



**US Army Corps
of Engineers®**
New England District

PUBLIC NOTICE

696 Virginia Road
Concord, MA 01742-2751

Date: February 26, 2008
Comment Period Ends: March 27, 2008
File Number: NAE-2008-588
In Reply Refer To: Susan K. Lee
Or by e-mail: susan.k.lee@usace.army.mil

The District Engineer has received a permit application from the applicant below to **conduct work in waters of the United States** as described below. The Corps is soliciting comments on both the project itself and the range of issues to be addressed in the environmental documentation.

APPLICANT: Connecticut Department of Transportation (CT DOT), 2800 Berlin Turnpike, PO BOX 317546, Newington, Connecticut 06131-7546

ACTIVITY: To discharge dredged and fill materials below the high tide line in the Housatonic River and in inland and tidal wetlands in association with replacement of the Interstate 95 (Moses Wheeler Bridge (State Project 138-221)) over the Housatonic River in Milford and Stratford, Connecticut, and to discharge fill for the reconstruction of the existing State boat launch in Milford, Connecticut, and construct and maintain floating docks at the subject boat launch site. The proposed work associated with the bridge project will permanently impact 0.026 ha (0.066 ac) of tidal wetlands, 0.001 ha (0.004 ac) of inland wetlands, and 0.010 ha (0.025 ac) of river/harbor bottom (excavation/backfill occurring within cofferdams/marine enclosures). The project involves the removal of the existing bridge and the construction of a new bridge that will include bridge widening in the northern direction to accommodate the addition of full width shoulders (inside and outside) for each direction of traffic. The new bridge will be a concrete segmental girder superstructure supported on concrete pier substructures. This project includes reconstruction of the east and west approach roads to the new bridge. Onsite mitigation is proposed to compensate for the anticipated loss and temporary impacts to tidal wetlands areas as a result of bridge construction. The mitigation areas total approximately 0.113 ha (0.28 ac.), and are located under the bridge on both shoreline areas on the Stratford and Milford sides of the Housatonic River. The bridge replacement project including associated temporary structures required to facilitate construction of the new bridge, and demolition of the existing bridge requires a bridge permit from the U.S. Coast Guard. The existing State public access boat launch located under the bridge in Milford will be closed during the entire construction time frame. The applicant proposes to reconstruct and upgrade the boat launch after completion of the bridge project. The reconstructed boat launch will include two 2.4m wide x 30m long floating docks, one on either side of the boat launch area. Riprap, earthen, and concrete fill will be placed below high tide line for reconstruction of the boat launch. A detailed description and plans of the applicant's activity are attached.

WATERWAY AND LOCATION OF THE PROPOSED WORK: This work is proposed in the Housatonic River and within adjacent tidal and inland wetlands in Milford and Stratford, Connecticut. The project begins at UTM coordinates 4563400 N and 657800 E and extends east to UTM coordinates 4563900 N and 658900 E on the USGS Milford, CT (#110) quadrangle sheet.

AUTHORITY

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
 Section 404 of the Clean Water Act
 Section 103 of the Marine Protection, Research and Sanctuaries Act

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 as amended.

ESSENTIAL FISH HABITAT

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

This project will impact approximately 0.70 acres of Essential Fish Habitat (EFH) areas for the species and associated life stages listed on the attached 'Summary of Essential Fish Habitat (EFH) Designation' (2 sheets). This habitat area consists of organic silt/sand and sand/silt river bottom sediments, mineral soil and mucky peat shoreline, and riprap channel and sandy beds at tributary systems entering the Housatonic River. Loss of this habitat may adversely affect the listed species as a result of temporary and permanent construction such as sheet pile cofferdam construction, excavation/backfill and grading for bridge pier construction, bridge pier demolition activities, and related heavy construction activities. In river activities will be conducted within sheet pile enclosures. The District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

SECTION 106 COORDINATION

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created.
- c. The proposed activity is of limited nature and scope.
- d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.
- e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s)

ENDANGERED SPECIES CONSULTATION

The New England District, Army Corps of Engineers has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which might occur at the proposed project site during the construction and subsequent operation/use period sought by the applicant. We have undertaken a Biological Assessment (BA) of the potential for interactions and adverse impacts to those listed species. It is our determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect any Federally listed endangered or threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our BA determination.

The States of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved **Coastal Zone Management Programs**. Where applicable the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

The following authorizations have been applied for, or have been, or will be obtained:

- Permit, License or Assent from State.
- Permit from Local Wetland Agency or Conservation Commission.
- Water Quality Certification in accordance with Section 401 of the Clean Water Act.

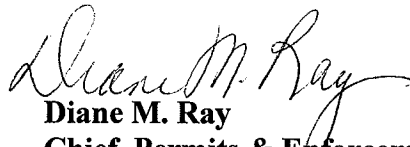
In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. **Comments should be submitted in writing by the above date.** If you have any questions, please contact Susan Lee at (978) 318-8494, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

For more information on the New England District Corps of Engineers programs, visit our website at <http://www.nae.usace.army.mil>.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.



**Diane M. Ray
Chief, Permits & Enforcement Branch
Regulatory Division**

If you would prefer not to continue receiving Public Notices, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here () and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME:

ADDRESS:

PROPOSED WORK AND PURPOSE

The project is the replacement of an existing bridge, and involves the discharge of dredged and fill materials in the Housatonic River and adjacent wetlands in association with the replacement of the Interstate 95 (Moses Wheeler Bridge (State Project 138-221)) over the Housatonic River in Milford and Stratford, Connecticut. The purpose of the work is to replace the existing aging Moses Wheeler Bridge with a new bridge that conforms to current design standards. Additional associated work includes reconstruction of the existing State boat launch under the bridge in Milford, Connecticut.

The work is described and shown on the attached plans entitled "REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221", shown on eighty-four (84) sheets, dated various dates ("10/20/03", "11/11/05", and "11/22/06").

Tidal Wetland Impacts

Unavoidable tidal wetland impacts will result from construction of bridge piers 9N, 9M, 9S and 5E. Tidal wetland impacts total 267.5 m² (2880 ft²). Temporary impacts from bridge trestles, the boat ramp, and pier demolition total 199.9 m² (2151 ft²). Mitigation consisting of excavation, grading and wetlands plantings to compensate for tidal wetland impacts is proposed for the shoreline areas under the bridge located on the Stratford and Milford sides of the Housatonic River. The mitigation areas are approximately 432.4 m² (4,654 ft²) on the Milford Side and 701.7m² (7,553ft²) on the Stratford side for a total of 1,134.1 m² (12,207 ft²).

Intertidal flats will be permanently impacted by the construction of bridge pier 5N and the reconstruction of the State boat launching ramp. The demolition of piers 3W and 4E will result in temporary impacts to intertidal flats. The trestle on both sides of the harbor and the removal of a bridge fender will also cause minor impacts to intertidal flats. The total temporary impact to this resource is 426.2 m² (4,588 ft²). The proposed bridge replacement will result in an overall loss of 15.5 m² (167 ft²) of intertidal flats, which will be off-set by a net gain of 81.2 m² (873 ft²) of intertidal flat areas, primarily from the removal of existing bridge piers. Reconstruction of the boat launch will involve placement of riprap, earthen, and concrete fill within an approximately 540 m² area below high tide line at the Milford shoreline under the bridge. The reconstructed boat launch will include two 2.4m wide x 30m long floating docks, one each extending approximately 20m beyond mean high water on either side of the boat launch area.

Harbor Bottom Impacts

Impacts below the high tide line result from excavation/backfill for construction of new bridge piers. These impacts will permanently displace 103.52 m² (1116 ft²) of harbor bottom. Temporary impacts of the trestles and cofferdams will result in 1,695.1 m² (18,246 ft²). Approximately 264.4 m² (2,846 ft²) of river bottom will be restored after removal of the existing bridge piers. Existing bridge piers 2W, 1W, 1E, 2E and 3E will be removed to a depth no less than 1 meter below the river bottom and backfilled with a substrate material that is consistent with the parent material in the vicinity of the site.

Inland Wetlands Impact

The impacts to Inland Wetlands will occur due to construction of the outfall for a proposed retention pond east of the river. The area of inland wetland serves as a drainage channel leading to a tidal creek, which runs along the existing boat launch facility. The total area of impact to inland wetlands is 18 m² (194 ft²).

Summary of Essential Fish Habitat (EFH) Designation

10' x 10' Square Coordinates:

B oundary	North	East	South	West
Coordinate	41° 20.0' N	73° 00.0' W	41° 10.0' N	73° 10.0' W

Square Description (i.e. habitat, landmarks, coastline markers): The waters within Long Island Sound within the square affecting south of the following: from Woodmont, CT., to the Housatonic River (the western shore east of Crimbo Point), including waters affecting Milford, CT., Pond Point, CT., Pond Pt., Milford Beaches, Charles I., Crimbo Pt., Milford Pt., and Nells I.

Species	Eggs	Larvae	Juveniles	Adults
Atlantic salmon (<i>Salmo salar</i>)			X	X
Atlantic cod (<i>Gadus morhua</i>)				
haddock (<i>Melanogrammus aeglefinus</i>)				
pollock (<i>Pollachius virens</i>)			X	X
whiting (<i>Merluccius bilinearis</i>)				X
offshore hake (<i>Merluccius albidus</i>)				
red hake (<i>Urophycis chuss</i>)	X	X	X	X
white hake (<i>Urophycis tenuis</i>)				
redfish (<i>Sebastes fasciatus</i>)	n/a			
witch flounder (<i>Glyptocephalus cynoglossus</i>)				
winter flounder (<i>Pleuronectes americanus</i>)	X	X	X	X
yellowtail flounder (<i>Pleuronectes ferruginea</i>)				
windowpane flounder (<i>Scopthalmus aquosus</i>)	X	X	X	X
American plaice (<i>Hippoglossoides platessoides</i>)				
ocean pout (<i>Macrozoarces americanus</i>)				

Atlantic halibut (<i>Hippoglossus hippoglossus</i>)				
Atlantic sea scallop (<i>Placopecten magellanicus</i>)				
Atlantic sea herring (<i>Clupea harengus</i>)			X	X
monkfish (<i>Lophius americanus</i>)				
bluefish (<i>Pomatomus saltatrix</i>)			X	X
long finned squid (<i>Loligo pealei</i>)	n/a	n/a		
short finned squid (<i>Illex illecebrosus</i>)	n/a	n/a		
Atlantic butterfish (<i>Peprilus triacanthus</i>)				
Atlantic mackerel (<i>Scomber scombrus</i>)	X	X	X	X
summer flounder (<i>Paralichthys dentatus</i>)			X	
scup (<i>Stenotomus chrysops</i>)	X	X	X	X
black sea bass (<i>Centropristus striata</i>)	n/a		X	
surf clam (<i>Spisula solidissima</i>)	n/a	n/a		
ocean quahog (<i>Artica islandica</i>)	n/a	n/a		
spiny dogfish (<i>Squalus acanthias</i>)	n/a	n/a		
tilefish (<i>Lopholatilus chamaeleonticeps</i>)				
king mackerel (<i>Scomberomorus cavalla</i>)	X	X	X	X
Spanish mackerel (<i>Scomberomorus maculatus</i>)	X	X	X	X
cobia (<i>Rachycentron canadum</i>)	X	X	X	X
sand tiger shark (<i>Odontaspis taurus</i>)		X		

Table 1 - Vegetated Wetland Impact and Restoration Areas below the High Tide Line

Wetland Area	Construction Area ¹	Excavation Area		Backfill Area		Net Area Restored (Impacted)	
		sq. m.	sq. ft.	sq. m.	sq. ft.	sq. m.	sq. ft.
Wetland Area 1 - Housatonic River (Stratford)	Pier 4W Demolition	184.4	1,985	198.8	2,140	14.4	155
	Temp. Trestle System (Stratford)	8.5	91	8.5	91	0.0	0
	Area of Bridge Shadow ²	-	-	-	-	(317.9)	(3,422)
	Wetland Mitigation Area ³	635.6	6,842	1,337.3	14,395	701.7	7,553
Wetland Area 2 - Housatonic River (Milford)	New Bridge Pier 9N	50.7	546	40.2	433	(10.5)	(113)
	New Bridge Pier 9M	63.4	682	52.9	569	(10.5)	(113)
	New Bridge Pier 9S	61.0	657	50.5	544	(10.5)	(113)
	Pier 5E Demolition	92.4	995	92.4	995	0.0	0
	Temp. Trestle System (Milford)	7.0	75	7.0	75	0.0	0
Wetland Area 3 - South of Boat Ramp Access Road	Area of Bridge Shadow ²	-	-	-	-	(474.5)	(5,107)
	Wetland Mitigation Area ⁴	701.9	7,555	1,134.3	12,209	432.4	4,654
	Drainage System E (Pond 3)	25.0	269	7.0	75	(18.0)	(194)
	Totals	1,829.9	19,697	2,928.9	31,526	306.6	3,300

Table 2 - Approximate Impact and Restoration Areas by Wetland Vegetation Types below the High Tide Line

Wetland Vegetation	Wetland Area	Excavation Area		Backfill Area		Net Area Restored (Impacted)		
		sq. m.	sq. ft.	sq. m.	sq. ft.	sq. m.	sq. ft.	
Phragmites australis	Wetland Area 1	Pier 4W Demolition	184.4	1,985	198.8	2,140	14.4	155
		Temp. Trestle System (Stratford)	4.1	44	4.1	44	0.0	0
	Wetland Area 2	New Bridge Pier 9S	17.0	183	17.0	183	0.0	0
		Pier 5E Demolition	92.4	995	92.4	995	0.0	0
Subtotals		0.9	10	0.9	10	0.0	0	
		298.8	3,216	313.2	3,371	14.4	155	
Spartina alterniflora	Wetland Area 1	Trestle System (Stratford)	4.4	47	4.4	47	0.0	0
		New Bridge Pier 9N	50.7	546	47.2	508	(3.5)	(38)
	Wetland Area 2	New Bridge Pier 9M	63.4	682	52.9	569	(10.5)	(113)
		New Bridge Pier 9S	44.0	474	33.5	361	(10.5)	(113)
Subtotals		6.1	66	6.1	66	0.0	0	
		168.6	1,815	144.1	1,551	(24.5)	(264)	
Freshwater Wetland	Wetland Area 3	25.0	269	7.0	75	(18.0)	(194)	

Notes for Tables 1 and 2:

1. The N, M and S designations for new piers denote north, middle and south column, respectively, for each bridge pier.
2. The area of bridge shadow is the additional area of shadow on the wetland areas that results from the larger bridge cross section.
3. The Wetland Area 1 mitigation area consists of 554.4 m² under the new bridge and 147.3 m² that is located south of the new bridge.
4. The Wetland Area 2 mitigation area consists of 308.9 m² under the new bridge and 123.5 m² that is located north of the new bridge.
5. Abbreviations used in this table: sq. m. = square meters; sq. ft. = square feet

Attachment: Permit Application for Programs Administered by OLISP
 Applicant: Connecticut Department of Transportation
 Project: Replacement of the I-95 Bridge Over the Housatonic River, State Project 138-221

Table 3A - Impact and Restoration Areas in Open Water (River Bottom)

Construction Area ¹	Temporary Impact Areas ²		Areas To Be Restored		Net Area Restored (Impacted)	
	sq. m.	sq. ft.	sq. m.	sq. ft.	sq. m.	sq. ft.
New Bridge Pier 5N	3.3	36	3.3	36	0.0	0
New Bridge Pier 5M ⁴	10.5	113	0.0	0	(10.5)	(113)
New Bridge Pier 5S ⁴	10.5	113	0.0	0	(10.5)	(113)
New Bridge Pier 6N	8.5	91	1.0	11	(7.5)	(81)
New Bridge Pier 6M	8.5	91	1.0	11	(7.5)	(81)
New Bridge Pier 6S	8.5	91	1.0	11	(7.5)	(81)
New Bridge Pier 7N	8.5	91	1.0	11	(7.5)	(81)
New Bridge Pier 7M	8.5	91	1.0	11	(7.5)	(81)
New Bridge Pier 7S	8.5	91	1.0	11	(7.5)	(81)
New Bridge Pier 8N	8.5	91	1.0	11	(7.5)	(81)
New Bridge Pier 8M	8.5	91	1.0	11	(7.5)	(81)
New Bridge Pier 8S	8.5	91	1.0	11	(7.5)	(81)
Existing Pier 3W Demolition	225.7	2,429	237.3	2,554	11.6	125
Existing Pier 2W Demolition	180.7	1,945	234.7	2,526	54.0	581
Existing Pier 1W Demolition	240.1	2,584	303.2	3,264	63.1	679
Existing Pier 1E Demolition	240.1	2,584	303.2	3,264	63.1	679
Existing Pier 2E Demolition	180.7	1,945	234.7	2,526	54.0	581
Existing Pier 3E Demolition	217.0	2,336	271.0	2,917	54.0	581
Existing Pier 4E Demolition	174.0	1,873	228.0	2,454	54.0	581
Remove Existing Fender east of Pier 3W	0.0	0	1.7	18	1.7	18
Remove Existing Fender south side of Pier 2W	0.0	0	2.3	25	2.3	25
Remove Exist. Fender System at Navigation Channel	0.0	0	10.1	109	10.1	109
New Fender System at Navigation Channel	15.0	161	0.0	0	(15.0)	(161)
Temporary Fender System	38.0	409	38.0	409	0.0	0
Temporary Trestle System (Stratford)	39.7	427	39.7	427	0.0	0
Temporary Trestle System (Milford)	43.3	466	43.3	466	0.0	0
Totals	1,695.1	18,246	1,959.5	21,092	264.4	2846

Notes for Table 3A:

- The N, M and S designations for new Piers denote north, middle and south column, respectively, for each bridge pier.
- Temporary Impacts Areas are the areas of excavation around any existing or new structures.
- Abbreviations used in this table: sq. m. = square meters; sq. ft. = square feet
- The temporary impact areas at Pier Columns 5M and 5S, except for the column areas, are included within the temporary sheet pile enclosure at existing Pier 3W.

Attachment: Permit Application for Programs Administered by OLISP
 Applicant: Connecticut Department of Transportation
 Project: Replacement of the I-95 Bridge Over the Housatonic River, State Project 138-221

Table 3B - Impact and Restoration Areas in Intertidal Flats

	Construction Area ¹		Temporary Impact Areas ²		Areas To Be Restored		Net Area Restored (Impacted)	
	sq. m.	sq. ft.	sq. m.	sq. ft.	sq. m.	sq. ft.	sq. m.	sq. ft.
New Bridge Pier 5N	60.1	647	49.6	534	(10.5)	(113)		
New Bridge Pier 9N	12.7	137	12.7	137	0.0	0		
New Bridge Pier 9S	2.4	26	2.4	26	0.0	0		
Existing Pier 3W Demolition	171.4	1,845	213.8	2,301	42.4	456		
Existing Pier 4E Demolition	174.0	1,873	228.0	2,454	54.0	581		
Remove Existing Fender east of Pier 3W	0.0	0	0.3	3	0.3	3		
Temporary Trestle System (Stratford)	1.8	19	1.8	19	0.0	0		
Temporary Trestle System (Milford)	3.8	41	3.8	41	0.0	0		
Totals	426.2	4,588	512.4	5,515	86.2	927.8		

Notes for Table 3B:

1. The N, M and S designations for new Piers denote north, middle and south column, respectively, for each bridge pier.
2. Temporary Impacts Areas are the areas of excavation around any existing or new structures.
3. Abbreviations used in this table: sq. m. = square meters; sq. ft. = square feet

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 Project: Replacement of the I-95 Bridge Over the Housatonic River, State Project 138-221

Table 4 - Excavation and Backfill Volumes in Vegetated Wetland Areas below High Tide Line

Wetland Area	Construction Area ¹	Volumes					
		Excavation		Backfill		Net Backfill (Excavation)	
		cu. m.	cy	cu. m.	cy	cu. m.	cy
Wetland Area 1 - Housatonic River (Stratford)	Pier 4W Demolition	266	348	199	260	(67)	(88)
	Wetland Mitigation Area	1,900	2,485	576	753	(1,324)	(1,732)
Wetland Area 2 - Housatonic River (Milford)	New Bridge Pier 9N	245	320	276	361	31	41
	New Bridge Pier 9M	304	398	334	437	30	39
	New Bridge Pier 9S	314	411	344	450	30	39
	Pier 5E Demolition	139	182	92	120	(47)	(61)
	Wetland Mitigation Area	1,100	1,439	426	557	(674)	(882)
Wetland Area 3 - South of Boat Ramp Access Road	Drainage System E (Pond 3)	4	5	3	4	(1)	(1)
Totals		4,272	5,587	2,250	2,943	(2,022)	(2,644)

Notes for Tables 4:

1. The N, M and S designations for new Piers denote north, middle and south column, respectively, for each bridge pier.
2. Abbreviations used in this table: cu. m. = cubic meters; cy = cubic yards
3. Excavations are to be backfilled to match existing grade, except in wetland mitigation areas.
4. Backfill material placed in the wetland mitigation areas is planting substrate/topsoil.

Table 5A - Excavation and Backfill Volumes in the Open Water (River Bottom) below High Tide Line

	Volumes					
	Excavation		Backfill		Net Backfill (Excavation)	
	cu. m.	cy	cu. m.	cy	cu. m.	cy
Construction Area ¹						
New Bridge Pier 5N	6	8	6	8	0	0
New Bridge Pier 5M	224	293	262	343	38	50
New Bridge Pier 5S	90	118	141	184	51	67
New Bridge Pier 6N	182	238	257	336	75	98
New Bridge Pier 6M	234	306	308	403	74	97
New Bridge Pier 6S	192	251	261	341	69	90
New Bridge Pier 7N	152	199	216	283	64	84
New Bridge Pier 7M	169	221	238	311	69	90
New Bridge Pier 7S	168	220	234	306	66	86
New Bridge Pier 8N	174	228	231	302	57	75
New Bridge Pier 8M	130	170	182	238	52	68
New Bridge Pier 8S	118	154	169	221	51	67
Existing Pier 3W Demolition	517	676	470	615	(47)	(61)
Existing Pier 2W Demolition	562	735	474	620	(88)	(115)
Existing Pier 1W Demolition	1,456	1,904	1,022	1,337	(434)	(568)
Existing Pier 1E Demolition	1,512	1,978	1,104	1,444	(408)	(534)
Existing Pier 2E Demolition	887	1,160	552	722	(335)	(438)
Existing Pier 3E Demolition	837	1,095	564	738	(273)	(357)
Remove existing fender system at navigation channel	179	234	0	0	(179)	(234)
New fender system at navigation channel	0	0	246	322	246	322
Remove existing fender at Pier 3W	9	12	0	0	(9)	(12)
Remove existing fender at Pier 2W	51	67	0	0	(51)	(67)
Totals	7,849	10,266	6,937	9,074	(912)	(1,193)

Notes for Table 5A:

- The N, M and S designations for new Piers denote north, middle and south column, respectively, for each bridge pier.
- The removal of existing fender system within the temporary sheet pile enclosure at Pier 3W is included in the excavation quantities for Existing Pier 3W. The separate quantity for existing fender system removal at Pier 3W is for the section located south of the temporary sheet pile enclosure.
- Abbreviations used in this table: cu. m. = cubic meters, cy = cubic yards
- Excavations are to be backfilled to match existing grade.
- The top 1-meter of backfill material placed in excavations in open water areas shall be a soil mix to approximate the textural class of the existing soil removed from each area. Backfill material below the 1-meter depth shall be granular fill.

Attachment: Permit Application for Programs Administered by OLISP
 Applicant: Connecticut Department of Transportation
 Project: Replacement of the I-95 Bridge Over the Housatonic River, State Project 138-221

Table 5B - Excavation and Backfill Volumes in Intertidal Flats below High Tide Line

Construction Area ¹	Volumes					
	Excavation		Backfill		Net Backfill (Excavation)	
	cu. m.	cy	cu. m.	cy	cu. m.	cy
New Bridge Pier 5N	210	275	245	320	35	46
New Bridge Pier 9N	30	39	30	39	0	0
New Bridge Pier 9S	6	8	6	8	0	0
Existing Pier 3W Demolition	458	599	416	544	(42)	(55)
Existing Pier 4E Demolition	476	623	324	424	(152)	(199)
Totals	1,180	1,543	1,021	1,335	(159)	(208)

Notes for Table 5B:

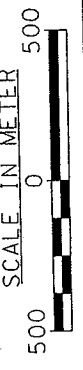
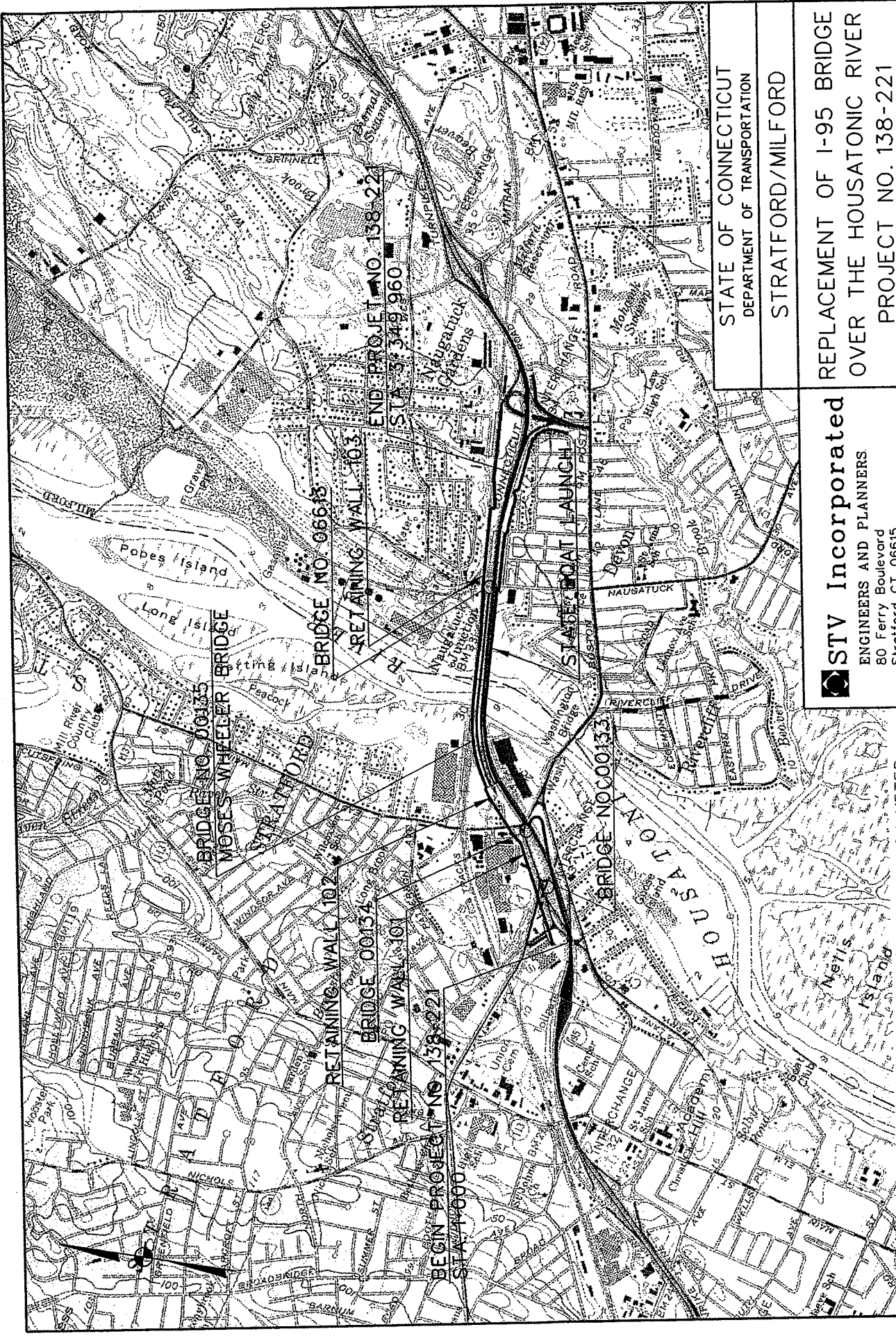
1. The N, M and S designations for new Piers denote north, middle and south column, respectively, for each bridge pier.
2. Abbreviations used in this table: cu. m. = cubic meters, cy = cubic yards
3. Excavations are to be backfilled to match existing grade.
4. Backfill material placed in excavations in the top 1 meter of intertidal flat areas to be a soil mix to approximate the textural class of the existing soil removed at each excavation area. Backfill material below 1 meter depth to be granular fill.

Table 6 - Impacts to Regulated Areas for Reconstruction of the Boat Launch Ramp

Impact	Quantity		
	sq.m.	sq.ft.	ac.
Vegetated Wetland Area Impacted below High Tide Line	43	463	0.0106
Vegetated Wetland Area Restored below High Tide Line	104	1,119	0.0257
Net Area Vegetated Wetland Restored (Impacted)	61	656	0.0150
Open Water (River Bottom) Area Impacted ¹	170	1,830	0.0421
Open Water (River Bottom) Area Restored ¹	115	1,238	0.0284
Net Area Open Water (River Bottom) Restored (Impacted) ¹	(55)	(592)	(0.0136)
Intertidal Flats Area Impacted below High Tide Line ²	21	226	0.005
Intertidal Flats Area Restored below High Tide Line ²	16	172	0.004
Net Area Intertidal Flats Restored (Impacted) ²	(5)	(54)	(0.0010)
Excavation Volume in Vegetated Wetland Area	0 cu.m.	0 cy	-
Backfill Volume in Vegetated Wetland Area	11 cu.m.	14 cy	-
Net Volume of Backfill (Excavation) in Vegetated Wetland Area	11 cu.m.	14 cy	-
Excavation Volume in Open Water (River Bottom) ¹	31 cu.m.	41 cy	-
Backfill Volume in Open Water (River Bottom) ¹	10 cu.m.	13 cy	-
Net Volume of Backfill (Excavation) in Open Water ¹	(21) cu.m.	(27) cy	-
Excavation Volume in Intertidal Flats ²	2 cu.m.	3 cu.m.	-
Backfill Volume in Intertidal Flats ²	2 cu.m.	3 cu.m.	-
Net Volume of Backfill (Excavation) in Intertidal Flats ²	0 cu.m.	0 cu.m.	-
Total Excavation Volume below High Tide Line	605 cu.m.	791 cy	-
Total Backfill Volume below High Tide Line	480 cu.m.	628 cy	-
Net Volume of Backfill (Excavation) below High Tide Line	(125) cu.m.	(163) cy	-

Notes for Table 6:

- Open water (river bottom) is the area below the mean low water elevation.
- Intertidal flats is the area between the lower limit of wetland vegetation and mean low water. The intertidal flats at the boat launch ramp site is located south of the existing stone groin being removed to the south of the existing boat launch ramp.
- Abbreviations used in table: sq.m. = square meter; sq.ft. = square feet; ac. = acres; cu.m. = cubic meter; cy = cubic yard



SOURCE: USGS QUADRANGLE - MILFORD, CT PHOTO REVISED 1984
AND BRIDGEPORT, CT PHOTO REVISED IN 1984

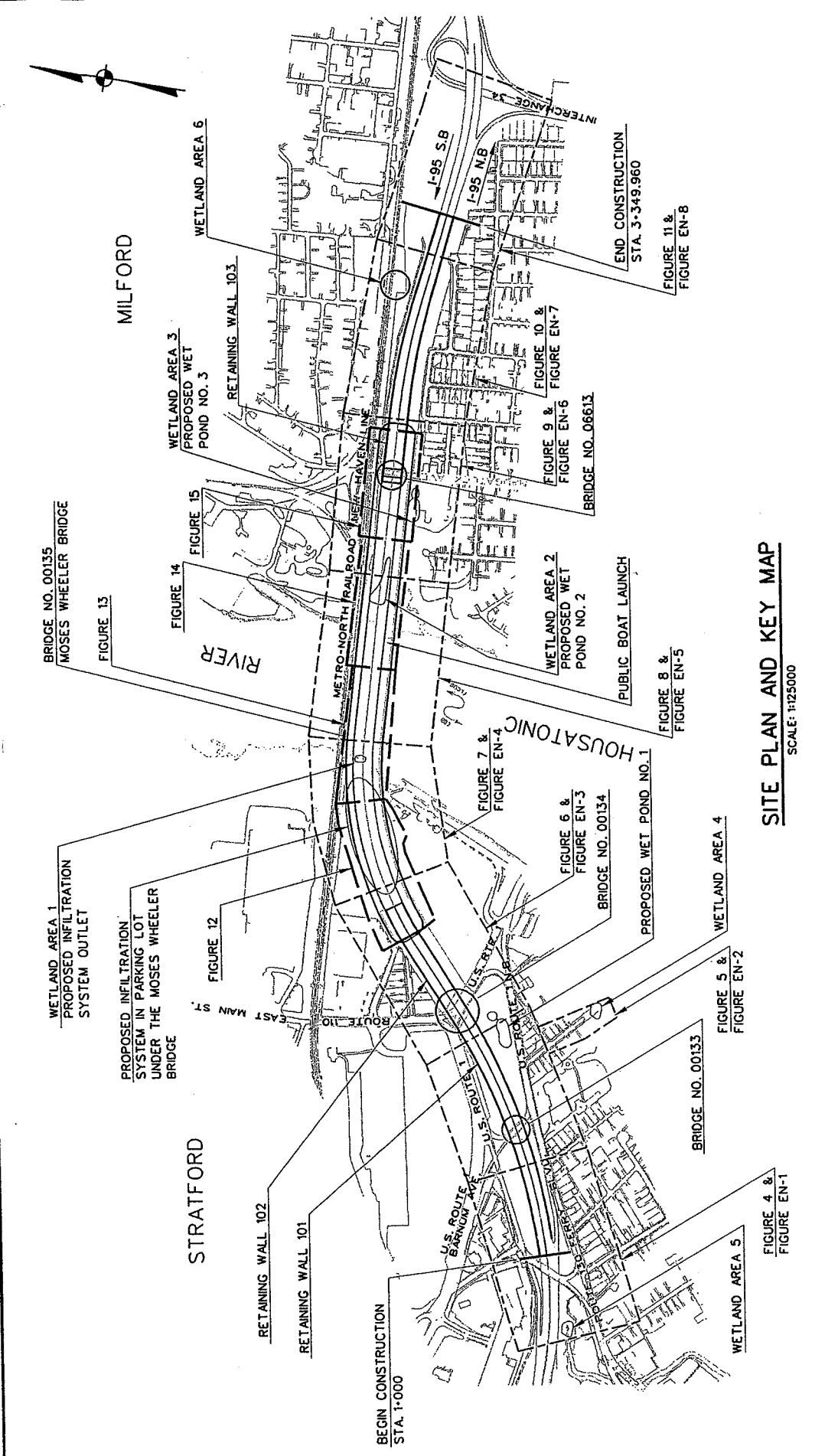
STATE OF CONNECTICUT
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STRATFORD/MILFORD

REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

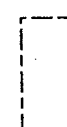
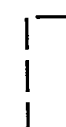
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DATE: 11/11/05 LOCATION PLAN FIG. 1

OLISP PLATES



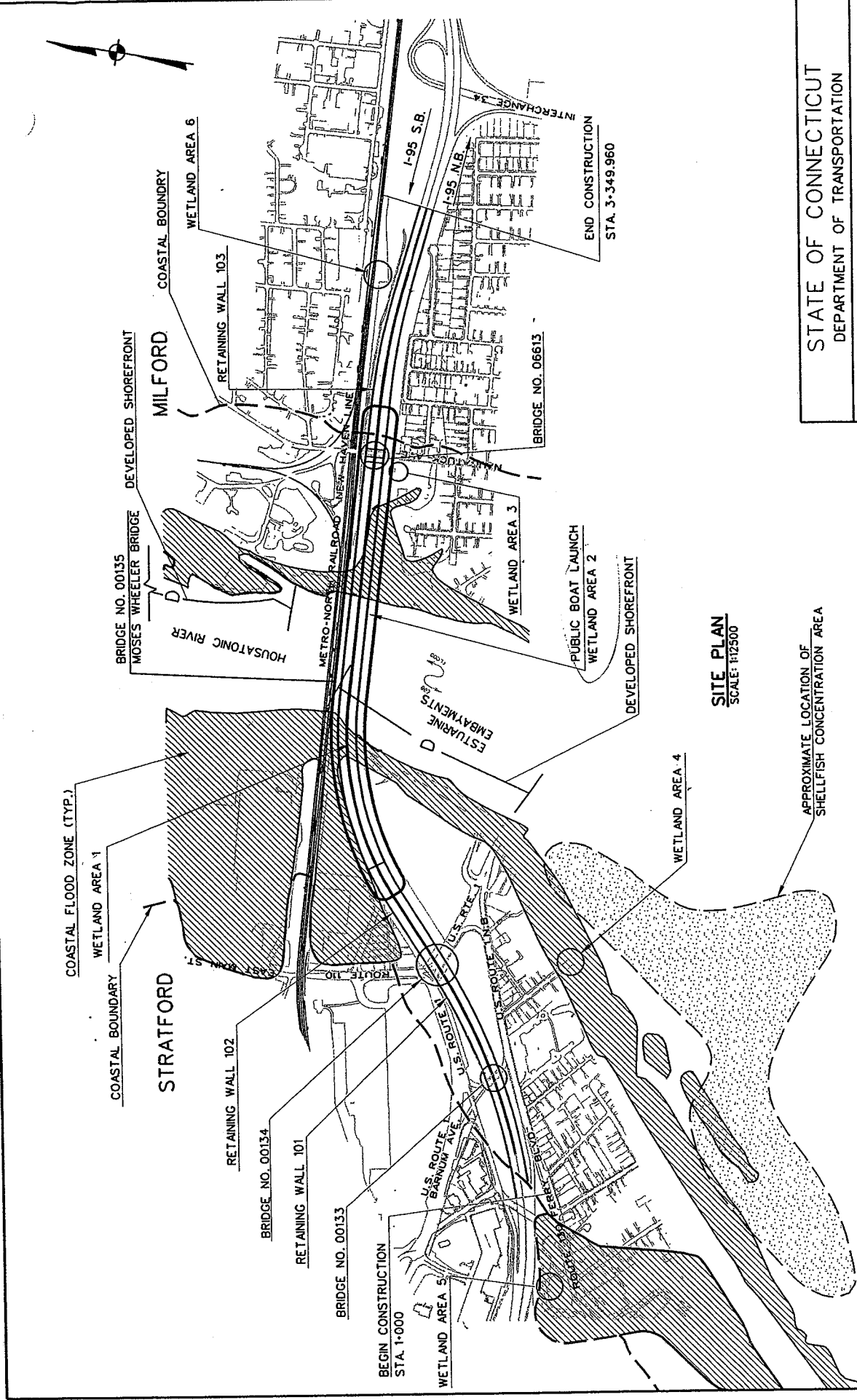
SITE PLAN AND KEY MAP
SCALE: 1:125000

-  HIGHWAY FIGURE BOUNDARY
(FIG. 4 TO 11 AND EN-1 TO EN-8)
-  BRIDGE FIGURE BOUNDARY
(FIG. 12 TO 15)

NOTE: ALL STATIONING AND DIMENSIONS ARE IN METERS UNLESS NOTES OTHERWISE

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STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	DATE: 11/11/05	SITE PLAN & KEY MAP	FIG. 2
STRATFORD/MILFORD					

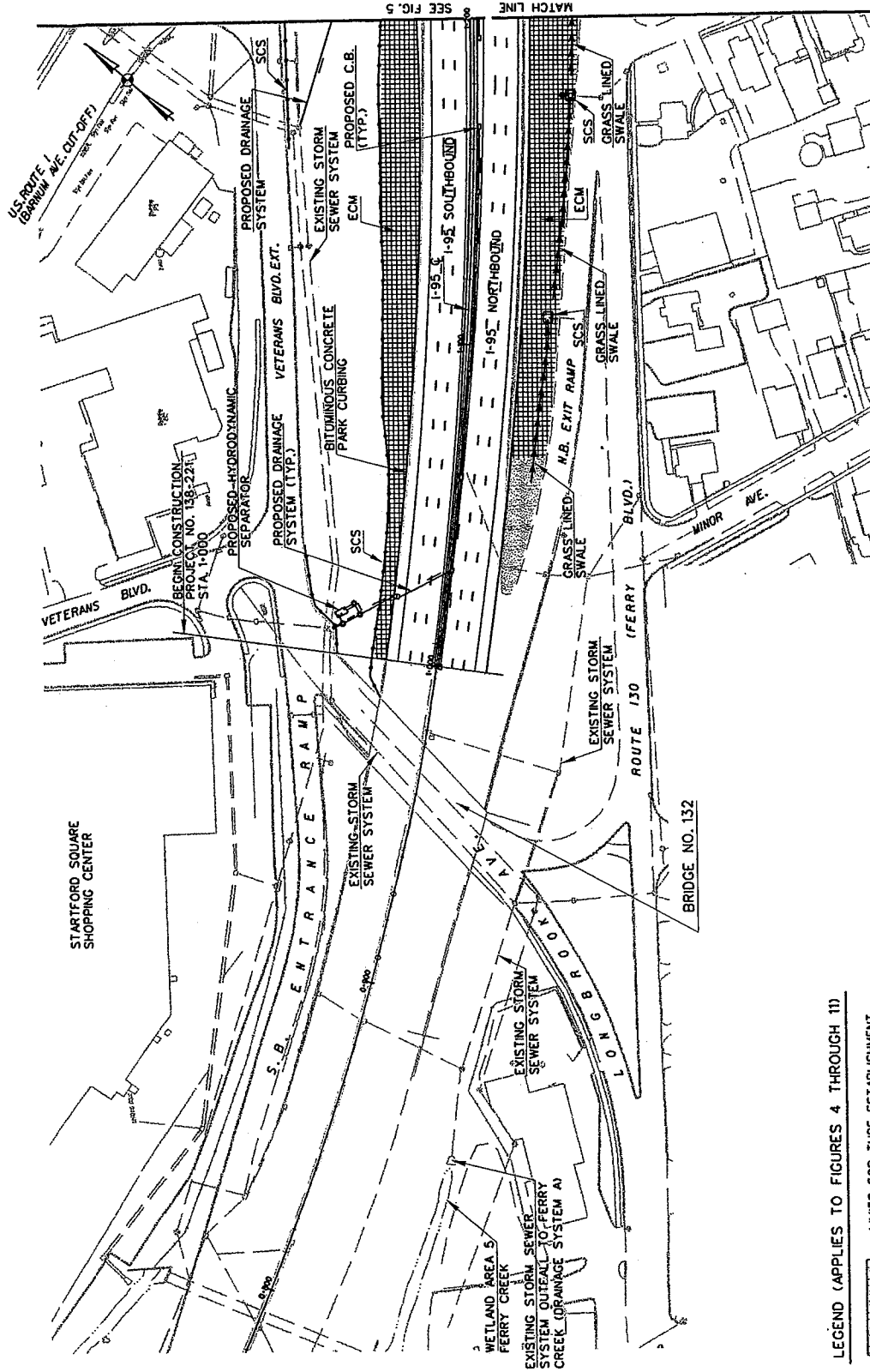


SITE PLAN
SCALE: 1:2500

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	
STRATFORD/MILFORD	
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	
DATE: 11/11/05	COASTAL RESOURCES
FIG. 3	

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LIMITS OF COASTAL RESOURCES ARE BASED ON CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION MAP TITLED "COASTAL RESOURCES", DATED 1979, MILFORD, CT QUADRANGLE
LIMITS OF SHELLFISH CONCENTRATION AREA IS BASED ON CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION MAP TITLED "SHELLFISH CONCENTRATION AREAS", DATED 1979, MILFORD, CT QUADRANGLE



GENERAL HIGHWAY PLAN
SCALE: 1/2"=100'

LEGEND (APPLIES TO FIGURES 4 THROUGH 11)

- LIMITS FOR TURF ESTABLISHMENT AND FURNISH AND PLACING SOIL
- GRASS LINED DRAINAGE SWALE (UNLESS NOTED OTHERWISE)
- SEDIMENTATION CONTROL SYSTEMS (SCS)
 - HAY BALES OR GEOTEXTILE FENCE SYSTEM AT TOE OF FILL SLOPE
 - HAY BALES OR GEOTEXTILE FENCE AT CATCH BASINS IN A DEPRESSION
 - HAY BALES OR GEOTEXTILE FENCE CHECK DAM IN DRAINAGE SWALE
- EROSION CONTROL MATTING (ECM) ON EMBANKMENTS, INCLUDES TOPSOIL AND TURF ESTABLISHMENT

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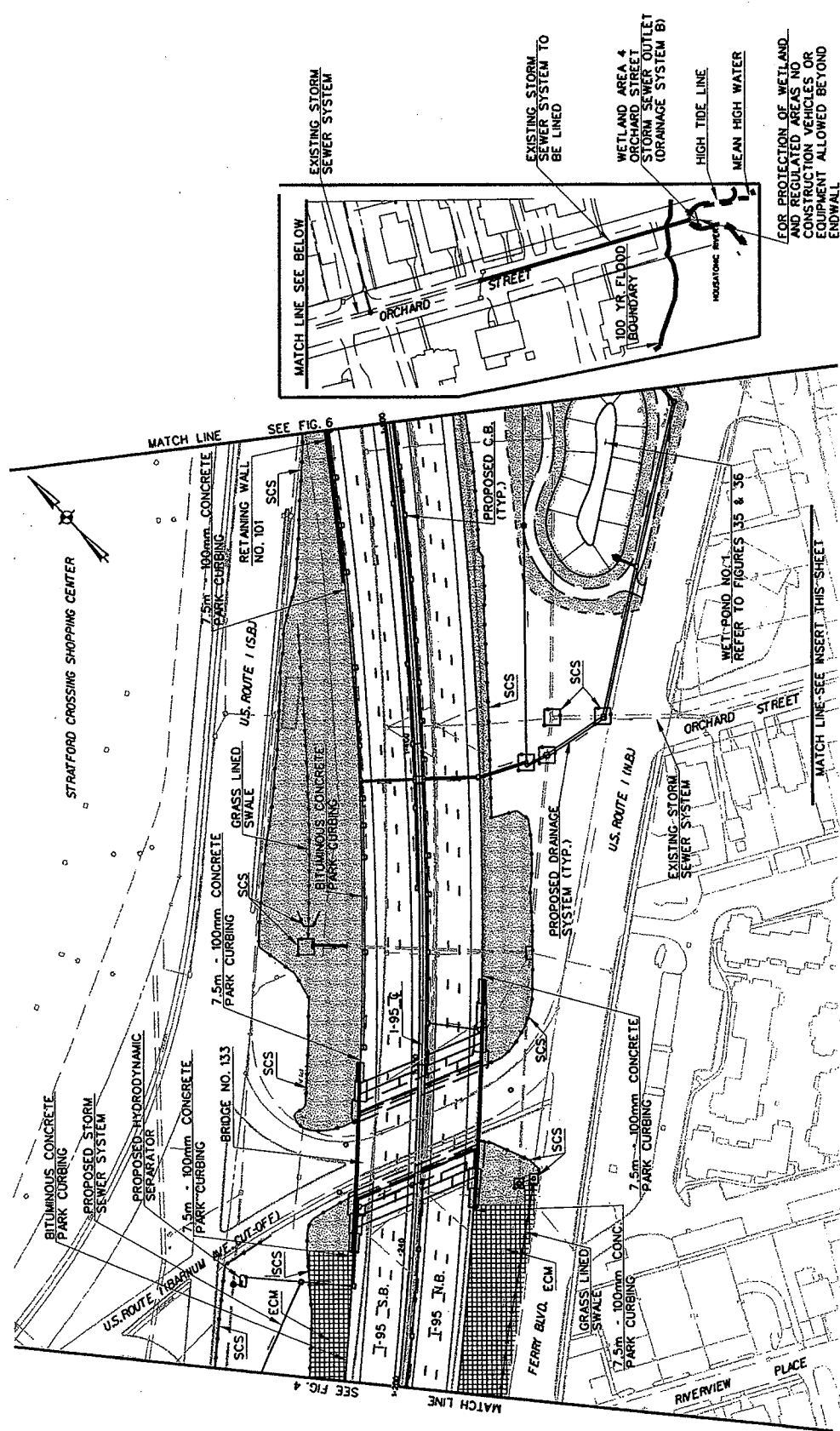
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REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

DATE: 11/11/05

HIGHWAY PLAN

FIG. 4



- NOTES:
1. PROPOSED WET POND NO. 1 AREA WILL BE USED AS AN EQUIPMENT STAGING AND WASTE STOCKPILE AREA. THE PROPOSED POND WILL BE CONSTRUCTED DURING THE FINAL CONSTRUCTION STAGE OF THE PROJECT.
 2. AREAS WITHIN THE STATE RIGHT OF WAY WILL BE USED FOR EQUIPMENT STAGING AND WASTE STOCKPILE AREAS.

WATER ELEVATIONS		NAVD 1988 (m)	NGVD 1929 (ft.)
DATUM			
MEAN LOW WATER	-1.15	-2.5	
MEAN HIGH WATER	0.91	4.1	
HIGH TIDE LINE	1.41	5.7	
100 YEAR FLOOD ELEVATION	2.72	10	

NOTE: PROJECT USES NAVD 1988 DATUM

- LEGEND
- MEAN HIGH WATER ELEVATION
 - HIGH TIDE LINE
 - 100 YEAR FLOOD BOUNDARY

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

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REPLACEMENT OF I-95 BRIDGE
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PROJECT NO. 138-221

DATE: 11/11/05

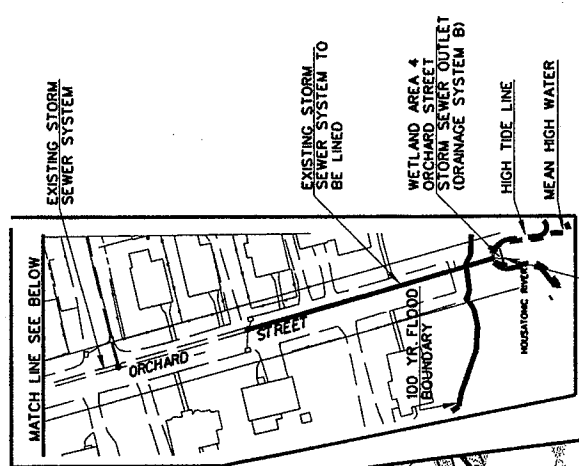
HIGHWAY PLAN

FIG. 5

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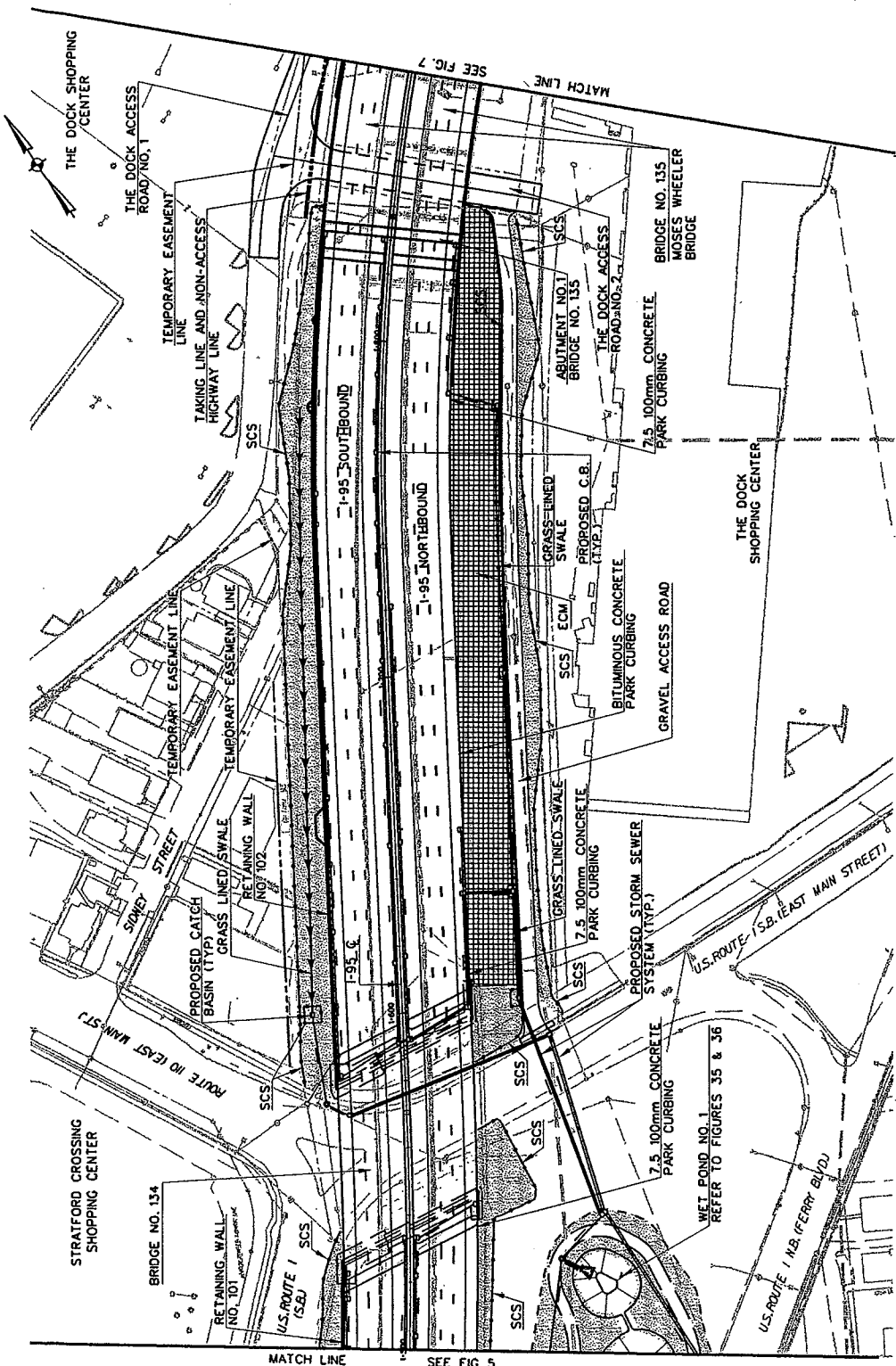
GENERAL HIGHWAY PLAN
SCALE: 1"=200'

FOR PROTECTION OF WETLAND AND REGULATED AREAS NO CONSTRUCTION VEHICLES OR EQUIPMENT ALLOWED BEYOND ENDWALL



STRATFORD CROSSING SHOPPING CENTER

STRATFORD CROSSING SHOPPING CENTER



GENERAL HIGHWAY PLAN
SCALE: 1/2"=100'

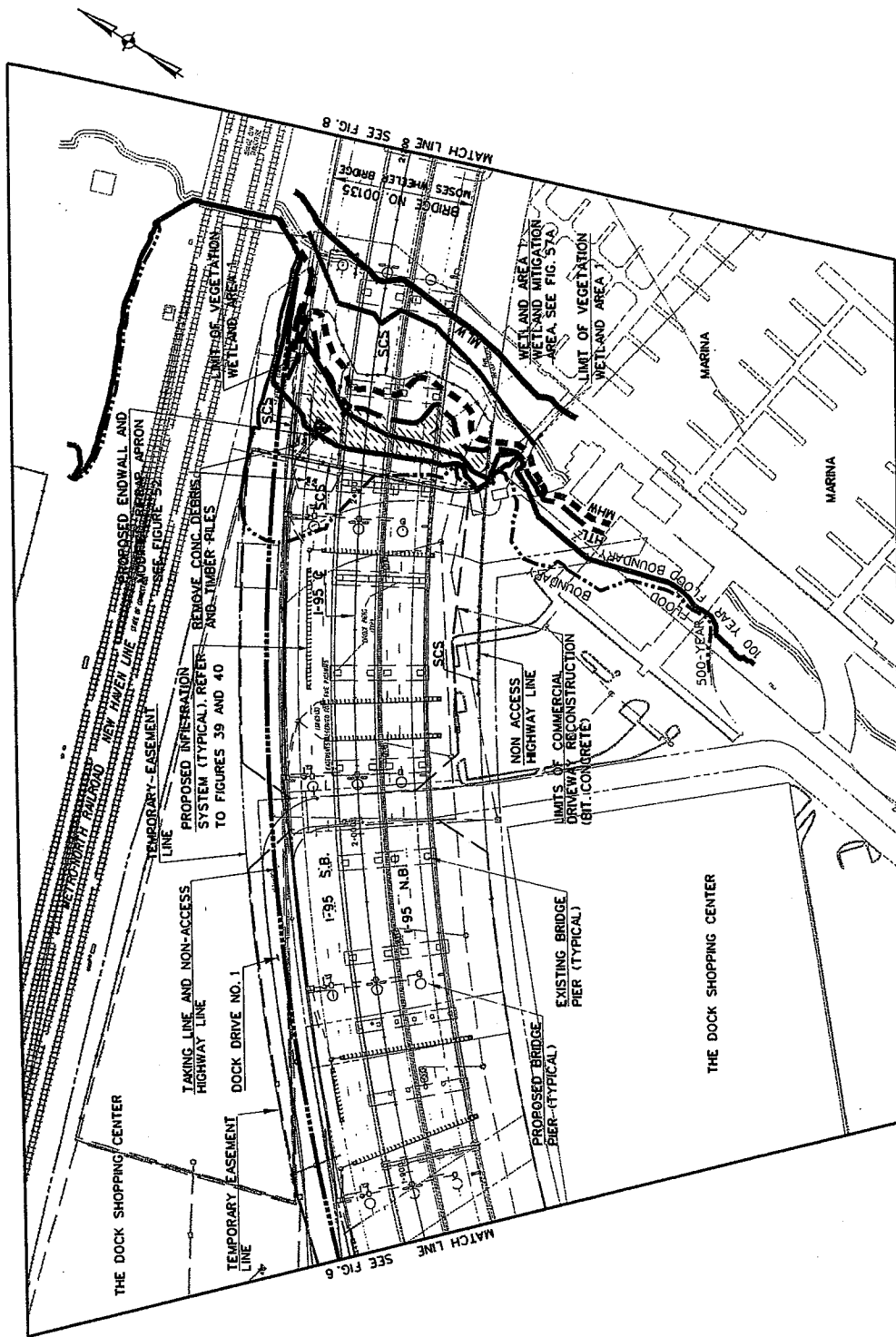
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
STRATFORD/MILFORD

REPLACEMENT OF I-95 BRIDGE
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PROJECT NO. 138-221

DATE: 11/11/05
HIGHWAY PLAN
FIG. 6

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- NOTES:
1. PROPOSED WET POND NO. 1 AREA WILL BE USED AS AN EQUIPMENT STAGING AND WASTE STOCKPILE AREA. THE PROPOSED POND WILL BE CONSTRUCTED DURING THE FINAL CONSTRUCTION STAGE OF THE PROJECT.
 2. AREAS WITHIN THE STATE RIGHT OF WAY WILL BE USED FOR EQUIPMENT STAGING AND WASTE STOCKPILE AREAS.



GENERAL HIGHWAY PLAN
SCALE: 1"=2000'

WATER ELEVATIONS DATUM	NAVD 1988 (m)	NGVD 1929 (ft.)
MEAN LOW WATER	-1.10	-2.5
MEAN HIGH WATER	0.91	4.1
HIGH TIDE LINE	1.41	5.7
100 YEAR FLOOD ELEVATION	2.72	10

NOTE: PROJECT USES NAVD 1988 DATUM

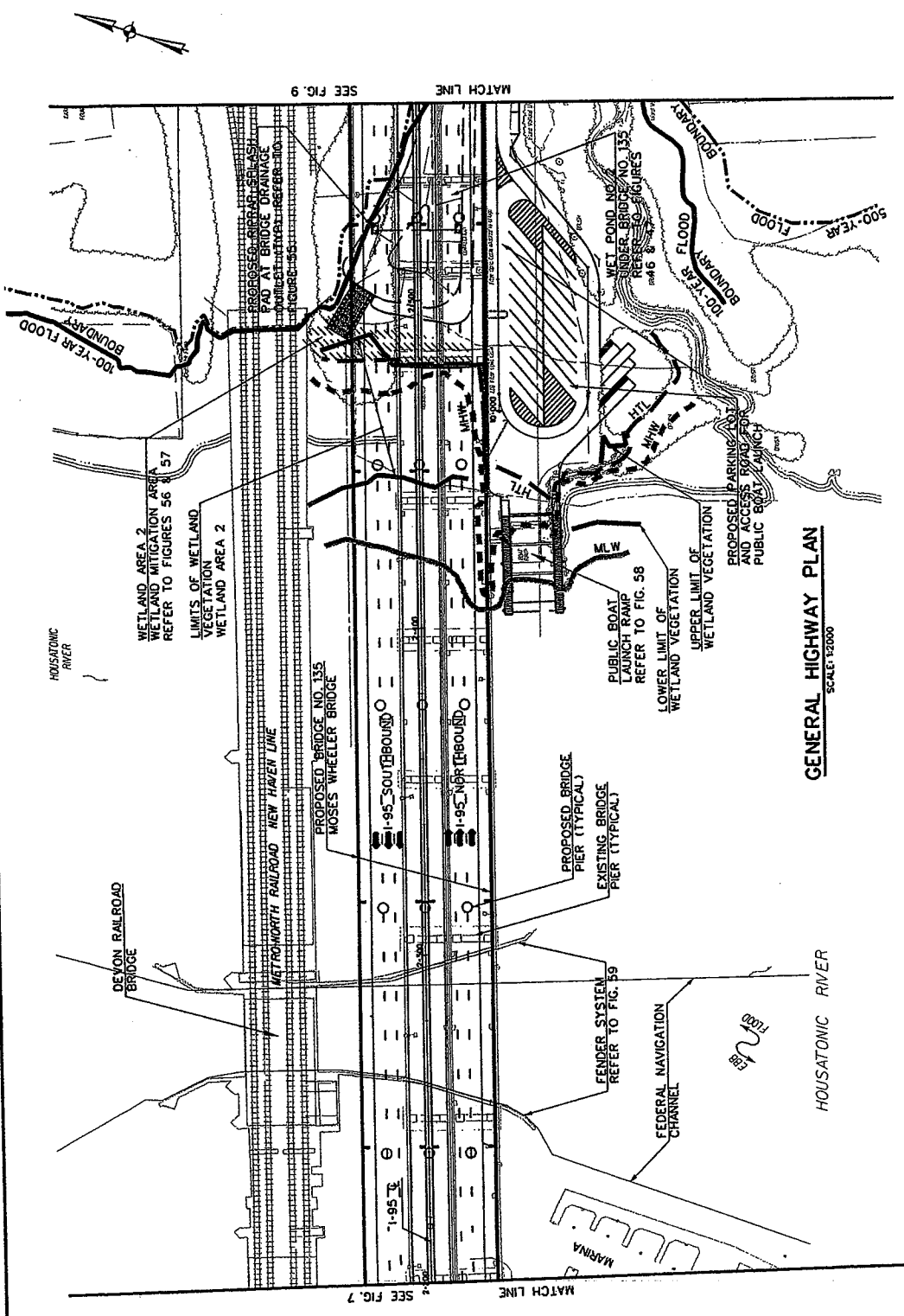
- LEGEND**
- MLW MEAN LOW WATER ELEVATION
 - MHW MEAN HIGH WATER ELEVATION
 - HTL HIGH TIDE LINE
 - WETLAND VEGETATION LIMIT
 - 100 YEAR FLOOD BOUNDARY
 - 500 YEAR FLOOD BOUNDARY

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
STRATFORD/MILFORD

REPLACEMENT OF I-95 BRIDGE
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PROJECT NO. 138-221

DATE: 11/22/06
HIGHWAY PLAN
FIG. 7

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GENERAL HIGHWAY PLAN
SCALE: 1/2"=100'

WATER ELEVATIONS		NAVD 1988 (m)	NGVD 1929 (ft.)
DATUM			
MEAN LOW WATER		-1.10	-2.5
MEAN HIGH WATER		0.91	4.1
HIGH TIDE LINE		1.41	5.7
100 YEAR FLOOD ELEVATION		2.72	10

NOTE: PROJECT USES NAVD 1988 DATUM

- LEGEND:**
- MLW MEAN LOW WATER ELEVATION
 - MHW MEAN HIGH WATER ELEVATION
 - HTL HIGH TIDE LINE
 - WETLAND VEGETATION LIMIT
 - 100 YEAR FLOOD BOUNDARY
 - 500 YEAR FLOOD BOUNDARY

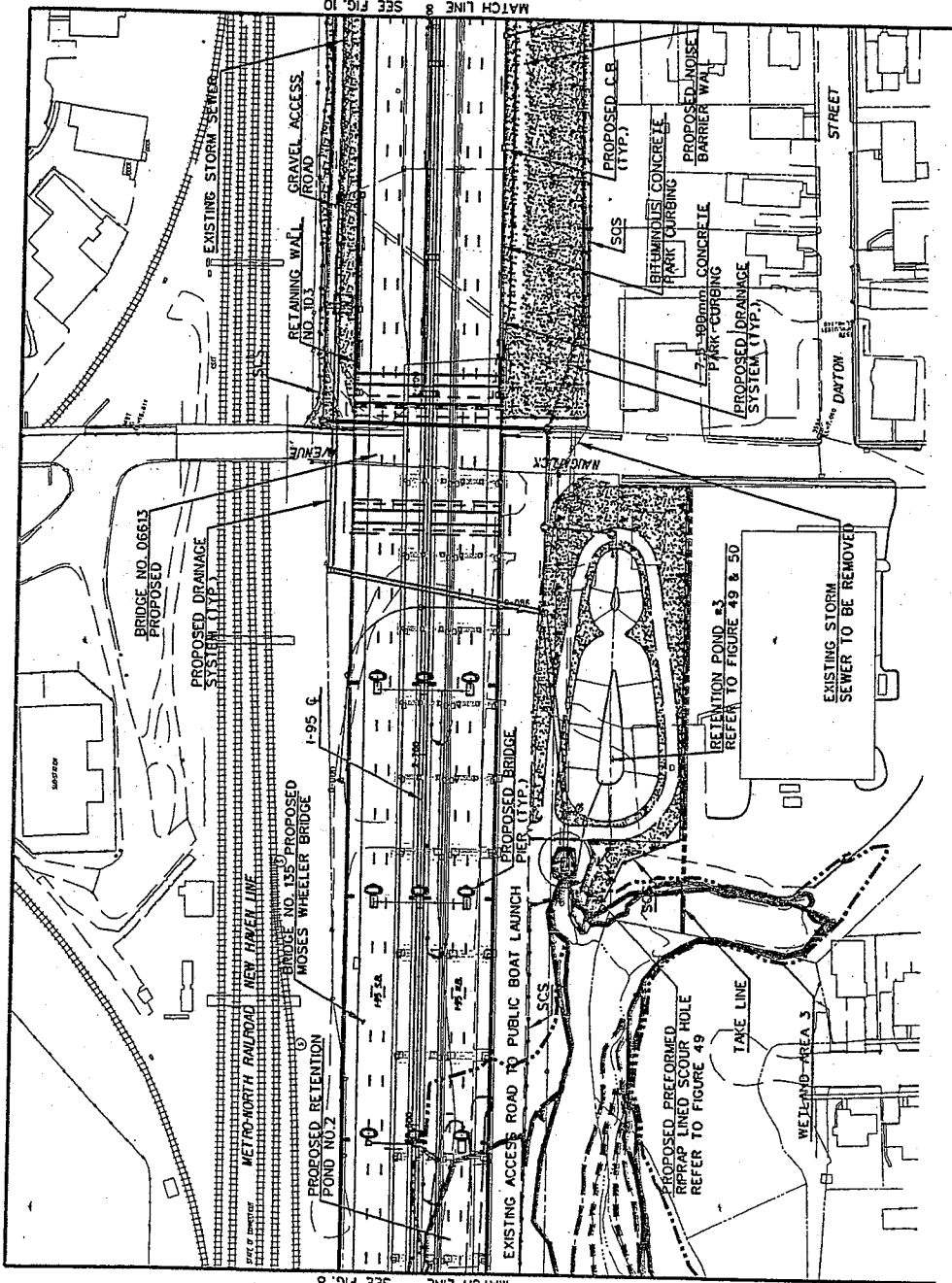
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

STRATFORD/MILFORD

REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

DATE: 11/22/06
HIGHWAY PLAN
FIG. 8

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NOTE:
THE AREA BENEATH THE EXISTING BRIDGE AND ACCESS ROAD WILL BE USED AS AN EQUIPMENT STAGING AREA.

GENERAL HIGHWAY PLAN
SCALE: 1"=2000'

WATER ELEVATIONS		NAVD 1988 (ft)	NGVD 1929 (ft)
DATUM			
MEAN LOW WATER		-1.15	-2.5
MEAN HIGH WATER		0.91	4.1
HIGH TIDE LINE		1.41	5.7
100 YEAR FLOOD ELEVATION		2.72	10

NOTE: PROJECT USES NAVD 1988 DATUM

- LEGEND**
- MLW MEAN LOW WATER ELEVATION
 - MHW MEAN HIGH WATER ELEVATION
 - HTL HIGH TIDE LINE
 - WETLAND VEGETATION LIMIT
 - 100 YEAR FLOOD BOUNDARY
 - 500 YEAR FLOOD BOUNDARY

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DEPARTMENT OF TRANSPORTATION

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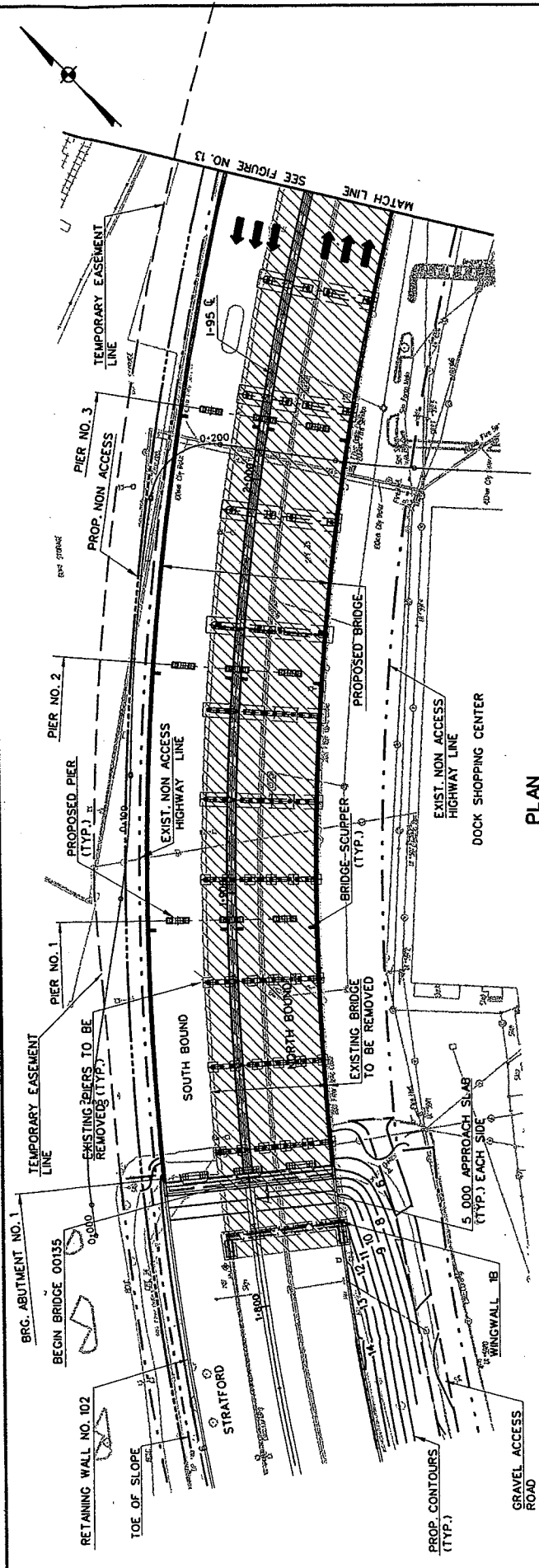
REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

DATE: 10-20-03

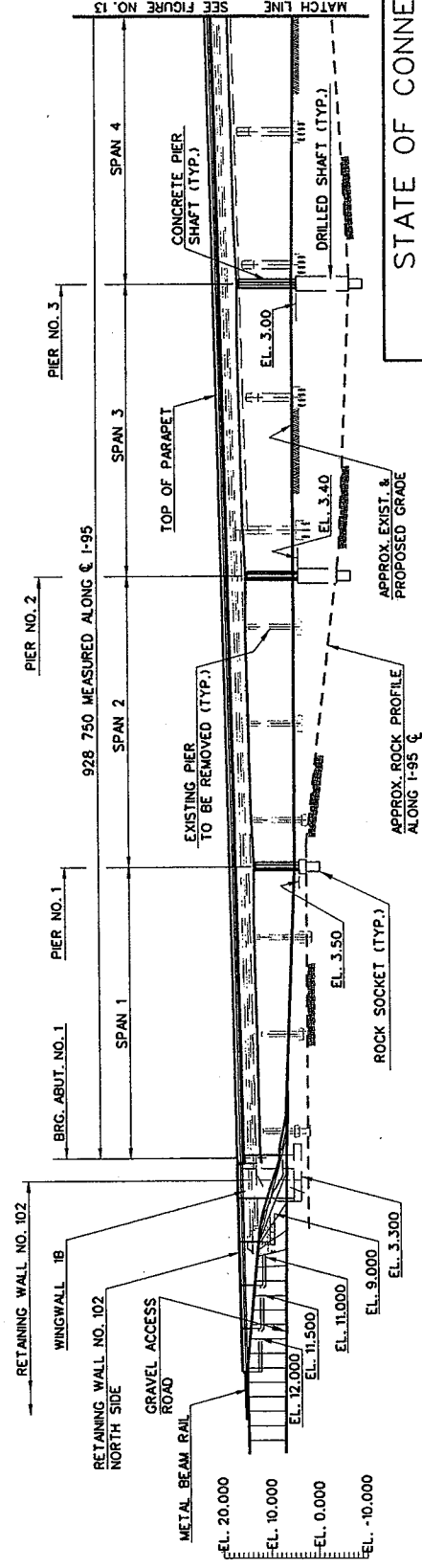
HIGHWAY PLAN

FIG. 9

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PLAN
SCALE: 1/1500



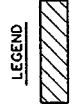
ELEVATION - SOUTH FASCIA
SCALE: 1/1500

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REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

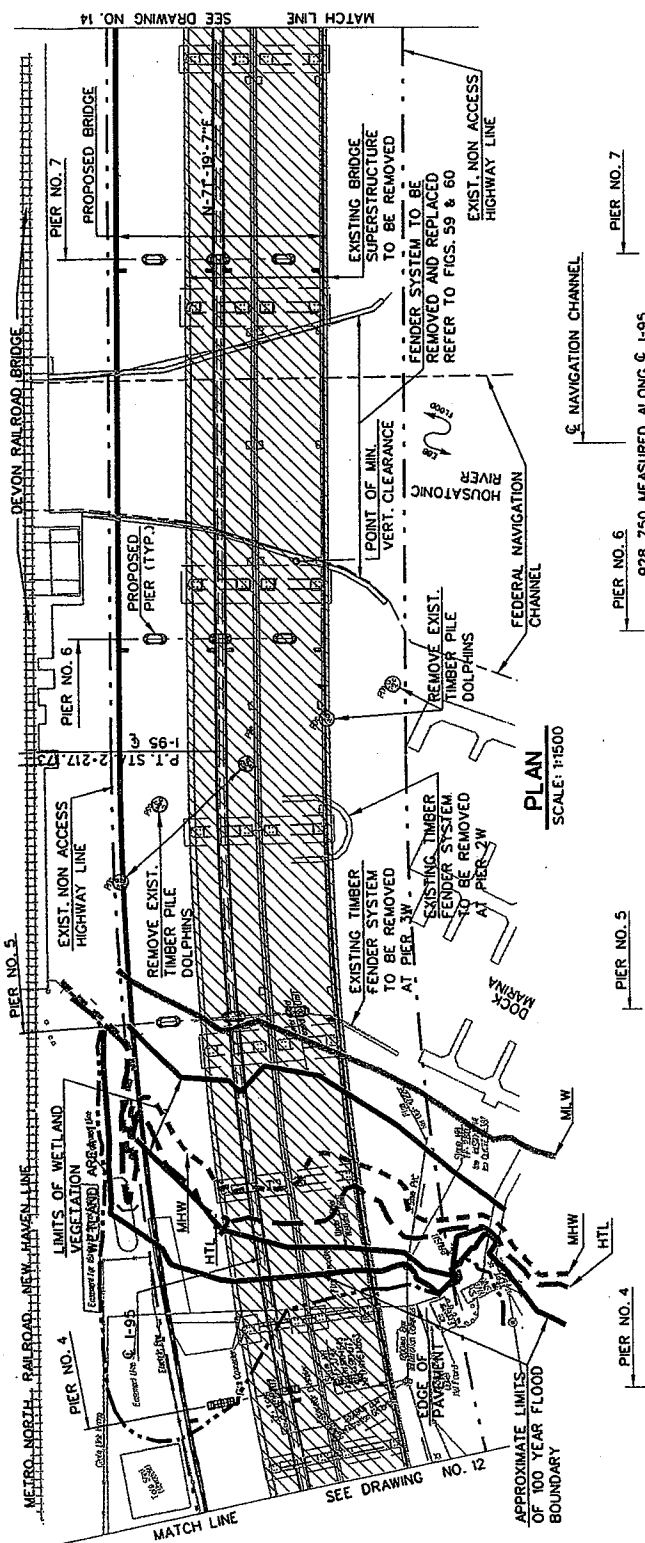
DATE: 11/11/05
GENERAL BRIDGE PLAN
FIG. 12

NOTE: THIS PORTION OF THE PROJECT IS ABOVE THE 100 YEAR FLOOD ZONE.

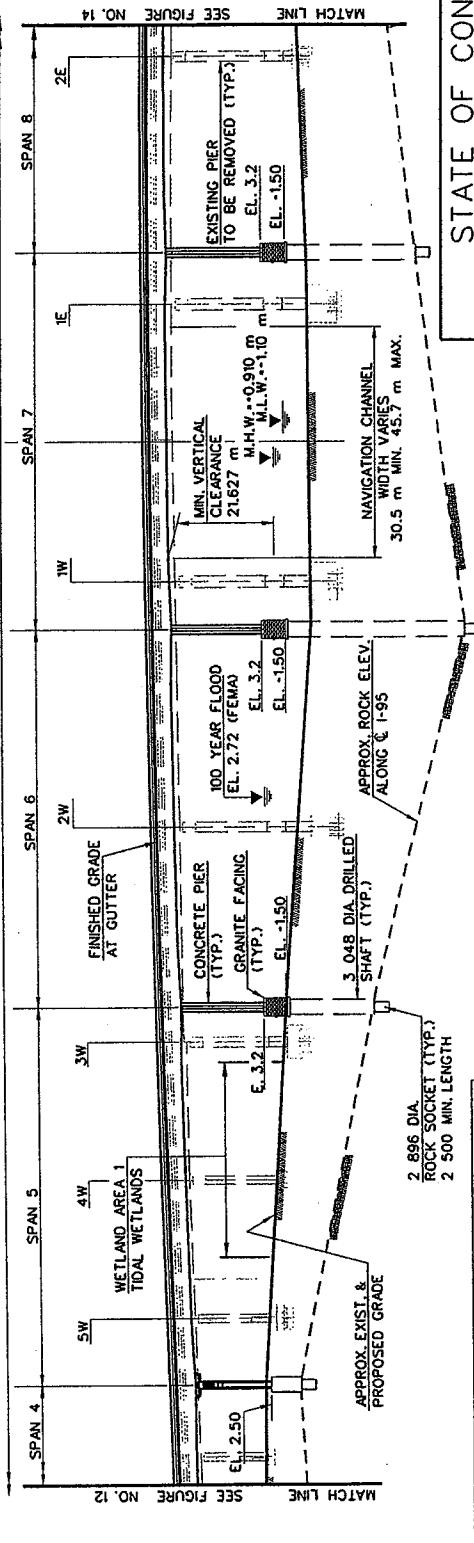


LIMITS OF EXISTING MOSES WHEELER BRIDGE

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PLAN
SCALE: 1"=500'



ELEVATION - SOUTH FASCIA
SCALE: 1"=500'

WATER ELEVATIONS

DATUM	NAVD 1988 (m)	NGVD 1929 (ft.)
MEAN LOW WATER	-1.10	+2.5
MEAN HIGH WATER	0.91	4.1
HIGH TIDE LINE	1.41	5.7
100 YEAR FLOOD ELEVATION	2.72	10

NOTE: PROJECT USES NAVD 1988 DATUM

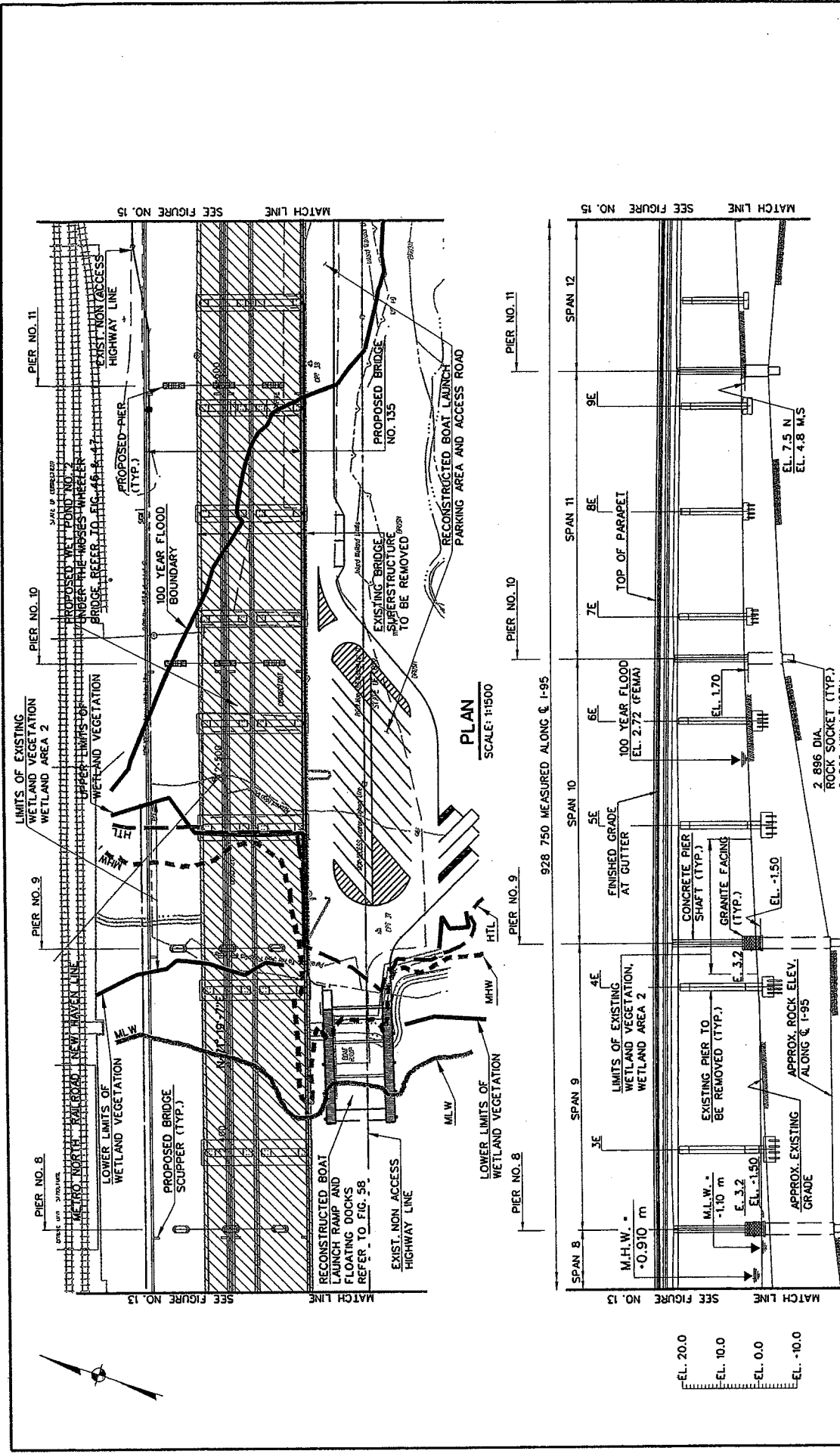
- LEGEND**
- MLW ——— MEAN LOW WATER ELEVATION
 - MHW ——— MEAN HIGH WATER ELEVATION
 - HTL ——— HIGH TIDE LINE
 - WETLAND VEGETATION LIMIT
 - 100 YEAR FLOOD BOUNDARY
 - 500 YEAR FLOOD BOUNDARY
 - ▨ LIMITS OF EXISTING MOSES WHEELER BRIDGE

STATE OF CONNECTICUT
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**REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER**
PROJECT NO. 138-221

DATE: 11/22/06
GENERAL BRIDGE PLAN
FIG. 13

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REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

DATE: 11/22/06
GENERAL BRIDGE PLAN

FIG. 14

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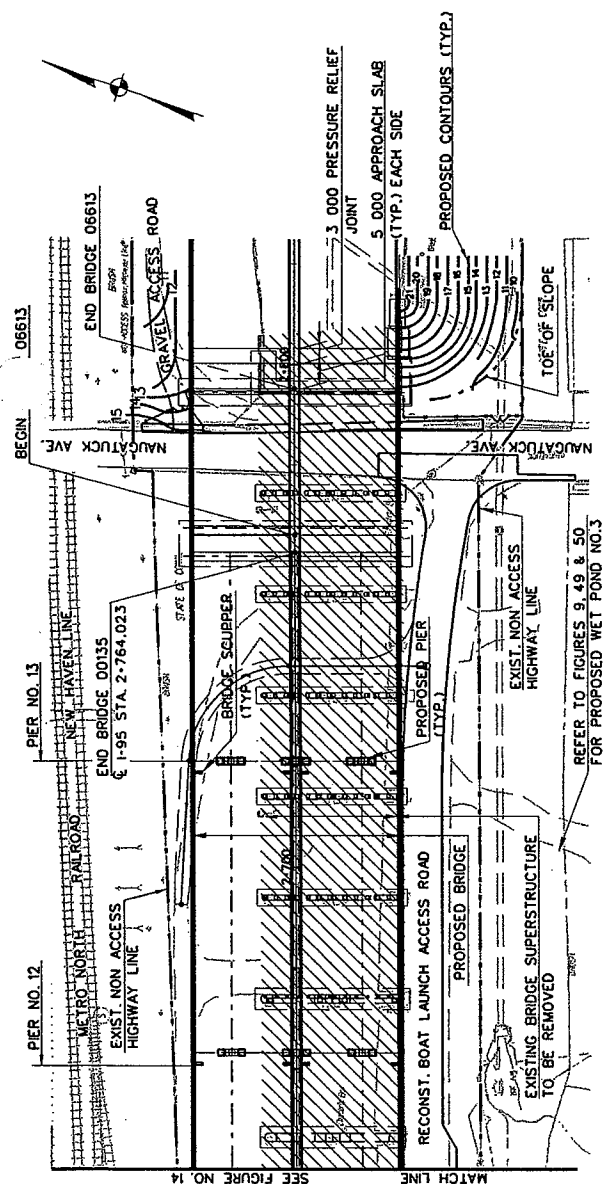
ELEVATION - SOUTH FASCIA
SCALE: 1/500

WATER ELEVATIONS

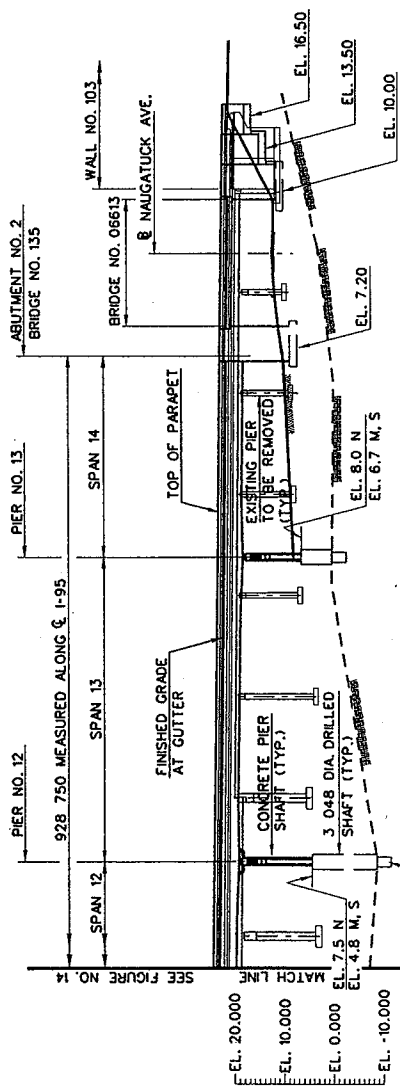
DATUM	NAVD 1988 (m)	NGVD 1929 (ft)
MEAN LOW WATER	-1.10	-2.5
MEAN HIGH WATER	0.91	4.1
HIGH TIDE LINE	1.41	5.7
100 YEAR FLOOD ELEVATION	2.72	10

NOTE: PROJECT USES NAVD 1988 DATUM

- LEGEND
- MLW MEAN LOW WATER ELEVATION
 - MHW MEAN HIGH WATER ELEVATION
 - HTL HIGH TIDE LINE
 - WETLAND VEGETATION LIMIT
 - 100 YEAR FLOOD BOUNDARY
 - 500 YEAR FLOOD BOUNDARY
- LIMITS OF EXISTING MOSES WHEELER BRIDGE



PLAN
SCALE: 1"=500'



ELEVATION - SOUTH FASCIA
SCALE: 1"=500'

LEGEND
 LIMITS OF EXISTING MOSES WHEELER BRIDGE

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION
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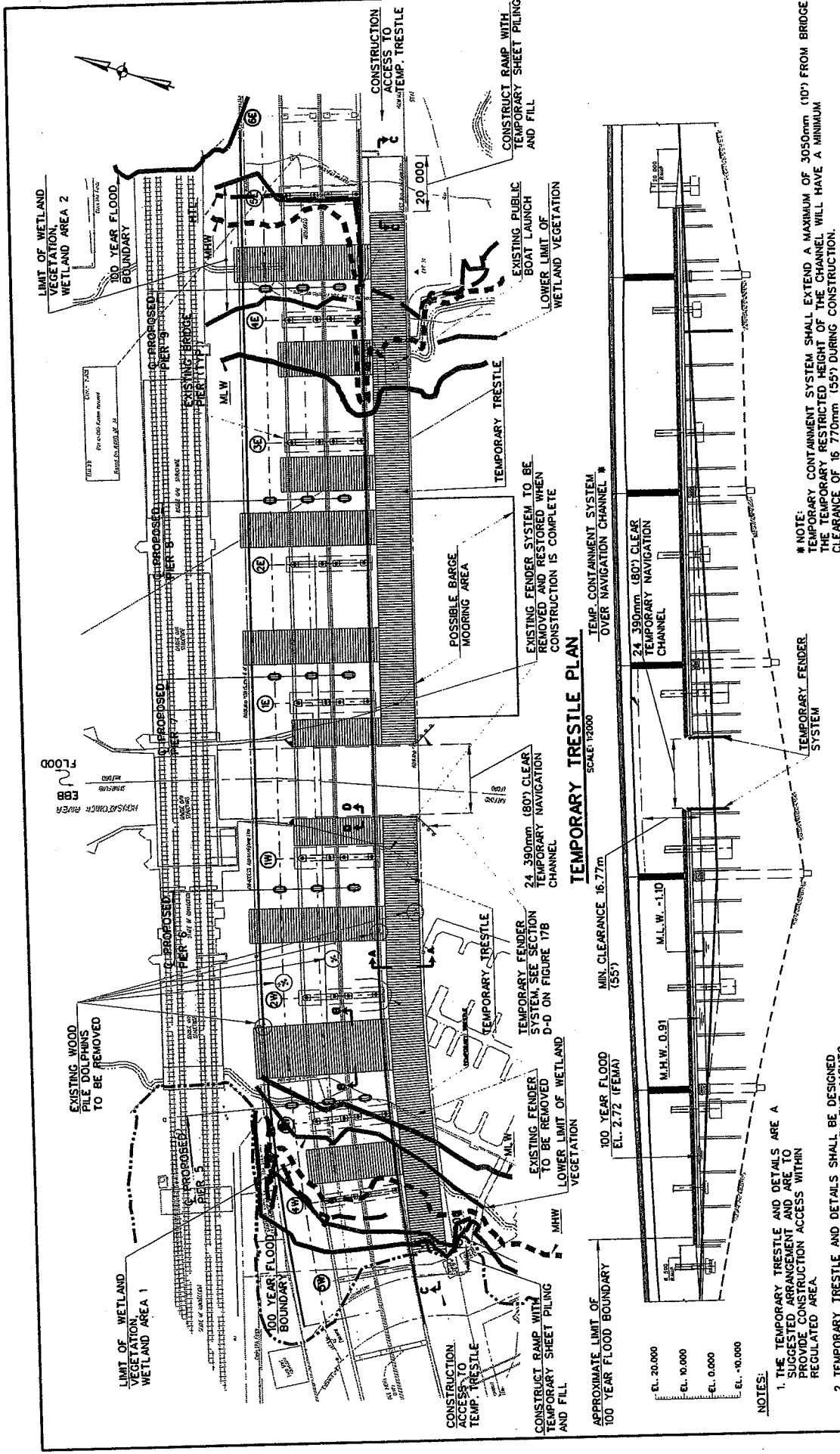
REPLACEMENT OF I-95 BRIDGE
 OVER THE HOUSATONIC RIVER
 PROJECT NO. 138-221

DATE: 11/11/05
 GENERAL BRIDGE PLAN
 FIG. 15

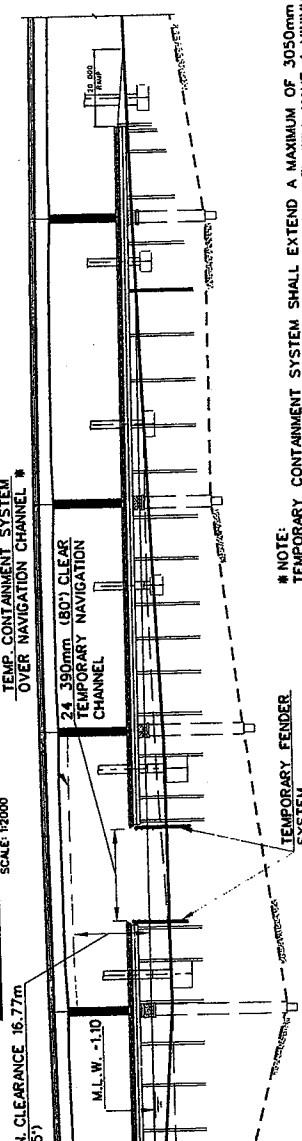
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WATER ELEVATIONS		
DATUM	NAVD 1988 (m)	NGVD 1929 (ft)
MEAN LOW WATER	-1.15	-2.5
MEAN HIGH WATER	0.91	4.1
HIGH TIDE LINE	1.41	5.7
100 YEAR FLOOD ELEVATION	2.72	10

NOTE: PROJECT USES NAVD 1988 DATUM



TEMPORARY TRESTLE PLAN
SCALE: 1:2000



TEMPORARY TRESTLE ELEVATION
SCALE: 1:2000

- NOTES:**
1. THE TEMPORARY TRESTLE AND DETAILS ARE AS SUGGESTED ARRANGEMENT AND ARE TO PROVIDE CONSTRUCTION ACCESS WITHIN REGULATED AREA.
 2. TEMPORARY TRESTLE AND DETAILS SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH THE AASHTO CONSTRUCTION HANDBOOK FOR BRIDGE TEMPORARY WORKINGS TO SUIT HIS MEANS AND METHODS OF CONSTRUCTION.
 3. BOTTOM OF TRESTLE ELEVATION SHALL BE AT OR ABOVE ELEV. 2.80 METERS.

WATER ELEVATIONS

DATUM	NAVD 1988 (m)	NGVD 1929 (ft.)
MEAN LOW WATER	-1.10	-2.5
MEAN HIGH WATER	0.91	4.1
HIGH TIDE LINE	1.41	5.7
100 YEAR FLOOD ELEVATION	2.72	10

NOTE: PROJECT USES NAVD 1988 DATUM

- LEGEND**
- MLW MEAN LOW WATER ELEVATION
 - MHW MEAN HIGH WATER ELEVATION
 - HTL HIGH TIDE LINE
 - WETLAND VEGETATION LIMIT
 - 100 YEAR FLOOD BOUNDARY
 - 500 YEAR FLOOD BOUNDARY

* NOTE: TEMPORARY CONTAINMENT SYSTEM SHALL EXTEND A MAXIMUM OF 3050mm (10') FROM BRIDGE. THE TEMPORARY RESTRICTED HEIGHT OF THE CHANNEL WILL HAVE A MINIMUM CLEARANCE OF 16 770mm (55') DURING CONSTRUCTION.

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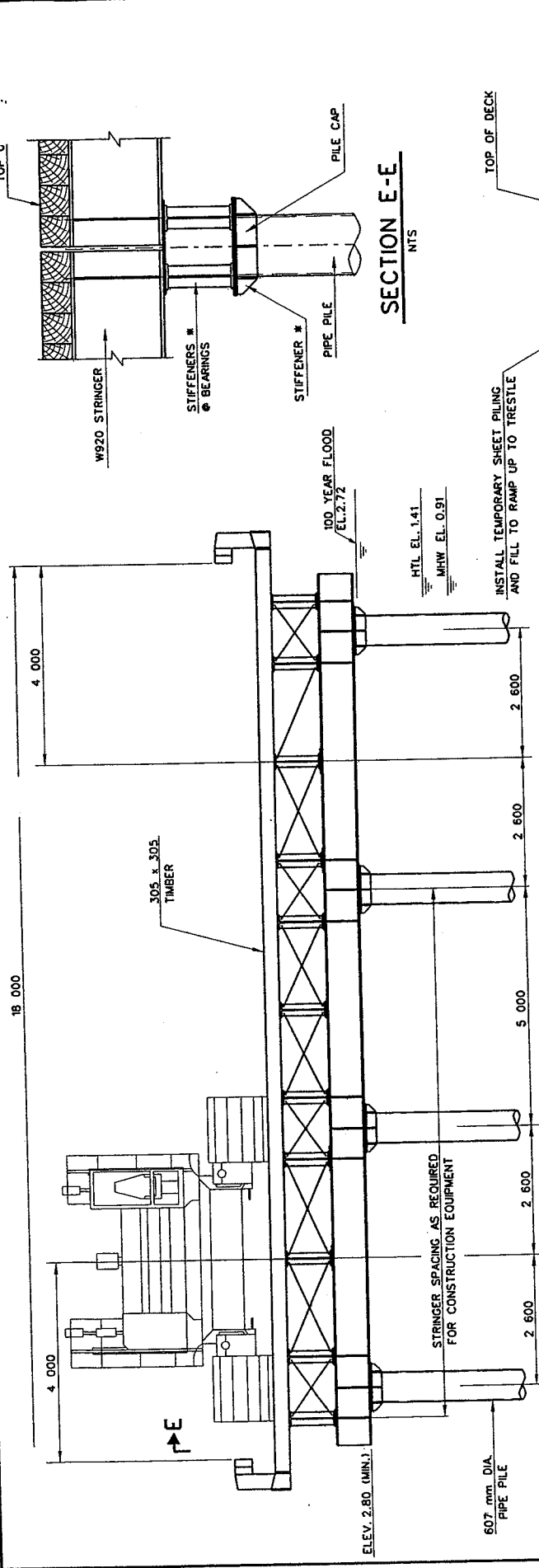
REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

DATE: 11/22/06
TEMPORARY
CONSTRUCTION TRESTLE

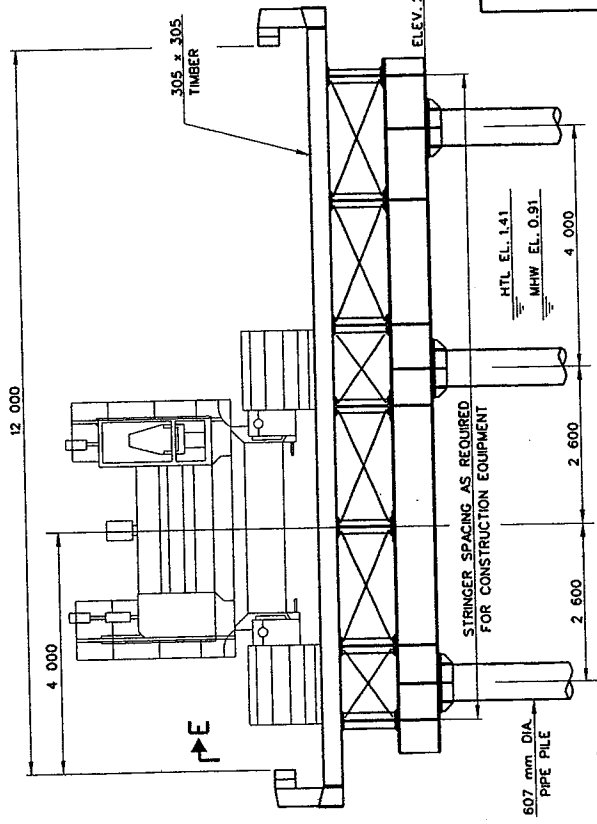
FIG. 16

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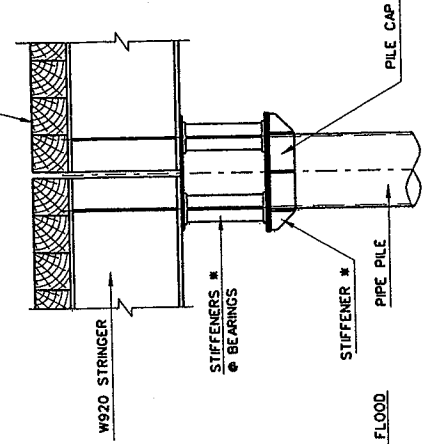
EXISTING BRIDGE PER NUMBER



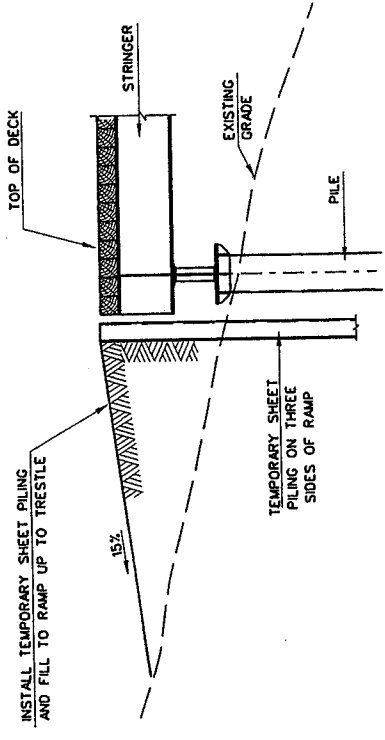
SECTION B-B
SCALE: 1/125



SECTION A-A
SCALE: 1/125



SECTION E-E
NTS

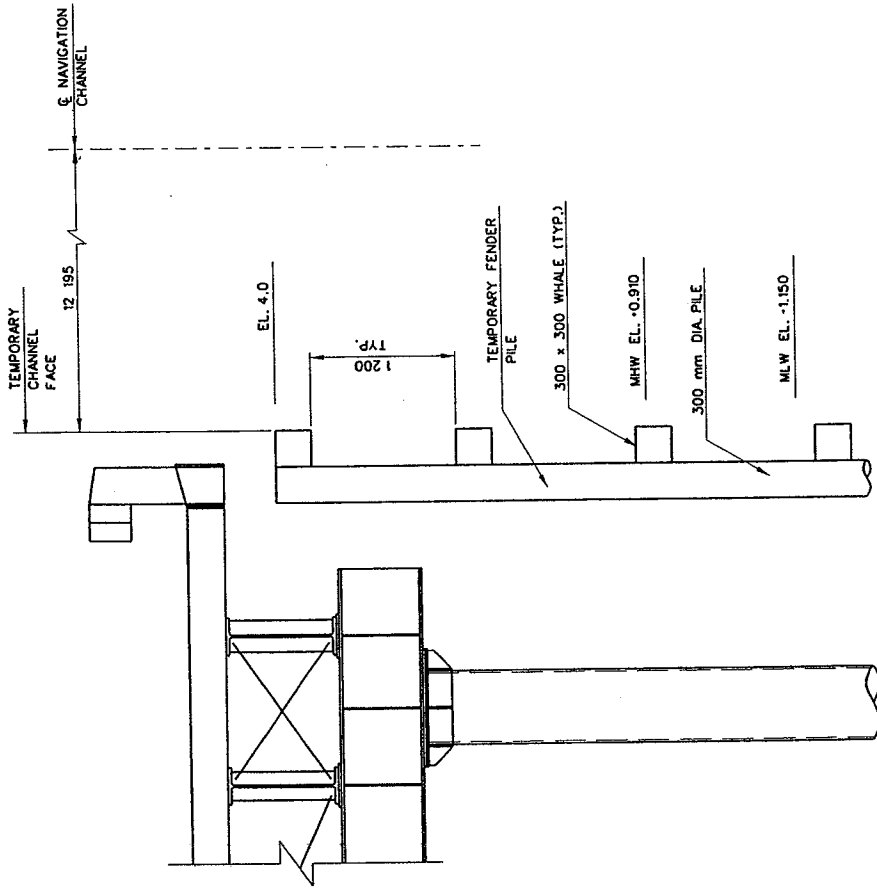


SECTION C-C
NTS

NOTE: PROPOSED TEMPORARY RAMPS ARE LOCATED ABOVE THE HIGH TIDE LINE. ONLY THE RAMP IN MILFORD IS LOCATED WITHIN THE 100 YEAR FLOOD ZONE.

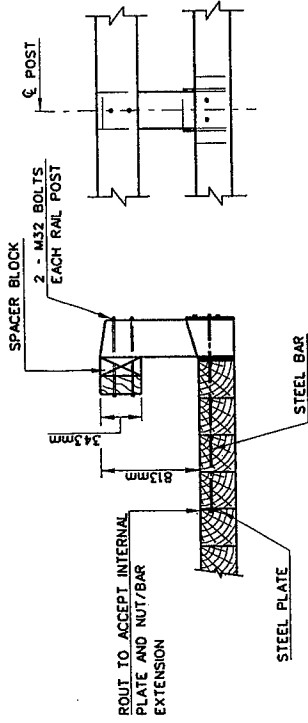
STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	DATE: 11/11/05	TEMPORARY TRESTLE DETAILS	FIG. 17A
STRATFORD/MILFORD			
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221			

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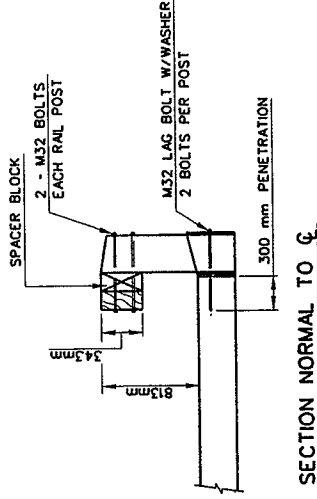
SECTION D-D

SCALE: 1:62.5



SECTION AT ENDS OF TRESTLE

FRONT VIEW



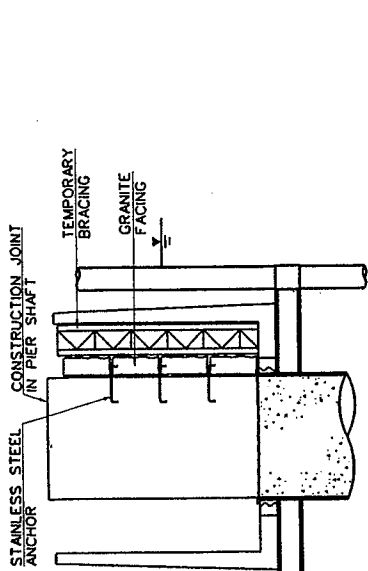
SECTION NORMAL TO C-C

RAILING DETAIL

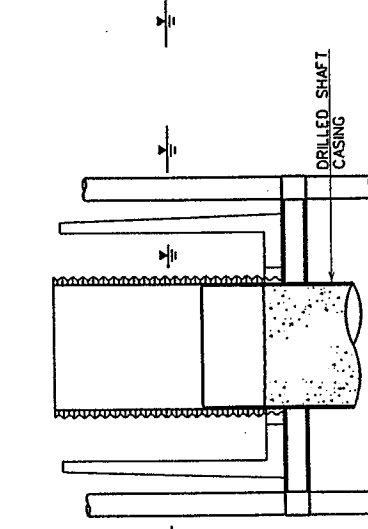
SCALE: 1:62.5

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	
STRATFORD/MILFORD	
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	
DATE: 11/11/05	TEMPORARY TRESTLE DETAILS
	FIG. 17B

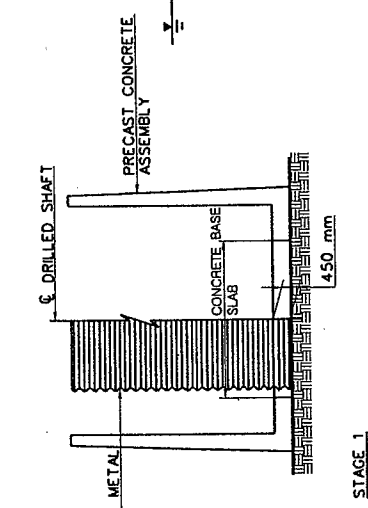
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STAGE 1
 ERECT SIDE WALLS AND CORRUGATED MULTI-PLATE PIPES AT CASTING SITE. PLACE INSERTS AND REINFORCING, AND CAST CONCRETE BASE SLAB. REMOVE TO PROJECT SITE.



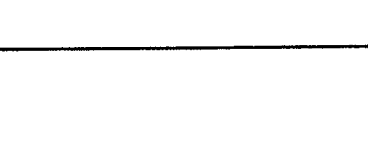
STAGE 2
 1. DRIVE SPUD PILES AND CONSTRUCT ERECTION FRAME.
 2. TOW ASSEMBLY TO PIER SITE AND POSITION ABOVE ERECTION FRAME.
 3. MAINTAINING ACCURATE POSITION, FLOOD ASSEMBLY TO LAND ON ERECTION FRAME. SECURE ASSEMBLY TO ERECTION FRAME.



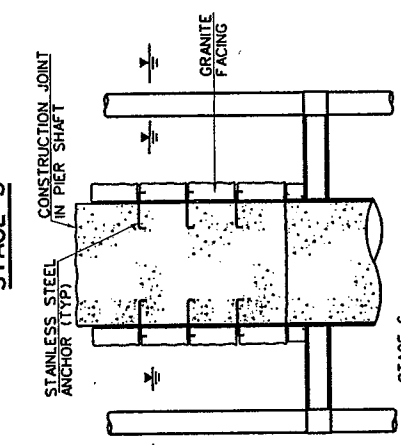
STAGE 3
 WITH THE PRECAST ASSEMBLY AS A TEMPLATE PLACE DRILLED SHAFT CASING THROUGH CORRUGATED PIPE. CONSTRUCT DRILL SHAFT, AND PLACE REINFORCING CAGE AND CONCRETE ACCORDING TO FOUNDATION REQ. TOP OF SHAFT CONCRETE SHOULD NOT EXTEND MORE THAN 75mm ABOVE BASE SLAB.



STAGE 4
 CUT CORRUGATED PIPE FLUSH WITH TOP OF BASE SLAB. REMOVE REMNANT. PLACE GROUT TO FILL THE ANNULAR SPACE BETWEEN THE CASING AND BOTTOM SLAB OF THE ASSEMBLY. THE CONTRACTOR SHALL HAND PLACE THE GROUT CAREFULLY TO AVOID SPILLAGE TO RIVER.
 TEMPORARILY RESTRAIN PRECAST CONCRETE ASSEMBLY TO RESIST ACCIDENTAL UPLIFT.



STAGE 5
 DE-WATER ASSEMBLY, CUT AND REMOVE CASING AT TOP OF SHAFT CONCRETE CONSTRUCT GRANITE FACING.



STAGE 6
 COMPLETE CONSTRUCTION OF GRANITE FACING. FLOOD ASSEMBLY, DISMANTLE AND REMOVE ASSEMBLY REMOVE SPUD PILES AND ERECTION FRAME

STAGE 2

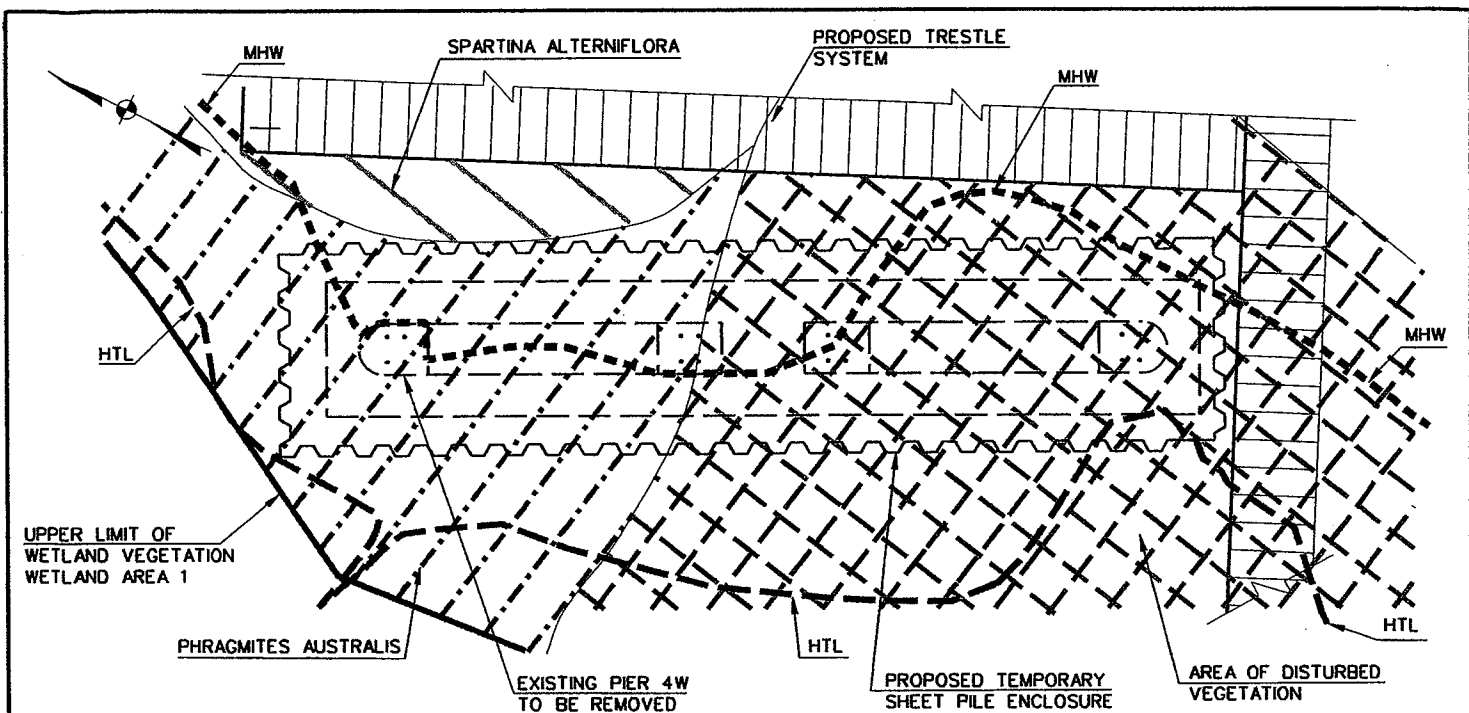
STAGE 4

TEMPORARILY RESTRAIN PRECAST CONCRETE ASSEMBLY TO RESIST ACCIDENTAL UPLIFT.

NOT TO SCALE

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DATE: 11/11/05
TEMPORARY FOUNDATION SEAL DETAIL
FIG. 18

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PIER PLAN

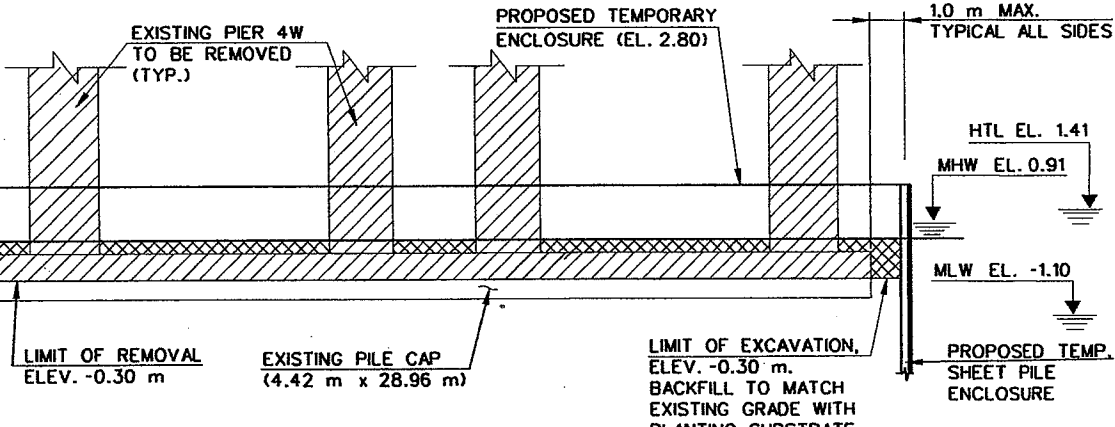
SCALE: 1:250

PIER 4W IS LOCATED IN WETLAND MITIGATION AREA IN WETLAND AREA 1. REFER TO FIGURES 57A AND 57B FOR PROPOSED GRADES IN THIS AREA.

BACKFILL TO GRADES INDICATED ON WETLAND AREA 1 MITIGATION PLAN. SURFACE THE TOP 300 mm OF WETLAND MITIGATION AREA WITH PLANTING SUBSTRATE/TOPSOIL. SEE NOTE 2 BELOW.

APPROXIMATE EXISTING GRADE

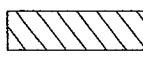
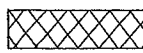
PROPOSED TEMPORARY SHEET PILE ENCLOSURE



ELEVATION

SCALE: 1:250

LEGEND

-  LIMIT OF REMOVAL OF EXISTING PIER AND PILE CAP
-  LIMIT OF EXCAVATION AND BACKFILL

NOTES:

1. REFER TO FIG. 13 FOR SITE VICINITY PLAN AND FIG. VS-1 FOR VEGETATION SKETCH.
2. THE WETLAND MITIGATION AREA SHALL BE SURFACED WITH PLANTING SUBSTRATE/TOPSOIL. PLANTING SUBSTRATE/TOPSOIL IS A NATURAL OR MANMADE MATERIAL WHICH CONSISTS OF SOILS CONTAINING NOT LESS THAN 75% SAND BY WEIGHT AND AN ORGANIC CONTENT OF NOT LESS THAN 10% AND NOT MORE THAN 15%.

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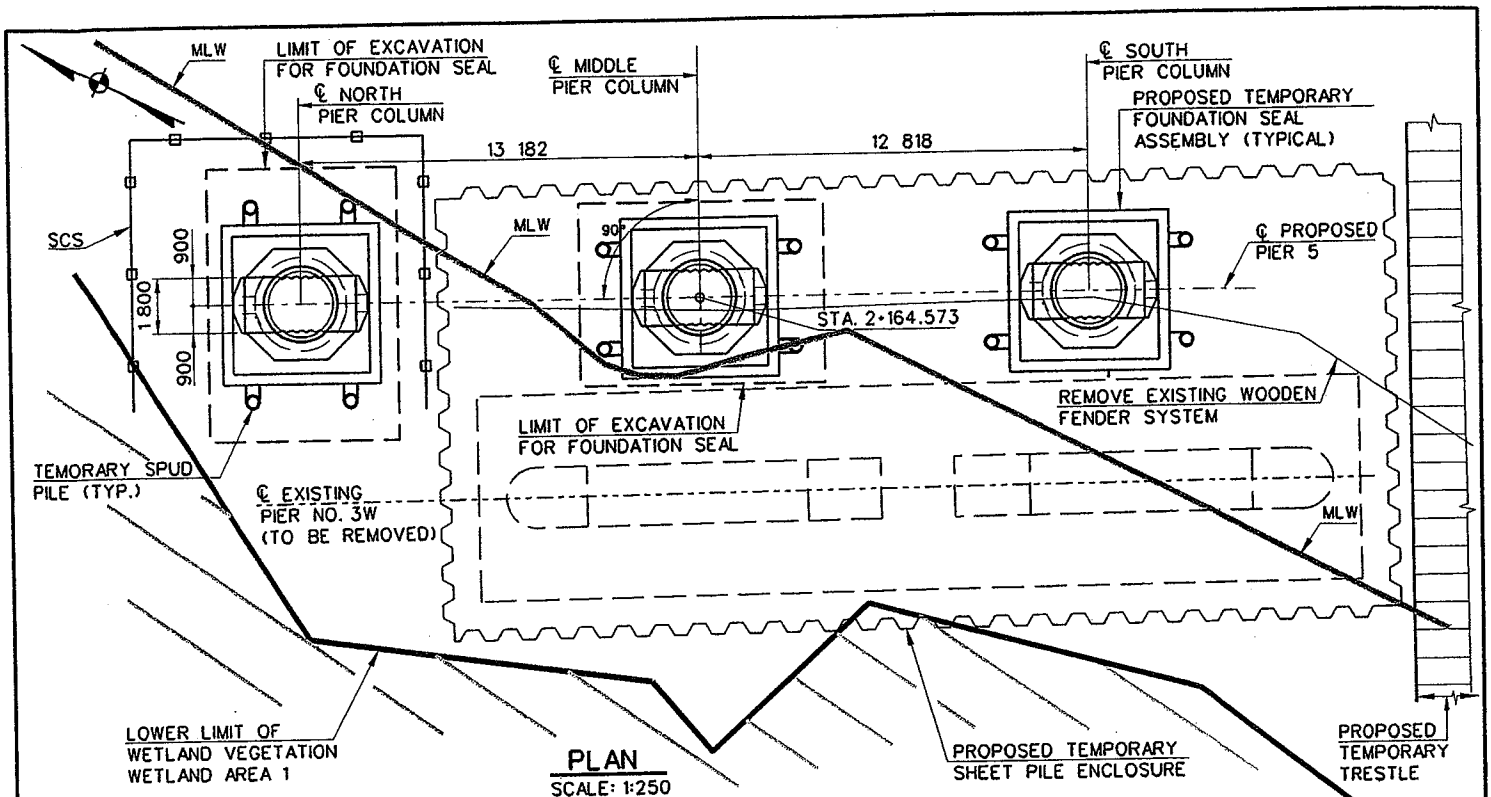
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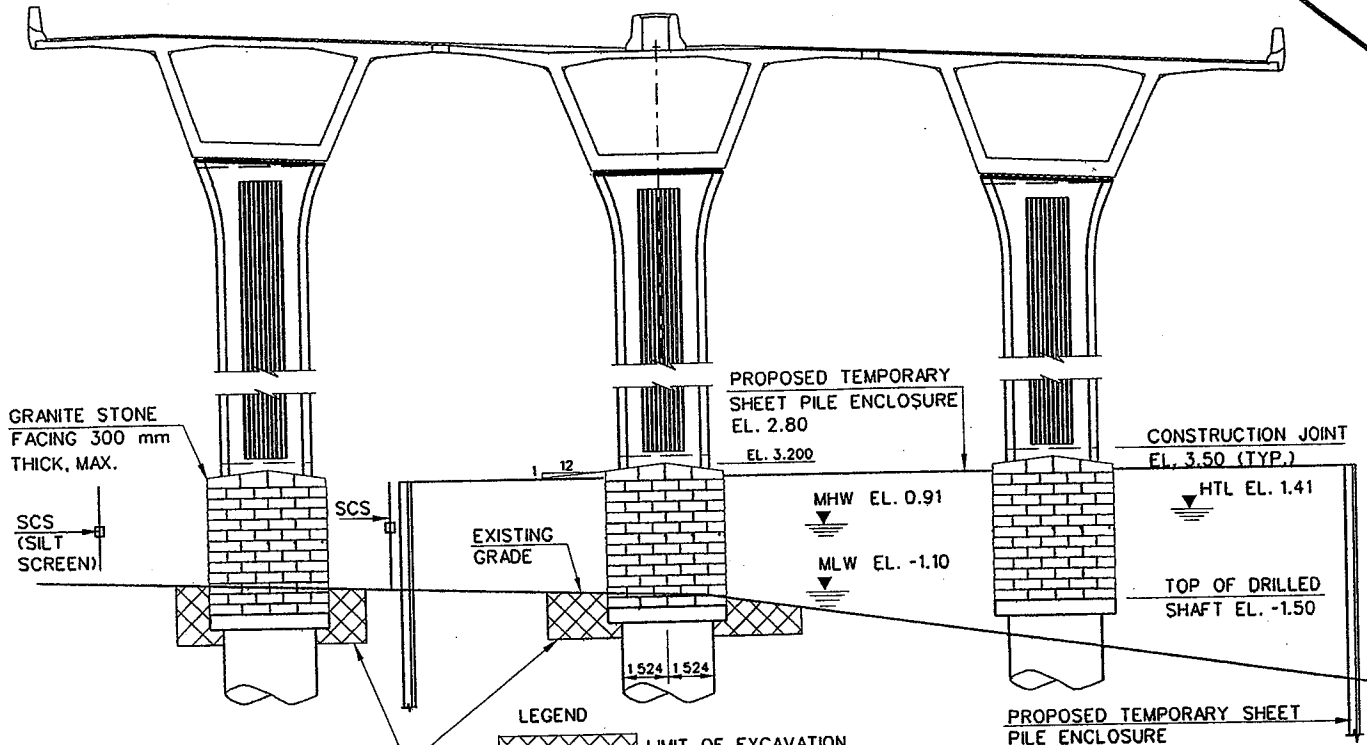
DATE: 11/22/06

PIER 4W - PLAN

FIG. 19



PLAN
SCALE: 1:250



ELEVATION
SCALE: 1:250

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LIMIT OF EXCAVATION FOR TEMPORARY FOUNDATION SEAL ASSEMBLY. BACKFILL TO MATCH EXISTING GRADE. SEE NOTE 2.

NOTES:

- REFER TO FIG. 13 FOR SITE VICINITY PLAN AND FIG. VS-1 FOR VEGETATION SKETCH.
- BACKFILL THE TOP 1 METER TO RESTORE MUDLINE IN RIVER WITH "STRUCTURAL SOIL". "STRUCTURAL SOIL" IS SANDY LOAM, INCLUDING COARSE, FINE AND VERY FINE SANDY LOAM TO APPROXIMATE THE TEXTURAL CLASS OF EXISTING SOIL REMOVED FROM THIS AREA. BACKFILL EXCAVATIONS BELOW 1 METER WITH GRANULAR FILL.

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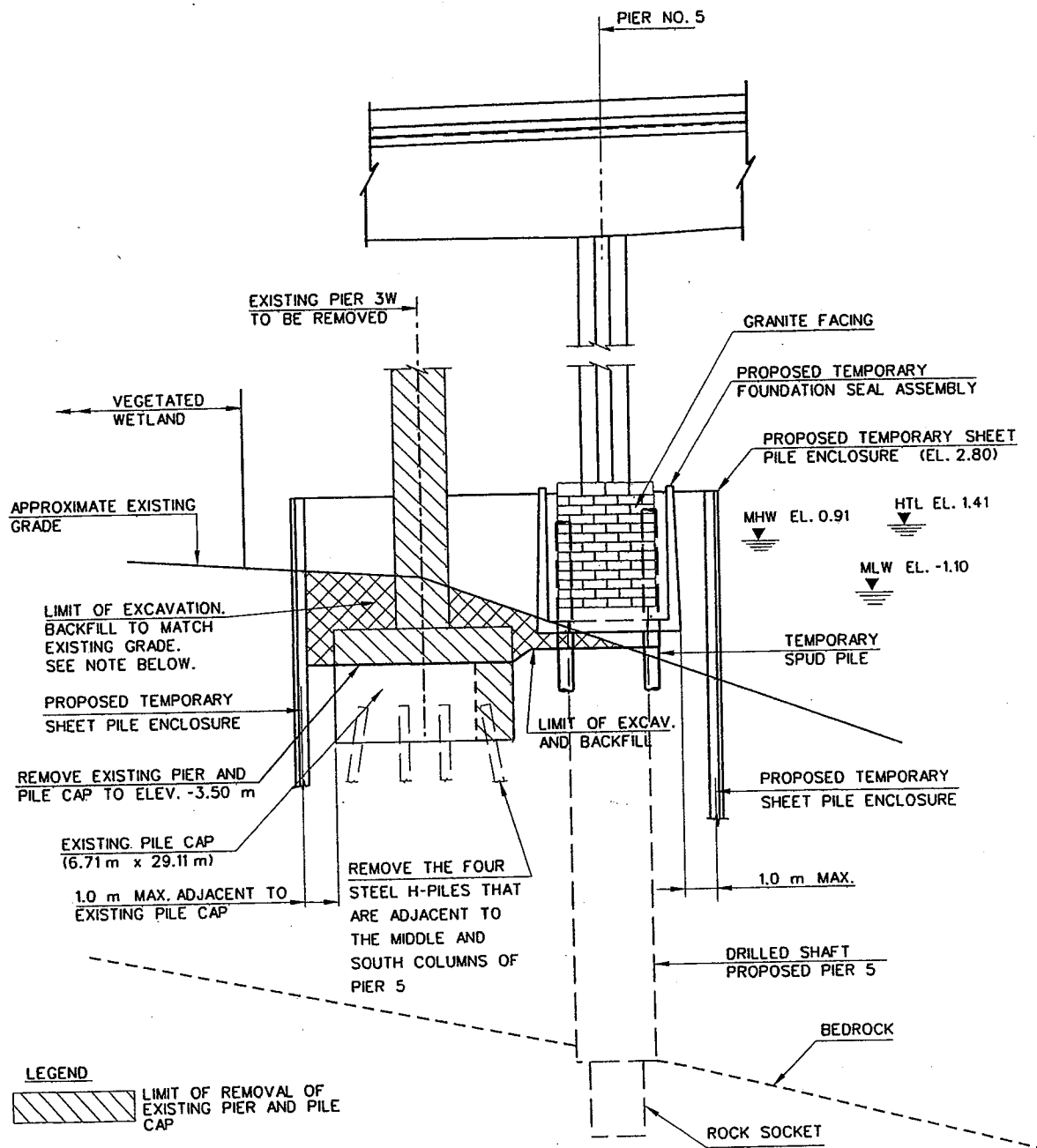
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DATE: 11/22/06

PIER 5 AND PIER 3W

FIG. 20



SIDE ELEVATION

SCALE: 1:250

NOTES:

1. REFER TO FIGURE 20 FOR PLAN VIEW.
2. BACKFILL THE TOP 1 METER TO RESTORE MUDLINE IN RIVER WITH "STRUCTURAL SOIL". "STRUCTURAL SOIL" IS SANDY LOAM, INCLUDING COARSE, FINE AND VERY FINE SANDY LOAM TO APPROXIMATE THE TEXTURAL CLASS OF THE EXISTING SOIL REMOVED FROM THIS AREA. BACKFILL EXCAVATION BELOW THE TOP 1 METER WITH GRANULAR FILL.

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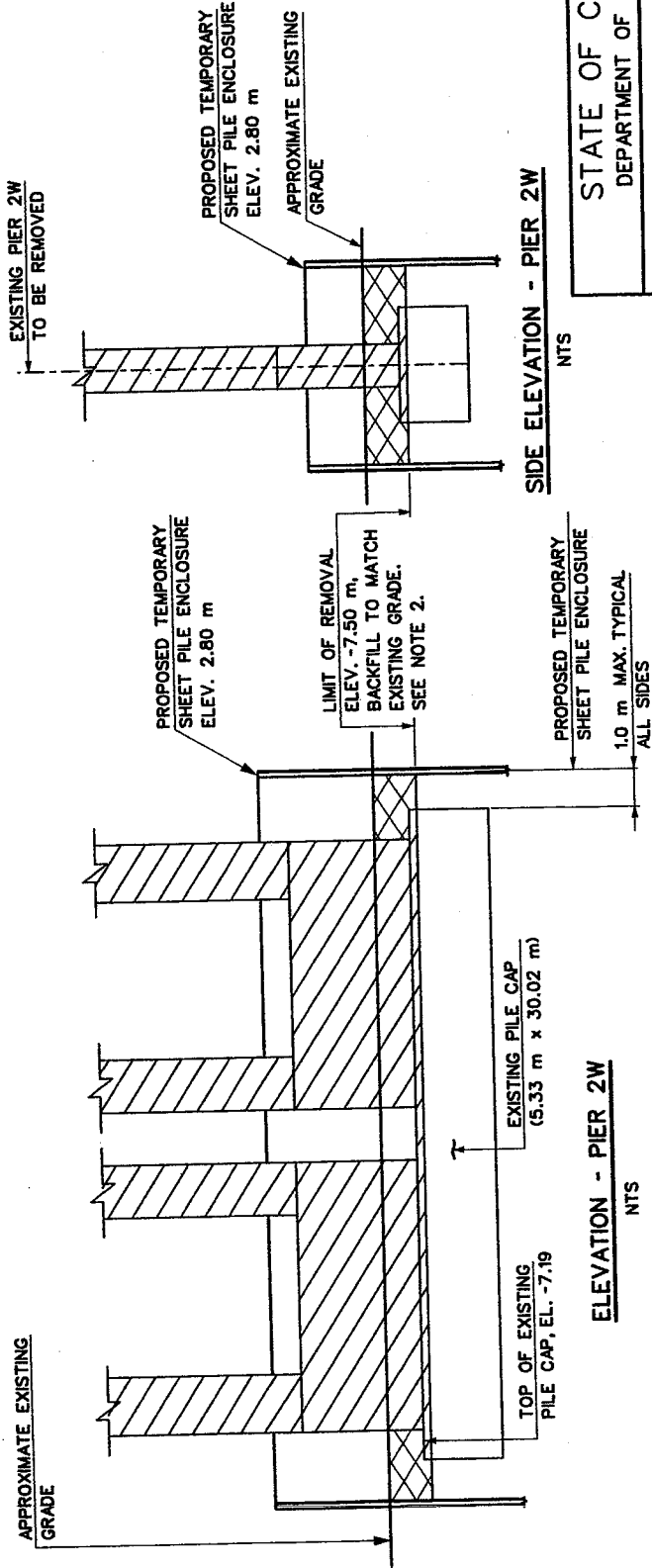
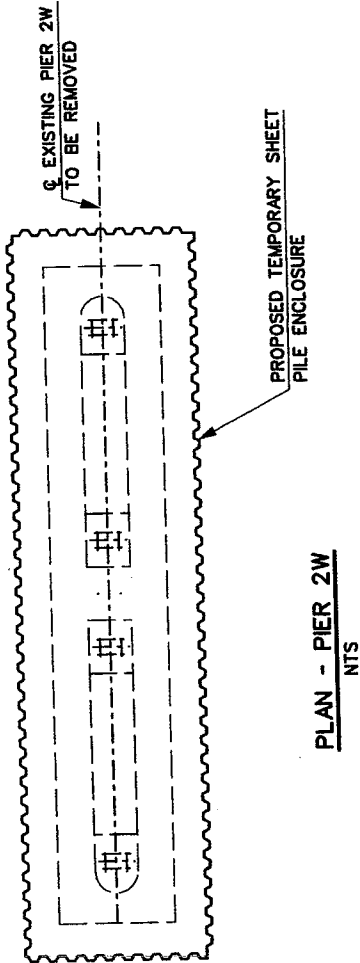
DATE: 11/22/06

PIER 5 AND PIER 3W

FIG. 21

NOTES:

- REFER TO FIG. 13 FOR SITE VICINITY PLAN.
PIER 2W IS LOCATED IN OPEN WATER.
- BACKFILL THE TOP 1 METER TO RESTORE MUDLINE IN RIVER WITH "STRUCTURAL SOIL". "STRUCTURAL SOIL" IS SANDY LOAM, INCLUDING COARSE, FINE AND VERY FINE SANDY LOAM TO APPROXIMATE THE TEXTURAL CLASS OF THE EXISTING SOIL REMOVED FROM THIS AREA. BACKFILL EXCAVATIONS BELOW A DEPTH OF 1 METER WITH GRANULAR FILL.



LEGEND

[Hatched Box]	LIMIT OF REMOVAL OF EXISTING PIER AND PILE CAP
[Cross-hatched Box]	LIMIT OF EXCAVATION AND BACKFILL

WATER ELEVATIONS

DATUM	NAVD 1988 (m)	NGVD 1928 (ft.)
MEAN LOW WATER	-1.10	-2.5
MEAN HIGH WATER	0.91	4.1
HIGH TIDE LINE	1.41	5.7
100 YEAR FLOOD ELEVATION	2.72	10.0

NOTE: PROJECT USES NAVD 1988 DATUM

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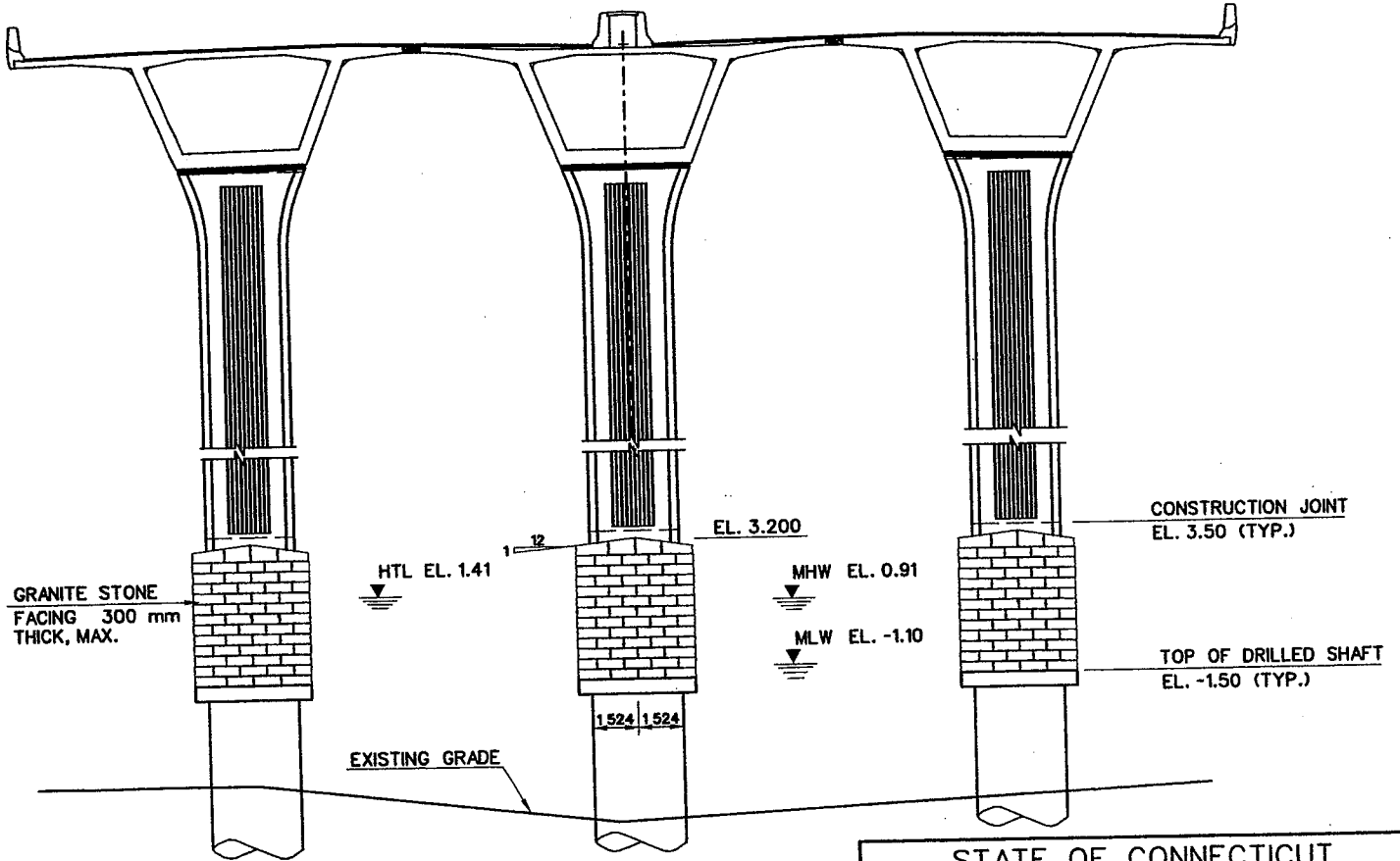
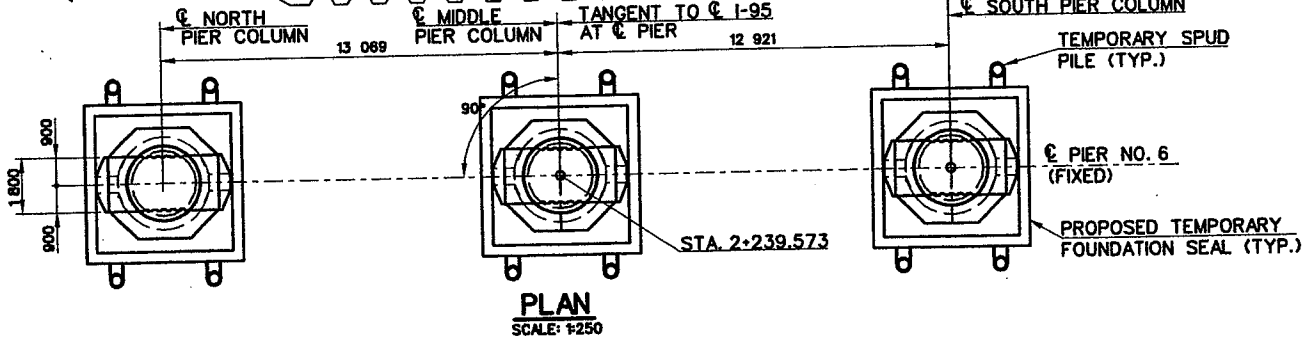
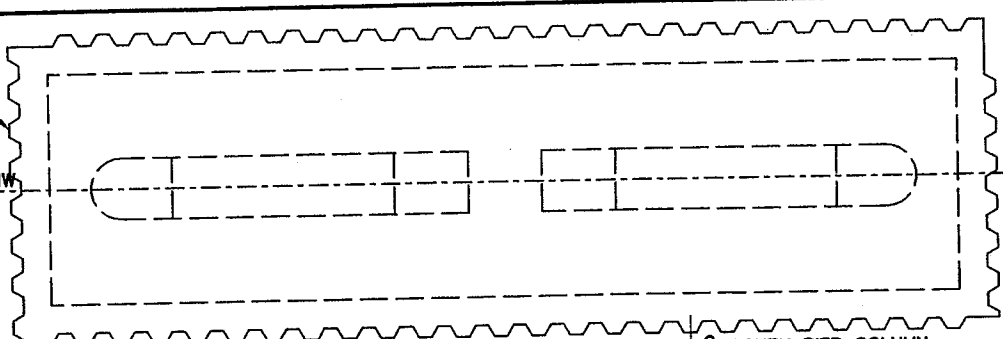
DATE: 11/22/06

DEMOLITION, PIER 2W

FIG. 22

PROPOSED TEMPORARY SHEET PILE ENCLOSURE

EXISTING PIER 1W TO BE REMOVED

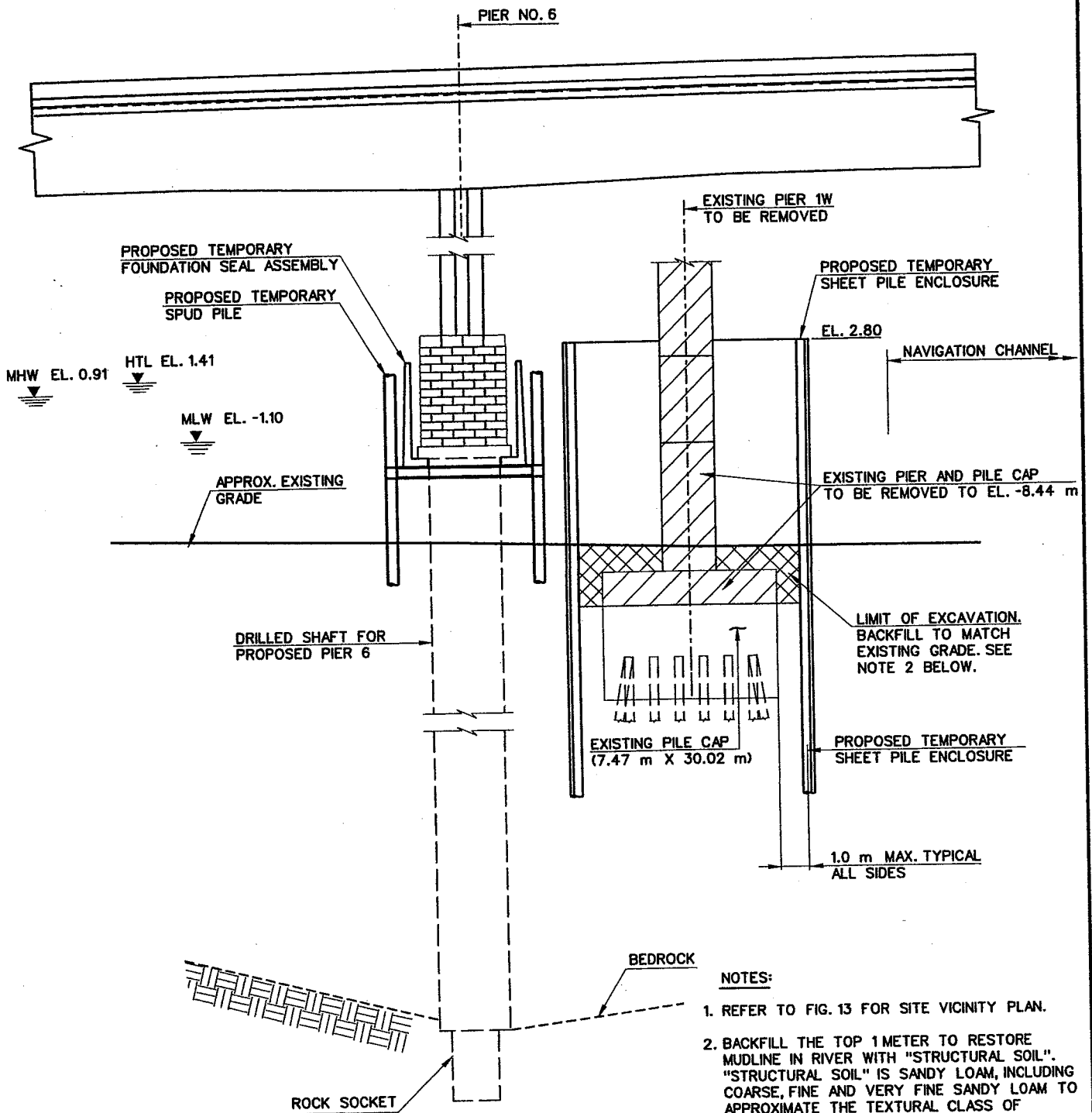


NOTE:
REFER TO FIG. 13 FOR SITE VICINITY
PLAN. PIER 1W AND PIER 6 ARE
LOCATED IN OPEN WATER.

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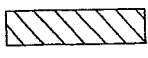

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REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221		
DATE: 11/22/06	PIER 6 AND PIER 1W	FIG. 23



NOTES:

1. REFER TO FIG. 13 FOR SITE VICINITY PLAN.
2. BACKFILL THE TOP 1 METER TO RESTORE MUDLINE IN RIVER WITH "STRUCTURAL SOIL". "STRUCTURAL SOIL" IS SANDY LOAM, INCLUDING COARSE, FINE AND VERY FINE SANDY LOAM TO APPROXIMATE THE TEXTURAL CLASS OF THE EXISTING SOIL REMOVED FROM THIS AREA. BACKFILL EXCAVATIONS BELOW A DEPTH OF 1 METER WITH GRANULAR FILL.

LEGEND

-  LIMIT OF REMOVAL OF EXISTING PIER AND PILE CAP
-  LIMIT OF EXCAVATION AND BACKFILL

SIDE ELEVATION
SCALE: 1:250

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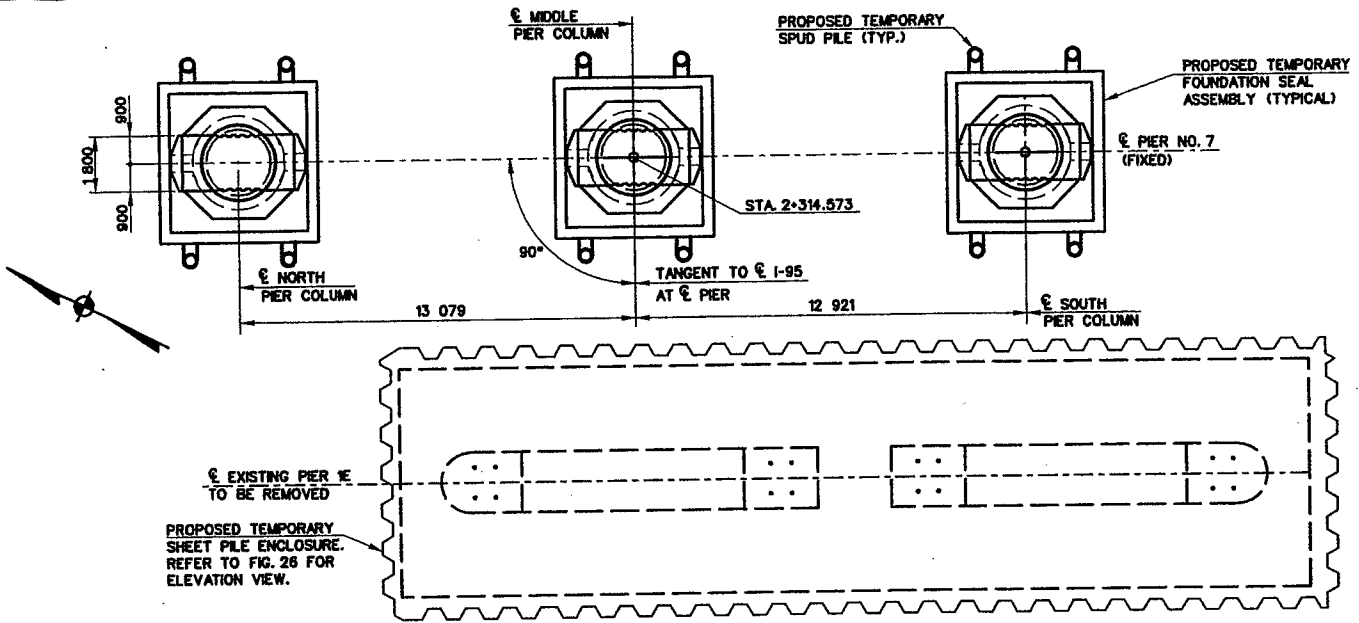
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PROJECT NO. 138-221

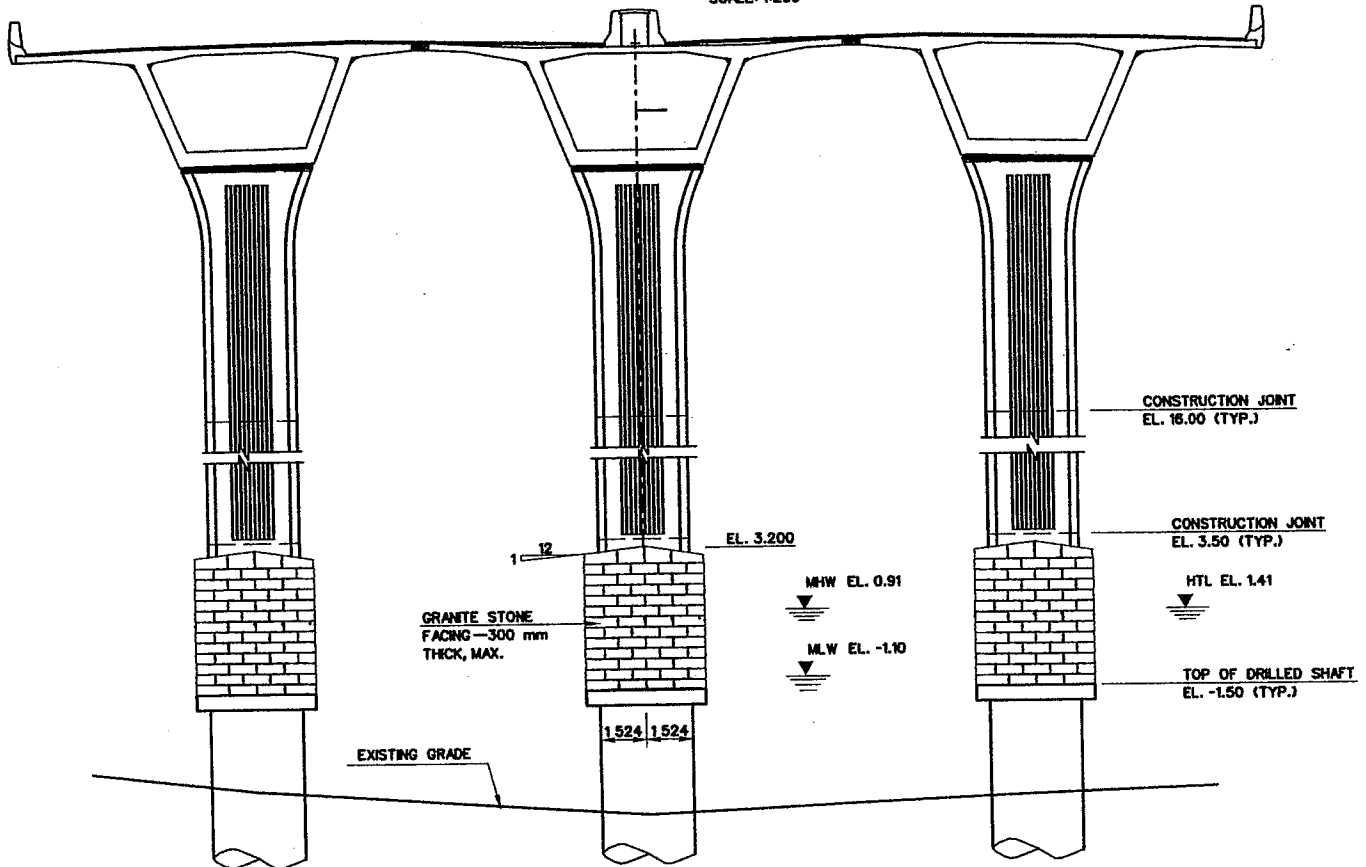
DATE: 11/22/06

PIER 6 AND PIER 1W

FIG. 24



PLAN
SCALE: 1:250



ELEVATION
SCALE: 1:250

NOTE:
REFER TO FIG. 13 FOR SITE VICINITY PLAN.
PIER 7 AND EXISTING PIER 1E ARE LOCATED
IN OPEN WATER.

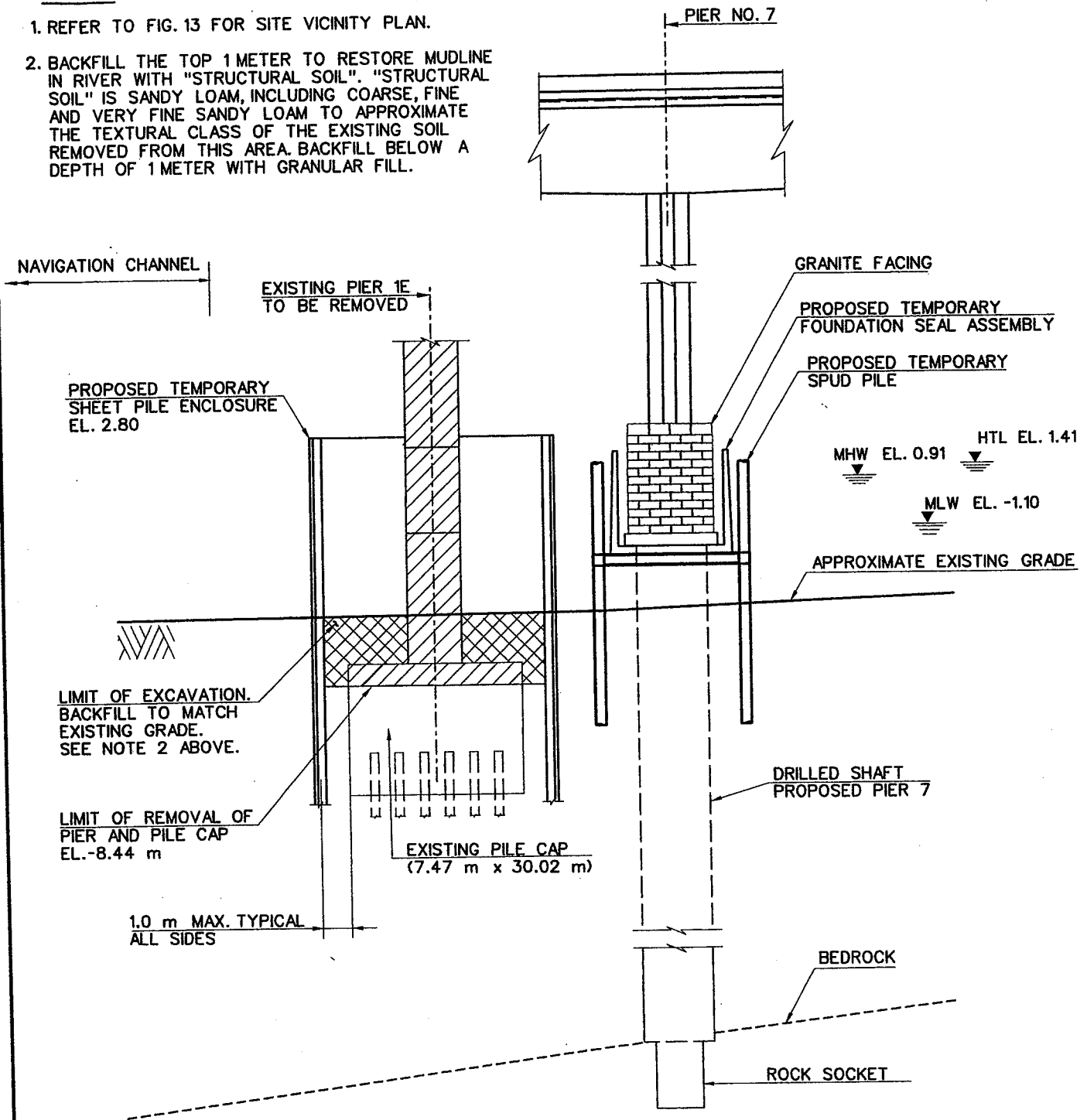
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DATE: 11/22/06	PIER 7 AND PIER 1E
FIG. 25	

NOTES:

1. REFER TO FIG. 13 FOR SITE VICINITY PLAN.
2. BACKFILL THE TOP 1 METER TO RESTORE MUDLINE IN RIVER WITH "STRUCTURAL SOIL". "STRUCTURAL SOIL" IS SANDY LOAM, INCLUDING COARSE, FINE AND VERY FINE SANDY LOAM TO APPROXIMATE THE TEXTURAL CLASS OF THE EXISTING SOIL REMOVED FROM THIS AREA. BACKFILL BELOW A DEPTH OF 1 METER WITH GRANULAR FILL.




SIDE ELEVATION
SCALE 1:250

LEGEND

 LIMIT OF REMOVAL OF EXISTING PIER AND PILE CAP

 LIMIT OF EXCAVATION AND BACKFILL

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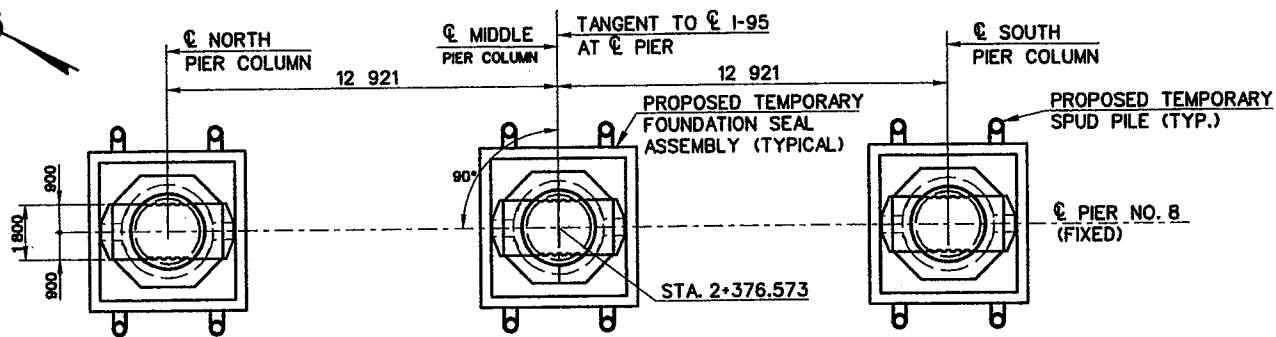
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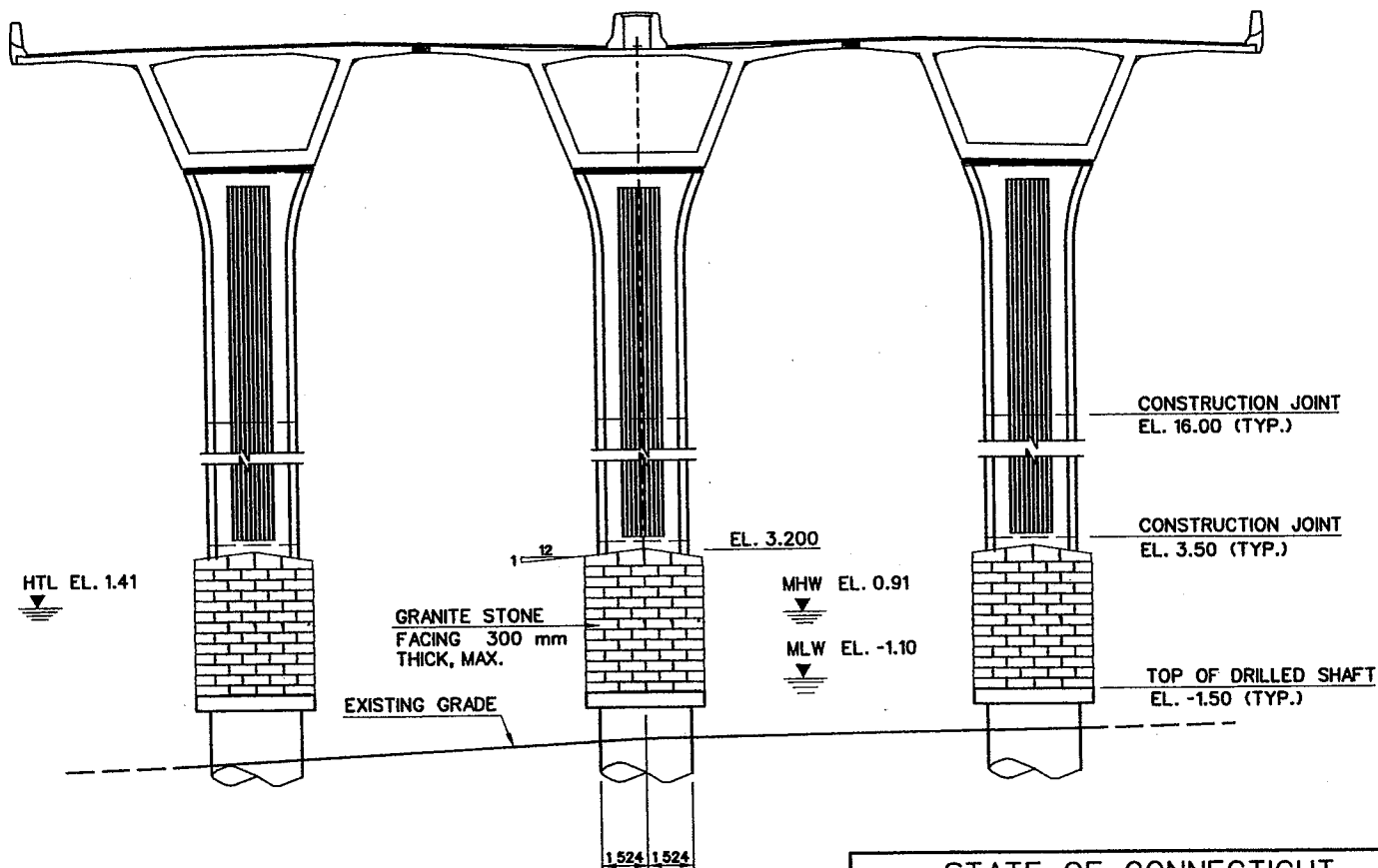
DATE: 11/22/06

PIER 7 AND PIER 1E

FIG. 26



PLAN
SCALE: 1/250



ELEVATION
SCALE: 1/250

NOTE:
REFER TO FIG. 14 FOR SITE VICINITY PLAN.
PIER 8 IS LOCATED IN OPEN WATER.

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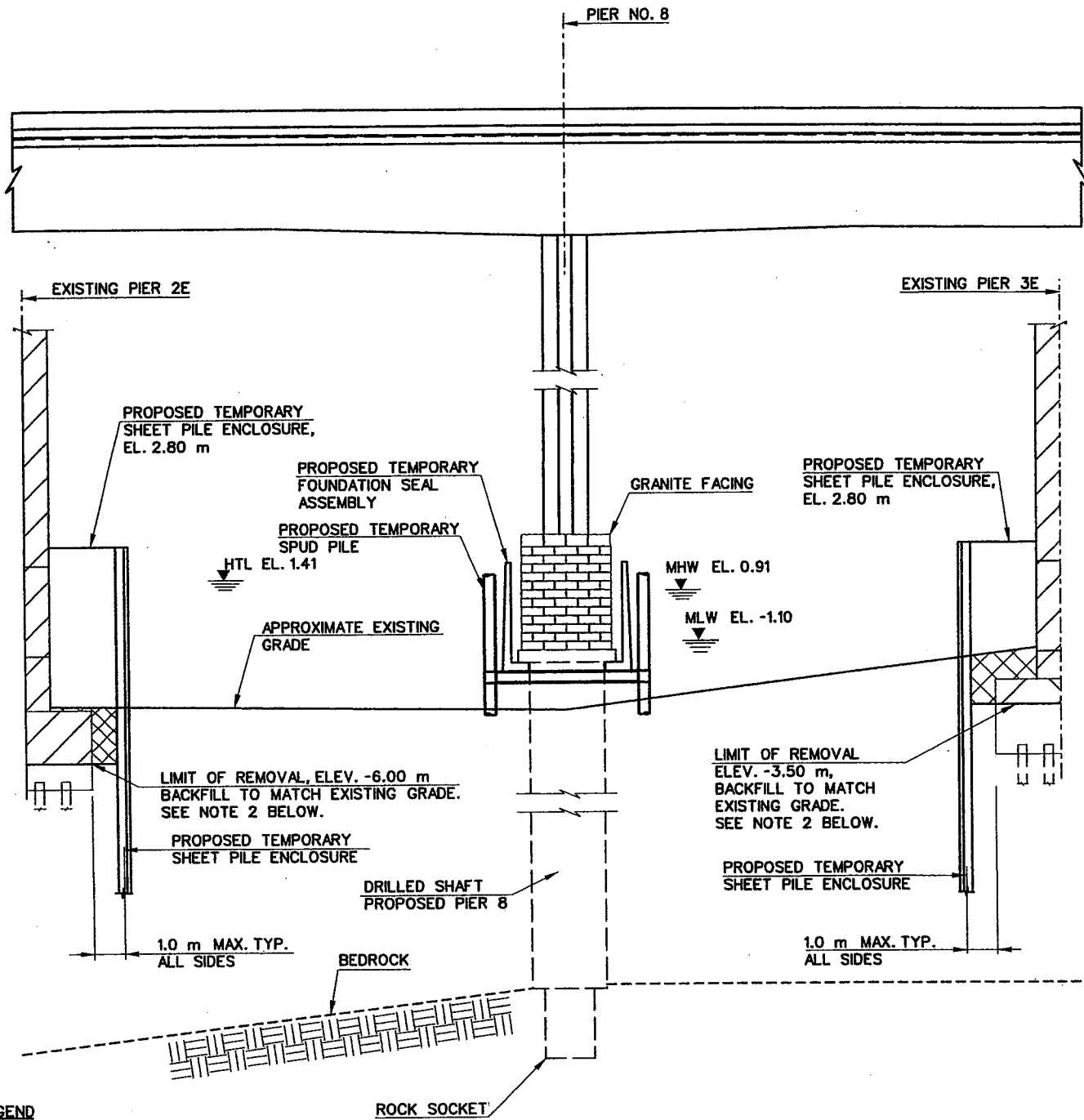
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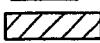

PIER 8

FIG. 27



SIDE ELEVATION
SCALE: 1:250

LEGEND

-  LIMIT OF REMOVAL OF EXISTING PIER AND PILE CAP
-  LIMIT OF EXCAVATION AND BACKFILL

NOTES:

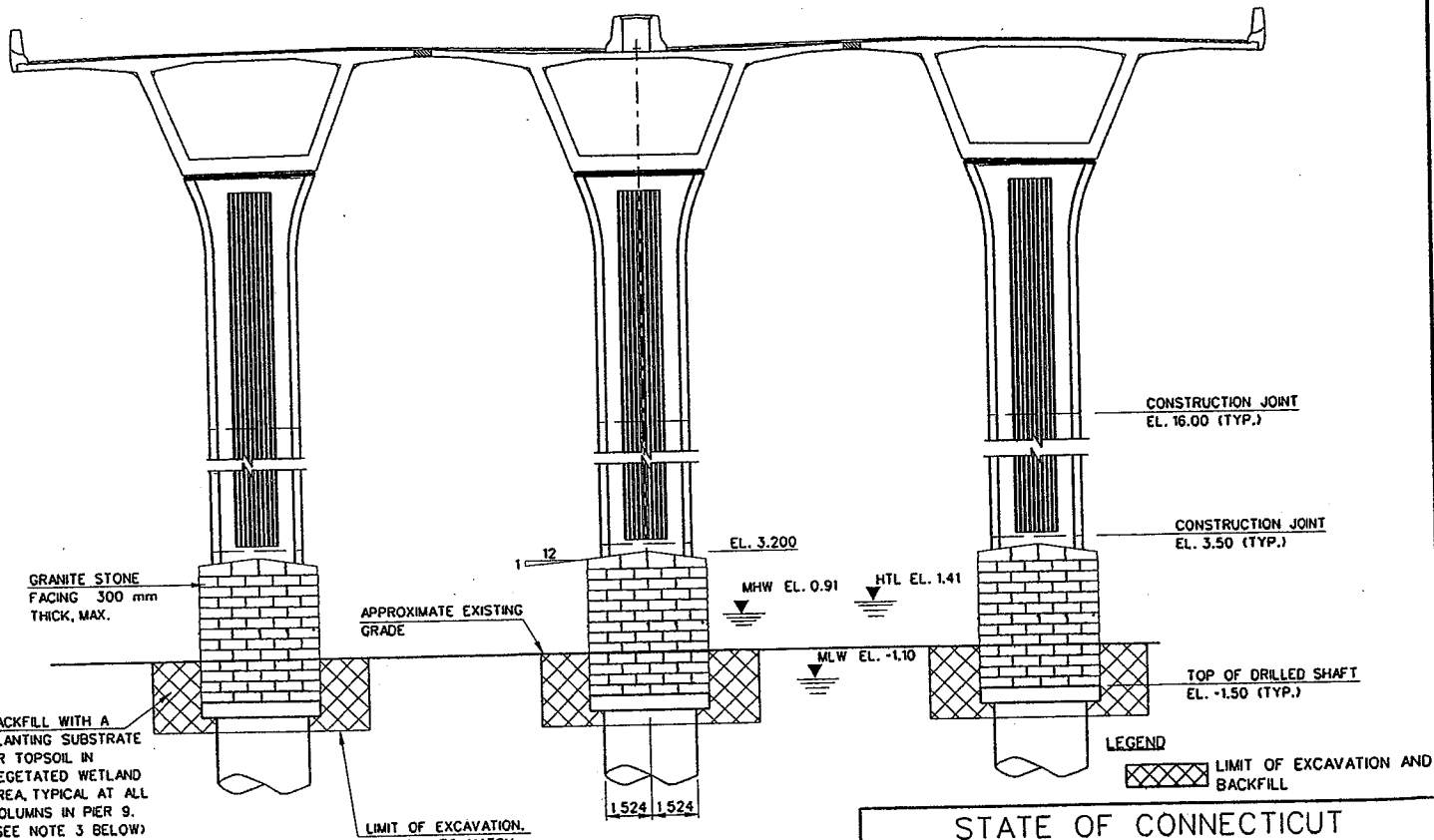
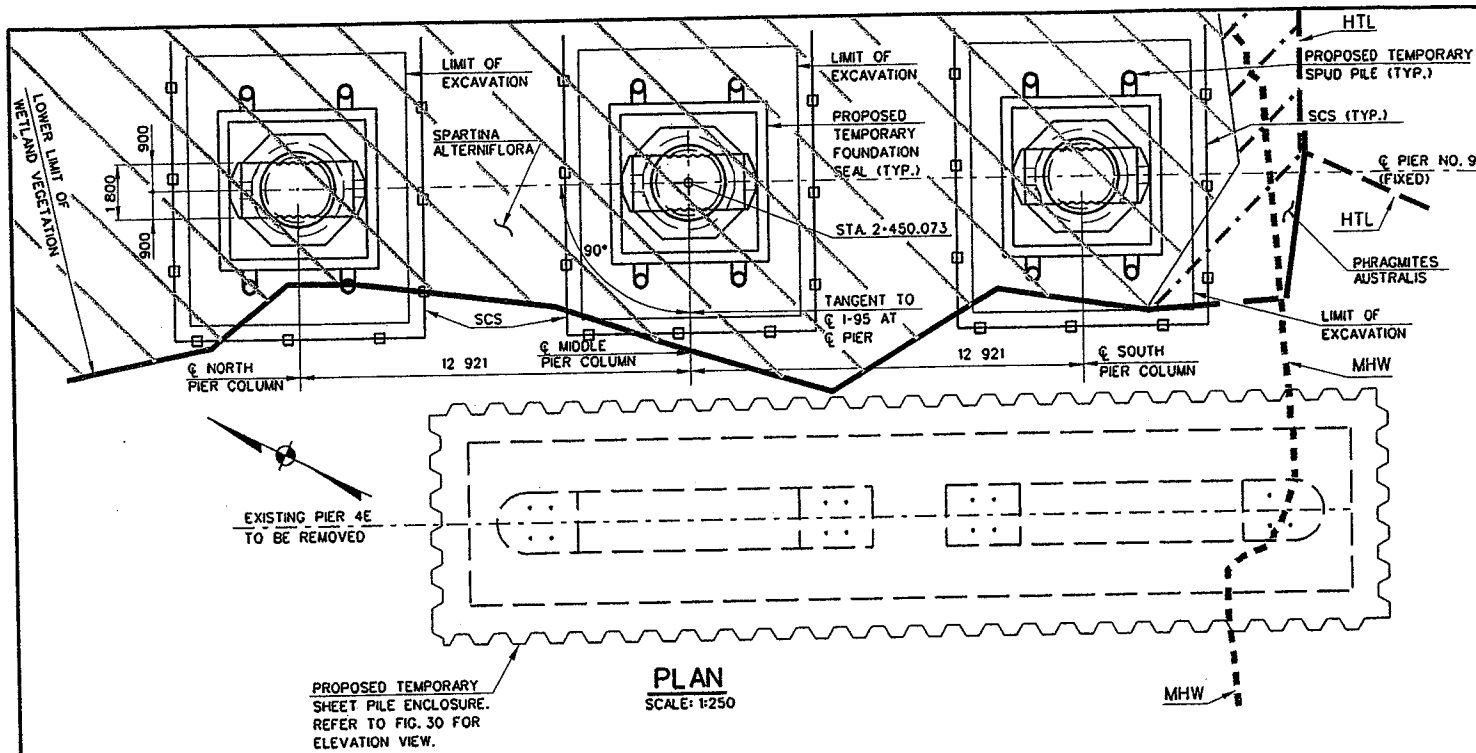
1. REFER TO FIG. 13 AND FIG. 14 FOR SITE VICINITY PLAN.
2. BACKFILL THE TOP 1 METER TO RESTORE MUDLINE IN RIVER WITH "STRUCTURAL SOIL". "STRUCTURAL SOIL" IS A SANDY LOAM, INCLUDING COARSE, FINE AND VERY FINE SANDY LOAM TO APPROXIMATE THE TEXTURAL CLASS OF THE EXISTING SOIL REMOVED FROM THIS AREA. BACKFILL EXCAVATIONS BELOW A DEPTH OF 1 METER WITH GRANULAR FILL.

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DATE: 11/22/06	PIER 8, PIER 2E AND PIER 3E
FIG. 28	



- NOTES:**
- REFER TO FIG. 14 FOR SITE VICINITY PLAN AND TO FIG. VS-2 FOR VEGETATION SKETCH.
 - GEOTEXTILE FENCE SYSTEM (SCS) TO BE USED ABOVE HIGH TIDE LINE. SILT SCREEN TO BE USED BELOW HIGH TIDE LINE AND IN RIVER CHANNEL. SEE DETAILS ON FIGURE 55.
 - BACKFILL THE TOP 1 METER IN WETLAND AREA WITH NATURAL OR MANMADE PLANTING SUBSTRATE/TOPSOIL. PLANTING SUBSTRATE/TOPSOIL IS A NATURAL OR MANMADE MATERIAL WHICH CONSIST OF SOILS CONTAINING NOT LESS THAN 75% SAND BY WEIGHT AND AN ORGANIC CONTENT NOT LESS THAN 10% AND NOT MORE THAN 15%.



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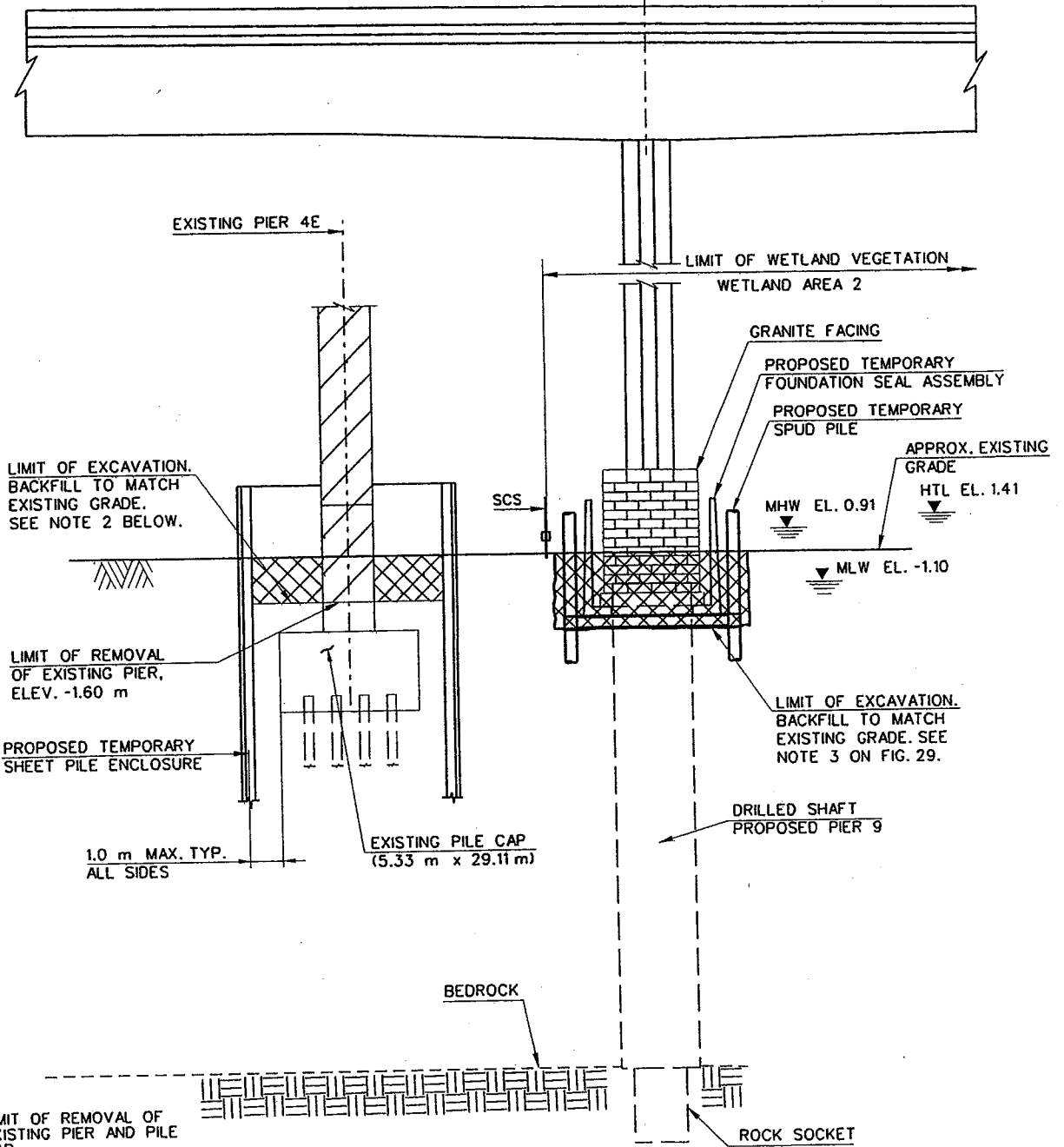
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DATE: 11/22/06

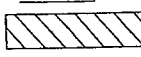
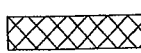
PIER 9 AND PIER 4E

FIG. 29

PROPOSED PIER NO. 9
REFER TO FIG. 29
FOR PIER PLAN



LEGEND


-  LIMIT OF REMOVAL OF EXISTING PIER AND PILE CAP
-  LIMIT OF EXCAVATION AND BACKFILL

SIDE ELEVATION

SCALE 1:250

NOTES:

1. REFER TO FIGURE 14 FOR SITE VICINITY PLAN. EXISTING PIER 4E IS LOCATED IN OPEN WATER.
2. BACKFILL THE TOP 1 METER TO RESTORE MUDLINE IN RIVER WITH "STRUCTURAL SOIL". "STRUCTURAL SOIL" IS A SANDY LOAM, INCLUDING COARSE, FINE AND VERY FINE SANDY LOAM TO APPROXIMATE THE TEXTURAL CLASS OF THE EXISTING SOIL REMOVED AT PIER 4E. BACKFILL EXCAVATIONS BELOW A DEPTH OF 1 METER WITH GRANULAR FILL.

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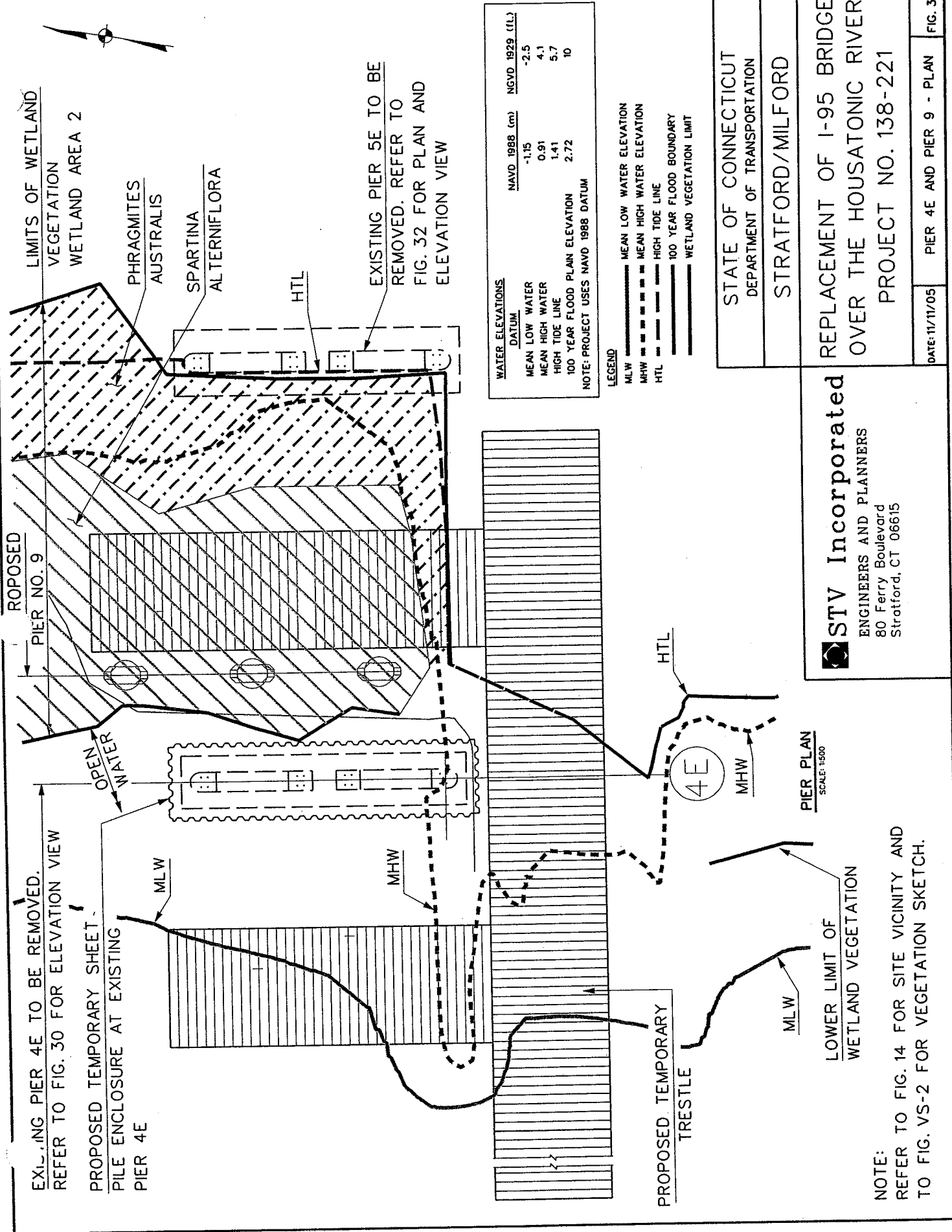
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PIER 9 AND PIER 4E

FIG. 30



EXISTING PIER 4E TO BE REMOVED. REFER TO FIG. 30 FOR ELEVATION VIEW

PROPOSED TEMPORARY SHEET PILE ENCLOSURE AT EXISTING PIER 4E

EXISTING PIER 5E TO BE REMOVED. REFER TO FIG. 32 FOR PLAN AND ELEVATION VIEW

LIMITS OF WETLAND VEGETATION WETLAND AREA 2

PHRAGMITES AUSTRALIS
SPARTINA ALTERNIFLORA

HTL

ROPOSED PIER NO. 9

OPEN WATER

MLW

MHW

PROPOSED TEMPORARY TRESTLE

HTL

4E

MHW

PIER PLAN SCALE: 1:500

LOWER LIMIT OF WETLAND VEGETATION

MLW

WATER ELEVATIONS

DATUM	NAVD 1988 (m)	NGVD 1929 (ft)
MEAN LOW WATER	-1.15	-2.5
MEAN HIGH WATER	0.91	4.1
HIGH TIDE LINE	1.41	5.7
100 YEAR FLOOD PLAIN ELEVATION	2.72	10

NOTE: PROJECT USES NAVD 1988 DATUM

LEGEND

- MLW
- MHW
- HTL
- 100 YEAR FLOOD BOUNDARY
- WETLAND VEGETATION LIMIT

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REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER
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DATE: 11/11/05

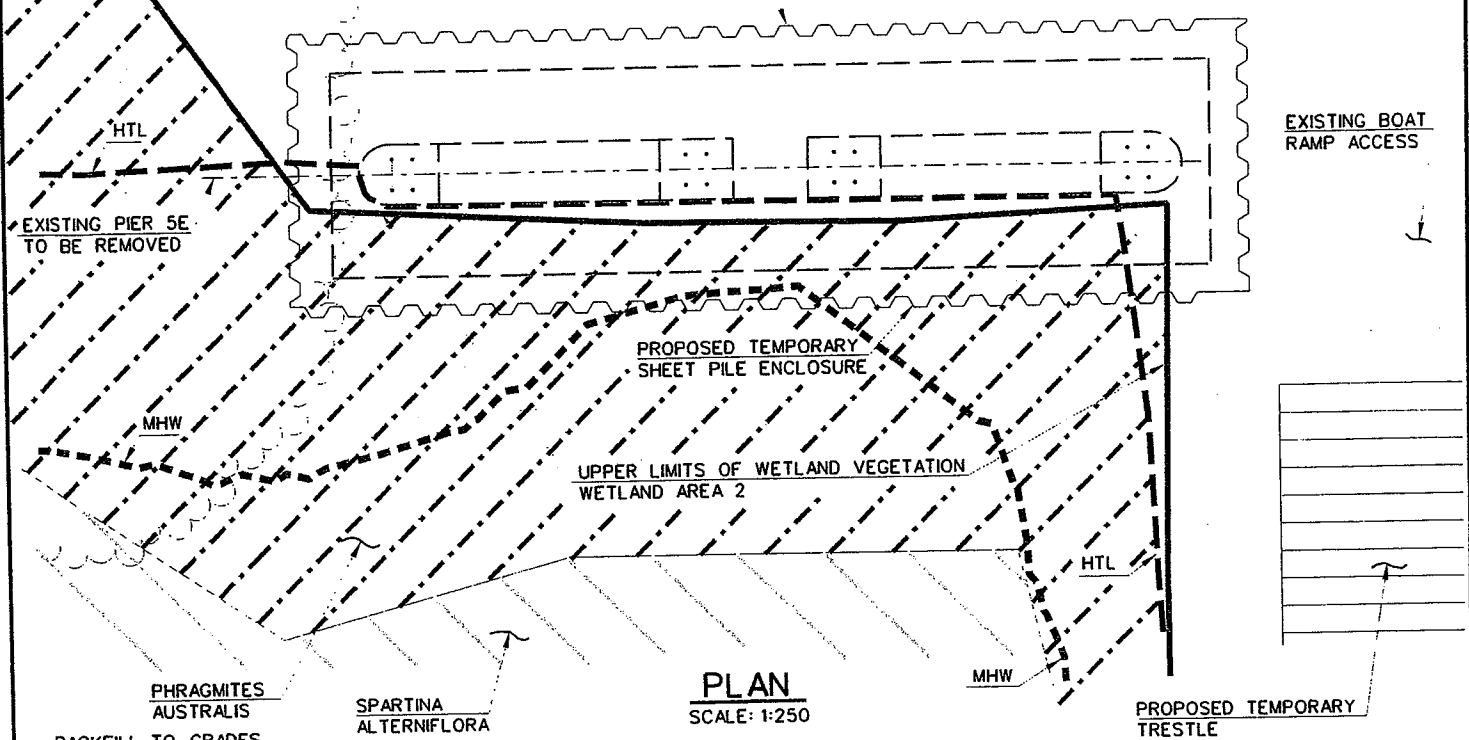
PIER 4E AND PIER 9 - PLAN

FIG. 31

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NOTE:
REFER TO FIG. 14 FOR SITE VICINITY AND TO FIG. VS-2 FOR VEGETATION SKETCH.

PROPOSED TEMPORARY
SHEET PILE ENCLOSURE
AT EXISTING PIER 5E



PLAN
SCALE: 1:250

BACKFILL TO GRADES
INDICATED ON WETLAND
AREA 2 MITIGATION PLAN.
SURFACE THE TOP 300 mm
OF WETLAND MITIGATION
AREA WITH A PLANTING
SUBSTRATE/TOPSOIL. SEE
NOTE 2 BELOW.

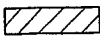

APPROX. EXISTING
GRADE

LIMIT OF REMOVAL
OF PIER, AND PILE CAP
ELEV. -0.30 m

PROPOSED TEMPORARY
SHEET PILE ENCLOSURE

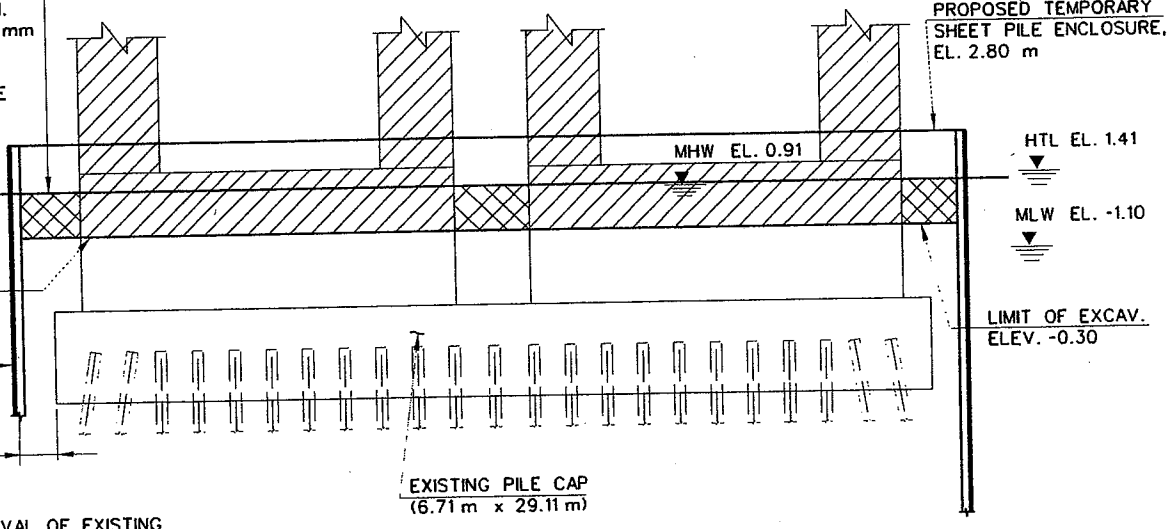
1.0 m MAX. TYP.
ALL SIDES

LEGEND

-  LIMIT OF REMOVAL OF EXISTING PIER AND PILE CAP
-  LIMIT OF EXCAVATION AND BACKFILL


NOTES

1. REFER TO FIG. 14 FOR SITE VICINITY PLAN AND FIG. VS-2 FOR VEGETATION SKETCH.
2. BACKFILL IN VEGETATED WETLAND AREAS SHALL CONSIST OF NATURAL OR MANMADE PLANTING SUBSTRATE OR TOPSOIL, CONSISTING OF SOILS CONTAINING NOT LESS THAN 75% SAND BY WEIGHT AND AN ORGANIC CONTENT OF NOT LESS THAN 10% AND NOT MORE THAN 15%.

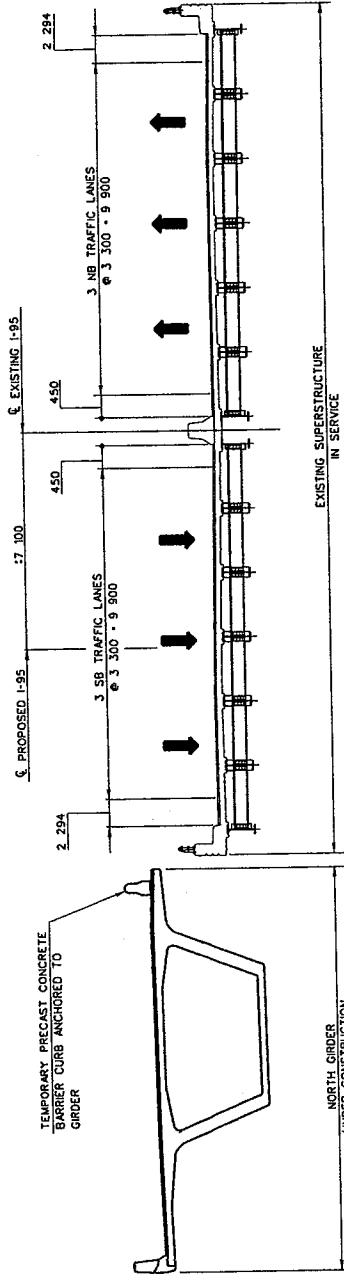


ELEVATION
SCALE: 1:250

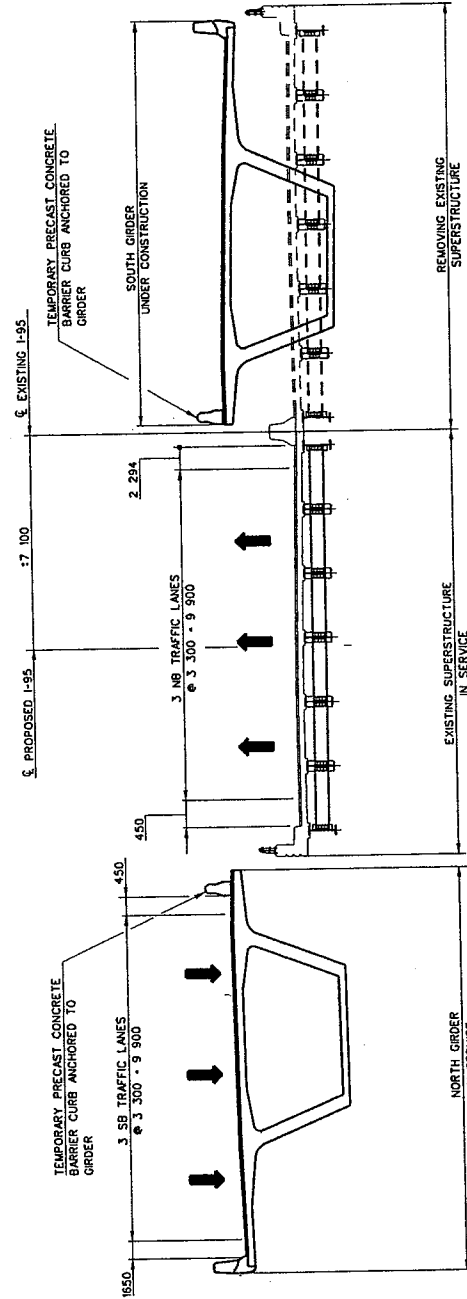
REVISED 10/2/06

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DATE: 11/22/06	PIER 5E	FIG. 32



STAGE 1 - SECTION
NOT TO SCALE

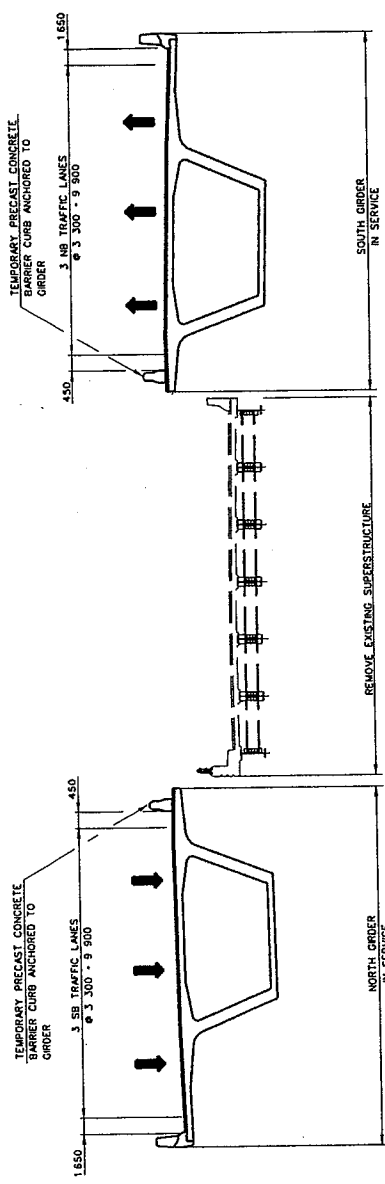


STAGE 2 - SECTION
NOT TO SCALE

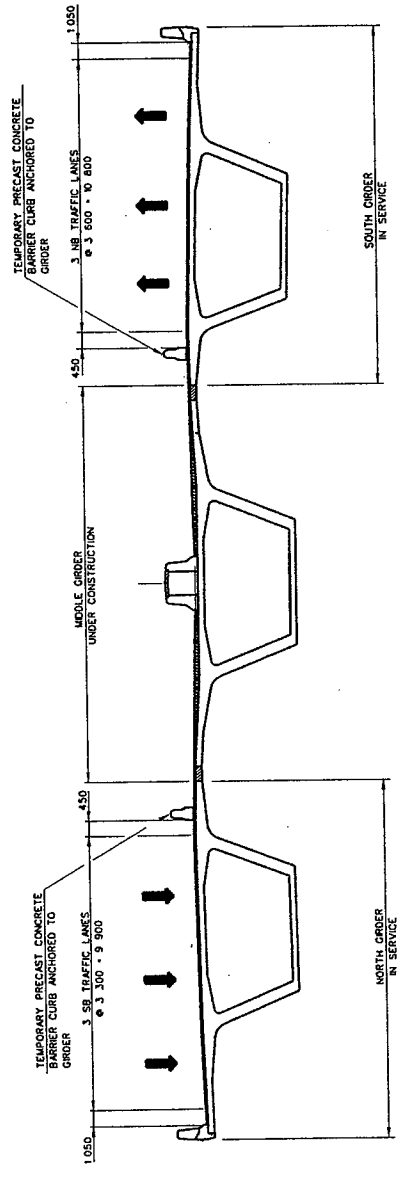
NOTE: FOR SEQUENCE OF CONSTRUCTION ASSOCIATED WITH THIS STAGE CONSTRUCTION SCHEME SEE FIGURES 34A AND 34B.

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REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	
DATE: 11/11/05	STAGE CONSTRUCTION
	FIG. 33

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STAGE 3 - PHASE I - SECTION
NOT TO SCALE



STAGE 3 - PHASE II - SECTION
NOT TO SCALE

NOTE: FOR SEQUENCE OF CONSTRUCTION ASSOCIATED WITH THIS STAGE CONSTRUCTION SCHEME SEE FIGURES 34A AND 34B.

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DATE: 11/11/05	STAGE CONSTRUCTION
	FIG. 34

SUGGESTED SEQUENCE OF CONSTRUCTION

THE STAGE CONSTRUCTION SCHEME HAS BEEN DEVELOPED TO MAINTAIN THREE LANES OF TRAVEL ON I-95 N.B. AND S.B. DURING CONSTRUCTION. THE BRIDGES AND RETAINING WALLS WILL BE CONSTRUCTED IN STAGES 1, 2 AND 3. CONSTRUCTION STAGE 4 IS NECESSARY TO ALLOW COMPLETION OF PORTIONS OF THE CONCRETE BASE ON THE HIGHWAY APPROACH SECTIONS TO THE MOSES WHEELER BRIDGE. THE MAJOR ITEMS OF WORK TO BE PERFORMED IN EACH CONSTRUCTION STAGE ARE DESCRIBED BELOW.

CONSTRUCTION STAGE 1: TRAFFIC IS MAINTAINED ON THE EXISTING MOSES WHEELER BRIDGE WHILE THE NORTH SIDE OF THE NEW BRIDGES AND HIGHWAY APPROACHES ARE CONSTRUCTED. STAGE 1 IS ANTICIPATED TO TAKE 25 MONTHS TO COMPLETE. THE MAJOR ITEMS OF WORK TO BE ACCOMPLISHED INCLUDE:

- INSTALL SEDIMENTATION CONTROL SYSTEMS AND CLEAR AND GRUB ON THE NORTH SIDE OF THE FREEWAY.
- SET-UP WASTE STOCKPILE/MANAGEMENT AREA AND STORAGE YARD IN STRATFORD ON STATE PROPERTY BETWEEN I-95 AND FERRY BOULEVARD. THIS WASTE/STOCKPILE AREA IS LOCATED WHERE WET POND NO. 1 WILL BE CONSTRUCTED IN STAGE 4.
- CLOSE STATE BOAT LAUNCH IN MILFORD TO PUBLIC USE AND SET UP STORAGE AND WORK AREA UNDER THE EXISTING BRIDGE AND ALONG THE BOAT LAUNCH ACCESS ROADWAY AND PARKING AREA.
- CLOSE THE AREA UNDER THE MOSES WHEELER BRIDGE IN STRATFORD TO PUBLIC ACCESS AND SET UP WORK ZONE AND ACCESS ROADS INTO THIS WORK AREA.
- CONSTRUCT TEMPORARY TRESTLES FROM RIVER BANKS IN MILFORD AND STRATFORD.
- DEMOLISH HOUSE ON PROPERTY TAKEN ON NAUGATUCK AVENUE AND CONSTRUCT WET POND NO. 3.
- CONSTRUCT STORM SEWER TRUNK LINES AT STREET LEVEL IN MILFORD (DRAINAGE SYSTEM C) AND IN STRATFORD (DRAINAGE SYSTEM E).
- CONSTRUCT INFILTRATION SYSTEM UNDER MOSES WHEELER BRIDGE.
- CONSTRUCT DRILLED SHAFTS, NORTH COLUMNS AND THE NORTH GIRDER OF THE NEW MOSES WHEELER BRIDGE (BRIDGE NO. 135).
- CONSTRUCT STAGE 1 (THE NORTH ONE-THIRD) OF BRIDGE NOS. 133, 134, AND 06613.
- CONSTRUCT RETAINING WALL NOS. 101, 102 AND 103.
- CONSTRUCT EMBANKMENTS ON NORTH SIDE OF I-95, PAVEMENTS AND STORM DRAINAGE SYSTEMS ON THE NORTH SIDE OF FREEWAY APPROACH SECTIONS.
- SHIFT THE I-95 S.B. TRAFFIC ONTO THE NEWLY CONSTRUCTED NORTH SECTION OF I-95 AND BRIDGES TO COMMENCE CONSTRUCTION STAGE 2.

CONSTRUCTION STAGE 2: I-95 S.B. TRAFFIC IS MAINTAINED ON THE NEWLY CONSTRUCTED NORTH SECTION IN THIS STAGE AND THE I-95 N.B. TRAFFIC IS OPERATING WHERE THE I-95 S.B. TRAFFIC OPERATED DURING CONSTRUCTION STAGE 1. THE WORK ZONE ON I-95 IS THE SOUTH SIDE OF I-95 IN THIS STAGE. CONSTRUCTION STAGE 2 IS ANTICIPATED TO REQUIRE 22 MONTHS TO COMPLETE AND INCLUDES THE FOLLOWING MAJOR WORK ITEMS:

- INSTALL SEDIMENTATION CONTROL SYSTEMS ALONG AND THROUGHOUT THE STAGE 2 WORK ZONE. SEDIMENTATION CONTROLS INSTALLED IN CONSTRUCTION STAGE 1 SHALL BE MAINTAINED IN SERVICE.
- PERFORM CLEARING AND GRUBBING ALONG THE SOUTH SIDE OF I-95.
- DEMOLISH THE SOUTH SIDE OF BRIDGE NOS. 133, 134 AND THE SOUTHERLY ONE-HALF OF THE SUPERSTRUCTURE OF THE EXISTING MOSES WHEELER BRIDGE. THE SUBSTRUCTURE OF THE MOSES WHEELER BRIDGE WILL BE DEMOLISHED IN CONSTRUCTION STAGE 3.
- CONSTRUCT DRILLED SHAFTS, THE SOUTH COLUMNS AND SOUTH GIRDER OF THE NEW MOSES WHEELER BRIDGE.
- CONSTRUCT THE SOUTH SIDE OF NEW BRIDGE NOS. 133, 134 AND 06613.
- RECONSTRUCT PAVEMENTS AND STORM DRAINAGE SYSTEMS ON THE SOUTH ONE-THIRD OF THE HIGHWAY APPROACH SECTIONS.
- SHIFT THE I-95 N.B. TRAFFIC ONTO THE NEWLY CONSTRUCTED SOUTH SECTION OF I-95 TO COMMENCE CONSTRUCTION STAGE 3.

(CONTINUED ON FIG. 34B)



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SEQUENCE OF CONSTRUCTION

FIG. 34A

SUGGESTED SEQUENCE OF CONSTRUCTION
(CONTINUED FROM FIG. 34A)

CONSTRUCTION STAGE 3: THE I-95 S.B. TRAFFIC IS MAINTAINED IN THE SAME LOCATION AS IN STAGE 2. THE I-95 N.B. TRAFFIC HAS BEEN SHIFTED TO OPERATE ON THE SOUTH SIDE OF I-95 THAT WAS CONSTRUCTED IN STAGE 2. THE WORK ZONE IN STAGE 3 IS THE CENTER SECTION OF I-95. CONSTRUCTION STAGE 3 IS ANTICIPATED TO TAKE 19 MONTHS TO COMPLETE. THE MAJOR ITEMS OF WORK TO BE CONSTRUCTED IN THIS STAGE INCLUDE:

- RESET SEDIMENTATION CONTROL SYSTEMS FOR ACCESS TO THE WORK ZONE. MAINTAIN SEDIMENTATION CONTROLS PREVIOUSLY INSTALLED.
- DEMOLISH THE REMAINDER OF THE OLD PORTIONS OF BRIDGE NOS. 133 AND 134.
- DEMOLISH THE NORTHERLY HALF OF THE SUPERSTRUCTURE OF THE OLD MOSES WHEELER BRIDGE.
- CONSTRUCT DRILLED SHAFTS, CENTER COLUMNS AND THE CENTER GIRDER OF THE NEW MOSES WHEELER BRIDGE.
- CONSTRUCT THE CENTER SECTIONS OF NEW BRIDGE NOS. 133, 134 AND 06613.
- RECONSTRUCT PAVEMENTS AND STORM DRAINAGE SYSTEMS IN THE CENTER ONE-THIRD OF I-95. CONSTRUCT THE MEDIAN BARRIERS ON I-95.
- INSTALL TEMPORARY SHEET PILE ENCLOSURES AROUND THE EXISTING MOSES WHEELER BRIDGE PIERS 4W, 3W, 2W, 1W, 1E, 2E, 3E, 4E AND 5E.
- DEMOLISH THE EXISTING SUBSTRUCTURE ELEMENTS OF THE MOSES WHEELER BRIDGE. CONSTRUCT WET POND NO. 2 AND THE WETLAND MITIGATION AREA UNDER THE MOSES WHEELER BRIDGE IN MILFORD (THIS WORK MAY BE COMPLETED IN STAGE 4).
- REMOVE ALL TEMPORARY TRAFFIC CONTROL SYSTEMS ON I-95 AND OPEN THE NEW FREEWAY TO TRAFFIC.

CONSTRUCTION STAGE 4: THIS STAGE IS NECESSARY TO ALLOW COMPLETION OF SOME SECTIONS OF THE NEW CONCRETE BASE AND PAVEMENTS ON THE MILFORD AND STRATFORD HIGHWAY APPROACHES THAT WERE RECONSTRUCTED IN STAGES 1, 2 AND 3. THIS WORK WILL BE DONE AT NIGHT DURING TIMES WHEN TRAFFIC LANES CAN BE TEMPORARILY CLOSED AT LOCALIZED WORK AREAS ON THE FREEWAY. CONSTRUCTION STAGE 4 IS ANTICIPATED TO TAKE 6 MONTHS TO COMPLETE. THE WORK TO BE PERFORMED IN THIS STAGE INCLUDES:

- COMPLETE THE PERMANENT PAVEMENT SECTIONS ON THE I-95 HIGHWAY APPROACHES.
- REMOVE THE TEMPORARY TRESTLES FROM THE RIVER.
- RECONSTRUCT THE STATE BOAT LAUNCH RAMP, ACCESS ROAD AND PARKING AREA AND OPEN THE BOAT LAUNCH TO PUBLIC USE.
- REMOVE THE WASTE STOCKPILE/MANAGEMENT AREA.
- CONSTRUCT WET POND NO. 1.
- REMOVE ALL SEDIMENTATION CONTROLS AND REMAINING TEMPORARY CONSTRUCTIONS.

NOTE: THIS IS A SUGGESTED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR MAY MODIFY THIS SEQUENCE OF CONSTRUCTION TO COMPLETE THE ELEMENTS OF CONSTRUCTION ON A DIFFERENT SCHEDULE TO THE BENEFIT OF HIS WORK FORCES AND TO EXPEDITE CONSTRUCTION.



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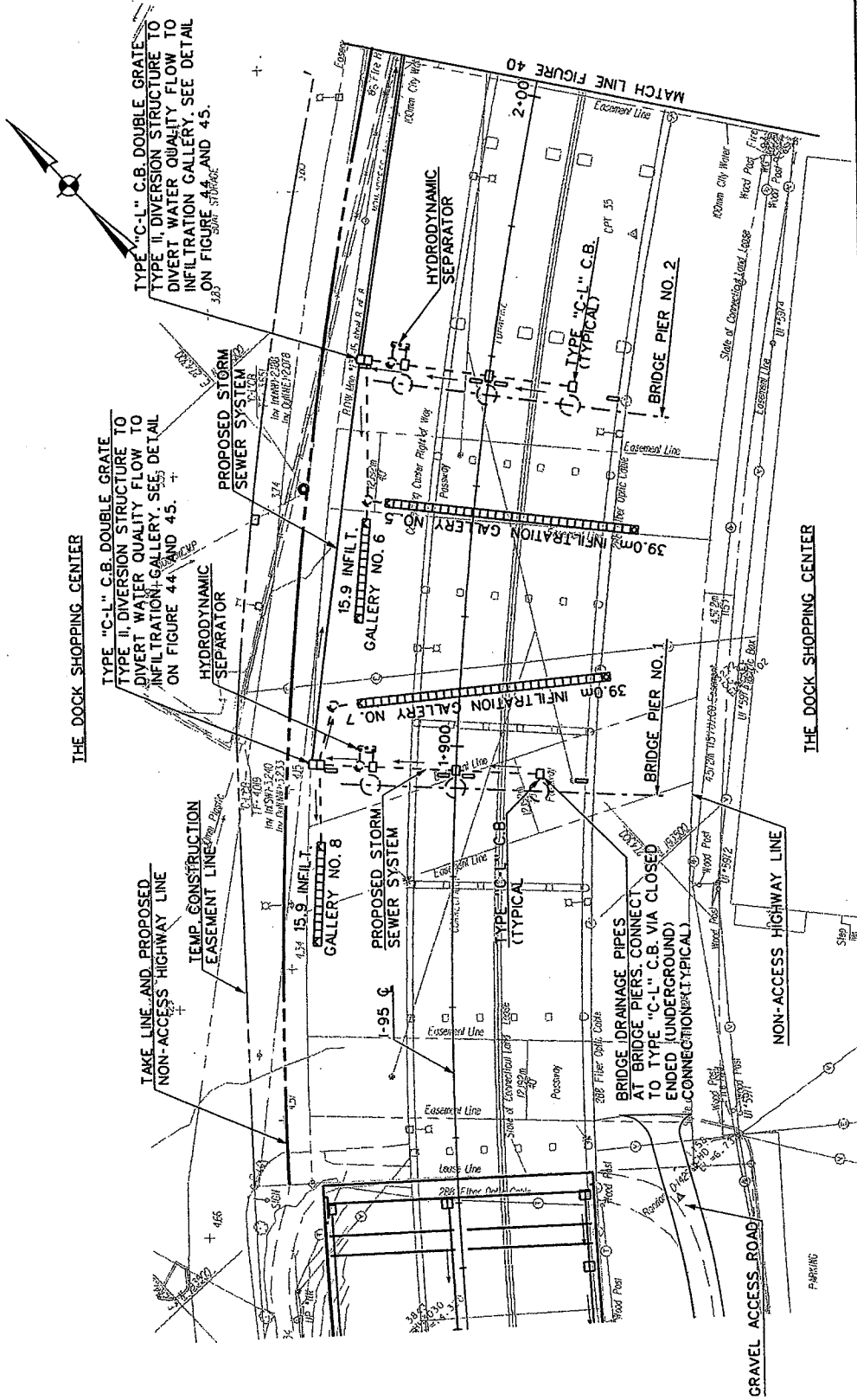
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REPLACEMENT OF I-95 BRIDGE
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SEQUENCE OF CONSTRUCTION

FIG. 34B



THE DOCK SHOPPING CENTER

TYPE "C-L" C.B. DOUBLE GRATE
TYPE II DIVERSION STRUCTURE TO
DIVERT WATER QUALITY FLOW TO
INFILTRATION GALLERY. SEE DETAIL
ON FIGURE 44 AND 45.

TAKE LINE AND PROPOSED
NON-ACCESS HIGHWAY LINE

TEMP. CONSTRUCTION
EASEMENT LINE

PROPOSED STORM
SEWER SYSTEM

HYDRODYNAMIC
SEPARATOR

15.9 INFILT.
GALLERY NO. 8

PROPOSED STORM
SEWER SYSTEM

15.9 INFILT.
GALLERY NO. 6

INFILTRATION GALLERY

15.9 INFILT.
GALLERY NO. 7

INFILTRATION GALLERY

39.0m INFILTRATION GALLERY

39.0m INFILTRATION GALLERY

39.0m INFILTRATION GALLERY

39.0m INFILTRATION GALLERY

39.0m INFILTRATION GALLERY

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39.0m INFILTRATION GALLERY

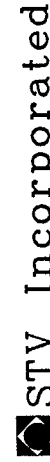
39.0m INFILTRATION GALLERY

PLAN - INFILTRATION SYSTEM

SCALE: 1:1000

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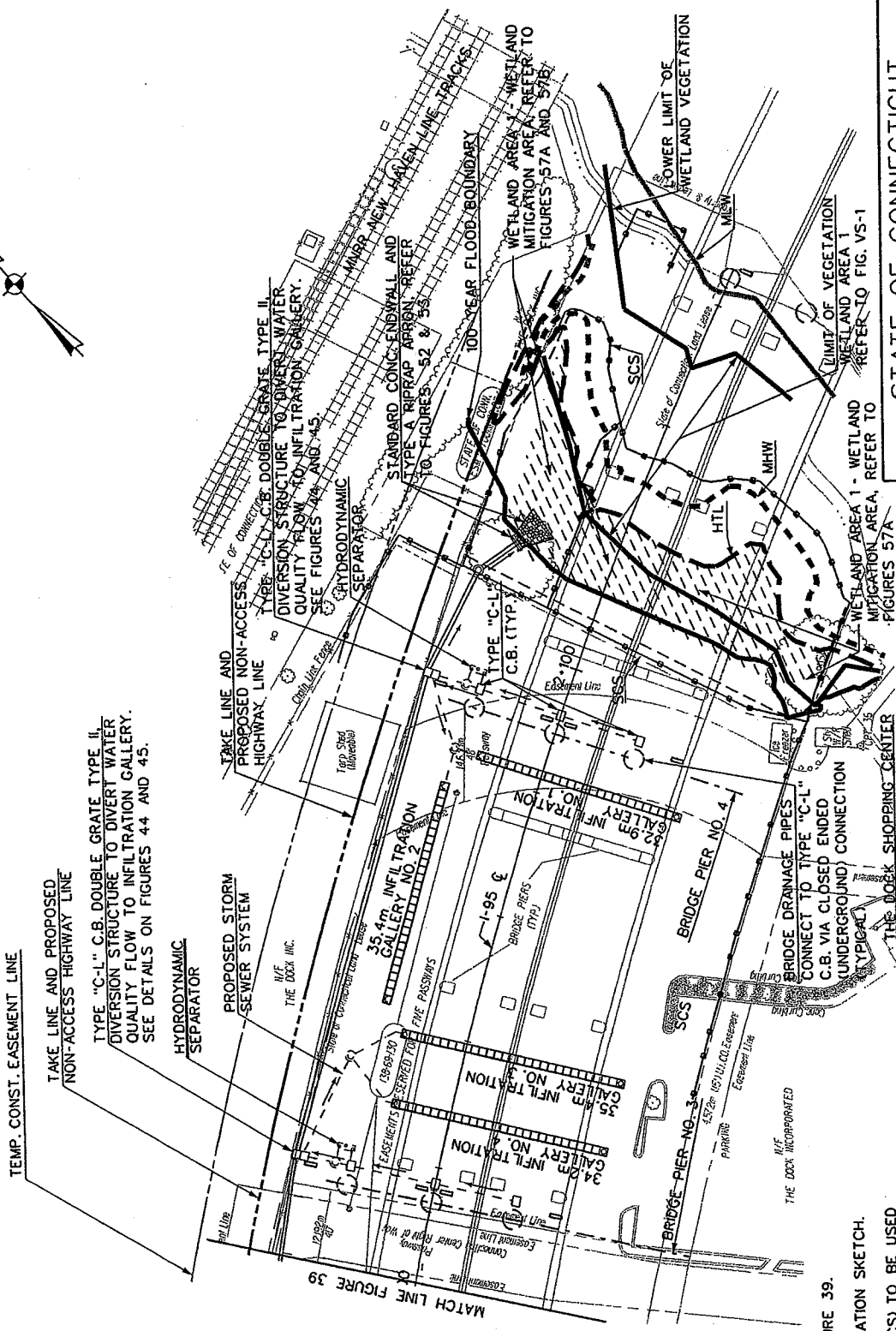
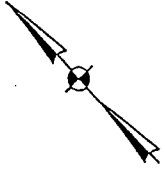


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DATE: 11/11/05 PROPOSED INFILTRATION SYSTEM FIG. 39

- NOTES:
1. THE PROPOSED INFILTRATION SYSTEM IS LOCATED IN THE PAVED PARKING LOT UNDER THE PROPOSED MOSES WHEELER BRIDGE. FOR CLARITY THIS PLAN VIEW DOES NOT SHOW THE PROPOSED MOSES WHEELER BRIDGE DECK. ALL STORMWATER HANDLED IN THIS INFILTRATION SYSTEM COMES OFF THE BRIDGE DECK OF THE MOSES WHEELER BRIDGE. FOR DETAILS OF THE INFILTRATION SYSTEM SEE FIGURES 41 THROUGH 45.
 - 2.



TEMP. CONST. EASEMENT LINE
 TAKE LINE AND PROPOSED
 NON-ACCESS HIGHWAY LINE
 TYPE "C-L" C.B. DOUBLE GRADE TYPE II
 DIVERSION STRUCTURE TO DIVERT WATER
 QUALITY FLOW TO INFILTRATION GALLERY.
 SEE DETAILS ON FIGURES 44 AND 45.
 HYDRODYNAMIC
 SEPARATOR
 PROPOSED STORM
 SEWER SYSTEM
 THE DOCK INC.
 THE DOCK SHOPPING CENTER
 BRIDGE PIER NO. 4
 BRIDGE PIER NO. 3
 BRIDGE PIER NO. 2
 BRIDGE PIER NO. 1
 BRIDGE PIER NO. 0
 BRIDGE PIER NO. -1
 BRIDGE PIER NO. -2
 BRIDGE PIER NO. -3
 BRIDGE PIER NO. -4
 BRIDGE PIER NO. -5
 BRIDGE PIER NO. -6
 BRIDGE PIER NO. -7
 BRIDGE PIER NO. -8
 BRIDGE PIER NO. -9
 BRIDGE PIER NO. -10
 BRIDGE PIER NO. -11
 BRIDGE PIER NO. -12
 BRIDGE PIER NO. -13
 BRIDGE PIER NO. -14
 BRIDGE PIER NO. -15
 BRIDGE PIER NO. -16
 BRIDGE PIER NO. -17
 BRIDGE PIER NO. -18
 BRIDGE PIER NO. -19
 BRIDGE PIER NO. -20

PLAN - INFILTRATION SYSTEM
 SCALE: 1"=1000

- NOTES:
- SEE NOTES 1, 2 AND 3 ON FIGURE 39.
 - REFER TO FIG. VS-1 FOR VEGETATION SKETCH.
 - GEOTEXTILE FENCE SYSTEM (SCS) TO BE USED ABOVE HIGH TIDE LINE. SILT SCREEN ON POSTS TO BE USED BELOW HIGH TIDE LINE. SEE FIGURE 55 FOR DETAILS.

LEGEND

MLW	MEAN LOW WATER ELEVATION
MHW	MEAN HIGH WATER ELEVATION
HTL	HIGH TIDE LINE
	WETLAND VEGETATION LIMIT
	100 YEAR FLOOD BOUNDARY

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 PROPOSED INFILTRATION SYSTEM
 FIG. 40

INFILTRATION GALLERY LENGTH AS INDICATED ON PLAN

1220mm
END SECTION

1220mm
CENTER SECTION

1220mm
END SECTION

1220mm

A

A

STANDARD MANHOLE FRAME AND
COVER PER STANDARD NO. M507-A
AT EACH ACCESS OPENING ON ENDS
OF GALLERIES

200mm PVC INLET
PIPE FROM MANHOLE

PLAN VIEW
SCALE: 1:20

TYPICAL DETAILS- PRECAST INFILTRATION GALLERY (1 OF 3)

NOTES:

1. PRECAST INFILTRATION GALLERY SHALL CONFORM TO THE REQUIREMENTS FOR PRECAST UNITS FOR DRAINAGE STRUCTURES OF ARTICLE M.08.02 OF THE STANDARD SPECIFICATIONS (FORM 815)
2. THE DESIGN LOADING FOR PRECAST INFILTRATION GALLERY SHALL BE AASHTO HS20-44.

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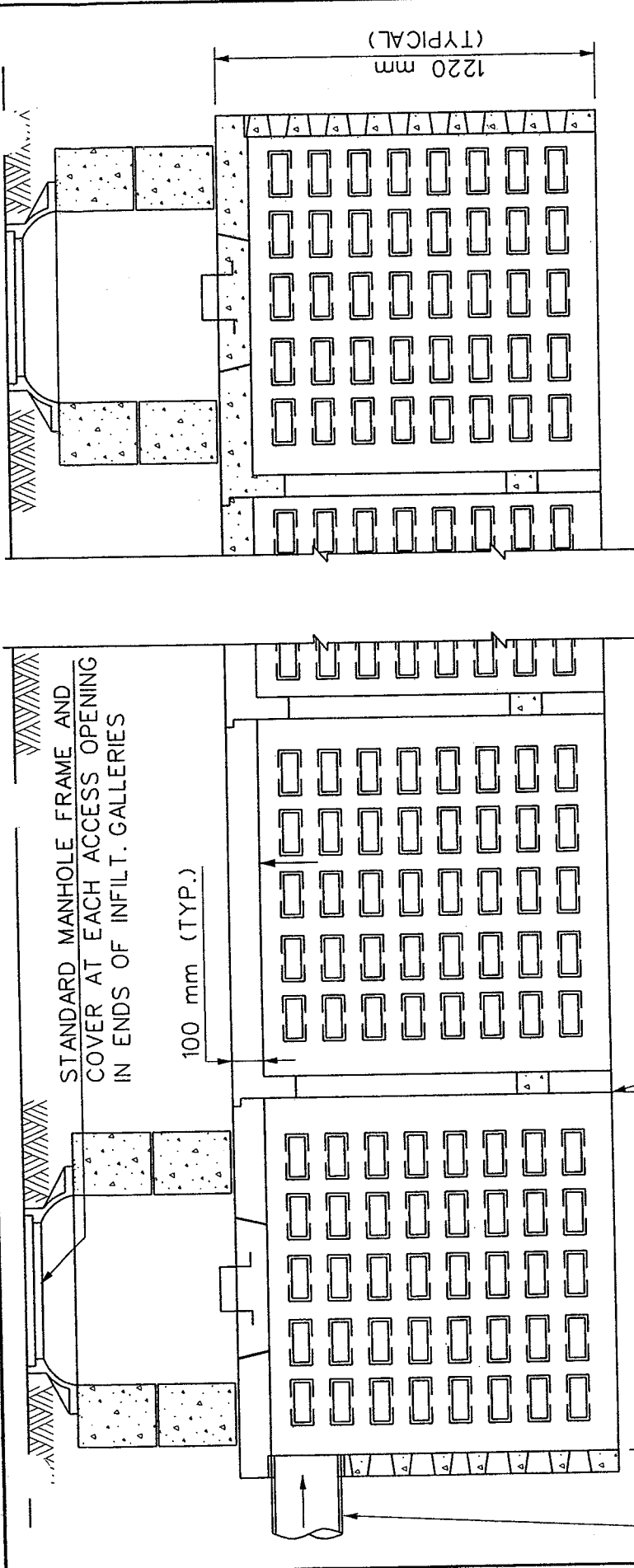
DATE: 11/11/05

PRECAST INFILTRATION GALLERIES
TYPICAL DETAILS

FIG. 41

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200mm PVC PIPE FROM MANHOLE. SEAL ANNULAR SPACE AROUND PIPE WITH NEOPRENE GASKET OR BOOT

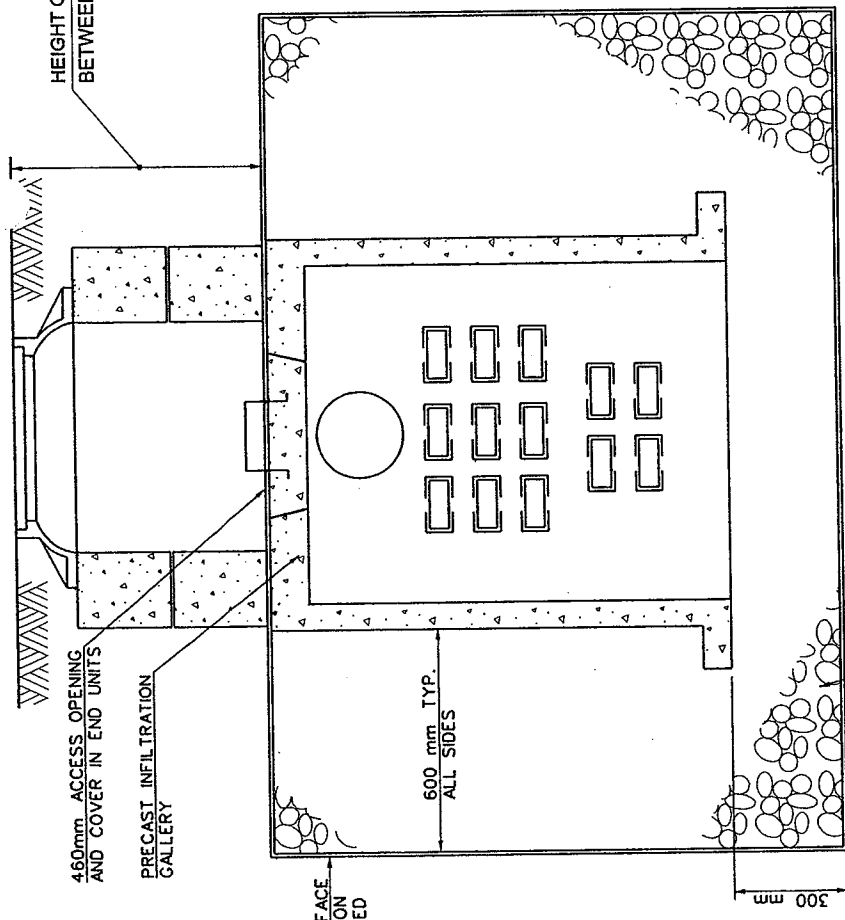
SECTION A-A
SCALE: 1:20

TYPICAL DETAILS- PRECAST INFILTRATION GALLERY (2 OF 3)

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	DATE: 11/11/05	PRECAST INFILTRATION GALLERIES TYPICAL DETAILS	FIG. 42
STRATFORD/MILFORD		REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	

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HEIGHT OF COVER VARIES AT EACH ACCESS OPENING
BETWEEN 650 mm (MIN.) AND 850 mm (MAX.)



INFILTRATION GALLERY ELEVATION DATA TABLE

INFILTRATION GALLERY I.D. NO.	BOTTOM OF EXCAVATION ELEV.	APPROX. GROUNDWATER ELEV.	APPROX. TOP OF ROCK ELEV.
1	1.350	0.80	-2.20
2	1.350	0.80	-2.20
3	1.600	1.00	-9.10
4	1.600	1.00	-9.10
5	1.800	1.10	-5.40
6	1.880	1.10	-5.40
7	2.100	1.30	UNKNOWN
8	2.100	1.40	-1.80

FOR LOCATIONS AND LENGTHS OF INFILTRATION GALLERIES BY I.D. NO. SEE FIGURES 39 AND 40.

GROUNDWATER ELEVATION DATA IN THIS TABLE IS BASED ON MEASUREMENTS TAKEN IN MAY 2004 AT OBSERVATION WELLS IN THE AREA OF THE PROPOSED INFILTRATION SYSTEMS.

END ELEVATION
SCALE: 1:20

TYPICAL DETAILS- PRECAST INFILTRATION GALLERY
(3 OF 3)

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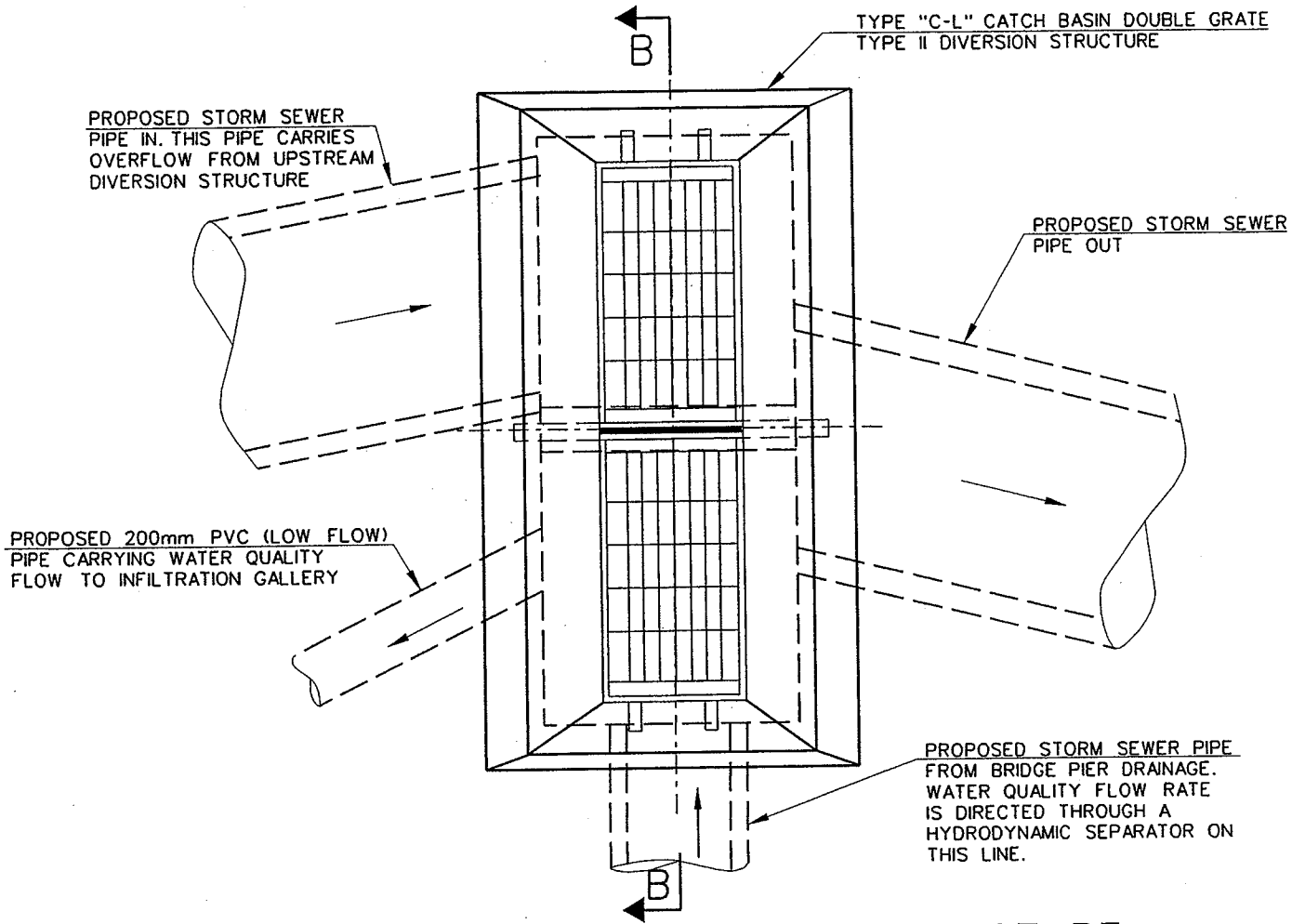
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DATE: 11/11/05
PRECAST INFILTRATION GALLERIES
TYPICAL DETAILS

FIG. 4.3



PLAN - TYPICAL DIVERSION STRUCTURE


SCALE 1:25

- NOTES: 1. THESE CATCH BASIN UNITS ARE FLOW DIVERSION STRUCTURES. WATER QUALITY FLOW (WQF) RATE IS DIRECTED TO THE INFILTRATION GALLERY VIA THE 200mm DIAMETER PVC PIPES. STORMWATER FLOWS IN EXCESS OF THE WQF RATE ARE CARRIED TO AN OUTFALL AT THE HOUSATONIC RIVER VIA THE STORM SEWER PIPE SYSTEM.
2. STORMWATER RUNOFF ON THE BRIDGE DECK IS INTERCEPTED IN BRIDGE SCUPPERS AND DIRECTED DOWN BRIDGE PIERS IN BRIDGE DRAINAGE PIPES. BRIDGE DRAINAGE PIPES ARE CONNECTED TO TYPE "C-L" CATCH BASINS IN THE PAVED PARKING AREA UNDER THE BRIDGE BY A CLOSED ENDED (UNDERGROUND) CONNECTION.
3. STORMWATER TREATMENT SYSTEMS IN THE PAVED PARKING AREA LOCATED UNDER THE BRIDGE AND ADJACENT TO THE DOCK SHOPPING CENTER ARE SIZED FOR THE FOLLOWING:

BRIDGE DRAINAGE AT BRIDGE PIER NO.	WQV TO INFILTRATION GALLERY	WQF RATE TO HYDRODYNAMIC SEPARATOR UNITS
1	2,086 FT ³	0.6 CFS
2	2,086 FT ³	0.6 CFS
3	2,600 FT ³	0.7 CFS
4	2,573 FT ³	0.7 CFS

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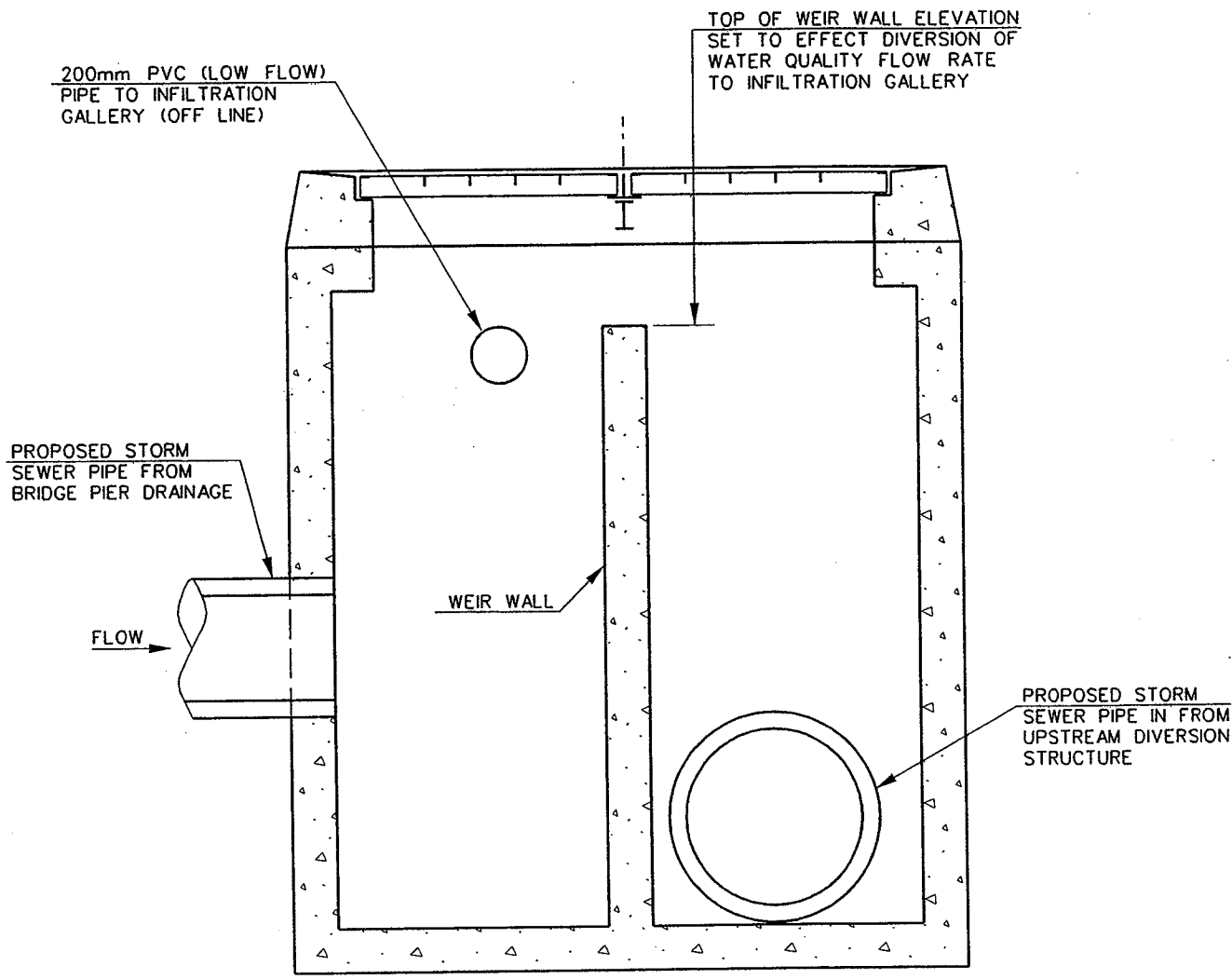
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INFILTRATION SYSTEM DETAIL

FIG. 44



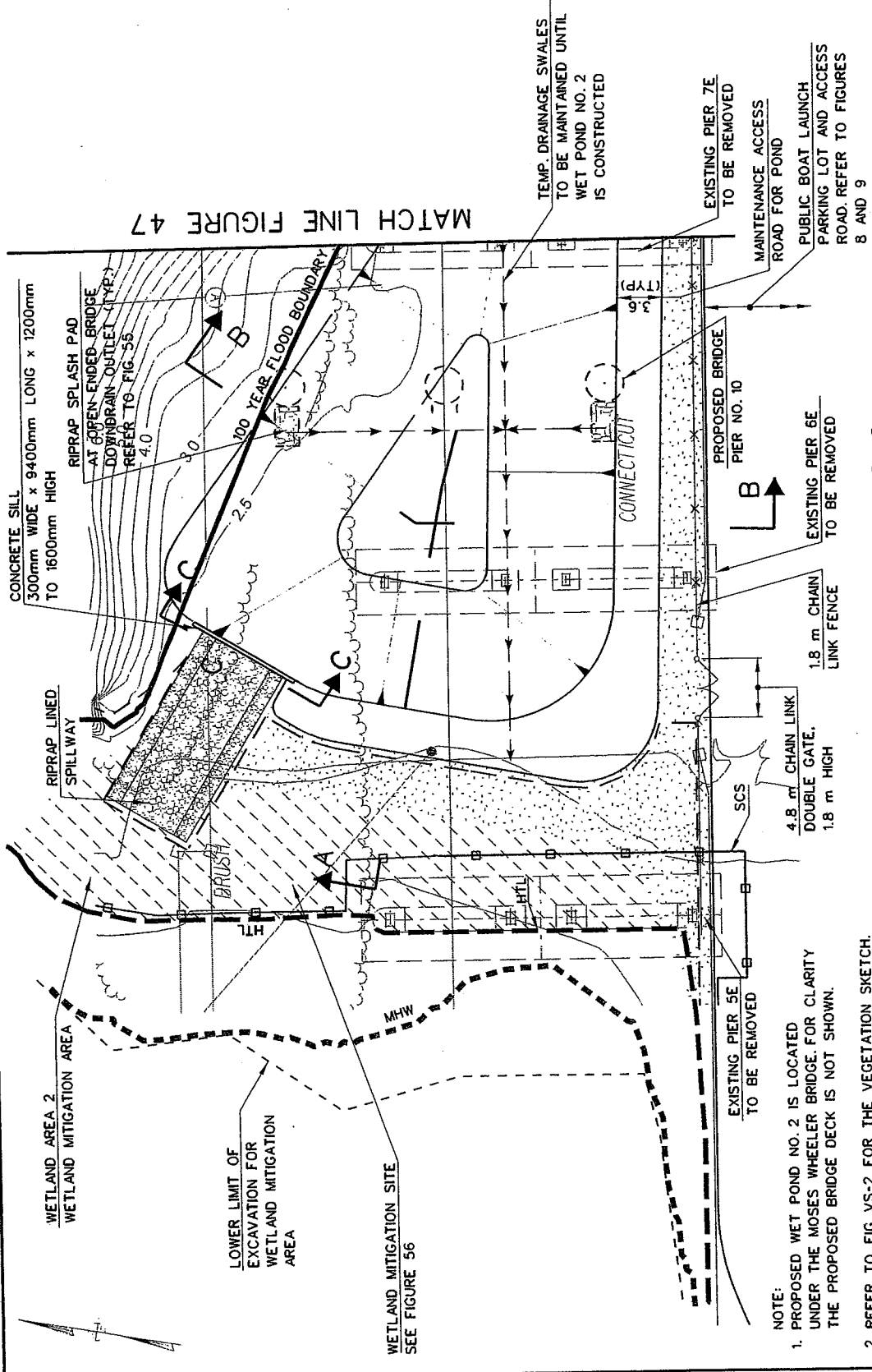
SECTION B-B
TYPICAL DIVERSION STRUCTURE
 SCALE 1:25

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MATCH LINE FIGURE 47

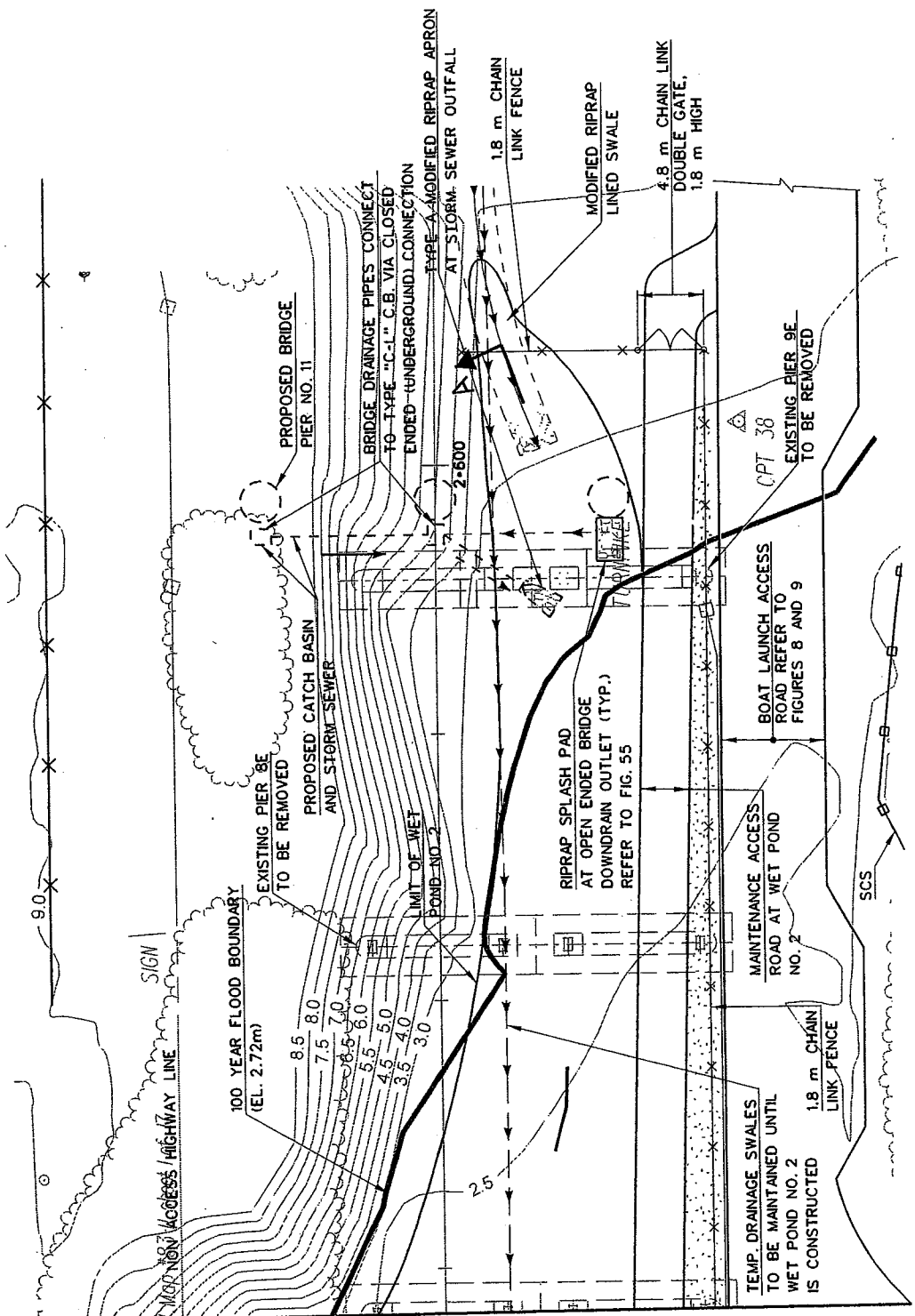
PLAN - WET POND NO. 2
SCALE: 1:500

- NOTE:
1. PROPOSED WET POND NO. 2 IS LOCATED UNDER THE MOSES WHEELER BRIDGE. FOR CLARITY THE PROPOSED BRIDGE DECK IS NOT SHOWN.
 2. REFER TO FIG. VS-2 FOR THE VEGETATION SKETCH.
 3. PROPOSED WET POND NO. 2 WILL BE CONSTRUCTED IN THE FINAL STAGE OF THE PROJECT AFTER THE NEW MOSES WHEELER BRIDGE IS COMPLETE AND THE EXISTING BRIDGE HAS BEEN DEMOLISHED
 4. FOR SECTIONS A-A, B-B AND C-C SEE FIGURE 4B.

- LEGEND
- MHW ——— MEAN HIGH WATER ELEVATION
 - HTL ——— HIGH TIDE LINE
 - 100 YEAR FLOOD BOUNDARY

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	DATE: 11/22/06	PROPOSED WET POND NO. 2	FIG. 46
STRATFORD/MILFORD			
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221			

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MATCH LINE FIGURE 46

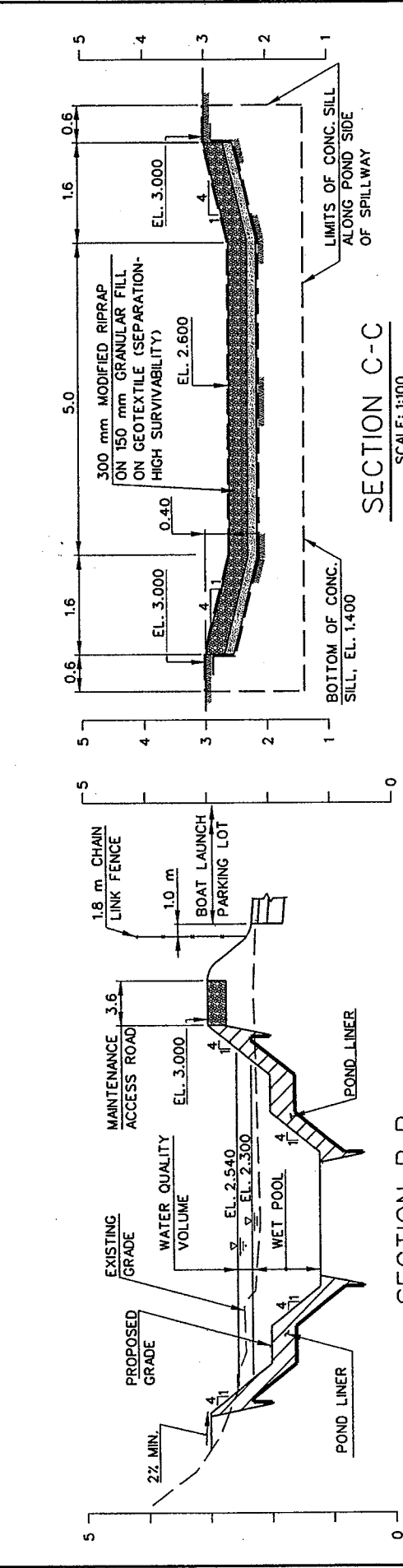
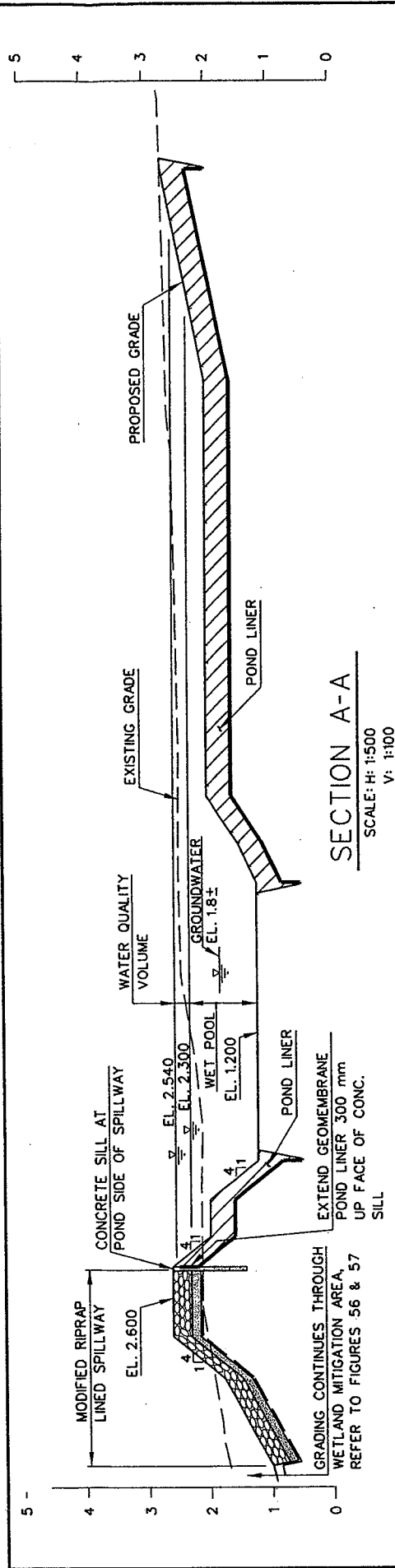
PLAN - RETENTION POND NO. 2

SCALE: 1:500

NOTE:
 PROPOSED WET POND NO. 2 IS LOCATED
 UNDER THE MOSES WHEELER BRIDGE.
 THE PROPOSED BRIDGE DECK IS NOT SHOWN
 FOR CLARITY.

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		
STRATFORD/MILFORD		
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221		
DATE: 11/22/06	PROPOSED WET POND NO. 2	FIG. 47

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SECTION AND DETAILS - WET POND NO. 2

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	
STRATFORD/MILFORD	
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	WET POND NO. 2 SECTIONS AND DETAILS
DATE: 11/11/05	FIG. 48

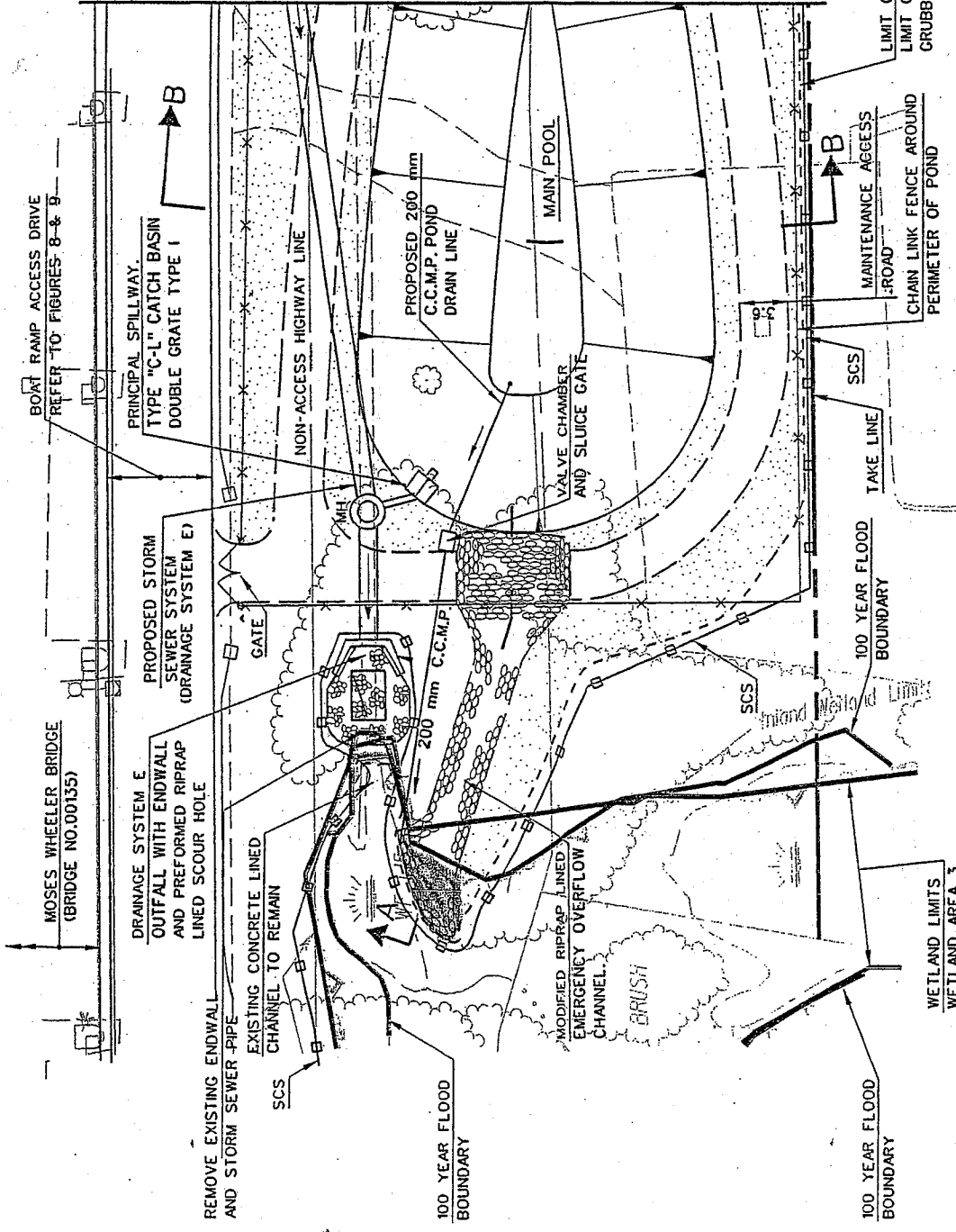
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TYPICAL SECTION POND LINER
N.T.S.

Labels in diagram include: COVER GEOMEMBRANE LINER WITH 300mm BEDDING MATERIAL (TYP.), GEOMEMBRANE LINER INSTALLED ON A SMOOTH, FIRM, UNYIELDING SUBGRADE, and EMBED GEOMEMBRANE LINER IN ANCHOR TRENCHES AT UPPER AND LOWER LIMITS OF THE POND LINER.



MATCH LINE SEE FIGURE 50



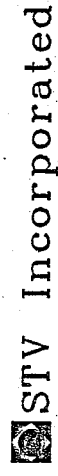
PLAN - WET POND NO. 3

SCALE: 1:50

NOTES:
 1. REFER TO FIG. VS-3 FOR THE VEGETATION SKETCH.
 2. FOR SECTIONS A-A AND B-B SEE FIGURE 51.

LEGEND

- 100 YEAR FLOOD BOUNDARY
- WETLAND VEGETATION LIMIT

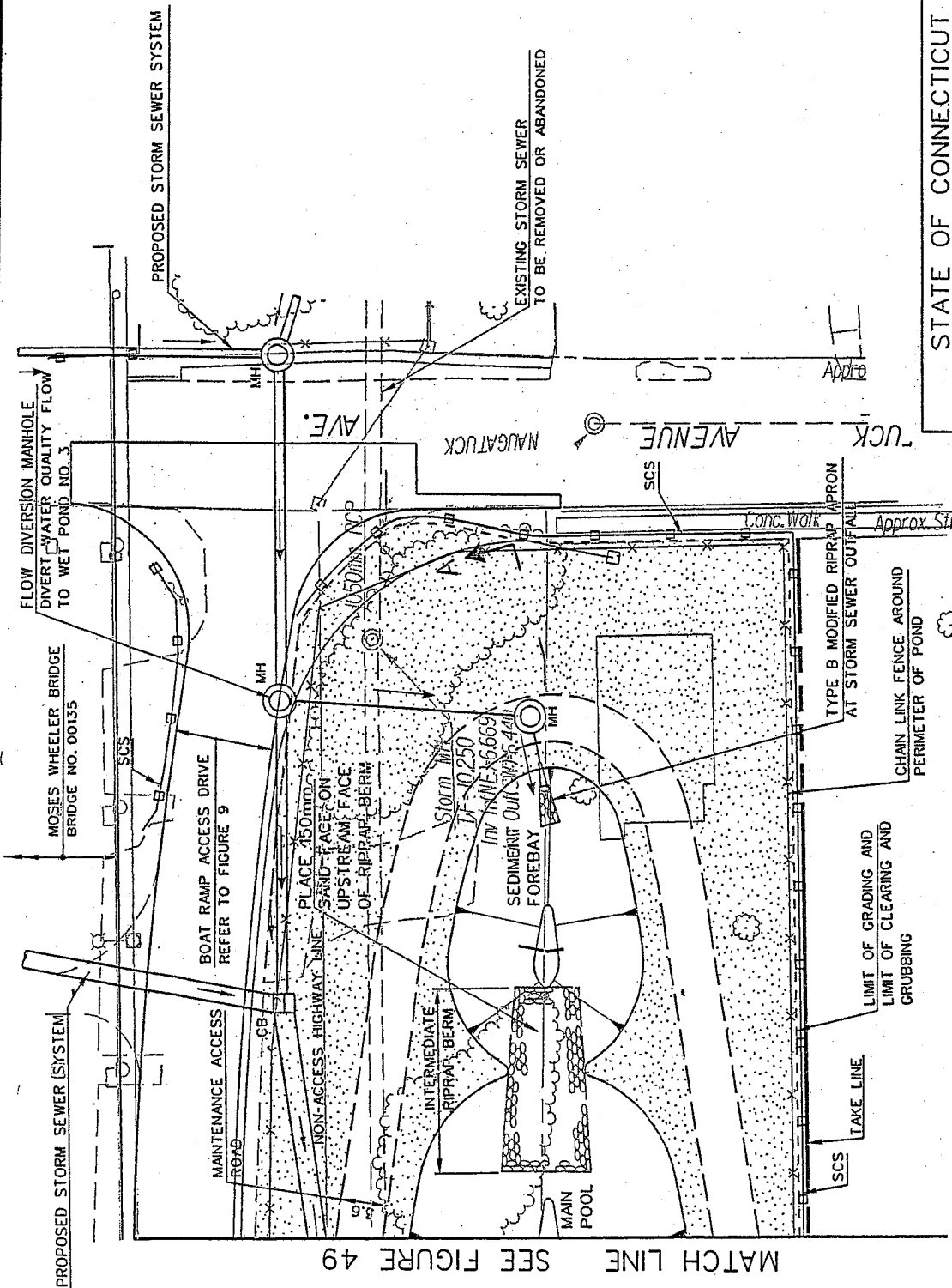


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REPLACEMENT OF I-95 BRIDGE
 OVER THE HOUSATONIC RIVER
 PROJECT NO. 138-221

DATE: 11/11/05 WET POND NO. 3 FIG. 49



MATCH LINE SEE FIGURE 49

PLAN - WET POND NO. 3

SCALE: 1:50

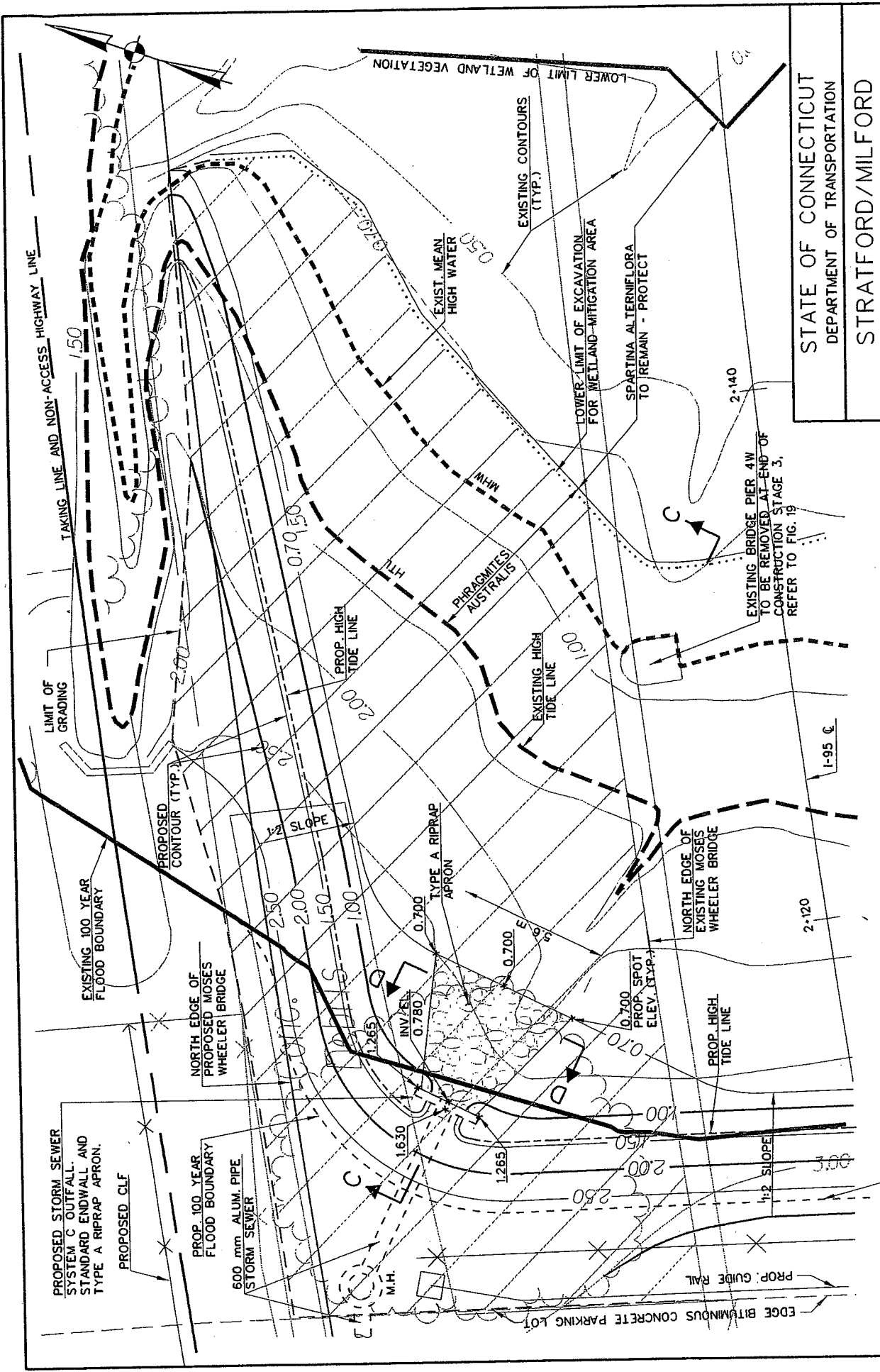
- NOTES:
1. THE FOREBAY FACE OF THE INTERMEDIATE RIPRAP BERM WILL HAVE A 150 mm SAND FABRIC PLACED OVER GEOTEXTILE FABRIC.
 2. FOR SECTION A-A SEE FIGURE 51.

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REPLACEMENT OF I-95 BRIDGE
 OVER THE HOUSATONIC RIVER
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DATE: 11/11/05 WET POND NO. 3 FIG. 50



STATE OF CONNECTICUT
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REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

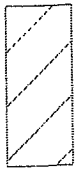
DATE: 11/22/06
DRAINAGE SYSTEM C
PROPOSED STORM SEWER OUTFALL
FIG. 52

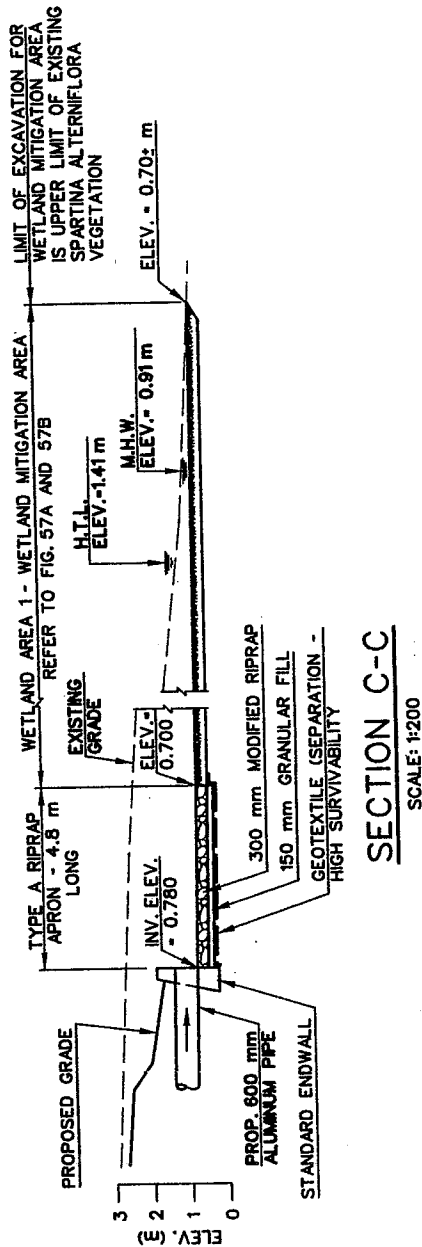
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PLAN
STRATFORD STORM SEWER OUTFALL

SCALE: 1:200
NOTE: REFER TO FIG. 53 FOR SECTION C-C AND SECTION D-D AND NOTES.

INDICATES PORTION OF WETLAND MITIGATION AREA TO BE GRADED AND PLANTED IN CONSTRUCTION STAGE 1 PRIOR TO THE CONSTRUCTION OF THIS STORM SEWER OUTFALL

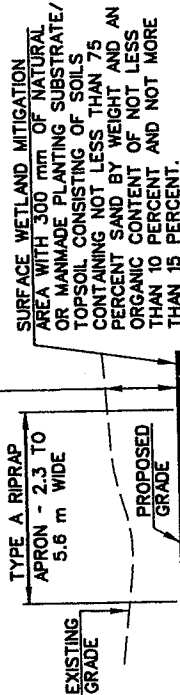




SECTION C-C

SCALE: 1:200

EXCAVATION REQUIRED FOR CREATION OF WETLAND MITIGATION AREA, REFER TO FIG. 57A AND NOTE 3



SECTION D-D

SCALE: 1:200

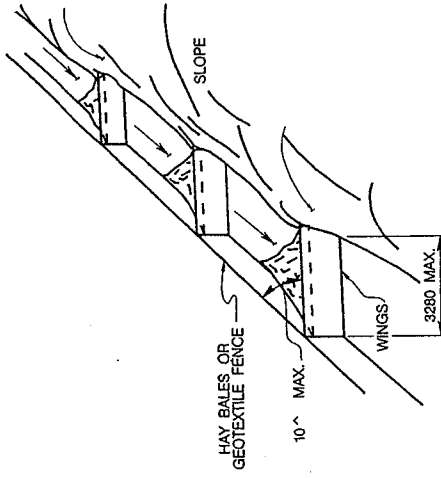
NOTES:

1. REFER TO FIGURE 52 FOR THE LOCATION OF SECTIONS C-C AND D-D.
2. THIS PROPOSED 600 mm STORM SEWER SYSTEM HANDLES ONLY RUNOFF FROM THE NEW MOSES WHEELER BRIDGE DECK, BETWEEN PIERS 1 AND 5. FOR LAYOUT OF STORM SEWER SYSTEM REFER TO FIGURES 39 AND 40.
3. THIS STORM SEWER OUTFALL WILL BE INSTALLED IN CONSTRUCTION STAGE 1 TO ACCEPT RUNOFF FROM THE BRIDGE DECK ON THE NORTH GIRDER OF THE NEW MOSES WHEELER BRIDGE. CREATION OF THE WETLAND MITIGATION AREA TO THE NORTH OF THE EXISTING MOSES WHEELER BRIDGE SHALL BE PERFORMED PRIOR TO THE CONSTRUCTION OF THIS STORM SEWER OUTFALL.
4. CREATION OF THE PORTION OF THE WETLAND MITIGATION AREA UNDER AND TO THE SOUTH OF THE EXISTING MOSES WHEELER BRIDGE WILL BE PERFORMED AT THE END OF CONSTRUCTION STAGE 4 AFTER THE EXISTING BRIDGE HAS BEEN DEMOLISHED.
5. REFER TO FIGURES 57A AND 57B FOR PLANS OF THE WETLAND MITIGATION AREA.

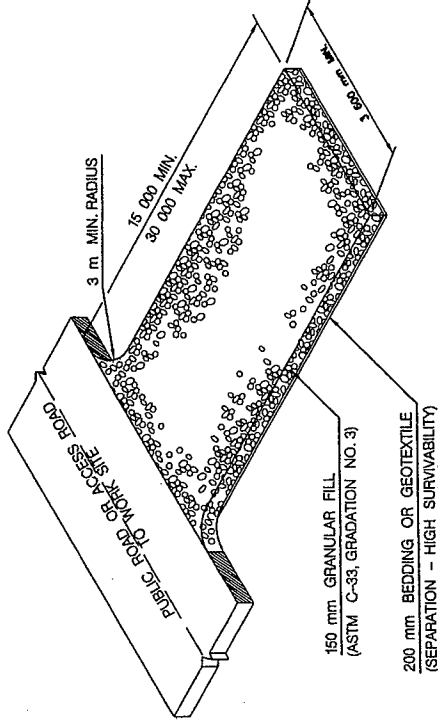
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OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

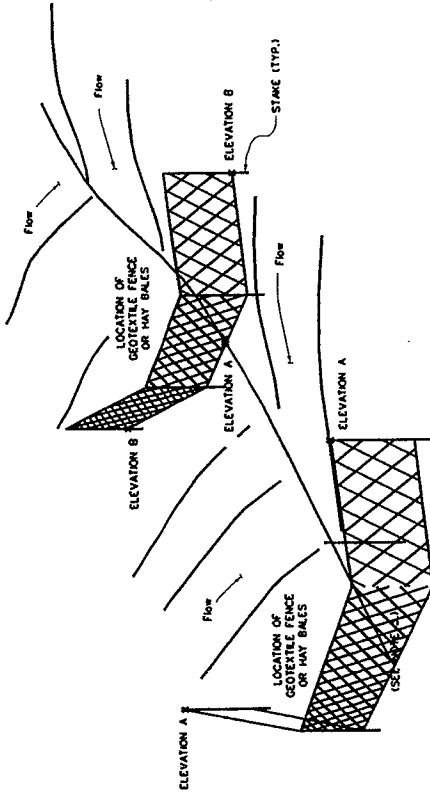
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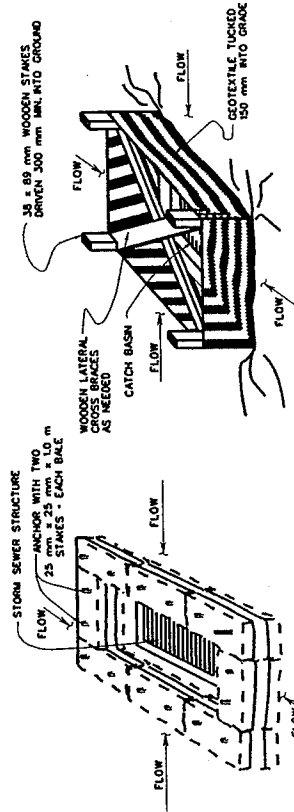
TREATMENT AT TOE OF SLOPE



TYPICAL CONSTRUCTION ENTRANCE



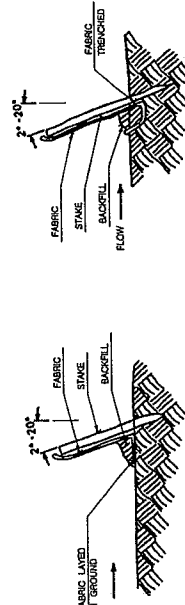
CHECK DAM



HAY BALE CATCH BASIN

GEOTEXTILE FENCE AT CATCH BASIN

TREATMENT FOR A CATCH BASIN IN A DEPRESSION



END VIEW

GEOTEXTILE TOP

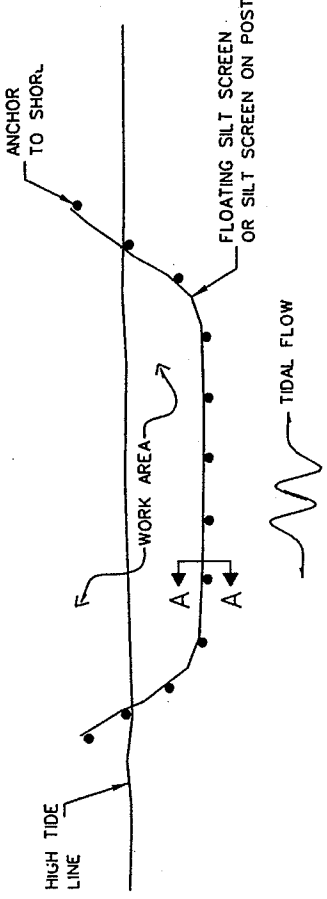
EROSION TOE

GEOTEXTILE FENCE SYSTEM

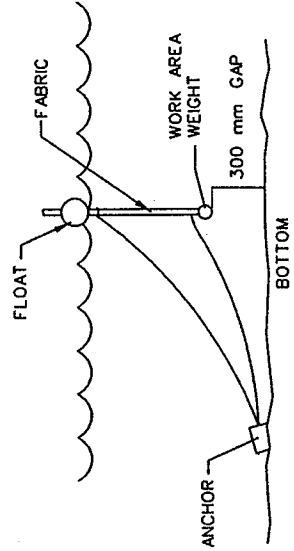
Revised: 9/8/02

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STRATFORD/MILFORD
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221
DATE: 11/11/05
SEDIMENTATION AND EROSION CONTROL MEASURES
FIG. 54

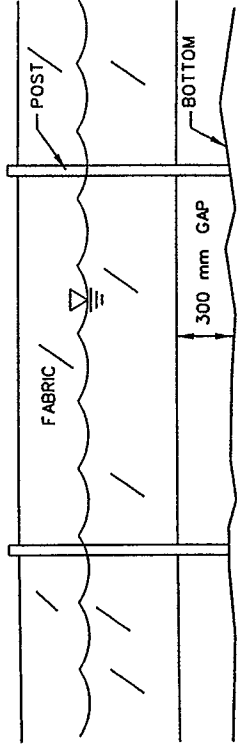
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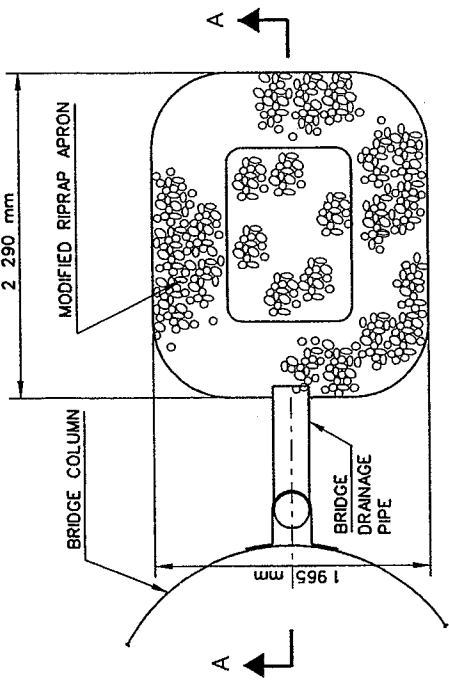
PLAN - SILT SCREEN



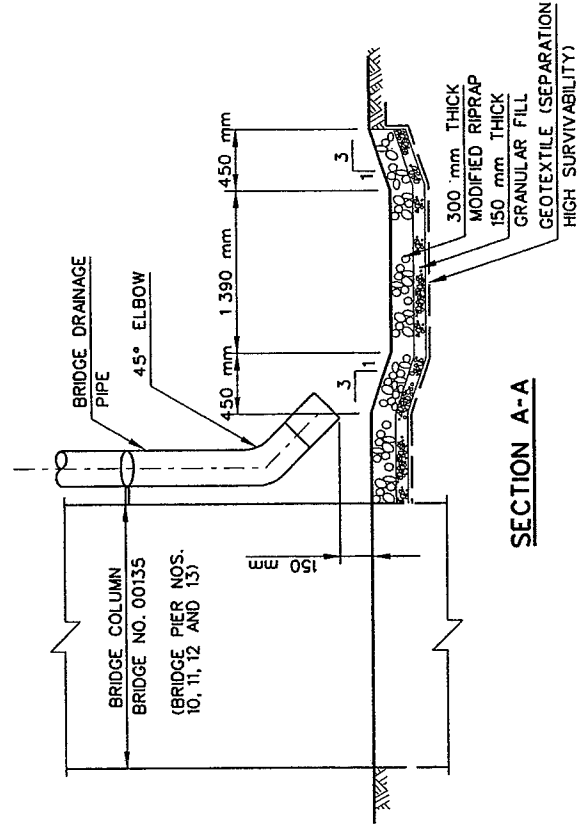
SECTION A-A - (FLOATING SILT SCREEN)



ELEVATION - (SILT SCREEN ON POSTS)



PLAN



SECTION A-A

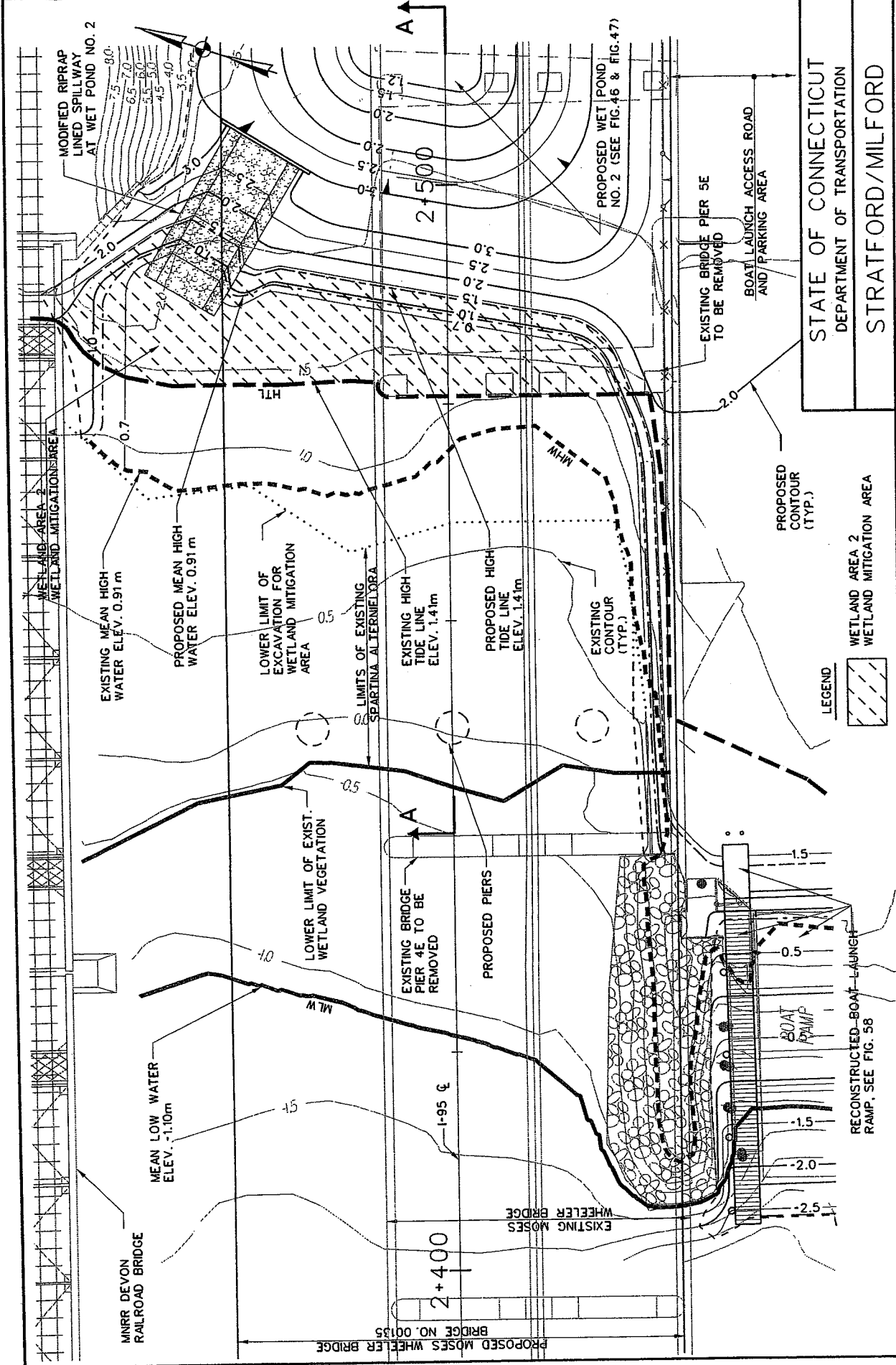
OPEN ENDED SCUPPER OUTLET WITH RIPRAP APRON
NOT TO SCALE

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DATE: 11/11/05
EROSION CONTROL DETAILS
FIG. 55



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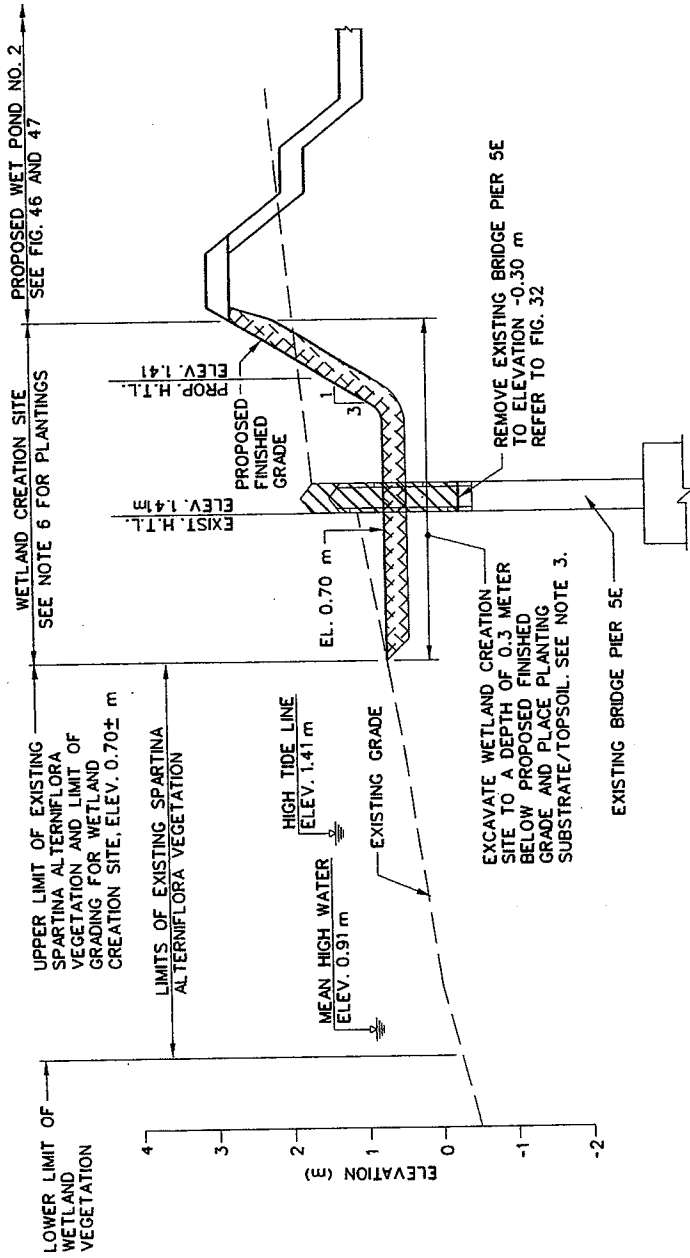
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WETLAND MITIGATION PLAN
WETLAND AREA 2
 SCALE: 1:500
 REFER TO FIG. 57 FOR SECTION A-A

DATE: 11/22/06
 WETLAND MITIGATION SITE
 FIG. 56

NOTES:

1. A WETLAND SCIENTIST FROM THE CONNECTICUT DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL PLANNING WILL BE ON-SITE TO MONITOR AND DIRECT CONSTRUCTION OF THE WETLAND CREATION SITE.
2. THE TIDAL WETLAND MITIGATION WORK CONSISTS OF PREPARING APPROPRIATE SITE GRADES, PLACING APPROVED PLANTING SUBSTRATE/TOPSOIL, AND THE FURNISHING AND PLACING OF PLANTINGS.
3. PLANTING SUBSTRATE/TOPSOIL USED TO SURFACE THE WETLAND CREATION SITE SHALL BE A NATURAL OR MANMADE PLANTING SUBSTRATE WHICH SHALL CONSIST OF SOILS CONTAINING NO LESS THAN 75% SAND BY WEIGHT AND AN ORGANIC CONTENT NOT LESS THAN 10% AND NOT MORE THAN 15%.
4. EXISTING TOPSOIL STRIPPED FROM THE WETLAND CREATION SITE SHALL NOT BE REUSED BUT SHALL BE REMOVED FROM THE AREA AND PROPERLY DISPOSED OF AT AN UPLAND SITE.
5. EXISTING BRIDGE PIER 5E WILL BE REMOVED AT THE END OF CONSTRUCTION STAGE 3, AFTER THE EXISTING MOSES WHEELER BRIDGE IS FULLY OUT OF SERVICE. CONSTRUCTION OF PROPOSED WET POND NO. 2 AND THIS WETLAND CREATION SITE WILL BE CONSTRUCTED IN CONSTRUCTION STAGE 4.
6. PLANTINGS IN THE WETLAND CREATION SITE SHALL CONSIST OF THE FOLLOWING:
 - ESTABLISH SHORELINE GRASS ON THE EMBANKMENT AREAS ABOVE THE PROPOSED HIGH TIDE LINE.
 - PLANT SHRUBS, CONSISTING OF GROUNDED TREE, HIGH TIDE BUSH, SWEET GALE AND ROSE MALLOW ACCORDING TO THE PLANTING PLAN IN THE DESIGN DRAWINGS ON THE EMBANKMENT OF THE WETLAND CREATION SITE ABOVE THE PROPOSED HIGH TIDE LINE (ELEV. 1.41 m).
 - PLANT PLUGS OF SALTMEADOW HAY (SPARTINA PATENS) AT 600 mm (24") ON CENTER ON THE EMBANKMENT OF THE WETLAND CREATION SITE BETWEEN THE PROPOSED MEAN HIGH WATER (ELEV. 0.91 m) AND THE PROPOSED HIGH TIDE LINE (ELEV. 1.41 m).
 - PLANT PLUGS OF SMOOTH CORDGRASS (SPARTINA ALTERNIFLORA) AT 900 mm (36") ON CENTER IN THE WETLAND CREATION SITE AREA BETWEEN THE LOWER LIMIT OF GRADING AND PROPOSED HIGH TIDE ELEVATION (ELEV. 0.91 m).



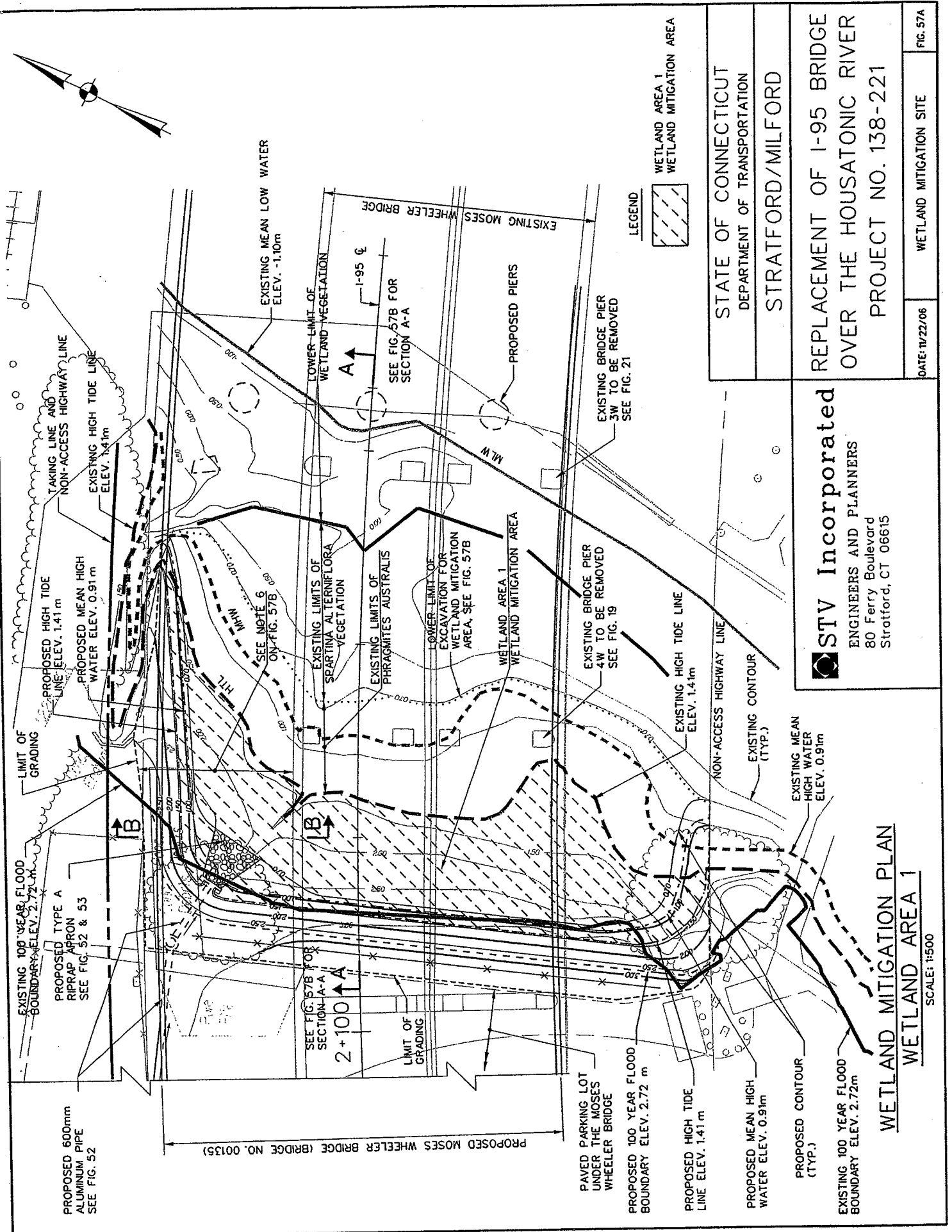
SECTION A-A

SCALE - HORIZ. 1:500
VERT. 1:100

REFER TO FIGURE 56 FOR LOCATION OF SECTION A-A
SECTION A-A IS CUT ALONG THE I-95 C

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	
STRATFORD/MILFORD	
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	
DATE: 11/22/06	WETLAND MITIGATION SECTION
	FIG. 57

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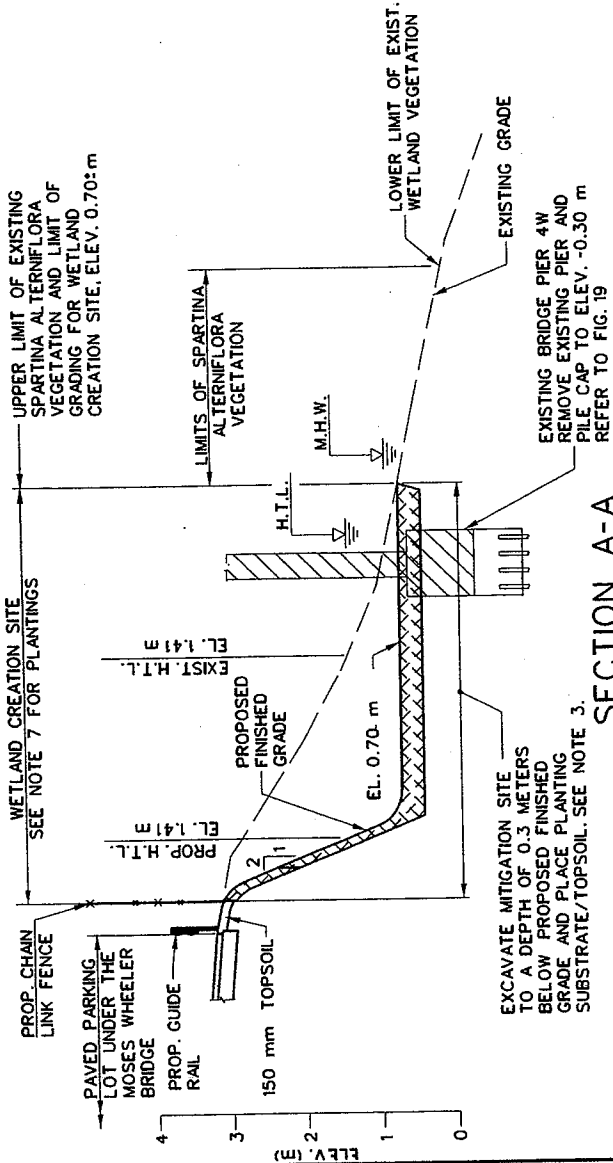
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WETLAND MITIGATION PLAN
WETLAND AREA 1
 SCALE: 1:500

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STRATFORD/MILFORD	DATE: 11/22/06	FIG. 57A
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221		WETLAND MITIGATION SITE

NOTES:

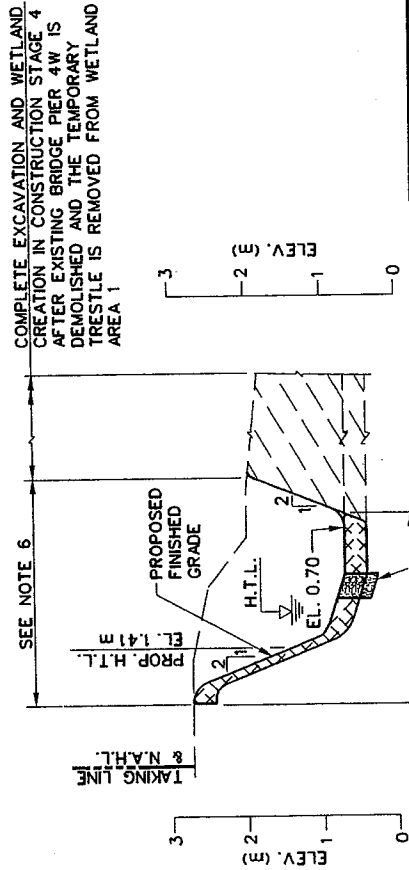
1. A WETLAND SCIENTIST FROM THE CONNECTICUT DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL PLANNING WILL BE ON-SITE TO MONITOR AND DIRECT CONSTRUCTION OF THE WETLAND CREATION SITE.
2. THE TIDAL WETLAND MITIGATION WORK CONSISTS OF PREPARING APPROPRIATE SITE GRADES, PLACING APPROVED PLANTING SUBSTRATE/TOPSOIL, AND THE FURNISHING AND PLACING OF PLANTINGS.
3. PLANTING SUBSTRATE/TOPSOIL USED TO SURFACE THE WETLAND CREATION SITE SHALL BE A NATURAL OR MANMADE PLANTING SUBSTRATE WHICH SHALL CONSIST OF SOILS CONTAINING NO LESS THAN 75% SAND BY WEIGHT AND AN ORGANIC CONTENT NOT LESS THAN 10% AND NOT MORE THAN 15%.
4. EXISTING TOPSOIL STRIPPED FROM THE WETLAND MITIGATION AREA SHALL NOT BE REUSED BUT SHALL BE REMOVED FROM THE AREA AND PROPERLY DISPOSED OF AT AN UPLAND SITE.
5. EXISTING BRIDGE PIER 4W WILL BE REMOVED AT THE END OF CONSTRUCTION STAGE 3, AFTER THE EXISTING MOSES WHEELER BRIDGE IS FULLY REMOVED FROM SERVICE.
6. THE PORTION OF THE WETLAND CREATION SITE TO THE NORTH OF THE EXISTING MOSES WHEELER BRIDGE WILL BE CONSTRUCTED IN CONSTRUCTION STAGE 1 IN COORDINATION WITH THE CONSTRUCTION OF THE STRATFORD STORM SEWER OUTFALL (REFER TO FIGURES 52 AND 53). CREATION OF THE REMAINDER OF THIS WETLAND CREATION SITE WILL BE PERFORMED IN CONSTRUCTION STAGE 4, AFTER THE EXISTING MOSES WHEELER BRIDGE HAS BEEN REMOVED.
7. PLANTINGS IN THIS WETLAND CREATION SITE SHALL CONSIST OF THE FOLLOWING:
 - ESTABLISH SHORELINE GRASS ON THE EMBANKMENT AREAS ABOVE THE PROPOSED HIGH TIDE LINE (ELEV. 1.41 m).
 - PLANT SHRUBS CONSISTING OF GROUNDED TREE, HIGH TIDE BUSH, SWEET GALE AND ROSE MALLOW ACCORDING TO THE PLANTING PLAN IN THE DESIGN DRAWINGS, ON THE EMBANKMENT OF THE WETLAND CREATION SITE ABOVE THE PROPOSED HIGH TIDE LINE.
 - PLANT PLUGS OF SALTMEADOW HAY (SPARTINA PATENS) AT A SPACING OF 600 mm (24") ON-CENTER ON THE EMBANKMENT OF THIS WETLAND CREATION SITE BETWEEN THE PROPOSED MEAN HIGH WATER LINE (ELEV. 0.91 m) AND THE PROPOSED HIGH TIDE LINE (ELEV. 1.41 m).
 - PLANT PLUGS OF SMOOTH CORDGRASS (SPARTINA ALTERNIFLORA) AT A SPACING OF 900 mm (36") ON-CENTER IN THE WETLAND CREATION SITE BETWEEN THE LOWER LIMIT OF GRADING FOR THIS WETLAND CREATION SITE AND THE PROPOSED HIGH TIDE LINE (ELEV. 1.41 m).



SECTION A-A

SCALE: HORIZ. 1:250
VERT. 1:50

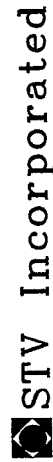
REFER TO FIGURE 57A FOR LOCATION OF SECTION A-A
SECTION A-A IS CUT ALONG THE I-95 C



SECTION B-B

SCALE: HORIZ. 1:250
VERT. 1:50

EXCAVATE MITIGATION SITE TO A DEPTH OF 0.3 METERS BELOW PROPOSED FINISHED GRADE AND PLACE PLANTING SUBSTRATE/TOPSOIL.



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OVER THE HOUSATONIC RIVER
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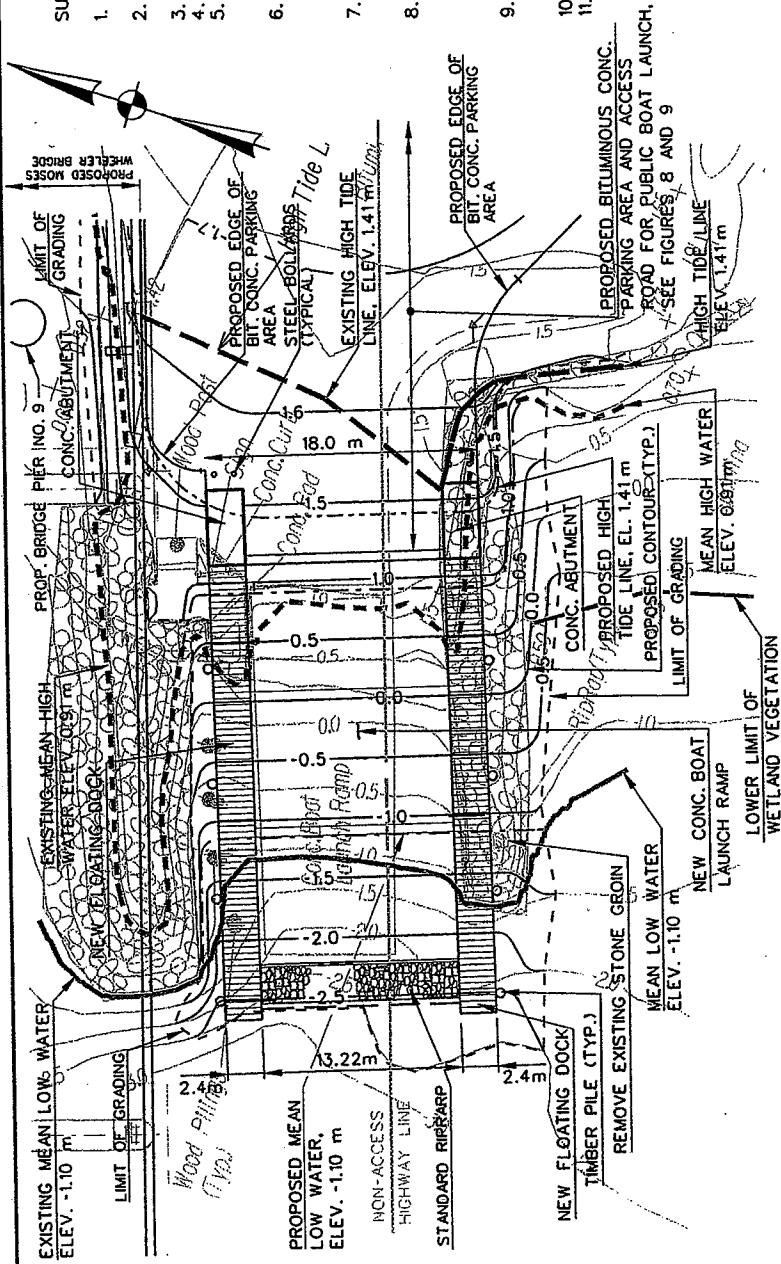
DATE: 11/22/06

WETLAND MITIGATION SECTION

FIG. 57B

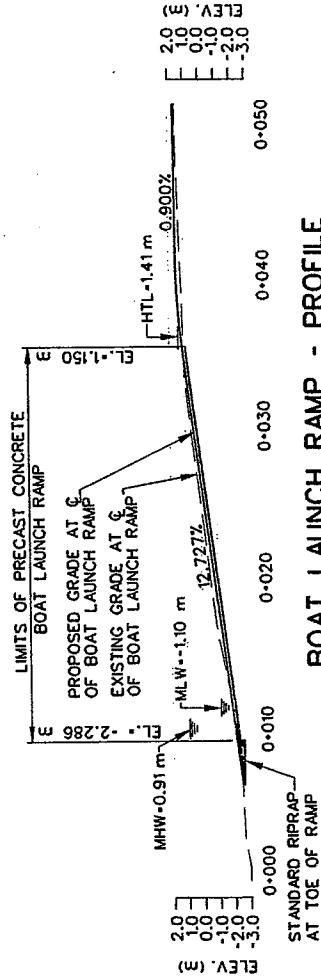
SUGGESTED RAMP CONSTRUCTION PROCEDURE

1. CONSTRUCT TURBIDITY CONTROL CURTAIN AROUND PERIMETER OF SITE.
2. REMOVE EXISTING CONCRETE RAMP FLOATING DOCK AND STONE GROUT ON SOUTH SIDE OF EXISTING BOAT RAMP.
3. PREPARE SUBGRADE TO CORRECT LINE AND GRADE.
4. PLACE RIPRAP AT TOE OF RAMP.
5. THE SHORE EVERY 3 000 mm FROM THE TOE TO THE TOP OF THE RAMP.
6. LAY STEEL RAILS (W150 X 30) ON TOP OF WINDROWS, PERPENDICULAR TO SHORE IN ACCORDANCE WITH PLAN. PUSH RAILS INTO WINDROWS TO CORRECT LINE AND GRADE.
7. USE A MECHANICALLY PULLED GRADE BAR SET ON THE RAILS TO LEVEL THE SPECIAL RIPRAP TO CORRECT GRADE.
8. SET INITIAL CONCRETE PANEL ON RAILS AT TOP OF RAMP AND PUSH WATERWARD UNTIL LOWER EDGE IS JUST UNDER THE WATER SURFACE. PUT IN PLACE A SECOND PANEL KEYED INTO THE PREVIOUS PANEL AND PUSH WATERWARD.
9. REPEAT ABOVE PROCEDURE CAREFULLY CHECKING PANEL ALIGNMENT AND ADJUSTING AS NECESSARY UNTIL ALL PANELS IN ONE COLUMN ARE PLACED.
10. CONSTRUCT INTERMEDIATE SUPPORT BLOCK.
11. REPEAT ABOVE PROCEDURE FOR ADDITIONAL PANEL COLUMNS.



BOAT LAUNCH RAMP - PLAN

SCALE 1:500



BOAT LAUNCH RAMP - PROFILE

SCALE 1:500

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

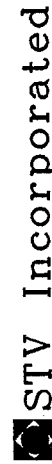
STRATFORD/MILFORD

REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

DATE: 11/22/06

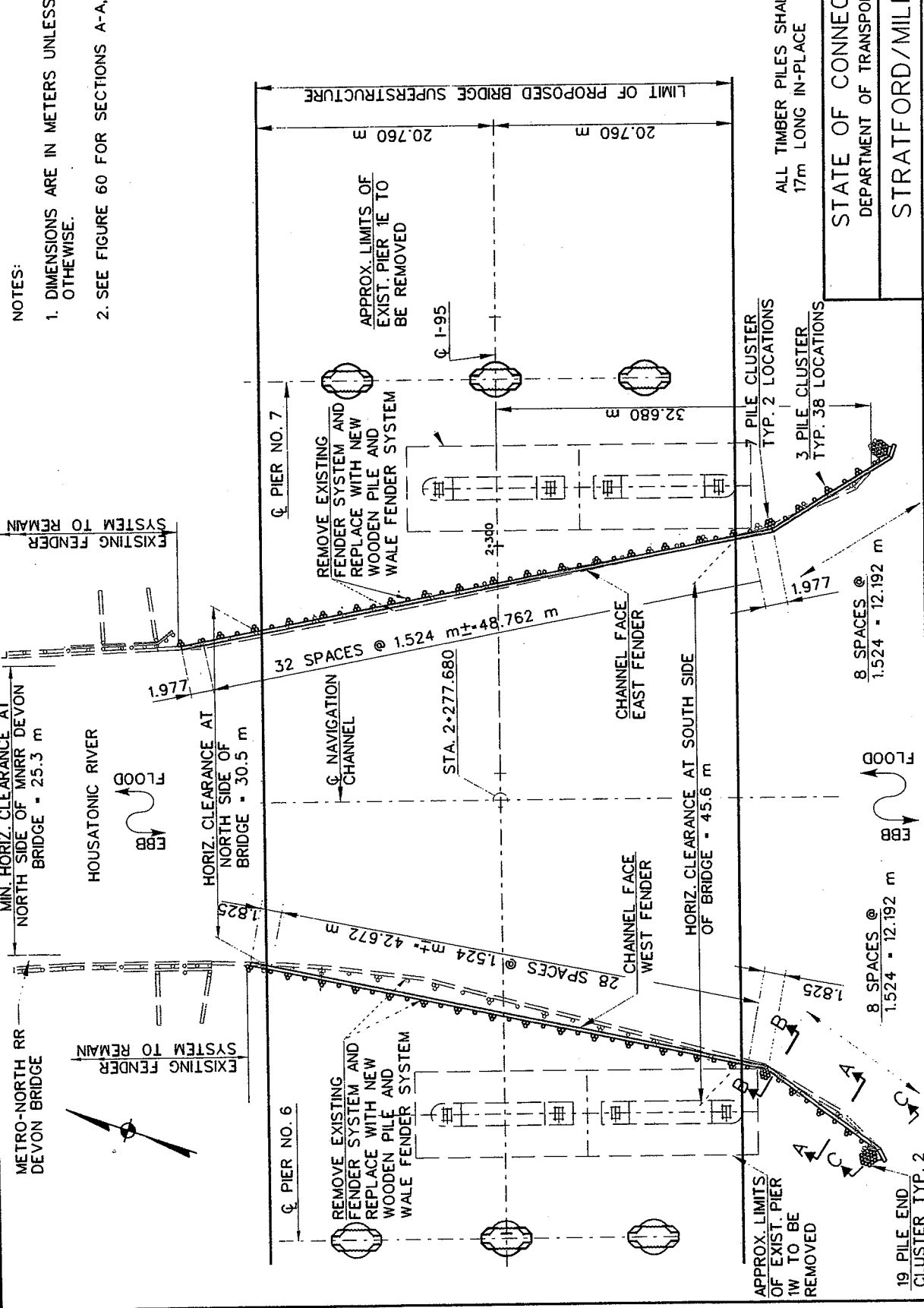
BOAT LAUNCH RAMP

FIG. 58



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NOTES:
 1. DIMENSIONS ARE IN METERS UNLESS NOTES OTHERWISE.
 2. SEE FIGURE 60 FOR SECTIONS A-A, B-B AND C-C.



ALL TIMBER PILES SHALL BE
 17m LONG IN-PLACE

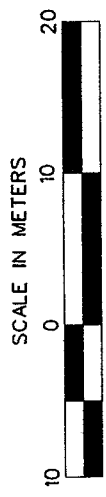
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REPLACEMENT OF I-95 BRIDGE
 OVER THE HOUSATONIC RIVER
 PROJECT NO. 138-221

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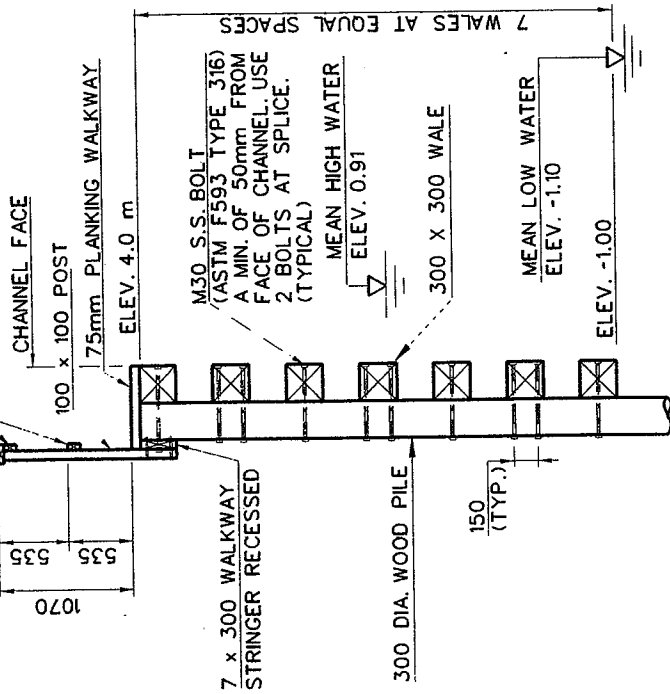
PLAN - PROPOSED FENDER SYSTEM

SCALE: 1:500



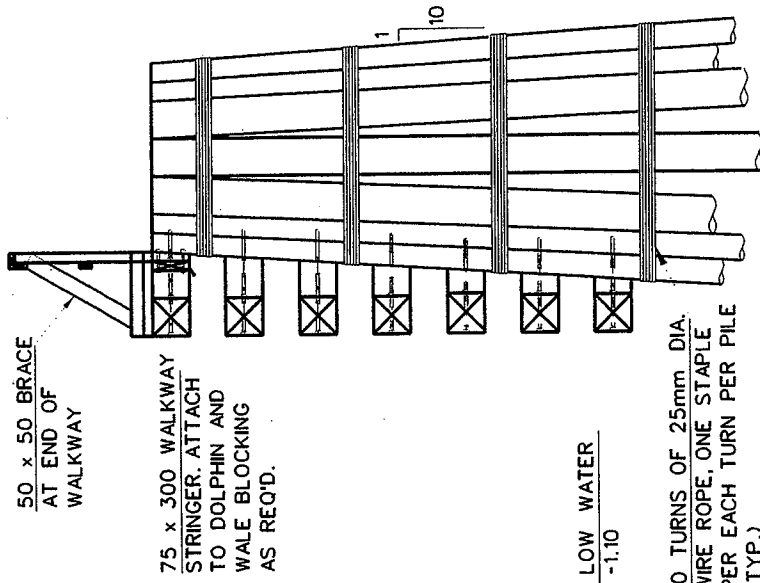
DATE: 11/22/06
 PROPOSED FENDER SYSTEM - PLAN
 FIG. 59

50 x 100 RAILING
SEE NOTE 1 BELOW



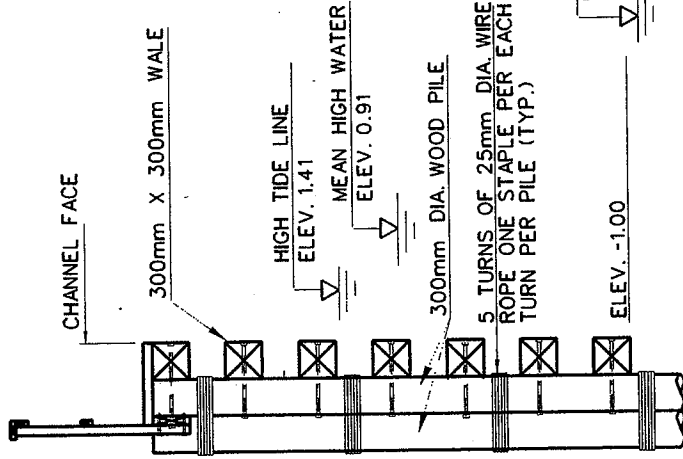
SECTION A-A

NOT TO SCALE



SECTION C-C

NOT TO SCALE



SECTION B-B

NOT TO SCALE

NOTES:

1. RAILING SHALL EXTEND FULL LENGTH OF FENDER SYSTEM.
2. PROVIDE RAILING POST AT EACH PILE OR AT A MAXIMUM SPACING OF 1.5m.
3. BOLTS ON THE FACE OF THE FENDER SYSTEM SHALL BE COUNTERSUNK.
4. ELEVATIONS ARE IN METERS AND ARE BASED ON NAVD 1988.
5. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

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PROPOSED FENDER SYSTEM - DETAILS

FIG. 60

DRAINAGE SYSTEM C STORM SEWER
OUTFALL, REFER TO FIGURE 52

500 YEAR
FLOOD
BOUNDARY

100 YEAR
FLOOD
BOUNDARY

WETLAND VEGETATION
LIMITS (TYP.)
HTL

STATE OF CONN.
ESTIMATED FLOODING

MHW

MLW

OPEN WATER

PROPOSED
PIER (TYP.)

EXISTING
PIER (TYP.)

NON ACCESS
HIGHWAY LINE

SCS

2-100

MOSES WHEELER BRIDGE

100 YEAR FLOOD
BOUNDARY

500 YEAR FLOOD
BOUNDARY

LEGEND



DISTURBED VEGETATION



PHRAGMITES AUSTRALIS



SPARTINA ALTERNIFLORA

PLAN
SCALE 1:500

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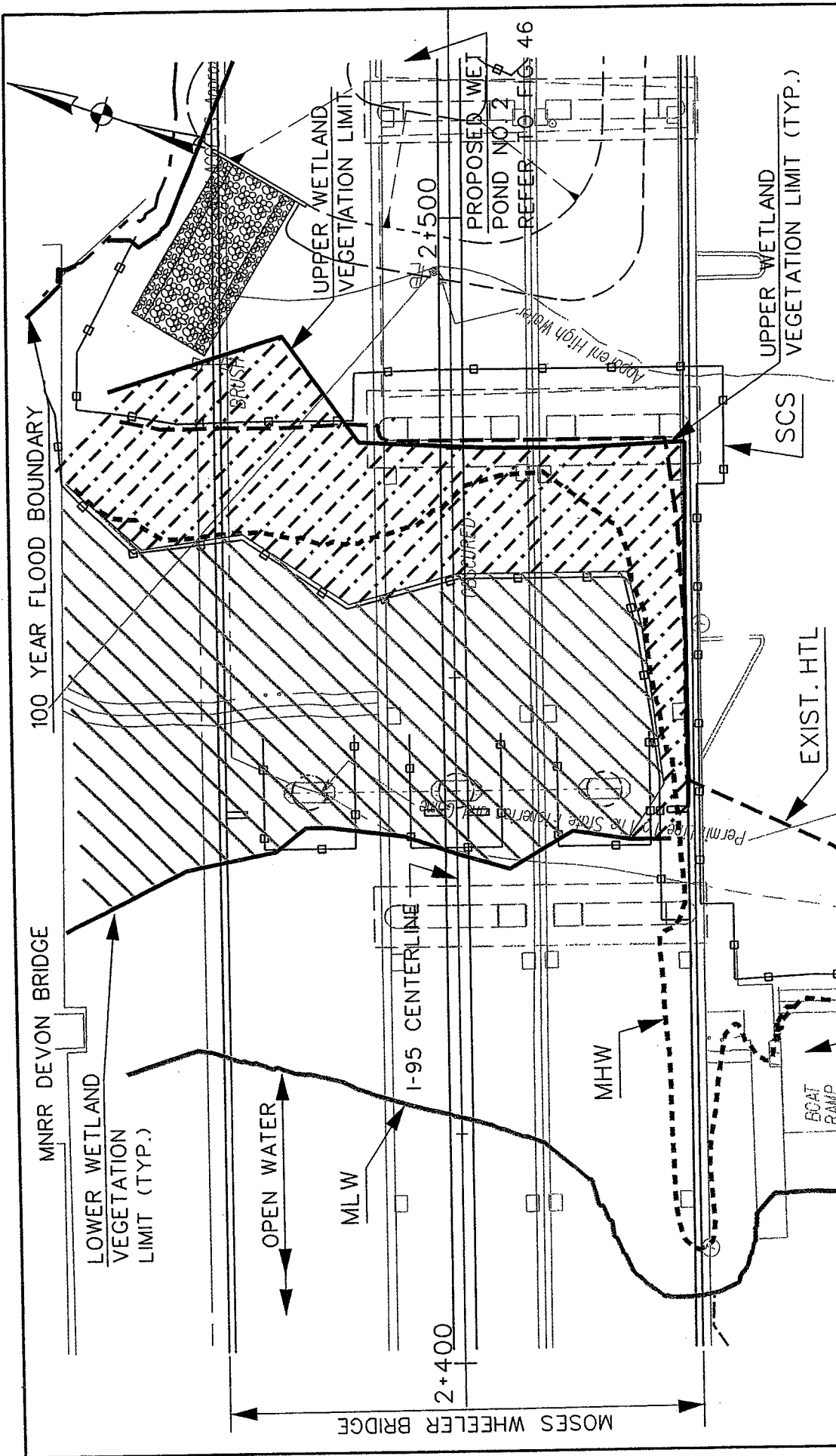
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REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

DATE: 11/22/06

VEGETATION SKETCH
WETLAND AREA 1

FIG.
VS-1



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VEGETATION SKETCH
WETLAND AREA 2



FIG. VS-2

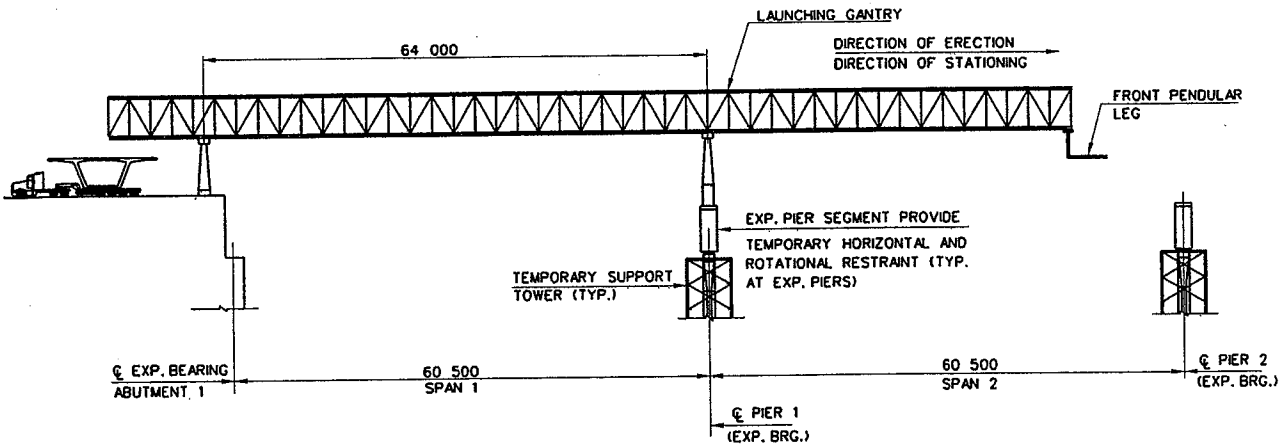
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PLAN
SCALE: 1:500

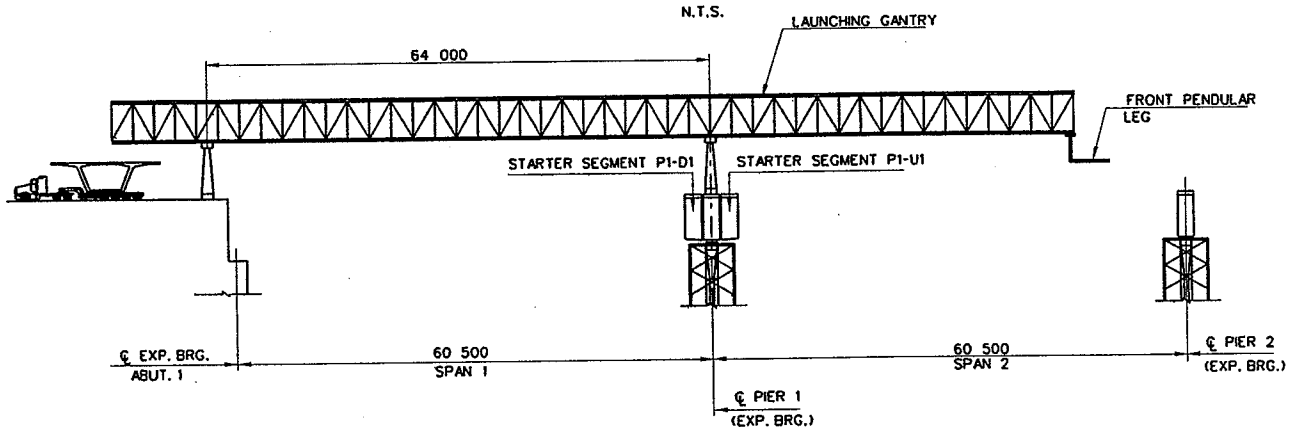
RECONSTRUCTED BOAT LAUNCH RAMP. REFER TO FIG. 58

LEGEND

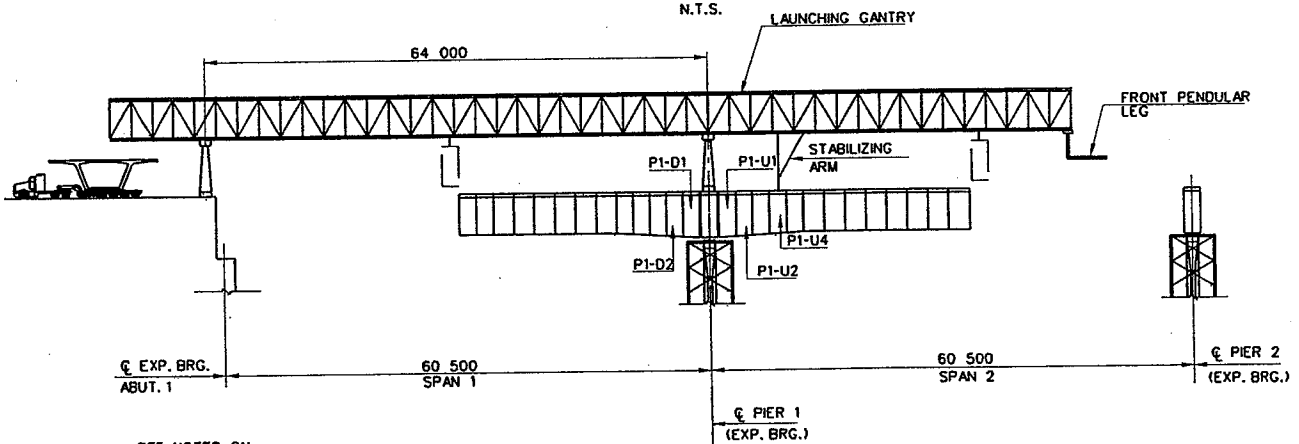
-  PHRAGMITES AUSTRALIS (EXIST.)
-  SPARTINA ALTERNIFLORA (EXIST.)



ERECTION STAGE 1



ERECTION STAGE 2



ERECTION STAGE 3

SEE NOTES ON ERECTION SCHEMATIC SHEET 2, FIG. ES-2

GENERAL NOTES:

1. ALL DIMENSIONS ON THESE ERECTION SCHEMATIC SHEETS (FIGURES ES-1 THROUGH ES-12) ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. FIGURES ES-1 THROUGH ES-12 PRESENT ERECTION SCHEME FOR THE PROPOSED MOSES WHEELER BRIDGE (BRIDGE NO. 00135) SUPERSTRUCTURE. THIS CONSTRUCTION OCCURS AFTER THE BRIDGE PIERS & ABUTMENTS HAVE BEEN COMPLETED.
3. REFER TO FIGURE 33 AND 34 FOR SEQUENCE OF CONSTRUCTION OF THE NORTH, SOUTH AND MIDDLE GIRDERS OF THE BRIDGE.

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DATE: 11/11/05	ERECTION SCHEMATIC SHEET 1	FIG. ES-1

ERECTION NOTES: FOR ERECTION SCHEMATIC SHEET 1 (FIG. ES-1)

STAGE 1

- 1.1 CAST PIER SEGMENTS IN PLACE DURING CONSTRUCTION OF SUBSTRUCTURE. AT EXPANSION PIERS 1, 2, 3, 4, 10, 11, 12 AND 13, TEMPORARY SUPPORT TOWERS ARE NECESSARY TO STABILIZE THE STRUCTURE DURING CANTILEVER ERECTION (NOTE: DESIGN OF SUPPORT TOWERS AND STABILITY OF STRUCTURE DURING ERECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR)
- 1.2 SET BEARINGS AND TEMPORARILY RESTRAIN THE SAME AGAINST HORIZONTAL TRANSLATION AND ROTATION WITH TEMPORARY SUPPORTS AND/OR TIE-DOWNS DURING ERECTION OF CANTILEVER.
- 1.3 ADVANCE GANTRY SO THAT CENTER SUPPORT IS POSITIONED AT PIER 1 AND READY GANTRY FOR PIER 1 BALANCED CANTILEVER ERECTION.

STAGE 2

- 2.1 SUSPEND STARTER SEGMENT P1-U1 FROM GANTRY ON UP-STATION SIDE OF PIER 1. POSITION SEGMENT ON TEMPORARY SUPPORT FRAME AND BLOCK CLOSURE JOINT. USE TEMPORARY POST-TENSIONING BARS AND TEMPORARY SUPPORT JACKS TO ADJUST SEGMENT ELEVATION AND ALIGNMENT.
- 2.2 REPEAT STEP 2.1 FOR STARTER SEGMENT P1-D1 ON DOWN-STATION SIDE OF PIER 1.
- 2.3 CAST CLOSURE JOINTS BETWEEN PIER SEGMENT P1 AND STARTER SEGMENTS P1-U1 AND P1-D1.
- 2.4 WHEN STARTER SEGMENT CLOSURE JOINT CONCRETE HAS REACHED A STRENGTH OF 24.5 MPA, STRESS PERMANENT CANTILEVER TENDONS 101. RELIEVE FORCE IN SUPPORT JACK ON UPSTATION SIDE OF PIER AND READJUST UNTIL JUST SNUG.

STAGE 3

- 3.1 BEGINNING WITH THE UPSTATION SIDE OF PIER, SUSPEND SEGMENT P1-U2 FROM GANTRY. ADJUST SEGMENT ALIGNMENT AND ELEVATION. APPLY EPOXY TO JOINT FACE OF SEGMENT. COMPRESS EPOXY BETWEEN SEGMENTS P1-U2 AND P1-U1 USING TEMPORARY POST-TENSIONING BARS.
- 3.2 REPEAT STEP 3.1 FOR SEGMENT P1-D2 ON DOWNSTATION SIDE OF PIER.
- 3.3 STRESS PERMANENT CANTILEVER TENDONS 102. RELIEVE FORCE IN SUPPORT JACK ON UPSTATION SIDE OF PIER AND READJUST UNTIL JUST SNUG.
- 3.4 REPEAT STEPS 3.1 THRU 3.3 FOR SEGMENT PAIRS P1-3 THRU P1-4. ALTERNATE SEGMENT ERECTION ON THE UPSTATION AND DOWNSTATION SIDES OF THE PIER WITH THE UPSTATION SEGMENT ERECTED FIRST. AT ANY ONE TIME THE CANTILEVER SHALL NEVER BE MORE THAN ONE SEGMENT OUT OF BALANCE.
- 3.5 ATTACH GANTRY STABILIZER ARM TO SEGMENT P1-U4.
- 3.6 PROCEED WITH ERECTION OF SEGMENT PAIRS P1-5 THROUGH P1-13 FOLLOWING STEP 3.4 PROCEDURE.
- 3.7 ERECT SEGMENT PAIR P1-13 FOLLOWING STEP 3.3 PROCEDURE. NOTE THAT THE FINAL SEGMENT PAIR P1-13 DOES NOT REQUIRE PERMANENT CANTILEVER TENDONS AND IS HELD IN PLACE BY TEMPORARY POST-TENSIONING BARS UNTIL CLOSURE IS MADE AT BOTH ENDS.

NOTE:

FOR SCHEMATIC SECTION AT TEMPORARY SUPPORT SEE ERECTION SCHEMATIC SHEET 3, FIGURE ES-3.
REFER TO FIGURE 12 FOR SITE VICINITY PLAN.



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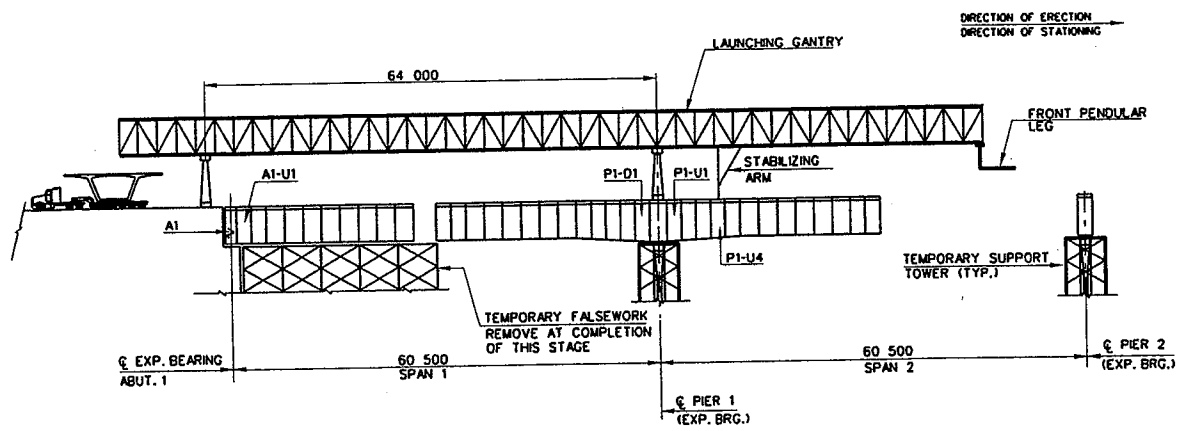
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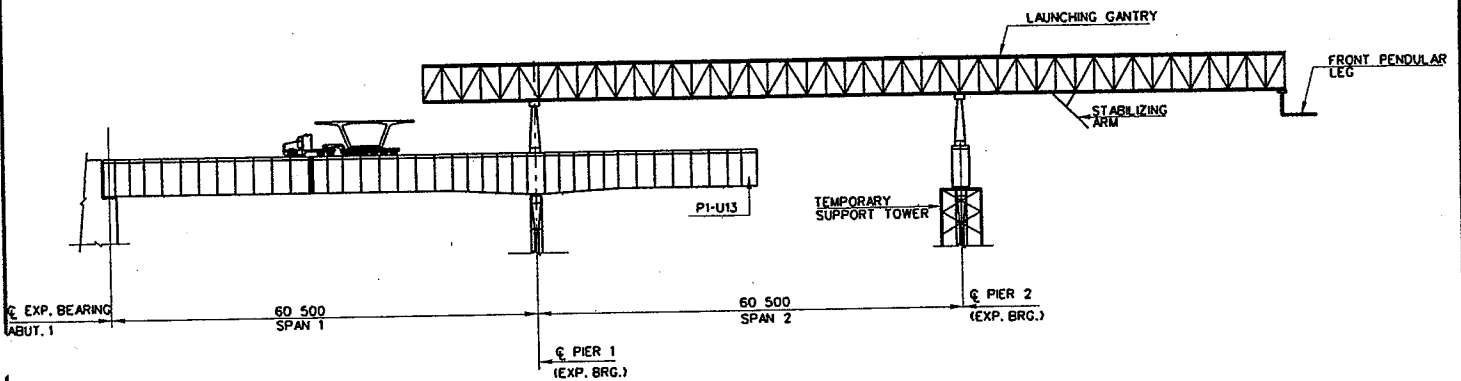
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ERECTION SCHEMATIC SHEET 2

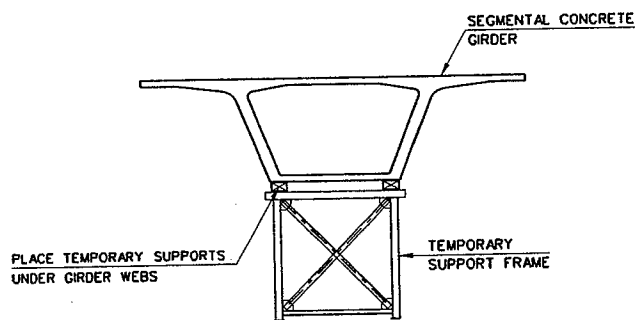
FIG. ES-2



ERECTION STAGE 4
N.T.S.



ERECTION STAGE 5
N.T.S.



SECTION AT TEMPORARY SUPPORT
N.T.S.

SEE NOTES ON
ERECTION SCHEMATIC SHEET 4, FIG. ES-4

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ERECTION SCHEMATIC SHEET 3

FIG. ES-3

ERECTION NOTES: FOR ERECTION SCHEMATIC SHEET 3 (FIG. ES-3)

STAGE 4

- 4.1 ASSEMBLE TEMPORARY FALSEWORK AT ABUTMENT END OF SPAN 1.
- 4.2 PLACE SEGMENT A1-U1 ON TEMPORARY FALSEWORK. ADJUST ALIGNMENT AND ELEVATION.
- 4.3 PLACE SEGMENT A1-U2 ON TEMPORARY FALSEWORK. ADJUST ALIGNMENT AND ELEVATION. APPLY EPOXY TO JOINT FACE OF SEGMENT. COMPRESS EPOXY BETWEEN SEGMENTS A1-U1 AND A1-U2 WITH TEMPORARY POST-TENSIONING BARS.
- 4.4 REPEAT STEP 4.3 PROCEDURE FOR THE REMAINING PRECAST SEGMENTS IN SPAN 1.
- 4.5 SET IN PLACE PERMANENT BEARINGS AT ABUTMENT 1. CAST-IN-PLACE ABUTMENT SEGMENT A1 OVER BEARINGS AND MATCH CAST AGAINST SEGMENT A1-U1.
- 4.6 LOCK CANTILEVER P1-D AND FALSEWORK SEGMENTS A1-U TOGETHER WITH STRONGBACK SYSTEM AT SPAN 1 CLOSURE JOINT.
- 4.7 CAST CLOSURE JOINT IN SPAN 1. WHEN CLOSURE JOINT CONCRETE HAS REACHED A STRENGTH OF 24.5 MPA, STRESS CONTINUITY TENDONS 201 THRU 208. STRESS 4-STRAND TOP SLAB TENDONS BETWEEN SEGMENT A1 AND P1-D12.
- 4.8 TEMPORARILY LOCK PERMANENT BEARINGS AGAINST HORIZONTAL MOVEMENT AT ABUTMENT 1. RELEASE STABILIZER ARM AT SEGMENT P1-U4. RELEASE TEMPORARY SUPPORT JACKS AND TEMPORARY HORIZONTAL RESTRAINT AT PIER 1.
- 4.9 REMOVE TEMPORARY SUPPORT TOWER AT PIER 1.

STAGE 5

- 5.1 AT PIER 2 SET BEARINGS AND TEMPORARILY RESTRAIN AGAINST HORIZONTAL TRANSLATION AND ROTATION WITH TEMPORARY SUPPORTS AND/OR TIE-DOWNS DURING ERECTION OF CANTILEVER
- 5.2 ADVANCE GANTRY SO THAT CENTER SUPPORT IS POSITIONED AT PIER 2 AND READY GANTRY FOR PIER 2 BALANCED CANTILEVER ERECTION.

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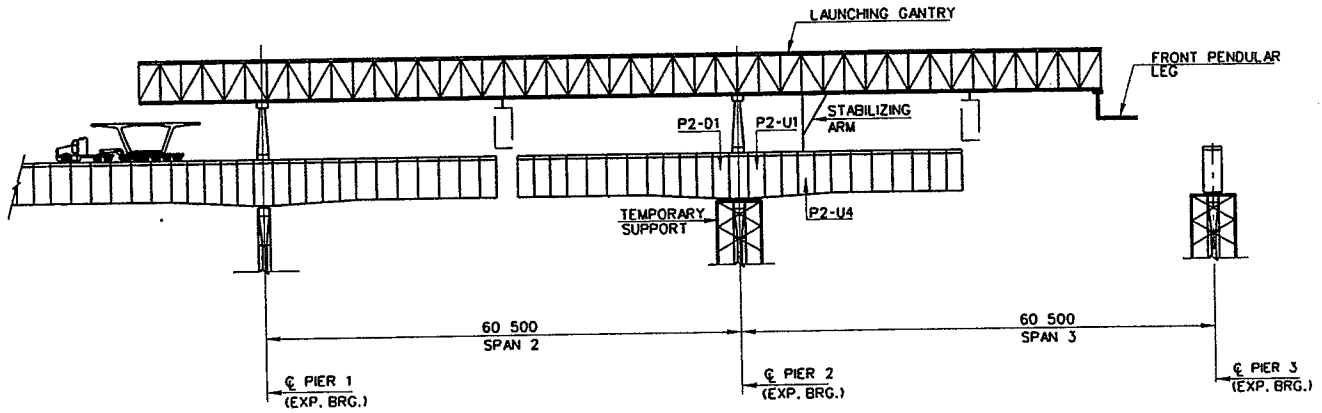
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ERECTION SCHEMATIC SHEET 4

FIG. ES-4

DIRECTION OF ERECTION
DIRECTION OF STATIONING



ERECTION STAGE 6
N.T.S.

SEE NOTES ON
ERECTION SCHEMATIC SHEET 6, FIG. ES-6

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ERECTION SCHEMATIC SHEET 5

FIG. ES-5

ERECTION NOTES: FOR ERECTION SCHEMATIC SHEET 5 (FIG. ES-5)

STAGE 6

- 6.1 SUSPEND STARTER SEGMENT P2-U1 FROM GANTRY ON UP-STATION SIDE OF PIER 2. BLOCK STARTER SEGMENT CLOSURE JOINT. USE TEMPORARY POST-TENSIONING BARS TO ADJUST SEGMENT ELEVATION AND ALIGNMENT.
- 6.2 REPEAT STEP 6.1 FOR STARTER SEGMENT P2-D1 ON DOWN-STATION SIDE OF PIER 2.
- 6.3 CAST CLOSURE JOINTS BETWEEN PIER SEGMENT P2 AND STARTER SEGMENTS P2-U1 AND P2-D1.
- 6.4 WHEN STARTER SEGMENT CLOSURE JOINT CONCRETE HAS REACHED A STRENGTH OF 24.5 MPA, STRESS PERMANENT CANTILEVER TENDONS 101.
- 6.5 SUSPEND SEGMENT P2-U2 FROM GANTRY ON UP-STATION SIDE OF PIER 2. ADJUST SEGMENT ALIGNMENT AND ELEVATION. APPLY EPOXY TO JOINT FACE OF SEGMENT. COMPRESS EPOXY BETWEEN SEGMENTS P2-U2 AND P2-U1 USING TEMPORARY POST-TENSIONING BARS.
- 6.6 REPEAT STEPS 6.5 FOR SEGMENT P2-D2 ON DOWNSTATION SIDE OF PIER.
- 6.7 STRESS PERMANENT CANTILEVER TENDONS 102.
- 6.8 REPEAT STEPS 6.5 THRU 6.7 FOR SEGMENT PAIRS P2-3 AND P2-4. ALTERNATE SEGMENT ERECTION ON THE UPSTATION AND DOWNSTATION SIDES OF THE PIER WITH THE UPSTATION SEGMENT BEING ERECTED FIRST SO CANTILEVER IS NEVER MORE THAN ONE SEGMENT OUT-OF-BALANCE AT ANY TIME.
- 6.9 ATTACH GANTRY STABILIZER ARM TO SEGMENT P2-U4. RELEASE TEMPORARY ROTATIONAL RESTRAINT AT PIER 2. REMOVE TEMPORARY SUPPORT FRAME. (NOTE: RELEASE OF TEMPORARY ROTATIONAL RESTRAINT AND REMOVAL OF TEMPORARY SUPPORT FRAME APPLIES ONLY AT EXPANSION PIERS).
- 6.10 PROCEED WITH ERECTION OF SEGMENT PAIRS P2-5 THRU P2-12 IN ACCORDANCE WITH STEP 6.8 ABOVE.
- 6.11 ERECT SEGMENT PAIR P2-12 BY THE METHOD IN STEP 6.8. NOTE THAT THE FINAL SEGMENT PAIR P2-12 DO NOT REQUIRE PERMANENT CANTILEVER TENDONS AND ARE HELD IN PLACE BY TEMPORARY POST-TENSIONING BARS UNTIL CLOSURE IS MADE AT BOTH ENDS.
- 6.12 LOCK CANTILEVERS P2-D AND P1-U TOGETHER WITH STRONGBACK SYSTEM AT SPAN 2 CLOSURE JOINT.
- 6.13 ZERO OUT FORCES IN STABILIZER ARM AT SEGMENT P2-U4 BUT DO NOT DISENGAGE.
- 6.14 CAST CLOSURE JOINT IN SPAN 2. WHEN CLOSURE JOINT CONCRETE HAS REACHED A STRENGTH OF 24.5 MPA, STRESS CONTINUITY TENDONS 201 THRU 208. STRESS PERMANENT 35mm POST-TENSIONING BARS AT MID-SPAN CLOSURE JOINT. REMOVE STRONGBACK SYSTEM.
- 6.15 DISENGAGE STABILIZER ARM FROM SEGMENT P2-U4. (NOTE: STABILIZER ARM TO REMAIN ENGAGED AT SEGMENT P2-U4 UNTIL CLOSURE IS MADE AND CONTINUITY TENDONS ARE STRESSED IN SPAN 2.
- 6.16 REMOVE BEARING RESTRAINT AND TEMPORARY SUPPORT TOWERS AT PIER 2.
- 6.17 REPEAT STAGE 5 AND 6 FOR BALANCED CANTILEVER ERECTION AT EXPANSION PIERS 3 AND 4 AND MIDSPAN CLOSURE IN SPANS 2 AND 3.

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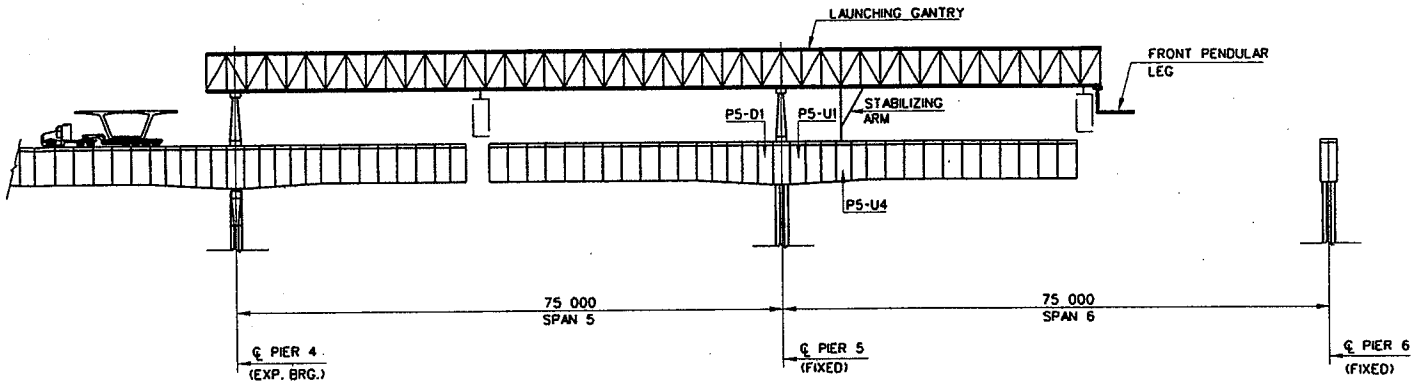
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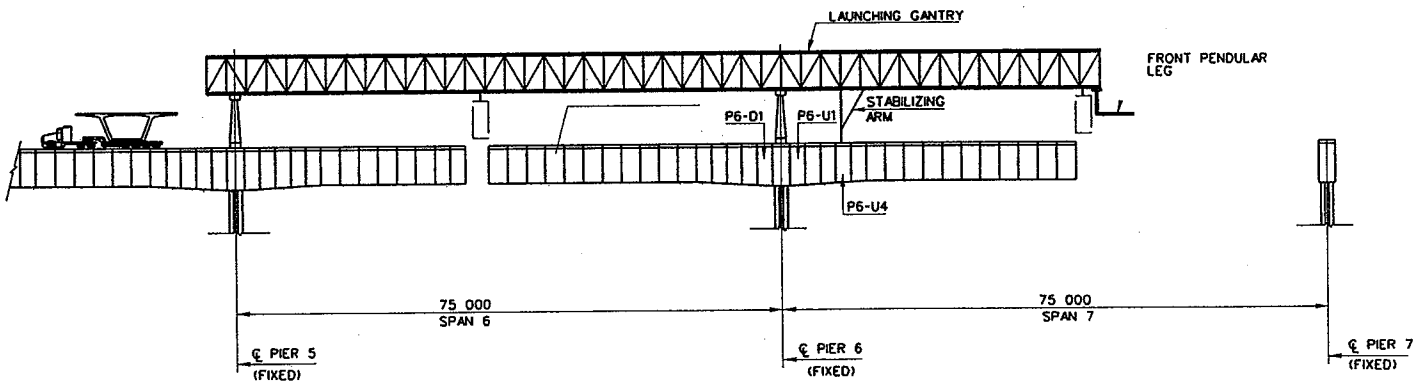
ERECTION SCHEMATIC SHEET 6

FIG. ES-6

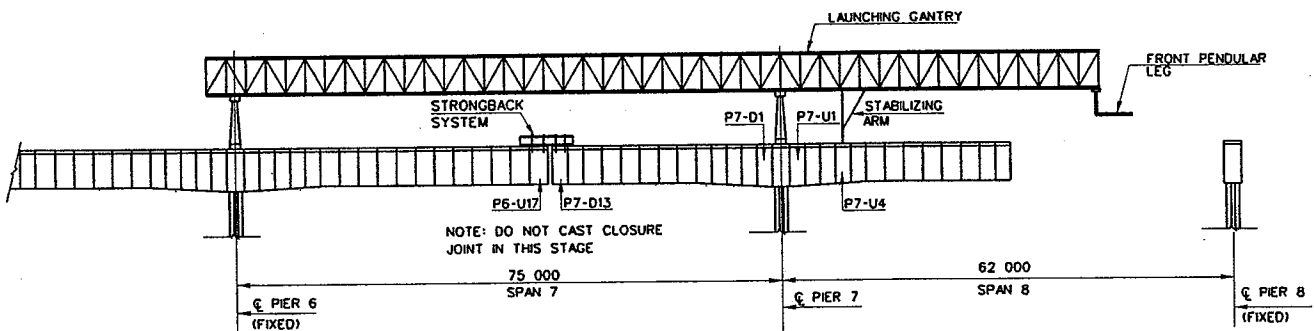
DIRECTION OF ERECTION
DIRECTION OF STATIONING



ERECTION STAGE 7
N.T.S.



ERECTION STAGE 8
N.T.S.



ERECTION STAGE 9
N.T.S.

SEE NOTES ON
ERECTION SCHEMATIC SHEET 8, FIG. ES-8, FIGURE ES-8.



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ERECTION SCHEMATIC SHEET 7

FIG. ES-7

ERECTION NOTES: FOR ERECTION SCHEMATIC SHEET 7 (FIG. ES-7)

STAGE 7

- 7.1 ADVANCE GANTRY SO THAT MOVABLE CENTER SUPPORT IS POSITIONED AT FIXED PIER 5 AND READY GANTRY FOR PIER 5 CANTILEVER ERECTION.
- 7.2 REPEAT STEPS 6.1 THRU 6.15 FOR BALANCED CANTILEVER CONSTRUCTION AT PIER 5 AND MID-SPAN CLOSURE IN SPAN 5
- 7.3 UNLOCK BEARINGS AT ABUTMENT NO. 1
- 7.4 DISENGAGE STABILIZER ARM FROM SEGMENT P5-U4.

STAGE 8

- 8.1 ADVANCE GANTRY UNTIL MOVABLE CENTER SUPPORT IS POSITIONED AT PIER 6 AND READY GANTRY FOR PIER 6 CANTILEVER ERECTION.
- 8.2 REPEAT STEPS 6.1 THRU 6.15 FOR BALANCED CANTILEVER CONSTRUCTION AT FIXED PIER 6 AND MID-SPAN CLOSURE IN SPAN 6.

STAGE 9

- 9.1 ERECT BALANCED CANTILEVER AT FIXED PIER 7 FOLLOWING PROCEDURE FROM STEPS 6.1 THRU 6.15. USE STRONGBACK SYSTEM TO LOCK TOGETHER UPSTATION CANTILEVER AT PIER 6 AND DOWNSTATION CANTILEVER AT PIER 7, BUT DO NOT CAST CLOSURE JOINT AT THIS TIME.
- 9.2 ZERO OUT FORCE IN STABILIZER ARM AT SEGMENT P7-U4, BUT DO NOT DISENGAGE.
- 9.3 POSITION PRECAST COMPRESSION BLOCKS BETWEEN SEGMENTS P6-U17 AND P7-D13, USE TEMPORARY P.T. BARS TO JOIN ASSEMBLY AND GROUT IN PLACE. (SEE TEMPORARY BLOCKING AT JACKING CLOSURES FOR DETAILED PROCEDURE).
- 9.4 STRESS TEMPORARY POST-TENSIONING TENDONS IN ACCORDANCE WITH DETAILED PROCEDURE.
- 9.5 PLACE 25mm PLATE OVER THE CLOSURE JOINT AND FASTEN TO DECK
- 9.6 RELEASE STABILIZER ARM AT SEGMENT P7-U4.

NOTE:

- REFER TO FIGURE 13 FOR SITE VICINITY PLAN.
- ALL CONSTRUCTION OCCURS AT THE BRIDGE DECK ELEVATION.



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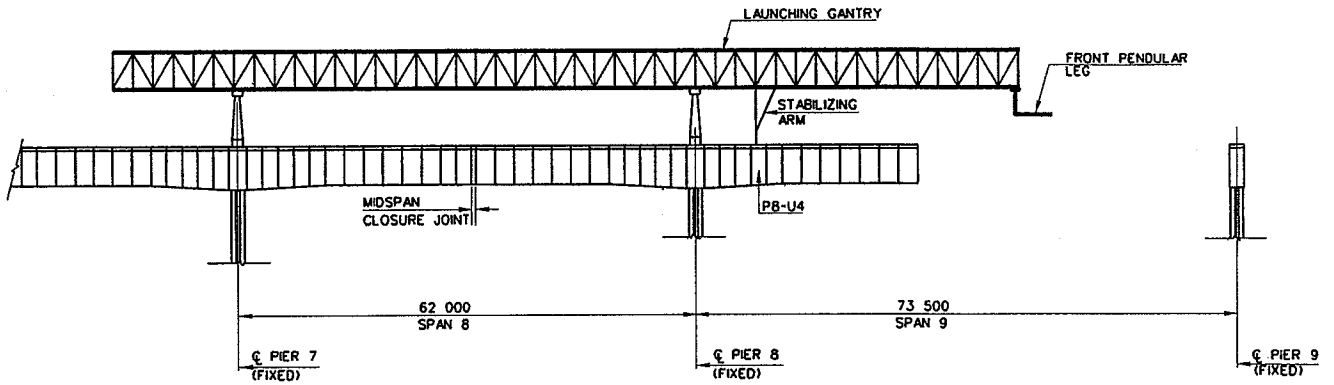
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ERECTION SCHEMATIC SHEET 8

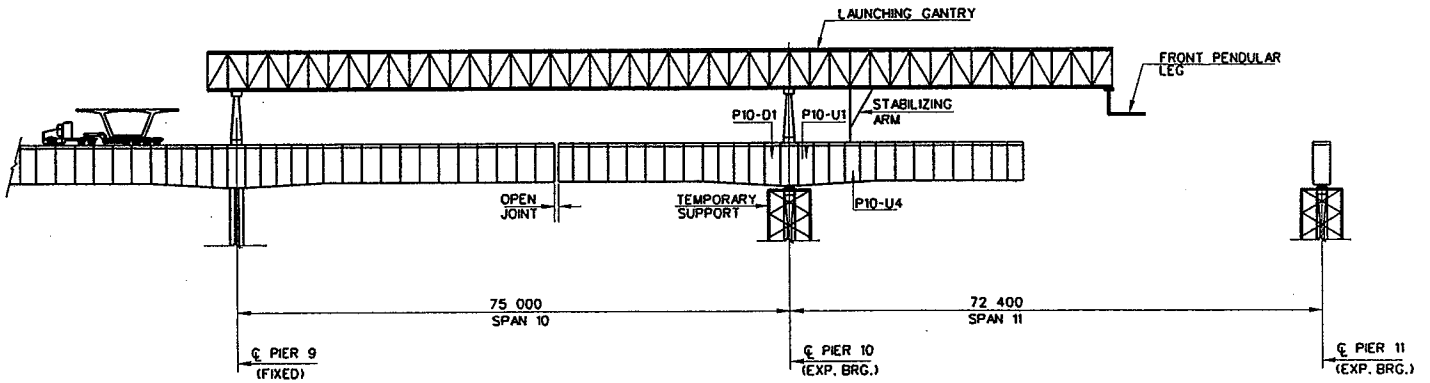
FIG. ES-8

DIRECTION OF ERECTION
DIRECTION OF STATIONING



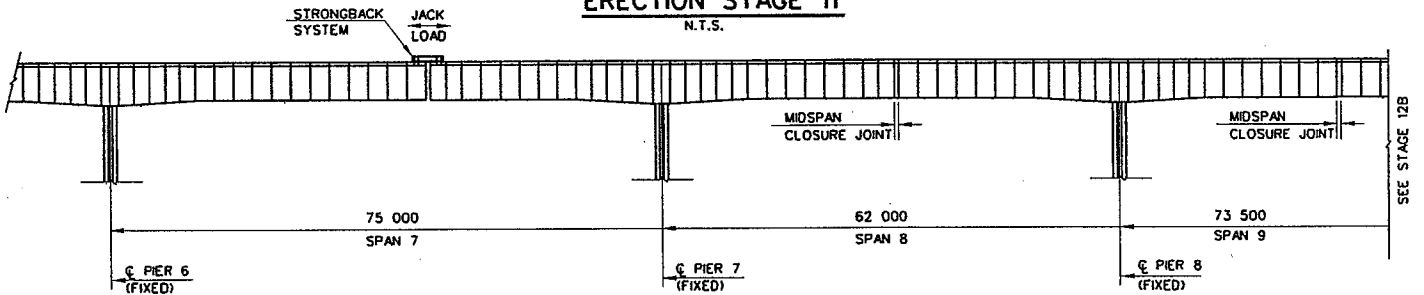
ERECTION STAGE 10

N.T.S.



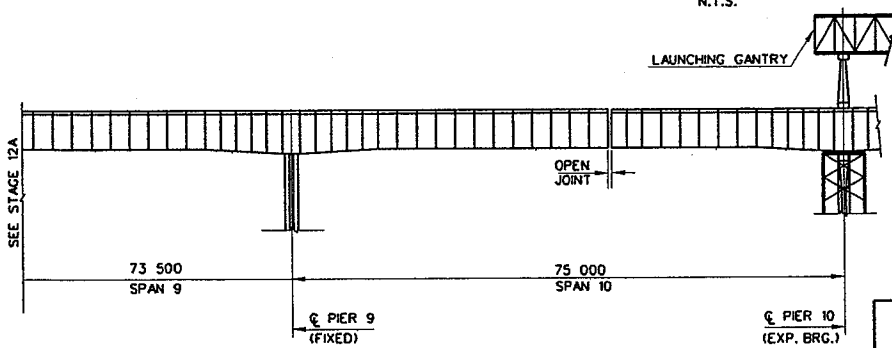
ERECTION STAGE 11

N.T.S.



ERECTION STAGE 12A

N.T.S.



ERECTION STAGE 12B

N.T.S.

SEE NOTES ON
ERECTION SCHEMATIC SHEET 10, FIG. ES-10



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ERECTION SCHEMATIC SHEET 9

FIG. ES-9

ERECTION NOTES: FOR ERECTION SCHEMATIC SHEET 9 (FIG. ES-9)

STAGE 10

- 10.1 ADVANCE GANTRY SO THAT MOVABLE CENTER SUPPORT IS POSITIONED AT FIXED PIER 8 AND READY GANTRY FOR PIER 8 CANTILEVER ERECTION.
- 10.2 ERECT BALANCED CANTILEVERS AT FIXED PIER 8 FOLLOWING PROCEDURE FROM STEPS 6.1 THRU 6.11.
- 10.3 LOCK CANTILEVERS P8-D AND P7-U TOGETHER WITH TEMPORARY BLOCKING AND STRONGBACK SYSTEM AT SPAN 8 CLOSURE JOINT.
- 10.4 ZERO OUT FORCES IN STABILIZER ARM AT SEGMENT P8-U4 BUT DO NOT DISENGAGE.
- 10.5 CAST CLOSURE JOINT IN SPAN 8.
- 10.6 WHEN CLOSURE JOINT CONCRETE HAS REACHED A STRENGTH OF 24.5 MPA STRESS CONTINUITY TENDONS 201. (NOTE: SPAN 8 CONTINUITY TENDONS 202 THRU 205 ARE NOT STRESSED UNTIL AFTER CLOSURE IS MADE IN SPAN 7).
- 10.7 REPEAT STEPS 6.1 THRU 6.13 FOR CANTILEVER ERECTION AT FIXED PIER 9.
- 10.8 CAST CLOSURE JOINT IN SPAN 9. WHEN CLOSURE JOINT CONCRETE HAS REACHED A STRENGTH OF 24.5 MPA STRESS CONTINUITY TENDONS 201. (NOTE: SPAN 9 CONTINUITY TENDONS 202 THRU 207 ARE NOT STRESSED UNTIL AFTER CLOSURE IS MADE IN SPAN 7).
- 10.9 DISENGAGE STABILIZER ARM FROM SEGMENT P9-U4.

STAGE 11

- 11.1 AT EXPANSION PIER 10 SET BEARINGS AND TEMPORARILY RESTRAIN AGAINST HORIZONTAL TRANSLATION AND ROTATION WITH TEMPORARY SUPPORTS AND/OR TIE-DOWNS DURING ERECTION OF CANTILEVER.
- 11.2 ADVANCE GANTRY SO THAT MOVABLE CENTER SUPPORT IS POSITIONED AT EXPANSION PIER 10 AND READY GANTRY FOR PIER 10 CANTILEVER ERECTION.
- 11.3 ERECT CANTILEVERS AT EXPANSION PIER 10 FOLLOWING PROCEDURE FROM STEPS 6.1 THRU 6.11. DO NOT LOCK CANTILEVERS P10-D AND P9-U TOGETHER AT THIS TIME.

STAGE 12

- 12.1 WITH GANTRY POSITIONED AT PIERS 10 AND 11, DE-STRESS TEMPORARY TOP POST-TENSIONING BARS AT SPAN 7 MIDSPAN CLOSURE JOINT. DE-STRESS TEMPORARY CONTINGENCY TENDONS AND REMOVE TEMPORARY CLOSURE JOINT BLOCKING.
- 12.2 JACK CANTILEVERS P7-D AND P6-U APART IN SPAN 7 USING THE LOADS AND PROCEDURE SPECIFIED ON THE JACKING DETAIL. LOCK-OFF JACKS AND CAST CLOSURE.
- 12.3 WHEN CLOSURE JOINT CONCRETE HAS REACHED STRENGTH OF 24.5MPA, STRESS SPAN 7 PERMANENT CONTINUITY TENDONS 201 THRU 207. STRESS PERMANENT 35mm POST-TENSIONING BARS AT SPAN 7 MIDSPAN CLOSURE JOINT.
- 12.4 STRESS CONTINUITY TENDONS 202 THRU 207 IN SPAN 6. STRESS CONTINUITY TENDONS 202 THRU 205 IN SPAN 8. STRESS CONTINUITY TENDONS 202 THRU 207 IN SPAN 9.

NOTE:

- REFER TO FIGURES 13 AND 14 FOR SITE VICINITY PLAN.
ALL CONSTRUCTION OCCURS AT THE BRIDGE DECK ELEVATION.

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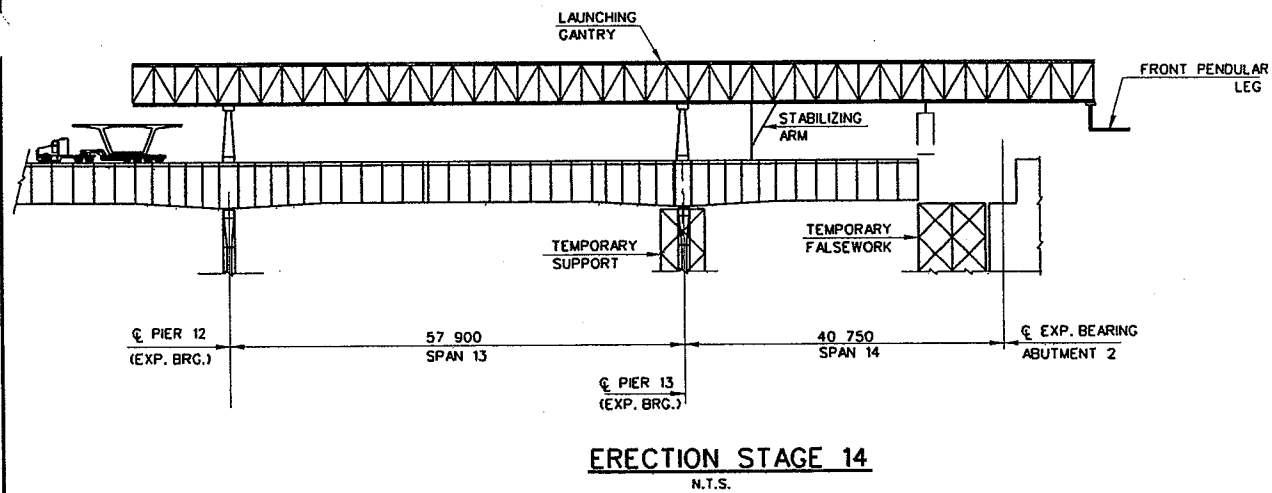
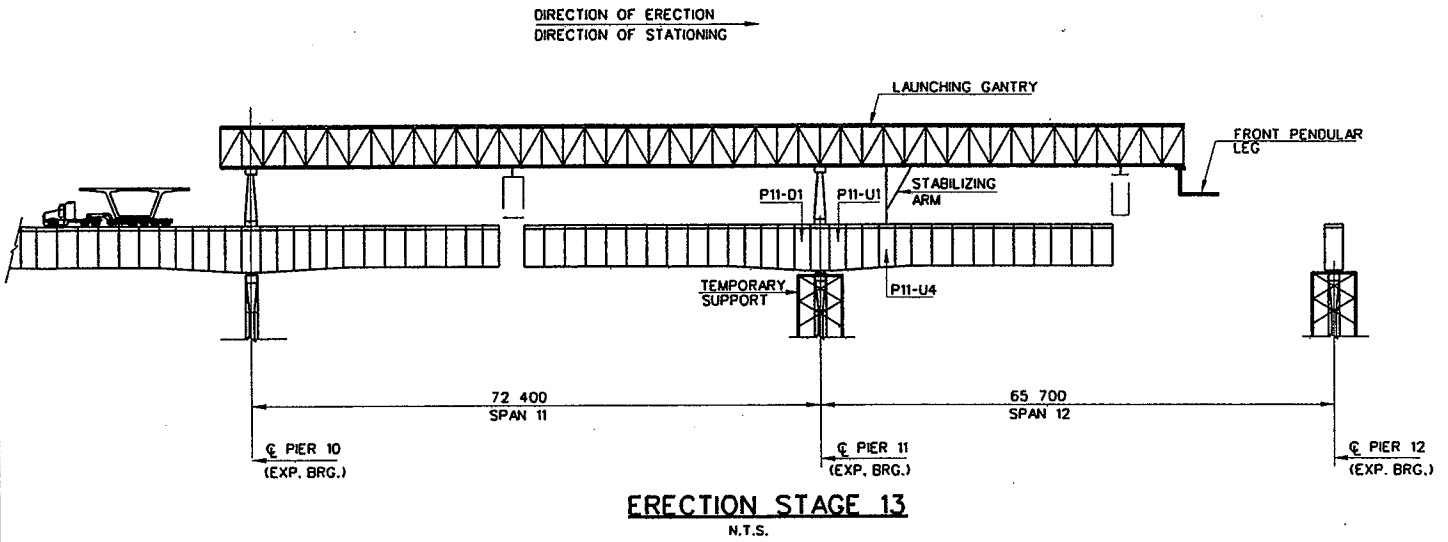
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ERECTION SCHEMATIC SHEET 10

FIG. ES-10



SEE NOTES ON
ERECTION SCHEMATIC SHEET 12, FIG. ES-12



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ERECTION SCHEMATIC SHEET 11

FIG. ES-11

ERECTION NOTES: FOR ERECTION SCHEMATIC SHEET 11 (FIG. ES-11)

STAGE 13

- 13.1 WITH GANTRY POSITIONED AT PIERS 10 AND 11
READY GANTRY FOR PIER 11 CANTILEVER ERECTION.
- 13.2 ERECT CANTILEVERS AT EXPANSION PIER 11 AND CAST CLOSURE
JOINT IN SPAN 11 FOLLOWING PROCEDURE FROM STEPS 6.1
THRU 6.15.
- 13.3 REPEAT STAGE 5 AND 6 FOR CANTILEVER ERECTION AT
PIERS 12 AND 13 AND CLOSURE JOINTS IN SPAN 12 AND 13.
(NOTE: FINAL SEGMENT PAIR P12-10 REQUIRE PERMANENT
CANTILEVER TENDONS !!!).

STAGE 14

- 14.1 ASSEMBLE TEMPORARY FALSEWORK AT ABUTMENT END
OF SPAN 2.
- 14.2 PLACE SEGMENT P13-U14 ON TEMPORARY FALSEWORK
(NOTE: SEGMENTS P13-U14, P13-U15 AND P13-U16 ARE
MATCH-CAST WITH SEGMENTS P13-U13, P13-U14, AND P13-U15
RESPECTIVELY). ADJUST ALIGNMENT AND ELEVATION, APPLY
EPOXY TO JOINT FACE OF SEGMENT, COMPRESS EPOXY BETWEEN
SEGMENTS P13-U14 AND P13-U13 WITH TEMPORARY
POST-TENSIONING BARS.
- 14.3 REPEAT STEP 13.2 PROCEDURE FOR THE REMAINING PRECAST
SEGMENTS IN SPAN 14.
- 14.4 SET IN PLACE PERMANENT BEARINGS AT ABUTMENT 2. CAST-IN-
PLACE ABUTMENT SEGMENT A2 OVER BEARINGS AND MATCH CAST
AGAINST SEGMENT P13-U16.
- 14.5 WHEN ABUTMENT SEGMENT A2 CONCRETE HAS REACHED A
STRENGTH OF 24.5 MPA STRESS SPAN 14 CONTINUITY TENDONS
201 THRU 203.

STAGE 15

- 15.1 RELOCATE GANTRY TO WEST END OF BRIDGE TO BEGIN ERECTION
OF SOUTH GIRDER.
- 15.2 REPEAT STAGES 1 THRU 14 FOR ERECTION OF SOUTH GIRDER .

STAGE 16

- 16.1 RELOCATE GANTRY TO WEST END OF BRIDGE TO BEGIN ERECTION OF
MIDDLE GIRDER.
- 16.2 REPEAT STAGES 1 THRU 13 FOR ERECTION OF MIDDLE GIRDER .

STAGE 17

- 17.1 CAST-IN-PLACE LONGITUDINAL CLOSURE STRIP BETWEEN MIDDLE GIRDER
AND EXTERIOR GIRDERS .
- 17.2 WHEN LONGITUDINAL CLOSURE STRIP CONCRETE HAS REACHED A
STRENGTH OF 24.5 MPA, STRESS CLOSURE STRIP TENDONS.

NOTE:

REFER TO FIGURES 14 AND 15 FOR SITE VICINITY PLAN.
ALL CONSTRUCTION OCCURS AT THE BRIDGE DECK ELEVATION.

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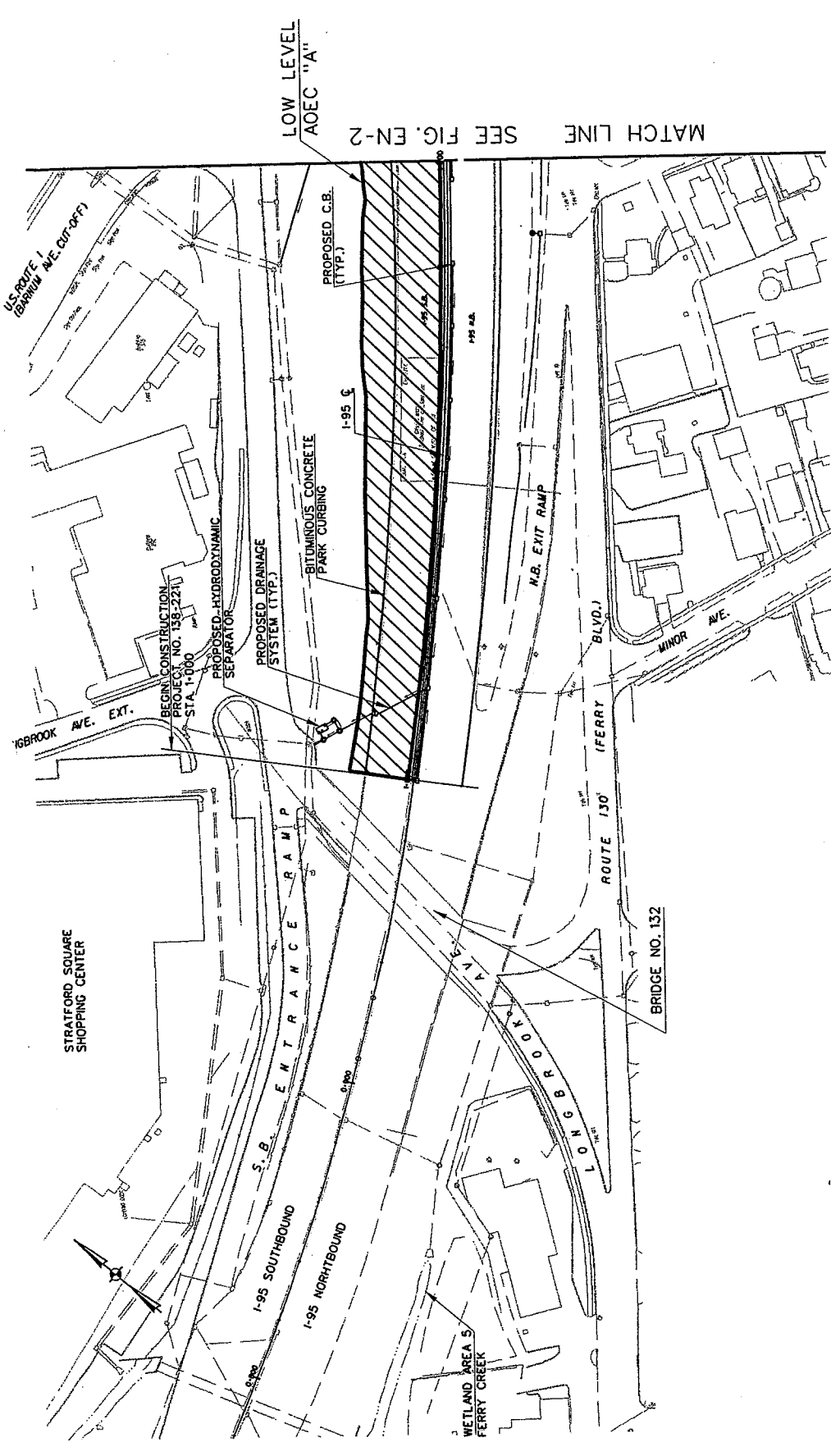
ENGINEERS AND PLANNERS
80 Ferry Boulevard
Stratford, CT 06615

REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

DATE: 11/11/05

ERECTION SCHEMATIC SHEET 12

FIG.ES-12



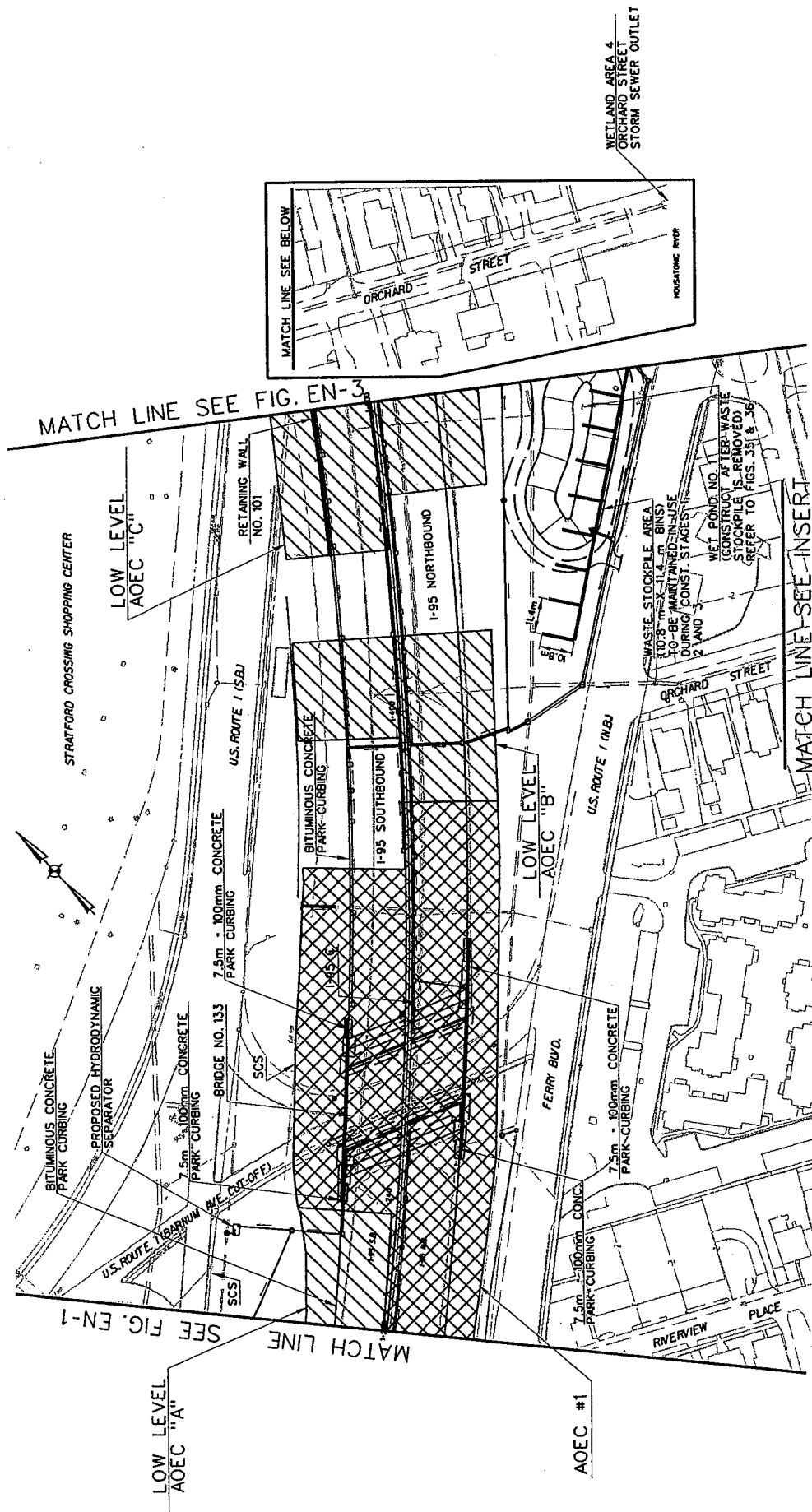
LOW LEVEL
AOEC "A"
MATCH LINE SEE FIG. EN-2

AREAS OF ENVIRONMENTAL CONCERN

SCALE: 1"=200'

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	
STRATFORD/MILFORD	
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	
DATE: 11/11/05	FIG. EN-1
AREA OF ENVIRONMENTAL CONCERN	

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AREAS OF ENVIRONMENTAL CONCERN

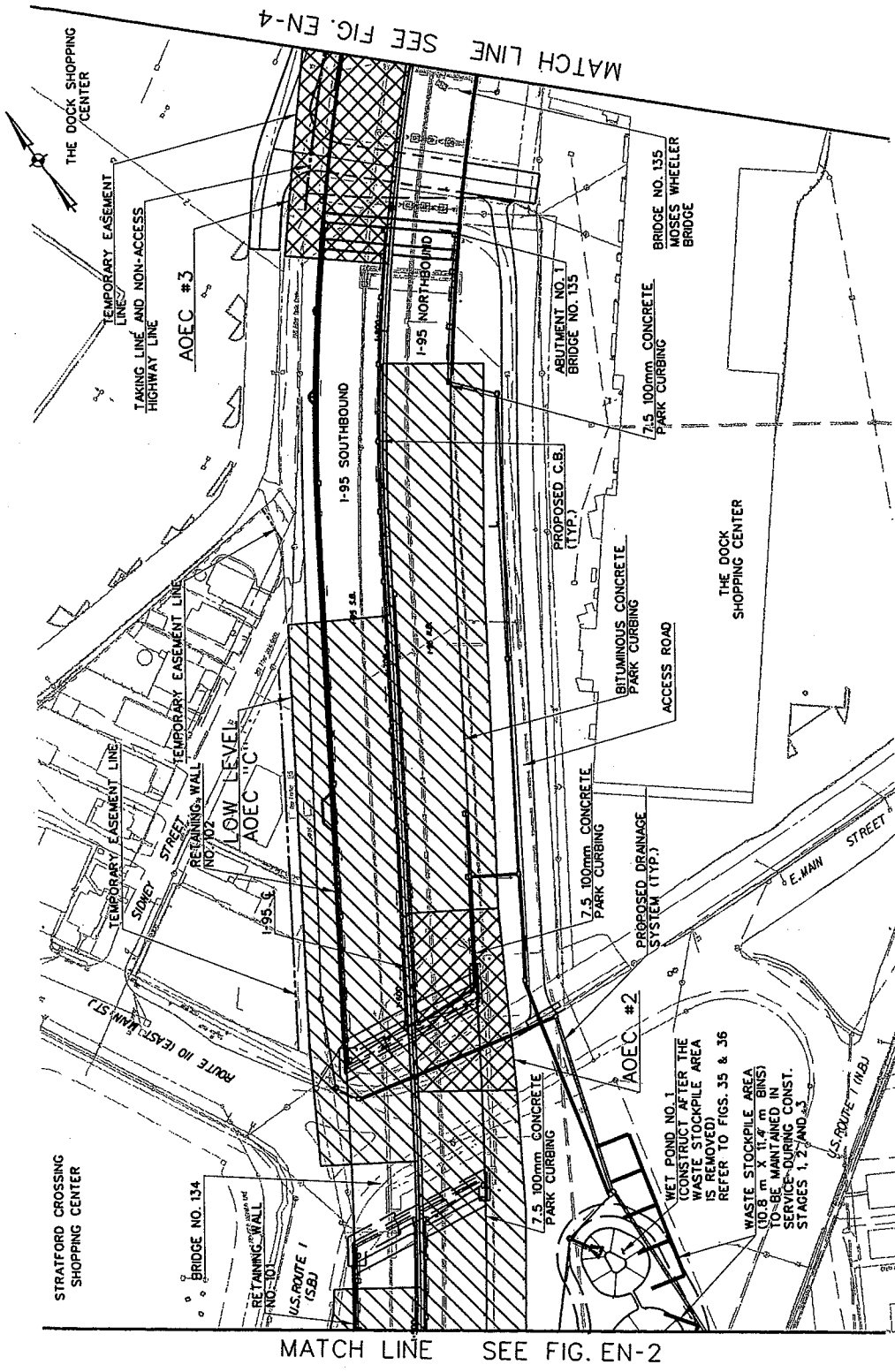
SCALE: 1"=200'

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REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

DATE: 11/11/05 AREAS OF ENVIRONMENTAL CONCERN FIG. EN-2

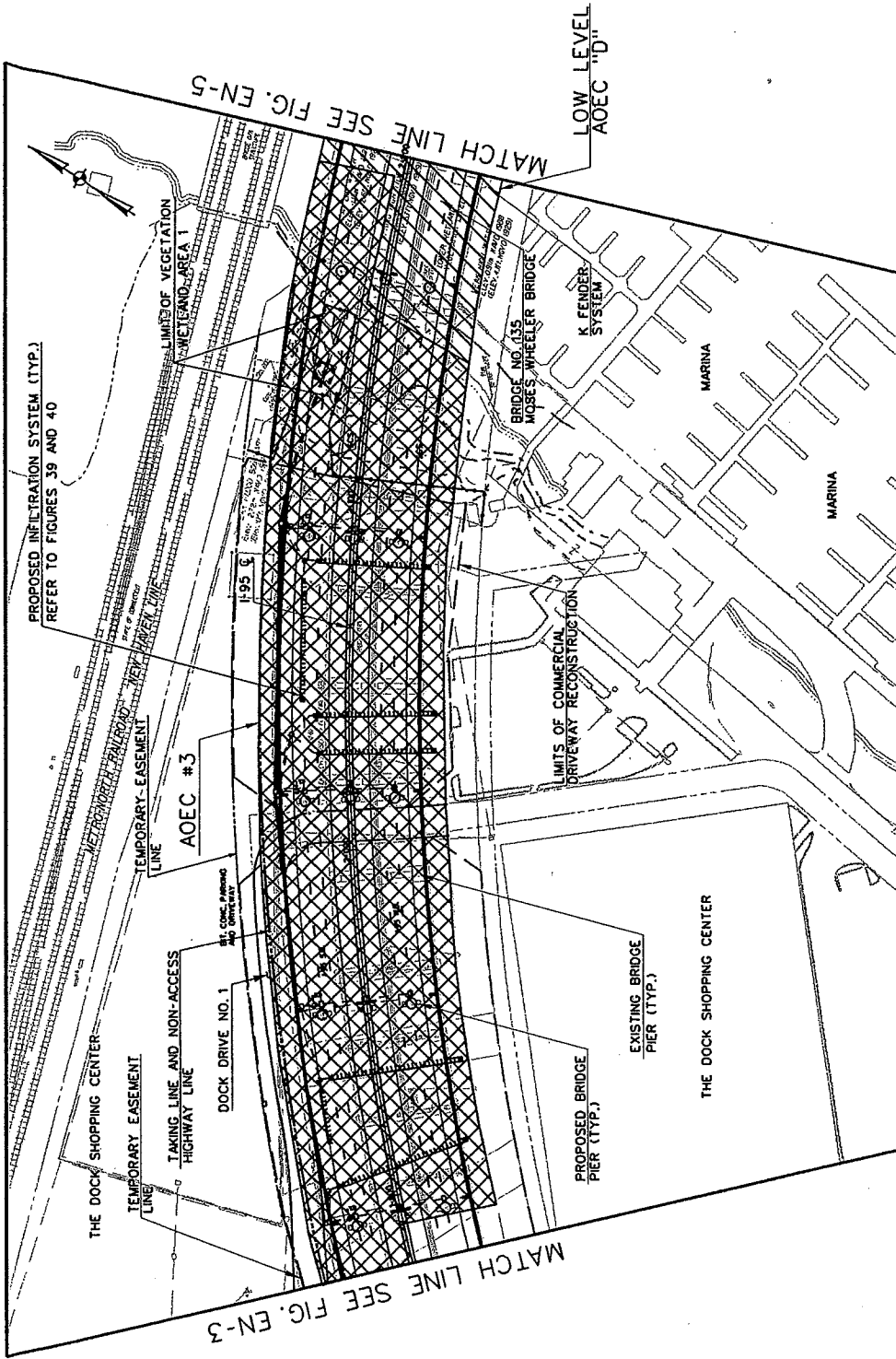


AREA OF ENVIRONMENTAL CONCERN

SCALE: 1:2000

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION
STRATFORD/MILFORD
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221
DATE: 11/11/05
AREA OF ENVIRONMENTAL CONCERN
FIG. EN-3

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AREA OF ENVIRONMENTAL CONCERN

SCALE: 1/2"=1'-0"

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DEPARTMENT OF TRANSPORTATION

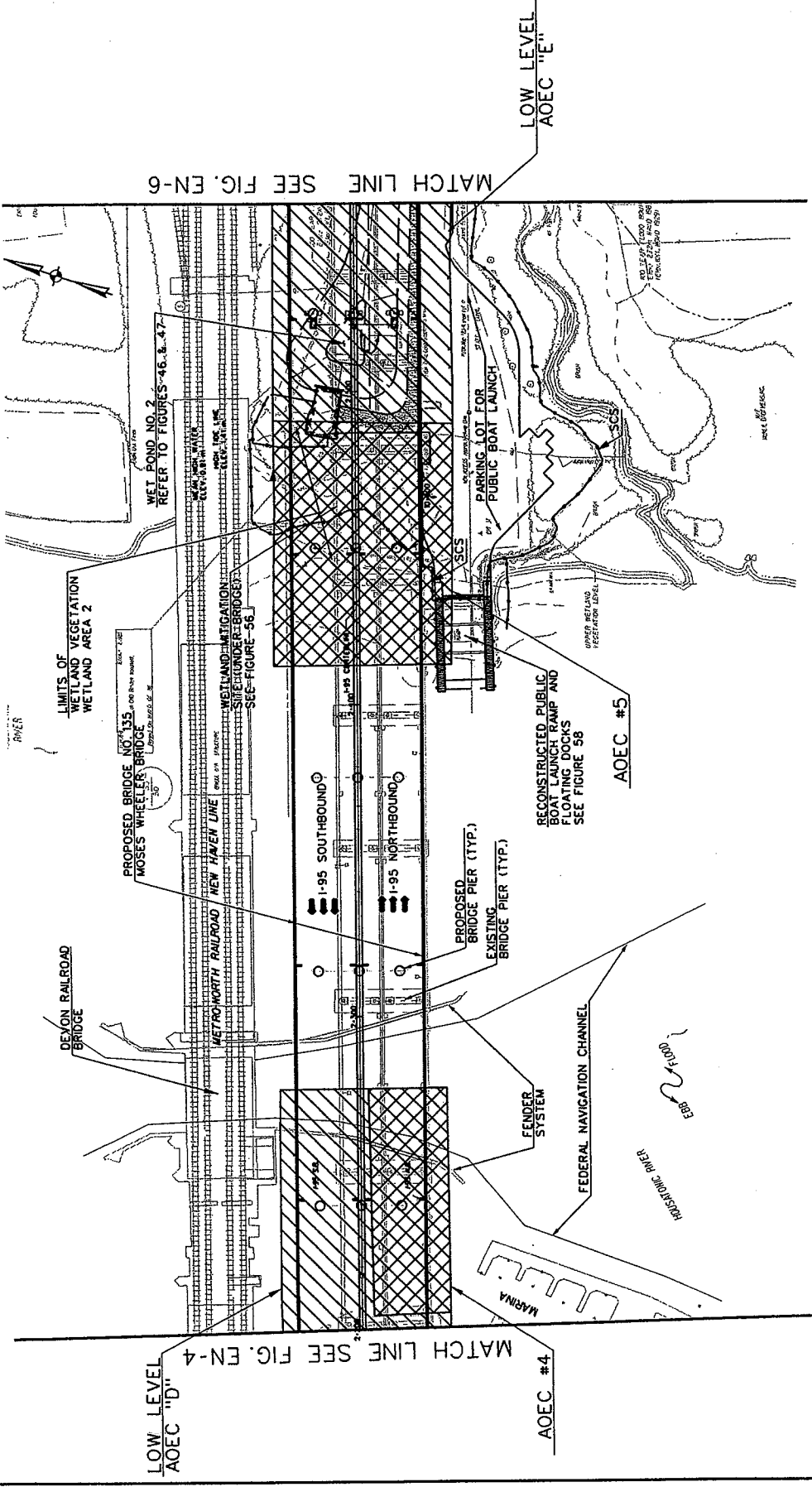
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REPLACEMENT OF I-95 BRIDGE
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PROJECT NO. 138-221

DATE: 11/11/05 AREA OF ENVIRONMENTAL CONCERN

FIG. EN-4

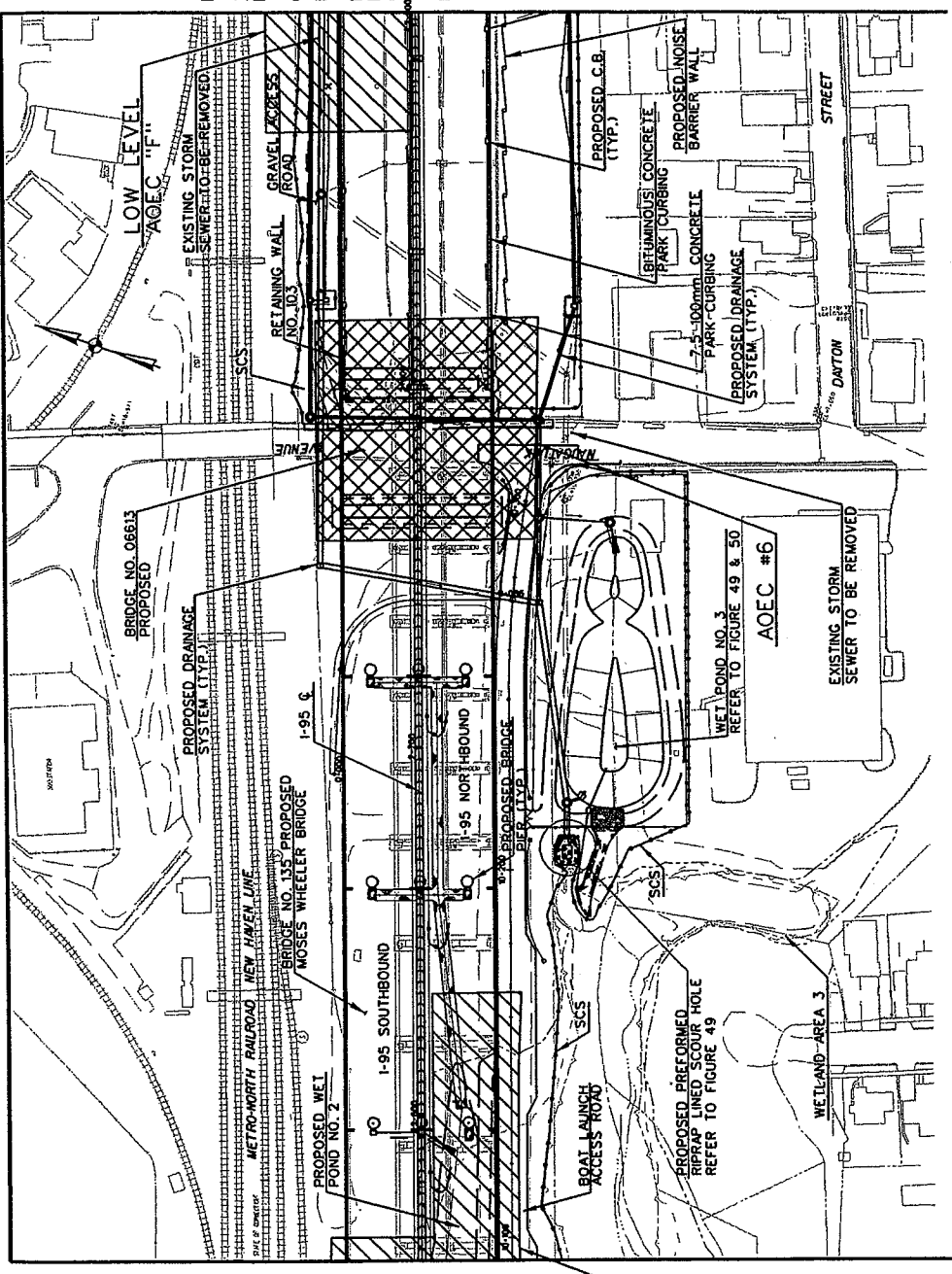


AREAS OF ENVIRONMENTAL CONCERN

SCALE: 1/2000

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	FIG. EN-5
STRATFORD/MILFORD	DATE: 11/11/05
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	AREAS OF ENVIRONMENTAL CONCERN

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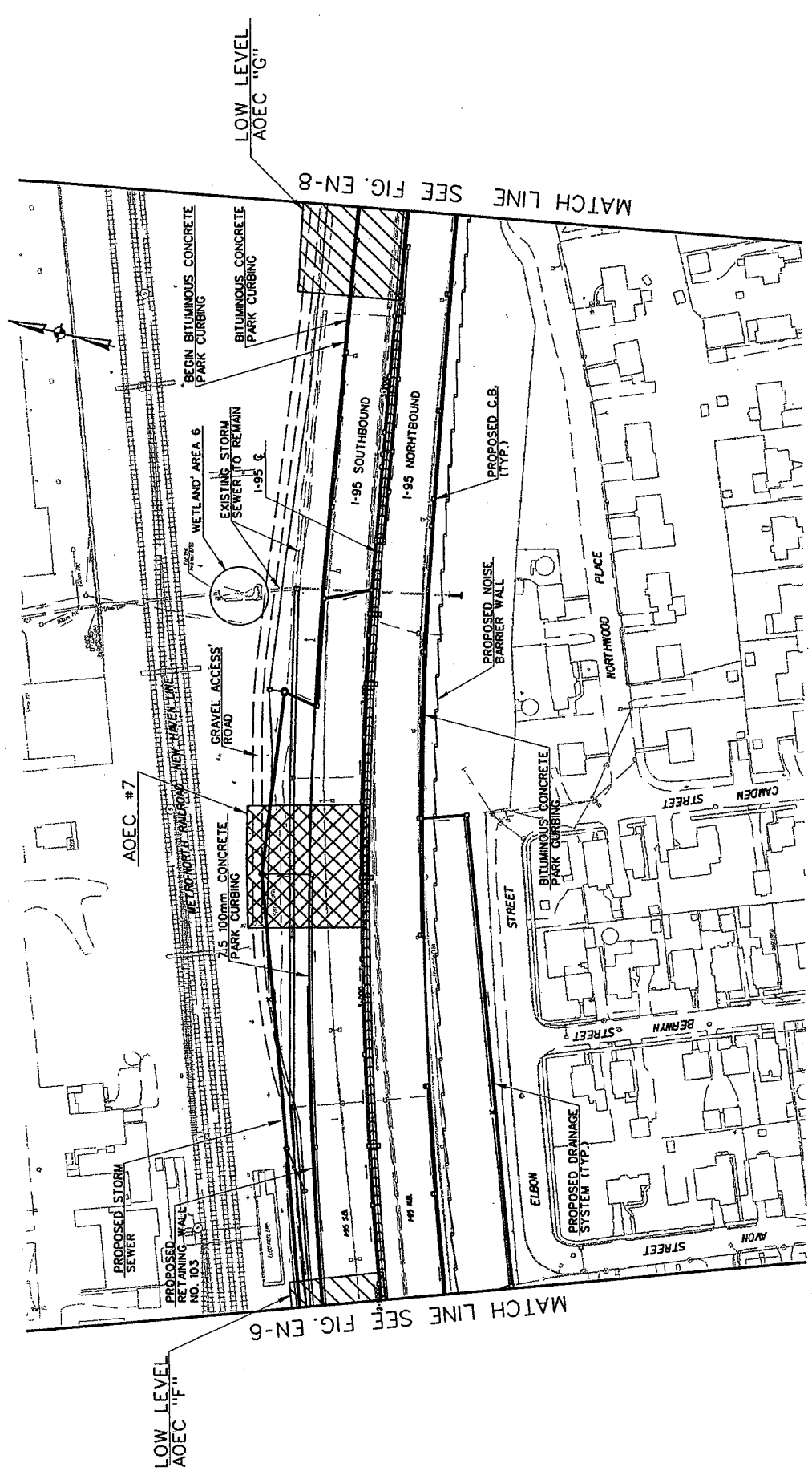


AREAS OF ENVIRONMENTAL CONCERN

SCALE: 1:2000

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		
STRATFORD/MILFORD		
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221		
DATE: 11/11/05	AREA OF ENVIRONMENTAL CONCERN	FIG. EN-6

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STATE OF CONNECTICUT
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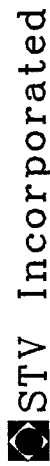
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REPLACEMENT OF I-95 BRIDGE
OVER THE HOUSATONIC RIVER
PROJECT NO. 138-221

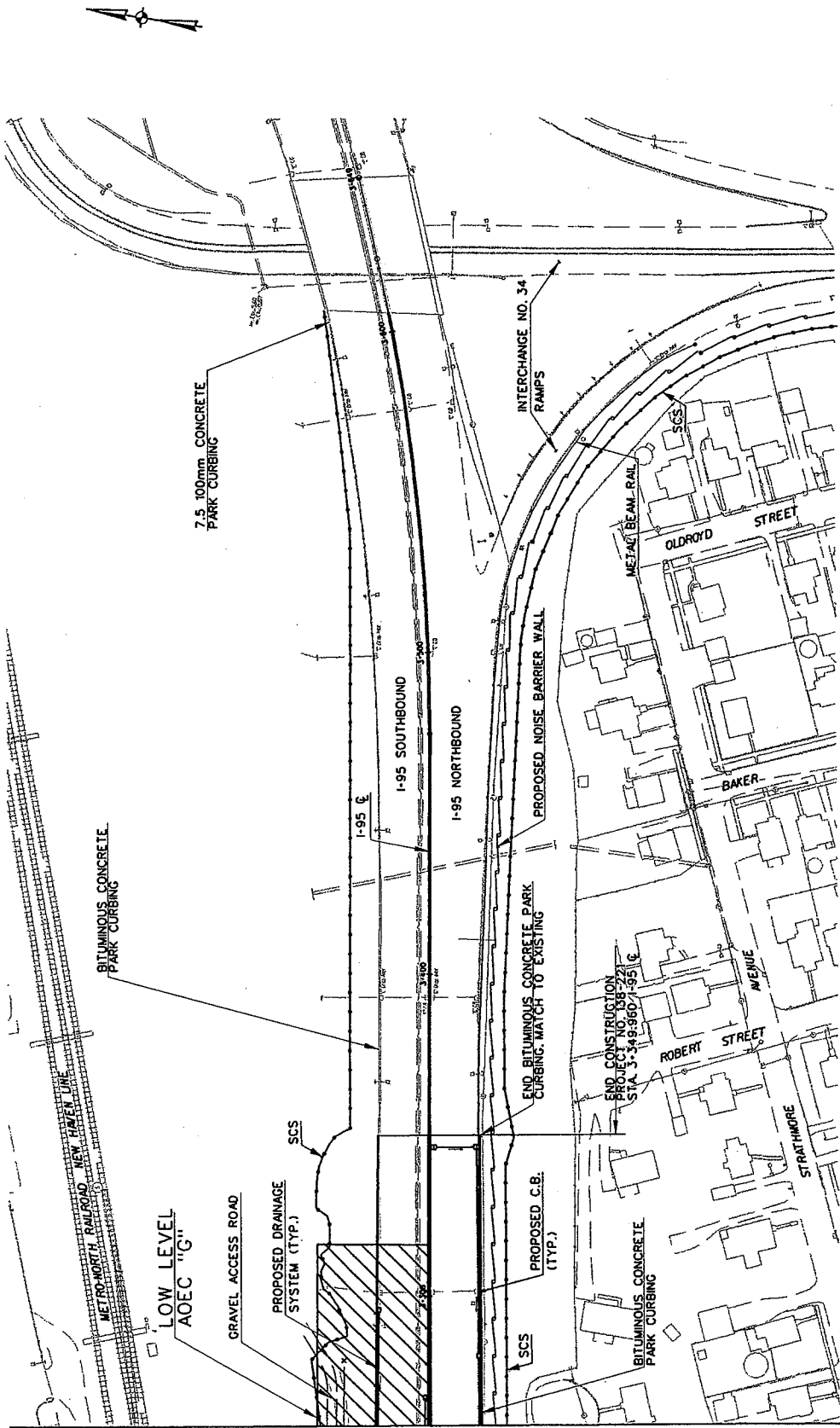
DATE: 11/11/05 AREA OF ENVIRONMENTAL CONCERN FIG. EN-7

AREAS OF ENVIRONMENTAL CONCERN

SCALE: 1"=200'



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MATCH LINE SEE FIG. EN-7

AREAS OF ENVIRONMENTAL CONCERN

SCALE: 1"=2000

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

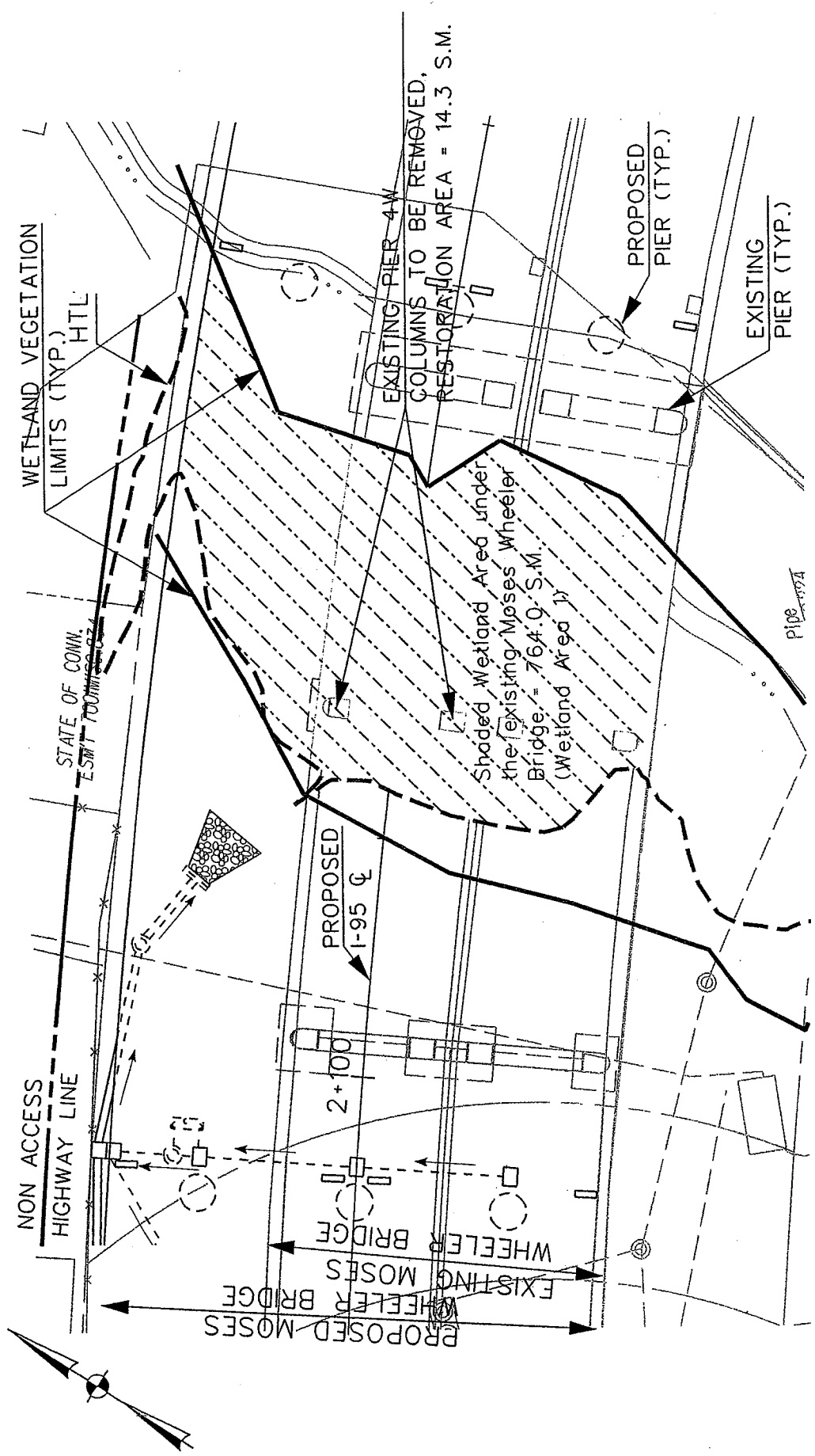
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REPLACEMENT OF I-95 BRIDGE
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PROJECT NO. 138-221

DATE: 11/11/05 AREA OF ENVIRONMENTAL CONCERN

FIG. EN-8



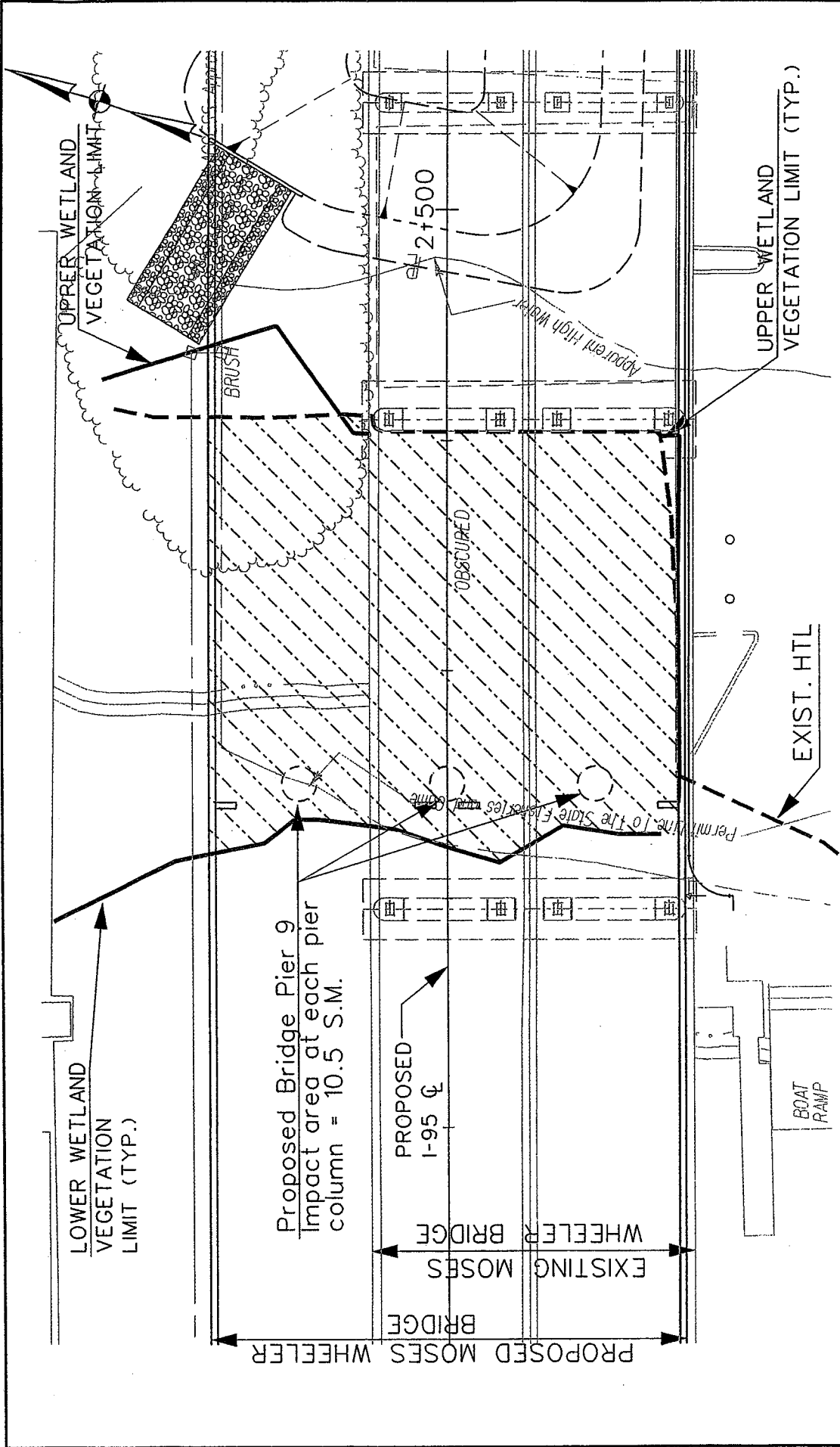
LEGEND

-  SHADOW AREA IN WETLANDS UNDER EXISTING BRIDGE, AREA = 764.0 S.M.
-  SHADOW AREA IN WETLANDS UNDER NEW BRIDGE, AREA = 1081.9 S.M.

PLAN
SCALE 1:500

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	FIG. SHADOW IMPACT AREAS UNDER MOSES WHEELER BRIDGE
STRATFORD/MILFORD	FIG. S-1
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221	
DATE: 11/22/06	

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STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	DATE: 11/22/06	FIG. M-1
STRATFORD/MILFORD	SHADOW IMPACT AREAS UNDER MOSES WHEELER BRIDGE	
REPLACEMENT OF I-95 BRIDGE OVER THE HOUSATONIC RIVER PROJECT NO. 138-221		

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PLAN
 SCALE: 1"=500

- LEGEND**
-  SHADOW AREA IN WETLANDS UNDER EXISTING BRIDGE, AREA = 947.0 S.M.
 -  SHADOW AREA IN WETLANDS UNDER PROPOSED BRIDGE, AREA = 1,421.5 S.M.

Replacement of the Moses Wheeler Bridge over the Housatonic River
 State Project No. 138-221
 Stratford/Milford, CT

List of Temporary Impacts to Navigation Channel

Construction Stage	Construction Activity	Navigation Channel Closure Type & Period
1	Install new C&S cables on MNRR Devon Bridge - lifting cables over the navigation channel	Full closure 2 days
1	Assemble segmental precast concrete girders for North girder over the navigation channel	Full closure 5 days
2	Assemble segmental precast concrete girders for South girder over the navigation channel	Full closure 5 days
2	Install temporary debris shield under existing N.B. superstructure over the navigation channel	Partial closure 6 days
2	Remove floor beams and purlins/brace main girders (N.B.) over the navigation channel	Partial closure 8 days
2	Remove temporary debris shield under N.B. superstructure over the navigation channel	Partial closure 4 days
2	Remove main girders from N.B. superstructure over the navigation channel	Full closure 2 days
3	Assemble segmental precast concrete girders for Middle girder over the navigation channel	Full closure 5 days
3	Construct new fender system after demolition of Piers 1E and 1W	Partial closure 20 days
3	Install temporary debris shield under existing S.B. superstructure over the navigation channel	Partial closure 6 days
3	Remove floor beams/purlins and brace main girders (S.B.) over the navigation channel	Partial closure 8 days
3	Remove temporary debris shield under N.B. superstructure over the navigation channel	Partial closure 4 days
3	Remove main girders from S.B. superstructure over the navigation channel	Full closure 2 days
3	Remove existing timber fender system along the navigation channel adjacent to Piers 1W & 1E	Partial closure 10 days
3	Construct temporary fender system adjacent to temporary trestles	Partial closure 10 days

Note: A partial channel closure will maintain 12.1-meters (40-feet) of navigation channel open to boat traffic during the construction activity.

Monitoring Report

DOT OEP staff or their consultant shall prepare an annual report for the monitoring of the creation/mitigation areas on the eastern and western shores of the river. Such monitoring report will be submitted no later than December 15th of any year for the first two growing seasons following the completion of this work, which shall provide, at a minimum, the following information:

- 1) summary of the problems needing immediate attention (e.g., problems with hydrology, invasive species, erosion, and loss of herbivory, etc.);
- 2) the location and source of all plant material used to complete the mitigation work,
- 3) dates on which work at the mitigation site began and ended;
- 4) description of monitoring inspections that occurred since the last report;
- 5) remedial actions taken during the monitoring year, such as: removing debris, replanting, controlling invasive plant species, applying additional topsoil or soil amendments, adjusting hydrology;
- 6) visual estimates of percent cover of tidal wetland grasses established and percent cover of invasive species in the mitigation area;
- 7) percent survival of tidal wetland plantings;
- 8) plan for removal of invasive plant species;
- 9) status and condition of all erosion control measures within the mitigation area;
- 10) observations or fish and wildlife using the site;
- 11) general health and vigor of the surviving plants;
- 12) remedial measures recommended to achieve or maintain the proposed functions and values of the mitigation site.

The monitoring reports shall also include as applicable:

- Appendix A -a copy of the permit's mitigation special conditions and summary of the mitigation goals,
- Appendix B -an as-built planting plan showing the location and extent of the proposed planting communities (e.g., planting zones), species planted, the location of the high tide line, mean high water line, and mean low water line, and the location of any erosion and sedimentation control devices;
- Appendix C- representative photographs of the mitigation site taken from the same location for each monitoring event.

Maintenance Report

DOT OEP staff or their consultant shall for a minimum of two (2) years following completion of the creation/mitigation areas conduct the following maintenance procedures:

- 1) if applicable, remove all invasive plant species within six (6) meters of the mitigation planting areas;
- 2) remove any construction debris such as garbage or excessive decayed plant material from the mitigation area;
- 3) replace dead or missing plants which have not already been compensated for by a suitable volunteer species;
- 4) repair or establishment of erosion control measures.

DOT OEP staff or their consultant shall submit to the Commissioner no later than December 15th of any year documentation stating that indicates that such work has been completed.