

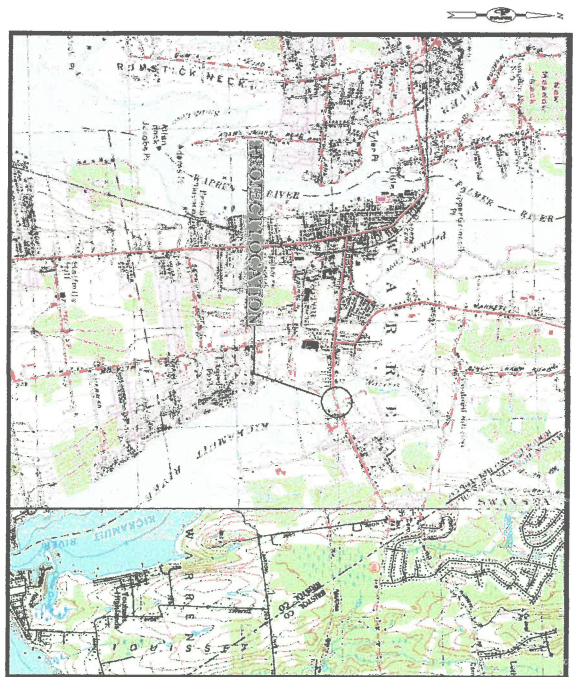
PERMIT SUBMISSION
NOT FOR CONSTRUCTION

Prepared for The:
BRISTOL COUNTY WATER AUTHORITY
LOWER KICKEMUIT RESERVOIR DAM REMOVAL
(WARREN RESERVOIR LOWER DAM)
RI / 479



WARREN, RHODE ISLAND
AUGUST 2021
REVISED MARCH 10, 2022
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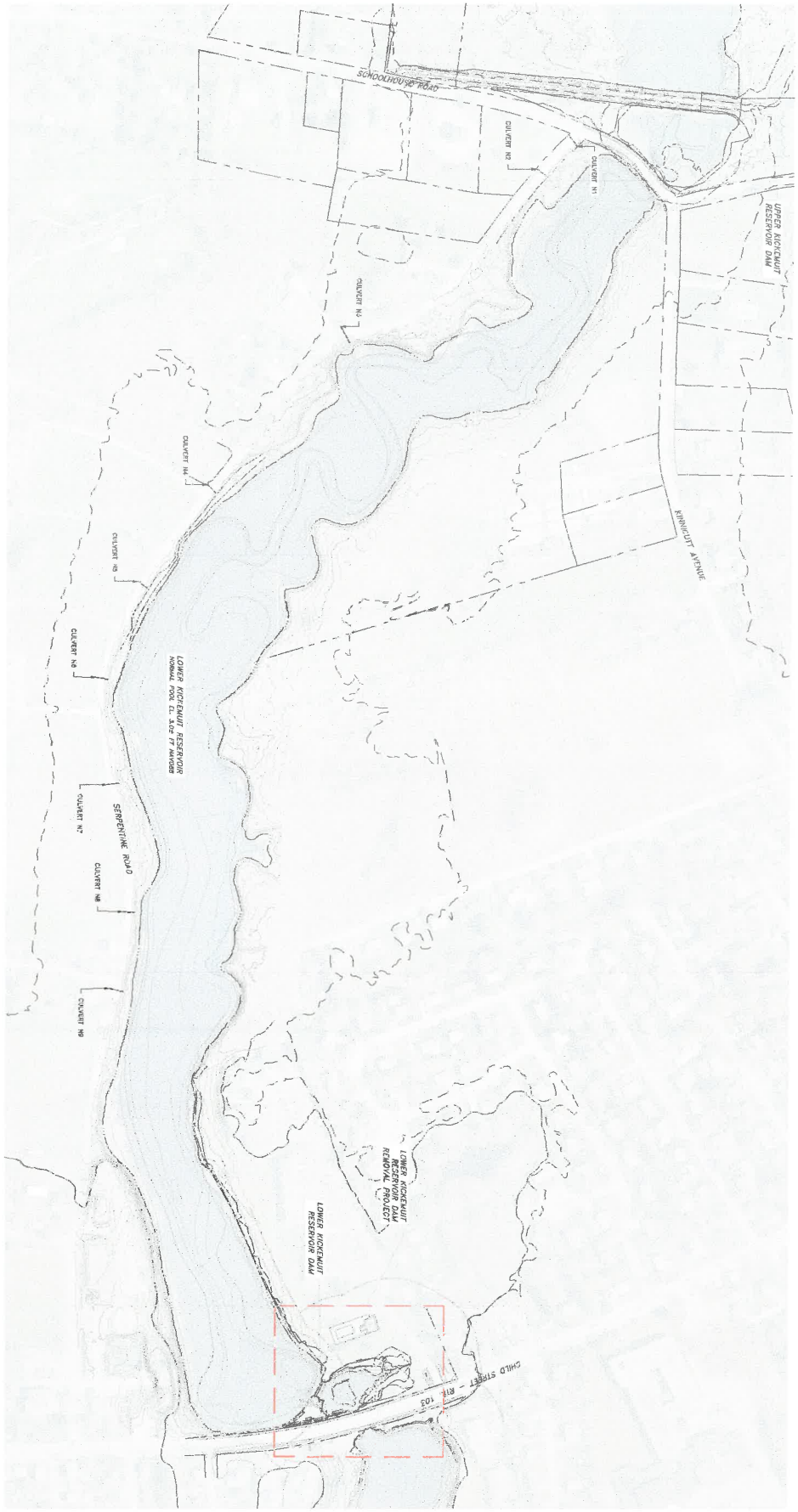
LOCUS PLAN
SCALE: 1" = 200'



AERIAL PLAN
SCALE: 1" = 400'

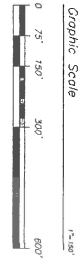
Prepared by:
PARE CORPORATION
Foxboro, Massachusetts





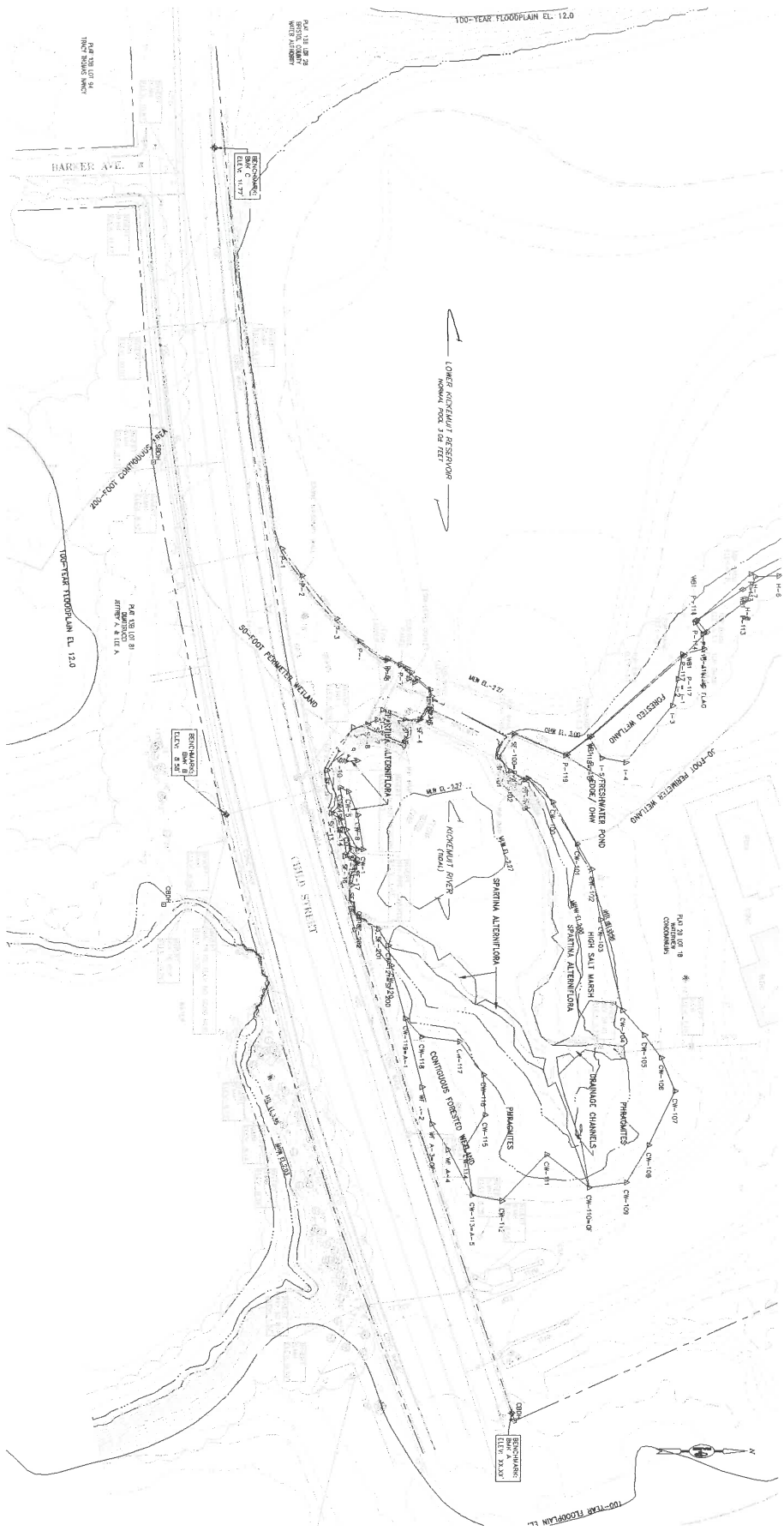
**OVERVIEW OF LOWER KICKEMUIT RESERVOIR
EXISTING CONDITIONS**

SCALE: 1"=100'



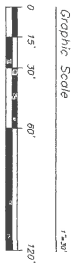
**PERMIT SUBMISSION
NOT FOR CONSTRUCTION**

	<p>LOWER KICKEMUIT RESERVOIR DAM REMOVAL RI / 479 WARREN, RHODE ISLAND</p> <p>OWNER: BRISTOL COUNTY WATER AUTHORITY</p>	<p>SCALE & EQUIPMENT: 1" = 100' BAM IS OVER ENOUGH DRAWING SCALES:</p>	<p>PARE PAUL R. ANDERSON REGISTERED PROFESSIONAL ENGINEER 1170 WASHINGTON STREET PROVIDENCE, RI 02908 PHONE: 401.333.8888 FAX: 401.333.8889</p>									
<p>REVISIONS:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>										<p>PROJECT NO.: 1061727 SCALE: 1"=100' DATE: 04/28/2011 DESIGNED BY: JMB CHECKED BY: JMB DRAWN BY: JMB APPROVED BY: JMB</p>		<p>OVERVIEW OF LOWER KICKEMUIT RESERVOIR</p> <p>SHEET NO.: 2.0 3 OF 11</p>



EXISTING CONDITIONS PLAN

SCALE: 1"=40'



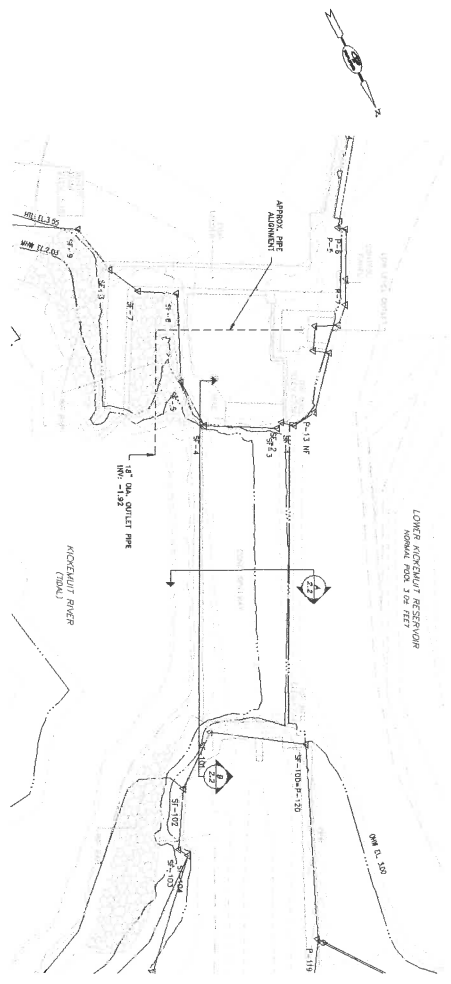
PERMIT SUBMISSION
NOT FOR CONSTRUCTION

PROJECT NO.	1421727
DATE	AUGUST 2012
SCALE	AS SHOWN
DESIGNED BY	CSH/SND
CHECKED BY	JMG
DRAWN BY	JMG
APPROVED BY	JMG

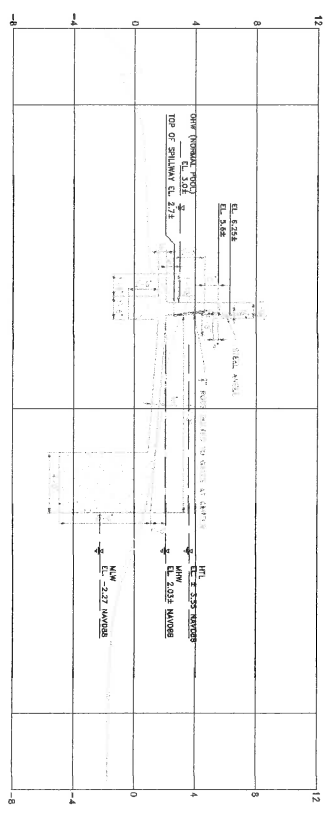


LOWER KICKEMUIT RESERVOIR DAM REMOVAL
RI / 479
WARREN, RHODE ISLAND
OWNER: BRISTOL COUNTY WATER AUTHORITY

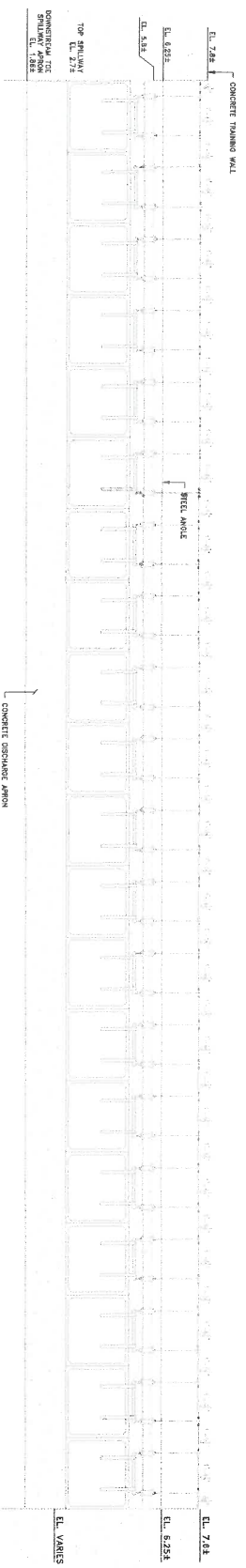




EXISTING SPILLWAY PLAN
SCALE: 1"=60'



SECTION A - SPILLWAY CROSS SECTION
SCALE: 1"=2'




SECTION B - SPILLWAY FLAPGATES
SCALE: 1"=2'

NOTES:

1. DESIGN HAS BEEN ON RECORD, DRAWING TITLE "KICKEMUIT RESERVOIR - DETAILS OF NEW SPILLWAY FLAPGATES" FOR THE PROJECT OF THE BRISTOL COUNTY WATER AUTHORITY COMPANY OF NEW YORK, NEW YORK, AND DATED OCTOBER 7, 1933.

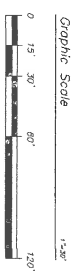
PERMIT SUBMISSION
NOT FOR CONSTRUCTION

 <p>PARE ENGINEERING PAINE CORPORATION INCORPORATED IN ARIZONA 1700 W. BROADWAY PHOENIX, ARIZONA 85001 (602) 251-1100</p>	<p>OWNER: BRISTOL COUNTY WATER AUTHORITY</p>												
	<p>NO. 7587 REGISTERED PROFESSIONAL ENGINEER</p>												
<p>PROJECT NO. 132127 DATE: 12/15/07 SCALE: AS NOTED DESIGNED BY: BMO CHECKED BY: JMB DRAWN BY: JMC APPROVED BY: JMB</p>	<p>4 LIGHTER BELLE REGISTERED PROFESSIONAL ENGINEER NO. 7587</p>												
<p>REVISIONS:</p> <table border="1"> <tr> <td>NO.</td> <td>DATE</td> <td>DESCRIPTION</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DATE	DESCRIPTION										<p>LOWER KICKEMUIT RESERVOIR DAM REMOVAL RI / 479 WARREN, RHODE ISLAND</p>
NO.	DATE	DESCRIPTION											
<p>EXISTING SPILLWAY PLAN SHEET NO. 2.2 5 OF 11</p>	<p>SCALE: AS NOTED 1" = 10' 1" = 20' 1" = 40' 1" = 80' 1" = 160'</p>												



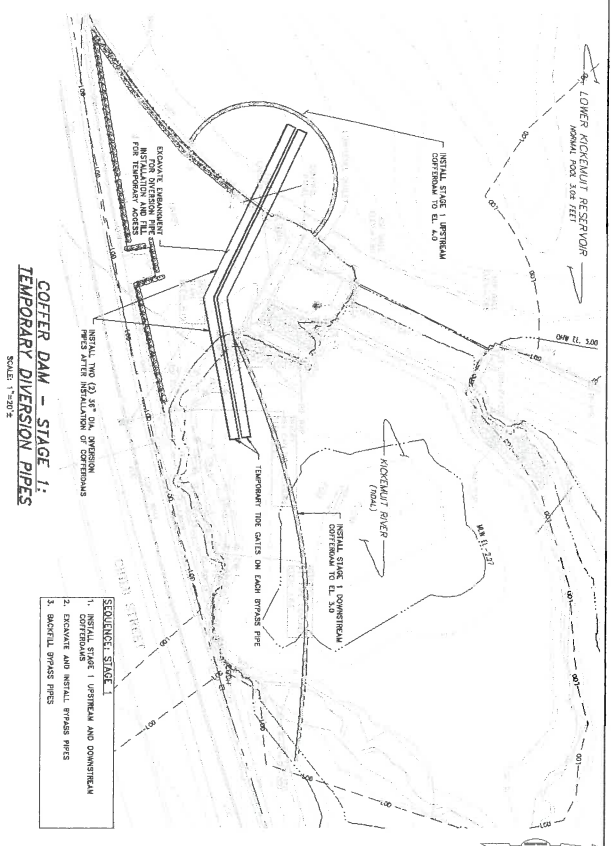
SITE ACCESS PLAN
SCALE: 1"=500'

RECEIVED
MARCH 24, 2025
BRISTOL COUNTY ENGINEERING
MANAGEMENT BOARD



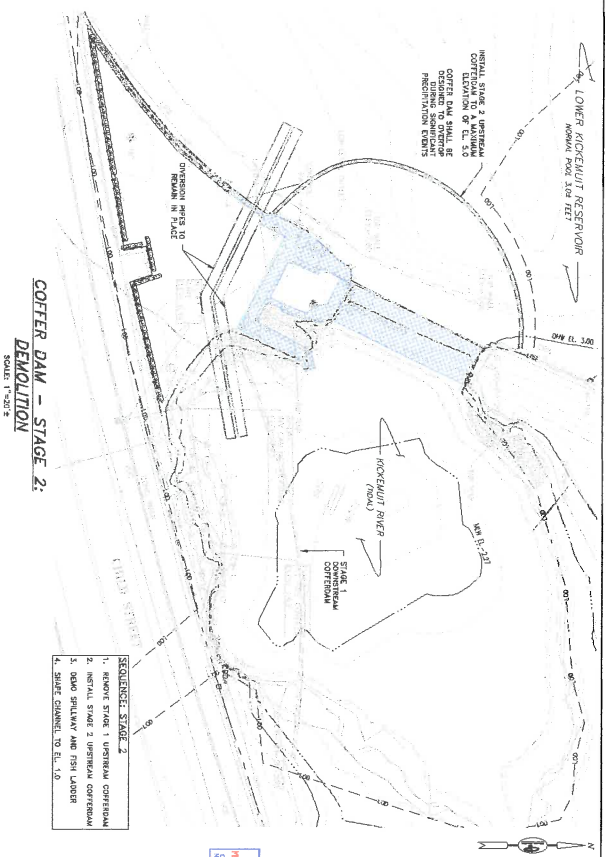
PERMIT SUBMISSION
NOT FOR CONSTRUCTION

	LOWER KICKEMUIT RESERVOIR DAM REMOVAL RI / 479 WARREN, RHODE ISLAND OWNER: BRISTOL COUNTY WATER AUTHORITY		SCALE: AS SHOWN 1" = 500' SEE SHEET FOR DIMENSIONS AND NOTES.	 PARE PAINE CORPORATION ENGINEERS - SCIENTISTS - ARCHITECTS 1000 WEST MAIN STREET PROVIDENCE, RHODE ISLAND 02903 TEL: 401-863-1000
	REVISIONS:	PROJECT NO.: 14637127 DATE: AUGUST 2021 SCALE: AS SHOWN DESIGNED BY: SJK/SMB CHECKED BY: JMC DRAWN BY: JMC APPROVED BY: JMB		



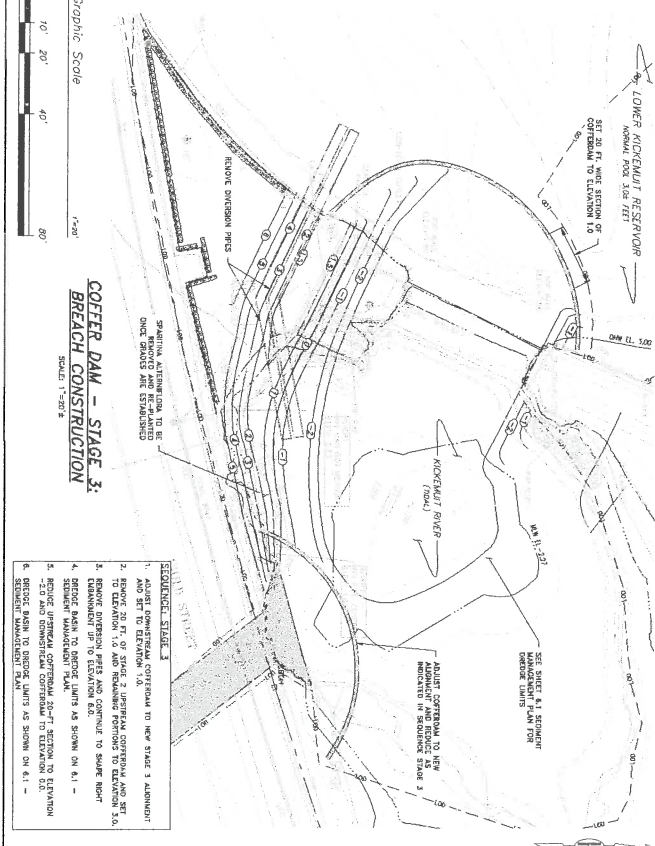
**COFFER DAM - STAGE 1:
TEMPORARY DIVERSION PIPES**
SCALE: 1"=30'-0"

- SEQUENCE STAGE 1**
1. INSTALL STAGE 1 UPTERIAL AND DOWNTERIAL CONCRETE DAM TO EL. 3.0
 2. EXCAVATE AND INSTALL PIPES
 3. REMOVE BRIDGE PILES



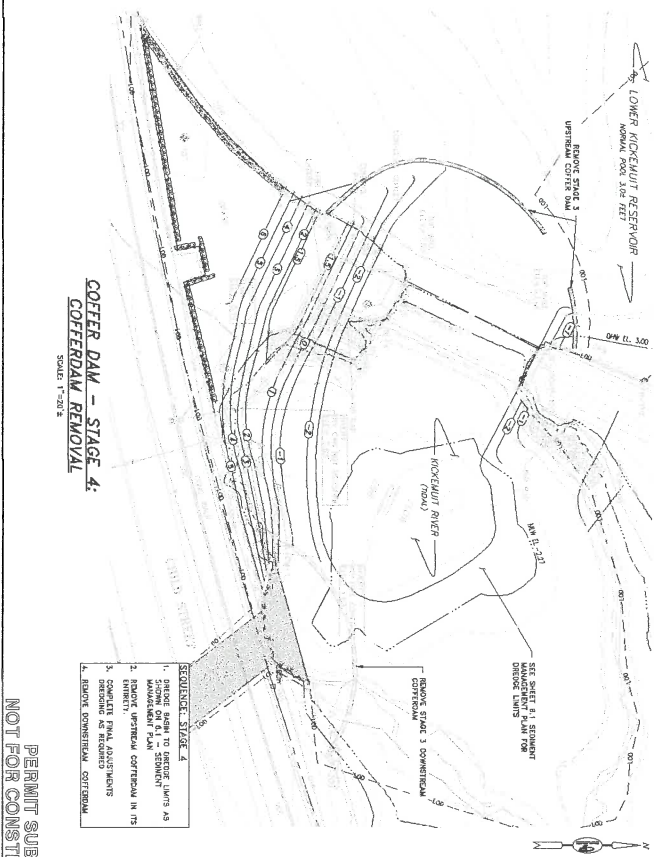
**COFFER DAM - STAGE 2:
DEMOLITION**
SCALE: 1"=30'-0"

- SEQUENCE STAGE 2**
1. REMOVE STAGE 1 UPTERIAL CONCRETE DAM
 2. INSTALL STAGE 2 UPTERIAL CONCRETE DAM
 3. DAM SHELTER AND FISH LAUNCH
 4. SHUT CHANNEL TO EL. 1.0



**COFFER DAM - STAGE 3:
BREACH CONSTRUCTION**
SCALE: 1"=30'-0"

- SEQUENCE STAGE 3**
1. REMOVE STAGE 2 UPTERIAL CONCRETE DAM AND SET TO ELEVATION 1.0
 2. REMOVE 20 FT. OF STAGE 2 UPTERIAL CONCRETE DAM AND SET TO ELEVATION 1.0 AND REMOVE PILES TO ELEVATION 3.0
 3. DEMOLISH PILES TO ELEVATION 3.0
 4. REMOVE BASH TO BRIDGE LUMS AS SHOWN ON A.1 - SEQUENCE DEMOLITION PLAN
 5. REMOVE UPTERIAL CONCRETE DAM TO ELEVATION 1.0
 6. REMOVE BASH TO BRIDGE LUMS AS SHOWN ON A.1 - SEQUENCE DEMOLITION PLAN



**COFFER DAM - STAGE 4:
COFFERDAM REMOVAL**
SCALE: 1"=30'-0"

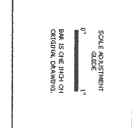
- SEQUENCE STAGE 4**
1. REMOVE STAGE 3 UPTERIAL CONCRETE DAM TO EL. 1.0
 2. REMOVE STAGE 3 UPTERIAL CONCRETE DAM TO EL. 1.0
 3. COMPLETE FINAL ASSESSMENTS
 4. REMOVE UPTERIAL CONCRETE DAM

**PERMIT SUBMISSION
NOT FOR CONSTRUCTION**

PROJECT NO.	1402727
NO. OF SHEETS	2
SCALE	AS SHOWN
DESIGNED BY	CSH/SND
CHECKED BY	2MS
DRAWN BY	LVC
APPROVED BY	2MS
CONTROL OF WATER PLAN	
SHEET NO.	2.4
	1 OF 11

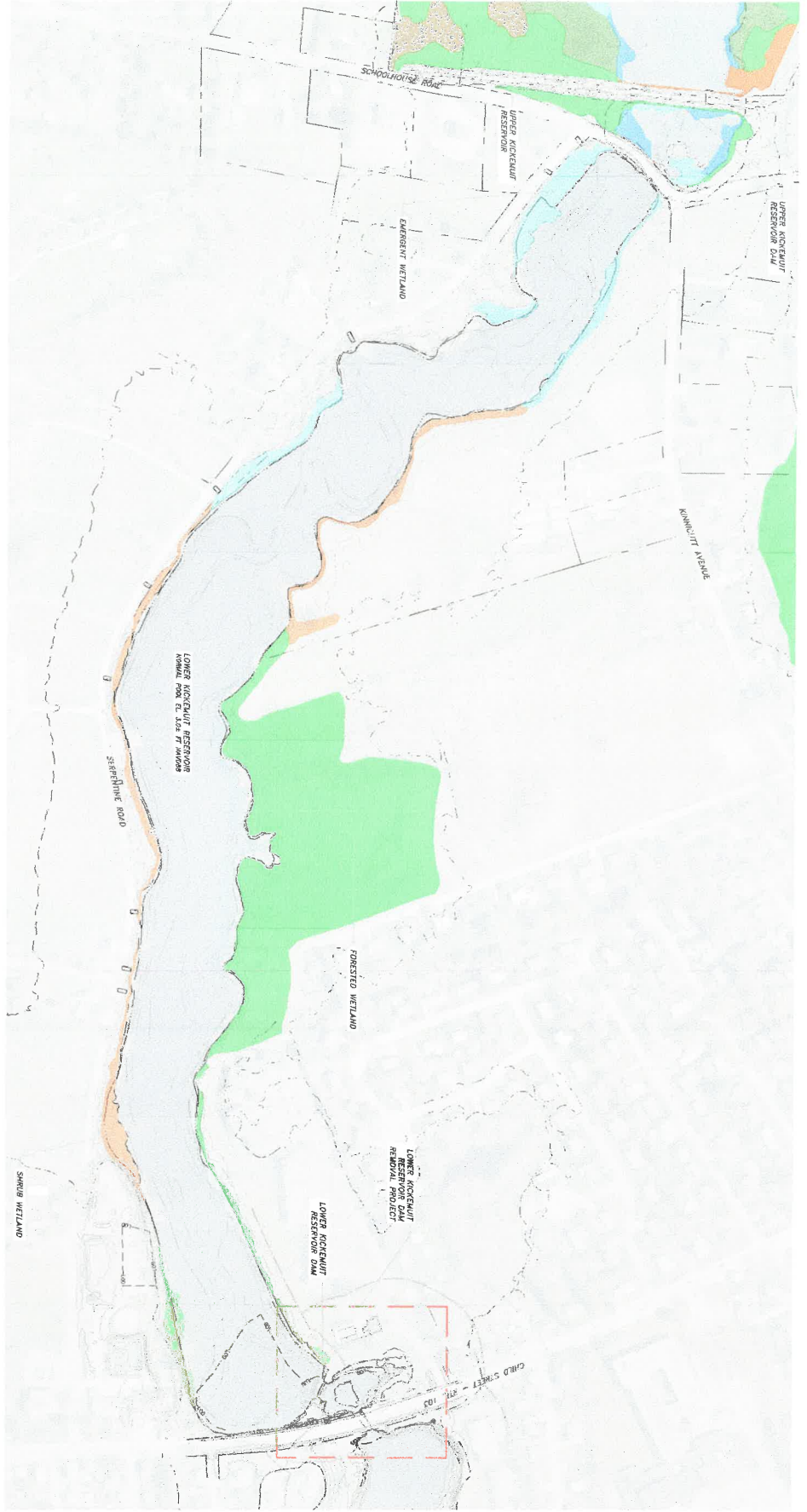


LOWER KICKEMUIT RESERVOIR DAM REMOVAL
RI / 479
WARREN, RHODE ISLAND
OWNER: BRISTOL COUNTY WATER AUTHORITY



SCALE: AS SHOWN
DATE: 03/06/14
BY: J. MATTHEW REIBLE
FOR: BRISTOL COUNTY WATER AUTHORITY

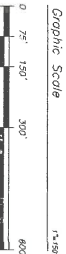




- OPEN WATER WETLANDS
- PONDING - LOWER KICKEMUIT RESERVOIR
- VEGETATED WETLANDS
- PONDING - EMERGENT FRESHWATER WETLANDS
- PONDING - PONDING
- PROIB - FORESTED SWAMP, SATURATED
- PROIB - FORESTED SWAMP, SEASONALLY FLOODED
- PERIB - SWAMP WETLAND
- PERIB - BATTURISH

EXISTING WETLAND PLAN

SCALE: 1" = 100'



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PROJECT NO.	1487107
DATE	4/20/2011
SCALE	AS SHOWN
DESIGNED BY	SKB
CHECKED BY	JAC
DRAWN BY	JAC
APPROVED BY	JAC
EXISTING WETLAND PLAN	
SHEET NO.	5.0
11 OF 11	



LOWER KICKEMUIT RESERVOIR DAM REMOVAL
 RI / 479
 WARREN, RHODE ISLAND
 OWNER: BRISTOL COUNTY WATER AUTHORITY

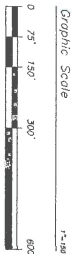
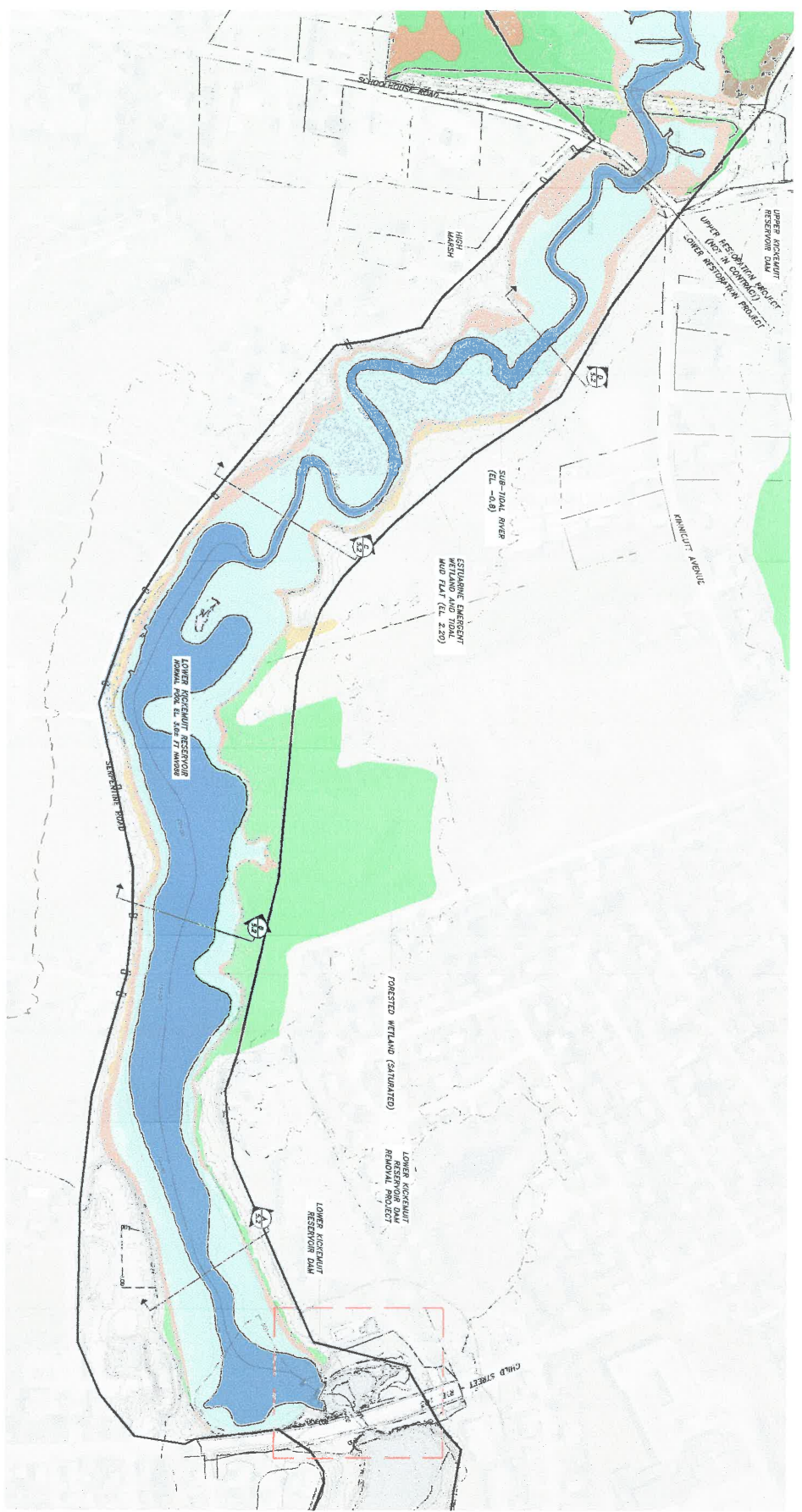


- EXISTING CONDITIONS INUNDATION LIMITS**
- PROPOSED WETLANDS COVENANT CLASSIFICATION**
- EFM1P3 - HIGH MARSH
 - PF01E - PHRAGMITES
 - PF01B - FORESTED SWAMP, SATURATED
 - PF01C - FORESTED SWAMP, SEASONALLY FLOODED
 - PF01D - SHRUB WETLAND
 - PF01E - EMERGENT CATTAIL MARSH
 - PF01F - RIVERINE TIDAL
 - EFM1U3 - ESTUARINE EMERGENT/ TIDAL FLAT

- NOTES**
- RETURNS TO MANUALLY REMOVE ONCE TIDAL SCHEME IS IMPLEMENTED SEE SHEET 83 - PLANNING PLAN FOR PROPOSED PLANNING

PROPOSED WETLAND PLAN

SCALE: 1" = 100'



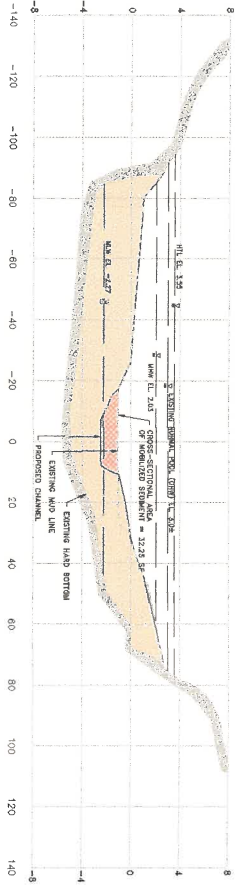
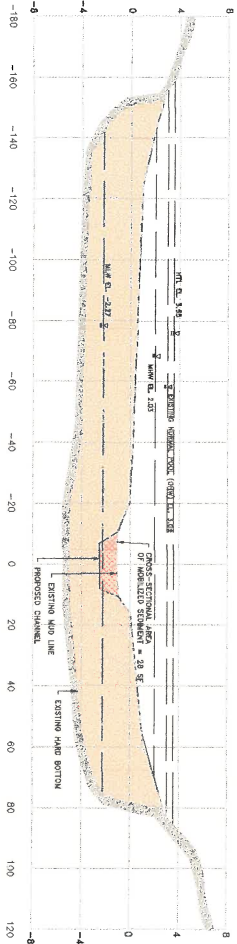
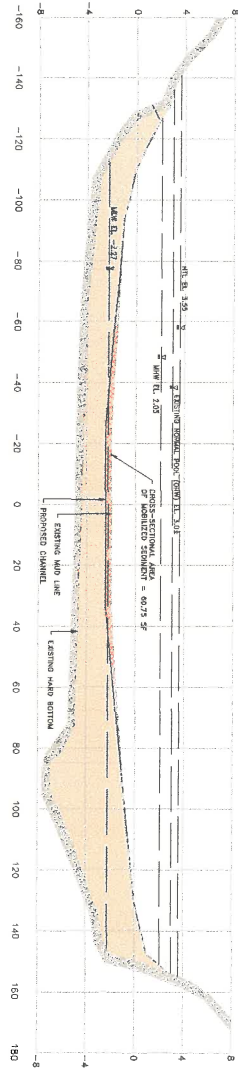
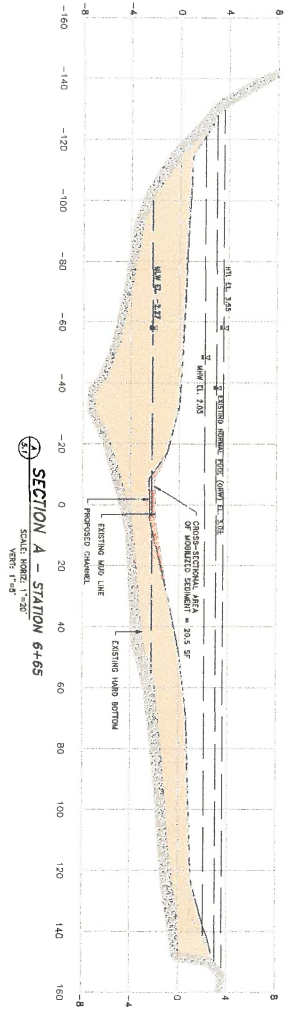
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PROJECT NO.	148177
DATE	06/28/2006
SCALE	AS SHOWN
DESIGNED BY	DMG
CHECKED BY	DMG
DRAWN BY	DMG
APPROVED BY	DMG
PROPOSED WETLAND CONDITIONS	
SHEET NO.	5.1
	12 OF 14



LOWER KICKEMUIT RESERVOIR DAM REMOVAL
 RI / 479
 WARREN, RHODE ISLAND
 OWNER: BRISTOL COUNTY WATER AUTHORITY



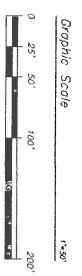
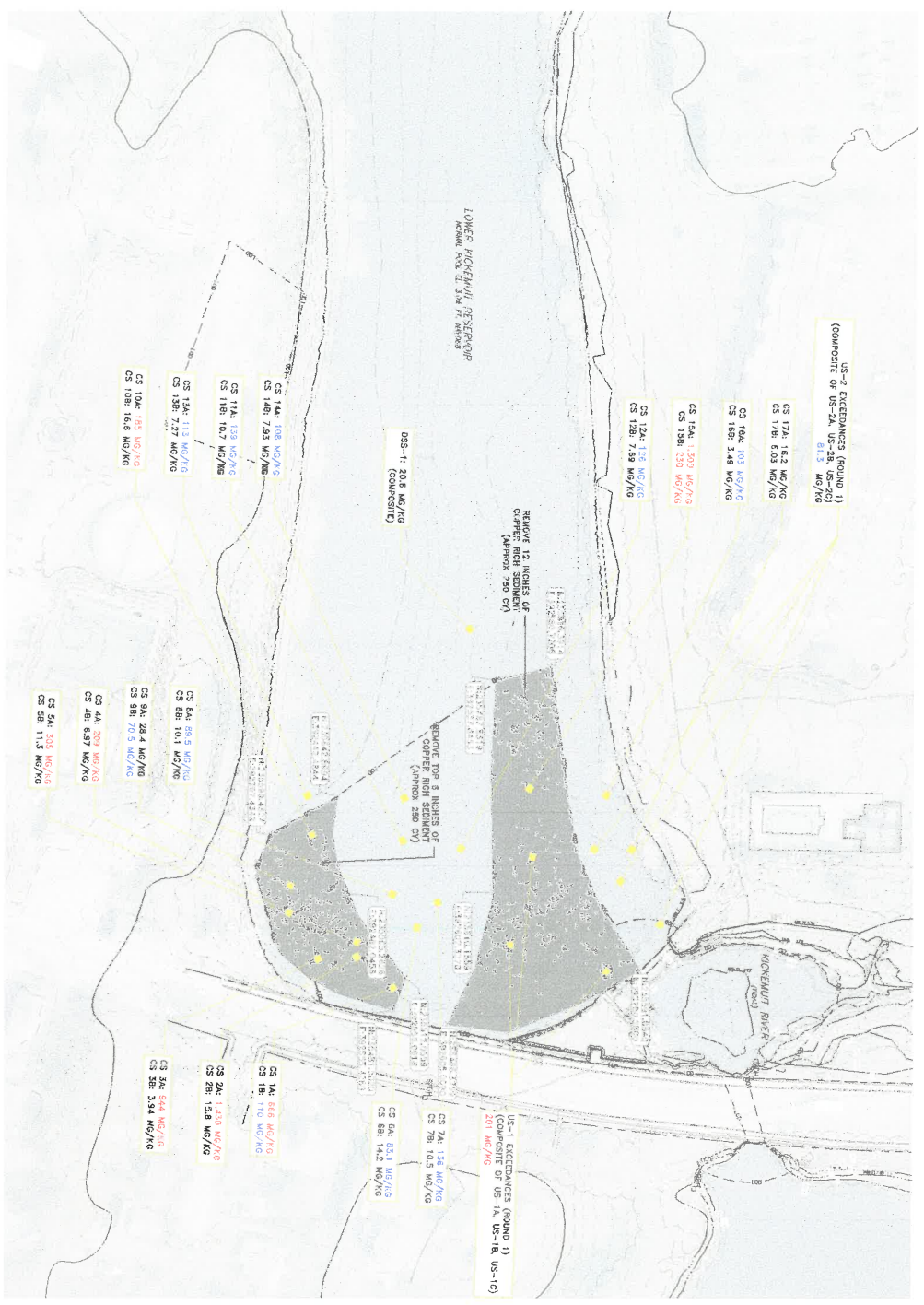


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1 DARTMOUTH BRIDGE	
REGISTERED PROFESSIONAL ENGINEER	
No. 7887	
WARREN, RHODE ISLAND	
REVISIONS:	
PROJECT NO.	10817/07
DATE	06/25/2011
SCALE	AS SHOWN
DESIGNED BY	AKB
CHECKED BY	JMB
DRAWN BY	JMB
APPROVED BY	JMB
PROPOSED WETLAND CONDITIONS	
IMPOUNDMENT SECTIONS	
SHEET NO.	5.2
13 OF 14	

LOWER KICKEMUIT RESERVOIR DAM REMOVAL
 RI / 479
 WARREN, RHODE ISLAND
 OWNER: BRISTOL COUNTY WATER AUTHORITY

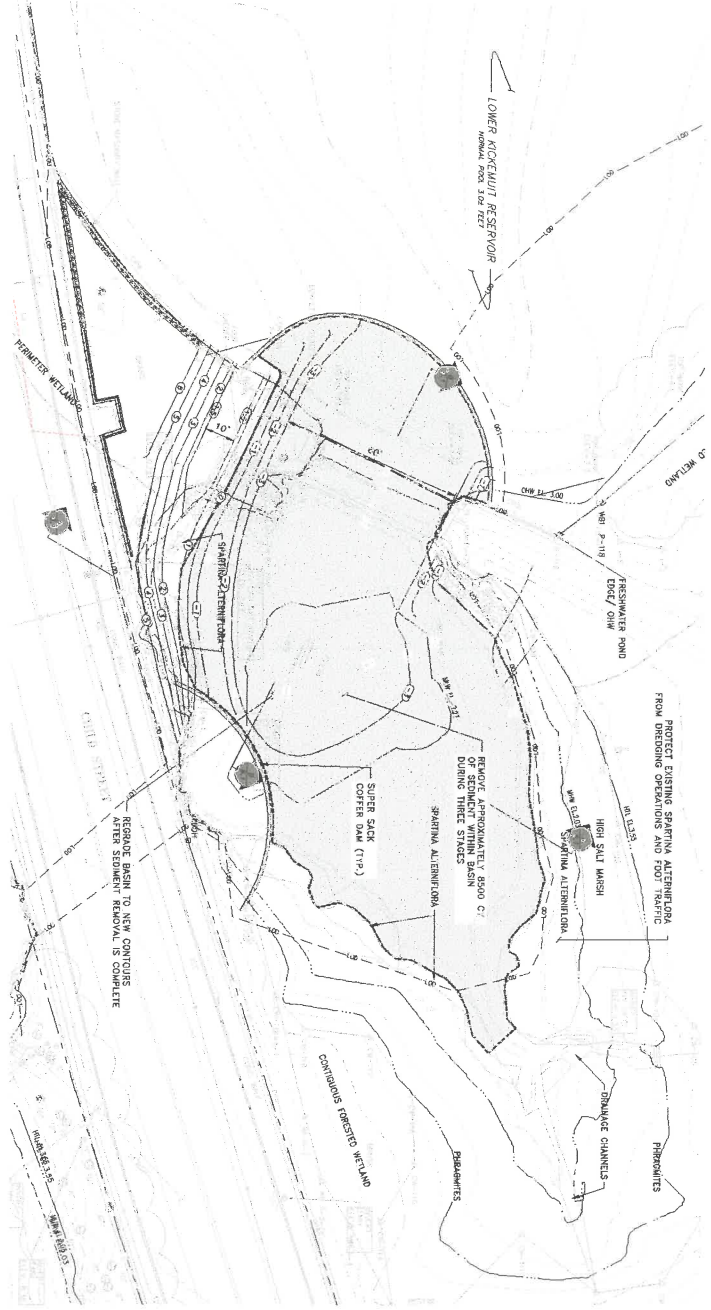




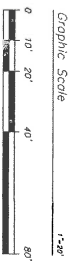
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	PROJECT NO.: 1087127 SCALE: AS SHOWN DESIGNED BY: JSC/BMO CHECKED BY: JMB DRAWN BY: JMC APPROVED BY: JMB	4 MILLER DRIVE NO. 7587 REGISTERED PROFESSIONAL ARCHITECT WARREN, RHODE ISLAND	LOWER KICKEMUIT RESERVOIR DAM REMOVAL RI / 479 WARREN, RHODE ISLAND OWNER: BRISTOL COUNTY WATER AUTHORITY	SOIL EQUIPMENT 0" = 1" BM IS ORIENTATION OTHER IS SCALE	IMPACTED SOIL REMOVAL PLAN SHEET NO.: 6.0 1L OF 1L
	REVISIONS:	RECEIVED MARCH 4, 2008 DEPARTMENT OF ENVIRONMENTAL MANAGEMENT	NOT FOR CONSTRUCTION PERMIT SUBMISSION	RECEIVED MARCH 4, 2008 DEPARTMENT OF ENVIRONMENTAL MANAGEMENT	RECEIVED MARCH 4, 2008 DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

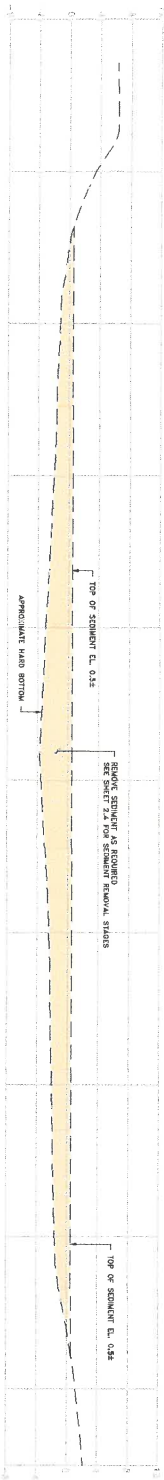


SEDIMENT MANAGEMENT PLAN
SCALE: 1"=300'



NOTES:

1. THE VOLUME OF SEDIMENT CAPTURED WITHIN THE SEDIMENT CONTAINMENT BASIN SHALL BE QUANTIFIED AT EACH STAGE TO ENSURE PROPER SEDIMENT MANAGEMENT. THE VOLUME OF SEDIMENT CAPTURED IN THE SEDIMENT BASIN ON LACK OF MOBILIZED SEDIMENT SHALL BE ESTABLISHED BEFORE THE COMPLETION OF THE SEDIMENT MANAGEMENT PLAN.
2. OFFICE PLANS TO BE REVIEWED IN PLACE FOR SEDIMENT MANAGEMENT. PLEASE REFER TO SHEET 2.4 - CONTROL OF WATER FLOW FOR DETAILS.
3. THE SEDIMENT BASIN SHALL BE DESIGNED AS NEEDED TO ALLOW FLOW THROUGH THE BASIN. THE BASIN WILL NEED TO BE DESIGNED APPROXIMATELY 100% FULL TO COMPLETE CONTROLLED SEDIMENT MOBILIZATION.
4. DREDGING SHALL BE REMOVED VIA MECHANICALLY DREDGING THE MATERIAL TO THE DREDGING AREA AND TRANSPORTING TO BE STORED OFFSITE TO DREDGE MATERIAL AND /OR THE DREDGING MATERIAL FROM THE SEDIMENT BASIN TO BE DREDGING OPERATIONS) ARE TO HAVE WATER TIGHT SEALS TO PREVENT SEDIMENT FROM BEING TRANSPORTED TO THE BASIN. DREDGING SHALL BE TRANSPORTED OFFSITE AND DUMPED AT THE FORMER BOWA WATER TREATMENT PLANT AT 472 CHUD STREET. SEE SHEET 02 - SEDIMENT DREDGING PLAN FOR DREDGING PLAN.



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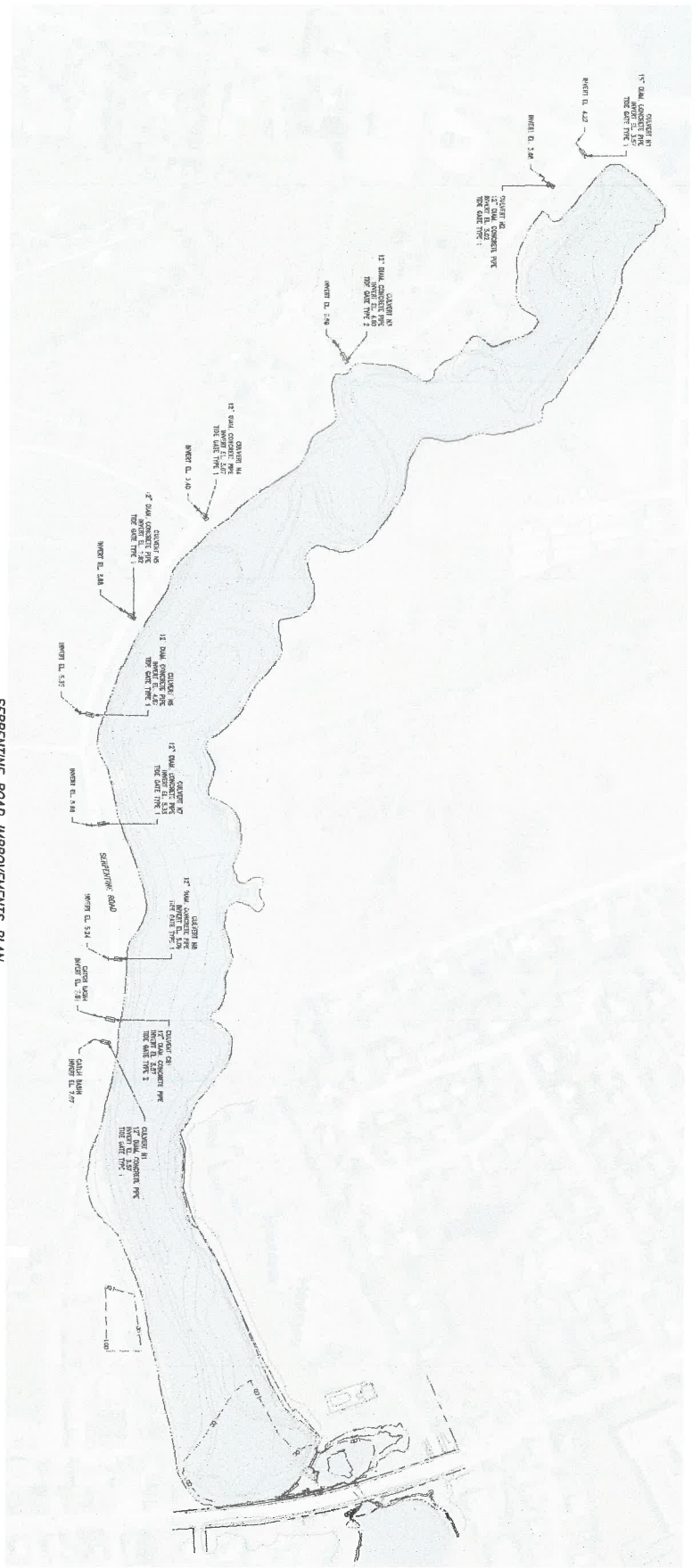
PROJECT NO.	1607127
DATE	06/23/2017
SCALE	AS SHOWN
DESIGNED BY	SCS/MSD
CHECKED BY	2MS
DRAWN BY	JAC
APPROVED BY	2MS
SEDIMENT MANAGEMENT PLAN	
SHEET NO.	6.1
	15 OF 16



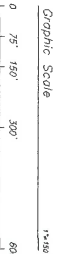
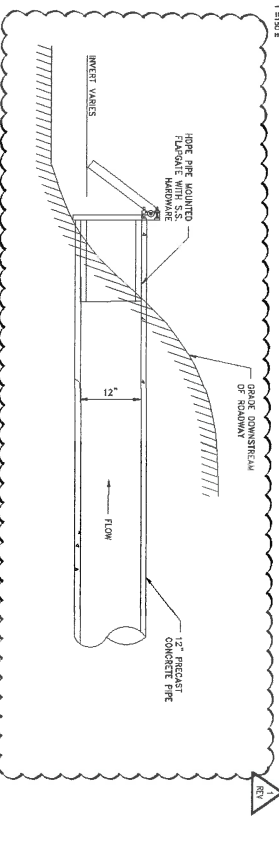
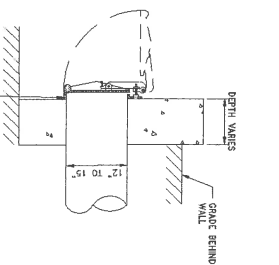
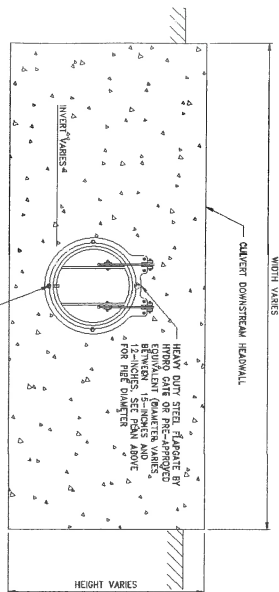
LOWER KICKEMUIT RESERVOIR DAM REMOVAL
RI / 479
WARREN, RHODE ISLAND
OWNER: BRISTOL COUNTY WATER AUTHORITY

PARTE
PAVE CORPORATION
1000 STATE AVENUE
BOSTON, MA 02115
TEL: 617.552.1234
WWW.PARTE.COM

SCALE: AS SHOWN
DATE: 06/23/17
DRAWN BY: JAC
CHECKED BY: 2MS
APPROVED BY: 2MS



SERPENTINE ROAD IMPROVEMENTS PLAN
SCALE: 1"=50'



- NOTES AND LEGEND:**
1. CONFIGURATION OF FLAP (COVER) VASERS WITH SIZE OF GATE.
 2. ANCHOR BOLTS TO BE STAINLESS STEEL, 4X75, TOP SIDE.
 3. ANCHOR BOLTS TO BE STAINLESS STEEL, 4X75, BOTTOM SIDE.
 4. GROUT TO BE NON-SHRINK GROUT.

TIDE GATE TYPE 1
SCALE: 1"=10'

TIDE GATE TYPE 2
SCALE: 1"=10'

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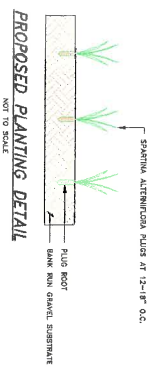
PROJECT NO.	1462709
DATE	05/20/14
SCALE	AS SHOWN
DESIGNED BY	CS/STG
CHECKED BY	3MG
DRAWN BY	UNC
APPROVED BY	3MG
SHEET NO.	7.0
DATE	12.07.14

LOWER KICKEMUIT RESERVOIR DAM REMOVAL
RI / 479
WARREN, RHODE ISLAND
OWNER: BRISTOL COUNTY WATER AUTHORITY

SCALE ADJUSTMENT
DATE: 12/07/14
BY: ST/CE/AN/JON
CHECKED BY: ST/CE/AN/JON

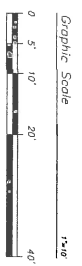
PARE
PAVE CORPORATION
1000 STATE STREET
PROVIDENCE, RI 02902
TEL: 401-845-1100





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 MARCH 14, 2023
 BRISTOL COUNTY WATER AUTHORITY

PLANTING PLAN
 SCALE: 1"=10'



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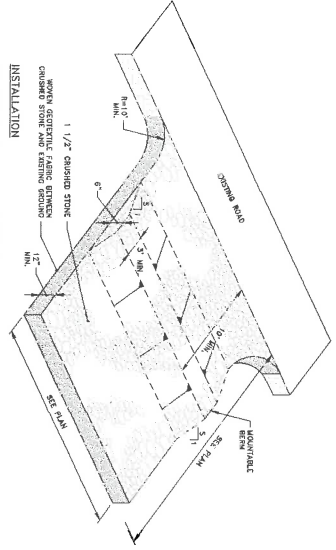
PROJECT NO.	1461727
DATE	4/12/23
DESIGNED BY	JMG
CHECKED BY	JMG
DRAWN BY	JMG
APPROVED BY	JMG

LOWER KICKEMUIT RESERVOIR DAM REMOVAL
 RI / 479
 WARREN, RHODE ISLAND
 OWNER: BRISTOL COUNTY WATER AUTHORITY

SCALE EQUIPMENT
 DATE: 4/12/23
 DRAWN BY: JMG
 CHECKED BY: JMG
 APPROVED BY: JMG

PROFESSIONAL ASSOCIATION OF REGISTERED ENVIRONMENTALISTS
 1000 W. MAIN ST., SUITE 200
 WARREN, RI 02886
 401-863-7222

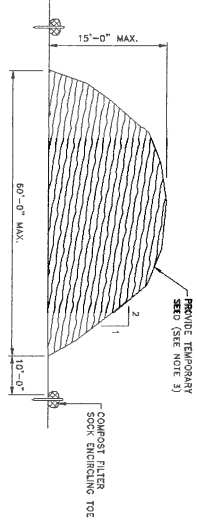
SHEET NO.: **8.0**
 18 OF 18



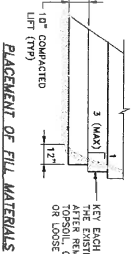
INSTALLATION
THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER QUESTIONABLE MATERIAL. THE CRUSHED STONE SHALL BE PLACED TO THE SPECIFIED DIMENSIONS, AS NOTED.

MAINTENANCE
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENTS INTO PUBLIC RIGHT-OF-WAY. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENTS INTO PUBLIC RIGHT-OF-WAY. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENTS INTO PUBLIC RIGHT-OF-WAY. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENTS INTO PUBLIC RIGHT-OF-WAY.

CONSTRUCTION ENTRANCE PROTECTION STONE STABILIZATION PAD
NOT TO SCALE

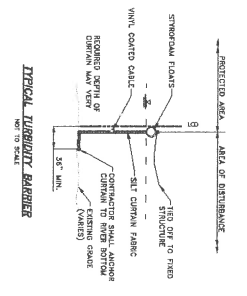


- NOTES:
1. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL PREPARE A PLAN SHOWING THE PROPOSED LOCATION OF ALL STOCKPILE AREAS.
 2. STOCKPILE AREA SHALL NOT EXCEED SPECIFIED DIMENSIONS WITHOUT APPROVAL FROM THE ENGINEER.
 3. STOCKPILED EROSION CONTROL MATERIAL SHALL NOT BE USED FOR A PERIOD OF MORE THAN 14 DAYS AFTER THE DATE OF MANUFACTURE. EROSION CONTROL MATERIAL SHALL BE STORED IN A DRY, WELL-VENTILATED AREA. EROSION CONTROL MATERIAL SHALL BE STORED IN A DRY, WELL-VENTILATED AREA.

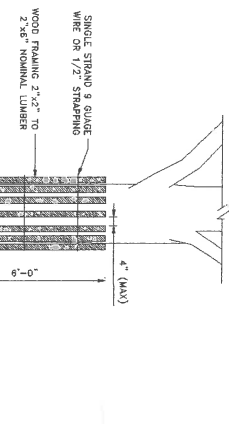


TREE PROTECTION DEVICE
NOT TO SCALE

NOTE:
THIS DETAIL SHALL BE USED TO PROTECT THE TREE'S TRUNK IN SITUATIONS WHERE CONSTRUCTION IS IN CLOSE PROXIMITY.



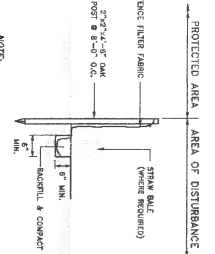
TYPICAL LIBERTY BARRIER
NOT TO SCALE



STRAW BALE DETAIL
NOT TO SCALE

NOTE:
CONTRACTOR TO PERMANENTLY REMOVE SIF AND STONE AT TRAPPIER WHEN TO REMOVE FLOW OF WATER FROM BASIN. ALTERNATELY IN OUTFLOW WHEN MAY BE SUBMITTED FOR APPROVAL.

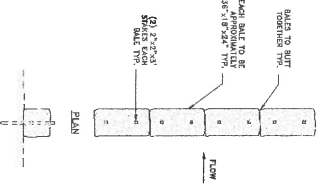
STRAW BALE DETAIL
NOT TO SCALE



SILT FENCE DETAIL
NOT TO SCALE

NOTE:
SILT FENCE FABRIC SHALL NOT BE SET STRAIGHT. FABRIC SHALL BE STRETCH THROUGH SILT FENCE FRAME.

STRAW BALE DETAIL
NOT TO SCALE



PERMIT SUBMISSION
NOT FOR CONSTRUCTION

PROJECT NO.	14631727
SCALE	AS SHOWN
DESIGNED BY	AKG
CHECKED BY	JMG
DRAWN BY	LMC
APPROVED BY	JMG
MISCELLANEOUS DETAILS	
SHEET NO.	9/0
	18 OF 11

REVISIONS:

NO.	DATE	DESCRIPTION
1	1/17/07	ISSUED FOR PERMIT

PROJECT DELIVERIES
1/17/07

LOWER KICKEMUIT RESERVOIR DAM REMOVAL
RI / 179
WARREN, RHODE ISLAND
OWNER: BRISTOL COUNTY WATER AUTHORITY

SCALE: AS SHOWN
DATE: 1/17/07
BY: JMG
CHECKED BY: JMG
DRAWN BY: LMC
APPROVED BY: JMG

PAVE
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SUITE 200
WARREN, RHODE ISLAND 02886
PHONE: 401.875.1234
FAX: 401.875.1235