

December 11, 2020

Adam R. Kaufman, AICP
Director of Planning
Town of North Castle
15 Bedford Road
Armonk, NY 10504

Re: 17 North Lake Road
Site Plan Response Memo

Dear Mr. Kaufman,

This Memorandum responds to the outstanding Site Plan comments set forth in the Kellard Sessions Consulting, P.C. Memorandum, dated November 5, 2020. Kellard's comments are provided below, with our responses in italics.

GENERAL COMMENTS

1. The plan proposes the removal of 25 town-regulated trees, eleven (11) of which are significant as defined by Chapter 308, Trees of the Town Code. The Planning Board should discuss whether the proposed tree removal is appropriate for the development. The applicant should provide a landscape plan for consideration by the Planning Board.

Landscaping plan to be provided by others.

2. The plan proposes an eight (8) foot high retaining wall required for the construction of the pool. The retaining wall design and detail shall be revised to reflect the maximum required height. In addition, the plan shall note that (1) all walls equal to or greater than four feet in height shall be designed by a New York State Licensed Professional Engineer and all design and construction details provided, prior to the issuance of a Building Permit; and (2) the owner shall provide certification by the Design Engineer that the construction of all walls equal to or greater than four (4) feet in height, have been constructed in accordance with the approved plans, prior to the issuance of a Certificate of Occupancy.

The retaining wall detail has been revised to reflect the correct height. Appropriate notes regarding certification and design have been added to sheet 2 under the retaining wall detail.

3. The pool equipment shall be relocated to meet the minimum required yard setbacks.

The location of the pool equipment has been revised to be within all setbacks

4. The applicant shall provide copies of the septic system plans, approved by the Westchester County Department of Health (WCHD), for coordination. The site plan illustrates a proposed drainage pipe and curtain drain shown to be installed through the septic reserve absorption area. These improvements, within the reserve area, should be relocated otherwise a No-Objection letter from the WCHD will be required.

Approved WCDOH septic plans are attached herein. The drainage pipe shown in the reserve area has been revised to avoid expansion area.

5. It is the policy of the Town that, for a teardown and rebuild of a house, the applicant shall demonstrate that adequate stormwater mitigation is provided through the 100-year storm event for the runoff generated by the net increase in impervious surface. The design calculations and system layout shall be updated accordingly. The calculations shall also be updated as necessary to account for the soil test results to be performed.

Revised calculations are shown on sheet 2 which demonstrate mitigation for the 100-year storm.

6. The applicant shall perform deep and percolation soil testing in the vicinity of the proposed mitigation system to be witnessed by the Town Engineer. The test locations and results shall be included on the plan. Contact this office to schedule the testing.

Soil testing results attached herein.

7. The plan shall illustrate and note that the driveway curb cut shall be a maximum of 18 feet wide. Revise the plan as may be needed.

The existing curb cut is proposed to be used.

8. The plan illustrates a proposed water service connection to the existing water main in North Lake Road. The plan shall illustrate the location of the existing water service connection and require that it be removed and capped at the main line. The limits of the removals and installation within the road shall be illustrated on the plan and included within the limits of disturbance.

The existing water line is shown to be removed and cut & capped at the line on sheet 1 of the plans. Limit of disturbance has been updated accordingly.

9. The plan shall include road restoration details required for the water service connection, in accordance with Town Highway Department standards.

A pavement replacement detail has been provided on sheet 3 of the plans.

10. Provide the size, slope and materials for all proposed drainage pipes. All drainage pipe shall have a minimum of two (2) feet of cover in traffic areas and one (1) foot of cover in non-traffic areas. Provide details.

Size slope and material has been provided on sheet 2 for all drainage pipes. Notes regarding pipe cover have been provided on the trench detail as well as the pavement replacement detail.

11. The stormwater collection system for the pool patio shall be shown and detailed on the site plan.

The pool patio runoff is proposed to be captured by the curtain drain. Curtain drain detail has been provided on sheet 3.

12. The infiltration system shall have an emergency overflow system. Provide any necessary details.

17 North Lake Riad
December 11, 2020

The infiltration is proposed to overflow through an inspection port. An inspection port detail has been provided on sheet 2 of the plans.

13. The erosion and sediment control plan shall illustrate construction access for the pool. The plan shall illustrate the primary and reserve septic areas to be cordoned-off during construction to restrict equipment staging and material stockpiling.

Access for pool construction is proposed on the right side of the primary septic area and can be seen on sheet 2 of the plans.

14. The proposed limit of disturbance shall be illustrated on the erosion and sediment control plan for coordination with proposed improvements, pool fence installation and associated grading. The limits shall be adjusted as needed and include any off-site improvements. The plan shall note that the limit will be staked in the field prior to construction.

The limit of disturbance is shown and called out on sheet 2 of the plans.

Please do not hesitate to call with any questions at 914-358-5009 or email stephen@fusionepc.com.

Sincerely,

FUSION ENGINEERING PC



Stephen Berté

GENERAL NOTES

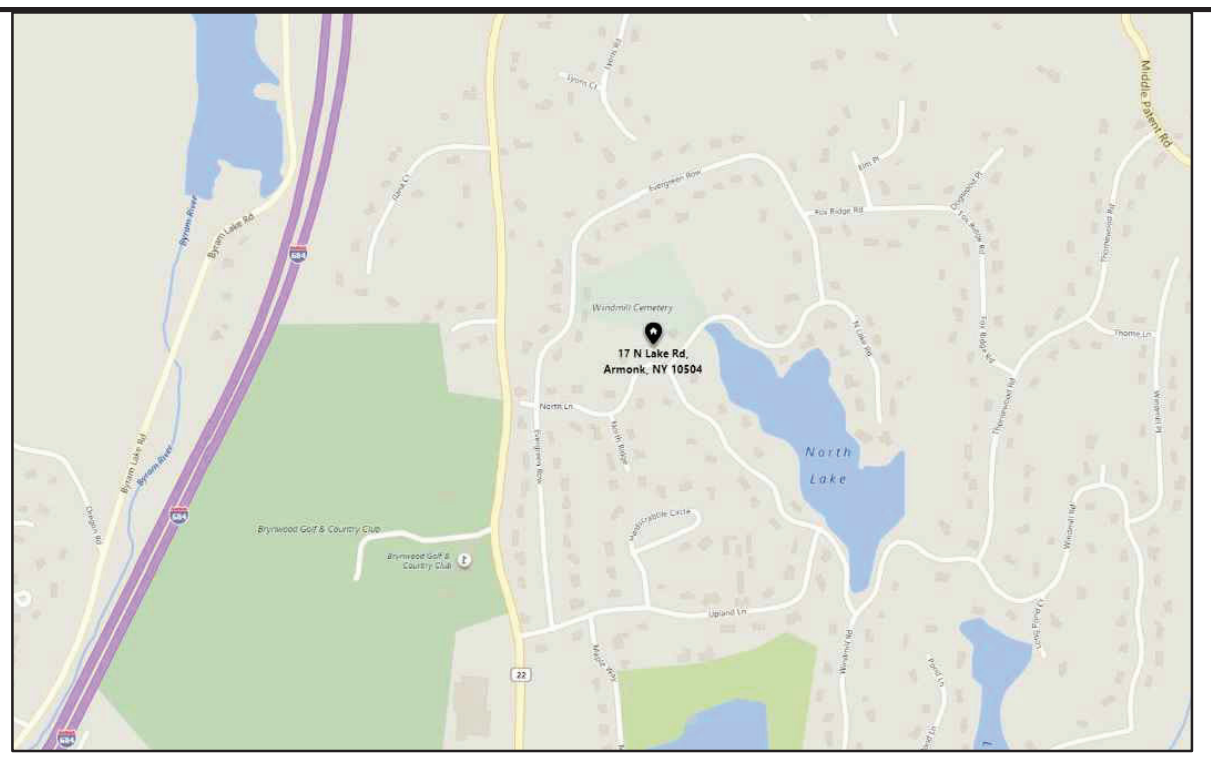
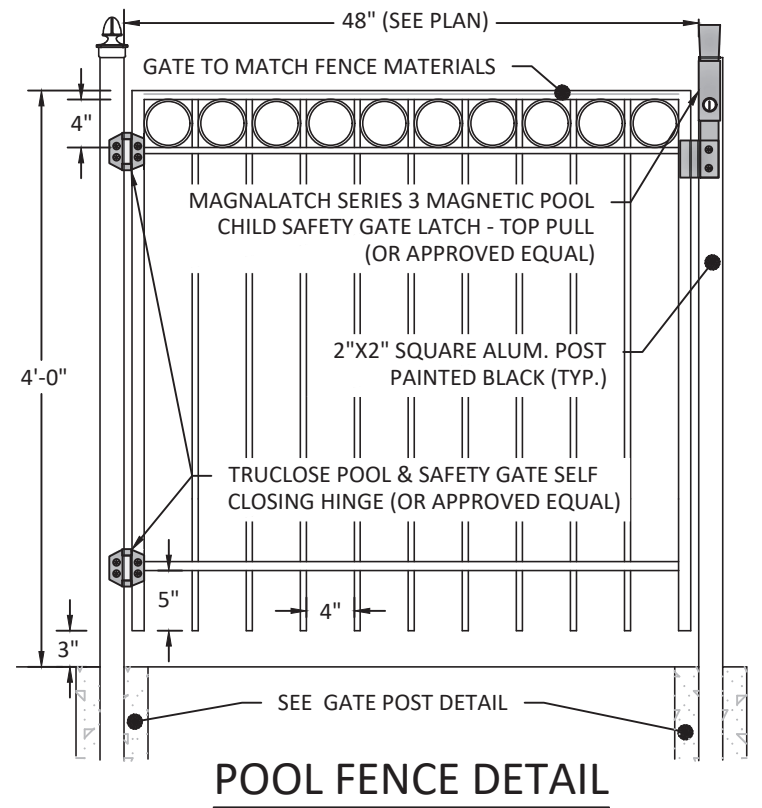
- THIS PLAN WAS PREPARED TO COMPLY WITH THE APPLICATION REQUIREMENT FOR BUILDING PERMIT IN THE TOWN OF NORTH CASTLE. REFER TO PLANS PREPARED BY COLINGHAM ARCHITECTURE FOR SPECIFICATIONS REGARDING THE CONSTRUCTION OF THE PROPOSED HOME.
- EXISTING TOPOGRAPHIC AND SURVEY INFORMATION SHOWN HEREON PROVIDED BY A SURVEY PREPARED BY SUMMIT LAND SURVEYING PC ON DECEMBER 3, 2017. REFER TO ARCHITECTURAL PLANS FOR CONFORMANCE WITH ZONING REGULATIONS INCLUDING BUILDING SETBACKS AND HEIGHT. PROPOSED GRADING SHALL DRAIN AWAY FROM THE PROPOSED STRUCTURE AT A MINIMUM SLOPE REQUIRED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE FOUNDATION.
- UNDERGROUND UTILITIES, FACILITIES AND STRUCTURES MAY NOT BE ALL SHOWN HEREON. THE LOCATIONS OF PORTIONS OF THE UNDERGROUND UTILITIES INDICATED HEREON WHERE OBTAIN FROM THE MAP REFERRED TO ABOVE AND FIELD MARK-OUTS BY THE UTILITY COMPANY PERSONNEL. THERE MAY BE OTHER UNDERGROUND UTILITIES TO WHICH THE LOCATIONS ARE CURRENTLY UNKNOWN. ANY PARTY UTILIZING THE INFORMATION AND DATA DEPICTED ON THIS PLAN SHALL CONTACT "DIG SAFELY, NEW YORK" AT PHONE NUMBER 1-800-962-7962 OR 911 A MINIMUM OF 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES TO VERIFY THE LOCATION OF ANY AND ALL UNDERGROUND UTILITIES.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS AND SEQUENCES OF CONSTRUCTION AND FOR THE SAFETY OF WORKERS AND OTHERS ON THE CONSTRUCTION SITE. THE CONTRACTOR SHALL LOCATE AND VERIFY THE SIZE, LOCATION, DEPTH AND INVERTS OF ANY AND ALL EXISTING UTILITIES PRIOR TO COMMENCING OPERATIONS.
- PVC DRAIN PIPES SHALL BE SCHEDULE 40, SLOPES HAVING A MINIMUM SLOPE OF 1%.
- NO SOIL STOCKPILES, CONSTRUCTION MATERIALS, AND NO EQUIPMENT SHALL BE STORED IN THE AREA OF THE PROPOSED (AND EXISTING) STORMWATER INFILTRATION PRACTICES.
- THE CONTRACTOR SHALL PROVIDE A TRAINED INDIVIDUAL (CARRYING CARD/CERTIFICATION BY THE NYSDEC) TO BE PRESENT ON SITE AT ALL TIMES DURING SOIL DISTURBING ACTIVITIES.
- DURING CONSTRUCTION, SEDIMENT AND EROSION CONTROLS SHALL BE IN ACCORDANCE WITH THE CURRENT DPW STANDARDS FOR SEDIMENT AND EROSION CONTROL. DPW RESERVES THE RIGHT TO ORDER ADDITIONAL SEDIMENT CONTROL PRACTICES INSTALLED DURING CONSTRUCTION.
- OWNER/OWNER'S REPRESENTATIVE SHALL CONTACT TOWN BUILDING DEPARTMENT TO INSPECT SEDIMENT AND EROSION CONTROL PRACTICES PRIOR TO START OF CONSTRUCTION. ANY DESIGN CHANGES TO THE STORMWATER SYSTEM DURING CONSTRUCTION DUE TO SHALLOW GROUNDWATER, ROCK, ETC. MUST BE RESUBMITTED TO THE TOWN ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION START.
- STORMWATER SYSTEM MUST BE INSPECTED AND CERTIFIED BY A PROFESSIONAL ENGINEER.
- UNDERGROUND UTILITIES (ELECTRIC, GAS, & COMMUNICATION) TO BE FIELD LOCATED BY CONTRACTOR.
- ROOF LEADER CONNECTIONS SHOWN HEREON ARE APPROXIMATE AND SHALL BE COORDINATED WITH GUTTER/DOWNSPOUT INSTALLATION. DRAINAGE SHALL BE INSTALLED TO PROVIDE A CONNECTION TO ALL REQUIRED ROOF LEADER DOWNSPOUTS.

NOTE:

PROPOSED SEPTIC SYSTEM HAS BEEN APPROVED BY THE WESTCHESTER COUNTY BOARD OF HEALTH

EROSION CONTROL NOTES:

- TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK.
- SUGGESTED LOCATIONS OF EROSION AND SEDIMENT CONTROL MEASURES ARE SHOWN HEREON. PLACEMENT OF BEST MANAGEMENT PRACTICES TO MANAGE SOIL EROSION AND POLLUTION PREVENTION ON SITE MAY BE MODIFIED IN THE FIELD AFTER CONSULTATION WITH THE APPROPRIATE REGULATORY AGENCY HAVING JURISDICTION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. PRACTICES MUST BE PROPERLY INSTALLED PRIOR TO START OF CONSTRUCTION AND SHALL BE INSPECTED AND MAINTAINED AS NEEDED TO INSURE THE CONTROLS ARE FUNCTIONING AS DESIGNED. CONTRACTOR SHALL TAKE CARE TO VISUALLY INSPECT CONTROLS, ESPECIALLY PRIOR TO PRECIPITATION EVENTS AND MAKE ANY CORRECTIONS OR PROVIDE ADDITIONAL MEASURES AS NECESSARY TO TRY TO PREVENT SEDIMENT OR POLLUTANTS FROM LEAVING THE SITE.
- CONSTRUCTION ACCESS TO EXPOSED/GRADED SOILS SHALL BE DEFINED BY THE PLACEMENT OF AN ANTI-TRACKING MANAGEMENT PRACTICE PRIOR TO THE START OF CONSTRUCTION. TRACK OUT ONTO PUBLIC STREETS SHALL BE SWEEP DAILY AND BEFORE PRECIPITATION EVENTS.
- DISTURBED SOILS SHALL BE TEMPORARILY STABILIZED WITHIN 14 DAYS.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH NYSDEC "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL".
- THE ENGINEER MAY AT HIS DISCRETION REQUIRE ADDITIONAL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION TO MITIGATE UNFORESEEN EROSION AND SILTATION.
- PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATER FROM DAMAGING THE CUT FACE OF EXCAVATIONS OR THE SLOPING SURFACES FILLS.
- TREES, ROOT SYSTEMS AND OTHER VEGETATION REMOVED FOR CONSTRUCTION PURPOSES SHALL BE CHIPPED OR REMOVED FROM SITE. NO ON-SITE BURIAL OR BURNING SHALL BE PERMITTED.
- DURING GRADING OPERATIONS, APPROPRIATE MEASURES FOR DUST CONTROL SHALL BE EXERCISED.
- ALL FILLS SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIAL AND TO PREVENT UNDESIRABLE SETTLEMENT.
- AFTER FINAL GRADES ARE ESTABLISHED, DISTURBED AREAS SHALL BE COVERED WITH FOUR INCHES OF TOPSOIL AND SEEDED; LANDSCAPE AREAS SHALL BE MULCHED.
- FOR DEWATERING ACTIVITIES: A DEWATERING PUMP SHALL BE LOCATED IN A PERFORATED TUB SURROUNDED BY FILTER FABRIC AND STONE (OR APPROVED ALTERNATIVE). CLEAN DISCHARGE SHOULD BE DIRECTED TO ONSITE DRAINAGE APPURTENANCES TO MINIMIZE EROSION OF SOILS. DISCHARGE WITH SUSPENDED SEDIMENT SHALL BE CONNECTED TO A SEDIMENT BAG ON UNDISTURBED GROUND IN A LOCATION WHERE THE DISCHARGE WILL NOT CAUSE EROSION OR FLOW OVER EXPOSED SOILS.



LOCATION MAP
N.T.S.

SUBJECT PROPERTY

BLOCK/LOT: EMILIO DIMATTEO
101.02-2-29 17 N LAKE RD
ZONE R-3A ARMONK, NY 10504

MISCELLANEOUS DATA

APPLICANT: MAD REAL PROPERTIES, LLC
17 NORTH LAKE RD
ARMONK, NY 10504

SURVEYED BY: SUMMIT LAND SURVEYING PC
64 VIRGINIA AVENUE
DOBBS FERRY, NY 10522

MUNICIPALITY: TOWN OF NORTH CASTLE

LOT AREA: 1.24 AC

FIRE DISTRICT: ARMONK FD
101.02-2-29

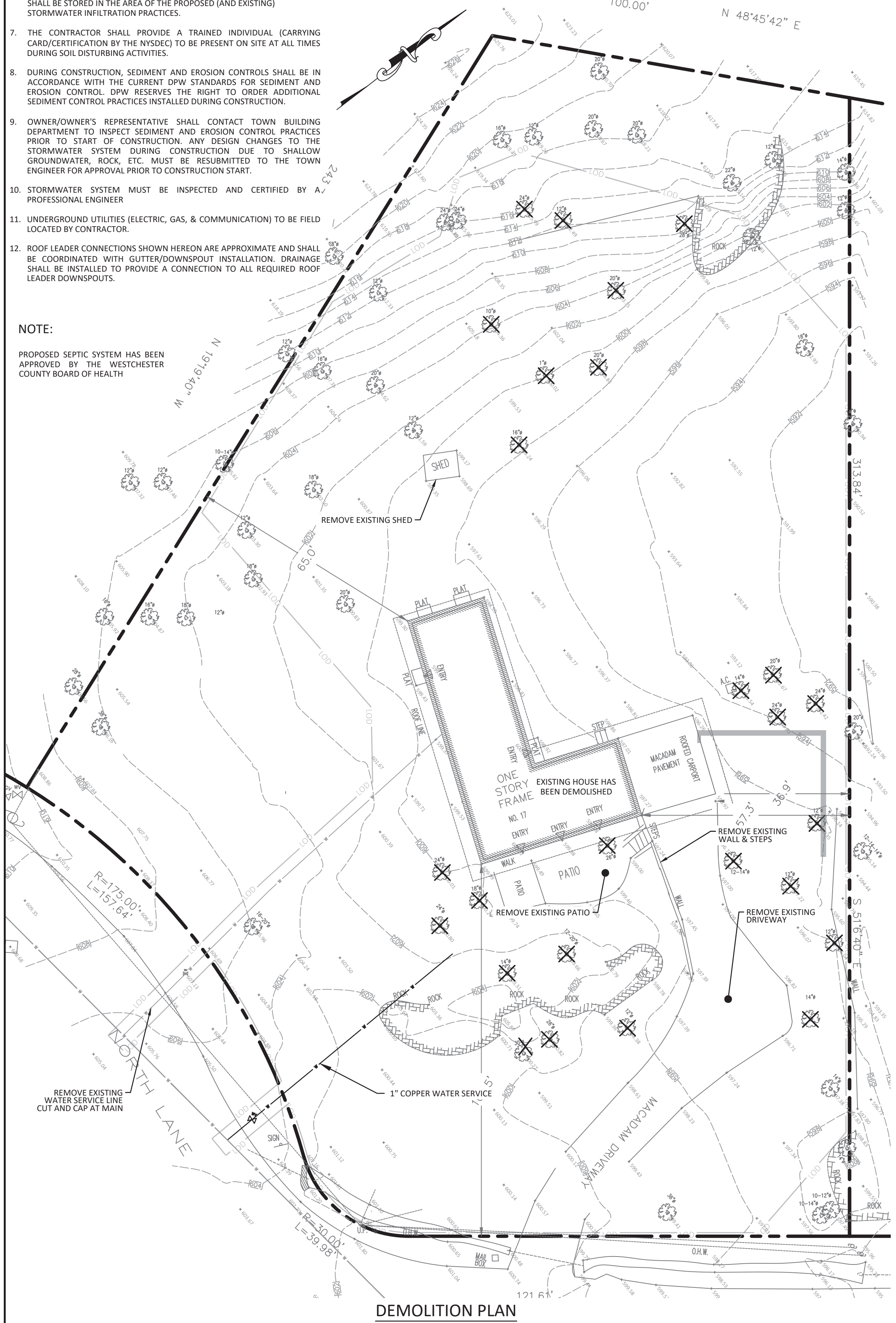
WATER DISTRICT: NORTH CASTLE WD #2

SEWER DISTRICT: ONSITE SDDS

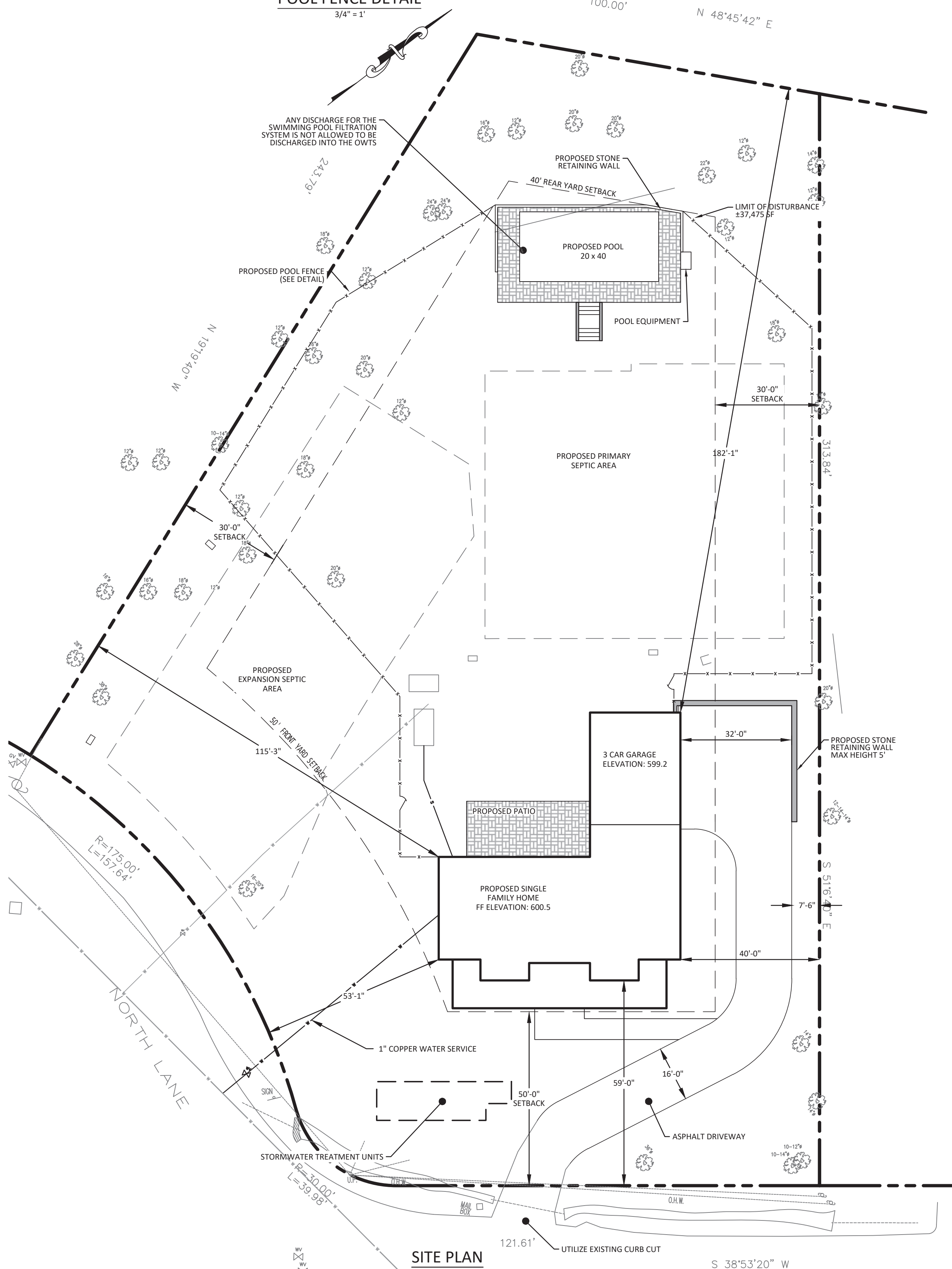
SCHOOL DISTRICT: BYRAM HILLS

WATERSHED: INLAND LONG ISLAND SOUND BASIN

EXISTING ZONING DISTRICT: R-3A ONE FAMILY RESIDENTIAL



DEMOLITION PLAN



SITE PLAN

EXISTING CONDITIONS
IMPERVIOUS AREA: 5,893 SF

PROPOSED CONDITIONS
IMPERVIOUS AREA: 9,739 SF
ADDITIONAL IMPERVIOUS AREA: 3,846

AREA CALCULATION: 1" = 40' - 0"



fusion engineering pc
600 north broadway suite 215, white plains ny 10603
914.358.5009
fusionengineeringpc.com
consulting & engineering design services

ALTERATIONS BY ANY PERSON IN ANY WAY, OR ANY ITEM CONTAINED ON THIS DOCUMENT, UNLESS ACTING UNDER DIRECTION OF THE LICENSED ENGINEER WHOSE PROFESSIONAL SEAL IS AFFIXED HERETO, IS A VIOLATION OF TITLE VIII, ARTICLE 146 SECTION 7209.2 OF THE NEW YORK STATE EDUCATION LAW.

REV	DATE	REVISION PER 11/5/20 MEMO	DESCRIPTION
1	12/11/20		

SITE AND DEMOLITION PLAN
DIMATTEO RESIDENCE

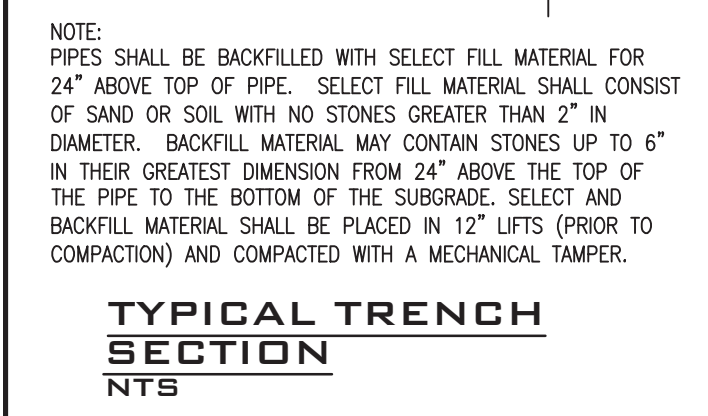
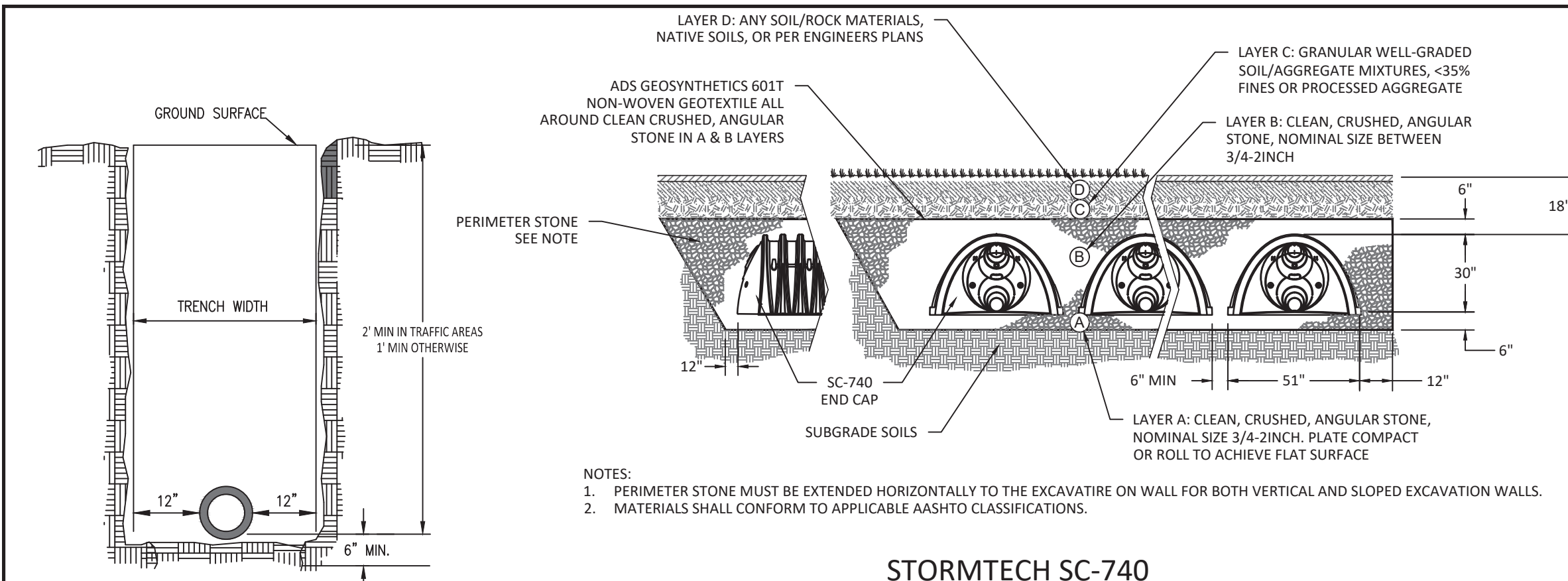
17 NORTH LAKE ROAD ARMONK, NY
TOWN OF NORTH CASTLE

PROJECT LOCATION

DATE: 7/1/2019 SCALE: 1" = 20' - 0"

DESIGN: SB DRAWN: SB

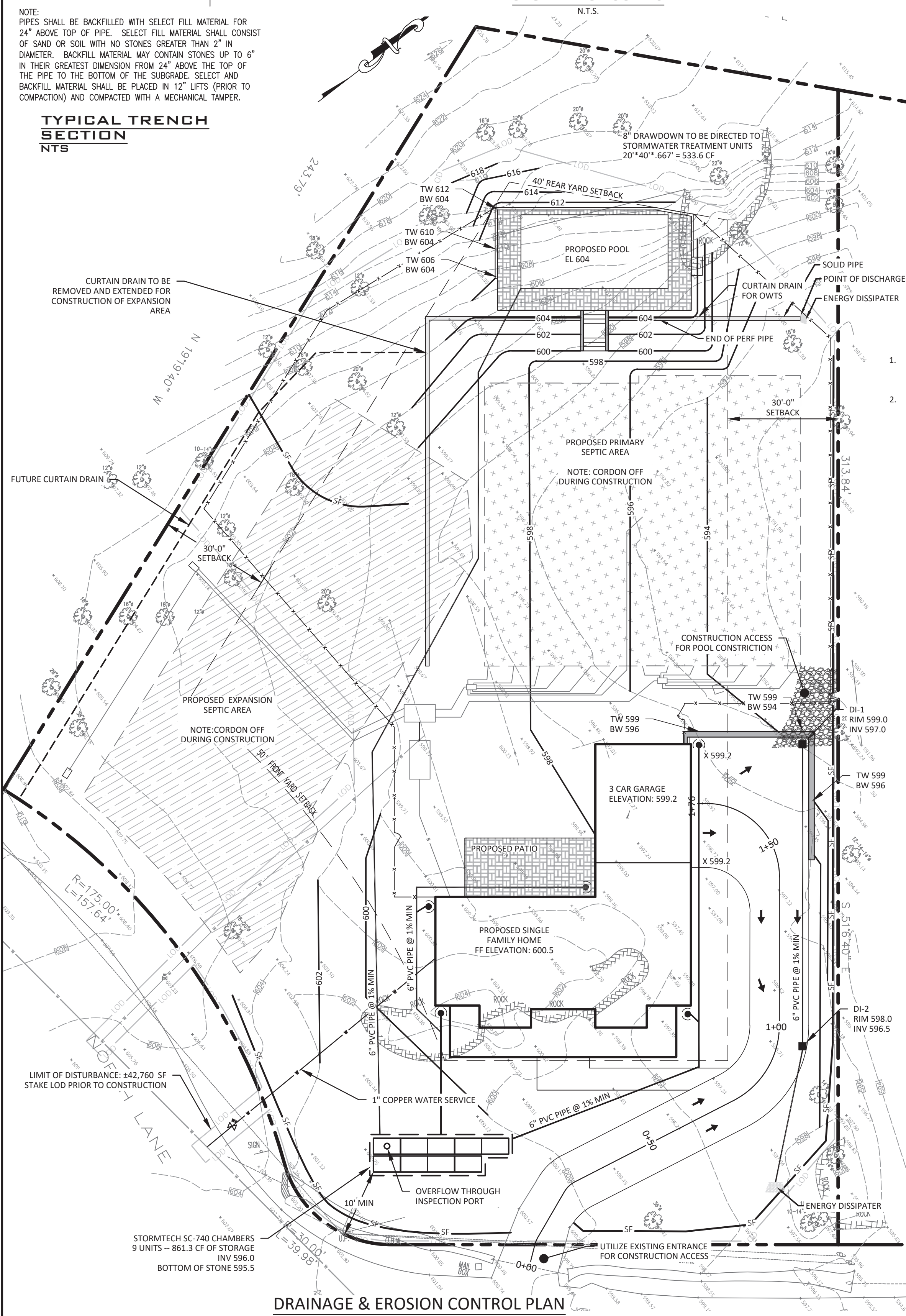
SHEET NO. **1** OF **3**



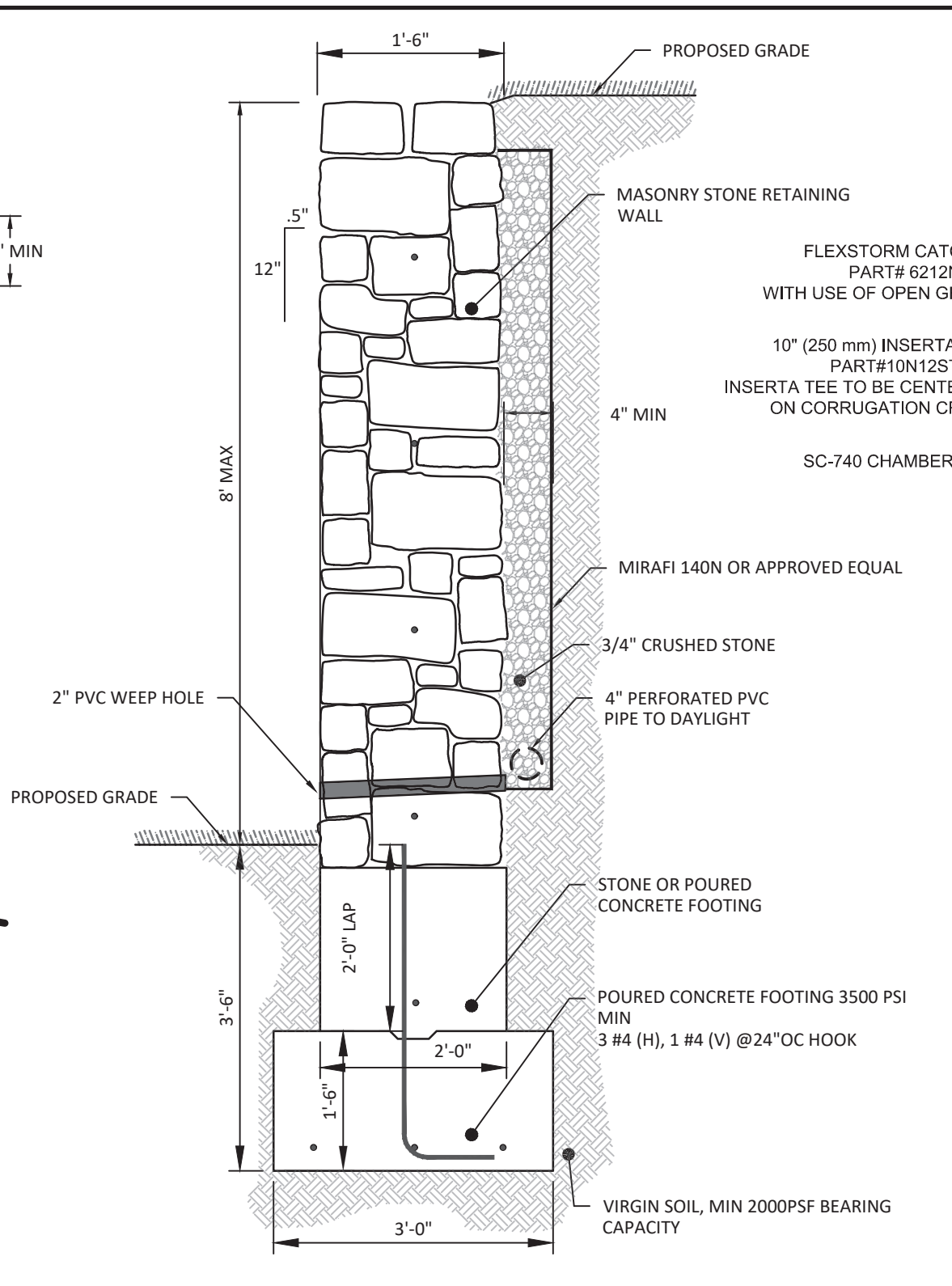
- NOTES:
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION ON WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
 - MATERIALS SHALL CONFORM TO APPLICABLE AASHTO CLASSIFICATIONS.

STORMTECH SC-740
N.T.S.

TYPICAL TRENCH SECTION
N.T.S.

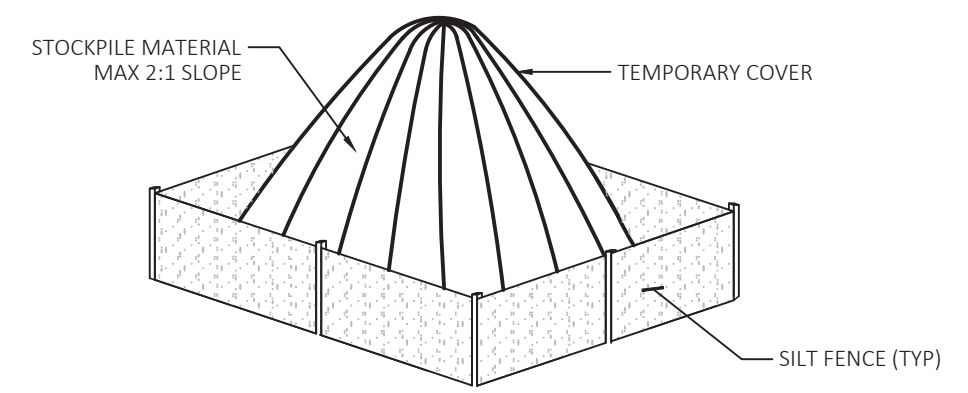


DRAINAGE & EROSION CONTROL PLAN



STONE RETAINING WALL 8 FEET MAX HEIGHT
N.T.S.

- RETAINING WALL NOTES**
- WALLS EQUAL TO OR GREATER THAN FOUR FEET IN HEIGHT SHALL BE DESIGNED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER AND ALL DESIGN AND CONSTRUCTION DETAILS PROVIDED, PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
 - CERTIFICATION BY THE DESIGN ENGINEER THAT THE CONSTRUCTION OF ALL WALLS EQUAL TO OR GREATER THAN FOUR (4) FEET IN HEIGHT, HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS, SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.



STOCKPILE CONTROL DETAIL
N.T.S.

Drainage Calculations
17 North Lake Rd
Armonk, NY
Town of North Castle

Infiltration Chambers Stormtech-740

Percolation Rate	
Field Percolation Rate	30 min/in.
Diameter of cylinder	8 in.
Average Height of Percolation	8 in.
Time, t	30 min
Surface area of cylinder, $A_c = \pi \times \text{Dia.} \times H_{\text{avg}}$	1.399 S.F.
Bottom Area, $A_b = \pi r^2$	0.349 S.F.
Total Percolation Area, A_p	1.745 S.F.
Volume of Percolation, $V_p = A_b \times H_{\text{avg}}$	0.02909 C.F.
Soil Percolation Rate, $S_r = V_p / A_p \times t$	0.000556 ft/min
$S_r - 25\%$ clogging factor:	0.80 ft/day
Soil Percolation Rate =	0.600 ft/day

CHAMBER BANK (Primary Design)

Total Impervious Area:	3,848 S.F.
Design for:	100 Year Storm
24-hour rainfall:	9.0 inches
Hydrologic Soil Group:	B
Pre-Construction Land Use: Open Spaces (bar cover):	Cm = 75
Post-Construction Land Use: Pavement (impervious):	Cm = 98
Soil Percolation Rate:	0.60 Ft./day

Required Storage Volume:

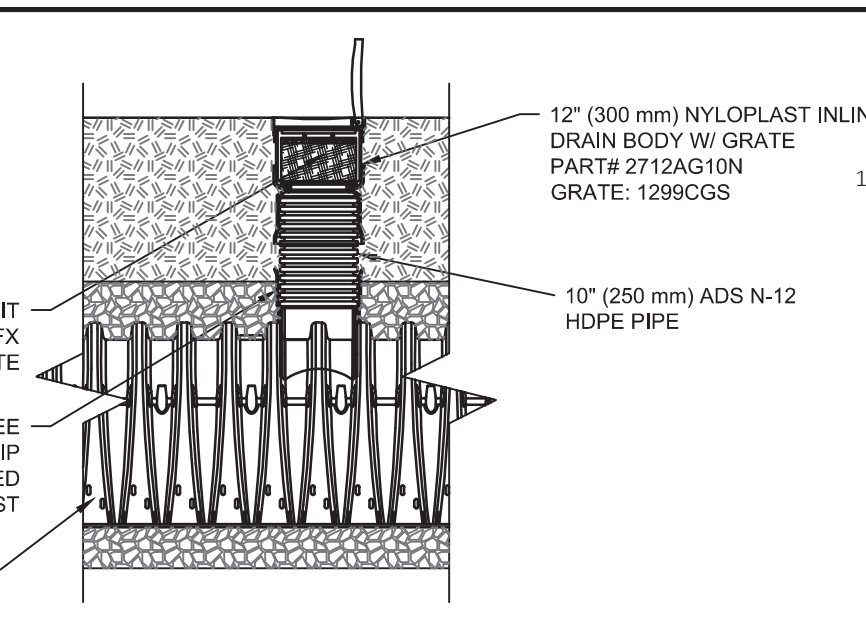
25-year Storm	Cm	Vr
Pre-Construction	75	5.96 in.
Post-Construction	98	8.76 in.
$\Delta V =$		2.81 in.
V_s (required) = $\Delta V \times \text{Area}$:		900.6 C.F.

Subsurface Exfiltration System:
Use "Stormtech SC-740" Infiltration Chambers

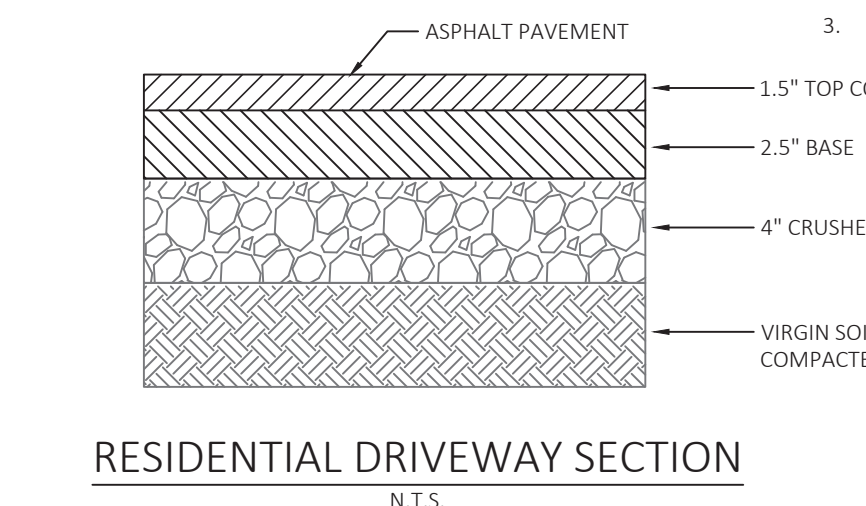
Proposed No. of Chambers:	Length	Width	Height	Storage Volume
10	35.5 Ft.	10.0 Ft.	3.5 Ft.	740 C.F.
Bottom Percolation Area:	359 S.F.			
Soil Percolation Rate:	0.6 Ft./day			
24-Hour Percolation Volume:	215.4 C.F.			

Total 24-Hour Storage Volume

Chamber Volume + Percolation Volume:	955.4 C.F.
Required Storage Volume:	900.6 C.F.
Proposed Storage Volume is Sufficient	



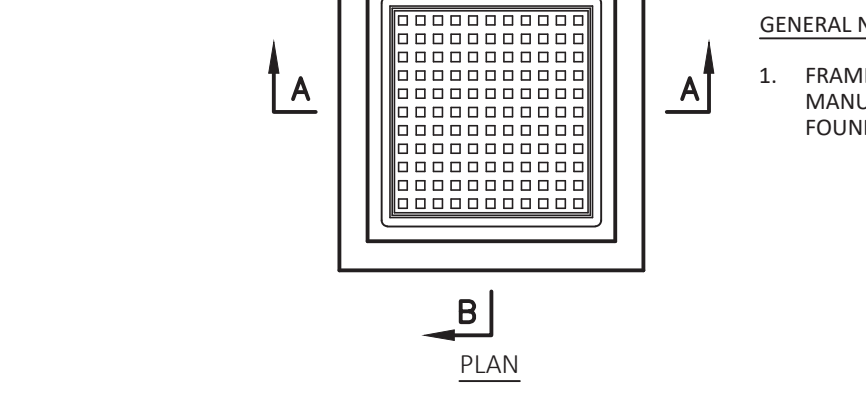
SC-740 INSPECTION PORT
N.T.S.



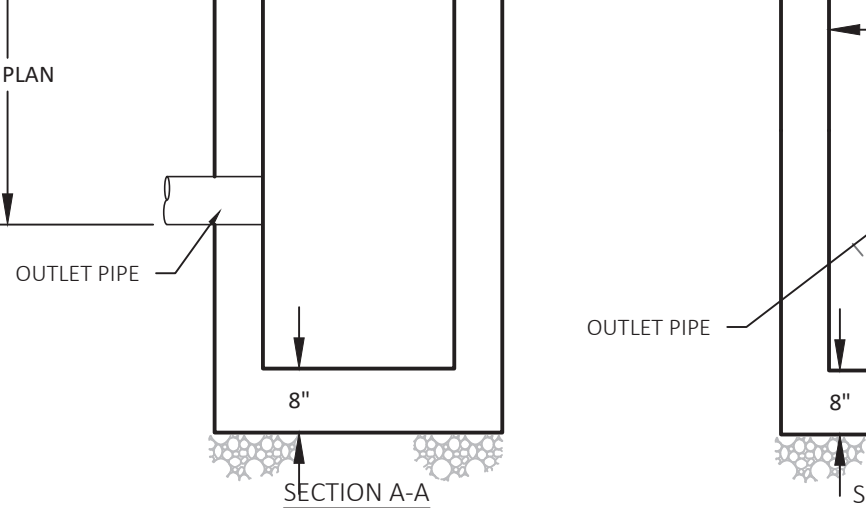
RESIDENTIAL DRIVEWAY SECTION
N.T.S.



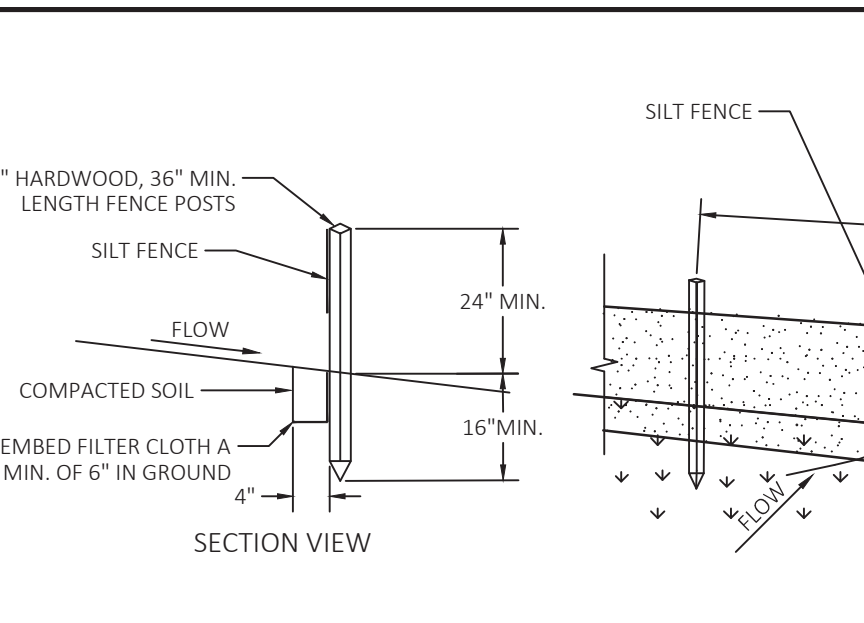
BLUESTONE PAVERS
N.T.S.



2' x 2' CATCH BASIN (CB)
SCALE: 1/2" = 1'

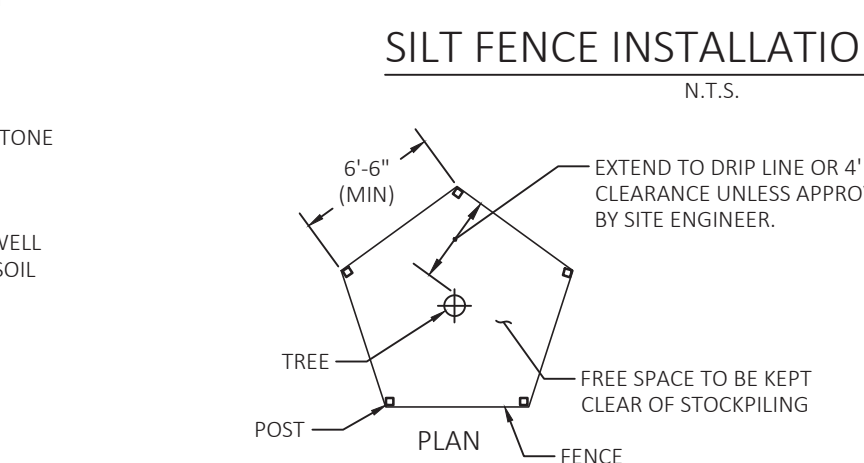


DRIVEWAY PROFILE
1" = 20'-0"

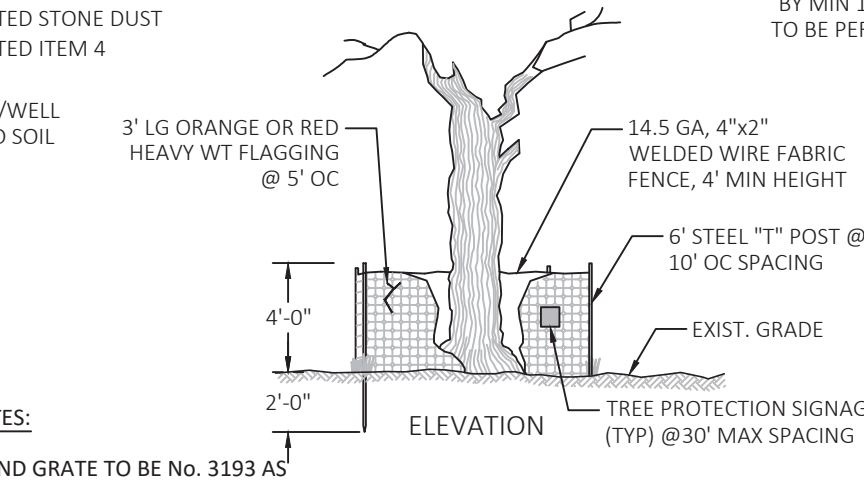


SILT FENCE INSTALLATION DETAIL
N.T.S.

- CONSTRUCTION SPECIFICATIONS:**
- SILT FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH STAPLES. POSTS SHALL BE 1"x1" HARDWOOD, OR APPROVED EQUAL.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE WRAPPED AROUND 2 STAKES, MIN 2X. FILTER CLOTH SHALL BE EITHER FILTER USCF MISF180, MIRAFI 100X OR APPROVED EQUIVALENT.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED. REINFORCE AREA LOW POINTS WITH ADDITIONAL STAKES OR OTHER MATERIALS (AS RECOMMENDED BY ENGINEER). MATERIAL SHALL BE REMOVED WHEN SEDIMENT LOAD REACHES 50% HEIGHT OF FENCE.

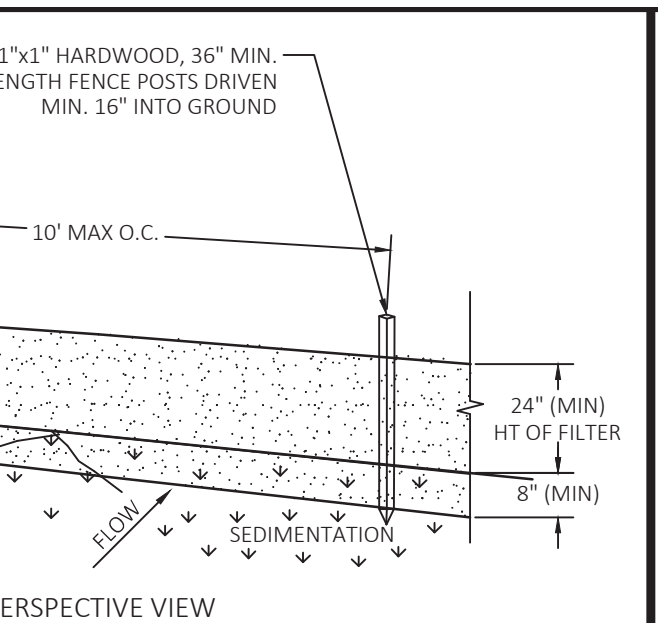


CORRECT METHOD OF TREE FENCING
N.T.S.

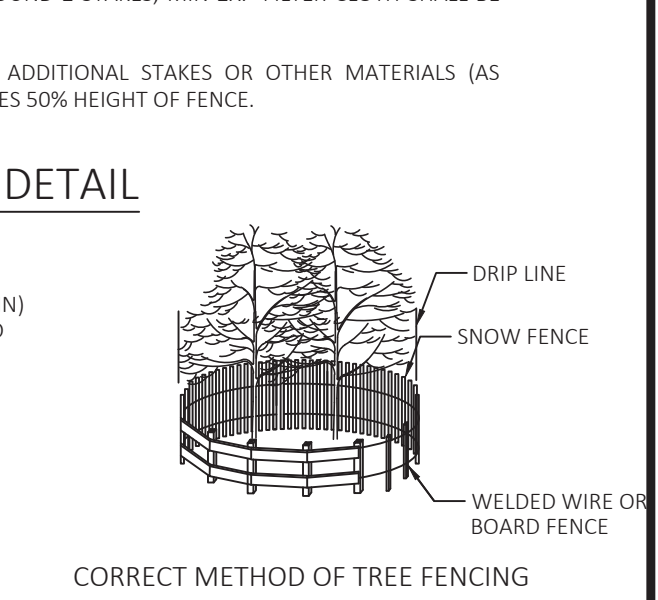


TREE/VEGETATION PROTECTION BARRIER
N.T.S.

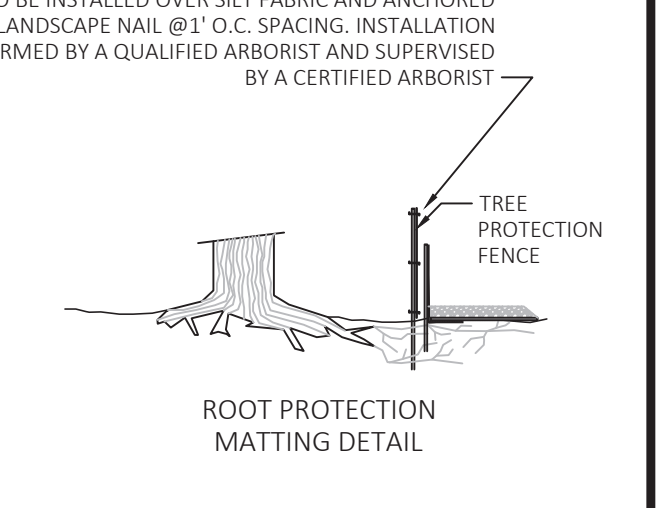
- CONSTRUCTION SPECIFICATIONS:**
- TREE PROTECTION AREA WILL BE DETERMINED AS PART OF THE PLAN REVIEW PROCESS. EXACT LOCATION, DEPTH AND METHODS OF ROOT PRUNING TO BE DETERMINED IN FIELD BY PROJECT FORESTER.
 - EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING.
 - TRENCH SHOULD BE BACKFILLED IMMEDIATELY OR INCORPORATED WITH SILT FENCE INSTALLATION.
 - ROOTS SHOULD BE SEVERED BY TRENCHER, VIBRATORY PLOW OR APPROVED EQUIVALENT. ROOTS OVER 1.5" DIAMETER SHOULD BE CLEANLY CUT BY HAND. ROOT PRUNING ADJACENT TO SPECIMEN TREES MAY REQUIRE SOIL REMOVAL BY SUPERSONIC AIR TOOL TO MINIMIZE TREE AND ROOT IMPACTS.



WATER SERVICE CONNECTION
N.T.S.



ROOF LEADER CONNECTIONS
N.T.S.



DRAINAGE & EROSION CONTROL PLAN



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fusionengineeringpc.com
consulting & engineering design services

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REV	DATE	DESCRIPTION
1	12/11/20	REVISED PER 11/5/20 MEMO

SITE AND DEMOLITION PLAN
DIMATTEO RESIDENCE
17 NORTH LAKE ROAD ARMONK, NY
TOWN OF NORTH CASTLE

PROJECT LOCATION

DATE: 7/1/2019
SCALE: 1" = 20' - 0"

DESIGN: SB
DRAWN: SB

SHEET NO. **2** OF **3**



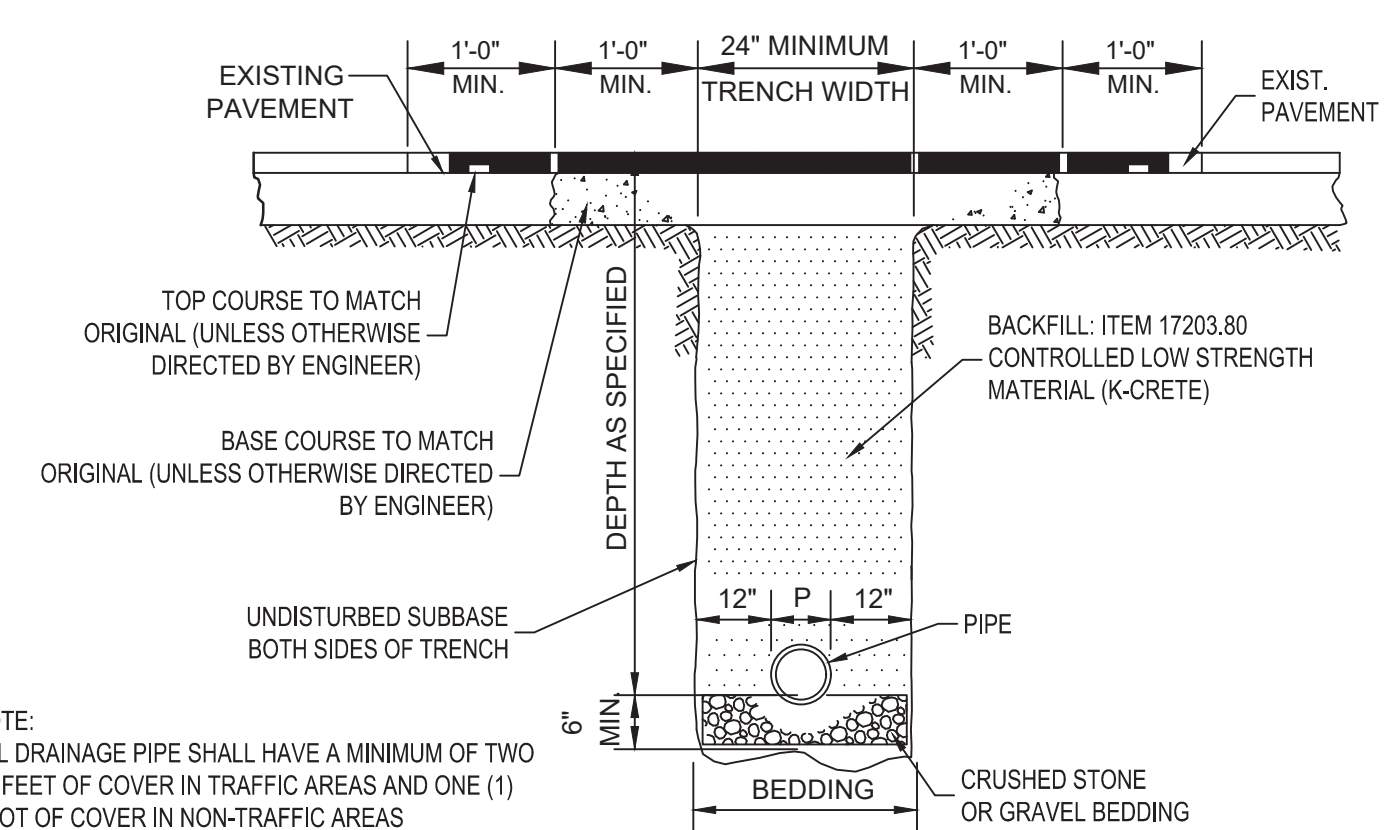
fusion engineering pc
 600 north broadway suite 215, white plains ny 10603
 fusionengineeringpc.com
 consulting & engineering design services
 914.358.5009

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REV	DATE	DESCRIPTION

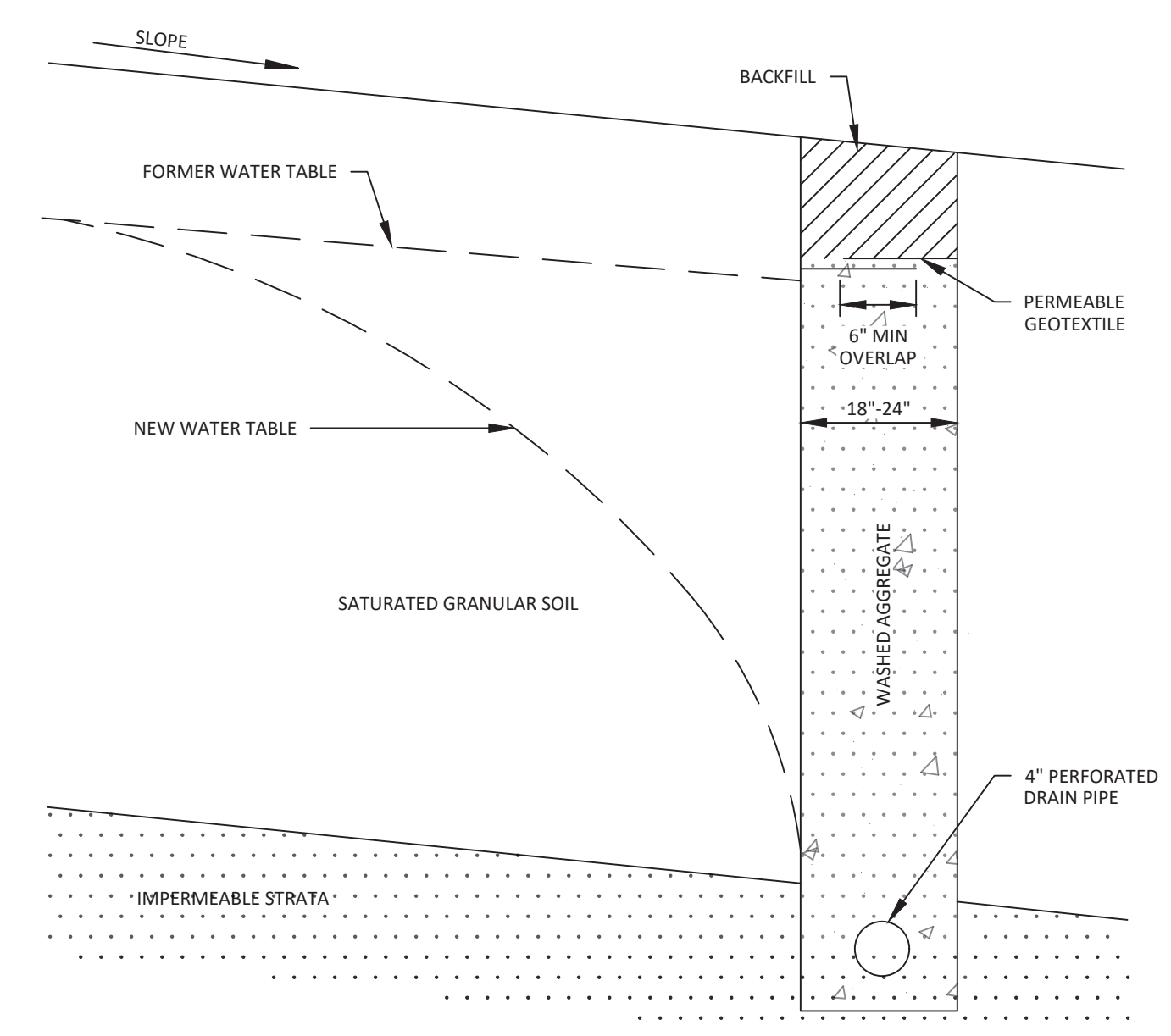
PROJECT: **DETAILS**
DIMATTEO RESIDENCE
 LOCATION: **17 NORTH LAKE ROAD ARMONK, NY**
TOWN OF NORTH CASTLE

DATE: 12/7/2020 SCALE: 1" = 20' - 0"
 DESIGN: SB DRAWN: SB
 SHEET NO. **3** OF **3**

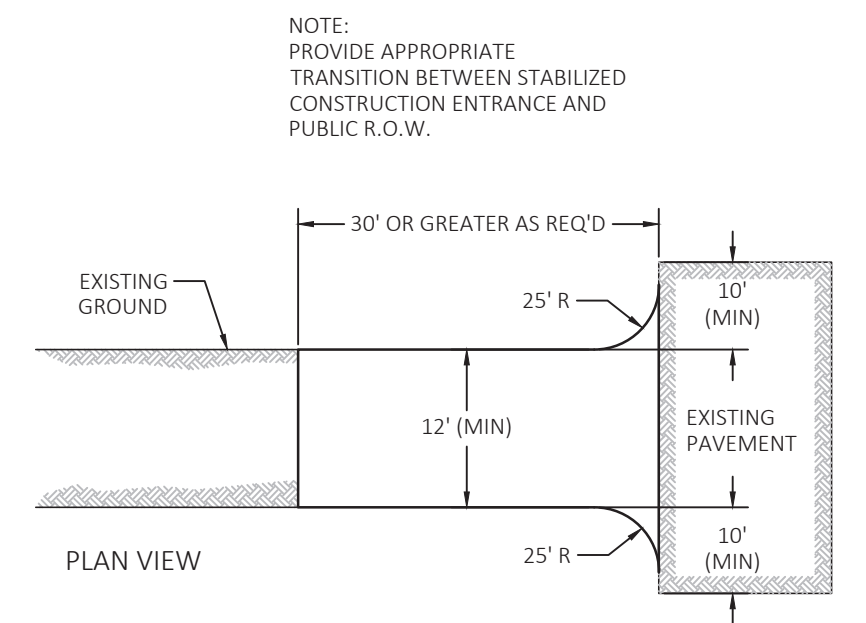
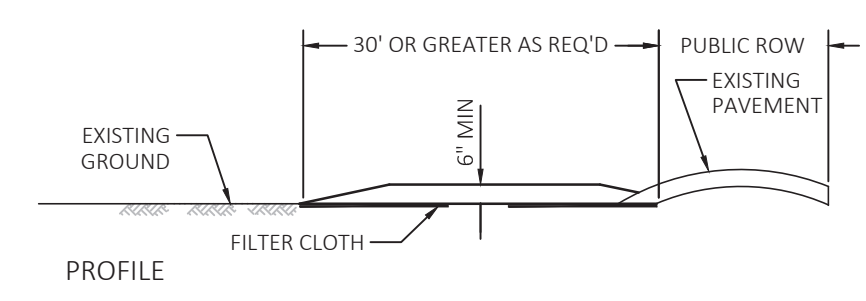


PAVEMENT REPLACEMENT OVER TRENCH DETAIL
 N.T.S.

NOTE:
 ALL DRAINAGE PIPE SHALL HAVE A MINIMUM OF TWO (2) FEET OF COVER IN TRAFFIC AREAS AND ONE (1) FOOT OF COVER IN NON-TRAFFIC AREAS



CURTAIN DRAIN DETAIL
 N.T.S.



- CONSTRUCTION SPECIFICATIONS**
- STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
 - THICKNESS - NOT LESS THAN SIX (6) INCHES.
 - WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SIGHT.
 - FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
 - SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
 - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
 - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 - PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE
 N.T.S.

NOTE:
 PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.

MISCELLANEOUS DATA

APPLICANT: MAD REAL PROPERTIES, LLC
17 NORTH LAKE RD
ARMONK, NY 10504

SURVEYED BY: SUMMIT LAND SURVEYING PC
64 VIRGINIA AVENUE
DOBBS FERRY, NY 10522

MUNICIPALITY: TOWN OF NORTH CASTLE

LOT AREA: 1.24 AC

FIRE DISTRICT: ARMONK FD

TAX MAP: 101.02-2-29

WATER DISTRICT: NORTH CASTLE WD #2

SEWER DISTRICT: ONSITE SDDS

SCHOOL DISTRICT: BYRAM HILLS

WATERSHED: INLAND LONG ISLAND SOUND BASIN

EXISTING ZONING DISTRICT: R-3A ONE FAMILY RESIDENTIAL

ONSITE WASTEWATER TREATMENT SYSTEM NOTES

- THERE SHALL BE NO TREES WITHIN 10 FEET OF THE OWTS.
- THERE ARE NO OWTS WITHIN 200 FEET OF THE WELL UNLESS OTHERWISE SHOWN ON THE PLAN.
- THERE ARE NO SOURCES OF CONTAMINATION WITHIN 200 FEET IF THE PROPOSED WELL.
- THERE ARE NO WELLS WITHIN 200' OF OWTS UNLESS OTHERWISE SHOWN ON PLAN.
- THE PROPOSED OWTS AREA SHALL BE ISOLATED AND PROTECTED AGAINST DAMAGE BY EROSION, STORAGE OF EARTH OR MATERIALS, DISPLACEMENT, COMPACTION OR OTHER ADVERSE PHYSICAL CHANGE IN THE CHARACTERISTICS OF THE SOIL OR IN THE DRAINAGE OF THE AREA.
- IF FOR ANY REASON THE APPROVED CONSTRUCTION PLAN CANNOT BE FOLLOWED, A REVISED PLAN MUST BE PREPARED, SUBMITTED, AND APPROVED BY WCDH.
- THE DESIGN PROFESSIONAL SHALL SUPERVISE THE CONSTRUCTION OF THE OWTS AND MAKE AN OPEN WORKS INSPECTION.
- WITHIN 24-HOURS OF THE COMPLETION OF THE OWTS, THE DESIGN PROFESSIONAL MUST NOTIFY THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH (WCDH) THAT THE OWTS IS READY FOR INSPECTION BY SUBMITTING A COMPLETED REQUEST FOR AN OPEN WORKS INSPECTION ON THE APPROPRIATE FORM TO WCDH.
- THAT NO BACKFILLING OF A COMPLETED OWTS CAN OCCUR UNTIL AFTER IT HAS BEEN INSPECTED AND ACCEPTED BY THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH.
- AFTER BACKFILLING THE OWTS, THE AREA SHALL BE COVERED WITH A MINIMUM OF 4 INCHES OF CLEAN TOP SOIL, SEEDING AND MULCHED.

- THE INSTALLATION OF THE OWTS SHALL BE IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR THE DESIGN AND CONSTRUCTION OF RESIDENTIAL SUBSURFACE SEWAGE TREATMENT SYSTEMS AND DRILLED WELLS IN WESTCHESTER COUNTY, NY.
- ALL PIPES CONNECTING TO TANK AND BOXES SHALL BE CUT FLUSH WITH THE INSIDE WALL OF BOX.
- THE PROPOSED OWTS SHALL BE INSTALLED BY A WESTCHESTER COUNTY LICENSED SEPTIC CONTRACTOR.
- PRIOR TO ANY EXCAVATION ALL UNDERGROUND UTILITIES MUST BE LOCATED. CALL 1-800-962-7962.
- THE WESTCHESTER COUNTY HEALTH DEPARTMENT APPROVAL EXPIRES ONE YEAR FROM THE DATE ON THE APPROVAL STAMP AND IS REQUIRED TO BE RENEWED ON OR BEFORE THE EXPIRATION DATE. THE APPROVAL IS REVOCABLE FOR CAUSE OR MAY BE AMENDED OR MODIFIED WHEN CONSIDERED NECESSARY BY THE DEPARTMENT.
- THERE ARE NO RESERVOIRS, RESERVOIR STEMS OR CONTROLLED LAKE WITHIN 500 FEET OF THE PROPOSED OWTS UNLESS OTHERWISE SHOWN ON PLAN.
- THERE ARE NO NYSDC WETLANDS OR WATERCOURSES WITHIN 200 FEET OF THE PROPOSED OWTS UNLESS OTHERWISE SHOWN ON PLAN.
- STORMTECH SC-740 CHAMBERS ARE NOT A PART OF THE OWTS.
- THE PROPOSED FILL FOR THE OWTS AREA IS TO BE RUN OF BANK SAND AND GRAVEL ONLY.
- ESTIMATED TIME OF CONSTRUCTION: SEPTEMBER-DECEMBER 2019
- DOSING CHAMBER TO BE REPLACED WITH PUMP CHAMBER WHEN THE EXPANSION AREA IS INSTALLED
- WHEN EXPANSION AREA IS INSTALLED REGARDING AND TREE REMOVAL RELATED TO THE EXPANSION AREA SHALL BE COMPLETED.
- UPON REMOVAL OF THE CURTAIN DRAIN FOR THE PRIMARY SYSTEM, THE EXCAVATION WILL BE BACKFILLED WITH RUN OF BANK SAND AND GRAVEL FILL ONLY.

OWTS DESIGN SUMMARY

PROPOSED DEVELOPMENT: SINGLE FAMILY, 5 BEDROOM HOME

DESIGN FLOW: 200 GPD/BEDROOM = 1,000 GPD

DEPTH TO GROUNDWATER: 80"

DEPTH TO BEDROCK: N/A

SOIL PERCOLATION RATE = 31-45 MIN/IN

TOPOGRAPHY/SLOPE: 8%

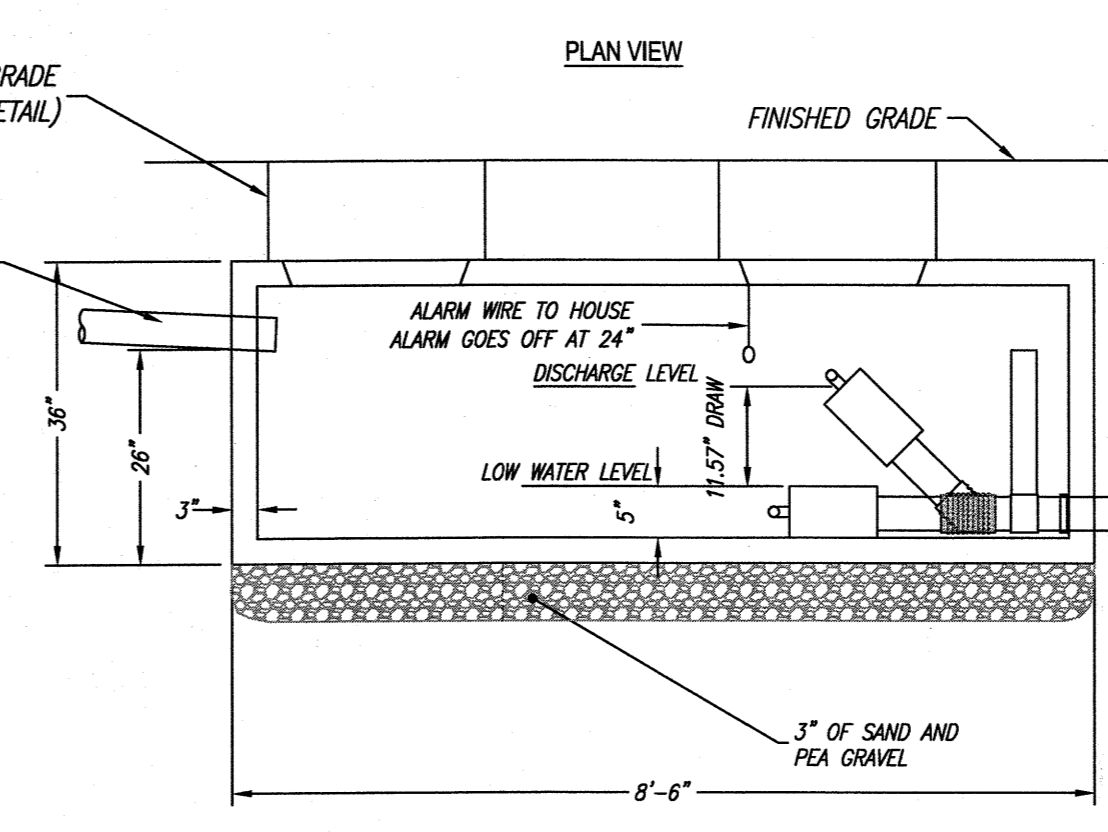
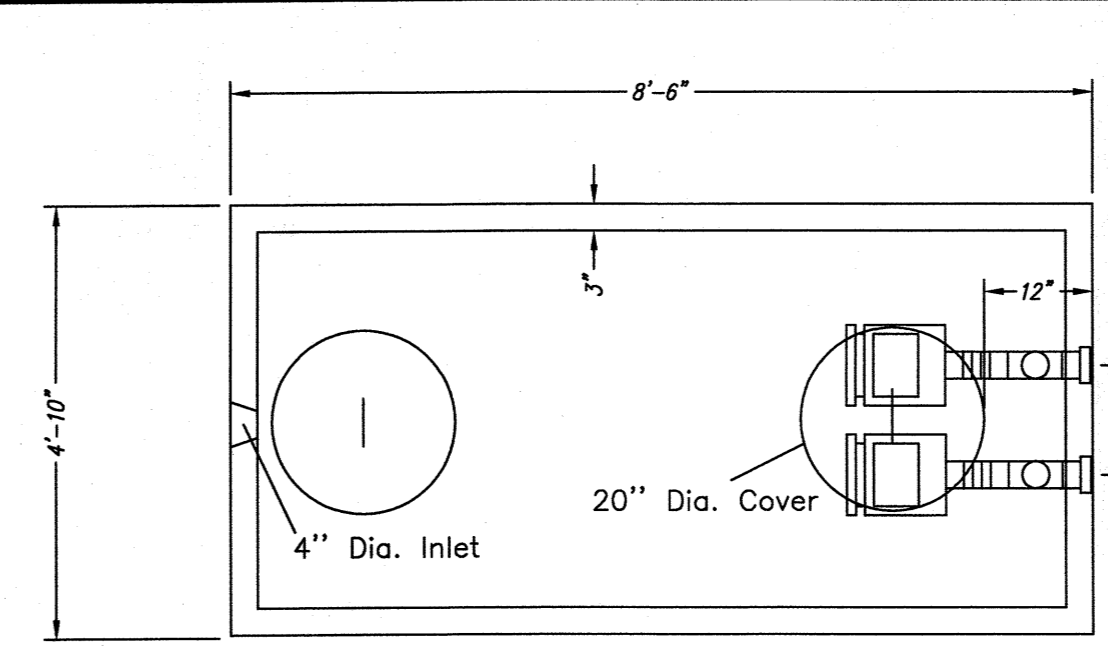
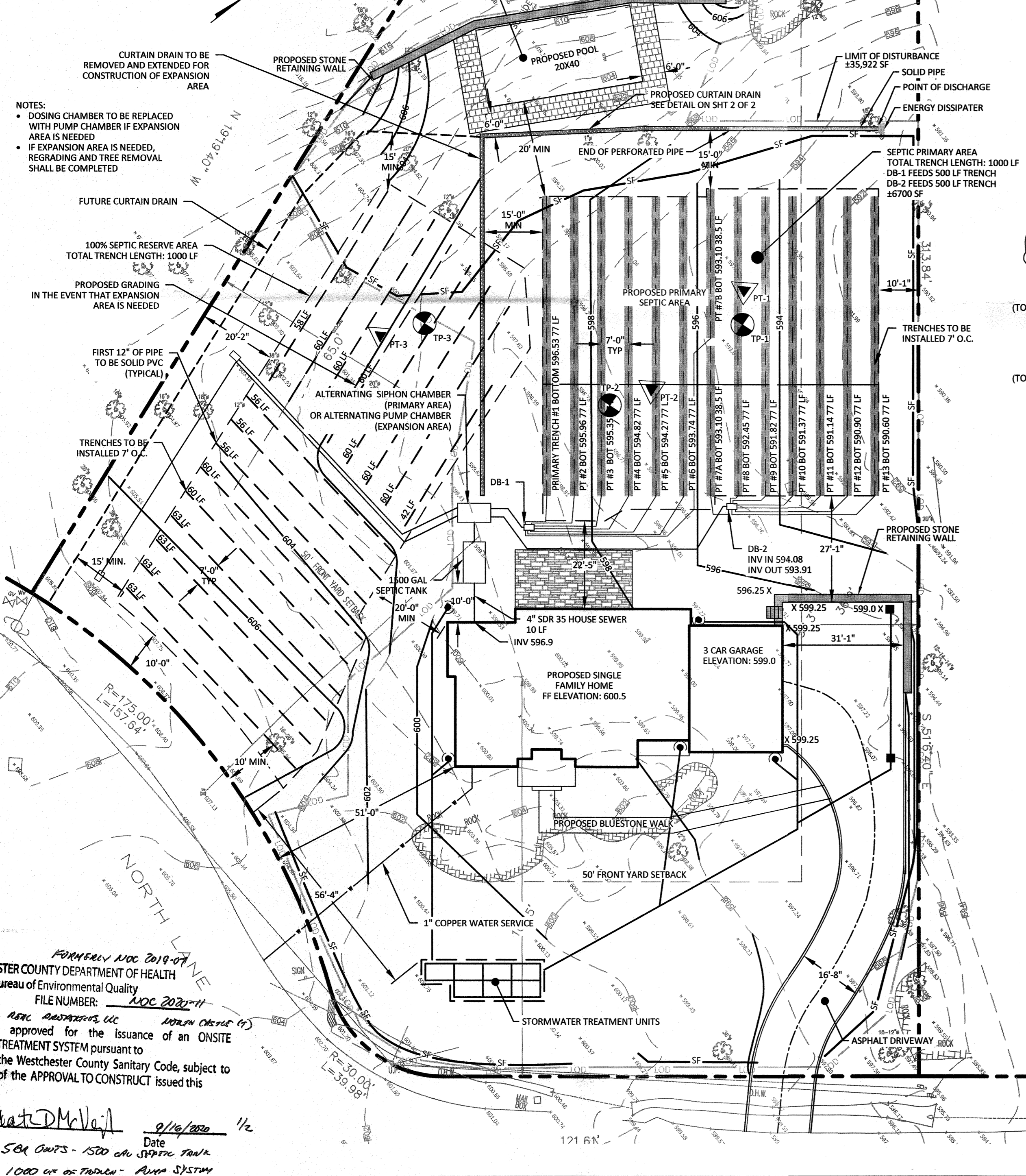
TOTAL LENGTH ABSORPTION TRENCH REQUIRED/PROVIDED = 1,000 LF

DOSING VOLUME = 250 GAL (DUAL)

SUBJECT PROPERTY

BLOCK/LOT: 101.02-2-29
ZONE R-1A

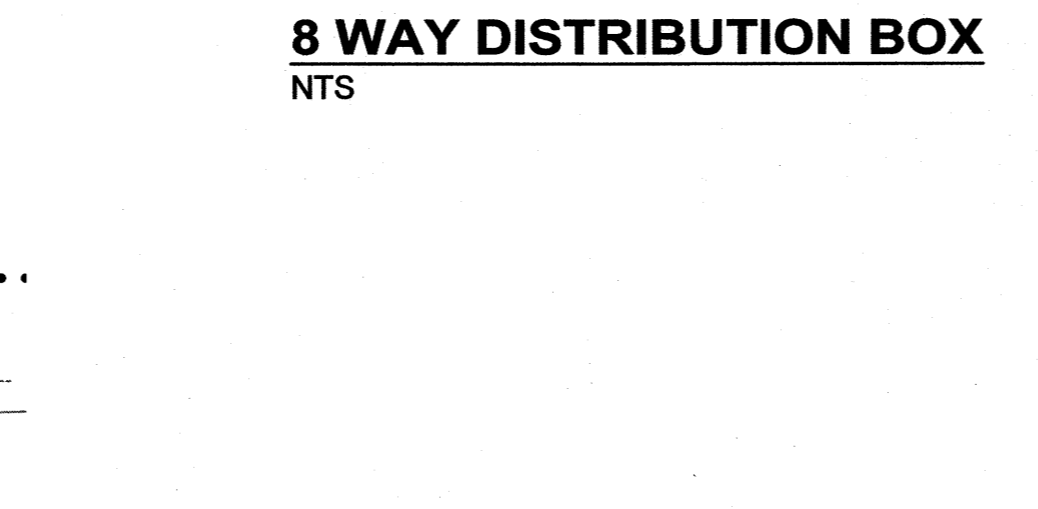
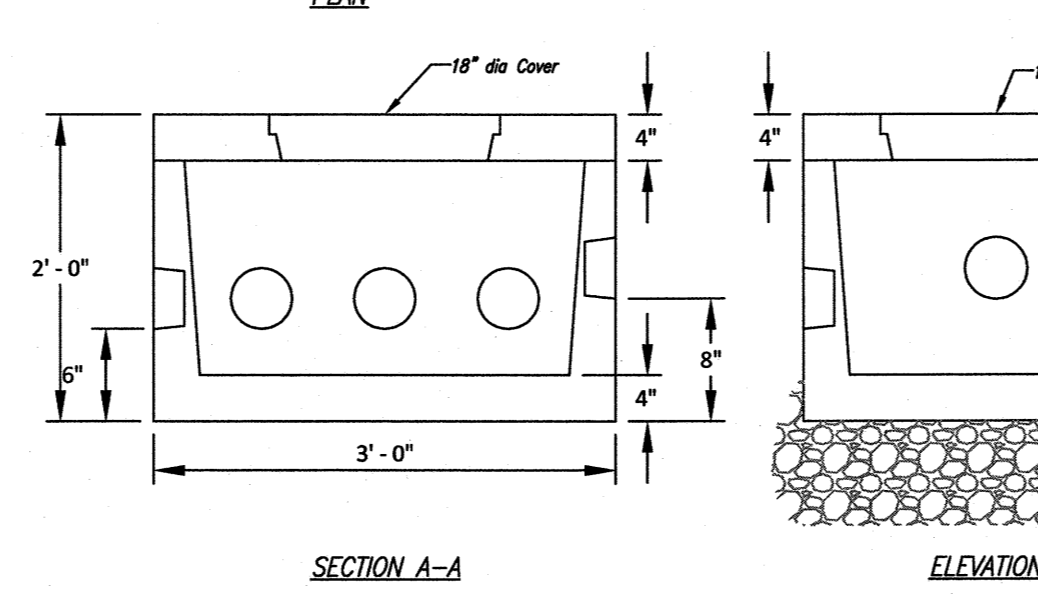
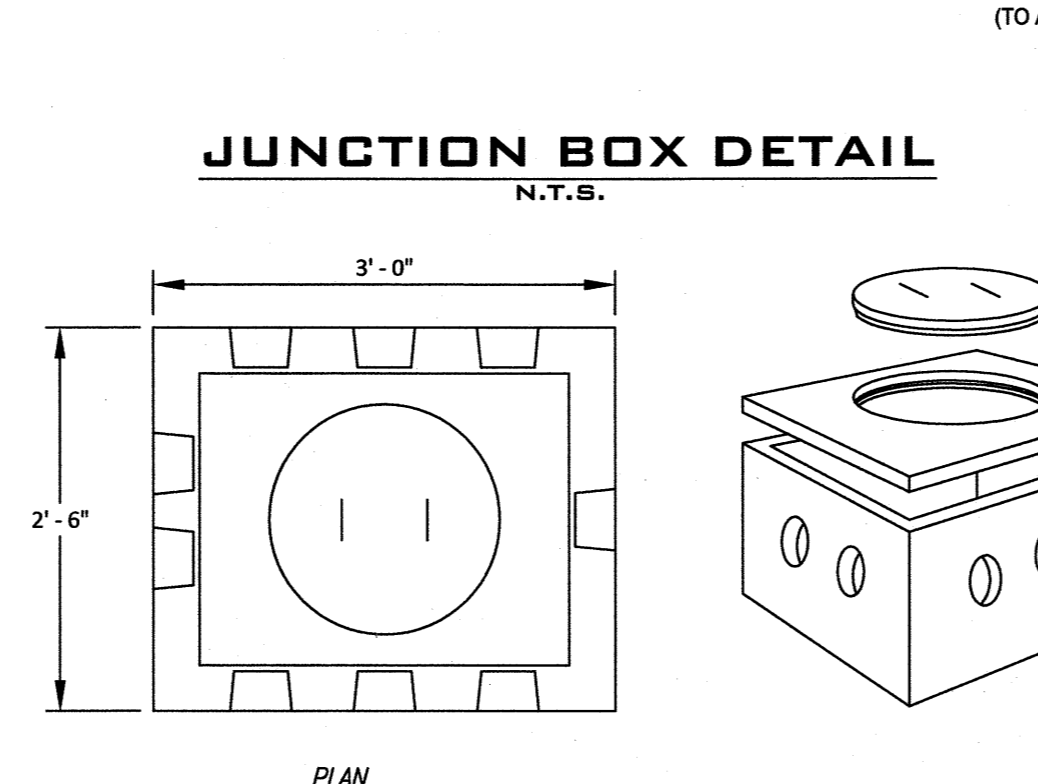
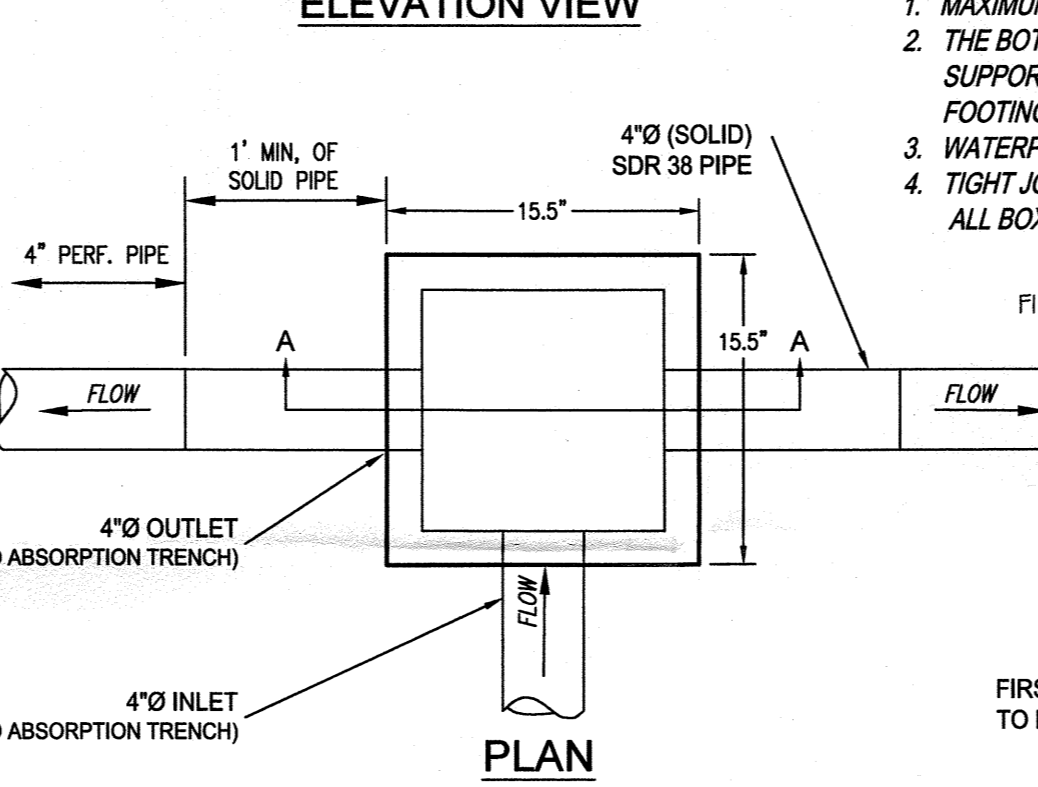
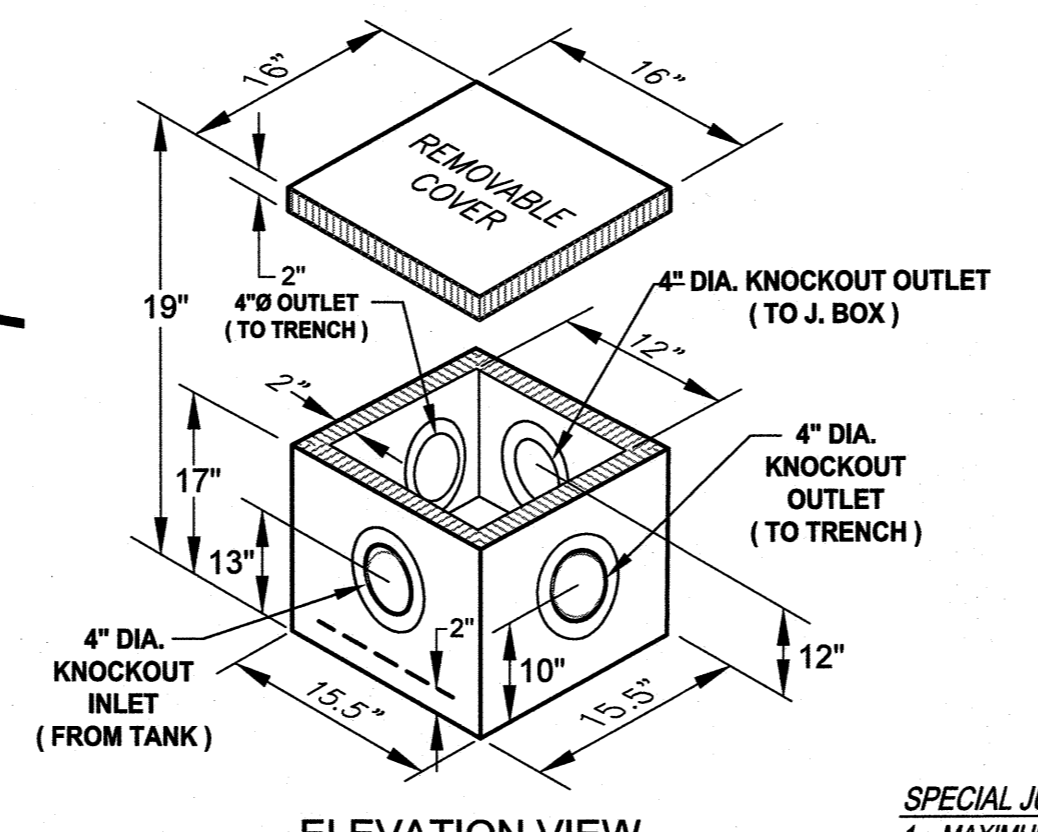
EMILIO DIMATTEO
17 N LAKE RD
ARMONK, NY 10504



PIPE SIZE (IN)	4
DUAL SIPHON	
DRAW (IN)	11.57"
DOSE (GALLONS)	250
INVERT IN TO INVERT OUT	21

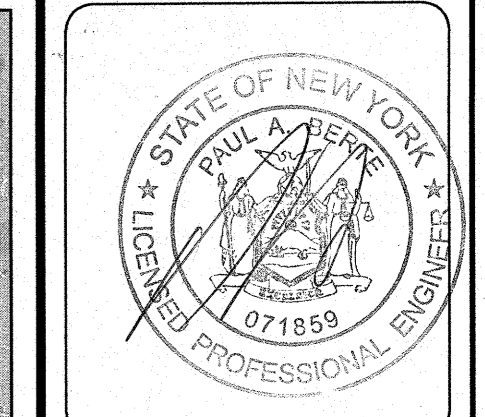
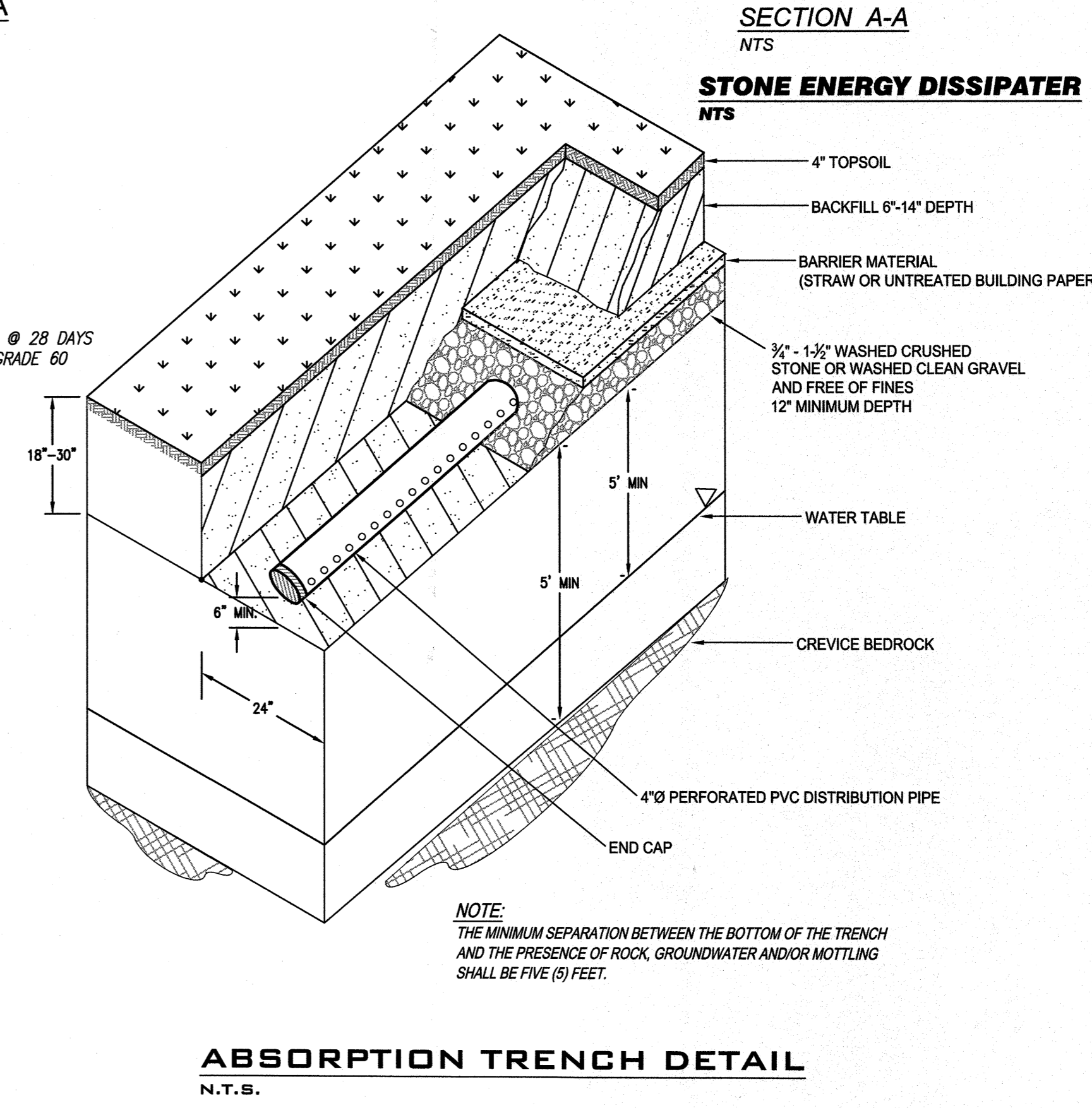
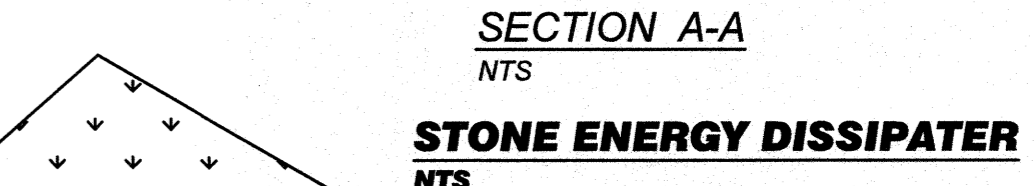
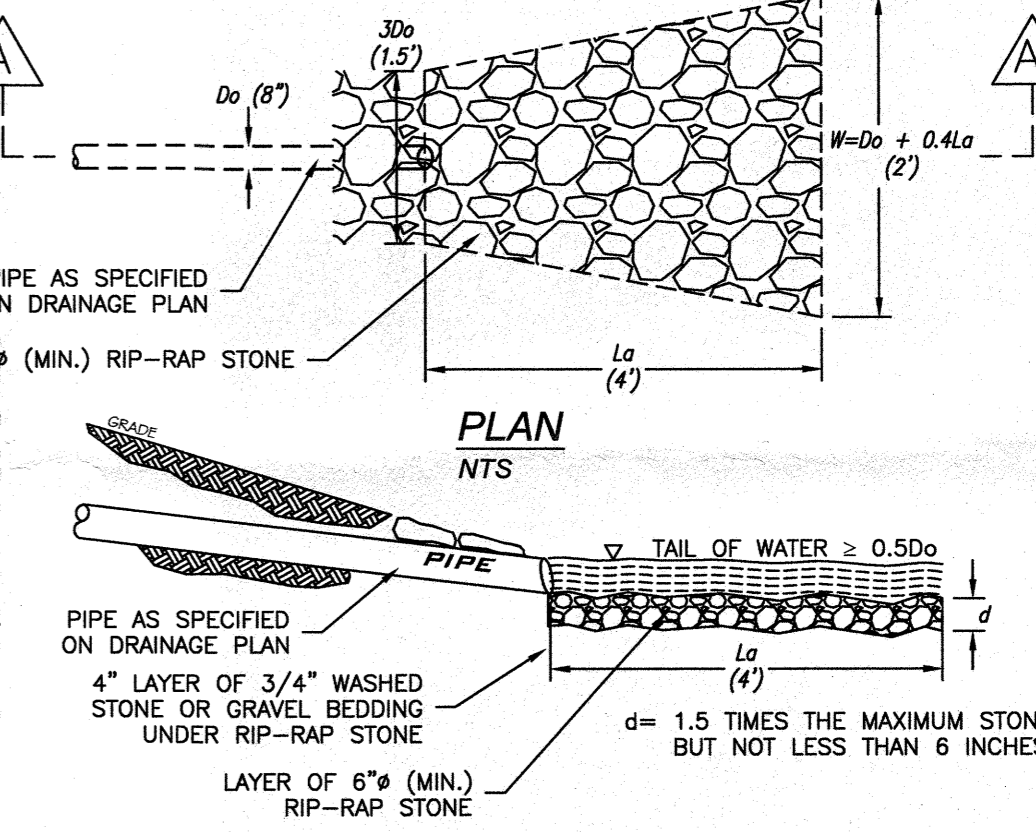
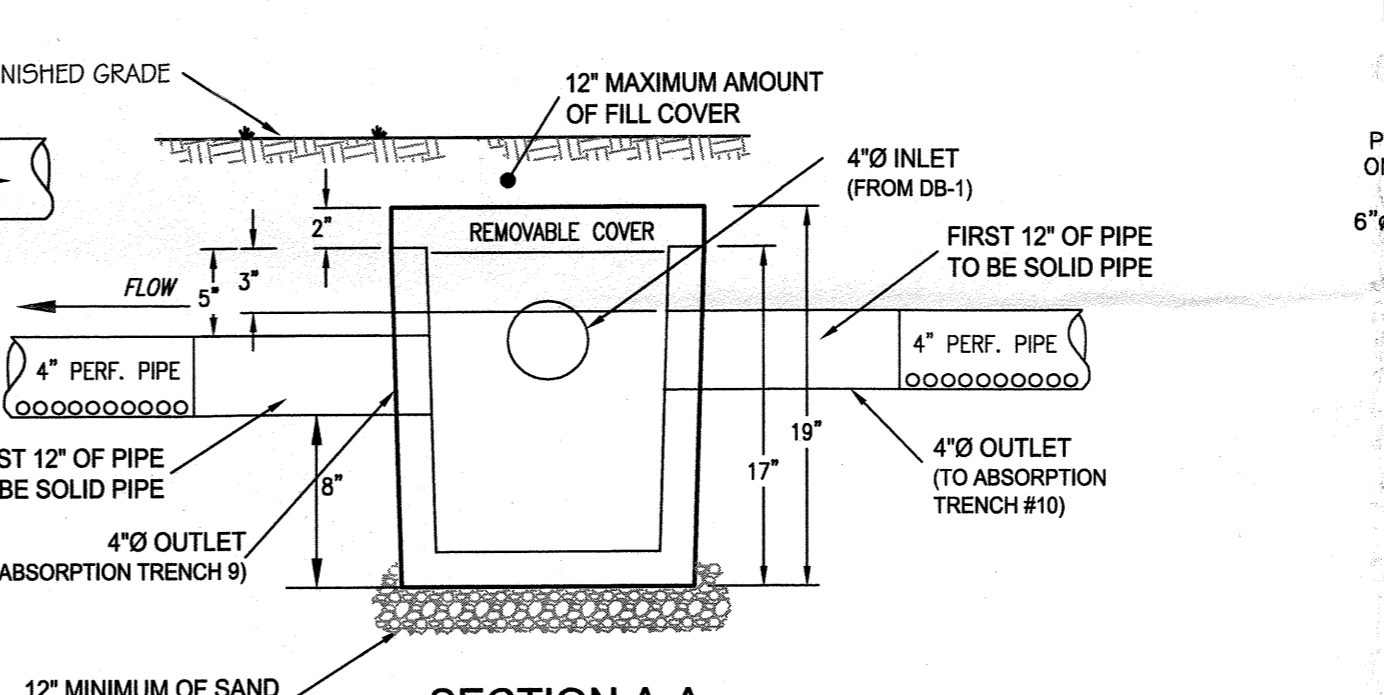
GALLONS OF DOSE	TANK SIZE (LxW)
323	4'-10" x 8'-6"

PRECAST SIPHON CHAMBER SC-5X9 AS MANUFACTURED BY WOODARD'S CONCRETE PRODUCTS, INC.



- SPECIAL JUNCTION BOX NOTES:**
- MAXIMUM COVER DEPTH ON JUNCTION BOX SHALL BE 12".
 - THE BOTTOM OF THE JUNCTION BOX MUST BE LEVEL AND SUPPORTED SOLIDLY BELOW THE FROST LINE AND THE FOOTING IS TO EXTEND TO 36" BELOW THE GROUND LEVEL.
 - WATERPROOFED MASONRY CONSTRUCTION.
 - TIGHT JOINT PIPE FROM SEPTIC TANK TO BOX AND BETWEEN ALL BOXES.

PRECAST ALTERNATING DUAL SIPHON DOSING TANK N.T.S.



fusion engineering pc
600 north broadway suite 215, white plains ny 10603
fusionengineeringpc.com
consulting & engineering design services
914-358-5009

ALTERATIONS BY ANY PERSON IN ANY WAY, OR ANY ITEM CONTAINED ON THIS DOCUMENT, UNLESS ACTING UNDER DIRECTION OF THE LICENSED ENGINEER WHOSE PROFESSIONAL SEAL IS AFFIXED HERETO, IS A VIOLATION OF TITLE VIII, ARTICLE 145 SECTION 7209.2 OF THE NEW YORK STATE EDUCATION LAW.

REV.	DATE	DESCRIPTION
2	7/12/19	REVISED PER WOOD COMMENTS
1	1/15/18	REVISED PER WOOD COMMENTS

SITE PLAN
MAD REAL PROPERTIES INC.
17 NORTH LAKE ROAD
ARMONK, NEW YORK 10504

PROJECT LOCATION

DATE: 10/15/18 SCALE: 1" = 20'-0"

DESIGN: SB DRAWN: SB

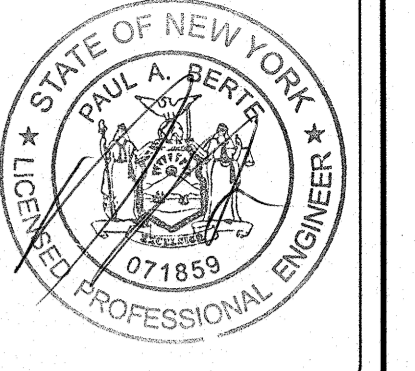
SHEET NO. 1 OF 2

WESTCHESTER COUNTY DEPARTMENT OF HEALTH
Bureau of Environmental Quality
FILE NUMBER: NOC 2020-11

APPROVED FOR THE ISSUANCE OF AN ONSITE WASTEWATER TREATMENT SYSTEM pursuant to Article VIII of the Westchester County Sanitary Code, subject to the provisions of the APPROVAL TO CONSTRUCT issued this date.

Approved by: [Signature] Date: 9/16/2020

500 OWTS - 1500 cu yd septic tank
1000 cu yd of Trench - AWW SYSTEM



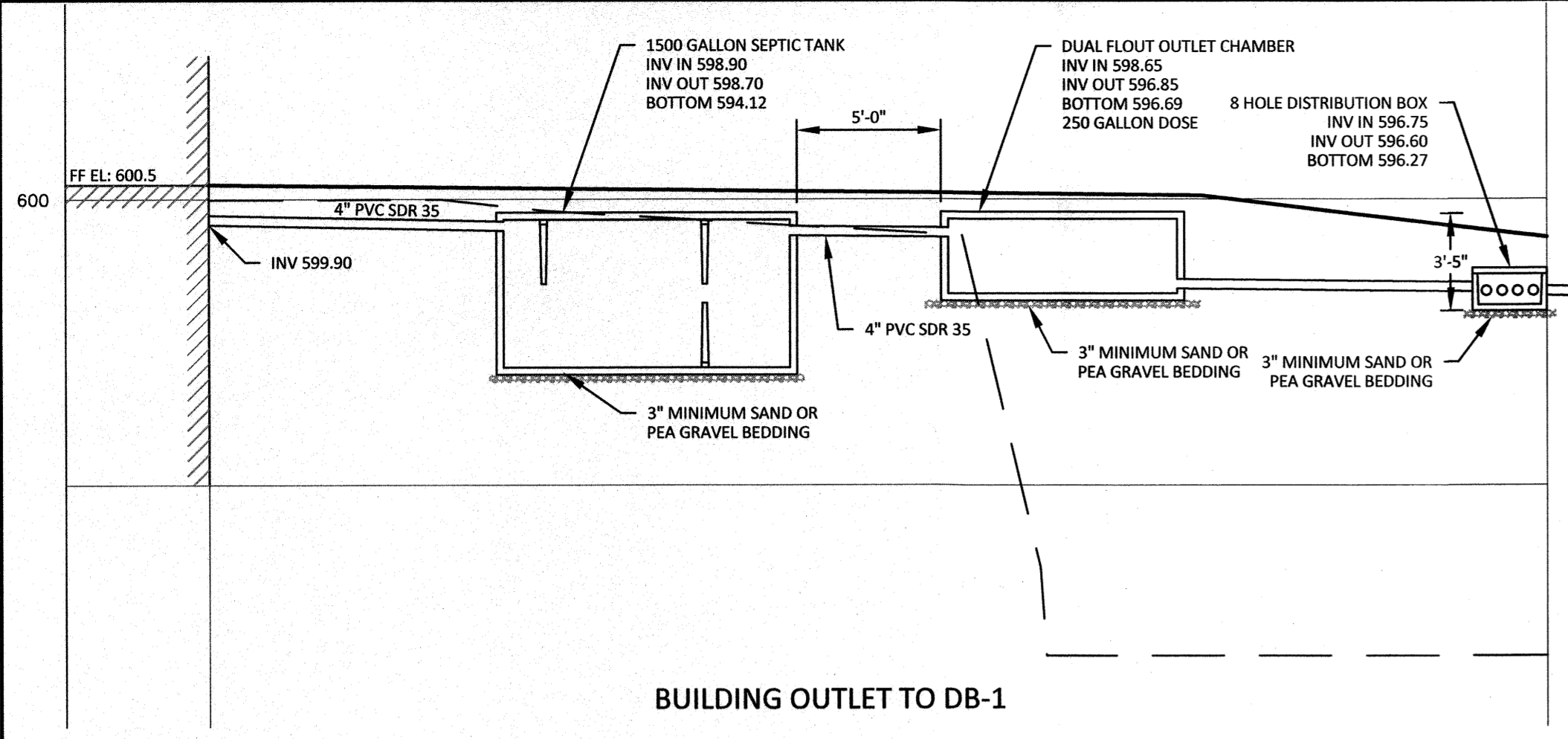
fusion engineering pc
 600 north broadway suite 215, white plains ny 10603
 fusionengineeringpc.com
 consulting & engineering design services
 914.358.5009

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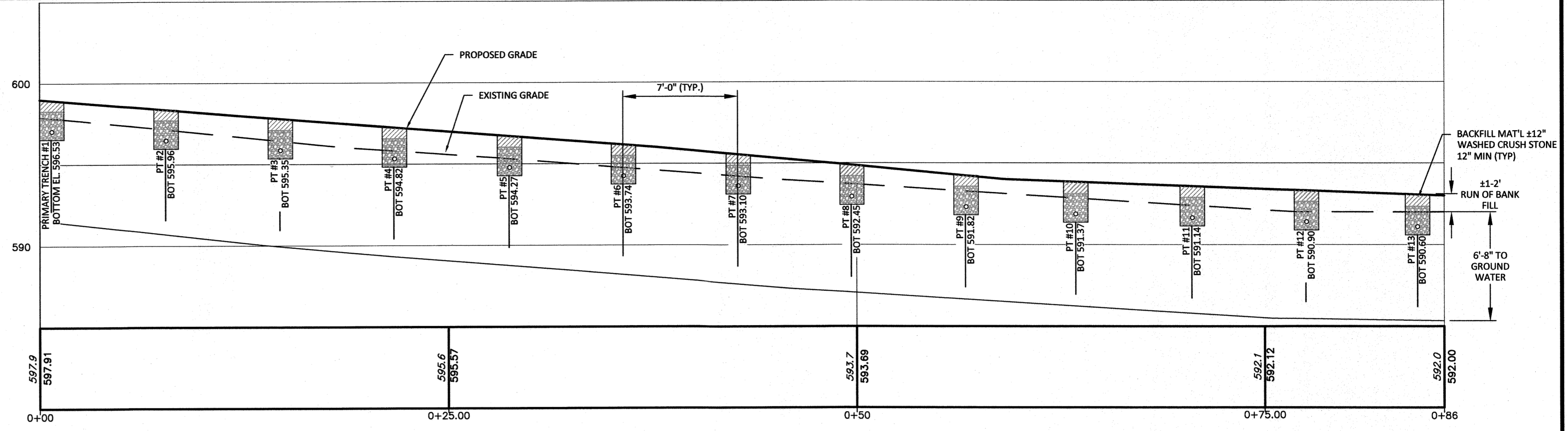
REV	DATE	REASON	DESCRIPTION
1	7/15/18	REVISED PER WOOD COMMENTS	
2	7/12/19	REVISED PER WOOD COMMENTS	

PROFILES AND DETAILS
MAD REAL PROPERTIES INC.
 17 NORTH LAKE ROAD
 ARMONK, NEW YORK 10504

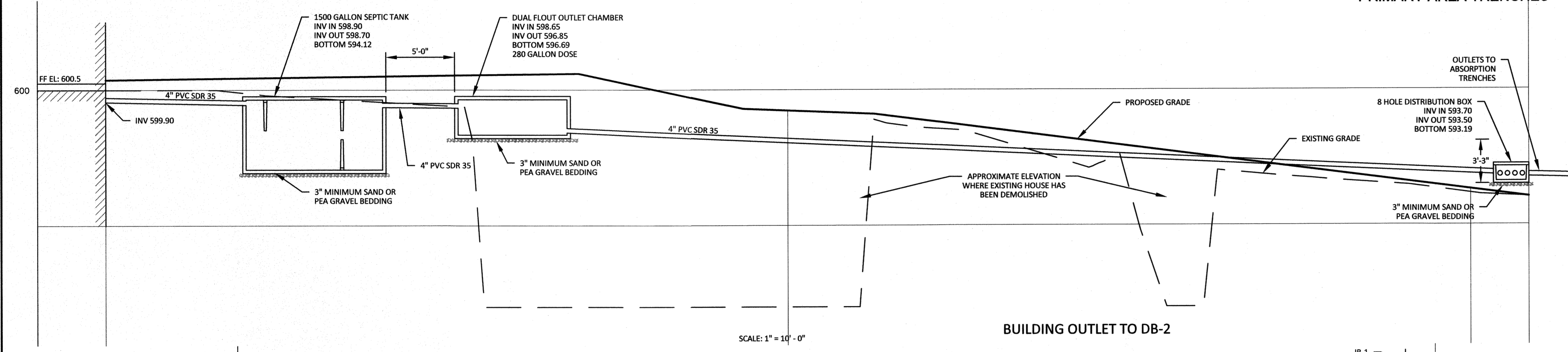
DATE	10/15/18	SCALE	1" = 5'-0"
DESIGN	SB	DRAWN	SB
SHEET NO.	2 OF 2		



BUILDING OUTLET TO DB-1

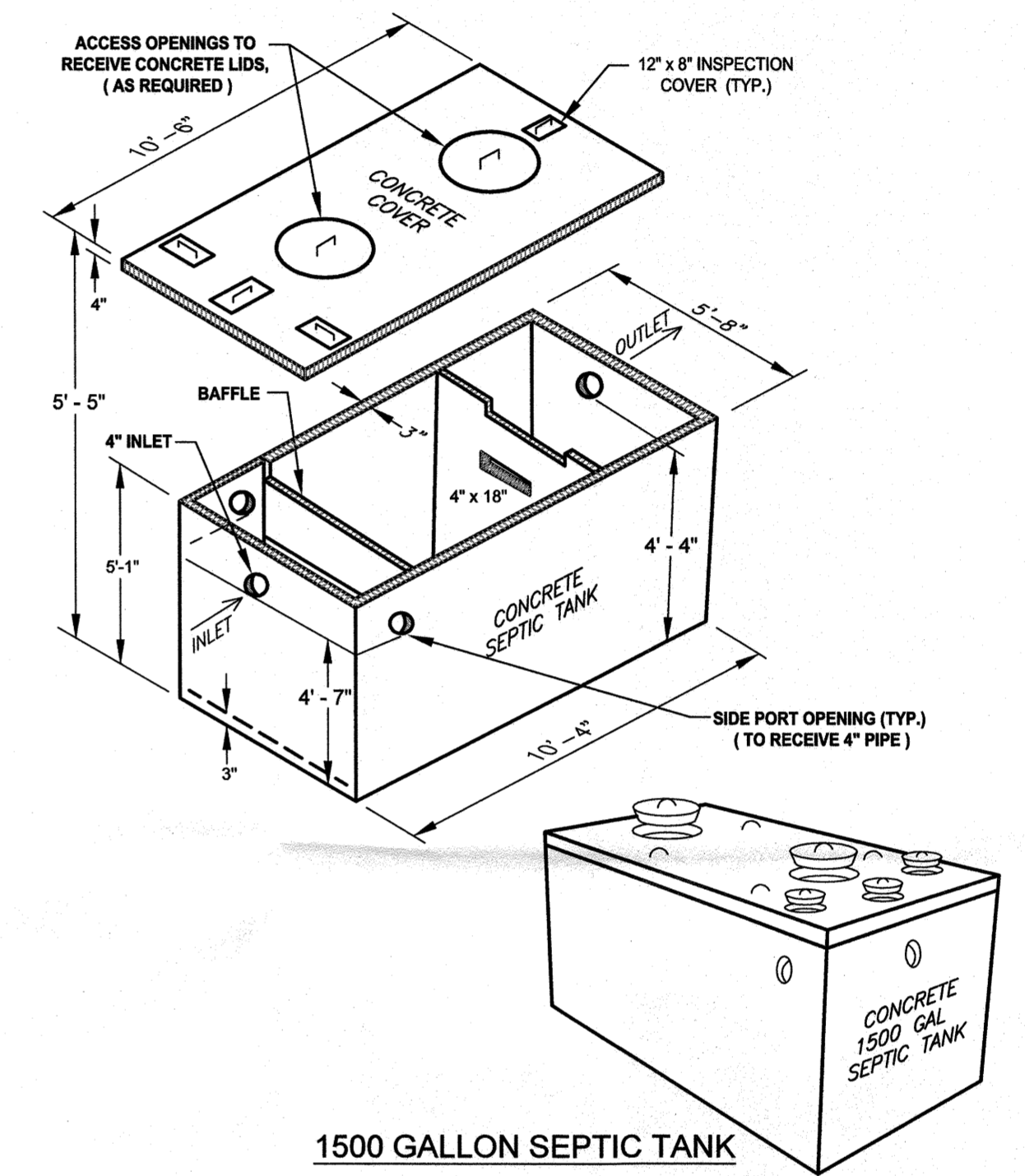


PRIMARY AREA TRENCHES



BUILDING OUTLET TO DB-2

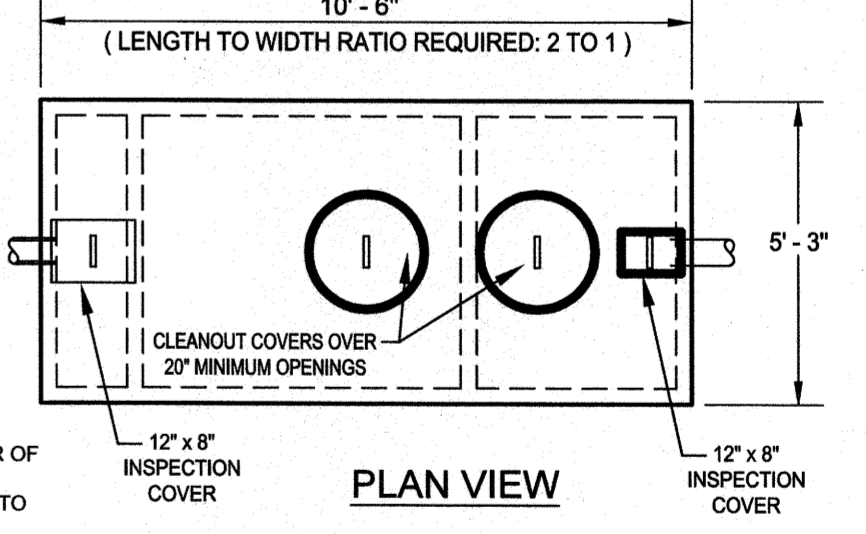
SCALE: 1" = 10'-0"



1500 GALLON SEPTIC TANK

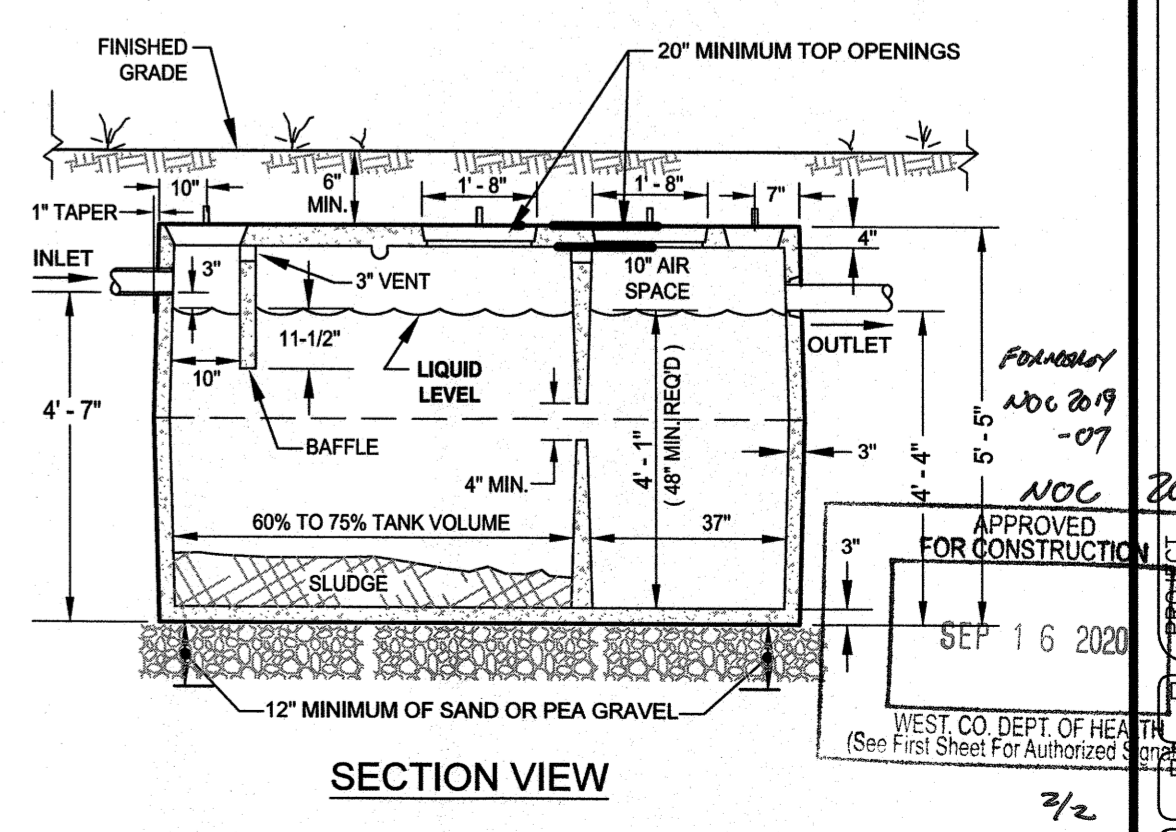
LIQUID CAPACITY	LENGTH	WIDTH	INLET INVERT	HEIGHT	LIQUID LEVEL
1500 GAL.	10'-6"	5'-8"	4'-7"	5'-5"	4'-1"

1500 GAL. AS MANUFACTURED BY WOODARD'S CONCRETE PRODUCTS, MODEL ST-1500 / 1500 GALLONS PRECAST SEPTIC TANKS.



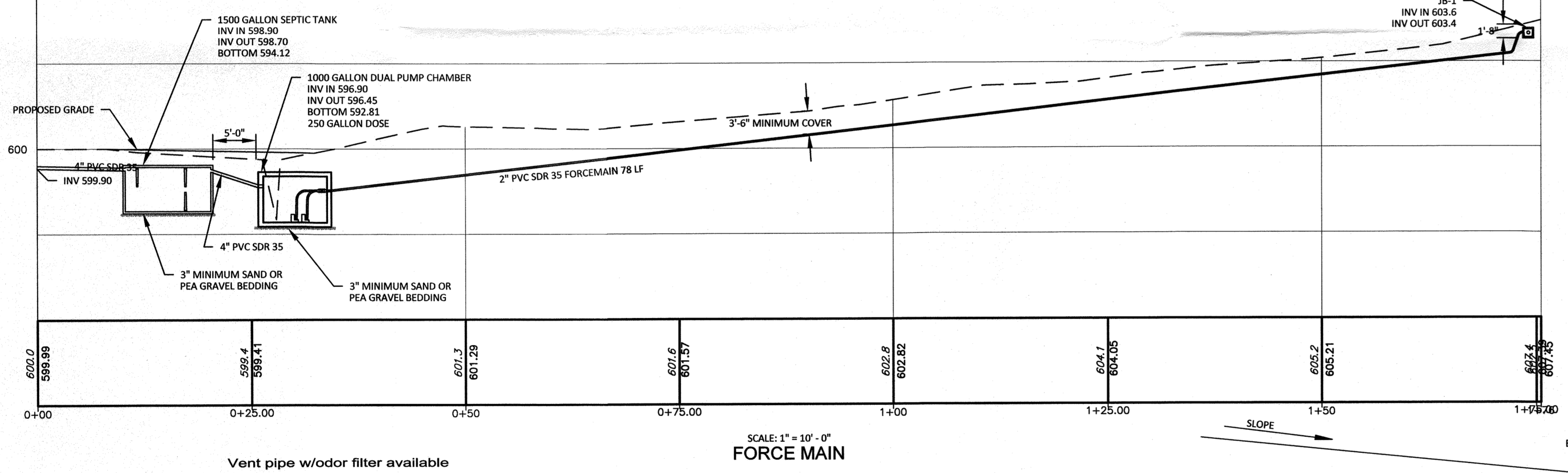
PLAN VIEW

SPECIAL SEPTIC TANK NOTE:
 SEPTIC TANK SHALL HAVE A MINIMUM FILL COVER OF 6" AND A MAXIMUM OF 24" OF FILL COVER. WHEN FILL COVER EXCEEDS 24" THEN MANHOLE TO GRADE MUST BE INSTALLED.



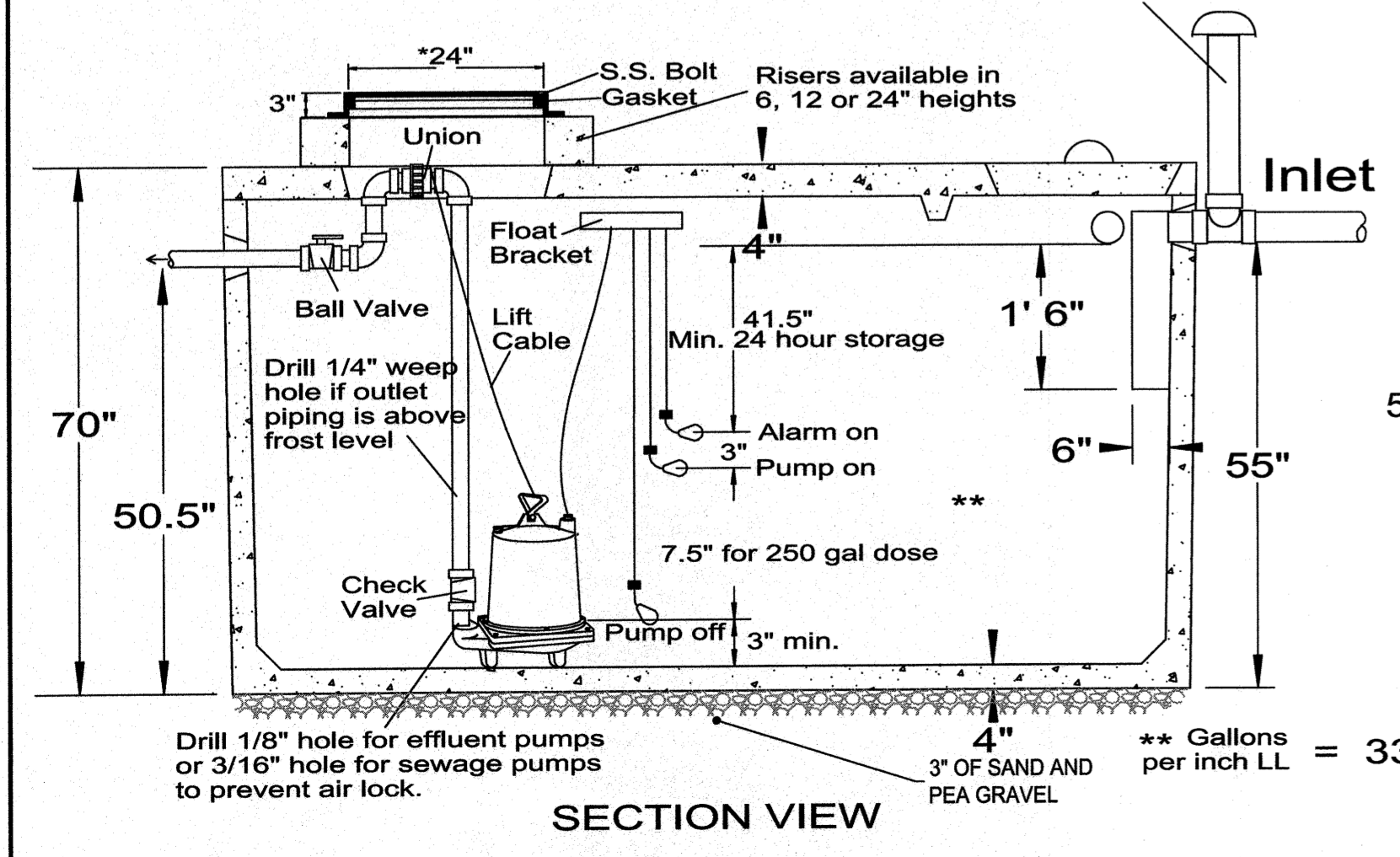
SECTION VIEW

1500 GALLON SEPTIC TANK DETAIL
 N.T.S. (AT PROPOSED RESIDENCE)



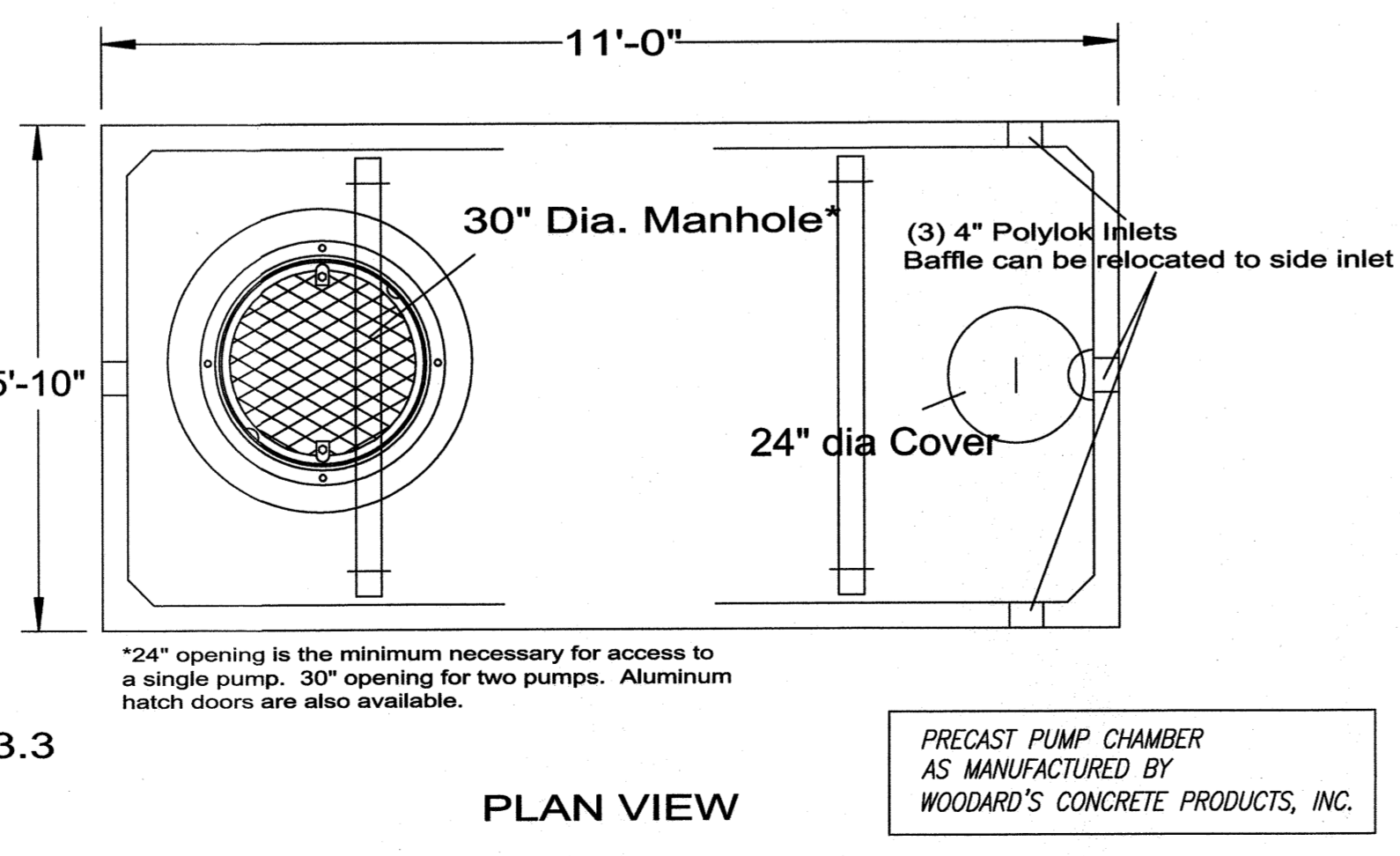
FORCE MAIN

SCALE: 1" = 10'-0"



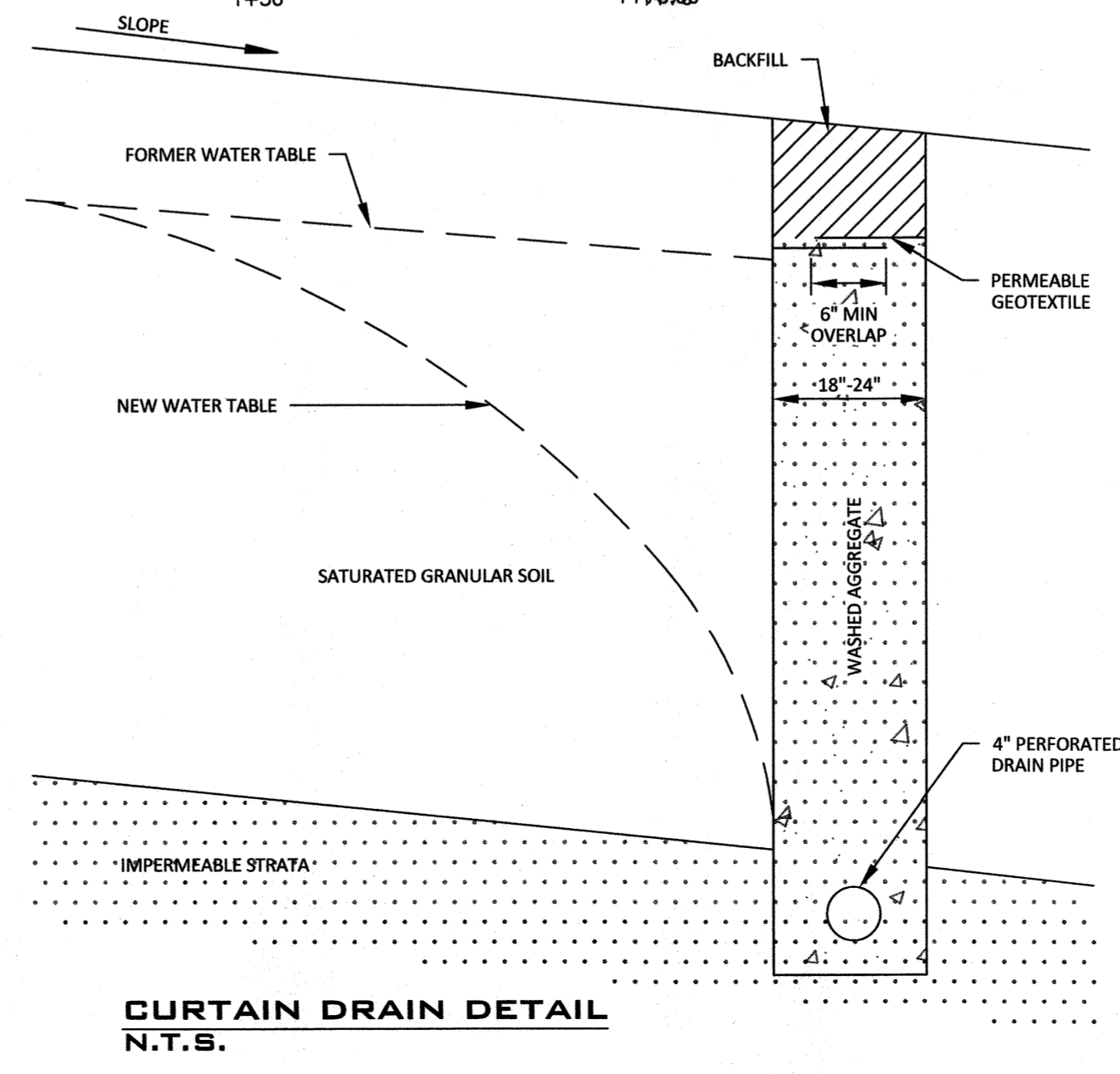
SECTION VIEW

FUTURE 1500 GALLON ALTERNATING DUAL PUMP CHAMBER DETAIL
 N.T.S.



PLAN VIEW

PRECAST PUMP CHAMBER AS MANUFACTURED BY WOODARD'S CONCRETE PRODUCTS, INC.



CURTAIN DRAIN DETAIL
 N.T.S.

Soil Testing Data

Development Site: 17 North Lake (T/W/C): Harrison County: Westchester
 Witnessed by Kellard Sessions Tests Conducted By: Stephen Berte (Fusion Engineerin
 Weather Conditions: Dry

Test Hole No.	Test Hole Depth (inches)	Soil Profile Description and Groundwater Depth (if identified)	Percolation Test							
			Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	
1	84	0-6": Top Soil 6"-54": Medium sandy loam 54"-84": Compact, fine snady loam 80" Water	Time	30	30	30				
			Water Drop(in)	1.25	1	1				
			Rate (min/inch)	24	30	30				
			End							
			Begin							
			Result	0	0:00	0:00	0:00			
			End							
			Begin							
			Result	0	0:00	0:00	0:00			
			End							
			Begin							
			Result	0	0:00	0:00	0:00			
			End							
			Begin							
			Result							
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			Begin							
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