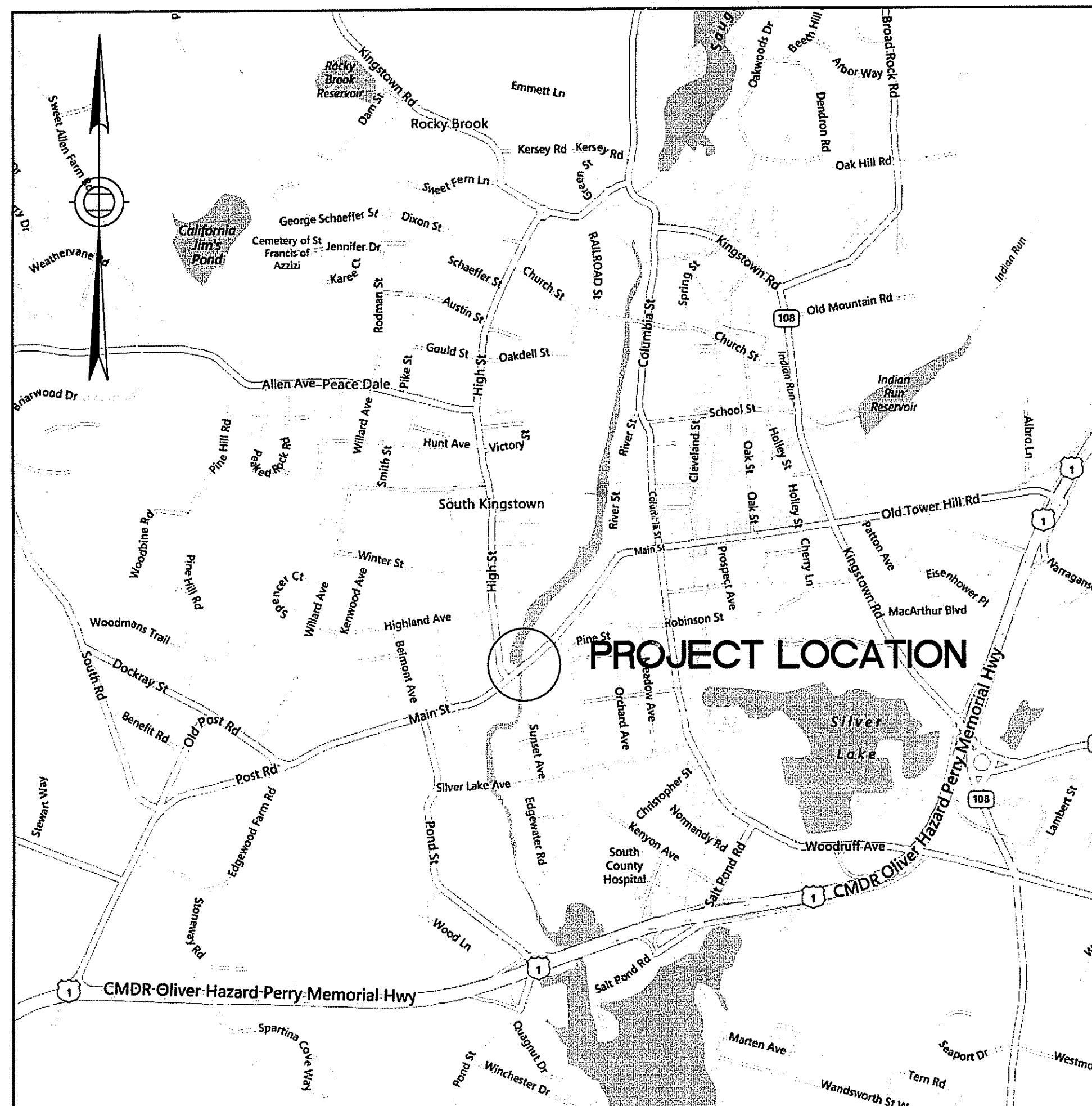


NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION RESTORATION CENTER
 and
 THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS
 SOUTH KINGSTOWN, RHODE ISLAND
MAIN STREET DAM SITE

JAN 29 2013
 Office of Water Resources

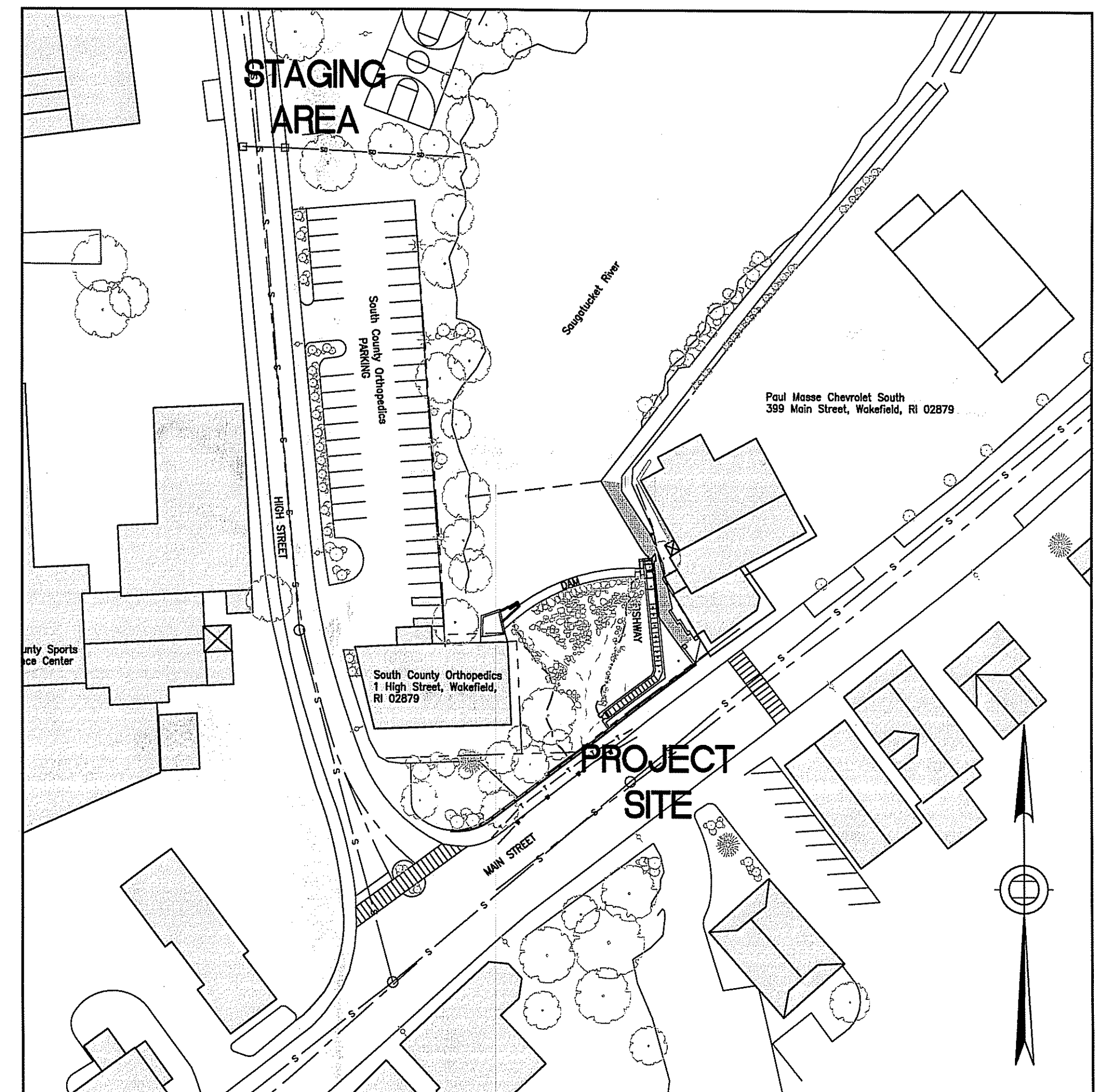


LOCATION MAP
 SCALE: 1" = 1200 FT.

90% DOCUMENTS
 JANUARY 2013

INDEX OF DRAWINGS

NUMBER	DESCRIPTION
C-1	NOTES
C-2	EXISTING CONDITIONS
C-3	STAGING AREA AND ACCESS NOTES
C-4	TRAFFIC MANAGEMENT PLAN
C-5	DEMOLITION/EROSION CONTROL PLAN
C-6	PROPOSED FISH PASSAGE IMPROVEMENTS
C-7	PROFILES/DETAILS 1
C-8	PROFILES/DETAILS 2
C-9	EEL LADDER DETAILS
C-10	CIVIL DETAILS
C-11	RESOURCE IMPACT PLAN
S-1	STRUCTURAL NOTES AND TYPICAL DETAILS
S-2	PARTIAL PLAN AND SECTIONS
S-3	SECTIONS AND FOUNDATION DETAILS
S-4	OUTMIGRATION STRUCTURE DETAILS
S-5	CONCRETE REPAIRS

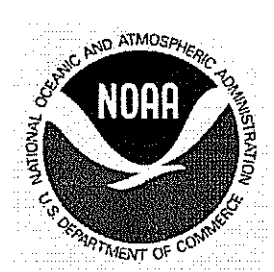


SITE MAP
 SCALE: 1" = 60 FT.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED FEB 8 2013 FILE # 13-005
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
 Charles A. Huber

Jan 23, 2013 - 11:28am F:\PROJECT\1986_Saugatucket River Fishway Improvements\CADD\DRAWINGS\CIVIL\C-X_Site Main Street_2013-1-4.dwg

PREPARED FOR:

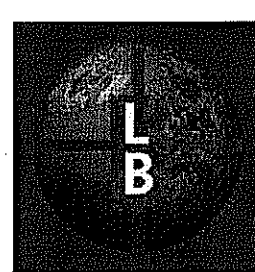


National Oceanic and
 Atmospheric Administration
 Restoration Center
 28 Tarzwell Drive
 Narragansett, Rhode Island 02882



Rhode Island Department of
 Environmental Management
 235 Promenade Street, Providence, Rhode
 Island 02908

PREPARED BY:



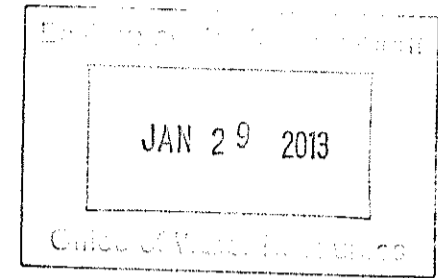
THE Louis Berger Group, INC.
 ENGINEERS PLANNERS
 SCIENTISTS ECONOMISTS
 295 Promenade Street
 Providence, Rhode Island 02908

GENERAL NOTES:

1. THE TOWN OF SOUTH KINGSTOWN OWNS AND IS RESPONSIBLE FOR MAINTAINING THE DAM AND DRAIN GATE STRUCTURE AND ANY MODIFICATIONS TO THE DAM OR DRAIN GATE.
2. RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OWNS, OPERATES AND MAINTAINS THROUGH TEMPORARY CONSTRUCTION AND PERMANENT ACCESS EASEMENTS FROM THE TOWN OF SOUTH KINGSTOWN AND SOUTH COUNTY ORTHOPEDICS WILL RECONSTRUCT, OPERATE AND MAINTAIN THE DENIL FISHWAY. FOLLOWING STANDARD OPERATING PROCEDURES, RIDEM WILL ALSO OPERATE THE NOTCHED FLASHBOARDS ASSOCIATED WITH THE DENIL FISHWAY AND DRAIN GATE FOR PURPOSES OF JUVENILE RIVER HERRING OUT-MIGRATION.
3. IN THE CONTRACT DOCUMENTS THE TERM "THE GOVERNMENT" REFERS TO THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM), AS LEAD ON THE CONSTRUCTION CONTRACT AND THE NATIONAL OCEANIC ATMOSPHERIC ADMINISTRATION (NOAA), AS LEAD ON THE ENGINEERING DESIGN CONTRACT.
4. THE RECONSTRUCTED DENIL FISHWAY AND DRAIN GATE STRUCTURE WILL HAVE NO, OR NEGLIGIBLE CHANGE IN THE IMPOUNDMENT WATER SURFACE ELEVATION.
5. RIVER HERRING UPSTREAM MIGRATION PERIOD IS MARCH 1 - MAY 31. RIVER HERRING OUT-MIGRATION PERIOD IS SEPTEMBER 15 - NOVEMBER 15. UPSTREAM EEL MIGRATION IS APRIL 1 - JULY 1. ANY TIME-OF-YEAR RESTRICTIONS ON IN-WATER WORK SHALL BE IN COMPLIANCE WITH CONDITIONS SPECIFIED IN THE RIDEM OR ARMY CORPS OF ENGINEERS PERMIT(S) FOR THE PROJECT.
6. THE CONTRACTOR SHALL NOTIFY "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY ON-SITE SOIL DISTURBANCES TO IDENTIFY AND LOCATE ANY UNDERGROUND FACILITIES AND UTILITIES.
7. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY INSTALLING ANY REQUISITE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH CONTRACT SPECIFICATIONS PRIOR TO BEGINNING SITE WORK. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVING ALL EROSION AND SEDIMENT CONTROLS ONCE THE PROJECT IS COMPLETED AND THE SITE IS VEGETATIVELY STABILIZED.
8. THE CONTRACTOR SHALL TAKE CARE IN AVOIDING DAMAGE TO ON-SITE TREES FROM EQUIPMENT USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE GOVERNMENT TO DISCUSS THE NEED TO REMOVE TREES OR OTHER VEGETATION WITHIN THE PROJECT AREA.
9. THE CONTRACTOR SHALL ACCESS THE WORK SITE WITH EQUIPMENT FROM MAIN STREET AND HIGH STREET AS SEEN ON SHEET C-4. FOR THE MAIN STREET ACCESS A PORTION OF THE BRIDGE GUARD RAIL MAY REQUIRE REMOVAL AND REPLACEMENT, AND A TEMPORARY CONSTRUCTION ACCESS RAMP FROM THE BRIDGE TO THE PROJECT SITE MAY BE REQUIRED.
10. THE CONTRACTOR IS RESPONSIBLE FOR VEGETATIVELY OR STRUCTURALLY STABILIZING ALL ON-SITE EXPOSED SOILS AND SEDIMENTS ONCE THE CONSTRUCTION ACTIVITIES ARE COMPLETE.
11. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ANY EXCESS MATERIALS AT AN APPROVED DISPOSAL FACILITY, AND IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE ROAD, BOARDWALK, GRASSED AREAS, SHRUBS, AND ANY OTHER ON-SITE AMENITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE SITE PRIOR TO COMPLETING THE FISH PASSAGE IMPROVEMENT PROJECT.
13. CONTRACTOR SHALL DEWATER THE PROJECT SITE AS NECESSARY TO COMPLETE THE WORK UNDER DRY CONDITIONS. DISCHARGE FROM DEWATERING SHALL BE DISCHARGED INTO FILTER BAGS OR A DEWATERING BASIN.

CONSTRUCTION SCOPE/SEQUENCE:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
2. REPRESENTATIVES FROM THE ENGINEER, THE GOVERNMENT, AND RIDEM/NOAA SHALL VISIT THE CONSTRUCTION SITE ON A REGULAR BASIS. CONTRACTOR SHALL CONSULT THE GOVERNMENT AS NEEDED THROUGHOUT THE CONSTRUCTION DURATION.
3. CONTRACTOR SHALL INSTALL MAINTENANCE AND PROTECTION OF TRAFFIC BARRICADES AND SIGNAGE AS SEEN ON SHEETS C-3 AND C-4.
4. CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION FENCING AND EROSION AND SEDIMENT CONTROL PRACTICES PRIOR TO INITIATING CONSTRUCTION WORK AND MAINTAIN IN A PROPER FUNCTIONING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
5. CONTRACTOR SHALL INSTALL STONE CHECK DAMS AND FILTER FABRIC/SOCK IN THE EXISTING FISHWAY AND BEGIN CONSTRUCTION ON THE DRAIN GATE STRUCTURE. THE EXISTING LOWER FISHWAY STRUCTURE CAN BE USED BY THE CONTRACTOR TO FACILITATE DEWATERING OF EXCAVATED SEDIMENT FROM THE DRAIN GATE STRUCTURE AREA.
6. CONTRACTOR SHALL INSTALL WATER DIVERSION (PORTABLE COFFERDAM SYSTEM, SANDBAGS, OR EQUIVALENT) AND DEWATER THE DRAIN GATE STRUCTURE AREA AS INDICATED ON SHEET C-5. ALL WATER THAT IS REMOVED FROM THE EXCAVATION AREA SHALL BE PUMPED INTO AN APPROVED FILTER BAG OR DEWATERING BASIN. CONTRACTOR SHALL MAINTAIN PROPER FUNCTIONING OF THE PRACTICE THROUGHOUT THE DEWATERING PERIOD.
7. ONCE THE AREA IS SUFFICIENTLY DEWATERED THE CONTRACTOR SHALL BEGIN BY PERFORMING ANY EXCAVATION REQUIRED FOR THE OUT MIGRATION STRUCTURE. ANY SEDIMENT THAT IS EXCAVATED SHALL BE PLACED UPSTREAM OF THE CHECK DAM INSTALLED IN THE EXISTING FISHWAY. NEXT THE CONTRACTOR SHALL REFINISH THE CONCRETE ON THE EXISTING LOW FLOW OUTLET STRUCTURE, AND INSTALL THE PROPOSED OUT MIGRATION STRUCTURE.
8. UPON COMPLETION OF THE DRAIN GATE STRUCTURE THE PORTABLE COFFERDAM SHALL BE REMOVED AND FLOW RETURNED TO THE DRAIN GATE STRUCTURE TO ALLOW FLOW AND HERRING TO BYPASS THE FISHWAY.
9. CONTRACTOR SHALL INSTALL STOP LOGS OR SANDBAGS AT THE EXITWAY OF THE EXISTING FISHWAY TO STOP ALL FLOWS THROUGH THE FISHWAY. ADDITIONALLY DEWATERING MEASURES SHALL BE INSTALLED IN THE VICINITY OF THE PROPOSED EELWAY AREA.
10. CONTRACTOR SHALL INSTALL THE PROPOSED PORTIONS OF THE FISHWAY; DURING EXCAVATION FOR AREAS OF PROPOSED FISHWAY LOCATED ADJACENT TO THE TOE OF THE DAM, APPROPRIATE STABILIZATION METHODS SHALL BE IMPLEMENTED TO PROTECT AND PREVENT UNDERMINING OF THE DAM.
11. CONTRACTOR SHALL DEMOLISH THE LOWER PORTION OF THE FISHWAY; THE VOID AND PLACED SEDIMENTS SHALL THEN BE BACKFILLED WITH CLEAN FILL AND GRADED, SEEDED, AND VEGETATIVELY STABILIZED ACCORDING TO THE PLAN.
12. THE CONTRACTOR SHALL EXCAVATE AND CONSTRUCT THE ENTRANCE POOL AND REPOSITION AND PLACE BOULDERS PRIOR TO THE EEL PASS INSTALLATION.
13. THE CONTRACTOR SHALL INSTALL THE EELWAY AND ALL ASSOCIATED APPURTENANCES INCLUDING THE ELECTRICAL HOOKUP, PUMP, AND ASSOCIATED PIPING. THE FLOWS SHALL THEN BE TESTED AND APPROVED AT THE DIRECTION OF THE GOVERNMENT.
14. THE CONTRACTOR SHALL REMOVE ALL EROSION AND SEDIMENT CONTROLS FROM THE PROJECT SITE AND STAGING AREA AND RESTORE ANY DISTURBED AREAS TO THEIR PRECONSTRUCTION CONDITION.



NOTE:

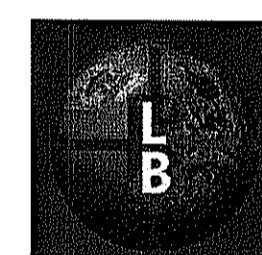
1. THE REGULATED RESOURCE BOUNDARY WAS DELINEATED BY NOAA.
2. THE ENTIRE WORK-AREA UPGRADIENT OF THE REGULATED RESOURCE BOUNDARY IS RIDEM REGULATED RIVERBANK WETLAND.

SOURCE:

Geographic features are outlined from plan entitled TOPOGRAPHIC SURVEY, WAKEFIELD POND DAM dated September 8, 1998 prepared by Fuss & O'Neill Inc. Spot elevation data provided by Natural Resources Conservation Service and NOAA Restoration Center in NAVD 1988 (fall 2011 and summer 2012). Fishway dimensions referenced from 1969 FISH LADDER SAUGATUCKET RIVER Federal Aid Project AFSC-1-3 drawing set. Parcel boundaries estimated from tax maps.


REV.	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-

PREPARED BY:




THE Louis Berger Group, Inc.
ENGINEERS PLANNERS
SCIENTISTS ECONOMISTS
295 Promenade Street
Providence, Rhode Island 02908

PREPARED FOR:



National Oceanic and Atmospheric Administration
Restoration Center
28 Tarzwell Drive
Narragansett, Rhode Island 02882



Rhode Island Department of Environmental Management
235 Promenade Street, Providence, Rhode Island 02908

90% Documents
(NOT FOR CONSTRUCTION)

SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS
Town of South Kingstown, Rhode Island
MAIN STREET DAM SITE

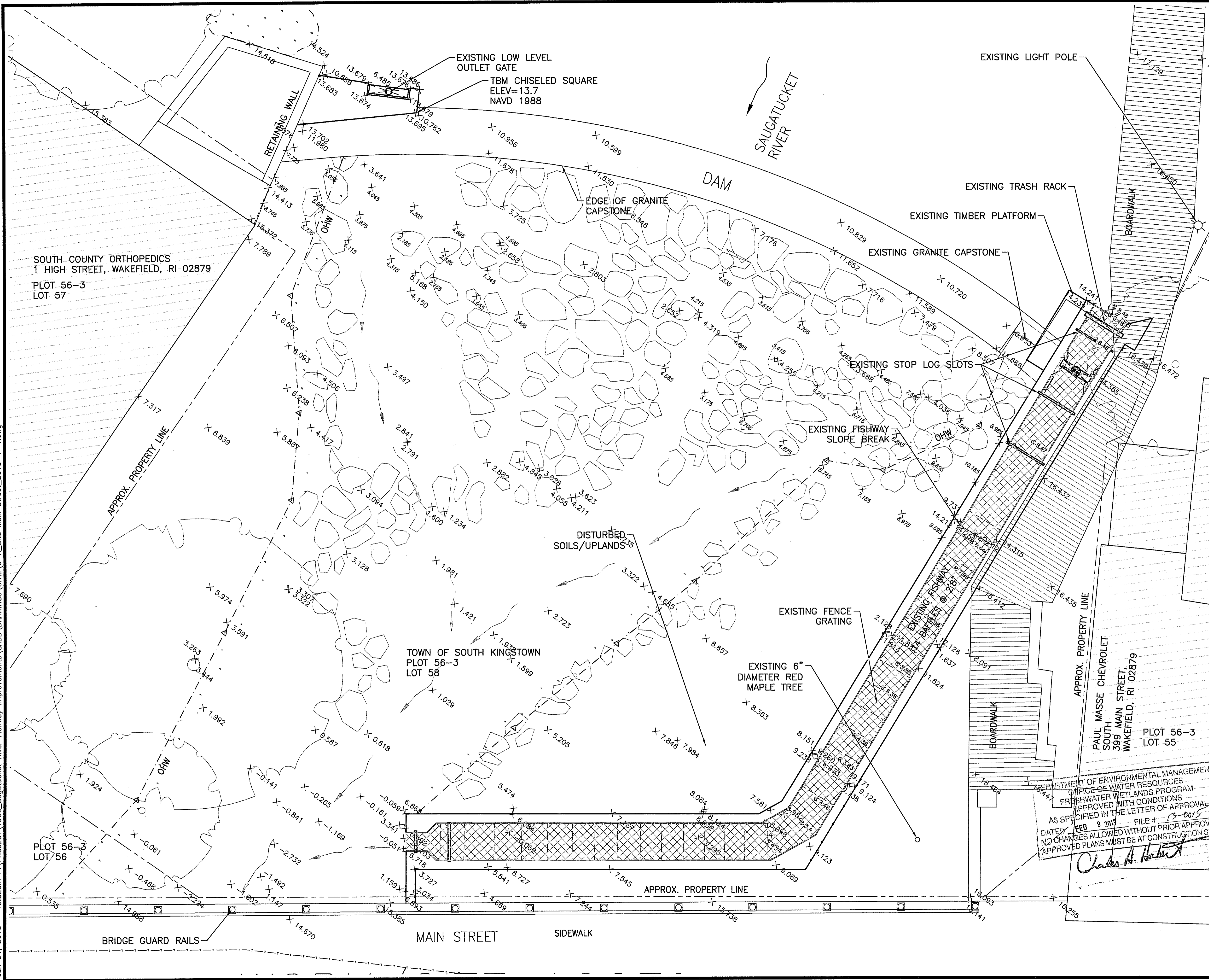
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SCALE:	AS SHOWN		
PROJECT MANAGER:	LR		
PROJECT ENGINEER:	AS		
CHECKED BY:	CF	SHEET No.	
DRAWN BY:	AS	C-1	
JOB NUMBER:	CJI-1986		

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 8 2013 FILE # 13-0015
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Harbeck

Jun 04, 2013 10:52am F:\PROJECT\1986_Saugatucket River Fishway Improvements\CADD\DRAWINGS\CIVIL\C-X_Site Main Street_2013-1-4.dwg

Jan 04, 2013 - 10:52am F:\PROJECT\1986_Saugatucket River Fishway Improvements\CADD\DRAWINGS\Civil\C-X_Site Main Street_2013-1-4.dwg



SOUTH COUNTY ORTHOPEDICS
1 HIGH STREET, WAKEFIELD, RI 02879
PLOT 56-3
LOT 57

TOWN OF SOUTH KINGSTOWN
PLOT 56-3
LOT 58

PAUL MASSE CHEVROLET
SOUTH MAIN STREET,
WAKEFIELD, RI 02879
PLOT 56-3
LOT 55

LEGEND

- RESOURCE BOUNDARY
- EXISTING BOULDER
- PROPERTY LINE
- SLUICE GATE
- SPOT ELEVATIONS
- REGULATED RESOURCE BOUNDARY
- EXISTING FENCE GRATING

JAN 29 2013

SCALE OF FEET

NOTE:
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2. THE ENTIRE WORK-AREA UPGRADIENT OF THE REGULATED RESOURCE BOUNDARY IS RIDEM REGULATED RIVERBANK WETLAND.

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REV.	DESCRIPTION	DATE

PREPARED BY:

THE Louis Berger Group, Inc.
ENGINEERS PLANNERS
SCIENTISTS ECONOMISTS
295 Promenade Street
Providence, Rhode Island 02908

PREPARED FOR:

National Oceanic and Atmospheric Administration
Restoration Center
28 Tarzwell Drive
Narragansett, Rhode Island 02882

Rhode Island Department of Environmental Management
235 Promenade Street, Providence, Rhode Island 02908

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SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS
Town of South Kingstown, Rhode Island
MAIN STREET DAM SITE

EXISTING CONDITIONS

SHEET TITLE: SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS

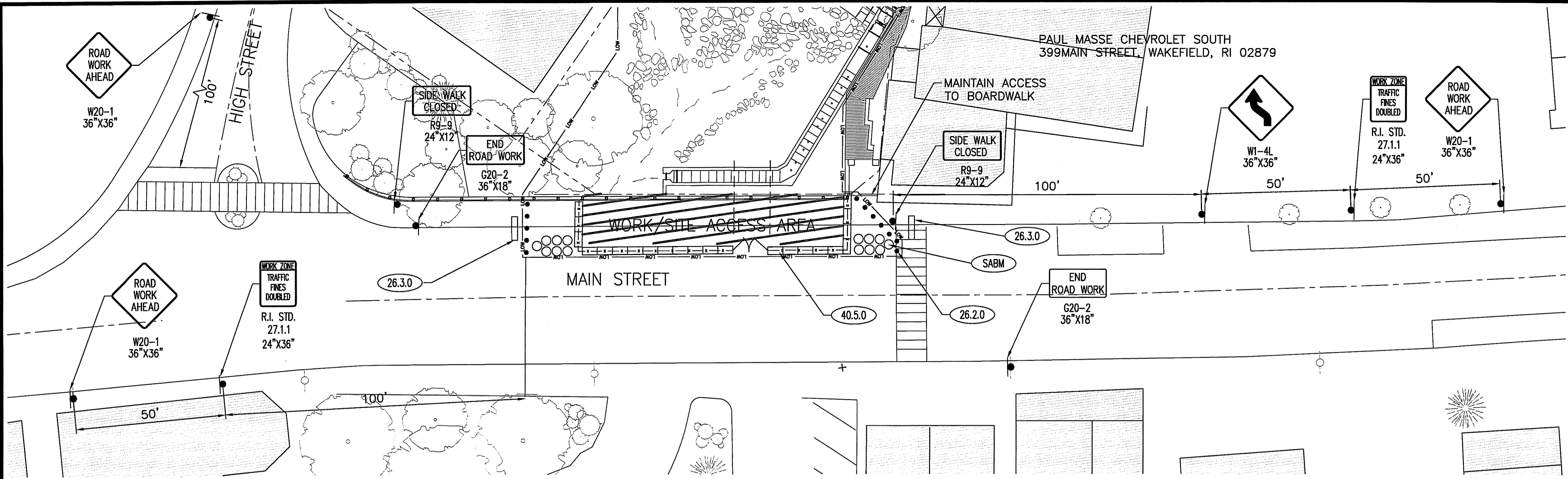
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PROJECT ENGINEER: AS	
CHECKED BY: CF	
DRAWN BY: AS	
JOB NUMBER: CJI-1986	

C-X_Site Main Street_2013-1-4.dwg

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 8 2013 FILE # 13-0015
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Charles A. Hackett

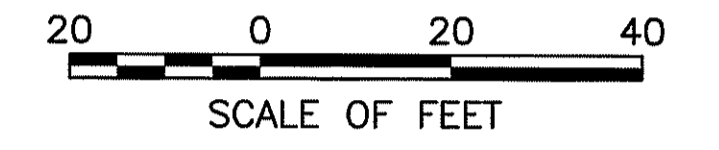
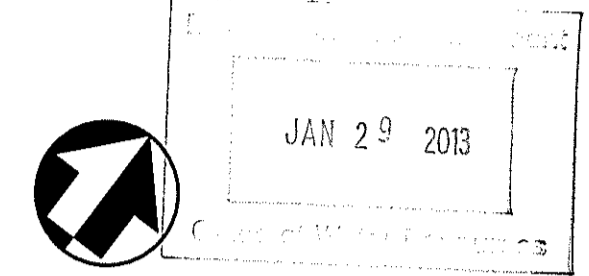
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TEMPORARY TRAFFIC CONTROL PLAN
SCALE: 1"=20'

LEGEND

	CONSTRUCTION ACCESS
	CONSTRUCTION BARRIER
	TEMPORARY CONSTRUCTION FENCE
	LIMIT OF WORK



NOTE:
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2. THE ENTIRE WORK-AREA UPGRADIENT OF THE REGULATED RESOURCE BOUNDARY IS RIDEM REGULATED RIVERBANK WETLAND.

SOURCE:
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REV.	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-
-	-	-

PREPARED BY:

THE Louis Berger Group, Inc.
ENGINEERS PLANNERS
SCIENTISTS ECONOMISTS
295 Promenade Street
Providence, Rhode Island 02908

PREPARED FOR:

National Oceanic and Atmospheric Administration
Restoration Center
28 Tarzwell Drive
Narragansett, Rhode Island 02882

Rhode Island Department of Environmental Management
235 Promenade Street, Providence, Rhode Island 02908

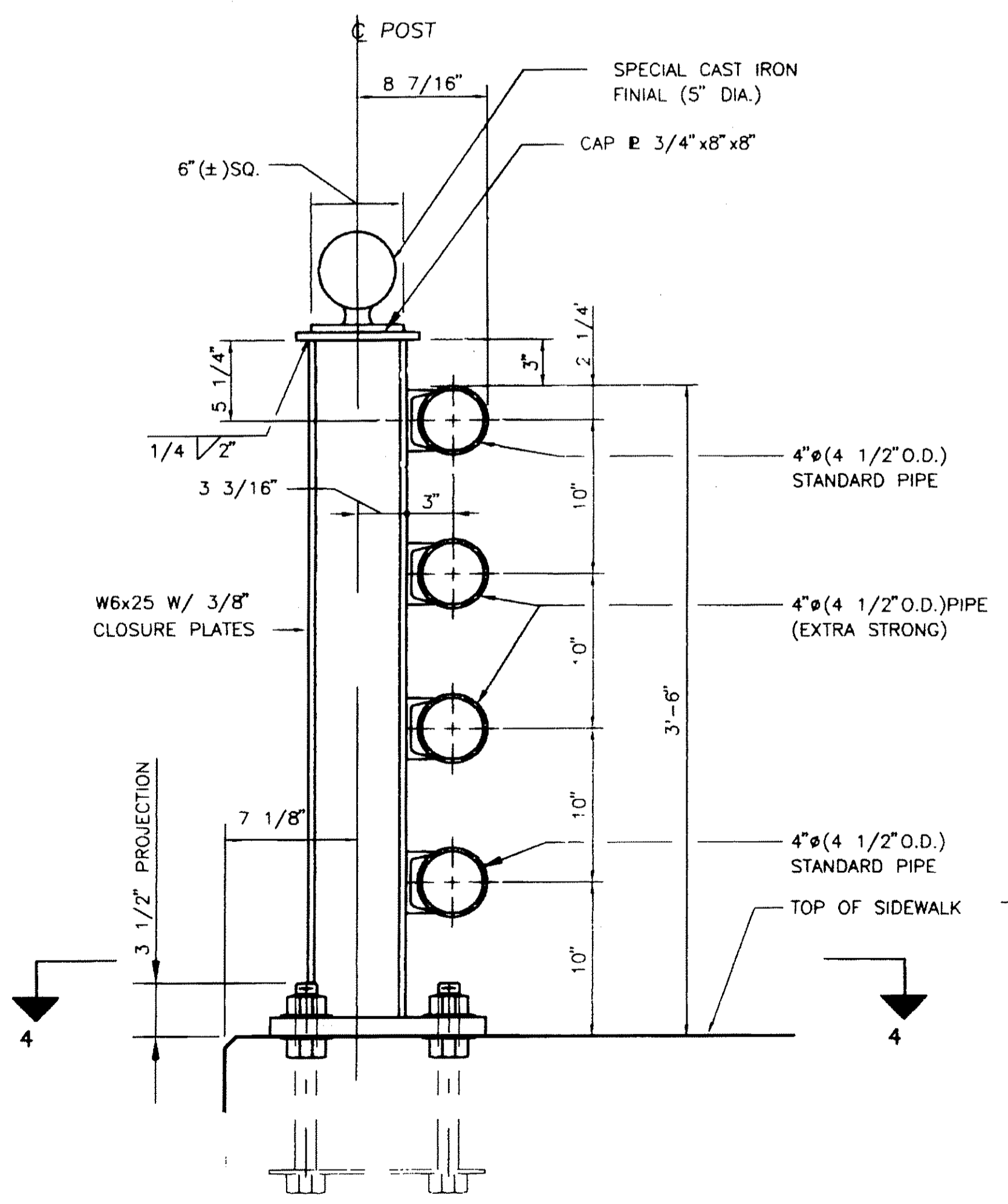
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(NOT FOR CONSTRUCTION)

SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS
Town of South Kingstown, Rhode Island
MAIN STREET DAM SITE

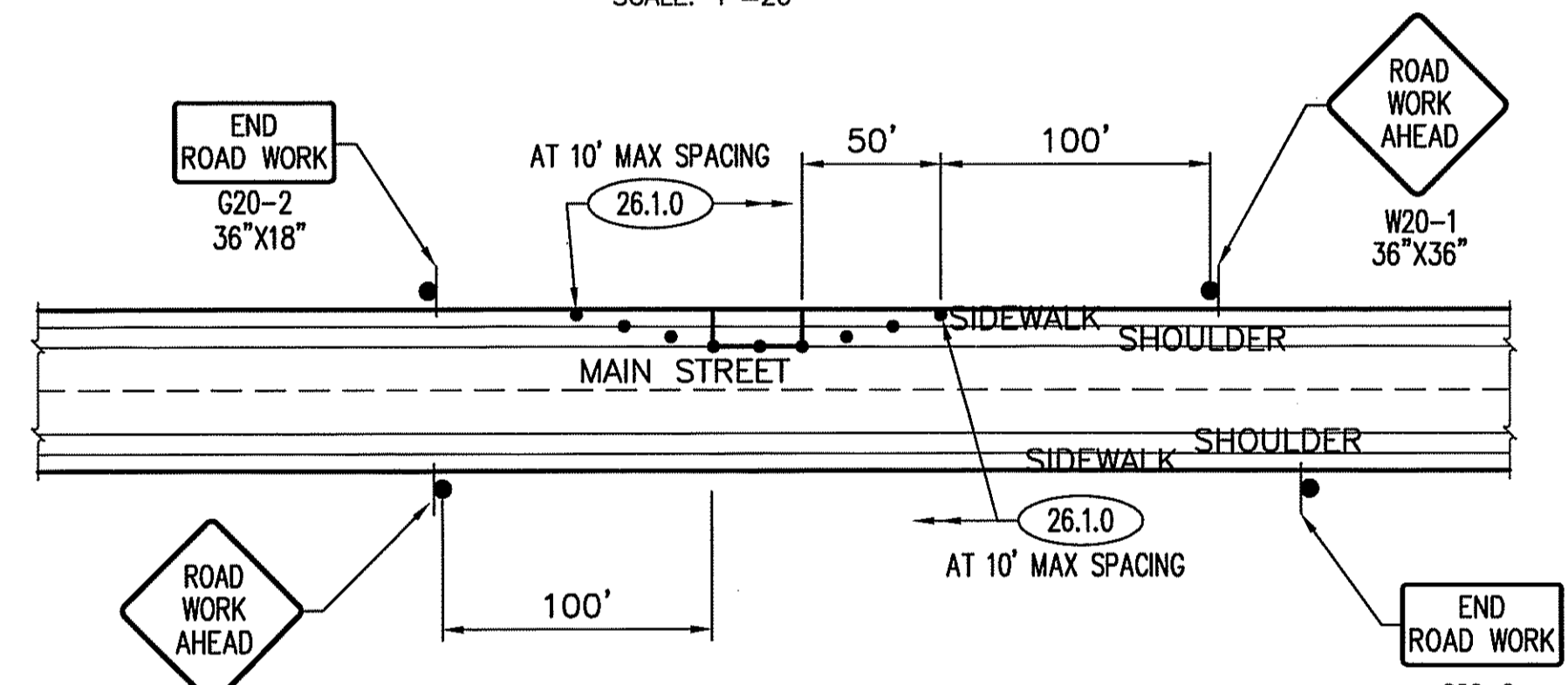
TRAFFIC MANAGEMENT PLAN

SHEET TITLE:		
SCALE:	AS SHOWN	DATE: DECEMBER 2012
PROJECT MANAGER:	LR	
PROJECT ENGINEER:	AS	
CHECKED BY:	CF	SHEET No.
DRAWN BY:	AS	C-4
JOB NUMBER:	CJI-1986	

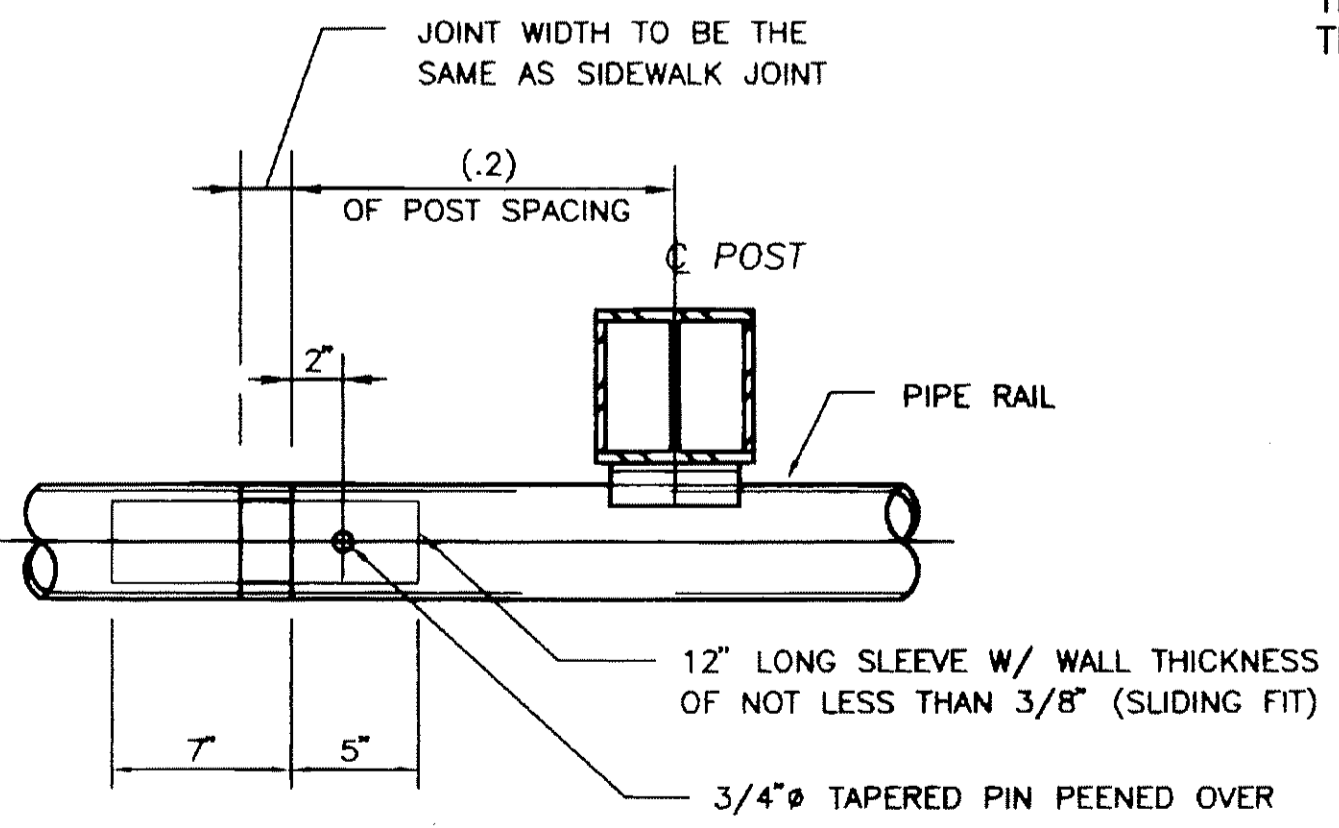
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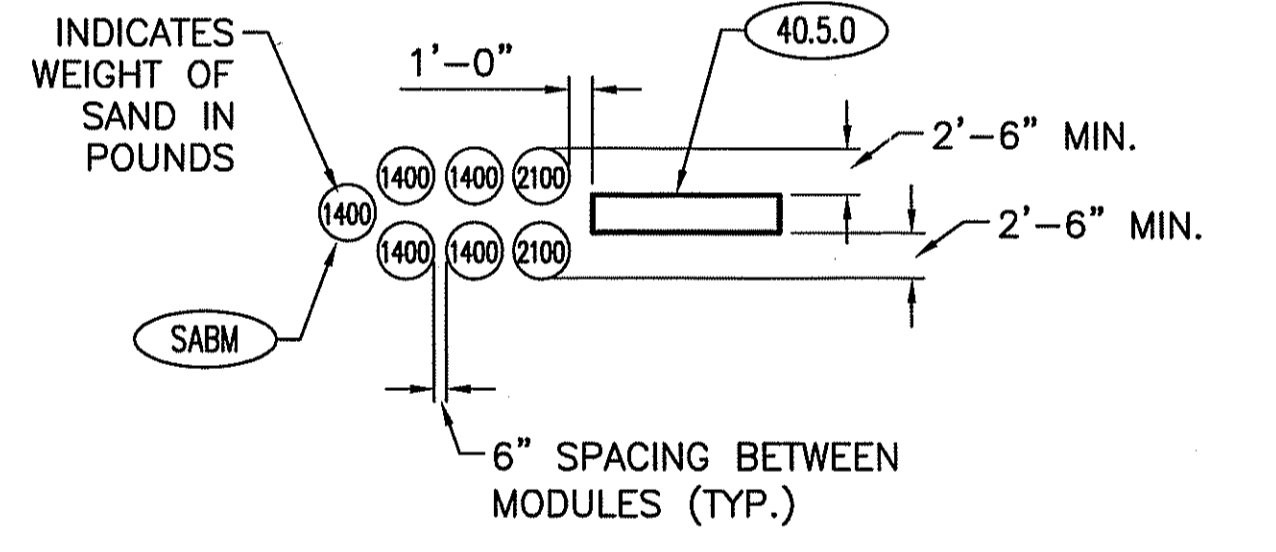
TYPICAL SECTION AT RAIL POST
SCALE: N.T.S.



SHOULDER WORK WITH MINOR ENCROACHMENT
SCALE: N.T.S.

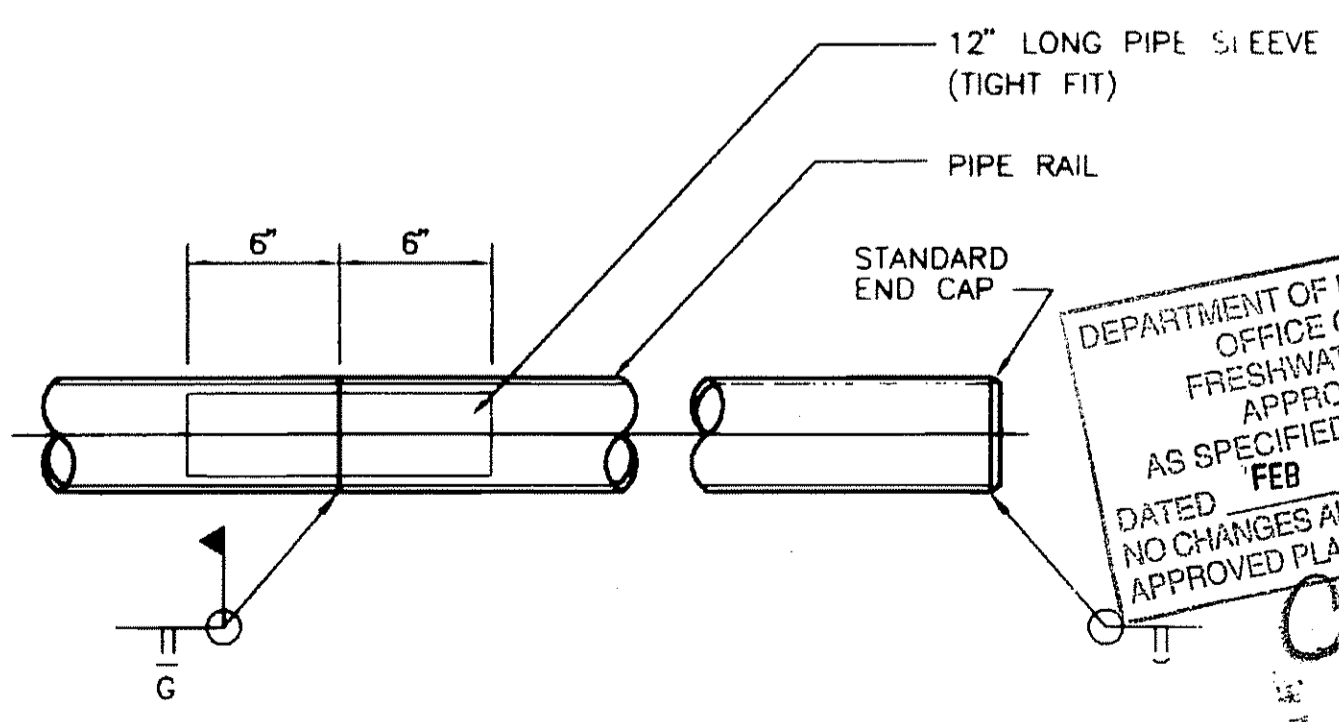


TYPICAL EXPANSION JOINT DETAIL
SCALE: N.T.S.



SHOCK ABSORBING BARRIER MODULES
30 MPH DESIGN MAIN STREET
SCALE: N.T.S.

NOTES:
1. ALL NUMBERED CALLOUTS ON THIS SHEET REFER TO THE STATE OF RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD DETAILS

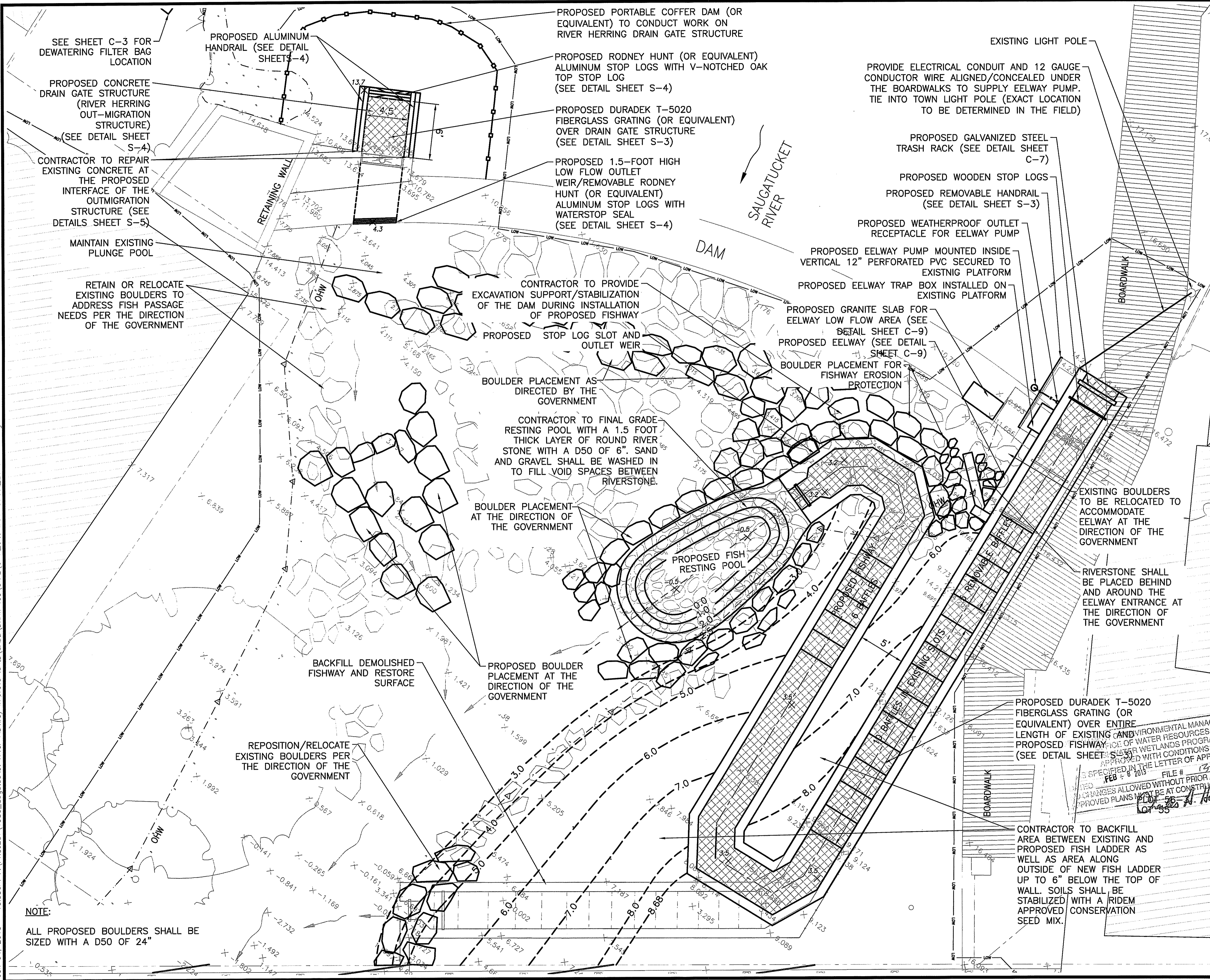


TYPICAL RAIL JOINT
SCALE: N.T.S.

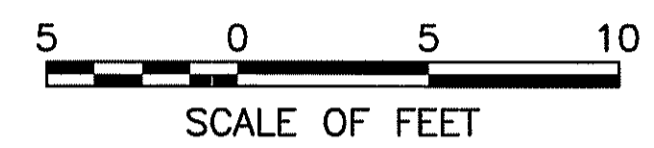
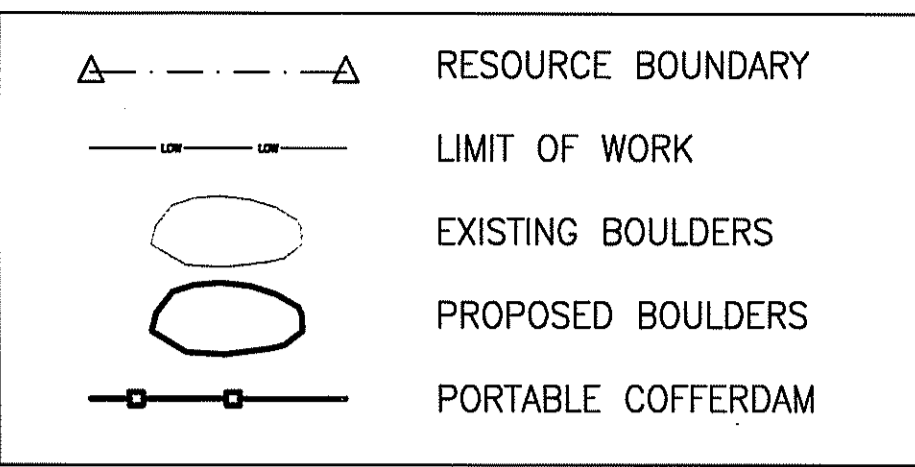
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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Charles A. Harker

Jan 04, 2013 - 10:55am F:\PROJECT\1986_Saugatucket River Fishway Improvements\CADD\DRAWINGS\C-VL\C-X_Site Main Street_2013-1-4.dwg



LEGEND

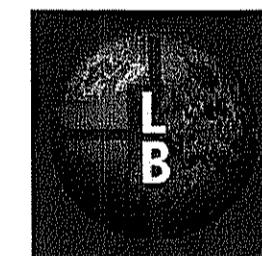


NOTE:
 1. THE REGULATED RESOURCE BOUNDARY WAS DELINEATED BY NOAA.
 2. THE ENTIRE WORK-AREA UPGRADIENT OF THE REGULATED RESOURCE BOUNDARY IS RIDEM REGULATED RIVERBANK WETLAND.

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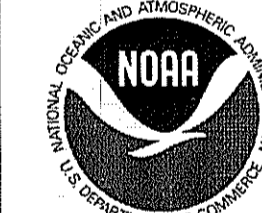
REV.	DESCRIPTION	DATE

PREPARED BY:




THE Louis Berger Group, Inc.
 ENGINEERS PLANNERS
 SCIENTISTS ECONOMISTS
 295 Promenade Street
 Providence, Rhode Island 02908

PREPARED FOR:



National Oceanic and Atmospheric Administration
 Restoration Center
 28 Tarzwell Drive
 Narragansett, Rhode Island 02882



Rhode Island Department of Environmental Management
 235 Promenade Street, Providence, Rhode Island 02908

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 (NOT FOR CONSTRUCTION)

SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS
 Town of South Kingstown, Rhode Island
 MAIN STREET DAM SITE

PROPOSED FISH PASSAGE IMPROVEMENTS

SHEET TITLE: SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS

SCALE:	AS SHOWN	DATE:	DECEMBER 2012
PROJECT MANAGER:	LR		
PROJECT ENGINEER:	AS		
CHECKED BY:	CF	SHEET No.	C-6
DRAWN BY:	AS		
JOB NUMBER:	CJI-1986		

C-X_Site Main Street_2013-1-4.dwg

NOTE:
 ALL PROPOSED BOULDERS SHALL BE SIZED WITH A D50 OF 24"

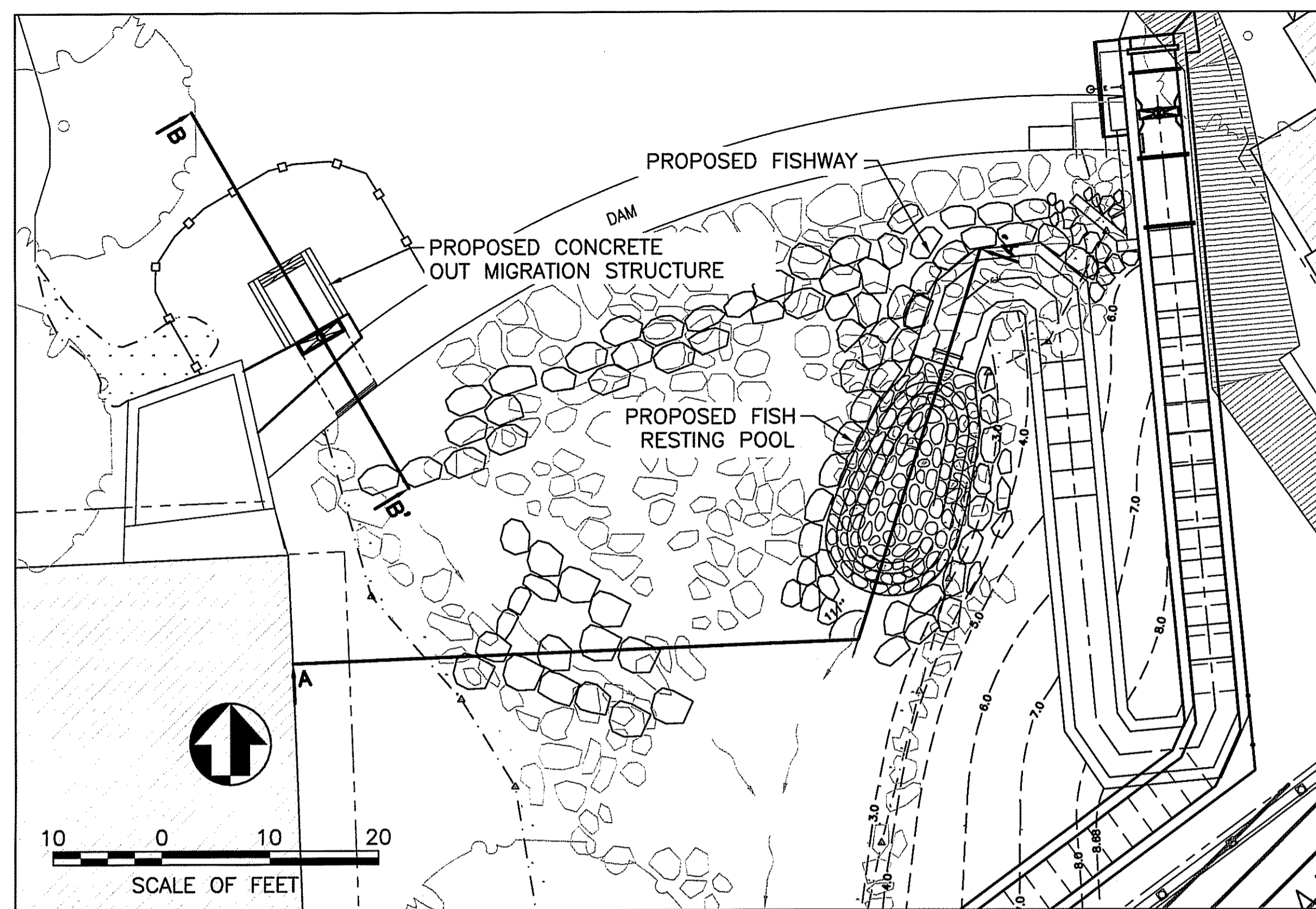
PROPOSED DURADEK T-5020 FIBERGLASS GRATING (OR EQUIVALENT) OVER ENTIRE LENGTH OF EXISTING AND PROPOSED FISHWAY (SEE DETAIL SHEET S-3)

PROPOSED FISHWAY TO BE CONSTRUCTED WITH CONDITIONS SPECIFIED IN THE LETTER OF APPROVAL DATED FEB 8 2013 FILE # 13-0015

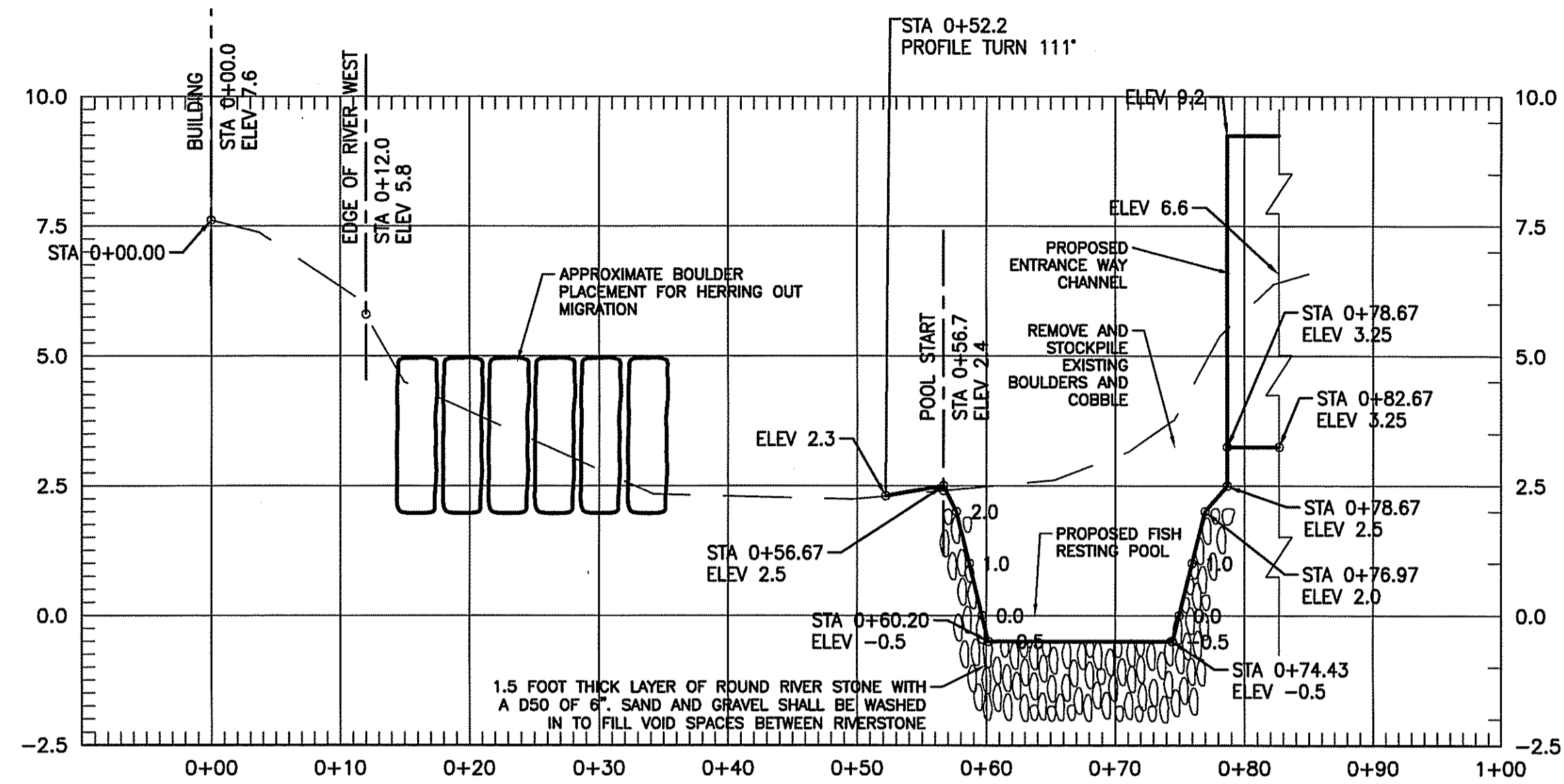
CHANGES ALLOWED WITHOUT PRIOR APPROVAL MUST BE AT CONSTRUCTION APPROVED PLANS

CONTRACTOR TO BACKFILL AREA BETWEEN EXISTING AND PROPOSED FISH LADDER AS WELL AS AREA ALONG OUTSIDE OF NEW FISH LADDER UP TO 6" BELOW THE TOP OF WALL. SOILS SHALL BE STABILIZED WITH A RIDEM APPROVED CONSERVATION SEED MIX.

Jan 04, 2013 - 10:58am F:\PROJECT\1986_Sugatucket River Fishway Improvements\CADD\DRAWINGS\CIVIL\C-X_Site Main Street_2013-1-4.dwg



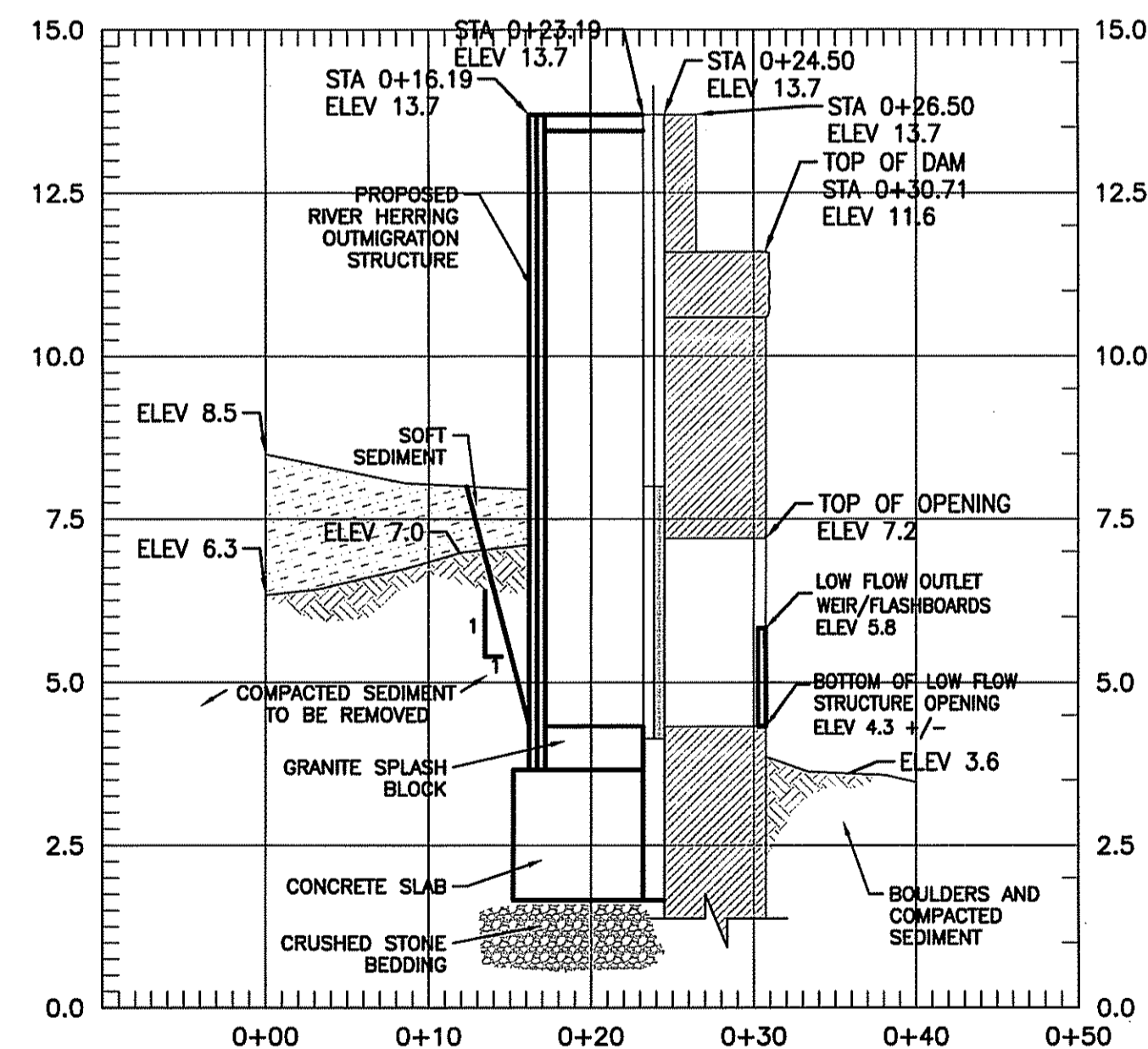
PROFILE LINES LOCATION PLAN



PROFILE A-A'

HORIZONTAL SCALE: 1"=10'; VERTICAL SCALE 1"=2.5'

JAN 29 2013

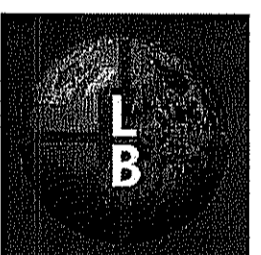


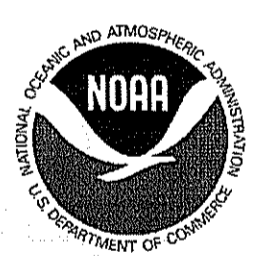
PROFILE B-B'


HORIZONTAL SCALE: 1"=10'; VERTICAL SCALE 1"=2.5'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 9 2013 FILE # 13-0015
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Rubin

REV.	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-

PREPARED BY:

THE Louis Berger Group, INC.
 ENGINEERS PLANNERS
 SCIENTISTS ECONOMISTS
 295 Promenade Street
 Providence, Rhode Island 02908

PREPARED FOR:

National Oceanic and Atmospheric Administration
 Restoration Center
 28 Tarzwell Drive
 Narragansett, Rhode Island 02882


Rhode Island Department of Environmental Management
 235 Promenade Street, Providence, Rhode Island 02908

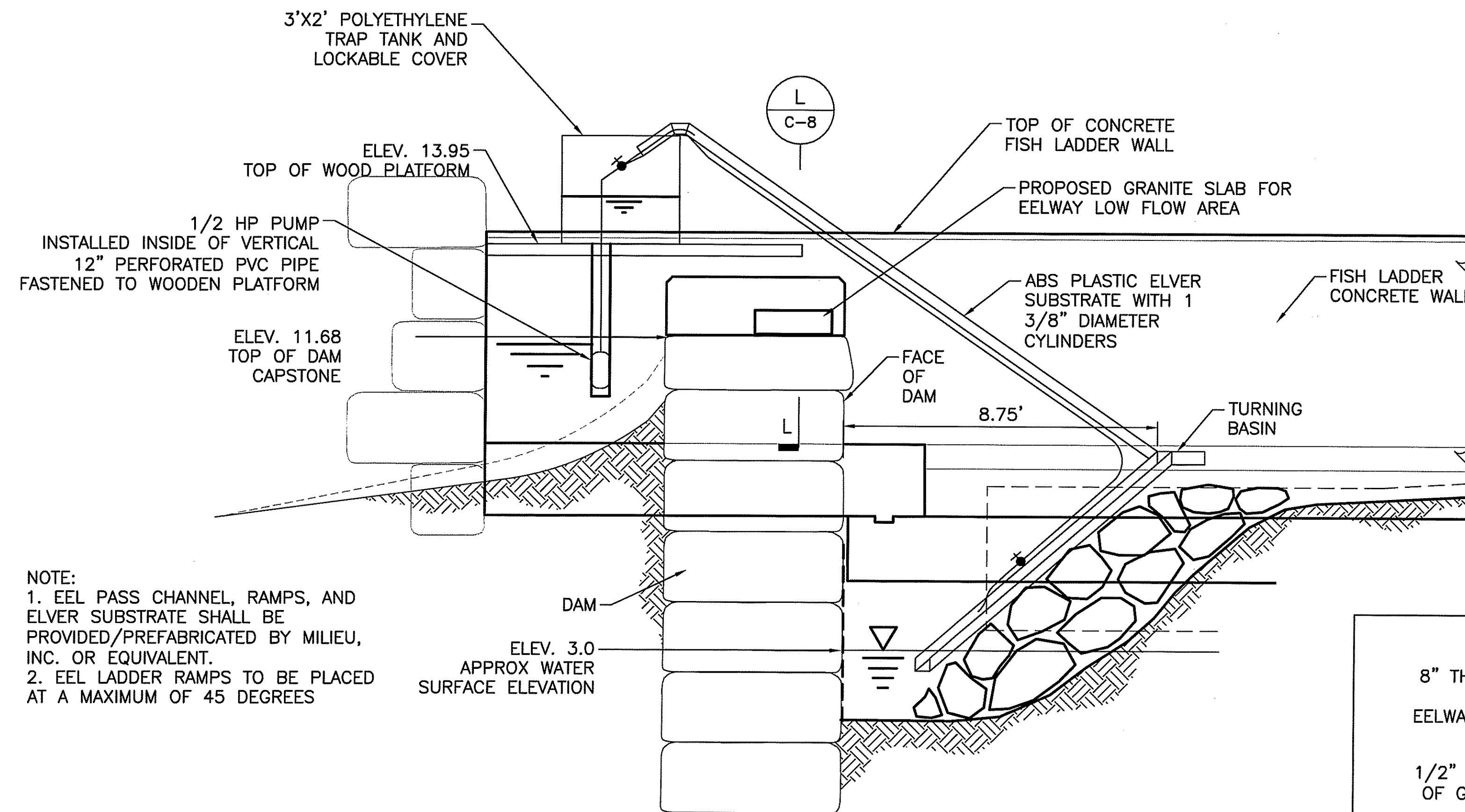
90% Documents
(NOT FOR CONSTRUCTION)

SAUGATUCKET RIVER FISH PASSAGE
IMPROVEMENTS
Town of South Kingstown, Rhode Island
MAIN STREET DAM SITE

PROFILES/DETAILS 2

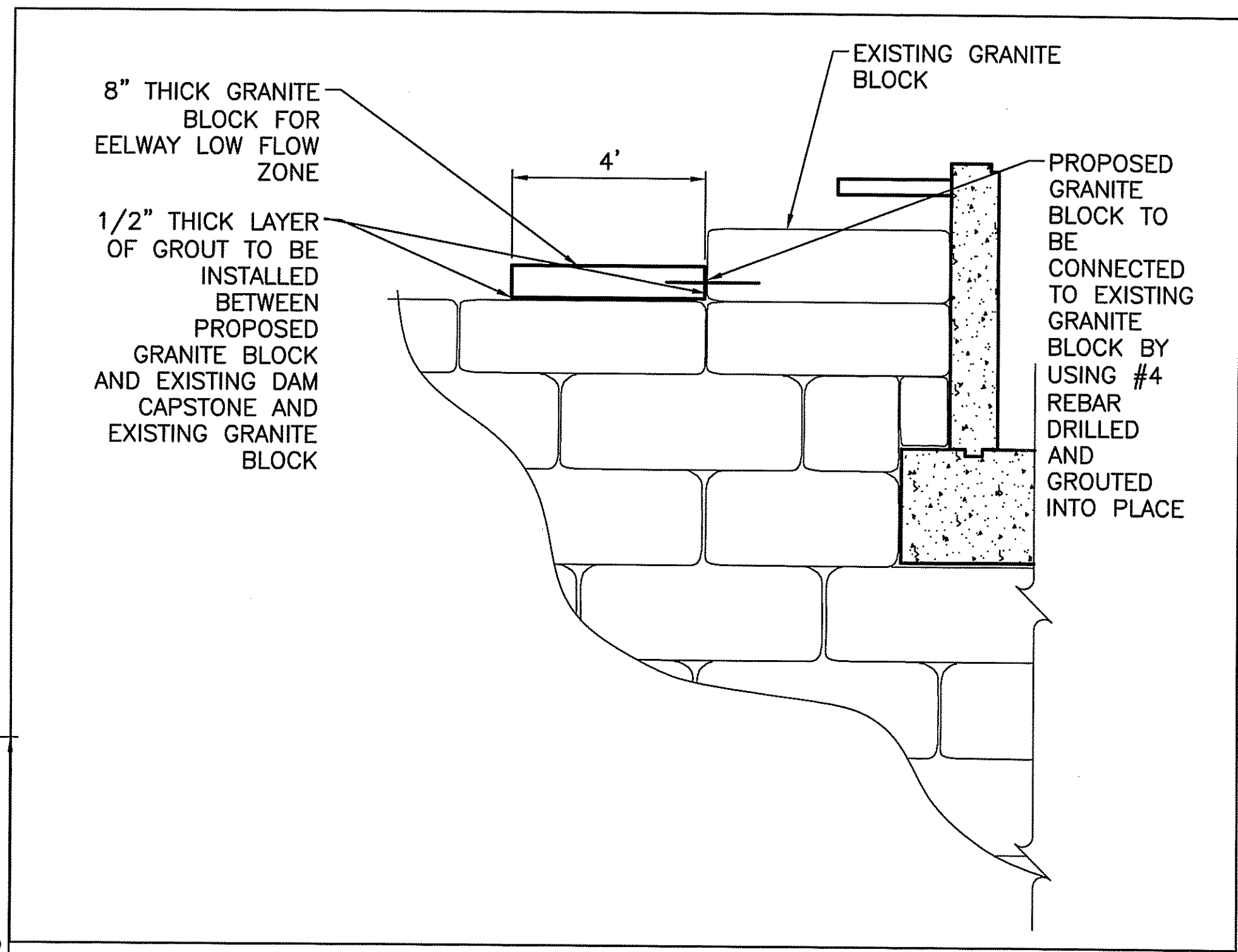
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SCALE:	AS SHOWN	PROJECT MANAGER:	LR		
PROJECT ENGINEER:	AS	CHECKED BY:	CF	SHEET No.	
DRAWN BY:	AS			C-8	
JOB NUMBER:	CJI-1986				

Jan 04, 2013 11:00am F:\PROJECT\1986_Saugatucket_River_Fishway_Improvements\CADD\DRAWINGS\CIVIL\C-X_Site_Main_Street_2013-1-4.dwg

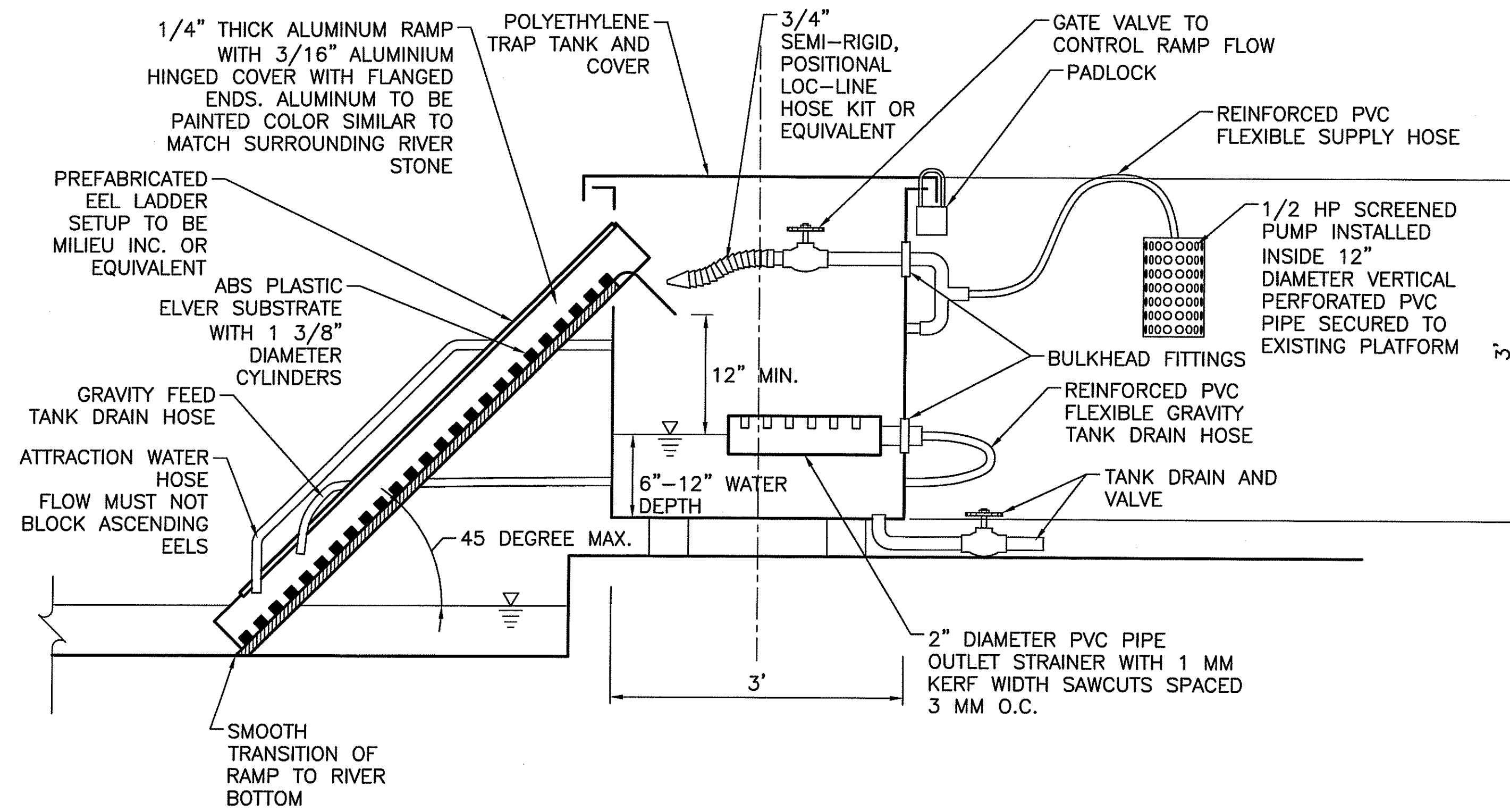


NOTE:
 1. EEL PASS CHANNEL, RAMPS, AND ELVER SUBSTRATE SHALL BE PROVIDED/PREFABRICATED BY MILIEU, INC. OR EQUIVALENT.
 2. EEL LADDER RAMPS TO BE PLACED AT A MAXIMUM OF 45 DEGREES

PREFABRICATED EEL LADDER DETAIL
 SCALE: N.T.S.



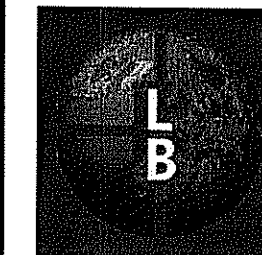
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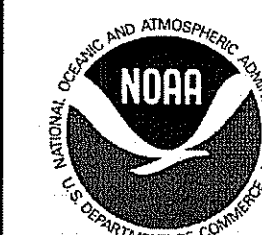



EEL LADDER TRAP BOX DETAIL
 SCALE: N.T.S.

JAN 29 2013
 Class of Water Structures

REV.	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-

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 Providence, Rhode Island 02908

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 Restoration Center
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Rhode Island Department of Environmental Management
 235 Promenade Street, Providence, Rhode Island 02908

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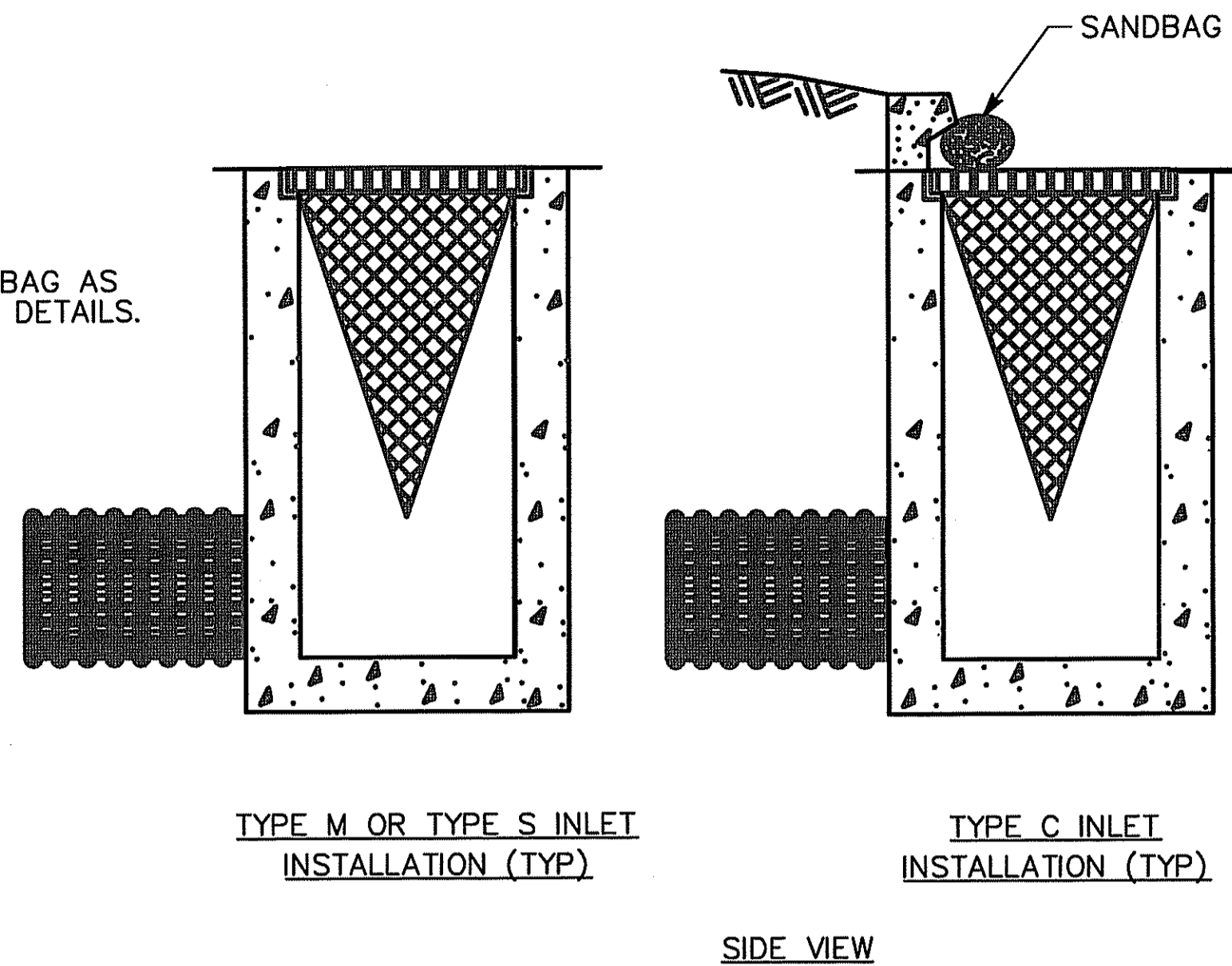
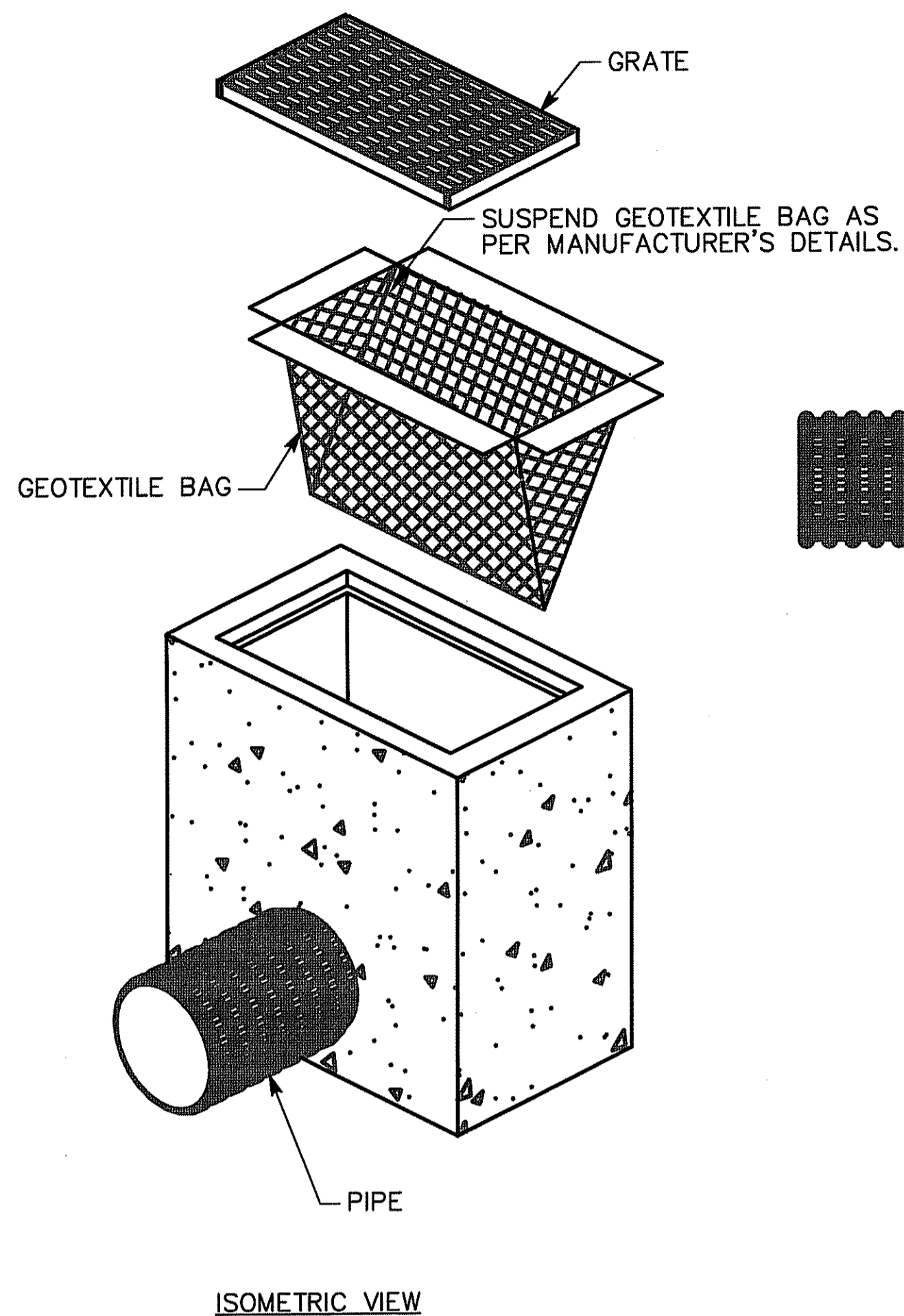
SAUGATUCKET RIVER FISH PASSAGE
 IMPROVEMENTS
 Town of South Kingstown, Rhode Island
 MAIN STREET DAM SITE

EEL LADDER DETAILS

SHEET TITLE:		
SCALE:	AS SHOWN	DATE: DECEMBER 2012
PROJECT MANAGER:	LR	
PROJECT ENGINEER:	AS	
CHECKED BY:	CF	SHEET No.
DRAWN BY:	AS	C-9
JOB NUMBER:	CJI-1986	

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
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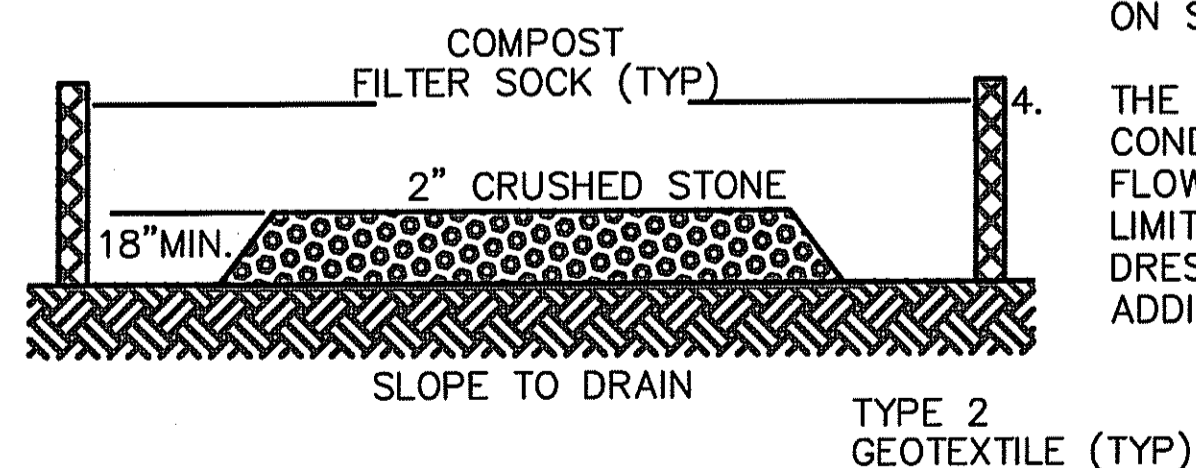
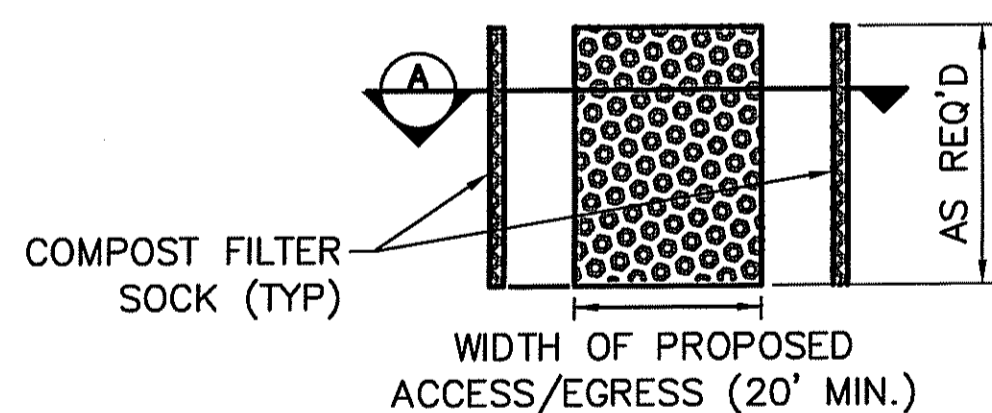
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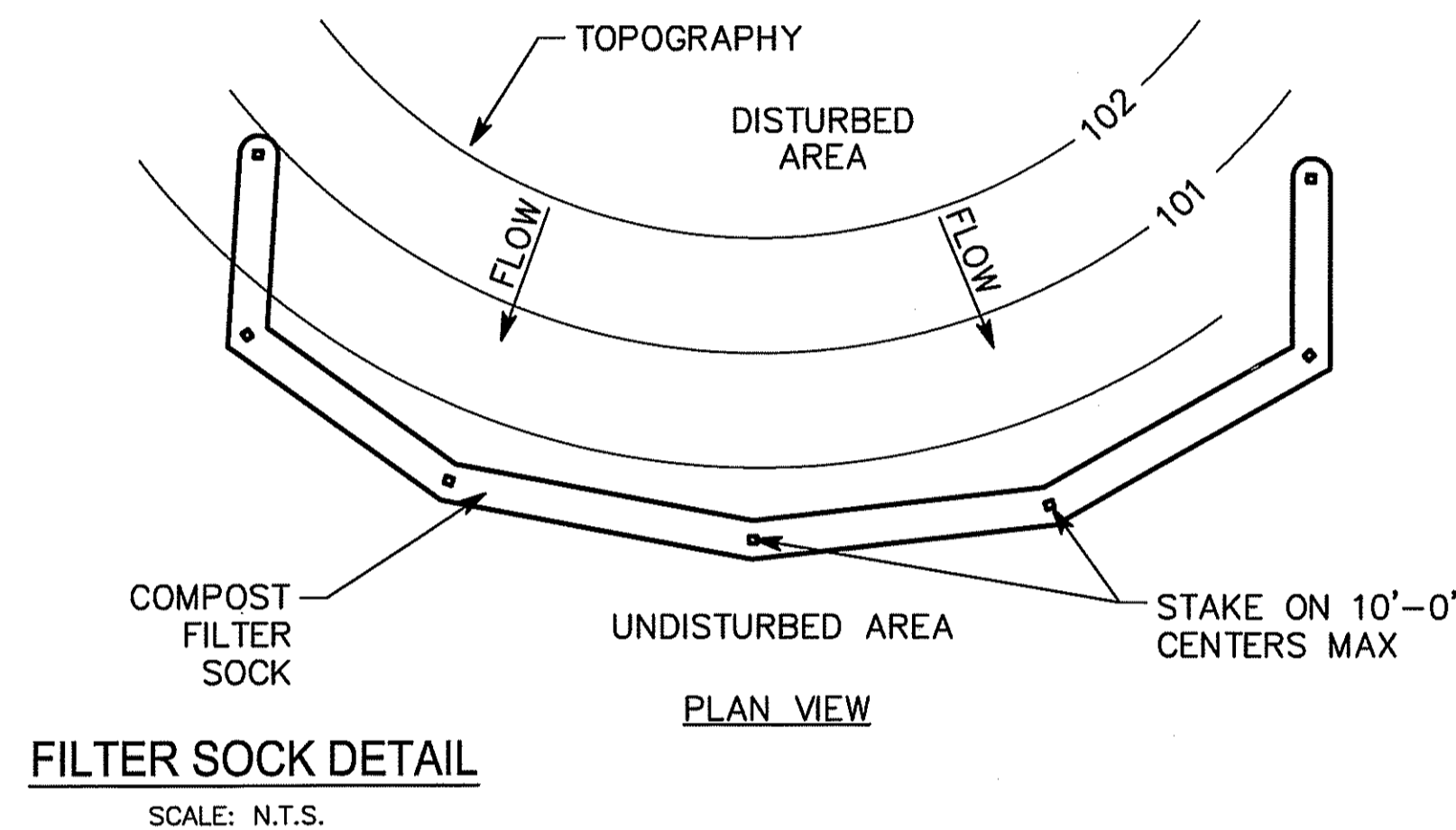
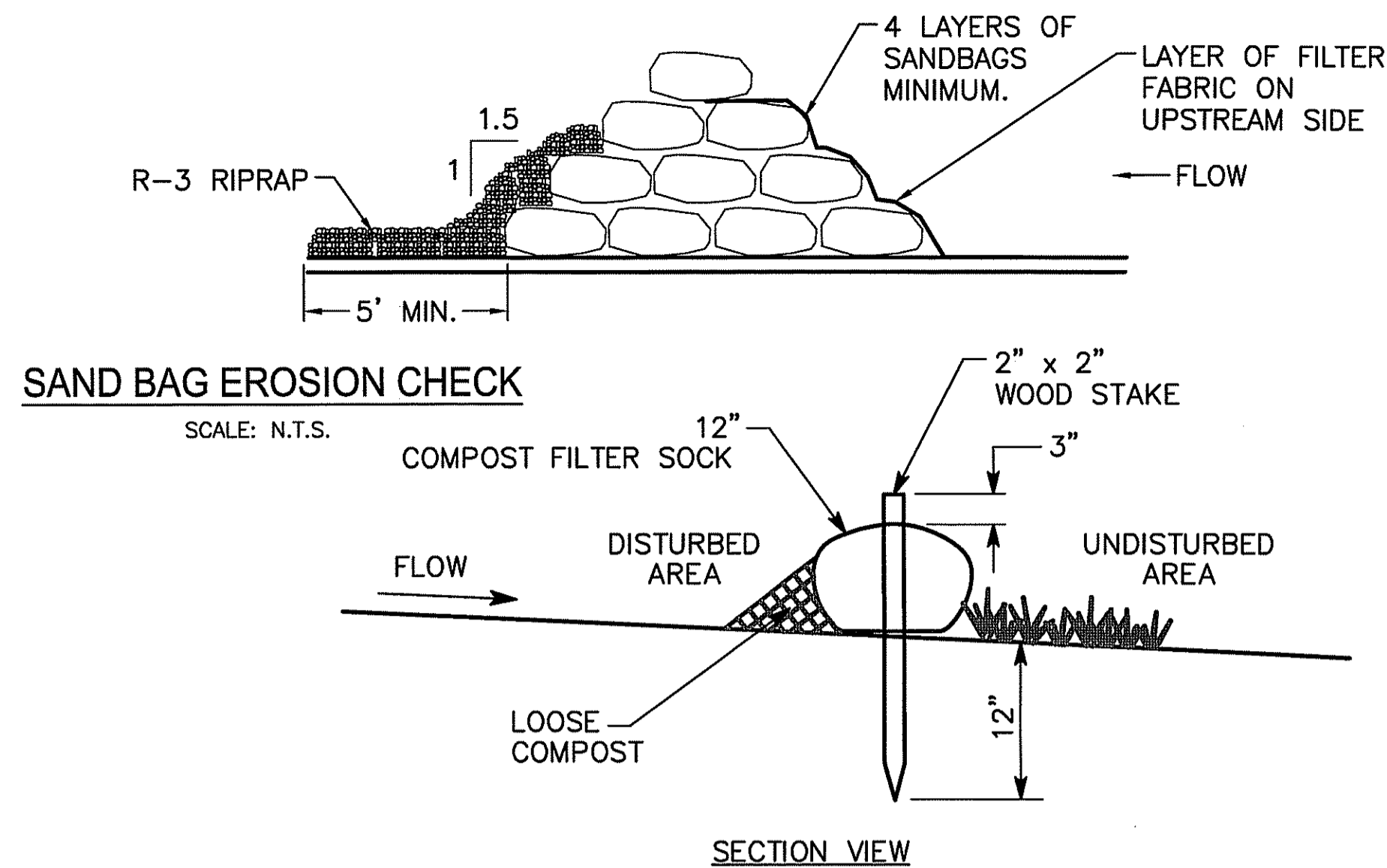
SILT SACK DETAIL
SCALE: N.T.S.

NOTES:

1. THE PURPOSE OF A WHEEL WASH STATION IS TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT/DEBRIS ONTO LOCAL STREETS.
2. BEFORE INSTALLATION, THE AREA OF THE WHEEL WASH SHOULD BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL TO THE DIMENSIONS SHOWN.
3. PLACE EITHER A WOVEN OR NONWOVEN CONSTRUCTION FABRIC ON SUBGRADE PRIOR TO GRAVEL PLACEMENT.
4. THE WHEEL WASH SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT FROM THE PROPERTY LIMITS. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND.



WHEEL WASHDOWN BLANKET DETAIL
SCALE: N.T.S.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Charles H. Herbert

JAN 29 2013

REV.	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-

PREPARED BY:
THE Louis Berger Group, Inc.
ENGINEERS PLANNERS
SCIENTISTS ECONOMISTS
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Providence, Rhode Island 02908

PREPARED FOR:
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Restoration Center
28 Tarzwell Drive
Narragansett, Rhode Island 02882

Rhode Island Department of Environmental Management
235 Promenade Street, Providence, Rhode Island 02908

90% Documents
(NOT FOR CONSTRUCTION)

SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS
Town of South Kingstown, Rhode Island
MAIN STREET DAM SITE

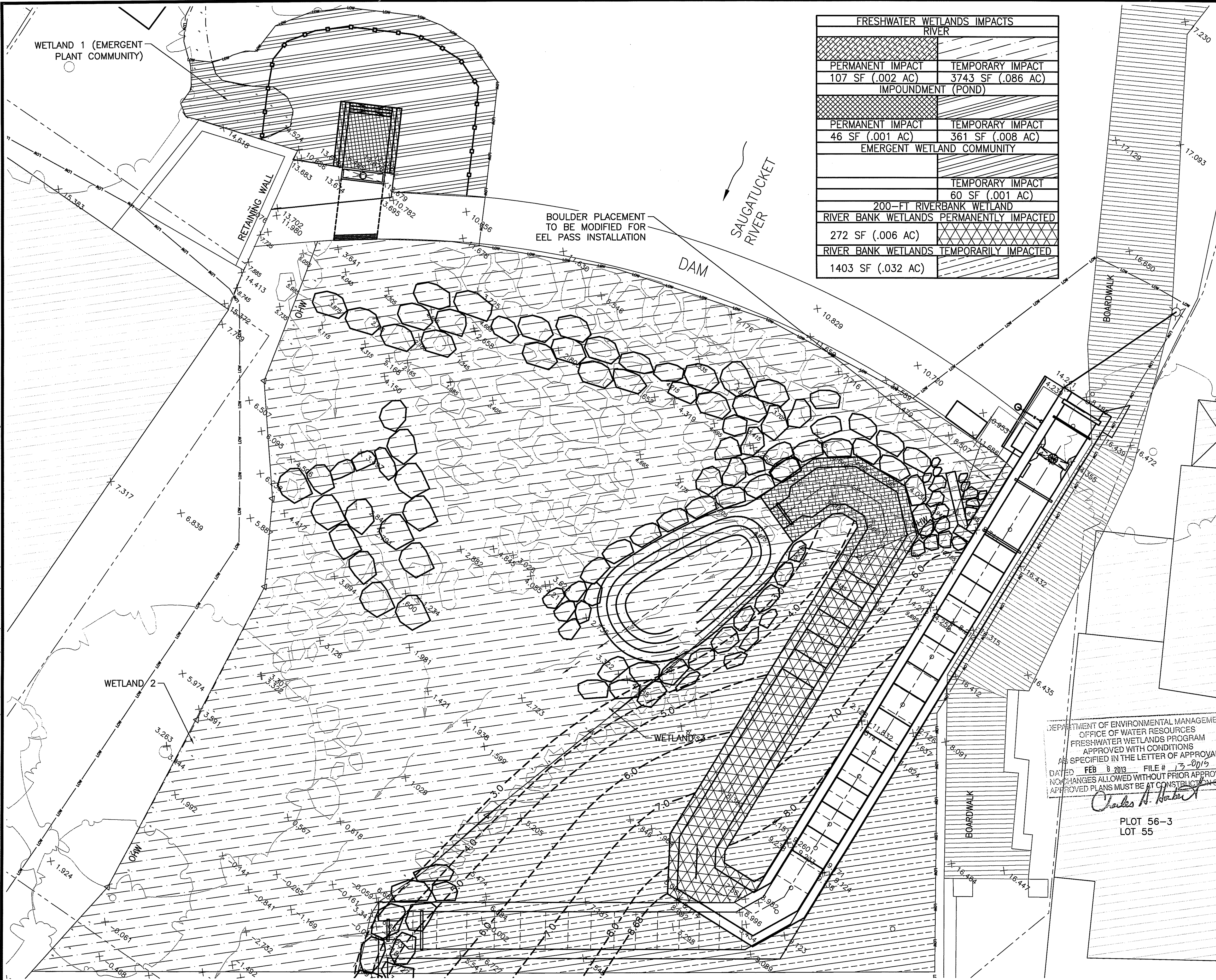
CIVIL DETAILS

SHEET TITLE:

SCALE:	AS SHOWN	DATE:	DECEMBER 2012
PROJECT MANAGER:	LR		
PROJECT ENGINEER:	AS		
CHECKED BY:	CF	SHEET No.	C-10
DRAWN BY:	AS		
JOB NUMBER:	CJI-1986		

C-X_Site Main Street_2013-1-4.dwg

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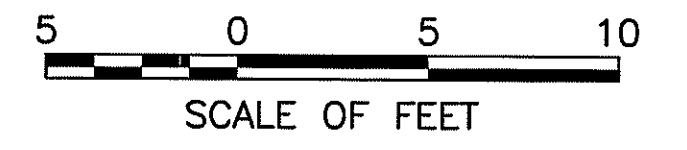
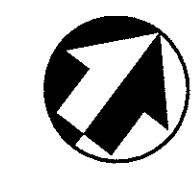
FRESHWATER WETLANDS IMPACTS	
RIVER	
PERMANENT IMPACT 107 SF (.002 AC)	TEMPORARY IMPACT 3743 SF (.086 AC)
IMPOUNDMENT (POND)	
PERMANENT IMPACT 46 SF (.001 AC)	TEMPORARY IMPACT 361 SF (.008 AC)
EMERGENT WETLAND COMMUNITY	
	TEMPORARY IMPACT 60 SF (.001 AC)
200-FT RIVERBANK WETLAND	
RIVER BANK WETLANDS PERMANENTLY IMPACTED 272 SF (.006 AC)	
RIVER BANK WETLANDS TEMPORARILY IMPACTED 1403 SF (.032 AC)	

BOULDER PLACEMENT TO BE MODIFIED FOR EEL PASS INSTALLATION

LEGEND

	RESOURCE BOUNDARY
	LIMIT OF WORK
	EXISTING BOULDERS
	PROPOSED BOULDERS
	PORTABLE COFFERDAM

JAN 29 2013



REV.	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-

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Charles A. [Signature]

PLOT 56-3
 LOT 55

90% Documents
 (NOT FOR CONSTRUCTION)
 SAUGATUCKET RIVER FISH PASSAGE
 IMPROVEMENTS
 Town of South Kingstown, Rhode Island
 MAIN STREET DAM SITE

RESOURCE IMPACT PLAN

SHEET TITLE:

SCALE:	AS SHOWN	DATE:	DECEMBER 2012
PROJECT MANAGER:	LR		
PROJECT ENGINEER:	AS		
CHECKED BY:	CF	SHEET No.	C-11
DRAWN BY:	AS		
JOB NUMBER:	CJI-1986		

C-X_Site Main Street_2013-1-4.dwg

GENERAL

1. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE GOVERNMENT BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
2. SHOP DRAWINGS FOR REINFORCING STEEL (INCLUDING ACCESSORIES), AND STRUCTURAL STEEL, SHALL BE SUBMITTED TO THE GOVERNMENT. FABRICATION SHALL NOT PROCEED UNTIL A STAMPED APPROVAL IS RECEIVED. ERECTION SHALL BE EXECUTED FROM APPROVED SHOP DRAWINGS ONLY.
3. A COMPLETE CONCRETE PLACEMENT SCHEDULE SHALL BE SUBMITTED TO THE GOVERNMENT AND A STAMPED ACCEPTANCE RECEIVED BEFORE ANY CONCRETE PLACEMENT CAN BE MADE.
4. UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.

CODE

1. INTERNATIONAL BUILDING CODE, 2009 EDITION AMENDED BY THE ARTICLES AND SECTIONS OF THE RHODE ISLAND STATE BUILDING CODE, 10TH EDITION.
2. DESIGN LIVE LOADS
GRATING: 100 PSF

FOUNDATIONS

1. CONSIST OF CONTINUOUS AND SPREAD FOOTINGS BEARING ON COMPACTED STRUCTURAL FILL PLACED ON UNDISTURBED NATURAL SOIL HAVING AN ALLOWABLE BEARING PRESSURE OF 2 KIPS PER SQUARE FOOT.
2. UNLESS OTHERWISE NOTED, FOUNDATIONS SHALL BE CENTERED UNDER SUPPORTED MEMBERS.
3. THE BOTTOM PERIMETER FOUNDATIONS SHALL BE AT LEAST 3 FT-4 INCHES BELOW FINISHED GRADE.
4. THE BOTTOM 3 INCHES OF FOOTING EXCAVATIONS SHALL BE FINISHED BY HAND SHOVEL.
5. BOTTOM OF EXCAVATIONS SHALL BE INSPECTED BY THE GOVERNMENT PRIOR TO THE PLACEMENT OF CONCRETE.
6. PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES OF WALLS TO THE GRADES INDICATED.
7. PROVIDE FORMWORK FOR ALL FOOTINGS AND WALLS. EARTH FORMED FOUNDATIONS ARE NOT ALLOWED.
8. FOUNDATIONS SHALL BEAR ON COMPACTED SUBGRADE MATERIALS.

CONCRETE

1. CONCRETE SHALL BE A MIX DESIGNED FOR ULTIMATE STRENGTH IN ACCORDANCE WITH THE ACI 211.1 TO ACHIEVE THE FOLLOWING 28-DAY COMPRESSIVE STRENGTHS:
FISHWAY
4000 PSI, NORMAL WEIGHT
MAX SLUMP = 3 INCHES (WITHOUT PLANT WATER REDUCER)
MAX SLUMP = 4 FT-6 INCHES" (WITH PLANT ADDED WATER REDUCER)
AIR ENTRAINMENT = 6%±1.5%
2. CONCRETE SHALL NOT BE CAST IN WATER OR ON FROZEN GROUND.
3. TOP OF FOUNDATION WALLS SHALL BE SMOOTH AND LEVEL.
4. KEYS SHALL BE 2 INCHES X 4 INCHES, WITH BEVELED SIDES, UNLESS OTHERWISE NOTED.
5. HORIZONTAL CONSTRUCTION JOINTS SHALL BE AS INDICATED ON THE DRAWINGS. THE GOVERNMENT SHALL APPROVE ALL VERTICAL CONSTRUCTION JOINTS. CONSTRUCTION JOINTS SHALL BE FORMED WITH A KEY AND REINFORCING SHALL BE LAPPED TO DEVELOP THE FULL TENSION CAPACITY OF THE (SMALLER) BAR.
6. CONCRETE WALLS SHALL HAVE CONTRACTION OR CONSTRUCTION JOINTS SPACED NO MORE THAN 60'-0" ON CENTER.
7. EXPOSED CONCRETE SHALL BE RUBBED IMMEDIATELY AFTER REMOVAL OF FORMS.
8. OPENINGS IN CONCRETE WALLS SHALL BE LOCATED, SIZED AND REINFORCED (WITH THE EXCEPTION OF SMALL OPENINGS AND/OR SLEEVES OF A SIZE THAT WILL NOT DISPLACE OR INTERRUPT THE CONTINUITY OF THE REINFORCING) AS SHOWN ON RESPECTIVE DETAILS. ANY ALTERATIONS REQUIRE APPROVAL OF THE GOVERNMENT.
9. DO NOT BACKFILL FOUNDATION WALLS UNTIL THE CONCRETE HAS BEEN IN PLACE FOR SEVEN DAYS AND ATTAINED 75% OF ITS DESIGN COMPRESSIVE STRENGTH.

REINFORCING STEEL

1. REINFORCING STEEL SHALL BE DEFORMED BARS, FREE FROM LOOSE RUST AND SCALE, AND CONFORMING TO ASTM A615, GRADE 60.
2. CLEAR CONCRETE COVER OVER BARS SHALL BE AS FOLLOWS (SEE ACI 318 FOR CONDITIONS NOT NOTED):
FOOTINGS: 3 INCHES (BOTTOM), 2 INCHES (TOP AND SIDE)
WALLS: 2 INCHES (SIDE)
3. ACCESSORIES SHALL HAVE UPTURNED LEGS AND BE PLASTIC-DIPPED AFTER FABRICATION.
4. ACCESSORIES FOR REINFORCING SHALL BE IN ACCORDANCE WITH ACI CURRENT EDITION.
5. LAP REINFORCING TO DEVELOP THE FULL TENSION CAPACITY OF THE (SMALLER) BAR.
6. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD BECAUSE OF SLEEVES, DUCT OPENINGS OR RECESSORS. BARS MAY BE MOVED ASIDE WITHOUT CHANGE IN LEVEL WITH THE PRIOR APPROVAL OF THE GOVERNMENT.

STRUCTURAL STEEL

1. FABRICATE AND INSTALL STRUCTURAL STEEL IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN," AND THE "CODE OF STANDARD PRACTICE" OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE "STRUCTURAL WELDING CODE" OF THE AMERICAN WELDING SOCIETY.
2. STRUCTURAL STEEL CHANNELS SHALL CONFORM TO ASTM A572, GRADE 50. STRUCTURAL TUBE COLUMNS SHALL BE ASTM A500, GRADE B. STRUCTURAL STEEL PLATES, CHANNELS, AND ANGLES SHALL CONFORM TO ASTM A36, UNLESS OTHERWISE NOTED.

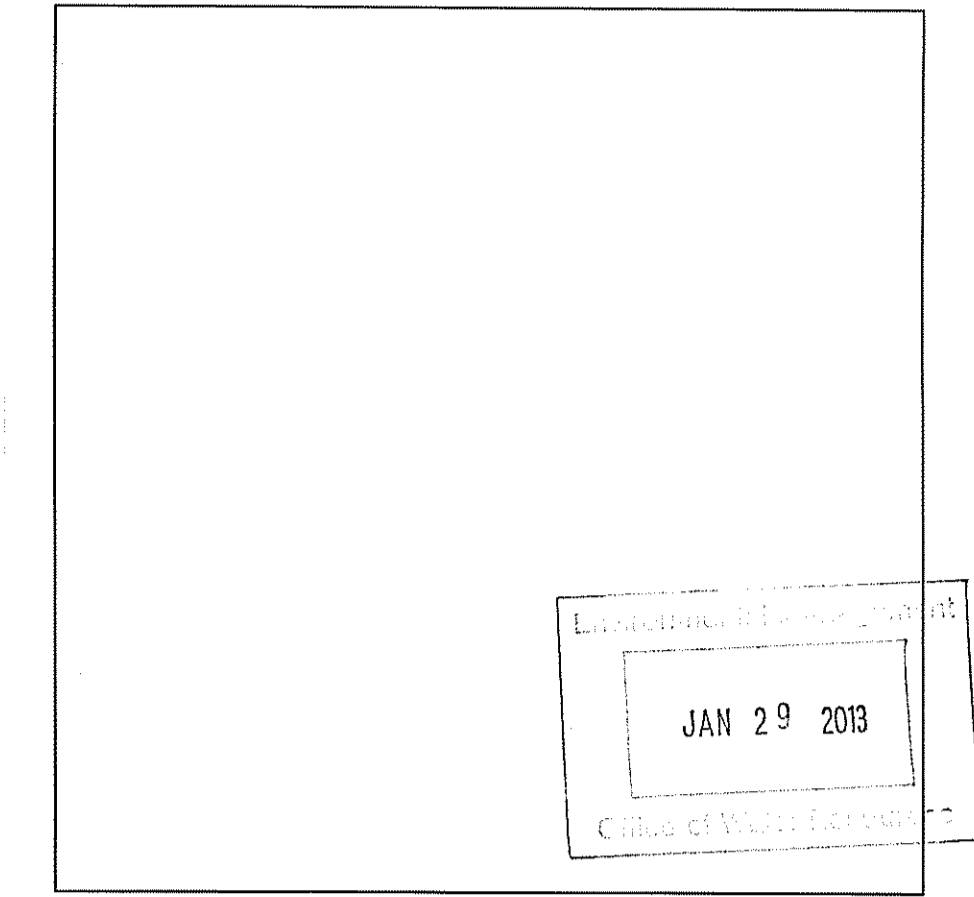
WOOD

1. WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN WOOD COUNCIL, ANSI/AF&PA, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION 1997 (NDS)" INCLUDING "DESIGN VALUES FOR WOOD CONSTRUCTION", NATIONAL FOREST PRODUCTS ASSOCIATION.
2. NEW WOOD FOR STRUCTURAL USE SHALL HAVE A MOISTURE CONTENT AS SPECIFIED IN THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION."

STRUCTURAL TESTS AND INSPECTIONS

1. STRUCTURAL TESTS, INSPECTIONS, AND REPORTS FOR CONCRETE CONSTRUCTION, STEEL CONSTRUCTION, MASONRY CONSTRUCTION, SOILS, AND OTHER APPLICABLE CONSTRUCTION SHALL BE SUBMITTED TO THE GOVERNMENT IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
2. REMOVE AND REPLACE WORK WHERE TEST RESULTS INDICATE THAT IT DOES NOT COMPLY WITH SPECIFIED REQUIREMENTS. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.
3. CONCRETE TESTING: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:
 - A. TESTING FREQUENCY: OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. WHEN FREQUENCY OF TESTING WILL PROVIDE FEWER THAN FIVE COMPRESSIVE-STRENGTH TESTS FOR EACH CONCRETE MIXTURE, TESTING SHALL BE CONDUCTED FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED.
 - B. SLUMP: ASTM C 143/C 143M; ONE TEST AT A POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
 - C. AIR CONTENT: ASTM C 231, PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
 - D. CONCRETE TEMPERATURE: ASTM C 1064; ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEG F AND BELOW AND WHEN 80 DEG F AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.
 - E. COMPRESSION TEST SPECIMENS: ASTM C 31, CAST AND LABORATORY CURE TWO SETS OF TWO STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE. CAST AND FIELD CURE TWO SETS OF TWO STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.
 - F. COMPRESSIVE-STRENGTH TESTS: ASTM C 39; TEST ONE SET OF TWO LABORATORY-CURED SPECIMENS AT 7 DAYS AND ONE SET OF TWO SPECIMENS AT 28 DAYS. TEST ONE SET OF TWO FIELD-CURED SPECIMENS AT 7 DAYS AND ONE SET OF TWO SPECIMENS AT 28 DAYS.
 - G. TEST RESULTS SHALL BE REPORTED IN WRITING TO GOVERNMENT, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTING AGENCY, LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIXTURE PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7- AND 28- DAY TESTS.
 - H. ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY GOVERNMENT.
 - I. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.
 - J. CORRECT DEFICIENCIES IN THE WORK THAT TEST REPORTS AND INSPECTIONS INDICATE DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS.

LEGEND



NOT TO SCALE

REV.	DESCRIPTION	DATE
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-	-	-

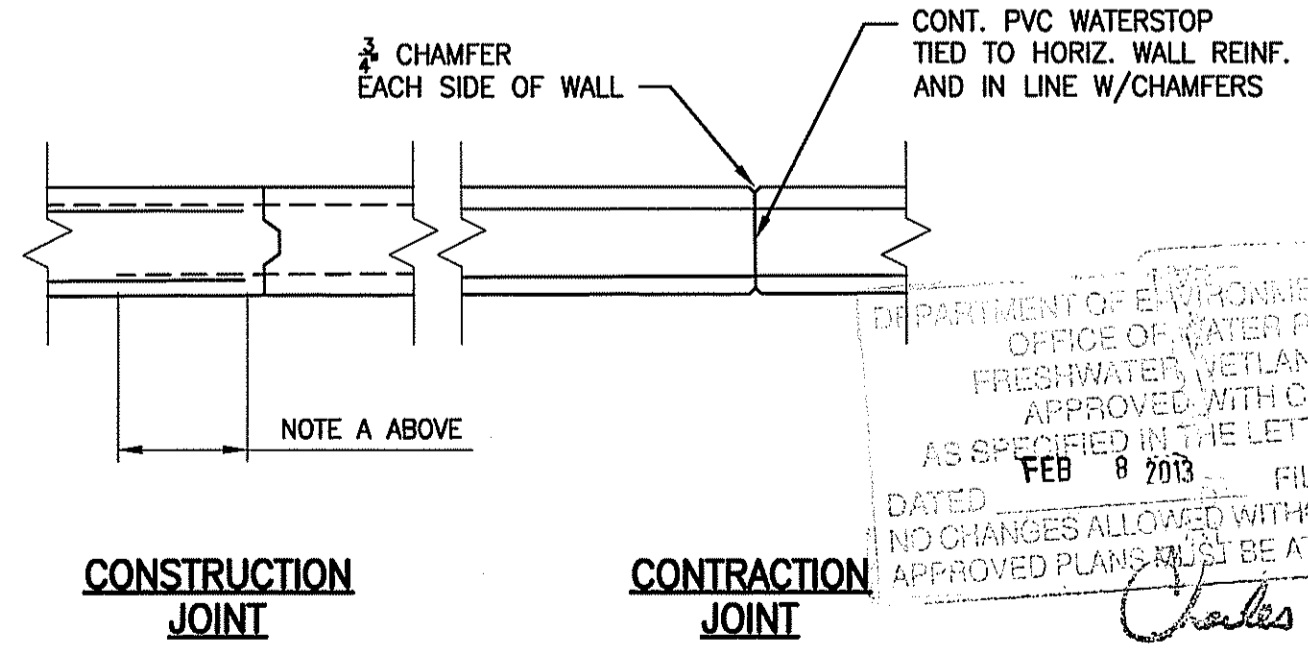
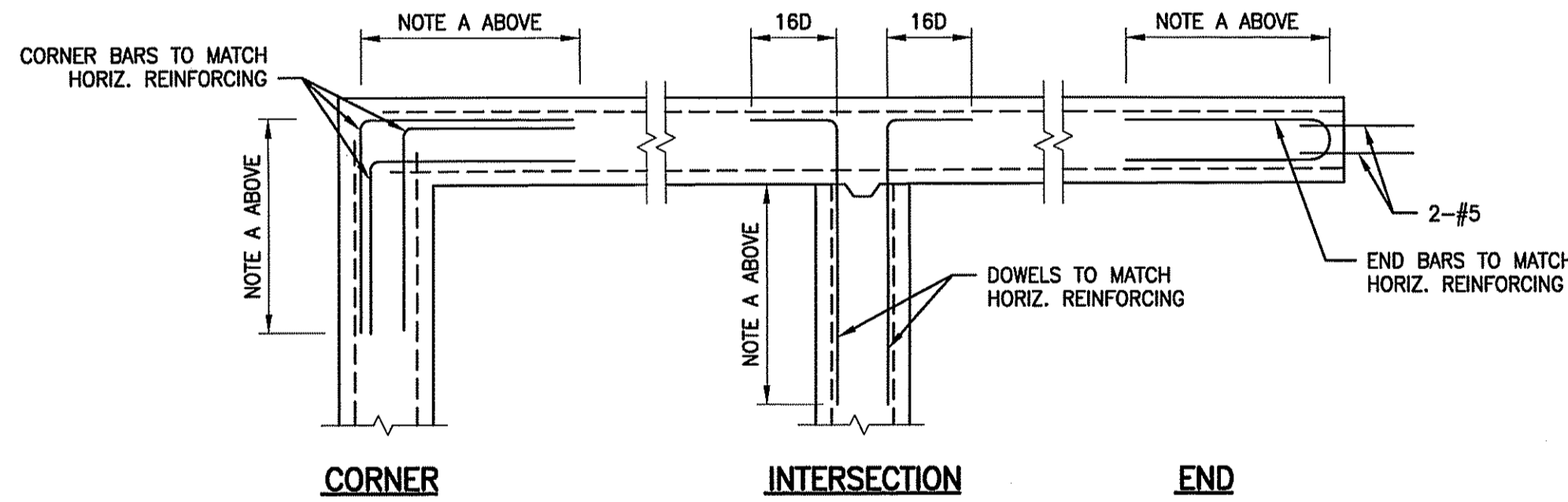
PREPARED BY:

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ENGINEERS PLANNERS
SCIENTISTS ECONOMISTS
295 Promenade Street
Providence, Rhode Island 02908

PREPARED FOR:

National Oceanic and Atmospheric Administration
Restoration Center
28 Tarzwell Drive
Narragansett, Rhode Island 02882

Rhode Island Department of Environmental Management
277 Great Neck Rd, West Kingstown, Rhode Island 02892



1 TYPICAL CONCRETE WALL DETAILS
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Charles A. Hallett

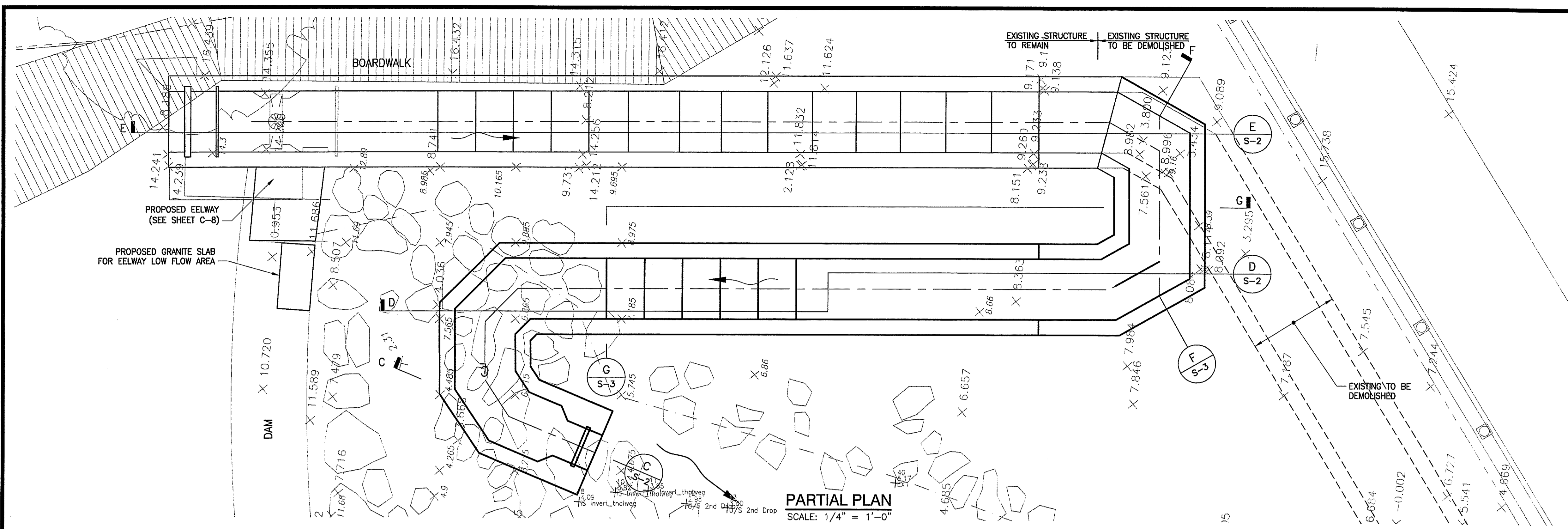
90% Documents
(NOT FOR CONSTRUCTION)
SAUGATUCKET RIVER FISH PASSAGE
IMPROVEMENTS
Town of South Kingstown, Rhode Island

STRUCTURAL NOTES AND TYPICAL DETAILS

SHEET TITLE:	
SCALE: AS SHOWN	DATE: DECEMBER 2012
PROJECT MANAGER: LR	SHEET No. S-1
PROJECT ENGINEER: CW	
CHECKED BY: PFK	
DRAWN BY: MJC	
JOB NUMBER: J11986/CM1931	
S1 Notes.dwg	

Jan 04, 2013 - 11:44am E:\PROJECT\1986_Saugatucket River Fishway Improvements\CADD\DRAWINGS\CCM\1931 FISHWAY - Main SV\1 Notes.dwg

Jan 04, 2013 11:48am F:\PROJECT\1986_Saugatucket River Fishway Improvements\CADD\DRAWINGS\CM1931_FISHWAY - Main S2 PARTIAL PLAN-Main St.dwg



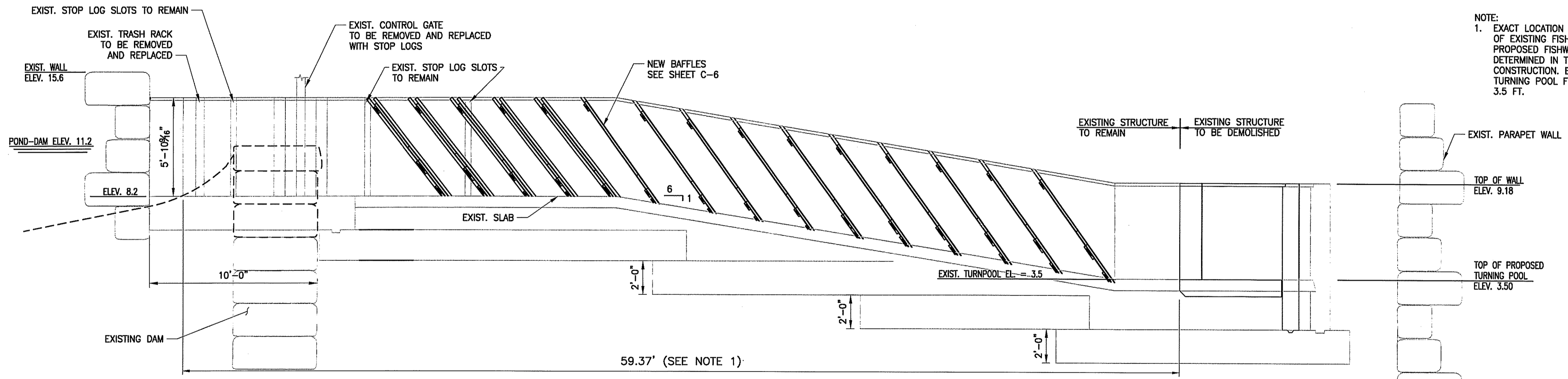
PARTIAL PLAN
SCALE: 1/4" = 1'-0"

LEGEND

Environmental Management
JAN 29 2013
Office of Water Resources

SCALE IN FEET

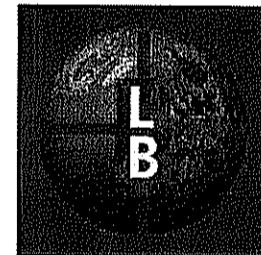
SOURCE:
Spot elevation data provided by Natural Resources Conservation Service and Service in NAVD 1989 (fall 2011). Fishway dimensions referenced from 1968 FISH LADDER SAUGATUCKET RIVER PEACE DALE Federal Aid Project AFSC-1-2 drawing set. Parcel boundaries estimated from tax maps.

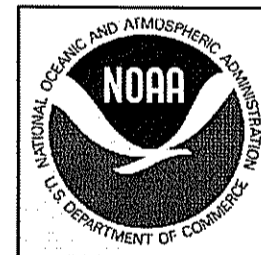


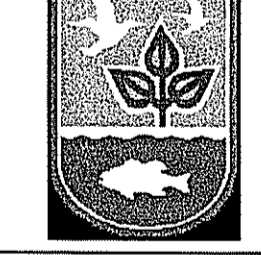
SECTION E
SCALE: 1/4" = 1'-0"

NOTE:
1. EXACT LOCATION OF THE LIMIT OF DEMOLITION OF EXISTING FISHWAY AND BEGINNING OF PROPOSED FISHWAY CONSTRUCTION TO BE DETERMINED IN THE FIELD DURING CONSTRUCTION. ELEVATION OF PROPOSED TURNING POOL FLOOR SLAB IS SET AT ELEV. 3.5 FT.

REV.	DESCRIPTION	DATE

PREPARED BY:

THE Louis Berger Group, INC.
 ENGINEERS PLANNERS
 SCIENTISTS ECONOMISTS
 295 Promenade Street
 Providence, Rhode Island 02908

PREPARED FOR:

National Oceanic and Atmospheric Administration
 Restoration Center
 28 Tarzwell Drive
 Narragansett, Rhode Island 02882

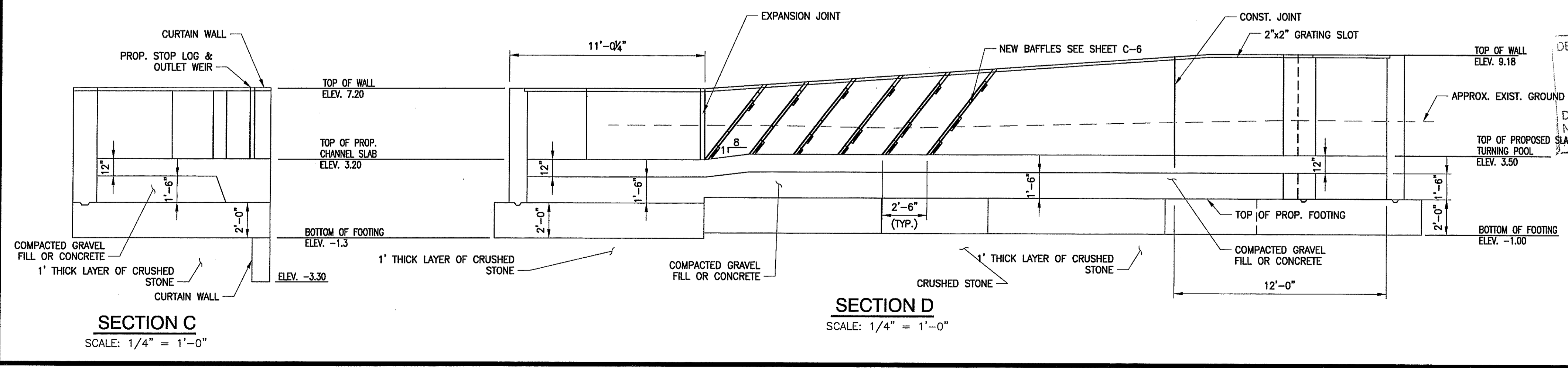

Rhode Island Department of Environmental Management
 277 Great Neck Rd., West Kingstown,
 Rhode Island 02892

90% Documents (NOT FOR CONSTRUCTION)
SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS
 Town of South Kingstown, Rhode Island
MAIN STREET DAM SITE

PROPOSED FISH PASSAGE PARTIAL PLAN & SECTIONS

SHEET TITLE: S2 PARTIAL PLAN-Main St.dwg

SCALE: AS SHOWN	DATE: DECEMBER 2012
PROJECT MANAGER: LR	SHEET No. S-2
PROJECT ENGINEER: CW	
CHECKED BY: PFK	
DRAWN BY: MJC	
JOB NUMBER: J11986/CM1931	



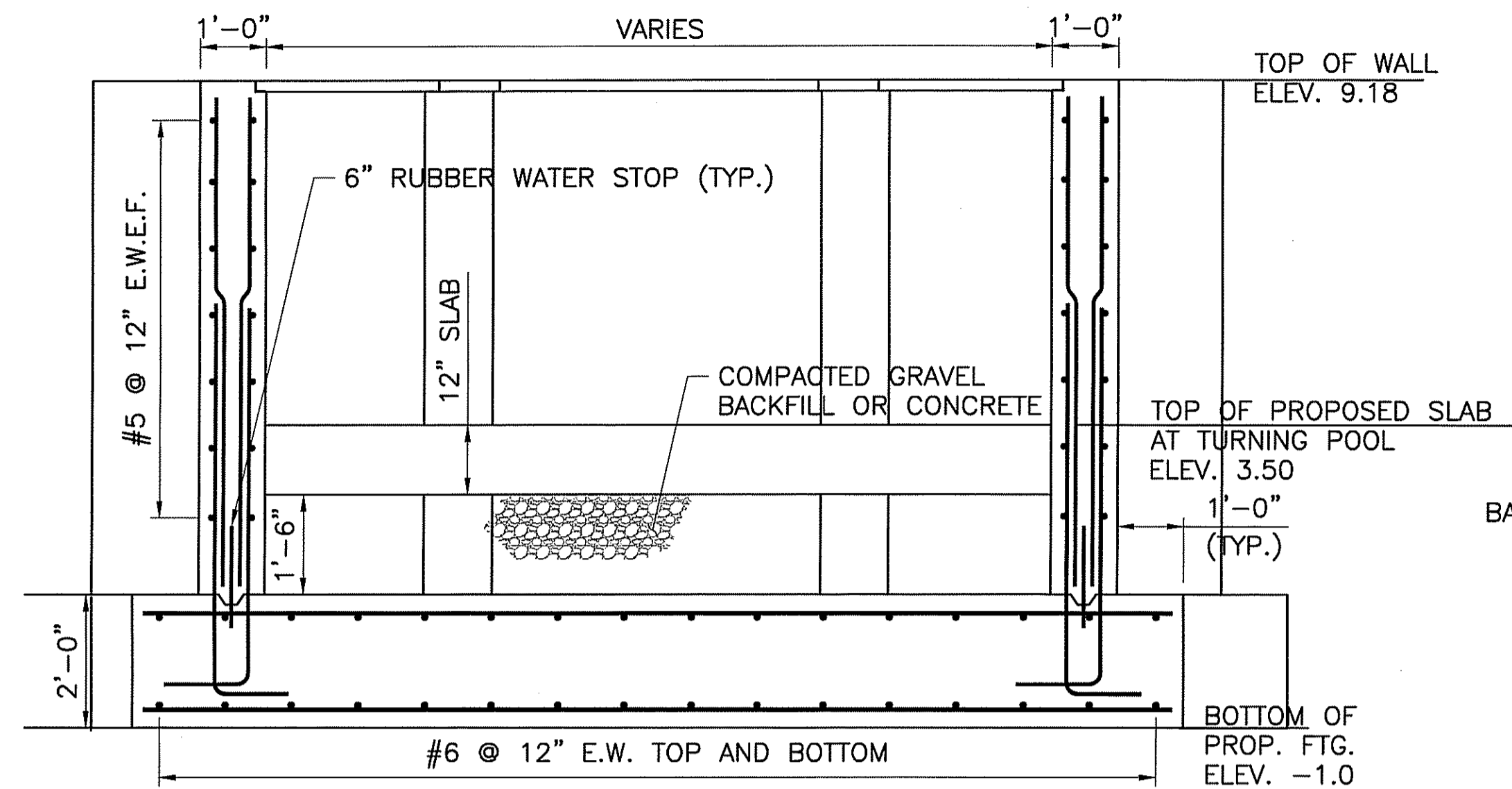
SECTION C
SCALE: 1/4" = 1'-0"

SECTION D
SCALE: 1/4" = 1'-0"

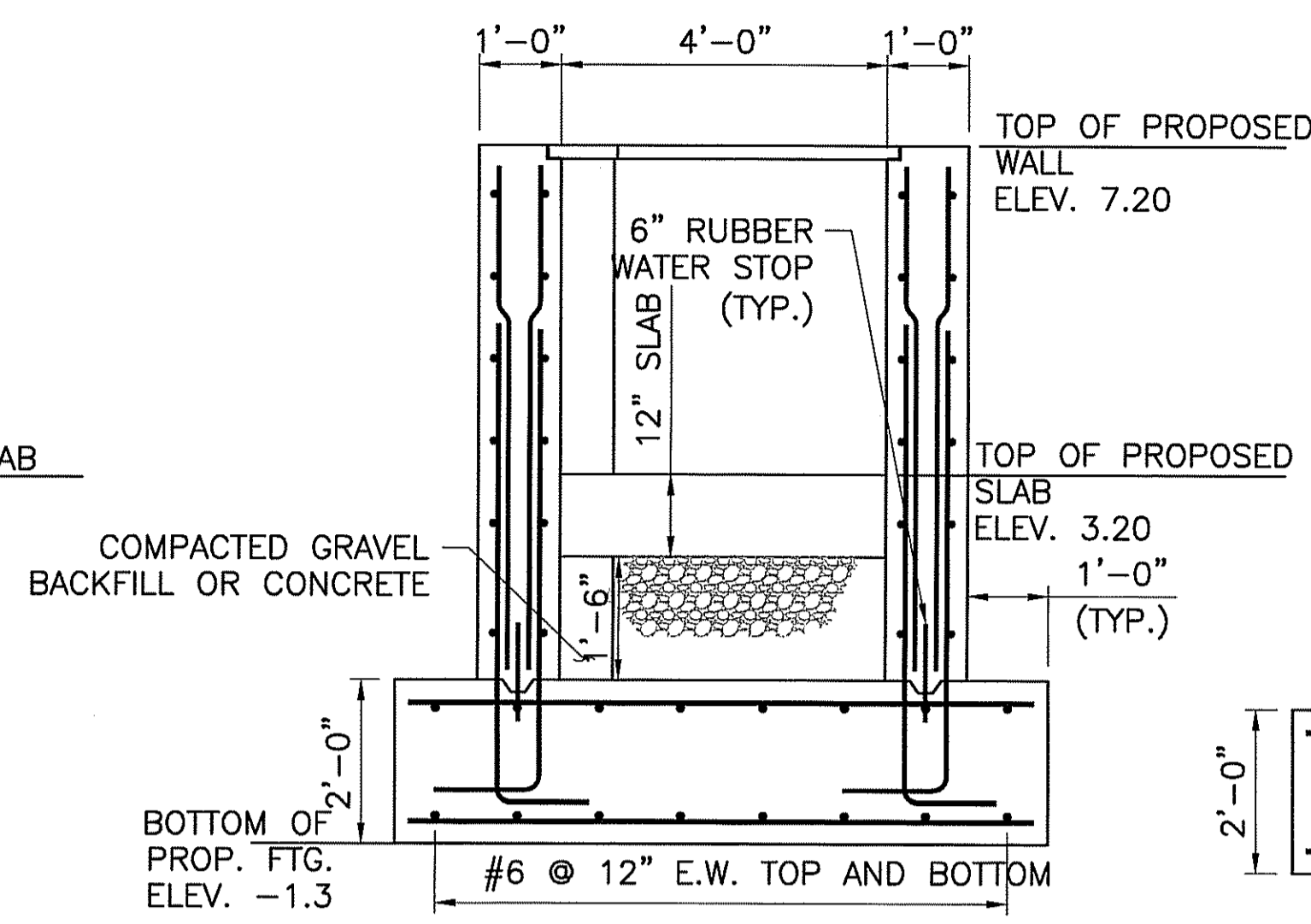
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED FEB 8 2013 FILE # 13-0015
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 SLAB-PROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. H...

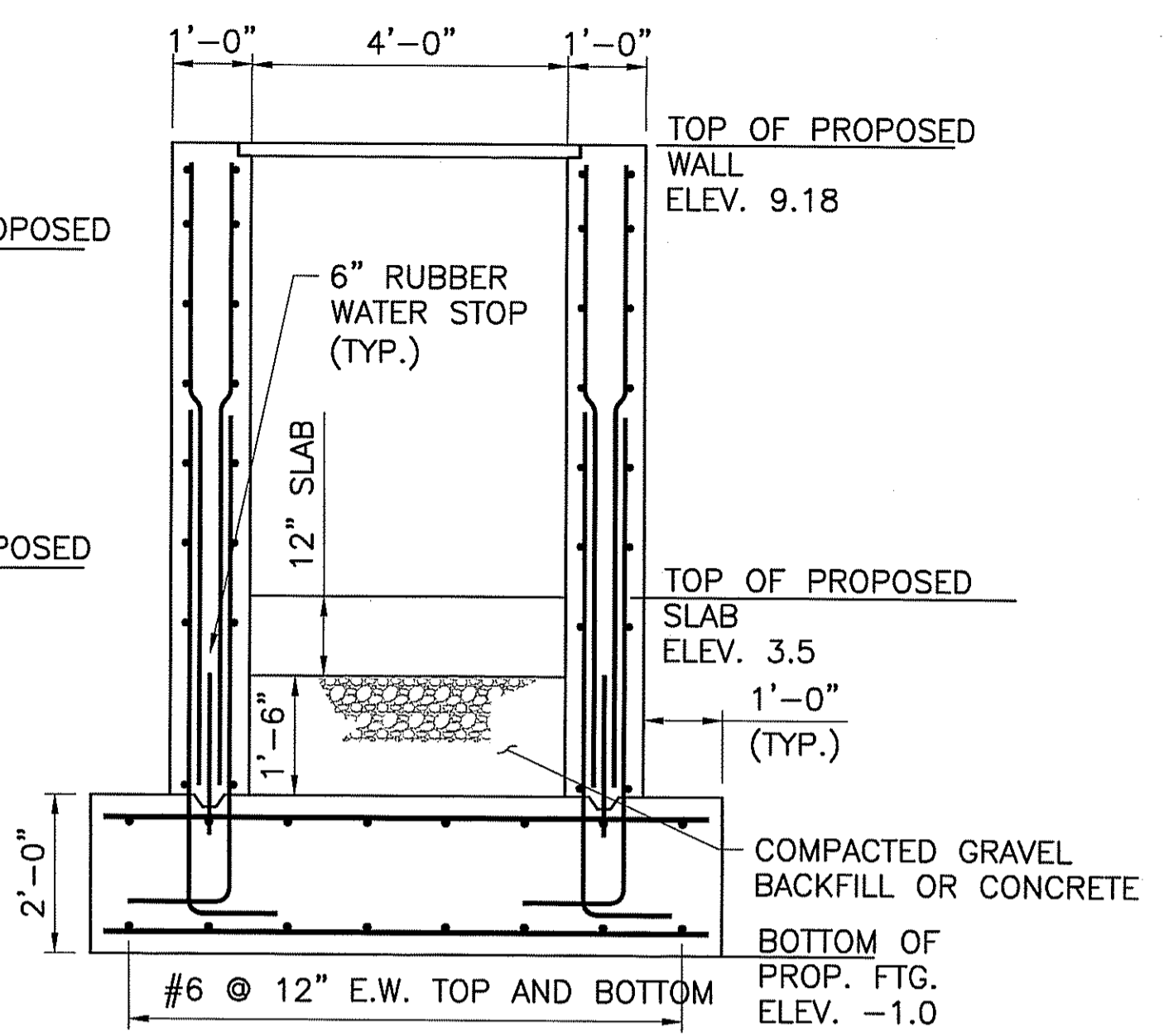
Jan 04, 2013 - 11:51:00 AM F:\PROJECT\1986_Saugatucket River Fishway Improvements\CADD\DRAWINGS\CM1931_FISHWAY - Main St\SS Foundation Dets-Main St.dwg



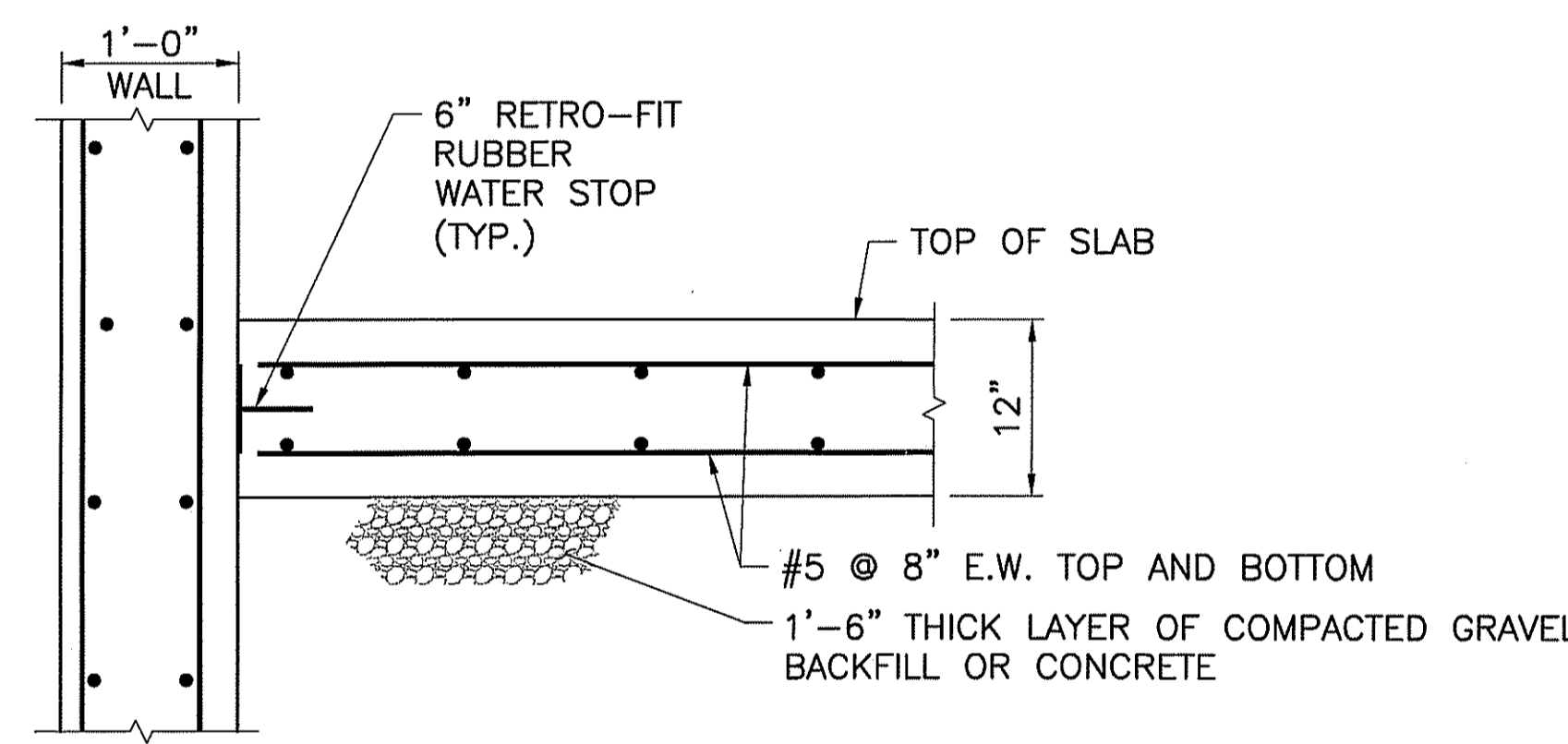
F FOUNDATION AND WALL SECTION
SCALE: 1/2" = 1'-0" (LOOKING DOWNSTREAM)



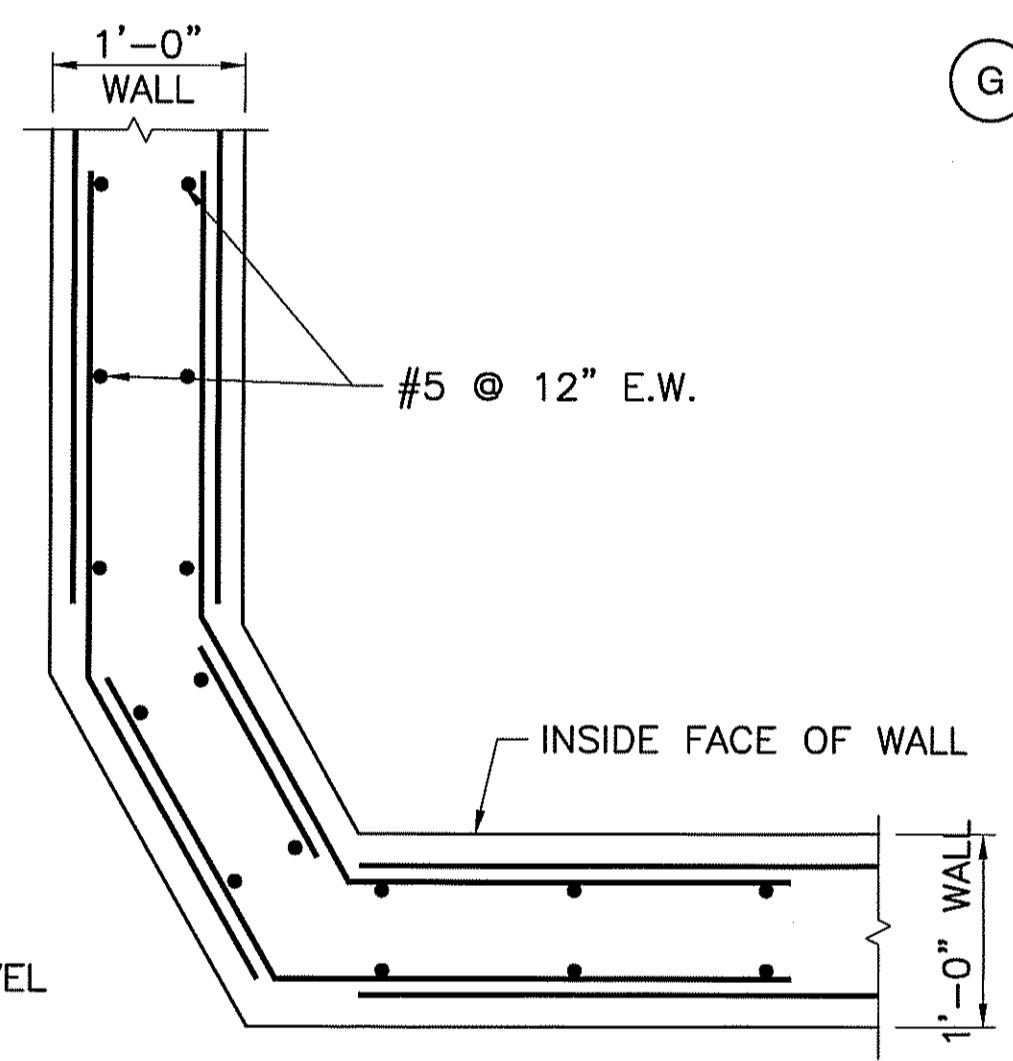
G FOUNDATION AND WALL SECTION
SCALE: 1/2" = 1'-0" (LOOKING DOWNSTREAM)



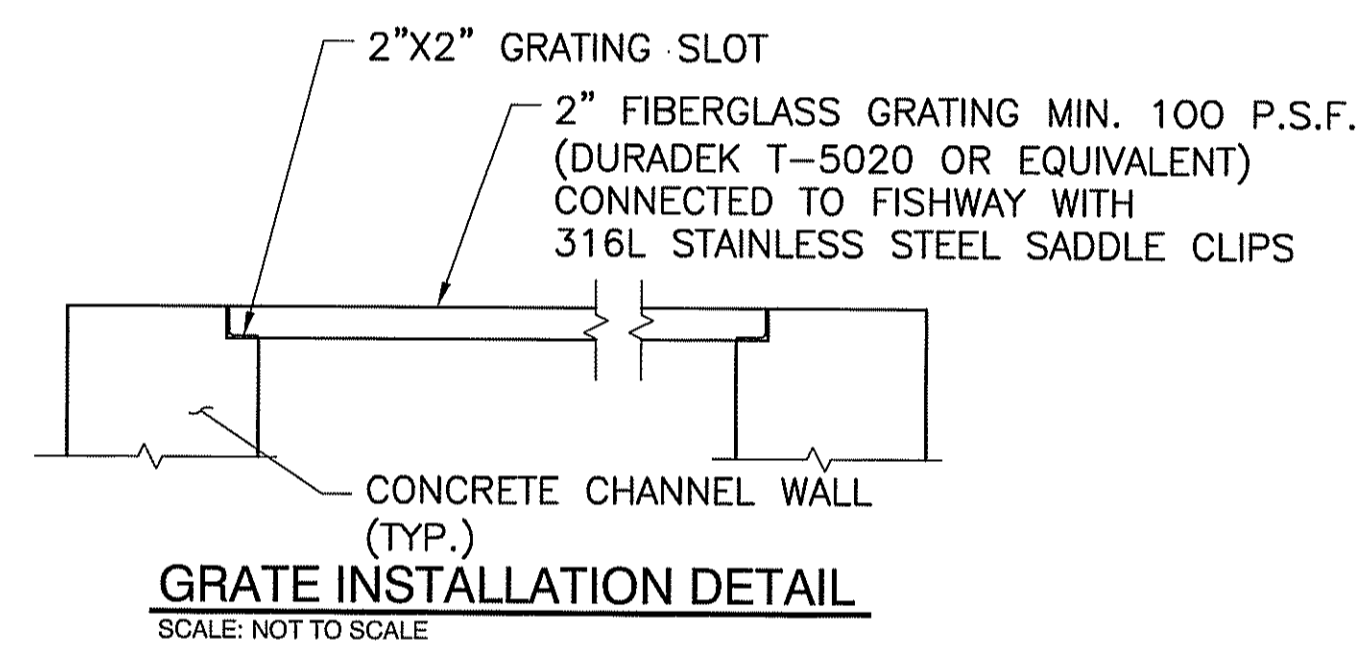
FOUNDATION AND WALL SECTION
SCALE: 1/2" = 1'-0" (LOOKING DOWNSTREAM)



TYPICAL WALL TO SLAB CONNECTION DETAIL
SCALE: NOT TO SCALE



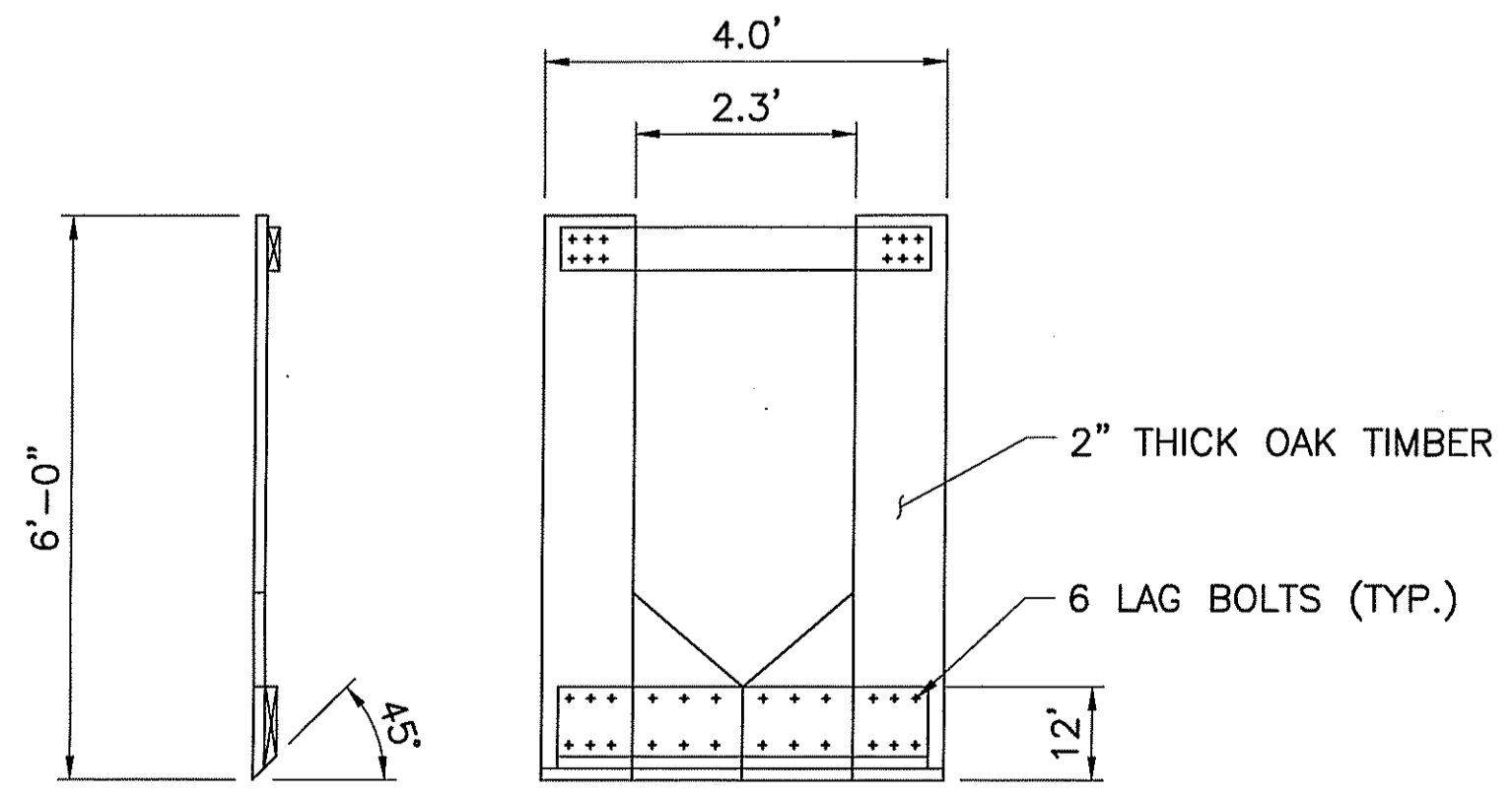
TYPICAL WALL CORNER DETAIL
SCALE: NOT TO SCALE



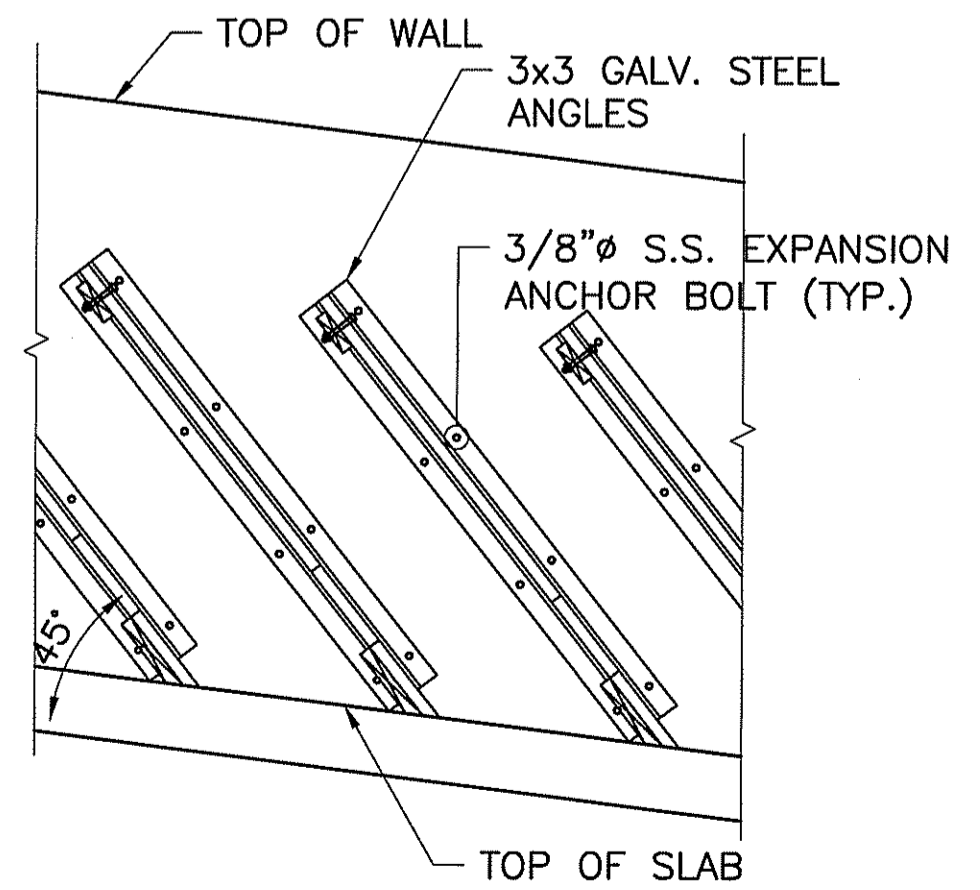
GRATE INSTALLATION DETAIL
SCALE: NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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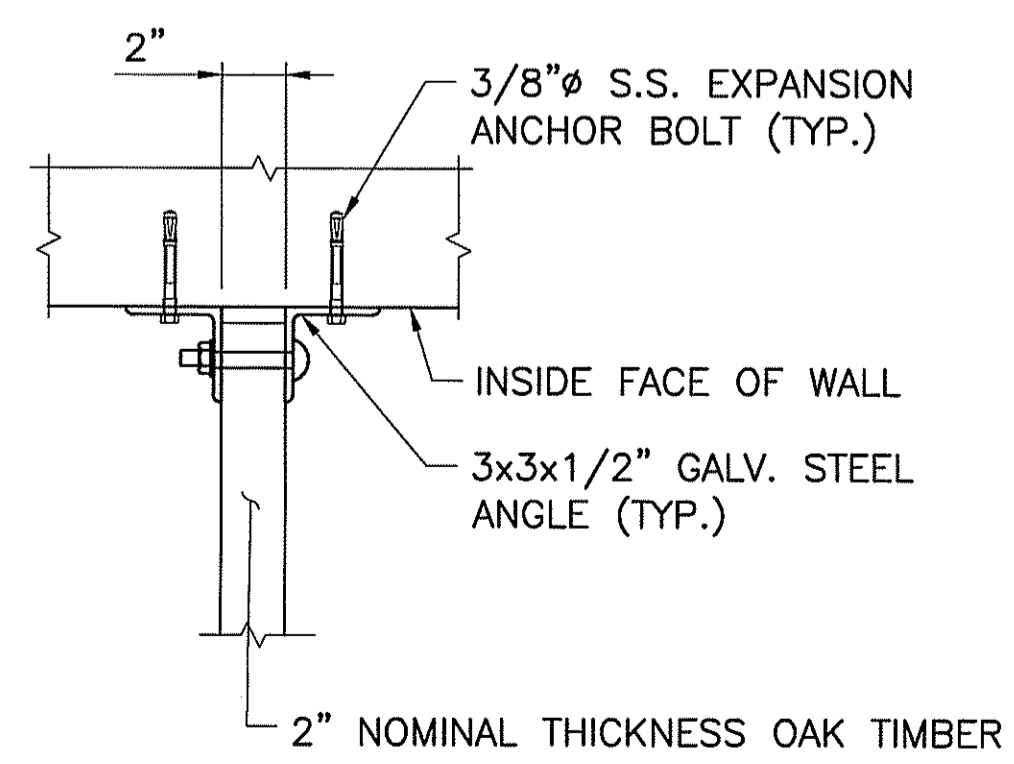
Charles A. Harker



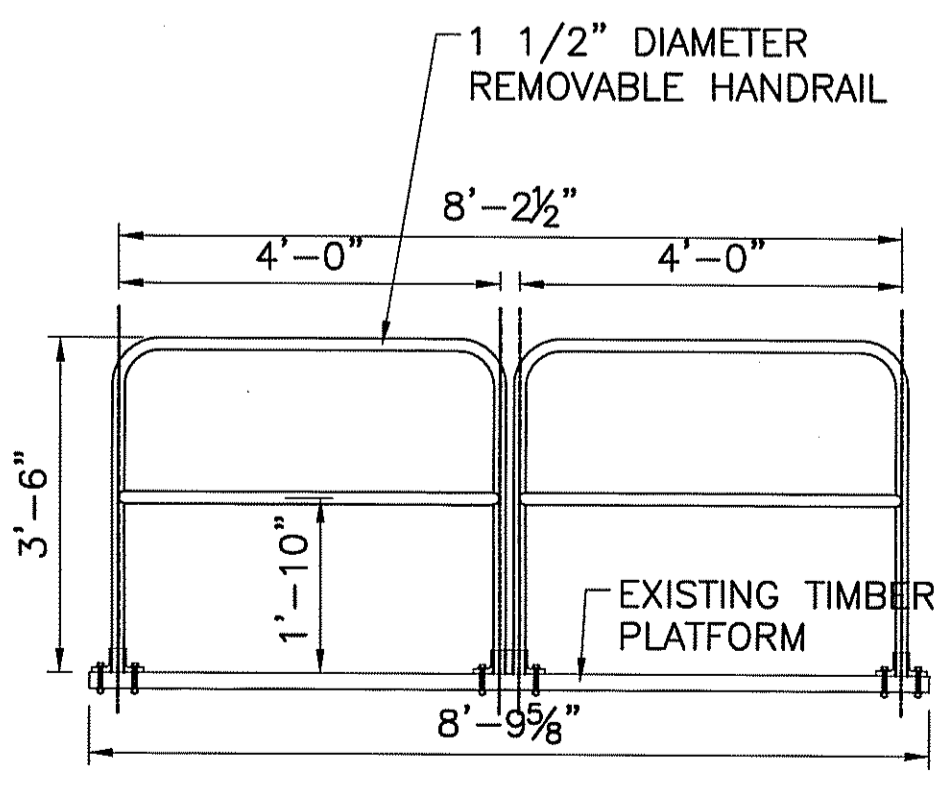
STANDARD TIMBER BAFFLE DETAIL
SCALE: NOT TO SCALE



BAFFLE INSTALLATION DETAIL
SCALE: NOT TO SCALE

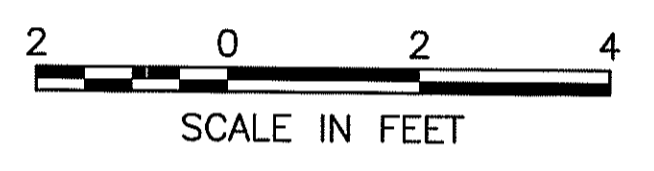
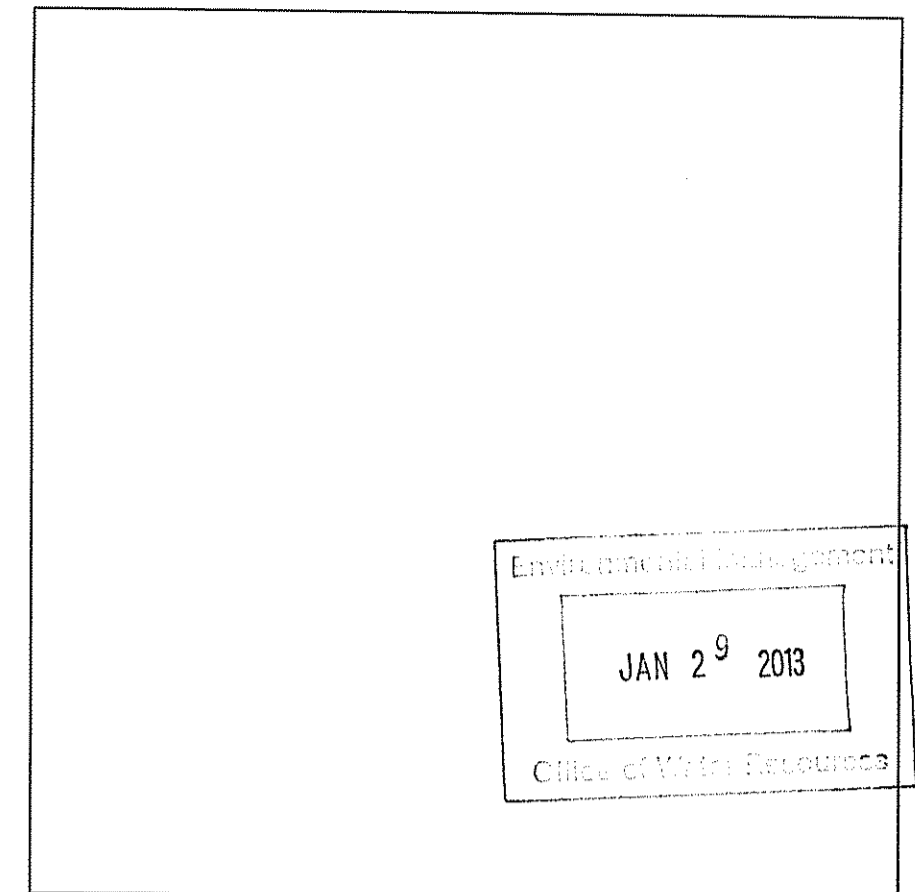


BAFFLE ANCHOR DETAIL
SCALE: NOT TO SCALE



ALUMINUM PIPE HANDRAIL
NTS

LEGEND



REV.	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-

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Rhode Island Department of Environmental Management
277 Great Neck Rd, West Kingstown, Rhode Island 02892

90% Documents (NOT FOR CONSTRUCTION)
SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS
Town of South Kingstown, Rhode Island
MAIN STREET DAM SITE

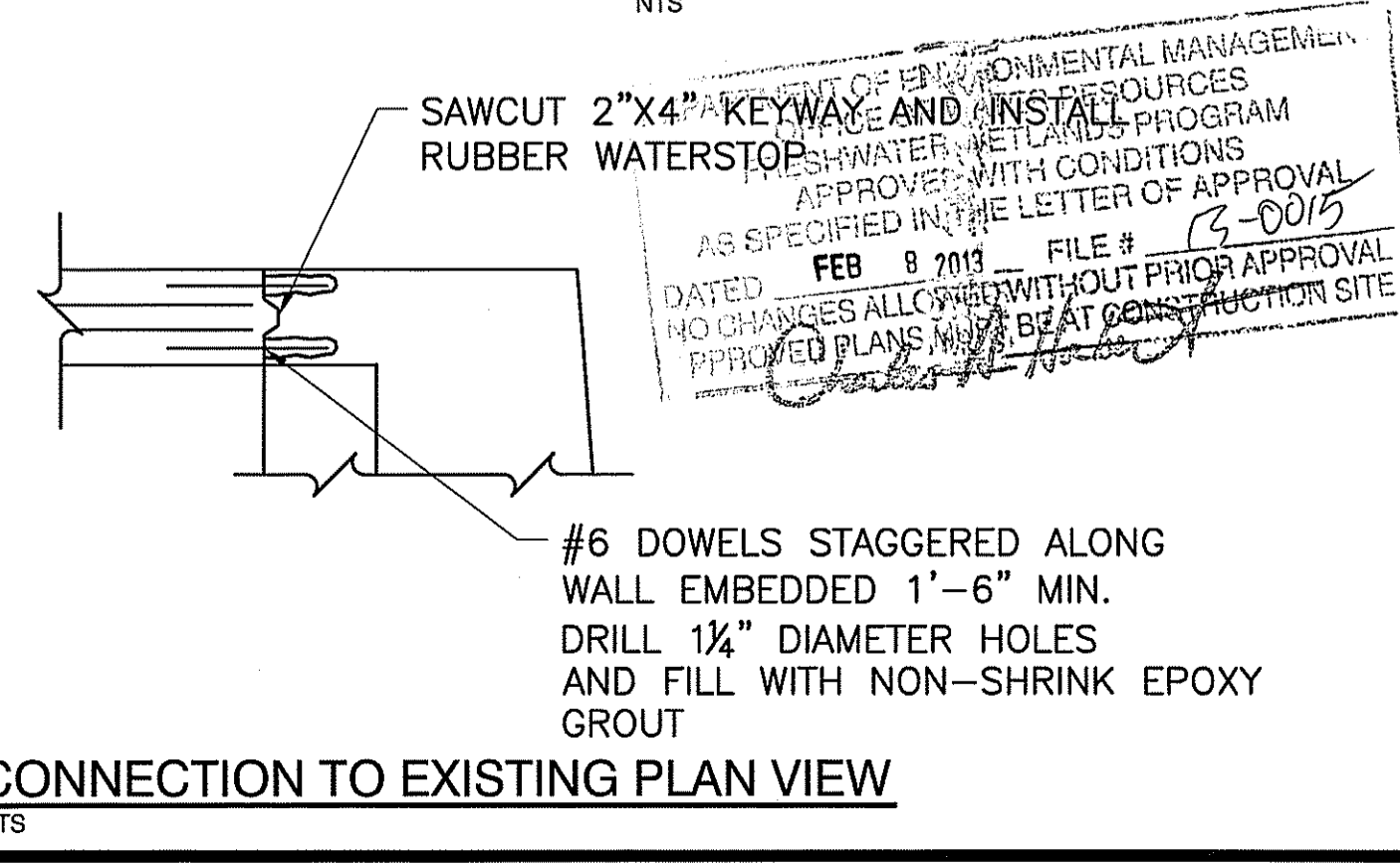
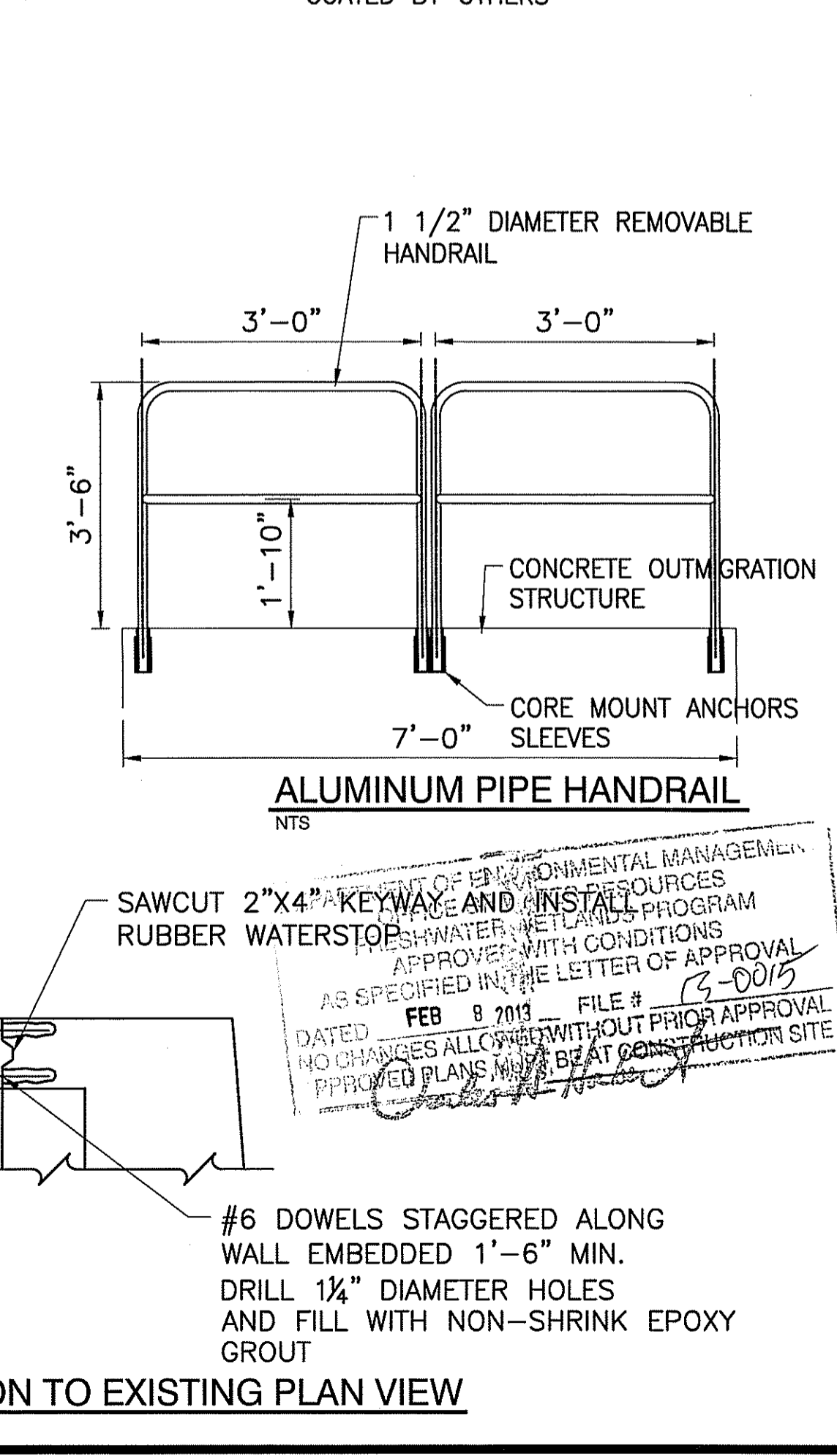
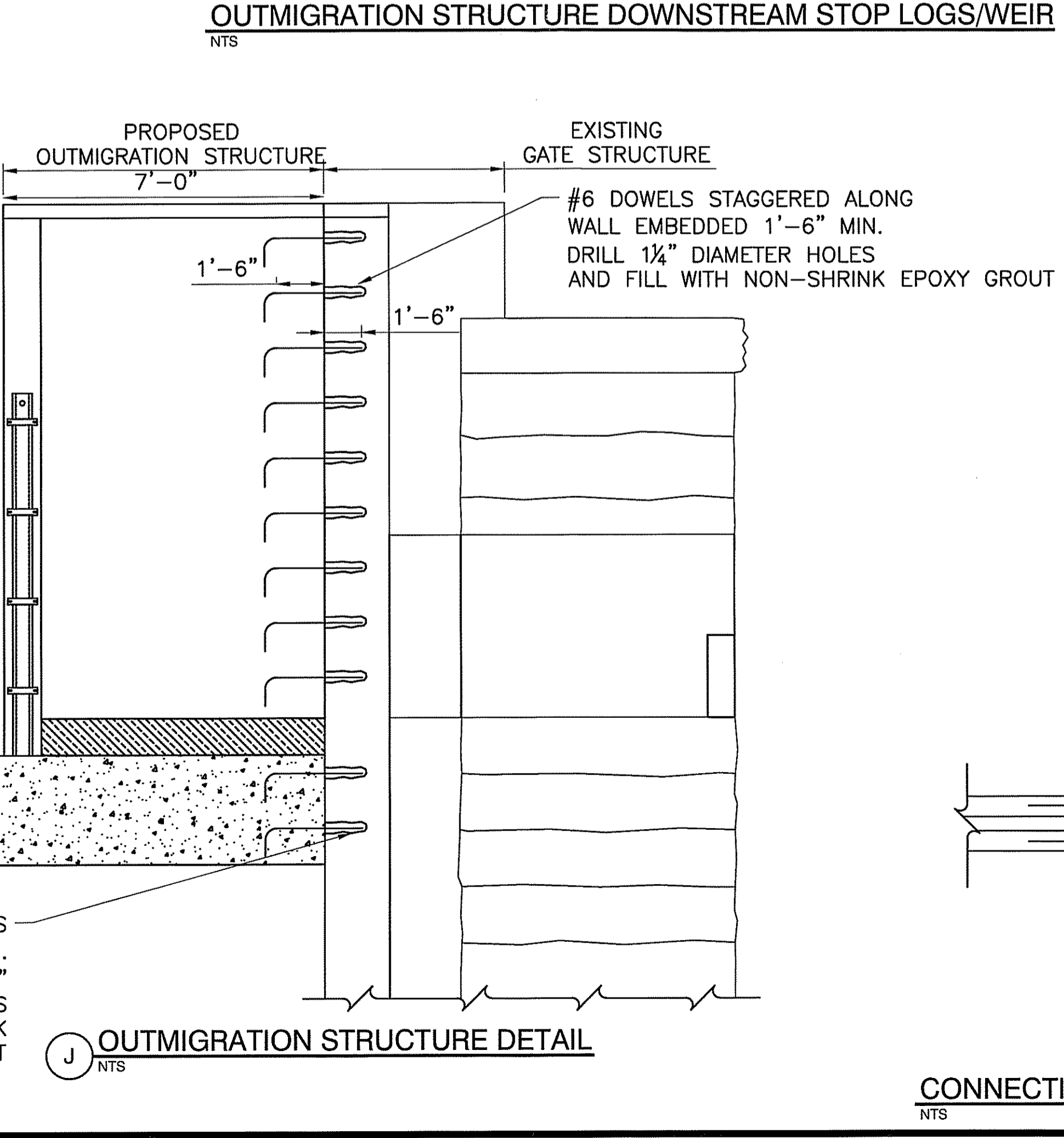
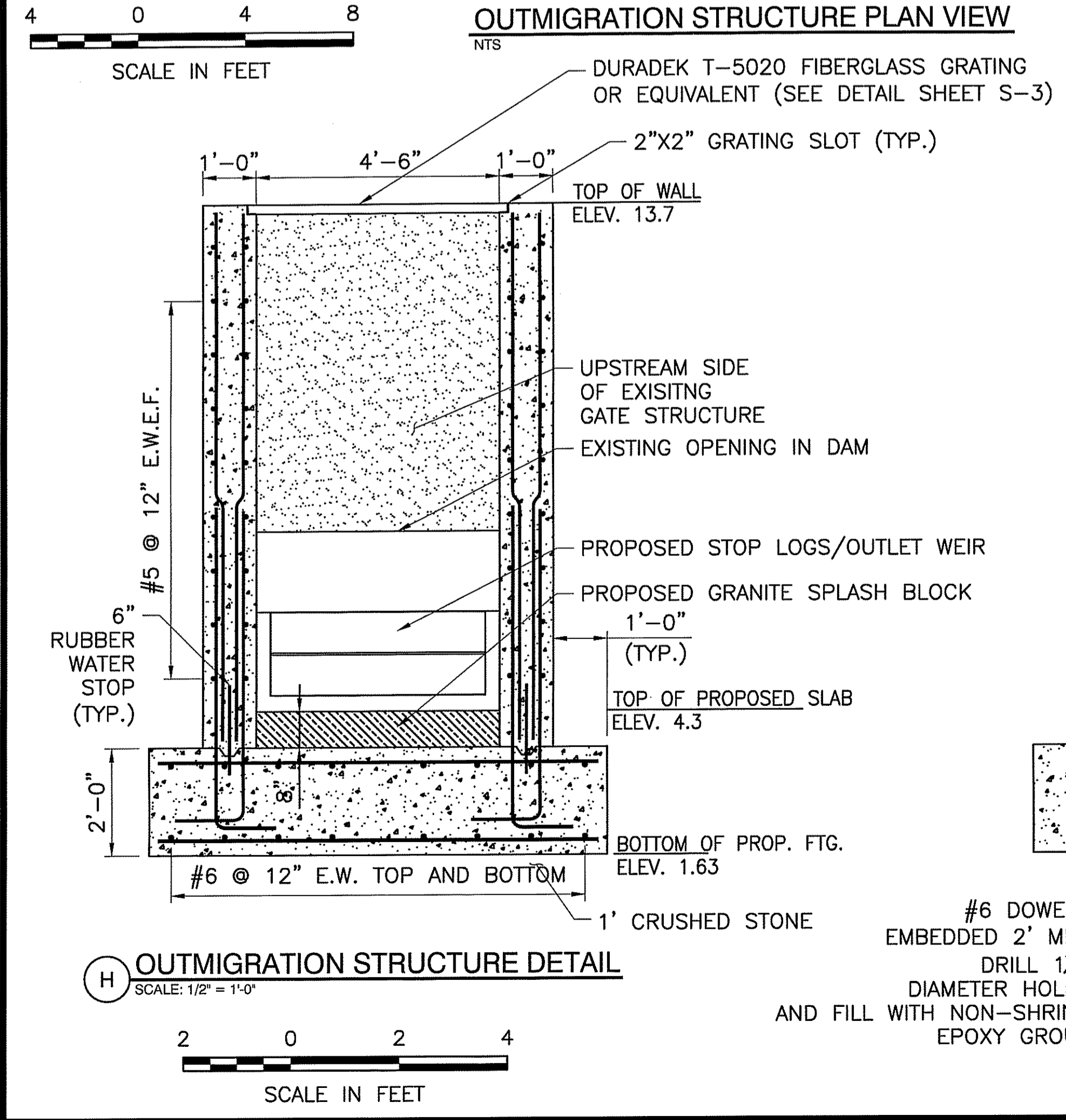
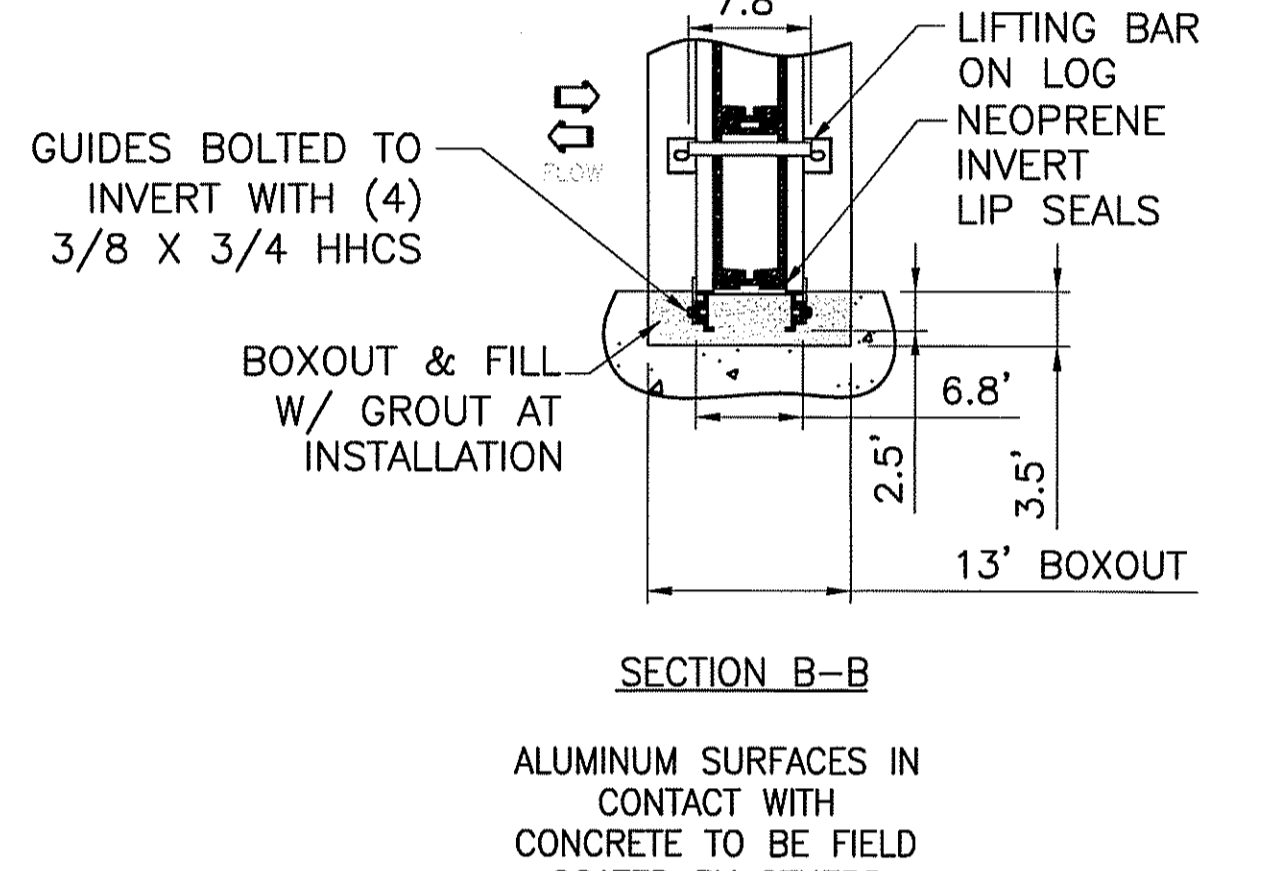
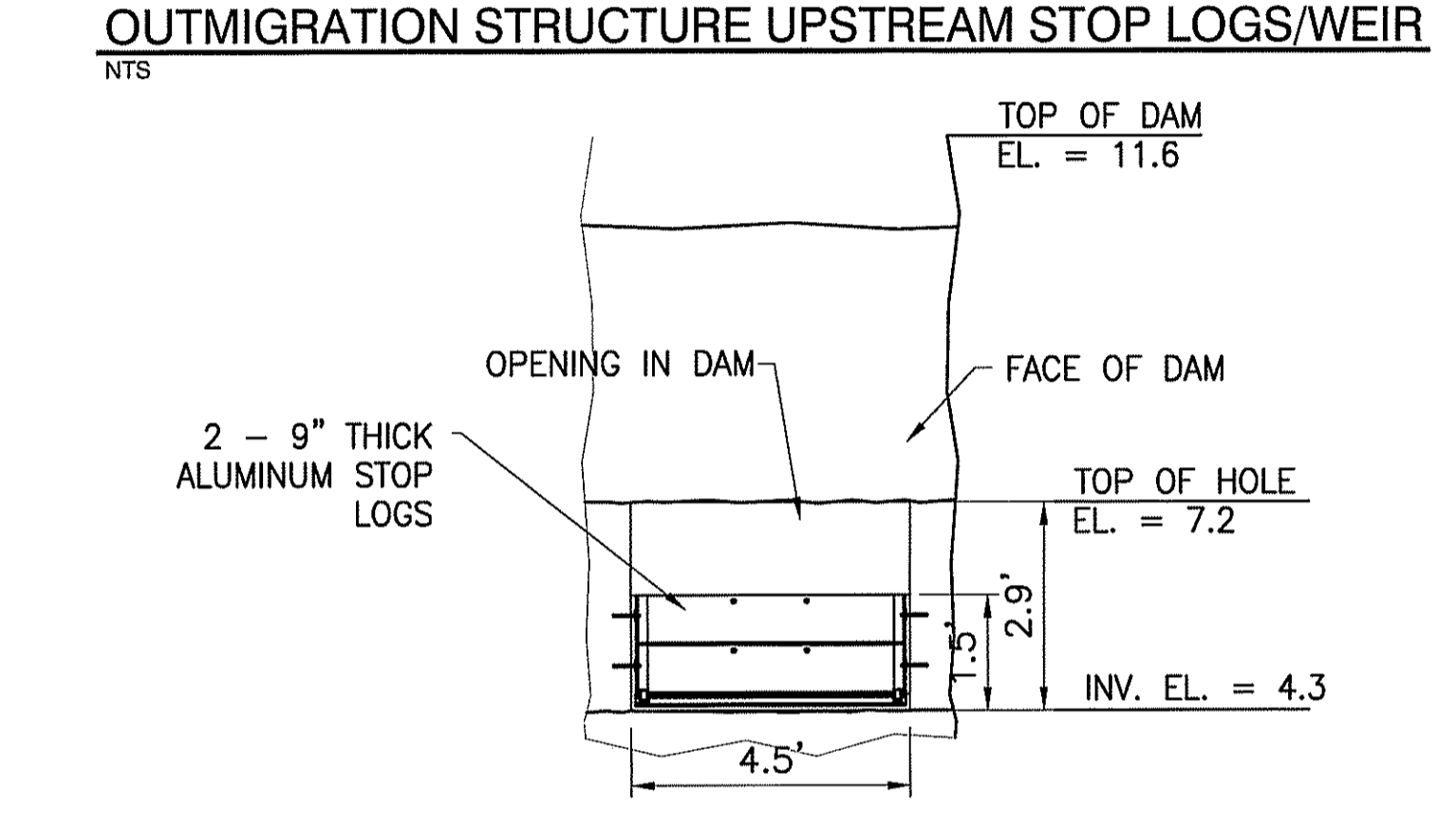
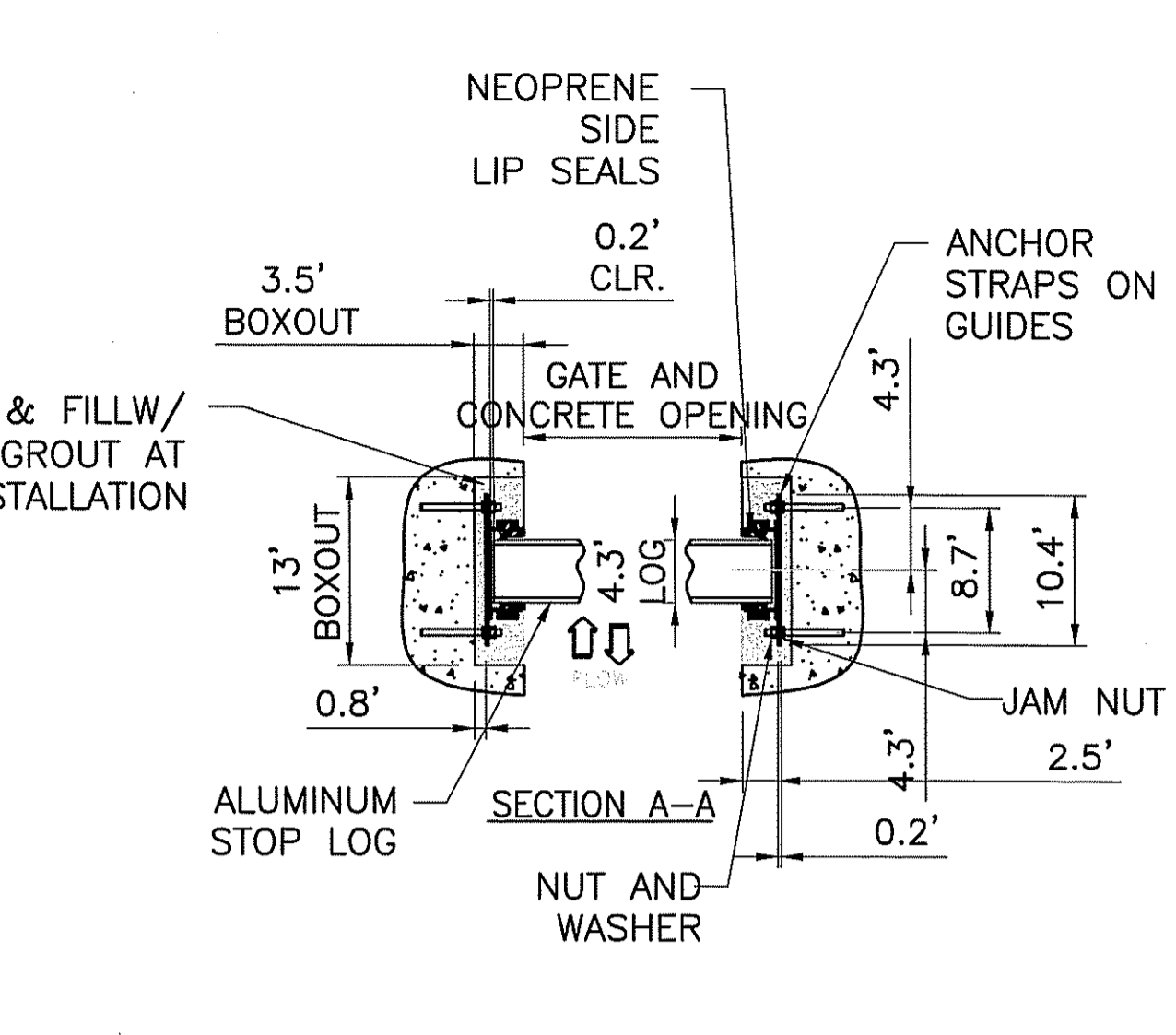
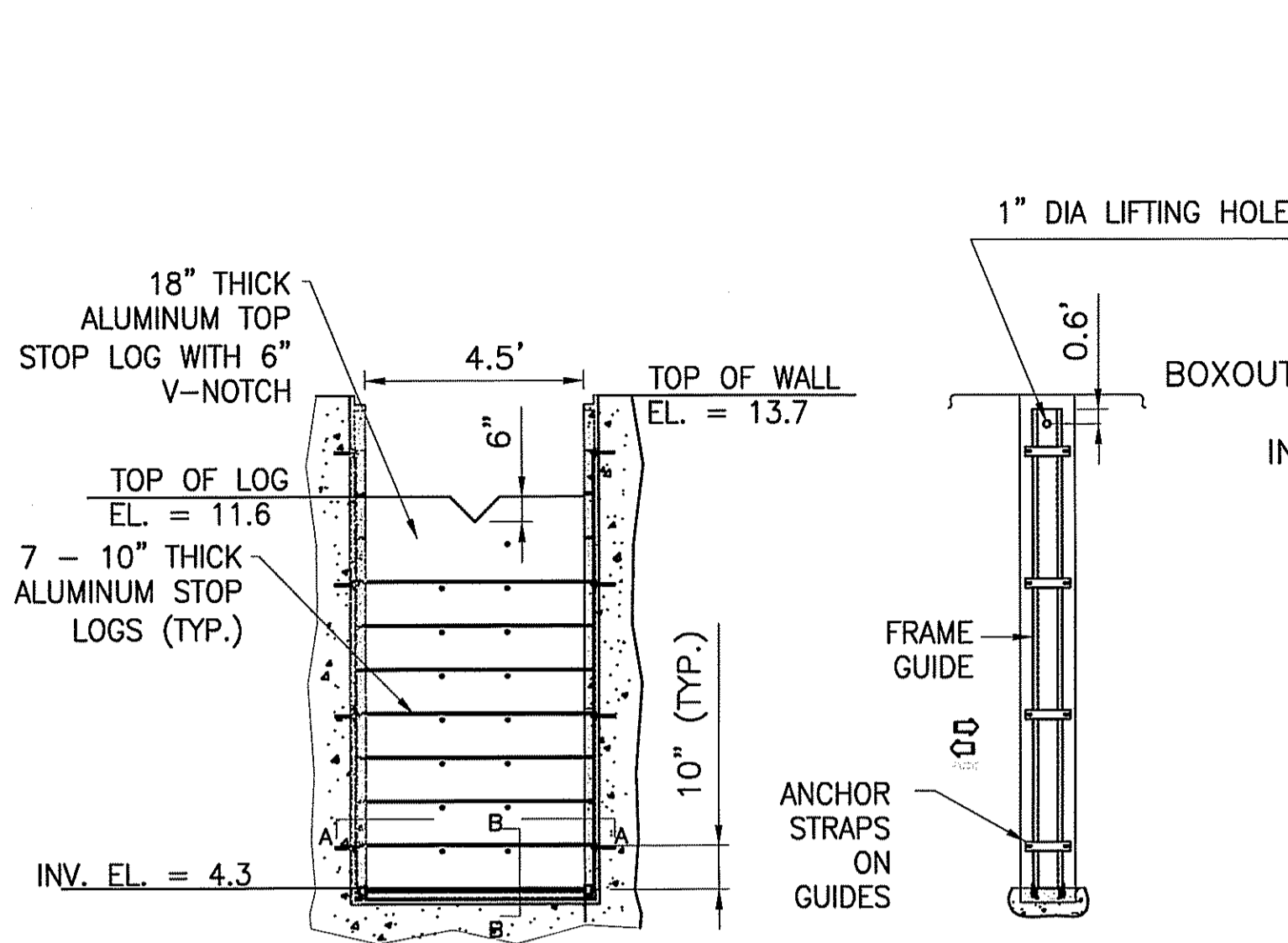
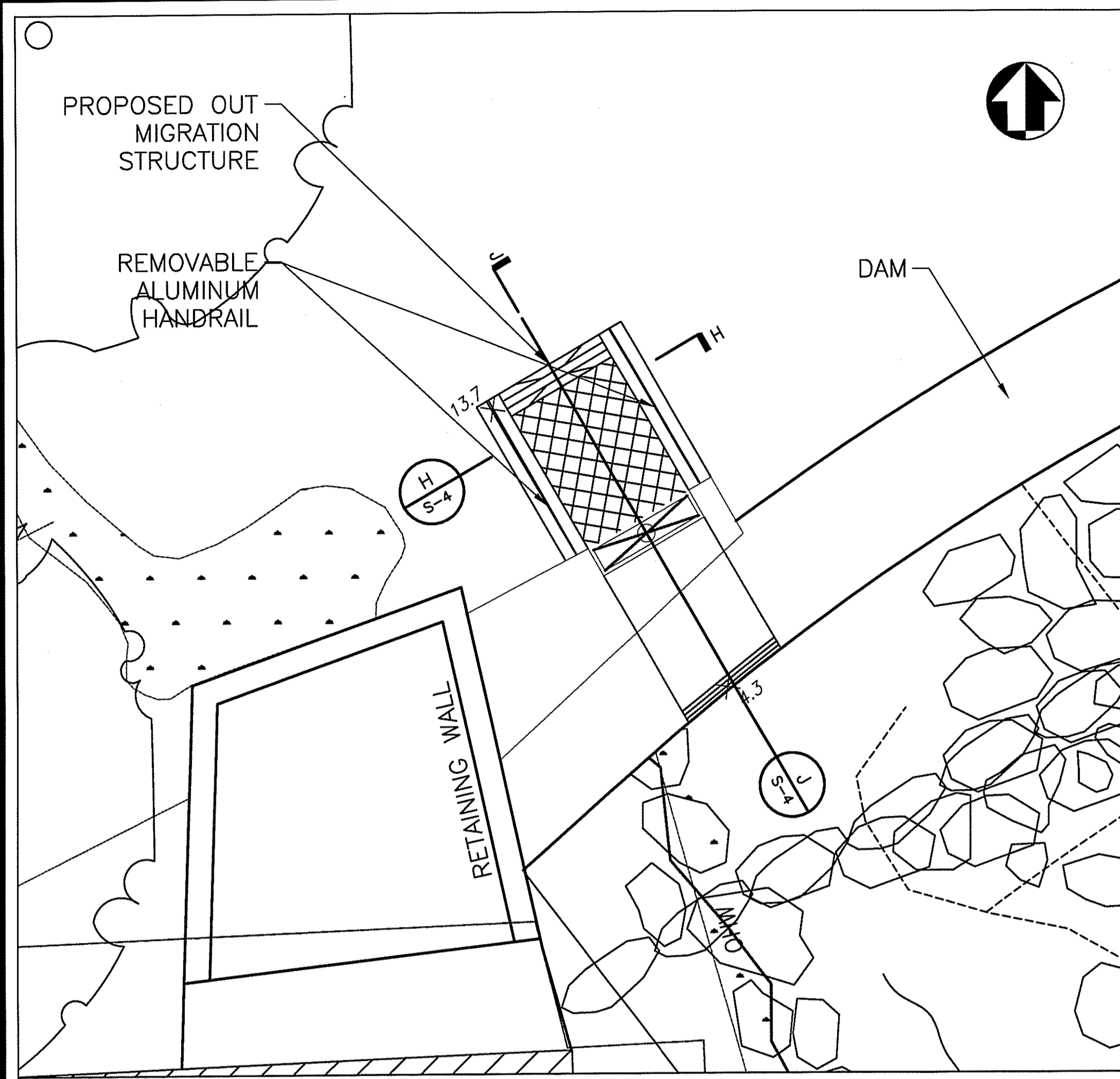
SECTIONS AND FOUNDATION DETAILS

SHEET TITLE:

SCALE:	AS SHOWN	DATE:	DECEMBER 2012
PROJECT MANAGER:	LR		
PROJECT ENGINEER:	CW		
CHECKED BY:	PFK	SHEET No.	
DRAWN BY:	MJC		
JOB NUMBER:	J1986/CM1931		

S3 Foundation Dets-Main St.dwg

Jan 04, 2013 - 11:54am F:\PROJECT\1986_Saugatucket River Fishway Improvements\CADD\DRAWINGS\CCM1931 FISHWAY - Main ST\S3 Foundation Dets-Main St.dwg



LEGEND

Environmental Management
 JAN 2nd 2013
 Office of Water Resources

REV.	DESCRIPTION	DATE

PREPARED BY:

The Louis Berger Group, Inc.
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PREPARED FOR:

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 Restoration Center
 28 Tarzwell Drive
 Narragansett, Rhode Island 02882

Rhode Island Department of Environmental Management
 277 Great Neck Rd, West Kingstown, Rhode Island 02892

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SAUGATUCKET RIVER FISH PASSAGE IMPROVEMENTS
 Town of South Kingstown, Rhode Island
 MAIN STREET DAM SITE

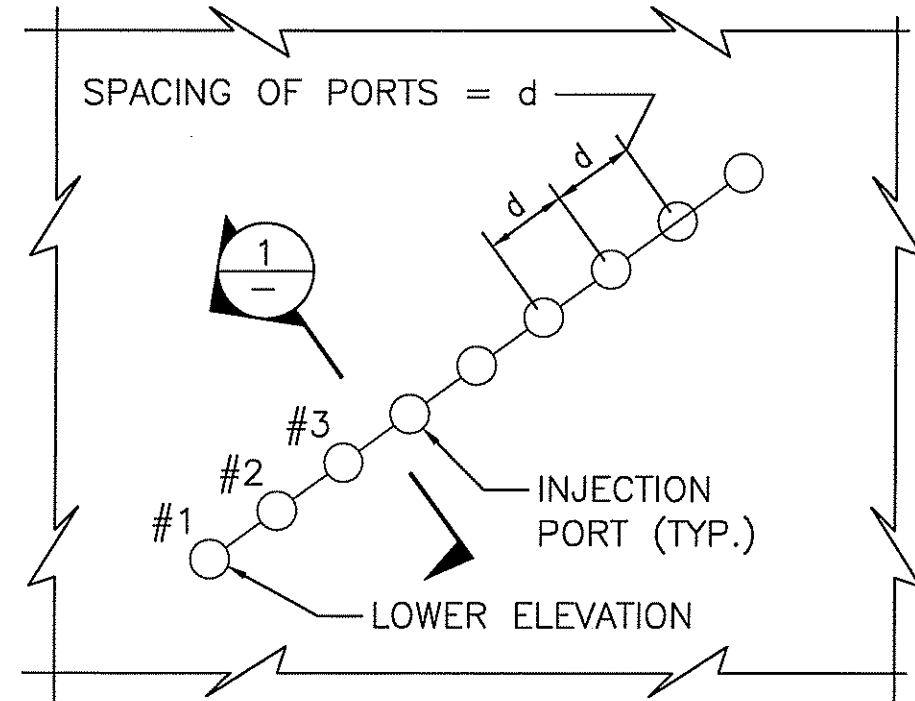
OUTMIGRATION STRUCTURE DETAILS

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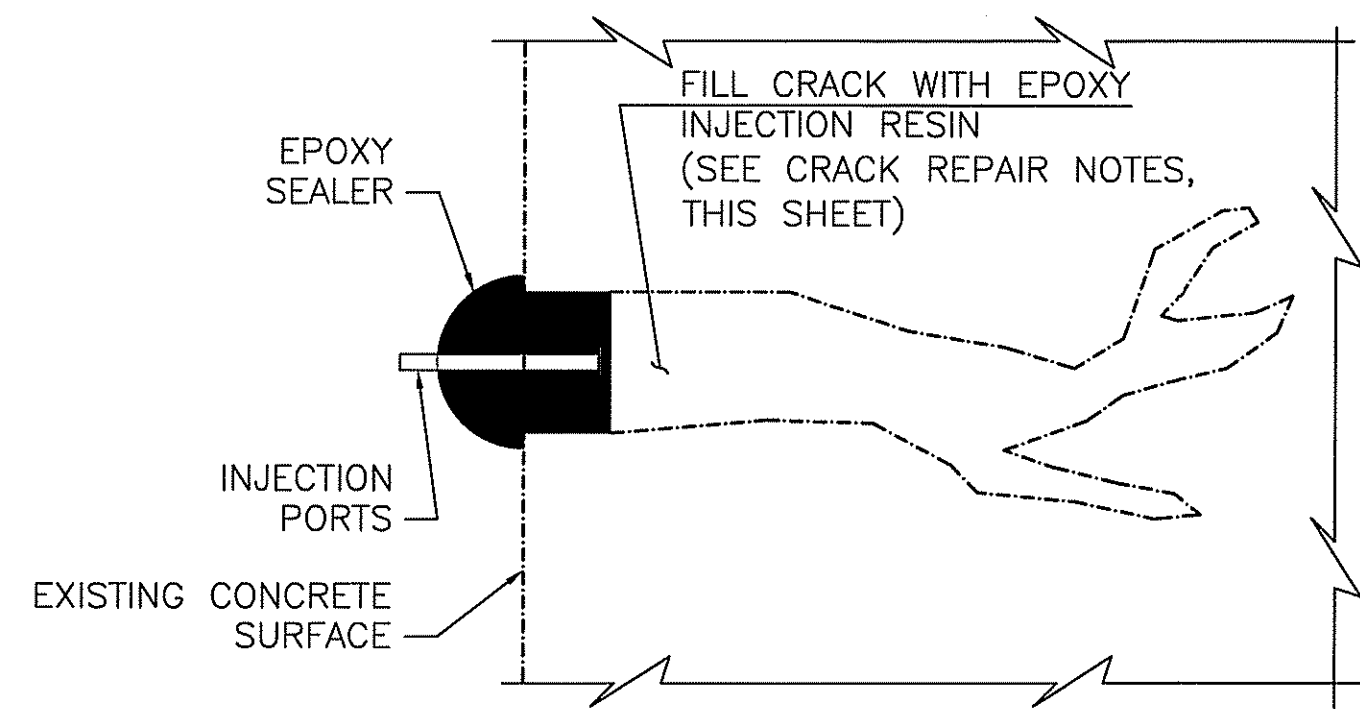
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PROJECT MANAGER: LR	SHEET No. S-4
PROJECT ENGINEER: CW	
CHECKED BY: PFK	JOB NUMBER: J11986/CM1931
DRAWN BY: MJC	
S3 Foundation Dets-Main St.dwg	

ENVIRONMENTAL MANAGEMENT
 FISHWAY AND FISH PASSAGE PROGRAM
 APPROVED WITH CONDITIONS
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 DATED FEB 8 2013 FILE # 13-0015
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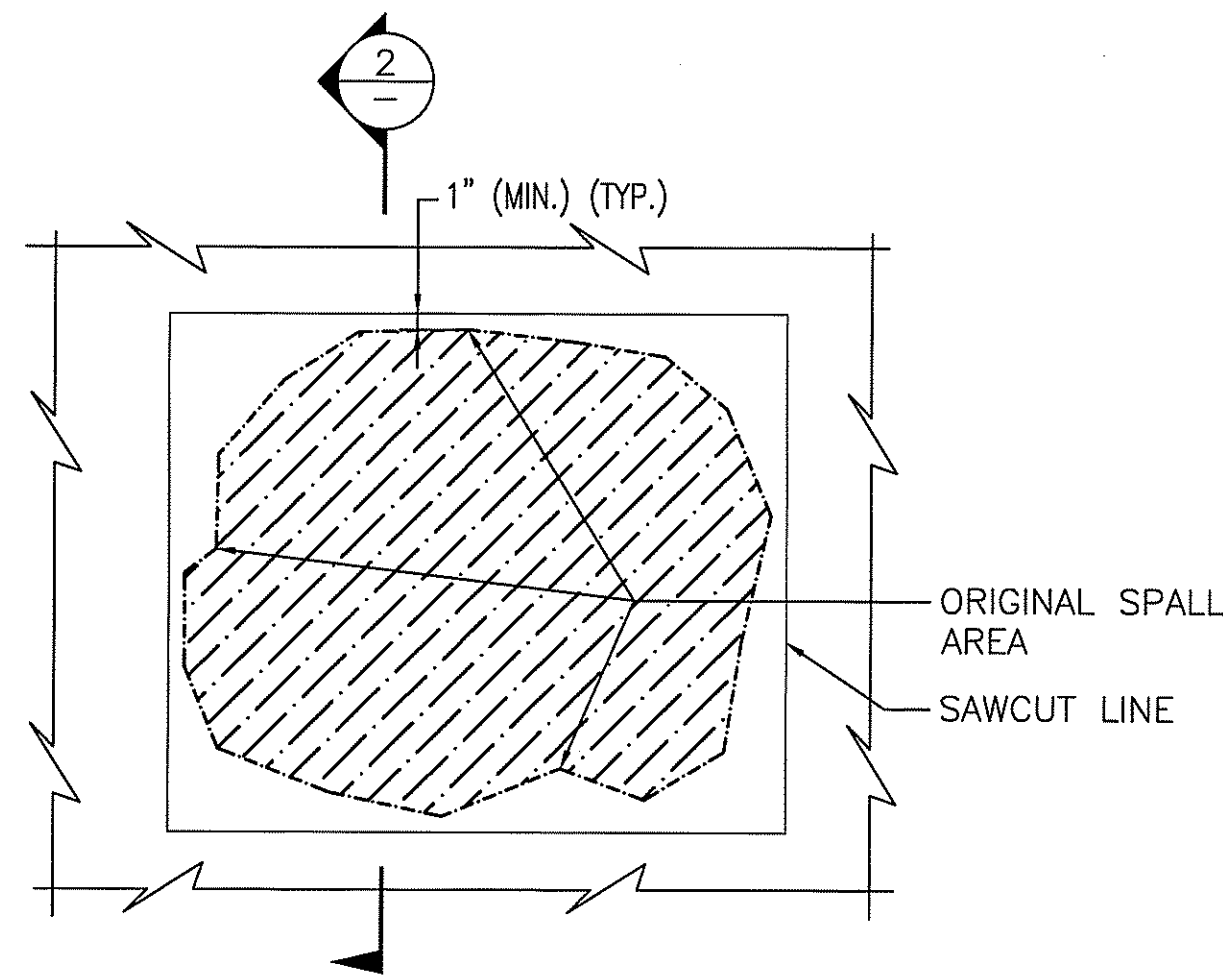
CRACK WIDTH	d
$\frac{1}{32}$ " TO $\frac{1}{8}$ "	6"
OVER $\frac{1}{8}$ "	10"



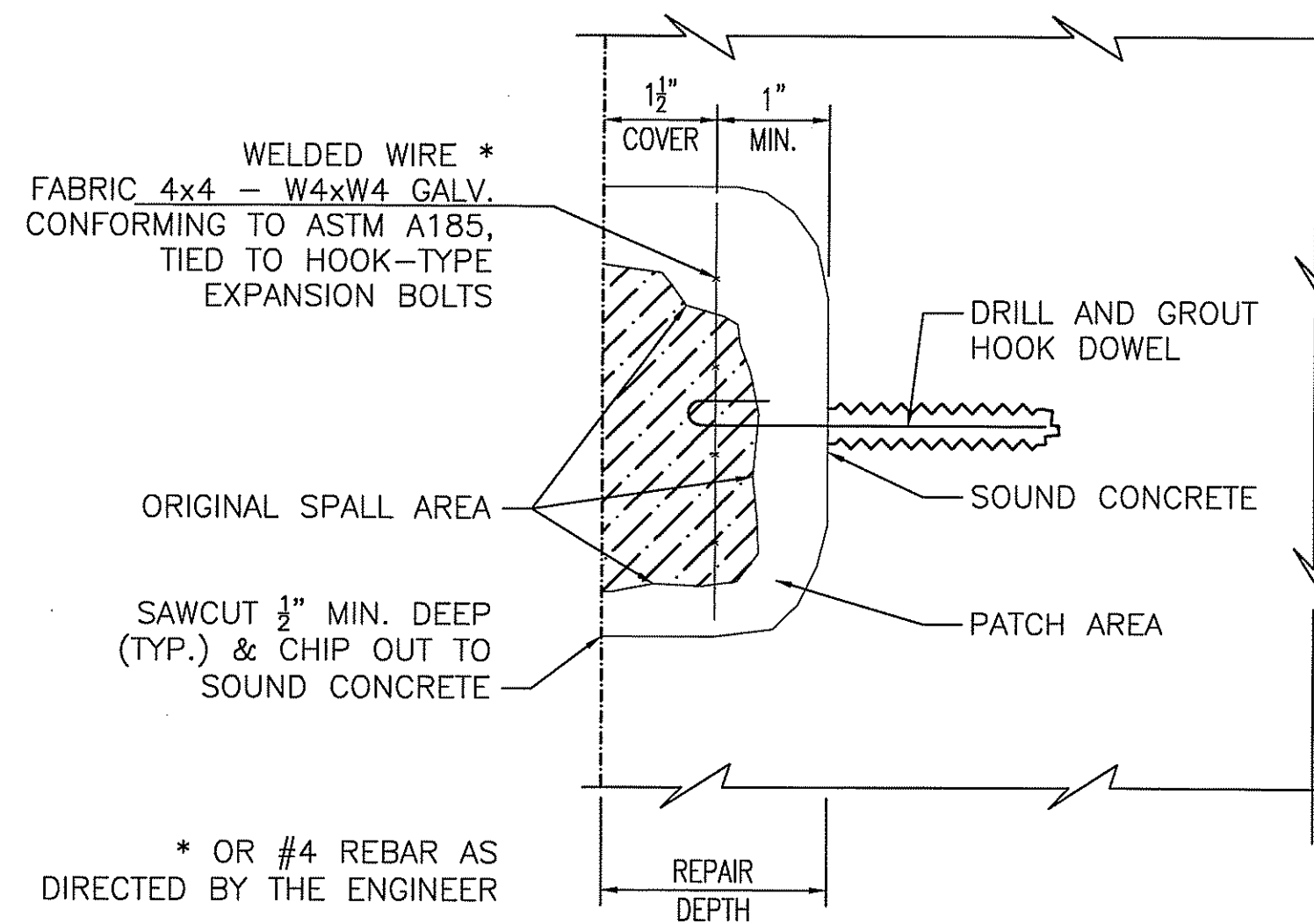
CONCRETE CRACK REPAIR DETAIL
NOT TO SCALE



SECTION 1
NOT TO SCALE



CONCRETE SPALL REPAIR DETAIL
NOT TO SCALE



SECTION 2
NOT TO SCALE

NOTES FOR EXISTING CONCRETE DETERIORATION:

CONCRETE DETERIORATION IS LOCATED AT THE EXISTING DRAIN GATE STRUCTURE AND SHALL BE REPAIRED PRIOR TO INSTALLATION OF PROPOSED OUTMIGRATION STRUCTURE. EXTENT OF CONCRETE DETERIORATION TO BE IDENTIFIED AND DETERMINED IN THE FIELD. EXTENT OF REPAIR SHALL BE APPROVED BY THE GOVERNMENT PRIOR TO THE REPAIR TAKING PLACE.

1. DETERIORATION DESIGNATION:

- CRACK - SINGLE OR INDIVIDUAL CRACK.
- SPALL - EXPOSED AGGREGATE.
- FULL DEPTH - MAP CRACKING, MISSING, HOLLOW SOUND.
- EXPANSION JOINT - MISSING JOINT MATERIAL

GENERAL NOTES FOR CONCRETE SPALL REPAIR:

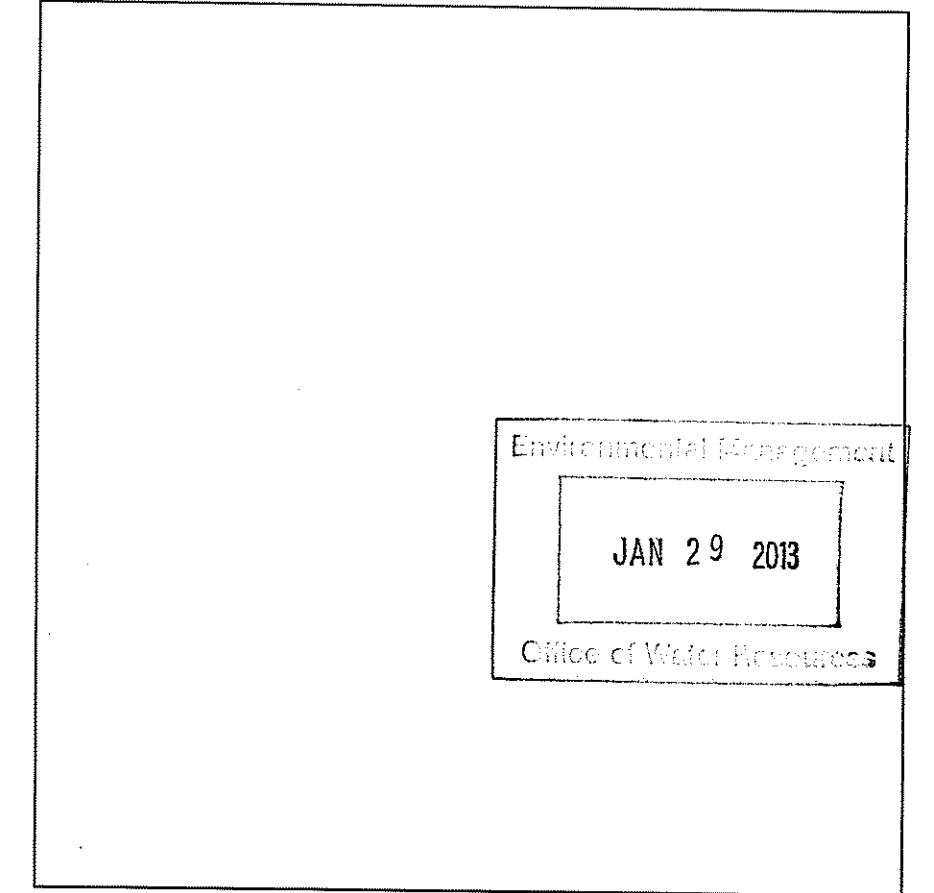
1. SAWCUT THE EDGES OF THE AREA TO BE REPAIRED $\frac{1}{2}$ " DEEP AS SHOWN ON THE REPAIR DETAILS, THIS DRAWING.
2. REMOVE ALL UNSOUND AND DETERIORATED CONCRETE.
3. CLEAN CONCRETE SURFACES TO BE REPAIRED IN ACCORDANCE WITH SPECIFICATIONS.
4. PROVIDE WELDED WIRE FABRIC AS SHOWN ON THE REPAIR DETAIL.
5. PROVIDE FORMS TO ATTAIN ORIGINAL PLUMB OR LEVEL SURFACES.
6. PLACE CONCRETE PATCH MATERIAL IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURER'S INSTRUCTIONS.
7. THE GOVERNMENT SHALL PERFORM A THOROUGH SOUNDING AND INSPECTION AND MARK THE AREAS WHICH NEED REPAIR AND DIRECT THE CONTRACTOR ABOUT THE KINDS OF REPAIR.
8. LOOSE CONCRETE SHALL BE REMOVED FROM HOLLOW AREAS AND THE RESULTING SPALLS SHALL BE REPAIRED AS DIRECTED ON THIS SHEET.
9. THE CLEANING, REMOVAL OF LOOSE CONCRETE DEBRIS AND THE FINAL REPAIR OF CONCRETE AROUND SIGNAL CABLES SHALL BE PERFORMED USING HAND TOOLS ONLY.
10. SEE SPECIAL PROVISION FOR REPAIR.

CRACK REPAIR NOTES:

1. CRACK REPAIR SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS.
2. THE INJECTION RESIN SHALL BE A POLYURETHANE RESIN INJECTION.
3. SEE SPECIAL PROVISION FOR REPAIR.

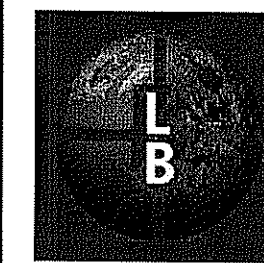
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 8 2013 FILE # 15-0015
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles N. Harte

LEGEND



REV.	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-

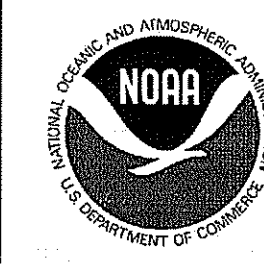
PREPARED BY:



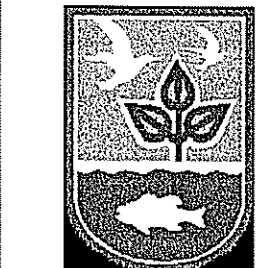
THE Louis Berger Group, INC.

ENGINEERS PLANNERS
SCIENTISTS ECONOMISTS
295 Promenade Street
Providence, Rhode Island 02908

PREPARED FOR:



National Oceanic and Atmospheric Administration
Restoration Center
28 Tarzwell Drive
Narragansett, Rhode Island 02882



Rhode Island Department of Environmental Management
277 Great Neck Rd, West Kingstown,
Rhode Island 02892

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SAUGATUCKET RIVER FISH PASSAGE
IMPROVEMENTS
Town of South Kingstown, Rhode Island
MAIN STREET DAM SITE

**PROPOSED FISH PASSAGE
CONCRETE REPAIR DETAILS**

SHEET TITLE:		DATE: DECEMBER 2012	
SCALE:	AS SHOWN		
PROJECT MANAGER:	LR		
PROJECT ENGINEER:	CW		
CHECKED BY:	PFK	SHEET No.	
DRAWN BY:	MJC	S-5	
JOB NUMBER:	J1986/CM1931		