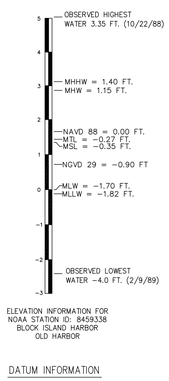
BLOCK ISLAND LANDFILL SLOPE REPAIRS
TOWN OF NEW SHOREHAM, RI

Vicinity Map



Locus Map

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Prepared For:
Town of New Shoreham
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Prepared By:

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No. 5517
REGISTERED PROFESSIONAL ENGINEER
8-15-24

ISSUED FOR PERMITS NOT FOR CONSTRUCTION

DESCRIPTION OF WORK

THE WORK COVERED UNDER THESE CONTRACT DOCUMENTS, INCLUDING THE DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS AND ALL AMENDMENTS, CONSISTS OF PROVIDING ALL PLANT, LABOR, SUPERVISION, EQUIPMENT, APPLIANCES AND MATERIALS AND IN PERFORMING ALL OPERATIONS IN CONNECTION WITH THE REPAIR OF THE EXISTING EARTHEN SLOPE GENERALLY ALONG THE OCEAN SIDE OF THE LANDFILL USING A STONE REVETMENT, REMOVING LANDFILL DEBRIS FROM THE BEACH AREA AND SHALLOW WATER AREAS, AND ASSOCIATED WORK. IT IS NOTED THIS IS CONTINUATION OF THE SLOPE REPAIR WORK PARTIALLY UNDERTAKEN IN 2018/19 WHERE THE TOE AREA OF THE REVETMENT WAS CONSTRUCTED WITH A VEGETATED SLOPE ABOVE. THE INTENT OF THIS CONTRACT IS TO COMPLETE THE REVETMENT WORK ON THE EARTH SLOPE ABOVE THE EXISTING TOE STONE REVETMENT SECTION THAT EXISTS ONSITE. THIS INCLUDES BURYING ALL EXCAVATED SOIL AND LANDFILL DEBRIS AT AN UPLAND AREA OF THE LANDFILL UPON COMPLETION OF THE REVETMENT WORK.

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:

1. LANDSIDE TOPOGRAPHY AND EXISTING CONDITIONS PLAN INFORMATION WAS DEVELOPED FROM A SURVEY AND PLAN ENTITLED "TOPOGRAPHIC SURVEY, FOR TOWN OF NEW SHOREHAM, NEW SHOREHAM, RHODE ISLAND, SHEET 1 OF 1, DATED FEBRUARY 20, 2013", PREPARED BY MARC N. NYBERG & ASSOCIATES, INC. A PROPERTY LINE SURVEY HAS NOT BEEN PROVIDED. IT IS NOTED THAT SLOPE AND LANDFILL AREA CONSTRUCTION WAS UNDERTAKEN IN 2018/19 AND THE SITE WAS NOT RESURVEYED AFTER WORK WAS COMPLETED. AS SUCH THE GRADING INDICATED MAY BE DIFFERENT THAN SHOWN.
2. VERTICAL ELEVATION TOPOGRAPHY IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL CONTROL IS RI STATE PLANE COORDINATE SYSTEM (NAD83).
3. THIS PLAN WAS PRODUCED FOR PURPOSES OF DESIGN, PLANNING AND THE CONSTRUCTION OF AN ARMAMENT SYSTEM TO PROTECT THE LANDFILL SLOPES. USE OF THIS PLAN FOR ANY OTHER WORK IS AT THE SOLE RISK OF THE END USER.
4. ANY UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES, GRADES, AND DIMENSIONS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY DIG SAFE AND LOCAL UTILITIES TO VERIFY THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO START OF ANY CONSTRUCTION. REPORT TO THE ENGINEER ALL OBSERVATIONS AND DISCREPANCIES BEFORE PROCEEDING WITH WORK.
5. ALL WORK SHALL COMPLY WITH LOCAL, STATE AND FEDERAL LAWS AND STATUTES, STATE BUILDING CODES, AND THE REQUIREMENTS AND CONDITIONS OF ALL REGULATORY PERMITS ISSUED FOR THE WORK.
6. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE PROJECT REGULATORY PERMITS AND ALL CONDITIONS OF THOSE PERMITS.
7. THE CONTRACTOR IS ADVISED THAT THE REGULATORY PERMITS FOR THIS PROJECT MAY CONTAIN ADDITIONAL REQUIREMENTS THAT, AFTER ANY ADDENDUM, SUPERSEDE THE DRAWING NOTES. THE CONTRACTOR IS FURTHER ADVISED THAT IN THE CASE OF DISCREPANCIES WITHIN THE CONTRACT DOCUMENTS FOUND BEFORE CONSTRUCTION, THE FINAL DECISION AS TO WHAT INFORMATION TAKES PRECEDENCE WILL BE BY THE ENGINEER OF RECORD ON THE BASIS OF INTENT.
8. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND FABRICATION OR ORDERING OF ANY CONSTRUCTION MATERIALS.
9. ALL SECTIONS AND DETAILS APPLY TO SAME AND SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
10. 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.
11. THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS.
12. THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN 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 WORK.
13. THE CONTRACTOR SHALL PROTECT ALL STRUCTURES AND FOUNDATIONS DURING THE WORK.
14. THE CONTRACTOR SHALL USE EQUIPMENT ADEQUATE IN SIZE, CAPACITY, AND NUMBERS, AND PROPERLY MAINTAINED WITH REGARD TO THE SAFETY OF OPERATOR, OTHER WORKMEN, AND GENERAL PUBLIC.
15. THE CONTRACTOR SHALL PROTECT ALL WETLANDS AND COASTAL RESOURCES FROM INTRUSION BY TURBID WATERS, CONSTRUCTION DEBRIS, CONSTRUCTION EQUIPMENT, OR PERSONNEL DURING ALL WORK ACTIVITIES.
16. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS, LICENSES, CERTIFICATES OF INSPECTION, AND PAY ALL LEGAL FEES IN CONNECTION WITH THE WORK OF THIS CONTRACT. THE OWNER HAS OBTAINED NECESSARY REGULATORY PERMITS REQUIRED FOR THE WORK IN REGULATED AREAS. THE CONTRACTOR SHALL REQUEST COPIES OF THOSE REGULATORY PERMITS AND MAKE PROVISION IN THIS WORK AND IN THE COST OF THE WORK FOR ALL APPLICABLE CONDITIONS OF THOSE PERMITS. FAILURE TO CONSIDER ANY CONDITION OF THE REGULATORY PERMITS AS A PART OF THE BID SHALL NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO APPLY THOSE CONDITIONS TO HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
17. 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.
18. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE ALL LANDSCAPING , INCLUDING BUT NOT LIMITED TO LAWN, TREES, PLANTINGS, FENCES, ETC. DAMAGED BY THE CONTRACTOR DURING THE COURSE OF THE PROJECT.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT & POSITIONING ALL PROPOSED WORK AS SHOWN ON THE PROJECT DRAWINGS.
20. CONTRACTOR SHALL REMOVE EXCESS MATERIALS AS DESCRIBED HEREIN AND RE-BURY OR STOCKPILE WITHIN AN UPLAND PORTION OF THE EXISTING LANDFILL AREA PER THE DIRECTION OF THE TOWN.
21. PROTECT OPEN EXCAVATIONS AND STOCKPILED SOIL FROM EROSION.
22. CONTRACTOR MAY PERFORM PROPOSED SLOPE WORK FROM EITHER THE BEACH OR TOP OF SLOPE AREA OR A COMBINATION OF THE TWO. EACH OF THESE AREAS HAS CHALLENGES AND BENEFITS THE CONTRACTOR SHALL UNDERSTAND AND PLAN FOR.
23. THERE IS A WALKING PATH ALONG THE TOP OF SLOPE TO SUPPORT PEDESTRIAN LATERAL ACCESS ALONG THE SHORELINE. THIS ACCESS MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. IT IS ACCEPTABLE TO SHUT DOWN THE WALKWAY TO SUPPORT CONSTRUCTION BUT DURING THIS TIME A DETOUR ONTO THE BEACH MUST BE PROVIDED TO ALLOW CONTINUED LATERAL ACCESS ACROSS THE SITE.

STONE REVETMENT CONSTRUCTION NOTES:

1. THE REVETMENT SHALL BE COMPRISED OF AN ARMOR LAYER WITH GEOTEXTILE FABRIC REQUIRED AS SPECIFIED.
2. ARMOR STONES SHALL BE PLACED IN AT LEAST A TWO LAYER THICKNESS UNLESS SHOWN OTHERWISE.
3. ALL STONES USED IN THE CONSTRUCTION OF THE TOE PROTECTION SHALL BE HARD, DURABLE, AND CLEAN, WITHOUT CRACKS, CLEAVAGES OR LAMINATIONS. THEY SHOULD BE CHEMICALLY STABLE IN FRESH OR SALT WATER AND SHOULD NOT WEATHER DUE TO TEMPERATURE CHANGES OR WET/DRY CYCLES.
4. ARMOR STONES GEOMETRY SHALL BE SUCH THAT THE SMALLEST DIMENSION SHOULD NOT BE LESS THAN ONE-THIRD OF THE LARGEST DIMENSION.
5. THE SIZE OF THE ARMOR STONES SHALL BE A MAXIMUM OF 1.25 W (W = AVERAGE WEIGHT SPECIFIED) AND A MINIMUM OF 0.75 W. APPROXIMATELY 75 PERCENT OF THE STONES SHALL BE EQUAL TO, OR LARGER THAN, W.
6. ARMOR UNITS IN THE COVER LAYER SHALL BE PLACED IN AN ORDERLY MANNER TO OBTAIN GOOD WEDGING OR INTERLOCKING ACTION BETWEEN INDIVIDUAL UNITS WITH A MINIMUM OF 3 POINTS OF CONTACT/LOCKING.
7. BEDDING STONE SHALL BE PLACED ON THE GEOTEXTILE FABRIC. THE PURPOSE OF THIS LAYER IS MOSTLY TO PROTECT THE GEOTEXTILE FABRIC FROM DAMAGE AND TEARING DURING PLACEMENT OF THE LOWER LAYER OF ARMOR STONE. THE BEDDING LAYER SHALL BE COMPRISED OF CRUSHED ROCK (4" TO 8" SIZE) PLACED IN AN APPROXIMATE 12" MINIMUM LAYER.
8. THREE (3) LAYERS OF GEOTEXTILE FABRIC ARE REQUIRED AGAINST ALL SOIL INTERFACES BELOW THE REVETMENT AND BEDDING STONE. THIS SHALL BE COMPRISE OF 1 LAYER OF MIRAFI 600X OR EQUIVALENT PLACED ON TOP OF TWO LAYERS OF MIRAFI 160N OR EQUIVALENT PLACED ON THE SOIL SUBGRADE. ADDITIONAL LAYERS OF GEOTEXTILE FABRIC (MIRAFI 160N) SHALL BE ADDED IF ITS DETERMINED THE METHOD OF STONE (BEDDING AND/OR ARMOR STONE) PLACEMENT IS CAUSING TEARING OR RIPPING THROUGH ALL 3 LAYERS OF GEOTEXTILE FABRIC.

SOIL & COMPACTION:

1. SLOPES SHALL BE EXCAVATED TO A FIRM HARD SUBGRADE. PROVIDE TRAP ROCK, CRUSHED STONE OR BORROW SOILS AS NEEDED TO ENSURE THIS CONDITION EXISTS PRIOR TO PLACING GEOTEXTILE FABRIC AND REVETMENT STONE ON THE SUBGRADE.
2. IF REQUIRED, BORROW SOIL MATERIALS SHALL MEET THE REQUIREMENTS OF RIDOT M.01.09, TABLE 1, I, GRAVEL BORROW, GRADATION 1A.
3. THE CONTRACTOR SHALL PLACE ALL FILL IN LIFTS AND COMPACT USING CONSTRUCTION EQUIPMENT USED TO SPREAD THE MATERIAL INITIALLY. THEN THE SOIL SHALL BE COMPACTED USING A MINIMUM OF 4 PASSES OF A LARGE VIBRATORY ROLLER, 20,000 LB MIN STATIC WEIGHT. SOIL LIFTS SHALL NOT EXCEED 18 INCHES.
4. ALL EXPOSED SOIL AREAS CAUSED BY THE CONSTRUCTION, EXCEPT THE SLOPE PLANTING AREA, SHALL RECEIVE 6 INCHES OF ORGANIC LOAM OF SUFFICIENT QUALITY TO GROW AND MAINTAIN GRASS. THE MATERIAL SHALL MEET RIDOT MATERIAL REQUIREMENTS FOR LOAM. PREPARE AREAS TO SUBGRADE ALLOWING FOR THE LOAM.
5. PLANT GRASS ON ALL DISTURBED/EXPOSED SOIL/LOAM AREAS RESULTING FROM THIS CONSTRUCTION WORK. SUBMIT PROPOSED MIX FOR APPROVAL. THIS DOES NOT APPLY TO THE SLOPE AREA WHERE BEECHGRASS EXISTS AND WILL NEED TO BE REPLACED/REPLANTED. SEE PLANS FOR PLANTING REQUIREMENTS ON THE SLOPE AREA.

DESIGN CRITERIA:

1. ALL DIMENSIONS ARE IN DECIMAL FEET UNLESS OTHERWISE NOTED. ELEVATIONS ARE REFERENCED TO NAVD88.
2. SEISMIC LOAD – NONE
3. UNIFORM LIVE LOAD BEHIND REVETMENT = NONE
4. TIDAL RANGE – 2.53 FEET
5. THE FEMA FLOOD INSURANCE STUDY AND FIRM MAP DATED APRIL 3, 2020 WERE REVIEWED TO DETERMINE THE 1% (100 YEAR) STORM IMPACTS. IT'S NOTED THE FEMA ONLINE SITE PROVIDES FIRMETTE PLOTS AND INFORMATION BASED ON THE OCTOBER 16, 2013 FLOOD STUDY. THE FOLLOWING 1% STORM (100 YEAR) STILLWATER LEVEL (SWL), WAVE CLIMATE (A OR V ZONE), AND WAVE HEIGHT USED FOR DESIGN ARE AS FOLLOWS FOR THIS SITE:

   2020 FLOOD STUDY:

100 YR (1%) SIG WAVE HEIGHT, (Hs):	5.85 FT (BREAKING WAVE)
100 YR (1%) DESIGN WAVE HEIGHT, (H10):	7.43 FT (BREAKING WAVE)
100 YR (1%) STORM STILLWATER EL (1%)	7.9 FT NAVD88
100 YR (1%) DESIGN WAVE CREST EL:	12.0 FT NAVD88 (VE12)

6. THE STONE REVETMENT ARMOR STONE LAYER IS DESIGNED FOR A 7.43 FT BREAKING WAVE PER THE RECOMMENDATIONS AND DESIGN METHOD FROM THE USCOE SHORE PROTECTION MANUAL. HOWEVER, THE OWNER SHOULD EXPECT MAINTENANCE WILL BE REQUIRED AFTER MAJOR STORM EVENTS.
7. THE DESIGN INCLUDES ACCOMMODATING UP TO 1 FT OF SEA LEVEL RISE, AS REQUIRED BY CRMC PER ASSENT 2016-02-090, WHICH IS ADDED TO THE 100 YR (1%) SWL AS INDICATED ON THE PLAN SECTIONS.
8. THE EARTH SLOPE AND PLANTINGS ABOVE THE REVETMENT STONE PORTION OF THE SLOPE IS EXPECTED TO BE DAMAGED IF STORM WAVES IMPACT THIS UNPROTECTED AREA.
9. TEMPERATURE RANGE = 60 DEGREES FAHRENHEIT ABOVE AND BELOW MEAN AMBIENT TEMPERATURE.

EROSION CONTROL:

1. THE CONTRACTOR SHALL USE WHATEVER MEASURES ARE REQUIRED TO PREVENT SILT, SOIL, AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES OR INTO TIDAL WATERS AND/OR WETLANDS. CONTRACTOR SHALL COMPLY WITH ALL LOCAL EROSION, CONSERVATION, SILTATION ORDINANCES INCLUDING REQUIREMENTS OUTLINED IN THE CRMC ASSENT FOR THE PROJECT. CONTRACTORS SHALL REMOVE ALL TEMPORARY EROSION CONTROL STRUCTURES/ITEMS UPON ESTABLISHMENT OF PLANTING. INSTALL JUTE MESH AND MULCH TO PREVENT EROSION AS NECESSARY.
2. DO NOT STORE EXCESS SOIL MATERIALS, DEBRIS OR EQUIPMENT ON OR NEAR THE COASTAL FEATURE OR THE BEACH. AFTER COMPLETION OF THE WORK ALL EXCESS MATERIAL SHALL BE STORED AT THE LANDFILL SITE OR DISPOSED OFFSITE AS DIRECTED BY THE TOWN.
3. CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY METHODS APPROVED BY THE ENGINEER OR OWNER, AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR IS RESPONSIBLE FOR REMOVING STRUCTURES, FENCES, WALLS, GRASS, SOIL, DEBRIS, AND TREES, ETC. AS NEEDED TO COMPLETE THE WORK. ALL EXCESS MATERIALS SHALL BE REMOVED AND DISPOSED ONSITE OR OFFSITE AS DIRECTED BY THE TOWN.
5. CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL SEDIMENT CONTROL AND AIR POLLUTION ORDINANCES OR RULES.
6. UNUSABLE EXCAVATED MATERIALS AND ALL WASTE (LANDSCAPE AREA GRASS, BUSHES, TREES, & SOIL, ETC.) RESULTING FROM CLEARING AND GRUBBING SHALL BE LEGALLY DISPOSED OF AT THE SITE OR OFFSITE BY THE CONTRACTOR AS DIRECTED BY THE TOWN.
7. TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO BEGINNING GRADING. CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION CONTROL DEVICES AND SHALL REMOVE SILT FROM BERM, DITCHES, SILT DAMS, AND SILT FENCES AS NEEDED.
8. PRIOR TO ANY EARTHWORK ACTIVITY, THE CONTRACTOR SHALL ASSIGN A SOIL EROSION PROFESSIONAL TO ASSUME FULL RESPONSIBILITY OF MONITORING AND MAINTAINING THE SOIL EROSION CONTROL PLAN.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE DAILY AND AFTER EACH RAINFALL. REPAIRS SHALL BE MADE IMMEDIATELY.
10. ALL SEDIMENT MUST BE REMOVED WHEN THE HEIGHT OF THE SEDIMENT REACHES THE HALF THE HEIGHT OF THE SEDIMENT BARRIER (SILT FENCE).
11. THE "R.I. EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, LATEST EDITION, MUST BE UTILIZED BY THE CONTRACTOR AS A REQUIREMENT.
12. THE CONTRACTOR WILL BE RESPONSIBLE FOR SEDIMENTATION THAT ENTERS THE REGULATED WETLANDS. THE CONTRACTOR WILL BE REQUIRED TO RESTORE THE WETLANDS IN ACCORDANCE WITH CRMC REQUIREMENTS, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR WILL BE RESPONSIBLE FOR FINES THAT MAY BE IMPOSED BY CRMC AND THE CONTRACTOR WILL NOT BE REIMBURSED BY THE OWNER.
13. ANY DISTURBED SLOPE AREAS SHALL BE STABILIZED WITH STRAW BLANKETS.
14. THE CONTRACTOR WILL BE RESPONSIBLE TO PLACE A SERIES OF PORTABLE LITER FENCES IMMEDIATELY DOWNWIND OF THE ACTIVE WORK AREA.

SWITCHGRASS PLANTING NOTES:

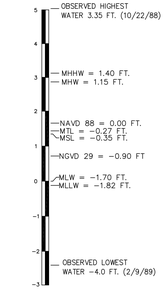
1. SWITCHGRASS SHALL BE PLANTED ON ALL DISTURBED AREAS EXCEPT THE SLOPE AREA. SLOPE AREAS REQUIRE BEACHGRASS AND REFER TO SHEET C4 FOR THESE REQUIREMENTS.
2. SWITCHGRASS SHALL BE NATIVE TO RI.
3. PREPARATION OF THE SOIL, SEEDING, AND MOISTURE SHALL BE AS RECOMMENDED BY THE UNIVERSITY OF RHODE ISLAND.
4. PLANT SEEDS FROM JUNE 1 TO JUNE 15.
5. SEEDING RATE OF 10LBS OR PURE LIVE SEED PER ACRE.
6. SEEDS SHALL BE PLACED NO DEEPER THAN ¼" TO ½"
7. WHEN SEEDLINGS ARE 2" INCHES HIGH THIN TO 12" APART.
8. IN LIEU OF SEEDING THE CONTRACTOR WILL BE ALLOWED TO INSTALL PLANTS AT 12" O.C.

LEGEND

PROPERTY LINE		EXISTING SPOT GRADE	x 7.2
EXISTING CONTOUR		PROPOSED SPOT GRADE	x 7.2
PROPOSED CONTOUR		PROPOSED BULKHEAD	
EXISTING SEWER	S	EXISTING STONE WALL	
PROPOSED SEWER	S	EXISTING FENCE LINE	
EXISTING WATER LINE	W	DREDGE SAMPLE	
PROPOSED WATER LINE	W	FLOOD ZONE BOUNDARY	
EXISTING DRAINAGE LINE	D	EXISTING HYDRANT	
PROPOSED DRAINAGE LINE	D	EXISTING POLE	NECO#3
EXISTING SEWER MANHOLE	SMH	PROPOSED SLOPE	
EXISTING DRAINAGE MANHOLE	DMH	SHORE LINE	
PROPOSED MANHOLE	MH	IRON PIPE FOUND	IP
EXISTING TREE LINE		STONES/BOULDERS	
EXISTING BUILDING			
PROPOSED BUILDING			

ABBREVIATIONS

N. I. C.	NOT IN CONTRACT
U. O. N.	UNLESS OTHERWISE NOTED
N. T. S.	NOT TO SCALE
I. A. W.	IN ACCORDANCE WITH
TYP.	TYPICAL
R & D	REMOVE AND DISPOSE
BIT.	BITUMINOUS CONCRETE
N/F	NOW OR FORMERLY
F. F.	FINISH FLOOR
T. O. F.	TOP OF FOUNDATION
M. P. L.	MARINA PERIMETER LINE
FEC	FAIRBANKS ENGINEERING CORP.
S. F.	SQUARE FOOT
FT	FEET
A. P.	ASSESSORS PLAT
EXTG.	EXISTING
SMH	SEWER MANHOLE
DMH	WATER MANHOLE
MIN.	MINIMUM
TOR	TOP OF STONE REVETMENT
MLW	MEAN LOW WATER
MHW	MEAN HIGH WATER
SWL	STILL WATER LEVEL
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY



ELEVATION INFORMATION FOR NOAA STATION ID: 8459338 BLOCK ISLAND HARBOR OLD HARBOR

DATUM INFORMATION

ISSUED FOR PERMITS NOT FOR CONSTRUCTION

Revisions:

ROBERT W. FAIRBANKS JR. No. 5517 REGISTERED PROFESSIONAL ENGINEER 8-15-24

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Scale: 1" = 20 ft. (JON)
DATE: 8/15/24

BI LANDFILL SLOPE REPAIRS
New Shoreham, Rhode Island
PREPARED FOR:
TOWN OF NEW SHOREHAM
PO DRAWER 220, BLOCK ISLAND, RI 02807

GENERAL NOTES AND LEGEND

DWG. NO.
C1
SHEET 1 OF 5

TOP OF PIPE; OCEAN SIDE

IT APPEARS THAT ONLY ABOUT 30 FT OF REVETMENT WAS CONSTRUCTED AT THIS RETURN – CONFIRM DURING CONSTRUCTION

EXISTING WALKING PATH ON SLOPE , PROTECT

TOE OF EXISTING REVETMENT

EXISTING STONE REVETMENT

EXISTING BEACHGRASS (Ammophila breviligulata) ALONG SLOPE ABOVE EXISTING REVETMENT

EXCAVATE EXISTING SLOPE AS NEEDED; DISPOSE OF MATERIALS AT LANDFILL OR OFFSITE AS REQUIRED

INSTALL EROSION CONTROL; RELOCATE TO TOP OF NEW REVETMENT AS REVETMENT CONSTRUCTION PROGRESSES

COLLECT ANY LANDFILL DEBRIS VISIBLE ALONG BEACH AND IN SHALLOW SURF ZONE; DISPOSE OFFSITE

EXISTING STONE REVETMENT DAMAGED IN THIS AREA

DRILL HOLE IN ROCK

60 FT±

75 FT±

STA 1+00

STA 1+25

STA 2+00

STA 3+00

STA 4+00

STA 5+00

STA 6+00

STA 6+28

Wetland Area

WETLAND FLAG FROM 2016/17 CONSTRUCTION, TYP.

APPROXIMATE EDGE COASTAL WETLAND

PLEASE NOTE THE GRADING SHOWN ON THIS PLAN IS BASED ON THE ORIGINAL PROJECT SURVEY REFERENCED HEREIN, THE PROPOSED GRADES FROM THE 2016 CONSTRUCTION PLANS WITH MODIFICATIONS BASED ON ELEVATIONS FROM GOOGLE, AND SITE OBSERVATIONS. IT'S NOTED THESE GRADES DON'T APPEAR TO BE 100% REFLECTIVE OF EXISTING CONDITIONS IN AREAS. HOWEVER, THIS POTENTIAL DISCREPANCY IS NOT ANTICIPATED TO SIGNIFICANTLY IMPACT THE PROPOSED REVETMENT CONSTRUCTION ON THE SLOPE AREA. PROJECT QUANTITIES AND COSTS WILL BE ADJUSTED AS NECESSARY BASED ON THE ACTUAL SLOPE AREA AND QUANTITIES AS MEASURED BY THE ENGINEER AND/OR TOWN DURING THE WORK.

LANDFILL; SURFACE IS MOSTLY TALL GRASS AND SMALL BUSHES; LANDFILL IS CLOSED AND IS PARTIALLY CAPPED. DO NOT EXCAVATE OR DISTURB EXISTING SOIL CAP/GROUND WITHOUT PERMISSION FROM TOWN.

EXISTING CHAIN LINK FENCE, ACTUAL LOCATION MAY BE DIFFERENT THAN SHOWN; REMOVE AND STORE FOR REINSTALLATION; INSTALL TEMPORARY CONSTRUCTION FENCE AS NEEDED TO MAINTAIN SECURITY OF SITE AT ALL AREAS WHERE FENCE IS REMOVED

EXISTING WALKING PATH; ALIGNMENT APPROXIMATE AND MAY BE DIFFERENT THAN SHOWN – PROTECT DURING CONSTRUCTION AS MUCH AS PRACTICABLE

INSTALL EROSION CONTROLS; TEMPORARY RELOCATION/REMOVAL IS ACCEPTABLE TO ACCOMMODATE CONSTRUCTION BUT RE-INSTALL ONCE CONSTRUCTION EQUIPMENT IS OUT OF AREA – ALSO REINSTALL BEFORE ANY RAINFALL EVENT

EXISTING WALKING PATH ON SLOPE, PROTECT

REBAR FOUND

DRILL HOLE FOUND

DRILL HOLE FOUND

Edge of Gravel Road

West Beach Road (gravel surface)

AP 2 LOT 39
TOWN OF NEW SHOREHAM
AREA = 252,137.46 S.F.
5.79 AC

AP 2 LOT 48-1
TOWN OF NEW SHOREHAM

Block Island Sound

CRMC Type 1 Water

Ebb

Flood

High Water on January 16, 2014 at 8 am

OBSERVED HIGHEST WATER 3.35 FT. (10/22/88)
MHHW = 1.40 FT.
MHW = 1.15 FT.
NAVD 88 = 0.00 FT.
MTL = −0.27 FT.
MSL = −0.35 FT.
NGVD 29 = −0.90 FT
MLW = −1.70 FT.
MLLW = −1.82 FT.
OBSERVED LOWEST WATER −4.0 FT. (2/9/89)

ELEVATION INFORMATION FOR NOAA
STATION ID: 8459338
BLOCK ISLAND HARBOR
OLD HARBOR

ISSUED FOR PERMITS NOT FOR CONSTRUCTION

EXISTING CONDITIONS PLAN
SCALE 1" = 20'

Revisions:

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TOWN OF NEW SHOREHAM
PO DRAWER 220, BLOCK ISLAND, RI 02807

EXISTING COND & DEMO PLAN

DWG. NO.
C2
SHEET 2 OF 5

TOP OF PIPE; OCEAN SIDE

IT APPEARS THAT ONLY ABOUT 30 FT OF REVETMENT WAS CONSTRUCTED AT THIS RETURN – CONFIRM DURING CONSTRUCTION

REPAIR ANY DAMAGE TO THE WALKING PATH ON SLOPE

60 FT±

TOE OF EXISTING REVETMENT

EXISTING STONE REVETMENT

STA 2+00

STA 1+25

PROTECT EXISTING BEACHGRASS (Ammophila breviligulata) ALONG SLOPE ABOVE EXISTING REVETMENT

EXCAVATE EXISTING SLOPE AS NEEDED; DISPOSE OF MATERIALS AT UPLAND LANDFILL AREA OR OFFSITE AS DIRECTED BY THE TOWN

INSTALL EROSION CONTROL; RELOCATE TO TOP OF NEW REVETMENT AS REVETMENT CONSTRUCTION PROGRESSES

STA 3+00

STA 1+00

Wetland Area

WETLAND FLAG FROM 2016/17 CONSTRUCTION, TYP.

APPROXIMATE EDGE COASTAL WETLAND

Sound

Island

CRMC Type 1 Water

Ebb

Flood

High Water on January 16, 2014 at 8 am

Block

AP 2 LOT 48-1 TOWN OF NEW SHOREHAM

PLEASE NOTE THE GRADING SHOWN ON THIS PLAN IS BASED ON THE ORIGINAL PROJECT SURVEY REFERENCED HEREIN, THE PROPOSED GRADES FROM THE 2016 CONSTRUCTION PLANS WITH MODIFICATIONS BASED ON ELEVATIONS FROM GOOGLE EARTH AND SITE OBSERVATIONS. IT'S NOTED THESE GRADES DON'T APPEAR TO BE 100% REFLECTIVE OF EXISTING CONDITIONS IN AREAS. HOWEVER, THIS POTENTIAL DISCREPANCY IS NOT ANTICIPATED TO SIGNIFICANTLY IMPACT THE PROPOSED REVETMENT CONSTRUCTION ON THE SLOPE AREA. PROJECT QUANTITIES AND COSTS WILL BE ADJUSTED AS NECESSARY BASED ON THE ACTUAL SLOPE AREA AND QUANTITIES AS MEASURED BY THE ENGINEER AND/OR TOWN DURING THE WORK.

LANDFILL: SURFACE IS MOSTLY TALL GRASS AND SMALL BUSHES; LANDFILL IS CLOSED AND IS PARTIALLY CAPPED. DO NOT EXCAVATE OR DISTURB EXISTING SOIL CAP/GROUND WITHOUT PERMISSION FROM TOWN.

RE-INSTALL EXISTING CHAIN LINK FENCE AT THE ORIGINAL LOCATION: F&I NEW PARTS/PIECES AS REQUIRED TO REPLACE DAMAGE AS NECESSARY

REPAIR ANY DAMAGE TO THE WALKING PATH

INSTALL EROSION CONTROLS; TEMPORARY RELOCATION/REMOVAL IS ACCEPTABLE TO ACCOMMODATE CONSTRUCTION BUT RE-INSTALL ONCE CONSTRUCTION EQUIPMENT IS OUT OF AREA – ALSO REINSTALL BEFORE ANY RAINFALL EVENT

REPAIR ANY DAMAGE TO THE WALKING PATH ON SLOPE

COLLECT ANY VISIBLE LANDFILL DEBRIS ALONG BEACH AND IN SHALLOW SURF ZONE; DISPOSE OFFSITE

PROPOSED STONE REVETMENT

STA 4+00

STA 5+00

STA 6+00

STA 6+28

RECONSTRUCT AND SUPPLEMENT TOE STONE AT THIS AREA AS NECESSARY TO REPAIR DAMAGE AND CONFORM THE TOE STONE SIZE REQUIREMENTS

75 FT±

DRILL HOLE IN ROCK

AP 2 LOT 39
TOWN OF NEW SHOREHAM
AREA = 252,137.46 S.F.
5.79 AC

N87°45'43"W 294.00'

N85°48'00"W 90.62'

S88°58'45"W 98.66'

S89°34'40"W 34.35'

DRILL HOLE FOUND

DRILL HOLE FOUND

REBAR FOUND

Edge of Gravel Road

West Beach Road (gravel surface)

N 45,900

N 45,700

N 45,500

E 306,600

E 306,800

E 307,000

OBSERVED HIGHEST WATER 3.35 FT. (10/22/88)

MHHW = 1.40 FT.

MHW = 1.15 FT.

NAVD 88 = 0.00 FT.

MTL = −0.27 FT.

MSL = −0.35 FT.

NGVD 29 = −0.90 FT

MLW = −1.70 FT.

MLLW = −1.82 FT.

OBSERVED LOWEST WATER −4.0 FT. (2/9/89)

ELEVATION INFORMATION FOR NOAA
STATION ID: 8459338
BLOCK ISLAND HARBOR
OLD HARBOR

ISSUED FOR PERMITS NOT FOR CONSTRUCTION

EXISTING CONDITIONS PLAN

SCALE 1" = 20'

Revisions:

ROBERT W. FAIRBANKS JR. No. 5517 REGISTERED PROFESSIONAL ENGINEER 8-15-24

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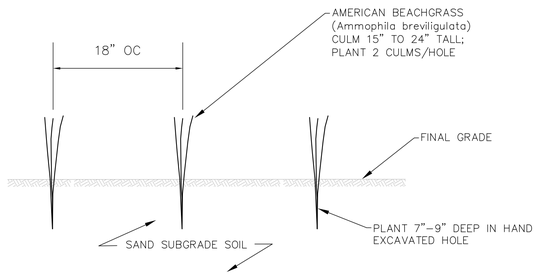
BI LANDFILL SLOPE REPAIRS
New Shoreham, Rhode Island
PREPARED FOR:
TOWN OF NEW SHOREHAM
PO DRAWER 220, BLOCK ISLAND, RI 02807

PROPOSED CONDITIONS PLAN

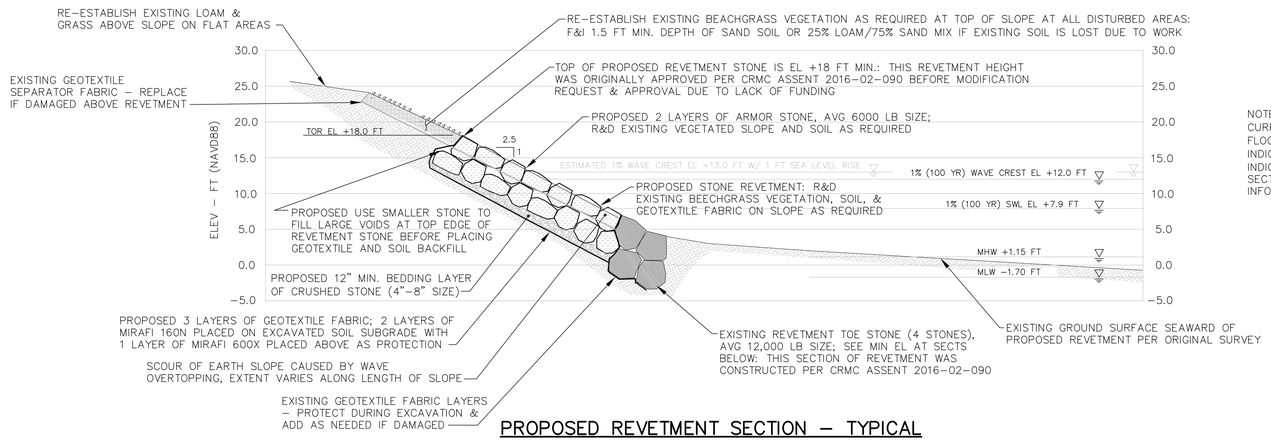
DWG. NO.
C3
SHEET 3 OF 5



BEACHGRASS PLANTING DETAIL

NTS

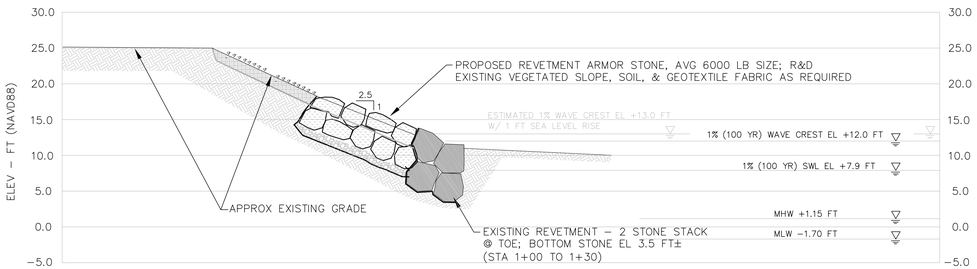
NOTES:
1. THIS DETAIL IS PROVIDED FOR USE IN AREAS WHERE THE EXISTING BEACHGRASS IS DAMAGED BY THE CONSTRUCTION AND REQUIRES RE–ESTABLISHMENT.
2. HAND EXCAVATE TO INSTALL CULMS 7"–9" DEEP.
3. PLANT CULMS IN ROWS; SPACE PLANTS 18" OC AND STAGGER ROWS (889 CULMS ARE NEEDED PER 1000 SF AREA – BASED ON 2 STEMS PER HOLE)
4. PLANTS AND ROOT MUST BE KEPT MOIST BEFORE AND DURING PLANTING; USE BURLAP OR OTHER SUITABLE METHOD TO ACCOMPLISH.
5. PROTECT PLANTS FROM FOOT TRAFFIC; USE SNOW FENCE IF REQUIRED.



NOTE: IT'S NOTED THERE IS A DISCREPANCY BETWEEN THE CURRENT FEMA FLOOD INSURANCE STUDY (FIS) AND THE FLOOD INSURANCE RATE MAP/FIRMETTE (FIRM). THE FIS INDICATES THE SITE IS A VE12 (EL 12 FT) AND THE FIRM INDICATES THE SITE IS A VE13 (EL 13 FT). THE CROSS SECTIONS HEREIN HAVE BEEN PREPARED TO REFLECT THE INFORMATION FROM THE FIRM.

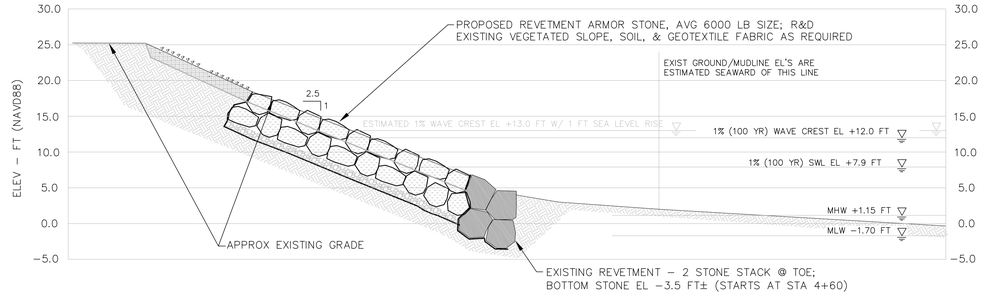
PROPOSED REVETMENT SECTION – TYPICAL

SCALE 1" = 10'



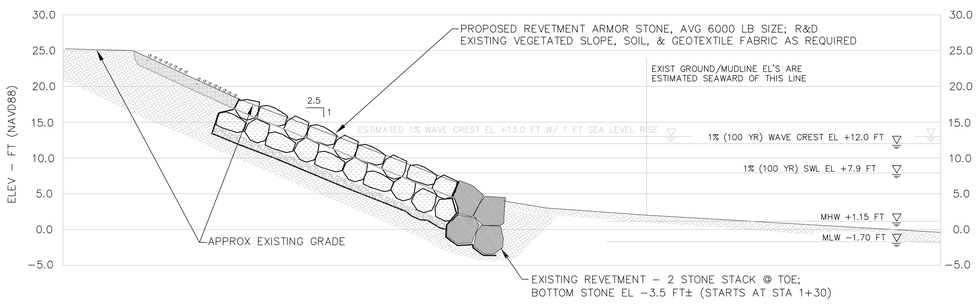
PROPOSED REVETMENT SECTION STA 1+25

SCALE 1" = 10'



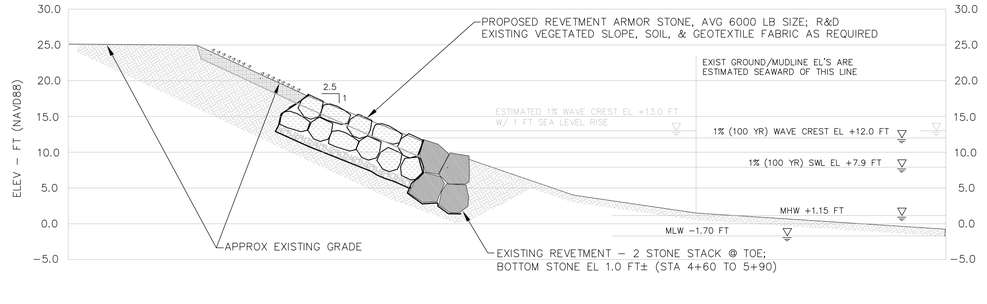
PROPOSED REVETMENT SECTION STA 4+00

SCALE 1" = 10'



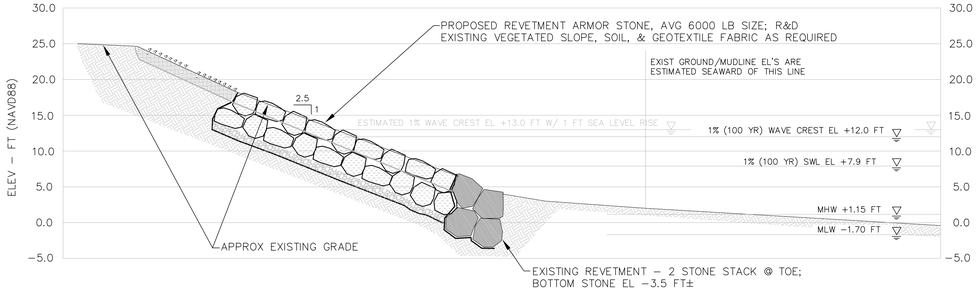
PROPOSED REVETMENT SECTION STA 2+00

SCALE 1" = 10'



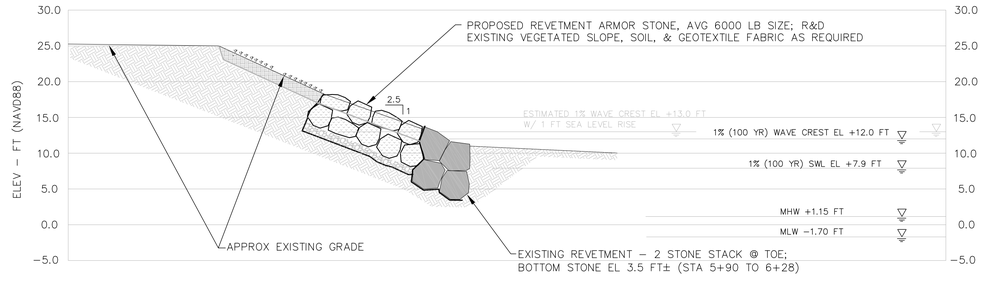
PROPOSED REVETMENT SECTION STA 5+00

SCALE 1" = 10'



PROPOSED REVETMENT SECTION STA 3+00

SCALE 1" = 10'



PROPOSED REVETMENT SECTION STA 6+00

SCALE 1" = 10'

ISSUED FOR PERMITS NOT FOR CONSTRUCTION

Revisions:

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8–15–24

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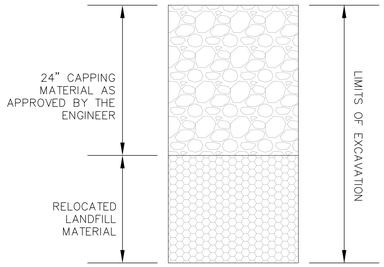
SECTIONS & DETAILS

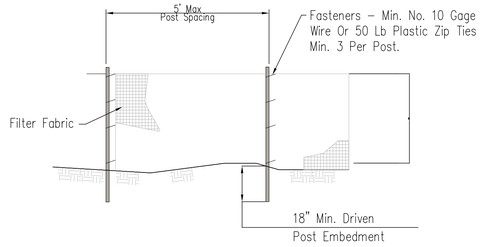
DWG. NO.
C4
SHEET 4 OF 5



TYPICAL LANDFILL BACKFILL SECTION

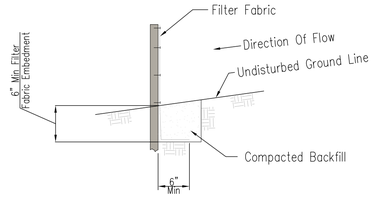
SCALE NTS

NOTE: THIS SECTION REFLECTS CAP IN AREAS WHERE THE LANDFILL HAS BEEN CAPPED. CONDITIONS WILL BE DIFFERENT IN UNCAPPED AREAS.



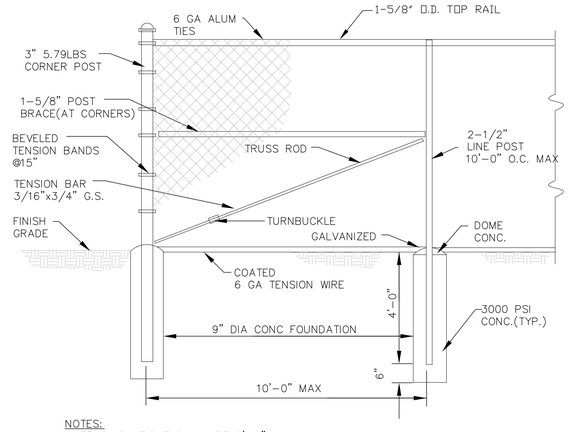
ELEVATION

SCALE NTS



SILT FENCE DETAIL

SCALE NTS

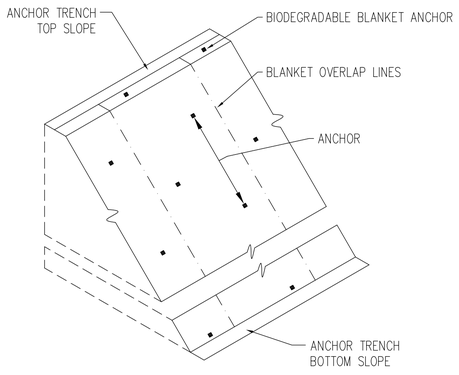


NOTES:
1. FENCING HEIGHT SHALL BE 6'-0"
2. CORNER POSTS – 3" O.D. LINE POSTS 2-1/2" O.D. GATE POSTS 4" O.D.
3. FABRIC #9GUAGE CORE 2" MESH. SELVAGE BARBED AND TWISTED AT 90°
4. ALL POSTS, RAILS, BRACES, TENSION BARS, TENSION WIRE & ACCESSORIES GALVANIZED.

EXISTING CHAIN LINK FENCE DETAILS

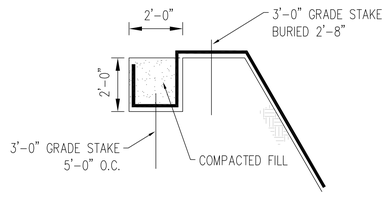
SCALE NTS

NOTE: THIS INFORMATION IS PROVIDED TO REFLECT EXISTING FENCE CONDITIONS. THE FENCE SHALL BE RE-INSTALLED TO MATCH THESE CONDITIONS AND ANY MATERIALS/COMPONENTS OF THE FENCE SYSTEM SHALL BE REPLACED WITH SIMILAR MATERIALS AS REQUIRED AT NO ADDED COST TO THE TOWN.



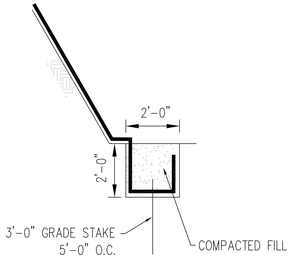
STRAW BLANKET ANCHORING – DETAIL

SCALE NTS



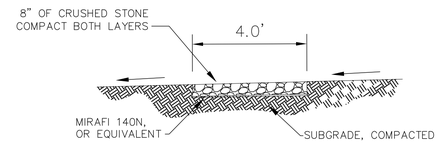
STRAW BLANKET ANCHOR TRENCH DETAIL TOP SLOPE

SCALE NTS



STRAW BLANKET ANCHOR TRENCH DETAIL BOTTOM SLOPE

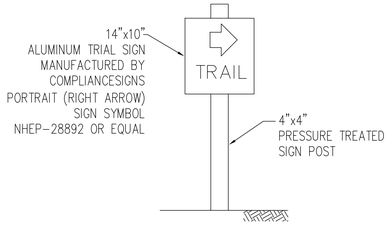
SCALE NTS



EXISTING WALKING PATH

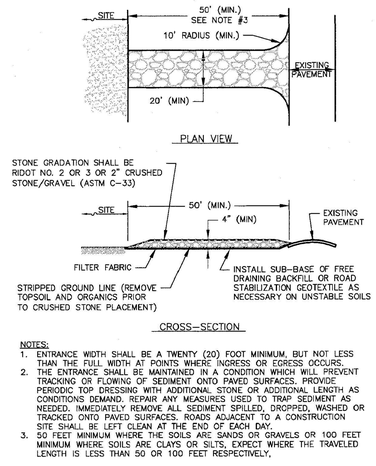
SCALE NTS

NOTE:
1. THE EXISTING WALKWAY IS GRADED TO DRAIN EAST (INTO) LANDFILL; IT WAS CONSTRUCTED TO MATCH ADJACENT GRADE.
2. THE CONTRACTOR SHALL REPAIR THE WALKWAY TO THE CONDITIONS SHOWN ABOVE IF DAMAGED.
3. EXISTING FENCE ADJACENT TO WALKWAY IS NOT SHOWN.



EXISTING SIGN

SCALE NTS



NOTES:
1. ENTRANCE WIDTH SHALL BE A TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND. REPAIR ANY MEASURES USED TO TRAP SEDIMENT AS NEEDED. IMMEDIATELY REMOVE ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED SURFACES. ROADS ADJACENT TO A CONSTRUCTION SITE SHALL BE LEFT CLEAN AT THE END OF EACH DAY.
3. 50 FEET MINIMUM WHERE THE SOILS ARE SANDS OR GRAVELS OR 100 FEET MINIMUM WHERE SOILS ARE CLAYS OR SILTS, EXPECT WHERE THE TRAVELED LENGTH IS LESS THAN 50 OR 100 FEET RESPECTIVELY.

TEMPORARY CONSTRUCTION ENTRANCE

SCALE NTS

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Revisions:

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MISCELLANEOUS DETAILS

DWG. NO.
C5
SHEET 5 OF 5