January 10, 2022

Mr. Christopher Carthy, Chairman
and Members of the Planning Board
Town of North Castle
17 Bedford Road
Armonk, NY 10504

RE: JMC Project 20101
The Summit Club at Armonk Residential
Bedford Road (Route 22)
Town of North Castle, NY

Response to Town Comments Resubmission

Dear Chairman Carthy and Members of the Planning Board:

On behalf of the owner and applicant, Summit Club Partners, LLC, we are pleased to submit the following documents for your continued review of the Site Plan Application for the proposed residential development on The Summit Club residential property:

1. JMC Drawings:

Dwg. No.	Title	Rev. #	Date
C-000	Cover Sheet	4	01/10/2022
C-010	Overall Existing Conditions Map	4	01/10/2022
C-011	Existing Conditions Map (South)	4	01/10/2022
C-012	Existing Conditions Map (North)	4	01/10/2022
C-020	Site Demolition & Tree Removal Plan (South)	4	01/10/2022
C-021	Site Demolition & Tree Removal Plan (North)	4	01/10/2022
C-022	Site Tree Removal Table	4	01/10/2022
C-100A	Overall Site Layout and Phasing Plan	4	01/10/2022
C-100	Site Layout Plan (South)	4	01/10/2022
C-101	Site Layout Plan (North)	4	01/10/2022
C-102	Fire Truck Access Plan	4	01/10/2022
C-200	Site Grading Plan (South)	4	01/10/2022
C-201	Site Grading Plan (North)	4	01/10/2022
C-202	Road Profiles Plan	4	01/10/2022
C-300	Site Utilities Plan (South)	4	01/10/2022
C-301	Site Utilities Plan (North)	4	01/10/2022
C-302	Sanitary Sewer Profiles	4	01/10/2022
C-303	Water Main Profile	4	01/10/2022
C-304	Storm Sewer Profiles	4	01/10/2022

C-400	Site Erosion and Sediment Control Plan (South)	4	01/10/2022
C-401	Site Erosion and Sediment Control Plan (North)	4	01/10/2022
C-402	Erosion and Sediment Control/Phasing Notes	4	01/10/2022
C-900	Construction Details	4	01/10/2022
C-901	Construction Details	4	01/10/2022
C-902	Construction Details	4	01/10/2022
C-903	Construction Details	4	01/10/2022
C-904	Construction Details		01/10/2022
PSP-1	Preliminary Subdivision Plat	4	01/10/2022
IPP-1	Integrated Plot Plan	4	01/10/2022

2. Granoff Architects Drawings:

Dwg. No.	Title	Rev. #/Date	
Residences:			
LS C	Cover-Landscape	8	01/10/2022
LS 100.0	Overall Site Plan-Southern Development	8	01/10/2022
LS 100.1	Overall Site Plan-Northern Development	8	01/10/2022
LS 101	Amenities Side Site Plan-Landscape	8	01/10/2022
LS 102	Main Entry Plan-Landscape	8	01/10/2022
LS 103	Residential Side Site Plan-Landscape	8	01/10/2022
LS 104	Residence Typical Plan-Landscape	8	01/10/2022
LS 105	Detention Basin Planting Plan	1	01/10/2022
LS 106	Water Treatment Area and Schematic Cottages	8	01/10/2022
Clubhouse Building:			
AS100	Site Plan-Pool Terrace		01/10/2022
A 100	Floor Plan-Vault Level		01/10/2022
A 101	Floor Plan-Lower Level		01/10/2022
A 102	Floor Plan-Main Level		01/10/2022
A 300	Building Elevations		01/10/2022
A 301	Building Elevations		01/10/2022
A 400	Building Sections		01/10/2022
AFFH Building:			
A 101	AFFH Building 7- First Floor Plan		01/10/2022
Residential Building:			
A 100	Garage Floor Plan		01/11/2021

3. Apex Lighting Solutions Drawings:

Dwg. No.	Title	Rev. #/Date
SL-1A	Exterior Lighting Photometric Calculation	06/11/2021
SL-2	Exterior Lighting Photometric Calculation	06/14/2021

4. Razar Series LED Cutsheet/Specifications, prepared by U.S. Architectural Lighting.

5. "Preliminary Stormwater Pollution Prevention Plan", prepared by JMC, last revised 01/10/2022.

6. "50% Water Supply, Treatment and Distribution" plans, prepared by WSP USA, dated 11/23/2021.

The revisions depicted on the above noted plans reflect responses to comments outlined in the Town of North Castle Planning Department Memorandum, dated June 22, 2021 and Kellard Sessions Memorandum, dated June 24, 2021. For ease of review, we have repeated and enumerated the comments in italic print, followed by our responses:

Town of North Castle Planning Department, dated June 22, 2021

General Comments

Comment No. 1

The site plan has been revised to depict a proposed 58 space off-street parking lot adjacent to NY Route 22 and within the 100 foot R-2A buffer zone. Pursuant to Section 355-32.B of the Town Code, the intent of the Town Board is that a buffer area shall be used only for golf course uses, including access driveways and accessory parking, permitted in the R-2A District. In this case, the existing parking lot and proposed access drives were anticipated elements, but the proposed 58 space parking lot should not be constructed within the buffer. Any proposed new parking area shall be located outside of the buffer area. The area of the proposed off-street parking should be landscaped as anticipated during the environmental review of this project.

Response No. 1

The site plans have been revised to depict a more symmetrical 60 space off-street parking lot separated by a landscape island. The parking lot is necessary to help support the 600-membership capacity studied and approved in the EIS.

Comment No. 2

The site plan has been revised to depict a proposed contoured practice putting green adjacent to NY Route 22 and within the 100 foot R-2A buffer zone. Pursuant to Section 355-32.B of the Town Code, the intent of the Town Board is that a buffer area shall be used only for golf course uses, including access driveways and accessory parking, permitted in the R-2A District. In this case, existing golf uses were anticipated elements, but the proposed new practice green should not be constructed within the buffer. Any proposed new golf practice area shall be located outside of the buffer area. The area of the proposed practice green should be landscaped as anticipated during the environmental review of this project.

Response No. 2

The proposed practice putting green has been relocated outside of the 100-foot buffer area and is now located in front of the proposed clubhouse/amenities building.

<u>Comment No. 3</u>

The site plan depicts new tennis courts (structures) in the "front yard" of the property. While the tennis courts have been removed from the buffer, it is recommended that the site plan be revised to eliminate the tennis courts from the front yard since this area serves as the gateway to the project. This area should be incorporated into a formal landscaping/screening plan.

<u>Response No. 3</u>

Six (6) tennis courts are proposed along the upper roadway accessing proposed building #7, four (4) of which were previously proposed in front of the proposed clubhouse/amenities building. Furthermore, substantial understory screening proposed along Rt 22, will serve to screen the courts from the road. Once bramble is removed to provide space for screening planting, a large number of existing trees are to be maintained, as shown on LS100. Please refer to drawings and renderings prepared by Granoff Architects.

<u>Comment No. 4</u>

The site plan depicts a future road to provide access to the future tennis courts. It seems that a fully designed road would not be required for access. Perhaps, a golf cart path would be more appropriate for this area. If emergency vehicle access is required, a limited paved path with stabilized grasscrete shoulders may be more appropriate.

<u>Response No. 4</u>

The "future roadway" is now proposed and will be built to access proposed building #7 and the proposed tennis courts.

<u>Comment No. 5</u>

If the proposed future tennis courts or other active recreation area is not proposed to be constructed, it is recommended that a temporary use be established in this area. Consideration should be given to implementing the type of improvements constructed at the former MBIA property (path, walking trail, park like setting) that JMC prepared for that project.

<u>Response No. 5</u>

The "future tennis courts" are now proposed and will be built as an amenity for the development.

<u>Comment No. 6</u>

The site plan shall be revised to depict a lighting plan that conforms to the minimum requirements of Section 355-45.M of the Town Code. While a photometric plan and a lighting foundation detail was included, the plans do not depict details of the proposed light pole and fixture.

Response No. 6

A lighting plan conforming to the minimum requirements of Section 355-45.M of the Town code has been prepared and included in this submission. Please refer to drawings prepared by Apex Lighting Solutions. Cutsheets of the proposed light fixture have been included in this submission. Please refer to Razar Series LED specifications, prepared by U.S. Architectural Lighting.

Comment No. 7

The Applicant should indicate whether the tennis courts are proposed to be lit.

Response No. 7

The proposed tennis courts are not proposed to be lit at this time.

Comment No. 8

The site plan shall be revised to provide calculations demonstrating that the proposed units meet the minimum size requirements of the GCCFO Zoning District.

Response No. 8

Per Granoff Architects, The Residential Buildings have not changed since the last submission. The minimum one-bedroom unit is 900 sf per GCCFO zoning district and the proposed smallest unit is 2,377 sf (complies). The minimum two-bedroom unit is 1,100 sf per GCCFO zoning district and the proposed smallest unit is 2,997 sf (complies).

Comment No. 9

A golf course community must be affiliated with an adjoining membership club which is subject to a Town Board special use permit. Such affiliation shall be established by the requirement that, except for the initial developer/sponsor of the golf course community and successor sponsors/owners of units which have not yet been sold for owner occupancy, the owner of a dwelling unit of the golf course community must for the duration of ownership be a member (whether individually or as a family) of the membership club. The terms and conditions of membership shall be determined by the membership club.

The golf course of the affiliated membership club functions as the open space for the golf course community, and preservation of that open space is a basis for the permitted density of a golf course community. Accordingly, as a condition of site development plan approval of a golf course community, the affiliated membership club shall record in the Westchester County Clerk's office a permanent conservation easement pursuant to which the membership club agrees that the property on which the golf course is located shall be used solely as a golf course or as open space. The conservation easement shall be in form and substance reasonably acceptable to the Town Board and Town Attorney.

Response No. 9

The owners of the market-rate residences will all be members of The Summit Club which has reopened as of April, 2021. A Temporary Special Use Permit for the club/golf course operations, including the temporary facilities was approved by the Town Board on 02/24/2021.

The golf course lot is already subject to a recorded Declaration providing that the golf course lot can only be used as a golf course/club or as open space. The landowner, Summit Club Partners, LLC, will enter into a permanent conservation easement and file it with the Westchester County Clerk's office.

Comment No. 10

The Applicant will need to file the previously discussed conservation easement prior to the issuance of the first building permit.

Response No. 10

The comment is so noted.

Comment No. 11

The Applicant has indicated that chipping would be required during construction. At this time, the Applicant should provide details for review by the Planning Board.

Response No. 11

Based on the subsurface geotechnical exploration conducted at the property, rock is present in the proposed redevelopment area and blasting and/or chipping will be required to remove the rock during construction. All rock removal processes shall meet all applicable Town of North Castle. Additional information related to blasting and/or rock chipping in accordance with Town Code Chapter 22 "Blasting, Explosives and Chipping, last revised 11/18/2020 will be provided under separate cover.

Comment No. 12

The Applicant has indicated that rock processing would be proposed on the site. Additional details should be submitted regarding the proposed operation at this time.

Response No. 12

Based on the subsurface geotechnical exploration conducted at the property, rock is present in the proposed redevelopment area. Once removed, the rock will be processed on-site and used for construction. A note has been added to the site plans. All rock processing operations shall meet all applicable Town of North Castle and Westchester County Department of Health requirements. Additional information related to on-site rock processing in accordance with all local and WCDH requirements will be provided under separate cover.

Comment No. 13

The Town charges a fee in lieu of providing recreation facilities. The Applicant believes that sufficient on-site recreational facilities are being provided to meet the demand of the project, and has requested a credit be given for the market rate homes. The residents of the AFFH units would not be required to be members of the Club and would likely use Town recreation facilities. Therefore, the required $1,000 per unit fee in lieu should be paid by the Applicant for the AFFH units.

Response No. 13

The comment is so noted.

Comment No. 14

The site plan depicts 39,204 square feet of Town-regulated steep slope disturbance.

Response No. 14

The current site plans have been revised to depict 25,700 square feet (0.59 acres) of Town-regulated steep slope disturbance.

Comment No. 15

The site plan depicts the removal of 266 Town-regulated trees.

Response No. 15

The current site plans have been revised to depict the removal of 225 Town-regulated trees.

Comment No. 16

The Applicant should update the Planning Board regarding the status of providing potable water to the project.

Response No. 16

The applicant has retained the services of a hydrogeologist/water system consultant who is currently working on the design of the new on-site water system. The new water system will be sized appropriately to accommodate the proposed residential, golf club and various amenities facilities. Please refer to drawings prepared by WSP USA.

Comment No. 17

The Applicant should update the Planning Board regarding the plans to improve the wastewater treatment plant.

Response No. 17

The applicant has retained the services of a wastewater treatment plant consultant who is currently working on the design of the new wastewater treatment plant. The new plant is currently proposed to be located within the existing wastewater treatment plant building and will be sized appropriately to accommodate the proposed residential, golf club and various amenities facilities.

Comment No. 18

The Applicant has stated that signage is proposed for the project. The location and design of the signage should be included on the plans at this time.

Response No. 18

New entrance signage will be proposed on the new decorative stone walls proposed at the entrance to the site. Additional signage will be provided throughout the interior of the development area as required (traffic control, directional, etc.). The design of the proposed entrance signage will be prepared and provided under separate cover.

Comment No. 19

Pursuant to Section 355-34.I(5)(b) of the Town Code, within multifamily developments, the affordable AFFH units shall be physically integrated into the design of the development and shall be distributed among various sizes (efficiency, one-, two-, three- and four-bedroom units) in the same proportion as all other units in the development. The plan should identify which units will be AFFH and demonstrate that the unit sizes are equally distributed among the various sizes.

Response No. 19

The applicant intends to build seven (7) AFFH units on-site (within building #7), which is 10% of the proposed sixty-six (66) market rate units.

Comment No. 20

Pursuant to Section 355-24.I.1 of the Town Code AFFH units shall be marketed in accordance with the Westchester County Fair Affordable Housing Affirmative Marketing Plan.

Response No. 20

The comment is so noted.

Comment No. 21

Pursuant to Section 355-24-I.2 of the Town Code, the maximum monthly rent for an affordable AFFH unit and the maximum gross sales price for an AFAH unit shall be established in accordance with US Department of Housing and Urban Development guidelines as published in the current edition of the Westchester County Area Median Income AMI Sales Rent Limits available from the County of Westchester.

Response No. 21

The comment is so noted.

Comment No. 22

Pursuant to Section 355-24-I.3 of the Town Code, units designated as affordable AFFH units shall remain affordable for a minimum of 50 years from date of initial certificate of occupancy for rental properties and from date of original sale for ownership units.

Response No. 22

The comment is so noted.

Comment No. 23

Pursuant to Section 355-24-I.4 of the Town Code, a property containing any affordable AFFH units shall be restricted using a mechanism such as declaration of restrictive covenants in recordable form acceptable to the Town which shall ensure that the affordable AFFH unit shall remain subject to affordable regulations for the minimum 50-year period of affordability. The covenants shall require that the unit be the primary residence of the resident household selected to occupy the unit upon approval such declaration shall be recorded against the property containing the affordable AFFH unit prior to the issuance of a Certificate of Occupancy for the development.

Response No. 23

The comment is so noted. The applicant will comply. Section 1d of the 12/11/2019 zoning declaration applies and specifies the conditions for issuance of Certificates of Occupancy.

Comment No. 24

Pursuant to Section 355-34.I(6)(a) of the Town Code the Applicant shall submit an exhibit demonstrating that the proposed AFFH units meet the minimum size requirements and are not less than 80% of the of average floor area of market rate units.

Response No. 24

Per Granoff Architects, See AFFH Building 7-First Floor Plan (A101). The revised chart shows the min. AFFH unit sizes and the proposed. The minimum one-bedroom is 700 sf, and 790 sf is proposed (complies). The minimum two-bedroom is 900 sf, and 1,330 sf is proposed (complies).

Kellard Sessions Memorandum, dated June 24, 2021

Cover Sheet

Comment No. 1

Parking space calculations do not appear to comply fully with the regulations. The additional ½ space per bedroom is only required for bedrooms in excess of the initial two (2) bedrooms per unit.

Response No. 1

All required and provided parking for the various uses of the development has been calculated in accordance with Town of North Castle Zoning Code Section 355-57 "Schedule of Off-Street Parking Requirements".

Site Plans

Comment No. 2

The applicant should provide the design for the retaining wall (approximately 8 ft high) located along the cul-de-sac of Road B and driveway to Building #6. Proposed finishes should be provided for the Planning Board's consideration.

Response No. 2

The proposed grading has been modified in this area, which now proposes a 2.5:1 stabilized slope and eliminates the proposed retaining wall. As indicated on the site plans, if a rock cut slope (1:12) is feasible to stabilize the area based on further geotechnical exploration then the finish will be natural rock. Slope stabilization areas have been hatched accordingly and a detail for slope stabilization has been included on the site plans.

Comment No. 3

The applicant should provide the design for the decorative stone wall along Bedford Road frontage.

Response No. 3

Per Granoff Architects, See detail 2 on Sheet LS100.1 on Granoff Architects Landscape Drawing Set. Sheet is labeled "Overall Site Plan-Northern Development"

Comment No. 4

Traffic signage is not provided in front of the amenities building or proposed parking lot in front of the building.

Response No. 4

Traffic signage for the clubhouse/amenities building and associated parking lots has been depicted on the site plans.

Comment No. 5

Permeable asphalt pavement is proposed within the new parking lot in front of the amenities building. Soil test data should be provided.

Response No. 5

Soil test data (deep holes and infiltration testing) shall be performed for the permeable asphalt pavement area once the Planning Board is comfortable with the design of this parking area.

Comment No. 6

Pervious pavers are proposed within the parking courts in front of the residential buildings. Soil test data should be provided.

Response No. 6

Pervious pavers are no longer proposed at the parking courts in the front of each lower residential building. At this time, the applicant is exploring decorative pavers or asphalt pavement options in these areas. A detail of a decorative paver option for the parking courts and the main entrance has been included on the site plans.

Comment No. 7

Setbacks should be provided along internal property boundaries.

Response No. 7

In accordance with section 355-32D. "Golf Course Community Floating Overlay District: Lot, dimensional and parking requirements for a golf course community": "*All lot, dimensional, and parking requirements in this section, including but not limited to maximum density, maximum building coverage, minimum yards and required off-street parking, shall apply to the land area in the GCCFO District as a whole, notwithstanding that the golf course community site may be comprised of more than one lot and/or parcel, or that the site may from time to time be subdivided or resubdivided, and all determinations and calculations relating to such requirements shall be made with reference to the boundaries of the entire land area in the GCCFO District and as though such area is a single lot (as defined in § 355-4 of this chapter), even though it is or will be comprised of more than one lot and/or parcel.*" That being said, dimensions from proposed structures to the proposed internal subdivision lines have been depicted on the plans.

Comment No. 8

Sidewalk width should be provided on the site plans.

Response No. 8

The widths of the proposed sidewalks have been dimensions on the site plans.

Comment No. 9

The applicant should examine the site plan and provide all required dimensions required to layout and construct roadways and parking areas. This should include dimensions, radii, tangents, etc., along roadway center lines, intersections and parking areas.

Response No. 9

Appropriate dimensions have been added to the site plans.

Comment No. 10

Below grade parking layouts should be provided for verification of the parking provided.

Response No. 10

Per Granoff Architects, Residential buildings 1-6 have 24 below grade parking spaces per building. Residential Plan A100 “Garage Floor Plan” dated 1-11-21 ARB Submission is re-submitted for convenience to illustrate this parking.

Comment No. 11

A Highway Work Permit and Driveway Access Permit will be required from the New York State Department of Transportation (NYSDOT).

Response No. 11

The applicant’s Traffic Consultant shall prepare applications to the New York State Department of Transportation (NYSDOT) for all required permitting associated with work within the Bedford Road (NY-22) right-of-way.

Comment No. 12

The roadway center line radius for Road “A” is less than the Town regulations for roadways. We do not consider this portion of Road “A” west of the traffic circle to be a roadway, but a driveway servicing the amenities building. Considering the speed limit and grades in front of the building, we see no issue with the proposed radius.

Response No. 12

The comment is so noted.

Fire Truck Plan

Comment No. 13

The applicant has provided fire truck turning movements along proposed roadways and driveways through the project. The only apparent conflict is at the end of Road "A" where apparatus exiting the parking lot traverses over the three (3) parking spaces east of the driveway. The applicant should re-examine this turning movement and show whether the movement can be accomplished when vehicles are parked within these spaces. We would recommend that the plan be referred to the Armonk Fire Department for review.

Response No. 13

The fire truck turning analysis has been revised to avoid conflict with parking spaces.

Grading Plan

Comment No. 14

We would suggest the applicant re-examine the driveway grades where the driveway to the cart shed meets the amenity building driveway. Also, proposed grading at the southwest corner of the proposed tennis courts may require a wall.

Response No. 14

The proposed grading in this area has been revised accordingly.

Comment No. 15

Grading within the lawn area in front of Buildings #1 thru #4 and the northeast portion of the amenities building require some additional attention, contours appear to be missing.

Response No. 15

The proposed grading in this area has been revised accordingly.

Comment No. 16

Grading of the driveway and area between the pool deck and putting green behind Building #1 appear to also need some attention.

Response No. 16

The proposed grading in this area has been revised accordingly.

Comment No. 17

The embankment making up the detention pond is proposed at 1 vertical on 2.5 horizontal slope (1V:2.5H). The New York State Stormwater Management Design Manual (NYSSMDM) recommends a maximum slope of 1V:3H. It appears slope stabilization is being proposed, however, we could not find this additional detail. The applicant should consider revising the grading.

Response No. 17

Slope stabilization has been proposed for the areas of the 2.5:1 slopes adjacent to the detention pond. Slope stabilization areas have been hatched accordingly and a detail for slope stabilization has been included on the site plans.

Comment No. 18

Please provide a detail of the curb cut at the NYSDOT roadway. We have concern that the location and elevation of catch basins in relationship to the existing grades at Route 22 could result in ponding of stormwater runoff. Please address.

Response No. 18

A curb ending meeting existing pavement has been proposed at the left side (exit lane) of the site driveway to continue to allow runoff to discharge into the existing catch basin within Bedford Road (NY-22).

Comment No. 19

The proposed tennis courts are graded at a slope across their width of less than 1%. This may result in ponding and therefore, a different grading plan for the courts may be proposed at the time of their construction. We would recommend that the drainage system inverts at the tennis courts be established at an elevation, which would permit drainage at the far end of the court be collected should final grading vary from the proposed grades shown.

Response No. 19

The grading for the proposed tennis courts has been revised to depict 1% slopes across the widths and the inverts of the slotted drains have been adjusted to accommodate for final grading during construction.

Comment No. 20

The applicant should prepare a cut and fill analysis for each phase of construction so that there is an understanding of the overall requirement for import or export of materials and how materials will be handled between phases of construction, i.e., if there is surplus material for Phase 1, it is assumed it would be used to off-set fill requirements for Phase 2, etc.

Response No. 20

A cut and fill analysis for each phase of construction shall be prepared and submitted under separate cover.

Roadway Profiles

Comment No. 21

The proposed grade at Road "A" between Station 0+00 and 1+85.44 is less than the Town's minimum grade of 1.5%.

Response No. 21

The proposed grade at Road "A" has been revised accordingly.

Comment No. 22

The vertical curve at Road "B" Station 9+00.00 should be increased to a minimum of 160 feet in length to meet the minimum K value of 20 for crest curve and at Station 10+34.66 to 90 feet in length to meet the minimum K value of 15 for sag curves to comply with Town standards.

Response No. 22

The proposed vertical curve at Road "B" has been revised accordingly.

Comment No. 23

The vertical curve at Road "C" Station 0+50.50 should be increased to 105 feet in length to meet the minimum required K value of 15 to comply with Town standards.

Response No. 23

The proposed vertical curve at Road "C" has been revised accordingly.

Preliminary Utility Plans

Comment No. 24

Please clarify how the existing drainage system within the NYSDOT right-of-way at the proposed entrance functions and where it discharges.

Response No. 24

A curb ending meeting existing pavement has been proposed at the left side (exit lane) of the site driveway to continue to allow runoff to discharge into the existing catch basin within Bedford Road

(NY-22).

Comment No 25

The applicant is proposing a new water distribution system to service the project. Fire hydrants are proposed at various locations throughout the project. The applicant is proposing hydrants on the far side of the sidewalk approximately 10 feet from the roadway. Hydrants are typically installed within the grass strip between the roadway and sidewalk approximately two (2) feet off the roadway. This makes for easier access and clearing of snow. A hydrant is also proposed in front of the amenities building. We would suggest the hydrant layout be forwarded to the Armonk Fire Department for their review and comment.

Response No. 25

The proposed fire hydrants have been relocated closer to the proposed roadways (within the grassed strip between the roadway and sidewalk), 1'-6" from the face of curb, as indicated on the hydrant detail.

Comment No. 26

The proposed water distribution and sanitary sewer collection systems will require approval by the Westchester County health Department (WCHD).

Response No. 26

The comment is so noted. The applicant has retained the services of a hydrogeologist/water system consultant who is currently working on the design of the new on-site water system. The new water system will be sized appropriately to accommodate the proposed residential, golf club and various amenities facilities. Furthermore, the applicant has retained the services of a wastewater treatment plant consultant who is currently working on the design of the new wastewater treatment plant. The new plant is currently proposed to be located within the existing wastewater treatment plant building and will be sized appropriately to accommodate the proposed residential, golf club and various amenities facilities.

Comment No. 27

Individual domestic and fire service mains are proposed into each of the six (6) residential structures and the amenities building. Upon determination of the size and type of the service main, such information should be included on the site plans.

Response No. 27

The comment is so noted. The applicant is in the process of retaining an MEP engineer to assist with the design of the domestic and fire services.

Comment No. 28

The water main does not appear to have sufficient cover over the pipe between Station 1+00 and 4+00. Is *fire service and domestic water service required to the cart shed and if so, will it be a separate service line or be fed through the amenities building?*

Response No. 28

The proposed water main has been revised to provide sufficient cover (minimum 4'). As indicated above, the applicant is in the process of retaining an MEP engineer to assist with the design of the domestic and fire services.

Comment No. 29

The applicant is proposing a new sewer collection system to service the project. The sewer main between the amenities building and sewer plant is proposed within the existing sewer trench. A separate branch will service the six (6) residential buildings from the rear of the buildings. Individual building services are proposed to each building. Also, a gravity service main is proposed to the gate house. We have provided preliminary comment related to the layout below.

Response No. 29

The comment is so noted.

Comment No. 30

The four (4) inch service pipe to the gate house appears to be proposed at a depth, which is significantly lower than what may be necessary (16 feet deep at SMH 4-1B). This excessive depth could be due a rim elevation at SMH 4-2B, which is ten (10) feet lower than the proposed grade. Please re-examine the design, it appears the sewer service could be raised significantly.

Response No. 30

The sanitary sewer and associated grading have been revised to reduce the proposed overall depth.

Comment No. 31

The sewer main within the rear of the residential buildings also appears to be excessively deep, with significant portions of the main in excess of 20 feet deep and a manhole at 22 feet deep. The depth of installation could be reduced significantly with some minor changes to the grading plan at SMH 15 and 13 and also within a short segment of the main between SMH's #11 and #12. Also, if the sewer main were constructed between manholes BMH #3 and SMH #7 instead of SMH #4 and SMH #7, further reductions of depth may be achieved.

Response No. 31

The sanitary sewer and associated grading have been revised to reduce the proposed overall depth.

Comment No. 32

There are no stormwater collection or treatment practices proposed on the plans for runoff from the amenities building, new tennis courts in front of the amenities building, driveway, existing parking lot or pool deck. The applicant should explain their intent on addressing the runoff.

Response No. 32

The west portion of the work area has been designed to function like existing conditions. The clubhouse/amenities building/pool area are replacing existing impervious area, while the existing parking lot remains unchanged. Similar to existing conditions, stormwater runoff from this area will travel overland and pass through several existing ponds before exiting the site to the north. The proposed overflow parking area will be a pervious pavement to allow the stormwater to infiltrate at a similar rate to existing conditions. As indicated above, soil testing (deep holes and infiltration testing) shall be performed for the permeable asphalt pavement area once the Planning Board is comfortable with the design of this parking area.

Comment No. 33

Drainage Manhole DMH-8A-1-1 is proposed at a depth of 20 feet. A shallow manhole located around Station 1+50 would permit reducing the depth to 3-4 feet for DMH-8A-1-1. Also, manhole DMH-4B-4 is 12 feet deep. This manhole could be significantly reduced with no additional improvements.

Response No. 33

The configuration of the proposed tennis courts has been redesigned and the grading and drainage system has been revised accordingly.

Comment No. 34

As previously mentioned, the inverts at DMH-8A-1-1 and DMH 4B-4 should be examined to assure a depth sufficient to collect runoff from the opposite side of the tennis court should an alternate grading scheme be implemented.

Response No. 34

The configuration of the proposed tennis courts has been redesigned and the grading and drainage system has been revised accordingly.

Comment No. 35

Roof discharge locations at Buildings 1-6 should be provided.

Response No. 35

Assumed locations of roof drain leaders have been depicted on the site plans connecting to the proposed stormwater system.

Comment No. 36

The plan illustrates catch basins and storm piping located within the proposed future road. The plan should clarify whether it is proposed to install these improvements as part of this plan or only if the future road is to be constructed.

Response No. 36

As indicated above, the "future roadway" is now proposed and will be built to access proposed building #7 and the proposed tennis courts and the stormwater infrastructure will now be installed during the construction of the roadway.

Utility Profiles

Comment No. 37

Crushed stone or gravel should be shown on the sewer profiles and water main profiles between the existing grade and the main when the mains are located within areas of fill.

Response No. 37

The profiles have been revised to depict crushed stone or gravel for the sewer and water mains between the existing grade and the mains when the mains are located within areas of fill.

Comment No. 38

The applicant should check drainage profiles for adequate cover over pipes. In particular, downstream of DMH-5B, vicinity DMH-5A, WQS-4A, TD-4B-5-1, between WQS-4B and CI-4B-1, CI-4B-1 and DMH-4B-2 and DMH-8B.

Response No. 38

The profiles have been revised to provide adequate cover over piping.

Comment No. 39

The profiles should illustrate all utility crossings to demonstrate that minimum required separation distances to sewer and water mains are provided.

Response No. 39

The profiles have been revised to depict all utility crossings to demonstrate the minimum separation distance to sewer and water mains are provided.

Construction Details

Comment No. 40

We would prefer all drainage structures to be precast concrete. Solid concrete block structures should only be used when precast options are not available.

Response No. 40

The drainage structure details have been revised accordingly.

Comment No. 41

Sidewalk thickness should be 5" minimum.

Response No. 41

The concrete sidewalk detail has been revised accordingly.

Comment No. 42

Heavy duty pavement should include a 4" thick binder course.

Response No. 42

The heavy-duty pavement detail has been revised accordingly.

Comment No. 43

Provide details for:

- 4" mountable curb
- Granite cobblestone pavers
- Porous pavers
- Tennis courts

Response No. 43

The 4" mountable curb detail and decorative pavers detail have been added to the Construction Details drawings. A detail of the tennis courts shall be provided by a company specializing in tennis court construction and provided under separate cover.

SWPPP

Comment No. 44

The applicant has submitted a Preliminary Stormwater Pollution Prevention Plan (SWPPP) for review and approval. Our office will continue to review the SWPPP along with the stormwater treatment design, pipe sizing and erosion and sediment plan as the project develops. We shall forward our preliminary comments on the SWPPP.

Response No. 44

The comment is so noted.

Comment No. 45

We note that the project proposes approximately 18 acres of overall disturbance. The plans indicate three (3) phases of construction. The Erosion and Sediment Control Plan shall clearly identify the phases of construction, total disturbance area for each phase, and the measures required to control erosion and sediment for each phase. Because disturbance for a particular phase will exceed five (5) acres, the owner has acknowledged that he will be required to perform increased inspections throughout construction.

Response No. 45

The Erosion and Sediment Control Plan depicts the three (3) phases of construction on sheets C-400 and C-401. The sequence of construction on sheet C-402 includes approximate disturbance areas for each phase as well as the measures required to control each phase. The SWPPP text contains instructions to increase the frequency of inspections when the disturbance is greater than five (5) acres upon approval of the waiver.

Comment No. 46

The Erosion and Sediment Control Plan should include additional measures such as diversion swales and water bars to direct stormwater runoff to the proposed temporary sediment basins. Due to the level of earthwork and grading proposed behind Buildings #4 thru #6, we recommend that an additional temporary sediment basin be constructed downgrade of this development area.

Response No. 46

The Erosion and Sediment Control Plan depicts temporary swales directing runoff into the proposed temporary sediment basins. Due to the lack of space behind Buildings #4 thru #6, a temporary swale will be placed directing the runoff to the temporary sediment basin. Buildings #1 thru #3 will be included within a separate phase to alleviate the strain on the basin.

We trust the attached documents and above responses are sufficient for your review and we respectfully request placement on the January 24th Planning Board agenda. Thank you for your consideration.

If you have any questions or require additional information, please do not hesitate to contact our office at (914) 273-5225.

Sincerely,

JMC Planning Engineering Landscape Architecture & Land Surveying, PLLC

Paul Sysak

Paul R. Sysak, RLA
Project Manager

cc: Adam R. Kaufman, AICP
Joseph M. Cermele, PE, CFM
Roland Baroni, Esq.
Jeffrey B. Mendell
Mark P. Weingarten, Esq.
Peter J. Wise, Esq.
Rich S. Granoff, AIA, LEED AP
Kenneth S. Andersen, AIA

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SITE PLAN APPROVAL DRAWINGS

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)

TAX MAP SECTION 101.02 | BLOCK 1 | LOT 28.1 & 28.2
WESTCHESTER COUNTY
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

Applicant/Owner:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504
(914) 391-2900

Architect/Landscape Architect:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830
(203) 625-9460

Attorney
DELBELLO DONNELLAN WEINGARTEN WISE & WIEDERKEHR, LLP
THE GATEWAY BUILDING
ONE NORTH LEXINGTON AVENUE
WHITE PLAINS, NY 10601
(914) 681-0200

Lighting Consultant:
APEX LIGHTING SOLUTIONS
20-30 BEAVER ROAD
WETHERSFIELD, CT 06109
(860) 632-8776

Site Planner, Civil Engineer, Surveyor:
JMC PLANNING ENGINEERING LANDSCAPE ARCHITECTURE & LAND SURVEYING PLLC
120 BEDFORD ROAD
ARMONK, NY 10504
(914) 273-5225

JMC Drawing List:

TABLE OF LAND USE

SECTION 101.02, BLOCK 1, LOT 28.1 & 28.2 (2/08/7.C1A)
ZONES "R-2A" – "ONE FAMILY RESIDENCE DISTRICT (2 ACRES)"
"GCCFO"– "GOLF COURSE COMMUNITY FLOATING OVERLAY DISTRICT"
PROPOSED USE: GOLF COURSE COMMUNITY
FIRE/AMBULANCE DISTRICT: ARMONK FIRE DEPARTMENT (NORTH CASTLE DISTRICT #2)
WATER DISTRICT: NORTH CASTLE WATER DISTRICT #2
SCHOOL DISTRICT: BYRAM HILLS CENTRAL SCHOOL DISTRICT
SEWER DISTRICT: ON-SITE SEWAGE TREATMENT PLANT (SPDES PERMIT)

DESCRIPTION	REQUIRED/ PERMITTED (R-2A)	REQUIRED/ PERMITTED (GCCFO)	EXISTING	PROPOSED/ PROVIDED (LOT 1)	PROPOSED/ PROVIDED (LOT 2)
LOT AREA (ACRES)	2.0 MIN. (1)	SEE NOTE 1	±156.30 (5)	±129.82	±26.48
LOT STREET FRONTAGE (FEET)	150 MIN. (1)	SEE NOTE 1	1,519.70	1,519.70 (1)	1,519.70 (1)
LOT WIDTH (FEET)	150 MIN. (1)	SEE NOTE 1	±2,300	±2,300 (1)	±2,300 (1)
LOT DEPTH (FEET)	150 MIN. (1)	SEE NOTE 1	±1,805	±1,805 (1)	±1,805 (1)
PRINCIPAL BUILDING MINIMUM YARDS (FEET)					
FRONT	50 (1)	SEE NOTE 1	±123.1	±294.00 (1)	±267.61 (1)
SIDE	30 (1)	SEE NOTE 1	±287.8	±84.41' (1)	±104.93 (1)
REAR	50 (1)	SEE NOTE 1	±1,645.5	±1,733.58 (1)	±881.30 (1)
MAXIMUM BUILDING COVERAGE (%)	8 (1)	3.5 (1)	0.72 (6)	0.16 (1)(7)	1.50 (1)(7)
MAXIMUM BUILDING HEIGHT (STORIES / FEET)	NA / 30	3 / 39.5 (2)	3 / < 39.5	3 / < 39.5	3 / < 39.5
PARKING SPACES					
STANDARD PARKING SPACES	2 PER DWELLING UNIT	SEE NOTE 3	–	176	172
ACCESSIBLE PARKING SPACES	N/A	–	–	7	13
TOTAL PARKING SPACES	2 PER DWELLING UNIT	–	180	181	186
LOADING SPACES	N/A	SEE NOTE 4	–	2	–

NOTES:

1. IN THE GCCFO DISTRICT, THE LOT, DIMENSIONAL, AND PARKING REQUIREMENTS FOR A GOLF COURSE COMMUNITY IN THIS SECTION SHALL SUPERSEDE THE SCHEDULE OF RESIDENCE DISTRICT REGULATIONS (§ 355–21 OF THIS CHAPTER). LOT SIZE, LOT CONFIGURATION AND OTHER LOT DIMENSIONAL REQUIREMENTS WITHIN A GCCFO DISTRICT SHALL BE DETERMINED BY THE PLANNING BOARD IN CONJUNCTION WITH SUBDIVISION APPROVAL. LOT SIZE, LOT CONFIGURATION AND OTHER LOT DIMENSIONAL REQUIREMENTS OF LOTS WITHIN A GCCFO DISTRICT SHALL BE BASED UPON THE PLANNING BOARD'S CONSIDERATION OF THE CHARACTER OF THE NEIGHBORHOOD IN WHICH THE GCCFO DISTRICT WILL BE LOCATED; THE GCCFO DISTRICT'S RELATIONSHIP TO ADJOINING DISTRICTS, PROPERTIES AND LAND USES; THE GCCFO DISTRICT'S TOPOGRAPHY; AND SUCH OTHER FACTORS THE PLANNING BOARD MAY DETERMINE TO BE APPROPRIATE. THE LOTS AND/OR PARCELS THAT TOGETHER COMPRISE A GOLF COURSE COMMUNITY SITE ARE NOT REQUIRED TO BE CONTIGUOUS, PROVIDED THAT EACH SUCH LOT AND/OR PARCEL ADJOINS THE AFFILIATED MEMBERSHIP CLUB. ALL LOT, DIMENSIONAL, AND PARKING REQUIREMENTS IN THIS SECTION, INCLUDING BUT NOT LIMITED TO MAXIMUM DENSITY, MAXIMUM BUILDING COVERAGE, MINIMUM YARDS AND REQUIRED OFF-STREET PARKING, SHALL APPLY TO THE LAND AREA IN THE GCCFO DISTRICT AS A WHOLE, NOTWITHSTANDING THAT THE GOLF COURSE COMMUNITY SITE MAY BE COMPRISED OF MORE THAN ONE LOT AND/OR PARCEL, OR THAT THE SITE MAY FROM TIME TO TIME BE SUBDIVIDED OR RESUBDIVIDED, AND ALL DETERMINATIONS AND CALCULATIONS RELATING TO SUCH REQUIREMENTS SHALL BE MADE WITH REFERENCE TO THE BOUNDARIES OF THE ENTIRE LAND AREA IN THE GCCFO DISTRICT AND AS THOUGH SUCH AREA IS A SINGLE LOT (AS DEFINED IN § 355–4 OF THIS CHAPTER), EVEN THOUGH IT IS OR WILL BE COMPRISED OF MORE THAN ONE LOT AND/OR PARCEL.

2. THE MAXIMUM BUILDING HEIGHT SHALL BE THREE STORIES AND 39 1/2 FEET TO THE MEAN LEVEL OF THE PRIMARY ROOF, MEASURED FROM THE LEVEL OF THE FINISHED GRADE AT THE MAIN ENTRY TO THE BUILDING.

3. RESIDENTIAL PARKING CALCULATIONS

MARKET-RATE DWELLING UNITS REQUIREMENT: "OTHER MULTIFAMILY DWELLING UNITS": 2 FOR EACH DWELLING UNIT, PLUS ½ FOR EACH BEDROOM IN EXCESS OF 2, PLUS 10% VISITOR PARKING.

66 TOTAL MARKET-RATE DWELLING UNITS: (46) 2-BEDROOM UNITS, (16) 3-BEDROOM UNITS, (2) 4-BEDROOM UNITS
66 (DWELLING UNITS) X 2 = 132 PARKING SPACES
16 (3-BEDROOM UNITS) X .5 = 8 PARKING SPACES
2 (4-BEDROOM UNITS) X 1 = 2 PARKING SPACES
10% VISITOR PARKING: 142 X .10 = 14.2 (15) PARKING SPACES
TOTAL REQUIRED PARKING FOR MARKET-RATE UNITS: 157 PARKING SPACES

AFFH DWELLING UNITS REQUIREMENT: "MIDDLE-INCOME DWELLING UNITS AND AFFH UNITS": 1 FOR EACH DWELLING UNIT, PLUS ½ FOR EACH BEDROOM.

7 TOTAL AFFH DWELLING UNITS: (46) 2-BEDROOM UNITS, (16) 3-BEDROOM UNITS, (2) 4-BEDROOM UNITS
7 (DWELLING UNITS) X 1 = 7 PARKING SPACES
11 (TOTAL BEDROOMS) X .5 = 5.5 (6) PARKING SPACES
TOTAL REQUIRED PARKING FOR MARKET-RATE UNITS: 13 PARKING SPACES

GOLF COURSE/CLUB PARKING CALCULATIONS

GOLF COURSE/CLUB REQUIREMENT: "GOLF OR COUNTRY CLUBS": 1 FOR EACH 3 MEMBERS, PLUS 1 FOR EACH 3 SEATS IN THE MEETING AND/OR DINING ROOMS.

600 TOTAL MEMBERSHIPS:
600 (MEMBERSHIPS) / 3 = 200 PARKING SPACES
287 TOTAL SEATS: (252 RESTAURANT SEATS + 35 BAR SEATS)
287 (SEATS) / 3 = 95.7 (96) = PARKING SPACES
TOTAL REQUIRED PARKING FOR GOLF COURSE/CLUB: 296 PARKING SPACES

TOTAL REQUIRED PARKING: 170 RESIDENTIAL + 296 GOLF COURSE/CLUB = 466 SPACES
TOTAL PROVIDED PARKING: 190 RESIDENTIAL + 230 GOLF COURSE/CLUB + 25 MAINTENANCE + 66 GOLF CLUB RESIDENT CREDIT (1 SPACE/UNIT) = 511 SPACES

4. FOR WHOLESALE BUSINESS, INDUSTRY, STORAGE, WAREHOUSE AND OTHER COMMERCIAL ESTABLISHMENTS, A MINIMUM OF ONE SPACE FOR EACH ESTABLISHMENT, AND ONE ADDITIONAL SPACE FOR EACH 10,000 SQUARE FEET OF GROSS FLOOR AREA OR MAJOR PORTION THEREOF IN EXCESS OF 4,000 SQUARE FEET OF GROSS FLOOR AREA.

5. CURRENTLY THE GOLF COURSE LOT IS ±129.96 ACRES AND THE RESIDENTIAL LOT IS ±26.34 ACRES.

6. TOTAL EXISTING BUILDING COVERAGE CALCULATED BASED ON ALL EXISTING BUILDINGS ON THE PROPERTY, INCLUDING PREVIOUSLY DEMOLISHED STRUCTURES.

7. BUILDING COVERAGE BREAKDOWN:

LOT 1:

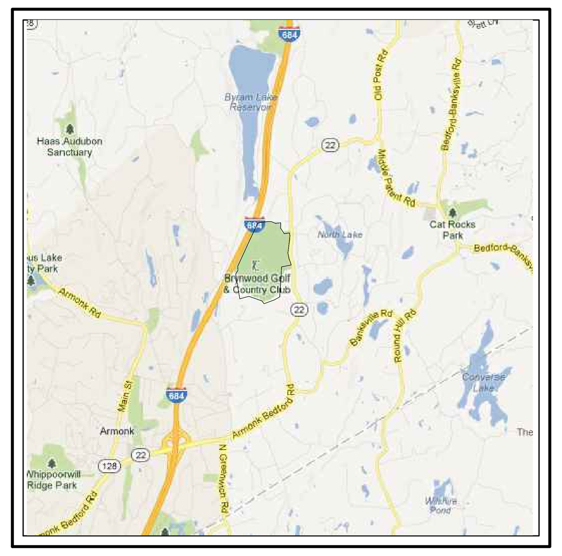
CLUBHOUSE/AMENITIES BUILDING: ±9,115.72 S.F.
PRO SHOP: 2,025.00 S.F.

TOTAL LOT 1 BUILDING COVERAGE: ±11,140.72 S.F.

LOT 2:

EXISTING SEWAGE TREATMENT PLANT TO REMAIN: ±2,503.26 S.F.
RESIDENTIAL BUILDINGS: 6 X 14,364.24 S.F.
AFFH RESIDENTIAL BUILDING: ±9,097.92
GATE HOUSE: 903 S.F.
TENNIS PAVILION: 375 S.F.
MAINTENANCE BUILDING: 2,500 S.F.
WATER TREATMENT BUILDING: 640 S.F.

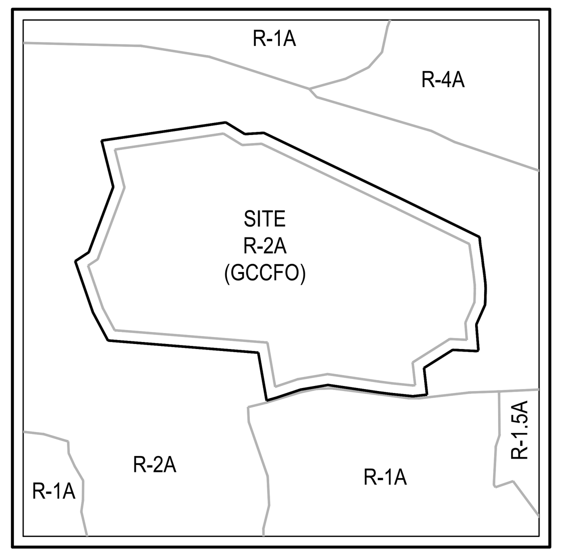
TOTAL LOT 2 BUILDING COVERAGE: ±102,204.62 S.F.



ZONING MAP
SCALE: 1" = 1,000'
SOURCE: TITLE / YEAR

LEGEND

— — —	SITE PROPERTY LINE
— — —	ZONING BOUNDARY
R-4A	4-ACRE RESIDENTIAL ZONE
R-2A	2-ACRE RESIDENTIAL ZONE
R-1.5A	1.5-ACRE RESIDENTIAL ZONE
R-1A	1-ACRE RESIDENTIAL ZONE
GCCFO	GOLF COURSE COMMUNITY FLOATING OVERLAY DISTRICT



ZONING MAP
SCALE: 1" = 5,000'

PROPOSED BUILDING AREA SUMMARY (GROSS FLOOR AREA):

AMENITIES BUILDING:
FIRST FLOOR: 5,256 SF
LOWER LEVEL: 7,000 SF (5,000 SF FINISHED + 2,000 SF UNFINISHED)
PRO SHOP: 1,188 SF
TOTAL FOR AMENITIES BUILDING: 13,444 SF

RESIDENTIAL BUILDINGS (#1-6):
EACH CONDO FLOOR: 12,350 S.F. (3 STORIES TOTAL = 37,050 S.F.)
EACH GARAGE PARKING LEVEL: 16,605 SF
TOTAL PER BUILDING (#1-6): 53,655 SF

TOTAL FOR ALL RESIDENTIAL BUILDINGS (#1-6): 321,930 SF

RESIDENTIAL UNIT PHASING DECLARATION:

IN DECEMBER, 2019, IN CONSIDERATION OF THE ADOPTION BY THE TOWN OF THE AMENDMENT, THE APPLICANT RECORDED A DECLARATION PURSUANT TO WHICH THE APPLICANT MAY, SUBJECT TO SITE PLAN APPROVAL, CONSTRUCT ON THE DEVELOPMENT LOT A FIRST PHASE OF THE COMMUNITY ("PHASE 1 "), WHICH MAY CONSIST OF UP TO THIRTY-SIX (36) RESIDENCES, WHICH MAY BE FEE-SIMPLE HOMES AND/OR CONDOMINIUM UNITS WITHOUT LIMITATION REGARDING FORM OF OWNERSHIP OF THE RESIDENCES, AND A SECOND PHASE OF THE COMMUNITY ("PHASE 2"), WHICH MAY CONSIST OF UP TO THIRTY-SEVEN (37) RESIDENCES, WHICH MAY BE FEE-SIMPLE HOMES AND/OR CONDOMINIUM UNITS WITHOUT LIMITATION REGARDING FORM OF OWNERSHIP OF THE RESIDENCES; PROVIDED THAT UNLESS THE AGGREGATE AVERAGE OF THE GROSS SALES PRICES OF THE MARKET-RATE PHASE 1 CONDOMINIUM UNITS IS $700.00 PER SQUARE FOOT OR MORE, THE PHASE 2 CONDOMINIUM RESIDENCES ARE REQUIRED TO BE "55 AND OLDER" AGE-RESTRICTED HOUSING AS PERMITTED UNDER APPLICABLE FEDERAL LAW AND REGULATIONS. THE DECLARATION ALSO REQUIRES PHASE 1 TO INCLUDE FOUR (4) ON-SITE AFFORDABLE UNITS, AND PHASE 2 TO INCLUDE THREE (3) ON-SITE AFFORDABLE UNITS. HOWEVER, THE APPLICANT IS PERMITTED TO AT ANY TIME ELECT TO RELOCATE ALL OR A PORTION OF THE AFFORDABLE UNITS OFF-SITE WITHIN AREAS IN THE ARMONK HAMLET THAT ARE SERVED BY PUBLIC SEWER AND WATER, AND THEREBY REDUCE THE ON-SITE AFFORDABLE UNITS AND SUBSTITUTE MARKET-RATE UNITS THEREFOR ON A ONE-TO-ONE BASIS, PROVIDED THAT IN NO EVENT SHALL THE TOTAL NUMBER OF RESIDENTIAL UNITS ON THE PROPERTY EXCEED SEVENTY-THREE (73).

GENERAL CONSTRUCTION NOTES APPLY TO ALL WORK HEREIN:

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CALL 811 "DIG SAFELY" (1-800-962-7962) TO HAVE UNDERGROUND UTILITIES LOCATED. EXPLORATORY EXCAVATIONS SHALL COMPLY WITH CODE 753 REQUIREMENTS. NO WORK SHALL COMMENCE UNTIL ALL THE OPERATORS HAVE NOTIFIED THE CONTRACTOR THAT THEIR UTILITIES HAVE BEEN LOCATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION, INSOFAR AS THEY MAY BE ENDANGERED BY THE CONTRACTOR'S OPERATIONS. THIS SHALL HOLD TRUE WHETHER OR NOT THEY ARE SHOWN ON THE CONTRACT DRAWINGS. IF THEY ARE SHOWN ON THE DRAWINGS, THEIR LOCATIONS ARE NOT GUARANTEED EVEN THOUGH THE INFORMATION WAS OBTAINED FROM THE BEST AVAILABLE SOURCES, AND IN ANY EVENT, OTHER UTILITIES ON THESE PLANS MAY BE ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, IMMEDIATELY REPAIR OR REPLACE ANY STRUCTURES OR UTILITIES THAT HE DAMAGES, AND SHALL CONSTANTLY PROCEED WITH CAUTION TO PREVENT UNDUE INTERRUPTION OF UTILITY SERVICE.

2. CONTRACTOR SHALL HAND DIG TEST PITS TO VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL VERIFY EXISTING UTILITIES DEPTHS AND ADVISE OF ANY CONFLICTS WITH PROPOSED UTILITIES. IF CONFLICTS ARE PRESENT. THE OWNER'S FIELD REPRESENTATIVE, JMC, PLLC AND THE APPLICABLE MUNICIPALITY OR AGENCY SHALL BE NOTIFIED IN WRITING. THE EXISTING/PROPOSED UTILITIES RELOCATION SHALL BE DESIGNED BY JMC, PLLC.

3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL LOCAL PERMITS REQUIRED.

4. ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, STANDARDS, ORDINANCES, RULES, AND REGULATIONS. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL SAFETY CODES. APPLICABLE SAFETY CODES MEAN THE LATEST EDITION INCLUDING ANY AND ALL AMENDMENTS, REVISIONS, AND ADDITIONS THERETO, TO THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S OCCUPATIONAL SAFETY AND HEALTH STANDARDS (OSHA); AND APPLICABLE SAFETY, HEALTH REGULATIONS AND BUILDING CODES FOR CONSTRUCTION IN THE STATE OF NEW YORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GUARDING AND PROTECTING ALL OPEN EXCAVATIONS IN ACCORDANCE WITH THE PROVISION OF SECTION 107-05 (SAFETY AND HEALTH REQUIREMENTS) OF THE NYSDOT STANDARD SPECIFICATIONS. IF THE CONTRACTOR PERFORMS ANY HAZARDOUS CONSTRUCTION PRACTICES, ALL OPERATIONS IN THE AFFECTED AREA SHALL BE DISCONTINUED AND IMMEDIATE ACTION SHALL BE TAKEN TO CORRECT THE SITUATION TO THE SATISFACTION OF THE APPROVAL AUTHORITY HAVING JURISDICTION.

5. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES AFFECTED BY THE SCOPE OF WORK SHOWN HEREON AT ALL TIMES TO THE SATISFACTION OF THE OWNERS REPRESENTATIVE. RAMPING CONSTRUCTION TO PROVIDE ACCESS MAY BE CONSTRUCTED WITH SUBBASE MATERIAL EXCEPT THAT TEMPORARY ASPHALT CONCRETE SHALL BE PLACED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE PEDESTRIAN ACCESS AT ALL TIMES.

6. CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF EXISTING PAVEMENT TO REMAIN.

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

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.

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

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.

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC
	Previous Editions Obsolete		

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

Drawn: NC		Approved: AG	
Scale: NOT TO SCALE			
Date: 11/23/2020			
Project No: 20101			
20101-COVER	COVER	COVER.scr	
Drawing No: C–000			

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- LIMIT OF REGULATED WETLAND BUFFER AREA
- EXISTING WETLAND LINE AND DELINEATION
- 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
- EXISTING TREE LINE
- EXISTING STORM DRAIN LINE
- EXISTING SANITARY LINE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING ELECTRIC 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
- W6 EXISTING WELL LOCATION AND DESIGNATION
- EXISTING GREEN-WASTE DEBRIS PILE
- EXISTING TOWN-REGULATED STEEP SLOPE AREA (GREATER THAN 25%)

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC, LAST REVISED 03/06/2013. PORTIONS OF EXISTING TOPOGRAPHY HAVE BEEN PROVIDED BY WESTCHESTER COUNTY GIS.
2. GEOTECHNICAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT ENTITLED, "REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION", DATED 10/16/2013, PREPARED BY CARLIN-SIMPSON & ASSOCIATES.

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

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

THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________________ DATE: ________________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________________ DATE: ________________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn:	NC	Approved:	AG
Scale:	1" = 100'		
Date:	11/23/2020		
Project No:	20101		
20101-EXISTING	EX OV	EXIST.scr	
Drawing No:	C-010		

NOT FOR CONSTRUCTION

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- LIMIT OF REGULATED WETLAND BUFFER AREA
- EXISTING WETLAND LINE AND DELINEATION
- 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
- EXISTING TREE LINE
- EXISTING STORM DRAIN LINE
- EXISTING SANITARY LINE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING ELECTRIC LINE
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING WELL LOCATION AND DESIGNATION
- EXISTING GREEN-WASTE DEBRIS PILE
- EXISTING TOWN-REGULATED STEEP SLOPE AREA (GREATER THAN 25%)

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC, LAST REVISED 03/06/2013. PORTIONS OF EXISTING TOPOGRAPHY HAVE BEEN PROVIDED BY WESTCHESTER COUNTY GIS.
2. GEOTECHNICAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT ENTITLED, "REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION", DATED 10/16/2013, PREPARED BY CARLIN-SIMPSON & ASSOCIATES.

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

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 CONDITIONS MAP (SOUTH)

THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

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.

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: NC	Approved: AG	
Scale: 1" = 30'		
Date: 11/23/2020		
Project No: 20101		
20101-EXISTING	EX SOUTH	GRAD.scr
Drawing No: C-011		

NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION

LEGEND

	EXISTING PROPERTY LINE
	ADJACENT PROPERTY LINE
	LIMIT OF REGULATED WETLAND BUFFER AREA
	EXISTING WETLAND LINE AND DELINEATION
	EXISTING BUILDING LINE
	EXISTING PAVEMENT EDGE
	EXISTING CURB LINE
172	EXISTING CONTOUR
170	EXISTING INDEX CONTOUR
	EXISTING STONE WALL
	EXISTING RETAINING WALL
	EXISTING GUIDE RAIL
—X—X—X—X—	EXISTING FENCE
	EXISTING TREE
	EXISTING TREE LINE
	EXISTING STORM DRAIN LINE
	EXISTING SANITARY LINE
—W—W—W—W—W—W—	EXISTING WATER LINE
—G—G—G—G—G—G—	EXISTING GAS LINE
—OHW—OHW—OHW—OHW—	EXISTING OVERHEAD WIRES
—E—E—E—E—E—E—	EXISTING ELECTRIC 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
W6	EXISTING WELL LOCATION AND DESIGNATION
	EXISTING GREEN-WASTE DEBRIS PILE
	EXISTING TOWN-REGULATED STEEP SLOPE AREA (GREATER THAN 25%)

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Previous Editions Obsolete

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JMC

EXISTING CONDITIONS MAP (NORTH)

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

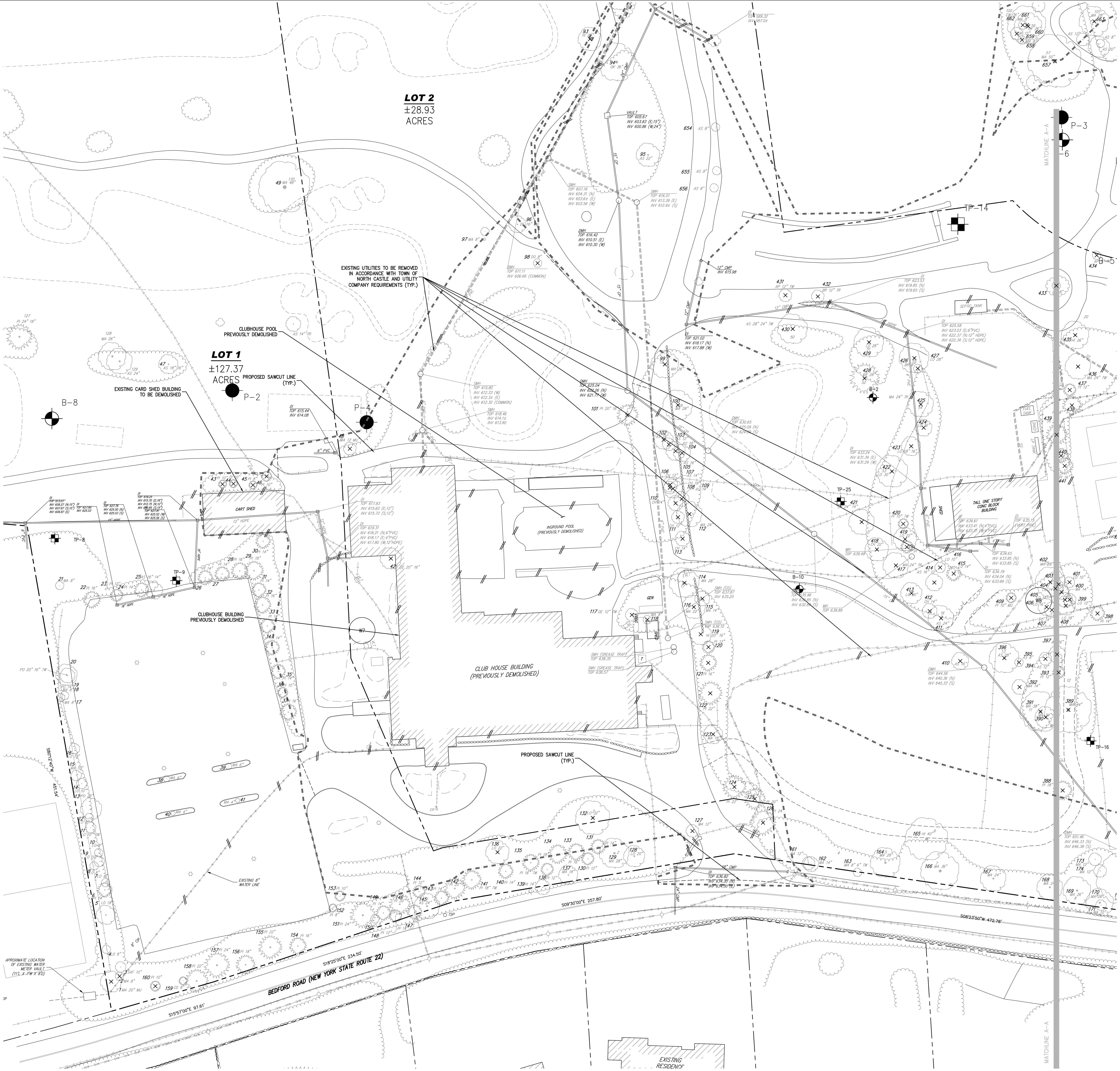
APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ______

______ DATE: ______
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

______ DATE: ______
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: NC	Approved: AG
Scale: 1" = 30'	
Date: 11/23/2020	
Project No: 20101	
20101-EXISTING	EX NORTH / GRAD.scr
Drawing No: C-012	



LEGEND

	EXISTING PROPERTY LINE
	ADJACENT PROPERTY LINE
	LIMIT OF REGULATED WETLAND BUFFER AREA
	EXISTING WETLAND LINE AND DELINEATION
	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
	EXISTING TREE TO BE REMOVED
	EXISTING TREE LINE
	EXISTING STORM DRAIN LINE
	EXISTING SANITARY LINE
	EXISTING WATER LINE
	EXISTING GAS LINE
	EXISTING OVERHEAD WIRES
	EXISTING ELECTRIC LINE
	EXISTING DRAIN INLET
	EXISTING MANHOLE
	EXISTING FIRE HYDRANT
	EXISTING GAS VALVE
	EXISTING WATER VALVE
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING SIGN
	EXISTING WELL LOCATION AND DESIGNATION
	EXISTING FEATURE TO BE REMOVED
	PROPOSED SAWCUT LINE
	PROPOSED LIMIT OF DISTURBANCE

TOTAL NUMBER OF TREES TO BE REMOVED: 225

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC, LAST REVISED 03/06/2013. PORTIONS OF EXISTING TOPOGRAPHY HAVE BEEN PROVIDED BY WESTCHESTER COUNTY GIS.
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3. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ADHERE TO ALL REQUIREMENTS OF AGENCIES HAVING JURISDICTION OVER ROCK CRUSHING OPERATIONS. PORTABLE ROCK CRUSHING EQUIPMENT USED IN WESTCHESTER COUNTY IS SUBJECT TO PERMITTING BY THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH (WCDOH). THE ROCK CRUSHING EQUIPMENT MUST MAINTAIN A VALID AND CURRENT PERMIT IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN CHAPTER 873, ARTICLE XIII, SECTIONS 873.1303.1 AND 873.1306.1 OF THE WESTCHESTER COUNTY CODE. IN ADDITION TO COUNTY INSPECTION OF THE EQUIPMENT, THESE REGULATIONS REQUIRE MITIGATION MEASURES TO CONTROL THE POTENTIAL FOR FUGITIVE PARTICULATE EMISSIONS (STONE DUST).
4. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES TO BE DEMOLISHED AND EXISTING UTILITIES TO BE PROTECTED. IF ANY DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND JMC PRIOR TO THE START OF CONSTRUCTION.
5. PRIOR TO THE START OF ANY DEMOLITION THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND/OR APPROVALS FROM THE TOWN OF NORTH CASTLE AND ALL OTHER AUTHORITIES HAVING JURISDICTION. CONTRACTOR SHALL PAY ALL OUTSTANDING FEES, CHARGES, AND DEPOSITS TO ACQUIRE SAID PERMITS. NO DEMOLITION SHALL COMMENCE UNTIL A PERMIT HAS BEEN OBTAINED FROM THE TOWN.
6. THE CONTRACTOR SHALL COORDINATE THE DISCONNECTION OF ALL UTILITIES WITH THE UTILITY COMPANY HAVING JURISDICTION PRIOR TO THE START OF DEMOLITION. CONFIRMATION OF DISCONNECTED UTILITIES SHALL BE PROVIDED TO THE TOWN OF NORTH CASTLE BUILDING DEPARTMENT IN ACCORDANCE WITH THEIR REQUIREMENTS. LETTERS FROM THE APPROPRIATE UTILITIES STATING THAT GAS AND ELECTRIC HAVE BEEN CUT OFF SHALL BE PROVIDED TO THE TOWN.
7. THE CONTRACTOR SHALL OBTAIN, AND PROVIDE A COPY TO THE TOWN, A SEWER PLUG PERMIT INDICATING THAT A LICENSED PLUMBER HAS PLUGGED ALL EXISTING SEWER LINES TO THE EXISTING BUILDING. THE CONTRACTOR SHALL OBTAIN, AND PROVIDE A COPY TO THE TOWN, A WATER USE PERMIT INDICATING THAT A LICENSED PLUMBER HAS CUT AND SEALED ALL EXISTING WATER SERVICE TO THE EXISTING BUILDING.
8. ANY UNSUITABLE MATERIAL FOUND ON–SITE DURING DEMOLITION/CONSTRUCTION, AS DETERMINED BY THE PROJECT'S GEOTECHNICAL ENGINEER, SHALL BE PROPERLY DISPOSED OF OFF–SITE IN A MANNER APPROVED BY ALL AUTHORITIES HAVING JURISDICTION AND REPLACED WITH SUITABLE MATERIAL AS REQUIRED.
9. ALL DEMOLITION AND/OR CONSTRUCTION WITHIN THE RIGHT–OF–WAY, INCLUDING STREETS AND SIDEWALKS, SHALL BE PERFORMED IN ACCORDANCE WITH TOWN/STATE REQUIREMENTS.
10. ALL CONSTRUCTION/DEMOLITION DEBRIS NOT PROPOSED TO BE RECYCLED SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF–SITE IN ACCORDANCE WITH THE REGULATIONS OF ALL LOCAL, STATE AND FEDERAL AGENCIES HAVING JURISDICTION.
11. EXISTING CONCRETE MAY BE STORED ON SITE, AND RECYCLED FOR USE AS COMPACTED FILL. ALL MATERIAL TO BE USED AS FILL SHALL BE APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER.
12. PRIOR TO THE START OF SITE DEMOLITION, EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH TOWN REQUIREMENTS, AS REQUIRED AND/OR DIRECTED BY THE TOWN OF NORTH CASTLE OR JMC.
13. EXISTING DRAINAGE PATTERNS ON SITE SHALL BE MAINTAINED TO THE MAXIMUM EXTENT PRACTICABLE.
14. ALL EXISTING UTILITY CASTINGS WHICH ARE TO REMAIN SHALL BE REMOVED AND RESET TO THE NEW PROPOSED GRADES IN ACCORDANCE WITH THE DIRECTIONS OF THE OWNER'S FIELD REPRESENTATIVE. EXISTING CASTINGS WHICH ARE DAMAGED OR UNFIT FOR INSTALLATION IN THE NEW CONSTRUCTION, AS DETERMINED BY THE OWNER'S FIELD REPRESENTATIVE, SHALL BE REPLACED.
15. ALL EXISTING SIDEWALKS, CURBS, PAVEMENT, ETC. TO REMAIN, WHICH ARE DISTURBED OR DAMAGED DUE TO THE NEW CONSTRUCTION, ARE TO BE REPLACED WITH MATERIALS CONSISTENT WITH EXISTING CONDITIONS.
16. THESE PLANS ARE TO BE PROVIDED TO BOTH THE DEMOLITION CONTRACTOR AND THE SITE CONTRACTOR FOR THEIR USE, INFORMATION AND COORDINATION. ANY QUESTIONS OF CONTRACTOR RESPONSIBILITY AND/OR SEPARATION OF WORK SHALL BE DIRECTED TO THE GENERAL CONTRACTOR IN WRITING PRIOR TO ISSUANCE OF BID.
17. THE OWNER SHALL RETAIN A LICENSED AND QUALIFIED PROFESSIONAL, CERTIFIED BY THE STATE, TO INSPECT FOR THE PRESENCE OF ASBESTOS AND/OR OTHER HAZARDOUS MATERIALS WITHIN DEMOLITION AREAS PRIOR TO THE COMMENCEMENT OF DEMOLITION. IF REMEDIATION IS REQUIRED, THE OWNER SHALL DO SO IN ACCORDANCE WITH THE NYS ASBESTOS RULES AND REGULATIONS AND/OR ANY AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED DOCUMENTATION TO THE STATE PRIOR TO OBTAINING A DEMOLITION PERMIT.
18. THE CONTRACTOR SHALL EXTERMINATE RODENTS AS REQUIRED BY WESTCHESTER COUNTY DEPARTMENT OF HEALTH AND MENTAL HYGIENE. A LETTER FROM THE HEALTH DEPARTMENT CERTIFYING THAT A LICENSED EXTERMINATOR HAS TREATED THE EXISTING BUILDING SHALL BE PROVIDED TO THE TOWN DEPARTMENT OF BUILDINGS.
19. PRIOR TO COMMENCEMENT OF DEMOLITION, THE CONTRACTOR MUST PROVIDE 24–HOUR NOTIFICATION TO THE TOWN.
20. THE CONTRACTOR SHALL PROVIDE VERIFICATION TO THE TOWN THAT FIVE (5)

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ______

________________ DATE: __________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________________ DATE: __________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY–22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

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JMC

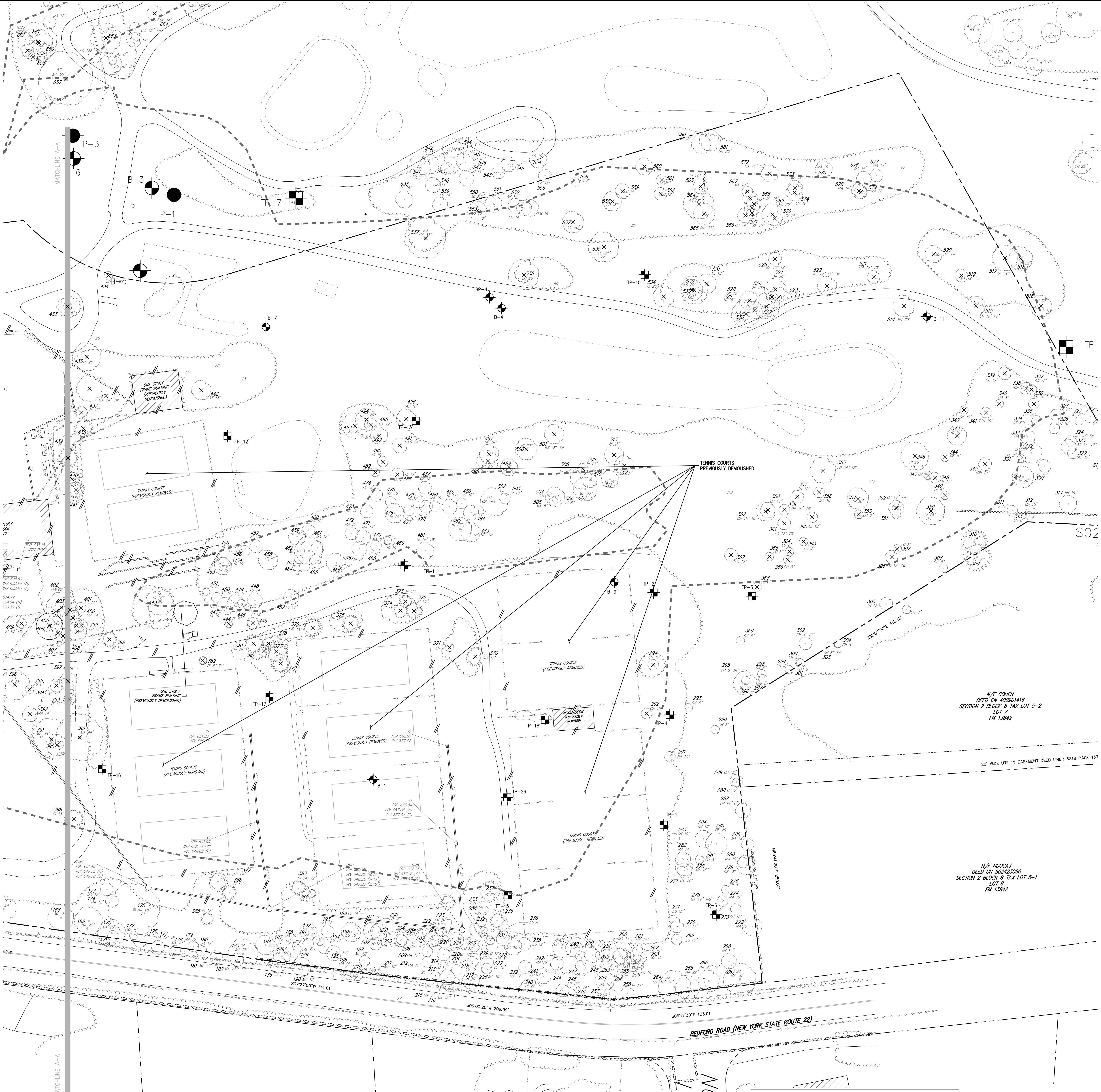
SITE DEMOLITION & TREE REMOVAL PLAN (SOUTH)

THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY–22)
ARMONK, NY 10504

Drawn:	NC	Approved:	AG
Scale:	1" = 30'		
Date:	11/23/2020		
Project No:	20101		
20101-DEMO	DEMO SOUTH	GRAD.scr	

Drawing No:
C–020

NOT FOR CONSTRUCTION



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- LIMIT OF REGULATED WETLAND BUFFER AREA
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
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- EXISTING RETAINING WALL
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- EXISTING FENCE
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- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING WELL LOCATION AND DESIGNATION
- EXISTING FEATURE TO BE REMOVED
- PROPOSED SAWCUT LINE
- PROPOSED LIMIT OF DISTURBANCE

TOTAL NUMBER OF TREES TO BE REMOVED: 225

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC, LAST REVISED 03/06/2013. PORTIONS OF EXISTING TOPOGRAPHY HAVE BEEN PROVIDED BY WESTCHESTER COUNTY GIS.
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20. THE CONTRACTOR SHALL PROVIDE VERIFICATION TO THE TOWN THAT FIVE (5)

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________

CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________

JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

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Project No:	20101		
20101-DEMO	DEMO NORTH	GRAD.scr	
Drawing No:	C–021		

NOT FOR CONSTRUCTION

TREE REMOVAL SUMMARY

NUMBER	SPECIES	DIAMETER	REMAIN/REMOVE	NUMBER	SPECIES	DIAMETER	REMAIN/REMOVE	NUMBER	SPECIES	DIAMETER	REMAIN/REMOVE	NUMBER	SPECIES	DIAMETER	REMAIN/REMOVE	NUMBER	SPECIES	DIAMETER	REMAIN/REMOVE	NUMBER	SPECIES	DIAMETER	REMAIN/REMOVE
1	MAPLE	20" MU	REMOVE	112	MAPLE	24"	REMOVE	223	LOCUST	10"	REMAIN	334	ASH	8"	REMAIN	445	PINE	12"	REMOVE	555	LOCUST	12"	REMAIN
2	MAPLE	8"	REMOVE	113	CHERRY	14"	REMOVE	224	MAPLE	14"	REMAIN	335	CHERRY	10"	REMOVE	446	HICKORY	8"	REMAIN	556	LOCUST	8"	REMAIN
3	SASSAFRASS	10"	REMAIN	114	MAPLE	28"	REMOVE	225	LOCUST	12"	REMAIN	336	OAK	10"	REMOVE	447	HICKORY	16"	REMAIN	557	LOCUST	20"	REMOVE
4	LOCUST	8"	REMAIN	115	MAPLE	14"	REMOVE	226	MAPLE	10"	REMAIN	337	BIRCH	10"	REMOVE	448	ASH	14"	REMAIN	558	LOCUST	18"	REMOVE
5	LOCUST	18"	REMAIN	116	MAPLE	22"	REMOVE	227	LOCUST	12"	REMAIN	338	TREE OF HEAVEN	12"	REMOVE	449	CHERRY	16"	REMAIN	559	LOCUST	14"	REMOVE
6	PINE	14"	REMAIN	117	DECIDUOUS	12" TW	REMOVE	228	MAPLE	8"	REMAIN	339	TREE OF HEAVEN	12"	REMOVE	450	ASH	10"	REMAIN	560	LOCUST	16"	REMOVE
7	LOCUST	8"	REMAIN	118	MAPLE	8"	REMOVE	229	LOCUST	12"	REMAIN	340	MAPLE	8"	REMOVE	451	PINE	8"	REMAIN	561	LOCUST	10"	REMOVE
8	LOCUST	8"	REMAIN	119	HICKORY	20"–16"	REMOVE	230	LOCUST	10"	REMAIN	341	TREE OF HEAVEN	10"	REMOVE	452	ASH	14"	REMAIN	562	LOCUST	12"	REMOVE
9	LOCUST	10"	REMAIN	120	PINE	12"	REMOVE	231	LOCUST	18"	REMAIN	342	OAK	10"	REMOVE	453	HICKORY	16"	REMAIN	563	HICKORY	14"	REMOVE
10	LOCUST	8"	REMAIN	121	PINE	16"	REMOVE	232	TREE OF HEAVEN	10"	REMAIN	343	HICKORY	18"	REMOVE	454	HICKORY	10"	REMAIN	564	ASH	28"	REMOVE
11	LOCUST	10" TW	REMAIN	122	PINE	22"	REMOVE	233	TREE OF HEAVEN	12"	REMAIN	344	OAK	8"	REMOVE	455	HICKORY	16"–10"	REMAIN	565	MAPLE	20"	REMOVE
12	LOCUST	8"	REMAIN	123	MAPLE	18"	REMOVE	234	TREE OF HEAVEN	10"	REMAIN	345	OAK	12"	REMOVE	456	HICKORY	10"	REMAIN	566	CHERRY	14"	REMOVE
13	POPLAR	20"	REMAIN	124	PINE	22"	REMOVE	235	PINE	14"	REMAIN	346	HICKORY	26"	REMOVE	457	HICKORY	12"	REMAIN	567	MAPLE	10"	REMOVE
14	LOCUST	10"	REMAIN	125	PINE	20"	REMOVE	236	LOCUST	8"	REMAIN	347	CHERRY	8"	REMOVE	458	HICKORY	18"	REMAIN	568	BIRCH	14"	REMOVE
15	MAPLE	10"	REMAIN	126	PINE	24"	REMOVE	237	PINE	20"	REMAIN	348	CHERRY	10"	REMOVE	459	HICKORY	16"	REMAIN	569	POPLAR	20"	REMOVE
16	LOCUST	10"	REMAIN	127	MAPLE	12"	REMOVE	238	LOCUST	12"	REMAIN	349	HICKORY	8"	REMOVE	460	MAPLE	12"	REMAIN	570	POPLAR	14"	REMOVE
17	MAPLE	8"	REMAIN	128	LOCUST	20"	REMAIN	239	MAPLE	12"	REMAIN	350	HICKORY	26"	REMOVE	461	MAPLE	12"	REMAIN	571	BIRCH	10"	REMOVE
18	MAPLE	8"	REMAIN	129	MAPLE	28"	REMAIN	240	HICKORY	22"	REMAIN	351	CHERRY	8"	REMOVE	462	MAPLE	8"	REMAIN	572	MAPLE	16"–12"	REMOVE
19	POPLAR	14"	REMAIN	130	PINE	12"	REMAIN	241	CHERRY	14"	REMAIN	352	CHERRY	14" TW	REMOVE	463	HICKORY	8"	REMAIN	573	MAPLE	14"	REMOVE
20	POPLAR	20"–16" TW	REMAIN	131	PINE	14"	REMAIN	242	MAPLE	16"	REMAIN	353	LOCUST	8"	REMOVE	464	HICKORY	26"	REMAIN	574	CHERRY	16"	REMOVE
21	MAPLE	8"	REMAIN	132	LOCUST	32"	REMOVE	243	LOCUST	18"	REMAIN	354	HICKORY	20"	REMOVE	465	HICKORY	10"	REMAIN	575	MAPLE	16"	REMAIN
22	PINE	16"	REMAIN	133	PINE	16"	REMAIN	244	LOCUST	12"	REMAIN	355	LOCUST	24"–18"	REMOVE	466	HICKORY	18"–14"	REMAIN	576	MAPLE	14"	REMAIN
23	PINE	12"	REMAIN	134	PINE	18"	REMAIN	245	LOCUST	12"	REMAIN	356	MAPLE	10"	REMOVE	467	HICKORY	14"	REMAIN	577	MAPLE	12"	REMAIN
24	PINE	14"	REMAIN	135	PINE	16" TW	REMAIN	246	MAPLE	18"	REMAIN	357	CHERRY	12"	REMOVE	468	HICKORY	10"	REMAIN	578	MAPLE	14"	REMOVE
25	ASH	16"–14"	REMAIN	136	LOCUST	22"	REMOVE	247	MAPLE	10"	REMAIN	358	CHERRY	14"	REMOVE	469	HICKORY	10"	REMAIN	579	MAPLE	12"	REMOVE
26	PINE	14"	REMAIN	137	MAPLE	18"	REMAIN	248	MAPLE	10"	REMAIN	359	MAPLE	10" TW	REMOVE	470	MAPLE	8"	REMAIN	580	HICKORY	18"	REMAIN
27	PINE	14"	REMAIN	138	PINE	12"	REMAIN	249	MAPLE	16"	REMAIN	360	ASH	10"	REMOVE	471	MAPLE	14"	REMAIN	581	BIRCH	20"	REMAIN
28	PINE	16"	REMAIN	139	HICKORY	14"	REMAIN	250	MAPLE	14"	REMAIN	361	LOCUST	12" TW	REMOVE	472	MAPLE	12"	REMAIN	582	MAPLE	24"	REMAIN
29	PINE	18"	REMAIN	140	PINE	14"	REMAIN	251	CHERRY	8"	REMAIN	362	CHERRY	18"–10"	REMOVE	473	MAPLE	12"	REMAIN	583	MAPLE	16"	REMAIN
30	PINE	14"	REMAIN	141	PINE	18" TW	REMAIN	252	MAPLE	8"	REMAIN	363	LOCUST	8"	REMOVE	474	HICKORY	12"	REMAIN	584	MAPLE	14"	REMAIN
31	PINE	14"	REMAIN	142	PINE	20"	REMAIN	253	LOCUST	16"	REMAIN	364	LOCUST	8"	REMOVE	475	MAPLE	10"	REMAIN	585	MAPLE	12"	REMAIN
32	PINE	16"	REMAIN	143	PINE	14"	REMAIN	254	MAPLE	18"	REMAIN	365	LOCUST	8"	REMOVE	476	HICKORY	18"	REMAIN	586	MAPLE	10"	REMAIN
33	PINE	14"	REMAIN	144	PINE	12"	REMAIN	255	LOCUST	12"	REMAIN	366	CHERRY	8"	REMOVE	477	HICKORY	10"	REMAIN	587	MAPLE	18"	REMAIN
34	PINE	14"	REMAIN	145	ASH	24"	REMAIN	256	LOCUST	10"	REMAIN	367	LOCUST	12"	REMOVE	478	HICKORY	12"	REMAIN	588	MAPLE	24"	REMAIN
35	PINE	14"	REMAIN	146	PINE	20"	REMAIN	257	LOCUST	12"	REMAIN	368	LOCUST	8"	REMOVE	479	HICKORY	12"	REMAIN	589	MAPLE	24"	REMAIN
36	PINE	10"	REMAIN	147	PINE	14"	REMAIN	258	HICKORY	12"	REMAIN	369	CHERRY	8"	REMAIN	480	MAPLE	10"	REMAIN	590	OAK	18"	REMAIN
37	PINE	16"	REMAIN	148	PINE	12"	REMAIN	259	LOCUST	10"	REMAIN	370	PINE	18"	REMOVE	481	HICKORY	16" TW	REMAIN	591	MAPLE	24"	REMAIN
38	MAPLE	6"	REMAIN	149	PINE	14"	REMAIN	260	MAPLE	14"	REMAIN	371	CHERRY	8"	REMOVE	482	HICKORY	22"	REMAIN	592	MAPLE	10"	REMAIN
39	MAPLE	6"	REMAIN	150	ASH	8"	REMAIN	261	MAPLE	14"	REMAIN	372	PINE	16"	REMOVE	483	CHERRY	18" TW	REMAIN	593	MAPLE	16"	REMAIN
40	MAPLE	4"	REMAIN	151	PINE	24"	REMAIN	262	LOCUST	16"	REMAIN	373	PINE	12"	REMOVE	484	HICKORY	14"	REMAIN	594	MAPLE	18"	REMAIN
41	MAPLE	4"	REMAIN	152	PINE	8"	REMAIN	263	MAPLE	12"	REMAIN	374	PINE	14"	REMOVE	485	HICKORY	14"	REMAIN	595	MAPLE	12"	REMAIN
42	DECIDUOUS	20"–16"	REMOVE	153	PINE	10"	REMAIN	264	MAPLE	30"–20"	REMAIN	375	PINE	16"	REMOVE	486	HICKORY	10"	REMAIN	596	MAPLE	12"	REMAIN
43	PINE	10"	REMOVE	154	PINE	16"	REMAIN	265	MAPLE	22"	REMAIN	376	PINE	18"	REMOVE	487	OAK	12"	REMAIN	597	MAPLE	28"	REMAIN
44	PINE	10"	REMOVE	155	PINE	22"	REMAIN	266	MAPLE	20"–16"	REMAIN	377	PINE	20"	REMOVE	488	HICKORY	12"	REMOVE	598	ELM	14"	REMAIN
45	PINE	8"	REMOVE	156	PINE	18"	REMAIN	267	MAPLE	28"–30"	REMAIN	378	PINE	12"	REMOVE	489	HICKORY	8"	REMOVE	599	MAPLE	28"	REMAIN
46	PINE	10"	REMOVE	157	PINE	24"	REMAIN	268	BIRCH	14"	REMAIN	379	PINE	18"	REMOVE	490	HICKORY	10"	REMOVE	600	MAPLE	8"	REMAIN
47	ASH	18"–16"	REMAIN	158	PINE	22"	REMAIN	269	LOCUST	10"	REMAIN	380	PINE	12"	REMOVE	491	ASH	14"	REMOVE	601	MAPLE	26"	REMAIN
48	JAPANESE MAPLE	12" MU	REMOVE	159	CEDAR	8"	REMAIN	270	LOCUST	12"	REMAIN	381	PINE	18"	REMOVE	492	MAPLE	16"	REMOVE	602	MAPLE	18"	REMAIN
49	MAPLE	48"	REMAIN	160	PINE	10"	REMOVE	271	LOCUST	12"	REMAIN	382	PINE	8" TW	REMOVE	493	POPLAR	24"	REMOVE	603	TREE OF HEAVEN	10"–6"	REMAIN
50	MAPLE	32"	REMAIN	161	MAPLE	12"	REMAIN	272	MAPLE	18"	REMAIN	383	PINE	14" –12"	REMAIN	494	POPLAR	20"	REMOVE	604	MAPLE	18"	REMAIN
51	PINE	16"	REMAIN	162	MAPLE	14"	REMAIN	273	CHERRY	10"	REMAIN	384	PINE	8"	REMAIN	495	MAPLE	12"	REMOVE	605	MAPLE	26"	REMAIN
52	PINE	14"	REMAIN	163	MAPLE	8"–6" TW	REMAIN	274	MAPLE	10"	REMAIN	385	PINE	12"	REMAIN	496	ASH	18"	REMOVE	606	MAPLE	22"	REMAIN
53	PINE	12"	REMAIN	164	MAPLE	28"	REMAIN	275	MAPLE	14" TR	REMAIN	386	PINE	14"	REMAIN	497	OAK	18"	REMOVE	607	MAPLE	10"	REMAIN
54	PINE	8"	REMAIN	165	HICKORY	40"	REMAIN	276	CHERRY	8"	REMAIN	387	PINE	18" TW	REMAIN	498	MAPLE	20"	REMOVE	608	MAPLE	10"	REMAIN
55	PINE	10"	REMAIN	166	MAPLE	36"	REMAIN	277	MAPLE	14"	REMAIN	388	PINE	18"	REMOVE	499	OAK	16"	REMOVE	609	MAPLE	8"	REMAIN
56	PINE	8"	REMAIN	167	MAPLE	24"	REMAIN	278	MAPLE	16"	REMAIN	389	MAPLE	44"	REMOVE	500	HICKORY	20"	REMOVE	610	MAPLE	8"	REMAIN
57	PINE	8"	REMAIN	168	MAPLE	24"	REMAIN	279	OAK	18"	REMAIN	390	MAPLE	24"	REMOVE	501	BIRCH	18" TW	REMOVE	611	MAPLE	10"	REMAIN
58	PINE	10"	REMAIN	169	MAPLE	26"	REMAIN	280	MAPLE	10"	REMAIN	391	MAPLE	38"	REMOVE	502	OAK	26"	REMAIN	612	MAPLE	16"	REMAIN
59	PINE	8"	REMAIN	170	MAPLE	26"	REMAIN	281	CHERRY	8"	REMAIN	392	MAPLE	14"	REMOVE	503	HICKORY	10"	REMAIN	613	MAPLE	18"	REMAIN
60	PINE	12"	REMAIN	171	MAPLE	10"	REMAIN	282	MAPLE	14"	REMAIN	393	PINE	12"	REMOVE	504	CHERRY	18"	REMAIN	614	MAPLE	20"	REMAIN
61	PINE	10"	REMAIN	172	MAPLE	8"	REMAIN	283	CHERRY	10"	REMAIN	394	ASH	12"	REMOVE	505	MAPLE	8"	REMAIN	615	MAPLE	18"	REMAIN
62	PINE	8"	REMAIN	173	MAPLE	12"	REMAIN	284	OAK	16"	REMAIN	395	ASH	8"	REMOVE	506	HICKORY	8"	REMAIN	616	MAPLE	8"	REMAIN
63	MAPLE	18"	REMAIN	174	MAPLE	12"	REMAIN	285	OAK	20"	REMAIN	396	ASH	28"	REMOVE	507	MAPLE	22"	REMAIN	617	MAPLE	8"	REMAIN
64	MAPLE	18"	REMAIN	175	MAPLE	48"	REMAIN	286	MAPLE	12"	REMAIN	397	ASH	16"	REMOVE	508	HICKORY	20"	REMOVE	618	MAPLE	14"	REMAIN
65	MAPLE	12"	REMAIN	176	MAPLE	12"	REMAIN	287	BIRCH	14"–8"	REMAIN	398	PINE	14"	REMOVE	509	HICKORY	10"	REMOVE	619	HICKORY	16"	REMAIN
66	MAPLE	10"	REMAIN	177	MAPLE	12"	REMAIN	288	CHERRY	8"	REMAIN	399	LOCUST	12"	REMOVE	510	HICKORY	14"	REMAIN	620	MAPLE	26"	REMAIN
67	MAPLE	14"–6"	REMAIN	178	MAPLE	10"	REMAIN	289	CHERRY	12"	REMAIN	400	MAPLE	14"	REMOVE	511	HICKORY	16"	REMAIN	621	MAPLE	18"	REMAIN
68	MAPLE	10"	REMAIN	179	MAPLE	10"	REMAIN	290	CHERRY	8"	REMAIN	401	LOCUST	10"	REMOVE	512	HICKORY	18"	REMOVE	622	OAK	28"	REMAIN
69	MAPLE	8"	REMAIN	180	MAPLE	12"	REMAIN	291	BIRCH	10"	REMAIN	402	MAPLE	28"	REMOVE	513	HICKORY	18"	REMOVE	623	MAPLE	26"	REMAIN
70	MAPLE	14"	REMAIN	181	MAPLE	12" TR	REMAIN	292	CHERRY	10"	REMOVE	403	LOCUST	8"	REMOVE	514	BUTTERNUT	20"	REMOVE	624	MAPLE	20"	REMAIN
71	MAPLE	12"	REMAIN	182	MAPLE	12"	REMAIN	293	CHERRY	8"	REMAIN	404	LOCUST	14"	REMOVE	515	CHERRY	18"–14"	REMOVE	625	MAPLE	6"	REMAIN
72	DECIDUOUS	8"	REMAIN	183	MAPLE	28"	REMAIN	294	CHERRY	10"	REMOVE	405	LOCUST	14"	REMOVE	516	OAK	20"	REMOVE	626	OAK	26"	REMAIN
73	DECIDUOUS	12"	REMAIN	184	LOCUST	18"	REMAIN	295	CHERRY	8" MU	REMAIN	406	LOCUST	16"	REMOVE	517	OAK	24"	REMOVE	627	MAPLE	8"	REMAIN
74	MAPLE	10"	REMAIN	185	LOCUST	16"	REMAIN	296	MAPLE	22"	REMAIN	407	LOCUST	14"	REMOVE	518	OAK	22"	REMOVE	628	OAK	20"	REMAIN
75	MAPLE	30"	REMAIN	186	MAPLE	16"	REMAIN	297	OAK	8"	REMAIN	408	LOCUST	18"	REMOVE	519	MAPLE	12" TW	REMOVE	629	OAK	48"	REMAIN
76	LOCUST	10"	REMAIN	187	LOCUST	14"	REMAIN	298	OAK	8"	REMAIN	409	PINE	10" MU	REMOVE	520	MAPLE	16" TW	REMOVE	630	BIRCH	14"	REMAIN
77	LOCUST	12"–6"	REMAIN	188	MAPLE	10"	REMAIN	299	CHERRY	8"	REMAIN	410	ASH	16"	REMOVE	521	MAPLE	12" TW	REMOVE	631	OAK	44"	REMAIN
78	MAPLE	12"	REMAIN	189	MAPLE	10"	REMAIN	300	CHERRY	8"	REMAIN	411	ASH	24"	REMOVE	522	ASH	12"–18" TW	REMOVE	632	OAK	40"	REMAIN
79	MAPLE	14"	REMAIN	190	MAPLE	18"	REMAIN	301	CHERRY	8"	REMAIN	412	CHERRY	14"	REMOVE	523	HICKORY	18"	REMOVE	633	OAK	34"	REMAIN
80	POPLAR	6"	REMAIN	191	MAPLE	8"	REMAIN	302	CHERRY	8"–12"	REMAIN	413	LOCUST	20"	REMOVE	524	HICKORY	20"	REMOVE	634	OAK	8"	REMAIN
81	DECIDUOUS	10"	REMAIN	192	MAPLE	16"	REMAIN	303	CHERRY	8" TW	REMAIN	414	ASH	16"–12"	REMOVE	525	MAPLE	12" TR	REMOVE	635	BIRCH	12"TW	REMAIN
82	MAPLE	16"	REMAIN	193	MAPLE	12"	REMAIN	304	CHERRY	8"	REMAIN	415	LOCUST	14"	REMOVE	526	HICKORY	10"	REMOVE	636	HICKORY	8"	REMAIN
83	DECIDUOUS	16"	REMAIN	194	LOCUST	14"	REMAIN	305	CHERRY	12"	REMAIN	416	LOCUST	10"	REMOVE	527	HICKORY	24"	REMOVE	637	OAK	38"	REMAIN
84	OAK	10"	REMAIN	195	MAPLE	14"	REMAIN	306	LOCUST	12" TW	REMOVE	417	MAPLE	24" TR	REMOVE	528	OAK	18"	REMOVE	638	MAPLE	8"	REMAIN
85	MAPLE	28"	REMAIN	196	MAPLE	14"	REMAIN	307	LOCUST	8"	REMOVE	418	CHERRY	22"	REMOVE	529	HICKORY	16"	REMOVE	639	OAK	10"	REMAIN
86	MAPLE	16"	REMAIN	197	MAPLE	10"	REMAIN	308	CHERRY	8"	REMAIN	419	LOCUST	22"	REMOVE	530	ASH	26"	REMOVE	640	BIRCH	8"	REMAIN
87	MAPLE	12"–14"	REMAIN	198	LOCUST	18"	REMAIN	309	PINE	26"	REMAIN	420	PINE	10" TW	REMOVE	531	ASH	18"	REMOVE	641	OAK	30"	REMAIN
88	MAPLE	18"	REMAIN	199	LOCUST	14"	REMAIN	310	PINE	24"	REMAIN	421	CHERRY	24"–14"	REMOVE	532	ASH	20"	REMOVE	642	MAPLE	16"	REMAIN
89	MAPLE	28"	REMAIN	200	LOCUST	16"	REMAIN	311	HICKORY	10"	REMAIN	422	LOCUST	30"	REMOVE	533	ASH	26"	REMOVE	643	ASH	14"	REMAIN
90	ASH	16"	REMAIN	201	CHERRY	16"	REMAIN	312	CHERRY	10"	REMAIN	423	LOCUST	18"–16"	REMOVE	534	HICKORY	20"	REMOVE	644	MAPLE	8"	REMAIN
91	MAPLE	16"	REMAIN	202	CHERRY	12"	REMAIN	313	CHERRY	8"	REMAIN	424	LOCUST	16"	REMOVE	535	LOCUST	28"	REMOVE	645	MAPLE	12"	REMAIN
92	CHERRY	24"	REMOVE	203	MAPLE	12"	REMAIN	314	BIRCH	16"	REMAIN	425	MAPLE	24" TR	REMOVE	536	LOCUST	28"	REMOVE	646	MAPLE	24"	REMAIN
93	HICKORY	22"	REMOVE	204	LOCUST	10"	REMAIN	315	CHERRY	10"	REMAIN	426	BIRCH	8"	REMOVE	537	MAPLE	38"	REMOVE	647	MAPLE	10"	REMAIN
94	OAK	36"	REMAIN	205	LOCUST	12"	REMAIN	316	TREE OF HEAVEN	12"	REMAIN	427	LOCUST	28"	REMOVE	538	OAK	16"	REMAIN	648	MAPLE	10"	REMAIN
95	ASH	22"	REMAIN	206	TREE OF HEAVEN	12"	REMAIN	317	CHERRY	18"–14"	REMAIN	428	SPRUCE	28"	REMOVE	539	LOCUST	14"	REMAIN	649	ASH	18"	REMAIN
96	DECIDUOUS	16" MU	REMAIN	207	LOCUST	14"	REMAIN	318	MAPLE	8"	REMAIN	429	LOCUST	28"	REMOVE	540	LOCUST	14"	REMAIN	650	MAPLE	20"	REMAIN
97	MAPLE	8" MU	REMAIN	208	TREE OF HEAVEN	10"	REMAIN	319	CHERRY	12"	REMAIN	430	ASH	28"–24" TW	REMOVE	541	LOCUST	22"	REMAIN	651	BIRCH	16"	REMAIN
98	DO	8"	REMOVE	209	MAPLE	10"	REMAIN	320	HICKORY	20"	REMAIN	431	APPLE	12" TW	REMOVE	542	LOCUST	18"	REMAIN	652	CHERRY	8"	REMAIN
99	MAPLE	26"	REMOVE	210	MAPLE	12"	REMAIN	321	CHERRY	10"	REMAIN	432	BIRCH	12" TR	REMOVE	543	LOCUST	12"	REMAIN	653	POPLAR	16"	REMAIN
100	MAPLE	28"	REMOVE	211	MAPLE	10"	REMAIN	322	ASH	10"	REMAIN	433	DW	8"	REMOVE	544	MAPLE	18"	REMAIN	654	ASH	8"	REMAIN
101	PINE	20"–16"	REMOVE	212	MAPLE	10"	REMAIN	323	ASH	14"–10"	REMAIN	434	APPLE	8" TR	REMOVE	545	LOCUST	18"	REMAIN	655	ASH	8"	REMAIN
102	ASH	18"	REMOVE	213	LOCUST	14"	REMAIN	324	ASH	10" TW	REMAIN	435	HICKORY	26"	REMOVE	546	LOCUST	16"	REMAIN	656	ASH	8"	REMAIN
103	ASH	12"	REMOVE	214	LOCUST	12"	REMAIN	325	APPLE	12" TW	REMAIN	436	MAPLE	24" TW	REMOVE	547	LOCUST	14"	REMAIN	657	MAPLE	50"	REMOVE
104	ASH	18"	REMOVE	215	MAPLE	8"	REMAIN	326	CHERRY	10"	REMAIN	437	PINE	12"	REMOVE	548	LOCUST	12"	REMAIN	658	MAPLE	8"	REMOVE
105	ASH	16"	REMOVE	216	MAPLE	16"	REMAIN	327	ASH	8"	REMAIN	438	PINE	18"	REMOVE	549	LOCUST	14"	REMAIN	659	OAK	12"	REMOVE
106	CHERRY	12"	REMOVE	217	CHERRY	16"	REMAIN	328	ASH	10"	REMAIN	439	PINE	20"	REMOVE	550	MAPLE	18"	REMAIN	660	OAK	26"	REMOVE
107	ASH	14"	REMOVE	218	LOCUST	10"	REMAIN	329	HICKORY	20"	REMAIN	440	PINE	14"	REMOVE	551	CHERRY	16"	REMAIN	661	MAPLE	8"	REMOVE
108	CHERRY	18"	REMOVE	219	MAPLE	10"	REMAIN	330	HICKORY	12"	REMAIN	441	PINE	16"	REMOVE	552	APPLE	14"	REMAIN	662	COTTONWOOD	36"	REMOVE
109	ASH	14"	REMOVE	220	MAPLE	10"	REMAIN	331	MAPLE	8"	REMAIN	442	ASH	18"	REMOVE	553	LOCUST	18"	REMOVE	663	MAPLE	28"	REMOVE
110	CHERRY	14"	REMOVE	221	MAPLE	12"	REMAIN	332	MAPLE	20"–8"	REMAIN	443	HICKORY	26"	REMOVE	554	LOCUST	16"	REMAIN	664	OAK	14"	REMOVE
111	CHERRY	12"	REMOVE	222	TREE OF HEAVEN	8"	REMAIN	333	MAPLE	14"	REMAIN	444	PINE	8"	REMOVE	TOTAL NUMBER OF TREES TO BE REMOVED: 225							

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
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GREENWICH, CT 06830

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JMC

SITE TREE REMOVAL TABLE

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

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.

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: NC Approved: AG
Scale: 1" = 30'
Date: 11/23/2020
Project No: 20101
20101-BWI TREE REMOVAL GRAD.dwg
Drawing No: C–022

NOT FOR CONSTRUCTION

LANDSCAPE AREA LEGEND

(red dashed outline)	PROPOSED PARKING AREA (±116,361 S.F.)
(green fill)	PROPOSED INTERIOR PARKING LANDSCAPED AREA (±25,746 S.F.)

PROPOSED INTERIOR PARKING LANDSCAPED AREA CALCULATION:

$$\frac{\text{TOTAL PROPOSED INTERIOR PARKING LANDSCAPED AREA}}{\text{TOTAL PROPOSED PARKING AREA}} \rightarrow \frac{25{,}746 \text{ S.F.}}{116{,}361 \text{ S.F.}} \times 100 = \pm 22.1\%$$

UNIT / BEDROOM COUNT (Revised 1-10-22)			
BUILDING 1 (3 STORY)	12 UNITS	(3) 3 BEDROOMS & (9) 2 BEDROOMS	27 BEDROOMS/BLDG
BUILDING 2 (3 STORY)	12 UNITS	(3) 3 BEDROOMS & (9) 2 BEDROOMS	27 BEDROOMS/BLDG
BUILDING 3 (2 STORY)	9 UNITS	(2) 3 BEDROOMS & (5) 2 BEDROOMS & (1) 4 BEDROOM	20 BEDROOMS/BLDG
BUILDING 4 (2 STORY)	9 UNITS	(2) 3 BEDROOMS & (5) 2 BEDROOMS & (1) 4 BEDROOM	20 BEDROOMS/BLDG
BUILDING 5 (3 STORY)	12 UNITS	(3) 3 BEDROOMS & (9) 2 BEDROOMS	27 BEDROOMS/BLDG
BUILDING 6 (3 STORY)	12 UNITS	(3) 3 BEDROOMS & (9) 2 BEDROOMS	27 BEDROOMS/BLDG
BUILDING 7 (1 STORY)	7 AFFH UNITS	(3) 1 BEDROOMS & (4) 2 BEDROOMS	11 BEDROOMS/BLDG
TOTALS	73 UNITS	(16) 3 BEDROOMS & (50) 2 BEDROOMS & (2) 4 BEDROOM	157 BEDROOMS
DENSITY UNITS	43.6 UNITS	(16) 3 BEDROOMS = 10.6 DENSITY UNITS (50) 2 BEDROOMS = 25 DENSITY UNITS (2) 4 BEDROOMS = 2 DENSITY UNITS (3) 1 BEDROOMS =	(16 /3) X 2= 10.6 50 /2 = 25 =2 (3 /1) X 2= 6
DWELLING UNITS	73 UNITS		

Density Unit Calculation:
Site:
Lot 1= 129.95872 acres
Lot 2= 26.34421 acres
Total Site =156.30293 acres x 43,560sf/ac = (6,808,555.6308 sf) / 133,000=51.1921476
51 Density Units Available
43.6 Density Units Proposed (COMPLIES)

Dwelling Unit Calculation:
Site:
Lot 1=129.95872 acres
Lot 2=26.34421 acres
Total Site=156.30293 acres / 1.8 Acres = 86.834961
87 Dwelling Units Available (88 Studied in the EIS)
73 Dwelling Units Proposed (COMPLIES)
Minimum Unit Sizes:
Market Rate Units

Efficiency:	450 sf Min.	N/A
One-Bedroom:	700 sf Min.	N/A
Two-Bedroom:	900 sf	2,377 sf is smallest (complies)
Three-Bedroom:	1,100 sf	2,997 sf is smallest (complies)

AFFH Units

Efficiency:	450 sf Min.	N/A
One-Bedroom:	700 sf Min.	790 sf (complies)
Two-Bedroom:	900 sf	1,330 sf (complies)
Three-Bedroom:	1,100 sf	N/A

PHASING NOTES:

1. IN DECEMBER, 2019, IN CONSIDERATION OF THE ADOPTION BY THE TOWN OF THE AMENDMENT, THE APPLICANT RECORDED A DECLARATION PURSUANT TO WHICH THE APPLICANT MAY, SUBJECT TO SITE PLAN APPROVAL, CONSTRUCT ON THE DEVELOPMENT LOT A FIRST PHASE OF THE COMMUNITY ("PHASE 1 "), WHICH MAY CONSIST OF UP TO THIRTY-SIX (36) RESIDENCES, WHICH MAY BE FEE-SIMPLE HOMES AND/OR CONDOMINIUM UNITS WITHOUT LIMITATION REGARDING FORM OF OWNERSHIP OF THE RESIDENCES, AND A SECOND PHASE OF THE COMMUNITY ("PHASE 2"), WHICH MAY CONSIST OF UP TO THIRTY-SEVEN (37) RESIDENCES, WHICH MAY BE FEE-SIMPLE HOMES AND/OR CONDOMINIUM UNITS WITHOUT LIMITATION REGARDING FORM OF OWNERSHIP OF THE RESIDENCES; PROVIDED THAT UNLESS THE AGGREGATE AVERAGE OF THE GROSS SALES PRICES OF THE MARKET-RATE PHASE 1 CONDOMINIUM UNITS IS $700.00 PER SQUARE FOOT OR MORE, THE PHASE 2 CONDOMINIUM RESIDENCES ARE REQUIRED TO BE "55 AND OLDER" AGE-RESTRICTED HOUSING AS PERMITTED UNDER APPLICABLE FEDERAL LAW AND REGULATIONS. THE DECLARATION ALSO REQUIRES PHASE 1 TO INCLUDE FOUR (4) ON-SITE AFFORDABLE UNITS, AND PHASE 2 TO INCLUDE THREE (3) ON-SITE AFFORDABLE UNITS. HOWEVER, THE APPLICANT IS PERMITTED TO AT ANY TIME ELECT TO RELOCATE ALL OR A PORTION OF THE AFFORDABLE UNITS OFF-SITE WITHIN AREAS IN THE ARMONK HAMLET THAT ARE SERVED BY PUBLIC SEWER AND WATER, AND THEREBY REDUCE THE ON-SITE AFFORDABLE UNITS AND SUBSTITUTE MARKET-RATE UNITS THEREFOR ON A ONE-TO-ONE BASIS, PROVIDED THAT IN NO EVENT SHALL THE TOTAL NUMBER OF RESIDENTIAL UNITS ON THE PROPERTY EXCEED SEVENTY-THREE (73).
2. REFER TO DRAWING C-402 FOR SEQUENCE OF CONSTRUCTION.

Project Summary Comparison Table

	DEIS plan	FEIS Alternative 2	Modified Project (New Residential Development)
Market-Rate Condominiums	80	80	See Unit/Bedroom Count Table
Fair and Affordable Units	8	8*	See Unit/Bedroom Count Table
Total Residential Units	**88**	**88**	See Unit/Bedroom Count Table
Golf Cottages (4 BR)	5	10	See Unit/Bedroom Count Table
Golf Residences (2 BR)	55	70	See Unit/Bedroom Count Table
Golf Residences (2 BR)	6	0	See Unit/Bedroom Count Table
Club Villas (3 BR)	14	0	See Unit/Bedroom Count Table
Affordable Units (2 BR)	6	7*	See Unit/Bedroom Count Table
Affordable Units (3 BR)	1	0	See Unit/Bedroom Count Table
Affordable Units (4 BR)	1	1*	See Unit/Bedroom Count Table
Total Bedrooms	**209**	**198**	**157**
Buffer on Bedford Road	**25 feet**	**100 feet**	**100 feet**
Open Space	141.6 acres	141.6 acres	127.37 acres
Impervious Area	17.5 ac. (6.6 ac. *New* impervious)	16.7 acres (5.8 ac. *New* impervious)	9.1 acres (6.0 ac. *New* impervious) (3)
Length of Private Road	3,750 lf	3,258 lf	2,262 lf
Steep Slope Impact	2.75 acres	2.75 acres	0.59 acres
Trees to be Removed	879 trees	813 trees	225 trees
Wetland Impacts	add 1.25 acres of new wetland enhancements	add 1.25 acres of new wetland enhancements	N/A
Wetland Buffer Impacts	4.34 acres	4.59 acres	N/A
Trip Generation (Peak)	47 AM / 55 PM	47 AM / 55 PM (or less)	47 AM / 55 PM (or less)
Additional Water Demand	29,775 gpd	28,325 gpd	39,828 gpd
Additional Wastewater Generation	29,775 gpd	28,325 gpd	39,828 gpd
Annual Tax and Mitigation Payment Revenue	$1,493,223	$2,598,230	$2,598,230
Total Population	185-204	183-191	150-151 (1)
School Children – Local Experience	10	9	4-5 (2)
School Children – Rutgers & Local Experience	20	17	18-20 (2)
Visual Impacts	4 new residential buildings along Bedford Road, with landscaping in 25-foot buffer.	5 new detached single family Golf Cottages along Bedford Road; portion of internal road close to Route 22 eliminated; landscaping added in 100 foot buffer along Bedford Road. (100' buffer extends around the perimeter of the Site.) Repair to stone wall on Windmill Farms side of Route 22	7 new residential buildings with tennis courts and amenities building more than 100 feet from Bedford Road.

NOTES:

1. RUTGERS MULTIPLIERS (TOTAL POPULATION)

FOR THE 3 1-BEDROOM AFFH RENTAL UNITS, MULTIPLIER OF 1.99 = 5.97
FOR THE 46 2-BEDROOM UNITS, MULTIPLIER OF 1.88 = 86.50; 4 2-BEDROOM AFFH RENTAL UNITS, MULTIPLIER OF 2.55 = 10.2; TOTAL 96.7
RUTGERS UNIVERSITY RESIDENTIAL DEMOGRAPHIC MULTIPLIERS (JUNE 2006): NEW YORK, OWNERSHIP UNITS IN BUILDINGS WITH 5+ UNITS, COSTING MORE THAN $329,500 AND RENTAL UNITS IN BUILDINGS WITH 5+ UNITS, MID-LEVEL RENT ($750-$1,100) (2 BEDROOM)
FOR THE 16 3-BEDROOM UNITS, MULTIPLIER OF 3.00 = 48
RUTGERS UNIVERSITY RESIDENTIAL DEMOGRAPHIC MULTIPLIERS (JUNE 2006): NEW YORK, OWNERSHIP UNITS IN BUILDINGS WITH 5+ UNITS, ALL VALUES (3 BEDROOMS)
RUTGERS HAS NO DATA FOR THE 2 4-BEDROOM UNITS, FOR THE PURPOSE OF THIS ANALYSIS IT IS ASSUMED A TOTAL POPULATION OF 4 MARKET RATE UNITS, MULTIPLIER OF 4.0 = 8
TOTAL POPULATION= 150-151 PERSONS
LOCAL EXPERIENCE FROM THE DEIS
APPROXIMATELY 2.3 PERSONS AVERAGE PER UNIT TIMES 73 UNITS EQUALS 167-168 PERSONS
USING THE SAME FORMAT AS THE PROJECT SUMMARY COMPARISON TABLE, THE TOTAL POPULATION WOULD BE 150-151 PERSONS.

2. RUTGERS MULTIPLIERS (PUBLIC SCHOOL CHILDREN)

FOR THE 3 1-BEDROOM AFFH RENTAL UNITS, MULTIPLIER OF 0.27 = 0.81
FOR THE 46 MARKET RATE 2-BEDROOM UNITS, MULTIPLIER OF 0.05 = 2.3; 4 2-BEDROOM AFFH RENTAL UNITS, MULTIPLIER OF 0.45 = 1.8; TOTAL 4.1
RUTGERS UNIVERSITY RESIDENTIAL DEMOGRAPHIC MULTIPLIERS (JUNE 2006): NEW YORK, SCHOOL AGE CHILDREN IN PUBLIC SCHOOLS, OWNERSHIP UNITS IN BUILDINGS WITH 5+ UNITS, COSTING MORE THAN $329,500 (2 BEDROOM)
FOR THE 16 3-BEDROOM UNITS, MULTIPLIER OF 0.49 = 7.84
RUTGERS UNIVERSITY RESIDENTIAL DEMOGRAPHIC MULTIPLIERS (JUNE 2006): NEW YORK, SCHOOL AGE CHILDREN IN PUBLIC SCHOOLS, OWNERSHIP UNITS IN BUILDINGS WITH 5+ UNITS, ALL VALUES (3 BEDROOMS)
RUTGERS HAS NO DATA FOR THE 2 4-BEDROOM UNITS, FOR THE PURPOSE OF THIS ANALYSIS IT IS ASSUMED A SCHOOL-AGE CHILDREN IN PUBLIC SCHOOL MULTIPLIER OF 1.0 = 2
TOTAL= 14-15 SCHOOL-AGE CHILDREN
LOCAL EXPERIENCE
0.06 SCHOOL-CHILDREN PER UNIT TIMES 73 UNITS EQUALS 4-5 SCHOOL-AGE CHILDREN

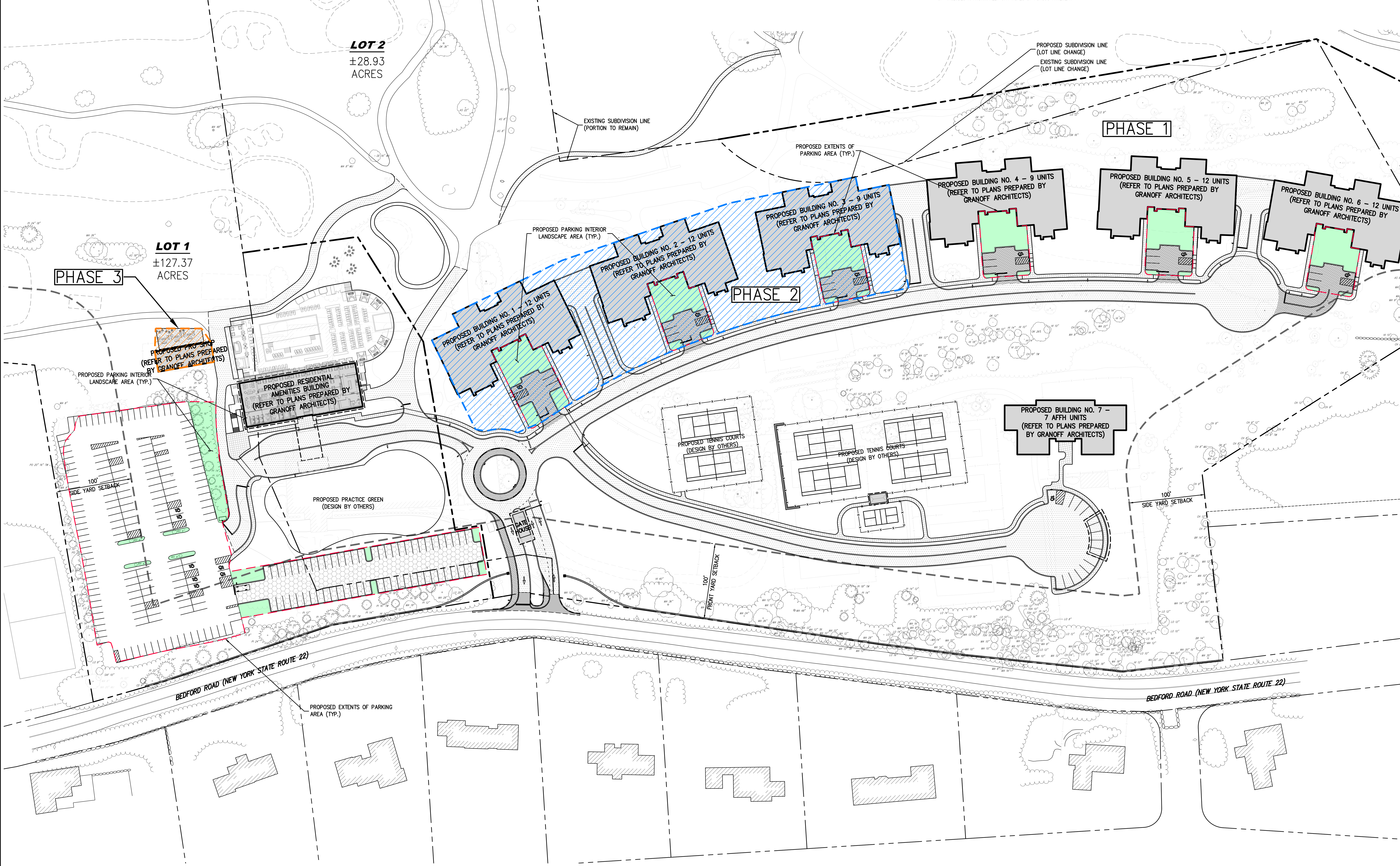
3. INCLUDES APPROXIMATELY 0.41 ACRES OF POROUS PAVEMENT

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING SETBACK LINE
- EXISTING WETLAND LINE AND DELINEATION (WLF-63, WLF-64, WLF-65)
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION (T10 M)
- EXISTING TREE LINE
- EXISTING PAINT
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED SAWCUT LINE
- PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS) (2H)
- PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS) (5)
- PROPOSED CONCRETE SIDEWALK
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED POROUS PAVEMENT
- PROPOSED DECORATIVE PAVERS
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED FENCE
- PROPOSED 2-4" WIDE YELLOW LINES 8"O.C. (Y)
- PROPOSED 12" WIDE WHITE STOP LINE
- PROPOSED ARROW MARKING ON PAVEMENT
- TRAFFIC SIGN LOCATION & DESIGNATION (A)
- PEDESTRIAN CROSSING

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC,PLLC, LAST REVISED 03/06/2013.



NOT FOR CONSTRUCTION

Drawn: NC	Approved: AG
Scale:	1" = 30'
Date:	11/23/2020
Project No:	20101
20101-LAYOUT	LAYOUT OV / LAY.scr
Drawing No:	C-100A

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

OVERALL SITE LAYOUT AND PHASING PLAN

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
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APPLICANT/OWNER:
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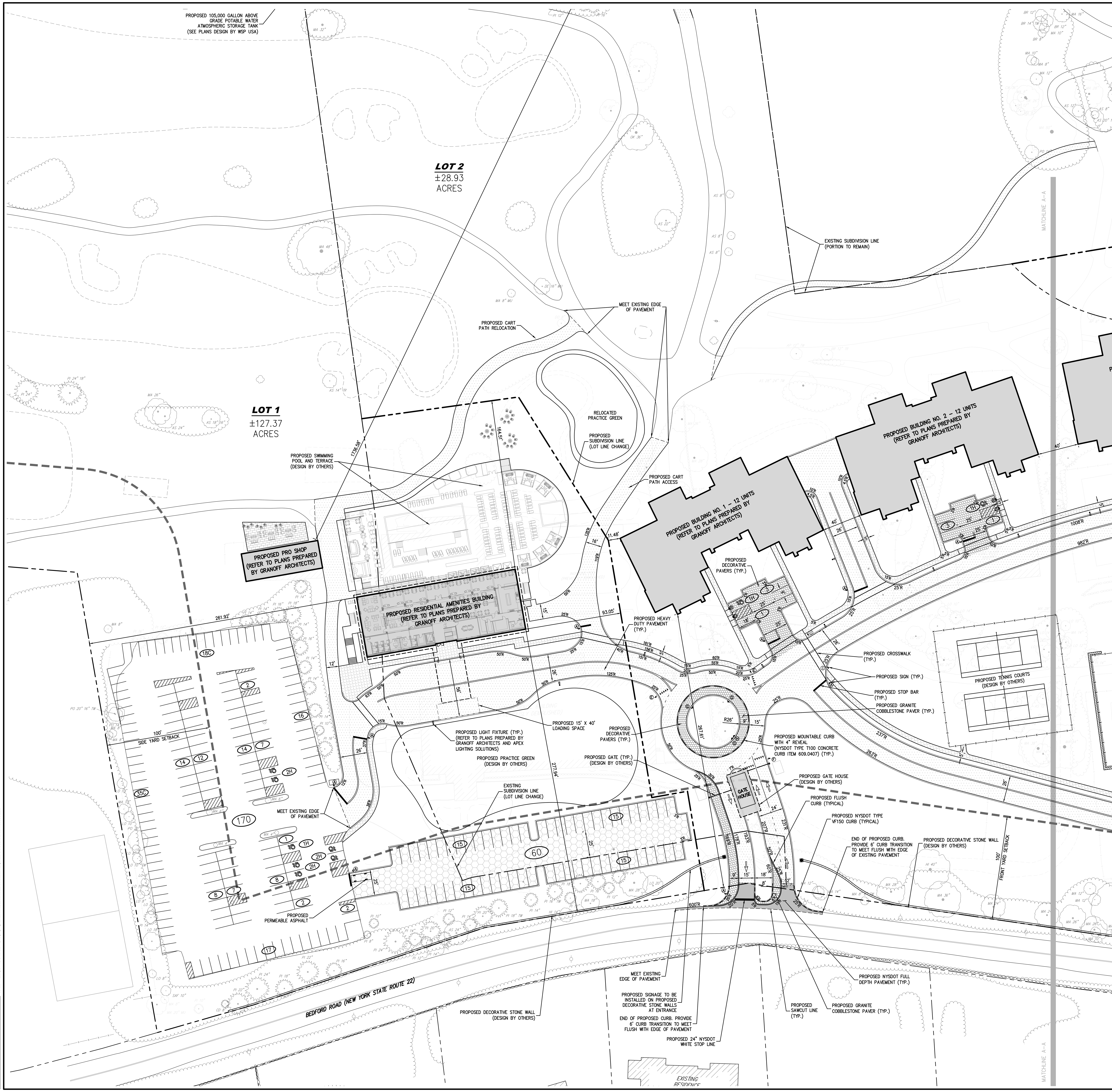
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete



LEGEND

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SIGN TABLE

DESIGNATION NUMBER	SIGN	SIZE	DESCRIPTION	MOUNTING TYPE	MOUNTING HEIGHT	REGULATORY	REFLECTORIZED
A	STOP	30"X30"	WHITE ON RED	STEEL CHANNEL	7'–0"	R1–1	X
B	RESERVED PARKING	12"X18"	GREEN & BLUE ON WHITE	STEEL CHANNEL	7'–0"	R7–8	X
C	RESERVED PARKING / VAN ACCESSIBLE	12"X18" 12"X6"	GREEN & BLUE ON WHITE	STEEL CHANNEL	7'–0"	R7–8 R7–8A	X
D	NO PARKING ANY TIME	12"X18"	RED ON WHITE	STEEL CHANNEL	7'–0"	NYP1–2	X
E	YIELD	30"X30"X30"	RED ON WHITE	STEEL CHANNEL	7'–0"	R1–2	X
F	YIELD / SINGLE LANE	30"X30"X30" 30"X30"	RED ON WHITE BLACK ON YELLOW	STEEL CHANNEL	6'–0"	R1–2 NYW3–15	X
G		30"X24"	BLACK ON WHITE	STEEL CHANNEL	7'–0"	R6–4	X
H	SINGLE LANE	30"X30"	BLACK ON WHITE	STEEL CHANNEL	7'–0"	NYW3–15	X
I		30"X30" 24"X12"	BLACK ON YELLOW	STEEL CHANNEL	7'–0"	W11–2 W16–7PL	X

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY–22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
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John Meyer Consulting, Inc.
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JMC

SITE LAYOUT PLAN (SOUTH)

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY–22)
ARMONK, NY 10504

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

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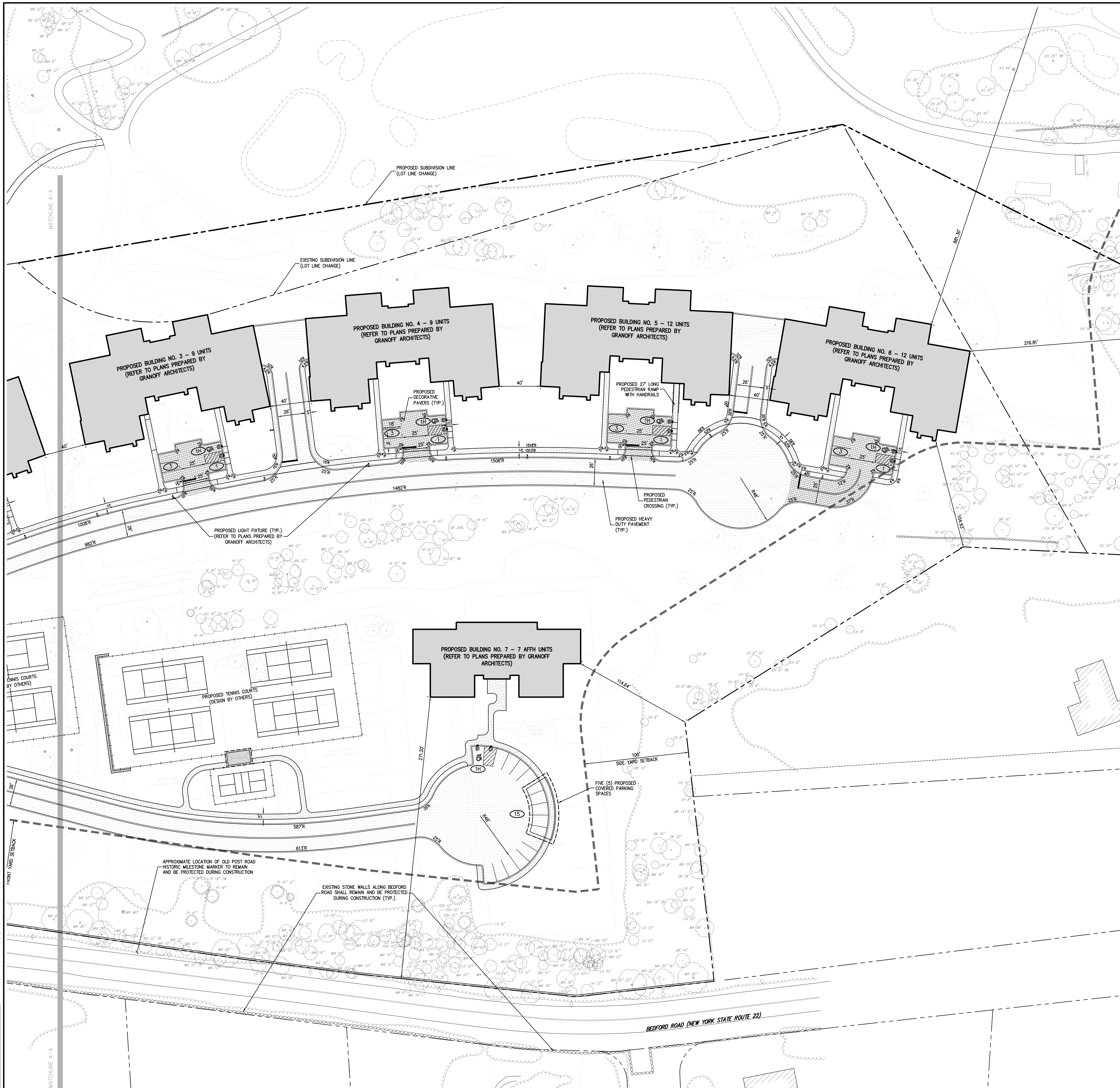
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn:	NC	Approved:	AG
Scale:	1" = 30'		
Date:	11/23/2020		
Project No:	20101		
20101-LAYOUT	LAYOUT SOUTH	LAY.scr	

Drawing No: C–100

NOT FOR CONSTRUCTION



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SITE LAYOUT PLAN (NORTH)

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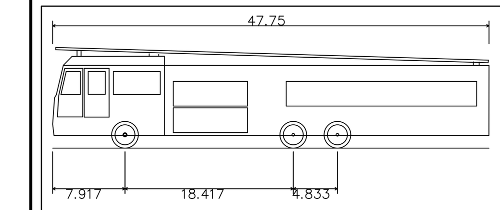
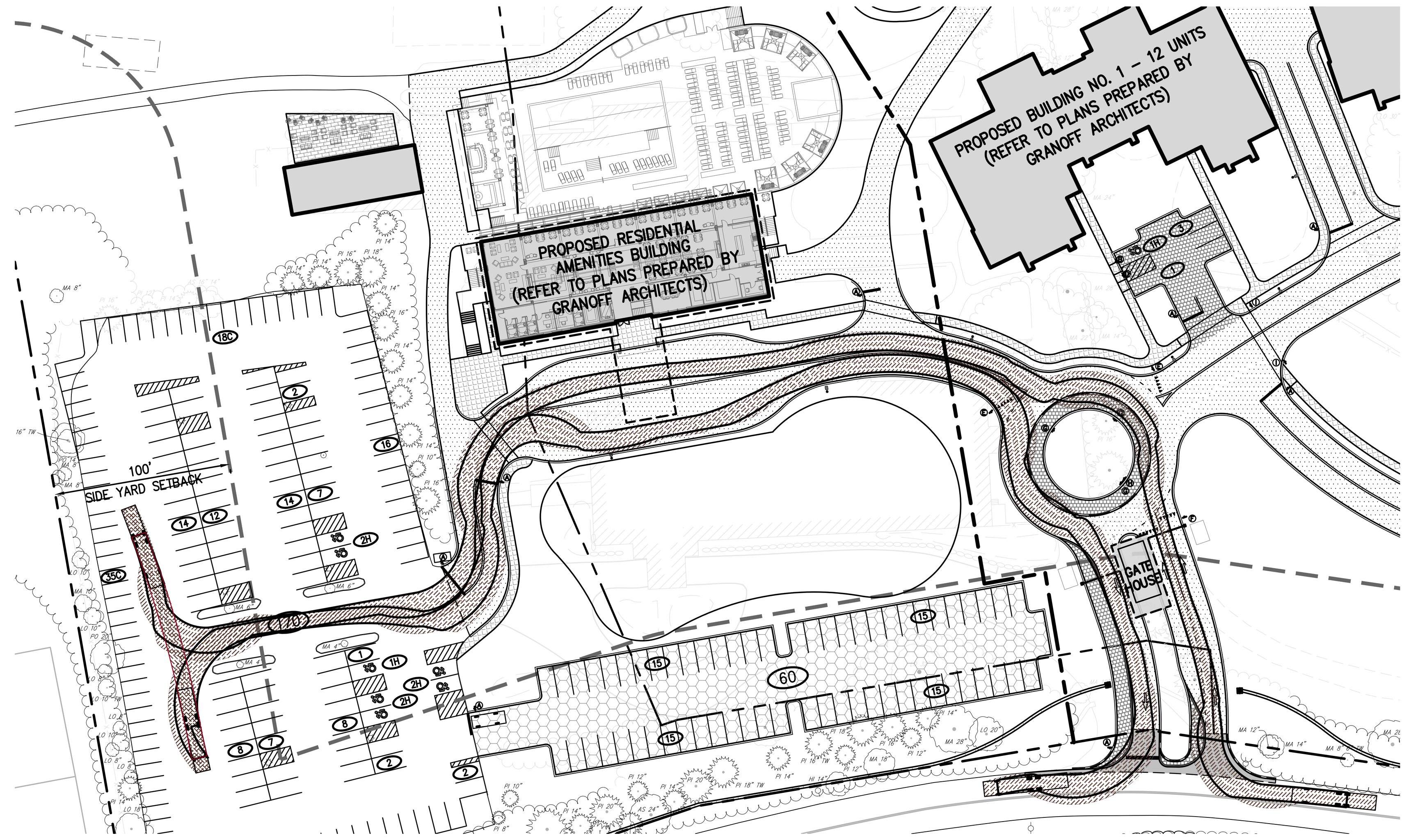
20101-LAYOUT	LAYOUT NORTH	LAY.scr	
Drawing No:	C–101		

FIRE TRUCK PROFILE

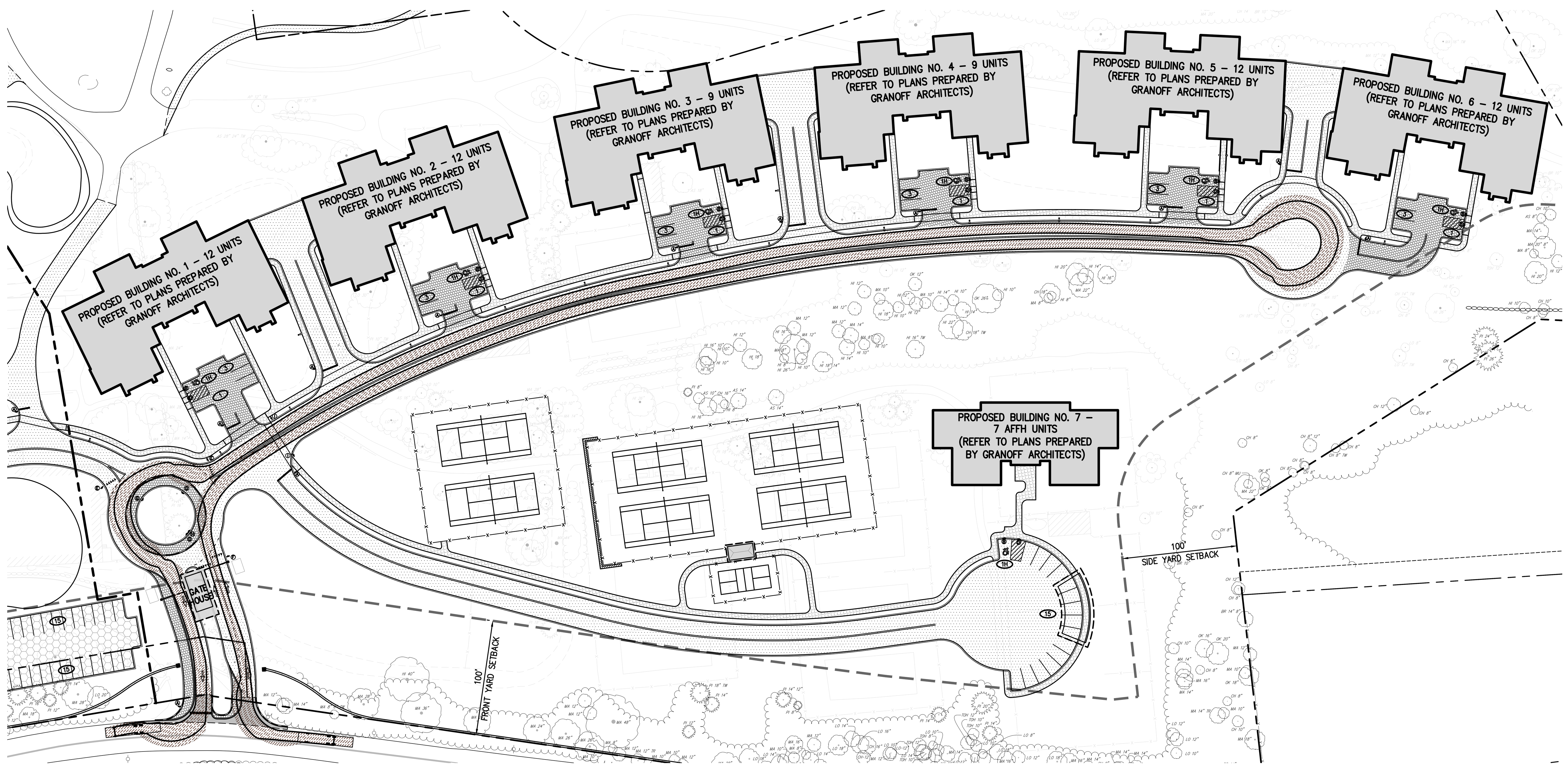


E-ONE HP95 Mid Mount	
Overall Length	47.750ft
Overall Width	8.333ft
Overall Body Height	11.000ft
Min Body Ground Clearance	1.393ft
Track Width	8.333ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°



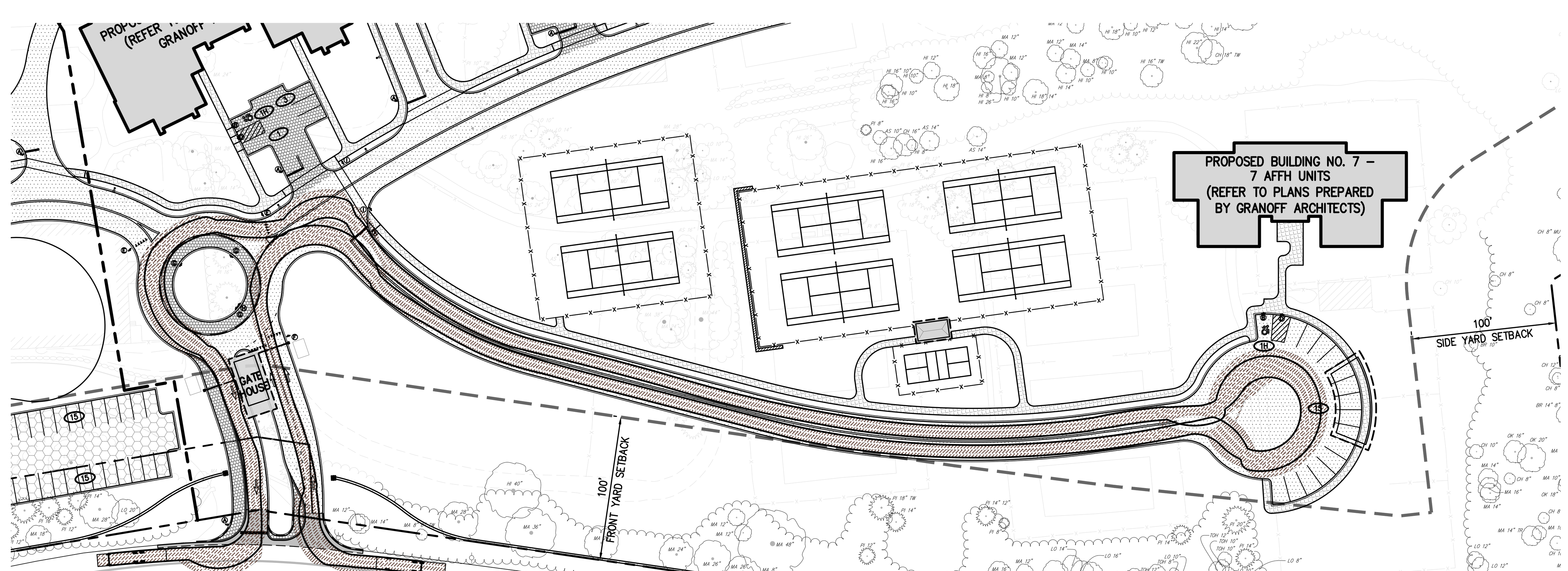
ROAD A FIRE TRUCK TURNING ANALYSIS

SCALE: 1" = 50'



ROAD B FIRE TRUCK TURNING ANALYSIS

SCALE: 1" = 50'



ROAD C FIRE TRUCK TURNING ANALYSIS

SCALE: 1" = 50'

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

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 ACCESS PLAN

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 578 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

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APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: NC		Approved: AG	
Scale:	AS SHOWN		
Date:	11/23/2020		
Project No:	20101		
20101-LAYOUT	TRUCK TURNING	LAY.scr	
Drawing No:	C-102		

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
- 172 EXISTING CONTOUR
- 170 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
- 200 PROPOSED FINISHED GRADE
- 191.00+ 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
- OCS PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- DP-2 BORING LOCATION AND DESIGNATION
- PROPOSED LIMIT OF DISTURBANCE

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC, LAST REVISED 03/06/2013. PORTIONS OF EXISTING TOPOGRAPHY HAVE BEEN PROVIDED BY WESTCHESTER COUNTY GIS.
2. GEOTECHNICAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT ENTITLED, "REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION", DATED 10/16/2013, PREPARED BY CARLIN-SIMPSON & ASSOCIATES.
3. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.

(PROPOSED GRADE) TW+ +BW (PROPOSED GRADE)

RETAINING WALL SPOT GRADE LEGEND

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
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568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

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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

SITE GRADING PLAN (SOUTH)

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: NC		Approved: AG	
Scale:	1" = 30'		
Date:	11/23/2020		
Project No:	20101		
20101-GRADING	GRAD SOUTH	GRAD.scr	
Drawing No:	C-200		

NOT FOR CONSTRUCTION

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 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
- 200 — PROPOSED FINISHED GRADE
- 191.00 — 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
- OCS — PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- DP-2 — BORING LOCATION AND DESIGNATION
- PROPOSED LIMIT OF DISTURBANCE

NOTES:

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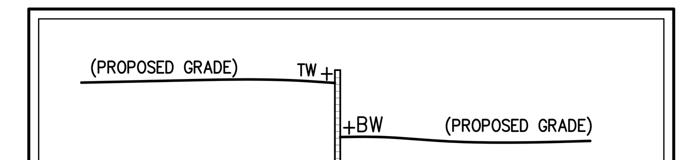

RETAINING WALL SPOT GRADE LEGEND

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

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SITE GRADING PLAN (NORTH)

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

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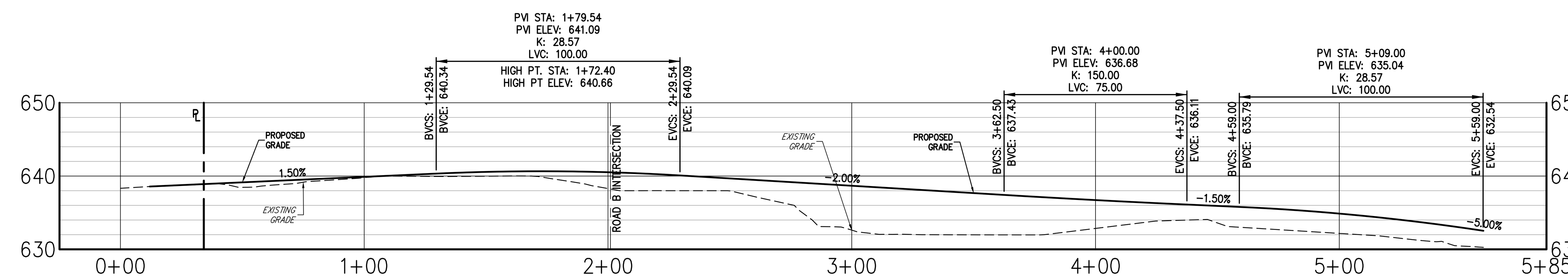
APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

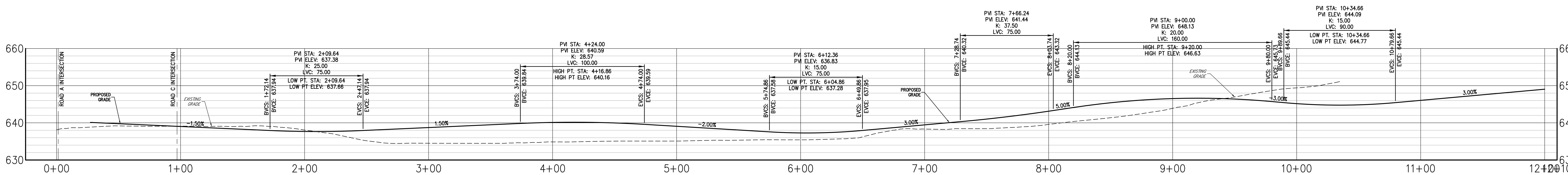
Drawn: NC	Approved: AG	
Scale: 1" = 30'		
Date: 11/23/2020		
Project No: 20101		
20101-GRADING	GRAD NORTH	GRAD.scr
Drawing No: C-201		



ROAD A PROFILE

HORIZONTAL: 1" = 30'

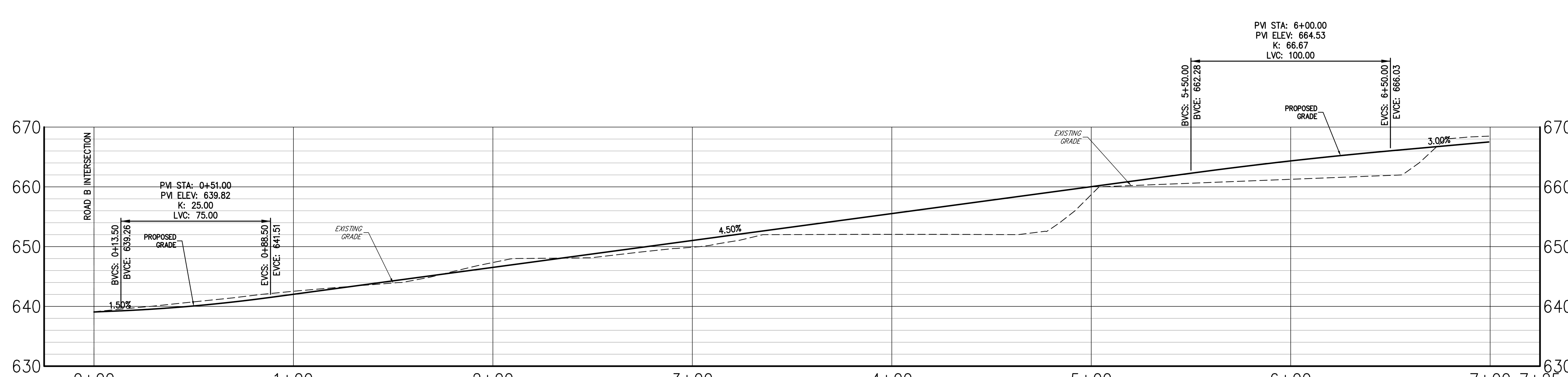
VERTICAL: 1" = 10'



ROAD B PROFILE

HORIZONTAL: 1" = 30'

VERTICAL: 1" = 10'



ROAD C PROFILE

HORIZONTAL: 1" = 30'

VERTICAL: 1" = 10'

NOT FOR CONSTRUCTION

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER: SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT: GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

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

ROAD PROFILES PLAN

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

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APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

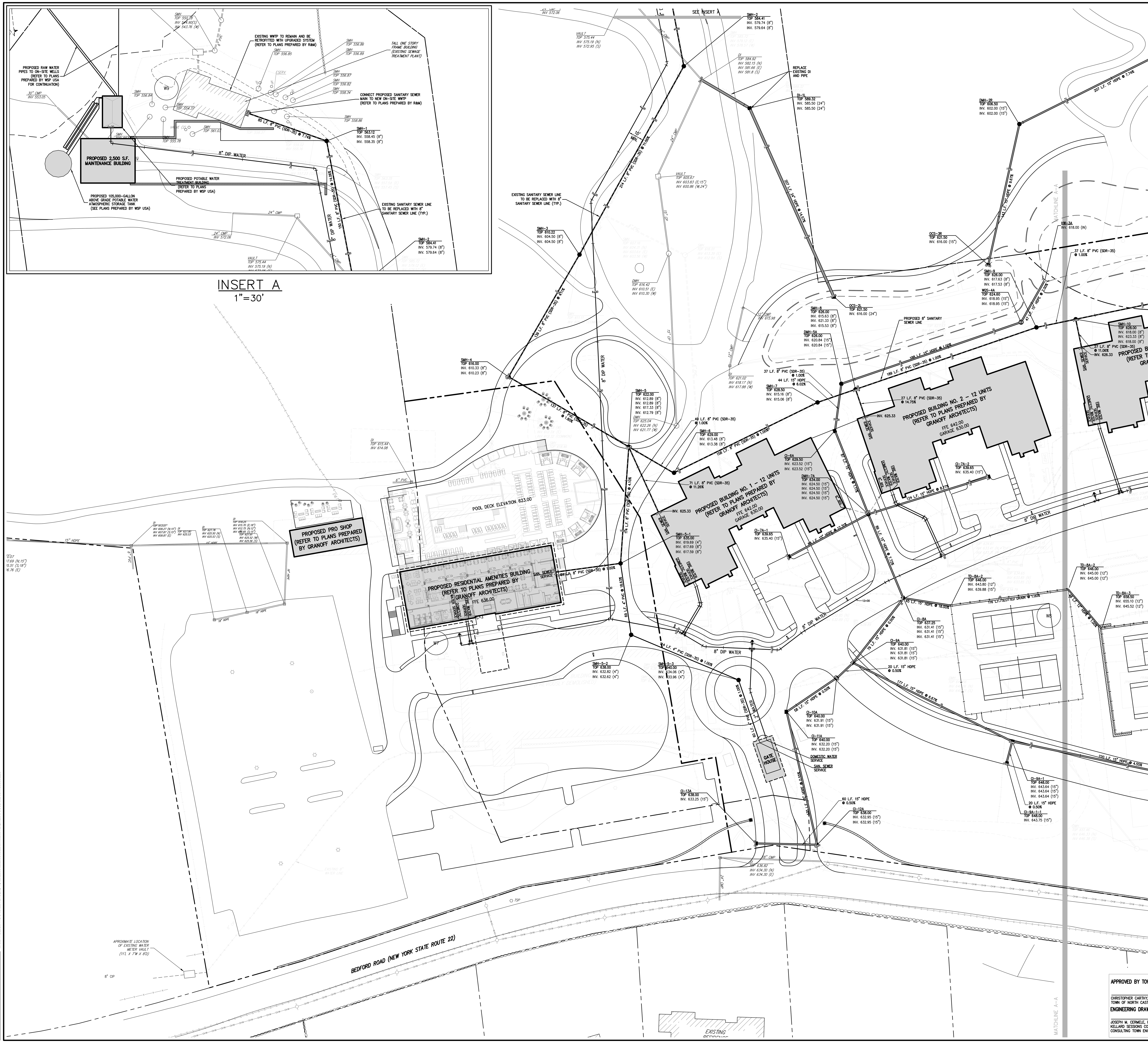
________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: NC Approved: AG
Scale: AS SHOWN
Date: 11/23/2020
Project No: 20101

Drawing No:
C-202



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- 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 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
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- SMH PROPOSED SANITARY SEWER MANHOLE
- MH PROPOSED STORM DRAIN MANHOLE
- CI PROPOSED TYPE CI DRAIN INLET
- DI PROPOSED TYPE DI DRAIN INLET
- PROPOSED HEADWALL
- OCS PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED HYDRANT
- 15" HDPE PROPOSED STORM DRAIN LINE & SIZE
- 8" PVC PROPOSED SANITARY SEWER LINE & SIZE
- 6" WATER PROPOSED WATER LINE & SIZE
- PROPOSED GAS LINE
- PROPOSED ELECTRIC/TELEPHONE/CABLE
- PROPOSED WATER VALVE
- PROPOSED GAS VALVE
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC, LAST REVISED 03/06/2013. PORTIONS OF EXISTING TOPOGRAPHY HAVE BEEN PROVIDED BY WESTCHESTER COUNTY GIS.
2. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
3. UNLESS OTHERWISE SPECIFIED, PIPE FOR STORM DRAINS SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS IN ACCORDANCE WITH ASTM F-2648. JOINTS SHALL BE WATERTIGHT IN ACCORDANCE WITH ASTM D-3212.
4. UNLESS OTHERWISE SPECIFIED, PIPE FOR SANITARY SEWER GRAVITY LINES SHALL BE POLYVINYL CHLORIDE PIPE (PVCP), SDR-35, WITH PUSH-ON JOINTS IN ACCORDANCE WITH ASTM D-3034 AND D-3212.
5. UNLESS OTHERWISE SPECIFIED, PIPE FOR WATER LINES SHALL BE DOUBLE CEMENT-LINED DUCTILE IRON PIPE (DIP), CLASS 52, WITH PUSH-ON JOINTS IN ACCORDANCE WITH AWWA C-150, C-151, C-104 AND C-111.
6. ELECTRIC, TELEPHONE, FIRE ALARM AND CABLE TELEVISION LINES SHALL BE INSTALLED UNDERGROUND IN CONDUIT IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
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Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

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SITE PRELIMINARY UTILITIES PLAN (SOUTH)

THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

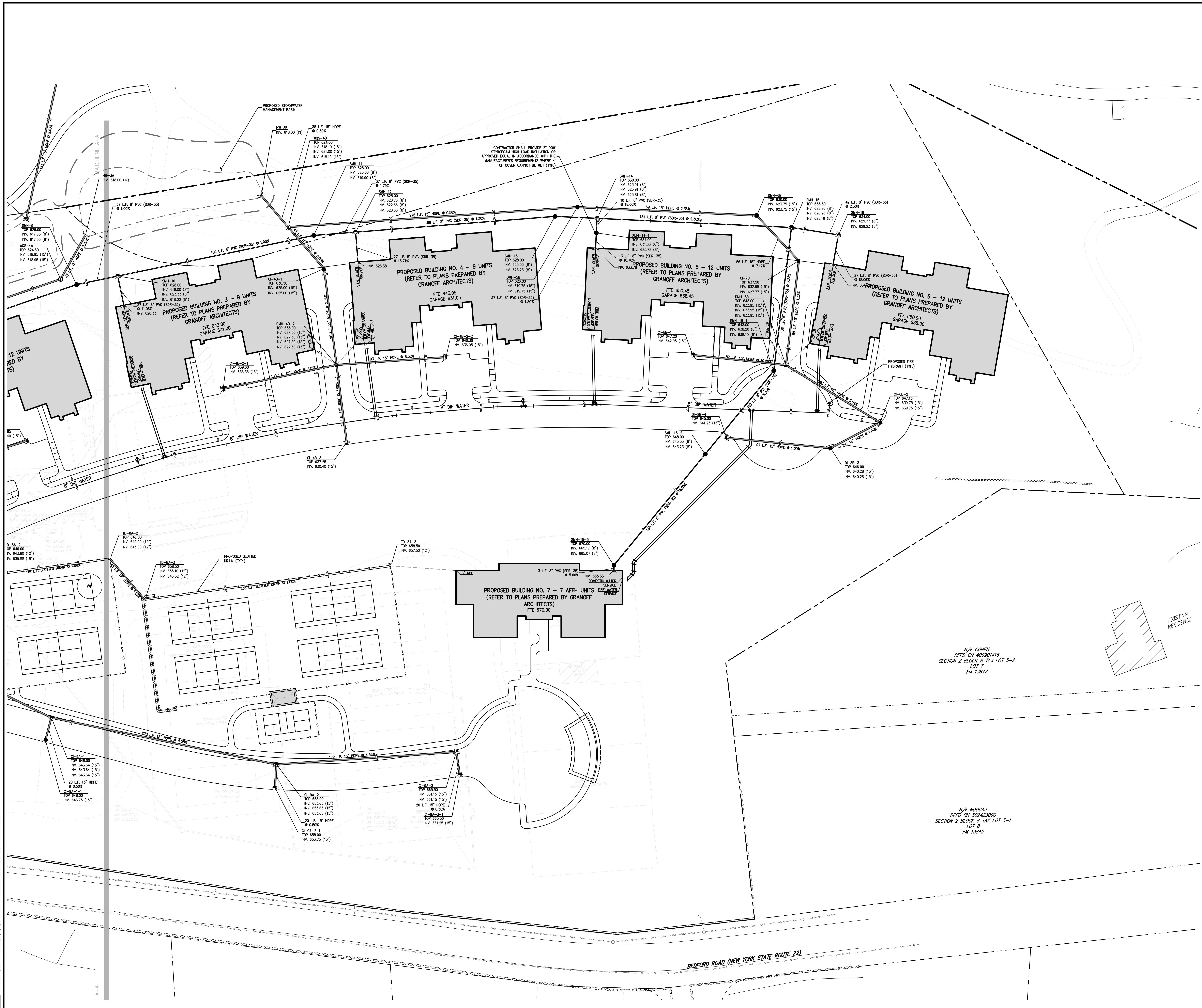
APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: NC Approved: AG
Scale: 1" = 30'
Date: 11/23/2020
Project No: 20101
20101-UTILITIES | UTIL SOUTH | UTIL.scr
Drawing No: C-300



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING CONTOUR (172)
- EXISTING INDEX CONTOUR (170)
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- 36" RCP — EXISTING STORM DRAIN LINE AND SIZE
- 8" SAN — EXISTING SANITARY LINE AND SIZE
- W — EXISTING WATER LINE
- G — EXISTING GAS LINE
- OHW — 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
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- 15" HDPE — PROPOSED STORM DRAIN LINE & SIZE
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- G — PROPOSED GAS LINE
- E/T/C — PROPOSED ELECTRIC/TELEPHONE/CABLE
- PROPOSED WATER VALVE
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ARCHITECT:
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JMC

SITE PRELIMINARY UTILITIES PLAN (NORTH)

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

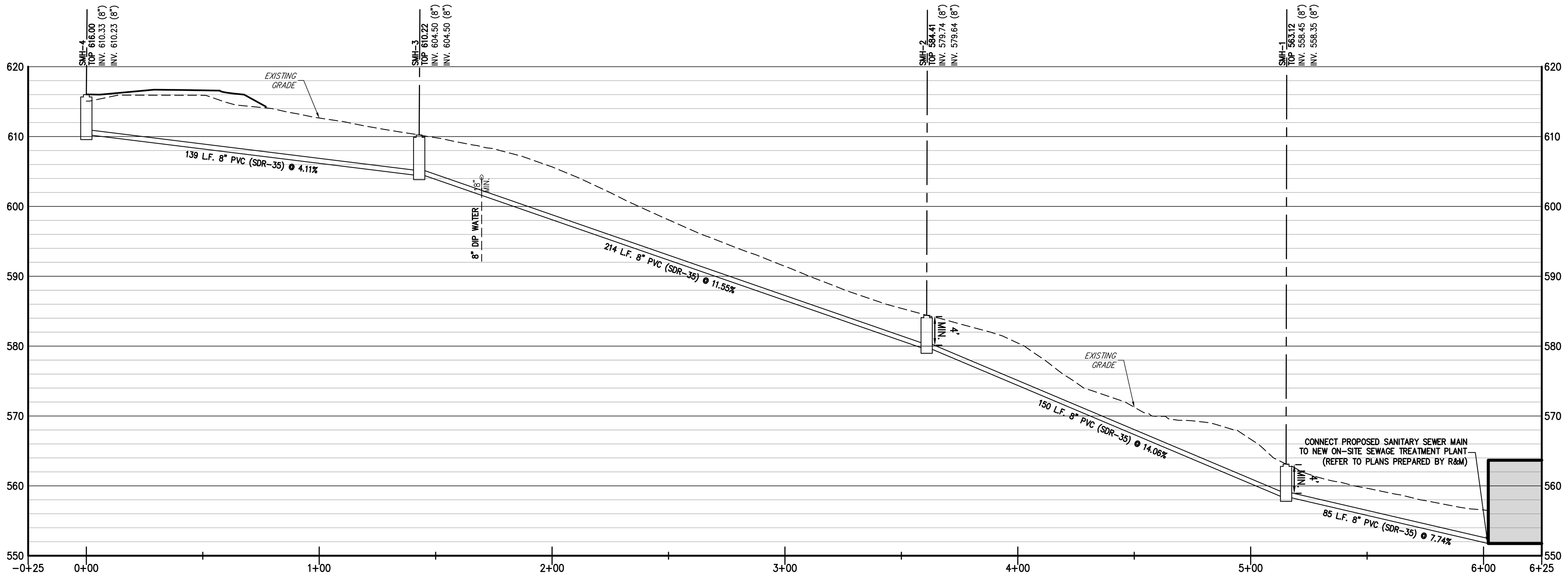
________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

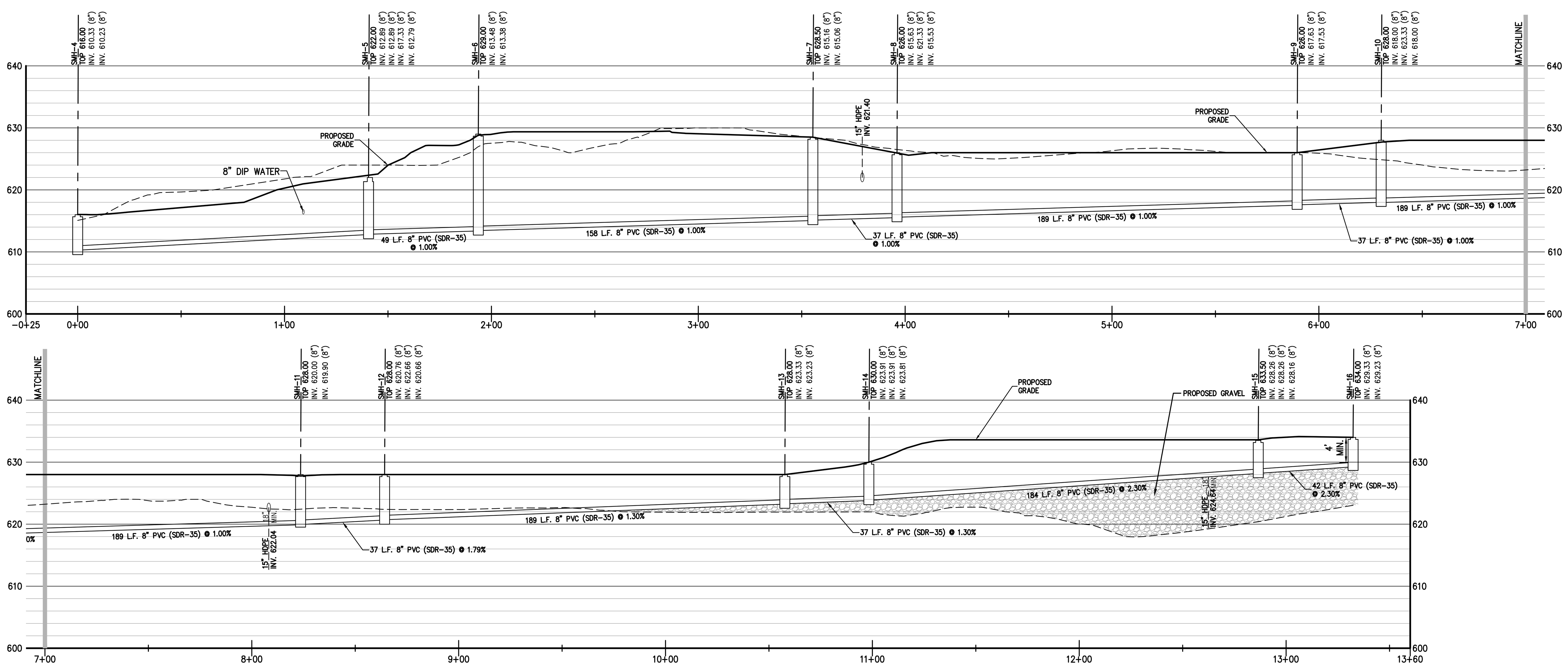
Drawn:	NC	Approved:	AG
Scale:	1" = 30'		
Date:	11/23/2020		
Project No:	20101		
20101-UTILITIES	UTIL NORTH	UTIL.scr	

Drawing No:
C-301



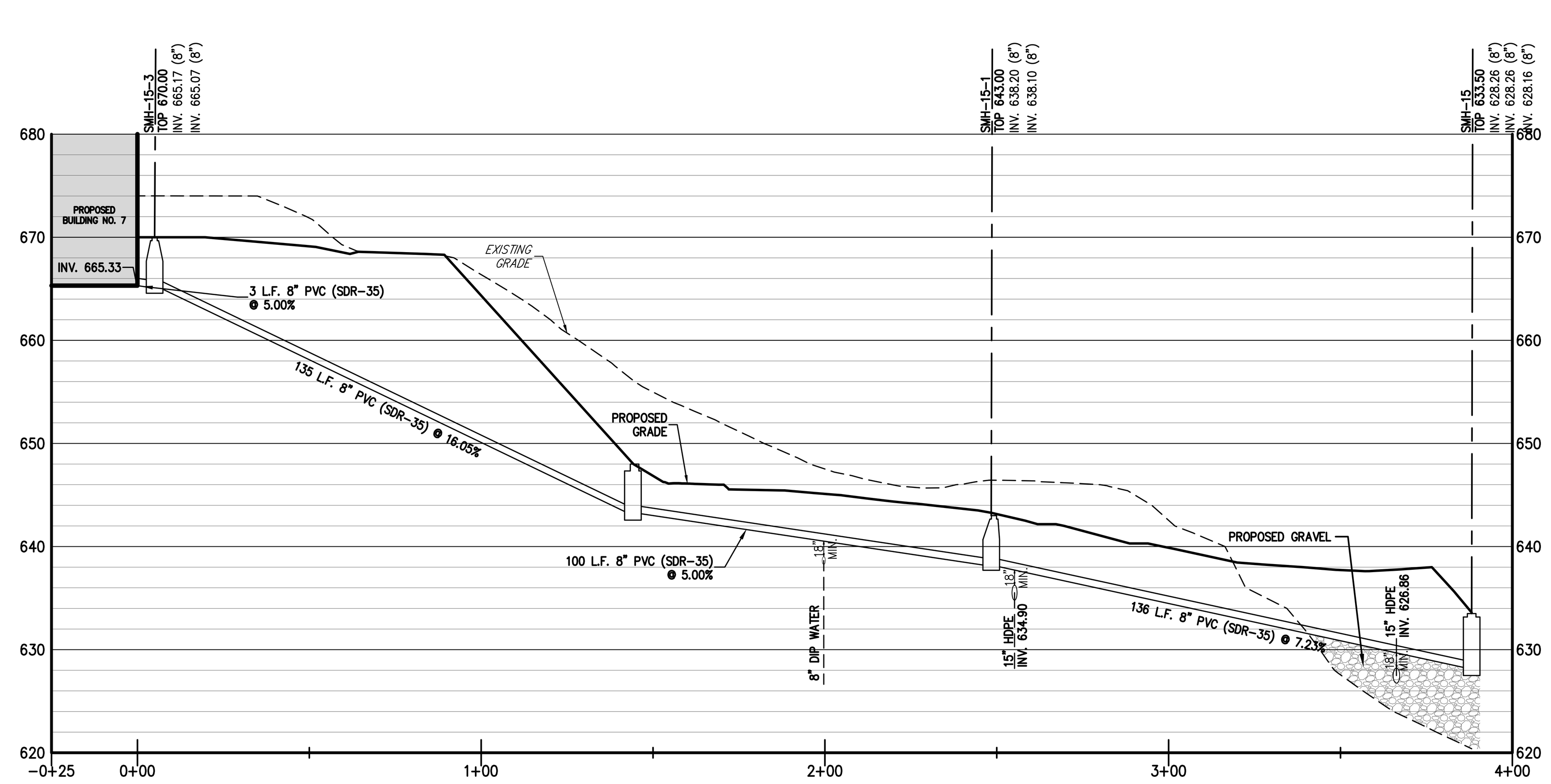
OSTP TO SMH-4 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'



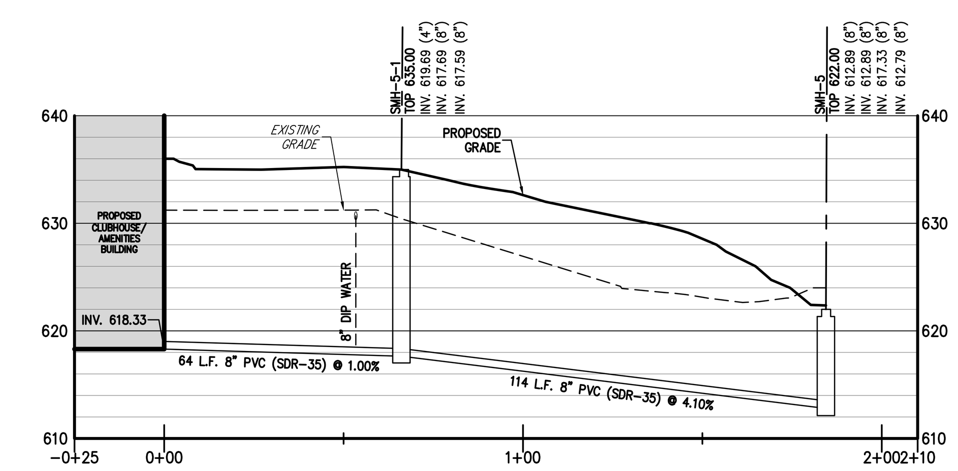
SMH-4 TO SMH-16 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'



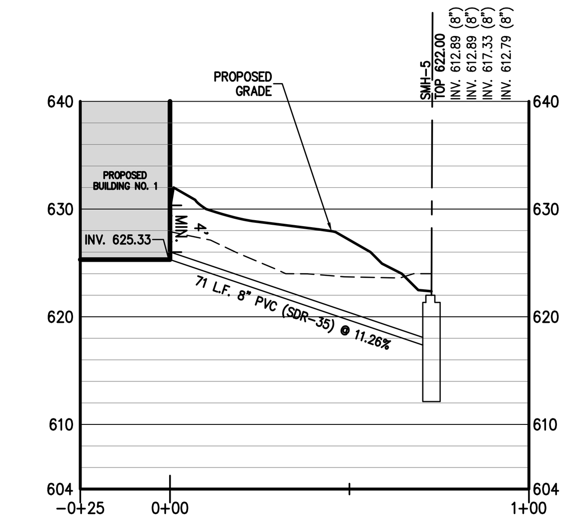
SMH-15 TO BUILDING NO. 7 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'



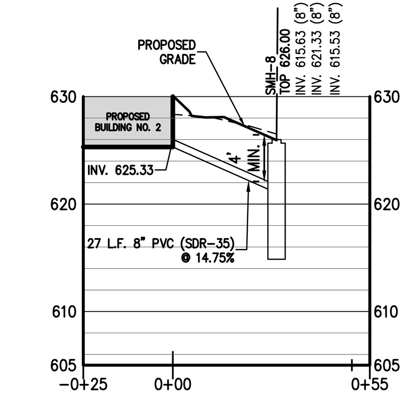
CLUBHOUSE TO SMH-5 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'



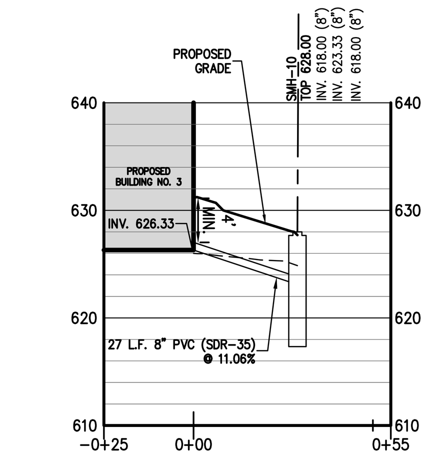
SMH-5 TO BUILDING NO. 1 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'



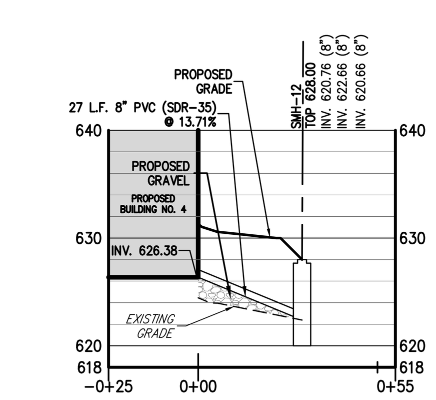
SMH-8 TO BUILDING NO. 2 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'



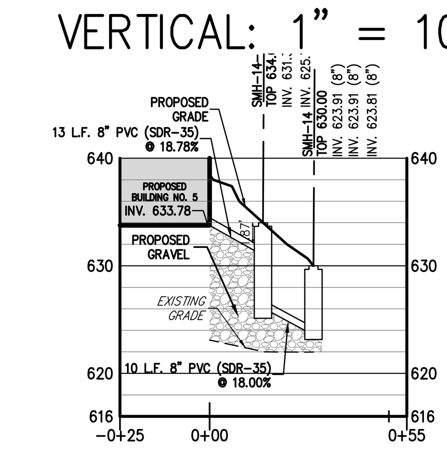
SMH-10 TO BUILDING NO. 3 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'



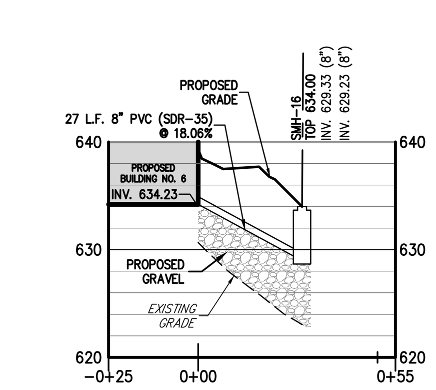
SMH-12 TO BUILDING NO. 4 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'



SMH-14 TO BUILDING NO. 5 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'



SMH-16 TO BUILDING NO. 6 PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'

NOT FOR CONSTRUCTION

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
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John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
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SANITARY SEWER PROFILES

THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
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ARMONK, NY 10504

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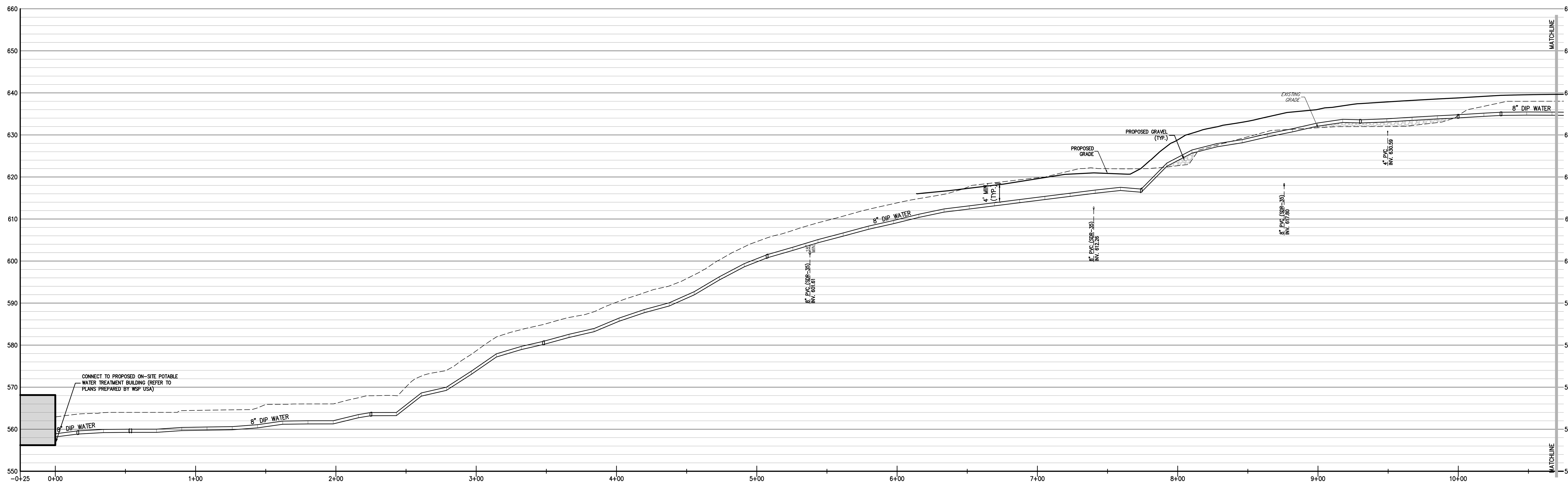
APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

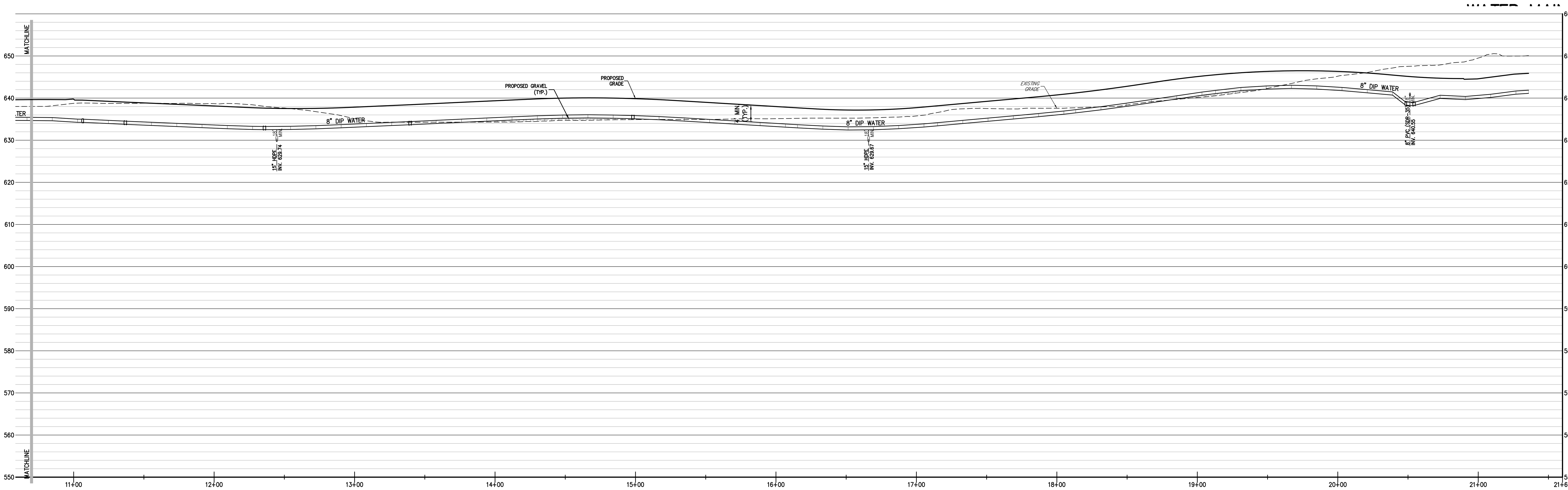
________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: NC	Approved: AG
Scale: AS SHOWN	
Date: 11/23/2020	
Project No: 20101	
20101-UTILITIES	SAN PROFILES / UTIL.scr
Drawing No: C-302	





WATER MAIN PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 10'

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
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WATER MAIN PROFILE
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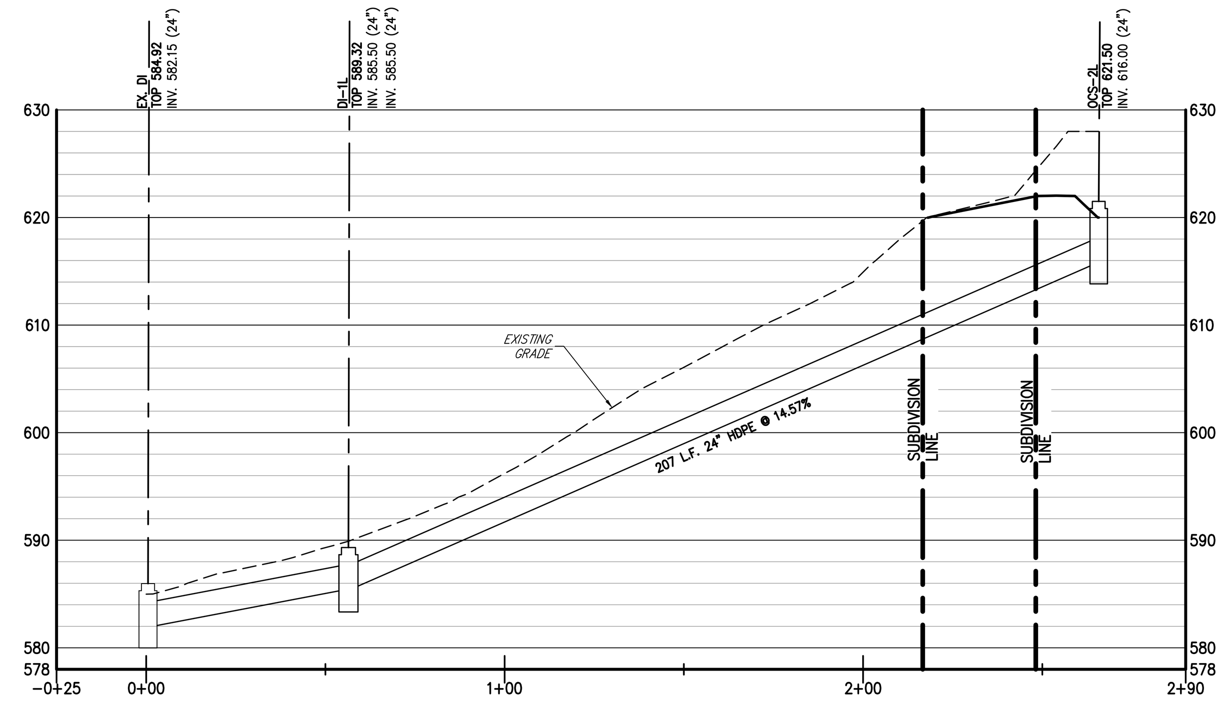
CONSULTING TOWN ENGINEER

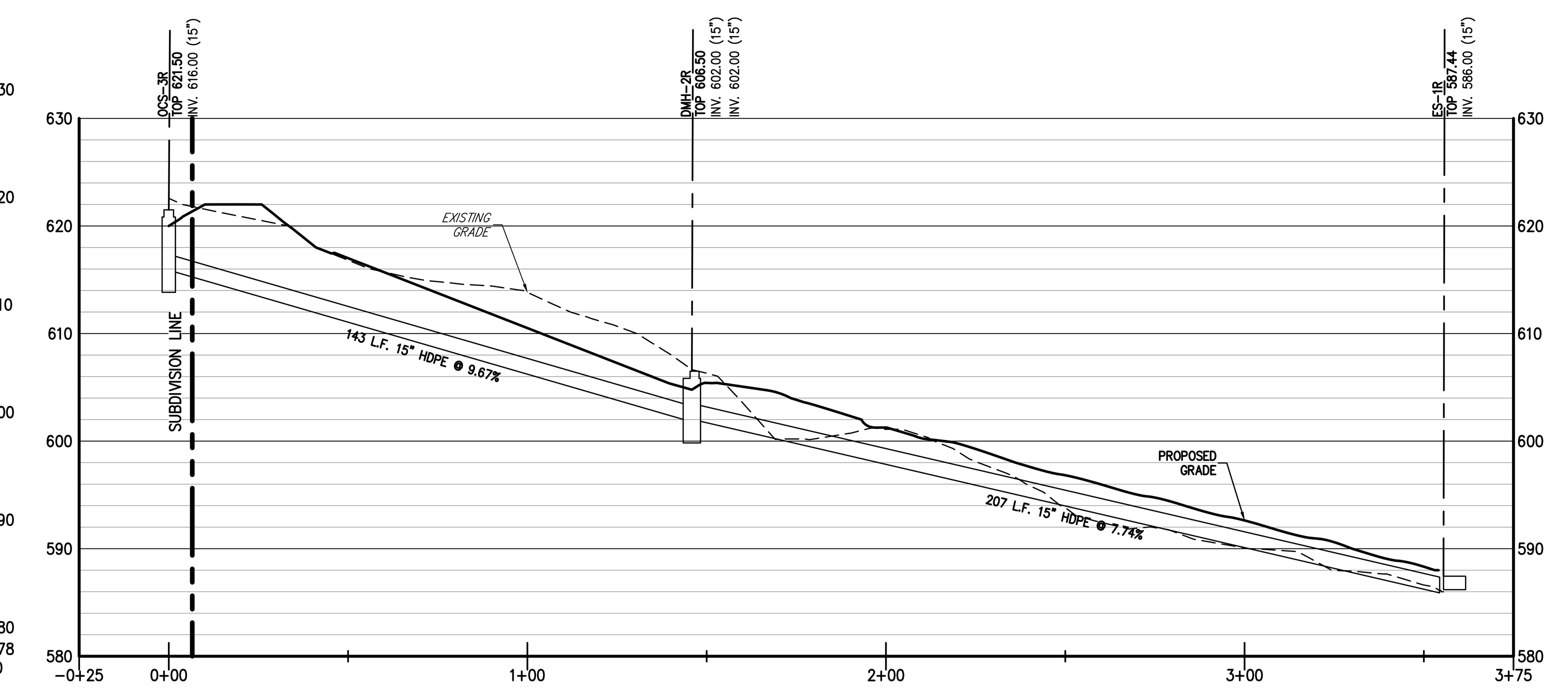
Drawn: NC Approved: AG
Scale: AS SHOWN
Date: 11/23/2020
Project No: 20101
20101-UTILITIES WATER PROFILES UTIL.dwg
Drawing No:
C-303



EX. DI TO OCS-2L PROFILE

HORIZONTAL: 1" = 30'

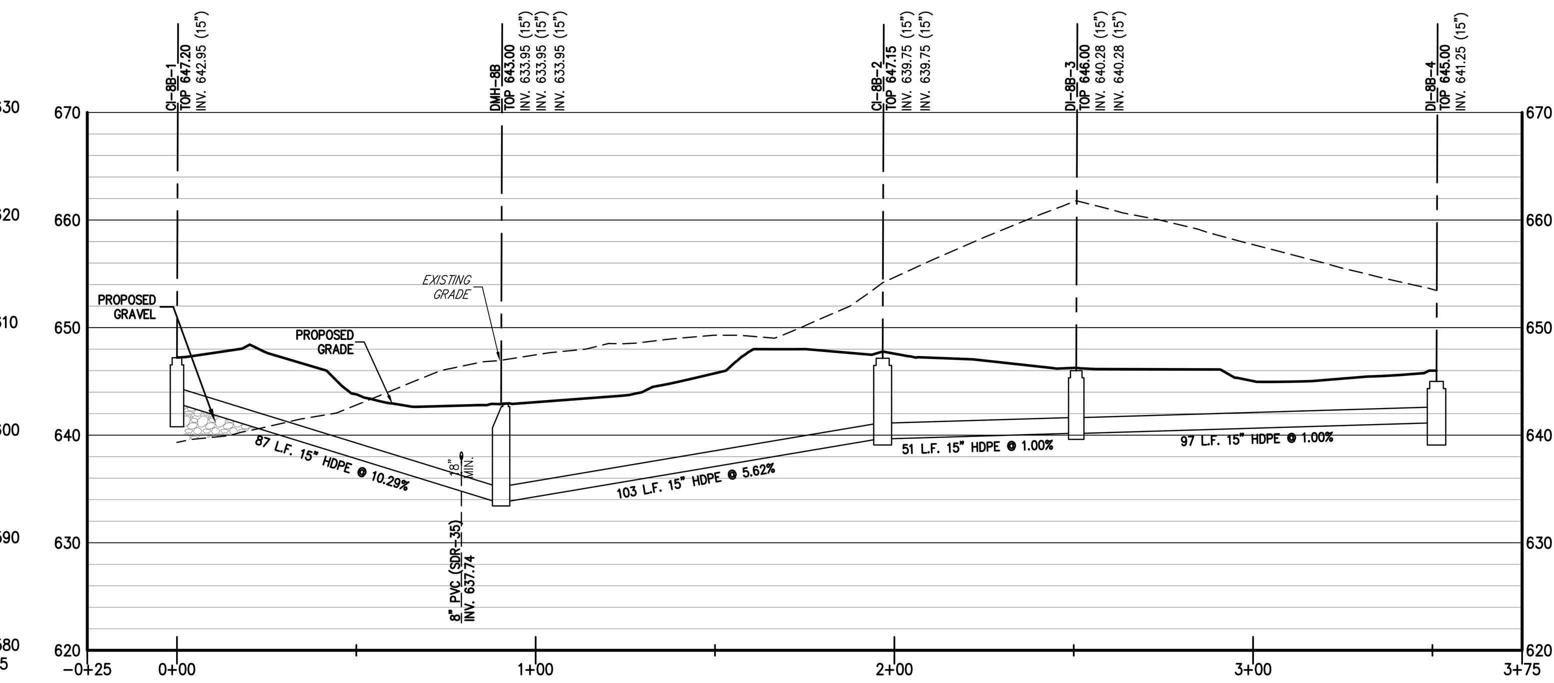
VERTICAL: 1" = 10'



OCS-3R TO ES-1R PROFILE

HORIZONTAL: 1" = 30'

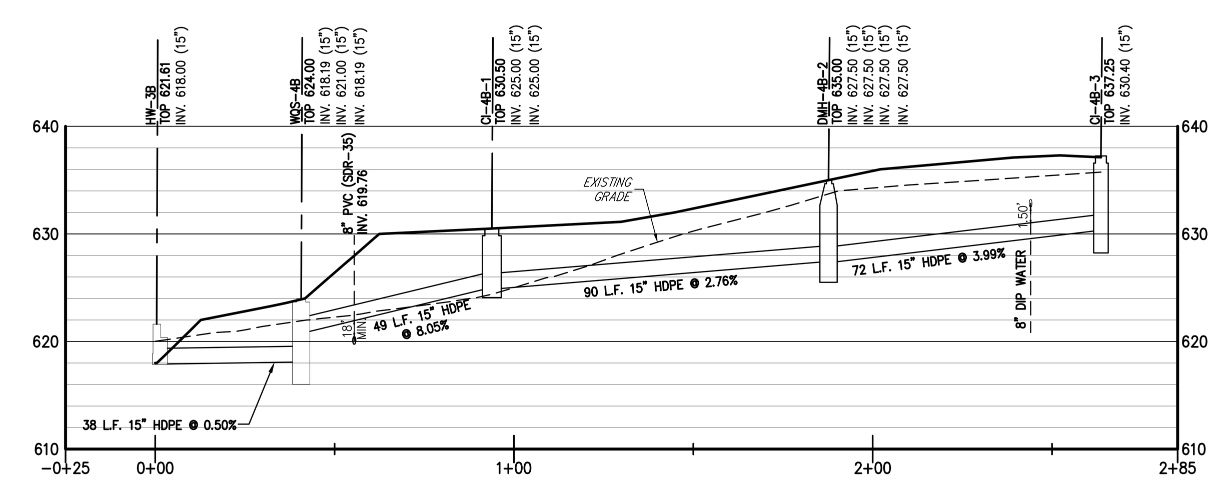
VERTICAL: 1" = 10'



CI-8B-1 TO DI-8B-4 PROFILE

HORIZONTAL: 1" = 30'

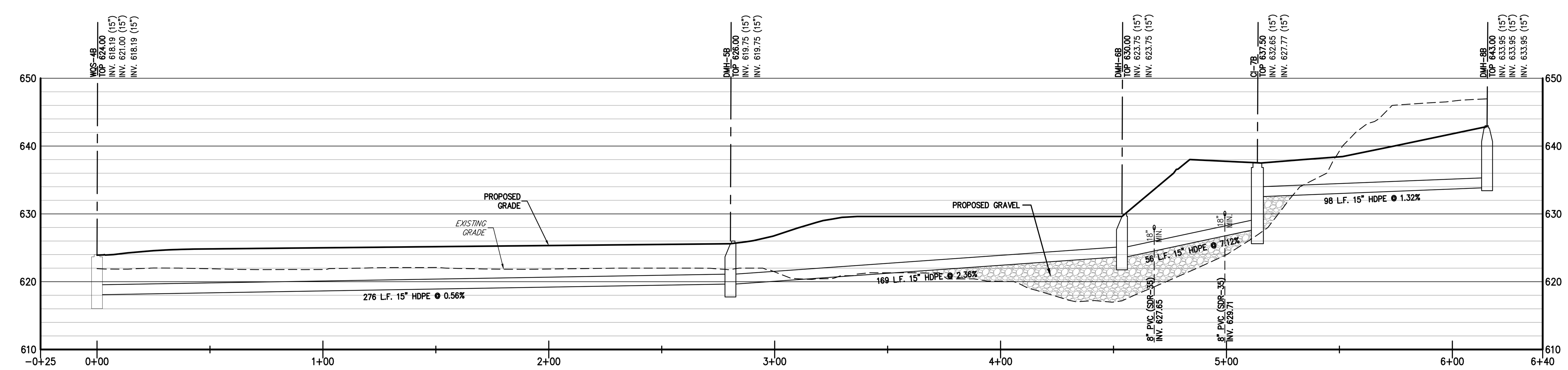
VERTICAL: 1" = 10'



HW-3B TO CI-4B-3 PROFILE

HORIZONTAL: 1" = 30'

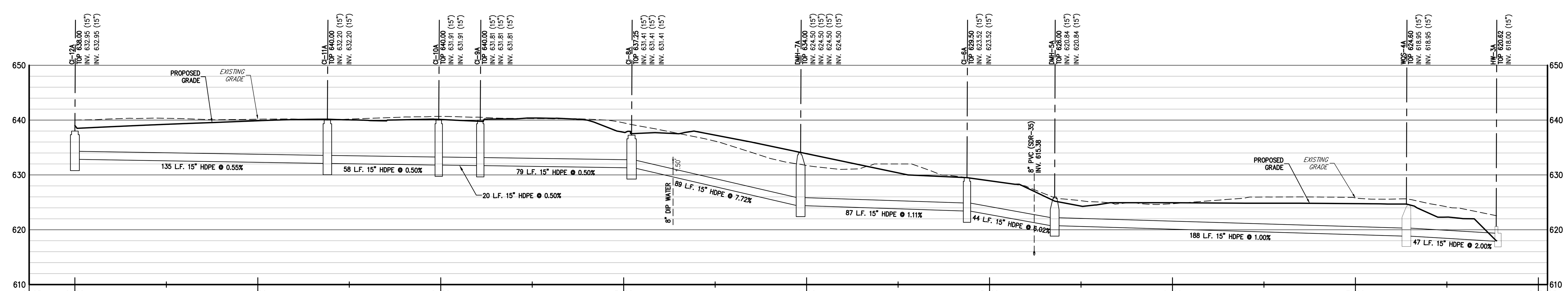
VERTICAL: 1" = 10'



DMH-4B TO DMH-8B PROFILE

HORIZONTAL: 1" = 30'

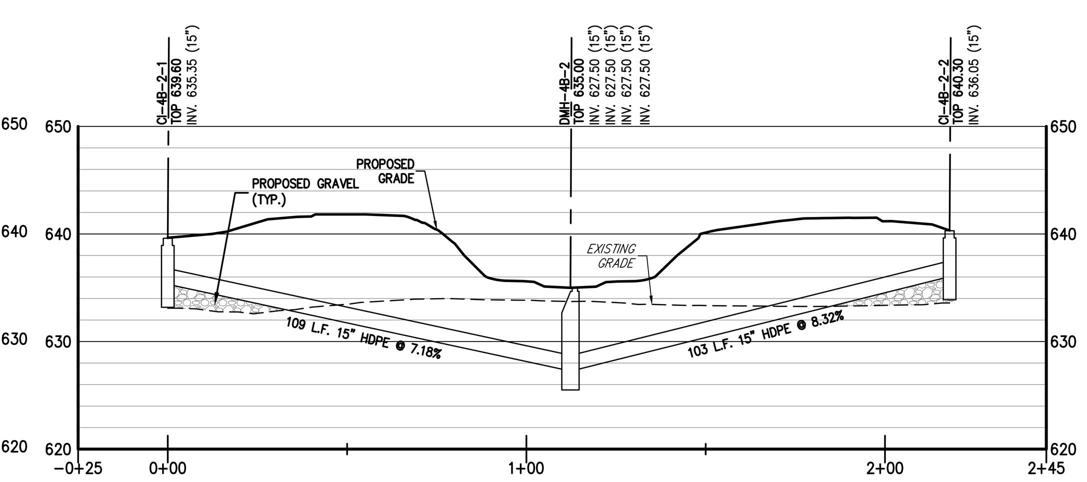
VERTICAL: 1" = 10'



CI-12A TO HW-3A PROFILE

HORIZONTAL: 1" = 30'

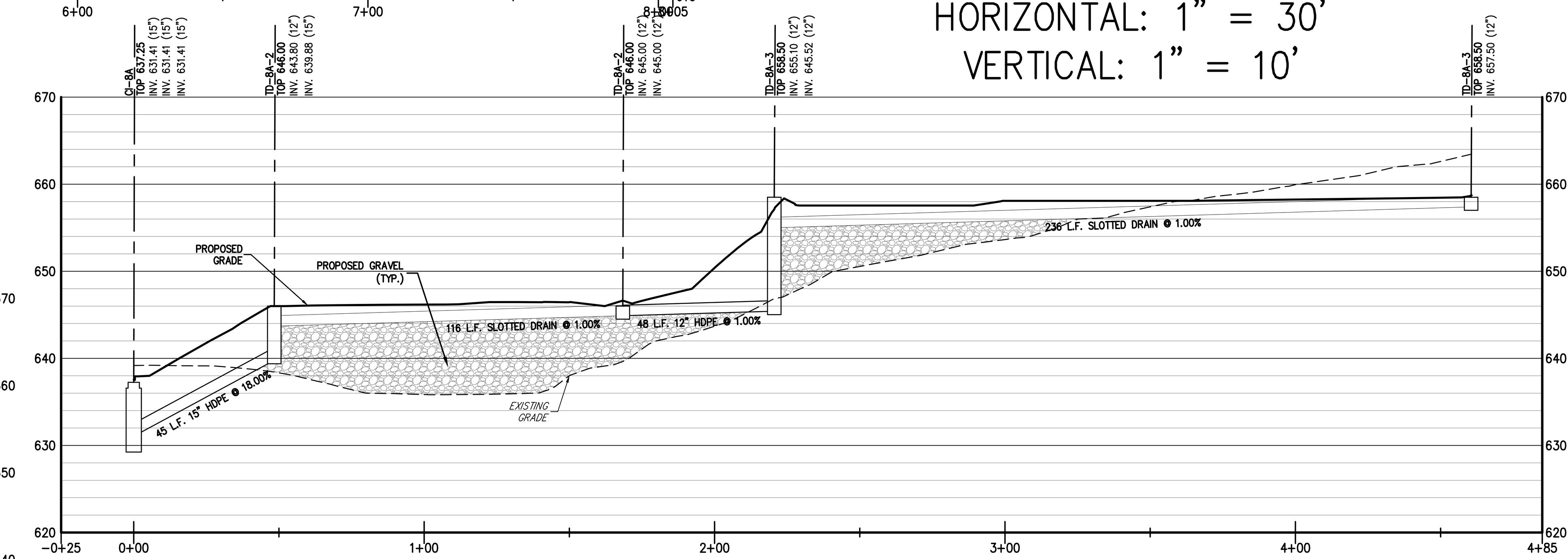
VERTICAL: 1" = 10'



CI-4B-2-1 TO CI-4B-2-2 PROFILE

HORIZONTAL: 1" = 30'

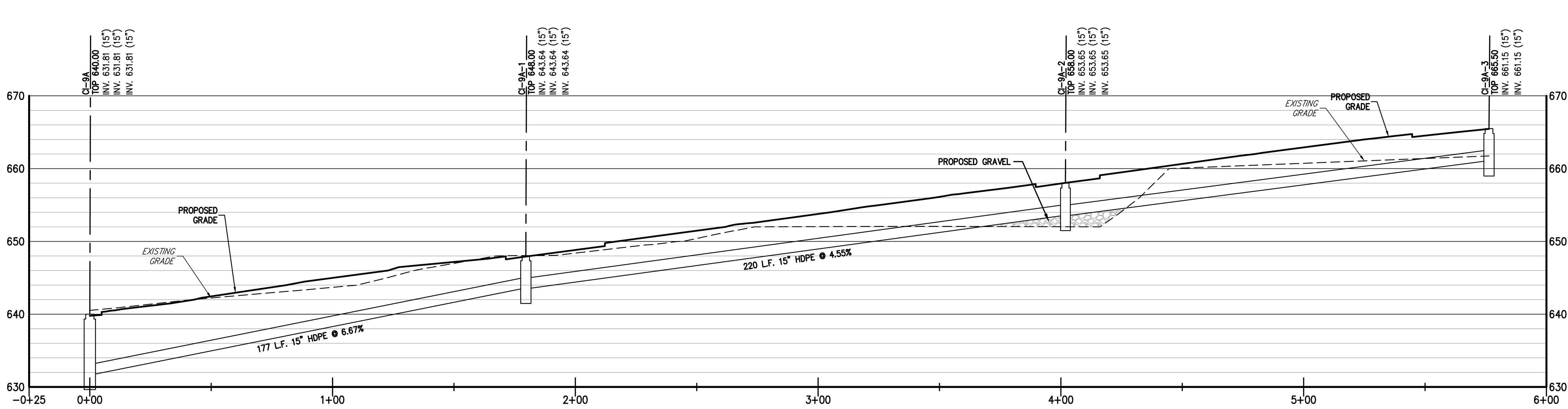
VERTICAL: 1" = 10'



CI-8A TO TD-8A-3 PROFILE

HORIZONTAL: 1" = 30'

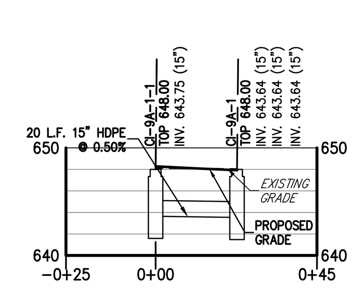
VERTICAL: 1" = 10'



CI-9A TO CI-9A-3 PROFILE

HORIZONTAL: 1" = 30'

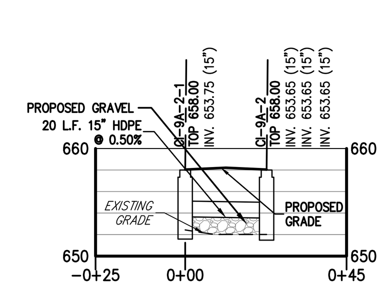
VERTICAL: 1" = 10'



CI-9A-1-1 TO CI-9A-1 PROFILE

HORIZONTAL: 1" = 30'

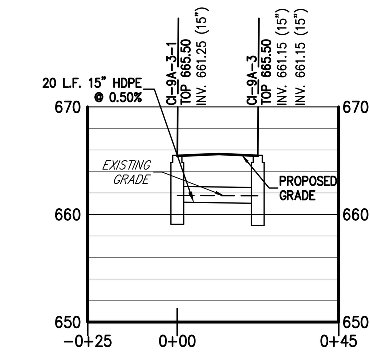
VERTICAL: 1" = 10'



CI-9A-2-1 TO CI-9A-2 PROFILE

HORIZONTAL: 1" = 30'

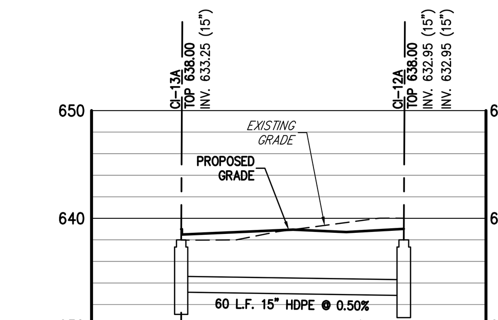
VERTICAL: 1" = 10'



CI-9A-3-1 TO CI-9A-3 PROFILE

HORIZONTAL: 1" = 30'

VERTICAL: 1" = 10'



CI-13A TO CI-12A PROFILE

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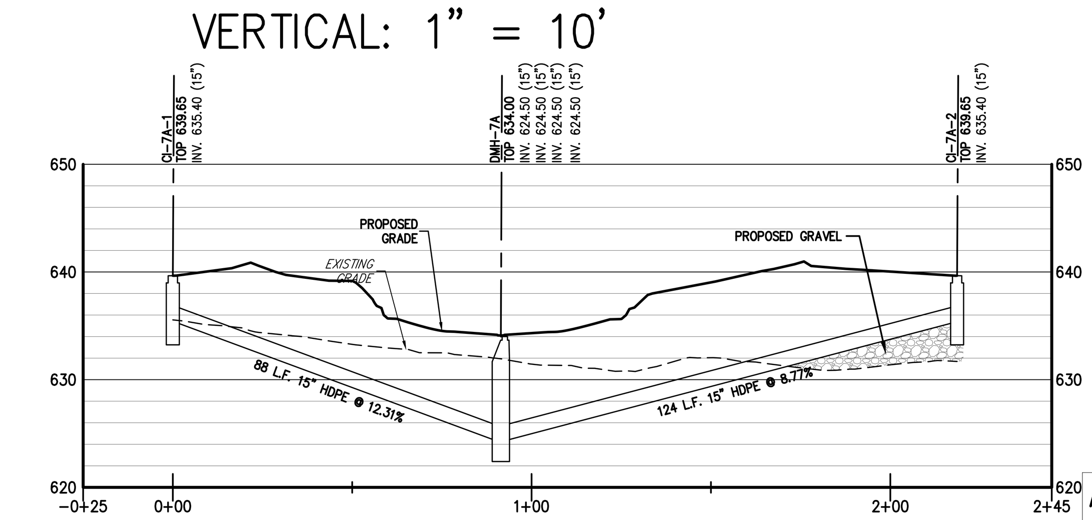
VERTICAL: 1" = 10'



CI-7A-1 TO CI-7A-2 PROFILE

HORIZONTAL: 1" = 30'

VERTICAL: 1" = 10'

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1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
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JMC

STORM SEWER PROFILES

THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
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ARMONK, NY 10504

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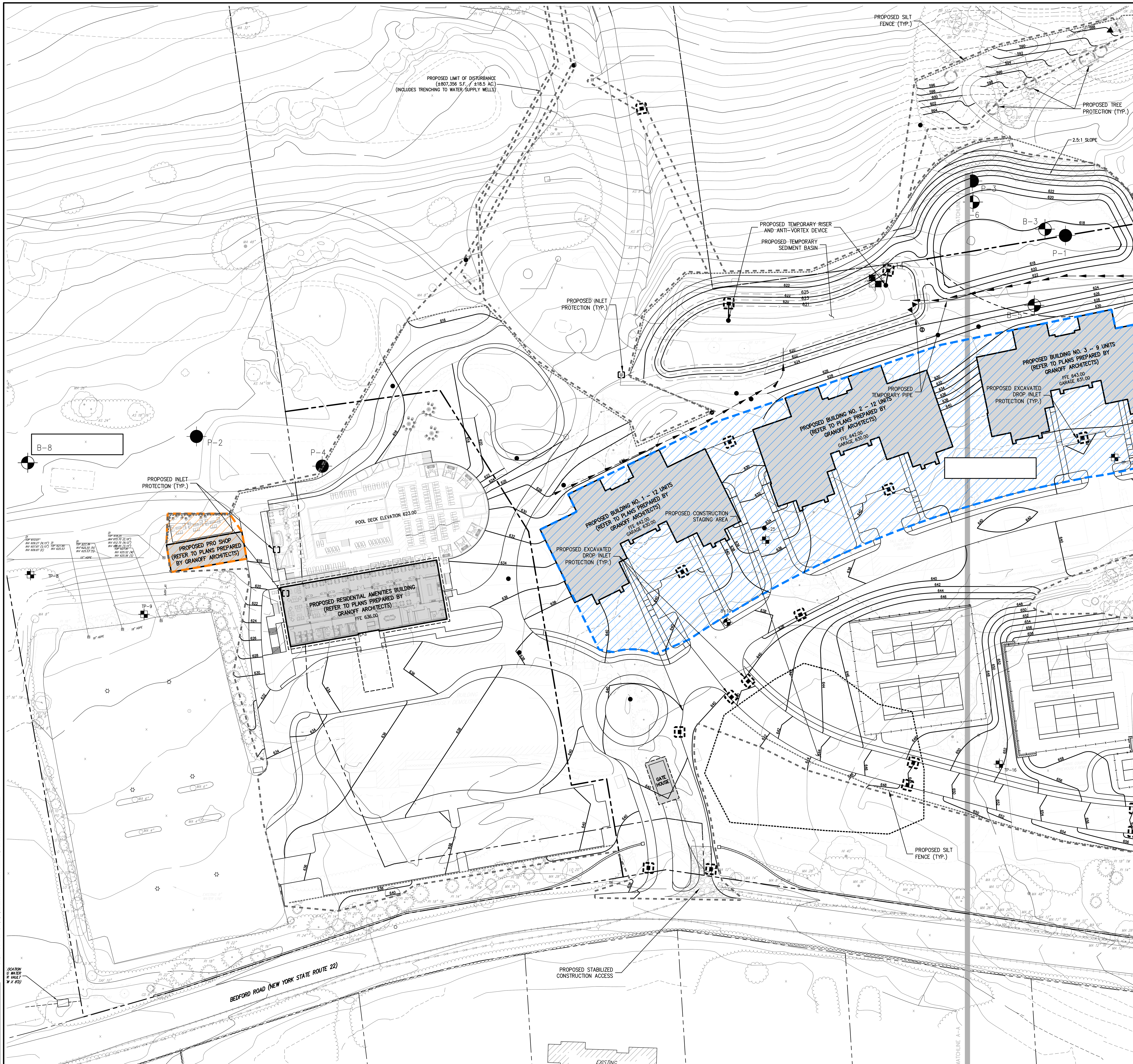
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

______ DATE: ______
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn:	NC	Approved:	AG
Scale:	AS SHOWN		
Date:	11/23/2020		
Project No:	20101		
20101-UTIL.dwg	STORM PROFILES		
Drawing No:	C-304		

NOT FOR CONSTRUCTION



LEGEND

- PROPOSED INLET PROTECTION
- PROPOSED CONSTRUCTION FENCE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED STOCKPILE AREA
- PROPOSED TEMPORARY SEDIMENT BASIN
- PROPOSED TEMPORARY SWALE
- PROPOSED TREE PROTECTION
- PROPOSED TEMPORARY RISER & ANTI-VORTEX DEVICE

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC,PLLC, LAST REVISED 03/06/2013.
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.
10. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED, AND MULCHED AS NECESSARY TO MAINTAIN VIGOROUS, DENSE VEGETATIVE COVER.

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voice 914.273.5225 • fax 914.273.2102
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SITE EROSION & SEDIMENT CONTROL PLAN (SOUTH)

THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

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TOWN OF NORTH CASTLE PLANNING BOARD

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CONSULTING TOWN ENGINEER

Drawn:	NC	Approved:	AG
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Date:	11/23/2020		
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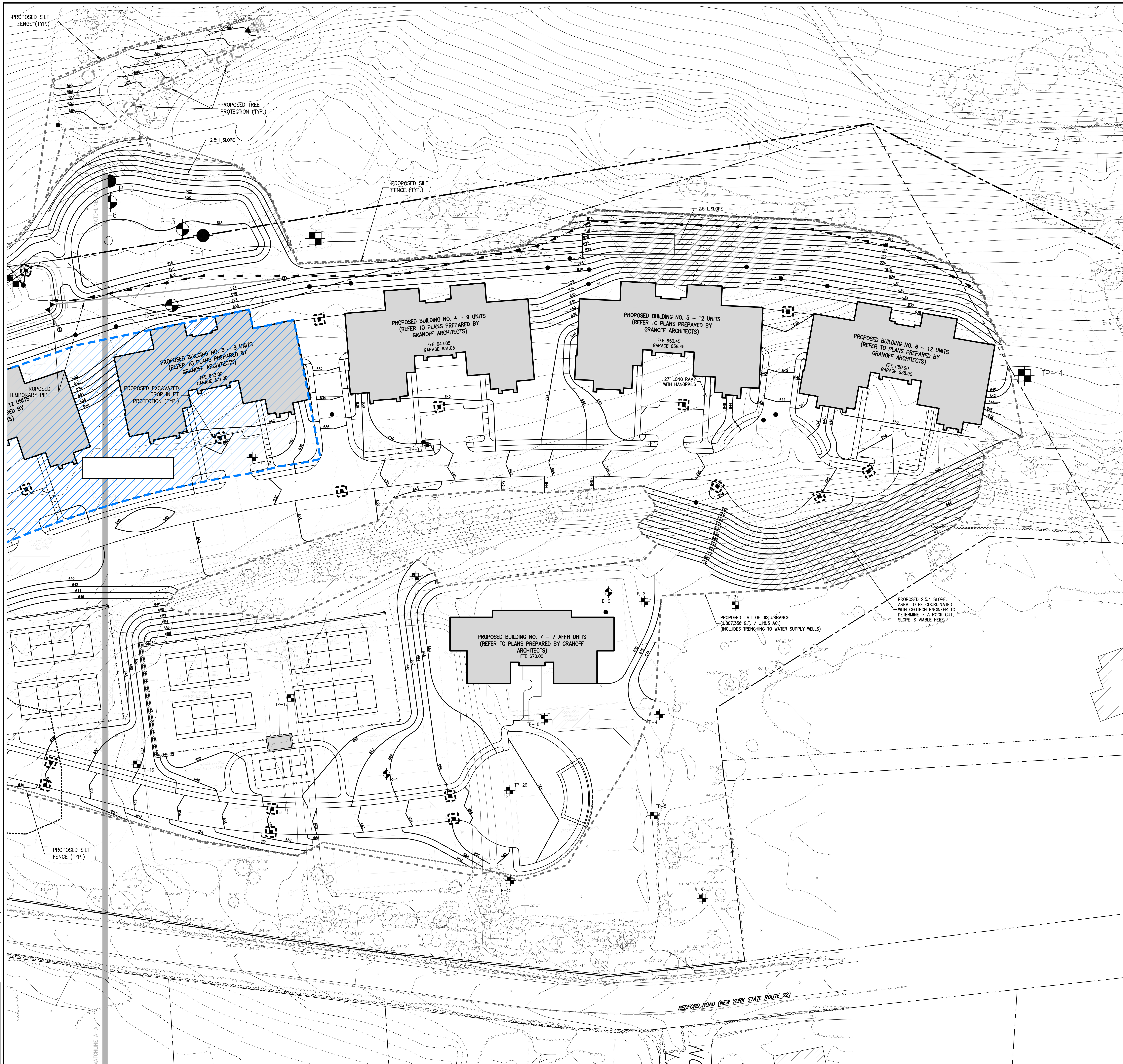
20101-SE	E&S SOUTH	SE.scr	

Drawing No: C-400

NOT FOR CONSTRUCTION



LEGEND

	PROPOSED INLET PROTECTION
	PROPOSED CONSTRUCTION FENCE
	PROPOSED SILT FENCE
	PROPOSED LIMIT OF DISTURBANCE
	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
	PROPOSED STOCKPILE AREA
	PROPOSED TEMPORARY SEDIMENT BASIN
	PROPOSED TEMPORARY SWALE
	PROPOSED TREE PROTECTION
	PROPOSED TEMPORARY RISER & ANTI-VORTEX DEVICE

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC,PLLC, LAST REVISED 03/06/2013.
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.
10. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED, AND MULCHED AS NECESSARY TO MAINTAIN VIGOROUS, DENSE VEGETATIVE COVER.

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

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SITE EROSION & SEDIMENT CONTROL PLAN (NORTH)

THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: NC		Approved: AG	
Scale:	1" = 30'		
Date:	11/23/2020		
Project No:	20101		
20101-SE	E&S NORTH	SE.scr	

Drawing No: C-401

DISTURBANCE AUTHORIZATION, PHASING OF THE PROJECT AND SEQUENCING OF CONSTRUCTION

THE FOLLOWING SECTION DESCRIBES THE CONSTRUCTION PHASING PROPOSED FOR THIS PROJECT AND THE SEQUENCING OF THE INSTALLATION OF EROSION AND SEDIMENT CONTROLS AND THE PROPOSED CONSTRUCTION.

THE PLAN DIVIDES THE SITE INTO THREE (3) AREAS TO BE IMPACTED BY DEVELOPMENT. THE AREA OF PROPOSED GROUND DISTURBANCE WITHIN EACH OF THE THREE (3) AREAS TO BE DISTURBED BY THE RESIDENTIAL, RESIDENTIAL AMENITIES COMPLEX, AND FUTURE PERMANENT CLUBHOUSE IMPROVEMENTS WILL BE MORE THAN FIVE (5) ACRES. THEREFORE, AND IN ACCORDANCE WITH NYSDEC SPDES GENERAL PERMIT NO. GP-0-20-001 EFFECTIVE JANUARY 29, 2020 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 SEDIMENT & EROSION CONTROL PLANS, HAVE BEEN ADEQUATELY INSTALLED TO ENSURE OVERALL PREPAREDNESS OF THE SITE FOR THE COMMENCEMENT OF CONSTRUCTION. IN ADDITION, THE OPERATOR SHALL HAVE A QUALIFIED PROFESSIONAL CONDUCT TWO (2) SITE INSPECTIONS AT LEAST EVERY SEVEN (7) CALENDAR DAYS.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITY, THE OWNER OR OPERATOR SHALL IDENTIFY THE CONTRACTOR(S) AND SUBCONTRACTOR(S) THAT WILL BE RESPONSIBLE FOR INSTALLING, CONSTRUCTING, REPAIRING, REPLACING, INSPECTING AND MAINTAINING THE EROSION AND SEDIMENT CONTROL PRACTICES INCLUDED IN THE SWPPP; AND THE CONTRACTOR(S) AND SUBCONTRACTOR(S) THAT WILL BE RESPONSIBLE FOR CONSTRUCTING THE POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES INCLUDED IN THE SWPPP. THE OWNER OR OPERATOR SHALL HAVE EACH OF THE CONTRACTORS AND SUBCONTRACTORS IDENTIFY AT LEAST ONE PERSON FROM THEIR COMPANY THAT WILL BE RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP. THIS PERSON SHALL BE KNOWN AS THE TRAINED CONTRACTOR. THE OWNER OR OPERATOR SHALL ENSURE THAT AT LEAST ONE TRAINED CONTRACTOR IS ON SITE ON A DAILY BASIS WHEN SOIL DISTURBANCE ACTIVITIES ARE BEING PERFORMED.

THE OWNER OR OPERATOR SHALL HAVE EACH OF THE CONTRACTORS AND SUBCONTRACTORS IDENTIFIED ABOVE SIGN A COPY OF THE CERTIFICATION STATEMENT PROVIDED BEFORE THEY COMMENCE ANY CONSTRUCTION ACTIVITY.

CONSTRUCTION ACCESS AND VEHICLE TRAVEL ON SITE

THE SITE ACCESS FOR CONSTRUCTION VEHICLE TRAFFIC WILL BE VIA THE EXISTING DRIVEWAY ALONG BEDFORD ROAD (NY 22). THIS ENTRANCE SHALL BE POSTED WITH "CONSTRUCTION ACCESS" SIGNS VISIBLE IN BOTH DIRECTIONS OF ONCOMING TRAFFIC. WHERE PRACTICAL, THE EXISTING PAVED DRIVEWAY AND GOLF CART PATHS WHICH TRAVERSE THE SITE WILL BE USED FOR THE CONSTRUCTION VEHICLES.

A PRIMARY CONSTRUCTION STAGING AREA AND EQUIPMENT STORAGE AREA WILL BE ESTABLISHED AND LOCATED IN THE EXISTING LAWN AREA NEXT TO THE EXISTING ENTRANCE DRIVE.
CONSTRUCTION VEHICLES SHALL NOT DISTURB ANY AREAS BEYOND THE CONSTRUCTION PHASE BEING WORKED AT THE TIME EXCEPT UNDER THE STRICT SUPERVISION OF THE OWNER'S FIELD REPRESENTATIVE AND ENCIRCLED WITH 6 FOOT TALL CHAIN LINK SECURITY FENCING.

SEQUENCE OF CONSTRUCTION

THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION OPERATION DESCRIBED BELOW AND AS NOTED ON THE PLANS.

CONSTRUCTION PHASE 1 (~16.9 AC.)

RESIDENTIAL BUILDINGS #4,5,6, AMENITIES COMPLEX, ROADWAYS, SIDEWALKS, TENNIS COURTS, ENTRANCE DRIVE, PARKING LOTS & PUTTING GREEN, WATER SYSTEM, WASTEWATER TREATMENT PLANT AND MAINTENANCE BUILDING/PARKING.

1. STAKE OUT ALL LIMITS OF DISTURBANCE. (AREAS SHALL BE DELINEATED WITH ORANGE CONSTRUCTION FENCE)
2. TAG ALL EXISTING TREES TO BE REMOVED (TREES SHALL BE DELINATED WITH COLORED CONSTRUCTION TAPE)
3. CUT EXISTING TREES TO BE REMOVED.
4. INSTALL CONSTRUCTION ACCESS, SILT FENCE (DOWNHILL OF ALL DISTURBANCE AREAS), INLET PROTECTION AND OTHER NECESSARY EROSION AND SEDIMENT CONTROLS, INCLUDING THE INSTALLATION OF THE TEMPORARY SEDIMENT BASIN AND TEMPORARY SWALES.
5. COORDINATE INSPECTION OF INITIAL EROSION CONTROLS AND TREE REMOVAL BY TOWN CONSULTING ENGINEER AND JMC.
6. DEMOLITION OF EXISTING BUILDINGS AND SITE FEATURES AS REQUIRED.
7. STRIP AND STOCKPILE TOPSOIL. REMOVE STUMPS FROM CUT TREES.
8. BEGIN BUILDING AND ROADWAY/PARKING LOT CONSTRUCTION, ROUGH GRADING.
9. INSTALL STORM DRAIN SYSTEM COMPLETE (IMMEDIATELY INSTALL INLET PROTECTION ON ALL INLETS).
10. INSTALL WATER SYSTEM AND SEWAGE TREATMENT PLANT IMPROVEMENTS.
11. INSTALL PUBLIC UTILITIES (WATER, SANITARY SEWER, GAS, ELECTRIC, AND TELEPHONE) AS REQUIRED.
12. INSTALL CONCRETE AND ASPHALT CONCRETE PAVEMENT COMPLETE.
13. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION AND/OR LANDSCAPING.
14. CLEAN PAVEMENTS AND STORM DRAIN SYSTEM OF ALL ACCUMULATED SEDIMENT IN CONJUNCTION WITH THE REMOVAL OF ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES.
15. COMPLETE SITE AND BUILDING CONSTRUCTION.
16. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS APPLICABLE ONCE VEGETATION IS ESTABLISHED (80% GRASS SPROUT OVER ENTIRE AREA).

CONSTRUCTION PHASE 2 (~2.3 AC.)

RESIDENTIAL BUILDINGS #1,2,3

1. STAKE OUT ALL LIMITS OF DISTURBANCE. (AREAS SHALL BE DELINEATED WITH ORANGE CONSTRUCTION FENCE)
2. TAG ALL EXISTING TREES TO BE REMOVED (TREES SHALL BE DELINATED WITH COLORED CONSTRUCTION TAPE)
3. CUT EXISTING TREES TO BE REMOVED.
4. INSTALL CONSTRUCTION ACCESS, SILT FENCE (DOWNHILL OF ALL DISTURBANCE AREAS), INLET PROTECTION AND OTHER NECESSARY EROSION AND SEDIMENT CONTROLS, INCLUDING THE TEMPORARY SWALE BEHIND THE BUILDINGS.
5. COORDINATE INSPECTION OF INITIAL EROSION CONTROLS AND TREE REMOVAL BY TOWN CONSULTING ENGINEER AND JMC.
6. DEMOLITION OF EXISTING BUILDINGS AND SITE FEATURES AS REQUIRED.
7. STRIP AND STOCKPILE TOPSOIL. REMOVE STUMPS FROM CUT TREES.
8. BEGIN BUILDING AND ROADWAY/PARKING LOT CONSTRUCTION, ROUGH GRADING.
9. INSTALL STORM DRAIN SYSTEM COMPLETE (IMMEDIATELY INSTALL INLET PROTECTION ON ALL INLETS).
10. INSTALL PUBLIC UTILITIES (WATER, SANITARY SEWER, GAS, ELECTRIC, AND TELEPHONE) AS REQUIRED.
11. INSTALL CONCRETE AND ASPHALT CONCRETE PAVEMENT COMPLETE.
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. COMPLETE SITE AND BUILDING CONSTRUCTION.
15. 15. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS APPLICABLE ONCE VEGETATION IS ESTABLISHED (80% GRASS SPROUT OVER ENTIRE AREA).

CONSTRUCTION PHASE 3 (~3.0 AC.)

GUEST COTTAGES AND PRO-SHOP

1. STAKE OUT ALL LIMITS OF DISTURBANCE. (AREAS SHALL BE DELINEATED WITH ORANGE CONSTRUCTION FENCE)
2. TAG ALL EXISTING TREES TO BE REMOVED (TREES SHALL BE DELINATED WITH COLORED CONSTRUCTION TAPE)
3. CUT EXISTING TREES TO BE REMOVED.
4. INSTALL CONSTRUCTION ACCESS, SILT FENCE (DOWNHILL OF ALL DISTURBANCE AREAS), INLET PROTECTION AND OTHER NECESSARY EROSION AND SEDIMENT CONTROLS.
5. COORDINATE INSPECTION OF INITIAL EROSION CONTROLS AND TREE REMOVAL BY TOWN CONSULTING ENGINEER AND JMC.
6. DEMOLITION OF EXISTING BUILDINGS AND SITE FEATURES AS REQUIRED.
7. STRIP AND STOCKPILE TOPSOIL. REMOVE STUMPS FROM CUT TREES.
8. BEGIN BUILDING AND ROADWAY/PARKING LOT CONSTRUCTION, ROUGH GRADING.
9. INSTALL STORM DRAIN SYSTEM COMPLETE (IMMEDIATELY INSTALL INLET PROTECTION ON ALL INLETS).
10. INSTALL PUBLIC UTILITIES (WATER, SANITARY SEWER, GAS, ELECTRIC, AND TELEPHONE) AS REQUIRED.
11. INSTALL CONCRETE AND ASPHALT CONCRETE PAVEMENT COMPLETE.
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. COMPLETE SITE AND BUILDING CONSTRUCTION.
15. 15. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS APPLICABLE ONCE VEGETATION IS ESTABLISHED (80% GRASS SPROUT OVER ENTIRE AREA).

GENERAL NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL THE PLANS, PRIOR TO BEGINNING ANY CLEARING, GRUBBING OR EXCAVATION.
2. SILT FENCE SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS PRIOR TO BEGINNING ANY CLEARING AND GRUBBING OR EARTHWORK.
3. EXPOSED SLOPES AND ALL GRADED AREAS SHALL BE SEEDED IMMEDIATELY UPON COMPLETION OF ITS CONSTRUCTION AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.
4. GRASS SEED MIX FOR SEDIMENT AND EROSION CONTROL MAY BE APPLIED BY EITHER MECHANICAL OR HYDROSEEDING METHODS. HYDROSEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION, AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.
5. SEEDED AREAS HAVING A GRADED SLOPE OF 25% OR LESS SHALL BE MULCHED WITH STRAW AT A RATE OF 2 TONS PER ACRE (90 LBS. PER 1,000 S.F.) SUCH THAT THE MULCH FORMS A CONTINUOUS BLANKET.
6. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS BY THE CONTRACTOR. ALL COLLECTED SEDIMENT WITHIN SEDIMENT BARRIERS SHALL BE REMOVED PERIODICALLY TO MAINTAIN THE FUNCTION OF THE SEDIMENT BARRIER. ALL SEDIMENT COLLECTED SHALL BE RESPREAD ON-SITE WITHIN STABILIZED AREAS AS DIRECTED BY THE OWNERS FIELD REPRESENTATIVE.
7. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE CONTRACTOR.
8. ALL FILLS SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIAL AND TO PREVENT SETTLEMENT.
9. EXCAVATIONS AND FILLS SHALL NOT ENDANGER ADJOINING PROPERTIES, NOR DIVERT WATER ONTO THE PROPERTY OF OTHERS.
10. THE CONTRACTOR SHALL INSPECT DOWNSTREAM CONDITIONS FOR EVIDENCE OF SEDIMENTATION ON A TWICE A WEEK BASIS AND AFTER RAINSTORMS.
11. AS WARRANTED BY FIELD CONDITIONS, SPECIAL ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED.
12. STOCKPILING OF CONSTRUCTION MATERIAL SHALL BE PLACED ON-SITE IN THE AREA DESIGNATED. STOCKPILED EXCAVATED MATERIAL SHALL HAVE SILT FENCE LOCATED AROUND PERIMETER. ALL STOCKPILED MATERIAL SHALL BE MAINTAINED IN AN ORDERLY MANNER SO AS NOT TO IMPEDE ON EXISTING TRAFFIC CIRCULATION ROUTES.
13. THIS PLAN IS FOR SEDIMENT AND EROSION CONTROL INFORMATION ONLY.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE OWNER'S FIELD REPRESENTATIVE AND/OR THE TOWN OF NORTH CASTLE.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH NYSDEC RULES AND REGULATIONS AS SET FORTH BY SPDES GENERAL PERMIT GP-0-20-001 FOR DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES EFFECTIVE 01/29/2020.
16. IN AREAS WHERE SOIL DISTURBANCE ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED, THE APPLICATION OF SOIL STABILIZATION MEASURES SHALL BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED. THE SOIL STABILIZATION MEASURES SELECTED SHALL BE IN CONFORMANCE WITH THE TECHNICAL STANDARD, NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, DATED AUGUST 2005.
17. THE OWNER OR OPERATOR SHALL INSTALL ANY ADDITIONAL SITE SPECIFIC PRACTICES NEEDED TO PROTECT WATER QUALITY.
18. CONTRACTOR SHALL UTILIZE EXISTING PAVED AREAS WHERE PRACTICAL AND AS MAY BE DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE FOR ACCESS ROUTES THROUGH THE DURATION OF CONSTRUCTION. DAMAGE TO EXISTING CART PATHS CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED UPON COMPLETION OF THE PROJECT.

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________________ DATE: ________________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________________ DATE: ________________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

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EROSION & SEDIMENT CONTROL/PHASING NOTES
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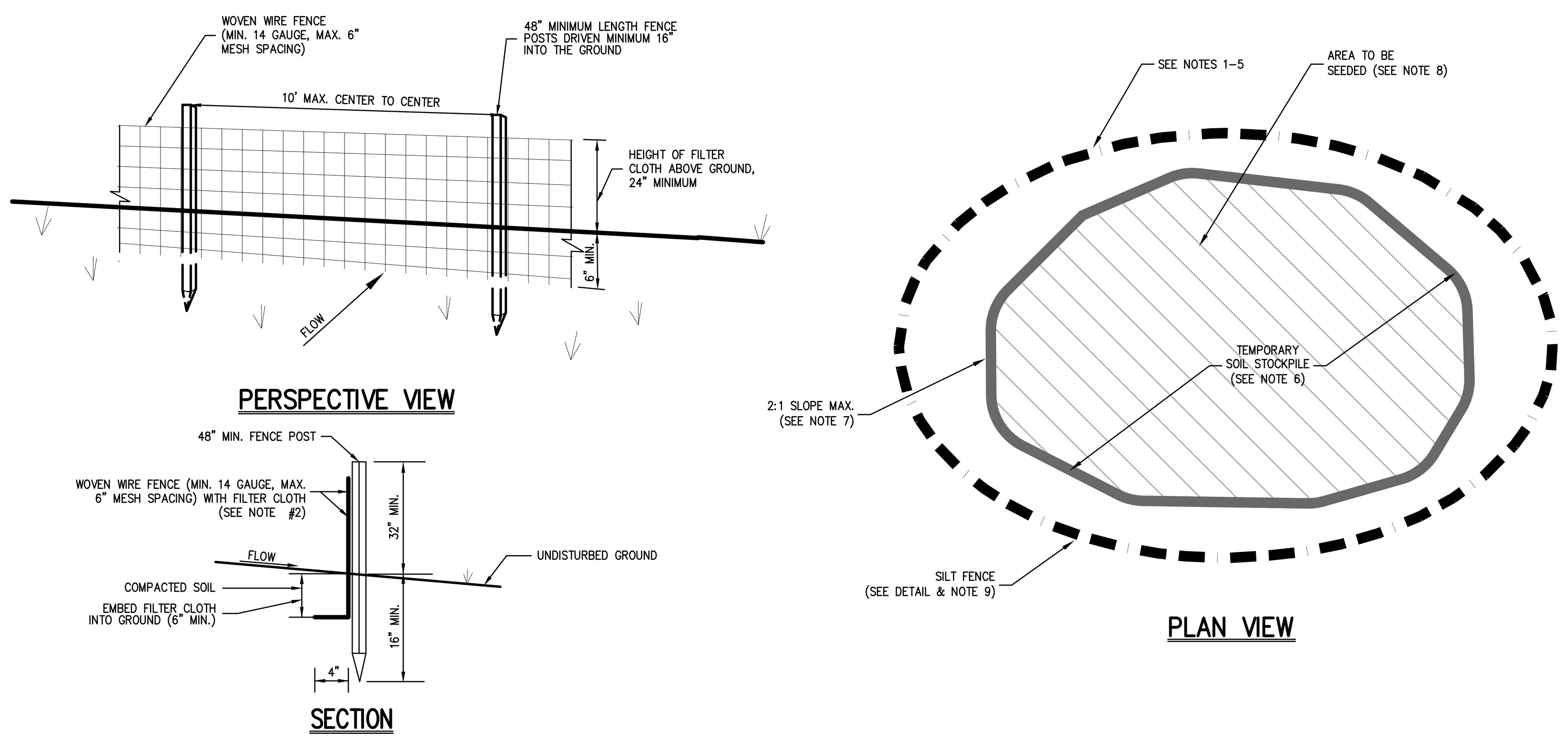
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

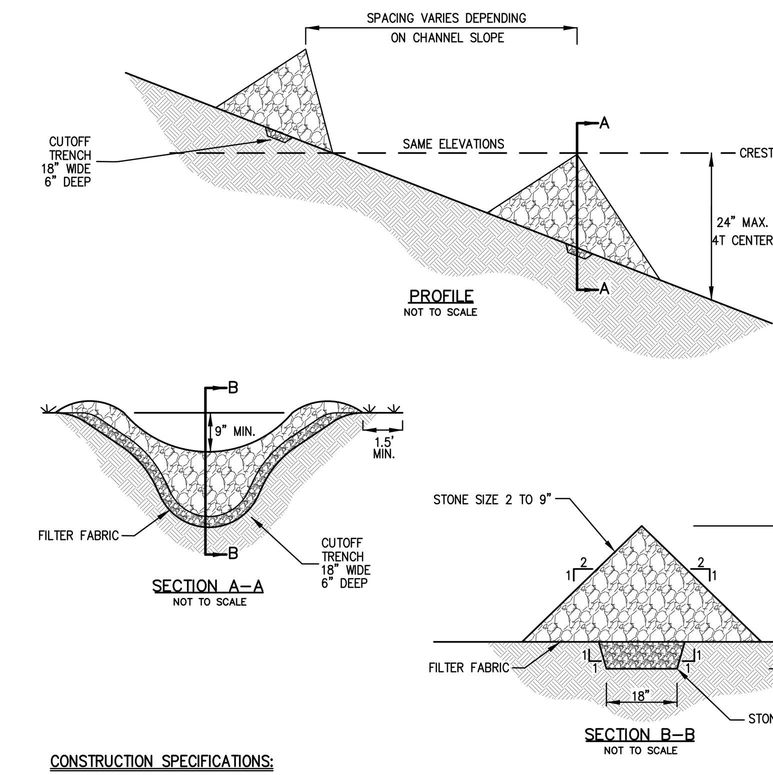
Drawn: NC	Approved: AG
Scale:	NOT TO SCALE
Date:	11/23/2020
Project No:	20101
20101-SE	E&S NOTES / SE.scr
Drawing No:	C-402



NOTES:

1. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER T OR U TYPE OR HARDWOOD.
2. FILTER CLOTH SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
6. THE AREA CHOSEN FOR ALL TEMPORARY SOIL STOCKPILES SHALL BE DRY AND STABLE.
7. ALL STOCKPILED SOIL SHALL NOT CONTAIN SLOPES GREATER THAN 2:1.
8. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SEEDED WITHIN 24 HOURS. PERENNIAL OR ANNUAL RYEGRASS SHALL BE PLANTED DURING SPRING, SUMMER OR EARLY FALL. WINTER RYE (CEREAL RYE) SHALL BE PLANTED DURING LATE FALL OR EARLY WINTER.
9. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED AROUND THE PERIMETER.

TEMPORARY SOIL STOCKPILE WITH SILT FENCE — 1

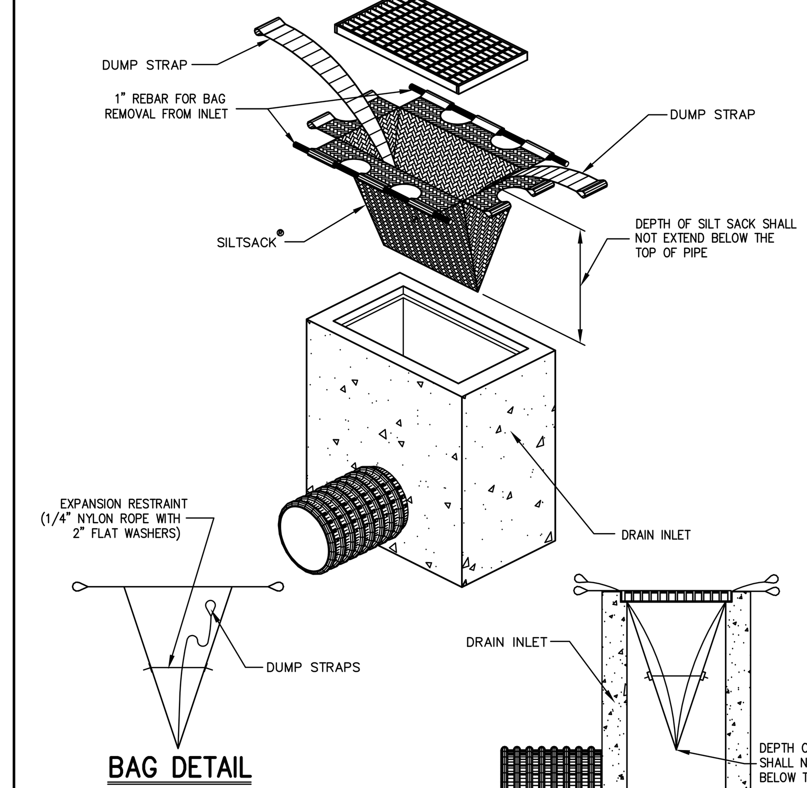


CONSTRUCTION SPECIFICATIONS:

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANK TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

MAXIMUM DRAINAGE AREA 2 ACRES.

STONE CHECK DAM — 2



HI-FLOW SILT SACK AS MANUFACTURED BY ACF ENVIRONMENTAL OR APPROVED EQUAL®

(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

NOTE:
CURB INLETS SHALL BE TYPE B WITH CURB DEFLECTOR.

MANUFACTURED INSERT INLET PROTECTION — 3

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ______

______ DATE: ______
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

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JOSEPH M. CERMELE, P.E.
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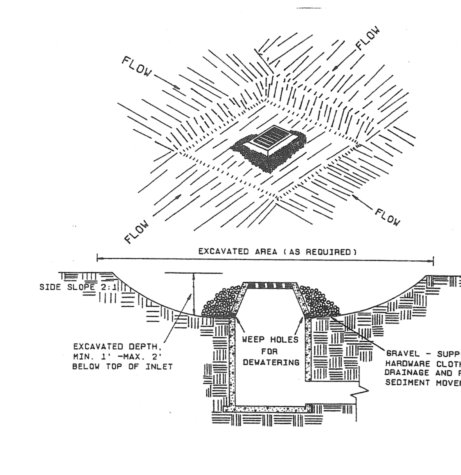
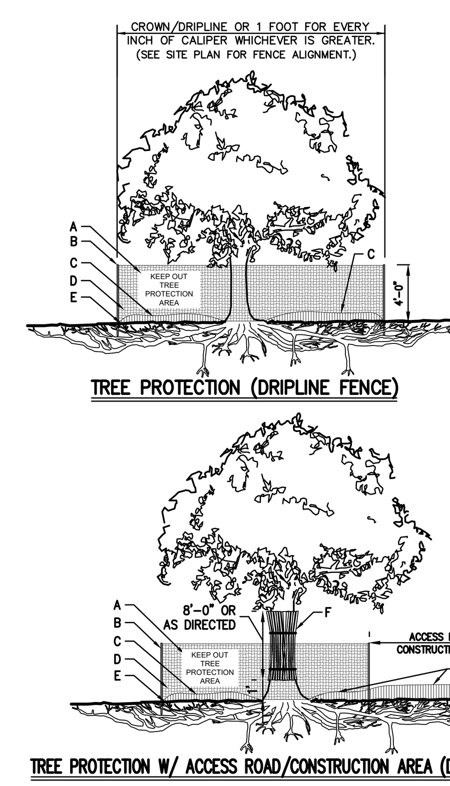


1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROCTECTED BY/STONE.
4. PROVIDE FREQUENT INSPECTION AND MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AND REPAIR OR REPLACE INLET PROTECTION TO MAINTAIN EFFECTIVENESS OF THE INSTALLATION.
5. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA. SEAL WEEP HOLES FILL BASIN WITH STABLE SOIL TO FINAL GRADE. COMPACT IT PROPERLY AND STABILIZE WITH PERMANET SEEDING.

EXCAVATED DROP INLET PROTECTION — 4



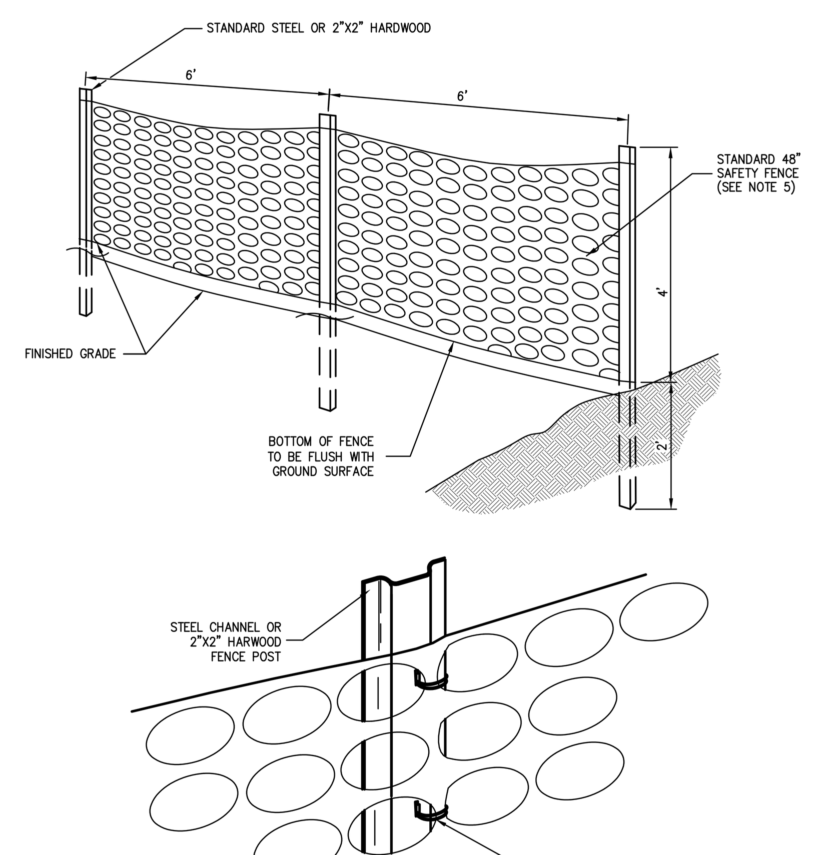
A	8.5"X11" SIGN LAMINATED IN PLASTIC SPACED EVERY 50' ALONG FENCE
B	2"X6' STEEL POSTS OR APPROVED EQUAL.
C	5" THICK LAYER OF MULCH.
D	TREE PROTECTION FENCE: HIGH DENSITY POLYETHYLENE FENCING WITH 3.5" X 1.5" OPENINGS; COLOR ORANGE. STEEL POSTS INSTALLED AT 8' O.C.
E	MAINTAIN EXISTING GRADE WITHIN THE TREE PROTECTION FENCE UNLESS OTHERWISE INDICATED ON THE PLANS.
F	INSTALL ROUGH SAWN WOOD WHERE AND AS DIRECTED BY PROJECT LANDSCAPE ARCHITECT OR PROFESSIONAL ARBORIST. SEE CHART FOR WOOD SIZE BOUND WITH 9 GAUGE WIRE.
G	8"-12" THICK LAYER OF MULCH ON MAINTENANCE ROAD. 5" THICK LAYER INSIDE TREE PROTECTION AREA.

TREE DIAMETER	ROUGH SAWN WOOD SIZE
<12"	2"X2"
13"-24"	2"X4"
>25"	2"X6"

NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
2. IF THERE IS NO EXISTING IRRIGATION, SEE SPECIFICATIONS FOR WATERING REQUIREMENTS.
3. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
4. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
5. SEE SITE PLANS FOR IDENTIFICATIONS/LOCATIONS OF INDIVIDUAL TREES TO BE PROTECTED.
6. ALL EXCAVATION WITHIN THE CROWN/DRIPLINE OF ANY TREE SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE PROJECT LANDSCAPE ARCHITECT OR PROFESSIONAL ARBORIST. SPECIAL MEASURES, SUCH AS THE USE OF AN AIR SPADE MAY BE REQUIRED.
7. THE CONTRACTOR MAY PROPOSE THE USE OF ENGINEERED MATTING OR OTHER ENGINEERED PRODUCTS IN LIEU OF MULCH, WHICH SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF ALL AUTHORITIES HAVING JURISDICTION.

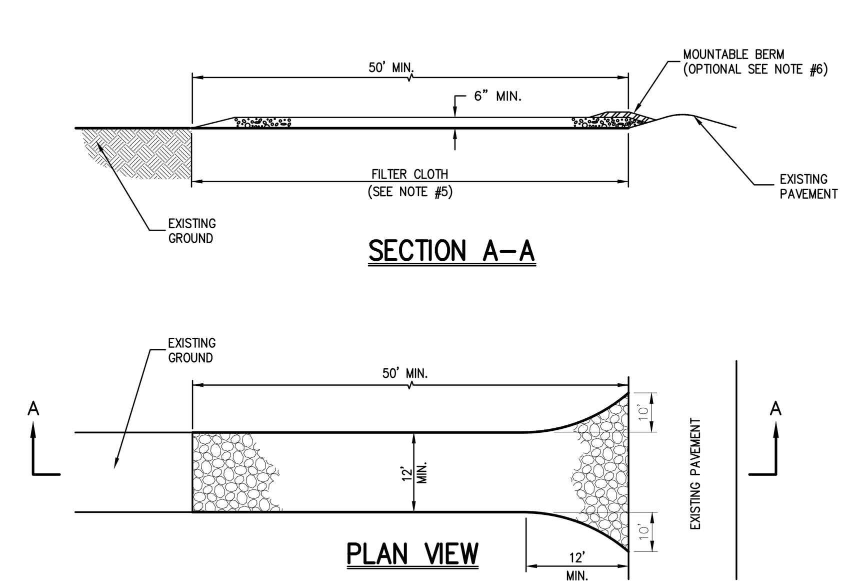
TREE PROTECTION — 5



NOTES:

1. SPACE SUPPORT FENCE POSTS AT 6 FOOT INTERVALS.
2. DRIVE SUPPORT POSTS 2 FEET INTO GROUND.
3. FIRMLY FASTEN FENCE MATERIAL IN PLACE BY WIRING TO FENCE POST WHILE MAINTAINING TENSION ACROSS FULL HEIGHT OF FENCE. WIRING SHALL BE DONE IN A MANNER THAT WILL PREVENT SAGGING OF FENCE MATERIAL.
4. PROVIDE PERIODIC INSPECTION AND MAINTENANCE OF FENCE INCLUDING REPAIRS AS NECESSARY AND REQUIRED.
5. PLASTIC FENCE SHALL BE INTERNATIONAL ORANGE COLOR, AS MANUFACTURED BY ADPI ENTERPRISES, INC. OR APPROVED EQUAL.
6. REMOVE CONSTRUCTION FENCE AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.

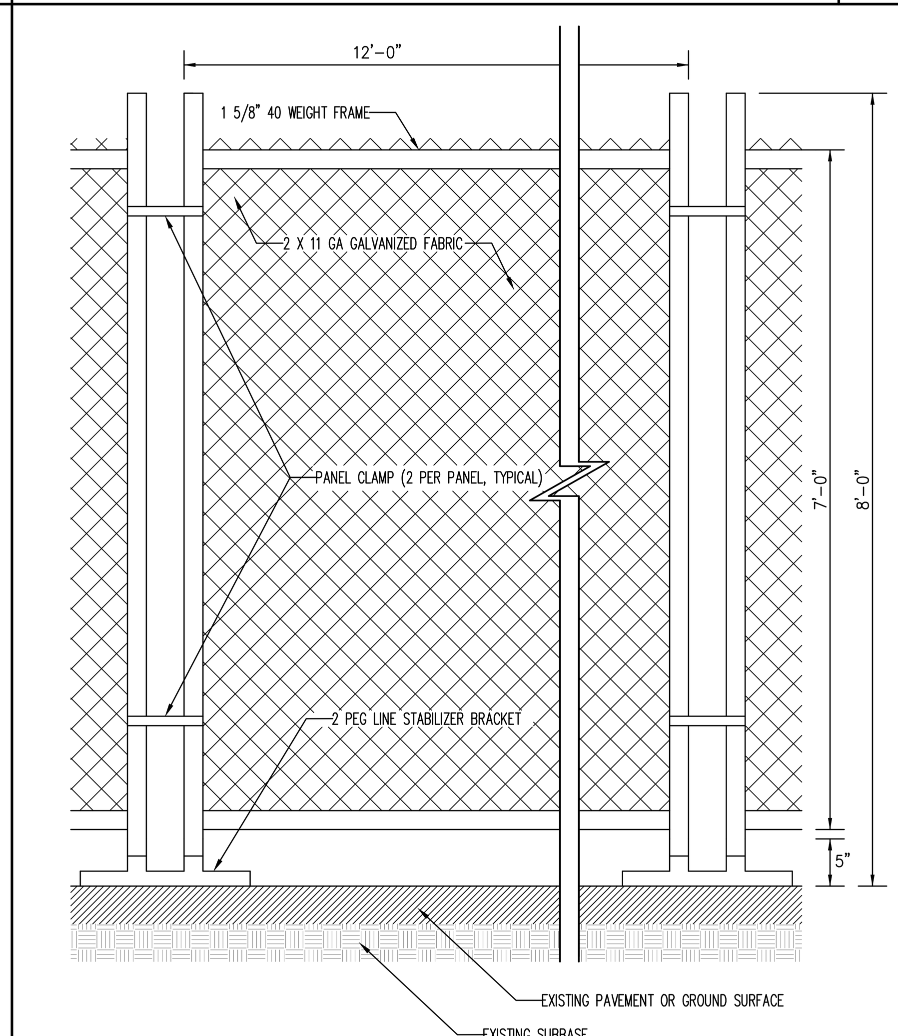
CONSTRUCTION FENCE — 6



NOTES

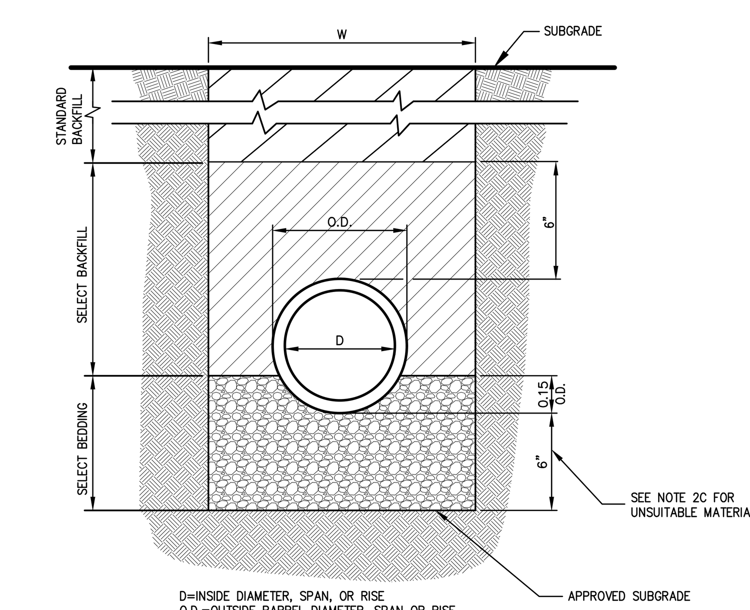
1. STONE SIZE – USE 1" TO 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH TO BE PLACED OVER THE ENTIRE WIDTH AND LENGTH OF AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE — 7



NOTE:
STABILIZED BRACKET TO BE HOT DIPPED GALVANIZED STEEL PIPE.

TEMPORARY CHAIN LINK CONSTRUCTION FENCE — 8

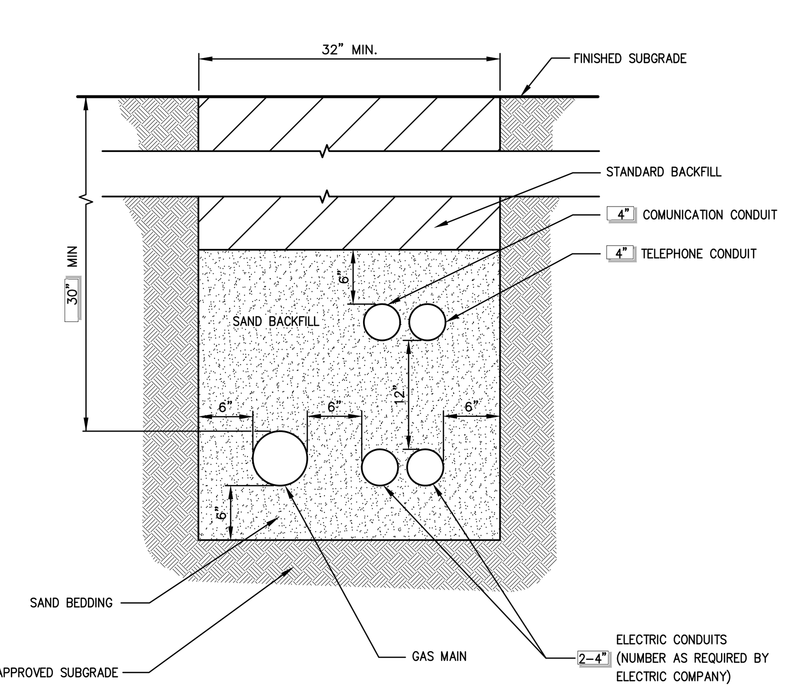


D=INSIDE DIAMETER, SPAN, OR RISE
O.D.=OUTSIDE BARREL DIAMETER, SPAN OR RISE
H.D.=OUTSIDE DIAMETER, SPAN, OR RISE @ BELL OR BAND
W=H.D. + 2.0' – FOR 48" OR SMALLER DIAMETER, SPAN, OR RISE
W=H.D. + 2.5' – FOR GREATER THAN 48" DIAMETER, SPAN, OR RISE

NOTES:

1. FOR TYPE II TRENCH, MATERIAL FOR SELECT BEDDING AND SELECT BACKFILL SHALL BE:
   A. EITHER SAND OR CRUSHED STONE IF NO WATER IS ENCOUNTERED IN TRENCH.
   B. 3/4"CRUSHED STONE IF WATER IS ENCOUNTERED IN TRENCH.
2. TYPE II TRENCH SHALL BE USED IN ALL OF THE FOLLOWING CASES:
   A. FOR ALL CORRUGATED POLYETHYLENE DRAIN PIPE (CPDP) AND PVC PIPE AND CONDUIT INSTALLATION.
   B. WHEN ROCK OR HARDPAN IS ENCOUNTERED IN BOTTOM OF TRENCH.
   C. WHEN UNSUITABLE MATERIAL IS ENCOUNTERED IN BOTTOM OF TRENCH. IN SUCH CASE DEPTH OF UNDERCUTTING SHALL BE AS DIRECTED BY THE ENGINEER WITH 6" MINIMUM.
3. FOR ALL TRENCH EXCAVATION IN FILL AREAS, ALL EMBANKMENTS SHALL BE CONSTRUCTED TO A MINIMUM OF 2 FEET ABOVE THE OUTSIDE TOP (AT THE BELL) OF THE PIPE PRIOR TO BEGINNING ANY TRENCH EXCAVATION.
4. BACKFILL FOR PIPE AND CONDUIT SHALL BE PLACED EVENLY AND CAREFULLY AROUND AND OVER THE PIPE OR CONDUIT IN SIX (6) INCH MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED UNTIL TWELVE (12) INCHES OF COVER EXISTS OVER THE PIPE OR CONDUIT. THE REMAINDER OF THE BACKFILL MAY THEN BE PLACED AND COMPACTED IN A MAXIMUM OF TWELVE (12) INCH LAYERS. EACH LAYER SHALL BE COMPACTED BY APPROVED MECHANICAL TAMPING MACHINES. UNLESS OTHERWISE SPECIFIED BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 92% MAXIMUM MODIFIED DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D-1557 IN THE MANNER HEREIN DESCRIBED. BACKFILL SHALL PROCEED UP TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS.

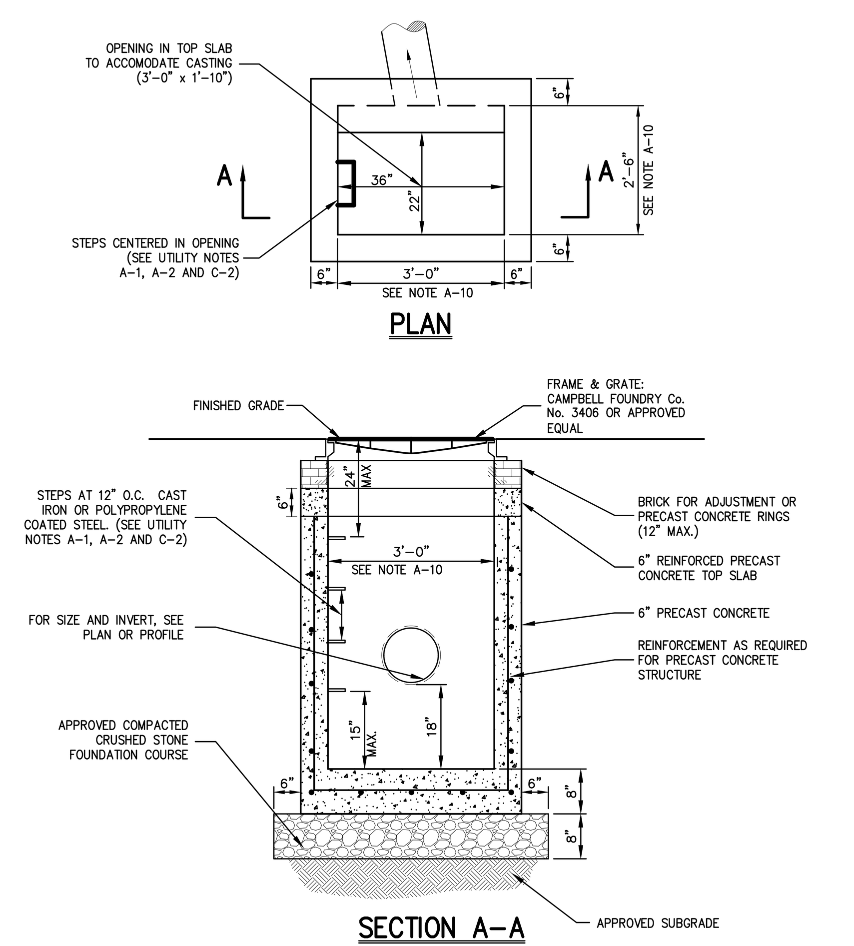
TYPE II TRENCH — 9



NOTES:

1. UTILITIES TO BE INSTALLED IN ACCORDANCE WITH THE REGULATIONS AND REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.
2. BACKFILL FOR PIPE AND CONDUIT SHALL BE PLACED EVENLY AND CAREFULLY AROUND AND OVER THE PIPE OR CONDUIT IN SIX (6) INCH MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED UNTIL TWELVE (12) INCHES OF COVER EXISTS OVER THE PIPE OR CONDUIT. THE REMAINDER OF THE BACKFILL MAY THEN BE PLACED AND COMPACTED IN A MAXIMUM OF TWELVE (12) INCH LAYERS. EACH LAYER SHALL BE COMPACTED BY APPROVED MECHANICAL TAMPING MACHINES. UNLESS OTHERWISE SPESIFIED BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 92% MAXIMUM MODIFIED DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D-1557 IN THE MANNER HEREIN DESCRIBED. BACKFILL SHALL PROCEED UP TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS.

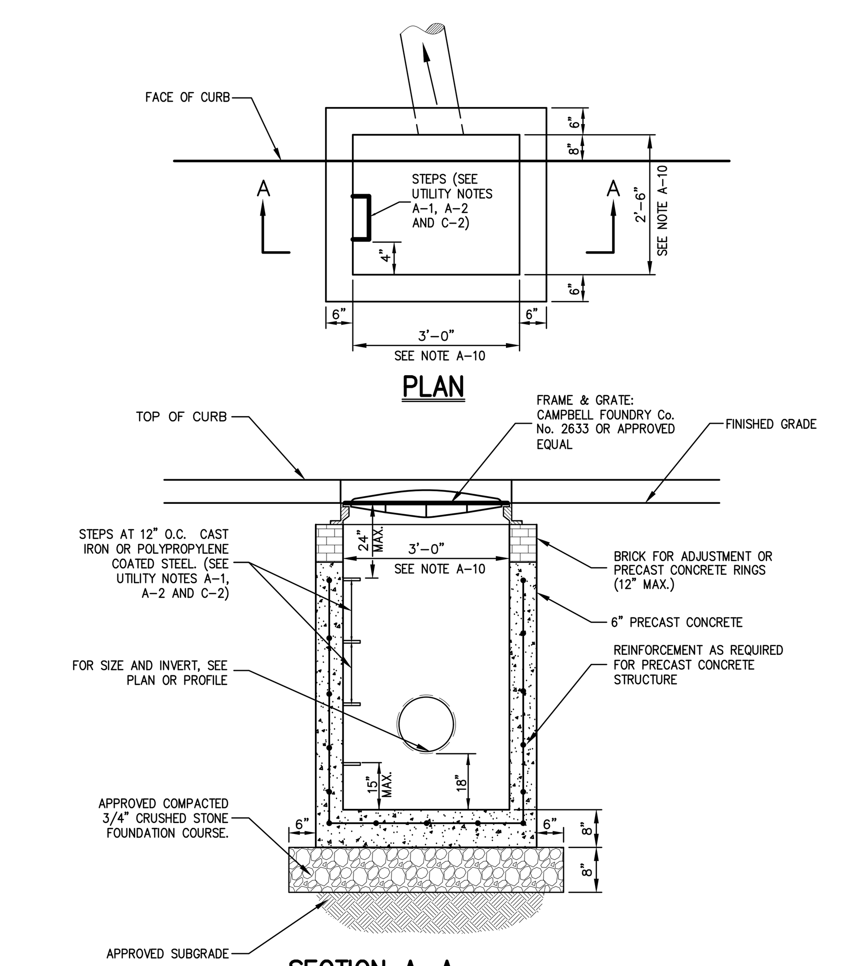
UTILITY TRENCH DETAIL — 10



NOTE

1. REINFORCE PRECAST CONCRETE TOP SLAB AND REINFORCE PRECAST CONCRETE STRUCTURE SHALL BE DESIGNED TO ACCOMMODATE AN H-20 DESIGN LOAD.
2. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING C-900.

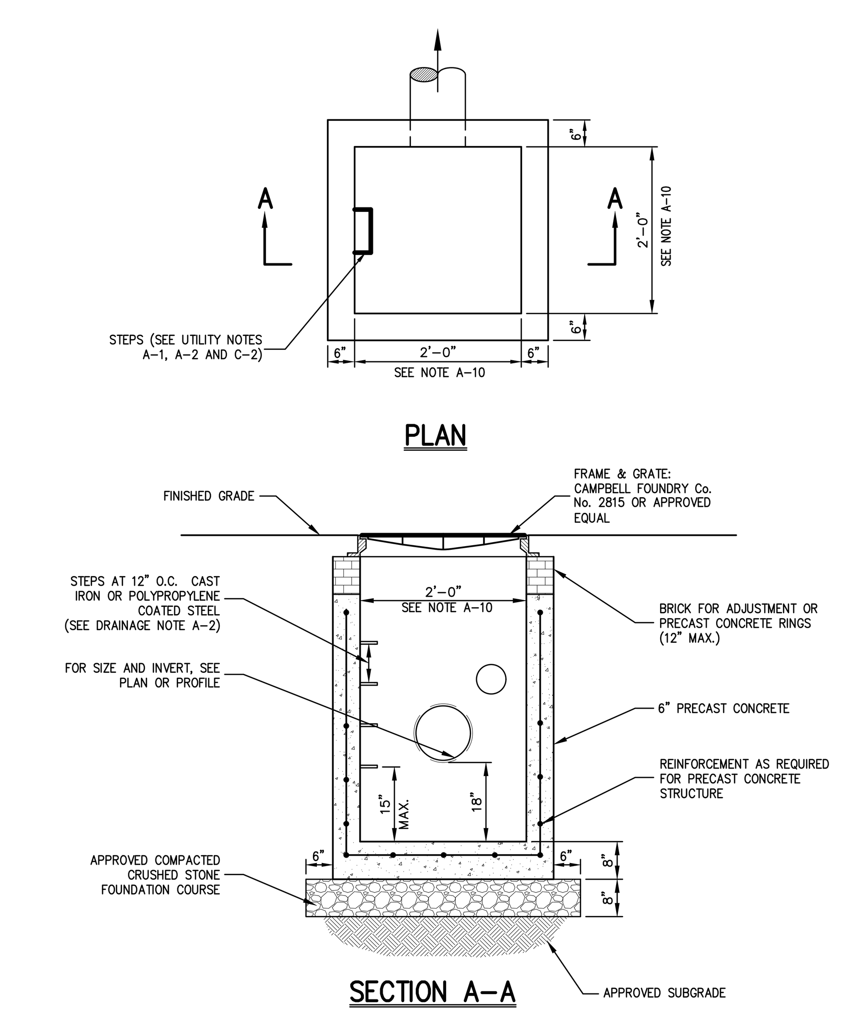
DRAIN INLET (TYPE DI) — 11
(WITH SUMP-W/O FINGER UNDERDRAINS)



NOTE:

1. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING C-900.

DRAIN INLET (TYPE CI) — 12
(WITH SUMP-W/O FINGER UNDERDRAINS)



NOTE

1. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING C-900.

LAWN INLET (TYPE LI) — 13
(WITH SUMP)

NOTES PERTAINING TO DRAIN INLETS

A-1 STEPS WILL NOT BE REQUIRED IN INLETS LESS THAN FOUR (4) FEET IN DEPTH. STEPS WILL BE REQUIRED IN INLETS FOUR (4) FEET OR GREATER IN DEPTH. DEPTHS FOR DRAIN INLETS SHALL BE MEASURED FROM FINISHED GRADE TO INSIDE BOTTOM OF STRUCTURE (INCLUDING SUMP AS APPLICABLE).

A-2 WHEN STEPS ARE REQUIRED, STEPS SHALL COMPLY WITH THE SAME REQUIREMENTS OF ASTM STANDARD C-478, ARTICLE 13 ENTITLED "MANHOLE STEPS & LADDERS".

A-3 FOR MASONRY STRUCTURES, THE FIRST COURSE OF MASONRY SHALL BE SET IN THE CONCRETE FOUNDATION BEFORE THE CONCRETE HAS SET. CONCRETE FOUNDATION SHALL BE CLASS "A"(4000 psi) CONCRETE, TWELVE (12) INCHES THICK AND SHALL EXTEND SIX (6) INCHES BEYOND THE OUTSIDE FACE THE STRUCTURE.

A-4 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH AND CONSTRUCT THE PROPER SIZE STRUCTURE INCLUDING THE NECESSARY OPENINGS TO ACCOMMODATE THE WORK AS SHOWN ON THE PLANS OR ORDERED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

A-5 ALL NECESSARY PATCHING FOR DRAIN STRUCTURES SHALL BE ACCOMPLISHED WITH NON-SHRINKING CEMENT MORTAR GROUT, APPROVED EQUAL TO SIKA-SET AS MANUFACTURED BY THE SIKA CHEMICAL CORP.

A-6 FOUNDATIONS FOR PRECAST CONCRETE STRUCTURES SHALL BE SET ON A COMPACTED LAYER OF APPROVED CRUSHED STONE HAVING A MINIMUM COMPACTED THICKNESS OF EIGHT (8) INCHES.

A-7 ALL PIPES SHALL BE CUT FLUSH WITH THE INSIDE WALL OF THE STRUCTURE.

A-8 PROVIDE REINFORCED CONCRETE TOP SLAB FOR OVERSIZED DRAIN INLETS WITH PROPER SIZE OPENING TO ACCOMMODATE INSTALLATION OF FRAME & GRATE.

A-9 FOR MASONRY STRUCTURES GREATER THAN TEN (10) FEET IN DEPTH, THICKNESS OF MASONRY WALLS SHALL BE INCREASED TO TWELVE (12) INCHES.

A-10 FOR ALL STRUCTURES GREATER THAN 10 FEET IN DEPTH, STRUCTURES SHALL PROVIDE MINIMUM INSIDE DIMENSIONS OF 4 FEET X 4 FEET.

NOTES PERTAINING TO MANHOLES

B-1 PRECAST CONCRETE MANHOLES SHALL COMPLY WITH ASTM STANDARD C-478. MANHOLE JOINTS SHALL COMPLY WITH ASTM STANDARD C-443.

B-2 FOR PRECAST CONCRETE MANHOLES FIVE (5) FEET OR LESS IN HEIGHT, TOP CONE SECTION SHALL BE REPLACED WITH PRECAST REINFORCED CONCRETE SLAB (6" MIN. THICKNESS) WITH OPENING OF SUFFICIENT SIZE TO ACCOMMODATE MANHOLE CASTING.

B-3 FOR MANHOLES 10 FEET OR MORE IN DEPTH, MANHOLE DIAMETER SHALL BE FIVE (5) FEET.

B-4 TERMINAL MANHOLE FLOORS SHALL BE SLOPED TOWARD OUTFALL PIPE.

B-5 INVERT CHANNELS FOR PRECAST CONCRETE MANHOLES SHALL BE CONSTRUCTED OF CONCRETE.

B-6 NOTES A-1, A-2, A-4, A-5, A-6 & A-7 UNDER "NOTES PERTAINING TO DRAIN INLETS" ABOVE SHALL APPLY TO MANHOLES.

NOTES PERTAINING TO PRECAST CONCRETE STRUCTURES FOR STORM DRAINS, SANITARY SEWERS AND WATER LINES

C-1 ALL PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE AN H-20 DESIGN LOAD.

C-2 STEPS SHALL BE LOCATED WITHIN STRUCTURE TO AVOID PLACEMENT OVER PIPES WHEN PRACTICABLE.

UTILITY NOTES — 14

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

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ARMONK, NY 10504

ARCHITECT:
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JMC Site Development Consultants, LLC
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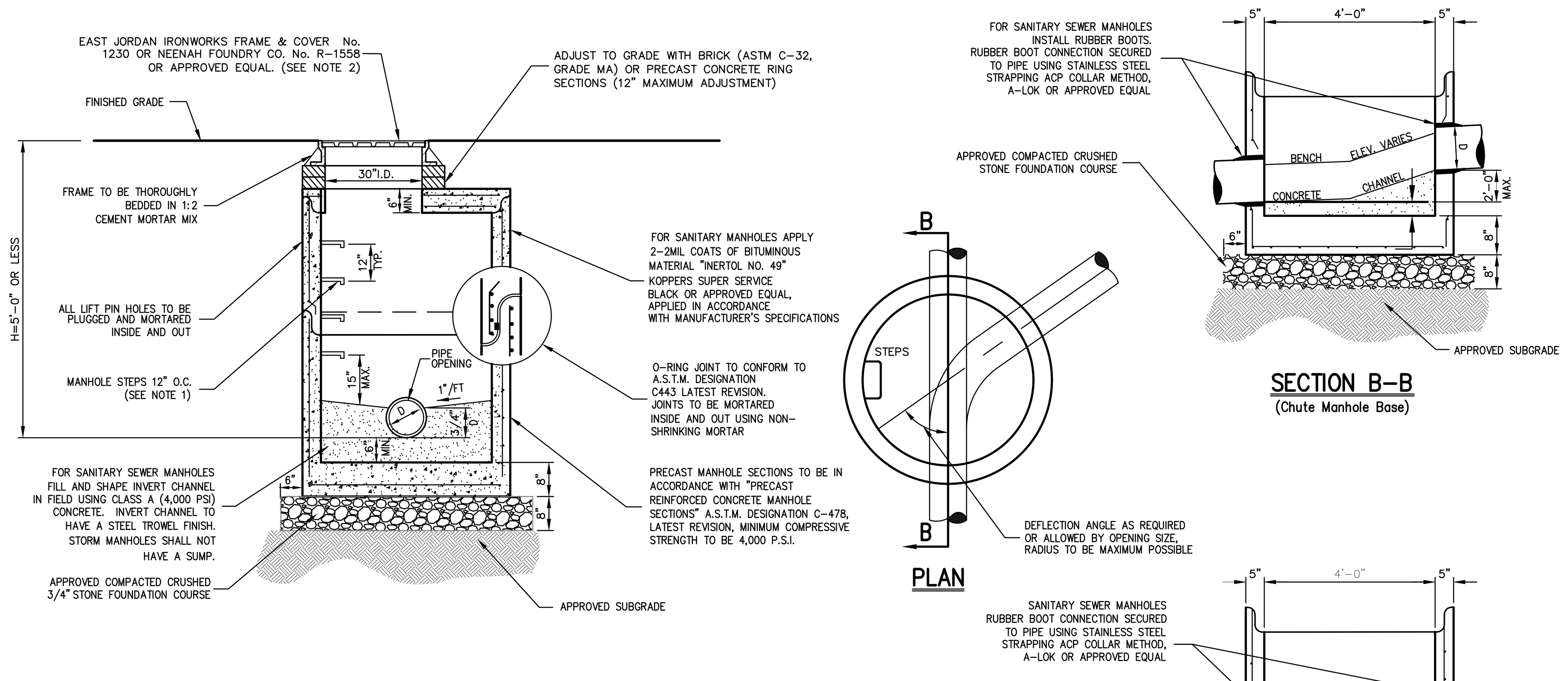
JMC

CONSTRUCTION DETAILS
THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

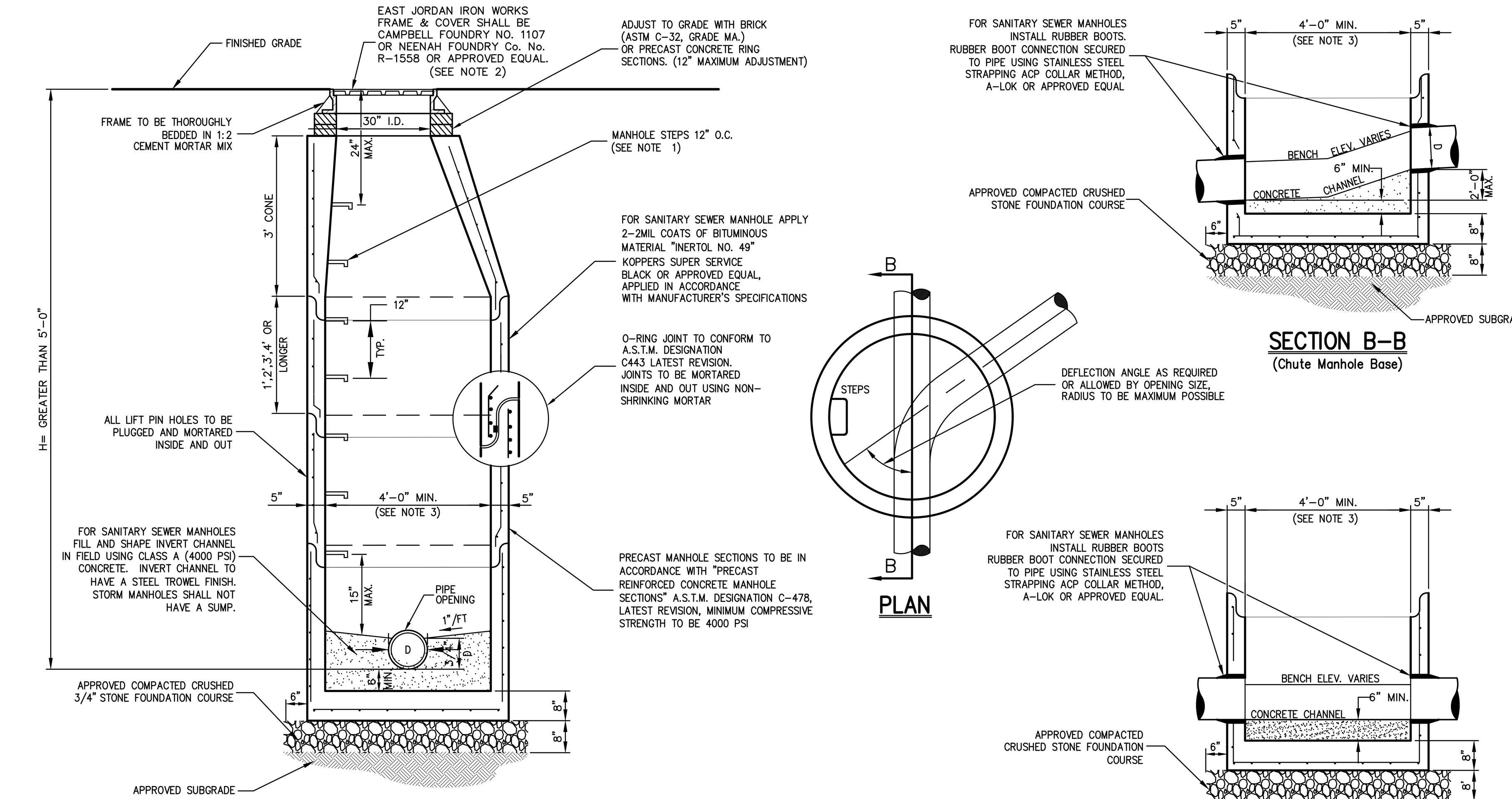
Drawn:	NC	Approved:	AG
Scale:	NOT TO SCALE		
Date:	11/23/2020		
Project No:	20101		
20101-DETAILS	DET-1	-	
Drawing No:	C-900		



NOTES:

1. MANHOLE STEPS SHALL BE CAST IRON NEENAH No. R-1981-0 OR CAMPBELL FOUNDRY No. 2588-1 OR POLYPROPYLENE COATED STEEL (SEE SPECIFICATIONS) OR APPROVED EQUAL.
2. UNLESS OTHERWISE SPECIFIED, SANITARY SEWER MANHOLES SHALL HAVE LETTERS "SEWER" AND STORM DRAIN MANHOLES SHALL HAVE LETTERS "DRAIN" CAST ON COVER. THE COVERS SHALL HAVE VENT HOLES.
3. MANHOLES SHALL MEET OR EXCEED A.S.T.M. AND O.S.H.A. REQUIREMENTS.
4. SEE "NOTES PERTAINING TO MANHOLES" UNDER "UTILITY NOTES" ON DRAWING C-900.

MANHOLE (TYPE A)
(H < 5'-0") 15



NOTES:

1. MANHOLE STEPS SHALL BE CAST IRON NEENAH No. R-1981-0 OR CAMPBELL FOUNDRY No. 2588-1 OR POLYPROPYLENE COATED STEEL (SEE SPECIFICATIONS) OR APPROVED EQUAL.
2. UNLESS OTHERWISE SPECIFIED, SANITARY SEWER MANHOLES SHALL HAVE LETTERS "SEWER" AND STORM DRAIN MANHOLES SHALL HAVE LETTERS "DRAIN" CAST ON COVER. THE COVERS SHALL HAVE VENT HOLES.
3. MANHOLES WITH DEPTH (h) 10' OR GREATER SHALL BE FIVE (5) FEET IN DIAMETER.
4. MANHOLES SHALL MEET OR EXCEED A.S.T.M. AND O.S.H.A. REQUIREMENTS.
5. SEE "NOTES PERTAINING TO MANHOLES" UNDER "UTILITY NOTES" ON DRAWING C-900.

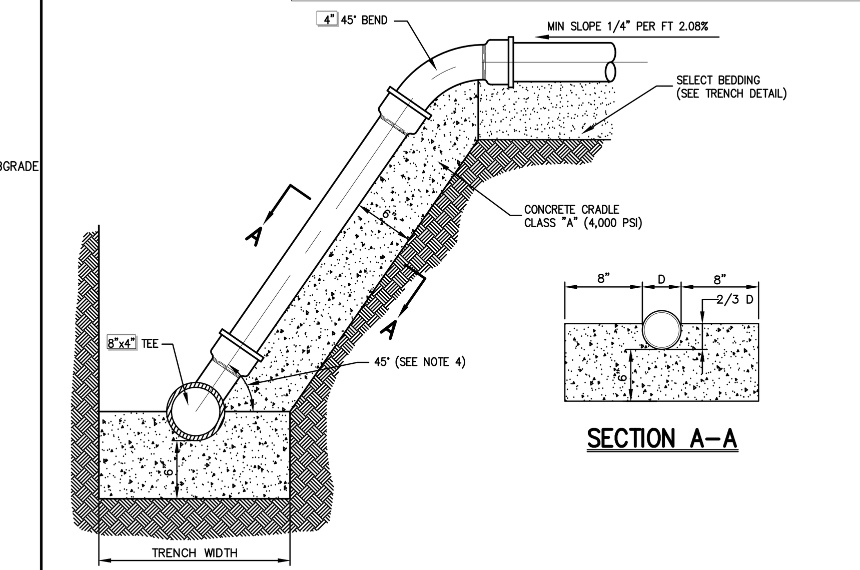
MANHOLE (TYPE B)
(H > 5'-0")<10'-0") 16

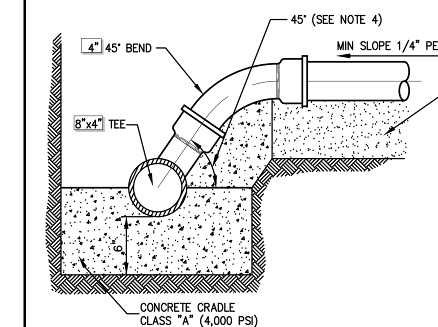
APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

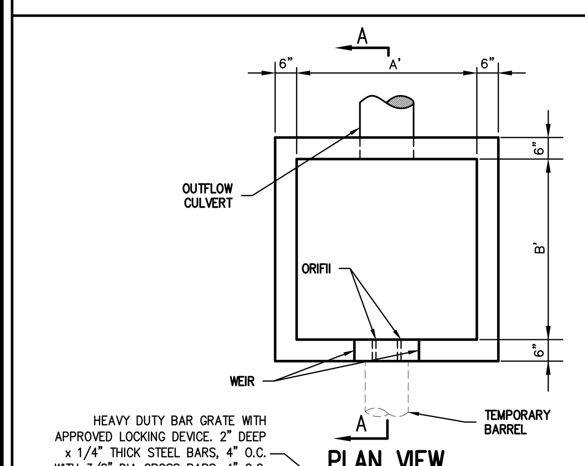




NOTES:

1. ALL SERVICE LINES SHALL HAVE A MINIMUM OF FOUR (4) FEET OF COVER.
2. SERVICE LINE LOCATION, GRADE AND ALIGNMENT SHALL BE AS SHOWN ON DRAWINGS OR AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.
3. WHERE SERVICE LINES ARE TO BE DEAD-ENDED, CONTRACTOR SHALL INSTALL APPROVED WATERTIGHT AND PRESSURE-TIGHT PLUGS.
4. IF MINIMUM COVER CANNOT BE ATTAINED WHILE MAINTAINING MINIMUM SLOPE, THE ANGLE OF CONNECTION MAY BE REDUCED TO 22.5°, IF APPROVED BY THE OWNER'S FIELD REPRESENTATIVE AND GOVERNING BODY WITH JURISDICTION.
5. SANITARY SEWER SERVICE LINE INCLUDING FITTINGS SHALL BE PVC, SDR 35.

SANITARY SEWER SERVICE CONNECTION 17

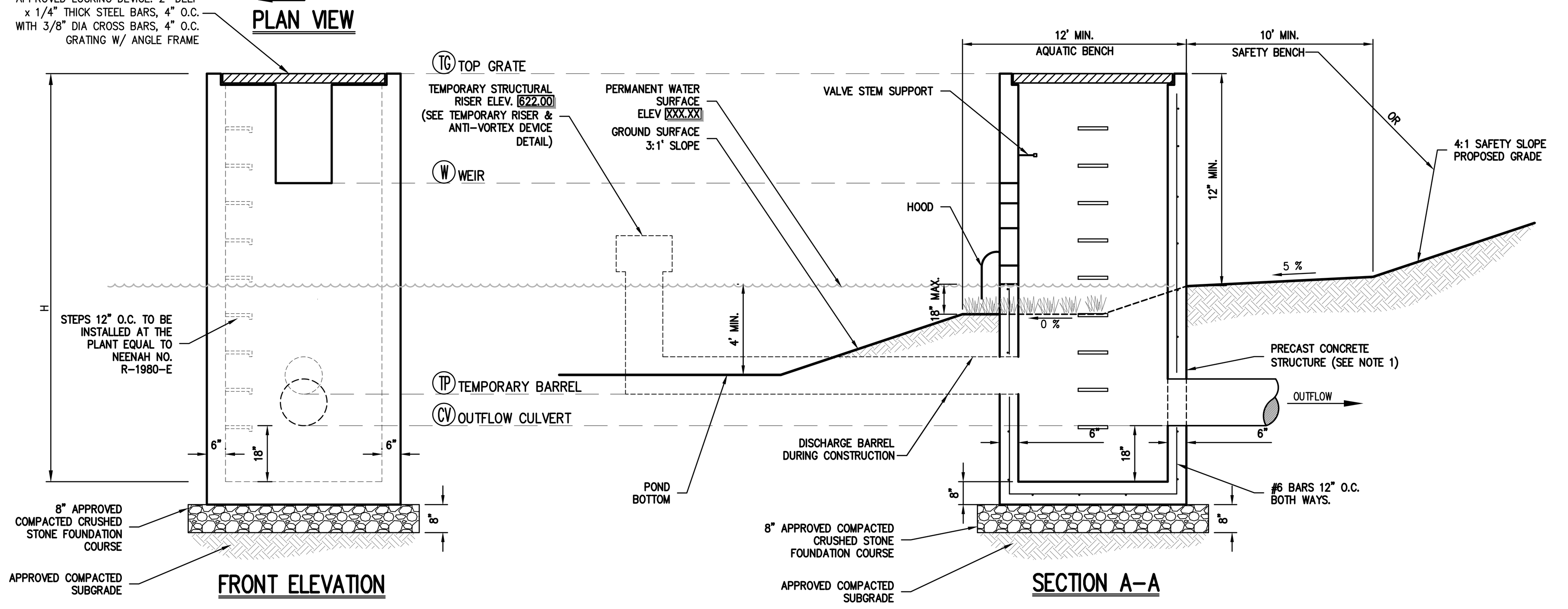


STRUCTURE CHART

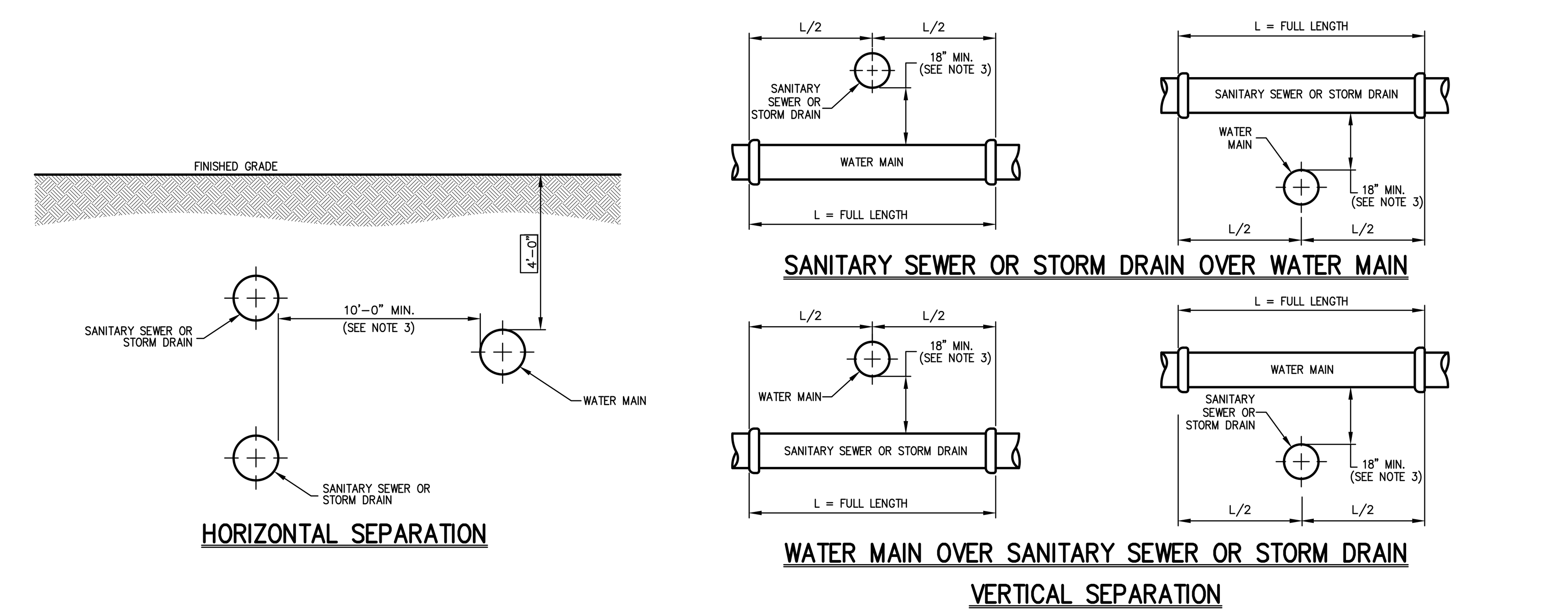
BASIN	STRUCTURE	STRUCTURE		(TG)	RECT. WEIR (W)		CIRCULAR ORIFICE (O1)		CIRCULAR ORIFICE (O2)		OUTLET CULVERT (CV)		POND DRAIN (PD)		TEMPORARY (TP)	
		SIZE	HEIGHT													
No.	No.	A' x B'	H'	TOP GRATE	LENGTH	ELEV.	DIA.	INVERT ELEV.	DIA.	INVERT ELEV.	DIA.	INVERT ELEV.	DIA.	INVERT ELEV.	DIA.	INVERT ELEV.
DB-1C-2B	OCS-2L	4.00'X4.00'	5.50	621.50	3.0'	620.00	N/A	N/A	N/A	N/A	24"	616.00	N/A	N/A	24"	621.00
DB-1C-2B	OCS-3R	4.00'X4.00'	5.50	621.50	3.0'	620.00	N/A	N/A	N/A	N/A	15"	616.00	N/A	N/A	24"	621.00

NOTES:

1. PRECAST CONCRETE STRUCTURE SHALL BE DESIGNED TO ACCOMMODATE AN H-20 DESIGN LOAD.
2. UNDERDRAINS ARE NOT REQUIRED IN BASIN
3. SEE UTILITY NOTES A-4 TO A-7 ON DRAWING C-900.



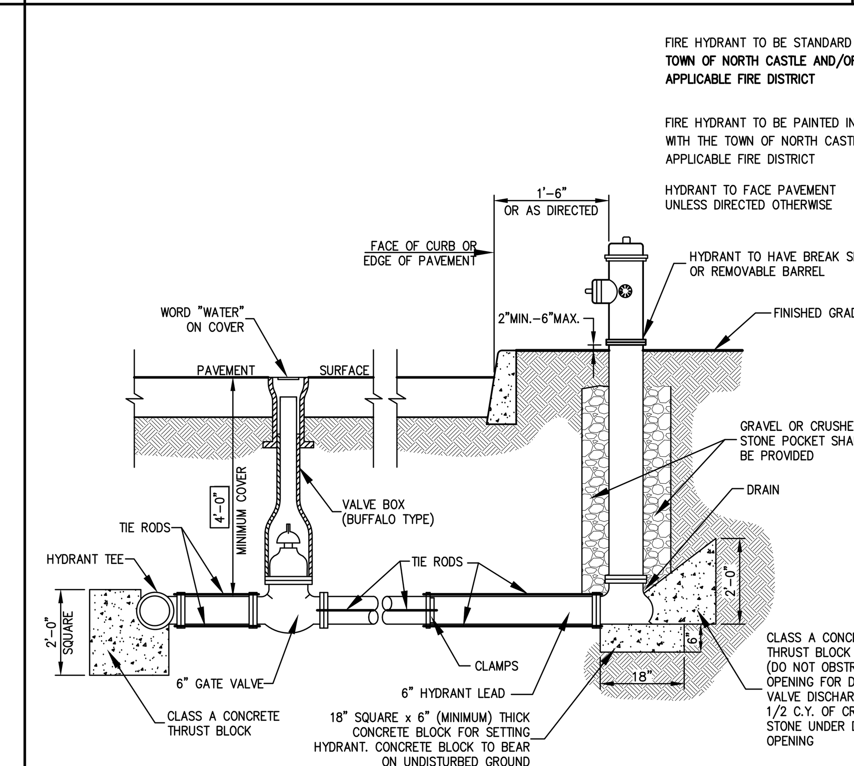
OUTLET CONTROL STRUCTURE 18



NOTES:

1. NORMAL CONDITIONS:
   A. WHENEVER A WATER MAIN MUST CROSS OVER OR UNDER A SANITARY SEWER OR STORM DRAIN, THE PIPES SHALL BE LAID TO PROVIDE A VERTICAL SEPARATION BETWEEN THEM OF AT LEAST 18 INCHES, AS MEASURED FROM THE BOTTOM OF THE HIGHER PIPE TO THE CROWN OF THE LOWER PIPE.
   B. FULL LENGTH OF WATER PIPE MUST BE CENTERED AT THE POINT OF CROSSING; NO JOINTS WILL BE PERMITTED AT THE POINT OF CROSSING.
2. WATER MAIN CROSSING UNDER SANITARY SEWERS:
   A. VERTICAL SEPARATION OF 18 INCHES MUST BE PROVIDED.
   B. ADEQUATE STRUCTURAL SUPPORT MUST BE PROVIDED FOR THE SANITARY SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING.
   C. FULL LENGTH OF WATER PIPE MUST BE CENTERED AT THE POINT OF CROSSING; NO JOINTS WILL BE PERMITTED AT THE POINT OF CROSSING.
3. IF DURING CONSTRUCTION IT IS FOUND THAT THE REQUIRED SEPARATION OF WATER MAINS, SANITARY SEWERS, STORM SEWERS AND BUILDING SANITARY SEWERS CANNOT BE MET, THE CONTRACTOR OR HIS AUTHORIZED REPRESENTATIVE SHALL IN WRITING ADVISE JOHN MEYER CONSULTING OF THE SPECIFIC CONDITIONS ENCOUNTERED. APPROVAL OF ALTERNATIVE SEPARATION CRITERIA SHALL BE OBTAINED FROM THE TOWN OF NORTH CASTLE PRIOR TO INSTALLATION.

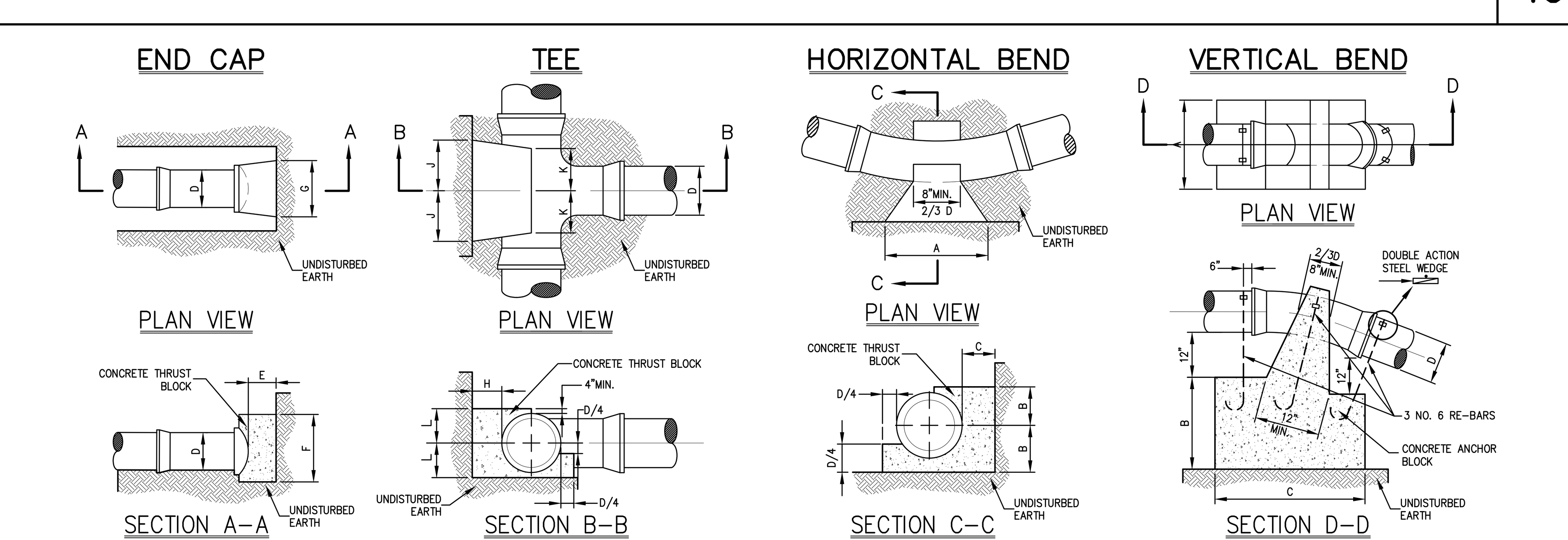
SEPARATION OF WATER AND SANITARY SEWER/STORM DRAIN LINES 19



NOTES:

1. ALL CONCRETE THRUST BLOCKS SHALL BEAR ON UNDISTURBED GROUND.
2. RODDING SHALL CONSIST OF TWO 3/4" THREADED STEEL TIE RODS WITH NUTS AND WASHERS COMPLETE WITH ALL NECESSARY AND REQUIRED CLAMPS, CAREFULLY AND THOROUGHLY COVERED WITH ASPHALT OR OTHER ACCEPTABLE CORROSIVE RETARDING MATERIAL. IN GENERAL, THE METHOD AND TYPES OF MATERIAL REQUIRED IN THE INSTALLATION OF CLAMPS AND THE RODS SHALL BE IN ACCORDANCE WITH THE LATEST NATIONAL FIRE PROTECTION STANDARDS.
3. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR WITHIN TEN (10) FEET OF SANITARY SEWERS OR STORM DRAINS.
4. IF GROUND WATER IS FOUND WITHIN SEVEN (7) FEET OF THE SURFACE, HYDRANT DRAINS ARE TO BE PLUGGED. WHEN DRAINS ARE TO BE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. SUCH HYDRANTS SHALL BE IDENTIFIED WITH A VISIBLE MARKING AS APPROVED BY THE WATER AUTHORITY.

HYDRANT INSTALLATION 20



END CAP CHART

D	4"	6"	8"	10"	12"
E	6"	6"	8"	8"	10"
F	12"	12"	1'-4"	1'-8"	2'-0"
G	1'-5"	1'-5"	2'-0"	2'-5"	3'-0"

TEE CHART

D	4"	6"	8"	10"	12"
H	6"	7"	9"	10"	12"
L	8"	8"	10"	12"	1'-3"
J	7"	7"	9"	12"	1'-2"
K	6"	6"	8"	8"	8"

HORIZONTAL BEND CHART

BEND (DEGREES)		DIAMETER (D) 4"	6"	8"	10"	12"
1/32 (11¼°)	A	8"	8"	8"	10"	12"
	B	7"	7"	8"	9"	10"
	C	7"	7"	7"	8"	8"
1/16 (22½°)	A	9"	9"	12"	1'-6"	1'-9"
	B	7"	7"	8"	9"	10"
	C	8"	8"	9"	10"	11"
1/8 (45°)	A	1'-3"	1'-3"	1'-8"	2'-1"	2'-6"
	B	7"	7"	8"	9"	11"
	C	8"	8"	9"	10"	11"
1/4 (90°)	A	2'-0"	2'-0"	2'-6"	3'-0"	3'-6"
	B	7"	7"	9"	12"	1'-3"
	C	2'-0"	2'-0"	1'-9"	1'-8"	1'-7"

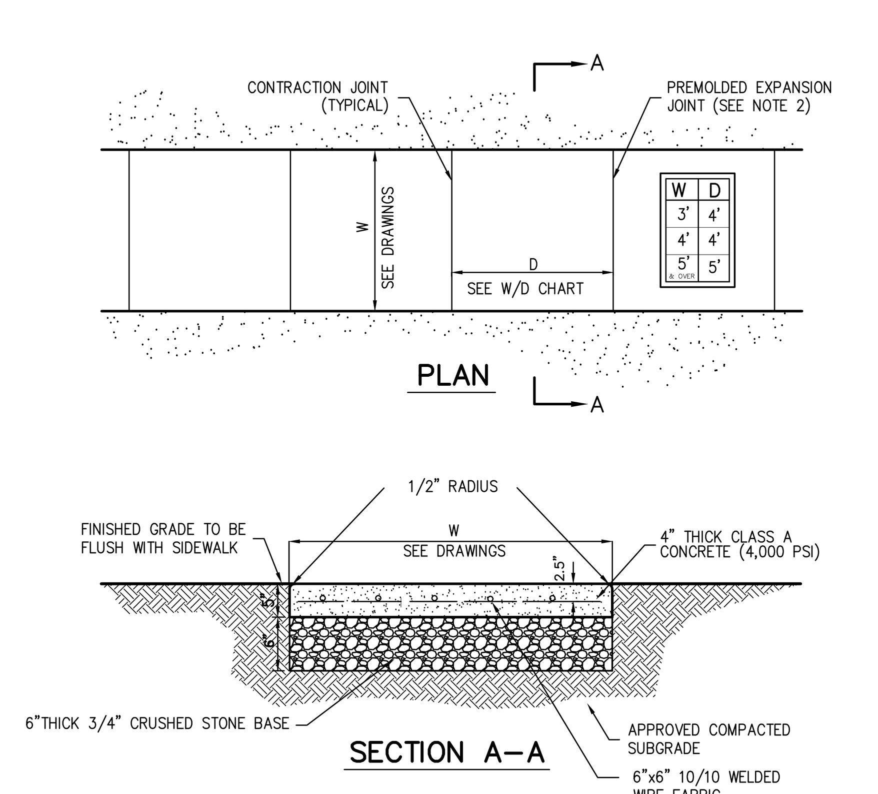
VERTICAL BEND CHART

BEND (DEGREES)		DIAMETER (D) 4"	6"	8"	10"	12"	16"
1/32 (11¼°)	A	1'-6"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"
	B	1'-3"	1'-3"	1'-9"	1'-3"	2'-0"	2'-0"
	C	2'-0"	2'-0"	2'-6"	2'-9"	3'-0"	4'-0"
1/16 (22½°)	A	2'-0"	2'-0"	3'-4"	3'-8"	4'-0"	4'-4"
	B	1'-9"	1'-9"	2'-3"	2'-6"	2'-6"	2'-6"
	C	2'-6"	2'-6"	2'-8"	4'-0"	4'-0"	5'-6"
1/8 (45°)	A	2'-6"	2'-6"	3'-0"	4'-0"	4'-6"	5'-2"
	B	2'-6"	2'-6"	2'-9"	3'-0"	3'-6"	4'-0"
	C	3'-0"	3'-0"	4'-0"	4'-6"	4'-9"	6'-6"

NOTES:

1. ALL CONCRETE TO BE CLASS A (4,000 PSI).
2. ALL DIMENSIONS ARE MINIMUMS; ALL ANCHOR AND THRUST BLOCKS SHALL BEAR ON UNDISTURBED EARTH.
3. IN ALL CASES SHOWN, MEASUREMENT "D" REFERS TO THE INSIDE PIPE DIAMETER.
4. ANCHOR AND THRUST BLOCK DIMENSIONS SHOWN ARE MINIMUM FOR 100 PSI WATER PRESSURE AND SOIL RESISTANCE OF 2 KIPS PER SQ FT. CONTRACTOR SHALL ADJUST FOR OTHER CONDITIONS AND SUBMIT FOR APPROVAL.
5. IF THE OWNER OF THE WATER SYSTEM REQUIRES A METHOD THAT RESTRAINS INDIVIDUAL JOINTS, EACH JOINT THAT FALLS WITHIN THE MINIMUM RESTRAINED LENGTH, MEASURED FROM THE CENTER OF THE FITTING, AS SHOWN ON THESE SHEETS SHALL BE RESTRAINED, AND SHALL WITHSTAND THE MAXIMUM PRESSURE APPLIED TO THE SYSTEM.
6. CLASS A CONCRETE SHALL NOT BE PLACED UNDER WATER. THE CONTRACTOR SHALL DEWATER THE EXCAVATION OR PLACE TYPE G CONCRETE USING APPROPRIATE UNDERWATER PLACEMENT TECHNIQUES.
7. CONCRETE FOR THRUST BLOCKS SHALL NOT BE ALLOWED TO COVER OR INTERFERE WITH JOINT OR RESTRAINT HARDWARE, PLASTIC SHEETING OR BUILDING FELT MAY BE PLACED OVER PIPE OR FITTINGS TO PREVENT CONCRETE FROM ADHERING TO SURFACES.
8. FOR BENDS, BEARING AREA SHALL BE PARALLEL TO THE EDGE OF THE FITTING AT THE FITTING MIDPOINT.
9. FOR TEES, BEARING AREA SHALL BE PERPENDICULAR TO THE BRANCH (SINGLE LEG) AXIS.
10. FOR REDUCERS, BEARING AREA SHALL BE PERPENDICULAR TO THE FITTING AXIS. THE MINIMUM THICKNESS ALONG THE FITTING AXIS SHALL BE 1'-0" OR THE LENGTH BETWEEN THE BELLS, WHICHEVER IS SMALLER.
11. THRUST RESTRAINTS FOR SIZES OR FITTINGS NOT SHOWN ON THESE SHEETS WILL BE DESIGNED ON A CASE BY CASE BASIS, AND WILL BE SHOWN IN THE CONTRACT DOCUMENTS.

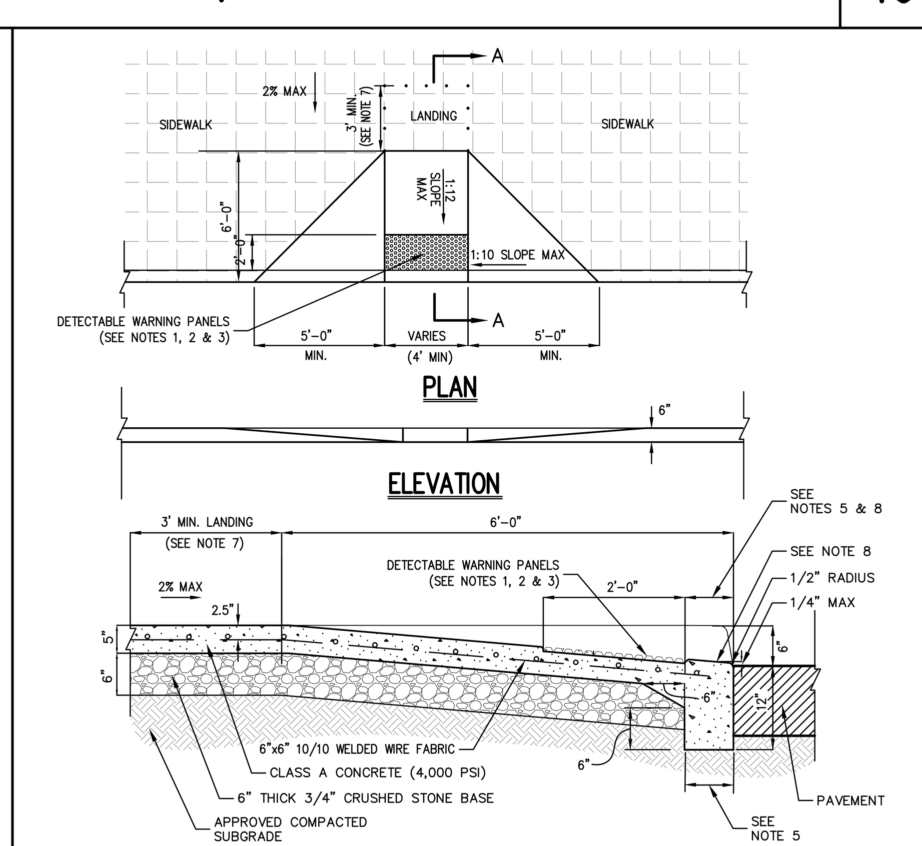
ANCHOR AND THRUST BLOCKS 21



NOTES:

1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. PROVIDE 1/2" PREMOLDED EXPANSION JOINTS AT 20' INTERVALS UNLESS OTHERWISE DIRECTED.
3. REINFORCING SHALL NOT EXTEND THROUGH EXPANSION JOINTS.
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH

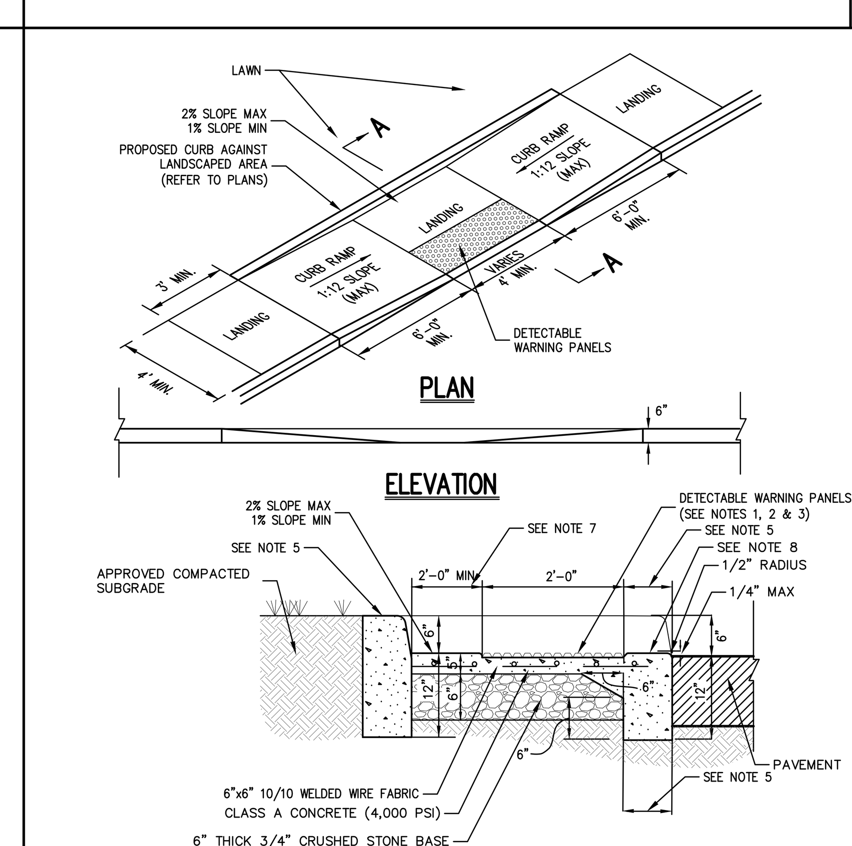
CONCRETE SIDEWALK 22



NOTES:

1. RAMPS SHALL HAVE CAST IN PLACE DETECTABLE/TACTILE WARNING SURFACE TILES AS MANUFACTURED BY ARMOR-TILE (OR APPROVED EQUAL) AND SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES.
2. DETECTABLE WARNING PANELS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT IN ACCORDANCE WITH SECTION 4.29.2, FEDERAL REGISTER, VOLUME 56, NO. 144, RULES AND REGULATIONS, APPENDIX A TO PART 36 - STANDARDS FOR ACCESSIBLE DESIGN (AMERICANS WITH DISABILITIES ACT), LATEST EDITION.
3. 24" WIDTH OF PANELS TO BE INSTALLED DIRECTLY BEHIND CURB AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE AND SEE CURB DETAIL FOR DIMENSIONS.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. WHEN LANDING OF RAMP ADJOINS A DOORWAY THEN THE MINIMUM DOORWAY MANEUVERING AREA SHALL BE AT LEAST THE WIDTH OF THE DOORWAY AND SHALL HAVE A MINIMUM DEPTH OF:
   MANUAL SWING DOORS = 60" MIN.
   FULL POWERED AUTOMATIC SLIDING DOORS = 48" MIN.
8. CONTRACTOR TO ENSURE TOP OF CURB MATCHES SLOPE OF RAMP.

DROP CURB & RAMP (TYPE A)
(WITH DETECTABLE WARNING) 23



NOTES:

1. RAMPS SHALL HAVE CAST IN PLACE DETECTABLE/TACTILE WARNING SURFACE TILES AS MANUFACTURED BY ARMOR-TILE (OR APPROVED EQUAL) AND SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES.
2. DETECTABLE WARNING PANELS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT IN ACCORDANCE WITH SECTION 4.29.2, FEDERAL REGISTER, VOLUME 56, NO. 144, RULES AND REGULATIONS, APPENDIX A TO PART 36 - STANDARDS FOR ACCESSIBLE DESIGN (AMERICANS WITH DISABILITIES ACT), LATEST EDITION.
3. 24" WIDTH OF PANELS TO BE INSTALLED DIRECTLY BEHIND CURB AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE AND SEE CURB DETAIL FOR DIMENSIONS.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. WHEN LANDING OF RAMP ADJOINS A DOORWAY THEN THE MINIMUM DOORWAY MANEUVERING AREA SHALL BE AT LEAST THE WIDTH OF THE DOORWAY AND SHALL HAVE A MINIMUM DEPTH OF:
   MANUAL SWING DOORS = 60" MIN.
   FULL POWERED AUTOMATIC SLIDING DOORS = 48" MIN.
8. CONTRACTOR TO ENSURE TOP OF CURB MATCHES SLOPE OF RAMP.

DROP CURB & RAMP (TYPE B)
(WITH DETECTABLE WARNING) 24

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

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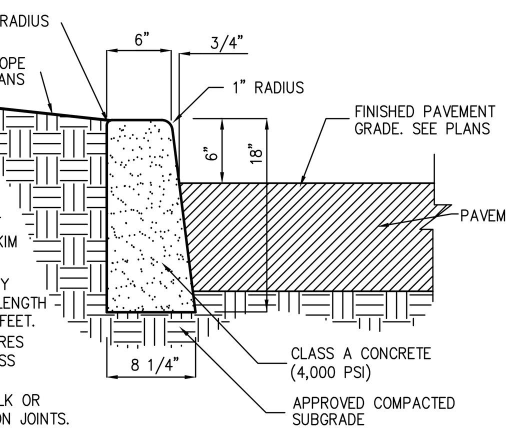
ARMONK, NY 10504

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.

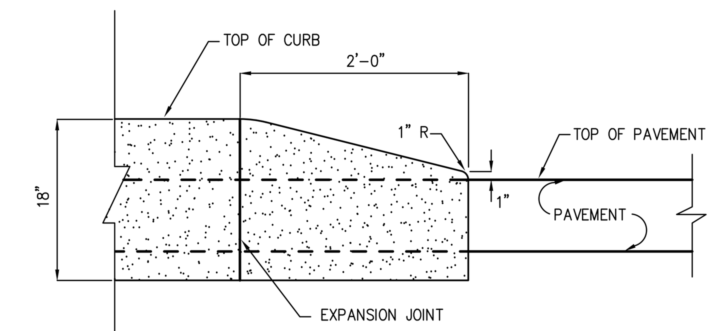
Drawn: NC Approved: AG
Scale: NOT TO SCALE
Date: 11/23/2020
Project No: 20101
DET-2
Drawing No: C-901

NOTES:

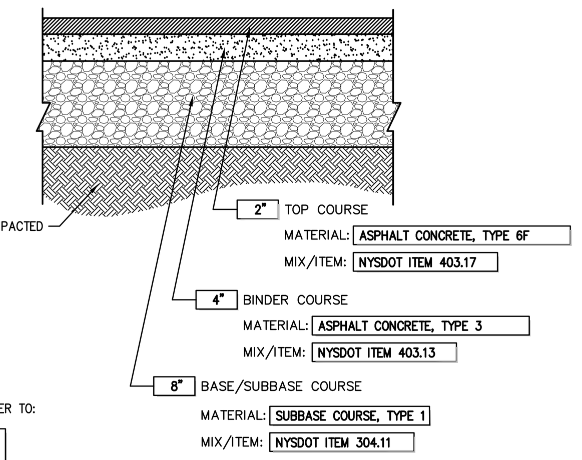
1. INSTALL 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT EVER 20 FEET.
2. UNLESS DIRECTED OTHERWISE, EXPANSION JOINTS SHALL ALSO BE INSTALLED AT THE PC AND PT OF ALL RADIUS CURB.
3. EACH EXPANSION JOINT SHALL BE LEFT EXPOSED AND NOT COVERED WITH A SKIM COAT OF CONCRETE.
4. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
5. LENGTH OF CURB SEGMENTS AT CLOSURES MAY BE VARIED BUT SHALL NOT BE LESS THAN FOUR (4) FEET.
6. WHEN INSTALLED ADJACENT TO SIDEWALK OR CONCRETE PAVEMENT, MATCH EXPANSION JOINTS.



CAST-IN-PLACE CONCRETE CURB — 25



CONCRETE CURB ENDING — 26

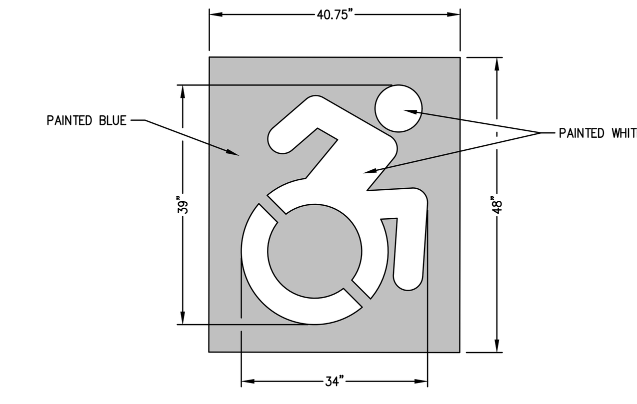


NOTES:

1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. MATERIAL AND MIX/ITEM NUMBERS REFER TO:

NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS

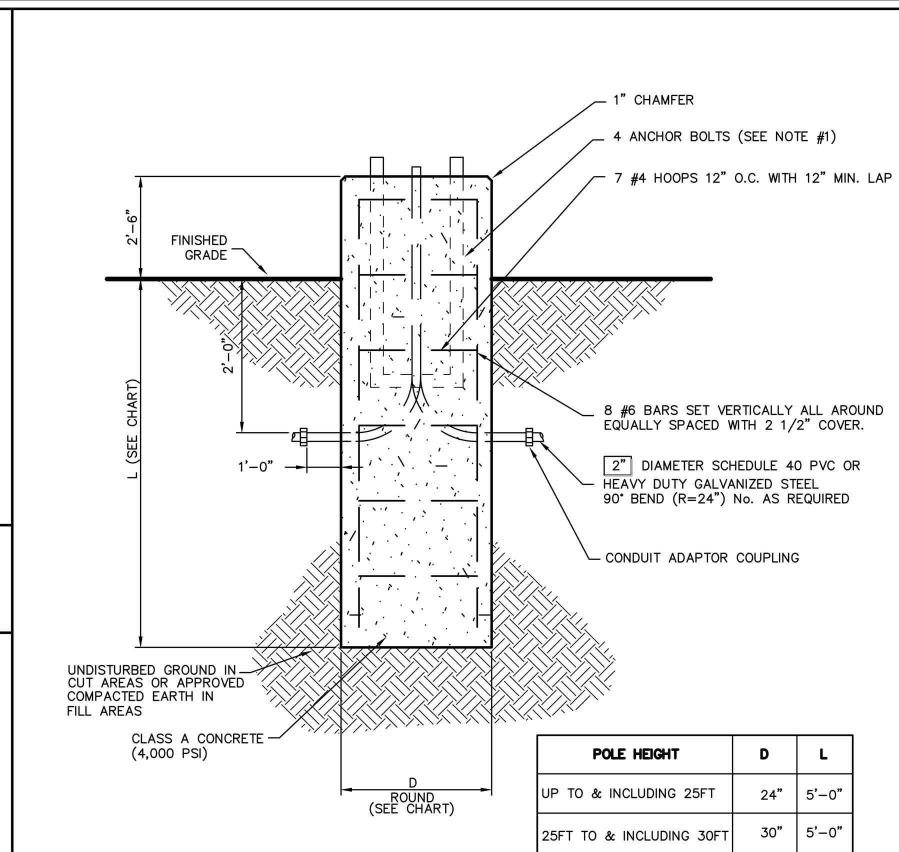
SITE PAVEMENT (HEAVY DUTY) — 27



NOTES:

1. SYMBOL SHALL BE THERMOPLASTIC TYPE OR PAINTED WITH STENCIL.

PAINTED ACCESSIBLE SYMBOL — 28

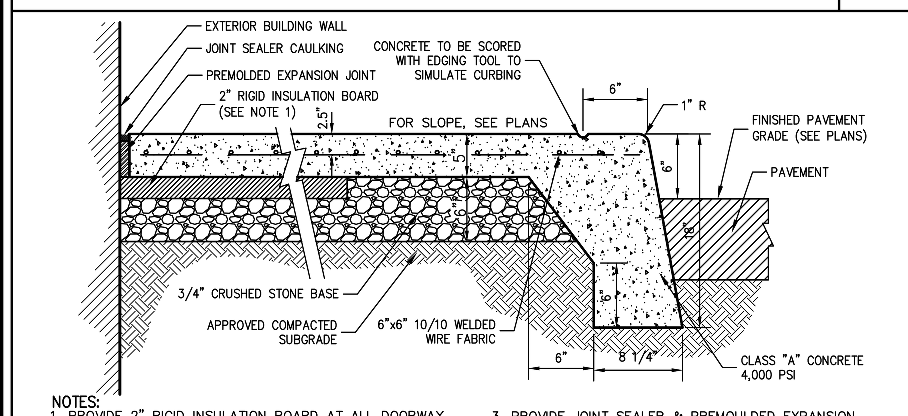


POLE HEIGHT	D	L
UP TO & INCLUDING 25FT	24"	5'-0"
25FT TO & INCLUDING 30FT	30"	5'-0"
30FT TO & INCLUDING 40FT	30"	6'-6"

NOTES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL ANCHOR BOLT DIMENSIONS (SIZE, BOLT CIRCLE, ETC.) WITH THE CONTRACTOR WHO WILL BE INSTALLING THE LIGHTING STANDARD PRIOR TO INSTALLATION OF THE FOUNDATIONS.
2. CHAMFER EXPOSED EDGES OF ALL FOUNDATIONS.
3. PROVIDE INSULATED GROUNDING BUSHING ON EXPOSED ENDS (IN BASE OF POLE) OF ALL GALVANIZED STEEL BENDS.
4. POLES AND LUMINAIRES WILL BE FURNISHED AND INSTALLED BY OTHERS.

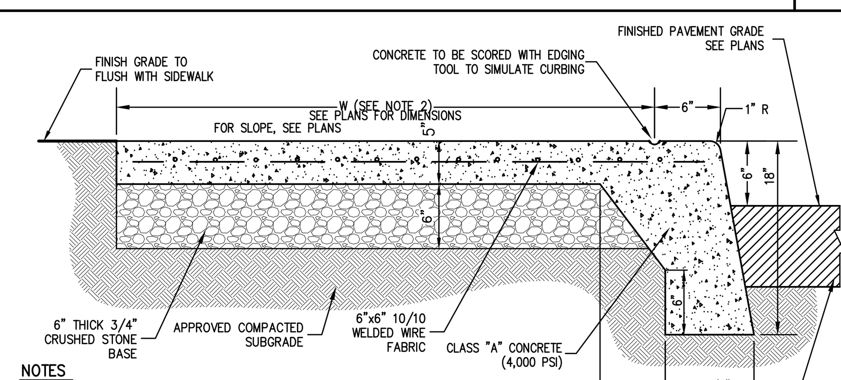
LIGHTING STANDARD FOUNDATION (ROUND) — 33



NOTES:

1. PROVIDE 2" RIGID INSULATION BOARD AT ALL DOORWAY OPENINGS AND EXTEND 8' MIN. IN ALL DIRECTIONS OR TO CONSTRUCTION/CONTRACTION JOINT, WHICHEVER IS GREATER.
2. JOINT SEALER CAULKING SHALL BE PSI-641 LOW MODULUS SILICONE SEALANT, BY POLYMERIC SYSTEMS INC. OR APPROVED EQUAL. PREMOULDED EXPANSION JOINT SHALL BE FLEXCELL OR APPROVED EQUAL.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH
5. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. 2% MAX.
6. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.

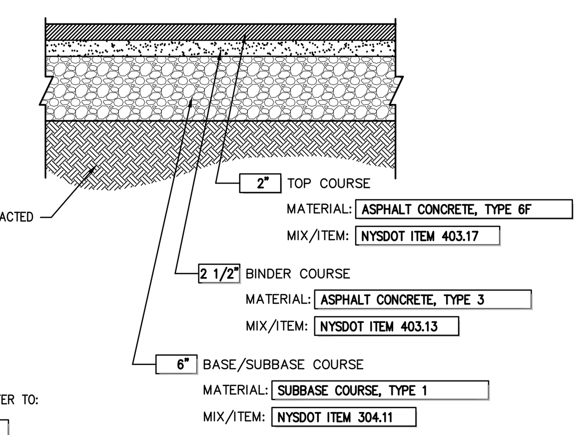
BUILDING PERIMETER MONOLITHIC CURB & SIDEWALK — 29



NOTES

1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH.
5. PROVIDE 1/2" PREMOULDED EXPANSION JOINTS AT 20 FOOT INTERVALS UNLESS OTHERWISE DIRECTED.
6. REINFORCEMENT SHALL NOT EXTEND THROUGH EXPANSION JOINTS.

MONOLITHIC CONCRETE CURB AND SIDEWALK — 30

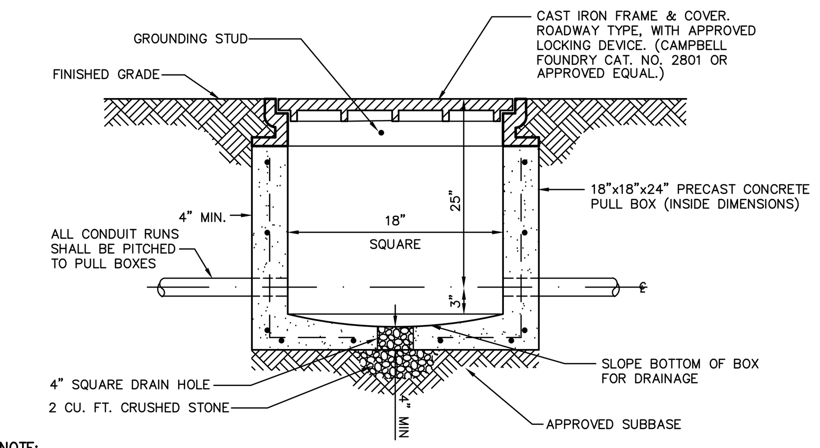


NOTES:

1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. MATERIAL AND MIX/ITEM NUMBERS REFER TO:

NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS

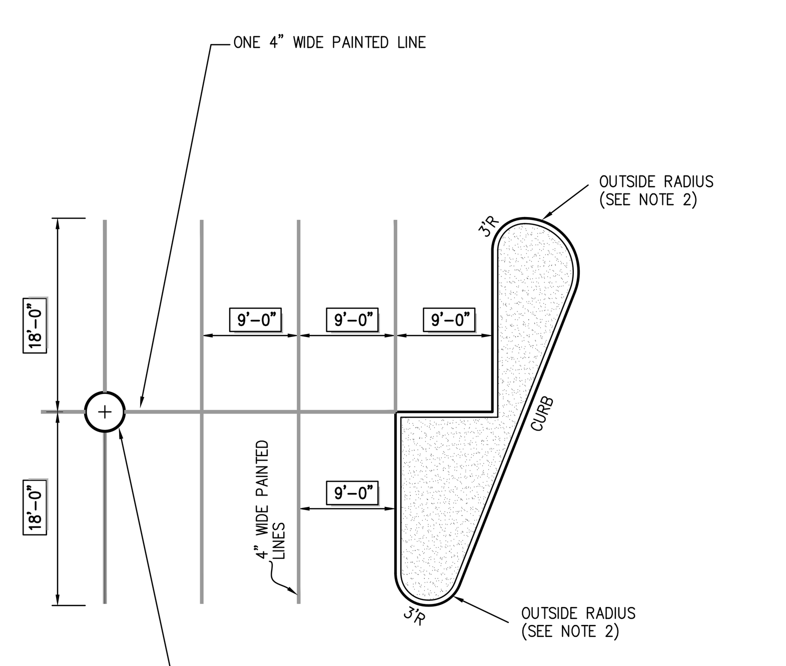
SITE PAVEMENT (LIGHT DUTY) — 31



NOTE:

PRECAST CONCRETE PULL BOX TO BE DESIGNED FOR H-20 DESIGN LOAD.

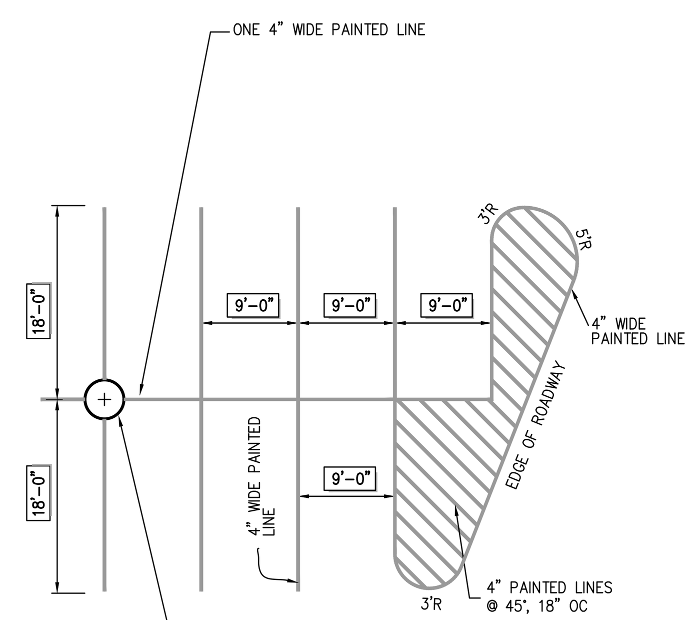
ELECTRICAL PULL BOX — 32



NOTES

1. COLOR OF PAINT SHALL BE WHITE.
2. OUTSIDE RADIUS MAY VARY DEPENDING ON SHAPE OF ISLAND. RADIUS SHALL BE AS SHOWN ON LAYOUT PLAN.

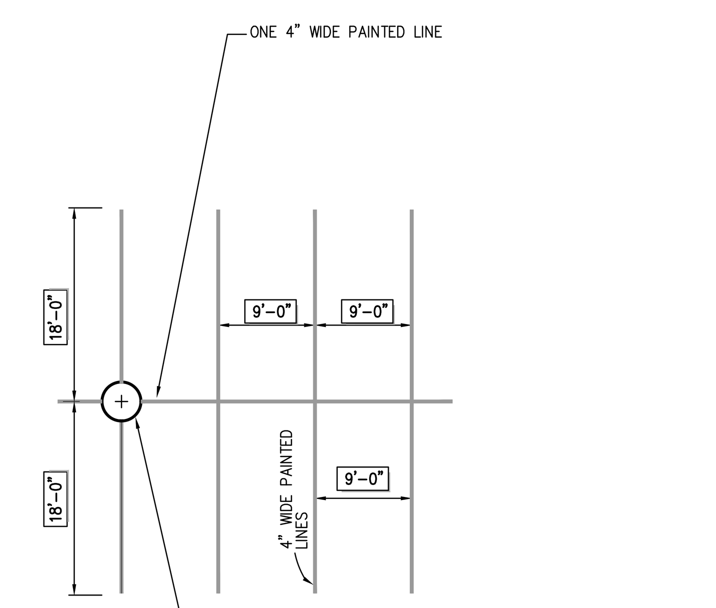
90° PARKING (SINGLE STRIPING-CURBED END) — 34



NOTE

1. COLOR OF PAINT SHALL BE WHITE.

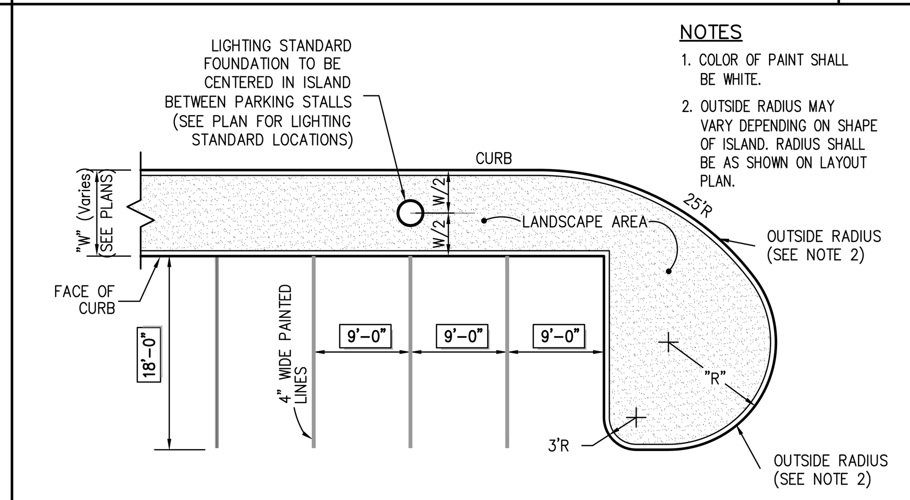
90° PARKING (SINGLE STRIPING-PAINTED END) — 35



NOTE

1. COLOR OF PAINT SHALL BE WHITE.

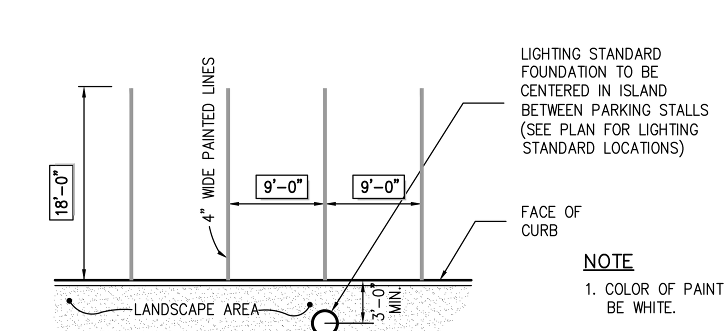
90° PARKING (SINGLE STRIPING – W/O CURBED ISLAND) — 36



NOTES

1. COLOR OF PAINT SHALL BE WHITE.
2. OUTSIDE RADIUS MAY VARY DEPENDING ON SHAPE OF ISLAND. RADIUS SHALL BE AS SHOWN ON LAYOUT PLAN.

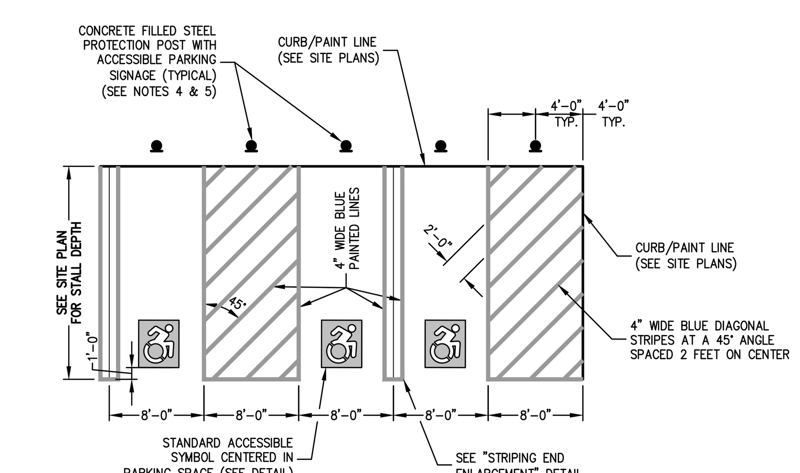
90° PARKING (SINGLE STRIPING – CURBED ISLAND AND CURBED END) — 37



NOTE

1. COLOR OF PAINT SHALL BE WHITE.

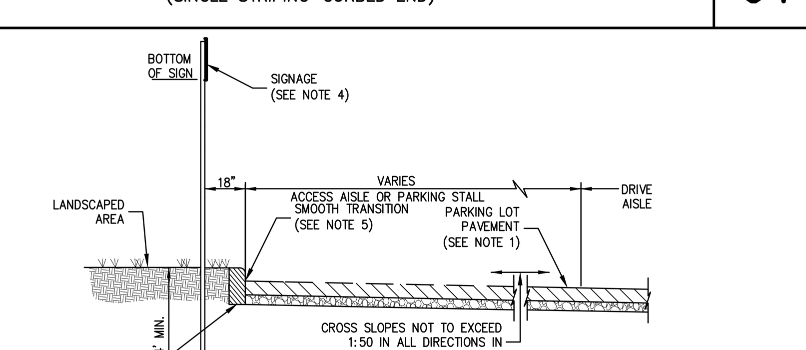
90° PARKING (SINGLE STRIPING – CURBED PERIMETER) — 38



NOTES:

1. WIDTH MEASUREMENTS OF ACCESSIBLE PARKING SPACES AND ACCESS AISLES (CROSS HATCHED AREA ADJACENT TO ACCESSIBLE PARKING SPACE) SHALL BE MADE FROM THE CENTERLINE OF THE MARKINGS.
2. SLOPES IN ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0% IN ANY DIRECTION MEASURED WITH A 2 FOOT SMART LEVEL AS SPECIFIED IN "DIMENSIONAL TOLERANCES IN CONSTRUCTION AND FOR SURFACE ACCESSIBILITY", BY UNITED STATES ACCESS BOARD, LATEST EDITION.
3. GROUND SURFACES FOR ACCESSIBLE PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE ACCESSIBLE PARKING SPACES THEY SERVE.
4. SEE SITE PLANS/SIGN TABLE FOR SIGN DESIGNATIONS, LOCATIONS AND SPECIFICATIONS.
5. SEE ACCESSIBLE PARKING SIGN DETAIL FOR CONCRETE FILLED STEEL PROTECTION POST WITH ACCESSIBLE PARKING SIGNAGE AS APPLICABLE.

ACCESSIBLE PARKING (DOUBLE STRIPING – NEW YORK) — 39



TYPICAL SECTION

NOTES:

1. THIS SHEET IS INTENDED TO DEPICT THE DIMENSIONAL REQUIREMENTS OF TYPICAL ACCESSIBLE PARKING SPACES. THE SIDEWALK, CURBING, AND PAVEMENT MATERIAL SHALL BE AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS.
2. LOCATION – PARKING SPACES FOR USE BY PERSONS WITH DISABILITIES SHALL BE IN THE SPACES CLOSEST TO THE NEAREST ACCESSIBLE BUILDING OR FACILITY ENTRANCE ON AN ACCESSIBLE ROUTE.
3. SURFACE SLOPES – SLOPES AT ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ADJOINING WALKWAYS SHALL NOT EXCEED 1:50 IN ANY DIRECTION.
4. SIGNAGE – EACH ACCESSIBLE PARKING SPACE SHALL BE MARKED BY PERMANENTLY INSTALLED ABOVE GROUND SIGNS WHICH DISPLAY THE INTERNATIONAL SYMBOL OF ACCESS. EACH ACCESS AISLE SHALL BE MARKED BY PERMANENTLY INSTALLED ABOVE GROUND SIGNS INDICATING THAT PARKING IS NOT PERMITTED IN THE AISLE. SIGNS SHALL NOT BLOCK THE ACCESSIBLE CLEAR WIDTH OF ADJACENT WALKWAYS, SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED AS SHOWN IN THE PROTECTION POST BASE DETAIL. THE BOTTOMS OF THE SIGNS LOCATED ON POST INSTALLED IN PAVED AREAS SHALL BE AT LEAST 7' ABOVE THE WALKWAY SURFACE. THE BOTTOMS OF SIGNS LOCATED IN UNPAVED AREAS SHALL BE 7' ABOVE THE ADJACENT PAVEMENT SURFACE.
5. A SMOOTH, FLUSH TRANSITION MUST BE PROVIDED BETWEEN ALL PEDESTRIAN WALKWAYS AND THE ACCESSIBLE PARKING SPACES AND AISLES.
6. VEHICLE SIDE FACE OF CONCRETE BUMPER BLOCKS SHALL BE SET 2' BACK FROM EDGE OF PARKING STALL. CONCRETE BLOCKS SHALL NOT BE INSTALLED WITHIN ACCESS AISLES.

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________________________ DATE: ____________

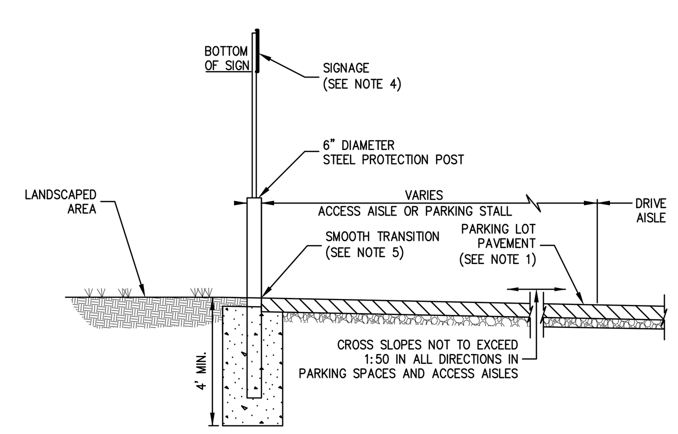
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________________________ DATE: ____________

JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

TYPICAL ACCESSIBLE PARKING STALL AND AISLE (TYPE A) — 40

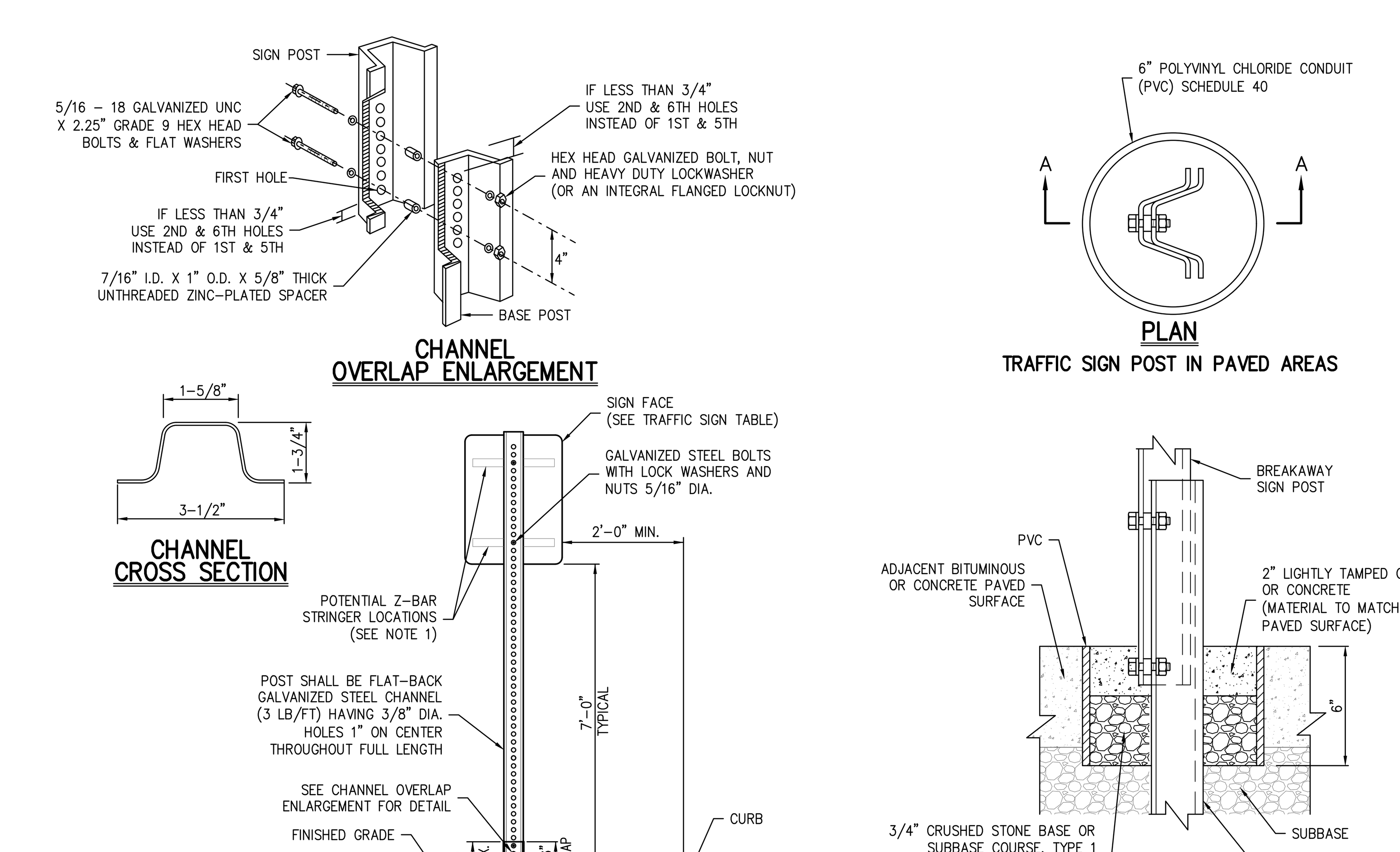


TYPICAL SECTION

NOTES:

1. THIS SHEET IS INTENDED TO DEPICT THE DIMENSIONAL REQUIREMENTS OF TYPICAL ACCESSIBLE PARKING SPACES. THE SIDEWALK, CURBING, AND PAVEMENT MATERIAL SHALL BE AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS.
2. LOCATION – PARKING SPACES FOR USE BY PERSONS WITH DISABILITIES SHALL BE IN THE SPACES CLOSEST TO THE NEAREST ACCESSIBLE BUILDING OR FACILITY ENTRANCE ON AN ACCESSIBLE ROUTE.
3. SURFACE SLOPES – SLOPES AT ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ADJOINING WALKWAYS SHALL NOT EXCEED 1:50 IN ANY DIRECTION.
4. SIGNAGE – EACH ACCESSIBLE PARKING SPACE SHALL BE MARKED BY PERMANENTLY INSTALLED ABOVE GROUND SIGNS WHICH DISPLAY THE INTERNATIONAL SYMBOL OF ACCESS. EACH ACCESS AISLE SHALL BE MARKED BY PERMANENTLY INSTALLED ABOVE GROUND SIGNS INDICATING THAT PARKING IS NOT PERMITTED IN THE AISLE. SIGNS SHALL NOT BLOCK THE ACCESSIBLE CLEAR WIDTH OF ADJACENT WALKWAYS, SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED AS SHOWN IN THE PROTECTION POST BASE DETAIL. THE BOTTOMS OF THE SIGNS LOCATED ON POST INSTALLED IN PAVED AREAS SHALL BE AT LEAST 7' ABOVE THE WALKWAY SURFACE. THE BOTTOMS OF SIGNS LOCATED IN UNPAVED AREAS SHALL BE 7' ABOVE THE ADJACENT PAVEMENT SURFACE.
5. A SMOOTH, FLUSH TRANSITION MUST BE PROVIDED BETWEEN ALL PEDESTRIAN WALKWAYS AND THE ACCESSIBLE PARKING SPACES AND AISLES.

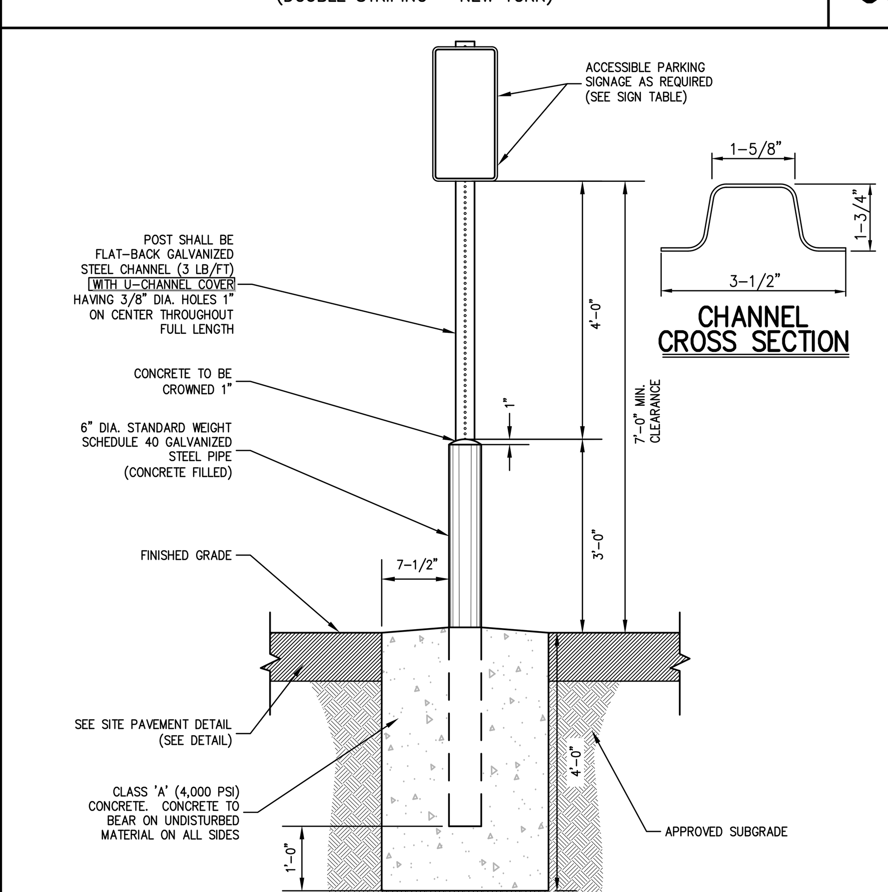
TYPICAL ACCESSIBLE PARKING STALL AND AISLE (TYPE C) — 41



NOTE:

1. WHEN BACK TO BACK SIGNS ARE DESIGNATED TO SHARE ONE POST, SIGNS SHALL BE AFFIXED TO POST USING ALUMINUM OR STAINLESS STEEL Z-BAR STRINGER.

TRAFFIC SIGN POST (BREAKAWAY STEEL CHANNEL) — 42



NOTES:

1. GALVANIZED STEEL CHANNEL SHALL BE EMBEDDED A MIN. OF 3 FT. INTO THE CONCRETE
2. POSTS FOR HANDICAP PARKING STALLS AND ACCESS AISLES SHALL BE PAINTED BLUE AS FOLLOWS:
   A. SOLVENT CLEAN TO REMOVE OIL, GREASE AND OTHER CONTAMINANTS.
   B. APPLY METAL PRIMER FOR GALVANIZED SURFACES.
   C. APPLY TWO (2) FINISH COATS OF APPROVED EXTERIOR PAINT FOR METAL SURFACES.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF THE PARKING SIGNS, BOLLARDS AND FOUNDATIONS WITH THE DESIGN AND INSTALLATION OF THE SITE SIDEWALKS, CURBING, PAVEMENT AND ANY OTHER SITE FEATURES SHOWN ON THE PLANS.
4. FASTEN SIGN TO POSTS WITH GALVANIZED STEEL BOLTS, LOCK WASHERS, AND NUTS (5/16" DIA.)
5. U-CHANNEL COVERS FOR POSTS SHALL BE BLUE WITH WHITE STRIPE FOR HANDICAP PARKING STALLS AND HANDICAP ACCESS AISLES.

ACCESSIBLE PARKING SIGN DETAIL — 43

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
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APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
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CONSTRUCTION DETAILS

THE SUMMIT CLUB AT ARMONK
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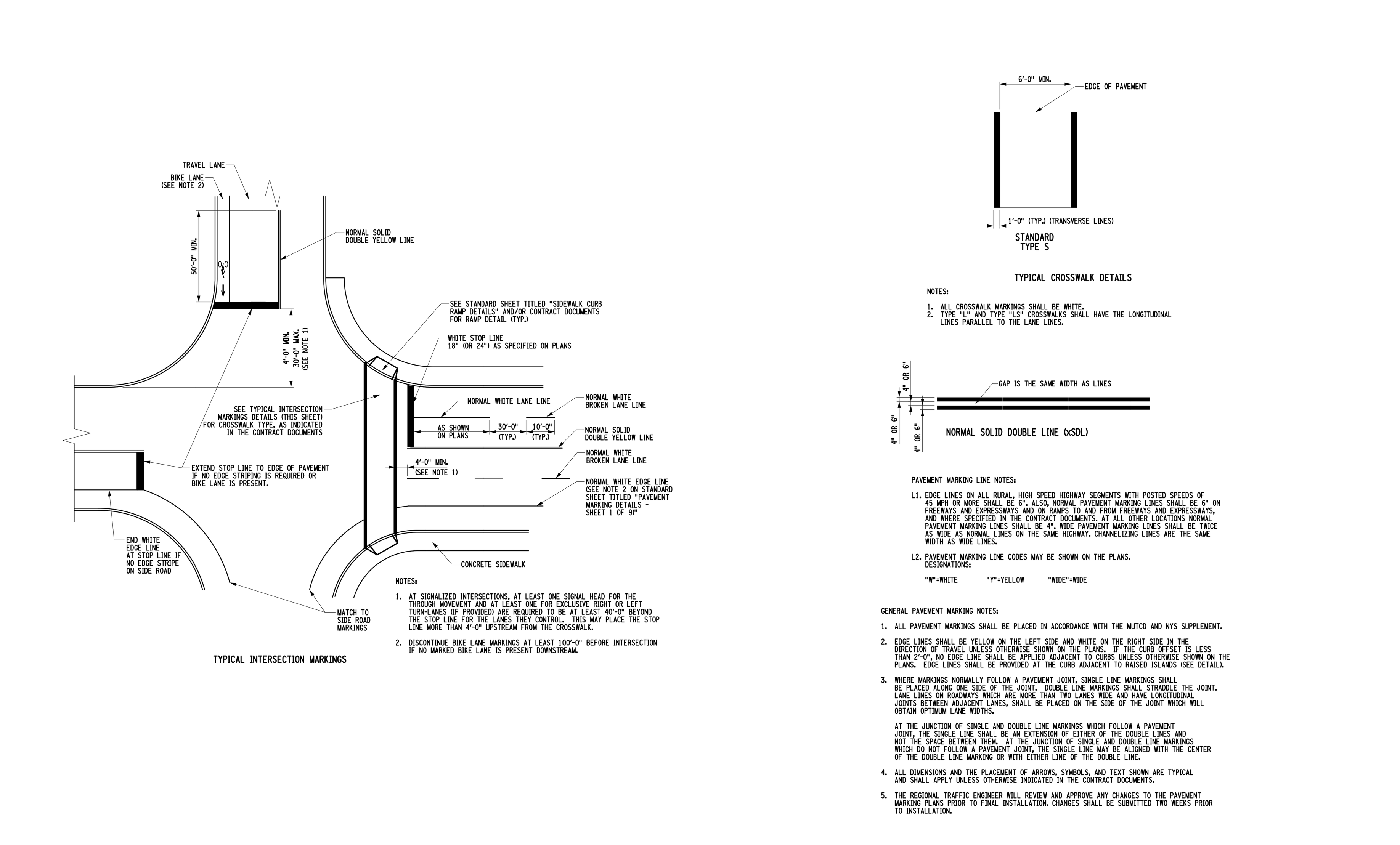
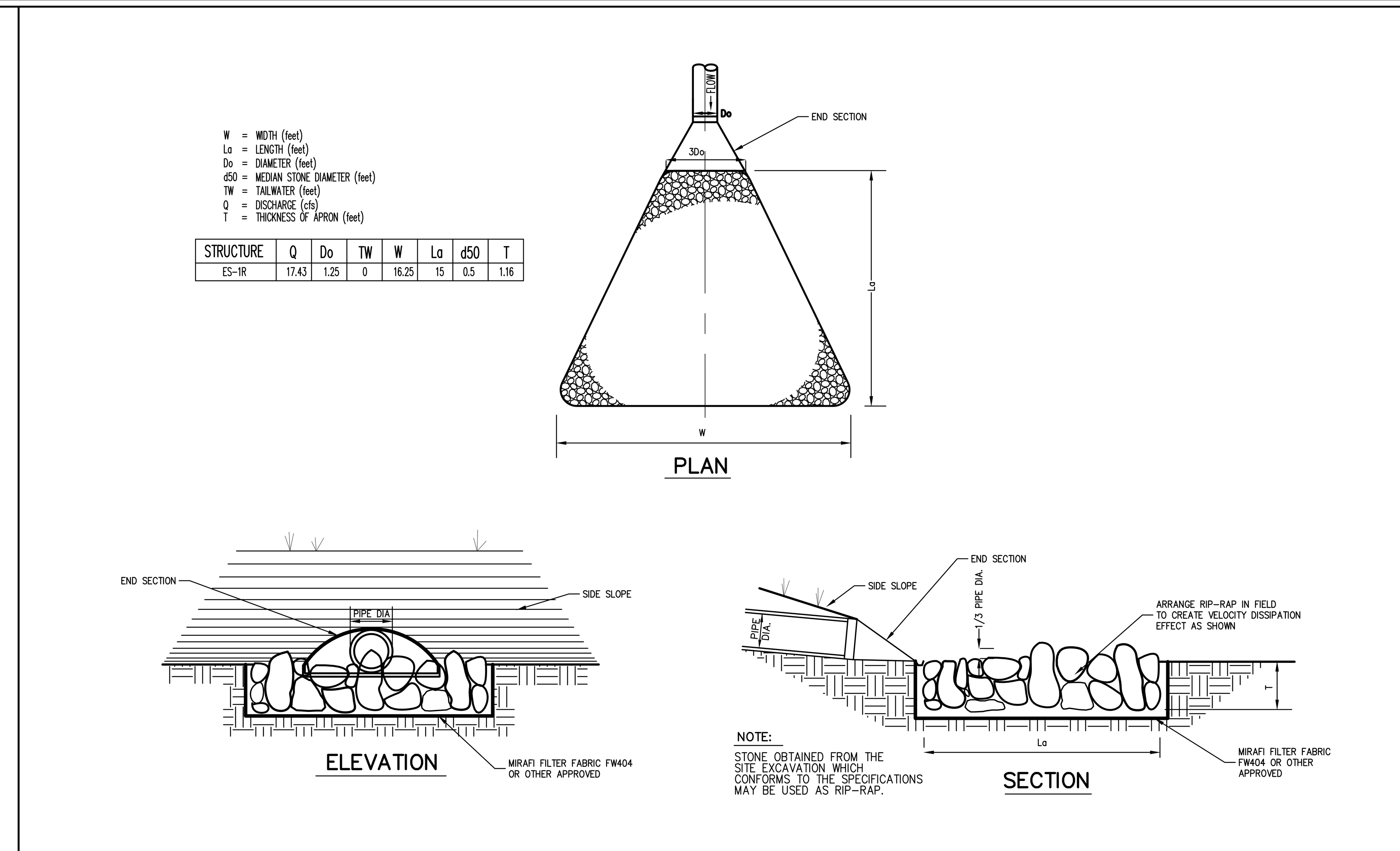
Drawing No:	C-902

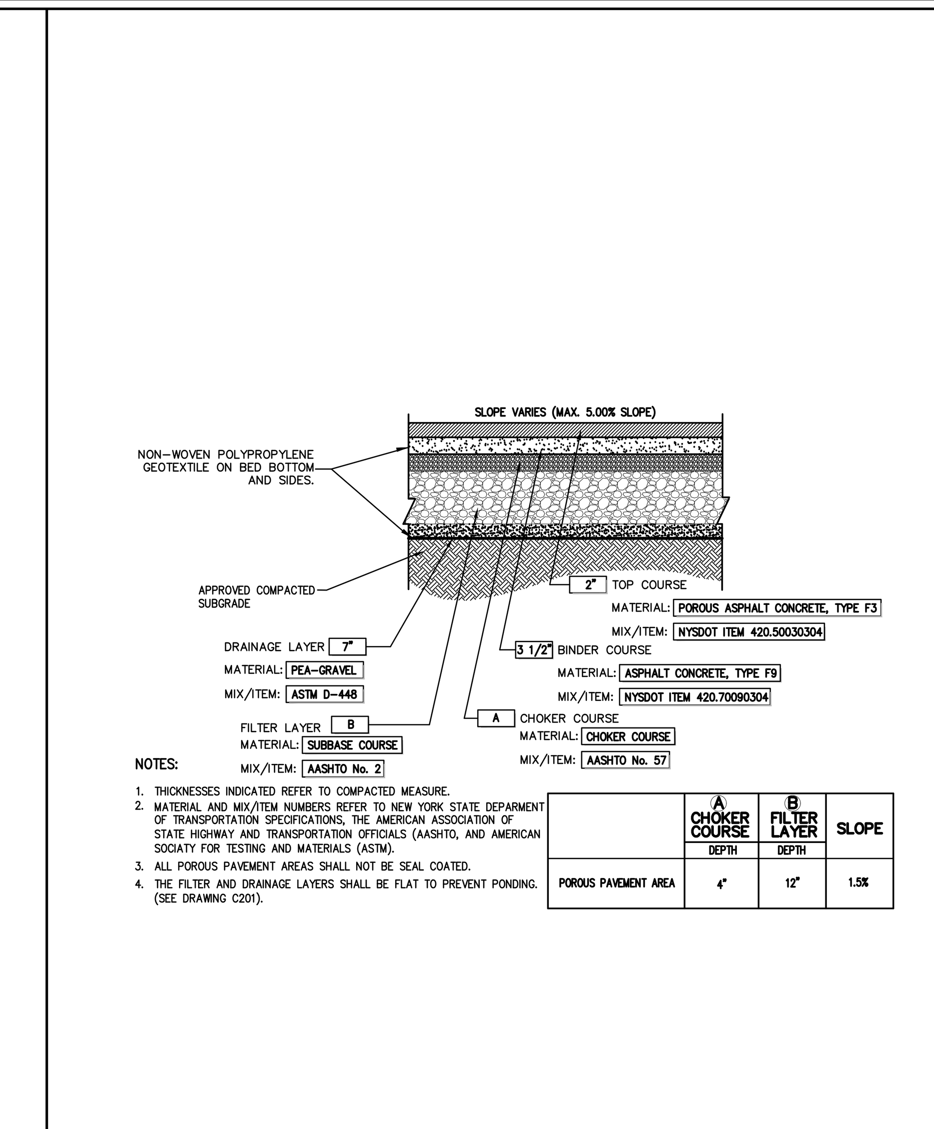


PAVEMENT MARKINGS 44

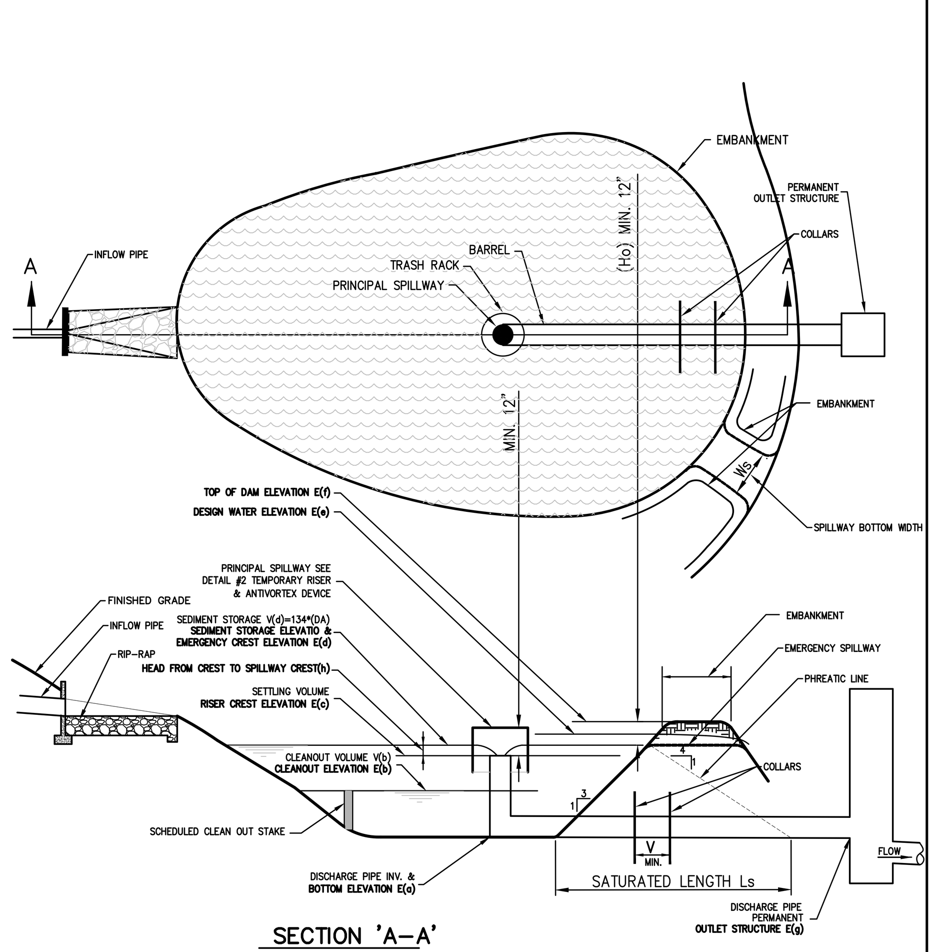


STRUCTURE	Q	Do	TW	W	La	d50	T
ES-1R	17.43	1.25	0	16.25	15	0.5	1.16

RIP-RAP APRON/ENERGY DISSIPATOR 45
END SECTION



POROUS PAVEMENT 46

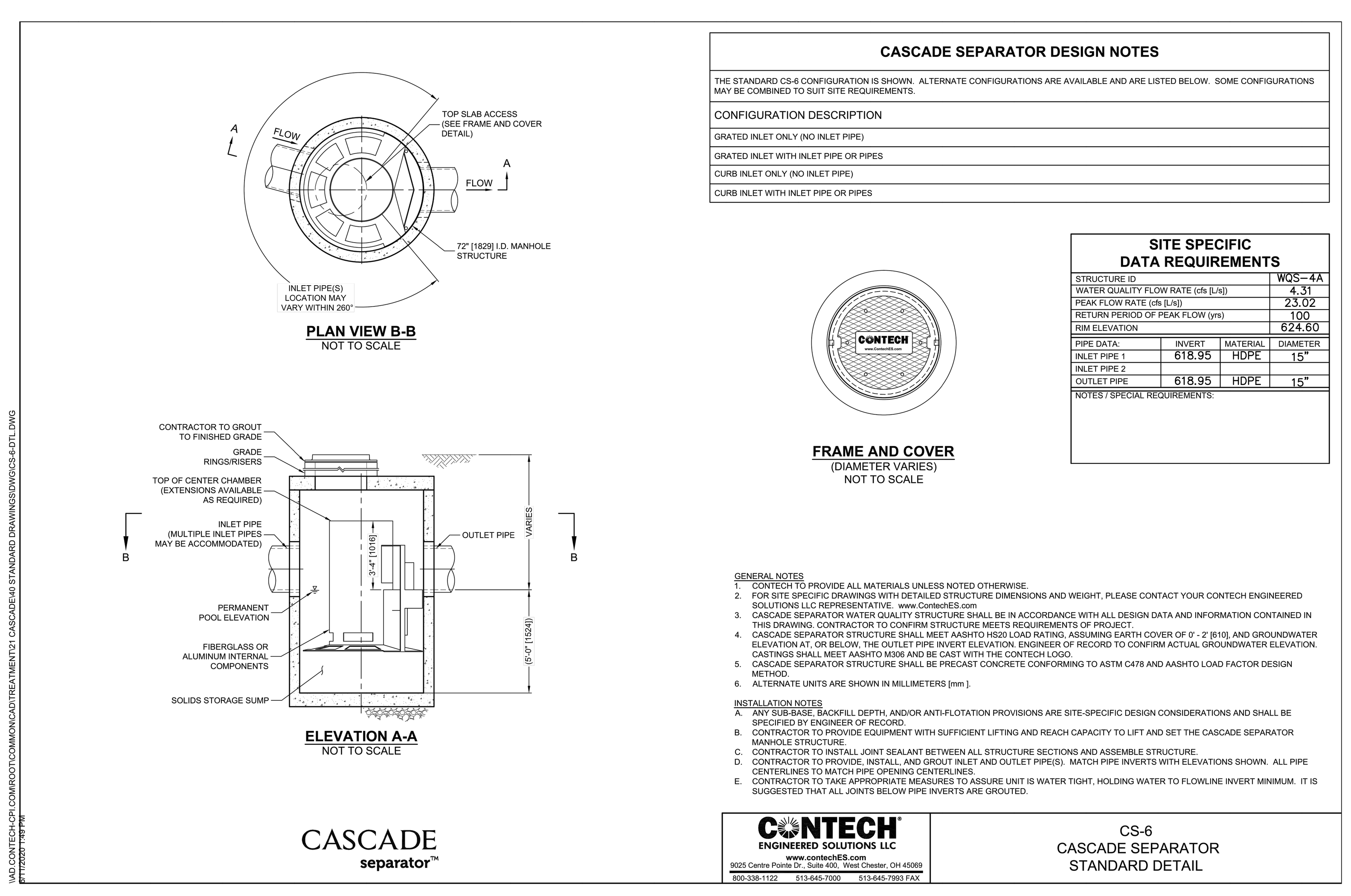


SECTION 'A-A'

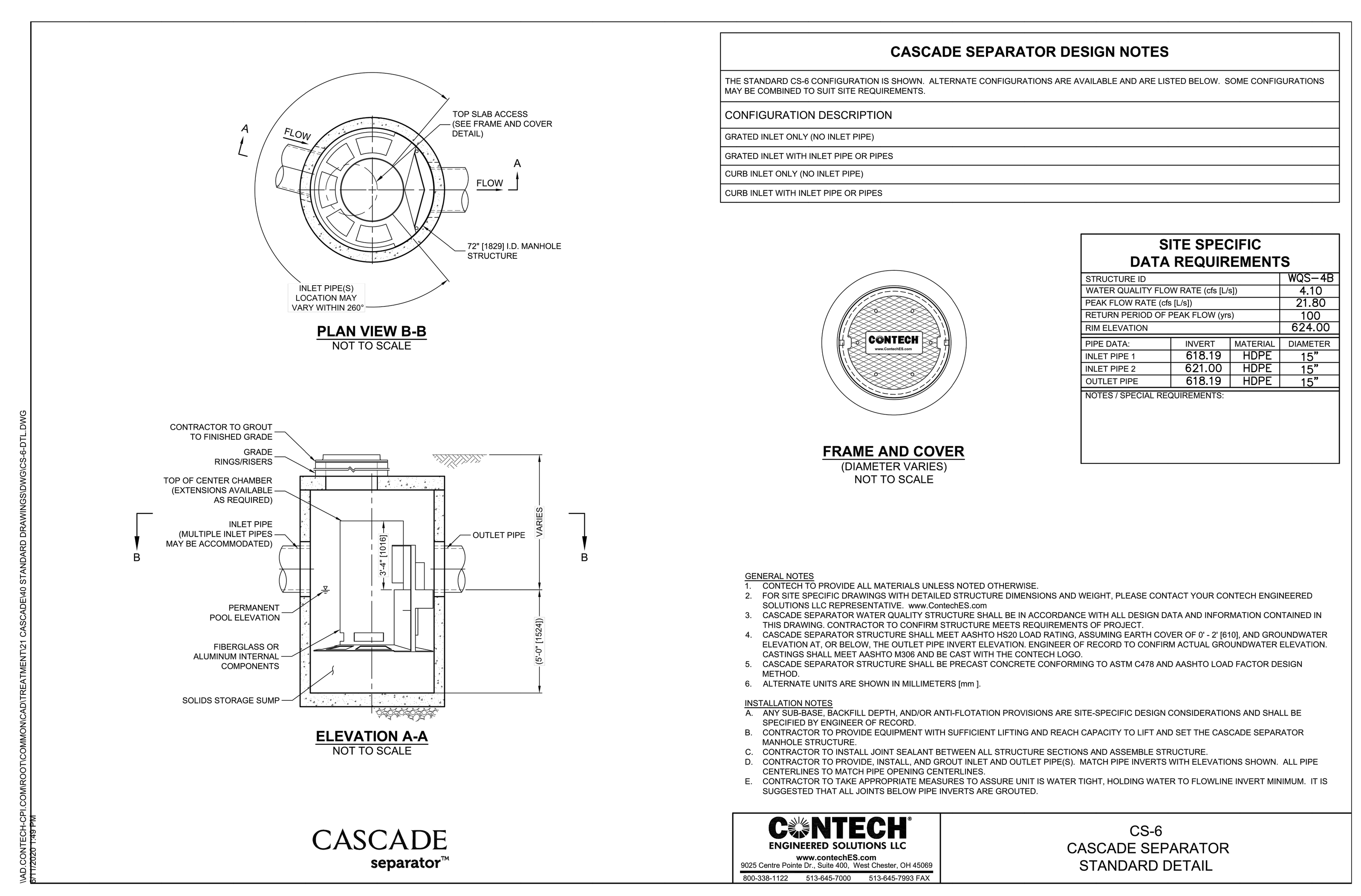
BASIN	D.A. acres	E(a) ft.	E(b) ft.	V(b) cu.yds.	E(c) ft.	E(d) ft.	V(d) cu.yds.	E(e) ft.	E(f) ft.	E(g) ft.	Ws ft.	ANTI-SEEP COLLARS Ls(ft)	QUANT.	SIZE (ft)	V (ft)
# 1a	13.56	621.00	621.50	XXX	622.00	625.00	XXXX	625.00	625.00	616.00	0	7.29	1	2X2	–

NOTES: 1. REFER TO EROSION AND SEDIMENTATION CONTROL PLANS NOTES ON DRAWING SP-5 "EROSION AND SEDIMENTATION CONTROL PLAN".

TEMPORARY SEDIMENT BASIN DETAIL 47

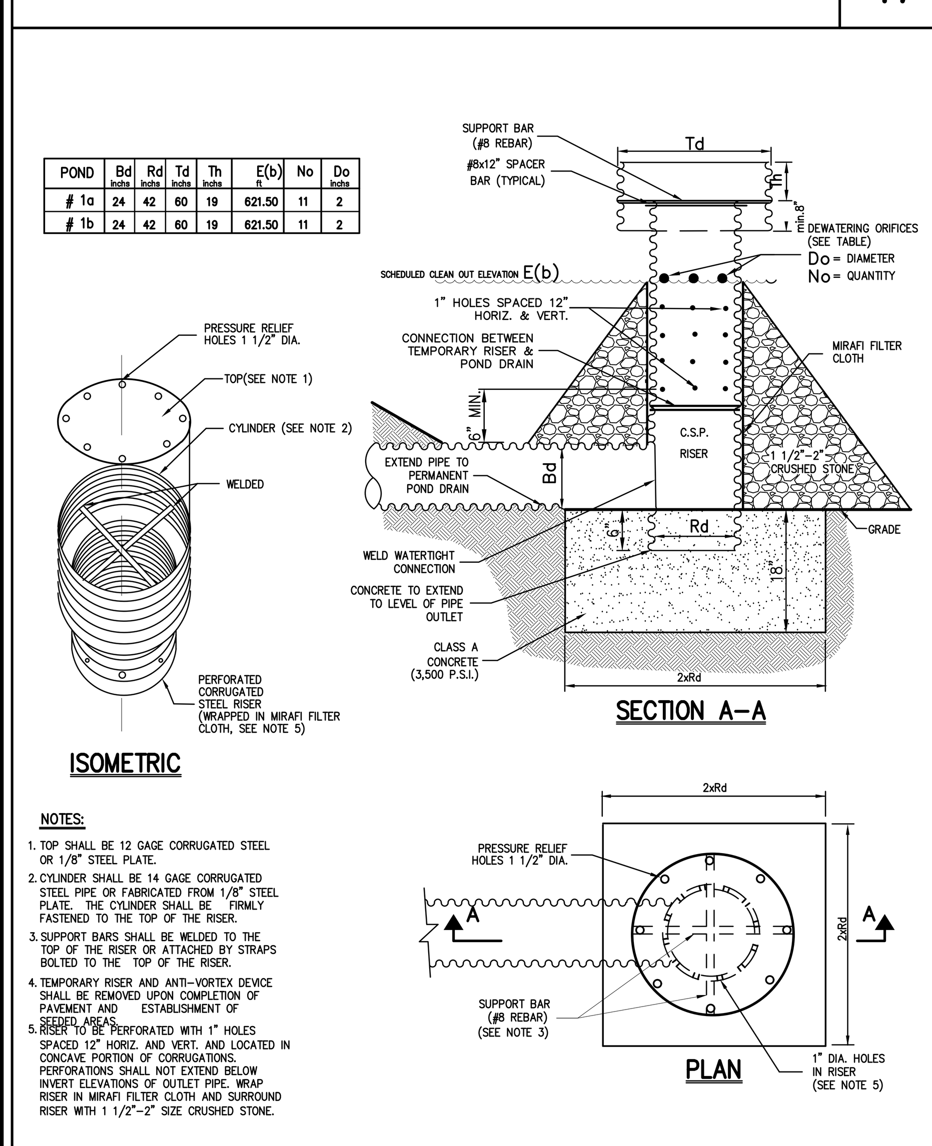


WQS-4A 48

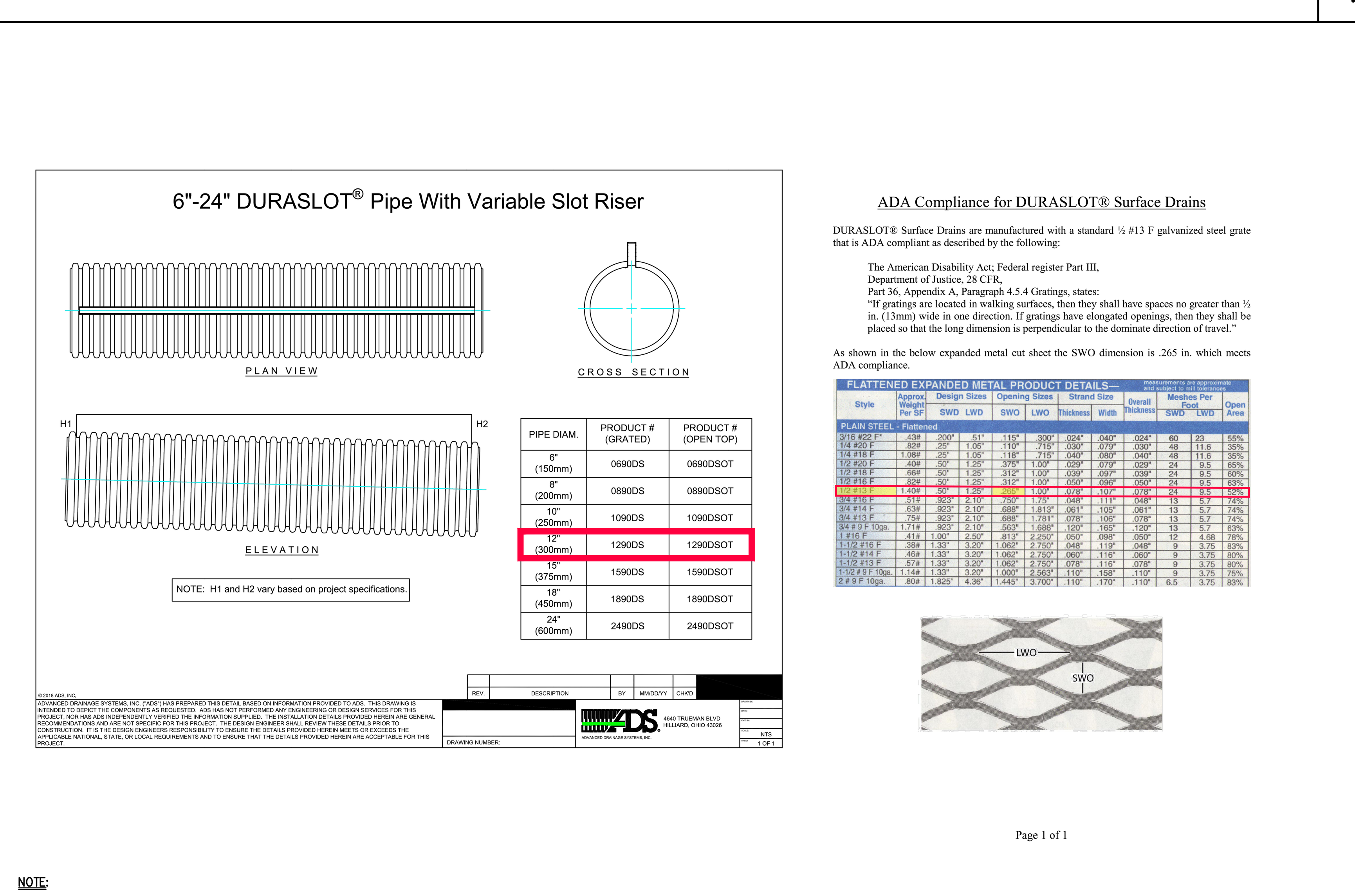


WQS-4B 49

POND	Bd inchs	Rd inchs	Td inchs	Th inchs	E(b) ft	No	Do inchs
# 1a	24	42	60	19	621.50	11	2
# 1b	24	42	60	19	621.50	11	2

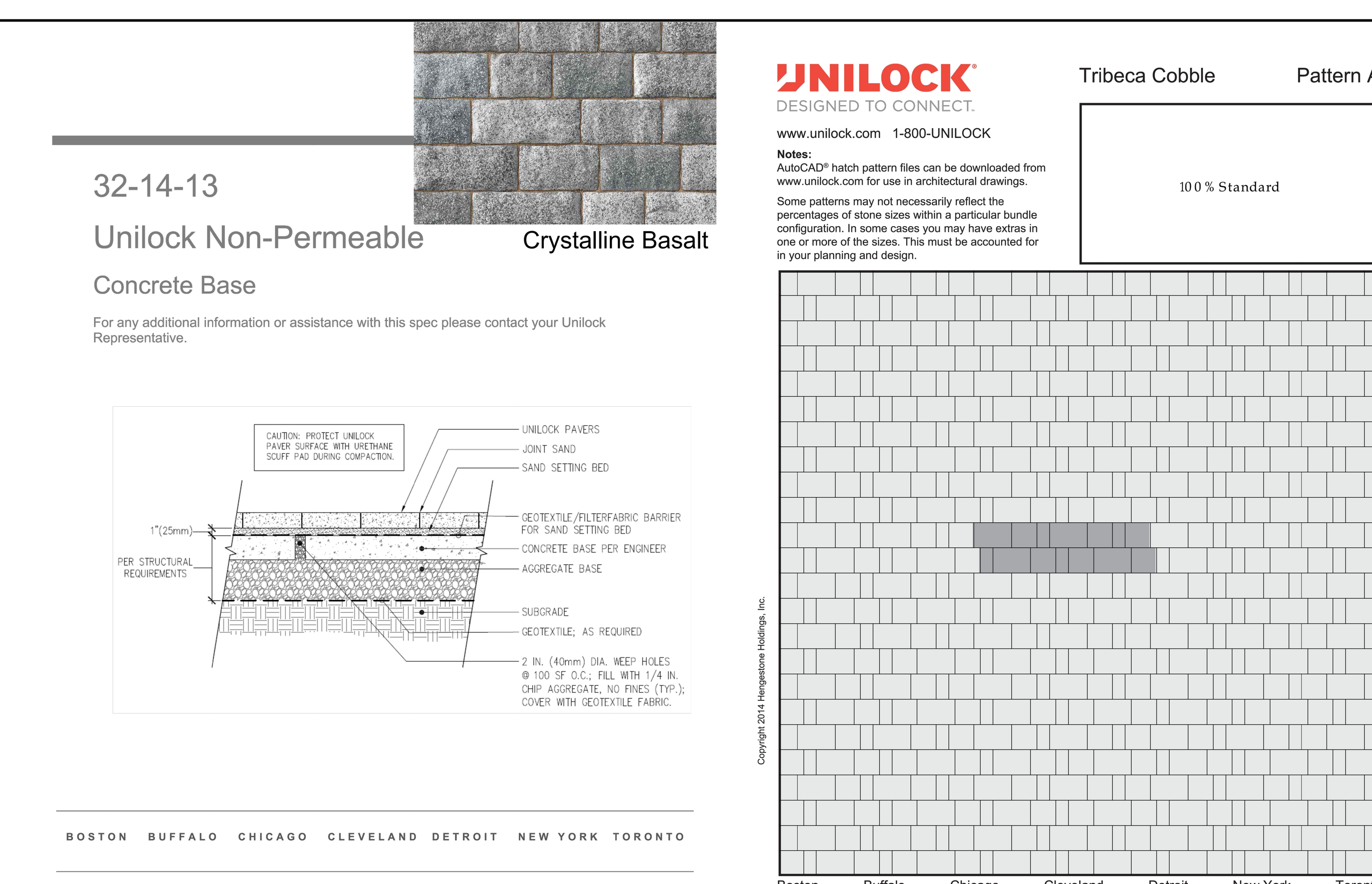


TEMPORARY RISER & ANTI-VORTEX DEVICE 50



NOTE:
1. ADA COMPLIANT GRATE SHALL HAVE STAINLESS STEEL FINISH.

12" DURASLOT PIPE WITH VARIABLE SLOT RISER WITH ADA COMPLIANT GRATE 51



APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

DECORATIVE PAVER 52

NOT FOR CONSTRUCTION

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

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CONSTRUCTION DETAILS
THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
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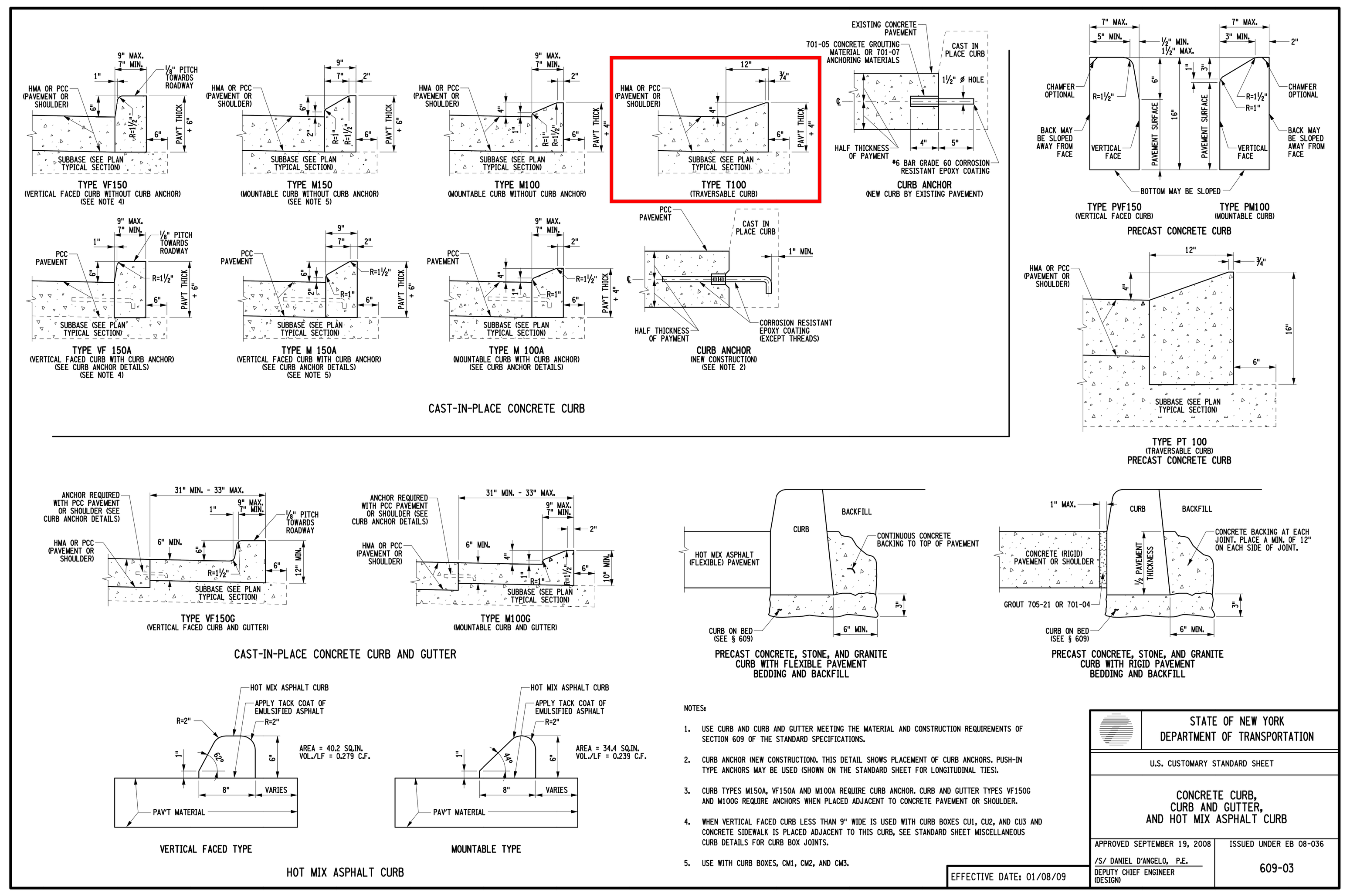
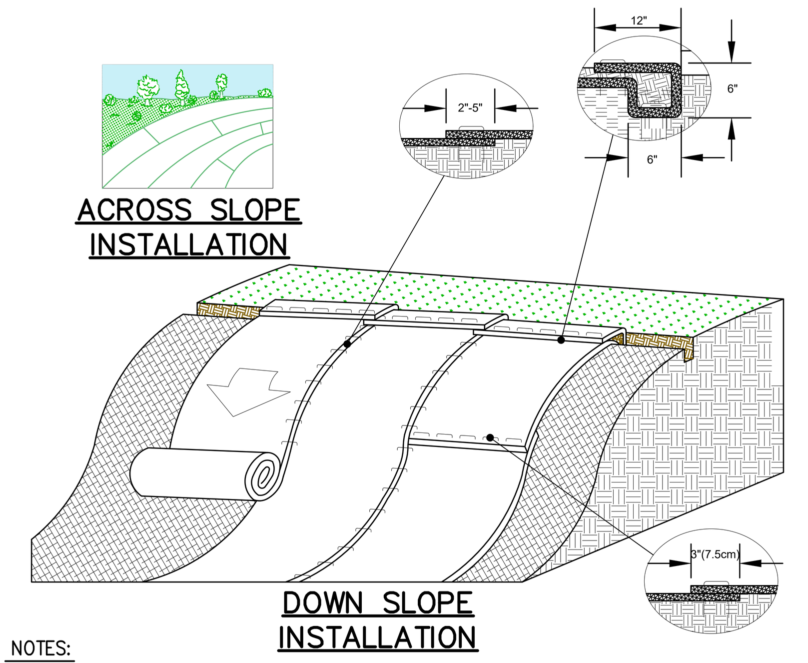
Drawn: NC Approved: AG
Scale: NOT TO SCALE
Date: 11/23/2020
Project No: 20101
20101-DETAILS DET-4 –
Drawing No:
C-903



4" MOUNTABLE CONCRETE CURB

53



NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPS IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECPS EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF RECPS BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPS OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPS.
3. ROLL THE RECPS EITHER DOWN OR HORIZONTALLY ACROSS THE SLOPE. RECPS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL RECPS MUST BE STAPLED WITH APPROXIMATELY 2" – 5" OVERLAP DEPENDING ON THE RECPS TYPE.
5. CONSECUTIVE RECPS SPLICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECPS WIDTH.
6. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.
7. MATERIAL FOR THE RECP SHALL BE EAST COAST EROSION CONTROL ECS–2B BIODEGRADABLE DOUBLE NET STRAW OR APPROVED EQUAL.

ROLLED EROSION CONTROL MATTING

54

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ________

________ DATE: ________
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

________ DATE: ________
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

No.	Revision	Date	By

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CONSTRUCTION DETAILS

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ARMONK, NY 10504

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Drawn:	NC	Approved:	AG
Scale:	NOT TO SCALE		
Date:	01/10/2022		
Project No:	20101		
20101–DETAILS	DET–5	–	

Drawing No: C–904

NOTES:

1. IN THE GCCFO DISTRICT, THE LOT, DIMENSIONAL, AND PARKING REQUIREMENTS FOR A GOLF COURSE COMMUNITY IN THIS SECTION SHALL SUPERSEDE THE SCHEDULE OF RESIDENCE DISTRICT REGULATIONS (§ 355–21 OF THIS CHAPTER). LOT SIZE, LOT CONFIGURATION AND OTHER LOT DIMENSIONAL REQUIREMENTS WITHIN A GCCFO DISTRICT SHALL BE DETERMINED BY THE PLANNING BOARD IN CONJUNCTION WITH SUBDIVISION APPROVAL. LOT SIZE, LOT CONFIGURATION AND OTHER LOT DIMENSIONAL REQUIREMENTS OF LOTS WITHIN A GCCFO DISTRICT SHALL BE BASED UPON THE PLANNING BOARD'S CONSIDERATION OF THE CHARACTER OF THE NEIGHBORHOOD IN WHICH THE GCCFO DISTRICT WILL BE LOCATED; THE GCCFO DISTRICT'S RELATIONSHIP TO ADJOINING DISTRICTS, PROPERTIES AND LAND USES; THE GCCFO DISTRICT'S TOPOGRAPHY; AND SUCH OTHER FACTORS THE PLANNING BOARD MAY DETERMINE TO BE APPROPRIATE. THE LOTS AND/OR PARCELS THAT TOGETHER COMPRISE A GOLF COURSE COMMUNITY SITE ARE NOT REQUIRED TO BE CONTIGUOUS, PROVIDED THAT EACH SUCH LOT AND/OR PARCEL ADJOINS THE AFFILIATED MEMBERSHIP CLUB. ALL LOT, DIMENSIONAL, AND PARKING REQUIREMENTS IN THIS SECTION, INCLUDING BUT NOT LIMITED TO MAXIMUM DENSITY, MAXIMUM BUILDING COVERAGE, MINIMUM YARDS AND REQUIRED OFF–STREET PARKING, SHALL APPLY TO THE LAND AREA IN THE GCCFO DISTRICT AS A WHOLE, NOTWITHSTANDING THAT THE GOLF COURSE COMMUNITY SITE MAY BE COMPRISED OF MORE THAN ONE LOT AND/OR PARCEL, OR THAT THE SITE MAY FROM TIME TO TIME BE SUBDIVIDED OR RESUBDIVIDED, AND ALL DETERMINATIONS AND CALCULATIONS RELATING TO SUCH REQUIREMENTS SHALL BE MADE WITH REFERENCE TO THE BOUNDARIES OF THE ENTIRE LAND AREA IN THE GCCFO DISTRICT AND AS THOUGH SUCH AREA IS A SINGLE LOT (AS DEFINED IN § 355–4 OF THIS CHAPTER), EVEN THOUGH IT IS OR WILL BE COMPRISED OF MORE THAN ONE LOT AND/OR PARCEL.

2. THE MAXIMUM BUILDING HEIGHT SHALL BE THREE STORIES AND 39 1/2 FEET TO THE MEAN LEVEL OF THE PRIMARY ROOF, MEASURED FROM THE LEVEL OF THE FINISHED GRADE AT THE MAIN ENTRY TO THE BUILDING.

3. RESIDENTIAL PARKING CALCULATIONS

MARKET–RATE DWELLING UNITS REQUIREMENT: "OTHER MULTIFAMILY DWELLING UNITS": 2 FOR EACH DWELLING UNIT, PLUS ½ FOR EACH BEDROOM IN EXCESS OF 2, PLUS 10% VISITOR PARKING.

66 TOTAL MARKET–RATE DWELLING UNITS: (46) 2–BEDROOM UNITS, (16) 3–BEDROOM UNITS, (2) 4–BEDROOM UNITS
66 (DWELLING UNITS) X 2 = 132 PARKING SPACES
16 (3–BEDROOM UNITS) X .5 = 8 PARKING SPACES
2 (4–BEDROOM UNITS) X 1 = 2 PARKING SPACES
10% VISITOR PARKING: 142 X .10 = 14.2 (15) PARKING SPACES
TOTAL REQUIRED PARKING FOR MARKET–RATE UNITS: 157 PARKING SPACES

AFFH DWELLING UNITS REQUIREMENT: "MIDDLE–INCOME DWELLING UNITS AND AFFH UNITS": 1 FOR EACH DWELLING UNIT, PLUS ½ FOR EACH BEDROOM.

7 TOTAL AFFH DWELLING UNITS: (46) 2–BEDROOM UNITS, (16) 3–BEDROOM UNITS, (2) 4–BEDROOM UNITS
7 (DWELLING UNITS) X 1 = 7 PARKING SPACES
11 (TOTAL BEDROOMS) X .5 = 5.5 (6) PARKING SPACES
TOTAL REQUIRED PARKING FOR MARKET–RATE UNITS: 13 PARKING SPACES

GOLF COURSE/CLUB PARKING CALCULATIONS

GOLF COURSE/CLUB REQUIREMENT: "GOLF OR COUNTRY CLUBS": 1 FOR EACH 3 MEMBERS, PLUS 1 FOR EACH 3 SEATS IN THE MEETING AND/OR DINING ROOMS.

600 TOTAL MEMBERSHIPS:
600 (MEMBERSHIPS) / 3 = 200 PARKING SPACES
287 TOTAL SEATS: (252 RESTAURANT SEATS + 35 BAR SEATS)
287 (SEATS) / 3 = 95.7 (96) = PARKING SPACES
TOTAL REQUIRED PARKING FOR GOLF COURSE/CLUB: 296 PARKING SPACES

TOTAL REQUIRED PARKING: 170 RESIDENTIAL + 296 GOLF COURSE/CLUB = 466 SPACES
TOTAL PROVIDED PARKING: 190 RESIDENTIAL + 230 GOLF COURSE/CLUB + 25 MAINTENANCE + 66 GOLF CLUB RESIDENT CREDIT (1 SPACE/UNIT) = 511 SPACES

LEGEND

EXISTING PROPERTY LINE
ADJACENT PROPERTY LINE
LIMIT OF REGULATED WETLAND BUFFER AREA
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
EXISTING TREE LINE
EXISTING GREEN–WASTE DEBRIS PILE

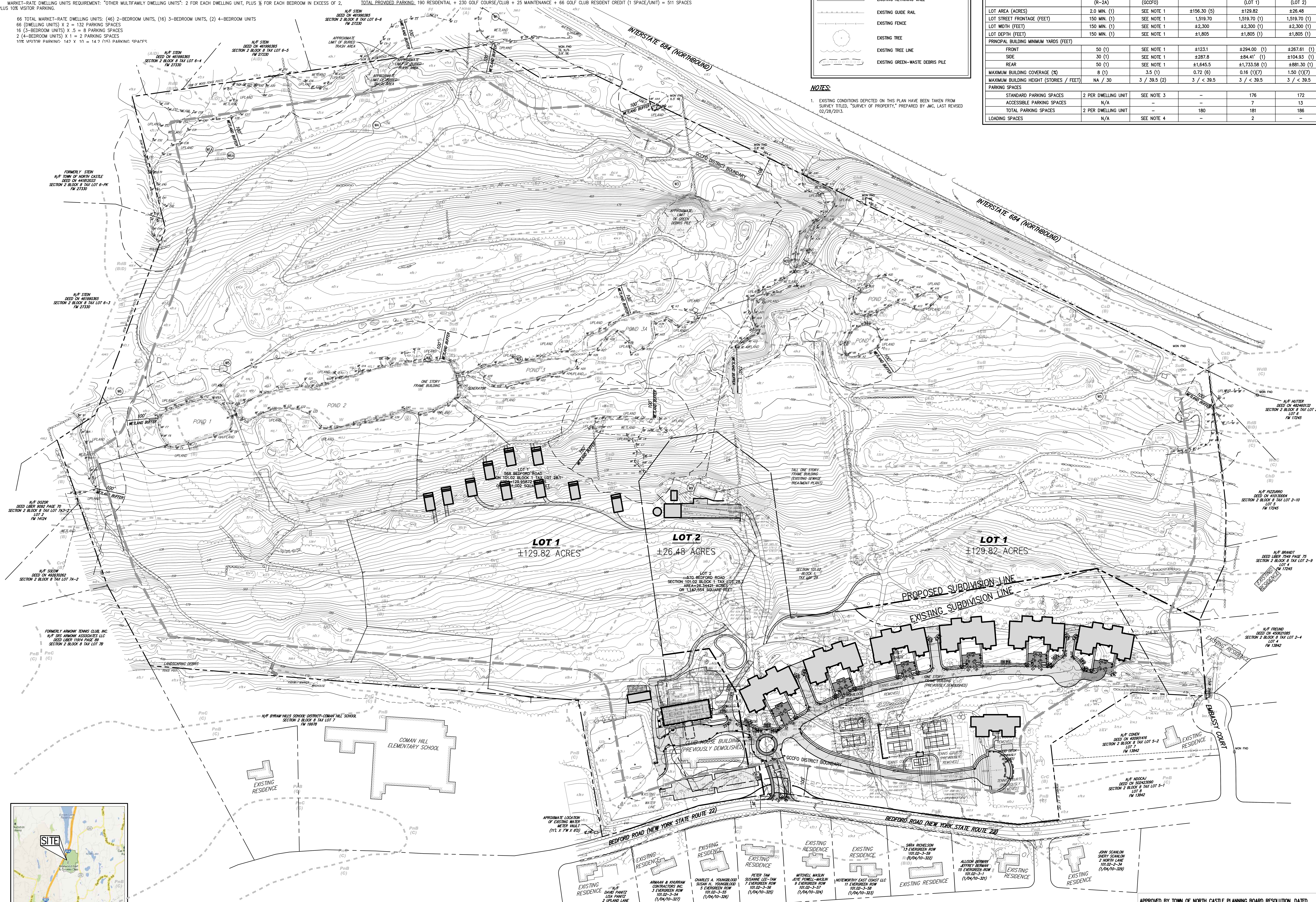
NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "SURVEY OF PROPERTY," PREPARED BY JMC, LAST REVISED 02/28/2013.

TABLE OF LAND USE

SECTION 101.02, BLOCK 1, LOT 28.1 & 28.2 (2/08/7.C1A)
ZONES "R–2A" – "ONE FAMILY RESIDENCE DISTRICT (2 ACRES)"
"GCCFO"– "GOLF COURSE COMMUNITY FLOATING OVERLAY DISTRICT"
PROPOSED USE: GOLF COURSE COMMUNITY
FIRE/AMBULANCE DISTRICT: ARMONK FIRE DEPARTMENT (NORTH CASTLE DISTRICT #2)
WATER DISTRICT: NORTH CASTLE WATER DISTRICT #2
SCHOOL DISTRICT: BYRAM HILLS CENTRAL SCHOOL DISTRICT
SEWER DISTRICT: ON–SITE SEWAGE TREATMENT PLANT (SPDES PERMIT)

DESCRIPTION	REQUIRED/ PERMITTED (R–2A)	REQUIRED/ PERMITTED (GCCFO)	EXISTING	PROPOSED/ PROVIDED (LOT 1)	PROPOSED/ PROVIDED (LOT 2)
LOT AREA (ACRES)	2.0 MIN. (1)	SEE NOTE 1	±156.30 (5)	±129.82	±26.48
LOT STREET FRONTAGE (FEET)	150 MIN. (1)	SEE NOTE 1	1,519.70	1,519.70 (1)	1,519.70 (1)
LOT WIDTH (FEET)	150 MIN. (1)	SEE NOTE 1	±2,300	±2,300 (1)	±2,300 (1)
LOT DEPTH (FEET)	150 MIN. (1)	SEE NOTE 1	±1,805	±1,805 (1)	±1,805 (1)
PRINCIPAL BUILDING MINIMUM YARDS (FEET)					
FRONT	50 (1)	SEE NOTE 1	±123.1	±294.00 (1)	±267.61 (1)
SIDE	30 (1)	SEE NOTE 1	±287.8	±84.41' (1)	±104.93 (1)
REAR	50 (1)	SEE NOTE 1	±1,645.5	±1,733.58 (1)	±881.30 (1)
MAXIMUM BUILDING COVERAGE (%)	8 (1)	3.5 (1)	0.72 (6)	0.16 (1)(7)	1.50 (1)(7)
MAXIMUM BUILDING HEIGHT (STORIES / FEET)	NA / 30	3 / 39.5 (2)	3 / < 39.5	3 / < 39.5	3 / < 39.5
PARKING SPACES					
STANDARD PARKING SPACES	2 PER DWELLING UNIT	SEE NOTE 3	–	176	172
ACCESSIBLE PARKING SPACES	N/A	–	–	7	13
TOTAL PARKING SPACES	2 PER DWELLING UNIT	–	180	181	186
LOADING SPACES	N/A	SEE NOTE 4	–	2	–



VICINITY MAP
SCALE: 1" = 5,000'

NOT FOR CONSTRUCTION

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
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PRELIMINARY SUBDIVISION PLAT
(NO JURISDICTION SUBDIVISION)
THE SUMMIT CLUB AT ARMONK
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APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ______

______ DATE: ______
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

______ DATE: ______
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn:	DK	Approved:	AG
Scale:	1" = 100'		
Date:	11/23/2020		
Project No:	20101		
20101–SUBDIVISION	PRELIM SUBDIV PLAT	EXIST–SUB.scr	
Drawing No:	PSP–1		

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- LIMIT OF REGULATED WETLAND BUFFER AREA
- EXISTING WETLAND LINE AND DELINEATION
- 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
- EXISTING TREE LINE
- EXISTING STORM DRAIN LINE
- EXISTING SANITARY LINE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING ELECTRIC LINE
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- TOWN-REGULATED STEEP SLOPES
- EXISTING WELL LOCATION AND DESIGNATION
- EXISTING GREEN-WASTE DEBRIS PILE

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC MAP," PREPARED BY JMC, LAST REVISED 03/06/2013. PORTIONS OF EXISTING TOPOGRAPHY HAVE BEEN PROVIDED BY WESTCHESTER COUNTY GIS.

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	01/11/2021	NC
2.	RESPONSE TO TOWN COMMENTS	03/08/2021	NC
3.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
4.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

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INTEGRATED PLOT PLAN
(NO JURISDICTION SUBDIVISION)
THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED ______

______ DATE: ______
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING DRAWINGS REVIEWED BY TOWN CONSULTING ENGINEER

______ DATE: ______
JOSEPH M. CERMELE, P.E.
KELLARD SESSIONS CONSULTING, P.C.
CONSULTING TOWN ENGINEER

Drawn: JE Approved: AG
Scale: 1" = 100'
Date: 11/23/2020
Project No: 20101
20101-SUBDIVISION INTEGRATED PLOT PLAN EXIST-SUB.scr
Drawing No: IPP-1

THE SUMMIT CLUB AT ARMONK
NORTH CASTLE, NY

GENERAL NOTES:

1. CONTACT THE PROJECT LANDSCAPE ARCHITECT AT: GRANOFF ARCHITECTS P.C. 330 RAILROAD AVE GREENWICH, CT 06830 (203) 625-9460
2. THE TERM "CONTRACTOR" SHALL DEFINED AS THE GENERAL CONTRACTOR AND SUB-CONTRACTORS; THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK INCLUDING ALL SUBCONTRACTORS HEREON. ALL DRAWINGS AND NOTES APPLY TO ALL CONTRACTORS AND HIS/HER SUBCONTRACTORS.
3. CONTRACTOR SHALL NOTIFY THE OWNER AND LANDSCAPE ARCHITECT AT LEAST 48 HOURS PRIOR TO ANY ROUTINE FIELD OBSERVATION REQUIRED.
4. CONSTRUCTION SHALL FOLLOW THE CONDITIONS OF THE PLANS AND SPECIFICATIONS. IN ANY CASE OF DISCREPANCY BETWEEN SITE CONDITIONS AND THE DRAWINGS AND THE SPECIFICATIONS OR BETWEEN DRAWINGS AND SPECIFICATIONS NOTIFY THE LANDSCAPE ARCHITECT AS SOON AS THE DISCREPANCY IS APPARENT.
5. VERIFY LOCATIONS, ELEVATIONS AND DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCY.
6. CONTACT "CALL DIG SAFELY NEW YORK" AT 1-800-962-7962 PRIOR TO ANY SITE WORK ACTIVITY. THE CONTRACTOR SHALL BE AWARE OF ALL SUBSURFACE DRAINAGE AND ALL UTILITIES AS SHOWN ON PLANS AND AS MARKED OUT ON SITE. PROTECT EXPOSED LINES FROM DAMAGE AND DEBRIS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ALL DAMAGED UTILITIES DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
7. THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL CONSTRUCTION PERMITS AND LICENSES REQUIRED TO COMPLETE THE WORK. ALL BONDS AND INSURANCE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO INFORM ALL CONTRACTORS, SUBCONTRACTORS, AND EMPLOYEES OF ALL CONDITIONS ASSOCIATED WITH ANY PERMITS ISSUED.
9. CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ALL DAMAGE AND DISTURBANCE WHICH MAY OCCUR AS A RESULT OF HIS WORK.
10. BLEND NEW WORK SMOOTHLY WITH EXISTING GRADES AND MATERIALS TO REMAIN. AVOID SHARP BREAKS IN GRADE; ROUND OVER TOP AND BOTTOMS OF SLOPES.
11. FINAL GRADE IN ALL CASES SHALL SLOPE AWAY FROM THE BUILDING AT A MINIMUM OF 1/4" PER FOOT (2%) AND ALL PAVED AREAS SHALL HAVE A MINIMUM PITCH OF AT LEAST 1/8" PER FOOT (1%).
12. ALL TREES OR VEGETATION TO BE REMOVED OR TRANSPLANTED ARE TAGGED ON SITE WITH FLAGGING TAPE. REFER TO TREE PROTECTION PLANS, NOTES AND DETAILS.
13. THE CONTRACTOR SHALL PROTECT ALL CATCH BASINS WITH FILTER FABRIC OR STAKED HAY BALES AND SHALL EMPLOY ALL OTHER NECESSARY MEANS TO CONTROL AND PREVENT EROSION THROUGHOUT THE CONSTRUCTION PERIOD UNTIL ALL AREAS STABILIZED. THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DISTURBED AREA EXPOSED AT ANY ONE TIME AND STABILIZE THE AREA AS SOON AS PRACTICAL. REFER TO EROSION CONTROL DRAWINGS, NOTES AND DETAILS. ALL DRAINAGE STRUCTURES ARE TO BE CLEANED OF ANY ACCUMULATED DEBRIS AT THE END OF PROJECT CONSTRUCTION. SEE TREE PROTECTION & EROSION CONTROL DETAILS SHEET.
14. THE CONTRACTOR SHALL MAINTAIN ACCESS AND EGRESS TO THE SITE AT ALL TIMES DURING CONSTRUCTION. NOTIFY OWNER 24 HOURS IN ADVANCE OF ANY DISRUPTION IN ACCESS. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL DEVICES, WARNING SIGNS, BARRICADES, FLASHERS, FLAG MEN, ETC.) IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, USDOT, FHA 1988 PT. VI, TRAFFIC CONTROLS FOR STREETS AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS AS MAY BE AMENDED TO DATE, FOR THE MAINTENANCE AND PROTECTION OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
15. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON BEDFORD RD. THE STREET SHALL NOT BE CLOSED TO TRAFFIC, NOR SHALL ANY TRAFFIC BE DETOURED TO OTHER STREETS WITHOUT PRIOR WRITTEN APPROVAL OF THE VILLAGE TRAFFIC ENGINEER.
16. WORKING HOURS AND ALL NOISE PRODUCING ACTIVITIES MUST CONFORM TO THE TOWN OF NORTH CASTLE REGULATED WORKING HOURS.
17. REMOVAL AND DISPOSAL OF ALL MATERIALS TO COMPLY WITH ANY AND ALL STATE AND LOCAL CODES AND REGULATIONS.
18. THE CONTRACTOR IS TO RESTORE TO ORIGINAL CONDITION ALL DISTURBED AREAS CAUSED BY THE ACTIVITIES OF THE PROJECT.
19. THE CONTRACTOR IS RESPONSIBLE TO SUPERVISE THE ASSEMBLY OF ALL MATERIALS.
20. THE CONTRACTOR SHALL DETERMINE THE METHODS, MEANS, TECHNIQUES, SEQUENCES AND PROCEDURES OF IMPLEMENTING THE PROJECT.
21. THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO PRODUCE A COMPLETE JOB IN ACCORDANCE WITH THE BEST APPLICABLE STANDARDS. IT IS INTENDED THAT THE WORK BE EXECUTED IN ACCORDANCE WITH THE BEST CUSTOMARY BUILDING PRACTICES. IF WORK IS REQUIRED IN A MANNER TO MAKE IT IMPOSSIBLE TO PRODUCE FIRST CLASS WORK OR IF ERRORS, CONFLICTS OR DISCREPANCIES APPEAR AMONG THE CONTRACT DOCUMENTS, INFORM THE LANDSCAPE ARCHITECT IMMEDIATELY AND REQUEST INTERPRETATION BEFORE PROCEEDING WITH THE WORK. IF THE CONTRACTOR FAILS TO MAKE SUCH A STATEMENT AND REQUEST, NO EXCUSE WILL THEREAFTER BE ENTERTAINED, NOR ADDITIONAL EXPENSE BE ACCEPTED FOR FAILURE TO CARRY OUT WORK IN A SATISFACTORY MANNER.
22. CONTRACTOR SHALL REFER TO ADDITIONAL NOTES FOUND THROUGHOUT THE CONTRACT DRAWINGS.

OUTDOOR LIGHTING NOTES:

1. ALL LIGHTING WORK SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE AND IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE TOWN OF NORTH CASTLE, INCLUDING PERMITS AND REQUIRED INSPECTIONS
2. ALL FIXTURES SHALL BE FULL CUTOFF; SHALL BE COMPLIANT WITH DARK SKY RECOMMENDATIONS; OR FITTED WITH SHROUDS TO SHIELD THE LIGHT SOURCE.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL FIXTURES, OUTLETS AND SWITCHES LISTED AND SHOWN ON PLANS. SIZE AND PROVIDE ALL TRANSFORMERS AND JUNCTION BOXES NECESSARY TO COMPLETE THE WORK, INCLUDING CONDUIT, WIRE, FITTINGS, EXCAVATION, BACKFILL, ETC. REQUIRED TO MAKE A COMPLETE FUNCTIONING SYSTEM. ALL FIXTURES SHALL BE SUPPLIED WITH LAMPS. THE LEAST WATT LAMP SHALL BE SUPPLIED , SUBJECT TO THE OWNERS'S APPROVAL. RE-LAMPING WITH MAXIMUM WATT LAMPS MAY BE REQUIRED.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS NECESSARY FOR A COMPLETE INSTALLATION. THIS INCLUDES SIZING GALVANIZED STEEL AND PVC WITH ALL ASSOCIATED FITTINGS, COUPLINGS AND BUSHINGS. ALL LINE VOLTAGE SHALL BE IN CONDUIT WITH A MINIMUM COVER OF 24 INCHES AND A MINIMUM OF 12 INCHES OF COMPACTED SAND AROUND IT AND AS PER CODE. METALLIC CAUTION TAPE SHALL BE PLACED 6 INCHES BELOW FINISHED GRADE.
5. ALL WIRING AND TRENCHING TO TREE TRUNKS BENEATH TREE CANOPIES TO BE RADIAL TO TREE TRUNK AND APPROVED BY L.A. PRIOR TO GROUND DISTURBANCE. TRENCHING WITHIN THE TREE CANOPY SHALL BE EXCAVATED WITH AN AIR SPADE TOOL TO MINIMIZE ROOT DAMAGE. CARE IS TO BE TAKEN TO PREVENT EXPOSED TREE ROOTS FROM DRYING.
6. FINAL SWITCH LOCATIONS TO BE APPROVED BY OWNER. CONTRACTOR SHALL VERIFY AND COORDINATE NEW SWITCHES WITH EXISTING INTERIOR LIGHTING. DRAWING SHOWS PROPOSED LANDSCAPE LIGHTING AND DOES NOT SHOW EXISTING ARCHITECTURAL LIGHTING
7. FINAL FIXTURE PLACEMENT TO BE APPROVED BY THE LANDSCAPE ARCHITECT & OWNER AFTER NIGHTTIME DEMONSTRATION OF INITIAL PLACEMENT.
8. ALL PATH LIGHTS TO BE LOCATED 12" BACK FROM EDGE OF PAVING UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT.
9. LOCATIONS OF TRANSFORMERS, JUNCTION BOXES, FIXTURES AND OUTLETS ARE A GRAPHIC REPRESENTATION AND MAY NOT SHOW PRECISE LOCATION. FINAL LOCATIONS TO BE APPROVED BY L.A. PRIOR TO INSTALLATION. ACTUAL WIRING ROUTES ARE NOT SHOWN ON THIS PLAN. WIRING ROUTES INDICATED ARE A GRAPHIC REPRESENTATION OF CONNECTIONS AND GROUPINGS OF LIGHTS FOR SWITCHING. L.A. TO APPROVE WIRING ROUTES PRIOR TO GROUND DISTURBANCE. ALL LINE VOLTAGE RUNS IN CONDUIT MINIMUM 18 INCHES DEEP OR AS PER LOCAL CODE..
10. STAKE MOUNTED UPLIGHTS TO BE MOVABLE WITHIN A SIX (6) FOOT RADIUS OF INSTALLED LOCATION.
11. TRANSFORMERS FOR LOW VOLTAGE LIGHTING AND JUNCTION BOXES NOT SHOWN. CONTRACTOR TO DETERMINE NUMBER REQUIRED AND COORDINATE THEIR LOCATION WITH THE LANDSCAPE ARCHITECT.
12. WIRING SIZES ARE TO BE DETERMINED BY ELECTRICIAN TO INSURE FULLY FUNCTIONAL SYSTEM WITH NO MORE THAN A 5% VOLTAGE DROP FROM EACH TRANSFORMER TO FARTHEST FIXTURE ON LINE FROM THAT TRANSFORMER..
13. ALL WIRE CONNECTIONS TO BE THOROUGHLY SEALED WITH SILICONE SEALANT & WILL BE LOCATED WITHIN FIXTURE STEMS, TREE MOUNTS, OR JUNCTION BOXES WHEREVER POSSIBLE. DIRECT BURIAL OF LOW VOLTAGE CONNECTIONS WILL BE MINIMIZED. DIRECT BURIAL CONNECTIONS FOR LINE VOLTAGE WILL NOT BE PERMITTED.
14. REVIEW EXISTING CONDITIONS AND PROPOSED PLANTING PLANS. ELECTRICIAN TO BE RESPONSIBLE FOR RESTORING ANY SITE OR UTILITY DAMAGE CAUSED BY HIS INSTALLATION WORK.
15. SEE LIGHTING PLAN FOR LIGHT FIXTURE TYPE AND SPECIFICATIONS.

TREE PROTECTION AND EROSION CONTROL NOTES:

1. ALL TREE PROTECTION AND REMOVALS SHALL BE IN ACCORDANCE WITH THE DRAWINGS, DETAILS AND NOTES HEREON. REFER TO TREE PROTECTION DRAWINGS AND DETAILS FOR ADDITIONAL INFORMATION
2. PRIOR TO ANY OTHER WORK, THE CONTRACTOR SHALL STAKE OUT THE LIMITS OF "TREE PROTECTION AREAS" WITHIN THE WORK ZONE AS SHOWN ON THE PLANS FOR APPROVAL BY THE LANDSCAPE ARCHITECT. IF NO TREE/LANDSCAPE PROTECTION AREA LIMITS ARE SPECIFICALLY SHOWN ON THE PLANS AND WORK WILL OCCUR IN OR NEAR TREES OR VEGETATED AREAS, THE LANDSCAPE ARCHITECT WILL DIRECT THE CONTRACTOR. THE INTENT OF THE LIMITS ARE TO PROTECT THE ROOT ZONE OF INDIVIDUAL TREES AND GROUPINGS OF TREES (USING THE "DRIPLINE" - THE VERTICAL PROJECTION TO THE GROUND OF THE TREES' CANOPY - AS A GUIDE), LAWNS AND OTHER VALUABLE VEGETATION TO THE MAXIMUM EXTENT FEASIBLE WHILE ALLOWING THE CONTRACTOR SUFFICIENT ROOM TO OPERATE. THEREFORE, THE CONTRACTOR MUST ASSESS THE ADEQUACY OF THE ALLOWED SPACE FOR ALL CONCEIVABLE ACTIVITIES INCLUDING THE PARKING OF PERSONAL VEHICLES. IT IS UNDERSTOOD THAT WORK MAY NEED TO OCCUR IN THE ROOT ZONE OF TREES. IN SUCH CASES, THE CONTRACTOR MAY PROPOSE ADJUSTMENTS TO THE STAKEOUT OF PROTECTION LIMITS TO SUIT FIELD CONDITIONS AND SUCH OPERATIONS. ANY SUCH ADJUSTMENTS SHALL BE SHOWN ON A PLAN AND/OR APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT.
3. THE CONTRACTOR SHALL NOT STOCKPILE MATERIAL, PARK ANY VEHICLE, OR DRIVE ANY VEHICLE WITHIN THE DRIP LINE OF EXISTING TREES. IT IS UNDERSTOOD THAT LOCALIZED STAGING/STORAGE AREAS MAY BE NECESSARY IN ADDITION TO ANY MAIN AREAS SHOWN ON PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE ARCHITECT FOR ANY AREAS OUTSIDE TREE/LANDSCAPE PROTECTION FOR AREAS APPROPRIATE FOR STORAGE OF MATERIALS, AND EQUIPMENT AS WELL AS PARKING OF CONTRACTOR'S VEHICLES AND ACCESS ROUTES THROUGH THE ACTIVE WORK ZONE. THESE AREAS MUST BE DEFINED BY APPROPRIATE FENCING AND MUST MEET ALL TREE PROTECTION SPECIFICATIONS.
4. ONCE PROTECTION FENCING IS IN PLACE, THE CONTRACTOR SHALL NOT ENTER OR DAMAGE OR DIMINISH THE LANDSCAPE OR ANY PORTION THERE OF WITHIN THE DEFINED TREE/LANDSCAPE PROTECTION AREAS. AT ALL TIMES DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL AVOID SOIL COMPACTION, POLLUTION, EROSION AND IMPACTS TO EXISTING VEGETATION UNLESS REMOVAL, SELECTIVE THINNING OR CLEARING ARE SPECIFIED IN THE DRAWINGS.
5. WHERE WORK AREAS MUST ENCROACH ON TREE ROOT ZONES , THE CONTRACTOR, IF ORDERED BY LANDSCAPE ARCHITECT OR AS NOTED ON THE PLANS, SHALL FURNISH APPROXIMATELY 12-INCH LAYER OF WOOD CHIPS OR ACCESS MAT WITHIN THE DRIP LINE AREA TO REDUCE SOIL COMPACTION ON UNPAVED AREAS TO MINIMIZE SOIL COMPACTION AND PREVENT CONTAMINATION OF EXISTING SOIL. UNDER NO CIRCUMSTANCES MAY PETROLEUM PRODUCTS, CONCRETE WASH WATER, PAINT, OR OTHER POLLUTANTS BE ALLOWED TO SEEP INTO THE LANDSCAPE.
6. THE LANDSCAPE ARCHITECT MUST BE NOTIFIED WHENEVER TRENCHING OCCURS WITHIN THE DRIPLINE FOR ANY TREE. ALL EXCAVATION WITHIN THE DRIP LINE OF A TREE OR NEAR THE DRIP LINE SHALL BE PERFORMED WITH AN AIR SPADE. THERE WILL BE NO SEPARATE PAYMENT FOR ANY REQUIRED AIR SPADE EXCAVATION. SEE ROOT PRUNING AND TRENCHING DETAILS.
7. NO TREE PRUNING MAY BE PERFORMED EXCEPT BY (OR UNDER THE SUPERVISION OF) A QUALIFIED TREE-CARE PROFESSIONAL APPROVED BY THE LANDSCAPE ARCHITECT.
8. "UNAUTHORIZED" TREE REMOVALS: IF THE CONTRACTOR REMOVES TREES NOT IDENTIFIED ON THE DRAWINGS OR REMOVES TREES NOT APPROVED BY LANDSCAPE ARCHITECT, OR SO SEVERELY DAMAGES TREES AS A RESULT OF CONSTRUCTION ACTIVITY THAT IN THE JUDGMENT OF LANDSCAPE ARCHITECT THEY MUST BE REMOVED, THE CONTRACTOR SHALL PROVIDE REPLACEMENT TREES AT HIS/HER OWN EXPENSE SUCH THAT FOR EACH TREE REMOVED EQUALS ONE SIX INCH CALIPER TREE AS APPROVED BY THE LANDSCAPE ARCHITECT. THE FINAL LOCATION OF REPLACEMENT TREES SHALL BE WITHIN THE PROJECT LIMITS AND WILL BE LOCATED IN THE FIELD BY THE LANDSCAPE ARCHITECT. IF PLANTING WITHIN THE LIMITS IS NOT POSSIBLE THE LANDSCAPE ARCHITECT, OWNER, AND CONTRACTOR SHALL AGREE ON APPROPRIATE MITIGATION. ANY REPLACEMENT TREES PLANTED AS MITIGATION MUST BE WATERED, MAINTAINED AND GUARANTEED PER PLANTING SPECIFICATIONS IN THE DRAWINGS AND AT NO ADDITIONAL COST.
9. LANDSCAPE MAINTENANCE DURING CONSTRUCTION: DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL MAINTAIN THE APPEARANCE OF THE PROJECT SITE BY REMOVING LITTER, DEBRIS AND EXCESS MATERIALS, AS A RESULT OF THE CONSTRUCTION OPERATIONS, FROM THE WORK SITE ON A REGULAR BASIS AND SHALL STORE ALL CONSTRUCTION EQUIPMENT AND CONSTRUCTION MATERIAL IN AN ORGANIZED MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
10. IN CASE OF A TREE REMOVAL, ALL REMNANTS INCLUDING, BUT NOT LIMITED TO, STUMPS, TRUNKS, LIMBS, BRANCHES, AND FOLIAGE SHALL BE DISPOSED OF AS EXPEDITIOUSLY AS POSSIBLE.
11. RESTORATION OF LANDSCAPE: ALL EXCESS MATERIALS AND DEBRIS RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REMOVED BY THE CONTRACTOR, AS PART OF SITE RESTORATION. ALL SOIL DIMINISHED AND/OR CONTAMINATED WITH EXCESS MATERIAL AND DEBRIS SHALL ALSO BE REMOVED AND REPLACED WITH TOPSOIL ACCEPTABLE TO THE LANDSCAPE ARCHITECT. THE CONTRACTOR, AS DIRECTED BY LANDSCAPE ARCHITECT, SHALL RESTORE A MINIMUM OF 6" OF NEW TOPSOIL ON ALL AREAS WHERE THE TOPSOIL LAYER HAS BEEN DIMINISHED OR LOST DUE TO HIS/HER OPERATIONS. OUTSIDE THE DRIP LINE OF TREES, IF IT IS DETERMINED BY THE LANDSCAPE ARCHITECT THAT THE SOIL HAS BEEN COMPACTED DURING THE COURSE OF THE PROJECT, IT WILL BE UNCOMPACTED AND LOOSENED (BY USE OF AN AIR SPADE WITHIN AND NEAR THE DRIPLINES OF TREES) TO THE DEPTH OF 12 INCHES PRIOR TO FINAL GRADING OR PLANTING. UNDER NO CIRCUMSTANCES MAY HEAVY EQUIPMENT (I.E. PAYLOADERS) BE USED TO ACCOMPLISH SITE RESTORATION WITHIN THE DRIP LINE OF TREES. IN ALL ROOT-SENSITIVE AREAS, WORK MUST BE DONE USING ONLY AN AIR SPADE.
12. ALL UTILITY CONFLICTS WITH PROPOSED TREES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
13. CONTRACTOR SHALL REFER TO TO THE DEMOLITION/EROSION CONTROL PLAN FOR MORE INFORMATION

PLANTING NOTES:

1. SEE DEMOLITION AND EROSION CONTROL DRAWING FOR EXISTING PLANTS TO BE STOCKPILED AND MAINTAINED FOR TRANSPLANTING. ADDITIONAL PLANTINGS MAY BE REQUIRED FOR TOP OF WALL BARRIER PLANTING AND WILL BE REQUESTED UPON OWNER'S APPROVAL ADDITIONAL PLANTING PHASES TO BE COMPLETED IN SEPARATE CONTRACT (SPRING SEASON).
2. TOPSOIL FOR PLANTING:
   A. MATERIAL: TOPSOIL SHALL CONSIST OF NATURAL LOAM, FREE FROM SUBSOIL, OBTAINED FROM AN AREA THAT HAS NEVER BEEN PREVIOUSLY STRIPPED. MANUFACTURED OR AMENDED SOILS ARE NOT ACCEPTABLE UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT.
   B. QUALITY: TOPSOIL SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY, HARD PLAN, SODS, PARTIALLY DISINTEGRATED STONE, LIME, CEMENT, ASHES, SLAG, CONCRETE, TAR RESIDUES, TARRED PAPER, BOARDS, CHIPS, STICKS, OR ANY OTHER UNDESIRABLE MATERIAL.
   C. NO TOPSOIL SHALL BE DELIVERED, MANIPULATED OR HANDLED IN A FROZEN OR MUDDY CONDITION. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT, ON OR AFTER DELIVERY, OF ANY MATERIAL THAT DOES NOT, IN THEIR OPINION, MEET THESE SPECIFICATIONS.:
3. IRRIGATION SYSTEM (SEPARATE PRICE):
   A. THE EXISTING IRRIGATION SYSTEM SHALL BE MODIFIED AND SHALL BE A FULLY OPERATIONAL AND COMPLETE IN-GROUND IRRIGATION SYSTEM, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   - ALL EXCAVATION, TRENCHING, PUMPS, FILTERS, VALVES, BOXES, TIMERS, CONNECTIONS, WIRING, PIPING, DRIP TUBE, HEADS AND EMITTERS AS NECESSARY.
   B. CONTRACTOR IS REQUIRED TO COORDINATE WORK WITH IRRIGATION CONTRACTOR. CONTRACTOR SHALL PROVIDE SLEEVES AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE IRRIGATION INSTALLER
4. NEW SEED (INCLUDING FINE GRADING) WHERE REQUIRED
   A. INSTALLATION OF SEED SHALL INCLUDE FINE GRADING, PREPARATION OF SOIL BED, INCORPORATION OF FERTILIZER AND LIME, PROTECTION (BEFORE AND AFTER INSTALLATION) AND MAINTENANCE UNTIL FINAL ACCEPTANCE.
   B. SEED MIX SHALL BE LOW MAINTENANCE, NATIVE, AND DROUGHT TOLERANT MIX WITH ANNUAL RYE. SEED MIX APPROPRIATE FOR TIME OF PLANTING. SEED MIX TO BE APPROVED BY THE LANDSCAPE ARCHITECT. SEEDING RATE SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
   C. FERTILIZER FOR LAWNS: FERTILIZE LAWN AREAS EVENLY USING MECHANICAL METHODS ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND AS DIRECTED. FERTILIZER TO BE "SCOTTS ORGANIC CHOICE LAWN FOOD" BY THE SCOTTS MIRACLE-GRO COMPAN 14111 SCOTTSLAWN ROAD MARYSVILLE, OH 43041, OR AS RECOMMENDED BY THE SOD GROWER, OR APPROVED EQUAL.

   D. ACCEPTANCE (OF SEED): THE LANDSCAPE ARCHITECT SHALL REJECT ANY AREAS OF SEED WHICH IN THEIR OPINION HAS NOT PROPERLY GERMINATED TO FORM AN EVEN AND VIGOROUS GROWING BED. REJECTED SEED BEDS SHALL BE PREPARED AND RE-SEEDED AT NO COST TO THE OWNER. SEED LAWNS SHALL BE READY FOR ACCEPTANCE AFTER A MINIMUM OF A 60 DAY ACTIVE GROWING PERIOD, UNTIL A UNIFORM STAND OF 2 ½ INCHES IS OBTAINED, WITH A MINIMUM OF 95% COVERAGE. UNACCEPTED SEED LAWNS SHALL BE RE-SEEDED AS SPECIFIED.
5. MAINTENANCE OF SEED:

   -THE CONTRACTOR SHALL PROPERLY WATER AS OFTEN AS REQUIRED TO MAINTAIN OPTIMUM GROWING CONDITIONS UNTIL FINAL ACCEPTANCE. THE CONTRACTOR SHALL MAINTAIN LAWN AT ONE AND A HALF TO THREE INCHES (1-1/2 TO 3") IN HEIGHT, FOR TWO MOWINGS OR UNTIL ACCEPTANCE. CONTRACTOR SHALL MONITOR IRRIGATION SYSTEM TO ENSURE NEW SOD AND SEED LAWNS RECEIVE PROPER AMOUNTS OF WATER.

   -MAINTAIN ALL LAWNS THROUGHOUT AND IMMEDIATELY FOLLOWING PLANTING OPERATIONS UNTIL PROJECT IS CERTIFIED SUBSTANTIALLY COMPLETE.

   - MAINTAIN SURFACES AND SUPPLY ADDITIONAL TOPSOIL WHERE NECESSARY, INCLUDING AREAS AFFECTED BY EROSION.
   REPLANT DAMAGED LAWN AREAS SHOWING GROWTH FAILURE, DETERIORATION, BARE OR THIN SPOTS AND ERODED AREAS.
   .

DRAWING LIST:

REFER TO GRANOFF ARCHITECTS ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

ABBREVIATIONS:

B.P.	BOTTOM PIER	MANUF.	MANUFACTURER
B.S.	BOTTOM STEP	MAX.	MAXIMUM
B.W.	BOTTOM WALL	MFR.	MANUFACTURER
BL	BASE LINE	MIN.	MINIMUM
BC	BOTTOM OF CURB	MH	MAN HOLE
BLDG.	BUILDING	NEC.	NECESSARY
CL	CENTER LINE	N.I.C	NOT IN CONTRACT
CMU	CONCRETE MASONRY UNIT	N.T.S	NOT TO SCALE
CONC.	CONCRETE	NO./#	NUMBER
CONT.	CONTINUOUS	OC	ON CENTER
DI	DRAIN INLET	PL	PROPERTY LINE
DIA.	DIAMETER	R	RISER
DN.	DOWN	REQ'D	REQUIRED
EA.	EACH	R.O.W.	RIGHT OF WAY
EJ	EXPANSION JOINT	SPEC.	SPECIFICATION
EL.	ELEVATION	SQ.	SQUARE
ELEV.	ELEVATION	T	TREAD
EQ.	EQUAL	TC	TOP OF CURB
E.W.	EACH WAY	T.P	TOP PIER
EX.JT.	EXPANSION JOINT	T.S.	TOP STAIR
EXP.JT.	EXPANSION JOINT	T.W.	TOP WALL
EX	EXISTING	TBD	TO BE DETERMINED
EXIST.	EXISTING	TYP.	TYPICAL
FL	FLOW LINE	UW	UNDER WATER
FLR.	FLOOR	UG	UNDERGROUND
FLWR	FLOWER	VIF	VERIFY IN FIELD
FTG.	FOOTING	W.L.	WATER LINE
G	GRATE ELEVATION/RIM ELEV.	W/	WITH
H.B.	HOSE BIB	W/O	WITHOUT
JNT.	JOINT	WT	WATERTABLE

REFER TO OTHER DRAWINGS FOR LEGENDS AND KEYS

LOCATION MAP:

LOCAL MAP (N.T.S.)

North

GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830
203.625.9460
WWW.GRANOFFARCHITECTS.COM

CONSULTANTS
Landscape Architect:
Granoff Architects
330 Railroad Ave
Greenwich, CT, 06830

Civil:
JMC Site Development Consultants
120 Bedford Road
Armonk, NY, 10504

REVISIONS

#	DATE	REVISION DESCRIPTION	BY:
1	11.23.20	PLANNING BOARD SUBMISSION	KA
2	01.11.21	ARB SUBMISSION	KA
3	03.08.21	ARB SUBMISSION	KA
4	05.09.21	ARB SUBMISSION	KA
5	06.14.21	PLANNING BOARD SUBMISSION	KA
6	07.12.21	PLANNING BOARD SUBMISSION	KA
7	11.23.21	EDIT, PROSHOP LAYOUT SCHEM	JS
8	1.10.22	PLANNING BOARD SUBMISSION	KA

PHASE

SUBMITAL

PROJECT NAME

SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: **20035**

DRAWN BY: **JS** PROJ. MANAGER: **KA**

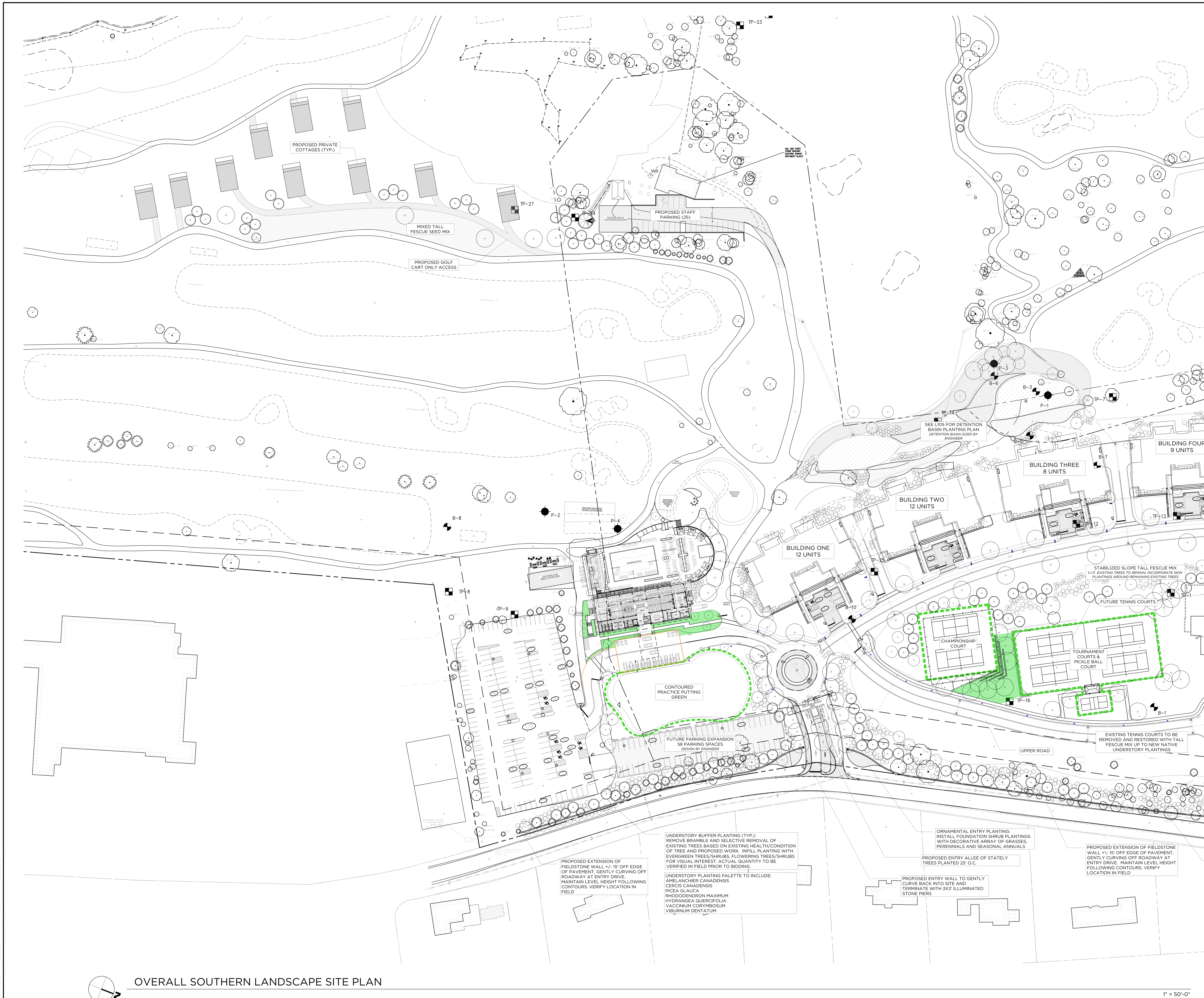
DATE: **01.10.22** SCALE:

DRAWING TITLE

COVER

DRAWING NO.

LS C



OVERALL SOUTHERN LANDSCAPE SITE PLAN

1" = 50'-0"

GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830
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Landscape Architect:
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Civil:
JMC Site Development Consultants
120 Bedford Road
Armonk, NY, 10504

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1	11.23.20	PLANNING BOARD SUBMISSION	KA
2	01.11.21	ARB SUBMISSION	KA
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6	07.12.21	PLANNING BOARD SUBMISSION	KA
7	11.23.21	EDIT, PROSHOP LAYOUT SCHEM	JS
8	1.10.22	PLANNING BOARD SUBMISSION	KA

PHASE

SUBMITAL

PROJECT NAME

SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: **20035**

DRAWN BY: **JS** PROJ. MANAGER: **KA**

DATE: **01.10.22** SCALE:

DRAWING TITLE

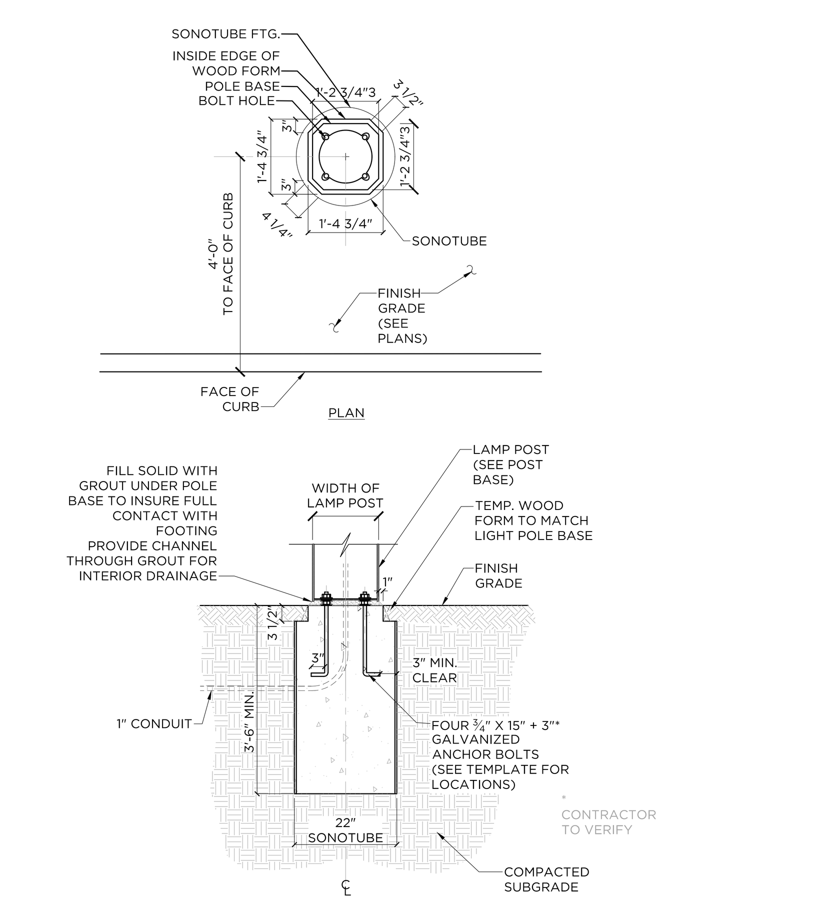
OVERALL SITE PLAN - SOUTHERN DEVELOPMENT

DRAWING NO.

LS100.0

OVERALL NORTHERN LANDSCAPE SITE PLAN

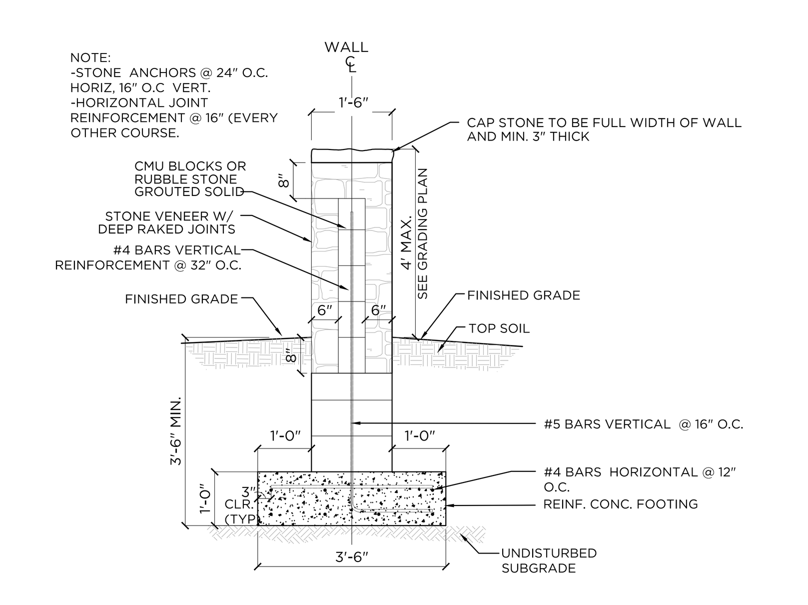
1" = 50'-0"



NOTES:
- SEE PLAN FOR LOCATIONS.
- EXISTING FOOTINGS TO REMAIN AND BE REUSED FOR NEW LIGHT POLES IF DETERMINED TO BE STRUCTURALLY SUITABLE
- LIGHTING SPEC - USA LIGHTING RZR - 18' MOUNTING HEIGHT
  SEE APEX LIGHTING PLAN FOR FULL SPEC

1 PARKING LOT LIGHT POLE FOUNDATION DETAIL

SCALE: 1/2" = 1' - 0"



2 STONE WALL DETAIL

SCALE: 1/2" = 1' - 0"

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PHASE

SUBMITAL

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SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: 20035

DRAWN BY: JS PROJ. MANAGER: KA

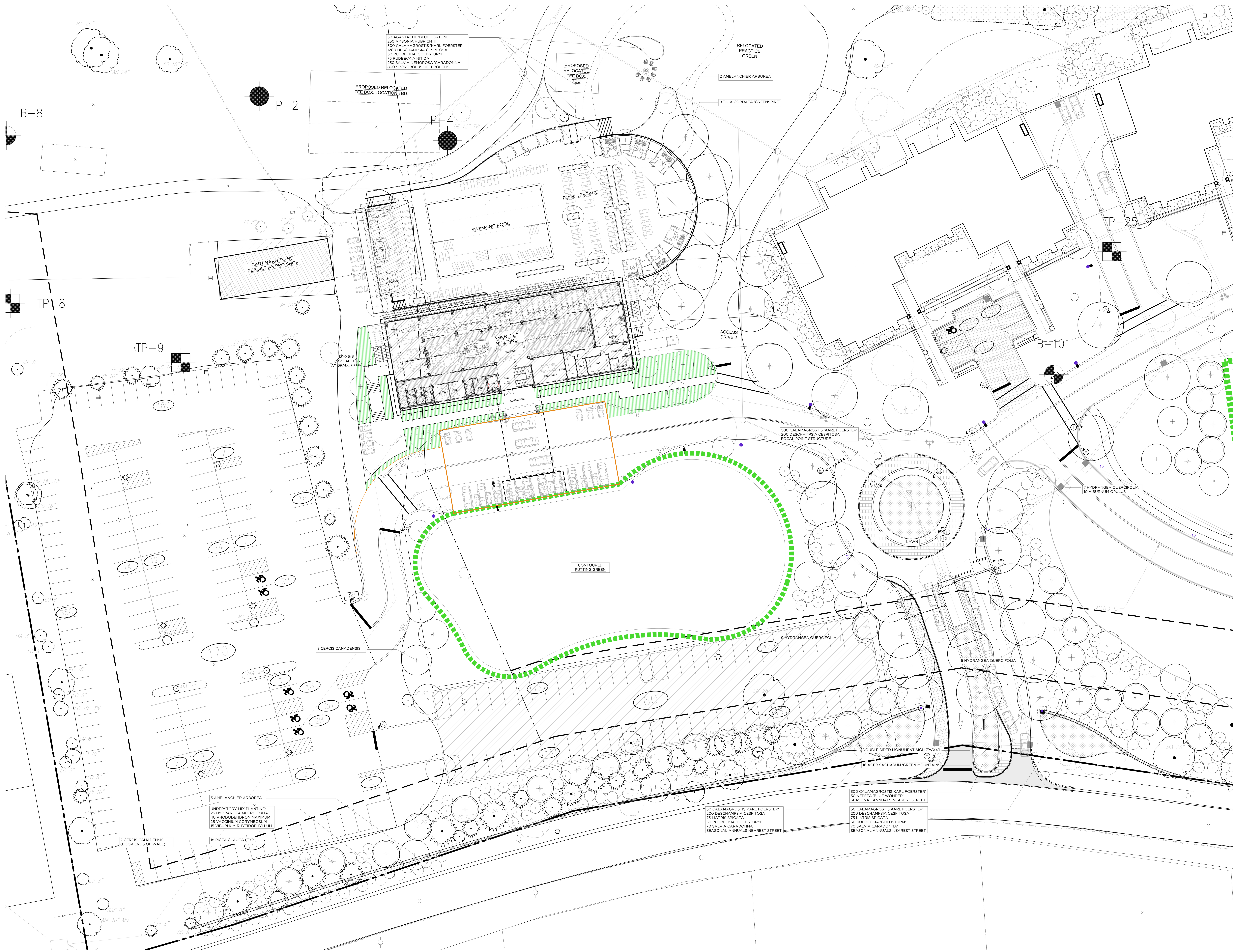
DATE: 01.10.22 SCALE:

DRAWING TITLE

OVERALL SITE PLAN - NORTHERN DEVELOPMENT

DRAWING NO.

LS100.1



SOUTHERN BUFFER AND AMENITIES LANDSCAPE PLAN

1" = 20'-0"

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PHASE

SUBMITAL

PROJECT NAME

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ARMONK, NY

JOB NO.: **20035**

DRAWN BY: **JS** PROJ. MANAGER: **KA**

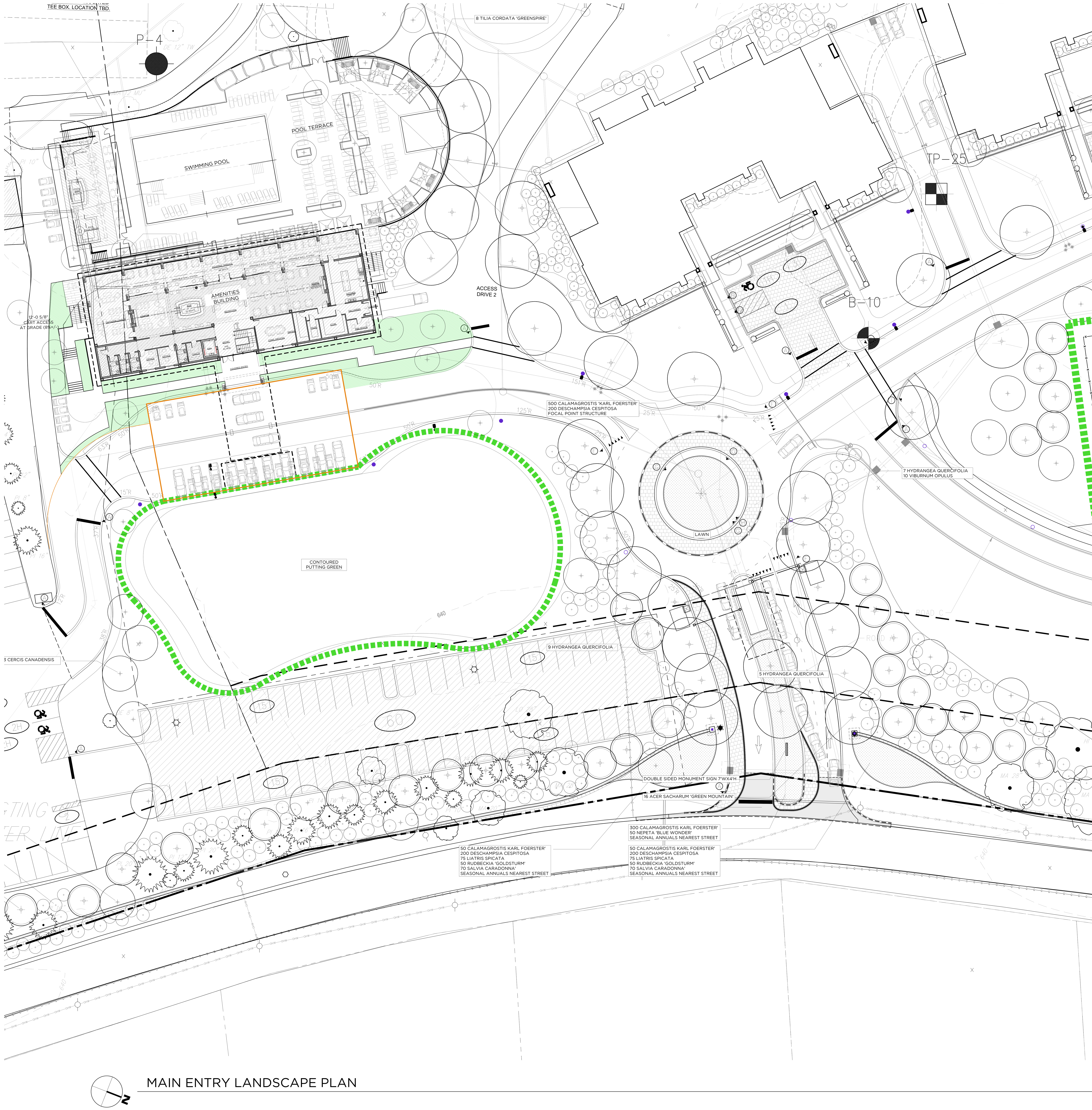
DATE: **01.10.22** SCALE:

DRAWING TITLE

AMENITIES SIDE SITE PLAN - LANDSCAPE

DRAWING NO.

LS101



MAIN ENTRY LANDSCAPE PLAN

1" = 20'-0"

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PHASE

SUBMITAL

PROJECT NAME

SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: 20035

DRAWN BY: JS PROJ. MANAGER: KA

DATE: 01.10.22 SCALE:

DRAWING TITLE

MAIN ENTRY PLAN - LANDSCAPE

DRAWING NO.

LS102

NORTHERN BUFFER AND RESIDENTIAL LANDSCAPE PLAN

1" = 30'-0"

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SUBMITAL

PROJECT NAME

SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: **20035**

DRAWN BY: **JS** PROJ. MANAGER: **KA**

DATE: **01.10.22** SCALE:

DRAWING TITLE

RESIDENTIAL SIDE SITE PLAN - LANDSCAPE

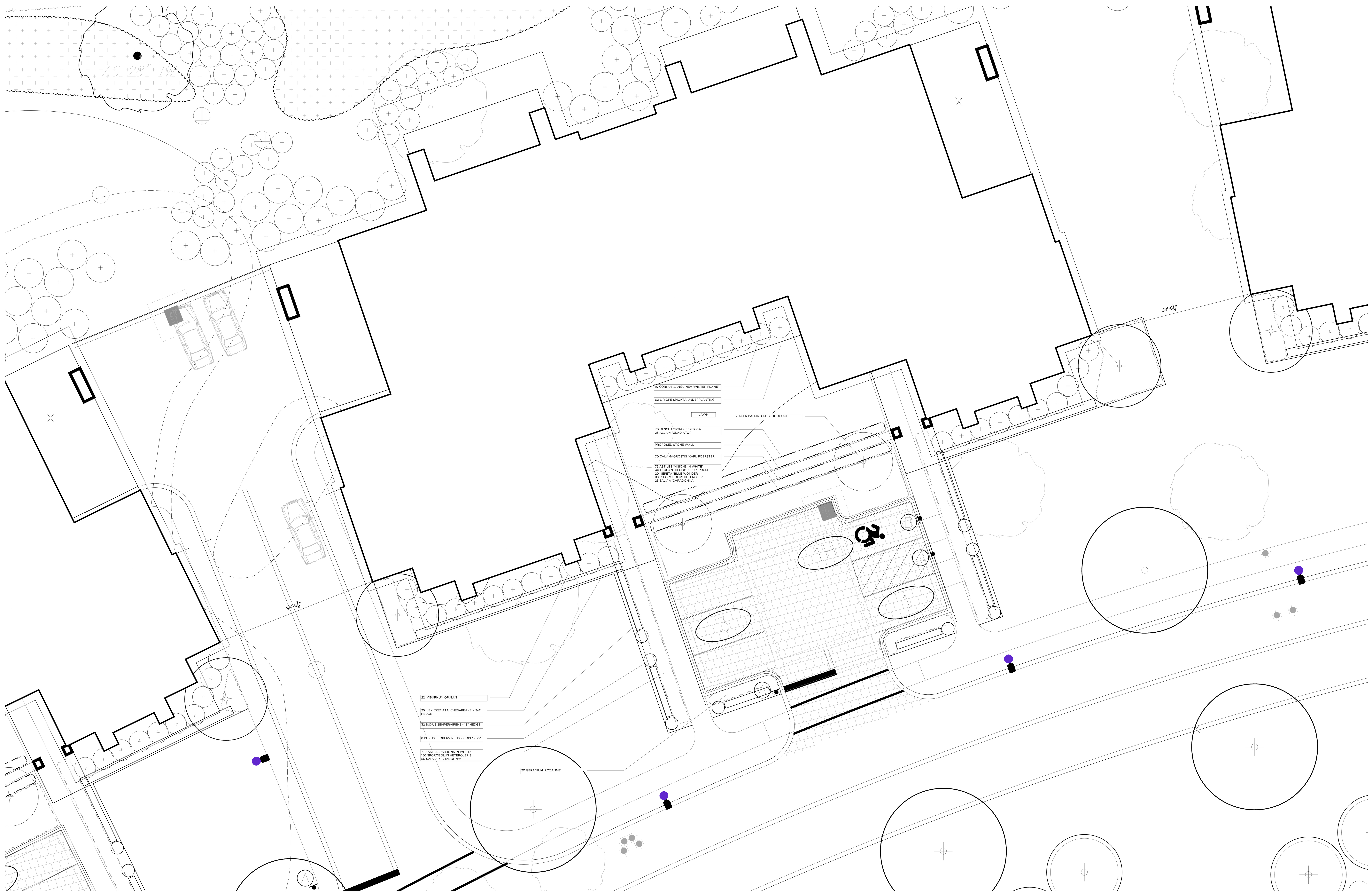
DRAWING NO.

LS103

PLANTING SCHEDULE

Residence Landscape Typical

QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
4	TREES			
2	*Acer palmatum 'Bloodgood'*	Japanese Maple	8-10'	Matching
2	*Acer rubrum 'October Glory'*		3" cal,.	Matching
97	SHRUBS			
8	*Buxus sempervirens 'Globe'*	Boxwood	36"	Globe specimen
32	*Buxus sempervirens*	Boxwood	18"	Hedge quality
10	*Cornus sanguinea 'Winter Flame'*	Red twig Dogwood	3 gal.	
25	*Ilex crenata 'Chesapeake'*	Chesapeake Japanese Holly	3-4'	Full, Hedge quality
22	*Viburnum opulus*	Snowball Viburnum	5 gal.	Full Shape
751	GRASSES/PERENNIALS			
75	*Astilbe x 'Visions in White'*	White Astilbe	1 gal.	
90	*Carex 'Ice Dance'*	Sedge	1 gal.	
5	*Clematis terniflora 'Sweet Autumn'*	Sweet Autumn Clematis	1 gal.	
90	*Deschampsia cespitosa*	Tufted Hair Grass	1 gal.	
26	*Echinacea 'White Swan'*	Coneflower	1 gal.	
20	*Geranium 'Rozanne'*	Cranesbill	1 gal.	
60	*Liriope spicata*	Lilly Turf	1 gal.	
40	*Leucanthemum x superbum*	Shasta Daisy	1 gal.	
20	*Nepeta 'Blue Wonder'*	Catmint	1 gal.	
75	*Salvia nemorosa 'Caradonna'*	Caradonna Meadow Sage	1 gal.	
250	*Sporobolus heterolepis*	Prarie Dropseed	1 gal.	
25	BULBS			
25	*Allium 'Gladiator'*	Allium	Bulb	
2500	*Narcissus naturalizing mix*	Naturalizing daffodils	Bulb	



TYPICAL RESIDENCE ENTRY LANDSCAPE PLAN

1" = 10'-0"

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PROJECT NAME

SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: **20035**

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DATE: **01.10.22** SCALE:

DRAWING TITLE

RESIDENCE TYPICAL PLAN - LANDSCAPE

DRAWING NO.

LS104

PLANTING SCHEDULE

Detention Basin Planting

QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
18	TREES			
13	*Amelanchier canadensis*	Serviceberry	7-8'	Multistem
5	*Quercus palustris*	Pin Oak	2' cal.	Full shape
143	SHRUBS			
42	*Ilex verticillata*	Winterberry	3'-4'	
35	*Lindera benzoin*	Spicebush	3 gal.	
66	*Viburnum dentatum*	Arrowwood Viburnum	3 gal.	Full shape
6725	PERENNIALS/GRASSES			
1075	*Andropogon gerardi*	Big Bluestem	1 gal.	
1650	*Calamagrostis 'Karl Foerster'*	Feather Reed Grass	1 gal.	
n/a	*Carex pensylvanica*	Sedge	Seed	Basin Floor Seed Mix (16,000 sf)
3450	*Deschampsia cespitosa*	Tufted Hair Grass	1 gal.	
550	*Echinacea 'White Swan'*	Coneflower	1 gal.	
n/a	*Juncus effusus*	Soft Rush	Seed	Basin Floor Seed Mix (16,000 sf)
350	*Lobelia cardinalis*	Cardinal Flower	1 gal.	
100	*Nepeta 'Blue Wonder'*	Catmint	1 gal.	
200	*Perovskia atriplicifolia 'Little Spire'*	Dward Russian Sage	1 gal.	
300	*Salvia nemorosa 'Caradonna'*	Caradonna Meadow Sage	1 gal.	


PIN OAK


SERVICEBERRY


WINTERBERRY

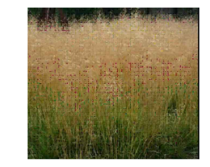

SPICEBUSH


ARROWWOOD VIBURNUM


BIG BLUESTEM


FEATHER REED GRASS


SEDGE


TUFTED HAIR GRASS


CONEFLOWER


SOFT RUSH


CARDINAL FLOWER


CATMINT


DWARF RUSSIAN SAGE


CARADONNA MEADOW SAGE

DETENTION BASIN LANDSCAPE PLAN

1/16" = 1'-0"

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PHASE
SUBMITAL

PROJECT NAME
SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: 20035
DRAWN BY: JS PROJ. MANAGER: KA
DATE: 01.10.22 SCALE:

DRAWING TITLE
DETENTION BASIN PLANTING PLAN

DRAWING NO.
LS105

WATER TREATMENT AND WOODLAND COTTAGES PLAN

1" = 30'-0"

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PHASE

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PROJECT NAME

SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: 20035

DRAWN BY: JS PROJ. MANAGER: KA

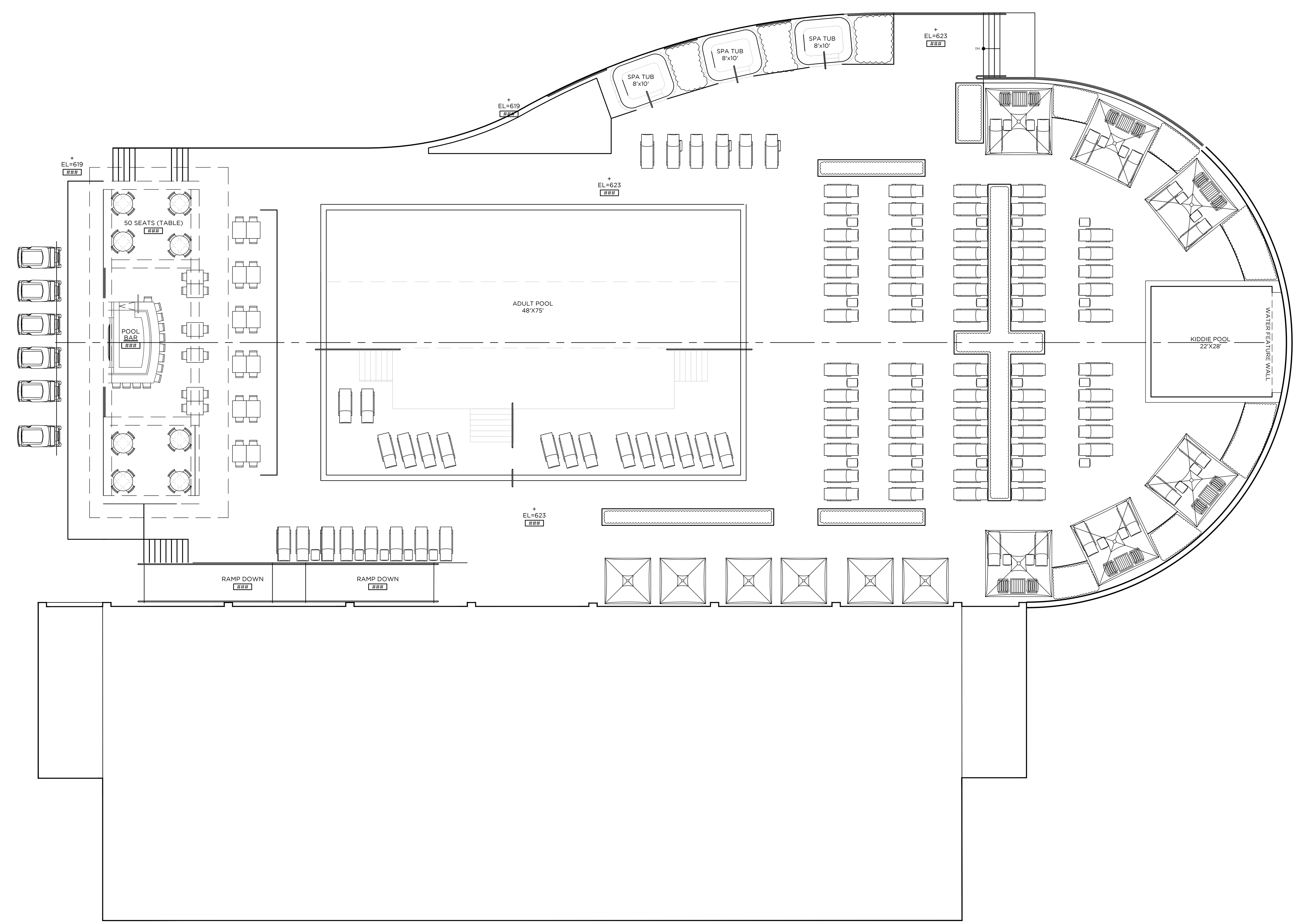
DATE: 01.10.22 SCALE:

DRAWING TITLE

WATER TREATMENT AREA AND SCHEMATIC COTTAGES

DRAWING NO.

LS106



1 SITE PLAN - POOL TERACE
3/32"=1'-0"

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#	DATE	REVISION DESCRIPTION	BY:

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PROJECT NAME

SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: **20035**

DRAWN BY: **JS, JT** PROJ. MANAGER: **KA**

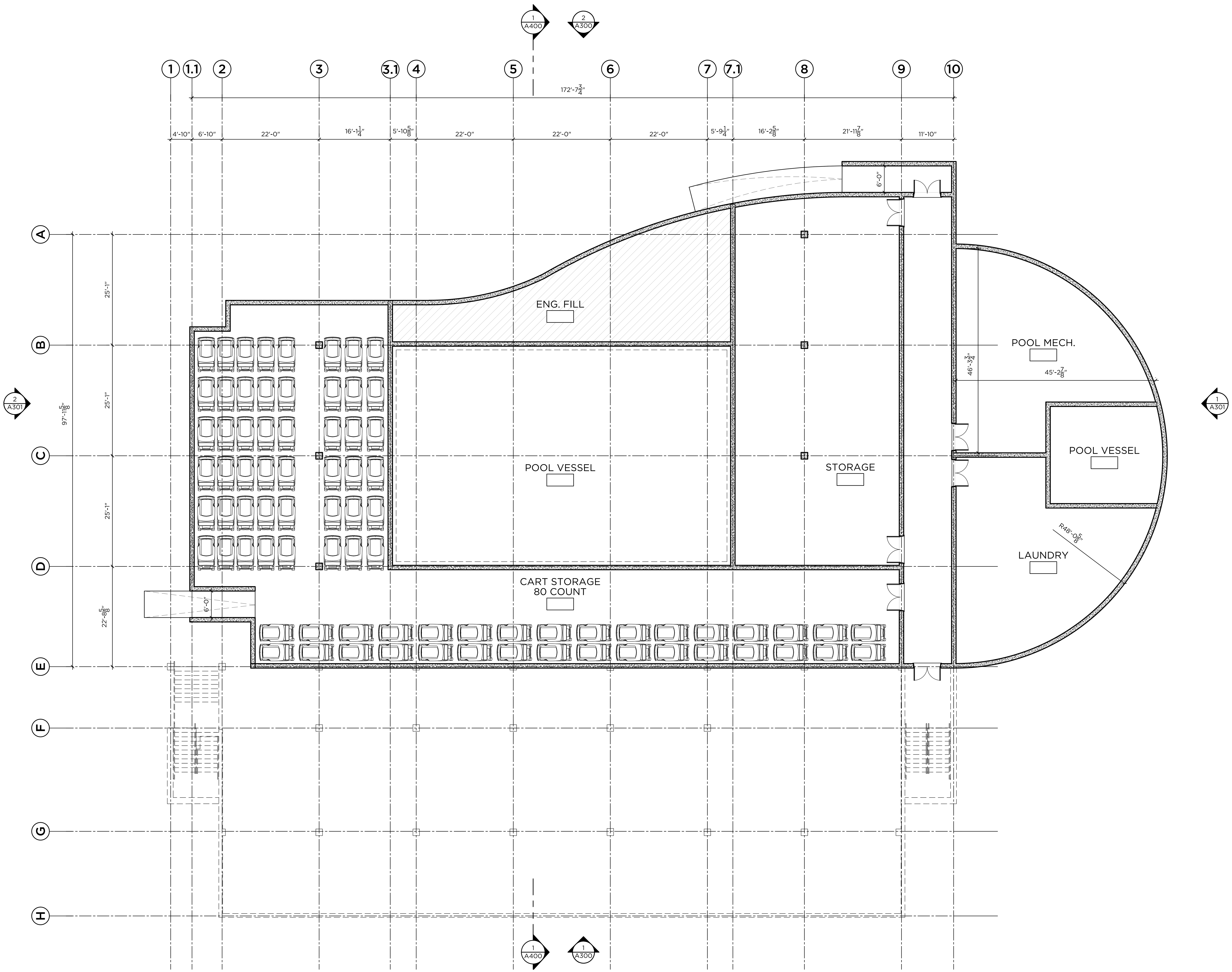
DATE: **01.10.22** SCALE: AS NOTED

DRAWING TITLE

SITE PLAN - POOL TERRACE

DRAWING NO.

AS-100



1 FLOOR PLAN - VAULT LEVEL
3/32"=1'-0"

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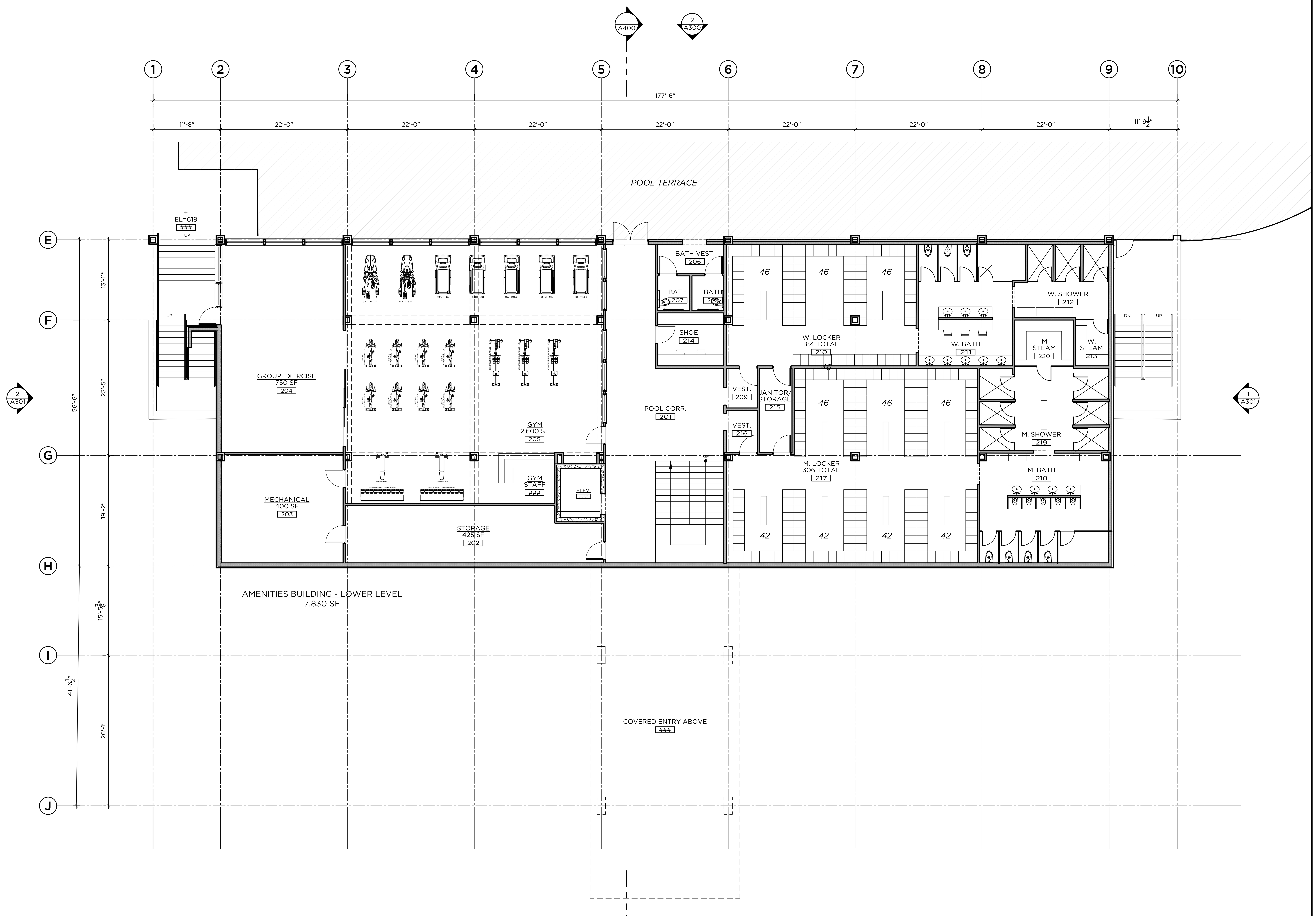
SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: 20035
DRAWN BY: JS, JT PROJ. MANAGER: KA
DATE: 01.10.22 SCALE: AS NOTED

DRAWING TITLE
FLOOR PLAN - VAULT LEVEL

DRAWING NO.
A100



1 FLOOR PLAN - LOWER LEVEL
1/8"=1'-0"

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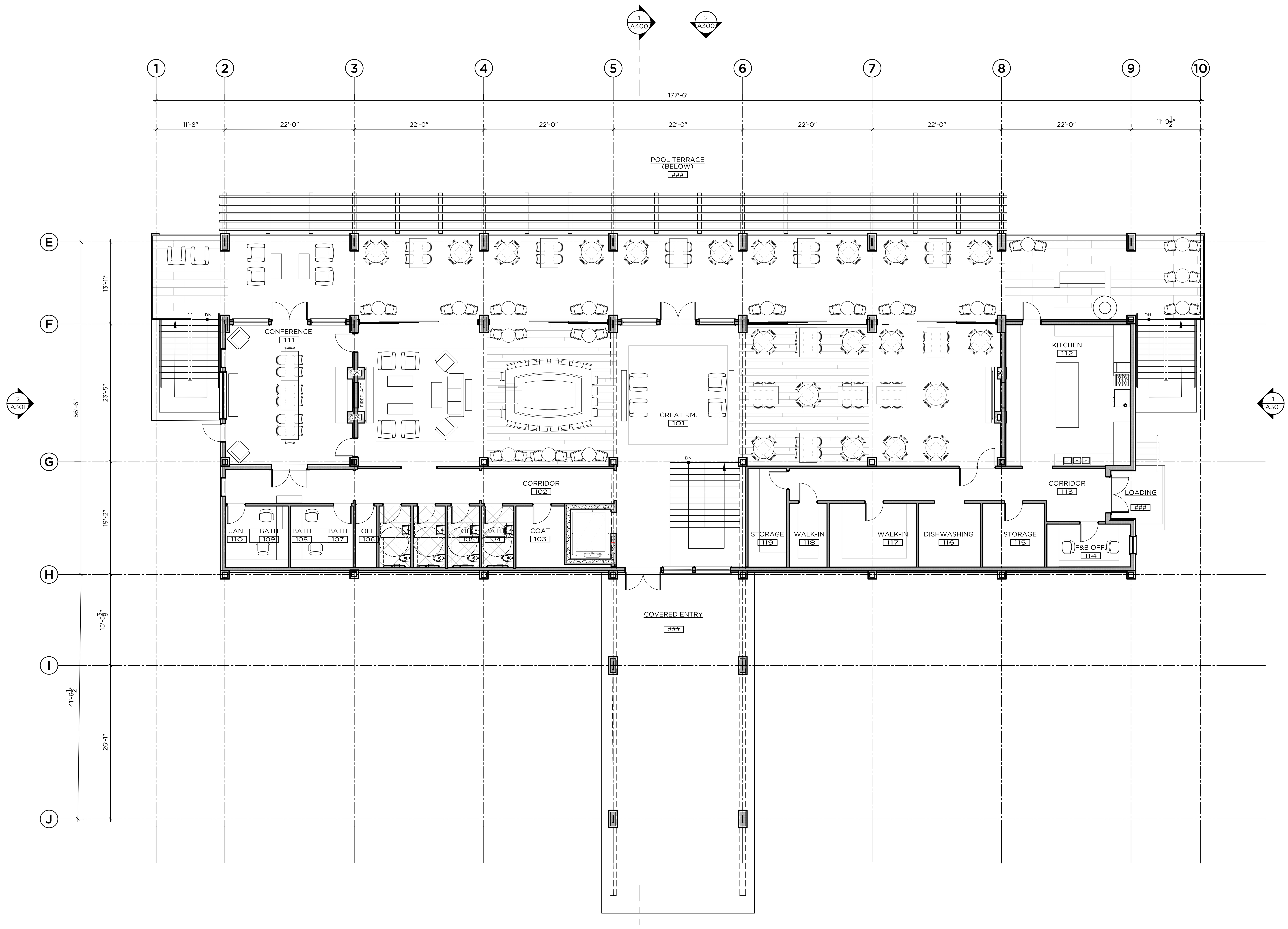
FLOOR PLAN - LOWER LEVEL

DRAWING NO.

A101



1 FLOOR PLAN - MAIN LEVEL
1/8"=1'-0"

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ARMONK, NY

JOB NO.:	20035		
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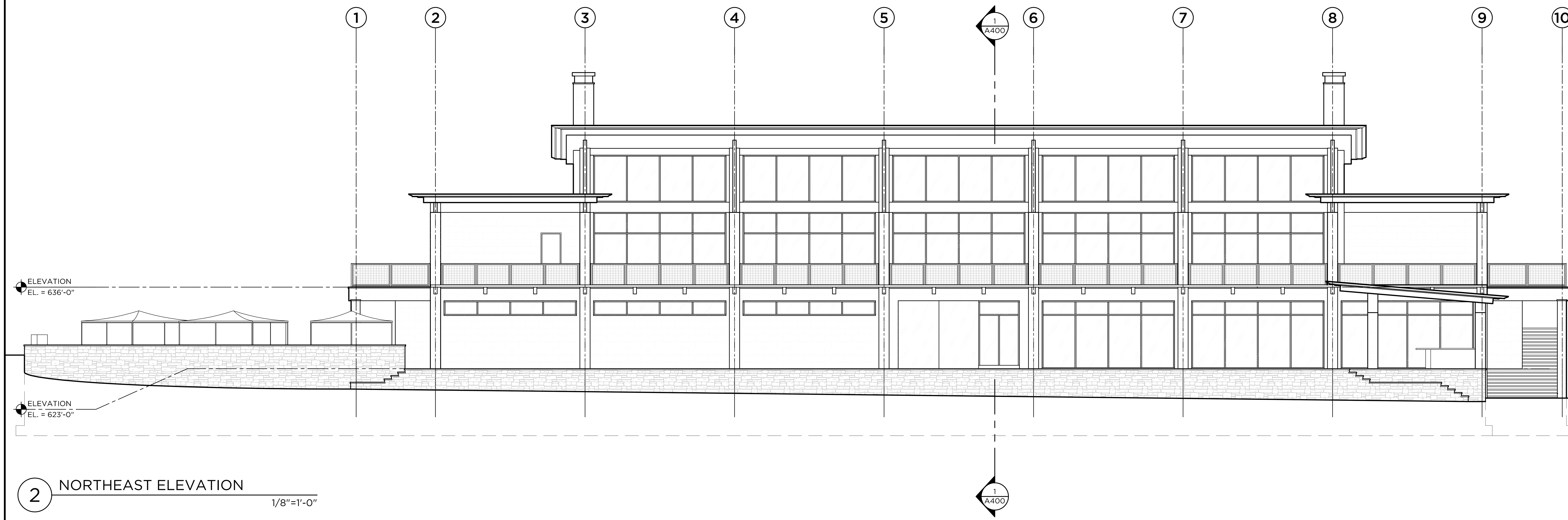
DATE:	01.10.22	SCALE:	AS NOTED

DRAWING TITLE

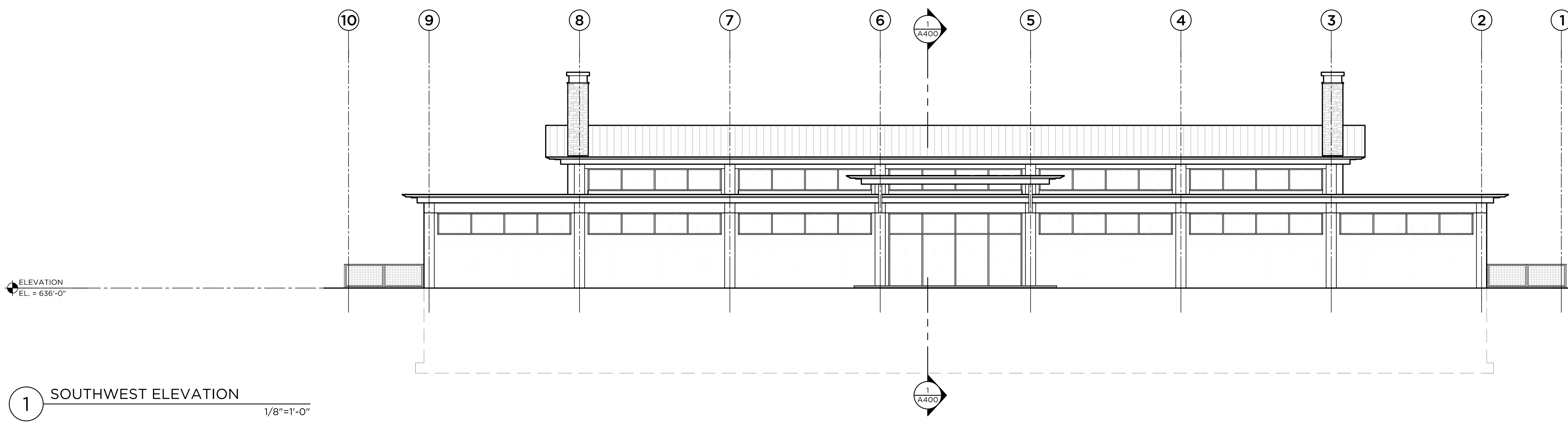
FLOOR PLAN - MAIN LEVEL

DRAWING NO.

A102



2 NORTHEAST ELEVATION
1/8"=1'-0"



1 SOUTHWEST ELEVATION
1/8"=1'-0"

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ARMONK, NY

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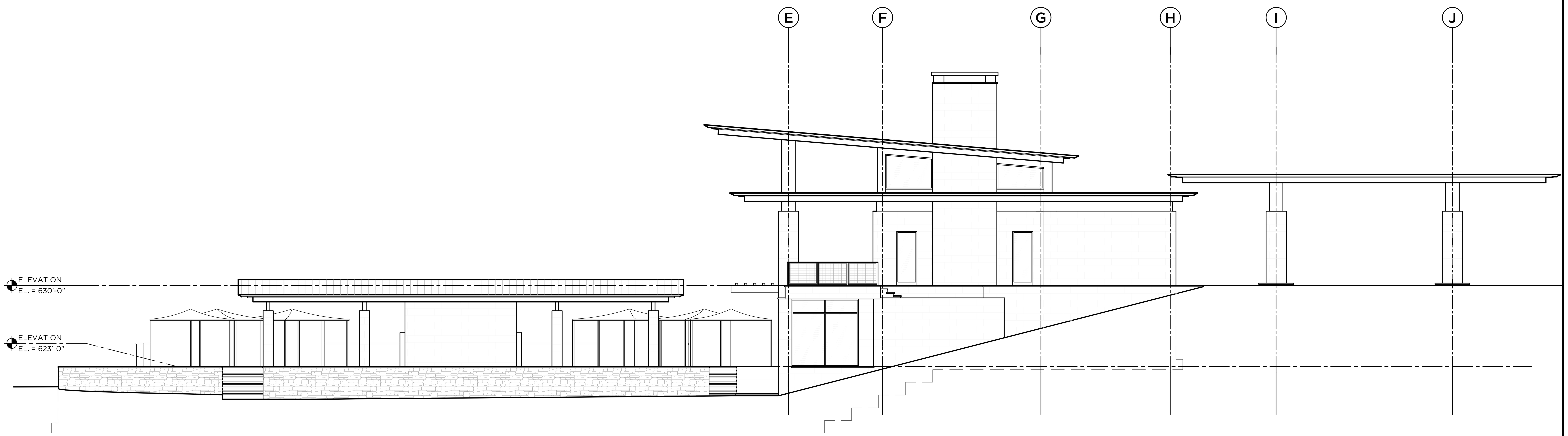
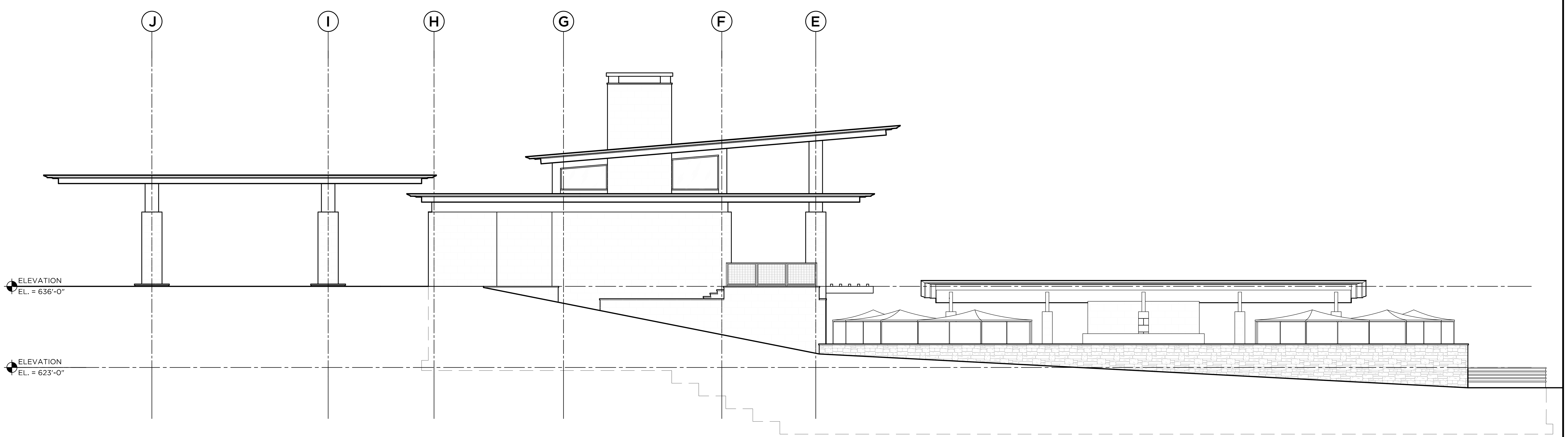
DATE: **01.10.22** SCALE: AS NOTED

DRAWING TITLE
BUILDING ELEVATIONS

DRAWING NO.
A300



2 SOUTHEAST ELEVATION
1/8"=1'-0"



1 NORTHWEST ELEVATION
1/8"=1'-0"

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ARMONK, NY

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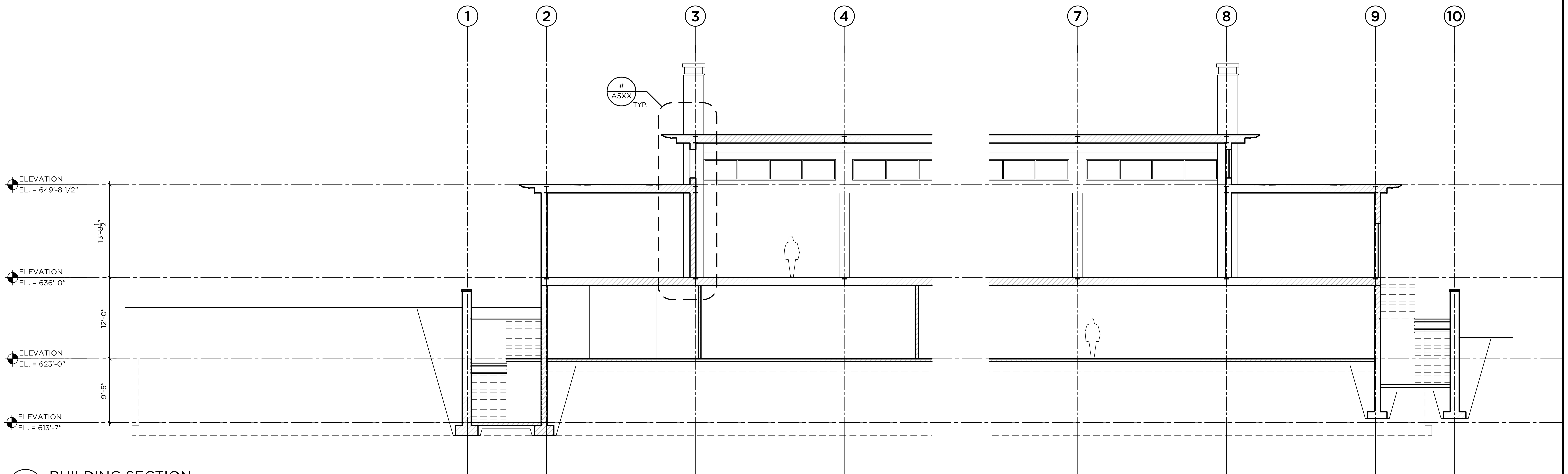
DRAWING TITLE

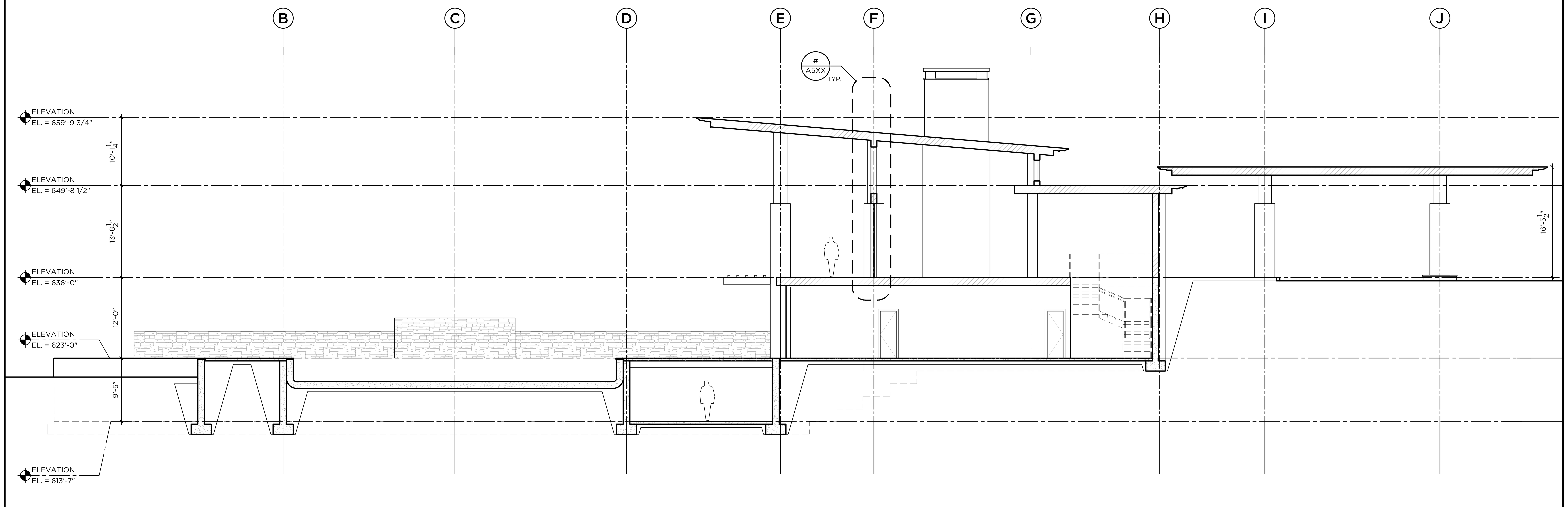
BUILDING ELEVATIONS

DRAWING NO.

A301



2 BUILDING SECTION
1/8"=1'-0"



1 BUILDING SECTION
1/8"=1'-0"

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ARMONK, NY

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DATE: **01.10.22** SCALE: AS NOTED

DRAWING TITLE
BUILDING SECTIONS

DRAWING NO.
A400

VIEW 1


VIEW 2


VIEW 3


VIEW 4

VIEW 5

VIEW 6

VIEW 7


VIEW 8

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Civil:
JMC Site Development Consultants
120 Bedford Road
Armonk, NY, 10504

UNIT / BEDROOM COUNT (Revised 1-10-22)			
BUILDING 1 (3 STORY)	12 UNITS	(3) 3 BEDROOMS & (9) 2 BEDROOMS	27 BEDROOMS/BLDG
BUILDING 2 (3 STORY)	12 UNITS	(3) 3 BEDROOMS & (9) 2 BEDROOMS	27 BEDROOMS/BLDG
BUILDING 3 (2 STORY)	9 UNITS	(2) 3 BEDROOMS & (5) 2 BEDROOMS & (1) 4 BEDROOM	20 BEDROOMS/BLDG
BUILDING 4 (2 STORY)	9 UNITS	(2) 3 BEDROOMS & (5) 2 BEDROOMS & (1) 4 BEDROOM	20 BEDROOMS/BLDG
BUILDING 5 (3 STORY)	12 UNITS	(3) 3 BEDROOMS & (9) 2 BEDROOMS	27 BEDROOMS/BLDG
BUILDING 6 (3 STORY)	12 UNITS	(3) 3 BEDROOMS & (9) 2 BEDROOMS	27 BEDROOMS/BLDG
BUILDING 7 (1 STORY)	7 AFFH UNITS	(3) 1 BEDROOMS & (4) 2 BEDROOMS	11 BEDROOMS/BLDG
TOTALS	73 UNITS	(16) 3 BEDROOMS & (50) 2 BEDROOMS & (2) 4 BEDROOM	157 BEDROOMS
DENSITY UNITS	43.6 UNITS	(16) 3 BEDROOMS = 10.6 DENSITY UNITS (50) 2 BEDROOMS = 25 DENSITY UNITS (2) 4 BEDROOMS = 2 DENSITY UNITS (3) 1 BEDROOMS =	(16 /3) X 2= 10.6 50 /2 = 25 =2 (3 /1) X 2= 6
DWELLING UNITS	73 UNITS		

Density Unit Calculation:
Site:
Lot 1= 129.95872 acres
Lot 2= 26.34421 acres
Total Site =156.30293 acres x 43,560sf/ac = (6,808,555.6308 sf) / 133,000=51.1921476
51 Density Units Available
43.6 Density Units Proposed (COMPLIES)

Dwelling Unit Calculation:
Site:
Lot 1=129.95872 acres
Lot 2=26.34421 acres
Total Site=156.30293 acres / 1.8 Acres = 86.834961
87 Dwelling Units Available (88 Studied in the EIS)
73 Dwelling Units Proposed (COMPLIES)
Minimum Unit Sizes:
Market Rate Units
- Efficiency: 450 sf Min. N/A
- One-Bedroom: 700 sf Min. N/A
- Two-Bedroom: 900 sf 2,377 sf is smallest (complies)
- Three-Bedroom: 1,100 sf 2,997 sf is smallest (complies)

AFFH Units
- Efficiency: 450 sf Min. N/A
- One-Bedroom: 700 sf Min. 790 sf (complies)
- Two-Bedroom: 900 sf 1,330 sf (complies)
- Three-Bedroom: 1,100 sf N/A

REVISIONS

#	DATE	REVISION DESCRIPTION	BY:
1	11.23.20	PLANNING BOARD SUBMISSION	KA
2	01.11.21	ARB SUBMISSION	KA
3	03.08.21	ARB SUBMISSION	KA
4	05.09.21	ARB SUBMISSION	KA
5	06.14.21	PLANNING BOARD SUBMISSION	KA
6	07.12.21	PLANNING BOARD SUBMISSION	KA
7	11.23.21	EDIT, PROSHOP LAYOUT SCHEM	JS
8	1.10.22	PLANNING BOARD SUBMISSION	KA

PHASE
SUBMITAL

PROJECT NAME
SUMMIT CLUB PARTNERS LLC
ARMONK, NY

JOB NO.: 20035
DRAWN BY: JS PROJ. MANAGER: KA
DATE: 01.10.22 SCALE: $\frac{3}{16}$"=1'-0"

DRAWING TITLE
AFFH BUILDING 7 FIRST FLOOR PLAN

DRAWING NO.
A101

FLOOR AREA, USABLE: 15,883 SF

GRANOFF ARCHITECTS

330 RAILROAD AVENUE
GREENWICH, CT 06830

203.625.9460

WWW.GRANOFFARCHITECTS.COM

CONSULTANTS

Structural:
Company Name
Street Address
City, State Phone Number

Landscape Architect:
Company Name
Street Address
City, State Phone Number

Civil:
Company Name
Street Address
City, State Phone Number

Plumbing:
Company Name
Street Address
City, State Phone Number

Mechanical:
Company Name
Street Address
City, State Phone Number

Electrical:
Company Name
Street Address
City, State Phone Number

REVISIONS

#	DATE	REVISION DESCRIPTION	BY:
1	11.23.20	PLANNING BOARD SUBMISSION	KA
2	01.11.21	ARB SUBMISSION	KA

PHASE
PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NAME
SUMMIT CLUB PARTNERS LLC

ARMONK, NY

JOB NO.: **20035**
DRAWN BY: **EF MM** PROJ. MANAGER: **KA**
DATE: **01.11.21** SCALE:

DRAWING TITLE
GARAGE FLOOR PLAN

DRAWING NO.
A100

JOB NAME: SUMMIT CLUB
APEX LIGHTING SOLUTIONS
REFLECTANCES: N/A
WORKPLANE/CALC PLANE: @ GRADE
MOUNTING HEIGHT: SEE LUMINAIRE SCHEDULE
APPS: LED
SALES: TM

Luminaire Schedule

Qty	Label	Arrangement	Lumens	Input Watts	LLF	BUG Rating	Description
7	SL2	SINGLE	11518	86.8	0.850	B2-U0-G2	U.S. ARCH RZR-PLED-II-40LED-700MA-WW-VOLT-FINISH MOUNTED TO 18FT POLE @ 18FT AFG TO BOF
3	SL2HS	SINGLE	8423	86.8	0.850	B1-U0-G2	U.S. ARCH RZR-PLED-II-40LED-700MA-WW-VOLT-FINISH-HS-PLED MOUNTED TO 18FT POLE @ 18FT AFG TO BOF
3	SL3	SINGLE	10880	86.8	0.850	B2-U0-G3	U.S. ARCH RZR-PLED-III-W-40LED-700MA-WW-VOLT-FINISH MOUNTED TO 18FT POLE @ 18FT AFG TO BOF
5	SL4	SINGLE	10595	86.8	0.850	B2-U0-G3	U.S. ARCH RZR-PLED-IV-FT-W-40LED-700MA-WW-VOLT-FINISH MOUNTED TO 18FT POLE @ 18FT AFG TO BOF
10	SL5	SINGLE	11920	86.8	0.850	B4-U0-G2	U.S. ARCH RZR-PLED-VSQ-M-40LED-700MA-WW-VOLT-FINISH MOUNTED TO 18FT POLE @ 18FT AFG TO BOF

Calculation Summary

Label	Grid Z	Avg	Max	Min	Avg/Min	Max/Min
SITE	0	0.39	4.7	0.0	N.A.	N.A.

GENERAL DISCLAIMER:
Calculations have been performed according to IES standards and good practice Some differences between measured values and calculated results may occur due to tolerances in calculation methods, testing procedures, component performance, measurement techniques and field conditions such as voltage and temperature variations. Input data used to generate the attached calculations such as room dimensions, reflectances, furniture and architectural elements significantly affect the lighting calculations. If the real environment conditions do not match the input data, differences will occur between measured values and calculated values.

* LLF Determined Using Current Published Lamp Data

NOTE TO REVIEWER:
Total Light Loss Factor (LLF) applied at time of design is determined by applying the Lamp Lumen Depreciation (LLD) from current lamp manufacturer's catalog, a Luminaire Dirt Depreciation Factor (LDD) based on IES recommended values and a Ballast Factor (BF) from current ballast specification sheets. Application of an incorrect Light Loss Factor (LLF) will result in forecasts of performance that will not accurately depict actual results.

For proper comparison of photometric layouts, it is essential that you insist all designers use correct Light Loss Factors.

REVISIONS

REV. X XX-XX-05 XXXXX

APEX LIGHTING SOLUTIONS
THE POINT WHERE ALL ASCENDING LINES CONVERGE
20-30 BEAVER ROAD
WETHERSFIELD, CT 06109
TELEPHONE 860.632.8766
FACSIMILIE 860.632.8236
www.apexltg.com

PROJECT TITLE: SUMMIT CLUB

DRAWING TITLE: EXTERIOR LIGHTING PHOTOMETRIC CALCULATION

SCALE : 1"=40'-0"
DATE: 6/11/21
DRAWN BY: LED
SHEET: SL-1A

FILE NAME: SL-1A SUMMIT CLUB 06-11-2021 LED.dwg

JOB NAME: SUMMIT CLUB
APEX LIGHTING SOLUTIONS
REFLECTANCES: N/A
WORKPLANE/CALC PLANE: @ GRADE
MOUNTING HEIGHT: SEE LUMINAIRE SCHEDULE
APPS: LED
SALES: TM

Luminaire Schedule

Qty	Label	Arrangement	Lumens	Input Watts	LLF	BUG Rating	Description
6	SL5	SINGLE	11920	86.8	0.850	B4-U0-G2	U.S. ARCH RZR-PLED-VSQ-M-40LED-700MA-WW-VOLT-FINISH MOUNTED TO 18FT POLE @ 18FT AFG TO BOF

Calculation Summary

Label	Grid Z	Avg	Max	Min	Avg/Min	Max/Min
SITE	0	0.47	3.0	0.0	N.A.	N.A.
LARGE PARKING LOT		1.29	2.9	0.1	12.90	29.00

GENERAL DISCLAIMER:
Calculations have been performed according to IES standards and good practice. Some differences between measured values and calculated results may occur due to tolerances in calculation methods, testing procedures, component performance, measurement techniques and field conditions such as voltage and temperature variations. Input data used to generate the attached calculations such as room dimensions, reflectances, furniture and architectural elements significantly affect the lighting calculations. If the real environment conditions do not match the input data, differences will occur between measured values and calculated values.

* LLF Determined Using Current Published Lamp Data

NOTE TO REVIEWER:
Total Light Loss Factor (LLF) applied at time of design is determined by applying the Lamp Lumen Depreciation (LLD) from current lamp manufacturer's catalog, a Luminaire Dirt Depreciation Factor (LDD) based on IES recommended values and a Ballast Factor (BF) from current ballast specification sheets. Application of an incorrect Light Loss Factor (LLF) will result in forecasts of performance that will not accurately depict actual results.
For proper comparison of photometric layouts, it is essential that you insist all designers use correct Light Loss Factors.

REVISIONS
REV. X XX-XX-05 XXXXX

APEX LIGHTING SOLUTIONS
THE POINT WHERE ALL ASCENDING LINES CONVERGE
20-30 BEAVER ROAD
WETHERSFIELD, CT 06109
TELEPHONE 860.632.8766
FACSIMILIE 860.632.8236
www.apexltg.com

PROJECT TITLE: SUMMIT CLUB

DRAWING TITLE: EXTERIOR LIGHTING PHOTOMETRIC CALCULATION

SCALE: 1"=40'-0"
DATE: 6/14/21
DRAWN BY: LED
SHEET: SL-2

FILE NAME: SL-2 SUMMIT CLUB 06-14-2021 LED.dwg

SOLID STATE AREA LIGHTING

RAZAR SERIES-LED

S P E C I F I C A T I O N S

PROJECT NAME:

PROJECT TYPE:

OPTICAL HOUSING
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance <± .002") to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ELECTRICAL HOUSING w/ INTEGRATED ARM
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED™ OPTICS
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments.

LED DRIVER(S)
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50,60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

LED EMITTERS
High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

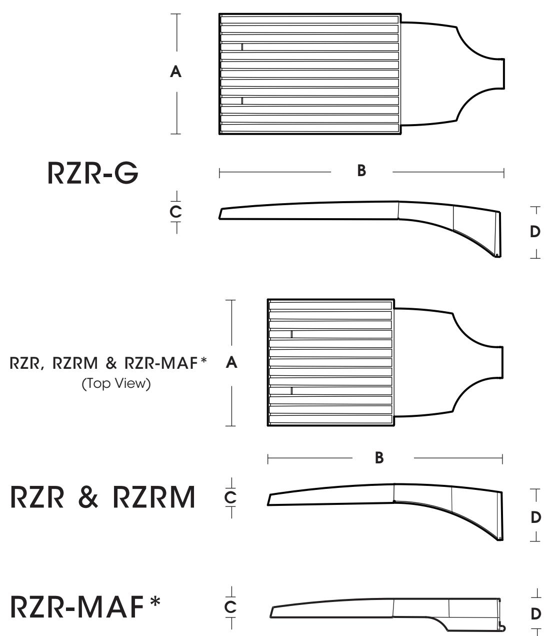
AMBER LED's
PCA (Phosphor Converted Amber) LED's utilize phosphors to create color output similar to LPS lamps and have a slight output in the blue spectral bandwidth. **TRA** (True Amber) LED's utilize material that emits light in the amber spectral bandwidth only without the use of phosphors.

FINISH
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

MAST ARM FITTER/ELECTRICAL HOUSING
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) straps with two (2) bolts each encircle the lower half of the tenon. Upper half of the tenon rests on self-centering steps that position the angle of the luminaire at 0°, +1.5°, +1.5 or +3° up from the horizontal. All hardware is stainless steel.

RAZAR

(MODELS: RZRM, RZR, RZR-G & RZR-MAF*) PATENT PENDING



FIXTURE	A	B	C	D
RZR-G	15" 381mm	36.5" 927mm	3" 76mm	7" 187mm
RZR	14.75" 375mm	28.25" 718mm	2.75" 70mm	6.5" 165mm
RZRM	11.5" 292mm	22" 559mm	2.5" 64mm	5.25" 133mm
RZR-MAF	15" 381mm	28.25" 724mm	2.5" 64mm	4" 102mm

*DLC PENDING AS OF 7/19

c UL us LISTED MADE IN THE USA

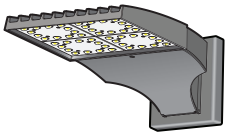
2020248

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

RAZAR SERIES-LED

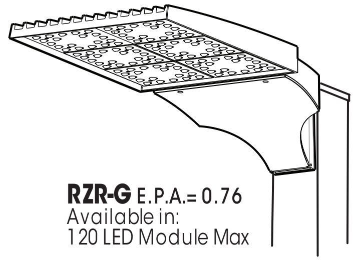
SPECIFICATIONS

WALLMOUNT

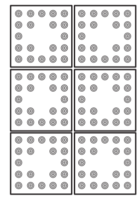


CAST ALUMINUM ARM AND WALL BRACKET ASSEMBLY PROVIDED WITH BUILT IN GASKETED WIRE ACCESS FOR FIXTURE/SUPPLY WIRE CONNECTION.

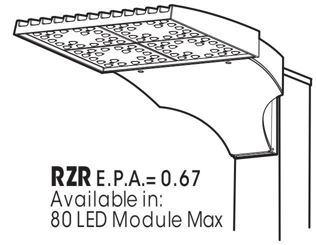
PLED® MODULES



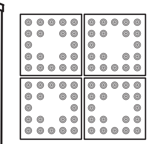
RZR-G E.P.A.= 0.76
Available in:
120 LED Module Max



120 LED Module

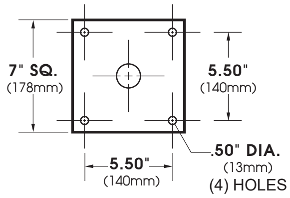


RZR E.P.A.= 0.67
Available in:
80 LED Module Max

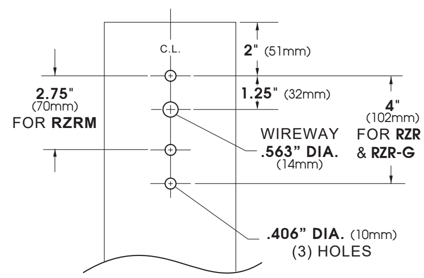


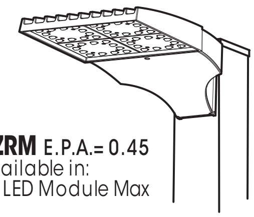
80 LED Module

WALL PLATE

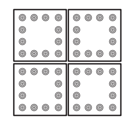


POLE DRILLING TEMPLATE





RZRM E.P.A.= 0.45
Available in:
48 LED Module Max



48 LED Module

Spec/Order Example: RZR/PLED-IV/80LED-700mA/CW/277/RAL-8019-S

SPEC/ORDERING INFORMATION

MODEL	OPTICS	LED MODE	VOLTAGE	FINISH	OPTIONS

MODEL

- ☐ RZR-G
- ☐ RZR
- ☐ RZR-MAF[1]
- ☐ RZRM

NOTES:
1 - DLC PENDING AS OF 7/19

OPTICS

- ☐ TYPE II **PLED-II**
- ☐ TYPE II FRONT ROW **PLED-II-FR**
- ☐ TYPE II MEDIAN ILLUMINATOR **PLED-II-ML**
- ☐ TYPE III MED. **PLED-III-M**
- ☐ TYPE III WIDE **PLED-III-W**
- ☐ TYPE IV **PLED-IV**
- ☐ TYPE IV **PLED-IV-FT**
- ☐ TYPE V NARROW **PLED-VSQ-N**
- ☐ TYPE V MED. **PLED-V-SQ-M**
- ☐ TYPE V WIDE **PLED-V-SQ-W**

LED MODE

NO. LEDs

RZR-G
- ☐ 120LED
- ☐ 80LED

RZR
- ☐ 80LED
- ☐ 40LED

☐ RZRM
- 48LED
- ☐ 24LED

DRIVE CURRENT

- ☐ 350mA
- ☐ 525mA
- ☐ 700mA[2]
- ☐ 1050mA[2]

COLOR TEMP - CCT

- ☐ NW (4000K)* *STANDARD
- ☐ CW (5000K)
- ☐ WW (3000K)

CONSULT FACTORY FOR OTHER LED COLORS

AMBER[3]
- ☐ PHOSPHOR CONVERTED AMBER **PCA**
- ☐ TRUE AMBER[4] **TRA**

NOTES:
2 - 700mA and 1050mA NOT FOR USE WITH TRA LED'S
3 - NARROW BAND AMBERS HAVE NO DEFINABLE CCT EQUIVALENT
4 - AVAILABLE IN 350mA & 525mA DRIVE CURRENTS ONLY

VOLTAGE

- ☐ 120
- ☐ 208
- ☐ 240
- ☐ 277
- ☐ 347
- ☐ 480

FINISH

STANDARD TEXTURED FINISH

- ☐ BLACK **RAL-9005-T**
- ☐ WHITE **RAL-9003-T**
- ☐ GREY **RAL-7004-T**
- ☐ DARK BRONZE **RAL-8019-T**
- ☐ GREEN **RAL-6005-T**

FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S)

CONSULT FACTORY FOR CUSTOM COLORS

OPTIONS

- ☐ HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR .... **HLSW**
- ☐ INTERNAL HOUSE SIDE SHIELD . . . **HS-PLED**
- ☐ PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) . . **PC+V**
- ☐ TWIST LOCK RECEPTACLE ONLY . . . **TPR**
- ☐ 7-PIN TWIST LOCK RECEPTACLE ONLY . . . **TPR7**
- ☐ SINGLE FUSE (120V, 277V, 347V) . . **SF**
- ☐ DOUBLE FUSE (208V, 240V, 480V) . . **DF**
- ☐ STEP DIM MOTION SENSOR (PROGRAMMED 50/100) **MS-F211**
- ☐ REMOTE MOTION SENSOR CONFIGURATOR **MS-FC10**

U.S. Architectural Lighting

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

U.S. ARCHITECTURAL LIGHTING

Approximate Average Lumens – 4000K

(Lumens median of all distributions)

	350mA			525mA			700mA			1050mA		
	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.
24	28	3541	50	41	5058	70-100	53	6567	100	81	8773	150-175
40	45	5997	70-100	66	8653	100-150	87	10995	175	134	14647	200-250
48	55	7046	100	81	10018	150-175	105	12600	200	160	17566	250
80	87	11622	175-200	131	16736	200-250	174	21235	400	266	28190	450-575
120	127	17405	250	195	24860	450	260	31592	575-750	396	43323	750-1000

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K CCT	INITIAL LUMENS - 3000K CCT	INITIAL LUMENS - 5000K CCT	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
24	LED	24 **PLED**® Optical Module - 350mA	3,298 - 3,784	3,133 - 3,595	3,463 - 3,973	60,000+	-20°F	29	120 277	0.24 0.10
24	LED	24 **PLED**® Optical Module - 525mA	4,711 - 5,405	4,475 - 5,135	4,947 - 5,675	60,000+	-20°F	42	120 277	0.34 0.15
24	LED	24 **PLED**® Optical Module - 700mA	6,023 - 6,911	5,722 - 6,565	6,324 - 7,256	60,000+	-20°F	56	120 277	0.45 0.20
24	LED	24 **PLED**® Optical Module - 1050mA	8,171 - 9,375	7,762 - 8,906	8,580 - 9,844	60,000+	-20°F	82	120 277	0.68 0.30
40	LED	40 **PLED** Optical Module - 350mA	5,585 - 6,408	5,306 - 6,088	5,864 - 6,729	60,000+	-20°F	43	120 277	0.38 0.17
40	LED	40 **PLED**® Optical Module - 525mA	8,059 - 9,246	7,656 - 8,784	8,462 - 9,709	60,000+	-20°F	65	120 277	0.55 0.24
40	LED	40 **PLED**® Optical Module - 700mA	10,240 - 11,749	9,728 - 11,162	10,752 - 12,337	60,000+	-20°F	87	120 277	0.73 0.32
40	LED	40 **PLED**® Optical Module - 1050mA	13,642 - 15,652	12,960 - 14,870	14,324 - 16,435	60,000+	-20°F	128	120 277	1.12 0.49
48	LED	48 **PLED**® Optical Module - 350mA	6,562 - 7,529	6,234 - 7,153	6,890 - 7,909	60,000+	-20°F	53	120 277	0.46 0.20
48	LED	48 **PLED**® Optical Module - 525mA	9,330 - 10,705	8,864 - 10,170	9,797 - 11,240	60,000+	-20°F	79	120 277	0.68 0.29
48	LED	48 **PLED**® Optical Module - 700mA	11,735 - 13,464	11,148 - 12,791	12,322 - 14,137	60,000+	-20°F	106	120 277	0.88 0.38
48	LED	48 **PLED**® Optical Module - 1050mA	16,360 - 18,771	15,542 - 17,832	17,178 - 19,709	60,000+	-20°F	160	120 277	1.33 0.58

RZR

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K CCT	INITIAL LUMENS - 3000K CCT	INITIAL LUMENS - 5000K CCT	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
80	LED	80 **PLED**® Optical Module - 350mA	10,824 - 12,419	10,283 - 11,798	11,365 - 13,040	60,000+	-20°F	86	120 277	0.75 0.33
80	LED	80 **PLED**® Optical Module - 525mA	15,587 - 17,884	14,808 - 16,990	16,366 - 18,778	60,000+	-20°F	130	120 277	1.10 0.48
80	LED	80 **PLED**® Optical Module - 700mA	19,767 - 22,680	18,779 - 21,546	20,755 - 23,814	60,000+	-20°F	174	120 277	1.45 0.63
80	LED	80 **PLED**® Optical Module - 1050mA	26,255 - 30,124	24,942 - 28,618	27,568 - 31,630	60,000+	-20°F	257	120 277	2.22 0.96

RZR-G

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K CCT	INITIAL LUMENS - 3000K CCT	INITIAL LUMENS - 5000K CCT	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
80	LED	80 **PLED**® Optical Module - 350mA	10,950 - 12,564	10,403 - 11,936	11,498 - 13,192	60,000+	-20°F	87	120 277	0.75 0.33
80	LED	80 **PLED**® Optical Module - 525mA	15,735 - 18,054	14,948 - 17,151	16,522 - 18,957	60,000+	-20°F	129	120 277	1.10 0.48
80	LED	80 **PLED**® Optical Module - 700mA	20,074 - 23,032	19,071 - 21,881	21,078 - 24,184	60,000+	-20°F	174	120 277	1.45 0.63
80	LED	80 **PLED**® Optical Module - 1050mA	27,651 - 31,725	26,268 - 30,139	29,033 - 33,311	60,000+	-20°F	266	120 277	2.22 0.96

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K CCT	INITIAL LUMENS - 3000K CCT	INITIAL LUMENS - 5000K CCT	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
120	LED	120 **PLED**® Optical Module - 350mA	16,211 - 18,599	15,400 - 17,669	17,021 - 19,529	60,000+	-20°F	130	120 277	1.06 0.46
120	LED	120 **PLED**® Optical Module - 525mA	23,154 - 26,566	21996 - 25,238	24,312 - 27,894	60,000+	-20°F	192	120 277	1.63 0.70
120	LED	120 **PLED**® Optical Module - 700mA	29,424 - 33,760	27,953 - 32,072	30,895 - 35,448	60,000+	-20°F	260	120 277	2.17 0.94
120	LED	120 **PLED**® Optical Module - 1050mA	40,350 - 46,296	38,333 - 43,981	42,368 - 48,611	60,000+	-20°F	398	120 277	3.33 1.43

NOTES:
1. Max Input Amps is the highest of starting, operating, or open circuit currents.
2. Lumen values for LED Modules vary according to the distribution type. 80LED array appears in both the RZR and RZR-G models.
3. System Watts includes the source watts and all driver components.
4. Fuse value should be sufficient to protect all wiring components. For electronic driver and LED component protection, use surge suppressor supplied with luminaire. Note: Surge suppressors are considered a perishable device.
5. L70(10K) – TM-21 6x rule applied.

WARNING: All fixtures must be installed in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN

THE SUMMIT CLUB AT ARMONK

568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

Applicant/Operator/ Owner: **Summit Club Partners, LLC**
c/o Mr. Jeff Mendell
(203) 813-3264

Prepared by:

JMC Project 20101

Draft: 06/14/2021
Revised: 01/10/2022

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APPENDICES

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REFERENCED DRAWINGS FOR SWPPP DESIGN AND DETAILS

JMC SITE PLANS

Dwg. No.	Title	Rev. No./Date
C-000	Cover Sheet	01/10/2022
C-010	Overall Existing Conditions	01/10/2022
C-011	Existing Conditions Map (South)	01/10/2022
C-012	Existing Conditions Map (North)	01/10/2022
C-020	Site Demolition Plan (South)	01/10/2022
C-021	Site Demolition Plan (North)	01/10/2022
C-022	Site Tree Removal Table	01/10/2022
C-100A	Overall Site Layout Plan	01/10/2022
C-100	Site Layout Plan (South)	01/10/2022
C-101	Site Layout Plan (North)	01/10/2022
C-102	Fire Truck Access Plan	01/10/2022
C-200	Site Grading Plan (South)	01/10/2022
C-201	Site Grading Plan (North)	01/10/2022
C-202	Road Profiles Plan	01/10/2022
C-300	Utilities Plan (South)	01/10/2022
C-301	Utilities Plan (North)	01/10/2022
C-302	Sanitary Profiles	01/10/2022
C-303	Water Profiles	01/10/2022
C-304	Storm Profiles	01/10/2022
C-400	SE Plan (South)	01/10/2022
C-401	SE Plan (North)	01/10/2022
C-900	Construction Details	01/10/2022
C-901	Construction Details	01/10/2022
C-902	Construction Details	01/10/2022
C-903	Construction Details	01/10/2022

I. INTRODUCTION

This Stormwater Pollution Prevention Plan has been prepared for the 156.30 acre Summit Club at Armonk site, located in the Town of North Castle, Westchester County, New York (hereinafter referred to as the "Site"). The site is bordered by residential to the north and south, NY-22 (Bedford Road) to the east, and I-684 to the west. The development has been designed in accordance with the following:

- Requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-20-001, effective January 29, 2020.
- Chapter 267 "Stormwater Management" of the Town of North Castle Zoning Code
- New York State Stormwater Management Design Manual.

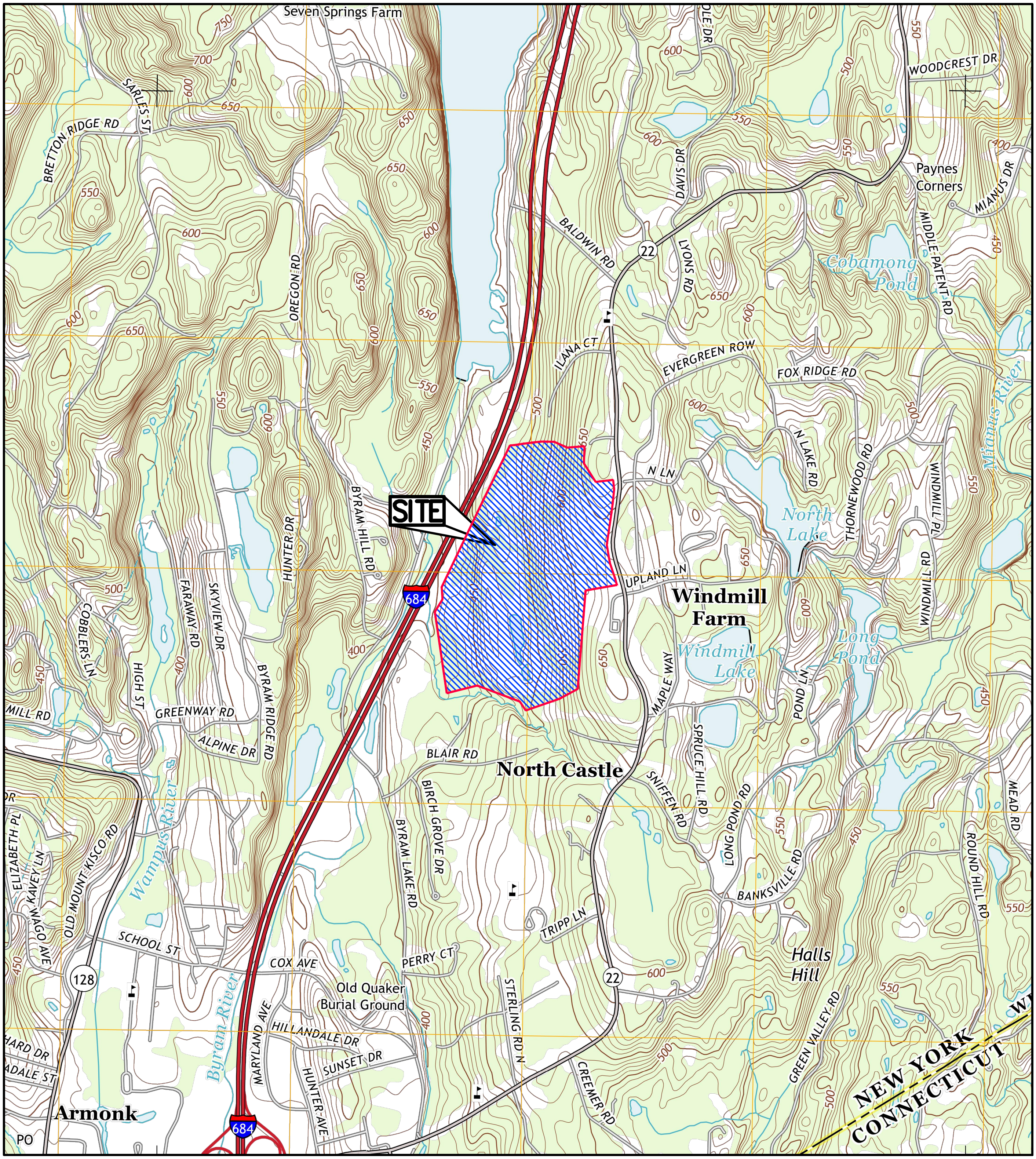
The project will consist of approximately 18.9 acres of disturbance at the east end of the site. The existing clubhouse, pool and tennis have recently been demolished. Seven multifamily 3-story residential buildings are being proposed, along with a residential amenities building, pool and tennis courts. An entrance road and overflow parking area are also being added.

II. STORMWATER MANAGEMENT PLANNING

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 January 2015.

A Stormwater Pollution Prevention Plan has been prepared for this project because it is a construction activity that involves:

- Soil disturbances of one (1) or more acres of land.



THE SUMMIT CLUB AT ARMONK

568 BEDFORD ROAD (NY 22) TOWN OF NORTH CASTLE, NY

USGS SITE LOCATION MAP

DATE: 05/27/2021 JMC PROJECT: 20101

FIGURE: 1 SCALE: 1"=2000'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

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20101-SLM.dwg; SLM.tab

The proposed stormwater facilities have been designed such that the quantity and quality of stormwater runoff during and after construction are not adversely altered or are enhanced when compared to pre-development conditions.

Based on the GIS information provided by the website of the New York State Office of Parks, Recreation and Historic Places, the site does not contain, nor is it immediately adjacent to any properties listed on the State or National Register of Historic Places.

The Six Step Process for Stormwater Site Planning and Practice Selection

Stormwater management using green infrastructure is summarized in the six step process described below. The six step process was adhered to when developing this SWPPP. Information is provided in this SWPPP which documents compliance with the required process as follows:

Step 1: Site Planning

Implement planning practices that protect natural resources and utilize the hydrology of the site. Strong consideration must be given to reducing impervious cover to aid in the preservation of natural resources including protecting natural areas, avoiding sensitive areas and minimizing grading and soil disturbance.

Step 2: Determine Water Quality Treatment Volume (WQv)

Determine the required WQv for the site based on the site layout, impervious areas and sub-catchments. This initial calculation of WQv will have to be revised after green infrastructure techniques are applied. The following method has been used to calculate the WQv.

- **90% Rule -** According to the New York State Stormwater Design Manual, Section 4.1, the water quality volume is determined from the 90% rule. The method is based on 90% of the average annual stormwater runoff volume which must be provided due to impervious surfaces. The Water Quality Volume (denoted as the WQv) is designed to improve water quality sizing to capture and treat 90% of the average annual stormwater runoff volume. The WQv is directly related to the amount of impervious cover created at a site. The average rainfall storm depth for 90% of storms in New York State in one year is used to calculate a volume of runoff. The rainfall depth depends on the location of the site within the state. From this depth of rainfall, the required water quality volume is calculated.

The project is a redevelopment and therefore will comply with the strategies outlined within Chapter 9: Redevelopment Projects of the Design Manual. There are different options to control water quality depending on the redevelopment.

Since the redevelopment results in the creation of additional impervious area, Water Quality Treatment Option II will be utilized which requires treatment for 25% of the existing impervious area, plus 100% of the additional, new impervious area.

The plan proposes that a minimum of 25% of the water quality volume (WQv) from the disturbed area is captured and treated by the implementation of standard practices. When utilizing structural stormwater management practices, these practices should be targeted to treat areas with the greatest pollutant generation potential (e.g. parking areas, service stations, etc).

Step 3: Runoff Reduction Volumes (RRv) by Applying Green Infrastructure Techniques and Standard SMP's

RRv is required for this project since it is a combination of both new development and redevelopment.

Green infrastructure techniques or standard SMP's with RRv capacity can potentially reduce the required WQv by incorporating combinations of green infrastructure techniques and standard SMP's within each drainage area on the site.

Green infrastructure techniques are grouped into two categories:

- Practices resulting in a reduction of contributing area such as preservation/restoration of conservation areas, vegetated channels, etc.
- Practices resulting in a reduction of contributing volume such as green roofs, stormwater planters, and rain gardens.

Apply a combination of green infrastructure techniques and standard SMPs with RRv capacity to provide 100% of the WQv calculated in Step 2. If the RRv calculated in this step is greater than or equal to the WQv in Step 2, the RRv requirement has been met and Step 4 can be skipped. If the RRv provided cannot meet or exceed 100% of the WQv, the project must, at a minimum, reduce a percentage of the runoff from impervious areas to be constructed on the site. The percent reduction is based on the Hydrologic Soil Group(s) (HSG) of the site and is defined as Specific Reduction Factor (S).

The following green infrastructure techniques and practices are provided in the Design Manual:

- **Conservation of Natural Areas**
  - There are no areas on the site available to be dedicated to a conservation. Therefore, there is no area to be subtracted from the contributing area for the WQv calculation.
- **Sheet flow to Riparian Buffers or Filter Strips**
  - There are some well vegetated areas on-site with acceptable slopes that lend an opportunity as a buffer and still meet the minimum contributing length of flow. However, this practice was not used since an infiltration pond was a more practical and efficient treatment method.
- **Vegetated Swales**
  - The use of sheet flow into vegetated swales cannot be implemented along the proposed driveway because of the steep slope or throughout the parking areas due to the limited flow lengths, rock outcroppings, septic expansion areas, etc.
- **Tree Planting / Tree Pits**

- The project includes extensive tree planting around its perimeter as part of the proposed landscaping plan. However, the new trees are not credited towards area reduction for the water quality volume.

- **Disconnection of Rooftop Runoff**
  - This practice is not practical for this project since these items are typically used in a residential application with small rooftop areas.
- **Stream Daylighting**
  - This practice is not possible for this project since there are no existing streams.
- **Rain Gardens**
  - This practice is not practical for this project since a contributing drainage area is limited to 1,000 square feet of rooftop. This practice is typically used in a smaller residential application.
- **Green Roofs**
  - This practice is not proposed for this project due to the desired aesthetics of the buildings. Other more practical and efficient treatment methods were used.
- **Stormwater Planters**
  - Small drainage areas, less than 15,000 square feet can be collected by roof drains and discharged into stormwater planters which infiltrate stormwater prior to entering the underground storm pipes. However, this practice was not used in lieu of more practical and efficient treatment methods.
- **Rain Barrels and Cisterns**
  - Underground storage tanks could feasibly be installed to collect stormwater runoff to be used for irrigation purposes. However, this practice was not used in lieu of more practical and efficient treatment methods.
- **Porous Paving**
  - This practice is being utilized for the overflow parking area. In addition, pervious pavers are shown in front of the residential buildings but have been conservatively treated as impervious areas in the calculations.
- **Standard Practices with RRv Capacity**
  - **Biofilters and Bioretention Basins –** These practices cannot be proposed because the soil within the areas that have the ability to accommodate the practices has observed

groundwater elevations that are too close to the surface which would not provide the required separation from the bottom of the practice to groundwater.

- **Infiltration Practices –** An infiltration pond is located behind the residential buildings and is proposed to treat and retain runoff from a majority of the disturbance area.

The Minimum RRv capacity required must be provided by green infrastructure techniques to verify that the RRv requirement has been met. The RRv that is provided by the green infrastructure techniques can then be subtracted from the Total Required WQv that must be provided by the SMP's.

Step 4: Determine the minimum RRv Required

The minimum RRv is calculated similar to the WQv. However, it is determined using only the new impervious cover and accounts for the hydrologic soil group present. In no case shall the runoff reduction achieved from the newly constructed impervious area be less than the minimum runoff reduction volume (RRv_{min}).

Step 5: Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

Apply the standard SMP's to meet additional water quality volume requirements that cannot be addressed by applying the green infrastructure techniques. The standard SMP's with RRv capacity must be implemented to verify that the RRv requirement has been met.

- **Infiltration Practices –** An infiltration pond is proposed to treat and retain runoff from the residential portion of the site. This practice is located in an area the groundwater elevation is acceptable to provide the required separation. According to Section 3.6 of the Design Manual, 100% of the WQv provided by an Infiltration Practice can be applied towards meeting the RRv criteria.

- **Porous Pavement** – Pavement with a high void ratio which allows the water to flow though in and into a drainage area below is being used to treat the water from the proposed overflow parking area. According to Section 3.6 of the Design Manual, 100% of the WQv provided by an Infiltration Practice can be applied towards meeting the RRv criteria.

Step 6: Apply Volume and Peak Rate Control Practices to Meet Water Quantity Requirements

The Channel Protection Volume (CPv), Overbank Flood Control (Qp) and Extreme Flood Control (Qf) must be met for the plan to be completed. This is accomplished by using practices such as infiltration basins, dry detention basins, etc. to meet water quantity requirements. The following standards must be met:

1. **Stream Channel Protection (CPv)**

   Stream Channel Protection Volume Requirements (CPv) are designed to protect stream channels from erosion. In New York State this goal is accomplished by providing 24-hour extended detention of the one-year, 24-hour storm event, remained from runoff reduction. Reduction of runoff for meeting stream channel protection objectives, where site conditions allow, is encouraged and the volume reduction achieved through green infrastructure can be deducted from CPv. Trout waters may be exempted from the 24-hour ED requirement, with only 12 hours of extended detention required to meet this criterion. Detention time may be calculated using either a center of mass method or plug flow calculation method.

   - CPv for a redevelopment project is not required if there is no increase in impervious area or changes to hydrology that increase the discharge rate. This criterion, as defined in Chapter 4 of New York State Stormwater Design Manual, is not based on a pre versus post-development comparison. However, for a redevelopment project this requirement is relaxed. If the hydrology and hydraulic study shows that the post-construction 1-year 24 hour discharge rate and velocity are less than or equal to the pre-construction discharge rate, providing 24 hour detention of the 1-year storm to meet the channel protection criteria is not required.

2. **Overbank Flood (Qp) which is the 10 year storm.**

   Overbank control requires storage to attenuate the post development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates.

3. **Extreme Storm (Qf) which is the 100 year storm.**

   100 Year Control requires storage to attenuate the post development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates.

Based on the foregoing, this project is eligible for coverage under NYSDEC SPDES General Permit No. GP-0-20-001.

III. STUDY METHODOLOGY

Runoff rates were calculated based upon the standards set forth by the United States Department of Agriculture Natural Resources Conservation Service Technical Release 55, Urban Hydrology for Small Watersheds (TR-55), dated June 1986. The methodology set forth in TR-55 considers a multitude of characteristics for watershed areas including soil types, soil permeability, vegetative cover, time of concentration, topography, rainfall intensity, ponding areas, etc.

The 1, 10, 25, 100-year storm recurrence intervals were reviewed in the design of the stormwater management facilities (see Appendix A Existing & Proposed Hydrologic Calculations).

Anticipated drainage conditions were analyzed taking into account the rate of runoff which will result from the construction of buildings, parking areas and other impervious surfaces associated with the site development.

Base Data and Design Criteria

For the stormwater management analysis, the following base information and methodology were used:

1. The site drainage patterns and outfall facilities were reviewed by JMC personnel for the purpose of gathering background data and confirming existing mapping of the watershed areas.

2. An Existing Drainage Area Map was developed from the topographical survey. The drainage area map reflects the existing conditions within and around the project area.

3. A Proposed Drainage Area Map was developed from the proposed grading design superimposed over the topographical survey. The drainage area map reflects the proposed conditions within the project area and the existing conditions to remain in the surrounding area.

4. The United States Department of Agriculture (USDA) Web Soil Survey of the site available on its website at http://websoilsurvey.nrcd.usda.gov.

5. Soil Survey of Putnam and Westchester Counties, 1994.

6. The United States Department of Agriculture Natural Resources Conservation Service Technical Report No. 55, Urban Hydrology for Small Watersheds (TR-55), dated June 1986.

7. The time of concentration was calculated using the methods described in Chapter 3 of TR-55, Second Edition, June 1986. Manning's kinematics wave equation was used to determine the travel time of sheet flow. The 2-year 24-hour precipitation amount of 3.4 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.

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

9. All hydraulic calculations were performed with the Civil 3D Storm Sewer Analysis software package version 2020.

10. The New York State Stormwater Management Design Manual, revised January 2015.

11. New York Standards and Specifications for Erosion and Sediment Control, November 2016.

12. The storm flows for the 1-, 10-, 25-, & 100-year recurrence interval storms were analyzed for the total watershed areas. The Type III distribution design storm for a 24 hour duration was used and the mass rainfall for each design storm was taken from the Extreme Precipitation in New York & New England developed by the Natural Resource Conservation Service (NRCS) and the Northeast Regional Climate Center (NRCC) as follows:

24 Hour Rainfall Amounts

Design Storm Recurrence Interval	Inches of Rainfall
1 Year	2.8
10 Year	5.1
25 Year	6.4
100 Year	9.1

IV. EXISTING CONDITIONS

The existing conditions of the project site consists of an existing clubhouse building with a swimming pool, fourteen tennis courts, and a parking lot to remain. The majority of the site drains through the golf course to the west, passing through a series of swales and pond before finally existing the site by I-684. A small portion of the stormwater drains to the east towards Bedford Road (NYS Route 22).

The following natural features, conservation areas, resource areas and drainage patterns of the project site have been identified and utilized to develop Drawing DA-1 "Existing Drainage Area Map" which is included in Appendix G:

- Wetlands (jurisdictional, wetland of special concern)
- Waterways (major, perennial, intermittent, springs)
- Buffers (stream, wetland, forest, etc.)
- Forest, vegetative cover
- Topography (contour lines, existing flow paths, steep slopes, etc.)
- Soil (hydrologic soil groups, highly erodible soils, etc.)

Based on the USDA Web soil survey, most on-site soils are well drained, with some moderately well drained soils. Most of the soils belong to hydrological groups B or C. The soil types, boundaries and drainage areas/designations are depicted on Drawing DA-1 within Appendix G.

Two separate Design Points (DP-1C and DP-2) were identified for comparing peak rates of runoff in existing and proposed conditions. Similarly, five 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. Refer to Drawing DA-1 in Appendix G.

<u>Existing Drainage Area 1C-2 (EDA-1C-2)</u> is 12.59 acres in size and is located on the southern portion of the disturbance area. This area consists of the existing clubhouse, pool, parking lot, several tennis courts, and landscaped areas. This drainage area drains towards Junction 1C-2 where it passes through several ponds before traveling to the design point. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 80 and 18 minutes, respectively.

<u>Existing Drainage Area 1C-6 (EDA-1C-6)</u> is 0.35 acres in size and is located on the western portion of the disturbance area. This area consists mostly of landscaped area. This drainage area

drains towards Junction 1C-6 where it runs via overland flow into a wetland area before traveling to the design point. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 66 and 7 minutes, respectively.

Existing Drainage Area 1C-7 (EDA-1C-7) is 1.59 acres in size and is located on the western portion of the disturbance area. This area consists mostly of landscaped area with a couple of tennis courts. This drainage area drains towards Junction 1C-7 where it runs via overland flow into a series of ponds before traveling to the design point. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 76 and 14 minutes, respectively.

Existing Drainage Area 1C-10 (EDA-1C-10) is 4.76 acres in size and is located on the western portion of the disturbance area. This area consists mostly of landscaped area with a couple of tennis courts. This drainage area drains towards Junction 1C-7 where it runs via overland flow into a series of ponds before traveling to the design point. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 67 and 9 minutes, respectively.

Existing Drainage Area 2 (EDA-2) is 3.37 acres in size and is located on the eastern portion of the disturbance area. This area consists mostly of landscaped area with a portion of the tennis courts. This drainage area drains towards a drain inlet along Bedford Road. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 79 and 11 minutes, respectively.

The peak rates of runoff to the design points from the drainage areas for each storm are shown in the table below:

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

Storm Recurrence Interval	DP-1C	DP-2
1 year	13.53	3.15
10 year	41.12	9.00
25 year	58.24	12.55
100 year	95.31	19.92

V. PROPOSED CONDITIONS

The proposed improvements consist of the entrance driveway, six residential buildings, amenities building, pool, and tennis courts.

The proposed drainage improvements include an infiltration basin, a detention basin, and porous pavement. After treatment for water quality and peak rate attenuation, stormwater discharges from the ponds will travel through overland flow and ponds/wetlands. The overland discharges provide multiple opportunities for water quality enhancement and infiltration in addition to the proposed stormwater management basins.

This section describes the design and analysis of the proposed conditions used to demonstrate that the SWPPP meets the requirements of the General Permit.

The Six Step Process For Stormwater Site Planning and Practice Selection

Step 1: Site Planning

The following practices and site features were incorporated in the site design:

- Preserving hydrology - Maintaining drainage divides
- Wetlands and buffers – The site includes 6.56 acres of wetlands and 26.01 acres of wetland buffers. The project requires the disturbance of 0 acres of wetlands and 0 acres of wetland buffers.
- Floodplain considerations - The site does not lie within the 100 year flood zone according to the National Flood Insurance Program Flood Insurance Rate Map (FIRM) No. 36119C0164F and No. 36119C0168F, effective date 09/28/2007.
- Waterways (major, perennial, intermittent, springs) – The location, setback, cross section, etc. of the existing waterway has been maintained.
- Forest, vegetative cover – The maximum amount of forest and vegetative cover has been maintained and/or provided.

- Topography (contour lines, existing flow paths, steep slopes, etc.) has been maintained or disturbed to the minimum extent practicable.
- Soil (hydrologic soil groups, highly erodible soils, etc.)

Step 2: Determine Water Quality Treatment Volume (WQv)

Step 3: Runoff Reduction Volumes (RRv) by Applying Green Infrastructure Techniques and Standard SMP's

- **Infiltration Basin**
- **Porous Pavement**

Step 4: Determine the minimum RRv Required

RRv_{min} calculations can be found in Appendix 'B'. RRv_{min} was met through infiltration basins and porous pavement.

Step 5: Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

Non Standard/Alternative SMP's to Address Remaining Water Quality Volume (for Redevelopment Projects)

- **Hydrodynamic Separators (pretreatment)**

Step 6: Apply Volume and Peak Rate Control Practices to Meet Water Quantity Requirements

- **PONDS**

Extended Detention Pond

Description

Pond that treats the water quantity volume through extended detention.

All practices exceed the required elements of SMP criteria as outlined in Chapter 6 of the NYS Stormwater Management Design Manual. A summary of each category is provided below.

1. Feasibility – Stormwater practices are designed based upon unique physical environmental considerations noted in the NYS Stormwater Management Design Manual (NYSSMDM).

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

3. Pretreatment – All stormwater practices provide pretreatment as required in accordance with NYSSMDM design guidelines.

4. Treatment Geometry – The plan provides water quality treatment in accordance with NYSSMDM guidelines.

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

6. Maintenance – Maintenance for the environment practices has been provided and is detain the SWPPP Report as required. Maintenance access is provided in the design plans.

In order to determine the post-development rates of runoff generated on-site, the following drainage areas were analyzed in the post-development conditions. These areas are graphically depicted on Drawing DA-2 "Proposed Drainage Area Map" located in Appendix "G".

Two separate Design Points (DP-1C and DP-2) were identified for comparing peak rates of runoff in existing and proposed conditions. Similarly, three separate drainage areas were identified in proposed conditions based on the proposed 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 proposed conditions analysis. Refer to Drawing DA-2 in Appendix G.

<u>Proposed Drainage Area 1C-2A (PDA-1C-2A)</u> is 6.28 acres in size and is located on the southern portion of the disturbed area. This area consists of the existing parking area, proposed amenities building, pool, tennis courts, and parking overflow area. The parking overflow area will consist of pervious pavement, while the remaining impervious area is either existing or replacing existing impervious. This drainage area drains towards Junction 1C-2 where it passes through several ponds before traveling to the design point. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 87 and 17 minutes, respectively.

<u>Proposed Drainage Area 1C-2B (PDA-1C-2B)</u> is 13.45 acres in size and is located on the northern portion of the disturbed area. This area consists of the proposed residential buildings, roadways and parking areas, and tennis courts. This drainage area drains towards an infiltration and detention pond for quality and quantity treatment. As the stormwater exits the detention pond, it is directed towards two separate locations, Junction 1C-2 and Junction 1C-10. This is done to align post-development flows with pre-development conditions. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 79 and 10 minutes, respectively.

<u>Proposed Drainage Area 2 (PDA-2)</u> is 2.93 acres in size and is located on the eastern portion of the disturbed area. This area consists of existing landscaped area. This drainage area drains towards a drain inlet along Bedford Road. The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 74 and 11 minutes, respectively.

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

Table 3
Summary of Proposed Peak Rates of Runoff in Proposed Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1C	DP-2
1 year	6.18	1.94
10 year	26.38	6.62
25 year	43.84	9.60
100 year	82.49	15.93

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 (Existing vs. Proposed Conditions)
(Cubic Feet per Second)

Design Point	Storm Recurrence Frequency (Years)	Existing Peak Runoff Rate (cfs)	Proposed Peak Runoff Rate (cfs)	Percent Reduction (%)
1C	1 year	13.53	7.23	46.6
	10 year	41.12	26.55	35.4
	25 year	58.24	44.19	24.1
	100 year	95.31	82.90	13.0
2	1 year	3.15	1.87	40.6
	10 year	9.00	6.37	29.2
	25 year	12.55	9.23	26.5
	100 year	19.92	15.32	23.1

As demonstrated in Table 4, the proposed stormwater improvements will result in significant reductions of peak rates of runoff for all storms and design points analyzed.

VI. SOIL EROSION & SEDIMENT CONTROL

A potential impact of the proposed development on any soils or slopes will be that of erosion and transport of sediment during construction. An Erosion and Sediment Control Management Program will be established for the proposed development, beginning at the start of construction and continuing throughout its course, as outlined in the "New York State Standards and

Specifications for Erosion and Sediment Control," November 2016. A continuing maintenance program will be implemented for the control of sediment transport and erosion control after construction and throughout the useful life of the project.

The Operator shall have a qualified professional 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 Sediment & Erosion Control Plans, have been adequately installed to ensure overall preparedness of the site for the commencement of construction. In addition, the Operator shall have a qualified professional conduct one site inspection at least every seven calendar days and at least two site inspections every seven calendar days when greater than five acres of soil is disturbed at any one time. In accordance with NYSDEC SPDES General Permit No. GP-0-20-001 effective January 29, 2020 written authorization by the MS4 (Town of North Castle) to disturb greater than five (5) acres of soil at any one time is hereby requested, subject to the following provisions:

1. The owner or operator shall have a qualified inspector conduct at least two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
2. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, last revised November 2016.
3. The owner or operator shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
4. The owner or operator shall install any additional site-specific practices needed to protect water quality.
5. The owner or operator shall include the requirements above in their SWPPP.

Prior to the commencement of construction activity, the owner or operator must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The owner or operator shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the trained contractor. The owner or operator shall ensure that at least one trained contractor is on site on a daily basis when soil disturbance activities are being performed.
The owner or operator shall have each of the contractors and subcontractors identified above sign a copy of the certification statement provided in Appendix E before they commence any construction activity.

<u>Soil Description</u>

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
Ub	**B**	**Udorthents, Smoothed**
PnB	**C**	**Paxton fine sandy loam, 3 to 8 percent**
CrC	**B**	**Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky**
PnC	**C**	**Paxton fine sandy loam, 8 to 15 percent**
CsD	**B**	**Charlton-Chatfield complex, 15 to 35 percent slopes, very rocky**

Ub, Udorthents, Smoothed

This soil consists of very deep, excessively drained to moderately well drained soils that have been altered by cutting and filling. It is made up of soil material in alternating layers ranging from sand to silt loam. Slopes are mainly 3 to 15 percent, but they range from 0 to 25 percent. Because of the variability of the Udorthents, a typical pedon is not described. The fill material is commonly more than 20 inches deep over the original soil. The content of rock fragments ranges from 0 to 60 percent. The properties and characteristics of the Udorthents are so variable that onsite investigation and evaluation are required to determine the suitability and limitations for proposed uses.

Hydrologic group: **B**
Erosion Hazard Rating: **NOT RATED**

PnB, Paxton fine sandy loam, 3 to 8 percent

This soil is gently sloping, very deep, and well drained. It is on broad ridges and small hills. Individual areas are irregularly shaped or are long and narrow. Included with this soil in mapping are a few areas of the moderately well drained Woodbridge soils, small areas of the somewhat poorly drained Ridgebury soils, small areas of Charlton soils that do not have a dense substratum, and the areas of rock outcrop. Woodbridge soils are on the lower concave side slopes and at the bottom of the hills. Ridgebury soils are along drainageways. The rock outcrop is in a few areas, generally near areas of Chatfield or Hollis soils. Also included are a new soils that have a very stony surface. The seasonally high water table is 1.5 to 2.5 feet. The available water capacity is moderate.

Hydrologic group: **C**
Erosion Hazard Rating: **SLIGHT**

CrC, Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky

The unit consists of very deep and moderately deep, well drained and somewhat excessively drained Chatfield soil and the well-drained Charlton soil. It is on hilltops and hillsides that are underlain by highly folded bedrock. Included in mapping are areas of moderately well drained Sutton soils, the somewhat poorly drained and poorly drained Leicester soils, and the poorly drained and very poorly drained Sun soils. Sutton soils are along drainageways and in concave interridge areas. Leicester and Sun soils are in shallow depressions and along drainageways. Also included are the poorly drained Carlisle and Palms soils, the somewhat excessively drained and well drained Hollis soils, and areas of soils that are similar to the Chatfield soil but are deep over bedrock. Carlisle and Palms soils are in closed depressions. Hollis soils are shallow over bedrock. They are in scattered areas throughout the unit but are mostly on ridgetops. The soils that are similar to the Chatfield soils are in the western part of Putnam County, in areas where the surface is extremely stony or bouldery. The seasonally high water table is more than 6 feet. The available water capacity is moderate.

Hydrologic group: **B**
Erosion Hazard Rating: **MODERATE**

PnC, Paxton fine sandy loam, 8 to 15 percent

This soil is strongly sloping, very deep, and well drained. It is on the sides and tops broad ridges and small hills. Individual areas are irregularly shaped or are long and narrow. Included with this soil in mapping are a few areas of the moderately well drained Woodbridge soils, small areas of the somewhat poorly drained Ridgebury soils, small areas of Charlton soils that do not have a dense substratum, and the areas of rock outcrop. Woodbridge soils are on the lower concave side slopes and at the bottom of the hills. Ridgebury soils are along drainageways. The rock outcrop is in a few areas, generally near areas of Chatfield or Hollis soils. Also included are a new soils that have a very stony surface. The seasonally high water table is 1.5 to 2.5 feet. The available water capacity is moderate.

Hydrologic group: **C**
Erosion Hazard Rating: **MODERATE**

CsD, Charlton-Chatfield complex, 15 to 35 percent slopes, very rocky

The unit consists of very deep and moderately deep, well drained and somewhat excessively drained Chatfield soil and the well-drained Charlton soil. It is on tops ad sides of hills that are underlain by highly folded bedrock. Slopes range from 15 to 35 percent. Included in mapping are areas of moderately well drained Sutton soils, the somewhat poorly drained and poorly drained Leicester soils, and the poorly drained and very poorly drained Sun soils. Sutton soils are along drainageways and in concave interridge areas. Leicester and Sun soils are in shallow depressions and along drainageways. Also included are the poorly drained Carlisle and Palms soils, the somewhat excessively drained and well drained Hollis soils, and areas of soils that are similar to the Chatfield soil but are deep over bedrock. Carlisle and Palms soils are in closed depressions. Hollis soils are shallow over bedrock. They are in scattered areas throughout the unit but are mostly on ridgetops. The soils that are similar to the Chatfield soils are in the western part of Putnam County, in areas where the surface is extremely stony or bouldery. The seasonally high water table is more than 6 feet. The available water capacity is moderate.

Hydrologic group: **B**
Erosion Hazard Rating: **SEVERE**
On-Site Pollution Prevention
There are temporary pollution prevention measures used to control litter and construction debris on site, such as:

- Silt Fence
- Silt Sack
- Stone Check Dam
- Excavated Drop Inlet Protection

There will be inlet protection provided for all storm drains and inlets with the use of curb gutter inlet protection structures and stone & block drop inlet protection, which keep silt, sediment and construction litter and debris out of the on-site stormwater drainage system.

Temporary Control Measures

Temporary control measures and facilities will include silt fences, construction ditches, stabilized construction access, temporary seeding, mulching and sediment traps with temporary riser and anti-vortex devices.

Throughout the construction of the proposed redevelopment, temporary control facilities will be implemented to control on-site erosion and sediment transfer. Construction ditches, if required, will be used to direct stormwater runoff to 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 access, seeding, mulching and inlet protection are as follows:

1. Silt Fence is constructed using a geotextile fabric. The fence will be either 18 inches or 30 inches high. The height of the fence can be increased in the event of placing these devices on uncompacted fills or extremely loose undisturbed soils. The fences will not be placed in areas which receive concentrated flows such as ditches, swales and channels nor will the filter fabric material be placed across the entrance to pipes, culverts, spillway structures, sediment traps or basins.

2. Stabilized Construction Access consists of AASHTO No. 1 rock. The rock entrance will be a minimum of 50 feet in length by 24 feet in width by 8 inches in depth.

3. Seeding will be used to create a vegetative surface to stabilize disturbed earth until at least 80% of the disturbed area has a perennial vegetative cover. This amount is required to adequately function as a sediment and erosion control facility. Grass lining will also be used to line temporary channels and the surrounding disturbed areas.

4. Mulching is used as an anchor for seeding and disturbed areas to reduce soil loss due to storm events. These areas will be mulched with straw at a rate of 3 tons per acre such that

the mulch forms a continuous blanket. Mulch must be placed after seeding or within 48 hours after seeding is completed.

5. Inlet Protection will be provided for all stormwater basins and inlets with the use of curb & gutter inlet protection and stone & block inlet protection structures, which will keep silt, sediment and construction debris out of the storm system. Existing structures within existing paved areas will be protected using "Silt Sacks" inside the structures.

6. Stone Check Dams are small barriers of crushed stone which will be laid across the grass swales which are approximately 12 inches high, located every one foot of elevation change along the swales so that the crest elevation of the downstream dam is at the same elevation of the toe of the upstream dam.

The contractor shall be responsible for maintaining the temporary sediment and erosion control measures throughout construction. This maintenance will include, but not be limited to, the following tasks:

1. For dust control purposes, moisten all exposed graded areas with water at least twice a day in those areas where soil is exposed and cannot be planted with a temporary cover due to construction operations or the season (December through March).

2. Inspection of erosion and sediment control measures shall be performed at the end of each construction day and immediately following each rainfall event. All required repairs shall be immediately executed by the contractor.

3. Sediment deposits shall be removed when they reach approximately ⅓ the height of the silt fence. All such sediment shall be properly disposed of in fill areas on the site, as directed by the Owner's Field Representative. Fill shall be protected following disposal with mulch, temporary and/or permanent vegetation and be completely circumscribed on the downhill side by silt fence.

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

5. Following final grading, the disturbed area shall be stabilized with a permanent surface treatment (i.e. turf grass, pavement or sidewalk). During rough grading, areas which are not to be disturbed for fourteen or more days shall be stabilized with the temporary seed mixture, as defined on the plans. Seed all piles of dirt in exposed soil areas that will not receive a permanent surface treatment.

Concrete Material and Equipment Management

Concrete washouts shall be used to contain concrete and liquids when the chutes of concrete mixers and hoppers of concrete pumps are rinsed out after delivery. The washout facilities consolidate solid for easier disposal and prevent runoff of liquids. The wash water is alkaline and contains high levels of chromium, which can leach into the ground and contaminate groundwater. It can also migrate to a storm drain, which can increase the pH of area waters and harm aquatic life. Solids that are improperly disposed of can clog storm drain pipes and cause flooding. Installing concrete washout facilities not only prevents pollution but also is a matter of good housekeeping at your construction site.

Prefabricated concrete washout containers can be delivered to the site to provide maintenance and disposal of materials. Regular pick-ups of solid and liquid waste materials will be necessary. To prevent leaks on the job site, ensure that prefabricated washout containers are watertight. A self installed concrete washout facility can be utilized although they are much less reliable than prefabricated containers and are prone to leaks. There are many design options for the washout, but they are preferably built below-grade to prevent breaches and reduce the likelihood of runoff. Above-grade structures can also be used if they are sized and constructed correctly and are diligently maintained. One of the most common problems with self-installed concrete washout facilities is that they can leak or be breached as a result of constant use, therefore the contractor shall be sure to use quality materials and inspect the facilities on a daily basis.

Washouts must be sized to handle solids, wash water, and rainfall to prevent overflow. Concrete Washout Systems, Inc. estimates that 7 gallons of wash water are used to wash one truck chute and 50 gallons are used to wash out the hopper of a concrete pump truck.

For larger sites, a below-grade washout should be at least 10 feet wide and sized to contain all liquid and solid waste expected to be generated in between cleanout periods. A minimum of 12-inches of freeboard must be provided. The pit must be lined with plastic sheeting of at least 10-mil thickness without holes or tears to prevent leaching of liquids into the ground. Concrete wash water should never be placed in a pit that is connected to the storm drain system or that drains to nearby waterways.

An above-grade washout can be constructed at least 10 feet wide by 10 feet long and sized to contain all liquid and solid waste expected to be generated in between cleanout periods. A minimum of 4-inches of freeboard must be provided. The washout structures can be constructed with staked straw bales or sandbags double-or triple lined with plastic sheeting of at least 10-mil thickness without holes or tears.

Concrete washout facilities shall not be located within 50 feet of storm drains, open ditches, or water bodies and should be placed in locations that allow for convenient access for concrete trucks. The contractor shall check all concrete washout facilities daily to determine if they have been filled to 75 percent capacity, which is when materials need to be removed. Both above-and below-ground self-installed washouts should be inspected daily to ensure that plastic linings are intact and sidewalls have not been damaged by construction activities. Prefabricated washout containers should be inspected daily as well as to ensure the container is not leaking or nearing 75 percent capacity. Inspectors should also note whether the facilities are being used regularly. Additional signage for washouts may be needed in more convenient locations if concrete truck operators are not utilizing them.

The washout structures must be drained or covered prior to predicted rainstorms to prevent overflows. Hardened solids either whole or broken must be removed and then they may be reused onsite or hauled away for recycling.

Once materials are removed from the concrete washout, a new structure must be built or excavated, or if the previous structure is still intact, inspect it for signs of weakening or damage and make any necessary repairs. Line the structure with new plastic that is free of holes or tears and replace signage if necessary. It is very important that new plastic be used after every cleaning because pumps and concrete removal equipment can damage the existing liner.

Construction Site Chemical Control

The purpose of this management measure is to prevent the generation of nonpoint source pollution from construction sites due to improper handling and usage of nutrients and toxic substances, and to prevent the movement of toxic substances from the construction site.

Many potential pollutants other than sediment are associated with construction activities. These pollutants include pesticides; fertilizers used for vegetative stabilization; petrochemicals; construction chemicals such as concrete products, sealers, and paints; wash water associated with these products; paper; wood; garbage; and sanitary waste.

Disposal of excess pesticides and pesticide-related wastes should conform to registered label directions for the disposal and storage of pesticides and pesticide containers set forth in applicable Federal, State and local regulations that govern their usage, handling, storage, and disposal.

Pesticides should be disposed of through either a licensed waste management firm or a treatment, storage and disposal (TSD) facility. Containers should be triple-rinsed before disposal, and rinse waters should be reused as product.
Other practices include setting aside a locked storage area, tightly closing lids, storing in a cool, dry place, checking containers periodically for leaks or deterioration, maintaining a list of products in storage, using plastic sheeting to line the storage areas, and notifying neighboring property owners prior to spraying.

When storing petroleum products, follow these guidelines:

- Create a shelter around the area with cover and wind protection;
- Line the storage area with a double layer of plastic sheeting or similar material;
- Create an impervious berm around the perimeter with a capacity of 110 percent greater than that of the largest container;
- Clearly label all products;
- Keep tanks off the ground; and
- Keep lids securely fastened.

Post spill procedure information and have persons trained in spill handling on site or on call at all times. Materials for cleaning up spills should be kept on site and easily available. Spills should be cleaned up immediately and the contaminated material properly disposed of. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff.

Thinners or solvents should not be discharged into sanitary or storm systems when cleaning machinery. Use alternative methods for cleaning larger equipment parts, such as high-pressure, high-temperature water washes, or steam cleaning. Equipment-washing detergents can be used, and wash water may be discharged into sanitary sewers if solids are removed from the solution first. (This practice should be verified with the local sewer authority.) Small parts can be cleaned with degreasing solvents, which can then be reused or recycled.

<u>Solid Waste Management and Portable Sanitary Management</u>

The purpose of this management measure is to prevent the potential for solid waste such as construction debris, trash, etc. from construction sites due to improper handling and storage. Debris and litter should be removed periodically from the BMP's and surrounding areas to prevent clogging of pipes and structures. All construction material shall be stored in designated staging areas. Roll-off containers shall be placed on site and all empty containers, construction debris and litter shall be placed in the containers.

Portable sanitary units may be utilized on-site or bathrooms will be provided within construction trailers. A sanitation removal company will be hired to pump/remove any sanitary waste. In the event that portable sanitary units are used and then cleaned after being emptied, the rinse water may not be disposed of to the storm drain system. It shall be contained for later disposal if it can't be disposed of on-site. Remove paper and trash before cleaning the portable sanitary units. The portable sanitary units shall be located away from the storm drain system if possible. Provide over head cover for wash areas if possible. Maintain spill response material and equipment on site to eliminate the potential for contaminants and wash water from entering the storm drain system.

Permanent Control Measures and Facilities for Long Term Protection

Towards the completion of construction, permanent sediment and erosion control measures will be developed for long term erosion protection. The following permanent control measures and facilities have been proposed to be implemented for the project:

1. Vegetated Swales will function to provide additional treatment of stormwater runoff by removal of pollutants and will promote a reduction of peak flows and provide runoff infiltration.

2. Infiltration Basins will be used to treat the runoff volume generated from the developed area and provide improvement to water quality control. The proposed basins will provide water quality for 90% of the average annual stormwater runoff volume. The water quality volume will be retained and higher storms will be released gradually. Refer to the water quality volume calculations, in Appendix B.

3. A Hydrodynamic Water Quality Structure will be used to provide pretreatment of the water quality flow rate for separating sediment, debris, floatables, etc. from the runoff prior to discharge to the SMP's. The Water Quality Structure has been designed to treat up to the required water quality volume and appropriately handle all storm frequencies without the resuspension of solids. The system will provide 80% TSS removal rate for particles having a mean particle size of 125 microns for stormwater runoff.

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. Rip-Rap Energy Dissipators At discharge points from the stormwater drainage system into the stormwater management basins, rip-rap pads consisting of angular rocks will be placed to dissipate velocity and reduce the risk of erosion.

6. 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 2 tons per acre such that the mulch forms a continuous blanket.

Specifications for Soil Restoration

Prior to the final stabilization of the disturbed areas, soil restoration will be required for all vegetated areas to recover the original properties and porosity of the soil. Soil Restoration Requirements are provided on Table 7 below:

Table 7

Soil Restoration Requirements

<table>
<tr><th>Type of Soil Disturbance</th><th colspan="2">Soil Restoration Requirement</th><th>Comments/Examples</th></tr>
<tr><td>No soil disturbance</td><td colspan="2">Restoration not permitted</td><td>Preservation of Natural Features</td></tr>
<tr><td>Minimal soil disturbance</td><td colspan="2">Restoration not required</td><td>Clearing and grubbing</td></tr>
<tr><td rowspan="2">Areas where topsoil is stripped only – no change in grade</td><td>HSG A&B</td><td>HSG C&D</td><td rowspan="2">Protect area from any ongoing construction activities</td></tr>
<tr><td>apply 6 inches of topsoil</td><td>Aerate* and apply 6 inches of topsoil</td></tr>
<tr><td rowspan="2">Areas of cut or fill</td><td>HSG A&B</td><td>HSG C&D</td><td rowspan="2">Clearing and grubbing</td></tr>
<tr><td>Aerate and apply 6 inches of topsoil</td><td>Apply full Soil Restoration**</td></tr>
<tr><td>Heavy traffic areas on site (especially) in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)</td><td colspan="2">Apply full Soil Restoration (decompaction and compost enhancement)</td><td></td></tr>
<tr><td>Areas where Runoff Reduction and/or Infiltration practices are applied</td><td colspan="2">Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.</td><td>Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area.</td></tr>
<tr><td>Redevelopment projects</td><td colspan="2">Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.</td><td></td></tr>
</table>

* Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

** Per "Deep Ripping and De-compaction, DEC 2008."

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following full soil restoration steps applied:

1. Apply 3 inches of compost over subsoil.

2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.

3. Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site.

<u>Specifications for Final Stabilization of Graded Areas</u>

Final stabilization of graded areas consists of the placement of topsoil and installation of landscaping (unless the area is to be paved, or a building is to be constructed in the location). Topsoil is to be spread as soon as grading operations are completed. Topsoil is to be placed to a minimum depth of six inches on all embankments, planting areas and seeding/sod areas. The subgrade is to be scarified to a depth of two inches to provide a bond of the topsoil with the subsoil. Topsoil is to be raked to an even surface and cleared of all debris, roots, stones and other unsatisfactory material.

Planting operations shall be conducted under favorable weather conditions as follows:

- Permanent Lawns - April 15 (provided soil is frost-free and not excessively moist) to May 15; August 15 to October 15.
- Temporary Lawn Seeding - if outside of the time periods noted above, the areas shall be seeded immediately on completion of topsoil operations with annual ryegrass (Italian rye) at a rate of six pounds per 1,000 square feet. Temporary lawn installation is permitted provided the soil is frost-free and not excessively moist. The permanent lawn is to be installed the next planting season.

On slopes with a grade of 3 horizontal to 1 vertical or greater, and in swales, a geotextile netting or mat shall be installed for stabilization purposes as shown on the Plans. Seeded areas are to be mulched with straw or hay at an application rate of 70-90 pounds per 1,000 s.f. Straw or hay mulch must be spread uniformly and anchored immediately after spreading to prevent wind blowing. Mulches must be inspected periodically and in particular after rainstorms to check for erosion. If erosion is observed, additional mulch must be applied. Netting shall be inspected after rainstorms for dislocation or failure; any damage shall be repaired immediately.

All denuded surfaces which will be exposed for a period of over two months or more shall be temporarily hydroseeded with (a) perennial ryegrass at a rate of 40 lbs per acre (1.0 lb per 1000 square feet); (b) Certified "Aroostook" winter rye (cereal rye) @ 100 lb per acre (2.5 lb/1000 s.f.) to be used in the months of October and November.

Permanent turfgrass cover is to consist of a seed mixture as follows:

(a) <u>Sunny sites</u>

Kentucky Bluegrass	2.0-2.6 pounds/1000 square feet
Perennial Ryegrass	0.6-0.7 pounds/1000 square feet
Fine Fescue	0.4-0.6 pounds/1000 square feet

(b) <u>Shady sites</u>

Kentucky Bluegrass	0.8-1.0 pounds/1000 square feet
Perennial Ryegrass	0.6-0.7 pounds/1000 square feet
Fine Fescue	2.6-3.3 pounds/1000 square feet

All plant materials shall comply with the standards of the American Association Of Nurserymen with respect to height and caliper as described in its publication American Standard for Nursery Stock, latest edition.

VII. CONSTRUCTION PHASE AND POST-CONSTRUCTION MAINTENANCE

During the construction phase and following construction of the project, a number of maintenance measures will be taken with respect to the site maintenance. Measures to be taken included the following:

1. During Construction

The area of proposed ground disturbance will at times exceed five (5) acres. Therefore, and in accordance with NYSDEC SPDES General Permit No. GP-0-20-001 effective January 29, 2020 written authorization by the MS4 (Town of North Castle) to disturb greater than five (5) acres of soil at any one time is hereby requested, subject to the following provisions:

i. The owner or operator shall have a qualified inspector conduct at least two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

ii. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, last revised November 2016.

iii. The owner or operator shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

iv. The owner or operator shall install any additional site-specific practices needed to protect water quality.

v. The owner or operator shall include the requirements above in their SWPPP.

The minimum number of required weekly inspections will be two (2) erosion control inspections shall be made at the site every seven (7) calendar days.

In the circumstance of greater than five (5) acres of soil be disturbed at any one time, and the activity be temporarily or permanently ceased, then soil stabilization measures shall be initiated by the end of the next business day and completed within seven (7) days from ceasing activity.

A qualified professional acceptable to the municipality will be hired by the owner or operator to monitor the installation and maintenance of the sediment and erosion control plans. The qualified professional shall report directly to the Engineering Consultant and shall be responsible for ensuring compliance with the design of the sediment and erosion control plans.

In the event that there has been a variance with the design of the sediment and erosion control measures so that the ability of the measures to adequately perform the intended function is lessened or compromised and/or the facilities are not adequately maintained, the qualified professional shall be required to report such variance to the Engineering Consultant within 48 hours and shall be empowered to order immediate repairs to the sediment and erosion control measures.

The qualified professional will also be responsible for observing the adequacy of the vegetation growth (trees, shrubs, groundcovers and turfgrasses) in newly graded areas and for ordering additional plantings in the event that the established plant materials do not adequately protect the ground surface from erosion.

2. Following Construction

Site maintenance activities on the property will include:

- Grounds maintenance, including mowing of lawns;
- Planting of trees, shrubs and groundcovers; pruning of trees and shrubs;
- Application of fertilizer and herbicides;
- Maintenance of stormwater management area;

Grounds maintenance on the site will be performed by landscaping contractor.

Fertilizer is typically applied twice in the year - once in the spring and once in the fall. The application of fertilizer is usually necessary to maintain healthy lawn growth due to competition for nutrients with trees and shrubs and since the clippings are often removed. It is not recommended that fertilizer be applied during the summer. It is at this time that lawns are typically dormant.

Fertilizers come in three basic types: (1) Organic; (2) Soluble synthetic and (3) Slow release.

Organic fertilizers are derived from plant or animal waste. Since they are heavier and bulkier than other fertilizers, it is necessary to apply a much greater amount at one time. Soluble synthetic fertilizers are predictable with determining the exact impact on a lawn. However more applications are necessary since their effect is often short term. Slow release fertilizers have a high percentage of nitrogen so quantities that need be handled at one time are smaller. Slow release fertilizers will be utilized by the project.

A complete fertilizer contains all three of the primary nutrients - nitrogen (N), phosphorus (P) and potassium in the form of potash (K). Typically, a 3-1-2 ratio of nutrients (N-P-K) is used for lawn applications.

Fertilizer shall be applied by the landscape contractor in accordance with the manufacturer's instructions. The application of fertilizer does require some skill on the part of the operator. Should there be a spill of fertilizer, the landscape contractor shall be required to scrape or vacuum it up. The area will then be watered in accordance with the manufacturer's instructions to ensure that the fertilizer becomes soluble and available to plants and does not run off.

Summit Club Partners, LLC will be responsible for the long-term operation and maintenance of the permanent stormwater management practices. The permanent stormwater management practices shall be maintained in accordance with the Maintenance Inspection Checklists provided in Appendix D.

VIII. CONCLUSION

This Stormwater Pollution Prevention Plan has been prepared to describe the project's pre and post-development stormwater management improvements and its sediment and erosion control improvements to be utilized during construction. The proposed permanent improvements and the interim improvements to be utilized during construction have been designed in accordance with the requirements of the:

- Requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-20-001, effective January 29, 2020.
- Chapter 267 "Stormwater Management" of the Town of North Castle Zoning Code
- New York State Stormwater Management Design Manual.

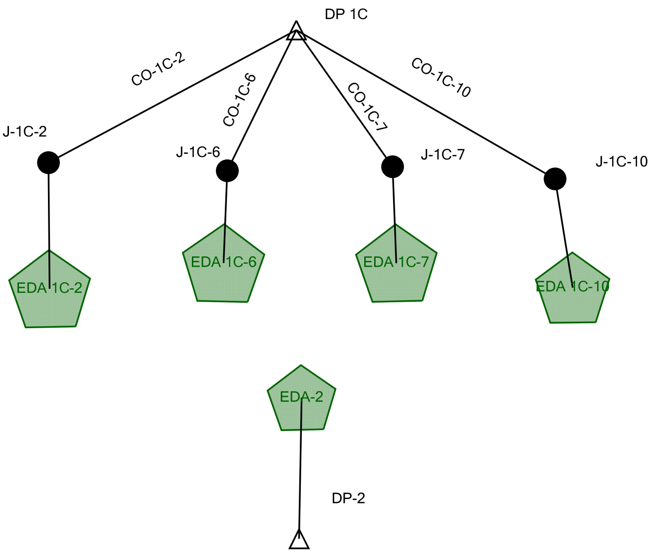
The project employs a variety of practices to enhance stormwater quality and reduce peak rates of runoff associated with the proposed improvements. These measures include an infiltration basin, detention basin, and porous pavement.

Based on the foregoing, it is our professional opinion that the proposed improvements will provide water quantity and quality enhancements which exceed the above mentioned requirements and are not anticipated to have any adverse impacts to the site or any surrounding areas.

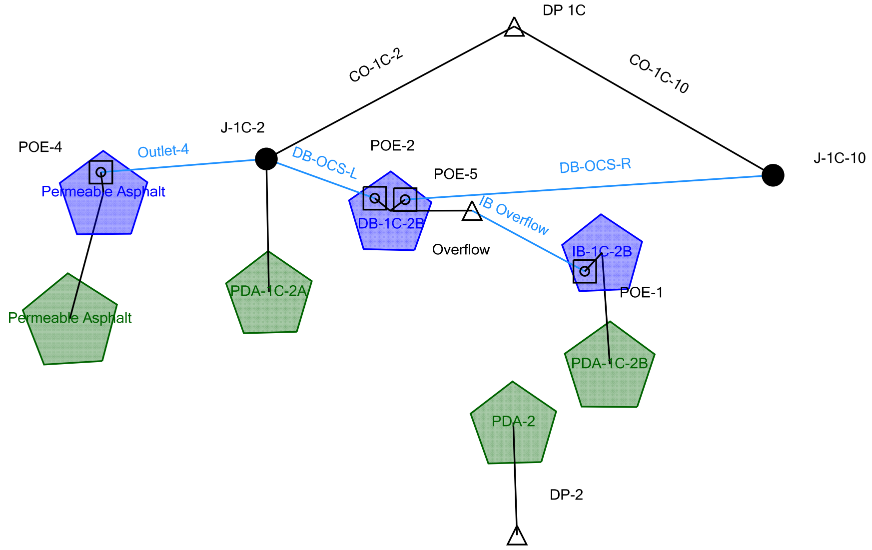
APPENDIX A

EXISTING AND PROPOSED HYDROLOGIC CALCULATIONS

Scenario: Pre-Development 1 year



Scenario: Post-Development 1 year



Stormwater Hydrologic Calculations

Project Summary	
Title	The Summit Club at Armonk
Engineer	Michael Thompson, PE
Company	JMC, PLLC
Date	1/10/2022

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Stormwater Hydrologic Calculations

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft^3)	Time to Peak (hours)	Peak Flow (ft^3/s)
EDA 1C-2	Pre-Development 1 year	1	50,159	12.250	10.75
EDA 1C-2	Pre-Development 10 year	10	136,541	12.200	30.02
EDA 1C-2	Pre-Development 25 year	25	190,446	12.200	41.73
EDA 1C-2	Pre-Development 100 year	100	305,340	12.200	65.98
EDA 1C-6	Pre-Development 1 year	1	570	12.150	0.12
EDA 1C-6	Pre-Development 10 year	10	2,282	12.100	0.60
EDA 1C-6	Pre-Development 25 year	25	3,494	12.100	0.94
EDA 1C-6	Pre-Development 100 year	100	6,254	12.100	1.71
EDA 1C-7	Pre-Development 1 year	1	5,095	12.200	1.16
EDA 1C-7	Pre-Development 10 year	10	15,216	12.150	3.61
EDA 1C-7	Pre-Development 25 year	25	21,734	12.150	5.18
EDA 1C-7	Pre-Development 100 year	100	35,850	12.150	8.48
EDA 1C-10	Pre-Development 1 year	1	8,426	12.150	1.80
EDA 1C-10	Pre-Development 10 year	10	32,561	12.150	8.53
EDA 1C-10	Pre-Development 25 year	25	49,470	12.150	13.10
EDA 1C-10	Pre-Development 100 year	100	87,757	12.150	23.15
EDA-2	Pre-Development 1 year	1	12,744	12.150	3.15
EDA-2	Pre-Development 10 year	10	35,467	12.150	9.00
EDA-2	Pre-Development 25 year	25	49,754	12.150	12.55
EDA-2	Pre-Development 100 year	100	80,319	12.150	19.92
PDA-1C-2A	Post-Development 1 year	1	27,313	12.200	6.18
PDA-1C-2A	Post-Development 10 year	10	69,692	12.200	15.82
PDA-1C-2A	Post-Development 25 year	25	95,575	12.200	21.49

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
PDA-1C-2A	Post-Development 100 year	100	150,166	12.200	33.10
PDA-1C-2B	Post-Development 1 year	1	53,690	12.150	13.72
PDA-1C-2B	Post-Development 10 year	10	146,107	12.150	37.70
PDA-1C-2B	Post-Development 25 year	25	203,773	12.150	52.09
PDA-1C-2B	Post-Development 100 year	100	326,676	12.150	81.79
PDA-2	Post-Development 1 year	1	8,325	12.150	1.94
PDA-2	Post-Development 10 year	10	26,143	12.150	6.62
PDA-2	Post-Development 25 year	25	37,815	12.150	9.60
PDA-2	Post-Development 100 year	100	63,317	12.150	15.93
Permeable Asphalt	Post-Development 1 year	1	3,850	12.100	0.96
Permeable Asphalt	Post-Development 10 year	10	7,318	12.100	1.78
Permeable Asphalt	Post-Development 25 year	25	9,294	12.100	2.24
Permeable Asphalt	Post-Development 100 year	100	13,337	12.100	3.18

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DP-2	Pre-Development 1 year	1	12,744	12.150	3.15
DP-2	Post-Development 1 year	1	8,325	12.150	1.94
DP-2	Pre-Development 10 year	10	35,467	12.150	9.00
DP-2	Post-Development 10 year	10	26,143	12.150	6.62
DP-2	Pre-Development 25 year	25	49,754	12.150	12.55
DP-2	Post-Development 25 year	25	37,815	12.150	9.60
DP-2	Pre-Development 100 year	100	80,319	12.150	19.92

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DP-2	Post-Development 100 year	100	63,317	12.150	15.93
DP 1C	Pre-Development 1 year	1	64,087	12.350	13.53
DP 1C	Post-Development 1 year	1	27,251	12.350	6.18
DP 1C	Pre-Development 10 year	10	186,221	12.350	41.12
DP 1C	Post-Development 10 year	10	132,258	12.450	26.38
DP 1C	Pre-Development 25 year	25	264,642	12.350	58.24
DP 1C	Post-Development 25 year	25	203,757	12.400	43.84
DP 1C	Pre-Development 100 year	100	434,447	12.300	95.31
DP 1C	Post-Development 100 year	100	363,166	12.400	82.49
J-1C-2	Pre-Development 1 year	1	50,159	12.250	10.75
J-1C-2	Post-Development 1 year	1	27,313	12.200	6.18
J-1C-2	Pre-Development 10 year	10	136,541	12.200	30.02
J-1C-2	Post-Development 10 year	10	101,036	12.250	20.31
J-1C-2	Pre-Development 25 year	25	190,446	12.200	41.73
J-1C-2	Post-Development 25 year	25	149,745	12.250	32.13
J-1C-2	Pre-Development 100 year	100	305,340	12.200	65.98
J-1C-2	Post-Development 100 year	100	266,854	12.250	65.02
J-1C-6	Pre-Development 1 year	1	570	12.150	0.12
J-1C-6	Pre-Development 10 year	10	2,282	12.100	0.60
J-1C-6	Pre-Development 25 year	25	3,494	12.100	0.94
J-1C-6	Pre-Development 100 year	100	6,254	12.100	1.71
J-1C-7	Pre-Development 1 year	1	5,095	12.200	1.16
J-1C-7	Pre-Development 10 year	10	15,216	12.150	3.61

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
J-1C-7	Pre-Development 25 year	25	21,734	12.150	5.18
J-1C-7	Pre-Development 100 year	100	35,850	12.150	8.48
J-1C-10	Pre-Development 1 year	1	8,426	12.150	1.80
J-1C-10	Post-Development 1 year	1	0	0.000	0.00
J-1C-10	Pre-Development 10 year	10	32,561	12.150	8.53
J-1C-10	Post-Development 10 year	10	31,354	12.450	6.97
J-1C-10	Pre-Development 25 year	25	49,470	12.150	13.10
J-1C-10	Post-Development 25 year	25	54,184	12.350	12.48
J-1C-10	Pre-Development 100 year	100	87,757	12.150	23.15
J-1C-10	Post-Development 100 year	100	96,564	12.250	17.47

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
IB-1C-2B (IN)	Post-Development 1 year	1	53,690	12.150	13.72	(N/A)	(N/A)
IB-1C-2B (OUT)	Post-Development 1 year	1	0	0.000	0.00	619.99	19,929
IB-1C-2B (IN)	Post-Development 10 year	10	146,107	12.150	37.70	(N/A)	(N/A)
IB-1C-2B (OUT)	Post-Development 10 year	10	62,706	12.200	26.91	620.87	32,874
IB-1C-2B (IN)	Post-Development 25 year	25	203,773	12.150	52.09	(N/A)	(N/A)
IB-1C-2B (OUT)	Post-Development 25 year	25	108,364	12.150	37.30	621.28	38,870

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)
IB-1C-2B (IN)	Post-Development 100 year	100	326,676	12.150	81.79	(N/A)	(N/A)
IB-1C-2B (OUT)	Post-Development 100 year	100	213,275	12.150	60.39	621.96	48,968
DB-1C-2B (IN)	Post-Development 1 year	1	0	0.000	0.00	(N/A)	(N/A)
DB-1C-2B (OUT)	Post-Development 1 year	1	0	0.000	0.00	620.00	0
DB-1C-2B (IN)	Post-Development 10 year	10	62,706	12.200	26.91	(N/A)	(N/A)
DB-1C-2B (OUT)	Post-Development 10 year	10	62,698	12.450	13.94	620.84	11,823
DB-1C-2B (IN)	Post-Development 25 year	25	108,364	12.150	37.30	(N/A)	(N/A)
DB-1C-2B (OUT)	Post-Development 25 year	25	108,354	12.350	24.96	621.24	17,430
DB-1C-2B (IN)	Post-Development 100 year	100	213,275	12.150	60.39	(N/A)	(N/A)
DB-1C-2B (OUT)	Post-Development 100 year	100	213,250	12.250	51.19	621.92	26,897
Permeable Asphalt (IN)	Post-Development 1 year	1	3,850	12.100	0.96	(N/A)	(N/A)
Permeable Asphalt (OUT)	Post-Development 1 year	1	0	0.000	0.00	634.50	1,300
Permeable Asphalt (IN)	Post-Development 10 year	10	7,318	12.100	1.78	(N/A)	(N/A)
Permeable Asphalt (OUT)	Post-Development 10 year	10	0	0.000	0.00	634.66	2,419
Permeable Asphalt (IN)	Post-Development 25 year	25	9,294	12.100	2.24	(N/A)	(N/A)

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)
Permeable Asphalt (OUT)	Post-Development 25 year	25	0	0.000	0.00	634.74	3,052
Permeable Asphalt (IN)	Post-Development 100 year	100	13,337	12.100	3.18	(N/A)	(N/A)
Permeable Asphalt (OUT)	Post-Development 100 year	100	0	0.000	0.00	634.94	4,485

Subsection: Time-Depth Curve | Return Event: 1 years
Label: Time-Depth - 1 | Storm Event: 1 year
Scenario: Pre-Development 1 year

Time-Depth Curve: 1 year	
Label	1 year
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	1 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.0	0.0
1.000	0.0	0.0	0.0	0.0	0.0
1.500	0.0	0.0	0.0	0.1	0.1
2.000	0.1	0.1	0.1	0.1	0.1
2.500	0.1	0.1	0.1	0.1	0.1
3.000	0.1	0.1	0.1	0.1	0.1
3.500	0.1	0.1	0.1	0.1	0.1
4.000	0.1	0.1	0.1	0.1	0.1
4.500	0.1	0.1	0.1	0.2	0.2
5.000	0.2	0.2	0.2	0.2	0.2
5.500	0.2	0.2	0.2	0.2	0.2
6.000	0.2	0.2	0.2	0.2	0.2
6.500	0.2	0.2	0.2	0.2	0.2
7.000	0.3	0.3	0.3	0.3	0.3
7.500	0.3	0.3	0.3	0.3	0.3
8.000	0.3	0.3	0.3	0.3	0.4
8.500	0.4	0.4	0.4	0.4	0.4
9.000	0.4	0.4	0.4	0.4	0.5
9.500	0.5	0.5	0.5	0.5	0.5
10.000	0.5	0.5	0.6	0.6	0.6
10.500	0.6	0.6	0.6	0.7	0.7
11.000	0.7	0.7	0.7	0.8	0.8
11.500	0.8	0.9	1.0	1.0	1.2
12.000	1.4	1.6	1.8	1.8	1.9
12.500	2.0	2.0	2.0	2.1	2.1
13.000	2.1	2.1	2.1	2.2	2.2
13.500	2.2	2.2	2.2	2.2	2.3
14.000	2.3	2.3	2.3	2.3	2.3
14.500	2.3	2.3	2.4	2.4	2.4
15.000	2.4	2.4	2.4	2.4	2.4
15.500	2.4	2.4	2.5	2.5	2.5
16.000	2.5	2.5	2.5	2.5	2.5
16.500	2.5	2.5	2.5	2.5	2.5

Subsection: Time-Depth Curve
Label: Time-Depth - 1
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.000	2.5	2.6	2.6	2.6	2.6
17.500	2.6	2.6	2.6	2.6	2.6
18.000	2.6	2.6	2.6	2.6	2.6
18.500	2.6	2.6	2.6	2.6	2.6
19.000	2.6	2.6	2.6	2.7	2.7
19.500	2.7	2.7	2.7	2.7	2.7
20.000	2.7	2.7	2.7	2.7	2.7
20.500	2.7	2.7	2.7	2.7	2.7
21.000	2.7	2.7	2.7	2.7	2.7
21.500	2.7	2.7	2.7	2.7	2.7
22.000	2.7	2.7	2.8	2.8	2.8
22.500	2.8	2.8	2.8	2.8	2.8
23.000	2.8	2.8	2.8	2.8	2.8
23.500	2.8	2.8	2.8	2.8	2.8
24.000	2.8	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time-Depth Curve | Return Event: 10 years
Label: Time-Depth - 1 | Storm Event: 10 year
Scenario: Pre-Development 10 year

Time-Depth Curve: 10 year	
Label	10 year
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	10 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.0	0.0
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.1	0.1	0.1
2.000	0.1	0.1	0.1	0.1	0.1
2.500	0.1	0.1	0.1	0.1	0.2
3.000	0.2	0.2	0.2	0.2	0.2
3.500	0.2	0.2	0.2	0.2	0.2
4.000	0.2	0.2	0.2	0.2	0.2
4.500	0.3	0.3	0.3	0.3	0.3
5.000	0.3	0.3	0.3	0.3	0.3
5.500	0.3	0.3	0.3	0.4	0.4
6.000	0.4	0.4	0.4	0.4	0.4
6.500	0.4	0.4	0.4	0.4	0.5
7.000	0.5	0.5	0.5	0.5	0.5
7.500	0.5	0.5	0.5	0.6	0.6
8.000	0.6	0.6	0.6	0.6	0.6
8.500	0.7	0.7	0.7	0.7	0.7
9.000	0.7	0.8	0.8	0.8	0.8
9.500	0.8	0.9	0.9	0.9	0.9
10.000	1.0	1.0	1.0	1.0	1.1
10.500	1.1	1.1	1.2	1.2	1.2
11.000	1.3	1.3	1.4	1.4	1.5
11.500	1.5	1.6	1.7	1.9	2.1
12.000	2.6	3.0	3.2	3.4	3.5
12.500	3.6	3.7	3.7	3.8	3.8
13.000	3.8	3.9	3.9	3.9	4.0
13.500	4.0	4.0	4.1	4.1	4.1
14.000	4.2	4.2	4.2	4.2	4.2
14.500	4.3	4.3	4.3	4.3	4.4
15.000	4.4	4.4	4.4	4.4	4.4
15.500	4.5	4.5	4.5	4.5	4.5
16.000	4.5	4.5	4.6	4.6	4.6
16.500	4.6	4.6	4.6	4.6	4.6

Stormwater Hydrologic Calculations

Subsection: Time-Depth Curve
Return Event: 10 years
Label: Time-Depth - 1
Storm Event: 10 year
Scenario: Pre-Development 10 year

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.000	4.7	4.7	4.7	4.7	4.7
17.500	4.7	4.7	4.7	4.7	4.7
18.000	4.8	4.8	4.8	4.8	4.8
18.500	4.8	4.8	4.8	4.8	4.8
19.000	4.8	4.8	4.8	4.9	4.9
19.500	4.9	4.9	4.9	4.9	4.9
20.000	4.9	4.9	4.9	4.9	4.9
20.500	4.9	4.9	4.9	5.0	5.0
21.000	5.0	5.0	5.0	5.0	5.0
21.500	5.0	5.0	5.0	5.0	5.0
22.000	5.0	5.0	5.0	5.0	5.0
22.500	5.0	5.1	5.1	5.1	5.1
23.000	5.1	5.1	5.1	5.1	5.1
23.500	5.1	5.1	5.1	5.1	5.1
24.000	5.1	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time-Depth Curve
Label: Time-Depth - 1
Scenario: Pre-Development 100 year

Return Event: 100 years
Storm Event: 100 year

Time-Depth Curve: 100 year	
Label	100 year
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	100 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.1	0.1	0.1	0.1
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.2	0.2	0.2
2.000	0.2	0.2	0.2	0.2	0.2
2.500	0.2	0.2	0.3	0.3	0.3
3.000	0.3	0.3	0.3	0.3	0.3
3.500	0.3	0.3	0.4	0.4	0.4
4.000	0.4	0.4	0.4	0.4	0.4
4.500	0.5	0.5	0.5	0.5	0.5
5.000	0.5	0.5	0.5	0.6	0.6
5.500	0.6	0.6	0.6	0.6	0.6
6.000	0.7	0.7	0.7	0.7	0.7
6.500	0.7	0.8	0.8	0.8	0.8
7.000	0.8	0.8	0.9	0.9	0.9
7.500	0.9	1.0	1.0	1.0	1.0
8.000	1.0	1.1	1.1	1.1	1.1
8.500	1.2	1.2	1.2	1.3	1.3
9.000	1.3	1.4	1.4	1.4	1.5
9.500	1.5	1.6	1.6	1.6	1.7
10.000	1.7	1.8	1.8	1.9	1.9
10.500	2.0	2.0	2.1	2.2	2.2
11.000	2.3	2.4	2.4	2.5	2.6
11.500	2.7	2.9	3.1	3.4	3.8
12.000	4.6	5.3	5.7	6.0	6.3
12.500	6.4	6.5	6.6	6.7	6.8
13.000	6.9	6.9	7.0	7.0	7.1
13.500	7.2	7.2	7.3	7.3	7.4
14.000	7.4	7.5	7.5	7.5	7.6
14.500	7.6	7.7	7.7	7.7	7.8
15.000	7.8	7.8	7.9	7.9	7.9
15.500	8.0	8.0	8.0	8.0	8.1
16.000	8.1	8.1	8.1	8.2	8.2
16.500	8.2	8.2	8.3	8.3	8.3

Subsection: Time-Depth Curve
Label: Time-Depth - 1
Scenario: Pre-Development 100 year

Return Event: 100 years
Storm Event: 100 year

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.000	8.3	8.3	8.4	8.4	8.4
17.500	8.4	8.4	8.4	8.5	8.5
18.000	8.5	8.5	8.5	8.5	8.5
18.500	8.6	8.6	8.6	8.6	8.6
19.000	8.6	8.6	8.6	8.7	8.7
19.500	8.7	8.7	8.7	8.7	8.7
20.000	8.7	8.8	8.8	8.8	8.8
20.500	8.8	8.8	8.8	8.8	8.8
21.000	8.9	8.9	8.9	8.9	8.9
21.500	8.9	8.9	8.9	8.9	9.0
22.000	9.0	9.0	9.0	9.0	9.0
22.500	9.0	9.0	9.0	9.0	9.0
23.000	9.1	9.1	9.1	9.1	9.1
23.500	9.1	9.1	9.1	9.1	9.1
24.000	9.1	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time-Depth Curve | Return Event: 25 years
Label: Time-Depth - 1 | Storm Event: 25 year
Scenario: Pre-Development 25 year

Time-Depth Curve: 25 year	
Label	25 year
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	25 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.1	0.1
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.1	0.1	0.1
2.000	0.1	0.1	0.1	0.1	0.2
2.500	0.2	0.2	0.2	0.2	0.2
3.000	0.2	0.2	0.2	0.2	0.2
3.500	0.2	0.2	0.3	0.3	0.3
4.000	0.3	0.3	0.3	0.3	0.3
4.500	0.3	0.3	0.3	0.3	0.4
5.000	0.4	0.4	0.4	0.4	0.4
5.500	0.4	0.4	0.4	0.4	0.5
6.000	0.5	0.5	0.5	0.5	0.5
6.500	0.5	0.5	0.5	0.6	0.6
7.000	0.6	0.6	0.6	0.6	0.6
7.500	0.7	0.7	0.7	0.7	0.7
8.000	0.7	0.8	0.8	0.8	0.8
8.500	0.8	0.8	0.9	0.9	0.9
9.000	0.9	1.0	1.0	1.0	1.0
9.500	1.1	1.1	1.1	1.2	1.2
10.000	1.2	1.2	1.3	1.3	1.4
10.500	1.4	1.4	1.5	1.5	1.6
11.000	1.6	1.7	1.7	1.8	1.8
11.500	1.9	2.0	2.2	2.4	2.7
12.000	3.2	3.8	4.0	4.3	4.4
12.500	4.5	4.6	4.7	4.7	4.8
13.000	4.8	4.9	4.9	5.0	5.0
13.500	5.0	5.1	5.1	5.2	5.2
14.000	5.2	5.3	5.3	5.3	5.3
14.500	5.4	5.4	5.4	5.5	5.5
15.000	5.5	5.5	5.5	5.6	5.6
15.500	5.6	5.6	5.7	5.7	5.7
16.000	5.7	5.7	5.7	5.8	5.8
16.500	5.8	5.8	5.8	5.8	5.8

Stormwater Hydrologic Calculations

Subsection: Time-Depth Curve | Return Event: 25 years
Label: Time-Depth - 1 | Storm Event: 25 year
Scenario: Pre-Development 25 year

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.000	5.9	5.9	5.9	5.9	5.9
17.500	5.9	5.9	5.9	6.0	6.0
18.000	6.0	6.0	6.0	6.0	6.0
18.500	6.0	6.0	6.0	6.1	6.1
19.000	6.1	6.1	6.1	6.1	6.1
19.500	6.1	6.1	6.1	6.1	6.2
20.000	6.2	6.2	6.2	6.2	6.2
20.500	6.2	6.2	6.2	6.2	6.2
21.000	6.2	6.3	6.3	6.3	6.3
21.500	6.3	6.3	6.3	6.3	6.3
22.000	6.3	6.3	6.3	6.3	6.3
22.500	6.3	6.4	6.4	6.4	6.4
23.000	6.4	6.4	6.4	6.4	6.4
23.500	6.4	6.4	6.4	6.4	6.4
24.000	6.4	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations
Label: EDA 1C-10
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	100.00 ft
Manning's n	0.150
Slope	0.040 ft/ft
2 Year 24 Hour Depth	3.4 in
Average Velocity	0.23 ft/s
Segment Time of Concentration	0.120 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	405.00 ft
Is Paved?	False
Slope	0.079 ft/ft
Average Velocity	4.53 ft/s
Segment Time of Concentration	0.025 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.145 hours

==== SCS Channel Flow

Tc =	R = Qa / Wp V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n (Lf / V) / 3600
Where:	R= Hydraulic radius Aq= Flow area, square feet Wp= Wetted perimeter, feet V= Velocity, ft/sec Sf= Slope, ft/ft n= Manning's n Tc= Time of concentration, hours Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc =	Unpaved surface: V = 16.1345 * (Sf**0.5) Paved Surface: V = 20.3282 * (Sf**0.5) (Lf / V) / 3600
Where:	V= Velocity, ft/sec Sf= Slope, ft/ft Tc= Time of concentration, hours Lf= Flow length, feet

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations
Label: EDA 1C-2
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	100.00 ft
Manning's n	0.150
Slope	0.020 ft/ft
2 Year 24 Hour Depth	3.4 in
Average Velocity	0.18 ft/s
Segment Time of Concentration	0.158 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	2,090.00 ft
Is Paved?	False
Slope	0.063 ft/ft
Average Velocity	4.05 ft/s
Segment Time of Concentration	0.143 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.302 hours

Subsection: Time of Concentration Calculations | Return Event: 1 years
Label: EDA 1C-2 | Storm Event: 1 year
Scenario: Pre-Development 1 year

==== SCS Channel Flow

Tc =	R = Qa / Wp V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n (Lf / V) / 3600
Where:	R= Hydraulic radius Aq= Flow area, square feet Wp= Wetted perimeter, feet V= Velocity, ft/sec Sf= Slope, ft/ft n= Manning's n Tc= Time of concentration, hours Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc =	Unpaved surface: V = 16.1345 * (Sf**0.5) Paved Surface: V = 20.3282 * (Sf**0.5) (Lf / V) / 3600
Where:	V= Velocity, ft/sec Sf= Slope, ft/ft Tc= Time of concentration, hours Lf= Flow length, feet

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations | Return Event: 1 years
Label: EDA 1C-6 | Storm Event: 1 year
Scenario: Pre-Development 1 year

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	100.00 ft
Manning's n	0.150
Slope	0.040 ft/ft
2 Year 24 Hour Depth	3.4 in
Average Velocity	0.23 ft/s
Segment Time of Concentration	0.120 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	24.00 ft
Is Paved?	False
Slope	0.040 ft/ft
Average Velocity	3.23 ft/s
Segment Time of Concentration	0.002 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.122 hours

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations | Return Event: 1 years
Label: EDA 1C-6 | Storm Event: 1 year
Scenario: Pre-Development 1 year

==== SCS Channel Flow

Tc =	R = Qa / Wp V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n (Lf / V) / 3600
Where:	R= Hydraulic radius Aq= Flow area, square feet Wp= Wetted perimeter, feet V= Velocity, ft/sec Sf= Slope, ft/ft n= Manning's n Tc= Time of concentration, hours Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc =	Unpaved surface: V = 16.1345 * (Sf**0.5) Paved Surface: V = 20.3282 * (Sf**0.5) (Lf / V) / 3600
Where:	V= Velocity, ft/sec Sf= Slope, ft/ft Tc= Time of concentration, hours Lf= Flow length, feet

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations
Label: EDA 1C-7
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	100.00 ft
Manning's n	0.150
Slope	0.220 ft/ft
2 Year 24 Hour Depth	3.4 in
Average Velocity	0.46 ft/s
Segment Time of Concentration	0.061 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	1,250.00 ft
Is Paved?	False
Slope	0.016 ft/ft
Average Velocity	2.04 ft/s
Segment Time of Concentration	0.170 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.231 hours

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations | Return Event: 1 years
Label: EDA 1C-7 | Storm Event: 1 year
Scenario: Pre-Development 1 year

==== SCS Channel Flow

Tc =	R = Qa / Wp V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n (Lf / V) / 3600
Where:	R= Hydraulic radius Aq= Flow area, square feet Wp= Wetted perimeter, feet V= Velocity, ft/sec Sf= Slope, ft/ft n= Manning's n Tc= Time of concentration, hours Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc =	Unpaved surface: V = 16.1345 * (Sf**0.5) Paved Surface: V = 20.3282 * (Sf**0.5) (Lf / V) / 3600
Where:	V= Velocity, ft/sec Sf= Slope, ft/ft Tc= Time of concentration, hours Lf= Flow length, feet

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations — Return Event: 1 years

Label: EDA-2 — Storm Event: 1 year

Scenario: Pre-Development 1 year

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	100.00 ft
Manning's n	0.150
Slope	0.060 ft/ft
2 Year 24 Hour Depth	3.4 in
Average Velocity	0.27 ft/s
Segment Time of Concentration	0.102 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	945.00 ft
Is Paved?	False
Slope	0.034 ft/ft
Average Velocity	2.98 ft/s
Segment Time of Concentration	0.088 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.190 hours

==== SCS Channel Flow

Tc =	R = Qa / Wp V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n (Lf / V) / 3600
Where:	R= Hydraulic radius Aq= Flow area, square feet Wp= Wetted perimeter, feet V= Velocity, ft/sec Sf= Slope, ft/ft n= Manning's n Tc= Time of concentration, hours Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc =	Unpaved surface: V = 16.1345 * (Sf**0.5) Paved Surface: V = 20.3282 * (Sf**0.5) (Lf / V) / 3600
Where:	V= Velocity, ft/sec Sf= Slope, ft/ft Tc= Time of concentration, hours Lf= Flow length, feet

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations — Return Event: 1 years

Label: PDA-1C-2A — Storm Event: 1 year

Scenario: Post-Development 1 year

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	100.00 ft
Manning's n	0.150
Slope	0.030 ft/ft
2 Year 24 Hour Depth	3.4 in
Average Velocity	0.21 ft/s
Segment Time of Concentration	0.135 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	51.00 ft
Is Paved?	False
Slope	0.040 ft/ft
Average Velocity	3.23 ft/s
Segment Time of Concentration	0.004 hours

Segment #3: TR-55 Shallow Concentrated Flow	
Hydraulic Length	705.00 ft
Is Paved?	True
Slope	0.011 ft/ft
Average Velocity	2.13 ft/s
Segment Time of Concentration	0.092 hours

Segment #4: TR-55 Shallow Concentrated Flow	
Hydraulic Length	847.00 ft
Is Paved?	False
Slope	0.099 ft/ft
Average Velocity	5.08 ft/s
Segment Time of Concentration	0.046 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.277 hours

Subsection: Time of Concentration Calculations | Return Event: 1 years
Label: PDA-1C-2A | Storm Event: 1 year
Scenario: Post-Development 1 year

==== SCS Channel Flow

Tc =	R = Qa / Wp V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n (Lf / V) / 3600
Where:	R= Hydraulic radius Aq= Flow area, square feet Wp= Wetted perimeter, feet V= Velocity, ft/sec Sf= Slope, ft/ft n= Manning's n Tc= Time of concentration, hours Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc =	Unpaved surface: V = 16.1345 * (Sf**0.5) Paved Surface: V = 20.3282 * (Sf**0.5) (Lf / V) / 3600
Where:	V= Velocity, ft/sec Sf= Slope, ft/ft Tc= Time of concentration, hours Lf= Flow length, feet

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations	Return Event: 1 years
Label: PDA-1C-2B	Storm Event: 1 year
Scenario: Post-Development 1 year	

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	100.00 ft
Manning's n	0.150
Slope	0.040 ft/ft
2 Year 24 Hour Depth	3.4 in
Average Velocity	0.23 ft/s
Segment Time of Concentration	0.120 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	650.00 ft
Is Paved?	False
Slope	0.060 ft/ft
Average Velocity	3.95 ft/s
Segment Time of Concentration	0.046 hours

Segment #3: TR-55 Channel Flow	
Flow Area	1.2 ft²
Hydraulic Length	272.00 ft
Manning's n	0.011
Slope	0.058 ft/ft
Wetted Perimeter	3.93 ft
Average Velocity	14.97 ft/s
Segment Time of Concentration	0.005 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.171 hours

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations | Return Event: 1 years
Label: PDA-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

==== SCS Channel Flow

Tc =	R = Qa / Wp V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n (Lf / V) / 3600
Where:	R= Hydraulic radius Aq= Flow area, square feet Wp= Wetted perimeter, feet V= Velocity, ft/sec Sf= Slope, ft/ft n= Manning's n Tc= Time of concentration, hours Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc =	Unpaved surface: V = 16.1345 * (Sf**0.5) Paved Surface: V = 20.3282 * (Sf**0.5) (Lf / V) / 3600
Where:	V= Velocity, ft/sec Sf= Slope, ft/ft Tc= Time of concentration, hours Lf= Flow length, feet

==== SCS TR-55 Sheet Flow

Tc =	(0.007 * ((n * Lf)**0.8)) / ((P**0.5) * (Sf**0.4))
Where:	Tc= Time of concentration, hours n= Manning's n Lf= Flow length, feet P= 2yr, 24hr Rain depth, inches Sf= Slope, %

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations

Label: PDA-2

Scenario: Post-Development 1 year

Return Event: 1 years

Storm Event: 1 year

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	100.00 ft
Manning's n	0.150
Slope	0.060 ft/ft
2 Year 24 Hour Depth	3.4 in
Average Velocity	0.27 ft/s
Segment Time of Concentration	0.102 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	945.00 ft
Is Paved?	False
Slope	0.034 ft/ft
Average Velocity	2.98 ft/s
Segment Time of Concentration	0.088 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.190 hours

==== SCS Channel Flow

Tc = R = Qa / Wp
V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n

(Lf / V) / 3600

Where:
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
V = 16.1345 * (Sf**0.5)

Paved Surface:
V = 20.3282 * (Sf**0.5)

(Lf / V) / 3600

Where:
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Stormwater Hydrologic Calculations

Subsection: Time of Concentration Calculations — Return Event: 1 years

Label: Permeable Asphalt — Storm Event: 1 year

Scenario: Post-Development 1 year

Time of Concentration Results

Segment #1: User Defined Tc	
Time of Concentration	0.083 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.083 hours

Subsection: Time of Concentration Calculations	Return Event: 1 years
Label: Permeable Asphalt	Storm Event: 1 year
Scenario: Post-Development 1 year	

==== User Defined

Tc =	Value entered by user
Where:	Tc= Time of concentration, hours

Stormwater Hydrologic Calculations

Subsection: Runoff CN-Area | Return Event: 1 years
Label: EDA 1C-10 | Storm Event: 1 year
Scenario: Pre-Development 1 year

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 C	98.000	12,431	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	139,499	0.0	0.0	61.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	55,495	0.0	0.0	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	207,425	(N/A)	(N/A)	66.695

Stormwater Hydrologic Calculations

Subsection: Runoff CN-Area
Label: EDA 1C-2
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

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	220,539	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	141,879	0.0	0.0	61.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	185,851	0.0	0.0	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	548,269	(N/A)	(N/A)	80.290

Stormwater Hydrologic Calculations

Subsection: Runoff CN-Area
Label: EDA 1C-6
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

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 C	74.000	5,565	0.0	0.0	74.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	9,586	0.0	0.0	61.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	15,151	(N/A)	(N/A)	65.775

Stormwater Hydrologic Calculations

Subsection: Runoff CN-Area
Label: EDA 1C-7
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

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 C	98.000	18,249	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	23,115	0.0	0.0	61.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	28,113	0.0	0.0	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	69,477	(N/A)	(N/A)	75.979

Stormwater Hydrologic Calculations

Subsection: Runoff CN-Area
Label: EDA-2
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

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 C	98.000	32,054	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	4,452	0.0	0.0	61.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	110,290	0.0	0.0	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	146,796	(N/A)	(N/A)	78.846

Stormwater Hydrologic Calculations

Subsection: Runoff CN-Area | Return Event: 1 years
Label: PDA-1C-2A | Storm Event: 1 year
Scenario: Post-Development 1 year

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 C	98.000	124,252	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	48,193	0.0	0.0	61.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	82,975	0.0	0.0	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	255,420	(N/A)	(N/A)	83.222

Stormwater Hydrologic Calculations

Subsection: Runoff CN-Area
Label: PDA-1C-2B
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

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 C	98.000	253,721	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil B	61.000	197,857	0.0	0.0	61.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	134,359	0.0	0.0	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	585,937	(N/A)	(N/A)	80.003

Stormwater Hydrologic Calculations

Subsection: Runoff CN-Area
Label: PDA-2
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

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 C	98.000	1,533	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	126,260	0.0	0.0	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	127,793	(N/A)	(N/A)	74.288

Stormwater Hydrologic Calculations

Subsection: Runoff CN-Area
Label: Permeable Asphalt
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Runoff Curve Number Data

Soil/Surface Description	CN	Area (ft²)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil B	98.000	17,994	0.0	0.0	98.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	17,994	(N/A)	(N/A)	98.000

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 1 years
Label: EDA 1C-10 — Storm Event: 1 year
Scenario: Pre-Development 1 year

Storm Event	1 year
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.145 hours
Area (User Defined)	207,425 ft²

Computational Time Increment	0.019 hours
Time to Peak (Computed)	12.150 hours
Flow (Peak, Computed)	1.80 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	1.80 ft³/s

Drainage Area

SCS CN (Composite)	67.000
Area (User Defined)	207,425 ft²
Maximum Retention (Pervious)	4.9 in
Maximum Retention (Pervious, 20 percent)	1.0 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	0.5 in
Runoff Volume (Pervious)	8,447 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	8,426 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.145 hours
Computational Time Increment	0.019 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 1 years
Label: EDA 1C-10 | Storm Event: 1 year
Scenario: Pre-Development 1 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	37.24 ft³/s
Unit peak time, Tp	0.097 hours
Unit receding limb, Tr	0.386 hours
Total unit time, Tb	0.483 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years
Label: EDA 1C-10 — Storm Event: 10 year
Scenario: Pre-Development 10 year

Storm Event	10 year
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.145 hours
Area (User Defined)	207,425 ft²

Computational Time Increment	0.019 hours
Time to Peak (Computed)	12.130 hours
Flow (Peak, Computed)	8.60 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	8.53 ft³/s

Drainage Area	
SCS CN (Composite)	67.000
Area (User Defined)	207,425 ft²
Maximum Retention (Pervious)	4.9 in
Maximum Retention (Pervious, 20 percent)	1.0 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.9 in
Runoff Volume (Pervious)	32,619 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	32,561 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.145 hours
Computational Time Increment	0.019 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years
Label: EDA 1C-10 — Storm Event: 10 year
Scenario: Pre-Development 10 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	37.24 ft³/s
Unit peak time, Tp	0.097 hours
Unit receding limb, Tr	0.386 hours
Total unit time, Tb	0.483 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 25 years

Label: EDA 1C-10 — Storm Event: 25 year

Scenario: Pre-Development 25 year

Storm Event	25 year
Return Event	25 years
Duration	24.000 hours
Depth	6.4 in
Time of Concentration (Composite)	0.145 hours
Area (User Defined)	207,425 ft²

Computational Time Increment	0.019 hours
Time to Peak (Computed)	12.130 hours
Flow (Peak, Computed)	13.28 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	13.10 ft³/s

Drainage Area

SCS CN (Composite)	67.000
Area (User Defined)	207,425 ft²
Maximum Retention (Pervious)	4.9 in
Maximum Retention (Pervious, 20 percent)	1.0 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	2.9 in
Runoff Volume (Pervious)	49,550 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	49,470 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.145 hours
Computational Time Increment	0.019 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 25 years
Label: EDA 1C-10 — Storm Event: 25 year
Scenario: Pre-Development 25 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	37.24 ft^3/s
Unit peak time, Tp	0.097 hours
Unit receding limb, Tr	0.386 hours
Total unit time, Tb	0.483 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 100 years
Label: EDA 1C-10 — Storm Event: 100 year
Scenario: Pre-Development 100 year

Storm Event	100 year
Return Event	100 years
Duration	24.000 hours
Depth	9.1 in
Time of Concentration (Composite)	0.145 hours
Area (User Defined)	207,425 ft²

Computational Time Increment	0.019 hours
Time to Peak (Computed)	12.130 hours
Flow (Peak, Computed)	23.61 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	23.15 ft³/s

Drainage Area

SCS CN (Composite)	67.000
Area (User Defined)	207,425 ft²
Maximum Retention (Pervious)	4.9 in
Maximum Retention (Pervious, 20 percent)	1.0 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	5.1 in
Runoff Volume (Pervious)	87,882 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	87,757 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.145 hours
Computational Time Increment	0.019 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 100 years
Label: EDA 1C-10 | Storm Event: 100 year
Scenario: Pre-Development 100 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	37.24 ft³/s
Unit peak time, Tp	0.097 hours
Unit receding limb, Tr	0.386 hours
Total unit time, Tb	0.483 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 1 years
Label: EDA 1C-2 | Storm Event: 1 year
Scenario: Pre-Development 1 year

Storm Event	1 year
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.302 hours
Area (User Defined)	548,269 ft²

Computational Time Increment	0.040 hours
Time to Peak (Computed)	12.232 hours
Flow (Peak, Computed)	10.86 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.250 hours
Flow (Peak Interpolated Output)	10.75 ft³/s

Drainage Area

SCS CN (Composite)	80.000
Area (User Defined)	548,269 ft²
Maximum Retention (Pervious)	2.5 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	1.1 in
Runoff Volume (Pervious)	50,353 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	50,159 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.302 hours
Computational Time Increment	0.040 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 1 years

Label: EDA 1C-2 — Storm Event: 1 year

Scenario: Pre-Development 1 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	47.26 ft³/s
Unit peak time, Tp	0.201 hours
Unit receding limb, Tr	0.805 hours
Total unit time, Tb	1.006 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years

Label: EDA 1C-2 — Storm Event: 10 year

Scenario: Pre-Development 10 year

Storm Event	10 year
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.302 hours
Area (User Defined)	548,269 ft²

Computational Time Increment	0.040 hours
Time to Peak (Computed)	12.232 hours
Flow (Peak, Computed)	30.13 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.200 hours
Flow (Peak Interpolated Output)	30.02 ft³/s

Drainage Area

SCS CN (Composite)	80.000
Area (User Defined)	548,269 ft²
Maximum Retention (Pervious)	2.5 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	3.0 in
Runoff Volume (Pervious)	136,967 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	136,541 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.302 hours
Computational Time Increment	0.040 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years
Label: EDA 1C-2 — Storm Event: 10 year
Scenario: Pre-Development 10 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	47.26 ft³/s
Unit peak time, Tp	0.201 hours
Unit receding limb, Tr	0.805 hours
Total unit time, Tb	1.006 hours

Storm Event	25 year
Return Event	25 years
Duration	24.000 hours
Depth	6.4 in
Time of Concentration (Composite)	0.302 hours
Area (User Defined)	548,269 ft²

Computational Time Increment	0.040 hours
Time to Peak (Computed)	12.192 hours
Flow (Peak, Computed)	41.73 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.200 hours
Flow (Peak Interpolated Output)	41.73 ft³/s

Drainage Area

SCS CN (Composite)	80.000
Area (User Defined)	548,269 ft²
Maximum Retention (Pervious)	2.5 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	4.2 in
Runoff Volume (Pervious)	191,004 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	190,446 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.302 hours
Computational Time Increment	0.040 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 25 years

Label: EDA 1C-2 — Storm Event: 25 year

Scenario: Pre-Development 25 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	47.26 ft³/s
Unit peak time, Tp	0.201 hours
Unit receding limb, Tr	0.805 hours
Total unit time, Tb	1.006 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary Return Event: 100 years
Label: EDA 1C-2 Storm Event: 100 year
Scenario: Pre-Development 100 year

Storm Event	100 year
Return Event	100 years
Duration	24.000 hours
Depth	9.1 in
Time of Concentration (Composite)	0.302 hours
Area (User Defined)	548,269 ft²

Computational Time Increment	0.040 hours
Time to Peak (Computed)	12.192 hours
Flow (Peak, Computed)	66.05 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.200 hours
Flow (Peak Interpolated Output)	65.98 ft³/s

Drainage Area	
SCS CN (Composite)	80.000
Area (User Defined)	548,269 ft²
Maximum Retention (Pervious)	2.5 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.7 in
Runoff Volume (Pervious)	306,164 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	305,340 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.302 hours
Computational Time Increment	0.040 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 100 years
Label: EDA 1C-2 | Storm Event: 100 year
Scenario: Pre-Development 100 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	47.26 ft^3/s
Unit peak time, Tp	0.201 hours
Unit receding limb, Tr	0.805 hours
Total unit time, Tb	1.006 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 1 years
Label: EDA 1C-6 | Storm Event: 1 year
Scenario: Pre-Development 1 year

Storm Event	1 year
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.122 hours
Area (User Defined)	15,151 ft²

Computational Time Increment	0.016 hours
Time to Peak (Computed)	12.148 hours
Flow (Peak, Computed)	0.12 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	0.12 ft³/s

Drainage Area

SCS CN (Composite)	66.000
Area (User Defined)	15,151 ft²
Maximum Retention (Pervious)	5.2 in
Maximum Retention (Pervious, 20 percent)	1.0 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	0.5 in
Runoff Volume (Pervious)	571 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	570 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.122 hours
Computational Time Increment	0.016 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Subsection: Unit Hydrograph Summary | Return Event: 1 years
Label: EDA 1C-6 | Storm Event: 1 year
Scenario: Pre-Development 1 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	3.23 ft³/s
Unit peak time, Tp	0.081 hours
Unit receding limb, Tr	0.326 hours
Total unit time, Tb	0.407 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 10 years
Label: EDA 1C-6 | Storm Event: 10 year
Scenario: Pre-Development 10 year

Storm Event	10 year
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.122 hours
Area (User Defined)	15,151 ft²

Computational Time Increment	0.016 hours
Time to Peak (Computed)	12.131 hours
Flow (Peak, Computed)	0.62 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.60 ft³/s

Drainage Area

SCS CN (Composite)	66.000
Area (User Defined)	15,151 ft²
Maximum Retention (Pervious)	5.2 in
Maximum Retention (Pervious, 20 percent)	1.0 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	1.8 in
Runoff Volume (Pervious)	2,285 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	2,282 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.122 hours
Computational Time Increment	0.016 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Subsection: Unit Hydrograph Summary Return Event: 10 years
Label: EDA 1C-6 Storm Event: 10 year
Scenario: Pre-Development 10 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	3.23 ft³/s
Unit peak time, Tp	0.081 hours
Unit receding limb, Tr	0.326 hours
Total unit time, Tb	0.407 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 25 years
Label: EDA 1C-6 | Storm Event: 25 year
Scenario: Pre-Development 25 year

Storm Event	25 year
Return Event	25 years
Duration	24.000 hours
Depth	6.4 in
Time of Concentration (Composite)	0.122 hours
Area (User Defined)	15,151 ft²

Computational Time Increment	0.016 hours
Time to Peak (Computed)	12.131 hours
Flow (Peak, Computed)	0.96 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.94 ft³/s

Drainage Area	
SCS CN (Composite)	66.000
Area (User Defined)	15,151 ft²
Maximum Retention (Pervious)	5.2 in
Maximum Retention (Pervious, 20 percent)	1.0 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	2.8 in
Runoff Volume (Pervious)	3,499 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	3,494 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.122 hours
Computational Time Increment	0.016 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 25 years
Label: EDA 1C-6 — Storm Event: 25 year
Scenario: Pre-Development 25 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	3.23 ft^3/s
Unit peak time, Tp	0.081 hours
Unit receding limb, Tr	0.326 hours
Total unit time, Tb	0.407 hours

Storm Event	100 year
Return Event	100 years
Duration	24.000 hours
Depth	9.1 in
Time of Concentration (Composite)	0.122 hours
Area (User Defined)	15,151 ft²

Computational Time Increment	0.016 hours
Time to Peak (Computed)	12.115 hours
Flow (Peak, Computed)	1.73 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	1.71 ft³/s

Drainage Area

SCS CN (Composite)	66.000
Area (User Defined)	15,151 ft²
Maximum Retention (Pervious)	5.2 in
Maximum Retention (Pervious, 20 percent)	1.0 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	5.0 in
Runoff Volume (Pervious)	6,262 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	6,254 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.122 hours
Computational Time Increment	0.016 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 100 years
Label: EDA 1C-6 | Storm Event: 100 year
Scenario: Pre-Development 100 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	3.23 ft³/s
Unit peak time, Tp	0.081 hours
Unit receding limb, Tr	0.326 hours
Total unit time, Tb	0.407 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 1 years
Label: EDA 1C-7 | Storm Event: 1 year
Scenario: Pre-Development 1 year

Storm Event	1 year
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.231 hours
Area (User Defined)	69,477 ft²

Computational Time Increment	0.031 hours
Time to Peak (Computed)	12.189 hours
Flow (Peak, Computed)	1.16 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.200 hours
Flow (Peak Interpolated Output)	1.16 ft³/s

Drainage Area	
SCS CN (Composite)	76.000
Area (User Defined)	69,477 ft²
Maximum Retention (Pervious)	3.2 in
Maximum Retention (Pervious, 20 percent)	0.6 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	0.9 in
Runoff Volume (Pervious)	5,111 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	5,095 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.231 hours
Computational Time Increment	0.031 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 1 years

Label: EDA 1C-7 — Storm Event: 1 year

Scenario: Pre-Development 1 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	7.83 ft³/s
Unit peak time, Tp	0.154 hours
Unit receding limb, Tr	0.616 hours
Total unit time, Tb	0.769 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years
Label: EDA 1C-7 — Storm Event: 10 year
Scenario: Pre-Development 10 year

Storm Event	10 year
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.231 hours
Area (User Defined)	69,477 ft²

Computational Time Increment	0.031 hours
Time to Peak (Computed)	12.189 hours
Flow (Peak, Computed)	3.66 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	3.61 ft³/s

Drainage Area

SCS CN (Composite)	76.000
Area (User Defined)	69,477 ft²
Maximum Retention (Pervious)	3.2 in
Maximum Retention (Pervious, 20 percent)	0.6 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	2.6 in
Runoff Volume (Pervious)	15,254 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	15,216 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.231 hours
Computational Time Increment	0.031 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary　　Return Event: 10 years
Label: EDA 1C-7　　Storm Event: 10 year
Scenario: Pre-Development 10 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	7.83 ft^3/s
Unit peak time, Tp	0.154 hours
Unit receding limb, Tr	0.616 hours
Total unit time, Tb	0.769 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 25 years
Label: EDA 1C-7 | Storm Event: 25 year
Scenario: Pre-Development 25 year

Storm Event	25 year
Return Event	25 years
Duration	24.000 hours
Depth	6.4 in
Time of Concentration (Composite)	0.231 hours
Area (User Defined)	69,477 ft²

Computational Time Increment	0.031 hours
Time to Peak (Computed)	12.158 hours
Flow (Peak, Computed)	5.23 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	5.18 ft³/s

Drainage Area

SCS CN (Composite)	76.000
Area (User Defined)	69,477 ft²
Maximum Retention (Pervious)	3.2 in
Maximum Retention (Pervious, 20 percent)	0.6 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	3.8 in
Runoff Volume (Pervious)	21,785 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	21,734 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.231 hours
Computational Time Increment	0.031 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 25 years

Label: EDA 1C-7 | Storm Event: 25 year

Scenario: Pre-Development 25 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	7.83 ft^3/s
Unit peak time, Tp	0.154 hours
Unit receding limb, Tr	0.616 hours
Total unit time, Tb	0.769 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 100 years
Label: EDA 1C-7 — Storm Event: 100 year
Scenario: Pre-Development 100 year

Storm Event	100 year
Return Event	100 years
Duration	24.000 hours
Depth	9.1 in
Time of Concentration (Composite)	0.231 hours
Area (User Defined)	69,477 ft²

Computational Time Increment	0.031 hours
Time to Peak (Computed)	12.158 hours
Flow (Peak, Computed)	8.56 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	8.48 ft³/s

Drainage Area

SCS CN (Composite)	76.000
Area (User Defined)	69,477 ft²
Maximum Retention (Pervious)	3.2 in
Maximum Retention (Pervious, 20 percent)	0.6 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	6.2 in
Runoff Volume (Pervious)	35,927 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	35,850 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.231 hours
Computational Time Increment	0.031 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary
Label: EDA 1C-7
Scenario: Pre-Development 100 year

Return Event: 100 years
Storm Event: 100 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	7.83 ft³/s
Unit peak time, Tp	0.154 hours
Unit receding limb, Tr	0.616 hours
Total unit time, Tb	0.769 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 1 years
Label: EDA-2 — Storm Event: 1 year
Scenario: Pre-Development 1 year

Storm Event	1 year
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.190 hours
Area (User Defined)	146,796 ft²

Computational Time Increment	0.025 hours
Time to Peak (Computed)	12.155 hours
Flow (Peak, Computed)	3.17 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	3.15 ft³/s

Drainage Area

SCS CN (Composite)	79.000
Area (User Defined)	146,796 ft²
Maximum Retention (Pervious)	2.7 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	1.0 in
Runoff Volume (Pervious)	12,776 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	12,744 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.190 hours
Computational Time Increment	0.025 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 1 years
Label: EDA-2 — Storm Event: 1 year
Scenario: Pre-Development 1 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	20.06 ft³/s
Unit peak time, Tp	0.127 hours
Unit receding limb, Tr	0.508 hours
Total unit time, Tb	0.634 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years
Label: EDA-2 — Storm Event: 10 year
Scenario: Pre-Development 10 year

Storm Event	10 year
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.190 hours
Area (User Defined)	146,796 ft²

Computational Time Increment	0.025 hours
Time to Peak (Computed)	12.155 hours
Flow (Peak, Computed)	9.02 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	9.00 ft³/s

Drainage Area	
SCS CN (Composite)	79.000
Area (User Defined)	146,796 ft²
Maximum Retention (Pervious)	2.7 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	2.9 in
Runoff Volume (Pervious)	35,540 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	35,467 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.190 hours
Computational Time Increment	0.025 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary
Label: EDA-2
Scenario: Pre-Development 10 year

Return Event: 10 years
Storm Event: 10 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	20.06 ft³/s
Unit peak time, Tp	0.127 hours
Unit receding limb, Tr	0.508 hours
Total unit time, Tb	0.634 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 25 years
Label: EDA-2 | Storm Event: 25 year
Scenario: Pre-Development 25 year

Storm Event	25 year
Return Event	25 years
Duration	24.000 hours
Depth	6.4 in
Time of Concentration (Composite)	0.190 hours
Area (User Defined)	146,796 ft²

Computational Time Increment	0.025 hours
Time to Peak (Computed)	12.155 hours
Flow (Peak, Computed)	12.57 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	12.55 ft³/s

Drainage Area

SCS CN (Composite)	79.000
Area (User Defined)	146,796 ft²
Maximum Retention (Pervious)	2.7 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	4.1 in
Runoff Volume (Pervious)	49,849 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	49,754 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.190 hours
Computational Time Increment	0.025 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 25 years
Label: EDA-2 — Storm Event: 25 year
Scenario: Pre-Development 25 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	20.06 ft^3/s
Unit peak time, Tp	0.127 hours
Unit receding limb, Tr	0.508 hours
Total unit time, Tb	0.634 hours

Storm Event	100 year
Return Event	100 years
Duration	24.000 hours
Depth	9.1 in
Time of Concentration (Composite)	0.190 hours
Area (User Defined)	146,796 ft²

Computational Time Increment	0.025 hours
Time to Peak (Computed)	12.155 hours
Flow (Peak, Computed)	19.92 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	19.92 ft³/s

Drainage Area

SCS CN (Composite)	79.000
Area (User Defined)	146,796 ft²
Maximum Retention (Pervious)	2.7 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	6.6 in
Runoff Volume (Pervious)	80,460 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	80,319 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.190 hours
Computational Time Increment	0.025 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 100 years
Label: EDA-2 | Storm Event: 100 year
Scenario: Pre-Development 100 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	20.06 ft^3/s
Unit peak time, Tp	0.127 hours
Unit receding limb, Tr	0.508 hours
Total unit time, Tb	0.634 hours

Stormwater Hydrologic Calculations

Storm Event	1 year
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.277 hours
Area (User Defined)	255,420 ft²

Computational Time Increment	0.037 hours
Time to Peak (Computed)	12.201 hours
Flow (Peak, Computed)	6.18 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.200 hours
Flow (Peak Interpolated Output)	6.18 ft³/s

Drainage Area

SCS CN (Composite)	83.000
Area (User Defined)	255,420 ft²
Maximum Retention (Pervious)	2.0 in
Maximum Retention (Pervious, 20 percent)	0.4 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	1.3 in
Runoff Volume (Pervious)	27,401 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	27,313 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.277 hours
Computational Time Increment	0.037 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 1 years
Label: PDA-1C-2A | Storm Event: 1 year
Scenario: Post-Development 1 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	23.96 ft^3/s
Unit peak time, Tp	0.185 hours
Unit receding limb, Tr	0.739 hours
Total unit time, Tb	0.924 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years
Label: PDA-1C-2A — Storm Event: 10 year
Scenario: Post-Development 10 year

Storm Event	10 year
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.277 hours
Area (User Defined)	255,420 ft²

Computational Time Increment	0.037 hours
Time to Peak (Computed)	12.201 hours
Flow (Peak, Computed)	15.83 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.200 hours
Flow (Peak Interpolated Output)	15.82 ft³/s

Drainage Area

SCS CN (Composite)	83.000
Area (User Defined)	255,420 ft²
Maximum Retention (Pervious)	2.0 in
Maximum Retention (Pervious, 20 percent)	0.4 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	3.3 in
Runoff Volume (Pervious)	69,876 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	69,692 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.277 hours
Computational Time Increment	0.037 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 10 years
Label: PDA-1C-2A | Storm Event: 10 year
Scenario: Post-Development 10 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	23.96 ft^3/s
Unit peak time, Tp	0.185 hours
Unit receding limb, Tr	0.739 hours
Total unit time, Tb	0.924 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 25 years
Label: PDA-1C-2A — Storm Event: 25 year
Scenario: Post-Development 25 year

Storm Event	25 year
Return Event	25 years
Duration	24.000 hours
Depth	6.4 in
Time of Concentration (Composite)	0.277 hours
Area (User Defined)	255,420 ft²

Computational Time Increment	0.037 hours
Time to Peak (Computed)	12.201 hours
Flow (Peak, Computed)	21.50 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.200 hours
Flow (Peak Interpolated Output)	21.49 ft³/s

Drainage Area

SCS CN (Composite)	83.000
Area (User Defined)	255,420 ft²
Maximum Retention (Pervious)	2.0 in
Maximum Retention (Pervious, 20 percent)	0.4 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	4.5 in
Runoff Volume (Pervious)	95,813 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	95,575 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.277 hours
Computational Time Increment	0.037 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 25 years
Label: PDA-1C-2A | Storm Event: 25 year
Scenario: Post-Development 25 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	23.96 ft^3/s
Unit peak time, Tp	0.185 hours
Unit receding limb, Tr	0.739 hours
Total unit time, Tb	0.924 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 100 years
Label: PDA-1C-2A | Storm Event: 100 year
Scenario: Post-Development 100 year

Storm Event	100 year
Return Event	100 years
Duration	24.000 hours
Depth	9.1 in
Time of Concentration (Composite)	0.277 hours
Area (User Defined)	255,420 ft²

Computational Time Increment	0.037 hours
Time to Peak (Computed)	12.201 hours
Flow (Peak, Computed)	33.11 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.200 hours
Flow (Peak Interpolated Output)	33.10 ft³/s

Drainage Area

SCS CN (Composite)	83.000
Area (User Defined)	255,420 ft²
Maximum Retention (Pervious)	2.0 in
Maximum Retention (Pervious, 20 percent)	0.4 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	7.1 in
Runoff Volume (Pervious)	150,514 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	150,166 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.277 hours
Computational Time Increment	0.037 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary
Label: PDA-1C-2A
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: 100 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	23.96 ft³/s
Unit peak time, Tp	0.185 hours
Unit receding limb, Tr	0.739 hours
Total unit time, Tb	0.924 hours

Storm Event	1 year
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.171 hours
Area (User Defined)	585,937 ft²

Computational Time Increment	0.023 hours
Time to Peak (Computed)	12.138 hours
Flow (Peak, Computed)	13.74 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	13.72 ft³/s

Drainage Area

SCS CN (Composite)	80.000
Area (User Defined)	585,937 ft²
Maximum Retention (Pervious)	2.5 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	1.1 in
Runoff Volume (Pervious)	53,813 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	53,690 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.171 hours
Computational Time Increment	0.023 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 1 years
Label: PDA-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	89.23 ft³/s
Unit peak time, Tp	0.114 hours
Unit receding limb, Tr	0.455 hours
Total unit time, Tb	0.569 hours

Storm Event	10 year
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.171 hours
Area (User Defined)	585,937 ft²

Computational Time Increment	0.023 hours
Time to Peak (Computed)	12.138 hours
Flow (Peak, Computed)	38.01 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	37.70 ft³/s

Drainage Area

SCS CN (Composite)	80.000
Area (User Defined)	585,937 ft²
Maximum Retention (Pervious)	2.5 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	3.0 in
Runoff Volume (Pervious)	146,377 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	146,107 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.171 hours
Computational Time Increment	0.023 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 10 years
Label: PDA-1C-2B | Storm Event: 10 year
Scenario: Post-Development 10 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	89.23 ft³/s
Unit peak time, Tp	0.114 hours
Unit receding limb, Tr	0.455 hours
Total unit time, Tb	0.569 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 25 years
Label: PDA-1C-2B — Storm Event: 25 year
Scenario: Post-Development 25 year

Storm Event	25 year
Return Event	25 years
Duration	24.000 hours
Depth	6.4 in
Time of Concentration (Composite)	0.171 hours
Area (User Defined)	585,937 ft²

Computational Time Increment	0.023 hours
Time to Peak (Computed)	12.138 hours
Flow (Peak, Computed)	52.61 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	52.09 ft³/s

Drainage Area

SCS CN (Composite)	80.000
Area (User Defined)	585,937 ft²
Maximum Retention (Pervious)	2.5 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	4.2 in
Runoff Volume (Pervious)	204,127 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	203,773 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.171 hours
Computational Time Increment	0.023 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 25 years

Label: PDA-1C-2B — Storm Event: 25 year

Scenario: Post-Development 25 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	89.23 ft^3/s
Unit peak time, Tp	0.114 hours
Unit receding limb, Tr	0.455 hours
Total unit time, Tb	0.569 hours

Stormwater Hydrologic Calculations

Storm Event	100 year
Return Event	100 years
Duration	24.000 hours
Depth	9.1 in
Time of Concentration (Composite)	0.171 hours
Area (User Defined)	585,937 ft²

Computational Time Increment	0.023 hours
Time to Peak (Computed)	12.138 hours
Flow (Peak, Computed)	82.75 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	81.79 ft³/s

Drainage Area	
SCS CN (Composite)	80.000
Area (User Defined)	585,937 ft²
Maximum Retention (Pervious)	2.5 in
Maximum Retention (Pervious, 20 percent)	0.5 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.7 in
Runoff Volume (Pervious)	327,199 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	326,676 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.171 hours
Computational Time Increment	0.023 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

SCS Unit Hydrograph Parameters	
Unit peak, qp	89.23 ft^3/s
Unit peak time, Tp	0.114 hours
Unit receding limb, Tr	0.455 hours
Total unit time, Tb	0.569 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 1 years
Label: PDA-2 — Storm Event: 1 year
Scenario: Post-Development 1 year

Storm Event	1 year
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.190 hours
Area (User Defined)	127,793 ft²

Computational Time Increment	0.025 hours
Time to Peak (Computed)	12.155 hours
Flow (Peak, Computed)	1.96 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	1.94 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	127,793 ft²
Maximum Retention (Pervious)	3.5 in
Maximum Retention (Pervious, 20 percent)	0.7 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	0.8 in
Runoff Volume (Pervious)	8,349 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	8,325 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.190 hours
Computational Time Increment	0.025 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 1 years

Label: PDA-2 — Storm Event: 1 year

Scenario: Post-Development 1 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	17.47 ft^3/s
Unit peak time, Tp	0.127 hours
Unit receding limb, Tr	0.508 hours
Total unit time, Tb	0.634 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years
Label: PDA-2 — Storm Event: 10 year
Scenario: Post-Development 10 year

Storm Event	10 year
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.190 hours
Area (User Defined)	127,793 ft²

Computational Time Increment	0.025 hours
Time to Peak (Computed)	12.155 hours
Flow (Peak, Computed)	6.64 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	6.62 ft³/s

Drainage Area

SCS CN (Composite)	74.000
Area (User Defined)	127,793 ft²
Maximum Retention (Pervious)	3.5 in
Maximum Retention (Pervious, 20 percent)	0.7 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	2.5 in
Runoff Volume (Pervious)	26,201 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	26,143 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.190 hours
Computational Time Increment	0.025 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years
Label: PDA-2 — Storm Event: 10 year
Scenario: Post-Development 10 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	17.47 ft^3/s
Unit peak time, Tp	0.127 hours
Unit receding limb, Tr	0.508 hours
Total unit time, Tb	0.634 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 25 years
Label: PDA-2 | Storm Event: 25 year
Scenario: Post-Development 25 year

Storm Event	25 year
Return Event	25 years
Duration	24.000 hours
Depth	6.4 in
Time of Concentration (Composite)	0.190 hours
Area (User Defined)	127,793 ft²

Computational Time Increment	0.025 hours
Time to Peak (Computed)	12.155 hours
Flow (Peak, Computed)	9.62 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	9.60 ft³/s

Drainage Area

SCS CN (Composite)	74.000
Area (User Defined)	127,793 ft²
Maximum Retention (Pervious)	3.5 in
Maximum Retention (Pervious, 20 percent)	0.7 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	3.6 in
Runoff Volume (Pervious)	37,893 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	37,815 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.190 hours
Computational Time Increment	0.025 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

SCS Unit Hydrograph Parameters	
Unit peak, qp	17.47 ft³/s
Unit peak time, Tp	0.127 hours
Unit receding limb, Tr	0.508 hours
Total unit time, Tb	0.634 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 100 years
Label: PDA-2 | Storm Event: 100 year
Scenario: Post-Development 100 year

Storm Event	100 year
Return Event	100 years
Duration	24.000 hours
Depth	9.1 in
Time of Concentration (Composite)	0.190 hours
Area (User Defined)	127,793 ft²

Computational Time Increment	0.025 hours
Time to Peak (Computed)	12.155 hours
Flow (Peak, Computed)	15.95 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	15.93 ft³/s

Drainage Area

SCS CN (Composite)	74.000
Area (User Defined)	127,793 ft²
Maximum Retention (Pervious)	3.5 in
Maximum Retention (Pervious, 20 percent)	0.7 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	6.0 in
Runoff Volume (Pervious)	63,436 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	63,317 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.190 hours
Computational Time Increment	0.025 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 100 years

Label: PDA-2 | Storm Event: 100 year

Scenario: Post-Development 100 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	17.47 ft³/s
Unit peak time, Tp	0.127 hours
Unit receding limb, Tr	0.508 hours
Total unit time, Tb	0.634 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 1 years
Label: Permeable Asphalt | Storm Event: 1 year
Scenario: Post-Development 1 year

Storm Event	1 year
Return Event	1 years
Duration	24.000 hours
Depth	2.8 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	17,994 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	0.96 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.96 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	17,994 ft²
Maximum Retention (Pervious)	0.2 in
Maximum Retention (Pervious, 20 percent)	0.0 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	2.6 in
Runoff Volume (Pervious)	3,852 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	3,850 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 1 years
Label: Permeable Asphalt | Storm Event: 1 year
Scenario: Post-Development 1 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	5.62 ft^3/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 10 years
Label: Permeable Asphalt — Storm Event: 10 year
Scenario: Post-Development 10 year

Storm Event	10 year
Return Event	10 years
Duration	24.000 hours
Depth	5.1 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	17,994 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	1.78 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	1.78 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	17,994 ft²
Maximum Retention (Pervious)	0.2 in
Maximum Retention (Pervious, 20 percent)	0.0 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.9 in
Runoff Volume (Pervious)	7,322 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	7,318 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 10 years
Label: Permeable Asphalt | Storm Event: 10 year
Scenario: Post-Development 10 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	5.62 ft³/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary | Return Event: 25 years
Label: Permeable Asphalt | Storm Event: 25 year
Scenario: Post-Development 25 year

Storm Event	25 year
Return Event	25 years
Duration	24.000 hours
Depth	6.4 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	17,994 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	2.24 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	2.24 ft³/s

Drainage Area

SCS CN (Composite)	98.000
Area (User Defined)	17,994 ft²
Maximum Retention (Pervious)	0.2 in
Maximum Retention (Pervious, 20 percent)	0.0 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	6.2 in
Runoff Volume (Pervious)	9,299 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	9,294 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary
Label: Permeable Asphalt
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: 25 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	5.62 ft³/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary — Return Event: 100 years
Label: Permeable Asphalt — Storm Event: 100 year
Scenario: Post-Development 100 year

Storm Event	100 year
Return Event	100 years
Duration	24.000 hours
Depth	9.1 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	17,994 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	3.18 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	3.18 ft³/s

Drainage Area

SCS CN (Composite)	98.000
Area (User Defined)	17,994 ft²
Maximum Retention (Pervious)	0.2 in
Maximum Retention (Pervious, 20 percent)	0.0 in

Cumulative Runoff

Cumulative Runoff Depth (Pervious)	8.9 in
Runoff Volume (Pervious)	13,345 ft³

Hydrograph Volume (Area under Hydrograph curve)

Volume	13,337 ft³

SCS Unit Hydrograph Parameters

Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Stormwater Hydrologic Calculations

Subsection: Unit Hydrograph Summary Return Event: 100 years
Label: Permeable Asphalt Storm Event: 100 year
Scenario: Post-Development 100 year

SCS Unit Hydrograph Parameters	
Unit peak, qp	5.62 ft³/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary | Return Event: 1 years
Label: CO-1C-10 | Storm Event: 1 year
Scenario: Post-Development 1 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.138 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	0.050	0.200
Peak Time (hours)...	0.000	0.000
Peak Flow (ft³/s)...	0.00	0.00

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	0 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	0 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary	Return Event: 1 years
Label: CO-1C-10	Storm Event: 1 year
Scenario: Pre-Development 1 year	

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.138 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.150	12.300
Peak Flow (ft³/s)...	1.80	1.80

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	8,426 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	8,426 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary | Return Event: 10 years
Label: CO-1C-10 | Storm Event: 10 year
Scenario: Post-Development 10 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.138 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.450	12.600
Peak Flow (ft³/s)...	6.97	6.97

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	31,354 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	31,354 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary
Label: CO-1C-10
Scenario: Pre-Development 10 year

Return Event: 10 years
Storm Event: 10 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.138 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.150	12.300
Peak Flow (ft³/s)...	8.53	8.53

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	32,561 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	32,561 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary | Return Event: 25 years
Label: CO-1C-10 | Storm Event: 25 year
Scenario: Post-Development 25 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.138 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.350	12.500
Peak Flow (ft³/s)...	12.48	12.48

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	54,184 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	54,184 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary | Return Event: 25 years
Label: CO-1C-10 | Storm Event: 25 year
Scenario: Pre-Development 25 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.138 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.150	12.300
Peak Flow (ft³/s)...	13.10	13.10

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	49,470 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	49,470 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary — Return Event: 100 years
Label: CO-1C-10 — Storm Event: 100 year
Scenario: Post-Development 100 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.138 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.250	12.400
Peak Flow (ft³/s)...	17.47	17.47

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	96,564 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	96,564 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary	Return Event: 100 years
Label: CO-1C-10	Storm Event: 100 year
Scenario: Pre-Development 100 year	

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.138 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.150	12.300
Peak Flow (ft³/s)...	23.15	23.15

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	87,757 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	87,757 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary — Return Event: 1 years
Label: CO-1C-2 — Storm Event: 1 year
Scenario: Post-Development 1 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.165 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.200	12.350
Peak Flow (ft³/s)...	6.18	6.18

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	27,313 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	27,313 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary | Return Event: 1 years
Label: CO-1C-2 | Storm Event: 1 year
Scenario: Pre-Development 1 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.165 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.250	12.400
Peak Flow (ft³/s)...	10.75	10.75

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	50,159 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	50,159 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary	Return Event: 10 years
Label: CO-1C-2	Storm Event: 10 year
Scenario: Post-Development 10 year	

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.165 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.250	12.400
Peak Flow (ft³/s)...	20.31	20.31

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	101,036 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	101,036 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary | Return Event: 10 years
Label: CO-1C-2 | Storm Event: 10 year
Scenario: Pre-Development 10 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.165 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.200	12.350
Peak Flow (ft³/s)...	30.02	30.02

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	136,541 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	136,541 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary	Return Event: 25 years
Label: CO-1C-2	Storm Event: 25 year
Scenario: Post-Development 25 year	

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.165 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.250	12.400
Peak Flow (ft³/s)...	32.13	32.13

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	149,745 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	149,745 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary — Return Event: 25 years
Label: CO-1C-2 — Storm Event: 25 year
Scenario: Pre-Development 25 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.165 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.200	12.350
Peak Flow (ft³/s)...	41.73	41.73

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	190,446 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	190,446 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary — Return Event: 100 years

Label: CO-1C-2 — Storm Event: 100 year

Scenario: Post-Development 100 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.165 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.250	12.400
Peak Flow (ft³/s)...	65.02	65.02

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	266,854 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	266,854 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary
Label: CO-1C-2
Scenario: Pre-Development 100 year

Return Event: 100 years
Storm Event: 100 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.165 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.150
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.150
Peak Time (hours)...	12.200	12.350
Peak Flow (ft³/s)...	65.98	65.98

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	305,340 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	305,340 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary
Label: CO-1C-6
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.096 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.100
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.100
Peak Time (hours)...	12.150	12.250
Peak Flow (ft³/s)...	0.12	0.12

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	570 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	570 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary — Return Event: 10 years
Label: CO-1C-6 — Storm Event: 10 year
Scenario: Pre-Development 10 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.096 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.100
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.100
Peak Time (hours)...	12.100	12.200
Peak Flow (ft³/s)...	0.60	0.60

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	2,282 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	2,282 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary | Return Event: 25 years
Label: CO-1C-6 | Storm Event: 25 year
Scenario: Pre-Development 25 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.096 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.100
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.100
Peak Time (hours)...	12.100	12.200
Peak Flow (ft³/s)...	0.94	0.94

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	3,494 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	3,494 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary | Return Event: 100 years
Label: CO-1C-6 | Storm Event: 100 year
Scenario: Pre-Development 100 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.096 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.100
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.100
Peak Time (hours)...	12.100	12.200
Peak Flow (ft³/s)...	1.71	1.71

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	6,254 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	6,254 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary — Return Event: 1 years
Label: CO-1C-7 — Storm Event: 1 year
Scenario: Pre-Development 1 year

Infiltration

Infiltration Method	No Infiltration

Translation Routing Summary

Flow (Base)	0.00 ft³/s
Translate	0.084 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.100
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.100
Peak Time (hours)...	12.200	12.300
Peak Flow (ft³/s)...	1.16	1.16

Inflow/Outflow Volumes

Volume (Routing, Inflow)	5,095 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	5,095 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary — Return Event: 10 years
Label: CO-1C-7 — Storm Event: 10 year
Scenario: Pre-Development 10 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.084 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.100
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.100
Peak Time (hours)...	12.150	12.250
Peak Flow (ft³/s)...	3.61	3.61

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	15,216 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	15,216 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary
Label: CO-1C-7
Scenario: Pre-Development 25 year

Return Event: 25 years
Storm Event: 25 year

Infiltration	
Infiltration Method	No Infiltration

Translation Routing Summary	
Flow (Base)	0.00 ft³/s
Translate	0.084 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.100
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.100
Peak Time (hours)...	12.150	12.250
Peak Flow (ft³/s)...	5.18	5.18

Inflow/Outflow Volumes	
Volume (Routing, Inflow)	21,734 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	21,734 ft³

Stormwater Hydrologic Calculations

Subsection: Channel Routing Summary	Return Event: 100 years
Label: CO-1C-7	Storm Event: 100 year
Scenario: Pre-Development 100 year	

Infiltration

Infiltration Method	No Infiltration

Translation Routing Summary

Flow (Base)	0.00 ft³/s
Translate	0.084 hours

	Inflow Hydrograph	Outflow Hydrograph
Time Start (hours)...	0.000	0.100
Time Step (hours)...	0.050	0.050
Time End (hours)...	24.000	24.100
Peak Time (hours)...	12.150	12.250
Peak Flow (ft³/s)...	8.48	8.48

Inflow/Outflow Volumes

Volume (Routing, Inflow)	35,850 ft³
Volume (Routing, Unrouted)	0 ft³
Volume (Routing, Base Flow)	0 ft³
Volume (Routing, Infiltration)	0 ft³
Volume (Routing, Outflow)	35,850 ft³

Subsection: Addition Summary
Label: DP 1C
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Summary for Hydrograph Addition at 'DP 1C'

Upstream Link	Upstream Node
CO-1C-10	J-1C-10
CO-1C-2	J-1C-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CO-1C-10	0	0.000	0.00
Flow (From)	CO-1C-2	27,313	12.350	6.18
Flow (In)	DP 1C	27,251	12.350	6.18

Subsection: Addition Summary
Label: DP 1C
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Summary for Hydrograph Addition at 'DP 1C'

Upstream Link	Upstream Node
CO-1C-7	J-1C-7
CO-1C-10	J-1C-10
CO-1C-2	J-1C-2
CO-1C-6	J-1C-6

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CO-1C-7	5,095	12.300	1.16
Flow (From)	CO-1C-10	8,426	12.300	1.80
Flow (From)	CO-1C-2	50,159	12.400	10.75
Flow (From)	CO-1C-6	570	12.250	0.12
Flow (In)	DP 1C	64,087	12.350	13.53

Subsection: Addition Summary
Return Event: 10 years
Label: DP 1C
Storm Event: 10 year
Scenario: Post-Development 10 year

Summary for Hydrograph Addition at 'DP 1C'

Upstream Link	Upstream Node
CO-1C-10	J-1C-10
CO-1C-2	J-1C-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CO-1C-10	31,354	12.600	6.97
Flow (From)	CO-1C-2	101,036	12.400	20.31
Flow (In)	DP 1C	132,258	12.450	26.38

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

Summary for Hydrograph Addition at 'DP 1C'

Upstream Link	Upstream Node
CO-1C-7	J-1C-7
CO-1C-10	J-1C-10
CO-1C-2	J-1C-2
CO-1C-6	J-1C-6

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CO-1C-7	15,216	12.250	3.61
Flow (From)	CO-1C-10	32,561	12.300	8.53
Flow (From)	CO-1C-2	136,541	12.350	30.02
Flow (From)	CO-1C-6	2,282	12.200	0.60
Flow (In)	DP 1C	186,221	12.350	41.12

Stormwater Hydrologic Calculations

Subsection: Addition Summary
Label: DP 1C
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: 25 year

Summary for Hydrograph Addition at 'DP 1C'

Upstream Link	Upstream Node
CO-1C-10	J-1C-10
CO-1C-2	J-1C-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CO-1C-10	54,184	12.500	12.48
Flow (From)	CO-1C-2	149,745	12.400	32.13
Flow (In)	DP 1C	203,757	12.400	43.84

Stormwater Hydrologic Calculations

Subsection: Addition Summary Return Event: 25 years
Label: DP 1C Storm Event: 25 year
Scenario: Pre-Development 25 year

Summary for Hydrograph Addition at 'DP 1C'

Upstream Link	Upstream Node
CO-1C-7	J-1C-7
CO-1C-10	J-1C-10
CO-1C-2	J-1C-2
CO-1C-6	J-1C-6

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CO-1C-7	21,734	12.250	5.18
Flow (From)	CO-1C-10	49,470	12.300	13.10
Flow (From)	CO-1C-2	190,446	12.350	41.73
Flow (From)	CO-1C-6	3,494	12.200	0.94
Flow (In)	DP 1C	264,642	12.350	58.24

Subsection: Addition Summary
Label: DP 1C
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: 100 year

Summary for Hydrograph Addition at 'DP 1C'

Upstream Link	Upstream Node
CO-1C-10	J-1C-10
CO-1C-2	J-1C-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CO-1C-10	96,564	12.400	17.47
Flow (From)	CO-1C-2	266,854	12.400	65.02
Flow (In)	DP 1C	363,166	12.400	82.49

Subsection: Addition Summary | Return Event: 100 years
Label: DP 1C | Storm Event: 100 year
Scenario: Pre-Development 100 year

Summary for Hydrograph Addition at 'DP 1C'

Upstream Link	Upstream Node
CO-1C-7	J-1C-7
CO-1C-10	J-1C-10
CO-1C-2	J-1C-2
CO-1C-6	J-1C-6

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CO-1C-7	35,850	12.250	8.48
Flow (From)	CO-1C-10	87,757	12.300	23.15
Flow (From)	CO-1C-2	305,340	12.350	65.98
Flow (From)	CO-1C-6	6,254	12.200	1.71
Flow (In)	DP 1C	434,447	12.300	95.31

Subsection: Addition Summary | Return Event: 1 years
Label: DP-2 | Storm Event: 1 year
Scenario: Post-Development 1 year

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-2	8,325	12.150	1.94
Flow (In)	DP-2	8,325	12.150	1.94

Subsection: Addition Summary
Label: DP-2
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-2	12,744	12.150	3.15
Flow (In)	DP-2	12,744	12.150	3.15

Subsection: Addition Summary | Return Event: 10 years

Label: DP-2 | Storm Event: 10 year

Scenario: Post-Development 10 year

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-2	26,143	12.150	6.62
Flow (In)	DP-2	26,143	12.150	6.62

Subsection: Addition Summary
Label: DP-2
Scenario: Pre-Development 10 year

Return Event: 10 years
Storm Event: 10 year

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-2	35,467	12.150	9.00
Flow (In)	DP-2	35,467	12.150	9.00

Subsection: Addition Summary | Return Event: 25 years
Label: DP-2 | Storm Event: 25 year
Scenario: Post-Development 25 year

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-2	37,815	12.150	9.60
Flow (In)	DP-2	37,815	12.150	9.60

Subsection: Addition Summary
Label: DP-2
Scenario: Pre-Development 25 year

Return Event: 25 years
Storm Event: 25 year

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-2	49,754	12.150	12.55
Flow (In)	DP-2	49,754	12.150	12.55

Subsection: Addition Summary
Label: DP-2
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: 100 year

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-2	63,317	12.150	15.93
Flow (In)	DP-2	63,317	12.150	15.93

Stormwater Hydrologic Calculations

Subsection: Addition Summary | Return Event: 100 years
Label: DP-2 | Storm Event: 100 year
Scenario: Pre-Development 100 year

Summary for Hydrograph Addition at 'DP-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-2	80,319	12.150	19.92
Flow (In)	DP-2	80,319	12.150	19.92

Stormwater Hydrologic Calculations

Subsection: Addition Summary | Return Event: 1 years
Label: J-1C-10 | Storm Event: 1 year
Scenario: Post-Development 1 year

Summary for Hydrograph Addition at 'J-1C-10'

Upstream Link	Upstream Node
DB-OCS-R	DB-1C-2B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	DB-OCS-R	0	0.000	0.00
Flow (In)	J-1C-10	0	0.000	0.00

Subsection: Addition Summary
Label: J-1C-10
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Summary for Hydrograph Addition at 'J-1C-10'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-10

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-10	8,426	12.150	1.80
Flow (In)	J-1C-10	8,426	12.150	1.80

Subsection: Addition Summary　　Return Event: 10 years

Label: J-1C-10　　Storm Event: 10 year

Scenario: Post-Development 10 year

Summary for Hydrograph Addition at 'J-1C-10'

Upstream Link	Upstream Node
DB-OCS-R	DB-1C-2B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	DB-OCS-R	31,354	12.450	6.97
Flow (In)	J-1C-10	31,354	12.450	6.97

Subsection: Addition Summary | Return Event: 10 years
Label: J-1C-10 | Storm Event: 10 year
Scenario: Pre-Development 10 year

Summary for Hydrograph Addition at 'J-1C-10'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-10

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-10	32,561	12.150	8.53
Flow (In)	J-1C-10	32,561	12.150	8.53

Stormwater Hydrologic Calculations

Subsection: Addition Summary | Return Event: 25 years
Label: J-1C-10 | Storm Event: 25 year
Scenario: Post-Development 25 year

Summary for Hydrograph Addition at 'J-1C-10'

Upstream Link	Upstream Node
DB-OCS-R	DB-1C-2B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	DB-OCS-R	54,184	12.350	12.48
Flow (In)	J-1C-10	54,184	12.350	12.48

Subsection: Addition Summary | Return Event: 25 years
Label: J-1C-10 | Storm Event: 25 year
Scenario: Pre-Development 25 year

Summary for Hydrograph Addition at 'J-1C-10'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-10

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA 1C-10	49,470	12.150	13.10
Flow (In)	J-1C-10	49,470	12.150	13.10

Stormwater Hydrologic Calculations

Subsection: Addition Summary	Return Event: 100 years
Label: J-1C-10	Storm Event: 100 year
Scenario: Post-Development 100 year

Summary for Hydrograph Addition at 'J-1C-10'

Upstream Link	Upstream Node
DB-OCS-R	DB-1C-2B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	DB-OCS-R	96,564	12.250	17.47
Flow (In)	J-1C-10	96,564	12.250	17.47

Subsection: Addition Summary | Return Event: 100 years
Label: J-1C-10 | Storm Event: 100 year
Scenario: Pre-Development 100 year

Summary for Hydrograph Addition at 'J-1C-10'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-10

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-10	87,757	12.150	23.15
Flow (In)	J-1C-10	87,757	12.150	23.15

Summary for Hydrograph Addition at 'J-1C-2'

Upstream Link	Upstream Node
DB-OCS-L	DB-1C-2B
<Catchment to Outflow Node>	PDA-1C-2A
Outlet-4	Permeable Asphalt

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	DB-OCS-L	0	0.000	0.00
Flow (From)	PDA-1C-2A	27,313	12.200	6.18
Flow (From)	Outlet-4	0	0.000	0.00
Flow (In)	J-1C-2	27,313	12.200	6.18

Subsection: Addition Summary — Return Event: 1 years

Label: J-1C-2 — Storm Event: 1 year

Scenario: Pre-Development 1 year

Summary for Hydrograph Addition at 'J-1C-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-2	50,159	12.250	10.75
Flow (In)	J-1C-2	50,159	12.250	10.75

Subsection: Addition Summary Return Event: 10 years
Label: J-1C-2 Storm Event: 10 year
Scenario: Post-Development 10 year

Summary for Hydrograph Addition at 'J-1C-2'

Upstream Link	Upstream Node
DB-OCS-L	DB-1C-2B
<Catchment to Outflow Node>	PDA-1C-2A
Outlet-4	Permeable Asphalt

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	DB-OCS-L	31,345	12.450	6.97
Flow (From)	PDA-1C-2A	69,692	12.200	15.82
Flow (From)	Outlet-4	0	0.000	0.00
Flow (In)	J-1C-2	101,036	12.250	20.31

Subsection: Addition Summary | Return Event: 10 years
Label: J-1C-2 | Storm Event: 10 year
Scenario: Pre-Development 10 year

Summary for Hydrograph Addition at 'J-1C-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-2	136,541	12.200	30.02
Flow (In)	J-1C-2	136,541	12.200	30.02

Stormwater Hydrologic Calculations

Subsection: Addition Summary | Return Event: 25 years
Label: J-1C-2 | Storm Event: 25 year
Scenario: Post-Development 25 year

Summary for Hydrograph Addition at 'J-1C-2'

Upstream Link	Upstream Node
DB-OCS-L	DB-1C-2B
<Catchment to Outflow Node>	PDA-1C-2A
Outlet-4	Permeable Asphalt

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	DB-OCS-L	54,170	12.350	12.48
Flow (From)	PDA-1C-2A	95,575	12.200	21.49
Flow (From)	Outlet-4	0	0.000	0.00
Flow (In)	J-1C-2	149,745	12.250	32.13

Subsection: Addition Summary | Return Event: 25 years
Label: J-1C-2 | Storm Event: 25 year
Scenario: Pre-Development 25 year

Summary for Hydrograph Addition at 'J-1C-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-2	190,446	12.200	41.73
Flow (In)	J-1C-2	190,446	12.200	41.73

Subsection: Addition Summary
Label: J-1C-2
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: 100 year

Summary for Hydrograph Addition at 'J-1C-2'

Upstream Link	Upstream Node
DB-OCS-L	DB-1C-2B
<Catchment to Outflow Node>	PDA-1C-2A
Outlet-4	Permeable Asphalt

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	DB-OCS-L	116,688	12.250	33.73
Flow (From)	PDA-1C-2A	150,166	12.200	33.10
Flow (From)	Outlet-4	0	0.000	0.00
Flow (In)	J-1C-2	266,854	12.250	65.02

Subsection: Addition Summary | Return Event: 100 years
Label: J-1C-2 | Storm Event: 100 year
Scenario: Pre-Development 100 year

Summary for Hydrograph Addition at 'J-1C-2'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-2

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-2	305,340	12.200	65.98
Flow (In)	J-1C-2	305,340	12.200	65.98

Subsection: Addition Summary
Label: J-1C-6
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Summary for Hydrograph Addition at 'J-1C-6'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-6

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-6	570	12.150	0.12
Flow (In)	J-1C-6	570	12.150	0.12

Subsection: Addition Summary — Return Event: 10 years

Label: J-1C-6 — Storm Event: 10 year

Scenario: Pre-Development 10 year

Summary for Hydrograph Addition at 'J-1C-6'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-6

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-6	2,282	12.100	0.60
Flow (In)	J-1C-6	2,282	12.100	0.60

Subsection: Addition Summary
Label: J-1C-6
Scenario: Pre-Development 25 year

Return Event: 25 years
Storm Event: 25 year

Summary for Hydrograph Addition at 'J-1C-6'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-6

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-6	3,494	12.100	0.94
Flow (In)	J-1C-6	3,494	12.100	0.94

Summary for Hydrograph Addition at 'J-1C-6'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-6

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-6	6,254	12.100	1.71
Flow (In)	J-1C-6	6,254	12.100	1.71

Subsection: Addition Summary
Label: J-1C-7
Scenario: Pre-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Summary for Hydrograph Addition at 'J-1C-7'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-7

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-7	5,095	12.200	1.16
Flow (In)	J-1C-7	5,095	12.200	1.16

Subsection: Addition Summary | Return Event: 10 years
Label: J-1C-7 | Storm Event: 10 year
Scenario: Pre-Development 10 year

Summary for Hydrograph Addition at 'J-1C-7'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-7

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-7	15,216	12.150	3.61
Flow (In)	J-1C-7	15,216	12.150	3.61

Subsection: Addition Summary | Return Event: 25 years
Label: J-1C-7 | Storm Event: 25 year
Scenario: Pre-Development 25 year

Summary for Hydrograph Addition at 'J-1C-7'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-7

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-7	21,734	12.150	5.18
Flow (In)	J-1C-7	21,734	12.150	5.18

Subsection: Addition Summary
Label: J-1C-7
Scenario: Pre-Development 100 year

Return Event: 100 years
Storm Event: 100 year

Summary for Hydrograph Addition at 'J-1C-7'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA 1C-7

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA 1C-7	35,850	12.150	8.48
Flow (In)	J-1C-7	35,850	12.150	8.48

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 1 years
Label: DB-1C-2B (IN) | Storm Event: 1 year
Scenario: Post-Development 1 year

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	620.00	620.00	620.00	620.00	620.00
0.250	620.00	620.00	620.00	620.00	620.00
0.500	620.00	620.00	620.00	620.00	620.00
0.750	620.00	620.00	620.00	620.00	620.00
1.000	620.00	620.00	620.00	620.00	620.00
1.250	620.00	620.00	620.00	620.00	620.00
1.500	620.00	620.00	620.00	620.00	620.00
1.750	620.00	620.00	620.00	620.00	620.00
2.000	620.00	620.00	620.00	620.00	620.00
2.250	620.00	620.00	620.00	620.00	620.00
2.500	620.00	620.00	620.00	620.00	620.00
2.750	620.00	620.00	620.00	620.00	620.00
3.000	620.00	620.00	620.00	620.00	620.00
3.250	620.00	620.00	620.00	620.00	620.00
3.500	620.00	620.00	620.00	620.00	620.00
3.750	620.00	620.00	620.00	620.00	620.00
4.000	620.00	620.00	620.00	620.00	620.00
4.250	620.00	620.00	620.00	620.00	620.00
4.500	620.00	620.00	620.00	620.00	620.00
4.750	620.00	620.00	620.00	620.00	620.00
5.000	620.00	620.00	620.00	620.00	620.00
5.250	620.00	620.00	620.00	620.00	620.00
5.500	620.00	620.00	620.00	620.00	620.00
5.750	620.00	620.00	620.00	620.00	620.00
6.000	620.00	620.00	620.00	620.00	620.00
6.250	620.00	620.00	620.00	620.00	620.00
6.500	620.00	620.00	620.00	620.00	620.00
6.750	620.00	620.00	620.00	620.00	620.00
7.000	620.00	620.00	620.00	620.00	620.00
7.250	620.00	620.00	620.00	620.00	620.00
7.500	620.00	620.00	620.00	620.00	620.00
7.750	620.00	620.00	620.00	620.00	620.00
8.000	620.00	620.00	620.00	620.00	620.00
8.250	620.00	620.00	620.00	620.00	620.00
8.500	620.00	620.00	620.00	620.00	620.00
8.750	620.00	620.00	620.00	620.00	620.00
9.000	620.00	620.00	620.00	620.00	620.00
9.250	620.00	620.00	620.00	620.00	620.00
9.500	620.00	620.00	620.00	620.00	620.00
9.750	620.00	620.00	620.00	620.00	620.00

Subsection: Time vs. Elevation
Return Event: 1 years
Label: DB-1C-2B (IN)
Storm Event: 1 year
Scenario: Post-Development 1 year

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	620.00	620.00	620.00	620.00	620.00
10.250	620.00	620.00	620.00	620.00	620.00
10.500	620.00	620.00	620.00	620.00	620.00
10.750	620.00	620.00	620.00	620.00	620.00
11.000	620.00	620.00	620.00	620.00	620.00
11.250	620.00	620.00	620.00	620.00	620.00
11.500	620.00	620.00	620.00	620.00	620.00
11.750	620.00	620.00	620.00	620.00	620.00
12.000	620.00	620.00	620.00	620.00	620.00
12.250	620.00	620.00	620.00	620.00	620.00
12.500	620.00	620.00	620.00	620.00	620.00
12.750	620.00	620.00	620.00	620.00	620.00
13.000	620.00	620.00	620.00	620.00	620.00
13.250	620.00	620.00	620.00	620.00	620.00
13.500	620.00	620.00	620.00	620.00	620.00
13.750	620.00	620.00	620.00	620.00	620.00
14.000	620.00	620.00	620.00	620.00	620.00
14.250	620.00	620.00	620.00	620.00	620.00
14.500	620.00	620.00	620.00	620.00	620.00
14.750	620.00	620.00	620.00	620.00	620.00
15.000	620.00	620.00	620.00	620.00	620.00
15.250	620.00	620.00	620.00	620.00	620.00
15.500	620.00	620.00	620.00	620.00	620.00
15.750	620.00	620.00	620.00	620.00	620.00
16.000	620.00	620.00	620.00	620.00	620.00
16.250	620.00	620.00	620.00	620.00	620.00
16.500	620.00	620.00	620.00	620.00	620.00
16.750	620.00	620.00	620.00	620.00	620.00
17.000	620.00	620.00	620.00	620.00	620.00
17.250	620.00	620.00	620.00	620.00	620.00
17.500	620.00	620.00	620.00	620.00	620.00
17.750	620.00	620.00	620.00	620.00	620.00
18.000	620.00	620.00	620.00	620.00	620.00
18.250	620.00	620.00	620.00	620.00	620.00
18.500	620.00	620.00	620.00	620.00	620.00
18.750	620.00	620.00	620.00	620.00	620.00
19.000	620.00	620.00	620.00	620.00	620.00
19.250	620.00	620.00	620.00	620.00	620.00
19.500	620.00	620.00	620.00	620.00	620.00
19.750	620.00	620.00	620.00	620.00	620.00
20.000	620.00	620.00	620.00	620.00	620.00

Subsection: Time vs. Elevation
Label: DB-1C-2B (IN)
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

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	620.00	620.00	620.00	620.00	620.00
20.500	620.00	620.00	620.00	620.00	620.00
20.750	620.00	620.00	620.00	620.00	620.00
21.000	620.00	620.00	620.00	620.00	620.00
21.250	620.00	620.00	620.00	620.00	620.00
21.500	620.00	620.00	620.00	620.00	620.00
21.750	620.00	620.00	620.00	620.00	620.00
22.000	620.00	620.00	620.00	620.00	620.00
22.250	620.00	620.00	620.00	620.00	620.00
22.500	620.00	620.00	620.00	620.00	620.00
22.750	620.00	620.00	620.00	620.00	620.00
23.000	620.00	620.00	620.00	620.00	620.00
23.250	620.00	620.00	620.00	620.00	620.00
23.500	620.00	620.00	620.00	620.00	620.00
23.750	620.00	620.00	620.00	620.00	620.00
24.000	620.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: DB-1C-2B (IN)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: 10 year

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	620.00	620.00	620.00	620.00	620.00
0.250	620.00	620.00	620.00	620.00	620.00
0.500	620.00	620.00	620.00	620.00	620.00
0.750	620.00	620.00	620.00	620.00	620.00
1.000	620.00	620.00	620.00	620.00	620.00
1.250	620.00	620.00	620.00	620.00	620.00
1.500	620.00	620.00	620.00	620.00	620.00
1.750	620.00	620.00	620.00	620.00	620.00
2.000	620.00	620.00	620.00	620.00	620.00
2.250	620.00	620.00	620.00	620.00	620.00
2.500	620.00	620.00	620.00	620.00	620.00
2.750	620.00	620.00	620.00	620.00	620.00
3.000	620.00	620.00	620.00	620.00	620.00
3.250	620.00	620.00	620.00	620.00	620.00
3.500	620.00	620.00	620.00	620.00	620.00
3.750	620.00	620.00	620.00	620.00	620.00
4.000	620.00	620.00	620.00	620.00	620.00
4.250	620.00	620.00	620.00	620.00	620.00
4.500	620.00	620.00	620.00	620.00	620.00
4.750	620.00	620.00	620.00	620.00	620.00
5.000	620.00	620.00	620.00	620.00	620.00
5.250	620.00	620.00	620.00	620.00	620.00
5.500	620.00	620.00	620.00	620.00	620.00
5.750	620.00	620.00	620.00	620.00	620.00
6.000	620.00	620.00	620.00	620.00	620.00
6.250	620.00	620.00	620.00	620.00	620.00
6.500	620.00	620.00	620.00	620.00	620.00
6.750	620.00	620.00	620.00	620.00	620.00
7.000	620.00	620.00	620.00	620.00	620.00
7.250	620.00	620.00	620.00	620.00	620.00
7.500	620.00	620.00	620.00	620.00	620.00
7.750	620.00	620.00	620.00	620.00	620.00
8.000	620.00	620.00	620.00	620.00	620.00
8.250	620.00	620.00	620.00	620.00	620.00
8.500	620.00	620.00	620.00	620.00	620.00
8.750	620.00	620.00	620.00	620.00	620.00
9.000	620.00	620.00	620.00	620.00	620.00
9.250	620.00	620.00	620.00	620.00	620.00
9.500	620.00	620.00	620.00	620.00	620.00
9.750	620.00	620.00	620.00	620.00	620.00

Subsection: Time vs. Elevation Return Event: 10 years
Label: DB-1C-2B (IN) Storm Event: 10 year
Scenario: Post-Development 10 year

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	620.00	620.00	620.00	620.00	620.00
10.250	620.00	620.00	620.00	620.00	620.00
10.500	620.00	620.00	620.00	620.00	620.00
10.750	620.00	620.00	620.00	620.00	620.00
11.000	620.00	620.00	620.00	620.00	620.00
11.250	620.00	620.00	620.00	620.00	620.00
11.500	620.00	620.00	620.00	620.00	620.00
11.750	620.00	620.00	620.00	620.00	620.00
12.000	620.00	620.00	620.08	620.27	620.50
12.250	620.70	620.79	620.82	620.83	620.84
12.500	620.84	620.82	620.79	620.76	620.73
12.750	620.70	620.66	620.64	620.61	620.58
13.000	620.56	620.54	620.51	620.49	620.47
13.250	620.46	620.44	620.42	620.41	620.39
13.500	620.38	620.37	620.36	620.35	620.34
13.750	620.33	620.32	620.31	620.30	620.29
14.000	620.29	620.28	620.27	620.26	620.26
14.250	620.25	620.24	620.24	620.23	620.23
14.500	620.22	620.22	620.21	620.21	620.20
14.750	620.20	620.19	620.19	620.18	620.18
15.000	620.18	620.17	620.17	620.16	620.16
15.250	620.16	620.15	620.15	620.15	620.14
15.500	620.14	620.13	620.13	620.13	620.12
15.750	620.12	620.12	620.11	620.11	620.11
16.000	620.10	620.10	620.10	620.09	620.09
16.250	620.09	620.08	620.08	620.08	620.08
16.500	620.07	620.07	620.07	620.07	620.07
16.750	620.07	620.06	620.06	620.06	620.06
17.000	620.06	620.06	620.06	620.05	620.05
17.250	620.05	620.05	620.05	620.05	620.05
17.500	620.05	620.04	620.04	620.04	620.04
17.750	620.04	620.04	620.04	620.03	620.03
18.000	620.03	620.03	620.03	620.03	620.03
18.250	620.02	620.02	620.02	620.02	620.02
18.500	620.02	620.02	620.02	620.02	620.02
18.750	620.02	620.01	620.01	620.01	620.01
19.000	620.01	620.01	620.01	620.01	620.01
19.250	620.01	620.01	620.01	620.01	620.01
19.500	620.01	620.01	620.01	620.01	620.01
19.750	620.01	620.01	620.01	620.01	620.00
20.000	620.00	620.00	620.00	620.00	620.00

Subsection: Time vs. Elevation
Label: DB-1C-2B (IN)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: 10 year

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	620.00	620.00	620.00	620.00	620.00
20.500	620.00	620.00	620.00	620.00	620.00
20.750	620.00	620.00	620.00	620.00	620.00
21.000	620.00	620.00	620.00	620.00	620.00
21.250	620.00	620.00	620.00	620.00	620.00
21.500	620.00	620.00	620.00	620.00	620.00
21.750	620.00	620.00	620.00	620.00	620.00
22.000	620.00	620.00	620.00	620.00	620.00
22.250	620.00	620.00	620.00	620.00	620.00
22.500	620.00	620.00	620.00	620.00	620.00
22.750	620.00	620.00	620.00	620.00	620.00
23.000	620.00	620.00	620.00	620.00	620.00
23.250	620.00	620.00	620.00	620.00	620.00
23.500	620.00	620.00	620.00	620.00	620.00
23.750	620.00	620.00	620.00	620.00	620.00
24.000	620.00	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation — Return Event: 25 years
Label: DB-1C-2B (IN) — Storm Event: 25 year
Scenario: Post-Development 25 year

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	620.00	620.00	620.00	620.00	620.00
0.250	620.00	620.00	620.00	620.00	620.00
0.500	620.00	620.00	620.00	620.00	620.00
0.750	620.00	620.00	620.00	620.00	620.00
1.000	620.00	620.00	620.00	620.00	620.00
1.250	620.00	620.00	620.00	620.00	620.00
1.500	620.00	620.00	620.00	620.00	620.00
1.750	620.00	620.00	620.00	620.00	620.00
2.000	620.00	620.00	620.00	620.00	620.00
2.250	620.00	620.00	620.00	620.00	620.00
2.500	620.00	620.00	620.00	620.00	620.00
2.750	620.00	620.00	620.00	620.00	620.00
3.000	620.00	620.00	620.00	620.00	620.00
3.250	620.00	620.00	620.00	620.00	620.00
3.500	620.00	620.00	620.00	620.00	620.00
3.750	620.00	620.00	620.00	620.00	620.00
4.000	620.00	620.00	620.00	620.00	620.00
4.250	620.00	620.00	620.00	620.00	620.00
4.500	620.00	620.00	620.00	620.00	620.00
4.750	620.00	620.00	620.00	620.00	620.00
5.000	620.00	620.00	620.00	620.00	620.00
5.250	620.00	620.00	620.00	620.00	620.00
5.500	620.00	620.00	620.00	620.00	620.00
5.750	620.00	620.00	620.00	620.00	620.00
6.000	620.00	620.00	620.00	620.00	620.00
6.250	620.00	620.00	620.00	620.00	620.00
6.500	620.00	620.00	620.00	620.00	620.00
6.750	620.00	620.00	620.00	620.00	620.00
7.000	620.00	620.00	620.00	620.00	620.00
7.250	620.00	620.00	620.00	620.00	620.00
7.500	620.00	620.00	620.00	620.00	620.00
7.750	620.00	620.00	620.00	620.00	620.00
8.000	620.00	620.00	620.00	620.00	620.00
8.250	620.00	620.00	620.00	620.00	620.00
8.500	620.00	620.00	620.00	620.00	620.00
8.750	620.00	620.00	620.00	620.00	620.00
9.000	620.00	620.00	620.00	620.00	620.00
9.250	620.00	620.00	620.00	620.00	620.00
9.500	620.00	620.00	620.00	620.00	620.00
9.750	620.00	620.00	620.00	620.00	620.00

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 25 years
Label: DB-1C-2B (IN) | Storm Event: 25 year
Scenario: Post-Development 25 year

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	620.00	620.00	620.00	620.00	620.00
10.250	620.00	620.00	620.00	620.00	620.00
10.500	620.00	620.00	620.00	620.00	620.00
10.750	620.00	620.00	620.00	620.00	620.00
11.000	620.00	620.00	620.00	620.00	620.00
11.250	620.00	620.00	620.00	620.00	620.00
11.500	620.00	620.00	620.00	620.00	620.00
11.750	620.00	620.00	620.00	620.00	620.03
12.000	620.15	620.36	620.62	620.89	621.09
12.250	621.19	621.23	621.24	621.24	621.22
12.500	621.19	621.14	621.09	621.04	620.98
12.750	620.93	620.88	620.84	620.80	620.76
13.000	620.73	620.69	620.66	620.63	620.61
13.250	620.58	620.56	620.54	620.52	620.50
13.500	620.49	620.47	620.46	620.44	620.43
13.750	620.42	620.41	620.40	620.39	620.38
14.000	620.37	620.36	620.35	620.34	620.33
14.250	620.32	620.32	620.31	620.31	620.30
14.500	620.29	620.29	620.28	620.28	620.27
14.750	620.27	620.26	620.26	620.25	620.25
15.000	620.24	620.24	620.23	620.23	620.22
15.250	620.22	620.22	620.21	620.21	620.21
15.500	620.20	620.20	620.19	620.19	620.19
15.750	620.18	620.18	620.17	620.17	620.17
16.000	620.16	620.16	620.16	620.15	620.15
16.250	620.14	620.14	620.14	620.13	620.13
16.500	620.13	620.12	620.12	620.12	620.11
16.750	620.11	620.11	620.10	620.10	620.10
17.000	620.10	620.09	620.09	620.09	620.08
17.250	620.08	620.08	620.08	620.07	620.07
17.500	620.07	620.07	620.07	620.06	620.06
17.750	620.06	620.06	620.06	620.06	620.06
18.000	620.05	620.05	620.05	620.05	620.05
18.250	620.05	620.05	620.05	620.05	620.04
18.500	620.04	620.04	620.04	620.04	620.04
18.750	620.03	620.03	620.03	620.03	620.03
19.000	620.03	620.03	620.03	620.02	620.02
19.250	620.02	620.02	620.02	620.02	620.02
19.500	620.02	620.02	620.02	620.01	620.01
19.750	620.01	620.01	620.01	620.01	620.01
20.000	620.01	620.01	620.01	620.01	620.01

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 25 years
Label: DB-1C-2B (IN) | Storm Event: 25 year
Scenario: Post-Development 25 year

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	620.01	620.01	620.01	620.01	620.01
20.500	620.01	620.01	620.01	620.01	620.01
20.750	620.01	620.01	620.00	620.00	620.00
21.000	620.00	620.00	620.00	620.00	620.00
21.250	620.00	620.00	620.00	620.00	620.00
21.500	620.00	620.00	620.00	620.00	620.00
21.750	620.00	620.00	620.00	620.00	620.00
22.000	620.00	620.00	620.00	620.00	620.00
22.250	620.00	620.00	620.00	620.00	620.00
22.500	620.00	620.00	620.00	620.00	620.00
22.750	620.00	620.00	620.00	620.00	620.00
23.000	620.00	620.00	620.00	620.00	620.00
23.250	620.00	620.00	620.00	620.00	620.00
23.500	620.00	620.00	620.00	620.00	620.00
23.750	620.00	620.00	620.00	620.00	620.00
24.000	620.00	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 100 years
Label: DB-1C-2B (IN) | Storm Event: 100 year
Scenario: Post-Development 100 year

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	620.00	620.00	620.00	620.00	620.00
0.250	620.00	620.00	620.00	620.00	620.00
0.500	620.00	620.00	620.00	620.00	620.00
0.750	620.00	620.00	620.00	620.00	620.00
1.000	620.00	620.00	620.00	620.00	620.00
1.250	620.00	620.00	620.00	620.00	620.00
1.500	620.00	620.00	620.00	620.00	620.00
1.750	620.00	620.00	620.00	620.00	620.00
2.000	620.00	620.00	620.00	620.00	620.00
2.250	620.00	620.00	620.00	620.00	620.00
2.500	620.00	620.00	620.00	620.00	620.00
2.750	620.00	620.00	620.00	620.00	620.00
3.000	620.00	620.00	620.00	620.00	620.00
3.250	620.00	620.00	620.00	620.00	620.00
3.500	620.00	620.00	620.00	620.00	620.00
3.750	620.00	620.00	620.00	620.00	620.00
4.000	620.00	620.00	620.00	620.00	620.00
4.250	620.00	620.00	620.00	620.00	620.00
4.500	620.00	620.00	620.00	620.00	620.00
4.750	620.00	620.00	620.00	620.00	620.00
5.000	620.00	620.00	620.00	620.00	620.00
5.250	620.00	620.00	620.00	620.00	620.00
5.500	620.00	620.00	620.00	620.00	620.00
5.750	620.00	620.00	620.00	620.00	620.00
6.000	620.00	620.00	620.00	620.00	620.00
6.250	620.00	620.00	620.00	620.00	620.00
6.500	620.00	620.00	620.00	620.00	620.00
6.750	620.00	620.00	620.00	620.00	620.00
7.000	620.00	620.00	620.00	620.00	620.00
7.250	620.00	620.00	620.00	620.00	620.00
7.500	620.00	620.00	620.00	620.00	620.00
7.750	620.00	620.00	620.00	620.00	620.00
8.000	620.00	620.00	620.00	620.00	620.00
8.250	620.00	620.00	620.00	620.00	620.00
8.500	620.00	620.00	620.00	620.00	620.00
8.750	620.00	620.00	620.00	620.00	620.00
9.000	620.00	620.00	620.00	620.00	620.00
9.250	620.00	620.00	620.00	620.00	620.00
9.500	620.00	620.00	620.00	620.00	620.00
9.750	620.00	620.00	620.00	620.00	620.00

Subsection: Time vs. Elevation | Return Event: 100 years
Label: DB-1C-2B (IN) | Storm Event: 100 year
Scenario: Post-Development 100 year

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	620.00	620.00	620.00	620.00	620.00
10.250	620.00	620.00	620.00	620.00	620.00
10.500	620.00	620.00	620.00	620.00	620.00
10.750	620.00	620.00	620.00	620.00	620.00
11.000	620.00	620.00	620.00	620.00	620.00
11.250	620.00	620.00	620.00	620.00	620.00
11.500	620.02	620.06	620.11	620.18	620.26
11.750	620.35	620.45	620.56	620.69	620.82
12.000	620.99	621.21	621.47	621.70	621.85
12.250	621.92	621.92	621.88	621.83	621.77
12.500	621.70	621.63	621.55	621.46	621.37
12.750	621.28	621.21	621.14	621.08	621.03
13.000	620.98	620.93	620.89	620.85	620.81
13.250	620.78	620.75	620.72	620.69	620.67
13.500	620.65	620.63	620.61	620.60	620.58
13.750	620.57	620.55	620.54	620.53	620.51
14.000	620.50	620.49	620.48	620.47	620.46
14.250	620.45	620.44	620.43	620.43	620.42
14.500	620.41	620.41	620.40	620.39	620.39
14.750	620.38	620.37	620.37	620.36	620.36
15.000	620.35	620.35	620.34	620.34	620.33
15.250	620.33	620.32	620.32	620.31	620.31
15.500	620.31	620.30	620.30	620.29	620.29
15.750	620.28	620.28	620.27	620.27	620.26
16.000	620.26	620.25	620.25	620.25	620.24
16.250	620.24	620.23	620.23	620.22	620.22
16.500	620.22	620.21	620.21	620.21	620.20
16.750	620.20	620.20	620.19	620.19	620.19
17.000	620.18	620.18	620.18	620.17	620.17
17.250	620.17	620.16	620.16	620.16	620.16
17.500	620.15	620.15	620.15	620.15	620.14
17.750	620.14	620.14	620.13	620.13	620.13
18.000	620.12	620.12	620.12	620.12	620.11
18.250	620.11	620.11	620.11	620.10	620.10
18.500	620.10	620.10	620.09	620.09	620.09
18.750	620.09	620.08	620.08	620.08	620.08
19.000	620.08	620.07	620.07	620.07	620.07
19.250	620.07	620.07	620.06	620.06	620.06
19.500	620.06	620.06	620.06	620.06	620.05
19.750	620.05	620.05	620.05	620.05	620.05
20.000	620.05	620.05	620.05	620.04	620.04

Subsection: Time vs. Elevation
Return Event: 100 years
Label: DB-1C-2B (IN)
Storm Event: 100 year
Scenario: Post-Development 100 year

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	620.04	620.04	620.04	620.04	620.03
20.500	620.03	620.03	620.03	620.03	620.03
20.750	620.03	620.02	620.02	620.02	620.02
21.000	620.02	620.02	620.02	620.02	620.02
21.250	620.02	620.02	620.01	620.01	620.01
21.500	620.01	620.01	620.01	620.01	620.01
21.750	620.01	620.01	620.01	620.01	620.01
22.000	620.01	620.01	620.01	620.01	620.01
22.250	620.01	620.01	620.01	620.01	620.01
22.500	620.01	620.00	620.00	620.00	620.00
22.750	620.00	620.00	620.00	620.00	620.00
23.000	620.00	620.00	620.00	620.00	620.00
23.250	620.00	620.00	620.00	620.00	620.00
23.500	620.00	620.00	620.00	620.00	620.00
23.750	620.00	620.00	620.00	620.00	620.00
24.000	620.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 1 years
Label: IB-1C-2B (IN) | Storm Event: 1 year
Scenario: Post-Development 1 year

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	618.00	618.00	618.00	618.00	618.00
0.250	618.00	618.00	618.00	618.00	618.00
0.500	618.00	618.00	618.00	618.00	618.00
0.750	618.00	618.00	618.00	618.00	618.00
1.000	618.00	618.00	618.00	618.00	618.00
1.250	618.00	618.00	618.00	618.00	618.00
1.500	618.00	618.00	618.00	618.00	618.00
1.750	618.00	618.00	618.00	618.00	618.00
2.000	618.00	618.00	618.00	618.00	618.00
2.250	618.00	618.00	618.00	618.00	618.00
2.500	618.00	618.00	618.00	618.00	618.00
2.750	618.00	618.00	618.00	618.00	618.00
3.000	618.00	618.00	618.00	618.00	618.00
3.250	618.00	618.00	618.00	618.00	618.00
3.500	618.00	618.00	618.00	618.00	618.00
3.750	618.00	618.00	618.00	618.00	618.00
4.000	618.00	618.00	618.00	618.00	618.00
4.250	618.00	618.00	618.00	618.00	618.00
4.500	618.00	618.00	618.00	618.00	618.00
4.750	618.00	618.00	618.00	618.00	618.00
5.000	618.00	618.00	618.00	618.00	618.00
5.250	618.00	618.00	618.00	618.00	618.00
5.500	618.00	618.00	618.00	618.00	618.00
5.750	618.00	618.00	618.00	618.00	618.00
6.000	618.00	618.00	618.00	618.00	618.00
6.250	618.00	618.00	618.00	618.00	618.00
6.500	618.00	618.00	618.00	618.00	618.00
6.750	618.00	618.00	618.00	618.00	618.00
7.000	618.00	618.00	618.00	618.00	618.00
7.250	618.00	618.00	618.00	618.00	618.00
7.500	618.00	618.00	618.00	618.00	618.00
7.750	618.00	618.00	618.00	618.00	618.00
8.000	618.00	618.00	618.00	618.00	618.00
8.250	618.00	618.00	618.00	618.00	618.00
8.500	618.00	618.00	618.00	618.00	618.00
8.750	618.00	618.00	618.00	618.00	618.00
9.000	618.00	618.00	618.00	618.00	618.00
9.250	618.00	618.00	618.00	618.00	618.00
9.500	618.00	618.00	618.00	618.00	618.00
9.750	618.00	618.00	618.00	618.00	618.00

Subsection: Time vs. Elevation — Return Event: 1 years
Label: IB-1C-2B (IN) — Storm Event: 1 year
Scenario: Post-Development 1 year

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	618.00	618.00	618.00	618.00	618.00
10.250	618.00	618.00	618.00	618.00	618.00
10.500	618.00	618.00	618.00	618.00	618.00
10.750	618.00	618.00	618.00	618.00	618.00
11.000	618.00	618.00	618.00	618.00	618.00
11.250	618.00	618.01	618.01	618.01	618.01
11.500	618.01	618.01	618.01	618.01	618.02
11.750	618.02	618.04	618.06	618.10	618.16
12.000	618.25	618.39	618.57	618.78	618.99
12.250	619.17	619.32	619.45	619.56	619.65
12.500	619.72	619.78	619.82	619.86	619.88
12.750	619.90	619.91	619.93	619.94	619.95
13.000	619.96	619.96	619.97	619.97	619.97
13.250	619.97	619.97	619.97	619.97	619.97
13.500	619.97	619.97	619.97	619.97	619.98
13.750	619.98	619.98	619.98	619.98	619.98
14.000	619.98	619.98	619.98	619.98	619.98
14.250	619.98	619.98	619.98	619.98	619.98
14.500	619.98	619.98	619.98	619.98	619.98
14.750	619.98	619.98	619.98	619.98	619.98
15.000	619.98	619.98	619.98	619.98	619.98
15.250	619.98	619.98	619.98	619.98	619.98
15.500	619.98	619.98	619.98	619.98	619.98
15.750	619.98	619.98	619.98	619.98	619.98
16.000	619.98	619.98	619.98	619.98	619.98
16.250	619.98	619.98	619.98	619.98	619.98
16.500	619.98	619.98	619.98	619.98	619.98
16.750	619.98	619.98	619.98	619.98	619.98
17.000	619.98	619.98	619.98	619.98	619.98
17.250	619.98	619.98	619.98	619.98	619.98
17.500	619.98	619.98	619.98	619.98	619.98
17.750	619.98	619.98	619.98	619.98	619.98
18.000	619.98	619.98	619.98	619.98	619.98
18.250	619.98	619.98	619.98	619.98	619.98
18.500	619.98	619.98	619.98	619.98	619.98
18.750	619.98	619.98	619.98	619.98	619.98
19.000	619.98	619.98	619.98	619.98	619.98
19.250	619.98	619.98	619.98	619.98	619.98
19.500	619.98	619.98	619.98	619.98	619.98
19.750	619.98	619.99	619.99	619.99	619.99
20.000	619.99	619.99	619.99	619.99	619.99

Subsection: Time vs. Elevation | Return Event: 1 years
Label: IB-1C-2B (IN) | Storm Event: 1 year
Scenario: Post-Development 1 year

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	619.99	619.99	619.99	619.99	619.99
20.500	619.99	619.99	619.99	619.99	619.99
20.750	619.99	619.99	619.99	619.99	619.99
21.000	619.99	619.99	619.99	619.99	619.99
21.250	619.99	619.99	619.99	619.99	619.99
21.500	619.99	619.99	619.99	619.99	619.99
21.750	619.99	619.99	619.99	619.99	619.99
22.000	619.99	619.99	619.99	619.99	619.99
22.250	619.99	619.99	619.99	619.99	619.99
22.500	619.99	619.99	619.99	619.99	619.99
22.750	619.99	619.99	619.99	619.99	619.99
23.000	619.99	619.99	619.99	619.99	619.99
23.250	619.99	619.99	619.99	619.99	619.99
23.500	619.99	619.99	619.99	619.99	619.99
23.750	619.99	619.99	619.99	619.99	619.99
24.000	619.99	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation

Label: IB-1C-2B (IN)

Scenario: Post-Development 10 year

Return Event: 10 years

Storm Event: 10 year

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	618.00	618.00	618.00	618.00	618.00
0.250	618.00	618.00	618.00	618.00	618.00
0.500	618.00	618.00	618.00	618.00	618.00
0.750	618.00	618.00	618.00	618.00	618.00
1.000	618.00	618.00	618.00	618.00	618.00
1.250	618.00	618.00	618.00	618.00	618.00
1.500	618.00	618.00	618.00	618.00	618.00
1.750	618.00	618.00	618.00	618.00	618.00
2.000	618.00	618.00	618.00	618.00	618.00
2.250	618.00	618.00	618.00	618.00	618.00
2.500	618.00	618.00	618.00	618.00	618.00
2.750	618.00	618.00	618.00	618.00	618.00
3.000	618.00	618.00	618.00	618.00	618.00
3.250	618.00	618.00	618.00	618.00	618.00
3.500	618.00	618.00	618.00	618.00	618.00
3.750	618.00	618.00	618.00	618.00	618.00
4.000	618.00	618.00	618.00	618.00	618.00
4.250	618.00	618.00	618.00	618.00	618.00
4.500	618.00	618.00	618.00	618.00	618.00
4.750	618.00	618.00	618.00	618.00	618.00
5.000	618.00	618.00	618.00	618.00	618.00
5.250	618.00	618.00	618.00	618.00	618.00
5.500	618.00	618.00	618.00	618.00	618.00
5.750	618.00	618.00	618.00	618.00	618.00
6.000	618.00	618.00	618.00	618.00	618.00
6.250	618.00	618.00	618.00	618.00	618.00
6.500	618.00	618.00	618.00	618.00	618.00
6.750	618.00	618.00	618.00	618.00	618.00
7.000	618.00	618.00	618.00	618.00	618.00
7.250	618.00	618.00	618.00	618.00	618.00
7.500	618.00	618.00	618.00	618.00	618.00
7.750	618.00	618.00	618.00	618.00	618.00
8.000	618.00	618.00	618.00	618.00	618.00
8.250	618.00	618.00	618.00	618.00	618.00
8.500	618.00	618.00	618.00	618.00	618.00
8.750	618.00	618.00	618.00	618.00	618.00
9.000	618.00	618.00	618.00	618.00	618.00
9.250	618.00	618.00	618.00	618.01	618.01
9.500	618.01	618.01	618.01	618.01	618.01
9.750	618.01	618.01	618.01	618.01	618.01

Subsection: Time vs. Elevation | Return Event: 10 years
Label: IB-1C-2B (IN) | Storm Event: 10 year
Scenario: Post-Development 10 year

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	618.01	618.01	618.01	618.01	618.01
10.250	618.01	618.01	618.01	618.01	618.01
10.500	618.01	618.01	618.01	618.01	618.01
10.750	618.01	618.02	618.02	618.02	618.02
11.000	618.03	618.03	618.04	618.05	618.06
11.250	618.08	618.09	618.11	618.14	618.17
11.500	618.20	618.23	618.28	618.34	618.42
11.750	618.52	618.66	618.83	619.04	619.30
12.000	619.65	620.08	620.33	620.48	620.57
12.250	620.64	620.74	620.82	620.85	620.86
12.500	620.87	620.86	620.84	620.81	620.78
12.750	620.75	620.71	620.68	620.65	620.63
13.000	620.60	620.58	620.55	620.53	620.51
13.250	620.49	620.47	620.46	620.44	620.42
13.500	620.41	620.40	620.39	620.37	620.36
13.750	620.35	620.34	620.33	620.32	620.32
14.000	620.31	620.30	620.29	620.28	620.28
14.250	620.27	620.26	620.26	620.25	620.25
14.500	620.24	620.23	620.23	620.22	620.22
14.750	620.21	620.21	620.21	620.20	620.20
15.000	620.19	620.19	620.19	620.18	620.18
15.250	620.17	620.17	620.16	620.16	620.16
15.500	620.15	620.15	620.15	620.14	620.14
15.750	620.14	620.13	620.13	620.12	620.12
16.000	620.12	620.11	620.11	620.10	620.10
16.250	620.10	620.10	620.10	620.09	620.09
16.500	620.09	620.09	620.08	620.08	620.08
16.750	620.08	620.07	620.07	620.07	620.07
17.000	620.07	620.07	620.06	620.06	620.06
17.250	620.06	620.06	620.06	620.06	620.05
17.500	620.05	620.05	620.05	620.05	620.05
17.750	620.05	620.05	620.05	620.05	620.05
18.000	620.05	620.05	620.05	620.05	620.05
18.250	620.05	620.05	620.05	620.05	620.05
18.500	620.05	620.05	620.05	620.05	620.05
18.750	620.05	620.05	620.05	620.05	620.05
19.000	620.05	620.05	620.05	620.05	620.05
19.250	620.05	620.05	620.05	620.05	620.05
19.500	620.05	620.05	620.05	620.05	620.05
19.750	620.05	620.05	620.05	620.05	620.05
20.000	620.05	620.05	620.05	620.05	620.05

Subsection: Time vs. Elevation
Return Event: 10 years
Label: IB-1C-2B (IN)
Storm Event: 10 year
Scenario: Post-Development 10 year

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	620.05	620.05	620.05	620.05	620.05
20.500	620.05	620.05	620.05	620.05	620.05
20.750	620.05	620.05	620.05	620.05	620.05
21.000	620.05	620.05	620.05	620.05	620.05
21.250	620.05	620.05	620.05	620.05	620.05
21.500	620.05	620.05	620.05	620.05	620.05
21.750	620.05	620.05	620.05	620.05	620.05
22.000	620.05	620.05	620.05	620.05	620.05
22.250	620.05	620.05	620.05	620.05	620.05
22.500	620.05	620.05	620.05	620.05	620.05
22.750	620.05	620.05	620.05	620.05	620.05
23.000	620.05	620.05	620.05	620.05	620.05
23.250	620.05	620.05	620.05	620.05	620.05
23.500	620.05	620.05	620.05	620.05	620.05
23.750	620.05	620.05	620.05	620.05	620.05
24.000	620.05	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 25 years
Label: IB-1C-2B (IN) | Storm Event: 25 year
Scenario: Post-Development 25 year

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	618.00	618.00	618.00	618.00	618.00
0.250	618.00	618.00	618.00	618.00	618.00
0.500	618.00	618.00	618.00	618.00	618.00
0.750	618.00	618.00	618.00	618.00	618.00
1.000	618.00	618.00	618.00	618.00	618.00
1.250	618.00	618.00	618.00	618.00	618.00
1.500	618.00	618.00	618.00	618.00	618.00
1.750	618.00	618.00	618.00	618.00	618.00
2.000	618.00	618.00	618.00	618.00	618.00
2.250	618.00	618.00	618.00	618.00	618.00
2.500	618.00	618.00	618.00	618.00	618.00
2.750	618.00	618.00	618.00	618.00	618.00
3.000	618.00	618.00	618.00	618.00	618.00
3.250	618.00	618.00	618.00	618.00	618.00
3.500	618.00	618.00	618.00	618.00	618.00
3.750	618.00	618.00	618.00	618.00	618.00
4.000	618.00	618.00	618.00	618.00	618.00
4.250	618.00	618.00	618.00	618.00	618.00
4.500	618.00	618.00	618.00	618.00	618.00
4.750	618.00	618.00	618.00	618.00	618.00
5.000	618.00	618.00	618.00	618.00	618.00
5.250	618.00	618.00	618.00	618.00	618.00
5.500	618.00	618.00	618.00	618.00	618.00
5.750	618.00	618.00	618.00	618.00	618.00
6.000	618.00	618.00	618.00	618.00	618.00
6.250	618.00	618.00	618.00	618.00	618.00
6.500	618.00	618.00	618.00	618.00	618.00
6.750	618.00	618.00	618.00	618.00	618.00
7.000	618.00	618.00	618.00	618.00	618.00
7.250	618.00	618.00	618.00	618.00	618.00
7.500	618.00	618.00	618.00	618.00	618.00
7.750	618.00	618.00	618.00	618.00	618.00
8.000	618.00	618.00	618.00	618.00	618.00
8.250	618.00	618.00	618.00	618.00	618.00
8.500	618.00	618.01	618.01	618.01	618.01
8.750	618.01	618.01	618.01	618.01	618.01
9.000	618.01	618.01	618.01	618.01	618.01
9.250	618.01	618.01	618.01	618.01	618.01
9.500	618.01	618.01	618.01	618.01	618.01
9.750	618.01	618.01	618.01	618.01	618.01

Subsection: Time vs. Elevation | Return Event: 25 years
Label: IB-1C-2B (IN) | Storm Event: 25 year
Scenario: Post-Development 25 year

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	618.01	618.01	618.02	618.02	618.02
10.250	618.02	618.03	618.03	618.04	618.05
10.500	618.06	618.07	618.08	618.09	618.11
10.750	618.13	618.14	618.16	618.18	618.21
11.000	618.23	618.26	618.29	618.32	618.35
11.250	618.39	618.44	618.48	618.54	618.59
11.500	618.66	618.73	618.81	618.91	619.05
11.750	619.22	619.43	619.69	620.00	620.21
12.000	620.37	620.52	620.67	620.82	620.98
12.250	621.14	621.23	621.27	621.28	621.27
12.500	621.25	621.21	621.17	621.11	621.06
12.750	621.00	620.95	620.90	620.86	620.82
13.000	620.78	620.75	620.71	620.68	620.65
13.250	620.62	620.60	620.58	620.56	620.54
13.500	620.52	620.51	620.49	620.47	620.46
13.750	620.45	620.44	620.42	620.41	620.40
14.000	620.39	620.38	620.37	620.37	620.36
14.250	620.35	620.34	620.33	620.33	620.32
14.500	620.31	620.31	620.30	620.30	620.29
14.750	620.29	620.28	620.28	620.27	620.27
15.000	620.26	620.26	620.25	620.25	620.25
15.250	620.24	620.24	620.23	620.23	620.22
15.500	620.22	620.21	620.21	620.21	620.20
15.750	620.20	620.20	620.19	620.19	620.18
16.000	620.18	620.17	620.17	620.17	620.16
16.250	620.16	620.15	620.15	620.15	620.14
16.500	620.14	620.14	620.13	620.13	620.13
16.750	620.12	620.12	620.12	620.11	620.11
17.000	620.11	620.10	620.10	620.10	620.10
17.250	620.10	620.09	620.09	620.09	620.09
17.500	620.08	620.08	620.08	620.08	620.07
17.750	620.07	620.07	620.07	620.07	620.07
18.000	620.06	620.06	620.06	620.06	620.06
18.250	620.06	620.06	620.05	620.05	620.05
18.500	620.05	620.05	620.05	620.05	620.05
18.750	620.05	620.05	620.05	620.05	620.05
19.000	620.05	620.05	620.05	620.05	620.05
19.250	620.05	620.05	620.05	620.05	620.05
19.500	620.05	620.05	620.05	620.05	620.05
19.750	620.05	620.05	620.05	620.05	620.05
20.000	620.05	620.05	620.05	620.05	620.05

Subsection: Time vs. Elevation

Label: IB-1C-2B (IN)

Scenario: Post-Development 25 year

Return Event: 25 years

Storm Event: 25 year

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	620.05	620.05	620.05	620.05	620.05
20.500	620.05	620.05	620.05	620.05	620.05
20.750	620.05	620.05	620.05	620.05	620.05
21.000	620.05	620.05	620.05	620.05	620.05
21.250	620.05	620.05	620.05	620.05	620.05
21.500	620.05	620.05	620.05	620.05	620.05
21.750	620.05	620.05	620.05	620.05	620.05
22.000	620.05	620.05	620.05	620.05	620.05
22.250	620.05	620.05	620.05	620.05	620.05
22.500	620.05	620.05	620.05	620.05	620.05
22.750	620.05	620.05	620.05	620.05	620.05
23.000	620.05	620.05	620.05	620.05	620.05
23.250	620.05	620.05	620.05	620.05	620.05
23.500	620.05	620.05	620.05	620.05	620.05
23.750	620.05	620.05	620.05	620.05	620.05
24.000	620.05	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 100 years
Label: IB-1C-2B (IN) | Storm Event: 100 year
Scenario: Post-Development 100 year

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	618.00	618.00	618.00	618.00	618.00
0.250	618.00	618.00	618.00	618.00	618.00
0.500	618.00	618.00	618.00	618.00	618.00
0.750	618.00	618.00	618.00	618.00	618.00
1.000	618.00	618.00	618.00	618.00	618.00
1.250	618.00	618.00	618.00	618.00	618.00
1.500	618.00	618.00	618.00	618.00	618.00
1.750	618.00	618.00	618.00	618.00	618.00
2.000	618.00	618.00	618.00	618.00	618.00
2.250	618.00	618.00	618.00	618.00	618.00
2.500	618.00	618.00	618.00	618.00	618.00
2.750	618.00	618.00	618.00	618.00	618.00
3.000	618.00	618.00	618.00	618.00	618.00
3.250	618.00	618.00	618.00	618.00	618.00
3.500	618.00	618.00	618.00	618.00	618.00
3.750	618.00	618.00	618.00	618.00	618.00
4.000	618.00	618.00	618.00	618.00	618.00
4.250	618.00	618.00	618.00	618.00	618.00
4.500	618.00	618.00	618.00	618.00	618.00
4.750	618.00	618.00	618.00	618.00	618.00
5.000	618.00	618.00	618.00	618.00	618.00
5.250	618.00	618.00	618.00	618.00	618.00
5.500	618.00	618.00	618.00	618.00	618.00
5.750	618.00	618.00	618.00	618.00	618.00
6.000	618.00	618.00	618.00	618.00	618.00
6.250	618.00	618.00	618.00	618.00	618.00
6.500	618.00	618.00	618.00	618.00	618.00
6.750	618.00	618.00	618.00	618.00	618.00
7.000	618.00	618.00	618.00	618.01	618.01
7.250	618.01	618.01	618.01	618.01	618.01
7.500	618.01	618.01	618.01	618.01	618.01
7.750	618.01	618.01	618.01	618.01	618.01
8.000	618.01	618.01	618.01	618.01	618.01
8.250	618.01	618.01	618.01	618.01	618.01
8.500	618.01	618.01	618.01	618.01	618.01
8.750	618.01	618.01	618.02	618.02	618.02
9.000	618.02	618.03	618.03	618.04	618.05
9.250	618.06	618.07	618.08	618.09	618.10
9.500	618.12	618.13	618.15	618.17	618.19
9.750	618.21	618.23	618.25	618.27	618.30

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 100 years
Label: IB-1C-2B (IN) | Storm Event: 100 year
Scenario: Post-Development 100 year

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	618.32	618.35	618.38	618.41	618.44
10.250	618.48	618.51	618.55	618.59	618.64
10.500	618.68	618.73	618.78	618.83	618.89
10.750	618.94	619.00	619.06	619.13	619.19
11.000	619.26	619.34	619.41	619.49	619.58
11.250	619.67	619.77	619.88	619.99	620.07
11.500	620.14	620.19	620.23	620.27	620.32
11.750	620.38	620.46	620.55	620.66	620.78
12.000	620.94	621.12	621.34	621.57	621.76
12.250	621.89	621.96	621.96	621.92	621.87
12.500	621.80	621.73	621.65	621.57	621.48
12.750	621.39	621.31	621.23	621.17	621.11
13.000	621.05	621.00	620.95	620.91	620.87
13.250	620.83	620.80	620.77	620.74	620.72
13.500	620.69	620.67	620.65	620.63	620.62
13.750	620.60	620.59	620.57	620.56	620.55
14.000	620.53	620.52	620.51	620.50	620.49
14.250	620.48	620.47	620.46	620.46	620.45
14.500	620.44	620.43	620.42	620.42	620.41
14.750	620.41	620.40	620.39	620.39	620.38
15.000	620.38	620.37	620.37	620.36	620.36
15.250	620.35	620.35	620.34	620.34	620.33
15.500	620.33	620.32	620.32	620.31	620.31
15.750	620.30	620.30	620.29	620.29	620.28
16.000	620.28	620.27	620.27	620.26	620.26
16.250	620.26	620.25	620.25	620.24	620.24
16.500	620.24	620.23	620.23	620.22	620.22
16.750	620.22	620.21	620.21	620.21	620.20
17.000	620.20	620.20	620.19	620.19	620.19
17.250	620.19	620.18	620.18	620.18	620.17
17.500	620.17	620.17	620.16	620.16	620.16
17.750	620.16	620.15	620.15	620.15	620.14
18.000	620.14	620.14	620.13	620.13	620.13
18.250	620.12	620.12	620.12	620.12	620.11
18.500	620.11	620.11	620.11	620.10	620.10
18.750	620.10	620.10	620.10	620.10	620.09
19.000	620.09	620.09	620.09	620.08	620.08
19.250	620.08	620.08	620.08	620.07	620.07
19.500	620.07	620.07	620.07	620.07	620.06
19.750	620.06	620.06	620.06	620.06	620.06
20.000	620.05	620.05	620.05	620.05	620.05

Subsection: Time vs. Elevation
Label: IB-1C-2B (IN)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: 100 year

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	620.05	620.05	620.05	620.05	620.05
20.500	620.05	620.05	620.05	620.05	620.05
20.750	620.05	620.05	620.05	620.05	620.05
21.000	620.05	620.05	620.05	620.05	620.05
21.250	620.05	620.05	620.05	620.05	620.05
21.500	620.05	620.05	620.05	620.05	620.05
21.750	620.05	620.05	620.05	620.05	620.05
22.000	620.05	620.05	620.05	620.05	620.05
22.250	620.05	620.05	620.05	620.05	620.05
22.500	620.05	620.05	620.05	620.05	620.05
22.750	620.05	620.05	620.05	620.05	620.05
23.000	620.05	620.05	620.05	620.05	620.05
23.250	620.05	620.05	620.05	620.05	620.05
23.500	620.05	620.05	620.05	620.05	620.05
23.750	620.05	620.05	620.05	620.05	620.05
24.000	620.05	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 1 years
Label: Permeable Asphalt (IN) | Storm Event: 1 year
Scenario: Post-Development 1 year

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	634.32	634.32	634.32	634.32	634.32
0.250	634.32	634.32	634.32	634.32	634.32
0.500	634.32	634.32	634.32	634.32	634.32
0.750	634.32	634.32	634.32	634.32	634.32
1.000	634.32	634.32	634.32	634.32	634.32
1.250	634.32	634.32	634.32	634.32	634.32
1.500	634.32	634.32	634.32	634.32	634.32
1.750	634.32	634.32	634.32	634.32	634.32
2.000	634.32	634.32	634.32	634.32	634.32
2.250	634.32	634.32	634.32	634.32	634.32
2.500	634.32	634.32	634.32	634.32	634.32
2.750	634.32	634.32	634.32	634.32	634.32
3.000	634.32	634.32	634.32	634.32	634.32
3.250	634.32	634.32	634.32	634.32	634.32
3.500	634.32	634.32	634.32	634.32	634.32
3.750	634.32	634.32	634.32	634.32	634.32
4.000	634.32	634.32	634.32	634.32	634.32
4.250	634.32	634.32	634.32	634.32	634.32
4.500	634.32	634.32	634.32	634.32	634.32
4.750	634.32	634.32	634.32	634.32	634.32
5.000	634.32	634.32	634.32	634.32	634.32
5.250	634.32	634.32	634.32	634.32	634.32
5.500	634.32	634.32	634.33	634.33	634.33
5.750	634.33	634.33	634.33	634.33	634.33
6.000	634.33	634.33	634.33	634.33	634.33
6.250	634.33	634.33	634.33	634.33	634.33
6.500	634.33	634.33	634.33	634.33	634.33
6.750	634.33	634.33	634.33	634.33	634.33
7.000	634.33	634.33	634.33	634.33	634.33
7.250	634.33	634.33	634.33	634.33	634.33
7.500	634.33	634.33	634.33	634.33	634.33
7.750	634.33	634.33	634.33	634.33	634.33
8.000	634.33	634.33	634.33	634.33	634.33
8.250	634.33	634.33	634.33	634.33	634.33
8.500	634.33	634.33	634.33	634.33	634.33
8.750	634.33	634.33	634.33	634.33	634.34
9.000	634.34	634.34	634.34	634.34	634.34
9.250	634.34	634.34	634.34	634.34	634.34
9.500	634.34	634.34	634.34	634.34	634.34
9.750	634.34	634.34	634.34	634.34	634.34

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation
Label: Permeable Asphalt (IN)
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

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	634.34	634.34	634.34	634.34	634.34
10.250	634.34	634.34	634.35	634.35	634.35
10.500	634.35	634.35	634.35	634.35	634.35
10.750	634.35	634.35	634.35	634.35	634.35
11.000	634.35	634.35	634.35	634.35	634.36
11.250	634.36	634.36	634.36	634.36	634.36
11.500	634.36	634.36	634.37	634.37	634.37
11.750	634.38	634.38	634.39	634.40	634.41
12.000	634.43	634.44	634.46	634.48	634.49
12.250	634.49	634.50	634.50	634.50	634.50
12.500	634.50	634.50	634.49	634.49	634.49
12.750	634.48	634.48	634.47	634.47	634.47
13.000	634.46	634.46	634.46	634.45	634.45
13.250	634.45	634.44	634.44	634.44	634.43
13.500	634.43	634.43	634.43	634.42	634.42
13.750	634.42	634.42	634.41	634.41	634.41
14.000	634.41	634.41	634.40	634.40	634.40
14.250	634.40	634.40	634.39	634.39	634.39
14.500	634.39	634.39	634.39	634.38	634.38
14.750	634.38	634.38	634.38	634.38	634.38
15.000	634.38	634.37	634.37	634.37	634.37
15.250	634.37	634.37	634.37	634.37	634.37
15.500	634.37	634.36	634.36	634.36	634.36
15.750	634.36	634.36	634.36	634.36	634.36
16.000	634.36	634.36	634.36	634.35	634.35
16.250	634.35	634.35	634.35	634.35	634.35
16.500	634.35	634.35	634.35	634.35	634.35
16.750	634.35	634.35	634.35	634.35	634.35
17.000	634.35	634.35	634.34	634.34	634.34
17.250	634.34	634.34	634.34	634.34	634.34
17.500	634.34	634.34	634.34	634.34	634.34
17.750	634.34	634.34	634.34	634.34	634.34
18.000	634.34	634.34	634.34	634.34	634.34
18.250	634.34	634.34	634.34	634.34	634.34
18.500	634.34	634.34	634.34	634.34	634.34
18.750	634.34	634.33	634.33	634.33	634.33
19.000	634.33	634.33	634.33	634.33	634.33
19.250	634.33	634.33	634.33	634.33	634.33
19.500	634.33	634.33	634.33	634.33	634.33
19.750	634.33	634.33	634.33	634.33	634.33
20.000	634.33	634.33	634.33	634.33	634.33

Subsection: Time vs. Elevation | Return Event: 1 years
Label: Permeable Asphalt (IN) | Storm Event: 1 year
Scenario: Post-Development 1 year

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	634.33	634.33	634.33	634.33	634.33
20.500	634.33	634.33	634.33	634.33	634.33
20.750	634.33	634.33	634.33	634.33	634.33
21.000	634.33	634.33	634.33	634.33	634.33
21.250	634.33	634.33	634.33	634.33	634.33
21.500	634.33	634.33	634.33	634.33	634.33
21.750	634.33	634.33	634.33	634.33	634.33
22.000	634.33	634.33	634.33	634.33	634.33
22.250	634.33	634.33	634.33	634.33	634.33
22.500	634.33	634.33	634.33	634.33	634.33
22.750	634.33	634.33	634.33	634.33	634.33
23.000	634.33	634.33	634.33	634.33	634.33
23.250	634.33	634.33	634.33	634.33	634.33
23.500	634.33	634.33	634.33	634.33	634.33
23.750	634.33	634.33	634.33	634.33	634.33
24.000	634.33	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Return Event: 10 years
Label: Permeable Asphalt (IN)
Storm Event: 10 year
Scenario: Post-Development 10 year

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	634.32	634.32	634.32	634.32	634.32
0.250	634.32	634.32	634.32	634.32	634.32
0.500	634.32	634.32	634.32	634.32	634.32
0.750	634.32	634.32	634.32	634.32	634.32
1.000	634.32	634.32	634.32	634.32	634.32
1.250	634.32	634.32	634.32	634.32	634.32
1.500	634.32	634.32	634.32	634.32	634.32
1.750	634.32	634.32	634.32	634.32	634.32
2.000	634.32	634.32	634.32	634.32	634.32
2.250	634.32	634.32	634.32	634.32	634.32
2.500	634.32	634.32	634.32	634.32	634.32
2.750	634.32	634.32	634.32	634.32	634.32
3.000	634.32	634.33	634.33	634.33	634.33
3.250	634.33	634.33	634.33	634.33	634.33
3.500	634.33	634.33	634.33	634.33	634.33
3.750	634.33	634.33	634.33	634.33	634.33
4.000	634.33	634.33	634.33	634.33	634.33
4.250	634.33	634.33	634.33	634.33	634.33
4.500	634.33	634.33	634.33	634.33	634.33
4.750	634.33	634.33	634.33	634.33	634.33
5.000	634.33	634.33	634.33	634.33	634.33
5.250	634.33	634.33	634.33	634.33	634.33
5.500	634.33	634.33	634.33	634.33	634.33
5.750	634.33	634.33	634.33	634.33	634.33
6.000	634.33	634.33	634.33	634.33	634.33
6.250	634.33	634.34	634.34	634.34	634.34
6.500	634.34	634.34	634.34	634.34	634.34
6.750	634.34	634.34	634.34	634.34	634.34
7.000	634.34	634.34	634.34	634.34	634.34
7.250	634.34	634.34	634.34	634.34	634.34
7.500	634.34	634.34	634.34	634.34	634.34
7.750	634.34	634.34	634.34	634.34	634.34
8.000	634.34	634.34	634.34	634.34	634.34
8.250	634.35	634.35	634.35	634.35	634.35
8.500	634.35	634.35	634.35	634.35	634.35
8.750	634.35	634.35	634.35	634.35	634.35
9.000	634.35	634.35	634.35	634.35	634.35
9.250	634.35	634.36	634.36	634.36	634.36
9.500	634.36	634.36	634.36	634.36	634.36
9.750	634.36	634.36	634.36	634.36	634.36

Subsection: Time vs. Elevation
Return Event: 10 years
Label: Permeable Asphalt (IN)
Storm Event: 10 year
Scenario: Post-Development 10 year

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	634.36	634.36	634.37	634.37	634.37
10.250	634.37	634.37	634.37	634.37	634.37
10.500	634.37	634.37	634.37	634.38	634.38
10.750	634.38	634.38	634.38	634.38	634.38
11.000	634.38	634.38	634.39	634.39	634.39
11.250	634.39	634.39	634.39	634.40	634.40
11.500	634.40	634.40	634.41	634.41	634.42
11.750	634.43	634.44	634.45	634.47	634.49
12.000	634.52	634.55	634.59	634.61	634.63
12.250	634.64	634.65	634.65	634.66	634.66
12.500	634.65	634.65	634.64	634.63	634.63
12.750	634.62	634.61	634.61	634.60	634.59
13.000	634.59	634.58	634.57	634.57	634.56
13.250	634.55	634.55	634.54	634.54	634.53
13.500	634.53	634.52	634.52	634.51	634.51
13.750	634.50	634.50	634.49	634.49	634.49
14.000	634.48	634.48	634.47	634.47	634.47
14.250	634.46	634.46	634.46	634.45	634.45
14.500	634.45	634.44	634.44	634.44	634.44
14.750	634.43	634.43	634.43	634.43	634.42
15.000	634.42	634.42	634.42	634.42	634.41
15.250	634.41	634.41	634.41	634.41	634.41
15.500	634.40	634.40	634.40	634.40	634.40
15.750	634.40	634.39	634.39	634.39	634.39
16.000	634.39	634.39	634.39	634.38	634.38
16.250	634.38	634.38	634.38	634.38	634.38
16.500	634.38	634.38	634.37	634.37	634.37
16.750	634.37	634.37	634.37	634.37	634.37
17.000	634.37	634.37	634.37	634.36	634.36
17.250	634.36	634.36	634.36	634.36	634.36
17.500	634.36	634.36	634.36	634.36	634.36
17.750	634.36	634.36	634.36	634.36	634.35
18.000	634.35	634.35	634.35	634.35	634.35
18.250	634.35	634.35	634.35	634.35	634.35
18.500	634.35	634.35	634.35	634.35	634.35
18.750	634.35	634.35	634.35	634.35	634.35
19.000	634.35	634.35	634.35	634.35	634.35
19.250	634.34	634.34	634.34	634.34	634.34
19.500	634.34	634.34	634.34	634.34	634.34
19.750	634.34	634.34	634.34	634.34	634.34
20.000	634.34	634.34	634.34	634.34	634.34

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 10 years
Label: Permeable Asphalt (IN) | Storm Event: 10 year
Scenario: Post-Development 10 year

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	634.34	634.34	634.34	634.34	634.34
20.500	634.34	634.34	634.34	634.34	634.34
20.750	634.34	634.34	634.34	634.34	634.34
21.000	634.34	634.34	634.34	634.34	634.34
21.250	634.34	634.34	634.34	634.34	634.34
21.500	634.34	634.34	634.34	634.34	634.34
21.750	634.34	634.34	634.34	634.34	634.34
22.000	634.34	634.34	634.34	634.34	634.34
22.250	634.34	634.34	634.34	634.34	634.34
22.500	634.34	634.34	634.34	634.34	634.34
22.750	634.34	634.33	634.33	634.33	634.33
23.000	634.33	634.33	634.33	634.33	634.33
23.250	634.33	634.33	634.33	634.33	634.33
23.500	634.33	634.33	634.33	634.33	634.33
23.750	634.33	634.33	634.33	634.33	634.33
24.000	634.33	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 25 years
Label: Permeable Asphalt (IN) | Storm Event: 25 year
Scenario: Post-Development 25 year

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	634.32	634.32	634.32	634.32	634.32
0.250	634.32	634.32	634.32	634.32	634.32
0.500	634.32	634.32	634.32	634.32	634.32
0.750	634.32	634.32	634.32	634.32	634.32
1.000	634.32	634.32	634.32	634.32	634.32
1.250	634.32	634.32	634.32	634.32	634.32
1.500	634.32	634.32	634.32	634.32	634.32
1.750	634.32	634.32	634.32	634.32	634.32
2.000	634.32	634.32	634.32	634.32	634.32
2.250	634.32	634.32	634.32	634.33	634.33
2.500	634.33	634.33	634.33	634.33	634.33
2.750	634.33	634.33	634.33	634.33	634.33
3.000	634.33	634.33	634.33	634.33	634.33
3.250	634.33	634.33	634.33	634.33	634.33
3.500	634.33	634.33	634.33	634.33	634.33
3.750	634.33	634.33	634.33	634.33	634.33
4.000	634.33	634.33	634.33	634.33	634.33
4.250	634.33	634.33	634.33	634.33	634.33
4.500	634.33	634.33	634.33	634.33	634.33
4.750	634.33	634.33	634.33	634.34	634.34
5.000	634.34	634.34	634.34	634.34	634.34
5.250	634.34	634.34	634.34	634.34	634.34
5.500	634.34	634.34	634.34	634.34	634.34
5.750	634.34	634.34	634.34	634.34	634.34
6.000	634.34	634.34	634.34	634.34	634.34
6.250	634.34	634.34	634.34	634.34	634.34
6.500	634.34	634.34	634.34	634.34	634.34
6.750	634.34	634.34	634.34	634.34	634.34
7.000	634.34	634.34	634.34	634.34	634.35
7.250	634.35	634.35	634.35	634.35	634.35
7.500	634.35	634.35	634.35	634.35	634.35
7.750	634.35	634.35	634.35	634.35	634.35
8.000	634.35	634.35	634.35	634.35	634.35
8.250	634.35	634.35	634.35	634.35	634.35
8.500	634.36	634.36	634.36	634.36	634.36
8.750	634.36	634.36	634.36	634.36	634.36
9.000	634.36	634.36	634.36	634.36	634.36
9.250	634.36	634.37	634.37	634.37	634.37
9.500	634.37	634.37	634.37	634.37	634.37
9.750	634.37	634.37	634.37	634.38	634.38

Stormwater Hydrologic Calculations

Subsection: Time vs. Elevation | Return Event: 25 years
Label: Permeable Asphalt (IN) | Storm Event: 25 year
Scenario: Post-Development 25 year

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	634.38	634.38	634.38	634.38	634.38
10.250	634.38	634.38	634.38	634.38	634.39
10.500	634.39	634.39	634.39	634.39	634.39
10.750	634.39	634.39	634.40	634.40	634.40
11.000	634.40	634.40	634.40	634.40	634.41
11.250	634.41	634.41	634.41	634.42	634.42
11.500	634.42	634.43	634.43	634.44	634.45
11.750	634.46	634.47	634.49	634.51	634.53
12.000	634.57	634.61	634.65	634.69	634.71
12.250	634.73	634.74	634.74	634.74	634.74
12.500	634.74	634.73	634.72	634.72	634.71
12.750	634.70	634.69	634.68	634.67	634.66
13.000	634.66	634.65	634.64	634.63	634.62
13.250	634.62	634.61	634.60	634.59	634.59
13.500	634.58	634.57	634.57	634.56	634.56
13.750	634.55	634.54	634.54	634.53	634.53
14.000	634.52	634.52	634.51	634.51	634.51
14.250	634.50	634.50	634.49	634.49	634.48
14.500	634.48	634.48	634.47	634.47	634.47
14.750	634.46	634.46	634.46	634.45	634.45
15.000	634.45	634.45	634.44	634.44	634.44
15.250	634.44	634.43	634.43	634.43	634.43
15.500	634.43	634.42	634.42	634.42	634.42
15.750	634.42	634.41	634.41	634.41	634.41
16.000	634.41	634.40	634.40	634.40	634.40
16.250	634.40	634.40	634.39	634.39	634.39
16.500	634.39	634.39	634.39	634.39	634.39
16.750	634.38	634.38	634.38	634.38	634.38
17.000	634.38	634.38	634.38	634.38	634.38
17.250	634.37	634.37	634.37	634.37	634.37
17.500	634.37	634.37	634.37	634.37	634.37
17.750	634.37	634.37	634.37	634.36	634.36
18.000	634.36	634.36	634.36	634.36	634.36
18.250	634.36	634.36	634.36	634.36	634.36
18.500	634.36	634.36	634.36	634.36	634.36
18.750	634.35	634.35	634.35	634.35	634.35
19.000	634.35	634.35	634.35	634.35	634.35
19.250	634.35	634.35	634.35	634.35	634.35
19.500	634.35	634.35	634.35	634.35	634.35
19.750	634.35	634.35	634.35	634.35	634.35
20.000	634.35	634.35	634.35	634.35	634.35

Subsection: Time vs. Elevation
Return Event: 25 years
Label: Permeable Asphalt (IN)
Storm Event: 25 year
Scenario: Post-Development 25 year

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	634.35	634.35	634.35	634.35	634.35
20.500	634.34	634.34	634.34	634.34	634.34
20.750	634.34	634.34	634.34	634.34	634.34
21.000	634.34	634.34	634.34	634.34	634.34
21.250	634.34	634.34	634.34	634.34	634.34
21.500	634.34	634.34	634.34	634.34	634.34
21.750	634.34	634.34	634.34	634.34	634.34
22.000	634.34	634.34	634.34	634.34	634.34
22.250	634.34	634.34	634.34	634.34	634.34
22.500	634.34	634.34	634.34	634.34	634.34
22.750	634.34	634.34	634.34	634.34	634.34
23.000	634.34	634.34	634.34	634.34	634.34
23.250	634.34	634.34	634.34	634.34	634.34
23.500	634.34	634.34	634.34	634.34	634.34
23.750	634.34	634.34	634.34	634.34	634.34
24.000	634.34	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation | Return Event: 100 years
Label: Permeable Asphalt (IN) | Storm Event: 100 year
Scenario: Post-Development 100 year

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	634.32	634.32	634.32	634.32	634.32
0.250	634.32	634.32	634.32	634.32	634.32
0.500	634.32	634.32	634.32	634.32	634.32
0.750	634.32	634.32	634.32	634.32	634.32
1.000	634.32	634.32	634.32	634.32	634.32
1.250	634.32	634.32	634.32	634.32	634.32
1.500	634.32	634.32	634.33	634.33	634.33
1.750	634.33	634.33	634.33	634.33	634.33
2.000	634.33	634.33	634.33	634.33	634.33
2.250	634.33	634.33	634.33	634.33	634.33
2.500	634.33	634.33	634.33	634.33	634.33
2.750	634.33	634.33	634.33	634.33	634.33
3.000	634.33	634.33	634.33	634.33	634.33
3.250	634.33	634.34	634.34	634.34	634.34
3.500	634.34	634.34	634.34	634.34	634.34
3.750	634.34	634.34	634.34	634.34	634.34
4.000	634.34	634.34	634.34	634.34	634.34
4.250	634.34	634.34	634.34	634.34	634.34
4.500	634.34	634.34	634.34	634.34	634.34
4.750	634.34	634.34	634.34	634.34	634.34
5.000	634.34	634.34	634.34	634.35	634.35
5.250	634.35	634.35	634.35	634.35	634.35
5.500	634.35	634.35	634.35	634.35	634.35
5.750	634.35	634.35	634.35	634.35	634.35
6.000	634.35	634.35	634.35	634.35	634.35
6.250	634.35	634.35	634.35	634.35	634.35
6.500	634.35	634.35	634.35	634.35	634.35
6.750	634.35	634.35	634.35	634.35	634.36
7.000	634.36	634.36	634.36	634.36	634.36
7.250	634.36	634.36	634.36	634.36	634.36
7.500	634.36	634.36	634.36	634.36	634.36
7.750	634.36	634.36	634.36	634.36	634.36
8.000	634.37	634.37	634.37	634.37	634.37
8.250	634.37	634.37	634.37	634.37	634.37
8.500	634.37	634.37	634.37	634.37	634.37
8.750	634.38	634.38	634.38	634.38	634.38
9.000	634.38	634.38	634.38	634.38	634.38
9.250	634.39	634.39	634.39	634.39	634.39
9.500	634.39	634.39	634.39	634.39	634.39
9.750	634.40	634.40	634.40	634.40	634.40

Subsection: Time vs. Elevation | Return Event: 100 years
Label: Permeable Asphalt (IN) | Storm Event: 100 year
Scenario: Post-Development 100 year

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	634.40	634.40	634.40	634.41	634.41
10.250	634.41	634.41	634.41	634.41	634.41
10.500	634.42	634.42	634.42	634.42	634.42
10.750	634.42	634.43	634.43	634.43	634.43
11.000	634.43	634.44	634.44	634.44	634.44
11.250	634.45	634.45	634.45	634.46	634.46
11.500	634.47	634.47	634.48	634.49	634.50
11.750	634.52	634.54	634.56	634.59	634.63
12.000	634.68	634.74	634.80	634.85	634.88
12.250	634.91	634.92	634.93	634.94	634.94
12.500	634.94	634.94	634.93	634.92	634.91
12.750	634.90	634.89	634.88	634.86	634.85
13.000	634.84	634.83	634.81	634.80	634.79
13.250	634.77	634.76	634.75	634.74	634.73
13.500	634.72	634.71	634.70	634.69	634.68
13.750	634.67	634.66	634.65	634.64	634.64
14.000	634.63	634.62	634.61	634.61	634.60
14.250	634.59	634.59	634.58	634.57	634.57
14.500	634.56	634.56	634.55	634.54	634.54
14.750	634.53	634.53	634.53	634.52	634.52
15.000	634.51	634.51	634.50	634.50	634.50
15.250	634.49	634.49	634.48	634.48	634.48
15.500	634.47	634.47	634.47	634.47	634.46
15.750	634.46	634.46	634.45	634.45	634.45
16.000	634.45	634.44	634.44	634.44	634.44
16.250	634.43	634.43	634.43	634.43	634.42
16.500	634.42	634.42	634.42	634.42	634.42
16.750	634.41	634.41	634.41	634.41	634.41
17.000	634.41	634.40	634.40	634.40	634.40
17.250	634.40	634.40	634.40	634.40	634.39
17.500	634.39	634.39	634.39	634.39	634.39
17.750	634.39	634.39	634.38	634.38	634.38
18.000	634.38	634.38	634.38	634.38	634.38
18.250	634.38	634.38	634.38	634.37	634.37
18.500	634.37	634.37	634.37	634.37	634.37
18.750	634.37	634.37	634.37	634.37	634.37
19.000	634.37	634.37	634.37	634.37	634.36
19.250	634.36	634.36	634.36	634.36	634.36
19.500	634.36	634.36	634.36	634.36	634.36
19.750	634.36	634.36	634.36	634.36	634.36
20.000	634.36	634.36	634.36	634.36	634.36

Subsection: Time vs. Elevation | Return Event: 100 years
Label: Permeable Asphalt (IN) | Storm Event: 100 year
Scenario: Post-Development 100 year

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	634.36	634.36	634.36	634.36	634.36
20.500	634.36	634.36	634.36	634.35	634.35
20.750	634.35	634.35	634.35	634.35	634.35
21.000	634.35	634.35	634.35	634.35	634.35
21.250	634.35	634.35	634.35	634.35	634.35
21.500	634.35	634.35	634.35	634.35	634.35
21.750	634.35	634.35	634.35	634.35	634.35
22.000	634.35	634.35	634.35	634.35	634.35
22.250	634.35	634.35	634.35	634.35	634.35
22.500	634.35	634.35	634.35	634.35	634.35
22.750	634.35	634.35	634.35	634.35	634.35
23.000	634.35	634.35	634.35	634.35	634.35
23.250	634.35	634.35	634.35	634.34	634.34
23.500	634.34	634.34	634.34	634.34	634.34
23.750	634.34	634.34	634.34	634.34	634.34
24.000	634.34	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 1 years
Label: DB-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	0	0	0
1.250	0	0	0	0	0
1.500	0	0	0	0	0
1.750	0	0	0	0	0
2.000	0	0	0	0	0
2.250	0	0	0	0	0
2.500	0	0	0	0	0
2.750	0	0	0	0	0
3.000	0	0	0	0	0
3.250	0	0	0	0	0
3.500	0	0	0	0	0
3.750	0	0	0	0	0
4.000	0	0	0	0	0
4.250	0	0	0	0	0
4.500	0	0	0	0	0
4.750	0	0	0	0	0
5.000	0	0	0	0	0
5.250	0	0	0	0	0
5.500	0	0	0	0	0
5.750	0	0	0	0	0
6.000	0	0	0	0	0
6.250	0	0	0	0	0
6.500	0	0	0	0	0
6.750	0	0	0	0	0
7.000	0	0	0	0	0
7.250	0	0	0	0	0
7.500	0	0	0	0	0
7.750	0	0	0	0	0
8.000	0	0	0	0	0
8.250	0	0	0	0	0
8.500	0	0	0	0	0
8.750	0	0	0	0	0
9.000	0	0	0	0	0
9.250	0	0	0	0	0
9.500	0	0	0	0	0
9.750	0	0	0	0	0

Subsection: Time vs. Volume | Return Event: 1 years
Label: DB-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

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	0	0	0	0
10.250	0	0	0	0	0
10.500	0	0	0	0	0
10.750	0	0	0	0	0
11.000	0	0	0	0	0
11.250	0	0	0	0	0
11.500	0	0	0	0	0
11.750	0	0	0	0	0
12.000	0	0	0	0	0
12.250	0	0	0	0	0
12.500	0	0	0	0	0
12.750	0	0	0	0	0
13.000	0	0	0	0	0
13.250	0	0	0	0	0
13.500	0	0	0	0	0
13.750	0	0	0	0	0
14.000	0	0	0	0	0
14.250	0	0	0	0	0
14.500	0	0	0	0	0
14.750	0	0	0	0	0
15.000	0	0	0	0	0
15.250	0	0	0	0	0
15.500	0	0	0	0	0
15.750	0	0	0	0	0
16.000	0	0	0	0	0
16.250	0	0	0	0	0
16.500	0	0	0	0	0
16.750	0	0	0	0	0
17.000	0	0	0	0	0
17.250	0	0	0	0	0
17.500	0	0	0	0	0
17.750	0	0	0	0	0
18.000	0	0	0	0	0
18.250	0	0	0	0	0
18.500	0	0	0	0	0
18.750	0	0	0	0	0
19.000	0	0	0	0	0
19.250	0	0	0	0	0
19.500	0	0	0	0	0
19.750	0	0	0	0	0
20.000	0	0	0	0	0

Subsection: Time vs. Volume | Return Event: 1 years
Label: DB-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

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	0	0	0	0	0
20.500	0	0	0	0	0
20.750	0	0	0	0	0
21.000	0	0	0	0	0
21.250	0	0	0	0	0
21.500	0	0	0	0	0
21.750	0	0	0	0	0
22.000	0	0	0	0	0
22.250	0	0	0	0	0
22.500	0	0	0	0	0
22.750	0	0	0	0	0
23.000	0	0	0	0	0
23.250	0	0	0	0	0
23.500	0	0	0	0	0
23.750	0	0	0	0	0
24.000	0	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 10 years
Label: DB-1C-2B | Storm Event: 10 year
Scenario: Post-Development 10 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	0	0	0
1.250	0	0	0	0	0
1.500	0	0	0	0	0
1.750	0	0	0	0	0
2.000	0	0	0	0	0
2.250	0	0	0	0	0
2.500	0	0	0	0	0
2.750	0	0	0	0	0
3.000	0	0	0	0	0
3.250	0	0	0	0	0
3.500	0	0	0	0	0
3.750	0	0	0	0	0
4.000	0	0	0	0	0
4.250	0	0	0	0	0
4.500	0	0	0	0	0
4.750	0	0	0	0	0
5.000	0	0	0	0	0
5.250	0	0	0	0	0
5.500	0	0	0	0	0
5.750	0	0	0	0	0
6.000	0	0	0	0	0
6.250	0	0	0	0	0
6.500	0	0	0	0	0
6.750	0	0	0	0	0
7.000	0	0	0	0	0
7.250	0	0	0	0	0
7.500	0	0	0	0	0
7.750	0	0	0	0	0
8.000	0	0	0	0	0
8.250	0	0	0	0	0
8.500	0	0	0	0	0
8.750	0	0	0	0	0
9.000	0	0	0	0	0
9.250	0	0	0	0	0
9.500	0	0	0	0	0
9.750	0	0	0	0	0

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume | Return Event: 10 years
Label: DB-1C-2B | Storm Event: 10 year
Scenario: Post-Development 10 year

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	0	0	0	0
10.250	0	0	0	0	0
10.500	0	0	0	0	0
10.750	0	0	0	0	0
11.000	0	0	0	0	0
11.250	0	0	0	0	0
11.500	0	0	0	0	0
11.750	0	0	0	0	0
12.000	0	40	1,076	3,744	7,057
12.250	9,742	11,084	11,425	11,645	11,823
12.500	11,706	11,424	11,078	10,654	10,189
12.750	9,745	9,316	8,913	8,530	8,171
13.000	7,832	7,506	7,196	6,905	6,634
13.250	6,378	6,148	5,924	5,715	5,532
13.500	5,352	5,176	5,020	4,878	4,735
13.750	4,590	4,457	4,341	4,228	4,115
14.000	3,998	3,882	3,779	3,686	3,594
14.250	3,504	3,418	3,329	3,238	3,158
14.500	3,089	3,021	2,955	2,890	2,828
14.750	2,767	2,703	2,636	2,569	2,509
15.000	2,455	2,404	2,353	2,302	2,251
15.250	2,202	2,153	2,104	2,055	2,001
15.500	1,943	1,884	1,829	1,781	1,736
15.750	1,690	1,644	1,598	1,552	1,505
16.000	1,459	1,414	1,371	1,326	1,276
16.250	1,226	1,178	1,137	1,101	1,069
16.500	1,040	1,012	985	960	936
16.750	912	890	868	848	828
17.000	808	790	772	755	739
17.250	723	708	693	679	662
17.500	642	622	600	579	557
17.750	535	513	492	472	452
18.000	432	414	396	378	361
18.250	345	329	314	300	286
18.500	273	260	248	236	225
18.750	215	205	195	186	177
19.000	169	161	153	146	139
19.250	133	127	121	115	110
19.500	105	100	96	91	87
19.750	83	80	76	73	69
20.000	66	63	61	58	56

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume | Return Event: 10 years
Label: DB-1C-2B | Storm Event: 10 year
Scenario: Post-Development 10 year

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	53	51	49	47	45
20.500	43	41	39	38	36
20.750	35	33	32	31	29
21.000	28	27	26	25	24
21.250	23	22	21	21	20
21.500	19	19	18	17	17
21.750	16	16	15	15	14
22.000	14	13	13	13	12
22.250	12	12	11	11	11
22.500	11	10	10	10	10
22.750	10	9	9	9	9
23.000	9	9	8	8	8
23.250	8	8	8	8	8
23.500	8	7	7	7	7
23.750	7	7	7	7	7
24.000	7	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume — Return Event: 25 years
Label: DB-1C-2B — Storm Event: 25 year
Scenario: Post-Development 25 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	0	0	0
1.250	0	0	0	0	0
1.500	0	0	0	0	0
1.750	0	0	0	0	0
2.000	0	0	0	0	0
2.250	0	0	0	0	0
2.500	0	0	0	0	0
2.750	0	0	0	0	0
3.000	0	0	0	0	0
3.250	0	0	0	0	0
3.500	0	0	0	0	0
3.750	0	0	0	0	0
4.000	0	0	0	0	0
4.250	0	0	0	0	0
4.500	0	0	0	0	0
4.750	0	0	0	0	0
5.000	0	0	0	0	0
5.250	0	0	0	0	0
5.500	0	0	0	0	0
5.750	0	0	0	0	0
6.000	0	0	0	0	0
6.250	0	0	0	0	0
6.500	0	0	0	0	0
6.750	0	0	0	0	0
7.000	0	0	0	0	0
7.250	0	0	0	0	0
7.500	0	0	0	0	0
7.750	0	0	0	0	0
8.000	0	0	0	0	0
8.250	0	0	0	0	0
8.500	0	0	0	0	0
8.750	0	0	0	0	0
9.000	0	0	0	0	0
9.250	0	0	0	0	0
9.500	0	0	0	0	0
9.750	0	0	0	0	0

Subsection: Time vs. Volume — Return Event: 25 years
Label: DB-1C-2B — Storm Event: 25 year
Scenario: Post-Development 25 year

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	0	0	0	0
10.250	0	0	0	0	0
10.500	0	0	0	0	0
10.750	0	0	0	0	0
11.000	0	0	0	0	0
11.250	0	0	0	0	0
11.500	0	0	0	0	0
11.750	0	0	0	0	428
12.000	2,039	4,988	8,732	12,426	15,238
12.250	16,709	17,226	17,430	17,427	17,138
12.500	16,646	16,025	15,305	14,542	13,778
12.750	13,056	12,391	11,770	11,193	10,671
13.000	10,182	9,712	9,274	8,879	8,508
13.250	8,164	7,850	7,561	7,291	7,043
13.500	6,823	6,603	6,398	6,221	6,042
13.750	5,867	5,714	5,571	5,426	5,278
14.000	5,144	5,025	4,907	4,790	4,670
14.250	4,554	4,456	4,366	4,277	4,190
14.500	4,106	4,018	3,932	3,856	3,789
14.750	3,721	3,655	3,590	3,527	3,466
15.000	3,401	3,332	3,265	3,205	3,149
15.250	3,095	3,041	2,986	2,933	2,879
15.500	2,827	2,774	2,717	2,656	2,594
15.750	2,535	2,481	2,431	2,381	2,329
16.000	2,277	2,225	2,173	2,122	2,070
16.250	2,016	1,958	1,898	1,843	1,795
16.500	1,752	1,710	1,669	1,628	1,588
16.750	1,548	1,509	1,470	1,432	1,395
17.000	1,357	1,314	1,265	1,215	1,169
17.250	1,129	1,095	1,064	1,035	1,007
17.500	981	956	932	909	887
17.750	866	845	826	807	788
18.000	771	754	738	722	707
18.250	693	678	660	641	620
18.500	598	575	553	531	509
18.750	487	466	446	426	407
19.000	388	370	353	337	321
19.250	306	292	279	266	253
19.500	241	230	219	209	199
19.750	190	181	173	165	157
20.000	150	143	137	130	124

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume | Return Event: 25 years
Label: DB-1C-2B | Storm Event: 25 year
Scenario: Post-Development 25 year

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	119	113	108	103	99
20.500	94	90	86	82	78
20.750	75	72	68	65	63
21.000	60	57	55	52	50
21.250	48	46	44	42	41
21.500	39	38	36	35	33
21.750	32	31	30	29	28
22.000	27	26	25	24	23
22.250	22	22	21	20	20
22.500	19	19	18	17	17
22.750	16	16	16	15	15
23.000	15	14	14	14	13
23.250	13	13	13	12	12
23.500	12	12	11	11	11
23.750	11	11	11	10	10
24.000	10	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 100 years
Label: DB-1C-2B | Storm Event: 100 year
Scenario: Post-Development 100 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	0	0	0
1.250	0	0	0	0	0
1.500	0	0	0	0	0
1.750	0	0	0	0	0
2.000	0	0	0	0	0
2.250	0	0	0	0	0
2.500	0	0	0	0	0
2.750	0	0	0	0	0
3.000	0	0	0	0	0
3.250	0	0	0	0	0
3.500	0	0	0	0	0
3.750	0	0	0	0	0
4.000	0	0	0	0	0
4.250	0	0	0	0	0
4.500	0	0	0	0	0
4.750	0	0	0	0	0
5.000	0	0	0	0	0
5.250	0	0	0	0	0
5.500	0	0	0	0	0
5.750	0	0	0	0	0
6.000	0	0	0	0	0
6.250	0	0	0	0	0
6.500	0	0	0	0	0
6.750	0	0	0	0	0
7.000	0	0	0	0	0
7.250	0	0	0	0	0
7.500	0	0	0	0	0
7.750	0	0	0	0	0
8.000	0	0	0	0	0
8.250	0	0	0	0	0
8.500	0	0	0	0	0
8.750	0	0	0	0	0
9.000	0	0	0	0	0
9.250	0	0	0	0	0
9.500	0	0	0	0	0
9.750	0	0	0	0	0

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume | Return Event: 100 years

Label: DB-1C-2B | Storm Event: 100 year

Scenario: Post-Development 100 year

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	0	0	0	0
10.250	0	0	0	0	0
10.500	0	0	0	0	0
10.750	0	0	0	0	0
11.000	0	0	0	0	0
11.250	0	0	0	0	37
11.500	259	780	1,563	2,537	3,654
11.750	4,909	6,322	7,898	9,616	11,522
12.000	13,858	16,898	20,623	23,819	25,868
12.250	26,897	26,883	26,340	25,626	24,766
12.500	23,832	22,804	21,678	20,425	19,153
12.750	18,011	16,977	16,035	15,183	14,394
13.000	13,688	13,037	12,421	11,856	11,351
13.250	10,896	10,471	10,082	9,735	9,412
13.500	9,115	8,850	8,591	8,353	8,138
13.750	7,926	7,732	7,555	7,369	7,195
14.000	7,045	6,894	6,734	6,584	6,458
14.250	6,335	6,213	6,090	5,973	5,873
14.500	5,782	5,688	5,597	5,511	5,419
14.750	5,327	5,249	5,179	5,105	5,031
15.000	4,960	4,891	4,820	4,744	4,668
15.250	4,600	4,537	4,474	4,410	4,346
15.500	4,283	4,220	4,156	4,088	4,015
15.750	3,945	3,882	3,821	3,759	3,696
16.000	3,632	3,569	3,506	3,444	3,376
16.250	3,305	3,240	3,183	3,131	3,079
16.500	3,029	2,979	2,931	2,884	2,838
16.750	2,794	2,749	2,699	2,646	2,596
17.000	2,550	2,507	2,467	2,428	2,389
17.250	2,350	2,311	2,273	2,234	2,196
17.500	2,158	2,120	2,081	2,041	1,995
17.750	1,948	1,901	1,856	1,814	1,777
18.000	1,740	1,703	1,666	1,628	1,591
18.250	1,555	1,519	1,485	1,452	1,420
18.500	1,389	1,357	1,322	1,282	1,242
18.750	1,203	1,166	1,133	1,105	1,080
19.000	1,057	1,034	1,011	989	967
19.250	946	924	903	882	861
19.500	841	821	802	784	766
19.750	749	733	717	702	688
20.000	672	655	634	613	591

Subsection: Time vs. Volume | Return Event: 100 years
Label: DB-1C-2B | Storm Event: 100 year
Scenario: Post-Development 100 year

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	568	546	524	502	480
20.500	459	439	420	401	383
20.750	365	348	332	317	302
21.000	288	275	262	250	238
21.250	227	217	207	197	188
21.500	179	171	163	156	149
21.750	142	135	129	123	118
22.000	113	108	103	98	94
22.250	90	86	83	79	76
22.500	73	70	67	64	61
22.750	59	56	54	52	50
23.000	48	46	45	43	42
23.250	40	39	37	36	35
23.500	34	32	31	30	30
23.750	29	28	27	26	26
24.000	25	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 1 years
Label: IB-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	0	0	0
1.250	0	0	0	0	0
1.500	0	0	0	0	0
1.750	0	0	0	0	0
2.000	0	0	0	0	0
2.250	0	0	0	0	0
2.500	0	0	0	0	0
2.750	0	0	0	0	0
3.000	0	0	0	0	0
3.250	0	0	0	0	0
3.500	0	0	0	0	0
3.750	0	0	0	0	0
4.000	0	0	0	0	0
4.250	0	0	0	0	0
4.500	0	0	0	0	0
4.750	0	0	0	0	0
5.000	0	0	0	0	0
5.250	0	0	0	0	0
5.500	0	0	0	0	0
5.750	0	0	0	0	0
6.000	0	0	0	0	0
6.250	0	0	0	0	0
6.500	0	0	0	0	0
6.750	0	0	0	0	0
7.000	0	0	0	0	0
7.250	0	0	0	0	0
7.500	0	0	0	0	0
7.750	0	0	0	0	0
8.000	0	0	0	0	0
8.250	0	0	0	0	0
8.500	0	0	0	0	0
8.750	0	0	0	0	0
9.000	0	0	0	0	0
9.250	0	0	0	0	0
9.500	0	0	0	0	0
9.750	0	0	0	0	1

Subsection: Time vs. Volume | Return Event: 1 years
Label: IB-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

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	2	2	3	4	5
10.250	6	7	9	10	11
10.500	13	14	16	17	19
10.750	21	22	24	26	28
11.000	30	32	35	38	42
11.250	46	50	55	61	66
11.500	73	81	97	121	156
11.750	214	369	637	1,039	1,628
12.000	2,550	3,935	5,757	7,850	9,925
12.250	11,738	13,249	14,526	15,614	16,528
12.500	17,273	17,855	18,294	18,618	18,861
12.750	19,055	19,215	19,351	19,465	19,560
13.000	19,636	19,694	19,736	19,765	19,784
13.250	19,795	19,801	19,803	19,806	19,808
13.500	19,810	19,813	19,815	19,817	19,820
13.750	19,822	19,824	19,827	19,829	19,832
14.000	19,834	19,837	19,839	19,841	19,842
14.250	19,843	19,845	19,846	19,847	19,848
14.500	19,849	19,850	19,852	19,853	19,854
14.750	19,855	19,856	19,857	19,859	19,860
15.000	19,861	19,862	19,864	19,865	19,866
15.250	19,867	19,868	19,870	19,871	19,872
15.500	19,873	19,875	19,876	19,877	19,879
15.750	19,880	19,881	19,882	19,884	19,885
16.000	19,886	19,887	19,889	19,889	19,890
16.250	19,891	19,892	19,892	19,893	19,893
16.500	19,894	19,894	19,895	19,896	19,896
16.750	19,897	19,897	19,898	19,898	19,899
17.000	19,899	19,900	19,901	19,901	19,902
17.250	19,902	19,903	19,903	19,904	19,905
17.500	19,905	19,906	19,906	19,907	19,907
17.750	19,908	19,909	19,909	19,910	19,910
18.000	19,911	19,912	19,912	19,912	19,913
18.250	19,913	19,913	19,913	19,913	19,914
18.500	19,914	19,914	19,914	19,914	19,914
18.750	19,915	19,915	19,915	19,915	19,915
19.000	19,915	19,916	19,916	19,916	19,916
19.250	19,916	19,916	19,917	19,917	19,917
19.500	19,917	19,917	19,917	19,918	19,918
19.750	19,918	19,918	19,918	19,918	19,919
20.000	19,919	19,919	19,919	19,919	19,919

Subsection: Time vs. Volume | Return Event: 1 years
Label: IB-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

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	19,919	19,920	19,920	19,920	19,920
20.500	19,920	19,920	19,920	19,921	19,921
20.750	19,921	19,921	19,921	19,921	19,921
21.000	19,921	19,922	19,922	19,922	19,922
21.250	19,922	19,922	19,922	19,923	19,923
21.500	19,923	19,923	19,923	19,923	19,923
21.750	19,923	19,924	19,924	19,924	19,924
22.000	19,924	19,924	19,924	19,925	19,925
22.250	19,925	19,925	19,925	19,925	19,925
22.500	19,925	19,926	19,926	19,926	19,926
22.750	19,926	19,926	19,926	19,927	19,927
23.000	19,927	19,927	19,927	19,927	19,927
23.250	19,927	19,928	19,928	19,928	19,928
23.500	19,928	19,928	19,928	19,929	19,929
23.750	19,929	19,929	19,929	19,929	19,929
24.000	19,930	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 10 years
Label: IB-1C-2B | Storm Event: 10 year
Scenario: Post-Development 10 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	0	0	0
1.250	0	0	0	0	0
1.500	0	0	0	0	0
1.750	0	0	0	0	0
2.000	0	0	0	0	0
2.250	0	0	0	0	0
2.500	0	0	0	0	0
2.750	0	0	0	0	0
3.000	0	0	0	0	0
3.250	0	0	0	0	0
3.500	0	0	0	0	0
3.750	0	0	0	0	0
4.000	0	0	0	0	0
4.250	0	0	0	0	0
4.500	0	0	0	0	0
4.750	0	0	0	0	0
5.000	0	0	0	0	0
5.250	0	0	0	0	0
5.500	0	0	0	0	0
5.750	0	0	0	0	0
6.000	0	0	0	0	0
6.250	0	0	0	0	0
6.500	0	0	0	0	0
6.750	0	0	0	0	0
7.000	0	0	0	0	0
7.250	0	0	0	0	0
7.500	1	1	2	3	3
7.750	4	5	6	6	7
8.000	8	9	10	11	12
8.250	13	14	15	16	18
8.500	19	20	22	23	25
8.750	26	28	30	31	33
9.000	35	37	39	41	43
9.250	45	47	49	51	54
9.500	56	58	61	63	66
9.750	68	71	73	76	79

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume | Return Event: 10 years
Label: IB-1C-2B | Storm Event: 10 year
Scenario: Post-Development 10 year

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	81	84	87	91	95
10.250	99	103	107	112	117
10.500	121	126	131	136	142
10.750	147	152	165	189	225
11.000	272	332	407	501	619
11.250	764	941	1,151	1,395	1,675
11.500	1,992	2,357	2,808	3,397	4,188
11.750	5,241	6,602	8,308	10,394	13,001
12.000	16,521	21,187	24,879	27,151	28,456
12.250	29,486	30,945	32,196	32,562	32,778
12.500	32,874	32,735	32,389	32,011	31,537
12.750	31,048	30,579	30,117	29,702	29,283
13.000	28,909	28,539	28,205	27,868	27,568
13.250	27,278	27,000	26,769	26,531	26,303
13.500	26,113	25,930	25,742	25,567	25,413
13.750	25,277	25,128	24,980	24,846	24,717
14.000	24,608	24,497	24,375	24,258	24,149
14.250	24,045	23,944	23,864	23,784	23,696
14.500	23,607	23,525	23,446	23,370	23,295
14.750	23,223	23,160	23,104	23,047	22,985
15.000	22,919	22,854	22,792	22,730	22,669
15.250	22,608	22,548	22,489	22,430	22,382
15.500	22,336	22,290	22,237	22,178	22,119
15.750	22,059	22,000	21,941	21,881	21,821
16.000	21,763	21,709	21,656	21,613	21,578
16.250	21,547	21,513	21,476	21,439	21,401
16.500	21,364	21,328	21,293	21,260	21,228
16.750	21,197	21,167	21,138	21,111	21,084
17.000	21,058	21,034	21,010	20,988	20,966
17.250	20,945	20,925	20,905	20,887	20,873
17.500	20,861	20,852	20,845	20,838	20,833
17.750	20,829	20,826	20,823	20,821	20,819
18.000	20,817	20,816	20,815	20,813	20,812
18.250	20,811	20,810	20,810	20,809	20,808
18.500	20,808	20,808	20,807	20,807	20,807
18.750	20,807	20,807	20,806	20,806	20,806
19.000	20,806	20,806	20,806	20,806	20,806
19.250	20,806	20,806	20,806	20,806	20,806
19.500	20,806	20,806	20,806	20,806	20,806
19.750	20,806	20,806	20,806	20,806	20,806
20.000	20,806	20,806	20,806	20,806	20,806

Subsection: Time vs. Volume
Return Event: 10 years
Label: IB-1C-2B
Storm Event: 10 year
Scenario: Post-Development 10 year

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	20,806	20,806	20,806	20,806	20,806
20.500	20,806	20,806	20,806	20,806	20,806
20.750	20,806	20,806	20,806	20,806	20,806
21.000	20,805	20,805	20,805	20,806	20,806
21.250	20,806	20,806	20,806	20,806	20,806
21.500	20,806	20,806	20,806	20,805	20,806
21.750	20,806	20,805	20,805	20,805	20,806
22.000	20,806	20,806	20,806	20,806	20,806
22.250	20,806	20,806	20,806	20,806	20,805
22.500	20,806	20,806	20,805	20,805	20,805
22.750	20,806	20,806	20,806	20,806	20,806
23.000	20,806	20,806	20,806	20,806	20,806
23.250	20,805	20,806	20,806	20,805	20,805
23.500	20,805	20,806	20,806	20,806	20,806
23.750	20,806	20,806	20,806	20,806	20,806
24.000	20,806	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume | Return Event: 25 years
Label: IB-1C-2B | Storm Event: 25 year
Scenario: Post-Development 25 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	0	0	0
1.250	0	0	0	0	0
1.500	0	0	0	0	0
1.750	0	0	0	0	0
2.000	0	0	0	0	0
2.250	0	0	0	0	0
2.500	0	0	0	0	0
2.750	0	0	0	0	0
3.000	0	0	0	0	0
3.250	0	0	0	0	0
3.500	0	0	0	0	0
3.750	0	0	0	0	0
4.000	0	0	0	0	0
4.250	0	0	0	0	0
4.500	0	0	0	0	0
4.750	0	0	0	0	0
5.000	0	0	0	0	0
5.250	0	0	0	0	0
5.500	0	0	0	0	0
5.750	0	0	0	0	0
6.000	0	0	0	0	0
6.250	0	0	0	0	0
6.500	1	1	2	2	3
6.750	4	5	5	6	7
7.000	8	9	10	11	12
7.250	13	14	15	16	17
7.500	18	19	20	21	22
7.750	24	25	26	27	29
8.000	30	31	33	34	36
8.250	38	40	42	44	46
8.500	48	50	53	55	58
8.750	60	63	65	68	71
9.000	74	76	79	82	85
9.250	88	92	95	98	102
9.500	105	108	112	115	119
9.750	123	126	130	134	138

Subsection: Time vs. Volume | Return Event: 25 years
Label: IB-1C-2B | Storm Event: 25 year
Scenario: Post-Development 25 year

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	142	146	150	159	179
10.250	210	254	310	379	462
10.500	559	669	793	933	1,086
10.750	1,255	1,439	1,638	1,854	2,085
11.000	2,332	2,597	2,883	3,197	3,546
11.250	3,935	4,369	4,851	5,383	5,966
11.500	6,602	7,307	8,136	9,166	10,490
11.750	12,192	14,334	16,963	20,121	23,098
12.000	25,556	27,783	29,960	32,200	34,528
12.250	36,799	38,197	38,743	38,870	38,813
12.500	38,458	37,940	37,252	36,476	35,666
12.750	34,852	34,085	33,385	32,732	32,106
13.000	31,547	31,035	30,549	30,075	29,666
13.250	29,264	28,913	28,574	28,283	27,992
13.500	27,721	27,503	27,268	27,044	26,863
13.750	26,679	26,492	26,319	26,166	26,028
14.000	25,873	25,723	25,586	25,454	25,346
14.250	25,230	25,107	24,995	24,891	24,791
14.500	24,698	24,621	24,542	24,454	24,369
14.750	24,289	24,212	24,136	24,061	23,989
15.000	23,927	23,870	23,809	23,745	23,677
15.250	23,610	23,546	23,482	23,418	23,354
15.500	23,292	23,229	23,173	23,122	23,070
15.750	23,015	22,952	22,888	22,825	22,762
16.000	22,699	22,635	22,572	22,510	22,448
16.250	22,395	22,348	22,302	22,253	22,199
16.500	22,143	22,089	22,037	21,985	21,934
16.750	21,884	21,834	21,785	21,737	21,689
17.000	21,642	21,605	21,572	21,541	21,507
17.250	21,470	21,432	21,395	21,358	21,323
17.500	21,288	21,255	21,224	21,193	21,164
17.750	21,135	21,108	21,082	21,057	21,032
18.000	21,009	20,987	20,965	20,944	20,923
18.250	20,903	20,884	20,870	20,859	20,849
18.500	20,842	20,835	20,830	20,826	20,822
18.750	20,819	20,817	20,815	20,814	20,812
19.000	20,811	20,810	20,810	20,809	20,809
19.250	20,808	20,808	20,808	20,807	20,807
19.500	20,807	20,807	20,807	20,807	20,807
19.750	20,807	20,807	20,807	20,807	20,807
20.000	20,807	20,807	20,807	20,807	20,806

Subsection: Time vs. Volume
Label: IB-1C-2B
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: 25 year

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	20,806	20,806	20,806	20,806	20,806
20.500	20,806	20,806	20,806	20,806	20,806
20.750	20,806	20,806	20,806	20,806	20,806
21.000	20,806	20,806	20,806	20,806	20,806
21.250	20,806	20,806	20,806	20,806	20,806
21.500	20,806	20,806	20,806	20,806	20,806
21.750	20,806	20,806	20,806	20,806	20,806
22.000	20,806	20,806	20,806	20,806	20,806
22.250	20,806	20,806	20,806	20,806	20,806
22.500	20,806	20,806	20,806	20,806	20,806
22.750	20,806	20,806	20,806	20,806	20,806
23.000	20,806	20,806	20,806	20,806	20,806
23.250	20,806	20,806	20,806	20,806	20,806
23.500	20,806	20,806	20,806	20,806	20,806
23.750	20,806	20,806	20,806	20,806	20,806
24.000	20,806	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume | Return Event: 100 years
Label: IB-1C-2B | Storm Event: 100 year
Scenario: Post-Development 100 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	0	0	0
1.250	0	0	0	0	0
1.500	0	0	0	0	0
1.750	0	0	0	0	0
2.000	0	0	0	0	0
2.250	0	0	0	0	0
2.500	0	0	0	0	0
2.750	0	0	0	0	0
3.000	0	0	0	0	0
3.250	0	0	0	0	0
3.500	0	0	0	0	0
3.750	0	0	0	0	0
4.000	0	0	0	0	0
4.250	0	0	0	0	0
4.500	0	0	0	0	0
4.750	0	0	0	0	0
5.000	1	1	2	3	4
5.250	4	5	6	7	8
5.500	9	10	11	11	12
5.750	13	14	15	16	17
6.000	18	19	20	21	22
6.250	23	25	26	27	29
6.500	30	32	33	35	36
6.750	38	39	41	43	45
7.000	46	48	50	52	54
7.250	55	57	59	61	63
7.500	65	68	70	72	74
7.750	76	78	81	83	85
8.000	88	90	93	96	99
8.250	103	107	111	115	119
8.500	123	127	131	136	140
8.750	145	150	157	173	200
9.000	236	282	338	405	482
9.250	570	669	779	899	1,031
9.500	1,174	1,329	1,495	1,673	1,863
9.750	2,065	2,279	2,505	2,744	2,995

Subsection: Time vs. Volume | Return Event: 100 years
Label: IB-1C-2B | Storm Event: 100 year
Scenario: Post-Development 100 year

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	3,259	3,535	3,826	4,133	4,457
10.250	4,801	5,165	5,551	5,959	6,389
10.500	6,841	7,317	7,815	8,338	8,884
10.750	9,454	10,048	10,667	11,311	11,980
11.000	12,675	13,397	14,155	14,957	15,818
11.250	16,745	17,747	18,829	19,992	21,160
11.500	22,101	22,806	23,385	23,991	24,747
11.750	25,708	26,870	28,224	29,776	31,577
12.000	33,830	36,600	39,740	43,161	46,030
12.250	47,941	48,968	48,902	48,321	47,515
12.500	46,513	45,483	44,385	43,180	41,849
12.750	40,515	39,334	38,221	37,242	36,349
13.000	35,504	34,754	34,072	33,438	32,833
13.250	32,289	31,815	31,371	30,961	30,603
13.500	30,258	29,937	29,672	29,393	29,146
13.750	28,923	28,692	28,478	28,310	28,111
14.000	27,919	27,748	27,605	27,442	27,278
14.250	27,133	26,997	26,885	26,768	26,639
14.500	26,525	26,421	26,317	26,217	26,141
14.750	26,057	25,960	25,870	25,787	25,704
15.000	25,621	25,541	25,466	25,403	25,335
15.250	25,258	25,180	25,106	25,033	24,960
15.500	24,886	24,813	24,741	24,679	24,618
15.750	24,551	24,477	24,403	24,330	24,257
16.000	24,184	24,110	24,037	23,964	23,905
16.250	23,847	23,785	23,719	23,654	23,592
16.500	23,532	23,473	23,416	23,360	23,305
16.750	23,251	23,199	23,159	23,119	23,076
17.000	23,031	22,984	22,935	22,887	22,839
17.250	22,791	22,744	22,697	22,650	22,603
17.500	22,556	22,510	22,464	22,422	22,385
17.750	22,349	22,312	22,274	22,228	22,180
18.000	22,132	22,084	22,036	21,988	21,941
18.250	21,896	21,851	21,809	21,767	21,727
18.500	21,688	21,650	21,622	21,598	21,575
18.750	21,553	21,531	21,503	21,472	21,440
19.000	21,408	21,376	21,345	21,313	21,282
19.250	21,251	21,220	21,189	21,159	21,130
19.500	21,102	21,075	21,050	21,025	21,002
19.750	20,979	20,957	20,936	20,916	20,897
20.000	20,878	20,865	20,855	20,846	20,839

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume — Return Event: 100 years
Label: IB-1C-2B — Storm Event: 100 year
Scenario: Post-Development 100 year

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	20,833	20,828	20,825	20,821	20,819
20.500	20,817	20,815	20,813	20,812	20,811
20.750	20,811	20,810	20,809	20,809	20,808
21.000	20,808	20,808	20,808	20,808	20,808
21.250	20,807	20,807	20,807	20,807	20,807
21.500	20,807	20,807	20,807	20,807	20,807
21.750	20,807	20,807	20,807	20,807	20,807
22.000	20,807	20,807	20,807	20,807	20,807
22.250	20,807	20,807	20,807	20,807	20,807
22.500	20,807	20,807	20,807	20,807	20,807
22.750	20,807	20,807	20,807	20,807	20,807
23.000	20,807	20,807	20,807	20,807	20,807
23.250	20,807	20,807	20,807	20,807	20,807
23.500	20,807	20,807	20,807	20,807	20,807
23.750	20,807	20,807	20,807	20,807	20,807
24.000	20,807	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume | Return Event: 1 years
Label: Permeable Asphalt | Storm Event: 1 year
Scenario: Post-Development 1 year

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)
0.000	0	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	0	0	0
1.250	0	0	0	0	0
1.500	0	0	0	0	0
1.750	0	0	0	0	1
2.000	1	1	2	2	2
2.250	2	3	3	3	4
2.500	4	4	5	5	5
2.750	6	6	7	7	7
3.000	8	8	9	9	10
3.250	10	11	11	12	12
3.500	13	13	14	14	15
3.750	15	16	16	17	17
4.000	18	18	19	20	20
4.250	21	21	22	22	23
4.500	24	24	25	25	26
4.750	26	27	28	28	29
5.000	29	30	31	31	32
5.250	32	33	33	34	35
5.500	35	36	36	37	38
5.750	38	39	39	40	41
6.000	41	42	42	43	44
6.250	44	45	46	46	47
6.500	48	49	50	50	51
6.750	52	53	54	55	56
7.000	57	58	59	60	61
7.250	62	63	64	65	66
7.500	67	68	69	70	71
7.750	72	74	75	76	77
8.000	78	80	81	82	83
8.250	85	86	88	89	91
8.500	93	94	96	98	100
8.750	102	104	106	108	110
9.000	112	114	116	118	121
9.250	123	125	127	130	132
9.500	135	137	140	142	145
9.750	147	150	152	155	158

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume | Return Event: 1 years
Label: Permeable Asphalt | Storm Event: 1 year
Scenario: Post-Development 1 year

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	160	163	166	168	171
10.250	174	178	181	184	188
10.500	192	195	199	203	207
10.750	211	216	220	224	229
11.000	233	238	243	249	255
11.250	262	269	277	286	295
11.500	305	317	333	354	383
11.750	419	462	513	570	647
12.000	757	888	1,021	1,134	1,208
12.250	1,250	1,278	1,294	1,300	1,298
12.500	1,286	1,268	1,244	1,218	1,192
12.750	1,165	1,138	1,112	1,086	1,060
13.000	1,034	1,008	983	958	934
13.250	910	888	866	844	823
13.500	803	784	765	746	728
13.750	710	693	677	660	644
14.000	629	614	599	585	571
14.250	558	545	533	521	509
14.500	497	486	476	465	455
14.750	445	436	426	417	409
15.000	400	392	384	376	368
15.250	361	353	346	339	332
15.500	326	319	313	307	301
15.750	295	289	283	277	272
16.000	267	261	256	251	246
16.250	241	237	232	228	224
16.500	220	216	212	208	204
16.750	201	197	194	191	187
17.000	184	181	178	175	172
17.250	170	167	164	162	159
17.500	157	154	152	149	147
17.750	145	142	140	138	136
18.000	134	132	130	128	126
18.250	124	122	121	119	117
18.500	116	114	113	111	110
18.750	109	107	106	105	104
19.000	102	101	100	99	98
19.250	97	96	95	94	93
19.500	92	91	91	90	89
19.750	88	87	86	86	85
20.000	84	84	83	82	82

Subsection: Time vs. Volume | Return Event: 1 years
Label: Permeable Asphalt | Storm Event: 1 year
Scenario: Post-Development 1 year

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	81	80	80	79	78
20.500	78	77	77	76	76
20.750	75	75	74	74	73
21.000	73	72	72	71	71
21.250	70	70	69	69	69
21.500	68	68	67	67	66
21.750	66	66	65	65	65
22.000	64	64	63	63	63
22.250	62	62	62	61	61
22.500	61	60	60	60	59
22.750	59	59	58	58	58
23.000	57	57	57	56	56
23.250	56	55	55	55	54
23.500	54	54	54	53	53
23.750	53	52	52	52	51
24.000	51	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: Permeable Asphalt
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: 10 year

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)
0.000	0	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	0	0
1.000	0	0	1	1	2
1.250	2	3	4	4	5
1.500	6	6	7	8	9
1.750	10	11	12	12	13
2.000	14	15	16	17	18
2.250	19	20	21	22	23
2.500	24	25	26	27	28
2.750	30	31	32	33	34
3.000	35	36	37	38	40
3.250	41	42	43	44	45
3.500	46	48	49	50	51
3.750	52	53	54	56	57
4.000	58	59	60	61	62
4.250	64	65	66	67	68
4.500	69	70	71	73	74
4.750	75	76	77	78	79
5.000	80	81	82	84	85
5.250	86	87	88	89	90
5.500	91	92	93	94	95
5.750	96	97	98	99	100
6.000	101	103	104	105	106
6.250	107	108	109	111	112
6.500	114	115	116	118	120
6.750	121	123	124	126	128
7.000	130	131	133	135	137
7.250	139	141	143	144	146
7.500	148	150	152	154	157
7.750	159	161	163	165	167
8.000	169	171	174	176	178
8.250	181	184	186	189	192
8.500	195	199	202	205	209
8.750	212	216	219	223	227
9.000	231	235	239	243	247
9.250	251	255	260	264	268
9.500	273	277	282	286	291
9.750	295	300	305	310	314

Subsection: Time vs. Volume — Return Event: 10 years
Label: Permeable Asphalt — Storm Event: 10 year
Scenario: Post-Development 10 year

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	319	324	329	334	340
10.250	345	351	357	363	370
10.500	376	383	390	398	405
10.750	412	420	428	436	444
11.000	452	461	470	480	492
11.250	504	518	533	549	566
11.500	585	606	635	675	728
11.750	795	876	970	1,076	1,218
12.000	1,422	1,665	1,909	2,117	2,252
12.250	2,329	2,379	2,408	2,419	2,413
12.500	2,390	2,355	2,311	2,262	2,213
12.750	2,163	2,113	2,064	2,015	1,966
13.000	1,918	1,870	1,823	1,776	1,731
13.250	1,688	1,645	1,604	1,565	1,526
13.500	1,488	1,452	1,416	1,382	1,348
13.750	1,315	1,283	1,252	1,222	1,193
14.000	1,164	1,136	1,109	1,082	1,057
14.250	1,032	1,008	985	962	940
14.500	919	899	879	860	841
14.750	822	805	788	771	755
15.000	739	723	708	694	679
15.250	665	652	639	626	613
15.500	601	589	577	565	554
15.750	543	532	522	511	501
16.000	491	481	472	463	454
16.250	445	436	428	420	412
16.500	405	397	390	383	376
16.750	370	363	357	351	345
17.000	339	334	328	323	317
17.250	312	307	302	297	293
17.500	288	283	279	275	270
17.750	266	262	258	254	250
18.000	246	242	239	235	231
18.250	228	225	222	219	216
18.500	213	210	207	205	202
18.750	199	197	195	192	190
19.000	188	186	184	182	180
19.250	178	176	175	173	171
19.500	169	168	166	165	163
19.750	162	160	159	157	156
20.000	155	153	152	151	150

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume　　Return Event: 10 years
Label: Permeable Asphalt　　Storm Event: 10 year
Scenario: Post-Development 10 year

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	148	147	146	145	144
20.500	143	142	141	140	139
20.750	138	137	136	135	134
21.000	133	132	131	131	130
21.250	129	128	127	127	126
21.500	125	124	123	123	122
21.750	121	121	120	119	118
22.000	118	117	116	116	115
22.250	114	114	113	113	112
22.500	111	111	110	109	109
22.750	108	108	107	106	106
23.000	105	105	104	103	103
23.250	102	102	101	100	100
23.500	99	99	98	98	97
23.750	96	96	95	95	94
24.000	94	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume
Label: Permeable Asphalt
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: 25 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	0	0
0.750	0	0	0	1	2
1.000	2	3	4	5	6
1.250	7	8	9	10	11
1.500	13	14	15	16	18
1.750	19	20	22	23	24
2.000	26	27	28	30	31
2.250	33	34	35	37	38
2.500	40	41	42	44	45
2.750	47	48	50	51	53
3.000	54	56	57	59	60
3.250	62	63	65	66	67
3.500	69	70	72	73	75
3.750	76	78	79	81	82
4.000	83	85	86	88	89
4.250	91	92	93	95	96
4.500	98	99	100	102	103
4.750	104	106	107	108	110
5.000	111	112	114	115	116
5.250	118	119	120	122	123
5.500	124	126	127	128	129
5.750	131	132	133	134	136
6.000	137	138	139	141	142
6.250	143	145	147	148	150
6.500	152	153	155	157	159
6.750	161	163	165	167	169
7.000	171	174	176	178	180
7.250	183	185	188	190	192
7.500	195	197	200	202	205
7.750	208	210	213	215	218
8.000	221	223	226	229	232
8.250	235	239	242	246	250
8.500	253	257	261	266	270
8.750	274	279	283	288	293
9.000	298	303	308	313	318
9.250	323	329	334	339	345
9.500	350	356	362	367	373
9.750	379	385	391	396	402

Stormwater Hydrologic Calculations

Subsection: Time vs. Volume | Return Event: 25 years
Label: Permeable Asphalt | Storm Event: 25 year
Scenario: Post-Development 25 year

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	408	415	421	427	434
10.250	441	448	456	464	472
10.500	480	489	498	507	516
10.750	525	535	545	555	565
11.000	575	586	598	611	625
11.250	641	658	677	697	719
11.500	742	769	806	856	922
11.750	1,007	1,109	1,227	1,362	1,541
12.000	1,798	2,103	2,411	2,673	2,842
12.250	2,940	3,002	3,038	3,052	3,044
12.500	3,015	2,971	2,915	2,854	2,791
12.750	2,728	2,665	2,603	2,541	2,480
13.000	2,419	2,358	2,298	2,240	2,183
13.250	2,128	2,075	2,023	1,973	1,924
13.500	1,876	1,830	1,785	1,742	1,699
13.750	1,658	1,618	1,579	1,541	1,503
14.000	1,467	1,432	1,398	1,364	1,332
14.250	1,301	1,270	1,241	1,213	1,185
14.500	1,159	1,133	1,107	1,083	1,059
14.750	1,036	1,014	992	971	951
15.000	931	911	892	874	856
15.250	838	821	804	788	772
15.500	757	742	727	712	698
15.750	684	670	657	644	631
16.000	619	606	594	583	571
16.250	560	549	539	529	519
16.500	510	500	491	482	474
16.750	466	458	450	442	434
17.000	427	420	413	406	400
17.250	393	387	380	374	368
17.500	363	357	351	346	340
17.750	335	330	325	320	315
18.000	310	305	300	296	291
18.250	287	283	279	275	271
18.500	268	264	261	257	254
18.750	251	248	245	242	240
19.000	237	234	232	229	227
19.250	224	222	220	218	215
19.500	213	211	209	207	205
19.750	204	202	200	198	196
20.000	195	193	191	190	188

Subsection: Time vs. Volume | Return Event: 25 years
Label: Permeable Asphalt | Storm Event: 25 year
Scenario: Post-Development 25 year

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	187	185	184	183	181
20.500	180	178	177	176	175
20.750	173	172	171	170	169
21.000	168	167	165	164	163
21.250	162	161	160	159	158
21.500	157	156	155	154	154
21.750	153	152	151	150	149
22.000	148	147	147	146	145
22.250	144	143	142	142	141
22.500	140	139	138	138	137
22.750	136	135	135	134	133
23.000	132	132	131	130	129
23.250	129	128	127	126	126
23.500	125	124	124	123	122
23.750	121	121	120	119	119
24.000	118	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume　Return Event: 100 years
Label: Permeable Asphalt　Storm Event: 100 year
Scenario: Post-Development 100 year

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	0	0	0	0
0.250	0	0	0	0	0
0.500	0	0	0	1	2
0.750	3	4	6	7	9
1.000	10	12	14	16	18
1.250	20	23	25	27	29
1.500	32	34	36	38	41
1.750	43	45	47	50	52
2.000	54	56	58	60	63
2.250	65	67	69	71	73
2.500	76	78	80	82	84
2.750	86	89	91	93	95
3.000	97	99	101	103	106
3.250	108	110	112	114	116
3.500	118	120	122	124	126
3.750	128	130	132	134	136
4.000	138	140	142	144	146
4.250	148	150	152	153	155
4.500	157	159	161	163	164
4.750	166	168	170	172	174
5.000	175	177	179	181	182
5.250	184	186	188	189	191
5.500	193	194	196	198	199
5.750	201	203	204	206	208
6.000	209	211	213	214	216
6.250	218	220	222	224	227
6.500	229	232	234	237	239
6.750	242	245	248	250	253
7.000	256	259	263	266	269
7.250	272	275	279	282	286
7.500	289	292	296	300	303
7.750	307	310	314	318	321
8.000	325	329	333	337	341
8.250	346	350	355	360	365
8.500	371	377	382	388	394
8.750	400	407	413	420	427
9.000	434	440	448	455	462
9.250	469	477	484	492	500
9.500	508	516	524	532	540
9.750	548	556	564	573	581

Subsection: Time vs. Volume | Return Event: 100 years
Label: Permeable Asphalt | Storm Event: 100 year
Scenario: Post-Development 100 year

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	590	598	607	616	626
10.250	636	646	657	668	679
10.500	691	703	716	728	742
10.750	755	769	782	797	811
11.000	826	841	857	875	896
11.250	918	943	970	998	1,029
11.500	1,062	1,101	1,153	1,223	1,318
11.750	1,439	1,584	1,752	1,944	2,197
12.000	2,563	2,997	3,434	3,810	4,065
12.250	4,224	4,338	4,418	4,467	4,485
12.500	4,474	4,438	4,383	4,315	4,243
12.750	4,167	4,088	4,005	3,920	3,831
13.000	3,739	3,644	3,549	3,454	3,363
13.250	3,274	3,188	3,105	3,024	2,946
13.500	2,870	2,796	2,724	2,655	2,587
13.750	2,522	2,458	2,396	2,336	2,277
14.000	2,220	2,164	2,110	2,058	2,007
14.250	1,958	1,911	1,865	1,820	1,777
14.500	1,736	1,695	1,656	1,618	1,581
14.750	1,545	1,511	1,477	1,444	1,413
15.000	1,382	1,352	1,322	1,294	1,266
15.250	1,239	1,213	1,187	1,163	1,138
15.500	1,114	1,091	1,069	1,047	1,025
15.750	1,004	983	963	943	924
16.000	905	886	868	851	834
16.250	817	801	785	770	755
16.500	741	727	714	701	688
16.750	676	663	652	640	629
17.000	618	608	597	587	577
17.250	568	558	549	540	531
17.500	523	514	506	498	490
17.750	482	474	467	459	452
18.000	445	438	431	425	418
18.250	412	406	400	394	389
18.500	384	378	373	369	364
18.750	359	355	351	347	342
19.000	339	335	331	327	324
19.250	320	317	314	311	307
19.500	304	301	299	296	293
19.750	290	288	285	282	280
20.000	278	275	273	271	268

Subsection: Time vs. Volume Return Event: 100 years
Label: Permeable Asphalt Storm Event: 100 year
Scenario: Post-Development 100 year

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	266	264	262	260	258
20.500	256	254	252	250	249
20.750	247	245	243	242	240
21.000	238	237	235	234	232
21.250	231	229	228	226	225
21.500	224	222	221	220	218
21.750	217	216	214	213	212
22.000	211	210	208	207	206
22.250	205	204	202	201	200
22.500	199	198	197	196	195
22.750	193	192	191	190	189
23.000	188	187	186	185	184
23.250	183	182	181	180	179
23.500	178	177	176	175	173
23.750	172	171	170	169	168
24.000	167	(N/A)	(N/A)	(N/A)	(N/A)

Stormwater Hydrologic Calculations

Subsection: Elevation-Area Volume Curve | Return Event: 1 years
Label: DB-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

Elevation (ft)	Planimeter (ft²)	Area (ft²)	A1+A2+sqr (A1*A2) (ft²)	Volume (ft³)	Volume (Total) (ft³)
620.00	0.0	12,133	0	0	0
622.00	0.0	15,988	42,049	28,033	28,033

Stormwater Hydrologic Calculations

Subsection: Elevation-Area Volume Curve | Return Event: 1 years
Label: IB-1C-2B | Storm Event: 1 year
Scenario: Post-Development 1 year

Elevation (ft)	Planimeter (ft^2)	Area (ft^2)	A1+A2+sqr (A1*A2) (ft^2)	Volume (ft^3)	Volume (Total) (ft^3)
618.00	0.0	7,148	0	0	0
620.00	0.0	13,230	30,103	20,068	20,068
622.00	0.0	16,253	44,147	29,431	49,500

Stormwater Hydrologic Calculations

Subsection: Elevation vs. Volume Curve | Return Event: 1 years
Label: Permeable Asphalt | Storm Event: 1 year
Scenario: Post-Development 1 year

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ft³)
634.32	0
635.32	7,198
636.00	19,434

Subsection: Multiple Outfall Rating Curves | Return Event: 1 years
Label: DB-1C-2B (IN) | Storm Event: 1 year
Scenario: Post-Development 1 year

Total Pond Outflow Curve for Multiple Outfalls

Headwater Elevation (ft)	Outfall: DB -OCS-R (ft^3/s)	Outfall: DB -OCS-L (ft^3/s)	Total Flow (ft^3/s)
620.00	0.00	0.00	0.00
620.05	0.10	0.10	0.20
620.10	0.28	0.28	0.57
620.15	0.52	0.52	1.05
620.20	0.81	0.80	1.61
620.25	1.13	1.13	2.25
620.30	1.48	1.48	2.96
620.35	1.86	1.86	3.73
620.40	2.28	2.28	4.55
620.45	2.72	2.72	5.43
620.50	3.18	3.18	6.37
620.55	3.67	3.67	7.34
620.60	4.18	4.18	8.36
620.65	4.72	4.72	9.44
620.70	5.27	5.27	10.54
620.75	5.84	5.85	11.69
620.80	6.44	6.44	12.88
620.85	7.05	7.05	14.10
620.90	7.68	7.68	15.36
620.95	8.33	8.33	16.66
621.00	9.00	9.00	18.00
621.05	9.69	9.69	19.38
621.10	10.38	10.38	20.76
621.15	11.10	11.11	22.21
621.20	11.83	11.82	23.65
621.25	12.58	12.58	25.15
621.30	13.34	13.33	26.67
621.35	13.97	14.11	28.08
621.40	14.34	14.91	29.25
621.45	14.65	15.72	30.37
621.50	14.93	16.53	31.45
621.55	15.32	17.91	33.23
621.60	15.74	19.74	35.48
621.65	16.14	21.86	38.00
621.70	16.50	24.25	40.74
621.75	16.80	26.83	43.64
621.80	17.06	29.58	46.63
621.85	17.26	31.57	48.84
621.90	17.42	33.20	50.62
621.95	17.55	34.58	52.13
622.00	17.65	35.77	53.42

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Detention Basin OCS L
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.00	0.00	(N/A)	0.00
620.05	0.10	(N/A)	0.00
620.10	0.28	(N/A)	0.00
620.15	0.52	(N/A)	0.00
620.20	0.80	(N/A)	0.00
620.25	1.13	(N/A)	0.00
620.30	1.48	(N/A)	0.00
620.35	1.86	(N/A)	0.00
620.40	2.28	(N/A)	0.00
620.45	2.72	(N/A)	0.00
620.50	3.18	(N/A)	0.00
620.55	3.67	(N/A)	0.00
620.60	4.18	(N/A)	0.00
620.65	4.72	(N/A)	0.00
620.70	5.27	(N/A)	0.00
620.75	5.85	(N/A)	0.00
620.80	6.44	(N/A)	0.00
620.85	7.05	(N/A)	0.00
620.90	7.68	(N/A)	0.00
620.95	8.33	(N/A)	0.00
621.00	9.00	(N/A)	0.00
621.05	9.69	(N/A)	0.00
621.10	10.38	(N/A)	0.00
621.15	11.11	(N/A)	0.00
621.20	11.82	(N/A)	0.00
621.25	12.58	(N/A)	0.00
621.30	13.33	(N/A)	0.00
621.35	14.11	(N/A)	0.00
621.40	14.91	(N/A)	0.00
621.45	15.72	(N/A)	0.00
621.50	16.53	(N/A)	0.00
621.55	17.91	(N/A)	0.00
621.60	19.74	(N/A)	0.00
621.65	21.86	(N/A)	0.00
621.70	24.25	(N/A)	0.00
621.75	26.83	(N/A)	0.00
621.80	29.58	(N/A)	0.00
621.85	31.57	(N/A)	0.00
621.90	33.20	(N/A)	0.00
621.95	34.58	(N/A)	0.00
622.00	35.77	(N/A)	0.00

Contributing Structures

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Detention Basin OCS L
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
(no Q: Riser - 1,Weir - 1,Culvert - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
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Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Detention Basin OCS L
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
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Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Detention Basin OCS R | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.00	0.00	(N/A)	0.00
620.05	0.10	(N/A)	0.00
620.10	0.28	(N/A)	0.00
620.15	0.52	(N/A)	0.00
620.20	0.81	(N/A)	0.00
620.25	1.13	(N/A)	0.00
620.30	1.48	(N/A)	0.00
620.35	1.86	(N/A)	0.00
620.40	2.28	(N/A)	0.00
620.45	2.72	(N/A)	0.00
620.50	3.18	(N/A)	0.00
620.55	3.67	(N/A)	0.00
620.60	4.18	(N/A)	0.00
620.65	4.72	(N/A)	0.00
620.70	5.27	(N/A)	0.00
620.75	5.84	(N/A)	0.00
620.80	6.44	(N/A)	0.00
620.85	7.05	(N/A)	0.00
620.90	7.68	(N/A)	0.00
620.95	8.33	(N/A)	0.00
621.00	9.00	(N/A)	0.00
621.05	9.69	(N/A)	0.00
621.10	10.38	(N/A)	0.00
621.15	11.10	(N/A)	0.00
621.20	11.83	(N/A)	0.00
621.25	12.58	(N/A)	0.00
621.30	13.34	(N/A)	0.00
621.35	13.97	(N/A)	0.00
621.40	14.34	(N/A)	0.00
621.45	14.65	(N/A)	0.00
621.50	14.93	(N/A)	0.00
621.55	15.32	(N/A)	0.00
621.60	15.74	(N/A)	0.00
621.65	16.14	(N/A)	0.00
621.70	16.50	(N/A)	0.00
621.75	16.80	(N/A)	0.00
621.80	17.06	(N/A)	0.00
621.85	17.26	(N/A)	0.00
621.90	17.42	(N/A)	0.00
621.95	17.55	(N/A)	0.00
622.00	17.65	(N/A)	0.00

Contributing Structures

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Detention Basin OCS R | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
(no Q: Riser - 1,Weir - 1,Culvert - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
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Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Detention Basin OCS R
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Weir - 1,Culvert - 1 (no Q: Riser - 1)
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Weir - 1,Culvert - 1
Riser - 1,Culvert - 1 (no Q: Weir - 1)

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	0.00	620.00	0.00
618.05	0.00	620.00	0.00
618.10	0.00	620.00	0.00
618.15	0.00	620.00	0.00
618.20	0.00	620.00	0.00
618.25	0.00	620.00	0.00
618.30	0.00	620.00	0.00
618.35	0.00	620.00	0.00
618.40	0.00	620.00	0.00
618.45	0.00	620.00	0.00
618.50	0.00	620.00	0.00
618.55	0.00	620.00	0.00
618.60	0.00	620.00	0.00
618.65	0.00	620.00	0.00
618.70	0.00	620.00	0.00
618.75	0.00	620.00	0.00
618.80	0.00	620.00	0.00
618.85	0.00	620.00	0.00
618.90	0.00	620.00	0.00
618.95	0.00	620.00	0.00
619.00	0.00	620.00	0.00
619.05	0.00	620.00	0.00
619.10	0.00	620.00	0.00
619.15	0.00	620.00	0.00
619.20	0.00	620.00	0.00
619.25	0.00	620.00	0.00
619.30	0.00	620.00	0.00
619.35	0.00	620.00	0.00
619.40	0.00	620.00	0.00
619.45	0.00	620.00	0.00
619.50	0.00	620.00	0.00
619.55	0.00	620.00	0.00
619.60	0.00	620.00	0.00
619.65	0.00	620.00	0.00
619.70	0.00	620.00	0.00
619.75	0.00	620.00	0.00
619.80	0.00	620.00	0.00
619.85	0.00	620.00	0.00
619.90	0.00	620.00	0.00
619.95	0.00	620.00	0.00
620.00	0.00	620.00	0.00
620.05	0.00	620.00	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	0.91	620.00	0.00
620.15	2.56	620.00	0.00
620.20	4.71	620.00	0.00
620.25	7.24	620.00	0.00
620.30	10.13	620.00	0.00
620.35	13.31	620.00	0.00
620.40	16.77	620.00	0.00
620.45	20.49	620.00	0.00
620.50	24.45	620.00	0.00
620.55	28.64	620.00	0.00
620.60	33.04	620.00	0.00
620.65	37.65	620.00	0.00
620.70	42.45	620.00	0.00
620.75	47.44	620.00	0.00
620.80	52.61	620.00	0.00
620.85	57.96	620.00	0.00
620.90	63.48	620.00	0.00
620.95	69.16	620.00	0.00
621.00	75.00	620.00	0.00
621.05	81.00	620.00	0.00
621.10	87.15	620.00	0.00
621.15	93.45	620.00	0.00
621.20	99.89	620.00	0.00
621.25	106.48	620.00	0.00
621.30	113.20	620.00	0.00
621.35	120.06	620.00	0.00
621.40	127.05	620.00	0.00
621.45	134.18	620.00	0.00
621.50	141.43	620.00	0.00
621.55	148.81	620.00	0.00
621.60	156.31	620.00	0.00
621.65	163.93	620.00	0.00
621.70	171.68	620.00	0.00
621.75	179.54	620.00	0.00
621.80	187.52	620.00	0.00
621.85	195.61	620.00	0.00
621.90	203.82	620.00	0.00
621.95	212.14	620.00	0.00
622.00	220.57	620.00	0.00

Contributing Structures
None Contributing
None Contributing

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
None Contributing
None Contributing
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	0.00	620.05	0.00
618.05	0.00	620.05	0.00
618.10	0.00	620.05	0.00
618.15	0.00	620.05	0.00
618.20	0.00	620.05	0.00
618.25	0.00	620.05	0.00
618.30	0.00	620.05	0.00
618.35	0.00	620.05	0.00
618.40	0.00	620.05	0.00
618.45	0.00	620.05	0.00
618.50	0.00	620.05	0.00
618.55	0.00	620.05	0.00
618.60	0.00	620.05	0.00
618.65	0.00	620.05	0.00
618.70	0.00	620.05	0.00
618.75	0.00	620.05	0.00
618.80	0.00	620.05	0.00
618.85	0.00	620.05	0.00
618.90	0.00	620.05	0.00
618.95	0.00	620.05	0.00
619.00	0.00	620.05	0.00
619.05	0.00	620.05	0.00
619.10	0.00	620.05	0.00
619.15	0.00	620.05	0.00
619.20	0.00	620.05	0.00
619.25	0.00	620.05	0.00
619.30	0.00	620.05	0.00
619.35	0.00	620.05	0.00
619.40	0.00	620.05	0.00
619.45	0.00	620.05	0.00
619.50	0.00	620.05	0.00
619.55	0.00	620.05	0.00
619.60	0.00	620.05	0.00
619.65	0.00	620.05	0.00
619.70	0.00	620.05	0.00
619.75	0.00	620.05	0.00
619.80	0.00	620.05	0.00
619.85	0.00	620.05	0.00
619.90	0.00	620.05	0.00
619.95	0.00	620.05	0.00
620.00	0.00	620.05	0.00
620.05	0.00	620.05	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	0.91	620.05	0.00
620.15	2.56	620.05	0.00
620.20	4.71	620.05	0.00
620.25	7.24	620.05	0.00
620.30	10.13	620.05	0.00
620.35	13.31	620.05	0.00
620.40	16.77	620.05	0.00
620.45	20.49	620.05	0.00
620.50	24.45	620.05	0.00
620.55	28.64	620.05	0.00
620.60	33.04	620.05	0.00
620.65	37.65	620.05	0.00
620.70	42.45	620.05	0.00
620.75	47.44	620.05	0.00
620.80	52.61	620.05	0.00
620.85	57.96	620.05	0.00
620.90	63.48	620.05	0.00
620.95	69.16	620.05	0.00
621.00	75.00	620.05	0.00
621.05	81.00	620.05	0.00
621.10	87.15	620.05	0.00
621.15	93.45	620.05	0.00
621.20	99.89	620.05	0.00
621.25	106.48	620.05	0.00
621.30	113.20	620.05	0.00
621.35	120.06	620.05	0.00
621.40	127.05	620.05	0.00
621.45	134.18	620.05	0.00
621.50	141.43	620.05	0.00
621.55	148.81	620.05	0.00
621.60	156.31	620.05	0.00
621.65	163.93	620.05	0.00
621.70	171.68	620.05	0.00
621.75	179.54	620.05	0.00
621.80	187.52	620.05	0.00
621.85	195.61	620.05	0.00
621.90	203.82	620.05	0.00
621.95	212.14	620.05	0.00
622.00	220.57	620.05	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-0.91	620.10	0.00
618.05	-0.91	620.10	0.00
618.10	-0.91	620.10	0.00
618.15	-0.91	620.10	0.00
618.20	-0.91	620.10	0.00
618.25	-0.91	620.10	0.00
618.30	-0.91	620.10	0.00
618.35	-0.91	620.10	0.00
618.40	-0.91	620.10	0.00
618.45	-0.91	620.10	0.00
618.50	-0.91	620.10	0.00
618.55	-0.91	620.10	0.00
618.60	-0.91	620.10	0.00
618.65	-0.91	620.10	0.00
618.70	-0.91	620.10	0.00
618.75	-0.91	620.10	0.00
618.80	-0.91	620.10	0.00
618.85	-0.91	620.10	0.00
618.90	-0.91	620.10	0.00
618.95	-0.91	620.10	0.00
619.00	-0.91	620.10	0.00
619.05	-0.91	620.10	0.00
619.10	-0.91	620.10	0.00
619.15	-0.91	620.10	0.00
619.20	-0.91	620.10	0.00
619.25	-0.91	620.10	0.00
619.30	-0.91	620.10	0.00
619.35	-0.91	620.10	0.00
619.40	-0.91	620.10	0.00
619.45	-0.91	620.10	0.00
619.50	-0.91	620.10	0.00
619.55	-0.91	620.10	0.00
619.60	-0.91	620.10	0.00
619.65	-0.91	620.10	0.00
619.70	-0.91	620.10	0.00
619.75	-0.91	620.10	0.00
619.80	-0.91	620.10	0.00
619.85	-0.91	620.10	0.00
619.90	-0.91	620.10	0.00
619.95	-0.91	620.10	0.00
620.00	-0.91	620.10	0.00
620.05	-0.91	620.10	0.00

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	0.00	620.10	0.00
620.15	2.17	620.10	0.00
620.20	4.33	620.10	0.00
620.25	6.88	620.10	0.00
620.30	9.77	620.10	0.00
620.35	12.95	620.10	0.00
620.40	16.42	620.10	0.00
620.45	20.14	620.10	0.00
620.50	24.10	620.10	0.00
620.55	28.29	620.10	0.00
620.60	32.69	620.10	0.00
620.65	37.29	620.10	0.00
620.70	42.10	620.10	0.00
620.75	47.09	620.10	0.00
620.80	52.26	620.10	0.00
620.85	57.61	620.10	0.00
620.90	63.13	620.10	0.00
620.95	68.81	620.10	0.00
621.00	74.65	620.10	0.00
621.05	80.65	620.10	0.00
621.10	86.80	620.10	0.00
621.15	93.10	620.10	0.00
621.20	99.54	620.10	0.00
621.25	106.13	620.10	0.00
621.30	112.85	620.10	0.00
621.35	119.71	620.10	0.00
621.40	126.70	620.10	0.00
621.45	133.83	620.10	0.00
621.50	141.08	620.10	0.00
621.55	148.46	620.10	0.00
621.60	155.96	620.10	0.00
621.65	163.58	620.10	0.00
621.70	171.33	620.10	0.00
621.75	179.19	620.10	0.00
621.80	187.17	620.10	0.00
621.85	195.26	620.10	0.00
621.90	203.47	620.10	0.00
621.95	211.79	620.10	0.00
622.00	220.22	620.10	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-2.56	620.15	0.00
618.05	-2.56	620.15	0.00
618.10	-2.56	620.15	0.00
618.15	-2.56	620.15	0.00
618.20	-2.56	620.15	0.00
618.25	-2.56	620.15	0.00
618.30	-2.56	620.15	0.00
618.35	-2.56	620.15	0.00
618.40	-2.56	620.15	0.00
618.45	-2.56	620.15	0.00
618.50	-2.56	620.15	0.00
618.55	-2.56	620.15	0.00
618.60	-2.56	620.15	0.00
618.65	-2.56	620.15	0.00
618.70	-2.56	620.15	0.00
618.75	-2.56	620.15	0.00
618.80	-2.56	620.15	0.00
618.85	-2.56	620.15	0.00
618.90	-2.56	620.15	0.00
618.95	-2.56	620.15	0.00
619.00	-2.56	620.15	0.00
619.05	-2.56	620.15	0.00
619.10	-2.56	620.15	0.00
619.15	-2.56	620.15	0.00
619.20	-2.56	620.15	0.00
619.25	-2.56	620.15	0.00
619.30	-2.56	620.15	0.00
619.35	-2.56	620.15	0.00
619.40	-2.56	620.15	0.00
619.45	-2.56	620.15	0.00
619.50	-2.56	620.15	0.00
619.55	-2.56	620.15	0.00
619.60	-2.56	620.15	0.00
619.65	-2.56	620.15	0.00
619.70	-2.56	620.15	0.00
619.75	-2.56	620.15	0.00
619.80	-2.56	620.15	0.00
619.85	-2.56	620.15	0.00
619.90	-2.56	620.15	0.00
619.95	-2.56	620.15	0.00
620.00	-2.56	620.15	0.00
620.05	-2.56	620.15	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-2.17	620.15	0.00
620.15	0.00	620.15	0.00
620.20	3.48	620.15	0.00
620.25	6.12	620.15	0.00
620.30	9.05	620.15	0.00
620.35	12.26	620.15	0.00
620.40	15.74	620.15	0.00
620.45	19.46	620.15	0.00
620.50	23.43	620.15	0.00
620.55	27.62	620.15	0.00
620.60	32.03	620.15	0.00
620.65	36.64	620.15	0.00
620.70	41.44	620.15	0.00
620.75	46.44	620.15	0.00
620.80	51.61	620.15	0.00
620.85	56.96	620.15	0.00
620.90	62.48	620.15	0.00
620.95	68.16	620.15	0.00
621.00	74.00	620.15	0.00
621.05	80.00	620.15	0.00
621.10	86.16	620.15	0.00
621.15	92.45	620.15	0.00
621.20	98.90	620.15	0.00
621.25	105.48	620.15	0.00
621.30	112.21	620.15	0.00
621.35	119.07	620.15	0.00
621.40	126.06	620.15	0.00
621.45	133.18	620.15	0.00
621.50	140.44	620.15	0.00
621.55	147.82	620.15	0.00
621.60	155.32	620.15	0.00
621.65	162.94	620.15	0.00
621.70	170.69	620.15	0.00
621.75	178.55	620.15	0.00
621.80	186.53	620.15	0.00
621.85	194.62	620.15	0.00
621.90	202.83	620.15	0.00
621.95	211.15	620.15	0.00
622.00	219.58	620.15	0.00

Contributing Structures
Weir - 1
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-4.71	620.20	0.00
618.05	-4.71	620.20	0.00
618.10	-4.71	620.20	0.00
618.15	-4.71	620.20	0.00
618.20	-4.71	620.20	0.00
618.25	-4.71	620.20	0.00
618.30	-4.71	620.20	0.00
618.35	-4.71	620.20	0.00
618.40	-4.71	620.20	0.00
618.45	-4.71	620.20	0.00
618.50	-4.71	620.20	0.00
618.55	-4.71	620.20	0.00
618.60	-4.71	620.20	0.00
618.65	-4.71	620.20	0.00
618.70	-4.71	620.20	0.00
618.75	-4.71	620.20	0.00
618.80	-4.71	620.20	0.00
618.85	-4.71	620.20	0.00
618.90	-4.71	620.20	0.00
618.95	-4.71	620.20	0.00
619.00	-4.71	620.20	0.00
619.05	-4.71	620.20	0.00
619.10	-4.71	620.20	0.00
619.15	-4.71	620.20	0.00
619.20	-4.71	620.20	0.00
619.25	-4.71	620.20	0.00
619.30	-4.71	620.20	0.00
619.35	-4.71	620.20	0.00
619.40	-4.71	620.20	0.00
619.45	-4.71	620.20	0.00
619.50	-4.71	620.20	0.00
619.55	-4.71	620.20	0.00
619.60	-4.71	620.20	0.00
619.65	-4.71	620.20	0.00
619.70	-4.71	620.20	0.00
619.75	-4.71	620.20	0.00
619.80	-4.71	620.20	0.00
619.85	-4.71	620.20	0.00
619.90	-4.71	620.20	0.00
619.95	-4.71	620.20	0.00
620.00	-4.71	620.20	0.00
620.05	-4.71	620.20	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-4.33	620.20	0.00
620.15	-3.48	620.20	0.00
620.20	0.00	620.20	0.00
620.25	4.84	620.20	0.00
620.30	7.96	620.20	0.00
620.35	11.25	620.20	0.00
620.40	14.78	620.20	0.00
620.45	18.53	620.20	0.00
620.50	22.52	620.20	0.00
620.55	26.73	620.20	0.00
620.60	31.14	620.20	0.00
620.65	35.76	620.20	0.00
620.70	40.57	620.20	0.00
620.75	45.57	620.20	0.00
620.80	50.75	620.20	0.00
620.85	56.10	620.20	0.00
620.90	61.62	620.20	0.00
620.95	67.31	620.20	0.00
621.00	73.15	620.20	0.00
621.05	79.15	620.20	0.00
621.10	85.31	620.20	0.00
621.15	91.61	620.20	0.00
621.20	98.05	620.20	0.00
621.25	104.64	620.20	0.00
621.30	111.37	620.20	0.00
621.35	118.23	620.20	0.00
621.40	125.22	620.20	0.00
621.45	132.35	620.20	0.00
621.50	139.60	620.20	0.00
621.55	146.98	620.20	0.00
621.60	154.48	620.20	0.00
621.65	162.10	620.20	0.00
621.70	169.85	620.20	0.00
621.75	177.71	620.20	0.00
621.80	185.69	620.20	0.00
621.85	193.79	620.20	0.00
621.90	201.99	620.20	0.00
621.95	210.31	620.20	0.00
622.00	218.74	620.20	0.00

Contributing Structures
Weir - 1
Weir - 1

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-7.24	620.25	0.00
618.05	-7.24	620.25	0.00
618.10	-7.24	620.25	0.00
618.15	-7.24	620.25	0.00
618.20	-7.24	620.25	0.00
618.25	-7.24	620.25	0.00
618.30	-7.24	620.25	0.00
618.35	-7.24	620.25	0.00
618.40	-7.24	620.25	0.00
618.45	-7.24	620.25	0.00
618.50	-7.24	620.25	0.00
618.55	-7.24	620.25	0.00
618.60	-7.24	620.25	0.00
618.65	-7.24	620.25	0.00
618.70	-7.24	620.25	0.00
618.75	-7.24	620.25	0.00
618.80	-7.24	620.25	0.00
618.85	-7.24	620.25	0.00
618.90	-7.24	620.25	0.00
618.95	-7.24	620.25	0.00
619.00	-7.24	620.25	0.00
619.05	-7.24	620.25	0.00
619.10	-7.24	620.25	0.00
619.15	-7.24	620.25	0.00
619.20	-7.24	620.25	0.00
619.25	-7.24	620.25	0.00
619.30	-7.24	620.25	0.00
619.35	-7.24	620.25	0.00
619.40	-7.24	620.25	0.00
619.45	-7.24	620.25	0.00
619.50	-7.24	620.25	0.00
619.55	-7.24	620.25	0.00
619.60	-7.24	620.25	0.00
619.65	-7.24	620.25	0.00
619.70	-7.24	620.25	0.00
619.75	-7.24	620.25	0.00
619.80	-7.24	620.25	0.00
619.85	-7.24	620.25	0.00
619.90	-7.24	620.25	0.00
619.95	-7.24	620.25	0.00
620.00	-7.24	620.25	0.00
620.05	-7.24	620.25	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-6.88	620.25	0.00
620.15	-6.12	620.25	0.00
620.20	-4.84	620.25	0.00
620.25	0.00	620.25	0.00
620.30	6.24	620.25	0.00
620.35	9.83	620.25	0.00
620.40	13.49	620.25	0.00
620.45	17.32	620.25	0.00
620.50	21.36	620.25	0.00
620.55	25.60	620.25	0.00
620.60	30.04	620.25	0.00
620.65	34.67	620.25	0.00
620.70	39.50	620.25	0.00
620.75	44.51	620.25	0.00
620.80	49.69	620.25	0.00
620.85	55.05	620.25	0.00
620.90	60.58	620.25	0.00
620.95	66.27	620.25	0.00
621.00	72.12	620.25	0.00
621.05	78.13	620.25	0.00
621.10	84.29	620.25	0.00
621.15	90.59	620.25	0.00
621.20	97.04	620.25	0.00
621.25	103.63	620.25	0.00
621.30	110.35	620.25	0.00
621.35	117.22	620.25	0.00
621.40	124.21	620.25	0.00
621.45	131.34	620.25	0.00
621.50	138.59	620.25	0.00
621.55	145.97	620.25	0.00
621.60	153.48	620.25	0.00
621.65	161.10	620.25	0.00
621.70	168.85	620.25	0.00
621.75	176.71	620.25	0.00
621.80	184.69	620.25	0.00
621.85	192.79	620.25	0.00
621.90	201.00	620.25	0.00
621.95	209.32	620.25	0.00
622.00	217.75	620.25	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-10.13	620.30	0.00
618.05	-10.13	620.30	0.00
618.10	-10.13	620.30	0.00
618.15	-10.13	620.30	0.00
618.20	-10.13	620.30	0.00
618.25	-10.13	620.30	0.00
618.30	-10.13	620.30	0.00
618.35	-10.13	620.30	0.00
618.40	-10.13	620.30	0.00
618.45	-10.13	620.30	0.00
618.50	-10.13	620.30	0.00
618.55	-10.13	620.30	0.00
618.60	-10.13	620.30	0.00
618.65	-10.13	620.30	0.00
618.70	-10.13	620.30	0.00
618.75	-10.13	620.30	0.00
618.80	-10.13	620.30	0.00
618.85	-10.13	620.30	0.00
618.90	-10.13	620.30	0.00
618.95	-10.13	620.30	0.00
619.00	-10.13	620.30	0.00
619.05	-10.13	620.30	0.00
619.10	-10.13	620.30	0.00
619.15	-10.13	620.30	0.00
619.20	-10.13	620.30	0.00
619.25	-10.13	620.30	0.00
619.30	-10.13	620.30	0.00
619.35	-10.13	620.30	0.00
619.40	-10.13	620.30	0.00
619.45	-10.13	620.30	0.00
619.50	-10.13	620.30	0.00
619.55	-10.13	620.30	0.00
619.60	-10.13	620.30	0.00
619.65	-10.13	620.30	0.00
619.70	-10.13	620.30	0.00
619.75	-10.13	620.30	0.00
619.80	-10.13	620.30	0.00
619.85	-10.13	620.30	0.00
619.90	-10.13	620.30	0.00
619.95	-10.13	620.30	0.00
620.00	-10.13	620.30	0.00
620.05	-10.13	620.30	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-9.77	620.30	0.00
620.15	-9.05	620.30	0.00
620.20	-7.96	620.30	0.00
620.25	-6.24	620.30	0.00
620.30	0.00	620.30	0.00
620.35	7.67	620.30	0.00
620.40	11.74	620.30	0.00
620.45	15.76	620.30	0.00
620.50	19.90	620.30	0.00
620.55	24.21	620.30	0.00
620.60	28.70	620.30	0.00
620.65	33.37	620.30	0.00
620.70	38.22	620.30	0.00
620.75	43.25	620.30	0.00
620.80	48.45	620.30	0.00
620.85	53.83	620.30	0.00
620.90	59.37	620.30	0.00
620.95	65.07	620.30	0.00
621.00	70.93	620.30	0.00
621.05	76.94	620.30	0.00
621.10	83.10	620.30	0.00
621.15	89.41	620.30	0.00
621.20	95.87	620.30	0.00
621.25	102.46	620.30	0.00
621.30	109.19	620.30	0.00
621.35	116.06	620.30	0.00
621.40	123.06	620.30	0.00
621.45	130.18	620.30	0.00
621.50	137.44	620.30	0.00
621.55	144.82	620.30	0.00
621.60	152.33	620.30	0.00
621.65	159.96	620.30	0.00
621.70	167.71	620.30	0.00
621.75	175.57	620.30	0.00
621.80	183.55	620.30	0.00
621.85	191.65	620.30	0.00
621.90	199.86	620.30	0.00
621.95	208.18	620.30	0.00
622.00	216.61	620.30	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-13.31	620.35	0.00
618.05	-13.31	620.35	0.00
618.10	-13.31	620.35	0.00
618.15	-13.31	620.35	0.00
618.20	-13.31	620.35	0.00
618.25	-13.31	620.35	0.00
618.30	-13.31	620.35	0.00
618.35	-13.31	620.35	0.00
618.40	-13.31	620.35	0.00
618.45	-13.31	620.35	0.00
618.50	-13.31	620.35	0.00
618.55	-13.31	620.35	0.00
618.60	-13.31	620.35	0.00
618.65	-13.31	620.35	0.00
618.70	-13.31	620.35	0.00
618.75	-13.31	620.35	0.00
618.80	-13.31	620.35	0.00
618.85	-13.31	620.35	0.00
618.90	-13.31	620.35	0.00
618.95	-13.31	620.35	0.00
619.00	-13.31	620.35	0.00
619.05	-13.31	620.35	0.00
619.10	-13.31	620.35	0.00
619.15	-13.31	620.35	0.00
619.20	-13.31	620.35	0.00
619.25	-13.31	620.35	0.00
619.30	-13.31	620.35	0.00
619.35	-13.31	620.35	0.00
619.40	-13.31	620.35	0.00
619.45	-13.31	620.35	0.00
619.50	-13.31	620.35	0.00
619.55	-13.31	620.35	0.00
619.60	-13.31	620.35	0.00
619.65	-13.31	620.35	0.00
619.70	-13.31	620.35	0.00
619.75	-13.31	620.35	0.00
619.80	-13.31	620.35	0.00
619.85	-13.31	620.35	0.00
619.90	-13.31	620.35	0.00
619.95	-13.31	620.35	0.00
620.00	-13.31	620.35	0.00
620.05	-13.31	620.35	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-12.95	620.35	0.00
620.15	-12.26	620.35	0.00
620.20	-11.25	620.35	0.00
620.25	-9.83	620.35	0.00
620.30	-7.67	620.35	0.00
620.35	0.00	620.35	0.00
620.40	9.14	620.35	0.00
620.45	13.69	620.35	0.00
620.50	18.07	620.35	0.00
620.55	22.51	620.35	0.00
620.60	27.09	620.35	0.00
620.65	31.82	620.35	0.00
620.70	36.72	620.35	0.00
620.75	41.79	620.35	0.00
620.80	47.02	620.35	0.00
620.85	52.42	620.35	0.00
620.90	57.98	620.35	0.00
620.95	63.70	620.35	0.00
621.00	69.57	620.35	0.00
621.05	75.59	620.35	0.00
621.10	81.76	620.35	0.00
621.15	88.08	620.35	0.00
621.20	94.54	620.35	0.00
621.25	101.14	620.35	0.00
621.30	107.88	620.35	0.00
621.35	114.75	620.35	0.00
621.40	121.75	620.35	0.00
621.45	128.89	620.35	0.00
621.50	136.15	620.35	0.00
621.55	143.53	620.35	0.00
621.60	151.04	620.35	0.00
621.65	158.67	620.35	0.00
621.70	166.42	620.35	0.00
621.75	174.29	620.35	0.00
621.80	182.28	620.35	0.00
621.85	190.38	620.35	0.00
621.90	198.59	620.35	0.00
621.95	206.91	620.35	0.00
622.00	215.34	620.35	0.00

Contributing Structures
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Composite Outflow Summary

Contributing Structures
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Composite Outflow Summary

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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-16.77	620.40	0.00
618.05	-16.77	620.40	0.00
618.10	-16.77	620.40	0.00
618.15	-16.77	620.40	0.00
618.20	-16.77	620.40	0.00
618.25	-16.77	620.40	0.00
618.30	-16.77	620.40	0.00
618.35	-16.77	620.40	0.00
618.40	-16.77	620.40	0.00
618.45	-16.77	620.40	0.00
618.50	-16.77	620.40	0.00
618.55	-16.77	620.40	0.00
618.60	-16.77	620.40	0.00
618.65	-16.77	620.40	0.00
618.70	-16.77	620.40	0.00
618.75	-16.77	620.40	0.00
618.80	-16.77	620.40	0.00
618.85	-16.77	620.40	0.00
618.90	-16.77	620.40	0.00
618.95	-16.77	620.40	0.00
619.00	-16.77	620.40	0.00
619.05	-16.77	620.40	0.00
619.10	-16.77	620.40	0.00
619.15	-16.77	620.40	0.00
619.20	-16.77	620.40	0.00
619.25	-16.77	620.40	0.00
619.30	-16.77	620.40	0.00
619.35	-16.77	620.40	0.00
619.40	-16.77	620.40	0.00
619.45	-16.77	620.40	0.00
619.50	-16.77	620.40	0.00
619.55	-16.77	620.40	0.00
619.60	-16.77	620.40	0.00
619.65	-16.77	620.40	0.00
619.70	-16.77	620.40	0.00
619.75	-16.77	620.40	0.00
619.80	-16.77	620.40	0.00
619.85	-16.77	620.40	0.00
619.90	-16.77	620.40	0.00
619.95	-16.77	620.40	0.00
620.00	-16.77	620.40	0.00
620.05	-16.77	620.40	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-16.42	620.40	0.00
620.15	-15.74	620.40	0.00
620.20	-14.78	620.40	0.00
620.25	-13.49	620.40	0.00
620.30	-11.74	620.40	0.00
620.35	-9.14	620.40	0.00
620.40	0.00	620.40	0.00
620.45	10.62	620.40	0.00
620.50	15.66	620.40	0.00
620.55	20.40	620.40	0.00
620.60	25.15	620.40	0.00
620.65	30.00	620.40	0.00
620.70	34.98	620.40	0.00
620.75	40.10	620.40	0.00
620.80	45.38	620.40	0.00
620.85	50.82	620.40	0.00
620.90	56.40	620.40	0.00
620.95	62.15	620.40	0.00
621.00	68.04	620.40	0.00
621.05	74.08	620.40	0.00
621.10	80.27	620.40	0.00
621.15	86.60	620.40	0.00
621.20	93.07	620.40	0.00
621.25	99.68	620.40	0.00
621.30	106.42	620.40	0.00
621.35	113.30	620.40	0.00
621.40	120.31	620.40	0.00
621.45	127.45	620.40	0.00
621.50	134.72	620.40	0.00
621.55	142.11	620.40	0.00
621.60	149.62	620.40	0.00
621.65	157.26	620.40	0.00
621.70	165.01	620.40	0.00
621.75	172.89	620.40	0.00
621.80	180.87	620.40	0.00
621.85	188.98	620.40	0.00
621.90	197.19	620.40	0.00
621.95	205.52	620.40	0.00
622.00	213.95	620.40	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve Return Event: 1 years
Label: Infiltration Basin Overflow Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-20.49	620.45	0.00
618.05	-20.49	620.45	0.00
618.10	-20.49	620.45	0.00
618.15	-20.49	620.45	0.00
618.20	-20.49	620.45	0.00
618.25	-20.49	620.45	0.00
618.30	-20.49	620.45	0.00
618.35	-20.49	620.45	0.00
618.40	-20.49	620.45	0.00
618.45	-20.49	620.45	0.00
618.50	-20.49	620.45	0.00
618.55	-20.49	620.45	0.00
618.60	-20.49	620.45	0.00
618.65	-20.49	620.45	0.00
618.70	-20.49	620.45	0.00
618.75	-20.49	620.45	0.00
618.80	-20.49	620.45	0.00
618.85	-20.49	620.45	0.00
618.90	-20.49	620.45	0.00
618.95	-20.49	620.45	0.00
619.00	-20.49	620.45	0.00
619.05	-20.49	620.45	0.00
619.10	-20.49	620.45	0.00
619.15	-20.49	620.45	0.00
619.20	-20.49	620.45	0.00
619.25	-20.49	620.45	0.00
619.30	-20.49	620.45	0.00
619.35	-20.49	620.45	0.00
619.40	-20.49	620.45	0.00
619.45	-20.49	620.45	0.00
619.50	-20.49	620.45	0.00
619.55	-20.49	620.45	0.00
619.60	-20.49	620.45	0.00
619.65	-20.49	620.45	0.00
619.70	-20.49	620.45	0.00
619.75	-20.49	620.45	0.00
619.80	-20.49	620.45	0.00
619.85	-20.49	620.45	0.00
619.90	-20.49	620.45	0.00
619.95	-20.49	620.45	0.00
620.00	-20.49	620.45	0.00
620.05	-20.49	620.45	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-20.14	620.45	0.00
620.15	-19.46	620.45	0.00
620.20	-18.53	620.45	0.00
620.25	-17.32	620.45	0.00
620.30	-15.76	620.45	0.00
620.35	-13.69	620.45	0.00
620.40	-10.62	620.45	0.00
620.45	0.00	620.45	0.00
620.50	12.13	620.45	0.00
620.55	17.65	620.45	0.00
620.60	22.76	620.45	0.00
620.65	27.82	620.45	0.00
620.70	32.93	620.45	0.00
620.75	38.16	620.45	0.00
620.80	43.51	620.45	0.00
620.85	49.00	620.45	0.00
620.90	54.63	620.45	0.00
620.95	60.41	620.45	0.00
621.00	66.33	620.45	0.00
621.05	72.40	620.45	0.00
621.10	78.61	620.45	0.00
621.15	84.95	620.45	0.00
621.20	91.44	620.45	0.00
621.25	98.07	620.45	0.00
621.30	104.82	620.45	0.00
621.35	111.71	620.45	0.00
621.40	118.73	620.45	0.00
621.45	125.88	620.45	0.00
621.50	133.16	620.45	0.00
621.55	140.56	620.45	0.00
621.60	148.08	620.45	0.00
621.65	155.72	620.45	0.00
621.70	163.48	620.45	0.00
621.75	171.35	620.45	0.00
621.80	179.35	620.45	0.00
621.85	187.45	620.45	0.00
621.90	195.67	620.45	0.00
621.95	204.00	620.45	0.00
622.00	212.44	620.45	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-24.45	620.50	0.00
618.05	-24.45	620.50	0.00
618.10	-24.45	620.50	0.00
618.15	-24.45	620.50	0.00
618.20	-24.45	620.50	0.00
618.25	-24.45	620.50	0.00
618.30	-24.45	620.50	0.00
618.35	-24.45	620.50	0.00
618.40	-24.45	620.50	0.00
618.45	-24.45	620.50	0.00
618.50	-24.45	620.50	0.00
618.55	-24.45	620.50	0.00
618.60	-24.45	620.50	0.00
618.65	-24.45	620.50	0.00
618.70	-24.45	620.50	0.00
618.75	-24.45	620.50	0.00
618.80	-24.45	620.50	0.00
618.85	-24.45	620.50	0.00
618.90	-24.45	620.50	0.00
618.95	-24.45	620.50	0.00
619.00	-24.45	620.50	0.00
619.05	-24.45	620.50	0.00
619.10	-24.45	620.50	0.00
619.15	-24.45	620.50	0.00
619.20	-24.45	620.50	0.00
619.25	-24.45	620.50	0.00
619.30	-24.45	620.50	0.00
619.35	-24.45	620.50	0.00
619.40	-24.45	620.50	0.00
619.45	-24.45	620.50	0.00
619.50	-24.45	620.50	0.00
619.55	-24.45	620.50	0.00
619.60	-24.45	620.50	0.00
619.65	-24.45	620.50	0.00
619.70	-24.45	620.50	0.00
619.75	-24.45	620.50	0.00
619.80	-24.45	620.50	0.00
619.85	-24.45	620.50	0.00
619.90	-24.45	620.50	0.00
619.95	-24.45	620.50	0.00
620.00	-24.45	620.50	0.00
620.05	-24.45	620.50	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-24.10	620.50	0.00
620.15	-23.43	620.50	0.00
620.20	-22.52	620.50	0.00
620.25	-21.36	620.50	0.00
620.30	-19.90	620.50	0.00
620.35	-18.07	620.50	0.00
620.40	-15.66	620.50	0.00
620.45	-12.13	620.50	0.00
620.50	0.00	620.50	0.00
620.55	13.66	620.50	0.00
620.60	19.67	620.50	0.00
620.65	25.14	620.50	0.00
620.70	30.51	620.50	0.00
620.75	35.89	620.50	0.00
620.80	41.36	620.50	0.00
620.85	46.94	620.50	0.00
620.90	52.64	620.50	0.00
620.95	58.47	620.50	0.00
621.00	64.43	620.50	0.00
621.05	70.53	620.50	0.00
621.10	76.77	620.50	0.00
621.15	83.15	620.50	0.00
621.20	89.66	620.50	0.00
621.25	96.30	620.50	0.00
621.30	103.08	620.50	0.00
621.35	109.98	620.50	0.00
621.40	117.02	620.50	0.00
621.45	124.18	620.50	0.00
621.50	131.46	620.50	0.00
621.55	138.87	620.50	0.00
621.60	146.40	620.50	0.00
621.65	154.05	620.50	0.00
621.70	161.82	620.50	0.00
621.75	169.70	620.50	0.00
621.80	177.70	620.50	0.00
621.85	185.81	620.50	0.00
621.90	194.03	620.50	0.00
621.95	202.37	620.50	0.00
622.00	210.81	620.50	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-28.64	620.55	0.00
618.05	-28.64	620.55	0.00
618.10	-28.64	620.55	0.00
618.15	-28.64	620.55	0.00
618.20	-28.64	620.55	0.00
618.25	-28.64	620.55	0.00
618.30	-28.64	620.55	0.00
618.35	-28.64	620.55	0.00
618.40	-28.64	620.55	0.00
618.45	-28.64	620.55	0.00
618.50	-28.64	620.55	0.00
618.55	-28.64	620.55	0.00
618.60	-28.64	620.55	0.00
618.65	-28.64	620.55	0.00
618.70	-28.64	620.55	0.00
618.75	-28.64	620.55	0.00
618.80	-28.64	620.55	0.00
618.85	-28.64	620.55	0.00
618.90	-28.64	620.55	0.00
618.95	-28.64	620.55	0.00
619.00	-28.64	620.55	0.00
619.05	-28.64	620.55	0.00
619.10	-28.64	620.55	0.00
619.15	-28.64	620.55	0.00
619.20	-28.64	620.55	0.00
619.25	-28.64	620.55	0.00
619.30	-28.64	620.55	0.00
619.35	-28.64	620.55	0.00
619.40	-28.64	620.55	0.00
619.45	-28.64	620.55	0.00
619.50	-28.64	620.55	0.00
619.55	-28.64	620.55	0.00
619.60	-28.64	620.55	0.00
619.65	-28.64	620.55	0.00
619.70	-28.64	620.55	0.00
619.75	-28.64	620.55	0.00
619.80	-28.64	620.55	0.00
619.85	-28.64	620.55	0.00
619.90	-28.64	620.55	0.00
619.95	-28.64	620.55	0.00
620.00	-28.64	620.55	0.00
620.05	-28.64	620.55	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-28.29	620.55	0.00
620.15	-27.62	620.55	0.00
620.20	-26.73	620.55	0.00
620.25	-25.60	620.55	0.00
620.30	-24.21	620.55	0.00
620.35	-22.51	620.55	0.00
620.40	-20.40	620.55	0.00
620.45	-17.65	620.55	0.00
620.50	-13.66	620.55	0.00
620.55	0.00	620.55	0.00
620.60	15.20	620.55	0.00
620.65	21.71	620.55	0.00
620.70	27.55	620.55	0.00
620.75	33.22	620.55	0.00
620.80	38.87	620.55	0.00
620.85	44.58	620.55	0.00
620.90	50.39	620.55	0.00
620.95	56.29	620.55	0.00
621.00	62.32	620.55	0.00
621.05	68.48	620.55	0.00
621.10	74.76	620.55	0.00
621.15	81.17	620.55	0.00
621.20	87.71	620.55	0.00
621.25	94.38	620.55	0.00
621.30	101.18	620.55	0.00
621.35	108.10	620.55	0.00
621.40	115.15	620.55	0.00
621.45	122.33	620.55	0.00
621.50	129.63	620.55	0.00
621.55	137.05	620.55	0.00
621.60	144.59	620.55	0.00
621.65	152.25	620.55	0.00
621.70	160.03	620.55	0.00
621.75	167.92	620.55	0.00
621.80	175.93	620.55	0.00
621.85	184.05	620.55	0.00
621.90	192.28	620.55	0.00
621.95	200.62	620.55	0.00
622.00	209.07	620.55	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-33.04	620.60	0.00
618.05	-33.04	620.60	0.00
618.10	-33.04	620.60	0.00
618.15	-33.04	620.60	0.00
618.20	-33.04	620.60	0.00
618.25	-33.04	620.60	0.00
618.30	-33.04	620.60	0.00
618.35	-33.04	620.60	0.00
618.40	-33.04	620.60	0.00
618.45	-33.04	620.60	0.00
618.50	-33.04	620.60	0.00
618.55	-33.04	620.60	0.00
618.60	-33.04	620.60	0.00
618.65	-33.04	620.60	0.00
618.70	-33.04	620.60	0.00
618.75	-33.04	620.60	0.00
618.80	-33.04	620.60	0.00
618.85	-33.04	620.60	0.00
618.90	-33.04	620.60	0.00
618.95	-33.04	620.60	0.00
619.00	-33.04	620.60	0.00
619.05	-33.04	620.60	0.00
619.10	-33.04	620.60	0.00
619.15	-33.04	620.60	0.00
619.20	-33.04	620.60	0.00
619.25	-33.04	620.60	0.00
619.30	-33.04	620.60	0.00
619.35	-33.04	620.60	0.00
619.40	-33.04	620.60	0.00
619.45	-33.04	620.60	0.00
619.50	-33.04	620.60	0.00
619.55	-33.04	620.60	0.00
619.60	-33.04	620.60	0.00
619.65	-33.04	620.60	0.00
619.70	-33.04	620.60	0.00
619.75	-33.04	620.60	0.00
619.80	-33.04	620.60	0.00
619.85	-33.04	620.60	0.00
619.90	-33.04	620.60	0.00
619.95	-33.04	620.60	0.00
620.00	-33.04	620.60	0.00
620.05	-33.04	620.60	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-32.69	620.60	0.00
620.15	-32.03	620.60	0.00
620.20	-31.14	620.60	0.00
620.25	-30.04	620.60	0.00
620.30	-28.70	620.60	0.00
620.35	-27.09	620.60	0.00
620.40	-25.15	620.60	0.00
620.45	-22.76	620.60	0.00
620.50	-19.67	620.60	0.00
620.55	-15.20	620.60	0.00
620.60	0.00	620.60	0.00
620.65	16.77	620.60	0.00
620.70	23.77	620.60	0.00
620.75	29.98	620.60	0.00
620.80	35.95	620.60	0.00
620.85	41.88	620.60	0.00
620.90	47.83	620.60	0.00
620.95	53.86	620.60	0.00
621.00	59.97	620.60	0.00
621.05	66.20	620.60	0.00
621.10	72.54	620.60	0.00
621.15	79.00	620.60	0.00
621.20	85.58	620.60	0.00
621.25	92.29	620.60	0.00
621.30	99.12	620.60	0.00
621.35	106.07	620.60	0.00
621.40	113.14	620.60	0.00
621.45	120.34	620.60	0.00
621.50	127.66	620.60	0.00
621.55	135.10	620.60	0.00
621.60	142.65	620.60	0.00
621.65	150.33	620.60	0.00
621.70	158.11	620.60	0.00
621.75	166.02	620.60	0.00
621.80	174.03	620.60	0.00
621.85	182.16	620.60	0.00
621.90	190.40	620.60	0.00
621.95	198.75	620.60	0.00
622.00	207.21	620.60	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-37.65	620.65	0.00
618.05	-37.65	620.65	0.00
618.10	-37.65	620.65	0.00
618.15	-37.65	620.65	0.00
618.20	-37.65	620.65	0.00
618.25	-37.65	620.65	0.00
618.30	-37.65	620.65	0.00
618.35	-37.65	620.65	0.00
618.40	-37.65	620.65	0.00
618.45	-37.65	620.65	0.00
618.50	-37.65	620.65	0.00
618.55	-37.65	620.65	0.00
618.60	-37.65	620.65	0.00
618.65	-37.65	620.65	0.00
618.70	-37.65	620.65	0.00
618.75	-37.65	620.65	0.00
618.80	-37.65	620.65	0.00
618.85	-37.65	620.65	0.00
618.90	-37.65	620.65	0.00
618.95	-37.65	620.65	0.00
619.00	-37.65	620.65	0.00
619.05	-37.65	620.65	0.00
619.10	-37.65	620.65	0.00
619.15	-37.65	620.65	0.00
619.20	-37.65	620.65	0.00
619.25	-37.65	620.65	0.00
619.30	-37.65	620.65	0.00
619.35	-37.65	620.65	0.00
619.40	-37.65	620.65	0.00
619.45	-37.65	620.65	0.00
619.50	-37.65	620.65	0.00
619.55	-37.65	620.65	0.00
619.60	-37.65	620.65	0.00
619.65	-37.65	620.65	0.00
619.70	-37.65	620.65	0.00
619.75	-37.65	620.65	0.00
619.80	-37.65	620.65	0.00
619.85	-37.65	620.65	0.00
619.90	-37.65	620.65	0.00
619.95	-37.65	620.65	0.00
620.00	-37.65	620.65	0.00
620.05	-37.65	620.65	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft³/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-37.29	620.65	0.00
620.15	-36.64	620.65	0.00
620.20	-35.76	620.65	0.00
620.25	-34.67	620.65	0.00
620.30	-33.37	620.65	0.00
620.35	-31.82	620.65	0.00
620.40	-30.00	620.65	0.00
620.45	-27.82	620.65	0.00
620.50	-25.14	620.65	0.00
620.55	-21.71	620.65	0.00
620.60	-16.77	620.65	0.00
620.65	0.00	620.65	0.00
620.70	18.34	620.65	0.00
620.75	25.84	620.65	0.00
620.80	32.42	620.65	0.00
620.85	38.71	620.65	0.00
620.90	44.90	620.65	0.00
620.95	51.10	620.65	0.00
621.00	57.35	620.65	0.00
621.05	63.68	620.65	0.00
621.10	70.10	620.65	0.00
621.15	76.62	620.65	0.00
621.20	83.26	620.65	0.00
621.25	90.01	620.65	0.00
621.30	96.88	620.65	0.00
621.35	103.87	620.65	0.00
621.40	110.98	620.65	0.00
621.45	118.20	620.65	0.00
621.50	125.54	620.65	0.00
621.55	133.00	620.65	0.00
621.60	140.58	620.65	0.00
621.65	148.27	620.65	0.00
621.70	156.07	620.65	0.00
621.75	163.99	620.65	0.00
621.80	172.02	620.65	0.00
621.85	180.16	620.65	0.00
621.90	188.41	620.65	0.00
621.95	196.77	620.65	0.00
622.00	205.23	620.65	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-42.45	620.70	0.00
618.05	-42.45	620.70	0.00
618.10	-42.45	620.70	0.00
618.15	-42.45	620.70	0.00
618.20	-42.45	620.70	0.00
618.25	-42.45	620.70	0.00
618.30	-42.45	620.70	0.00
618.35	-42.45	620.70	0.00
618.40	-42.45	620.70	0.00
618.45	-42.45	620.70	0.00
618.50	-42.45	620.70	0.00
618.55	-42.45	620.70	0.00
618.60	-42.45	620.70	0.00
618.65	-42.45	620.70	0.00
618.70	-42.45	620.70	0.00
618.75	-42.45	620.70	0.00
618.80	-42.45	620.70	0.00
618.85	-42.45	620.70	0.00
618.90	-42.45	620.70	0.00
618.95	-42.45	620.70	0.00
619.00	-42.45	620.70	0.00
619.05	-42.45	620.70	0.00
619.10	-42.45	620.70	0.00
619.15	-42.45	620.70	0.00
619.20	-42.45	620.70	0.00
619.25	-42.45	620.70	0.00
619.30	-42.45	620.70	0.00
619.35	-42.45	620.70	0.00
619.40	-42.45	620.70	0.00
619.45	-42.45	620.70	0.00
619.50	-42.45	620.70	0.00
619.55	-42.45	620.70	0.00
619.60	-42.45	620.70	0.00
619.65	-42.45	620.70	0.00
619.70	-42.45	620.70	0.00
619.75	-42.45	620.70	0.00
619.80	-42.45	620.70	0.00
619.85	-42.45	620.70	0.00
619.90	-42.45	620.70	0.00
619.95	-42.45	620.70	0.00
620.00	-42.45	620.70	0.00
620.05	-42.45	620.70	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-42.10	620.70	0.00
620.15	-41.44	620.70	0.00
620.20	-40.57	620.70	0.00
620.25	-39.50	620.70	0.00
620.30	-38.22	620.70	0.00
620.35	-36.72	620.70	0.00
620.40	-34.98	620.70	0.00
620.45	-32.93	620.70	0.00
620.50	-30.51	620.70	0.00
620.55	-27.55	620.70	0.00
620.60	-23.77	620.70	0.00
620.65	-18.34	620.70	0.00
620.70	0.00	620.70	0.00
620.75	19.94	620.70	0.00
620.80	27.94	620.70	0.00
620.85	34.89	620.70	0.00
620.90	41.48	620.70	0.00
620.95	47.95	620.70	0.00
621.00	54.39	620.70	0.00
621.05	60.86	620.70	0.00
621.10	67.40	620.70	0.00
621.15	74.02	620.70	0.00
621.20	80.73	620.70	0.00
621.25	87.54	620.70	0.00
621.30	94.46	620.70	0.00
621.35	101.50	620.70	0.00
621.40	108.64	620.70	0.00
621.45	115.90	620.70	0.00
621.50	123.27	620.70	0.00
621.55	130.76	620.70	0.00
621.60	138.36	620.70	0.00
621.65	146.07	620.70	0.00
621.70	153.89	620.70	0.00
621.75	161.83	620.70	0.00
621.80	169.87	620.70	0.00
621.85	178.03	620.70	0.00
621.90	186.29	620.70	0.00
621.95	194.66	620.70	0.00
622.00	203.14	620.70	0.00

Contributing Structures
Weir - 1
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-47.44	620.75	0.00
618.05	-47.44	620.75	0.00
618.10	-47.44	620.75	0.00
618.15	-47.44	620.75	0.00
618.20	-47.44	620.75	0.00
618.25	-47.44	620.75	0.00
618.30	-47.44	620.75	0.00
618.35	-47.44	620.75	0.00
618.40	-47.44	620.75	0.00
618.45	-47.44	620.75	0.00
618.50	-47.44	620.75	0.00
618.55	-47.44	620.75	0.00
618.60	-47.44	620.75	0.00
618.65	-47.44	620.75	0.00
618.70	-47.44	620.75	0.00
618.75	-47.44	620.75	0.00
618.80	-47.44	620.75	0.00
618.85	-47.44	620.75	0.00
618.90	-47.44	620.75	0.00
618.95	-47.44	620.75	0.00
619.00	-47.44	620.75	0.00
619.05	-47.44	620.75	0.00
619.10	-47.44	620.75	0.00
619.15	-47.44	620.75	0.00
619.20	-47.44	620.75	0.00
619.25	-47.44	620.75	0.00
619.30	-47.44	620.75	0.00
619.35	-47.44	620.75	0.00
619.40	-47.44	620.75	0.00
619.45	-47.44	620.75	0.00
619.50	-47.44	620.75	0.00
619.55	-47.44	620.75	0.00
619.60	-47.44	620.75	0.00
619.65	-47.44	620.75	0.00
619.70	-47.44	620.75	0.00
619.75	-47.44	620.75	0.00
619.80	-47.44	620.75	0.00
619.85	-47.44	620.75	0.00
619.90	-47.44	620.75	0.00
619.95	-47.44	620.75	0.00
620.00	-47.44	620.75	0.00
620.05	-47.44	620.75	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-47.09	620.75	0.00
620.15	-46.44	620.75	0.00
620.20	-45.57	620.75	0.00
620.25	-44.51	620.75	0.00
620.30	-43.25	620.75	0.00
620.35	-41.79	620.75	0.00
620.40	-40.10	620.75	0.00
620.45	-38.16	620.75	0.00
620.50	-35.89	620.75	0.00
620.55	-33.22	620.75	0.00
620.60	-29.98	620.75	0.00
620.65	-25.84	620.75	0.00
620.70	-19.94	620.75	0.00
620.75	0.00	620.75	0.00
620.80	21.54	620.75	0.00
620.85	30.05	620.75	0.00
620.90	37.38	620.75	0.00
620.95	44.28	620.75	0.00
621.00	51.01	620.75	0.00
621.05	57.70	620.75	0.00
621.10	64.39	620.75	0.00
621.15	71.14	620.75	0.00
621.20	77.95	620.75	0.00
621.25	84.85	620.75	0.00
621.30	91.84	620.75	0.00
621.35	98.93	620.75	0.00
621.40	106.13	620.75	0.00
621.45	113.43	620.75	0.00
621.50	120.84	620.75	0.00
621.55	128.36	620.75	0.00
621.60	135.99	620.75	0.00
621.65	143.73	620.75	0.00
621.70	151.58	620.75	0.00
621.75	159.53	620.75	0.00
621.80	167.60	620.75	0.00
621.85	175.77	620.75	0.00
621.90	184.05	620.75	0.00
621.95	192.44	620.75	0.00
622.00	200.93	620.75	0.00

Contributing Structures
Weir - 1
Weir - 1

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve	Return Event: 1 years
Label: Infiltration Basin Overflow	Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-52.61	620.80	0.00
618.05	-52.61	620.80	0.00
618.10	-52.61	620.80	0.00
618.15	-52.61	620.80	0.00
618.20	-52.61	620.80	0.00
618.25	-52.61	620.80	0.00
618.30	-52.61	620.80	0.00
618.35	-52.61	620.80	0.00
618.40	-52.61	620.80	0.00
618.45	-52.61	620.80	0.00
618.50	-52.61	620.80	0.00
618.55	-52.61	620.80	0.00
618.60	-52.61	620.80	0.00
618.65	-52.61	620.80	0.00
618.70	-52.61	620.80	0.00
618.75	-52.61	620.80	0.00
618.80	-52.61	620.80	0.00
618.85	-52.61	620.80	0.00
618.90	-52.61	620.80	0.00
618.95	-52.61	620.80	0.00
619.00	-52.61	620.80	0.00
619.05	-52.61	620.80	0.00
619.10	-52.61	620.80	0.00
619.15	-52.61	620.80	0.00
619.20	-52.61	620.80	0.00
619.25	-52.61	620.80	0.00
619.30	-52.61	620.80	0.00
619.35	-52.61	620.80	0.00
619.40	-52.61	620.80	0.00
619.45	-52.61	620.80	0.00
619.50	-52.61	620.80	0.00
619.55	-52.61	620.80	0.00
619.60	-52.61	620.80	0.00
619.65	-52.61	620.80	0.00
619.70	-52.61	620.80	0.00
619.75	-52.61	620.80	0.00
619.80	-52.61	620.80	0.00
619.85	-52.61	620.80	0.00
619.90	-52.61	620.80	0.00
619.95	-52.61	620.80	0.00
620.00	-52.61	620.80	0.00
620.05	-52.61	620.80	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-52.26	620.80	0.00
620.15	-51.61	620.80	0.00
620.20	-50.75	620.80	0.00
620.25	-49.69	620.80	0.00
620.30	-48.45	620.80	0.00
620.35	-47.02	620.80	0.00
620.40	-45.38	620.80	0.00
620.45	-43.51	620.80	0.00
620.50	-41.36	620.80	0.00
620.55	-38.87	620.80	0.00
620.60	-35.95	620.80	0.00
620.65	-32.42	620.80	0.00
620.70	-27.94	620.80	0.00
620.75	-21.54	620.80	0.00
620.80	0.00	620.80	0.00
620.85	23.16	620.80	0.00
620.90	32.17	620.80	0.00
620.95	39.88	620.80	0.00
621.00	47.09	620.80	0.00
621.05	54.10	620.80	0.00
621.10	61.03	620.80	0.00
621.15	67.95	620.80	0.00
621.20	74.90	620.80	0.00
621.25	81.91	620.80	0.00
621.30	88.99	620.80	0.00
621.35	96.16	620.80	0.00
621.40	103.42	620.80	0.00
621.45	110.78	620.80	0.00
621.50	118.24	620.80	0.00
621.55	125.80	620.80	0.00
621.60	133.47	620.80	0.00
621.65	141.24	620.80	0.00
621.70	149.12	620.80	0.00
621.75	157.10	620.80	0.00
621.80	165.19	620.80	0.00
621.85	173.39	620.80	0.00
621.90	181.69	620.80	0.00
621.95	190.09	620.80	0.00
622.00	198.60	620.80	0.00

Contributing Structures
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Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-57.96	620.85	0.00
618.05	-57.96	620.85	0.00
618.10	-57.96	620.85	0.00
618.15	-57.96	620.85	0.00
618.20	-57.96	620.85	0.00
618.25	-57.96	620.85	0.00
618.30	-57.96	620.85	0.00
618.35	-57.96	620.85	0.00
618.40	-57.96	620.85	0.00
618.45	-57.96	620.85	0.00
618.50	-57.96	620.85	0.00
618.55	-57.96	620.85	0.00
618.60	-57.96	620.85	0.00
618.65	-57.96	620.85	0.00
618.70	-57.96	620.85	0.00
618.75	-57.96	620.85	0.00
618.80	-57.96	620.85	0.00
618.85	-57.96	620.85	0.00
618.90	-57.96	620.85	0.00
618.95	-57.96	620.85	0.00
619.00	-57.96	620.85	0.00
619.05	-57.96	620.85	0.00
619.10	-57.96	620.85	0.00
619.15	-57.96	620.85	0.00
619.20	-57.96	620.85	0.00
619.25	-57.96	620.85	0.00
619.30	-57.96	620.85	0.00
619.35	-57.96	620.85	0.00
619.40	-57.96	620.85	0.00
619.45	-57.96	620.85	0.00
619.50	-57.96	620.85	0.00
619.55	-57.96	620.85	0.00
619.60	-57.96	620.85	0.00
619.65	-57.96	620.85	0.00
619.70	-57.96	620.85	0.00
619.75	-57.96	620.85	0.00
619.80	-57.96	620.85	0.00
619.85	-57.96	620.85	0.00
619.90	-57.96	620.85	0.00
619.95	-57.96	620.85	0.00
620.00	-57.96	620.85	0.00
620.05	-57.96	620.85	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-57.61	620.85	0.00
620.15	-56.96	620.85	0.00
620.20	-56.10	620.85	0.00
620.25	-55.05	620.85	0.00
620.30	-53.83	620.85	0.00
620.35	-52.42	620.85	0.00
620.40	-50.82	620.85	0.00
620.45	-49.00	620.85	0.00
620.50	-46.94	620.85	0.00
620.55	-44.58	620.85	0.00
620.60	-41.88	620.85	0.00
620.65	-38.71	620.85	0.00
620.70	-34.89	620.85	0.00
620.75	-30.05	620.85	0.00
620.80	-23.16	620.85	0.00
620.85	0.00	620.85	0.00
620.90	24.78	620.85	0.00
620.95	34.31	620.85	0.00
621.00	42.39	620.85	0.00
621.05	49.92	620.85	0.00
621.10	57.20	620.85	0.00
621.15	64.37	620.85	0.00
621.20	71.52	620.85	0.00
621.25	78.68	620.85	0.00
621.30	85.88	620.85	0.00
621.35	93.15	620.85	0.00
621.40	100.49	620.85	0.00
621.45	107.92	620.85	0.00
621.50	115.44	620.85	0.00
621.55	123.06	620.85	0.00
621.60	130.77	620.85	0.00
621.65	138.59	620.85	0.00
621.70	146.50	620.85	0.00
621.75	154.52	620.85	0.00
621.80	162.64	620.85	0.00
621.85	170.86	620.85	0.00
621.90	179.18	620.85	0.00
621.95	187.61	620.85	0.00
622.00	196.14	620.85	0.00

Contributing Structures
Weir - 1
Weir - 1

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-63.48	620.90	0.00
618.05	-63.48	620.90	0.00
618.10	-63.48	620.90	0.00
618.15	-63.48	620.90	0.00
618.20	-63.48	620.90	0.00
618.25	-63.48	620.90	0.00
618.30	-63.48	620.90	0.00
618.35	-63.48	620.90	0.00
618.40	-63.48	620.90	0.00
618.45	-63.48	620.90	0.00
618.50	-63.48	620.90	0.00
618.55	-63.48	620.90	0.00
618.60	-63.48	620.90	0.00
618.65	-63.48	620.90	0.00
618.70	-63.48	620.90	0.00
618.75	-63.48	620.90	0.00
618.80	-63.48	620.90	0.00
618.85	-63.48	620.90	0.00
618.90	-63.48	620.90	0.00
618.95	-63.48	620.90	0.00
619.00	-63.48	620.90	0.00
619.05	-63.48	620.90	0.00
619.10	-63.48	620.90	0.00
619.15	-63.48	620.90	0.00
619.20	-63.48	620.90	0.00
619.25	-63.48	620.90	0.00
619.30	-63.48	620.90	0.00
619.35	-63.48	620.90	0.00
619.40	-63.48	620.90	0.00
619.45	-63.48	620.90	0.00
619.50	-63.48	620.90	0.00
619.55	-63.48	620.90	0.00
619.60	-63.48	620.90	0.00
619.65	-63.48	620.90	0.00
619.70	-63.48	620.90	0.00
619.75	-63.48	620.90	0.00
619.80	-63.48	620.90	0.00
619.85	-63.48	620.90	0.00
619.90	-63.48	620.90	0.00
619.95	-63.48	620.90	0.00
620.00	-63.48	620.90	0.00
620.05	-63.48	620.90	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-63.13	620.90	0.00
620.15	-62.48	620.90	0.00
620.20	-61.62	620.90	0.00
620.25	-60.58	620.90	0.00
620.30	-59.37	620.90	0.00
620.35	-57.98	620.90	0.00
620.40	-56.40	620.90	0.00
620.45	-54.63	620.90	0.00
620.50	-52.64	620.90	0.00
620.55	-50.39	620.90	0.00
620.60	-47.83	620.90	0.00
620.65	-44.90	620.90	0.00
620.70	-41.48	620.90	0.00
620.75	-37.38	620.90	0.00
620.80	-32.17	620.90	0.00
620.85	-24.78	620.90	0.00
620.90	0.00	620.90	0.00
620.95	26.42	620.90	0.00
621.00	36.47	620.90	0.00
621.05	44.93	620.90	0.00
621.10	52.77	620.90	0.00
621.15	60.32	620.90	0.00
621.20	67.73	620.90	0.00
621.25	75.10	620.90	0.00
621.30	82.47	620.90	0.00
621.35	89.87	620.90	0.00
621.40	97.32	620.90	0.00
621.45	104.85	620.90	0.00
621.50	112.44	620.90	0.00
621.55	120.13	620.90	0.00
621.60	127.90	620.90	0.00
621.65	135.76	620.90	0.00
621.70	143.72	620.90	0.00
621.75	151.78	620.90	0.00
621.80	159.94	620.90	0.00
621.85	168.19	620.90	0.00
621.90	176.54	620.90	0.00
621.95	185.00	620.90	0.00
622.00	193.55	620.90	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-69.16	620.95	0.00
618.05	-69.16	620.95	0.00
618.10	-69.16	620.95	0.00
618.15	-69.16	620.95	0.00
618.20	-69.16	620.95	0.00
618.25	-69.16	620.95	0.00
618.30	-69.16	620.95	0.00
618.35	-69.16	620.95	0.00
618.40	-69.16	620.95	0.00
618.45	-69.16	620.95	0.00
618.50	-69.16	620.95	0.00
618.55	-69.16	620.95	0.00
618.60	-69.16	620.95	0.00
618.65	-69.16	620.95	0.00
618.70	-69.16	620.95	0.00
618.75	-69.16	620.95	0.00
618.80	-69.16	620.95	0.00
618.85	-69.16	620.95	0.00
618.90	-69.16	620.95	0.00
618.95	-69.16	620.95	0.00
619.00	-69.16	620.95	0.00
619.05	-69.16	620.95	0.00
619.10	-69.16	620.95	0.00
619.15	-69.16	620.95	0.00
619.20	-69.16	620.95	0.00
619.25	-69.16	620.95	0.00
619.30	-69.16	620.95	0.00
619.35	-69.16	620.95	0.00
619.40	-69.16	620.95	0.00
619.45	-69.16	620.95	0.00
619.50	-69.16	620.95	0.00
619.55	-69.16	620.95	0.00
619.60	-69.16	620.95	0.00
619.65	-69.16	620.95	0.00
619.70	-69.16	620.95	0.00
619.75	-69.16	620.95	0.00
619.80	-69.16	620.95	0.00
619.85	-69.16	620.95	0.00
619.90	-69.16	620.95	0.00
619.95	-69.16	620.95	0.00
620.00	-69.16	620.95	0.00
620.05	-69.16	620.95	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-68.81	620.95	0.00
620.15	-68.16	620.95	0.00
620.20	-67.31	620.95	0.00
620.25	-66.27	620.95	0.00
620.30	-65.07	620.95	0.00
620.35	-63.70	620.95	0.00
620.40	-62.15	620.95	0.00
620.45	-60.41	620.95	0.00
620.50	-58.47	620.95	0.00
620.55	-56.29	620.95	0.00
620.60	-53.86	620.95	0.00
620.65	-51.10	620.95	0.00
620.70	-47.95	620.95	0.00
620.75	-44.28	620.95	0.00
620.80	-39.88	620.95	0.00
620.85	-34.31	620.95	0.00
620.90	-26.42	620.95	0.00
620.95	0.00	620.95	0.00
621.00	28.07	620.95	0.00
621.05	38.63	620.95	0.00
621.10	47.47	620.95	0.00
621.15	55.63	620.95	0.00
621.20	63.45	620.95	0.00
621.25	71.11	620.95	0.00
621.30	78.71	620.95	0.00
621.35	86.28	620.95	0.00
621.40	93.88	620.95	0.00
621.45	101.52	620.95	0.00
621.50	109.21	620.95	0.00
621.55	116.98	620.95	0.00
621.60	124.82	620.95	0.00
621.65	132.75	620.95	0.00
621.70	140.77	620.95	0.00
621.75	148.87	620.95	0.00
621.80	157.07	620.95	0.00
621.85	165.37	620.95	0.00
621.90	173.76	620.95	0.00
621.95	182.24	620.95	0.00
622.00	190.82	620.95	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Composite Outflow Summary

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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-75.00	621.00	0.00
618.05	-75.00	621.00	0.00
618.10	-75.00	621.00	0.00
618.15	-75.00	621.00	0.00
618.20	-75.00	621.00	0.00
618.25	-75.00	621.00	0.00
618.30	-75.00	621.00	0.00
618.35	-75.00	621.00	0.00
618.40	-75.00	621.00	0.00
618.45	-75.00	621.00	0.00
618.50	-75.00	621.00	0.00
618.55	-75.00	621.00	0.00
618.60	-75.00	621.00	0.00
618.65	-75.00	621.00	0.00
618.70	-75.00	621.00	0.00
618.75	-75.00	621.00	0.00
618.80	-75.00	621.00	0.00
618.85	-75.00	621.00	0.00
618.90	-75.00	621.00	0.00
618.95	-75.00	621.00	0.00
619.00	-75.00	621.00	0.00
619.05	-75.00	621.00	0.00
619.10	-75.00	621.00	0.00
619.15	-75.00	621.00	0.00
619.20	-75.00	621.00	0.00
619.25	-75.00	621.00	0.00
619.30	-75.00	621.00	0.00
619.35	-75.00	621.00	0.00
619.40	-75.00	621.00	0.00
619.45	-75.00	621.00	0.00
619.50	-75.00	621.00	0.00
619.55	-75.00	621.00	0.00
619.60	-75.00	621.00	0.00
619.65	-75.00	621.00	0.00
619.70	-75.00	621.00	0.00
619.75	-75.00	621.00	0.00
619.80	-75.00	621.00	0.00
619.85	-75.00	621.00	0.00
619.90	-75.00	621.00	0.00
619.95	-75.00	621.00	0.00
620.00	-75.00	621.00	0.00
620.05	-75.00	621.00	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-74.65	621.00	0.00
620.15	-74.00	621.00	0.00
620.20	-73.15	621.00	0.00
620.25	-72.12	621.00	0.00
620.30	-70.93	621.00	0.00
620.35	-69.57	621.00	0.00
620.40	-68.04	621.00	0.00
620.45	-66.33	621.00	0.00
620.50	-64.43	621.00	0.00
620.55	-62.32	621.00	0.00
620.60	-59.97	621.00	0.00
620.65	-57.35	621.00	0.00
620.70	-54.39	621.00	0.00
620.75	-51.01	621.00	0.00
620.80	-47.09	621.00	0.00
620.85	-42.39	621.00	0.00
620.90	-36.47	621.00	0.00
620.95	-28.07	621.00	0.00
621.00	0.00	621.00	0.00
621.05	29.73	621.00	0.00
621.10	40.81	621.00	0.00
621.15	50.04	621.00	0.00
621.20	58.50	621.00	0.00
621.25	66.60	621.00	0.00
621.30	74.51	621.00	0.00
621.35	82.33	621.00	0.00
621.40	90.11	621.00	0.00
621.45	97.90	621.00	0.00
621.50	105.73	621.00	0.00
621.55	113.60	621.00	0.00
621.60	121.53	621.00	0.00
621.65	129.54	621.00	0.00
621.70	137.62	621.00	0.00
621.75	145.79	621.00	0.00
621.80	154.04	621.00	0.00
621.85	162.38	621.00	0.00
621.90	170.81	621.00	0.00
621.95	179.34	621.00	0.00
622.00	187.95	621.00	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Composite Outflow Summary

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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-81.00	621.05	0.00
618.05	-81.00	621.05	0.00
618.10	-81.00	621.05	0.00
618.15	-81.00	621.05	0.00
618.20	-81.00	621.05	0.00
618.25	-81.00	621.05	0.00
618.30	-81.00	621.05	0.00
618.35	-81.00	621.05	0.00
618.40	-81.00	621.05	0.00
618.45	-81.00	621.05	0.00
618.50	-81.00	621.05	0.00
618.55	-81.00	621.05	0.00
618.60	-81.00	621.05	0.00
618.65	-81.00	621.05	0.00
618.70	-81.00	621.05	0.00
618.75	-81.00	621.05	0.00
618.80	-81.00	621.05	0.00
618.85	-81.00	621.05	0.00
618.90	-81.00	621.05	0.00
618.95	-81.00	621.05	0.00
619.00	-81.00	621.05	0.00
619.05	-81.00	621.05	0.00
619.10	-81.00	621.05	0.00
619.15	-81.00	621.05	0.00
619.20	-81.00	621.05	0.00
619.25	-81.00	621.05	0.00
619.30	-81.00	621.05	0.00
619.35	-81.00	621.05	0.00
619.40	-81.00	621.05	0.00
619.45	-81.00	621.05	0.00
619.50	-81.00	621.05	0.00
619.55	-81.00	621.05	0.00
619.60	-81.00	621.05	0.00
619.65	-81.00	621.05	0.00
619.70	-81.00	621.05	0.00
619.75	-81.00	621.05	0.00
619.80	-81.00	621.05	0.00
619.85	-81.00	621.05	0.00
619.90	-81.00	621.05	0.00
619.95	-81.00	621.05	0.00
620.00	-81.00	621.05	0.00
620.05	-81.00	621.05	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-80.65	621.05	0.00
620.15	-80.00	621.05	0.00
620.20	-79.15	621.05	0.00
620.25	-78.13	621.05	0.00
620.30	-76.94	621.05	0.00
620.35	-75.59	621.05	0.00
620.40	-74.08	621.05	0.00
620.45	-72.40	621.05	0.00
620.50	-70.53	621.05	0.00
620.55	-68.48	621.05	0.00
620.60	-66.20	621.05	0.00
620.65	-63.68	621.05	0.00
620.70	-60.86	621.05	0.00
620.75	-57.70	621.05	0.00
620.80	-54.10	621.05	0.00
620.85	-49.92	621.05	0.00
620.90	-44.93	621.05	0.00
620.95	-38.63	621.05	0.00
621.00	-29.73	621.05	0.00
621.05	0.00	621.05	0.00
621.10	31.40	621.05	0.00
621.15	43.01	621.05	0.00
621.20	52.61	621.05	0.00
621.25	61.39	621.05	0.00
621.30	69.77	621.05	0.00
621.35	77.92	621.05	0.00
621.40	85.96	621.05	0.00
621.45	93.96	621.05	0.00
621.50	101.94	621.05	0.00
621.55	109.95	621.05	0.00
621.60	118.00	621.05	0.00
621.65	126.10	621.05	0.00
621.70	134.27	621.05	0.00
621.75	142.51	621.05	0.00
621.80	150.83	621.05	0.00
621.85	159.22	621.05	0.00
621.90	167.71	621.05	0.00
621.95	176.28	621.05	0.00
622.00	184.93	621.05	0.00

Contributing Structures
Weir - 1
Weir - 1

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-87.15	621.10	0.00
618.05	-87.15	621.10	0.00
618.10	-87.15	621.10	0.00
618.15	-87.15	621.10	0.00
618.20	-87.15	621.10	0.00
618.25	-87.15	621.10	0.00
618.30	-87.15	621.10	0.00
618.35	-87.15	621.10	0.00
618.40	-87.15	621.10	0.00
618.45	-87.15	621.10	0.00
618.50	-87.15	621.10	0.00
618.55	-87.15	621.10	0.00
618.60	-87.15	621.10	0.00
618.65	-87.15	621.10	0.00
618.70	-87.15	621.10	0.00
618.75	-87.15	621.10	0.00
618.80	-87.15	621.10	0.00
618.85	-87.15	621.10	0.00
618.90	-87.15	621.10	0.00
618.95	-87.15	621.10	0.00
619.00	-87.15	621.10	0.00
619.05	-87.15	621.10	0.00
619.10	-87.15	621.10	0.00
619.15	-87.15	621.10	0.00
619.20	-87.15	621.10	0.00
619.25	-87.15	621.10	0.00
619.30	-87.15	621.10	0.00
619.35	-87.15	621.10	0.00
619.40	-87.15	621.10	0.00
619.45	-87.15	621.10	0.00
619.50	-87.15	621.10	0.00
619.55	-87.15	621.10	0.00
619.60	-87.15	621.10	0.00
619.65	-87.15	621.10	0.00
619.70	-87.15	621.10	0.00
619.75	-87.15	621.10	0.00
619.80	-87.15	621.10	0.00
619.85	-87.15	621.10	0.00
619.90	-87.15	621.10	0.00
619.95	-87.15	621.10	0.00
620.00	-87.15	621.10	0.00
620.05	-87.15	621.10	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-86.80	621.10	0.00
620.15	-86.16	621.10	0.00
620.20	-85.31	621.10	0.00
620.25	-84.29	621.10	0.00
620.30	-83.10	621.10	0.00
620.35	-81.76	621.10	0.00
620.40	-80.27	621.10	0.00
620.45	-78.61	621.10	0.00
620.50	-76.77	621.10	0.00
620.55	-74.76	621.10	0.00
620.60	-72.54	621.10	0.00
620.65	-70.10	621.10	0.00
620.70	-67.40	621.10	0.00
620.75	-64.39	621.10	0.00
620.80	-61.03	621.10	0.00
620.85	-57.20	621.10	0.00
620.90	-52.77	621.10	0.00
620.95	-47.47	621.10	0.00
621.00	-40.81	621.10	0.00
621.05	-31.40	621.10	0.00
621.10	0.00	621.10	0.00
621.15	33.08	621.10	0.00
621.20	45.21	621.10	0.00
621.25	55.20	621.10	0.00
621.30	64.30	621.10	0.00
621.35	72.95	621.10	0.00
621.40	81.35	621.10	0.00
621.45	89.61	621.10	0.00
621.50	97.82	621.10	0.00
621.55	106.00	621.10	0.00
621.60	114.19	621.10	0.00
621.65	122.42	621.10	0.00
621.70	130.69	621.10	0.00
621.75	139.02	621.10	0.00
621.80	147.41	621.10	0.00
621.85	155.88	621.10	0.00
621.90	164.42	621.10	0.00
621.95	173.05	621.10	0.00
622.00	181.75	621.10	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-93.45	621.15	0.00
618.05	-93.45	621.15	0.00
618.10	-93.45	621.15	0.00
618.15	-93.45	621.15	0.00
618.20	-93.45	621.15	0.00
618.25	-93.45	621.15	0.00
618.30	-93.45	621.15	0.00
618.35	-93.45	621.15	0.00
618.40	-93.45	621.15	0.00
618.45	-93.45	621.15	0.00
618.50	-93.45	621.15	0.00
618.55	-93.45	621.15	0.00
618.60	-93.45	621.15	0.00
618.65	-93.45	621.15	0.00
618.70	-93.45	621.15	0.00
618.75	-93.45	621.15	0.00
618.80	-93.45	621.15	0.00
618.85	-93.45	621.15	0.00
618.90	-93.45	621.15	0.00
618.95	-93.45	621.15	0.00
619.00	-93.45	621.15	0.00
619.05	-93.45	621.15	0.00
619.10	-93.45	621.15	0.00
619.15	-93.45	621.15	0.00
619.20	-93.45	621.15	0.00
619.25	-93.45	621.15	0.00
619.30	-93.45	621.15	0.00
619.35	-93.45	621.15	0.00
619.40	-93.45	621.15	0.00
619.45	-93.45	621.15	0.00
619.50	-93.45	621.15	0.00
619.55	-93.45	621.15	0.00
619.60	-93.45	621.15	0.00
619.65	-93.45	621.15	0.00
619.70	-93.45	621.15	0.00
619.75	-93.45	621.15	0.00
619.80	-93.45	621.15	0.00
619.85	-93.45	621.15	0.00
619.90	-93.45	621.15	0.00
619.95	-93.45	621.15	0.00
620.00	-93.45	621.15	0.00
620.05	-93.45	621.15	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-93.10	621.15	0.00
620.15	-92.45	621.15	0.00
620.20	-91.61	621.15	0.00
620.25	-90.59	621.15	0.00
620.30	-89.41	621.15	0.00
620.35	-88.08	621.15	0.00
620.40	-86.60	621.15	0.00
620.45	-84.95	621.15	0.00
620.50	-83.15	621.15	0.00
620.55	-81.17	621.15	0.00
620.60	-79.00	621.15	0.00
620.65	-76.62	621.15	0.00
620.70	-74.02	621.15	0.00
620.75	-71.14	621.15	0.00
620.80	-67.95	621.15	0.00
620.85	-64.37	621.15	0.00
620.90	-60.32	621.15	0.00
620.95	-55.63	621.15	0.00
621.00	-50.04	621.15	0.00
621.05	-43.01	621.15	0.00
621.10	-33.08	621.15	0.00
621.15	0.00	621.15	0.00
621.20	34.77	621.15	0.00
621.25	47.42	621.15	0.00
621.30	57.80	621.15	0.00
621.35	67.22	621.15	0.00
621.40	76.14	621.15	0.00
621.45	84.79	621.15	0.00
621.50	93.28	621.15	0.00
621.55	101.69	621.15	0.00
621.60	110.07	621.15	0.00
621.65	118.45	621.15	0.00
621.70	126.85	621.15	0.00
621.75	135.29	621.15	0.00
621.80	143.78	621.15	0.00
621.85	152.33	621.15	0.00
621.90	160.95	621.15	0.00
621.95	169.63	621.15	0.00
622.00	178.40	621.15	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Composite Outflow Summary

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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-99.89	621.20	0.00
618.05	-99.89	621.20	0.00
618.10	-99.89	621.20	0.00
618.15	-99.89	621.20	0.00
618.20	-99.89	621.20	0.00
618.25	-99.89	621.20	0.00
618.30	-99.89	621.20	0.00
618.35	-99.89	621.20	0.00
618.40	-99.89	621.20	0.00
618.45	-99.89	621.20	0.00
618.50	-99.89	621.20	0.00
618.55	-99.89	621.20	0.00
618.60	-99.89	621.20	0.00
618.65	-99.89	621.20	0.00
618.70	-99.89	621.20	0.00
618.75	-99.89	621.20	0.00
618.80	-99.89	621.20	0.00
618.85	-99.89	621.20	0.00
618.90	-99.89	621.20	0.00
618.95	-99.89	621.20	0.00
619.00	-99.89	621.20	0.00
619.05	-99.89	621.20	0.00
619.10	-99.89	621.20	0.00
619.15	-99.89	621.20	0.00
619.20	-99.89	621.20	0.00
619.25	-99.89	621.20	0.00
619.30	-99.89	621.20	0.00
619.35	-99.89	621.20	0.00
619.40	-99.89	621.20	0.00
619.45	-99.89	621.20	0.00
619.50	-99.89	621.20	0.00
619.55	-99.89	621.20	0.00
619.60	-99.89	621.20	0.00
619.65	-99.89	621.20	0.00
619.70	-99.89	621.20	0.00
619.75	-99.89	621.20	0.00
619.80	-99.89	621.20	0.00
619.85	-99.89	621.20	0.00
619.90	-99.89	621.20	0.00
619.95	-99.89	621.20	0.00
620.00	-99.89	621.20	0.00
620.05	-99.89	621.20	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-99.54	621.20	0.00
620.15	-98.90	621.20	0.00
620.20	-98.05	621.20	0.00
620.25	-97.04	621.20	0.00
620.30	-95.87	621.20	0.00
620.35	-94.54	621.20	0.00
620.40	-93.07	621.20	0.00
620.45	-91.44	621.20	0.00
620.50	-89.66	621.20	0.00
620.55	-87.71	621.20	0.00
620.60	-85.58	621.20	0.00
620.65	-83.26	621.20	0.00
620.70	-80.73	621.20	0.00
620.75	-77.95	621.20	0.00
620.80	-74.90	621.20	0.00
620.85	-71.52	621.20	0.00
620.90	-67.73	621.20	0.00
620.95	-63.45	621.20	0.00
621.00	-58.50	621.20	0.00
621.05	-52.61	621.20	0.00
621.10	-45.21	621.20	0.00
621.15	-34.77	621.20	0.00
621.20	0.00	621.20	0.00
621.25	36.47	621.20	0.00
621.30	49.65	621.20	0.00
621.35	60.41	621.20	0.00
621.40	70.15	621.20	0.00
621.45	79.35	621.20	0.00
621.50	88.24	621.20	0.00
621.55	96.96	621.20	0.00
621.60	105.58	621.20	0.00
621.65	114.16	621.20	0.00
621.70	122.72	621.20	0.00
621.75	131.30	621.20	0.00
621.80	139.91	621.20	0.00
621.85	148.56	621.20	0.00
621.90	157.26	621.20	0.00
621.95	166.03	621.20	0.00
622.00	174.86	621.20	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-106.48	621.25	0.00
618.05	-106.48	621.25	0.00
618.10	-106.48	621.25	0.00
618.15	-106.48	621.25	0.00
618.20	-106.48	621.25	0.00
618.25	-106.48	621.25	0.00
618.30	-106.48	621.25	0.00
618.35	-106.48	621.25	0.00
618.40	-106.48	621.25	0.00
618.45	-106.48	621.25	0.00
618.50	-106.48	621.25	0.00
618.55	-106.48	621.25	0.00
618.60	-106.48	621.25	0.00
618.65	-106.48	621.25	0.00
618.70	-106.48	621.25	0.00
618.75	-106.48	621.25	0.00
618.80	-106.48	621.25	0.00
618.85	-106.48	621.25	0.00
618.90	-106.48	621.25	0.00
618.95	-106.48	621.25	0.00
619.00	-106.48	621.25	0.00
619.05	-106.48	621.25	0.00
619.10	-106.48	621.25	0.00
619.15	-106.48	621.25	0.00
619.20	-106.48	621.25	0.00
619.25	-106.48	621.25	0.00
619.30	-106.48	621.25	0.00
619.35	-106.48	621.25	0.00
619.40	-106.48	621.25	0.00
619.45	-106.48	621.25	0.00
619.50	-106.48	621.25	0.00
619.55	-106.48	621.25	0.00
619.60	-106.48	621.25	0.00
619.65	-106.48	621.25	0.00
619.70	-106.48	621.25	0.00
619.75	-106.48	621.25	0.00
619.80	-106.48	621.25	0.00
619.85	-106.48	621.25	0.00
619.90	-106.48	621.25	0.00
619.95	-106.48	621.25	0.00
620.00	-106.48	621.25	0.00
620.05	-106.48	621.25	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-106.13	621.25	0.00
620.15	-105.48	621.25	0.00
620.20	-104.64	621.25	0.00
620.25	-103.63	621.25	0.00
620.30	-102.46	621.25	0.00
620.35	-101.14	621.25	0.00
620.40	-99.68	621.25	0.00
620.45	-98.07	621.25	0.00
620.50	-96.30	621.25	0.00
620.55	-94.38	621.25	0.00
620.60	-92.29	621.25	0.00
620.65	-90.01	621.25	0.00
620.70	-87.54	621.25	0.00
620.75	-84.85	621.25	0.00
620.80	-81.91	621.25	0.00
620.85	-78.68	621.25	0.00
620.90	-75.10	621.25	0.00
620.95	-71.11	621.25	0.00
621.00	-66.60	621.25	0.00
621.05	-61.39	621.25	0.00
621.10	-55.20	621.25	0.00
621.15	-47.42	621.25	0.00
621.20	-36.47	621.25	0.00
621.25	0.00	621.25	0.00
621.30	38.17	621.25	0.00
621.35	51.88	621.25	0.00
621.40	63.04	621.25	0.00
621.45	73.09	621.25	0.00
621.50	82.57	621.25	0.00
621.55	91.71	621.25	0.00
621.60	100.66	621.25	0.00
621.65	109.49	621.25	0.00
621.70	118.26	621.25	0.00
621.75	127.01	621.25	0.00
621.80	135.76	621.25	0.00
621.85	144.54	621.25	0.00
621.90	153.35	621.25	0.00
621.95	162.21	621.25	0.00
622.00	171.12	621.25	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-113.20	621.30	0.00
618.05	-113.20	621.30	0.00
618.10	-113.20	621.30	0.00
618.15	-113.20	621.30	0.00
618.20	-113.20	621.30	0.00
618.25	-113.20	621.30	0.00
618.30	-113.20	621.30	0.00
618.35	-113.20	621.30	0.00
618.40	-113.20	621.30	0.00
618.45	-113.20	621.30	0.00
618.50	-113.20	621.30	0.00
618.55	-113.20	621.30	0.00
618.60	-113.20	621.30	0.00
618.65	-113.20	621.30	0.00
618.70	-113.20	621.30	0.00
618.75	-113.20	621.30	0.00
618.80	-113.20	621.30	0.00
618.85	-113.20	621.30	0.00
618.90	-113.20	621.30	0.00
618.95	-113.20	621.30	0.00
619.00	-113.20	621.30	0.00
619.05	-113.20	621.30	0.00
619.10	-113.20	621.30	0.00
619.15	-113.20	621.30	0.00
619.20	-113.20	621.30	0.00
619.25	-113.20	621.30	0.00
619.30	-113.20	621.30	0.00
619.35	-113.20	621.30	0.00
619.40	-113.20	621.30	0.00
619.45	-113.20	621.30	0.00
619.50	-113.20	621.30	0.00
619.55	-113.20	621.30	0.00
619.60	-113.20	621.30	0.00
619.65	-113.20	621.30	0.00
619.70	-113.20	621.30	0.00
619.75	-113.20	621.30	0.00
619.80	-113.20	621.30	0.00
619.85	-113.20	621.30	0.00
619.90	-113.20	621.30	0.00
619.95	-113.20	621.30	0.00
620.00	-113.20	621.30	0.00
620.05	-113.20	621.30	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-112.85	621.30	0.00
620.15	-112.21	621.30	0.00
620.20	-111.37	621.30	0.00
620.25	-110.35	621.30	0.00
620.30	-109.19	621.30	0.00
620.35	-107.88	621.30	0.00
620.40	-106.42	621.30	0.00
620.45	-104.82	621.30	0.00
620.50	-103.08	621.30	0.00
620.55	-101.18	621.30	0.00
620.60	-99.12	621.30	0.00
620.65	-96.88	621.30	0.00
620.70	-94.46	621.30	0.00
620.75	-91.84	621.30	0.00
620.80	-88.99	621.30	0.00
620.85	-85.88	621.30	0.00
620.90	-82.47	621.30	0.00
620.95	-78.71	621.30	0.00
621.00	-74.51	621.30	0.00
621.05	-69.77	621.30	0.00
621.10	-64.30	621.30	0.00
621.15	-57.80	621.30	0.00
621.20	-49.65	621.30	0.00
621.25	-38.17	621.30	0.00
621.30	0.00	621.30	0.00
621.35	39.88	621.30	0.00
621.40	54.13	621.30	0.00
621.45	65.67	621.30	0.00
621.50	76.05	621.30	0.00
621.55	85.80	621.30	0.00
621.60	95.19	621.30	0.00
621.65	104.36	621.30	0.00
621.70	113.41	621.30	0.00
621.75	122.37	621.30	0.00
621.80	131.31	621.30	0.00
621.85	140.24	621.30	0.00
621.90	149.18	621.30	0.00
621.95	158.15	621.30	0.00
622.00	167.17	621.30	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft³/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-120.06	621.35	0.00
618.05	-120.06	621.35	0.00
618.10	-120.06	621.35	0.00
618.15	-120.06	621.35	0.00
618.20	-120.06	621.35	0.00
618.25	-120.06	621.35	0.00
618.30	-120.06	621.35	0.00
618.35	-120.06	621.35	0.00
618.40	-120.06	621.35	0.00
618.45	-120.06	621.35	0.00
618.50	-120.06	621.35	0.00
618.55	-120.06	621.35	0.00
618.60	-120.06	621.35	0.00
618.65	-120.06	621.35	0.00
618.70	-120.06	621.35	0.00
618.75	-120.06	621.35	0.00
618.80	-120.06	621.35	0.00
618.85	-120.06	621.35	0.00
618.90	-120.06	621.35	0.00
618.95	-120.06	621.35	0.00
619.00	-120.06	621.35	0.00
619.05	-120.06	621.35	0.00
619.10	-120.06	621.35	0.00
619.15	-120.06	621.35	0.00
619.20	-120.06	621.35	0.00
619.25	-120.06	621.35	0.00
619.30	-120.06	621.35	0.00
619.35	-120.06	621.35	0.00
619.40	-120.06	621.35	0.00
619.45	-120.06	621.35	0.00
619.50	-120.06	621.35	0.00
619.55	-120.06	621.35	0.00
619.60	-120.06	621.35	0.00
619.65	-120.06	621.35	0.00
619.70	-120.06	621.35	0.00
619.75	-120.06	621.35	0.00
619.80	-120.06	621.35	0.00
619.85	-120.06	621.35	0.00
619.90	-120.06	621.35	0.00
619.95	-120.06	621.35	0.00
620.00	-120.06	621.35	0.00
620.05	-120.06	621.35	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-119.71	621.35	0.00
620.15	-119.07	621.35	0.00
620.20	-118.23	621.35	0.00
620.25	-117.22	621.35	0.00
620.30	-116.06	621.35	0.00
620.35	-114.75	621.35	0.00
620.40	-113.30	621.35	0.00
620.45	-111.71	621.35	0.00
620.50	-109.98	621.35	0.00
620.55	-108.10	621.35	0.00
620.60	-106.07	621.35	0.00
620.65	-103.87	621.35	0.00
620.70	-101.50	621.35	0.00
620.75	-98.93	621.35	0.00
620.80	-96.16	621.35	0.00
620.85	-93.15	621.35	0.00
620.90	-89.87	621.35	0.00
620.95	-86.28	621.35	0.00
621.00	-82.33	621.35	0.00
621.05	-77.92	621.35	0.00
621.10	-72.95	621.35	0.00
621.15	-67.22	621.35	0.00
621.20	-60.41	621.35	0.00
621.25	-51.88	621.35	0.00
621.30	-39.88	621.35	0.00
621.35	0.00	621.35	0.00
621.40	41.60	621.35	0.00
621.45	56.38	621.35	0.00
621.50	68.32	621.35	0.00
621.55	79.02	621.35	0.00
621.60	89.05	621.35	0.00
621.65	98.69	621.35	0.00
621.70	108.09	621.35	0.00
621.75	117.34	621.35	0.00
621.80	126.50	621.35	0.00
621.85	135.62	621.35	0.00
621.90	144.73	621.35	0.00
621.95	153.84	621.35	0.00
622.00	162.97	621.35	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-127.05	621.40	0.00
618.05	-127.05	621.40	0.00
618.10	-127.05	621.40	0.00
618.15	-127.05	621.40	0.00
618.20	-127.05	621.40	0.00
618.25	-127.05	621.40	0.00
618.30	-127.05	621.40	0.00
618.35	-127.05	621.40	0.00
618.40	-127.05	621.40	0.00
618.45	-127.05	621.40	0.00
618.50	-127.05	621.40	0.00
618.55	-127.05	621.40	0.00
618.60	-127.05	621.40	0.00
618.65	-127.05	621.40	0.00
618.70	-127.05	621.40	0.00
618.75	-127.05	621.40	0.00
618.80	-127.05	621.40	0.00
618.85	-127.05	621.40	0.00
618.90	-127.05	621.40	0.00
618.95	-127.05	621.40	0.00
619.00	-127.05	621.40	0.00
619.05	-127.05	621.40	0.00
619.10	-127.05	621.40	0.00
619.15	-127.05	621.40	0.00
619.20	-127.05	621.40	0.00
619.25	-127.05	621.40	0.00
619.30	-127.05	621.40	0.00
619.35	-127.05	621.40	0.00
619.40	-127.05	621.40	0.00
619.45	-127.05	621.40	0.00
619.50	-127.05	621.40	0.00
619.55	-127.05	621.40	0.00
619.60	-127.05	621.40	0.00
619.65	-127.05	621.40	0.00
619.70	-127.05	621.40	0.00
619.75	-127.05	621.40	0.00
619.80	-127.05	621.40	0.00
619.85	-127.05	621.40	0.00
619.90	-127.05	621.40	0.00
619.95	-127.05	621.40	0.00
620.00	-127.05	621.40	0.00
620.05	-127.05	621.40	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-126.70	621.40	0.00
620.15	-126.06	621.40	0.00
620.20	-125.22	621.40	0.00
620.25	-124.21	621.40	0.00
620.30	-123.06	621.40	0.00
620.35	-121.75	621.40	0.00
620.40	-120.31	621.40	0.00
620.45	-118.73	621.40	0.00
620.50	-117.02	621.40	0.00
620.55	-115.15	621.40	0.00
620.60	-113.14	621.40	0.00
620.65	-110.98	621.40	0.00
620.70	-108.64	621.40	0.00
620.75	-106.13	621.40	0.00
620.80	-103.42	621.40	0.00
620.85	-100.49	621.40	0.00
620.90	-97.32	621.40	0.00
620.95	-93.88	621.40	0.00
621.00	-90.11	621.40	0.00
621.05	-85.96	621.40	0.00
621.10	-81.35	621.40	0.00
621.15	-76.14	621.40	0.00
621.20	-70.15	621.40	0.00
621.25	-63.04	621.40	0.00
621.30	-54.13	621.40	0.00
621.35	-41.60	621.40	0.00
621.40	0.00	621.40	0.00
621.45	43.33	621.40	0.00
621.50	58.65	621.40	0.00
621.55	70.98	621.40	0.00
621.60	82.00	621.40	0.00
621.65	92.31	621.40	0.00
621.70	102.19	621.40	0.00
621.75	111.82	621.40	0.00
621.80	121.28	621.40	0.00
621.85	130.64	621.40	0.00
621.90	139.95	621.40	0.00
621.95	149.23	621.40	0.00
622.00	158.51	621.40	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-134.18	621.45	0.00
618.05	-134.18	621.45	0.00
618.10	-134.18	621.45	0.00
618.15	-134.18	621.45	0.00
618.20	-134.18	621.45	0.00
618.25	-134.18	621.45	0.00
618.30	-134.18	621.45	0.00
618.35	-134.18	621.45	0.00
618.40	-134.18	621.45	0.00
618.45	-134.18	621.45	0.00
618.50	-134.18	621.45	0.00
618.55	-134.18	621.45	0.00
618.60	-134.18	621.45	0.00
618.65	-134.18	621.45	0.00
618.70	-134.18	621.45	0.00
618.75	-134.18	621.45	0.00
618.80	-134.18	621.45	0.00
618.85	-134.18	621.45	0.00
618.90	-134.18	621.45	0.00
618.95	-134.18	621.45	0.00
619.00	-134.18	621.45	0.00
619.05	-134.18	621.45	0.00
619.10	-134.18	621.45	0.00
619.15	-134.18	621.45	0.00
619.20	-134.18	621.45	0.00
619.25	-134.18	621.45	0.00
619.30	-134.18	621.45	0.00
619.35	-134.18	621.45	0.00
619.40	-134.18	621.45	0.00
619.45	-134.18	621.45	0.00
619.50	-134.18	621.45	0.00
619.55	-134.18	621.45	0.00
619.60	-134.18	621.45	0.00
619.65	-134.18	621.45	0.00
619.70	-134.18	621.45	0.00
619.75	-134.18	621.45	0.00
619.80	-134.18	621.45	0.00
619.85	-134.18	621.45	0.00
619.90	-134.18	621.45	0.00
619.95	-134.18	621.45	0.00
620.00	-134.18	621.45	0.00
620.05	-134.18	621.45	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-133.83	621.45	0.00
620.15	-133.18	621.45	0.00
620.20	-132.35	621.45	0.00
620.25	-131.34	621.45	0.00
620.30	-130.18	621.45	0.00
620.35	-128.89	621.45	0.00
620.40	-127.45	621.45	0.00
620.45	-125.88	621.45	0.00
620.50	-124.18	621.45	0.00
620.55	-122.33	621.45	0.00
620.60	-120.34	621.45	0.00
620.65	-118.20	621.45	0.00
620.70	-115.90	621.45	0.00
620.75	-113.43	621.45	0.00
620.80	-110.78	621.45	0.00
620.85	-107.92	621.45	0.00
620.90	-104.85	621.45	0.00
620.95	-101.52	621.45	0.00
621.00	-97.90	621.45	0.00
621.05	-93.96	621.45	0.00
621.10	-89.61	621.45	0.00
621.15	-84.79	621.45	0.00
621.20	-79.35	621.45	0.00
621.25	-73.09	621.45	0.00
621.30	-65.67	621.45	0.00
621.35	-56.38	621.45	0.00
621.40	-43.33	621.45	0.00
621.45	0.00	621.45	0.00
621.50	45.07	621.45	0.00
621.55	60.92	621.45	0.00
621.60	73.64	621.45	0.00
621.65	84.99	621.45	0.00
621.70	95.58	621.45	0.00
621.75	105.71	621.45	0.00
621.80	115.57	621.45	0.00
621.85	125.24	621.45	0.00
621.90	134.80	621.45	0.00
621.95	144.29	621.45	0.00
622.00	153.75	621.45	0.00

Contributing Structures
Weir - 1
Weir - 1

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-141.43	621.50	0.00
618.05	-141.43	621.50	0.00
618.10	-141.43	621.50	0.00
618.15	-141.43	621.50	0.00
618.20	-141.43	621.50	0.00
618.25	-141.43	621.50	0.00
618.30	-141.43	621.50	0.00
618.35	-141.43	621.50	0.00
618.40	-141.43	621.50	0.00
618.45	-141.43	621.50	0.00
618.50	-141.43	621.50	0.00
618.55	-141.43	621.50	0.00
618.60	-141.43	621.50	0.00
618.65	-141.43	621.50	0.00
618.70	-141.43	621.50	0.00
618.75	-141.43	621.50	0.00
618.80	-141.43	621.50	0.00
618.85	-141.43	621.50	0.00
618.90	-141.43	621.50	0.00
618.95	-141.43	621.50	0.00
619.00	-141.43	621.50	0.00
619.05	-141.43	621.50	0.00
619.10	-141.43	621.50	0.00
619.15	-141.43	621.50	0.00
619.20	-141.43	621.50	0.00
619.25	-141.43	621.50	0.00
619.30	-141.43	621.50	0.00
619.35	-141.43	621.50	0.00
619.40	-141.43	621.50	0.00
619.45	-141.43	621.50	0.00
619.50	-141.43	621.50	0.00
619.55	-141.43	621.50	0.00
619.60	-141.43	621.50	0.00
619.65	-141.43	621.50	0.00
619.70	-141.43	621.50	0.00
619.75	-141.43	621.50	0.00
619.80	-141.43	621.50	0.00
619.85	-141.43	621.50	0.00
619.90	-141.43	621.50	0.00
619.95	-141.43	621.50	0.00
620.00	-141.43	621.50	0.00
620.05	-141.43	621.50	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-141.08	621.50	0.00
620.15	-140.44	621.50	0.00
620.20	-139.60	621.50	0.00
620.25	-138.59	621.50	0.00
620.30	-137.44	621.50	0.00
620.35	-136.15	621.50	0.00
620.40	-134.72	621.50	0.00
620.45	-133.16	621.50	0.00
620.50	-131.46	621.50	0.00
620.55	-129.63	621.50	0.00
620.60	-127.66	621.50	0.00
620.65	-125.54	621.50	0.00
620.70	-123.27	621.50	0.00
620.75	-120.84	621.50	0.00
620.80	-118.24	621.50	0.00
620.85	-115.44	621.50	0.00
620.90	-112.44	621.50	0.00
620.95	-109.21	621.50	0.00
621.00	-105.73	621.50	0.00
621.05	-101.94	621.50	0.00
621.10	-97.82	621.50	0.00
621.15	-93.28	621.50	0.00
621.20	-88.24	621.50	0.00
621.25	-82.57	621.50	0.00
621.30	-76.05	621.50	0.00
621.35	-68.32	621.50	0.00
621.40	-58.65	621.50	0.00
621.45	-45.07	621.50	0.00
621.50	0.00	621.50	0.00
621.55	46.81	621.50	0.00
621.60	63.20	621.50	0.00
621.65	76.32	621.50	0.00
621.70	87.99	621.50	0.00
621.75	98.86	621.50	0.00
621.80	109.25	621.50	0.00
621.85	119.33	621.50	0.00
621.90	129.21	621.50	0.00
621.95	138.97	621.50	0.00
622.00	148.65	621.50	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-148.81	621.55	0.00
618.05	-148.81	621.55	0.00
618.10	-148.81	621.55	0.00
618.15	-148.81	621.55	0.00
618.20	-148.81	621.55	0.00
618.25	-148.81	621.55	0.00
618.30	-148.81	621.55	0.00
618.35	-148.81	621.55	0.00
618.40	-148.81	621.55	0.00
618.45	-148.81	621.55	0.00
618.50	-148.81	621.55	0.00
618.55	-148.81	621.55	0.00
618.60	-148.81	621.55	0.00
618.65	-148.81	621.55	0.00
618.70	-148.81	621.55	0.00
618.75	-148.81	621.55	0.00
618.80	-148.81	621.55	0.00
618.85	-148.81	621.55	0.00
618.90	-148.81	621.55	0.00
618.95	-148.81	621.55	0.00
619.00	-148.81	621.55	0.00
619.05	-148.81	621.55	0.00
619.10	-148.81	621.55	0.00
619.15	-148.81	621.55	0.00
619.20	-148.81	621.55	0.00
619.25	-148.81	621.55	0.00
619.30	-148.81	621.55	0.00
619.35	-148.81	621.55	0.00
619.40	-148.81	621.55	0.00
619.45	-148.81	621.55	0.00
619.50	-148.81	621.55	0.00
619.55	-148.81	621.55	0.00
619.60	-148.81	621.55	0.00
619.65	-148.81	621.55	0.00
619.70	-148.81	621.55	0.00
619.75	-148.81	621.55	0.00
619.80	-148.81	621.55	0.00
619.85	-148.81	621.55	0.00
619.90	-148.81	621.55	0.00
619.95	-148.81	621.55	0.00
620.00	-148.81	621.55	0.00
620.05	-148.81	621.55	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-148.46	621.55	0.00
620.15	-147.82	621.55	0.00
620.20	-146.98	621.55	0.00
620.25	-145.97	621.55	0.00
620.30	-144.82	621.55	0.00
620.35	-143.53	621.55	0.00
620.40	-142.11	621.55	0.00
620.45	-140.56	621.55	0.00
620.50	-138.87	621.55	0.00
620.55	-137.05	621.55	0.00
620.60	-135.10	621.55	0.00
620.65	-133.00	621.55	0.00
620.70	-130.76	621.55	0.00
620.75	-128.36	621.55	0.00
620.80	-125.80	621.55	0.00
620.85	-123.06	621.55	0.00
620.90	-120.13	621.55	0.00
620.95	-116.98	621.55	0.00
621.00	-113.60	621.55	0.00
621.05	-109.95	621.55	0.00
621.10	-106.00	621.55	0.00
621.15	-101.69	621.55	0.00
621.20	-96.96	621.55	0.00
621.25	-91.71	621.55	0.00
621.30	-85.80	621.55	0.00
621.35	-79.02	621.55	0.00
621.40	-70.98	621.55	0.00
621.45	-60.92	621.55	0.00
621.50	-46.81	621.55	0.00
621.55	0.00	621.55	0.00
621.60	48.56	621.55	0.00
621.65	65.50	621.55	0.00
621.70	79.01	621.55	0.00
621.75	91.00	621.55	0.00
621.80	102.15	621.55	0.00
621.85	112.79	621.55	0.00
621.90	123.10	621.55	0.00
621.95	133.20	621.55	0.00
622.00	143.15	621.55	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
Weir - 1
Weir - 1
Weir - 1
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve Return Event: 1 years
Label: Infiltration Basin Overflow Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-156.31	621.60	0.00
618.05	-156.31	621.60	0.00
618.10	-156.31	621.60	0.00
618.15	-156.31	621.60	0.00
618.20	-156.31	621.60	0.00
618.25	-156.31	621.60	0.00
618.30	-156.31	621.60	0.00
618.35	-156.31	621.60	0.00
618.40	-156.31	621.60	0.00
618.45	-156.31	621.60	0.00
618.50	-156.31	621.60	0.00
618.55	-156.31	621.60	0.00
618.60	-156.31	621.60	0.00
618.65	-156.31	621.60	0.00
618.70	-156.31	621.60	0.00
618.75	-156.31	621.60	0.00
618.80	-156.31	621.60	0.00
618.85	-156.31	621.60	0.00
618.90	-156.31	621.60	0.00
618.95	-156.31	621.60	0.00
619.00	-156.31	621.60	0.00
619.05	-156.31	621.60	0.00
619.10	-156.31	621.60	0.00
619.15	-156.31	621.60	0.00
619.20	-156.31	621.60	0.00
619.25	-156.31	621.60	0.00
619.30	-156.31	621.60	0.00
619.35	-156.31	621.60	0.00
619.40	-156.31	621.60	0.00
619.45	-156.31	621.60	0.00
619.50	-156.31	621.60	0.00
619.55	-156.31	621.60	0.00
619.60	-156.31	621.60	0.00
619.65	-156.31	621.60	0.00
619.70	-156.31	621.60	0.00
619.75	-156.31	621.60	0.00
619.80	-156.31	621.60	0.00
619.85	-156.31	621.60	0.00
619.90	-156.31	621.60	0.00
619.95	-156.31	621.60	0.00
620.00	-156.31	621.60	0.00
620.05	-156.31	621.60	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft³/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-155.96	621.60	0.00
620.15	-155.32	621.60	0.00
620.20	-154.48	621.60	0.00
620.25	-153.48	621.60	0.00
620.30	-152.33	621.60	0.00
620.35	-151.04	621.60	0.00
620.40	-149.62	621.60	0.00
620.45	-148.08	621.60	0.00
620.50	-146.40	621.60	0.00
620.55	-144.59	621.60	0.00
620.60	-142.65	621.60	0.00
620.65	-140.58	621.60	0.00
620.70	-138.36	621.60	0.00
620.75	-135.99	621.60	0.00
620.80	-133.47	621.60	0.00
620.85	-130.77	621.60	0.00
620.90	-127.90	621.60	0.00
620.95	-124.82	621.60	0.00
621.00	-121.53	621.60	0.00
621.05	-118.00	621.60	0.00
621.10	-114.19	621.60	0.00
621.15	-110.07	621.60	0.00
621.20	-105.58	621.60	0.00
621.25	-100.66	621.60	0.00
621.30	-95.19	621.60	0.00
621.35	-89.05	621.60	0.00
621.40	-82.00	621.60	0.00
621.45	-73.64	621.60	0.00
621.50	-63.20	621.60	0.00
621.55	-48.56	621.60	0.00
621.60	0.00	621.60	0.00
621.65	50.31	621.60	0.00
621.70	67.79	621.60	0.00
621.75	81.70	621.60	0.00
621.80	94.02	621.60	0.00
621.85	105.45	621.60	0.00
621.90	116.34	621.60	0.00
621.95	126.88	621.60	0.00
622.00	137.19	621.60	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-163.93	621.65	0.00
618.05	-163.93	621.65	0.00
618.10	-163.93	621.65	0.00
618.15	-163.93	621.65	0.00
618.20	-163.93	621.65	0.00
618.25	-163.93	621.65	0.00
618.30	-163.93	621.65	0.00
618.35	-163.93	621.65	0.00
618.40	-163.93	621.65	0.00
618.45	-163.93	621.65	0.00
618.50	-163.93	621.65	0.00
618.55	-163.93	621.65	0.00
618.60	-163.93	621.65	0.00
618.65	-163.93	621.65	0.00
618.70	-163.93	621.65	0.00
618.75	-163.93	621.65	0.00
618.80	-163.93	621.65	0.00
618.85	-163.93	621.65	0.00
618.90	-163.93	621.65	0.00
618.95	-163.93	621.65	0.00
619.00	-163.93	621.65	0.00
619.05	-163.93	621.65	0.00
619.10	-163.93	621.65	0.00
619.15	-163.93	621.65	0.00
619.20	-163.93	621.65	0.00
619.25	-163.93	621.65	0.00
619.30	-163.93	621.65	0.00
619.35	-163.93	621.65	0.00
619.40	-163.93	621.65	0.00
619.45	-163.93	621.65	0.00
619.50	-163.93	621.65	0.00
619.55	-163.93	621.65	0.00
619.60	-163.93	621.65	0.00
619.65	-163.93	621.65	0.00
619.70	-163.93	621.65	0.00
619.75	-163.93	621.65	0.00
619.80	-163.93	621.65	0.00
619.85	-163.93	621.65	0.00
619.90	-163.93	621.65	0.00
619.95	-163.93	621.65	0.00
620.00	-163.93	621.65	0.00
620.05	-163.93	621.65	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-163.58	621.65	0.00
620.15	-162.94	621.65	0.00
620.20	-162.10	621.65	0.00
620.25	-161.10	621.65	0.00
620.30	-159.96	621.65	0.00
620.35	-158.67	621.65	0.00
620.40	-157.26	621.65	0.00
620.45	-155.72	621.65	0.00
620.50	-154.05	621.65	0.00
620.55	-152.25	621.65	0.00
620.60	-150.33	621.65	0.00
620.65	-148.27	621.65	0.00
620.70	-146.07	621.65	0.00
620.75	-143.73	621.65	0.00
620.80	-141.24	621.65	0.00
620.85	-138.59	621.65	0.00
620.90	-135.76	621.65	0.00
620.95	-132.75	621.65	0.00
621.00	-129.54	621.65	0.00
621.05	-126.10	621.65	0.00
621.10	-122.42	621.65	0.00
621.15	-118.45	621.65	0.00
621.20	-114.16	621.65	0.00
621.25	-109.49	621.65	0.00
621.30	-104.36	621.65	0.00
621.35	-98.69	621.65	0.00
621.40	-92.31	621.65	0.00
621.45	-84.99	621.65	0.00
621.50	-76.32	621.65	0.00
621.55	-65.50	621.65	0.00
621.60	-50.31	621.65	0.00
621.65	0.00	621.65	0.00
621.70	52.07	621.65	0.00
621.75	70.10	621.65	0.00
621.80	84.41	621.65	0.00
621.85	97.05	621.65	0.00
621.90	108.77	621.65	0.00
621.95	119.91	621.65	0.00
622.00	130.68	621.65	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-171.68	621.70	0.00
618.05	-171.68	621.70	0.00
618.10	-171.68	621.70	0.00
618.15	-171.68	621.70	0.00
618.20	-171.68	621.70	0.00
618.25	-171.68	621.70	0.00
618.30	-171.68	621.70	0.00
618.35	-171.68	621.70	0.00
618.40	-171.68	621.70	0.00
618.45	-171.68	621.70	0.00
618.50	-171.68	621.70	0.00
618.55	-171.68	621.70	0.00
618.60	-171.68	621.70	0.00
618.65	-171.68	621.70	0.00
618.70	-171.68	621.70	0.00
618.75	-171.68	621.70	0.00
618.80	-171.68	621.70	0.00
618.85	-171.68	621.70	0.00
618.90	-171.68	621.70	0.00
618.95	-171.68	621.70	0.00
619.00	-171.68	621.70	0.00
619.05	-171.68	621.70	0.00
619.10	-171.68	621.70	0.00
619.15	-171.68	621.70	0.00
619.20	-171.68	621.70	0.00
619.25	-171.68	621.70	0.00
619.30	-171.68	621.70	0.00
619.35	-171.68	621.70	0.00
619.40	-171.68	621.70	0.00
619.45	-171.68	621.70	0.00
619.50	-171.68	621.70	0.00
619.55	-171.68	621.70	0.00
619.60	-171.68	621.70	0.00
619.65	-171.68	621.70	0.00
619.70	-171.68	621.70	0.00
619.75	-171.68	621.70	0.00
619.80	-171.68	621.70	0.00
619.85	-171.68	621.70	0.00
619.90	-171.68	621.70	0.00
619.95	-171.68	621.70	0.00
620.00	-171.68	621.70	0.00
620.05	-171.68	621.70	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-171.33	621.70	0.00
620.15	-170.69	621.70	0.00
620.20	-169.85	621.70	0.00
620.25	-168.85	621.70	0.00
620.30	-167.71	621.70	0.00
620.35	-166.42	621.70	0.00
620.40	-165.01	621.70	0.00
620.45	-163.48	621.70	0.00
620.50	-161.82	621.70	0.00
620.55	-160.03	621.70	0.00
620.60	-158.11	621.70	0.00
620.65	-156.07	621.70	0.00
620.70	-153.89	621.70	0.00
620.75	-151.58	621.70	0.00
620.80	-149.12	621.70	0.00
620.85	-146.50	621.70	0.00
620.90	-143.72	621.70	0.00
620.95	-140.77	621.70	0.00
621.00	-137.62	621.70	0.00
621.05	-134.27	621.70	0.00
621.10	-130.69	621.70	0.00
621.15	-126.85	621.70	0.00
621.20	-122.72	621.70	0.00
621.25	-118.26	621.70	0.00
621.30	-113.41	621.70	0.00
621.35	-108.09	621.70	0.00
621.40	-102.19	621.70	0.00
621.45	-95.58	621.70	0.00
621.50	-87.99	621.70	0.00
621.55	-79.01	621.70	0.00
621.60	-67.79	621.70	0.00
621.65	-52.07	621.70	0.00
621.70	0.00	621.70	0.00
621.75	53.84	621.70	0.00
621.80	72.42	621.70	0.00
621.85	87.12	621.70	0.00
621.90	100.09	621.70	0.00
621.95	112.09	621.70	0.00
622.00	123.49	621.70	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-179.54	621.75	0.00
618.05	-179.54	621.75	0.00
618.10	-179.54	621.75	0.00
618.15	-179.54	621.75	0.00
618.20	-179.54	621.75	0.00
618.25	-179.54	621.75	0.00
618.30	-179.54	621.75	0.00
618.35	-179.54	621.75	0.00
618.40	-179.54	621.75	0.00
618.45	-179.54	621.75	0.00
618.50	-179.54	621.75	0.00
618.55	-179.54	621.75	0.00
618.60	-179.54	621.75	0.00
618.65	-179.54	621.75	0.00
618.70	-179.54	621.75	0.00
618.75	-179.54	621.75	0.00
618.80	-179.54	621.75	0.00
618.85	-179.54	621.75	0.00
618.90	-179.54	621.75	0.00
618.95	-179.54	621.75	0.00
619.00	-179.54	621.75	0.00
619.05	-179.54	621.75	0.00
619.10	-179.54	621.75	0.00
619.15	-179.54	621.75	0.00
619.20	-179.54	621.75	0.00
619.25	-179.54	621.75	0.00
619.30	-179.54	621.75	0.00
619.35	-179.54	621.75	0.00
619.40	-179.54	621.75	0.00
619.45	-179.54	621.75	0.00
619.50	-179.54	621.75	0.00
619.55	-179.54	621.75	0.00
619.60	-179.54	621.75	0.00
619.65	-179.54	621.75	0.00
619.70	-179.54	621.75	0.00
619.75	-179.54	621.75	0.00
619.80	-179.54	621.75	0.00
619.85	-179.54	621.75	0.00
619.90	-179.54	621.75	0.00
619.95	-179.54	621.75	0.00
620.00	-179.54	621.75	0.00
620.05	-179.54	621.75	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-179.19	621.75	0.00
620.15	-178.55	621.75	0.00
620.20	-177.71	621.75	0.00
620.25	-176.71	621.75	0.00
620.30	-175.57	621.75	0.00
620.35	-174.29	621.75	0.00
620.40	-172.89	621.75	0.00
620.45	-171.35	621.75	0.00
620.50	-169.70	621.75	0.00
620.55	-167.92	621.75	0.00
620.60	-166.02	621.75	0.00
620.65	-163.99	621.75	0.00
620.70	-161.83	621.75	0.00
620.75	-159.53	621.75	0.00
620.80	-157.10	621.75	0.00
620.85	-154.52	621.75	0.00
620.90	-151.78	621.75	0.00
620.95	-148.87	621.75	0.00
621.00	-145.79	621.75	0.00
621.05	-142.51	621.75	0.00
621.10	-139.02	621.75	0.00
621.15	-135.29	621.75	0.00
621.20	-131.30	621.75	0.00
621.25	-127.01	621.75	0.00
621.30	-122.37	621.75	0.00
621.35	-117.34	621.75	0.00
621.40	-111.82	621.75	0.00
621.45	-105.71	621.75	0.00
621.50	-98.86	621.75	0.00
621.55	-91.00	621.75	0.00
621.60	-81.70	621.75	0.00
621.65	-70.10	621.75	0.00
621.70	-53.84	621.75	0.00
621.75	0.00	621.75	0.00
621.80	55.61	621.75	0.00
621.85	74.74	621.75	0.00
621.90	89.85	621.75	0.00
621.95	103.14	621.75	0.00
622.00	115.43	621.75	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-187.52	621.80	0.00
618.05	-187.52	621.80	0.00
618.10	-187.52	621.80	0.00
618.15	-187.52	621.80	0.00
618.20	-187.52	621.80	0.00
618.25	-187.52	621.80	0.00
618.30	-187.52	621.80	0.00
618.35	-187.52	621.80	0.00
618.40	-187.52	621.80	0.00
618.45	-187.52	621.80	0.00
618.50	-187.52	621.80	0.00
618.55	-187.52	621.80	0.00
618.60	-187.52	621.80	0.00
618.65	-187.52	621.80	0.00
618.70	-187.52	621.80	0.00
618.75	-187.52	621.80	0.00
618.80	-187.52	621.80	0.00
618.85	-187.52	621.80	0.00
618.90	-187.52	621.80	0.00
618.95	-187.52	621.80	0.00
619.00	-187.52	621.80	0.00
619.05	-187.52	621.80	0.00
619.10	-187.52	621.80	0.00
619.15	-187.52	621.80	0.00
619.20	-187.52	621.80	0.00
619.25	-187.52	621.80	0.00
619.30	-187.52	621.80	0.00
619.35	-187.52	621.80	0.00
619.40	-187.52	621.80	0.00
619.45	-187.52	621.80	0.00
619.50	-187.52	621.80	0.00
619.55	-187.52	621.80	0.00
619.60	-187.52	621.80	0.00
619.65	-187.52	621.80	0.00
619.70	-187.52	621.80	0.00
619.75	-187.52	621.80	0.00
619.80	-187.52	621.80	0.00
619.85	-187.52	621.80	0.00
619.90	-187.52	621.80	0.00
619.95	-187.52	621.80	0.00
620.00	-187.52	621.80	0.00
620.05	-187.52	621.80	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-187.17	621.80	0.00
620.15	-186.53	621.80	0.00
620.20	-185.69	621.80	0.00
620.25	-184.69	621.80	0.00
620.30	-183.55	621.80	0.00
620.35	-182.28	621.80	0.00
620.40	-180.87	621.80	0.00
620.45	-179.35	621.80	0.00
620.50	-177.70	621.80	0.00
620.55	-175.93	621.80	0.00
620.60	-174.03	621.80	0.00
620.65	-172.02	621.80	0.00
620.70	-169.87	621.80	0.00
620.75	-167.60	621.80	0.00
620.80	-165.19	621.80	0.00
620.85	-162.64	621.80	0.00
620.90	-159.94	621.80	0.00
620.95	-157.07	621.80	0.00
621.00	-154.04	621.80	0.00
621.05	-150.83	621.80	0.00
621.10	-147.41	621.80	0.00
621.15	-143.78	621.80	0.00
621.20	-139.91	621.80	0.00
621.25	-135.76	621.80	0.00
621.30	-131.31	621.80	0.00
621.35	-126.50	621.80	0.00
621.40	-121.28	621.80	0.00
621.45	-115.57	621.80	0.00
621.50	-109.25	621.80	0.00
621.55	-102.15	621.80	0.00
621.60	-94.02	621.80	0.00
621.65	-84.41	621.80	0.00
621.70	-72.42	621.80	0.00
621.75	-55.61	621.80	0.00
621.80	0.00	621.80	0.00
621.85	57.39	621.80	0.00
621.90	77.07	621.80	0.00
621.95	92.58	621.80	0.00
622.00	106.20	621.80	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve　　Return Event: 1 years
Label: Infiltration Basin Overflow　　Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-195.61	621.85	0.00
618.05	-195.61	621.85	0.00
618.10	-195.61	621.85	0.00
618.15	-195.61	621.85	0.00
618.20	-195.61	621.85	0.00
618.25	-195.61	621.85	0.00
618.30	-195.61	621.85	0.00
618.35	-195.61	621.85	0.00
618.40	-195.61	621.85	0.00
618.45	-195.61	621.85	0.00
618.50	-195.61	621.85	0.00
618.55	-195.61	621.85	0.00
618.60	-195.61	621.85	0.00
618.65	-195.61	621.85	0.00
618.70	-195.61	621.85	0.00
618.75	-195.61	621.85	0.00
618.80	-195.61	621.85	0.00
618.85	-195.61	621.85	0.00
618.90	-195.61	621.85	0.00
618.95	-195.61	621.85	0.00
619.00	-195.61	621.85	0.00
619.05	-195.61	621.85	0.00
619.10	-195.61	621.85	0.00
619.15	-195.61	621.85	0.00
619.20	-195.61	621.85	0.00
619.25	-195.61	621.85	0.00
619.30	-195.61	621.85	0.00
619.35	-195.61	621.85	0.00
619.40	-195.61	621.85	0.00
619.45	-195.61	621.85	0.00
619.50	-195.61	621.85	0.00
619.55	-195.61	621.85	0.00
619.60	-195.61	621.85	0.00
619.65	-195.61	621.85	0.00
619.70	-195.61	621.85	0.00
619.75	-195.61	621.85	0.00
619.80	-195.61	621.85	0.00
619.85	-195.61	621.85	0.00
619.90	-195.61	621.85	0.00
619.95	-195.61	621.85	0.00
620.00	-195.61	621.85	0.00
620.05	-195.61	621.85	0.00

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-195.26	621.85	0.00
620.15	-194.62	621.85	0.00
620.20	-193.79	621.85	0.00
620.25	-192.79	621.85	0.00
620.30	-191.65	621.85	0.00
620.35	-190.38	621.85	0.00
620.40	-188.98	621.85	0.00
620.45	-187.45	621.85	0.00
620.50	-185.81	621.85	0.00
620.55	-184.05	621.85	0.00
620.60	-182.16	621.85	0.00
620.65	-180.16	621.85	0.00
620.70	-178.03	621.85	0.00
620.75	-175.77	621.85	0.00
620.80	-173.39	621.85	0.00
620.85	-170.86	621.85	0.00
620.90	-168.19	621.85	0.00
620.95	-165.37	621.85	0.00
621.00	-162.38	621.85	0.00
621.05	-159.22	621.85	0.00
621.10	-155.88	621.85	0.00
621.15	-152.33	621.85	0.00
621.20	-148.56	621.85	0.00
621.25	-144.54	621.85	0.00
621.30	-140.24	621.85	0.00
621.35	-135.62	621.85	0.00
621.40	-130.64	621.85	0.00
621.45	-125.24	621.85	0.00
621.50	-119.33	621.85	0.00
621.55	-112.79	621.85	0.00
621.60	-105.45	621.85	0.00
621.65	-97.05	621.85	0.00
621.70	-87.12	621.85	0.00
621.75	-74.74	621.85	0.00
621.80	-57.39	621.85	0.00
621.85	0.00	621.85	0.00
621.90	59.18	621.85	0.00
621.95	79.41	621.85	0.00
622.00	95.32	621.85	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-203.82	621.90	0.00
618.05	-203.82	621.90	0.00
618.10	-203.82	621.90	0.00
618.15	-203.82	621.90	0.00
618.20	-203.82	621.90	0.00
618.25	-203.82	621.90	0.00
618.30	-203.82	621.90	0.00
618.35	-203.82	621.90	0.00
618.40	-203.82	621.90	0.00
618.45	-203.82	621.90	0.00
618.50	-203.82	621.90	0.00
618.55	-203.82	621.90	0.00
618.60	-203.82	621.90	0.00
618.65	-203.82	621.90	0.00
618.70	-203.82	621.90	0.00
618.75	-203.82	621.90	0.00
618.80	-203.82	621.90	0.00
618.85	-203.82	621.90	0.00
618.90	-203.82	621.90	0.00
618.95	-203.82	621.90	0.00
619.00	-203.82	621.90	0.00
619.05	-203.82	621.90	0.00
619.10	-203.82	621.90	0.00
619.15	-203.82	621.90	0.00
619.20	-203.82	621.90	0.00
619.25	-203.82	621.90	0.00
619.30	-203.82	621.90	0.00
619.35	-203.82	621.90	0.00
619.40	-203.82	621.90	0.00
619.45	-203.82	621.90	0.00
619.50	-203.82	621.90	0.00
619.55	-203.82	621.90	0.00
619.60	-203.82	621.90	0.00
619.65	-203.82	621.90	0.00
619.70	-203.82	621.90	0.00
619.75	-203.82	621.90	0.00
619.80	-203.82	621.90	0.00
619.85	-203.82	621.90	0.00
619.90	-203.82	621.90	0.00
619.95	-203.82	621.90	0.00
620.00	-203.82	621.90	0.00
620.05	-203.82	621.90	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve — Return Event: 1 years
Label: Infiltration Basin Overflow — Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft³/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-203.47	621.90	0.00
620.15	-202.83	621.90	0.00
620.20	-201.99	621.90	0.00
620.25	-201.00	621.90	0.00
620.30	-199.86	621.90	0.00
620.35	-198.59	621.90	0.00
620.40	-197.19	621.90	0.00
620.45	-195.67	621.90	0.00
620.50	-194.03	621.90	0.00
620.55	-192.28	621.90	0.00
620.60	-190.40	621.90	0.00
620.65	-188.41	621.90	0.00
620.70	-186.29	621.90	0.00
620.75	-184.05	621.90	0.00
620.80	-181.69	621.90	0.00
620.85	-179.18	621.90	0.00
620.90	-176.54	621.90	0.00
620.95	-173.76	621.90	0.00
621.00	-170.81	621.90	0.00
621.05	-167.71	621.90	0.00
621.10	-164.42	621.90	0.00
621.15	-160.95	621.90	0.00
621.20	-157.26	621.90	0.00
621.25	-153.35	621.90	0.00
621.30	-149.18	621.90	0.00
621.35	-144.73	621.90	0.00
621.40	-139.95	621.90	0.00
621.45	-134.80	621.90	0.00
621.50	-129.21	621.90	0.00
621.55	-123.10	621.90	0.00
621.60	-116.34	621.90	0.00
621.65	-108.77	621.90	0.00
621.70	-100.09	621.90	0.00
621.75	-89.85	621.90	0.00
621.80	-77.07	621.90	0.00
621.85	-59.18	621.90	0.00
621.90	0.00	621.90	0.00
621.95	60.97	621.90	0.00
622.00	81.75	621.90	0.00

Contributing Structures
Weir - 1
Weir - 1

Subsection: Composite Rating Curve Return Event: 1 years
Label: Infiltration Basin Overflow Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-212.14	621.95	0.00
618.05	-212.14	621.95	0.00
618.10	-212.14	621.95	0.00
618.15	-212.14	621.95	0.00
618.20	-212.14	621.95	0.00
618.25	-212.14	621.95	0.00
618.30	-212.14	621.95	0.00
618.35	-212.14	621.95	0.00
618.40	-212.14	621.95	0.00
618.45	-212.14	621.95	0.00
618.50	-212.14	621.95	0.00
618.55	-212.14	621.95	0.00
618.60	-212.14	621.95	0.00
618.65	-212.14	621.95	0.00
618.70	-212.14	621.95	0.00
618.75	-212.14	621.95	0.00
618.80	-212.14	621.95	0.00
618.85	-212.14	621.95	0.00
618.90	-212.14	621.95	0.00
618.95	-212.14	621.95	0.00
619.00	-212.14	621.95	0.00
619.05	-212.14	621.95	0.00
619.10	-212.14	621.95	0.00
619.15	-212.14	621.95	0.00
619.20	-212.14	621.95	0.00
619.25	-212.14	621.95	0.00
619.30	-212.14	621.95	0.00
619.35	-212.14	621.95	0.00
619.40	-212.14	621.95	0.00
619.45	-212.14	621.95	0.00
619.50	-212.14	621.95	0.00
619.55	-212.14	621.95	0.00
619.60	-212.14	621.95	0.00
619.65	-212.14	621.95	0.00
619.70	-212.14	621.95	0.00
619.75	-212.14	621.95	0.00
619.80	-212.14	621.95	0.00
619.85	-212.14	621.95	0.00
619.90	-212.14	621.95	0.00
619.95	-212.14	621.95	0.00
620.00	-212.14	621.95	0.00
620.05	-212.14	621.95	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-211.79	621.95	0.00
620.15	-211.15	621.95	0.00
620.20	-210.31	621.95	0.00
620.25	-209.32	621.95	0.00
620.30	-208.18	621.95	0.00
620.35	-206.91	621.95	0.00
620.40	-205.52	621.95	0.00
620.45	-204.00	621.95	0.00
620.50	-202.37	621.95	0.00
620.55	-200.62	621.95	0.00
620.60	-198.75	621.95	0.00
620.65	-196.77	621.95	0.00
620.70	-194.66	621.95	0.00
620.75	-192.44	621.95	0.00
620.80	-190.09	621.95	0.00
620.85	-187.61	621.95	0.00
620.90	-185.00	621.95	0.00
620.95	-182.24	621.95	0.00
621.00	-179.34	621.95	0.00
621.05	-176.28	621.95	0.00
621.10	-173.05	621.95	0.00
621.15	-169.63	621.95	0.00
621.20	-166.03	621.95	0.00
621.25	-162.21	621.95	0.00
621.30	-158.15	621.95	0.00
621.35	-153.84	621.95	0.00
621.40	-149.23	621.95	0.00
621.45	-144.29	621.95	0.00
621.50	-138.97	621.95	0.00
621.55	-133.20	621.95	0.00
621.60	-126.88	621.95	0.00
621.65	-119.91	621.95	0.00
621.70	-112.09	621.95	0.00
621.75	-103.14	621.95	0.00
621.80	-92.58	621.95	0.00
621.85	-79.41	621.95	0.00
621.90	-60.97	621.95	0.00
621.95	0.00	621.95	0.00
622.00	62.76	621.95	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
Weir - 1
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
618.00	-220.57	622.00	0.00
618.05	-220.57	622.00	0.00
618.10	-220.57	622.00	0.00
618.15	-220.57	622.00	0.00
618.20	-220.57	622.00	0.00
618.25	-220.57	622.00	0.00
618.30	-220.57	622.00	0.00
618.35	-220.57	622.00	0.00
618.40	-220.57	622.00	0.00
618.45	-220.57	622.00	0.00
618.50	-220.57	622.00	0.00
618.55	-220.57	622.00	0.00
618.60	-220.57	622.00	0.00
618.65	-220.57	622.00	0.00
618.70	-220.57	622.00	0.00
618.75	-220.57	622.00	0.00
618.80	-220.57	622.00	0.00
618.85	-220.57	622.00	0.00
618.90	-220.57	622.00	0.00
618.95	-220.57	622.00	0.00
619.00	-220.57	622.00	0.00
619.05	-220.57	622.00	0.00
619.10	-220.57	622.00	0.00
619.15	-220.57	622.00	0.00
619.20	-220.57	622.00	0.00
619.25	-220.57	622.00	0.00
619.30	-220.57	622.00	0.00
619.35	-220.57	622.00	0.00
619.40	-220.57	622.00	0.00
619.45	-220.57	622.00	0.00
619.50	-220.57	622.00	0.00
619.55	-220.57	622.00	0.00
619.60	-220.57	622.00	0.00
619.65	-220.57	622.00	0.00
619.70	-220.57	622.00	0.00
619.75	-220.57	622.00	0.00
619.80	-220.57	622.00	0.00
619.85	-220.57	622.00	0.00
619.90	-220.57	622.00	0.00
619.95	-220.57	622.00	0.00
620.00	-220.57	622.00	0.00
620.05	-220.57	622.00	0.00

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Infiltration Basin Overflow | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
620.10	-220.22	622.00	0.00
620.15	-219.58	622.00	0.00
620.20	-218.74	622.00	0.00
620.25	-217.75	622.00	0.00
620.30	-216.61	622.00	0.00
620.35	-215.34	622.00	0.00
620.40	-213.95	622.00	0.00
620.45	-212.44	622.00	0.00
620.50	-210.81	622.00	0.00
620.55	-209.07	622.00	0.00
620.60	-207.21	622.00	0.00
620.65	-205.23	622.00	0.00
620.70	-203.14	622.00	0.00
620.75	-200.93	622.00	0.00
620.80	-198.60	622.00	0.00
620.85	-196.14	622.00	0.00
620.90	-193.55	622.00	0.00
620.95	-190.82	622.00	0.00
621.00	-187.95	622.00	0.00
621.05	-184.93	622.00	0.00
621.10	-181.75	622.00	0.00
621.15	-178.40	622.00	0.00
621.20	-174.86	622.00	0.00
621.25	-171.12	622.00	0.00
621.30	-167.17	622.00	0.00
621.35	-162.97	622.00	0.00
621.40	-158.51	622.00	0.00
621.45	-153.75	622.00	0.00
621.50	-148.65	622.00	0.00
621.55	-143.15	622.00	0.00
621.60	-137.19	622.00	0.00
621.65	-130.68	622.00	0.00
621.70	-123.49	622.00	0.00
621.75	-115.43	622.00	0.00
621.80	-106.20	622.00	0.00
621.85	-95.32	622.00	0.00
621.90	-81.75	622.00	0.00
621.95	-62.76	622.00	0.00
622.00	0.00	622.00	0.00

Contributing Structures
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
Weir - 1
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve
Label: Infiltration Basin Overflow
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Composite Outflow Summary

Contributing Structures
Weir - 1
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Stormwater Hydrologic Calculations

Subsection: Composite Rating Curve | Return Event: 1 years
Label: Permeable Asphalt | Storm Event: 1 year
Scenario: Post-Development 1 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
634.32	0.00	(N/A)	0.00
634.82	0.00	(N/A)	0.00
635.32	0.00	(N/A)	0.00
635.82	26.52	(N/A)	0.00
636.00	42.06	(N/A)	0.00

Contributing Structures
None Contributing
None Contributing
Weir - 1
Weir - 1
Weir - 1

Stormwater Hydrologic Calculations

Subsection: Interconnected Pond Routing Summary — Return Event: 1 years
Label: DB-1C-2B — Storm Event: 1 year
Scenario: Post-Development 1 year

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	620.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0	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)
0.000	620.00	0

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	0.000	0.00	0.000	0.00
Pond Outflow...	0.000	0.00	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	0	Forward	0	Reverse
Pond Outflow...	0	Reverse	0	Forward

Mass Balance (ft³)	
Volume (Initial ICPM)	0 ft³
Volume (Total In ICPM)	0 ft³
Volume (Total Out ICPM)	0 ft³
Volume (Ending)	0 ft³
Elevation (Ending)	620.00 ft
Difference	0 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Interconnected Pond Routing Summary | Return Event: 10 years
Label: DB-1C-2B | Storm Event: 10 year
Scenario: Post-Development 10 year

Infiltration

Infiltration Method (Computed)	No Infiltration

Initial Conditions / Calculation Tolerances

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	620.00	ft	Flow Tolerance (Minimum)	0.000	ft^3/s
Volume (Starting)	0	ft^3	Maximum Iterations	35	
Outflow (Starting)	0.00	ft^3/s	ICPM Time Step	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft^3)
12.450	620.84	11,823

	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....	12.200	26.91	0.000	0.00
Pond Outflow...	12.450	13.94	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft^3)	Direction	Volume (ft^3)	Direction
Pond Inflow....	62,706	Forward	0	Reverse
Pond Outflow...	0	Reverse	62,698	Forward

Mass Balance (ft^3)

Volume (Initial ICPM)	0 ft^3
Volume (Total In ICPM)	62,706 ft^3
Volume (Total Out ICPM)	62,698 ft^3
Volume (Ending)	7 ft^3
Elevation (Ending)	620.00 ft
Difference	0 ft^3
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Interconnected Pond Routing Summary — Return Event: 25 years
Label: DB-1C-2B — Storm Event: 25 year
Scenario: Post-Development 25 year

Infiltration

Infiltration Method (Computed)	No Infiltration

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	620.00	ft	Flow Tolerance (Minimum)	0.000	ft^3/s
Volume (Starting)	0	ft^3	Maximum Iterations	35	
Outflow (Starting)	0.00	ft^3/s	ICPM Time Step	0.050	hours

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft^3)
12.350	621.24	17,430

	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....	12.150	37.30	0.000	0.00
Pond Outflow...	12.350	24.96	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft^3)	Direction	Volume (ft^3)	Direction
Pond Inflow....	108,364	Forward	0	Reverse
Pond Outflow...	0	Reverse	108,354	Forward

Mass Balance (ft^3)

Volume (Initial ICPM)	0 ft^3
Volume (Total In ICPM)	108,364 ft^3
Volume (Total Out ICPM)	108,354 ft^3
Volume (Ending)	10 ft^3
Elevation (Ending)	620.00 ft
Difference	0 ft^3
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Interconnected Pond Routing Summary
Label: DB-1C-2B
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: 100 year

Infiltration

Infiltration Method (Computed)	No Infiltration

Initial Conditions

Elevation (Starting Water Surface Computed)	620.00	ft
Volume (Starting)	0	ft^3
Outflow (Starting)	0.00	ft^3/s

Calculation Tolerances

Flow Tolerance (Minimum)	0.000	ft^3/s
Maximum Iterations	35	
ICPM Time Step	0.050	hours

Time to Peak (hours)	Maximum Storage Elevation (ft)	Maximum Storage Volume (ft^3)
12.250	621.92	26,897

	Forward Flow Peaks Time to Peak (hours)	Forward Flow Peaks Flow (Peak) (ft^3/s)	Reverse Flow Peaks Time to Peak (hours)	Reverse Flow Peaks Flow (Peak) (ft^3/s)
Pond Inflow....	12.150	60.39	0.000	0.00
Pond Outflow...	12.250	51.19	0.000	0.00

	Total Volume In Volume (ft^3)	Total Volume In Direction	Total Volume Out Volume (ft^3)	Total Volume Out Direction
Pond Inflow....	213,275	Forward	0	Reverse
Pond Outflow...	0	Reverse	213,250	Forward

Mass Balance (ft^3)

Volume (Initial ICPM)	0 ft^3
Volume (Total In ICPM)	213,275 ft^3
Volume (Total Out ICPM)	213,250 ft^3
Volume (Ending)	25 ft^3
Elevation (Ending)	620.00 ft
Difference	1 ft^3
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Interconnected Pond Routing Summary — Return Event: 1 years
Label: IB-1C-2B — Storm Event: 1 year
Scenario: Post-Development 1 year

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	1.65 ft^3/s

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	618.00	ft	Flow Tolerance (Minimum)	0.000	ft^3/s
Volume (Starting)	0	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	619.99	19,929

	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....	12.150	13.72	0.000	0.00
Infiltration...	11.750	1.65	0.000	0.00
Pond Outflow...	0.000	0.00	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft^3)	Direction	Volume (ft^3)	Direction
Pond Inflow....	53,690	Forward	0	Reverse
Infiltration...	0	Reverse	33,739	Forward
Pond Outflow...	0	Reverse	0	Forward

Mass Balance (ft^3)	
Volume (Initial ICPM)	0 ft^3
Volume (Total In ICPM)	53,690 ft^3
Volume (Total Out ICPM)	33,739 ft^3
Volume (Ending)	19,930 ft^3
Elevation (Ending)	619.99 ft
Difference	21 ft^3
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Interconnected Pond Routing Summary — Return Event: 10 years
Label: IB-1C-2B — Storm Event: 10 year
Scenario: Post-Development 10 year

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	1.65 ft³/s

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	618.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0	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

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft³)
12.500	620.87	32,874

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	12.150	37.70	0.000	0.00
Infiltration...	10.850	1.65	0.000	0.00
Pond Outflow...	12.200	26.91	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	146,107	Forward	0	Reverse
Infiltration...	0	Reverse	62,560	Forward
Pond Outflow...	0	Reverse	62,706	Forward

Mass Balance (ft³)	
Volume (Initial ICPM)	0 ft³
Volume (Total In ICPM)	146,107 ft³
Volume (Total Out ICPM)	125,265 ft³
Volume (Ending)	20,806 ft³
Elevation (Ending)	620.05 ft
Difference	36 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Interconnected Pond Routing Summary
Label: IB-1C-2B
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: 25 year

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	1.65 ft³/s

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	618.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0	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

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft³)
12.400	621.28	38,870

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	12.150	52.09	0.000	0.00
Infiltration...	10.150	1.65	0.000	0.00
Pond Outflow...	12.150	37.30	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	203,773	Forward	0	Reverse
Infiltration...	0	Reverse	74,541	Forward
Pond Outflow...	0	Reverse	108,364	Forward

Mass Balance (ft³)	
Volume (Initial ICPM)	0 ft³
Volume (Total In ICPM)	203,773 ft³
Volume (Total Out ICPM)	182,905 ft³
Volume (Ending)	20,806 ft³
Elevation (Ending)	620.05 ft
Difference	62 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Interconnected Pond Routing Summary | Return Event: 100 years
Label: IB-1C-2B | Storm Event: 100 year
Scenario: Post-Development 100 year

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	1.65 ft³/s

Initial Conditions			Calculation Tolerances		
Elevation (Starting Water Surface Computed)	618.00	ft	Flow Tolerance (Minimum)	0.000	ft³/s
Volume (Starting)	0	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

	Maximum Storage	
Time to Peak (hours)	Elevation (ft)	Volume (ft³)
12.300	621.96	48,968

	Forward Flow Peaks		Reverse Flow Peaks	
	Time to Peak (hours)	Flow (Peak) (ft³/s)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Pond Inflow....	12.150	81.79	0.000	0.00
Infiltration...	8.850	1.65	0.000	0.00
Pond Outflow...	12.150	60.39	0.000	0.00

	Total Volume In		Total Volume Out	
	Volume (ft³)	Direction	Volume (ft³)	Direction
Pond Inflow....	326,676	Forward	0	Reverse
Infiltration...	0	Reverse	92,502	Forward
Pond Outflow...	0	Reverse	213,275	Forward

Mass Balance (ft³)	
Volume (Initial ICPM)	0 ft³
Volume (Total In ICPM)	326,676 ft³
Volume (Total Out ICPM)	305,777 ft³
Volume (Ending)	20,807 ft³
Elevation (Ending)	620.05 ft
Difference	92 ft³
Percent of Inflow Volume (Interconnected Pond Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Elevation-Volume-Flow Table (Pond) Return Event: 1 years
Label: Permeable Asphalt Storm Event: 1 year
Scenario: Post-Development 1 year

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	0.82 ft^3/s

Initial Conditions	
Elevation (Water Surface, Initial)	634.32 ft
Volume (Initial)	0 ft^3
Flow (Initial Outlet)	0.00 ft^3/s
Flow (Initial Infiltration)	0.00 ft^3/s
Flow (Initial, Total)	0.00 ft^3/s
Time Increment	0.050 hours

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)
634.32	0.00	0	0	0.00	0.00	0.00
634.82	0.00	3,599	0	0.82	0.82	40.81
635.32	0.00	7,198	0	0.82	0.82	80.80
635.82	26.52	16,195	0	0.82	27.34	207.28
636.00	42.06	19,434	0	0.82	42.88	258.81

Stormwater Hydrologic Calculations

Subsection: Level Pool Pond Routing Summary | Return Event: 1 years
Label: Permeable Asphalt (IN) | Storm Event: 1 year
Scenario: Post-Development 1 year

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	0.82 ft³/s

Initial Conditions	
Elevation (Water Surface, Initial)	634.32 ft
Volume (Initial)	0 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)	0.96 ft³/s	Time to Peak (Flow, In)	12.100 hours
Infiltration (Peak)	0.30 ft³/s	Time to Peak (Infiltration)	12.400 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	634.50 ft
Volume (Peak)	1,300 ft³

Mass Balance (ft³)	
Volume (Initial)	0 ft³
Volume (Total Inflow)	3,850 ft³
Volume (Total Infiltration)	3,801 ft³
Volume (Total Outlet Outflow)	0 ft³
Volume (Retained)	49 ft³
Volume (Unrouted)	0 ft³
Error (Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Level Pool Pond Routing Summary — Return Event: 10 years
Label: Permeable Asphalt (IN) — Storm Event: 10 year
Scenario: Post-Development 10 year

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	0.82 ft^3/s

Initial Conditions	
Elevation (Water Surface, Initial)	634.32 ft
Volume (Initial)	0 ft^3
Flow (Initial Outlet)	0.00 ft^3/s
Flow (Initial Infiltration)	0.00 ft^3/s
Flow (Initial, Total)	0.00 ft^3/s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	1.78 ft^3/s	Time to Peak (Flow, In)	12.100 hours
Infiltration (Peak)	0.55 ft^3/s	Time to Peak (Infiltration)	12.400 hours
Flow (Peak Outlet)	0.00 ft^3/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	634.66 ft
Volume (Peak)	2,419 ft^3

Mass Balance (ft^3)	
Volume (Initial)	0 ft^3
Volume (Total Inflow)	7,318 ft^3
Volume (Total Infiltration)	7,228 ft^3
Volume (Total Outlet Outflow)	0 ft^3
Volume (Retained)	90 ft^3
Volume (Unrouted)	0 ft^3
Error (Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Level Pool Pond Routing Summary　　Return Event: 25 years
Label: Permeable Asphalt (IN)　　Storm Event: 25 year
Scenario: Post-Development 25 year

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	0.82 ft³/s

Initial Conditions	
Elevation (Water Surface, Initial)	634.32 ft
Volume (Initial)	0 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)	2.24 ft³/s	Time to Peak (Flow, In)	12.100 hours
Infiltration (Peak)	0.70 ft³/s	Time to Peak (Infiltration)	12.400 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	634.74 ft
Volume (Peak)	3,052 ft³

Mass Balance (ft³)	
Volume (Initial)	0 ft³
Volume (Total Inflow)	9,294 ft³
Volume (Total Infiltration)	9,180 ft³
Volume (Total Outlet Outflow)	0 ft³
Volume (Retained)	113 ft³
Volume (Unrouted)	0 ft³
Error (Mass Balance)	0.0 %

Stormwater Hydrologic Calculations

Subsection: Level Pool Pond Routing Summary — Return Event: 100 years
Label: Permeable Asphalt (IN) — Storm Event: 100 year
Scenario: Post-Development 100 year

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	0.82 ft³/s

Initial Conditions	
Elevation (Water Surface, Initial)	634.32 ft
Volume (Initial)	0 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)	3.18 ft³/s	Time to Peak (Flow, In)	12.100 hours
Infiltration (Peak)	0.82 ft³/s	Time to Peak (Infiltration)	12.150 hours
Flow (Peak Outlet)	0.00 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	634.94 ft
Volume (Peak)	4,485 ft³

Mass Balance (ft³)	
Volume (Initial)	0 ft³
Volume (Total Inflow)	13,337 ft³
Volume (Total Infiltration)	13,176 ft³
Volume (Total Outlet Outflow)	0 ft³
Volume (Retained)	161 ft³
Volume (Unrouted)	0 ft³
Error (Mass Balance)	0.0 %

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
0.000	0.00	0.00	0.00	0.00	0.00	0	634.32
0.050	0.00	0.00	0.00	0.00	0.00	0	634.32
0.100	0.00	0.00	0.00	0.00	0.00	0	634.32
0.150	0.00	0.00	0.00	0.00	0.00	0	634.32
0.200	0.00	0.00	0.00	0.00	0.00	0	634.32
0.250	0.00	0.00	0.00	0.00	0.00	0	634.32
0.300	0.00	0.00	0.00	0.00	0.00	0	634.32
0.350	0.00	0.00	0.00	0.00	0.00	0	634.32
0.400	0.00	0.00	0.00	0.00	0.00	0	634.32
0.450	0.00	0.00	0.00	0.00	0.00	0	634.32
0.500	0.00	0.00	0.00	0.00	0.00	0	634.32
0.550	0.00	0.00	0.00	0.00	0.00	0	634.32
0.600	0.00	0.00	0.00	0.00	0.00	0	634.32
0.650	0.00	0.00	0.00	0.00	0.00	0	634.32
0.700	0.00	0.00	0.00	0.00	0.00	0	634.32
0.750	0.00	0.00	0.00	0.00	0.00	0	634.32
0.800	0.00	0.00	0.00	0.00	0.00	0	634.32
0.850	0.00	0.00	0.00	0.00	0.00	0	634.32
0.900	0.00	0.00	0.00	0.00	0.00	0	634.32
0.950	0.00	0.00	0.00	0.00	0.00	0	634.32
1.000	0.00	0.00	0.00	0.00	0.00	0	634.32
1.050	0.00	0.00	0.00	0.00	0.00	0	634.32
1.100	0.00	0.00	0.00	0.00	0.00	0	634.32
1.150	0.00	0.00	0.00	0.00	0.00	0	634.32
1.200	0.00	0.00	0.00	0.00	0.00	0	634.32
1.250	0.00	0.00	0.00	0.00	0.00	0	634.32
1.300	0.00	0.00	0.00	0.00	0.00	0	634.32
1.350	0.00	0.00	0.00	0.00	0.00	0	634.32
1.400	0.00	0.00	0.00	0.00	0.00	0	634.32
1.450	0.00	0.00	0.00	0.00	0.00	0	634.32
1.500	0.00	0.00	0.00	0.00	0.00	0	634.32
1.550	0.00	0.00	0.00	0.00	0.00	0	634.32
1.600	0.00	0.00	0.00	0.00	0.00	0	634.32
1.650	0.00	0.00	0.00	0.00	0.00	0	634.32
1.700	0.00	0.00	0.00	0.00	0.00	0	634.32
1.750	0.00	0.00	0.00	0.00	0.00	0	634.32
1.800	0.00	0.00	0.00	0.00	0.00	0	634.32
1.850	0.00	0.01	0.01	0.00	0.00	0	634.32
1.900	0.00	0.01	0.01	0.00	0.00	0	634.32
1.950	0.00	0.01	0.01	0.00	0.00	1	634.32
2.000	0.00	0.01	0.01	0.00	0.00	1	634.32
2.050	0.00	0.01	0.01	0.00	0.00	1	634.32

Subsection: Pond Routing Calculations (Total Out) Return Event: 1 years
Label: Permeable Asphalt (OUT) Storm Event: 1 year
Scenario: Post-Development 1 year

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
2.100	0.00	0.02	0.02	0.00	0.00	2	634.32
2.150	0.00	0.02	0.02	0.00	0.00	2	634.32
2.200	0.00	0.02	0.02	0.00	0.00	2	634.32
2.250	0.00	0.03	0.03	0.00	0.00	2	634.32
2.300	0.00	0.03	0.03	0.00	0.00	3	634.32
2.350	0.00	0.03	0.03	0.00	0.00	3	634.32
2.400	0.00	0.03	0.04	0.00	0.00	3	634.32
2.450	0.00	0.04	0.04	0.00	0.00	4	634.32
2.500	0.00	0.04	0.04	0.00	0.00	4	634.32
2.550	0.00	0.05	0.05	0.00	0.00	4	634.32
2.600	0.00	0.05	0.05	0.00	0.00	5	634.32
2.650	0.00	0.05	0.06	0.00	0.00	5	634.32
2.700	0.00	0.06	0.06	0.00	0.00	5	634.32
2.750	0.00	0.06	0.06	0.00	0.00	6	634.32
2.800	0.00	0.07	0.07	0.00	0.00	6	634.32
2.850	0.00	0.07	0.07	0.00	0.00	7	634.32
2.900	0.00	0.08	0.08	0.00	0.00	7	634.32
2.950	0.00	0.08	0.08	0.00	0.00	7	634.32
3.000	0.00	0.09	0.09	0.00	0.00	8	634.32
3.050	0.00	0.09	0.09	0.00	0.00	8	634.32
3.100	0.00	0.09	0.10	0.00	0.00	9	634.32
3.150	0.00	0.10	0.10	0.00	0.00	9	634.32
3.200	0.00	0.11	0.11	0.00	0.00	10	634.32
3.250	0.00	0.11	0.11	0.00	0.00	10	634.32
3.300	0.01	0.12	0.12	0.00	0.00	11	634.32
3.350	0.01	0.12	0.13	0.00	0.00	11	634.32
3.400	0.01	0.13	0.13	0.00	0.00	12	634.32
3.450	0.01	0.13	0.14	0.00	0.00	12	634.32
3.500	0.01	0.14	0.14	0.00	0.00	13	634.32
3.550	0.01	0.14	0.15	0.00	0.00	13	634.32
3.600	0.01	0.15	0.15	0.00	0.00	14	634.32
3.650	0.01	0.15	0.16	0.00	0.00	14	634.32
3.700	0.01	0.16	0.17	0.00	0.00	15	634.32
3.750	0.01	0.17	0.17	0.00	0.00	15	634.32
3.800	0.01	0.17	0.18	0.00	0.00	16	634.32
3.850	0.01	0.18	0.18	0.00	0.00	16	634.32
3.900	0.01	0.18	0.19	0.00	0.00	17	634.32
3.950	0.01	0.19	0.20	0.00	0.00	17	634.32
4.000	0.01	0.19	0.20	0.00	0.00	18	634.32
4.050	0.01	0.20	0.21	0.00	0.00	18	634.32
4.100	0.01	0.21	0.22	0.00	0.00	19	634.32
4.150	0.01	0.21	0.22	0.00	0.00	20	634.32

Subsection: Pond Routing Calculations (Total Out) Return Event: 1 years
Label: Permeable Asphalt (OUT) Storm Event: 1 year
Scenario: Post-Development 1 year

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
4.200	0.01	0.22	0.23	0.00	0.00	20	634.32
4.250	0.01	0.22	0.23	0.00	0.00	21	634.32
4.300	0.01	0.23	0.24	0.00	0.00	21	634.32
4.350	0.01	0.24	0.25	0.00	0.00	22	634.32
4.400	0.01	0.24	0.25	0.01	0.00	22	634.32
4.450	0.01	0.25	0.26	0.01	0.00	23	634.32
4.500	0.01	0.26	0.27	0.01	0.00	24	634.32
4.550	0.01	0.26	0.27	0.01	0.00	24	634.32
4.600	0.01	0.27	0.28	0.01	0.00	25	634.32
4.650	0.01	0.27	0.29	0.01	0.00	25	634.32
4.700	0.01	0.28	0.29	0.01	0.00	26	634.32
4.750	0.01	0.29	0.30	0.01	0.00	26	634.32
4.800	0.01	0.29	0.31	0.01	0.00	27	634.32
4.850	0.01	0.30	0.31	0.01	0.00	28	634.32
4.900	0.01	0.31	0.32	0.01	0.00	28	634.32
4.950	0.01	0.31	0.33	0.01	0.00	29	634.32
5.000	0.01	0.32	0.33	0.01	0.00	29	634.32
5.050	0.01	0.33	0.34	0.01	0.00	30	634.32
5.100	0.01	0.33	0.35	0.01	0.00	31	634.32
5.150	0.01	0.34	0.35	0.01	0.00	31	634.32
5.200	0.01	0.34	0.36	0.01	0.00	32	634.32
5.250	0.01	0.35	0.37	0.01	0.00	32	634.32
5.300	0.01	0.36	0.37	0.01	0.00	33	634.32
5.350	0.01	0.36	0.38	0.01	0.00	33	634.32
5.400	0.01	0.37	0.39	0.01	0.00	34	634.32
5.450	0.01	0.38	0.39	0.01	0.00	35	634.32
5.500	0.01	0.38	0.40	0.01	0.00	35	634.32
5.550	0.01	0.39	0.41	0.01	0.00	36	634.32
5.600	0.01	0.40	0.41	0.01	0.00	36	634.33
5.650	0.01	0.40	0.42	0.01	0.00	37	634.33
5.700	0.01	0.41	0.43	0.01	0.00	38	634.33
5.750	0.01	0.42	0.43	0.01	0.00	38	634.33
5.800	0.01	0.42	0.44	0.01	0.00	39	634.33
5.850	0.01	0.43	0.45	0.01	0.00	39	634.33
5.900	0.01	0.43	0.45	0.01	0.00	40	634.33
5.950	0.01	0.44	0.46	0.01	0.00	41	634.33
6.000	0.01	0.45	0.47	0.01	0.00	41	634.33
6.050	0.01	0.45	0.47	0.01	0.00	42	634.33
6.100	0.01	0.46	0.48	0.01	0.00	42	634.33
6.150	0.01	0.47	0.49	0.01	0.00	43	634.33
6.200	0.01	0.47	0.49	0.01	0.00	44	634.33
6.250	0.01	0.48	0.50	0.01	0.00	44	634.33

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
6.300	0.01	0.49	0.51	0.01	0.00	45	634.33
6.350	0.01	0.50	0.52	0.01	0.00	46	634.33
6.400	0.01	0.50	0.53	0.01	0.00	46	634.33
6.450	0.01	0.51	0.53	0.01	0.00	47	634.33
6.500	0.02	0.52	0.54	0.01	0.00	48	634.33
6.550	0.02	0.53	0.55	0.01	0.00	49	634.33
6.600	0.02	0.54	0.56	0.01	0.00	50	634.33
6.650	0.02	0.55	0.57	0.01	0.00	50	634.33
6.700	0.02	0.56	0.58	0.01	0.00	51	634.33
6.750	0.02	0.57	0.59	0.01	0.00	52	634.33
6.800	0.02	0.58	0.60	0.01	0.00	53	634.33
6.850	0.02	0.59	0.61	0.01	0.00	54	634.33
6.900	0.02	0.60	0.62	0.01	0.00	55	634.33
6.950	0.02	0.61	0.63	0.01	0.00	56	634.33
7.000	0.02	0.62	0.64	0.01	0.00	57	634.33
7.050	0.02	0.63	0.65	0.01	0.00	58	634.33
7.100	0.02	0.64	0.66	0.01	0.00	59	634.33
7.150	0.02	0.65	0.68	0.01	0.00	60	634.33
7.200	0.02	0.66	0.69	0.01	0.00	61	634.33
7.250	0.02	0.67	0.70	0.01	0.00	62	634.33
7.300	0.02	0.68	0.71	0.01	0.00	63	634.33
7.350	0.02	0.69	0.72	0.01	0.00	64	634.33
7.400	0.02	0.70	0.73	0.01	0.00	65	634.33
7.450	0.02	0.72	0.75	0.01	0.00	66	634.33
7.500	0.02	0.73	0.76	0.02	0.00	67	634.33
7.550	0.02	0.74	0.77	0.02	0.00	68	634.33
7.600	0.02	0.75	0.78	0.02	0.00	69	634.33
7.650	0.02	0.76	0.80	0.02	0.00	70	634.33
7.700	0.02	0.78	0.81	0.02	0.00	71	634.33
7.750	0.02	0.79	0.82	0.02	0.00	72	634.33
7.800	0.02	0.80	0.84	0.02	0.00	74	634.33
7.850	0.02	0.81	0.85	0.02	0.00	75	634.33
7.900	0.02	0.83	0.86	0.02	0.00	76	634.33
7.950	0.02	0.84	0.87	0.02	0.00	77	634.33
8.000	0.02	0.85	0.89	0.02	0.00	78	634.33
8.050	0.02	0.87	0.90	0.02	0.00	80	634.33
8.100	0.03	0.88	0.92	0.02	0.00	81	634.33
8.150	0.03	0.89	0.93	0.02	0.00	82	634.33
8.200	0.03	0.91	0.95	0.02	0.00	83	634.33
8.250	0.03	0.92	0.96	0.02	0.00	85	634.33
8.300	0.03	0.94	0.98	0.02	0.00	86	634.33
8.350	0.03	0.96	1.00	0.02	0.00	88	634.33

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
8.400	0.03	0.97	1.01	0.02	0.00	89	634.33
8.450	0.03	0.99	1.03	0.02	0.00	91	634.33
8.500	0.03	1.01	1.05	0.02	0.00	93	634.33
8.550	0.03	1.03	1.07	0.02	0.00	94	634.33
8.600	0.03	1.05	1.09	0.02	0.00	96	634.33
8.650	0.03	1.07	1.11	0.02	0.00	98	634.33
8.700	0.03	1.09	1.13	0.02	0.00	100	634.33
8.750	0.03	1.11	1.15	0.02	0.00	102	634.33
8.800	0.03	1.13	1.18	0.02	0.00	104	634.33
8.850	0.04	1.15	1.20	0.02	0.00	106	634.33
8.900	0.04	1.17	1.22	0.02	0.00	108	634.33
8.950	0.04	1.19	1.24	0.02	0.00	110	634.34
9.000	0.04	1.22	1.27	0.03	0.00	112	634.34
9.050	0.04	1.24	1.29	0.03	0.00	114	634.34
9.100	0.04	1.26	1.32	0.03	0.00	116	634.34
9.150	0.04	1.29	1.34	0.03	0.00	118	634.34
9.200	0.04	1.31	1.37	0.03	0.00	121	634.34
9.250	0.04	1.34	1.39	0.03	0.00	123	634.34
9.300	0.04	1.36	1.42	0.03	0.00	125	634.34
9.350	0.04	1.39	1.45	0.03	0.00	127	634.34
9.400	0.04	1.41	1.47	0.03	0.00	130	634.34
9.450	0.04	1.44	1.50	0.03	0.00	132	634.34
9.500	0.04	1.47	1.53	0.03	0.00	135	634.34
9.550	0.04	1.49	1.55	0.03	0.00	137	634.34
9.600	0.05	1.52	1.58	0.03	0.00	140	634.34
9.650	0.05	1.55	1.61	0.03	0.00	142	634.34
9.700	0.05	1.57	1.64	0.03	0.00	145	634.34
9.750	0.05	1.60	1.67	0.03	0.00	147	634.34
9.800	0.05	1.63	1.70	0.03	0.00	150	634.34
9.850	0.05	1.66	1.73	0.03	0.00	152	634.34
9.900	0.05	1.69	1.76	0.04	0.00	155	634.34
9.950	0.05	1.71	1.79	0.04	0.00	158	634.34
10.000	0.05	1.74	1.82	0.04	0.00	160	634.34
10.050	0.05	1.77	1.85	0.04	0.00	163	634.34
10.100	0.05	1.80	1.88	0.04	0.00	166	634.34
10.150	0.05	1.83	1.91	0.04	0.00	168	634.34
10.200	0.06	1.87	1.94	0.04	0.00	171	634.34
10.250	0.06	1.90	1.98	0.04	0.00	174	634.34
10.300	0.06	1.93	2.02	0.04	0.00	178	634.34
10.350	0.06	1.97	2.05	0.04	0.00	181	634.35
10.400	0.06	2.01	2.09	0.04	0.00	184	634.35
10.450	0.06	2.05	2.13	0.04	0.00	188	634.35

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
10.500	0.06	2.09	2.17	0.04	0.00	192	634.35
10.550	0.07	2.13	2.22	0.04	0.00	195	634.35
10.600	0.07	2.17	2.26	0.05	0.00	199	634.35
10.650	0.07	2.21	2.30	0.05	0.00	203	634.35
10.700	0.07	2.26	2.35	0.05	0.00	207	634.35
10.750	0.07	2.30	2.40	0.05	0.00	211	634.35
10.800	0.07	2.35	2.45	0.05	0.00	216	634.35
10.850	0.07	2.39	2.49	0.05	0.00	220	634.35
10.900	0.08	2.44	2.54	0.05	0.00	224	634.35
10.950	0.08	2.49	2.59	0.05	0.00	229	634.35
11.000	0.08	2.54	2.65	0.05	0.00	233	634.35
11.050	0.08	2.59	2.70	0.05	0.00	238	634.35
11.100	0.08	2.65	2.76	0.06	0.00	243	634.35
11.150	0.09	2.71	2.82	0.06	0.00	249	634.35
11.200	0.09	2.77	2.89	0.06	0.00	255	634.36
11.250	0.10	2.85	2.97	0.06	0.00	262	634.36
11.300	0.10	2.93	3.05	0.06	0.00	269	634.36
11.350	0.11	3.02	3.14	0.06	0.00	277	634.36
11.400	0.12	3.11	3.24	0.07	0.00	286	634.36
11.450	0.12	3.21	3.35	0.07	0.00	295	634.36
11.500	0.13	3.32	3.46	0.07	0.00	305	634.36
11.550	0.15	3.45	3.60	0.07	0.00	317	634.36
11.600	0.17	3.62	3.77	0.08	0.00	333	634.37
11.650	0.22	3.85	4.01	0.08	0.00	354	634.37
11.700	0.27	4.16	4.34	0.09	0.00	383	634.37
11.750	0.32	4.56	4.75	0.10	0.00	419	634.38
11.800	0.37	5.03	5.24	0.11	0.00	462	634.38
11.850	0.42	5.58	5.81	0.12	0.00	513	634.39
11.900	0.47	6.21	6.47	0.13	0.00	570	634.40
11.950	0.66	7.04	7.33	0.15	0.00	647	634.41
12.000	0.89	8.24	8.59	0.17	0.00	757	634.43
12.050	0.95	9.67	10.07	0.20	0.00	888	634.44
12.100	0.96	11.11	11.58	0.23	0.00	1,021	634.46
12.150	0.79	12.34	12.86	0.26	0.00	1,134	634.48
12.200	0.56	13.14	13.69	0.28	0.00	1,208	634.49
12.250	0.47	13.61	14.18	0.28	0.00	1,250	634.49
12.300	0.41	13.91	14.49	0.29	0.00	1,278	634.50
12.350	0.36	14.08	14.67	0.29	0.00	1,294	634.50
12.400	0.31	14.15	14.75	0.30	0.00	1,300	634.50
12.450	0.26	14.12	14.71	0.30	0.00	1,298	634.50
12.500	0.20	14.00	14.58	0.29	0.00	1,286	634.50
12.550	0.17	13.79	14.37	0.29	0.00	1,268	634.50

Subsection: Pond Routing Calculations (Total Out) Return Event: 1 years
Label: Permeable Asphalt (OUT) Storm Event: 1 year
Scenario: Post-Development 1 year

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
12.600	0.14	13.54	14.11	0.28	0.00	1,244	634.49
12.650	0.13	13.26	13.81	0.28	0.00	1,218	634.49
12.700	0.12	12.97	13.51	0.27	0.00	1,192	634.49
12.750	0.12	12.68	13.21	0.27	0.00	1,165	634.48
12.800	0.11	12.39	12.91	0.26	0.00	1,138	634.48
12.850	0.11	12.10	12.61	0.25	0.00	1,112	634.47
12.900	0.10	11.82	12.31	0.25	0.00	1,086	634.47
12.950	0.10	11.53	12.02	0.24	0.00	1,060	634.47
13.000	0.09	11.25	11.72	0.24	0.00	1,034	634.46
13.050	0.09	10.97	11.43	0.23	0.00	1,008	634.46
13.100	0.08	10.69	11.14	0.22	0.00	983	634.46
13.150	0.08	10.42	10.86	0.22	0.00	958	634.45
13.200	0.08	10.16	10.59	0.21	0.00	934	634.45
13.250	0.08	9.91	10.32	0.21	0.00	910	634.45
13.300	0.08	9.66	10.07	0.20	0.00	888	634.44
13.350	0.08	9.42	9.82	0.20	0.00	866	634.44
13.400	0.08	9.19	9.57	0.19	0.00	844	634.44
13.450	0.07	8.96	9.34	0.19	0.00	823	634.43
13.500	0.07	8.74	9.11	0.18	0.00	803	634.43
13.550	0.07	8.53	8.89	0.18	0.00	784	634.43
13.600	0.07	8.32	8.67	0.17	0.00	765	634.43
13.650	0.07	8.12	8.46	0.17	0.00	746	634.42
13.700	0.07	7.92	8.25	0.17	0.00	728	634.42
13.750	0.07	7.73	8.05	0.16	0.00	710	634.42
13.800	0.06	7.54	7.86	0.16	0.00	693	634.42
13.850	0.06	7.36	7.67	0.15	0.00	677	634.41
13.900	0.06	7.19	7.49	0.15	0.00	660	634.41
13.950	0.06	7.01	7.31	0.15	0.00	644	634.41
14.000	0.06	6.85	7.13	0.14	0.00	629	634.41
14.050	0.06	6.68	6.96	0.14	0.00	614	634.41
14.100	0.06	6.52	6.80	0.14	0.00	599	634.40
14.150	0.06	6.37	6.63	0.13	0.00	585	634.40
14.200	0.05	6.22	6.48	0.13	0.00	571	634.40
14.250	0.05	6.07	6.33	0.13	0.00	558	634.40
14.300	0.05	5.93	6.18	0.12	0.00	545	634.40
14.350	0.05	5.80	6.04	0.12	0.00	533	634.39
14.400	0.05	5.66	5.90	0.12	0.00	521	634.39
14.450	0.05	5.54	5.77	0.12	0.00	509	634.39
14.500	0.05	5.41	5.64	0.11	0.00	497	634.39
14.550	0.05	5.29	5.51	0.11	0.00	486	634.39
14.600	0.05	5.18	5.39	0.11	0.00	476	634.39
14.650	0.05	5.06	5.27	0.11	0.00	465	634.38

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
14.700	0.05	4.95	5.16	0.10	0.00	455	634.38
14.750	0.05	4.85	5.05	0.10	0.00	445	634.38
14.800	0.05	4.74	4.94	0.10	0.00	436	634.38
14.850	0.05	4.64	4.84	0.10	0.00	426	634.38
14.900	0.05	4.54	4.73	0.10	0.00	417	634.38
14.950	0.04	4.45	4.63	0.09	0.00	409	634.38
15.000	0.04	4.35	4.54	0.09	0.00	400	634.38
15.050	0.04	4.26	4.44	0.09	0.00	392	634.37
15.100	0.04	4.18	4.35	0.09	0.00	384	634.37
15.150	0.04	4.09	4.26	0.09	0.00	376	634.37
15.200	0.04	4.01	4.17	0.08	0.00	368	634.37
15.250	0.04	3.92	4.09	0.08	0.00	361	634.37
15.300	0.04	3.84	4.01	0.08	0.00	353	634.37
15.350	0.04	3.77	3.92	0.08	0.00	346	634.37
15.400	0.04	3.69	3.85	0.08	0.00	339	634.37
15.450	0.04	3.62	3.77	0.08	0.00	332	634.37
15.500	0.04	3.54	3.69	0.07	0.00	326	634.37
15.550	0.04	3.47	3.62	0.07	0.00	319	634.36
15.600	0.04	3.40	3.55	0.07	0.00	313	634.36
15.650	0.04	3.34	3.48	0.07	0.00	307	634.36
15.700	0.03	3.27	3.41	0.07	0.00	301	634.36
15.750	0.03	3.21	3.34	0.07	0.00	295	634.36
15.800	0.03	3.14	3.27	0.07	0.00	289	634.36
15.850	0.03	3.08	3.21	0.06	0.00	283	634.36
15.900	0.03	3.02	3.15	0.06	0.00	277	634.36
15.950	0.03	2.96	3.08	0.06	0.00	272	634.36
16.000	0.03	2.90	3.02	0.06	0.00	267	634.36
16.050	0.03	2.84	2.96	0.06	0.00	261	634.36
16.100	0.03	2.79	2.90	0.06	0.00	256	634.36
16.150	0.03	2.73	2.85	0.06	0.00	251	634.35
16.200	0.03	2.68	2.79	0.06	0.00	246	634.35
16.250	0.03	2.63	2.74	0.06	0.00	241	634.35
16.300	0.03	2.58	2.69	0.05	0.00	237	634.35
16.350	0.03	2.53	2.63	0.05	0.00	232	634.35
16.400	0.03	2.48	2.59	0.05	0.00	228	634.35
16.450	0.03	2.44	2.54	0.05	0.00	224	634.35
16.500	0.03	2.39	2.49	0.05	0.00	220	634.35
16.550	0.03	2.35	2.45	0.05	0.00	216	634.35
16.600	0.03	2.31	2.40	0.05	0.00	212	634.35
16.650	0.03	2.26	2.36	0.05	0.00	208	634.35
16.700	0.03	2.22	2.32	0.05	0.00	204	634.35
16.750	0.03	2.19	2.28	0.05	0.00	201	634.35

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
16.800	0.03	2.15	2.24	0.04	0.00	197	634.35
16.850	0.03	2.11	2.20	0.04	0.00	194	634.35
16.900	0.03	2.08	2.16	0.04	0.00	191	634.35
16.950	0.03	2.04	2.13	0.04	0.00	187	634.35
17.000	0.02	2.01	2.09	0.04	0.00	184	634.35
17.050	0.02	1.97	2.06	0.04	0.00	181	634.35
17.100	0.02	1.94	2.02	0.04	0.00	178	634.34
17.150	0.02	1.91	1.99	0.04	0.00	175	634.34
17.200	0.02	1.88	1.96	0.04	0.00	172	634.34
17.250	0.02	1.85	1.92	0.04	0.00	170	634.34
17.300	0.02	1.82	1.89	0.04	0.00	167	634.34
17.350	0.02	1.79	1.86	0.04	0.00	164	634.34
17.400	0.02	1.76	1.83	0.04	0.00	162	634.34
17.450	0.02	1.73	1.80	0.04	0.00	159	634.34
17.500	0.02	1.70	1.77	0.04	0.00	157	634.34
17.550	0.02	1.68	1.75	0.04	0.00	154	634.34
17.600	0.02	1.65	1.72	0.03	0.00	152	634.34
17.650	0.02	1.62	1.69	0.03	0.00	149	634.34
17.700	0.02	1.60	1.67	0.03	0.00	147	634.34
17.750	0.02	1.57	1.64	0.03	0.00	145	634.34
17.800	0.02	1.55	1.62	0.03	0.00	142	634.34
17.850	0.02	1.53	1.59	0.03	0.00	140	634.34
17.900	0.02	1.50	1.57	0.03	0.00	138	634.34
17.950	0.02	1.48	1.54	0.03	0.00	136	634.34
18.000	0.02	1.46	1.52	0.03	0.00	134	634.34
18.050	0.02	1.43	1.49	0.03	0.00	132	634.34
18.100	0.02	1.41	1.47	0.03	0.00	130	634.34
18.150	0.02	1.39	1.45	0.03	0.00	128	634.34
18.200	0.02	1.37	1.43	0.03	0.00	126	634.34
18.250	0.02	1.35	1.41	0.03	0.00	124	634.34
18.300	0.02	1.33	1.39	0.03	0.00	122	634.34
18.350	0.02	1.31	1.37	0.03	0.00	121	634.34
18.400	0.02	1.29	1.35	0.03	0.00	119	634.34
18.450	0.02	1.28	1.33	0.03	0.00	117	634.34
18.500	0.02	1.26	1.31	0.03	0.00	116	634.34
18.550	0.02	1.24	1.29	0.03	0.00	114	634.34
18.600	0.02	1.23	1.28	0.03	0.00	113	634.34
18.650	0.02	1.21	1.26	0.03	0.00	111	634.34
18.700	0.02	1.20	1.25	0.03	0.00	110	634.34
18.750	0.02	1.18	1.23	0.02	0.00	109	634.34
18.800	0.02	1.17	1.22	0.02	0.00	107	634.33
18.850	0.02	1.15	1.20	0.02	0.00	106	634.33

Subsection: Pond Routing Calculations (Total Out) Return Event: 1 years
Label: Permeable Asphalt (OUT) Storm Event: 1 year
Scenario: Post-Development 1 year

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
18.900	0.02	1.14	1.19	0.02	0.00	105	634.33
18.950	0.02	1.13	1.17	0.02	0.00	104	634.33
19.000	0.02	1.11	1.16	0.02	0.00	102	634.33
19.050	0.02	1.10	1.15	0.02	0.00	101	634.33
19.100	0.02	1.09	1.14	0.02	0.00	100	634.33
19.150	0.02	1.08	1.12	0.02	0.00	99	634.33
19.200	0.02	1.07	1.11	0.02	0.00	98	634.33
19.250	0.02	1.06	1.10	0.02	0.00	97	634.33
19.300	0.02	1.04	1.09	0.02	0.00	96	634.33
19.350	0.02	1.03	1.08	0.02	0.00	95	634.33
19.400	0.02	1.02	1.07	0.02	0.00	94	634.33
19.450	0.02	1.01	1.06	0.02	0.00	93	634.33
19.500	0.02	1.00	1.05	0.02	0.00	92	634.33
19.550	0.02	0.99	1.04	0.02	0.00	91	634.33
19.600	0.02	0.99	1.03	0.02	0.00	91	634.33
19.650	0.02	0.98	1.02	0.02	0.00	90	634.33
19.700	0.02	0.97	1.01	0.02	0.00	89	634.33
19.750	0.02	0.96	1.00	0.02	0.00	88	634.33
19.800	0.02	0.95	0.99	0.02	0.00	87	634.33
19.850	0.02	0.94	0.98	0.02	0.00	86	634.33
19.900	0.02	0.93	0.97	0.02	0.00	86	634.33
19.950	0.02	0.92	0.96	0.02	0.00	85	634.33
20.000	0.02	0.92	0.96	0.02	0.00	84	634.33
20.050	0.02	0.91	0.95	0.02	0.00	84	634.33
20.100	0.02	0.90	0.94	0.02	0.00	83	634.33
20.150	0.01	0.89	0.93	0.02	0.00	82	634.33
20.200	0.01	0.89	0.92	0.02	0.00	82	634.33
20.250	0.01	0.88	0.92	0.02	0.00	81	634.33
20.300	0.01	0.87	0.91	0.02	0.00	80	634.33
20.350	0.01	0.87	0.90	0.02	0.00	80	634.33
20.400	0.01	0.86	0.90	0.02	0.00	79	634.33
20.450	0.01	0.85	0.89	0.02	0.00	78	634.33
20.500	0.01	0.85	0.88	0.02	0.00	78	634.33
20.550	0.01	0.84	0.88	0.02	0.00	77	634.33
20.600	0.01	0.83	0.87	0.02	0.00	77	634.33
20.650	0.01	0.83	0.86	0.02	0.00	76	634.33
20.700	0.01	0.82	0.86	0.02	0.00	76	634.33
20.750	0.01	0.82	0.85	0.02	0.00	75	634.33
20.800	0.01	0.81	0.85	0.02	0.00	75	634.33
20.850	0.01	0.81	0.84	0.02	0.00	74	634.33
20.900	0.01	0.80	0.83	0.02	0.00	74	634.33
20.950	0.01	0.79	0.83	0.02	0.00	73	634.33

Subsection: Pond Routing Calculations (Total Out) Return Event: 1 years
Label: Permeable Asphalt (OUT) Storm Event: 1 year
Scenario: Post-Development 1 year

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
21.000	0.01	0.79	0.82	0.02	0.00	73	634.33
21.050	0.01	0.78	0.82	0.02	0.00	72	634.33
21.100	0.01	0.78	0.81	0.02	0.00	72	634.33
21.150	0.01	0.77	0.81	0.02	0.00	71	634.33
21.200	0.01	0.77	0.80	0.02	0.00	71	634.33
21.250	0.01	0.76	0.80	0.02	0.00	70	634.33
21.300	0.01	0.76	0.79	0.02	0.00	70	634.33
21.350	0.01	0.76	0.79	0.02	0.00	69	634.33
21.400	0.01	0.75	0.78	0.02	0.00	69	634.33
21.450	0.01	0.75	0.78	0.02	0.00	69	634.33
21.500	0.01	0.74	0.77	0.02	0.00	68	634.33
21.550	0.01	0.74	0.77	0.02	0.00	68	634.33
21.600	0.01	0.73	0.76	0.02	0.00	67	634.33
21.650	0.01	0.73	0.76	0.02	0.00	67	634.33
21.700	0.01	0.72	0.75	0.02	0.00	66	634.33
21.750	0.01	0.72	0.75	0.02	0.00	66	634.33
21.800	0.01	0.72	0.74	0.01	0.00	66	634.33
21.850	0.01	0.71	0.74	0.01	0.00	65	634.33
21.900	0.01	0.71	0.74	0.01	0.00	65	634.33
21.950	0.01	0.70	0.73	0.01	0.00	65	634.33
22.000	0.01	0.70	0.73	0.01	0.00	64	634.33
22.050	0.01	0.69	0.72	0.01	0.00	64	634.33
22.100	0.01	0.69	0.72	0.01	0.00	63	634.33
22.150	0.01	0.69	0.72	0.01	0.00	63	634.33
22.200	0.01	0.68	0.71	0.01	0.00	63	634.33
22.250	0.01	0.68	0.71	0.01	0.00	62	634.33
22.300	0.01	0.67	0.70	0.01	0.00	62	634.33
22.350	0.01	0.67	0.70	0.01	0.00	62	634.33
22.400	0.01	0.67	0.70	0.01	0.00	61	634.33
22.450	0.01	0.66	0.69	0.01	0.00	61	634.33
22.500	0.01	0.66	0.69	0.01	0.00	61	634.33
22.550	0.01	0.66	0.68	0.01	0.00	60	634.33
22.600	0.01	0.65	0.68	0.01	0.00	60	634.33
22.650	0.01	0.65	0.68	0.01	0.00	60	634.33
22.700	0.01	0.65	0.67	0.01	0.00	59	634.33
22.750	0.01	0.64	0.67	0.01	0.00	59	634.33
22.800	0.01	0.64	0.66	0.01	0.00	59	634.33
22.850	0.01	0.63	0.66	0.01	0.00	58	634.33
22.900	0.01	0.63	0.66	0.01	0.00	58	634.33
22.950	0.01	0.63	0.65	0.01	0.00	58	634.33
23.000	0.01	0.62	0.65	0.01	0.00	57	634.33
23.050	0.01	0.62	0.65	0.01	0.00	57	634.33

Subsection: Pond Routing Calculations (Total Out) Return Event: 1 years
Label: Permeable Asphalt (OUT) Storm Event: 1 year
Scenario: Post-Development 1 year

Pond Routing Calculations (Total Out)

Time (hours)	Flow (Total In) (ft³/s)	2S/t - O (ft³/s)	2S/t + O (ft³/s)	Infiltration (ft³/s)	Flow (Outlet) (ft³/s)	Volume (ft³)	Elevation (ft)
23.100	0.01	0.62	0.64	0.01	0.00	57	634.33
23.150	0.01	0.61	0.64	0.01	0.00	56	634.33
23.200	0.01	0.61	0.64	0.01	0.00	56	634.33
23.250	0.01	0.61	0.63	0.01	0.00	56	634.33
23.300	0.01	0.60	0.63	0.01	0.00	55	634.33
23.350	0.01	0.60	0.62	0.01	0.00	55	634.33
23.400	0.01	0.60	0.62	0.01	0.00	55	634.33
23.450	0.01	0.59	0.62	0.01	0.00	54	634.33
23.500	0.01	0.59	0.61	0.01	0.00	54	634.33
23.550	0.01	0.59	0.61	0.01	0.00	54	634.33
23.600	0.01	0.58	0.61	0.01	0.00	54	634.33
23.650	0.01	0.58	0.60	0.01	0.00	53	634.33
23.700	0.01	0.58	0.60	0.01	0.00	53	634.33
23.750	0.01	0.57	0.60	0.01	0.00	53	634.33
23.800	0.01	0.57	0.59	0.01	0.00	52	634.33
23.850	0.01	0.57	0.59	0.01	0.00	52	634.33
23.900	0.01	0.56	0.59	0.01	0.00	52	634.33
23.950	0.01	0.56	0.58	0.01	0.00	51	634.33
24.000	0.01	0.56	0.58	0.01	0.00	51	634.33

Subsection: Pond Inflow Summary
Label: Permeable Asphalt (IN)
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: 1 year

Summary for Hydrograph Addition at 'Permeable Asphalt'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Permeable Asphalt

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	Permeable Asphalt	3,850	12.100	0.96
Flow (In)	Permeable Asphalt	3,850	12.100	0.96

Subsection: Pond Inflow Summary
Return Event: 10 years

Label: Permeable Asphalt (IN)
Storm Event: 10 year

Scenario: Post-Development 10 year

Summary for Hydrograph Addition at 'Permeable Asphalt'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Permeable Asphalt

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	Permeable Asphalt	7,318	12.100	1.78
Flow (In)	Permeable Asphalt	7,318	12.100	1.78

Subsection: Pond Inflow Summary Return Event: 25 years
Label: Permeable Asphalt (IN) Storm Event: 25 year
Scenario: Post-Development 25 year

Summary for Hydrograph Addition at 'Permeable Asphalt'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Permeable Asphalt

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	Permeable Asphalt	9,294	12.100	2.24
Flow (In)	Permeable Asphalt	9,294	12.100	2.24

Stormwater Hydrologic Calculations

Subsection: Pond Inflow Summary | Return Event: 100 years
Label: Permeable Asphalt (IN) | Storm Event: 100 year
Scenario: Post-Development 100 year

Summary for Hydrograph Addition at 'Permeable Asphalt'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Permeable Asphalt

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	Permeable Asphalt	13,337	12.100	3.18
Flow (In)	Permeable Asphalt	13,337	12.100	3.18

APPENDIX B

NYSDEC STORMWATER SIZING CALCULATIONS

RUNOFF REDUCTION VOLUME, WATER QUALITY VOLUME AND STREAM CHANNEL PROTECTION SIZING CALCULATIONS

The Summit Club at Armonk

Bedford Road

Town of North Castle, NY

JMC Project:	**20101**
Drawing Reference:	**DA-1, DA-2**
Computed by:	**MT**
Checked by:	**XX**

Date Printed: 12/30/2021

WATER QUALITY VOLUME WORKSHEET
FOR REDEVELOPMENT PROJECTS

		JMC Project:	**20101**
		Design Point:	**1C**
The Summit Club at Armonk		Drainage Area:	**PDA-1C-2A/B**

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	18.90	6.50	2.62	48.28	0.484500625	**49,865**
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	18.90	6.50	2.62	48.28	0.484500625	**49,865**
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	49,865	CF
Adjusted Water Quality Treatment Volume	49,865	CF
Provided Runoff Reduction Volume	34,343	CF
Net Water Quality Treatment Volume	15,522	CF

Date Printed: 12/30/2021

RUNOFF REDUCTION VOLUME WORKSHEET

JMC Project:	**20101**
Design Point:	**1C**

The Summit Club at Armonk	Drainage Area:	**PDA-1C-2A/B**

Total Water Quality Treatment Volume

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Initial Water Quality Volume	WQ_V	**49,865**	CF
Adjusted Water Quality Volume	WQ_V	**49,865**	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	2.62	Ac
Hydrologic Soil Group (HSG) Specific Reduction Factor	S	0.35	
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.95	CF
Impervious Cover targeted for Runoff Reduction [S x Aic]	Ai	0.92	Ac
TOTAL VOLUME Required [RR_V = (P x R_V x Ai) / 12]	RR_V	**4,748**	CF

Runoff Reduction Techniques (Volume)

GREEN INFRASTRUCTURE PRACTICE / SMP	*SYMBOL*	*VALUE*	*UNITS*
Permeable Asphalt	RR_V	2,137	CF
Infiltration Basin 1C-2B	RR_V	32,206	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	**34,343**	CF

Runoff Reduction

Is Total RR_V > Adjusted WQ_V ?	**NO**
Is Total RR_V > Minimum RR_V ?	**YES**

Date Printed: 12/30/2021

INFILTRATION WORKSHEET

JMC Project:	**20101**
Design Point:	**1C**
Drainage Area:	**PDA-1C-2A**

Permeable Asphalt

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	0.41	Ac
Area	A	0.41	Ac
Percent Impervious	%I	100.00	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.95	CF
TOTAL VOLUME Required [$WQ_V = (P \times R_V \times A) / 12$]	WQ_V	**2,137**	CF

Minimum Porous Pavement Area			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	2,137	CF
Porosity	n	0.40	Ft / Day
Trench Depth	d_t	1.00	Ft
Surface Area Required [$A_R = WQ_v / (n \times d_t)$]	A_R	**5,342**	SF

Proposed Porous Pavement			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Surface Area of Porous Pavement Provided [A_p]	A_p	**17,994**	SF
Actual Volume Provided	WQ_{VP}	7,198	CF

Runoff Reduction			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
100% Runoff Reduction capacity	RR_V	**2,137**	CF

INFILTRATION WORKSHEET

JMC Project:	**20101**
Design Point:	**1C**
Drainage Area:	**PDA-1C-2B**

Infiltration Basin 1C-2B

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	5.82	Ac
Area	A	13.45	Ac
Percent Impervious	%I	43.30	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.44	CF
TOTAL VOLUME Required [WQ_V = (P x R_V x A) / 12]	WQ_V	**32,206**	CF
Design Storm [1-yr Storm Depth]	P		In
TOTAL VOLUME Required *(TMDL)* [WQ_V = 1-yr Storm Runoff]	WQ_V		CF

Water Quality Volume Provided			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
1 Year Storm Entering System	Q_1 IN	53,690	CF
1 Year Storm Exiting System	Q_1OUT	0	CF
Runoff Volume Infiltrated		**53,690**	CF

Runoff Reduction			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
100% Runoff Reduction capacity	RR_V	**53,690**	CF
Total Area of Infiltration Basin Provided	A_p	**13,231.00**	SF

Runoff Reduction			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
100% Runoff Reduction capacity	RR_V	**32,206**	CF

Date Printed: 12/30/2021

PROPRIETARY PRACTICE WORKSHEET

JMC Project:	**20101**
Design Point:	**1C**
Drainage Area:	**PDA-1C-2B**
Rainfall Distribution Type:	**III**

Water Quality Structure 4A

		A	B	C
Coefficients for the equation unit peak	C_0	-1.774	0.3301	2.4577
$[R = I_a / P]$	C_1	1.8622	-0.7397	-0.4627
$[C_i = A \times R^2 + B \times R + C]$	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	3.03	Ac
Area	A	6.29	Ac
Percent Impervious	%I	48.09	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.48	CF
TOTAL VOLUME Required $[WQ_V = (P \times R_V \times A) / 12]$	WQ_V	**16,540**	CF
Design Storm [1-yr Storm Depth]	P		In
TOTAL VOLUME Required *(TMDL)* $[WQ_V$ = 1-yr Storm Runoff]	WQ_V		CF

Water Quality Peak Flow Calculation

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	16,540	CF
Design Storm [90% Rainfall Event Number] **or** [1-yr Storm Depth]	P	1.5	In
Time of Concentration	t_c	0.1667	Hr
Runoff Volume $[Q = WQ_V / (A \times 3630)]$	Q	0.72	In
Curve Number $[CN = 1000 / (10 + 5P + 10Q - 10 \times (Q^2 + 1.25\,QP)^{½}]$	CN	90.73	
Curve Number	CN	91	
Initial Abstraction $[I_a = 200 / CN - 2]$	I_a	0.20	In
Ratio $[R = I_a / P]$	R	0.14	
$C_0 = A \times R^2 + B \times R + C$	C_0	2.47	
$C_1 = A \times R2 + B \times R + C$	C_1	-0.53	
$C_2 = A \times R2 + B \times R + C$	C_2	-0.16	
Unit Peak Discharge	q_u	605.88	cfs/mi^2/in
Peak Discharge $[Q_p = q_u \times A \times Q / 640]$	Q_p	**4.31**	cfs

Proposed Device

DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Peak Flow Provided	Q_p	**5.6**	cfs
Water Quality Volume Provided $[WQ_V = 640 \times 3600 \times Q_P / q_u]$	WQ_V	**21,295**	CF
Model Designation		CS-6	
Quantity		1	

Date Printed: 12/30/2021

PROPRIETARY PRACTICE WORKSHEET

JMC Project:	**20101**
Design Point:	**1C**
Drainage Area:	**PDA-1C-2B**

Water Quality Structure 4B

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	2.80	Ac
Area	A	7.16	Ac
Percent Impervious	%I	39.09	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.40	CF
TOTAL VOLUME Required [$WQ_V = (P \times R_V \times A) / 12$]	WQ_V	**15,665**	CF
Design Storm [1-yr Storm Depth]	P		In
TOTAL VOLUME Required *(TMDL)* [WQ_V = 1-yr Storm Runoff]	WQ_V		CF

Water Quality Peak Flow Calculation			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	15,665	CF
Design Storm [90% Rainfall Event Number] or [1-yr Storm Depth]	P	1.5	In
Time of Concentration	t_c	0.1667	Hr
Runoff Volume [$Q = WQ_V / (A \times 3630)$]	Q	0.60	In
Curve Number [$CN = 1000 / (10 + 5P + 10Q - 10 \times (Q^2 + 1.25 QP)^{½}$]	CN	88.44	
Curve Number	CN	88	
Initial Abstraction [$I_a = 200 / CN - 2$]	I_a	0.26	In
Ratio [$R = I_a / P$]	R	0.17	
$C_0 = A \times R^2 + B \times R + C$	C_0	2.46	
$C_1 = A \times R2 + B \times R + C$	C_1	-0.54	
$C_2 = A \times R2 + B \times R + C$	C_2	-0.16	
Unit Peak Discharge	q_u	607.50	$cfs/mi^2/in$
Peak Discharge [$Q_p = q_u \times A \times Q / 640$]	Q_p	**4.10**	cfs

Proposed Device			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Peak Flow Provided	Q_p	**5.6**	cfs
Water Quality Volume Provided [$WQ_V = 640 \times 3600 \times Q_P / q_u$]	WQ_V	**21,239**	CF
Model Designation		CS-6	
Quantity		1	

Date Printed: 12/30/2021

APPENDIX C

SOIL TESTING DATA

CARLIN • SIMPSON & ASSOCIATES

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13 February 2013
Revised 16 October 2013

Brynwood Partners, LLC
c/o Corigin Holdings
505 Fifth Avenue, 22nd Floor
New York, NY 10017

Attn: Ms. Megan Maciejowski

Re: Report on Subsurface Soil and Foundation Investigation
Brynwood Club Development
Bedford Road
Town of North Castle, NY (12-175)

Dear Ms. Maciejowski:

In accordance with our proposals dated 20 November 2012 and 9 September 2013 and your subsequent authorization, we have completed a Subsurface Soil and Foundation Investigation for the referenced site. The purpose of this study is to preliminarily determine the nature and engineering properties of the subsurface soil and bedrock as well as the groundwater conditions for the planned development, to recommend a practical foundation scheme, to determine the allowable bearing capacity of the site soils, and to determine the subsurface soil and groundwater conditions and soil permeability in the new stormwater management areas.

We understand that the planned construction will consist of 21 new structures, roadways, parking areas, retaining walls, tennis courts, underground utilities, and a stormwater management system. To guide us in our study, you have provided us with a site plan that indicates the existing site conditions and the location of the planned new development.

Our scope of work for this project included the following:

1. Reviewed the proposed layout, the existing site conditions, the expected soil conditions, and planned this study.

2. Retained General Borings, Inc. to advance 11 test borings at the subject site.

3. Retained Traficante Contracting Inc. to excavate 18 test pits at the subject site.

4. Inspected ten (10) supplemental test pits that were excavated at the site by Brynwood Club personnel.

5. Laid out the boring and test pit locations in the field, provided full time inspection of the explorations, obtained soil samples, and prepared detailed logs and a Boring and Test Pit Location Plan.

6. Performed three (3) field percolation tests and one (1) borehole permeability test.

7. Performed soil identification tests on selected soil samples in our laboratory.

8. Analyzed the field and laboratory test data and prepared this report containing the results of this study.

SITE DESCRIPTION

The project site is located on the Brynwood Club property on Bedford Road in North Castle, Westchester County, New York. The subject property is currently occupied by a golf club with a clubhouse building, tennis courts, and a few smaller out-structures. The proposed development area is also occupied by an asphalt paved parking lot and driveways as well as grass lawn areas and wooded areas. There are numerous existing underground utilities located throughout the property.

Within the proposed development area, the existing site grades vary from approximately elevation +610.0 at the southwest corner of the subject site and the westernmost portion of the site, to elevation +640.0 on the east side of the existing clubhouse building, to elevation +674.5 in the existing tennis court area in the northeastern portion of the property.

SUBSURFACE CONDITIONS

To determine the subsurface soil, bedrock, and groundwater conditions, we advanced 11 test borings and 28 test pits at the site. The borings and test pits were performed at the locations shown on the enclosed Boring and Test Pit Location Plan. Detailed logs have been prepared and are included in this report. Our field engineer visually identified all soil samples and selected soil samples were tested in our laboratory. The results of these tests are also included in this report.

Soil

The soil descriptions shown on the boring and test pit logs are based on the Burmister Classification System. In this system, the soil is divided into three components: Sand (S), Silt ($) and Gravel (G). The major component is indicated in all capital letters, the lesser in lower case letters. The following modifiers indicate the quantity of each lesser component:

Modifier	Quantity
trace (t)	0 -10%
little (l)	10% - 20%
some (s)	20% - 35%
and (a)	35% - 50%

The subsurface soil conditions observed in the borings and test pits can be summarized as follows:

Stratum 1
Topsoil

The surface layer at most of the boring and test pit locations consists of brown topsoil that typically ranges from about 0’3” to 1’6” in thickness.

Stratum 2
Existing Fill

Beneath the topsoil and at the surface in three (3) of the borings (B-6, B-8, and B-9) and ten (10) of the test pits (TP-2, TP-9, TP-10, TP-12, TP-14, TP-16, TP-19, TP-21, TP-26, and TP-28) is existing fill that consists of loose to medium dense brown coarse to fine SAND, little (to and) Silt, trace (to some) coarse to fine Gravel. Cobbles, boulders, topsoil, roots, and debris were also present within the fill at some of the test locations. The existing fill was encountered to depths ranging from 1’0” to more than 9’0” beneath the existing ground surface. Test pits TP-9 and TP-28 were terminated in the fill at final depths of 6’9” and 9’0” beneath the ground surface, respectively.

Stratum 3
Sandy Silt or Silty Sand

Underlying the topsoil and existing fill is virgin soil that is comprised of medium dense to dense brown, light brown, or gray brown SILT some (to and), coarse to fine Sand, trace (to little) coarse to fine Gravel or coarse to fine SAND, little (to and) Silt, trace (to and) coarse to fine Gravel, with occasional cobbles and boulders. The Sandy Silt or Silty Sand stratum continued to depths ranging from 2’0” to 12’0” below the existing ground surface. Boring B-8 and test pits TP-8, TP-10, TP-12, TP-19, TP-20, TP-22, and TP-26 were terminated in this stratum at final depths ranging from 5’0” to 12’0” beneath the ground surface.

Stratum 4
Sand or Sandy Gravel

Below the Sandy Silt or Silty Sand at several test locations is completely weathered Gneiss bedrock that generally consists of dense to very dense brown or gray brown coarse to fine SAND, little (to some) Silt, trace (to some) coarse to fine Gravel or coarse to fine GRAVEL and, coarse to fine Sand, trace Silt. Where encountered in the borings and test pits, the completely weathered bedrock was present at depths ranging from 2’0” to 7’0” beneath the ground surface and continued to depths ranging from 4’7” to 15’2” below the existing ground surface.

Stratum 5 Gneiss Bedrock	Gneiss bedrock was encountered at 27 of the 39 test locations. Where encountered in the borings and test pits, gneiss bedrock was observed at depths ranging from 1'8" to 15'2" beneath the existing ground surface. In general, the quality of the bedrock will improve with depth. At boring B-10, the bedrock was cored between the depths of 2'0" and 7'0". The core recovery was 86% and the Rock Quality Designation (RQD) of the recovered core was 53%. This indicates that the quality of the upper five (5) feet of the Gneiss bedrock is fair. The Gneiss bedrock is moderately weathered and in a blocky and seamy condition.

Groundwater

Observations for groundwater were made during sampling and upon completion of the drilling operations at each boring location. In auger drilling operations, water is not introduced into the boreholes, and the groundwater position can often be determined by observing water flowing into or out of the boreholes. Furthermore, visual observation of the soil samples retrieved during the auger drilling and in the test pits can often be used in evaluating the groundwater conditions.

Groundwater was encountered in test pit TP-8 at a depth of 4'1" (+609.9), in test pit TP-13 at a depth of 4'10" (+631.2), in boring B-8 at a depth of 3'3" (+608.3), in test pit TP-22 at a depth of 4'6" (+470.5), and in test pit TP-28 at a depth of 8'0" (+491.0) beneath the ground surface. Groundwater was not encountered in any of the other borings or test pits that were performed at the subject site during this investigation.

Variations in the location of the long-term water table may occur as a result of changes in precipitation, evaporation, surface water runoff, and other factors not immediately apparent at the time of this exploration. Based on the site conditions, trapped groundwater may be encountered in the silty site soils and/or along the soil/rock interface during wet periods. Proper groundwater control measures will be required in the event that trapped water is encountered in the site excavations.

Bedrock

Bedrock was encountered in 27 of the 39 explorations that were performed at the site during this investigation. Completely weathered bedrock was encountered at ten (10) test locations at depths ranging from 2'0" to 7'0" below the existing ground surface. Harder bedrock was encountered in the remaining locations and below the completely weathered rock at depths ranging from 1'8" to 15'2" beneath the ground surface. These depths correspond to bedrock elevations ranging between approximately elevation +471.0 and elevation +669.8.

Based on the boring and test pit data and the site plans provided to this office, bedrock was encountered above the planned finished floor elevation in portions of the site. The observed depth to bedrock at each boring and test pit location is summarized in Table 1 in the following section of this report.

The bedrock encountered at the site consists of weathered Gneiss. Based on our experience, the in-situ bedrock will range from highly weathered, fractured rock to massive, intact rock. Penetration into the bedrock with excavation equipment will depend of the degree of weathering and fracturing in the rock. We anticipate that the ”rippability” of the bedrock will be variable and very limited. Based on our observations, harder rock will be encountered and blasting and/or the use of hydraulic hammers will be required to excavate the harder, intact bedrock. Rock removal is discussed further in a separate section of this report.

EVALUATION

At the time of this report, the proposed layout, the proposed finished floor elevations, and the site grading were preliminary. Therefore, the following evaluation is preliminary in nature and has been generalized for the expected development. The recommendations below are intended for planning purposes only and are not intended for final design and construction. Additional subsurface investigation will be required for the proposed buildings and retaining walls. Preliminarily, we estimate that an additional 12 to 15 explorations will be required for this project. Once the site plans have been further developed, a copy shall be forwarded to our office so that we can review it along with the recommendations in this report. At that time, we will provide specific recommendations for additional subsurface investigation. After the supplemental investigation has been completed, additional geotechnical recommendations will be provided for the project site. As a result, the recommendations within this report are subject to change.

Based on the preliminary site plans, we understand that the planned construction will consist of 21 new structures that will include seven (7) golf residences, seven (7) club villas, five (5) golf cottages, one (1) fairway residences building, and one (1) clubhouse building. The proposed construction will also include new asphalt paved roadways and parking areas, retaining walls, tennis courts, underground utilities, and a stormwater management system.

The grading plan provided to this office indicates that the proposed finished floor elevations vary across the site. In addition, the fairway residences, golf cottages, and golf residences will have basements. Based on the existing and proposed grades, cuts ranging up to approximately 14’0” and fills ranging up to approximately 10’0” are expected to achieve the proposed floor slab subgrade elevations. In the proposed pavement areas, cuts ranging up to approximately 6’0” and fills ranging up to approximately 8’0” are expected to achieve the proposed pavement subgrade elevations.

The boring and test pit data indicates that there is existing fill (Stratum 2) present in portions of the site to depths ranging from 1’0” to more than 9’0” below the existing ground surface. The existing fill generally consists of loose to medium dense Sand with varying amounts of Silt and Gravel and occasional cobbles, boulders, topsoil, roots, and debris. Underlying the existing fill is medium dense to dense Sandy Silt or Silty Sand (Stratum 3). The Sandy Silt or Silty Sand is underlain by dense to very dense completely weathered Gneiss bedrock (Stratum 4) in areas followed by more competent Gneiss bedrock (Stratum 5), which was encountered at depths ranging from 2’0” to 15’2” beneath the existing ground surface. The existing fill and bedrock observations are summarized in Table 1 below.

Table 1 - Summary of Boring and Test Pit Data

Boring or Test Pit No.	Approximate Ground Surface Elevation	Depth to Bottom of Existing Fill (Elevation)	Depth to Weathered Bedrock (Elevation)	Depth to Bedrock or Auger Refusal (Elevation)
B-1	+661.0	NE	5’0” (+656.0)	8’0” (+653.0)
B-2	+628.0	NE	NE	7’0” (+621.0)
B-3	+620.0	NE	2’0” (+618.0)	4’9” (+615.3)
B-4	+628.0	NE	2’0” (+626.0)	10’6” (+617.5)
B-5	+623.0	NE	2’0” (+621.0)	8’6” (+614.5)
B-6	+617.0	1’0” (+616.0)	NE	5’6” (+611.5)
B-7	+628.0	NE	5’0” (+623.0)	15’2” (+612.8)
B-8	+609.0	5’6” (+603.5)	NE	NE to 12’0”
B-9	+674.0	7’0” (+667.0)	7’0” (+667.0)	7’6” (+666.5)
B-10	+638.8	NE	NE	2’0” (+636.8)
B-11	+640.0	NE	4’0” (+636.0)	5’6” (+634.5)
TP-1	+662.0	NE	NE	2’0” (+660.0)
TP-2	+672.0	1’10” (+670.2)	NE	4’4” (+667.7)
TP-3	+672.0	NE	NE	2’2” (+669.8)
TP-4	+672.0	NE	NE	3’6” (+668.5)
TP-5	+670.0	NE	3’8” (+666.3)	4’9” (+665.3)
TP-6	+672.0	NE	2’10” (+669.2)	4’7” (+667.4)
TP-7	+620.0	NE	NE	2’8” (+617.3)
TP-8	+614.0	NE	NE	NE to 5’0”
TP-9	+628.0	>6’9” (<+621.3)	NE	NE to 6’9”
TP-10	+625.0	3’0” (+622.0)	NE	NE to 8’0”
TP-11	+642.0	NE	3’9” (+638.3)	6’0” (+636.0)
TP-12	+635.0	5’0” (+630.0)	NE	NE to 6’6”
TP-13	+636.0	NE	NE	7’5” (+628.6)
TP-14	+625.0	5’0” (+620.0)	NE	5’0” (+620.0)
TP-15	+668.0	NE	NE	1’8” (+666.3)
TP-16	+651.0	1’10” (+649.2)	NE	4’10” (+646.2)
TP-17	+655.0	NE	NE	NE to 1’0”
TP-18	+670.0	NE	NE	NE to 7’0”
TP-19	+427.0	2’5” (+424.6)	NE	NE to 7’0”
TP-20	+415.0	NE	NE	NE to 8’0”
TP-21	+478.0	1’4” (+476.7)	NE	7’0” (+471.0)
TP-22	+475.0	NE	NE	NE to 7’6”
TP-23	+496.0	NE	NE	3’10” (+492.2)
TP-24	+564.0	NE	NE	6’8” (+557.3)
TP-25	+633.0	NE	NE	3’4” (+629.7)
TP-26	+669.0	5’6” (+663.5)	NE	NE to 8’0”

Boring or Test Pit No.	Approximate Ground Surface Elevation	Depth to Bottom of Existing Fill (Elevation)	Depth to Weathered Bedrock (Elevation)	Depth to Bedrock or Auger Refusal (Elevation)
TP-27	+561.0	NE	NE	4’4” (+556.7)
TP-28	+499.0	>9’0” (<+490.0)	NE	NE to 9’0”

Notes: NE – Not Encountered
B-8: Groundwater at +608.3
TP-8: Groundwater at +609.9
TP-9: Terminated in the Existing Fill
TP-13: Groundwater at +631.2
TP-22: Groundwater at +470.5
TP-28: Groundwater at +491.0
TP-28: Terminated in the Existing Fill

<u>Removal of Existing Structures from New Building and Pavement Areas</u>

<u>Building Areas</u>

The site plan indicates that existing structures are present in some of the proposed building areas. The existing structures will be removed as part of the proposed development. All debris resulting from the demolition of these items must be completely removed from the new building areas, extending at least ten (10) feet beyond the new building limits, where practical. This shall include the complete removal of all foundations, walls, slabs, utilities, sidewalks, pavement, and miscellaneous debris. Where the removal of existing items or associated materials extends below the planned building, the resulting excavations shall be backfilled with new compacted fill as described below.

Existing utilities, where they are encountered within the planned building areas, should be either abandoned or rerouted around the new structures. Once the utility has been rerouted or abandoned, the section of pipe and any associated structure within the building areas should be completely removed. The removal of the pipe and structure must also include any loose fill around the pipe or structure. After the pipe, associated structure, and associated loose backfill have been removed, the resulting excavation shall be backfilled with new controlled fill as described below.

New compacted fill shall consist of either suitable on-site soil or imported sand and gravel. Imported sand and gravel fill shall contain less than 20% by weight passing a No. 200 sieve. The fill shall be placed in layers not exceeding one (1) foot in loose thickness. In the proposed building area, new fill shall be compacted to at least 95% of its Maximum Modified Dry Density (ASTM D1557). Each layer shall be compacted, tested, and approved prior to placing subsequent layers.

<u>Pavement Areas</u>

In the proposed pavement areas, any existing structures and debris resulting from the demolition of the structures must be completely removed from the new pavement areas, extending at least five (5) feet beyond the new paving limits, where practical. The excavations resulting from the removal of existing items shall be backfilled using controlled compacted fill. New fill shall consist of either suitable on-site soil or imported sand and gravel placed in one (1) foot loose layers and compacted to at least 92% of its Maximum Modified Dry Density (ASTM D1557).

Implications of Existing Fill

The boring and test pit data indicates that existing fill is present in portions of the site. Where encountered in the borings and test pits, the fill extended to depths ranging from 1’0” to more than 9’0” beneath the existing ground surface. These depths correspond to elevations ranging from approximately +424.6 to elevation +670.2. The depth of the existing fill is expected to be variable and may be deeper in unexplored areas of the site and around the existing site buildings.

The existing fill is not an acceptable bearing material for the new building foundations or floor slabs. The consistency and density of the fill material are not predictable. Certain areas may contain clean dense soils while other areas may contain loose material, topsoil, and/or debris. The existing fill creates the possibility of intolerable differential settlements under loading.

To eliminate the potential for damaging differential settlements, we recommend that the existing fill be completely removed from the new building areas. Based on the existing grades and the proposed finished floor elevations, we expect that some of the existing fill will be removed during the planned building excavations. However, existing fill is expected to be encountered below the planned subgrade elevation in portions of the site. Undercutting of the subgrade will be required in these areas to remove the existing fill or otherwise unsuitable materials from the building areas. The over-excavated areas shall then be replaced with new structural fill, as necessary, to achieve the planned subgrade elevations.

To further evaluate the existing fill conditions in and around the planned building areas, we recommend that a series of supplemental test pits be performed at the time of construction. The test pits should be conducted under the full time observation of a Carlin-Simpson & Associates representative. These test pits will allow us to confirm the consistency, thickness, and horizontal limits of the existing fill material.

Provided that the existing fill and any other unsuitable materials encountered during construction are removed, it is our opinion that the new structural fill and virgin soils can adequately support the new building foundations and floor slabs.

Rock Removal - Blasting Issues

As discussed above, bedrock was encountered at 27 of the 39 test locations during this study. The bedrock was encountered at depths ranging from 1’8” to 15’2” beneath the ground surface. These depths correspond to bedrock elevations ranging between approximately elevation +611.5 and elevation +669.8. Based on the site plans provided to this office, bedrock was encountered above the planned finished floor elevation in portions of the site. Bedrock may also be encountered at higher elevations in the unexplored areas of the site.

The bedrock encountered in the borings and test pits consists of weathered Gneiss. Based on our experience, the in-situ bedrock will range from highly weathered, fractured rock to massive, intact rock. To excavate the rock, the upper 1'0" to 5'0" of rock may be "rippable" by using large construction equipment. The use of hydraulic hammers and/or blasting will be required in order to achieve deeper excavations. Zones of weathered rock may exist deeper than 5'0" but conditions are expected to be highly variable. Hard rock will be encountered during construction.

In order to develop the site, rock removal will be required in areas to achieve the proposed grades. Rock removal may also be required for the new pavement and utilities in portions of the site. Rock blasting will likely be required to achieve the proposed grades in areas. Nearby buildings and existing underground utilities could be affected by the blasting.

The Blasting Contractor should avoid over-blasting the rock. Over-blasting will disturb the deeper intact rock that will be used as bearing material for the proposed foundations and floor slab.

The blasting operation will be monitored by a seismologist using a seismograph. The Peak Particle Velocity emanating from any blast will be restricted to 2.0 in/sec. Each blast will be monitored to insure that this criteria is not exceeded.

The U.S. Bureau of Mines [Nicholas et al (1971)] has established that a threshold of 4.0 in/sec will likely crack plaster and thus they recommend that the safe vibrational criterion be 2.0 in/sec. This criterion has been used successfully in the industry. Each blast will be monitored independently to insure that this criterion is not exceeded. The monitoring results shall be provided to the Blasting Contractor as soon as possible so that the blasting program can be modified if necessary.

We recommend that a minimum of four (4) monitoring points be established, to the north, east, south and west of the planned blast area. The seismograph sensors should be placed near the closest structure and at any structures identified during the pre-blast survey that are considered to be susceptible to vibration damage.

Prior to the start of any construction, a Blasting Management Plan shall be prepared by the Blasting Contractor for this project. This plan shall be in accordance with State regulations and the Explosive Materials Code, NFPA No. 495, National Fire Prevention Association. Additionally, all blasting should adhere to the provisions of 29 CFR Ch. XVII Section 1910.109 for explosives and blasting agents and to all local requirements.

Prior to any blasting work being done, a licensed professional engineer shall be retained to perform a detailed pre-blast survey of existing structures located within 500 feet of the planned blast area. The pre-blast survey shall be conducted in accordance with the requirements of local authorities. A copy of all reports prepared by the licensed engineer shall be submitted to the Town Engineer and the Owner's representative in a timely manner.

Prior to the beginning of blasting, a notice will be sent to all residential and commercial property owners within a 500 foot radius of the blast area. This notification will be given at least 48 hours before blasting takes place. A contact person will be established and named in this notice to respond to all concerns raised by nearby residents during the blasting phase of the project. The contact person will respond to any inquiries within 24 hours.

Preparation of New Building Areas and Removal of Existing Fill

In order to prepare the building areas for construction, all surface materials such as topsoil, asphalt, and surface vegetation shall be removed from the planned building areas, extending at least ten (10) feet beyond the new construction limits, where feasible.

The boring data indicates that existing fill is present within portions the proposed building areas. Fill material may also be present in other unexplored portions of the site. Where encountered in the test borings, the existing fill extended to depths ranging from about 1’0” to 7’0” below the existing ground surface. As shown in Table 1 above, the approximate bottom of the fill material ranges from elevation +603.5 to elevation +670.2. The existing fill is expected to vary in thickness across the site and may extend deeper in the unexplored areas and around the existing site structures.

After the surface materials are removed, the existing fill shall be excavated from the new building areas. The removal of the existing fill from the new building areas shall extend through the existing fill, down to the virgin soil or weathered bedrock. At the bottom of the excavation, the removal of the unsuitable material shall extend horizontally beyond the building lines a minimum distance of three (3) feet plus a distance equal to the depth of the excavation below the planned finished floor elevation. For example, if the removal of the existing fill extends vertically five (5) feet below the planned finished floor elevation, the excavation must extend horizontally a minimum of eight (8) feet (3 feet plus 5 feet) beyond the new building line at that location.

The removal of the existing fill from the planned building areas shall be performed under the full time observation of Carlin-Simpson & Associates. The on-site representative from Carlin-Simpson & Associates shall direct the Contractor during this operation to ensure that all of the unsuitable material has been removed from the proposed building areas.

During the removal of the unsuitable material from the building areas, the Contractor should segregate the potentially re-usable existing fill material from the non-reusable fill (i.e. debris and topsoil). The on-site representative from Carlin-Simpson & Associate shall evaluate the suitability of the excavated materials for use as structural fill during the excavation and prior to its re-use. Potentially usable fill should be stockpiled and covered with tarps or plastic sheeting for protection from excess moisture. Any fill material that is wet must be dried prior to its re-use.

After the surface materials and existing fill have been removed and prior to the placement of new structural fill, the exposed subgrade must be graded level and proofrolled by several passes of a vibratory drum roller. The proofrolling operation is necessary to densify the underlying soils. Carlin-Simpson & Associates shall be retained to observe the proofrolling of the subgrade. If any soft or otherwise unsuitable soils are noted, the unsuitable material shall be removed and replaced with new structural fill. Carlin-Simpson & Associates shall be responsible for determining what material, if any, is to be removed and will direct the contractor during this operation.

New structural fill required to achieve final grades shall consist of either suitable on-site soil or imported sand and gravel. Imported fill shall contain less than 20% by weight passing a No. 200 sieve. The structural fill shall be placed in layers not exceeding one (1) foot in loose thickness and each layer shall be compacted to at least 95% of its Maximum Modified Dry Density (ASTM D1557). Each layer must be compacted, tested, and approved prior to placing subsequent layers. The suitability of the excavated soil for reuse as structural fill is discussed in a following section of this report.

After the installation of structural fill has been completed to the required subgrade elevations, the virgin soil and new structural fill may be used to support the proposed building foundations and floor slabs.

New Building Foundations

According to the boring data, the foundation bearing materials will consist of medium dense to dense virgin soil, weathered bedrock, and new structural fill. Foundations for the proposed structures may be designed as a shallow spread footing bearing on the virgin soil, weathered bedrock, or new structural fill utilizing a net allowable bearing pressure of 4,000 psf (2.0 TSF).

Exterior footings shall bear at a depth of at least 42 inches below finished outside grade for protection from frost. Interior column footings may bear on the virgin soil, weathered bedrock, or new structural fill just below the floor slab provided the building is heated during winter. Column footings shall have a minimum dimension of 30 inches. The wall footings shall have a minimum width of 18 inches.

Prior to the placement of formwork, reinforcement steel, and concrete, the bearing subgrade soil shall be cleaned of all loose soil and compacted with several passes of a small vibratory drum trench compactor (i.e. Wacker Model RT560), a heavy vibratory plate tamper (i.e. Wacker BPU 3545A or equivalent), or “jumping jack” style tamper (i.e. Wacker Model BS 600). This must be performed under the inspection of a representative from Carlin-Simpson & Associates. If instability is observed during the compaction of the bearing subgrade, the soft soil shall be removed and replaced with new compacted fill.

Where rock is encountered in the foundation excavations, “Special Construction Procedures” must be employed. When continuous wall footings or closely spaced column footings (20 feet or less) bear on dissimilar material (i.e. rock and soil) the potential for differential movement exists. A footing bearing in rock will not move, whereas a footing bearing on soil will settle slightly due to the compressive nature of all soils when subjected to new loads. The area between movement and non-movement will develop a (shear) stress point. Cracks in foundations and walls will be the result from such movement. Therefore, continuous wall footings must bear either entirely on rock or entirely on soil for any individual building. Alternatively, for larger structures, transition zones can be constructed to create a gradual transition from a soil to a rock bearing subgrade.

Adjacent column footings greater than 20 feet apart may bear on dissimilar material (i.e. soil and rock). Any individual column footing must bear entirely on the same type bearing material (i.e. all soil or all rock).

Where rock and soil both exist at the bearing elevation within a foundation excavation, the footings must either be lowered to bear entirely on rock, or a minimum of 18 inches of rock must be removed from below planned footing bottom. The over-excavated 18 inches must then be filled with a granular material having a maximum particle size of ½-inch and containing at least 15% but not more than 30% material by weight passing a No. 200 sieve. The fill shall be placed in six (6) inch layers and each layer shall be compacted to at least 95% of its Maximum Modified Dry Density (ASTM D1557). This procedure will create a "cushion" atop the rock and reduce the potential for differential movement. For soft, rippable rock, this procedure will not be required.

If during the excavation for continuous foundations, the transition from soil to rock is gradual (i.e. from medium dense soil to dense weathered rock to very dense rock) over a distance of 20 feet or more, the "Special Construction Procedures" may not be required. This would have to be evaluated in the field on a case-by-case basis by the representative from Carlin-Simpson & Associates at the time of construction.

Where the transition from rock to soil is abrupt within the excavation for continuous wall foundations, transition zones can be constructed by over-excavating the rock in steps and increasing the "soil cushion" thickness over a distance of 24 feet or more. To construct the transition zone, the bedrock is over-excavated in a series of steps, each step being six (6) inches in depth and at least eight (8) feet in length. The first step is six (6) inches deep, the second step is 12 inches deep, and the final step is 18 inches deep. The over-excavation is then backfilled with the soil cushion material described above.

Floor Slab

After the footings and foundation walls are installed, fill will be required to backfill the excavations and to raise grades in the building areas to the slab subgrade elevations. New fill for the floor slab shall consist of either suitable on-site soil or imported sand and gravel containing less than 20% material by weight passing a No. 200 sieve. The fill shall be placed in layers not exceeding one (1) foot in loose thickness and each layer shall be compacted to at least 92% of its Maximum Modified Dry Density (ASTM D1557). Fill layers shall be compacted, tested, and approved before placing subsequent layers.

The floor may be designed as a slab on grade, bearing on virgin soil, weathered bedrock, bedrock, or new structural fill. We recommend a Modulus of Subgrade Reaction (k) of 200 pounds per cubic inch (pci) be used for design. A six (6) inch layer of 3/4-inch crushed stone is recommended beneath the concrete slab for additional support and drainage. In the event that the floor slab is constructed directly on Gneiss bedrock, a minimum of 12 inches of crushed stone or DGA should be provided beneath the floor slab for drainage and to act as a cushion on the rock. Sump pits and pumps are recommended where basements are planned.

Settlement

Settlement of individual footings, designed in accordance with recommendations presented in this report, is expected to be within tolerable limits for the proposed structure. For footings placed on natural soils or new compacted fill approved by Carlin-Simpson & Associates and constructed in accordance with the requirements outlined in this report, maximum total settlement is expected to be on the order of 1/2-inch or less. Maximum differential settlement between adjacent columns or load bearing walls is expected to be half the total settlement.

The above settlement values are based on our engineering experience with similar soil conditions and the anticipated structural loading, and are to guide the Structural Engineer with his design. To minimize difficulties during the foundation installation phase, it is critical that Carlin-Simpson & Associates be retained to observe the foundation bearing surfaces and to confirm the recommended bearing pressures and that the existing fill and unsuitable materials have been removed from beneath the new foundations.

Foundation Walls

In the event that foundation walls are required, the soil adjacent to the building walls will exert a horizontal pressure against the walls. This pressure is based on the soil density and Coefficient of Earth Pressure at Rest (k_o), which is applicable to non-yielding building walls. We estimate that the backfill material will have an in-place (moist) density of about 130 pcf and a k_o of 0.5. Based on these properties, the soil will produce an Equivalent Fluid Pressure of 65 pcf against the building walls.

For sliding, the coefficient of friction between concrete and the virgin site soils or new structural fill is 0.45. For clean sound rock, a friction coefficient of 0.55 can be used. Where passive lateral earth pressure is to be included in the design of the wall, a design value of 195 psf/ft may be used. This is based on a Coefficient of Passive Earth Pressure (k_p) of 3.0, an in-place soil backfill density of 130 pcf, and a factor of safety of 2.0.

Where foundation walls are required, we recommend that a footing drain be placed around the exterior of the new structure to prevent water from accumulating against the foundation wall. This drain may consist of a minimum four (4) inch diameter, rigid wall perforated PVC pipe surrounded by at least 12 inches of 3/4-inch clean crushed stone. The stone shall be wrapped in a geotextile fabric, Mirafi 140N or equivalent. The foundation drainpipe should be extended to daylight or to the stormwater collection system. The outside face of the foundation wall, where it extends below grade, must be damp proofed or waterproofed.

The foundation walls should be backfilled with suitable structural fill placed in layers up to one (1) foot in loose thickness. The new fill should be compacted with a vibratory drum trench compactor (i.e. Wacker Model RT560), a heavy vibratory plate tamper (i.e. Wacker BPU 3545A or equivalent) or "jumping jack" style tamper (i.e. Wacker Model BS 600) to at least 92% of its Maximum Modified Dry Density (ASTM D1557). Heavy equipment should not be operated near the wall as damage to the wall could occur.

Outside the structure, the backfill placed adjacent to the foundation walls and above the footing drain shall consist of either clean crushed stone or an imported sand and gravel mixture containing less than 10% by weight passing a No. 200 sieve and placed in layers not exceeding one (1) foot in thickness. This clean sand and gravel or crushed stone backfill shall extend a minimum of one (1) foot horizontally from the back face of the foundation walls, and shall extend vertically up the wall face to two (2) feet below the finished ground surface elevation.

Beyond this point, the foundation walls should be backfilled with suitable soil placed in layers up to one (1) foot in thickness. The new fill should be compacted with a vibratory drum trench compactor (i.e. Wacker Model RT560), a heavy vibratory plate tamper (i.e. Wacker BPU 3545A or equivalent), or "jumping jack" style tamper (i.e. Wacker Model BS 600) to at least 92% of its Maximum Modified Dry Density (ASTM D1557). Heavy equipment should not be operated near the walls as damage to the walls could occur. Material excavated from the cut areas on site will be suitable for reuse as compacted fill, provided that it remains relatively dry enough to be adequately compacted to the required density and does not contain any debris or organic material (i.e. topsoil and roots).

Seismic Design Considerations

From site-specific test boring data, the Site Class was determined from Table 1615.1.1 of the New York State Building Code. The site-specific data used to determine the Site Class typically includes soil test borings to determine Standard Penetration resistances (N-values). Based on the average N-values in the upper 100 feet of soil profile, the site can be classified as Site Class C – Very Dense Soil and Soft Rock Profile.

New structures should be designed to resist stress produced by lateral forces computed in accordance with Section 1615 of the New York State Building Code. The values in Table 2 shall be used for this project. Based on the information obtained from the borings, it is our opinion that the potential for liquefaction of the native soils at the site due to earthquake activity is relatively low.

Table 2 – Seismic Design Parameter Values

Mapped Spectral Response Acceleration for Short Periods, [Fig 1615 (1)]	S_S=0.347g
Mapped Spectral Response Acceleration at 1-Second Period, [Fig 1615 (2)]	S_{S1}=0.070g
Site Coefficient [Table 1615.1.2 (1)]	F_a=1.20
Site Coefficient [Table 1615.1.2 (2)]	F_v=1.70
Max Considered Earthquake Spectral Response for Short Periods [Eq 16-16]	S_{MS}=0.416g
Max Considered Earthquake Spectral Respond at 1-Second Period [Eq 16-17]	S_{M1}=0.119g
Design Spectral Response Acceleration for Short Periods [Eq 16-18]	S_{DS}=0.278g
Design Spectral Response Acceleration for 1-Second Period [Eq 16-19]	S_{D1}=0.079g

Site Retaining Walls

In order to develop the site, retaining walls will be required in areas. The site retaining walls may be designed as either cast-in-place steel reinforced concrete walls or geogrid reinforced modular block (MSE) walls. The preliminary site plans show five (5) retaining walls. The maximum exposed height of these walls ranges from approximately seven (7) feet to 12 feet but the top and bottom wall elevations were not finalized at the time of this report.

The following recommendations are preliminary in nature based on the boring and test pit data from other areas of the project site during this investigation. The recommendations below are intended for planning purposes only and are not intended for final design and construction. A supplemental subsurface investigation is required for the proposed retaining walls so that additional design recommendations can be provided.

In the event that existing fill materials are present within the proposed wall areas, these materials must be completely removed from the limits of new wall construction. The removal of the topsoil or other unsuitable fill materials shall extend horizontally a minimum distance of five (5) feet beyond the front face of the new wall or extend horizontally a minimum distance equivalent to the vertical depth of the required excavation below the proposed wall base or foundation bearing elevation, whichever is greater. This is required to ensure that all unsuitable material has been removed from beneath the wall base or foundation zone of influence, which shall be defined by an imaginary plane projecting downward and away from the front edge of the wall base or foundation on a one horizontal to one vertical (1H:1V) projection.

The foundations for the new retaining wall may be placed on the virgin soil, weathered bedrock, or on new compacted fill approved by Carlin-Simpson & Associates. New compacted fill shall consist of either suitable on-site soil or imported sand and gravel. Imported fill shall contain less than 20% by weight passing the No. 200 sieve. The fill shall be placed in one (1) foot thick loose layers and compacted to at least 95% of its Maximum Modified Dry Density. Preliminarily, the footings or base of the wall can be designed using a net design bearing pressure of 4,000 psf (2.0 TSF).

For MSE walls, the wall base or foundation must be adequately embedded for internal and global stability. The embedment depth will be determined by the Wall Design Engineer. For reinforced concrete walls, the footing or base of the wall shall bear at least 42 inches below finished grade of the outside face of the wall for protection from frost. The wall foundation or base may bear at shallower depths when installed directly on the bedrock since rock is not susceptible to frost. Where both soil and rock are encountered within the wall foundation or base excavation, the “Special Construction Procedures” discussed above for the building foundations must be utilized.

Drains must be provided behind the retaining walls to prevent the buildup of hydrostatic pressure against the walls. The drain should consist of a 4-inch diameter perforated PVC pipe, surrounded with 3/4-inch clean crushed stone and wrapped in a geotextile fabric, Mirafi 140N or equivalent. The drain should be installed behind the base or foundation of the retaining wall to collect the water behind the wall and be connected into the site stormwater collection system or extended to daylight beyond the wall area.

Backfill placed directly behind the retaining walls shall consist of either suitable on-site soil or imported sand and gravel containing less than 20% by weight passing a No. 200 sieve. Each layer shall be compacted using a hand guided mechanical tamper to 92% of its

Maximum Modified Dry Density (ASTM D1557). Excessive compaction adjacent to the retaining walls must be avoided. Layers shall be tested and approved before placing subsequent layers. Large compaction equipment must not be used within ten (10) feet of the new walls to prevent potential damage to the walls.

The soil adjacent to the site retaining walls will exert a horizontal pressure against the walls. This pressure is based on the soil density and the Coefficient of Active Earth Pressure (k_a). We estimate that the backfill material will have an in-place (moist) density of about 130 pcf and an angle of internal friction (ϕ) of 30°. For design, soil cohesion is assumed to be zero for the foundation soil, retained soil, and reinforced backfill. The active earth pressure coefficient (k_a) is 0.33 provided the grade behind the wall is level. Based on these properties, the retained soil will produce an Equivalent Fluid Pressure of 42.9 pcf against the retaining walls. If a sloping grade exists behind the new walls, the k_a and the Equivalent Fluid Pressure must be adjusted accordingly. In addition, any surcharge loads from structures, vehicles, or other retaining walls (i.e. tiered walls) must be considered in the wall design.

For sliding, the friction coefficient between mass concrete and the virgin site soils or new compacted fill is 0.45. For clean sound rock, a friction coefficient of 0.55 can be used. Where passive lateral earth pressure is to be included in the design of the wall, a maximum design value of 195 psf/ft may be used. This is based on a Coefficient of Passive Earth Pressure (k_p) of 3.0, an in-place soil backfill density of 130 pcf, and a factor of safety of 2.0.

The Wall Design Engineer shall prepare a complete wall design (i.e. drawings, specifications, and calculations), which shall be designed and sealed by a Professional Engineer registered in the State of New York and submitted to Carlin-Simpson & Associates for review and approval. MSE retaining walls shall be designed in accordance with the recommendations of the NCMA Design Manual for Segmental Retaining Walls (Current Edition).

The MSE wall design shall consider the internal stability of the reinforced soil mass and shall be in completed accordance with acceptable engineering practice. In addition, external stability, including sliding, overturning, and bearing, as well as global slope stability shall be evaluated in accordance with acceptable engineering practice.

The MSE Wall Designer Engineer shall be responsible for determining the required geogrid reinforcement lengths and elevations based on his stability analysis (including global stability) and the properties of the geogrid reinforcement used in the design. We anticipate that in the critical areas of the wall, global stability will be the controlling design criteria for the design of the geogrid reinforcement.

Stormwater Management Areas

We understand that the planned development will include one or more stormwater management areas. The preliminary grading plan shows a proposed infiltration basin with a forebay in the western portion of the project site. The plan also indicates that the basin will have a bottom elevation at +610.0. We also understand that there is an alternate stormwater management area in the southwestern portion of the site, near the proposed fairway residences building. In addition, stormwater management areas will likely be required throughout the golf course property. However, at the time this report was prepared, the proposed stormwater management system had not been designed and the location, grades, and invert elevations of the system had not been finalized.

During this study, four (4) borings, one (1) test pit, one (1) borehole permeability test, and four (4) percolation tests were performed within or near the planned stormwater management areas. An addition ten (10) test pits (TP-19 through TP-28) were excavated at potential stormwater management areas throughout the golf course property. The tests were performed at the locations shown on the attached Boring and Test Pit Location Plan. The proposed test depths were provided by the project Site Engineer. The test depths were modified, however, based on the depth to bedrock encountered at the test locations.

The soil conditions encountered within the proposed infiltration basin area consist of a surface layer of topsoil (Stratum 1), approximately 0’6” to 0’9” in thickness, followed by existing fill (Stratum 2) in boring B-6. Below the topsoil and fill is virgin soil that consists of layers of Sandy Silt, Silty Sand, Sandy Gravel, Gravelly Sand, or Silty Gravelly Sand (Strata 3 and 4) followed by Gneiss bedrock (Stratum 5). Bedrock was encountered in the proposed infiltration basin area at depths ranging from 2’8” to 8’6” beneath the ground surface. These depths correspond to bedrock elevations ranging between elevation +611.5 and elevation +617.3, which is above the proposed bottom elevation of the infiltration basin.

In the alternate stormwater management area, the topsoil was underlain by approximately 5’6” of existing fill (Stratum 2) followed by layers of Sandy Silt and Silty Sand (Stratum 3). Groundwater was encountered in this portion of the site at depths ranging from 0’6” to 3’3” below the ground surface, which corresponds to groundwater levels ranging from approximately elevation +608.3 to elevation +613.2.

The subsurface soil and groundwater conditions encountered in the potential stormwater management areas throughout the golf course property vary across the site. The boring and test pit observations are summarized in Table 1 above.

In December 2012 and January 2013, permeability tests were performed within the proposed stormwater management areas. One (1) borehole permeability test (BP-4) and four (4) percolation tests (P-1 through P-4) were performed. The infiltration rates at the test locations are summarized in Table 3 below.

Table 3 – Field Permeability Test Results

Permeability Test No.	Permeability Test Depth (Elevation)	Permeability Rate	Soil Description
BP-4	7’0” (+621.0)	2.4 in/hour	Brown coarse to fine SAND, little Silt, some (+) coarse to fine Gravel
P-1	3’6” (+616.5)	>20 in/hour	Brown coarse to fine GRAVEL and, coarse to fine Sand, trace Silt
P-2	1’8” (+610.3)	NR	*Groundwater encountered 0’6” below the ground surface*

Permeability Test No.	Permeability Test Depth (Elevation)	Permeability Rate	Soil Description
P-3	2’8” (+613.3)	>20 in/hour	Brown coarse to fine SAND, some Silt, and (-) coarse to fine Gravel
P-4	2’0” (+613.0)	NR	*Groundwater encountered 1’10” below the ground surface*

NR – Not Recorded

Based on the field tests, the virgin soil in the areas of tests P-1 and P-3 has a permeability rate that exceeds 20 inches per hour. However, these tests were performed at elevations of +616.5 and +613.3, which are approximately 6’6” and 3’3” higher than the planned bottom of the proposed infiltration basin. Bedrock was encountered at depths of 4’9” (+615.3) and 5’6” (+611.5) below the surface at these test locations. In the event the virgin soil in the areas of tests P-1 and P-3 can be utilized for the stormwater management system, a permeability rate of 10 inches per hour should be used for preliminary design. This design permeability rate includes a factor of safety of 2.0.

Field permeability tests could not be performed at test locations P-2 and P-4 during this study since groundwater was encountered at depths of 0’6” (+611.5) and 1’10” (+613.2) below the ground surface, respectively. Should stormwater management areas be planned in other portions of the site, they must be evaluated on a case-by-case basis.

The stormwater management system should be designed in accordance with the applicable New York State Department of Conservation (NYSDEC) regulations and the New York State Stormwater Management Design Manual (August 2010). The testing requirements are outlined in Appendix D of the manual. The testing that was performed during this preliminary study was for initial feasibility testing for the stormwater management areas. Therefore, additional testing within the proposed subsurface system areas will be required to confirm the soil conditions and infiltration rates at the bottom of the system and to finalize the design of the system.

<u>Pavement</u>

We understand that the proposed construction will also include new asphalt paved driveways and parking areas. Based on the preliminary grading plan provided to this office, cuts ranging up to approximately 6’0” and fills ranging up to approximately 8’0” are anticipated to achieve the proposed pavement subgrade elevations. To prepare the new pavement areas, the existing surface materials (i.e. topsoil, vegetation, asphalt, etc.) must be removed from the planned pavement areas.

After all surface materials have been removed; the exposed subgrade that is either at or below the planned subgrade elevation shall be proofrolled with a large vibratory drum roller (i.e. Dynapac 250 or equivalent) to densify the underlying soils. The on-site representative from Carlin-Simpson & Associates shall witness the proofrolling operation. If any excessive movement is noted during the proofrolling, the soft or unsuitable soil shall be removed and replaced with new compacted fill.

Areas where existing fill is encountered shall be compacted in place. Carlin-Simpson & Associates must evaluate these areas for the presence of soft or unsuitable material within the existing fill matrix. Portions of this fill may have to be removed and replaced with new compacted fill. Carlin-Simpson & Associates will determine this during construction.

Where new fill is required to achieve final grades, it shall consist of either suitable on-site soil or imported sand and gravel. Imported sand and gravel shall contain less than 20% by weight passing a No. 200 sieve. New fill shall be placed in layers not exceeding one (1) foot in loose thickness and each layer shall be compacted to at least 92% of its Maximum Modified Dry Density (ASTM D1557). After the planned subgrade has been proofrolled and new compacted fill has been placed as required, the new pavement subbase may be placed on the existing site soils and new compacted fill.

When new fill is placed on a sloped subgrade, the fill layers must be benched a minimum of three (3) feet into the existing embankment. Fill layers shall be placed in horizontal layers, beginning at the base of the slope. End dumping over the top of a slope is not permitted.

The new pavement subbase may be placed on engineer-approved densified existing fill, virgin soil, or new compacted fill. A minimum of six (6) inches of dense graded aggregate (DGA) is recommended for the subbase layer for drainage and additional pavement support. We recommend that the following pavement sections be used for the parking lots and driveways. These pavement sections are subject to local government approval.

Parking Lots (Light Duty)

1 ½”	Asphalt Wearing Surface Course	NYSDOT, Type 6F
2”	Asphalt Base Course	NYSDOT, Type 1
6”	Stone Subbase (DGA)	NYSDOT, Type 4
	Approved Compacted Subgrade (Minimum CBR = 10)	

Driveways (Medium Duty)

1 ½”	Asphalt Wearing Surface Course	NYSDOT, Type 6F
2 ½”	Asphalt Base Course	NYSDOT, Type 1
8”	Stone Subbase (DGA)	NYSDOT, Type 4
	Approved Compacted Subgrade (Minimum CBR = 10)	

Based on the boring and test pit data, we anticipate that the existing site soils and new compacted fill will provide a CBR value that is equal to or greater than 10, which can adequately support the above pavement sections.

Utilities

New utilities may bear in the virgin soil, existing fill, new compacted fill, weathered rock, or rock. The bottom of all trenches should be excavated clean so a hard bottom is provided for pipe support. If any soft areas or unsuitable existing fill conditions are encountered during the construction operation, these materials must be removed and replaced with new compacted fill.

In the event that the trench bottom becomes soft due to the inflow of surface or trapped water, the soft soil shall be removed and the excavation filled with a minimum of six (6) inches of 3/4-inch clean crushed stone to provide a firm base for support of the pipe. Sump pits and pumps should be adequate to keep the excavations dry.

After the utility is installed, the trench must be backfilled with compacted fill. The fill shall consist of suitable on-site soil or imported sand and gravel containing less than 20% by weight passing a No. 200 sieve. Large rock fragments must not be placed directly against the pipe. Controlled compacted fill shall be placed in one (1) foot loose layers and each layer shall be compacted to at least 92% of its Maximum Modified Dry Density (ASTM D1557). The backfill must be free of topsoil, debris and large boulders or rock fragments.

Temporary Construction Excavations

Temporary construction excavations shall be conducted in accordance with the most recent OSHA guidelines or applicable federal, state, or local codes. Based on the results of the borings and test pits, we believe the site soils and rock would have the following classifications as defined by OSHA guidelines.

Soil/Rock Type	Possible Classification
On Site Fill	Type "C"
Virgin Sandy Soils	Type "B" or "C"
Weathered or Intact Bedrock	Type "A" or Stable Rock

Further evaluation of the site soil deposits will be required in the field by a qualified person at the time of the excavation to determine the proper OSHA classification and allowable slope configuration. Temporary support (i.e. sheeting and shoring) should be used for any excavation that cannot be sloped or benched in accordance with the applicable regulations.

Suitability of the In-Situ Soils for Use as Compacted Fill

The suitability of each soil stratum for use as compacted fill is discussed below.

Stratum 1 Topsoil — Topsoil is not suitable for use as compacted fill. During construction, it may be stockpiled on site for later use in the landscaped areas or removed from the site.

Stratum 2 Existing Fill — The existing fill that was encountered at the site generally consists of brown coarse to fine Sand, little (to and) Silt, trace (to some) coarse to fine Gravel with occasional cobbles, boulders, topsoil, roots, and debris. Some of the existing fill may be suitable for use as compacted fill at the site provided that it remains relatively dry for optimum compaction and that any debris (i.e. concrete, wood, etc.) and organic material (i.e. topsoil, roots, etc.) have been removed prior to its reuse.

Strata 3 & 4
Sandy Silt, Silty Sand, Sand, or Sandy Gravel

The virgin site soils that may be excavated during construction consist of layers of Sandy Silt, Silty Sand, Sand or Sandy Gravel with occasional cobbles and boulders. This material is generally suitable for use as compacted fill, provided that it remains relatively dry for optimum compaction. Large cobbles and boulders shall not be used as new structural fill in the proposed building areas or in utility trenches.

Stratum 5
Gneiss Bedrock

Excavated rock may also be used as fill material for the building and paved areas provided that the material conforms to the required gradation, is well-graded, and has been approved prior to use by Carlin-Simpson & Associates. All rock fill must be well blended with smaller rock fragments and/or soil. Open voids within the rock fill matrix must be avoided. Small boulders up to 24 inches in diameter may be placed in parking lot fills deeper than ten (10) feet below the finished pavement. Boulders must not be clustered and must be sufficiently surrounded with soil fill. We recommend that the boulders and excavated rock be processed by a crusher to provide suitable fill material for the building and pavement areas.

Rock fill shall be placed in 12-inch loose layers and compacted with multiple passes of a large vibratory roller to a firm and non-yielding state as determined by the on-site representative from Carlin-Simpson & Associates. Rock fill should not be used where it will interfere with the installation of foundations or utilities. Also, it shall not be used as backfill directly against concrete walls or utilities. Use of rock fill within the planned building and pavement areas shall be limited to the gradations limitations provided in Table 4 below.

Table 4 - Gradation Limitations for Rock Fill

Area	Location	Maximum Particle Size
Building Area	Within 4 feet of Finished Floor	3 inches
	More than 4 feet below Finished Floor	12 inches
Pavement Area	Within 4 feet of Finished Grade	6 inches
	More than 4 feet below Finished Grade	18 inches
	More than 10 feet below Finished Grade	24 inches

Proper moisture conditioning of the soil will be required. In the event that the on-site material is too wet at the time of placement and cannot be adequately compacted, the soil should be aerated and allowed to dry or the material removed and a drier cleaner fill material used. In the event that the on-site material is too dry at the time of placement and cannot be adequately compacted, water may be needed to increase the soil moisture content for proper compaction.

The in-situ soils which exist throughout the site may become soft and weave if exposed to excessive moisture and construction traffic. The instability will occur quickly when exposed to these elements and it will be difficult to stabilize the subgrade. We recommend that adequate site drainage be implemented early in the construction schedule and if the subgrade becomes wet, the Contractor should limit construction activity until the soil has dried.

GENERAL

The findings, conclusions and recommendations presented in this report represent our professional opinions concerning subsurface conditions at the site. The opinions presented are relative to the dates of our site work and should not be relied on to represent conditions at later dates or at locations not explored. The opinions included herein are based on information provided to us, the data obtained at specific locations during the study and our past experience. If additional information becomes available that might impact our geotechnical opinions, it will be necessary for Carlin-Simpson & Associates to review the information, reassess the potential concerns, and re-evaluate our conclusions and recommendations. Additional subsurface exploration may be required.

Regardless of the thoroughness of a geotechnical exploration, there is the possibility that conditions between borings and test pits will differ from those encountered at specific boring or test pit locations, that conditions are not as anticipated by the designers and/or the contractors, or that either natural events or the construction process have altered the subsurface conditions. These variations are an inherent risk associated with subsurface conditions in this region and the approximate methods used to obtain the data. These variations may not be apparent until construction.

The professional opinions presented in this geotechnical report are not final. Field observations and foundation installation monitoring by the geotechnical engineer, as well as soil density testing and other quality assurance functions associated with site earthwork and foundation construction, are an extension of this report. Therefore, Carlin-Simpson & Associates should be retained by the Owner to observe all earthwork and foundation construction, to document that the conditions anticipated in this study actually exist, and to finalize or amend our conclusions and recommendations Carlin-Simpson & Associates is not responsible or liable for the conclusions and recommendations presented in this report if Carlin-Simpson & Associates does not perform these observation and testing services.

Therefore, in order to preserve continuity in this project, the Owner must retain the services of Carlin-Simpson & Associates to provide full time geotechnical related monitoring and testing during construction. At a minimum, this shall include the observation and testing of the following: 1) the removal of existing fill and unsuitable soil, where required; 2) the proofrolling of the subgrade soil prior to the placement of new compacted fill; 3) the placement and compaction of controlled fill; 4) the excavation for the building foundations; 5) the preparation of the subgrade for the floor slabs and pavement areas; and 6) the construction of the proposed retaining walls.

This report has been prepared in accordance with generally accepted geotechnical engineering practice. No other warranty is expressed or implied. The evaluations and recommendations presented in this report are based on the available project information, as well as on the results of the exploration. Carlin-Simpson & Associates should be given the opportunity to review the final drawings and site plans for this project to determine if changes to the recommendations outlined in this report are needed. Should the nature of the project change, these recommendations should be re-evaluated.

This report is provided for the exclusive use of Brynwood Partners, LLC and the project specific design team and may not be used or relied upon in connection with other projects or by other third parties. Carlin-Simpson & Associates disclaims liability for any such third party use or reliance without express written permission. Use of this report or the findings, conclusions or recommendations by others will be at the sole risk of the user. Carlin-Simpson & Associates is not responsible or liable for the interpretation by others of the data in this report, nor their conclusions, recommendations or opinions.

If the conditions encountered during construction vary significantly from those stated in this report, this office should be notified immediately so that additional recommendations can be made.

Thank you for allowing us to assist you with this project. Should you have any questions or comments, please contact this office.

Very truly yours,

CARLIN-SIMPSON & ASSOCIATES

M. Anke

MEREDITH R. ANKE, P.E.
Project Engineer

Robert Simpson

ROBERT B. SIMPSON, P.E.

File No. 12-175

CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-1
Project: Proposed Renovations, Byrnwood Club Development, North Castle, NY		**SHEET NO.:** 1 of 1
Client: JBM Realty		**JOB NUMBER:** 12-175
Drilling Contractor: General Borings, Inc.		**ELEVATION:** +661.0

GROUNDWATER					CASING	SAMPLE	CORE	TUBE		
DATE	TIME	DEPTH	CASING	TYPE	HSA	SS			DATUM:	
No water encountered				DIA.	3 1/4"	1 3/8"			START DATE:	18 Dec 12
				WGHT		140#			FINISH DATE:	18 Dec 12
				FALL		30"			DRILLER:	T. McGovern
									INSPECTOR:	JB

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			7		**Clay Tennis Court** 0'6"	
1		**S-1**	9		Br $ a (+), cf S, l (-) mf G	Rec = 17"
			12			moist
2			14			
			19		same	
3		**S-2**	23		**Brown SILT and (+), coarse to fine**	Rec = 15"
			50/3"		**Sand, little (-) medium to fine Gravel**	moist
4						possible weathered rock in tip
5					5'0"	
			29		Br cf S, l (+) $ (completely weathered gneiss)	
6		**S-3**	75/4"			Rec = 6"
					Brown coarse to fine SAND, little (+)	moist
7					**Silt (completely weathered Gneiss)**	
		S-4	70/3"			Rec = 3"
8					8'0"	moist
					End of Boring @ 8'0"	Auger refusal @ 8'0"
9						
10						
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13						
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19						
20						
21						
22						

CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-2

Project:	**Proposed Renovations, Byrnwood Club Development, North Castle, NY**	**SHEET NO.:**	1 of 1
Client:	**JBM Realty**	**JOB NUMBER:**	12-175
Drilling Contractor:	**General Borings, Inc.**	**ELEVATION:**	+628.0

GROUNDWATER					**CASING**	**SAMPLE**	**CORE**	**TUBE**	**DATUM:**	
DATE	**TIME**	**DEPTH**	**CASING**	**TYPE**	**HSA**	**SS**			**START DATE:**	18 Dec 12
No water encountered				**DIA.**	**3 1/4"**	**1 3/8"**			**FINISH DATE:**	18 Dec 12
				WGHT		**140#**			**DRILLER:**	T. McGovern
				FALL		**30"**			**INSPECTOR:**	JB

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			2		**Topsoil** 0'6"	
1		**S-1**	3		Br $ a (+), cf S, t mf G	Rec = 15"
			2			moist
2			2			
			3		same	
3		**S-2**	9			Rec = 16"
			11		**Brown SILT and (+), coarse to fine**	moist
4			15		**Sand, trace medium to fine Gravel**	
5						
			10		same	
6		**S-3**	12			Rec = 17"
			16			moist
7			50/3"		7'0"	weathered rock in tip
					End of Boring @ 7'0"	Auger refusal @ 7'0"
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9						
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14						
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19						
20						
21						
22						

CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-3

Project:	Proposed Renovations, Byrnwood Club Development, North Castle, NY	**SHEET NO.:**	1 of 1
Client:	JBM Realty	**JOB NUMBER:**	12-175
Drilling Contractor:	General Borings, Inc.	**ELEVATION:**	+620.0

GROUNDWATER					CASING	SAMPLE	CORE	TUBE	DATUM:	
DATE	TIME	DEPTH	CASING	TYPE	HSA	SS			START DATE:	18 Dec 12
No water encountered				DIA.	3 1/4"	1 3/8"			FINISH DATE:	18 Dec 12
				WGHT		140#			DRILLER:	T. McGovern
				FALL		30"			INSPECTOR:	JB

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			3		**Topsoil** 0'6"	
1		S-1	6		Br $ a (-), cf S, t mf G	Rec = 17"
			6		**Brown SILT and (-), coarse to fine**	moist
2			14		**Sand, trace medium to fine Gravel** 2'0"	
		S-2	25/5"		Lt br cf G a, cf S, t $ (completely weathered gneiss)	Rec = 5"
3					**Light brown coarse to fine GRAVEL**	moist
					and, coarse to fine Sand, trace	
4					**Silt (completely weathered Gneiss)**	
			23		Br cf G s, cf S, t $ (completely weathered gneiss)	
5		S-3	75/3"		4'9"	Rec = 6"
					End of Boring @ 4'9"	moist
6						Auger refusal @ 4'9"
7						
8						
9						
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20						
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CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-4

Project:	**Proposed Renovations, Byrnwood Club Development, North Castle, NY**	**SHEET NO.:**	1 of 1
Client:	**JBM Realty**	**JOB NUMBER:**	12-175
Drilling Contractor:	**General Borings, Inc.**	**ELEVATION:**	+628.0

GROUNDWATER					CASING	SAMPLE	CORE	TUBE	DATUM:	
DATE	TIME	DEPTH	CASING	TYPE	HSA	SS			START DATE:	18 Dec 12
No water encountered				DIA.	3 1/4"	1 3/8"			FINISH DATE:	18 Dec 12
				WGHT		140#			DRILLER:	T. McGovern
				FALL		30"			INSPECTOR:	JB

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			2		**Topsoil** 0'6"	
1		**S-1**	1		Br cf S, a $, t f G	Rec = 14"
			2		**Brown coarse to fine SAND, and**	moist
2			2		**Silt, trace fine Gravel** 2'0"	
			10		Gr cf S t $, a cf G (completely weathered gneiss)	
3		**S-2**	20			Rec = 13"
			45			moist
4			35			weathered rock 3'-4'
5						
			9		Br cf S, l $, s (+) cf G (completely weathered gneiss)	
6		**S-3**	11			Rec = 17"
			13		**Brown coarse to fine SAND, little**	moist
7			10		**Silt, some (+) coarse to fine Gravel**	
			18		same **(completely weathered Gneiss)**	
8		**S-4**	26			Rec = 14"
			30			moist
9			43			
10						
		S-5	75/6"		same 10'6"	Refusal on spoon @ 10'6"
11					**End of Boring @ 10'6"**	
12						
13						
14						
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19						
20						
21						
22						

CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-5

Project:	**Proposed Renovations, Byrnwood Club Development, North Castle, NY**	**SHEET NO.:**	1 of 1
Client:	**JBM Realty**	**JOB NUMBER:**	12-175
Drilling Contractor:	**General Borings, Inc.**	**ELEVATION:**	+623.0

GROUNDWATER					CASING	SAMPLE	CORE	TUBE		
DATE	**TIME**	**DEPTH**	**CASING**						**DATUM:**	
				TYPE	HSA	SS			**START DATE:**	18 Dec 12
No water encountered				**DIA.**	3 1/4"	1 3/8"			**FINISH DATE:**	18 Dec 12
				WGHT		140#			**DRILLER:**	T. McGovern
				FALL		30"			**INSPECTOR:**	JB

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			2		Br cf S, s (+) $, t f G	
1		S-1	2		**Brown coarse to fine SAND,**	Rec = 17"
			3		**some (+) Silt, trace fine Gravel**	moist
2			13		2'0"	
			22		Br cf S, l $, s cf G	
3		S-2	10			Rec = 17"
			16		**Brown coarse to fine SAND, little**	moist
4			26		**Silt, some coarse to fine Gravel**	weathered rock in tip
					(completely weathered Gneiss)	
5						
			23		same, weathered gneiss	
6		S-3	62			Rec = 18"
			55			moist
7			81			weathered rock
8						
					8'6"	Auger refusal @ 8'6"
9					**End of Boring @ 8'6"**	
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11						
12						
13						
14						
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16						
17						
18						
19						
20						
21						
22						

CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-6
Project: Proposed Renovations, Byrnwood Club Development, North Castle, NY		SHEET NO.: 1 of 1
Client: JBM Realty		JOB NUMBER: 12-175
Drilling Contractor: General Borings, Inc.		ELEVATION: +617.0

GROUNDWATER					CASING	SAMPLE	CORE	TUBE	DATUM:
DATE	TIME	DEPTH	CASING	TYPE	HSA	SS			START DATE: 19 Dec 12
No water encountered				DIA.	3 1/4"	1 3/8"			FINISH DATE: 19 Dec 12
				WGHT		140#			DRILLER: T. McGovern
				FALL		30"			INSPECTOR: KWA

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			2		**Topsoil** 0'6"	
1		S-1	6		FILL (Br cf S, l $) 1'0"	Rec = 10"
			5		**FILL (Brown coarse to fine SAND,**	moist
2			10		**little Silt)**	
			12		Br cf S, s $, a (-) cf G	
3		S-2	11			Rec = 11"
			11		same	moist
4			52		**Brown coarse to fine SAND, some**	
					Silt, and (-) coarse to fine Gravel	
5						
		S-3	75/2"		5'6"	No recovery
6					**End of Boring @ 5'6"**	Auger refusal @ 5'6"
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8						
9						
10						
11						
12						
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21						
22						

CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-7

Project:	Proposed Renovations, Byrnwood Club Development, North Castle, NY	SHEET NO.:	1 of 1
Client:	JBM Realty	JOB NUMBER:	12-175
Drilling Contractor:	General Borings, Inc.	ELEVATION:	+628.0

GROUNDWATER					CASING	SAMPLE	CORE	TUBE	DATUM:	
DATE	TIME	DEPTH	CASING	TYPE	HSA	SS			START DATE:	19 Dec 12
No water encountered				DIA.	3 1/4"	1 3/8"			FINISH DATE:	19 Dec 12
				WGHT		140#			DRILLER:	T. McGovern
				FALL		30"			INSPECTOR:	KWA

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			2		**Topsoil** 0'6"	
1		S-1	4		Br cf S, l $,l f G	Rec = 18"
			4			moist
2			5			
			13		same	
3		S-2	28		**Brown coarse to fine SAND,**	Rec = 17"
			21		**little Silt, little fine Gravel**	moist
4			22			
5					5'0"	
			12		Br cf S, l $, t f G (completely weathered gniess)	
6		S-3	14			Rec = 15"
			19			moist
7			28		**Brown coarse to fine SAND, little**	very dense augering 7'-10'
					Silt, trace fine Gravel (completely	
8					**weathered Geniss)**	
9						
10						
			75		same	
11		S-4	50/3"			Rec = 6"
						moist
12						very dense augering 10'-15'
13						
14						
15						
		S-4	50/2"		same 15'2"	No recovery
16					**End of Boring @ 15'2"**	Spoon bouncing @ 15'2"
17						
18						
19						
20						
21						
22						

CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-8
Project: Proposed Renovations, Byrnwood Club Development, North Castle, NY		**SHEET NO.:** 1 of 1
Client: JBM Realty		**JOB NUMBER:** 12-175
Drilling Contractor: General Borings, Inc.		**ELEVATION:** +609.0

GROUNDWATER					CASING	SAMPLE	CORE	TUBE	DATUM:	
DATE	TIME	DEPTH	CASING	TYPE	HSA	SS			START DATE:	19 Dec 12
19 Dec 12	1130	3'3"	None	DIA.	3 1/4"	1 3/8"			FINISH DATE:	19 Dec 12
				WGHT		140#			DRILLER:	T. McGovern
				FALL		30"			INSPECTOR:	KWA

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			2		**Brown Topsoil** 0'6"	
1		S-1	4		FILL (Br cf S, a $, t cf G)	Rec = 4"
			8			moist
2			7			
			10		FILL (same)	
3		S-2	11			No recovery
			11		**FILL (Brown coarse to fine SAND,**	moist
4			13		**and Silt, trace coarse to fine Gravel)**	
5						
			13		FILL (same) 5'6"	
6		S-3	8		Mtld gr, or br Cy $ s, cf S, w/t roots	Rec = 18"
			7		**Mottled gray, orange brown Clayey**	moist
7			8		**SILT some, coarse to fine Sand, with** 7'0"	
			8		**roots**	
8		S-4	8		Gr br cf S, s (+) $, l cf G	Rec = 15"
			7			wet
9			8		**Gray brown coarse to fine SAND,**	
					some (+) Silt, little coarse to fine	
10					**Gravel**	
			15		same, l cf G	
11		S-5	25			Rec = 16"
			26			wet
12			35		12'0"	
					End of Boring @ 12'0"	
13						
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21						
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CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-9
Project: Proposed Renovations, Byrnwood Club Development, North Castle, NY		SHEET NO.: 1 of 1
Client: JBM Realty		JOB NUMBER: 12-175
Drilling Contractor: General Borings, Inc.		ELEVATION: +674.0

GROUNDWATER					CASING	SAMPLE	CORE	TUBE	DATUM:
DATE	TIME	DEPTH	CASING	TYPE	HSA	SS			START DATE: 19 Dec 12
No water encountered				DIA.	3 1/4"	1 3/8"			FINISH DATE: 19 Dec 12
				WGHT		140#			DRILLER: T. McGovern
				FALL		30"			INSPECTOR: KWA

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			8		Clay Tennis Court 0'6"	
1		S-1	8		FILL (Br cf S, s $, s (+) cf G)	Rec = 17"
			8			moist
2			17			
			17		FILL (same)	
3		S-2	12			Rec = 15"
			7		FILL (Brown coarse to fine Sand,	moist
4			13		some Silt, some (+) coarse to fine	
					Gravel)	
5						
			10		FILL (Br cf S, s $, l cf G)	
6		S-3	4			Rec = 15"
			5			moist
7			11		7'0"	
		S-4	50/3"		Highly to moderately weathered 7'6"	Rec = 3"
8					Gneiss	moist
					Eknd of Boring @ 7'6"	Auger refusal @ 7'0"
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CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-10

Project:	**Proposed Renovations, Byrnwood Club Development, North Castle, NY**	**SHEET NO.:**	1 of 1
Client:	**JBM Realty**	**JOB NUMBER:**	12-175
Drilling Contractor:	**General Borings, Inc.**	**ELEVATION:**	+638.8

GROUNDWATER					**CASING**	**SAMPLE**	**CORE**	**TUBE**	**DATUM:**	
DATE	**TIME**	**DEPTH**	**CASING**	**TYPE**	**HSA**	**SS**			**START DATE:**	19 Dec 12
No water encountered				**DIA.**	**3 1/4"**	**1 3/8"**			**FINISH DATE:**	19 Dec 12
				WGHT		**140#**			**DRILLER:**	T. McGovern
				FALL		**30"**			**INSPECTOR:**	JB

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			2		**Topsoil** 0'1"	
1		**S-1**	3		Br cf $ s, cf S, l cf G	Rec = 15"
			6		**Brown coarse to fine SILT some, coarse to**	moist
2			50/3"		**fine Sand, little coarse to fine Gravel** 2'0"	Auger refusal @ 2'0"
3						
		Run #1			**Gray, white Gneiss**	Run #1
4						2'0"-7'0"
						Run = 60"
5					5'0"	Rec = 52" = 86%
					Soil seam	RQD = 53%
6					5'8"	
					Gray, white Gneiss	
7					7'0"	
					End of Boring @ 7'0"	
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20						
21						
22						

CARLIN - SIMPSON & ASSOCIATES Sayreville, NJ	TEST BORING LOG	BORING NUMBER B-11

Project:	**Proposed Renovations, Byrnwood Club Development, North Castle, NY**	**SHEET NO.:**	1 of 1
Client:	**JBM Realty**	**JOB NUMBER:**	12-175
Drilling Contractor:	**General Borings, Inc.**	**ELEVATION:**	+640.0

GROUNDWATER					**CASING**	**SAMPLE**	**CORE**	**TUBE**		
DATE	**TIME**	**DEPTH**	**CASING**	**TYPE**	**HSA**	**SS**			**DATUM:**	
No water encountered				**DIA.**	**3 1/4"**	**1 3/8"**			**START DATE:**	19 Dec 12
				WGHT		**140#**			**FINISH DATE:**	19 Dec 12
				FALL		**30"**			**DRILLER:**	T. McGovern
									INSPECTOR:	KWA

Depth (ft.)	Casing Blows per Foot	Sample No.	Blows on Sample Spoon per 6"	Sym	IDENTIFICATION	REMARKS
			2		**Topsoil**	
1		**S-1**	3		0'9"	Rec = 20"
			3		Br cf S, l (+) $	moist
2			7			
			5		same, dk br	
3		**S-2**	6		**Brown coarse to fine SAND,**	Rec = 17"
			8		**little (+) Silt**	moist
4			23		4'0"	
5					**Completely to highly weathered**	
					Gneiss	
6					5'6"	Auger refusal @ 5'6"
					End of Boring @ 5'6"	
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Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

3 January 2013

TEST PIT LOGS

TP-1	Elevation +662		
0-0’9”	Brown Topsoil		
0’9”-2’0”	Brown coarse to fine SAND, and Silt, trace (+) medium to fine Gravel	medium dense	moist
2’0”	Gneiss bedrock No water encountered		

TP-2	Elevation +672		
0-1’10”	FILL (Brown coarse to fine SAND, some silt, little (-) coarse to fine Gravel, with topsoil)	medium dense	moist
1’10”-4’4”	Light brown coarse to fine SAND, some (+) Silt	medium dense	moist
4’4”	Gneiss bedrock No water encountered		

TP-3	Elevation +672		
0-0’9”	Dark brown Topsoil with surface debris		
0’9”-2’2”	Brown coarse to fine SAND, some Silt	medium dense	moist
2’2”	Gneiss bedrock No water encountered		

Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

3 January 2013

TEST PIT LOGS

TP-4	Elevation +672		
0-0'6"	Brown Topsoil		
0'6"-3'6"	Brown coarse to fine SAND, and (-) Silt, some coarse to fine Gravel	medium dense	moist
3'6"	Gneiss bedrock No water encountered		

TP-5	Elevation +670		
0-0'7"	Brown Topsoil		
0'7"-3'8"	Light brown coarse to fine SAND, some (+) Silt	medium dense	moist
3'8"-4'9"	Brown coarse to fine SAND, some Silt (completely weathered gneiss)	dense	moist
4'9"	Gneiss bedrock No water encountered		

Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

3 January 2013

TEST PIT LOGS

TP-6	Elevation +672		
0-0’10”	Brown Topsoil		
0’10”-2’10”	Light brown coarse to fine SAND, some (-) Silt, little coarse to fine Gravel	medium dense	moist
2’10”-4’7”	Brown coarse to fine SAND, some Silt, little coarse to fine Gravel (completely weathered gneiss)	dense	moist
4’7”	Gneiss bedrock No water encountered		

TP-7	Elevation +620		
0-0’9”	Brown Topsoil		
0’9”-2’8”	Brown coarse to fine SAND, some Silt, trace coarse to fine Gravel	medium dense	moist
2’8”	Probable Gneiss bedrock		
	Test pit abandoned No water encountered		

TP-8	Elevation +614		
0-0’8”	Dark brown Topsoil		
0’8”-5’0”	Mottled orange brown, gray coarse to fine SAND, and (-) Silt	medium dense	moist
	Groundwater encountered @ 4’1”	slow inflow	

Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

3 January 2013

TEST PIT LOGS

TP-9	Elevation +628		
0-0'4"	Topsoil		
0'4"-6'9"	FILL (Brown coarse to fine SAND, some (+) Silt, some (+) coarse to fine Gravel, with cobbles and boulders)	medium dense	moist
6'9"	FILL (Gray coarse to fine SAND, trace (+) Silt)	medium dense	moist
	Possible cover over for utility Test pit was abandoned		
	No water encountered		

TP-10	Elevation +625		
0-0'4"	Topsoil		
0'4"-3'0"	FILL (Boulders with topsoil)	loose	moist
3'0"-8'0"	Brown coarse to fine SAND, some (+) Silt	medium dense	moist
	No water encountered		

Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

3 January 2013

TEST PIT LOGS

TP-11	Elevation +642		
0-0'6"	Brown Topsoil		
0'6"-3'9"	Brown coarse to fine SAND, some Silt, little coarse to fine Gravel, with occasional cobbles and boulders	medium dense	moist
3'9"-6'0"	Brown coarse to fine SAND, little (+) Silt, some coarse to fine Gravel (completely weathered gneiss)	dense	moist
6'0"	Weathered Gneiss bedrock No water encountered		

TP-12	Elevation +635		
0-0'6"	Brown Topsoil		
0'6"-5'0"	FILL (Brown coarse to fine SAND, some (+) Silt, little (-) coarse to fine Gravel, with trace of debris)	loose	moist
5'0"-6'6"	Orange brown, gray coarse to fine SAND and Silt	dense	moist
	Refusal on boulder No water encountered		

Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

4 January 2013

TEST PIT LOGS

TP-13	Elevation +636		
0-0’9”	Brown Topsoil with roots		
0’9”-6’3”	Brown coarse to fine SAND, and Silt, little coarse to fine Gravel	medium dense	moist
6’3”-7’5”	Brown coarse to fine SAND, some (+) Silt, little (-) coarse to fine Gravel	dense	moist
7’5”	Gneiss bedrock		
	Groundwater encountered @ 4’10”	slow inflow	

TP-14	Elevation +625		
0-0’3”	Brown Topsoil		
0’3”-3’4”	FILL (Gray brown coarse to fine SAND, some Silt, little coarse to fine Gravel, with cobbles and boulders)	loose	moist
3’4”-5’0”	FILL (Brown coarse to fine SAND, little Silt)	medium dense	moist
5’0”	Gneiss bedrock No water encountered		

Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

4 January 2013

TEST PIT LOGS

TP-15	Elevation +668		
0-0’3”	Brown Topsoil		
0’3”-1’8”	Brown coarse to fine SAND, some (+) Silt, some (-) coarse to fine Gravel, with occasional cobbles and boulders	medium dense	moist
1’8”	Gneiss bedrock No water encountered		

TP-16	Elevation +651		
0-0’8”	Dark brown Topsoil		
0’8”-1’10”	FILL (Brown coarse to fine SAND, some (+) Silt, trace medium to fine Gravel, with cobbles)	medium dense	moist
1’10”-4’10”	Brown coarse to fine SAND, some (+) Silt, trace medium to fine Gravel	medium dense	moist
4’10”	Gneiss bedrock No water encountered		

Byrnwood Club Development
Bedford Road
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(12-175)

4 January 2013

TEST PIT LOGS

TP-17	Elevation +655		
0-0’3”	Topsoil		
0’3”-1’0”	Brown coarse to fine SAND, some (+) Silt, little coarse to fine Gravel	medium dense	moist
	Encountered irrigation pipes Test pit abandoned No water encountered		

TP-18	Elevation +670		
0-0’10”	Brown Topsoil		
0’10”-7’0”	Brown SILT and, coarse to fine Sand, little (-) medium to fine Gravel	medium dense	moist
	No water encountered		

Brynwood Club Development
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13 September 2013

TEST PIT LOGS

TP-19

0-2’5”	FILL (Brown coarse to fine SAND, some Silt, some coarse to fine Gravel, with topsoil, cobbles, boulders)	loose	moist
2’5”-7’0”	Brown coarse to fine SAND, some Silt, little coarse to fine Gravel	medium dense	moist
	No water encountered		

TP-20

0-0’6”	Brown Topsoil		
0’6”-4’3”	Brown, orange brown coarse to fine SAND, some Silt, little coarse to fine Gravel	medium dense	moist
4’3”-8’0”	Orange brown coarse to fine SAND, little (-) Silt, some coarse to fine Gravel, with occasional cobbles	medium dense	moist
	No water encountered		

Brynwood Club Development
Bedford Road
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TEST PIT LOGS

TP-21

0-0'6"	Dark brown Topsoil		
0'6"-1'4"	FILL (Brown coarse to fine SAND, some (-) Silt, trace medium to fine Gravel, with few roots)	medium dense	moist
1'4"-7'0"	Brown coarse to fine SAND, little Silt, trace (+) coarse to fine Gravel, with occasional cobbles	medium dense	moist
7'0"	Possible weathered bedrock		
	No water encountered		

TP-22

0-1'6"	Dark brown Topsoil, with roots		
1'6"-2'8"	Mottled gray brown, orange brown Clayey SILT, little medium to fine Sand	medium dense	moist
2'8"-3'6"	Brown coarse to fine SAND, some (+) Silt, little medium to fine Gravel	medium dense	moist
3'6"-6'0"	Brown coarse to fine SAND, little (+) Silt, come coarse to fine Gravel	medium dense	wet
6'0"-7'6"	Gray brown SILT little, coarse to fine Sand, trace medium to fine Gravel	medium dense	wet
	Groundwater encountered @ 4'6"	slow inflow	

Brynwood Club Development
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Town of North Castle, NY
(12-175)

13 September 2013

TEST PIT LOGS

TP-23

0-0’7”	Brown Topsoil		
0’7”-3’10”	Brown coarse to fine SAND, and (-) Silt, little (-) coarse to fine Gravel	dense	moist
3’10”	Weathered bedrock		
	No water encountered		

TP-24

0-0’8”	Brown Topsoil		
0’8”-6’8”	Brown coarse to fine SAND, some (+) Silt, little (-) coarse to fine Gravel, with occasional cobbles	medium dense	moist
6’8”	Possible weathered bedrock or boulder		
	No water encountered		

TP-25

0-0’4”	Brown Topsoil		
0’4”-3’4”	Brown coarse to fine SAND, and Silt, trace medium to fine Gravel	medium dense	moist
3’4”	Possible bedrock or boulder		
	No water encountered		

Brynwood Club Development
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13 September 2013

TEST PIT LOGS

TP-26

0-0'6"	Brown Topsoil		
0'6"-2'8"	FILL (Brown coarse to fine SAND, some (-) Silt, little coarse to fine Gravel, with cobbles and boulders)	medium dense	moist
2'8"-4'0"	FILL (Brown Topsoil, with trace roots)		
4'0"-5'6"	FILL (Dark gray brown Clayey SILT, and, coarse to fine Sand, with trace roots, trace debris)	medium stiff	moist
5'6"-8'0"	Brown coarse to fine SAND, and (-) Silt, trace coarse to fine Gravel	medium dense	moist
	No water encountered		

TP-27

0-0'9"	Brown Topsoil, with roots		
0'9"-4'4"	Light brown coarse to fine SAND, little Silt, trace coarse to fine Gravel	medium dense	dry
4'4"	Probable weathered bedrock		
	No water encountered		

Brynwood Club Development
Bedford Road
Town of North Castle, NY
(12-175)

13 September 2013

TEST PIT LOGS

TP-28

0-0’4”	Brown Topsoil		
0’4”-8‘6”	FILL (Brown coarse to fine SAND, little Silt, little coarse to fine Gravel, with organics, debris)	loose	moist
8’6”-9’0”	FILL (Gray coarse to fine SAND, some Silt, little coarse to fine Gravel, with organics)	medium dense	wet
	Groundwater encountered @ 8’0”		

Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

18 -19 December 2012

Borehole Permeability Test (B-4)

Ground Surface Elevation: +628.0
Top of Casing Elevation: +631.5
Bottom of Test Hole Elevation: +621.0
Test Hole Depth from Ground Surface Elevation: 7’0” (84”)

Pre-Soak:

Start Date: 18 Dec 2012 Time: 1545 Water Level*: 4’4”
End Date: 19 Dec 2012 Time: 0900 Water Level*: 7’1”

33” drop H_2O in 1035 minutes (17 hr. 15 min.) = 0.03 inches per minute

Test:

Start Date: 19 Dec 2012 Time: 1000 Water Level*: 4’3”
End Date: 19 Dec 2012 Time: 1515 Water Level*: 5’3.5”

12.5” drop H_2O in 315 minutes (5 hr. 15 min.) = 0.04 inches per minute

Time	Water Level*	Interval Water Level Drop (Inches)	Cumulative Water Level Drop (Inches)
1000	4’3”	0	0
1100	4’6”	3	3
1200	4’8”	2	5
1300	4’10”	2	7
1400	5’1”	3	10
1515	5’3.5”	2.5	12.5

Water Level* - Depth below top of casing (elevation +631.5)

Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

3 January 2013

<u>Percolation Test P-1</u>
(Elevation +620)

Test hole depth 42” from ground surface elevation

<u>Pre-Soak</u>

0-10 min, 22” drop of H2O (pipe drained)
22” drop H2O in 10 minutes = 2.20 inches per minute

<u>Test Run #1</u>

5 min, 15” drop H2O (re-filled pipe)

<u>Test Run #2</u>

5 min, 14” drop H2O (re-filled pipe)

<u>Test Run #3</u>

5 min, 12” drop H2O (re-filled pipe)

<u>Final Test Reading</u>

Start @ 1245, 14” from top of pipe
Finish @ 1300, 36” drop from top of pipe (pipe drained)
22” drop H2O in 15 minutes = 1.46 inches per minute

<u>Percolation Hole P-2</u>
(Elevation + 612)

Test hole depth 20” from ground elevation
Groundwater @ 0’6” below surface
Percolation test unable to be performed

Byrnwood Club Development
Bedford Road
Town of New Castle, NY
(12-175)

3 January 2013

Percolation Test P-3
(Elevation + 616)

Test hole depth 32" from ground surface elevation

Pre-Soak

0-24 min, 17" drop of H_2O (pipe drained)
17" drop H_2O in 24 minutes = 0.71 inches per minute

Test Run #1

5 min, 5" drop H_2O (re-filled pipe)

Test Run #2

5 min, 5" drop H_2O (re-filled pipe)

Test Run #3

5 min, 4" drop H_2O (re-filled pipe)

Final Test Reading

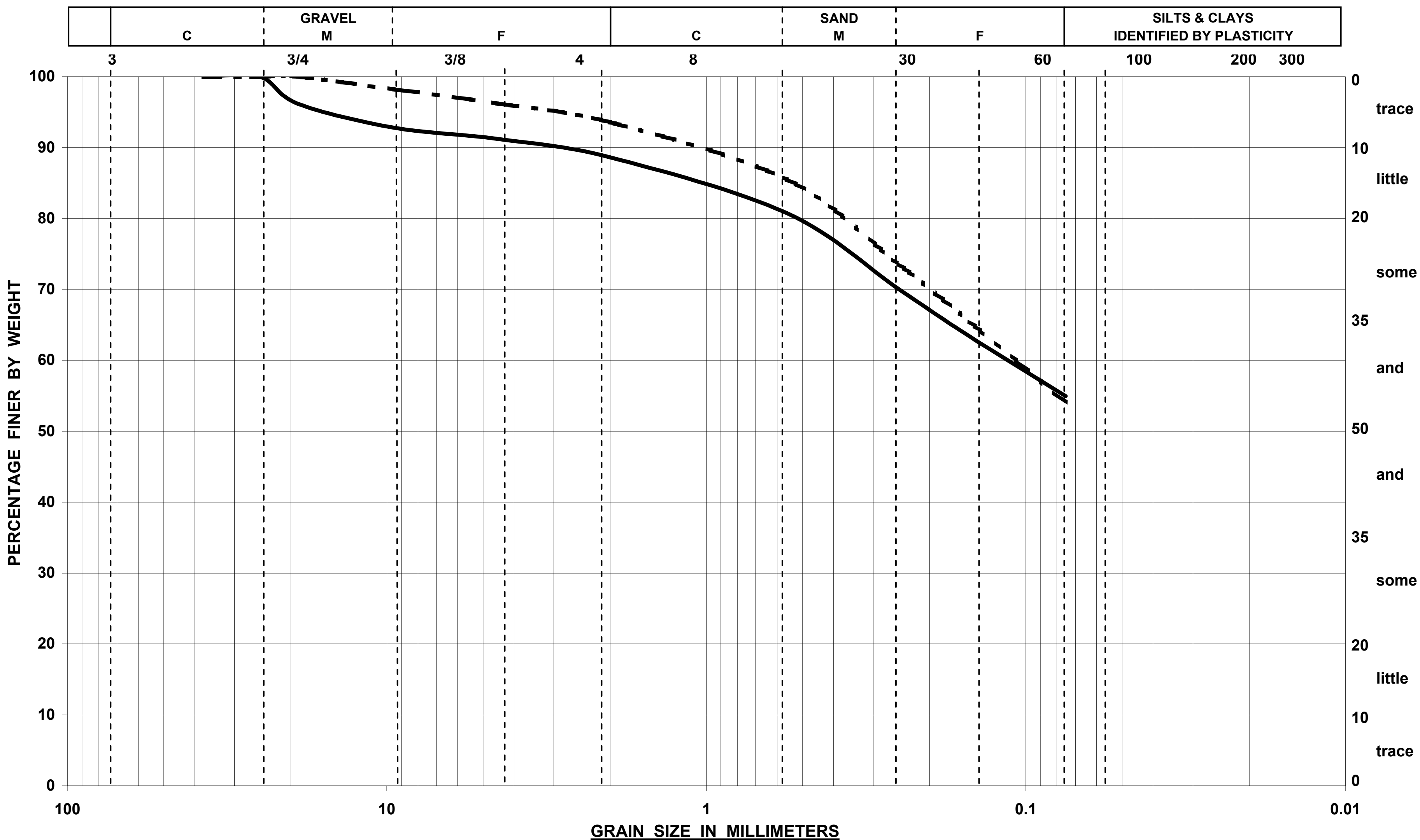
Start @ 1535, 15" from top of pipe
Finish @ 1605, 28" drop from top of pipe
13" drop H_2O in 30 minutes = 0.43 inches per minute

Percolation Hole P-4
(Elevation + 615)

Test hole depth 24" from ground elevation
Groundwater @ 1'10" below surface
Percolation test unable to be performed

CARLIN-SIMPSON & ASSOCIATES
SAYREVILLE, NJ 08872

SIEVE ANALYSIS

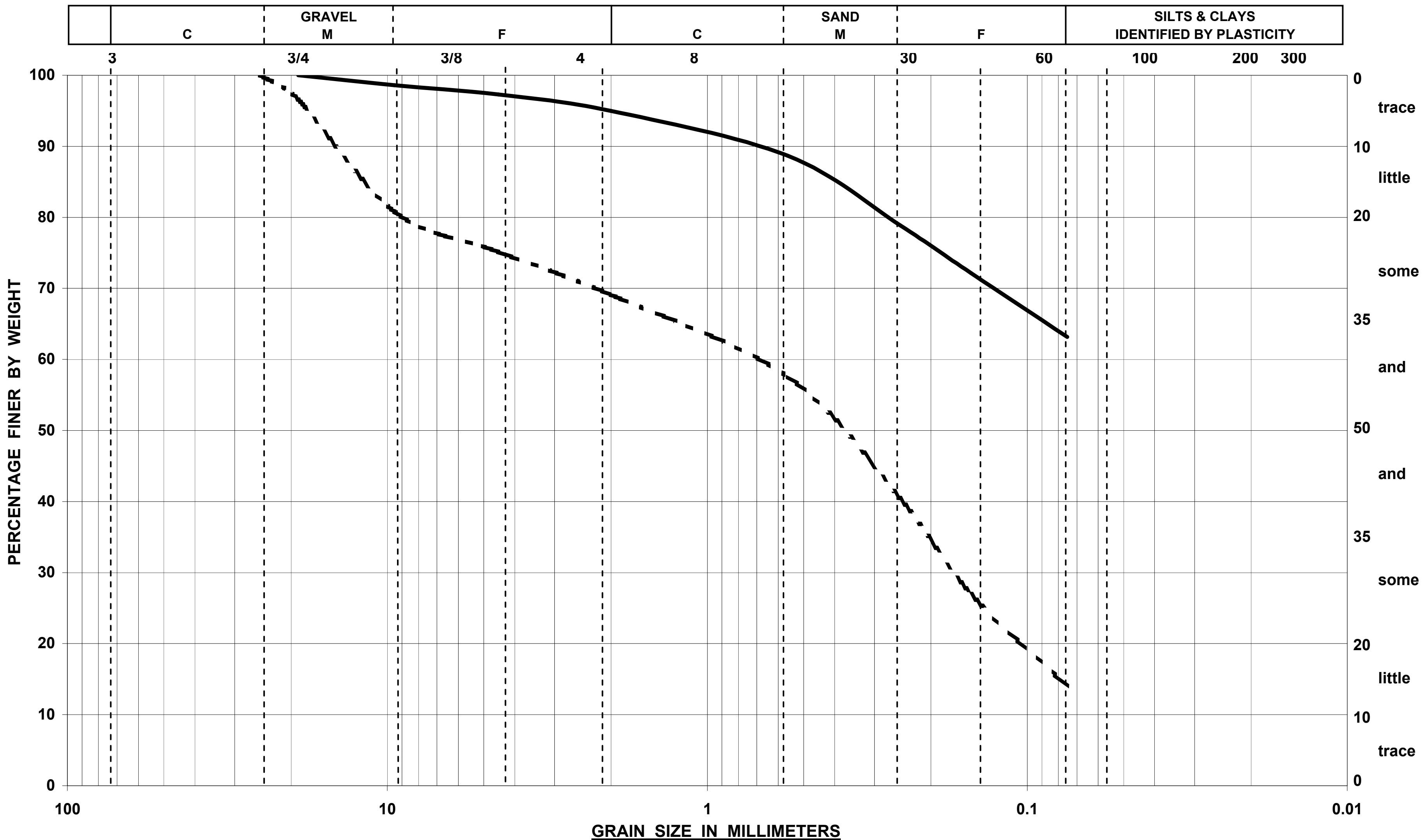


SYMBOL	BORING	SAMPLE	DEPTH	DESCRIPTION	NAT MC
———	B-1	S-1	0' 0" - 2' 0"	Brown SILT and (+), coarse to fine Sand, little (-) medium to fine Gravel	14.0%
— -	B-2	S-2	2' 0" - 4' 0"	Brown SILT and (+), coarse to fine Sand, trace medium to fine Gravel	14.2%

PROJECT Brynwood Club, Bedford Road, North Castle, NY **BY** MW **DATE** 7-Jan-13 **JOB NO** 12-175

CARLIN-SIMPSON & ASSOCIATES
SAYREVILLE, NJ 08872

SIEVE ANALYSIS

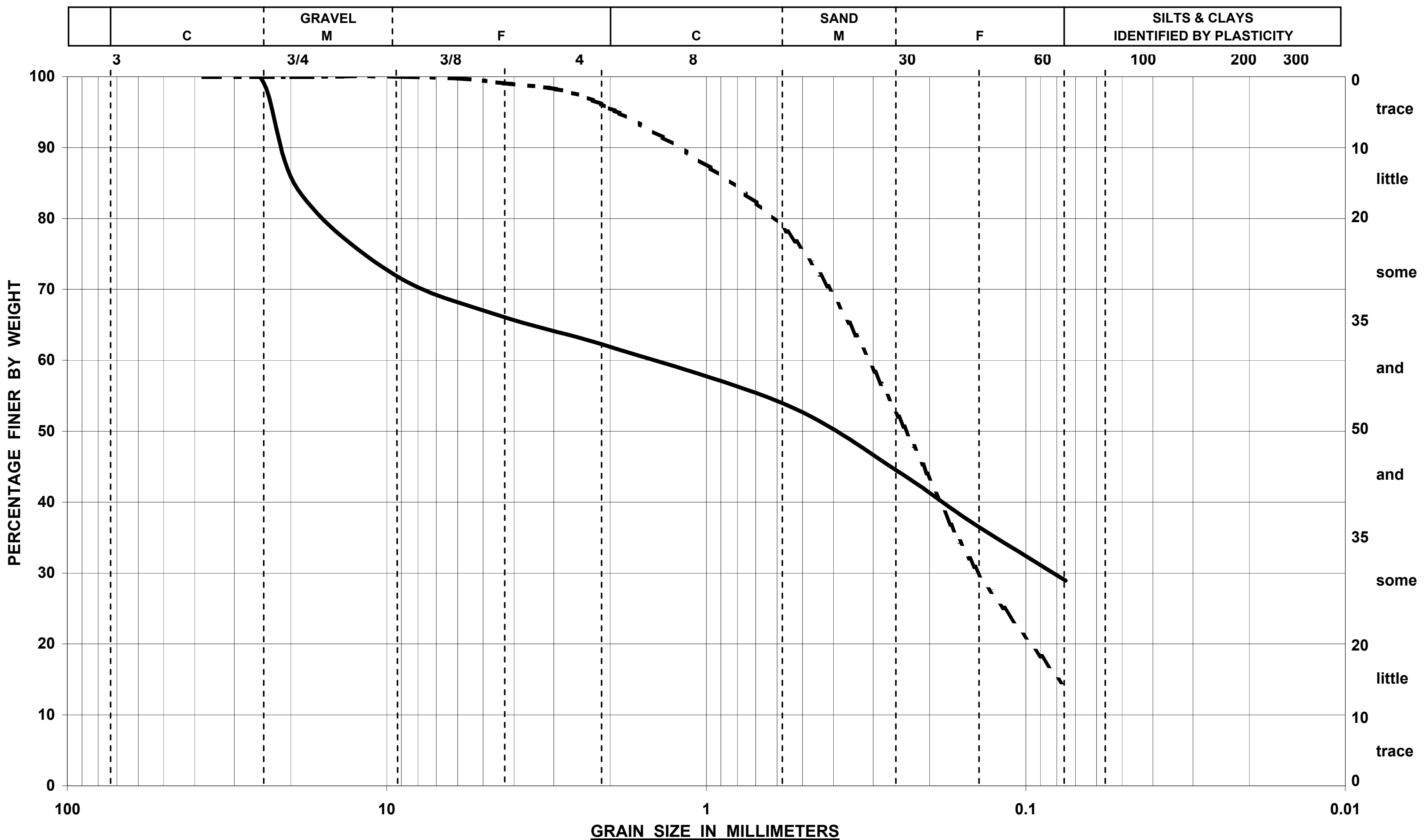


SYMBOL	BORING	SAMPLE	DEPTH	DESCRIPTION	NAT MC
———	B-3	S-1	0' 0" - 2' 0"	Brown SILT and (-), coarse to fine Sand, trace medium to fine Gravel	24.2%
— -	B-4	S-3	5' 0" - 7' 0"	Brown coarse to fine SAND, little Silt, some (+) medium to fine Gravel	12.1%

PROJECT Brynwood Club, Bedford Road, North Castle, NY **BY** MW **DATE** 7-Jan-13 **JOB NO** 12-175

CARLIN-SIMPSON & ASSOCIATES
SAYREVILLE, NJ 08872

SIEVE ANALYSIS

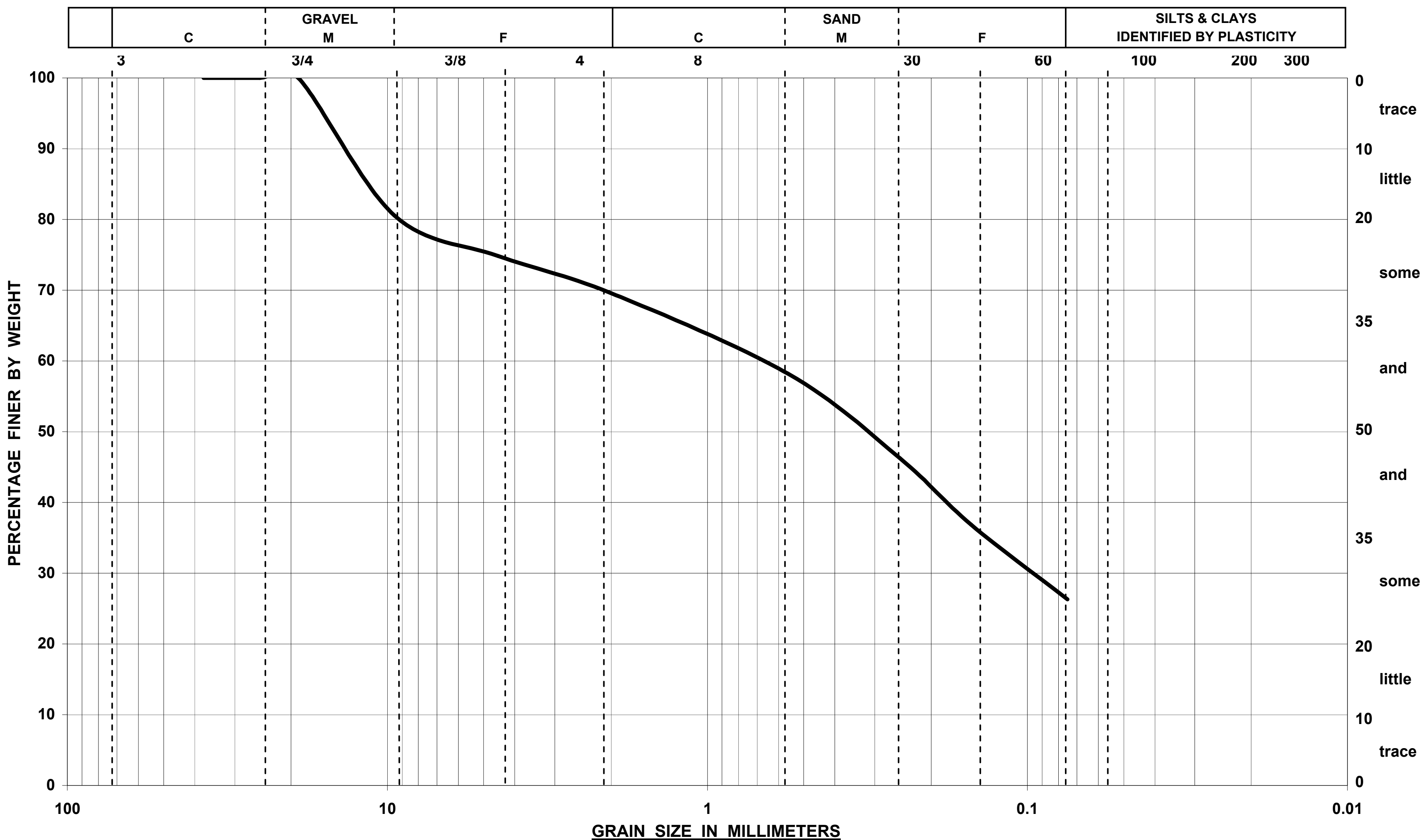


SYMBOL	BORING	SAMPLE	DEPTH	DESCRIPTION	NAT MC
———	B-6	S-2	2' 0" - 4' 0"	Brown coarse to fine Sand, some Silt, and (-) coarse to fine Gravel	9.9%
— -	B-7	S-3	5' 0" - 7' 0"	Brown coarse to fine SAND, little Silt, trace fine Gravel	8.7%

PROJECT Brynwood Club, Bedford Road, North Castle, NY BY MW DATE 10-Jan-13 JOB NO 12-175

CARLIN-SIMPSON & ASSOCIATES
SAYREVILLE, NJ 08872

SIEVE ANALYSIS

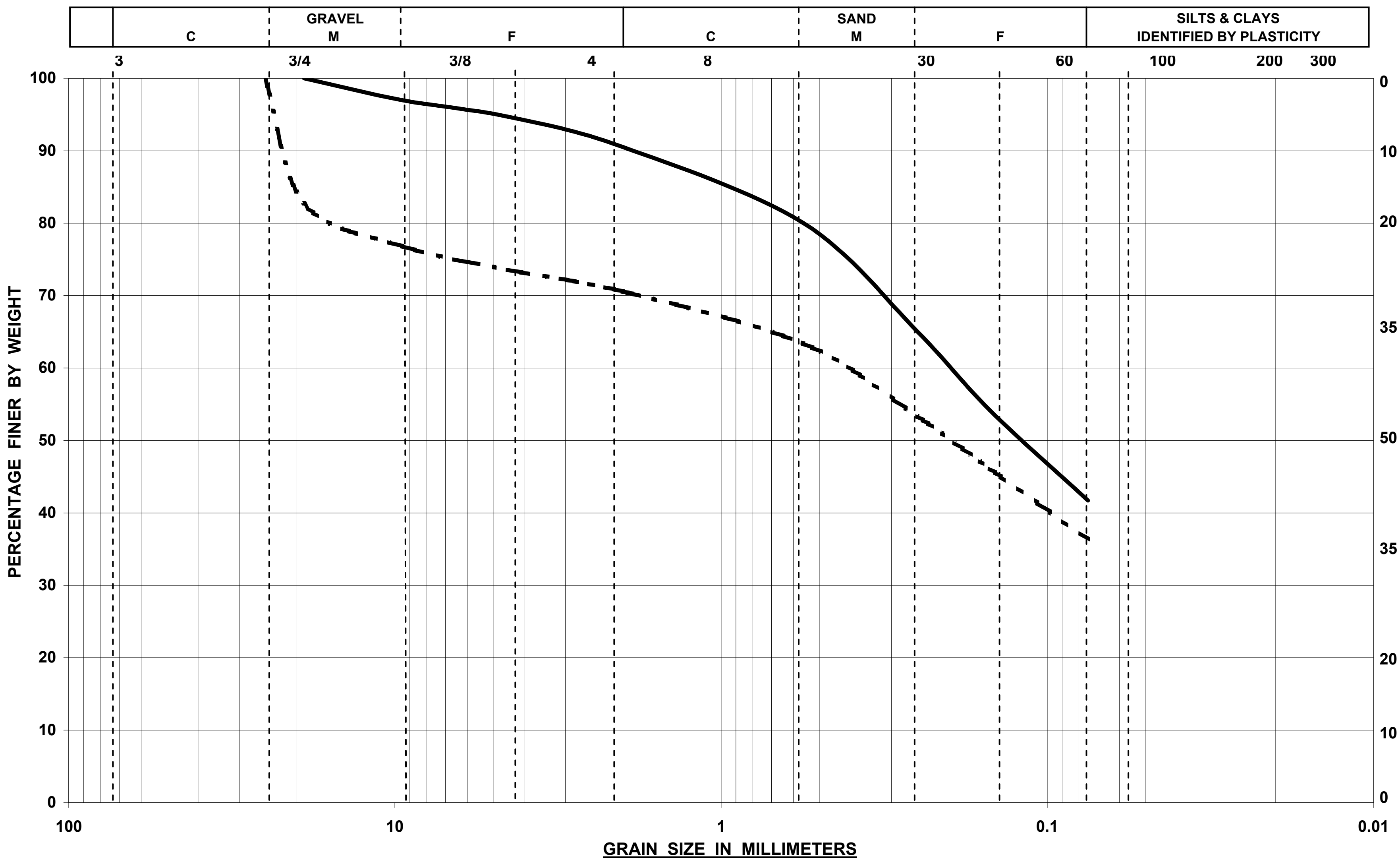


SYMBOL	BORING	SAMPLE	DEPTH	DESCRIPTION	NAT MC
——	B-9	S-2	2' 0" - 4' 0"	FILL (brown coarse to fine Sand, some Silt, some (+) medium to fine Gravel	15.0%

PROJECT Brynwood Club, Bedford Road, North Castle, NY **BY** MW **DATE** 7-Jan-13 **JOB NO** 12-175

CARLIN-SIMPSON & ASSOCIATES
SAYREVILLE, NJ 08872

SIEVE ANALYSIS

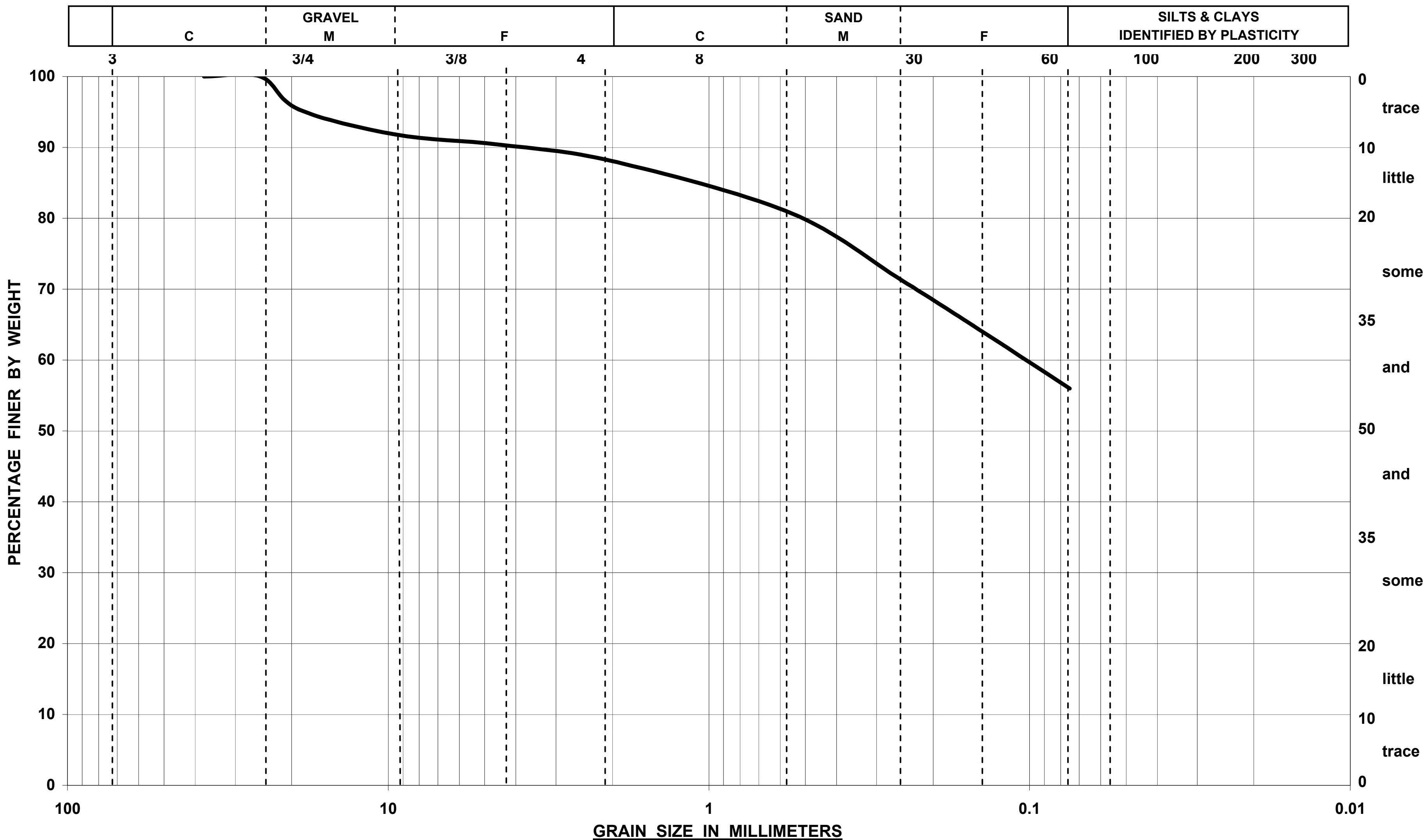


SYMBOL	Test Pit	SAMPLE	DEPTH	DESCRIPTION	NAT MC
———	TP-1	S-1		Brown coarse to fine SAND, and Silt, trace (+) medium to fine Gravel	18.2%
— -	TP-4	S-1		Brown coarse to fine Sand, and (-) Silt, some coarse to fine Gravel	14.0%

PROJECT Brynwood Club, Bedford Road, North Castle, NY **BY** MW **DATE** 7-Jan-13 **JOB NO** 12-175

CARLIN-SIMPSON & ASSOCIATES
SAYREVILLE, NJ 08872

SIEVE ANALYSIS



SYMBOL	Test Pit	SAMPLE	DEPTH	DESCRIPTION	NAT MC
——	TP-18	S-1	0' 10" - 7' 0"	Brown SILT and, coarse to fine Sand, little (-) medium to fine Gravel	18.0%

PROJECT Brynwood Club, Bedford Road, North Castle, NY **BY** MW **DATE** 7-Jan-13 **JOB NO** 12-175

GENERAL NOTES:

1. GENERAL LAYOUT WAS OBTAINED FROM A DRAWING PREPARED BY JOHN MEYER CONSULTING, PC ENTITLED "TEST PIT PLAN, BRYNWOOD CLUB, BEDFORD ROAD (NY 22), TOWN OF NORTH CASTLE NEW YORK," DRAWING TP-1, DATED DECEMBER 17, 2012.
2. BORING, TEST PIT, PERMEABILITY TEST, AND PERCOLATION TEST LOCATIONS WERE LAID OUT IN THE FIELD BY CARLIN-SIMPSON & ASSOCIATES (CSA).
3. BORINGS (B-1 THROUGH B-11) WERE PERFORMED BY GENERAL BORINGS INC. ON 18 & 19 DECEMBER 2012 UNDER THE FULL TIME INSPECTION OF CSA.
4. THE BOREHOLE PERMEABILITY TEST (BP-4) WAS PERFORMED BY CSA ON 18 & 19 DECEMBER 2012.
5. PERCOLATION TESTS (P-1, P-2, AND P-3) WERE PERFORMED BY CSA ON 3 JANUARY 2013.
6. TEST PITS (TP-1 THROUGH TP-18) WERE PERFORMED BY TRAFICANTE CONTRACTING, INC ON 3 & 4 JANUARY 2013 UNDER THE FULL TIME INSPECTION OF CSA.
7. TEST PITS (TP-19 THROUGH TP-28) WERE PERFORMED BY BRYNWOOD CLUB PERSONNEL IN SEPTEMBER 2013 UNDER THE FULL TIME INSPECTION OF CSA.
8. LOCATIONS ARE APPROXIMATE.

LEGEND:

- BORING LOCATION (DEC. 2012)
- TEST PIT LOCATION (JAN. 2013)
- TEST PIT LOCATION (SEPT. 2013)
- PERCOLATION TEST LOCATION (JAN. 2013)
- BOREHOLE PERMEABILITY TEST LOCATION (DEC. 2012)

ROBERT B. SIMPSON, P.E.
PROFESSIONAL ENGINEER

LICENSE NO. SIGNATURE

BORING & TEST PIT LOCATION PLAN

BRYNWOOD CLUB DEVELOPMENT
NORTH CASTLE, NEW YORK

DRAWN MRA	SCALE 1" = 120'
CHECKED RBS	DATE 16 OCT 13
PROJECT NO. 12-175	DWG NO. FIG -1
APPROVED	

CARLIN-SIMPSON AND ASSOCIATES
61 Main Street
Sayreville, NJ 08872

Consulting Geotechnical and
Environmental Engineers

APPENDIX D

TEMPORARY & PERMANENT EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE CHECKLIST

JMC Project 20101
The Summit Club at Armonk
568 & 570 Bedford Road (NY-22)
Armonk, NY 10504

Temporary Erosion and Sediment Control Inspection and Maintenance Checklist

Erosion and Sediment Control Measure	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Stabilized Construction Entrance	Daily	• Periodic top dressing with additional aggregate as required • Clean sediment in public right-of-ways immediately
Silt Fence	Weekly + After Each Rain	• Remove & redistribute sediment when bulges develop in the silt fence.
Inlet Protection	Weekly + After Each Rain	• Remove sediment as necessary and replace filter fabric, crushed stone etc. • Any broken and damaged components should be replaced. • Check all materials for proper anchorage and secure as necessary.
Concrete Washout	Daily	• Damaged or leaking facilities shall be deactivated and repaired or replaced immediately.
	After Each Rain	• Pump excess rainwater that has accumulated over hardened concrete to a stabilized area.
		• Remove accumulated hardened material when 75% of the storage capacity of the structure is filled. Replace plastic liner with each cleaning of the washout facility.

Temporary Erosion and Sediment Control Inspection and Maintenance Checklist (Cont'd)

Erosion and Sediment Control Measure	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Level Spreader	Weekly + After Each Rain	• Remove sediment accumulated as needed to ensure the level spreader operates properly and large flows are prevented from carrying sediment over the level lip. • Check for rilling within/around the level spreader and repair as required.
Temporary Sediment Basin	Weekly + After Each Rain	• Remove and redistribute sediment when it reaches an elevation indicated on the construction documents. • Check for rilling within and around the sediment basin and repair as required. • Remove all sediment and debris from the outlet control structure as maybe required.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist

Stormwater Management Practice	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Rip-Rap Apron/Energy Dissipator and Check Dams	Annually + After Major Storms	• Check for evidence of flows going around the structure. • Check for evidence at downstream toe and repair as needed. • Clean sediment and install additional aggregate as necessary.
Stormwater Management Basin	Monthly	• Check Permanent Pool for undesirable vegetative growth and floatings or floatable debris. Remove as needed. • Check Forebays for sediment and cleanout when it depth <50% design depth. • Check Dry Pond areas for adequate vegetation, undesirable vegetative growth, low flow channels are clear of obstructions, standing water or wet spots and sediment and/or trash accumulation. Repair/remove as necessary.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist (Cont'd)

Stormwater Management Practice	**Inspection/Maintenance Intervals**	**Inspection/Maintenance Requirements**
Stormwater Management Basin	Annually + After Major Storms	• Check adequacy of vegetation and ground cover; for evidence of embankment erosion, animal burrows, unauthorized plantings and cracking, bulging or sliding of dam, clear/properly functioning drains, seeps/leaks on downstream face, failure of slope protection or riprap. Repair/remove as necessary. • Confirm emergency spillway is clear of obstructions and debris. • Confirm all inlets and outlet structures/pipes are operating properly.
Drain Inlets	Monthly	• Check for blockage and/or erosion at top of each inlet. Repair/remove as necessary. • Check for sediment and debris collected within sumps and clean out as necessary.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist (Cont'd)

Stormwater Management Practice	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Porous Pavement and Permeable Pavers	Monthly and As Needed	• Ensure that paving area is clean of debris • Ensure that paving dewaters between storms • Ensure that the area is clean of sediments • Mow upland and adjacent areas, and seed bare areas
	Quarterly	• Vacuum sweep frequently to keep surface free of sediments
	Annually	• Inspect the surface for deterioration or spalling
Hydrodynamic Water Quality Structure	(See Maintenance Guidelines in Appendix D)	• Open access cover for visual inspection and measure the distance from the standing water surface to the sediment pile with a measuring stick or tape. If less than 4 feet, insert hose from vacuum truck into the sump and screen through both access covers to clean out the standing water, layer of oil, sediment, trash, etc. • The screen must be powerwashed to ensure it is free of trash and debris.

The owner/operator responsible for inspection and maintenance as outlined above:

Summit Club Partners, LLC
Mr. Jeff Mendell
10 Glenville Street, 1st Floor
Greenwich, CT 06831
Phone: 203-813-3264
Fax:
Email: jbmendell@greenwichdp.com

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CONTECH®
ENGINEERED SOLUTIONS

Cascade Separator® Inspection and Maintenance Guide

CASCADE
separator®

Maintenance

The Cascade Separator® system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects sediment and debris will depend upon on-site activities and site pollutant characteristics. For example, unstable soils or heavy winter sanding will cause the sediment storage sump 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 (i.e. spring and fall). However, more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment wash-down areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

A visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet chamber, flumes or outlet channel. 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 in this Inspection and Maintenance Guide.

Access to the Cascade Separator unit is typically achieved through one manhole access cover. The opening allows for inspection and cleanout of the center chamber (cylinder) and sediment storage sump, as well as inspection of the inlet chamber and slanted skirt. For large units, multiple manhole covers allow access to the chambers and sump.

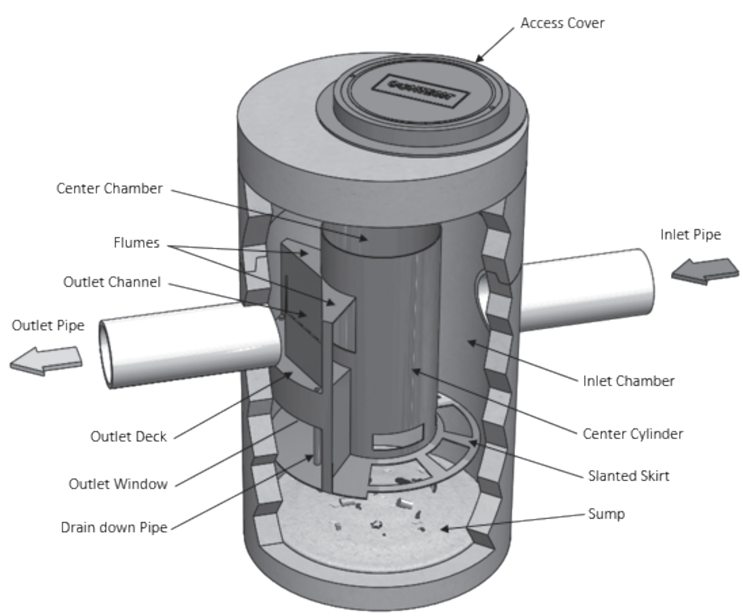
The Cascade Separator system should be cleaned before the level of sediment in the sump reaches the maximum sediment depth and/or when an appreciable level of hydrocarbons and trash has accumulated. If sorbent material is used, it must be replaced when significant discoloration has occurred. Performance may be impacted when maximum sediment storage capacity is exceeded. Contech recommends maintaining the system when sediment level reaches 50% of maximum storage volume. The level of sediment is easily determined by measuring the distance from the system outlet invert (standing water level) 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. Finer, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the chart in this document to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage.

Cleaning

Cleaning of a Cascade Separator system 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 cover and insert the vacuum tube down through the center chamber and into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The areas outside the center chamber and the slanted skirt should also be washed off if pollutant build-up exists in these areas.

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. 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. Then the system 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 to ensure proper safety precautions. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the Cascade Separator system must be done in accordance with local regulations. In many locations, disposal of evacuated sediments may be handled in the same manner as disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal. If any components are damaged, replacement parts can be ordered from the manufacturer.



Cascade Separator® Maintenance Indicators and Sediment Storage Capacities

Model Number	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	y^3	m^3
CS-3	3	0.9	1.5	0.5	0.4	0.3
CS-4	4	1.2	1.5	0.5	0.7	0.5
CS-5	5	1.3	1.5	0.5	1.1	0.8
CS-6	6	1.8	1.5	0.5	1.6	1.2
CS-8	8	2.4	1.5	0.5	2.8	2.1
CS-10	10	3.0	1.5	0.5	4.4	3.3
CS-12	12	3.6	1.5	0.5	6.3	4.8

Note: The information in the chart is for standard units. Units may have been designed with non-standard sediment storage depth.

A Cascade Separator unit can be easily cleaned in less than 30 minutes.

A vacuum truck excavates pollutants from the systems.

Cascade Separator® Inspection & Maintenance Log

Cascade Model:			Location:		
Date	Depth Below Invert to Top of Sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The depth to sediment is determined by taking a measurement from the manhole outlet invert (standing water level) to the top of the sediment pile. Once this measurement is recorded, it should be compared to the chart in the maintenance guide to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage. 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.

SUPPORT

- Drawings and specifications are available at www.ContechES.com.
- Site-specific design support is available from our engineers.

CONTECH® ENGINEERED SOLUTIONS
800.925.5240
www.ContechES.com

APPENDIX E

CONTRACTOR'S CERTIFICATION

JMC Project 20101
The Summit Club at Armonk
568 & 570 Bedford Road (NY-22)
Armonk, NY

CONTRACTOR'S CERTIFICATION

“I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations”

Company Name: ____

Address: ____

Telephone Number: ____

Name and Title: ____

Signature: ____Date: ________________

Permit Identification No.:____

Name and Title of Trained Contractor:_______________________________________

Elements of the SWPPP Contractor is responsible for:__________________________

p:\2020\20101\drainage\20101-nys contractors certification.docx

APPENDIX F

TEMPORARY SEDIMENT BASIN DESIGN DATA SHEETS

TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by MT Date 6/8/21 Checked by ________ Date 06/08/21
Project Summit Club at Armonk Basin # ________
Location ________ Total Area draining to basin (≤50 Ac.) 13.56 Acres

BASIN SIZE DESIGN

1. Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 13,560 cu. ft., Top of Zone Elev. 622
2. Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 48,816 cu. ft., Top of Zone Elev. 625
3. Length to width ratio = 3.5:1
4. A. Cleanout at 50% of sediment storage zone volume, Elev. 621.50
   B. Distance below top of riser 0.5 feet
5. Minimum surface area is larger of 0.01 $Q_{(10)}$ .369 or, 0.015 DA = 2.034 use .369 acres

DESIGN OF SPILLWAYS & ELEVATIONS

Runoff

6. $Q_{p(10)}$ = 36.90 cfs (Attach runoff computation sheets)

Pipe Spillway (Q_{ps})

7. Min. pipe spillway cap., Q_{ps} = 0.2 x 13.56 Drainage Area, acres = 2.71 cfs
   Note: If there is no emergency spillway, then required $Q_{ps} = Q_{p(10)}$ = ________ cfs.
8. H, head = 3 ft. Barrel length = 32 ft
9. Barrel: Diam. 24 inches; Q_{ps} = (Q) 2.71 x (cor.fac.) 27.5 = 74.5 cfs.
10. Riser: Diam. 42 inches; Length 1 ft.; h = 1 ft. Crest Elev. 622
11. Trash Rack: Diameter = 60 inches; H, height = 19 inches

Emergency Spillway Design

12. Emergency Spillway Flow, $Q_{es} = Q_p - Q_{ps}$ = 36.90 - 74.5 = 0 cfs.
13. Width ________ ft.; H_p ________ ft Crest elevation ________; Design High Water Elev. ________
    Entrance channel slope ________ % ; Top of Dam Elev. ________
    Exit channel slope ________ %

ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

Collars:

14. y = 1 ft.; z = 3 :1; pipe slope = 1 %, L_s = 7.29 ft.
    Use 1 collars, 2 - 2 inches square; projection = 0.5 ft.

Diaphragms:

________ width ________ ft. height ________ ft.

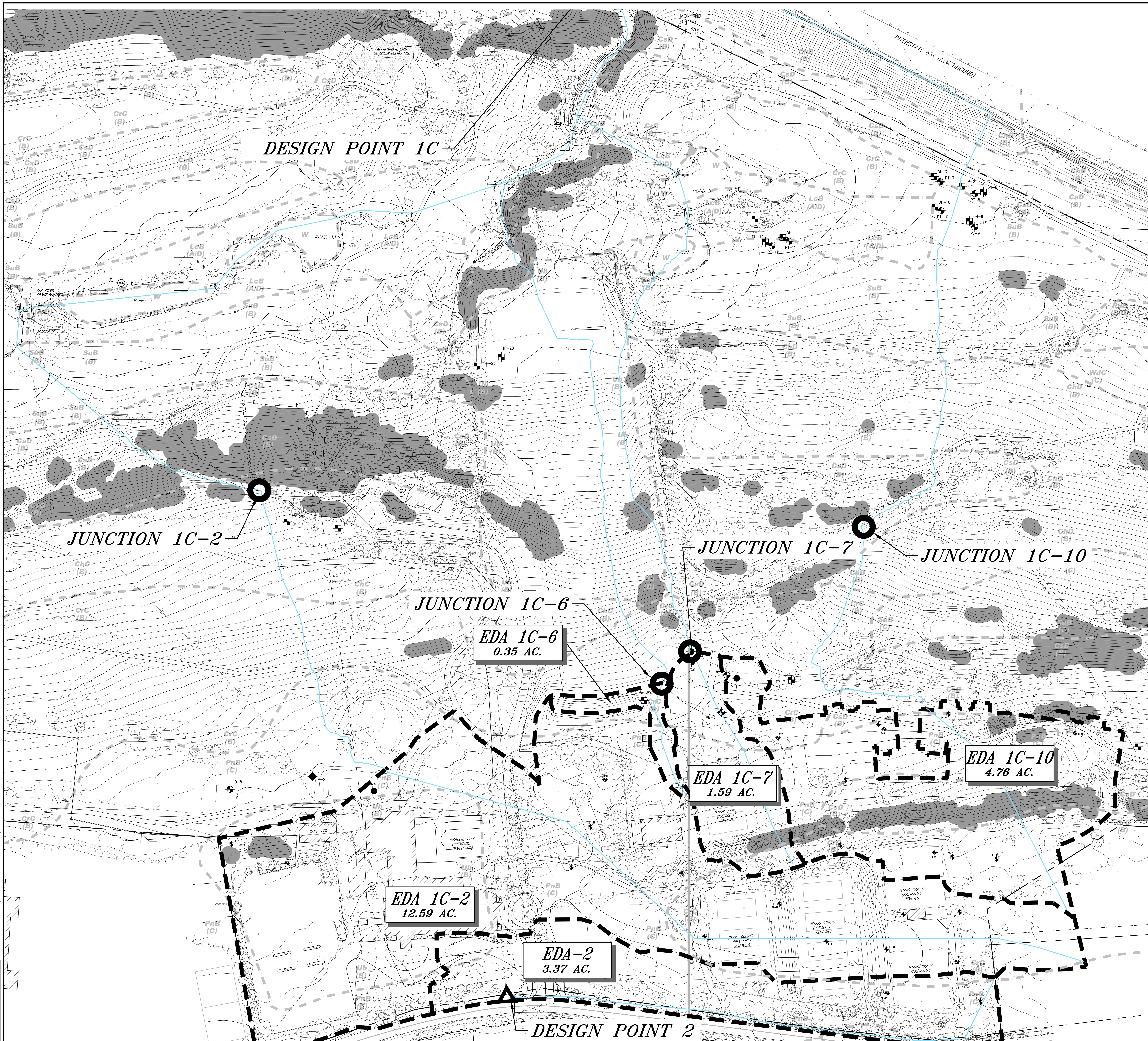
DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = 5 inches. Skimmer ___ or Riser x (check one)
16. Design dewatering time 2 days (Min. 2 days required)

APPENDIX G

DRAWINGS



EXISTING DRAINAGE LEGEND

- EXISTING GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- BOUNDARY OF COVER TYPE LINE
- FLOW PATH LINE
- NwC (B) SOIL DESIGNATION AND HYDROLOGIC SOIL GROUP

SOIL TYPE TABLE

DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
Ub	B	UDORTHENTS, SMOOTHED
PnB	C	PAXTON FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES
CrC	B	CHARLTON–CHATFIELD COMPLEX, 0 TO 15 PERCENT SLOPES, VERY ROCKY
PnC	C	PAXTON FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES
CsD	B	CHARLTON–CHATFIELD COMPLEX, 15 TO 35 PERCENT SLOPES, VERY ROCKY

No.	Revision	Date	By
1.	RESPONSE TO TOWN COMMENTS	06/14/2021	NC
2.	RESPONSE TO TOWN COMMENTS	01/10/2022	NC

Previous Editions Obsolete

APPLICANT/OWNER:
SUMMIT CLUB PARTNERS, LLC
568 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

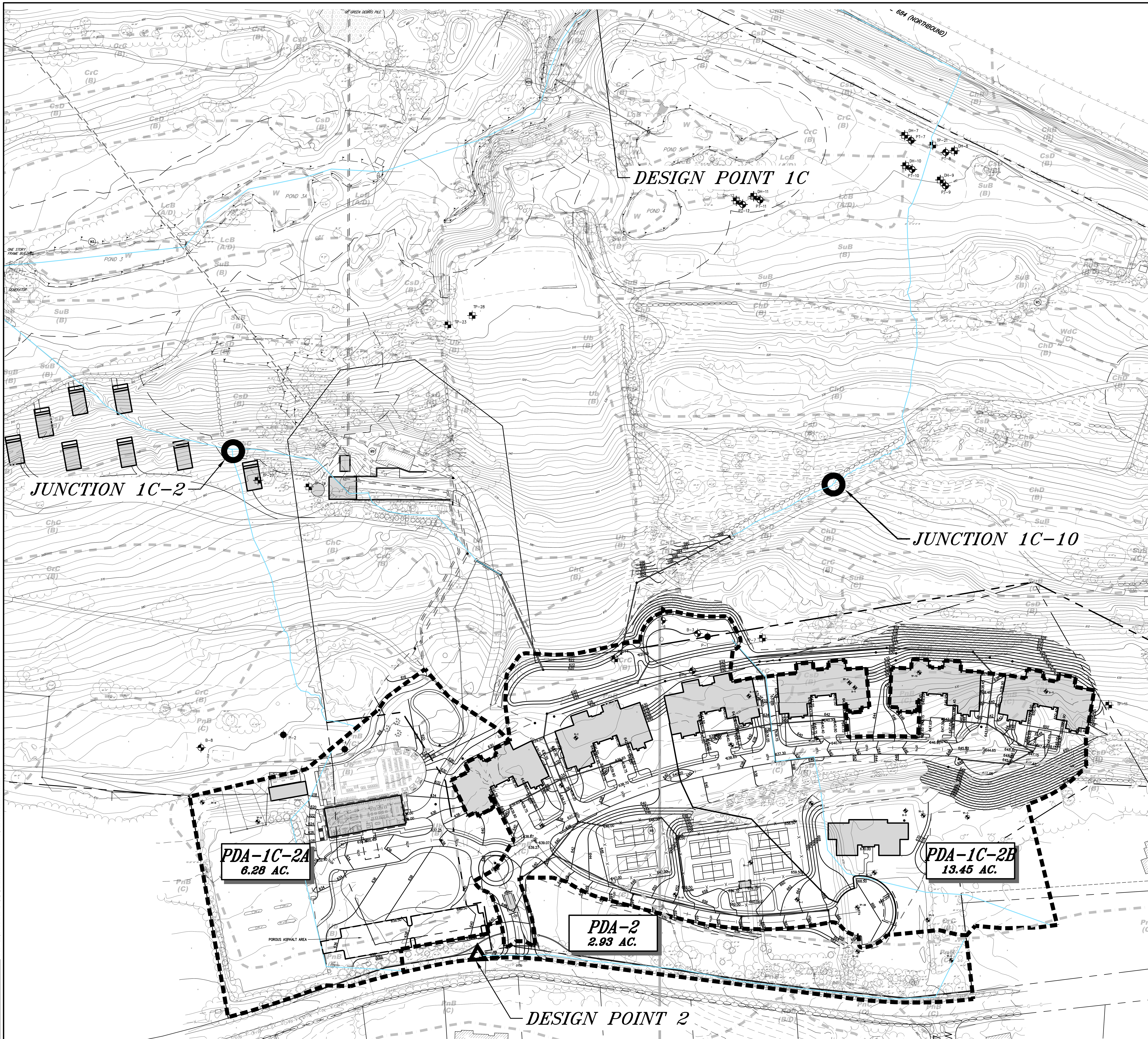
ARCHITECT:
GRANOFF ARCHITECTS
330 RAILROAD AVENUE
GREENWICH, CT 06830

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

THE SUMMIT CLUB AT ARMONK
(RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY-22)
ARMONK, NY 10504

Drawn: NC	Approved: AG	
Scale:	1" = 60'	
Date:	06/14/2021	
Project No:	20101	
20101-DRAINAGE	EDA	--
Drawing No:	DA-1	



PROPOSED DRAINAGE LEGEND

- EXISTING GRADE
- PROPOSED FINISHED GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- LIMIT OF SOIL GROUPS LINE
- FLOW PATH LINE
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED MANHOLE (MH)
- EXISTING DRAIN INLET
- DI PROPOSED DRAIN INLET (DI)
- PROPOSED END SECTION (ES)
- RIP RAP ENERGY DISSIPATOR
- NwC (B) SOIL DESIGNATION AND HYDROLOGIC SOIL GROUP

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JMC

PROPOSED DRAINAGE AREA MAP

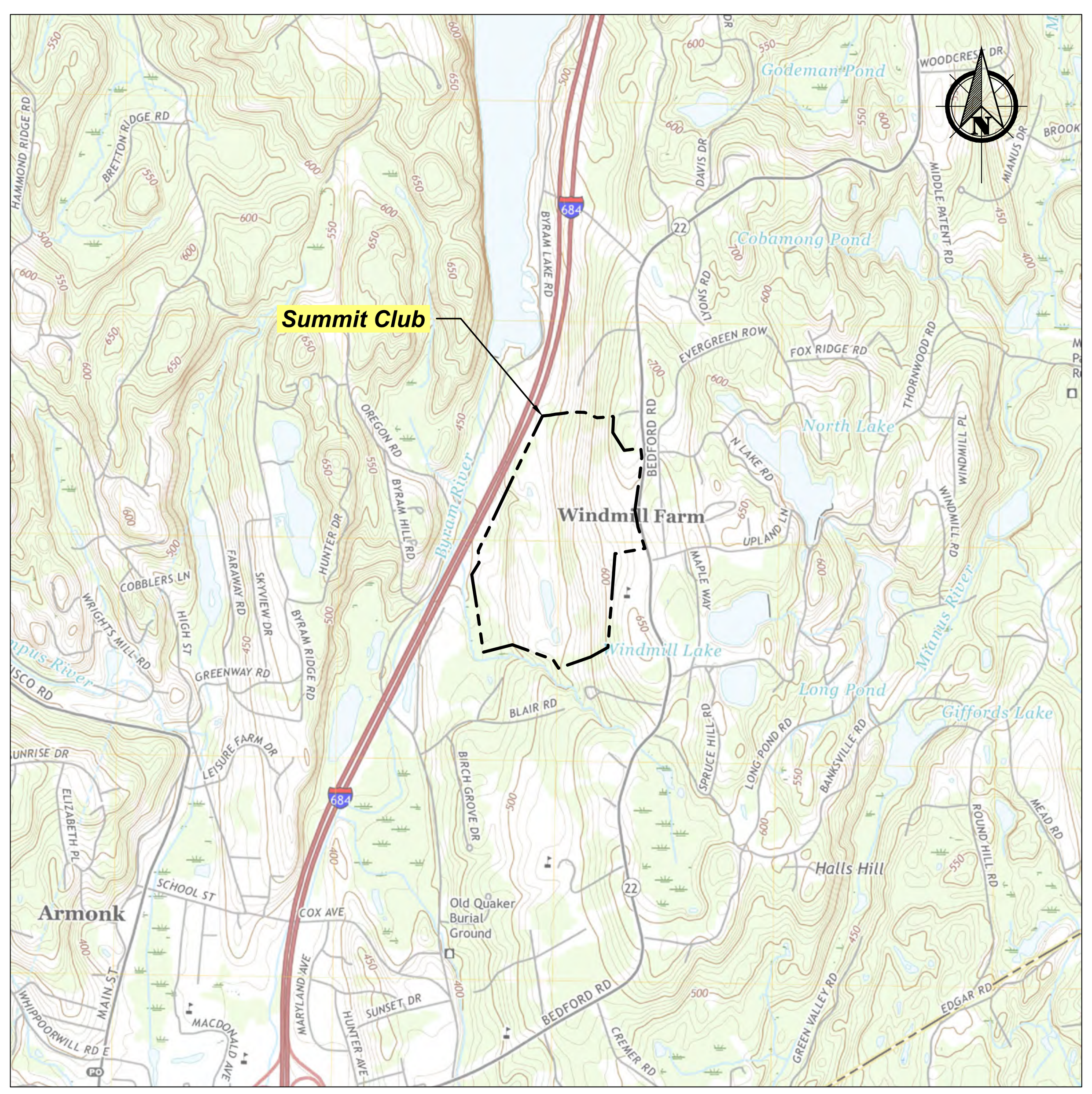
THE SUMMIT CLUB AT ARMONK (RESIDENTIAL PHASE)
568 & 570 BEDFORD ROAD (NY–22)
ARMONK, NY 10504

Drawn:	NC	Approved:	AG
Scale:	1" = 60'		
Date:	06/14/2021		
Project No:	20101		
20101-DRAINAGE	PDA	--	
Drawing No:	DA-2		

Summit Club Residential

568 Bedford Road (Route 22)
Town of North Castle, New York

Water Supply, Treatment and Distribution
North Castle, New York
50% Submittal
November 2021



SITE LOCATION MAP
SCALE: 1" = 2000'

INDEX OF DRAWINGS

VICINITY MAP
SCALE: 1" = 1000'

WSP USA
4 RESEARCH DRIVE, SUITE 204
SHELTON, CONNECTICUT 06484

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REVISIONS
REV | DESCRIPTION

SEAL
DATE

DRAWN BY RAC
CHECKED MS
APPROVED SR
DRAWING DATE 11/23/21

TITLE SHEET

Summit Club Residential
568 Bedford Road (Route 22)
Town of North Castle, New York

WSP USA
4 Research Drive, Suite 204
Shelton, Connecticut 06484
(203) 929-8555

Drawing Number
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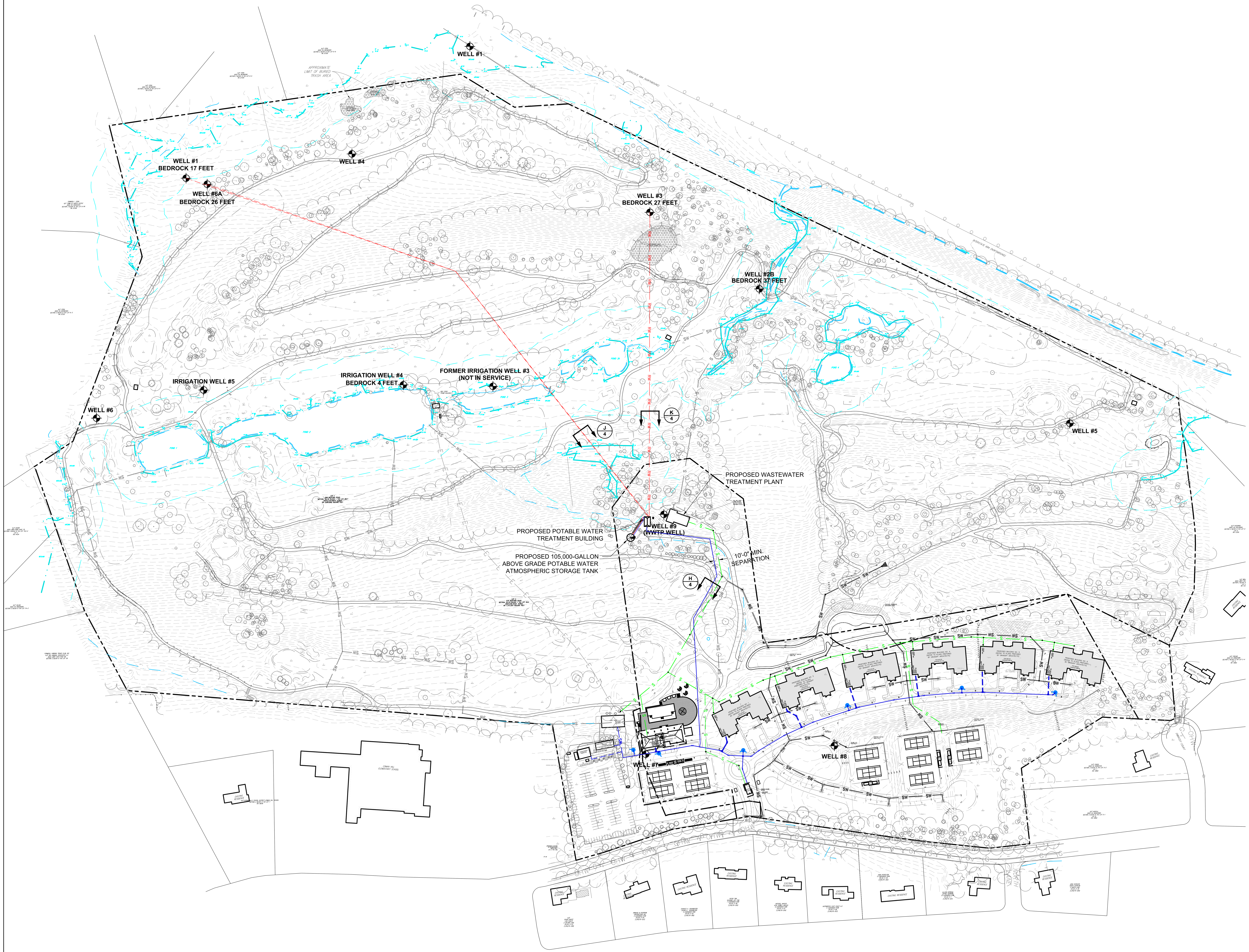

LEGEND

- PROPERTY BOUNDARY
- EXISTING FLAGGED WETLAND BOUNDARY
- EXISTING WETLAND BUFFER
- EXISTING CONTOUR
- EXISTING WELL
- EXISTING ELECTRICAL LINE
- EXISTING GAS LINE
- EXISTING STORMWATER PIPE
- EXISTING SANITARY SEWER MAIN
- PROPOSED STORMWATER PIPE
- PROPOSED SANITARY SEWER MAIN
- PROPOSED 8-INCH DIA. DUCTILE IRON WATER MAIN
- PROPOSED ¾-INCH DIA. DUCTILE IRON SERVICE CONNECTION
- PROPOSED 2-INCH DIA. DUCTILE IRON SERVICE CONNECTION
- PROPOSED 3-INCH DIA. HDPE RAW WATER PIPE - WELL #3
- PROPOSED 4-INCH DIA. HDPE RAW WATER PIPE - WELL #1 & WELL #6A
- PROPOSED FIRE HYDRANT

0 150
SCALE IN FEET

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SOURCE:
JMC "LAYOUT-GRAD-UTIL_2021-08-18.dwg" EMAILED FILE.

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REVISIONS

REV	DESCRIPTION
1	Revised: Chkd: Appr.:
2	Revised: Chkd: Appr.:
3	Revised: Chkd: Appr.:

SEAL

DATE

DRAWN BY	RAC
CHECKED	MS
APPROVED	SR
DRAWING DATE	11/23/21

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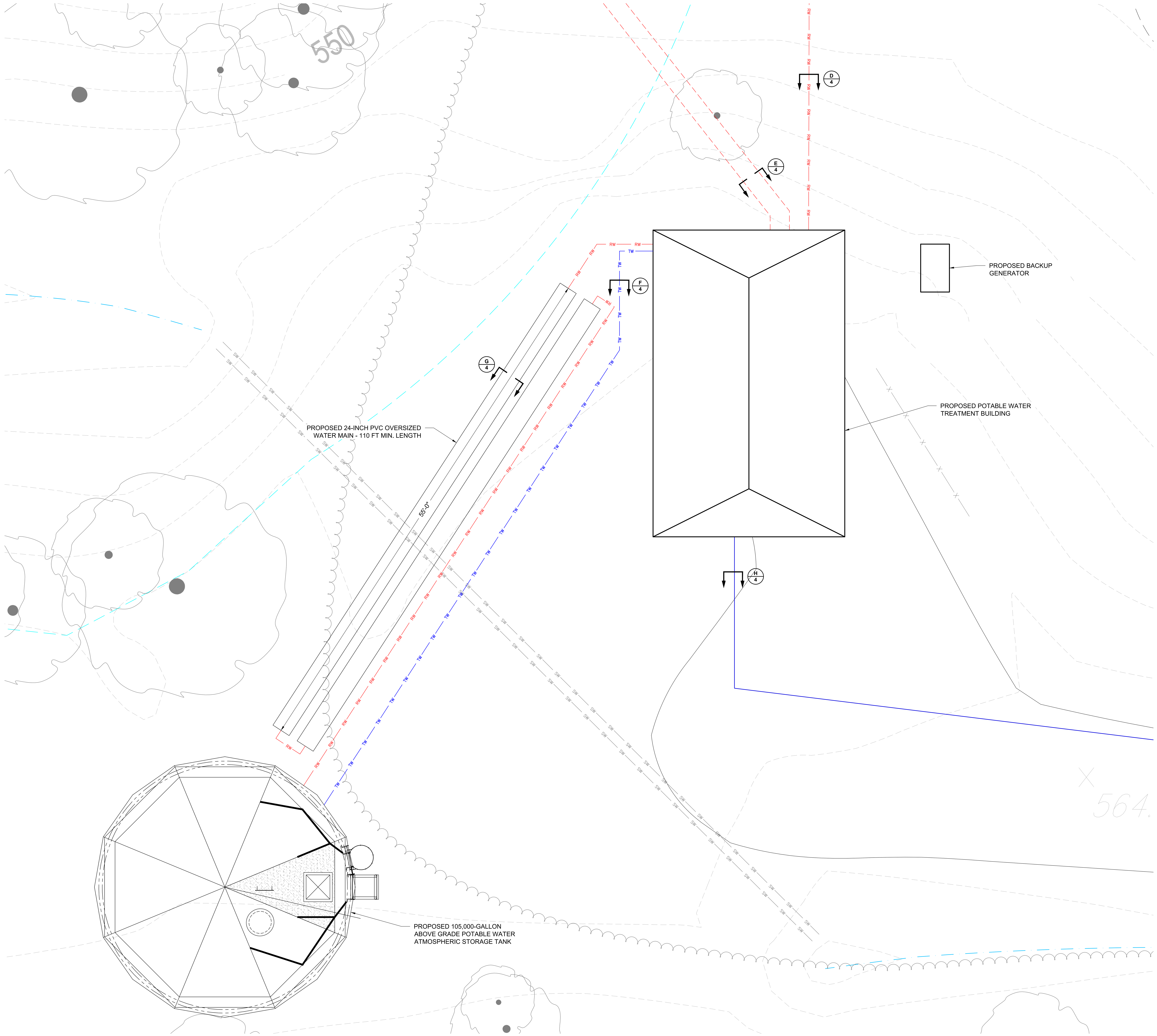
SITE PLAN

Summit Club Residential
568 Bedford Road (Route 22)
Town of North Castle, New York

WSP USA
4 Research Drive, Suite 204
Shelton, Connecticut 06484
(203) 929-8555

2 of 10

Drawing Number
1



LEGEND

— · · —	PROPERTY BOUNDARY
— — —	EXISTING WETLAND BUFFER
- - - -	EXISTING CONTOUR
— SW — SW —	EXISTING STORMWATER PIPE
———	PROPOSED 8-INCH DIA. DUCTILE IRON WATER MAIN
— RW — RW —	PROPOSED 3-INCH DIA. HDPE RAW WATER PIPE - WELL #3
— — — —	PROPOSED 4-INCH DIA. HDPE RAW WATER PIPE - WELL #1 & WELL #6A
— TW — TW —	PROPOSED 8-INCH DIA. HDPE TREATED WATER PIPE

0 5
SCALE IN FEET

D

SOURCE:
JMC "LAYOUT-GRAD-UTIL_2021-08-18.dwg" EMAILED FILE.

REVISIONS

REV	DESCRIPTION
1	Revised: Chkd: Appr.:
2	Revised: Chkd: Appr.:
3	Revised: Chkd: Appr.:

SEAL

DATE

DRAWN BY	RAC
CHECKED	MS
APPROVED	SR
DRAWING DATE	11/23/21

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PARTIAL SITE PLAN

Summit Club Residential
568 Bedford Road (Route 22)
Town of North Castle, New York

WSP USA
4 Research Drive, Suite 204
Shelton, Connecticut 06484
(203) 929-8555

Drawing Number
1A

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PROJECT NOTES

A. MOBILIZATION SHALL CONSIST OF: 1) DELIVERY TO THE SITE OF ALL EQUIPMENT, MATERIALS AND SUPPLIES TO BE FURNISHED BY THE CONTRACTOR; 2) COMPLETE PREPARATION IN SATISFACTORY WORKING ORDER OF ALL EQUIPMENT FOR THE JOB; AND 3) THE SATISFACTORY AND SECURE STORAGE OF ALL MATERIALS AND SUPPLIES. AREAS FOR STAGING EQUIPMENT AND MATERIALS WILL BE DESIGNATED BY THE ENGINEER TO CAUSE THE LEAST INTERFERENCE TO SITE ACTIVITIES.

B. DEMOBILIZATION SHALL CONSIST OF REMOVAL FROM THE SITE OF ALL EQUIPMENT, TRASH AND DEBRIS AFTER COMPLETION OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING THE AREA TO THE CONDITION THAT EXISTED PRIOR TO THE WORK, INCLUDING REPLACEMENT OR REPAIR OF ANY SITE FEATURES THAT WERE AFFECTED (I.E., FENCES, WALLS, PAVEMENT), AS WELL AS THE GRADING, RAKING AND SEEDING OF DISTURBED LAWN AREAS.

C. ALL SITE WORK IS TO COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY STANDARDS, AS WELL AS THE SAFETY PROCEDURES LISTED IN THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION", ISSUED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA (AGC PUBLICATION NO. 100). THE CONTRACTOR SHALL BEAR THE COST OF PROVIDING WARNING DEVICES, FENCES, TRAFFIC CONTROL MEASURES AND OTHER SAFETY MEASURES, AS NEEDED, FOR THE WORK TO BE COMPLETED. SAFETY MEASURES WILL BE REQUIRED WHEN WORKING ALONG OR IN STATE OR LOCAL ROADS. ALL EXCAVATIONS WILL BE COVERED AND EQUIPMENT AND MATERIALS SECURED AT THE END OF EACH WORK DAY.

D. ALL ELECTRICAL, MECHANICAL, PLUMBING, CONSTRUCTION AND OTHER SITE WORK, EQUIPMENT AND MATERIALS ARE TO BE IN ACCORDANCE WITH AND TO MEET ALL APPLICABLE LAWS, CODES AND REGULATIONS.

E. ALL NEW, CLEANED OR REPAIRED POTABLE WATER PIPES SHALL BE DISINFECTED UNDER THE SUPERVISION OF THE ENGINEER IN ACCORDANCE WITH AWWA STANDARD C651-14 OR LATEST VERSION, EXCEPT SECTION 4.3 (THE TABLET METHOD) PRIOR TO USE.

F. ALL INTERIOR PIPES SHALL BE INSTALLED PLUMB AND PERPENDICULAR AND IN A NEAT FASHION. THE PIPES WILL BE INSTALLED WITH ADEQUATE SPACING BETWEEN WALLS AND OTHER PIPES TO ALLOW FOR THE INSTALLATION OF VALVES AND METERS. ALL PIPES AND FITTINGS WILL BE SUPPORTED EVERY 5-FEET IN A MANNER THAT PREVENTS SAGGING WHEN THE PIPES ARE FULL. ALL PIPE SUPPORTS WILL BE SECURED TO EITHER THE FLOOR, WALL OR CEILING OF THE PROPOSED PUMP HOUSE.

G. THE RAW WATER PIPES WILL BE COLOR-CODED OLIVE GREEN, THE TREATED WATER PIPES WILL BE COLOR-CODED DARK BLUE AND THE SODIUM HYPOCHLORITE LINES COLORED YELLOW.

H. PRIOR TO ANY SUBSURFACE WORK, THE UNDERGROUND UTILITIES CALL CENTER SHALL BE CONTACTED.

I. THE MATERIAL USED AS BACKFILL SHALL BE FREE OF ROCKS, STUMPS OR OTHER UNSUITABLE DEBRIS LARGER THAN 2-INCHES IN DIAMETER AND SHALL BE CAPABLE OF BEING COMPACTED TO 95% PROCTOR DENSITY. CLEAN TRACEABLE FILL MEETING THE ABOVE REQUIREMENT SHALL BE BROUGHT ONSITE AND USED AS BACKFILL IF THE MATERIAL REMOVED FROM THE TRENCHES IS UNSUITABLE. THE SOURCE OF FILL MUST BE PROVIDED IN ADVANCE OF DELIVERY TO THE SITE. THE ENGINEER RESERVES THE RIGHT TO REQUEST DOCUMENTATION OF FILL QUALITY AND TESTING DONE AT THE CONTRACTORS EXPENSE IF THE SOURCE DOCUMENTATION IS UNSATISFACTORY. ALL MATERIAL SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER. UNSUITABLE MATERIAL WILL BE REMOVED FROM THE PROPERTY AND DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL AND STATE LAWS.

J. THE LOCATION OF ALL UTILITIES AND BELOW-GRADE PIPING TO BE INSTALLED SHALL BE STAKED AND APPROVED BY THE ENGINEER PRIOR TO SITE WORK.

K. SEDIMENTATION AND EROSION CONTROLS (S&E), CONSISTING OF, BUT NOT LIMITED TO, SILT FENCING AND/OR HAY BALES, ARE TO BE INSTALLED ON THE DOWNSLOPE SIDE OF EXCAVATION AREAS. THE CONTROLS WILL BE INSTALLED PRIOR TO INITIATION OF WORK ON THE SITE, S&E ARE TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND ARE TO BE COMBINED WITH SEDIMENTATION AND EROSION CONTROLS UTILIZED FOR OTHER ASPECTS OF THE PROJECT.

L. THE WATER PIPES FROM THE POTABLE WATER WELLS AND FOR THE DISTRIBUTION SYSTEM SHALL BE CONSTRUCTED FROM HIGH DENSITY POLYETHYLENE (HDPE), BE NSF 61 APPROVED AND BE RATED FOR 160 PSI AND SHALL BE INSTALLED AS SHOWN. ALL PIPE BEDDING SHALL BE OF THE MATERIAL AND COVER DIMENSIONS SHOWN IN THE PLANS. THE FOLLOWING PROCEDURE SHALL BE USED WHEN INSTALLING THE BURIED HDPE PIPE FOR POTABLE WATER SUPPLY.
   a. INSPECT THE PIPE FOR CUTS, GOUGES, DEEP SCRATCHES OR OTHER DAMAGE BEFORE INSTALLATION. IF A CUT OR GOUGE IS DEEPER THAN 10 PERCENT OF THE MINIMUM WALL THICKNESS OF THE PIPE, THAT SECTION SHALL BE REMOVED AND DISCARDED.
   b. INSPECT THE PIPE FOR KINKS AND REMOVE AND DISCARD ALL KINKED SECTIONS.
   c. ALL BENDS SHALL BE LONG RADIUS BENDS AND WELDED JOINTS SHALL BE USED FOR ALL PIPING CONNECTIONS
   d. COMPACT THE TRENCH BOTTOM AND SMOOTH ANY DEPRESSION OR CAVITIES
   e. BURY THE PIPE AS SHOWN ON THE PLANS, COMPACTING THE PIPE EMBEDMENT AND BACKFILL MATERIAL IN 1-FOOT LIFTS.

M. PRESSURE TESTING OF THE HDPE PIPE SHALL BE CONDUCTED IN ACCORDANCE WITH AWWA M55 AND ASTM F2164 AT 100 PSI.

N. UNDERGROUND WARNING TAPES SHALL BE PLACED ABOVE THE BURIED WATER PIPES AND ELECTRICAL CONDUIT AS SHOWN ON THE PLANS.

O. AFTER DISINFECTING AND BEFORE PLACING IN SERVICE, ONE WATER SAMPLE WILL BE COLLECTED FROM EACH WELL WITHIN THE TREATMENT BUILDING AND AFTER THE ATMOSPHERIC STORAGE TANK, AND SUBMITTED FOR HETEROTROPHIC PLATE COUNT (HPC) AND BACTERIOLOGICAL.

P. ALL SAMPLE TAPS SHALL BE SMOOTH NOSE SAMPLE TAPS.

Q. THE OPERATION OF THE CHEMICAL METERING PUMPS WILL BE INTERLOCKED WITH THE OPERATION OF THE SUBMERSIBLE WELL PUMPS AND EACH WATER SUPPLY WELL WILL BE EQUIPPED WITH A DEDICATED CHEMICAL METERING PUMP THAT IS ADJUSTED TO THE PUMPING RATE OF THE WELL.

R. THE CONTRACTOR WILL BE REQUIRED TO RETAIN THE SERVICES OF A LICENSED LAND SURVEYOR TO DEVELOP AS-BUILT (RECORD DRAWINGS) OF ALL SUBSURFACE WATER SUPPLY PIPES AND ELECTRICAL CONDUIT.

S. EQUIPMENT SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

T. THE PRESSURE TRANSDUCER POSITIONED IN THE 105,000-GALLON ABOVE GRADE POTABLE WATER ATMOSPHERIC STORAGE TANK WILL ALLOW FOR ADJUSTMENT IN THE HIGH/HIGH, HIGH, LOW, MID/LOW AND LOW/LOW LEVEL SETTINGS.

U. THE OPERATION OF WELL #1, WELL #3 AND WELL #6A WILL ALTERNATE WHEN THE PRESSURE TRANSDUCER IN THE 105,000-GALLON ABOVE GRADE POTABLE WATER ATMOSPHERIC STORAGE TANK INDICATES A LOW LEVEL SETTING.

V. THE ELECTRICAL CONTROLS WILL BE EQUIPPED WITH A TELEMETRY SYSTEM TO NOTIFY THE CERTIFIED OPERATOR IF A MALFUNCTION OCCURS.

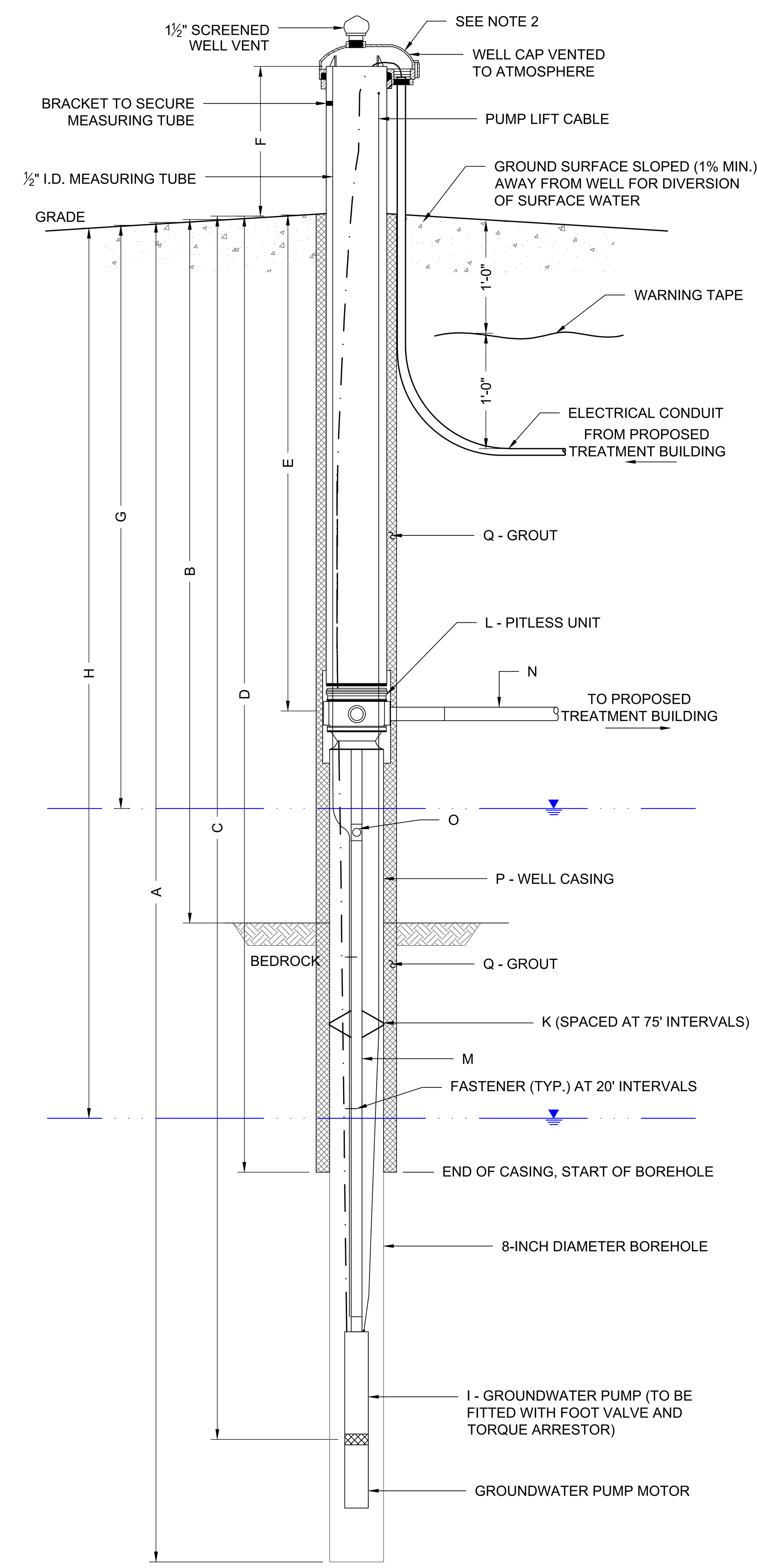
W. THE PROPOSED PUMP HOUSE WILL BE EQUIPPED WITH A SUPPLY OF PROTECTIVE CLOTHING (APRON, GOGGLES AND GLOVES) TO BE USED FOR SAFE HANDLING OF THE SODIUM HYPOCHLORITE.

X. THE BACKUP GENERATOR WILL HAVE THE CAPABILITY OF OPERATING ALL THE WATER-SUPPLY AND TREATMENT EQUIPMENT, LIGHTING, HEATING AND CONTROLS.

Y. THE TREATMENT BUILDING WILL BE EQUIPPED WITH ADEQUATE HEATING, LIGHTING AND VENTILATION. THE VENTILATION WILL ACCOUNT FOR THE ONSITE STORAGE OF SODIUM HYPOCHLORITE.

Z. THE CONTRACTOR WILL BE REQUIRED TO RETAIN THE SERVICES OF A DRILLING CONTRACTOR TO INSTALL TEST BORINGS TO CONFIRM THE DEPTH TO BEDROCK ALONG THE DIRECTIONAL DRILLING ROUTES.

AA. THE EXISTING POTABLE WATER SUPPLY SERVICE FROM THE TOWN OF NORTH CASTLE WILL BE PERMANENTLY ABANDONED.

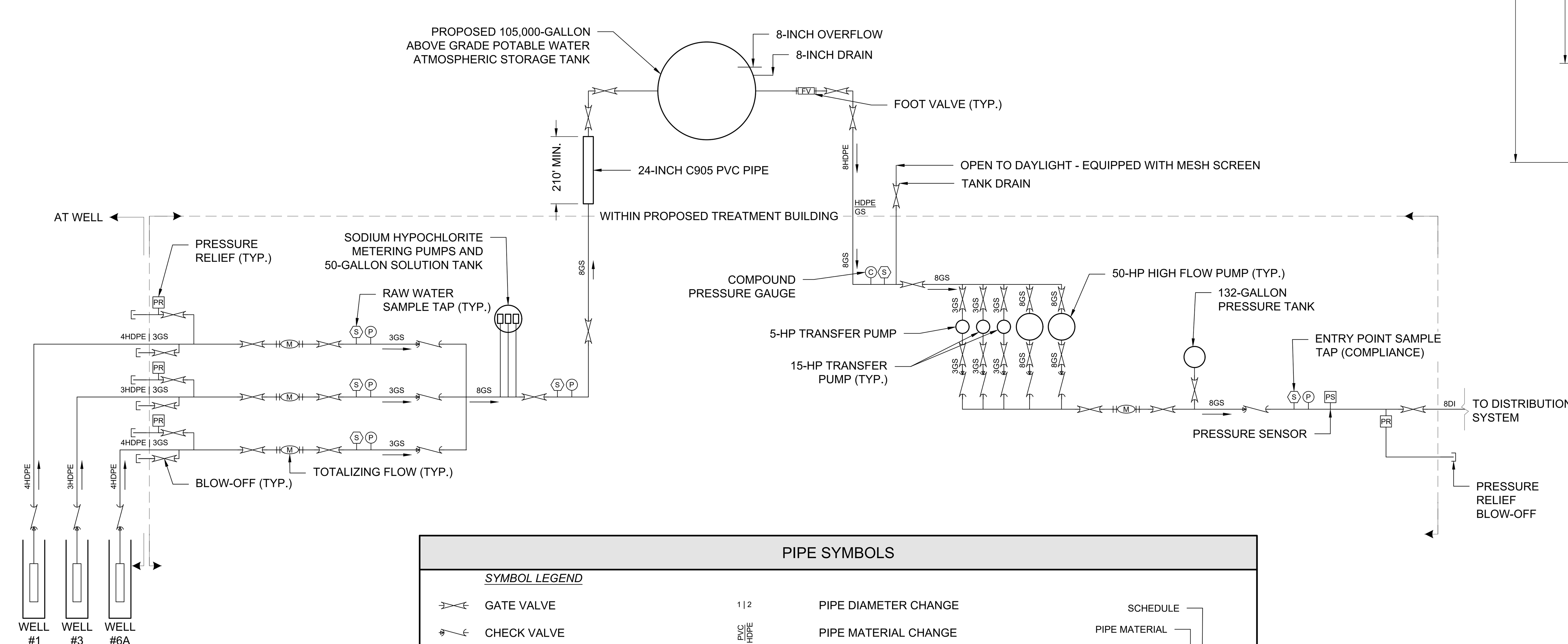


B/2 PROFILE OF WELL - TYPICAL
NOT TO SCALE

ITEM	WELL #1	WELL #3	WELL #6A	COMMENTS
A	575	645	625	TOTAL DEPTH OF WELL (FT BG)
B	17	27	26	DEPTH TO BEDROCK (FT BG)
C	225	125	125	PUMP PLACEMENT DEPTH (FT BG)
D	51	61	61	DEPTH OF CASING (FT BG)
E	4.5	4.5	4.5	DEPTH OF PITLESS CONNECTION (FT BG)
F	MINIMUM 1.5	MINIMUM 1.5	MINIMUM 1.5	HEIGHT OF WELL CAP ABOVE GRADE (FT)
G	ARTESIAN	ARTESIAN	ARTESIAN	STATIC WATER LEVEL (FT BG)
H	178	70	66	PUMPING WATER LEVEL (FT BG)
I	GOULDS 65GS70	GOULDS 35GS30	GOULDS 65GS50	SUBMERSIBLE PUMP MANUFACTURER AND MODEL
J	50 GPM @ 388 FT	32 GPM @ 247 FT	55 GPM @ 261 FT	PUMP DESIGN FLOW AND TOTAL DYNAMIC HEAD
K	MONOFLEX SCC8x20	MONOFLEX SCC8x20	MONOFLEX SCC8x20	CENTRALIZER, MANUFACTURER AND MODEL
L	BAKER MONITOR DIVISION 5.0PS67WBWE23T3S	BAKER MONITOR DIVISION 5.0PS67WBWE23T3S	BAKER MONITOR DIVISION 5.0PS67WBWE23T3S	PITLESS CONNECTION MANUFACTURER AND MODEL
M	3-INCH GALVANIZED STEEL	3-INCH GALVANIZED STEEL	3-INCH GALVANIZED STEEL	RISER PIPE DIAMETER
N	4-INCH HDPE DISCHARGE	3-INCH HDPE DISCHARGE	4-INCH HDPE DISCHARGE	DISCHARGE PIPE DIAMETER
O	3-INCH BRONZE	3-INCH BRONZE	3-INCH BRONZE	CHECK VALVE
P	6-INCH	6-INCH	6-INCH	NEW SINGLE STEEL CASING PIPE MEETING AWWA STANDARD A-100, ASTM OR SPI SPECIFICATIONS FOR WATER WELL CONSTRUCTION - MINIMUM OF 0.280 INCH THICKNESS
Q	BOTTOM OF WELL CASING TO GRADE	BOTTOM OF WELL CASING TO GRADE	BOTTOM OF WELL CASING TO GRADE	NEAT CEMENT GROUT CONFORMING TO AWWA A100, AND WATER WILL BE USED. GROUT SHALL BE A MINIMUM OF 1.5 INCHES THICK AND SHALL MEET PART 5, SUBPART 5-1 APPENDIX 5-A STANDARDS

FT BG: FEET BELOW GRADE

NOTES:
1. A TORQUE ARRESTOR SHALL BE INSTALLED ON THE RISER PIPE IMMEDIATELY ABOVE EACH PUMP TO MINIMIZE MOVEMENT OF THE PUMP AND RISER PIPE WHEN THE PUMP STARTS.
2. THE WELLHEAD WILL BE EQUIPPED WITH A LOCKING HASP OR A BOLT REPLACED WITH A COMMON-KEYED PAD LOCK.



A/5 PROCESS FLOW DIAGRAM
NOT TO SCALE

PIPE SYMBOLS

SYMBOL LEGEND
- GATE VALVE
- CHECK VALVE
- SAMPLE PETCOCK
- PRESSURE GAUGE
- COMPOUND PRESSURE GAUGE
- TOTALIZING FLOW METER
- PRESSURE RELIEF
- PRESSURE SENSOR/SWITCH
- PIPE DIAMETER CHANGE
- PIPE MATERIAL CHANGE

MATERIAL ABBREVIATIONS

HDPE	HIGH DENSITY POLYETHYLENE
GS	GALVANIZED STEEL
DI	DUCTILE IRON

SCHEDULE
PIPE MATERIAL
DIAMETER
4PVC80
WATER
FLOW DIRECTION
FLUID DESCRIPTION

CONTROL TABLE

CONDITION	SENSOR LOCATION	WELL PUMPS ON	WELL PUMPS OFF	POTABLE BOOSTER PUMPS ON	POTABLE BOOSTER PUMPS OFF	TELEMETRY SYSTEM-OPERATING NOTIFICATION
HIGH/HIGH LEVEL	ATMOSPHERIC STORAGE TANK		X			X
HIGH LEVEL	ATMOSPHERIC STORAGE TANK		X			
LOW LEVEL	ATMOSPHERIC STORAGE TANK	X				
MID/LOW LEVEL	ATMOSPHERIC STORAGE TANK	X (SEE NOTE1)				
LOW/LOW LEVEL	ATMOSPHERIC STORAGE TANK	X				X
PRESSURE SENSOR - LESS THAN 70 PSI	PRESSURE TANK (PUMP HOUSE)			X		
PRESSURE SENSOR - EQUAL TO 70 PSI	PRESSURE TANK (PUMP HOUSE)				X	X
PRESSURE SWITCH LOW PRESSURE	PRESSURE TANK (PUMP HOUSE)					X

NOTE:
1. THE WELL PUMP IN WELL #1, WELL #3 OR WELL #6A WILL TURN ON WHEN THE LOW LEVEL SETTING IS ACTIVATED AND WILL CONTINUE TO OPERATE UNTIL THE HIGH LEVEL SETTING IS ACTIVATED, IN THE EVENT THE WATER IN THE ATMOSPHERIC STORAGE TANK REACHES THE LOW/LOW LEVEL, ALL THREE WELL PUMPS WILL ACTIVATE. THE NEXT TIME THE LOW LEVEL SETTING IS ACTIVATED, AN ALTERNATE WELL PUMP WILL BE ACTIVATED. IN THE EVENT OF HIGH FLOW DEMAND, TWO PUMPS WILL BE ACTIVATED AT THE SAME TIME WHEN THE WATER LEVEL REACHES THE MID-LOW LEVEL.

REVISIONS

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PROJECT NOTES, EQUIPMENT LIST, PROCESS FLOW DIAGRAM AND WELL PROFILE

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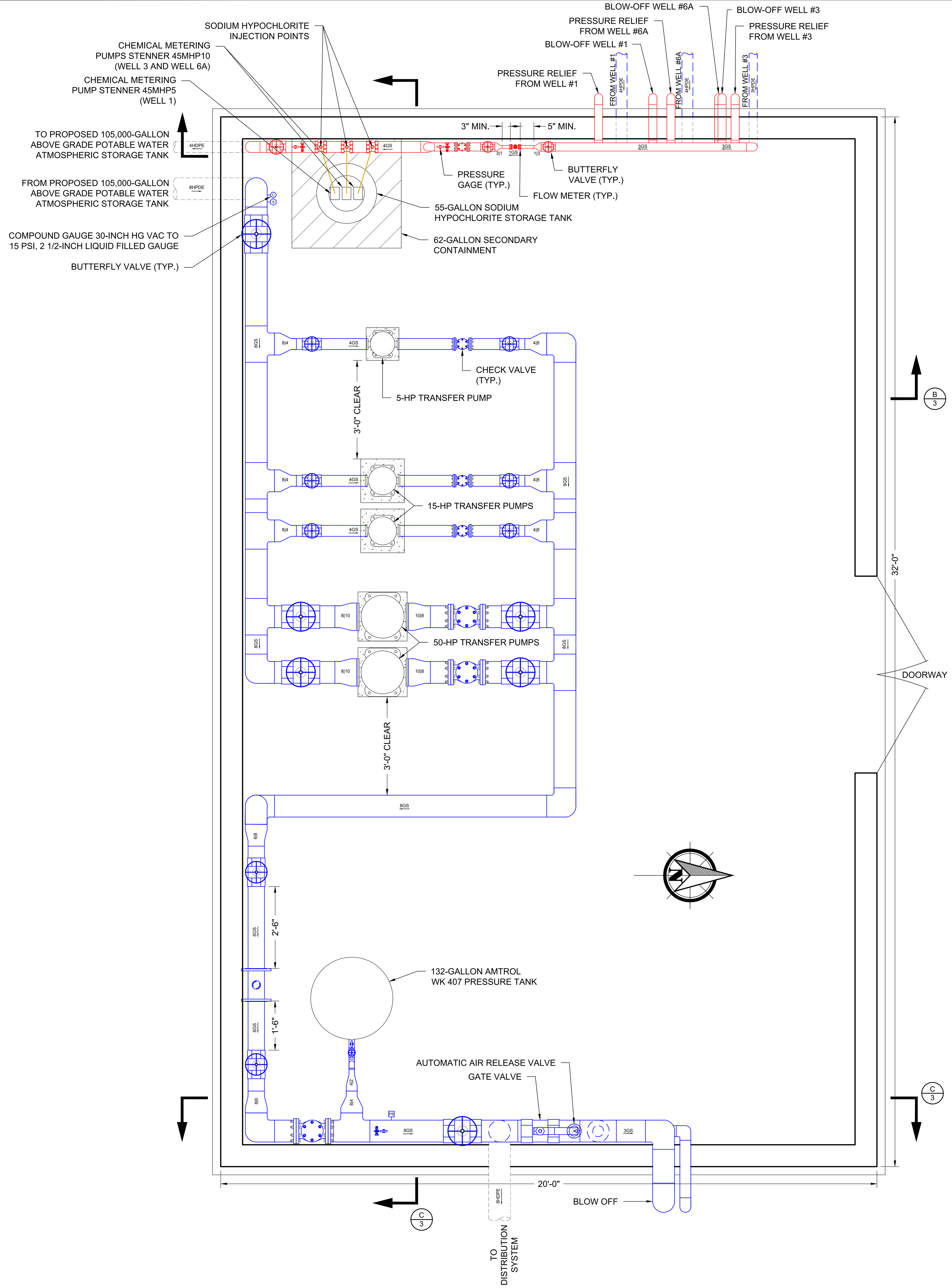
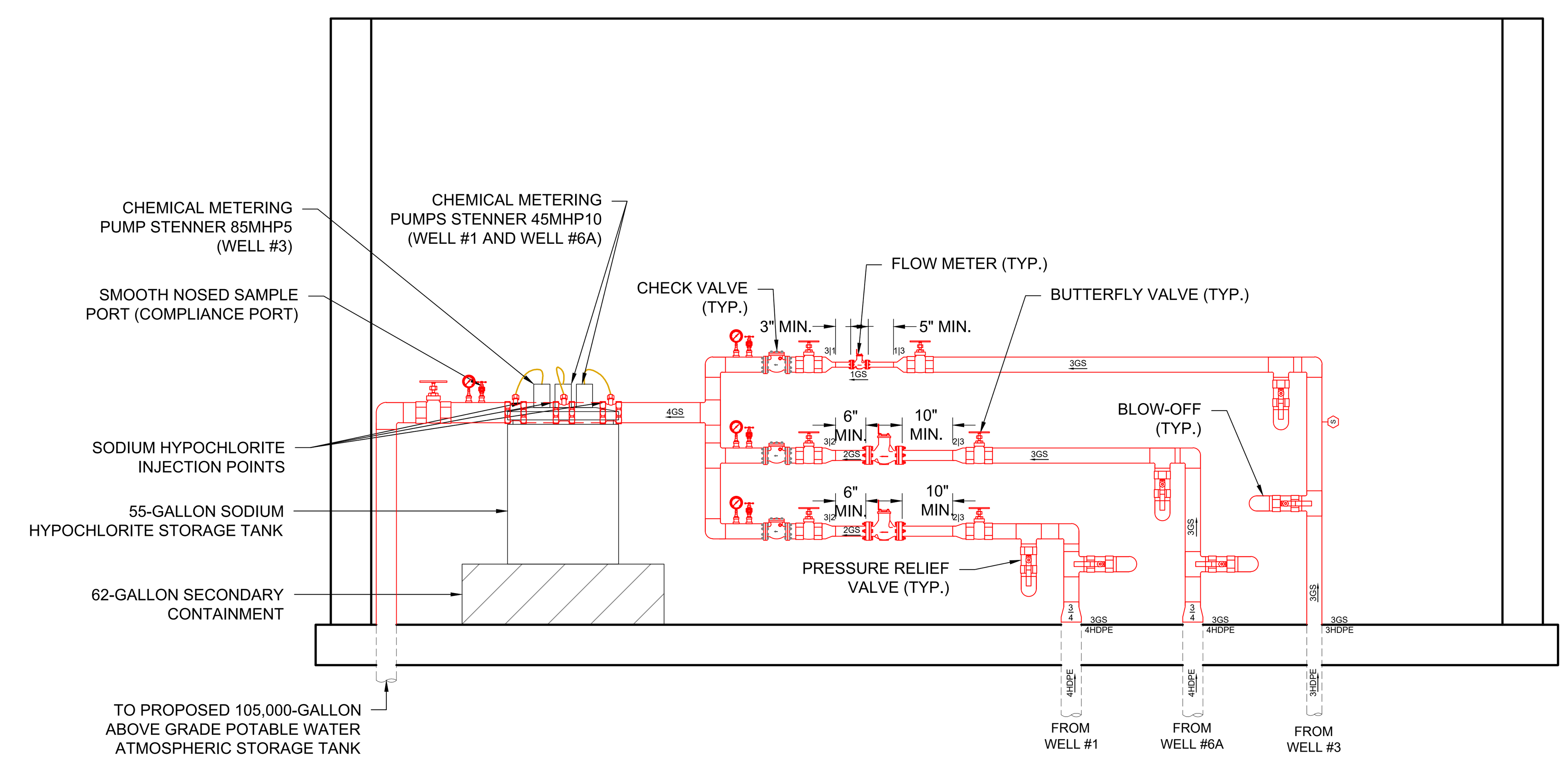
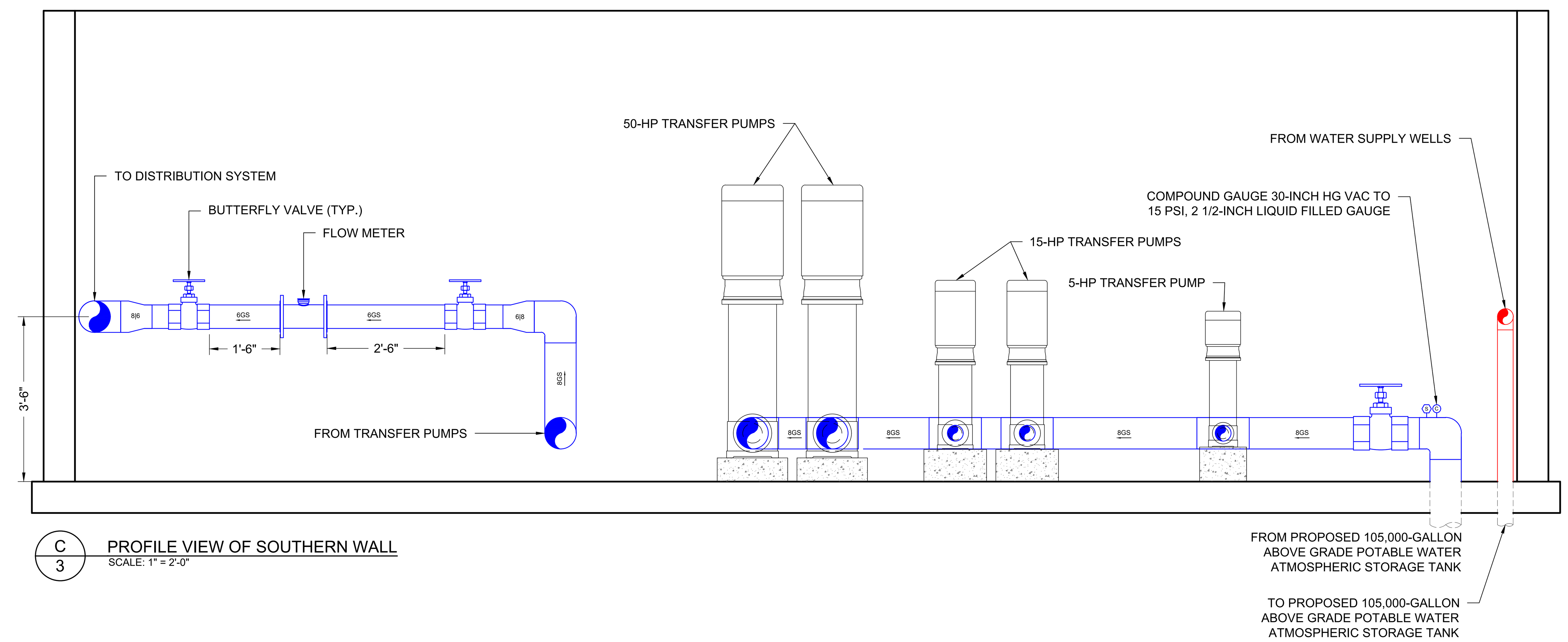


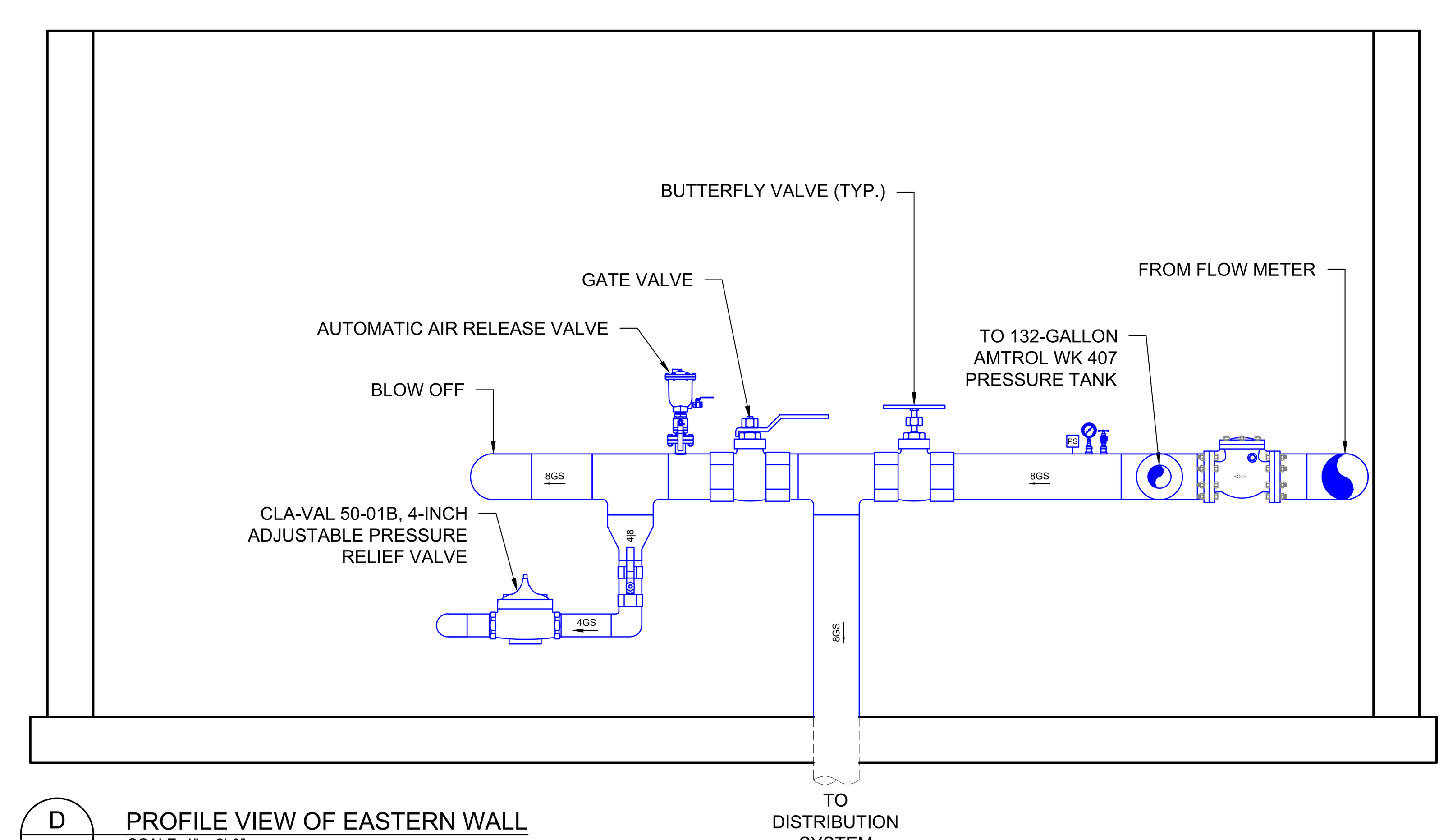
A 3 PLAN VIEW OF PROPOSED TREATMENT BUILDING
SCALE: 1" = 2'-0"



B 3 PROFILE VIEW OF WESTERN WALL
SCALE: 1" = 2'-0"



C 3 PROFILE VIEW OF SOUTHERN WALL
SCALE: 1" = 2'-0"



D 3 PROFILE VIEW OF EASTERN WALL
SCALE: 1" = 2'-0"

0 2 SCALE IN FEET

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PROPOSED TREATMENT BUILDING DETAILS

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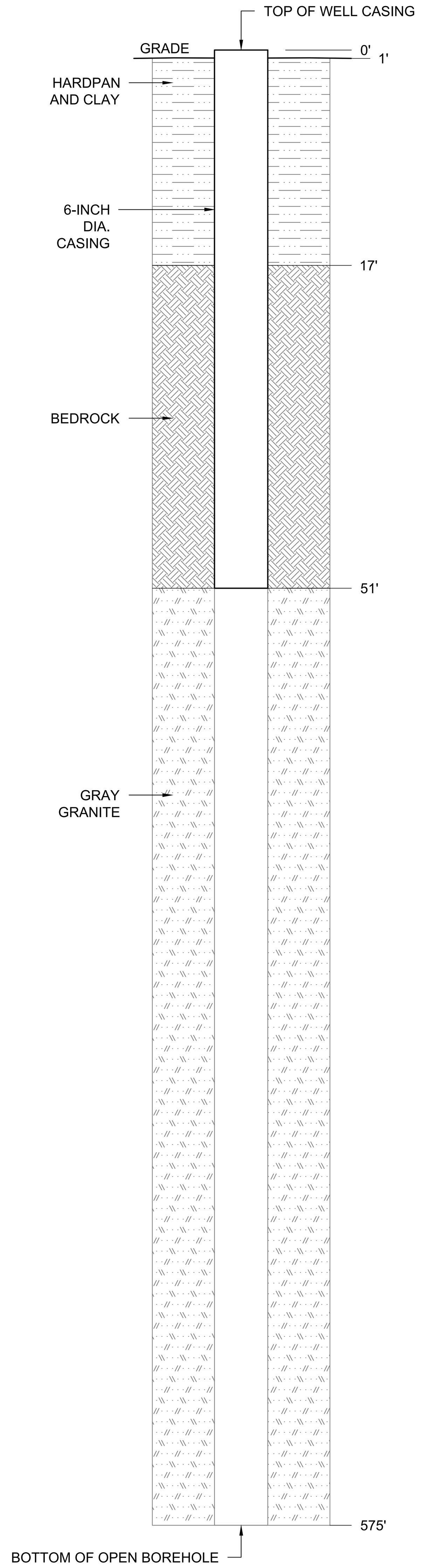
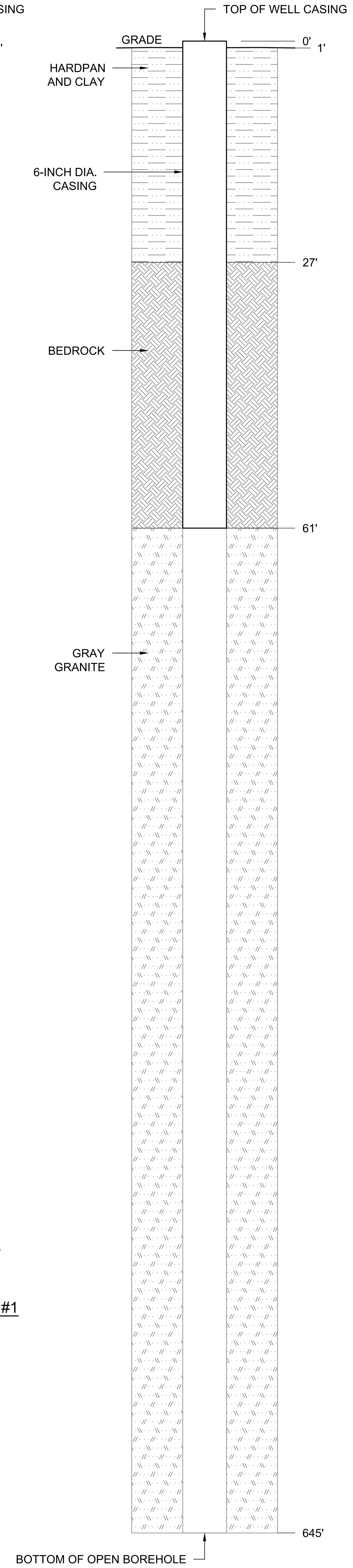
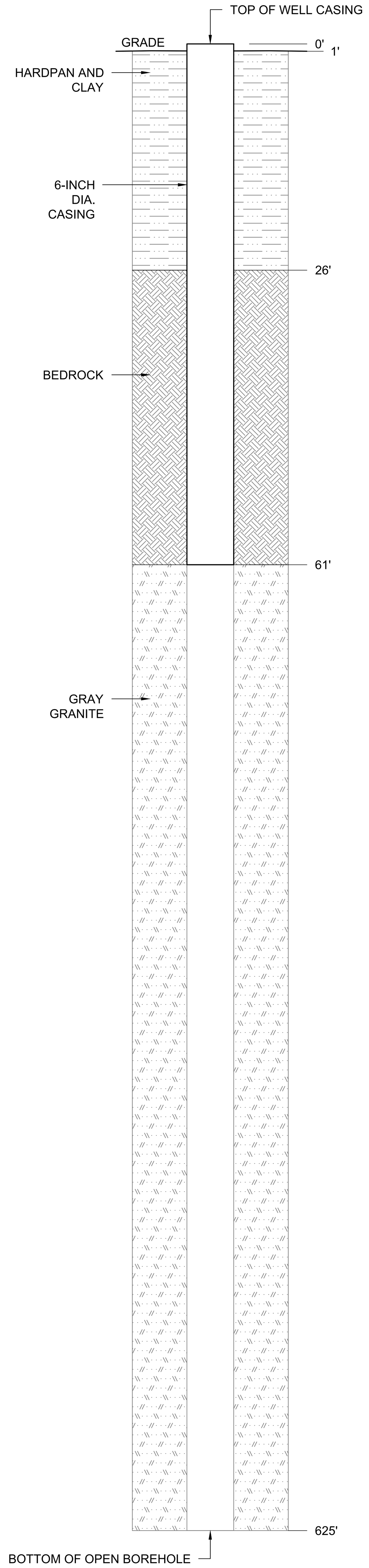


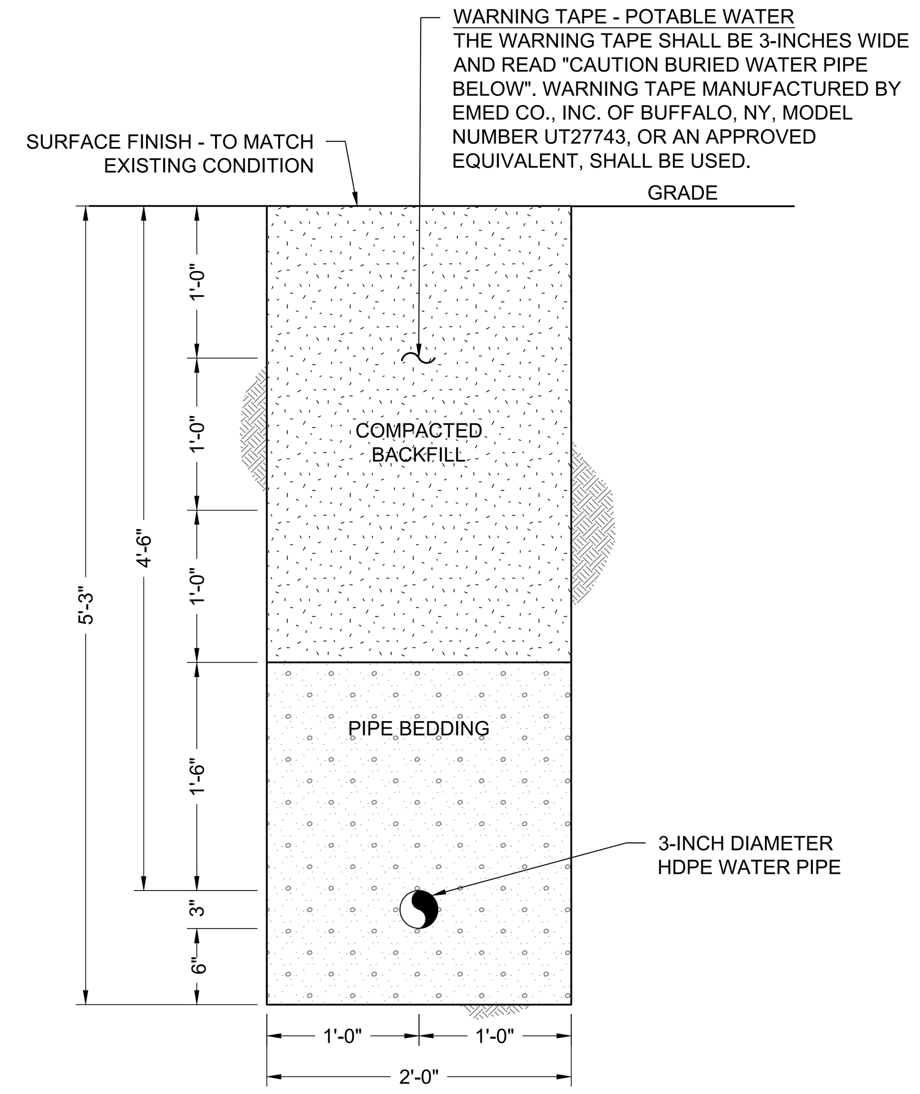
A/4 GEOLOGIC SETTING OF WELL #1
NOT TO SCALE



B/4 GEOLOGIC SETTING OF WELL #3
NOT TO SCALE

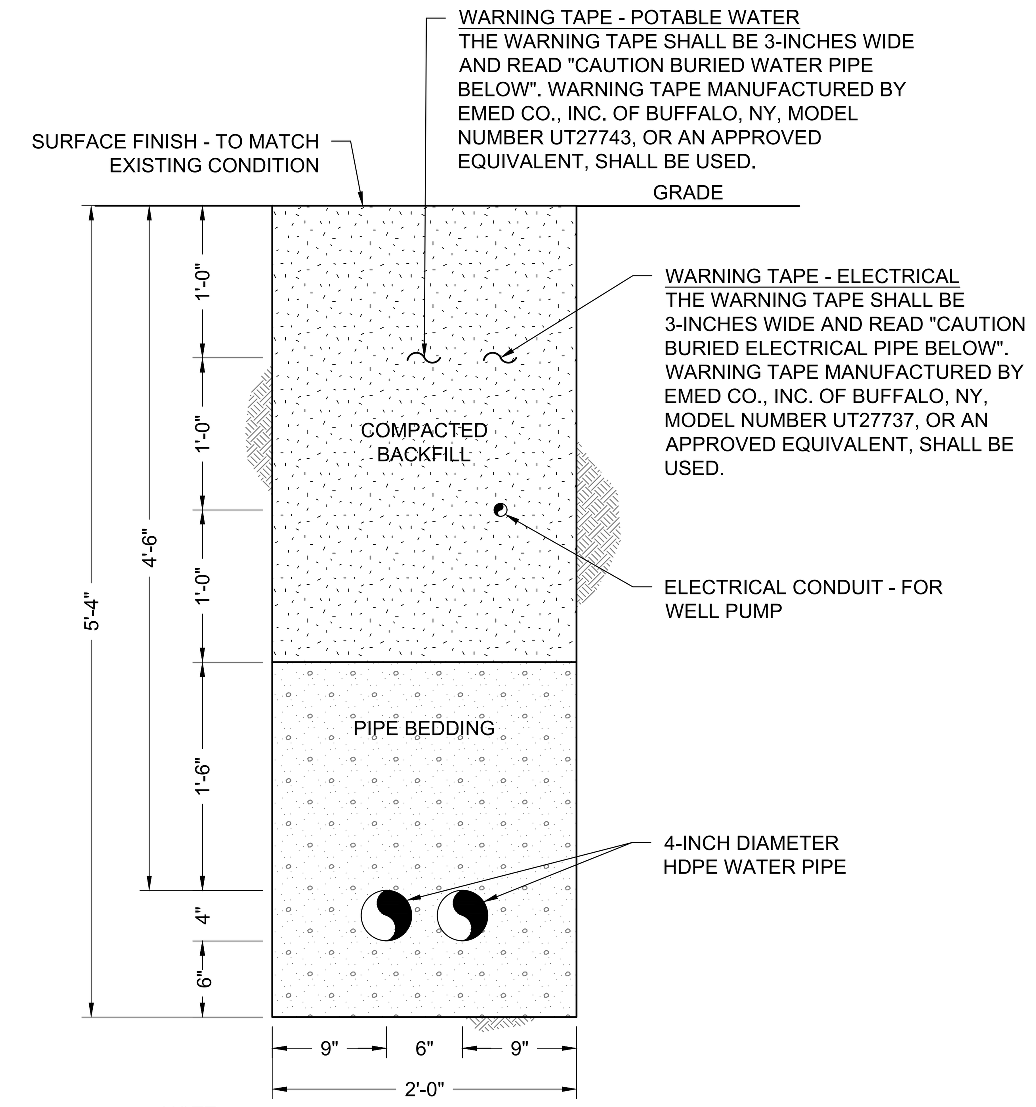


C/4 GEOLOGIC SETTING OF WELL #6A
NOT TO SCALE



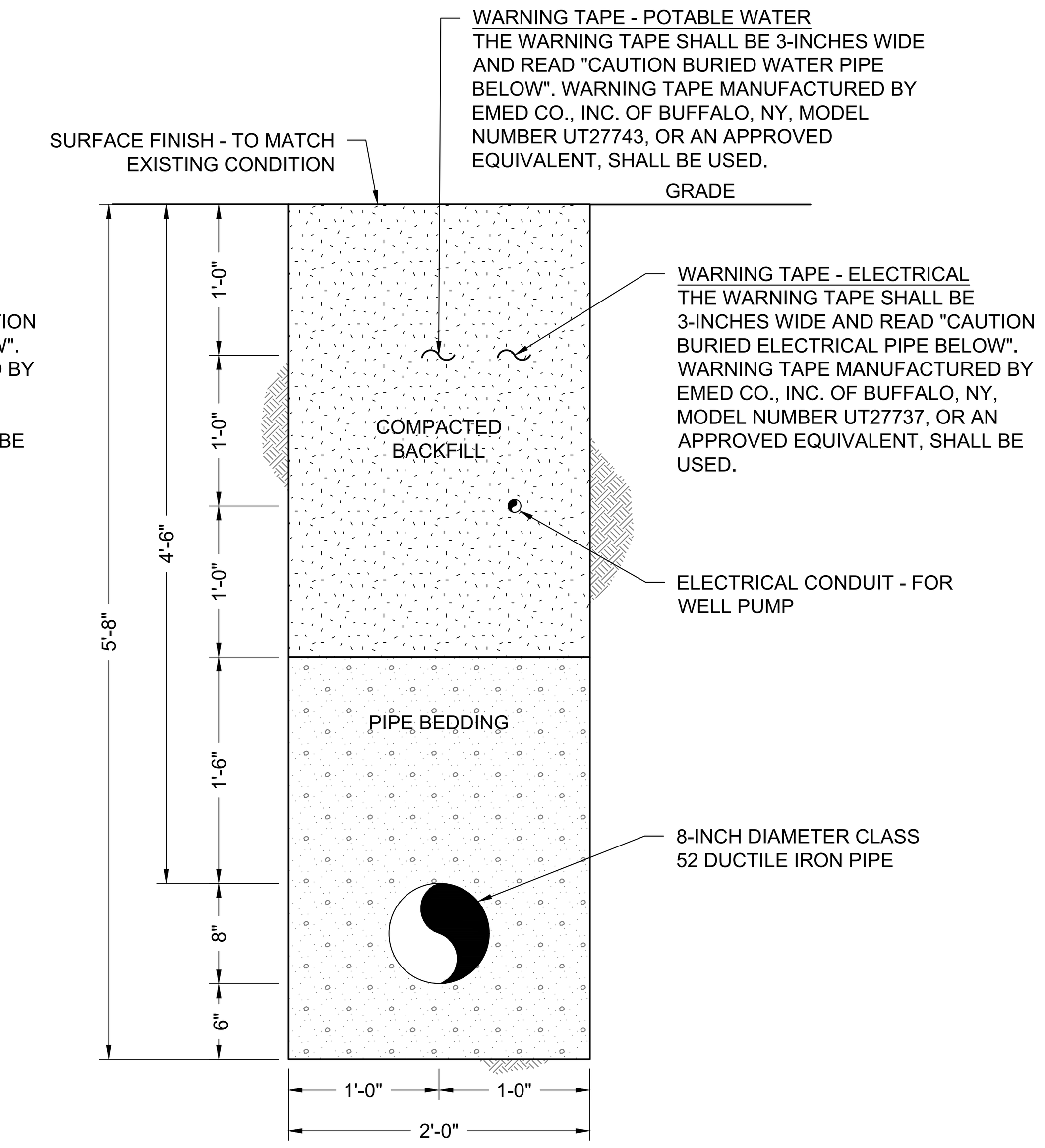
NOTE:
1. THE PIPE BEDDING SHALL BE ASTM CLASS III SAND AND SHALL NOT CONTAIN ANY COBBLES OR GRAVEL AND SHALL BE CLEAN AND FREE OF UNDESIRABLE MATERIAL.

D/4 TRENCH CROSS-SECTION - SINGLE RAW WATER PIPE
SCALE: 1" = 1'-0"
0 1
SCALE IN FEET



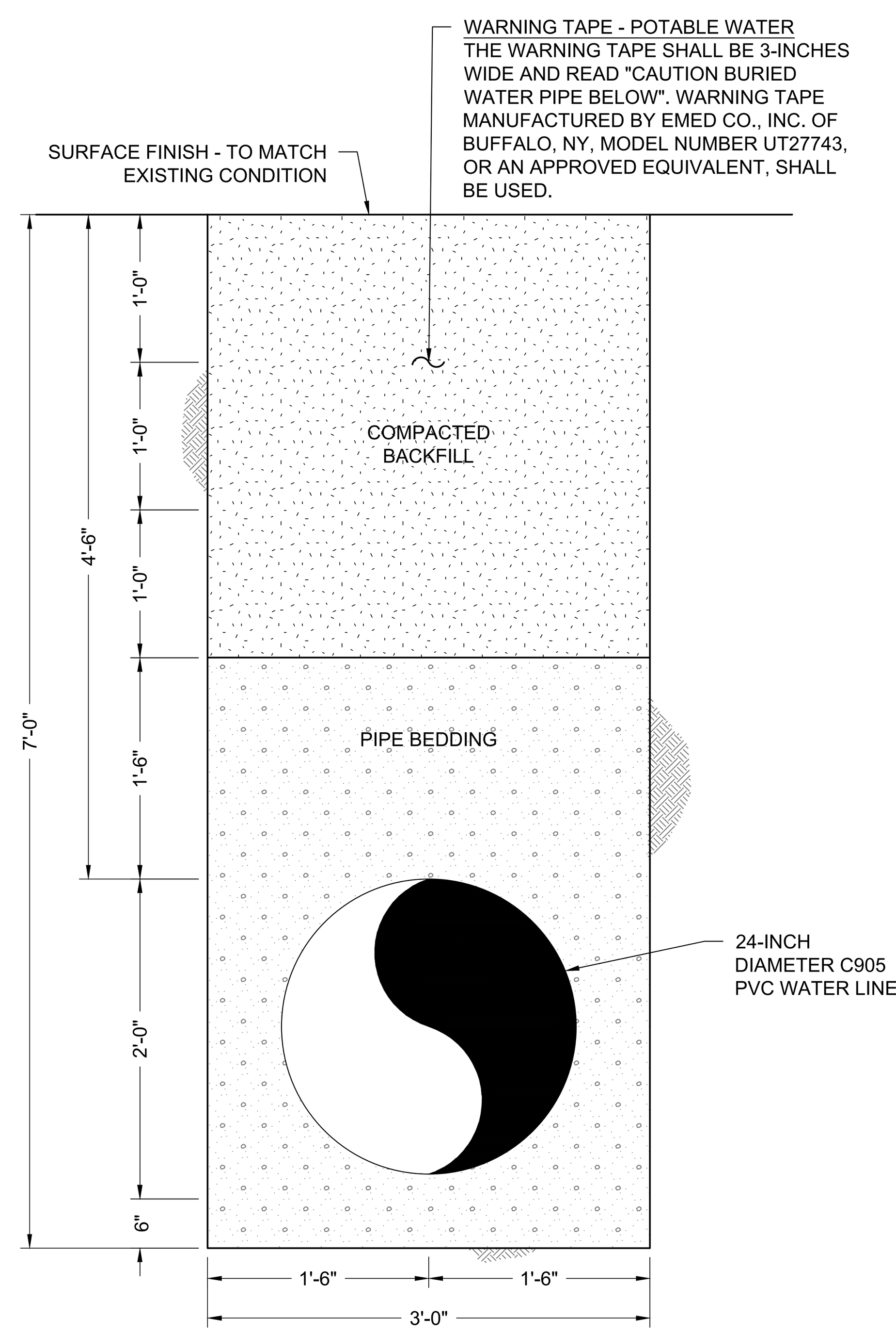
NOTE:
1. THE PIPE BEDDING SHALL BE ASTM CLASS III SAND AND SHALL NOT CONTAIN ANY COBBLES OR GRAVEL AND SHALL BE CLEAN AND FREE OF UNDESIRABLE MATERIAL.

E/4 TRENCH CROSS-SECTION - DOUBLE RAW WATER PIPE
SCALE: 1" = 1'-0"
0 1
SCALE IN FEET



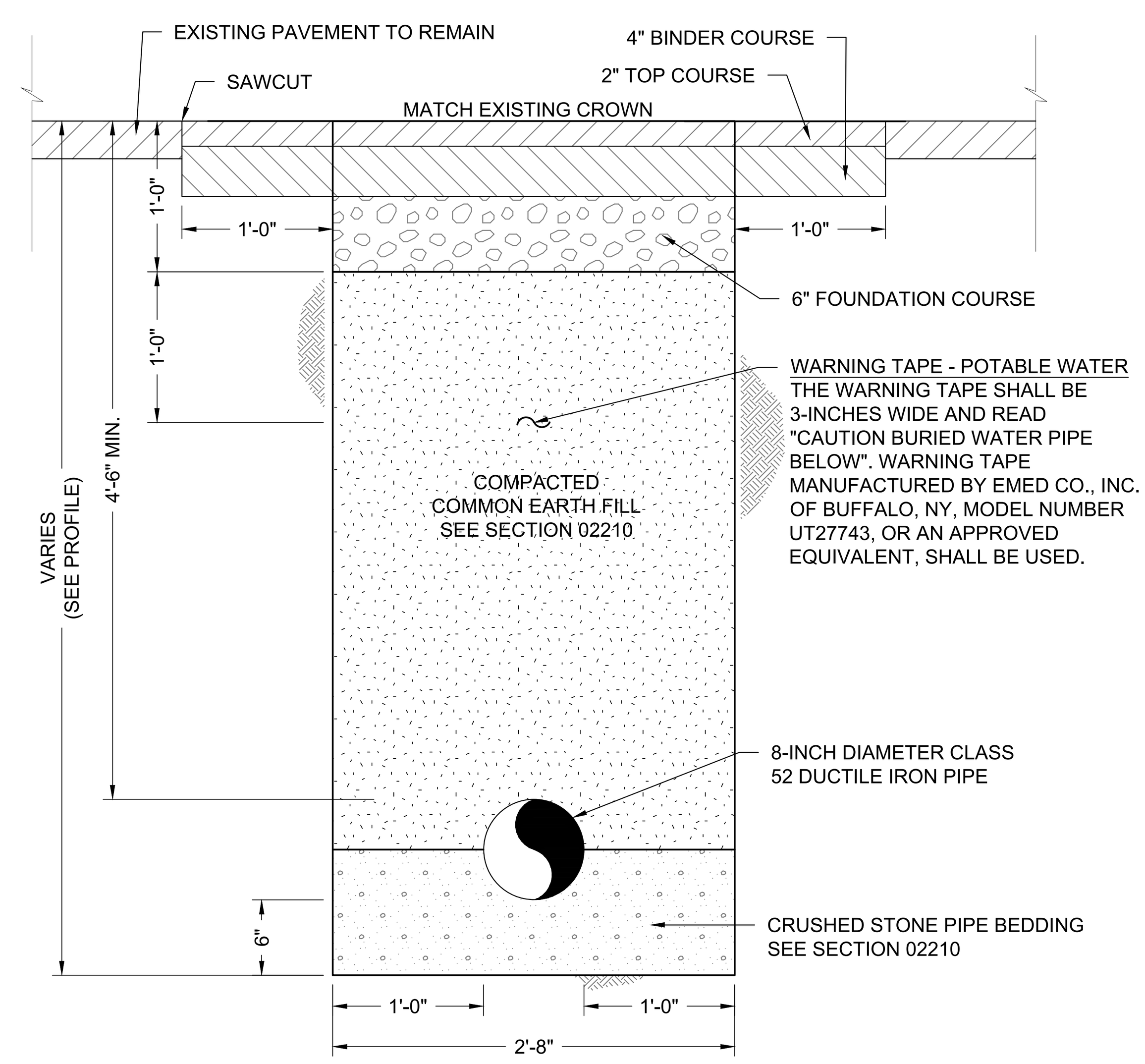
NOTE:
1. THE PIPE BEDDING SHALL BE ASTM CLASS III SAND AND SHALL NOT CONTAIN ANY COBBLES OR GRAVEL AND SHALL BE CLEAN AND FREE OF UNDESIRABLE MATERIAL.

F/4 TRENCH CROSS-SECTION - TRIPLE PIPE
SCALE: 1" = 1'-0"
0 1
SCALE IN FEET

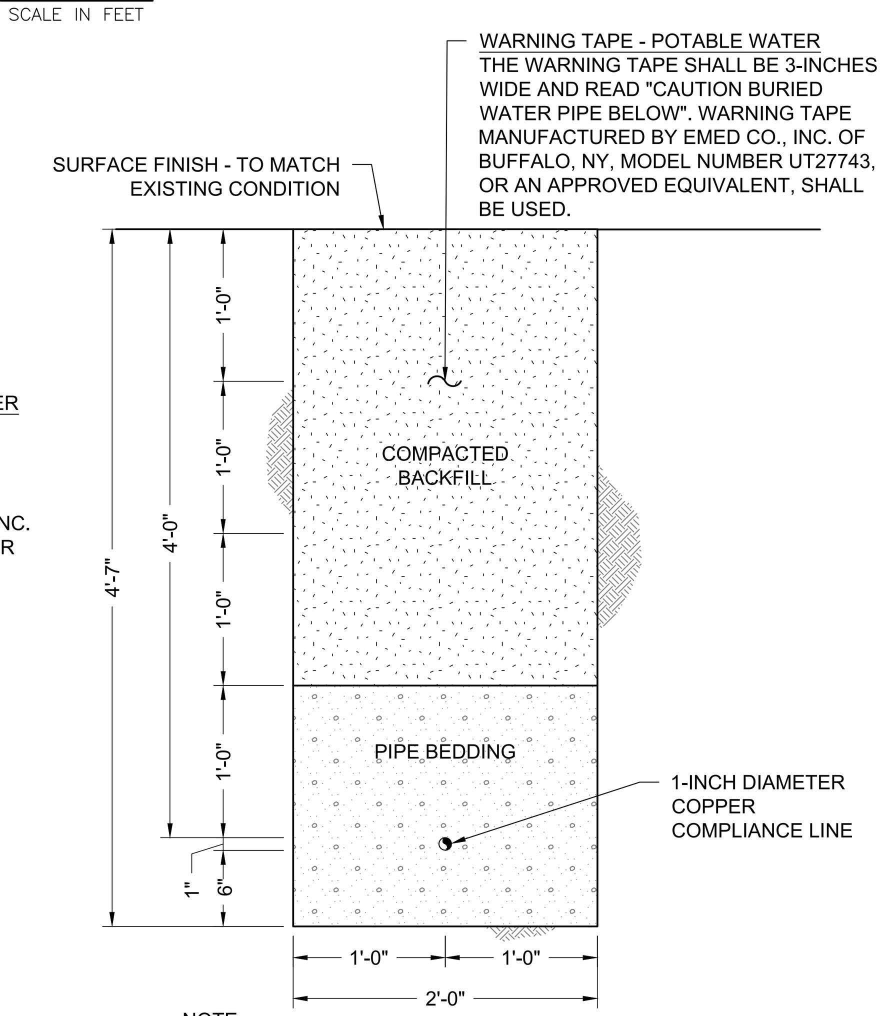


NOTE:
1. THE PIPE BEDDING SHALL BE ASTM CLASS III SAND AND SHALL NOT CONTAIN ANY COBBLES OR GRAVEL AND SHALL BE CLEAN AND FREE OF UNDESIRABLE MATERIAL.

G/4 TRENCH CROSS-SECTION - SINGLE PIPE - OVERSIZED WATER MAIN
SCALE: 1" = 1'-0"
0 1
SCALE IN FEET

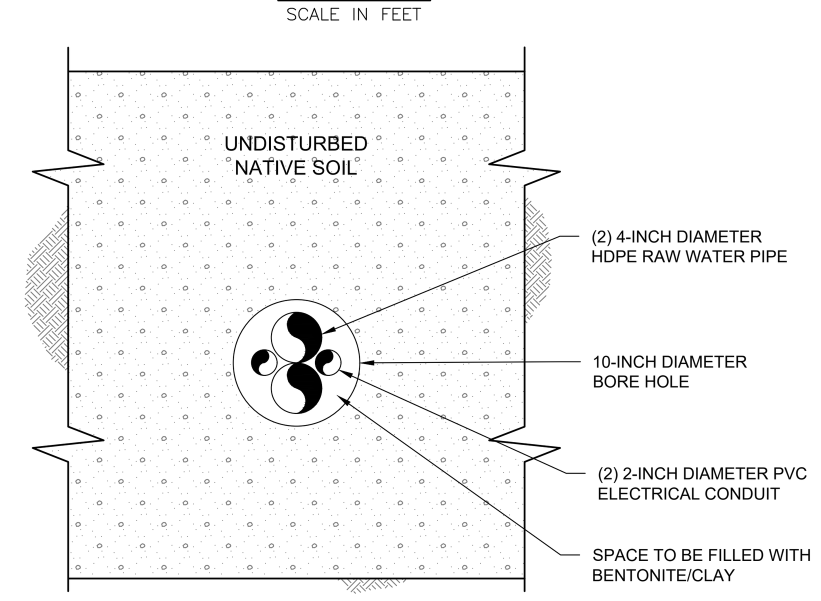


H/4 TRENCH CROSS-SECTION - SINGLE PIPE - DISTRIBUTION SYSTEM
SCALE: 1" = 1'-0"
0 1
SCALE IN FEET

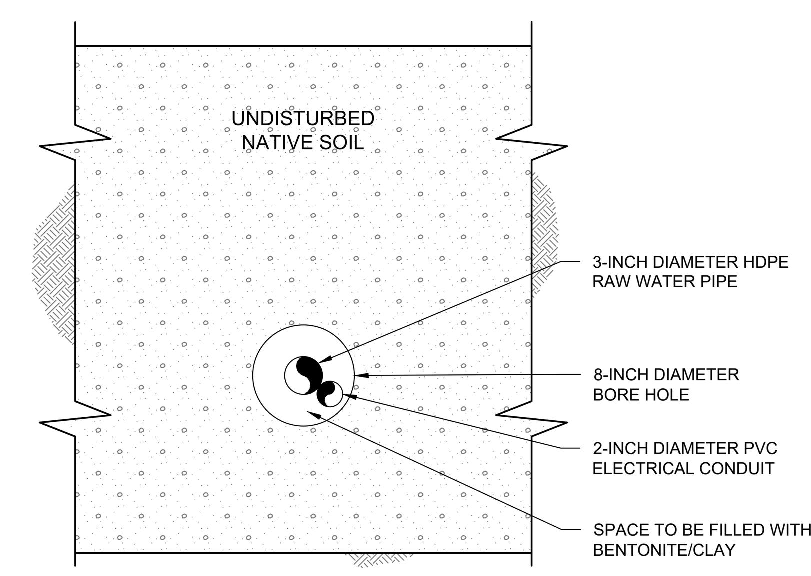


NOTE:
1. THE PIPE BEDDING SHALL BE ASTM CLASS III SAND AND SHALL NOT CONTAIN ANY COBBLES OR GRAVEL AND SHALL BE CLEAN AND FREE OF UNDESIRABLE MATERIAL.

I/4 TRENCH CROSS-SECTION - SINGLE PIPE - SERVICE CONNECTION
SCALE: 1" = 1'-0"
0 1
SCALE IN FEET



J/4 DIRECTIONAL DRILL - WELL #1 & Well #6A RAW WATER BORE HOLE
SCALE: 1" = 1'-0"
0 1
SCALE IN FEET



K/4 DIRECTIONAL DRILL - WELL #3 RAW WATER BORE HOLE
SCALE: 1" = 1'-0"
0 1
SCALE IN FEET

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WELL SETTINGS AND PIPING DETAILS

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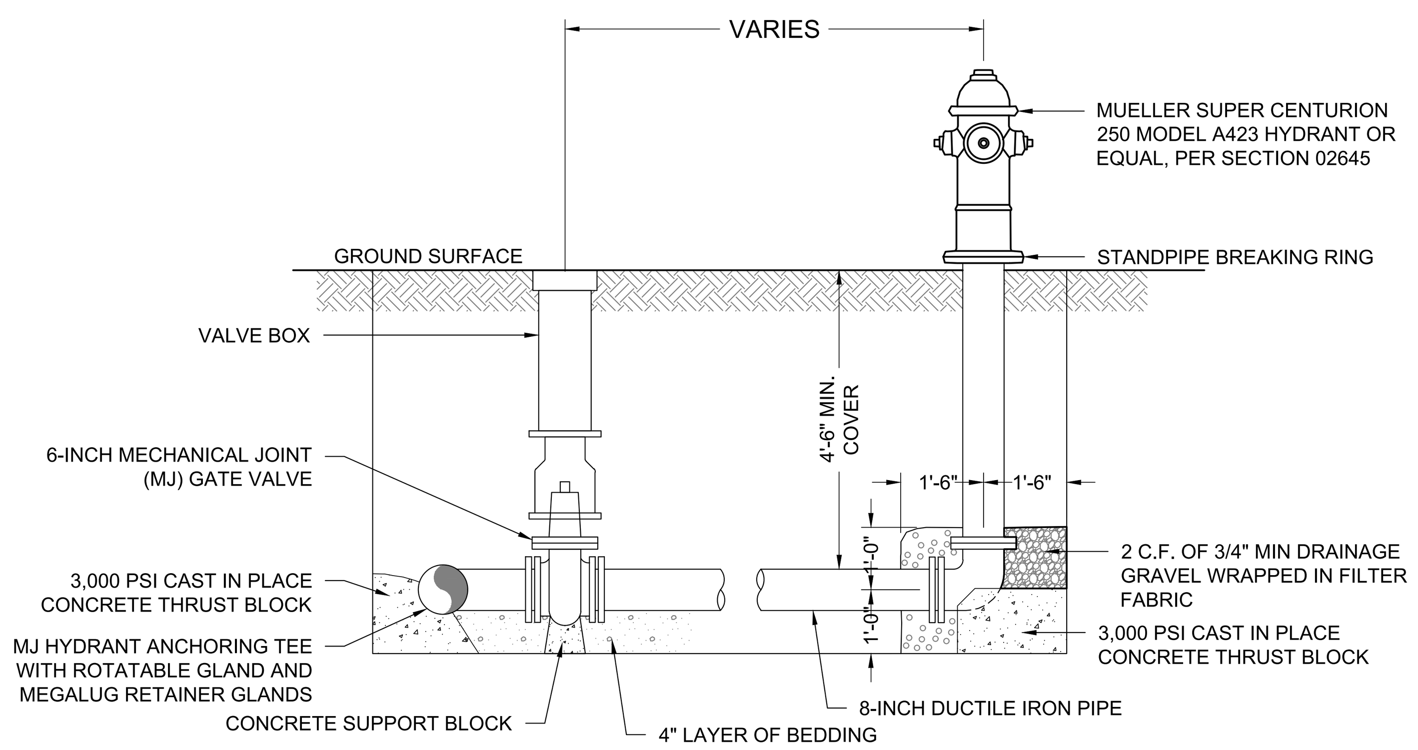
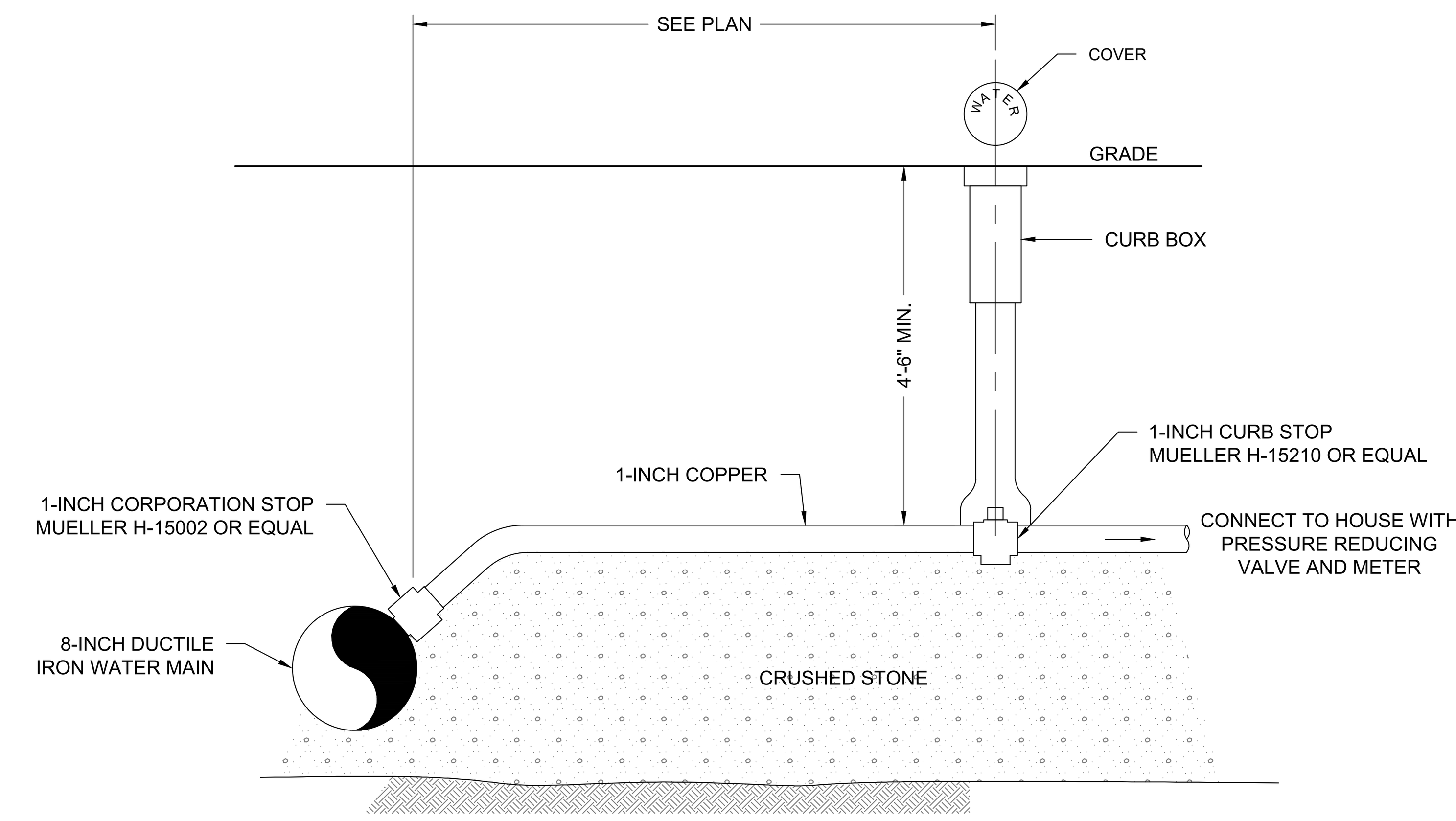
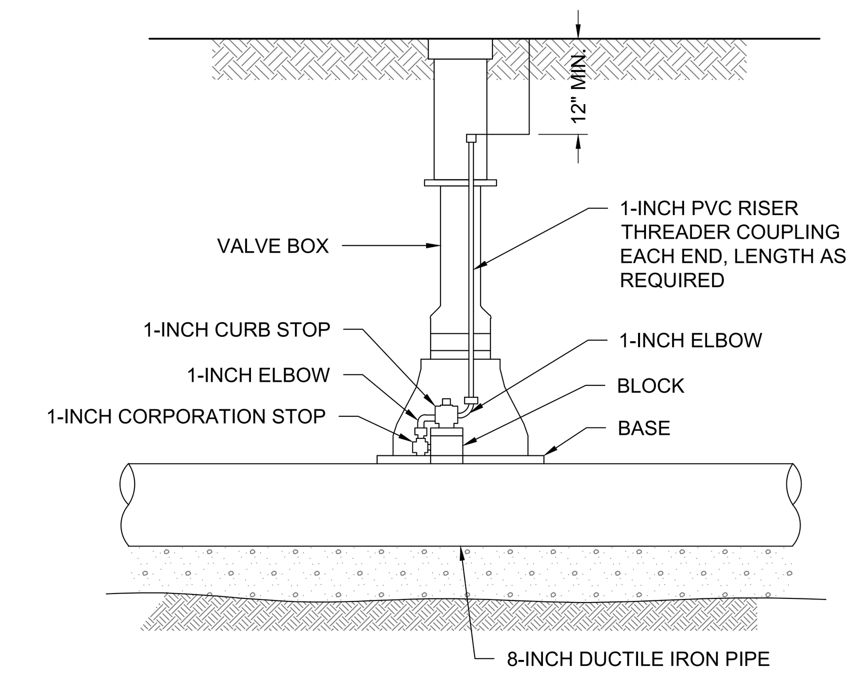


NOTES:
1. HYDRANT DRAINS SHOULD REMAIN PLUGGED WHEN GROUNDWATER IS ENCOUNTERED 2 FEET OR LESS BELOW THE BASE OF THE HYDRANT.
2. WHEN HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED UNLESS THE NATURAL SOILS WILL PROVIDE ADEQUATE DRAINAGE.
3. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FEET OF SANITARY SEWERS, STORM SEWERS, OR STORM DRAINS.
4. APPROXIMATE SIGNAGE MUST BE PERMANENTLY AFFIXED TO HYDRANT CITING REQUIREMENTS TO PUMP THE HYDRANT BARREL DRY AFTER USE TO PREVENT DAMAGE DURING FREEZING WEATHER.

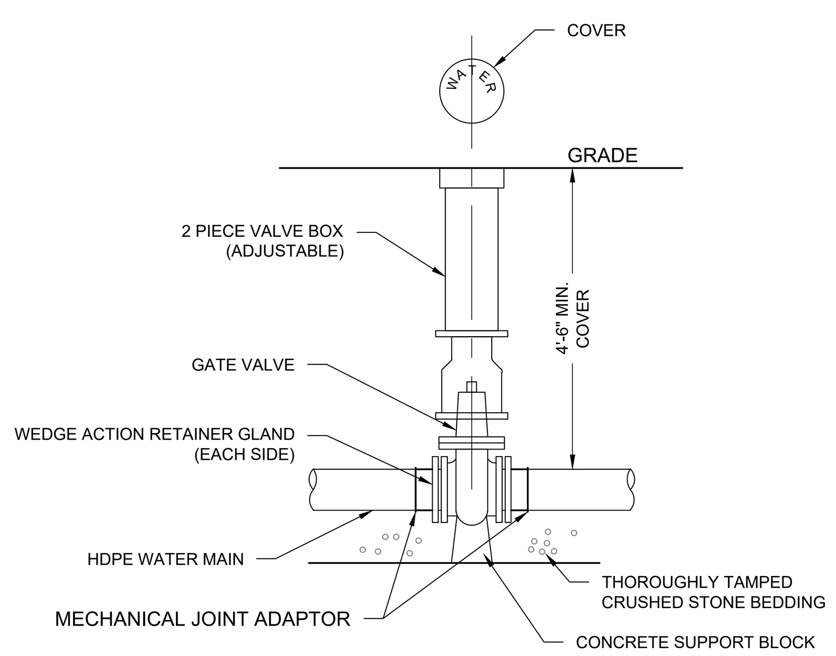
A/5 HYDRANT DETAIL - TYPICAL
NOT TO SCALE



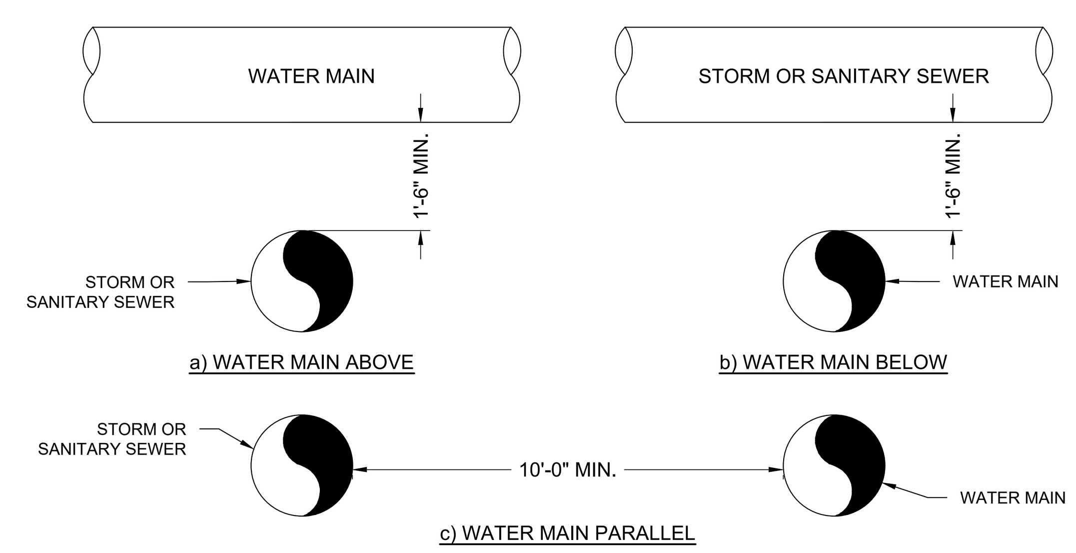
B/5 1-INCH TAP DETAIL (BY OTHERS)
NOT TO SCALE



C/5 HAND OPERATED AIR RELEASE VALVE ASSEMBLY DETAIL
NOT TO SCALE



D/5 VALVE DETAIL - TYPICAL, BURIED
NOT TO SCALE



NOTE:
AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. SPECIAL STRUCTURAL SUPPORT FOR THE WATER AND SEWER PIPES MAY BE REQUIRED.

E/5 PIPING SEPARATION DETAIL - PIPE CROSSING AND PARALLEL PIPE INSTALLATION
NOT TO SCALE

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PIPING DETAILS

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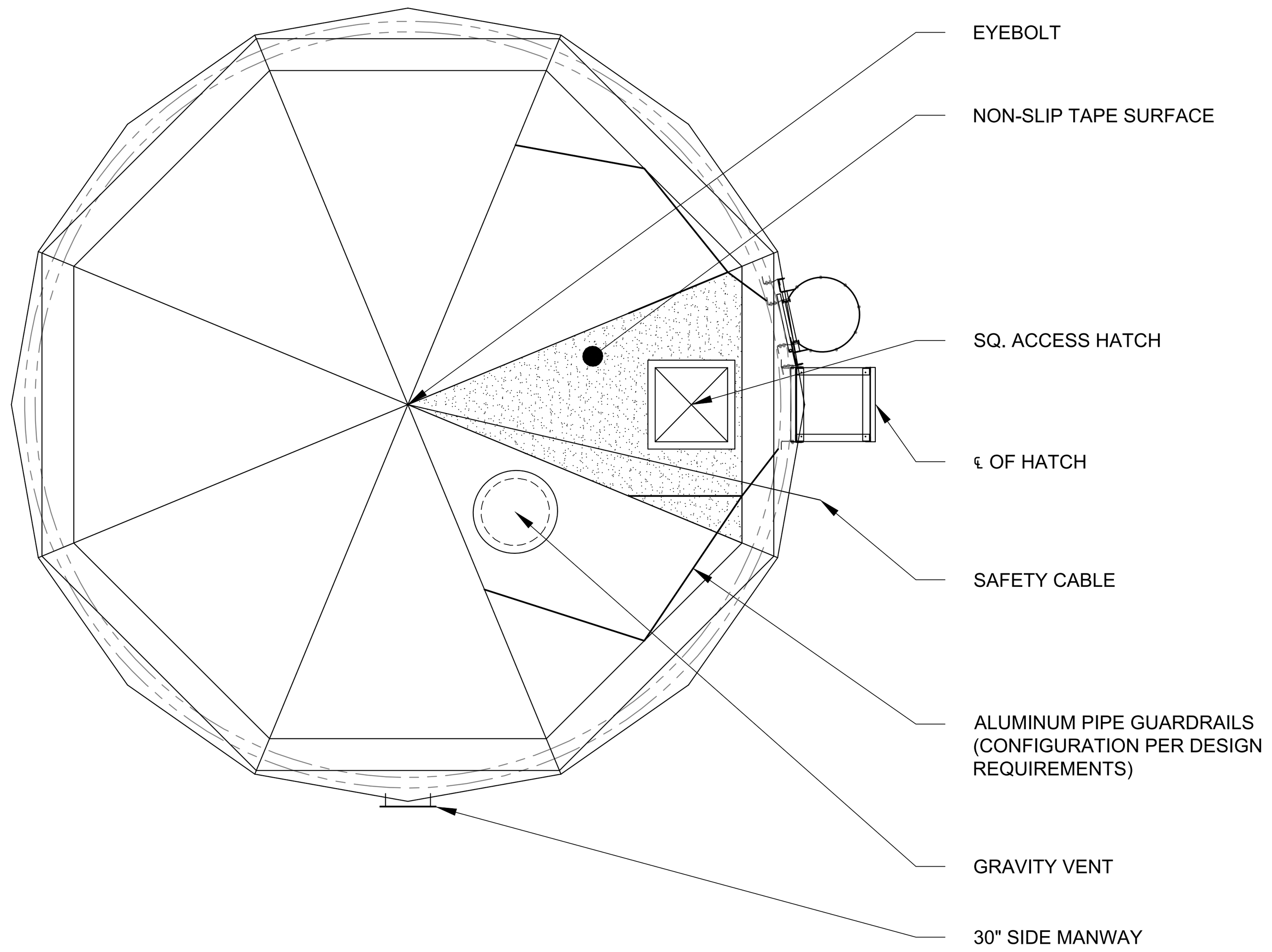
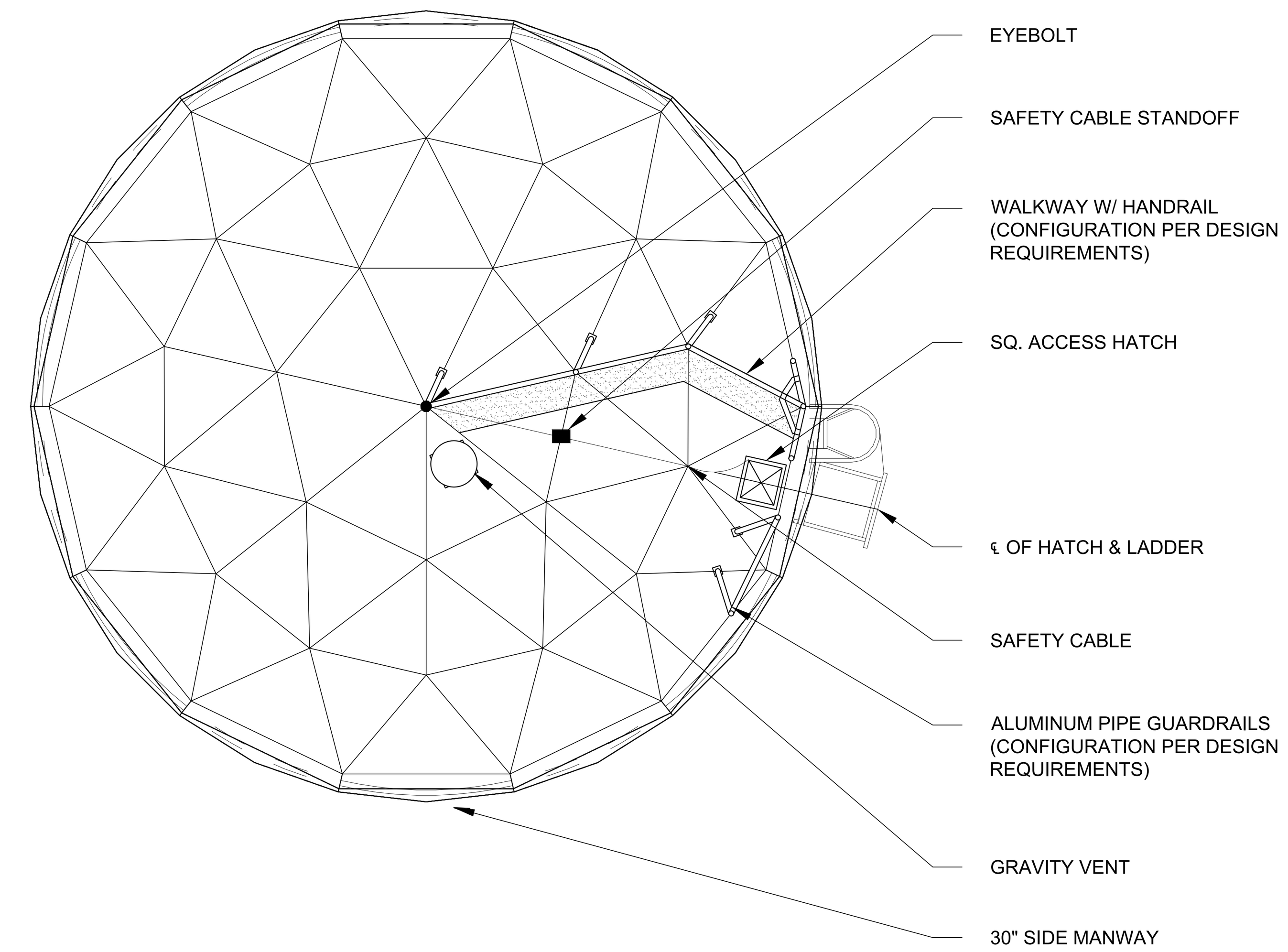
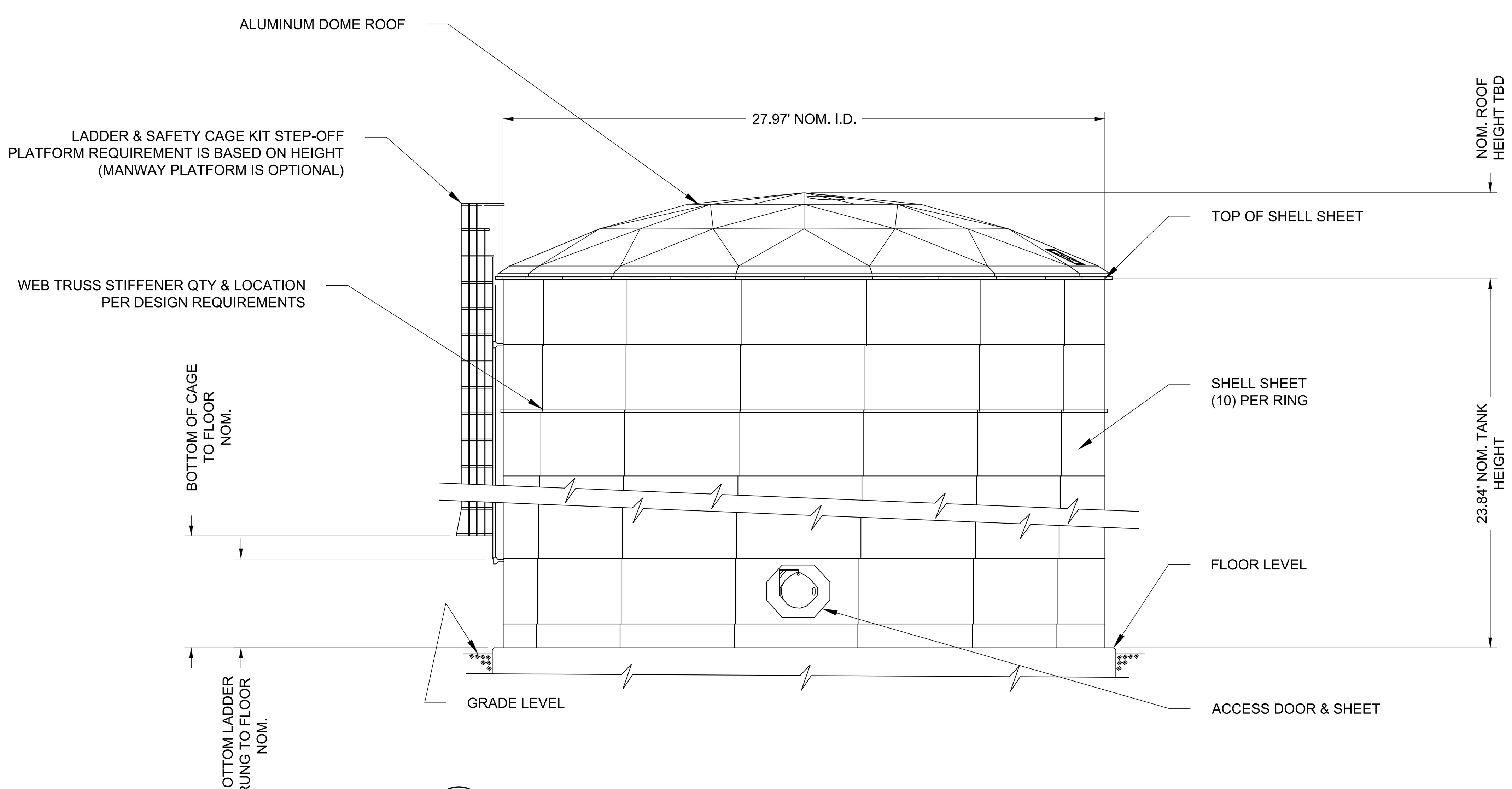


A
6
PLAN VIEW - TANK
SCALE: 1" = 5'-0"



B
6
PLAN VIEW - DOME ROOF
SCALE: 1" = 5'-0"



C
6
PROFILE VIEW - TANK
SCALE: 1" = 5'-0"

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205,000-GALLON ABOVE GRADE POTABLE WATER ATMOSPHERIC STORAGE TANK DETAILS

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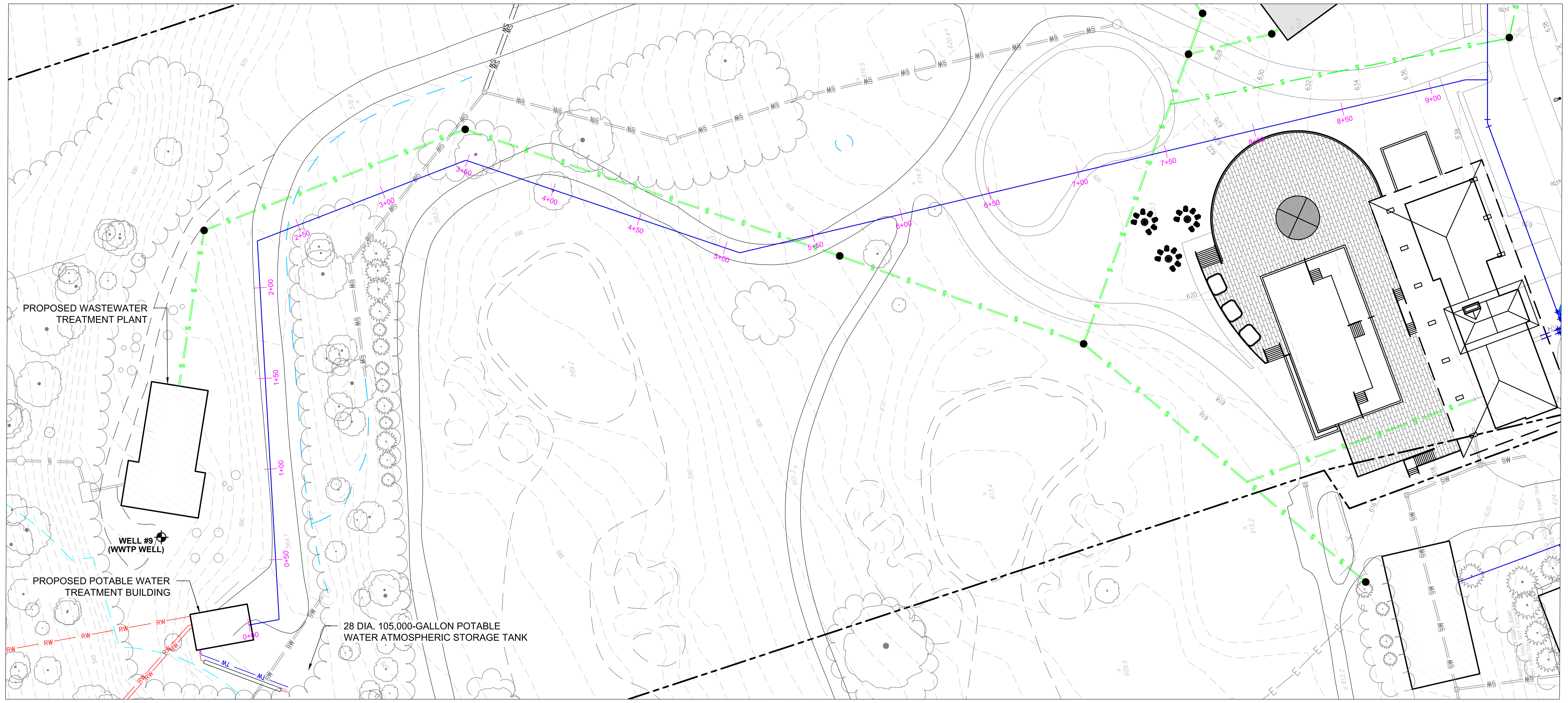
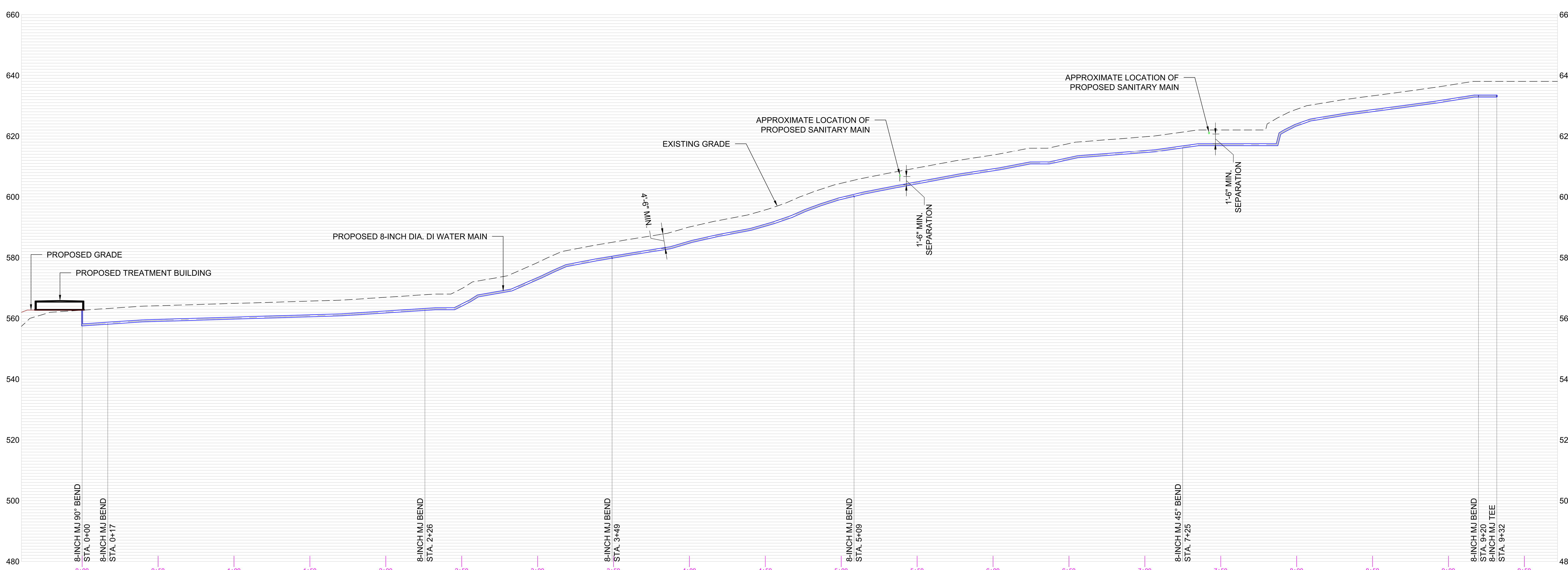


PLAN VIEW
SCALE: 1" = 40'



PROFILE VIEW
VERTICAL SCALE: 1" = 20'
HORIZONTAL SCALE: 1" = 40'

LEGEND

- PROPERTY BOUNDARY
- EXISTING CONTOUR
- EXISTING WELL
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- PROPOSED SANITARY SEWER MAIN
- PROPOSED 8-INCH DIA.DUCTILE IRON WATER MAIN
- PROPOSED 3-INCH DIA. HDPE RAW WATER PIPE
- 9+50 STATION NUMBER

0 20
VERTICAL SCALE IN FEET
0 40
HORIZONTAL SCALE IN FEET

D

SOURCE:
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DISTRIBUTION SYSTEM PLAN AND PROFILE

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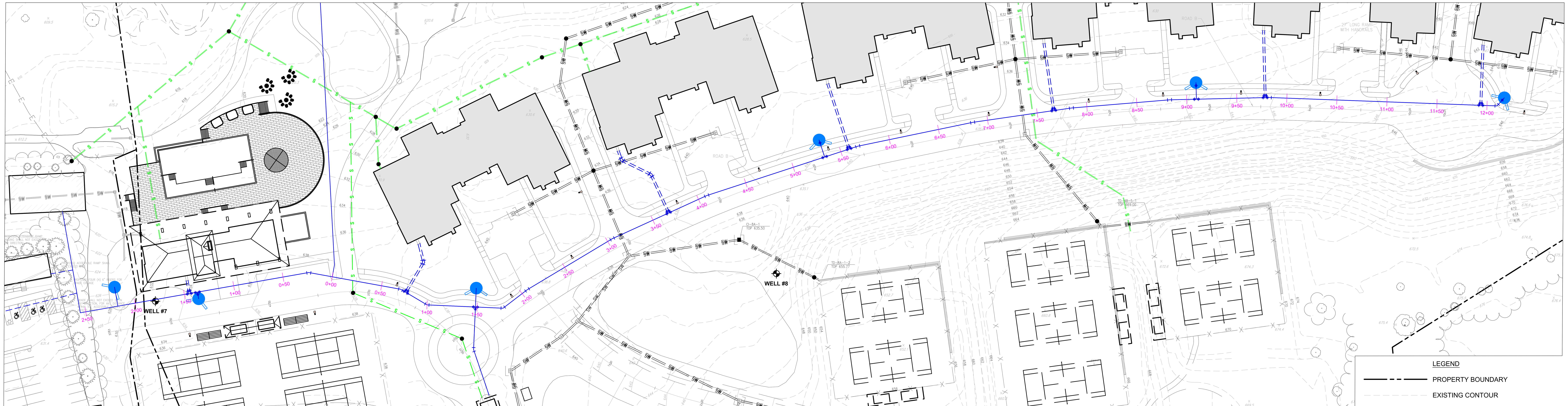
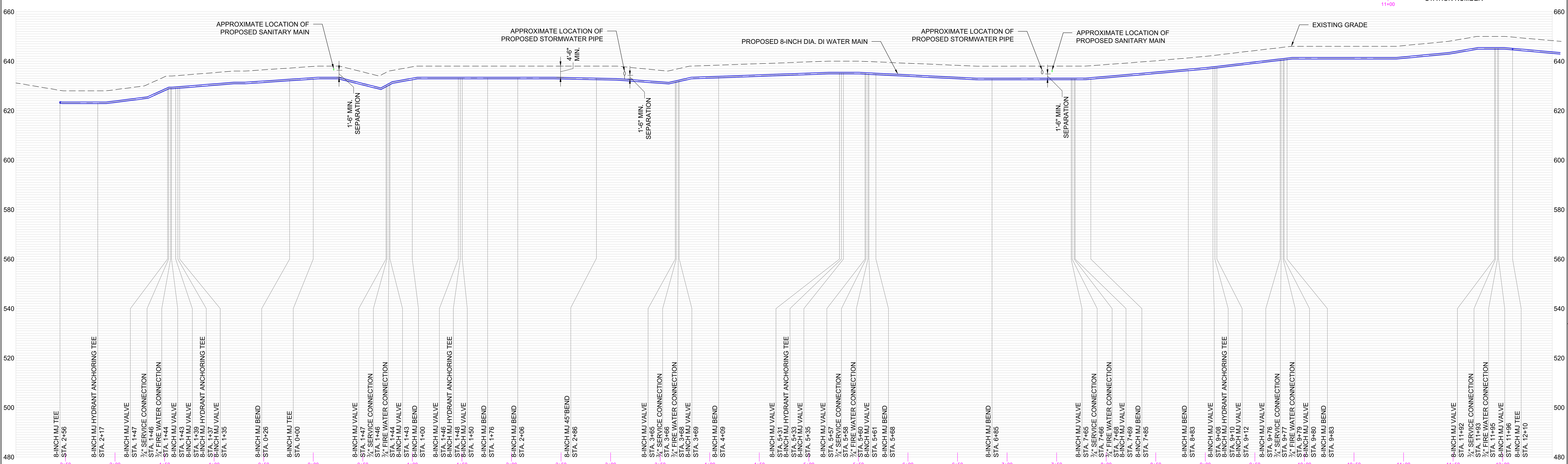


PLAN VIEW
SCALE: 1" = 50'

LEGEND

- PROPERTY BOUNDARY
- EXISTING CONTOUR
- EXISTING WELL
- PROPOSED STORMWATER PIPE
- PROPOSED SANITARY SEWER MAIN
- PROPOSED 8-INCH DIA. DUCTILE IRON WATER MAIN
- PROPOSED ¾-INCH DIA. DUCTILE IRON SERVICE CONNECTION
- PROPOSED 2-INCH DIA. DUCTILE IRON SERVICE CONNECTION
- PROPOSED FIRE HYDRANT
- STATION NUMBER



PROFILE VIEW
VERTICAL SCALE: 1" = 20'
HORIZONTAL SCALE: 1" = 50'

0 20 VERTICAL SCALE IN FEET
0 50 HORIZONTAL SCALE IN FEET

D

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