

April 6, 2022

Village of Dobbs Ferry Planning Board 112 Main Street Dobbs Ferry, NY 10522

Attention: Stephen Hunter, Chair and Members of the Village of Dobbs Ferry Planning Board

Reference: Site Plan Review

110-150 Draper Lane, Village of Dobbs Ferry AI Engineers Comments Dated March 31, 2022

RACE Project No. 2021121

Dear Mr. Hunter and Planning Board Members:

RACE COASTAL ENGINEERING ("RACE") on behalf of the Applicant, 110-150 Draper Owners Corp., is pleased to provide the additional data that was requested in the March 31, 2022 memorandum to the Village of Dobbs Ferry Planning Board from AI Engineers. The information requested is shown in italics below and the response follows.

1. No details for proposed erosion and sediment control were provided. Plan and details should also include soil stockpiling, construction entrance etc.

The project plans have been revised to include erosion and sediment control methods that will be utilized while stabilizing the severely eroded bank. Methods include silt fences positioned along the toe of the proposed revetment and silt fences surrounding the proposed construction staging area/material staging area. See sheets 3 and 4 of 4 of the revised drawing package as well as notes on sheet 2.

2. The site plan does not indicate access and staging areas during construction as requested.

The drawing package has been revised to include a staging area for construction equipment and materials at the south end of the existing parking lot. One point of access exists on site and is the northern entryway of the existing parking lot. It is anticipated that the contractor will access the work area using this access point of the existing parking lot.

3. No plan details have been included to address the restoration of the embankment at and around the existing Village sewer main on the westerly embankment of Wickers Creek as requested. At a minimum, a typical section/detail of acceptable backfill materials at the existing sewer main should be included. The proposed sections should indicate presence of the sewer main where expected to be encountered in the embankment. Notes should be prominently added to the plan requiring the contractor to notify the Village of Dobbs Ferry prior to any excavation at or near the existing sewer main. Test pits should be performed to locate the sewer and determine depths in the field. Notes prohibiting stone revetment coming into contact with the sewer main pipe or structures must also be added.

Following comments received during the Village of Dobbs Ferry Planning Board meeting on March 3, 2022, RACE personnel revisited the project site to locate the exposed portions of the sewer main that were

safely accessible. The location of the existing sewer main within the proposed work area has been approximated based on the visible manholes that exist along the lawn area and eroded bank. A line has been drawn on the existing and proposed site plan that connects the visible manholes and the exposed portions of the sewer main. The existing and proposed sections have also been revised to depict the approximate location of the sewer main and a note has been added to the revised drawing package on sheet 3 and 4 of 4 that states "The contractor shall notify the Village of Dobbs Ferry prior to any excavation at or near the existing sewer main. Test pits should be performed to locate the sewer and determine depths in the field. The stone revetment shall not come in contact with the sewer main pipe or structures".

Any further information regarding the existing sewer main is not obtainable until debris is removed from the site and the site is safe to traverse.

We look forward to discussing these issues further with the Board at the April 7, 2022 meeting.

Very truly yours,

RACE COASTAL ENGINEERING

Haley Svi

Hailey Simpson Coastal Engineer

Copy: David Guerrero - 110-150 Draper Owners Corp. (Applicant/Owner)

Azure Dee Sleicher, P.E. – RACE Coastal Engineering, Inc. (Agent)

Enclosures: Revised Plans



April 6, 2022

Village of Dobbs Ferry Planning Board 112 Main Street Dobbs Ferry, NY 10522

Attention: Stephen Hunter, Chair and Members of the Village of Dobbs Ferry Planning Board

Reference: 110-150 Draper Lane Emergency Bank Stabilization

110-150 Draper Lane, Village of Dobbs Ferry

Nelson Pope Voorhis Comments Dated April 4, 2022

RACE Project No. 2021121

Dear Mr. Hunter and Planning Board Members:

RACE COASTAL ENGINEERING ("RACE") on behalf of the Applicant, 110-150 Draper Owners Corp., is pleased to provide the additional data that was requested in the April 4, 2022 memorandum to the Village of Dobbs Ferry Planning Board from Nelson Pope Voorhis. The information requested is shown in italics below and the response follows.

General and Procedural Comments

- 1. **Conditions for Approval.** We have reviewed this application and have the following outstanding comments that must be met as conditions for approval:
 - a. Additional Permits. The Applicant must obtain all permits required from the United States Army Corps of Engineers and New York State Department of Environmental Protection.
 - A New York State Joint Application package has been sent to the NYS Department of Environmental Conservation, the NYS Department of State, and the U.S. Army Corps of Engineers on March 16, 2022. At this time, the Applicant is awaiting questions/comments from these agencies.
 - b. Landscaping. The Applicant shall provide a landscaping plan, per §300-44 of the Zoning chapter. A schedule of proposed plantings should also be provided.

A landscaping plan per §300-44 of the Zoning chapter will be prepared for the vegetation buffer with a 10' minimum width for approval prior to the final stages of construction. The type of vegetation, schedule of proposed plantings and their associated spacing/details will be outlined in the landscaping plan.

We look forward to discussing these issues further with the Board at the April 7, 2022 meeting. Very truly yours,

RACE COASTAL ENGINEERING

Harley Sv

Hailey Simpson Coastal Engineer

Copy: David Guerrero - 110-150 Draper Owners Corp. (Applicant/Owner)

Azure Dee Sleicher, P.E. – RACE Coastal Engineering, Inc. (Agent)

Enclosures: Revised Plans



April 6, 2022

Village of Dobbs Ferry Planning Board 112 Main Street Dobbs Ferry, NY 10522

Attention: Stephen Hunter, Chair and Members of the Village of Dobbs Ferry Planning Board

Reference: 110-150 Draper Lane

Village of Dobbs Ferry

Nolan Landscape Architects Comments Dated March 23, 2022

RACE Project No. 2021121

Dear Mr. Hunter and Planning Board Members:

RACE COASTAL ENGINEERING ("RACE") on behalf of the Applicant, 110-150 Draper Owners Corp., is pleased to provide the additional data that was requested by Nolan Landscape Architects in their March 23, 2022 landscape report to the Village of Dobbs Ferry Planning Board. The information requested is shown in italics below and the response follows.

1. A riparian buffer with a 10' minimum width should be planted for water quality improvement and to further stabilize slopes upgradient of the armoring. The riparian buffer should also be established along all portions of Wickers' Creek.

A vegetation buffer with a 10' minimum width has been included in the proposed design and is depicted on sheets 3 and 4 of 4 of the revised drawing package. Areas along Wicker's Creek that are not included in the bank stabilization project will remain as is and will not be touched.

2. A buffer composed of a seeded, riparian grass/forbs strip upgradient of shrubs would be desirable as a transition from lawn areas.

A landscaping plan will be prepared for the vegetation buffer prior to its establishment during the final stages of construction. The type of vegetation, schedule of proposed plantings and their associated spacing/details will be outlined in the landscaping plan and submitted to the Village for final approval.

3. Use of shrubs directly adjacent and upslope of the armoring will provide the visual benefit of masking the upper portion of the armoring as gravity will naturally encourages growth downgradient. Shrub planting in the form of live stakes would be an appropriate bioengineering approach.

A landscaping plan will be prepared for the vegetation buffer prior to its establishment during the final stages of construction. The type of vegetation, schedule of proposed plantings and their associated spacing/details will be outlined in the landscaping plan and submitted to the Village for final approval.

4. Shrub varieties available as live stakes tend to be vigorous and tall. In narrow areas between the armoring and parking lot, shrub varieties that remain more compact, such as silky dogwood, red Osier dogwood, and buttonbush, should be used. Alternately, a conventional planting of shrubs, can be considered in

narrow areas. While this would expand the variety of plants available for use, the spacing of plants would need to be dense in order to provide the soil stabilization benefit.

A landscaping plan will be prepared for the vegetation buffer prior to its establishment during the final stages of construction. The type of vegetation, schedule of proposed plantings and their associated spacing/details will be outlined in the landscaping plan and submitted to the Village for final approval.

5. Addition of small caliper trees as a component of the riparian buffer, or in the lawn area upslope of the buffer, would provide further stabilization benefits and mitigate for trees lost as a result of the storm.

A landscaping plan will be prepared for the vegetation buffer prior to its establishment during the final stages of construction. The type of vegetation, schedule of proposed plantings and their associated spacing/details will be outlined in the landscaping plan and submitted to the Village for final approval.

6. Identification of the east property line on the sections will help identify further bioengineering streambank stabilization opportunities.

The east property line has been included on the existing and proposed sections on sheet 4 of 4 of the revised drawing package. No work is proposed along the eastern bank of Wicker's Creek.

We look forward to discussing these issues with the Board at the April 7, 2022 meeting.

Very truly yours,

RACE COASTAL ENGINEERING

Haley Jr

Hailey Simpson Coastal Engineer

Copy: David Guerrero - 110-150 Draper Owners Corp. (Applicant/Owner)

Azure Dee Sleicher, P.E. – RACE Coastal Engineering, Inc. (Agent)

Enclosures: Revised Plans

EMERGENCY BANK STABILIZATION

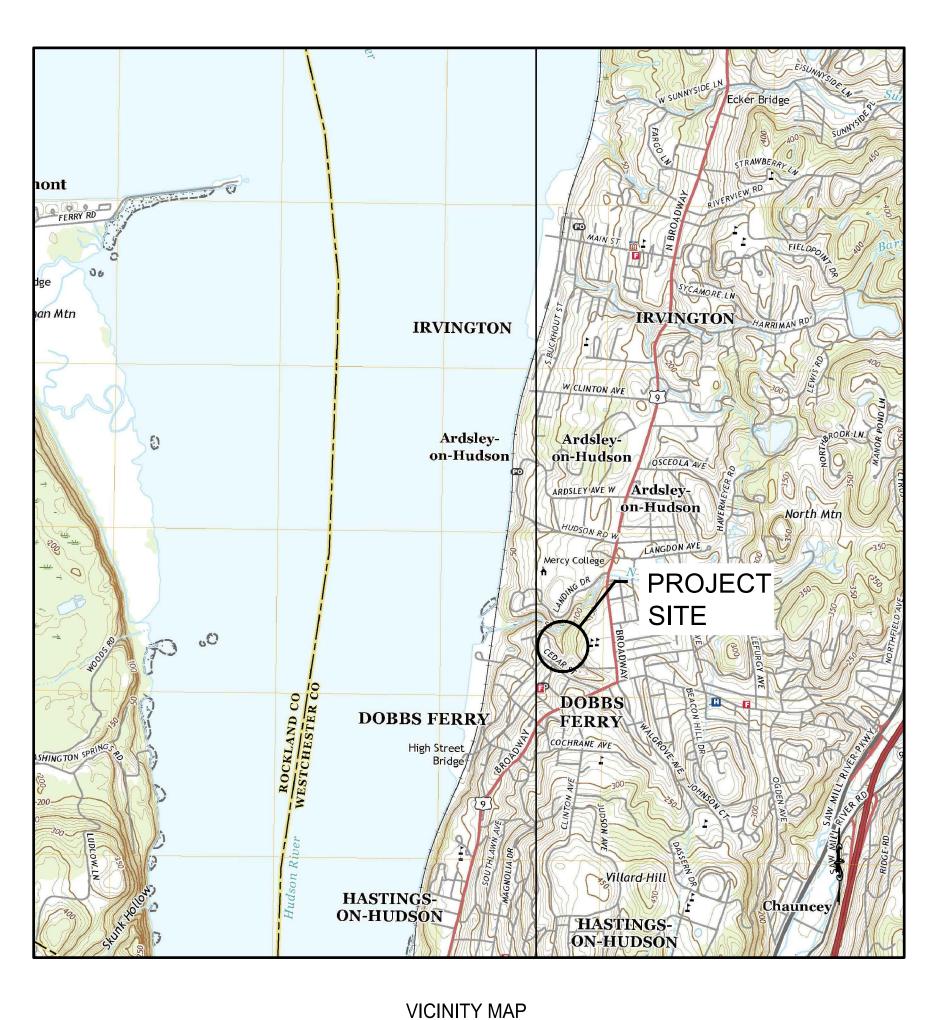
110-150 DRAPER OWNERS CORP. C/O GARTHCHESTER REALTY 440 MAMARONECK AVE HARRISON, NY 10528 11/18/2021

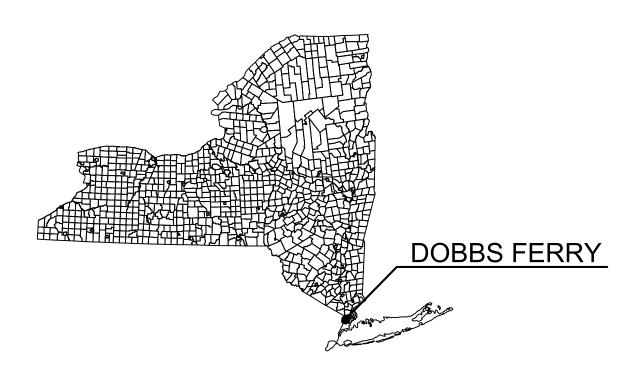
LIST OF DRAWINGS

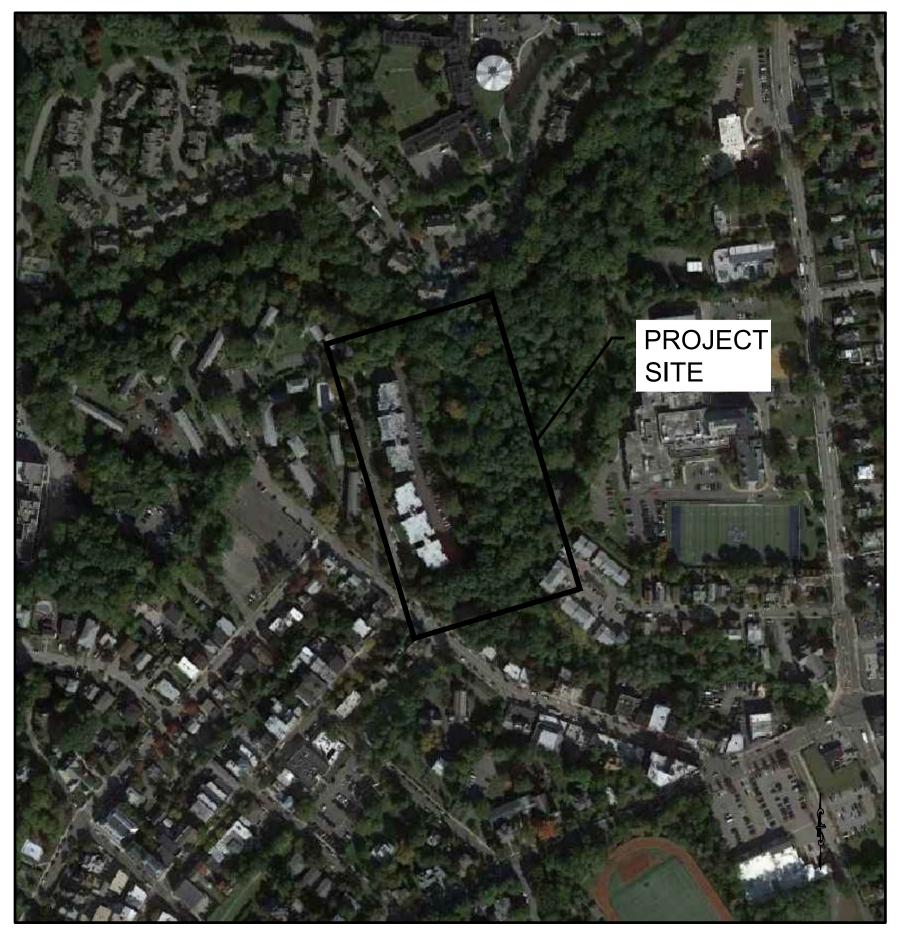
DWG. No.

DRAWING TITLE

EXISTING & PROPOSED SECTIONS







AERIAL PHOTO



ISSUED FOR PERMIT					
REV	DATE	DESCRIPTION			
1	02-04-2022	REVISED FOR PLANNING BOARD REQUIREMENTS			

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C/O GARTHCHESTER REALTY 440 MAMARONECK AVE HARRISON, NY 10528

EMERGENCY BANK STABILIZATION 110-150 DRAPER LANE DOBBS FERRY, NY 10522

TITLE SHEET, DRAWING LIST & VICINITY MAP

DESCRIPTION OF WORK:

- THE WORK COVERED UNDER THESE CONTRACT DOCUMENTS, INCLUDING THE DRAWINGS, PROJECT NOTES, AND ALL AMENDMENTS, CONSISTS OF PROVIDING ALL PLANT, LABOR, SUPERVISION, EQUIPMENT APPLIANCES AND MATERIALS AND IN PERFORMING ALL OPERATIONS IN CONNECTION WITH AT LEAST, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING ITEMS:
- FURNISH AND INSTALL S&E CONTROLS
- STABILIZE THE STREAM BANK
- FURNISH AND INSTALL RIPRAP REVETMENT COORDINATE WORK WITH OWNER AND PROTECT UTILITIES
- THE CONTRACTOR SHALL PROVIDE ALL ITEMS AND ACCESSORIES REQUIRED TO COMPLETE ALL ASPECTS OF THE WORK NEEDED FOR A COMPLETE AND PROPER INSTALLATION, ALL IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS.

GENERAL NOTES:

- ELEVATIONS ARE REFERENCED TO DATUM NOTED ON PLAN.
- 2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LAYOUT THE STRUCTURES IN ACCORDANCE WITH THE PROJECT DRAWINGS.
- WORK SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND STATUTES AND THE REQUIREMENTS AND CONDITIONS OF ALL REGULATORY PERMITS ISSUED FOR THE WORK.
- EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND FABRICATION OR ORDERING OF ANY CONSTRUCTION MATERIALS.
- SECTIONS AND DETAILS APPLY TO SAME AND SIMILAR CONDITIONS UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN.
- DAMAGE TO ANY PROPERTY, PRIVATE OR OF PUBLIC TRUST, OCCURRING DURING THE CONSTRUCTION BY THE CONTRACTOR, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE EXPENSE OF THE CONTRACTOR.
- 7. THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS.
- WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE

3. THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN

- THE CONTRACTOR SHALL USE EQUIPMENT ADEQUATE IN SIZE, CAPACITY, AND NUMBERS, AND MAINTAINED TO THE REQUIREMENTS OF ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS TO ACCOMPLISH THE WORK.
- 10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT FROM DAMAGE ALL UTILITIES, UTILITY STRUCTURES, FUEL LINES & TANKS OR ANY UNKNOWN UTILITIES OR STRUCTURES PRIOR TO ANY WORK, EXCEPT THOSE SPECIFIED FOR DEMOLITION.
- 11. LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO PERFORM THE WORK THAT, UPON COMPLETION ARE NOT A PART OF THE WORK SHALL BE FURNISHED, INSTALLED, AND SUBSEQUENTLY REMOVED FROM THE SITE BY THE CONTRACTOR.
- 12. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IN WRITING IF CONTRACTOR OBSERVES ANY DISCREPANCIES OR ERRORS WHICH WOULD MATERIALLY AFFECT THE PROJECT
- 13. ANY STRUCTURES CONSTRUCTED IN POSITIONS OTHER THAN THE LOCATIONS DEPICTED ON THE PROJECT PLANS SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 14. THE VILLAGE ENGINEER MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES IF DEEMED APPROPRIATE TO MITIGATE UNFORESEEN SILTATION AND EROSION OF DISTURBED SOILS.
- 15. FILL MATERIAL IMPORTED TO THE SITE SHALL BE CERTIFIED IN WRITING BY A NEW YORK LICENSED PROFESSIONAL ENGINEER AS CLEAN, NON-CONTAMINATED FILL SUITABLE FOR THE INTENDED USE.
- 16. BEFORE THE SITE PLAN IS SIGNED BY THE CHAIRMAN OF THE PLANNING BOARD, THE APPLICANT SHALL BE REQUIRED TO POST A PERFORMANCE BOND OR OTHER TYPE OF ACCEPTABLE MONETARY GUARANTY WHICH SHALL BE IN AN AMOUNT DETERMINED BY THE PLANNING BOARD AND THE VILLAGE ENGINEER AND IN A FORM SATISFACTORY TO THE VILLAGE ATTORNEY.
- 17. ALL WORK TO CONFORM TO THE SATISFACTION OF THE BUILDING INSPECTOR.
- 18. SWALES TO BE INSTALLED AS DIRECTED BY THE BUILDING INSPECTOR.
- 19. ALL GRADING TO BE PERFORMED TO CREATE POSITIVE DRAINAGE.

UTILITIES:

- 1. CONTRACTOR IS RESPONSIBLE TO OBTAIN CALL BEFORE YOU DIG PERMIT.
- 2. CONTRACTOR SHALL PROTECT EXISTING UTILITIES ONSITE AND COORDINATE ALL WORK THAT MAY INTERFERE WITH UTILITIES WITH OWNER.
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING, SUPPORT, HANGERS, AND OTHER MEANS AS MAY BE NECESSARY TO SUPPORT AND PROTECT THE UTILITIES DURING CONSTRUCTION.
- 4. UTILITY WORK SHALL BE PERFORMED BY LICENSED TRADESMEN.

STONE REVETMENT:

- ARMOR STONE & FILTER STONE SHALL BE PLACED BY HAND OR MACHINE TO THE DESIGN LINES AND GRADES SPECIFIED IN THESE DRAWINGS. STONE SHALL BE PLACED IN A MANNER WHICH WILL PRODUCE A WELL-GRADED MASS OF ROCK WITH THE MINIMUM PRACTICAL PERCENTAGE OF VOIDS. THE TOP FINISH LAYER SHALL BE UNIFORMLY PLANAR. A TOLERANCE OF PLUS 6 INCHES AND MINUS 3 INCHES FROM THE SLOPE LINES AND GRADES SHOWN ON THE DRAWINGS WILL BE ALLOWED IN THE FINISHED SURFACE, EXCEPT THAT THE EXTREME OF THIS TOLERANCE SHALL NOT BE CONTINUOUS OVER AN AREA GREATER THAN 200 SQUARE FEET.
- ARMOR AND TOE STONE SHALL BE A DENSE, SOUND GNEISS, DIORITE, OR BASALT, CONFORMING TO THE WEIGHT AND GRADATION TABLES PROVIDED HEREIN. STONE SHALL BE FREE FROM LAMINATIONS, WEAK CLEAVAGES, UNDESIRABLE WEATHERING, OR BLASTING OR HANDLING FRACTURES. ADDITIONALLY, STONES SHALL BE FREE FROM FRACTURE ZONES WHICH SUBTEND MORE THAN 1/3 OF THE TOTAL CIRCUMFERENCE OF THE STONES ALONG THE PLACE OF FRACTURING. STONES SHALL BE CLEAN, FREE FROM EARTH, CLAY, REFUSE, AND COATINGS, BROKEN CONCRETE OR ROUNDED STONES ARE NOT ACCEPTABLE. ARMOR STONE SHALL BE OF SUCH SHAPE TO ASSURE INTERLOCKING WITH ADJACENT ARMOR STONES.
- FILTER STONE SHALL CONSIST OF CRUSHED DURABLE STONE, SCREENED TO THE GRADATION TABLE PROVIDED HEREIN.

- THE TOE OF THE REVETMENT SHALL BE SET AT THE ELEVATION SHOWN ON THE DRAWINGS.
- THE EXCAVATION DEPTH FOR THE PLACEMENT OF THE STONE REVETMENT SHALL BE TO KEPT TO THE MINIMUM DEPTH. THE CONTRACTOR SHALL ESTABLISH CONTROL POINTS PRIOR TO EXCAVATION OF EX. GRADE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE AMOUNT OF EXPOSED STREAMBANK DURING CONSTRUCTION IN ORDER TO MINIMIZE THE CHANCE OF STREAMBANK RECESSION SHOULD A STORM EVENT OCCUR DURING CONSTRUCTION. IN SUCH A CASE, THE CONTRACTOR SHALL TEMPORARILY PLACE STONE MATERIAL ALONG THE EXPOSED STREAMBANK.
- STONES SHOULD BE KEYED AND FITTED, MAXIMIZING CONTACT ON ALL SIDES. THREE POINTS OF CONTACT (MINIMUM) ARE REQUIRED BETWEEN A STONE AND OTHER STONES IN THE SAME LAYER.
- CONTRACTOR SHALL IDENTIFY QUARRY SOURCE FOR STONE MATERIALS AND PROVIDE INFORMATION FOR ENGINEER TO INSPECT STONE PRIOR TO SHIPMENT TO PROJECT SITE.
- ACCEPTANCE OF A SOURCE OF STONE BY THE ENGINEER IS NOT TO BE CONSTRUED AS ACCEPTANCE OF ALL MATERIALS FROM THAT SOURCE.

ARMOR STONE GRADATION

Approx. stone

size (feet)

	, ,					
0	60	0.7				
15	220	1.1				
50	450	1.4				
85	960	1.8				
100	1,800	2.2				
FILTER STONE GRADATION						
Percent less by size	Stone weight (pounds)	Approx. stone size (inches)				
0	0.2	1.2				
15	0.2	1.2				
15	0.6	1.8				

- STONE SHALL BE PLACED IN A MANNER SUCH THAT THE LONGITUDINAL AXIS OF EACH STONE BE NORMAL TO THE AXES OF THE STRUCTURE. AND SLOPE DOWNWARD TOWARD THE CENTER OF THE STRUCTURE. ALL STONE SHOULD BE PLACED TOGETHER AS CLOSELY AS PRACTICAL.
- 11. STONE MATERIALS SHALL BE DELIVERED PER THE TERMS AND CONDITIONS OF THE APPLICABLE REGULATORY PERMITS, RULES AND REGULATIONS AND OF SUFFICIENT AND LEGAL SIZE TO TRAVEL ON LOCAL AND STATE ROADWAYS OR WITHIN LOCAL WATERWAYS.

GEOTEXTILE FILTER FABRIC:

- GEOTEXTILE FILTER FABRIC SHALL BE MIRAFI FW700 BY TENCATE GEOSYNTHETICS OR ENGINEER APPROVED EQUAL.
- FILTER FABRIC ROLLS SHALL BE STORED OFF THE GROUND IN WEATHER-TIGHT STORAGE, AND PROTECTED TO ASSURE NO DAMAGE TO THE MATERIALS.
- ATMOSPHERIC EXPOSURE OF THE GEOTEXTILE TO THE ELEMENTS FOLLOWING LAYDOWN SHALL BE LIMITED TO 14 DAYS TO PREVENT DAMAGE.
- 4. PREPARE SURFACES TO RECEIVE GEOTEXTILE TO SMOOTH CONDITION AS INDICATED OR AS DIRECTED BY THE ENGINEER. FILL DEPRESSIONS AND HOLES FLUSH WITH ADJACENT SURFACES AS REQUIRED.
- REMOVE LARGE STONES, LIMBS, AND OTHER DEBRIS PRIOR TO PLACEMENT OF GEOTEXTILE.
- THE GEOTEXTILE SHALL BE PLACED IN INTIMATE CONTACT WITH THE SOILS WITHOUT WRINKLES OR FOLDS AND ANCHORED ON SMOOTH GRADE SURFACE APPROVED BY THE ENGINEER. THE GEOTEXTILE SHALL BE PLACED IN SUCH A MANNER THAT PLACEMENT OF THE OVERLYING MATERIALS WILL NOT EXCESSIVELY STRETCH SO AS TO TEAR THE GEOTEXTILE. ANCHORING OF THE GEOTEXTILE SHALL BE ACCOMPLISHED THROUGH THE USE OF KEY TRENCHES OR APRONS AT THE CREST AND TOE OF SLOPE.
- 450 MM (18 IN) ANCHORING PINS PLACED ON 600 TO 1800 MM (24 TO 45 IN) CENTERS, DEPENDING ON SLOPE OF THE COVERED AREA, MAY BE USED TO EXPEDITE CONSTRUCTION. IF USED, RETAINING PINS SHALL BE 4 MM (0.18 IN) DIAMETER X 450 MM (18 IN) LONG STEEL PINS, POINTED AT ONE END AND FITTED WITH 35 MM (1 IN) DIAMETER WASHER AT OTHER END.
- THE GEOTEXTILE SHALL BE PLACED WITH THE MACHINE DIRECTION PARALLEL TO THE DIRECTION OF WATER FLOW WHICH IS NORMALLY PARALLEL TO THE SLOPE FOR EROSION CONTROL RUNOFF AND PARALLEL TO THE STREAM OR CHANNEL IN THE CASE OF STREAMBANK AND CHANNEL STABILIZATION. EITHER SEWING OR OVERLAPPING SHALL JOIN ADJACENT GEOTEXTILE SHEETS. OVERLAPPED SEAMS OF ROLL ENDS SHALL BE A MINIMUM OF 300 MM (12 IN) EXCEPT WHERE PLACED UNDER WATER. IN SUCH INSTANCES THE OVERLAP SHALL BE A MINIMUM OF 1 M (3 FT). OVERLAPS OF ADJACENT ROLLS SHALL BE A MINIMUM OF 300 MM (12 IN) IN ALL INSTANCES.
- WHEN OVERLAPPING, SUCCESSIVE SHEETS OF GEOTEXTILE SHALL BE OVERLAPPED UPSTREAM OVER DOWNSTREAM, AND/OR UPSLOPE OVER DOWN SLOPE.
- 10. CARE SHALL BE TAKEN DURING INSTALLATION SO AS TO AVOID DAMAGE OCCURRING TO THE GEOTEXTILE AS A RESULT OF THE INSTALLATION PROCESS. SHOULD THE GEOTEXTILE BE DAMAGED DURING INSTALLATION, A GEOTEXTILE PATCH SHALL BE PLACED OVER THE DAMAGED AREA EXTENDING 1 M (3 FT) BEYOND THE PERIMETER OF THE DAMAGE.

- 11. THE ARMOR SYSTEM PLACEMENT SHALL BEGIN AT THE TOE AND PROCEED UP THE SLOPE. PLACEMENT SHALL TAKE PLACE SO AS TO AVOID STRETCHING AND SUBSEQUENT TEARING OF THE GEOTEXTILE. RIP RAP AND HEAVY STONE FILLING SHALL NOT BE DROPPED FROM A HEIGHT OF MORE THAN 300 MM (12 IN). STONE WITH A MASS OF MORE THAN 100 KG (225 LB) SHALL NOT BE ALLOWED TO ROLL DOWN THE SLOPE.
- 12. SLOPE PROTECTION AND SMALLER SIZES OF STONE FILLING SHALL NOT BE DROPPED FROM A HEIGHT EXCEEDING 1 M (3 FT), OR A DEMONSTRATION PROVIDED SHOWING THAT THE PLACEMENT PROCEDURES WILL NOT DAMAGE THE GEOTEXTILE. IN UNDERWATER APPLICATIONS, THE GEOTEXTILE AND BACKFILL MATERIAL SHALL BE PLACED THE SAME DAY. ALL VOID SPACES IN THE ARMOR STONE SHALL BE BACKFILLED WITH THE SMALL STONE TO ENSURE FULL COVERAGE.
- 13. FOLLOWING PLACEMENT OF THE ARMOR STONE, GRADING OF THE SLOPE SHALL NOT BE PERMITTED IF THE GRADING RESULTS IN MOVEMENT OF THE STONE DIRECTLY ABOVE THE GEOTEXTILE.
- 14. FIELD MONITORING SHALL BE PERFORMED TO VERIFY THAT THE ARMOR SYSTEM PLACEMENT DOES NOT DAMAGE THE GEOTEXTILE.
- ANY GEOTEXTILE DAMAGED DURING BACKFILL PLACEMENT SHALL BE REPLACED AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

EXCAVATION & BACKFILL:

- CONTRACTOR SHALL EXCAVATE TO THE REQUIRED DEPTHS IN ACCORDANCE WITH OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA)
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT NEIGHBORING PROPERTY'S, STRUCTURES, COMPLETED WORK, AND NATURAL RESOURCES FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE SHORING AND EXCAVATION PROTECTION AS NEEDED.
- BACKFILL OF EXCAVATIONS PERFORMED BY THE CONTRACTOR AS PART OF THE WORK OR AS REQUIRED TO ACCOMMODATE THE WORK SHALL CONSIST OF MATERIAL CONFORMING TO THE FOLLOWING REQUIREMENTS:
 - 3.1. FREE-DRAINING MATERIAL SHALL CONSISTING OF A MIXTURE OF SAND, GRAVEL, GRAVEL ROCK FRAGMENTS, QUARRY RUN STONE AND SHALL NOT HAVE MORE THAN 70%, BY WEIGHT, PASSING THE NO. 40 SIEVE AND NOT MORE THAN 10%, BY WEIGHT, PASSING THE NO. 200 MESH SIEVE.
- BACKFILL MATERIAL SHALL BE FREE OF ORGANICS, FROZEN SOIL, ICE, WOOD AND OTHER EXTRANEOUS MATERIAL.
- MATERIAL REMOVED FROM THE EXCAVATION AND TEMPORARILY STOCKPILED ONSITE MAY BE USED AS BACKFILL PROVIDED IT MEETS THE ABOVE REQUIREMENTS AND NO PARTICLES ARE GREATER THAN 3' IN MAXIMUM DIMENSION. A SAMPLE AND GRADATION OF MATERIAL PROPOSED AS BACKFILL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND ACCEPTANCE.
- CRUSHED STONE SHALL BE CONSISTENT WITH THE MATERIAL REQUIREMENTS OF NYSDOT.
- PLACE BACKFILL IN MAXIMUM 1 FT LIFTS. LIFT THICKNESS SHALL BE REDUCED IF NEEDED BASED ON EQUIPMENT USED. CONTRACTOR TO DRY OR MOISTEN SOIL AS NEEDED TO PROVIDE SUITABLE COMPACTION AND OPTIMUM MOISTURE CONTENT. THE DRY DENSITY OF EACH LAYER OF BACKFILL AFTER COMPACTION SHALL NOT BE LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL WHEN TESTED IN ACCORDANCE WITH AASHTO T 180, METHOD D.
- PROCESSED AGGREGATE BASE SHALL BE PLACED IN LAYERS NOT TO EXCEED 6" IN LOOSE DEPTH.
- BACKFILL SHALL BE PLACED EVENLY ALONG STRUCTURES, TO REQUIRED ELEVATIONS.
- 10. CONTRACTOR SHALL TAKE CARE TO PREVENT WEDGING ACTIONS OF BACKFILL AGAINST STRUCTURES BY CARRYING MATERIAL UNIFORMLY AROUND THE STRUCTURES TO APPROXIMATELY THE SAME ELEVATION OF EACH LIFT.
- EXCAVATIONS WITHIN THE STREAM CHANNEL SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITIONS, WITH FUNCTIONS RESTORED. RESTORATION SHALL COMMENCE NO LATER THAN THE COMPLETION OF CONSTRUCTION.
- 12. EXCESS EXCAVATION MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE AND HAUL OFF-SITE FOR DISPOSAL.
- 13. SUPPLEMENTAL EXCAVATION AND FILL CONTROL MAY BE NECESSARY TO LIMIT SETTLEMENT BASED ON ACTUAL CONDITIONS EXPOSED DURING CONSTRUCTION.

CLEARING & GRUBBING:

- UNLESS OTHERWISE INDICATED THE CONTRACTOR SHALL CUT OR REMOVE ALL BRUSH, SAPLINGS, VINES, LOGS, DEBRIS, ETC. AS REQUIRED TO COMPLETE THE WORK WITHIN THE PROJECT AREA AS SPECIFIED WITHIN THESE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL NOT REMOVE MATURE TREES 4-INCHES OR GREATER IN DIAMETER UNLESS THEY ARE WITHIN THE EXCAVATION AREA.
- UNLESS OTHERWISE INDICATED WITHIN THESE CONTRACT DOCUMENTS THE CONTRACTOR SHALL COMPLETELY REMOVE ALL STUMPS AND ROOTS TO A DEPTH OF 18-INCHES.
- DEPRESSIONS REMAINING FROM THE REMOVAL OF STUMPS SHALL BE FILLED WITH GRAVEL BORROW AND/OR CLEAN LOAM.
- MATERIAL COLLECTED IN THE COURSE OF CLEARING AND GRUBBING, WHICH IS NOT TO REMAIN, SHALL BE DISPOSED IN A PROPER MANNER AWAY FROM THE SITE.

EROSION & SEDIMENTATION CONTROLS:

- LAND DISTURBANCE SHALL BE KEPT TO A MINIMUM, AS PRACTICABLE TO COMPLETE THE WORK.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE 2016 NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
- ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD AS NECESSARY AND REQUIRED.
- THE CONTRACTOR SHALL UTILIZE APPROVED METHODS/MATERIALS FOR

PREVENTING THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL

THE CONTRACTOR SHALL MAINTAIN AN ADDITIONAL SUPPLY OF EROSION & SEDIMENTATION CONTROL ON SITE FOR EMERGENCY PURPOSES.

SURFACES ONTO ADJACENT PROPERTIES AND SITE AREAS.

THE CONTRACTOR SHALL PROVIDE A PROJECT SPECIFIC PLAN FOR THE INSTALLATION AND MAINTENANCE OF SEDIMENTATION AND EROSION CONTROL MEASURES FOR THE PROJECT SITE AND SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF ALL CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.

SELECTIVE DEMOLITION & DISPOSAL:

- SELECTIVE DEMOLITION AND DISPOSAL SHALL BE PERFORMED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL PERMIT AND BUILDING CODE REQUIREMENTS.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE THOSE STRUCTURES AND DERELICT COMPONENTS REQUIRED TO PERFORM THE WORK.
- SELECTIVE DEMOLITION INCLUDES BUT IS NOT LIMITED TO REMOVAL OF EXISTING MATERIALS, UTILITIES, AND OTHER COMPONENTS ESSENTIAL FOR A COMPLETE PROJECT.
- THE CONTRACTOR SHALL TAKE REASONABLE CARE IN REMOVING ELEMENTS SELECTED TO BE DEMOLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. DAMAGE OR DESTRUCTION BY THE CONTRACTOR TO EXISTING ELEMENTS DESIGNATED TO REMAIN SHALL BE REPAIRED OR REPLACED IN-KIND AT THE DISCRETION OF THE OWNER AT NO ADDITIONAL COST.
- ITEMS TO BE REMOVED AND REUSED SHALL BE PLACED IN A STAGING AREA ACCESSIBLE FOR INSPECTION BY THE OWNER.
- PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION. THE CONTRACTOR SHALL SUBMIT A DISPOSAL PLAN FOR ITEMS TO BE DEMOLISHED. DEMOLITION MATERIAL DESIGNATED BY THE OWNER TO BE REMOVED FROM THE SITE SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE DEBRIS DISPOSAL PLAN SHALL ACKNOWLEDGE THIS OWNERSHIP AND SHALL IDENTIFY THE MEANS AND METHODS AND FINAL DISPOSITION FOR DISPOSAL MATERIALS.
- PRIOR TO COMMENCEMENT OF DEMOLITION, THE CONTRACTOR SHALL CLEARLY MARK THE LIMITS OF THE DEMOLITION FOR REVIEW AND APPROVAL BY THE ENGINEER.
- COMPLETELY REMOVE ITEMS DESIGNATED LEAVING SURFACES CLEAN, SOUND, AND READY TO RECEIVE NEW MATERIALS AS SPECIFIED IN THE
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURES DURING THE COURSE OF DEMOLITION.

REPRESENTATIVE CERTIFYING LEGAL AND PROPER DISPOSAL.

10. THE CONTRACTOR SHALL SUBMIT A DISPOSAL CERTIFICATE TO THE OWNER'S

11. ALL DEMOLITION AND CONSTRUCTION WASTE MATERIALS SHALL BE DISPOSED OF LEGALLY OFFSITE BY THE CONTRACTOR, AT THE EXPENSE OF THE

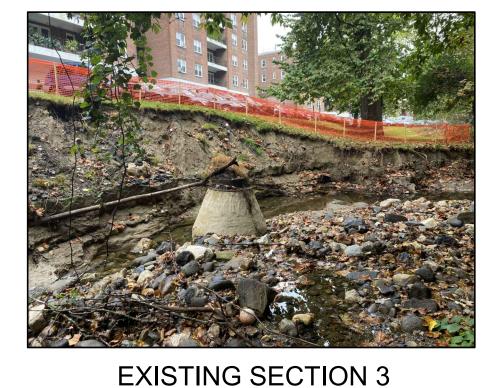
CONSTRUCTION SEQUENCE:

- IT IS ANTICIPATED THE CONTRACTOR WILL PREPARE THE SITE BY FURNISHING AND INSTALLING THE NECESSARY SEDIMENTATION & EROSION (S&E) CONTROL MEASURES ALONG THE ERODED BANK IN ACCORDANCE WITH THE NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENTATION CONTROL. S&E CONTROL MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO A CONSTRUCTION FENCE, SILT FENCE AND HAY BALES.
- THE CONTRACTOR SHALL CLEAR THE SITE OF ALL NATURAL DEBRIS, DERELICT STRUCTURES AND THEIR COMPONENTS. DEBRIS AND UNWANTED DERELICT STRUCTURES AND COMPONENTS WILL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF AT AN AUTHORIZED WASTE FACILITY.
- FOLLOWING CLEARING AND GRUBBING OF THE SITE, IT IS ANTICIPATED THE CONTRACTOR WILL ROUGH GRADE THE ERODED BANK SLOPE TO PREPARE FOR THE INSTALLATION OF THE RIPRAP REVETMENT. EARTH MATERIAL WILL BE EXCAVATED AND REUSED AS BACKFILL MATERIAL IN ORDER TO GRADE THE BANK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. WHEN NOT IN USE, EXCAVATED MATERIAL WILL BE STAGED ON SITE AND SURROUNDED BY THE APPLICABLE S&E CONTROL MEASURES IN ACCORDANCE WITH NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENTATION CONTROL.
- AFTER THE BANK HAS BEEN GRADED, IT IS ANTICIPATED THE CONTRACTOR WILL INSTALL THE GEOTEXTILE FILTER FABRIC, FILTER STONE AND ARMOR STONE ALONG THE BANK SLOPE. THE RIPRAP REVETMENT AND ITS COMPONENTS WILL BE CONSTRUCTED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
- FOLLOWING THE COMPLETION OF THE RIPRAP REVETMENT, AREAS THAT HAVE BEEN DISTURBED WILL BE FURNISHED AND LANDSCAPED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. LANDSCAPING INCLUDES BUT IS NOT LIMITED TO INSTALLING TOP SOILS, RAKING TOP SOILS, SEEDING, PROVIDING PROTECTION AND WATERING.
- UPON COMPLETION OF THE PROJECT. S&E CONTROL MEASURES WILL BE REMOVED AND THE CONTRACTOR WILL DEMOBILIZE FROM THE SITE.

EXISTING SITE PHOTOGRAPHS

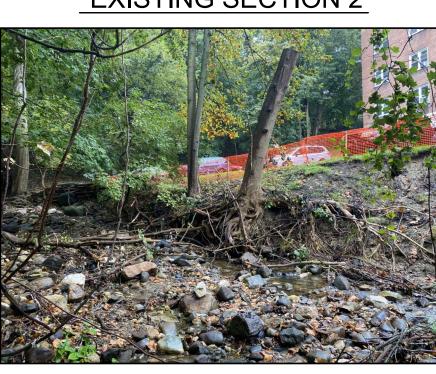


EXISTING SECTION ²

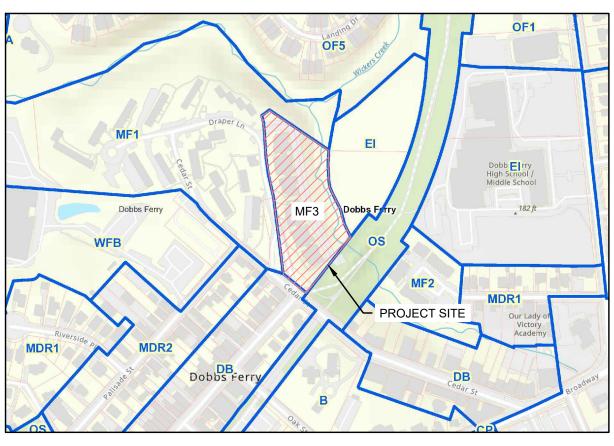




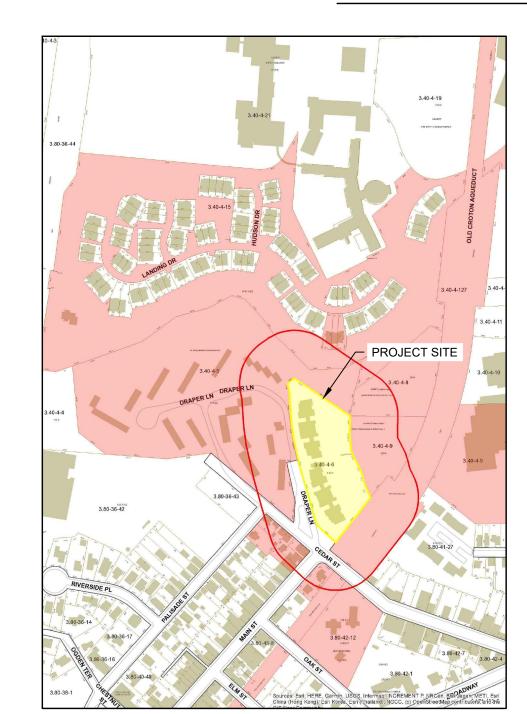
EXISTING SECTION 2



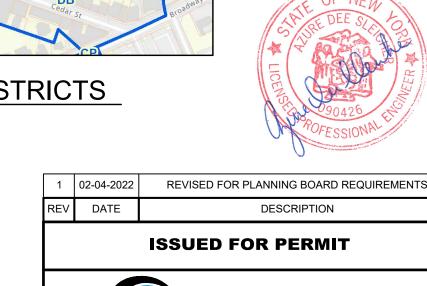
EXISTING SECTION 4



ABUTTING ZONING DISTRICTS



TAX ASSESSOR'S MAP



611 Access Road Stratford, CT 06615 Tel.: 203-377-0663 acecoastal.com OWNERSHIP AND CONDITIONS OF USE

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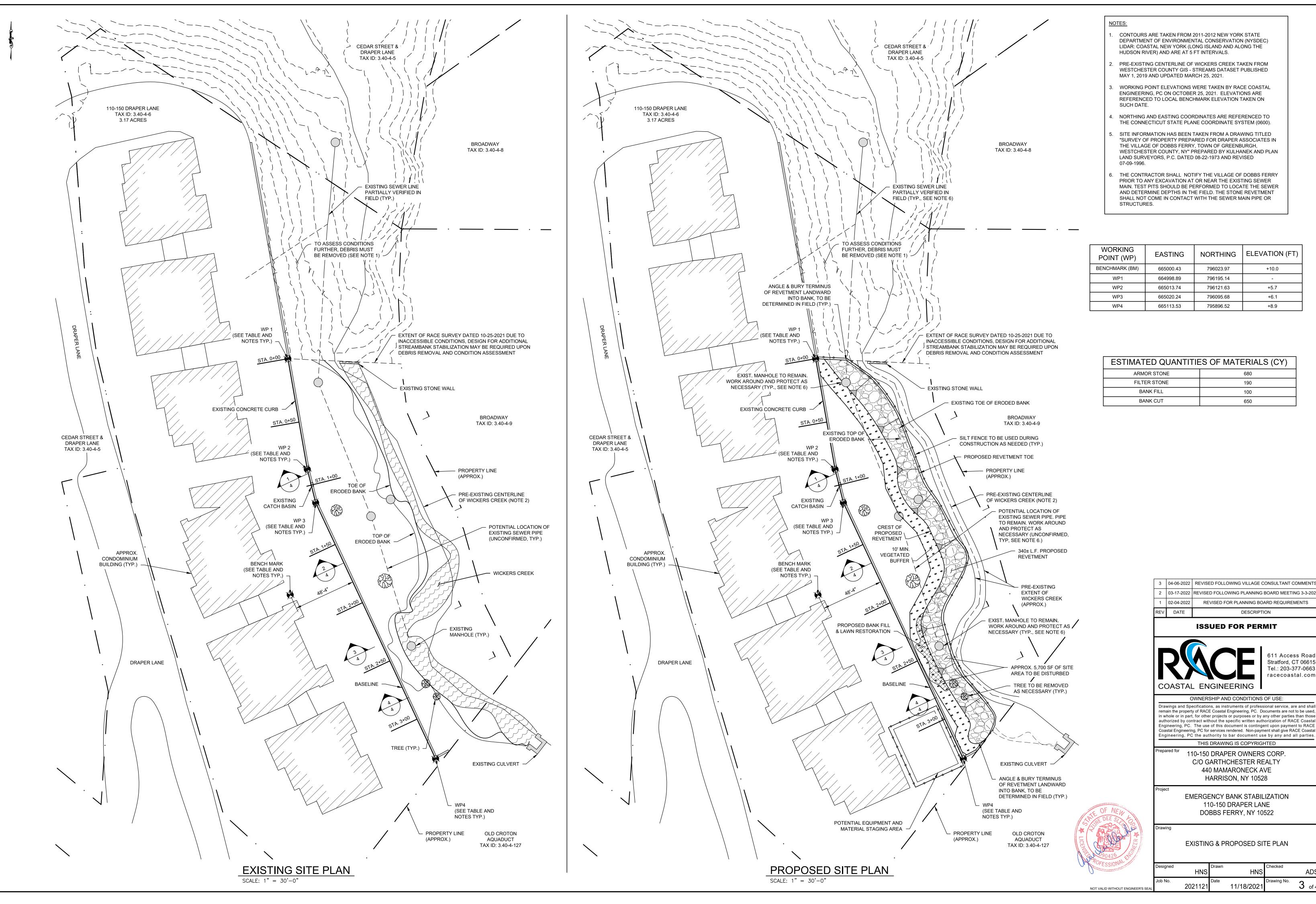
110-150 DRAPER OWNERS CORP C/O GARTHCHESTER REALTY 440 MAMARONECK AVE HARRISON, NY 10528

EMERGENCY BANK STABILIZATION 110-150 DRAPER LANE DOBBS FERRY, NY 10522

PROJECT NOTES & SITE PHOTOGRAPHS

NOT VALID WITHOUT ENGINEER'S SI

11/18/202



- CONTOURS ARE TAKEN FROM 2011-2012 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) LIDAR: COASTAL NEW YORK (LONG ISLAND AND ALONG THE HUDSON RIVER) AND ARE AT 5 FT INTERVALS.
- PRE-EXISTING CENTERLINE OF WICKERS CREEK TAKEN FROM WESTCHESTER COUNTY GIS - STREAMS DATASET PUBLISHED
 - WORKING POINT ELEVATIONS WERE TAKEN BY RACE COASTAL ENGINEERING, PC ON OCTOBER 25, 2021. ELEVATIONS ARE REFERENCED TO LOCAL BENCHMARK ELEVATION TAKEN ON
 - NORTHING AND EASTING COORDINATES ARE REFERENCED TO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (0600).
- "SURVEY OF PROPERTY PREPARED FOR DRAPER ASSOCIATES IN THE VILLAGE OF DOBBS FERRY, TOWN OF GREENBURGH, WESTCHESTER COUNTY, NY" PREPARED BY KULHANEK AND PLAN LAND SURVEYORS, P.C. DATED 08-22-1973 AND REVISED
- THE CONTRACTOR SHALL NOTIFY THE VILLAGE OF DOBBS FERRY PRIOR TO ANY EXCAVATION AT OR NEAR THE EXISTING SEWER MAIN. TEST PITS SHOULD BE PERFORMED TO LOCATE THE SEWER AND DETERMINE DEPTHS IN THE FIELD. THE STONE REVETMENT SHALL NOT COME IN CONTACT WITH THE SEWER MAIN PIPE OR

WORKING POINT (WP)	EASTING	NORTHING	ELEVATION (FT)
BENCHMARK (BM)	665000.43	796023.97	+10.0
WP1	664998.89	796195.14	-
WP2	665013.74	796121.63	+5.7
WP3	665020.24	796095.68	+6.1
WP4	665113.53	795896.52	+8.9

ESTIMATED QUANTITIES OF MATERIALS (CY)

ARMOR STONE	680
FILTER STONE	190
BANK FILL	100
BANK CUT	650

3 | 04-06-2022 | REVISED FOLLOWING VILLAGE CONSULTANT COMMENTS 2 03-17-2022 REVISED FOLLOWING PLANNING BOARD MEETING 3-3-2022 REVISED FOR PLANNING BOARD REQUIREMENTS

DESCRIPTION

ISSUED FOR PERMIT



Stratford, CT 06615 Tel.: 203-377-0663 racecoastal.com

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HARRISON, NY 10528

EMERGENCY BANK STABILIZATION 110-150 DRAPER LANE DOBBS FERRY, NY 10522

EXISTING & PROPOSED SITE PLAN

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