 = A \times R2 + B \times R + C$	C_1	-0.35	
$C_2 = A \times R2 + B \times R + C$	C_2	-0.09	
Unit Peak Discharge	q_u	267.29	$cfs/mi^2/in$
Peak Discharge $[Q_p = q_u \times A \times Q / 640]$	Q_p	**0.13**	cfs

Proposed Device

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Peak Flow Provided	Q_p	**0.5**	cfs
Water Quality Volume Provided $[WQ_V = 640 \times 3600 \times Q_P / q_u]$	WQ_V	**4,482**	CF
Model Designation		CDS-3	
Quantity		1	

Date Printed: 4/12/2022

PROPRIETARY PRACTICE WORKSHEET

JMC Project:	**20105**
Design Point:	**1**
Drainage Area:	**1A**

Continuous Deflective Separation Unit 1A3

Rainfall Distribution Type: **III**

Coefficients for the equation unit peak $[R = I_a / P]$ $[C_i = A \times R^2 + B \times R + C]$

	A	B	C
C_0	-1.774	0.3301	2.4577
C_1	1.8622	-0.7397	-0.4627
C_2	-0.0648	0.2276	-0.1932

Site Data for Drainage Area to be Treated by Practice

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Design Storm [90% Rainfall Event Number]	P	1.5	In
Impervious Area	I	0.62	Ac
Area	A	2.69	Ac
Percent Impervious	%I	23.19	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.26	CF
TOTAL VOLUME Required $[WQ_V = (P \times R_V \times A) / 12]$	WQ_V	**3,786**	CF

Water Quality Peak Flow Calculation

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	3,786	CF
Design Storm [90% Rainfall Event Number] **or** [1-yr Storm Depth]	P	1.5	In
Time of Concentration	t_c	0.0833	Hr
Runoff Volume $[Q = WQ_V / (A \times 3630)]$	Q	0.39	In
Curve Number $[CN = 1000 / (10 + 5P + 10Q - 10 \times (Q^2 + 1.25\,QP)^{½}]$	CN	83.27	
Curve Number	CN	83	
Initial Abstraction $[I_a = 200 / CN - 2]$	I_a	0.40	In
Ratio $[R = I_a / P]$	R	0.27	
$C_0 = A \times R^2 + B \times R + C$	C_0	2.42	
$C_1 = A \times R2 + B \times R + C$	C_1	-0.53	
$C_2 = A \times R2 + B \times R + C$	C_2	-0.14	
Unit Peak Discharge	q_u	673.49	$cfs/mi^2/in$
Peak Discharge $[Q_p = q_u \times A \times Q / 640]$	Q_p	**1.10**	cfs

Proposed Device

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Peak Flow Provided	Q_p	**1.5**	cfs
Water Quality Volume Provided $[WQ_V = 640 \times 3600 \times Q_P / q_u]$	WQ_V	**5,131**	CF
Model Designation		CDS-5	
Quantity		1	

Date Printed: 4/12/2022

PROPRIETARY PRACTICE WORKSHEET

JMC Project:	**20105**
Design Point:	**1**
Drainage Area:	**1B**

Continuous Deflective Separation Unit 1B

Rainfall Distribution Type: **III**

Coefficients for the equation unit peak
$[R = I_a / P]$
$[C_i = A \times R^2 + B \times R + C]$

	A	B	C
C_0	-1.774	0.3301	2.4577
C_1	1.8622	-0.7397	-0.4627
C_2	-0.0648	0.2276	-0.1932

Site Data for Drainage Area to be Treated by Practice

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Design Storm [90% Rainfall Event Number]	P	1.5	In
Impervious Area	I	0.53	Ac
Area	A	1.74	Ac
Percent Impervious	%I	30.33	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.32	CF
TOTAL VOLUME Required [$WQ_V = (P \times R_V \times A) / 12$]	WQ_V	**3,068**	CF

Water Quality Peak Flow Calculation

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	3,068	CF
Design Storm [90% Rainfall Event Number] **or** [1-yr Storm Depth]	P	1.5	In
Time of Concentration	t_c	0.0833	Hr
Runoff Volume [$Q = WQ_V / (A \times 3630)$]	Q	0.48	In
Curve Number [$CN = 1000 / (10 + 5P + 10Q - 10 \times (Q^2 + 1.25\,QP)^{1/2})$]	CN	85.81	
Curve Number	CN	86	
Initial Abstraction [$I_a = 200 / CN - 2$]	I_a	0.33	In
Ratio [$R = I_a / P$]	R	0.22	
$C_0 = A \times R^2 + B \times R + C$	C_0	2.44	
$C_1 = A \times R2 + B \times R + C$	C_1	-0.54	
$C_2 = A \times R2 + B \times R + C$	C_2	-0.15	
Unit Peak Discharge	q_u	710.68	$cfs/mi^2/in$
Peak Discharge [$Q_p = q_u \times A \times Q / 640$]	Q_p	**0.94**	cfs

Proposed Device

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Peak Flow Provided	Q_p	**1.5**	cfs
Water Quality Volume Provided [$WQ_V = 640 \times 3600 \times Q_P / q_u$]	WQ_V	**4,863**	CF
Model Designation		CDS-5	
Quantity		1	

Date Printed: 4/12/2022

PROPRIETARY PRACTICE WORKSHEET

JMC Project:	**20105**
Design Point:	**1**
Drainage Area:	**1C**

Continuous Deflective Separation Unit

Rainfall Distribution Type:	**III**

Coefficients for the equation unit peak $[R = I_a / P]$ $[C_i = A \times R^2 + B \times R + C]$		A	B	C
	C_0	-1.774	0.3301	2.4577
	C_1	1.8622	-0.7397	-0.4627
	C_2	-0.0648	0.2276	-0.1932

Site Data for Drainage Area to be Treated by Practice

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Design Storm [90% Rainfall Event Number]	P	1.5	In
Impervious Area	I	2.88	Ac
Area	A	4.41	Ac
Percent Impervious	%I	65.42	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.64	CF
TOTAL VOLUME Required $[WQ_V = (P \times R_V \times A) / 12]$	WQ_V	**15,328**	CF

Water Quality Peak Flow Calculation

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	15,328	CF
Design Storm [90% Rainfall Event Number] **or** [1-yr Storm Depth]	P	1.5	In
Time of Concentration	t_c	0.0833	Hr
Runoff Volume $[Q = WQ_V / (A \times 3630)]$	Q	0.96	In
Curve Number $[CN = 1000 / (10 + 5P + 10Q - 10 \times (Q^2 + 1.25\ QP)^{½}]$	CN	94.29	
Curve Number	CN	94	
Initial Abstraction $[I_a = 200 / CN - 2]$	I_a	0.12	In
Ratio $[R = I_a / P]$	R	0.08	
$C_0 = A \times R^2 + B \times R + C$	C_0	2.47	
$C_1 = A \times R2 + B \times R + C$	C_1	-0.51	
$C_2 = A \times R2 + B \times R + C$	C_2	-0.18	
Unit Peak Discharge	q_u	659.74	$cfs/mi^2/in$
Peak Discharge $[Q_p = q_u \times A \times Q / 640]$	Q_p	**4.35**	cfs

Proposed Device

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Peak Flow Provided	Q_p	**5.8**	cfs
Water Quality Volume Provided $[WQ_V = 640 \times 3600 \times Q_P / q_u]$	WQ_V	**20,255**	CF
Model Designation		CDS-10	
Quantity		1	

Date Printed: 4/12/2022

APPENDIX D

GEOTECHNICAL REPORT

GTA Engineering Services of New York, P.C.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

An affiliate of Geo-Technology Associates, Inc.

April 07, 2022

2500/2700 Westchester Avenue Owner SPE, LLC
c/o Senlac Ridge Partners
53 Maple Avenue
Morristown, NJ 07960

Attn: Mr. Christopher K. Richter, P.E., P.P.

Re: Report for Geotechnical Engineering Services
2700 Westchester Avenue Infiltration
Purchase, Westchester County, NY

Dear Chris:

In accordance with our proposal dated February 25, 2022, GTA Engineering Services of New York, P.C. (GTA) has performed infiltration testing for the preliminary site grading and storm water design for the proposed 69-unit, 3-story townhome development. The results of the field exploration and GTA's findings are included in this report. The site is located at 2700 Westchester Avenue in Purchase, New York as shown in Figure 1. The site is currently occupied by a 4-story office building.

SUBSURFACE EXPLORATION

Eight borings were performed on March 31 and April 1, 2022 by Soiltesting, Inc. using truck-mounted drilling equipment. The test holes were advanced with hollow stem augers to depths ranging from 2 to 12 feet below the existing ground surface. Standard Penetration Testing (SPT) was performed with a manual safety hammer at two-foot intervals within the boreholes in accordance with procedures of ASTM D1586. The SPT involves driving a 2-inch O.D., 1⅜-inch I.D. split-spoon sampler with a 140-pound pound hammer free-falling from a height of 30-inches. The number of blows required to drive the sampler was recorded in six-inch intervals. The SPT N-value, given as blows per foot, is defined as the total number of blows required to drive the sampler from the 6- to 18-inch interval.

GTA personnel located the explorations in the field, documented drilling procedures, maintained continuous logs of the explorations, and obtained soil samples. The approximate locations of the explorations are shown on the Boring Location Plan, which is included as Figure 2 in Appendix A. Detailed descriptions of the encountered subsurface conditions are indicated on the Logs of Borings, which are presented in Appendix B.

Soil samples obtained from the borings were brought to GTA's laboratory for visual classification by a geotechnical engineer and limited laboratory testing. The soils were classified in accordance with the Unified Classification System (USCS). The descriptions provided on the logs are based on visual observations of the samples and supplemented by laboratory test results as summarized in the Notes for Exploration Logs in Appendix B.

SUBSURFACE CONDITIONS

In general, the subsurface conditions consisted of a layer of fill material underlain by native, glacially derived soil. The fill material primarily consisted of processed rock, which presented as silty sand with gravel sized rock fragments. Asphalt fragments were also observed in the fill layer. The fill was typically medium dense to very dense in term of relative density with the exceptions of Borings B-5 and B-8, which contained zones of loose material. The glacial soil consisted of silty sand (SM) with vary percentages of gravel was medium dense to very dense in terms of relative density based on the SPT N-values.

Groundwater was not observed during the drilling operations. Long-term groundwater readings were not obtained as the explorations were backfilled upon completion for safety considerations. It should be expected that the groundwater level will fluctuate due to several factors, such as variations in precipitation, seasonal changes, and site development activities and seepage of perched or trapped water may occur at varying depths throughout the site.

LABORATORY TESTING

Laboratory testing performed for this study included gradation analyses for classification of the soils in accordance with the Unified Soil Classification System (USCS) and natural moisture content determinations. Classification of soils in accordance with the USCS provides information regarding the engineering properties of the on-site materials that will likely support foundations, slabs, or infiltrate water. The results of the gradation testing performed for this study are summarized in the table below. Detailed results of the laboratory testing performed for this study are included in Appendix C.

SUMMARY OF GRADATION TESTING

BORING LOCATION	DEPTH (ft.)	NATURAL MOISTURE CONTENT (%)	USCS CLASSIFICATION
B-3	8.5	11.7	SM (Silty SAND with Gravel)
B-4	4	13.0	SM (Silty SAND with Gravel)
B-5	6	7.3	SM (Silty SAND)

INFILTRATION TESTING

In-situ infiltration tests were performed in the test borings at the recommended test depth developed by JMC Site Development Consultants, LLC. The infiltration testing was performed in general accordance with Appendix D of the New York State Stormwater Management Design Manual. The tests were performed within casings, which extended to the test depths determined by JMC Site Development Consultants, LLC and each test location was pre-soaked. Boring B-6/P-6 was abandoned due to an underground structure and consequently, infiltration was not preformed at this location. The soil encountered at the test depths within the borings generally consisted of silty sand with varying percentages of gravel. The test results are summarized in the following table.

SUMMARY OF INFILTRATION TEST RESULTS

Infiltration Test Number	Approximate Test Depth (ft.)	Infiltration Rate (in./hr.)
P-1	7.5	38.0
P-2	9.0	23.0
P-3	10.5	Free Draining
P-4	5.0	3.0
P-5	7.0	9.5
P-6	N/A	N/A
P-7	9.0	3.5
P-8	11.0	6.0

The primary conditions that affect the capacity of soils to infiltrate water are the soil gradation and density properties and the presence of hydraulically restrictive layers such silt or clay (fines), rock, or groundwater, each of which would restrict the flow into the underlying aquifer. Based on the results of our field and laboratory testing, it is GTA's professional opinion that the natural soils tested are suitable for infiltration of collected stormwater.

Construction oversight by competent engineering personnel during installation of stormwater management facilities is critical to successful functioning of the system. Ideally, construction oversight should be provided by the geotechnical engineer, or qualified representative, retained by the project owner to document construction operations and assure that project specifications and special construction requirements are met. Periodic inspection and maintenance of the system will be required to maximize the efficiency and design life of the system.

This letter, including all supporting boring logs, field data, field notes, test data, calculations, estimates and other documents prepared by GTA in connection with this Project have been prepared for the exclusive use of 2500/2700 Westchester Avenue Owner SPE, LLC (Client) pursuant to our proposal dated February 25, 2022 and in accordance with generally accepted engineering practice. All terms and conditions set forth in the Agreement and the General Provisions attached thereto are incorporated herein by reference. No warranty, express or implied, is made herein. Use and reproduction of this report by any other person without the expressed written permission of GTA and Client is unauthorized and such use is at the sole risk of the user.

In the event that any changes in the nature, design, or location of the facilities are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report are verified in writing. GTA is not responsible for any claims, damages, or liability associated with interpretation of subsurface data or reuse of the subsurface data or engineering analysis without the expressed written authorization of GTA.

The scope of our services for this geotechnical exploration did not include any environmental assessment or investigation for the presence or absence of wetlands, or hazardous or toxic materials in the soil, surface water, groundwater or air, on or below or around this site.

Very truly yours,
GTA Engineering Services of New York, P.C.

Benjamin Gelfand

Benjamin Gelfand,
Project Geologist

Robert Dykstra

Robert Dykstra, P.E.
Vice President

GTA Job No. 34220511
GBA—*Important Information About Your Geotechnical Engineering Report*

APPENDICES

Appendix A – Figures (2 pages)
- Figure 1 – Site Location Map
- Figure 2 – Boring Location Plan

Appendix B – Exploration Logs (16 pages)
- Notes for Exploration Logs
- Logs of Borings
- Infiltration Test Reports

Appendix C – Laboratory Data (3 pages)
- Particle Size Distribution Reports

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept* *responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are <u>not</u> final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for information purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are <u>Not</u> Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

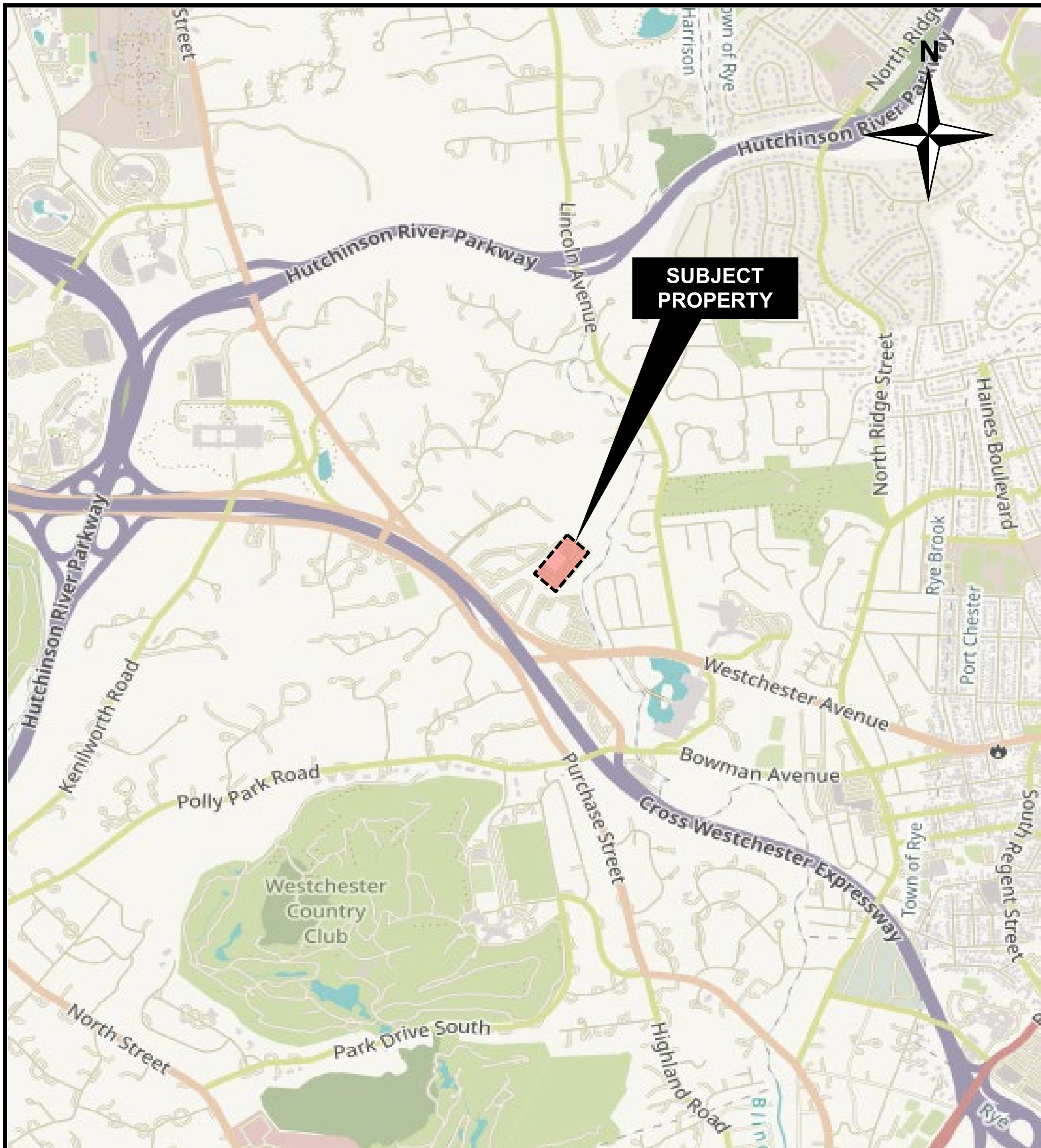
While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, ***proper implementation of the geotechnical engineer's recommendations will <u>not</u> of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration*** by including building-envelope or mold specialists on the design team. ***Geotechnical engineers are <u>not</u> building-envelope or mold specialists.***

GEOPROFESSIONAL BUSINESS ASSOCIATION

Telephone: 301/565-2733
e-mail: info@geoprofessional.org www.geoprofessional.org

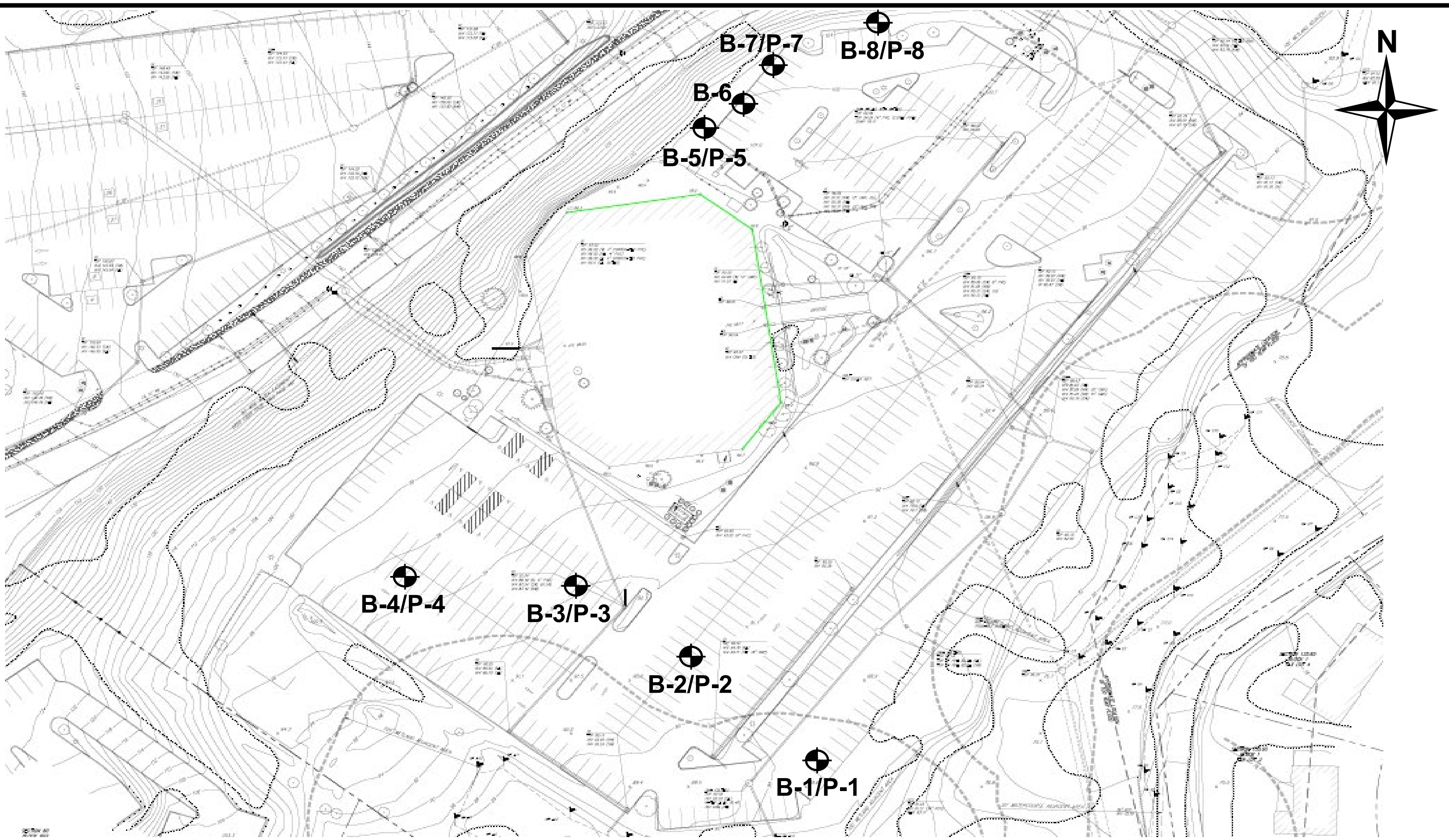
APPENDIX A

Figures



SITE LOCATION MAP	2700 Westchester Avenue
211-K Gates Road Little Ferry, New Jersey 07643 (201) 641-1850 fax (201) 641-1655 GTA ENGINEERING SERVICES OF NEW YORK, P.C.	Town of Harrison, New York Prepared For: 2500/2700 Westchester Avenue Owner SPE, LLC
	SOURCE: Open Street Maps, 2022
	SCALE: NTS · DATE: APR 2022 · PROJECT #: 34220511

Figure 1



BORING LOCATION PLAN

GTA

211-K Gates Road
Little Ferry, New Jersey 07643
(201) 641-1850
fax (201) 641-1655

GTA ENGINEERING SERVICES
OF NEW YORK, P.C.

LEGEND:

B-X/P-X Approximate location of test boring with infiltration test performed

2700 Westchester Avenue

Town of Harrison, New York

Prepared For: 2500/2700 Westchester Avenue Owner SPE, LLC

DESIGN BY: *	DRAWN BY:	REVIEWED BY: RD
SCALE: NTS	DATE: APR 2022	PROJECT #: 34220511

APPENDIX B

Exploration Logs

NOTES FOR EXPLORATION LOGS

KEY TO USCS TERMINOLOGY AND GRAPHIC SYMBOLS

MAJOR DIVISIONS (BASED UPON ASTM D 2488)				SYMBOLS GRAPHIC	SYMBOLS LETTER
COARSE-GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LESS THAN 15% PASSING THE NO. 200 SIEVE)			GW
					GP
		GRAVELS WITH FINES (MORE THAN 15% PASSING THE NO. 200 SIEVE)			GM
					GC
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LESS THAN 15% PASSING THE NO. 200 SIEVE)			SW
					SP
		SANDS WITH FINES (MORE THAN 15% PASSING THE NO. 200 SIEVE)			SM
					SC
FINE-GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILT OR CLAY (<15% RETAINED ON THE NO. 200 SIEVE) SILT OR CLAY WITH SAND OR GRAVEL (15% TO 30% RETAINED ON THE NO. 200 SIEVE) SANDY OR GRAVELLY SILT OR CLAY (>30% RETAINED ON THE NO. 200 SIEVE)		SILTS AND LEAN CLAYS LIQUID LIMIT LESS THAN 50		ML
					CL
					OL
			ELASTIC SILTS AND FAT CLAYS LIQUID LIMIT GREATER THAN 50		MH
					CH
					OH
HIGHLY ORGANIC SOILS					PT

NOTE: DUAL SYMBOLS ARE USED TO INDICATE COARSE-GRAINED SOILS WHICH CONTAIN AN ESTIMATED 5 TO 15% FINES BASED ON VISUAL CLASSIFICATION OR BETWEEN 5 AND 12% FINES BASED ON LABORATORY TESTING; AND FINE-GRAINED SOILS WHEN THE PLOT OF LIQUID LIMIT & PLASTICITY INDEX VALUES FALLS IN THE PLASTICITY CHART'S CROSS-HATCHED AREA. FINE-GRAINED SOILS ARE CLASSIFIED AS ORGANIC (OL OR OH) WHEN ENOUGH ORGANIC PARTICLES ARE PRESENT TO INFLUENCE ITS PROPERTIES. LABORATORY TEST RESULTS ARE USED TO SUPPLEMENT SOIL CLASSIFICATION BY THE VISUAL-MANUAL PROCEDURES OF ASTM D 2488.

ADDITIONAL TERMINOLOGY AND GRAPHIC SYMBOLS

	DESCRIPTION		GRAPHIC SYMBOLS
ADDITIONAL DESIGNATIONS	TOPSOIL		
	MAN MADE FILL		
	GLACIAL TILL		
	COBBLES AND BOULDERS		
RESIDUAL SOIL DESIGNATIONS	DESCRIPTION	"N" VALUE	
	HIGHLY WEATHERED ROCK	50 TO 50/1"	
	PARTIALLY WEATHERED ROCK	MORE THAN 50 BLOWS FOR 1" OF PENETRATION OR LESS, AUGER PENETRABLE	

COARSE-GRAINED SOILS
(GRAVEL AND SAND)

DESIGNATION	BLOWS PER FOOT (BPF) "N"
VERY LOOSE	0 - 4
LOOSE	5 - 10
MEDIUM DENSE	11 - 30
DENSE	31 - 50
VERY DENSE	>50

NOTE: "N" VALUE DETERMINED AS PER ASTM D 1586

FINE-GRAINED SOILS
(SILT AND CLAY)

CONSISTENCY	BPF "N"
VERY SOFT	<2
SOFT	2 - 4
MEDIUM STIFF	5 - 8
STIFF	9 - 15
VERY STIFF	16 - 30
HARD	>30

NOTE: ADDITIONAL DESIGNATIONS TO ADVANCE SAMPLER INDICATED IN BLOW COUNT COLUMN:
WOH = WEIGHT OF HAMMER
WOR = WEIGHT OF ROD(S)

SAMPLE TYPE

DESIGNATION	SYMBOL
SOIL SAMPLE	S-
SHELBY TUBE	U-
ROCK CORE	R-

WATER DESIGNATION

DESCRIPTION	SYMBOL
ENCOUNTERED DURING DRILLING	
UPON COMPLETION OF DRILLING	
24 HOURS AFTER COMPLETION	

NOTE: WATER OBSERVATIONS WERE MADE AT THE TIME INDICATED. POROSITY OF SOIL STRATA, WEATHER CONDITIONS, SITE TOPOGRAPHY, ETC. MAY CAUSE WATER LEVEL CHANGES.

LOG OF BORING NO. B-1

PROJECT: **2700 Westchester Avenue Infiltration**
PROJECT NO.: **34220511**
PROJECT LOCATION: **Purchase, New York**

WATER LEVEL (ft):	NE	----	BOC
DATE:	3-31-22	----	3-31-22
NORTHING:	----	EASTING:	----

DATE STARTED: **3-31-2022**
DATE COMPLETED: **3-31-2022**
DRILLING CONTRACTOR: **Soil Testing Inc.**
DRILLER: **Sam**
DRILLING METHOD: **HSA**
SAMPLING METHOD: **SPT**

HAMMER TYPE: **Man/Safety**
GROUND SURFACE ELEVATION: **89.0 +/-**
DATUM: **TOPO**
EQUIPMENT: **Diedrick D120**
LOGGED BY: **BG**
CHECKED BY: **RD**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					89.0	0			5" Asphalt	
S-1	0.0	16	14-15-28-70	43	88.6		FILL		FILL: Gray-brown, moist, dense, silty sand with gravel, asphalt fragments, and cobbles	
						2				
S-2	4.0	10	9-14-26-31	40		4			-same, no asphalt fragments	
S-3	6.0	8	32-100/4"	100+		6			-same	-spoon refusal on cobble
						8				
S-4	10.0	NR	100/<1	100+	78.9	10			-same Boring complete at 10.1 ft.	-spoon refusal on boulder or bedrock

NOTES: **BOC = Backfilled on completion**

LOG OF BORING NO. B-2

PROJECT: **2700 Westchester Avenue Infiltration**
PROJECT NO.: **34220511**
PROJECT LOCATION: **Purchase, New York**

WATER LEVEL (ft):	NE	----	BOC
DATE:	3-31-22	----	3-31-22
NORTHING:	----	EASTING:	----

DATE STARTED: **3-31-2022**
DATE COMPLETED: **3-31-2022**
DRILLING CONTRACTOR: **Soil Testing Inc.**
DRILLER: **Sam**
DRILLING METHOD: **HSA**
SAMPLING METHOD: **SPT**

HAMMER TYPE: **Man/Safety**
GROUND SURFACE ELEVATION: **91.0 +/-**
DATUM: **TOPO**
EQUIPMENT: **Diedrick D120**
LOGGED BY: **BG**
CHECKED BY: **RD**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					91.0	0			9" Asphalt	
					90.2		FILL		FILL: Gray-brown, moist, very dense, silty sand with asphalt fragments, gravel and cobbles	
S-1	1.0	14	24-46-50/3"	96+		2				
S-2	4.0	1	50/1"	50+		4			-same, very dense, no asphalt	
						6				
S-3	8.0	24	24-68-38-54	106		8			-same, brown	
					81.0	10			Boring complete at 10 ft.	

NOTES: **BOC = Backfilled on completion**

LOG OF BORING NO. B-3

PROJECT: **2700 Westchester Avenue Infiltration**
PROJECT NO.: **34220511**
PROJECT LOCATION: **Purchase, New York**

WATER LEVEL (ft): **NE** | **----** | **BOC**
DATE: **3-31-22** | **----** | **3-31-22**
NORTHING: **----** EASTING: **----**

DATE STARTED: **3-31-2022**
DATE COMPLETED: **3-31-2022**
DRILLING CONTRACTOR: **Soil Testing Inc.**
DRILLER: **Sam**
DRILLING METHOD: **HSA**
SAMPLING METHOD: **SPT**

HAMMER TYPE: **Man/Safety**
GROUND SURFACE ELEVATION: **92.0 +/-**
DATUM: **TOPO**
EQUIPMENT: **Diedrick D120**
LOGGED BY: **BG**
CHECKED BY: **RD**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					92.0	0			8" Asphalt	
					91.3		FILL		FILL: Gray-brown, moist, very dense, silty sand with asphalt fragments, gravel and cobbles	
S-1	1.0	20	15-28-17-37	45		2				
S-2	4.0	6	6-16-11-11	27		4			-same, medium dense, no asphalt fragments	
S-3	6.0	4	9-11-7-50/5"	18		6				-spoon refusal on cobble
S-4	8.5	4	8-12-20-10	32		8			-same, dense silty sand with gravel	
					81.5	10			Boring complete at 10.5 ft.	

NOTES: **BOC = Backfilled on completion**

LOG OF BORING NO. B-3

LOG OF BORING NO. B-4

PROJECT: **2700 Westchester Avenue Infiltration**
PROJECT NO.: **34220511**
PROJECT LOCATION: **Purchase, New York**

WATER LEVEL (ft):	NE	----	BOC
DATE:	3-31-22	----	3-31-22
NORTHING:	----	EASTING:	----

DATE STARTED: **3-31-2022**
DATE COMPLETED: **3-31-2022**
DRILLING CONTRACTOR: **Soil Testing Inc.**
DRILLER: **Sam**
DRILLING METHOD: **HSA**
SAMPLING METHOD: **SPT**

HAMMER TYPE: **Man/Safety**
GROUND SURFACE ELEVATION: **95.5 +/-**
DATUM: **TOPO**
EQUIPMENT: **Diedrick D120**
LOGGED BY: **BG**
CHECKED BY: **RD**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					95.5	0			8" Asphalt	
					94.8		FILL		FILL: Gray-brown, moist, very dense, silty sand with asphalt fragments, gravel and cobbles	
S-1	1.0	10	18-36-37-46	73		2				
						4			-same, no asphalt (brown silty sand)	
S-2	4.0	15	24-36-18-41	54						
					89.5	6			Boring complete at 6 ft.	

NOTES: **BOC = Backfilled on completion**

LOG OF BORING NO. B-5

PROJECT: **2700 Westchester Avenue Infiltration**
PROJECT NO.: **34220511**
PROJECT LOCATION: **Purchase, New York**

WATER LEVEL (ft):	NE	----	BOC
DATE:	4-1-22	----	4-1-22

NORTHING: ---- EASTING: ----

DATE STARTED: **4-1-2022**
DATE COMPLETED: **4-1-2022**
DRILLING CONTRACTOR: **Soil Testing Inc.**
DRILLER: **Sam**
DRILLING METHOD: **HSA**
SAMPLING METHOD: **SPT**

HAMMER TYPE: **Man/Safety**
GROUND SURFACE ELEVATION: **100.0 +/-**
DATUM: **TOPO**
EQUIPMENT: **Diedrick D120**
LOGGED BY: **BG**
CHECKED BY: **RD**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					100.0	0	TS		5" Topsoil	
S-1	0.0	6	6-6-5-32	11	99.6		FILL		FILL: Brown, moist, medium dense, silty sand with gravel and trace debris	
S-2	2.0	0	50/1"	50+		2			-same	-refusal on cobble
S-3	4.0	8	5-2-2-2	4		4			-same, loose, no debris, less fines	
S-4	6.0	4	2-2-2-2	4		6			-same gray silty sand	
					92.0	8			Boring complete at 8 ft.	

NOTES: **BOC = Backfilled on completion**

LOG OF BORING NO. B-6

PROJECT: **2700 Westchester Avenue Infiltration**
PROJECT NO.: **34220511**
PROJECT LOCATION: **Purchase, New York**

WATER LEVEL (ft):	NE	----	BOC
DATE:	4-1-22	----	4-1-22
NORTHING:	----	EASTING:	----

DATE STARTED: **4-1-2022**
DATE COMPLETED: **4-1-2022**
DRILLING CONTRACTOR: **Soil Testing Inc.**
DRILLER: **Sam**
DRILLING METHOD: **HSA**
SAMPLING METHOD: **SPT**

HAMMER TYPE: **Man/Safety**
GROUND SURFACE ELEVATION: **101.5 +/-**
DATUM: **TOPO**
EQUIPMENT: **Diedrick D120**
LOGGED BY: **BG**
CHECKED BY: **RD**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					101.5	0	TS		4" Topsoil	
S-1	0.0	14	6-8-39-50/1"	47	101.2		FILL		FILL: Brown, moist, dense, silty sand with gravel and concrete fragments -spoon and auger refusal on concrete slab at 1'10"	-hole moved 4 times
					99.5	2			Boring terminated at 2 ft. due to underground water tank	

NOTES: **BOC = Backfilled on completion**

LOG OF BORING NO. B-7

PROJECT: **2700 Westchester Avenue Infiltration**
PROJECT NO.: **34220511**
PROJECT LOCATION: **Purchase, New York**

WATER LEVEL (ft): **NE** | **----** | **BOC**
DATE: **4-1-22** | **----** | **4-1-22**
NORTHING: **----** EASTING: **----**

DATE STARTED: **4-1-2022**
DATE COMPLETED: **4-1-2022**
DRILLING CONTRACTOR: **Soil Testing Inc.**
DRILLER: **Sam**
DRILLING METHOD: **HSA**
SAMPLING METHOD: **SPT**

HAMMER TYPE: **Man/Safety**
GROUND SURFACE ELEVATION: **102.0 +/-**
DATUM: **TOPO**
EQUIPMENT: **Diedrick D120**
LOGGED BY: **BG**
CHECKED BY: **RD**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
S-1	0.0	12	5-12-27-44	39	102.0	0	TS		6" Topsoil	
					101.5		FILL		FILL: Brown, moist, medium dense, silty sand with gravel and trace debris	
S-2	2.0	20	48-57-59-47	116		2			-same, very dense, with cobbles	
S-3	4.0	8	15-12-14-14	26		4			-same, medium dense	
S-4	6.0	4	13-10-10-9	20		6			-same	
S-5	8.0	10	14-28-41-59	69		8			-same, very dense	
					92.0	10			Boring complete at 10 ft.	

NOTES: **BOC = Backfilled on completion**

LOG OF BORING NO. B-8

PROJECT: **2700 Westchester Avenue Infiltration**
PROJECT NO.: **34220511**
PROJECT LOCATION: **Purchase, New York**

WATER LEVEL (ft):	NE	----	BOC
DATE:	4-1-22	----	4-1-22

NORTHING: ---- EASTING: ----

DATE STARTED: **4-1-2022**
DATE COMPLETED: **4-1-2022**
DRILLING CONTRACTOR: **Soil Testing Inc.**
DRILLER: **Sam**
DRILLING METHOD: **HSA**
SAMPLING METHOD: **SPT**

HAMMER TYPE: **Man/Safety**
GROUND SURFACE ELEVATION: **103.5 +/-**
DATUM: **TOPO**
EQUIPMENT: **Diedrick D120**
LOGGED BY: **BG**
CHECKED BY: **RD**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					103.5	0			2" Topsoil	
S-1	0.0	4	5-4-3-3	7	103.3		FILL		FILL: Brown, moist, medium dense, silty sand with gravel and trace debris	
S-2	2.0	2	5-3-6-10	9		2			-more gravel	
S-3	4.0	12	10-12-26-24	38	99.5	4	SM		Brown, moist, dense, Silty SAND with Gravel	
S-4	6.0	4	17-17-11-12	28		6			-same, gray-brown, medium dense	
S-5	8.0	4	3-3-4-50/1"	7		8			-same	-spoon refusal on cobble boulder/
S-6	10.0	8	10-15-14-21	29		10			-same	
					91.5	12			Boring complete at 12 ft.	

NOTES: **BOC = Backfilled on completion**

GTA Engineering Services of New York, P.C.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

An affiliate of Geo-Technology Associates, Inc.

Date: 3/31/2022

2500/2700 Westchester Avenue Owner SPE, LLC 53 Maple Avenue Morristown, NJ 07960	

Project Name:	2700 Westchester Avenue
Project Location:	Purchase, NY
Project Number:	34220511

Infiltration Test Performed in Boring:	P-1
Ground Surface Elevation (Approx):	89.0 +/-
Test Elevation below Existing Grade:	7.5 ft.
Depth to Groundwater	NE
Datum:	NAVD88

Drill Rig:	Diedrich D-120
Driller:	Sam

Drilling Method:	HSA
Special Inspector:	BG

Infiltration Test Results:

Infiltration Time (minutes)	Infiltration Level Draw Down (inches)	Infiltration Rate (inches/min)
30	Pre-Soak	
0	0.000	0.000
1	1.625	1.625
5	7.250	1.406
10	12.375	1.025
15	16.625	0.850
30	26.125	0.633

Notes: 38.0 Inches/hour

211-K Gates Road, Little Ferry, NJ 07643 (201) 641-1850 Fax: (201) 641-1652

✦ Abingdon, MD ✦ Baltimore, MD ✦ Laurel, MD ✦ Frederick, MD ✦ Waldorf, MD ✦ Sterling, VA ✦ Fredericksburg, VA ✦ Malvern, OH
✦ Somerset, NJ ✦ NYC Metro ✦ New Castle, DE ✦ Georgetown, DE ✦ York, PA ✦ Quakertown, PA ✦ Towanda, PA ✦ Charlotte, NC ✦ Raleigh, NC

Visit us on the web at www.gtaeng.com

GTA Engineering Services of New York, P.C.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

An affiliate of Geo-Technology Associates, Inc.

Date: 3/31/2022

2500/2700 Westchester Avenue
Owner SPE, LLC
53 Maple Avenue Morristown, NJ 07960

Project Name:	2700 Westchester Avenue
Project Location:	Purchase, NY
Project Number:	34220511

Infiltration Test Performed in Boring:	P-2
Ground Surface Elevation (Approx):	91.0 +/-
Test Elevation below Existing Grade:	9 ft.
Depth to Groundwater	NE
Datum:	NAVD88

Drill Rig:	Diedrich D-120
Driller:	Sam

Drilling Method:	HSA
Special Inspector:	BG

Infiltration Test Results:

Infiltration Time (minutes)	Infiltration Level Draw Down (inches)	Infiltration Rate (inches/min)
30	Pre-Soak	
0	0.000	0.000
1	1.250	1.250
5	2.250	0.250
10	4.750	0.500
15	7.250	0.500
30	13.000	0.383

Notes: 23.0 Inches/hour

GTA Engineering Services of New York, P.C.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

An affiliate of Geo-Technology Associates, Inc.

Date: 3/31/2022

2500/2700 Westchester Avenue
Owner SPE, LLC
53 Maple Avenue Morristown, NJ 07960

Project Name:	2700 Westchester Avenue
Project Location:	Purchase, NY
Project Number:	34220511

Infiltration Test Performed in Boring:	P-3
Ground Surface Elevation (Approx):	92.0 +/-
Test Elevation below Existing Grade:	10.5 ft.
Depth to Groundwater	NE
Datum:	NAVD88

Drill Rig:	Diedrich D-120
Driller:	Sam

Drilling Method:	HSA
Special Inspector:	BG

Infiltration Test Results:

Infiltration Time (minutes)	Infiltration Level Draw Down (inches)	Infiltration Rate (inches/min)
30	Pre-Soak	
0	0.000	0.000
1	6.000	6.000
5	28.000	5.500
10	60.000	6.400
15	Total Loss	NA
30	NA	NA

Notes: Free draining

GTA Engineering Services of New York, P.C.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

An affiliate of Geo-Technology Associates, Inc.

Date: 3/31/2022

2500/2700 Westchester Avenue Owner SPE, LLC 53 Maple Avenue Morristown, NJ 07960	

Project Name:	2700 Westchester Avenue
Project Location:	Purchase, NY
Project Number:	34220511

Infiltration Test Performed in Boring:	P-4
Ground Surface Elevation (Approx):	95.5 +/-
Test Elevation below Existing Grade:	5 ft.
Depth to Groundwater	NE
Datum:	NAVD88

Drill Rig:	Diedrich D-120
Driller:	Sam

Drilling Method:	HSA
Special Inspector:	BG

Infiltration Test Results:

Infiltration Time (minutes)	Infiltration Level Draw Down (inches)	Infiltration Rate (inches/min)
30	Pre-Soak	
0	0.000	0.000
1	0.250	0.250
5	1.000	0.188
10	1.375	0.075
15	1.625	0.050
30	2.375	0.050

Notes: 3.0 Inches/hour

GTA Engineering Services of New York, P.C.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

An affiliate of Geo-Technology Associates, Inc.

Date: 4/1/2022

2500/2700 Westchester Avenue
Owner SPE, LLC
53 Maple Avenue Morristown, NJ 07960

Project Name:	2700 Westchester Avenue
Project Location:	Purchase, NY
Project Number:	34220511

Infiltration Test Performed in Boring:	P-5
Ground Surface Elevation (Approx):	100.0 +/-
Test Elevation below Existing Grade:	7.0 ft.
Depth to Groundwater	NE
Datum:	NAVD88

Drill Rig:	Diedrich D-120
Driller:	Sam

Drilling Method:	HSA
Special Inspector:	BG

Infiltration Test Results:

Infiltration Time (minutes)	Infiltration Level Draw Down (inches)	Infiltration Rate (inches/min)
30	Pre-Soak	
0	0.000	0.000
1	0.625	0.625
5	1.250	0.156
10	2.750	0.300
15	3.875	0.225
30	6.250	0.158

Notes: 9.5 Inches/hour

GTA Engineering Services of New York, P.C.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

An affiliate of Geo-Technology Associates, Inc.

Date: 4/1/2022

2500/2700 Westchester Avenue
Owner SPE, LLC
53 Maple Avenue Morristown, NJ 07960

Project Name:	2700 Westchester Avenue
Project Location:	Purchase, NY
Project Number:	34220511

Infiltration Test Performed in Boring:	P-7
Ground Surface Elevation (Approx):	102.0 +/-
Test Elevation below Existing Grade:	9 ft.
Depth to Groundwater	NE
Datum:	NAVD88

Drill Rig:	Diedrich D-120
Driller:	Sam

Drilling Method:	HSA
Special Inspector:	BG

Infiltration Test Results:

Infiltration Time (minutes)	Infiltration Level Draw Down (inches)	Infiltration Rate (inches/min)
30	Pre-Soak	
0	0.000	0.000
1	0.125	0.125
5	0.250	0.031
10	0.875	0.125
15	1.375	0.100
30	2.250	0.058

Notes: 3.5 Inches/hour

GTA Engineering Services of New York, P.C.
GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS
An affiliate of Geo-Technology Associates, Inc.

Date: 4/1/2022

2500/2700 Westchester Avenue
Owner SPE, LLC
53 Maple Avenue Morristown, NJ 07960

Project Name:	2700 Westchester Avenue
Project Location:	Purchase, NY
Project Number:	34220511

Infiltration Test Performed in Boring:	P-8
Ground Surface Elevation (Approx):	103.5 +/-
Test Elevation below Existing Grade:	11 ft.
Depth to Groundwater	NE
Datum:	NAVD88

Drill Rig:	Diedrich D-120
Driller:	Sam

Drilling Method:	HSA
Special Inspector:	BG

Infiltration Test Results:

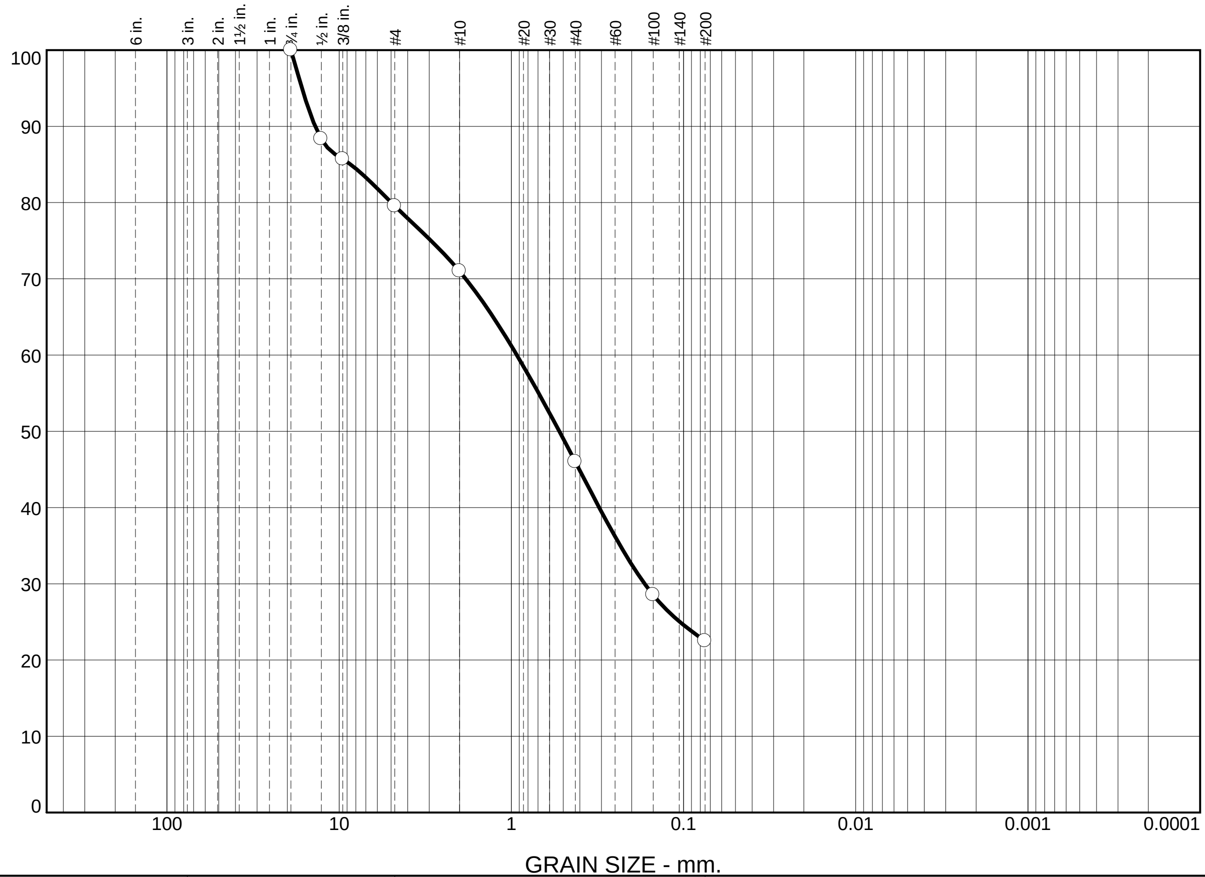
Infiltration Time (minutes)	Infiltration Level Draw Down (inches)	Infiltration Rate (inches/min)
30	Pre-Soak	
0	0.000	0.000
1	0.000	0.000
5	0.750	0.188
10	2.375	0.325
15	3.000	0.125
30	4.500	0.100

Notes: 6.0 Inches/hour

APPENDIX C

Laboratory Data

Particle Size Distribution Report



% +3"	% Gravel Coarse	% Gravel Fine	% Sand Coarse	% Sand Medium	% Sand Fine	% Fines Silt	% Fines Clay
0.0	0.0	20.5	8.5	25.0	23.5	22.5	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
0	0	8.5896	0.9294	0.5268	0.1683				

Material Description	USCS	AASHTO
Gray Silty Sand with Gravel	SM	

Project No. 34220511 **Client:** 2500/2700 Westchester Avenue Owner SPE, LLC

Project: 2700 Westchester Avenue Infiltration Testing

Source of Sample: B-3 **Depth:** 8.5 **Sample Number:** S-4

GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

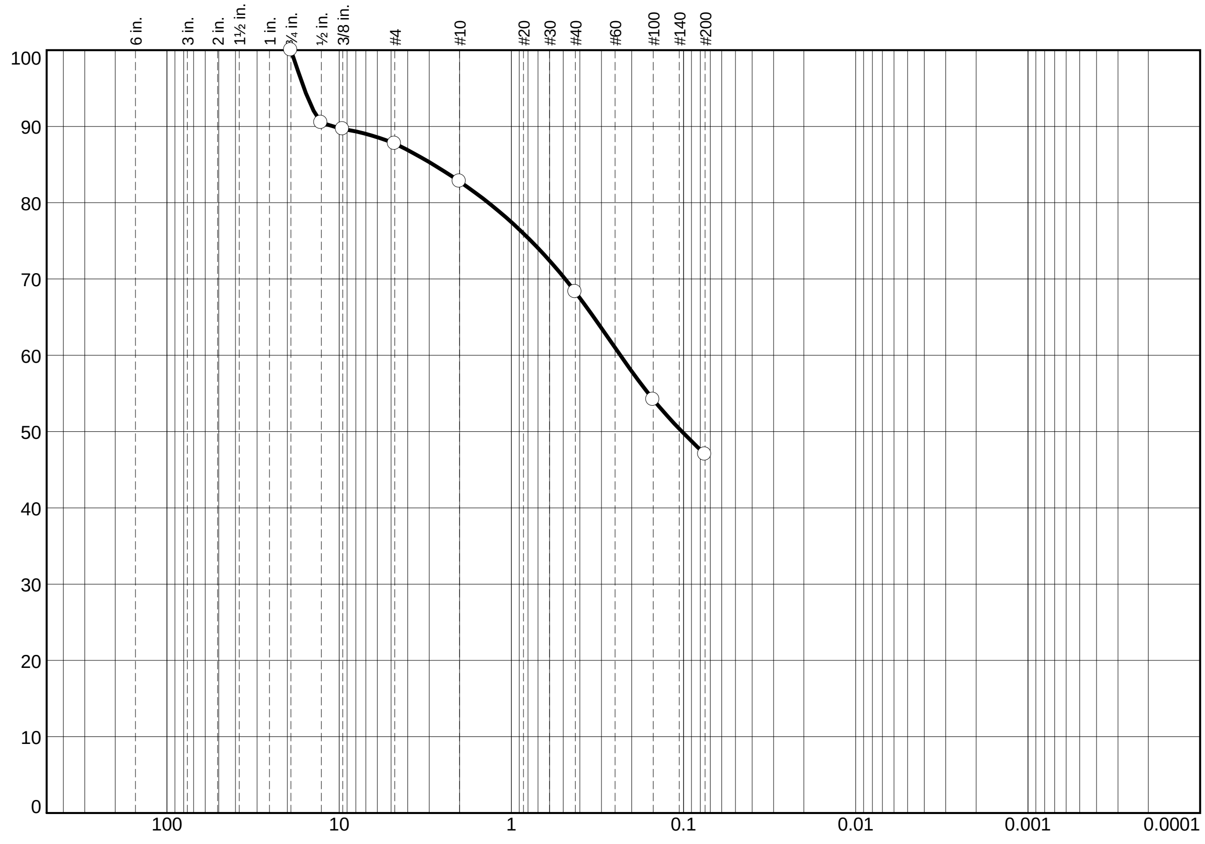
Remarks:
NMC = 11.7%

Figure

ASTM Specifications performed may include: D421, D422, D2216, D2217, and D4318.

Tested By: MB **Checked By:** RD

Particle Size Distribution Report



% +3"	% Gravel Coarse	% Gravel Fine	% Sand Coarse	% Sand Medium	% Sand Fine	% Fines Silt	% Fines Clay
○ 0.0	0.0	12.3	4.9	14.5	21.3	47.0	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○ 0	0	2.8391	0.2328	0.1021					

Material Description	USCS	AASHTO
○ Brown Silty Sand with Gravel	SM	

Project No. 34220511 **Client:** 2500/2700 Westchester Avenue Owner SPE, LLC

Project: 2700 Westchester Avenue Infiltration Testing

○ **Source of Sample:** B-4 **Depth:** 4 **Sample Number:** S-2

Remarks:
○NMC = 13.0%

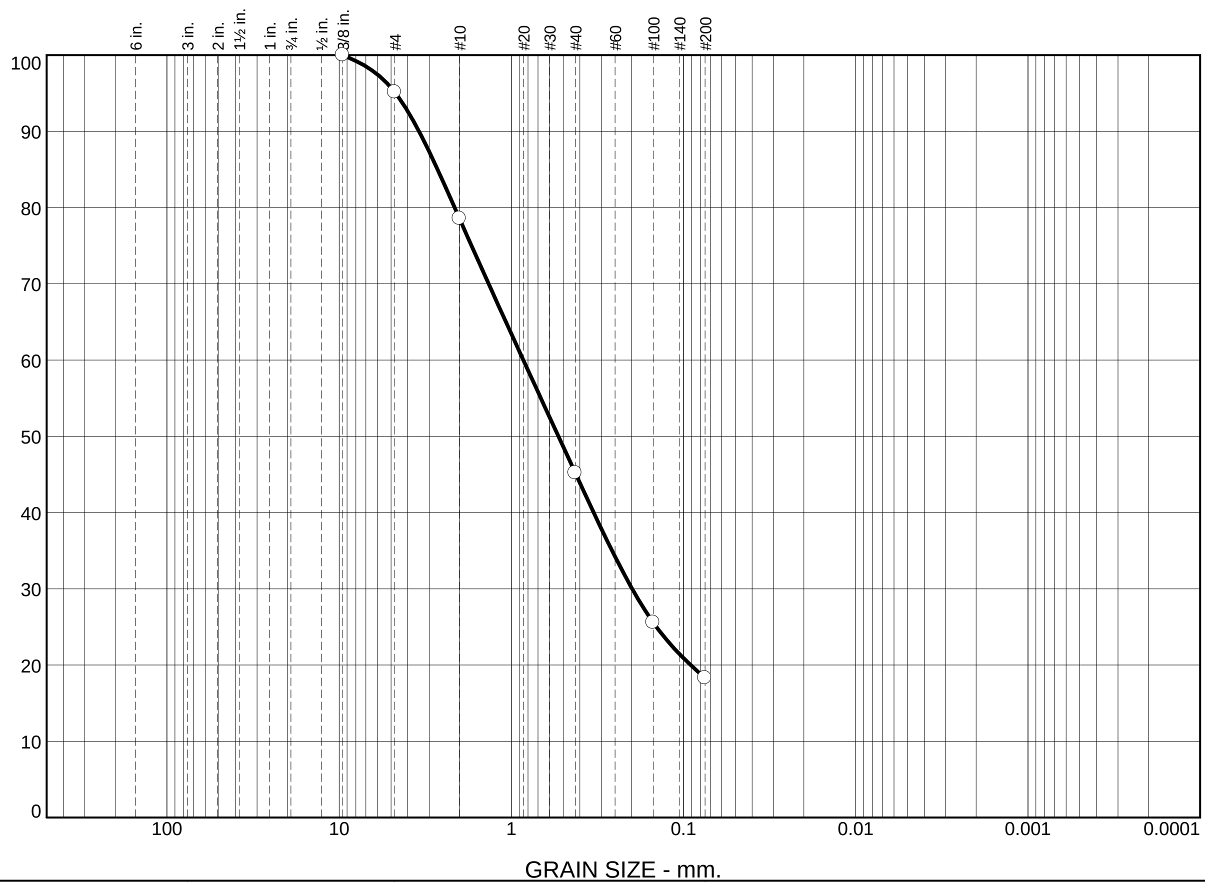
GTA
GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

Figure

ASTM Specifications performed may include: D421, D422, D2216, D2217, and D4318.

Tested By: MB **Checked By:** RD

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○ 0.0	0.0	4.9	16.6	33.3	26.9	18.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	0	0	2.6827	0.8520	0.5329	0.1989				

Material Description	USCS	AASHTO
○ Gray Silty Sand	SM	

Project No. 34220511 **Client:** 2500/2700 Westchester Avenue Owner SPE, LLC
Project: 2700 Westchester Avenue Infiltration Testing

○ **Source of Sample:** B-5 **Depth:** 6 **Sample Number:** S-4

Remarks:
○NMC = 7.3%

GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

Figure

ASTM Specifications performed may include: D421, D422, D2216, D2217, and D4318.

Tested By: MB **Checked By:** RD

APPENDIX E

STORMWATER PRACTICE, CONSTRUCTION INSPECTION CHECKLIST

Stormwater/Wetland Pond Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
Pre-Construction/Materials and Equipment		
Pre-construction meeting		
Pipe and appurtenances on-site prior to construction and dimensions checked		
1. Material (including protective coating, if specified)		
2. Diameter		
3. Dimensions of metal riser or pre-cast concrete outlet structure		
4. Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans		
5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope		
6. Number and dimensions of prefabricated anti-seep collars		
7. Watertight connectors and gaskets		
8. Outlet drain valve		
Project benchmark near pond site		
Equipment for temporary de-watering		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
2. Subgrade Preparation		
Area beneath emban□ment stripped of all vegetation, topsoil, and organic matter		
3. Pipe Spillway Installation		
Method of installation detailed on plans		
A. Bed preparation		
Installation trench e□cavated with specified side slopes		
Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation)		
Invert at proper elevation and grade		
B. Pipe placement		
Metal □ plastic pipe		
1. Watertight connectors and gas□ets properly installed		
2. Anti□seep collars properly spaced and having watertight connections to pipe		
□. Bac□fill placed and tamped by hand under “haunches” of pipe		
□. Remaining bac□fill placed in ma□. □ inch lifts using small power tamping e□uipment until 2 feet cover over pipe is reached		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
3. Pipe Spillway Installation		
Concrete pipe		
1. Pipe set on blocks or concrete slab for pouring of low cradle		
2. Pipe installed with rubber gasket joints with no spalling in gasket interface area		
3. Excavation for lower half of anti-seep collar(s) with reinforcing steel set		
4. Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant		
5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix		
6. Upper half of anti-seep collar(s) formed with reinforcing steel set		
7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary.		
C. Backfilling		
Fill placed in maximum [illegible] inch lifts		
Backfill taken minimum 2 feet above top of anti-seep collar elevation before traversing with heavy equipment		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
4. Riser / Outlet Structure Installation		
Riser located within embankment		
A. Metal riser		
Riser base excavated or formed on stable subgrade to design dimensions		
Set on blocks to design elevations and plumbed		
Reinforcing bars placed at right angles and projecting into sides of riser		
Concrete poured so as to fill inside of riser to invert of barrel		
B. Pre-cast concrete structure		
Dry and stable subgrade		
Riser base set to design elevation		
If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely		
Watertight and structurally sound collar or gasket joint where structure connects to pipe spillway		
C. Poured concrete structure		
Footing excavated or formed on stable subgrade, to design dimensions with reinforcing steel set		
Structure formed to design dimensions, with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
Forms stripped & inspected for "honeycomb" prior to backfilling; parge if necessary		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Embankment Construction		
Fill material		
Compaction		
Embankment		
1. Fill placed in specified lifts and compacted with appropriate equipment		
2. Constructed to design cross-section, side slopes and top width		
3. Constructed to design elevation plus allowance for settlement		
6. Impounded Area Construction		
Excavated / graded to design contours and side slopes		
Inlet pipes have adequate outfall protection		
Forebay(s)		
Pond benches		
7. Earth Emergency Spillway Construction		
Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc.		
Excavated to proper cross-section, side slopes and bottom width		
Entrance channel, crest, and exit channel constructed to design grades and elevations		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
8. Outlet Protection		
A. End section		
Securely in place and properly backfilled		
B. Endwall		
Footing excavated or formed on stable subgrade, to design dimensions and reinforcing steel set, if specified		
Endwall formed to design dimensions with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing, if necessary)		
Forms stripped and structure inspected for "honeycomb" prior to backfilling; parge if necessary		
C. Riprap apron / channel		
Apron / channel excavated to design cross-section with proper transition to existing ground		
Filter fabric in place		
Stone sized as per plan and uniformly place at the thickness specified		
9. Vegetative Stabilization		
Approved seed mixture or sod		
Proper surface preparation and required soil amendments		
Excelsior mat or other stabilization, as per plan		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
10. Miscellaneous		
Drain for ponds having a permanent pool		
Trash rack / anti-vortex device secured to outlet structure		
Trash protection for low flow pipes, orifices, etc.		
Fencing (when required)		
Access road		
Set aside for clean-out maintenance		
11. Stormwater Wetlands		
Adequate water balance		
Variety of depth zones present		
Approved pondscaping plan in place Reinforcement budget for additional plantings		
Plants and materials ordered [illegible] months prior to construction		
Construction planned to allow for adequate planting and establishment of plant community (April-June planting window)		
Wetland buffer area preserved to maximum extent possible		

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

CDS UNITS OPERATION, MAINTENANCE AND MANAGEMENT INSPECTION CHECKLIST CDS WATER QUALITY STRUCTURE DETAIL

CONTECH®
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	yd3	m3
CDS2015-4	4	1.2	3.0	0.9	0.5	0.4
CDS2015	5	1.5	3.0	0.9	1.3	1.0
CDS2020	5	1.5	3.5	1.1	1.3	1.0
CDS2025	5	1.5	4.0	1.2	1.3	1.0
CDS3020	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

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.

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, earth stabilization and wastewater treament products. For information, visit www.ContechES.com or call 800.338.1122

The product(s) described may be protected by one or more of the following US patents: 5,322,629; 5,624,576; 5,707,527; 5,759,415; 5,788,848; 5,985,157; 6,027,639; 6,350,374; 6,406,218; 6,641,720; 6,511,595; 6,649,048; 6,991,114; 6,998,038; 7,186,058; 7,296,692; 7,297,266; 7,517,450 related foreign patents or other patents pending.

800.925.5240
www.ContechES.com

CDS Inspection & Maintenance Log

CDS Model: ______________________ Location: ______________________

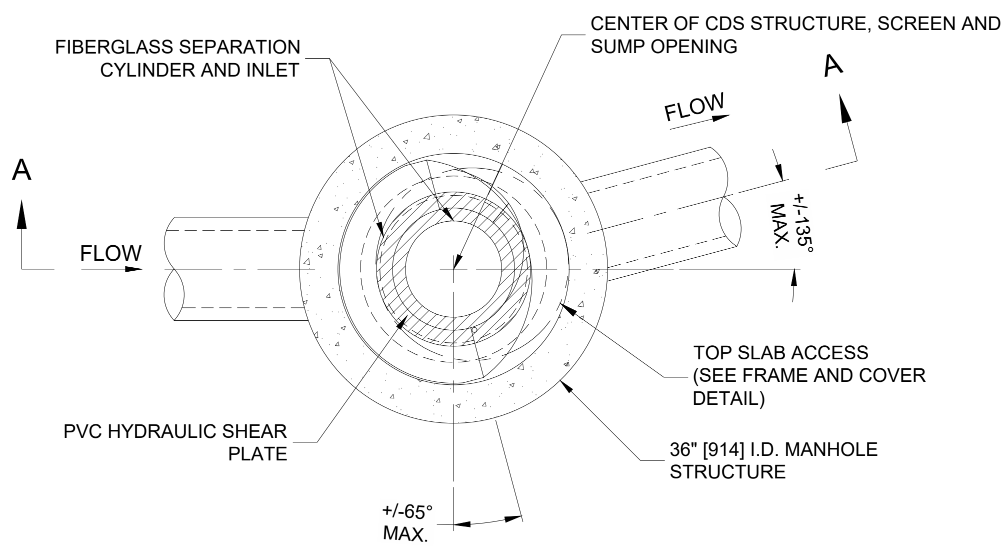
Date	Water depth to sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

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.**

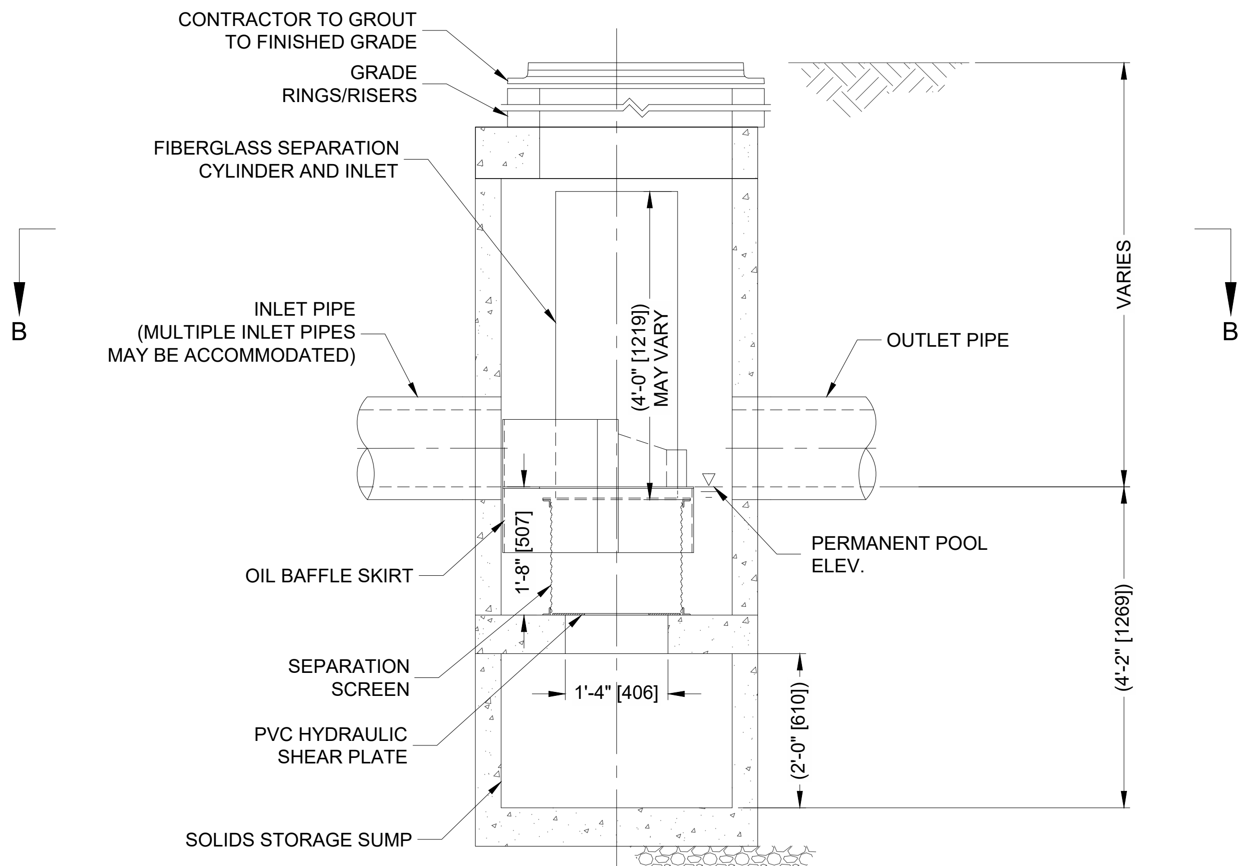
2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

CDS-3-C (CDS1515) DESIGN NOTES

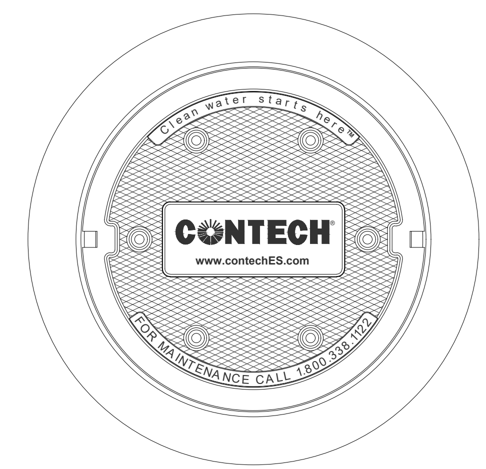
THE STANDARD CDS-3-C CONFIGURATION IS SHOWN.



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

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

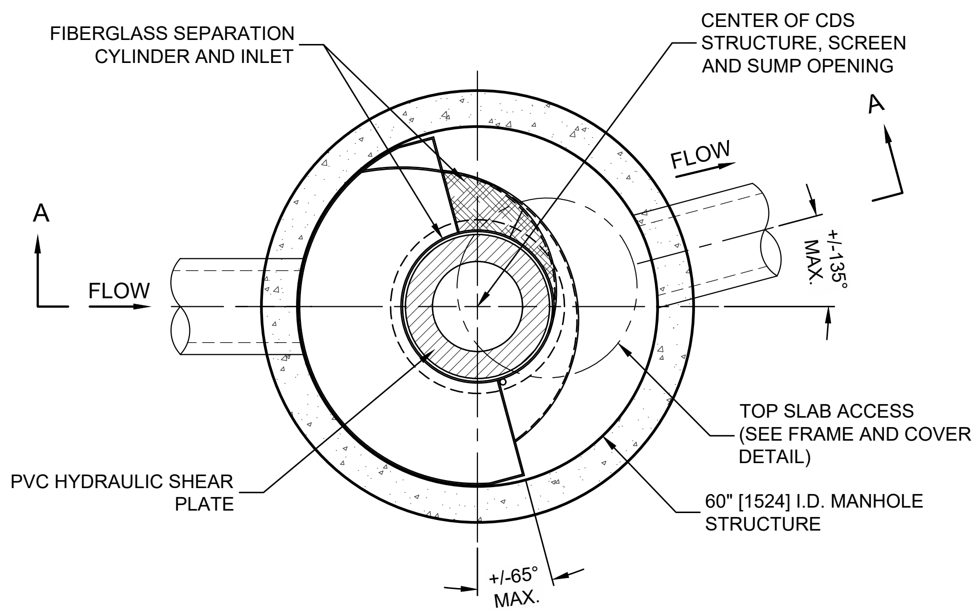
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL 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
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

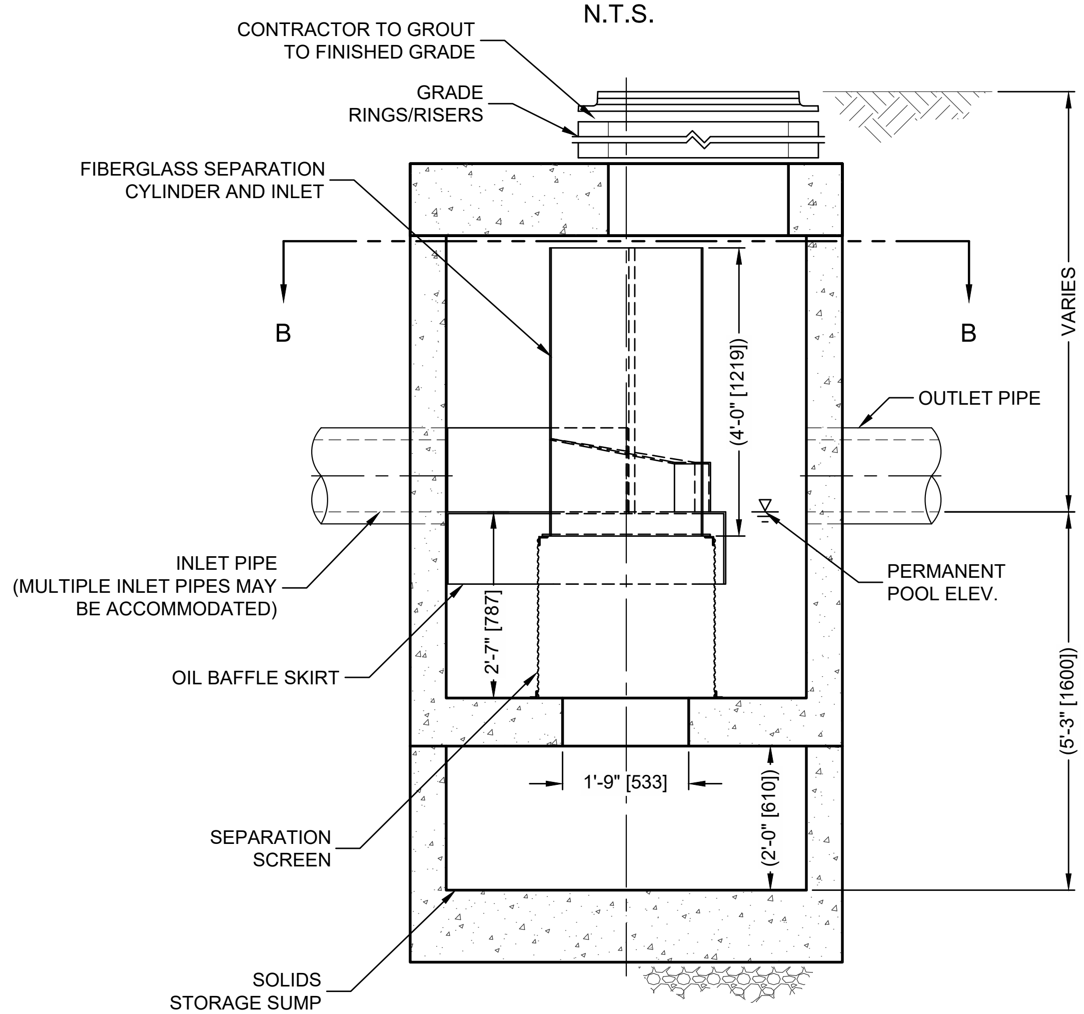
CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS-3-C (CDS1515)
ONLINE CDS
STANDARD DETAIL

I:\STORMWATER\COMMOPS\22 CDS\40 STANDARD DRAWINGS\NJDEP SIZING\CDS-C (ONLINE)\DWG\DWG WITHOUT FLOWS\CDS-3-C DTL.DWG 2/12/2018 11:17 AM



PLAN VIEW B-B
N.T.S.

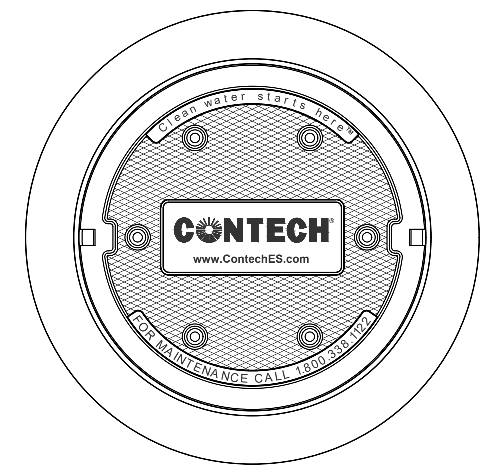


ELEVATION A-A
N.T.S.

CDS
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 6,511,595; 6,581,783; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CDS-5-C (CDS2520) DESIGN NOTES

THE STANDARD CDS-5-C (CDS2520) CONFIGURATION IS SHOWN.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

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. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET HS20 (AASHTO M 306) AND BE CAST WITH THE CONTECH LOGO.
6. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

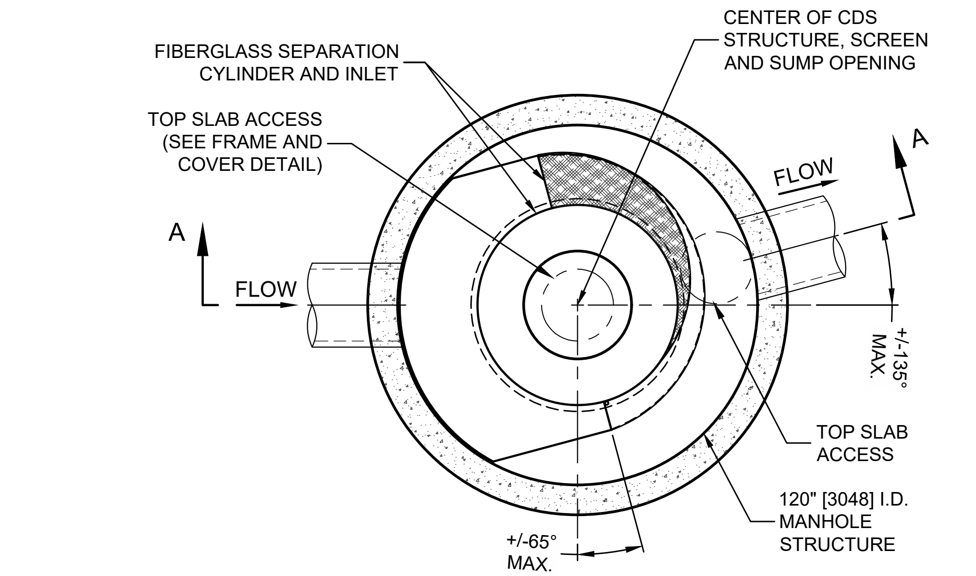
CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS-5-C (CDS2520)
ONLINE CDS
STANDARD DETAIL

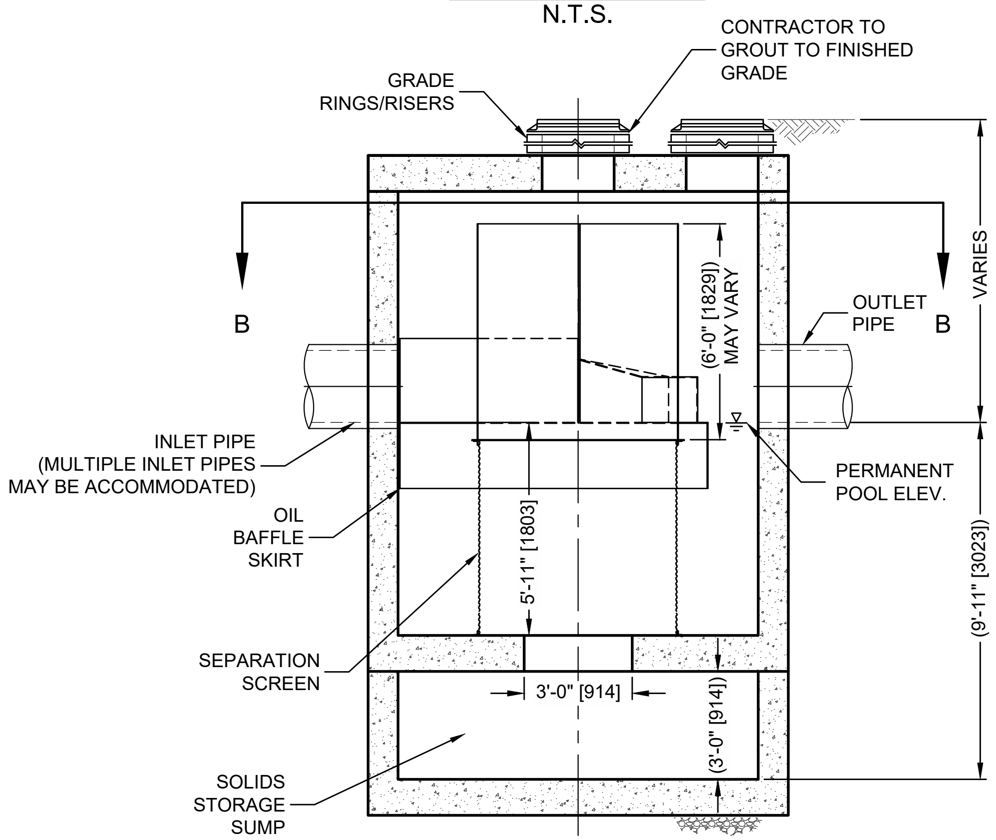
I:\STORMWATER\COMMOPS\22 CDS\40 STANDARD DRAWINGS\NJDEP SIZING\CDS-C (ONLINE)\DWG\DWG WITHOUT FLOWS\CDS-5-C DTL.DWG 2/12/2018 10:31 AM

CDS-10-C (CDS5653) DESIGN NOTES

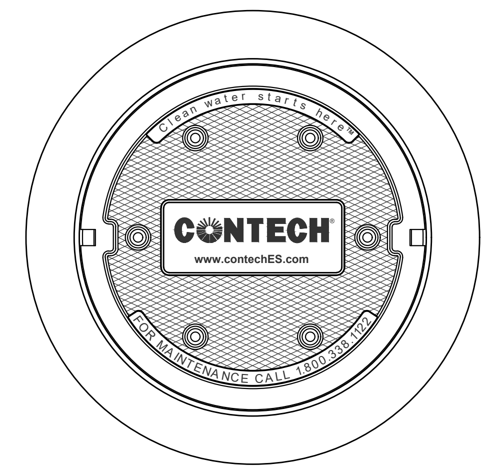
THE STANDARD CDS-10-C (CDS5653) CONFIGURATION IS SHOWN



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

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)	*		
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. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET HS20 (AASHTO M 306) AND BE CAST WITH THE CONTECH LOGO.
6. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH
ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS-10-C (CDS5653)
ONLINE CDS
STANDARD DETAIL

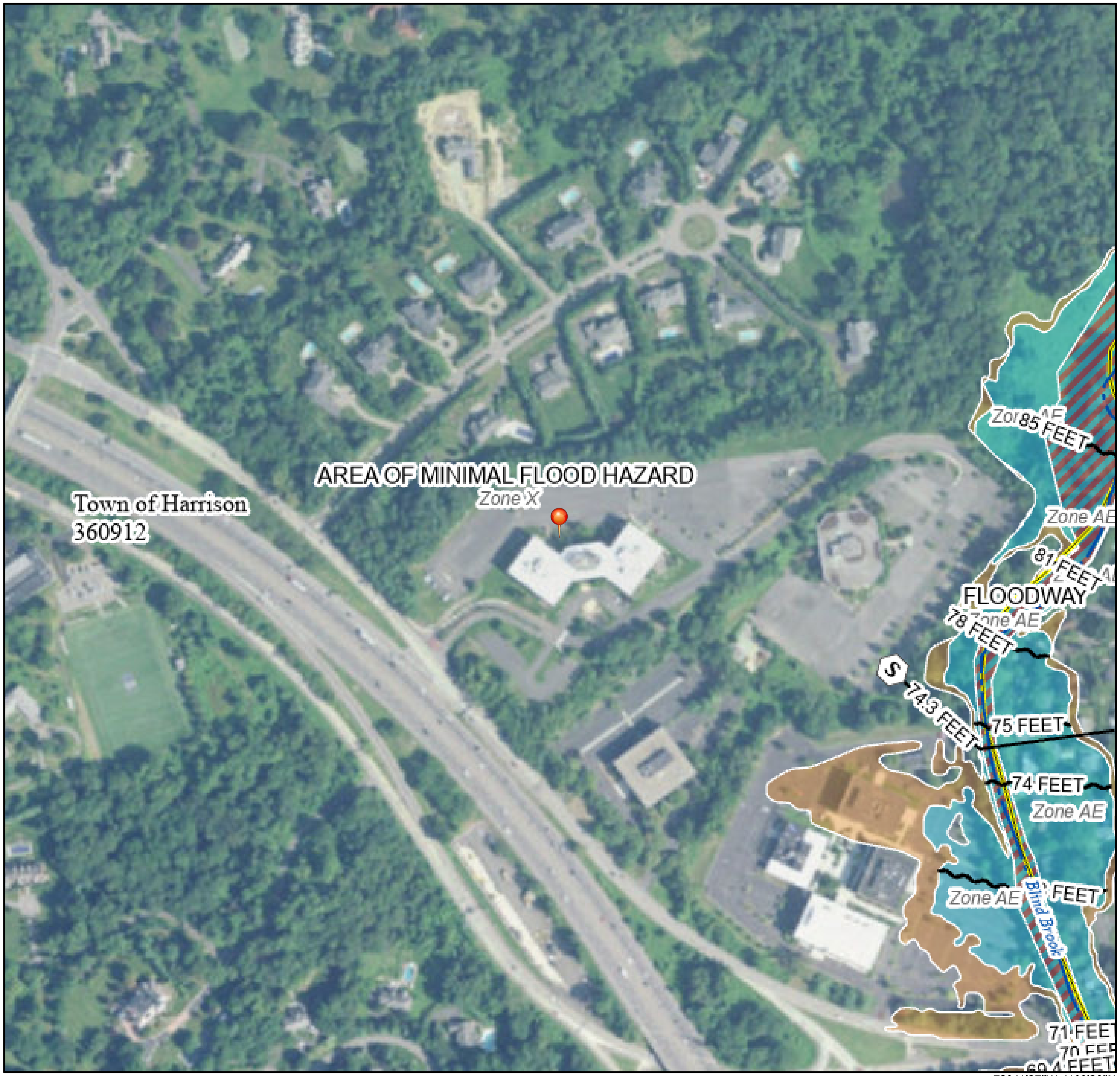
APPENDIX G

FEMA FLOOD MAP

National Flood Hazard Layer FIRMette

FEMA

73°42'15"W 41°0'57"N



73°41'37"W 41°0'30"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

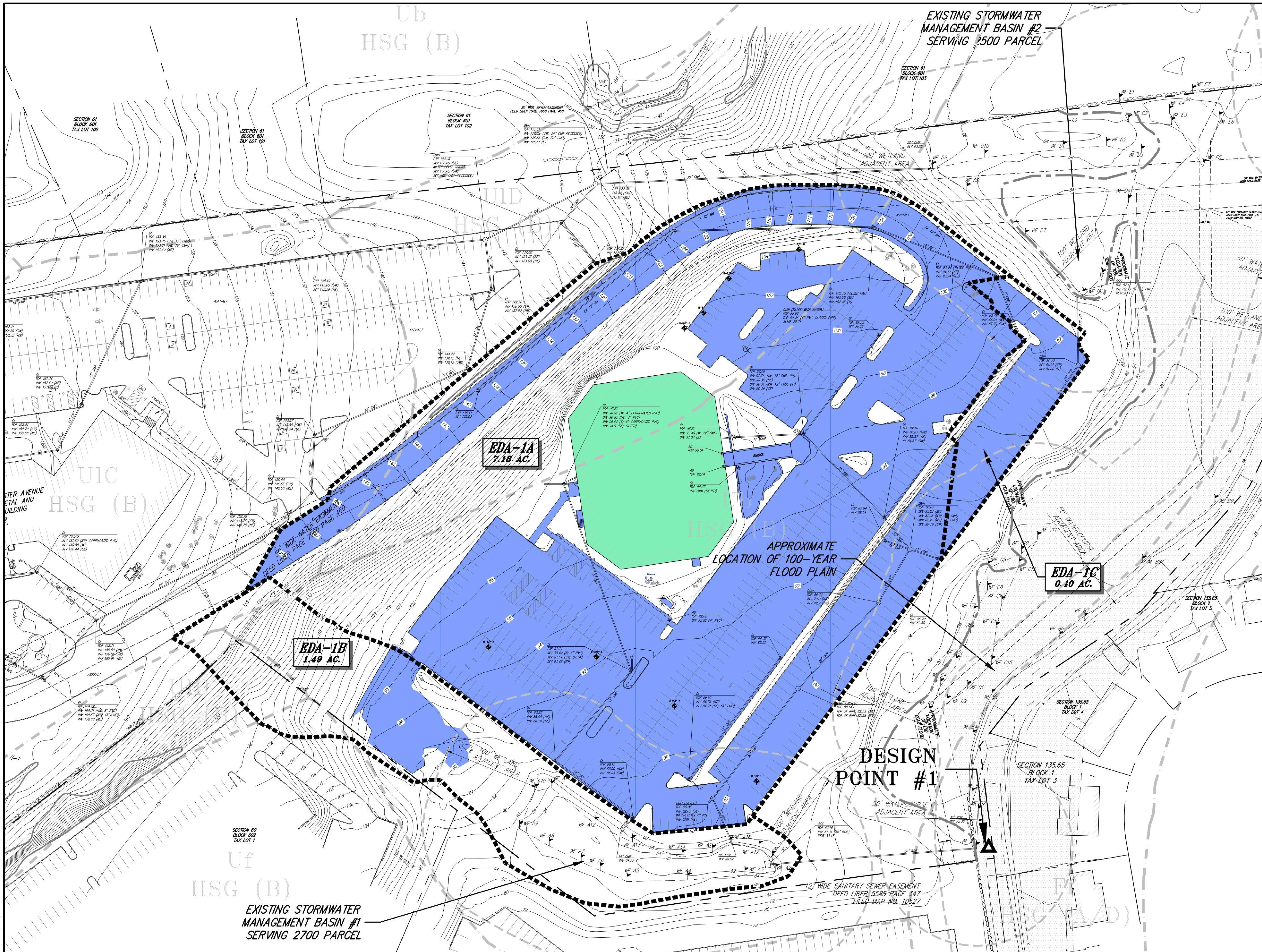
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/22/2021 at 11:08 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX H

DRAWINGS



SECTION	TOTAL AREA		IMPERVIOUS AREA		PERVIOUS AREA	
	AREA [ft²]	AREA [AC.]	AREA [ft²]$_{IMP}$	AREA [AC.]$_{IMP}$	AREA [ft²]$_{PERV}$	AREA [AC.]$_{PERV}$
EDA-1A	312,944.68	7.18	225,553.69	5.18	87,390.99	2.01
EDA-1B	64,961.06	1.49	7,854.69	0.18	57,106.37	1.31
EDA-1C	17,249.95	0.40	14,583.18	0.33	2,666.78	0.06
TOTAL	**395,155.70**	**9.07**	**247,991.56**	**5.69**	**147,164.14**	**3.38**

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

EXISTING DRAINAGE LEGEND

- EXISTING GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- BOUNDARY OF COVER TYPE LINE
- LIMIT OF SOIL GROUPS LINE
- FLOW PATH LINE
- EXISTING PAVEMENT/SIDEWALK
- EXISTING BUILDINGS
- HYDROLOGIC SOIL GROUP 'B'

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.

SOIL TYPE TABLE

DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
ChC	C	CHARLTON FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES
Ff	A/D	FLUVAQUENTS-UDIFLUVENTS COMPLEX, 15 TO 35 PERCENT SLOPES
Ub	B	UDORTHENTS, SMOOTHED
Uf	B	URBAN LAND
UID	B	URBAN LAND-CHARLTON-CHATFIELD COMPLEX, HILLY, VERY ROCKY
UIC	B	URBAN LAND-CHARLTON-CHATFIELD COMPLEX, ROLLING, VERY ROCKY

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT:
SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT:
MINNOW & WASKO
ARCHITECTS AND PLANNERS
80 LAMBERT LANE- SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

EXISTING DRAINAGE AREA MAP

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

GIS GEOGRAPHIC INFORMATION SYSTEMS

THE 2-FOOT CONTOURS DEPICTED ON THIS PLAN ARE INTENDED TO BE USED FOR PLANNING & PRELIMINARY ENGINEERING APPLICATIONS. THEY ARE NOT INTENDED TO BE USED IN ENGINEERING DESIGN AND DO NOT NEGATE THE NEED FOR A FIELD SURVEY. 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. 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.

Drawn: DJG	Approved: RA	
Scale: 1" = 40'		
Date: 11/2/2021		
Project No: 20105		
20105-DRAINAGE	DA-1	EDA.SCR

DA-1

NOT FOR CONSTRUCTION

	TOTAL AREA		IMPERVIOUS AREA		PERVIOUS AREA	
SECTION	AREA [ft^2]	AREA [AC.]	AREA [ft^2]$_{IMP}$	AREA [AC.]$_{IMP}$	AREA [ft^2]$_{PERV}$	AREA [AC.]$_{PERV}$
PDA-1A	117,077.61	2.69	77,496.19	1.78	39,581.43	0.91
PDA-1B	75,986.07	1.74	23,047.36	0.53	52,938.71	1.22
PDA-1C	191,970.90	4.41	125,908.84	2.89	66,062.06	1.52
PDA-1D	10,793.06	0.25	635.42	0.01	10,157.64	0.23
TOTAL	**395,827.64**	**9.09**	**227,087.80**	**5.21**	**168,739.84**	**3.87**

	IMPERVIOUS AREAS			
CONDITION	TOTAL AREA [ft^2]	TOTAL AREA [AC]	DECREASE AREA [AC]	PERCENT DECREASE
EXISTING	247,991.56	5.69	-	-
PROPOSED	227,087.80	5.21	0.48	8.43%

PROPOSED DRAINAGE LEGEND

- EXISTING GRADE
- PROPOSED FINISHED GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- PROPOSED DITCH OR SWALE
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- SUBAREA BOUNDARY LINE
- GOOD CONDITION BOUNDARY COVER TYPE LINE
- FAIR CONDITION BOUNDARY COVER TYPE LINE
- LIMIT OF SOIL GROUPS LINE
- FLOW PATH LINE
- PROPOSED PAVEMENT/SIDEWALKS
- PROPOSED BUILDINGS
- HYDROLOGIC SOIL GROUP 'B'
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED MANHOLE (MH)
- EXISTING DRAIN INLET
- PROPOSED YARD INLET (YI)
- PROPOSED DRAIN INLET (DI)
- PROPOSED DOUBLE DRAIN INLET (DDI)
- PROPOSED COMBINATION INLET (CI)
- PROPOSED END SECTION (ES)
- PROPOSED WATER QUALITY STRUCTURE
- RIP RAP ENERGY DISSIPATOR

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.

SOIL TYPE TABLE

DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
ChC	C	CHARLTON FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES
Ff	A/D	FLUVAQUENTS-UDIFLUVENTS COMPLEX, 15 TO 35 PERCENT SLOPES
Ub	B	UDORTHENTS, SMOOTHED
Uf	B	URBAN LAND
UlD	B	URBAN LAND-CHARLTON-CHATFIELD COMPLEX, HILLY, VERY ROCKY
UlC	B	URBAN LAND-CHARLTON-CHATFIELD COMPLEX, ROLLING, VERY ROCKY

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT:
SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT:
MINNOW & WASKO
ARCHITECTS AND PLANNERS
80 LAMBERT LANE- SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

PROPOSED DRAINAGE AREA MAP

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

THE 2-FOOT CONTOURS DEPICTED ON THIS PLAN ARE INTENDED TO BE USED FOR PLANNING & PRELIMINARY ENGINEERING APPLICATIONS. THEY ARE NOT INTENDED TO BE USED IN ENGINEERING DESIGN AND DO NOT NEGATE THE NEED FOR A FIELD SURVEY. 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. 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.

Drawn: JJ	Approved: RA
Scale:	1" = 40'
Date:	11/2/2021
Project No:	20105
20105-DRAINAGE	DA-2 PDA.SCR
Drawing No:	DA-2

NOT FOR CONSTRUCTION

Appendix D
Revised Preliminary Site Plans

PRELIMINARY SITE PLANS

2700 WESTCHESTER AVENUE

TAX MAP SECTION 611 | LOT 3
WESTCHESTER COUNTY
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

Applicant/Owner:
SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960
973-898-1160

Architect:
MINNO & WASKO
80 LAMBERT LANE
LAMBERTVILLE, NJ 08530
609-397-9009

Attorney:
McCULLOUGH, GOLDBERGER & STAUDT, LLP
1311 MAMARONECK AVE
WHITE PLAINS, NY 10605
914-949-6400

Planner:
AKRF
34 SOUTH BROADWAY
WHITE PLAINS, NY 10601
914-949-7336

Civil & Traffic Engineer,
Surveyor and Landscape Architect:
120 BEDFORD ROAD
ARMONK, NY 10504
(914) 273-5225

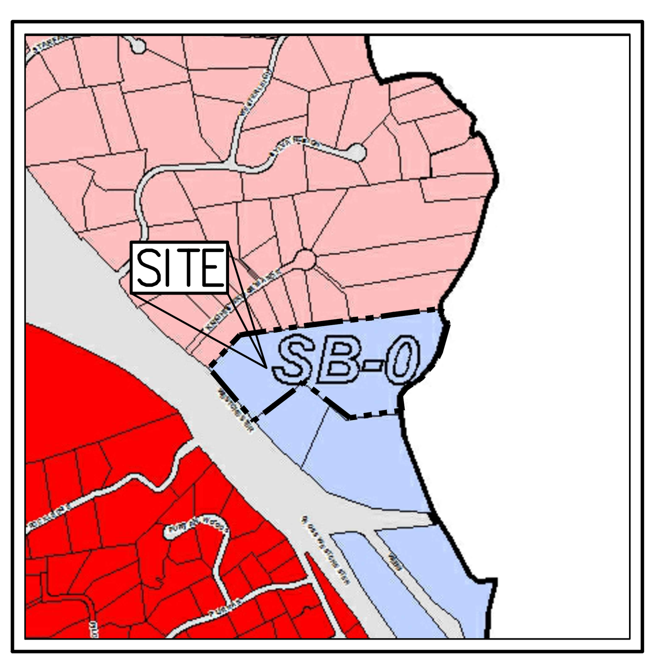
JMC Drawing List:

C-000 COVER SHEET
C-010 OVERALL EXISTING CONDITIONS MAP
C-011 EXISTING CONDITIONS MAP
C-100 OVERALL LAYOUT PLAN
C-101 LAYOUT PLAN (2700 PARCEL)
C-110 FIRE ACCESS PLAN
C-111 FIRE TRUCK ACCESS PLAN
C-112 FIRE TRUCK TURNING MOVEMENT PLAN
C-200 GRADING PLAN
C-210 PRELIMINARY CUT FILL ANALYSIS
C-220 STEEP SLOPES ANALYSIS
C-300 UTILITIES PLAN
C-400 SOIL & EROSION CONTROL PLAN
L-110 LANDSCAPING PLAN
L-120 WETLAND BUFFER AREA MAP
L-210 CONCEPTUAL LIGHTING PLAN
ALT-C NEW MULTIFAMILY CONSTRUCTION

ARCHITECT DRAWING LIST:

EXISTING CONDITIONS
CONCEPT SITE PLAN
ILLUSTRATIVE THEME IMAGE

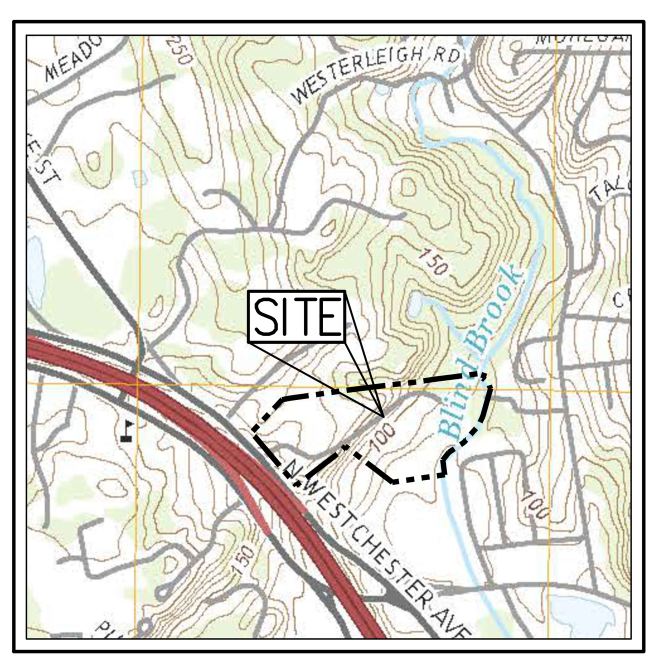
AREA MAP
SCALE: N.T.S.



ZONING MAP
SCALE: 1" = 1,000'
SOURCE: TOWN/VILLAGE OF HARRISON / 2012

LEGEND

	SITE PROPERTY LINE
SB-0	SPECIAL BUSINESS DISTRICT
R-1	ONE – FAMILY RESIDENCE
R-2.5	ONE – FAMILY RESIDENCE



SITE LOCATION MAP
SCALE: 1" = 1,000'
SOURCE: USGS TOPO / 2021

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.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

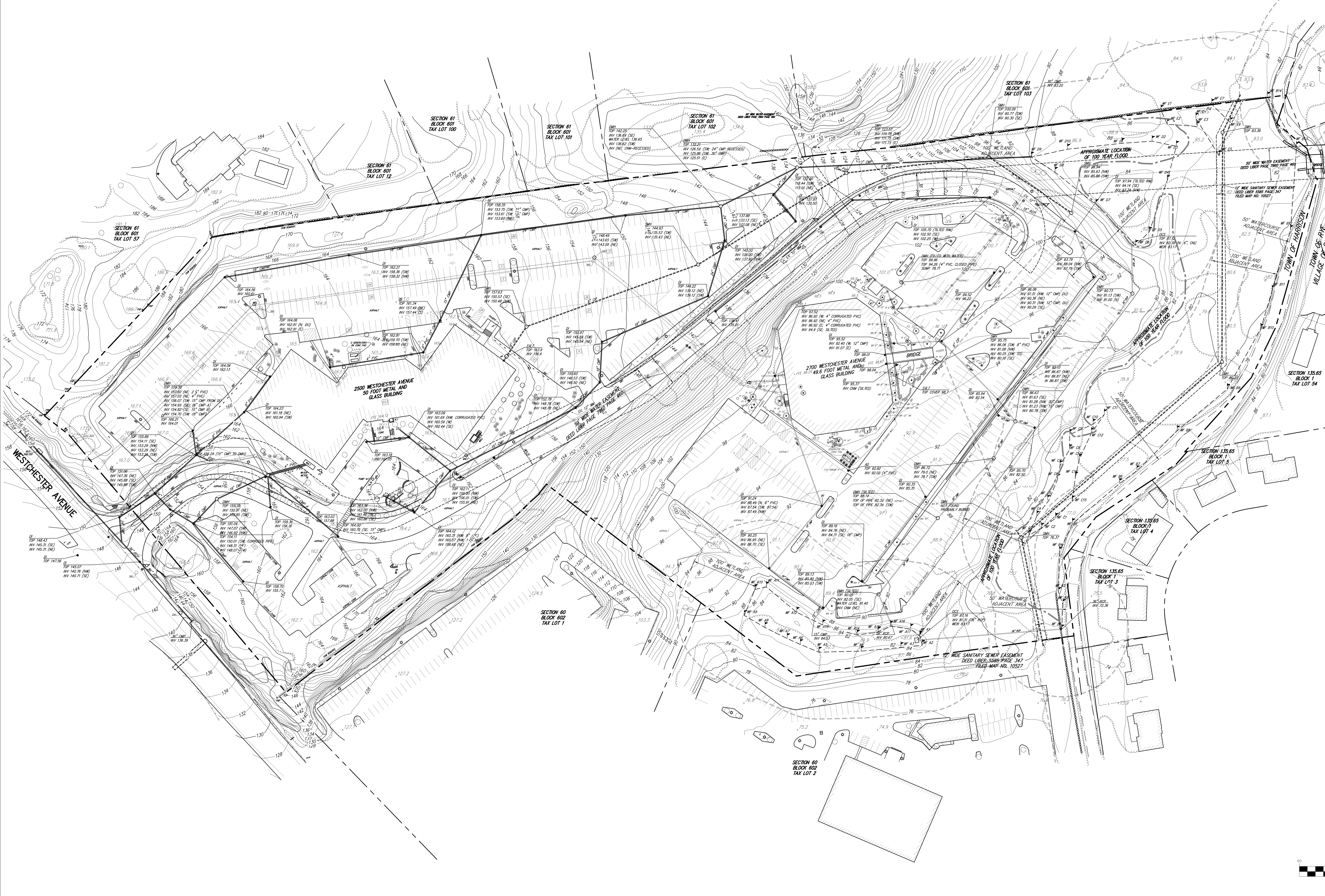
ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

STATE OF NEW YORK
ROBERT AIELLO
078390
LICENSED PROFESSIONAL ENGINEER

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

Drawn: JR Approved: RA
Scale: NOT TO SCALE
Date: 11/2/2021
Project No: 20105
20105-COVER C-000 COVER.scr
Drawing No: C-000

NOT FOR CONSTRUCTION



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING WETLAND LINE AND DELINEATION (WLF-63, WLF-64, WLF-65)
- EXISTING 100' WETLAND ADJACENT AREA
- EXISTING WATERCOURSE
- EXISTING 50' WATERCOURSE ADJACENT AREA
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING CONTOUR (102)
- EXISTING INDEX CONTOUR (100)
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION (T10 M)
- EXISTING TREE LINE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- EXISTING PARKING WITH NUMBER OF SPACES (5)
- EXISTING HANDICAP PARKING WITH NUMBER OF SPACES (2H)
- EXISTING PEDESTRIAN CROSSING
- EXISTING STORM DRAIN LINE AND SIZE (36" RCP)
- EXISTING SANITARY LINE AND SIZE (8" SAN)
- EXISTING WATER LINE
- 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

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO
ARCHITECTS AND PLANNERS
80 LAMBERT LANE– SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

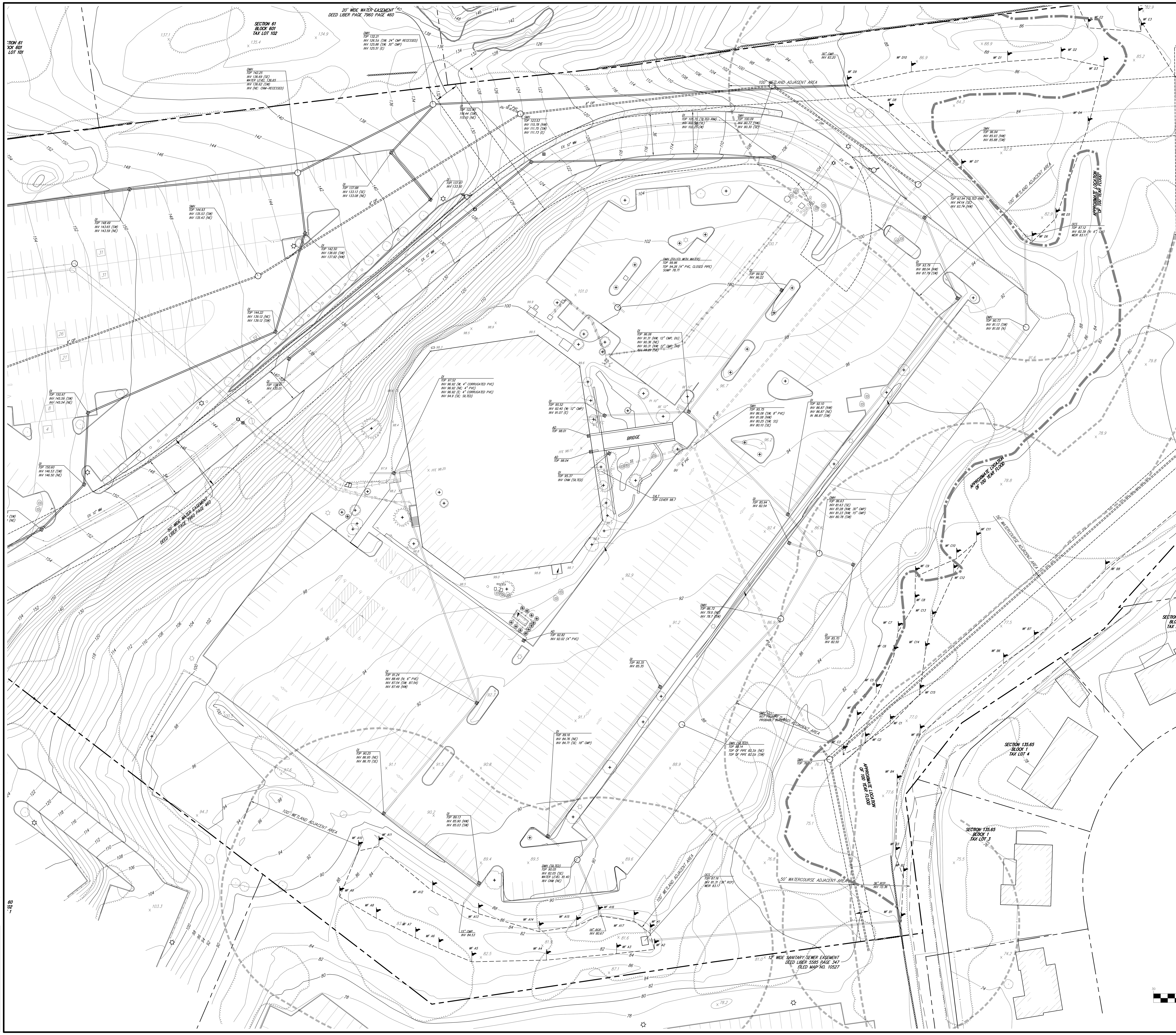
OVERALL EXISTING CONDITIONS MAP

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

STATE OF NEW YORK • ROBERT AIELLO • LICENSED PROFESSIONAL ENGINEER • 078390

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

Drawn: JJ	Approved: RA
Scale: 1" = 60'	
Date: 11/2/2021	
Project No: 20105	
20105-SITE	C-010	EXIST.scr
Drawing No: C-010	



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING 100' WETLAND ADJACENT AREA
- EXISTING WATERCOURSE
- EXISTING 50' WATERCOURSE ADJACENT AREA
- 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 TREE AND DESIGNATION
- EXISTING TREE LINE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- EXISTING PARKING WITH NUMBER OF SPACES
- EXISTING HANDICAP PARKING WITH NUMBER OF SPACES
- EXISTING PEDESTRIAN CROSSING
- EXISTING STORM DRAIN LINE AND SIZE
- EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- 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

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE- SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

JMC

EXISTING CONDITIONS MAP (2700 PARCEL)

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

STATE OF NEW YORK * ROBERT AIELLO * 078390 LICENSED PROFESSIONAL ENGINEER

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

Drawn:	JJ	Approved:	RA
Scale:	1" = 30'		
Date:	11/2/2021		
Project No:	20105		
20105-SITE	C-011	EXIST.scr	
Drawing No:	C-011		

NOT FOR CONSTRUCTION

ZONING COMPLIANCE CHART
(2700 WESTCHESTER AVENUE)

ZONE DISTRICT: SPECIAL BUSINESS DISTRICT (SB-0)
PROPOSED USE: MULTIFAMILY RESIDENTIAL (SB-0)

DESCRIPTION		SB-0 REQUIREMENT	PROPOSED
MINIMUM LOT AREA	(ACRES)	5.00	13.47
MINIMUM FRONTAGE(1)	(FEET)	350	0(1)
MINIMUM LOT WIDTH	(FEET)	300	510
MAXIMUM NUMBER OF DWELLING UNITS	(UNITS)	450	69
MINIMUM LOT AREA PER FAMILY UNIT	(SQUARE FEET)	350	8,503
MAXIMUM BUILDING HEIGHT	(STORIES/FEET)	6/55	3/42
MAXIMUM BUILDING COVERAGE	(%)	45	14.3
MINIMUM OPEN SPACE	(SQUARE FEET)	2,500	>2,500
MINIMUM BUILDING SETBACKS			
FRONT YARD	(FEET)	50(1)	50
SIDE YARD (ADJOINING RESIDENCE DISTRICT)	(FEET)	100	158
SIDE YARD (ADJOINING BUSINESS DISTRICT)	(FEET)	40	51
REAR YARD (ADJOINING RESIDENCE DISTRICT)	(FEET)	100	114
REAR YARD (ADJOINING BUSINESS DISTRICT)	(FEET)	45	114
MINIMUM BUFFER REQUIREMENTS			
FRONT YARD BUFFER (ABUTTING BUSINESS DISTRICTS)	(FEET)	25	50
SIDE YARD BUFFER (ABUTTING BUSINESS DISTRICTS)	(FEET)	40	40
REAR YARD BUFFER (ABUTTING BUSINESS DISTRICTS)	(FEET)	40	N/A
FRONT YARD BUFFER (ABUTTING RESIDENCE DISTRICTS)	(FEET)	50	N/A
SIDE YARD BUFFER (ABUTTING RESIDENCE DISTRICTS)	(FEET)	50	148
REAR YARD BUFFER (ABUTTING RESIDENCE DISTRICTS)	(FEET)	50	N/A
PARKING SPACES (1.25 SPACE PER EACH DWELLING UNIT FOR 69 PROPOSED UNITS = 87 REQUIRED PARKING SPACES)			
SURFACE / SHARED PARKING SPACES	(SPACES)	-	48
DRIVEWAY PARKING SPACES	(SPACES)	-	138
GARAGE PARKING SPACES	(SPACES)	-	138
TOTAL PARKING SPACES	(SPACES)	87	324

NOTES:

(1) PER TEXT AMENDMENT, THE FRONTAGE REQUIREMENT CAN BE REDUCED OR ELIMINATED IF PERMANENT ACCESS TO A PUBLIC OR PRIVATE ROADWAY, IN A FORM TO BE APPROVED BY THE TOWN ATTORNEY, IS PROVIDED THROUGH ANOTHER LOT PROVIDING THE REQUIRED FRONTAGE AND THE PLANNING BOARD FIND SUCH ACCESS IS SUFFICIENT TO SERVE THE SB-0 MULTIFAMILY RESIDENTIAL PROJECT.

(2) THE FRONT YARD MAY BE REDUCED TO 25 FEET FOR AN AREA NOT TO EXCEED 25% OF THE TOAL WIDTH OF THAT PORTION OF THE BUILDING LOCATED PARALLEL TO THE REQUIRED FRONT YARD.

ZONING COMPLIANCE CHART
(2500 WESTCHESTER AVENUE)

ZONE DISTRICT: SPECIAL BUSINESS DISTRICT (SB-0)
PROPOSED USE: OFFICE

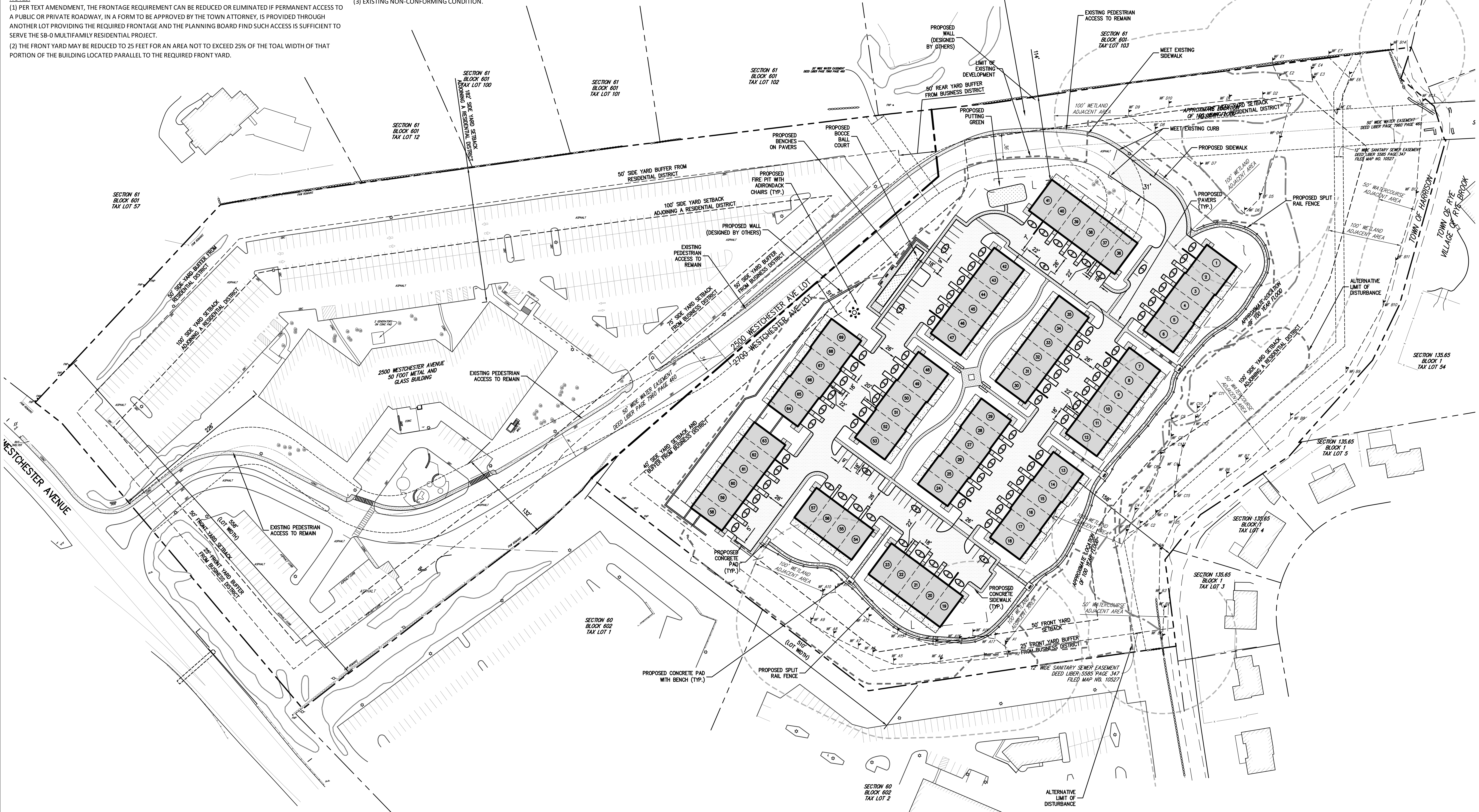
DESCRIPTION		SB-0 REQUIREMENT	PROPOSED
MINIMUM LOT AREA	(ACRES)	5.00	11.15
MINIMUM FRONTAGE	(FFET)	350	550
MINIMUM LOT WIDTH	(FEET)	300	558
MAXIMUM BUILDING HEIGHT	(STORIES/FEET)	4/55	4/50
MAXIMUM BUILDING COVERAGE	(%)	20	8.4
MINIMUM BUILDING SETBACKS			
FRONT YARD (ABUTTING BUSINESS OR RESIDENCE DISTRICT)	(FEET)	50(1)	226(1)
SIDE YARD (ADJOINING RESIDENCE DISTRICT)	(FEET)	100	182
SIDE YARD (ADJOINING BUSINESS DISTRICT)	(FEET)	75	132
REAR YARD (ABUTTING BUSINESS OR RESIDENCE DISTRICT)	(FEET)	45	N/A
MINIMUM BUFFER REQUIREMENTS			
FRONT YARD BUFFER (ABUTTING BUSINESS DISTRICT)	(FEET)	25	45
SIDE YARD BUFFER (ABUTTING BUSINESS DISTRICT)	(FEET)	50	50
REAR YARD BUFFER (ABUTTING BUSINESS DISTRICT)	(FEET)	50	N/A
FRONT YARD BUFFER (ABUTTING RESIDENCE DISTRICT)	(FEET)	50	N/A
SIDE YARD BUFFER (ABUTTING RESIDENCE DISTRICT)	(FEET)	50	49(3)
REAR YARD BUFFER (ABUTTING RESIDENCE DISTRICT)	(FEET)	50	N/A
PARKING SPACES			
STANDARD PARKING SPACES	(SPACES)	-	542
ACCESSIBLE PARKING SPACES	(SPACES)	-	11
TOTAL PARKING SPACES	(SPACES)	550(2)	553

NOTES:

(1) THE FRONT YARD MAY BE REDUCED TO 25 FEET FOR AN AREA NOT TO EXCEED 25% OF THE TOTAL WIDTH OF THAT PORTION OF THE BUILDING LOCATED PARALLEL TO THE REQUIRED FRONT YARD.

(2) BASED ON PARKING REQUIREMENT OF 1 SPACE PER 300 S.F. PER PROPOSED TEXT AMENDMENT FOR THE EXISTING 165,000 S.F. OFFICE BUILDING

(3) EXISTING NON-CONFORMING CONDITION.



LEGEND

EXISTING PROPERTY LINE
ADJACENT PROPERTY LINE
LIMIT OF EXISTING DEVELOPMENT
EXISTING WETLAND LINE AND DELINEATION
EXISTING BUILDING LINE
EXISTING PAVEMENT EDGE
EXISTING CURB LINE
EXISTING STONE WALL
EXISTING RETAINING WALL
EXISTING GUIDE RAIL
EXISTING FENCE
EXISTING TREE AND DESIGNATION
EXISTING TREE LINE
EXISTING DIRECTIONAL ARROWS
EXISTING PAINT
EXISTING PARKING WITH NUMBER OF SPACES
EXISTING ACCESSIBLE PARKING WITH NUMBER OF SPACES
EXISTING PEDESTRIAN CROSSING
EXISTING UTILITY POLE
EXISTING LIGHT POLE
EXISTING SIGN
PROPOSED PROPERTY LINE
PROPOSED BUILDING LINE
PROPOSED CONCRETE CURB
PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
PROPOSED CONCRETE SIDEWALK
PROPOSED HEAVY DUTY PAVEMENT
PROPOSED RETAINING WALL (DESIGN BY OTHERS)
PEDESTRIAN CROSSING
PROPOSED STONE TRAIL

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE– SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

OVERALL LAYOUT PLAN

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

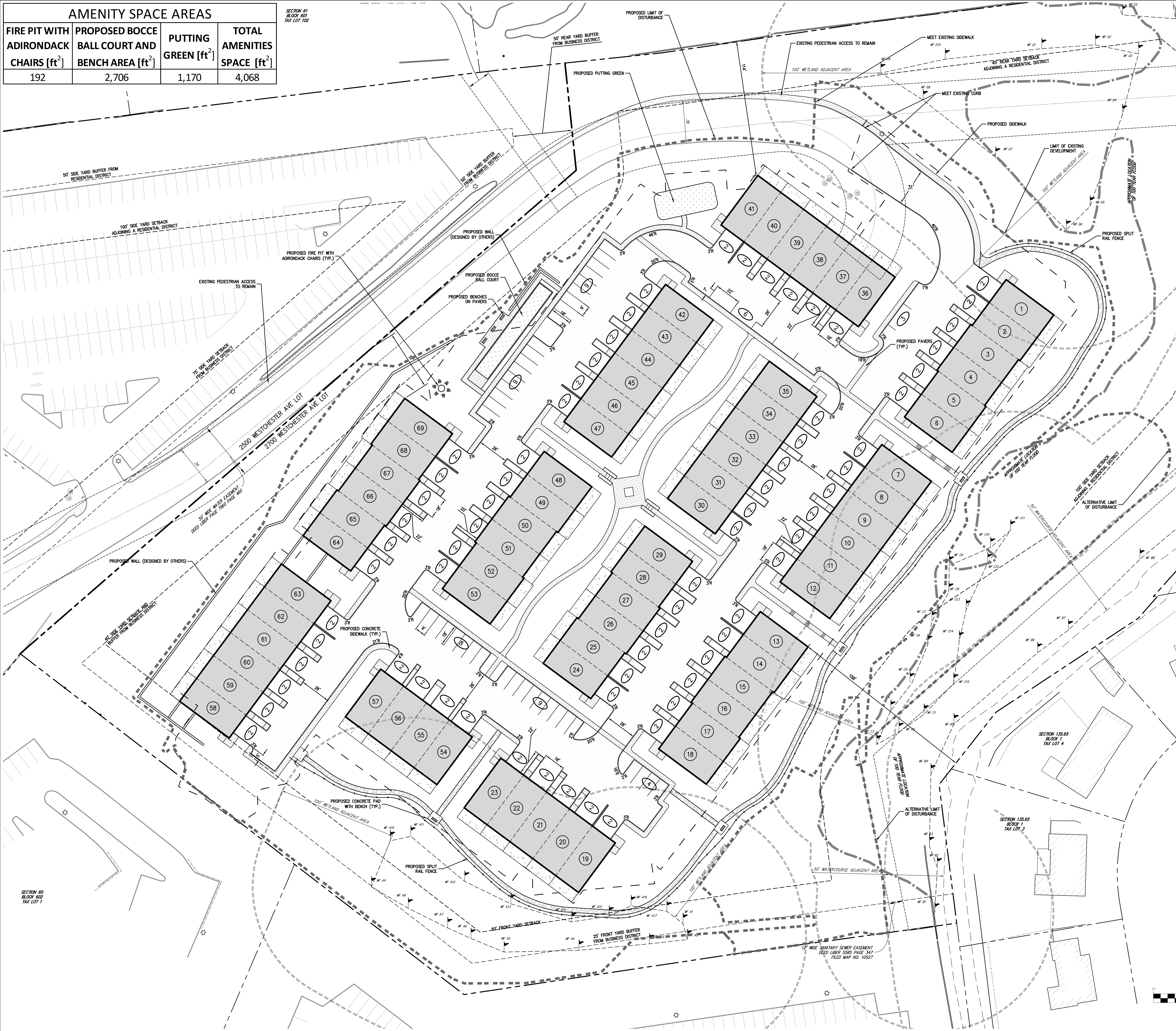
ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

GRAPHIC SCALE
(IN FEET)
1 inch = 60 ft.

Drawn: JJ	Approved: RA
Scale: 1" = 60'	
Date: 11/2/2021	
Project No: 20105	
20105-SITE	C-100 LAY.scr
Drawing No: C-100	

AMENITY SPACE AREAS

FIRE PIT WITH ADIRONDACK CHAIRS [ft^2]	PROPOSED BOCCE BALL COURT AND BENCH AREA [ft^2]	PUTTING GREEN [ft^2]	TOTAL AMENITIES SPACE [ft^2]
192	2,706	1,170	4,068



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- LIMIT OF EXISTING DEVELOPMENT
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING TREE LINE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- EXISTING PARKING WITH NUMBER OF SPACES
- EXISTING ACCESSIBLE PARKING WITH NUMBER OF SPACES
- EXISTING PEDESTRIAN CROSSING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED PROPERTY LINE
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED CONCRETE SIDEWALK
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PEDESTRIAN CROSSING
- PROPOSED STONE TRAIL

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	DJG
2.	FEIS Submission	4/4/2022	

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE– SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

LAYOUT PLAN (2700 PARCEL)

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

STATE OF NEW YORK · ROBERT AIELLO · 078390 · LICENSED PROFESSIONAL ENGINEER

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

Drawn: JJ	Approved: RA
Scale: 1" = 30'	
Date: 11/2/2021	
Project No: 20105	
20105-SITE	C-101 / LAY.scr
Drawing No: C–101	

NOT FOR CONSTRUCTION

FIRE ACCESS SIGN TABLE

DESIGNATION	SIGN	SIZE	DESCRIPTION	MOUNTING TYPE	MOUNTING HEIGHT	REGULATORY	REFLECTORIZED
A	NO PARKING FIRE LANE	12"X18"	RED ON WHITE	STEEL CHANNEL	7'-0"	R7-1 (MODIFIED)	X
B	NO PARKING FIRE LANE	12"X18"	RED ON WHITE	STEEL CHANNEL	7'-0"	R7-1 (MODIFIED)	X
C	NO PARKING FIRE LANE	12"X18"	RED ON WHITE	STEEL CHANNEL	7'-0"	R7-1 (MODIFIED)	X

FIRE ACCESS NOTES:

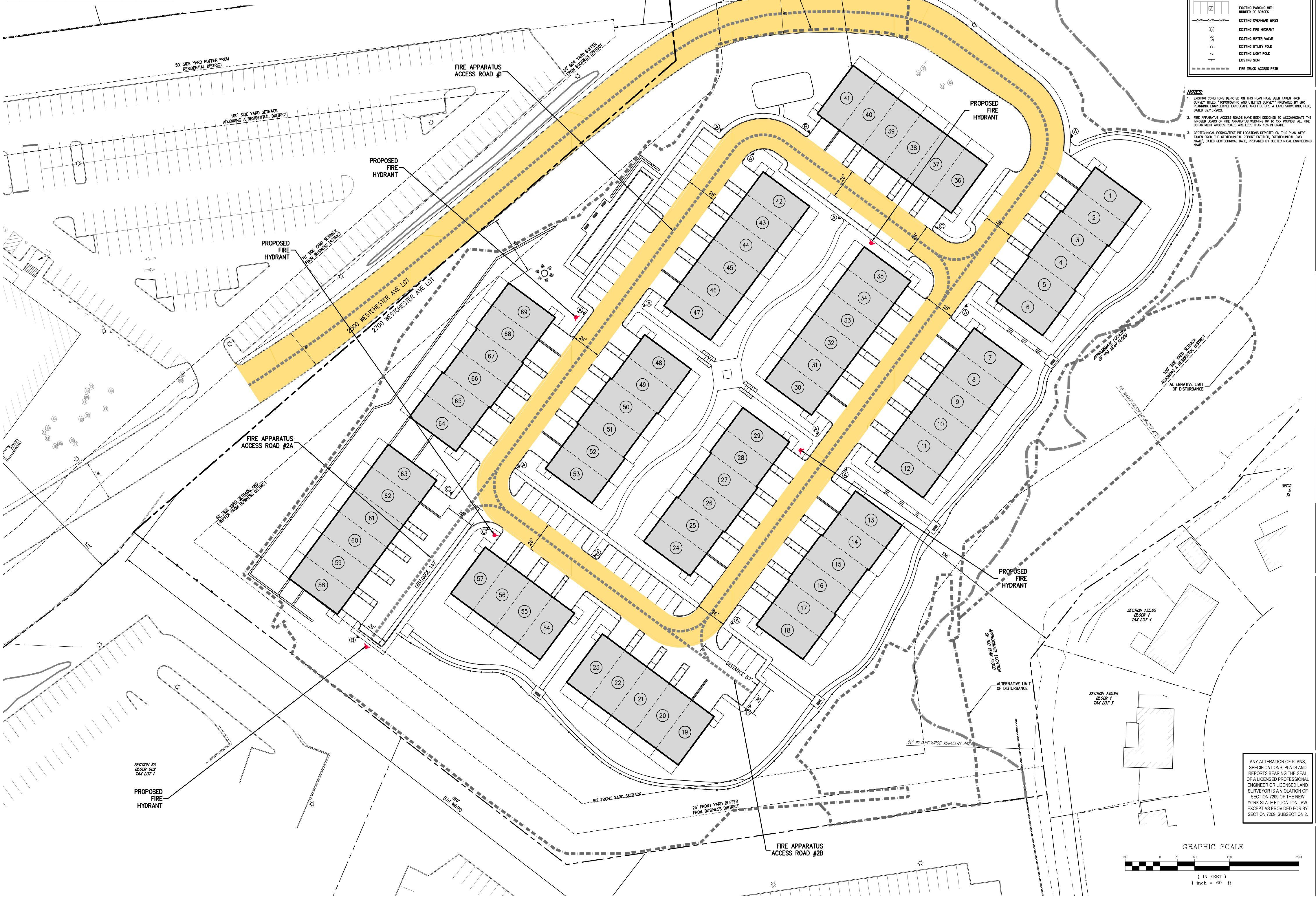
1. AERIAL APPARATUS ACCESS IS PROVIDED AS INDICATED ON THIS DRAWING. NOTE THAT AN AERIAL APPARATUS ACCESS ROAD IS NOT REQUIRED FOR THIS PROJECT PER EXCEPTION IN NYS FIRE CODE APPENDIX D SECTION D105.2 SINCE:

1.A. THE BUILDING WILL BE TYPE IIA CONSTRUCTION.

1.B. THE BUILDING WILL BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM.

1.C. THE BUILDING WILL PROVIDE FIRE FIGHTER ACCESS THROUGH AN ENCLOSED STAIRWAY WITH A CLASS 1 STANDPIPE IN CONFORMANCE WITH NFPA 14 FROM THE LOWEST LEVEL OF FIRE DEPARTMENT ACCESS TO ALL ROOF SURFACES.

2. FIRE APPARATUS ACCESS ROADS (ASPHALT PAVEMENT AND GRASSCRETE) HAVE BEEN DESIGNED TO ACCOMODATE THE IMPOSED LOADS OF FIRE APPARATUS WEIGHING UP TO 75,000 POUNDS. ALL FIRE DEPARTMENT ACCESS ROADS ARE LESS THAN 10% IN GRADE.



Purchase Fire Truck
(Seagrave Model No. LP-52-DA)

Overall Length	45.785ft
Overall Width	8.333ft
Overall Body Height	9.861ft
Min Body Ground Clearance	0.980ft
Track Width	8.333ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	40.833ft

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 PAINT
- EXISTING PARKING WITH NUMBER OF SPACES
- EXISTING OVERHEAD WIRES
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- FIRE TRUCK ACCESS PATH

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.
2. FIRE APPARATUS ACCESS ROADS HAVE BEEN DESIGNED TO ACCOMMODATE THE IMPOSED LOADS OF FIRE APPARATUS WEIGHING UP TO XXX POUNDS. ALL FIRE DEPARTMENT ACCESS ROADS ARE LESS THAN 10% IN GRADE.
3. GEOTECHNICAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT ENTITLED, "GEOTECHNICAL DWG NAME", DATED GEOTECHNICAL DATE, PREPARED BY GEOTECHNICAL ENGINEERING NAME.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	DJG
2.	FEIS Submission	4/4/2022	

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE – SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

JMC

FIRE ACCESS PLAN

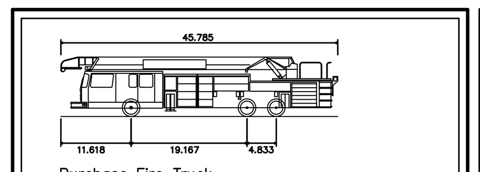
2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

Drawn: JR	Approved: RA
Scale: 1" = 30'	
Date: 11/2/2021	
Project No: 20105	
20105-SITE	C-110 FIRE.dwg
Drawing No: C-110	

NOT FOR CONSTRUCTION



Purchase Fire Truck
(Seagrave Model No. LP-52-DA)

Overall Length	45.785ft
Overall Width	8.333ft
Overall Body Height	9.851ft
Min Body Ground Clearance	0.920ft
Track Width	8.333ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	40.833ft

LEGEND

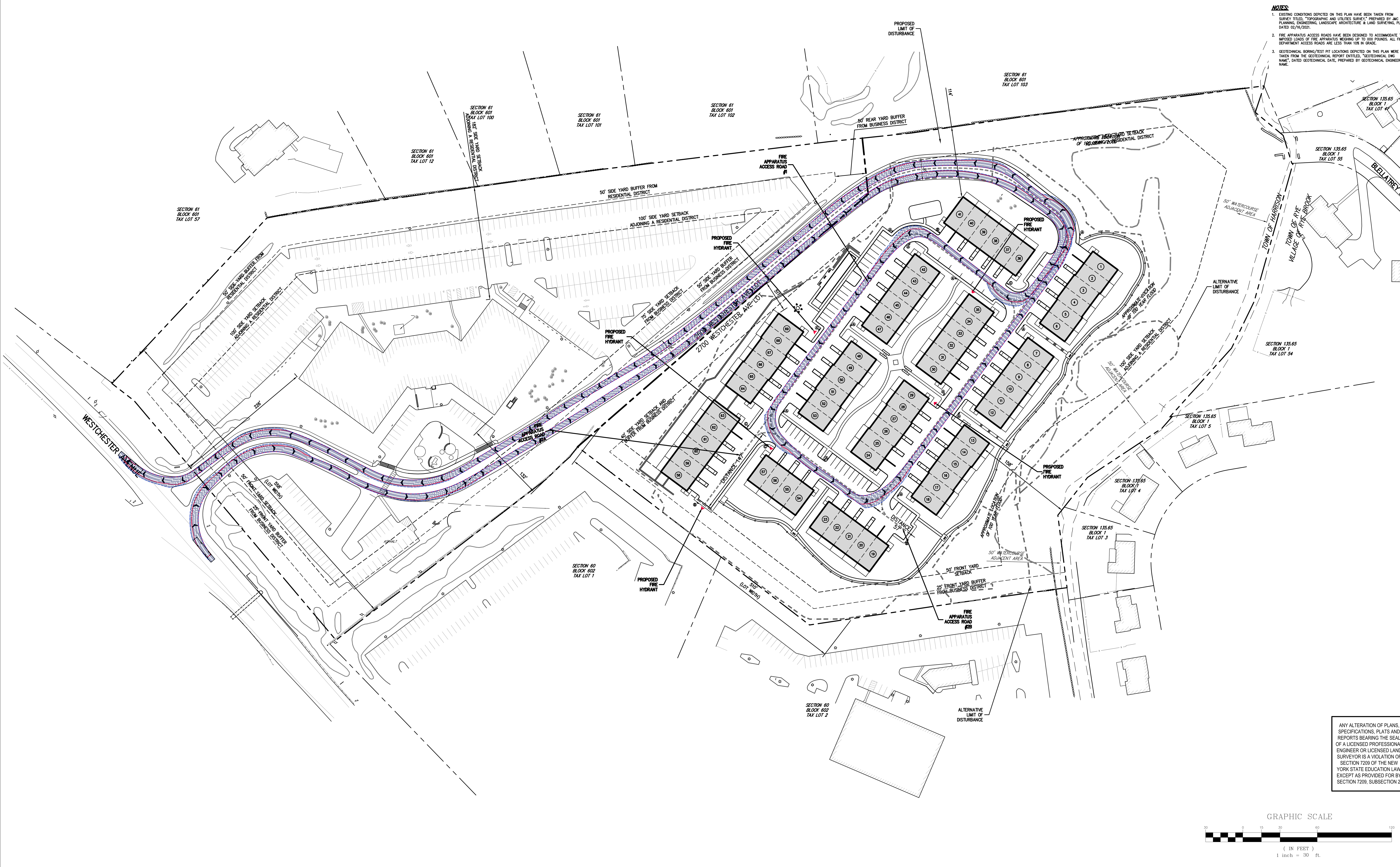
- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING PAINT
- EXISTING PARKING WITH NUMBER OF SPACES
- EXISTING OVERHEAD WIRES
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- FIRE TRUCK ACCESS PATH

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	DJG
2.	FEIS Submission	4/4/2022	

Previous Editions Obsolete

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.
2. FIRE APPARATUS ACCESS ROADS HAVE BEEN DESIGNED TO ACCOMMODATE THE IMPOSED LOADS OF FIRE APPARATUS WEIGHING UP TO XXX POUNDS. ALL FIRE DEPARTMENT ACCESS ROADS ARE LESS THAN 10% IN GRADE.
3. GEOTECHNICAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT ENTITLED, "GEOTECHNICAL DWG NAME", DATED GEOTECHNICAL DATE, PREPARED BY GEOTECHNICAL ENGINEERING NAME.



APPLICANT:
SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT:
MINNOW & WASKO
ARCHITECTS AND PLANNERS
80 LAMBERT LANE- SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

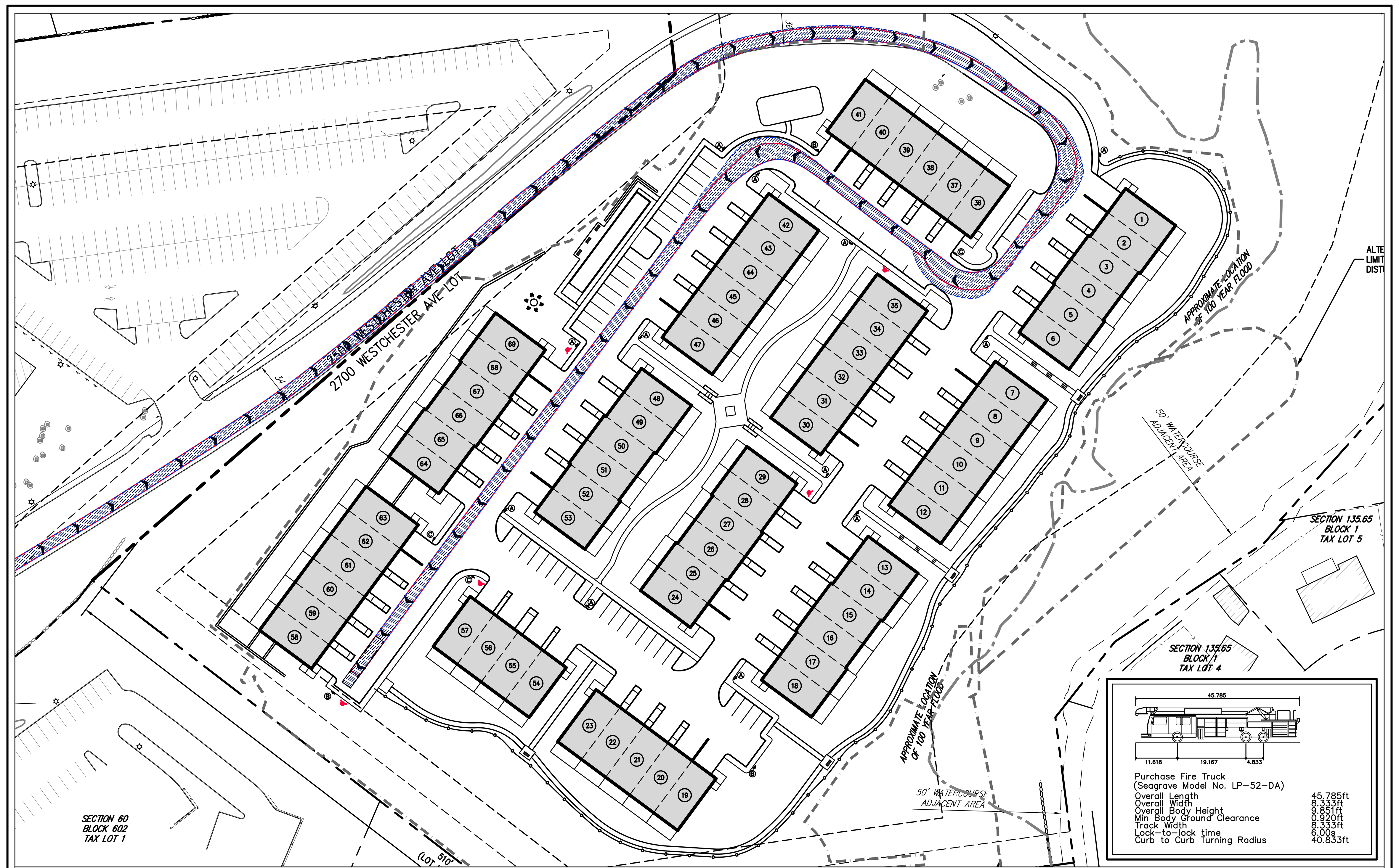
FIRE TRUCK ACCESS PLAN

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

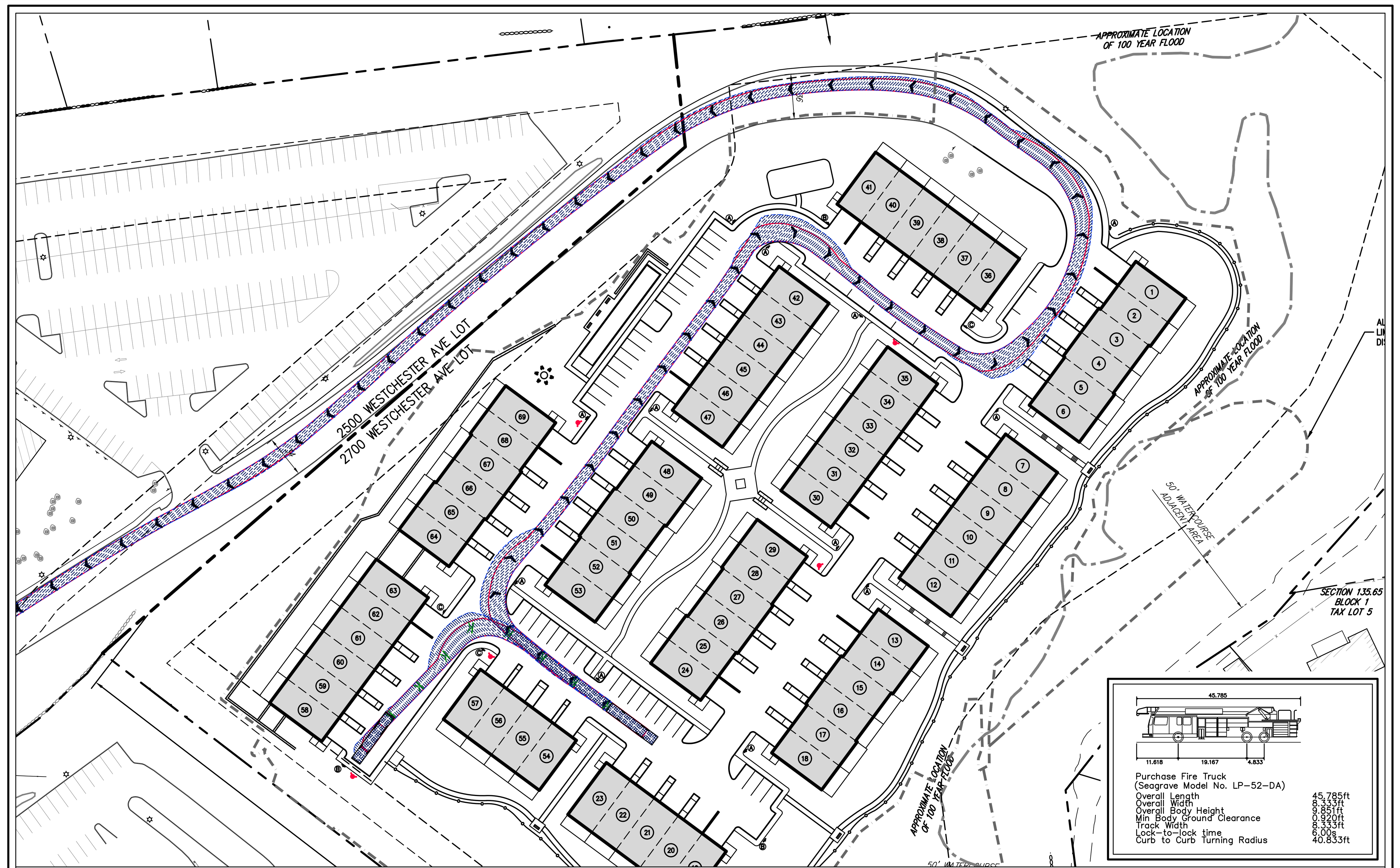
ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

Drawn: JR	Approved: RA
Scale: 1" = 60'	
Date: 11/2/2021	
Project No: 20105	
Drawing No: C-111	

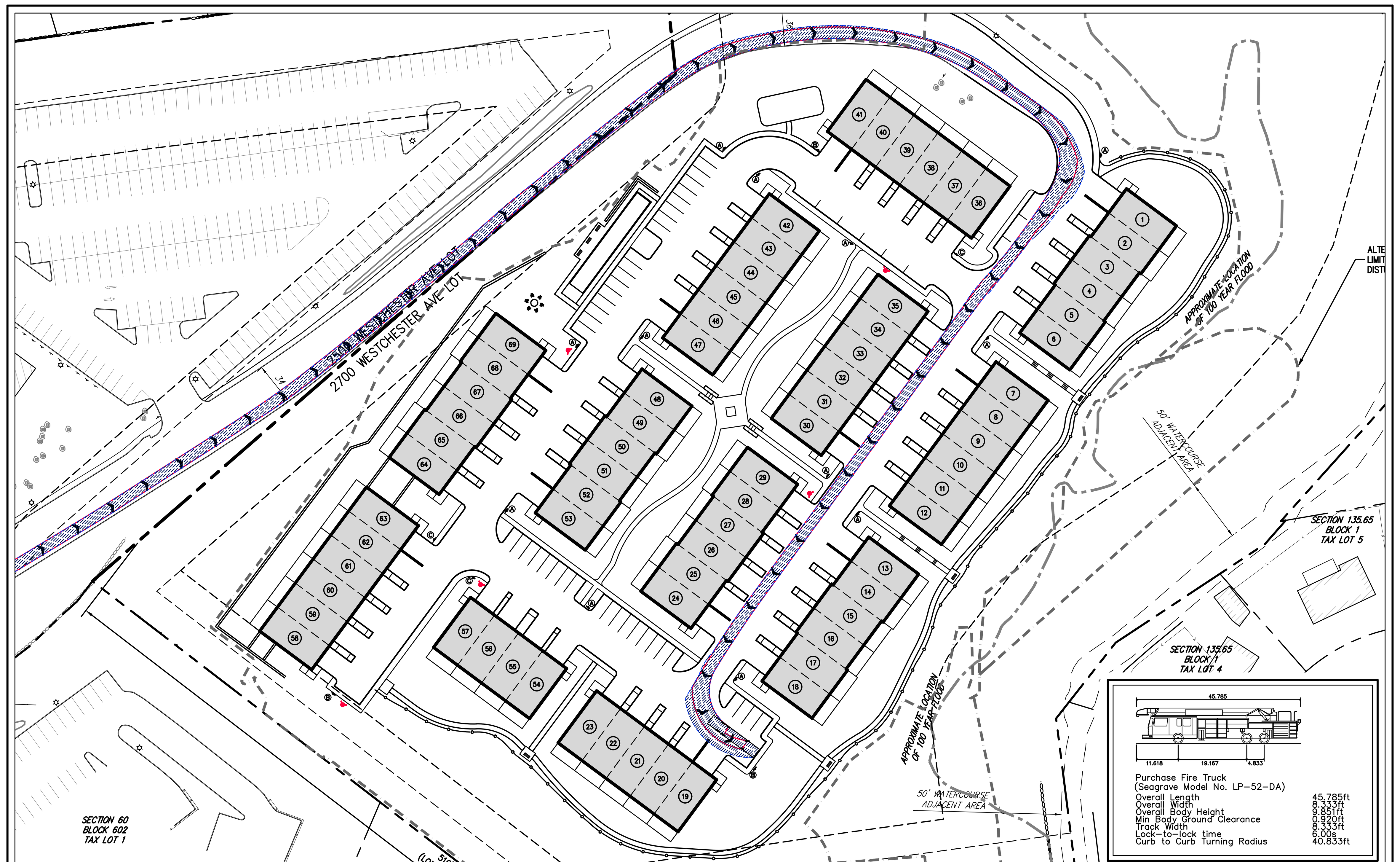
NOT FOR CONSTRUCTION



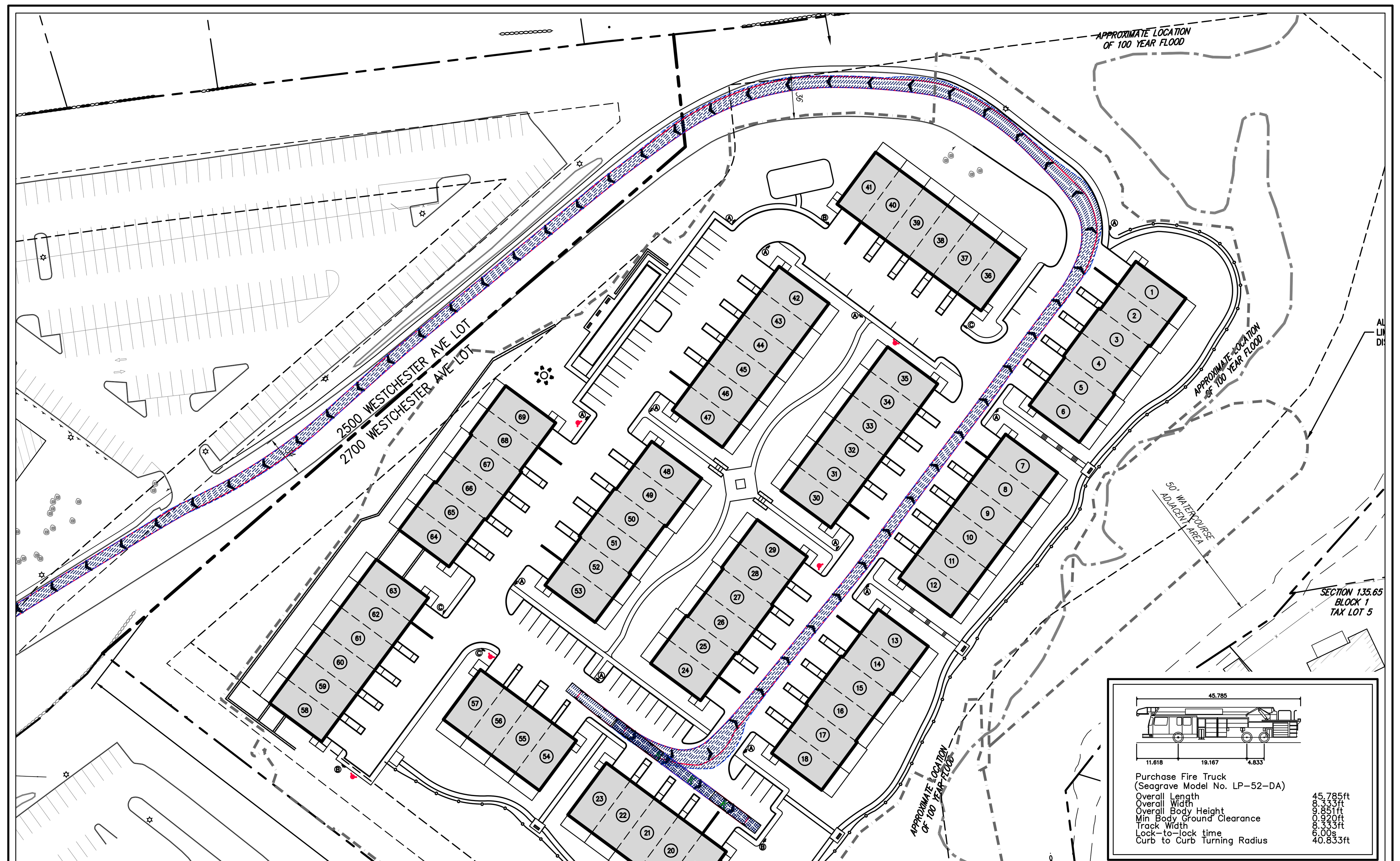
FIRE ACCESS ENTRY PATH 'A'



FIRE ACCESS EXIT PATH 'A'



FIRE ACCESS ENTRY PATH 'B'



FIRE ACCESS EXIT PATH 'B'

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT:
SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT:
MINNOW & WASKO
ARCHITECTS AND PLANNERS
80 LAMBERT LANE– SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

JMC

FIRE TRUCK TURNING MOVEMENT PLAN

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

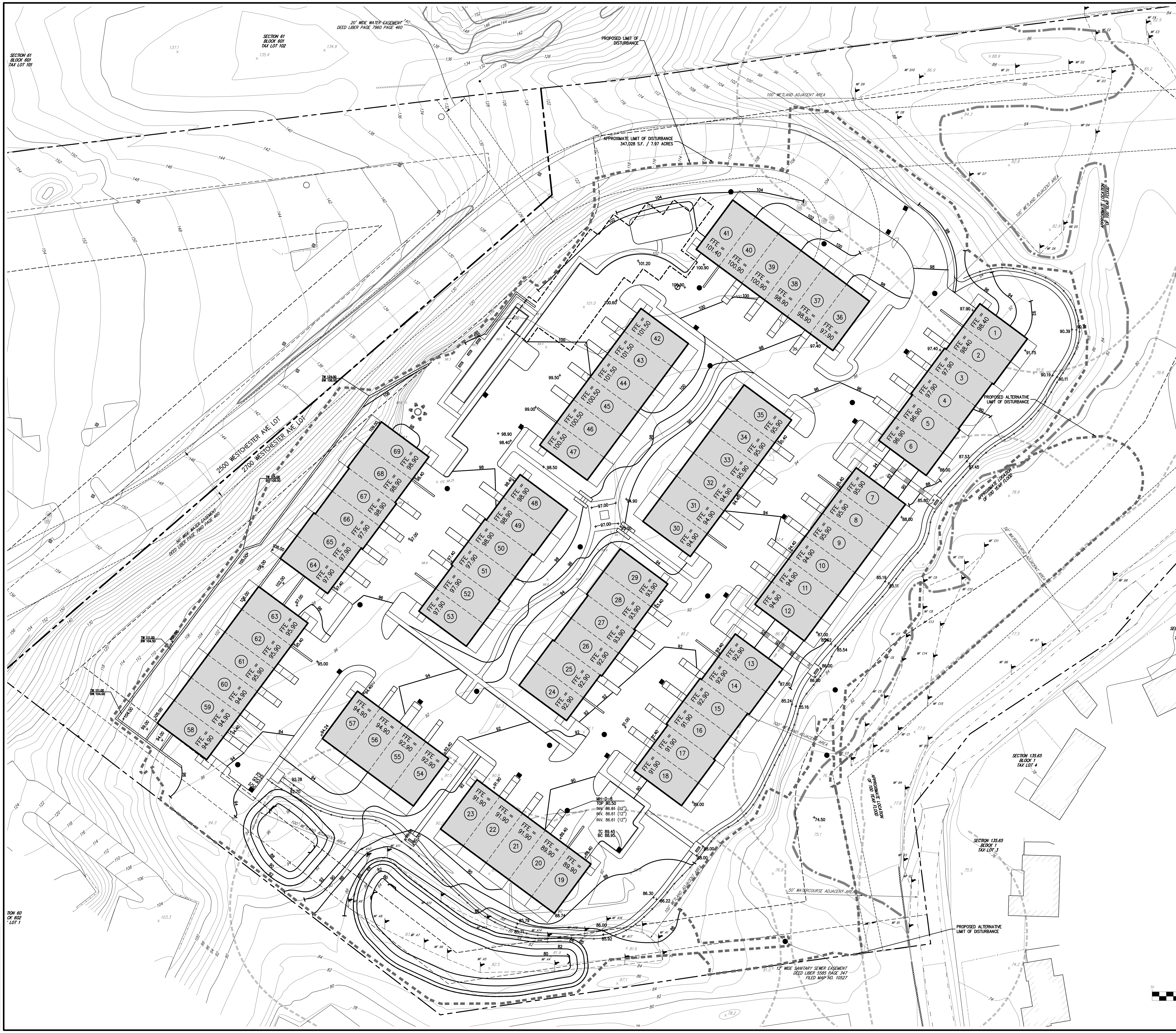
STATE OF NEW YORK · ROBERT AIELLO · 078390 · LICENSED PROFESSIONAL ENGINEER

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

Drawn: JR	Approved: RA
Scale:	1" = 60'
Date:	11/2/2021
Project No:	20105
20105-SITE	C-112	FIRE.scr

Drawing No:
C-112

NOT FOR CONSTRUCTION

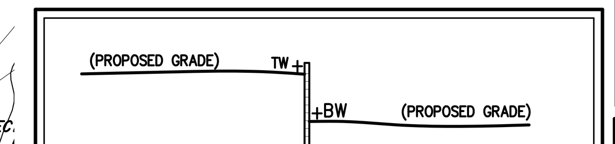


LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- WLF-63 WLF-64 WLF-65 EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING OVERHANG
- 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
- 90 PROPOSED FINISHED GRADE
- 91.00+ 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 HEADWALL
- WQS PROPOSED WATER QUALITY STRUCTURE
- OCS PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- OCS PROPOSED OUTLET CONTROL STRUCTURE
- CO PROPOSED CLEANOUT
- PROPOSED HYDRANT
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- DP-2 BORING LOCATION AND DESIGNATION
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED DITCH OR SWALE
- PROPOSED RIP-RAP
- EXISTING FEATURE TO BE REMOVED

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.
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.



RETAINING WALL SPOT GRADE LEGEND

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE- SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

GRADING PLAN (2700 PARCEL)

2700 WESTCHESTER AVENUE

2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

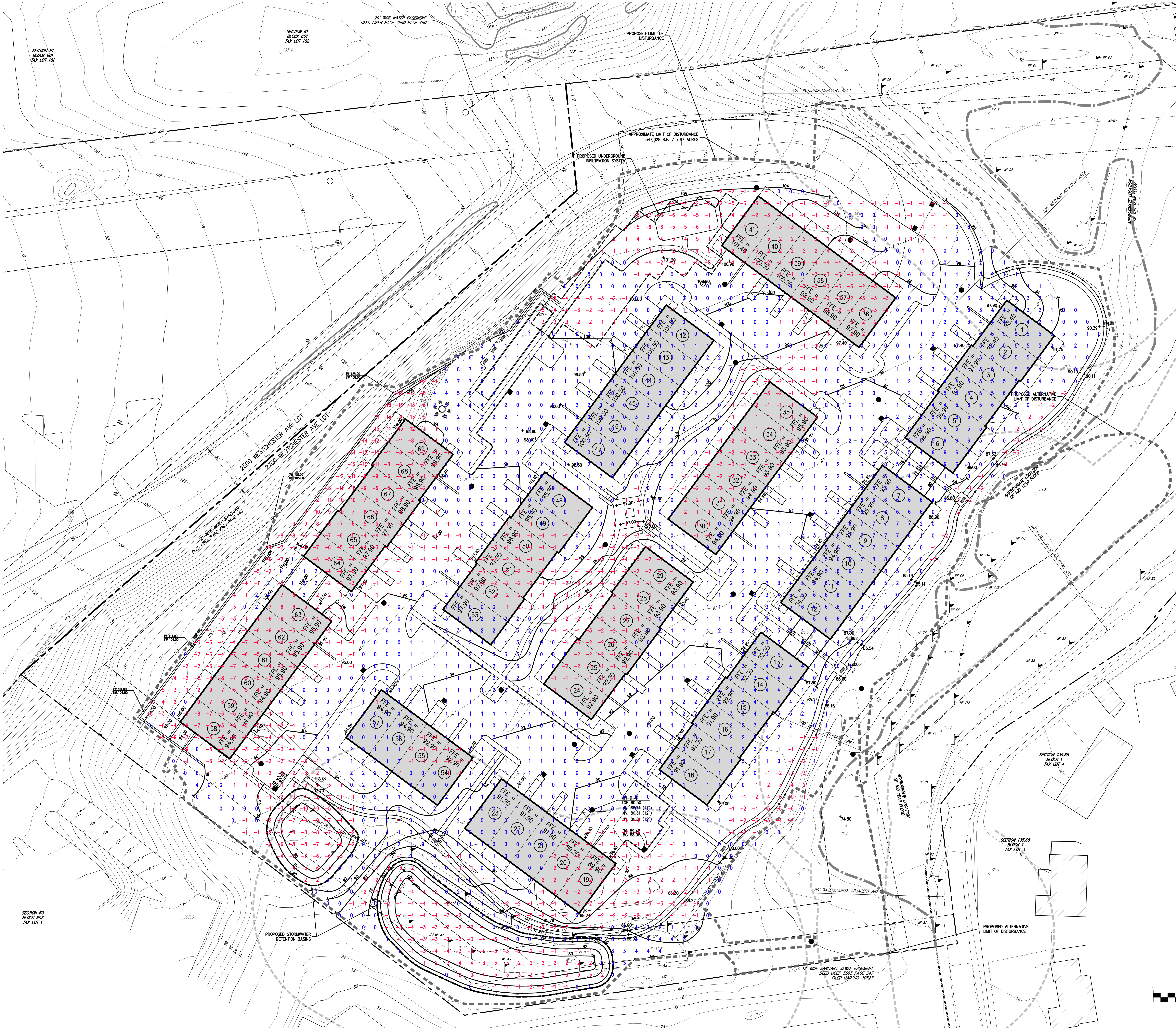
ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

STATE OF NEW YORK · ROBERT ... · 078390 · LICENSED PROFESSIONAL ENGINEER

Drawn: JJ	Approved: RA
Scale: 1" = 30'	
Date: 11/2/2021	
Project No: 20105	
20105-GRAD	C-200 / GRAD.scr

Drawing No: C-200

NOT FOR CONSTRUCTION



EARTHWORK SUMMARY
(IN CUBIC YARDS)

CUT VOLUME	12,530 C.Y.
FILL VOLUME (1) (15% COMPACTION FACTOR)	12,242 C.Y.
CUT VOLUME TO BE EXPORTED	288 C.Y.

(1) ASSUMES 2 FOOT THICKNESS FOR PROPOSED BUILDING FLOOR SLABS AND SUBBASE.

LEGEND

-2	DEPTH OF CUT
2	DEPTH OF FILL
■ ■ ■ ■ ■	APPROXIMATE LIMIT OF DISTURBANCE

NOTES:

1. CUT AND FILL ANALYSIS DOES NOT TAKE INTO CONSIDERATION SUB-BASE MATERIAL OR ANY UNSUITABLE MATERIAL THAT WOULD BE ENCOUNTERED DURING CONSTRUCTION TO BE TAKEN OUT OF THE SITE.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT:
SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT:
MINNOW & WASKO
ARCHITECTS AND PLANNERS
80 LAMBERT LANE- SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

JMC

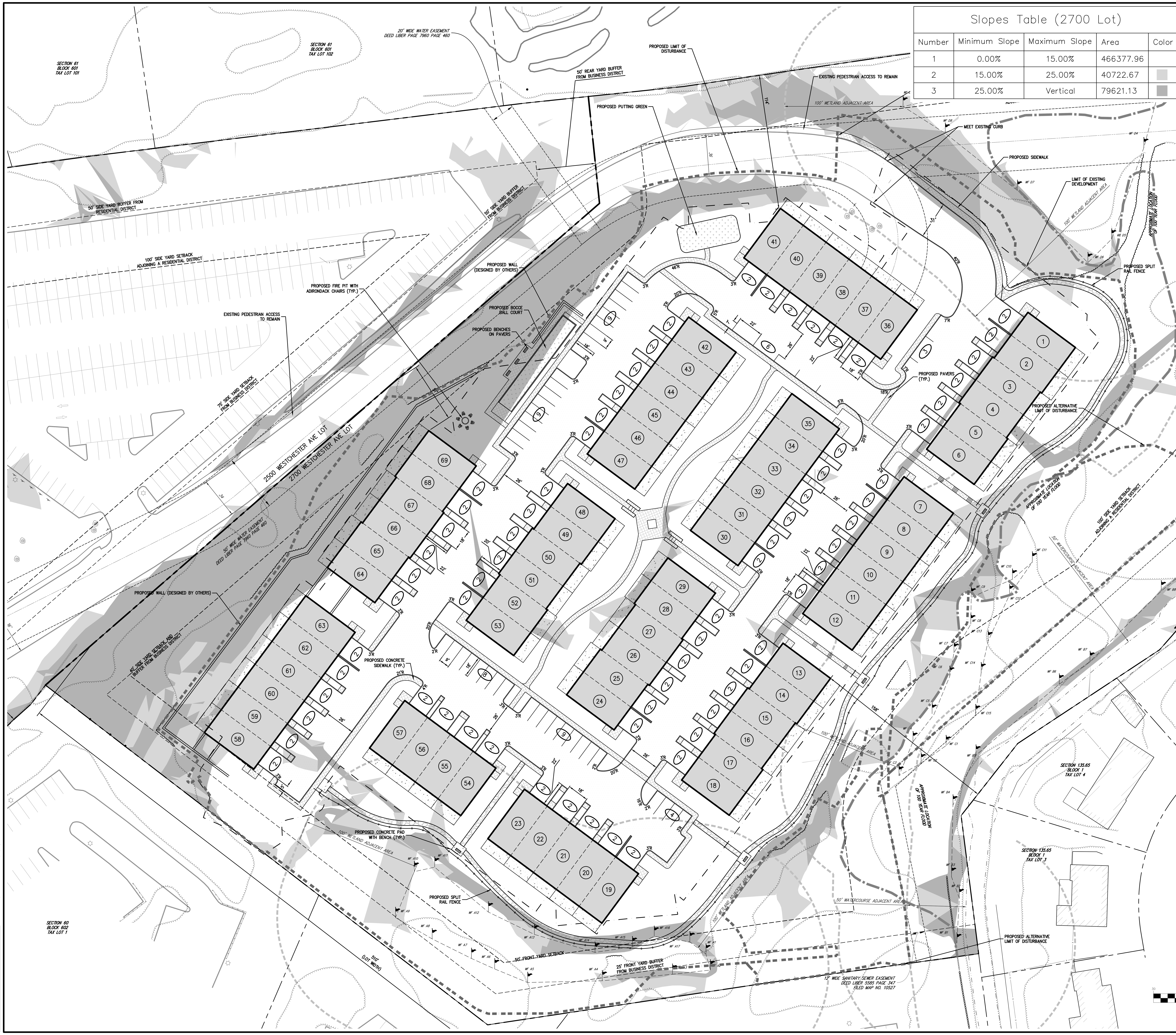
PRELIMINARY CUT-FILL ANALYSIS

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

STATE OF NEW YORK · ROBERT AIELLO · 078390 · LICENSED PROFESSIONAL ENGINEER

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

Drawn: JJ		Approved: RA
Scale: 1" = 30'		
Date: 11/2/2021		
Project No: 20105		
20105-GRAD	C-210	GRAD.scr
Drawing No: C-210		



Slopes Table (2700 Lot)

Number	Minimum Slope	Maximum Slope	Area	Color
1	0.00%	15.00%	466377.96	
2	15.00%	25.00%	40722.67	
3	25.00%	Vertical	79621.13	

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- WLF-63 WLF-64 WLF-65 EXISTING WETLAND LINE AND DELINEATION
- EXISTING 100' WETLAND ADJACENT AREA
- EXISTING WATERCOURSE
- EXISTING 50' WATERCOURSE ADJACENT AREA
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- 102 EXISTING CONTOUR
- 100 EXISTING INDEX CONTOUR
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- T10 M EXISTING TREE AND DESIGNATION
- EXISTING TREE LINE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- 5 EXISTING PARKING WITH NUMBER OF SPACES
- 2H EXISTING HANDICAP PARKING WITH NUMBER OF SPACES
- EXISTING PEDESTRIAN CROSSING
- 36" RCP EXISTING STORM DRAIN LINE AND SIZE
- 8" SAN EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- GV EXISTING GAS VALVE
- WV EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE– SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

STEEP SLOPE ANALYSIS

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

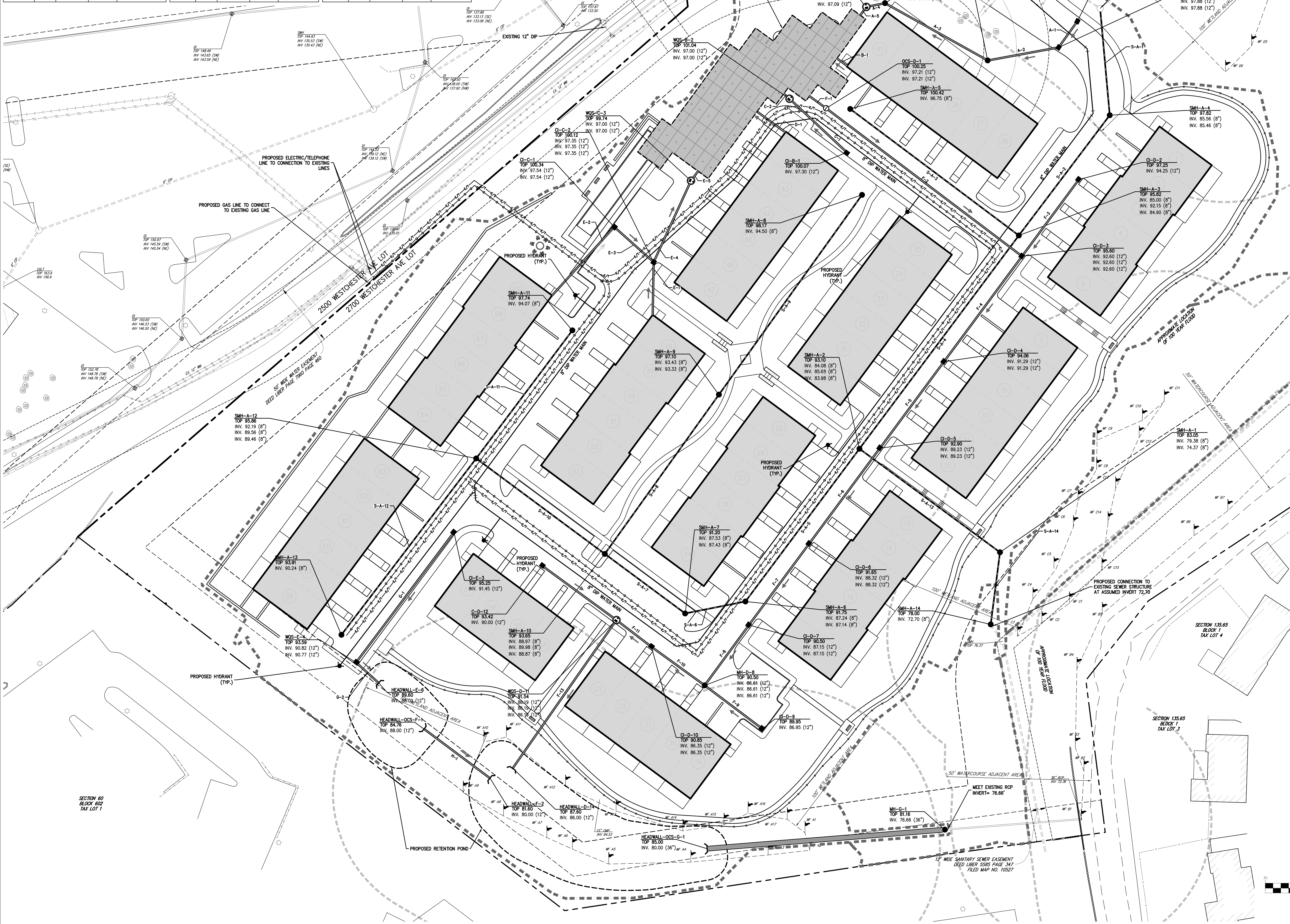
Drawn: JJ	Approved: RA
Scale: 1" = 30'	
Date: 11/2/2021	
Project No: 20105	
Drawing No: C-220	

NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe Table				
S-A-1	8"	79.78'	0.40%	DIP CLASS 52
S-A-2	8"	115.78'	0.40%	DIP CLASS 52
S-A-3	8"	161.89'	2.84%	DIP CLASS 52
S-A-4	8"	204.52'	0.40%	DIP CLASS 52
S-A-5	8"	146.39'	1.00%	DIP CLASS 52
S-A-6	8"	47.22'	0.40%	DIP CLASS 52
S-A-7	8"	76.80'	1.74%	DIP CLASS 52
S-A-8	8"	150.52'	2.23%	DIP CLASS 52
S-A-9	8"	186.87'	0.57%	DIP CLASS 52
S-A-10	8"	123.04'	0.40%	DIP CLASS 52
S-A-11	8"	123.04'	1.53%	DIP CLASS 52
S-A-12	8"	170.44'	0.40%	DIP CLASS 52
S-A-13	8"	134.06'	3.43%	DIP CLASS 52
S-A-14	8"	55.83'	2.99%	DIP CLASS 52

NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe Table				
A-1	12"	24.71'	0.50%	HDPE
A-2	12"	53.55'	0.52%	HDPE
A-3	12"	88.48'	0.50%	HDPE
A-4	12"	14.60'	0.50%	HDPE
A-5	12"	7.88'	1.14%	HDPE
B-1	12"	9.73'	9.25%	HDPE
C-1	12"	60.41'	0.50%	HDPE
C-2	12"	4.00'	0.00%	HDPE
D-1	12"	27.01'	16.66%	HDPE
E-1	12"	40.50'	3.83%	HDPE
E-2	12"	71.06'	1.91%	HDPE
E-3	12"	40.65'	0.48%	HDPE
E-4	12"	68.82'	0.50%	HDPE
E-5	12"	9.06'	0.00%	HDPE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe Table				
F-1	12"	15.83'	5.00%	HDPE
F-2	12"	187.52'	2.46%	HDPE
F-3	12"	73.25'	2.25%	HDPE
F-4	12"	100.75'	1.30%	HDPE
F-5	12"	82.60'	2.50%	HDPE
F-6	12"	91.40'	1.00%	HDPE
F-7	12"	77.78'	1.50%	HDPE
F-8	12"	56.08'	0.97%	HDPE
F-9	12"	55.21'	0.62%	HDPE
F-10	12"	49.29'	0.53%	HDPE
F-11	12"	32.35'	0.50%	HDPE
F-12	12"	69.32'	5.50%	HDPE
F-13	12"	137.23'	0.14%	HDPE
G-1	12"	124.95'	0.51%	HDPE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe Table				
G-2	12"	23.37'	11.85%	HDPE
H-1	12"	63.15'	12.67%	HDPE
I-1	36"	181.30'	1.84%	RCP



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- 36" RCP — EXISTING STORM DRAIN LINE AND SIZE
- 8" SAN — EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- GV — EXISTING GAS VALVE
- WV — EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED EASEMENT LINE
- SMH — PROPOSED SANITARY SEWER MANHOLE
- MH — PROPOSED STORM DRAIN MANHOLE
- CI — PROPOSED TYPE CI DRAIN INLET
- DI — PROPOSED TYPE DI DRAIN INLET
- PROPOSED HEADWALL
- CO — PROPOSED CLEANOUT
- PROPOSED HYDRANT
- 12" HDPE — PROPOSED STORM DRAIN LINE & SIZE
- 8" DIP — PROPOSED SANITARY SEWER LINE & SIZE
- 8" WATER — PROPOSED WATER LINE & SIZE
- PROPOSED GAS LINE
- E/T — PROPOSED ELECTRIC/TELEPHONE
- PROPOSED WATER VALVE
- PROPOSED GAS VALVE
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- EXISTING FEATURE TO BE REMOVED

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT:
SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT:
MINNOW & WASKO
ARCHITECTS AND PLANNERS
80 LAMBERT LANE– SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

UTILITIES PLAN (2700 PARCEL)

2700 WESTCHESTER AVENUE

2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

STATE OF NEW YORK * ROBERT AIELLO * LICENSED PROFESSIONAL ENGINEER 078390

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

Drawn: JJ	Approved: RA	
Scale: 1" = 30'		
Date: 11/2/2021		
Project No: 20105		
20105-UTILITIES	C-300	UTIL.scr
Drawing No: C-300		

NOT FOR CONSTRUCTION

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. PARTICULAR REQUIREMENTS ARE GIVEN AS FOLLOWS:

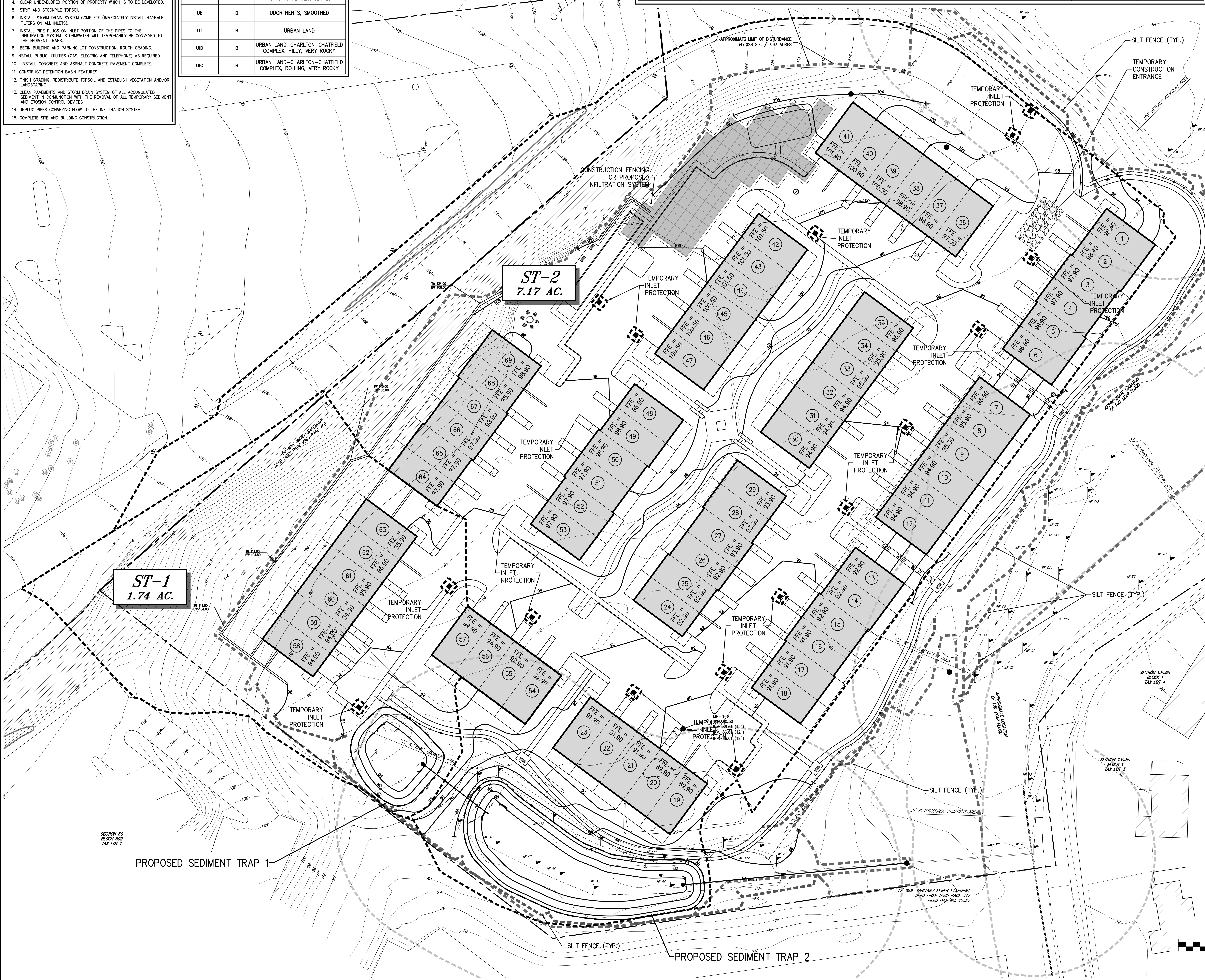
1. INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES AS INDICATED ON THIS PLAN.
2. PRE-CONSTRUCTION MEETING REQUIRED WITH APPROVING AGENCIES.
3. DEMOLITION OF EXISTING BUILDINGS AS REQUIRED.
4. CLEAR UNDEVELOPED PORTION OF PROPERTY WHICH IS TO BE DEVELOPED.
5. STRIP AND STOCKPILE TOPSOIL.
6. INSTALL STORM DRAIN SYSTEM COMPLETE (IMMEDIATELY INSTALL HAYBALE FILTERS ON ALL INLETS).
7. INSTALL PIPE PLUGS ON INLET PORTION OF THE PIPES TO THE INFILTRATION SYSTEM. STORMWATER WILL TEMPORARILY BE CONVEYED TO THE SEDIMENT TRAPS.
8. BEGIN BUILDING AND PARKING LOT CONSTRUCTION, ROUGH GRADING.
9. INSTALL PUBLIC UTILITIES (GAS, ELECTRIC AND TELEPHONE) AS REQUIRED.
10. INSTALL CONCRETE AND ASPHALT CONCRETE PAVEMENT COMPLETE.
11. CONSTRUCT DETENTION BASIN FEATURES
12. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION AND/OR LANDSCAPING.
13. CLEAN PAVEMENTS AND STORM DRAIN SYSTEM OF ALL ACCUMULATED SEDIMENT IN CONJUNCTION WITH THE REMOVAL OF ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES.
14. UNPLUG PIPES CONVEYING FLOW TO THE INFILTRATION SYSTEM.
15. COMPLETE SITE AND BUILDING CONSTRUCTION.

SOIL TYPE TABLE

DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
ChC	C	CHARLTON FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES
Ff	A/D	FLUVAQUENTS-UDIFLUVENTS COMPLEX, 15 TO 35 PERCENT SLOPES
Ub	B	UDORTHENTS, SMOOTHED
Uf	B	URBAN LAND
UID	B	URBAN LAND-CHARLTON-CHATFIELD COMPLEX, HILLY, VERY ROCKY
UIC	B	URBAN LAND-CHARLTON-CHATFIELD COMPLEX, ROLLING, VERY ROCKY

TEMPORARY SEDIMENT TRAP SUMMARY TABLE

SEDIMENT TRAP	TRAP TYPE	DRAINAGE AREA (AC)	STORAGE REQ. (CF)	STORAGE PROVIDED (CF)	PIPE SIZES	STORAGE DEPTH	EMBANKMENT HEIGHT/ELEVATION
1	SEDIMENT TRAP	1.74	6,264	8,173	12"	4.0'	4'/92'
2	SEDIMENT TRAP	7.17	25,812	38,628	12"	5.0'	5'/85'



LEGEND

PROPOSED INLET PROTECTION
PROPOSED CONSTRUCTION FENCE
PROPOSED SILT FENCE
PROPOSED LIMIT OF DISTURBANCE
PROPOSED STABILIZED CONSTRUCTION ENTRANCE
PROPOSED STOCKPILE AREA
PROPOSED TEMPORARY SWALE
PROPOSED TEMPORARY SEDIMENT BASIN
TEMPORARY RISER & ANTI-VORTEX DEVICE
EXISTING FEATURE TO BE REMOVED

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.
2. THIS PLAN IS FOR TEMPORARY EROSION AND SEDIMENT CONTROL INFORMATION ONLY.
3. PRIOR TO BEGINNING ANY CLEARING, GRUBBING OR EXCAVATION, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL THE PLANS AND SPECIFICATIONS. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED. FINAL STABILIZATION OF LANDSCAPED AREAS SHALL BE IN ACCORDANCE WITH THE LANDSCAPE PLAN.
4. THE CONTRACTOR SHALL INSPECT AND MAINTAIN ON-SITE EROSION AND SEDIMENT CONTROL MEASURES ON A DAILY BASIS. ALL COLLECTED SEDIMENT WITHIN SEDIMENT BARRIERS SHALL BE REMOVED PERIODICALLY AS REQUIRED TO MAINTAIN THE FUNCTION OF THE SEDIMENT BARRIERS. ALL SEDIMENT COLLECTED SHALL BE RESPREAD ON-SITE WITHIN STABILIZED AREAS AS DIRECTED BY THE OWNERS REPRESENTATIVE.
5. THE CONTRACTOR SHALL INSPECT DOWNSTREAM CONDITIONS FOR EVIDENCE OF SEDIMENTATION ON A WEEKLY BASIS, AFTER EACH RAINSTORM, AND AS MAY BE REQUIRED OR DIRECTED BY ALL APPLICABLE APPROVALS AND PERMITS. THE CONTRACTOR SHALL IMMEDIATELY PROVIDE A WRITTEN REPORT ON FINDINGS OF SEDIMENT IN DOWNSTREAM AREAS TO ALL AUTHORITIES HAVING JURISDICTION AND MAKE REPAIRS AS REQUIRED OR DIRECTED.
6. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED/WARRANTED BY FIELD CONDITIONS AND AS DIRECTED BY THE OWNERS REPRESENTATIVE, JMC, AND/OR ANY AUTHORITY HAVING JURISDICTION.
7. STOCKPILING OF CONSTRUCTION MATERIAL SHALL BE PLACED ON-SITE IN THE AREA DESIGNATED ON THIS PLAN OR AS APPROVED BY THE OWNERS REPRESENTATIVE. STOCKPILED EXCAVATED MATERIAL SHALL HAVE TWO ROWS OF SILT FENCE LOCATED AROUND ITS PERIMETER. ALL STOCKPILED MATERIAL SHALL BE MAINTAINED IN AN ORDERLY MANNER SO AS NOT TO IMPEDE ON PEDESTRIAN AND/OR VEHICULAR TRAFFIC CIRCULATION ROUTES.
7. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNERS REPRESENTATIVE.
8. 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.
9. ALL EXPOSED SLOPES AND GRADED/DISTURBED AREAS, THAT WILL NOT BE FURTHER DISTURBED WITHIN 14 CALENDAR DAYS (7 DAYS FOR CONSTRUCTION SITES THAT EITHER DIRECTLY DISCHARGE TO ONE OF THE 303(d) SEGMENTS LISTED IN APPENDIX E OF THE GENERAL PERMIT OR ARE LOCATED WITHIN ONE OF THE WATERSHEDS LISTED IN APPENDIX C OF THE GENERAL PERMIT), SHALL BE TEMPORARILY SEEDED WITHIN 24 HOURS OF DISTURBANCE, IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) "EROSION AND SEDIMENT CONTROL GUIDELINES" AND THE ANSI A300 "BEST MANAGEMENT PRACTICES FOR TREE AND SHRUB PLANTING, TRANSPLANTING, MAINTENANCE AND CARE," PREPARED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA), LATEST EDITIONS, AS FOLLOWS:
   A. SEED MIXTURE AND RATE OF APPLICATION:
      A.1. IN SPRING, SUMMER OR EARLY FALL, SEED THE AREA WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 POUNDS PER ACRES (APPROXIMATELY 0.7 POUNDS/1000 SQUARE FEET OR USE 1 POUND/1000 SQUARE FEET).
      A.2. IN LATE FALL OR EARLY WINTER, SEED THE AREA WITH CERTIFIED AROOSTOOK' WINTER RYE (CEREAL RYE) AT 100 POUNDS PER ACRE (2.5 POUNDS/1000 SQUARE FEET).
   B. APPLICATION SHALL BE UNIFORM BY MECHANICAL OR HYDROSEED METHODS.
   C. MULCH ALL SEEDED AREAS WITH STRAW AT A RATE OF 2 TONS PER ACRE (90 POUNDS PER 1,000 SQUARE FEET) SUCH THAT THE MULCH FORMS A CONTINUOUS BLANKET.
3. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED, AND MULCHED AS NECESSARY TO MAINTAIN VIGOROUS, DENSE VEGETATIVE COVER.
4. TEMPORARY SEED MIXTURES SHALL NOT BE PLACED ON AREAS WHERE FINAL GRADE HAS BEEN ESTABLISHED AND TOPSOIL HAS BEEN PLACED UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE- SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

JMC

EROSION AND SEDIMENT CONTROL PLAN

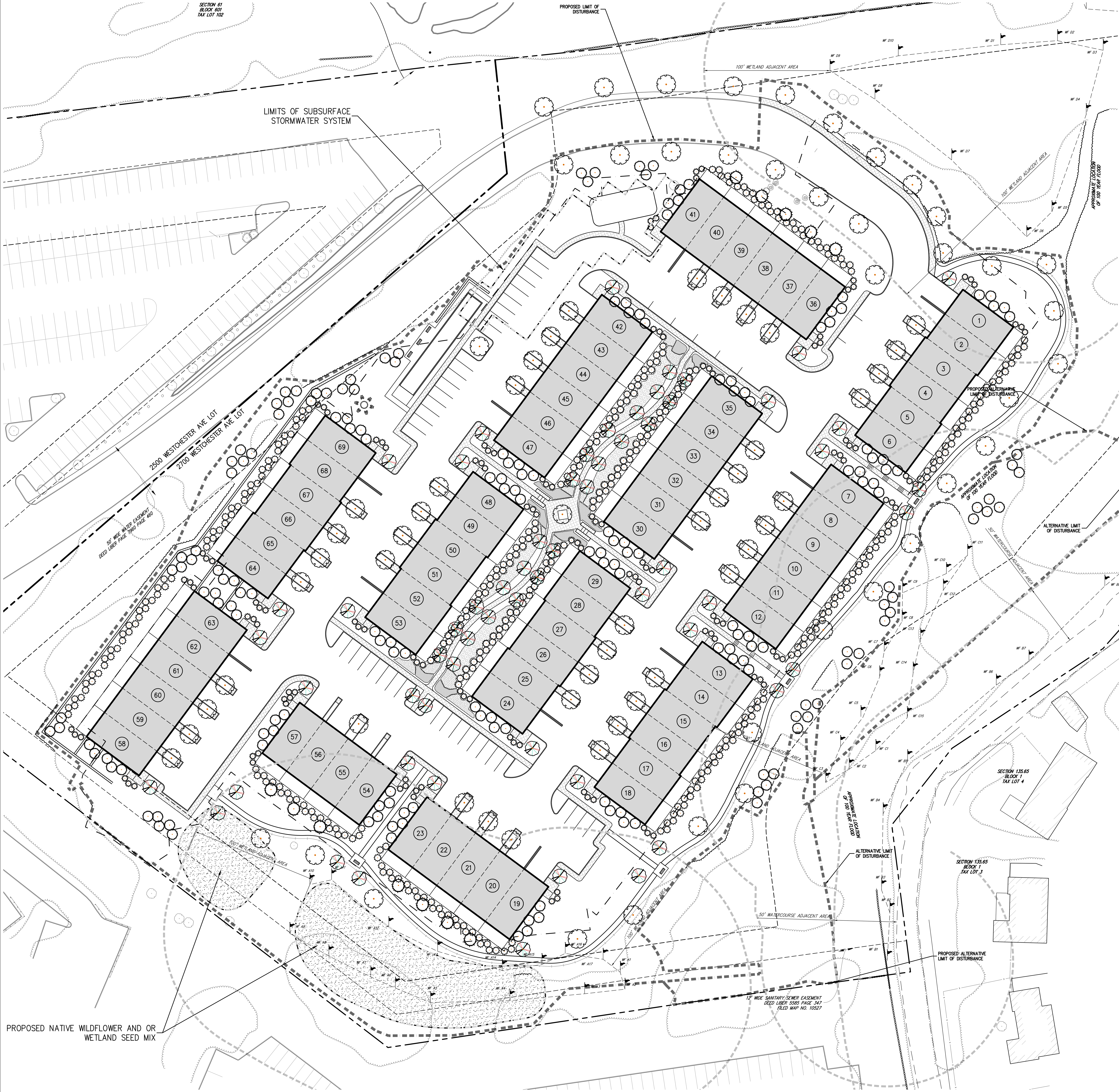
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

GRAPHIC SCALE
0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

Drawn: DJG	Approved: RA
Scale: 1" = 30'	
Date: 11/2/2021	
Project No: 20105	
20105-SIE	C-400
Drawing No: C-400	

NOT FOR CONSTRUCTION



PRELIMINARY PLANTING PALETTE

BOTANICAL NAME/COMMON NAME	SYMBOLS
POTENTIAL TREE PALETTE	
ACER RUBRUM 'FRANKSRED'/ RED SUNSET MAPLE	
AMELANCHIER CANADENSIS / SHADBLOW	
BETULA NIGRA / MULTI-STEM RIVER BIRCH	
CERCIS CANADENSIS / EASTERN REDBUD	
CORNUS KOUSA / DOGWOOD	
FAGUS GRANDIFOLIA / AMERICAN BEECH	
PICEA ABIES / NORWAY SPRUCE	
POTENTIAL SHRUB PALETTE	
CORNUS SERICEA / REDTWIG DOGWOOD	
HYDRANGEA PANICULATA ' JANE' / LITTLE LIME HYDRANGEA	
HYDRANGEA QUERCIFOLIA 'RUBY SLIPPERS' / RUBY SLIPPER OAKLEAF HYDRANGEA	
ILEX CRENATA 'SOFT TOUCH' / SOFT TOUCH JAPANESE HOLLY	
JUNIPERUS VIRGINIANA 'TAYLOR' / TAYLOR JUNIPER	
RHODODENDRON / BROADLEAF RHODODENDRON	
VIBURNUM DENTATUM 'CHRISTOM' / BLUE MUFFIN VIBURNUM	
POTENTIAL GRASSES, GROUNDCOVERS, & PERENNIALS	
ALCHEMILLA MOLLIS / LADY'S MANTLE	
AMSONIA HUBRICHTII / BLUE STAR	
COREOPSIS TINCTORIA / COREOPSIS	
DIANTHUS CHINENSIS / DIANTHUS	
ECHINACEA PURPUREA / PURPLE CONE FLOWER	
HAKONECHLOA MACRA / JAPANESE FOUNTAIN GRASS	
HEUCHERA SANGUINEA / CORAL BELLS	
NEPETA RACEMOSA 'WALKER'S LOW' / CATMINT	
OSMUNDASTRUM CINNAMOMEUM / CINNAMON FERN	
PEROVSKIA ATRIPLICIFOLIA / RUSSIAN SAGE	
PENNISETUM ALOPECUROIDES 'HAMELN' / DWARF FOUNTAIN GRASS	

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE– SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

LANDSCAPE PLAN

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

Drawn: JJ Approved: RA
Scale: 1" = 30'
Date: 11/2/2021
Project No: 20105
20105-LAND L-110 LAND.scr
Drawing No: L–110

CONDITIONS	DISTURBANCE WITHIN WETLAND BUFFER [ft^2]	IMPERVIOUS AREA IN BUFFER [ft^2]	PERMEABLE AREA IN BUFFER [ft^2]	PERCENT IMPERVIOUS
EXISTING	112,730.45	44,599.49	68,130.97	39.56%
PROPOSED	112,730.45	33,272.75	79,457.70	29.52%

EXISTING IMPERVIOUS AREA TO BE REMOVED [ft^2]	EXISTING IMPERVIOUS AREA TO REMAIN [ft^2]	NEW IMPERVIOUS AREA [ft^2]
14,043.70	30,555.78	2,716.97

LEGEND

- WETLAND BUFFER AND LIMIT OF DISTURBANCE AREA
- EXISTING IMPERVIOUS AREA TO BE REMOVED
- EXISTING IMPERVIOUS AREA TO REMAIN
- NEW IMPERVIOUS AREA

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	DJG
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE, SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

WETLAND BUFFER AREA MAP

2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

Drawn: JJ		Approved: RA	
Scale:	1" = 30'		
Date:	11/2/2021		
Project No:	20105		
20105-LAND	L-120	WETLAND.DWG	
Drawing No:	L-120		

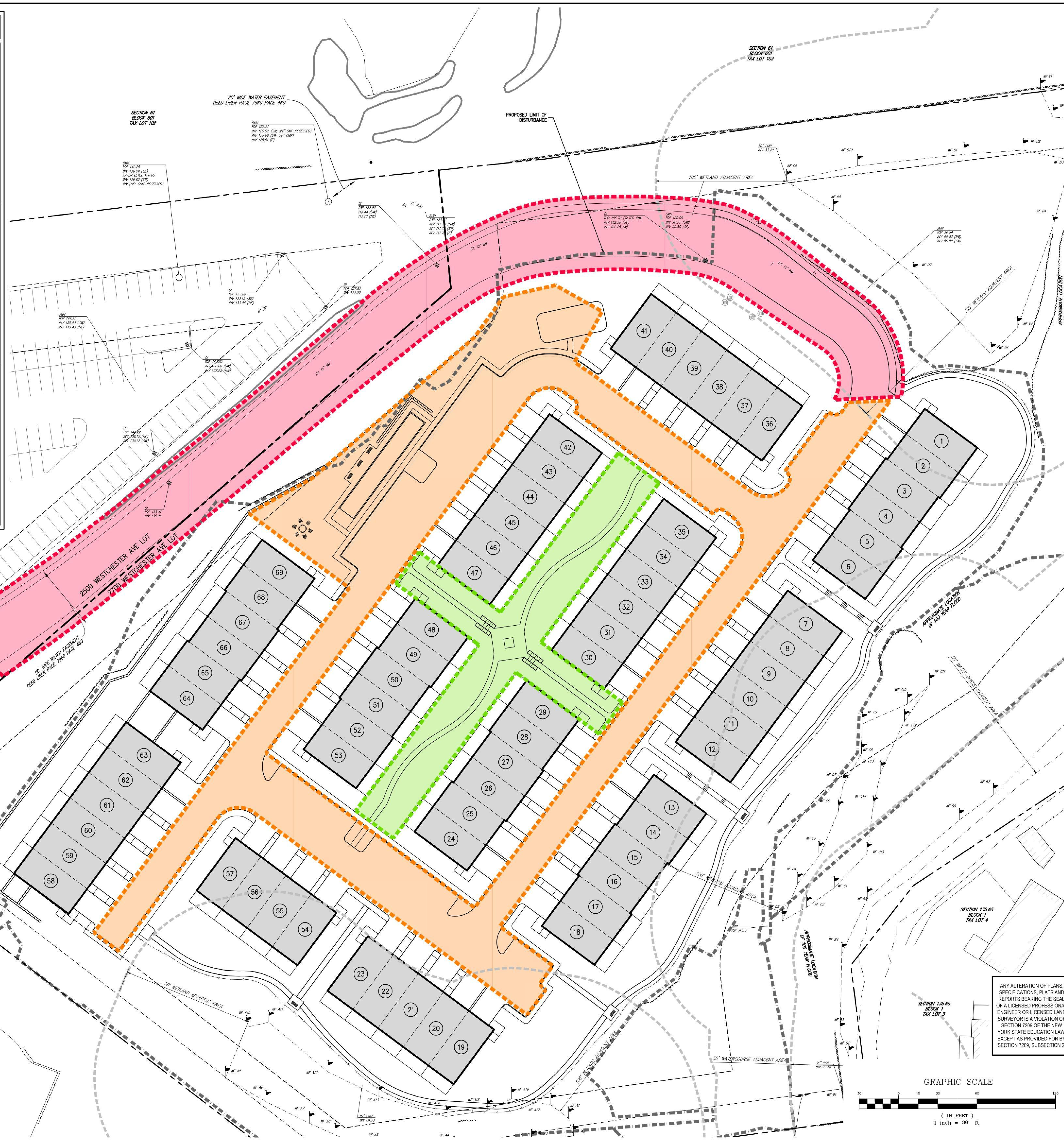
NOT FOR CONSTRUCTION

LIGHTING LEGEND

PRIMARY ACCESS DRIVE
- Light Level: 2-5 fc
- Luminaire: SL760 Solana Series
- Manufacturer: Sternberg Lighting
- Pole/Mounting: 16'
- Control: Electronic Button Photocontrol

INTERIOR ACCESS DRIVES
- Light Level: 3-5.5 fc
- Luminaire: SL660 Solana Series
- Manufacturer: Sternberg Lighting
- Pole/Mounting: 14'
- Control: Electronic Button Photocontrol

PARK & COMMUNITY SPACE
- Light Level: 2-4 fc
- Luminaire: Solana SL360
- Manufacturer: Sternberg Lighting
- Pole/Mounting: 36" Pole Height
- Controls: Electronic Button Photocell



NOT FOR CONSTRUCTION

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS, 53 MAPLE AVENUE, MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS, 80 LAMBERT LANE, SUITE 105, LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

CONCEPTUAL LIGHTING PLAN

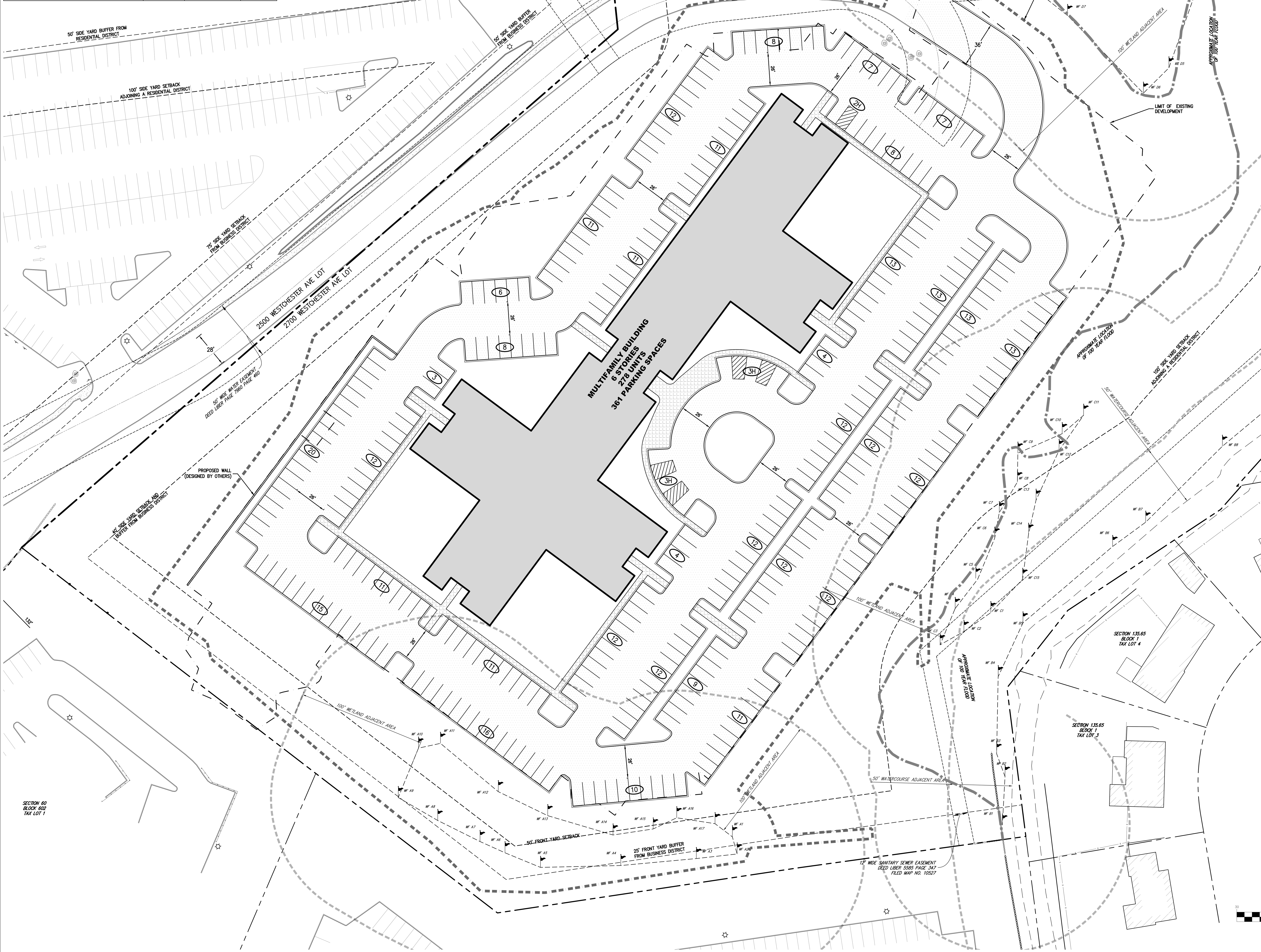
2700 WESTCHESTER AVENUE
2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

Drawn: JJ	Approved: RA
Scale: 1" = 30'	
Date: 11/2/2021	
Project No: 20105	
Drawing No: L-210	

L-210

2700 WESTCHESTER AVENUE HARRISON - TABLE OF LAND USE - SB-0 GENERAL ZONING REGULATIONS			
ZONE: SB-0 Multifamily			
Proposed Use: 278 Multifamily Unit Building			
NOTE: The SB-0 Zone District was primarily designed to address the 'tear drop' region of the Town. This project site is not in said region.			
DESCRIPTION		**SB-0 Zone**	
		Bulk Requirements	
		Under the Town Code	**Proposed**
		General Zoning Ordinance	
MINIMUM LOT AREA	(ACREAGE/SQUARE FEET)	5/217,800	13.47/586,721
MINIMUM FAMILY UNIT SIZE	(SQUARE FEET)	350	850
TOTAL BUILDING COVERAGE	(PERCENT)	45	7.34
MAXIMUM BUILDING HEIGHT	(FEET / STORIES)	6 stories	6 stories
MINIMUM SETBACKS			
MINIMUM FRONT YARD	(FEET)	50	175
MINIMUM FOR EACH SIDE YARD (Adjoining a Residential District)	(FEET)	100	293
MINIMUM FOR EACH SIDE YARD (Adjoining a Business District)	(FEET)	40	127
MINIMUM REAR YARD	(FEET)	45	156
PARKING			
PARKING SPACE REQUIREMENT - RESIDENTIAL MULTIPLE DWELLING		348 (1.25 spaces/unit)	361



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- LIMIT OF EXISTING DEVELOPMENT
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING TREE LINE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- EXISTING PARKING WITH NUMBER OF SPACES
- EXISTING ACCESSIBLE PARKING WITH NUMBER OF SPACES
- EXISTING PEDESTRIAN CROSSING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED PROPERTY LINE
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED CONCRETE SIDEWALK
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PEDESTRIAN CROSSING
- PROPOSED STONE TRAIL

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC AND UTILITIES SURVEY," PREPARED BY JMC PLANNING, ENGINEERING, LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 02/16/2021.

No.	Revision	Date	By
1.	DEIS Submission	11/02/2021	
2.	FEIS Submission	4/4/2022	DJG

Previous Editions Obsolete

APPLICANT: SENLAC RIDGE PARTNERS
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

ARCHITECT: MINNOW & WASKO ARCHITECTS AND PLANNERS
80 LAMBERT LANE- SUITE 105
LAMBERTVILLE, NJ 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

ALTERNATIVE C – NEW MULTIFAMILY CONSTRUCTION

2700 WESTCHESTER AVENUE

2700 WESTCHESTER AVENUE
PURCHASE, NY 10577

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

STATE OF NEW YORK · LICENSED PROFESSIONAL ENGINEER · 078390

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

Drawn: JJ	Approved: RA
Scale: 1" = 30'	
Date: 11/2/2021	
Project No: 20105	
20105-MF-SITE-ALT	ALT-C · LAY-ALT.scr
Drawing No: ALT-C	

Appendix E
Infrastructure

Appendix E-1
Fire Flow Demand

3 - Sign Off Sheet

Residential Fire Flow		
Needed Fire Flow (per ISO)	1000	**GPM @ 20 psi**
Total Needed Fire Flow (if higher flow amount requested by township official)	1000	**GPM @ 20 psi**

Non-Residential, Fully Sprinklered		
Needed Fire Flow (per ISO)	0	**GPM @ 20 psi**
Total Needed Fire Flow (if higher flow amount requested by township official)		**GPM @ 20 psi**

Note: Please Provide Both Signatures

Project Name: 2700 Westchester Avenue

Project Address: 2700 Westchester Avenue, Harrison NY

Prepared By: KEA Engineers, 186 Wood Avenue South, Iselin, NJ 08830

Signature: ______________________

Title: Vice-President

Date: 3/25/2020

Phone # 732-635-0044

Signing this sheet is only an **acknowledgement** of the NFF.
It **does not** imply a review and approval of the NFF calculations.

Municipal Fire Official or Delegate

(Print name): ______________________

Municipality ______________________

Signature: ______________________

Title: ______________________

Date: ______________________

Phone # ______________________

Appendix E-2
WCDEF Will Serve Letter

Westchester
gov.com

George Latimer
County Executive

Department of Environmental Facilities

Vincent F. Kopicki, P.E.
Commissioner

February 28, 2022

Robert B. Peake, AICP
Site Development Consultants
120 Bedford Road
Armonk, NY 10504

Re: Blind Brook SSD - Will Serve Letter
2700 Westchester Avenue, Harrison

Dear Mr. Peake:

In receipt of your February 23, 2022 request for a statement of capacity for the above referenced project, please be advised that Westchester County's Blind Brook Water Resource Recovery Facility (WRRF) has a design capacity of 5.0 million gallons per day (MGD) to serve properties in the Blind Brook Sanitary Sewer District. In 2021 the Annual Average Daily Flow for the facility was 3.4 MGD. The Blind Brook WRRF and Blind Brook Trunk Sewer will serve and have sufficient capacity to accommodate the proposed flow increase of 10,430 gallons per day and peak hourly flow rate of 85 gallons per minute to be generated by the above referenced project.

However, the municipalities in this sanitary sewer district have not met the County's Sewer Use Ordinance limit of 150 gallons per capita per day. As a result, they will or are performing Sewer System Evaluation Studies to find defects and reduce Inflow and Infiltration (I&I) in their collection systems. Further, the County, through its Planning Board, recommends to municipalities that when a project such as this is proposed that I&I remediation take place on a 3:1 ratio for additional flow put into the collection system. For units that are considered fair and affordable housing units, the removal ratio for those units can be reduced to a one to one ratio. This is similar to the requirements by NYSDEC for sewer extension approvals in the New Rochelle Sewer District. We feel this project warrants the same consideration.

Please call the undersigned at 813-5404 if you have any questions.

Very truly yours,

C.J. Gelardo, P.E.
Associate Engineer

CC: file

REDUCE
REUSE
RECYCLE

Division of Solid Waste
Wastewater Treatment
Water Agency

270 North Avenue
New Rochelle, New York 10801 Telephone: (914) 813-5400 Fax: (914) 813-5460 Website: westchestergov.com

Appendix E-3
Sanitary Sewer Report

Appendix E-3

Sanitary Sewer Narrative

Existing Conditions

Most of the sewer infrastructure throughout the Platinum Mile area of the Town/Village of Harrison was constructed in the mid-1900s. The Project Site is located within the Westchester County Department of Environmental Facilities (WCDEF) Blind Brook Sewer District. Wastewater from the Project Site is conveyed to the WCDEF Blind Brook Wastewater Treatment Plant located in Rye, New York. The Blind Brook Wastewater Treatment Plant is permitted to treat 5 MGD as a monthly average.

An 8-inch cast iron pipe sanitary sewer main runs from the 2500 building, northeast across the parking lot for the 2500 building, and then southwest across the parking lot associated with the 2700 building until connecting to the building. The 8-inch sewer main then runs southeast from the 2700 building until connecting with a 24-inch County-owned sewer trunk main that flows from north to south along the eastern portion of the Project Site within a 12-foot-wide sewer easement, parallel to Blind Brook.

The Town of Harrison commissioned a Sanitary Sewer Evaluation Survey in 2018 to inspect and evaluate the Town's wastewater collection system and identify defects, including those that permit inflow and infiltration. This study did not include the Project Site. However, inspection of the sanitary sewer mains located at the 3000-3040 Westchester Avenue parcel, immediately south of the Project Site, was conducted in May 2020 for the Webb Avenue DEIS. This inspection indicated that the 8-inch and 24-inch ductile iron sewer pipes on the 3000-3040 Westchester Avenue site were in good condition with no observed defects or damage. Effluent levels during the inspection were observed to be approximately 20 percent of the pipe's capacity.

Under the Future Conditions without the Proposed Project, the sanitary sewer infrastructure would be expected to remain in its current condition and no new sewer generation would be added.

Proposed Conditions

The anticipated sanitary sewer generation for the Proposed Project have been calculated based on the rates provided in the NYSDEC publication "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems", dated 03/05/2014, are as follows:

TABLE 1

Projected Sanitary Sewer Service Sewage Flow for 2700 Westchester Avenue Development

Building Type	Number/Unit	Flow Rate Per Unit (gal/day)	Total Flow (gpd)
3 Bedroom Town Homes (110 gpd per bedroom)	69 Town Homes	330 GPD per Town Home	22,770

The Proposed Project would connect to the Project Site's existing 8-inch cast iron pipe sanitary sewer immediately upstream of the County Sewer Trunk Main (see Drawing C-300, Utilities Plan). Connection to the existing sanitary sewer infrastructure to remain would be constructed in accordance with the requirements of the Town/Village of Harrison, the Westchester County Department of Health as well as the Westchester County Department of Environmental Facilities.

New wastewater collection services would be provided within the Project Site to serve the proposed townhomes. As required by law, the new collection mains that convey wastewater from each townhome to the county trunk main would be publicly owned and operated by the Town / Village of Harrison.

Full occupancy of the existing 2700 building was estimated to generate approximately 12,340 gpd of wastewater. Therefore, the Proposed Project would result in a net increase in wastewater generation of approximately 10,430 gpd compared to the existing 2700 Westchester Avenue project. The applicant has received a "will serve" letter from the WCDEF for the 2700 Westchester Avenue Project, which states the adequate capacity of the treatment plant to serve the proposed development.

The proposed sanitary sewer service connection will consist of approximately 1,623 linear feet of 8-inch diameter Ductile Iron Pipe (Class 52) Pipe, along with 14 sewer manholes. The proposed service will connect into the Town/Village of Harrison's sanitary sewer main, connecting to the sewer main to the southeast of the site.

All sanitary sewers shall be constructed in conformance with the requirements of the WCDH, Town / Village of Harrison and the "Recommended Standards for Wastewater Facilities" book or also known as the Ten State Standards.

The following is the criteria that 10 Sate Standards recommends and that followed for the project:

Sewer Design Criteria

Depth:

In general, sewers should be sufficiently deep to receive wastewater from basements and to prevent freezing. Insulation shall be provided for sewers that cannot be placed at a depth sufficient to prevent freezing. The pipes have been proposed to be placed below the frost line and at a depth sufficient to connect to the existing sewer main and to collect wastewater from each townhouse, ranging from a minimum depth of 3.67 feet below the surface and a maximum depth of 12.36 feet below the surface.

Buoyancy:

Buoyancy of sewers shall be considered, and flotation of the pipe shall be prevented with appropriate construction where high groundwater conditions are anticipated. Site specific soil testing has been performed on the site and ground water does not seem to be within the depth ranges at which the sewer pipes are proposed to be installed.

Pipe Slopes:

All sewers shall be designed and constructed to give mean velocities, when flowing full, of not less than 2.0 feet per second (0.6 m/s), based on Manning's formula using an "n" value of 0.013.
The 10 State Standards recommends the minimum size and slope for the pipes in the system of 8 inches diameter pipes sloped at 0.40% to produce a scour velocity of 2 ft/s.

The proposed sanitary sewer lines design to be 8-inch diameter pipes and have uniform slopes between manholes ranging from 0.40% to 3.43%, which also allows for a range of velocity of 2.30 to 6.80 feet per second.

Materials:

The material selected should be adapted to local conditions, such as: character of industrial wastes, possibility of septicity, soil characteristics, exceptionally heavy external loadings, abrasion, corrosion, and similar problems. Suitable couplings complying with ASTM specifications shall be used for joining dissimilar materials. All sewers shall be designed to prevent damage from superimposed live, dead, and frost induced loads. Proper allowance for loads on the sewer shall be made because of soil and potential groundwater conditions, as well as the width and depth of trench. Where necessary, special bedding, haunching and initial backfill, concrete cradle, or other special construction shall be used to withstand anticipated potential superimposed loading or loss of trench wall stability.
The proposed public sewer mains for the project shall be Ductile Iron Pipe (Class 52) Pipe.

Pipe Capacity:

As mentioned above, the proposed project will generate an approximate daily sewer flow of 22,770 Gallons per day. To approximate a peak flow demand for this flow we have assumed an 18-hour period of time in which the sewer will be generated and multiplied by a peaking factor 4 times the average daily flow. This provides an estimated peak demand for the project of approximately 84 Gallons per minute.

The proposed sewer pipe system is composed of 8-inch lines with slopes varying from 0.40% to 3.43%. analyzing the minimum flow capacity provided of an 8-inch pipe at 0.4%, the system is capable of conveying about 184 gallons per minute on a pipe flowing at half capacity. Therefore, the proposed sewer mains are able to convey the proposed flows.

Sanitary Sewer Testing Criteria

All public sewer improvements shall be tested in accordance with the latest Town/Village of Harrison and Westchester County Department of Health standards for sanitary sewer mains prior to being placed in service. Inspection of all work will be performed under direction of a NY State Licensed Professional Engineer. The Westchester County Department of Health shall be notified at least 48 hours in advance of any sanitary sewer testing.

The Contractor shall test the completed sanitary pipe and manholes for leakage as specified herein. In the event of conflict between the leakage test requirements specified herein and the leakage test requirements of authorities having jurisdiction over all or any portion of the sanitary sewers to be installed, the more restrictive requirements shall govern.

The tests shall be conducted by the Contractor, as directed by the Engineer, and the Contractor shall furnish all necessary equipment, materials and labor for the tests as specified.
The Contractor shall notify the Engineer, the Town/Village of Harrison and WCDH at least 48 hours prior to the start of testing. Testing shall be done only in the presence of the Engineer and representatives of the Town and WCHD, if required by the authorities.

Runs of pipe and/or manholes tested for leakage prior to completion of the Project shall be subject to additional leakage tests, if warranted in the opinion of the Engineer and/or the Town and WCDH.

A. Gravity Sewers - shall be tested as follows:

(1) Procedure and Method of Testing - The test length intervals and type of leakage test shall be approved by the Engineer. In the case of sewers laid on steep grades, the length of line to be tested by exfiltration at any one time may be limited by the maximum allowable internal pressure on the pipe and joints at the lower end of the line. Depending on field conditions and/or desire of the Contractor, the following tests for leakage may be employed:

(a) Hydrostatic Test

The test period, wherein the measurements are taken shall not be less than four (4) hours in either type of test. The total leakage of any section tested shall not exceed the rate of 100 gallons per mile of pipe per 24 hours per inch of nominal pipe diameter. For purposes of determining the maximum allowable leakage, manholes shall be considered as sections of pipe and shall be tested at a level above the highest joint prior to the concrete/rim connection.

(1) Infiltration Test - This test may be used only when ground water levels are at least two (2) feet above the top of the pipe for the entire length of the section to be tested during the entire

period of the test. Ground water levels may be measured in an open trench or in standpipes previously placed in backfilled trenches during the backfilling operations. When standpipes are installed in the backfill for ground water measurement, the lower ends of these shall be satisfactorily embedded in a mass of crushed stone or gravel to maintain free percolation and drainage. Infiltration through joints shall be measured by using a watertight weir or any other approved device for volumetric measurement installed at the lower end of the section under test.

(2) Exfiltration Test - This test consists of filling the pipe with water to provide a head of at least two (2) feet above the top of the pipe or two (2) feet above ground water, whichever is higher, at the highest point of the pipe line under test, and then measuring the loss of water from the line by the amount which must be added to maintain the original level. In this test the line must remain filled with water for at least twenty-four (24) hours prior to the taking of measurements. Exfiltration shall be measured by the drop of water level in a closed-end standpipe or in one of the sewer manholes available for convenient measuring.

When a standpipe and plug arrangement is used in the upper manhole of a line under test, there must be some positive method of releasing entrapped air in the sewer prior to taking measurements.

(b) Vacuum Testing of Manholes - This test method is only applicable to precast concrete manholes. All lifting holes and exterior joints shall be filled and pointed with an approved non-shrinking mortar. No standing water shall be allowed in the manhole excavation which may affect the accuracy of the test. All pipes and other openings into the manhole shall be suitably plugged in such a manner as to prevent displacement of the plugs while the vacuum is drawn. Installation and operation of the vacuum equipment and indicating devices shall be in accordance with equipment specifications and instructions provided by the manufacturer.

The test head may be placed in the cone section of the manhole. The rim-cone joint is not usually tested. A vacuum of 10 inches of mercury shall be drawn. The time for the vacuum to drop to 9 inches of mercury shall be recorded. Acceptance for 4 ft. diameter manholes shall be defined as when the time to drop to 9 inches of mercury meets or exceeds the time specified in NYSDEC Technical Information Pamphlet No. 15 (TIP15) “Vacuum Testing of Manholes”.

For manholes 5 ft. in diameter, add an additional 15 seconds and for manholes 6 ft. in diameter, add an additional 30 seconds to the time requirements for four-foot diameter manholes.

(c) Low-Pressure Air Test of Pipe Lines - Plug all openings in the test section. Add air until the internal pressure of the line is raised to approximately 4.0 psi. After this pressure is reached, allow the pressure to stabilize. The pressure will normally drop as the air temperature stabilizes. This usually takes 2 to 5 min. depending on the pipe size. The pressure may be reduced to 3.5 psi before starting the test.

When the pressure has stabilized and is at or above the starting test pressure of 3.5 psi, start the test. If the pressure drops more than 1.0 psi during the test time, the line is presumed to have failed the test. If a 1.0-psi drop does not occur within the test time, the line has passed the test.

Test times are for a 1.0 psi pressure drop from 3.5 to 2.5 psi. If the section of line to be tested includes more than one pipe size, calculate the test time for each size and add the test times to arrive at the total test time for the section. The proper procedures including minimum test times, for various pipe sizes shall be as specified in ASTM Designation F-1417 "Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air" or ASTM Designation C828 "Standard Test Method for Low-Pressure Air Test of Vitrified Clay Pipe," depending on the pipe material. According to Appendix C "Sewer and Manhole Leakage Tests" of the NYSDEC publication "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems," dated March 5, 2014, ASTM C828 "may be used for other sanitary pipe material not mentioned above and is not limited to a maximum diameter of 12 inches."

Conclusions

The Proposed Project is not anticipated to result in any significant adverse impacts to sanitary sewer infrastructure or to the Blind Brook Wastewater Treatment Plant's ability to treat wastewater. Therefore, no mitigation measures are proposed. Also, the proposed sanitary sewer conveyance system has been designed in compliance with WCDH, Town / Village of Harrison and the "Recommended Standards for Wastewater Facilities" book, therefore the proposed design is considered adequate.

P:\2020\20105\ADMIN\REPORTS\SEWER\20105 - Sewer Report.docx

Appendix F
Public Comments on the DEIS

PLANNING BOARD MEETING
TOWN/VILLAGE OF HARRISON, NEW YORK
- -X

2700 WESTCHESTER AVENUE - REDEVELOPMENT

- -X

December 21, 2021
7:05 p.m.

HELD VIRTUALLY VIA ZOOM

B E F O R E:
PLANNING BOARD MEMBERS:
THOMAS HEASLIP, CHAIRMAN
NONIE REICH
MARSHALL DONAT
JOSEPH STOUT
CHIP MARRANO
JEFFREY SPANO
KIMBERLY BURKAN

A P P E A R A N C E S:
FOR THE APPLICANT:
BY: SETH MANDELBAUM, ESQ.
MCCULLOUGH, GOLDBERGER & STAUDT, LLP,
1311 Mamaroneck Ave, Suite 340
White Plains, New York 10605

ALSO PRESENT:
PAT CLEARY, TOWN PLANNER
CHRIS RICHTER (PRINCIPAL AND HEAD OF DEVELOPMENT FOR SENLAC RIDGE PARTNERS)
PETER FEROE, AICP (SR. TECHNICAL DIRECTOR PLANNING FOR AKRF, INC.)
ROBERT AIELLO, P.E. (ASSOCIATE PRINCIPAL FOR JMC ENGINEERING)

Marci Loren Dustin, Court Reporter

PROCEEDINGS

MR. MANDELBAUM: Mr. Chairman, shall I proceed?

THE CHAIRMAN: Yes, go ahead.

MR. MANDELBAUM: Thank you. Don't we miss these Zoom meetings?

THE CHAIRMAN: Oh, yeah. It's terrific.

MR. MANDELBAUM: Yeah, exactly.

Good evening, everyone. My name is Seth Mandelbaum. I'm a partner with the law firm of McCullough, Goldberger & Staudt. Very pleased to be here this evening on behalf of Senlac Ridge Partners. Peter Feroe is with me from AKRF. Peter, if you could share your screen to start the PowerPoint, that would be great. Thank you.

So I'm just going to quickly give a little background, introduce our team and then hand it over to a few of the members of our team. And we're very aware of the time constraints.

So this application, as you may recall, is to demolish the existing building at 2700 Westchester Avenue and create a 69-unit luxury town home development. There will be a little more detail about that in a moment. If we can

PROCEEDINGS

go to the next slide, Peter.

So with us from Senlac Ridge Partners, the owner of the property and the applicant is Chris Richter, principal and head of development. And Chris, he'll give you a little bit of background very quickly in a moment. You're also going to primarily hear from Peter Feroe, the planner, senior technical director of planning with AKRF. His firm prepared the Draft Environmental Impact Statement, which is the subject of this public hearing. And you're also going to hear from Rob Aiello, professional engineer with JMC Engineering. And Rob will be focusing primarily on stormwater and floodplains and issues such as that.

But we're going to take a few moments here, no more than 10 to 15 minutes just to summarize the project and the DEIS, and then happy to answer any questions the board or the public might have regarding this -- this project. With that, I will hand it over to Chris, and then Peter and Rob. Thank you.

MR. RICHTER: Thank you, Seth. And thank

PROCEEDINGS

you Chairman and members of the planning board. Good evening. Again, Chris Richter. Real briefly, Senlac Ridge Partners is a new name. It's essentially the principals of Normandy Real Estate Partners, which have had a decade long relationship with real estate within the Platinum Mile's teardrop.

So we can move to the next slide. So the subject matter tonight, as Seth mentioned, is 2700 Westchester Avenue. That is a sister building with 2500 Westchester Avenue. The two buildings total 288,000 square feet. 2700 is approximately 123,000 square feet. As you see the stats, 2500 is actually doing okay, but 2700 is below 30 percent occupied right now. And with the market conditions, it's expected to decline.

With respect to 2700, specifically, we've always had historically a problem leasing this facility. You know, 2500 is up on the crest of the hill. And of those of the members that have been to the site, you take the loop road down to the bottom of the hill, and the back of this building is tucked into the rock slope

PROCEEDINGS

eliminating the natural light and the major impediment that we see in the building.

Big picture on the office market real quickly, believe it or not, over the last 12 years, over 2 million square feet of office inventory has been demolished, even with that, the vacancy rate is still slight from 16.1 to 23.1 percent. And if you add the subleasing in, that goes up another couple of points. So the office market has not seen any -- any rebound. If anything, it's going in the -- in the wrong direction.

Next slide. So I think many of you were around when Normandy was involved in the re-development of both the Wegmans and Toll Brothers site. This is a model that has been successful. When the Wegmans was developed, three buildings, roughly 262,000 square feet of offices were removed. And when the Toll Brothers development was developed, two office buildings that were roughly 164,000 square foot were removed. Taking obsolete and underperforming assets and turning them into community assets. I think everyone's familiar

PROCEEDINGS

with the location. This just puts the 25-2700 into perspective of location as it relates to the teardrop.

So finally, we're taking, you know, an underperforming office asset that we feel has a little hope of recovering and turning it into a luxury townhouse community that is highly desirable. And we feel it's going to be a great asset to -- to the community. Thank you.

MR. MANDELBAUM: Thank you very much, Chris. Now Peter Feroe will -- will take you through some of the highlights of the DEIS.

MR. FEROE: Thanks, Seth. And just to -- just to follow up on what Chris said, the site plan being proposed is to retain the 2500 office building and remove the 2700 office building. And in its place would be 69 three-story luxury townhouses, each with a two-car garage.

There would be a significant landscaping program both within the site internal to this site and external to this site. New shade trees, flowering trees, plantings, wildflowers, wetland seeding, and really trying to turn this

PROCEEDINGS

into a more walkable residential-type feel with sidewalks, outside amenity spaces, walking trails along the eastern edge of the property.

And it's important to note that the development, inclusive of the walking trails, the parking lots and everything, would be outside of the floodplain and outside of wetlands, as is the current site.

In order to -- to realize that project, the applicant has proposed a zoning text amendment to the town board, obviously referred to this board as well. And in essence, the zoning text amendment has two -- two pieces. The first is to expand the geographic scope of the existing SB-O Multifamily use. And this is the special permit use that allows for multifamily within the teardrop currently. And so the proposed zoning text amendment, expands that geography to include the balance of the SB-O district, that -- that has access to Westchester Avenue.

The second part of the zoning text amendment adds several -- several pieces that allow for redevelopment of a previously

PROCEEDINGS

developed site that anticipates leaving an office use on the parcel, as is the case here. So it allows for -- allows for shared access and frontage and makes some modifications to the parking ratio for the existing office building to remain, if it has currently performed within the parking that is has, which is the case here.

Following action on the zoning text amendment, if that is positively adopted by the town board, would be the special exception use permit and site plan permits from the planning board and town board, as well as a few other items having to do with the title and some restrictive covenants that deal with the current site plan.

This action has been before the town board and the planning board for quite some time. Back in March, nine months ago, we submitted the original petition and special exception use permit approximately a month later. We've been before this board several times and taken public comment at the scoping session in July, which the scope outlines what needed to be

PROCEEDINGS

studied in the Draft Environmental Impact Statement, which as Seth mentioned, is the subject of the hearing tonight.

That scope -- that table of contents was approved by this board in July, and the planning board determined that the DEIS that the applicant prepared was complete and ready for public comment in November. So here we are in December, looking forward to the public hearing and comment period. And this is not the end of the process. As many of you know, the applicant and town are required to prepare a Final Environmental Impact Statement that goes through and responds to each of the substantive comments that were received on the DEIS. And then the planning board takes a few other procedural steps to include SEQRA, make zoning recommendations.

And after all of that, the town board still has to act on the zoning, the planning board still gets to act on the special permit and site plan. So we've been at this for a little while. We still have a little more ways to go.

PROCEEDINGS

These are the subjects of the DEIS. I won't go through them all because you all either have a copy or have read it, I'm sure online. But I'll --

(Interruption due to technical difficulties.)

THE CHAIRMAN: If you're not speaking, can you please mute your speakers.

MR. FEROE: Okay. I think that's better. So I'll hit a couple of the quick highlights in the DEIS now.

The proposed project, inclusive of the zoning text and the redevelopment, are consistent with the town's comprehensive plan. That comprehensive plan anticipated that if the redevelopment of the teardrop was successful and market forces still looked for redevelopment of sites, that -- that use would be expanded throughout the SB-O. As Chris said, we know the office market is still struggling. We know that regional housing demand is still strong. We know that local

PROCEEDINGS

housing demand is incredibly strong and the overall supply remains tight. So these forces are still in play. The DEIS also did several analyses regarding socio-economics, fiscal impacts, community facilities.

Just a couple of other quick highlights on the -- the EIS anticipated a $1.6 million annual increase in property tax revenue with the redevelopment of that site. That's nearly $375,000 annually to the town, over and above what's received now, and approximately $879,000 over and above what the school district receives now.

Obviously, there would be some increased incremental demand in police, fire and EMS services. That was analyzed in the DEIS and discussed. And there would be increased demand to the school district. We have a range of anticipated number of children based on a number of different methodologies. The number 10 that's anticipated, this came from a case study of other Westchester communities that have had recent luxury townhouse communities similar to this project. We actually FOILED

PROCEEDINGS

the school districts in those communities and got the enrollment over of the past couple of years. And based on those actual data in Westchester, as presented in the EIS, we estimated approximately 10 children in the -- in the 69 units.

Looking at more statewide data, both in New York and New Jersey, some more recent, some older, estimated a higher number of school children at 22. Yes, it's a big range, but I think what's important to note is that regardless if it lands at 10 or 22, the school district would still receive a surplus of property tax revenue after accounting for an increase of $23,000 per student to their budget. So after taking into account the cost of the extra students, either 10 to 22, the school district is still receiving an annual surplus. And based on communication received from the school district, the district has the capacity to serve those students. Over the next ten years, the school district is projecting a net decline of 263 students, and that includes the addition of students from the

PROCEEDINGS

recently constructed planned approved development. So that already takes that into account. So the school district should to be able to both have the capacity and the budget necessary with this project.

The EIS also presents a number of visual studies to -- to help orient the community towards what the visual impacts of this project might be, what you might be able to see from various vantage points. I'm going to run through these very quickly because they are in the EIS. But this is a section from Westchester Avenue on the south, which is on the left of the screen running to the north on the right of the screen. You see the existing 2900 Westchester Avenue building here on the left. And then the townhouses, of a much lower scale, further to the right set back.

Here's a photo simulation from approximately the same location. You can see the 2900 building in the foreground. You can see the 2700 building in the left-hand photo barely in the background. And again, with those townhouses proposed of a little bit lower

PROCEEDINGS

scale, and certainly set back behind significant vegetation.

This is from the Purchase Professional Park on Westchester Avenue. You're looking north/northwest. Again, existing on the left, proposed on the right. Very difficult to see the townhouses through that existing vegetation, and even harder to see through the new office building that's going to be constructed right in the foreground there.

Here's a section running from Brook Lane in Rye Brook on the right up towards the 2500 Westchester office building on the left. And you can see again, the scale of the townhouses, and the distance between the existing residential neighborhood in Rye Brook and the existing office building.

Here's a picture, again, existing on the left, proposed conditions on the right. So you have a wooded vegetative buffer in between the existing homes in Rye Brook that will be maintained with this project. And then the addition of the residential scaled and product type, a few hundred feet away.

PROCEEDINGS

This is a section from Knightsbridge Manor Road all the way on the left coming down the hill, across the parking lot for the 2500 building, down the hill to the project site. There's no before and after visual simulation because you -- you simply cannot see the site, so we just included a before picture and the significant vegetation, as well as the distance preclude any views from the road to the project site.

And now I'm going to turn it over to Rob Aiello with JMC to go through the water, wetlands, stormwater sections.

MR. AIELLO: Thank you very much, Peter. Good evening, Mr. Chairman, members of the board. My name is Rob Aiello. I'm a professional engineer with firm of JMC.

The slide we have up on the screen now shows the 2700 parcel and the three existing wetland areas on the property. The wetland area to the top of the page is actually a stormwater management pond that serves the upper 2500 Westchester Avenue parcel, the existing office building to remain. And the

PROCEEDINGS

wetland area to the south is a stormwater management area for the 2700 parcel. There's also a small wetland to the east of the developed area. And the Blind Brook is the site's eastern boundary shown in blue on the slide.

So what you'll notice here is that in existing conditions, the 100 year floodplain for FEMA is shown in orange. And we've located that on our plan using the elevations in the FEMA study as our surveys and the same data as the FEMA study. And what you'll notice is the existing developed portions of the property do not encroach in the existing 100 year floodplain. And the mapping was actually -- you know, seemed to be visually accurate during Ida, as the applicant witnessed, you know, that the stormwater from the Blind Brook did not actually go into the developed area, did not enter into the existing parking lot.

So with that, we can go to the next slide. Thank you. So here's the same vantage point in proposed conditions with the project. And you'll see that the proposed project really

PROCEEDINGS

stays within the existing developed footprint of the site where the existing office building and parking areas are.

As we went through our stormwater analyses in the DEIS, you know, we've identified that the project actually reduces impervious coverage on the property by about 12 percent, which is about a half an acre. And that when we incorporate the stormwater management requirements for the town and for NYS DEC, because it is a complete redevelopment of the site, we're applying the full standards as though it were a new project, that on average in the storms analyzed, you know, we have a 60 percent reduction in peak rates of runoff on average for all three storms, and that the volume of stormwater runoff, is on average, about 50 percent reduced. So there's a significant reduction in both peak rates and volumes in the various storms analyzed. The lower storms are a little bit higher in those reductions, and the larger storms are a little bit lower, but these are the averages of the storms that we analyzed.

PROCEEDINGS

The project does not include any encroachments into the floodplain or the floodway of the Blind Brook. The orange area is also shown on this plan for reference, as we had it in existing conditions.

Identified in white is a 50-foot easement that is along the Blind Brook, and that was in response to some comments and a request from the town engineer that we allocate an area on the property that could be used for potential future improvements as part of the more macro improvement process, if that's ever undertaken by the municipality. So we've identified this 50-foot area as being an easement offered for future flood management.

But in addition, based on some substantive conversations with the town engineer, we're also investigating the feasibility of perhaps providing additional flood storage in this undeveloped portion of the property. So we will be studying that as part of the FEIS process.

The next slide, please. Our office also prepared a traffic report that was included in

PROCEEDINGS

the DEIS. There were five intersections analyzed, as shown on the graphic on the right. So we did traffic counts in September of 2021, and then we used prior counts to adjust the counts that we undertook to be, you know, adjusted for pre-pandemic levels.

So with the reduction or the removal of the 2700 square foot -- the 2700 office building and then replacing it with the 69 townhomes, there is a significant reduction in vehicle trips in the peak hour. Some 108 fewer trips during the weekday a.m. hour, peak hour, 97 fewer trips during the weekday p.m. hour, and 24 fewer trips on a Saturday midday.

In addition to these reductions, we've also shown that the actual capacity analyses show decreased delays at these intersections compared to the no-build condition.

So that's kind of an overview of the traffic study and the reductions in traffic resulting in the conversion of office to multifamily residential.

MR. MANDELBAUM: Thank you, Rob.

Peter just has a couple of more slides.

PROCEEDINGS

We thank you for indulging us. These are important items that we would just like to cover quickly, and then we'll be happy to answer any questions.

MR. FEROE: Thank you, Seth. And the last two pieces I just want to cover are the alt -- the first is the alternatives. Obviously, as required by SEQRA, the DEIS did look at several alternatives to the proposed project, including the no-action alternative in which the zoning wasn't adopted. An alternative where the 2700 building was renovated to attempt to increase leasing. It's noted that the building actually has been renovated a few times, and added some new amenities and it has not produced any results.

And then the last -- the last alternative that was analyzed is a new multifamily apartment building, which while technically would be permitted under the SB-O multifamily, it's important to note that no one is proposing this. The applicant's not proposing this. And though it is permitted -- would be permitted by the zoning, it would have to undergo a special

PROCEEDINGS

permit process, and it's own SEQRA review. But again, as required by SEQRA, we did look at those impacts if that site were development to it's maximum potential. And that's all laid out in the DEIS.

Finally, as required by SEQRA, because the action that the applicant's requesting is a zoning amendment that would apply to sites other than the project site, the DEIS did look at the other areas zoned SB-O, and what the potential for those other areas to be redeveloped as multifamily would be. So we kind of grouped those areas into two -- two sections, east and west of the teardrop, which is located in the middle. So on the west -- these are predominantly medical office and educational uses. They're very stable right now. Those markets have experienced much less recent pressure, and there really isn't a lot of redevelopment pressure right -- right now. And so therefore, redevelopment of those properties to residential, really is not reasonably foreseeable with the adoption of this zoning.

PROCEEDINGS

On the east side, there are kind of three sets of parcels. There is the 2500, 2700 site, which is analyzed in our EIS. There's the Webb Avenue parcel, which has its own EIS. The Purchase Professional Park, 3000 to 3040, four office buildings constructing a fifth. That's not likely to be redeveloped into residential any time soon. So that leaves 2900 and 2975, again, as theoretically possible for redevelopment as multifamily.

Again, it's important to note, there are no actual plans or proposals to do so that the applicant is aware of. They would require their own SEQRA reviews. But nonetheless, the DEIS did analyze a potential maximum build-out scenario of those two parcels and presented those impacts in the EIS.

And that concludes our very, I swear, quick overview of the EIS. And happy to answer any questions, and more importantly, listen to those public comments. Thank you very much.

THE CHAIRMAN: Thank you. Since we have a public hearing scheduled for tonight, let's have a motion to open the public hearing.

PROCEEDINGS

MR. STOUT: So moved.

MR. SPANO: Second.

THE CHAIRMAN: Okay. Thank you. All in favor.

(Board members respond.)

THE CHAIRMAN: The public hearing is now opened.

Does anybody here participating in the meeting that wants to speak about this application?

MR. CLEARY: Mr. Chairman, if I can just clarify one point. This is a public hearing with respect to the Draft Environmental Impact Statement. Under the rules of SEQRA, it requires that all of the comments are addressed in writing completely in the Final Environmental Impact Statement. Mr. Mandelbaum has said several times, we'll be ready to answer questions. There would be no answers to questions this evening. Those questions would be answered in full and in writing in the Final Environment Impact Statement document. So a

PROCEEDINGS

little bit of patience is required.

THE CHAIRMAN: Okay. With that being said, is there anybody here who wants to talk about the DEIS? Did we have anybody register, Roe, that you know of?

MS. CUSUMANO: No, we did not.

THE CHAIRMAN: Okay. Do you -- Pat, do you think we're running into some issues with the timing of this?

MR. CLEARY: So I think there might have been confusion about moving to a remote meeting, it's a difficult week. So perhaps that's an issue with people participating.

Just to be clear, if anybody does want to speak, you can use the raise hand function in your Zoom or you can actually just wave your hand so we can see you.

MS. REICH: Can I just -- can I just ask for a little clarification just for us to emphasize something here. This Draft Environmental Impact Statement is assessing not only the impacts of 2700 Westchester Avenue, but the change that would occur given the change in the text; is that correct?

PROCEEDINGS

MR. CLEARY: That's correct, Nonie. So as Peter just described, those two areas to the west and east of the teardrop are evaluated in the document, yes.

MR. REICH: Got it. Okay. And there was some -- I don't -- we can talk about this more next time, but there was discussion earlier as to, you know, the board -- the board looking at this change in -- you know, change in the zoning, if you will. And I -- I don't know really where the board came out on that in the text -- the change in the text. This -- this development might look great, but I don't know where we came out in the text. And I don't know how and where we're going to discuss that, in this meeting or later or --

MR. CLEARY: Go ahead, Seth, if you'd like to respond to that.

MR. MANDELBAUM: No, after you, Pat.

MR. CLEARY: So Nonie, I was just going to say, part of the action that is under the umbrella on this Environmental Impact Statement is the zoning text referral that the town board has sent to you. So it is this process that

PROCEEDINGS

will allow you to also evaluate the zoning text amendment, along with the zoning -- the broader zoning amendment and the project itself.

MS. REICH: But the thing that I find -- I really don't -- I don't know who does not have their -- I'm hearing music. Does somebody -- thank you.

The -- the redevelopment of this site I think is prudent. I mean, I'm just going to say right there. I think it's terrific, if you will. But we're -- I think this topic has come up so many times that we're seeing -- there's so many apartments that are doing beautifully, but we don't really have residents living in them yet. And so while all these proposals have come up, you know, that we've approved, we haven't really tested it yet. So I'm not quite sure where to come out on really accepting a full-blown text amendment, even if it is only dealing with maybe one or two other building sites.

You know, I get it that WESTMED probably isn't going to need any attention on this. And really, does it seem like a big deal, you know,

PROCEEDINGS

to change the text, but we don't really know. We've approved an awful lot. And again, this site is terrific. And I don't know why we're lumping the two together. I think it could be -- it could be fine, but I just don't know why we don't give this a little time to come to fruition and see if all of these projections that we've looked at over the past three years, once we have all those wonderful new people in our community, whether -- whether the analyses were correct, rather than --

MR. MANDELBAUM: May I --

MS. REICH: Yeah.

MR. MANDELBAUM: May I briefly respond to that, Mr. Chairman?

THE CHAIRMAN: Yes, you can.

MR. MANDELBAUM: Just a couple of factual points. And it's been -- Nonie, it's been a few months since we had that joint meeting over the summer of the planning board and the town board, and this was -- one of the topics was, do we look at the whole corridor or we just limit is to the east side? And the consensus at that time was study the whole corridor and

PROCEEDINGS

let's see what it looks like, and then the planning board will make it's recommendation at the end of the SEQRA process back to the town board.

But I also want to note, you know, the Toll Brothers project, which was sort of the first residential redevelopment, the last I heard, it was somewhere between 70 to 80 percent leased --

MS. REICH: I'm not talking about leasing. I'm thrilled. I heard that myself. I am absolutely thrilled. I mean, if we've approved these things, we want to see them be a success. I mean, that's the whole point.

MR. MANDELBAUM: Right.

MS. REICH: But I'm more concerned with how many kids really are going to be in the schools? I mean, all of those -- all of those impacts. How is the traffic really working on Westchester Avenue? How is the flow of -- you know, how are shopping and community service, and, you know, how is the whole infra -- structure, you know, working. Not only the infrastructure, but kind of the environmental

PROCEEDINGS

bubble, if you will. I don't --

MR. CLEARY: So just to illustrate the process, Nonie, each of those questions that you have now asked, will require the applicant to respond to you in the FEIS. So those --

MS. REICH: Oh, yes.

MR. CLEARY: -- these are questions you should raise, and the applicant's obligated to address them.

MS. REICH: Well, thank you. And I would like -- I would like specifically a little more clarity on why we need to tie up our approval of this particular beautiful application with the unknown of approving a whole text amendment, when we have so much so close to being teed up, and if we just has another year or two we could say hey, yeah, sure, let's change the text amendment here, we're doing great here.

MR. MANDELBAUM: Because we're not allowed to spot zone and --

MR. CLEARY: Seth, Seth, Seth, Seth.

MS. REICH: But you are spot zoning right now and that's -- your application could be a

PROCEEDINGS

spot zone thing, and you can make an argument for that, and I don't think it would be a bad argument.

MS. MANDELBAUM: All right. We'll respond in the FEIS.

MR. CLEARY: Thank you.

MS. REICH: Okay. I don't -- you know, it's a spot -- we've looked at spot zoning before, many times. Joe has his hand up.

MR. STOUT: Okay, Tom?

THE CHAIRMAN: Go ahead, Joe.

MR. STOUT: So can you just -- I apologize if it's in here, but, Rob, when you did the traffic numbers, you talked about you compared it to full occupancy at 2700. Did you study or if you didn't, would you study what it is under the existing 30 percent occupancy and what the traffic looks like between what it actually is today and what it would be with the new development?

And then the other thing is, I didn't see it, and I know we talked about it in a couple of meetings that you've been here, but is there an alternate entrance to the site that you

PROCEEDINGS

could study or at least propose that you looked at to get in. I mean, I would think that that's going to be a little bit of a drawback to folks, because you still have to use the shared driveway and you got to go past the existing 2500 office building. So those were my two comments.

Other than that, I think it's a really good project. And I think the big difference between this and the other ones, is that these are for ownership, not necessarily for rental, which is what the other ones are all being proposed as, which I think that's a big difference as well. Thank you.

THE CHAIRMAN: Thanks, Joe. I have a question about the density. And I can't remember if you did a study on -- I know you did a study on no-build versus, you know, this project the way it's laid out. But in looking at the plan, it looks like you have very limited amount of green space, amenity space, my -- and just my opinion. I may be totally off base here in looking at it, but it looks like you're asking for 69 townhomes, two-car

PROCEEDINGS

garages. It appears to be over -- overbuilt. So I just want to point that out, that it's something I'm thinking about as I look at the project. And it may -- it may help if we -- if we delve into that a little bit more, maybe even on site, walk around and just, you know, demonstrate. But in any effect, that's my comment. Anyone else?

MR. CLEARY: Mr. Chairman, I point out the engineering department has retained Woodard & Curran today to assist in the engineering review of the project. So recognizing that that has occurred, I would suggest that we continue the public hearing, even though we haven't had a lot of public comment tonight, it may be because of the holidays, it may be because of the remote meeting, but nevertheless, we need to give Woodard & Curran some time to review the plan and provide comments to you as well.

THE CHAIRMAN: Good point. Seth, do you have anything else you want to say before we adjourn the public hearing and continue it in January?

PROCEEDINGS

MR. MANDELBAUM: Sure. I would just ask that if at all possible, we get any comments from Woodard & Curran or any other consultant in a reasonable time in advance of the January 25th meeting so we have a chance to look at it before the meeting. Understanding that we'll respond in the FEIS, but to the extent we can get a peek at those at those before the meeting, that would be much appreciated.

THE CHAIRMAN: So you're asking engineering consultants to be timely on their reporting?

MR. MANDELBAUM: I dare to dream, Tom.

THE CHAIRMAN: That's a big ask --

MR. AIELLO: Hey, hey, hey --

THE CHAIRMAN: Rob, Rob, Rob, Rob, present company excluded.

MR. AIELLO: Thank you.

MR. MANDELBAUM: It's a fresh new year.

THE CHAIRMAN: Okay. So do we need a motion to --

MR. CLEARY: Yes, to adjourn to the January meeting.

MR. MANDELBAUM: January 25th; right?

PROCEEDINGS

THE CHAIRMAN: Yes.

MS. CUSUMANO: Yes.

MR. STOUT: I'll move it, Joe.

MR. DONAT: I'll second. Marshall.

THE CHAIRMAN: Okay. All in favor?

(Board members respond.)

THE CHAIRMAN: Thank you very much.

(Time noted: 7:43 p.m.)

C E R T I F I C A T E

I, MARCI LOREN DUSTIN, a Certified Court Reporter and Notary Public of the State of New York, do hereby certify that the transcript of the foregoing proceedings, taken at the time and place aforesaid, is a true and correct transcription of my shorthand notes.

Marci Loren Dustin

MARCI LOREN DUSTIN

Court Reporter

D

E

T

December 23, 2021

Rosemarie Cusumano, Secretary
Town/Village of Harrison Planning Board
1 Heineman Place
Harrison, NY 10528

County Planning Board Referral File HAR 21-003C – 2700 Westchester Avenue Redevelopment
2500-2700 Westchester Avenue
Zoning Text Amendment and Special Exception Use
Draft Environmental Impact Statement

Dear Ms. Cusumano:

The Westchester County Planning Board has received a draft environmental impact statement (DEIS) (dated accepted November 23, 2021) with respect to a proposal to redevelop an existing office property with 69 "for-sale, high-end townhomes". The townhouses would each be three-bedroom, 3,000 square foot, three-story structures that would be attached into larger buildings of four to six units. The development is proposed for an existing office property located at 2500-2700 Westchester Avenue that contains two office buildings and surface parking. The petitioner proposes to subdivide the property so that the existing building at 2500 Westchester Avenue would remain and the building at 2700 Westchester Avenue would be demolished to accommodate the townhouse development on a separate tax lot, with access to Westchester Avenue via the existing office park driveway. The site is zoned SB-O, which is the same zoning district that comprises the "teardrop" area of the Westchester Avenue corridor, which has recently been the subject of several development proposals, including residential apartments.

To accommodate the proposed townhouses, the petitioner is seeking to amend the Harrison Zoning Ordinance to add more flexibility for allowing SB-O Multi-Family Residential developments by special exception use permit approval from both the Planning Board and the Town/Village Board. The changes would essentially open up a second area of the Westchester Avenue corridor with SB-O zoning to residential and mixed-use development, and would also allow townhouses as a permitted use. This new area of development centers around Exit 10 of the Cross Westchester Expressway (I-287) where Westchester Avenue splits into a pair of one-way roads on each side of the expressway. This area, which has also been the focus of a recent development review on Webb Avenue, has the potential to become a second node of mixed-use development if the zoning amendments were to be adopted. Previously, residential uses were only permitted in the "teardrop" area.

Our review of this matter under the provisions of Section 239 L, M and N of the General Municipal Law and Section 277.61 of the County Administrative Code has been ongoing since the initial draft zoning text amendment associated with this proposal was referred in March of this year. We have responded twice to the Town/Village, first in a letter to the Supervisor/Mayor dated April 21, 2021, and later in a response to the draft scoping document for the preparation of the EIS, dated July 19, 2021.

We also point out that we have sent additional letters to the Town/Village with respect to referrals for development applications on sites within the SB-O zoned area that would be impacted by the proposed zoning amendments. These letters were dated November 24, 2020 with respect to a DEIS for a 200-unit apartment building proposed for Webb Avenue, and July 27, 2021 for the renewal of an expired approval to construct a 46,000 square foot office building and 232-space parking garage within the Purchase Professional Park.

We have reviewed the DEIS under the provisions of Section 239 L, M and N of the General Municipal Law and Section 277.61 of the County Administrative Code. Although we have commented extensively on this application already, including specific comments asking for revisions to the scoping outline for the DEIS, the DEIS did not address the following topics:

- The public policy section did not include a discussion of the County's affordable housing policies
- The DEIS did not sufficiently discuss road connectivity and circulation issues, particularly for non-motorized forms of transportation and transit riders
- The DEIS did not discuss the County Department of Environmental Facilities' policy that municipal governments require the applicant to identify mitigation measures that will offset the projected increase in sewer flows

As a result of the above omissions, we do not agree that the DEIS should have been accepted as complete. The Harrison Planning Board must consider the above topics in its responsibility as Lead Agency to take a "hard look" at the relevant impacts of this zoning change. Since these concerns were entered into the public record as part of our July 19, 2021 letter with respect to the scope of the DEIS, it is unclear if they were given the meaningful review and consideration that is required under SEQR's "hard look" standard.

In addition to the above topics, any further SEQR review must also consider the following:

1. Sufficiency of the existing comprehensive plan to support the proposed zoning changes.

The Town/Village of Harrison has not updated its comprehensive plan since 2013, and the 2013 plan only discusses the application of mixed-use or residential development within the "teardrop" area of the Westchester Avenue corridor. Because the proposed zoning amendments will essentially open up a second area of the Westchester Avenue corridor with SB-O zoning to residential and mixed-use development, the impacts of these zoning changes go beyond the subject site and should be analyzed as part of a new comprehensive planning effort that should either supplement or replace the 2013 comprehensive plan.

In discussing the introduction of mixed-use and residential development within the "teardrop" area, the 2013 comprehensive plan highlighted several areas of concern, including the lack of connectivity between the various dead-end roadways within the area. Page 75 of the comprehensive plan states "providing for an improved internal roadway network – compete with sidewalk connections to accommodate pedestrians – would create a greater set of amenities and enhance the overall developability of the subarea". The plan went on to specifically recommend that "any new development or substantial redevelopment must include street and sidewalk connections to adjacent properties".

Since the adoption of the 2013 comprehensive plan, several properties within the "teardrop" area have begun the process of being redeveloped. With each redevelopment, our referral response letters have documented the challenges and concerns, and in some cases, the Town/Village has not followed through on the recommendations contained within its own comprehensive plan. Development applications have been approved and constructed without connections, without sidewalks and without safe, ADA-compliant facilities to connect the County's bus passengers to the entrance of buildings. Given these results – in a geographic area that actually had the benefit of comprehensive planning – the Town/Village should not proceed with mixed-use or residential development in a new geographic area without first establishing a comprehensive vision for this area. We offer the following observations in support of our argument:

a. Difficult road geometry and safety concerns.

The DEIS includes traffic crash reports within the DEIS study area for the time period between March 1, 2017 and February 29, 2020. During that time period, there were 94 crashes within the study area, one of which resulted in a fatality. The majority of these crashes (68, including the fatality) were located at the intersection of Westchester Avenue and Webb Avenue which is a difficult intersection that contains both traffic signals and merging traffic lanes that are very close the subject site's driveway. This intersection also lacks many safety elements, such as sidewalks and crosswalks, which is of particular concern for Bee-Line bus passengers who need to navigate a complicated series of one-way roads split by a highway to get from bus stops to building entrances.

While many of development challenges that were discussed in the 2013 comprehensive plan for the teardrop area remain relevant for this second SB-O zoned area to be opened up to new residential and mixed-use development (as discussed below), this area has the additional obstacle of being centered around difficult, high-volume intersection that lacks any pedestrian facilities. Earlier this year we pointed out in a letter dated July 27, 2021 that the recent expansion of the medical office facilities located in the Purchase Professional Park has placed additional transportation pressures on this area, particularly with respect to Bee-Line bus passengers who have difficulty getting to medical appointments or employment at this site.

Because the subject proposal, as well as the proposed 200-unit apartment building on Webb Avenue and the proposed 46,000 square foot expansion of the Purchase Professional Park, will only increase the pressures on this intersection, the Town/Village must work with NYS DOT to improve this intersection so that crashes are reduced and so that all users of our transportation system are accommodated with all future development.

b. Lack of pedestrian connections, sidewalks and bicycle infrastructure.

As we have continued to point out, the sidewalk network along the Westchester Avenue corridor is incomplete. Before any additional development occurs within the study area, bicycle and pedestrian safety concerns should be accounted for. The current driveway for 2500-2700 Westchester Avenue does not have a complete, ADA-compliant sidewalk, which should be remedied as part of the proposed development. In addition, as discussed above, there is a dire need for pedestrian facilities within the study area which includes additional parcels that would be impacted by the proposed zoning. No future development should proceed in this study area without pedestrian facilities, including sidewalks and crosswalks. Bicycle infrastructure, such as bike lanes and bike parking should also be added to this area going forward, particularly since Bee-Line buses now have bike racks and the distances between important destinations in the area are often too far to walk, but suitable for bicycle transportation. For example, it is not uncommon to see bicycles chained to trees within the Purchase Professional Park, so it is clear that this form of transportation is already occurring here.

We recommend that the Town/Village consider the work of some of Westchester's other municipalities as guidance. In particular, we point out that the Route 119 and Route 9 corridors have both been studied for non-motorized facilities to remedy conditions that area similar to those of the Westchester Avenue corridor within the study area. We encourage the Town/Village to consider if a similar study can be done in conjunction with NYSDOT for Westchester Avenue. Perhaps a solution would be to re-work this area with multi-use pathways which can accommodate both pedestrians and cyclists. We point out that the County Department of Planning has applied for grant funding twice to explore implementing facilities for pedestrians and bicycles along the Westchester Avenue corridor. These applications had widespread support among local residents, elected officials and property owners along the corridor.

c. Unsafe access to bus stops.

While the expansion of medical office facilities at the Purchase Professional Park has already resulted in greater transit ridership in this area, the addition of residential uses to the area (as well as additional medical office or commercial spaces) will likely continue that trend, particularly for domestic employees who may need to travel to these residential areas to work, or for children who live in these new developments who may need to access bus transportation since they are too young to drive. It is imperative that transit riders be accommodated as part of the any redevelopment within this area that may result from the proposed zoning amendments. The FEIS should acknowledge these impacts and discuss a plan to work with NYSDOT and transportation staff from the County Department of Planning to address bus passenger access and safety.

d. Continued lack of relationship between sites.

With respect to the "teardrop" area, the 2013 comprehensive plan calls for "sidewalk connections to adjacent properties". This must also be considered for the study area, which is now the focus of similar residential development. In addition to completing the sidewalk along the site's driveway out to Westchester Avenue, there should also be pedestrian access between the subject site and the Purchase Professional Park. This is particularly important for anyone who works in the immediate vicinity and chooses to live in the proposed development, or any other new development that results from the proposed zoning amendments. We point out that the Webb Avenue residential proposal featured pedestrian connections to the adjacent 800 Westchester Avenue office park property. This should be done throughout this SB-O zoned area as it is opened up to more development. As noted above, particular attention must be paid to getting pedestrians across Westchester Avenue.

2. Affordable affirmatively furthering fair housing.

The acute shortage of affordable housing in Westchester County has been documented in the County's *Housing Needs Assessment* and it is critical for all of Westchester's municipalities to play a role in meeting this need, particularly since the economic and social impacts of this affordable housing shortage are spread throughout the county. We point out that the County's Model Ordinance Provisions require that:

> *Within all residential developments of 10 or more units created by subdivision or site plan approval, no less than 10% of the total number of units must be created as affordable AFFH units. In residential developments of five to nine units, at least one affordable AFFH unit shall be created.*

The recommendation to include affordable AFFH in all residential development proposals has been consistently made to the Town/Village for over a decade. Because the proposed zoning text amendments will open up a substantial area to the potential for additional mixed-use development, we do not recommend implementing these zoning changes without including a provision for a minimum set-aside of 10% for affordable affirmatively furthering fair housing. The Town/Village should also not approve any proposed residential development on this site unless it has at least 10% of the units set aside as affordable AFFH.

3. Green building technology

We encourage the Town/Village to include a requirement for green or sustainable building technology into all development along this corridor. Such efforts are increasingly common – and expected. Many communities have begun amending local codes to make "green" design and building practices mandatory. Further, developments that have a type of environmental certification are recognized as environmentally responsible, profitable and healthy places to live and work. These developments are often seen as premium properties.

Nationally recognized systems (i.e. Energy-Star, LEED or Passive House certification) and organizations can assist the Town/Village in recommending sustainable elements of building and site design and in the ongoing assessment of the projects. Site elements include reduced site disturbance, alternative transportation opportunities and stormwater treatment. Building elements include energy and water efficiencies, environmentally sensitive building materials and green rooftops.

Please inform us of the Town/Village's decision so that we can make it a part of the record.

Thank you for calling this matter to our attention.

Respectfully,
WESTCHESTER COUNTY PLANNING BOARD

By: Norma V Drummond

Norma V. Drummond
Commissioner

NVD/LH

cc: Lance MacMillan, Regional Director, NYS Department of Transportation, Region 8
Anne Darelius, NYS Department of Transportation, Region 8
Christopher Lee, NYS Department of Transportation, Region 8

NEW YORK STATE OF OPPORTUNITY. | Department of Transportation

KATHY HOCHUL
Governor

MARIE THERESE DOMINGUEZ
Commissioner

LANCE MacMILLAN, P.E.
Regional Director

01/20/2022

Thomas Heaslip, Chairman
Town of Harrison Planning Board, Harrison Town Hall
1 Heinemann Place, Harrison NY 10528

Re: SEQRA# 21-120
2700 Westchester Ave Redevelopment
2500-2700 Westchester Avenue
Harrison, New York, 10577

Dear Mr. Heaslip:

The New York State Department of Transportation (NYSDOT) is in receipt of the Site Plan and Full Environmental Assessment Form for the subject proposal. The NYSDOT consents to the Town of Harrison Planning Board serving as Lead Agency for the SEQRA review of the Project.

The Applicant must ensure that the existing sidewalk, ramps, and pedestrian facilities in the public Right-of-Way are ADA compliant. Please provide NYSDOT standard details for any needed upgrades.

The traffic impact study provided has been reviewed and concluded that the project has minimal impact on the State Highway system.

Please submit subsequent plans and documents for this project as well as those for any future development proposals in DIGITAL (.pdf) FORMAT –CD, DVD or Thumb drive. Documents can also be sent to my email at David.Groucher@dot.ny.gov

Very truly yours,

David A. Groucher
Construction Specialist 1
New York State Department of Transportation, Hudson Valley
Traffic & Safety Group, R8
4 Burnett Blvd, Poughkeepsie NY 12603
(845) 431-5897 | david.groucher@dot.ny.gov | www.dot.ny.gov
NEW YORK STATE OF OPPORTUNITY. | Department of Transportation

Woodard & Curran Engineering
and Geological Services P.A. P.C.
800 Westchester Avenue
Suite N507
Rye Brook, New York 10573
www.woodardcurran.com

T 800.426.4262
T 914.448.2266
F 914.448.0147

MEMORANDUM

TO: Town/Village of Harrison Planning Board

CC: Michael Amodeo, P.E., C.F.M., Town Engineer

FROM: Jennifer L. Martinez Torres, P.E., on behalf of Anthony C. Catalano, P.E., BCEE

DATE: January 24, 2022

RE: 2700 Westchester Avenue - Redevelopment
Technical Review of Draft Environmental Impact Statement
Tax Max Block 611, Lot 3

GENERAL

The purpose of this memorandum is to provide a summary of our technical review of the Draft Environmental Impact Statement (DEIS) for the townhome development proposed at 2700 Westchester Avenue in Harrison, New York.

The subject property is composed of a 24.6-acre lot known as the "2500/2700 Parcel." The Applicant is proposing to subdivide the existing parcel into 2 lots: the 2500 Lot and the 2700 Lot. The existing parcel is bounded by Westchester Avenue to the South, private residences to the West, and Blind Brook on the East. The subject property contains environmentally sensitive areas including wetland areas, steep slopes, and a 303(d) impaired waterbody. The 2500 Lot is not proposed to be disturbed as part of this development.

The Proposed Action is the redevelopment of the existing office building and parking area on the 2700 Lot into 69 new high-end townhomes with associated driveways. The development will include on-site stormwater management, will provide residential walking paths, a bocce court, putting green, and other recreation spaces. The Proposed Action disturbs wetland area, wetland buffer areas, but is not located within the 100-year flood plain.

On November 23, 2021, the Town/Village of Harrison Planning Board approved a resolution for the Notice of Completion of the Draft Environmental Impact Statement (DEIS) for the 2700 Westchester Avenue – Redevelopment. The DEIS was prepared based on a Scoping Document which contains the items described in 6 CRR-NY Part Section 617.8 (e)(1) through (e)(7) and Section 617.9 (b)(1) through (b)(7). The Applicant submitted the following documents for circulation and review:

- Cover Letter, *"Re: 2500/2700 Westchester Avenue Owner SPE LLC, Petition for Zoning Amendment, 2500-2700 Westchester Avenue, Harrison, New York,"* prepared by McCullough, Goldberger & Staudt, LLP, dated November 2, 2021.
- Report & Appendices, *"2700 Westchester Avenue, Draft Environmental Impact Statement (DEIS),"* prepared/coordinated by AKRF, Inc., dated November 2, 2021.
- Revised Report Section, *"Chapter 6: Community Facilities,"* prepared by AKRF, Inc., dated November 16, 2021.

- Plans, *"Preliminary Site Plans, 2700 Westchester Avenue, Tax Map Section 611, Lot 3, Westchester County, 2700 Westchester Avenue, Purchase, NY 10577,"* prepared by JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC, dated November 2, 2021.

The scope of our technical review focused on the following categories as noted in the Scoping Document:

- Executive Summary
- Project Description
- Land Use
- Geology, Soils, Topography
- Recreation and Open Space
- Solid Waste and Recycling
- Infrastructure and Utilities
- Stormwater Management
- Floodplains
- Hazardous Materials
- Construction
- Alternatives

DISCUSSION

The following is a summary of our comments related to the technical review of the DEIS. The Applicant shall note that additional comments may be provided upon review of subsequent submittals.

A. Geology, Soils, Topography

1. The Applicant shall revise the existing and proposed building lot coverages shown on Table 4-2 of the DEIS to be consistent with the area takeoff summary tables provided on the drainage area maps in the Stormwater Pollution Prevention Plan (SWPPP).

B. Recreation and Open Space

1. The Applicant shall clarify in the DEIS report the proposed maintenance for the permeable walking path.

C. Infrastructure and Utilities

1. The Applicant shall provide an estimated peak hour water demand for the facility. The adequacy of the water utility design of the proposed development shall be governed by its ability to meet peak hour water demands.

2. Appendix H, Water and Wastewater Usag Tables, does not provide fire flow demand for the proposed development. The Applicant shall provide an estimated fire flow demand and all assumptions.

3. The Applicant shall verify that adequate pressure and volume is available for the proposed development. The Applicant shall also include the following in their discussion:

   i. Will the proposed hydrants have adequate pressure to meet peak hour demand? Analysis of the ability of the water system to meet the proposed development's demand should account for peak hour demands.

   ii. Discuss the anticipated impacts of the proposed development's peak hour water demand on the wider Westchester Joint Water Works system. The American Water Works Association recommends a minimum normal operating pressure of 35 psi, and the Westchester County Department of Health requires an absolute minimum pressure of 20 psi at all points in a water system. Indicate and provide justification to clarify whether the anticipated peak hour water demand at the proposed development site will cause any areas of the Westchester Joint Water Works system to experience pressures less than the recommended minimum pressure of 35 psi during non-fire flow conditions. Indicate and provide justification to clarify whether the anticipated fire flow demand at the proposed development site will cause any areas of the Westchester Joint Water Works system to experience pressures less than the recommended minimum pressure of 20 psi.

4. Appendix H, Water and Wastewater Usage Tables, provides anticipated wastewater usage for each office space floor. The Applicant shall update the Total Daily Water Consumption Rate for the third floor.

5. On Sheet C-300, the Applicant shall revise their drawing to include direction of each pipe invert entering a manhole.

6. On Sheet C-300, the Applicant shall revise their drawing to display k-crete where sufficient horizontal coverage is not provided (i.e., above the frost line).

7. The Applicant shall clarify how the connection to the existing Town/Village manhole will be made (e.g., bypass pumping).

8. The Applicant shall provide a Will Serve Letter from the WCDEF stating that the Blind Brook WTF can accept wastewater flow from the development.

9. The Applicant shall provide copies of the CCTV footage showing the condition of the existing sanitary sewer piping.

10. The Applicant shall expand the current sanitary sewer language or provide a separate sanitary engineering report that includes supporting calculations of the reported wastewater generation rate for the proposed development in accordance with the NYSDEC Intermediate Sized Wastewater System Design

Standards, 2014. The additional discussion shall include, but is not limited to pipe slopes, capacity percentages, pipe materials, and the peaking factor considered for calculation of the peak flow.

11. On Sheet C-300, the Applicant shall revise their drawing to show adequate horizontal separation between utilities (i.e., minimum of 3 feet between water and gas/electric).

D. Stormwater Management

1. The Applicant shall indicate in the DEIS report and SWPPP that Blind Brook is a 303d Listed and Impaired Water of the United States based on the Final 2018 Section 303(d) List from the NYSDEC.

2. The Applicant shall revise the SWPPP to indicate that inspections will need to be two times every seven days separated by a minimum of two calendar days since runoff from the site discharges directly to a 303d impaired waterbody (per the requirements in the SPDES General Permit).

3. The Applicant shall clarify in the SWPPP that areas where soil disturbance activities are temporarily or permanently ceased shall be stabilized within seven days from the date the current soil disturbance activity ceased. Note that this work shall be completed within seven days and not 14 days since site runoff discharges directly to 303d impaired waterbody.

4. The Applicant shall clarify in the SWPPP that the person responsible for implementation of the SWPPP shall have received four hours of NYSDEC endorsed training in proper erosion and sediment control principles and after the initial training, shall receive four hours of training every 3 years.

5. The Applicant shall revise the EDA-1A drainage area breakdown in the PondPack model to be consistent with the drainage area quantities provided on DA-1.

6. The Applicant shall revise the description for EDA-1C in the DEIS narrative and the SWPPP. The description says that the entire area drains to the existing pond to the north, but it appears that a portion of that area will be collected by the drainage network discharging to the pond to the south. The PondPack model shall be revised accordingly.

7. The Applicant shall revise the PDA-1A drainage area breakdown in the PondPack model to be consistent with the drainage area quantities provided on DA-2.

    i. The Applicant shall revise the description for PDA-1A to indicate that the drainage area consists of four groupings of townhouses per DA-2.

    ii. The Applicant shall clarify how the runoff from the northernmost townhouses in PDA-1A will be collected and conveyed to the proposed infiltration system for treatment.

8. The Applicant shall revise the description for PDA-1B in the DEIS narrative and in the SWPPP. The description says that the runoff flows overland to proposed Detention Pond #1B. However, a portion of the drainage area (from the townhome and internal roads) will drain towards the collection system to be routed through a hydrodynamic separator for treatment.

    i. The Applicant shall also revise the PDA-1B areas provided in PondPack to be consistent with the summary table provided on DA-2.

9. The Applicant shall revise the description for PDA-1C in the DEIS narrative and in the SWPPP. The description says that the runoff flows overland to proposed Detention Pond #1B. However, the drainage area (from the townhome and internal roads) will drain towards the collection system to be routed through a hydrodynamic separator for treatment. The runoff is then discharged to the detention pond east (downstream) of Detention Pond #1B.

    i. The Applicant shall also revise the PDA-1C areas provided in PondPack to be consistent with the summary table provided on DA-2.

10. The Applicant shall revise the description for PDA-1D in the DEIS narrative and in the SWPPP to indicate that this drainage area flows overland into the Blind Brook.

    i. The Applicant shall discuss whether the areas within PDA-1D can be collected and conveyed to the proposed hydrodynamic separator upstream of Pond #1B so that the impervious areas can be treated.

    ii. The Applicant shall also revise the PDA-1D areas provided in PondPack to be consistent with the summary table provided on DA-2.

11. The Applicant shall revise Table 8-5 in the DEIS to be consistent with the impervious areas shown on the Proposed Drainage Area Map, DA-2.

12. The Applicant shall revise Table 2 (runoff) in the SWPPP to be consistent with the results provided in the PondPack results.

13. The Applicant shall revise Table 7 in the SWPPP to be consistent with the WQv/RRv calculations provided in the appendices.

14. The Applicant shall revise the contributing new impervious areas in Table 8 of the SWPPP to be consistent with the takeoff summary table provided on DA-2.

15. In Section IV of the SWPPP, the Applicant notes that the site and downstream outfall facilities were inspected by JMC. The Applicant shall clarify whether a CCTV inspection was performed in this location. The Applicant shall note that CCTV footage may be required by the Town during Site Plan to ensure that the existing infrastructure is in acceptable condition.

16. The Applicant shall revise the reference to the NYSDEC Stormwater Management Design Manual in Section V of the SWPPP to reference the January 2015 version (latest version).

17. The Applicant indicated in Section VII of the SWPPP that "[e]ven though there will be a decrease in impervious area, proposed stormwater management systems are being proposed to meet the Town of Harrison Land Development requirements." The Applicant shall clarify that despite the reduction in impervious surfaces, post-construction stormwater quality controls are required per the SPDES General Permit in addition to the requirements of the Town of Harrison Land Development form.

18. The Applicant shall revise the summary of pretreatment in Section VII of the SWPPP. The Applicant shall also provide a description of the proposed pretreatment for the infiltration practice.

19. The Applicant is proposing to treat the water quality volume using infiltration practices and hydrodynamic separators. The Applicant shall provide the following information in the SWPPP:

    i. The Applicant shall provide delineations for the new development and redevelopment areas.

    ii. The Applicant shall demonstrate that all new development areas are treated via the infiltration system.

    iii. The Applicant shall provide percolation tests and deep hole test results which demonstrate the feasibility of an infiltration practice per the requirements in Chapter 6 of the New York State Stormwater Management Design Manual.

    iv. The Applicant shall provide pretreatment upstream of the discharge into the infiltration practice. The required pretreatment volume shall be based on the infiltration rate as required in the NYSDEC Stormwater Management Design Manual.

20. The Applicant shall clarify the following information for U-INF-1A (infiltration system):

    i. The Applicant shall clarify if the pond volume for the infiltration system accounts for stone below the bottom of the proposed stormtrap units. The Applicant shall also provide a detail of the proposed cross-section of the infiltration system.

    ii. The plans indicate that the total volume provided by the infiltration system is 22,067 cubic feet. The PondPack results indicate that the volume of the system is 20,051.57 cubic feet. The Applicant shall clarify this discrepancy.

iii. The Applicant shall clarify the storage of the system provided for water quality volume treatment. This storage volume is the total raw volume of the system under the proposed outlet invert of the system.

iv. The Applicant shall provide a calculation for the conversion of the infiltration rate for U-INF-A from inches per hours into cubic feet per second.

v. In the PondPack model, OCS-1A is provided as the outlet control structure for the infiltration system. The Applicant shall provide this structure on the plans. The Applicant shall also clarify the size of the proposed outlet pipe. It appears on the plans that the outlet pipe is a 12-inch diameter pipe.

vi. The Applicant shall clarify the survey data which indicates that the outlet control structure from the existing stormwater pond to the south has the top elevation at 81.05, the invert elevation at 81.31, and the weir elevation at 83.17.

21. The Applicant shall clarify where OCS-1B is proposed to be located on the plans.

22. The Applicant shall provide discussion in the SWPPP about the proposed 0.5 in/hr. infiltration rate for Pond #1B (PO-7).

23. The Applicant shall provide discussion in the SWPPP of the connection of the new RCP outlet pipe from the proposed outlet control structure of the south-eastern pond to the existing RCP discharge pipe to Blind Brook.

24. The Applicant shall provide a description in the SWPPP of the proposed stormwater management system which discusses which practices are being used for treatment, which practices are pretreatment, which practices are being used to provide storage of 3 inches over all newly created impervious surfaces, etc.

25. The Applicant shall provide a construction detail for the proposed stormwater detention ponds which demonstrates how the western pond discharges to the eastern pond.

26. The Applicant claims that the existing stormwater pond will be improved during construction. The Applicant shall discuss in the SWPPP how the proposed stormwater pond is different (i.e., capacity, depth, etc.).

27. The Applicant shall provide maintenance requirements for all proposed permanent stormwater controls.

28. The Applicant shall provide concrete washout areas to the erosion and sediment controls in the SWPPP.

E. Hazardous Materials

1. The Phase I Environmental Site Assessment Report conducted by Blackstone Consulting LLC is dated September 27, 2016. The Applicant shall provide an updated ESA for the subject property.

F. Construction

1. The Applicant shall clarify if a phasing plan will be provided to ensure that no more than 5 acres is open/disturbed at any given time. If the entire site is anticipated to be worked on, the Applicant shall note in the DEIS that authorization from the MS4 is required to disturb more than 5 acres.

2. In the *Sediment and Erosion Control* Section of Chapter 12: Construction, the Applicant indicates that silt fence would be placed in areas that receive concentrated flows. The Applicant shall revise this statement to be consistent with the silt fence description in the Preliminary SWPPP.

3. The Applicant shall revise the notes section on Sheet C-400 to remove all references to the Connecticut Department of Environmental Protection. The Applicant all ensure that all references to State code are for New York.

4. The Applicant shall confirm the drainage area for ST-2. Based on our takeoff, the drainage area is more than 7.0 acres.

5. The Applicant shall show construction fencing around the proposed infiltration system to prevent over-compaction during construction.

G. Alternatives

1. The Applicant shall revise Table 13-1 in The DEIS to include the Alternative B impacts.

H. General Comments

1. The Applicant shall clarify why NYCDEP SWPPP Approval is required for this project as shown in Section F. of the Executive Summary.

2. The Applicant shall revise the drawings to indicate a net fill as stated in the DEIS. The current cut/fill summary table on Sheet C-210 shows a "cut volume to be imported" of 439 C.Y.

3. The Applicant shall provide a scale bar on all preliminary site plans.

The sections pertaining to geology, invasive species removal, landscaping program, and alternatives are being reviewed and require further evaluation. We will submit these remaining review comments by next month's meeting.

Please feel free to contact our office with any questions or concerns, thank you.

PLANNING BOARD MEETING
TOWN/VILLAGE OF HARRISON, NEW YORK
---X

2700 WESTCHESTER AVENUE - REDEVELOPMENT

---X

January 25, 2022
7:14 p.m.

HELD VIRTUALLY VIA ZOOM

B E F O R E:
PLANNING BOARD MEMBERS:
THOMAS HEASLIP, CHAIRMAN
NONIE REICH
MARSHALL DONAT
JOSEPH STOUT
CHIP MARRANO
JEFFREY SPANO
KIMBERLY BURKAN

A P P E A R A N C E S:
FOR THE APPLICANT:
SETH MANDELBAUM, ESQ.
McCULLOUGH, GOLDBERGER & STAUDT, LLP
1311 Mamaroneck Avenue, Suite 340
White Plains, New York 10605

ALSO PRESENT:
PAT CLEARY, TOWN PLANNER

Ilana M. Nathanson, Court Reporter

2700 WESTCHESTER AVENUE - PUBLIC HEARING

THE CHAIRMAN: On to the meaty part of the agenda, which is the -- first item is 2700 Westchester Avenue, and this is a continuation of a public hearing on the DEIS.

So, Seth, I assume you represent the client still, so why don't you take it over.

MR. MANDELBAUM: I have not been informed otherwise, so --

THE CHAIRMAN: Okay. Good.

MR. MANDELBAUM: All right. Good evening, everyone. Happy New Year. Seth Mandelbaum of McCullough, Goldberger & Staudt on behalf of Senlac Ridge Partners, the owner of the 2500-2700 Westchester Avenue property. As you may recall from our previous presentations, this is a proposal to redevelop the 2700 Westchester Avenue property, to demolish the existing office building and construct 69 high-end townhomes on that site.

As you mentioned, Mr. Chairman, this is a continuation of the DEIS public hearing that was opened December 21st, 2021. We're not planning on repeating our presentation once again, since we did a quite extensive presentation back in December. We do have members of our team available if there's any fact questions. But for the most part, as you know, we're going to answer the comments from the board and the public in the FEIS. So depending on how it goes this evening, we would ask you to consider closing the public hearing if appropriate, and I know a written comment period is required by the SEQRA regulations of not less than ten calendar days. We would ask that you consider keeping that time period relatively tight since this is the second verbal public hearing and the DEIS has been public since late November, but I suspect you'll discuss that after we see how many comments there are.

THE CHAIRMAN: Let's have a motion to reopen the public hearing.

MR. MARRANO: I'll move. Chip.

MR. SPANO: I'll second. Jeff.

THE CHAIRMAN: Okay. All in favor?

(Board members respond.)

2700 WESTCHESTER AVENUE - PUBLIC HEARING

THE CHAIRMAN: Okay. Public hearing is now open. Is there anybody here on the Zoom call that wants to speak on this application?

MALE SPEAKER: We have a raised hand from Rozita.

THE CHAIRMAN: Okay.

MALE SPEAKER: Rozita, you're a panelist. You should be able to just unmute yourself.

THE CHAIRMAN: Rozita, can you tap on the microphone? It's crossed -- it's in red, bottom of your name, so that you can speak to us.

Okay. While she's trying to figure that out, is there anybody else here on the Zoom call --

MR. DEMIRJIAN: Can you hear me?

THE CHAIRMAN: Yes, we can.

MR. DEMIRJIAN: Yes. Hello, Planning Board. This is a question regarding the traffic study by this proposed development. Was it done during school? And with school meaning that when school goes back to -- from remote learning to on-site learning. And was the study done in the absence of school traffic or during school traffic? Thank you.

MR. CLEARY: Okay. Mr. Chairman, just if I can remind everybody, there are -- the format of this exercise is that comments that are delivered to the board will be delivered to the applicant and responded to in the FEIS. So there will be no answers to questions this evening. The answers come in written form in a document called the final environmental impact statement.

MR. DEMIRJIAN: Okay. So then I have some more questions, please, since we're following town code, I hope, in how these proceedings --

MS. REICH: Have you identified yourself? Is this Rozita speaking?

MR. DEMIRJIAN: This is Mr. Demirjian speaking with my wife, Rozita.

MS. REICH: Oh, okay. Thank you.

MR. DEMIRJIAN: So the questions -- hello. How are you? So the question in addition to that is in terms of utilities. Wegmans has taken a large chunk of utility service, as well as Corporate Drive. This property is located in the vicinity and will also be serviced by the same utility as is Corporate Drive, as is Wegmans, as well as the increase -- we haven't seen many of those apartments in Corporate Drive occupied yet. But how will this impact the utility service not just to this development, but to us as residents in the area?

In addition, the other question is in terms of fire. The fire district in the Purchase area is a volunteer fire department. Will this now require the full-time in order to meet New York State fire certification requirements? Will there be a requirement to impose full-time fire, just as we have in downtown Harrison? And if so, will this impact our taxes that were incorporated into our town taxes that we all got a bill for?

And as well as our water? There's the Westchester Joint Water Works -- this is another question -- that has concerns over the filtration and pumping during peak hours and during normal operations. Has this study included the water consumption as well as the usage of the pumping stations in the area that the Westchester Joint Water Works has said is not able to meet and is (indiscernible) meeting current demands right now?

And, of course, sewer. Once that water is put into the housing units, what about the sewer district? The town board has held several meetings stating that there will be an across-the-board sewer tax rate that we're all going to suffer from because of the overdevelopment and extensive development that the plants cannot handle. How is that going to be addressed? And if not, it should be addressed to look at what will happen to all that excess sewage that's coming in.

And as you know, during the last storm, which is now the normal, it's not a hundred-year exception. It's more the standard. All of the residence in the middle school area have been flooded out, because all that water that's being pushed to the sewer system and is being pointed back and saying, it's not a town of Harrison problem. It's a Mamaroneck problem. How is that going to be addressed?

2700 WESTCHESTER AVENUE - PUBLIC HEARING

And then lastly, in terms of the road passages on the bridges across 287, what changes are going to happen to the traffic patterns through 287? Are the 287 traffic routes going to be made one way that cross 287, or are they going to continue? And what assurances do we have with this additional traffic that we won't have people's lives put in danger as we have heard previously, where past Butcher Bridge that there were people traveling one way because of poor signage? Those are my questions, please.

THE CHAIRMAN: Okay. Thank you very much.

Does anybody else in the -- on the Zoom call want to speak on this application? Okay. How about the board? Board have any comments on the DEIS?

MR. STOUT: Mr. Chairman, just my normal ones. The access -- pedestrian access to the -- into the Rye Brook shopping centers or along Westchester Avenue, and then affordable housing. You know, what accommodations are you making for affordable housing? Thank you.

THE CHAIRMAN: Thanks, Joe.

2700 WESTCHESTER AVENUE - PUBLIC HEARING

I would like to call into the record the -- Norma Drummond's memo as of December 23rd, 2001. Quite an extensive memo coming from the County, which is appreciated. There's a number of issues in there that need to be addressed in the DEIS if they haven't already, so I want to bring that onto the record.

Joe, it does talk about affordable housing, obviously, on that, talks about connectivity. Also talks about frontage, et cetera, et cetera, things that we've been dealing with in this DEIS. But I want to put that on the record.

MR. CLEARY: Mr. Chairman, you're also in receipt of a memorandum from Woodard & Curran, your engineering consulting firm, dated, I guess, yesterday. That's a considerable memo, Mr. Chairman. It's multiple pages, dozens of comments in there.

THE CHAIRMAN: Have you seen that yet, Seth, the Woodard & Curran memo?

MR. MANDELBAUM: We have. Roe emailed it to us. Thank you.

2700 WESTCHESTER AVENUE - PUBLIC HEARING

THE CHAIRMAN: Good. Okay.

Anybody else have any comments for the DEIS? Okay. So, Pat, we have -- we could close it. Do we want to see --

MR. CLEARY: So you've held this meeting, the public hearing, over two sessions. I think Mr. Demirjian was the only public comment you've received on this. You have gotten some -- some memorandum and letters from neighbors. So what I would suggest is you certainly can consider closing the verbal portion of the public hearing. Seth was correct. You have to have a minimum ten-day written comment period, but it's always been your policy to extend that somewhat.

THE CHAIRMAN: Don't we -- typically, we've been -- we've been going to 30 days, have we not?

MR. CLEARY: Usually you do 30 days, Mr. Chairman. That's correct.

THE CHAIRMAN: So -- so why don't we have a motion to close the public hearing and keep the written comment period open for 30 days.

MR. SPANO: I'll make that motion.

2700 WESTCHESTER AVENUE - PUBLIC HEARING

THE CHAIRMAN: Okay. Who moves to be the second? Second, Kimberly. Okay.

All in favor?

(Board members respond.)

THE CHAIRMAN: Okay. It's unanimous. Okay. Thank you.

MR. MANDELBAUM: Okay. Thank you. We will see you with the DEIS as soon as -- the FEIS as soon as we can.

THE CHAIRMAN: Okay. Thank you.

(Time noted: 7:26 p.m.)

C E R T I F I C A T E

I, Ilana M. Nathanson, a Certified Court Reporter and Notary Public of the State of New York, do hereby certify that the transcript of the foregoing proceedings, taken at the time and place aforesaid, is a true and correct transcription of my shorthand notes.

Ilana Nathanson

ILANA M. NATHANSON

Court Reporter

TOWN OF HARRISON
MEMORANDUM

To: Chairman Heaslip & Members of the Planning Board

From: Patrick Cleary, AICP, CEP, PP, LEED AP, Planning Consultant

Date: February 9, 2022

Re: **2700 WESTCHESTER AVENUE** – Draft Environmental Impact Statement, Substantive Review

---

The following review comments are offered regarding the 2700 Westchester Avenue Development, Draft Environmental Impact Statement, prepared by AKRF, accepted by the Lead Agency as complete on November 23, 2021.

COMMENT #	PAGE	COMMENT
Executive Summary		
1	S-1	**A - Introduction - 2nd §, 1st sentence** – Quantify "largely in the same area."
2	S-2	**1st partial § -** Describe the topography of the area of the Site within the "substantial wooded buffer."
3	S-2	**1st full § -** Describe the number of homes and approximate lot sizes of the adjacent residential neighborhoods in Rye Brook and in Knightsbridge Manor.
4	S-3	**New Buildings and Architectural Design – 1st § -** Does the 3,000 square foot townhome size refer to gross floor area (including non-habitable areas such as attic) or habitable floor areas only?
5	S-6	**2nd full § -** Define all the parties involved with the Declaration of Covenants, and document the process necessary to amend or rescind it.
Chapter 1 – Project Description		
6	1-2	**2nd full § -** Is the steep drop in elevation a natural site condition, or was it created when the two office budlings were developed?
7	1-2	**2nd full § -** Clarify if the parking area that is described as being "raised above the surrounding areas…" reflects a natural site condition, or was the site filled during the construction of the two office buildings (thereby potentially reducing the natural flood storage of the site)?

COMMENT #	PAGE	COMMENT
8	1-3	**Number, Layout, and Anticipated Occupancy of Residential Units –** The DEIS describes the 3,000 square foot attached townhomes as "small." The use of the term "small" was used to support the claim that families with school aged children would not likely reside in the units. Provide documentation of other attached townhome developments in the region to justify the claim that the units are in fact "small" and would not generally support school-aged children.
9	1-3	**Green Design and Sustainability Components –** The use of low-flow fixtures, energy efficient appliance and "clean" stormwater practices are standard modern construction practices. These measures do not represent a serious commitment to green building and sustainability as expected by the Planning Board. The Applicant should explore more tangible measures to achieve these goals, including seeking a green building certification from an organization such as the USGBC.
10	1-3	**Site Roadways, Access, Circulation, And Connectivity –** Who will be responsible for maintaining the shared driveway? Certain maintenance tasks, such as snow plowing, may occur on a different time schedule by a contractor for an office building (which does not necessarily require unrestricted 24/7/365 access) compared to a residential use (which would require that access).
11	1-4	**Parking, 1st Partial § –** Do any industry standard metrics, or comparable examples from other similar developments exist that indicate that 48 visitor parking spaces are adequate to support the development?
12	1-4	**Tree Preservation, Landscaping and Buffers** – Quantify the number, size and species of the existing landscaping that is proposed to be removed.
13	1-5	**Recreation and Open Space –** Provide the areas (in square feet) of the recreational amenities proposed (perhaps presented in tabular format).
Chapter 2 – Land Use, Zoning and Public Policy		
14	2-1	**Existing Conditions, 2nd § -** Quantify the difference in elevation between the 2700 building and the 2500 building.
15	2-2	**1st § -** Clarify the height and elevation of the habitable spaces of the buildings of the adjacent residential neighborhoods. Views from the elevation of the upper stories of these homes may not be obscured by the intervening vegetation when the additional building height is taken into consideration.

COMMENT #	PAGE	COMMENT
16	2-2	**Potential Impacts** – The DEIS states that the Proposed Action is consistent with the surrounding land uses, and specifically the adjacent residential uses. However, these uses are traditional single-family homes, and the Proposed Action consists of townhomes. No such housing type exists in the vicinity of the Site. The claim of consistency must be further justified. Furthermore, the claim that the Proposed Action is "appropriately scaled" should also be further justified.
17	2-2	**Potential Impacts** – Document the "overall mixed-use residential and commercial land use character" of the Platinum Mile (by percentage of land use from White Plains to Rye Brook, along Westchester Avenue). This would most likely be best presented in tabular form, by parcel).
18	2-2	**Proposed Mitigation –** The various elements of the Proposed Action that allow the development of a residential use within an office park, should be identified (including elements such as the siting of the buildings on the site, design and architecture, buffer landscaping and screening, etc.)
19	2-3	**Potential Impacts** – It should be clarified that the Comprehensive Plan did not specifically recommend extending the geographic applicability of the SB-O Multi-Family Special Exception Use to areas outside of the "Tear Drop." but rather indicated that it *may be* appropriate.
23	2-4	**Parking and Access on Previously Developed Parcels, 1st §** – Of any of the other parcels that would become eligible to support an SB-O Multi-Family Development, how many would result in land-locked parcels?
20	2-4	**Parking and Access on Previously Developed Parcels, 1st §** – Define the scope of the parking survey required to justify the parking space reduction. What mechanism would be employed to address changing office building occupancy rates over time?
21	2-5	**2nd full § -** The proposed zoning amendment to allow the access drive for an SB-O Multifamily project to be located within a landscaped buffer, must be further justified. It has not been established that the current access configuration for the Proposed Action, or for other potential SB-O Multifamily projects, should be allowed as proposed by this zoning amendment. The landscaped buffer is an important element in defining the character of these sites.
22	2-5	**SB-O Multifamily Special Exception Use Criteria – 1st bullet –** Provide a summary of the market survey findings.

COMMENT #	PAGE	COMMENT
23	2-5	**SB-O Multifamily Special Exception Use Criteria – 2nd bullet** – Specifically state by how much the Project Site exceeds the 5-acre minimum.
24	2-5	**SB-O Multifamily Special Exception Use Criteria – 4th bullet** – Compliance with this standard is documented by indicating that the 69 proposed dwelling units is less than the 450 permitted. Is the Applicant willing to imposed a deed restriction, or other similar legal instrument, limiting the number of dwelling units to the 69 proposed?
25	2-6	**SB-O Multifamily Special Exception Use Criteria – 7th bullet –** Do any of the proposed dwelling units contain "bonus rooms" of other rooms that could be easily converted to a bedroom? Is the Applicant willing to imposed a deed restriction, or other similar legal instrument, limiting the number of bedrooms to 3?
26	2-6	**SB-O Multifamily Special Exception Use Criteria – 8th bullet –** More fully document and explain how the dwelling units are "geared toward young people, empty nesters and residents without young children."
27	2-6	**SB-O Multifamily Special Exception Use Criteria – 13th bullet –** Provide the distance to the mass transit link, in lineal feet.
Chapter 3 – Visual and Community Character		
28	3-5	**Visibility of the Project Site –** Clarify the difference in height between the existing office building and the proposed townhomes.
29	3-5	**Visibility of the Project Site** – what is the width of the existing 2700 office building, compared to the cumulative width of the townhomes?
30	3-8	**Lighting Program** – Identify the illumination levels along the property lines facing adjacent residences (in footcandles)?
Chapter 4 - Geography, Soils, Topography		
31	4-3	**Potential Impacts** – Will the 1,303 cubic yards of fill be imported at one time, or throughout the duration of the project build-out, as needed? If soil is to be stockpiled, where will that occur?
Chapter 5 – Socioeconomic and Fiscal Impacts		
32	5-1	**Demographic Characteristics in Harrison** – Clarify if the 2020 population numbers derive from the 2020 decennial census, or are estimates from the Community Housing Survey or ACS data.

COMMENT #	PAGE	COMMENT
33	5-4	**Table 5-6** – Does the data documenting the places where residents work reflect pandemic work and commutation patterns?
34	5-5	**Existing Property Tax Revenue –** Clarify the assessed value of the site (which is presented as a total for both office buildings). How much of this assessed value does the 2700 building comprise?
35	5-5	**Existing Property Tax Revenue –** What is the tax certiorari history of the Site?
36	5-8	**Table 5-14** – Provide an assessment of the fact that less than 2% of the housing stock in the Market Area consists of a townhome product. Is this due to an undersupply of this housing type, or a preference for other housing types.
37	5-9	**Future Conditions Without the Proposed Project –** The conclusions about overall market conditions make no refence to the pandemic. Have the home sales referenced been influenced by pandemic related real estate trends?
38	5-10	**Market Study Findings** – Document the claim that "the empty-nester consumer base is anticipated to grow."
39	5-10	**Market Study Findings** – Does any research exist documenting and/or supporting empty nester timing – or when a single-family home may be vacated after the chicks fly the coop, and what are the average ages of the homeowners at that time?
40	5-11	**Footnote 5 –** Clarify the "Kingfield development" referenced in this footnote.
41	5-11	**Market Study Findings, 1st partial § –** Regarding the other comparable townhome products, define what is meant by the statement that they have "performed well."
42	5-11	**Market Study Findings, 1st partial §** – Townhomes are described as a "niche market." That phrase suggests that the housing type is unique, and as such more vulnerable to market variations. Having experienced the vulnerability in the office market along the Platinum Mile over the past 20 years, and the consequentially devastating impact on the Town's commercial tax base, a new "niche" housing type that may be potentially vulnerable, would be undesirable. Further clarification is necessary.
43	5-11	**Market Study Findings, 1st full § –** The project's access to transit is described as "excellent." Is this in fact the case? While the site is accessible to Bee Line bus service, the site is particularly auto dependent. It is a stated objective of the Town to increase and enhance access to all forms of transit and forms of circulation, however, this site's access to transit is clearly

COMMENT #	PAGE	COMMENT
		less than "excellent." A transit-oriented project such as the Avalon development in Downtown Harrison which is constructed at the Metro North train station can properly lay claim to having "excellent" transit accessibility.
44	5-11	**Market Study Findings, 1st full § –** The DEIS notes the project's proximity to the downtowns of Harrison, Rye, Port Chester and White Plains as a benefit. Clarify the travel times from the site to these downtowns, and identify any challenges in accessing these areas (for example, how might the one-way (west) circulation on Westchester Avenue influence travel back toward the downtowns of Harrison, Rye and Port Chester (located to the east).
45	5-11	**Market Study Findings, 1st full § –** The DEIS states "The redevelopment of the Project Site provides an opportunity to effectively respond to long-term changes in market conditions through the continued redevelopment of corporate office buildings in the area" The Town's office park repurposing initiative is predicated on the presumption that redeveloping the underperforming office parks will strengthen and improve the tenancy and economic viability of the remaining office parks. "Continued redevelopment of corporate office buildings" is not a goal of the Town. The applicant should document if this planning strategy is proving to be effective, and that by repurposing the sites in the tear drop, and this site, the remaining office parks have been, and will continue to be bolstered.
Chapter 6 – Community Facilities		
46	6-3	**Police Services – Proposed Mitigation** – In response to the Police Department's concern over the potential for "increased criminal activity," any proposed security measures for the townhomes, and the site in general, should be documented.
47	6-4	**Fire Services – Proposed Mitigation** – Fire Department site accessibility measures should be documented. Does fire apparatus have access to all sides of all buildings? Is the shared access driveway adequate to accommodate all types of emergency vehicles? Would on-site parking areas interfere with fire apparatus access, etc.
48	6-6	**Recreation and Open Space – Existing Conditions** – The Town's purchase of the former Willow Ridge County Club is complete, and the facility is now known as the Harrison

COMMENT #	PAGE	COMMENT
		Meadows Country Club, and will be open for business this spring.
49	6-6	**Recreation and Open Space – Potential Impacts –** Clarify why it is assumed empty nester swould prefer passive recreation facilities rather than active recreation facilities at this location.
50	6-12	**Table 6-5** – Are additional examples of actual townhome school generation data available?
51	6-12	**Schools – Proposed Mitigation** – Document the project's design elements that support the conclusion that the development is not well suited to families with children.
Chapter 7 – Infrastructure & Utilities		
52	7-2	**Water Supply - Mitigation –** Can greywater be used to offset the 6,711 gpd of irrigation required for the project, which would otherwise be drawn from the public water supply? Can xeriscaping be employed to minimize the need for irrigation?
53	7-2	**Water Supply - Mitigation** – How much will he proposed low-flow plumbing fixtures reduce the demand on the public water supply.
54	7-3	**Sanitary Sewage – Potential Impacts** – Verification is required to support the claim that the increase of 10,430 gpd of wastewater can be accommodated in the County trunk main.
55	7-4	**Other Utility Services – Potential Impacts** – Has consideration been given to utilizing solar power to support the development?
Chapter 9 – Surface Water, Wetlands and Floodplains		
56	9-1	**NYSDEC Streams & Wetland –** Clarify who conducted the "updated assessment of Blind Brook" – the DEC or the Applicant?
57	9-3	**Floodplains** – Does any evidence exist to support the claim that during Hurricane Ida, the developed portions of the Site were not affected by floodwaters?
58	9-4	**Surface Waters & Wetlands – Potential Impacts –** Is all of the 11,604.27 square feet of reduced impervious surface included within the wetland buffer?
59	9-5	**Proposed Mitigation –** What mechanism will be put in place to ensure that the wetland mitigation plantings are permanently maintained (including mowing, clearing and trimming to preclude the spread of invasive species)? Are pesticides or herbicides proposed to accomplish these tasks?

COMMENT #	PAGE	COMMENT
		In other instances, the Planning Board has required the submission of regular reports documenting compliance, and associated monitoring by the Town's wetland consultant.
Chapter 10 – Traffic & Transportation		
60	10-2	**Existing Traffic Volumes and Manual Turning Movement Counts -** Address the veracity of the traffic counts conducted in September of 2021, during the pandemic.
61	10-3	**Traffic Accident Reports** – Was the March 2017 through February 2020 time period accurately reflective of the accident history in the vicinity of the site. It incorporates a period of low office building occupancies and the beginning of the pandemic.
62	10-3	**Potential Impacts -** It is recognized that the Proposed Action will actually result in a decrease in driveway trip volumes compared to the full occupancy of the 2700 office building, however, that building was never fully occupied, so those volumes were never realized. Provide a comparison between the volumes of the Proposed Action with the current volumes of the office building, and with those when the office building supported its maximum occupancy.
54	10-8	**Potential Impacts** – In correspondence from the County Planning Board dated December 23, 2001, concerns over the safety of the Westchester Avenue/Webb Avenue intersection were raised. The Town acknowledges that this intersection is very poorly designed, and is a likely contributor to the 94 accidents recorded in the study area. This intersection is located within the County (and/or NYSDOT) right-of-way, over which the Town has no authority. As the level-of-service at this intersection will remain unchanged and at acceptable levels (between A and C) during the build condition (or in the case of the weekday PM peak hour northbound - Westchester Ave eastbound approach – will actually improve), no mitigation is required as a result of this development. The Town is in full support of the County, independent of the Proposed Action, improving this intersection.
55	10-9	**Access and Sight Distance Requirements –** Once clear of the Westchester Avenue/Webb Avenue intersection, vehicles often speed up as they travel west along Westchester Avenue. The sight distance analysis was based on a 50-mph design speed. What is the actual observed speed along this portion of Westchester Avenue? If in excess of 50 mph, the sight distance analysis should be recalibrated to reflect the actual observed speeds.

COMMENT #	PAGE	COMMENT
56	10-9	**Project Parking Demand –** It is noted that the 2500 office building does not meet the applicable off-street parking requirement. This is permissible though the prior issuance of variances, and is a legally non-conforming condition. While the existing 553 parking spaces adequately serves the building, in the future a more intensive use, such as a medical office, may occupy this space, and the parking inventory may not prove adequate. The proposed zoning amendment includes a provision requiring Planning Board review if a more intensive use is proposed. Provide a summary of the existing building tenants, and provide an assessment of whether a more intensive use, such as medical office, is likely in the future. What is the likelihood that office tenants would change without the knowledge of the town?
57	10-9	**Project Parking Demand –** Are the 48 visitor parking spaces adequate to suppprt the townhomes?
58	10-9	**Future Pedestrian Facilities –** The Applicant is requested to revisit pedestrian and bicycle connections from the townhouse site, across the office building site, and out to Westchester Avenue. Grades, pavement surfaces, protected lanes, lighting and shade/buffers and ADA compliance are factors that should be taken into consideration. Creating an inviting and fully functional connection is essential.
59	10-9	**Future Pedestrian Facilities –** The correspondence from the County Planning Board dated December 23, 2001, was critical of the Town for failing to incorporate pedestrian and bicycle connectivity. It is obvious the County is unaware of the efforts undertaken in the tear drop to create new and improved sidewalks along the entire length of Corporate Park Drive and Westchester Park Drive to connect to Westchester Avenue. Pedestrian and bicycle connectivity is stymied at Westchester Avenue where the Town has no authority over improvements within the County right-of-way. The County seems to suggest that the Town should undertake a study to facilitate improved pedestrian and bicycle circulation within the County right-of-way. The County should explain how this extra-jurisdictional exercise should be undertaken. A primary obstacle to connectivity within the tear drop was surmounted through the provision of a publicly accessible east-west driveway connection through the 3 Westchester Park Drive (Trammel Crow) project on Westchester Park Drive and

COMMENT #	PAGE	COMMENT
		The Carraway (Toll Brothers) project on Corporate Park Drive, which will allow vehicles and pedestrians to move east from Westchester Park Drive to Corporate Park Drive, without traveling out to Westchester Avenue and following the circuitous one way loop west to go east. The Town of Harrison would be happy to enter into a collaborate effort with the County to facilitate a study of the Westchester Avenue corridor, much the same way that Tarrytown, Elmsford, Greenburgh and White Plains recently collaborated with the NYSDOT for the Route 119 Complete Street Design Plan.
60	10-9	**Future Pedestrian Facilities –** Internal connections from the townhouse site to the adjacent office parks should be explored and implemented. It is conceivable that some new townhome residents may work in these office buildings.
Chapter 13 - Alternatives		
61	13-6	**Alternative B: Renovation** – Document the Applicant's efforts to attract a medical office tenant to a renovated building, which is an office use that has been demonstratably viable in Town.
Chapter 15 – Other Required Analyses		
62	15-1	**Use and Conservation of Energy** – The proposed use of low-flow fixtures, energy efficient appliance and "clean" stormwater practices are standard modern construction practices. These measures do not represent a serious commitment to green building and sustainability as expected by the Planning Board. The Applicant should explore more tangible measures to achieve these goals, including seeking a green building certification from an organization such as the USGBC.

Woodard & Curran Engineering and Geological Services P.A. P.C.
800 Westchester Avenue
Suite N507
Rye Brook, New York 10573
www.woodardcurran.com

T 800.426.4262
T 914.448.2266
F 914.448.0147

MEMORANDUM

TO: Town/Village of Harrison Planning Board

CC: Michael Amodeo, P.E., C.F.M., Town Engineer

FROM: Jennifer L. Martinez Torres, P.E., on behalf of Anthony C. Catalano, P.E., BCEE

DATE: February 22, 2022

RE: 2700 Westchester Avenue - Redevelopment

Technical Review of Draft Environmental Impact Statement

Tax Max Block 611, Lot 3

GENERAL

The purpose of this memorandum is to provide a summary of our technical review of the Draft Environmental Impact Statement (DEIS) for the townhome development proposed at 2700 Westchester Avenue in Harrison, New York.

The subject property is composed of a 24.6-acre lot known as the "2500/2700 Parcel." The Applicant is proposing to subdivide the existing parcel into 2 lots: the 2500 Lot and the 2700 Lot. The existing parcel is bounded by Westchester Avenue to the South, private residences to the West, and Blind Brook on the East. The subject property contains environmentally sensitive areas including wetland areas, steep slopes, and a 303(d) impaired waterbody. The 2500 Lot is not proposed to be disturbed as part of this development.

The Proposed Action is the redevelopment of the existing office building and parking area on the 2700 Lot into 69 new high-end townhomes with associated driveways. The development will include on-site stormwater management, will provide residential walking paths, a bocce court, putting green, and other recreation spaces. The Proposed Action disturbs wetland area, wetland buffer areas, but is not located within the 100-year flood plain.

On November 23, 2021, the Town/Village of Harrison Planning Board approved a resolution for the Notice of Completion of the Draft Environmental Impact Statement (DEIS) for the 2700 Westchester Avenue – Redevelopment. The DEIS was prepared based on a Scoping Document which contains the items described in 6 CRR-NY Part Section 617.8 (e)(1) through (e)(7) and Section 617.9 (b)(1) through (b)(7). The Applicant submitted the following documents for circulation and review:

- Cover Letter, *"Re: 2500/2700 Westchester Avenue Owner SPE LLC, Petition for Zoning Amendment, 2500-2700 Westchester Avenue, Harrison, New York,"* prepared by McCullough, Goldberger & Staudt, LLP, dated November 2, 2021.
- Report & Appendices, *"2700 Westchester Avenue, Draft Environmental Impact Statement (DEIS),"* prepared/coordinated by AKRF, Inc., dated November 2, 2021.
- Revised Report Section, *"Chapter 6: Community Facilities,"* prepared by AKRF, Inc., dated November 16, 2021.

- Plans, *"Preliminary Site Plans, 2700 Westchester Avenue, Tax Map Section 611, Lot 3, Westchester County, 2700 Westchester Avenue, Purchase, NY 10577,"* prepared by JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC, dated November 2, 2021.

The scope of our technical review focused on the following categories as noted in the Scoping Document:

- Executive Summary
- Project Description
- Land Use
- Geology, Soils, Topography
- Recreation and Open Space
- Solid Waste and Recycling
- Infrastructure and Utilities
- Stormwater Management
- Floodplains
- Hazardous Materials
- Construction
- Alternatives

DISCUSSION

The following is a summary of our comments related to the technical review of the DEIS. The Applicant shall note that additional comments may be provided upon review of subsequent submittals.

A. Geology, Soils, Topography

1. The Applicant shall revise the existing and proposed building lot coverages shown on Table 4-2 of the DEIS to be consistent with the area takeoff summary tables provided on the drainage area maps in the Stormwater Pollution Prevention Plan (SWPPP).

B. Recreation and Open Space

1. The Applicant shall clarify in the DEIS report the proposed maintenance for the permeable walking path.

C. Infrastructure and Utilities

1. The Applicant shall provide an estimated peak hour water demand for the facility. The adequacy of the water utility design of the proposed development shall be governed by its ability to meet peak hour water demands.

2. Appendix H, Water and Wastewater Usage Tables, does not provide fire flow demand for the proposed development. The Applicant shall provide an estimated fire flow demand and all assumptions.

3. The Applicant shall verify that adequate pressure and volume is available for the proposed development. The Applicant shall also include the following in their discussion:

   i. Will the proposed hydrants have adequate pressure to meet peak hour demand? Analysis of the ability of the water system to meet the proposed development's demand should account for peak hour demands.

   ii. Discuss the anticipated impacts of the proposed development's peak hour water demand on the wider Westchester Joint Water Works system. The American Water Works Association recommends a minimum normal operating pressure of 35 psi, and the Westchester County Department of Health requires an absolute minimum pressure of 20 psi at all points in a water system. Indicate and provide justification to clarify whether the anticipated peak hour water demand at the proposed development site will cause any areas of the Westchester Joint Water Works system to experience pressures less than the recommended minimum pressure of 35 psi during non-fire flow conditions. Indicate and provide justification to clarify whether the anticipated fire flow demand at the proposed development site will cause any areas of the Westchester Joint Water Works system to experience pressures less than the recommended minimum pressure of 20 psi.

4. Appendix H, Water and Wastewater Usage Tables, provides anticipated wastewater usage for each office space floor. The Applicant shall update the Total Daily Water Consumption Rate for the third floor.

5. On Sheet C-300, the Applicant shall revise their drawing to include direction of each pipe invert entering a manhole.

6. On Sheet C-300, the Applicant shall revise their drawing to display k-crete where sufficient horizontal coverage is not provided (i.e., above the frost line).

7. The Applicant shall clarify how the connection to the existing Town/Village manhole will be made (e.g., bypass pumping).

8. The Applicant shall provide a Will Serve Letter from the WCDEF stating that the Blind Brook WTF can accept wastewater flow from the development.

9. The Applicant shall provide copies of the CCTV footage showing the condition of the existing sanitary sewer piping.

10. The Applicant shall expand the current sanitary sewer language or provide a separate sanitary engineering report that includes supporting calculations of the reported wastewater generation rate for the proposed development in accordance with the NYSDEC Intermediate Sized Wastewater System Design

Standards, 2014. The additional discussion shall include, but is not limited to pipe slopes, capacity percentages, pipe materials, and the peaking factor considered for calculation of the peak flow.

11. On Sheet C-300, the Applicant shall revise their drawing to show adequate horizontal separation between utilities (i.e., minimum of 3 feet between water and gas/electric).

D. Stormwater Management

1. The Applicant shall indicate in the DEIS report and SWPPP that Blind Brook is a 303d Listed and Impaired Water of the United States based on the Final 2018 Section 303(d) List from the NYSDEC.

2. The Applicant shall revise the SWPPP to indicate that inspections will need to be two times every seven days separated by a minimum of two calendar days since runoff from the site discharges directly to a 303d impaired waterbody (per the requirements in the SPDES General Permit).

3. The Applicant shall clarify in the SWPPP that areas where soil disturbance activities are temporarily or permanently ceased shall be stabilized within seven days from the date the current soil disturbance activity ceased. Note that this work shall be completed within seven days and not 14 days since site runoff discharges directly to 303d impaired waterbody.

4. The Applicant shall clarify in the SWPPP that the person responsible for implementation of the SWPPP shall have received four hours of NYSDEC endorsed training in proper erosion and sediment control principles and after the initial training, shall receive four hours of training every 3 years.

5. The Applicant shall revise the EDA-1A drainage area breakdown in the PondPack model to be consistent with the drainage area quantities provided on DA-1.

6. The Applicant shall revise the description for EDA-1C in the DEIS narrative and the SWPPP. The description says that the entire area drains to the existing pond to the north, but it appears that a portion of that area will be collected by the drainage network discharging to the pond to the south. The PondPack model shall be revised accordingly.

7. The Applicant shall revise the PDA-1A drainage area breakdown in the PondPack model to be consistent with the drainage area quantities provided on DA-2.

   i. The Applicant shall revise the description for PDA-1A to indicate that the drainage area consists of four groupings of townhouses per DA-2.

   ii. The Applicant shall clarify how the runoff from the northernmost townhouses in PDA-1A will be collected and conveyed to the proposed infiltration system for treatment.

8. The Applicant shall revise the description for PDA-1B in the DEIS narrative and in the SWPPP. The description says that the runoff flows overland to proposed Detention Pond #1B. However, a portion of the drainage area (from the townhome and internal roads) will drain towards the collection system to be routed through a hydrodynamic separator for treatment.

    i. The Applicant shall also revise the PDA-1B areas provided in PondPack to be consistent with the summary table provided on DA-2.

9. The Applicant shall revise the description for PDA-1C in the DEIS narrative and in the SWPPP. The description says that the runoff flows overland to proposed Detention Pond #1B. However, the drainage area (from the townhome and internal roads) will drain towards the collection system to be routed through a hydrodynamic separator for treatment. The runoff is then discharged to the detention pond east (downstream) of Detention Pond #1B.

    i. The Applicant shall also revise the PDA-1C areas provided in PondPack to be consistent with the summary table provided on DA-2.

10. The Applicant shall revise the description for PDA-1D in the DEIS narrative and in the SWPPP to indicate that this drainage area flows overland into the Blind Brook.

    i. The Applicant shall discuss whether the areas within PDA-1D can be collected and conveyed to the proposed hydrodynamic separator upstream of Pond #1B so that the impervious areas can be treated.

    ii. The Applicant shall also revise the PDA-1D areas provided in PondPack to be consistent with the summary table provided on DA-2.

11. The Applicant shall revise Table 8-5 in the DEIS to be consistent with the impervious areas shown on the Proposed Drainage Area Map, DA-2.

12. The Applicant shall revise Table 2 (runoff) in the SWPPP to be consistent with the results provided in the PondPack results.

13. The Applicant shall revise Table 7 in the SWPPP to be consistent with the WQv/RRv calculations provided in the appendices.

14. The Applicant shall revise the contributing new impervious areas in Table 8 of the SWPPP to be consistent with the takeoff summary table provided on DA-2.

15. In Section IV of the SWPPP, the Applicant notes that the site and downstream outfall facilities were inspected by JMC. The Applicant shall clarify whether a CCTV inspection was performed in this location. The Applicant shall note that CCTV footage may be required by the Town during Site Plan to ensure that the existing infrastructure is in acceptable condition.

16. The Applicant shall revise the reference to the NYSDEC Stormwater Management Design Manual in Section V of the SWPPP to reference the January 2015 version (latest version).

17. The Applicant indicated in Section VII of the SWPPP that "[e]ven though there will be a decrease in impervious area, proposed stormwater management systems are being proposed to meet the Town of Harrison Land Development requirements." The Applicant shall clarify that despite the reduction in impervious surfaces, post-construction stormwater quality controls are required per the SPDES General Permit in addition to the requirements of the Town of Harrison Land Development form.

18. The Applicant shall revise the summary of pretreatment in Section VII of the SWPPP. The Applicant shall also provide a description of the proposed pretreatment for the infiltration practice.

19. The Applicant is proposing to treat the water quality volume using infiltration practices and hydrodynamic separators. The Applicant shall provide the following information in the SWPPP:

    i. The Applicant shall provide delineations for the new development and redevelopment areas.

    ii. The Applicant shall demonstrate that all new development areas are treated via the infiltration system.

    iii. The Applicant shall provide percolation tests and deep hole test results which demonstrate the feasibility of an infiltration practice per the requirements in Chapter 6 of the New York State Stormwater Management Design Manual.

    iv. The Applicant shall provide pretreatment upstream of the discharge into the infiltration practice. The required pretreatment volume shall be based on the infiltration rate as required in the NYSDEC Stormwater Management Design Manual.

20. The Applicant shall clarify the following information for U-INF-1A (infiltration system):

    i. The Applicant shall clarify if the pond volume for the infiltration system accounts for stone below the bottom of the proposed stormtrap units. The Applicant shall also provide a detail of the proposed cross-section of the infiltration system.

    ii. The plans indicate that the total volume provided by the infiltration system is 22,067 cubic feet. The PondPack results indicate that the volume of the system is 20,051.57 cubic feet. The Applicant shall clarify this discrepancy.

iii. The Applicant shall clarify the storage of the system provided for water quality volume treatment. This storage volume is the total raw volume of the system under the proposed outlet invert of the system.

iv. The Applicant shall provide a calculation for the conversion of the infiltration rate for U-INF-A from inches per hours into cubic feet per second.

v. In the PondPack model, OCS-1A is provided as the outlet control structure for the infiltration system. The Applicant shall provide this structure on the plans. The Applicant shall also clarify the size of the proposed outlet pipe. It appears on the plans that the outlet pipe is a 12-inch diameter pipe.

vi. The Applicant shall clarify the survey data which indicates that the outlet control structure from the existing stormwater pond to the south has the top elevation at 81.05, the invert elevation at 81.31, and the weir elevation at 83.17.

21. The Applicant shall clarify where OCS-1B is proposed to be located on the plans.

22. The Applicant shall provide discussion in the SWPPP about the proposed 0.5 in/hr. infiltration rate for Pond #1B (PO-7).

23. The Applicant shall provide discussion in the SWPPP of the connection of the new RCP outlet pipe from the proposed outlet control structure of the south-eastern pond to the existing RCP discharge pipe to Blind Brook.

24. The Applicant shall provide a description in the SWPPP of the proposed stormwater management system which discusses which practices are being used for treatment, which practices are pretreatment, which practices are being used to provide storage of 3 inches over all newly created impervious surfaces, etc.

25. The Applicant shall provide a construction detail for the proposed stormwater detention ponds which demonstrates how the western pond discharges to the eastern pond.

26. The Applicant claims that the existing stormwater pond will be improved during construction. The Applicant shall discuss in the SWPPP how the proposed stormwater pond is different (i.e., capacity, depth, etc.).

27. The Applicant shall provide maintenance requirements for all proposed permanent stormwater controls.

28. The Applicant shall provide concrete washout areas to the erosion and sediment controls in the SWPPP.

E. Hazardous Materials

1. The Phase I Environmental Site Assessment Report conducted by Blackstone Consulting LLC is dated September 27, 2016. The Applicant shall provide an updated ESA for the subject property.

F. Construction

1. The Applicant shall clarify if a phasing plan will be provided to ensure that no more than 5 acres is open/disturbed at any given time. If the entire site is anticipated to be worked on, the Applicant shall note in the DEIS that authorization from the MS4 is required to disturb more than 5 acres.

2. In the *Sediment and Erosion Control* Section of Chapter 12: Construction, the Applicant indicates that silt fence would be placed in areas that receive concentrated flows. The Applicant shall revise this statement to be consistent with the silt fence description in the Preliminary SWPPP.

3. The Applicant shall revise the notes section on Sheet C-400 to remove all references to the Connecticut Department of Environmental Protection. The Applicant all ensure that all references to State code are for New York.

4. The Applicant shall confirm the drainage area for ST-2. Based on our takeoff, the drainage area is more than 7.0 acres.

5. The Applicant shall show construction fencing around the proposed infiltration system to prevent over-compaction during construction.

G. Alternatives

1. The Applicant shall revise Table 13-1 in The DEIS to include the Alternative B impacts.

2. The Applicant indicated in the DEIS that a Soil Management Plan is recommended. The Applicant shall clarify the contents of this Soil Management Plan and shall indicate when this Soil Management Plan will be prepared for review by the Town of Harrison.

H. General Comments

1. The Applicant shall clarify why NYCDEP SWPPP Approval is required for this project as shown in Section F. of the Executive Summary.

2. The Applicant shall revise the drawings to indicate a net fill as stated in the DEIS. The current cut/fill summary table on Sheet C-210 shows a "cut volume to be imported" of 439 C.Y.

3. The Applicant shall provide a scale bar on all preliminary site plans.

4. The Applicant provided a list of the invasive species on site and indicated that they will be removed. However, the Applicant shall discuss in the DEIS the

means of removal (i.e., by hand, machine, cutting, and herbicide application, etc.).

The sections pertaining to geology, invasive species removal, landscaping program, and alternatives are being reviewed and require further evaluation. We will submit these remaining review comments by next month's meeting.

Please feel free to contact our office with any questions or concerns, thank you.