DYNAMIC
ENGINEERING EARTH SURVEY TRAFFIC

Transmittal

245 Main Street Suite 110, Chester, NJ 07930

PROJECT:	North Castle NY - JG Petrucci 2179-99-009	DATE:	7/12/2021
SUBJECT:	94 Business Park Drive	TRANSMITTAL ID:	00006
PURPOSE:	For your use	VIA:	Info Exchange

FROM

NAME	COMPANY	EMAIL	PHONE
Danielle Lescrinier 245 Main Street Suite 110 Chester, NJ 07930	Dynamic Engineering Consultants PC	dlescrinier@dynamicec.com	908-879-9229

TO

NAME	COMPANY	EMAIL	PHONE
planning@northcastleny.com		planning@northcastleny.com	

REMARKS:

Julie,

Please use the link to download our resubmission documents for 94 Business Park Drive:
- Site Plans
- Banked Option Plan
- SWPPP Report
- Engineering Response Letter

Let us know if you need anything else.

Thank you,
Danielle

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	7/12/2021	SWPPP - July 2021 FULL.pdf	
1	7/12/2021	Dynamic-94BusinessParkDr-ArmonkNY-SitePlansRev2.pdf	
1	7/12/2021	01 BANKED OPTION PLAN.pdf	
1	7/12/2021	2021-07-12 - Town of North Castle - Response Letter.pdf	

COPIES:

Transmittal

DATE: 7/12/2021
TRANSMITTAL ID: 00006

Dan Sehnal	(Dynamic Engineering Consultants PC)
John DeMartinis	(Dynamic Engineering Consultants PC)
afv@venezianox.com	
akaufman@northcastleNY.com	
Ko Hung Chan	(Dynamic Engineering Consultants PC)

Dynamic Engineering Consultants, PC
245 Main Street, Suite 110
Chester NJ 07930
T. 908-879-9229

July 12, 2021
Via Email

Town of North Castle
Conservation Board
17 Bedford Road
Armonk, NY 10504

Attn: Julie Mucker
Board Secretary

RE: Armonk Fairview, LLC &
Aggro and Brassi, LLC
Proposed Warehouse
Section 108.03; Block 1; Lot 50
94 Business Park Drive
Town of North Castle (Armonk)
Westchester County, NY
DEC #2179-99-009

Dear Ms. Mucker,

Enclosed please find the following information constituting our resubmission to the Planning Board:

- Signed and Sealed Preliminary and Final Site Plans prepared by our office dated February 19, 2021, revised July 12, 2021;
- Signed and Sealed Banked Option Plan prepared by our office dated February 19, 2021, revised July 12, 2021; and
- Signed and Sealed Stormwater Pollution Prevention Plan Report prepared by our office dated July 2021.

The following are responses to an engineering review letter prepared by Kellard Sessions dated March 5, 2021:

1. As illustrated on the plan, the project site is located partially within the FEMA regulated floodplain of the Byram River, a FEMA regulated floodway. As per effective FEMA FIRM Maps, the floodplain is designated as a Zone AE, with a base flood elevation (BFE) of ±Elevation 370.5. While no development is proposed to occur within the floodplain, the applicant will be required to obtain a Floodplain Development Permit, as required by Chapter 177 – Flood Damage Prevention of the Town Code. The Existing Condition Site Plan shall clearly illustrate the boundaries of the floodplain and floodway and include references to the FEMA Effective FIRM Maps and floodplain elevation.

   A Floodplain Development permit will be obtained. None of the proposed improvements will be located within the floodplain, as shown on the accompanying engineering drawings.

2. The Byram River flows generally north to south along the eastern property boundary. This watercourse is a locally-regulated wetland/watercourse, as well as a New York State Department of Environmental Conservation (NYSDEC) Class C(T) stream. The plan illustrates a 50 foot buffer; however, Chapter 340, Wetlands and Watercourse Protection of the Town Code requires a 100-foot regulated buffer. Please revise the plan to illustrate this. The regulated buffer area will extend onto the property and, as such, require a local Wetland Permit. In addition, improvements specific to the stormwater management system appear to extend to within 50 feet of the bed and banks of the Byram River. As such, the applicant shall provide confirmation from NYSDEC as to whether an Article 15, Protection of Water Permit will be required.

The 100-foot regulated buffer has been indicated on the plan. There is an approval pending from the Conservation Board for the Wetland Permit. All proposed improvements are located outside of the buffer, so a Protection of Water Permit will not be required.

3. The project site is located within the check zone of NYSDEC Freshwater Wetland, G-2. As such, the applicant shall provide confirmation from the NYSDEC as to whether an Article 24, Freshwater Wetland Permit, will be required for the project. If required, the applicant shall provide a validation map signed by the NYSDEC, establishing the boundaries of the State regulated wetland.

   Per correspondence with the NYSDEC, these are not state-regulated wetlands. Therefore, a Freshwater Wetland Permit will not be required.

4. The applicant shall confirm whether the wetland boundary illustrated on the plan has been established in the field with fluorescent, sequentially numbered ribbons. Once confirmed, please notify this office for field verification of the boundary by the Town Wetland Consultant.

   The wetland boundary has been identified and verified by the Town Wetland Consultant.

5. We note that the Byram River is a Westchester County controlled stream. Development is proposed within 100 feet of its banks and will require a Westchester County Department of Public Works (WC DPW) Stream Control Permit.

   Application for a Stream Control Permit will be submitted following Planning Board Approval.

6. As previously indicated, the plan proposes disturbances within the locally regulated 100-foot buffer of the Byram River and associated fringe wetland area. The applicant will be required to prepare a Wetland Mitigation Plan, providing a minimum mitigation ratio of 2:1, for unavoidable disturbances within the wetland/wetland buffer, as required by Chapter 340, Wetlands and Watercourse Protection of the Town Code. The Wetland Mitigation Plan shall include, at a minimum, a summary table illustrating and quantifying the total area of disturbance for the project, the disturbance area within the wetland and wetland buffer, existing and proposed pervious and impervious surface areas within the wetland and wetland buffer, as well as the total area of wetland mitigation proposed. We recommend that once the plan is developed that the Planning Board refer the plan to the Conservation Board for review and consideration.

   The proposed mitigation includes removing invasive species from the wetland area. There is a pending application submitted to the Conservation Board for review.

7. We note that, as required by Town Code, the applicant will be required to provide a long-term monitoring and maintenance plan for the proposed wetland mitigation for a period of at least5 five (5) years. This office will provide standard conditions for this plan for inclusion on the Wetland Mitigation Plan.

   A long-term monitoring and maintenance plan for the proposed wetland mitigation will be provided.

8. The site plan indicates available sight line distances for vehicles exiting both proposed driveway locations. The plan, however, should be expanded to illustrate the entirety of the available sight distance, as well as include sight line profiles for these locations. The profile shall be taken from a vehicle 14 feet from the edge of the traveled way, with the driver's eye at 3.5 feet above finish grade, to an object in the road 2 feet above grade. The plan should identify whether any additional existing vegetation along the right-of-way of Business Park Drive will require removal to maintain adequate sight lines.

The plan has been revised to show the sight line profiles. The sight line is complete in the roadway, as there are no obstructions.

9. The applicant should illustrate turning movements, around the proposed building and exiting the site, for fire apparatus vehicles and tractor trailers of a size anticipated to utilize the site. The plan should be referred to the Armonk Fire Department for review of adequate emergency access and location(s) of proposed fire hydrant(s).

   The plans have been updated to illustrate turning movements.

10. The plan proposes a total of 150 parking spaces, including six (6) accessible parking spaces, as required by Section 355-56N (1) of the Town Code. For clarity, Site Plan Note No. 8C should be corrected to indicate this as well.

    Site Plan Note No. 8C has been revised as required.

11. The plan shall include proposed driveway profiles to demonstrate compliance with Section 355-59, Driveways of the Town Code.

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12. The applicant has provided a Lighting Plan for consideration by the Planning Board. We note that the proposed fixture height is 25 feet above grade, which appears to be higher than normally accepted by the Board.

    Acknowledged.

13. The applicant has provided a Landscape Plan for consideration by the Planning Board. We note that the proposed fixture height is 25 feet above grade, which appears to be higher than normally accepted by the Board.

    Our office has received a landscape approval from the ARV. A tree removal summary is shown on the plan.

14. The plan proposes approximately 5.2 acres of disturbance, which will require the owner to prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Chapter 267, Stormwater Management of the Town Code, as well as to obtain coverage under the NYSDEC SPDES General Permit (GP-0-20-001) FOR Stormwater Discharge from Construction Activities. The applicant has prepared a Stormwater Management Report and Erosion and Sediment Control Plan for review. We will defer a detailed review of the plan and report until it is developed further to address the following preliminary comments for consideration (our office is available for a technical review meeting if desired).

    a. The SWPPP shall be revised to acknowledge the requirement for compliance under the General Permit, as well as include discussions related to required inspections and frequency by a Qualified Professional, the need for a Trained Contractor, sequence of construction etc.

       The operations & maintenance information is included with the submission of the SWPPP.

    b. The SWPPP shall include a draft copy of the Notice of Intent (NOI) and MS4 Acceptance Form for review.

       A draft copy of the Notice of Intent (NOI) and MS4 Acceptance Form will be included with the final submission.

c. The proposed water quality treatment does not appear to meet the requirements of the New York State Stormwater Management Design Manual (NYS SMDM) for redevelopment projects (Chapter 9). The plan proposes a closed-pipe detention system to collect roof runoff (Drainage Area, DA-2) with no water quality treatment provided. In addition, water quality treatment is only provided for the rear portion of the parking lot (Drainage Area, DA-3) and provides for direct discharge of stormwater runoff from the front parking area (Drainage Area, DA-3) to the Byram River without the benefit of water quality treatment. The plan must be revised to provide stormwater quality treatment for all areas. Volume and/or peak treatment rate calculations shall be provided for each system.

The plan has been revised to provide stormwater quality treatment for all areas.

d. The water quality sizing calculations appear to only provide for 25% of the required treatment. Unless the plan is revised to include the use of standard stormwater mitigation practices, the plan shall provide 75% of the required water quality treatment for all redeveloped areas and 100% of the required water quality treatment for all newly developed or expanded areas. The water quality volume calculations provided in the SWPPP shall be updated accordingly and include the entire tributary drainage area.

The stormwater management design has been revised to provide water quality treatment for all redeveloped areas.

e. It appears that the proposed detention system, as designed, does not meet the requirements for alternative stormwater treatment practices, as described in the NYS SMDM, specifically as it relates to treatment via permanent pools, baffles or other proprietary method.

The proposed detention system has been revised to comply with NYS SMDM.

f. The SWPPP includes curve number (CN) calculations for existing and proposed drainage areas; however, they appear to be incomplete and do not provide the final resulting CN value. Please revise as necessary.

The CN values have been revised.

g. The hydrologic and hydraulic calculations provided in the SWPPP should include the routing calculations through the detention system and control structure, as well as the water quality treatment units. Include the outlet control structure model data.

These calculations have been included in the Appendix of the Stormwater report.

h. The SWPPP should include pipe capacity calculations demonstrating adequate capacity for the peak discharge flow rates.

Pipe capacity calculations are included within the Appendix of the Stormwater Management report.

i. The proposed stormwater practices do not currently rely on infiltration or underlying soils. As such, deep and percolation soil testing is not required. Should the design of the practices change and require soil testing, please coordinate with this office so that the testing can be witnessed by our office as required.

Acknowledged.

j. The SWPPP shall clearly demonstrate the overflow bypass rate provided by the water quality unit to ensure safe passage of the 100-year design flow.

The Stormwater Management report will be revised to include 100-year design flow following approval of the proposed water quality design.

k. The SWPPP and Erosion and Sediment Control Plan shall include a construction sequence and phasing plan, limiting disturbance for a particular phase of construction to no more than five (5) acres. The phases shall be clearly identified on the stormwater plan.

The Stormwater Management report will be revised to include 100-year design flow following approval of the proposed water quality design.

l. The construction phasing and sequence described on the Stormwater Pollution Prevention Plan (Sheet 8 of 13) shall be expanded based on the phasing described above, as well to include provisions for temporary sediment basins, protection of drainage facilities throughout construction, conversion to allow stormwater mitigation systems to go on-line, wetland mitigation, etc.

The Stormwater Management report will be revised to include 100-year design flow following approval of the proposed water quality design.

m. The plan requires the import of approximately 2,000 cubic yards of material. The erosion and sediment control plan shall clearly illustrate the ability to adequately stage and stockpile this material on site and not require the queuing of trucks within Business Park Drive.

The stockpile location is indicated on the Erosion and Sediment Control plan.

n. The Erosion and Sediment Control Plan should incorporate a temporary construction access road, in lieu of proposing to utilize the existing paved drive, in order to eliminate the potential for off-site sediment transport to Business Park Drive.

The Erosion and Sediment Control plan proposes the use of the existing paved access drive for construction vehicles.

o. The plan should consider the use of temporary sediment basins throughout construction to not only collect sediment from stormwater runoff but to also be used for dewatering activities that may be required. Provide details.

Acknowledged. Details of any sediment basin will be provided if required.

p. According to available New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP), the project site is located within an archeological sensitive area. As such, the SWPPP shall include confirmation from NYSOPRHP, indicating no adverse impact.

A letter has been received from the New York State Office of Parks, Recreation and Historic Preservation indicating that NYS OPHRP has no concerns regarding the proposed project under SEQRA.

q. The SWPPP shall include a discussion related to long-term operation and maintenance and designate the responsible parties both during and after construction. A Long-Term Maintenance Agreement will be required to be put in place by the owner. A draft agreement should be provided for review by the Town Attorney.

The operation & maintenance information is included with this submission. A maintenance agreement will be drafted and provided when/if final Planning Board approval is obtained.

15. The plan should include profiles for all drainage conveyances to demonstrate adequate cover and slope and that there are no conflicts with other utilities.

    The plan has been revised to include profiles.

16. The site plan illustrates a wet tap for the proposed water service. This should be reviewed with the Town Water and Sewer Department as well as any potential requirement for remote metering and backflow protection. The applicant should clarify whether individual services for domestic water and fire protection are required for the building.

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    Our office will work with ConEdison to confirm that the proposed modifications are acceptable.

18. The plan shall include a trench restoration detail for all work within the right-of-way of Business Park Drive in accordance with Town Highway Department Standards.

    The plan has been updated to include a trench restoration detail in accordance with Town Highway Department standards.

Please process this submission and if you have any questions or require any additional information, do not hesitate to contact our office.

Sincerely,

Dynamic Engineering Consultants, PC

Daniel T. Sehnal, PE

Danielle R. Lescrinier

Enclosures

Cc: Henry Szwed
Jeff Mandelbaum
George Reeves

July 12, 2021
Via Email

Town of North Castle
Conservation Board
17 Bedford Road
Armonk, NY 10504

Attn: Julie Mucker
Board Secretary

RE: Armonk Fairview, LLC & Aggro and Brassi, LLC
Proposed Warehouse
Section 108.03; Block 1; Lot 50
94 Business Park Drive
Town of North Castle (Armonk)
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Our office will work with ConEdison to confirm that the proposed modifications are acceptable.

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The plan has been updated to include a trench restoration detail in accordance with Town Highway Department standards.

Please process this submission and if you have any questions or require any additional information, do not hesitate to contact our office.

Sincerely,

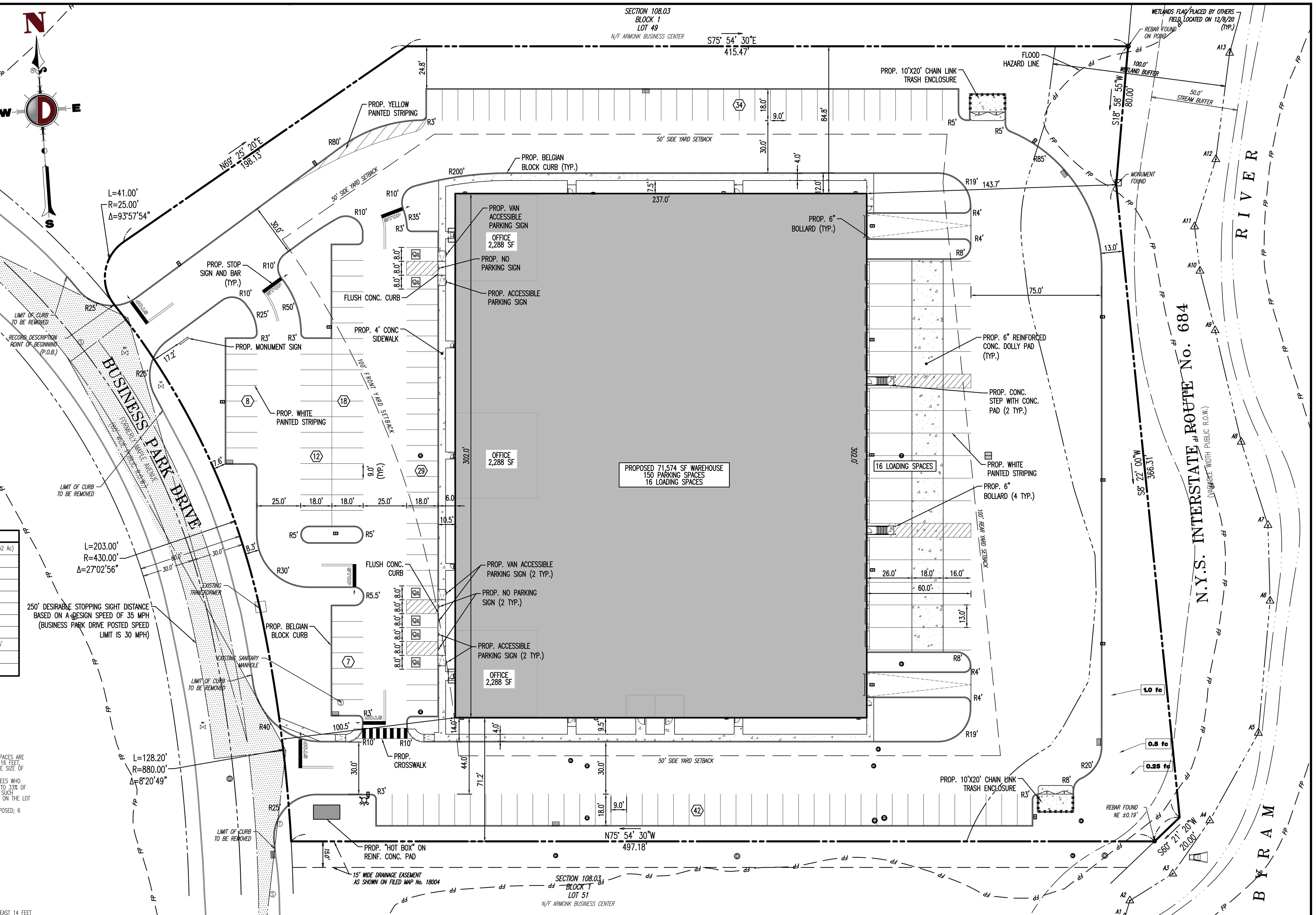
Dynamic Engineering Consultants, PC

Daniel T. Sehnal, PE

Danielle R. Lescrinier

Enclosures

Cc: Henry Szwed
Jeff Mandelbaum
George Reeves



SITE PLAN NOTES:

1. THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:

   BOUNDARY & TOPOGRAPHIC SURVEY
   LAN ASSOCIATES, LLC
   252 MAIN STREET
   GOSHEN, NEW YORK 10924
   SURVEYOR FILE NO: 149701S1
   DATED: 04/30/20

   FLOOR PLAN
   CARMINARA ARCHITECT
   224 COURTYARD DRIVE
   HILLSBOROUGH, NEW JERSEY 08844
   DATED: 12/17/20

2. OWNER/APPLICANT: AGGRO AND BRASSI, LLC
   C/O MANDELBAUM & MANDELBAUM
   80 MAIN STREET, SUITE 510
   WEST ORANGE, NEW JERSEY 07052

   ARMONK FAIRVIEW, LLC
   C/O MANDELBAUM & MANDELBAUM
   80 MAIN STREET, SUITE 510
   WEST ORANGE, NEW JERSEY 07052

3. PARCEL DATA: BLOCK 1, LOT 50
   94 BUSINESS PARK DRIVE
   TOWN OF NORTH CASTLE (ARMONK)
   WESTCHESTER COUNTY, NEW YORK 10504

4. ZONE: ZONE PLI (PLANNED LIGHT INDUSTRIAL ZONE)

5. EXISTING USE: HOTEL (NON-PERMITTED USE) (§ 355 ATTACHMENT 4)

6. PROPOSED USE: WAREHOUSE / OFFICE (PERMITTED USE) (§ 355 ATTACHMENT 4)

7. SCHEDULE OF ZONING REQUIREMENTS (§ 355 ATTACHMENT 4)

ZONE REQUIREMENT	PLI ZONE	EXISTING	PROPOSED
MINIMUM LOT AREA	174,240 SF (4.0 Ac)	240,438 SF (5.52 Ac)	240,438 SF (5.52 Ac)
MINIMUM LOT WIDTH / FRONTAGE *	300'	331.0'	331.0'
MINIMUM LOT DEPTH	300'	456.3'	456.3'
MINIMUM SETBACKS			
-FRONT YARD	100' **	100.0'	100.5'
-REAR YARD	100'	101.5'	143.7'
-SIDE YARD ***	50'	85.1'	71.2'
MAXIMUM BUILDING COVERAGE	30%	20.4%	29.8%
MAXIMUM BUILDING HEIGHT	3 STORIES/35'	22'±	1 STORY / 35'
LOT COVERAGE	N/S	63.9%	77.6%
FLOOR AREA RATIO (FAR)	0.30	0.20	0.30

N/S: NO STANDARD (E): EXISTING NON-CONFORMANCE (V): VARIANCE

* ON LOTS ABUTTING A TURNAROUND ON A DEAD-END STREET, THE PLANNING BOARD MAY PERMIT THE FRONTAGE TO BE REDUCED, WHERE APPLICABLE, TO NOT LESS THAN 100'

** MAY BE REDUCED TO 60' IF NO PARKING SPACES ARE LOCATED BETWEEN THE BUILDING AND THE STREET

*** WHERE ACCESS TO REQUIRED PARKING SPACE IN THE REAR IS THROUGH A SIDE YARD, SUCH SIDE YARD SHALL BE DETERMINED BY THE PLANNING BOARD, BUT IN NO CASE TO BE LESS THAN 16'

8. PARKING REQUIREMENTS (§ 355-56, § 355-57)
   A. EACH PARKING SPACE SHALL BE AT LEAST NINE FEET WIDE AND 18 FEET LONG IF UNENCLOSED. WHERE PARKING SPACES ARE DEFINED BY CURBS PROVIDING SPACE FOR OVERHANG OF VEHICLES, SUCH SPACES MAY BE REDUCED IN DEPTH TO 16 FEET, PROVIDED THAT VEHICLES WILL NOT OVERHANG SIDEWALKS OR OTHER PEDESTRIAN AREAS AND THE REDUCTION IN THE SIZE OF THE PARKING SPACE DOES NOT IMPEDE THE MOVEMENTS OF VEHICLES WITHIN THE PARKING AREA. (COMPLIES)
   B. IN NONRESIDENTIAL DISTRICTS WHERE AT LEAST 50 PARKING SPACES ARE PROVIDED FOR THE SOLE USE OF EMPLOYEES WHO USE SUCH SPACES ON A NON-TRANSIENT BASIS (CARS PARKED AT LEAST THREE HOURS IN THE SAME SPACE), UP TO 33% OF THESE PARKING SPACES MAY, WITH PLANNING BOARD APPROVAL, BE DESIGNED AND RESERVED FOR COMPACT CARS. SUCH SPACES SHALL BE AT LEAST EIGHT FEET WIDE AND 15 FEET LONG, SHALL BE GROUPED IN ONE OR TWO LOCATIONS ON THE LOT AND SHALL BE CLEARLY MARKED AS BEING RESERVED FOR COMPACT CARS ONLY. (N/A)
   C. NUMBER OF HANDICAPPED SPACES REQUIRED: 101-200 TOTAL SPACES = 6 HANDICAPPED; 150 TOTAL SPACES PROPOSED; 6 ACCESSIBLE PARKING SPACES PROPOSED
   D. MINIMUM NUMBER OF SPACES (WAREHOUSE): 1 SPACE/EMPLOYEE ON THE LARGEST WORK SHIFT,
      NOT FEWER THAN 1 SPACE/1,200 SF OF GFA (WHICHEVER GREATER),
      PLUS 1 FOR EACH COMMERCIAL VEHICLE GARAGE SPACE ON THE LOT
      (ASSUMED MAXIMUM NUMBER OF EMPLOYEE: 100 AND GARAGE SPACES TBD)

   THEREFORE:
   (100 EMPLOYEE * 1 SPACE/EMPLOYEE) = 100 SPACES
   (1 * 71,574 GFA/1,200 SF) = 60 SPACES

   TOTAL REQUIRED = 100 SPACES
   TOTAL PROPOSED = 150 SPACES (COMPLIES)

10. LOADING REQUIREMENTS (§ 355-30.D(3), § 355-58)
   A. EACH OFF-STREET LOADING SPACE SHALL BE AT LEAST 15 FEET IN WIDTH, AT LEAST 40 FEET IN LENGTH AND AT LEAST 14 FEET IN HEIGHT, EXCLUSIVE OF ACCESS AND TURNING AREAS, EXCEPT THAT ADJACENT LOADING SPACES MAY EACH BE 12 FEET IN WIDTH. (COMPLIES)
   B. OFF-STREET LOADING SPACES MAY BE LOCATED WITHIN ANY STRUCTURE, WITHIN A SIDE OR REAR YARD OR WITHIN A REQUIRED OFF-STREET PARKING AREA, PROVIDED THAT SUCH SPACES DO NOT BAR ACCESS TO SUCH PARKING AREA OR ANY PARKING SPACE. (COMPLIES)
   C. OFF-STREET LOADING AREAS SHALL BE SCREENED FROM GENERAL OFF-SITE VIEW BY BUILDING WALLS, FENCES, BERMS OR PLANTINGS. (COMPLIES)

   MIN. NUMBER OF SPACES: 1 SPACE PER ESTABLISHMENT, PLUS:
   1 SPACE / 10,000 SF OF GFA OR MAJOR PORTION THEREOF IN EXCESS OF 4,000 SF OF GFA

   THEREFORE: 1 + (1 SPACE * 71,574 GFA / 10,000) = 8.2

   TOTAL REQUIRED = 9 SPACES
   TOTAL PROPOSED = 16 SPACES (COMPLIES)

11. DRIVEWAY REQUIREMENTS (§ 355-30.D(2), § 355-56.E, § 355-56.G, § 355-56.I)
   A. BACKUP AND MANEUVERING AISLES BETWEEN ROWS OF PARKING SPACES SHALL BE AT LEAST 25 FEET WIDE, UNLESS THE PARKING ANGLE IS BETWEEN 80° AND 90° AND THE PARKING SPACES ARE AT LEAST 10 FEET WIDE, THEN AISLES SHALL BE AT LEAST 24 FEET WIDE. (COMPLIES)
   B. ACCESS DRIVES SHALL PROVIDE UNOBSTRUCTED ACCESS TO AND FROM THE STREET AND SHALL BE DESIGNED SO AS TO AVOID THE BACKING OF ANY VEHICLE ACROSS THE SIDEWALK OR INTO THE STREET RIGHT-OF-WAY. THE WIDTH REQUIREMENTS SHALL BE 24' FOR PARKING AREA WITH MORE THAN 21 SPACES (COMPLIES)
   C. THE MAXIMUM SLOPE WITHIN A PARKING AREA SHALL NOT EXCEED 7%. IN MULTIFAMILY AND NONRESIDENTIAL DISTRICTS, THE PLANNING BOARD MAY REQUIRE THE PROVISION OF SUITABLE MARKINGS TO INDICATE INDIVIDUAL PARKING SPACES, MANEUVERING AREAS, ENTRANCES AND EXITS. (COMPLIES)
   D. ALL TWO-WAY ACCESS DRIVEWAYS SHALL BE AT LEAST 25 FEET WIDE. PARKING SHALL BE PROHIBITED IN ALL ACCESS DRIVEWAYS (COMPLIES)

12. LANDSCAPING REQUIREMENTS (§ 355-56.H, § 355-30.D(1 & 4))
   A. EXCEPT FOR PARKING SPACES ACCESSORY TO A SINGLE- OR TWO-FAMILY DWELLING, ALL OFF-STREET PARKING AND LOADING AREAS SHALL BE CURBED AND LANDSCAPED WITH APPROPRIATE TREES, SHRUBS AND OTHER PLANT MATERIALS AND GROUND COVER, AS APPROVED BY THE PLANNING BOARD BASED UPON CONSIDERATION OF THE ADEQUACY OF THE PROPOSED LANDSCAPING, TO ASSURE THE ESTABLISHMENT OF A SAFE, CONVENIENT AND ATTRACTIVE PARKING FACILITY NEEDING A MINIMUM AMOUNT OF MAINTENANCE, INCLUDING PLANT CARE, SNOWPLOWING AND THE REMOVAL OF LEAVES AND OTHER DEBRIS. AT LEAST ONE TREE, NOT LESS THAN THREE INCHES IN CALIPER AT TIME OF PLANTING, SHALL BE PROVIDED WITHIN SUCH PARKING AREA FOR EACH 10 PARKING SPACES. (COMPLIES)
   B. A TEN-FOOT-DEEP LANDSCAPED FOUNDATION PLANTING SHALL BE PROVIDED ALONG ALL BUILDING WALLS, EXCEPT AT ACCESS POINTS, IN INTERIOR COURTS, OR WHERE WAIVED BY THE PLANNING BOARD. A SIDEWALK NOT EXCEEDING FOUR FEET IN WIDTH MAY BE LOCATED IN SUCH REQUIRED FOUNDATION PARKING AREA (COMPLIES)
   C. SITE PLANNING AND BUILDING DESIGN SHALL ASSURE THAT ALL PORTIONS OF THE SITE SHALL BE APPROPRIATELY LANDSCAPED AND THAT ALL SIDES OF BUILDINGS SHALL HAVE APPROPRIATE FINISHES SO THAT A PLI DISTRICT MAY BE ATTRACTIVE FROM ALL VIEWPOINTS (COMPLIES)

GENERAL NOTES

1. THE APPLICANT REQUESTS ANY AND ALL SUBMISSION WAIVERS THAT ARE NOT SPECIFICALLY IDENTIFIED HEREIN. TESTIMONY WILL BE SUPPLIED AT THE PUBLIC HEARING TO SUPPORT SAID SUBMISSION WAIVERS.
2. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
4. THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT & PLANS.
5. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
6. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
7. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
8. SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
9. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
10. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
11. ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME DYNAMIC ENGINEERING CONSULTANTS, P.C. , ITS SUBCONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH DYNAMIC ENGINEERING CONSULTANTS, P.C. WITH CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.
12. NEITHER THE PROFESSIONAL ACTIVITIES OF DYNAMIC ENGINEERING CONSULTANTS, P.C., NOR THE PRESENCE OF DYNAMIC ENGINEERING CONSULTANTS, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.
13. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH OTHER TRADES OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DYNAMIC ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT DYNAMIC ENGINEERING CONSULTANTS, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF DYNAMIC ENGINEERING CONSULTANTS, P.C. IN WRITING BY THE CONTRACTOR. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
14. IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, DYNAMIC ENGINEERING CONSULTANTS, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.
15. THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.
16. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CONNECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.
17. ALL TRAFFIC SIGNS AND STRIPING SHALL FOLLOW THE REQUIREMENTS SPECIFIED IN THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
18. THE BUILDING SETBACK DIMENSIONS ILLUSTRATED AND LISTED ON THE SITE PLAN DRAWINGS ARE MEASURED FROM THE OUTSIDE SURFACE OF BUILDING WALLS. THESE SETBACK DIMENSIONS DO NOT ACCOUNT FOR ROOF OVERHANGS, ORNAMENTAL ELEMENTS, SIGNAGE OR OTHER EXTERIOR EXTENSIONS UNLESS SPECIFICALLY NOTED.
19. CONTRACTOR ACKNOWLEDGES HE HAS READ AND UNDERSTOOD THE DESIGN PHASE SOIL PERMEABILITY AND GROUNDWATER TEST RESULTS IN THE STORMWATER MANAGEMENT REPORT AND THAT THE CONTRACTORS RESPONSIBILITIES INCLUDE NECESSARY PROVISIONS TO ACHIEVE THE DESIGN PERMEABILITY IN THE FIELD.

Plotted: 07/12/21 – 11:52 AM, By: jdemartinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\D2179999009SXS.dwg, ---> 03 SITE PLAN

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REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

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DRAWN BY:	DESIGNED BY:	CHECKED BY:	CHECKED BY:
KHC	DTS	BWS	

PROJECT: **ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC**
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

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TITLE: SITE PLAN

SCALE: (H) 1"=30' (V)
DATE: 02/19/2021
PROJECT No: 2179-99-009

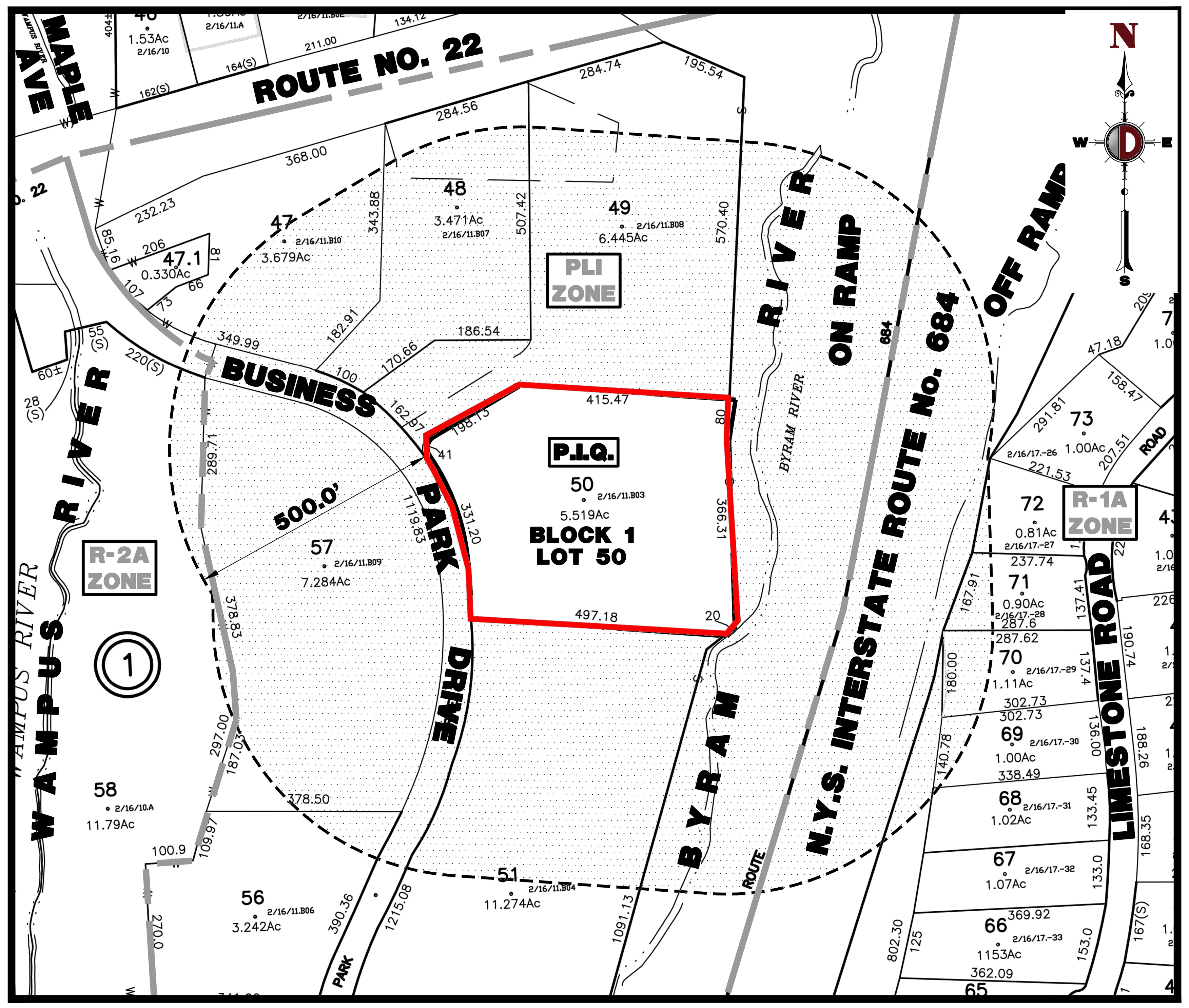
SHEET No: 3 OF 16 Rev. #: 2

PRELIMINARY AND FINAL SITE PLAN

FOR

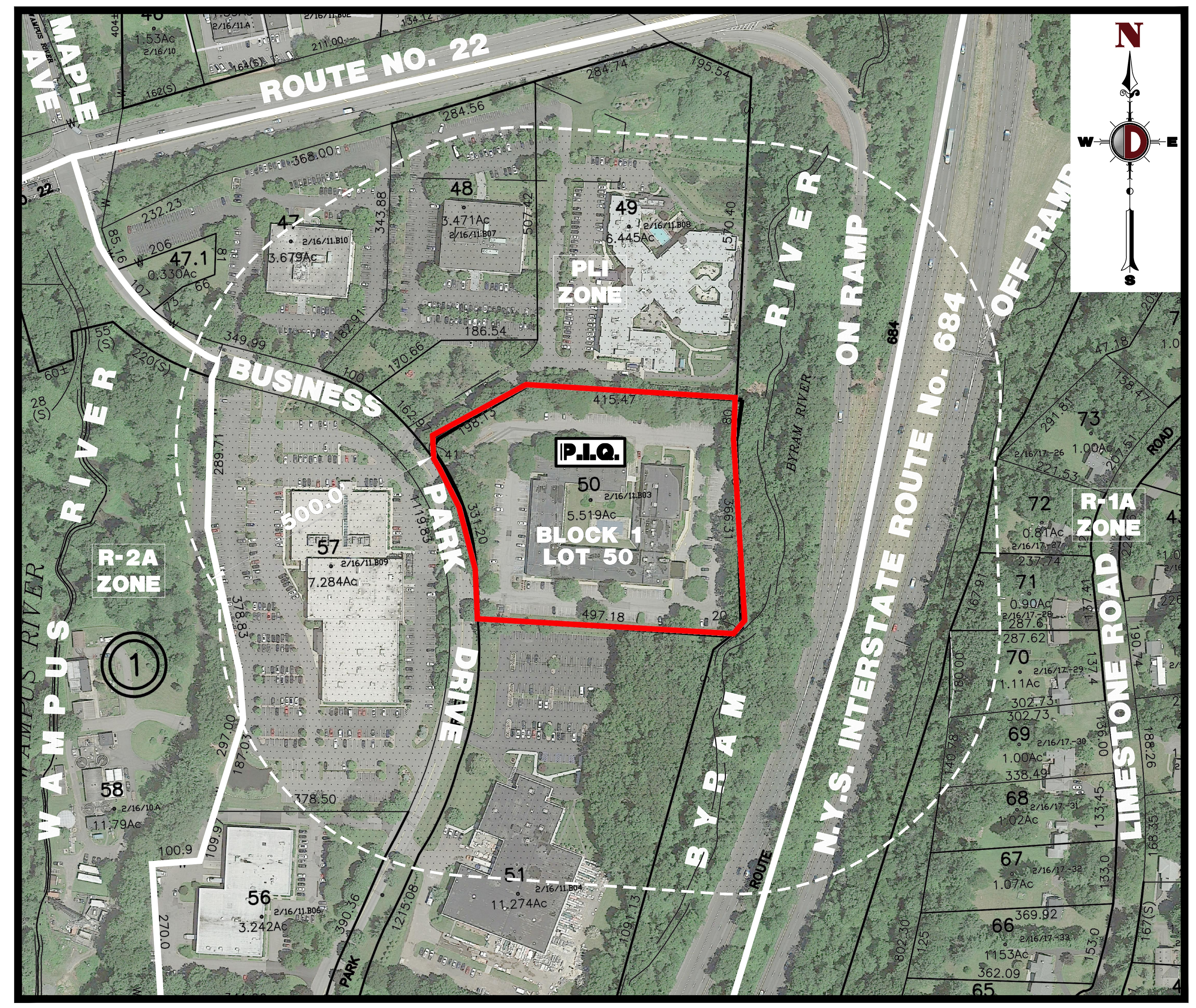
ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC
PROPOSED WAREHOUSE

SECTION 108.03; BLOCK 1, LOT 50; - TAX MAP DATED 6-1-2019
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK



VICINITY MAP

1" = 200'



AERIAL MAP

1" = 200'

SCHOOL DISTRICT AND SPECIAL DISTRICTS	
SCHOOL:	BYRAM HILLS CENTRAL SCHOOL DIST. 553801
FIRE:	FIRE DISTRICT #2
WATER:	WATER DISTRICT NO. 4
SEWER:	SEWER DISTRIC #2

ADJOINING PROPERTY OWNERS LIST

PROPERTY OWNER	SECTION	BLOCK	LOT
WESTCHESTER COUNTY IDA ENGEL BURMAN GROUP C/O UCA LIVING MANAGEMENT 5 ORVILLE DRIVE SUITE 100 BOHEMIA, NY 11716	108.03	1	49
A&R REAL ESTATE HOLDINGS C/O JANTILE INC 100 BUSINESS PARK DRIVE ARMONK, NY 10504	108.03	1	51
99 BUSINESS PARK DRIVE LLC 201 SAW MILL RIVER ROAD YONKERS, NY 10701	108.03	1	57
NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) 165 E BROADWAY MONTICELLO, NY 12701	INTERSTATE ROUTE 684		

PREPARED BY

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DRAWING INDEX

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REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

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DRAWN BY:	DESIGNED BY:	CHECKED BY:	CHECKED BY:
JED	DTS	BWS	

PROJECT: **ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC**
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

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BRETT W. SKAPINETZ
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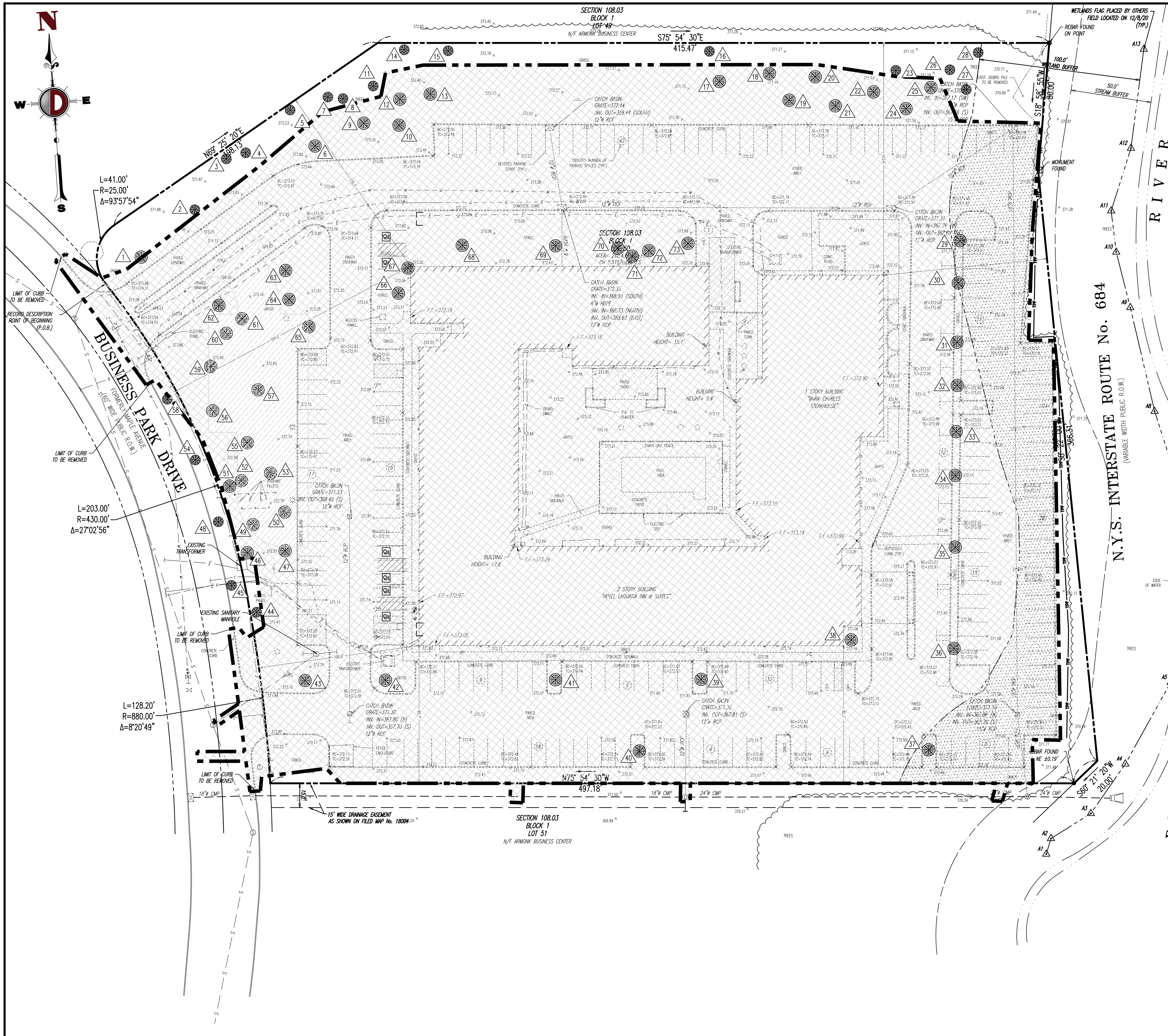
NEW YORK LICENSE No. 087962

TITLE: COVER SHEET

SCALE: (H) AS (V) SHOWN
DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 1 OF 16
Rev. #: 2

Plotted: 07/12/21 – 11:51 AM, By: jdemartinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\D217999009SK0.dwg, ---> 01 COVER SHEET



WETLANDS AREA WITHIN LIMIT OF DISTURBANCE = 17,813 SF. (0.409 Ac.)

DEMOLITION NOTES

1. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS.
2. PROCEED WITH DEMOLITION IN A SYSTEMATIC MANNER, FROM THE TOP OF THE STRUCTURE(S) TO THE GROUND.
3. COMPLETE DEMOLITION WORK ABOVE EACH FLOOR OR TIER BEFORE DISTURBING ANY OF THE SUPPORTING MEMBERS OF THE LOWER LEVELS.
4. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS.
5. REMOVE STRUCTURAL FRAMING MEMBERS AND LOWER THEM TO THE GROUND BY MEANS OF HOISTS, DERRICKS OR OTHER SUITABLE METHODS.
6. BREAK UP CONCRETE SLABS-ON-GRADE, UNLESS OTHERWISE DIRECTED BY OWNER.
7. LOCATE DEMOLITION EQUIPMENT THROUGHOUT THE STRUCTURE AND REMOVE MATERIALS SO AS TO NOT IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
8. PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING AND SUPPORTS TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED (AND ADJACENT FACILITIES, IF APPLICABLE).
9. DEMOLISH AND REMOVE ALL FOUNDATION WALLS, FOOTINGS AND OTHER MATERIALS WITHIN THE AREA OF THE DESIGNATED FUTURE BUILDING. ALL OTHER FOUNDATION SYSTEMS, INCLUDING BASEMENTS, SHALL BE DEMOLISHED TO A DEPTH OF NOT LESS THAN ONE FOOT BELOW PROPOSED PAVEMENT OR, BREAK BASEMENT FLOOR SLABS. SEAL ALL OPEN UTILITY LINES WITH CONCRETE. CONTRACTOR TO REVIEW STRUCTURE PRIOR TO DEMOLITION TO DETERMINE IF BASEMENT, CRAWL SPACE OR ANY SUB-STRUCTURE EXISTS. ANY SUB-STRUCTURE, INCLUDING BASEMENTS SHALL BE REMOVED IN ITS ENTIRETY OR AS DIRECTED BY OWNER.
10. ERECT AND MAINTAIN COVERED PASSAGEWAYS IN ORDER TO PROVIDE SAFE PASSAGE FOR PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT DAMAGE AND PERSONAL INJURY TO STRUCTURES, ADJACENT BUILDINGS AND ALL PERSONS.
11. REFRAIN FROM USING ANY EXPLOSIVES WITHOUT PRIOR WRITTEN CONSENT OF OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES.
12. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF OWNER AND ANY APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
13. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
14. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
15. COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. STONES USED WILL NOT BE LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH AND COMPACT EACH LAYER AT PLACEMENT TO 95% OPTIMUM DENSITY. GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.
16. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS, RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD OR BURNED ON THE SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
17. DISCONNECT, SHUT OFF AND SEAL IN CONCRETE ALL UTILITIES SERVING THE STRUCTURE(S) TO BE DEMOLISHED BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION. MARK FOR POSITION ALL UTILITY DRAINAGE AND SANITARY LINES AND PROTECT ALL ACTIVE LINES. CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO ENSURE THE CONTINUATION OF SERVICE.
18. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL PROCEDURES ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS NECESSARY.

NOTES

1. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM OR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE DISCONNECTED AND CAPPED AT THE MAIN FOR WATER, AT THE CLEAN-OUT FOR SEWER AND THE SHUT-OFF VALVE OR MAIN FOR GAS IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY REQUIREMENTS.
4. ALL EXISTING DEBRIS SHALL BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY COMPANY REQUIREMENTS.

DEMOLITION PLAN LEGEND

- PROPOSED LIMIT OF DISTURBANCE LINE
- TPF — PROPOSED TREE PROTECTION FENCE LINE
- EXISTING IMPROVEMENTS TO BE REMOVED UNLESS OTHERWISE NOTED
- PHASE II TREE REMOVAL FOR BANKED PARKING SPACES
- WETLANDS BUFFER AREA WITHIN LIMIT OF DISTURBANCE
- TREES TO REMAIN
- TREES TO BE REMOVED
- 1 — TREE NUMBER

# ON PLAN	ID	GENUS	DIMENSIONS
1	OAK	QUERCUS	20"
2	LOCUST	GLEDITSIA	20"
3	PINE	PINUS	15"
4	PINE	PINUS	20"
5	PINE	PINUS	23"
6	APPLE	MALUS	27"
7	PINE	PINUS	22"
8	PINE	PINUS	20"
9	REMOVED	X	X
10	PINE	PINUS	25"
11	PINE	PINUS	30"
12	PINE	PINUS	26"
13	APPLE	MALUS	13"
14	OAK	QUERCUS	37"
15	OAK	QUERCUS	18"
16	OAK	QUERCUS	55"
17	LINDEN	TILIA	24"
18	LINDEN	TILIA	23"
19	LOCUST	GLEDITSIA	28"
20	PINE	PINUS	45"
21	LOCUST	GLEDITSIA	35"
22	PINE	PINUS	37"
23	PINE	PINUS	55"
24	REMOVED	X	X
25	APPLE	MALUS	15"
26	PINE	PINUS	25"
27	PINE	PINUS	30"
28	PINE	PINUS	45"
29	LOCUST	GLEDITSIA	15"
30	LOCUST	GLEDITSIA	10"
31	LOCUST	GLEDITSIA	8"
32	LOCUST	GLEDITSIA	13"
33	LOCUST	GLEDITSIA	13"
34	LOCUST	GLEDITSIA	12"
35	LOCUST	GLEDITSIA	15"
36	LOCUST	GLEDITSIA	18"
37	OAK	QUERCUS	25"
38	CHERRY	PRUNUS	7"
39	OAK	QUERCUS	27"
40	OAK	QUERCUS	40"
41	OAK	QUERCUS	33"
42	CHERRY	PRUNUS	15"
43	OAK	QUERCUS	25"
44	OAK	QUERCUS	36"
45	MAPLE	ACER	20"
46	PINE	PINUS	20"
47	PINE	PINUS	30"
48	MAPLE	ACER	21"
49	OAK	QUERCUS	22"
50	PINE	PINUS	21"
51	PINE	PINUS	15"
52	PINE	PINUS	16"
53	PINE	PINUS	44"
54	MAPLE	ACER	20"
55	PINE	PINUS	15"
56	LOCUST	GLEDITSIA	21"
57	PINE	PINUS	25"
58	MAPLE	ACER	25"
59	OAK	QUERCUS	40"
60	PINE	PINUS	25"
61	PINE	PINUS	27"
62	PINE	PINUS	50"
63	APPLE	MALUS	25"
64	APPLE	MALUS	25"
65	APPLE	MALUS	20"
66	LOCUST	GLEDITSIA	20"
67	DOGWOOD	CORNUS	10"
68	LOCUST	GLEDITSIA	27"
69	LOCUST	GLEDITSIA	23"
70	PINE	PINUS	20"
71	PINE	PINUS	19"
72	PINE	PINUS	20"
73	LOCUST	GLEDITSIA	20"

GRAPHIC SCALE
0 30 60 120
(IN FEET)
1 INCH = 30 FT.

DYNAMIC
• ENGINEERING • EARTH
• SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JED | DESIGNED BY: DTS | CHECKED BY: BWS | CHECKED BY:

PROJECT: **ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC**
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

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DANIEL T. SEHNAL
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 099106

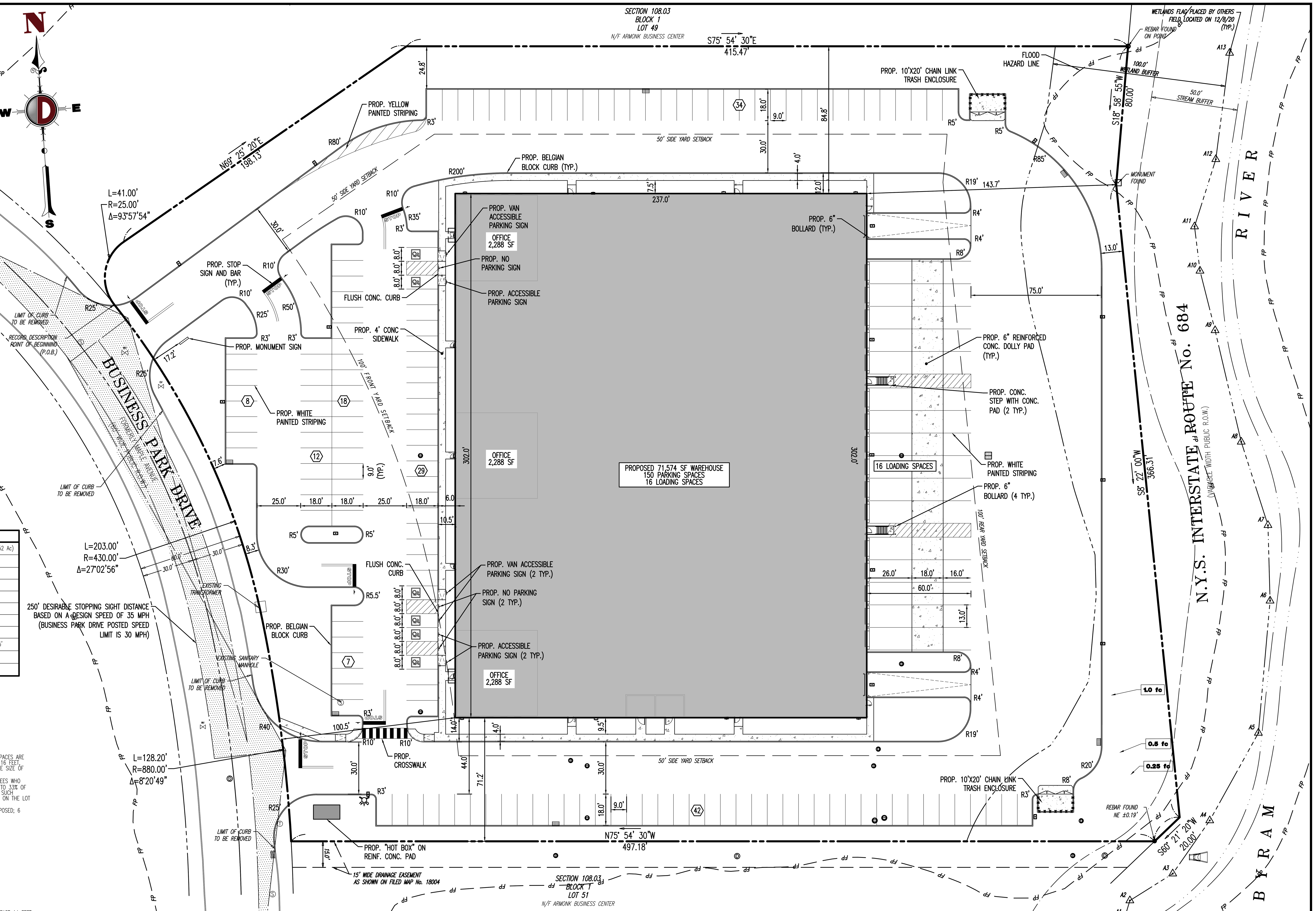
BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE: DEMOLITION PLAN

SCALE: (H) 1"=30' (V).
DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 2 OF 16 | Rev. #: 2

Plotted: 07/12/21 – 11:52 AM, By: jdemartinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\D2179999009SR0.dwg, ---> 02 DEMOLITION PLAN



SITE PLAN NOTES:

1. THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:

   BOUNDARY & TOPOGRAPHIC SURVEY
   LAN ASSOCIATES, LLC
   252 MAIN STREET
   GOSHEN, NEW YORK 10924
   SURVEYOR FILE NO: 149701S1
   DATED: 04/30/20

   FLOOR PLAN
   CARMINARA ARCHITECT
   224 COURTYARD DRIVE
   HILLSBOROUGH, NEW JERSEY 08844
   DATED: 12/17/20

2. OWNER/APPLICANT: AGGRO AND BRASSI, LLC
   C/O MANDELBAUM & MANDELBAUM
   80 MAIN STREET, SUITE 510
   WEST ORANGE, NEW JERSEY 07052

   ARMONK FAIRVIEW, LLC
   C/O MANDELBAUM & MANDELBAUM
   80 MAIN STREET, SUITE 510
   WEST ORANGE, NEW JERSEY 07052

3. PARCEL DATA: BLOCK 1, LOT 50
   94 BUSINESS PARK DRIVE
   TOWN OF NORTH CASTLE (ARMONK)
   WESTCHESTER COUNTY, NEW YORK 10504

4. ZONE: ZONE PLI (PLANNED LIGHT INDUSTRIAL ZONE)

5. EXISTING USE: HOTEL (NON–PERMITTED USE) (§ 355 ATTACHMENT 4)

6. PROPOSED USE: WAREHOUSE / OFFICE (PERMITTED USE) (§ 355 ATTACHMENT 4)

7. SCHEDULE OF ZONING REQUIREMENTS (§ 355 ATTACHMENT 4)

ZONE REQUIREMENT	PLI ZONE	EXISTING	PROPOSED
MINIMUM LOT AREA	174,240 SF (4.0 Ac)	240,438 SF (5.52 Ac)	240,438 SF (5.52 Ac)
MINIMUM LOT WIDTH / FRONTAGE *	300'	331.0'	331.0'
MINIMUM LOT DEPTH	300'	456.3'	456.3'
MINIMUM SETBACKS			
–FRONT YARD	100' **	100.0'	100.5'
–REAR YARD	100'	101.5'	143.7'
–SIDE YARD ***	50'	85.1'	71.2'
MAXIMUM BUILDING COVERAGE	30%	20.4%	29.8%
MAXIMUM BUILDING HEIGHT	3 STORIES/35'	22'±	1 STORY / 35'
LOT COVERAGE	N/S	63.9%	77.6%
FLOOR AREA RATIO (FAR)	0.30	0.20	0.30

N/S: NO STANDARD (E): EXISTING NON–CONFORMANCE (V): VARIANCE

* ON LOTS ABUTTING A TURNAROUND ON A DEAD–END STREET, THE PLANNING BOARD MAY PERMIT THE FRONTAGE TO BE REDUCED, WHERE APPLICABLE, TO NOT LESS THAN 100'

** MAY BE REDUCED TO 60' IF NO PARKING SPACES ARE LOCATED BETWEEN THE BUILDING AND THE STREET

*** WHERE ACCESS TO REQUIRED PARKING SPACE IN THE REAR IS THROUGH A SIDE YARD, SUCH SIDE YARD SHALL BE DETERMINED BY THE PLANNING BOARD, BUT IN NO CASE TO BE LESS THAN 16'

8. PARKING REQUIREMENTS (§ 355–56, § 355–57)
   A. EACH PARKING SPACE SHALL BE AT LEAST NINE FEET WIDE AND 18 FEET LONG IF UNENCLOSED. WHERE PARKING SPACES ARE DEFINED BY CURBS PROVIDING SPACE FOR OVERHANG OF VEHICLES, SUCH SPACES MAY BE REDUCED IN DEPTH TO 16 FEET, PROVIDED THAT VEHICLES WILL NOT OVERHANG SIDEWALKS OR OTHER PEDESTRIAN AREAS AND THE REDUCTION IN THE SIZE OF THE PARKING SPACE DOES NOT IMPEDE THE MOVEMENTS OF VEHICLES WITHIN THE PARKING AREA. (COMPLIES)
   B. IN NONRESIDENTIAL DISTRICTS WHERE AT LEAST 50 PARKING SPACES ARE PROVIDED FOR THE SOLE USE OF EMPLOYEES WHO USE SUCH SPACES ON A NON–TRANSIENT BASIS (CARS PARKED AT LEAST THREE HOURS IN THE SAME SPACE), UP TO 33% OF THESE PARKING SPACES MAY, WITH PLANNING BOARD APPROVAL, BE DESIGNED AND RESERVED FOR COMPACT CARS. SUCH SPACES SHALL BE AT LEAST EIGHT FEET WIDE AND 15 FEET LONG, SHALL BE GROUPED IN ONE OR TWO LOCATIONS ON THE LOT AND SHALL BE CLEARLY MARKED AS BEING RESERVED FOR COMPACT CARS ONLY. (N/A)
   C. NUMBER OF HANDICAPPED SPACES REQUIRED: 101–200 TOTAL SPACES = 6 HANDICAPPED; 150 TOTAL SPACES PROPOSED; 6 ACCESSIBLE PARKING SPACES PROPOSED
   D. MINIMUM NUMBER OF SPACES (WAREHOUSE): 1 SPACE/EMPLOYEE ON THE LARGEST WORK SHIFT,
      NOT FEWER THAN 1 SPACE/1,200 SF OF GFA (WHICHEVER GREATER),
      PLUS 1 FOR EACH COMMERCIAL VEHICLE GARAGE SPACE ON THE LOT
      (ASSUMED MAXIMUM NUMBER OF EMPLOYEE: 100 AND GARAGE SPACES TBD)

   THEREFORE:
   (100 EMPLOYEE * 1 SPACE/EMPLOYEE) = 100 SPACES
   (1 * 71,574 GFA/1,200 SF) = 60 SPACES

   TOTAL REQUIRED = 100 SPACES
   TOTAL PROPOSED = 150 SPACES (COMPLIES)

10. LOADING REQUIREMENTS (§ 355–30.D(3), § 355–58)
   A. EACH OFF–STREET LOADING SPACE SHALL BE AT LEAST 15 FEET IN WIDTH, AT LEAST 40 FEET IN LENGTH AND AT LEAST 14 FEET IN HEIGHT, EXCLUSIVE OF ACCESS AND TURNING AREAS, EXCEPT THAT ADJACENT LOADING SPACES MAY EACH BE 12 FEET IN WIDTH. (COMPLIES)
   B. OFF–STREET LOADING SPACES MAY BE LOCATED WITHIN ANY STRUCTURE, WITHIN A SIDE OR REAR YARD OR WITHIN A REQUIRED OFF–STREET PARKING AREA, PROVIDED THAT SUCH SPACES DO NOT BAR ACCESS TO SUCH PARKING AREA OR ANY PARKING SPACE. (COMPLIES)
   C. OFF–STREET LOADING AREAS SHALL BE SCREENED FROM GENERAL OFF–SITE VIEW BY BUILDING WALLS, FENCES, BERMS OR PLANTINGS. (COMPLIES)

   MIN. NUMBER OF SPACES: 1 SPACE PER ESTABLISHMENT, PLUS:
   1 SPACE / 10,000 SF OF GFA OR MAJOR PORTION THEREOF IN EXCESS OF 4,000 SF OF GFA

   THEREFORE: 1 + (1 SPACE * 71,574 GFA / 10,000) = 8.2

   TOTAL REQUIRED = 9 SPACES
   TOTAL PROPOSED = 16 SPACES (COMPLIES)

11. DRIVEWAY REQUIREMENTS (§ 355–30.D(2), § 355–56.E, § 355–56.G, § 355–56.I)
   A. BACKUP AND MANEUVERING AISLES BETWEEN ROWS OF PARKING SPACES SHALL BE AT LEAST 25 FEET WIDE, UNLESS THE PARKING ANGLE IS BETWEEN 80° AND 90° AND THE PARKING SPACES ARE AT LEAST 10 FEET WIDE, THEN AISLES SHALL BE AT LEAST 24 FEET WIDE. (COMPLIES)
   B. ACCESS DRIVES SHALL PROVIDE UNOBSTRUCTED ACCESS TO AND FROM THE STREET AND SHALL BE DESIGNED SO AS TO AVOID THE BACKING OF ANY VEHICLE ACROSS THE SIDEWALK OR INTO THE STREET RIGHT–OF–WAY. THE WIDTH REQUIREMENTS SHALL BE 24' FOR PARKING AREA WITH MORE THAN 21 SPACES (COMPLIES)
   C. THE MAXIMUM SLOPE WITHIN A PARKING AREA SHALL NOT EXCEED 7%. IN MULTIFAMILY AND NONRESIDENTIAL DISTRICTS, THE PLANNING BOARD MAY REQUIRE THE PROVISION OF SUITABLE MARKINGS TO INDICATE INDIVIDUAL PARKING SPACES, MANEUVERING AREAS, ENTRANCES AND EXITS. (COMPLIES)
   D. ALL TWO–WAY ACCESS DRIVEWAYS SHALL BE AT LEAST 25 FEET WIDE. PARKING SHALL BE PROHIBITED IN ALL ACCESS DRIVEWAYS (COMPLIES)

12. LANDSCAPING REQUIREMENTS (§ 355–56.H, § 355–30.D(1 & 4))
   A. EXCEPT FOR PARKING SPACES ACCESSORY TO A SINGLE– OR TWO–FAMILY DWELLING, ALL OFF–STREET PARKING AND LOADING AREAS SHALL BE CURBED AND LANDSCAPED WITH APPROPRIATE TREES, SHRUBS AND OTHER PLANT MATERIALS AND GROUND COVER, AS APPROVED BY THE PLANNING BOARD BASED UPON CONSIDERATION OF THE ADEQUACY OF THE PROPOSED LANDSCAPING, TO ASSURE THE ESTABLISHMENT OF A SAFE, CONVENIENT AND ATTRACTIVE PARKING FACILITY NEEDING A MINIMUM AMOUNT OF MAINTENANCE, INCLUDING PLANT CARE, SNOWPLOWING AND THE REMOVAL OF LEAVES AND OTHER DEBRIS. AT LEAST ONE TREE, NOT LESS THAN THREE INCHES IN CALIPER AT TIME OF PLANTING, SHALL BE PROVIDED WITHIN SUCH PARKING AREA FOR EACH 10 PARKING SPACES. (COMPLIES)
   B. A TEN–FOOT–DEEP LANDSCAPED FOUNDATION PLANTING SHALL BE PROVIDED ALONG ALL BUILDING WALLS, EXCEPT AT ACCESS POINTS, IN INTERIOR COURTS, OR WHERE WAIVED BY THE PLANNING BOARD. A SIDEWALK NOT EXCEEDING FOUR FEET IN WIDTH MAY BE LOCATED IN SUCH REQUIRED FOUNDATION PARKING AREA (COMPLIES)
   C. SITE PLANNING AND BUILDING DESIGN SHALL ASSURE THAT ALL PORTIONS OF THE SITE SHALL BE APPROPRIATELY LANDSCAPED AND THAT ALL SIDES OF BUILDINGS SHALL HAVE APPROPRIATE FINISHES SO THAT A PLI DISTRICT MAY BE ATTRACTIVE FROM ALL VIEWPOINTS (COMPLIES)

GENERAL NOTES

1. THE APPLICANT REQUESTS ANY AND ALL SUBMISSION WAIVERS THAT ARE NOT SPECIFICALLY IDENTIFIED HEREIN. TESTIMONY WILL BE SUPPLIED AT THE PUBLIC HEARING TO SUPPORT SAID SUBMISSION WAIVERS.
2. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
4. THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT & PLANS.
5. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
6. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
7. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
8. SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
9. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
10. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
11. ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME DYNAMIC ENGINEERING CONSULTANTS, P.C. , ITS SUBCONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH DYNAMIC ENGINEERING CONSULTANTS, P.C. WITH CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.
12. NEITHER THE PROFESSIONAL ACTIVITIES OF DYNAMIC ENGINEERING CONSULTANTS, P.C., NOR THE PRESENCE OF DYNAMIC ENGINEERING CONSULTANTS, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.
13. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH OTHER TRADES OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DYNAMIC ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT DYNAMIC ENGINEERING CONSULTANTS, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF DYNAMIC ENGINEERING CONSULTANTS, P.C. IN WRITING BY THE CONTRACTOR. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
14. IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, DYNAMIC ENGINEERING CONSULTANTS, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.
15. THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.
16. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CONNECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.
17. ALL TRAFFIC SIGNS AND STRIPING SHALL FOLLOW THE REQUIREMENTS SPECIFIED IN THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
18. THE BUILDING SETBACK DIMENSIONS ILLUSTRATED AND LISTED ON THE SITE PLAN DRAWINGS ARE MEASURED FROM THE OUTSIDE SURFACE OF BUILDING WALLS. THESE SETBACK DIMENSIONS DO NOT ACCOUNT FOR ROOF OVERHANGS, ORNAMENTAL ELEMENTS, SIGNAGE OR OTHER EXTERIOR EXTENSIONS UNLESS SPECIFICALLY NOTED.
19. CONTRACTOR ACKNOWLEDGES HE HAS READ AND UNDERSTOOD THE DESIGN PHASE SOIL PERMEABILITY AND GROUNDWATER TEST RESULTS IN THE STORMWATER MANAGEMENT REPORT AND THAT THE CONTRACTORS RESPONSIBILITIES INCLUDE NECESSARY PROVISIONS TO ACHIEVE THE DESIGN PERMEABILITY IN THE FIELD.

REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED FOR TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

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DRAWN BY: KHC | DESIGNED BY: DTS | CHECKED BY: BWS

PROJECT: ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

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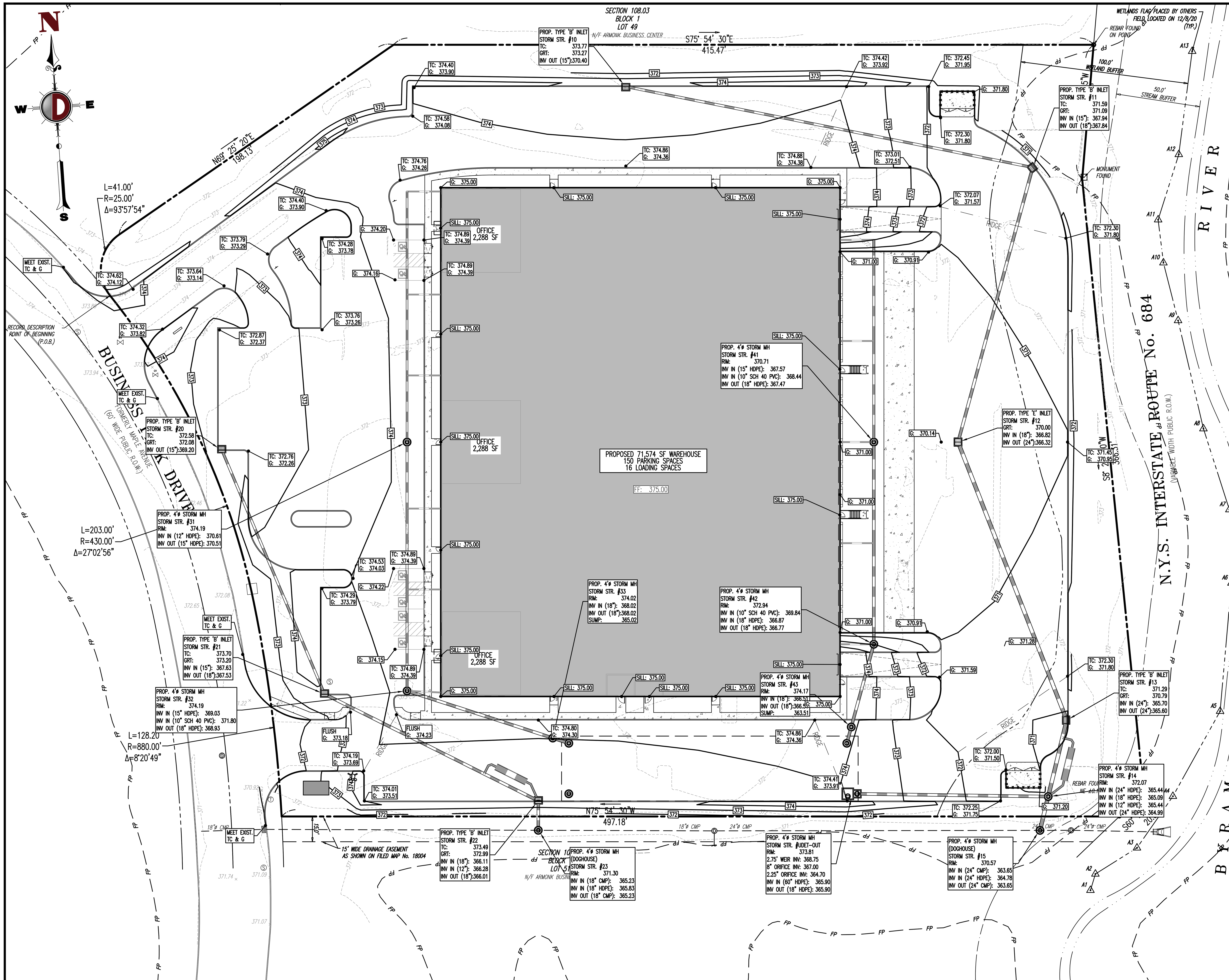
DANIEL T. SEHNAL
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 099106

BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE: SITE PLAN

SCALE: (H) 1"=30' (V)
DATE: 02/19/2021
PROJECT No: 2179–99–009

SHEET No: 3 OF 16
Rev. #: 2



GRADING NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITHIN THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MIN. SLOPE AGAINST ALL ISLAND GUTTERS, CURBS AND 1.0% ON ALL CONCRETE SURFACES, AND 1-1/2% MIN. ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY EFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MIN. OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
4. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
5. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERCEDE IN ALL CASES. CONTRACTOR MUST NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IMMEDIATELY.
7. MAXIMUM CROSS SLOPE OF 2% ON ALL SIDEWALKS.
8. CONTRACTOR TO ENSURE A MAXIMUM OF 2% SLOPE IN ALL DIRECTIONS IN ADA PARKING SPACES AND ADA ACCESS AISLES. CONTRACTOR TO ENSURE A MAXIMUM OF 5% RUNNING SLOPE AND 2% CROSS SLOPE ALONG ALL OTHER PORTIONS OF ACCESSIBLE ROUTE, WITH THE EXCEPTION OF RAMPS AND CURB RAMPS. CONTRACTOR SHALL CLARIFY ANY QUESTIONS CONCERNING CONSTRUCTION IN ADA AREAS WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. THE OWNER SHALL RETAIN DYNAMIC EARTH, LLC (908-879-7095) OR ALTERNATE QUALIFIED GEOTECHNICAL ENGINEER TO TEST SOIL PERMEABILITY AND PROVIDE CONSTRUCTION PHASE INSPECTIONS OF THE BASIN BOTTOM SOILS AND ANY FILL MATERIALS WITHIN ANY PROPOSED INFILTRATION OR RETENTION BASIN TO COMPARE RESULTS TO DESIGN CRITERIA.
10. CONTRACTOR IS TO REMOVE EXISTING UNSUITABLE OR OVERLY COMPACT SOIL OR ROCK AS NEEDED TO ACHIEVE REQUIRED PERMEABILITY AS DIRECTED BY THE OWNERS GEOTECHNICAL ENGINEER, AND NEW FILL, IF NEEDED, SHALL HAVE AN IN PLACE PERMEABILITY GREATER THAN OR EQUAL TO THE DESIGN CRITERIA.
11. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO ONSET OF CONSTRUCTION TO SUBMIT AND CONFIRM THE CONTRACTOR'S PROPOSED MEANS AND MATERIALS AND TO SCHEDULE INSPECTIONS FOR BOTTOM OF BASIN, REMOVAL OF UNSUITABLE SOIL, FILL PLACEMENT, AND FINAL BASIN PERMEABILITY TESTING.
12. THE CONTRACTOR IS RESPONSIBLE FOR AS-BUILT PLANS AND GRADE CONTROL UNLESS DEFINED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.

GRADING/UTILITY GRAPHIC LEGEND

PROPERTY LINE (PARCEL IN QUESTION)
OFF-SITE PROPERTY LINES

EXIST. GUY WIRE
EXIST. LIGHT POLE
EXIST. BUILDING LIGHT
EXIST. SHOE BOX LIGHT
EXIST. COBRA LIGHT POLE
EXIST. TRAFFIC SIGNAL POLE
EXIST. MANHOLE
EXIST. "A" INLET
EXIST. "B" INLET
EXIST. "E" INLET
EXIST. YARD INLET
EXIST. FLARED END SECTION
EXIST. HEADWALL
EXIST. UTILITY POLE

EXIST. MONITORING WELL
APPROX. TEST PIT LOCATION
EXIST. FIRE HYDRANT
EXIST. WATER VALVE
EXIST. GAS VALVE
EXIST. GAS METER
EXIST. ELECTRIC METER
EXIST. ELECTRIC BOX
EXIST. CLEAN OUT
EXIST. WELL
EXIST. WATER SHUT OFF VALVE
EXIST. TELEPHONE BOX
EXIST. CABLE TV BOX
PROP. HEADWALL

PROP. WATER VALVE
PROP. GAS VALVE
PROP. STORM CLEANOUT
PROP. SANITARY CLEANOUT
PROP. AREA LIGHT
PROP. OUTLET CONTROL STRUCTURE
PROP. DRAINAGE MANHOLE
PROP. SANITARY SEWER MANHOLE
PROP. 'A' INLET
PROP. 'B' INLET
PROP. 'E' INLET
PROP. YARD INLET
PROP. FLARED END SECTION

EXIST. CABLE LINE
PROP. CABLE LINE
EXIST. ELECTRIC LINE
PROP. ELECTRIC LINE
EXIST. FIBER OPTIC LINE
PROP. FIBER OPTIC LINE
EXIST. GAS LINE
PROP. GAS LINE
EXIST. OVERHEAD WIRES
PROP. OVERHEAD WIRES
EXIST. TELEPHONE LINE
PROP. TELEPHONE LINE
EXIST. WATER LINE
PROP. WATER LINE

EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
EXIST. SANITARY SEWER LINE
PROP. SANITARY SEWER LINE
EXIST. STORM DRAIN LINE
PROP. STORM DRAIN LINE
EXIST. MINOR CONTOUR & ELEVATION
EXIST. MAJOR CONTOUR & ELEVATION
PROP. FINISH GRADE CONTOUR & ELEVATION
PROP. DIRECTION OF DRAINAGE FLOW ARROW

EXIST. SPOT ELEVATIONS
EXIST. GUTTER ELEV.
EXIST. TOP OF CURB ELEV.
EXIST. FINISH FLOOR ELEV.
EXIST. GARAGE FLOOR ELEV.
G: 000.00 — PROP. GRADE SPOT ELEV.
TC: 000.00 G: 000.00 — PROP. TOP OF CURB & FINISHED GRADE ELEV.
FF: 000.00 — PROP. FINISHED FLOOR ELEV.
TW: 000.00 GL: 000.00 — PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
TC: 000.00 GH: 000.00 GL: 000.00 — PROP. TOP OF EXTENDED CURB, (GH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

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REV.	DATE	COMMENTS	BY
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1	04/08/21	REVISED PER TOWN COMMENTS	KHC

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CHECKED BY: BWS
CHECKED BY:

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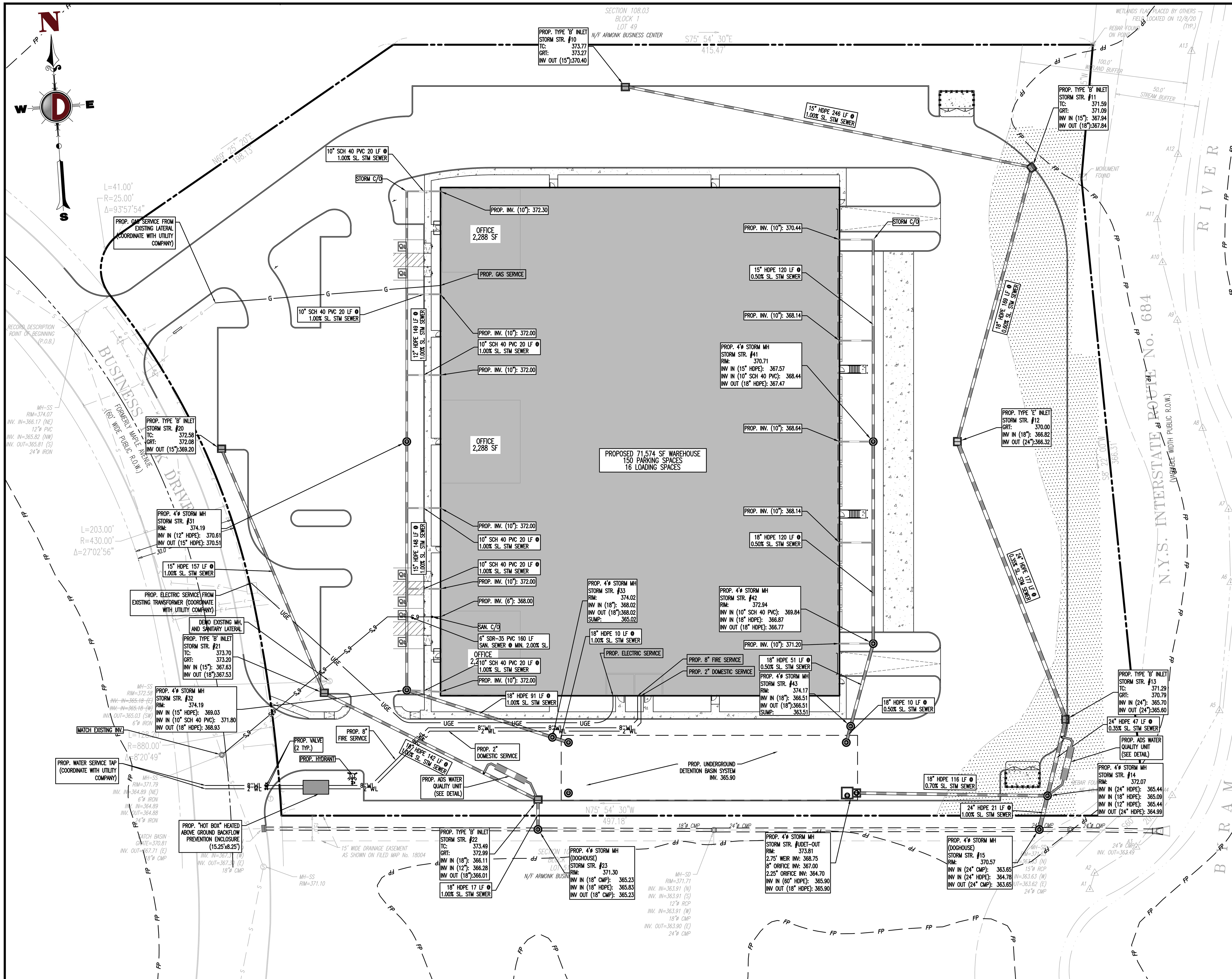
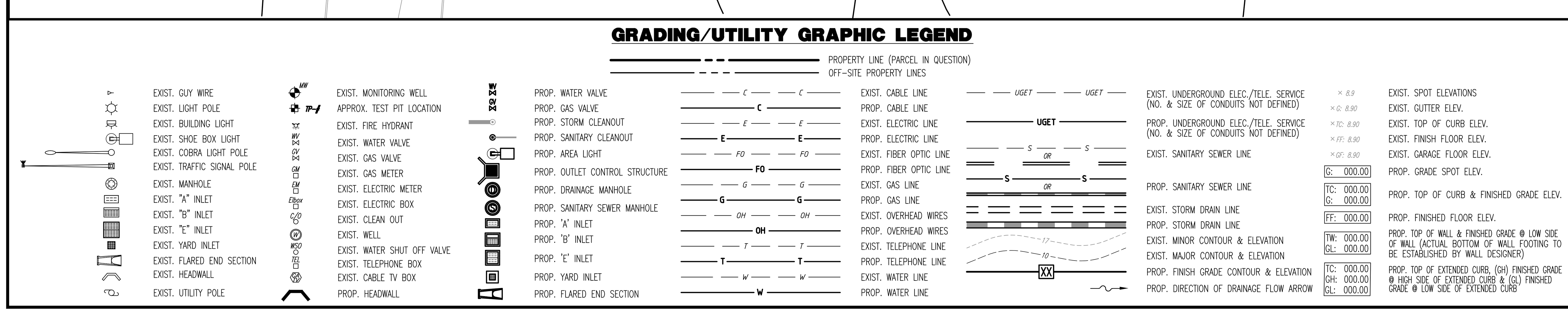
BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE: GRADING PLAN

SCALE: (H) 1"=30' (V)
DATE: 02/19/2021
PROJECT No: 2179-99-009
SHEET No: 4 OF 16
Rev. #: 2





EXISTING UTILITY NOTES

EXISTING WATER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING WATER SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING WATER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL WATER COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL WATER COMPANY PRIOR TO COMPLETION. IF THE EXISTING WATER SERVICE CAN NOT BE UTILIZED, THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL WATER COMPANY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

EXISTING GAS SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING GAS SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING GAS SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL GAS COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL GAS COMPANY PRIOR TO COMPLETION. ANY NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

SANITARY SEWER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING SEWER SERVICE CONNECTION IF OF ADEQUATE SIZE AND INTEGRITY AND ACCEPTABLE TO LOCAL SEWER AUTHORITY. OTHERWISE CONTRACTOR TO REMOVE EXISTING SEWER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL SEWER AUTHORITY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL SEWER AUTHORITY PRIOR TO COMPLETION. IF EXISTING SEWER SERVICE CAN NOT BE UTILIZED THEN THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL SEWER AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

UTILITY NOTES

1. LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK OUT THEIR UTILITIES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
4. WATER SERVICE MATERIALS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTORS PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
5. ALL WATER MAIN SHALL BE CEMENT-LINED, CLASS 52 DUCTILE IRON PIPE, UNLESS OTHERWISE DESIGNATED.
6. THE MINIMUM DIAMETER FOR DOMESTIC WATER SERVICES SHALL BE 1 INCH.
7. SEWER MAINS SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. WHERE THIS IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER MAIN AT LEAST 18 INCHES BELOW THE WATER MAIN. ALL SEWER MAINS SHALL BE SDR-35 PVC PIPE UNLESS OTHERWISE DESIGNATED.
8. ALL SEWER PIPE INSTALLED WITH LESS THAN 3 FEET OF COVER, GREATER THAN 20 FEET OF COVER OR WITHIN 18 INCHES OF A WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE. ALL DUCTILE IRON SEWER PIPE SHALL BE CEMENT-LINED, CLASS 52 PIPE, FURNISHED WITH SEWER COAT, OR APPROVED EQUAL.
9. WHERE SANITARY SEWER LATERALS ARE GREATER THAN 10' DEEP AT CONNECTION TO THE SEWER MAIN, CONCRETE DEEP LATERAL CONNECTIONS ARE TO BE UTILIZED.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILIZATION OF THE EXISTING SEWER MAIN, STRUCTURES AND APPURTENANCES DURING CONNECTION.
11. LOCATION & LAYOUT OF GAS, ELECTRIC & TELECOMMUNICATION UTILITY LINES AND SERVICES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE. ACTUAL LOCATION & LAYOUT OF THESE UTILITIES & SERVICES ARE TO BE PER THE APPROPRIATE UTILITY PROVIDER.
12. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
13. ALL SEWER AND WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATORY AUTHORITY'S RULES AND REGULATIONS.
14. ALL PROPOSED UTILITIES TO BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.
15. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C 990 TO BE UTILIZED TO PROVIDE A SILT-TIGHT JOINT. WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATERTIGHT AND CONFORM TO ASTM C-443.
16. HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURE RECOMMENDATIONS.
17. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATERTIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
18. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.

2	07/12/21	REVISED FOR TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC
REV.	DATE	COMMENTS	BY

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PROJECT: ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
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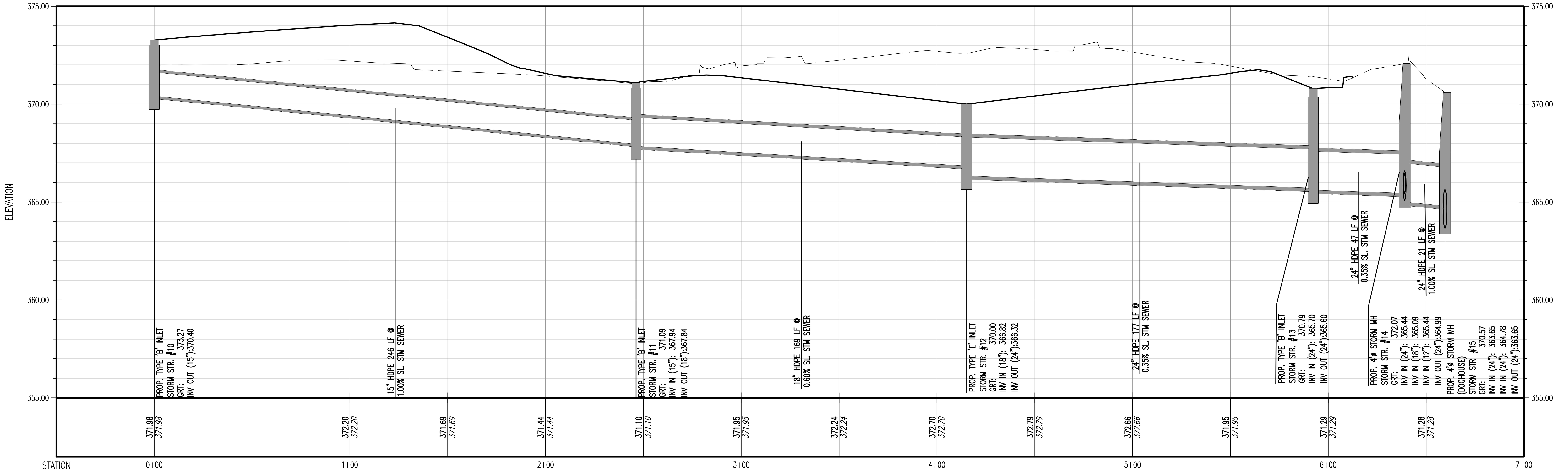
BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

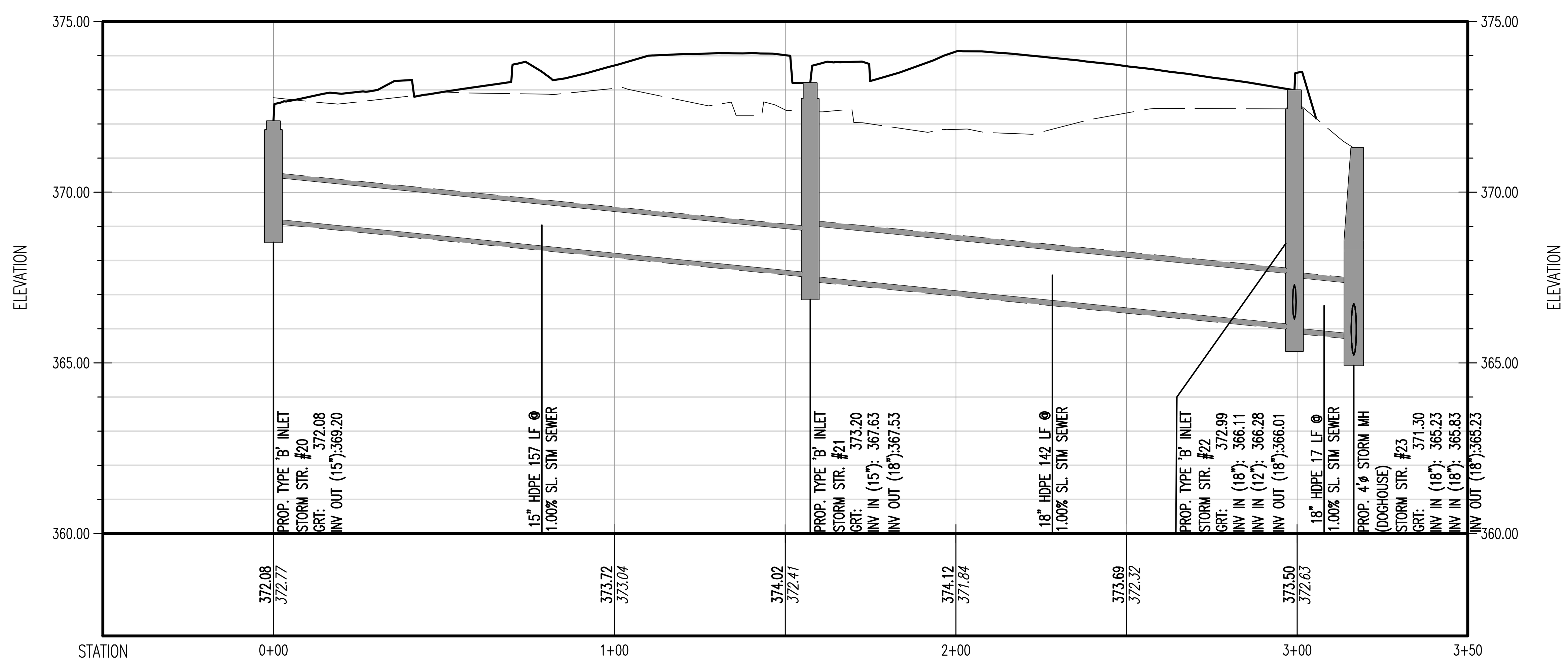
TITLE: DRAINAGE AND UTILITY PLAN

SCALE: (H) 1"=30' (V) | DATE: 02/19/2021
PROJECT No: 2179-99-009
SHEET No: 5 OF 16 | Rev. #: 2

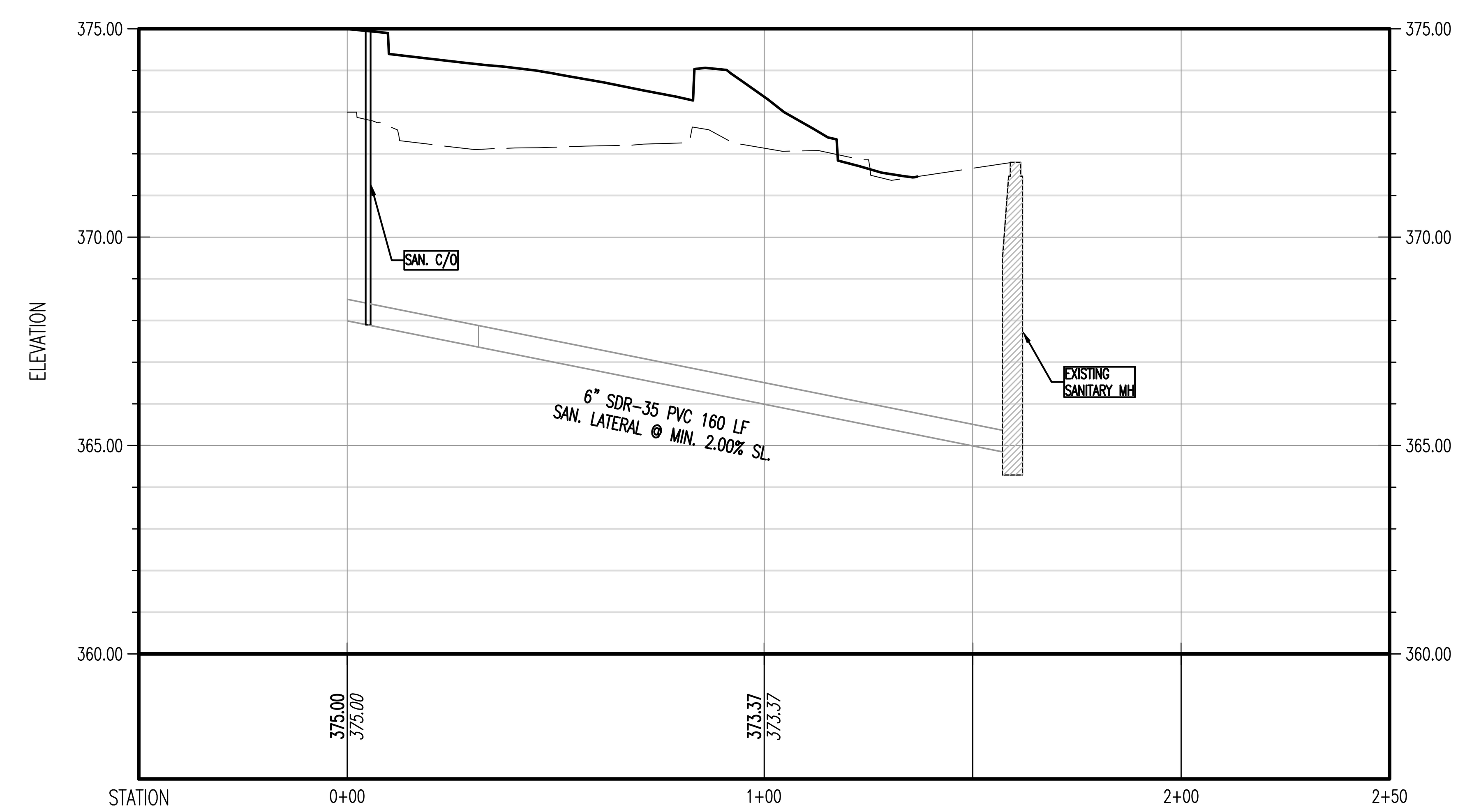
Plotted: 07/12/21 – 11:53 AM, By: jdemartinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\D2179999009SU0.dwg, ---> 05 DRAINAGE AND UTILITY PLAN



PROFILE VIEW OF STORM STR. 10 TO STR. 15
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF STORM STR. 20 TO STR. 23
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF SANITARY LATERIAL
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

HORIZONTAL SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

VERTICAL SCALE
-3 0 1.5 3 6 12
(IN FEET)
1 INCH = 3 FT.

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REV.	DATE	COMMENTS	BY
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NEW YORK LICENSE No. 099106

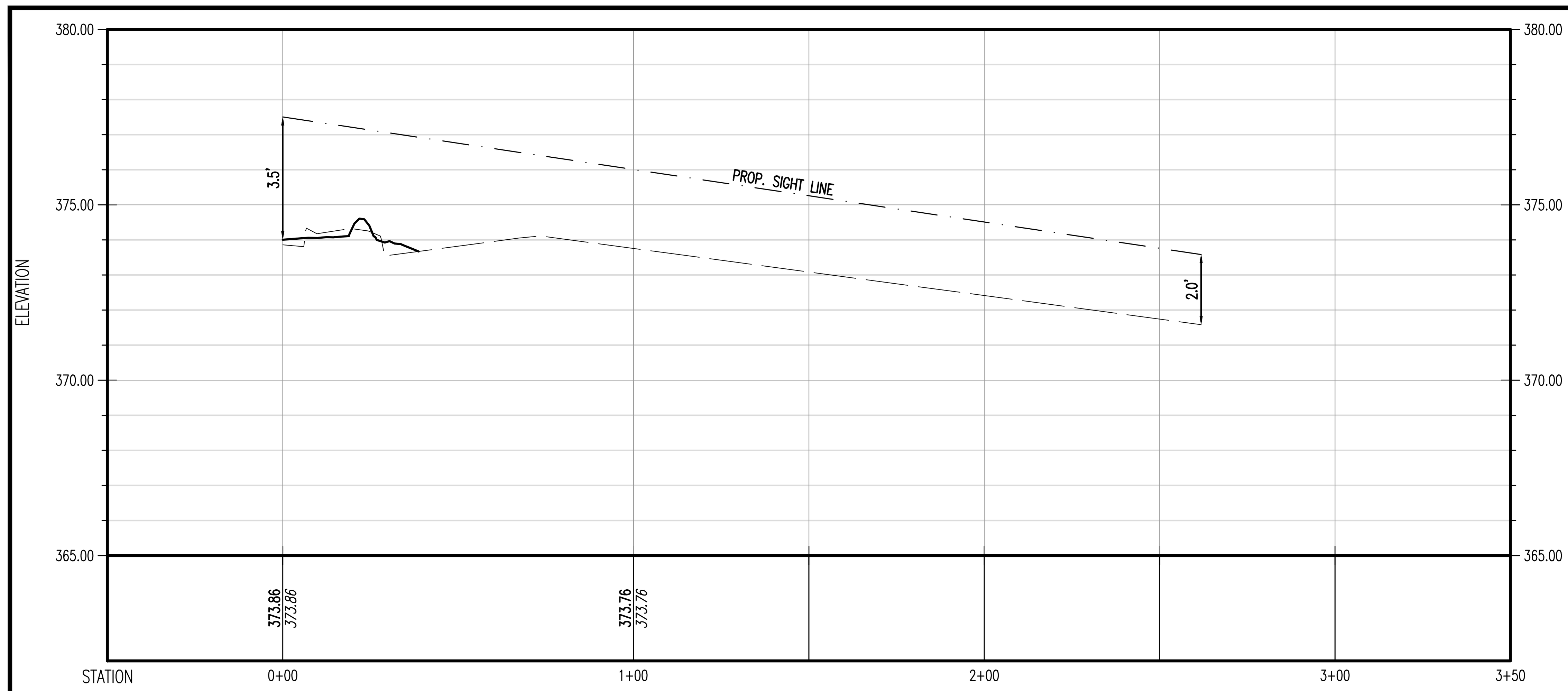
BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE: STORM AND SANITARY PROFILE

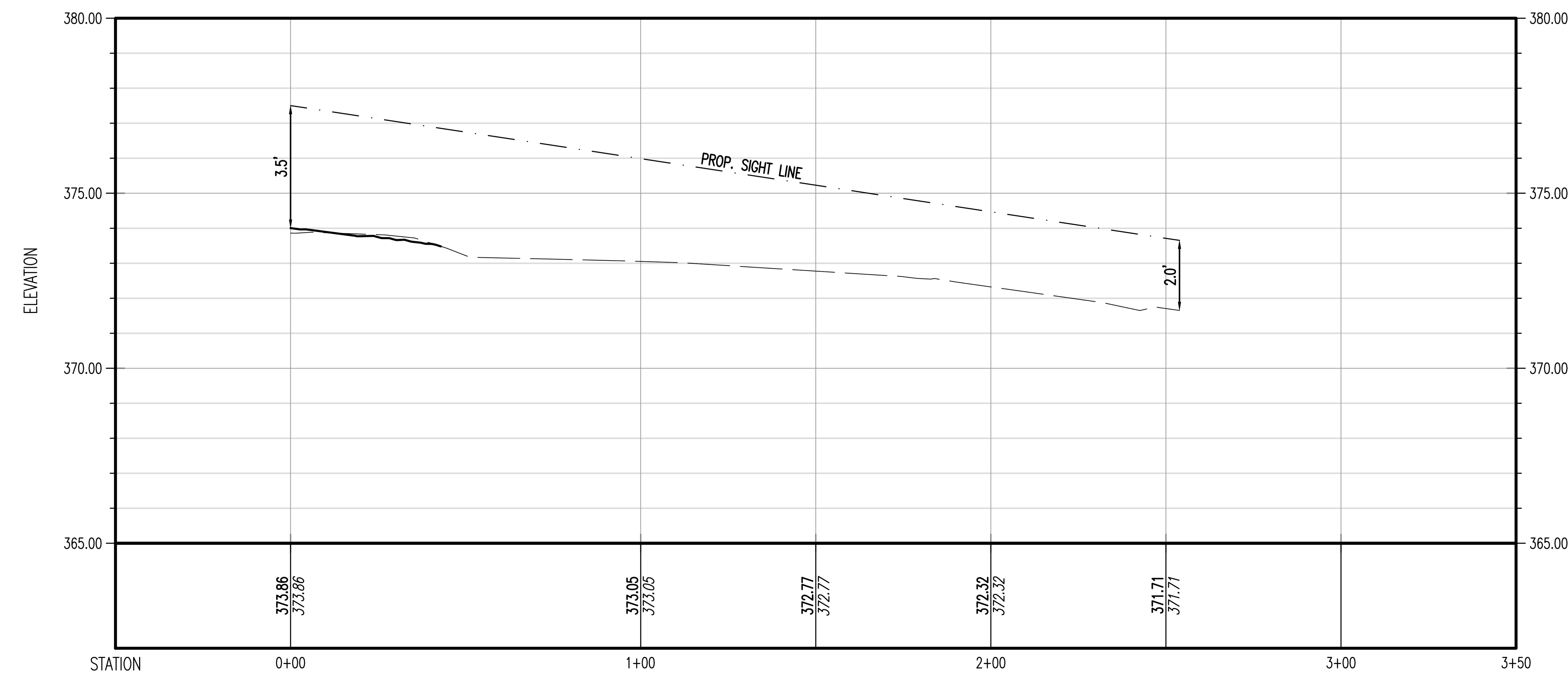
SCALE: (H) 1"=30' (V) 1" = 3'
DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 6 OF 16
Rev. #: 2

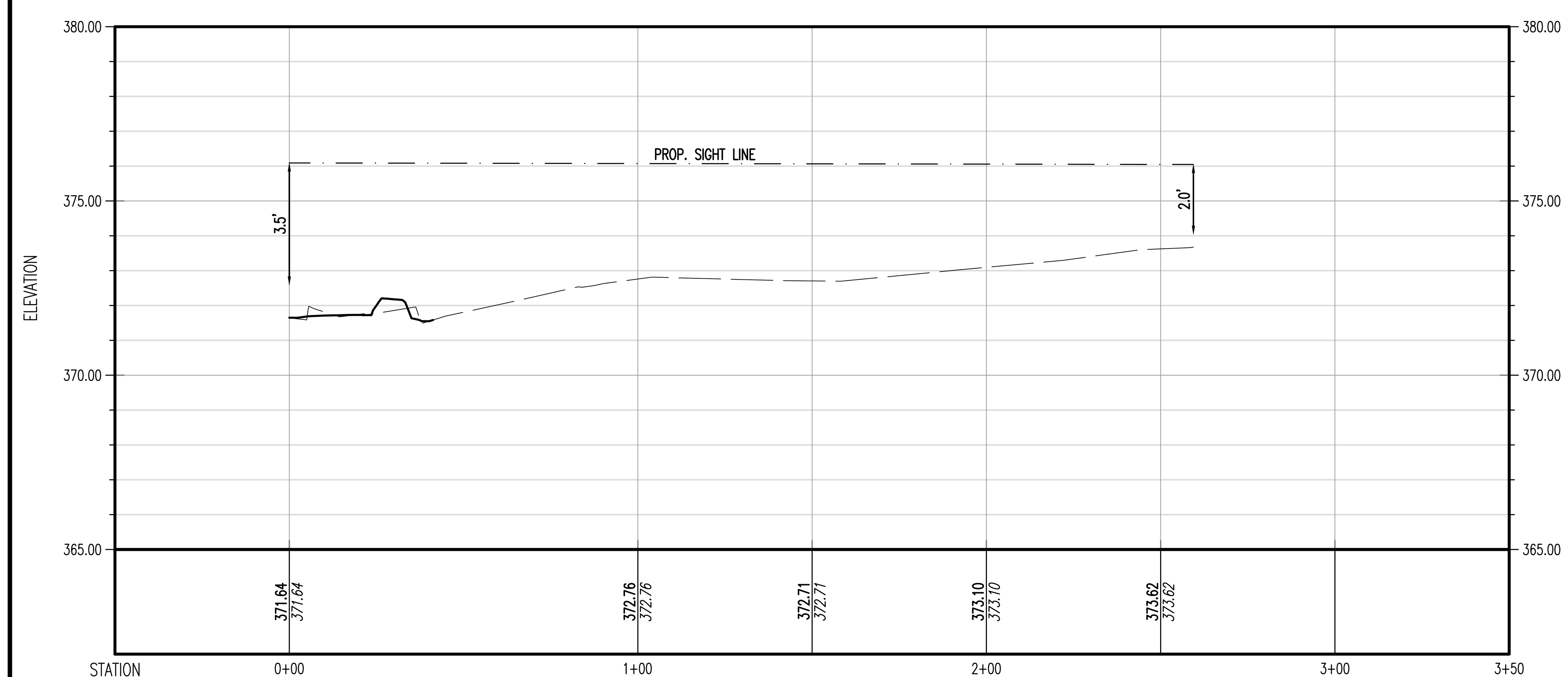
Plotted: 07/12/21 – 11:53 AM, By: jdemortinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\d2179999009SP0.dwg, ---> 06 STORM AND SANITARY PROFILE



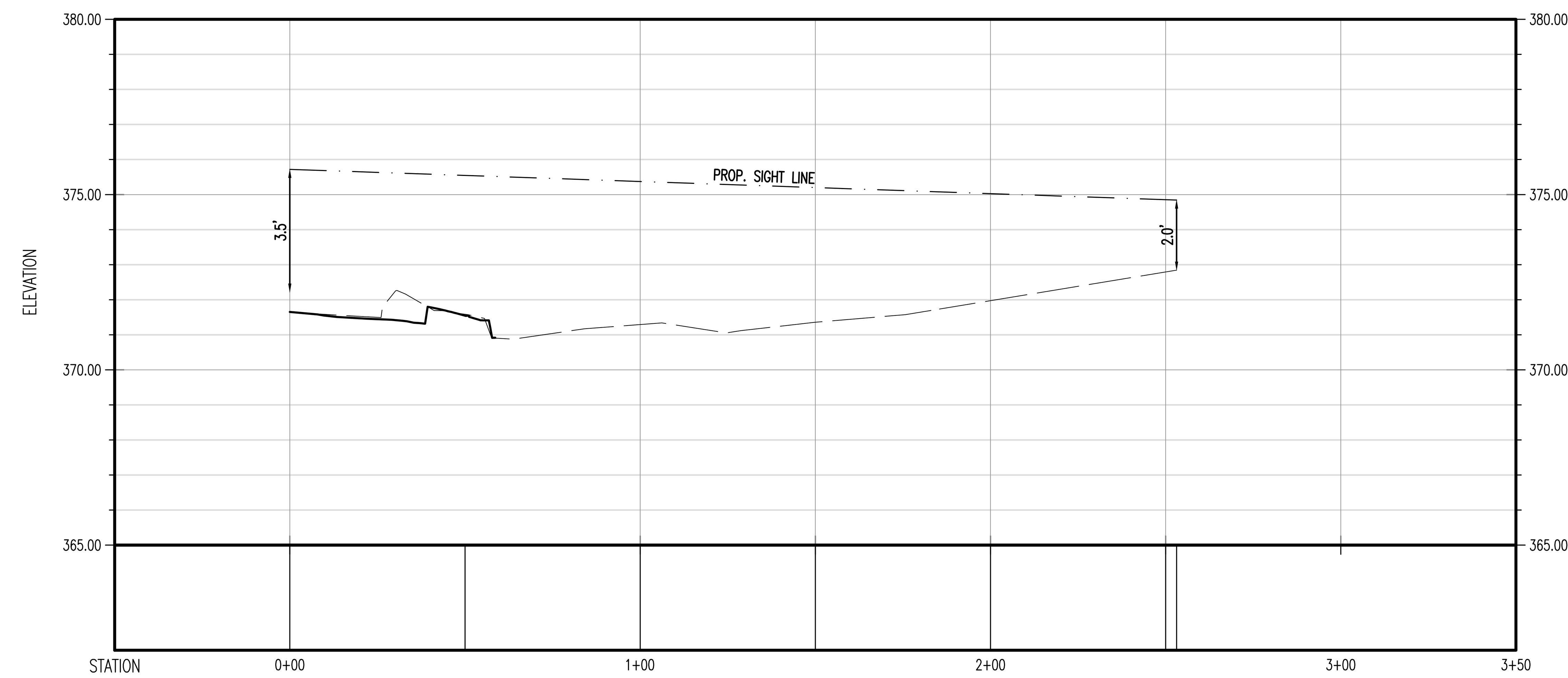
SIGHT LINE PROFILE VIEW OF North Drive – North
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



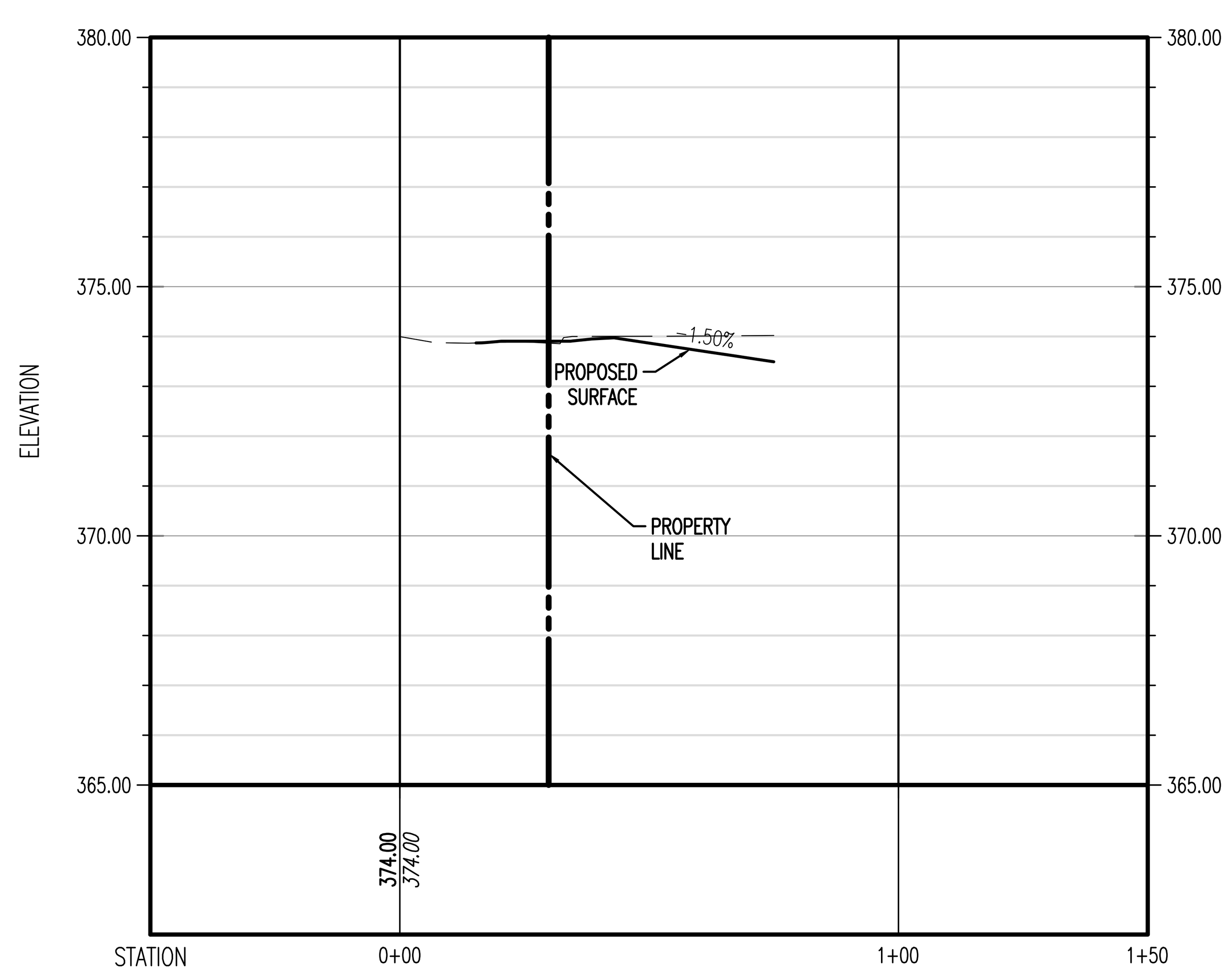
SIGHT LINE PROFILE VIEW OF North Drive – South
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



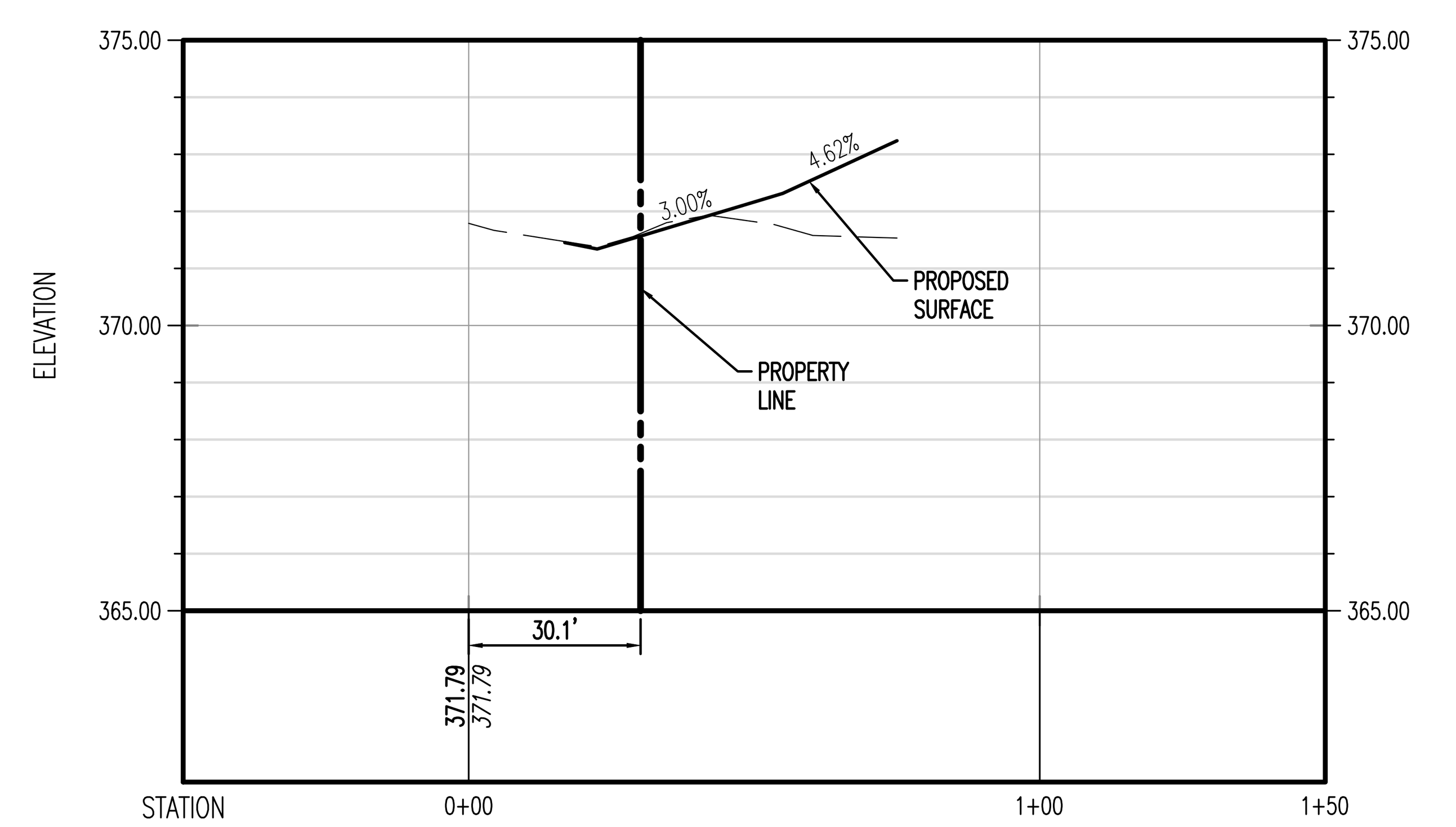
SIGHT LINE PROFILE VIEW OF South Drive – North
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



SIGHT LINE PROFILE VIEW OF South Drive – South
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF NORTH DRIVE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF SOUTH DRIVE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

HORIZONTAL SCALE
–30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

VERTICAL SCALE
–3 0 1.5 3 6 12
(IN FEET)
1 INCH = 3 FT.

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REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: KHC
DESIGNED BY: DTS
CHECKED BY: BWS
CHECKED BY:

PROJECT: **ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC**
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

811
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NEW YORK LICENSE No. 099106

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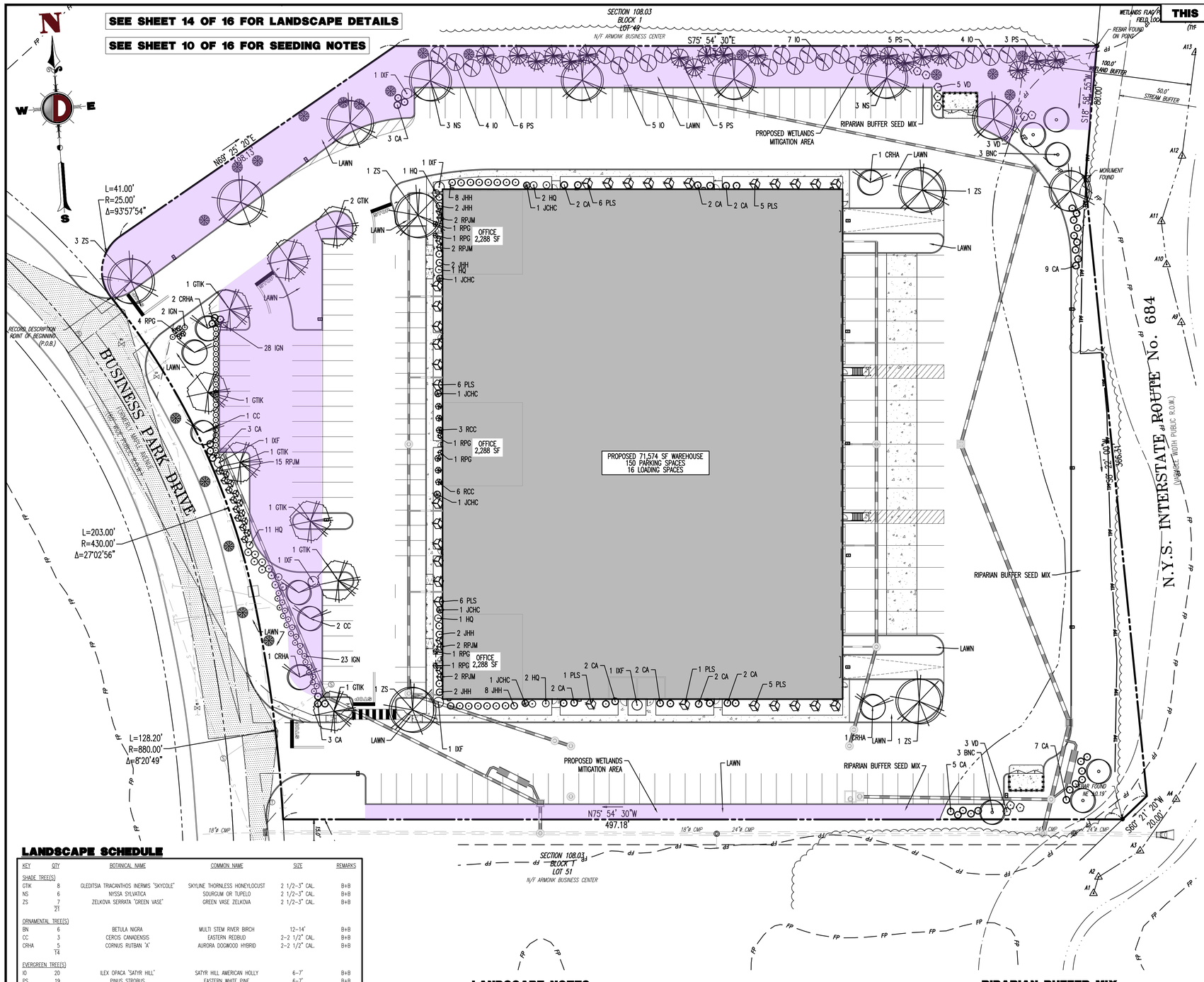
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE: DRIVEWAY PROFILES

SCALE: (H) 1" = 30' (V) 1" = 3'
DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 7 OF 16
Rev. #: 2

Plotted: 07/12/21 – 11:53 AM, By: jdemartinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\d2179999009SP0.dwg, ---> 07 DRIVEWAY PROFILES



LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
GTIK	8	GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE'	SKYLINE THORNLESS HONEYLOCUST	2 1/2-3" CAL.	B+B
NS	6	NYSSA SYLVATICA	SOURGUM OR TUPELO	2 1/2-3" CAL.	B+B
ZS	7	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2 1/2-3" CAL.	B+B
	21				
ORNAMENTAL TREE(S)					
BN	6	BETULA NIGRA	MULTI STEM RIVER BIRCH	12-14'	B+B
CC	3	CERCIS CANADENSIS	EASTERN REDBUD	2-2 1/2" CAL.	B+B
CRHA	5	CORNUS RUTBAN 'A'	AURORA DOGWOOD HYBRID	2-2 1/2" CAL.	B+B
	14				
EVERGREEN TREE(S)					
ID	20	ILEX OPACA 'SATYR HILL'	SATYR HILL AMERICAN HOLLY	6-7'	B+B
PS	19	PINUS STROBUS	EASTERN WHITE PINE	6-7'	B+B
	39				
EVERGREEN SHRUB(S)					
IGN	53	ILEX GLABRA X 'CHAMZIN'	NORDIC INKBERRY	24-30"	#3 CAN
IXF	6	ILEX X FOSTERI	FOSTER'S HOLLY	5-6'	B+B
JCHC	6	JUNIPERUS CHINENSIS 'HETZI COLUMNARIS'	COLUMNAR HETZ JUNIPER	4-5'	B+B
PLS	30	PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	SKIP CHERRYLAUREL	30-36"	B+B
RCC	7	RHODODENDRON CATAWBIENSE 'CHIONOIDES'	CHINOIDES RHODODENDRON	24-30"	B+B
RPG	10	RHODODENDRON 'PURPLE GEM'	PURPLE GEM RHODODENDRON	24-30"	#3 CAN
RPJM	23	RHODODENDRON CAROLINIANA X PJM	PJM RHODODENDRON	24-30"	B+B
	135				
DECIDUOUS SHRUB(S)					
CA	49	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	24-30"	#3 CAN
HQ	18	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	24-30"	#5 CAN
VD	15	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3-4'	B+B
	82				
GROUND COVER					
JHH	24	JUNIPERUS HORIZONTALIS 'HUGHES'	HUGHES JUNIPER	24-30" SPRD	#3 CAN

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

LANDSCAPE NOTES

1. SECTION 355-56.H. REQUIRED: 1 TREE / 10 PARKING SPACES, MINIMUM 3" CALIPER
   150 PARKING SPACES / 10 = 15 TREES REQUIRED
   10 NEW TREES PROVIDED + OVER 5 EXISTING TREES **(COMPLIES)**
2. SECTION 355-56.H.(1) REQUIRED: RAISED PLANTING ISLAND MINIMUM EIGHT (8) FEET WIDE **(COMPLIES)**
3. SECTION 355-56.H.(2) REQUIRED: PARKING AREA >25 SPACES, 10% OF THE INTERIOR OF THE PARKING AREA SHALL BE LANDSCAPED WITH TREES, SHRUBS AND OTHER PLANT MATERIAL
   PARKING AREA = 56,182 SF x 10% = 5,618 SF LANDSCAPE AREA REQUIRED
   8,200 SF LANDSCAPE AREA PROVIDED **(COMPLIES)**
4. SECTION 355-56.H.(3) REQUIRED: NO OBSTRUCTION TO DRIVER VISION SHALL BE ERECTED OR MAINTAINED ON ANY LOT WITHIN THE TRIANGLE FORMED BY THE STREET LINE OF SUCH LOT, THE OUTER EDGE OF THE ACCESS DRIVEWAY TO THE PARKING AREA AND A LINE DRAWN BETWEEN POINTS ALONG EACH 30 FEET DISTANCE FROM THEIR POINT OF INTERSECTION **(COMPLIES)**

WETLAND MITIGATION NOTES

32,910 SF WETLAND MITIGATION AREA, REMOVE ALL IDENTIFIED INVASIVE SPECIES

RIPARIAN BUFFER MIX

Mix Composition:
22.1% Panicum clandestinum, Tioga (Deertongue, Tioga)
20.0% Elymus virginicus, Madison-NY Ecotype (Virginia Wildrye, Madison-NY Ecotype)
18.0% Andropogon gerardii, 'Niagara' (Big Bluestem, 'Niagara')
18.0% Sorghastrum nutans, WI Ecotype (Indiangrass, WI Ecotype)
10.0% Panicum virgatum, 'Carthage', NC Ecotype (Switchgrass, 'Carthage', NC Ecotype)
3.0% Rudbeckia hirta (Blackeyed Susan)
2.0% Asclepias incarnata, PA Ecotype (Swamp Milkweed, PA Ecotype)
2.0% Verbena hastata, PA Ecotype (Blue Vervain, PA Ecotype)
1.0% Eupatorium perfoliatum, PA Ecotype (Boneset, PA Ecotype)
1.0% Helenium autumnale, PA Ecotype (Common Sneezeweed, PA Ecotype)
0.7% Aster novae-angliae, PA Ecotype (New England Aster, PA Ecotype)
0.7% Aster umbellatus, PA Ecotype (Flat Topped White Aster, PA Ecotype)
0.7% Zizia aurea, PA Ecotype (Golden Alexanders, PA Ecotype)
0.5% Monarda fistulosa, Fort Indiantown Gap–PA Ecotype (Wild Bergamot, Fort Indiantown Gap–PA Ecotype)
0.3% Solidago rugosa, PA Ecotype (Wrinkleleaf Goldenrod, PA Ecotype)

Ernst Seed Mix Item Number: ERNMX-178
Product Categories: Riparian Sites
Height: 1.0 - 9.0 Ft
Seeding Rate: 20 lb per acre with a cover crop at 30 lb per acre (dry sites – grain oats, Jan 1–Aug 1; or, grain rye, Aug 1–Jan 1; moist sites – grain rye year-round

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

PLANTING SPECIFICATIONS

1. SCOPE OF WORK
   A. THIS WORK SHALL CONSIST OF PERFORMING, CLEARING AND SOIL PREPARATION, FINISH GRADING, PLANTING AND DRAINAGE, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.
2. MATERIALS
   A. GENERAL – ALL MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION (D.O.T.) MANUAL OF ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION) OR APPROVED EQUAL.
   B. PLANTS – ALL PLANTS SHALL BE HEALTHY OR NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS.
   C. TOPSOIL – LOAMY SILT, HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, pH RANGE BETWEEN 4.5 – 7, BE FREE OF DEBRIS, ROCKS LARGER THAN TWO INCHES (2"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
   D. MULCH – FOUR (4") INCHES DOUBLE SHREDDED HARDWOOD BARK MULCH.
3. FERTILIZER AND SOIL CONDITIONER – PLANTED AREAS
   A. ORGANIC FERTILIZER – SHALL BE PROCESSED SEWER SLUDGE WITH MINIMAL CONTENT OF 1% NITROGEN AND 2% PHOSPHORIC ACID, EQUAL TO "NITROHUMS".
   B. ORGANIC FERTILIZER AND SOIL CONDITIONER – SHALL BE "ORO– POWER" AND ORGANIC BASE MATERIALS COMPRISED OF DECOMPOSED ANIMAL AND VEGETABLE MATTER AND COMPOSTED TO SUPPORT BACTERIAL CULTURES, CONTAINING NO POULTRY OR HUMAN WASTE. GUARANTEED ANALYSIS (5–3–1): NITROGEN 5%. PHOSPHATE 3%, POTASH 1%. 50% HUMUS AND 15% HUMIC ACIDS.
4. GENERAL WORK PROCEDURES
   A. LANDSCAPE WORK SHALL COMMENCE AS SOON AS THOSE PORTIONS OF THE SITE ARE AVAILABLE. CONTRACTOR TO UTILIZE WORKMANLIKE STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH DAY'S WORK. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STOCKPILED OR DISPOSED OF. ALL PAVED SURFACES SHALL BE SWEPT CLEAN AT THE END OF EACH DAYS WORK.
5. WEEDING
   A. BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
6. TOPSOILING
   A. CONTRACTOR TO PROVIDE A TOPSOIL LAYER, PER PLANTING NOTE #10 ABOVE, IN ALL PLANTING AREAS MINIMUM TOPSOIL DEPTHS SHALL BE AS FOLLOWS: 18" FOR ALL PLANTING ISLANDS (FULL DEPTH BEHIND CURBING), 12" FOR ALL PLANTING BEDS; 6" FOR ALL LAWN OR MEADOW AREAS. A TYPE 2 TOPSOIL EVALUATION FROM RUTGERS SOIL TEST LAB, OR APPROVED EQUIVALENT SHALL BE PROVIDED FOR ALL ON SITE TOPSOIL AND IMPORTED TOPSOIL. TOPSOIL SHALL BE A FERTILE AGRICULTURAL LOAM FREE FROM ROCKS, ROOTS AND DEBRIS WITH A TEXTURAL ANALYSIS OF A SANDY LOAM, SILT LOAM OR CLAY LOAM AND SHALL HAVE AN ORGANIC MATTER CONTENT OF 5% WITH PH BETWEEN 5.5 AND 7.0. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO PRODUCE AN UNSETTLED THICKNESS AS NOTED ABOVE. TOPSOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON–SITE TOPSOIL UTILIZED IN ALL PLANTING AREAS. ADJUST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM.
7. SOIL CONDITIONING:
   A. CULTIVATE ALL AREAS TO BE PLANTED TO A DEPTH OF 6". ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE. SPREAD EVENLY IN ALL PLANTING AREAS AND TILL (2 DIRECTIONS) INTO TOP 4" WITH THE FOLLOWING PER 1,000 SQ. FT.:
      20 POUNDS "ORO–POWER"
      100 POUNDS AGRICULTURAL GYPSUM
      20 POUNDS NITROFORM (COURSE) 38–0–0 BLUE CHIP
   SOIL MODIFICATIONS:
   A. THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. USE COMPOSTED BARK, RECYCLED YARD WASTE OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGHER THAN 7.5.
   B. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT), BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME), AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.
   C. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
8. PLANTING
   POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED. SHRUBS SHOULD BE GROUPED IN SUCH A WAY AS TO BE SURROUNDED BY A CLEAN BED–LINE. THIS BED SHOULD BE COVERED WITH A UNIFORM 3" DEPTH OF MULCH.
   A. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACK FILLED WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
      1 PART PEAT MOSS BY VOLUME
      1 PART COW MANURE BY VOLUME
      3 PARTS TOPSOIL BY VOLUME
      21 GRAM 'AGRIFORM' PLANTING TABLETS AS FOLLOWS:
         2 TABLETS PER 1 GAL. PLANT
         3 TABLETS PER 5 GAL. PLANT
         4 TABLETS PER 15 GAL. PLANT
         LARGER PLANTS (2) TWO TABLETS PER 1/2" DIAM. OF TRUNK CALIPER
   B. PREPARED SOIL SHALL BE TAMPED FIRMLY AT BOTTOM OF PIT. FILL PREPARED SOIL AROUND BALL OF PLANT 1/2 WAY, AND INSERT PLANT TABLETS. COMPLETE BACK FILL AND WATER THOROUGHLY.
   C. ALL PLANTS SHALL BE SET SO THAT THEY BEAR THE SAME RELATION TO THE REQUIRED GRADE AS THEY BORE TO THE NATURAL GRADE BEFORE BEING TRANSPLANTED.
   D. PREPARE RAISED EARTH BASIN AS WIDE AS PLANTING HOLE OF EACH TREE.
   E. WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACK FILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
   F. PRUNE ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS TO A MIN. OF 7' BRANCHING HEIGHT.
9. GROUND COVER
   A. ALL GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING GROUND COVER.
   B. SPACING AND VARIETY OF GROUND COVER SHALL BE AS SHOWN ON DRAWINGS.
   C. IMMEDIATELY AFTER PLANTING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GROUND COVER.
   D. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE–EMERGENT BEFORE FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLYING PRE–EMERGENT. PRE–EMERGENT TO BE APPLIED AS PER MANUFACTURER'S RECOMMENDATION.
10. FINISH GRADING
    A. ALL AREAS WILL BE RECEIVED BY THE CONTRACTOR AT SUBSTANTIALLY PLUS/MINUS .1 FOOT OF FINISH GRADE.
    B. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE, UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. SLOPE AREAS ADJACENT TO THE BUILDINGS SHALL SLOPE AWAY.
    C. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
11. GUARANTEE
    A. A TWO–YEAR MAINTENANCE GUARANTEE FOR ALL PLANTINGS IS REQUIRED BY THE TOWNSHIP FORM THE DATE OF FINAL ACCEPTANCE (RETURN OF PERFORMANCE BOND). CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF TWO (2) YEARS FROM ACCEPTANCE OF JOB. OWNER TO SECURE A MAINTENANCE BOND FROM THE CONTRACTOR FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE COMMENCEMENT OF THE GUARANTEE PERIOD AND PASSES A FINAL INSPECTION BY THE OWNER OR OWNERS REPRESENTATIVE.
12. CLEANUP
    A. UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
    B. MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY WITH HERBICIDE AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
    C. MAINTAIN LAWNS BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
13. MAINTENANCE (ALTERNATE BID) COST PER MONTH AFTER INITIAL 90–DAY MAINTENANCE PERIOD.

PLANTING NOTES

1. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE TO SCHEDULE AND ATTEND AN ON–SITE PRE–CONSTRUCTION CONFERENCE WITH THE TOWNSHIP LANDSCAPE ARCHITECT PRIOR TO BEGINNING ANY LANDSCAPE WORK.
2. ALL PLANT MATERIAL IS SUBJECT TO INSPECTION BY THE TOWNSHIP LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT WHEN PLANT MATERIAL IS READY FOR INSPECTION. ANY PLANTS REJECTED AT THE INSPECTION BY THE LANDSCAPE ARCHITECT MUST BE IMMEDIATELY REMOVED FROM THE SITE BY THE LANDSCAPE CONTRACTOR.
3. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED; INCLUDING ALL LABOR, MATERIALS, PLANTS, EQUIPMENT, INCIDENTALS, AND CLEAN–UP.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT. LAYOUT TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
5. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES.
6. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
7. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST TWO (2) YEAR FROM THE DATE OF ACCEPTANCE FOR TREES AND SHRUBS. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
8. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. ANY PLANTS NOT INSTALLED DURING THIS PERIOD WILL BE REJECTED.
9. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH ANSI Z60.1 (REV. 2001) "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
10. ALL PLANTS SHALL BE PLANTED IN AMENDED TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. PLANTING MIX TO BE AS SHOWN ON PLANTING DETAILS. LARGE PLANTING AREAS TO INCORPORATE FERTILIZER AND SOIL CONDITIONERS AS STATED IN PLANTING SPECIFICATIONS.
11. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.
12. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION. ALL PLANT MATERIAL SHALL BE SPRAYED WITH WILT–PRUF OR EQUAL AS PER MANUFACTURER'S INSTRUCTIONS.
13. NO PLANT, EXCEPT GROUND COVERS, SHALL BE PLANTED LESS THAN TWO FEET FROM EXISTING STRUCTURES AND SIDEWALKS.
14. SET ALL PLANTS PLUMB AND STRAIGHT, SET AT SUCH LEVEL THAT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PIT.
15. ALL INJURED ROOTS SHALL BE PRUNED TO MAKE CLEAN ENDS BEFORE PLANTING UTILIZING CLEAN, SHARP TOOLS. IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER OF TREES WILL NOT BE CUT BACK. LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED.
16. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
17. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES AS A RESULT OF CONSTRUCTION OPERATIONS. ALL EXISTING TREES SHALL BE FERTILIZED WITH A REGULAR GARDEN FERTILIZER (5–10–5) UPON COMPLETION OF WORK. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR TO ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH SHARP TOOLS AND FILLED AROUND WITH TOPSOIL. COMPLETELY SATURATE THESE AREAS WITH WATER. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR IS TO PROTECT ALL EXISTING TREES TO REMAIN BY ERECTING TREE PROTECTION FENCE AT THE DRIP LINE. THIS WILL ENSURE NO COMPACTION OF THE ROOT MASS.
18. ALL PLANTING BEDS SHALL BE MULCHED WITH 4" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH.
19. NEW PLANTING AREAS AND SOD SHALL BE ADEQUATELY IRRIGATED OR WATERED TO ESTABLISH THE PROPOSED PLANTS AND LAWN.
20. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE AS SHOWN ON THE APPROVED LANDSCAPE PLAN MUST BE INSTALLED, INSPECTED AND APPROVED BY THE MUNICIPAL LANDSCAPE ARCHITECT. THE MUNICIPAL ENGINEER AND LANDSCAPE ARCHITECT SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS: THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER AS REQUIRED BY OR ASSOCIATED WITH A SUBDIVISION OR SITE PLAN APPROVAL BY THE PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT SHALL BE INSTALLED DURING THE FOLLOWING PLANTING SEASONS:

TYPE	DATES
TREES AND SHRUBS	3/1 TO 6/1, 9/1 TO 12/15
LAWN	3/15 TO 6/15
	9/15 TO 12/1

FURTHERMORE, THE FOLLOWING TREE VARIETIES SHALL NOT BE PLANTED DURING THE FALL PLANTING SEASON DUE TO THE HAZARDS ASSOCIATED WITH DIGGING THESE TREES IN THIS SEASON.

ACER RUBRUM	POPULUS VARIETIES
BETULA VARIETIES	PRUNUS VARIETIES
CARPINUS VARIETIES	PYRUS VARIETIES
CRATAEGUS VARIETIES	QUERCUS VARIETIES
KOELREUTERIA	SALIX WEEPING VARIETIES
LIQUIDAMBAR STYRACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULIPIFERA	ZELKOVA VARIETIES
PLATANUS ACERFOLIA	

ANY PLANTINGS INSTALLED IN CONFLICT WITH THIS REQUIREMENT MUST RECEIVE THE WRITTEN APPROVAL BY THE MUNICIPAL ENGINEER OR LANDSCAPE ARCHITECT, PRIOR TO PLANTING. FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL REQUIRE THE REMOVAL OF THE PLANTING IN QUESTION. THIS REQUIREMENT DOES NOT APPLY TO SEEDING OR SODDING PLANTINGS SPECIFICALLY FOR SOIL STABILIZATION PURPOSES. THE PLANTING ASSOCIATED WITH ANY LOT GIVEN A CERTIFICATE OF OCCUPANCY OUTSIDE THESE PERIODS SHALL BE PROVIDED DURING THE PREVIOUS OR NEXT APPROPRIATE SEASON.

21. ALL DISTURBED AREAS TO BE TREATED WITH TOPSOIL SEED SOD STABILIZATION METHOD.

GRAPHIC SCALE

−30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: MR | DESIGNED BY: DTS | CHECKED BY: BWS | CHECKED BY:

PROJECT: **ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC**
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

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DANIEL T. SEHNAL
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NEW YORK LICENSE No. 099106

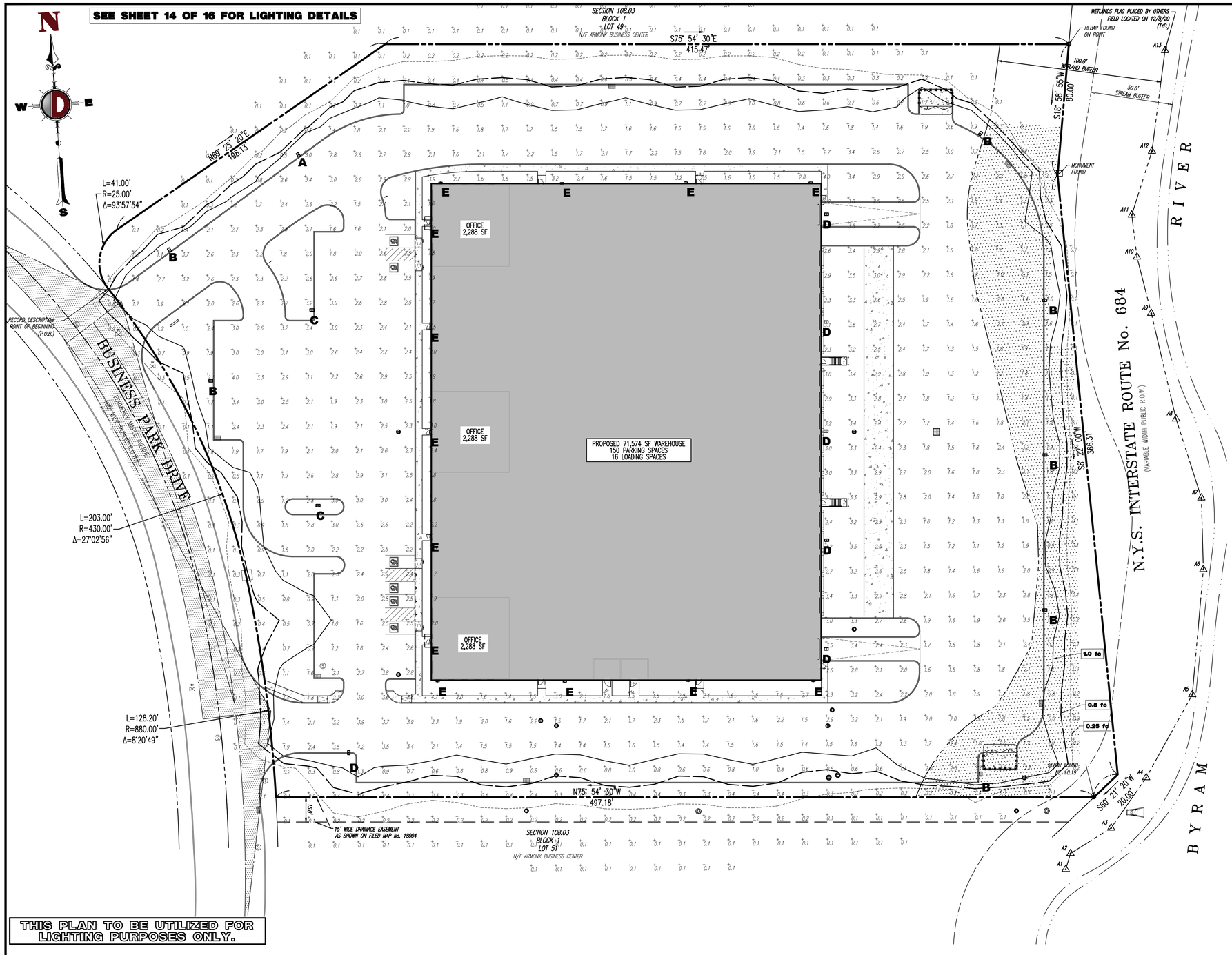
BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE: LANDSCAPE PLAN

SCALE: (H) 1"=30' (V) | DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 8 OF 16 | Rev. #: 2

Plotted: 07/12/21 – 11:53 AM, By: jdemartinis
File: \\deepclean\data\Data\DEEPC PROJECTS\2179 JG Petrucci\99-009 North Castle (MV)\Dwg\Site Plans\02179990009SLO.dwg, ---> 08 LANDSCAPE PLAN



THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY.

GENERAL NOTES

1. THIS LIGHTING PLAN ILLUSTRATES ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) APPROVED METHODS. ACTUAL SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER RELATED VARIABLE FIELD CONDITIONS.
2. ALL EXISTING CONDITIONS LIGHTING LEVELS ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES AND/OR ACTUAL FIELD MEASUREMENTS TAKEN WITH A LIGHT METER. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC., ACTUAL LIGHTING LEVELS MAY DIFFER AND THE LIGHTING LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED AS APPROXIMATE.
3. CONDUITS SHALL BE INSTALLED A MINIMUM OF 2 FEET BEHIND GUIDERAIL POSTS.
4. ALL WIRING METHODS AND EQUIPMENT CONSTRUCTION SHALL CONFORM TO THE CURRENT NATIONAL ELECTRICAL CODE.
5. REFER TO ARCHITECTURAL PLANS FOR SITE LIGHTING DIAGRAM.
6. TIME OF USE, DUSK TO DAWN, 7 DAYS.

Diversifed NJ Luminaire Schedule

Symbol	Arrangement	Qty	Type	Manufacturer	Product Code	Lum. Watts	Arr. Watts	Lum. Lumens	LLF
	SINGLE	1	A	BEACON	VP-S-60L-136-4K7-3-VOLTS-A-FINISH-BC w/ SSS-B-25-40-B-1-B3-FINISH (POLE MOUNTED AT 25' AFG)	133.427	133.427	10544	0.950
	SINGLE	7	B	BEACON	VP-S-60L-136-4K7-4-VOLTS-A-FINISH-BC w/ SSS-B-25-40-B-1-B3-FINISH (POLE MOUNTED AT 25' AFG)	133.603	133.603	11665	0.950
	SINGLE	2	C	BEACON	VP-S-60L-136-4K7-5R-VOLTS-A-FINISH w/ SSS-B-25-40-B-1-B3-FINISH (POLE MOUNTED AT 25' AFG)	135.639	135.639	15467	0.950
	WALL MOUNT	6	D	BEACON	VP-S-60L-136-4K7-4-VOLTS-WB-FINISH (WALL MOUNTED AT 25' AFG)	135.583	135.583	15086	0.950
	SINGLE	13	E	KIM LIGHTING	WDM-D-48L-85-4K7-4W-VOLTS-FINISH (WALL MOUNTED AT 25' AFG)	84	84	10544	0.950

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LOADING DOCK	Illuminance	Fc	2.87	3.6	2.2	1.30	1.64
LOADING DRIVE ASILE	Illuminance	Fc	1.88	3.7	1.1	1.71	3.36
PARKING AREAS	Illuminance	Fc	2.05	4.2	0.5	4.10	8.40

NOTE: LIGHTING DESIGN BY DIVERSIFIED NJ

GRAPHIC SCALE

−30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

REV.	DATE	COMMENTS	BY
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BRETT W. SKAPINETZ
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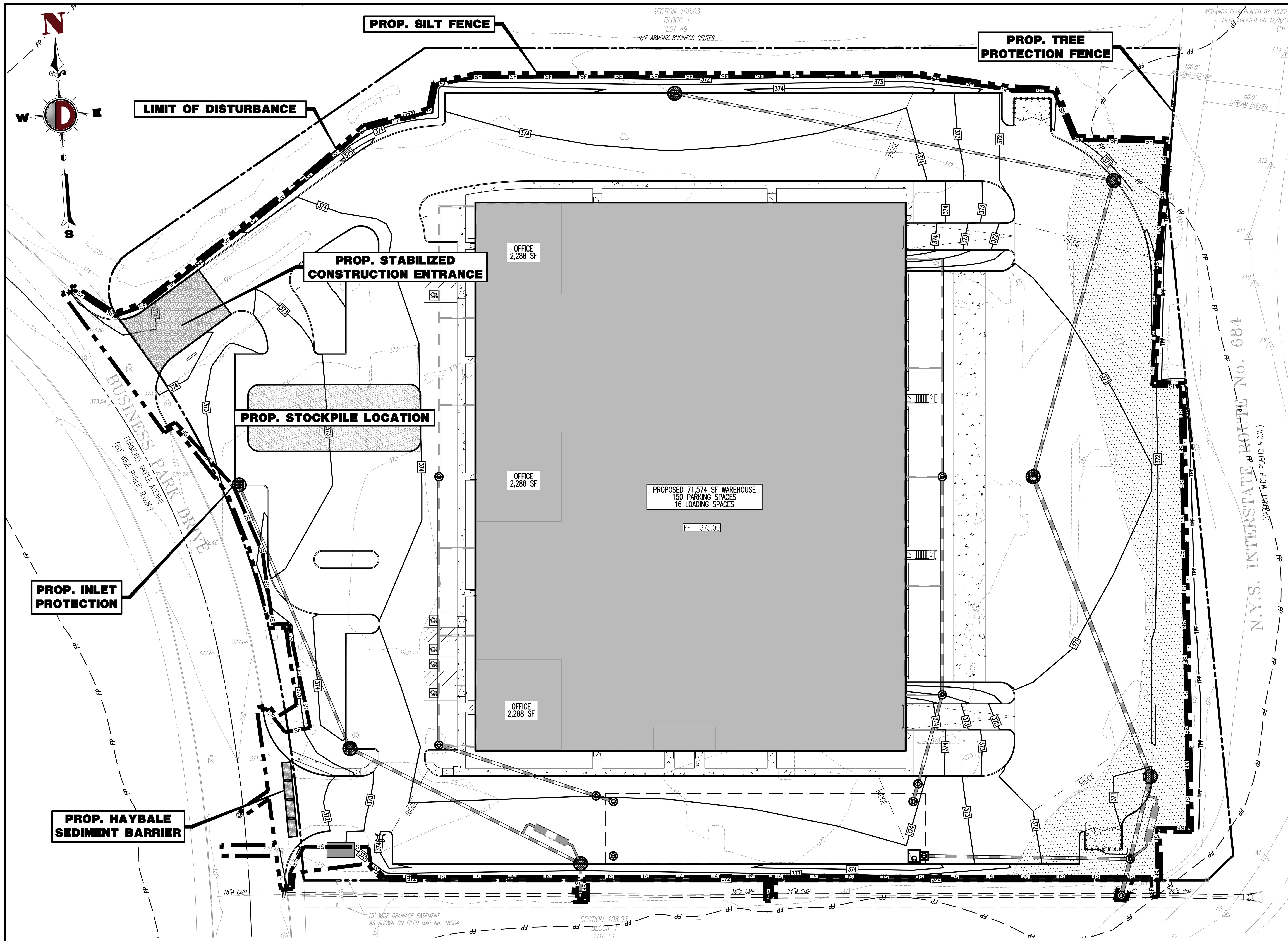
NEW YORK LICENSE No. 087962

TITLE: LIGHTING PLAN

SCALE: (H) 1"=30' (V)
DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 9 OF 16
Rev. #: 2

Plotted: 07/12/21 – 11:54 AM, By: jdemartinis
File: \\decpc.local\dec\folders\Data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\02179990009SKI.dwg, ----> 09 LIGHTING PLAN



LIMIT OF DISTURBANCE = 225,601 SF. (5.179 Ac.)

EROSION CONTROL LEGEND

- PROP. LIMIT OF DISTURBANCE LINE
- PROP. SILT FENCE LINE
- PROP. TREE PROTECTION FENCE LINE
- PROP. INLET FILTER
- PROP. HAYBALE SEDIMENT BARRIER

SOIL EROSION & SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN SEVEN (7) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BE BOUND IN ACCORDANCE WITH THE STATE STANDARDS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).

3. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE. ACCORDING TO STATE STANDARDS.

4. TEMPORARY BERMS ARE TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS IN ACCORDANCE WITH THE STATE STANDARDS.

5. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, SUB-BASE WILL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING.

6. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUN-OFF IS DIVERTED TO SOIL EROSION MID SEDIMENT CONTROL FACILITIES.

7. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACK FILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E. SLOPES GREATER 3:1).

8. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS.

9. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOOD PLAIN, SLOPE, ROADWAY, OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES MUST BE PROTECTED BY A HAY BALE BARRIER OR SEDIMENT FENCE.

10. A CRUSHED STONE VEHICLE WHEEL CLEANING BLANKET WILL BE INSTALLED IMMEDIATELY AFTER INITIAL SITE DISTURBANCE AND WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. BLANKET SHALL BE 1-1/2" TO 2" CRUSHED STONE AND AT LEAST 30' X 100', AND MUST BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED.

11. MAXIMUM SLIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED.

12. ANY INDIVIDUAL ACCESS ROADS OR DRIVES MUST BE STABILIZED WITH 2-1/2" CRUSHED STONE PRIOR TO COMMENCEMENT OF CONSTRUCTION IN THAT AREA.

13. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.

14. ALL CATCH BASIN INLETS MUST BE PROTECTED WITH A CRUSHED STONE OR HAY BALE FILTER (SEE DETAIL).

15. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUT FALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.

16. ALL DE-WATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHALL BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC (SEE DETAIL).

17. PERMANENT VEGETATION TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH TO BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.

18. ALL UNSTABILIZED AREAS TO BE SPRINKLED WITH WATER UNTIL WET AT THE BEGINNING OF EACH DAY TO CONTROL DUST.

19. ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF 12" OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION.

20. AT THE TIME OF SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION, ANY SOIL NOT SUITABLE TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER WILL BE REMOVED OR TREATED IN SUCH A WAY TO PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. (IF REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE PROVIDED.)

21. ALL SITE WORK FOR SITE PLANS WILL HAVE TO BE COMPLETED PRIOR TO THE SOIL CONSERVATION DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.

22. THE APPROVING AUTHORITY MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON OR OFF SITE EROSION PROBLEMS DURING CONSTRUCTION AND SHALL BE NOTIFIED IN WRITING 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY LAND DISTURBANCE.

23. ANY CHANGES TO THE CERTIFIED SOIL EROSION MID SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RECERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.

CONSTRUCTION PHASING

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SILT FENCE.
2. DEMOLITION OF SITE FEATURES AS DETAILED ON SHEET #4. EXCAVATED MATERIALS SHALL NOT BE STORED ONSITE. ALL THE LEFT OVER MATERIALS NEED TO BE TRUCKED OUT FROM THE SITE.
3. INSTALL UNDERGROUND PIPING, UTILITIES AND DRAINAGE STRUCTURES.
4. INSTALL INLET PROTECTION.
5. CLEAR AND ROUGH GRADE FOR NEW BUILDING & SITE IMPROVEMENTS.
6. EXCAVATE AND INSTALL SITE IMPROVEMENTS INCLUDING CURBING, SIDEWALKS, AND LIGHT POLE FOUNDATIONS.
7. GRADE PARKING LOT AND INSTALL SUB BASE AND PAVEMENT BASE COURSE.
8. REMOVE SILT FENCE AND SEDIMENT CONTROL FEATURES.
9. INSTALL FINAL PAVEMENT AND FINAL VEGETATION INCLUDING SEEDING AND LANDSCAPING.

STABILIZATION SPECIFICATIONS - TEMPORARY SEEDING AND MULCHING

- LIME - 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER - 11 LBS/1,000 SF; 10-20-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4".

- SEEDS:

COOL SEASON: PERENNIAL RYE GRASS 100LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.

WARM SEASON: PEARL MILLET AT 20 LBS/AC. OR OTHER APPROVED SEEDS; PLANT BETWEEN MAY 15 AND AUGUST 15.

- MULCH - SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF TO BE APPLIED ACCORDING TO THE STATE STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING. OR LIQUID MULCH BINDER.

STABILIZATION SPECIFICATIONS - PERMANENT SEEDING

- PERMANENT STABILIZATION SPECIFICATIONS: SEEDING

1 . PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.

2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

3. SEEDING RATES:

PERENNIAL RYEGRASS 1/2 LB/1,000 SQ FT
KENTUCKY BLUEGRASS 1 LB/1,000 SQ FT
RED FESCUE 1 1/2 LEIS/1,000 SQ FT
SPREADING FESCUE 1 1/2 LBS/1,000 SQ FT
FERTILIZER (20:10:10) 14 LBS/1,000 SQ FT
MULCH LBS/1,000 SQ FT

4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

- PERMANENT STABILIZATION SPECIFICATIONS: MULCHING

A. MULCH MATERIALS TO BE UNROTTED SALT HAY, HAY, OR SMALL GRAIN STRAW AT THE RATE OF 1.5 TO 2 TONS PER ACRE OR 70 TO 90 POUNDS PER 1,000 SQ. FT.

B. SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% OF SOIL SURFACE WILL BE COVERED.

C. MULCH ANCHORING TO BE DONE IMMEDIATELY AFTER PLACEMENT BY ONE OF THE FOLLOWING METHODS:

(1) PEG AND TWINE
(2) MULCH NETTING
(3) LIQUID MULCH-BINDERS

MULCH STABILIZATION

A. UNROTTED SMALL-GRAIN STRAW, OR SALT HAY AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.

B. ASPHALT EMULSION IS RECOMMENDED AT THE RATE OF 600 TO 1,200 GALLONS PER ACRE. THIS IS SUITABLE FOR A LIMITED PERIOD OF TIME WHERE TRAVEL BY PEOPLE, ANIMALS, OR MACHINES IS NOT A PROBLEM.

C. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAYBE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.

D. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.

E. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC,. MAYBE USED.

F. MULCH ANCHORING TO BE DONE IMMEDIATELY AFTER PLACEMENT BY ONE OF THE FOLLOWING METHODS:

(1) PEG MID TWINE
(2) MULCH NETTING
(3) LIQUID MULCH-BINDERS

GRAPHIC SCALE

-30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

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REV.	DATE	COMMENTS	BY
1	04/08/21	REVISED PER TOWN COMMENTS	KHC
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DRAWN BY: KHC
DESIGNED BY: DTS
CHECKED BY: BWS
CHECKED BY:

PROJECT: **ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC**
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
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BRETT W. SKAPINETZ
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NEW YORK LICENSE No. 087962

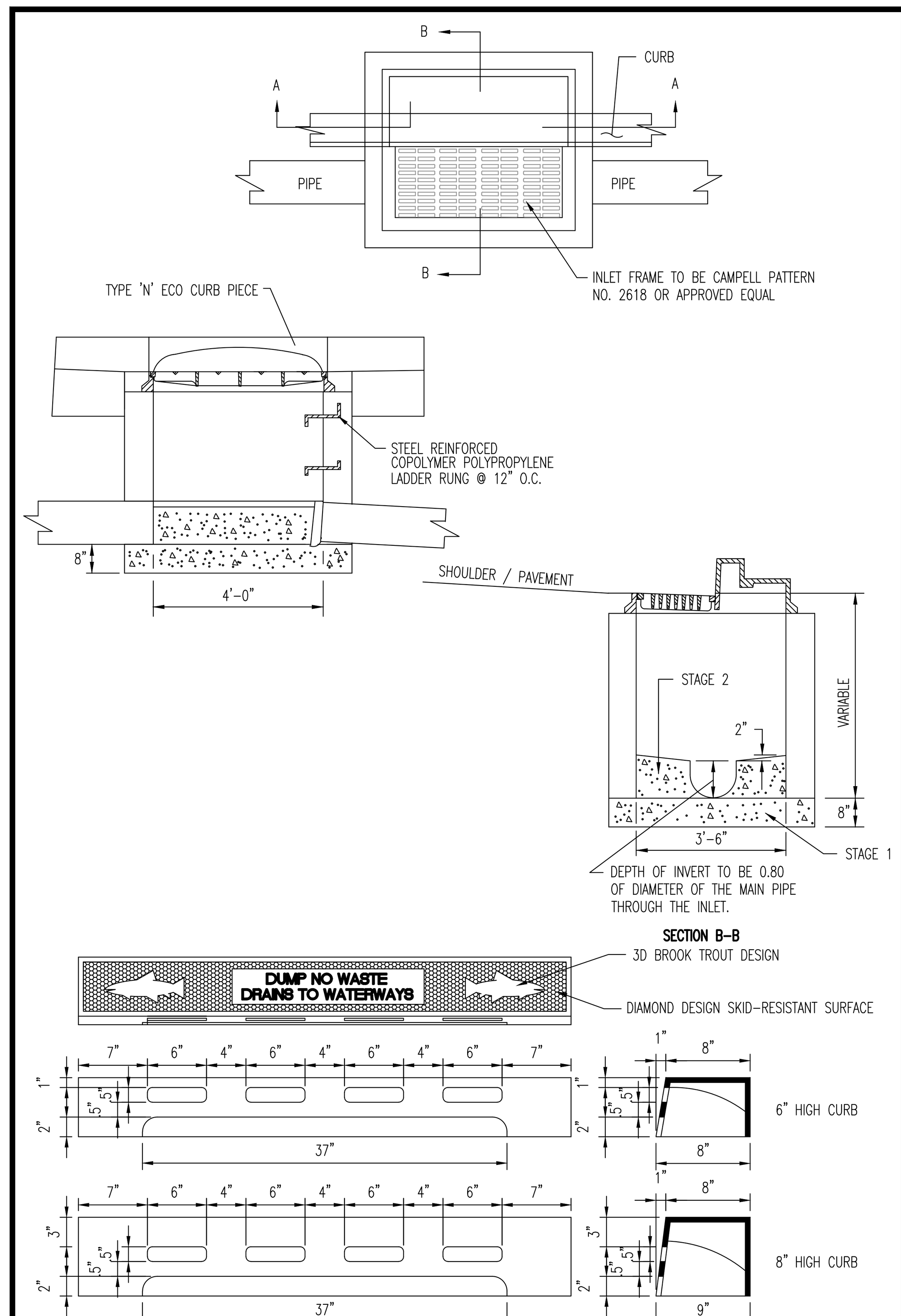
TITLE: STORMWATER POLLUTION PREVENTION PLAN

SCALE: (H) 1"=30' (V)
DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 10 OF 16
Rev. #: 2

Plotted: 07/12/21 – 11:54 AM, By: jdemortinis
File: \\decpc.local\decfolders\Data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\02179990090SE0.dwg, ---> 10 STORMWATER POLLUTION PREVENTION PLAN

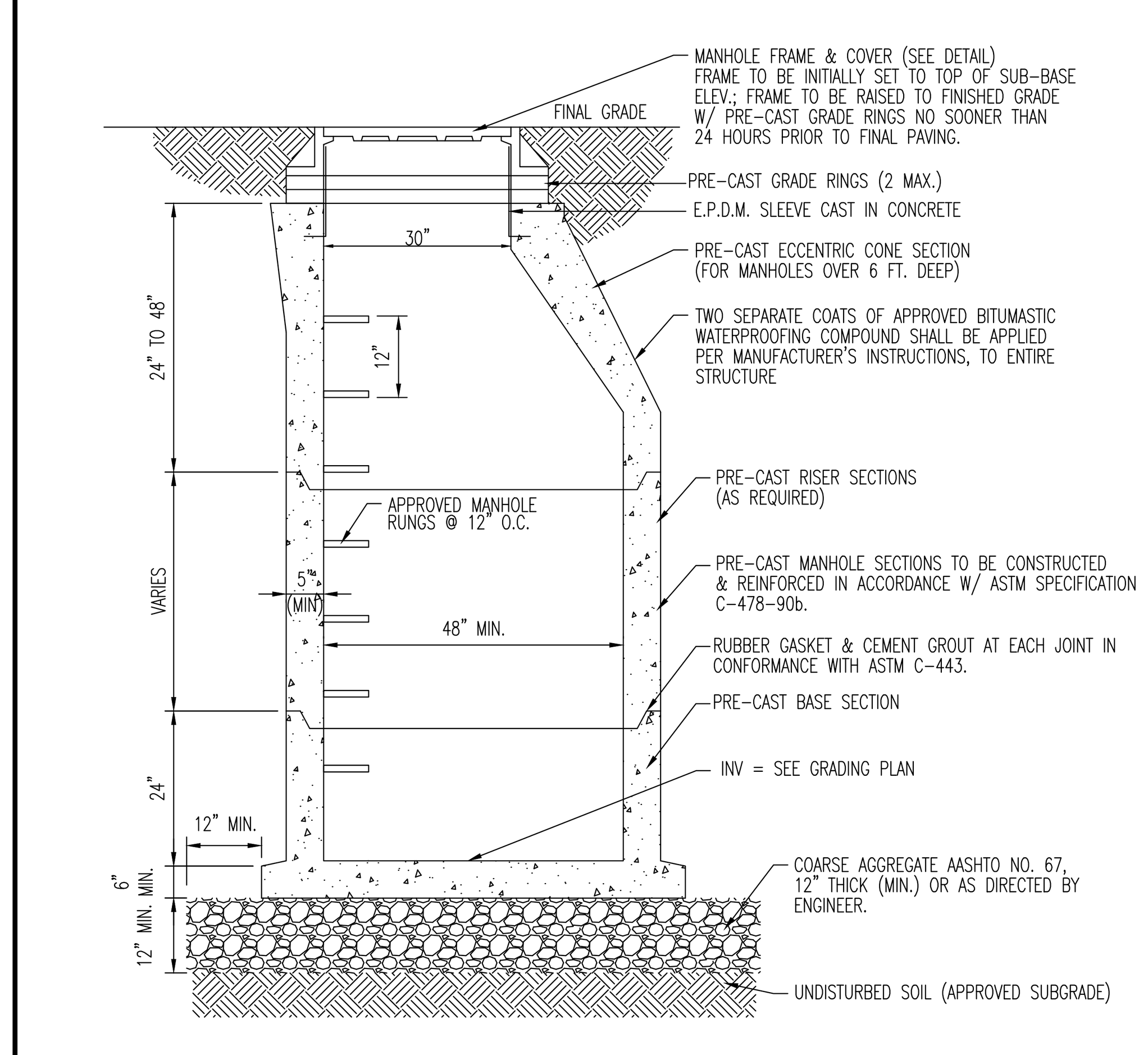
MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERCEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE



NOTES: 1. MATERIAL: GRAY CAST IRON ASTM A 48-83, CLASS 30B;
2. IN RETROFIT SITUATIONS, THIS CURB PIECE (HEAD) WILL FIT EXISTING CAMPBELL FOUNDRY CO. MANUFACTURED CURB INLETS FOR NJDOT TYPES B, B-1, B-2, D, D-1 AND D-2;
3. NAMEPLATE MESSAGE CAN BE MODIFIED TO YOUR SPECIFIC NEEDS WITHIN AREA SHOWN;
4. CASTING SUPPLIED WITHOUT SURFACE COATING

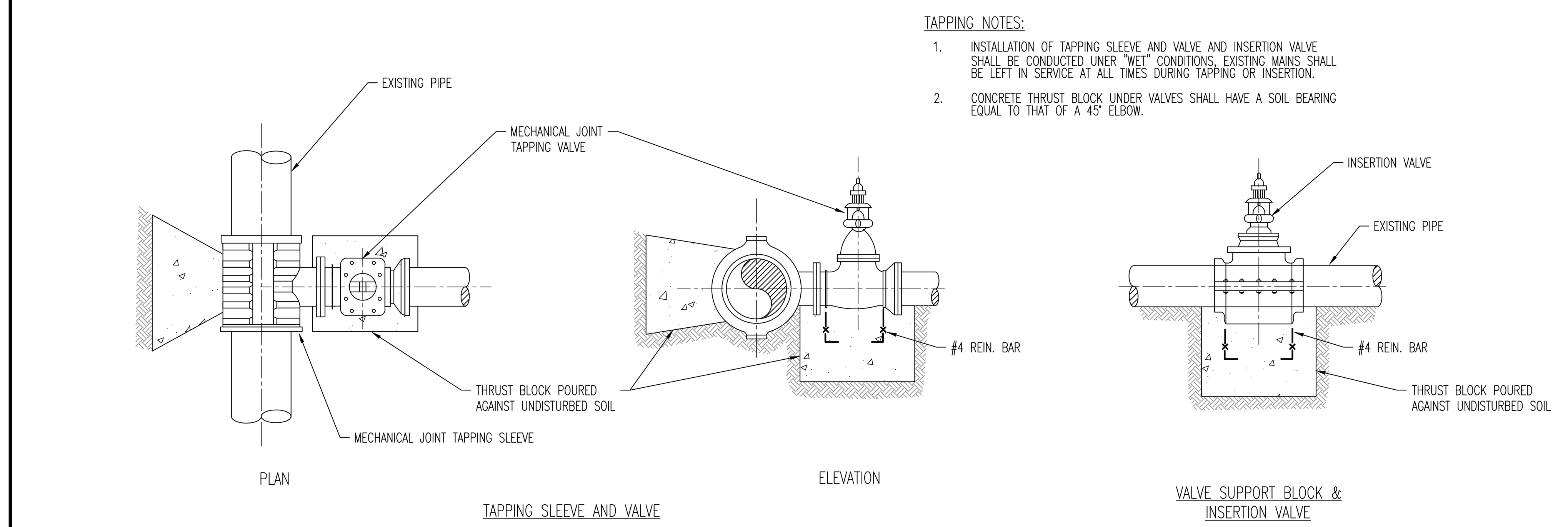
TYPE 'B' INLET w/ TYPE N ECO GRATE DETAIL

NOT TO SCALE



TYPICAL PRECAST STORM MANHOLE

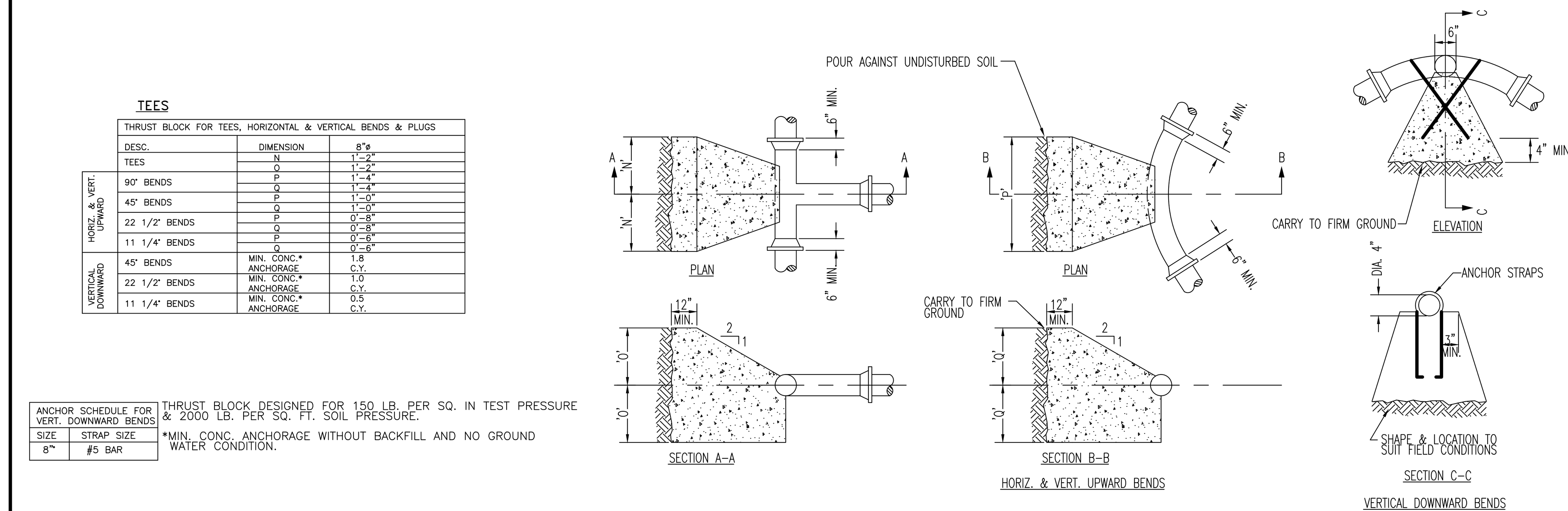
NOT TO SCALE



TAPPING NOTES:
1. INSTALLATION OF TAPPING SLEEVE AND VALVE AND INSERTION VALVE SHALL BE CONDUCTED UNER "WET" CONDITIONS. EXISTING MAINS SHALL BE LEFT IN SERVICE AT ALL TIMES DURING TAPPING OR INSERTION.
2. CONCRETE THRUST BLOCK UNDER VALVES SHALL HAVE A SOIL BEARING EQUAL TO THAT OF A 45° ELBOW.

WET TAP DETAIL

NOT TO SCALE

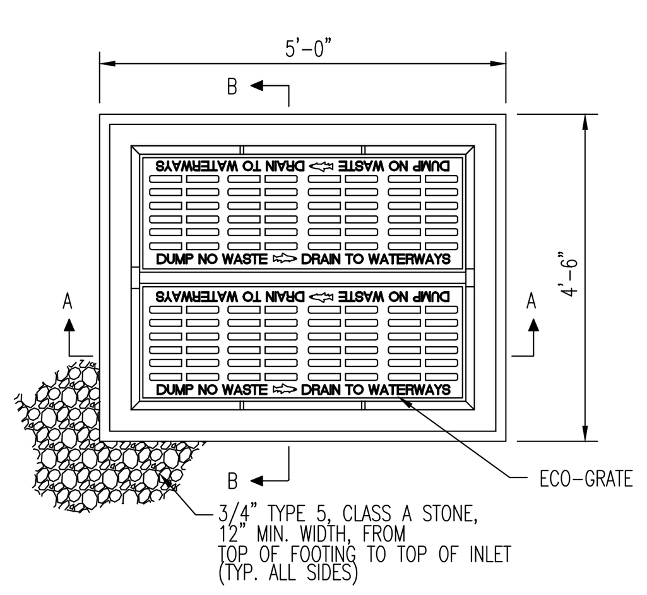


THRUST BLOCK DESIGNED FOR 150 LB. PER SQ. IN TEST PRESSURE & 2000 LB. PER SQ. FT. SOIL PRESSURE.

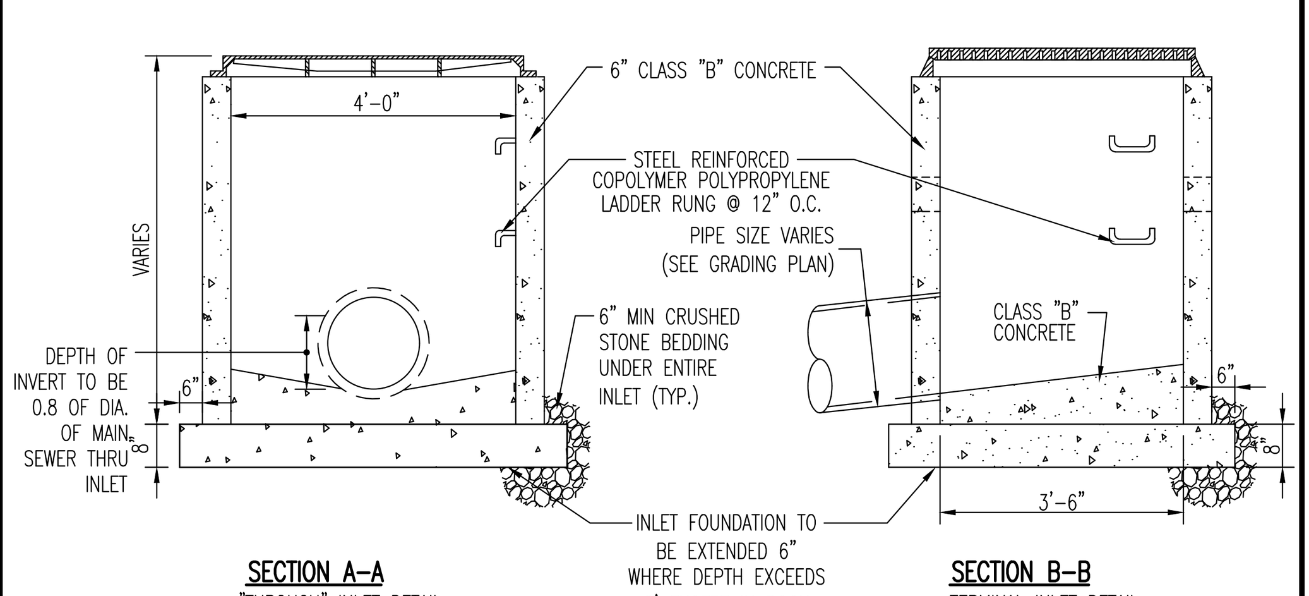
*MIN. CONC. ANCHORAGE WITHOUT BACKFILL AND NO GROUND WATER CONDITION.

THRUST BLOCK DETAILS

NOT TO SCALE

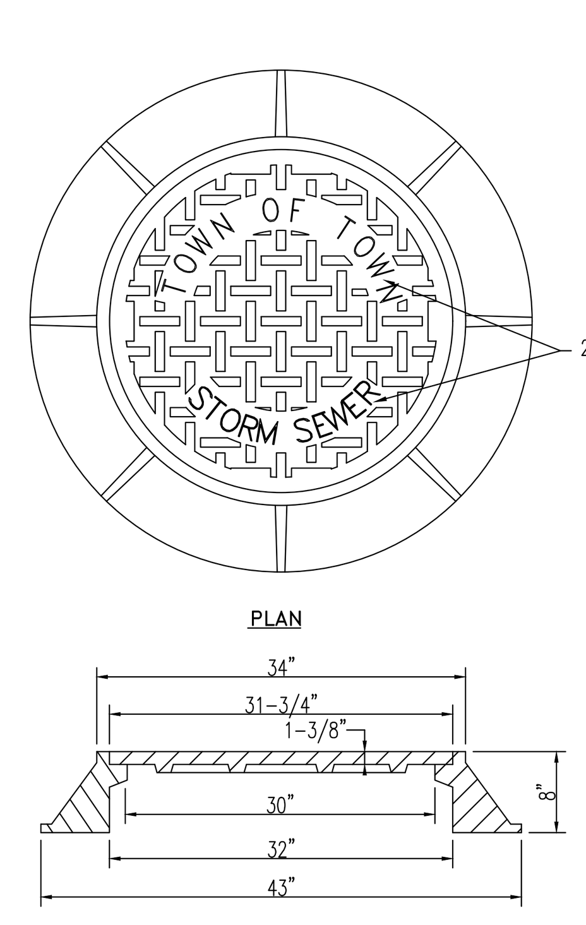


NOTES
1. FOOTING TO BE N.J.D.O.T. CLASS "B" CONCRETE.
2. INVERT & WALLS TO BE N.J.D.O.T. CLASS "B" CONCRETE.
3. WALLS SHALL BE PRECAST CONCRETE ONLY.
4. FRAME AND GRATE TO BE CAMPBELL FOUNDARY CO., NO. 3425 BICYCLE SAFE ECO-GRATE SET IN CONC.
5. STEEL REINFORCED COPOLYMER POLYPROPYLENE LADDER RUNG @ 12" O.C.
6. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW 8'-0" MEASURED FROM GRATE TO INVERT SHALL BE 12" THICK AND EXTEND 12" BEYOND OUTSIDE OF WALL.



TYPE 'E' INLET

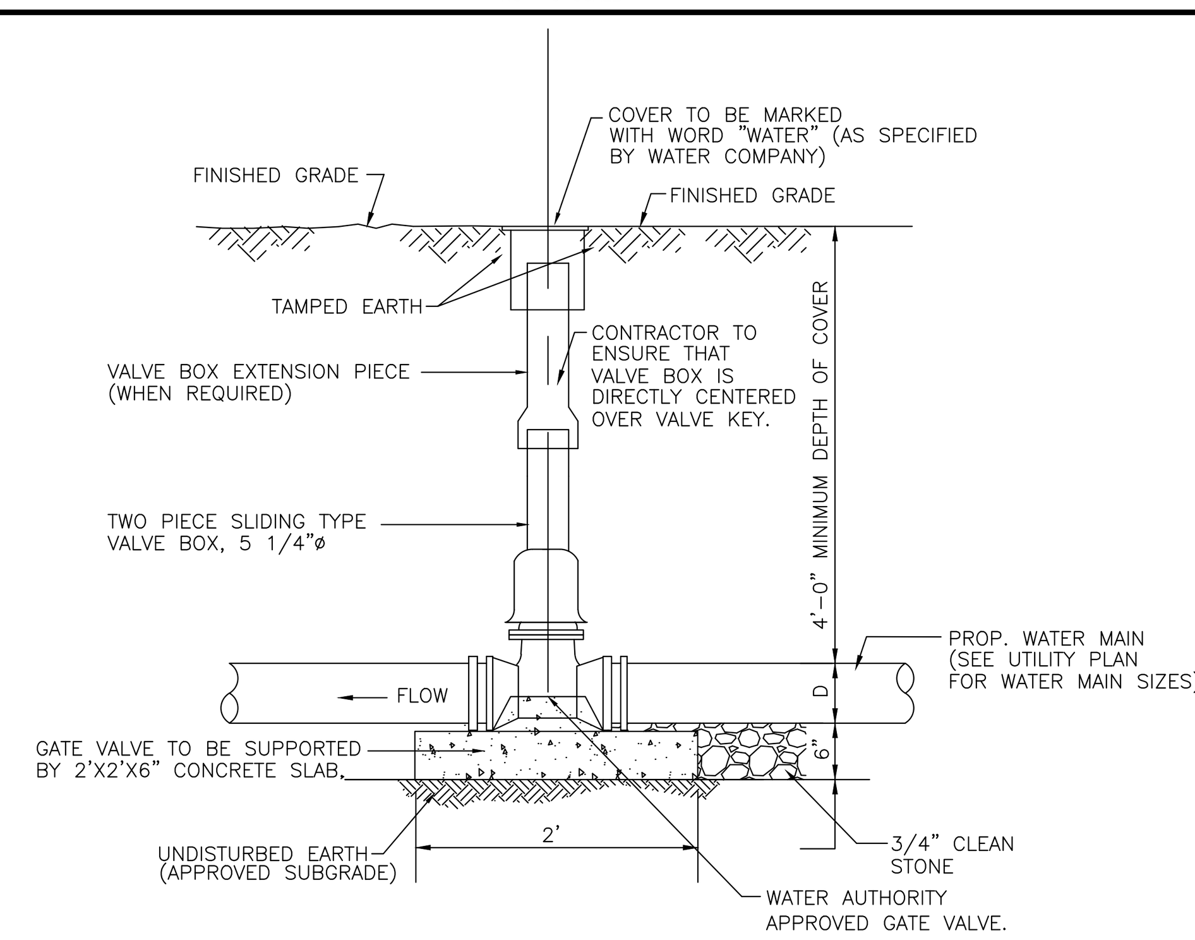
NOT TO SCALE



NOTES:
1. STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHER-WISE BY THE ENGINEER OR TOWNSHIP REPRESENTATIVE.
2. STANDARD MANHOLE FRAME & COVER SHALL BE CAMPBELL FOUNDRY PATTERN # 1012B, OR APPROVED EQUAL, WITH NON-PENETRATING PICK HOLES.
3. WATERTIGHT MANHOLE COVERS SHALL BE USED ON MANHOLES LOCATED WITHIN EASEMENTS, IN UNPAVED AREAS, AND OUTSIDE OF THE CENTERLINE OF PAVED ROADS AS DIRECTED BY ENGINEER OR TOWNSHIP REPRESENTATIVE.

STORM MANHOLE FRAME DETAIL

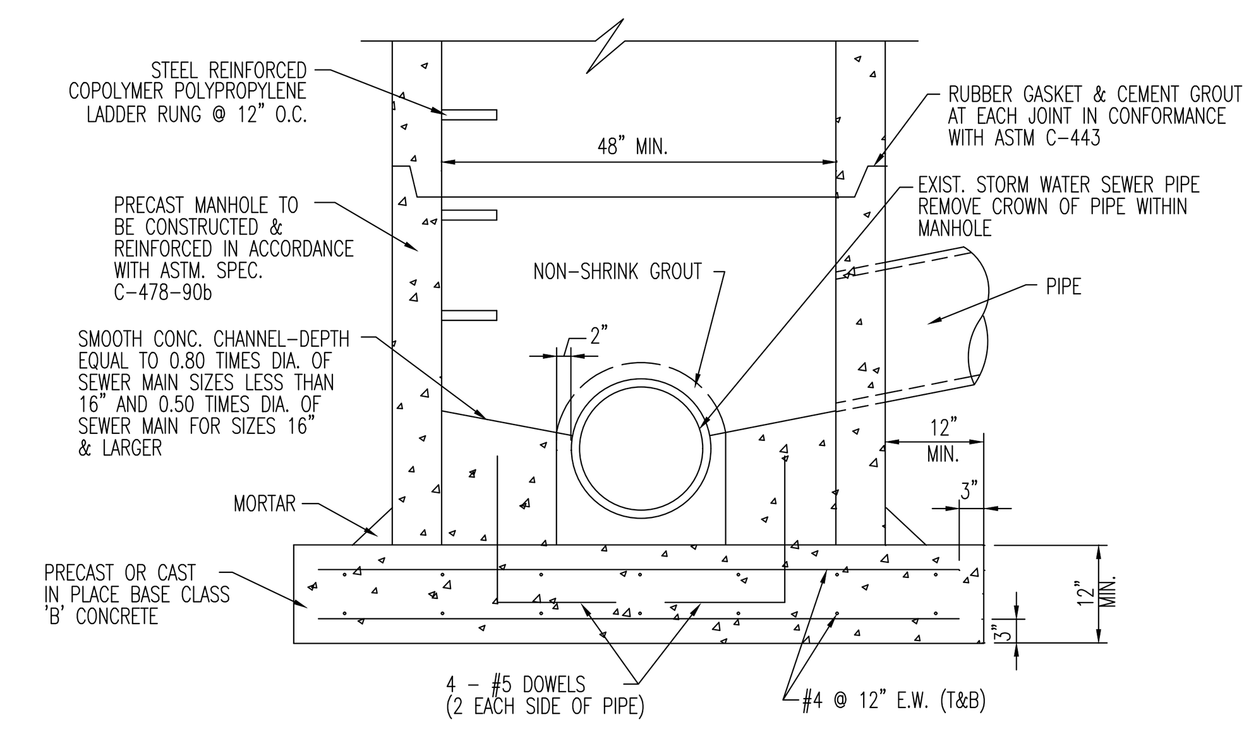
NOT TO SCALE



NOTE: REFER TO WATER COMPANY SPECIFICATION FOR VALVE MATERIAL TYPES.

GATE VALVE AND BOX DETAIL

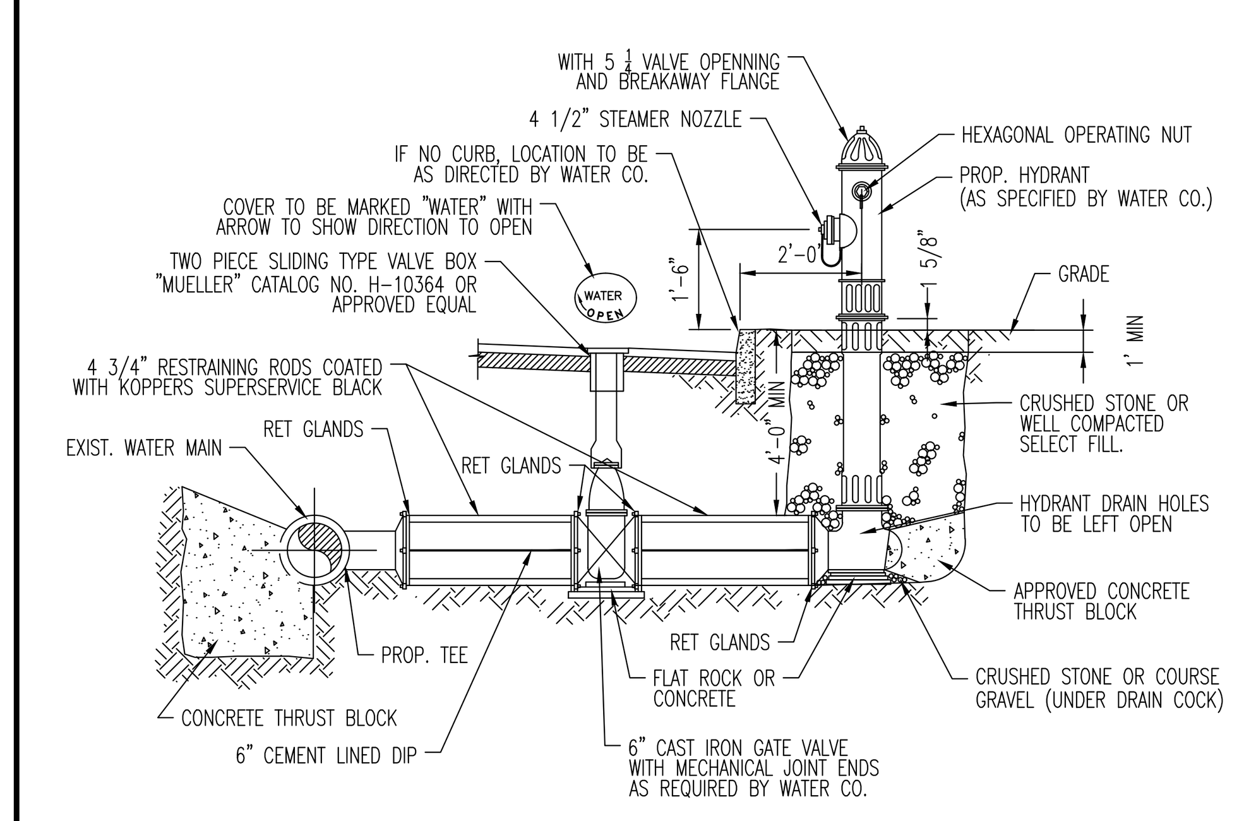
NOT TO SCALE



NOTES: 1. TWO SEPARATE COATS OF APPROVED BITUMASTIC WATERPROOFING COMPOUND SHALL BE APPLIED PER MANUFACTURERS INSTRUCTIONS TO THE ENTIRE EXTERIOR OF STRUCTURE
2. TWO SEPARATE COATS OF APPROVED TWO-PART EPOXY COATING SHALL BE APPLIED PER MANUFACTURERS INSTRUCTIONS TO THE ENTIRE INTERIOR OF STRUCTURE
3. MANHOLES TO 8' DEEP SHALL BE SINGLE WALL CONSTRUCTION (6") MANHOLES 8' TO 12' DEEP SHALL BE DOUBLE WALL CONSTRUCTION (12")

DOGHOUSE INLET DETAIL

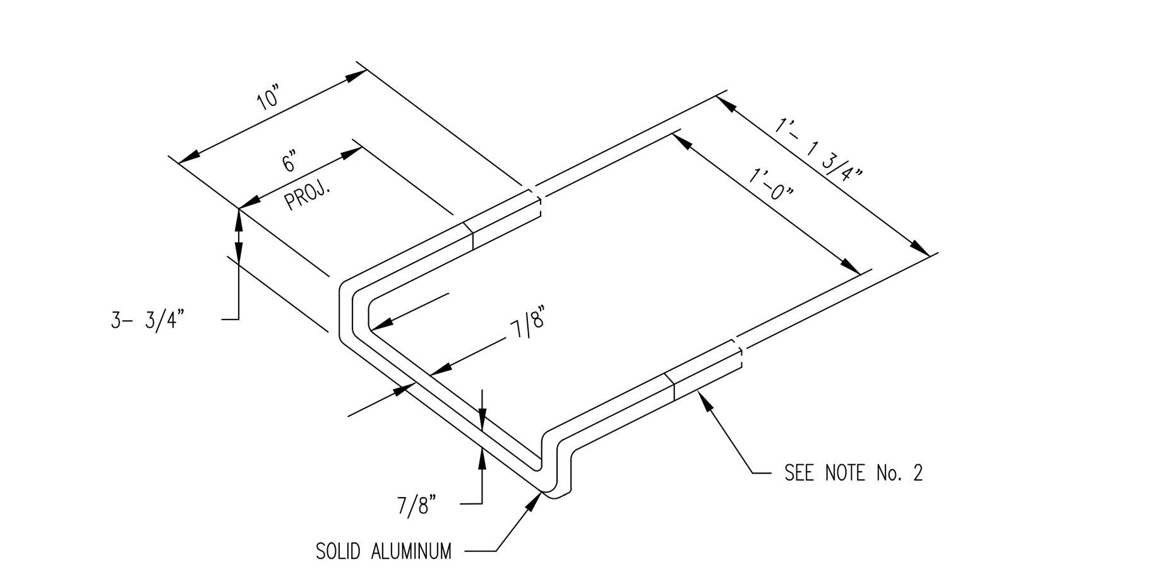
NOT TO SCALE



NOTE: REFER TO WATER COMPANY SPECIFICATIONS FOR VALVE/HYDRANT SPECIFICATIONS.

TYPICAL HYDRANT & VALVE INSTALLATION

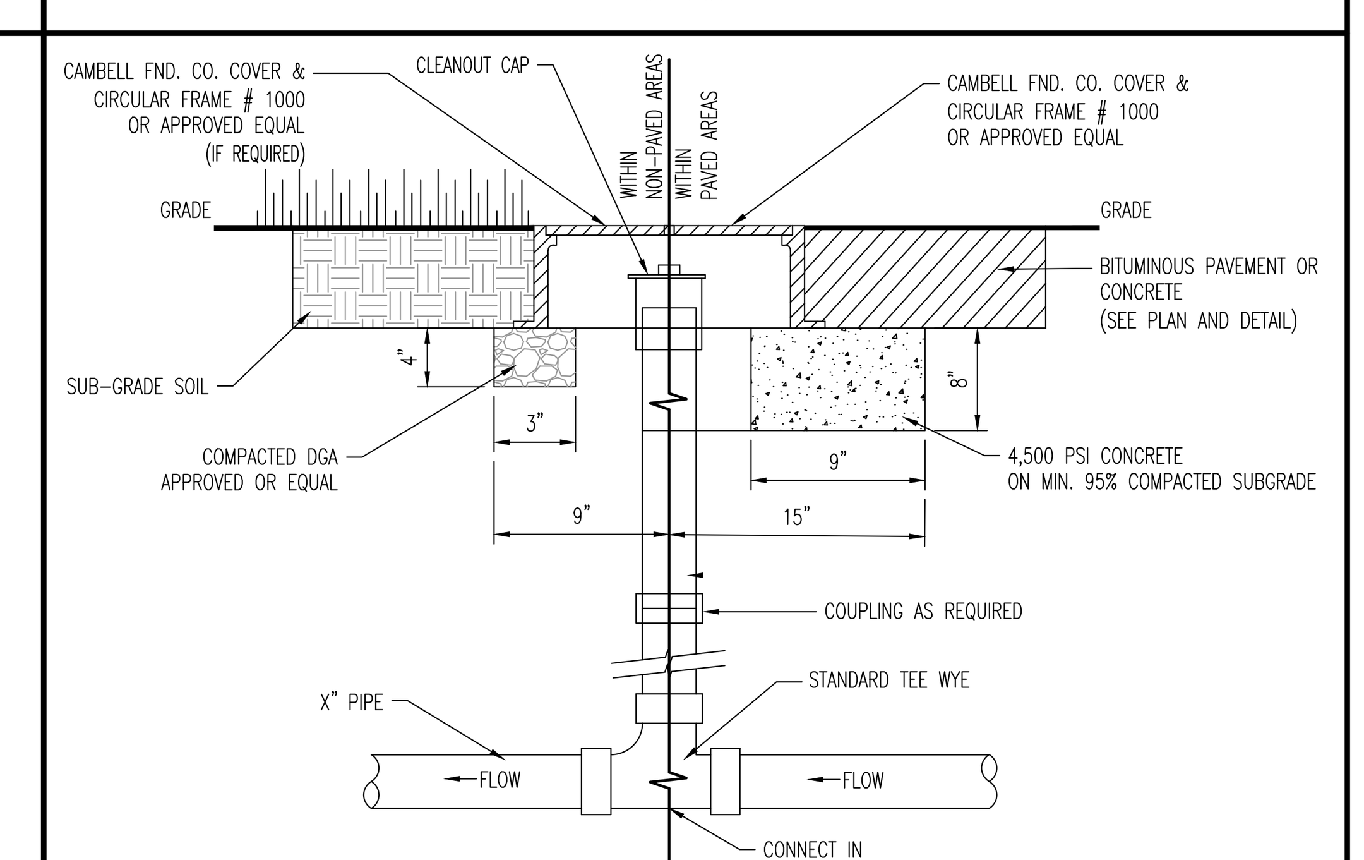
NOT TO SCALE



NOTES:
1. ALUMINUM STEPS SHALL BE EXTRUDED ALUMINUM 6061-T6 ALLOY DROP FRONT DESIGN OR APPROVED EQUAL.
2. THE PORTION TO BE IMBEDDED IN THE CONCRETE SHALL BE COATED WITH COAL TAR PITCH OR OTHER APPROVED MATERIAL AND SHALL BE IN ACCORDANCE WITH THE LATEST O.S.H.A. STANDARDS (3" MINIMUM EMBEDMENT)
3. ALL MANHOLE STEPS TO MEET OR EXCEED ASM AND O.S.H.A. REQUIREMENTS.
4. FOR ROADWAY LOCATIONS STEPS SHALL BE ORIENTED TO ALLOW VIEWING OF ONCOMING TRAFFIC WHEN EXITING STRUCTURE.

ALUMINUM STEP DETAIL

NOT TO SCALE



1. ALL SANITARY SEWER PIPE IS TO BE SDR-35 PVC UNLESS OTHERWISE NOTED.
2. ALL STORM SEWER PIPE IS TO BE SCH-40 PVC UNLESS OTHERWISE NOTED.
3. ALL CLEANOUT CAPS ARE TO BE BRASS FOR SANITARY AND PVC FOR STORM SEWER.
4. X" - SEE PLAN FOR PIPE DIAMETER

CLEANOUT DETAIL

NOT TO SCALE

DYNAMIC • ENGINEERING • EARTH • SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
1	04/08/21	REVISED PER TOWN COMMENTS	KHC
2	07/12/21	REVISED FOR TOWN & CONSERVATION BOARD COMMENTS	KHC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JED | DESIGNED BY: DTS | CHECKED BY: BWS

PROJECT: ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

811 Know what's below. Call before you dig.
PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
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DANIEL T. SEHNAL
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 099106

BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

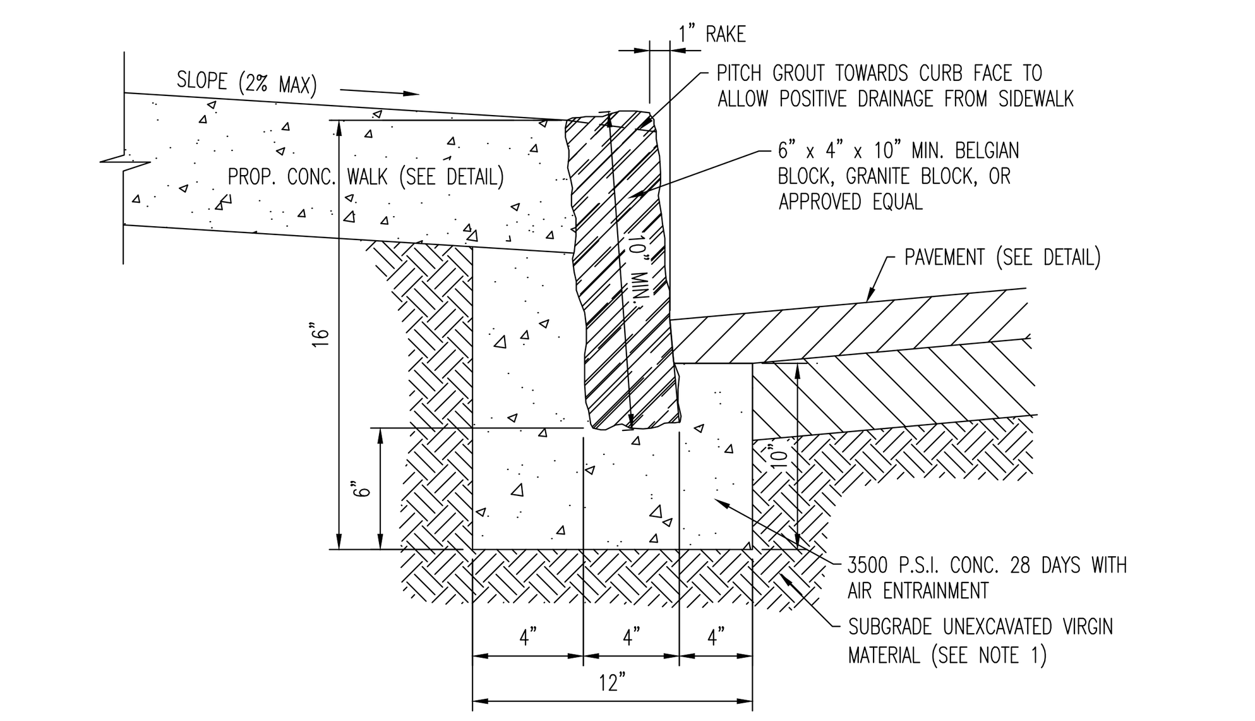
TITLE: CONSTRUCTION DETAILS

SCALE: (H) AS (V) SHOWN | DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 11 OF 16 | Rev. #: 2

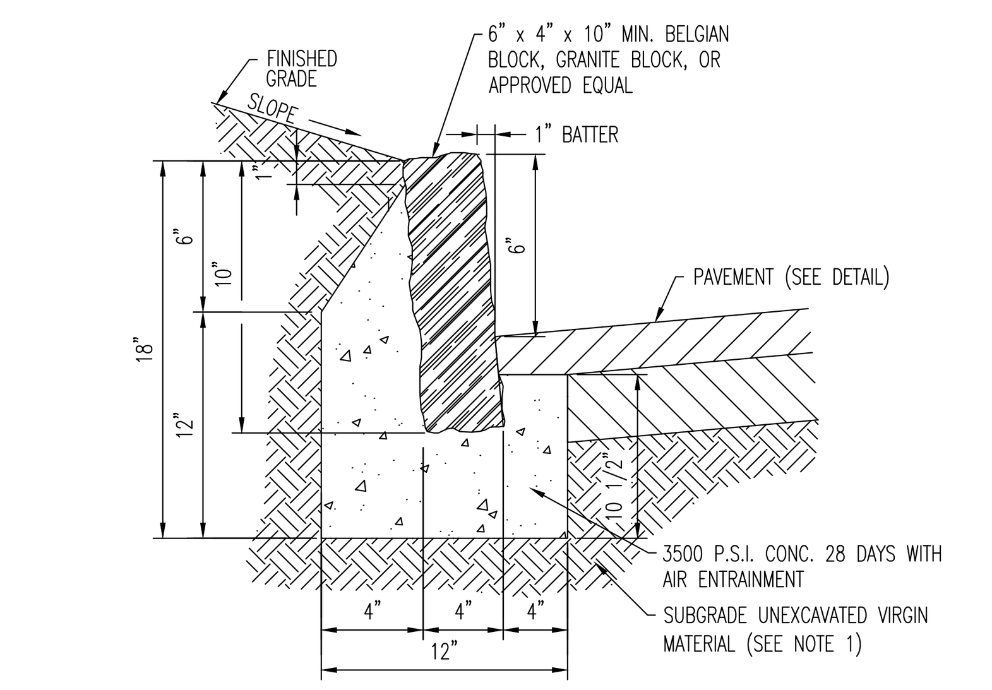
Plotted: 07/12/21 - 11:54 AM, By: jdemartinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\D2179990095D0.dwg, ---> 11 CONSTRUCTION DETAILS

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERCEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE



NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. JOINTS SHALL BE NOT MORE THAN 1/4" WIDE FOR DRESSED BLOCK AND 3/8" WIDE FOR QUARRY SPLIT BLOCK. THE JOINTS SHALL BE POINTED WITH 1:1 CEMENT-SAND MORTAR.

BELGIAN BLOCK CURB DETAIL (@ CONCRETE WALK)
NOT TO SCALE



NOTES:
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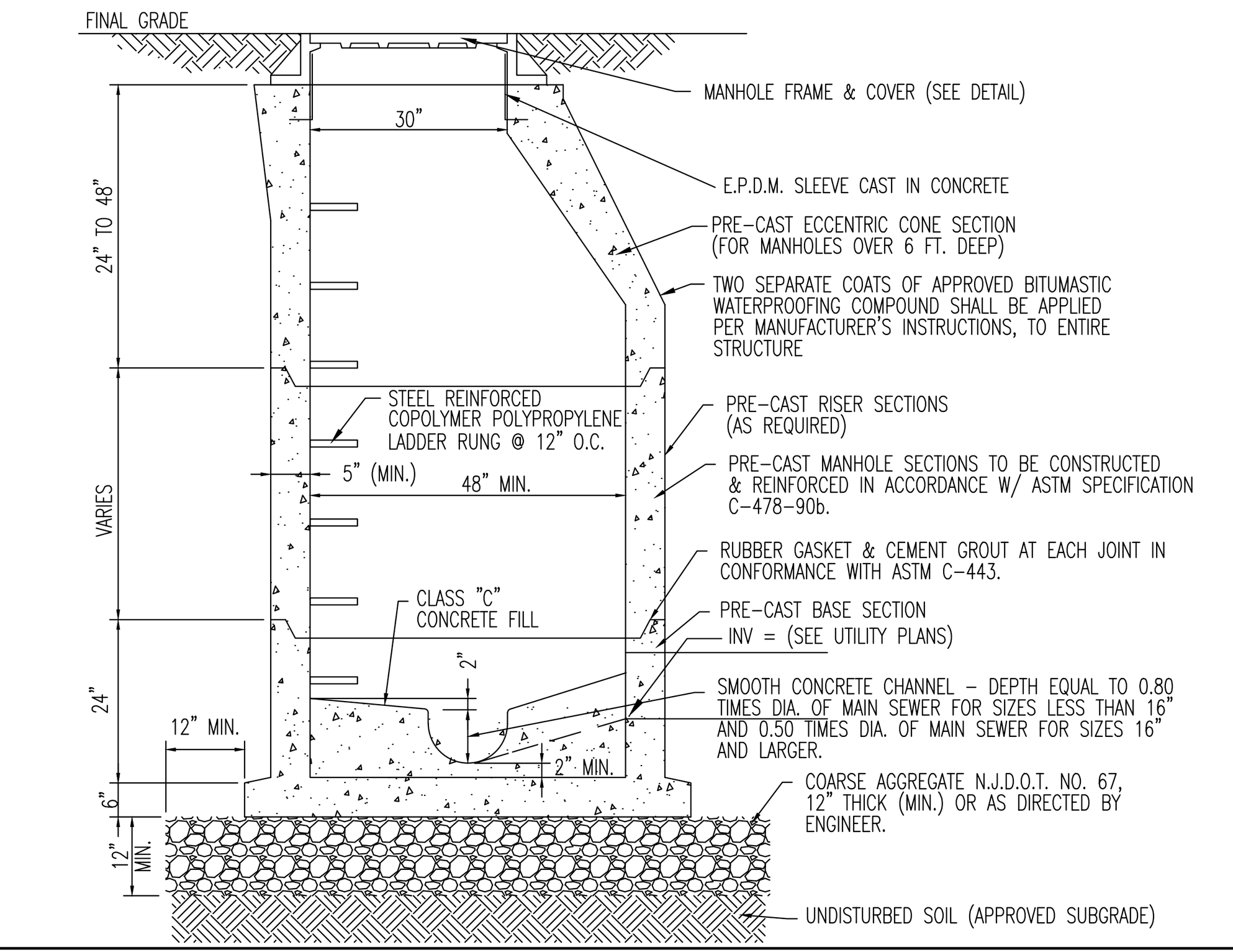
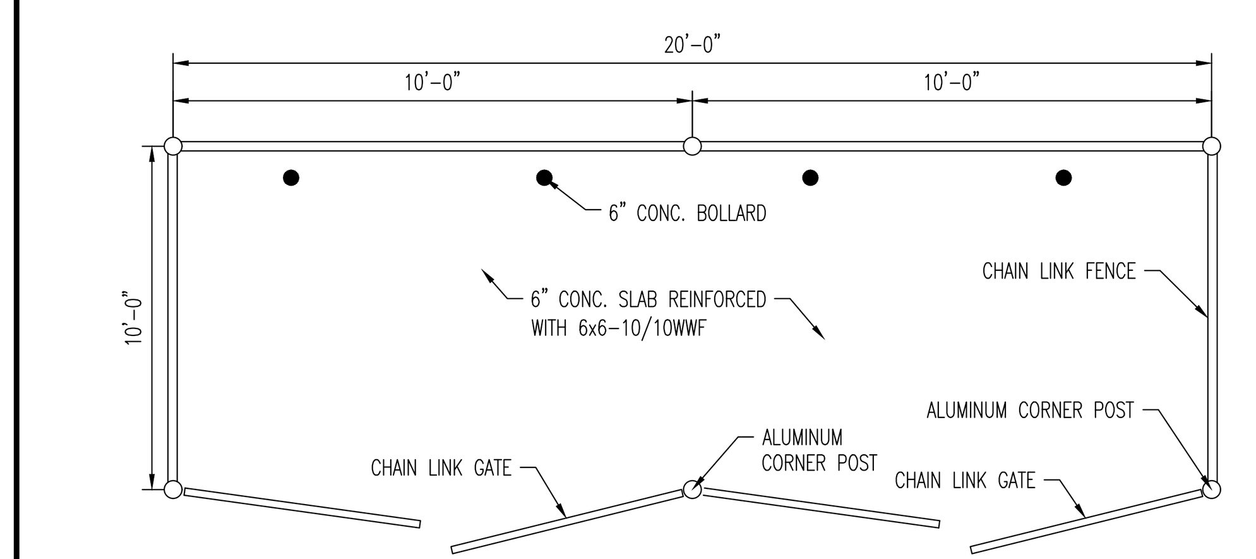
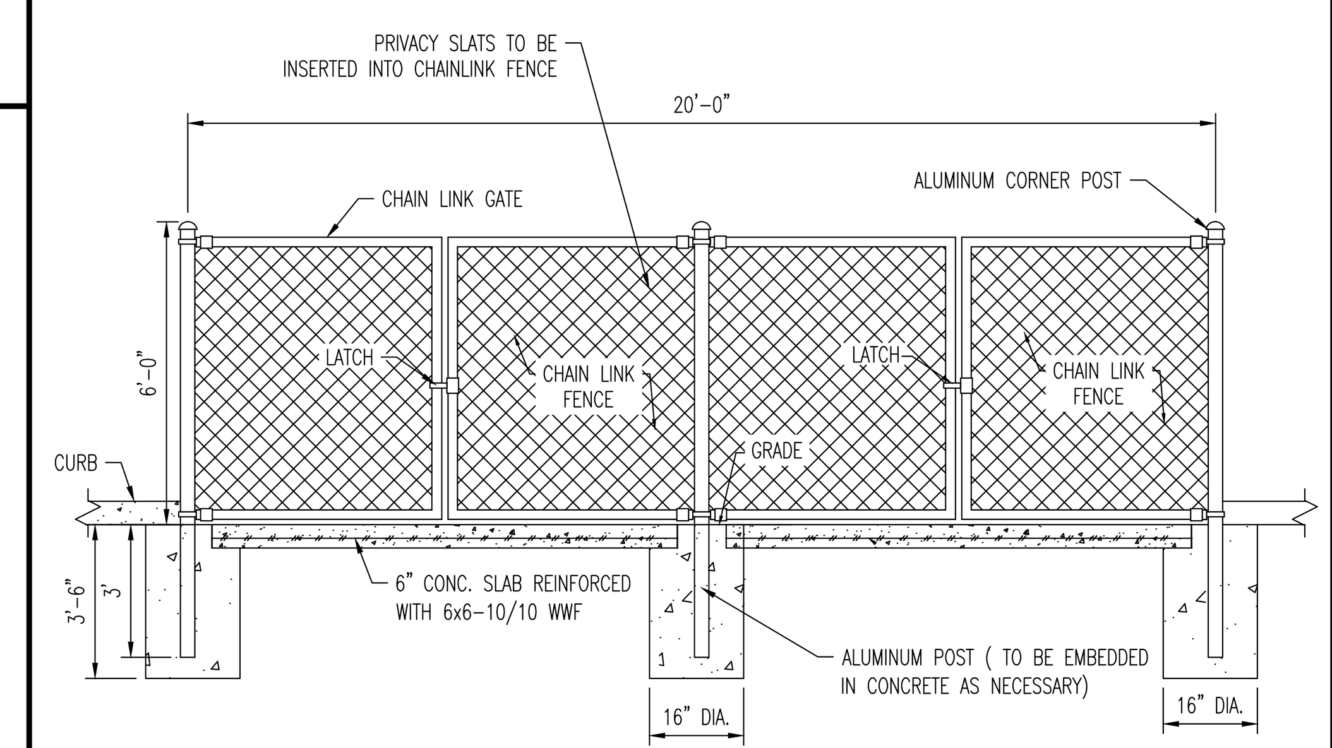
2. JOINTS SHALL BE NOT MORE THAN 1/4" WIDE FOR DRESSED BLOCK AND 3/8" WIDE FOR QUARRY SPLIT BLOCK. THE JOINTS SHALL BE POINTED WITH 1:1 CEMENT-SAND MORTAR.

BELGIAN BLOCK CURB DETAIL
NOT TO SCALE



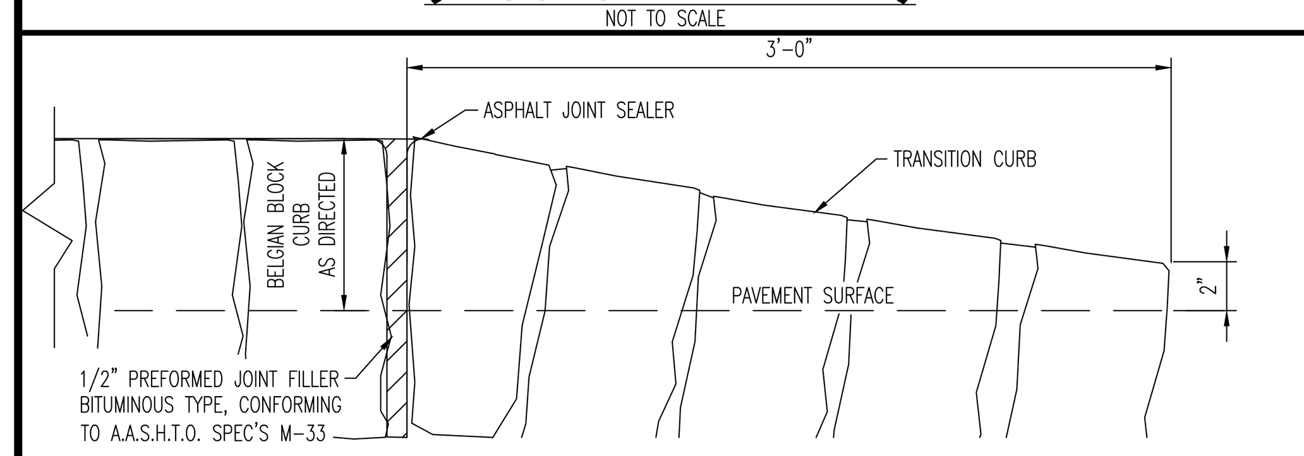
PRECAST SANITARY MANHOLE
NOT TO SCALE





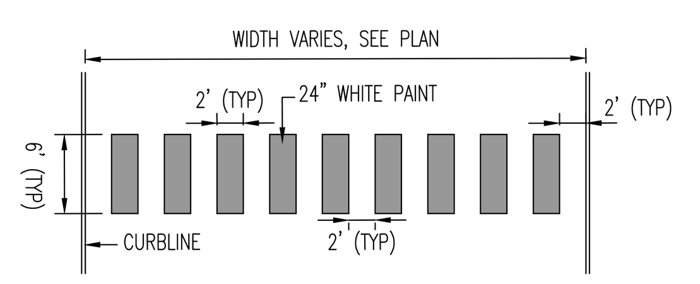
NOTE: CONTRACTOR TO BE RESPONSIBLE FOR CROSS BRACING & GATE SUPPORTS.

CHAIN LINK FENCE TRASH ENCLOSURE W/ PRIVACY SLATS
NOT TO SCALE

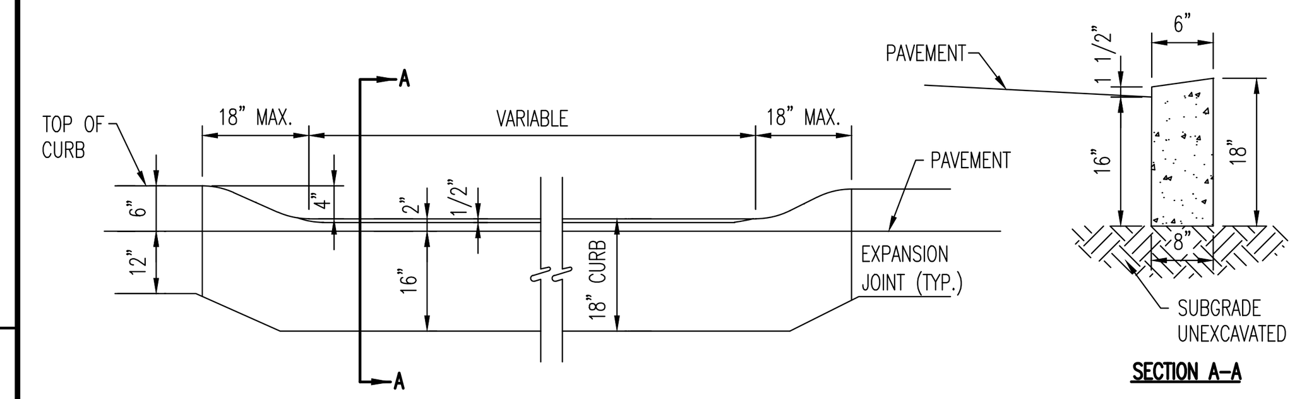


NOTE: SEE CURB DETAIL FOR MATERIAL SPECIFICATIONS, BEDDING REQUIREMENTS, ETC.

BELGIAN BLOCK CURB TAPER DETAIL
NOT TO SCALE

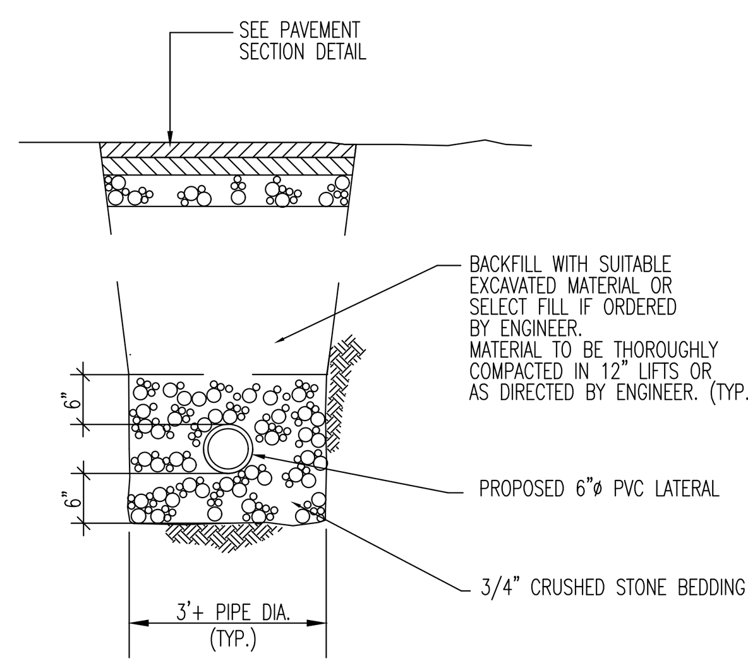


PAINTED CROSSWALK STRIPING DETAIL
NOT TO SCALE



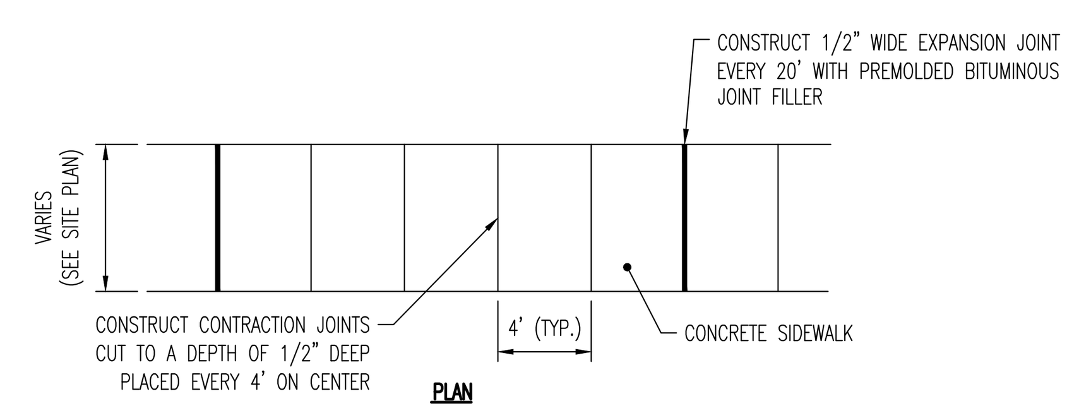
NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. EXPANSION JOINTS SHALL BE PROVIDED AT EQUAL DISTANCES OF NOT MORE THAN 20' AND AT ALL STORM SEWER INLETS. JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, 1/2" THICK, CONFORMING TO STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE JOINT SHALL BE RECESSED 1/4" FROM THE TOP AND FRONT OF THE CONCRETE CURB.
3. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTO M-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF THE CURB.
4. DUMMY JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.
5. WIDTH OF JOINT FILLER STRIP EQUAL TO THE THICKNESS OF THE PAVEMENT LESS 1/2".
6. 1/2" PREFORMED EXPANSION JOINT FILLER, BITUMINOUS TYPE, CONFORMING TO AASHTO SPEC'S M-33. TO BE INSTALLED BETWEEN CURB AND NON-BITUMINOUS PAVEMENT OR BASE COURSE.

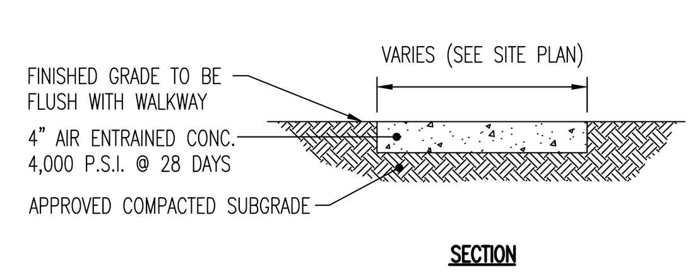
DEPRESSED CURB AT DRIVEWAY DETAIL
NOT TO SCALE



NOTE: PAVEMENT SECTION TO MATCH, AT MINIMUM, ADJOINING PAVEMENT.

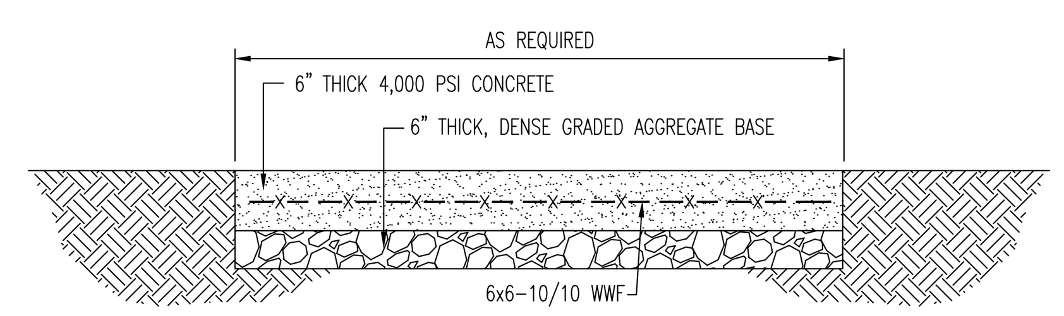
SANITARY SEWER TRENCH DETAIL
NOT TO SCALE





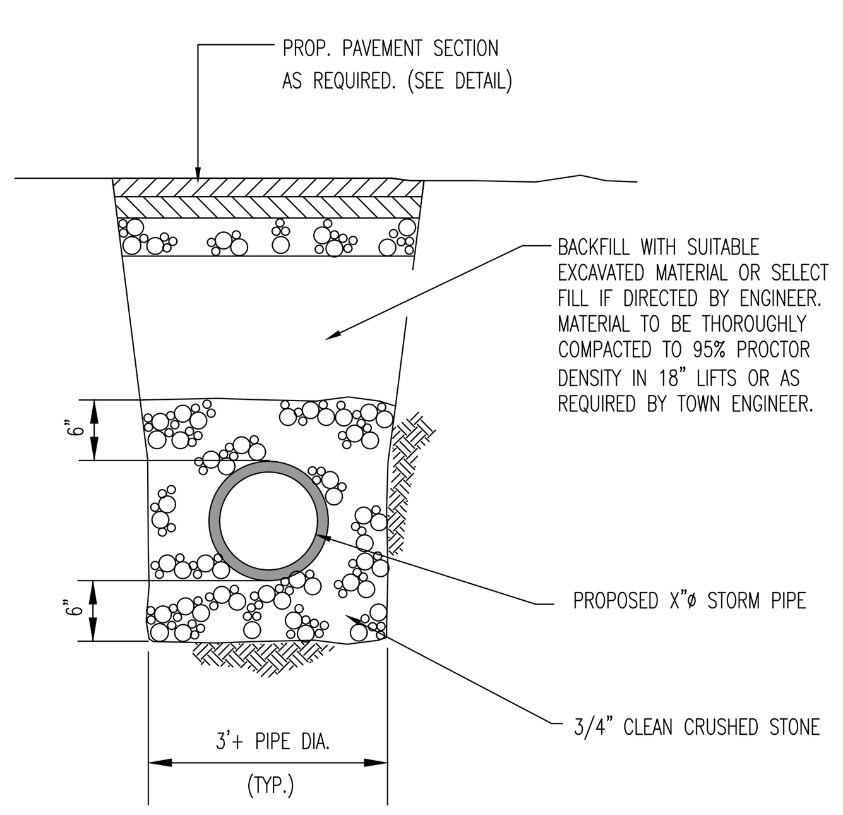
NOTE:
1. MAX. CROSS SLOPE 1/4" PER FOOT PITCHED TOWARDS ROADWAY.
2. PROVIDE 1/2" WIDE PREMOLDED BITUMINOUS EXPANSION JOINT AT 20' INTERVALS.
3. REFER TO SITE PLAN FOR SIDEWALK WIDTH.
4. PROVIDE A BROOM FINISH TO PROVIDE A SLIP RESISTANT WEARING SURFACE IN ACCORDANCE WITH A.D.A. REGULATIONS. FINISH THE EDGES OF THE GROOVES USING AN EDGING TOOL WITH A 1/4" RADIUS.

SIDEWALK DETAIL
NOT TO SCALE



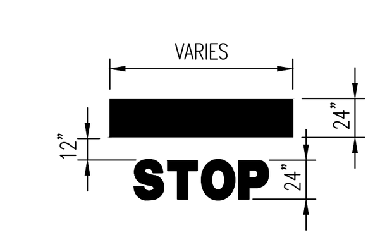
NOTES:
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED, (6% WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING STEEL BARS SHALL BE A MINIMUM ASTM A615, GRADE 60, AND SHALL BE FIELD WIRED IN PLACE.
5. ALL FRAMEWORK, AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES AND REGULATIONS, AS WELL AS THE ACI AND UNIFORM BUILDING CODE.
6. EXPANSION JOINTS 1/2" WIDE OF PREMOULDED BITUMINOUS MATERIALS SHALL BE INSTALLED.

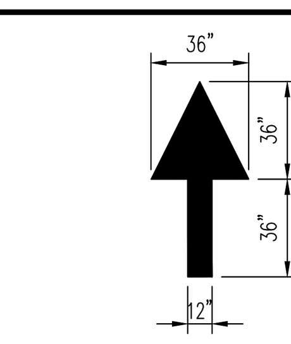
HEAVY-DUTY CONCRETE PAD DETAIL
NOT TO SCALE



NOTE: PAVEMENT SECTION TO MATCH, AT MINIMUM, ADJOINING PAVEMENT.

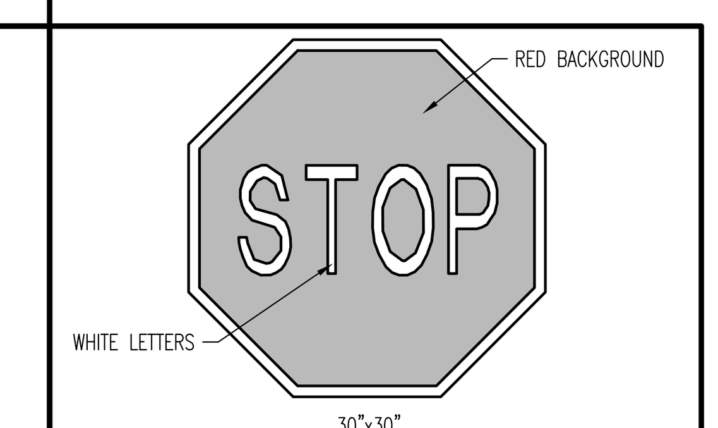
STORM SEWER TRENCH DETAIL
NOT TO SCALE



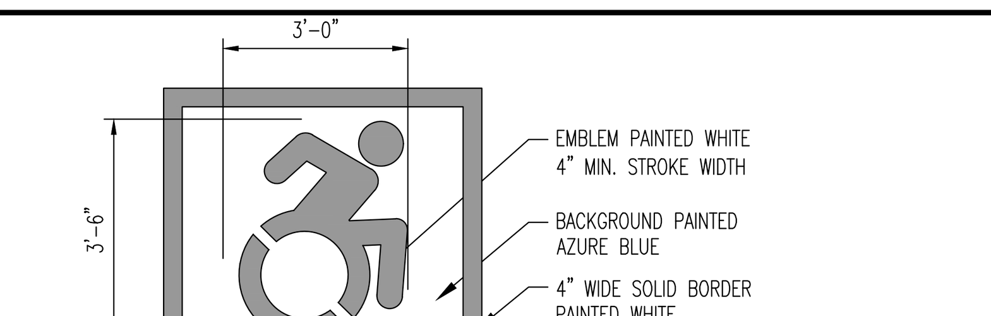


NOTE: ARROWS AND WORDS CAN BE ARRANGED IN OTHER COMBINATIONS THAN THOSE ILLUSTRATED HERE TO ACHIEVE DESIRED RESULT. ALL PAINT TO BE THERMOPLASTIC.

PAINTED MARKING DETAILS
NOT TO SCALE



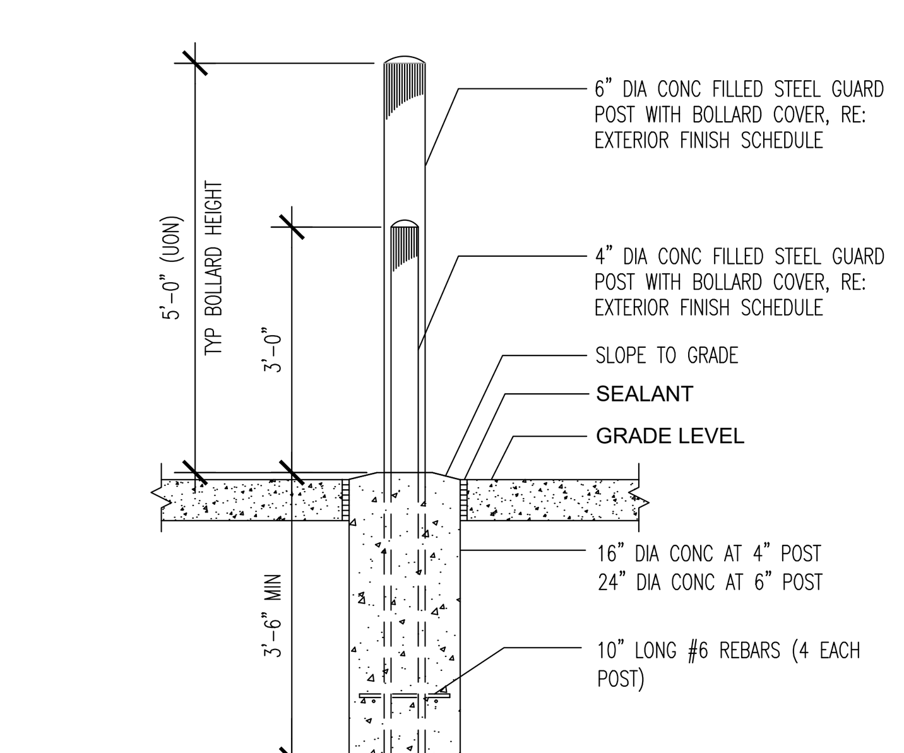
R1-1 SIGN DETAIL
NOT TO SCALE



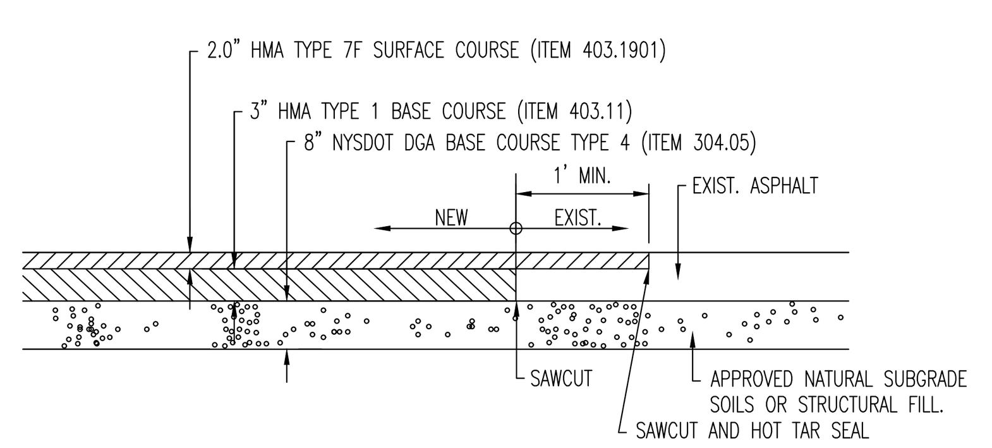
NOTE: ALL PAVEMENT STRIPING, MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES AND NEW YORK STATE REQUIREMENTS.

PAINTED A.D.A. PARKING SYMBOL DETAIL
NOT TO SCALE

R8-3 SIGN DETAIL
NOT TO SCALE

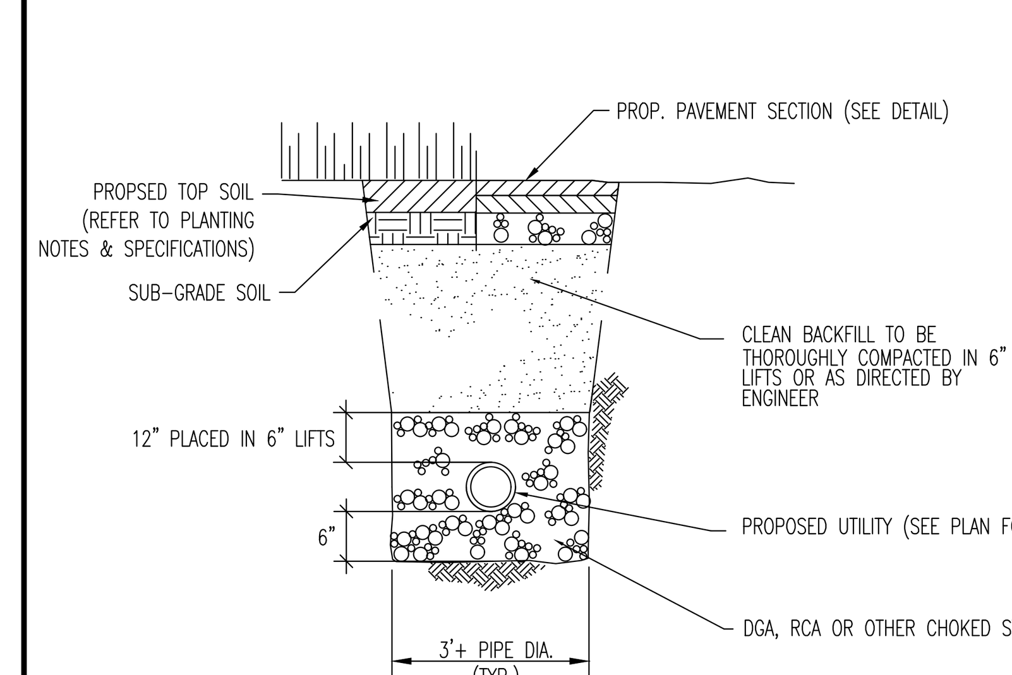


EXTERIOR BOLLARD DETAIL
NOT TO SCALE



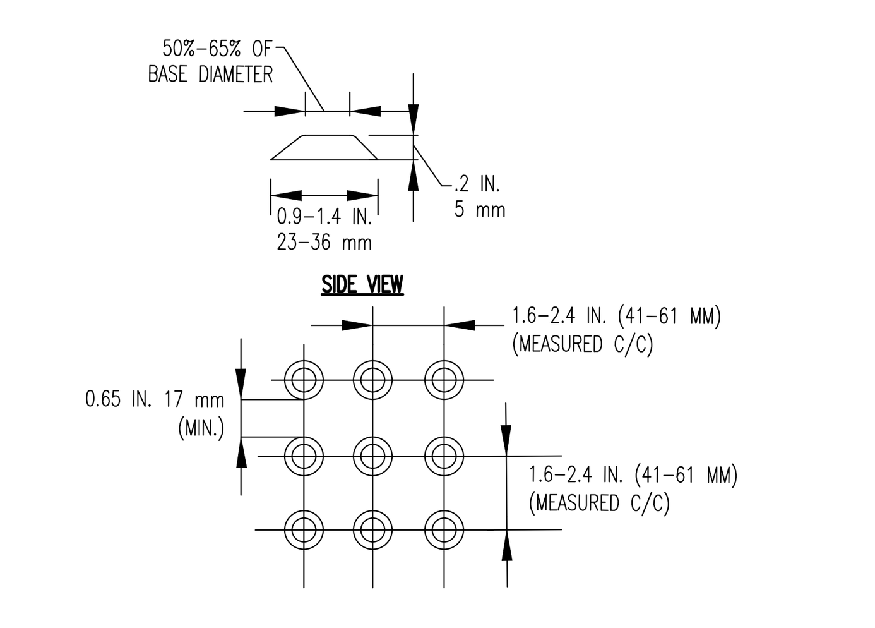
NOTES:
1. ALL PAVEMENT SECTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NEW YORK DEPARTMENT OF TRANSPORTATION STANDARD SHEET FOR HOT MIX ASPHALT (HMA) PAVEMENT (GROUP ID #402).
2. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
3. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
4. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

PAVING DETAIL
NOT TO SCALE



NOTES:
1. PAVEMENT SECTION SHALL BE PER ASPHALT PAVING DETAIL, OR TO MATCH ADJOINING EXISTING PAVEMENT SECTION.
2. TRENCH COMPACTION SHALL BE MONITORED BY OWNERS GEOTECHNICAL CONSULTANT

UTILITY SERVICE TRENCH DETAIL
NOT TO SCALE



NOTES:
1. DETECTABLE WARNINGS SHALL BE A PRE-MANUFACTURED ARMOUR TILE TACTILE SYSTEM OR APPROVED EQUIVALENT.
2. WARNING SURFACE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT PER LATEST A.D.A. ACCESSIBILITY GUIDELINES.
3. CONTRACTOR TO COORDINATE SPECIFIC SYSTEM AND MATERIALS UTILIZED WITH THE ENGINEER TO ENSURE LOCAL, STATE AND A.D.A. COMPLIANCE PRIOR TO CONSTRUCTION.
4. DETECTABLE WARNING SURFACE SHALL BE IN ACCORDANCE WITH THE LATEST ADA ACCESSIBILITY GUIDELINES.
5. COLOR SHALL BE - N.J.D.O.T. STANDARD "SAFTEY RED".

TRUNCATED DOME PATTERN FOR A.D.A. DETECTABLE WARNING SURFACE
NOT TO SCALE

REV.	DATE	COMMENTS	BY
1	04/08/21	REVISED PER TOWN COMMENTS	KHC
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC

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DRAWN BY: KHC | DESIGNED BY: DTS | CHECKED BY: BWS

PROJECT: ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

811 Know what's below. Call before you dig.
PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
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DANIEL T. SEHNAL
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NEW YORK LICENSE No. 099106

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PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

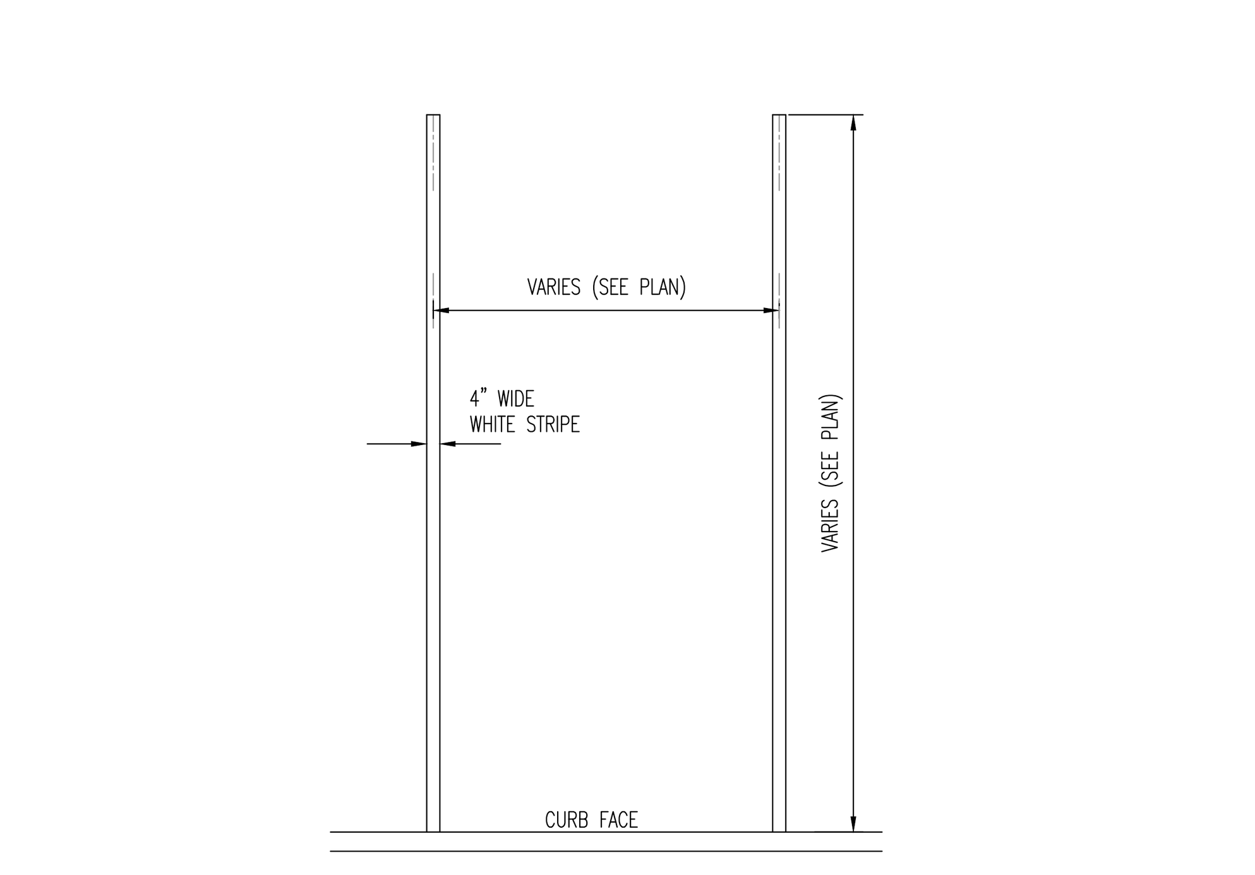
TITLE: CONSTRUCTION DETAILS

SCALE: (H) N.T.S (V) - | DATE: 02/19/2021
PROJECT No: 2179-99-009

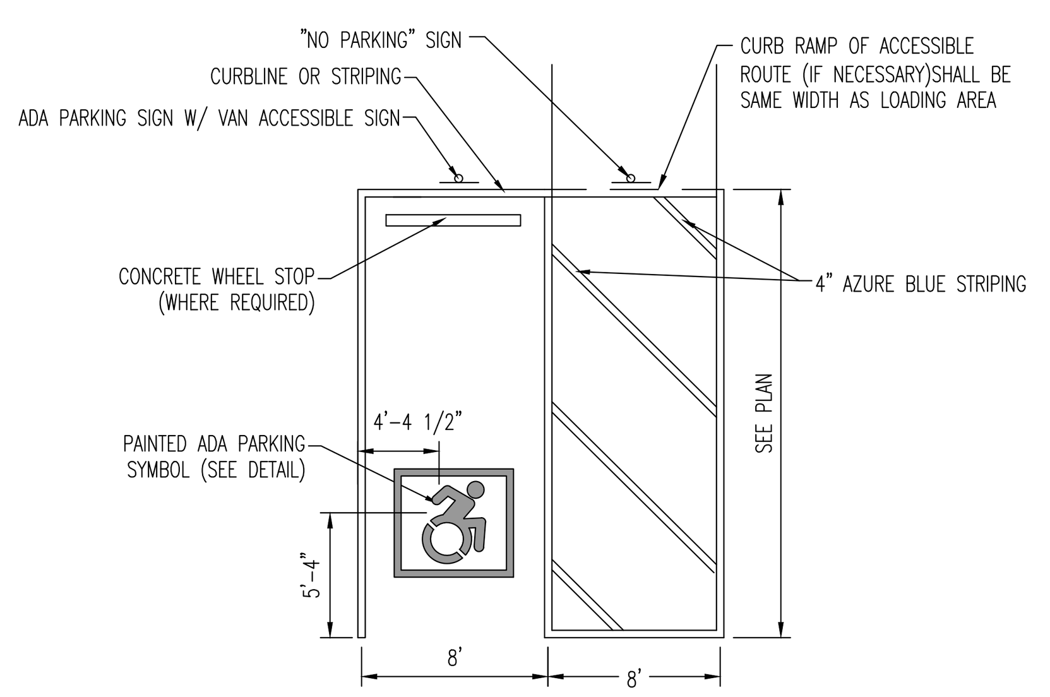
SHEET No: 12 OF 16 | Rev. #: 2

Plotted: 07/12/21 - 11:54 AM, By: jdemartinis
File: \\decpc.local\decfolders\Data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\02179990090SD0.dwg, ---> 12 CONSTRUCTION DETAILS

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERCEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

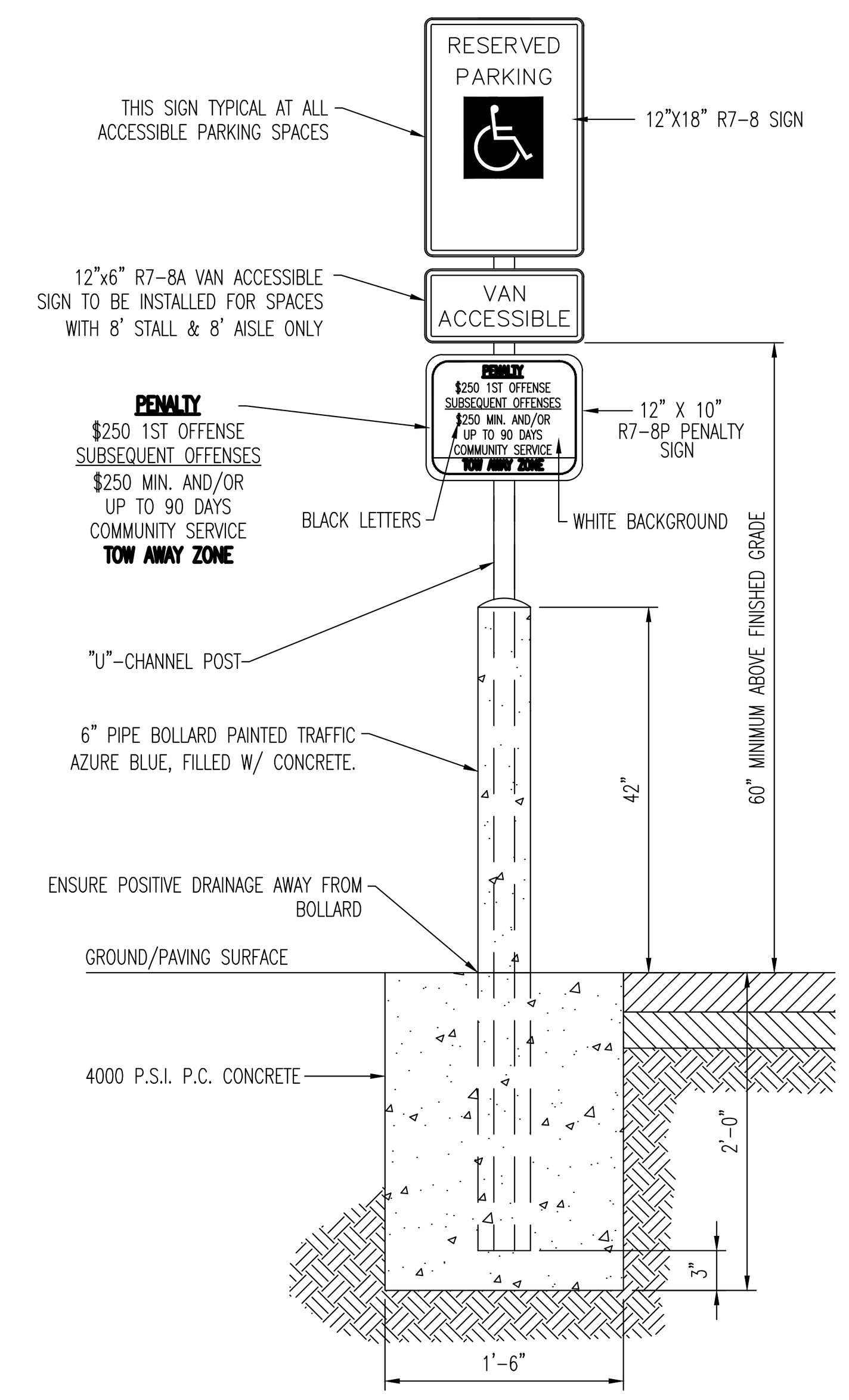


PARKING STALL STRIPING DETAIL
NOT TO SCALE



NOTES:
1. PAVEMENT STRIPING FOR ALL ADA PARKING SPACES SHALL BE PAINTED AZURE BLUE.
2. WHERE AN ADA PARKING STALL MEETS A STANDARD PARKING STALL, AN AZURE BLUE AND WHITE PAVEMENT STRIPE SHALL BE PAINTED.
3. ALL PAVEMENT STRIPING, MARKINGS AND SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA ACCESSIBILITY GUIDELINES.

ADA STALL MARKINGS
NOT TO SCALE



NOTES:
1.) IF AT THE TIME OF CONSTRUCTION THE STATE OF NEW YORK HAS APPROVED FINES/PENALTIES DIFFERENT THAN THOSE INDICATED ON THIS DETAIL, CONTRACTOR IS TO PROVIDE SIGNAGE INDICATING THE CURRENT FINES/PENALTIES AS APPROVED BY THE STATE OF NEW YORK.

2.) VAN ACCESSIBLE SIGN SHALL BE 60" MINIMUM ABOVE FINISHED GRADE WHERE APPLICABLE. WHEN VAN ACCESSIBLE IS NOT REQUIRED, R7-8 SIGN SHALL BE SET AT 60" MINIMUM ABOVE FINISHED GRADE.

A.D.A. PARKING SIGN ON BOLLARD DETAIL
NOT TO SCALE

ES-LF909S

For Health Hazard Applications

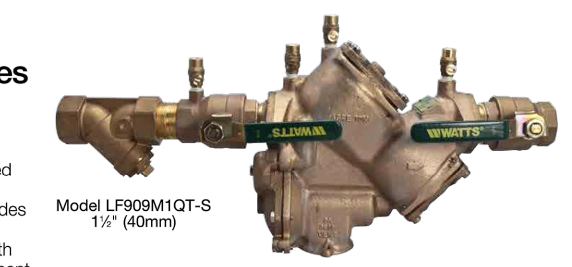
Job Name ____ Contractor ____
Job Location ____ Approval ____
Engineer ____ Contractor's P.O. No. ____
Approval ____ Representative ____

LEAD FREE*

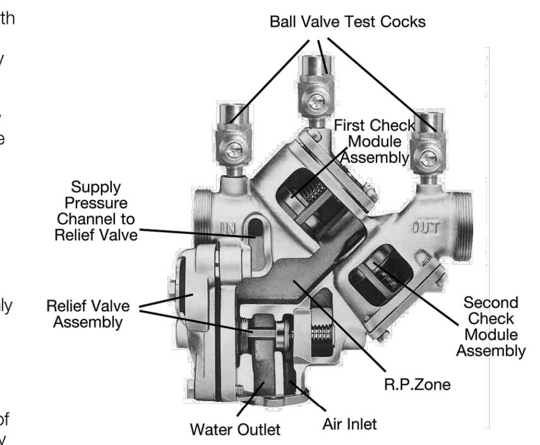
Series LF909
Reduced Pressure Zone Assemblies

LF909 Sizes: ¾", 1" (20, 25mm)
LF909M1 Sizes: 1¼", 1½", 2" (32, 40, 50mm)

Series LF909 Reduced Pressure Zone Assemblies are designed to provide superior cross-connection control protection of the potable water supply in accordance with national plumbing codes and containment control for water authority requirements. This series can be utilized in a variety of installations, including health hazard cross-connections in plumbing systems or for containment at the service line entrance. The LF909 features Lead Free* construction to comply with Lead Free* installation requirements. With its exclusive, design incorporating the "air-in/water-out" principle it provides maximum relief valve discharge during the emergency conditions of combined backsiphonage and backpressure with both checks fouled. Model LF909QT, standardly furnished with full port, resilient seated and Lead Free* cast copper silicon alloy ball valve shutoffs. Sizes ¾" and 1" (20 and 25mm) shutoffs have tee handles.



Model LF909M1QT-S 1½" (40mm)



Features
- Modular design
- Replaceable seats
- Compact for installation ease
- Horizontal or vertical (up or down) installation on limited sizes only
- No special tools required for servicing

Specifications
A Reduced Pressure Zone Assembly shall be installed at each cross-connection to prevent backsiphonage and backpressure of hazardous materials into the potable water supply. The assembly shall consist of a pressure differential relief valve located in a zone between two positive seating check valves. Backsiphonage protection shall include provision to admit air directly into the reduced pressure zone via a separate channel from the water discharge channel, or directly into the supply pipe via a separate vent. The assembly shall be constructed using Lead Free* cast copper silicon materials. The Lead Free* reduced pressure zone assembly shall comply with state codes and standards, where applicable, requiring reduced lead content. The assembly shall include two tightly closing shutoff valves before and after the assembly, test cocks and a protective strainer upstream of the No. 1 shutoff valve. The assembly (specify Model LF909 for temperatures up to 140°F (60°C) or Model LF909HW for temperatures up to 210°F (99°C)) shall meet the requirements of ASSE Std. 1013; AWWA Std. C-511-92 CSA B64.4; FCCCHR of USC Manual Section 10. Listed by IAPMO (UPC). SBCCI (Standard Plumbing code). The assembly shall be a Watts LF909QTS or LF909QTSHW.

Now Available
WattsBox Insulated Enclosures.
For more information, send for literature ES-WB.

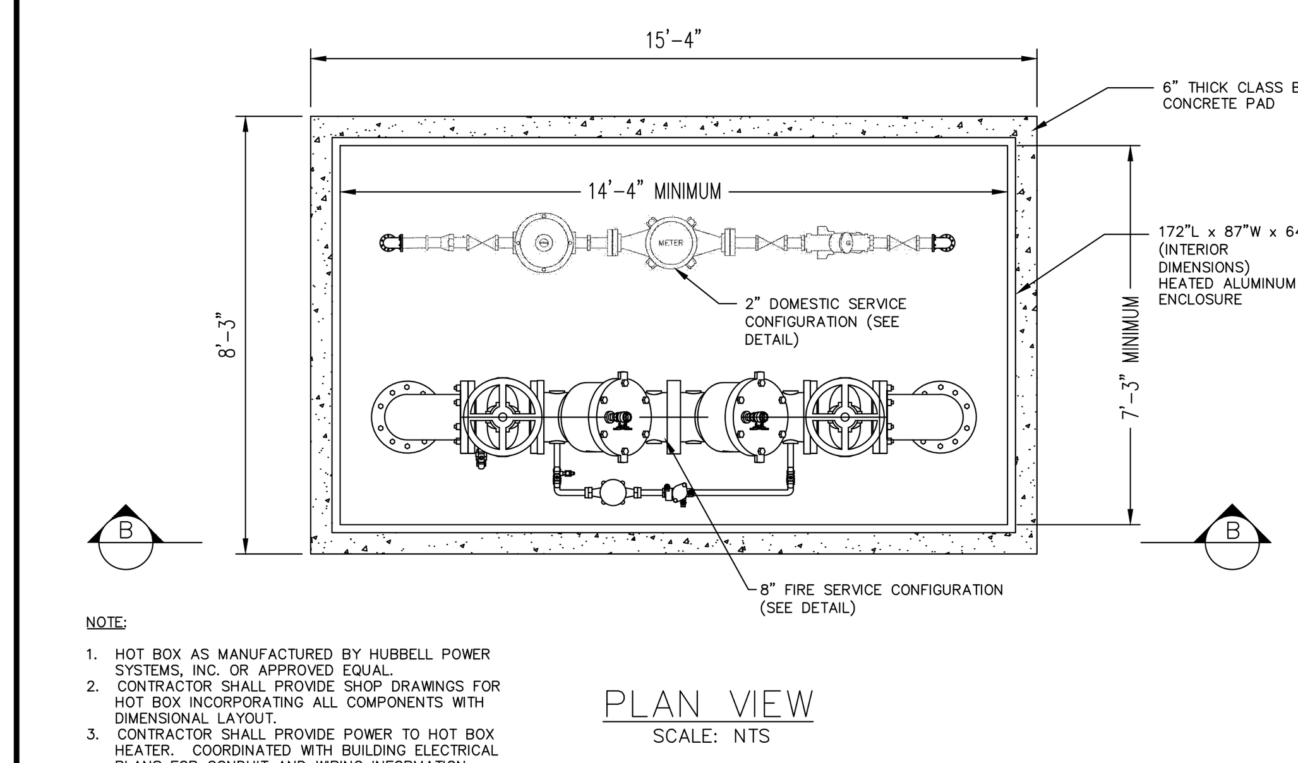
NOTICE
The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

***The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

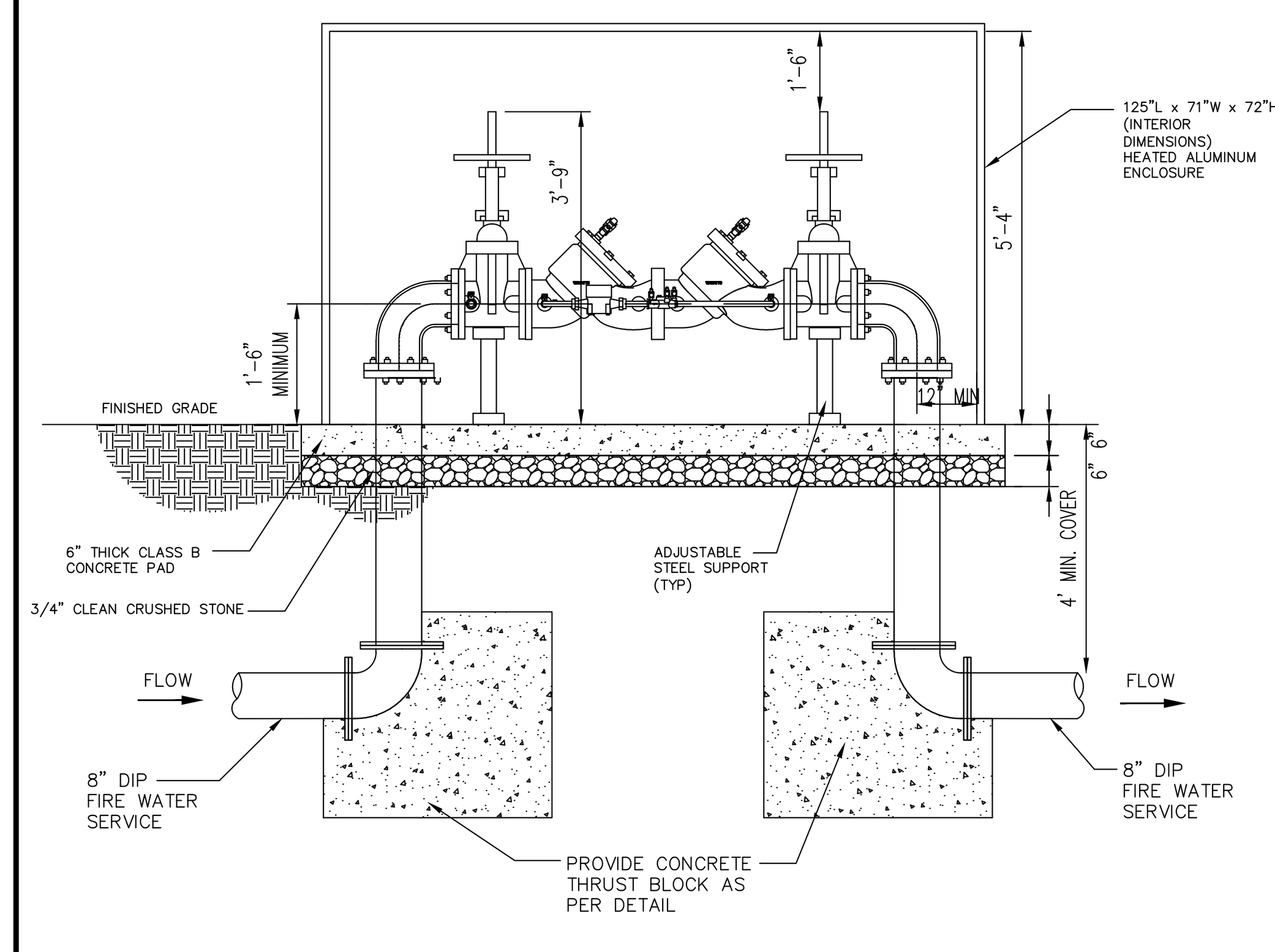
WATTS®

DOMESTIC RPZ DETAIL
NOT TO SCALE



NOTE:
1. HOT BOX AS MANUFACTURED BY HUBBELL POWER SYSTEMS, INC. OR APPROVED EQUAL.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR HOT BOX INCORPORATING ALL COMPONENTS WITH DIMENSIONAL LAYOUT.
3. CONTRACTOR SHALL PROVIDE POWER TO HOT BOX HEATER. COORDINATE WITH BUILDING ELECTRICAL PLANS FOR CONDUIT AND WIRING INFORMATION.

PLAN VIEW
SCALE: NTS

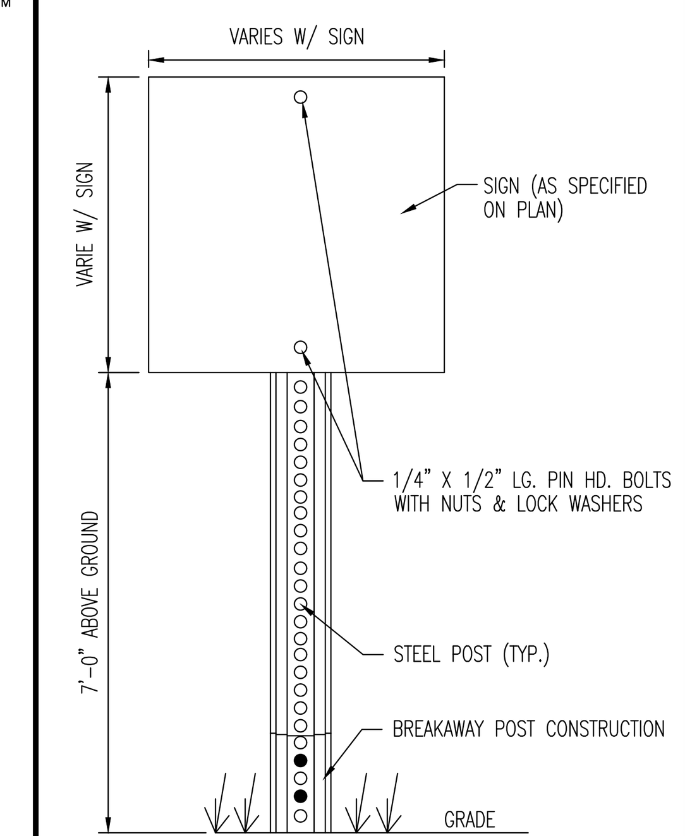


SECTION B-B
SCALE: NTS

HOT BOX DETAIL
NOT TO SCALE

NOTE: SIGN MUST COMPLY WITH ALL LOCAL FIRE DEPT. REQUIREMENTS.

FIRE LANE SIGN DETAIL
NOT TO SCALE

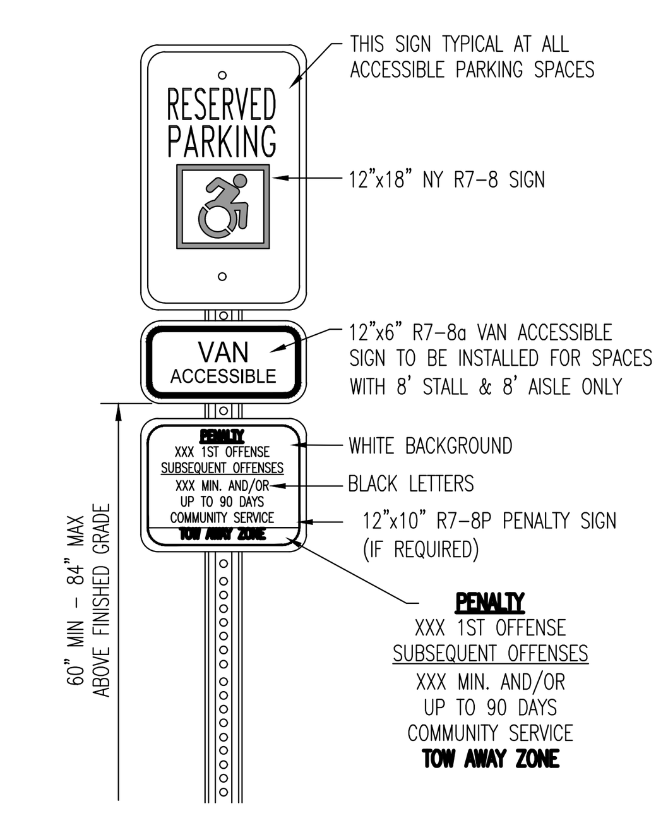


SIGN POST DETAIL
NOT TO SCALE

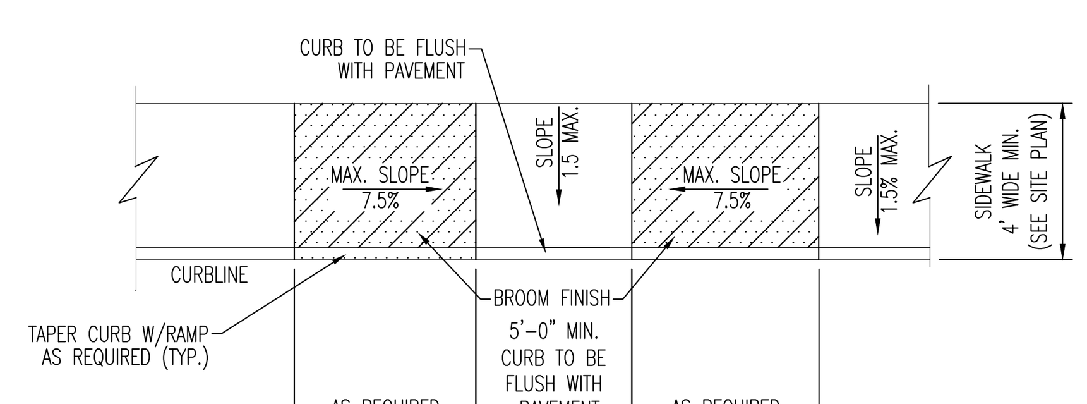
NOTES:
1.) IF AT THE TIME OF CONSTRUCTION THE STATE OF NEW YORK REQUIRES A SIGN INCLUDING FINES/PENALTIES, CONTRACTOR IS TO PROVIDE SIGNAGE INDICATING THE CURRENT FINES/PENALTIES AS APPROVED BY THE STATE OF NEW YORK.

2.) VAN ACCESSIBLE SIGN SHALL BE 60" MINIMUM ABOVE FINISHED GRADE WHERE APPLICABLE. WHEN VAN ACCESSIBLE IS NOT REQUIRED, R7-8 SIGN SHALL BE SET AT 60" MINIMUM ABOVE FINISHED GRADE.

3.) PER THE NYSBC SECTION 1106.5 STRIPED ACCESS AISLE SHALL BE PROVIDED WITH SIGNAGE READING "NO PARKING". SIGN SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE (SEE SITE PLAN FOR LOCATION)



ADA PARKING SIGN W/ VAN ACCESSIBLE SIGN
NOT TO SCALE



NOTES:
1.) CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.

2.) COUNTER SLOPES OF ADJOINING GUTTERS AND PAVEMENT SHALL NOT BE STEEPER THAN 1:20 WITH A MAX. CROSS SLOPE OF 1.5%.

3. A LEVEL LANDING AREA(MAX. SLOPE 1.5% IN ANY DIRECTION) SHALL BE PROVIDED AT THE TOP OF THE RAMP. THE LANDING CLEAR LENGTH SHALL BE 36" MIN AND THE CLEAR WIDTH SHALL BE AS WIDE AS THE RAMP.

4.) CURB RAMPS, PAVEMENT MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

A.D.A. PARALLEL CURB RAMP DETAIL
NOT TO SCALE

ES-709DCDA

Job Name ____ Contractor ____
Job Location ____ Approval ____
Engineer ____ Contractor's P.O. No. ____
Approval ____ Representative ____

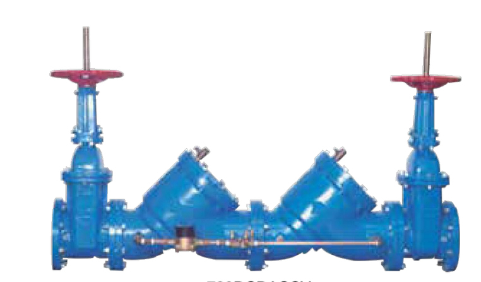
Series 709DCDA
Double Check Detector Assemblies

Sizes: 3" – 10"

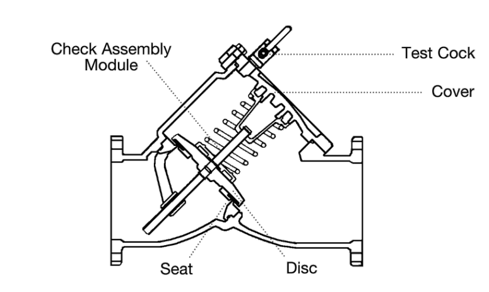
Series 709DCDA Double Check Detector Assemblies are designed exclusively for use in accordance with water authority containment requirements. It is mandatory to prevent the reverse flow of fire protection system substances, i.e. glycerin wetting agents, stagnant water and water of non-potable quality from being pumped or siphoned into the potable water line.

Benefits: Detects leaks . . . with emphasis on the cost of unaccountable water; incorporates a meter which allows the water utility to:
- Detect leaks underground that historically create great annual cost due to waste.
- Provide a detection point for unauthorized use. It can help locate illegal taps.

Modular check design concept facilitates maintenance and assembly access. All sizes are standardly equipped with resilient seated OSY shutoff valves, ⅝" x ¾" meter and ball type test cocks.



709DCDAOSY



Check Assembly Module

Features a modular design concept which facilitates complete maintenance and assembly by retaining the spring load.
First and second check valve spring modules are not interchangeable.

Features
- Body construction fused epoxy coated cast iron
- Replaceable bronze seats
- Maximum flow at low pressure drop
- Compact for economy combined with performance
- Design simplicity for easy maintenance
- Furnished with ⅝" x ¾" bronze meter
- No special tools required for servicing

Specifications
A Double Check Detector Assembly shall be installed on fire protection systems when connected to a potable water supply. Degree of hazard present is determined by the local authority having jurisdiction. The unit shall be a complete assembly including UL listed resilient seated OSY shutoff valves and test cocks. The unit shall be UL/FM approved with UL/FM approved OSY shutoff valves. The auxiliary line shall consist of an approved backflow preventer and water meter. The assembly shall meet the basic requirements of ASSE 1048; AWWA Std. C510 for Double Check Valves. Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. Assembly shall be a Watts Series 709DCDA.

Now Available
WattsBox Insulated Enclosures.
For more information, send for literature ES-WB.

NOTICE
The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

NOTICE
Inquire with governing authorities for local installation requirements

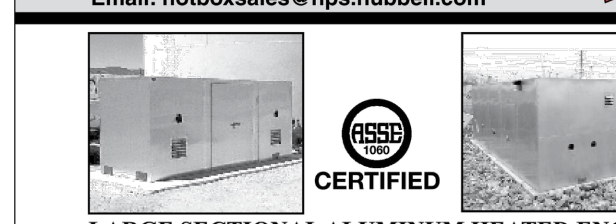
Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

WATTS®

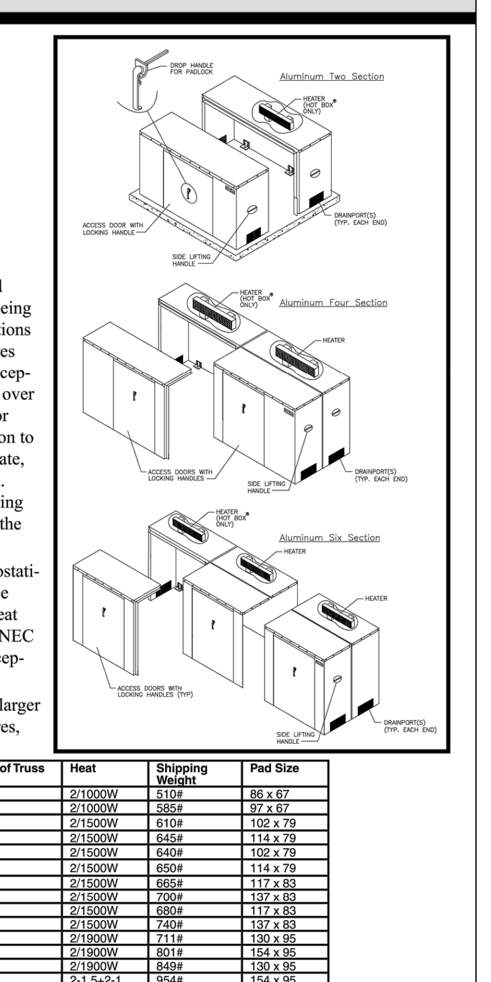
FIRE BACKFLOW DETAIL
NOT TO SCALE

SUBMITTAL DATA SHEET
BULLETIN NO: ESLA4084
(800) 736-0238
FAX: (904) 783-6965
http://www.hot-box.com
Email: hotboxsales@hps.hubbell.com

HOT BOX®



ASSE 1060 CERTIFIED



LARGE SECTIONAL ALUMINUM HEATED ENCLOSURES:
SPECIFICATION:

The enclosure, certified to ASSE 1060*, shall be of min. .050" tk. reinforced stucco embossed aluminum sheeting (with optional .063" tk.), providing access through removable doors and being totally removable for maintenance purposes. A modular design with "tongue and groove" sections is required; with no panels requiring jobsite assembly allowed. In four or more piece enclosures over 70" wide, sections shall be secured together with mechanical "roto locks" of latch and receptacle configuration. Wood or "particle board" framing shall be cause for rejection. Enclosures over 80" wide will utilize internal aluminum extruded roof beams the full width of the enclosure for support. Enclosures over 150" wide will utilize adjustable floor to roof support jacks in addition to the roof beams. Insulation shall be min. 1½" tk. (R10), unicellular, non-wicking, polyisocyanate, sprayed in place (not glued or pinned) to form a monolithic bond with metal framing and skin. Drains shall be sized for full port backflow discharge and designed for "one way" exit, inhibiting intrusion of debris and/or vermin. Enclosure shall be anchored to a concrete slab from within the enclosure with steel anchors and be lockable for security purposes.

Heat will protect the piping and equipment from exterior temperatures to -30°F and be thermostatically controlled. UL or ETL listed self-regulating cable(s) or wall mounted air heater(s) will be sized to maintain the equipment at +40°F, in accordance with N.F.P.A. 3-3.1.8 & 3-6.1.3.2. Heat source shall be mounted a minimum of 7" above the slab unless it is UL or ETL certified and NEC approved for submersion. Power source shall be protected with a ground fault interrupting receptacle, UL 943, N.E.M.A.3R, installed by others inside the enclosure.

*Maximum size for ASSE 1060 certified enclosure is 172" IL x 87" IW x 85" IH. Enclosures larger than these dimensions are constructed in the same manner and design as the certified enclosures, but have not been lab tested and listed by ASSE.

Hot Box w/Heat	Old Hot Box w/ Heat	Inside Width	Inside Length	Inside Height	# of Sections	Roto Locks	Roof Truss	Heat	Shipping Weight	Pad Size
HA055074057	HB3ED	55	74	57	2	X	X	2/1000W	510#	86 x 67
HA055085057	HB3EDS	55	85	57	2	X	X	2/1000W	585#	97 x 67
HA067090051	HB4ND	67	90	51	2	X	X	2/1500W	610#	102 x 79
HA067102067	HB4NDS	67	102	67	2	X	X	2/1500W	645#	114 x 79
HA067090058	HB4ED	67	90	58	2	X	X	2/1500W	640#	102 x 79
HA067102058	HB4EDS	67	102	58	2	X	X	2/1500W	650#	114 x 79
HA071105053	HB6ND	71	105	53	4	✔	X	2/1500W	665#	117 x 83
HA071125053	HB6NDS	71	125	53	4	✔	X	2/1500W	700#	137 x 83
HA071105064	HB6ED	71	105	64	4	✔	X	2/1500W	680#	117 x 83
HA071125064	HB6EDS	71	125	64	4	✔	X	2/1500W	740#	137 x 83
HA083123058	HB8ND	83	123	58	4	✔	✔	2/1900W	711#	130 x 95
HA083145058	HB8NDS	83	145	58	4	✔	✔	2/1900W	801#	154 x 95
HA083123074	HB8ED	83	123	74	4	✔	✔	2/1900W	849#	130 x 95
HA083145074	HB8EDS	83	145	74	4	✔	✔	2-1.5+2-1	954#	154 x 95
HA087144065	HB10ND	87	144	65	4	✔	✔	2-1.5+2-1	888#	154 x 99
HA087172065	HB10NDS	87	172	65	4	✔	✔	2-1.5+2-1	1200#	184 x 99
HA087144085	HB10ED	87	144	85	4	✔	✔	4/1500W	1300#	154 x 99
HA087172085	HB10EDS	87	172	85	4	✔	✔	4/1500W	1400#	184 x 99

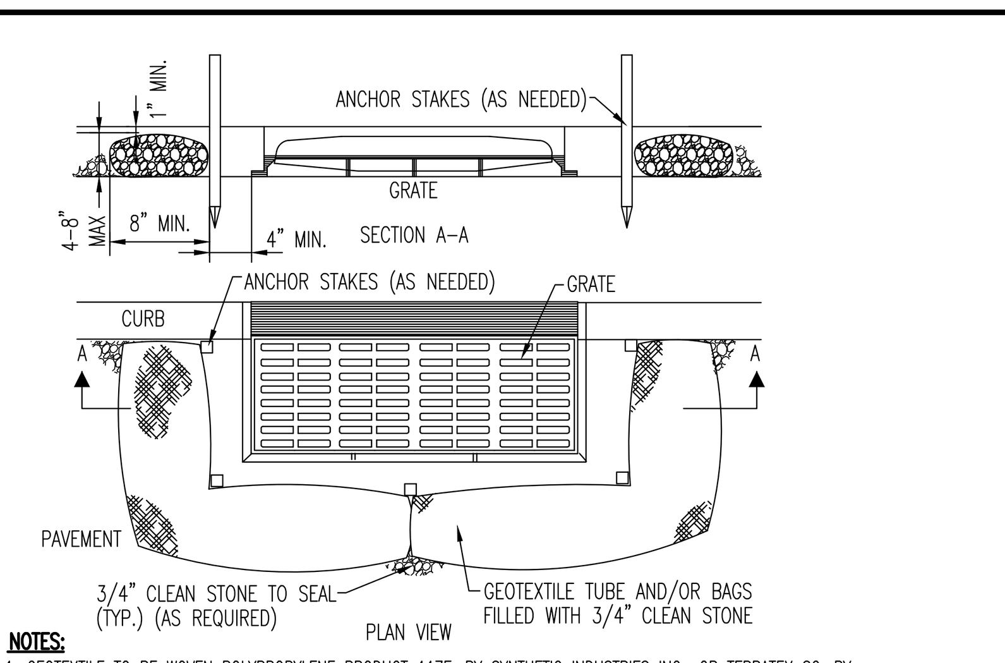
OPTIONS:					
OPTION	TYPE	SIZE	PHASE	VOLTAGE	QUANTITY
COLOR					
VENT(S)					
EXHAUST					
ALARM					
ALARM					
HEAT					
LIGHT(S)					
ALUM. GAUGE					
FLOOR JACKS					
OTHER					

MEMBERS OF:

Job Name ____ Contractor ____
Job Location ____ Approval ____
Engineer ____ Contractor's P.O. No. ____
Approval ____ Representative ____

7

HOTBOX DETAIL
NOT TO SCALE

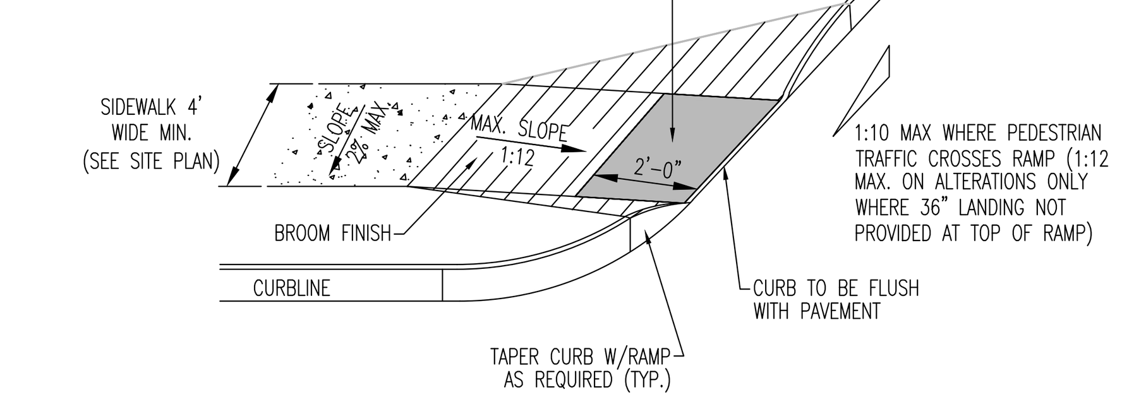


NOTES:
1. GEOTEXTILE TO BE WOVEN POLYPROPYLENE PRODUCT 117F, BY SYNTHETIC INDUSTRIES INC., OR TERRATEX SC, BY WEBTEC INC., OR APPROVED EQUAL.
2. 3/4" CLEAN STONE CORE SHALL BE COMPLETELY CONTAINED WITHIN GEOTEXTILE. SEAMS SHALL BE SEWN OR CLOSED BY SUITABLE MECHANICAL MEANS TO PREVENT LEAKAGE OF STONE.
3. ANCHOR STAKES OF WOOD OR METAL SHALL BE INSTALLED WHERE REQUIRED BY FIELD CONDITIONS TO PREVENT MOVEMENT OF BARRIER.
4. WHERE NO CURB IS PRESENT, BARRIER SHALL COMPLETELY ENCIRCLE THE DRAIN INLET.
5. INLET GRATE OPENING IS TO BE KEPT CLEAR OF OBSTRUCTIONS AT ALL TIMES.
6. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.
7. OTHER METHODS THAT ACCOMPLISH THE PURPOSE OF STORM SEWER INLET PROTECTION MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
8. INSPECTIONS SHALL BE FREQUENT. MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY, AS NEEDED. THE BARRIER SHALL BE REMOVED WHEN THE AREA DRAINING TOWARDS THE INLET HAS BEEN STABILIZED.

INLET FILTER DETAIL
NOT TO SCALE

CONTRACTOR TO CONSTRUCT DETECTABLE WARNINGS WHEN SIDEWALK INTERSECTS A VEHICULAR TRAVELED WAY

A.D.A. DETECTABLE WARNING SURFACES SHALL CONSIST OF RAISED TRUNCATED DOMES THAT CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT(SEE DETAIL)



NOTES:
1.) CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.
2.) COUNTER SLOPES OF ADJOINING GUTTERS AND PAVEMENT SHALL NOT BE STEEPER THAN 1:20 WITH A MAX. CROSS SLOPE OF 2%.
3. A LEVEL LANDING AREA(MAX. SLOPE 2% IN ANY DIRECTION) SHALL BE PROVIDED AT THE TOP OF THE RAMP. THE LANDING CLEAR LENGTH SHALL BE 36" MIN AND THE CLEAR WIDTH SHALL BE AS WIDE AS THE RAMP.
4.) CURB RAMPS, PAVEMENT MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

ACCESSIBLE PERPENDICULAR CURB RAMP DETAIL
NOT TO SCALE

DYNAMIC ENGINEERING • EARTH • SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: CP | DESIGNED BY: DTS | CHECKED BY: BWS

PROJECT: ARMONK FAIRVIEW, LLC & AGRO AND BRASSI, LLC
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

811 Know what's below. Call before you dig.
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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

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NEW YORK LICENSE No. 099106

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PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

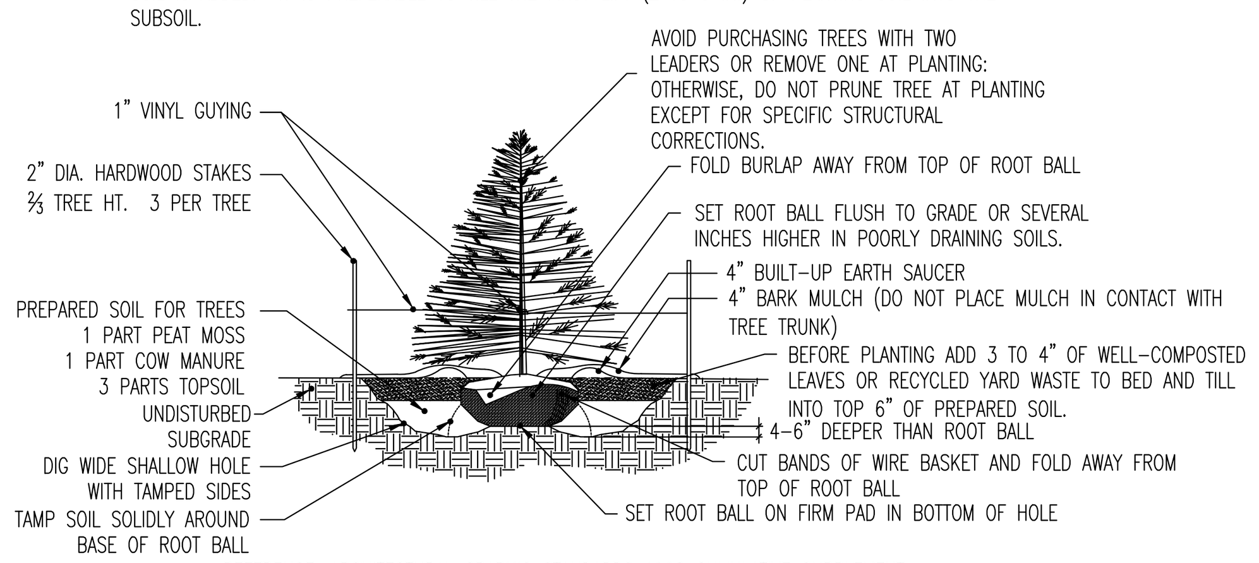
TITLE:
CONSTRUCTION DETAILS

SCALE: (H) N.T.S. (V) –
DATE: 02/19/2021
PROJECT No: 2179-99-009
SHEET No: 13 OF 16
Rev. #: 2

Plotted: 07/12/21 – 11:55 AM, By: jdemartinis
File: \\decpc.local\decfolders\Data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\D2179999009SD0.dwg, ---> 13 CONSTRUCTION DETAILS

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERCEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL FOLD BURLAP BACK ⅓ FROM TOP ROOT BALL
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.

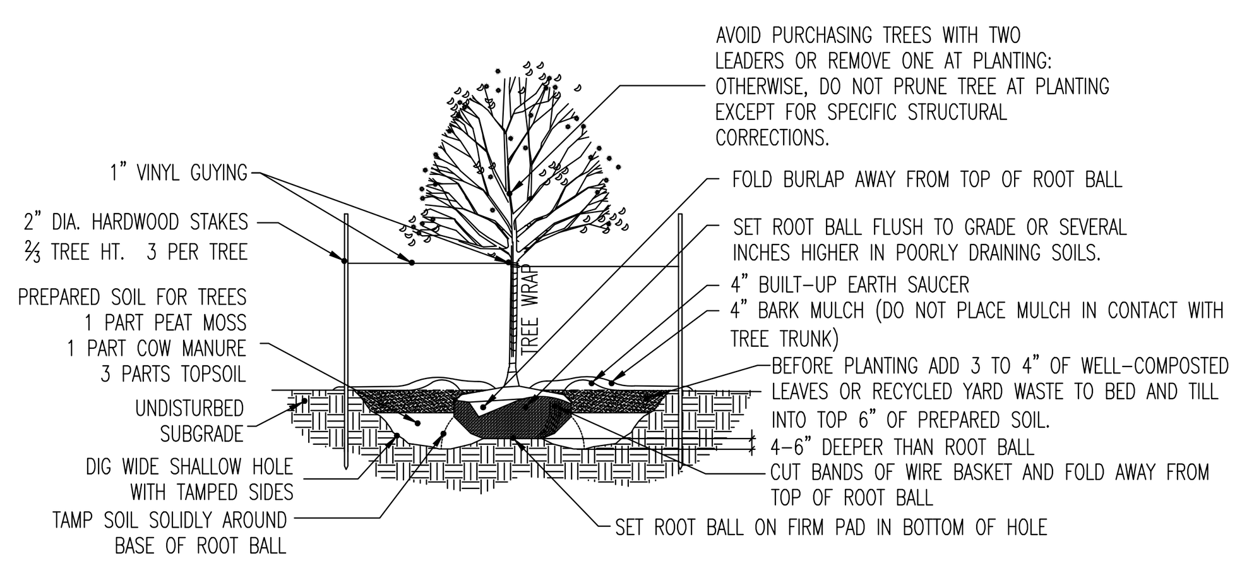


REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

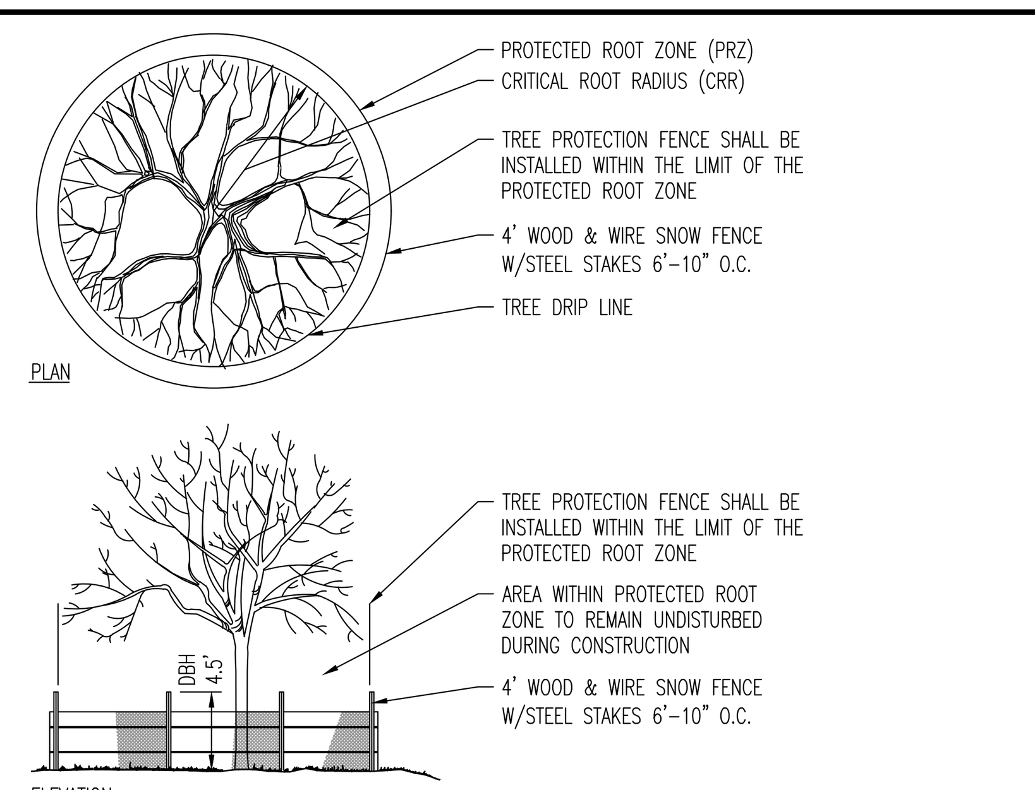
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL FOLD BURLAP BACK ⅓ FROM TOP ROOT BALL
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



ESTIMATE A TREE'S PROTECTED ROOT ZONE (PRZ) BY CALCULATING THE CRITICAL ROOT RADIUS (CRR)
1. MEASURE THE DBH (DIAMETER OF TREE AT BREAST HEIGHT, 4.5' ABOVE GROUND ON THE UPHILL SIDE OF TREE) IN INCHES.
2. MULTIPLY MEASURED DBH BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET

DBH x 1.5: CRITICAL ROOT RADIUS FOR OLDER, UNHEALTHY, OR SENSITIVE SPECIES.
DBH x 1.0: CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY OR TOLERANT SPECIES.

TREE PROTECTION DURING SITE CONSTRUCTION DETAIL

NOT TO SCALE

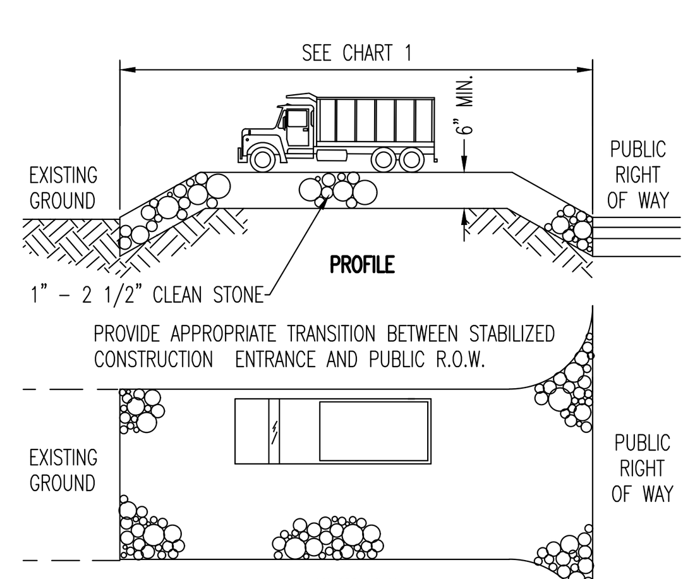


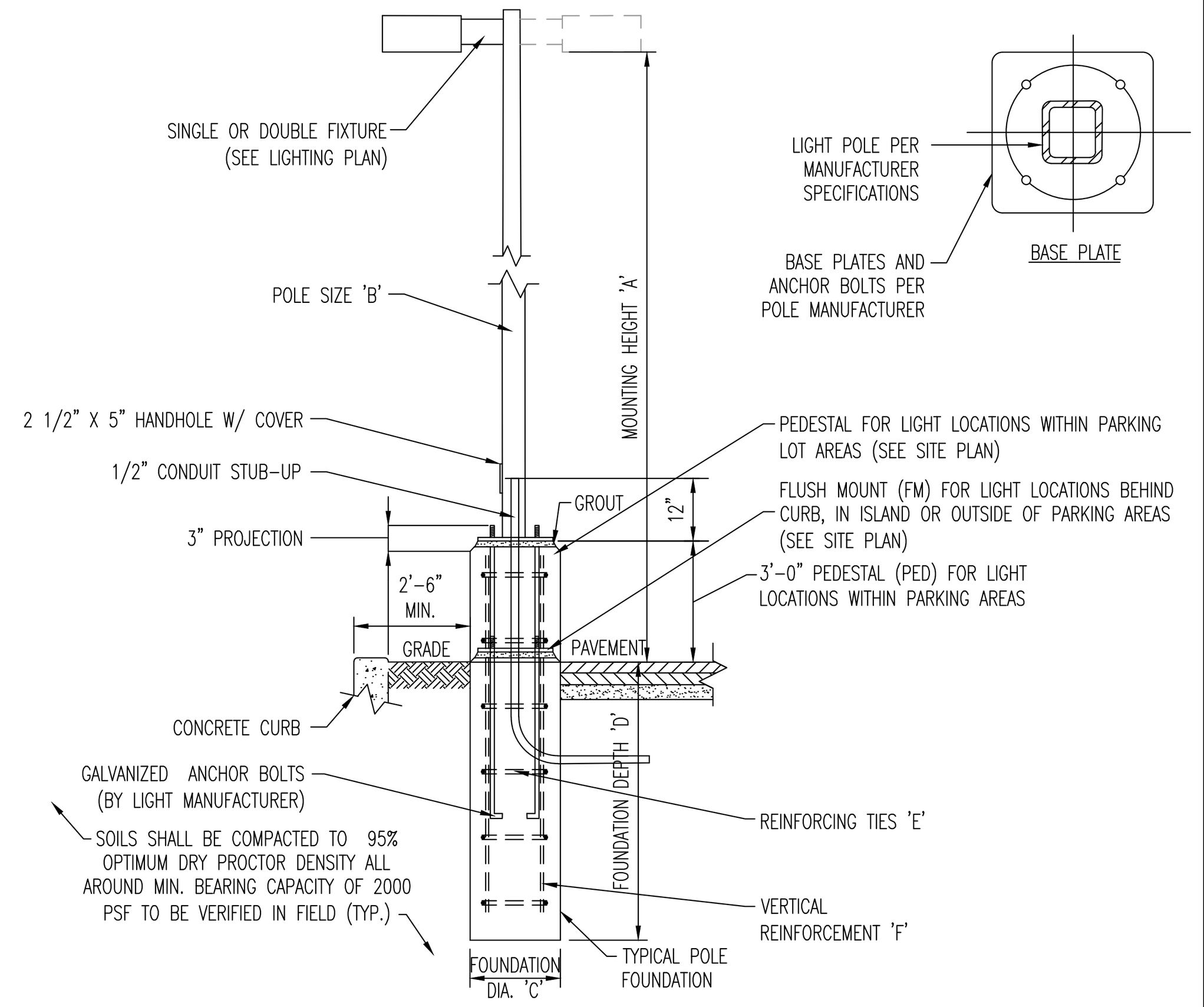
CHART 1

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2% TO 5%	100 FT	200 FT
>5%	ENTIRE ENTRANCE STABILIZED WITH FABC BASE COURSE (1)	

(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



NOTE: 1. CONTRACTOR TO CONFIRM ALL LIGHT POLE & FIXTURE DIMENSIONS PRIOR TO CONSTRUCTION.
2. PROPOSED POLE IN COMBINATION WITH CONCRETE PEDESTAL TO EQUAL MOUNTING HEIGHT 'A'. ACTUAL POLE HEIGHT TO BE ADJUSTED ACCORDINGLY.

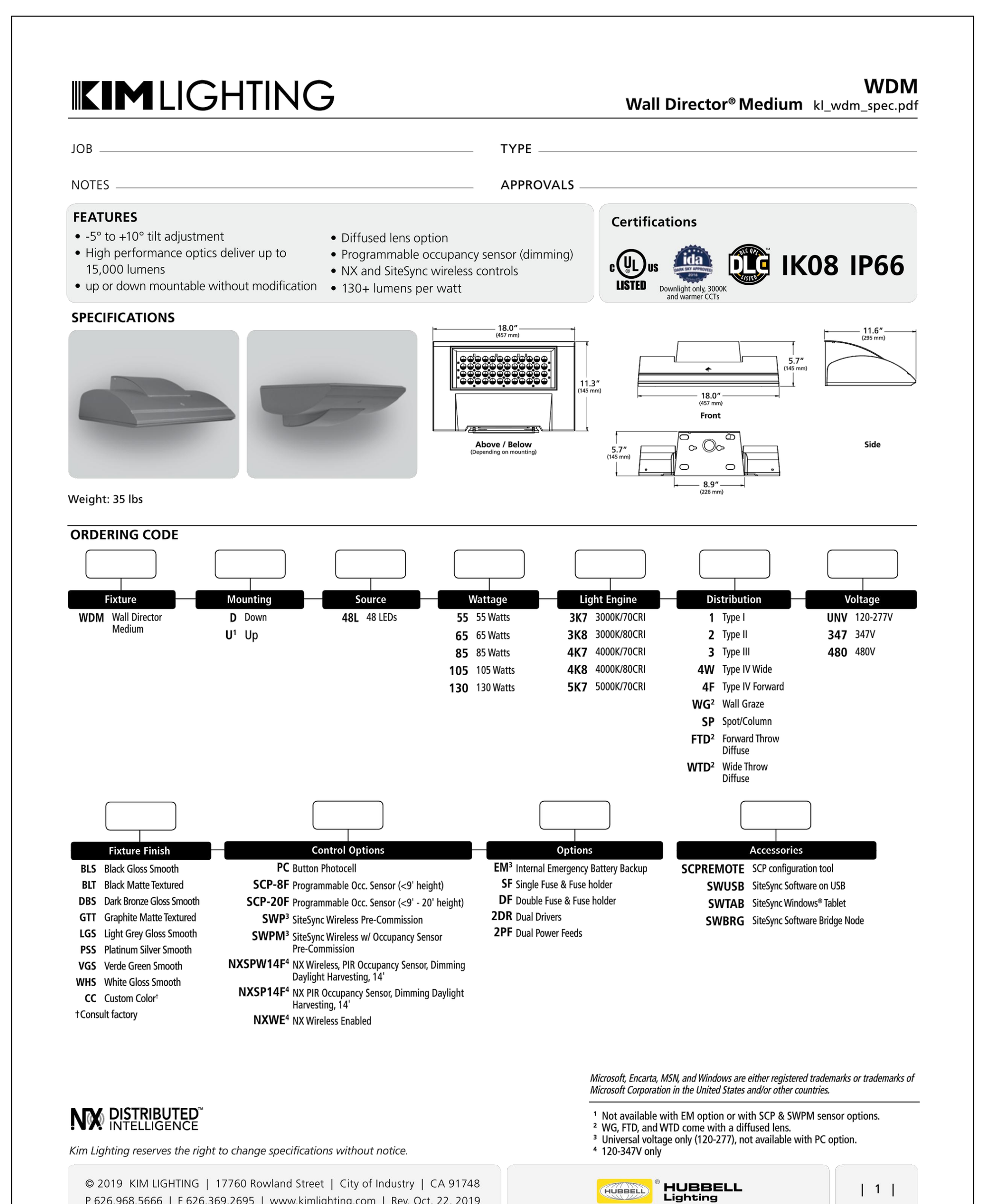
LIGHT POLE FOUNDATION SCHEDULE	
MOUNTING HEIGHT ABOVE GRADE 'A'	25'
POLE DIA. 'B'	6" SQUARE (OR PER MANUFACTURER)
# OF FIXTURES	SINGLE OR DOUBLE
FOUNDATION DIAMETER 'C'	24" DIA. ROUND
FOUNDATION DEPTH 'D'	7.0'
REINFORCING TIES 'E'	#4 @ 12" O.C.
VERTICAL REINFORCEMENT 'F'	(7) #6 BARS EQUALLY SPACED

SOIL NOTES
1. FOOTING DESIGN BASED ON ASSUMED MAXIMUM ALLOWABLE SOILS BEARING CAPACITY OF 2,000 SF PSF. CONTRACTOR RESPONSIBLE TO VERIFY ADEQUACY OF ASSUMED BEARING CAPACITY PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED IF INCONSISTENCIES EXIST.
2. SUBGRADE TO BE FREE OF ORGANICS AND BE SUITABLE, COMPACTED MATERIAL.

CONCRETE NOTES
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED (WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING FRAMEWORK AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES AND REGULATIONS AS WELL AS THE ACI AND UNIFORM BUILDING CODE.

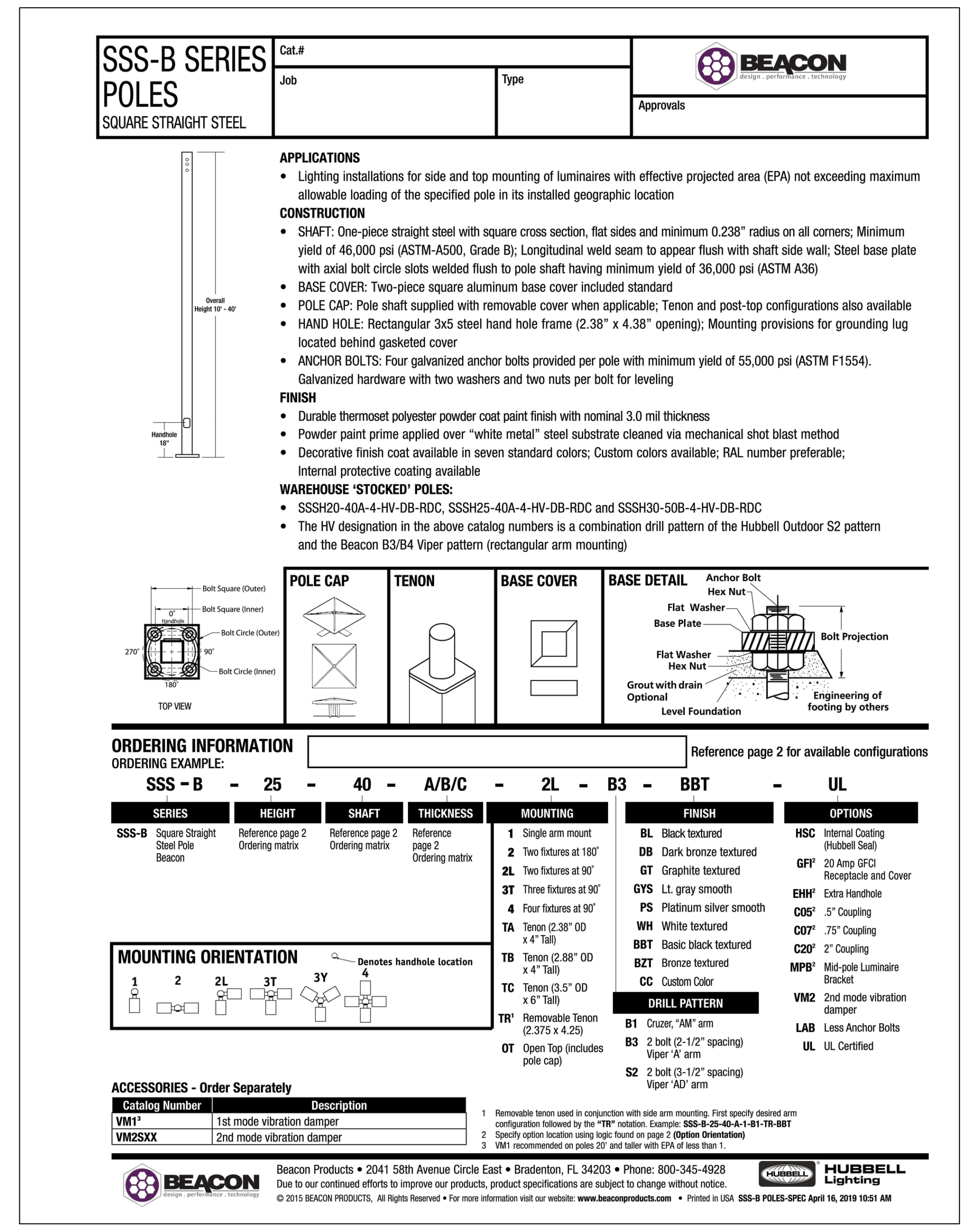
AREA LIGHT FOUNDATION DETAIL

NOT TO SCALE



WALL MOUNTED FIXTURE DETAIL

NOT TO SCALE

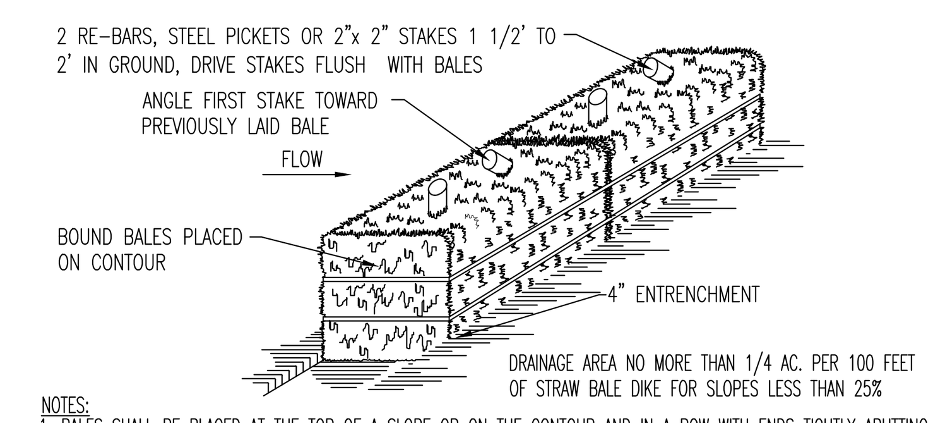


AREA LIGHT POLE DETAIL

NOT TO SCALE

AREA LIGHT FIXTURE DETAIL

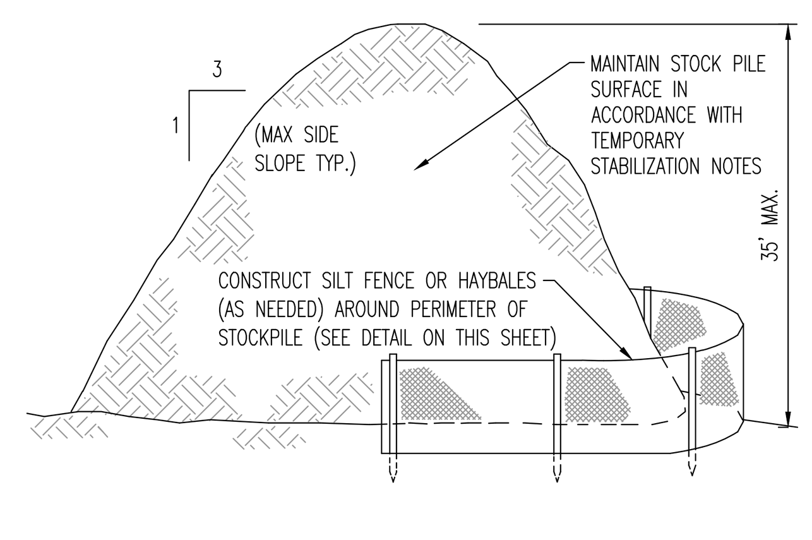
NOT TO SCALE



NOTES:
1. BALES SHALL BE PLACED AT THE TOP OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

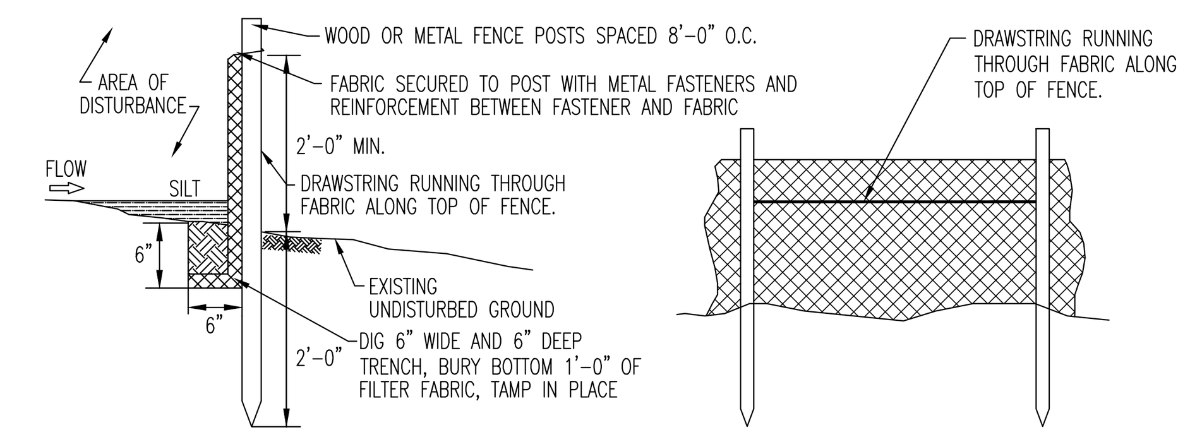
HAYBALE SEDIMENT BARRIER DETAIL

NOT TO SCALE



TEMPORARY STOCKPILE DETAIL

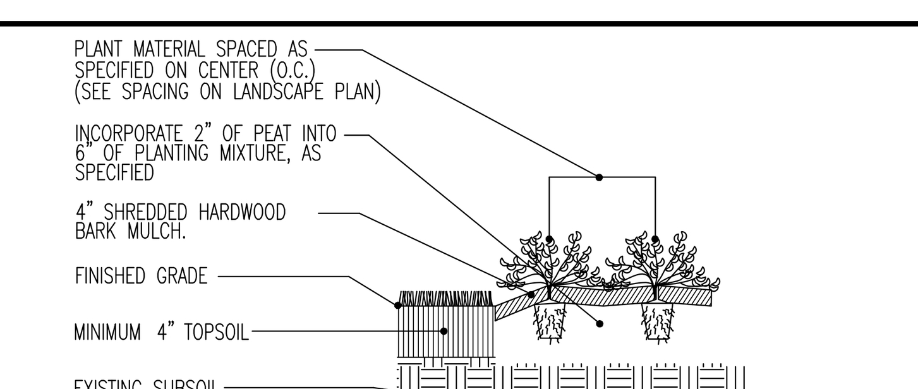
NOT TO SCALE



1. PLACE SILT FENCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. THE SLOPE OF THE LAND FOR AT LEAST 30 FEET ADJACENT TO ANY SILT FENCE SHALL NOT EXCEED 5 PERCENT
3. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE AROUND THE SIDES.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS PROMPTLY AS POSSIBLE.
5. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE INSTRUCTED BY THE TOWNSHIP ENGINEER OR SOIL CONSERVATION DISTRICT.
6. THE BARRIER SHALL BE REMOVED WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD A MIN. DIAMETER THICKNESS OF 1 1/2 INCHES.
8. A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
9. A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE GROUND. FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

SILT FENCE DETAIL

NOT TO SCALE



PERENNIAL/GROUND COVER PLANTING DETAIL

NOT TO SCALE

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REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

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DRAWN BY: JED | DESIGNED BY: DTS | CHECKED BY: BWS | CHECKED BY:

PROJECT: ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

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DANIEL T. SEHNAL
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 099106

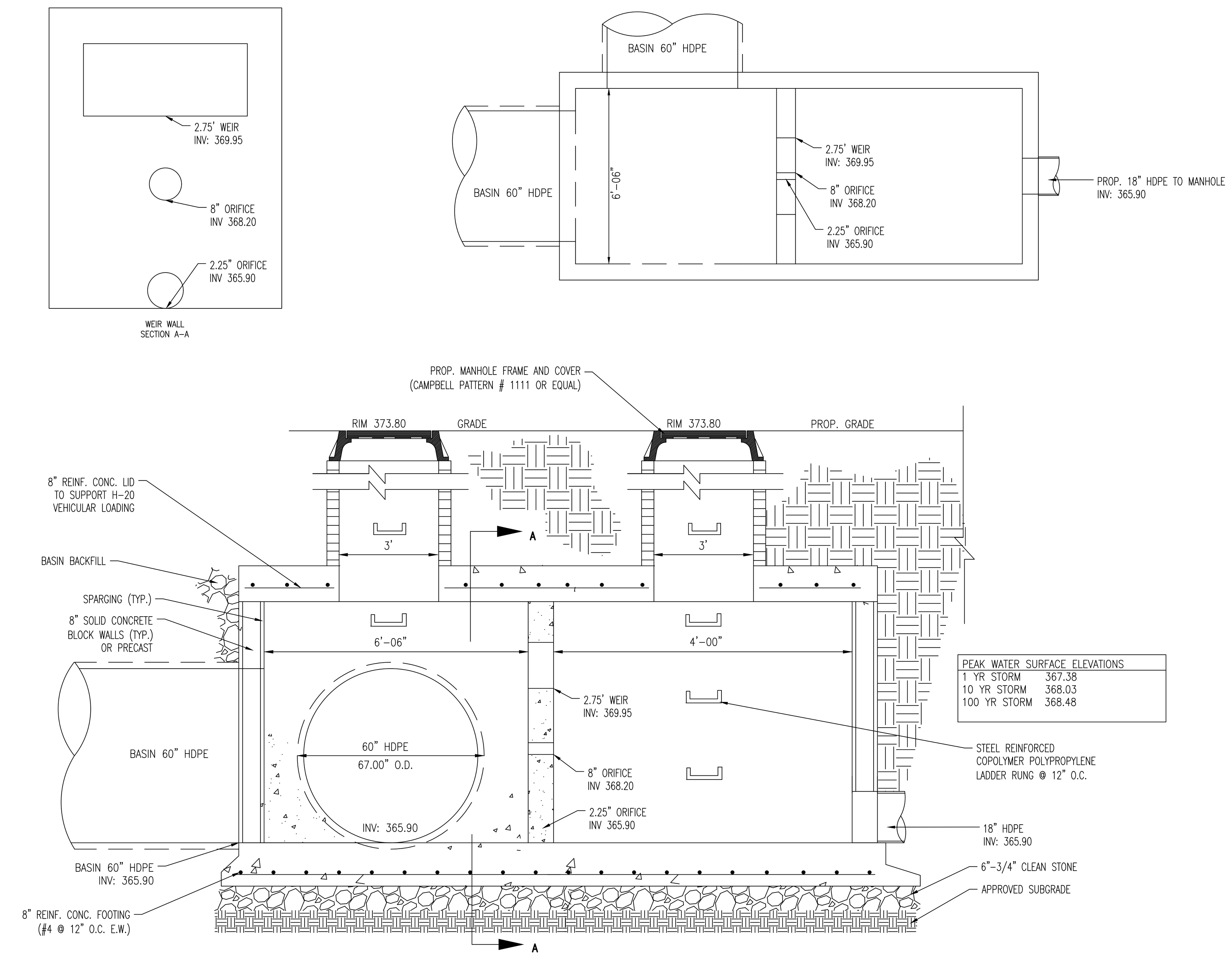
BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE: CONSTRUCTION DETAILS

SCALE: (H) AS (V) SHOWN | DATE: 02/19/2021
PROJECT No: 2179-99-009

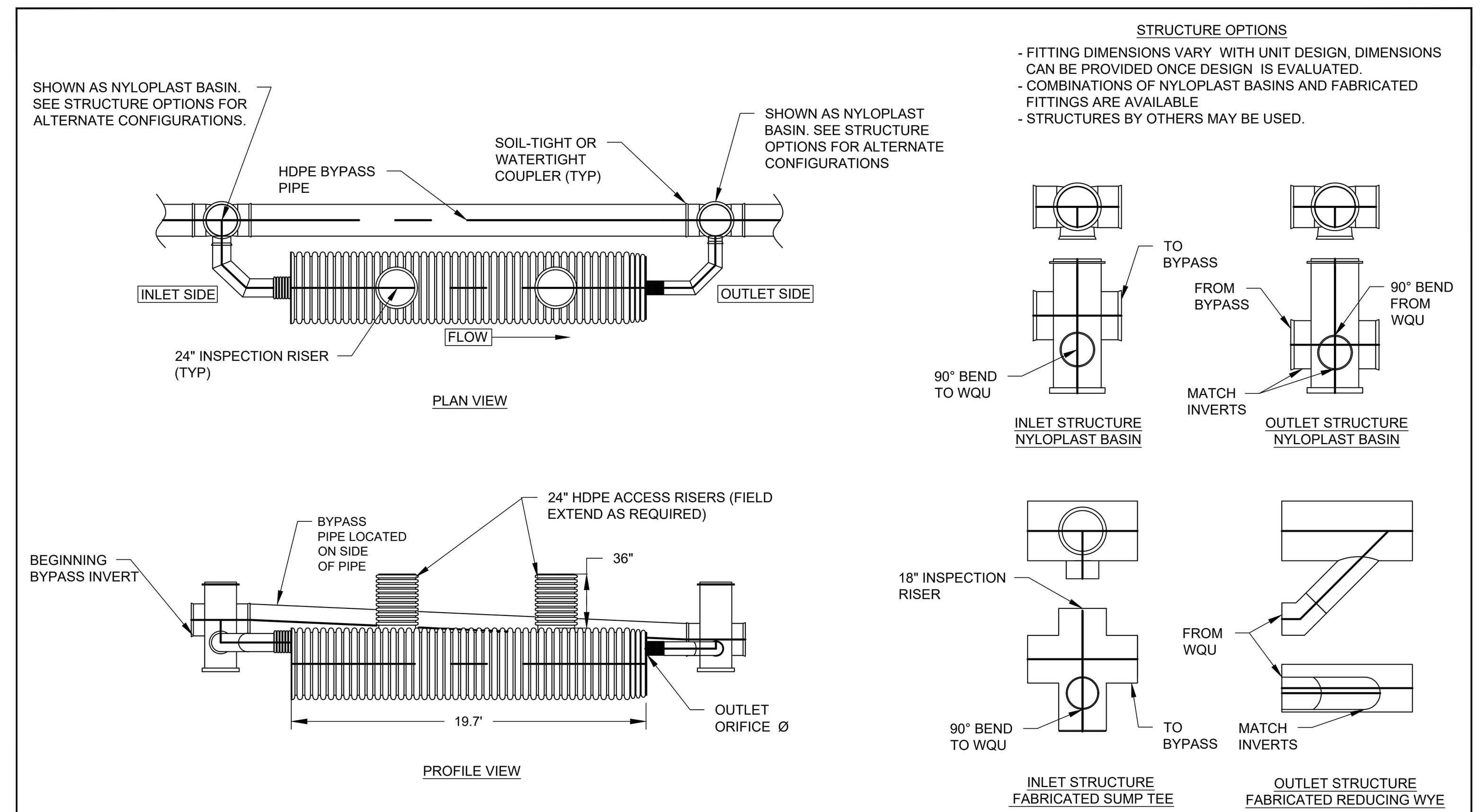
SHEET No: 14 OF 16 | Rev. #: 2

Plotted: 07/12/21 – 11:55 AM, By: jdemartinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\D2179990009SD0.dwg, ---> 14 CONSTRUCTION DETAILS



OUTLET STRUCTURE DETAIL

NOT TO SCALE



MODEL #	MAIN PIPE DIA.	SIEVE SIZE	PARTICLE SIZE (CM)	TREATED FLOW RATE (CFS)	INLET Ø	OUTLET Ø	OUTLET ORIFICE Ø	ELEVATION CHANGE*
4220WQAXX	42"	140	0.0106	1.73	12"	12"	8.13"	14.8"
4220WQBXX	42"	200	0.0075	0.86	12"	12"	5.70"	14.8"

XX DENOTES A BY-PASS SIZE OF 15", 18", 24", 30", 36", 42", 48", OR 60"
XX=00 DENOTES UNITS W/OUT A BY-PASS.
* ELEVATION CHANGE FOR UNITS WITHOUT A BY-PASS IS 2"

NOTES:

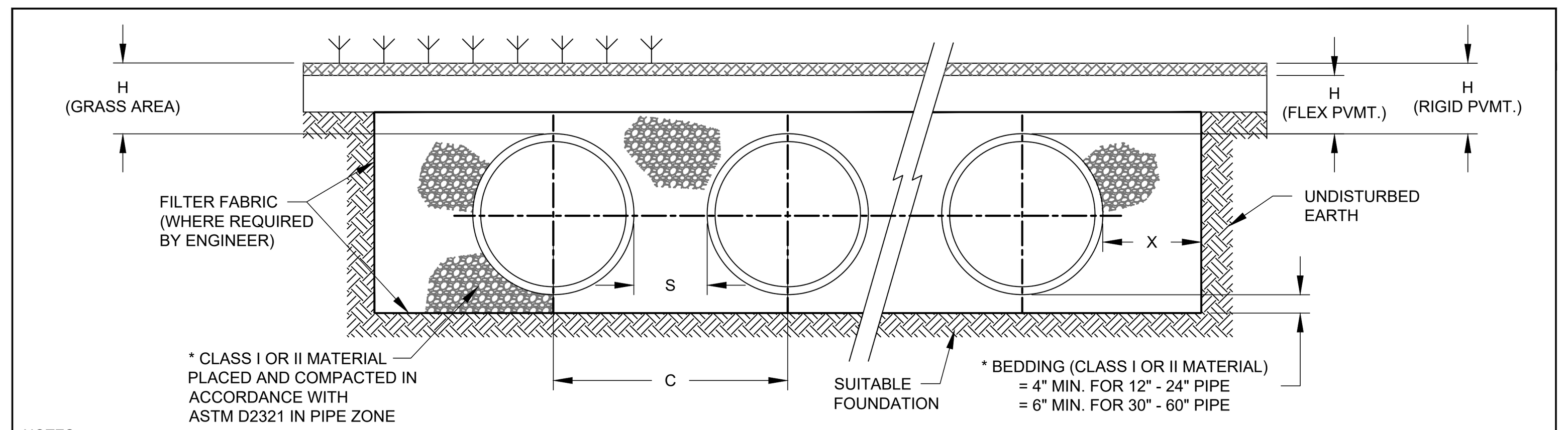
1. SEE STANDARD DETAILS STD-501 AND STD-502 FOR STORM WATER QUALITY UNIT PRODUCT DETAILS.
2. REFERENCE TECHNICAL NOTE 1.03 FOR ADDITIONAL DESIGN INFORMATION.
3. ELEVATION CHANGE DENOTES THE ELEVATION DROP FROM INVERT OF BYPASS AT INLET TO INVERT OF BYPASS AT OUTLET.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
1	FORMATTING UPDATES AND RENAMED	TJR	02/17/16	

42in 20ft WQU
DRAWING NUMBER: STD-505
ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026
DRAWN BY: CKS DATE: 7/17/08 CK'D BY: SCALE: NTS SHEET OF

WATER QUALITY UNIT DETAIL

NOT TO SCALE



NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. MINIMUM COVER: MINIMUM COVER OVER ALL RETNETION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	NOMINAL SPACING "C"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12" (300mm)	14.5" (368mm)	11" (279mm)	25.5" (648mm)	8" (203mm)	12" (305mm)	12" (305mm)
15" (375mm)	18" (457mm)	11.5" (292mm)	29.0" (737mm)	8" (203mm)	12" (305mm)	12" (305mm)
18" (450mm)	21" (533mm)	17.0" (432mm)	38.0" (965mm)	9" (229mm)	12" (305mm)	12" (305mm)
24" (600mm)	28" (711mm)	14.0" (356mm)	41.5" (1054mm)	10" (254mm)	12" (305mm)	12" (305mm)
30" (750mm)	36" (914mm)	18" (457mm)	53.0" (1346mm)	18" (457mm)	12" (305mm)	12" (305mm)
36" (900mm)	42" (1067mm)	22" (559mm)	63.0" (1600mm)	18" (457mm)	12" (305mm)	12" (305mm)
42" (1050mm)	48" (1219mm)	24" (610mm)	72.0" (1829mm)	18" (457mm)	12" (305mm)	24" (610mm)
48" (1200mm)	54" (1372mm)	25" (635mm)	78.5" (1994mm)	18" (457mm)	12" (305mm)	24" (610mm)
60" (1500mm)	67" (1702mm)	24" (610mm)	90" (2286mm)	18" (457mm)	12" (305mm)	24" (610mm)

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	GENERAL UPDATES AND RENAMED	TJR	02/19/16	

NOTE: ALL DIMENSIONS ARE ± 1/2 FOOT.

DIA. DET/RET SYSTEM
RETENTION-DETENTION SYSTEM (CROSS-SECTION)
DRAWING NUMBER: STD-702
ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026
DRAWN BY: AWM DATE: 07.25.06 CK'D BY: SCALE: NTS SHEET OF

UNDERGROUND DETENTION

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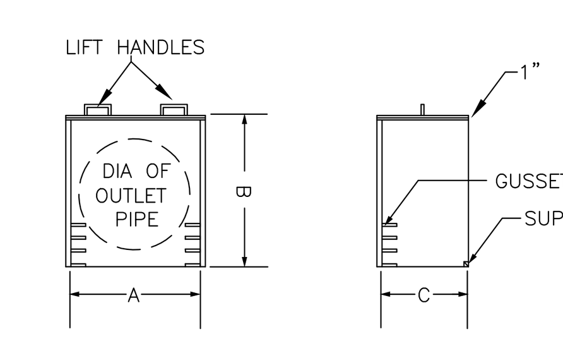

PATTERN NUMBER	DIMENSIONS IN INCHES			PIPE SIZE
	A	B	C	
2569 0214	27	33	12	18

MATERIAL- 1/8" ALUMINUM PLATE.
1/4" GALVANIZED FABRICATED STEEL PLATE FOR 48" & 54"
ALL TRAPS SUPPLIED WITH 1/2"X1/2"X6" STAINLESS STEEL HOOKS.
WALL PLATES FURNISHED UPON REQUEST.

INFO PER CAMPBELL FOUNDRY CO.

HOOD TO BE MOUNTED ON INLET WALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

PIPE HOOD DETAIL

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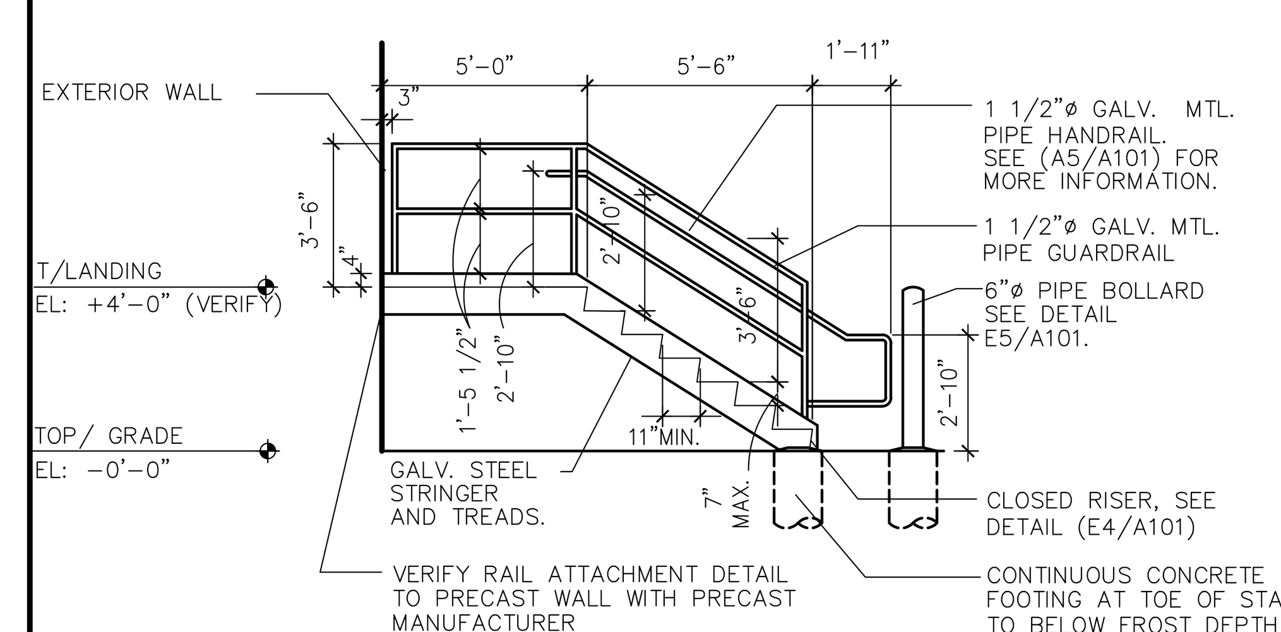
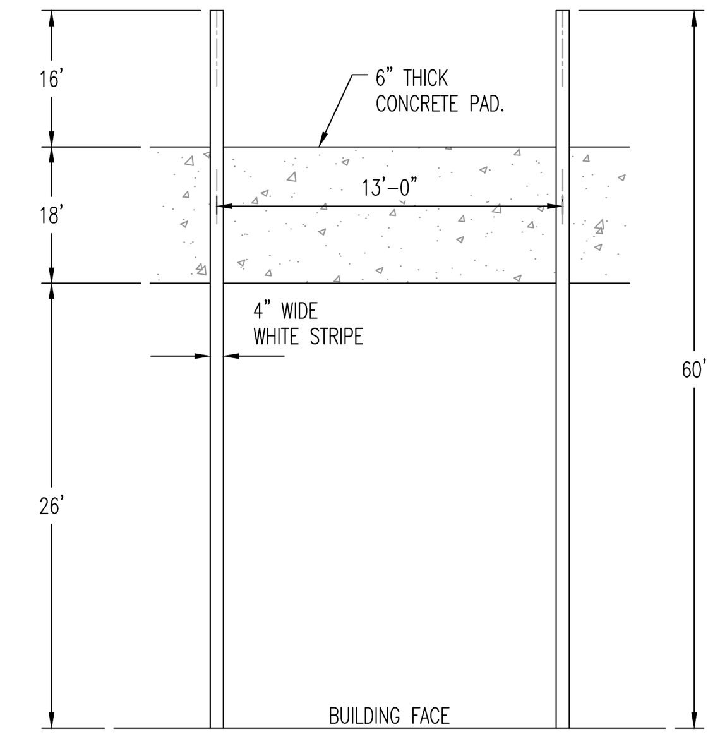


LOADING DOCK STAIRS DETAIL

NOT TO SCALE



TRUCK PARKING STALL STRIPING DETAIL

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REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

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DRAWN BY: JED
DESIGNED BY: DTS
CHECKED BY: BWS
CHECKED BY:

PROJECT: ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

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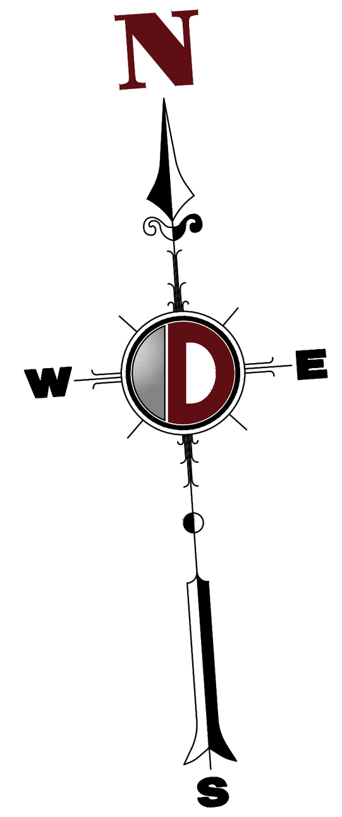
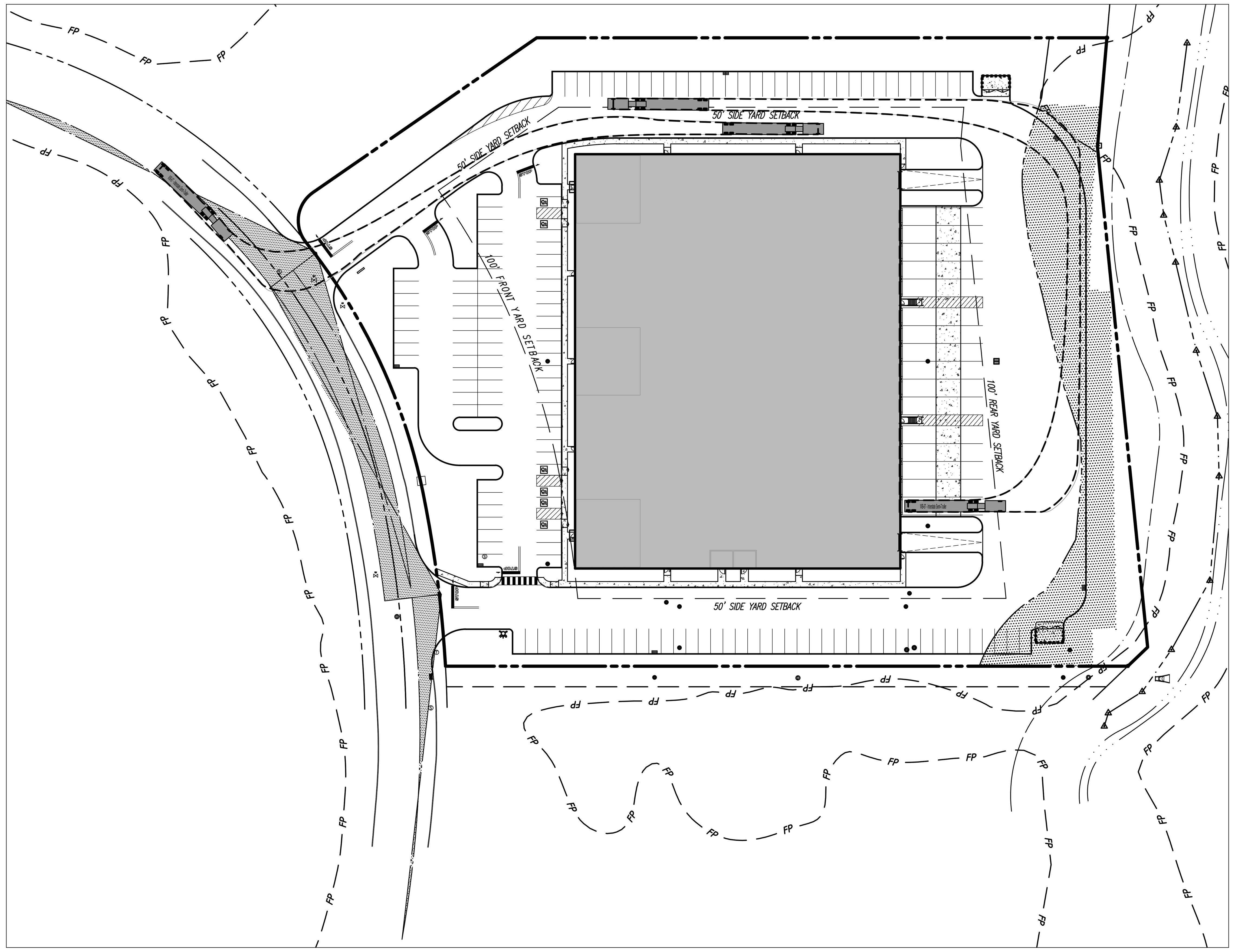
NEW YORK LICENSE No. 087962

TITLE: CONSTRUCTION DETAILS

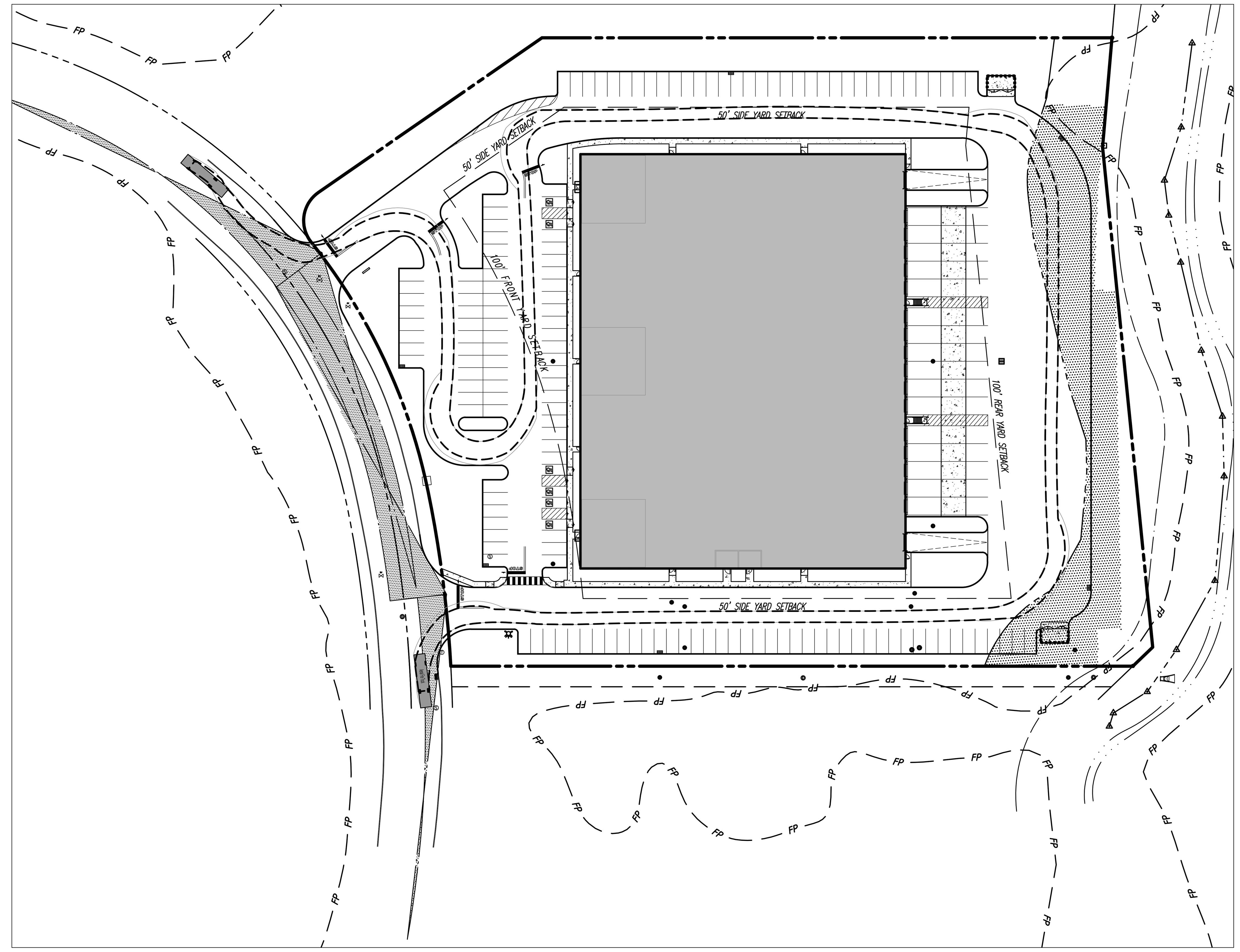
SCALE: (H) AS (V) SHOWN
DATE: 02/19/2021
PROJECT No: 2179-99-009
SHEET No: 15 OF 16
Rev. #: 2

Plotted: 07/12/21 – 11:55 AM, By: jdemartinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\D2179999009SD0.dwg, ---> 15 CONSTRUCTION DETAILS

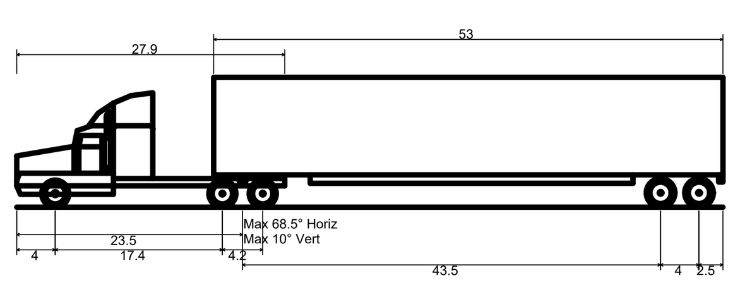




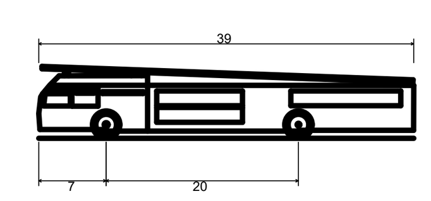
WB-67 CIRCULATION



FIRE TRUCK CIRCULATION



WB-67 - Interstate Semi-Trailer	
Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°



Aerial Fire Truck	
Overall Length	39.000ft
Overall Width	8.167ft
Overall Body Height	7.500ft
Min Body Ground Clearance	0.750ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

GRAPHIC SCALE

-60 0 30 60 120 240

(IN FEET)
1 INCH = 60 FT.

DYNAMIC
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REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY:	DESIGNED BY:	CHECKED BY:	CHECKED BY:
KHC	DTS	BWS	

PROJECT: **ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC**
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

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DANIEL T. SEHNAL
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 099106

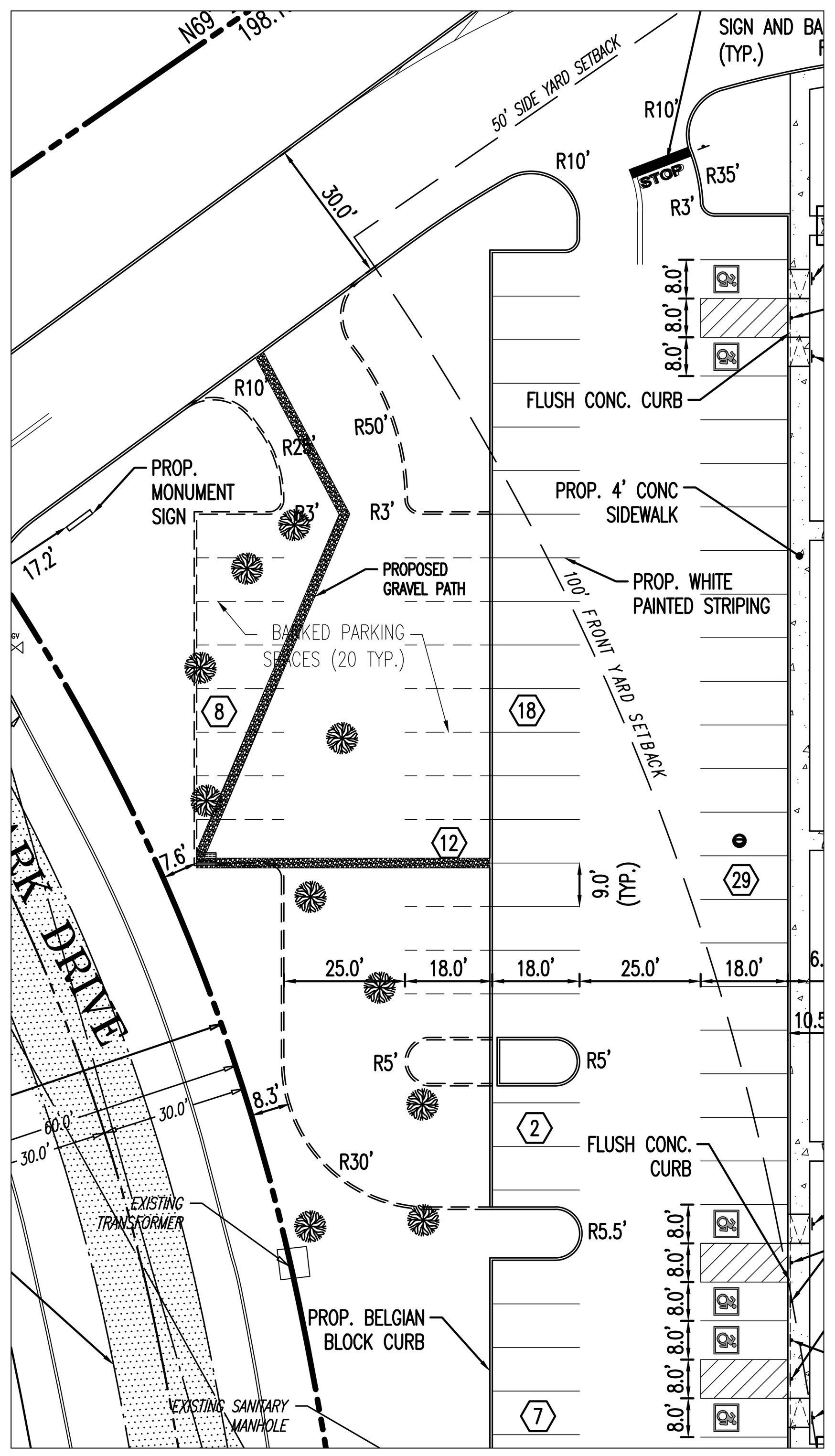
BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE: VEHICLE CIRCULATION PLAN

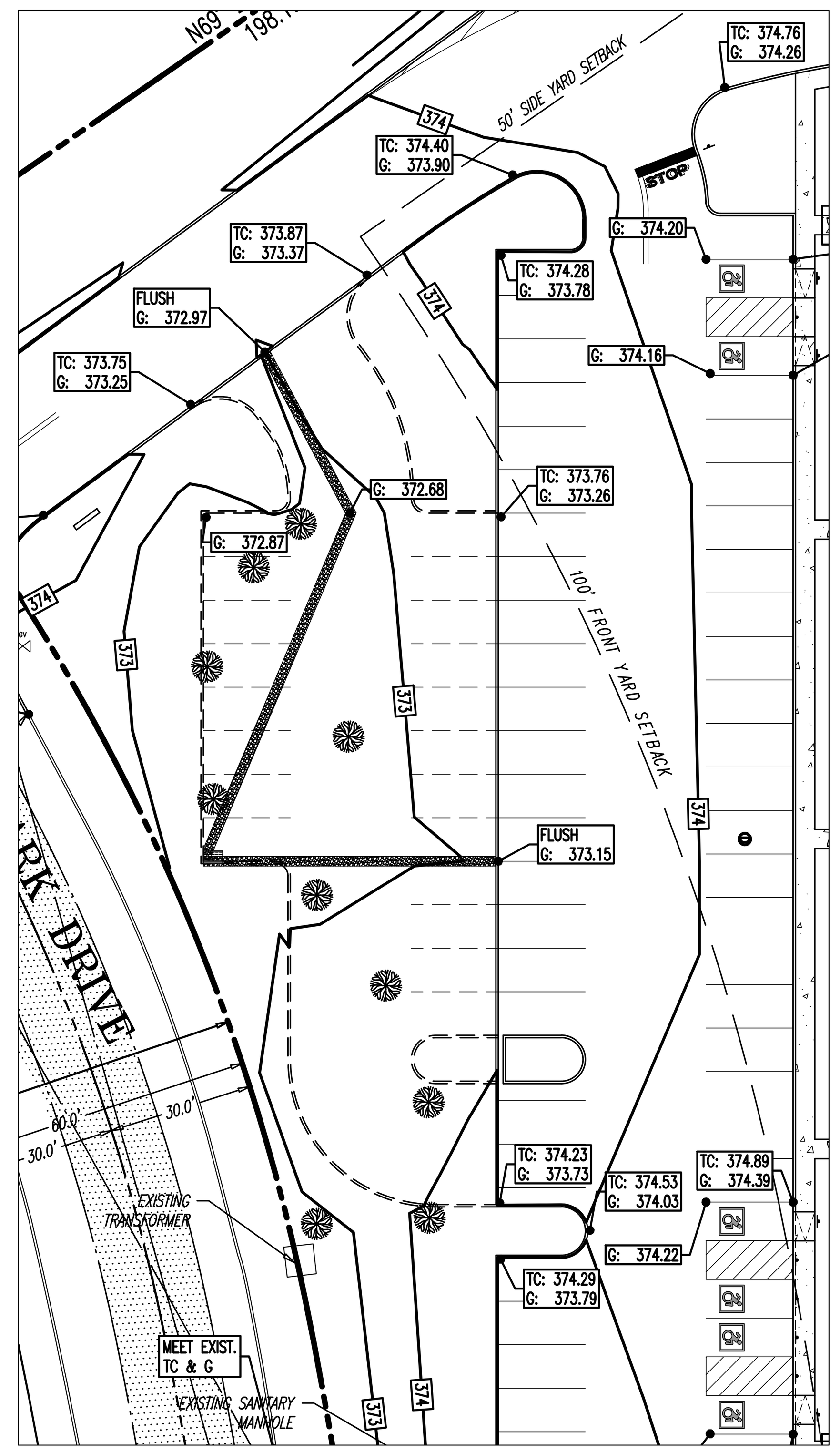
SCALE: (H) 1"=60' (V)
DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 16 OF 16
Rev. #: 2

Plotted: 07/12/21 – 11:55 AM, By: jdemartinis
File: \\decpc.local\decfolders\data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\Site Plans\D2179999009SV0.dwg, ---> 16 VEHICLE CIRCULATION PLAN



BANKED SITE LAYOUT



BANKED GRADING

GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: KHC
DESIGNED BY: DTS
CHECKED BY: BWS
CHECKED BY:

PROJECT: **ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC**
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
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NEW YORK LICENSE No. 099106

BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE: BANKED OPTION PLAN

SCALE: (H) 1"=30' (V)
DATE: 02/19/2021
PROJECT No: 2179-99-009
SHEET No: 1 OF 1
Rev. #: 2

STORMWATER POLUTION PREVENTION PLAN REPORT

Prepared for:

ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC

Proposed Warehouse
Tax Lot 108.03-1-50
94 Business Park Drive
Town of North Castle (Armonk)
Westchester County, NY

Prepared by:

245 Main Street, Suite 110
Chester, NJ 07930
(908) 879-9229

Daniel T. Sehnal, PE
NY Professional Engineer License #99106

July 2021
DEC# 2179-99-009

TABLE OF CONTENTS

APPENDIX

I. INTRODUCTION

Notice of Intent:

Section 402 of the Clean Water Act requires a permit for stormwater discharge from construction activities, which disturb one or more acres of land. To implement this law, the New York State Department of Environmental Conservation (NYSDEC) issued the General Permit for Storm water Discharges from Construction Activities (GP-0-10-001). The Notice of Intent (NOI) is the means to obtain coverage under this permit.

SWPPP Goals and Objective:

The goal of the Stormwater Pollution Prevention Plan (SWPPP) is to control runoff of pollutants from the project site during and after construction activities by complying with the NY State Pollutant Discharge Elimination System (SPDES) Stormwater Permit for construction activities and local rules and regulations. The SWPPP will implement the following practices:

- Reduction or elimination of erosion and sediment loading to water bodies during construction.
- Control of the impact of stormwater runoff on the water quality of the receiving waters in accordance with green infrastructure and coordinates with 100% runoff reduction volume (RRv) source control practices.
- Control of the increased volume and peak rate of runoff during and after construction.
- Maintenance of stormwater controls during and after completion of construction.

The SWPPP will incorporate the proper selection, sizing and institution of the Stormwater Management Practices (SMPs) to protect water resources from stormwater impacts. The design of the proposed SMPs were determined using current engineering methodologies to provide appropriate sizing criteria to avoid overburdening stormwater conveyance structures. Erosion and Sediment Control (ESC), Water Quantity Control, and Water Quality Controls are inter-related components of the SWPPP.

The SWPPP is intended to be a "living" document. The document should be revised and updated by a qualified professional whenever site conditions dictate. Any proposed revisions shall undergo review by the owner or his designated representative prior to incorporation in the SWPPP and implementation at the site. Any proposed modifications shall be in accordance with the New York State Department of Environmental Conservation's technical standards.

II. SITE DESCRIPTION

Project Name & Location:

Proposed Warehouse
Town of North Castle (Armonk)
Westchester County, New York
Section 108.03; Block 1, Lot 50

Owner/Operator Name & Address:

Armonk Fairview, LLC & Aggro and Brassi, LLC
C/O Mandelbaum & Mandelbaum
80 Main Street, Suite 510
West Orange, New Jersey 07052
(267) 716-6880
greeves@jgpetrucci.com

General Contractor*:

_____
(Company Name)

_____
(Street Address)

_____
(City, State, Zip Code)

_____
(Phone Number)
*General Contractor shall be identified prior to commencement of work.

Description:

The intent of this study is to analyze the stormwater runoff conditions that will occur as a result of the proposed warehouse redevelopment for the site located at 94 Business Park Drive in Armonk (Town of North Castle), Westchester County, New York and specifically identified as tax lot 108.03-1-50 on the Town of North Castle Tax Maps. The site is presently developed, consisting of a 140-bedroom hotel, paved parking areas, and associated site improvements.

Under proposed conditions, the existing hotel will be removed and the site will be redeveloped with a proposed warehouse facility of approximately 71,500 SF, loading areas, paved parking areas, and associated site improvements as shown on the accompanying engineering drawings. The primary stormwater management design constraints for this project are based on requirements established within the New York State Stormwater Management Design Manual (NYSSMDM).

The soil types within the project site watershed area are classified as "Pompton silt loam, loamy substratum" and a hydrological soil group of "B/D," and "Urban land," also belonging to hydrological group "D." The Pompton silt loam, loam substratum, which accounts for about 43% of the site, is located in the northern and eastern sections of the lot. The Urban land soil exists in about 57% of the site, accounting for all of the area not covered by Pompton silt loam. The details of the soil characteristics can be found in the Soil Survey of Westchester County, New York, United States Department of Agriculture, Soil Conservation Service.

Impervious Cover:

The site currently consists of approximately 153,600 SF (63.9%) of impervious surface area. The proposed redevelopment project will result in an increase in overall impervious coverage by approximately 32,940 SF (13.7%). As result of the increase in impervious cover, the discharge rate from the site will be greater than the current discharge rates; therefore, the water quantity controls for the ten-year and hundred-year criteria apply.

Site Area:

The overall subject site consists of approximately 240,438 SF (5.52 Ac.) and is presently developed containing the hotel with associated site improvements. The majority of the subject parcel as well as portions of Business Park Drive right-of-way will be disturbed as a result of the proposed construction activities and improvements for a total disturbance area of approximately 225,601 SF (5.179 Ac.).

This site is to be considered areas of "redevelopment" as per the NYSSMDM for the purpose of this study. The stormwater runoff generated from this area flows towards existing onsite inlets and is conveyed to an existing storm sewer located within the drainage easement immediately south of the site. Runoff within this existing storm sewer ultimately discharges to the wetlands associated with the Byram River to the east of the site, identified as "Point of Analysis 1" (POA #1) for the purposes of this study. The Runoff Curve Numbers, included within the Appendix of this Report, were chosen to conservatively reflect the existing site conditions as outlined in the USDA's "Urban Hydrology for

Small Watersheds: TR-55," including hydrologic group B for the existing open space areas. A minimum time of concentration of 10 minutes has been utilized for this drainage area.

Sequence of Major Activities:

The sequence of construction activities is as follows:

1. Install stabilized construction entrance and silt fence.
2. Demolition of site features as detailed on sheet #2 of the accompanying engineering drawings.
3. Install underground piping, utilities and drainage structures.
4. Install inlet protection.
5. Clear and rough grade for new building and site improvements.
6. Excavate and install site improvements including curbing, sidewalks, and light pole foundations.
7. Grade parking lot and install sub base and pavement base course.
8. Remove silt fence and sediment control features.
9. Install final pavement and final vegetation including seeding and landscaping.

III. CONTROLS

Erosion and Sediment Controls Stabilization Practices:

a. Temporary Stabilization:

Topsoil, stockpiles, and soils that are exposed and left bare for a period of 14 days which are not being graded, not under active construction for 14 days or more, or not scheduled for permanent seeding within 14 days shall be stabilized with temporary seed and mulch. All grass seed mixtures and application rates shall comply with Soil Erosion and Sediment Control Plan.

Site areas which are to be paved; shall be temporarily stabilized by applying the stone sub-base until bituminous pavement is applied.

b. Permanent Stabilization

Disturbed portions of the site where construction activities permanently cease shall be stabilized with permanent seed no later than 14 days after the last construction activity.

Structural Practices:

Proposed measures will include silt fences, storm inlet protection, curb inlet protection, and stabilized construction entrances.

Stormwater Management Water Quality:

In order to meet the intent of the water quality standards set forth in Chapter 4 of the New York State Stormwater Management Design Manual, the development proposes ADS Water Quality Unit treatment devices to treat the required area. The proposed Detention basin has been designed with a pretreatment sump for water quality treatment. The minimum required water quality treatment area was determined using the NYSMDM Chapter 9 for Redevelopment Projects. As such, at least 75% of the existing paved surface area and the additional paved surface area must be treated under post-development conditions. In order to meet this requirement, ADS Water Quality Units are being proposed to treat at least the minimum required area and is sized to accommodate the proposed peak flows as calculated per TR-55. Associated calculations are included within the Appendix.

Peak Flow Attenuation:

Under proposed conditions, the site will be redeveloped into the aforementioned warehouse and site improvements, including stormwater management facilities to mitigate the increased stormwater runoff resulting from the additional impervious area. The proposed site improvements will result in an overall increase in impervious coverage of approximately 32,900 square feet (0.75 acres). The proposed design serves to match existing drainage patterns to the maximum extent practical. The site has been evaluated using the TR-55 'Urban Hydrology for Small Watersheds' standards and with the following proposed drainage sub-watershed areas as depicted on the Proposed Drainage Area Map:

DA-1: This area consists of the western portion of the site, including paved parking and landscaped areas. Stormwater runoff generated from this area is collected by various on-site inlets and conveyed directly to an ADS Water Quality Unit for treatment before discharging into the existing stormwater conveyance system (POA #1). The Runoff Curve Numbers, included within the Appendix of this Report, were chosen to best reflect the proposed site conditions as outlined in the USDA's "Urban Hydrology for Small Watersheds: TR-55." The minimum time of concentration of 10 minutes has been utilized for this drainage area.

DA-2: This drainage area consists of the proposed building roof area. The stormwater runoff generated from this area is collected by various roof leaders and conveyed to the proposed underground detention basin and is released at a controlled rate ultimately to the existing stormwater conveyance system located within the existing drainage easement, identified as POA #1. The runoff is treated by the proposed pretreatment sump tank prior to entering the detention system. Runoff Curve Numbers, included within the Appendix of this Report, were chosen to best reflect these proposed site conditions as outlined in the USDA's "Urban Hydrology for Small Watersheds: TR-55." The minimum time of concentration of 10 minutes has been utilized for this drainage area.

DA-3: This study area consists of the proposed trailer loading spaces and parking areas to the north and east of the proposed building. The stormwater runoff generated from this area is collected by onsite inlets and conveyed through a proposed ADS Water Quality Unit for treatment before discharging to the existing stormwater conveyance system (POA #1). Runoff Curve Numbers, included within the Appendix of this Report, were chosen to best reflect these proposed site conditions as outlined in the USDA's "Urban Hydrology for Small Watersheds: TR-55." A time of concentration of 10 minutes has been calculated for this area.

As previously mentioned the proposed site redevelopment will result in a 13.7% net increase in impervious cover. In order to mitigate this increase in stormwater runoff generation, the proposed development includes an underground detention basin in order to provide stormwater quantity reduction for the stormwater runoff generated by a DA-2. The proposed underground basin is located to the south of the proposed building within the parking area and is designed to detain runoff from the building roof area. Stormwater runoff generated by roof areas is considered clean and is conveyed directly to the basin. The basin consists of five (5) rows of 60" ADS HDPE pipe for a total storage volume of approximately 17,000 cubic feet. Runoff is released at a controlled rate through the use of an outlet control structure to the existing stormwater conveyance system located south of the subject site (POA #1) and ultimately discharged to the wetlands area associated with the Byram River. Channel protection criteria is met by the reduction of the discharge rate as outlined in Section 9.3.2 of the New York State Stormwater Management Design Manual.

Runoff Conveyance Systems:

The stormwater pipes and hydraulic control structure system at the site are designed to convey the 25-year peak discharge flow. Associated calculations are included within the Appendix of this report.

Other Controls:

a. Waste Materials:

All waste materials will be collected and stored in securely lidded metal dumpsters rented from_____, a solid waste management company located in Westchester County (name of carting company to be identified 30 days prior to commencement of work). The dumpsters will meet Town of North Castle, Westchester County, and New York State solid waste management regulations. All trash and construction

debris from the site will be deposited in the dumpsters. The dumpsters will be emptied as necessary, and the trash will be hauled off site to_____ (destination to be identified 30 days prior to commencement of work). No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and _____the Job Supervisor, individual who is responsible for managing the day to day site operations, will be responsible for seeing that these procedures are followed (Job Supervisor shall be identified 30 days prior to commencement of work).

b. Hazardous waste:

All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. Site personnel will be instructed in these practices and _____, Job Supervisor, individual who is responsible for managing the day to day site operations, will be responsible for seeing that these procedures are followed (Job Supervisor shall be identified 30 days prior to commencement of work).

c. Sanitary Waste:

A licensed sanitary waste management contractor (sanitary waste management contractor to be identified 30 days prior to commencement of work) will collect all sanitary waste from the portable units.

d. Offsite Vehicle Tracking:

A stabilized construction entrance and gravel pad will be provided to wash or spray-clean trucks over before leaving the site in order to prevent track-out of dirt, mud, debris and dust. Also, trucks will be covered with a tarp and at least 6 inches of freeboard clearance will be maintained to keep excessive dust from escaping the truck during hauling operations.

Timing of Control Measures:

As indicated in the Sequence of Construction, the stabilized construction entrance and other sediment and erosion control activities will be constructed prior to earthwork activities on any part of the site. Any soil areas that are exposed and left bare for a period of 14 days which are not being graded, not under active construction for 14 days or more, or not scheduled for permanent seeding within 14 days

will be treated with temporary seed and mulch. Once construction activity ceases permanently in an area, that area will be stabilized with permanent seed and mulch. After the entire site is stabilized, accumulated sediments will be removed from the sediment and erosion control structures and the controls will be removed.

Certification of Compliance with Federal, State and Local Regulations:

The Stormwater Pollution Prevention Plan reflects New York State Department of Environmental Conservation requirements for storm water management and erosion and sediment control, as established in Article 17, Titles 7, 8 and Article 70 of the Environmental Conservation Law. To ensure compliance, this plan was prepared in accordance with guidelines issued with the SPDES General Permit for Storm Water Discharges from Construction Activities that are Classified as "Associated with Construction Activity", published by the New York State Department of Environmental Conservation.

IV. MAINTENANCE & INSPECTION PROCEDURES

Sediment & Erosion Control Inspection and Maintenance Practices:

The following are inspection and maintenance practices that will be used in coordination with the SWPPP Construction Site Inspection Report prepared for this project, the template which is included in Appendix, to maintain sediment and erosion controls:

- The Operator shall have a qualified professional conduct an assessment of the site prior to the commencement of construction and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP, and required by the SPDES General Permit for Stormwater Discharges, have been adequately installed or implemented to ensure overall preparedness of the site for commencement of construction. Qualified professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a licensed professional engineer, Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, or someone working under the direction and supervision of a licensed professional engineer, Certified Professional in Erosion and Sediment Control (CPESC), or soil scientist (person must have experience in the principles and practices of erosion and sediment control).
- All control measures will be inspected by a qualified professional at least once each week (7 days) and immediately following any storm event of 0.5 inches or greater.
- All measures will be maintained in good working order. If a repair is necessary, it will be initiated within 24 hours of discovery.

- Provide sprinkle water on dirt roads during hot summer or when appropriate to prevent particles to be air born.
- Built up sediment to be removed from the silt fence when it has reached 1/3 the height of the fence.
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- A Construction Site Inspection Report shall be filled out after each inspection and will become part of the SWPPP.
- _____, Job Supervisor- Trained Individual, will select individuals who will be responsible for coordinating efforts with the qualified professional for regular inspections, maintenance and repair activities, and filling out the Construction Site Inspection Report forms. Inspection reports should summarize:

    1. Name of Inspector
    2. Qualifications of Inspector
    3. Date of Inspection
    4. Weather Conditions
    5. Areas inspected, including measurements
    6. Areas that have undergone temporary and permanent stabilization
    7. Indicate all disturbed areas that have not undergone active site work during the previous 14-day period
    8. Observed condition of all erosion and sediment control practices
    9. Inspect all sediment control practices and record approximate degree of sediment accumulation as a percentage of the sediment storage volume
    10. Actions Taken to Correct Problems
    11. Incorporate changes necessary to the SWPPP

- Personnel selected for inspection and maintenance responsibilities will receive training from the Job Supervisor and/or the qualified professional. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used on site in good working order.
- The operator shall ensure that a record of all Construction Site Inspection Reports is maintained in a SWPPP Site Construction Log Book. The site log book shall be maintained on site and be made available to the permitting authorities upon request. Prior to the commencement of construction, the Operator shall certify in the site log book that the SWPPP was prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

The Operator shall retain copies of SWPPPs and any reports submitted in conjunction with this permit, and records of all data used to complete the NOI to be covered by this permit, for a period of at least three years from the date that the site is finally stabilized. The Operator shall post at the site, in a publicly-accessible location, a summary of the site inspection activities on a monthly basis.

- Prior to filing of the Notice of Termination (NOT) or the end of permit term, the Operator shall have the qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. Final stabilization means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80% has been established, or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structure.
- Clean out all temporary structures and pipes upon completion of the project.
- When the site has been finally stabilized, the operator must submit a Notice of Termination (NOT) form to terminate coverage under the SPDES General Permit. The permittee must identify all of the permanent stormwater management structures that have been constructed. In addition, a manual describing the operation and maintenance practices that will be necessary for the structures to function as designed after the site is stabilized must be finalized and in-place. The permittee must also certify that the permanent structure has been constructed as described in the SWPPP.

Summary of SWPPP Required Document Filings:

The following table provides a summary of the required forms and inspections that need to be completed as part of the SWPPP requirements and which checklist or report document forms need to be used for each:

Name of Document	Form to be used	When to complete
Pre-construction Meeting	SWPPP	Prior to beginning of construction
Owner/Operator Certification	Pollution Prevention Plan Certification	Prior to beginning of construction
Prime Contractor Certification	Certification by Contractors	Prior to beginning of construction
Sub-Contractor Certification	Certification by Contractors	Prior to beginning of construction
Pre-Construction Site Assessment	Pre-construction Site Assessment Checklist	Prior to beginning of construction
Construction Duration Inspection	Construction Duration Inspection	One each 7 days or after any storm event of 0.5 inch or greater

Three-month Status Reports	Summary of Site Inspection Activities	Every three months
Stormwater Management Facilities Construction Inspection	Stormwater Construction Site Inspection Report	Monthly
Corrective Action Log	Corrective Action Log	Whenever a BMP is modified
Amendment Log	SWPPP Amendment Log	Whenever SWPPP is modified
Grading Activities Log	Grading Activities Log	Whenever a major grading event takes place
SWPPP Training Log	Training Log	Whenever a new inspector is trained
Stormwater Maintenance Checklist	Post const. Stormwater Management Checklists	After completion of project

V. NON-STORM WATER DISCHARGES

Non-Stormwater Discharges:

It is expected that the following non-storm water discharges will occur from the site during the construction period:

- Water from water line flushing.
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater (from natural springs)

VI. INVENTORY FOR POLLUTION PREVENTION PLAN

Material substances:

The materials or substances listed below are expected to be present on the site during construction:

- Concrete
- Detergents
- Paints (enamels and latex)
- Metal Studs
- Roofing Materials
- Tar and Paving Materials
- Fertilizers

- Petroleum Based Products
- Cleaning Solvents
- Wood
- Masonry Block

VII. SPILL CONTROL & PREVENTION

Material Management Practices:

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff:

a. Good Housekeeping:

The following good housekeeping practices will be followed on site during the construction project:

- An effort will be made to store only enough products required to complete construction activities.
- All materials stored on site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- Product will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposing of the container.
- Manufacturer's recommendations for proper use and disposal will be followed.
- The Job Supervisor will inspect daily to ensure proper use and disposal of materials on site.

b. Hazardous Products:

The following practices will be used to reduce the risks associated with hazardous materials:

- Products will be kept in original containers unless they are not re-sealable.
- Original labels and material safety data will be retained; they contain important product information.
- If surplus product must be disposed of, manufacturer's or local and State recommended methods for proper disposal will be followed.

Product Specific Practices:

The following product specific practices will be followed on site:

a. Petroleum Products:
   All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used on site will be applied according to the manufacturer's recommendations.

b. Fertilizers:
   Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed. The content of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

c. Paints:
   All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm drainage system, but will be properly disposed of according to manufacturer's instructions or State and local regulations.

d. Concrete Trucks:
   Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site.

Spill Control Practices:

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanups:

- Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage areas on site. Equipment and materials will include, but not be limited to, brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.

- The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substances.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size of the spill.
- The Job Supervisor responsible for daily site operations will be designated as the spill prevention and cleanup coordinator. He will designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of the responsible spill personnel will be posted in the material storage area.

VIII. SUPPORTING PLANS & REPORTS

1. Site Plan Drawings prepared by Dynamic Engineering Consultants P.C.

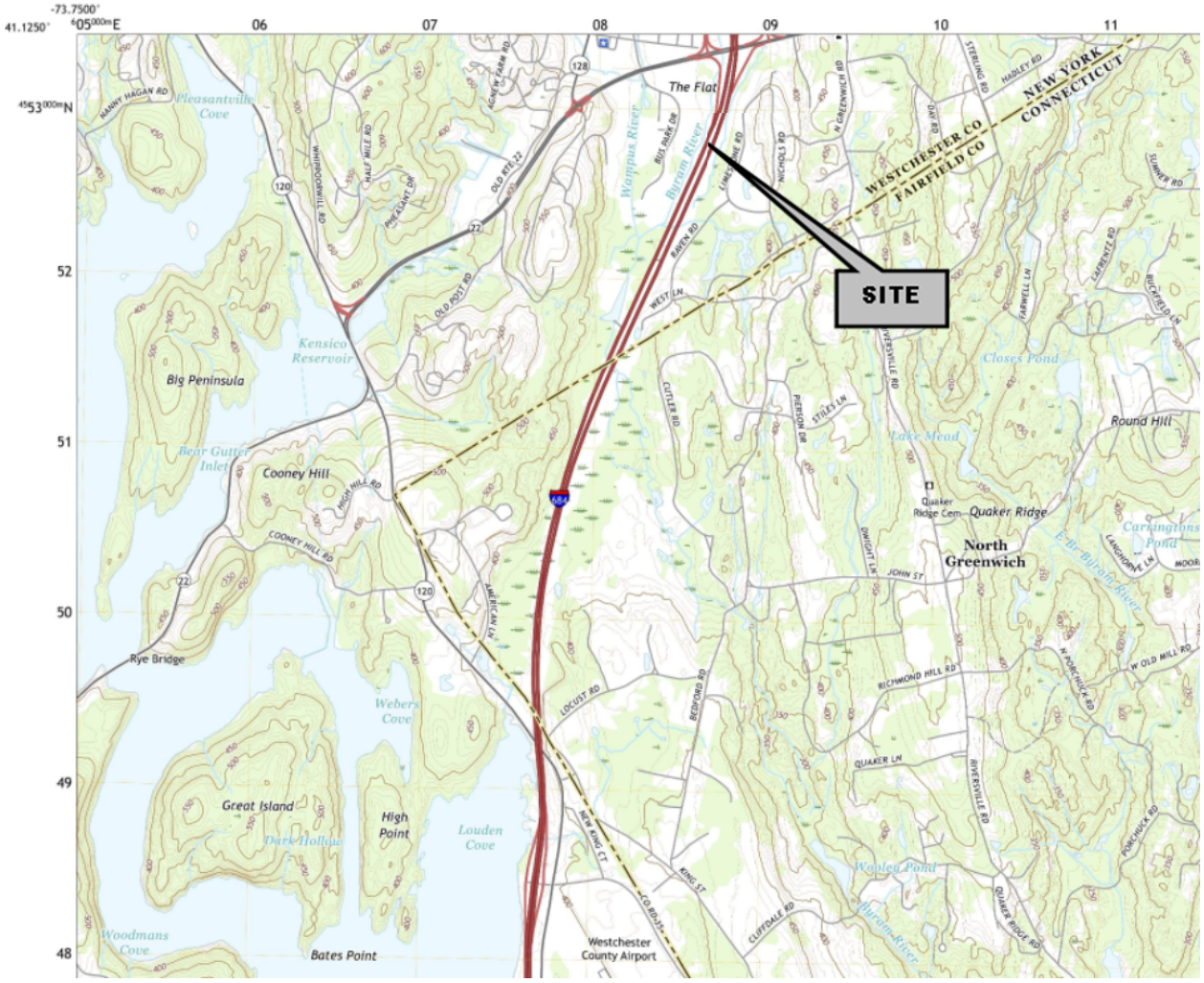
APPENDIX

USGS MAP

DYNAMIC
ENGINEERING EARTH SURVEY TRAFFIC

USGS Map

Glenville Quad

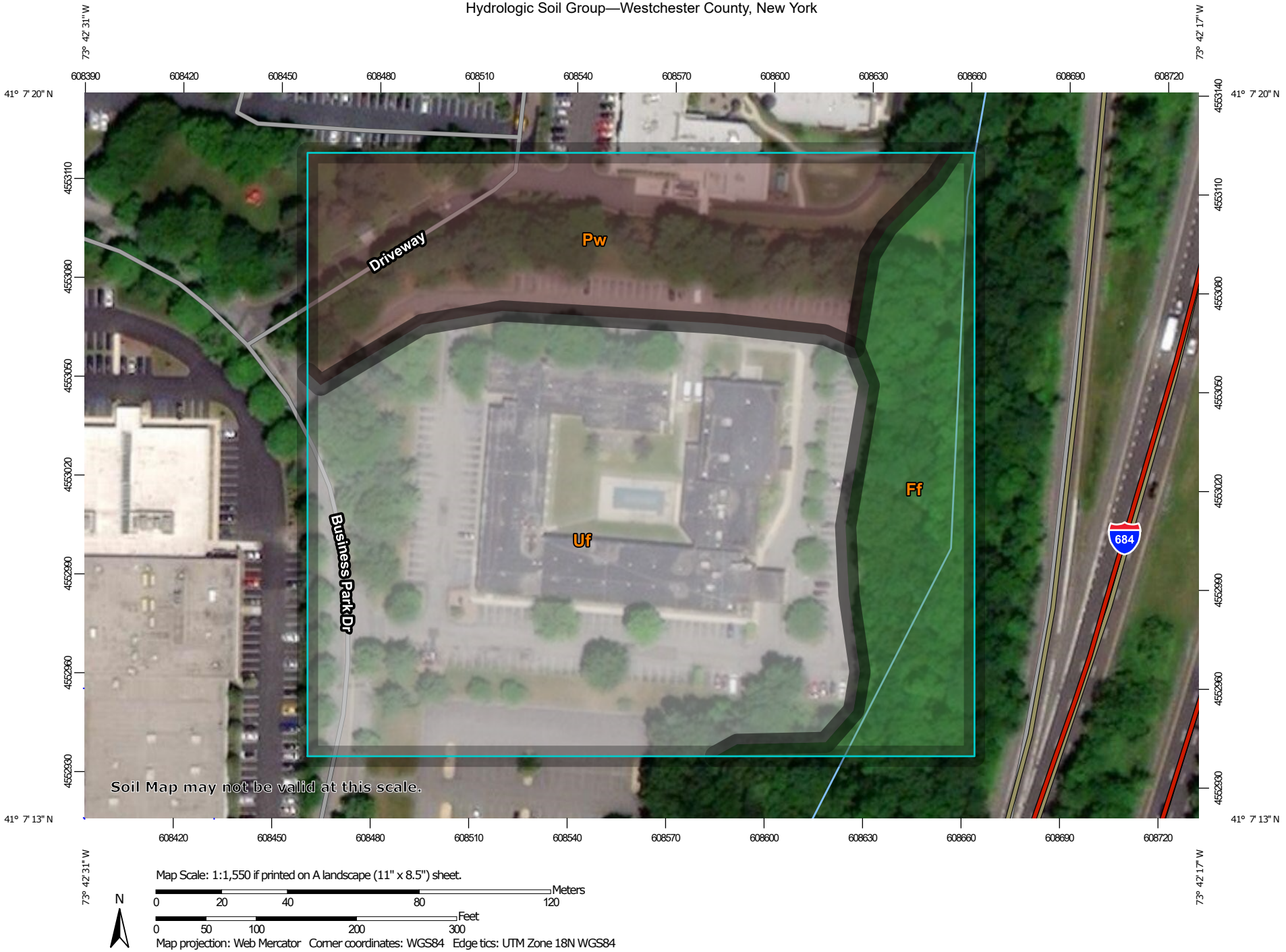


1904 Main Street, Lake Como, NJ 07719 T. 732-974-0198

245 Main Street, Suite 110, Chester, NJ 07930 T. 908-879-9229
8 Robbins Street, Suite 102, Toms River, NJ 08753 T. 732-974-0198
826 Newtown Yardley Rd., Suite 201, Newtown, PA 18940 T. 267-685-0276

100 NE 5th Avenue, Suite B2, Delray Beach, FL 33483 T. 561-291-8570
14521 Old Katy Road, Suite 270, Houston, TX 77079 T. 281-789-6400
714 S. Greenville Avenue, Suite 100, Allen, TX 75002 T. 972-534-2100

SOIL SURVEY



Map Scale: 1:1,550 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Westchester County, New York
Survey Area Data: Version 16, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 16, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ff	Fluvaquents-Udifluvents complex, frequently flooded	A/D	1.6	16.9%
Pw	Pompton silt loam, loamy substratum	B/D	2.4	25.6%
Uf	Urban land		5.3	57.6%
Totals for Area of Interest			**9.2**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

RUNOFF CURVE NUMBER (CN) CALCULATIONS

DYNAMIC ENGINEERING

EXISTING DRAINAGE AREA SUMMARY AND AVERAGE CURVE NUMBER(CN) CALCULATIONS

Project:	Armonk - Proposed Warehouse	Computed By:	DRL
Job #:	2179-99-009	Checked By:	DTS
Location:	North Castle (Armonk), NY	Date:	7/12/2021

Drainage Area	Impervious Area (acre)	Impervious Area (sf)	Curve Number (CN) Used	HSG B - Open Space Area (acre)	HSG B - Open Space Area (sf)	Curve Number (CN) Used	Avg. Perv. Curve Number	Total PerviousArea (acres)	Total Area (acres)	Resulting CN	TC (Min.)
EX-DA1	3.53	153,647	98	2.02	87,781	61	61	2.02	5.54	74	10
Total	**3.53**	**153647**		**2.02**	**87781**			**2.02**	**5.54**		

Per Westchester County Soil Survey -	Pw	HSG	B	Soil	Pompton sily loam, loamy substratum
Per Westchester County Soil Survey -	Uf	HSG	D	Soil	Urban Land

Description	Runoff Curve Number (CN) (HSG B)	Runoff Curve Number (CN) (HSG D)
Impervious Surface	98	98
Open Space (lawn) (good)	61	80
Woods (good)	55	77

DYNAMIC ENGINEERING

PROPOSED DRAINAGE AREA SUMMARY AND AVERAGE CURVE NUMBER(CN) CALCULATIONS

Project:	Armonk - Proposed Warehouse	Computed By:	DRL
Job #:	2179-99-009	Checked By:	DTS
Location:	North Castle (Armonk), NY	Date:	7/12/2021

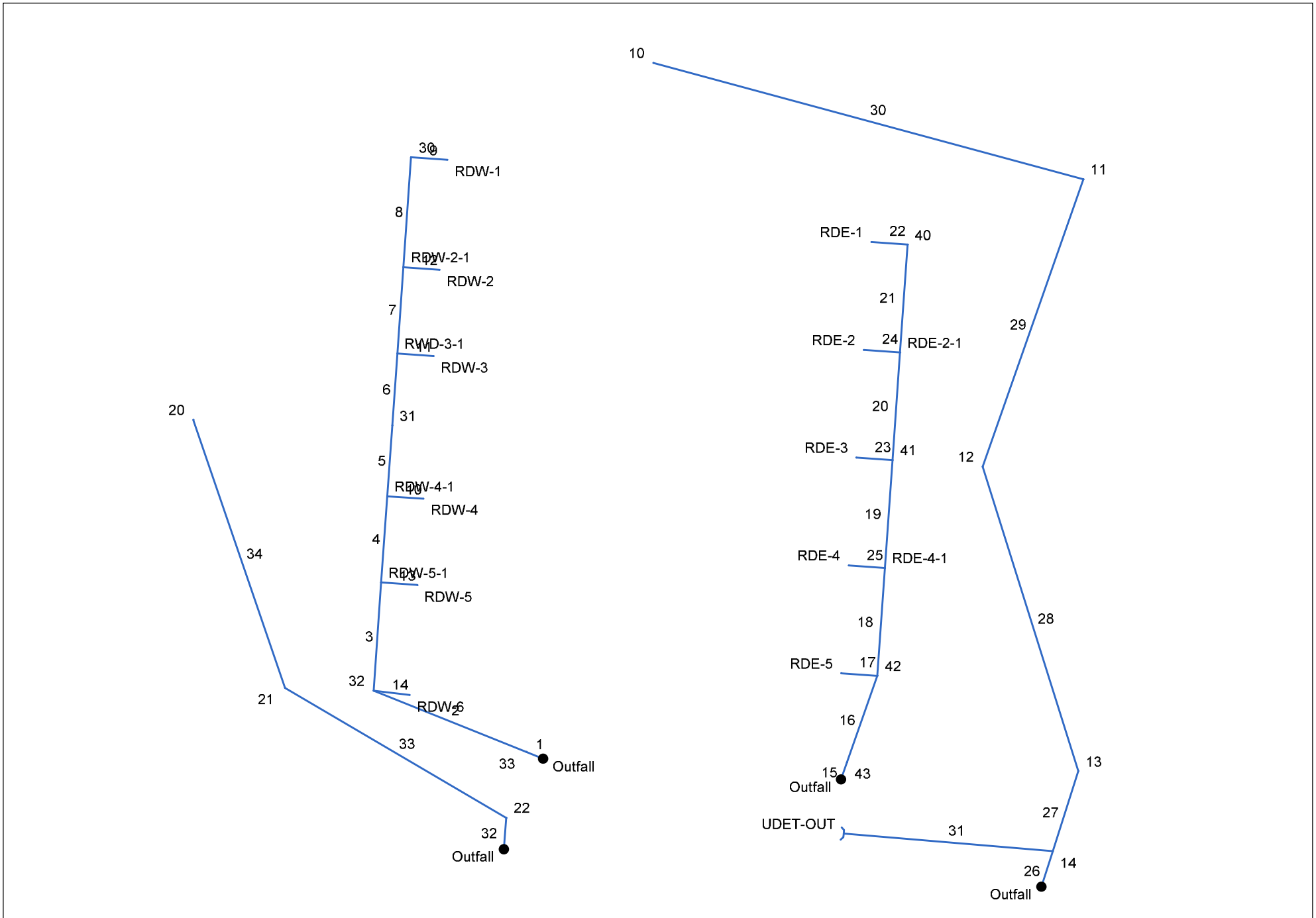
Drainage Area	Impervious Area (acre)	Impervious Area (sf)	Curve Number (CN) Used	HSG D - Open Space Area (acre)	HSG D - Open Space Area (sf)	Curve Number (CN) Used	Avg. Perv. Curve Number	Total PerviousArea (acres)	Total Area (acres)	Resulting CN	TC (Min.)
PR-DA1	2.63	114,610	98	1.27	55,245	80	80	1.27	3.90	92	10
RA	1.64	71,574	98	0.00	-	80	N/A	0.00	1.64	98	10
Total	**4.27**	**186184**		**1.27**	**55245**			**1.27**	**5.54**		

Per Westchester County Soil Survey -	Pw	HSG	B	Soil	Pompton silty loam, loamy substratum
Per Westchester County Soil Survey -	Uf	HSG	D	Soil	Urban Land

Description	Runoff Curve Number (CN) (HSG B)	Runoff Curve Number (CN) (HSG D)
Impervious Surface	98	98
Open Space (lawn) (good)	61	80
Woods (good)	55	77

PIPE SIZING CALCULATIONS

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: 2021-07 Armonk, NY Pipe.stm	Number of lines: 34	Date: 7/9/2021

Report

Line No.	Line ID	Inlet ID	Drng Area (ac)	Runoff Coeff (C)	Incr CxA	Total CxA	Inlet Time (min)	Tc (min)	i Sys (in/hr)	Line Size (in)	Line Length (ft)	Line Slope (%)	Line Type	Capac Full (cfs)	Flow Rate (cfs)	Vel Ave (ft/s)	
1	33 to UDET-1	33	0.00	0.00	0.00	0.81	0.0	9.1	7.15	18	10	1.00	Cir	11.49	5.80	5.04	
2	32 to 33	32	0.00	0.00	0.00	0.81	0.0	8.6	7.25	18	91	1.00	Cir	11.49	5.89	5.09	
3	RDW-5-1 to 32	RDW-5-1	0.00	0.00	0.00	0.72	0.0	8.4	7.31	15	60	1.01	Cir	7.02	5.28	5.73	
4	RDW-4-1 to RDW-5-1	RDW-4-1	0.00	0.00	0.00	0.57	0.0	8.2	7.36	15	48	1.00	Cir	6.97	4.23	4.60	
5	31 to RDW-4-1	31	0.00	0.00	0.00	0.41	0.0	7.9	7.42	15	39	0.99	Cir	6.93	3.01	3.88	
6	RWD-3-1 to 31	RWD-3-1	0.00	0.00	0.00	0.41	0.0	7.8	7.47	12	40	1.00	Cir	3.99	3.03	5.12	
7	RDW-2-1 to RWD-3-1	RDW-2-1	0.00	0.00	0.00	0.24	0.0	7.4	7.55	12	48	1.00	Cir	3.99	1.80	3.35	
8	30 to RDW-2-1	30	0.00	0.00	0.00	0.09	0.0	6.3	7.87	12	61	1.00	Cir	3.98	0.70	2.19	
9	RDW-1 to 30	RDW-1	0.09	0.99	0.09	0.09	6.0	6.0	7.94	10	20	1.00	Cir	2.37	0.71	3.15	
10	RDW-4 to RDW-4-1	RDW-4	0.17	0.99	0.17	0.17	6.0	6.0	7.94	10	20	1.00	Cir	2.37	1.34	4.12	
11	RDW-3 to RWD-3-1	RDW-3	0.17	0.99	0.17	0.17	6.0	6.0	7.94	10	20	1.00	Cir	2.37	1.34	4.12	
12	RDW-2 to RDW-2-1	RDW-2	0.15	0.99	0.15	0.15	6.0	6.0	7.94	10	20	1.00	Cir	2.37	1.18	3.97	
13	RDW-5 to RDW-5-1	RDW-5	0.15	0.99	0.15	0.15	6.0	6.0	7.94	10	20	1.00	Cir	2.37	1.18	3.97	
14	RDW-6 to 32	RDW-6	0.09	0.99	0.09	0.09	6.0	6.0	7.94	10	20	1.00	Cir	2.37	0.71	3.41	
15	43 to UDET-3	43	0.00	0.00	0.00	0.81	0.0	8.6	7.26	18	10	0.50	Cir	8.13	5.89	5.00	
16	42 to 43	42	0.00	0.00	0.00	0.81	0.0	8.4	7.32	18	51	0.51	Cir	8.22	5.94	4.86	
17	RDE-5 to 42	RDE-5	0.17	0.99	0.17	0.17	6.0	6.0	7.94	10	20	6.80	Cir	6.19	1.34	6.41	
18	RDE-4-1 to 42	RDE-4-1	0.00	0.00	0.00	0.64	0.0	8.0	7.41	18	60	0.50	Cir	8.13	4.77	3.86	
19	41 to RDE-4-1	41	0.00	0.00	0.00	0.49	0.0	7.5	7.53	18	60	0.50	Cir	8.13	3.65	3.93	
20	RDE-2-1 to 41	RDE-2-1	0.00	0.00	0.00	0.33	0.0	7.1	7.65	15	60	0.50	Cir	4.93	2.50	4.03	
21	40 to RDE-2-1	40	0.00	0.00	0.00	0.17	0.0	6.1	7.91	15	60	0.50	Cir	4.93	1.33	2.72	
22	RDE-1 to 40	RDE-1	0.17	0.99	0.17	0.17	6.0	6.0	7.94	10	20	5.00	Cir	5.30	1.34	5.93	
23	RDE-3 to 41	RDE-3	0.16	0.99	0.16	0.16	6.0	6.0	7.94	10	20	1.00	Cir	2.37	1.26	4.05	

Project File: 2021-07 Armonk, NY Pipe.stm | Number of lines: 34 | Date: 7/9/2021

NOTES: Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82 -- Return period = 25 Yrs. ; ** Critical depth

Report

Line No.	Line ID	Inlet ID	Drng Area (ac)	Runoff Coeff (C)	Incr CxA	Total CxA	Inlet Time (min)	Tc (min)	i Sys (in/hr)	Line Size (in)	Line Length (ft)	Line Slope (%)	Line Type	Capac Full (cfs)	Flow Rate (cfs)	Vel Ave (ft/s)	
24	RDE-2 to RDE-2-1	RDE-2	0.16	0.99	0.16	0.16	6.0	6.0	7.94	10	20	1.00	Cir	2.37	1.26	3.45	
25	RDE-4 to RDE-4-1	RDE-4	0.16	0.99	0.16	0.16	6.0	6.0	7.94	10	20	1.00	Cir	2.37	1.26	4.05	
26	14 to 15	14	0.00	0.00	0.00	1.65	0.0	10.1	6.92	24	21	1.02	Cir	24.94	20.05	7.39	
27	13 to 14	13	0.16	0.97	0.16	1.65	6.0	9.9	6.96	24	47	0.34	Cir	14.47	11.45	5.07	
28	12 to 13	12	1.07	0.94	1.01	1.49	6.0	9.1	7.15	24	177	0.35	Cir	14.63	10.66	4.35	
29	11 to 12	11	0.12	0.95	0.11	0.48	6.0	7.7	7.48	18	169	0.60	Cir	8.93	3.62	3.35	
30	10 to 11	10	0.39	0.95	0.37	0.37	6.0	6.0	7.94	15	246	1.00	Cir	6.97	2.94	4.52	
31	UDET-OUT to 14	UDET-OUT	0.00	0.00	0.00	0.00	0.0	0.0	0.00	18	116	0.70	Cir	9.61	8.67	5.18	
32	22 to 23	22	0.38	0.95	0.36	1.19	6.0	7.2	7.61	18	17	1.03	Cir	11.69	9.07	6.14	
33	21 to 22	21	0.12	0.95	0.11	0.83	6.0	6.6	7.79	18	142	1.00	Cir	11.50	6.47	5.04	
34	20 to 21	20	0.78	0.92	0.72	0.72	6.0	6.0	7.94	15	157	1.00	Cir	6.96	5.70	5.89	

Project File: 2021-07 Armonk, NY Pipe.stm | Number of lines: 34 | Date: 7/9/2021

NOTES: Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82 -- Return period = 25 Yrs. ; ** Critical depth

Report

Line No.	Line ID	Inlet ID	Drng Area (ac)	Runoff Coeff (C)	Incr CxA	Total CxA	Inlet Time (min)	Tc (min)	i Sys (in/hr)	Line Size (in)	Line Length (ft)	Line Slope (%)	Line Type	Capac Full (cfs)	Flow Rate (cfs)	Vel Ave (ft/s)	
1	33 to UDET-1	33	0.00	0.00	0.00	0.81	0.0	8.6	8.73	18	10	1.00	Cir	11.49	7.08	5.80	
2	32 to 33	32	0.00	0.00	0.00	0.81	0.0	8.2	8.83	18	91	1.00	Cir	11.49	7.17	5.51	
3	RDW-5-1 to 32	RDW-5-1	0.00	0.00	0.00	0.72	0.0	8.0	8.88	15	60	1.01	Cir	7.02	6.42	6.25	
4	RDW-4-1 to RDW-5-1	RDW-4-1	0.00	0.00	0.00	0.57	0.0	7.8	8.93	15	48	1.00	Cir	6.97	5.13	5.05	
5	31 to RDW-4-1	31	0.00	0.00	0.00	0.41	0.0	7.6	8.99	15	39	0.99	Cir	6.93	3.65	4.19	
6	RWD-3-1 to 31	RWD-3-1	0.00	0.00	0.00	0.41	0.0	7.5	9.04	12	40	1.00	Cir	3.99	3.67	5.45	
7	RDW-2-1 to RWD-3-1	RDW-2-1	0.00	0.00	0.00	0.24	0.0	7.2	9.12	12	48	1.00	Cir	3.99	2.17	3.63	
8	30 to RDW-2-1	30	0.00	0.00	0.00	0.09	0.0	6.2	9.42	12	61	1.00	Cir	3.98	0.84	2.31	
9	RDW-1 to 30	RDW-1	0.09	0.99	0.09	0.09	6.0	6.0	9.49	10	20	1.00	Cir	2.37	0.85	3.34	
10	RDW-4 to RDW-4-1	RDW-4	0.17	0.99	0.17	0.17	6.0	6.0	9.49	10	20	1.00	Cir	2.37	1.60	4.36	
11	RDW-3 to RWD-3-1	RDW-3	0.17	0.99	0.17	0.17	6.0	6.0	9.49	10	20	1.00	Cir	2.37	1.60	4.36	
12	RDW-2 to RDW-2-1	RDW-2	0.15	0.99	0.15	0.15	6.0	6.0	9.49	10	20	1.00	Cir	2.37	1.41	4.19	
13	RDW-5 to RDW-5-1	RDW-5	0.15	0.99	0.15	0.15	6.0	6.0	9.49	10	20	1.00	Cir	2.37	1.41	4.19	
14	RDW-6 to 32	RDW-6	0.09	0.99	0.09	0.09	6.0	6.0	9.49	10	20	1.00	Cir	2.37	0.85	3.59	
15	43 to UDET-3	43	0.00	0.00	0.00	0.81	0.0	8.2	8.83	18	10	0.50	Cir	8.13	7.17	5.35	
16	42 to 43	42	0.00	0.00	0.00	0.81	0.0	8.0	8.89	18	51	0.51	Cir	8.22	7.22	5.07	
17	RDE-5 to 42	RDE-5	0.17	0.99	0.17	0.17	6.0	6.0	9.49	10	20	6.80	Cir	6.19	1.60	6.78	
18	RDE-4-1 to 42	RDE-4-1	0.00	0.00	0.00	0.64	0.0	7.7	8.98	18	60	0.50	Cir	8.13	5.78	3.54	
19	41 to RDE-4-1	41	0.00	0.00	0.00	0.49	0.0	7.3	9.09	18	60	0.50	Cir	8.13	4.41	3.54	
20	RDE-2-1 to 41	RDE-2-1	0.00	0.00	0.00	0.33	0.0	6.9	9.21	15	60	0.50	Cir	4.93	3.01	4.23	
21	40 to RDE-2-1	40	0.00	0.00	0.00	0.17	0.0	6.1	9.46	15	60	0.50	Cir	4.93	1.59	2.51	
22	RDE-1 to 40	RDE-1	0.17	0.99	0.17	0.17	6.0	6.0	9.49	10	20	5.00	Cir	5.30	1.60	6.28	
23	RDE-3 to 41	RDE-3	0.16	0.99	0.16	0.16	6.0	6.0	9.49	10	20	1.00	Cir	2.37	1.50	4.27	

Project File: 2021-07 Armonk, NY Pipe.stm | Number of lines: 34 | Date: 7/9/2021

NOTES: Intensity = 127.16 / (Inlet time + 17.80) ^ 0.82 -- Return period = 100 Yrs. ; ** Critical depth

Report

Line No.	Line ID	Inlet ID	Drng Area (ac)	Runoff Coeff (C)	Incr CxA	Total CxA	Inlet Time (min)	Tc (min)	i Sys (in/hr)	Line Size (in)	Line Length (ft)	Line Slope (%)	Line Type	Capac Full (cfs)	Flow Rate (cfs)	Vel Ave (ft/s)	
24	RDE-2 to RDE-2-1	RDE-2	0.16	0.99	0.16	0.16	6.0	6.0	9.49	10	20	1.00	Cir	2.37	1.50	2.79	
25	RDE-4 to RDE-4-1	RDE-4	0.16	0.99	0.16	0.16	6.0	6.0	9.49	10	20	1.00	Cir	2.37	1.50	3.59	
26	14 to 15	14	0.00	0.00	0.00	1.65	0.0	9.5	8.50	24	21	1.02	Cir	24.94	22.65	8.14	
27	13 to 14	13	0.16	0.97	0.16	1.65	6.0	9.3	8.54	24	47	0.34	Cir	14.47	14.05	5.21	
28	12 to 13	12	1.07	0.94	1.01	1.49	6.0	8.6	8.73	24	177	0.35	Cir	14.63	13.01	4.42	
29	11 to 12	11	0.12	0.95	0.11	0.48	6.0	7.4	9.05	18	169	0.60	Cir	8.93	4.39	3.51	
30	10 to 11	10	0.39	0.95	0.37	0.37	6.0	6.0	9.49	15	246	1.00	Cir	6.97	3.52	4.75	
31	UDET-OUT to 14	UDET-OUT	0.00	0.00	0.00	0.00	0.0	0.0	0.00	18	116	0.70	Cir	9.61	8.67	4.99	
32	22 to 23	22	0.38	0.95	0.36	1.19	6.0	7.0	9.17	18	17	1.03	Cir	11.69	10.94	7.14	
33	21 to 22	21	0.12	0.95	0.11	0.83	6.0	6.5	9.34	18	142	1.00	Cir	11.50	7.77	5.47	
34	20 to 21	20	0.78	0.92	0.72	0.72	6.0	6.0	9.49	15	157	1.00	Cir	6.96	6.81	6.35	

Project File: 2021-07 Armonk, NY Pipe.stm | Number of lines: 34 | Date: 7/9/2021

NOTES: Intensity = 127.16 / (Inlet time + 17.80) ^ 0.82 -- Return period = 100 Yrs. ; ** Critical depth

NOAA ATLAS 14 PRECIPITATION DATA

NOAA Atlas 14, Volume 10, Version 3
Location name: Armonk, New York, USA*
Latitude: 41.1212°, Longitude: -73.7063°
Elevation: 369.72 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**4.38** (3.40-5.54)	**5.09** (3.94-6.44)	**6.25** (4.82-7.92)	**7.21** (5.53-9.19)	**8.53** (6.34-11.2)	**9.54** (6.94-12.7)	**10.6** (7.46-14.5)	**11.7** (7.86-16.4)	**13.2** (8.58-19.1)	**14.5** (9.18-21.2)
10-min	**3.10** (2.41-3.92)	**3.61** (2.79-4.57)	**4.43** (3.41-5.62)	**5.11** (3.92-6.51)	**6.04** (4.49-7.95)	**6.76** (4.91-9.02)	**7.49** (5.29-10.3)	**8.28** (5.57-11.6)	**9.39** (6.08-13.5)	**10.3** (6.50-15.0)
15-min	**2.43** (1.89-3.08)	**2.83** (2.19-3.58)	**3.47** (2.68-4.41)	**4.01** (3.07-5.11)	**4.74** (3.52-6.24)	**5.30** (3.86-7.08)	**5.87** (4.15-8.07)	**6.50** (4.37-9.10)	**7.36** (4.77-10.6)	**8.06** (5.10-11.8)
30-min	**1.71** (1.32-2.16)	**1.98** (1.54-2.51)	**2.43** (1.88-3.08)	**2.80** (2.15-3.57)	**3.32** (2.46-4.36)	**3.71** (2.69-4.94)	**4.11** (2.89-5.61)	**4.52** (3.04-6.33)	**5.08** (3.29-7.31)	**5.51** (3.49-8.07)
60-min	**1.10** (0.853-1.39)	**1.28** (0.988-1.62)	**1.56** (1.21-1.99)	**1.80** (1.38-2.30)	**2.13** (1.58-2.80)	**2.38** (1.73-3.17)	**2.64** (1.85-3.60)	**2.90** (1.95-4.06)	**3.24** (2.10-4.66)	**3.50** (2.21-5.12)
2-hr	**0.726** (0.566-0.912)	**0.838** (0.653-1.05)	**1.02** (0.794-1.29)	**1.18** (0.907-1.49)	**1.39** (1.03-1.81)	**1.55** (1.13-2.05)	**1.71** (1.21-2.32)	**1.88** (1.27-2.62)	**2.11** (1.38-3.02)	**2.29** (1.46-3.33)
3-hr	**0.559** (0.438-0.701)	**0.647** (0.506-0.812)	**0.791** (0.617-0.994)	**0.910** (0.706-1.15)	**1.08** (0.806-1.40)	**1.20** (0.880-1.59)	**1.33** (0.944-1.80)	**1.47** (0.993-2.03)	**1.66** (1.08-2.36)	**1.81** (1.15-2.61)
6-hr	**0.351** (0.277-0.437)	**0.411** (0.323-0.512)	**0.508** (0.398-0.634)	**0.589** (0.459-0.738)	**0.700** (0.528-0.907)	**0.784** (0.579-1.03)	**0.871** (0.624-1.18)	**0.968** (0.658-1.33)	**1.11** (0.724-1.57)	**1.22** (0.778-1.75)
12-hr	**0.211** (0.168-0.261)	**0.252** (0.199-0.311)	**0.317** (0.250-0.393)	**0.372** (0.292-0.463)	**0.447** (0.339-0.576)	**0.503** (0.374-0.660)	**0.563** (0.407-0.761)	**0.631** (0.430-0.864)	**0.730** (0.478-1.03)	**0.812** (0.520-1.16)
24-hr	**0.123** (0.098-0.151)	**0.149** (0.119-0.183)	**0.192** (0.152-0.236)	**0.227** (0.179-0.281)	**0.275** (0.211-0.354)	**0.312** (0.234-0.407)	**0.350** (0.255-0.473)	**0.396** (0.271-0.538)	**0.463** (0.305-0.648)	**0.520** (0.334-0.739)
2-day	**0.069** (0.056-0.085)	**0.085** (0.068-0.104)	**0.110** (0.088-0.135)	**0.132** (0.105-0.162)	**0.161** (0.124-0.205)	**0.182** (0.137-0.237)	**0.205** (0.151-0.277)	**0.234** (0.160-0.316)	**0.276** (0.182-0.383)	**0.313** (0.201-0.440)
3-day	**0.050** (0.040-0.061)	**0.061** (0.049-0.075)	**0.080** (0.064-0.097)	**0.095** (0.076-0.116)	**0.116** (0.090-0.148)	**0.132** (0.100-0.171)	**0.149** (0.110-0.200)	**0.169** (0.116-0.228)	**0.200** (0.132-0.277)	**0.227** (0.146-0.318)
4-day	**0.040** (0.033-0.049)	**0.049** (0.040-0.060)	**0.064** (0.051-0.077)	**0.076** (0.061-0.092)	**0.092** (0.072-0.117)	**0.105** (0.079-0.135)	**0.118** (0.087-0.158)	**0.134** (0.092-0.180)	**0.159** (0.105-0.219)	**0.179** (0.116-0.251)
7-day	**0.027** (0.022-0.033)	**0.033** (0.027-0.040)	**0.042** (0.034-0.051)	**0.050** (0.040-0.060)	**0.060** (0.047-0.075)	**0.068** (0.051-0.087)	**0.076** (0.056-0.101)	**0.086** (0.059-0.114)	**0.100** (0.067-0.138)	**0.113** (0.073-0.157)
10-day	**0.022** (0.018-0.027)	**0.026** (0.021-0.032)	**0.033** (0.027-0.040)	**0.039** (0.031-0.047)	**0.046** (0.036-0.058)	**0.052** (0.040-0.066)	**0.058** (0.043-0.076)	**0.065** (0.045-0.086)	**0.075** (0.050-0.103)	**0.084** (0.055-0.117)
20-day	**0.016** (0.013-0.019)	**0.018** (0.015-0.021)	**0.022** (0.018-0.026)	**0.025** (0.020-0.030)	**0.029** (0.023-0.036)	**0.032** (0.025-0.041)	**0.036** (0.026-0.046)	**0.039** (0.027-0.052)	**0.044** (0.030-0.060)	**0.048** (0.031-0.066)
30-day	**0.013** (0.011-0.015)	**0.015** (0.012-0.017)	**0.017** (0.014-0.021)	**0.020** (0.016-0.023)	**0.023** (0.018-0.028)	**0.025** (0.019-0.031)	**0.027** (0.020-0.035)	**0.030** (0.021-0.039)	**0.033** (0.022-0.045)	**0.035** (0.023-0.049)
45-day	**0.011** (0.009-0.013)	**0.012** (0.010-0.014)	**0.014** (0.011-0.017)	**0.016** (0.013-0.019)	**0.018** (0.014-0.022)	**0.020** (0.015-0.024)	**0.021** (0.016-0.027)	**0.023** (0.016-0.030)	**0.025** (0.017-0.034)	**0.027** (0.017-0.036)
60-day	**0.009** (0.008-0.011)	**0.010** (0.009-0.012)	**0.012** (0.010-0.014)	**0.013** (0.011-0.016)	**0.015** (0.012-0.018)	**0.017** (0.013-0.020)	**0.018** (0.013-0.023)	**0.019** (0.014-0.025)	**0.021** (0.014-0.028)	**0.022** (0.014-0.030)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

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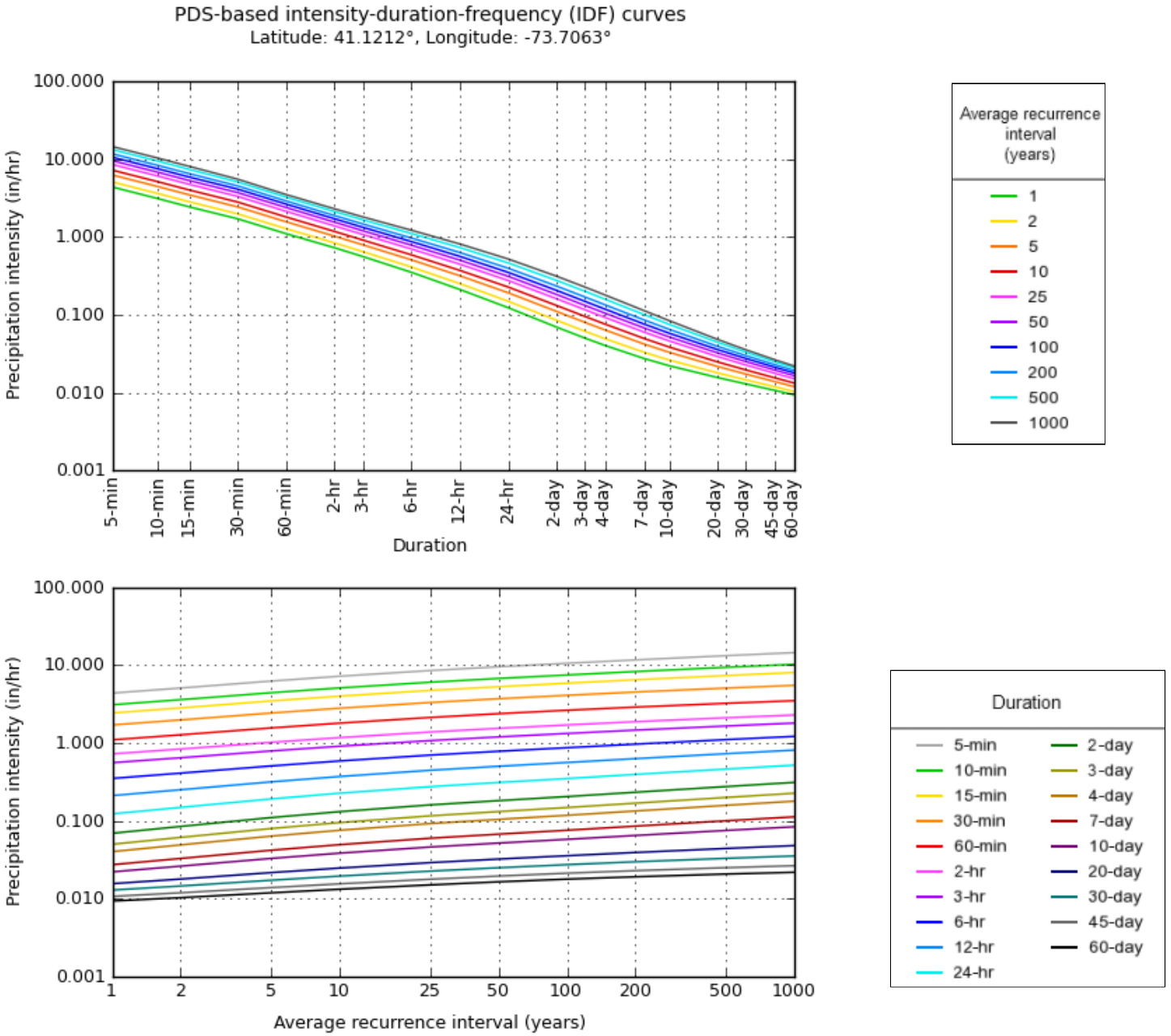
PF graphical



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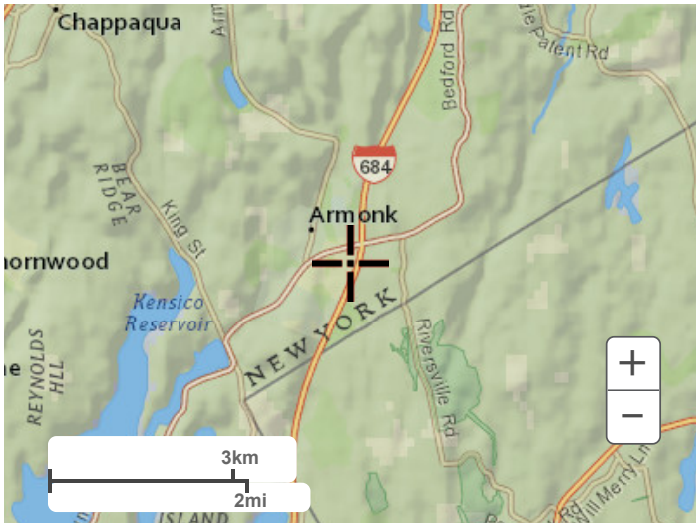
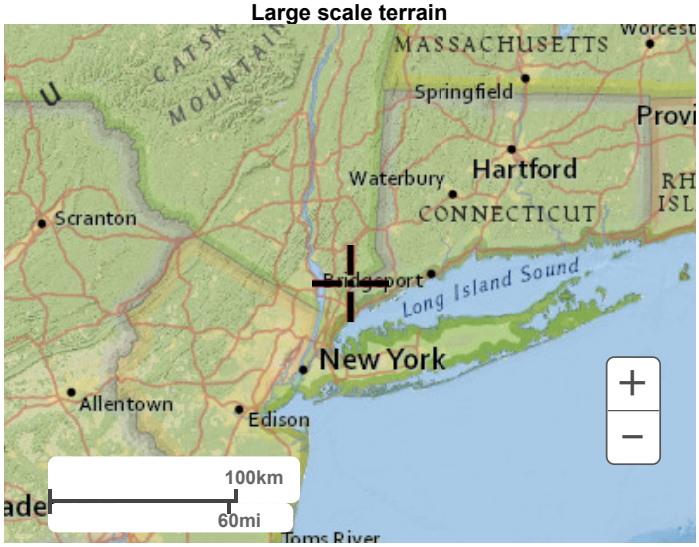
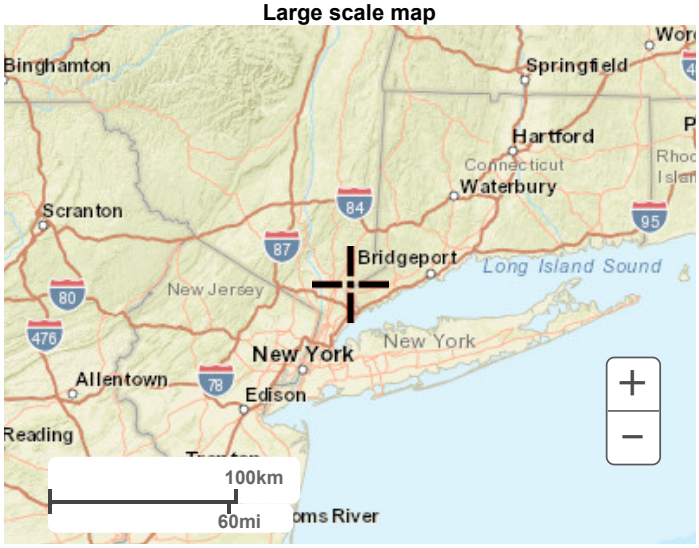
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

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NOAA Atlas 14, Volume 10, Version 3
Location name: Armonk, New York, USA*
Latitude: 41.1212°, Longitude: -73.7063°
Elevation: 369.72 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.365** (0.283-0.462)	**0.424** (0.328-0.537)	**0.521** (0.402-0.660)	**0.601** (0.461-0.766)	**0.711** (0.528-0.936)	**0.795** (0.578-1.06)	**0.881** (0.622-1.21)	**0.974** (0.655-1.36)	**1.10** (0.715-1.59)	**1.21** (0.765-1.77)
10-min	**0.517** (0.401-0.654)	**0.601** (0.465-0.761)	**0.738** (0.569-0.936)	**0.851** (0.653-1.09)	**1.01** (0.749-1.33)	**1.13** (0.819-1.50)	**1.25** (0.881-1.71)	**1.38** (0.929-1.93)	**1.57** (1.01-2.25)	**1.71** (1.08-2.51)
15-min	**0.608** (0.472-0.770)	**0.707** (0.547-0.895)	**0.868** (0.670-1.10)	**1.00** (0.768-1.28)	**1.19** (0.881-1.56)	**1.32** (0.964-1.77)	**1.47** (1.04-2.02)	**1.62** (1.09-2.27)	**1.84** (1.19-2.65)	**2.01** (1.27-2.95)
30-min	**0.854** (0.662-1.08)	**0.991** (0.768-1.25)	**1.22** (0.938-1.54)	**1.40** (1.08-1.79)	**1.66** (1.23-2.18)	**1.85** (1.35-2.47)	**2.05** (1.44-2.81)	**2.26** (1.52-3.16)	**2.54** (1.65-3.66)	**2.76** (1.74-4.03)
60-min	**1.10** (0.853-1.39)	**1.28** (0.988-1.62)	**1.56** (1.21-1.99)	**1.80** (1.38-2.30)	**2.13** (1.58-2.80)	**2.38** (1.73-3.17)	**2.64** (1.85-3.60)	**2.90** (1.95-4.06)	**3.24** (2.10-4.66)	**3.50** (2.21-5.12)
2-hr	**1.45** (1.13-1.82)	**1.68** (1.31-2.11)	**2.04** (1.59-2.58)	**2.35** (1.81-2.98)	**2.77** (2.07-3.62)	**3.09** (2.26-4.10)	**3.42** (2.42-4.64)	**3.76** (2.54-5.23)	**4.22** (2.75-6.04)	**4.59** (2.91-6.67)
3-hr	**1.68** (1.32-2.10)	**1.94** (1.52-2.44)	**2.38** (1.85-2.99)	**2.73** (2.12-3.45)	**3.23** (2.42-4.20)	**3.60** (2.64-4.76)	**3.99** (2.83-5.41)	**4.40** (2.98-6.10)	**4.97** (3.24-7.08)	**5.42** (3.45-7.85)
6-hr	**2.10** (1.66-2.62)	**2.46** (1.94-3.06)	**3.04** (2.39-3.80)	**3.53** (2.75-4.42)	**4.19** (3.16-5.43)	**4.69** (3.47-6.18)	**5.22** (3.74-7.07)	**5.80** (3.94-7.99)	**6.63** (4.33-9.38)	**7.30** (4.66-10.5)
12-hr	**2.55** (2.02-3.15)	**3.03** (2.40-3.75)	**3.82** (3.02-4.74)	**4.48** (3.51-5.58)	**5.39** (4.09-6.95)	**6.06** (4.51-7.95)	**6.78** (4.90-9.17)	**7.60** (5.19-10.4)	**8.79** (5.77-12.4)	**9.78** (6.26-14.0)
24-hr	**2.96** (2.36-3.63)	**3.58** (2.85-4.40)	**4.60** (3.65-5.67)	**5.45** (4.30-6.73)	**6.61** (5.06-8.49)	**7.48** (5.60-9.77)	**8.41** (6.13-11.3)	**9.50** (6.50-12.9)	**11.1** (7.31-15.5)	**12.5** (8.02-17.7)
2-day	**3.33** (2.67-4.06)	**4.08** (3.27-4.97)	**5.30** (4.24-6.48)	**6.31** (5.02-7.76)	**7.71** (5.94-9.85)	**8.74** (6.60-11.4)	**9.86** (7.25-13.3)	**11.2** (7.70-15.2)	**13.3** (8.74-18.4)	**15.0** (9.66-21.1)
3-day	**3.61** (2.91-4.38)	**4.42** (3.56-5.37)	**5.75** (4.61-7.00)	**6.85** (5.46-8.38)	**8.37** (6.46-10.6)	**9.49** (7.19-12.3)	**10.7** (7.89-14.4)	**12.2** (8.38-16.4)	**14.4** (9.52-19.9)	**16.3** (10.5-22.9)
4-day	**3.87** (3.13-4.69)	**4.72** (3.82-5.72)	**6.12** (4.92-7.44)	**7.28** (5.82-8.88)	**8.87** (6.87-11.3)	**10.1** (7.63-13.0)	**11.3** (8.37-15.2)	**12.9** (8.88-17.3)	**15.2** (10.1-21.0)	**17.2** (11.1-24.1)
7-day	**4.60** (3.74-5.54)	**5.54** (4.49-6.67)	**7.06** (5.71-8.53)	**8.32** (6.69-10.1)	**10.1** (7.83-12.7)	**11.4** (8.65-14.6)	**12.8** (9.42-16.9)	**14.4** (9.97-19.2)	**16.9** (11.2-23.1)	**19.0** (12.3-26.4)
10-day	**5.32** (4.34-6.38)	**6.31** (5.14-7.57)	**7.92** (6.42-9.53)	**9.25** (7.46-11.2)	**11.1** (8.64-13.9)	**12.5** (9.49-15.9)	**13.9** (10.3-18.3)	**15.6** (10.8-20.8)	**18.1** (12.0-24.7)	**20.2** (13.1-28.0)
20-day	**7.50** (6.16-8.94)	**8.61** (7.06-10.3)	**10.4** (8.50-12.4)	**11.9** (9.67-14.3)	**14.0** (10.9-17.3)	**15.5** (11.9-19.5)	**17.2** (12.6-22.1)	**18.9** (13.2-24.9)	**21.3** (14.2-28.8)	**23.2** (15.1-31.9)
30-day	**9.32** (7.68-11.1)	**10.5** (8.66-12.5)	**12.5** (10.2-14.9)	**14.1** (11.5-16.9)	**16.3** (12.8-20.1)	**18.0** (13.8-22.5)	**19.8** (14.5-25.3)	**21.5** (15.1-28.2)	**23.8** (16.0-32.1)	**25.6** (16.7-35.1)
45-day	**11.6** (9.59-13.7)	**12.9** (10.7-15.3)	**15.0** (12.4-17.8)	**16.8** (13.7-20.0)	**19.3** (15.1-23.5)	**21.2** (16.2-26.2)	**23.0** (16.9-29.2)	**24.8** (17.4-32.4)	**27.1** (18.2-36.4)	**28.7** (18.8-39.3)
60-day	**13.5** (11.2-15.9)	**14.9** (12.3-17.6)	**17.2** (14.2-20.3)	**19.1** (15.7-22.7)	**21.7** (17.1-26.4)	**23.8** (18.2-29.3)	**25.8** (18.9-32.5)	**27.6** (19.5-36.0)	**29.9** (20.2-40.1)	**31.5** (20.6-43.0)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

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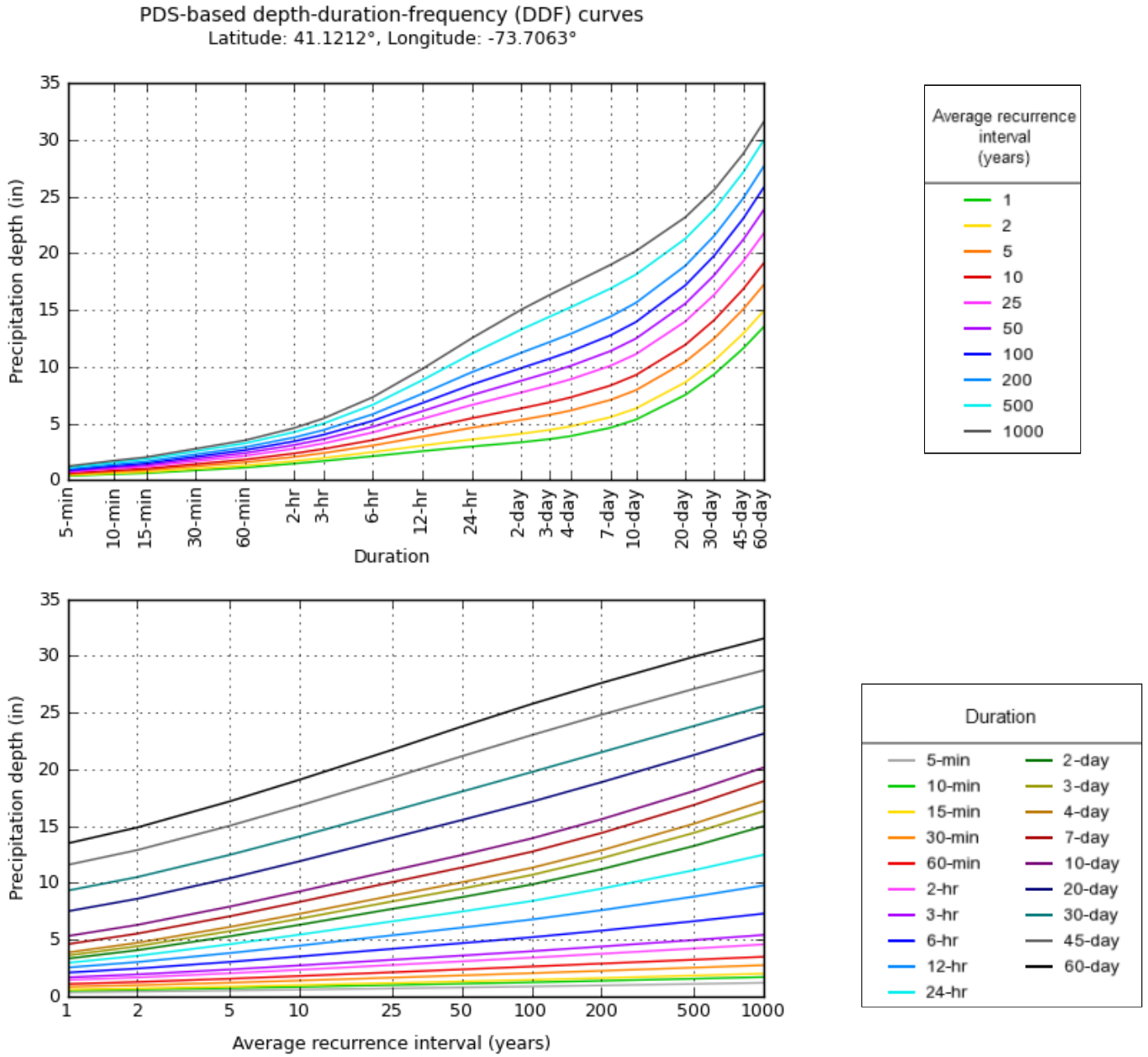
PF graphical



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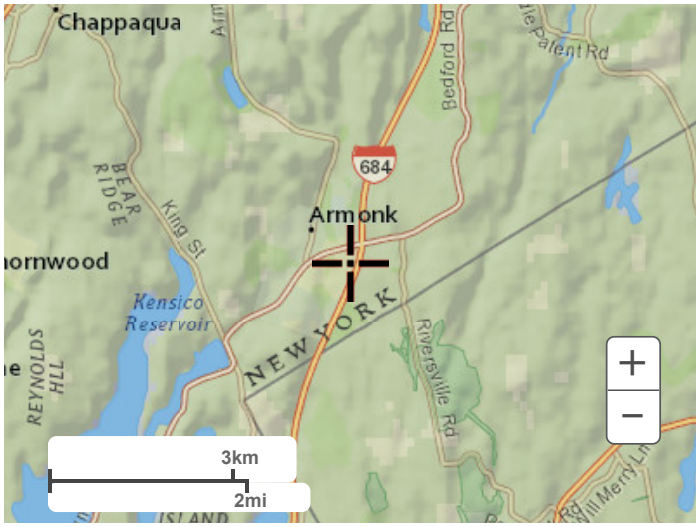
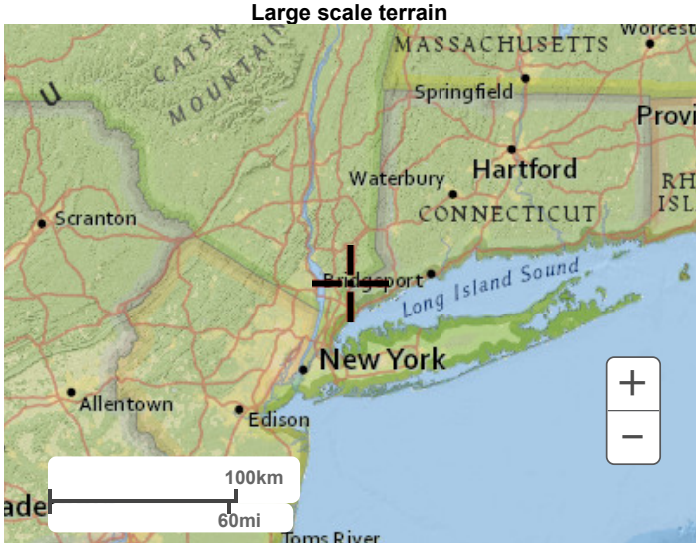
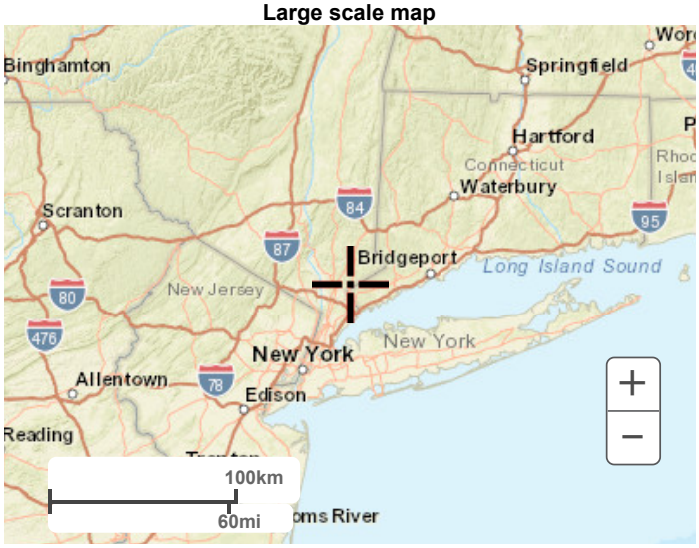


Large scale terrain



Large scale map



Large scale aerial

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HYDROGRAPH SUMMARY REPORTS – EXISTING AND PROPOSED CONDITIONS 1-YR., 10-YR. & 100-YR.

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	8.397	2	728	32,242	------	------	------	EX-DA1
3	SCS Runoff	7.966	2	728	31,000	------	------	------	PR-DA1
4	SCS Runoff	3.947	2	728	16,751	------	------	------	Roof
6	Reservoir	1.712	2	744	16,748	4	367.38	3,343	Roof Basin
8	Combine	9.386	2	728	47,747	3, 6,	------	------	Proposed

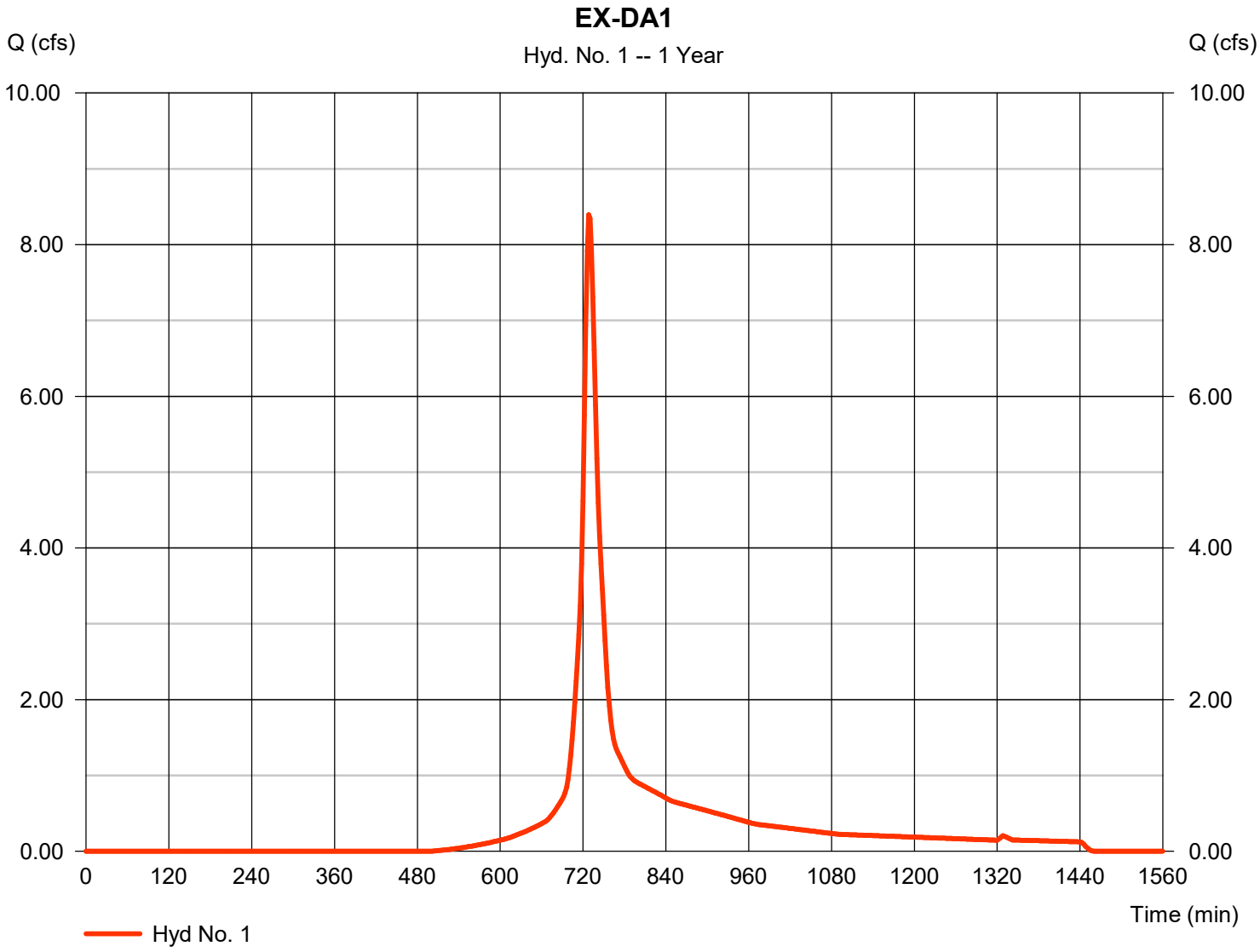
Hydrograph Report

Hyd. No. 1

EX-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	8.397 cfs
Storm frequency	=	1 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	32,242 cuft
Drainage area	=	5.540 ac	Curve number	=	85*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	2.96 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.020 x 61) + (3.520 x 98)] / 5.540



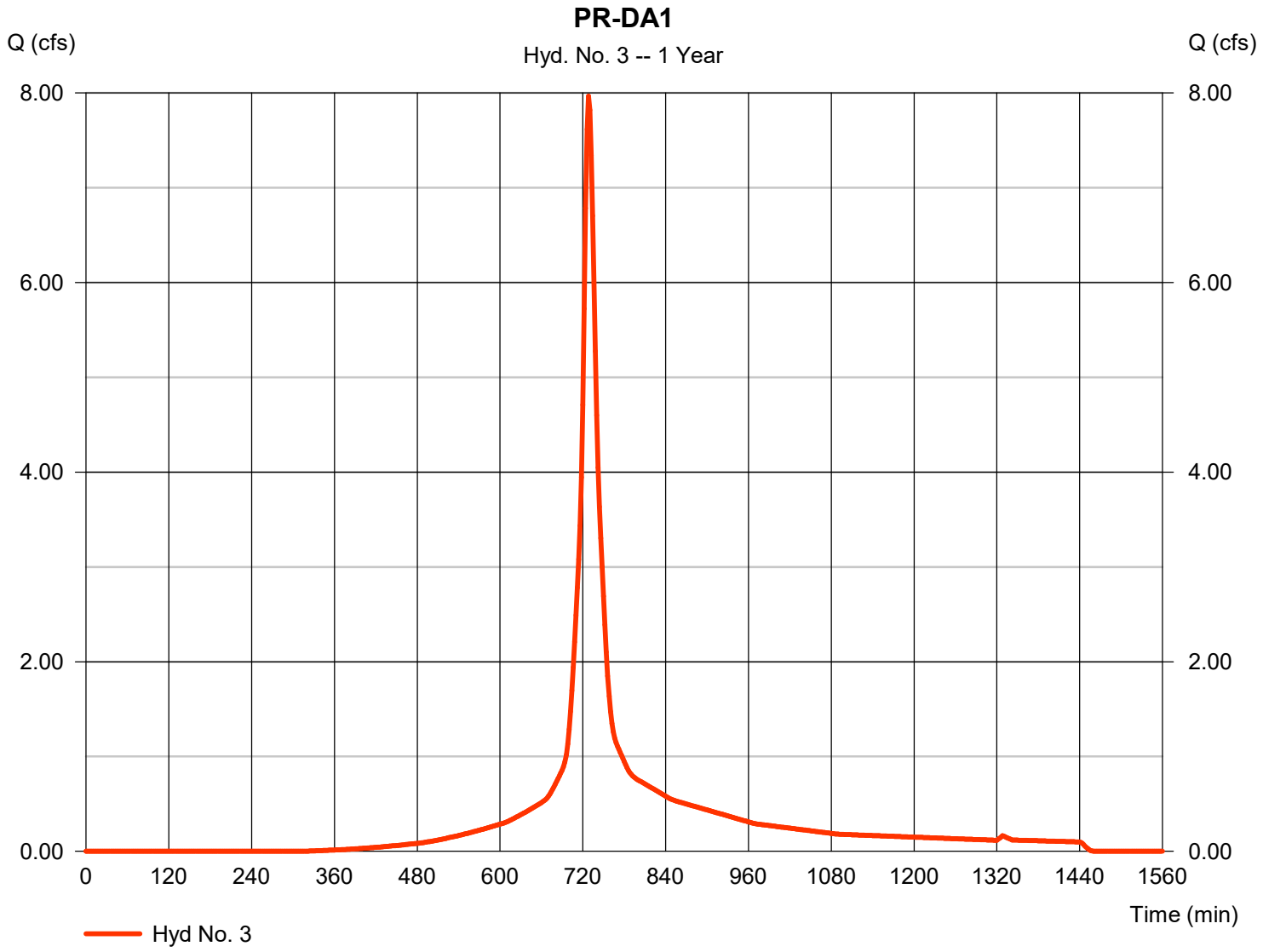
Hydrograph Report

Hyd. No. 3

PR-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	7.966 cfs
Storm frequency	=	1 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	31,000 cuft
Drainage area	=	3.900 ac	Curve number	=	92*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	2.96 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.630 x 98) + (1.270 x 80)] / 3.900



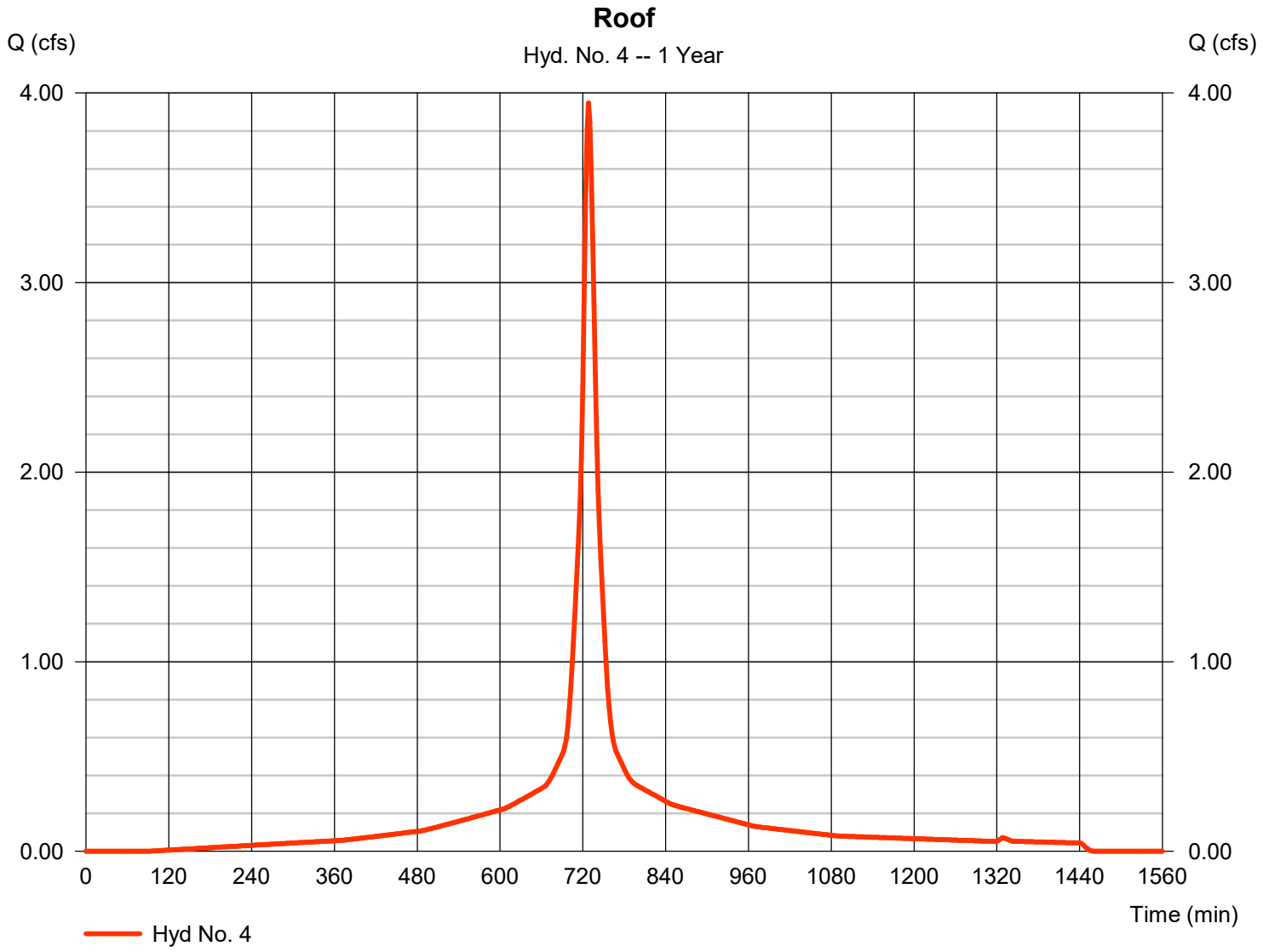
Hydrograph Report

Hyd. No. 4

Roof

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.947 cfs
Storm frequency	=	1 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	16,751 cuft
Drainage area	=	1.640 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	2.96 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(1.640 x 98)] / 1.640



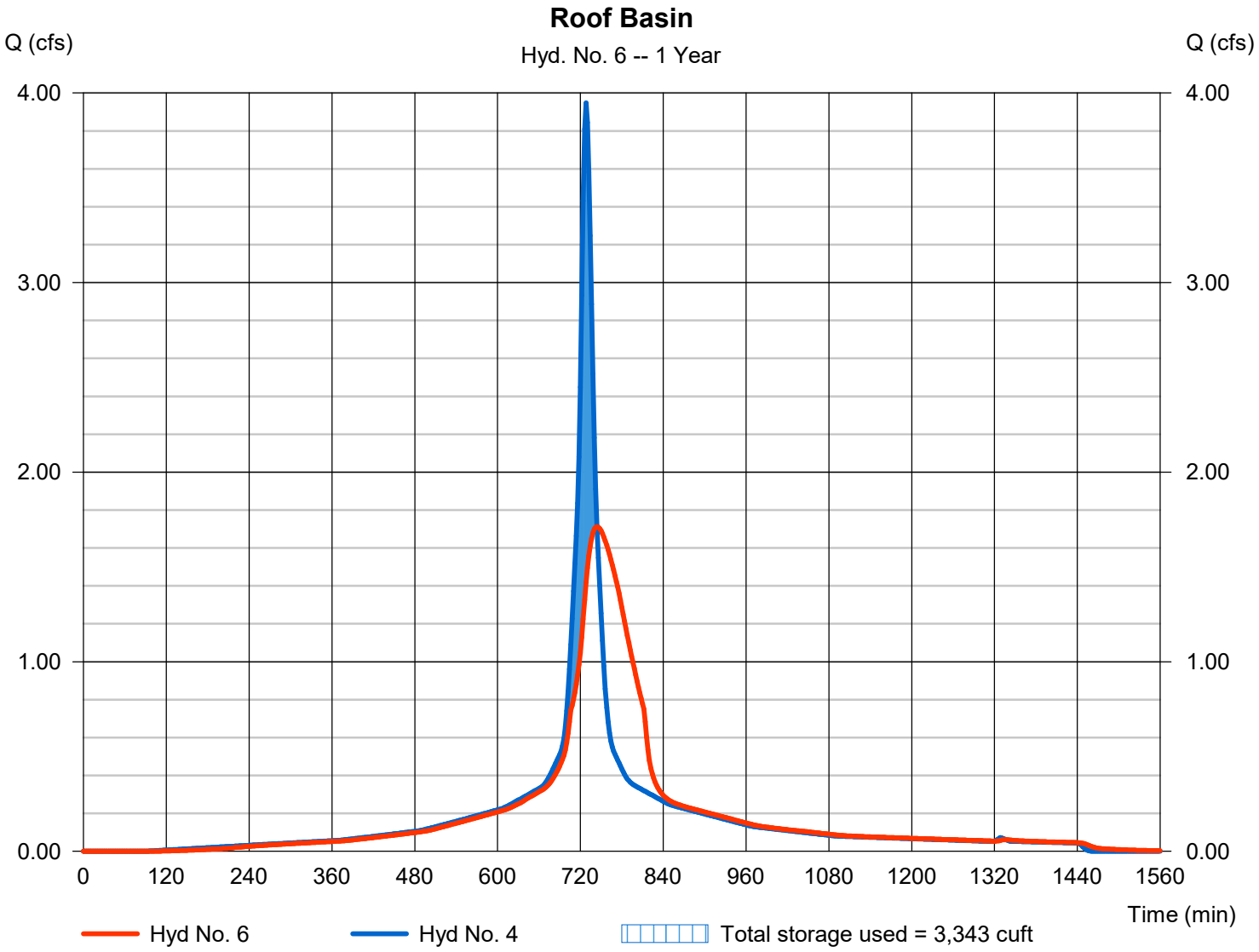
Hydrograph Report

Hyd. No. 6

Roof Basin

Hydrograph type	=	Reservoir	Peak discharge	=	1.712 cfs
Storm frequency	=	1 yrs	Time to peak	=	744 min
Time interval	=	2 min	Hyd. volume	=	16,748 cuft
Inflow hyd. No.	=	4 - Roof	Max. Elevation	=	367.38 ft
Reservoir name	=	UDET-1	Max. Storage	=	3,343 cuft

Storage Indication method used.



Pond Report

Pond No. 1 - UDET-1

Pond Data

UG Chambers -Invert elev. = 365.90 ft, Rise x Span = 5.00 x 5.00 ft, Barrel Len = 160.00 ft, No. Barrels = 5, Slope = 0.30%, Headers = Yes

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	365.90	n/a	0	0
0.55	366.45	n/a	473	473
1.10	367.00	n/a	1,491	1,964
1.64	367.54	n/a	1,978	3,942
2.19	368.09	n/a	2,243	6,184
2.74	368.64	n/a	2,360	8,545
3.29	369.19	n/a	2,361	10,906
3.84	369.74	n/a	2,241	13,147
4.38	370.28	n/a	1,978	15,125
4.93	370.83	n/a	1,489	16,614
5.48	371.38	n/a	472	17,086

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 18.00	2.25	8.00	0.00
Span (in)	= 18.00	2.25	8.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 365.90	365.90	365.80	0.00
Length (ft)	= 116.00	0.50	0.50	0.00
Slope (%)	= 0.70	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	Yes	No

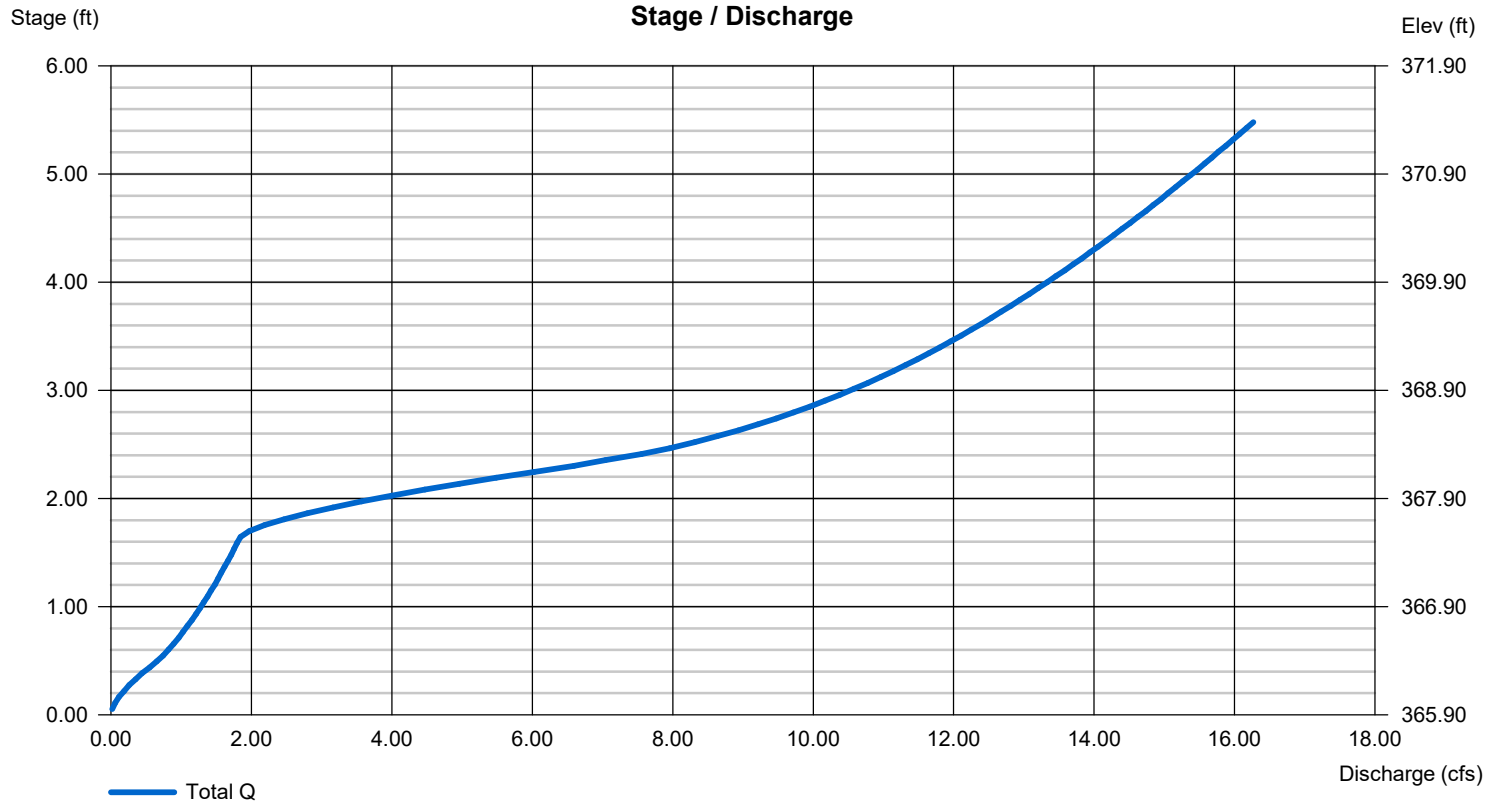
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 2.75	0.00	0.00	0.00
Crest El. (ft)	= 367.55	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

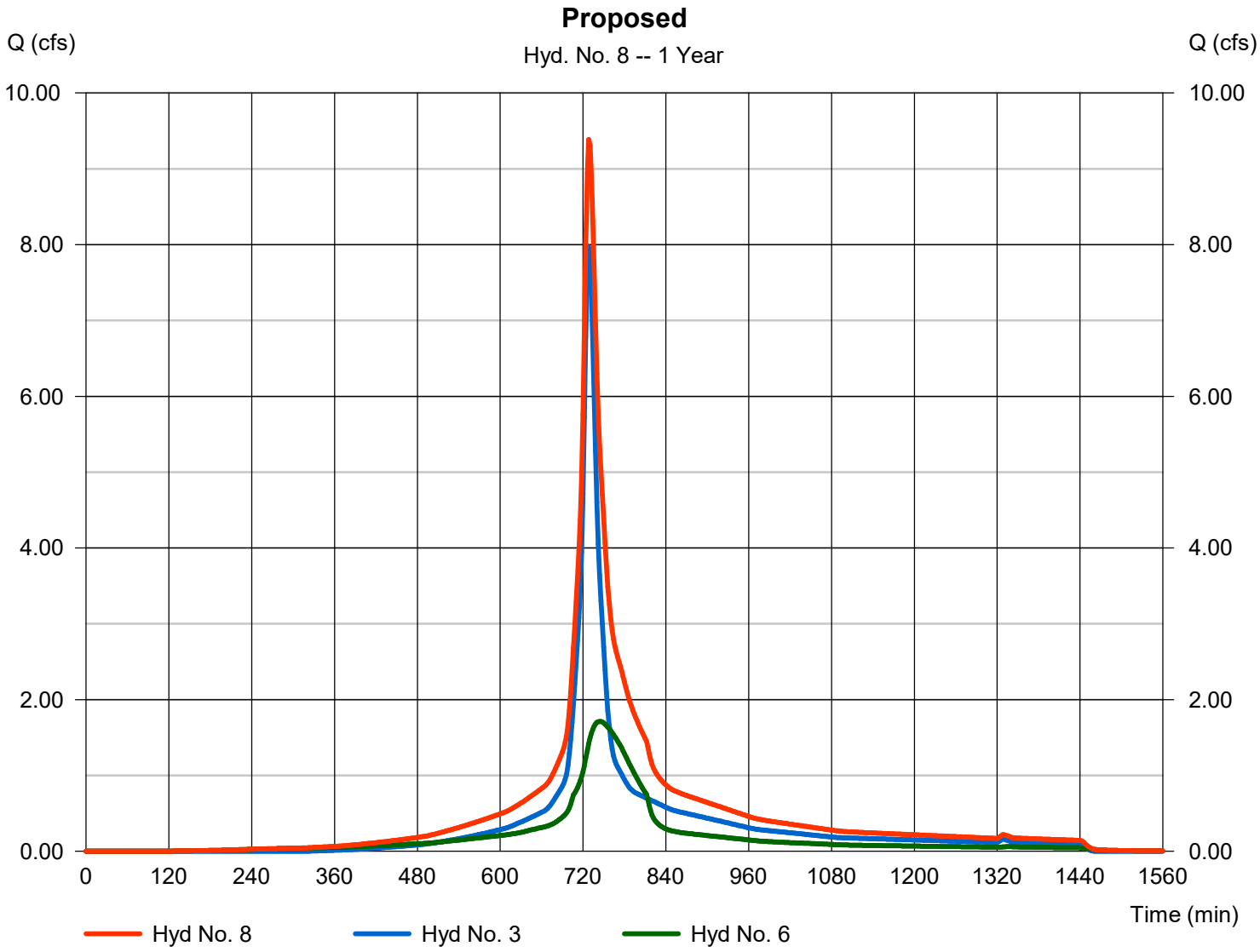


Hydrograph Report

Hyd. No. 8

Proposed

Hydrograph type	= Combine	Peak discharge	= 9.386 cfs
Storm frequency	= 1 yrs	Time to peak	= 728 min
Time interval	= 2 min	Hyd. volume	= 47,747 cuft
Inflow hyds.	= 3, 6	Contrib. drain. area	= 3.900 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	11.29	2	728	43,265	------	------	------	EX-DA1
3	SCS Runoff	10.08	2	728	39,614	------	------	------	PR-DA1
4	SCS Runoff	4.797	2	728	20,543	------	------	------	Roof
6	Reservoir	2.094	2	744	20,540	4	367.63	4,296	Roof Basin
8	Combine	11.64	2	728	60,154	3, 6,	------	------	Proposed

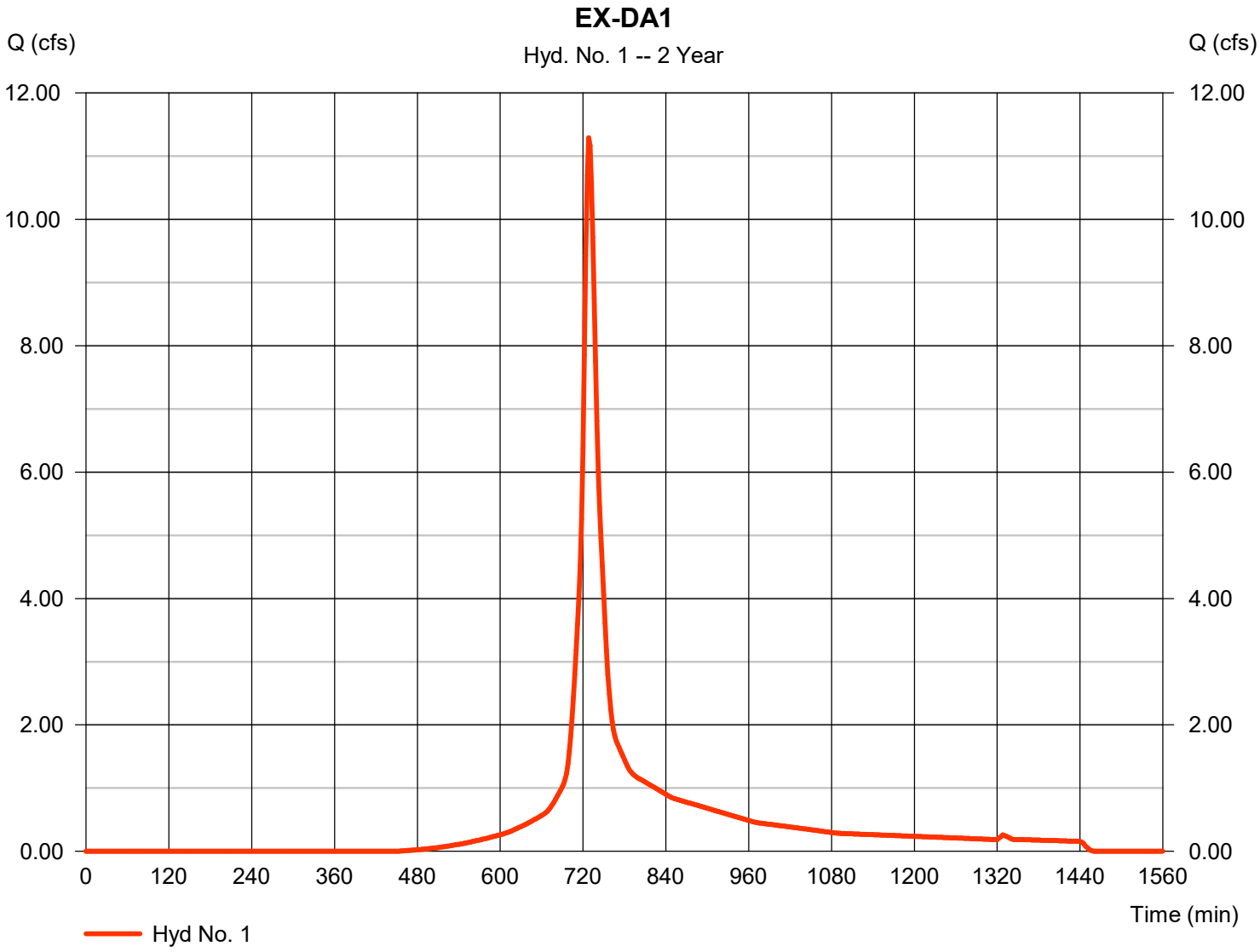
Hydrograph Report

Hyd. No. 1

EX-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	11.29 cfs
Storm frequency	=	2 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	43,265 cuft
Drainage area	=	5.540 ac	Curve number	=	85*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	3.58 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.020 x 61) + (3.520 x 98)] / 5.540



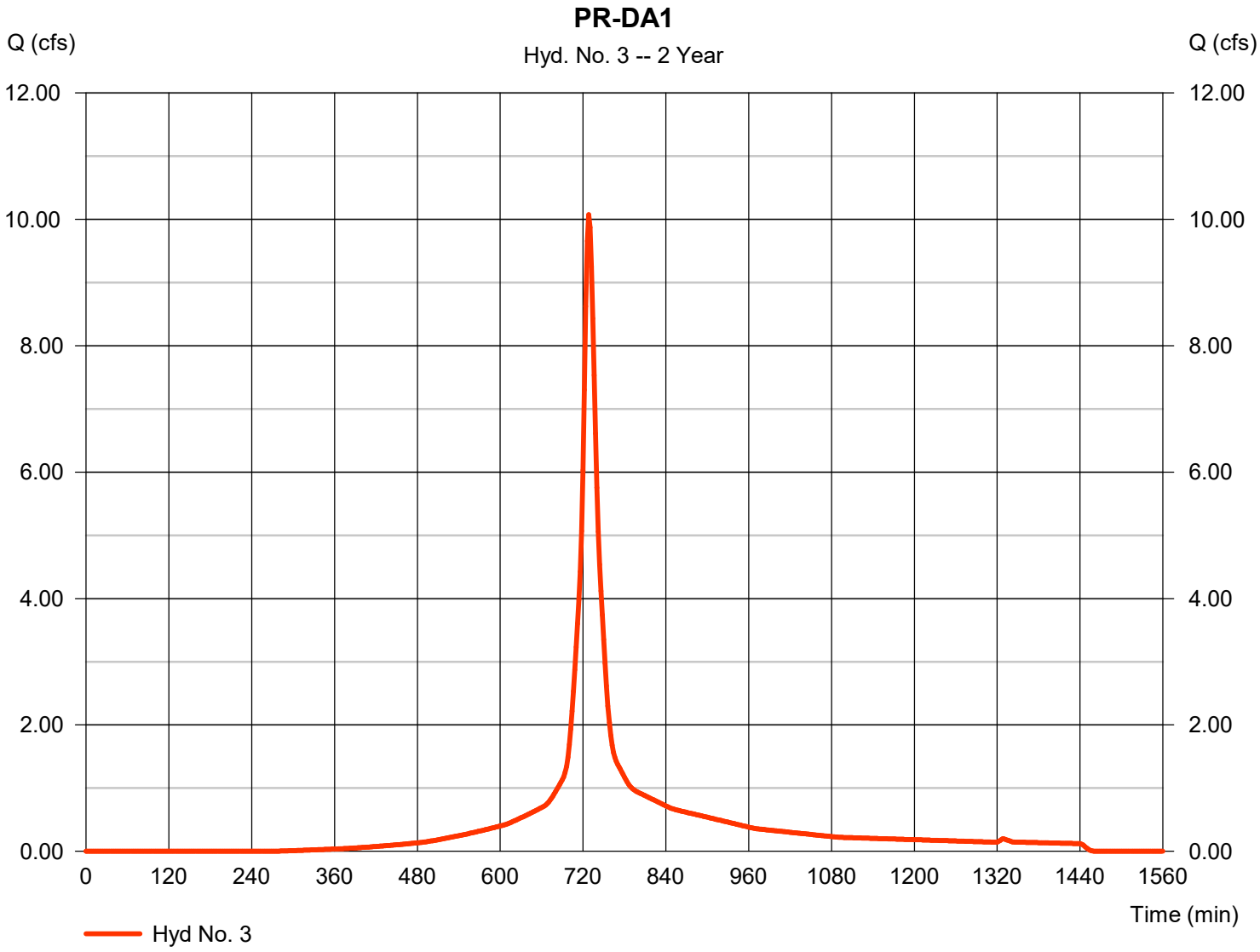
Hydrograph Report

Hyd. No. 3

PR-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	10.08 cfs
Storm frequency	=	2 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	39,614 cuft
Drainage area	=	3.900 ac	Curve number	=	92*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	3.58 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.630 x 98) + (1.270 x 80)] / 3.900



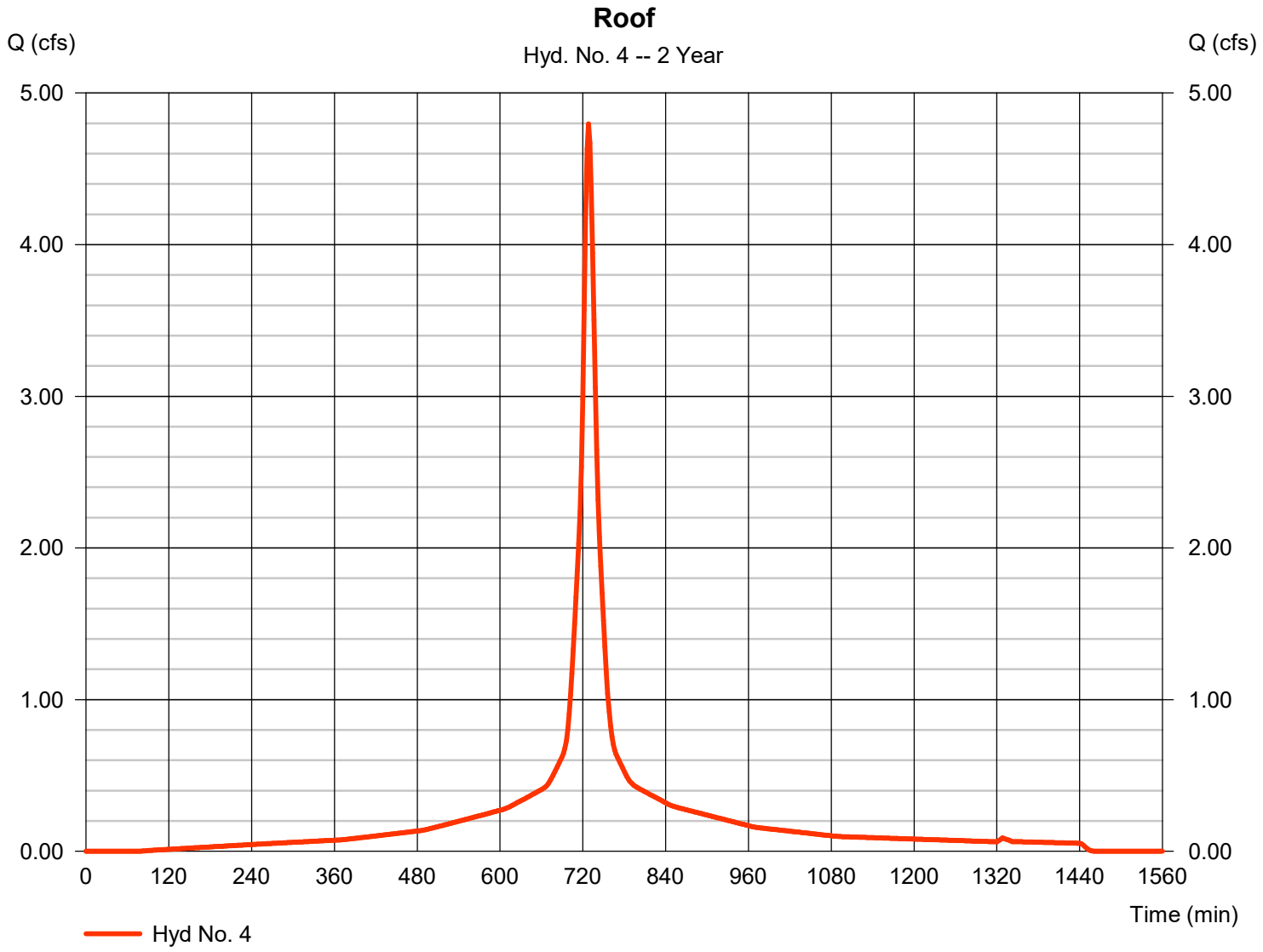
Hydrograph Report

Hyd. No. 4

Roof

Hydrograph type	= SCS Runoff	Peak discharge	= 4.797 cfs
Storm frequency	= 2 yrs	Time to peak	= 728 min
Time interval	= 2 min	Hyd. volume	= 20,543 cuft
Drainage area	= 1.640 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 3.58 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.640 x 98)] / 1.640



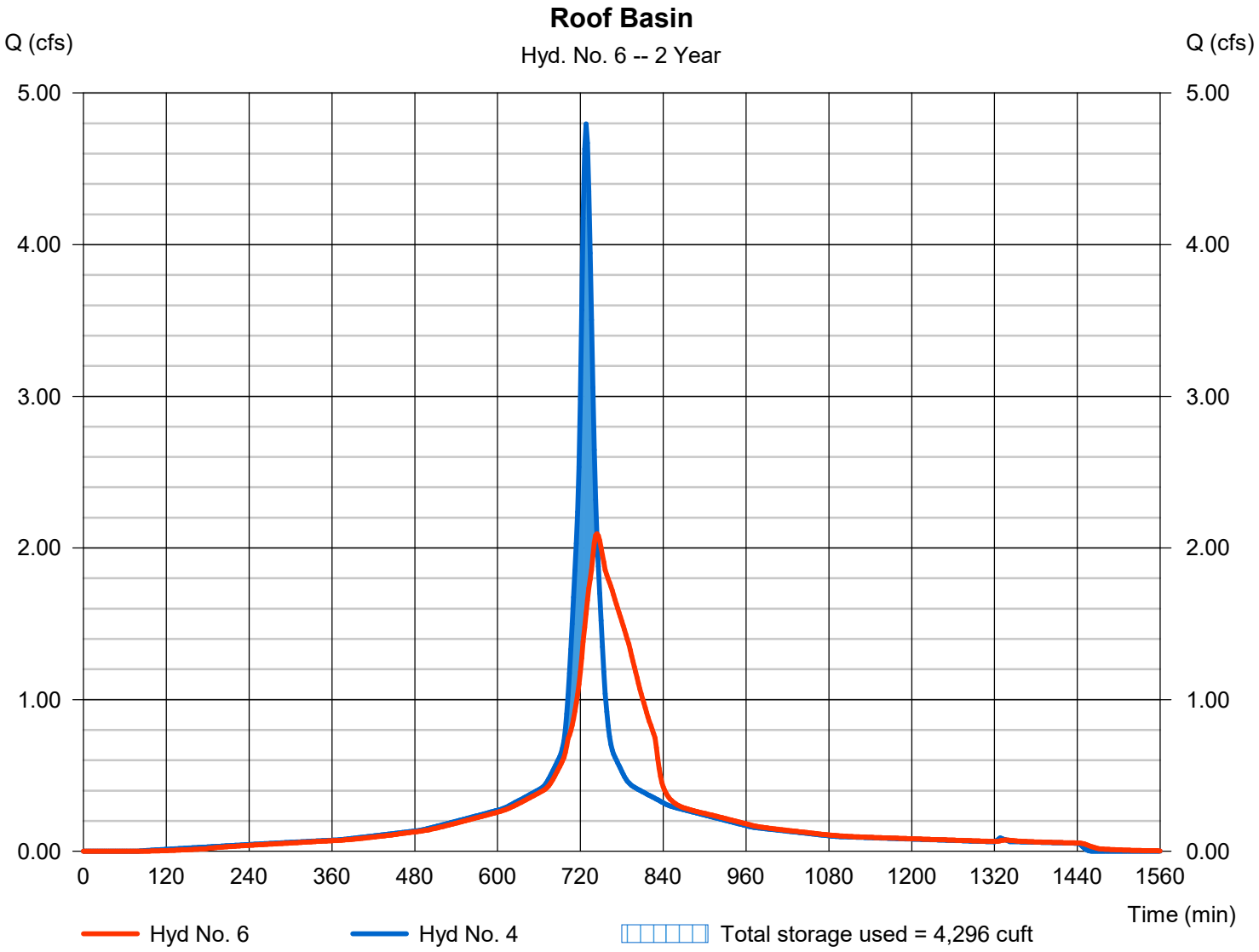
Hydrograph Report

Hyd. No. 6

Roof Basin

Hydrograph type	=	Reservoir	Peak discharge	=	2.094 cfs
Storm frequency	=	2 yrs	Time to peak	=	744 min
Time interval	=	2 min	Hyd. volume	=	20,540 cuft
Inflow hyd. No.	=	4 - Roof	Max. Elevation	=	367.63 ft
Reservoir name	=	UDET-1	Max. Storage	=	4,296 cuft

Storage Indication method used.

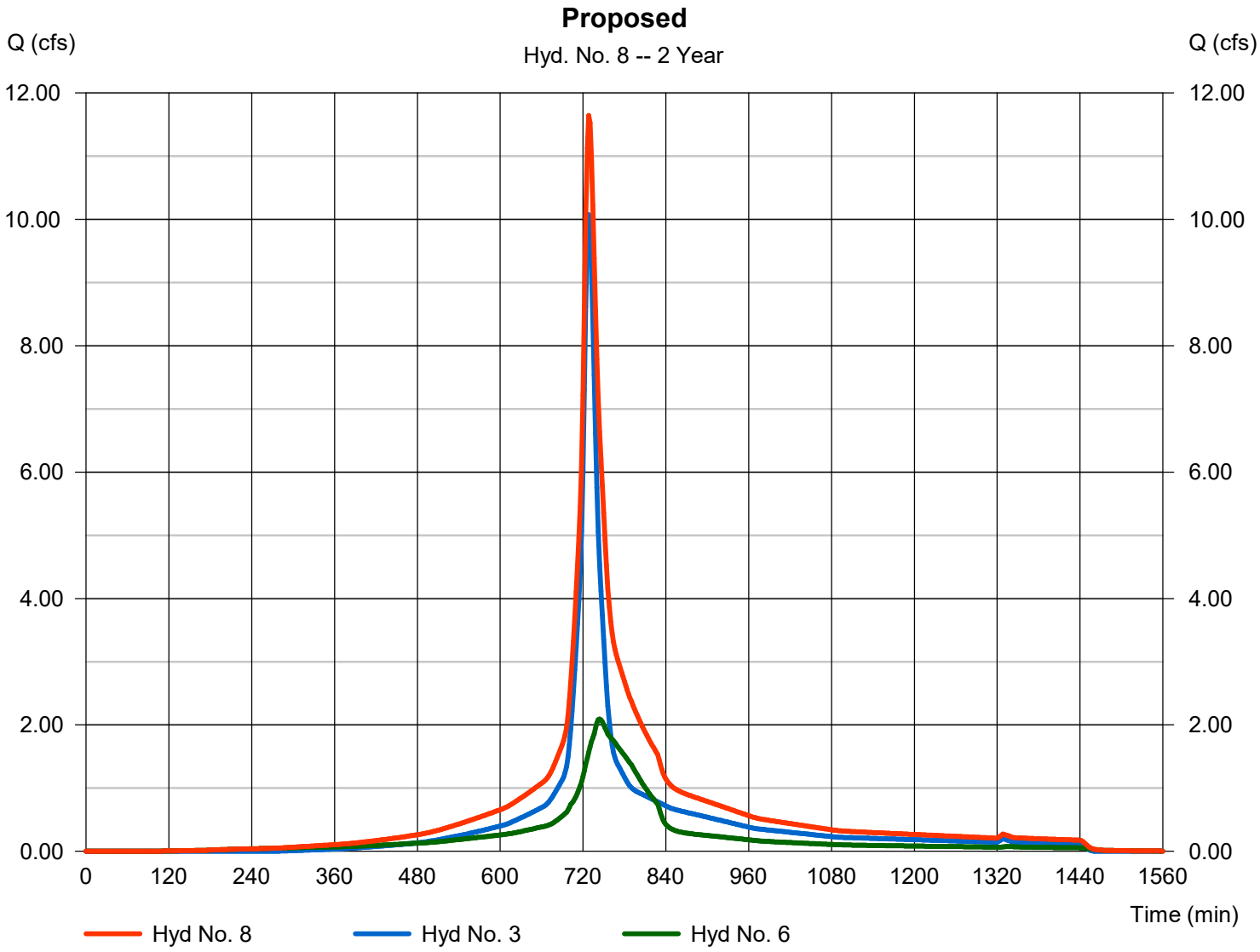


Hydrograph Report

Hyd. No. 8

Proposed

Hydrograph type	= Combine	Peak discharge	= 11.64 cfs
Storm frequency	= 2 yrs	Time to peak	= 728 min
Time interval	= 2 min	Hyd. volume	= 60,154 cuft
Inflow hyds.	= 3, 6	Contrib. drain. area	= 3.900 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	20.27	2	728	78,521	------	------	------	EX-DA1
3	SCS Runoff	16.38	2	728	66,129	------	------	------	PR-DA1
4	SCS Runoff	7.348	2	728	32,001	------	------	------	Roof
6	Reservoir	4.896	2	738	31,998	4	368.03	5,930	Roof Basin
8	Combine	19.36	2	730	98,127	3, 6,	------	------	Proposed

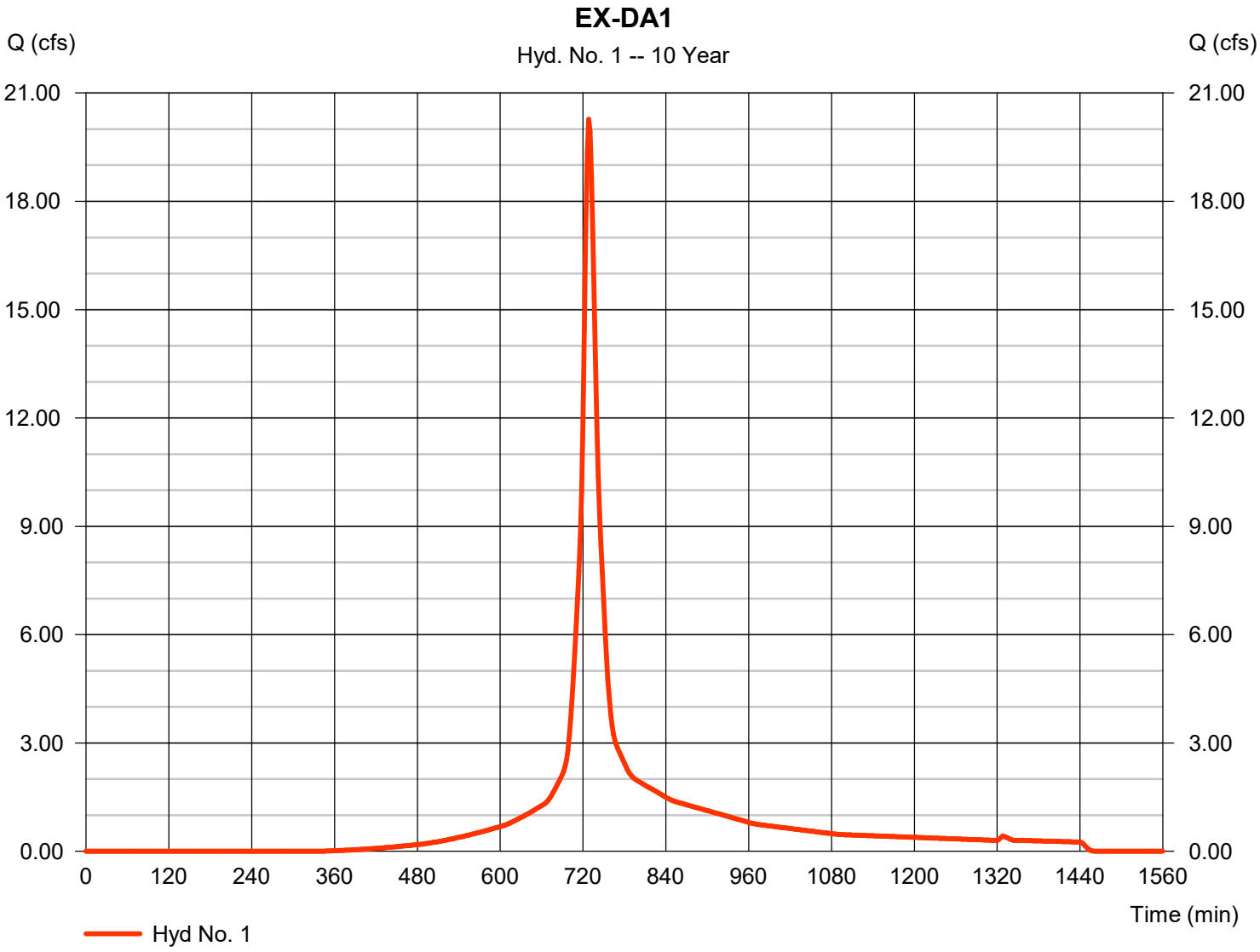
Hydrograph Report

Hyd. No. 1

EX-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	20.27 cfs
Storm frequency	=	10 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	78,521 cuft
Drainage area	=	5.540 ac	Curve number	=	85*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	5.45 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.020 x 61) + (3.520 x 98)] / 5.540



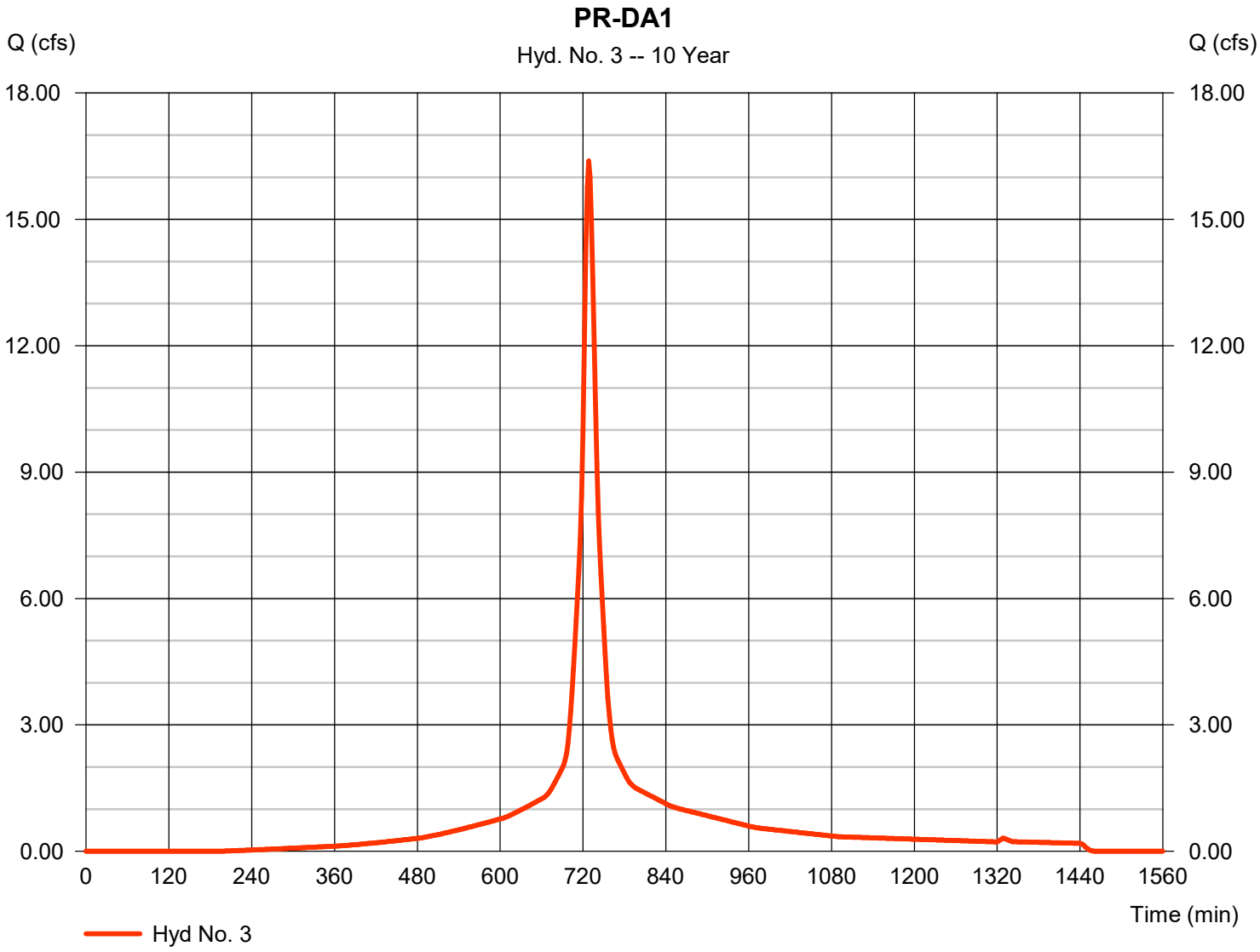
Hydrograph Report

Hyd. No. 3

PR-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	16.38 cfs
Storm frequency	=	10 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	66,129 cuft
Drainage area	=	3.900 ac	Curve number	=	92*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	5.45 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.630 x 98) + (1.270 x 80)] / 3.900



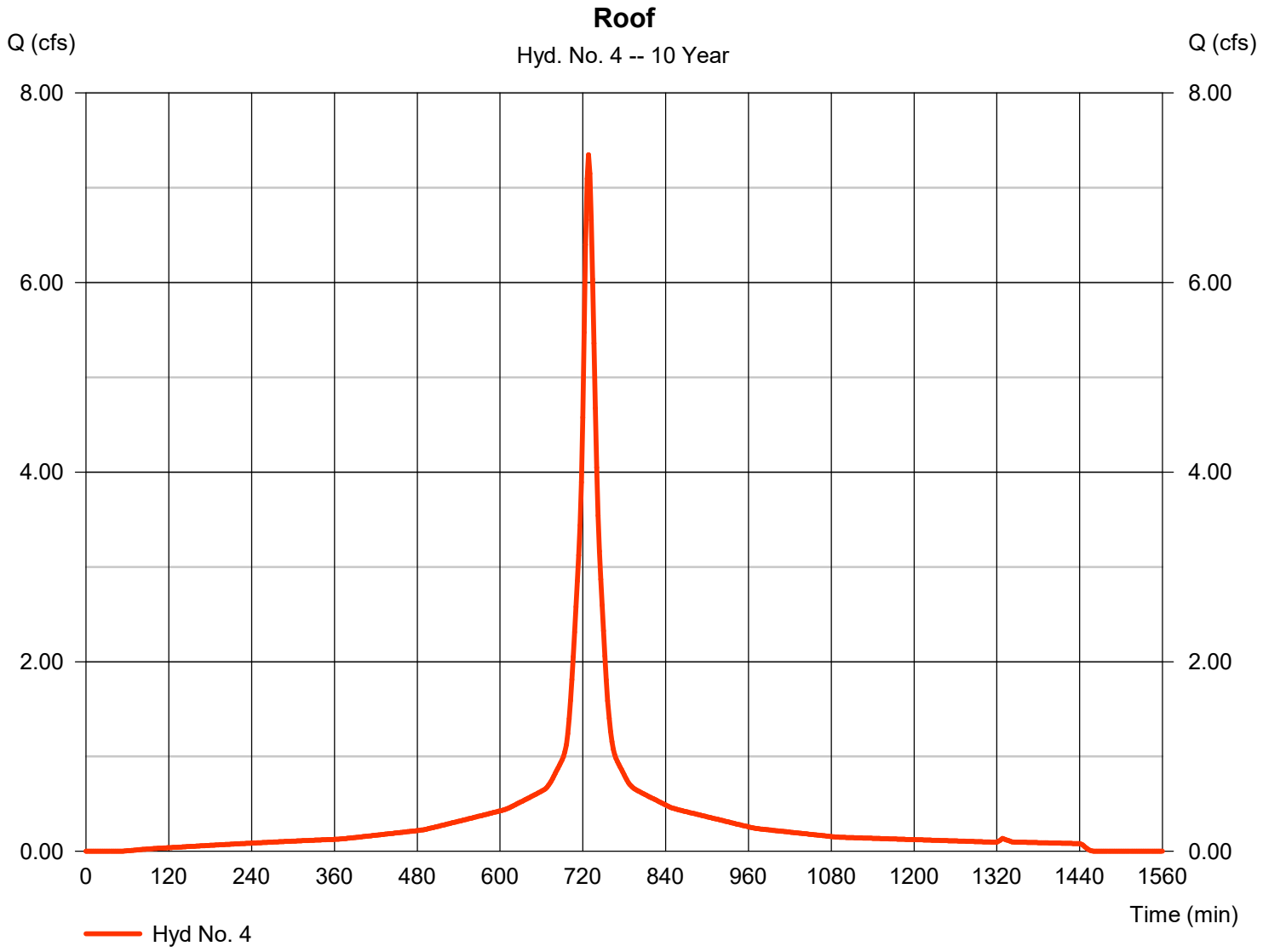
Hydrograph Report

Hyd. No. 4

Roof

Hydrograph type	=	SCS Runoff	Peak discharge	=	7.348 cfs
Storm frequency	=	10 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	32,001 cuft
Drainage area	=	1.640 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	5.45 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(1.640 x 98)] / 1.640



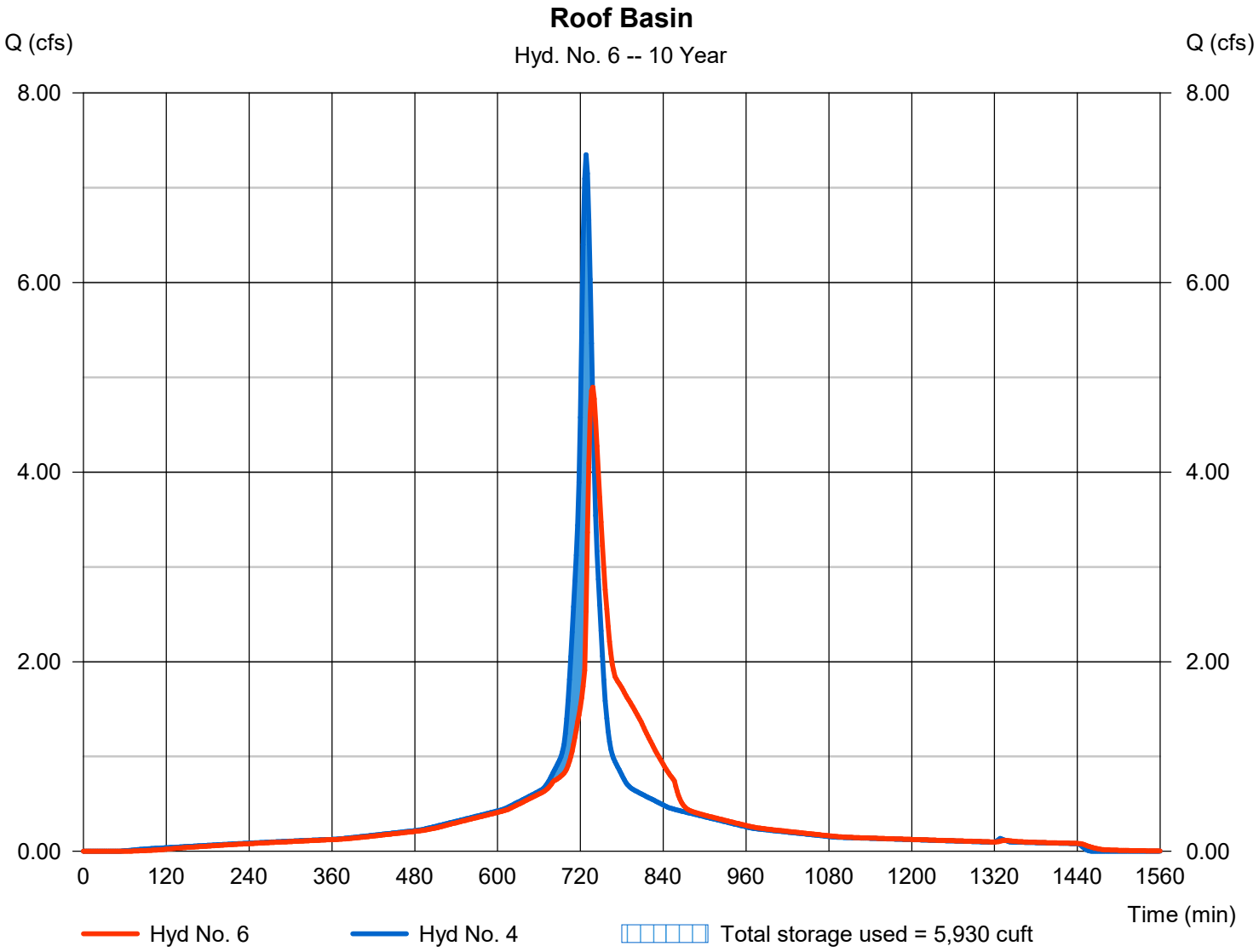
Hydrograph Report

Hyd. No. 6

Roof Basin

Hydrograph type	=	Reservoir	Peak discharge	=	4.896 cfs
Storm frequency	=	10 yrs	Time to peak	=	738 min
Time interval	=	2 min	Hyd. volume	=	31,998 cuft
Inflow hyd. No.	=	4 - Roof	Max. Elevation	=	368.03 ft
Reservoir name	=	UDET-1	Max. Storage	=	5,930 cuft

Storage Indication method used.

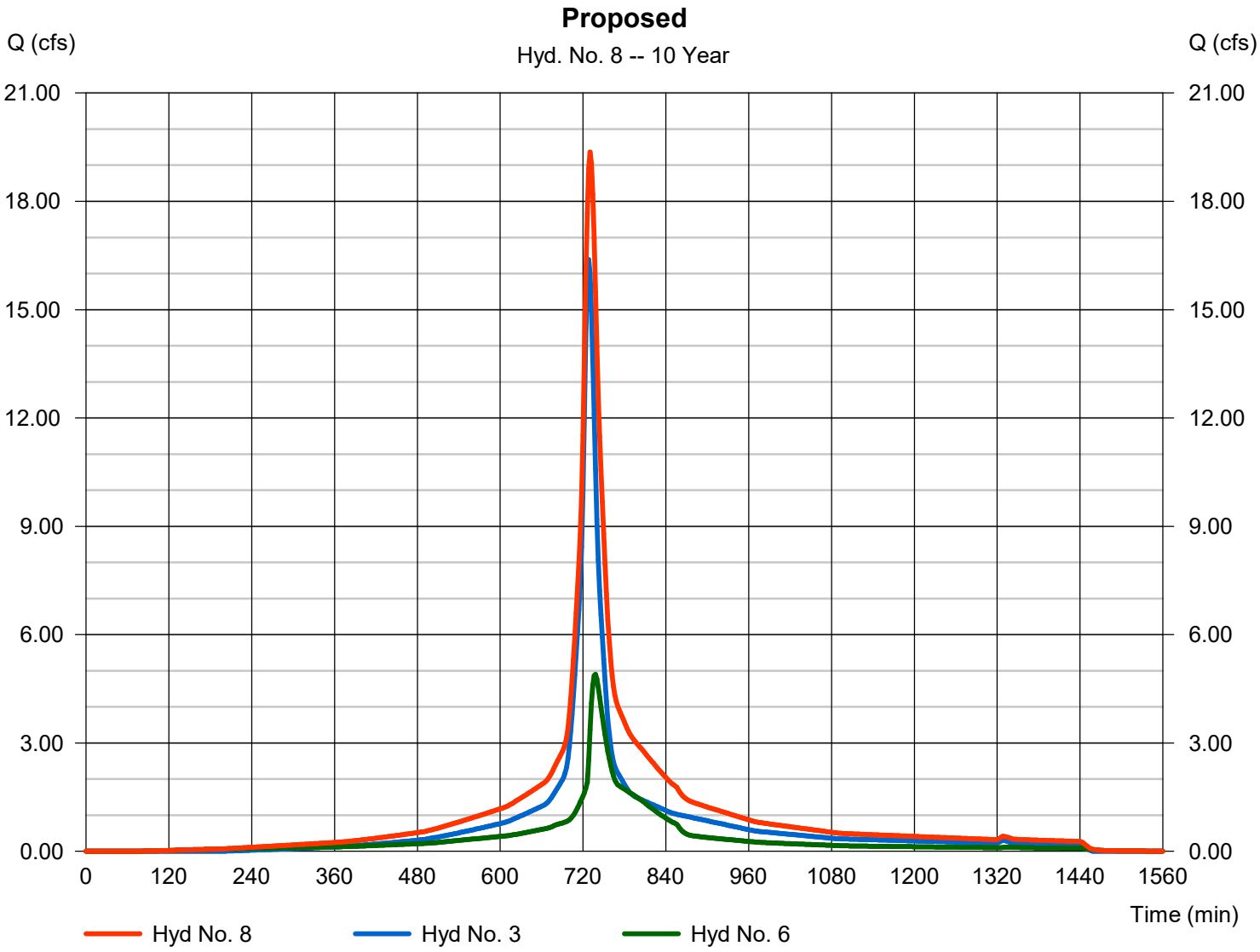


Hydrograph Report

Hyd. No. 8

Proposed

Hydrograph type	= Combine	Peak discharge	= 19.36 cfs
Storm frequency	= 10 yrs	Time to peak	= 730 min
Time interval	= 2 min	Hyd. volume	= 98,127 cuft
Inflow hyds.	= 3, 6	Contrib. drain. area	= 3.900 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	25.88	2	728	101,216	------	------	------	EX-DA1
3	SCS Runoff	20.25	2	728	82,779	------	------	------	PR-DA1
4	SCS Runoff	8.926	2	728	39,115	------	------	------	Roof
6	Reservoir	6.638	2	736	39,112	4	368.21	6,680	Roof Basin
8	Combine	25.21	2	730	121,891	3, 6,	------	------	Proposed

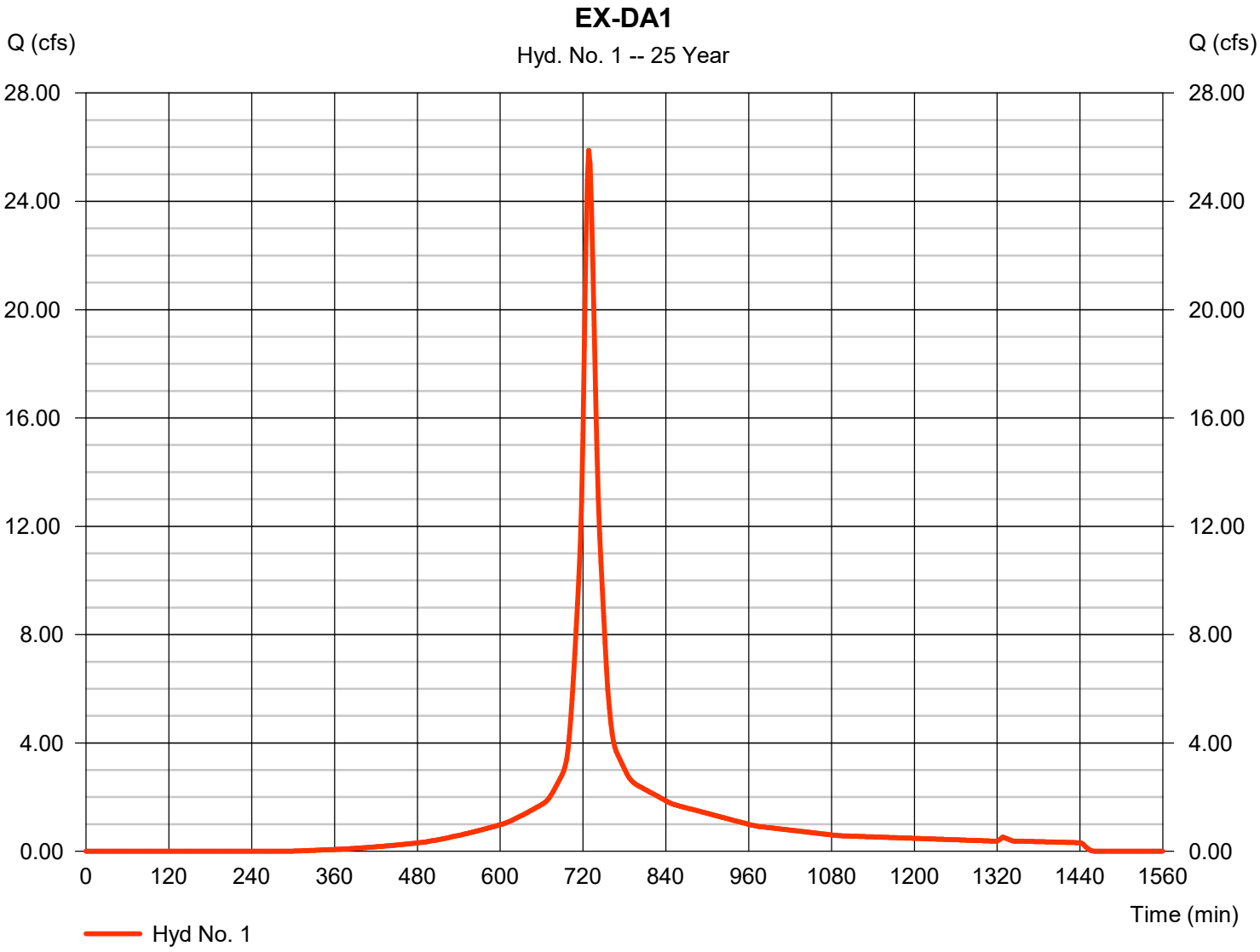
Hydrograph Report

Hyd. No. 1

EX-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	25.88 cfs
Storm frequency	=	25 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	101,216 cuft
Drainage area	=	5.540 ac	Curve number	=	85*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	6.61 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.020 x 61) + (3.520 x 98)] / 5.540



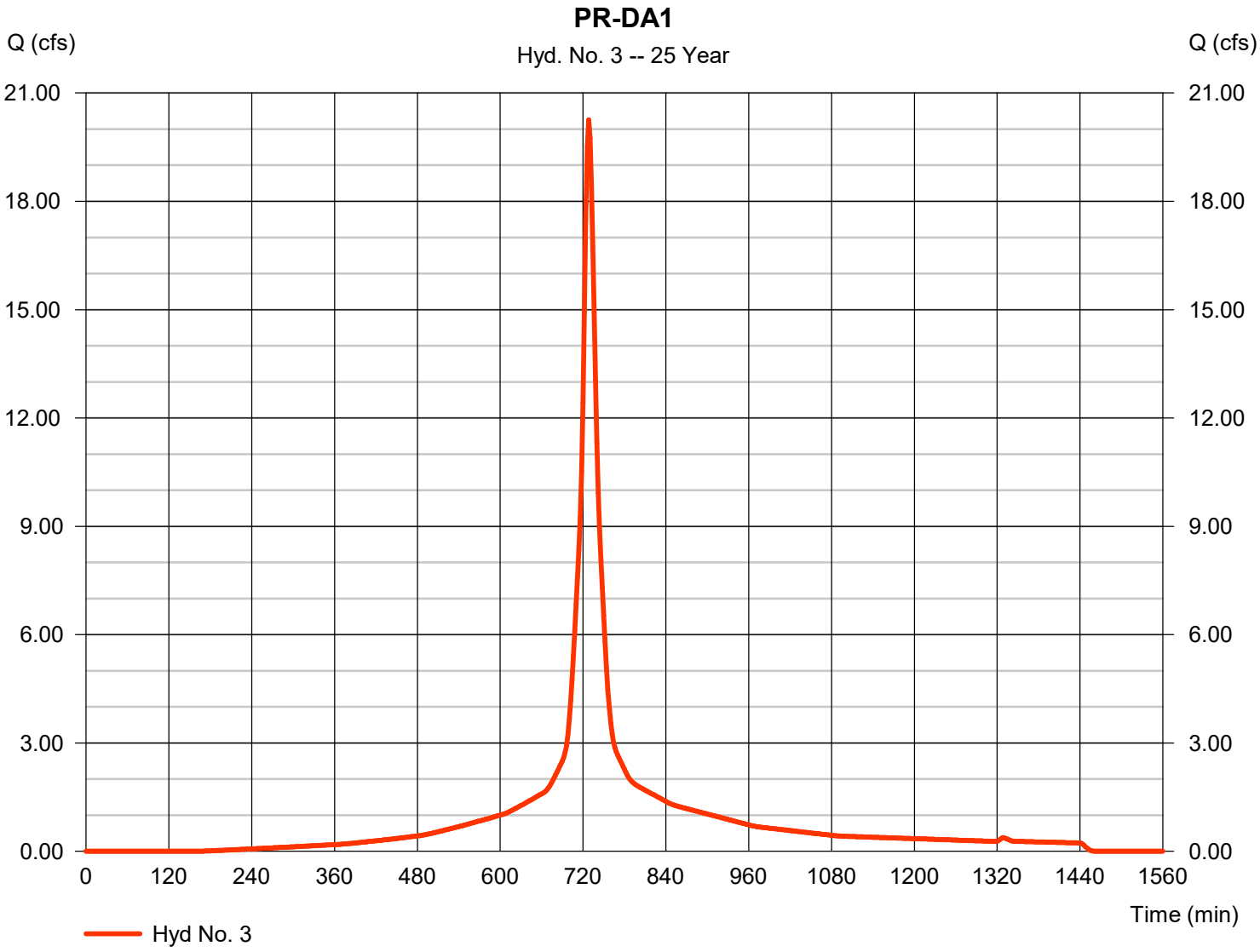
Hydrograph Report

Hyd. No. 3

PR-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	20.25 cfs
Storm frequency	=	25 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	82,779 cuft
Drainage area	=	3.900 ac	Curve number	=	92*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	6.61 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.630 x 98) + (1.270 x 80)] / 3.900



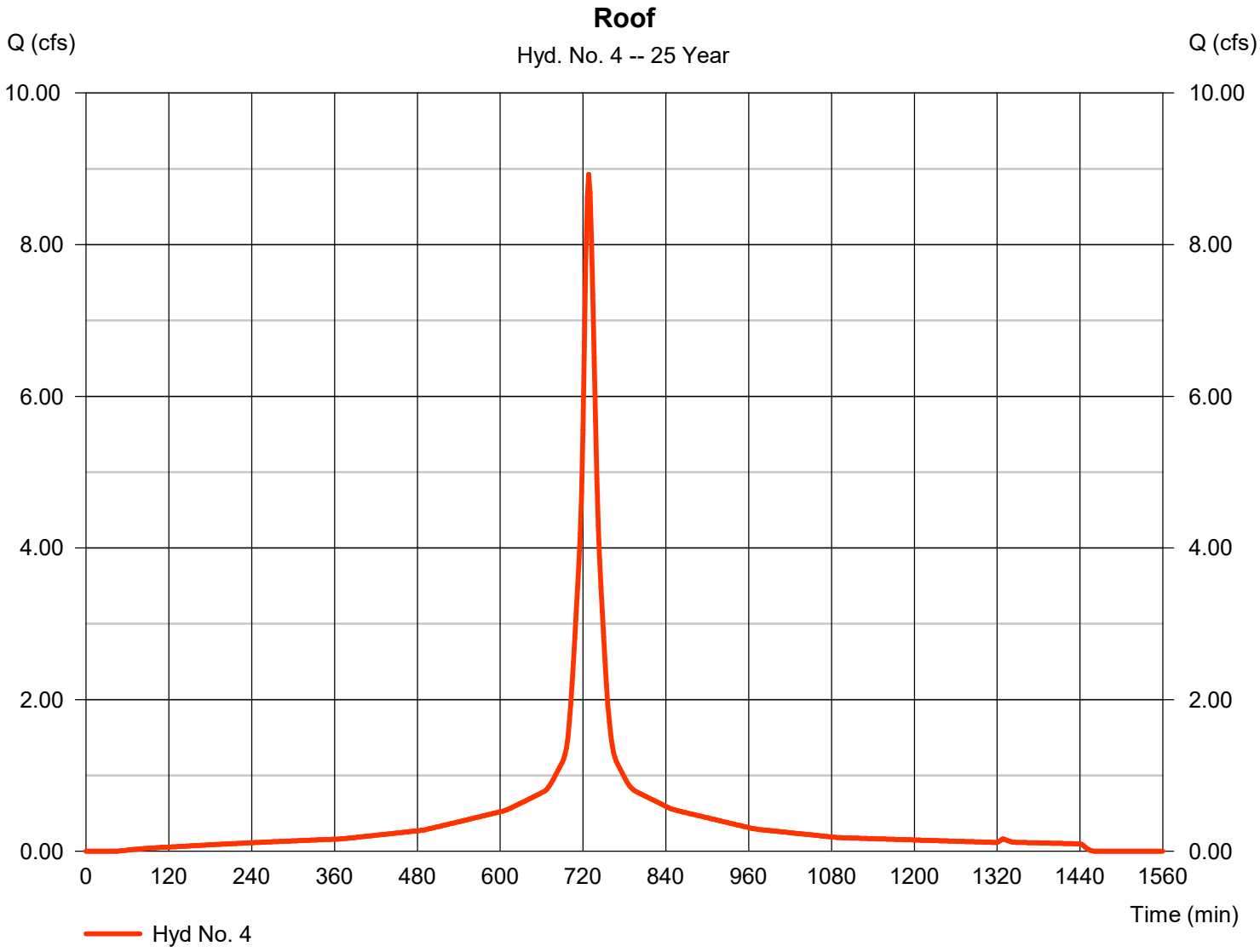
Hydrograph Report

Hyd. No. 4

Roof

Hydrograph type	=	SCS Runoff	Peak discharge	=	8.926 cfs
Storm frequency	=	25 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	39,115 cuft
Drainage area	=	1.640 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	6.61 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(1.640 x 98)] / 1.640



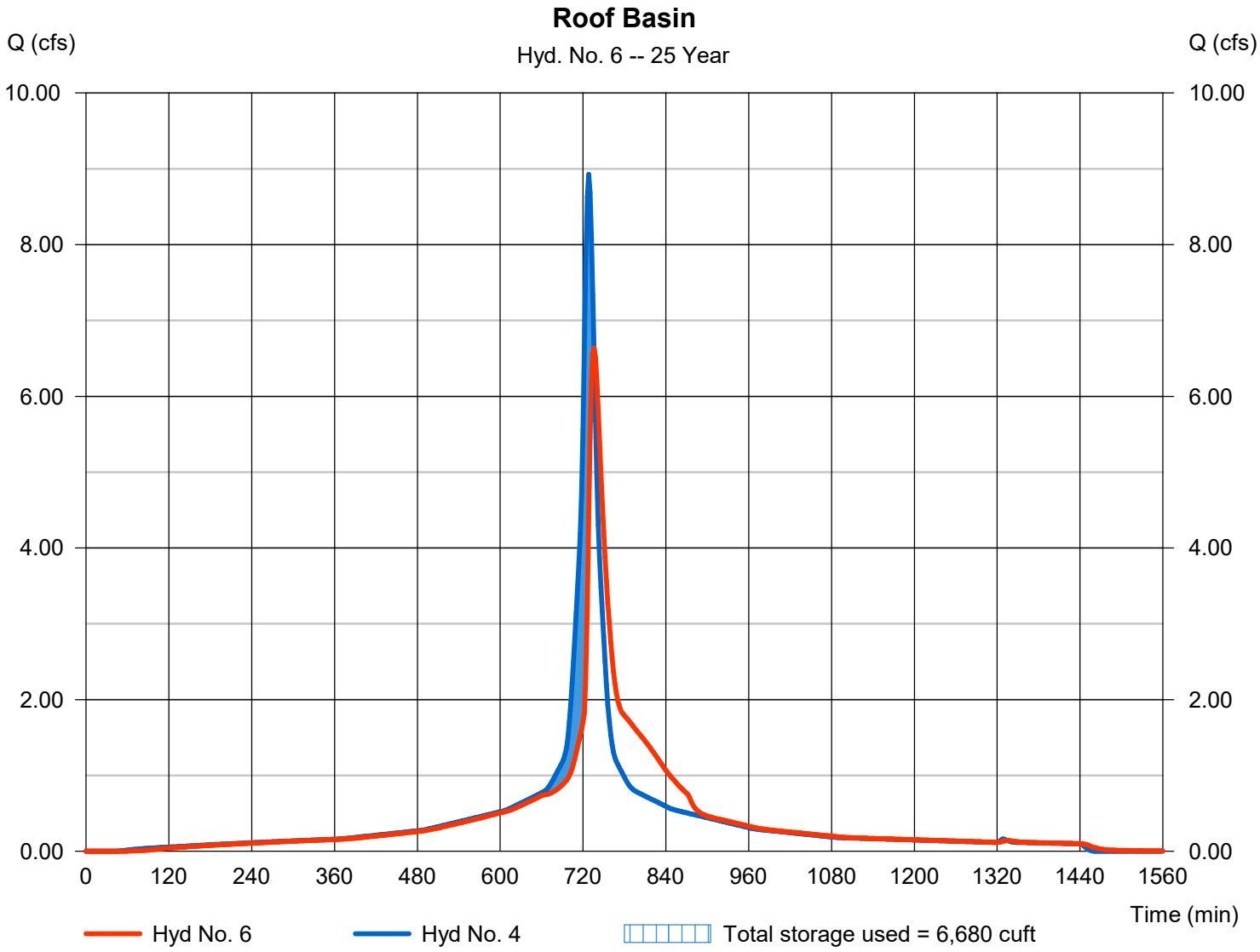
Hydrograph Report

Hyd. No. 6

Roof Basin

Hydrograph type	=	Reservoir	Peak discharge	=	6.638 cfs
Storm frequency	=	25 yrs	Time to peak	=	736 min
Time interval	=	2 min	Hyd. volume	=	39,112 cuft
Inflow hyd. No.	=	4 - Roof	Max. Elevation	=	368.21 ft
Reservoir name	=	UDET-1	Max. Storage	=	6,680 cuft

Storage Indication method used.

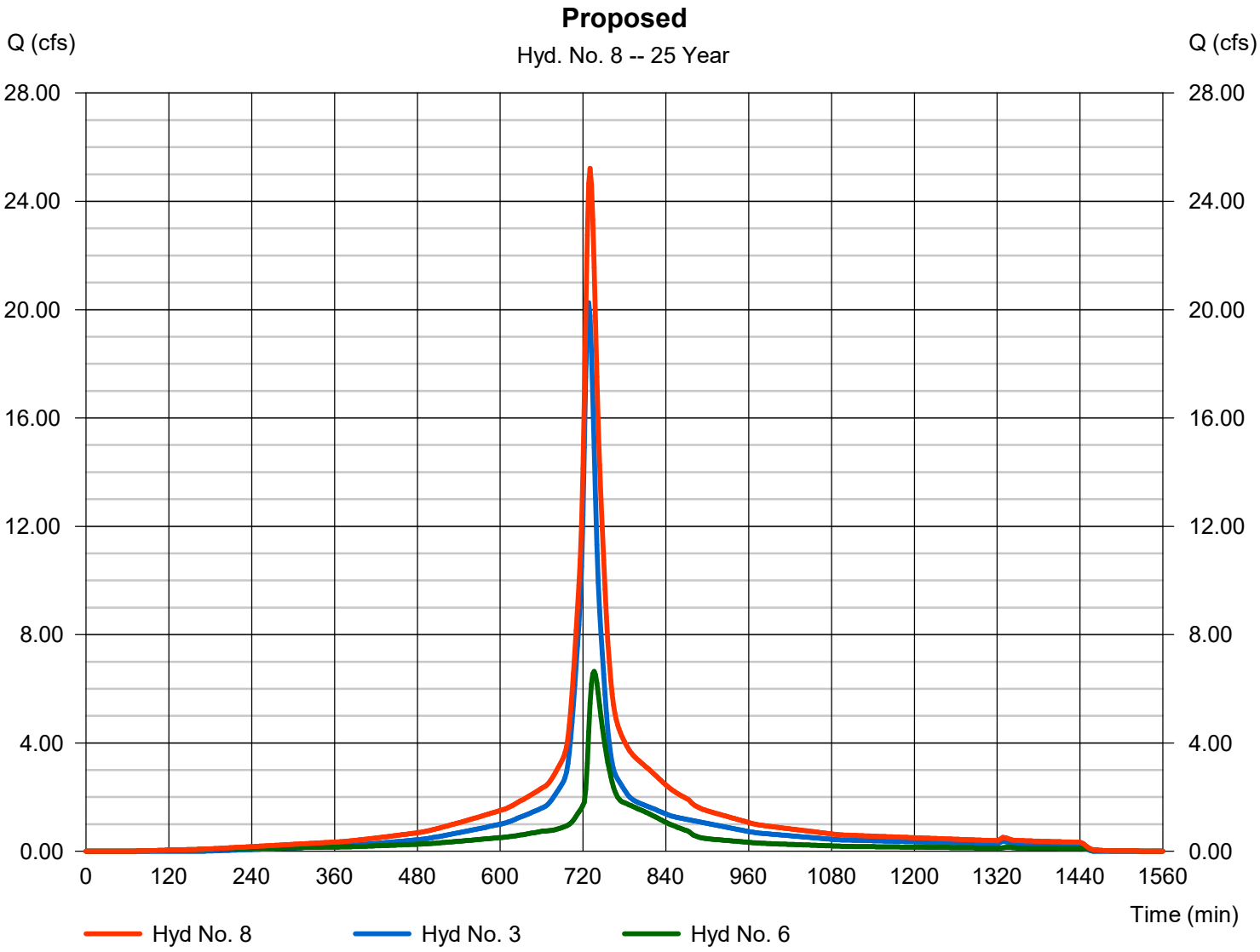


Hydrograph Report

Hyd. No. 8

Proposed

Hydrograph type	=	Combine	Peak discharge	=	25.21 cfs
Storm frequency	=	25 yrs	Time to peak	=	730 min
Time interval	=	2 min	Hyd. volume	=	121,891 cuft
Inflow hyds.	=	3, 6	Contrib. drain. area	=	3.900 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	34.56	2	728	137,070	------	------	------	EX-DA1
3	SCS Runoff	26.21	2	728	108,759	------	------	------	PR-DA1
4	SCS Runoff	11.37	2	728	50,157	------	------	------	Roof
6	Reservoir	8.674	2	736	50,154	4	368.48	7,868	Roof Basin
8	Combine	33.56	2	730	158,914	3, 6,	------	------	Proposed

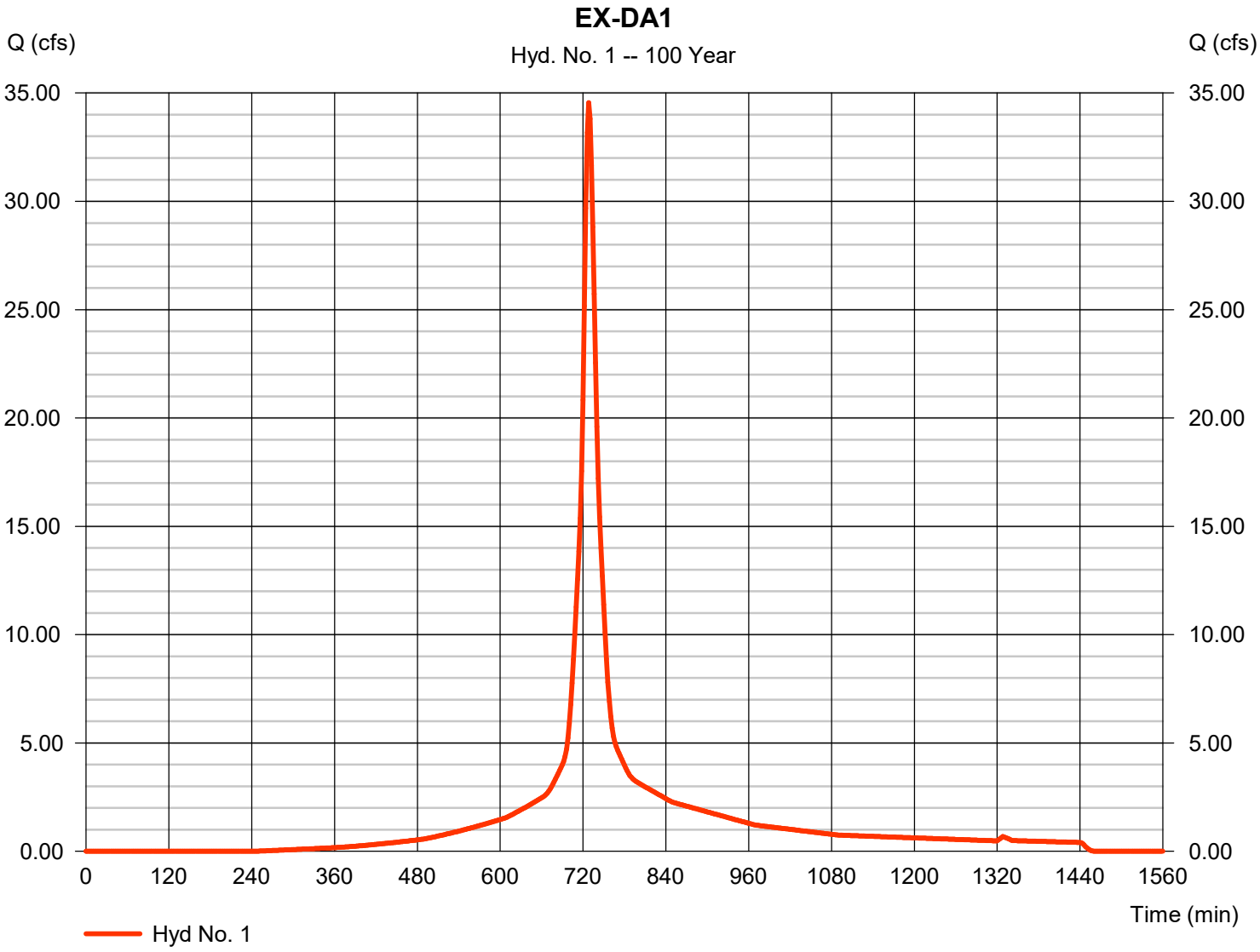
Hydrograph Report

Hyd. No. 1

EX-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	34.56 cfs
Storm frequency	=	100 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	137,070 cuft
Drainage area	=	5.540 ac	Curve number	=	85*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	8.41 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.020 x 61) + (3.520 x 98)] / 5.540



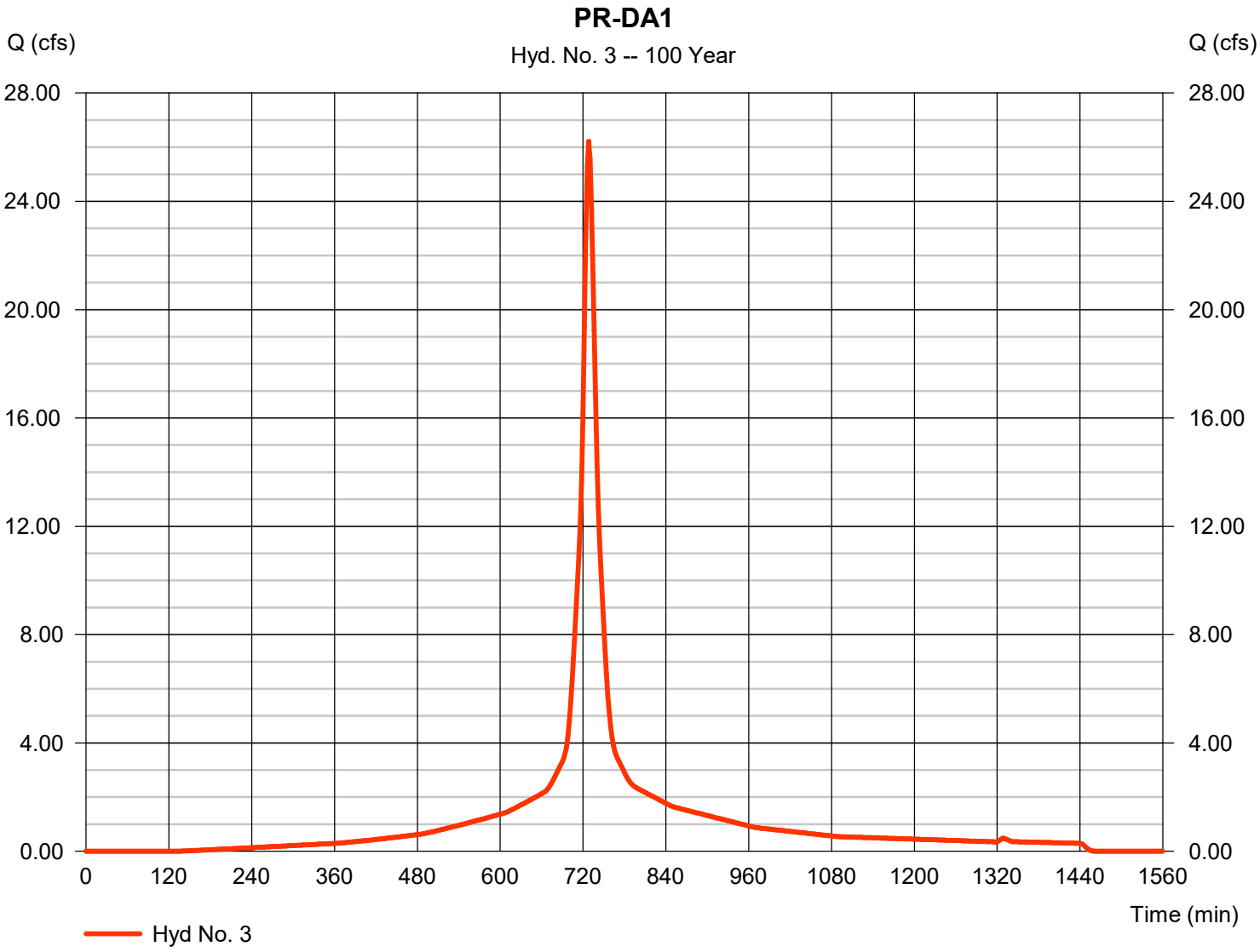
Hydrograph Report

Hyd. No. 3

PR-DA1

Hydrograph type	=	SCS Runoff	Peak discharge	=	26.21 cfs
Storm frequency	=	100 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	108,759 cuft
Drainage area	=	3.900 ac	Curve number	=	92*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	8.41 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.630 x 98) + (1.270 x 80)] / 3.900



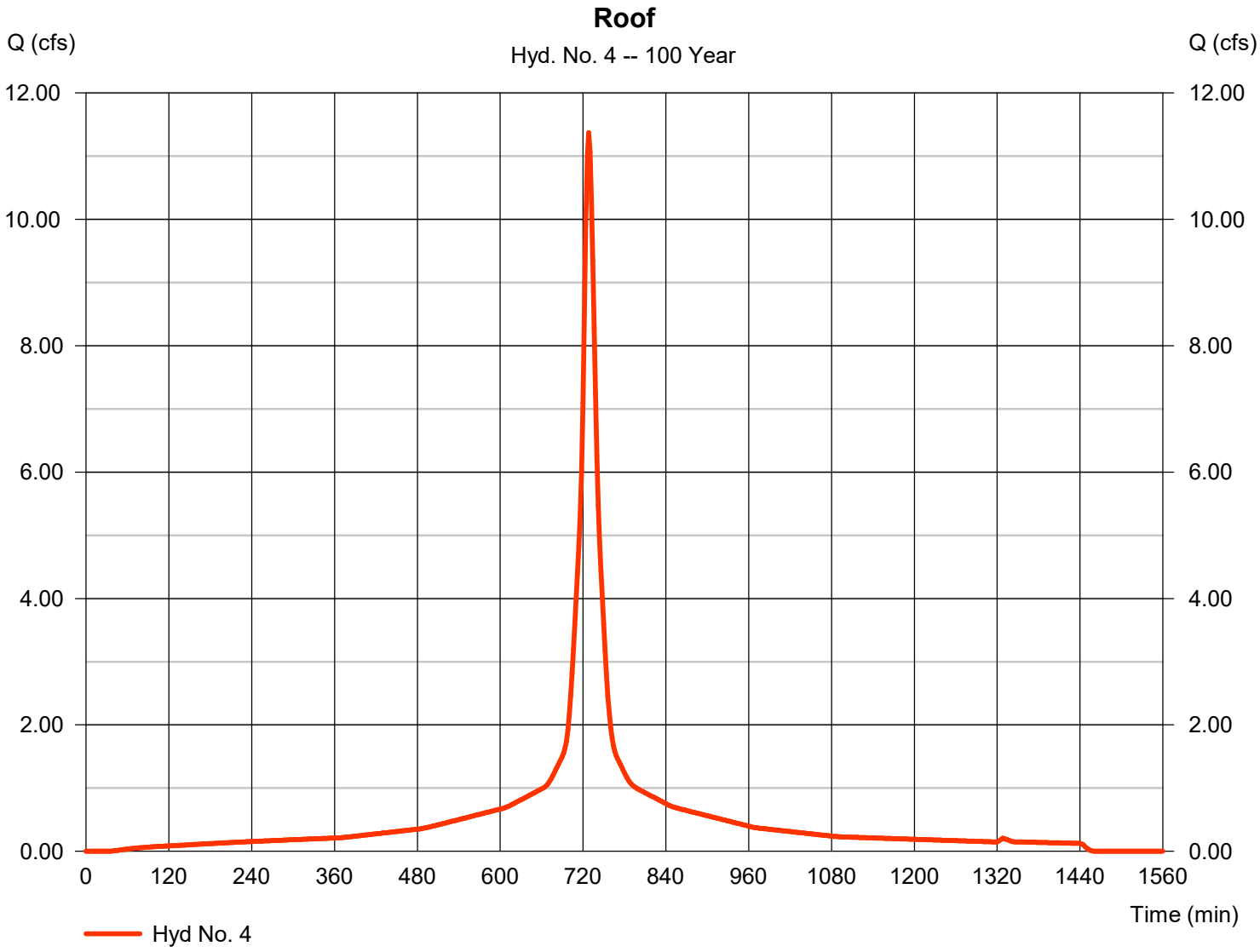
Hydrograph Report

Hyd. No. 4

Roof

Hydrograph type	=	SCS Runoff	Peak discharge	=	11.37 cfs
Storm frequency	=	100 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	50,157 cuft
Drainage area	=	1.640 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	8.41 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(1.640 x 98)] / 1.640



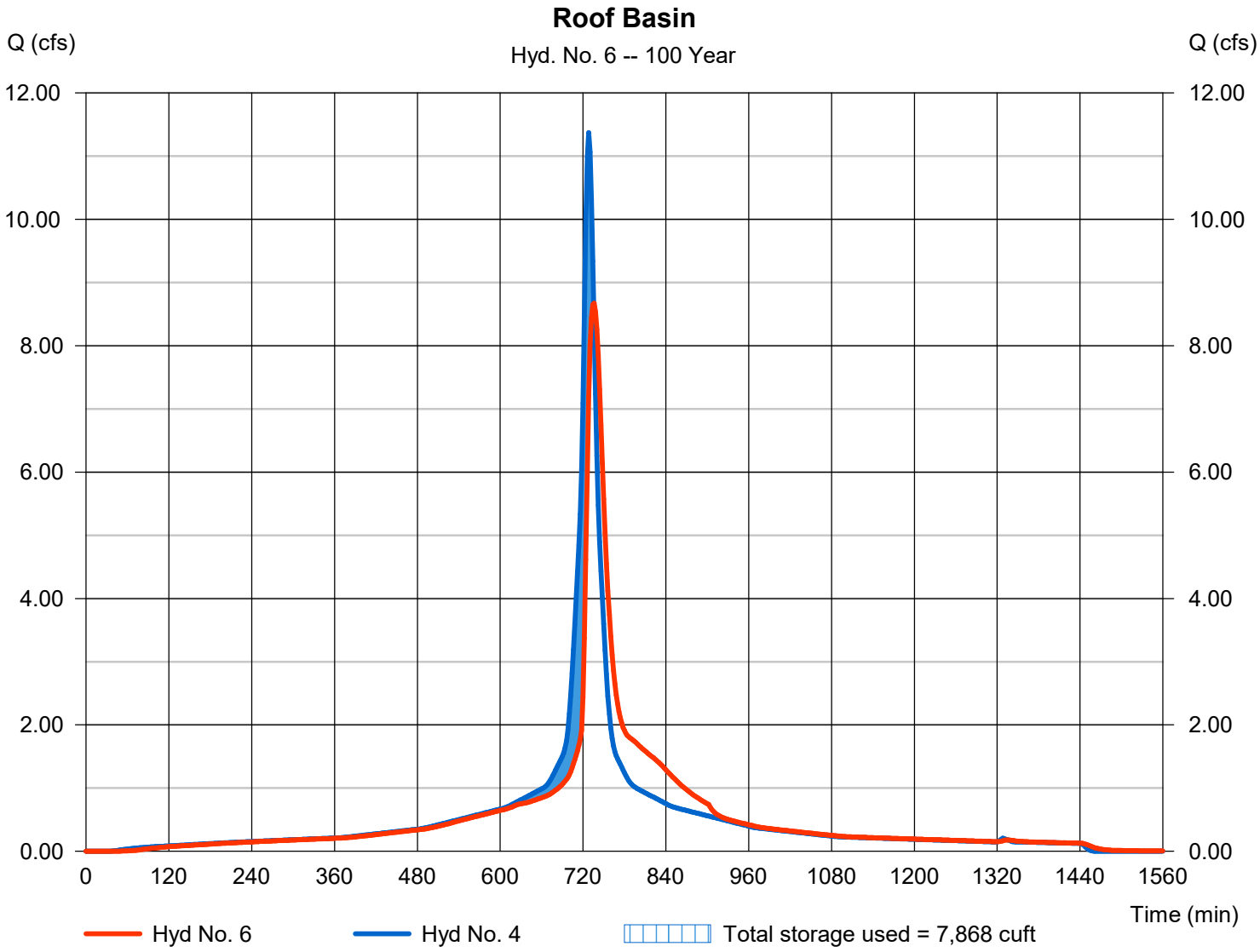
Hydrograph Report

Hyd. No. 6

Roof Basin

Hydrograph type	=	Reservoir	Peak discharge	=	8.674 cfs
Storm frequency	=	100 yrs	Time to peak	=	736 min
Time interval	=	2 min	Hyd. volume	=	50,154 cuft
Inflow hyd. No.	=	4 - Roof	Max. Elevation	=	368.48 ft
Reservoir name	=	UDET-1	Max. Storage	=	7,868 cuft

Storage Indication method used.

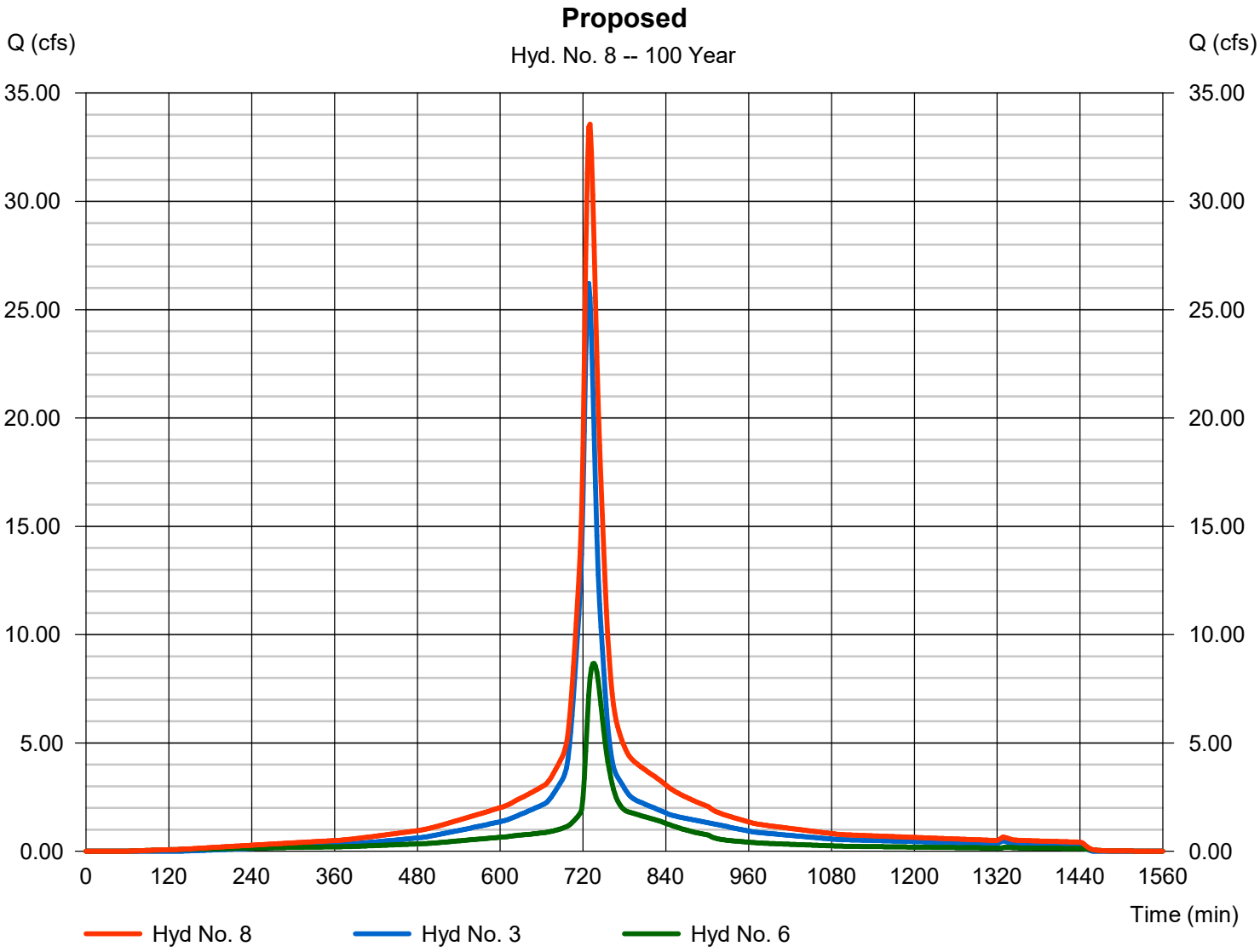


Hydrograph Report

Hyd. No. 8

Proposed

Hydrograph type	=	Combine	Peak discharge	=	33.56 cfs
Storm frequency	=	100 yrs	Time to peak	=	730 min
Time interval	=	2 min	Hyd. volume	=	158,914 cuft
Inflow hyds.	=	3, 6	Contrib. drain. area	=	3.900 ac



WATER QUALITY VOLUME CALCULATIONS

DYNAMIC ENGINEERING
245 Main Street
Suite 110
Chester, NJ 07930
T. 908-879-9229
F. 908-879-0222

JOB NO. 2179-99-009
SHEET NO. 1 OF 2
CALCULATED BY DRL DATE 2/22/21
CHECK BY DTS DATE 2/22/21
SCALE N.T.S. OF

Water Quality Unit Sizing

$$\text{Water Quality CN} = \frac{1000}{[10 + 5P + 10Q_a - 10\sqrt{Q_a^2 + 1.25Q_aP}]}$$

$Q_a = PR_v$

$P = 1.5$ in (Figure 4.1)

$R_v = 0.05 + (0.009)(I)$

$R_v = 0.05 + (0.009)(89)$

$R_v = 0.851$

$I = \frac{62,395 \text{ SF imp.}}{70,360 \text{ SF total}} \rightarrow 1.62 \text{ AC}$

$I = 88.7\%$

$Q_a = (1.5)(0.851) = 1.28$

$$CN = \frac{1000}{[10 + 5(1.5) + 10(1.28) - 10\sqrt{(1.28^2) + 1.25(1.28)(1.5)}]}$$

$CN = 97.99858 \longrightarrow \underline{98}$

$TC = 10 \text{ min} = 0.17 \text{ hours}$

$I_a = \left(\frac{200}{CN}\right) - 2 = \left(\frac{200}{98}\right) - 2 = 0.041 \rightarrow \text{use } \frac{I_a}{P} = 0.10$

Per figure 4-III in TR-55, $q_u = 240$ csm/in

$q_p = q_u A_m Q_a$

$q_p = (240)\left(\frac{1.62 \text{ AC}}{640 \text{ AC/mi}^2}\right)(1.28)$

$q_p = 0.775$ CFS

∴ Use WQU 4220 WQB → Treat. Flow Rate = 0.81 CFS

$0.775 < 0.81$ CFS

DYNAMIC ENGINEERING
245 Main Street
Suite 110
Chester, NJ 07930
T. 908-879-9229
F. 908-879-0222

JOB NO. 2179-99-009
SHEET NO. 2 OF 2
CALCULATED BY DRL DATE 2/22/21
CHECK BY DTS DATE 2/22/21
SCALE N.T.S. OF

WATER QUALITY VOLUME

$$WQ_v = \frac{P R_v A}{12}$$

P (Per figure 4.1) = 1.5

$R_v = 0.05 + 0.009(I)$

↳ 100% Impervious

Area of Existing Pavement: 2.42 acres

25% of Exist. Pavement = 0.61 Acres

Area of New Pavement: 0.21 acres

Total Water Quality Area = 0.61 + 0.21 = 0.82 AC

A = 0.82 AC (* MIN WQ AREA *)

$$WQ_v = \frac{(1.5)[0.05 + 0.009(I)](0.82\ AC)}{12}$$

WQ_v = 0.06 Acre-feet = **2,613.6 ft³**

AREA TREATED BY ADS WATER QUALITY UNIT: 1.62 AC

1.62 > 0.82 AC

ADS WATER QUALITY UNIT (WQU 4220B) – PRODUCT SPECIFICATION

Water Quality Units

THE MOST **ADVANCED** NAME IN WATER MANAGEMENT SOLUTIONS™

ADS®

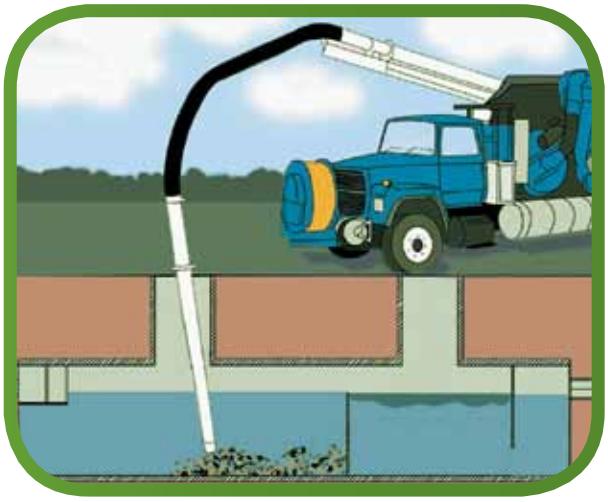
WATER QUALITY UNITS

Standards for storm water quality will vary by location and land use. The most targeted sources of runoff pollution are paved areas in urban and industrial sites. These are generally area with high traffic loads, such as parking lots and gas stations, that generate significant concentrations of contaminant particles and hydrocarbons.

Because of land constraints, ADS underground Water Quality Units have become an increasingly efficient solution for treating storm water. These durable, lightweight structures have been specifically designed for fast installation and easy maintenance.

BENEFITS

- Independent testing shows the following:
  - 80% TSS removal
  - 80% oil & grease removal
  - Greater than 40% TP removal
  - 74% heavy metals removal
- Removes floatable debris such as oils and greases.
- Available in 36" (900 mm) through 60" (1500 mm) diameters.
- Lightweight High Density Polyethylene (HDPE) unit installs easily with a minimum of manpower. Heavy cranes are not necessary to install the unit.
- Each unit is fitted with access risers for easy inspection and maintenance of the sediment and oil chambers.
- The unit is inexpensive because the design is simple and there are no moving parts.
- The bypass system prevents re-suspension of captured solids by diverting water flows greater than the first flush.
- HDPE resists abrasion and chemicals found in storm water and in the surrounding soil.



STANDARD MODELS

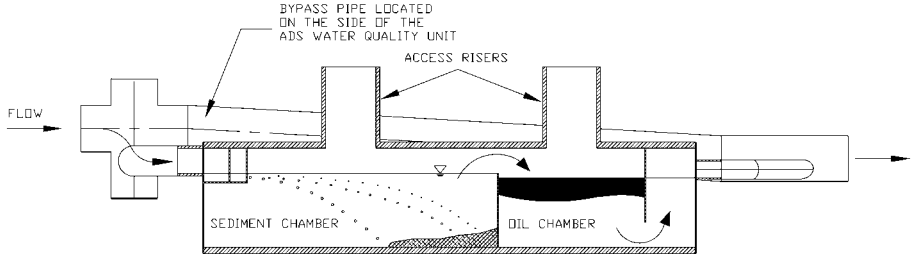
Product Number	Diameter in (mm)	Length ft (m)	Inlet Size in (mm)	Outlet Size in (mm)	Treated Flow cfs (L/S)	Sediment Vol. ft^3 (m^3)	Oil Volume ft^3 (m^3)	Sieve Size
3612WQA	36 (900)	12 (3.7)	10 (250)	10 (250)	0.86 (24)	37 (1.0)	17 (0.5)	140
3612WQB	36 (900)	12 (3.7)	10 (250)	10 (250)	0.43 (12)	37 (1.0)	17 (0.5)	200
3620WQA	36 (900)	20 (6)	10 (250)	10 (250)	1.5 (42)	65 (1.8)	30 (0.8)	140
3640WQA	36 (900)	40 (12)	10 (250)	10 (250)	2.38 (67)	137 (3.9)	63 (1.8)	140
3620WQB	36 (900)	20 (6)	10 (250)	10 (250)	0.7 (20)	65 (1.8)	30 (0.8)	200
3640WQB	36 (900)	40 (12)	10 (250)	10 (250)	1.6 (45)	137 (3.9)	63 (1.8)	200
4220WQA	42 (1050)	20 (6)	12 (300)	12 (300)	1.75 (49)	83 (2.3)	38 (1.1)	140
4240WQA	42 (1050)	40 (12)	12 (300)	12 (300)	3.66 (104)	175 (5.0)	81 (2.3)	140
4220WQB	42 (1050)	20 (6)	12 (300)	12 (300)	0.86 (24)	83 (2.3)	38 (1.1)	200
4240WQB	42 (1050)	40 (12)	12 (300)	12 (300)	1.83 (52)	175 (5.0)	81 (2.3)	200
4820WQA	48 (1200)	20 (6)	12 (300)	12 (300)	2.26 (64)	116 (3.3)	55 (1.6)	140
4840WQA	48 (1200)	40 (12)	12 (300)	12 (300)	3.94 (112)	245 (6.9)	115 (3.3)	140
4820WQB	48 (1200)	20 (6)	12 (300)	12 (300)	1.13 (32)	116 (3.3)	55 (1.6)	200
4840WQB	48 (1200)	40 (12)	12 (300)	12 (300)	2.39 (68)	245 (6.9)	115 (3.3)	200
6020WQA	60 (1500)	20 (6)	15 (375)	15 (375)	2.95 (84)	183 (5.2)	87 (2.5)	140
6040WQA	60 (1500)	40 (12)	15 (375)	15 (375)	6.23 (176)	385 (10.9)	184 (5.2)	140
6020WQB	60 (1500)	20 (6)	15 (375)	15 (375)	1.47 (42)	183 (5.2)	87 (2.5)	200
6040WQB	60 (1500)	40 (12)	15 (375)	15 (375)	3.12 (88)	385 (10.9)	184 (5.2)	200

140 sieve is equal to a particle size of 0.0042" (0.106 mm). 200 sieve is equal to a particle size of 0.0030" (0.075 mm).

DESIGN VARIATIONS

The standard models listed above will provide efficient removal of pollutant particles and hydrocarbons for the majority of site conditions. For unusual conditions, ADS can recommend a system combining a variety of sizes and configurations.

ADS Storm Water Quality Unit



Unit configuration & availability subject to change without notice. Product detail may differ slightly from actual product appearance.

PEAK FLOW RATE

The bypass pipe of the ADS WQU is designed to convey the peak storm water flow of the storm line.

For example, at a 1% slope, peak flow rates for the bypass line are as follows:

	CFS	L/S
12"	3.8419	103.9
15"	6.971	188.0
18"	11.343	307.0
24"	24.451	661.0
30"	44.37	1,240.0
36"	72.19	1,950.0
42"	108.95	2,950.0
48"	1556.1	4,210.0
60"	282.36	7,630.0

DESIGN AND INSTALLATION

Available in 36" (900 mm) through 60" (1500 mm) diameters, ADS Water Quality Units are modified sections of N-12® pipe with weir plates at specific locations and heights to remove high percentages of sediment and oils from the first flush of a storm event. They can be installed at any point in the subsurface drainage system and are ideally suited to treat “hot spots” in existing storm water lines.

The unit is designed using the fundamental principles of Stoke’s Law and a standard orifice outlet control. The settling velocity of a particle is calculated based on the smallest particle to be removed. Standard units offer a choice of 140 or 200 sieve size removal (106 µm and 75 µm particle sizes, respectively).

The outlet orifice is sized to release a typical first flush discharge and to redirect any excess flow to a bypass piping system installed with the unit. All ADS Water Quality Units are designed and manufactured to meet ASTM F2737 - Standard Specification for Corrugated High Density Polyethylene (HDPE) Water Quality Units.

Installation of Water Quality Units follows the same accepted practices as for the installation of large diameter flexible pipe. Specific installation instructions, along with details on specifying the proper size of a Water Quality Unit, are available in Technical Note 1.03 and Installation Guide 2.01. You can also find more information on our website at www.ads-pipe.com.

TOP: Setting the Water Quality Unit and the inlet tee fitting

MIDDLE: Bedding and backfilling the unit in 300 mm (12”) lifts

BOTTOM: Backfill over the Water Quality Unit and installation of bypass line complete

THE HEART OF THE TREATMENT TRAIN

For many drainage sites, the Water Quality Unit by itself can provide the required degree of pollutant removal. However, certain sites with higher concentrations of hydrocarbons or sediment runoff will need further treatment upstream and/or downstream of the unit. This multi-tiered approach to storm water quality is known as the *treatment train*.

Upstream measures include sediment prevention (vegetated swales, etc.) and inlet protection devices such as screens, filters and silt fences. These techniques are designed to prevent a large percentage of pollutants from ever entering the storm drain system. For impervious surfaces such as paved parking areas, catch basin insert filters are most commonly used for early stage treatment.

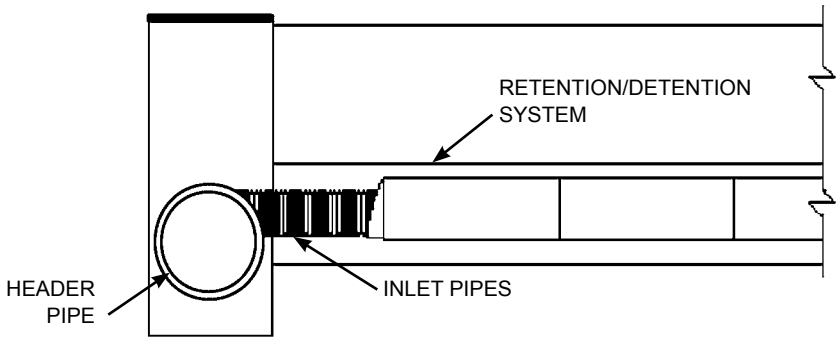
RETENTION/DETENTION

Treatment downstream from the Water Quality Unit generally involves some form of retention or detention system. Retention allows accumulated storm water to gradually percolate into the surrounding soil, while detention meters the water through an outlet to a ditch, stream or other receiving area.

Inlet designs to such underground storage vessels can also enhance pollutant removal. The “eccentric header system” consists of a large diameter manifold pipe with an invert positioned lower than those of the smaller inlet pipes to the storage vessels. The large header pipe thus acts as a sump into which suspended particles may settle. Manholes and/or risers may be installed to facilitate inspection and cleaning.

Designers can choose between two methods of constructing the retention or detention system. The first is the use of ADS N-12 large diameter corrugated high density polyethylene pipe, known for its economy and ease of installation. The second option is StormTech®, specially engineered to meet the demands of subsurface storm water management applications.

ADS supplies a complete line of pipe, fittings and fabricated manifolds, along with detailed sizing, design and installation instructions on our website at www.ads-pipe.com.



The “eccentric header” is installed with its invert lower than the inlet pipes, thus acting as a sump to collect suspended sediment.

ADS STORM WATER QUALITY UNIT PRODUCT SPECIFICATION

SCOPE

This specification describes 36- through 60-inch (900 to 1500 mm) Storm Water Quality Units for use in on-site point source storm water treatment applications.

REQUIREMENTS

Storm Water Quality Units shall have a smooth interior and annular exterior corrugations meeting the requirements of ASTM F2737. The unit shall have at least three containment zones, each zone separated from the next by use of a weir or baffle plate Weir and baffle plates shall be welded at all interfaces between the plate and water quality unit. First weir plate shall incorporate a saw tooth design and shall be reinforced with stiffeners positioned horizontally on the downstream side of the plate to be retained. Storm Water Quality Units shall provide adequate clean-out and inspection access.

JOINT PERFORMACE

Connections for the bypass line and the unit shall utilize the same joint quality as specified for the main storm sewer pipe. Couplers for the bypass line may be either split couplers, in-line bell couplers, bell-bell couplers, or welded bell couplers.

SCOPE MATERIAL PROPERTIES

Virgin material for pipe & fittings used to produce Storm Water Quality Units shall be high density polyethylene conforming with the minimum requirements of cell classification 424420C for 4- through 10-inch (100 to 250) diameters, and 435400C for 12- through 60-inch (300 to 1500 mm) diameters as defined and described in the latest version of ASTM D3350. The virgin pipe material shall be evaluated using the notched constant ligament-stress (NCLS) test as specified in Section 9.5 and 5.1 of AASHTO M294 and ASTM F2306, respectively. All smooth baffle and weir plates shall be high density polyethylene.

INSTALLATION

Installation shall be in accordance with the ADS installation guidelines, utilizing a class I (ASTM D2321) structural backfill material or flowable fill (CLSM – Controlled Low Strength Material). Contact your local ADS representative or visit www.ads-pipe.com for the latest installation instructions.

PERFORMANCE

Water Quality Units shall remove a minimum of 80% of the first flush total suspended solids (TSS) based on flow rates and corresponding sieve sizes shown in Table 1. Water Quality units shall be installed “offline” to prevent re-suspension of solids in high flow situations. Offline installation shall be constructed utilizing an ADS bypass structure. Flow through the unit shall be controlled by an orifice fabricated on the outlet end of the structure.

Advanced Drainage Systems, Inc.
3135 Boomer Line Heidelberg, Ontario N0B 1Y0
519-699-0222
www.ads-pipecanada.com

POLLUTION PREVENTION PLAN CERTIFICATION

POLLUTION PREVENTION PLAN CERTIFICATION

"I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I also certify under penalty of law that this document and all corresponding attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgement that I will receive as a result of submitting this NOI. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction and agree to comply with all the terms and conditions of the general permit for which this NOI is being submitted."

Signed: _____ Date: _____

(Owner/Operator)

_____

(Printed Name & Title)

_____

_____

_____

(Company Name, Address & Telephone Number)

CERTIFICATION BY CONTRACTORS

Certification by Contractors

I. Prime Contractor Certification

"I hereby certify 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 understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. "

Prime Contractor:

_____	_____
(Signature)	(Company) (Name)
_____	_____
	(Street Address)
_____	_____
(Title)	(City, State, Zip Code)
_____	_____
(Date)	(Phone Number)

II. Sub-Contractor Certification

"I hereby certify 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 understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. "

Sub-Contractor:

(Signature)	(Company) (Name)
	(Street Address)
(Title)	(City, State, Zip Code)
(Date)	(Phone Number)

STORMWATER CONSTRUCTION SITE INSPECTION REPORT

Construction Duration Inspection

Directions:
Inspection Forms will be filled out during the entire construction phase of the project.
Required Elements:

1. On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period.

2. Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization.

3. Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period.

4. Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, and 50 percent).

5. Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

6. Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

_____ _____

Inspector (Print Name) Date of Inspection

_____ _____

Qualified Professional (Print Name) Qualified Professional (Signature)

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality

Yes No N/A

[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions?

[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease?

[ ] [ ] [ ] All disturbances are within the limits of the approved plans.

[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No N/A

[ ] [ ] [ ] Is construction site litter and debris appropriately managed?

[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?

[ ] [ ] [ ] Is construction impacting the adjacent property?

[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No N/A

[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.

[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.

[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?

[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering

Yes No N/A

[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.

[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.

[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.

[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader

Yes No N/A

[ ] [ ] [ ] Installed per plan.

[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.

[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No N/A

[ ] [ ] [ ] Installed per plan with minimum side slopes 2H : IV or flatter.

[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.

[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure

4. Stone Check Dam

Yes No N/A

[ ] [ ] [ ] Is channel stable? (Flow is not eroding soil underneath or around the structure).

[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).

[ ] [ ] [ ] Has accumulated sediment been removed?

5. Rock Outlet Protection

Yes No N/A

[ ] [ ] [ ] Installed per plan?

[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No N/A

[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.

[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Re-vegetation

Yes No N/A

[ ] [ ] [ ] Temporary seeding and mulch have been applied to idle areas.

[ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seeding?

Sediment Control

1. Stabilized Construction Entrance

   Yes No N/A

   [ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.

   [ ] [ ] [ ] Installed per standards and specifications?

   [ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?

   [ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

   Yes No N/A

   [ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).

   [ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.

   [ ] [ ] [ ] Fabric buried 6 inches minimum.

   [ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

   Sediment accumulation is ___% of design capacity.

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)

   Yes No N/A

   [ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.

   [ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.

   [ ] [ ] [ ] Drainage area is 1 acre or less.

   [ ] [ ] [ ] Excavated area is 900 cubic feet.

   [ ] [ ] [ ] Excavated side slopes should be 2:1.

   [ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.

   [ ] [ ] [ ] Posts 3-foot maximum spacing between posts.

   [ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.

   [ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

   Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap

   Yes No N/A

   [ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.

   [ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.

   Sediment accumulation is ___% of design capacity

5. Temporary Sediment Basin

Yes No N/A

[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.

[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.

[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.

Sediment accumulation is___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design.

Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CORRECTIVE ACTION LOG

Corrective Action Log

Project Name:
SWPP Contact:

Inspection Date	Inspector Name(s)	Description of BMP Deficiency	Corrective Action Needed (including planned date/responsible person)	Date Action Taken/ Responsible Person

AMENDMENT LOG

SWPP Amendment Log

Project Name:
SWPP Contact:

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]
1			
2			
3			
4			
5			
6			
7			
8			
9			

GRADING ACTIVITIES LOG

GRADING AND STABILIZATION ACTIVITIES LOG

Project Name:
SWPP Contact:

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

TRAINING LOG

Stormwater Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: (check as appropriate)

Erosion Control BMPs Emergency Procedures

 Sediment Control BMPs Good Housekeeping BMPs

Non-Stormwater BMPs

Specific Training Objective: _____

_____

Attendee Roster: (attach additional pages as necessary)

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES MAINTENANCE CHECKLISTS

MAINTENANCE WORK ORDER AND CHECKLIST
FOR STORMWATER MANAGEMENT FACILITIES

NAME OF FACILITY: _____
LOCATION: _____ DATE: _____
WEATHER: _____ WORK STARTED: _____
MAINTENANCE PERFORMED BY: _____ WORK COMPLETED: _____

A. PREVENTATIVE MAINTENANCE			
WORK ITEMS	**ITEMS REQUIRED**	**ITEMS DONE**	**COMMENTS AND SPECIAL INSTRUCTIONS**
1. GRASS CUTTING			
A. BOTTOMS			
B. EMBANKMENTS AND SIDE SLOPES			
C. PERIMETER AREAS			
D. ACCESS AREAS AND ROADS			
E. OTHERS			
2. GRASS MAINTENANCE			
A. FERTILIZING			
B. RE-SEEDING			
C. DE-THATCHING			
D. PEST CONTROL			
E. OTHERS			
3. VEGETATIVE COVER			
A. FERTILIZING			
B. PRUNING			
C. PEST CONTROL			
D. POISONOUS PLANTS			
E. OTHERS			
4. TRASH AND DEBRIS REMOVAL			
A. BOTTOMS			
B. EMBANKMENTS AND SIDE SLOPES			
C. PERIMETER AREAS			
D. ACCESS AREAS AND ROADS			
E. INLETS			
F. OUTLETS AND TRASH RACKS			
G. OTHERS			
5. SEDIMENT REMOVAL			
A. INLETS			
B. OUTLETS AND TRASH RACKS			
C. LOW FLOW CHANNELS			
D. BOTTOMS			
E. OTHERS			
6. PEST CONTROL			
A. GEESE			
B. MOSQUITO BREEDING			
C. RODENTS / RODENT HOLES			
D. OTHERS			
7. STRUCTURAL REPAIRS			
A. VALVES			
B. SLUICE GATES			
C. PUMPS			
D. FENCE GATES			
E. LOCKS			
F. ACCESS HATCHES			
G. OTHER:			
8. POND MAINTENANCE			
A. AERATION EQUIPMENT			
B. DEBRIS AND TRASH REMOVAL			
C. WEED REMOVAL			
D. OTHER:			
9. OTHER PREVENTIVE MAINTENANCE			
A. PARKING LOT SWEEPING			
B. EMPTYING TRASH RECEPTACLES			
C. PUMPS AND VALVES			
D. ELECTRICAL PANEL AND WIRING			
E. DEWATERING			
F. GRAFFITI REMOVAL			

E. OTHER:			

B. CORRECTIVE MAINTENANCE			
WORK ITEMS	**ITEMS REQUIRED**	**ITEMS DONE**	**COMMENTS AND SPECIAL INSTRUCTIONS**
1. REMOVAL OF DEBRIS AND SEDIMENT			
2. STRUCTURAL REPAIRS			
3. EMBANKMENTS AND SIDE SLOPES			
4. DEWATERING			
5. BASIN MAINTENANCE			
6. CONTROL OF MOSQUITOES			
7. EROSION REPAIR			
8. FENCE REPAIR			
9. SNOW AND ICE REMOVAL			
10. SAND LAYER REPLACEMENT			
11. OTHER			

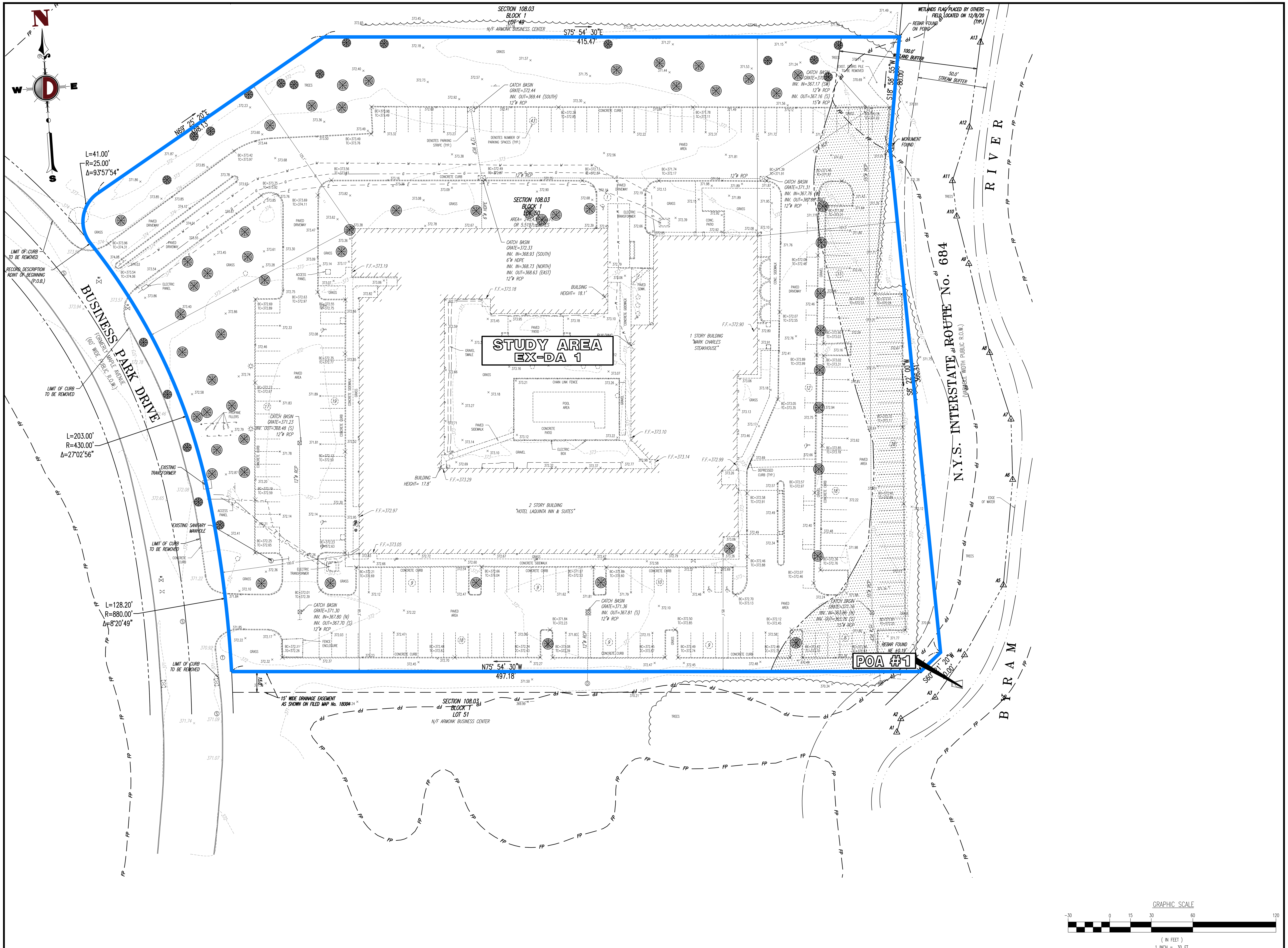
C. AESTHETIC MAINTENANCE			
WORK ITEMS	**ITEMS REQUIRED**	**ITEMS DONE**	**COMMENTS AND SPECIAL INSTRUCTIONS**
1. GRAFFITI REMOVAL			
2. GRASS TRIMMING			
3. WEEDING			
4. OTHERS			

GENERAL NOTES AND REMARKS:

WORK ORDER PREPARED BY: _____

WORK COMPLETED BY: _____

DRAINAGE AREA MAPS



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File: \\decpc.local\decfolders\Data\DECPC PROJECTS\2179 JG Petrucci\99-009 North Castle NY\Dwg\DA Maps\2179990095EDAM.dwg, ---> 01 EXISTING DRAINAGE AREA MAP

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REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY:	DESIGNED BY:	CHECKED BY:	CHECKED BY:
DL	DTS	BWS	

PROJECT: **ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC**
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
TOWN OF NORTH CASTLE (ARMONK)
WESTCHESTER COUNTY, NEW YORK

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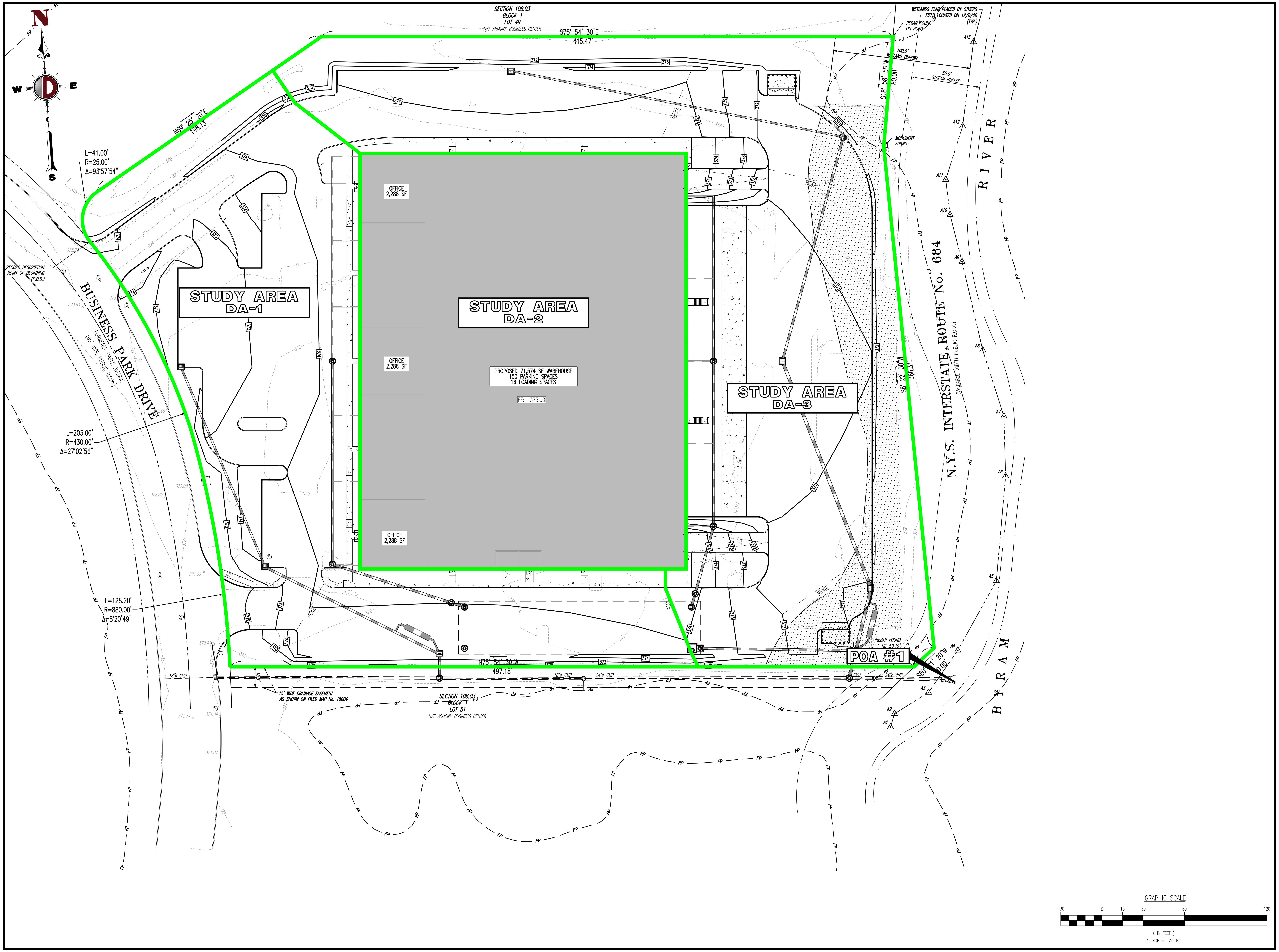
DANIEL T. SEHNAL
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 099106

BRETT W. SKAPINETZ
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 087962

TITLE:
EXISTING DRAINAGE AREA MAP

SCALE: (H) 1"=30' (V)
DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 1 OF 3
Rev. #: 2



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REV.	DATE	COMMENTS	BY
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC
1	04/08/21	REVISED PER TOWN COMMENTS	KHC

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DESIGNED BY: DTS
CHECKED BY: BWS

PROJECT: ARMONK FAIRVIEW, LLC & AGGRO AND BRASSI, LLC
PROPOSED WAREHOUSE
SECTION 108.03, BLOCK 1, LOT 50
94 BUSINESS PARK DRIVE
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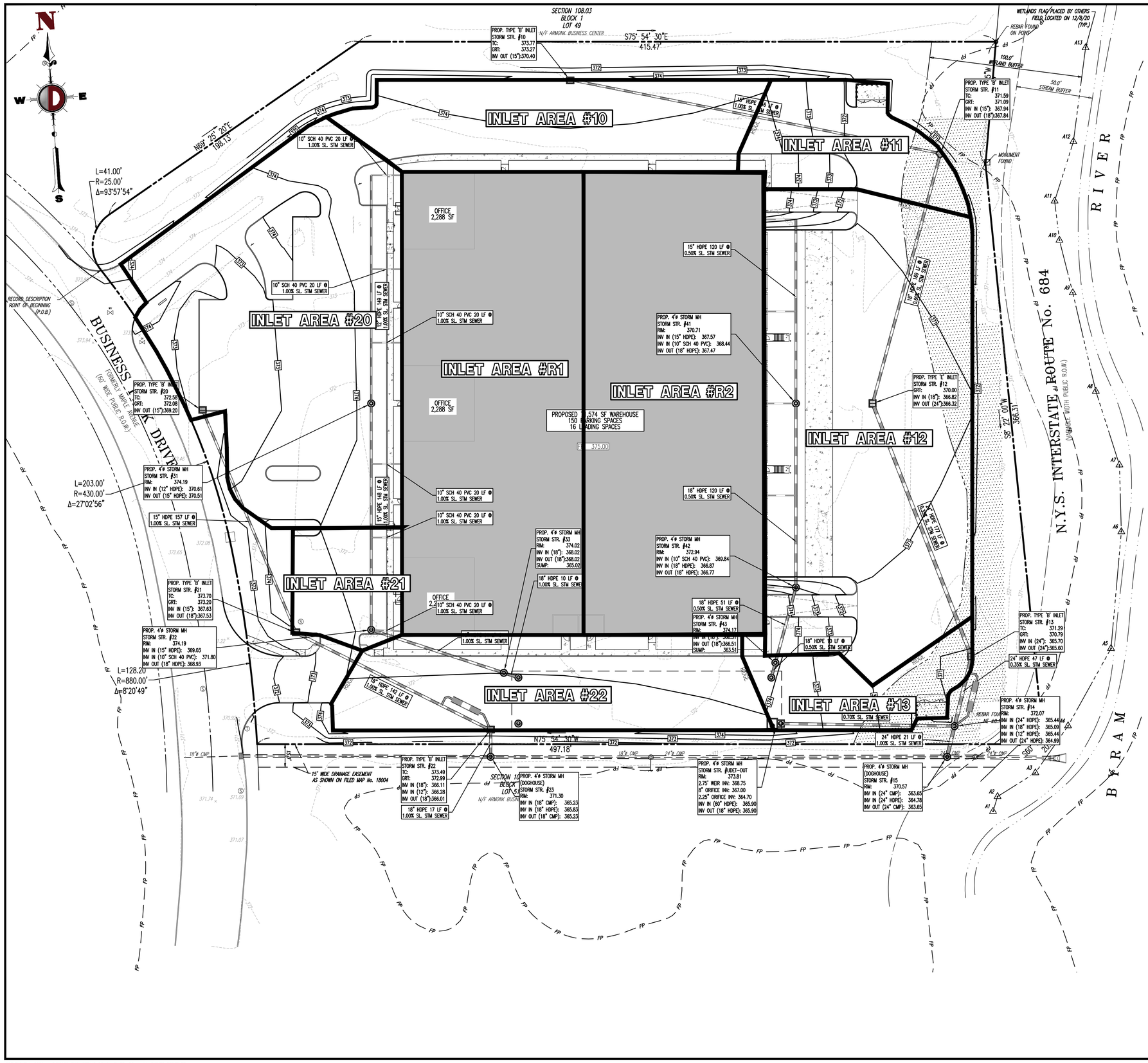
NEW YORK LICENSE No. 087962

TITLE: PROPOSED DRAINAGE AREA MAP

SCALE: (H) 1"=30' (V)
DATE: 02/19/2021
PROJECT No: 2179-99-009
SHEET No: 2 OF 3
Rev. #: 2



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REV.	DATE	COMMENTS	BY
1	04/08/21	REVISED PER TOWN COMMENTS	KHC
2	07/12/21	REVISED PER TOWN & CONSERVATION BOARD COMMENTS	KHC

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NEW YORK LICENSE No. 087962

TITLE: **INLET AREA MAP**

SCALE: (H) 1"=30' (V) | DATE: 02/19/2021
PROJECT No: 2179-99-009

SHEET No: 3 OF 3 | Rev. #: 2