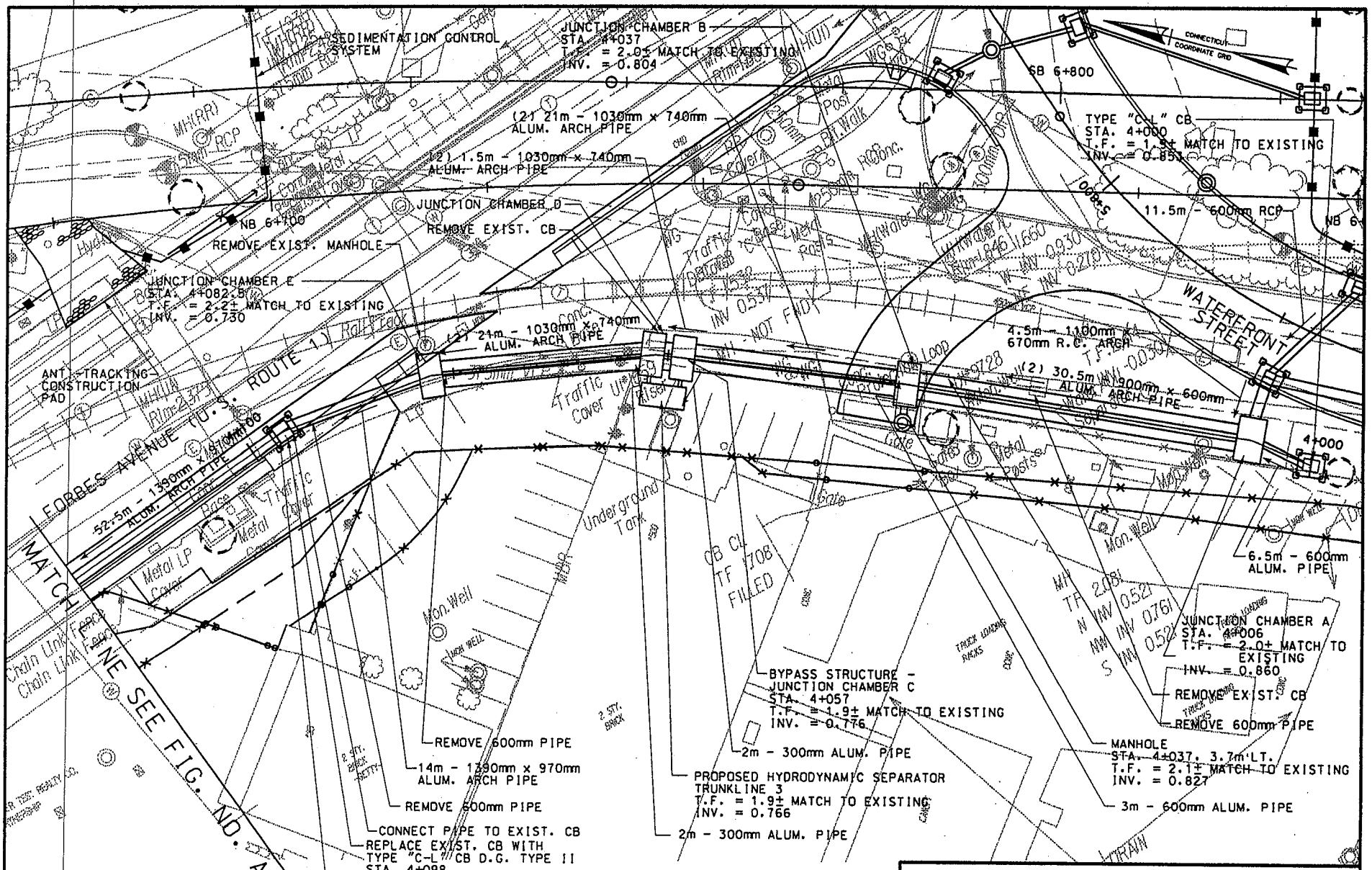

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FIG. NO. AC-63	TRUNKLINE 3 PLAN 1 OF 2	2/06

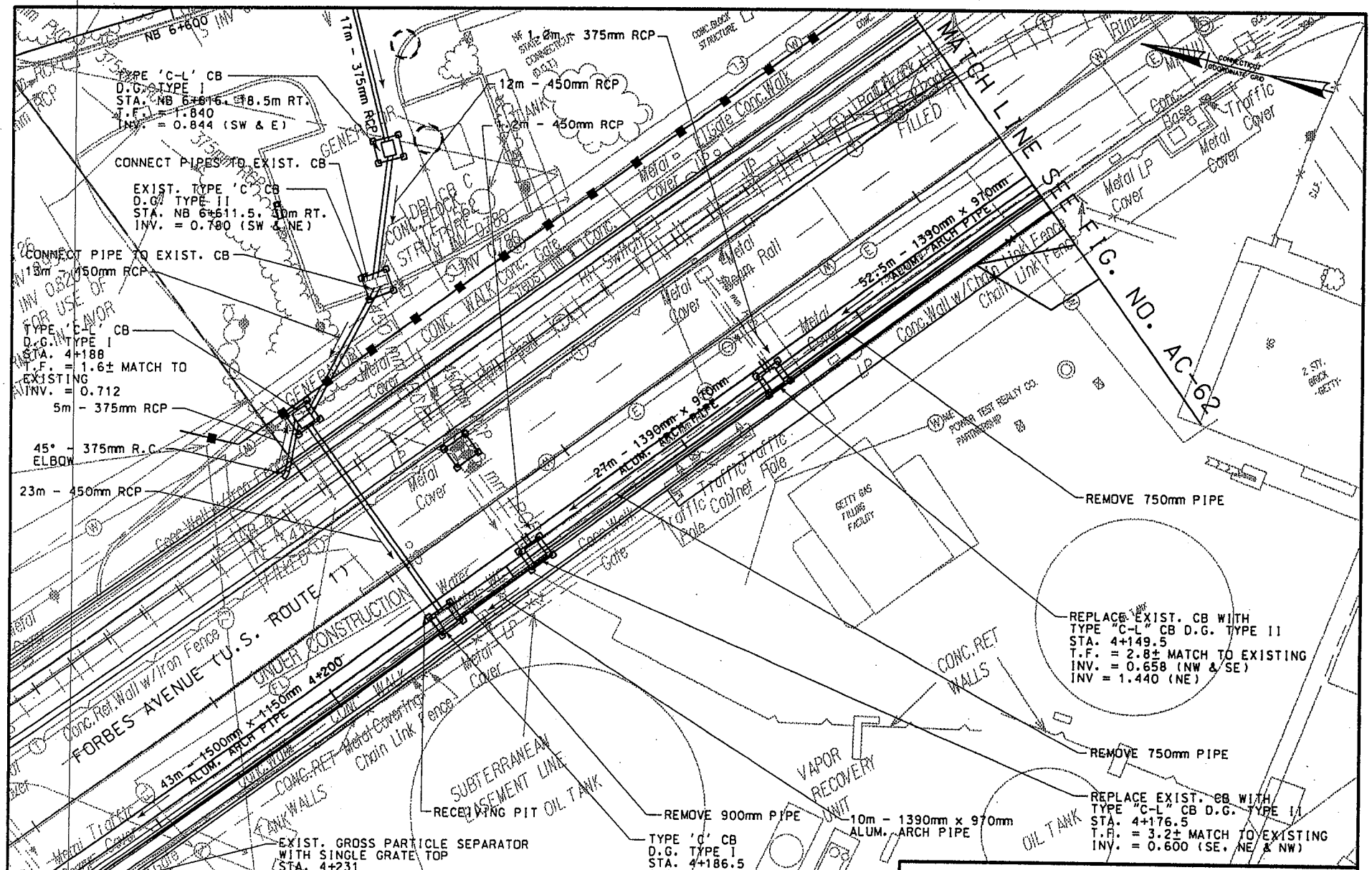

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FIG. NO.	TRUNKLINE 3	2/06
AC-64	PLAN 2 OF 2	

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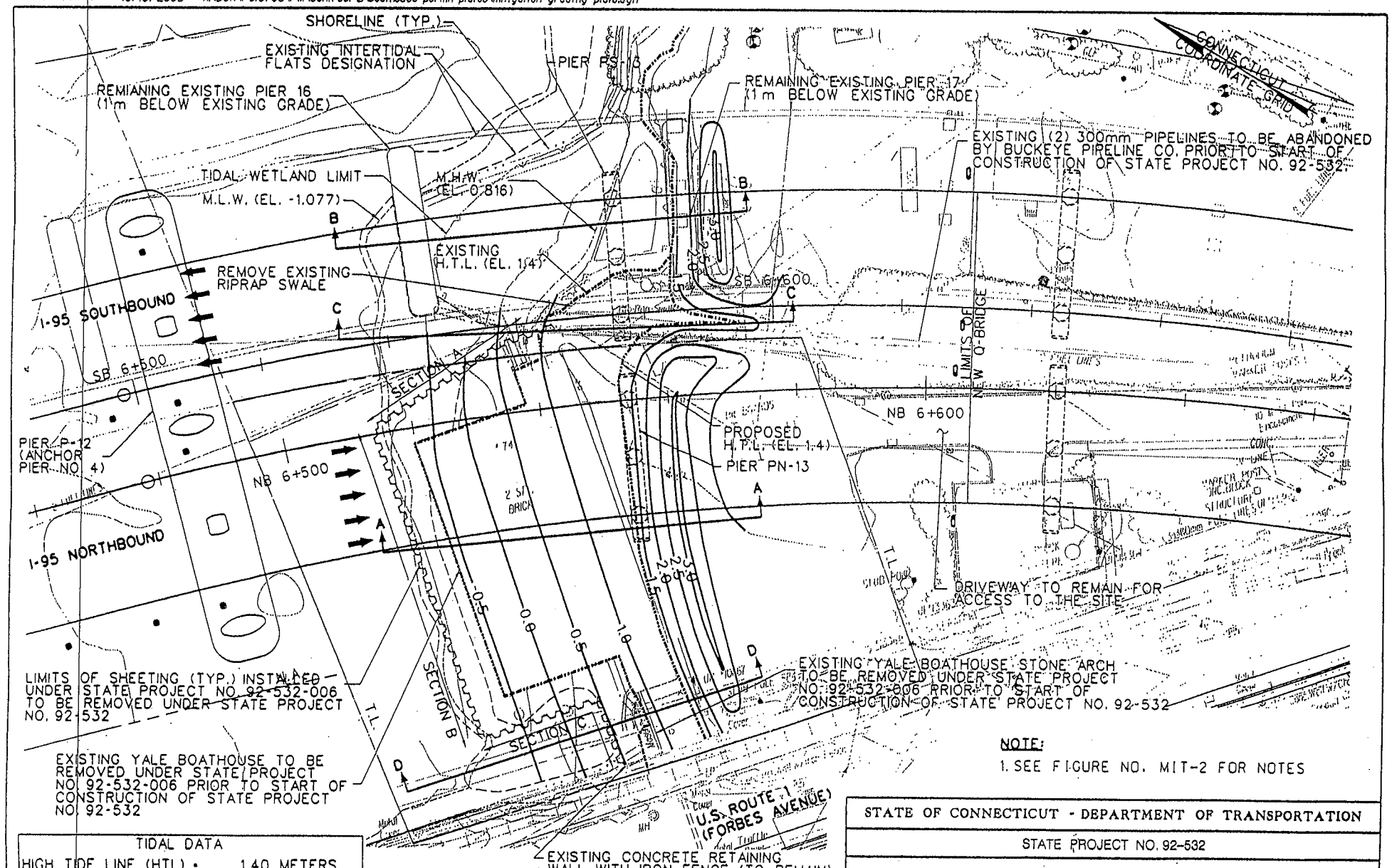

NOTE:

1. SEE FIGURE NO. MIT-2 FOR NOTES

TIDAL DATA	
HIGH TIDE LINE (HTL) =	1.40 METERS
MEAN HIGH WATER (MHW) =	0.816 METERS
MEAN LOW WATER (MLW) =	-1.077 METERS

IMPACT AREA WATERWARD OF HTL = 910 m² (9,795 ft²)
AREA OF EXISTING BOATHOUSE = 1,190 m² (12,809 ft²)

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FIG. NO.	BOATHOUSE MITIGATION GRADING PLAN	10/05
MIT-1		

NOTES:

1. SEE FIGURE NO. MIT-5 FOR SECTION A-A.
2. 100 YEAR FLOODPLAIN ELEVATION (FEMA) IS 3.6M.
3. VERTICAL DATUM BASED ON NAVD OF 1988 (IN METERS).
4. NO EQUIPMENT SHALL ENTER THE WATER.
5. PLANTING SUBSTRATE AND TOPSOIL SHALL CONSIST OF NATURAL OR MANMADE SOILS CONTAINING NO LESS THAN 75% SAND BY WEIGHT AND A MINIMUM ORGANIC CONTENT OF 10%, ANALYZED AS SPECIFIED IN ITEM #949XXXA TIDAL WETLAND CREATION. THE PLANTING SUBSTRATE AND TOPSOIL MUST BE FREE OF SEEDS AND ROOTS OF INVASIVE SPECIES AND INSPECTED AND APPROVED BY CONNDOT OFFICE OF ENVIRONMENTAL PLANNING (OEP) PRIOR TO ITS APPLICATION.

CONSTRUCTION SEQUENCE

1. VERIFY ESTABLISHED WORK AREAS IN THE FIELD AND MEET WITH THE CT DOT OFFICE OF ENVIRONMENTAL PLANNING (OEP) INSPECTOR IN THE FIELD.
2. REMOVE GRANULAR FILL WITHIN SHEET PILING ENCLOSURE TO 0.3M BELOW PROPOSED GRADE.
3. PLACE TESTED AND APPROVED PLANTING SUBSTRATE (0.3M DEPTH) IN THE MITIGATION AREA (FROM -1.0 TO 1.3M ELEVATION) WITHIN SHEET PILING ENCLOSURE AND BRING AREA TO PROPOSED FINISHED GRADES.
4. DURING PERIODS OF LOW TIDE, REMOVE WING SECTIONS OF SHEET PILING ENCLOSURE (SECTIONS A AND C ON FIGURE MIT-1) AND EVERY OTHER SHEETING PANEL (APPROX. 3' WIDE EACH) FROM THE WATERWARD-FACING SECTION (SECTION B ON FIGURE MIT-1).
5. DURING PERIODS OF LOW TIDE, GRADE THE AREAS ABOVE THE LOW TIDE LINE IMMEDIATELY ADJACENT TO THE FORMER ENCLOSURE AREA TO MEET FINISHED GRADES. EQUIPMENT SHALL NOT ENTER THE WATER.
6. INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AT THE LOWER LIMIT OF THE SHORELINE PLANTING ZONE (AT APPROXIMATELY 1.3 M), AS SHOWN ON FIGURE MIT-3 BOATHOUSE MITIGATION PLANTING PLAN.
7. REMOVE INVASIVE PLANT SPECIES IDENTIFIED IN THE NOTICE TO CONTRACTOR - INVASIVE PLANT SPECIES FROM THE COASTAL SHORELINE PLANTING ZONE AND WITHIN SIX (6) METERS OF THE PLANTING AREAS, UNDER THE DIRECTION OF THE CT DOT OEP.
8. REMOVE ANY CONSTRUCTION DEBRIS, GARBAGE, AND OTHER LITTER OF MANMADE ORIGIN FROM THE MITIGATION AREA.
9. EXCAVATE AND/OR FILL WITH GRANULAR FILL TO PREPARE THE SHORELINE PLANTING ZONE TO A DEPTH OF 0.3M BELOW FINISHED GRADE.
10. PLACE TESTED AND APPROVED TOPSOIL TO A DEPTH OF 0.3M UTILIZING EQUIPMENT AND METHODOLOGY THAT DOES NOT COMPACT THE TOPSOIL MATERIAL.
11. AFTER TOPSOIL APPLICATION, ESTABLISH SEED THROUGHOUT THE SHORELINE PLANTING ZONE, PER THE MITIGATION PLANTING PLAN.
12. INSTALL BIO-DEGRADEABLE TEMPORARY EROSION CONTROL BLANKET (ECB) OR HYDRAULICALLY APPLY FLEXIBLE GROWTH MEDIUM (E.G. FLEXTERRA) OVER THE SEEDED SHORELINE PLANTING ZONE, UNDER THE DIRECTION OF THE CT DOT OEP.
13. THE MITIGATION AREA SHALL THEN BE LEFT TO STABILIZE FOR NO LESS THAN 6 MONTHS. PLANTING OF HERBACEOUS STOCK AND SHRUBS WILL COMMENCE IN THE FIRST SPRING AFTER THE 6-MONTH STABILIZATION PERIOD. PRIOR TO PLANTING IN THE TIDAL ZONE, TIDAL ELEVATION DATA SHALL BE OBTAINED AT THE MITIGATION SITE IN ORDER TO ESTABLISH THE SITE-SPECIFIC ELEVATIONS OF THE SPRING HIGH TIDE, MEAN HIGH WATER, AND MEAN LOW WATER. THESE ELEVATIONS WILL BE USED TO ADJUST THE LIMITS OF THE PLANTING ZONES SHOWN ON THE TIDAL WETLAND MITIGATION PLANTING PLAN, AS SPECIFIED IN THE ITEM TIDAL WETLAND CREATION.
14. REMOVE ALL EQUIPMENT, DEBRIS, AND GARBAGE FROM SITE FOR THE SITE STABILIZATION PERIOD.
15. IN THE FIRST SPRING AFTER THE MINIMUM 6-MONTH STABILIZATION PERIOD, THE CT DOT OEP SHALL INSPECT THE MITIGATION SITE TO APPROVE IT FOR PLANTING. THE OEP RESERVES OPTION TO RECONFIGURE THE MITIGATION SITE IN THE EVENT OF A WASHOUT.
16. IF THE SITE IS APPROVED BY THE OEP, INSTALL ALL PLANT STOCK AS INDICATED ON THE MITIGATION PLANTING PLAN, USING THE ADJUSTED LIMITS OF THE PLANTING ZONES DETERMINED BY THE OEP BASED ON FIELD COLLECTION OF TIDAL ELEVATION DATA PER ITEM TIDAL MARSH PLANT ESTABLISHMENT SPECIFICATION.
17. INSTALL GOOSE FENCING THROUGHOUT THE PLANTING AREA, TO BE MAINTAINED DURING PLANT ESTABLISHMENT OR A MAXIMUM PERIOD OF TWO YEARS.
18. REMOVE TEMPORARY EROSION AND SEDIMENTATION MEASURES.
19. REMOVE ALL EQUIPMENT AND DEBRIS FROM SITE.
20. THE PLANTING AREA SHALL THEN BE LEFT TO STABLILIZE FOR AT LEAST ONE GROWING SEASON (MAY 15 TO SEPTEMBER 15). AFTER ONE FULL GROWING SEASON, REMOVE REMAINING SHEETING, USING MEANS AND EQUIPMENT THAT WILL NOT DISTURB THE MITIGATION PLANTING AREAS, UNDER THE DIRECTION OF CT DOT OEP.

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FIG. NO. MIT-2	BOATHOUSE MITIGATION GRADING PLAN NOTES	10/05

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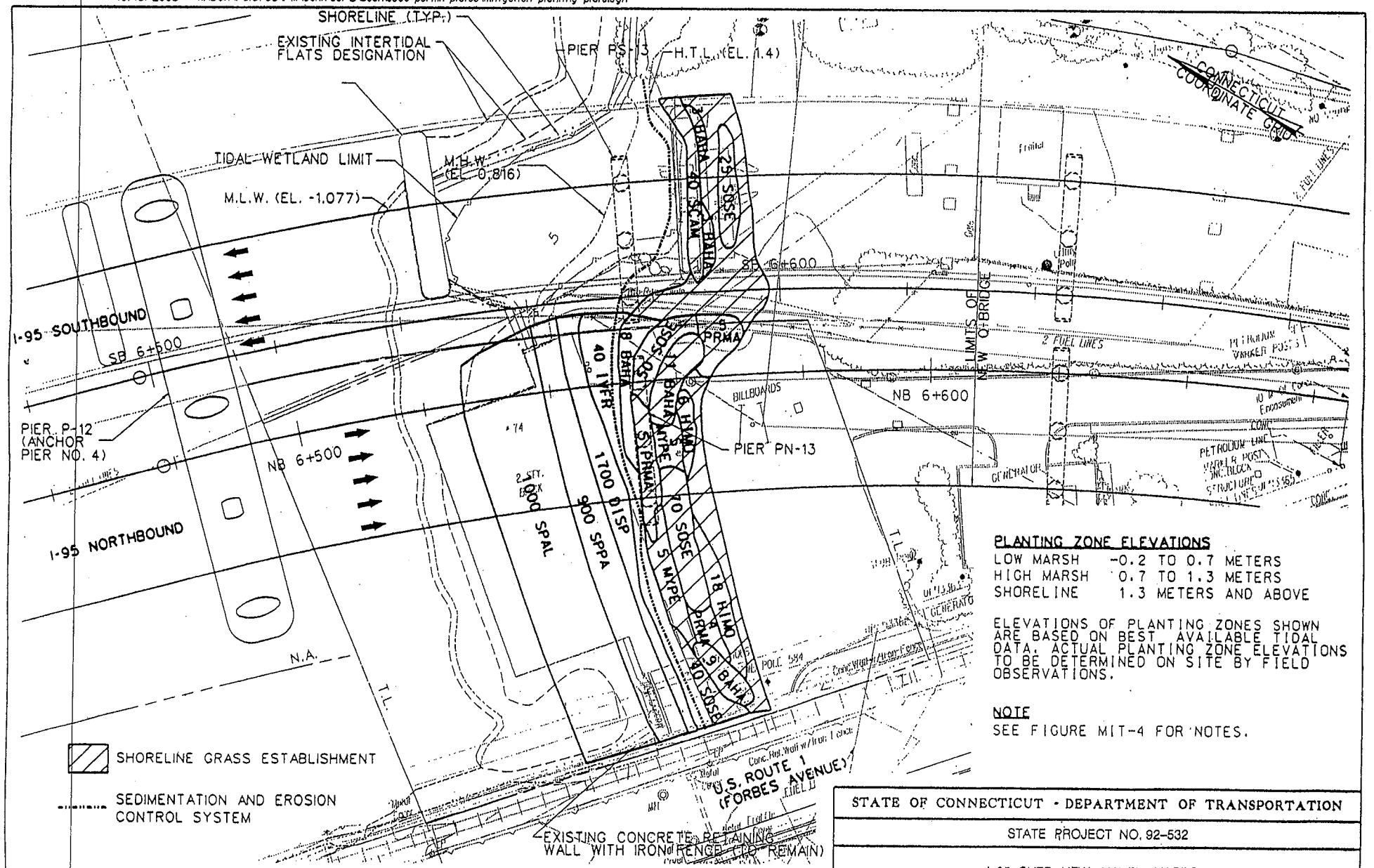

PLANTING ZONE ELEVATIONS

LOW MARSH	-0.2 TO 0.7 METERS
HIGH MARSH	0.7 TO 1.3 METERS
SHORELINE	1.3 METERS AND ABOVE

ELEVATIONS OF PLANTING ZONES SHOWN ARE BASED ON BEST AVAILABLE TIDAL DATA. ACTUAL PLANTING ZONE ELEVATIONS TO BE DETERMINED ON SITE BY FIELD OBSERVATIONS.

NOTE

SEE FIGURE MIT-4 FOR NOTES.

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FIG. NO.		
MIT-3	BOATHOUSE MITIGATION PLANTING PLAN	10/05

NOTES

1. PRIOR TO APPLYING TOPSOIL AND INSTALLING PLANTINGS, INVASIVE PLANT SPECIES AS IDENTIFIED IN THE NOTICE TO CONTRACTOR - INVASIVE SPECIES WILL BE REMOVED IN THE PROPOSED PLANTING AREAS AND WITHIN SIX (6) METERS OF THE EDGE OF THE PROPOSED PLANTING AREAS. SOILS WITH THE INVASIVE REED GRASS, PHRAGMITES AUSTRALIS, SHALL BE REMOVED TO A MINIMUM DEPTH OF ONE (1) METER, UNDER THE DIRECTION OF CT DOT OFFICE OF ENVIRONMENTAL PLANNING (OEP).

2. SEEDING OF THE COASTAL SHORELINE PLANTING ZONE WILL COMMENCE UPON COMPLETION OF GRADING, REMOVAL OF INVASIVE PLANT SPECIES, AND REMOVAL OF GARBAGE AND DEBRIS. SEEDS MAY BE BROADCAST OR DRILLED. IF SEEDS ARE BROADCAST, THE SURFACE OF COASTAL SHORELINE PLANTING ZONE SHALL BE ROLLED BEFORE AND AFTER BROADCASTING. IF SEEDS ARE DRILLED, SEEDS SHALL BE DRILLED TO 1/4 INCH DEPTH.

3. AFTER SEEDING, INSTALL BIO-DEGRADEABLE TEMPORARY EROSION CONTROL BLANKET (ECB) OR HYDRAULICALLY APPLY FLEXIBLE GROWTH MEMBRANE (E.G. FLEXTERRA) OVER THE SEEDED SHORELINE PLANTING ZONE, UNDER THE DIRECTION OF CT DOT OEP.

4. THE MITIGATION AREA SHALL BE LEFT TO STABILIZE FOR NO LESS THAN 6 MONTHS. PLANTING OF HERBACEOUS STOCK AND SHRUBS WILL COMMENCE IN THE FIRST SPRING AFTER THE 6-MONTH STABILIZATION PERIOD.

5. PRIOR TO PLANTING IN THE LOW MARSH AND HIGH MARSH PLANTING ZONES, TIDAL ELEVATION DATA SHALL BE OBTAINED AT THE MITIGATION SITE IN ORDER TO ESTABLISH THE SITE-SPECIFIC ELEVATIONS OF THE SPRING HIGH TIDE, MEAN HIGH WATER, AND MEAN LOW WATER. THESE ELEVATIONS WILL BE USED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL PLANNING (OEP) TO ADJUST THE LIMITS OF THE PLANTING ZONES SHOWN ON THE TIDAL WETLAND MITIGATION PLANTING PLAN IF NECESSARY.

NOTES (CONT'D)

6. PLANTING SHALL BE DONE IN SPRING, BETWEEN APRIL 15 AND MAY 31.

7. THE OEP SHALL INSPECT THE MITIGATION SITE PRIOR TO PLANTING TO DETERMINE WHETHER THE SITE IS SUITABLE FOR PLANTING. THE OEP RESERVES THE OPTION TO MODIFY THE PLANTING PLAN IF RECONFIGURATION OF THE MITIGATION SITE IS NECESSARY.

8. AFTER THE SITE HAS BEEN APPROVED FOR PLANTING, PLANTINGS SHALL BE INSTALLED AS SPECIFIED IN THE PLANTING SCHEDULE, OR AS APPROVED BY THE OEP. WHERE RANDOM SPACING IS INDICATED, INFORMAL GROUPINGS OF PLANTS SHALL BE PLACED IRREGULARLY THROUGHOUT THE DESIGNATED AREA PER THE SPACING IN THE PLANTING SCHEDULE.

9. PLANTINGS WITHIN THE LOW MARSH AND HIGH MARSH PLANTING ZONES SHALL BE INSTALLED AT LOW TIDE SO THAT NO INSTALLATION OCCURS IN THE WATER.

10. AUGER, DIG, OR USE A DIBBLE TO MAKE PLANTING HOLES FOR PLUGS AND SHRUBS, AND TRANSPLANT. DO NOT REMOVE PLANTS FROM CONTAINERS UNTIL IMMEDIATELY BEFORE PLANTING. SEPARATE ANY POT-BOUND OR CRAMPED ROOTS AND SPREAD THEM WHEN PLACING THE PLANT.

11. GOOSE EXCLUSION NETTING SHALL BE INSTALLED AND MAINTAINED OVER LOW MARSH AND HIGH MARSH PLANTING ZONES UNTIL PLANTS HAVE BECOME ESTABLISHED OR A MAXIMUM OF 2 YEARS AFTER PLANTING.

12. FOR PROPOSED GRADES, REFER TO THE MITIGATION GRADING PLAN.

PLANTING SCHEDULE

SHORELINE SEED MIX		% of Seed Mix	APPLICATION RATE (Drilled) lbs/acre	APPLICATION RATE (Drilled) lbs/ sq.meter	APPLICATION RATE (Broadcast) lbs/acre	APPLICATION RATE (Broadcast) lbs/ sq.meter
Festuca rubra	Creeping Red Fescue	30	7.5	0.0019	15	0.0038
Panicum virgatum	Shelter Switchgrass	30	7.5	0.0019	15	0.0038
Andropogon gerardi	Big Bluestem	20	5	0.0013	10	0.0026
Sorghastrum nutans	Indiangrass	12	3	0.0008	6	0.0016
Panicum clandestinum	Deertounge	8	2	0.0005	4	0.001
		100	25	0.0064	50	0.0128

KEY	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	QUANTITY
Low marsh					
SPAL	*Spartina alterniflora*	Smooth cordgrass	1 Gallon Container	36" O.C.	1,000
High marsh					
DISP *	*Distichlis spicata*	Spike grass	Plug	14" O.C.	1,700
IVFR *	*Iva frutescens*	High-tide bush	18"-24" B&B	96" O.C.	40
SPPA	*Spartina patens*	Salt meadow hay	Plug	24" O.C.	900
Coastal shoreline/high marsh					
BAHA *	*Baccharis halimifolia*	Groundsel tree	18"-24" B&B	108" O.C.	34
SOSE *	*Solidago sempervirens*	Seaside goldenrod	Quart Pot	24" O.C.	185
Coastal shoreline					
HIMO *	*Hibiscus moscheutos*	Rose Mallow	Quart Pot	48" O.C.	24
MYPE *	*Myrica pensylvanica†*	Bayberry	18"-24" B&B	96" O.C.	10
PRMA *	*Prunus maritima*	Beach Plum	1 Gallon Container	108" O.C.	14
SCAM	*Scirpus americanus*	Three-square Bulrush	Plug	24" O.C.	40

* = species to be planted in random clusters (at proper spacing) within designated planting areas

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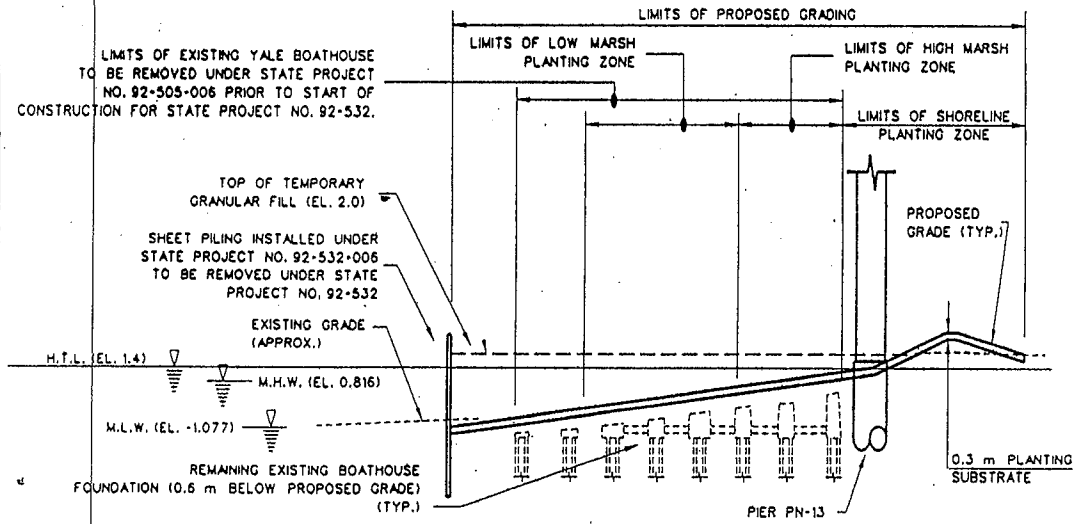
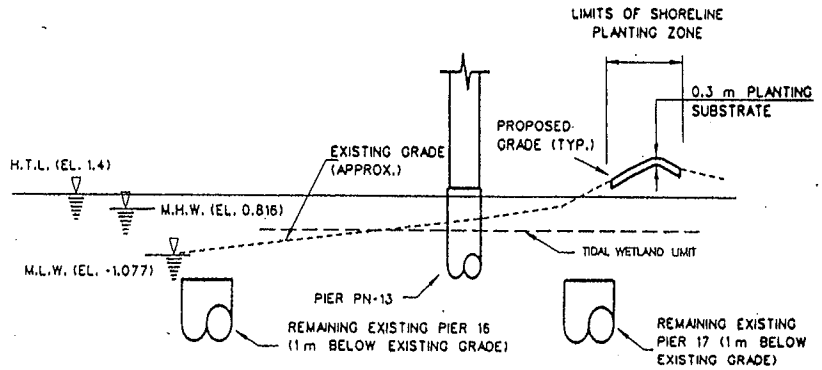
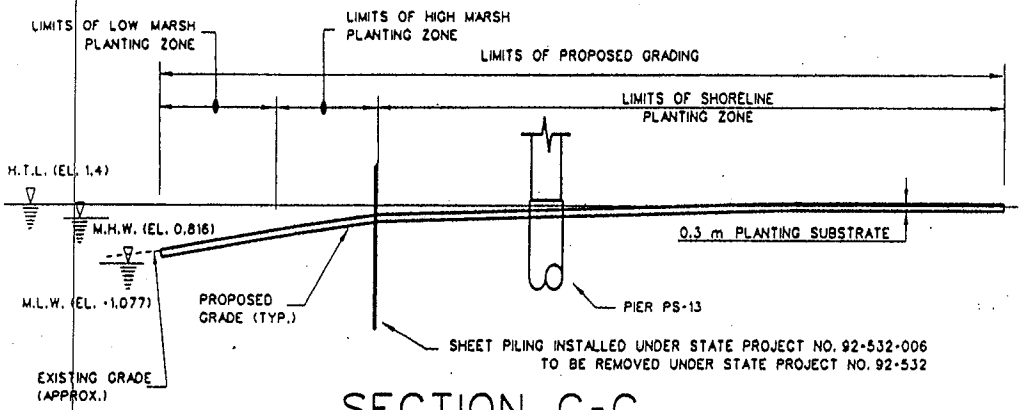
FIG. NO.		
MIT-4	BOATHOUSE MITIGATION PLANTING PLAN NOTES	10/05



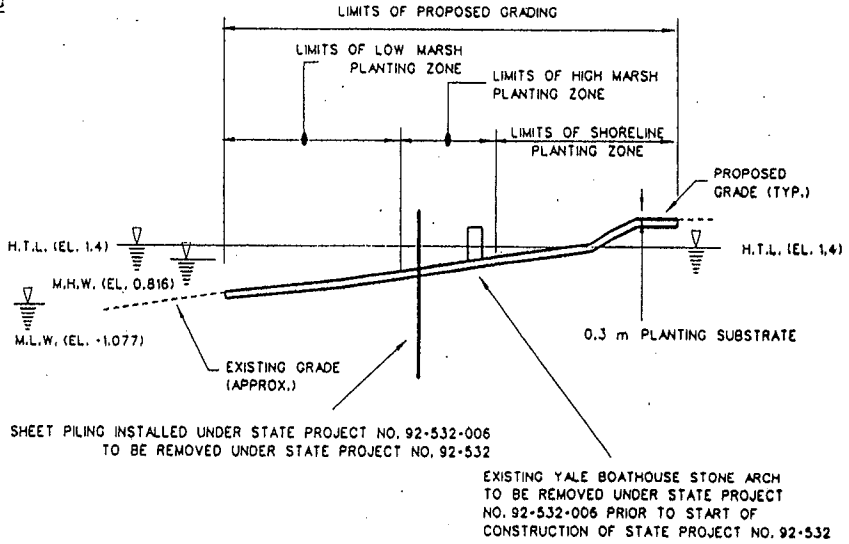
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

HORIZONTAL SCALE IN METERS

0 10 20 30

SCALE: 1:600

VERTICAL SCALE IN METERS

0 5 10 20

SCALE: 1:300

NOTE: VERTICAL DATUM BASED ON NAVD OF 1988 (IN METERS).

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FIG. NO. MIT-5	BOATHOUSE MITIGATION CROSS SECTION	10/05