



**TOWN OF NEWBURGH
PLANNING BOARD
TECHNICAL REVIEW COMMENTS**

PROJECT NAME: FAC SELF STORAGE/UHAUL-MIDDLEHOPE
PROJECT NO.: 21-33
PROJECT LOCATION: SECTION 20, BLOCK 2, LOT 2
REVIEW DATE: 13 MAY 2022
MEETING DATE: 19 MAY 2022
PROJECT REPRESENTATIVE: MECURIO-NORTON-TAROLLI-MARSHALL, ENGINEERING & LAND SURVEYING/LARRY MARSHALL

1. Additional soil testing is being performed in the infiltration basin to comply with DEC Stormwater Design Manual. Information regarding the 2" per hour exfiltration must be confirmed.
2. Catch basin "O5" identifies an invert of 259.21 while the stormwater model identifies it at 259.71. the slope of this pipe is identified at 6.5% while the model identifies it at 1.28%.
3. The discharge routing device #3 identifies a 3' long by 2' broad crested weir. The detail identifies it as 30". SWPPP should be appropriately updated once infiltration rates have been identified.
4. Status of the DOT review should be received.
5. The ten (10) rental trucks depicted appear to extend into the access drives based on their current locations.
6. The applicant's representative are requested to evaluate the trench drain now proposed at the access drive. An 8" discharge pipe is identified. A large portion of the parking lot will discharge to the trench drain based on current grading.

Respectfully submitted,

MHE Engineering, D.P.C.

A handwritten signature in blue ink that reads 'Patrick J. Hines'.

Patrick J. Hines
Principal
PJH/kbw

NEW YORK OFFICE

33 Airport Center Drive, Suite 202, New Windsor, NY 12553
845-567-3100 | F: 845-567-3232 | mheny@mhepc.com

PENNSYLVANIA OFFICE

111 Wheatfield Drive, Suite 1, Milford, PA 18337
570-296-2765 | F: 570-296-2767 | mhepa@mhepc.com

Lawrence J. Marshall, P.E.

John Tarolli, L.S.

Zachary A. Peters, P.E.

April 28, 2022

Planning Board
Town of Newburgh
308 Gardnertown Road
Newburgh, NY 12550
also via email: planningboard@townofnewburgh.org

Re: Job No. 4762
Lands of Five SAC Self-Storage Corp
Tax Parcel: 20-2-2
5325 NYS Route 9W
Town of Newburgh
Commercial Site Plan
Newburgh Project No. 2021-33

Dear Board Members:

Attached please find the following items in reference to the above-captioned project:

1. Twelve (12) copies of the revised Site Plan

The following comments are in response to a review by Patrick Hines of McGoey, Hauser, & Edsall Consulting Engineers, dated December 10, 2021:

1. No response required.
2. A detailed response to the Town's Landscape Architect's review is provided below.
3. The Planning Board declared their intent to be Lead Agency at the March 3, 2022 meeting.
4. Soils testing locations are shown on sheet 3 of the site plan, with soils testing results provided on sheet 8. Additional soils testing is currently being coordinated for the proposed stormwater facilities to accommodate the testing depths specified in the NYSDEC Design Manual. Preliminary testing was completed, but deeper testing is required based on the final elevations of the designed stormwater facilities.
5. The Sewage Disposal System Requirements Table has been revised to specify a DB-9 distribution box, consistent with the details on sheet 9. Coordination with NYSDOT will be completed for the necessary permits.
6. We are currently working with NYSDOT on the design of the proposed minor commercial entrance, and the necessary permitting.
7. The Typical Parking Space Details on sheet 4 have been revised to provide double-line striping, as required.
8. The proposed water valving near the building has been revised to ensure potable water service is terminated when the fire protection line is closed.
9. General Note 21 has been added on sheet 7, as requested.
10. No response required.



The following comments are in response to a review by Karen Arent, Landscape Architect, dated February 19, 2022:

1. A majority of the previously proposed retaining wall has been removed in favor of grading the grassed area between the proposed building and U.S. Route 9W and reducing the finished floor elevation of the building. A significantly smaller section of retaining wall is proposed along the southerly portion of the front of the building and the easterly half of the southerly side of the building. The retaining wall has a maximum height of five feet, a significant reduction from the 16 feet previously proposed. The presence of the stormwater infiltration basin between the building and the road prevents larger trees from being planted across the front of the building.
The reduction in overall retaining wall height will significantly soften the building for passengers traveling along U.S. Route 9W from the previously submitted site plan. Additionally, several Shadblow Serviceberry trees have been proposed to be planted around the westerly and northerly sides of the stormwater basin.
2. The limited space between the building and paved areas and the stormwater basin prevents larger trees from being planted in the landscaped areas. Smaller trees, Shadblow Serviceberry, have been specified as an alternative.
3. A majority of the retaining wall have been removed and additional landscaping has been added. The removal of the wall and the additional green space will produce a significantly “softer” development than previously proposed.
4. The majority of the retaining wall and safety fencing have been removed along the front of the building. The proposed fencing will be located approximately 75-feet from the southerly travel lane of NYS Route 9W and approximately 10-feet higher in elevation. Visibility of the safety fencing will be significantly reduced as a result of the current site plan revisions. The fencing is currently proposed as chain link fence; if the Board would prefer a different style of fencing, please advise for the applicant’s consideration.
5. The previously submitted building elevations include multiple architectural enhancements along the visible faces of the building. Additionally, the finished floor elevation of the building has been lowered by 8 feet.
6. A mixture of deciduous and evergreen landscaping has been provided along the southerly property line.
7. The drainage along the northerly side of the building has been updated as part of the most recent revisions. Additional landscaping has been provided along the northeasterly corner of the proposed building. No changes to the existing vegetation along the northerly property line are proposed.
8. See responses 6 & 7, above.
9. See response 6, above. Landscaping has been proposed along the southerly property line to screen the proposed building and access drive area.
10. A specification for the proposed wildflower mix has been included in Landscaping Note 6 on sheet 9.
11. Existing wooded areas are delineated by the existing treeline shown on the plans. Individual trees within the existing wooded areas are not shown. The proposed treeline



and limits of disturbance have also been indicated on the plan. A Tree Protection Detail has been provided on sheet 9.

12. The notes requested in comments 12 – 16 have been added on sheet 9 as Planting Soil Notes 4 – 8.

The following comments are in response to a review by Starke Hipp and Kenneth Wersted, P.E. of Creighton Manning Engineering dated March 1, 2022:

1. No response required.
2. No response required.

Please place this project on the next available meeting agenda for discussion.

If you have any questions or concerns, please feel free to contact me at (845) 744-3620 or by email at lmmarshall@mntm.co.

Sincerely,



Lawrence Marshall, P.E.

LM/lm
Enc.

Cc: Phil Apap (*via email*)
Patrick Hines (*via email*)
Dominic Cordisco (*via email*)
Kenneth Wersted, P.E. (*via email*)
Karen Arent, L:A



Legend

- PROPERTY LINE & CORNER
- SET 30" IRON ROAD AT PROPERTY CORNER
- ADJOINER PROPERTY LINE
- DEED LIBER, PAGE
- TAX PARCEL DESIGNATION (SECTION - BLOCK - LOT)
- EXISTING UTILITY POLE & LINE
- EXISTING CULVERT & SIZE
- STONE WALL
- VINYL FENCE
- CHAINLINK FENCE
- APPROXIMATE LOCATION OF EXISTING BUILDING / STRUCTURE
- SIGN LOCATION
- ZONING MINIMUM SETBACK LINE
- LIMITS OF TREELINE
- UNPAVED DRIVEWAY
- EXISTING CONTOUR LINE
- EXISTING CURBING
- APPROXIMATE LOCATION OF EXISTING WATER MAIN
- WATER VALVE
- EXISTING HYDRANT

- EXISTING LIGHTPOLE
- EXISTING CATCH BASIN
- EXISTING GUDE RAIL
- PROPOSED CONTOUR LINE
- PROPOSED STRUCTURE
- PROPOSED CONCRETE AREA
- PROPOSED WATER LINE
- PROPOSED WATER VALVE
- PROPOSED POLE-MOUNTED LIGHTING FIXTURE
- PROPOSED SIDEWALK
- PROPOSED RETAINING WALL
- TEST PIT LOCATION
- PERCOLATION LOCATION
- INFILTRATION TEST LOCATION
- PROPOSED SEPTIC TANK (SEE DETAIL)
- PROPOSED EFFLUENT PUMP STATION (SEE DETAIL)
- PROPOSED DISTRIBUTION BOX 5' 4" DIA. SOLID WALL PVC PIPE
- PROPOSED 4" DIA. PERFORATED PVC SEWER DISTRIBUTOR PIPE
- RESERVE 4" DIA. PERFORATED PVC SEWER DISTRIBUTOR PIPE

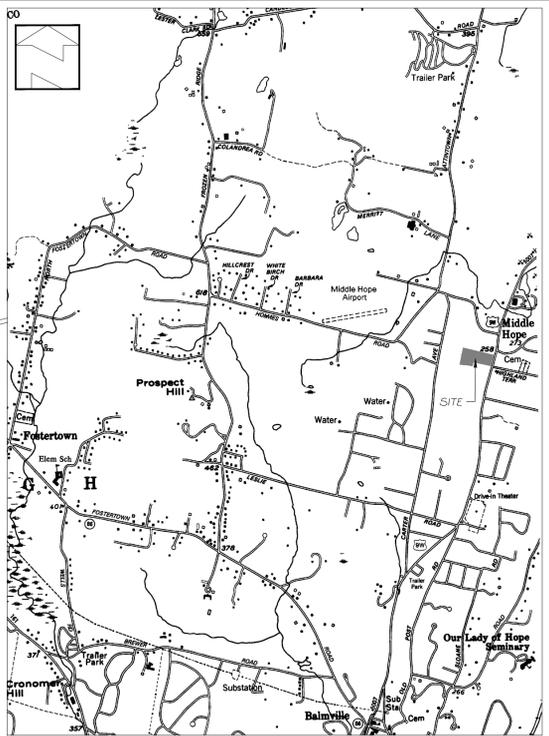
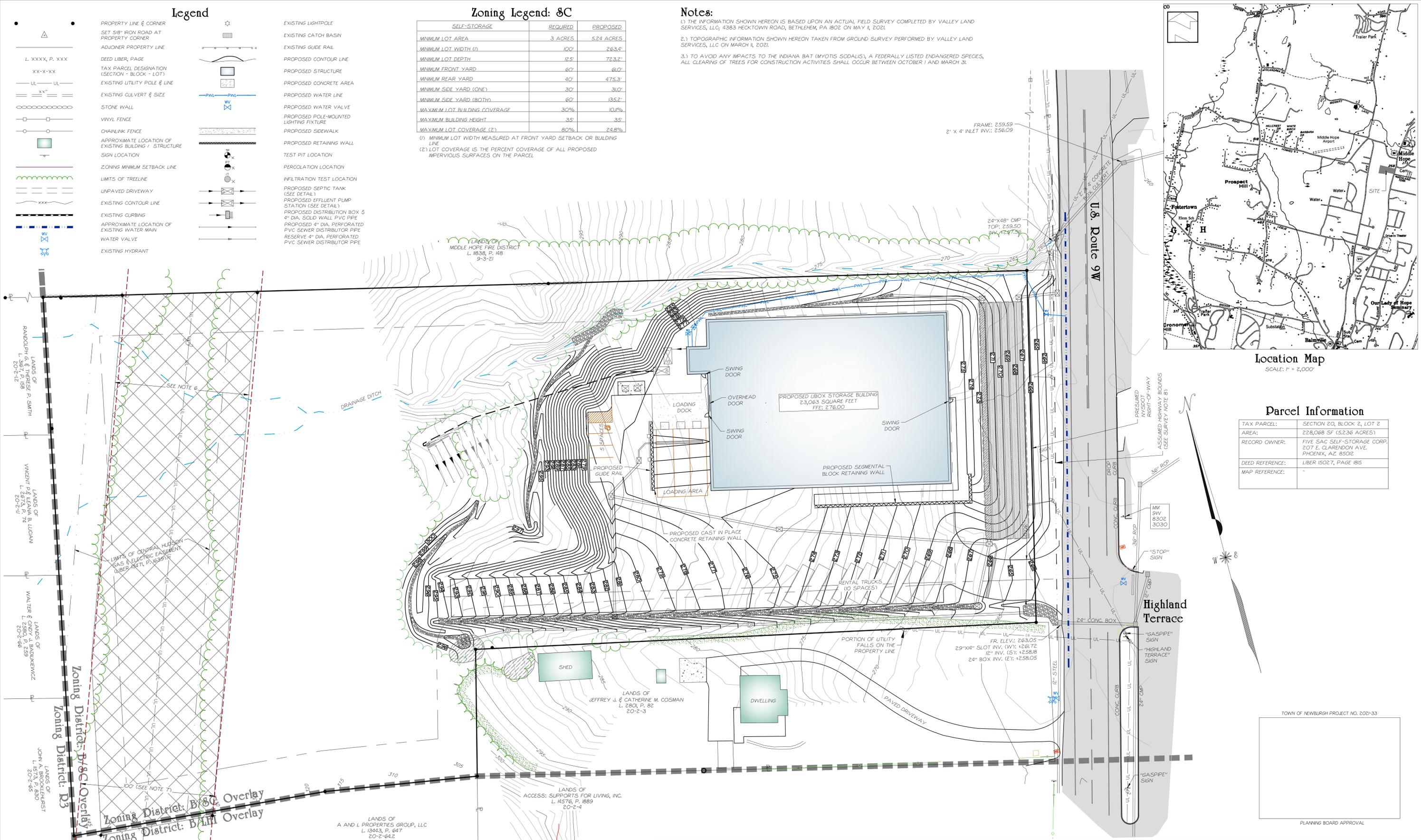
Zoning Legend: S8C

SELF-STORAGE	REQUIRED	PROPOSED
MINIMUM LOT AREA	3 ACRES	5.24 ACRES
MINIMUM LOT WIDTH (1)	100'	263.4'
MINIMUM LOT DEPTH	12.5'	723.2'
MINIMUM FRONT YARD	60'	60'
MINIMUM REAR YARD	40'	475.3'
MINIMUM SIDE YARD (ONE)	30'	31.0'
MINIMUM SIDE YARD (BOTH)	60'	135.2'
MAXIMUM LOT BUILDING COVERAGE	30%	10.1%
MAXIMUM BUILDING HEIGHT	3.5'	3.5'
MAXIMUM LOT COVERAGE (2)	80%	24.8%

(1) MINIMUM LOT WIDTH MEASURED AT FRONT YARD SETBACK OR BUILDING LINE
 (2) LOT COVERAGE IS THE PERCENT COVERAGE OF ALL PROPOSED IMPERVIOUS SURFACES ON THE PARCEL

Notes:

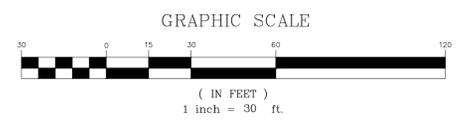
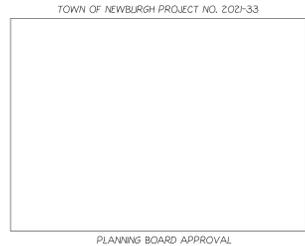
- 1) THE INFORMATION SHOWN HEREON IS BASED UPON AN ACTUAL FIELD SURVEY COMPLETED BY VALLEY LAND SERVICES, LLC, 4383 HECKTOWN ROAD, BETHLEHEM, PA 1802 ON MAY 11, 2021
- 2) TOPOGRAPHIC INFORMATION SHOWN HEREON TAKEN FROM GROUND SURVEY PERFORMED BY VALLEY LAND SERVICES, LLC ON MARCH 11, 2021
- 3) TO AVOID ANY IMPACTS TO THE INDIANA BAT (MYOTIS SODALIS), A FEDERALLY LISTED ENDANGERED SPECIES, ALL CLEARING OF TREES FOR CONSTRUCTION ACTIVITIES SHALL OCCUR BETWEEN OCTOBER 1 AND MARCH 31



Location Map
SCALE: 1" = 2,000'

Parcel Information

TAX PARCEL:	SECTION 20, BLOCK 2, LOT 2
AREA:	228,068 SF (5.236 ACRES)
RECORD OWNER:	FIVE SAC SELF-STORAGE CORP. 207 E. CLARENDON AVE. PHOENIX, AZ 85012
DEED REFERENCE:	LIBER 15027, PAGE 1B15
MAP REFERENCE:	-



"UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
 "ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED VALID, TRUE COPIES."
 "CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS, OR SUBSEQUENT OWNERS."

NO.	DATE	REVISION	BY
2	4-22-22	PLAN REVISIONS, COMMENTS	LJM
1	2-11-22	DETAILED SITE PLAN	ZAP

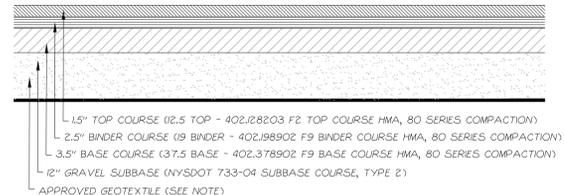
Overall Site Plan for U-Haul Self-Storage

MNTM
 Mercurio-Norton-Tarolli-Marshall
 ENGINEERING-LAND SURVEYING
 PO BOX 166, 45 MAIN STREET, PINE BUSH, NY 12566
 P: (845)744-3620 F: (845)744-3805 MNTM@MNTM.CO

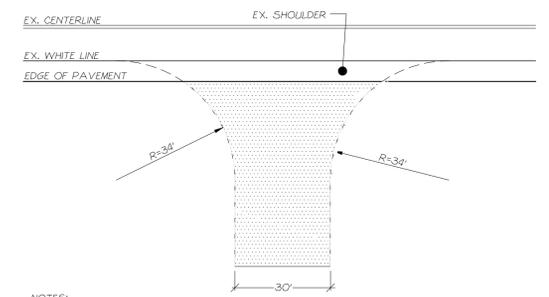
THIS MAP IS INCOMPLETE AND INVALID WITHOUT ALL SHEETS IN THE PLAN SET.
 TAX MAP PARCEL: 20-2-2
 TOWN OF NEWBURGH
 COUNTY OF ORANGE
 STATE OF NEW YORK
 DRAFTED BY: LJM
 DATE: 2021 SEPT 8
 PROJECT: 4762
 SHEET: 1 / 10

NYSDOT Notes:

- 1.) ALL WORK UNDER NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) JURISDICTION SHALL BE COMPLETED IN CONFORMANCE WITH NYSDOT 608-03 STANDARD SHEETS AND THE APPROVED DETAILS SHOWN ON THIS PLAN.
- 2.) SIGNS AND WORK ZONE TRAFFIC CONTROL SHALL ADHERE TO FEDERAL MUTCD WITH STATE SUPPLEMENT.
- 3.) PERFORM UTILITY INSTALLATION WITHIN THE NYSDOT RIGHT-OF-WAY (R.O.W.) IN ACCORDANCE WITH NYSDOT BLUE BOOK.
- 4.) ALL ADVERTISING SIGNS SHALL BE OFF THE NYSDOT RIGHT-OF-WAY.
- 5.) THE PUBLIC ROADWAY SHALL BE KEPT CLEAN AT ALL TIMES AND FREE OF ALL CONSTRUCTION DEBRIS.
- 6.) ALL WORK ZONE SIGNS AND FLAGGERS SHALL BE OFF THE ROADWAY WHEN NOT IN USE.
- 7.) NYSDOT NON-SEASONAL CONSTRUCTION IS NOT PERMITTED WITHIN THESE PLANS. ANOTHER REVIEW FROM NYSDOT IS REQUIRED WHEN ASKING FOR NON-SEASON WORK.
- 8.) ANY PROPOSED CHANGES WITHIN THE NYSDOT R.O.W. REQUIRES TWO (2) WEEK NOTICE TO THE REGION 8 NYSDOT PERMITS OFFICE AT (845) 431-5897.
- 9.) NOTIFY DIG SAFELY (8B) A MINIMUM OF TWO (2) DAYS PRIOR TO THE COMMENCEMENT OF WORK.
- 10.) ADHERE TO NYSDOT PERMIT CLOSURE PROCESS FOR INSPECTION, BOND RELEASE, AND CLOSURE OF PERMIT.
- 11.) ANY SIDEWALKS AND SIDEWALK RAMPS PROPOSED REQUIRED ADA (AMERICANS WITH DISABILITIES ACT) COMPLIANT INSPECTIONS. A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER SHALL PERFORM THE REQUIRED PRE-POUR CONCRETE FORM INSPECTION AND SUBMIT A SIGNED & DATED INSPECTION REPORT VERIFYING THE FORMS MEET ADA REGULATIONS PRIOR TO THE SIDEWALKS BEING POURED.
- 12.) AFTER COMPLETION OF SIDEWALK CONSTRUCTION, IF ANY, A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER SHALL COMPLETE AND SUBMIT A SIGNED AND SEALED NYSDOT "CRITICAL ELEMENTS FOR THE DESIGN AND LAYOUT AND ACCEPTANCE OF PEDESTRIAN FACILITIES" FORM CONFIRMING COMPLIANCE WITH ALL OTHER APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS. IN INSTANCES WHERE NONSTANDARD FEATURES CANNOT BE PROVIDED, A JUSTIFICATION FORM WILL NEED TO BE COMPLETED UNDER THE PROCESS PROMULGATED UNDER THE NYSDOT HIGHWAY DESIGN MANUAL CHAPTER 2 (REFER TO EXHIBIT 2-15A).
- 13.) NYSDOT CONSTRUCTION HOLIDAY LANE CLOSURES RESTRICTIONS AS STATED IN NYSDOT ENGINEERING DIRECTIVE ED 15-002 SHALL BE ADHERED TO.
- 14.) ALL UTILITIES WITHIN THE NYSDOT RIGHT OF WAY SHALL BE INSTALLED IN ACCORDANCE WITH THE NYSDOT BLUE BOOK (NYSDOT REQUIREMENTS FOR THE DESIGN AND CONSTRUCTION OF UNDERGROUND UTILITY INSTALLATIONS WITHIN THE STATE HIGHWAY RIGHT-OF-WAY).
- 15.) NYSDOT NON-SEASONAL CONSTRUCTION IS NOT PERMITTED WITHIN THESE PLANS. IF NON-SEASONAL WORK IS REQUESTED, A SEPARATE REVIEW IS REQUIRED TO BE COMPLETED BY NYSDOT.
- 16.) NYSDOT HIGHWAY WORK PERMIT AND NYSDOT STAMPED, APPROVED PLANS SHALL BE ISSUED AND PRESENT AT JOB LOCATION AT ALL TIMES THROUGHOUT CONSTRUCTION.
- 17.) ALL SIGNS AND WORK ZONE TRAFFIC CONTROL SHALL ADHERE TO FEDERAL MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) REGULATIONS WITH NEW YORK STATE SUPPLEMENT.
- 18.) THE SCHWABER NYSDOT RESIDENT ENGINEER SHALL BE CONTACTED AT LEAST SEVEN (7) DAYS PRIOR TO THE START OF ANY WORK.
- 19.) ALL MATERIALS USED WITHIN THE NYSDOT RIGHT-OF-WAY MUST COMPLY WITH THE CURRENT NYSDOT STANDARDS AND SPECIFICATIONS.
- 20.) ROADWAY SHALL BE KEPT CLEAN AT ALL TIMES AND FREE OF ALL CONSTRUCTION DEBRIS.
- 21.) ALL WORK ZONE SIGNS AND FLAGGERS SHALL BE OFF THE ROADWAY WHEN NOT IN USE.
- 22.) ANY PROPOSED CHANGES WITHIN THE NYSDOT RIGHT OF WAY REQUIRES A MINIMUM TWO (2) WEEK NOTICE TO THE NYSDOT REGION 8 PERMITS OFFICE.
- 23.) ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE COMPLETED IN ACCORDANCE WITH NYSDOT 608-03 STANDARD SHEETS.

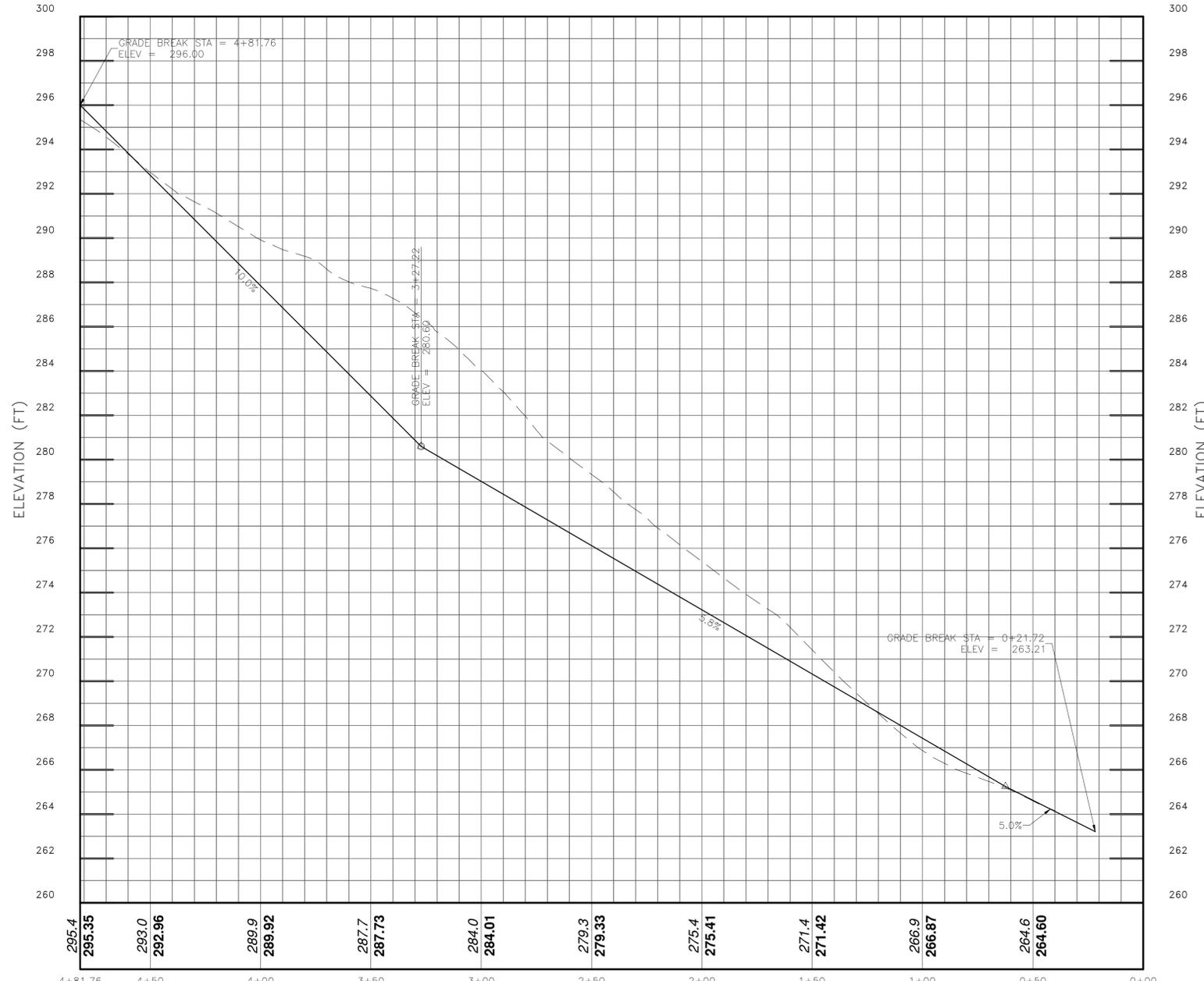


NYSDOT Asphalt Pavement Section



- NOTES:
- 1.) ALL MATERIALS SHALL MEET N.Y.S.D.O.T. SPECIFICATIONS.
 - 2.) TACK COAT SHALL BE APPLIED BETWEEN ALL HOT MIX ASPHALT LIFTS IN ACCORDANCE WITH SECTION 407 OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION CONSTRUCTION INSPECTION MANUAL.
 - 3.) ENTRANCE WORK SHALL BE COMPLETED IN ACCORDANCE WITH SHEET 9 OF NYSDOT STANDARD SHEET 608-03.

NYSDOT Entrance & Pavement Detail



NYSDOT Entrance Profile

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

CONVENTIONAL ROADWAY

Notes:

1. Short-term stationary is daytime work that occupies a location for more than 1 hour within a single daylight period.
2. The Barrier Vehicle (and Advance Warning Vehicle(s) where appropriate) shall maintain the appropriate Roll-Ahead Distance, be an unoccupied truck, positioned parallel to traffic, parking brake set, placed in 2nd gear (Park / Neutral), have the wheels aligned with the lane striping and lane to maintain lane discipline and to stay in lane if struck.
3. There shall be no workers, equipment or other vehicles in the buffer space or the roll ahead distance.

TABLE 1: ADVANCE WARNING SIGN SPACING

Roadway	PRECONSTRUCTION POSITION SPEED LIMIT (MPH)	A (FT.)	B (FT.)
URBAN LOW (30 MPH)	30	100	100
URBAN (35-40 MPH)	35	200	200
URBAN HIGH (45 MPH)	45	350	350
RURAL	50	500	500

TABLE 2: ROLL AHEAD DISTANCE

PRECONSTRUCTION POSITION SPEED LIMIT (MPH)	MIN	MAX
35 (1-4 Skip Lines)	50	100
30 (1-5 Skip Lines)	50	100
35 (1-5 Skip Lines)	50	100
40 (1-5 Skip Lines)	75	150
45 (1-5 Skip Lines)	100	200
50 (1-5 Skip Lines)	150	300

TABLE 3: REQUIRED SIGN SIZES*

ROADWAY	CONVENTIONAL HIGHWAY	EXPRESSWAY
W20-1	30x36 in.	48x48 in.
W21-5	30x36 in.	48x48 in.
G20-2	30x38 in.	48x24 in.

NYSDOT WORK ZONE TRAFFIC CONTROL SHORT TERM STATIONARY OPERATION INVOLVING SHOULDER CLOSURE WITHOUT LANE ENCROACHMENT ON TWO LANE CONVENTIONAL ROADWAY

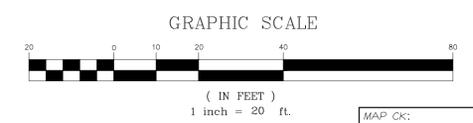
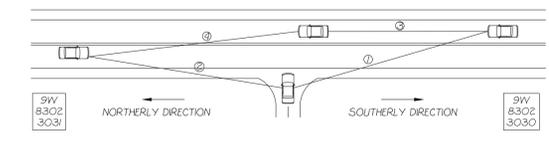
DECEMBER 2019 TAST-C4

Work Zone Traffic Control Plan

Sight Distance Table

MEASUREMENTS RECORDED BY: R. SMITHEN DATE: FEBRUARY 10, 2022
SPEED LIMIT ALONG US ROUTE 9W = 40 MPH

LOCATION	SIGHT LINE	DISTANCE	NOTES
PROPOSED ACCESS DRIVE	1	> 1,000'	MINOR CLEARING OF VEGETATION WITHIN R.O.W.
	2	+500'	MINOR GRADING REQUIRED ALONG SITE FRONTAGE
	3	> 1,000'	-
	4	> 1,000'	-



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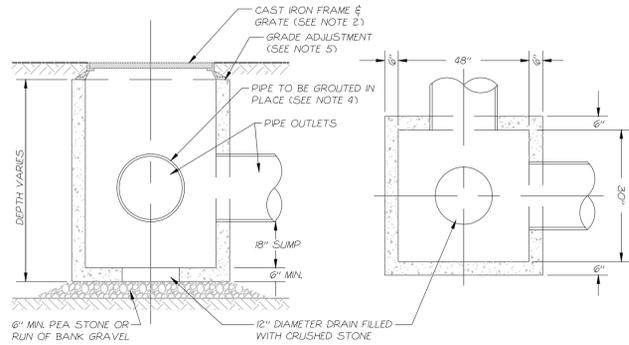
NO.	DATE	REVISION	BY
1	2-11-22	DETAILED SITE PLAN	ZAP

LAWRENCE MARSHALL PE #087107

NYSDOT Entrance Details for U-Haul Self-Storage

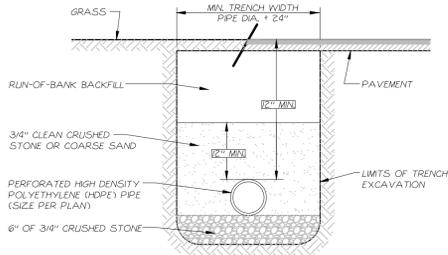
MNTM
Mercurio-Norton-Tarolli-Marshall
ENGINEERING & LAND SURVEYING
PO BOX 166, 45 MAIN STREET, PINE BUSH, NY 12566
P: (845) 744-3620 F: (845) 744-3805 MNTM@MNTM.CO

THIS MAP IS INCOMPLETE AND INVALID WITHOUT ALL SHEETS IN THE PLAN SET.
TAX MAP PARCEL: 200-2-2
TOWN OF NEWBURGH
COUNTY OF ORANGE
STATE OF NEW YORK
DRAFTED BY: LJM
DATE: 2021 SEPT 8
PROJECT: 4762
SHEET: 5 / 10



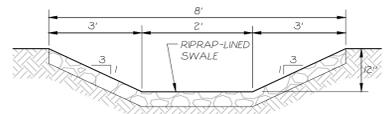
- NOTES:**
- 1) CATCH BASINS SHALL BE PRECAST CONCRETE CATCH BASIN, MODEL CB-30x48, AS MANUFACTURED BY WOODARDS CONCRETE PRODUCTS, BULLVILLE, NY, OR APPROVED EQUAL.
 - 2) CATCH BASINS SHALL BE EQUIPPED WITH A FLAT TOP FRAME AND GRATE, MODEL GRATE-30x48. GRATES SHALL BE BICYCLE GRATES, FRAMES AND GRATES AS MANUFACTURED BY WOODARDS CONCRETE PRODUCTS, BULLVILLE, NY, OR APPROVED EQUAL.
 - 3) STEPS SHALL BE PROVIDED 12" ON CENTER WHEN DEPTH OF BASIN EXCEEDS 4'-0".
 - 4) CONNECTIONS BETWEEN BASIN AND PIPE SHALL BE MADE BY FILLING THE SPACE AROUND EACH PIPE WITH MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIAL, OR CONCRETE REPAIR MATERIAL.
 - 5) GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 2.5" SHALL BE MADE WITH BEDDING MATERIAL MEETING THE REQUIREMENTS OF MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIALS OR CONCRETE REPAIR MATERIAL. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 6" SHALL BE MADE WITH COMBINATION OF PRECAST CONCRETE PAVERS AND BEDDING MATERIALS. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 12" SHALL BE MADE WITH CAST-IN-PLACE CONCRETE OR A COMBINATION OF PRECAST CONCRETE ADJUSTMENT ELEMENTS AND BEDDING MATERIALS.
 - 6) ALL CATCH BASINS SHALL BE CONSTRUCTED TO WITHSTAND A MINIMUM OF H-20 LOADINGS.
 - 7) THIS DETAIL APPLIES TO ALL PROPOSED CATCH BASINS, WITH THE EXCEPTION OF CATCH BASIN 1.

Typical Catch Basin Detail
NOT TO SCALE



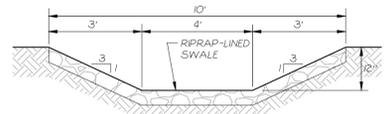
- NOTES:**
- 1) RUN-OF-BANK BACKFILL SHALL BE INSTALLED IN 6" LIFTS & COMPACTED TO 95% PROCTOR DENSITY. RUN OF BANK GRAVEL SHALL NOT CONTAIN STONES LARGER THAN 4".
 - 2) IN LAWN AREAS, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED ON TOP OF THE RUN-OF-BANK GRAVEL AND SHALL BE SEED AND MULCHED WITH SEED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS.
 - 3) IN PAVED AREAS, THE EXISTING PAVEMENT SHALL BE SAW CUT PRIOR TO REMOVAL. REPLACEMENT OF THE PAVEMENT SHALL BE COMPLETED WITH A MINIMUM OF 4" ITEM 4 LEVELING COURSE, 3" ASPHALT BINDER COURSE, AND 1/2" ASPHALT TOP COURSE.

Typical Storm Sewer Trench Detail
NOT TO SCALE



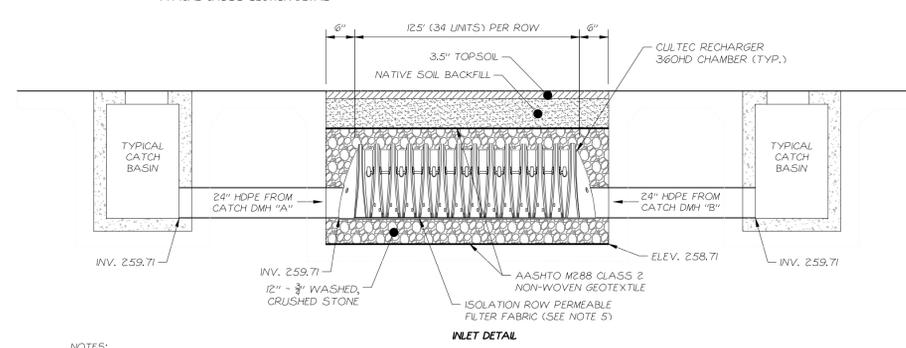
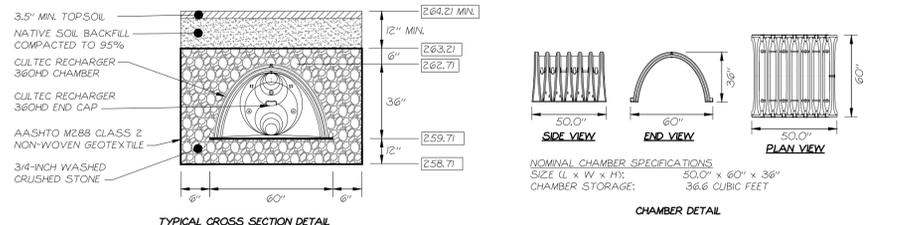
- NOTES:**
- 1) SWALE SHALL BE STABILIZED 6" RIPRAP, 12" THICK.

Runoff Diversion Swale "A" Detail



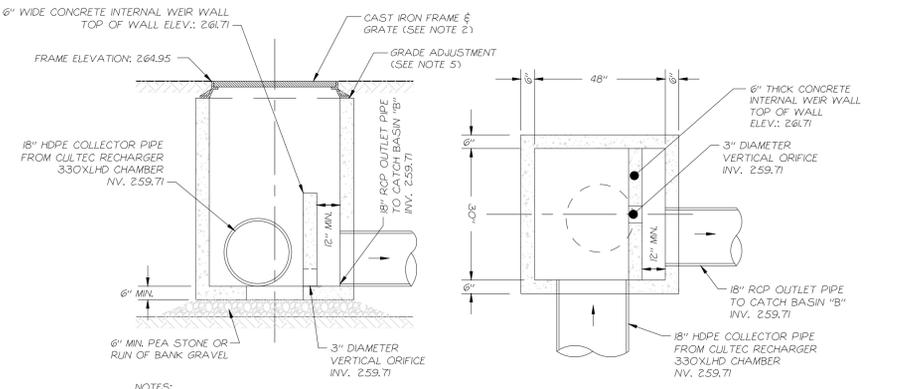
- NOTES:**
- 1) SWALE SHALL BE STABILIZED 6" RIPRAP, 12" THICK.

Riprap Lined Swale "A" Detail



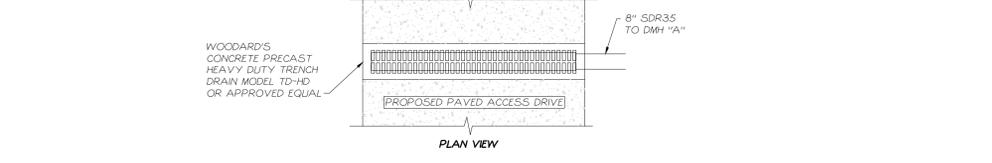
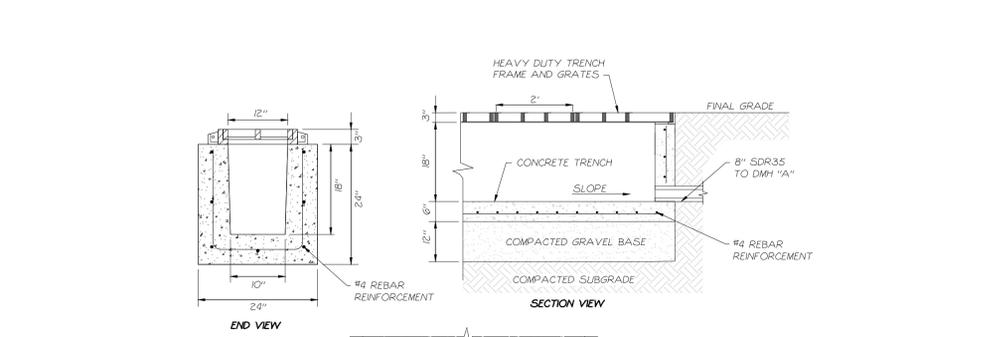
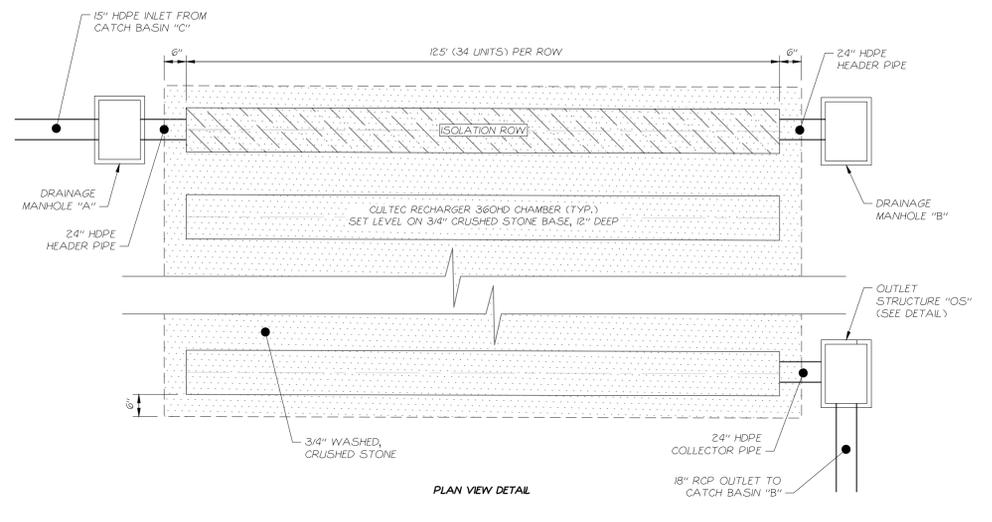
- NOTES:**
- 1) THE UNDERGROUND INFILTRATION BASIN SHALL BE CULTEC RECHARGER 360LHD STORMWATER CHAMBERS, OR APPROVED EQUAL THE FACILITY SHALL CONSIST OF 10 ROWS OF 25 UNITS EACH.
 - 2) INFILTRATION BASINS SHALL NOT BE INSTALLED UNTIL ALL TRIBUTARY AREAS HAVE BEEN ADEQUATELY STABILIZED. INFILTRATION BASINS SHALL NOT BE UTILIZED AS TEMPORARY SEDIMENT TRAPS DURING CONSTRUCTION.
 - 3) CHAMBERS SHALL BE LAID ON 3/4" CRUSHED STONE, MINIMUM 6" DEEP. THE AREA BETWEEN THE CHAMBERS AND A MINIMUM OF 6" AROUND THE SIDES OF THE CHAMBERS SHALL BE BACKFILLED WITH 3/4" CRUSHED STONE.
 - 4) THE INFILTRATION BASIN SHALL BE LINED WITH A PERMEABLE FILTER FABRIC (AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE, OR APPROVED EQUAL) INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.
 - 5) FOR THE ISOLATION ROW ONLY: AN ADDITIONAL LAYER OF PERMEABLE FILTER FABRIC SHALL BE INSTALLED ON TOP OF THE CRUSHED STONE BASE & BELOW THE CHAMBERS.
 - 6) THE SUBSURFACE INFILTRATION BASIN HAS BEEN DESIGNED WITH AN INFILTRATION RATE OF 2.0 INCHES PER HOUR BASED UPON THE PRELIMINARY SOILS TESTING COMPLETED IN THE SYSTEM AREA. THE SYSTEM AREA SHALL BE PROTECTED DURING CONSTRUCTION AND CARE SHALL BE TAKEN TO AVOID COMPACTION OF THE EXISTING SOILS AT OR BELOW THE BASE ELEVATION OF THE SYSTEM. RUNOFF SHALL NOT BE DIVERTED INTO THE SYSTEM UNTIL ALL TRIBUTARY DRAINAGE AREAS HAVE BEEN STABILIZED.

Subsurface Infiltration Basin "1" Detail
NOT TO SCALE



- NOTES:**
- 1) CATCH BASIN 1" SHALL BE A CUSTOM CATCH BASIN WITH INTERIOR DIMENSIONS OF 72" x 72". THE BASIN SHALL BE DESIGNED TO ACCOMMODATE A MINIMUM OF H-20 LOADINGS. THE BASIN SPECIFICATIONS SHALL BE CONSISTENT WITH A MODEL CB 30x48 PRECAST CATCH BASIN, AS MANUFACTURED BY WOODARDS CONCRETE PRODUCTS, BULLVILLE, NY, OR APPROVED EQUAL.
 - 2) CATCH BASIN SHALL BE EQUIPPED WITH A FLAT TOP FRAME AND GRATE, MODEL GRATE-30x48. THE GRATE SHALL BE LOCATED ON THE SIDE WALL CONTAINING THE ACCESS STEPS. GRATES SHALL BE BICYCLE GRATES, FRAMES AND GRATES AS MANUFACTURED BY WOODARDS CONCRETE PRODUCTS, BULLVILLE, NY, OR APPROVED EQUAL.
 - 3) STEPS SHALL BE PROVIDED 12" ON CENTER WHEN DEPTH OF BASIN EXCEEDS 4'-0".
 - 4) CONNECTIONS BETWEEN BASIN AND PIPE SHALL BE MADE BY FILLING THE SPACE AROUND EACH PIPE WITH MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIAL, OR CONCRETE REPAIR MATERIAL.
 - 5) GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 2.5" SHALL BE MADE WITH BEDDING MATERIAL MEETING THE REQUIREMENTS OF MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIALS OR CONCRETE REPAIR MATERIAL. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 6" SHALL BE MADE WITH COMBINATION OF PRECAST CONCRETE PAVERS AND BEDDING MATERIALS. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 12" SHALL BE MADE WITH CAST-IN-PLACE CONCRETE OR A COMBINATION OF PRECAST CONCRETE ADJUSTMENT ELEMENTS AND BEDDING MATERIALS.

Outlet Structure "O8" Detail
NOT TO SCALE

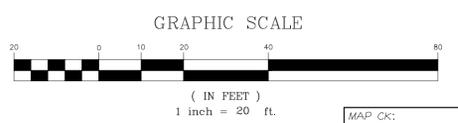


Typical Trench Drain Detail
NOT TO SCALE

Stormwater Facility Maintenance Requirements

THE OWNER / OPERATOR WILL BE RESPONSIBLE FOR ENSURING LONG TERM MAINTENANCE OF THE POST-CONSTRUCTION WATER QUALITY AND QUANTITY CONTROL DEVICES. MAINTENANCE OF THE DEVICES IS REQUIRED TO ENSURE PROPER TREATMENT OF STORMWATER RUNOFF. DESCRIPTIONS OF THE MAINTENANCE REQUIREMENTS FOR THE PROPOSED PRACTICES ARE PROVIDED BELOW AND ARE INCLUDED IN APPENDIX N OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THE PROJECT.

1. **DIVERSION SWALES:** DIVERSION SWALES SHALL BE INSPECTED REGULARLY TO ENSURE PROPER FUNCTION. PARTICULAR ATTENTION SHALL BE GIVEN TO EVIDENCE OF SCOURING ALONG THE BOTTOM OF THE SWALE AND THE ACCUMULATION OF SEDIMENT. ANY AND ALL DEBRIS SHALL BE REMOVED DURING MAINTENANCE OPERATIONS. THE SWALE AND EMBANKMENT SHALL BE MOVED ON A SEMI-ANNUAL BASIS. ANY SCOURING OR EROSION OF PREVIOUSLY STABILIZED AREAS SHALL BE REPAIRED AND IMMEDIATELY STABILIZED ON AN ANNUAL BASIS.
2. **OUTLET STRUCTURES:** OUTLET STRUCTURES SHALL BE INSPECTED REGULARLY TO ENSURE THE DEVICES ARE PROPERLY FUNCTIONING. ANY AND ALL DEBRIS LOCATED WITHIN THE BASINS SHALL BE REMOVED DURING INSPECTION. SPECIAL ATTENTION SHOULD BE GIVEN TO THE OUTLET PIPE TO ENSURE PROPER DISCHARGE.
3. **ROCK PROTECTION:** ROCK PROTECTION AREAS SHALL BE INSPECTED REGULARLY FOR EVIDENCE OF EROSION OR SEDIMENT TRANSFER. ANY AND ALL DEBRIS SHALL BE REMOVED DURING THE COURSE OF THE INSPECTION. THE ROCK PAD SHALL BE CLEANED AND REPAIRED OR REPLACED WHENEVER MORE THAN ONE (1) INCH OF SEDIMENT HAS ACCUMULATED ON THE SURFACE OF THE STONE. ACCUMULATED SEDIMENT AT THE OUTLET IS INDICATIVE OF SCOURING OR EROSION OCCURRING UP-SLOPE. IF SEDIMENT ACCUMULATION IS EVIDENT AT THE ROCK PROTECTION AREA, A THOROUGH INSPECTION OF THE UPSLOPE DRAINAGE SYSTEM SHOULD BE COMPLETED TO DETERMINE THE CAUSE.
4. **SOIL RESTORATION:** VEGETATED AREAS SHALL BE INSPECTED REGULARLY FOR EVIDENCE OF EROSION OR SCOURING. BARE OR ERODED AREAS SHALL BE REPAIRED AND RESEDED TO ESTABLISH A STABILIZED VEGETATIVE COVER. VEGETATED AREAS SHALL BE MOVED ON A SEMI-ANNUAL BASIS AND SHALL BE KEPT CLEAR OF VEHICULAR AND FOOT TRAFFIC.
5. **SUBSURFACE INFILTRATION BASINS:** INFILTRATION BASINS SHALL BE INSPECTED REGULARLY TO ENSURE THE DEVICES ARE PROPERLY FUNCTIONING. PARTICULAR ATTENTION SHALL BE GIVEN TO CLOGGING OF DEVICES, EVIDENCE OF EROSION, ACCUMULATION OF SEDIMENT. ANY AND ALL DEBRIS LOCATED WITHIN THE INLET CATCH BASINS SHALL BE REMOVED DURING INSPECTION. SPECIAL ATTENTION SHOULD BE GIVEN TO THE OUTLET STRUCTURE TO ENSURE PROPER FUNCTION. THE AREAS AROUND THE BASIN SHALL BE MOVED, AT A MINIMUM, ON A SEMI-ANNUAL BASIS. ANY SCOURING OR EROSION OF PREVIOUSLY STABILIZED AREAS SHALL BE REPAIRED ON AN ANNUAL BASIS.



"UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED VALID, TRUE COPIES."
"CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS, OR SUBSEQUENT OWNERS."

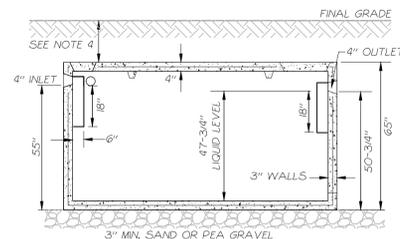
NO.	DATE	REVISION	BY
2	4-22-22	SITE REVISIONS, COMMENTS	ZAP
1	2-11-22	DETAILED SITE PLAN	ZAP

LAWRENCE MARSHALL PE #087107

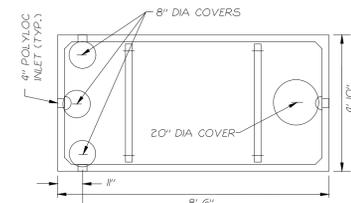
Details for Site Plan for U-Haul Self-Storage

MNTM
Mercurio-Norton-Tarolli-Marshall
PO BOX 166, 45 MAIN STREET, PINE BUSH, NY 12566
P: (845)744.3620 F:(845)744.3805 MNTM@MNTM.CO

THIS MAP IS INCOMPLETE AND INVALID WITHOUT ALL SHEETS IN THE PLAN SET.
TAX MAP PARCEL: 00-2-2
TOWN OF NEWBURGH
COUNTY OF ORANGE
STATE OF NEW YORK
DRAFTED BY: LJM
DATE: 2021 SEPT 8
PROJECT: 4762
SHEET: 6 / 10



CROSS SECTION VIEW



PLAN VIEW

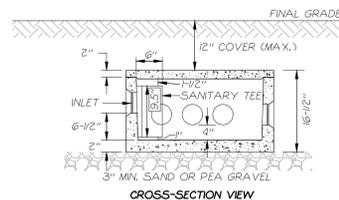
NOTES:
1) SEPTIC TANK SHALL BE MODEL ST-1000, OR APPROVED EQUAL, AS MANUFACTURED BY: WOODARDS CONCRETE PRODUCTS, INC. 629 LYBOLT ROAD BULLVILLE, NY 10915 (845) 361-3471

- 2) ALL PIPE JOINTS (INLET & OUTLET PIPES) SHALL BE SEALED WITH ASPHALTIC MATERIAL OR EQUIVALENT.
- 3) INLET Baffle CAN BE RELOCATED TO THE SIDE.
- 4) IF COVER EXCEEDS 12" A RISER MUST BE USED TO ALLOW ACCESS.

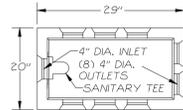
CONCRETE MINIMUM STRENGTH: 4,000 P.S.I. AT 28 DAYS
STEEL REINFORCEMENT: 6" x 6" X10 GA. STEEL WIRE MESH #4 REBAR AROUND PERIMETER
CONSTRUCTION JOINT: SEALED WITH BUTYL RUBBER CEMENT WEIGHT: 6,700 LBS
LOAD RATING: 300 PSF

Typical Precast 1,000-Gallon Concrete Septic Tank

NOT TO SCALE



CROSS-SECTION VIEW



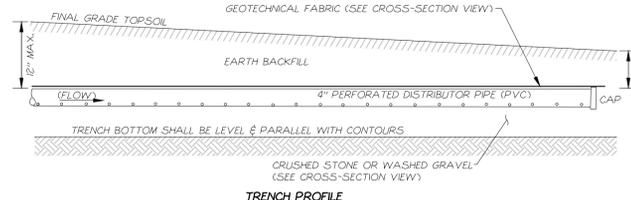
PLAN VIEW

NOTES:
1) DISTRIBUTION BOX SHALL BE MODEL DB-9, OR APPROVED EQUAL, AS MANUFACTURED BY: WOODARDS CONCRETE PRODUCTS, INC. 629 LYBOLT ROAD BULLVILLE, NY 10915 (845) 361-3471

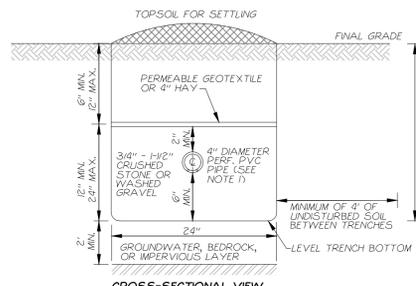
- 2) FLOW EQUALIZERS SHALL BE USED TO ENSURE EQUAL FLOW TO EACH OUTLET PIPE. YEARLY CHECKING AND ADJUSTMENT IS RECOMMENDED.
- 3) ALL PIPE JOINTS (INLET & OUTLET) SHALL BE SEALED WITH ASPHALTIC MATERIAL OR EQUIVALENT.
- 4) A SANITARY TEE, 90° ELBOW, OR OTHER APPROVED Baffle SHALL BE INSTALLED AT THE INLET.
- 5) OUTLET INVERTS SHALL BE SET AT THE SAME ELEVATION.
- 6) OUTLETS MUST BE USED IN A MANNER TO ALLOW ACCESS TO THE NECESSARY NUMBER OF OUTLETS FOR THE EXPANSION AREA WITHOUT DISTURBING THE INITIAL SYSTEM.

Typical Precast Concrete Distribution Box

NOT TO SCALE



TRENCH PROFILE



CROSS-SECTIONAL VIEW

NOTES:
1) DISTRIBUTION PIPE SHALL BE INSTALLED WITH PIPE PERFORATIONS FACING DOWN.

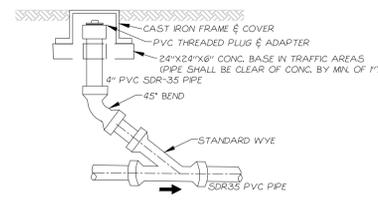
- 2) DO NOT INSTALL TRENCHES IN WET SOIL. TRENCH SIDES AND BOTTOMS SHALL BE RAKED PRIOR TO INSTALLATION OF GRAVEL.
- 3) THE END OF EACH LATERAL SHALL BE CAPPED.
- 4) LATERALS SHALL BE SLOPED 1/8" - 1/32" PER FOOT FOR GRAVITY SYSTEMS. LATERALS SHALL BE INSTALLED LEVEL FOR PUMPED OR DOSED SYSTEMS.
- 5) LATERALS SHALL BE INSTALLED 6 FEET ON CENTER, MINIMUM.

Absorption Trench Detail



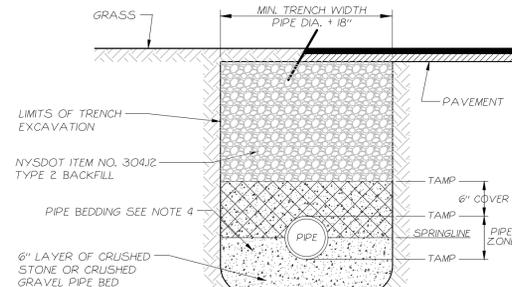
NOTE: THE DIVERSION SWALE SHALL BE SEEDED & MULCHED IMMEDIATELY FOLLOWING CONSTRUCTION

Diversion Swale Detail



NOTES:
1) CLEANOUTS SHALL BE PROVIDED IN LOCATIONS SHOWN ON SITE PLAN.

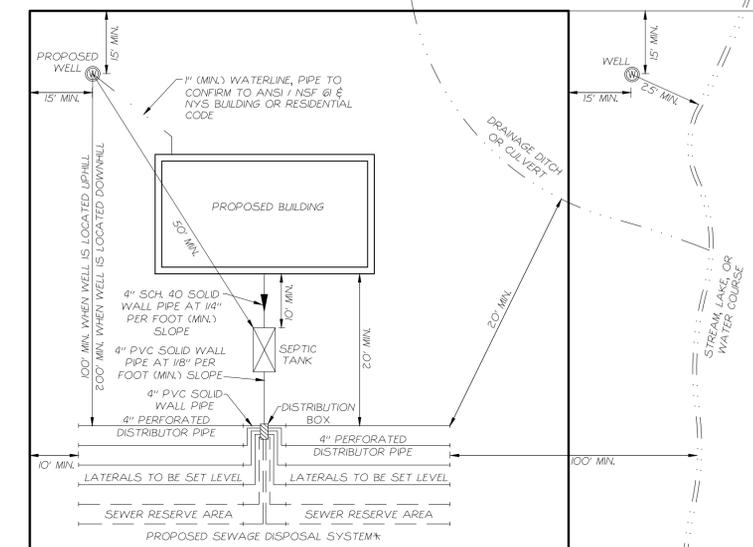
In Line Cleanout



- NOTES:
1) ALL BACKFILL SHALL BE NYS DOT ITEM NO. 304J2 TYPE 2.
2) IN LAWN AREAS, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED ON TOP OF THE NYS DOT ITEM 4 BACKFILL AND SHALL BE SEEDED AND MULCHED WITH SEED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS.
3) IN PAVED AREAS, THE EXISTING PAVEMENT SHALL BE SAW CUT PRIOR TO REMOVAL. REPLACEMENT OF THE PAVEMENT SHALL BE COMPLETED WITH A MINIMUM OF 4" NYS DOT ITEM 4 LEVELING COURSE, 5" ASPHALT BINDER COURSE (PLACED IN 2' LIFTS), AND 2" ASPHALT TOP COURSE. EXISTING PAVEMENT SHALL BE MILLED TO A 2" DEPTH AT LEAST 2 FEET BEYOND TRENCH WIDTH IN ALL DIRECTIONS, PRIOR TO PLACEMENT OF FINAL TOP COURSE. TOP COURSE SHALL EXTEND THE ENTIRE WIDTH OF THE TRENCH AND MILLED SECTION OF PAVEMENT.
4) PIPE BEDDING MATERIAL SHALL BE COMPOSED OF CRUSHED STONE OR GRAVEL FREE OF SOFT NON-DURABLE PARTICLES, ORGANIC MATERIALS AND THIN OR ELONGATED PARTICLES WITH THE FOLLOWING GRADATION REQUIREMENTS

SIEVE DESIGNATION	% PASSING
2"	100
1"	95 - 100
3/4"	0 - 15
NO. 40	0 - 5

Typical Trench Detail



Generic Plot Plan

* THE 'GENERIC PLOT PLAN' IS INTENDED FOR ILLUSTRATION PURPOSES ONLY. FOR SPECIFIC DESIGN INFORMATION ON THE PROPOSED SEWAGE DISPOSAL SYSTEM, SEE THE SEWAGE DISPOSAL SYSTEM REQUIREMENTS TABLE, DETAILS, AND NOTES ON THIS SHEET.

General Notes:

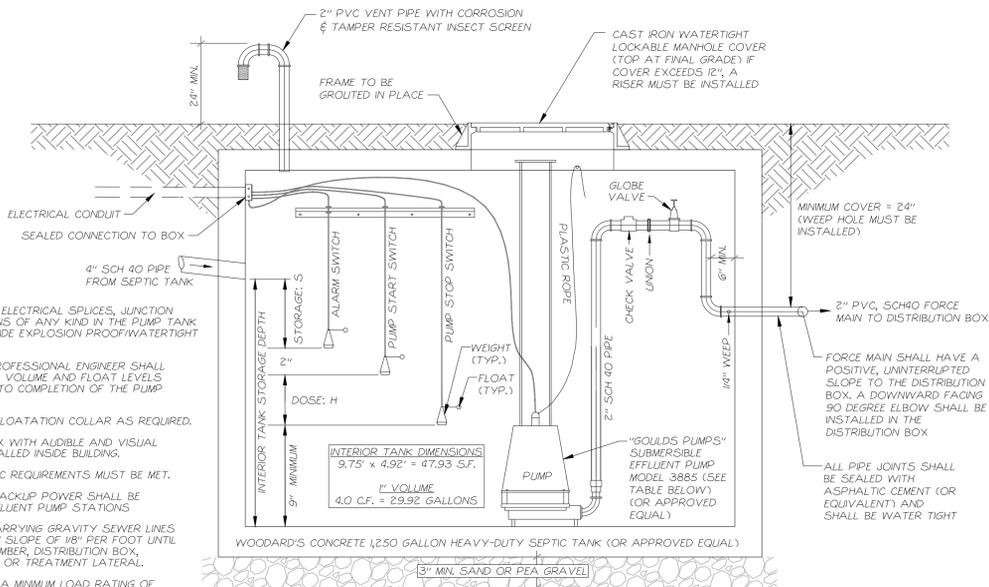
- 1) PIPE JOINTS TO BE SEALED WITH ASPHALTIC MATERIAL OR EQUIVALENT.
- 2) ALL 4" OUTLET PIPES (SOLID WALL) LEAVE DISTRIBUTION BOX AT SAME ELEVATION ON A MINIMUM SLOPE OF 1/8" PER FOOT UP TO A DISTRIBUTOR LATERAL.
- 3) SEWAGE DISPOSAL SYSTEMS LOCATED OF NECESSITY UPGRADE IN THE GENERAL PATH OF DRAINAGE TO A WELL MUST BE SPACED 200' OR MORE AWAY.
- 4) NO DRIVEWAY, ROADWAY, PARKING AREA OR ABOVE GROUND SWIMMING POOL IS TO BE CONSTRUCTED OVER ANY PORTION OF THE SEWER SYSTEM. HEAVY EQUIPMENT SHALL BE KEPT OUT OF THE ABSORPTION FIELD AREA.
- 5) ALL DISTRIBUTOR LINES (PERFORATED) SHALL BE OF EQUAL LENGTH.
- 6) ALL TREES TO BE CUT & REMOVED FROM SEWAGE DISPOSAL AREA IN A MANNER THAT WILL NOT DISTURB THE VIRGIN SOIL LAYER.
- 7) MAXIMUM GROUND SLOPE OF TILE FIELD AREA SHALL NOT EXCEED 15%.
- 8) NO BASEMENT FIXTURES ARE PERMITTED WITHOUT A SPECIAL DESIGN FOR SEWAGE DISPOSAL.
- 9) NO COMPONENT PART OF ANY SEWAGE DISPOSAL SYSTEM SHALL BE LOCATED OR MAINTAINED WITHIN 100' OF ANY SPRING, RESERVOIR, BROOK, MARSH OR ANY OTHER BODY OF WATER.
- 10) NO ROOF, CELLAR OR FOOTING DRAINS ARE TO BE DISCHARGED IN THE SEWAGE DISPOSAL SYSTEM.
- 11) FLOW EQUALIZERS SHALL BE USED FOR SYSTEMS WHOSE SIDE SLOPES ARE BETWEEN 10-15% AND ARE RECOMMENDED FOR ALL SYSTEMS.
- 12) SLOPE BETWEEN SEPTIC TANK OR PUMPING CHAMBER AND THE BUILDING SHALL BE POSITIVE AND UNINTERRUPTED, AS TO ALLOW SEPTIC GASSES TO DISCHARGE THROUGH THE STACK VENT.
- 13) THE SEWER PIPE RUNNING FROM THE BUILDING TO THE SEPTIC TANK MUST BE LAID ON SUITABLY COMPACTED EARTH OR VIRGIN SOIL WITH THE FIRST WATERTIGHT JOINT LOCATED AT LEAST 3' FROM THE BUILDING. THE PIPE SHALL BE SCH 40 PVC OR SCH 80 PVC.
- 14) THE DESIGN AND LOCATION OF SANITARY FACILITIES (WELL, SEPTIC TANK, AND LEACH FIELD) SHALL NOT BE CHANGED. ANY RELOCATION OF THE SEPTIC SYSTEMS OR WELLS SHOWN, TO AREAS OTHER THAN AS SHOWN ON THE APPROVED PLANS, MUST BE APPROVED BY THE DESIGN ENGINEER.
- 15) ALL WELLS AND SEPTIC SYSTEMS WITHIN 200 FEET THAT IMPACT SEPARATION DISTANCES FOR THE PROPOSED WELLS AND SEPTIC SYSTEMS ARE SHOWN ON THE PLANS.
- 16) THERE SHALL BE NO REGRADING, EXCEPT AS SHOWN ON THE APPROVED PLANS, IN THE AREA OF THE ABSORPTION FIELDS.
- 17) HEAVY EQUIPMENT SHALL BE KEPT OFF THE AREA OF THE ABSORPTION FIELDS EXCEPT DURING THE ACTUAL CONSTRUCTION. THERE SHALL BE NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT IN THE ABSORPTION FIELD AREA BEFORE, DURING, OR AFTER CONSTRUCTION. EXTREME CARE MUST BE TAKEN DURING THE ACTUAL CONSTRUCTION SO AS TO AVOID ANY LIQUID COMPACTION THAT COULD RESULT IN A CHANGE OF THE ABSORPTION CAPACITY OF THE SOIL ON WHICH THE DESIGN LOAD WAS BASED.
- 18) THIS SYSTEM WAS NOT DESIGNED TO ACCOMMODATE GARBAGE GRINDERS, JACUZZI TYPE SPA TUBS OVER 100 GALLONS, OR WATER CONDITIONERS. AS SUCH, THESE ITEMS SHALL NOT BE INSTALLED UNLESS THE SYSTEM IS REDESIGNED TO ACCOUNT FOR THEM.
- 19) SEPTIC TANKS SHOULD BE INSPECTED PERIODICALLY AND PUMPED EVERY 2-3 YEARS.
- 20) DISTRIBUTION BOXES SHOULD BE INSPECTED PERIODICALLY TO ASSURE THAT THEY ARE LEVEL AND OPERATING PROPERLY.
- 21) AN AS-BUILT PLAN AND CERTIFICATION BY A NEW YORK STATE DESIGN PROFESSIONAL MUST BE SUBMITTED FOR THE SUBSURFACE SANITARY SEWAGE DISPOSAL SYSTEM PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).

Sewage Disposal System Requirements

DESIGN FLOW RATE (GPD)	SEPTIC TANK SIZE (GALLONS)	DISTRIBUTION BOX MODEL NUMBER	TYPE OF SYSTEM	DESIGN STABILIZED PERCOLATION RATE (MIN)	MIN. LENGTH OF ABSORPTION TRENCH (L.F.)	PROPOSED LENGTH OF ABSORPTION TRENCH (L.F.)	SEWAGE DISPOSAL SYSTEM DESIGN
100	1,000	DB-9	A.T.	21-30	84	120	4 ROWS @ 30 L.F.

NOTES:
1) A.T. = ABSORPTION TRENCH TYPE SYSTEM

- 2) THE ANTICIPATED SEWAGE GENERATION RATE IS 15 GALLONS PER DAY (GPD) BASED UPON A SINGLE EMPLOYEE AT 15 GPD PER EMPLOYEE. A DESIGN FLOW RATE OF 100 GPD HAS BEEN USED AS A CONSERVATIVE FLOW RATE.



DOSE VOLUME (GAL.)	H (MIN.)	S (MIN.)	1" TANK VOLUME (GAL.)	LIQUID LEVEL	PUMP TYPE
120	4.0"	2.5.0"	29.92	40"	WE07H

Effluent Sewage Pump Chamber Cross-section Detail

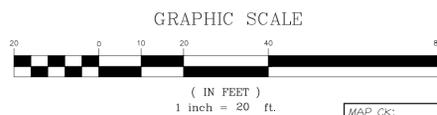
NOT TO SCALE

Minimum Separation Distances From Existing Or Proposed Features

AS PER NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION 'DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS', PUBLISHED MARCH 5, 2014

NO.	DATE	REVISION	BY
2	4-22-22	PLAN REVISIONS, COMMENTS	ZAP
1	2-11-22	DETAILED SITE PLAN	ZAP
		REVISION	BY

LAWRENCE MARSHALL PE #087107



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Sewage Disposal System Details for Site Plan for U-Haul Self-Storage

MNTM
Mercurio-Norton-Tarolli-Marshall
ENGINEERING-LAND SURVEYING
PO BOX 166, 45 MAIN STREET, PINE BUSH, NY 12566
P: (845) 744-3620 F: (845) 744-3805 MNTM@MNTM.CO

THIS MAP IS INCOMPLETE AND INVALID WITHOUT ALL SHEETS IN THE PLAN SET.
TAX MAP PARCEL: 20-2-2
TOWN OF NEWBURGH
COUNTY OF ORANGE
STATE OF NEW YORK
DRAFTED BY: LIM
DATE: 2021 SEPT 8
PROJECT: 4762
SHEET: 7 / 10

Deep Soils Testing Results

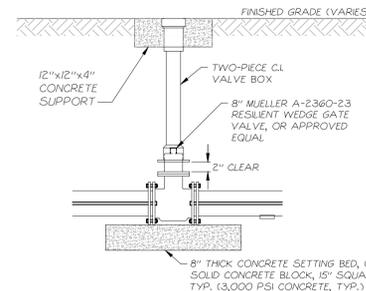
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TESTING DATE:	11-5-21	11-5-21	11-5-21	11-5-21	11-5-21	11-5-21	11-5-21	11-5-21	
TESTER:	RTS	RTS	RTS	RTS	RTS	RTS	RTS	RTS	
DEEP TEST SOIL LOG	0' TOP SOIL 3" 1' SILTY GRAVEL LOAM 2' 24" 3' 42" 4' GRAVELLY SAND LOAM 5' GRAVELLY LOAM WITH SAND 6' 87" 7' WET GRAVEL LOAM 8'	0' TOP SOIL 6" 1' SILTY GRAVEL LOAM 2' 42" 3' 39" 4' GRAVELLY LOAM WITH SAND 5' 60" 6' GRAVELLY LOAM WITH SAND 7' 84" 8' WET GRAVEL LOAM	0' TOP SOIL 4" 1' SILTY GRAVEL LOAM 2' 39" 3' 48" 4' GRAVELLY LOAM WITH SAND 5' 60" 6' GRAVELLY LOAM WITH SAND 7' 84" 8' MOTTLING BEGINNING @ 36"	0' TOP SOIL 6" 1' SILTY GRAVEL LOAM 2' 30" 3' SILTY LOAM 4' 48" 5' 60" 6' GRAVELLY LOAM WITH SAND 7' 84" 8' MOTTLING BEGINNING @ 36"	0' TOP SOIL 6" 1' SILTY GRAVEL LOAM 2' 30" 3' SILTY LOAM 4' 48" 5' 60" 6' GRAVELLY LOAM WITH SAND 7' 84" 8' MOTTLING BEGINNING @ 36"	0' TOP SOIL 4" 1' SILTY LOAM WITH SOME SAND 2' 30" 3' PACKED CLAYEY SILTY LOAM WITH TRACE MOTTLING IN CLAY POCKETS 4' 48" 5' GRAVELLY SILTY LOAM WITH TRACE MOTTLING IN CLAY POCKETS 6' 84" 7' 84" 8' MOTTLING BEGINNING @ 36"	0' TOP SOIL 6" 1' SILTY GRAVEL LOAM 2' 30" 3' SILTY LOAM 4' 48" 5' 60" 6' GRAVELLY LOAM WITH SAND 7' 84" 8' MOTTLING BEGINNING @ 36"	0' TOP SOIL 6" 1' SILTY GRAVEL LOAM 2' 24" 3' 42" 4' GRAVELLY SAND LOAM 5' GRAVELLY LOAM WITH SAND 6' 87" 7' WET GRAVEL LOAM 8'	0' TOP SOIL 8" 1' 24" 2' SILTY LOAM WITH SOME SAND 3' 48" 4' LARGE PIECE OF SHALE 5' 70" 6' SILTY LOAM WITH COBBLES AND SHALE FRAGMENTS 7' 84" 8' SLIGHTLY PACKED SILTY LOAM
NOTES:	*NO WATER OR ROCK UNLESS SO NOTED								

TEST HOLE #	12	13
TESTING DATE:	2-10-22	2-10-22
TESTER:	RTS	RTS
DEEP TEST SOIL LOG	0' TOP SOIL 4" 1' SILT LOAM 2' 24" 3' HEAVY SILT LOAM W. COBBLES 4' 72" 5' 72" 6' 72" 7' 72" 8'	0' TOP SOIL 6" 1' SILT LOAM 2' 24" 3' GRAVELLY SILT LOAM 4' 72" 5' 72" 6' 72" 7' 72" 8'
NOTES:	*NO WATER OR ROCK UNLESS SO NOTED *TR. MOTTLING 54" - 72"	

Percolation Testing Results

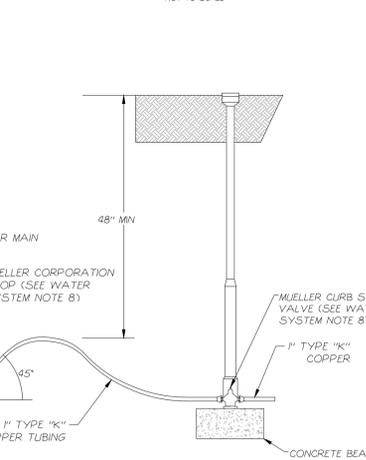
TEST HOLE #	1	2	3	4	5	6	7	8
TESTING DATE:	9-3-21	9-3-21	9-3-21	9-3-21	11-5-21	11-5-21	11-5-21	11-5-21
DEPTH / TESTER:	14" - RTS	14" - RTS	33" - RTS	33" - RTS	60" - RS	60" - RTS	78" - RTS	78" - RTS
PERCOLATION TEST RESULTS	RUN 1 ELAPSED TIME: 2:12 RUN 2 ELAPSED TIME: 2:42 RUN 3 ELAPSED TIME: 3:00 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 3:00	RUN 1 ELAPSED TIME: 8:00 RUN 2 ELAPSED TIME: 10:50 RUN 3 ELAPSED TIME: 12:01 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 12:01	RUN 1 ELAPSED TIME: 0:27 RUN 2 ELAPSED TIME: 0:27 RUN 3 ELAPSED TIME: 0:56 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 11:00	RUN 1 ELAPSED TIME: 0:26 RUN 2 ELAPSED TIME: 0:28 RUN 3 ELAPSED TIME: 0:56 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 11:00	RUN 1 ELAPSED TIME: 0:51 RUN 2 ELAPSED TIME: 0:53 RUN 3 ELAPSED TIME: 0:56 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 11:00	RUN 1 ELAPSED TIME: 0:38 RUN 2 ELAPSED TIME: 0:42 RUN 3 ELAPSED TIME: 0:45 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 11:00	RUN 1 ELAPSED TIME: 4:30 RUN 2 ELAPSED TIME: 6:00 RUN 3 ELAPSED TIME: 6:32 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 6:32	RUN 1 ELAPSED TIME: 7:26 RUN 2 ELAPSED TIME: 8:25 RUN 3 ELAPSED TIME: 9:02 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 9:02

TEST HOLE #	12	13	12	13
TESTING DATE:	11-16-21	11-16-21	11-16-21	11-16-21
DEPTH / TESTER:	24" - WJ	24" - WJ	24" - WJ	24" - WJ
PERCOLATION TEST RESULTS	RUN 1 ELAPSED TIME: 4:06 RUN 2 ELAPSED TIME: 4:50 RUN 3 ELAPSED TIME: 5:09 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 5:09	RUN 1 ELAPSED TIME: 15:33 RUN 2 ELAPSED TIME: 24:43 RUN 3 ELAPSED TIME: 26:00 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 26:58	RUN 1 ELAPSED TIME: 4:06 RUN 2 ELAPSED TIME: 4:50 RUN 3 ELAPSED TIME: 5:09 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 5:09	RUN 1 ELAPSED TIME: 15:33 RUN 2 ELAPSED TIME: 24:43 RUN 3 ELAPSED TIME: 26:00 RUN 4 ELAPSED TIME: RUN 5 ELAPSED TIME: RUN 6 ELAPSED TIME: RUN 7 ELAPSED TIME: STABILIZED RATE: 26:58



NOTES:
 1.) ALL VALVES TO INCLUDE MEGA-LUG RESTRAINER GLANDS.
 2.) WATER MAIN VALVES FOR FOUR-INCH THROUGH FORTY-EIGHT-INCH SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSII/AWWA C509, LATEST REVISION, SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).

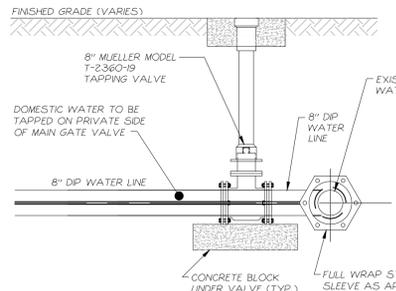
Typical Water Valve Detail



NOTES:
 1.) ALL CORPORATION STOP, CURB STOP, CURB BOX, AND SERVICE LINES SHALL MEET MUNICIPAL WATER DEPARTMENT REGULATIONS. SEE WATER SYSTEM NOTES.
 2.) THIS DETAIL APPLIES ONLY TO THE WATER SERVICE FOR OFFICE, MODEL, AND STORAGE BUILDING.

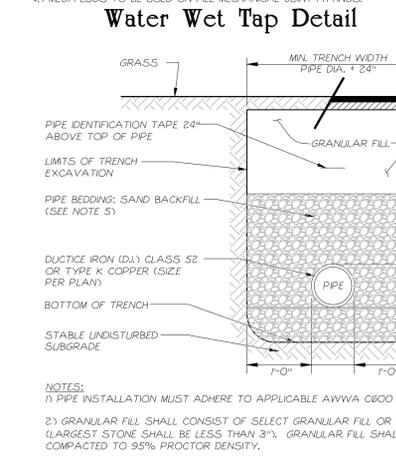
Water Service Detail

1.) CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF HEALTH, ORANGE COUNTY DEPARTMENT OF HEALTH, AND TOWN OF NEWBURGH.
 2.) ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINE CLASS 52 DUCTILE IRON PIPE CONFORMING TO ANSII/AWWA C900 FOR DUCTILE IRON PIPE, LATEST REVISION. JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.
 3.) THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE, EXCEPT AS SHOWN FOR THE HYDRANT INSTALLATIONS. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS. ALL FITTINGS AND VALVES SHALL ALSO BE INSTALLED WITH RETAINER GLANDS FOR JOINT RESTRAINT. JOINT RESTRAINTS SHALL BE EBAA IRON MEGALUG SERIES 1700 FOR FLANGED FITTINGS AND EBAA IRON MEGALUG SERIES 1700 RESTRAINT HARNESSES FOR PIPES WITH PUSH ON JOINTS. MAKE AND MODEL MAY BE SUBSTITUTED WITH AN APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINT JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE MUNICIPAL WATER DEPARTMENT.
 4.) ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSII/AWWA C900 FOR DUCTILE IRON PIPE, LATEST REVISION.
 5.) ALL VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSII/AWWA C509, LATEST REVISION, SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).
 6.) TAPPING SLEEVE SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-865 OR EQUAL. TAPPING VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSII/AWWA C509, LATEST REVISION, SUCH AS MUELLER MODEL T-2360-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM. TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE MUNICIPAL WATER DEPARTMENT PRIOR TO CUTTING INTO THE PIPE.
 7.) HYDRANTS SHALL BE DRY-BARREL HYDRANTS, TYPE MUELLER SUPER CENTURION, IN ACCORDANCE WITH ANSII/AWWA C502. HYDRANTS SHALL HAVE A MAIN VALVE SIZE OPENING OF FIVE INCHES NOMINAL, ONE (1) FIVE-INCH STORZ DISHARGE, TWO (2) TWO-AND-A-HALF-INCH NST HOSE NOZZLES, A ONE-AND-ONE-HALF-INCH PENTAGON OPERATING NUT AND A SIX-INCH MECHANICAL JOINT INLET SHOW CONNECTION WITH ACCESSORIES. THE HYDRANT PENTAGON OF OPENING MUST BE LEFT (COUNTERCLOCKWISE).
 8.) ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOPS SHALL BE MUELLER H-5020N FOR 3/4 AND 1 INCH, MUELLER H-5000N OR B-25000N FOR 1 1/2 AND 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-502-2N FOR 3/4 AND 1 INCH AND MUELLER B-2500N FOR 1 1/2 AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-030N FOR 3/4 AND 1 INCH AND MUELLER H-030N FOR 1 1/2 AND 2 INCH SIZES.
 9.) ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE MUNICIPAL WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE LOCAL MUNICIPALITIES AND THE MUNICIPAL WATER DEPARTMENT. ALL DUCTILE IRON PIPES SHALL BE INSTALLED IN ACCORDANCE WITH AWWA STANDARD C600-17 OR LATEST REVISION.
 10.) THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH TOWN OF NEWBURGH, ORANGE COUNTY DEPARTMENT OF HEALTH, NEW YORK STATE DEPARTMENT OF HEALTH REQUIREMENTS AND AWWA STANDARD C634M OR LATEST REVISION REQUIREMENTS. ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE, SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY.
 11.) A BACKFLOW PREVENTION DEVICE (BPD) IS REQUIRED TO BE DESIGNED AND INSTALLED ON THE DOMESTIC WATER SUPPLY LINE AS PART OF THE BUILDING PLUMBING PLANS. A DOUBLE CHECK VALVE SHALL BE DESIGNED AND INSTALLED ON THE FIRE SUPPRESSION LINE AS PART OF THE BUILDING PLUMBING PLANS. THE BACKFLOW PREVENTION DEVICE AND DOUBLE CHECK VALVE SHALL BE REVIEWED AND APPROVED BY THE ORANGE COUNTY DEPARTMENT OF HEALTH PRIOR TO INSTALLATION.
 12.) THE FINAL LAYOUT OF THE PROPOSED WATER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF THE SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.



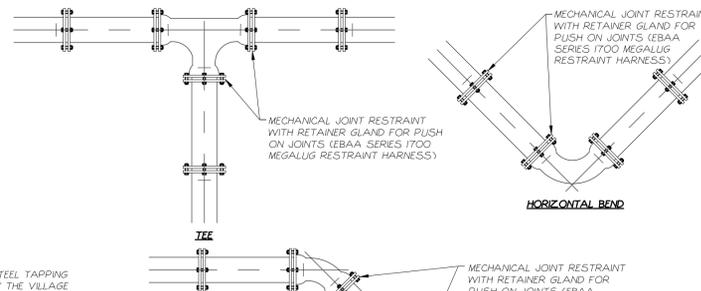
NOTES:
 1.) WET TAP TO BE PERFORMED BY CONTRACTOR WITH VILLAGE OF WALDEN WATER SUPERINTENDENT AND VILLAGE ENGINEER ON SITE.
 2.) CONTRACTOR TO CONTACT VILLAGE OF WALDEN WATER DEPARTMENT FOR ALL INSTALLATION REQUIREMENTS.
 3.) TAPPING SLEEVE SHALL BE SELECTED TO FIT EXISTING PIPE MATERIAL (CAST IRON, DUCTILE IRON, A.C.) AND OUTSIDE DIAMETERS.
 4.) MEGA LUGS TO BE USED ON ALL MECHANICAL JOINT FITTINGS.

Water Wet Tap Detail



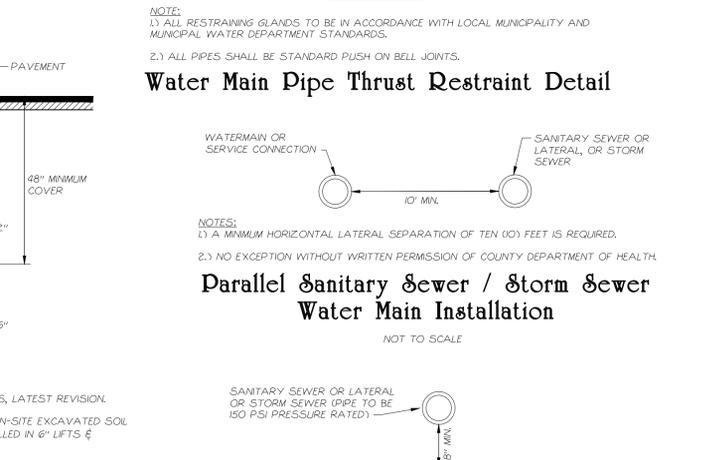
NOTES:
 1.) PIPE INSTALLATION MUST ADHERE TO APPLICABLE AWWA C600 STANDARDS, LATEST REVISION.
 2.) GRANULAR FILL SHALL CONSIST OF SELECT GRANULAR FILL OR SUITABLE ON-SITE EXCAVATED SOIL. LARGEST STONE SHALL BE LESS THAN 3". GRANULAR FILL SHALL BE INSTALLED IN 6" LIFTS & COMPACTED TO 95% PROCTOR DENSITY.
 3.) IN LAWN AREAS, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED ON TOP OF THE RUN-OF-BANK GRAVEL, AND SHALL BE SEEDED AND MULCHED WITH SEED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS.
 4.) IN PAVED AREAS, THE EXISTING PAVEMENT SHALL BE SAW CUT PRIOR TO REMOVAL. REPLACEMENT OF THE PAVEMENT SHALL BE COMPLETED WITH A MINIMUM OF 6" ITEM 4 LEVELING COURSE, 3" ASPHALT BINDER COURSE, AND 2" ASPHALT TOP COURSE.
 5.) PIPE BEDDING SHALL CONSIST OF SAND MEETING NYS DOT T03-06 CUSHION SAND SPECIFICATIONS AND COMPACTED TO 95% PROCTOR DENSITY IN 6" MAXIMUM LIFTS.

Typical Water Pipe Bedding Detail



NOTE:
 1.) ALL RESTRAINING GLANDS TO BE IN ACCORDANCE WITH LOCAL MUNICIPALITY AND MUNICIPAL WATER DEPARTMENT STANDARDS.
 2.) ALL PIPES SHALL BE STANDARD PUSH ON BELL JOINTS.

Water Main Pipe Thrust Restraint Detail



NOTES:
 1.) A MINIMUM HORIZONTAL LATERAL SEPARATION OF TEN (10) FEET IS REQUIRED.
 2.) NO EXCEPTION WITHOUT WRITTEN PERMISSION OF COUNTY DEPARTMENT OF HEALTH.
 3.) IN LAWN AREAS, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED ON TOP OF THE RUN-OF-BANK GRAVEL, AND SHALL BE SEEDED AND MULCHED WITH SEED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS.
 4.) IN PAVED AREAS, THE EXISTING PAVEMENT SHALL BE SAW CUT PRIOR TO REMOVAL. REPLACEMENT OF THE PAVEMENT SHALL BE COMPLETED WITH A MINIMUM OF 6" ITEM 4 LEVELING COURSE, 3" ASPHALT BINDER COURSE, AND 2" ASPHALT TOP COURSE.
 5.) PIPE BEDDING SHALL CONSIST OF SAND MEETING NYS DOT T03-06 CUSHION SAND SPECIFICATIONS AND COMPACTED TO 95% PROCTOR DENSITY IN 6" MAXIMUM LIFTS.

Parallel Sanitary Sewer / Storm Sewer Water Main Installation

1.) CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF HEALTH, ORANGE COUNTY DEPARTMENT OF HEALTH, AND TOWN OF NEWBURGH.
 2.) ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINE CLASS 52 DUCTILE IRON PIPE CONFORMING TO ANSII/AWWA C900 FOR DUCTILE IRON PIPE, LATEST REVISION. JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.
 3.) THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE, EXCEPT AS SHOWN FOR THE HYDRANT INSTALLATIONS. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS. ALL FITTINGS AND VALVES SHALL ALSO BE INSTALLED WITH RETAINER GLANDS FOR JOINT RESTRAINT. JOINT RESTRAINTS SHALL BE EBAA IRON MEGALUG SERIES 1700 FOR FLANGED FITTINGS AND EBAA IRON MEGALUG SERIES 1700 RESTRAINT HARNESSES FOR PIPES WITH PUSH ON JOINTS. MAKE AND MODEL MAY BE SUBSTITUTED WITH AN APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINT JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE MUNICIPAL WATER DEPARTMENT.
 4.) ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSII/AWWA C900 FOR DUCTILE IRON PIPE, LATEST REVISION.
 5.) ALL VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSII/AWWA C509, LATEST REVISION, SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).
 6.) TAPPING SLEEVE SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-865 OR EQUAL. TAPPING VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSII/AWWA C509, LATEST REVISION, SUCH AS MUELLER MODEL T-2360-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM. TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE MUNICIPAL WATER DEPARTMENT PRIOR TO CUTTING INTO THE PIPE.
 7.) HYDRANTS SHALL BE DRY-BARREL HYDRANTS, TYPE MUELLER SUPER CENTURION, IN ACCORDANCE WITH ANSII/AWWA C502. HYDRANTS SHALL HAVE A MAIN VALVE SIZE OPENING OF FIVE INCHES NOMINAL, ONE (1) FIVE-INCH STORZ DISHARGE, TWO (2) TWO-AND-A-HALF-INCH NST HOSE NOZZLES, A ONE-AND-ONE-HALF-INCH PENTAGON OPERATING NUT AND A SIX-INCH MECHANICAL JOINT INLET SHOW CONNECTION WITH ACCESSORIES. THE HYDRANT PENTAGON OF OPENING MUST BE LEFT (COUNTERCLOCKWISE).
 8.) ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOPS SHALL BE MUELLER H-5020N FOR 3/4 AND 1 INCH, MUELLER H-5000N OR B-25000N FOR 1 1/2 AND 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-502-2N FOR 3/4 AND 1 INCH AND MUELLER B-2500N FOR 1 1/2 AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-030N FOR 3/4 AND 1 INCH AND MUELLER H-030N FOR 1 1/2 AND 2 INCH SIZES.
 9.) ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE MUNICIPAL WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE LOCAL MUNICIPALITIES AND THE MUNICIPAL WATER DEPARTMENT. ALL DUCTILE IRON PIPES SHALL BE INSTALLED IN ACCORDANCE WITH AWWA STANDARD C600-17 OR LATEST REVISION.
 10.) THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH TOWN OF NEWBURGH, ORANGE COUNTY DEPARTMENT OF HEALTH, NEW YORK STATE DEPARTMENT OF HEALTH REQUIREMENTS AND AWWA STANDARD C634M OR LATEST REVISION REQUIREMENTS. ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE, SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY.
 11.) A BACKFLOW PREVENTION DEVICE (BPD) IS REQUIRED TO BE DESIGNED AND INSTALLED ON THE DOMESTIC WATER SUPPLY LINE AS PART OF THE BUILDING PLUMBING PLANS. A DOUBLE CHECK VALVE SHALL BE DESIGNED AND INSTALLED ON THE FIRE SUPPRESSION LINE AS PART OF THE BUILDING PLUMBING PLANS. THE BACKFLOW PREVENTION DEVICE AND DOUBLE CHECK VALVE SHALL BE REVIEWED AND APPROVED BY THE ORANGE COUNTY DEPARTMENT OF HEALTH PRIOR TO INSTALLATION.
 12.) THE FINAL LAYOUT OF THE PROPOSED WATER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF THE SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.

Storm / Sanitary Sewer - Water Main Crossing

PIPE SIZE	TABLE A - REQUIRED RESTRAINED LENGTH FOR 8" DUCTILE IRON PIPE (ALL VALUES IN FEET UNLESS OTHERWISE NOTED)												
	45 DEGREE					22.5 DEGREE							
BEND ANGLE	45 DEGREE					22.5 DEGREE							
TYPE OF TEE	H BEND	V BEND (LP)	V BEND (DN)	H BEND	V BEND (LP)	V BEND (DN)	H BEND	V BEND (LP)	V BEND (DN)	TEE (6X4)	TEE (6X6)	DEAD END	
UNIFIED SOIL CLASSIFICATION	CL	5	5	11	3	6	2	1	3	1	3	19	
	ML	6	6	12	3	6	2	2	3	1	8	27	
	GC, SC	5	5	10	2	2	5	1	1	3	1	2	19
	GM, SM	5	5	10	3	2	5	2	1	3	1	5	24
	SW, GW	4	4	8	2	2	4	1	1	2	1	1	19
SP	5	5	10	3	2	5	2	1	3	1	4	23	

Water Main Pipe Restraint Tables

PIPE SIZE	TABLE B - REQUIRED RESTRAINED LENGTH FOR 6" DUCTILE IRON PIPE (ALL VALUES IN FEET UNLESS OTHERWISE NOTED)											
	45 DEGREE					22.5 DEGREE						
BEND ANGLE	45 DEGREE					22.5 DEGREE						
TYPE OF TEE	H BEND	V BEND (LP)	V BEND (DN)	H BEND	V BEND (LP)	V BEND (DN)	H BEND	V BEND (LP)	V BEND (DN)	TEE (6X4)	DEAD END	
UNIFIED SOIL CLASSIFICATION	CL	4	4	8	2	2	4	1	1	2	14	
	ML	4	4	9	2	2	5	1	1	3	1	21
	GC, SC	3	3	8	2	2	4	1	1	2	1	15
	GM, SM	4	4	8	2	2	4	1	1	2	1	18
	SW, GW	3	3	6	2	2	3	1	1	2	1	15
SP	4	4	8	2	2	4	1	1	2	1	18	

Dig Safely. New York
Call 811
 before you dig

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

MAP CK: _____

"UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 72-09, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
 "ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED VALID, TRUE COPIES."
 "CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS, OR SUBSEQUENT OWNERS."

NO.	DATE	REVISION	BY
2	4-22-22	PLAN REVISIONS, COMMENTS	ZAP
1	2-11-22	DETAILED SITE PLAN	ZAP
		REVISION	

LAWRENCE MARSHALL PE #087107

Soils Testing & Water Service Details for Site Plan for U-Haul Self-Storage

MNTM
 Mercurio-Norton-Tarolli-Marshall
 PO BOX 166, 45 MAIN STREET, PINE BUSH, NY 12566
 P: (845)744-3620 F: (845)744-3805 MNTM@MNTM.CO

THIS MAP IS INCOMPLETE AND INVALID WITHOUT ALL SHEETS IN THE PLAN SET.
 TAX MAP PARCEL: 00-2-2
 TOWN OF NEWBURGH
 COUNTY OF ORANGE
 STATE OF NEW YORK
 DRAFTED BY: LJM
 DATE: 2021 SEPT 8
 PROJECT: 4762
 SHEET: 8 / 10

