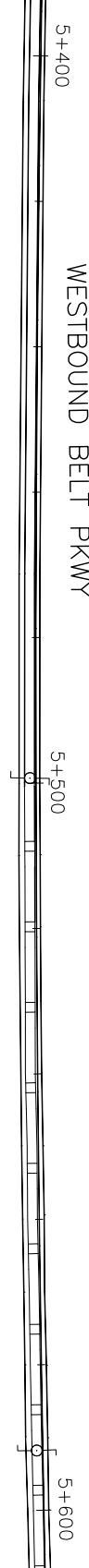




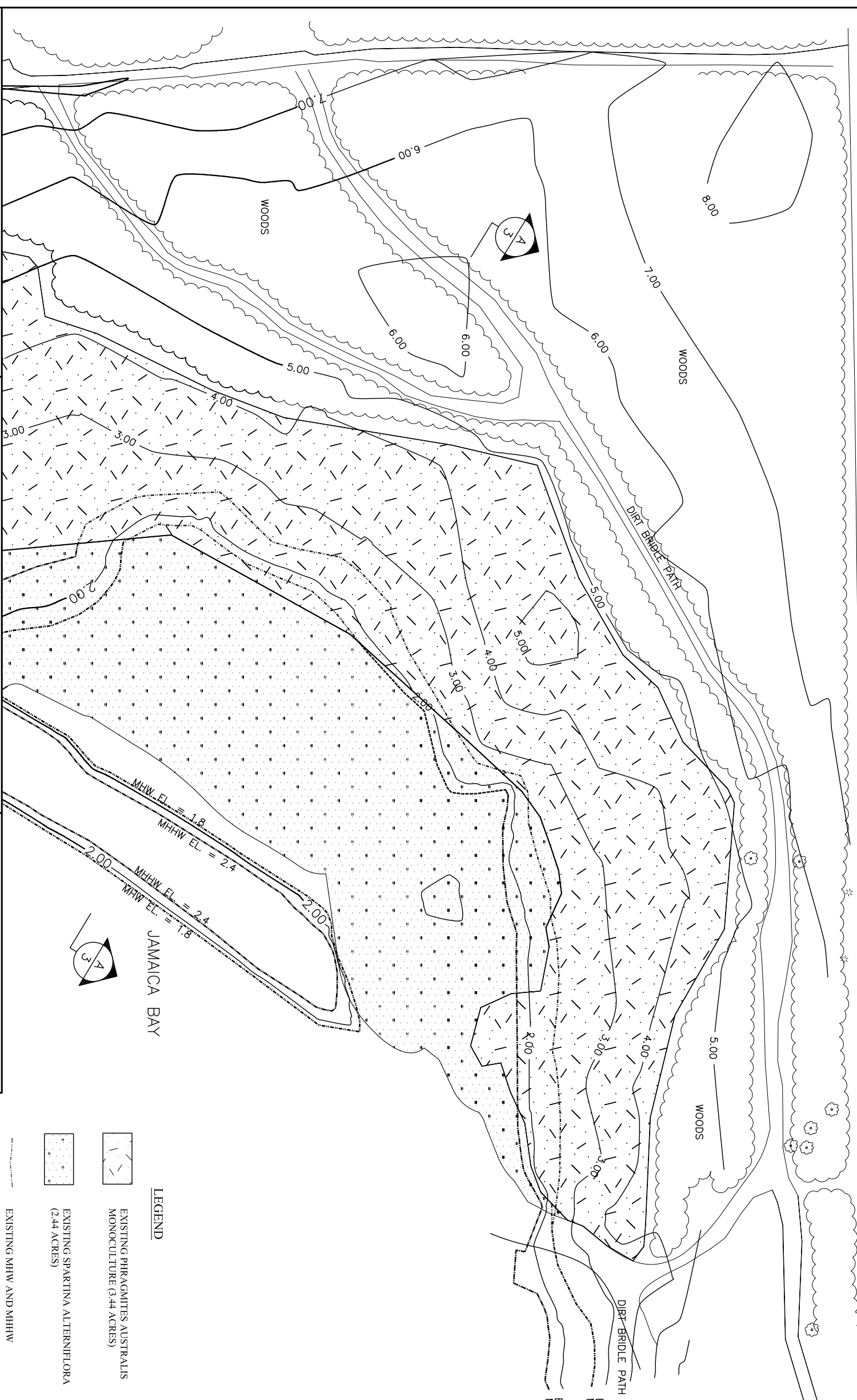
WESTBOUND BELT PKWY

EASTBOUND BELT PKWY



NOTES:

1. ALL ELEVATIONS SHOWN HERE REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. VEGETATED AREAS ARE BASED ON GROUND SURVEY.
3. FOR PROPOSED PLANTING AND GRADING PLAN SEE DWG. BBR-2.



JAMAICA BAY



LEGEND

- EXISTING PHRAGMITES AUSTRALIS MONOCULTURE (3.44 ACRES)
- EXISTING SPARTINA ALTERNIFLORA (2.44 ACRES)
- EXISTING MHW AND MHHW

NEWMARK ENGINEERING, P.C.  
Land Surveying & Mapping-Civil-Structural-Vibration Monitoring



PREPARED BY \_\_\_\_\_ S.M. DRAFTER \_\_\_\_\_ M.B.  
 IN CHARGE \_\_\_\_\_ G.S.N. CHECKER \_\_\_\_\_ S.M.  
 DESIGNER \_\_\_\_\_

ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED.

FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	L100-X021(623)		
REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN				
P.I.N.	X021.62	KINGS COUNTY	B.I.N.	2-23148-9

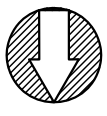


CITY OF NEW YORK  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF BRIDGES  
 CONTRACT NO. HBK1024 / HBK1702

REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN  
 BOROUGH OF BROOKLYN  
 B.I.N. 2-23148-9

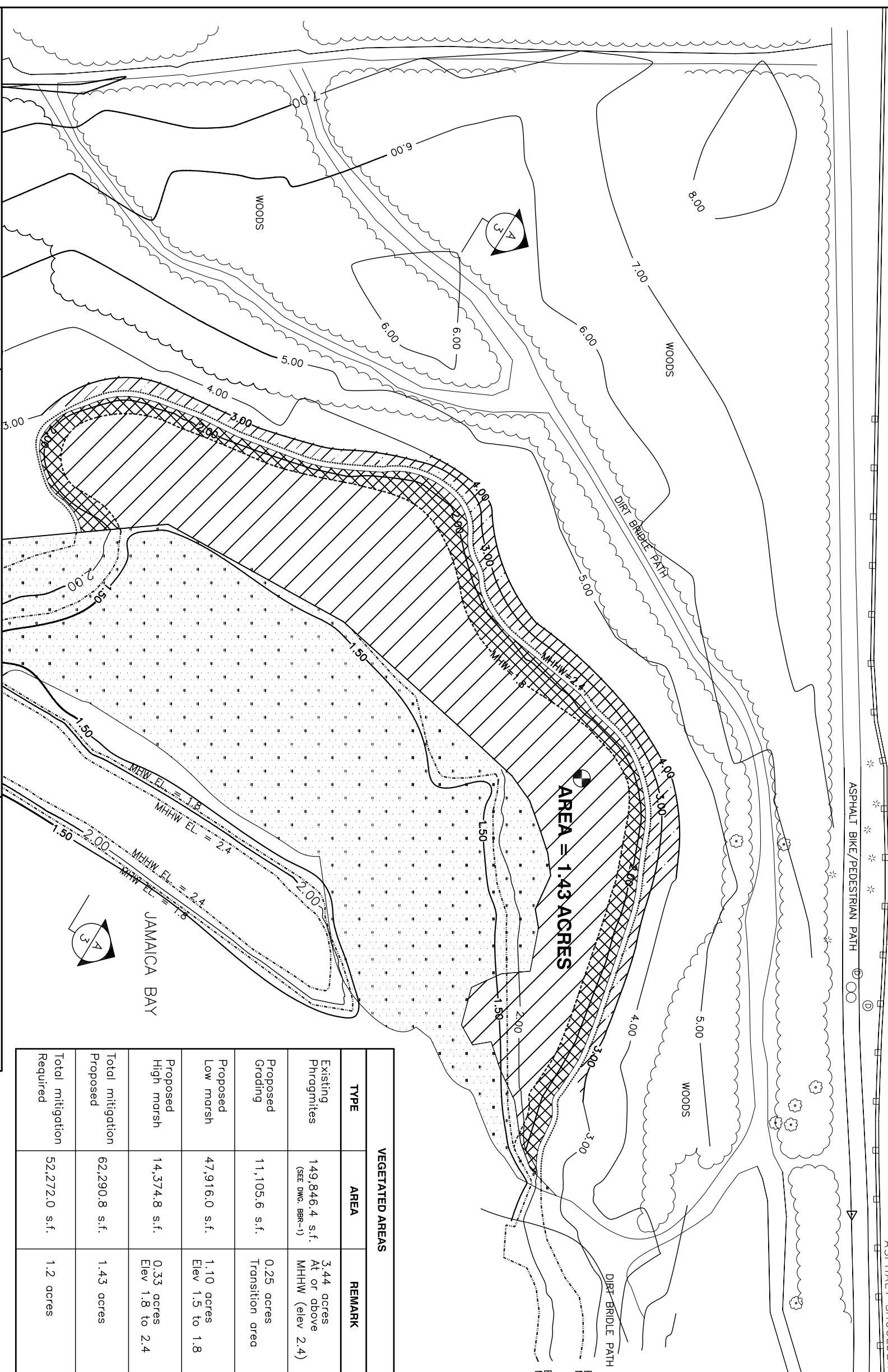
BERGEN BEACH SALT MARSH RESTORATION  
 EXISTING CONDITIONS

DWG. NO. \_\_\_\_\_ SCALE: 1" = 80' DATE: SEPT 2010 SHEET NO. BBR-1



WESTBOUND BELT PKWY  
5+400  
5+500  
5+600

EASTBOUND BELT PKWY



FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	L100-X021(623)		
P.I.N.	X021.62	KINGS COUNTY	B.I.N.	2-23148-9

**NOTES:**

1. ALL ELEVATIONS SHOWN HERE REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. VEGETATED AREAS ARE BASED ON GROUND SURVEY.
3. FOR SECTION A-A SEE DWG. BBR-3.
4. FOR PROPOSED PLANTING SCHEDULES SEE DWG. BBR-4.
5. FOR NYSDEC WETLAND MONITORING REQUIREMENTS SEE DWG. BBR-5.
6. CONTRACTOR TO INSTALL WATERFOWL EXCLUSION FENCE AROUND PERIMETER OF SITE. FOR DETAILS SEE DWG. BBR-6.

**LEGEND**

- PROPOSED AREA OF LOW MARSH RESTORATION
- PROPOSED AREA OF HIGH MARSH RESTORATION
- PROPOSED GRADING / TRANSITION
- EXISTING MHW AND MHHW
- PROPOSED MHHW
- PROPOSED MHW

VEGETATED AREAS		
TYPE	AREA	REMARK
Existing Phragmites	149,846.4 s.f. (SEE DWG. BBR-1)	3.44 acres At or above MHHW (elev 2.4)
Proposed Grading	11,105.6 s.f.	0.25 acres Transition area
Proposed Low marsh	47,916.0 s.f.	1.10 acres Elev 1.5 to 1.8
Proposed High marsh	14,374.8 s.f.	0.33 acres Elev 1.8 to 2.4
Total mitigation Proposed	62,290.8 s.f.	1.43 acres
Total mitigation Required	52,272.0 s.f.	1.2 acres



CITY OF NEW YORK  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF BRIDGES

CONTRACT NO. HBK1024 / HBK1702  
REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN BOROUGH OF BROOKLYN B.I.N. 2-23148-9

BERGEN BEACH SALT MARSH RESTORATION PROPOSED PLANTING AND GRADING PLAN

**NEWMARK ENGINEERING, P.C.**  
Land Surveying & Mapping-Civil-Structural-Vibration Monitoring



PREPARED BY: S.M. DRAFTER  
IN CHARGE: G.S.N. CHECKER  
DESIGNER: S.M.

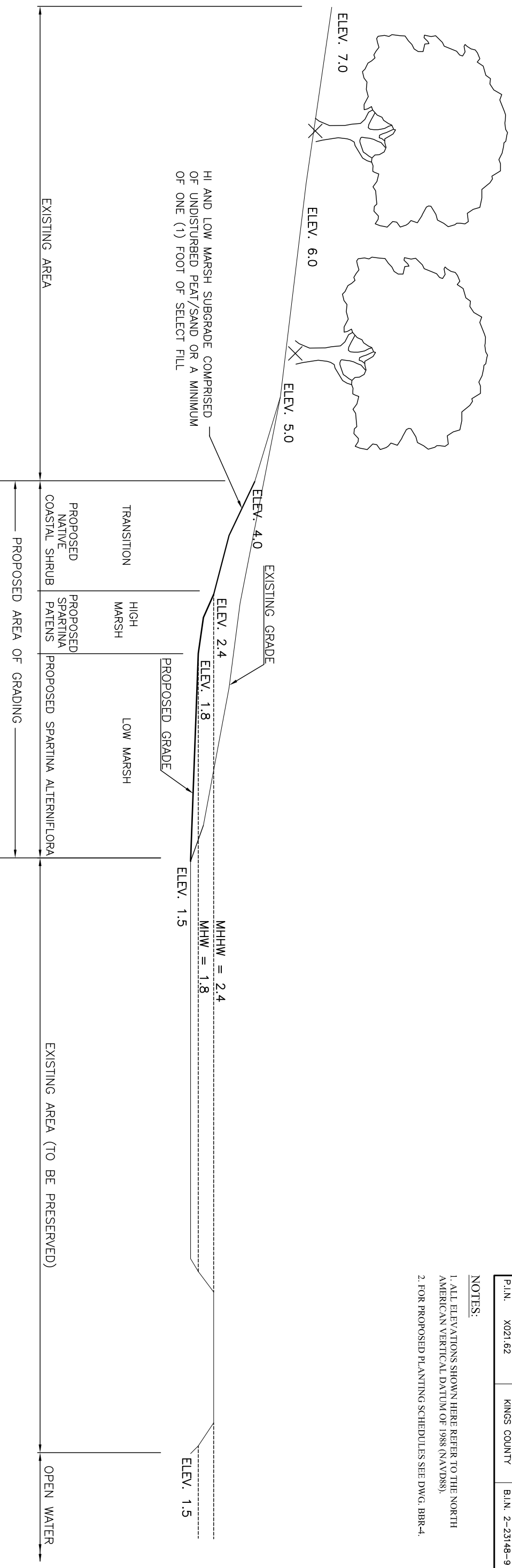
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ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED.

DWG. NO. SCALE: 1" = 80' DATE: SEPT 2010 SHEET NO. BBR-2

FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	L100-X021(623)		
REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN				
P.I.N.	X021.62	KINGS COUNTY	B.I.N.	2-23148-9

**NOTES:**

1. ALL ELEVATIONS SHOWN HERE REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. FOR PROPOSED PLANTING SCHEDULES SEE DWG. BBR-4.



**SECTION A-A**

- NOTES:**
1. THE VERTICAL DATUM REPRESENTS NORTH AMERICAN VERTICAL DATUM (NAVD 88) WITH ALL EXISTING AND PROPOSED ELEVATIONS SURVEYED USING THIS DATUM.
  2. EXISTING CONTOURS SHOWN MAY CHANGE AND ARE INFLUENCED BY WATER MOVEMENT AND SCOUR. CONTRACTOR SHALL FIELD VERIFY ELEVATION CONTOURS, HIGH WATER LINE AND CONSTRUCT WETLAND MITIGATION IN RELATION TO THE ACTUAL ELEVATION CONTOURS AT THE TIME OF CONSTRUCTION. THE TOTAL AREA OF MITIGATION INDICATED SHALL BE CONSTRUCTED.
  3. 1.1 ACRES SHALL BE PLANTED AS LOW MARSH WITH SPARTINA ALTERNIFLORA AT (1) FOOT (6) INCH CENTERS BETWEEN ELEVATION 1.5 AND 1.8 FT.
  4. 0.33 ACRES SHALL BE PLANTED AS HIGH MARSH WITH SPARTINA PATENS AND DISTICHLIS SPICATA AT (1) FOOT (6) INCH CENTERS BETWEEN ELEVATION 1.8 & 2.4 FT.
  5. ALL OF TRANSITION ZONE .25 AC WILL BE SEEDDED WITH MIXTURE OF NATIVE COASTAL GRASSES, AS INDICATED IN THE "COASTAL SHRUB ZONE SEEDING SCHEDULE".
  6. ALL OF HIGH MARSH/TRANSITION ZONE SHRUBS SHALL BE PLANTED IN RANDOM CLUMPS AT FIVE (5) FOOT AVERAGE SPACING VARYING FROM FOUR (4) TO EIGHT (8) FOOT CENTERS.
  7. LOCATION OF CONSTRUCTION ACCESS ROAD AND LAYDOWN AREA SHALL BE CONSTRAINED TO THE AREA SHOWN.

8. NO AREAS OUTSIDE OF CONSTRUCTION ZONE SHALL BE DISTURBED.
9. CONTRACTOR SHALL IDENTIFY BOUNDARIES OF EXISTING VEGETATION AND PROTECT THESE AREAS WITH SILT FENCE PRIOR TO CONSTRUCTION AS SHOWN. CONTRACTOR SHALL REMOVE SILT FENCE ONE (1) YEAR FOLLOWING COMPLETION AND APPROVAL OF FINAL PLANTING.
10. EXCAVATION BELOW MEAN HIGH WATER (MHW) ELEVATION SHALL BE LIMITED TO PERIODS OF LOW TIDE ONLY. TO MINIMIZE EROSION AND TURBIDITY. EXCAVATED MATERIAL SHALL BE TESTED TO NEW YORK STATE DEC STANDARDS. SEDIMENT CHEMISTRY TESTING RESULTS SHALL BE SUBMITTED IN TRIPlicate TO DEC NO LESS THAN THREE WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION TO OBTAIN APPROVAL FOR THE USE OF THE MATERIAL ON SITE. IF FOUND TO BE SUITABLE, SOILS MAY BE USED AS BACKFILL IN THE COASTAL SHRUB ZONE. IF THE MATERIAL IS FOUND TO BE UNSUITABLE FOR USE AS BACKFILL ON SITE, THE MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED UPLAND DISPOSAL SITE, AS SPECIFIED.
11. EXCAVATED MATERIAL CONTAINING RHIZOMES AND ROOT MASS FROM PHRAGMITES AND OTHER PLANTS SHALL BE REMOVED OFF-SITE TO AN APPROVED DISPOSAL SITE.

12. FOLLOWING EXCAVATION OF SOILS AND SITE GRADING IN MITIGATION AREA ENGINEER WILL DETERMINE SUITABILITY OF SOIL SUBSTRATE FOR PLANTING. PLANTING AREA WILL REQUIRE A MINIMUM TWO WEEK PERIOD TO STABILIZE AND EXPERIENCE TIDAL FLUSHING TO AERATE AND REMOVE BY-PRODUCTS OF ANAEROBIC CONDITIONS. CONTRACTOR SHALL VERIFY PLANTING ELEVATIONS AFTER THIS PERIOD BEFORE INSTALLING PLANT MATERIAL.
13. FOLLOWING SITE GRADING, DEBRIS EXCLUSION FENCE SHALL BE INSTALLED AT THE AREAS INDICATED ON THE PLANS. STRAW BALE DIKE SHALL ALSO BE INSTALLED ALONG LANDWARD SIDE OF EXCLUSION FENCE. FOLLOWING COMPLETION AND ACCEPTANCE OF FINAL GRADING, STRAW BALE DIKE AND ANY ACCUMULATED SEDIMENT, DEBRIS, TIDE BORNE WRACK AND CSO FLOATABLE SHALL BE REMOVED.
14. PRIOR TO PLANTING INTERTIDAL MARSH, 2-INCHx2-INCHx6-FOOT HARDWOOD STAKES SHALL BE INSTALLED 10 FOOT ON CENTER AS SHOWN, TO PROTECT PLANTINGS AT THE END OF EACH DAY. PLANTED AREAS SHALL BE ENCLOSED BY GOOSE EXCLUSION LINES AS SHOWN AND SPECIFIED GOOSE FENCING SHALL EXTEND THROUGH ALL ZONES.

15. SPECIFIED PLANTINGS OR SEEDING FOR EACH ZONE SHALL BE INSTALLED AS INDICATED IN THE SCHEDULES ON THIS SHEET.
16. PLANTS SHALL BE HEALTHY, VIGOROUS GROWING SPECIMENS EXHIBITING UNIFORM GROWTH AND FORM CHARACTERISTIC OF THEIR SPECIES. PLANTS SHALL BE FREE OF CHLOROSIS, YELLOWING, BLEMISHED OR DAMAGED PARTS.
17. SPARTINA SHALL BE ACCLIMATED TO THE SALINITY OF JAMAICA BAY FOR THREE WEEKS PRIOR TO DELIVERY TO THE SITE. THE NURSERY SHALL SUBMIT AN AFFIDAVIT OF THE SALINITY OF THE DELIVERED PLANTS.
18. PLANTS SHALL BE KEPT MOIST DURING DELIVERY TO CONSTRUCTION SITE. TRANSPORT SHALL BE PROTECTED FROM DRYING OUT DURING TRANSPORT TO THE SITE AND DURING STORAGE AT THE CONSTRUCTION SITE. ONLY FRESHWATER SHALL BE USED TO IRRIGATE TRANSPLANTS.
19. ALL PLANTS WILL BE SUBJECT TO TAILGATE INSPECTION UPON ARRIVAL AT CONSTRUCTION SITE BY ENGINEER. ALL PLANTS FAILING TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED BY THE ENGINEER. SUCH PLANTS SHALL BE REMOVED FROM CONSTRUCTION SITE AND REPLACED AT NO ADDITIONAL COST TO THE CITY.

**NEWMARK ENGINEERING, P.C.**  
Land Surveying & Mapping-CM+ Structural-Vibration Monitoring



PREPARED BY \_\_\_\_\_ IN CHARGE \_\_\_\_\_  
DESIGNER \_\_\_\_\_ S.M. \_\_\_\_\_ DRAFTER \_\_\_\_\_ S.M. \_\_\_\_\_ CHECKER \_\_\_\_\_ M.B. \_\_\_\_\_

ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED.



CITY OF NEW YORK  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF BRIDGES  
CONTRACT NO. HBK1024 / HBK1702  
REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN BOROUGH OF BROOKLYN B.I.N. 2-23148-9

BERGEN BEACH SALT MARH RESTORATION  
PROPOSED CROSS SECTION  
DWG. NO. \_\_\_\_\_ SCALE: 1" = 80' DATE: SEPT 2010 SHEET NO. BBR-3

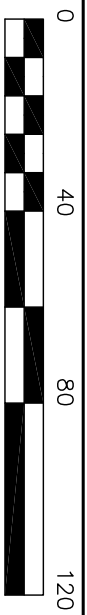
BERGEN BEACH PLANTING SCHEDULE								
ZONE	Botanical Name	Common Name	Size	Plant Spacing	Quantity	Planting Period	Planting Elevation	
Low marsh	1.10 ac.	Spartina alterniflora	Salt marsh cordgrass	2-in plug	1.5 ft oc	21,296	May 1 – June 30	1.5 – 1.8 ft.
Hi marsh	0.165 ac.	Spartina patens	Salt hay	2-in plug	1.5 ft oc	3,194	May 1 – June 30	1.8 – 2.4 ft.
Hi marsh	0.165 ac.	Distichlis spicata	Salt grass	2-in plug	1.5 ft oc	3,194	May 1 – June 30	1.8 – 2.4 ft.

TRANSITION ZONE AND HIGH MARSH PLANTING SCHEDULE							
ZONE	Botanical Name	Common Name	Size	Plant Spacing	Quantity	Planting Period	Planting Elevation
High marsh	Baccharis halimifolia	Groundsel tree	1 Gal.cont.	5 ft oc	115	April 1 – June 30	Above 2.8 ft.
High marsh	Iva frutescens	Marsh elder	1 Gal.cont.	5 ft oc	109	April 1 – June 30	At or above 2.4 ft.

COASTAL SHRUB/TRANSITION ZONE SEEDING SCHEDULE					
ZONE	Botanical Name	Common Name	Sowing Rate (Pure Live Seed)	Sowing Period	Planting Elevation
C(0.25ac.)	Panicum virgatum "Blackwell"	Switchgrass	2 pounds per acre	April 15 – June 1	Above 2.4 ft.
	Schizochyrium scoparium	Little Bluestem	6 pounds per acre	April 15 – June 1	
	Bouteloua curtipendula	Sideoats Gramma	1 pound per acre	April 15 – June 1	
	Andropogon gerardi	Big Bluestem	3 pounds per acre	April 15 – June 1	
	Sorghastrum nutans	Indian Grass	3 pounds per acre	April 15 – June 1	
	Asclepias tuberosa	Butterfly Weed	1/4 ounce per acre	April 15 – June 1	
	Asclepias syriaca	Common Milkweed	1/4 ounce per acre	April 15 – June 1	
	Aster laevis	Smooth Aster	1/4 ounce per acre	April 15 – June 1	
	Lupinus perennis	Lupine	2 ounces per acre	April 15 – June 1	
	Rudbeckia hirta	Black-eyed Susan	1/8 ounce per acre	April 15 – June 1	
	Solidago rigida	Stiff Goldenrod	1/4 ounce per acre	April 15 – June 1	
	Solidago speciosa	Showy Goldenrod	1/8 ounce per acre	April 15 – June 1	

TEMPORARY COVER GRASS SEEDING SCHEDULE				
Botanical Name	Common Name	Percent Purity/Germination Mix	Percent Minimum Purity/Germination	Seeding Rate
Lolium multiflorum	Annual Rye Grass	100%	98% / 90%	25 lbs/ acre
				Planting Period April 1 – October 15

**NEWMARK ENGINEERING, P.C.**  
Land Surveying & Mapping-Civil-Structural-Vibration Monitoring



PREPARED BY \_\_\_\_\_ IN CHARGE  
DESIGNER  
S.M. DRAFTER  
G.S.N. CHECKER  
M.B. \_\_\_\_\_

FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	L100-X021(623)		
REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN				
P.I.N.	X021.62	KINGS COUNTY	B.I.N.	2-23148-9

**SEEDING NOTES:**

- FOUR (4) WEEKS PRIOR TO SEEDING, EACH SEED MIX SPECIES GERMINATION AND PURITY TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- TWO (2) WEEKS PRIOR TO SEEDING, SOIL SALINITY TESTS SHALL BE TAKEN FROM SIX (6) REPRESENTATIVE LOCATIONS IN THE AREA TO RECEIVE SEED. TEST RESULTS TO BE SUBMITTED TO ENGINEER FOR APPROVAL BEFORE COMMENCEMENT OF SEEDING PROGRAM.
- ALL SEEDING OPERATIONS MUST BE SCHEDULED AND APPROVED AT LEAST FIVE (5) DAYS IN ADVANCE TO ENSURE THE ENGINEER IS PRESENT TO OBSERVE THE WORK.

4. SEEDS SHALL BE BLENDED THOROUGHLY WITH A SAND FILLER AND UNIFORMLY BROADCAST OVER THE ENTIRE ZONE AREA. THEN GENTLY HAND RAKED 1/4 TO 1/2 INCH INTO THE SELECT FILL SAND SUBSTRATE.

5. AFTER SEEDING, STRAW MULCH (NOT HAY) AT THE RATE OF TWO (2) TONS PER ACRE SHALL BE UNIFORMLY DISTRIBUTED OVER THE SOWN SEEDS AND HELD IN PLACE WITH A MULCH BINDER. BINDER SHALL BE A CELLULOSE OR NON-ASPHALTIC EMULSION, NATURAL GUM BINDER BLENDED WITH GELLING OR HARDENING AGENTS. A WOOD FIBER MULCH SHALL ALSO BE ADDED TO THE TACKIFIER FOR IMPROVED STABILITY. TERRA-TACK AS MANUFACTURED BY GRASS GROWERS, OR EQUIVALENT AS APPROVED BY THE ENGINEER SHALL BE USED.

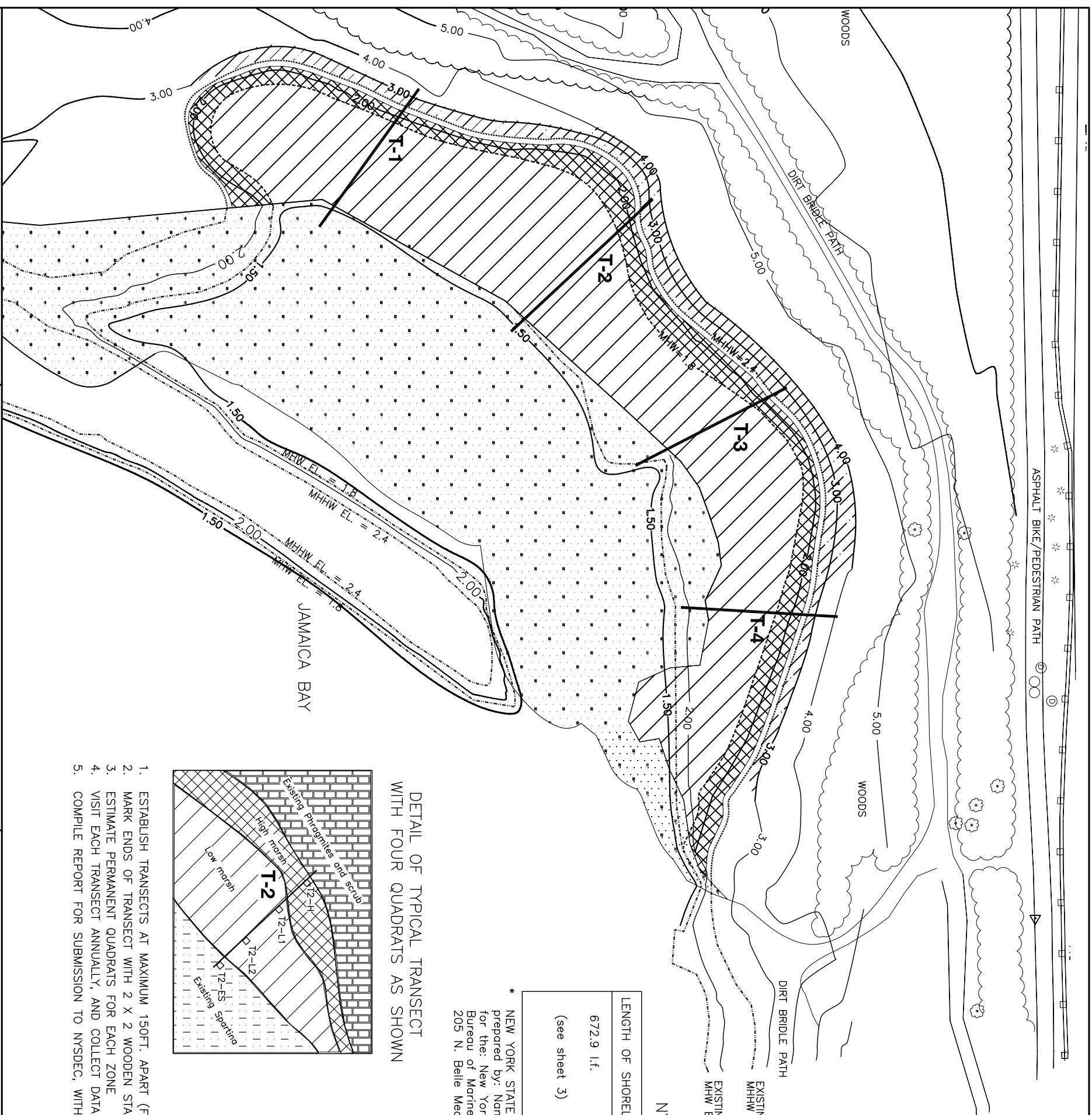


CITY OF NEW YORK  
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DIVISION OF BRIDGES  
CONTRACT NO. HBK1024 / HBK1702  
REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN BOROUGH OF BROOKLYN B.I.N. 2-23148-9

BERGEN BEACH SALT MARH RESTORATION  
PROPOSED PLANTING SCHEDULE  
DWG. NO. \_\_\_\_\_ SCALE: 1" = 80' DATE: SEPT 2010 SHEET NO. BBR-4

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FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	L100-X021(623)		
REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN				
P.I.N.	X021.62	KINGS COUNTY	B.I.N.	2-23148-9

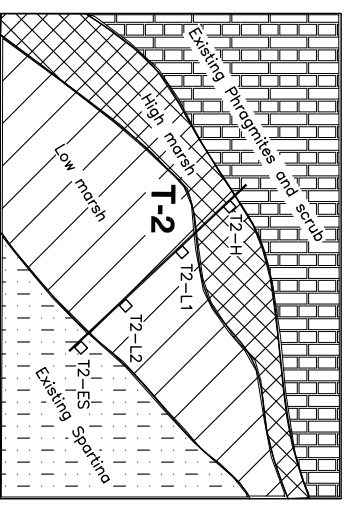


**NYSDEC WETLAND MONITORING REQUIREMENTS\***

LENGTH OF SHORELINE	NO. OF TRANSECTS	1 m <sup>2</sup> QUADRATS	REMARKS
672.9 l.f. (see sheet 3)	4 (1 per 150')	16 (4 per transect) 1 scrub, 1 high marsh, 2 low marsh, 1 ex. marsh	Once annually, mid-August to mid-September

\* NEW YORK STATE SALT MARSH RESTORATION AND MONITORING GUIDELINES prepared by: Nancy L. Niedowski for the: New York State Dept of State, Division of Coastal Resources Bureau of Marine Resources 205 N. Belle Meade Road, E. Setauket, NY 11733

DETAIL OF TYPICAL TRANSECT WITH FOUR QUADRATS AS SHOWN



1. ESTABLISH TRANSECTS AT MAXIMUM 150FT. APART (FOUR TOTAL)
2. MARK ENDS OF TRANSECT WITH 2 X 2 WOODEN STAKES AND SURVEY
3. ESTIMATE PERMANENT QUADRATS FOR EACH ZONE
4. VISIT EACH TRANSECT ANNUALLY, AND COLLECT DATA ON HEALTH, VIGOR, AND COVERAGE OF SPECIES.
5. COMPLETE REPORT FOR SUBMISSION TO NYSDEC, WITH PHOTOGRAPHIC DOCUMENTATION.

**NEWMARK ENGINEERING, P.C.**  
Land Surveying & Mapping-CM&S-Structural-Vibration Monitoring

PREPARED BY: S.M. DRAFTER M.B.  
IN CHARGE: S.M. G.S.N. CHECKER S.M.

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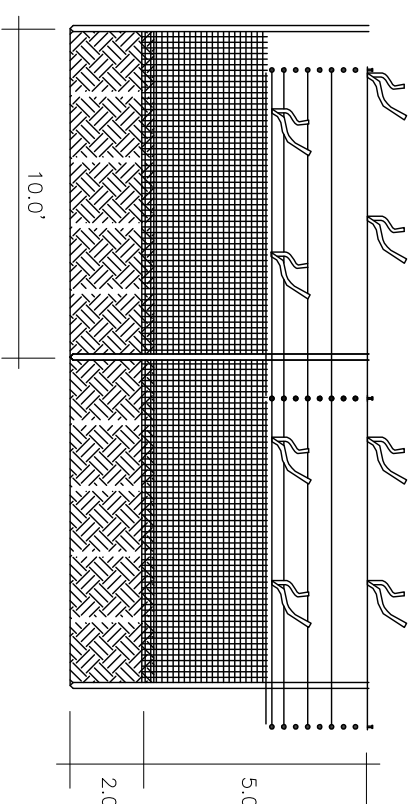
CITY OF NEW YORK  
DEPARTMENT OF TRANSPORTATION  
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REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN  
BOROUGH OF BROOKLYN  
B.I.N. 2-23148-9

BERGEN BEACH SALT MARSH RESTORATION  
PROPOSED MONITORING PLAN  
DWG. NO. SCALE: 1" = 80' DATE: SEPT 2010 SHEET NO. BBR-5

FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	L100-X021(623)		
REPLACEMENT OF SHORE (BELT) PKWY BRIDGES OVER PAERDEGAT BASIN AND FRESH CREEK BASIN				
P.I.N.	X021.62	KINGS COUNTY	B.I.N.	2-23148-9

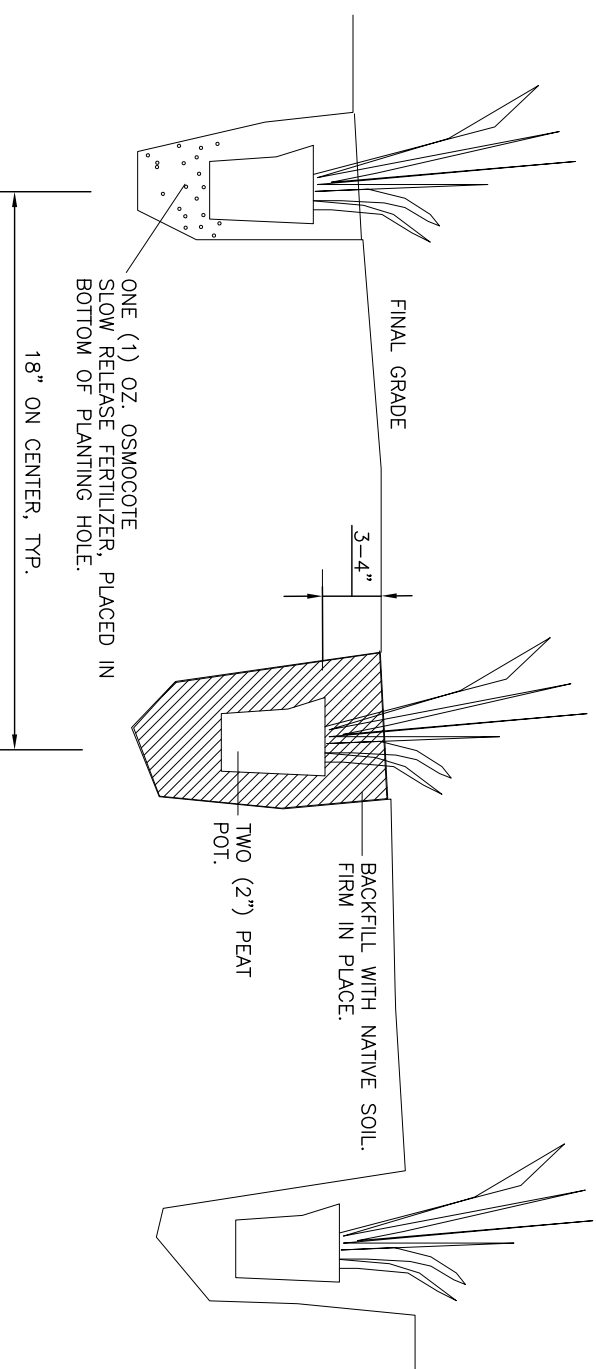
**GENERAL PLANTING NOTES**

1. ALL PLANT MATERIAL SHALL BE TRUE TO NAME AND SIZE IN CONFORMITY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK AND SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. ALL PLANTS SHALL HAVE NORMAL WELL-DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISTURBING KNOTS, ABRASIONS OF THE BARK, SUNSCALD INJURIES, PLANT DISEASES, INSECT EGGS, BORERS AND ALL OTHER FORMS OF INFECTION. ALL PLANTS SHALL BE NURSERY GROWN WITHIN THE MID-ATLANTIC REGION.
2. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT THE NURSERY.



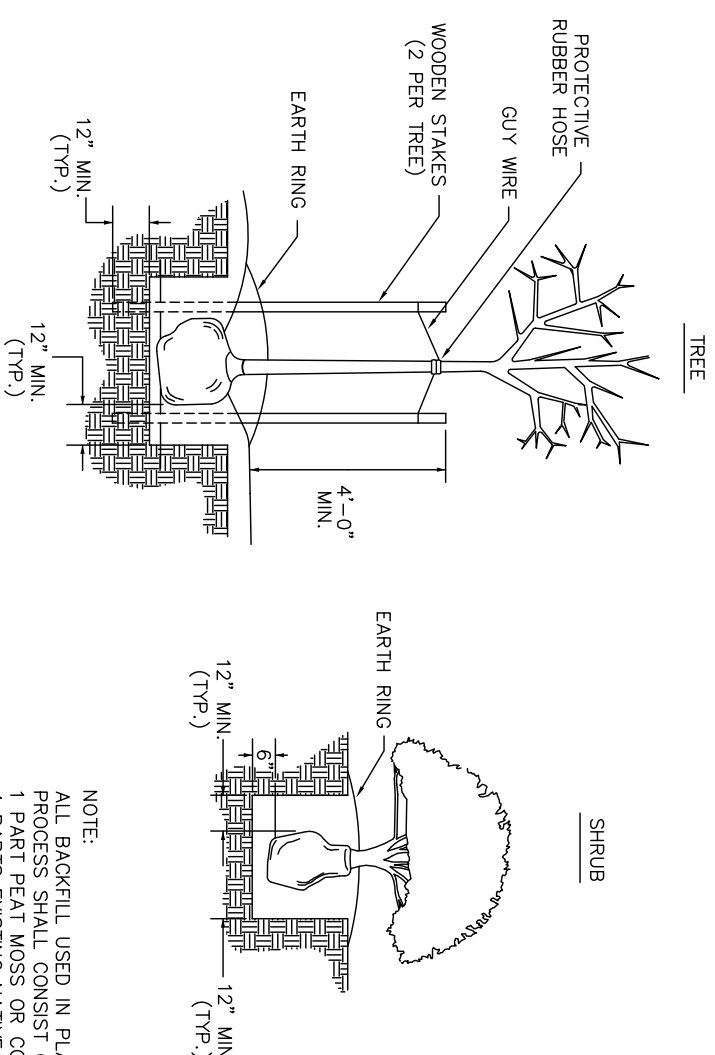
WATERFOWL EXCLUSION FENCE  
7 FT HIGH WOODEN POSTS, 2 X 2, POINTED ON ONE END.  
STAKES INSTALLED ON TEN FOOT (10') SPACING, AROUND ENTIRE MITIGATION AREA. ATTACH FOUR FOOT HIGH BLACK PLASTIC FENCE MESH TO WOODEN STAKES WITH THREE PLASTIC ZIP TIES, HIGH, MIDDLE AND LOW.  
INSTALL FENCE PRIOR TO PLANTING.

**WATERFOWL EXCLUSION FENCE ELEVATION**



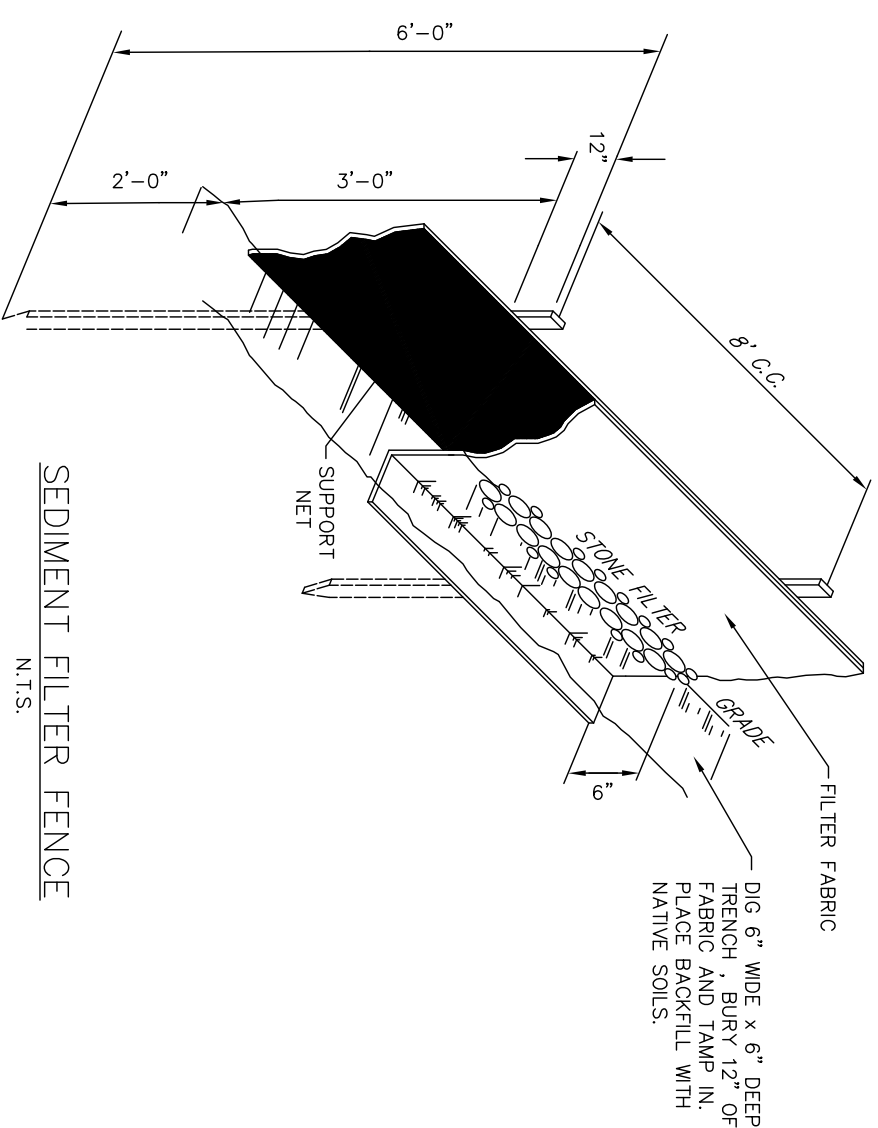
**PLANTING DETAIL AND ELEVATION**

N.T.S.



**TREE/SHRUB PLANTING DETAIL**

N.T.S.



**SEDIMENT FILTER FENCE**

N.T.S.

3. ALL TREES AND SHRUBS SHALL BE MULCHED TO A MINIMUM DEPTH OF 4" WITH MULCH. MULCH SHALL BE SHREDDED HARDWOOD, BARK, WOOD CHIPS OR CEDAR MULCH (NOT EXCEEDING 2" IN ANY DIMENSION) OR PEA GRAVEL, EXTENDING TO THE BRANCH LIMITS (DRIP LINE) OR EXTENTS OF PLANTING AREA.
4. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED WITH APPROPRIATE MEASURES DURING CONSTRUCTION. EXISTING LARGE CALIPER TREES SHALL REMAIN WHERE INDICATED ON THE PLANS AND SHALL BE IDENTIFIED IN THE FIELD PRIOR TO CONSTRUCTION.
5. PROPERTY LINES AND ALL UTILITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OR INSTALLATION OF SEEDING OR PLANTING.
6. EXCAVATION NEAR EXISTING UTILITIES SHALL BE CAREFULLY PERFORMED BY HAND. NOTIFY ALL AFFECTED UTILITIES PRIOR TO DIGGING.
7. THIS PLAN IS TO BE USED FOR PLANTING PURPOSES ONLY. THE CONTRACTOR SHOULD EXAMINE ALL ENGINEERING AND SURVEY DRAWINGS AND FIELD CONDITIONS FOR LOCATIONS OF ALL UTILITIES, DRAINS, EASEMENTS, ETC. AND NOTIFY THE OWNER ABOUT ANY DISCREPANCIES BEFORE STARTING WORK.



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BOROUGH OF BROOKLYN  
B.I.N. 2-23148-9

**BERGEN BEACH SALT MARSH RESTORATION PROPOSED PLANTING DETAILS**

**NEWMARK ENGINEERING, P.C.**  
Land Surveying & Mapping-Civil-Structural-Vibration Monitoring



PREPARED BY \_\_\_\_\_  
IN CHARGE \_\_\_\_\_  
DESIGNER \_\_\_\_\_  
S.M. DRAFTER \_\_\_\_\_  
G.S.N. CHECKER \_\_\_\_\_  
M.B. \_\_\_\_\_  
S.M. \_\_\_\_\_

ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED.

DWG. NO. \_\_\_\_\_ SCALE: 1" = 80' DATE: SEPT 2010 SHEET NO. BBR-6