

**FABRIC AND GRAVEL FILL SPECIFICATION**

WHEN THE SELECT FILL USED IN THE REINFORCEMENT ZONE FOR THE PROJECT IS CONSIDERED FREE-DRAINING (LESS THAN 15% PASSING THE NO. 200 SIEVE), NO GEOTEXTILE OR GRAVEL FILL IS REQUIRED BEHIND MESA FACING UNITS, UNLESS PRESCRIBED BY THE PROJECT ENGINEER. WHEN THE SELECT FILL CONTAINS FINES BETWEEN 5% AND 15%, GEOTEXTILE FABRIC IS REQUIRED BEHIND THE MESA FACING UNITS, HOWEVER, NO GRAVEL FILL IS NEEDED, UNLESS PRESCRIBED BY THE PROJECT ENGINEER. SELECT FILL WITH FINES AND EXCESS OF 15% REQUIRED THE USE OF BOTH GEOTEXTILE FABRIC AND GRAVEL FILL BEHIND THE MESA FACING UNITS.

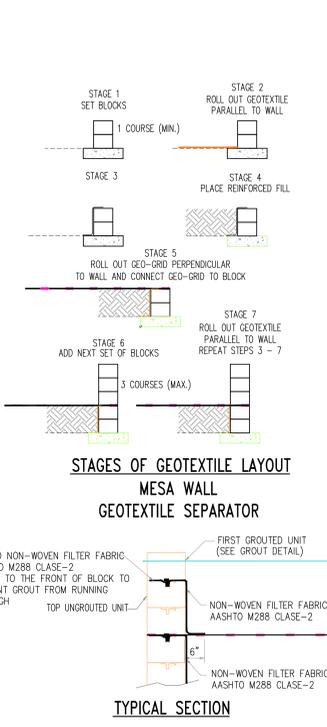
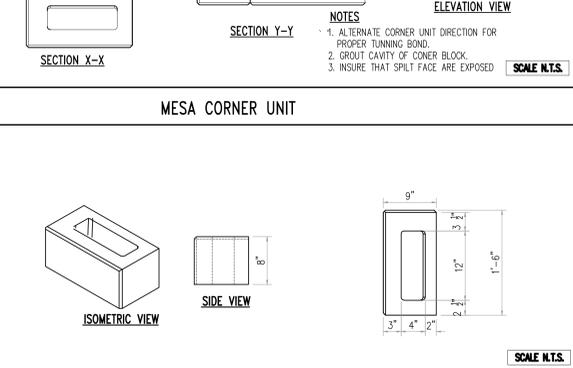
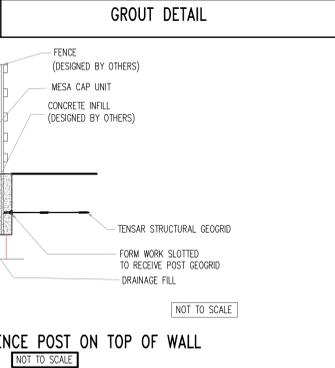
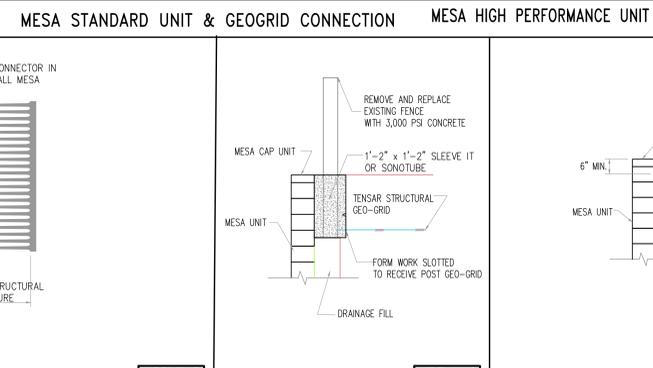
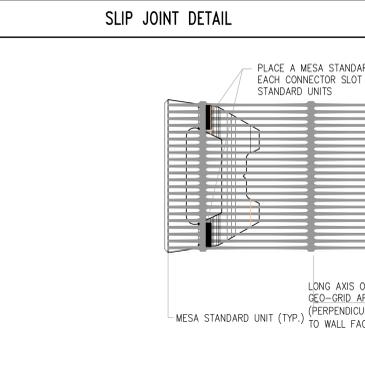
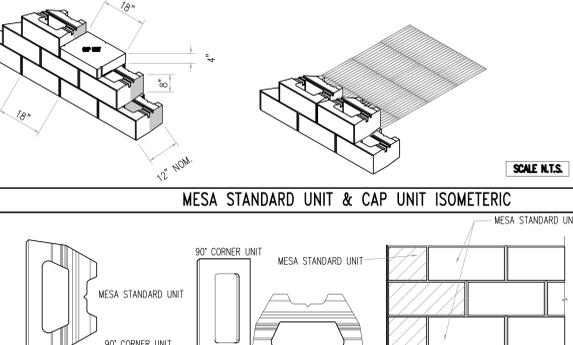
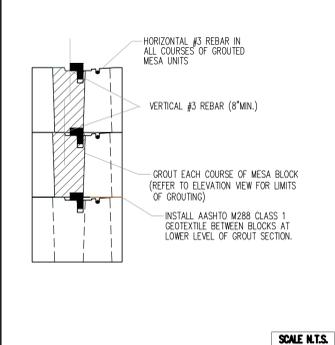
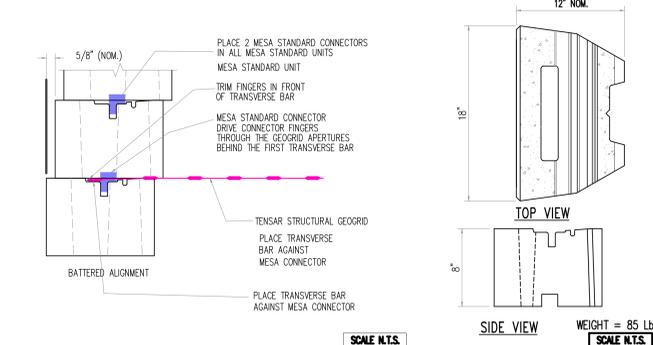
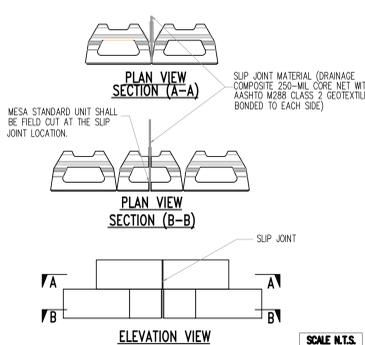
IF REQUIRED PER THE NOTE ABOVE, THE GEOTEXTILE SEPARATOR SHALL BE AN EIGHT (8) OZ. PER SQUARE YARD NONWOVEN NEEDLE-PUNCHED AASHTO CLASS 1 FABRIC, UNLESS OTHERWISE APPROVED BY TENSAR. THE GEOTEXTILE SHALL BE DELIVERED TO THE PROJECT SITE IN ROLLS THAT HAVE BEEN FACTORY CUT TO THE SPECIFIED WIDTHS OR THE INSTALLATION.

**INSTALLATION PROCEDURE**

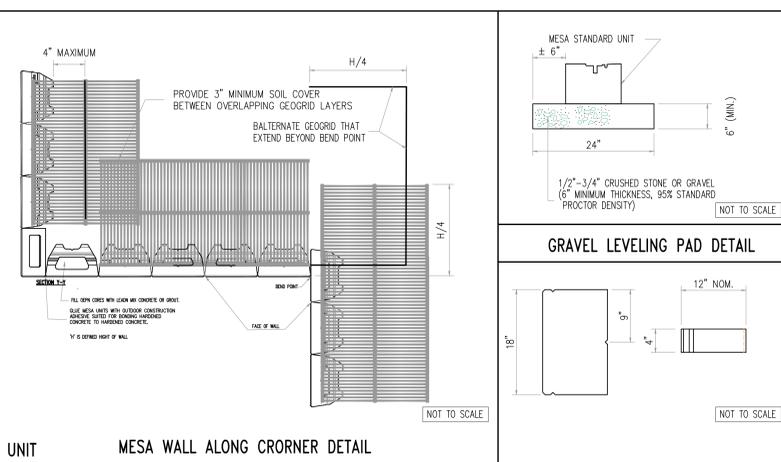
- INSTALL EACH COURSE OF THE MESA FACING UNITS BETWEEN THE TOP OF THE LAST GEOGRID PLACED AND THE BOTTOM OF THE NEXT LAYER OF GEOGRID ABOVE AS SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. THE FACING UNITS SHALL BE ALIGNED AND LEVELLED IN ACCORDANCE WITH WALL INSTALLATION GUIDE.
- PRIOR TO PLACING THE SELECT BACKFILL AND IF REQUIRED, GRAVEL FILL AND GEOTEXTILE FABRIC SHALL BE INSTALLED. GEOTEXTILE SHALL BE PLACED BEHIND THE UNITS SUCH THAT A MINIMUM OF SIX (6) INCHES OF MATERIAL IS TURNED INTO THE FILL AT THE TOP AND BOTTOM. THE GEOTEXTILE SHALL THEN BE ADJUSTED TO PRESENT A RELATIVELY SMOOTH SURFACE.
- THE SELECT BACKFILL SHALL BE THEN PLACED AND COMPACTED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS.
- AFTER THE SELECT BACKFILL HAS BEEN COMPACTED AND PROPERLY GRADED FOR THE INSTALLATION OF THE NEXT LAYER OF GEOGRID REINFORCEMENT, THE GEOTEXTILE ON THE TOP UNITS SHALL BE PULLED BACK ONTO THE BACKFILL.
- INSTALL THE GEOGRID REINFORCEMENT BY PLACING TGE MESA CONNECTORS IN THE SLOTS AS SHOWN IN THE WALL INSTALLATION GUIDE. CONNECTORS WILL PUSH FABRIC INTO THE SLOT-PER-FIT AS SHOWN IN TYPICAL SECTION THIS SHEET REPEAT THE PROCESS COMMENSING WITH ITEM NO. 1.
- INSTALL THE GEOGRID REINFORCEMENT AND REPEAT THE PROCESS COMMENSING THE STEP 1 ABOVE.
- AFTER THE LAST ELEVATION LAYER OF PRIMARY GEOGRID REINFORCEMENT HAS BEEN PLACED, INSTALL THE REMAINING COURSES OF MESA FACING UNITS IN ACCORDANCE WITH THE DETAILS ON THE APPROVED SHOP DRAWINGS.
- PRIOR TO INSTALLATION OF CAP UNIT, PLACE A LINE OF ADHESIVE IN THE DEPRESSION AREA BETWEEN THE CONNECTOR SLOT AND THE FACE OF THE UNIT PER DETAIL A1.
- PLACE A LINE OF ADHESIVE ALONG THE TOP OF MESA FACING UNITS JUST BEHIND THE FACE PER DETAILS S2.
- BUTT SIDES OF A CAP UNITS AS SHOWN IN DETAILS S3.

GEOTEXTILE WIDTHS REQUIRED FOR THE DETAILS: AASHTO M288 CLASS 1: 36 INCH

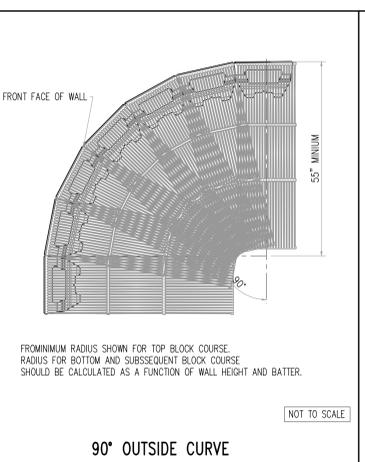
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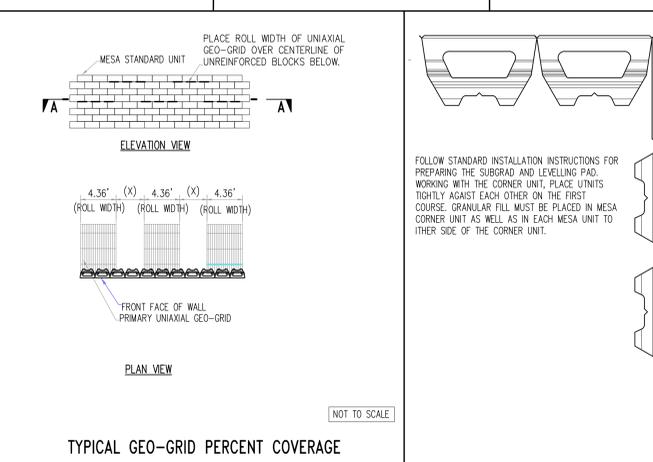
**TYPICAL GEO-GRID PERCENT COVERAGE**



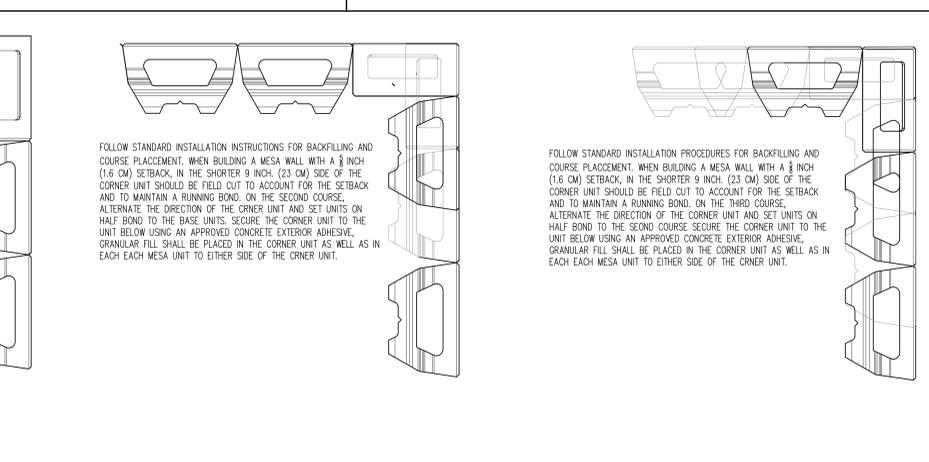
**TYPICAL GEO-GRID PERCENT COVERAGE**



**TYPICAL GEO-GRID PERCENT COVERAGE**



**INTER-SECTION OF MESA STANDARD WALLS**



**RETAINING WALL CERTIFICATION OF CONSTRUCTION COMPLIANCE AND SUBSTANTIAL COMPLETION**

THE ENGINEER OF RECORD, TO MAKE THIS CERTIFICATION, MUST APPROVE, INSPECT AND MONITOR THE MATERIALS TO BE PLACED AND WORKMANSHIP AS THE WALL IS CONSTRUCTED.

MATERIAL CERTIFICATION WILL BE REQUIRED FOR REINFORCED FILL MATERIAL AND GEO-GRIDS TO INCLUDE PRE-CONSTRUCTION QUALIFICATION OF THE MATERIALS TO INSURE THAT MATERIAL SPECIFICATIONS ARE MET. REINFORCED FILL FOR THE WALL SYSTEM WILL BE PROVIDED TO THE SITE FROM A PRE-SELECTED, PRE-TESTED SOLE SOURCE.

BACKFILL MATERIAL SHALL BE CLEAN FREE DRAINING SUITABLE ON-SITE SOIL OR IMPORTED SAND AND GRAVEL CONTAINING LESS THAN TWENTY PERCENT (20%) BY WEIGHT PASSING THE NO. 200 SIEVE. THE BACKFILL SHALL BE PLACED IN SIX INCH (6) INCH (12") LAYERS AND COMPACTED TO AT LEAST NINETY-FIVE PERCENT (95%) OF ITS MAXIMUM MODIFIED DRY DENSITY (ASTM D1557). THE USE OF ON-SITE SOILS FOR BACKFILL SHALL BE APPROVED BY THE ENGINEER OF RECORD ON THE BASIS ON LABORATORY TESTS FOR GRADATION AND A COMPACTION TEST MADE BY A CERTIFIED TESTING FACILITY CERTIFYING THE SAME TO THE ENGINEER OF RECORD.

BACKFILL FOR THE RETAINING WALLS SHALL CONFORM TO THE SPECIFIED BACKFILL SHOWN ON THE PLAN AND ADEQUATE TESTING TO MEET THE BACKFILL SPECIFIED SHALL BE PROVIDED, INCLUDING BUT NOT LIMITED TO SIEVE ANALYSIS AND COMPACTION LAB TESTING TO DETERMINE BACKFILL GRADATION AND MAXIMUM DENSITY AND IN-PLACE COMPACTION TESTING TO INSURE MAXIMUM IN-PLACE DENSITY.

THE ELEVATION OF THE LEVELING PAD TO BE APPROVED BY THE ENGINEER OF RECORD TO MEET FIELD CONDITIONS.

GEO-GRID ELEVATIONS SHOWN HEREON ARE FOR BIDDING PURPOSES AND MAY BE REVISED IN THE FIELD BY THE ENGINEER OF RECORD TO MEET FIELD CONDITIONS.

INSPECTION OF PLACEMENT OF THE WALL COMPONENTS, THE LEVELING PAD, DRAINAGE COMPONENTS AND ALL GEO-GRID PLACEMENT LISTS.

THE CONTRACTOR IS REQUIRED TO CONSTANTLY AND CONTINUOUSLY ADVISE THE ENGINEER OF RECORD OF HIS OPERATIONS TO INSURE THAT ALL INSPECTIONS ARE MADE FOR THE PLACEMENT OF THE ENTIRE WALL SYSTEM. FAILURE TO NOTIFY THE ENGINEER OF RECORD OF ANY ACTION RELATED TO THE CONSTRUCTION OF THE WALL SYSTEM WILL ELIMINATE THE ABILITY OF THE ENGINEER OF RECORD TO PROVIDE AGENCIES WITH JURISDICTION OVER THE BUILDING PERMIT FOR THIS ACTION AND PROVIDE THE OWNER A CERTIFICATION OF CONSTRUCTION COMPLIANCE.

24-HOUR NOTICE TO THE ENGINEER OF RECORD FOR ALL ACTIONS RELATED TO THE CONSTRUCTION OF THE WALL SYSTEM IS REQUIRED.

SUBSTITUTION OF ANOTHER SEGMENTAL RETAINING WALL / MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL SYSTEM REQUIRES A SIGNED SEALED DESIGN BY AN ENGINEER LICENSED TO PRACTICE IN THE STATE OF NEW YORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY DESIGN REVIEW FEES, SUBMISSION OF A REVISED DESIGN TO THE VILLAGE OF DOBBS FERRY, RE-SUBMISSION TO THE VILLAGE OF DOBBS FERRY PLANNING BOARD AND DESIGN REVIEW COMMITTEE.

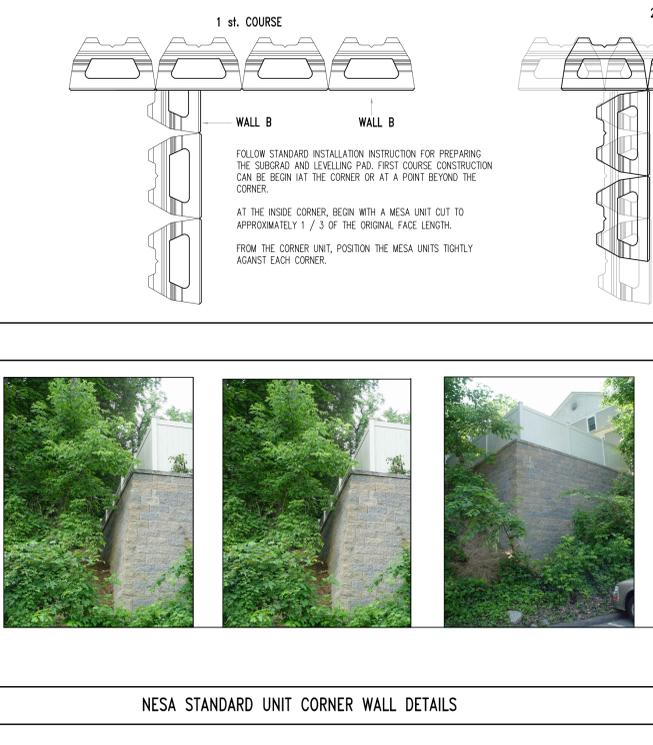
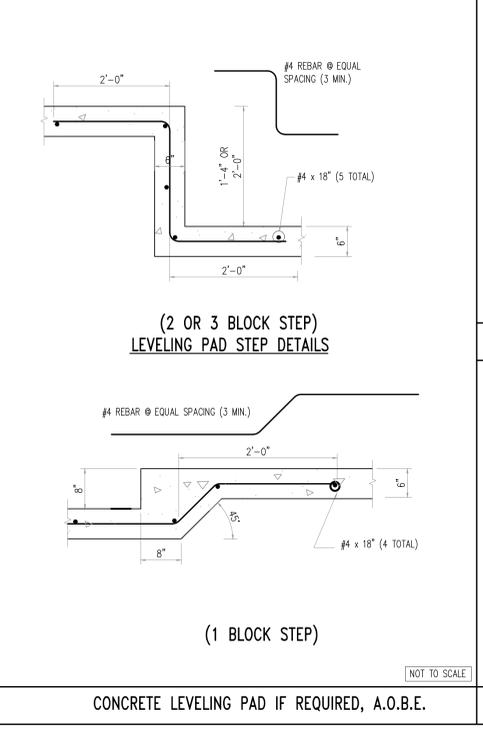
ELEVATIONS, GRADES AND DIMENSIONS SHOWN HEREON FOR THE PROPOSED WALL MAY VARY TO MEET FIELD CONDITIONS ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE ENGINEER OF RECORD. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY OF ANY CHANGES AND/OR FIELD CONDITIONS THAT WILL IMPACT THE INSTALLATION OF THE RETAINING WALL.

A RAILING OR A FENCE ALONG THE TOP OF THE RETAINING WALL SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEW YORK STATE BUILDING CODE.

TEMPORARY FENCING WILL BE REQUIRED TO PREVENT ACCESS TO THE UNDER CONSTRUCTION WORK AREA TO PRECLUDE ACCESS AND IF NECESSARY AT THE TOP OF THE WALL UNDER CONSTRUCTION.

WORK AREA A RAILING OR A FENCE ALONG THE TOP OF THE RETAINING WALL SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEW YORK STATE BUILDING CODE.

AT COMPLETION THE APPLICANT'S (OWNER) ENGINEER OR THE ENGINEER OF RECORD SHALL SUBMIT A COMPLIANCE AND AN AS-BUILT PLAN, PROFILE AND SECTION OF THE RETAINING WALL WHICH WILL CERTIFY THAT THE WALL WAS INSTALLED IN SUBSTANTIAL ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS OR IN THE ALTERNATE, IF FIELD CONDITIONS DICTATED SUBSTANTIAL CHANGES TO THE ORIGINAL DESIGN. THEN A REVISED PLAN WILL BE SUBMITTED CERTIFYING THAT THE RETAINING WALLS ARE INSTALLED IN SUBSTANTIAL ACCORDANCE WITH THE REVISED PLAN.



**TENSAR MESA, MSE WALL, NOTES, SECTIONS AND DETAILS**

**SITE IMPROVEMENT LEVEL REAR YARD**

PREPARED FOR  
**JULIE & MICHAEL CIVALE**  
25 OSCEOLA AVENUE, VILLAGE OF DOBBS FERRY,  
WESTCHESTER COUNTY, NEW YORK

PAUL J. PETRETTI  
CIVIL ENGINEER & LAND SURVEYOR  
30 GOLD AVENUE, DOBBS FERRY, NEW YORK 10522.  
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CIVIL ENGINEERING - LAND SURVEYING & MAPPING - SITE DESIGN & PLANNING  
ENVIRONMENTAL & GEOTECHNICAL - DRAINAGE & STORMWATER QUALITY  
EROSION & SEDIMENT CONTROL STORMWATER POLLUTION PREVENTION PLANS  
Phone Number 914-674-8927 Cell 914-672-1518 E-Mail PJPC@SBA.com

NO. 1 DATE 05.10.23 DESCRIPTION DESIGN MODIFICATION

REVISIONS

STATE OF NEW YORK  
PAUL J. PETRETTI  
REGISTERED PROFESSIONAL ENGINEER  
NYS P.E. LIC. NO. 055191

N.Y.S.P.E. No. 55191 ORIGINAL: DECEMBER 22, 2022

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