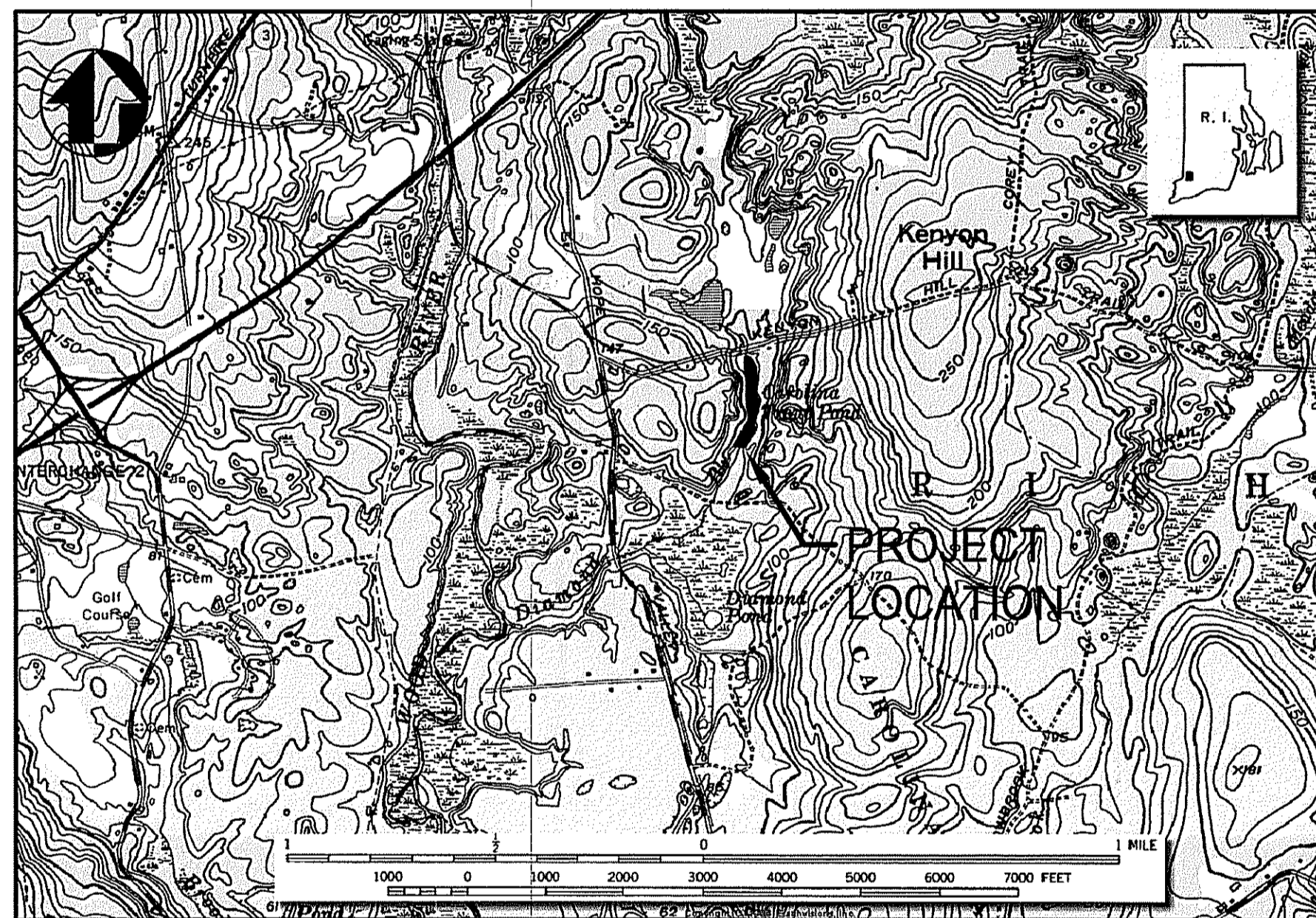


CAROLINA TROUT POND SPILLWAY REPAIR

MARCH 2010 FLOOD REPAIR
 RICHMOND, RHODE ISLAND
 RIDEM PROJECT NUMBER 09-11



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



LOCATION MAP

Scale: 1" = 1800'

DRAWING LIST

- C-1 GENERAL NOTES
- C-2 EXISTING SITE PLAN
- C-3 PROPOSED SITE PLAN
- C-4 CROSS SECTIONS
- C-5 PROPOSED CHANNEL ARMORING PLAN
- C-6 WETLAND RESTORATION PLAN
- C-7 DETAILS

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

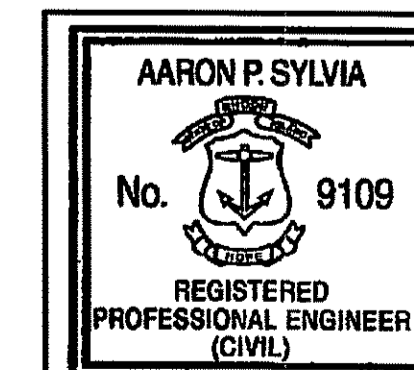
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUL 22 2011 FILE # 11-2018
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Casey

JUNE 2011 - NOT ISSUED FOR CONSTRUCTION

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

The LOUIS BERGER GROUP, Inc.

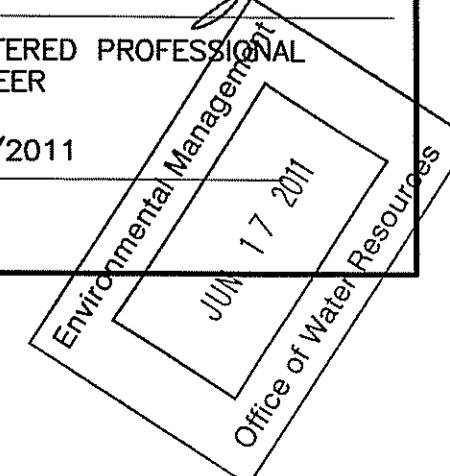


Aaron P. Sylvia

REGISTERED PROFESSIONAL ENGINEER

6/17/2011

DATE


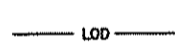
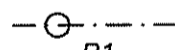



6/16/11 11:10 ASTVIA R17 F:\PROJECT\1986 CAROLINA TROUT POND DAM RESTORATION\DRAWINGS\CIVIL\C-1_6-13-11_WETLANDS COMMENTS ADDRESSED.DWG AREES: \BASE\VR-BLOCK.DWG; \BASE\Y-BASE MAP-11-010_SUI-EMAL.DWG; \BASE\F-PROJECT\1986 CAROLINA TROUT POND DAM RESTORATION\DATA\sheet11 Page 1.dwg PROJECT\1986 CAROLINA TROUT POND DAM RESTORATION\DRAWINGS\BASE\GE-FERIALS\CAROLINA TROUT POND DAM RESTORATION\DRAWINGS\BASE\... 1986 CAROLINA TROUT POND DAM RESTORATION\DRAWINGS\BASE\...

GENERAL NOTES:

1. THE BASE PLAN FOR THIS PROJECT WAS DEVELOPED AND PROVIDED BY THE WATERMAN ENGINEERING COMPANY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM) FOR TEMPORARY PLACEMENT/STORAGE/PARKING OF STOCKPILING MATERIALS, EQUIPMENT, AND VEHICLES TO BE USED FOR THE CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING PROPOSED WORK WITH RIDEM, PROVIDING ADEQUATE CONTROLS FOR SITE SAFETY, AND MINIMIZING IMPACTS.
4. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE LIMITS OF DISTURBANCE SHALL BE RESTORED TO THE ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER. ALL ORIGINAL GRADES SHALL BE RESTORED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HEALTH AND SAFETY OF ALL ITS EMPLOYEES, SUBCONTRACTORS, VENDORS, AND VISITORS WORKING ON THE PROJECT.
6. THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES A SET OF RECORD DRAWINGS AND SPECIFICATIONS DURING THE PROGRESSION OF THE PROJECT. RECORD DRAWINGS SHALL BE UPDATED ON A DAILY BASIS AND SHALL BE SUBMITTED TO THE ENGINEER AT THE COMPLETION OF THE CONSTRUCTION. RECORD DRAWINGS SHALL INCLUDE THE LOCATIONS OF ALL BURIED AND RELOCATED UTILITIES.
7. THE CONTRACTOR SHALL SECURE THE WORK SITE FROM UNAUTHORIZED PERSONNEL WITH FENCING AND/OR CONCRETE MEDIAN BARRIER OR OTHER METHODS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE SITE WITH NIGHT LIGHTING TO PROVIDE A SAFE AND SECURE WORK ENVIRONMENT, AS NECESSARY.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED IN SUFFICIENT DETAIL, THEREBY ENABLING THE CONTRACTOR TO CONSTRUCT THE PROJECT IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS. SURVEY WILL BE PROVIDED BY THE CONTRACTOR. THE ENGINEER WILL NOT AUTHORIZE CONSTRUCTION ACTIVITIES TO BEGIN UNTIL THE CONTRACTOR SATISFIES THAT ALL GRADE CONTROL HAS BEEN ESTABLISHED, TIED DOWN, AND DULY RECORDED IN STANDARD FIELD BOOKS.
9. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN ALL WORK PERMITS PRIOR TO CONSTRUCTION BEFORE PROCEEDING WITH ANY WORK.
10. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A PROPOSED WORK SCHEDULE FOR THE SUBSEQUENT WORK WEEK A MINIMUM OF 48 HRS. PRIOR TO THE WEEKLY PROGRESS MEETING.

LEGEND:

- SILT FENCE/HAYBALE EROSION CONTROL 
- LIMIT OF DISTURBANCE 
- WETLAND FLAG 
- TREE LINE 

SURVEY NOTES/REFERENCES:

1. THESE PREMISES ARE SITUATED IN A ZONE 'X' (ZONE 'X' IS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DESIGNATED ON "NATIONAL FLOOD INSURANCE PROGRAM, FIRM FLOOD INSURANCE RATE MAP WASHINGTON COUNTY, RHODE ISLAND (ALL JURISDICTIONS) PANEL 152 OF 368 TOWN OF RICHMOND MAP NUMBER 44009C0152H EFFECTIVE DATE: OCTOBER 19, 2010. FEDERAL EMERGENCY MANAGEMENT AGENCY".
2. THE HORIZONTAL DATUM FOR THIS PROJECT IS THE R.I.S.P.C.S. (NAD 83) AND THE VERTICAL DATUM FOR THIS PROJECT IS NAVD 88. THE PROJECT DATUMS WERE ESTABLISHED FROM DATA TRANSMITTED FROM MTS REFERENCE STATIONS USING THE MTS RTK NETWORK VIA LEICA GPS1200 SERIES ANTENNAS/RECEIVERS.
3. WETLAND DELINEATION PROVIDED BY THE LOUIS BERGER GROUP, INC. (ON MARCH 3, 2011) AND FIELD SURVEYED BY WATERMAN ENGINEERING CO. WETLAND DELINEATION WAS COMPLETED WHEN THERE WAS SNOW AND THE GRADE WAS FROZEN. THEREFORE, THE LOCATION OF THE WETLAND FLAGGING MUST BE VERIFIED IN SPRING 2011.

WETLAND RESOTRATION NOTES:

1. DUE TO THE AMOUNT OF SEDIMENT IN CONCERT WITH ITS DISTANCE FROM THE WETLAND EDGE, IT IS ANTICIPATED THAT THE WETLAND RESTORATION WILL REQUIRE THE USE OF HEAVY EQUIPMENT (I.E., LOW GROUND PRESSURE MACHINES, TIMBER MATS OR COMPARABLE, LONG REACH EXCAVATOR) IN THE SWAMP.
2. THE ENGINEER AND THE CONTRACTOR WILL IDENTIFY THE MOST EFFECTIVE MEANS OF ACCESS AND EGRESS TO FACILITATE THE RESTORATION WHILE MINIMIZING THE NEED TO REMOVE EXISTING VEGETATION.
3. WHEN NECESSARY, VEGETATION REMOVAL WILL BE LIMITED TO THE SHRUB LAYER TO THE GREATEST EXTENT PRACTICABLE.
4. SUBSEQUENT TO THE DEVELOPMENT OF ACCESS POINTS, TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WILL BE ESTABLISHED AT THE SOUTHERN LIMIT OF THE IDENTIFIED SEDIMENT.
5. PRIOR TO IMPLEMENTING THE SEDIMENT REMOVAL, THE ENGINEER WILL PROVIDE GUIDANCE TO THE CONTRACTOR WITH THE IDENTIFICATION OF TEMPORARY STOCKPILE AND STAGING LOCATIONS AND DEWATERING FACILITIES AS NECESSARY.
6. SURFACE WATER WITHIN THE SITE SHALL NOT BE DIRECTLY DISCHARGED INTO DIAMOND BROOK OR ANY WETLAND.
7. REMOVAL OF THE FILL MATERIAL TO THE PRE-EXISTING WETLAND GRADE IS PROPOSED.
8. REMOVAL OF THE FILL MATERIAL WITHIN DIAMOND BROOK SHALL BE COMPLETED BY HAND (I.E., SHOVEL AND BUCKET) TO UNCOVER THE NATURAL RIVERBED TO THE PRE-EXISTING DETPH.
9. EXCAVATED MATERIAL MAY BE STOCKPILED WITHIN THE DESIGNATED STAGING AREA FOR A PERIOD OF ONE (1) WEEK AFTER COMPLETION OF ALL WORK.
10. ALL STOCKPILED MATERIAL MUST BE CONTAINED WITHIN AN EROSION CONTROL SILT FENCE.
11. IF EXCAVATED MATERIAL IS TO REMAIN STOCKPILED ON-SITE FOR LONGER THAN ONE (1) WEEK, IT MUST BE COVERED BY EROSION CONTROL FABRIC, BLACK PLASTIC, OR OTHER STABILIZING MATERIAL UNTIL THE EXCAVATED MATERIAL CAN BE REMOVED FROM THE SITE AND DISPOSED OF AS REQUIRED.
12. ALL AREAS OF THE DELINEATED SWAMP DISTURBED DURING THE RESTORATION SHALL BE SEEDED WITH NEW ENGLAND WETMIX (OR APPROVED EQUAL) AT 7 POUNDS PER ACRE. IN ADDITION TO THE ABOVE SEEDING, THE TEMPORARY CONSTRUCTION ACCESS ROAD(S) WITHIN THE SWAMP WILL BE PLANTED WITH CLETHRA ALNIFOLIA AND VACCINIUM CORYMBOSUM, 5 FEET ON CENTER, 18-24 INCHES TALL FOLLOWING PLANTING.
13. THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM) DIVISION OF PLANNING AND DEVELOPMENT WILL BE RESPONSIBLE FOR THE WETLAND RESTORATION OVERSIGHT.

EROSION CONTROL NOTES:

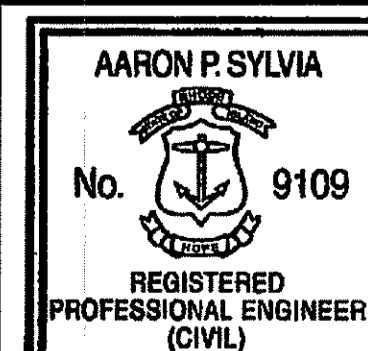
1. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT FOR ACCEPTANCE A GENERAL WORK SCHEDULE AND PLAN WHICH INDICATES PLANNED IMPLEMENTATION OF TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES, INCLUDING SHUTDOWN PROCEDURES FOR WINTER AND OTHER WORK INTERRUPTIONS.
2. SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. SEDIMENTATION DEVICES SHALL BE FURNISHED, INSTALLED AND MAINTAINED AS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PREVENT THE DISCHARGE AND MIGRATION OF SEDIMENT FROM THE SITE.
3. THE LIMIT OF WORK AREA MUST BE STRICTLY ADHERED TO IN ALL AREAS. THE CONTRACTOR WILL BE RESPONSIBLE FOR RESTORING AREAS WHICH ARE OUTSIDE OF THE PROJECT LIMIT OF DISTURBANCE WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE. SUCH AREAS INCLUDE THOSE WHERE VEHICLES, EQUIPMENT, AND MATERIALS ARE STORED WITH THE PERMISSION OF THE OWNER.
4. ALL DISTURBED AREAS EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15TH SHALL BE SEEDED OR PROTECTED BY THAT DATE FOR ANY WORK COMPLETED DURING EACH CONSTRUCTION YEAR WITH SOIL STABILIZATION BLANKET.
5. TEMPORARY TREATMENT OF EXPOSED SURFACES SHALL CONSIST OF HAY, STRAW, FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE MESH, FIBERGLASS NETTING, EXCELSIOR MATTING). THESE TREATMENTS SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
6. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS./ACRE.
7. ALL HAY BALES, SILT FENCE, OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND (90%) OF GRASS OR APPROVED GRADE COVER IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING MAY BE USED TO MINIMIZE EROSION.
8. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREA THAT DOES NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR.
9. THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1ST - OCTOBER 15TH.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL THROUGHOUT THE WORK AREA.
11. SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED WEEKLY AND MAINTAINED PROMPTLY BY THE CONTRACTOR.
12. WHERE BALED EROSION CHECKS, SILT SACKS, AND SILT FENCES ARE USED AT CATCH BASINS, THEY SHALL BE REMOVED AT THE END OF WORK AT THAT SITE OR AS DIRECTED BY THE ENGINEER IN ORDER TO PREVENT CLOGGING OF THE INLET. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE/DISPOSE OF EXCESS SILT THAT HAS BEEN DEPOSITED AND/OR TRAPPED BY EROSION CHECKS AND SILT FENCING.
13. EROSION CONTROL INSPECTIONS SHALL OCCUR WITHIN 24 HOURS OF RAINFALL EVENTS TOTALING 0.25 INCHES OR MORE WITHIN A 24-HOUR PERIOD.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 22 2011 FILE # 11-0078
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Carney

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

The LOUIS BERGER GROUP, Inc. 



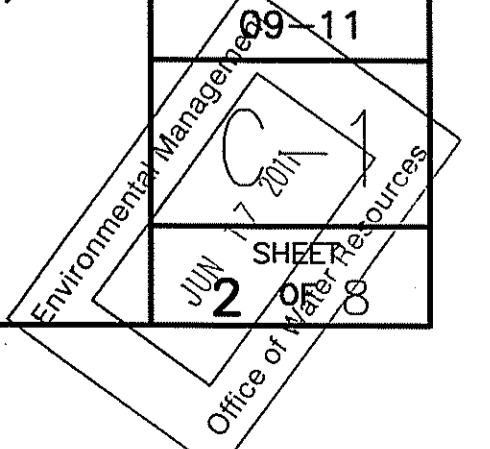
Aaron P. Sylvia
REGISTERED PROFESSIONAL ENGINEER
6/17/2011
DATE

DRAWN BY:
AS
DEPT CHECK:
CF
PROJECT CHECK:
TP

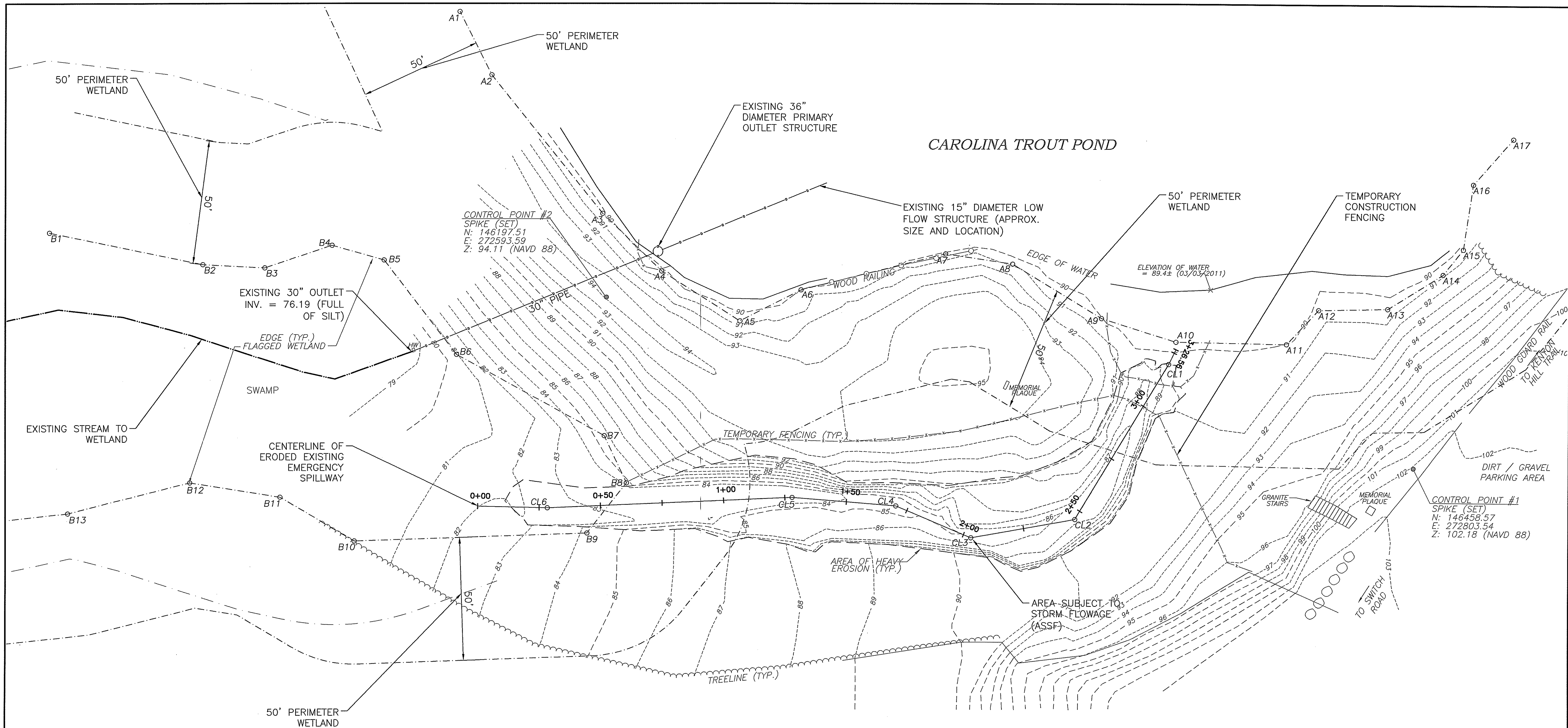
CAROLINA TROUT POND SPILLWAY REPAIR, RICHMOND, RI

RIDEM PROJ. No. 99-11

GENERAL NOTES



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



CONTROL POINT #2
SPIKE (SET)
N: 146197.51
E: 272593.59
Z: 94.11 (NAVD 88)

CONTROL POINT #1
SPIKE (SET)
N: 146458.57
E: 272803.54
Z: 102.18 (NAVD 88)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 22 2011 FILE # 1-2011
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Carney



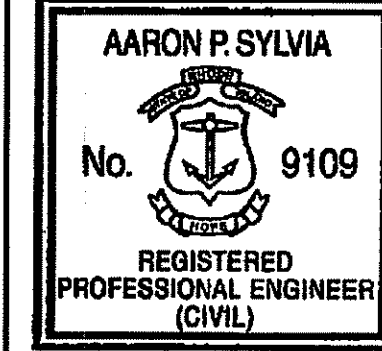
20 0 20 40
SCALE OF FEET

NOTES:

1. ACCORDING TO THE RHODE ISLAND GEOGRAPHIC INFORMATION SYSTEM (RIGIS), THE ENTIRE PROJECT AREA HAS BEEN MAPPED FOR THOSE INVERTEBRATE AND VERTEBRATE ANIMALS OR PLANT SPECIES OR THOSE FRESHWATER WETLAND TYPES THAT ARE LISTED AS THREATENED, ENDANGERED, OF SPECIAL INTEREST, OR OF SPECIAL CONCERN.

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

The LOUIS BERGER GROUP, Inc.



Aaron P. Sylvia
REGISTERED PROFESSIONAL ENGINEER
6/17/2011
DATE

DRAWN BY:
AS
DEPT CHECK:
CF
PROJECT CHECK:
TP

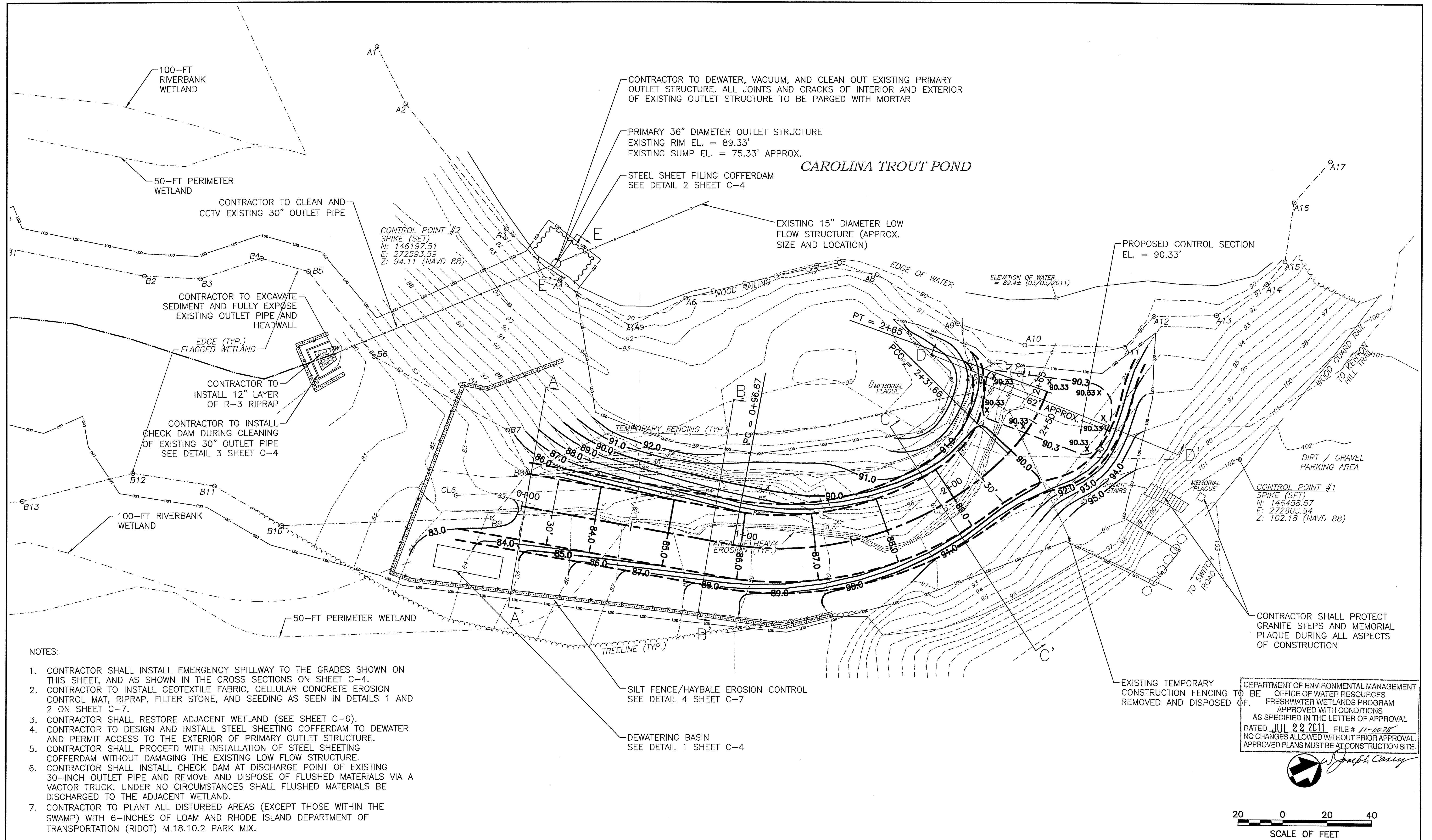
CAROLINA TROUT POND SPILLWAY REPAIR, RICHMOND, RI

EXISTING SITE PLAN

RIDEM PROJ. No.
09-11

C-2
SHEET
3 OF 8
Environmental Management
JUL 17 2011
Office of Water Resources

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



- NOTES:
1. CONTRACTOR SHALL INSTALL EMERGENCY SPILLWAY TO THE GRADES SHOWN ON THIS SHEET, AND AS SHOWN IN THE CROSS SECTIONS ON SHEET C-4.
 2. CONTRACTOR TO INSTALL GEOTEXTILE FABRIC, CELLULAR CONCRETE EROSION CONTROL MAT, RIPRAP, FILTER STONE, AND SEEDING AS SEEN IN DETAILS 1 AND 2 ON SHEET C-7.
 3. CONTRACTOR SHALL RESTORE ADJACENT WETLAND (SEE SHEET C-6).
 4. CONTRACTOR TO DESIGN AND INSTALL STEEL SHEETING COFFERDAM TO DEWATER AND PERMIT ACCESS TO THE EXTERIOR OF PRIMARY OUTLET STRUCTURE.
 5. CONTRACTOR SHALL PROCEED WITH INSTALLATION OF STEEL SHEETING COFFERDAM WITHOUT DAMAGING THE EXISTING LOW FLOW STRUCTURE.
 6. CONTRACTOR SHALL INSTALL CHECK DAM AT DISCHARGE POINT OF EXISTING 30-INCH OUTLET PIPE AND REMOVE AND DISPOSE OF FLUSHED MATERIALS VIA A VACTOR TRUCK. UNDER NO CIRCUMSTANCES SHALL FLUSHED MATERIALS BE DISCHARGED TO THE ADJACENT WETLAND.
 7. CONTRACTOR TO PLANT ALL DISTURBED AREAS (EXCEPT THOSE WITHIN THE SWAMP) WITH 6-INCHES OF LOAM AND RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT) M.18.10.2 PARK MIX.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUL 22 2011 FILE # 11-0078
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Joseph Carney
 Environmental Management
 Office of Water Resources

20 0 20 40
 SCALE OF FEET

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

The LOUIS BERGER GROUP, Inc.

AARON P. SYLVIA
 No. 9109
 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

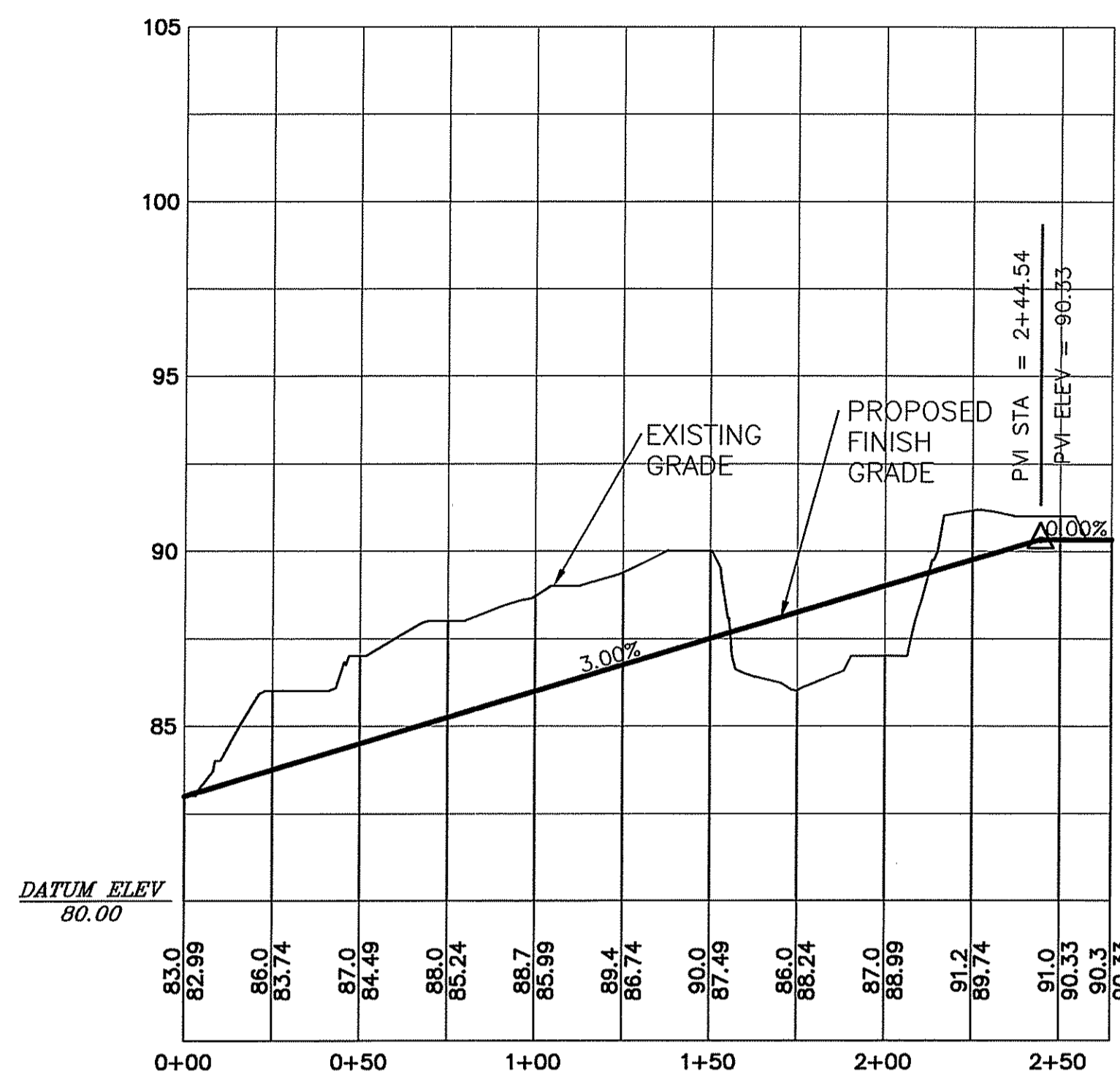
Aaron P. Sylvia
 REGISTERED PROFESSIONAL ENGINEER
 6/17/2011
 DATE

DRAWN BY: AS
 DEPT CHECK: CF
 PROJECT CHECK: TP

CAROLINA TROUT POND SPILLWAY REPAIR, RICHMOND, RI
PROPOSED SITE PLAN

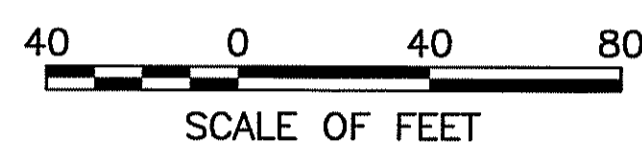
RIDEM PROJ. No. 09-11
 SHEET 4 OF 8
 JUN 17 2011

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

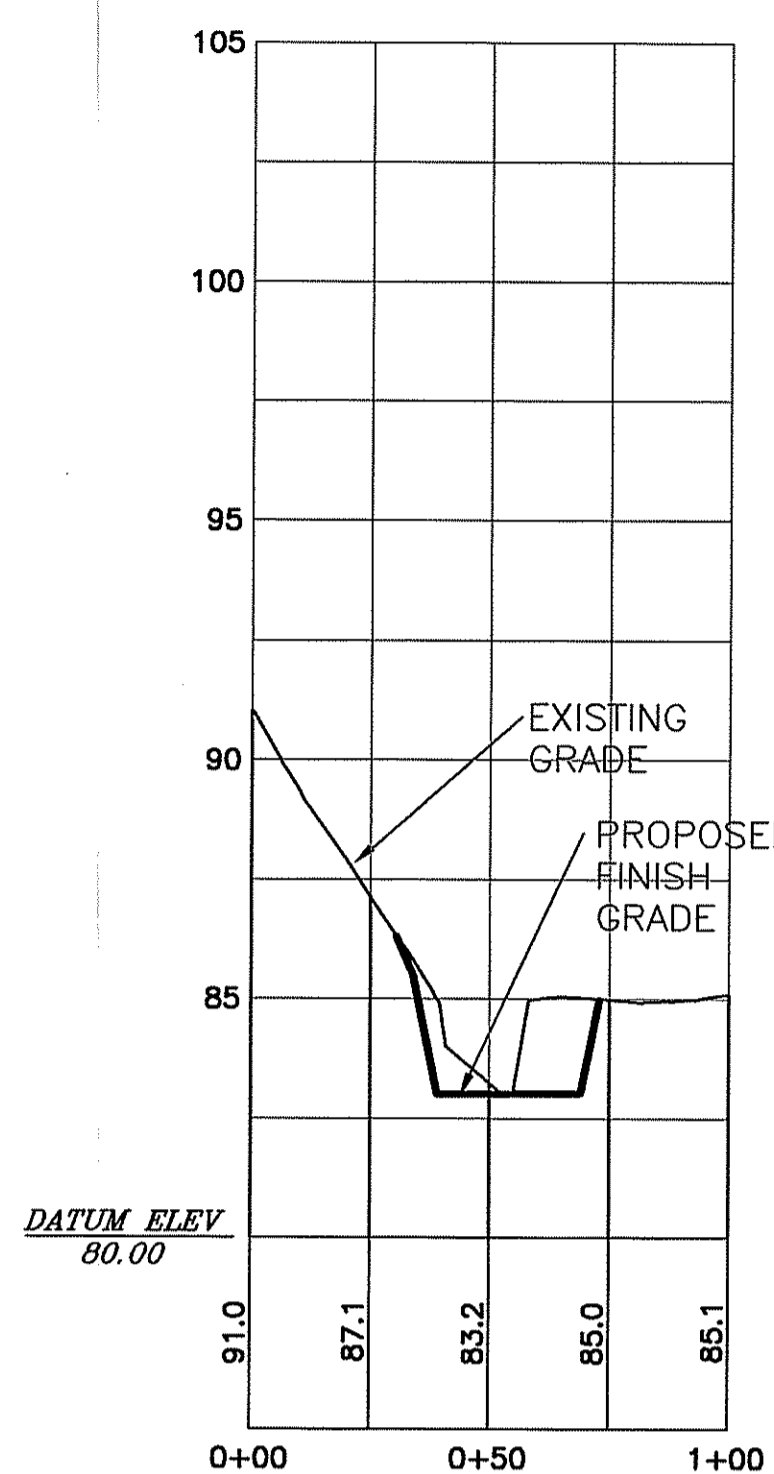


PROPOSED CHANNEL CENTERLINE PROFILE

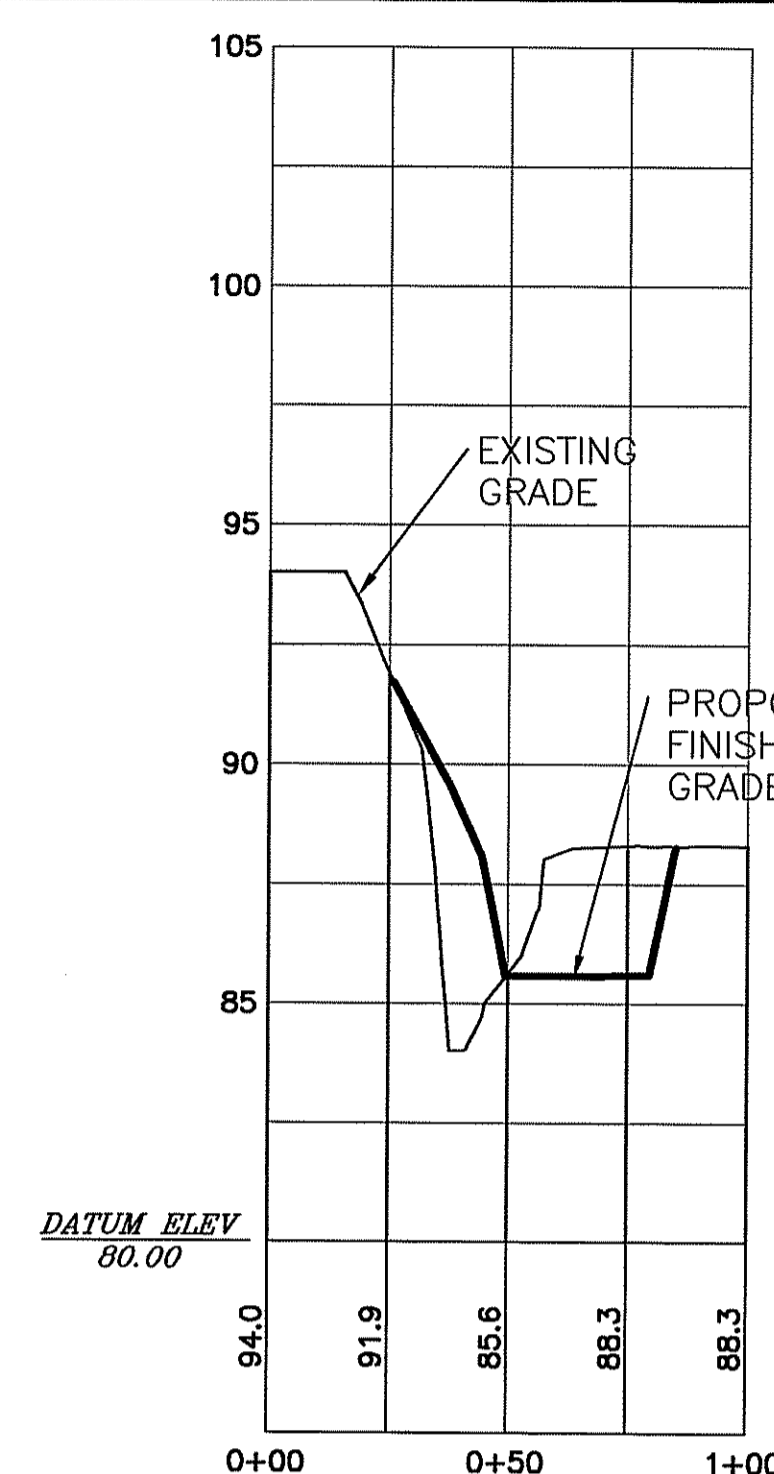
CROSS SECTION HORIZONTAL SCALE



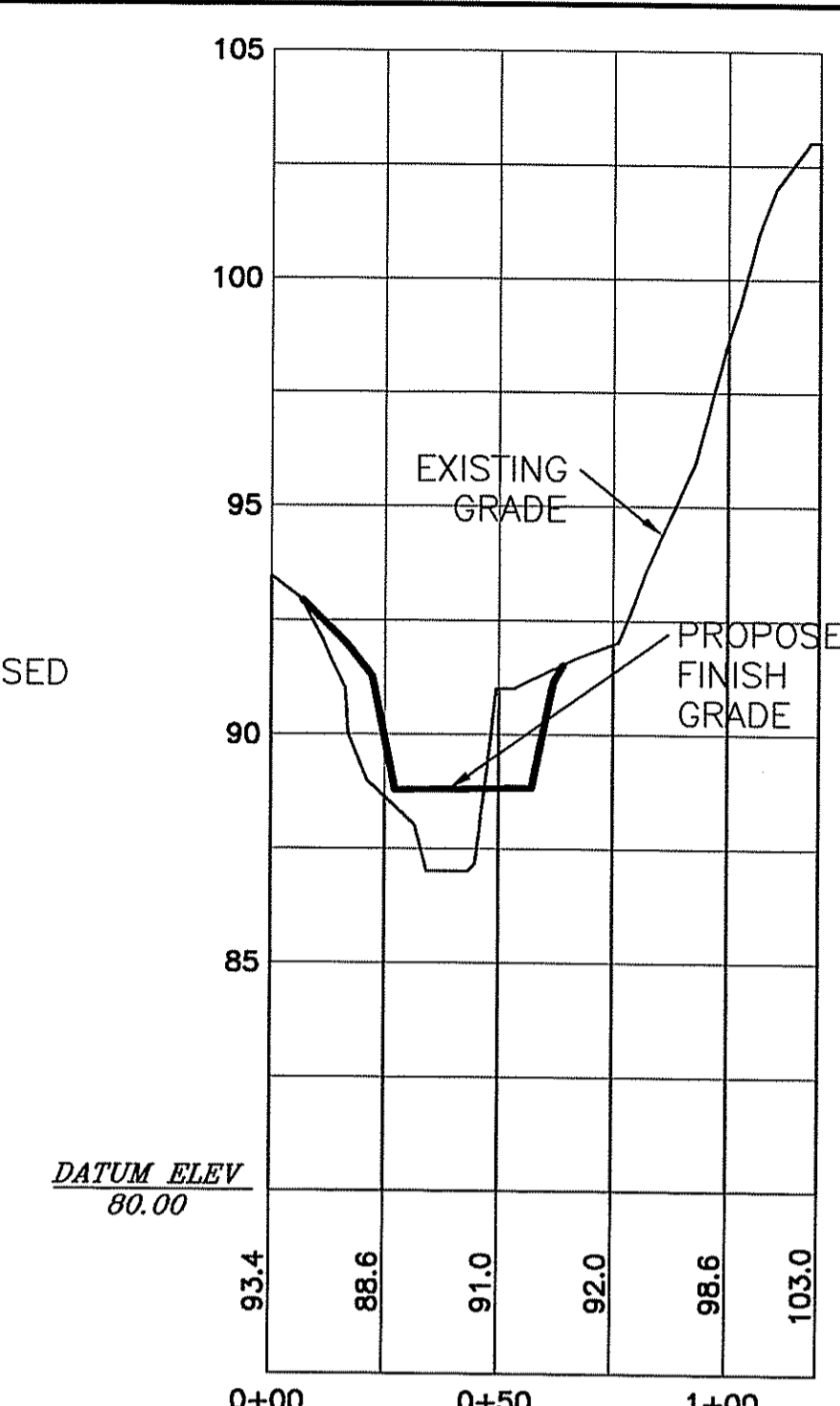
SCALE OF FEET
VERTICAL SCALE 1"=4'



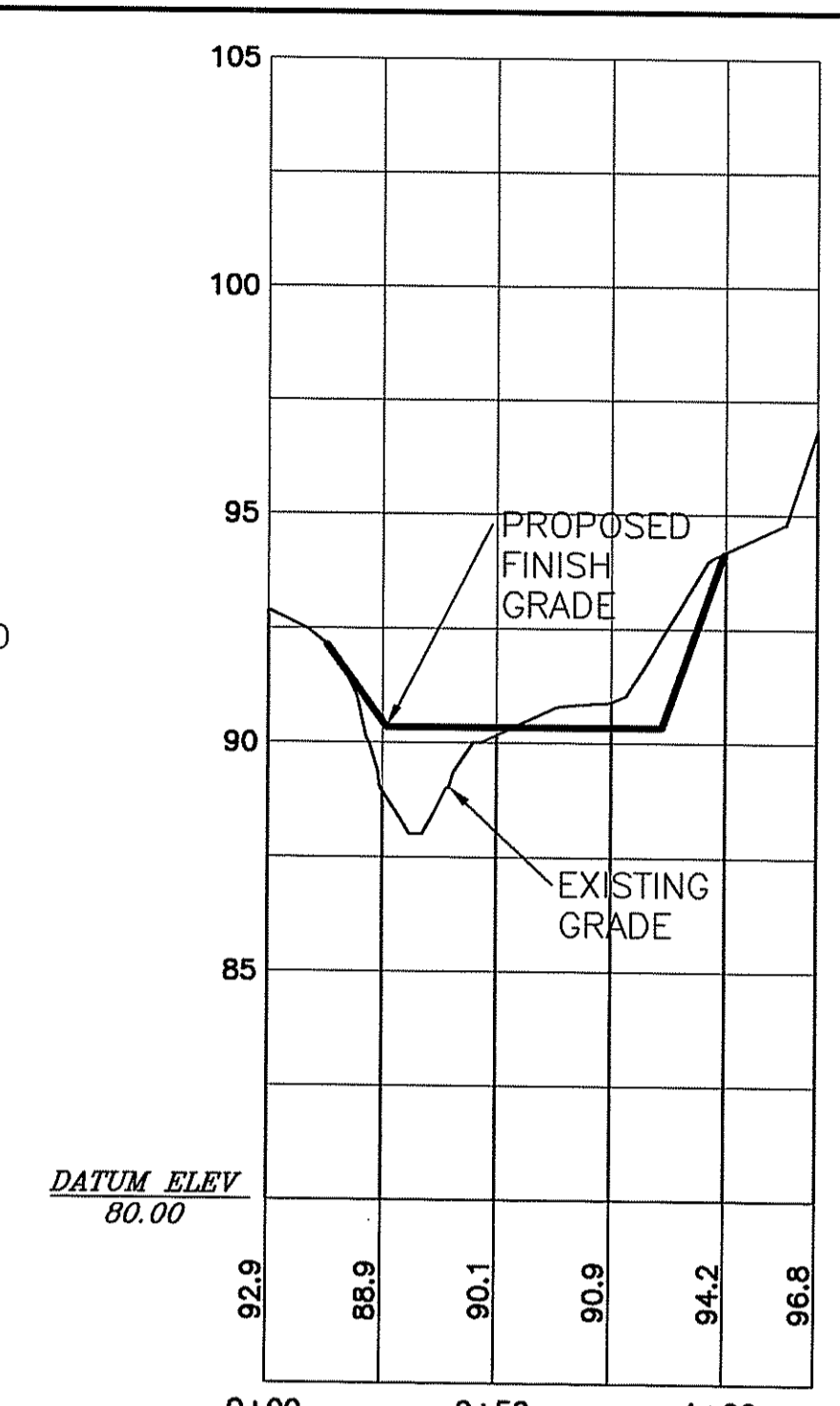
CROSS SECTION A-A'



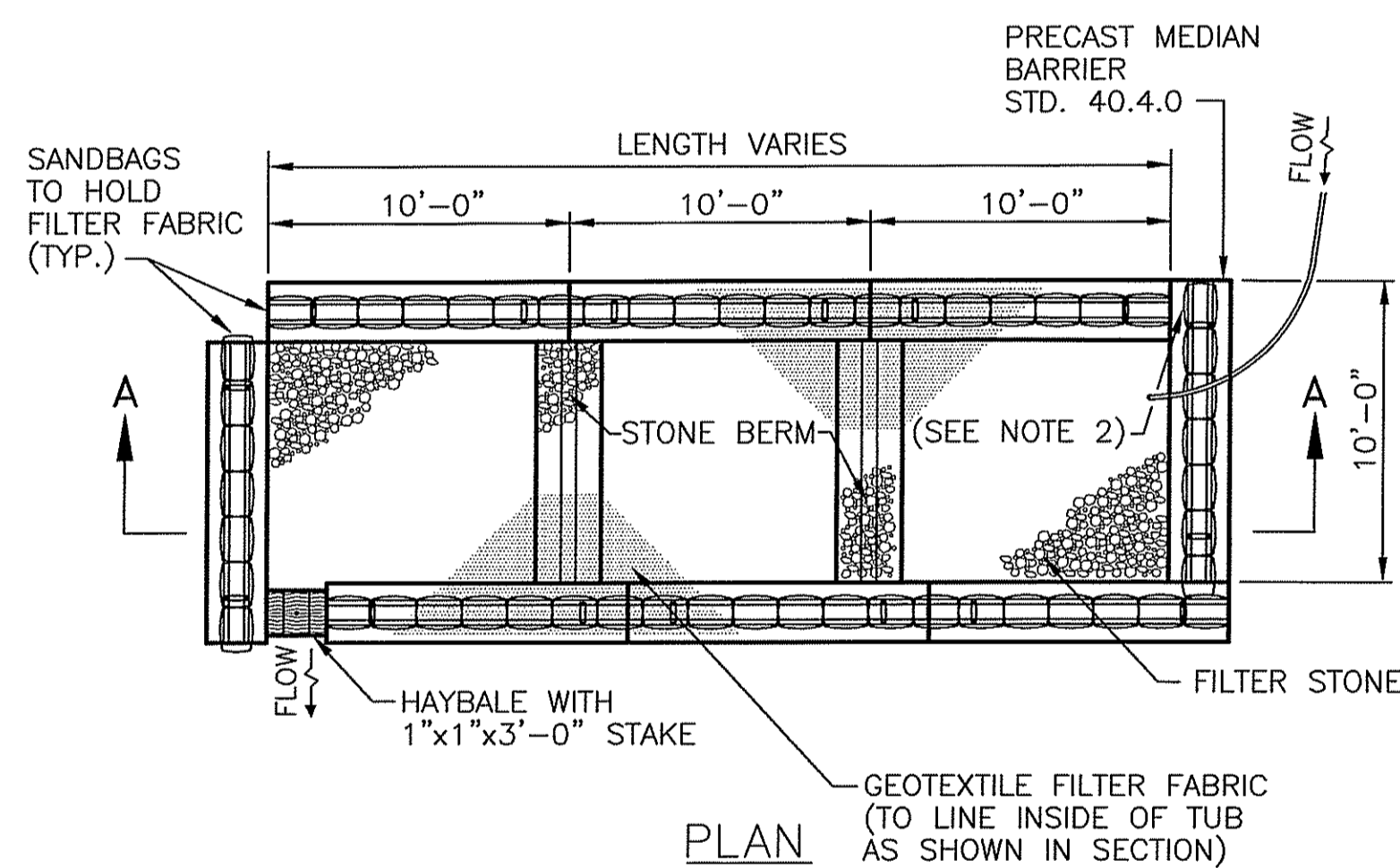
CROSS SECTION B-B'



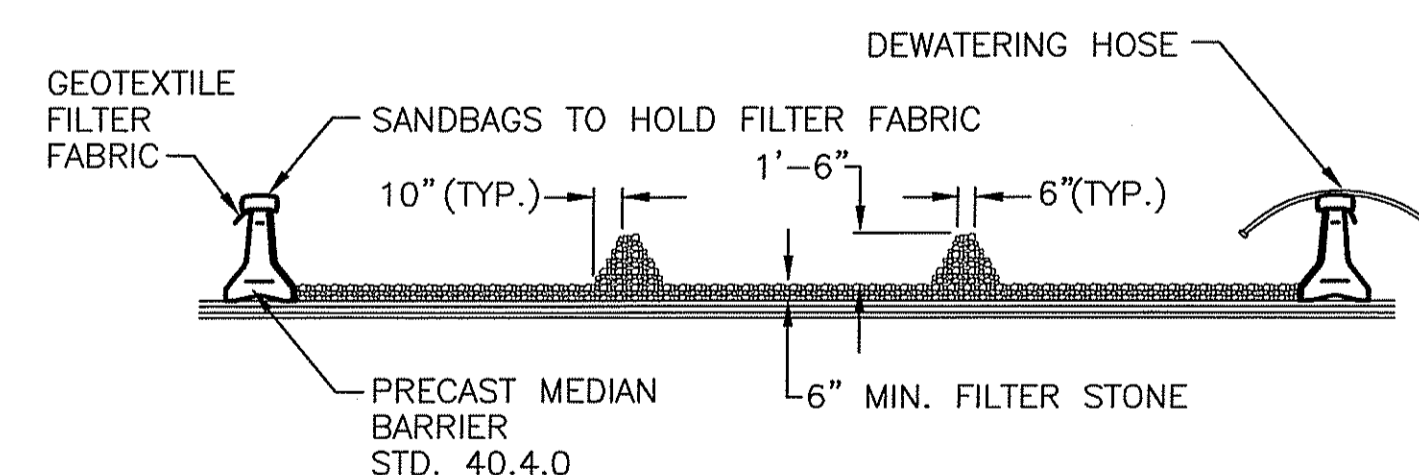
CROSS SECTION C-C'



CROSS SECTION D-D'



PLAN



SECTION

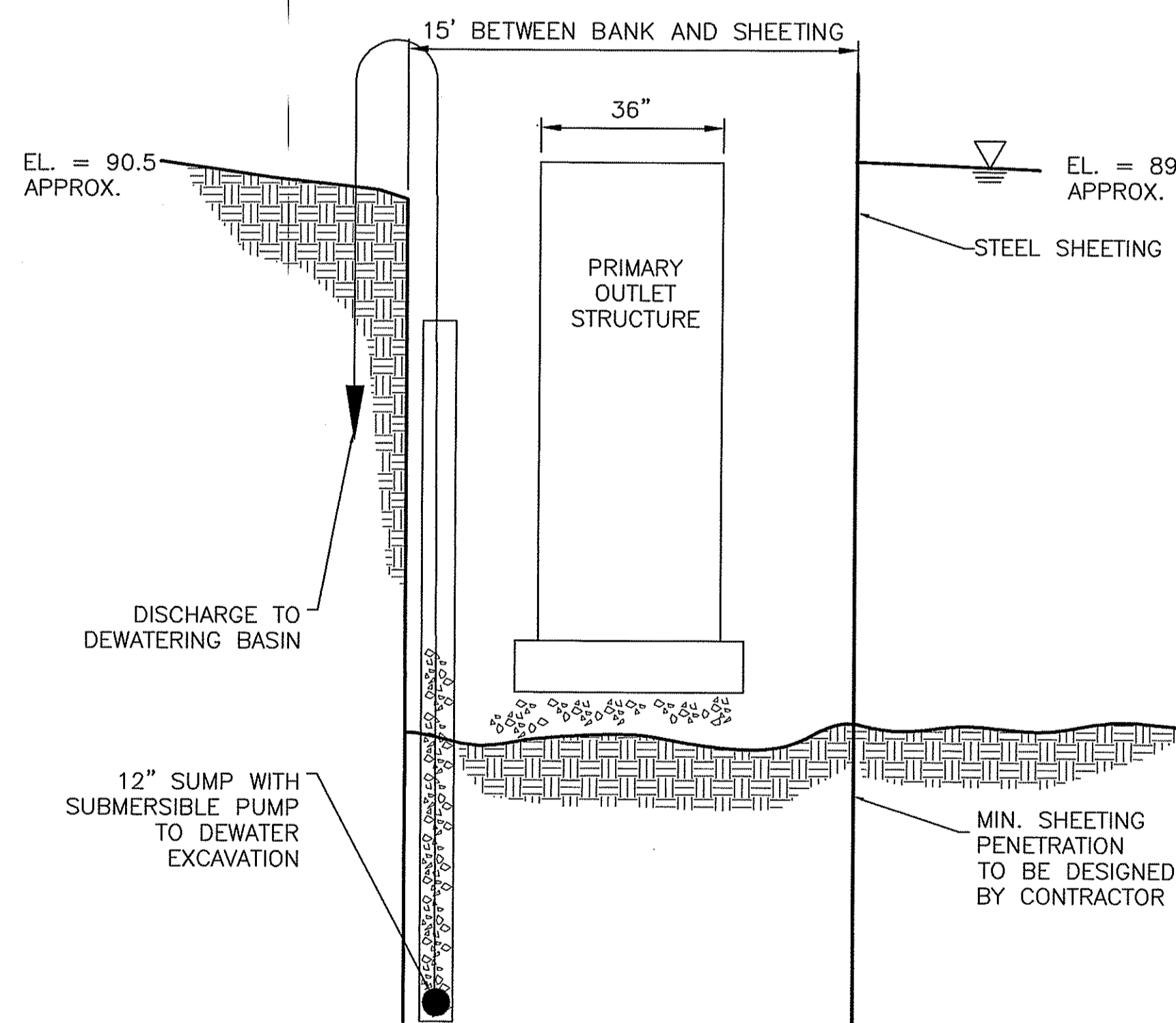
NOTES:

1. PROVIDE ADDITIONAL SAND BAGS AS REQUIRED TO FILL SPACE BETWEEN ADJACENT BARRIERS.
2. DEWATERING BASIN SHALL BE DESIGNED BY CONTRACTOR.
3. LOCATION OF DEWATERING BASIN SHALL BE AS SEEN ON SHEET C-3.
4. NO DISCHARGES TO SURFACE WATERS FROM DEWATERING BASIN WILL BE ALLOWED AT ANY TIME DURING THE WORK.

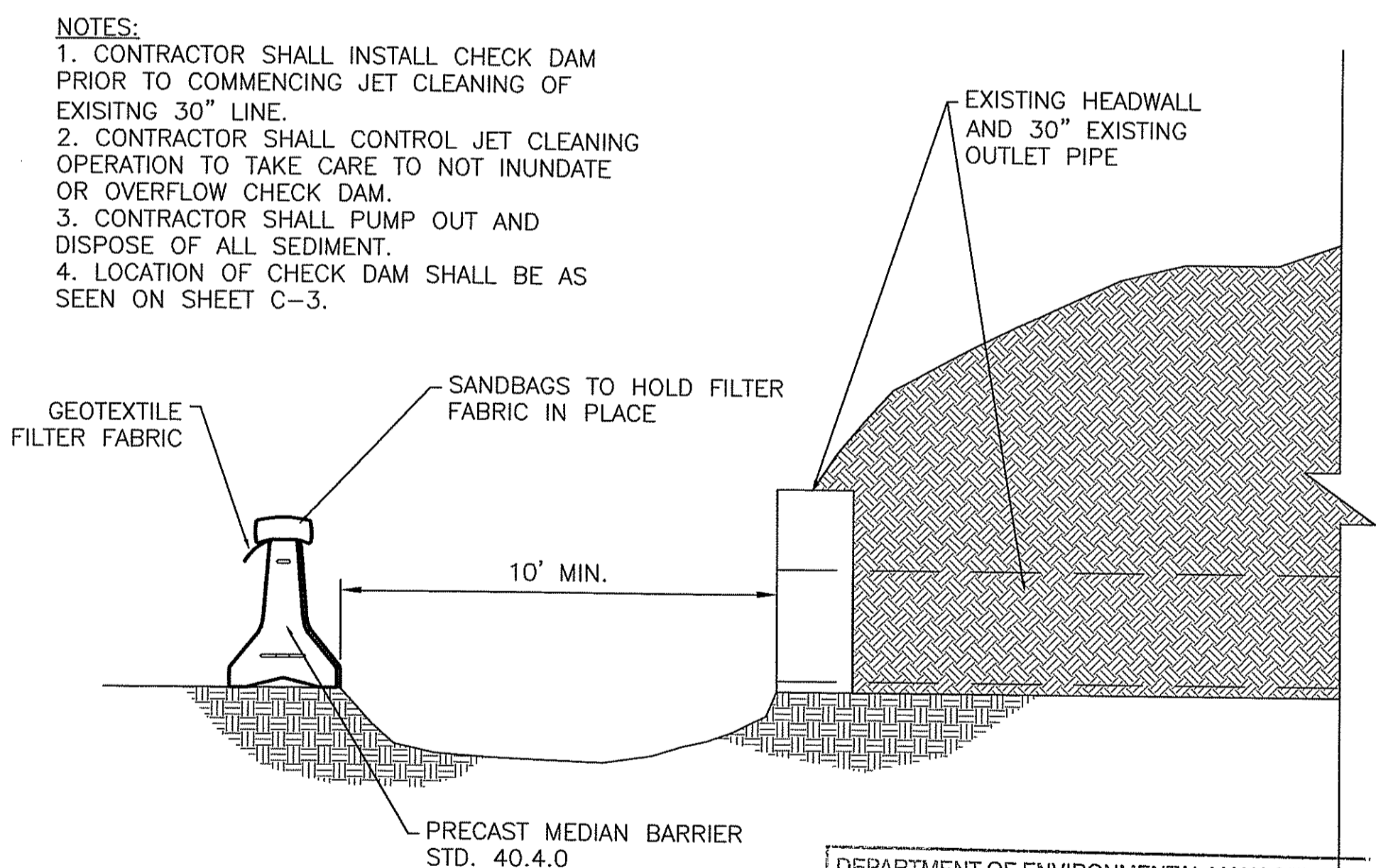
NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 208 OF THE R.I. STANDARD SPECIFICATIONS.
2. PROVIDE ADDITIONAL SAND BAGS AS REQUIRED TO FILL SPACE BETWEEN ADJACENT BARRIERS.

1 DEWATERING BASIN
C-4



2 COFFERDAM SECTION E-E'
C-4



- NOTES:
1. CONTRACTOR SHALL INSTALL CHECK DAM PRIOR TO COMMENCING JET CLEANING OF EXISTING 30" LINE.
 2. CONTRACTOR SHALL CONTROL JET CLEANING OPERATION TO TAKE CARE TO NOT INUNDATE OR OVERFLOW CHECK DAM.
 3. CONTRACTOR SHALL PUMP OUT AND DISPOSE OF ALL SEDIMENT.
 4. LOCATION OF CHECK DAM SHALL BE AS SEEN ON SHEET C-3.

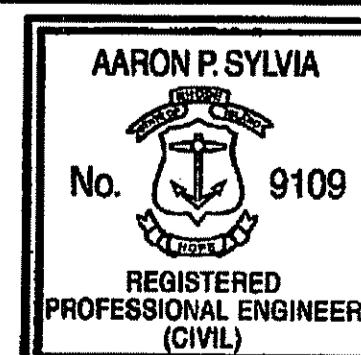
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 22 2011 FILE # 11-0078
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Casey

3 CHECK DAM DETAIL
C-4

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

The LOUIS BERGER GROUP, Inc.



Aaron P. Sylvia
REGISTERED PROFESSIONAL ENGINEER
6/17/2011
DATE

DRAWN BY:
AS
DEPT CHECK:
CF
PROJECT CHECK:
TP

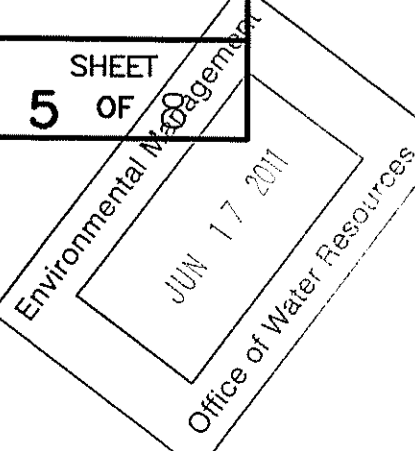
CAROLINA TROUT POND SPILLWAY REPAIR, RICHMOND, RI

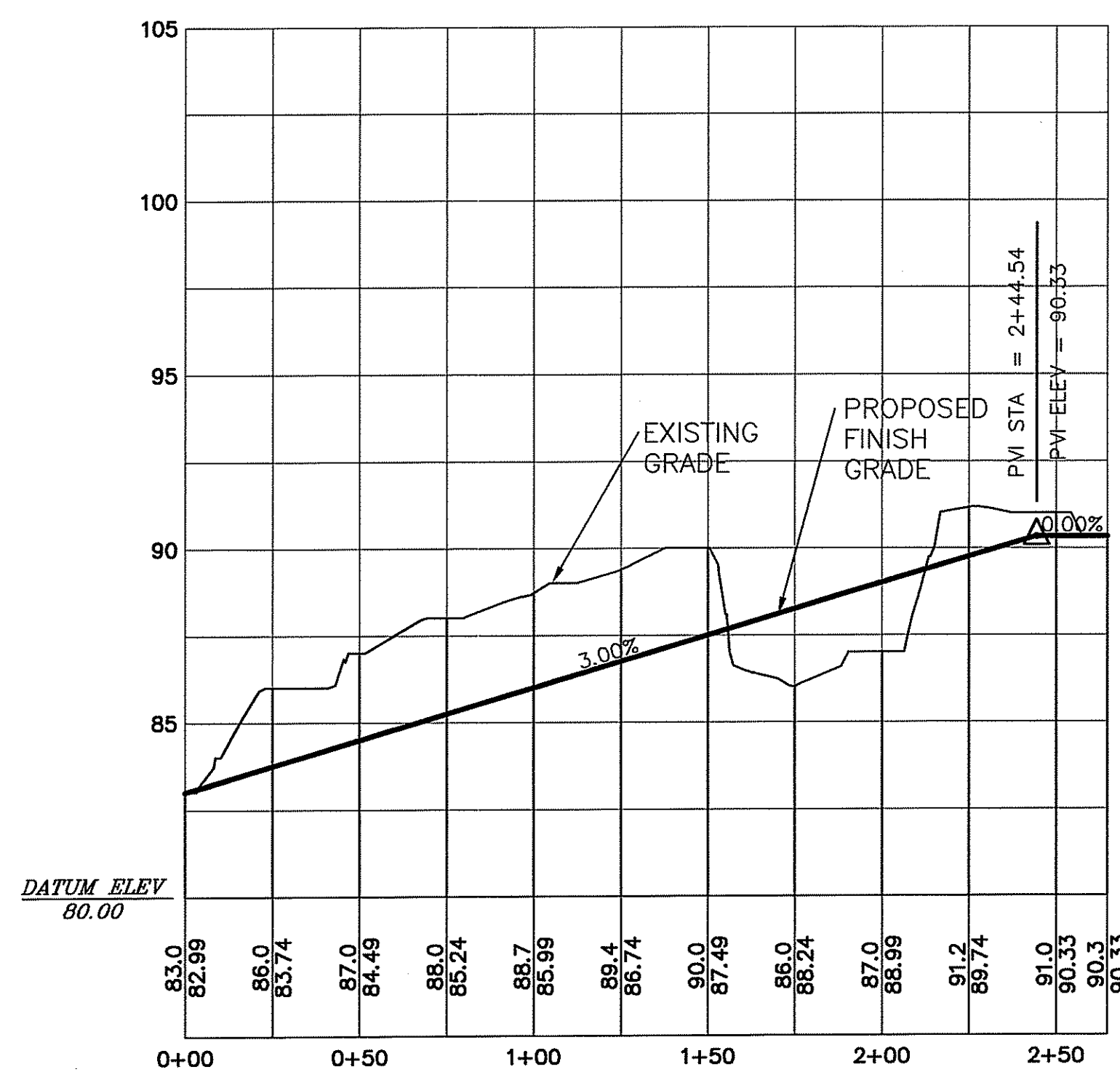
CROSS SECTIONS

RIDEM PROJ. No.
09-11

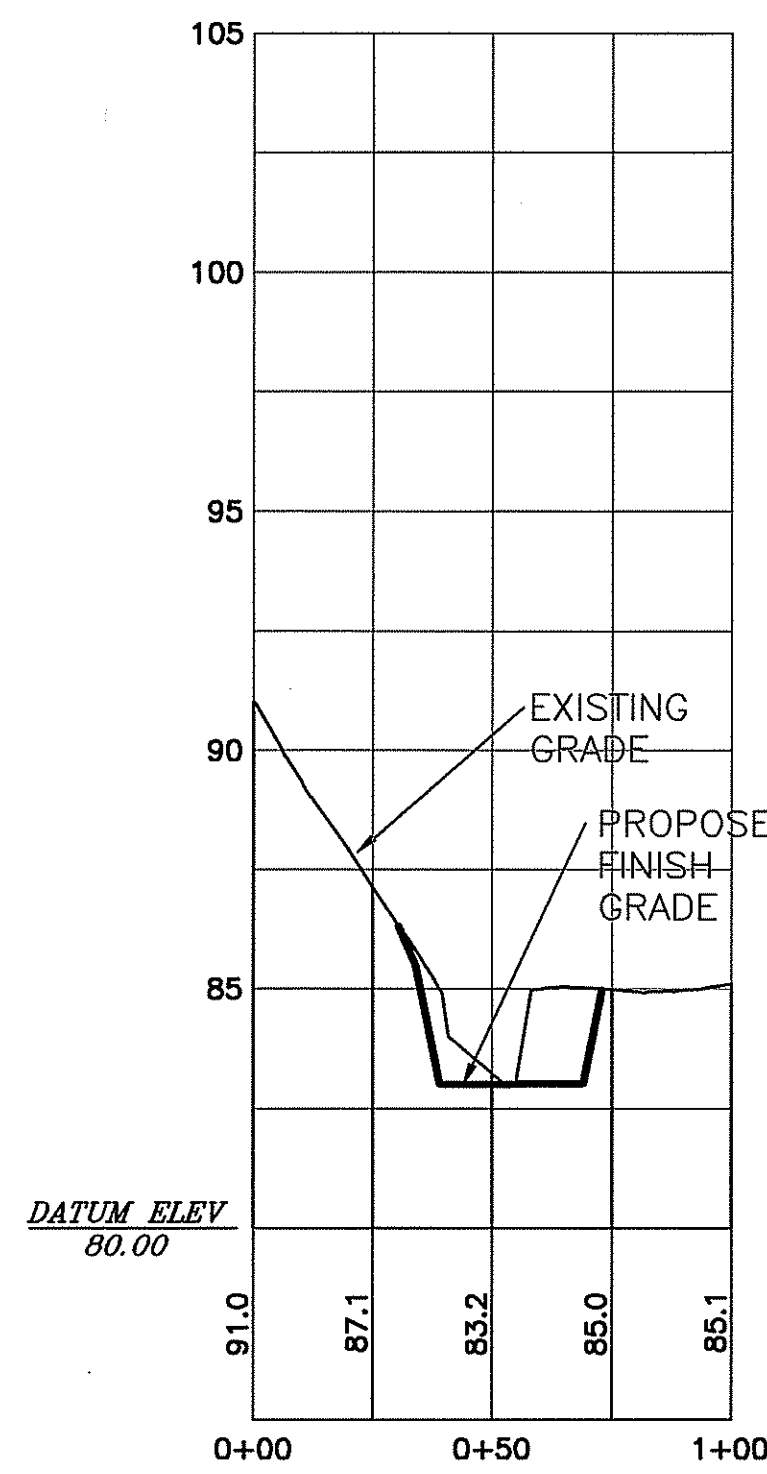
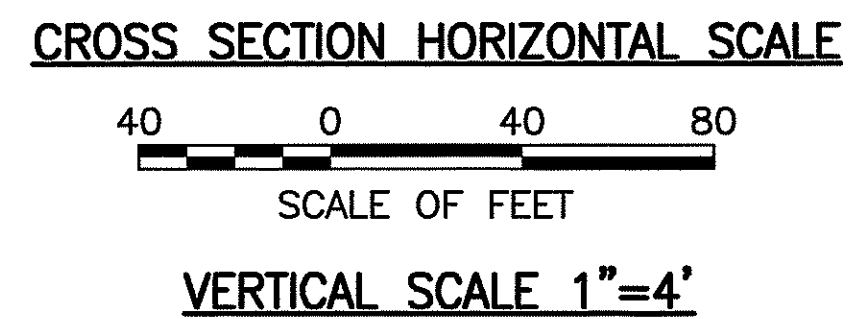
C-4
SHEET
5 OF

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

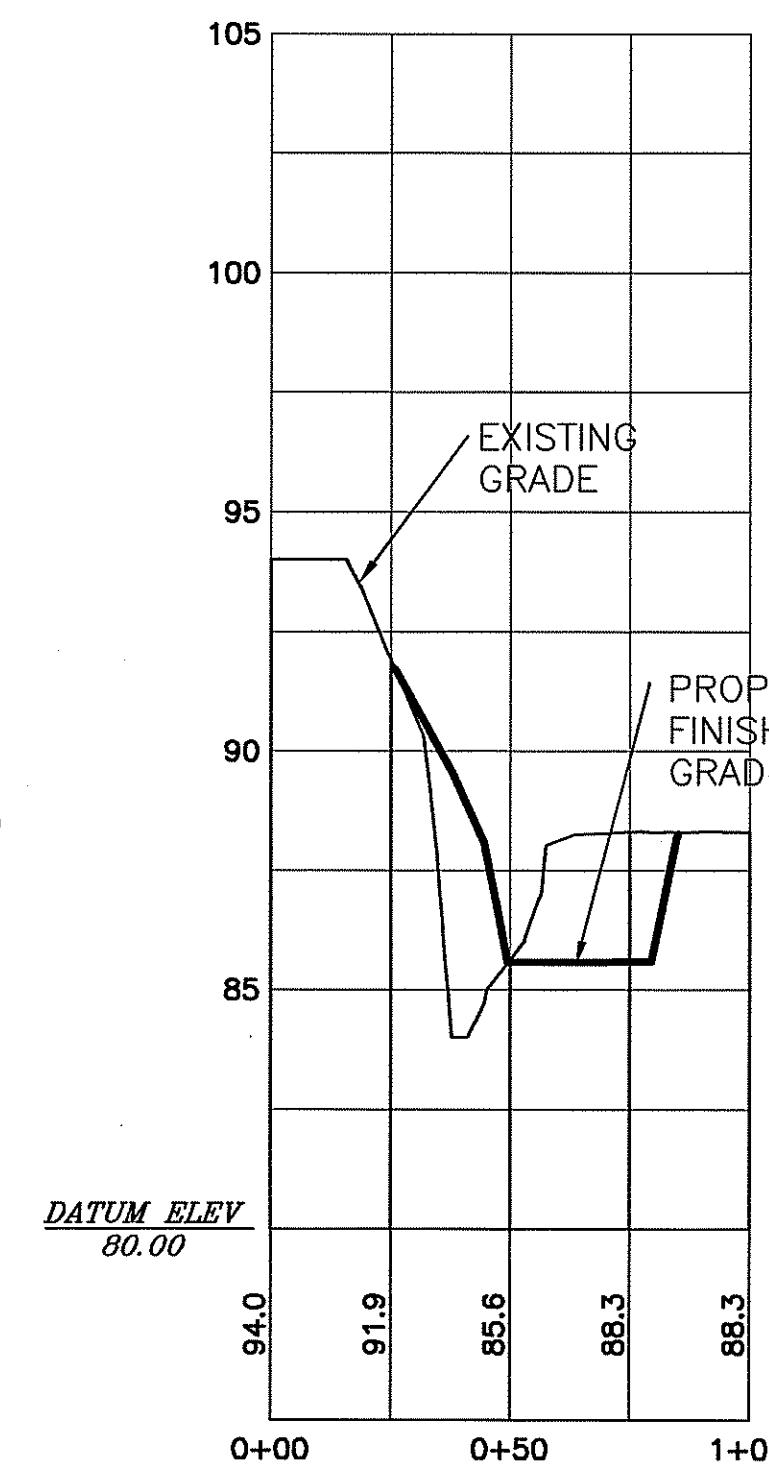




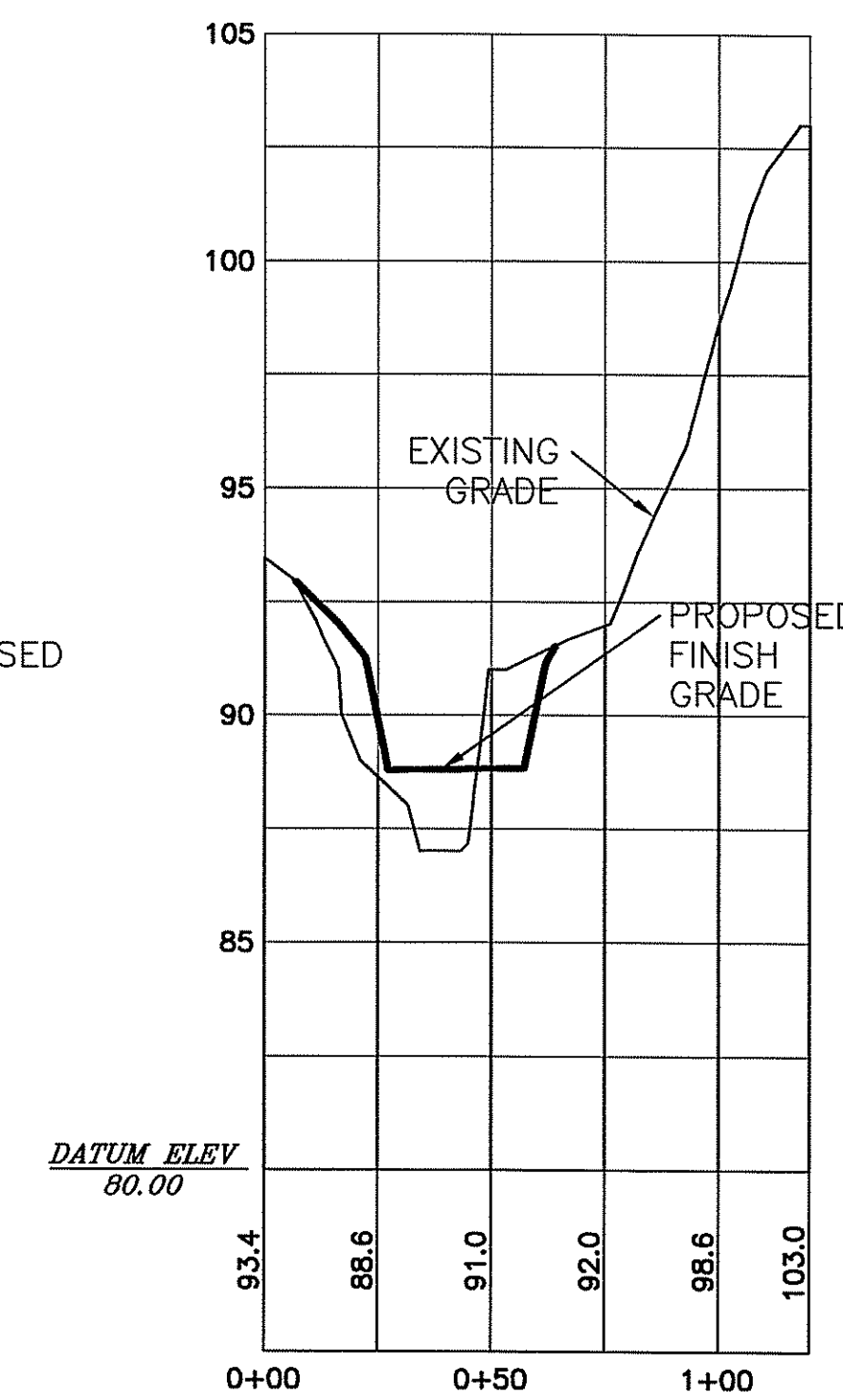
PROPOSED CHANNEL CENTERLINE PROFILE



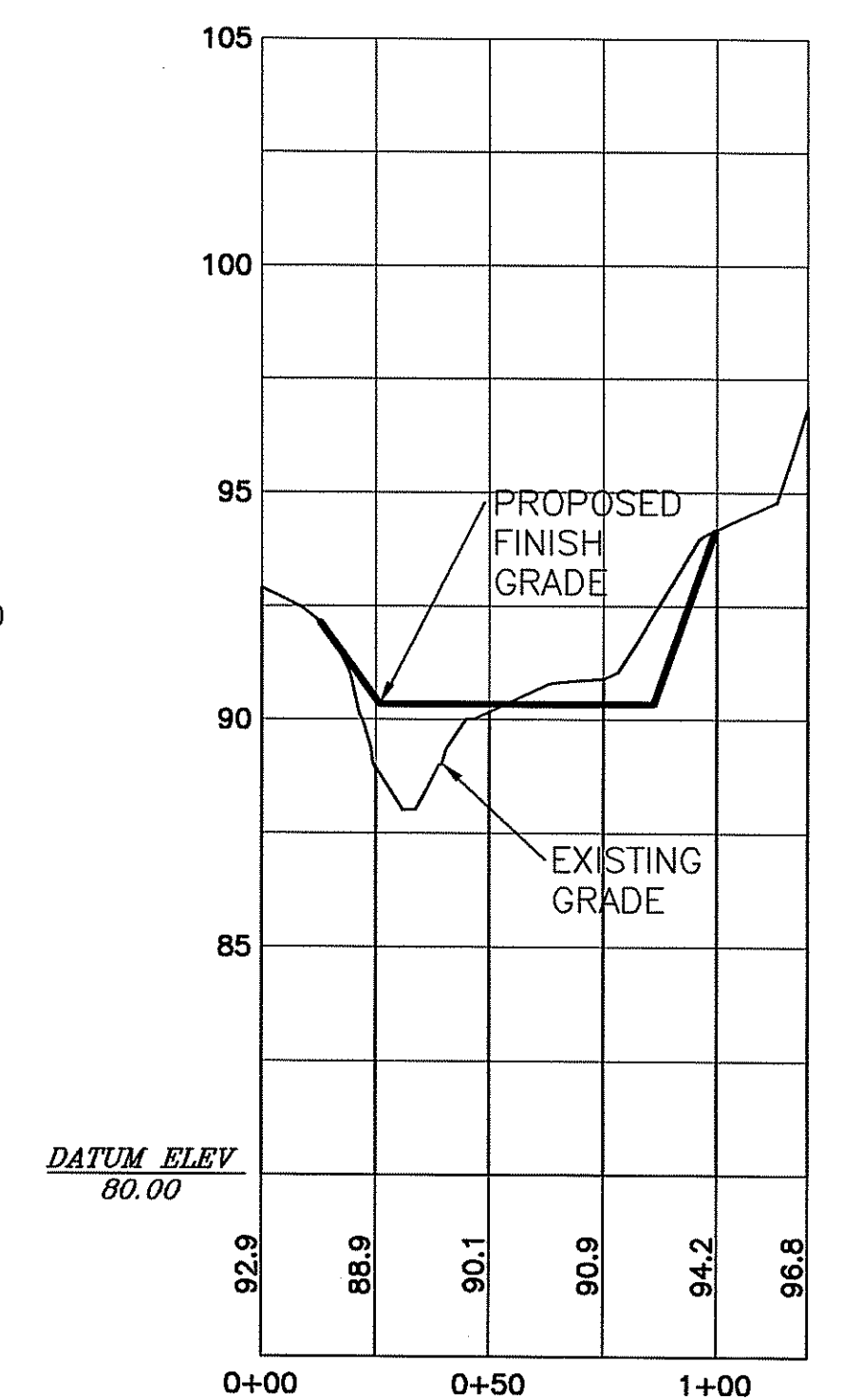
CROSS SECTION A-A'



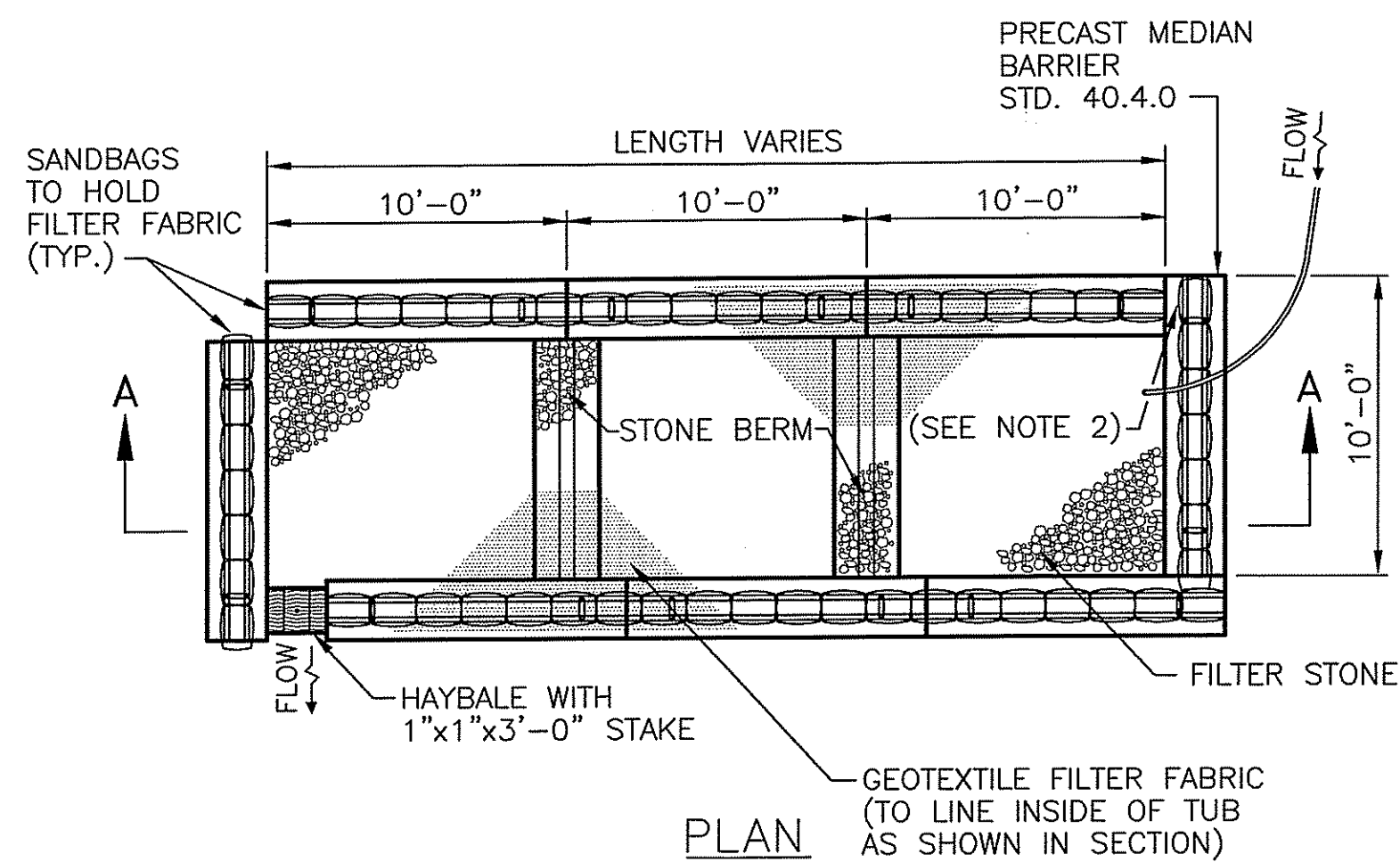
CROSS SECTION B-B'



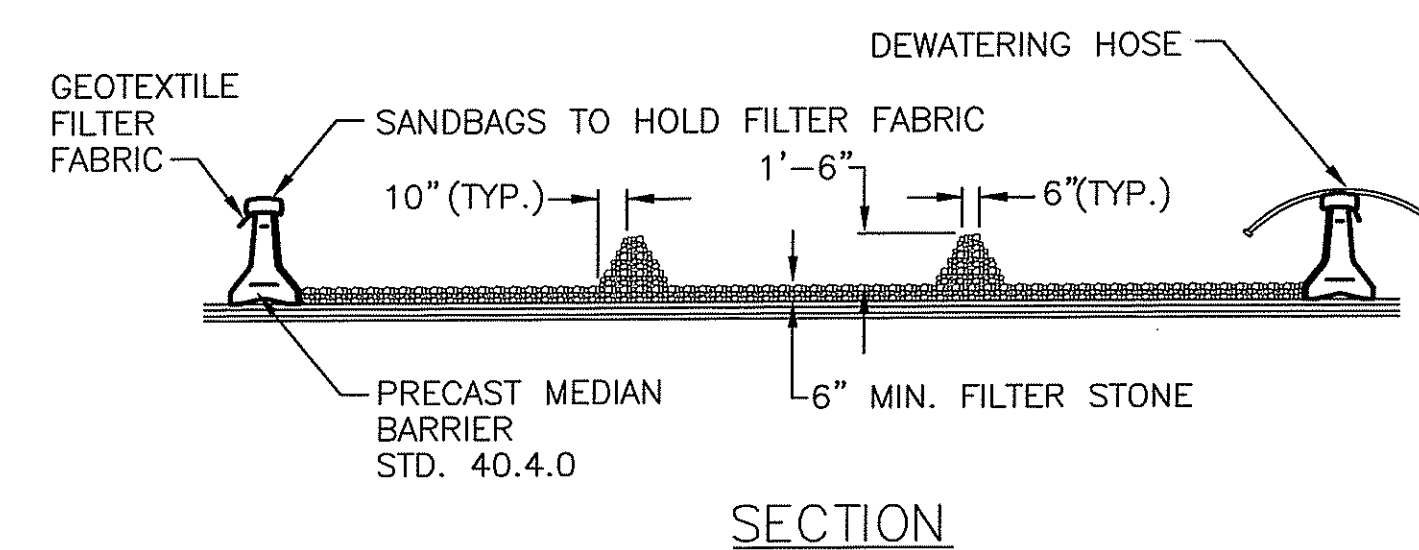
CROSS SECTION C-C'



CROSS SECTION D-D'



PLAN



SECTION

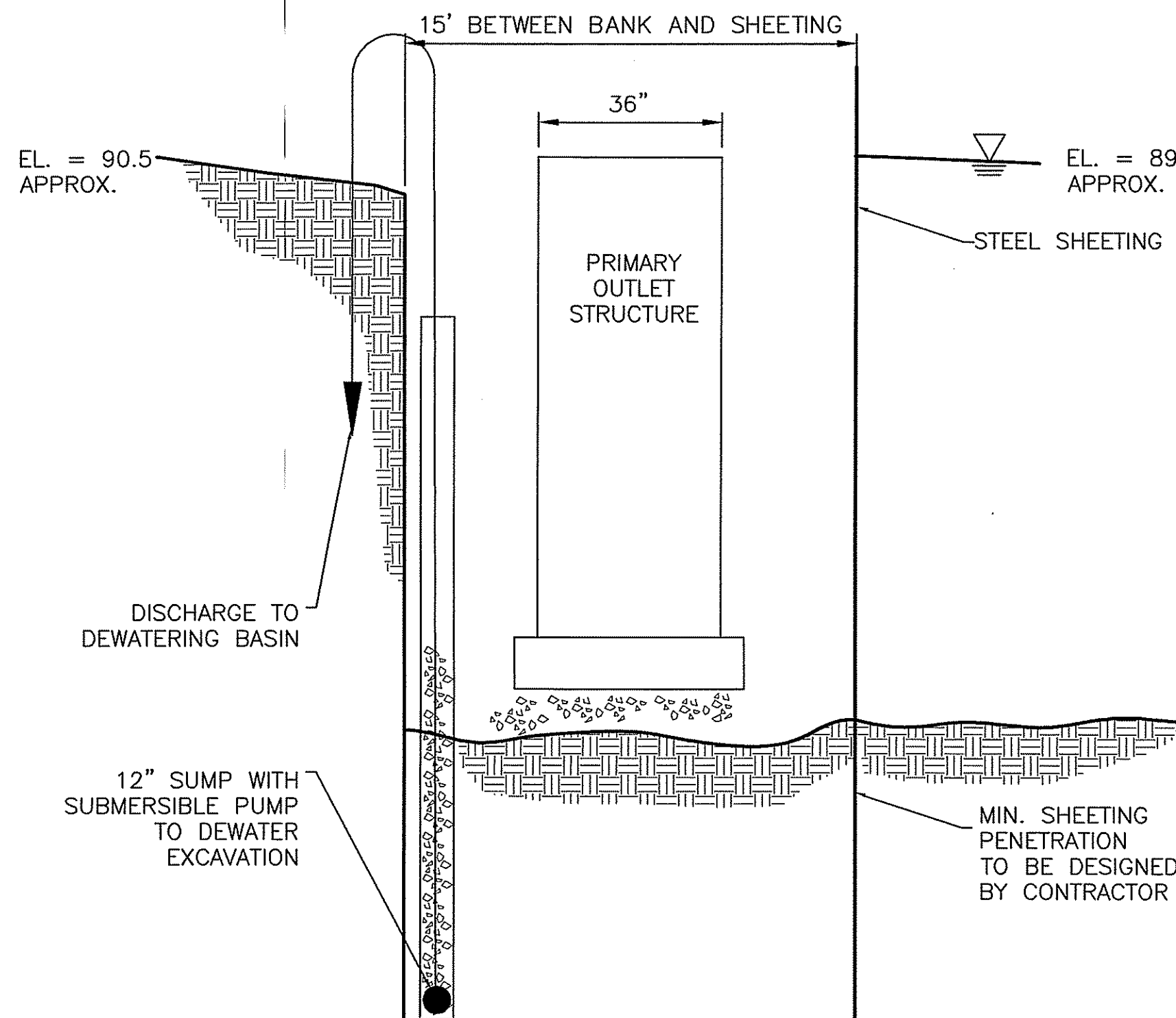
NOTES:

1. PROVIDE ADDITIONAL SAND BAGS AS REQUIRED TO FILL SPACE BETWEEN ADJACENT BARRIERS.
2. DEWATERING BASIN SHALL BE DESIGNED BY CONTRACTOR.
3. LOCATION OF DEWATERING BASIN SHALL BE AS SEEN ON SHEET C-3.
4. NO DISCHARGES TO SURFACE WATERS FROM DEWATERING BASIN WILL BE ALLOWED AT ANY TIME DURING THE WORK.

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 208 OF THE R.I. STANDARD SPECIFICATIONS.
2. PROVIDE ADDITIONAL SAND BAGS AS REQUIRED TO FILL SPACE BETWEEN ADJACENT BARRIERS.

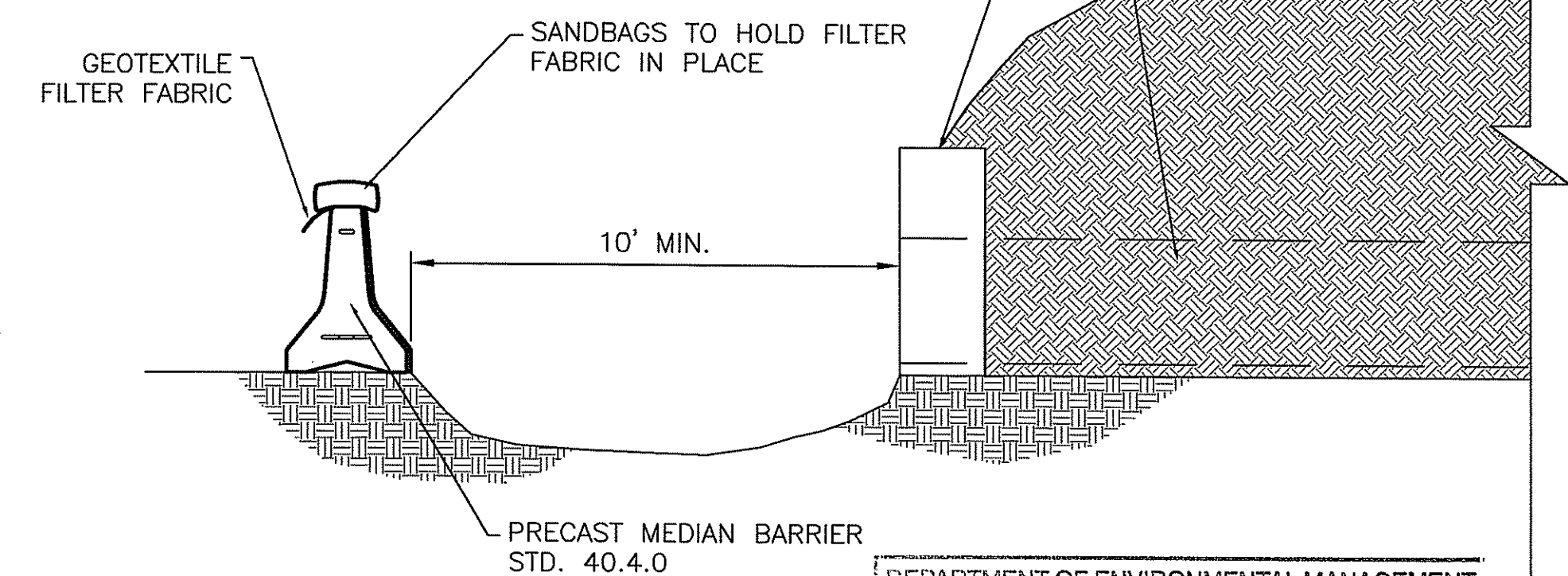
1 DEWATERING BASIN
C-4



2 COFFERDAM SECTION E-E'
C-4

NOTES:

1. CONTRACTOR SHALL INSTALL CHECK DAM PRIOR TO COMMENCING JET CLEANING OF EXISTING 30" LINE.
2. CONTRACTOR SHALL CONTROL JET CLEANING OPERATION TO TAKE CARE TO NOT INUNDATE OR OVERFLOW CHECK DAM.
3. CONTRACTOR SHALL PUMP OUT AND DISPOSE OF ALL SEDIMENT.
4. LOCATION OF CHECK DAM SHALL BE AS SEEN ON SHEET C-3.



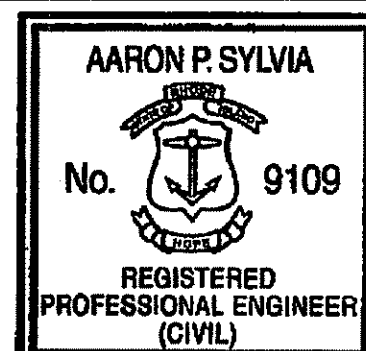
3 CHECK DAM DETAIL
C-4

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 22 2011 FILE # 11-2078
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Carney

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

The LOUIS BERGER GROUP, Inc.



Aaron P. Sylvia
REGISTERED PROFESSIONAL ENGINEER
8/17/2011
DATE

DRAWN BY: AS
DEPT CHECK: CF
PROJECT CHECK: TP

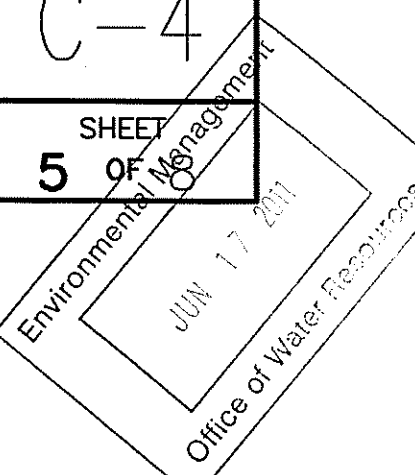
CAROLINA TROUT POND SPILLWAY REPAIR, RICHMOND, RI

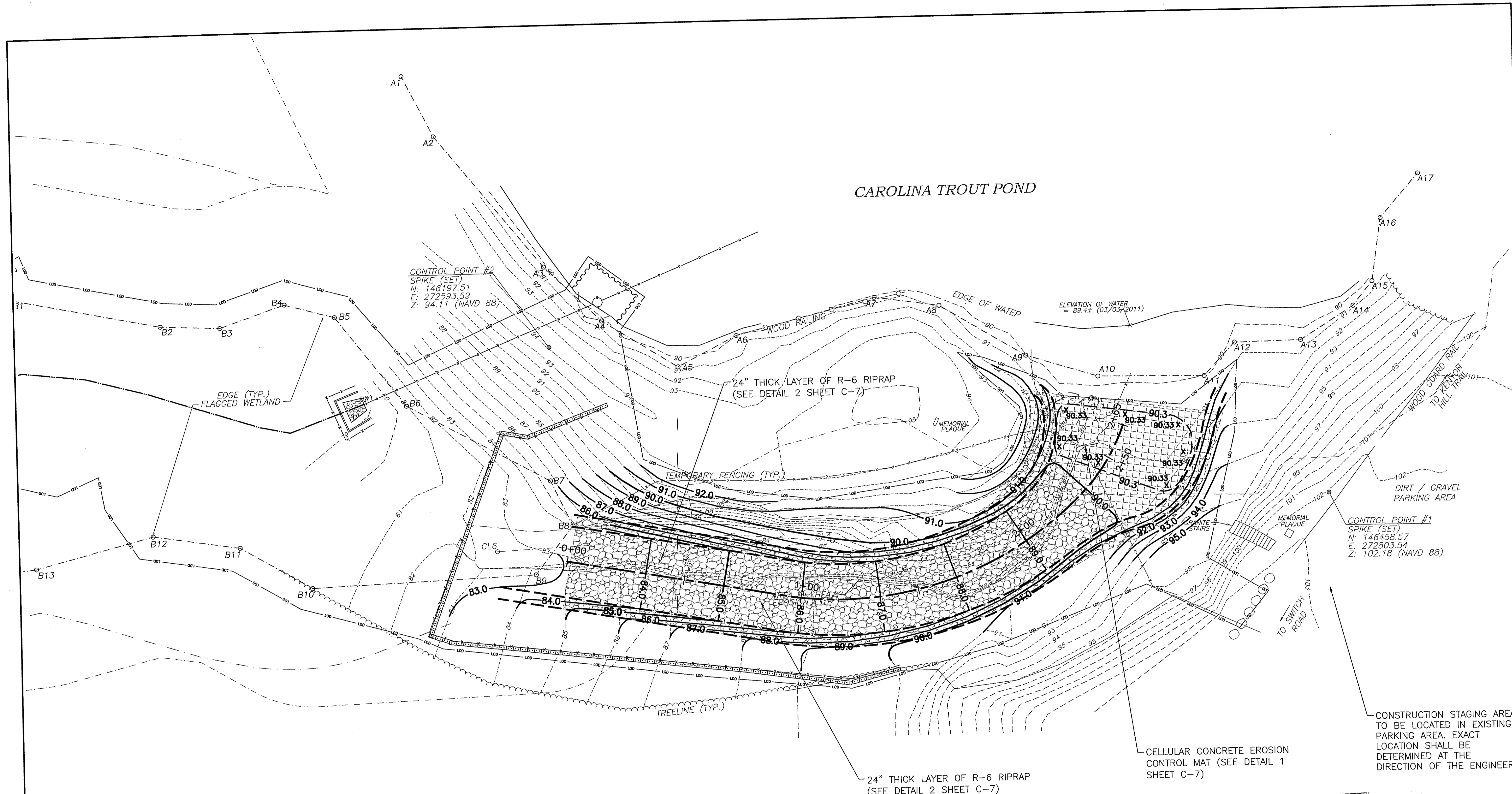
RIDEM PROJ. No. 09-11

CROSS SECTIONS

C-4
SHEET 5 OF 5

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.





- NOTES:
- CONTRACTOR SHALL INSTALL EMERGENCY SPILLWAY TO THE GRADES SHOWN ON THIS SHEET, AND AS SHOWN IN THE CROSS SECTIONS ON SHEET C-4.
 - CONTRACTOR TO INSTALL GEOTEXTILE FABRIC, CELLULAR CONCRETE EROSION CONTROL MAT, RIPRAP, FILTER STONE, AND SEEDING AS SEEN IN DETAILS 1 AND 2 ON SHEET C-7.

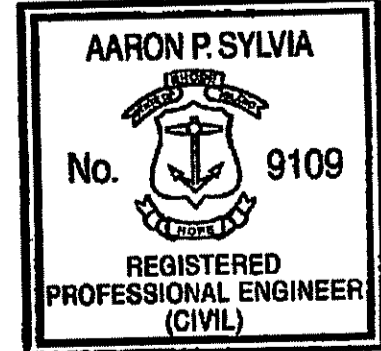
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUL 22 2011 FILE # 11-0078
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Conroy

0 20 40
 SCALE OF FEET

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

The LOUIS BERGER GROUP, Inc.



Aaron P. Sylvia
 REGISTERED PROFESSIONAL ENGINEER
 6/17/2011
 DATE

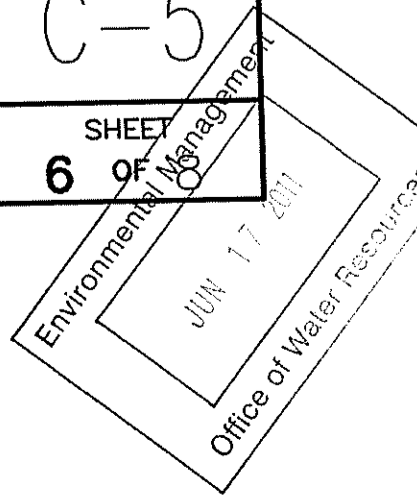
DRAWN BY:
 AS
 DEPT CHECK:
 CF
 PROJECT CHECK:
 TP

CAROLINA TROUT POND SPILLWAY REPAIR, RICHMOND, RI

PROPOSED CHANNEL ARMORING PLAN

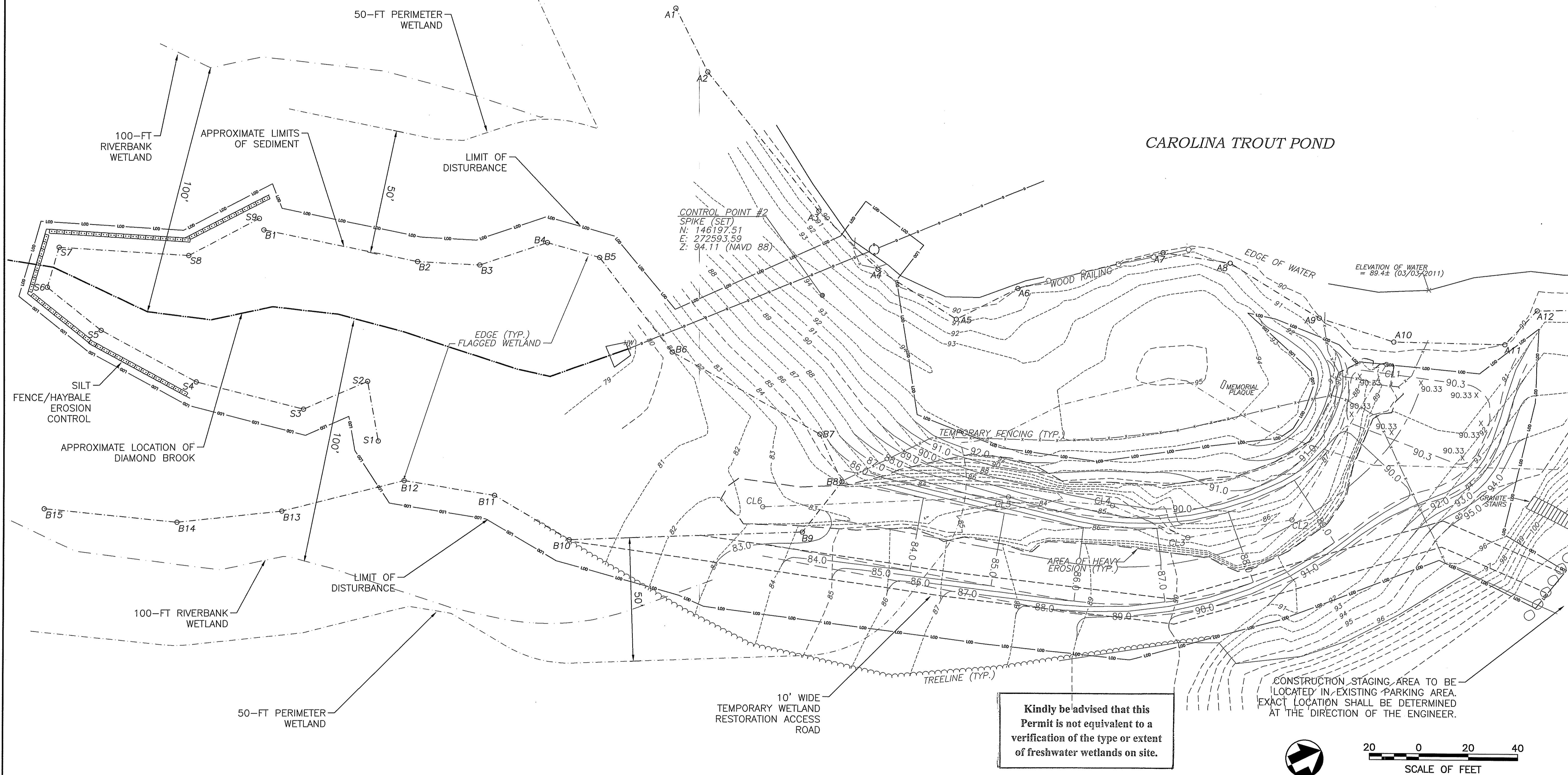
RIDEM PROJ. No.
 09-11
 C-5
 SHEET
 6 OF 6

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



NOTES:

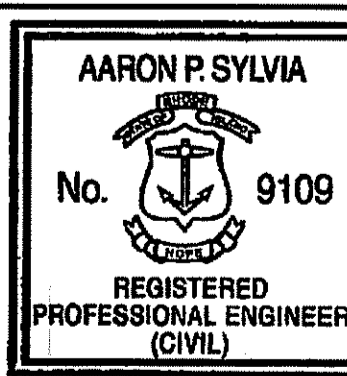
1. CONTRACTOR SHALL INSTALL 10' WIDE WETLAND ACCESS CONSTRUCTION ROAD USING APPROVED WOOD PANEL, COMPOSITE, TIRED, OR WOOD MAT TYPE PRODUCTS.
2. CONTRACTOR SHALL REMOVE ALL SEDIMENT THAT IS GREATER OR EQUAL TO 2" IN DEPTH WITHIN THE LIMITS SHOWN ON THIS SHEET (DESIGNATED BY WETLAND FLAG LINE SEGMENTS S1-S9 AND B1 - B12).
3. CONTRACTOR SHALL REMOVE TEMPORARY ACCESS ROAD UPON COMPLETION OF THE WETLAND RESTORATION.
4. SEE WETLAND RESTORATION NOTES ON SHEET C-1 FOR FURTHER CLARIFICATION.



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

The LOUIS BERGER GROUP, Inc.



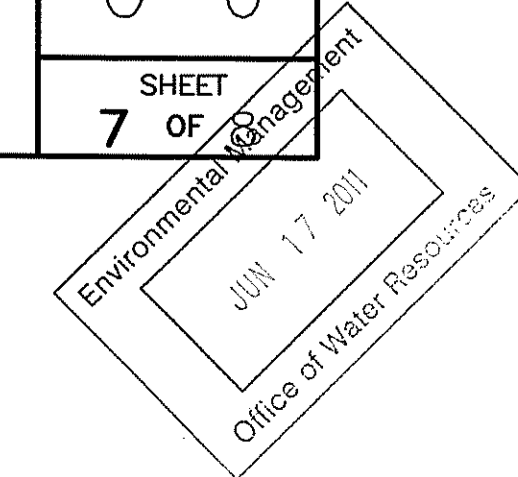
Aaron P. Sylvia
 REGISTERED PROFESSIONAL ENGINEER
 6/17/2011
 DATE

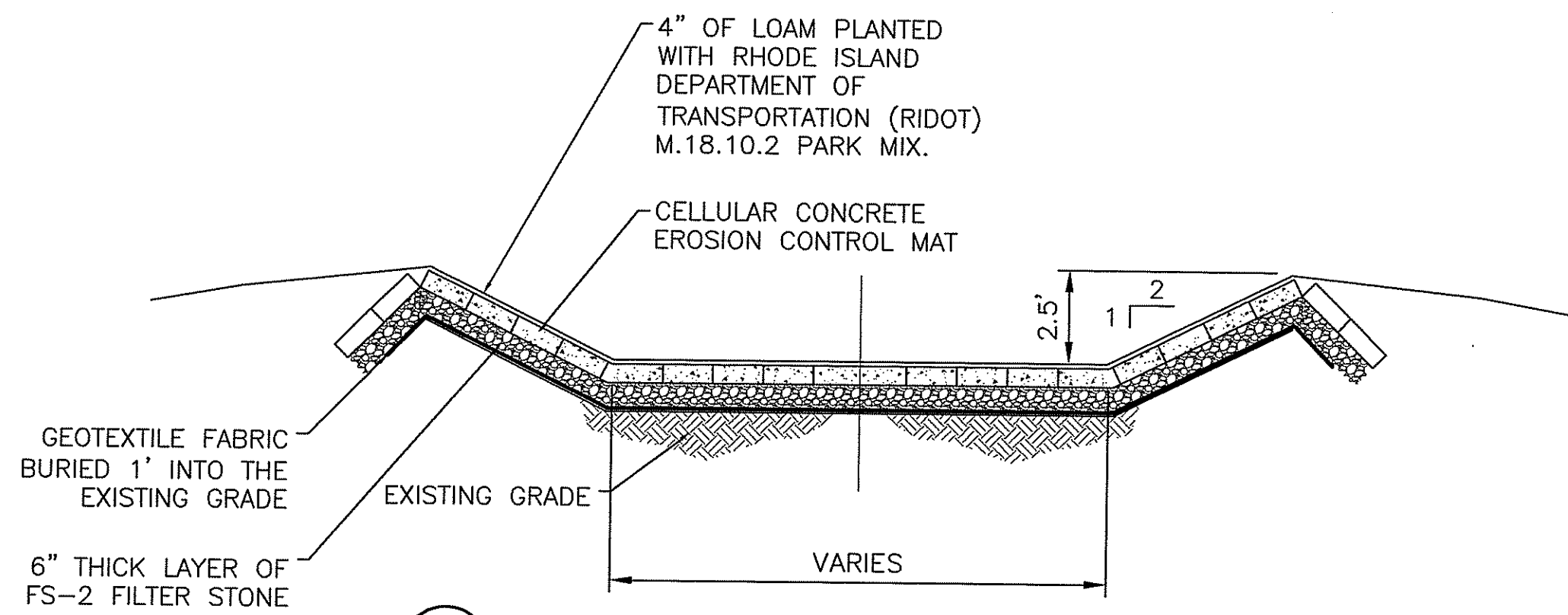
DRAWN BY:
 AS
 DEPT CHECK:
 CF
 PROJECT CHECK:
 TP

CAROLINA TROUT POND SPILLWAY REPAIR, RICHMOND, RI
WETLAND RESTORATION PLAN

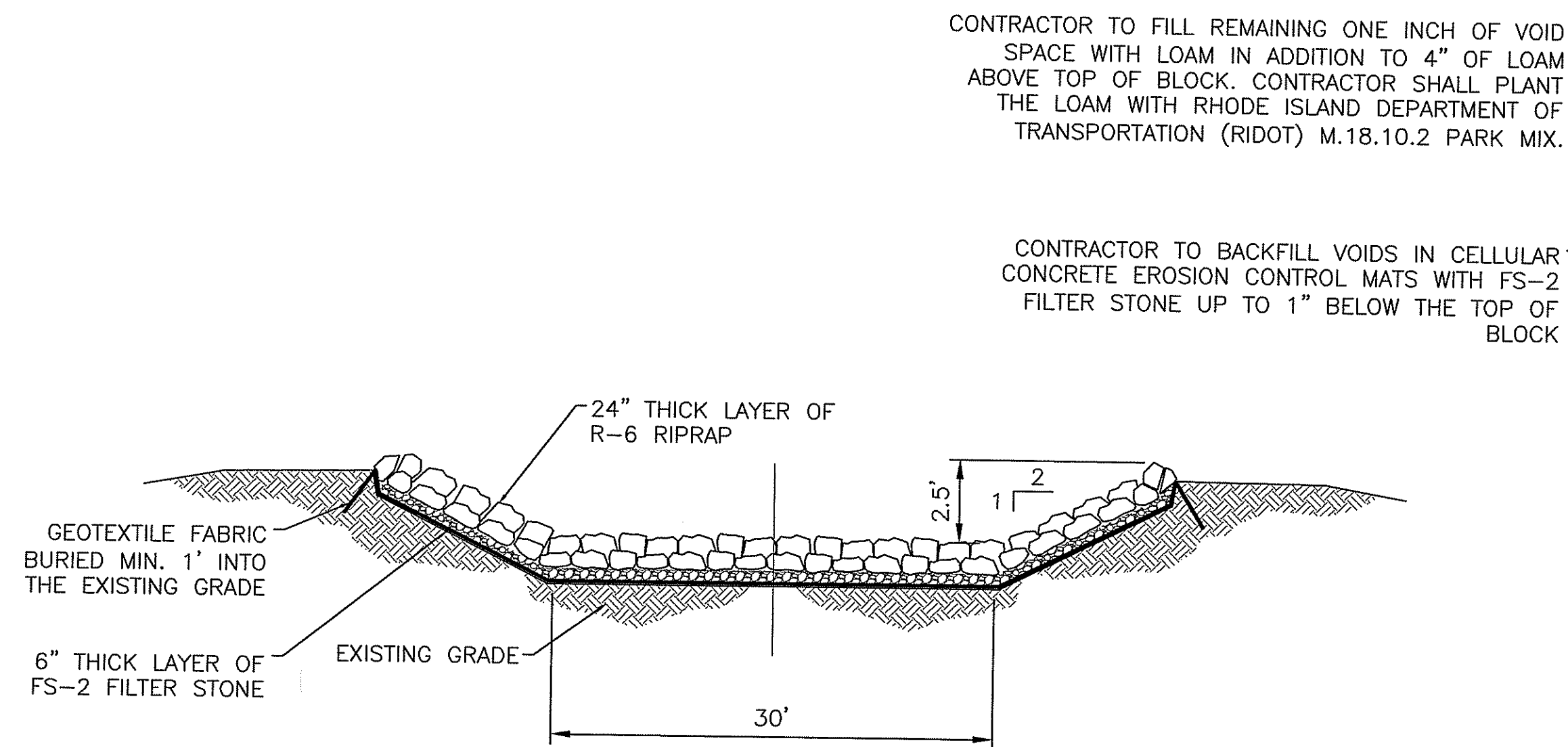
RIDEM PROJ. No.
 09-11
C-6
 SHEET
 7 OF

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED **JUL 22 2011** FILE # **11-0078**
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
W. Joseph Casey

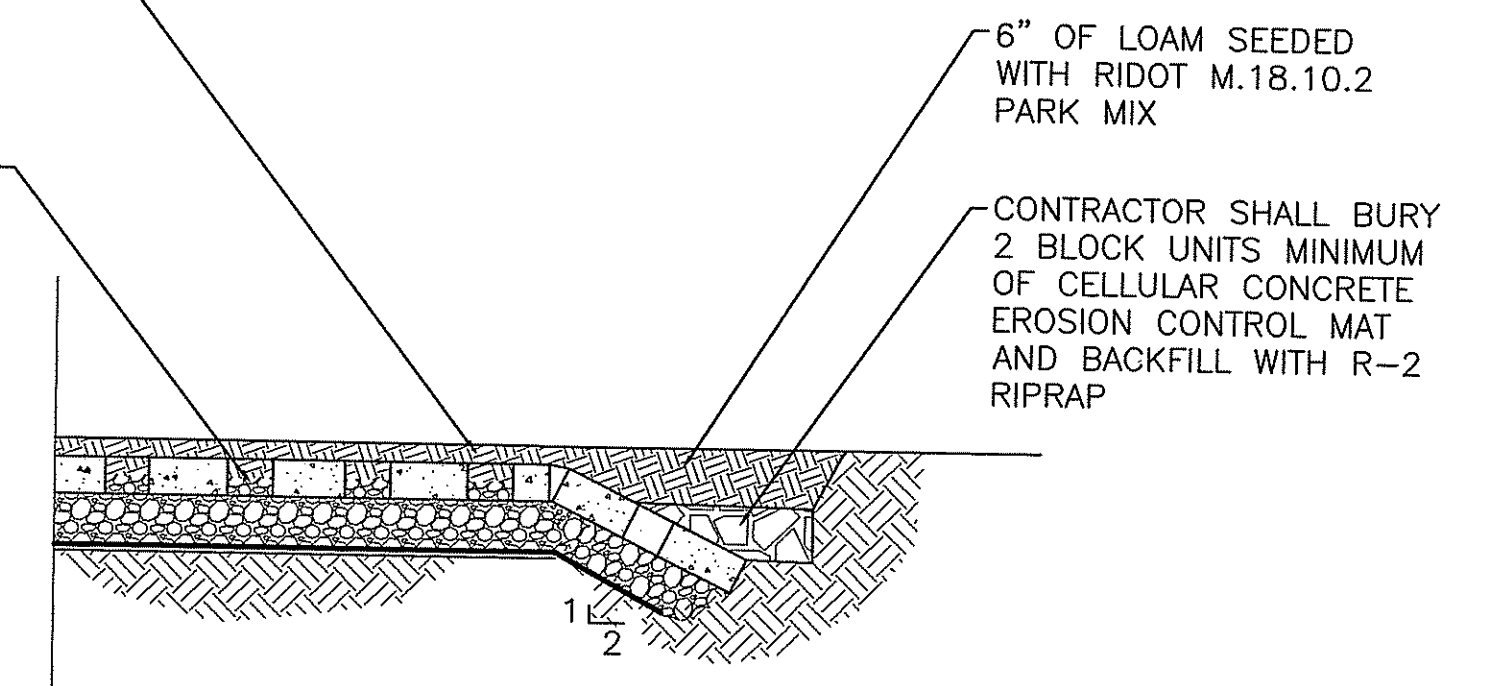




1 EMERGENCY SPILLWAY STA 2+33 TO 2+75
C-7

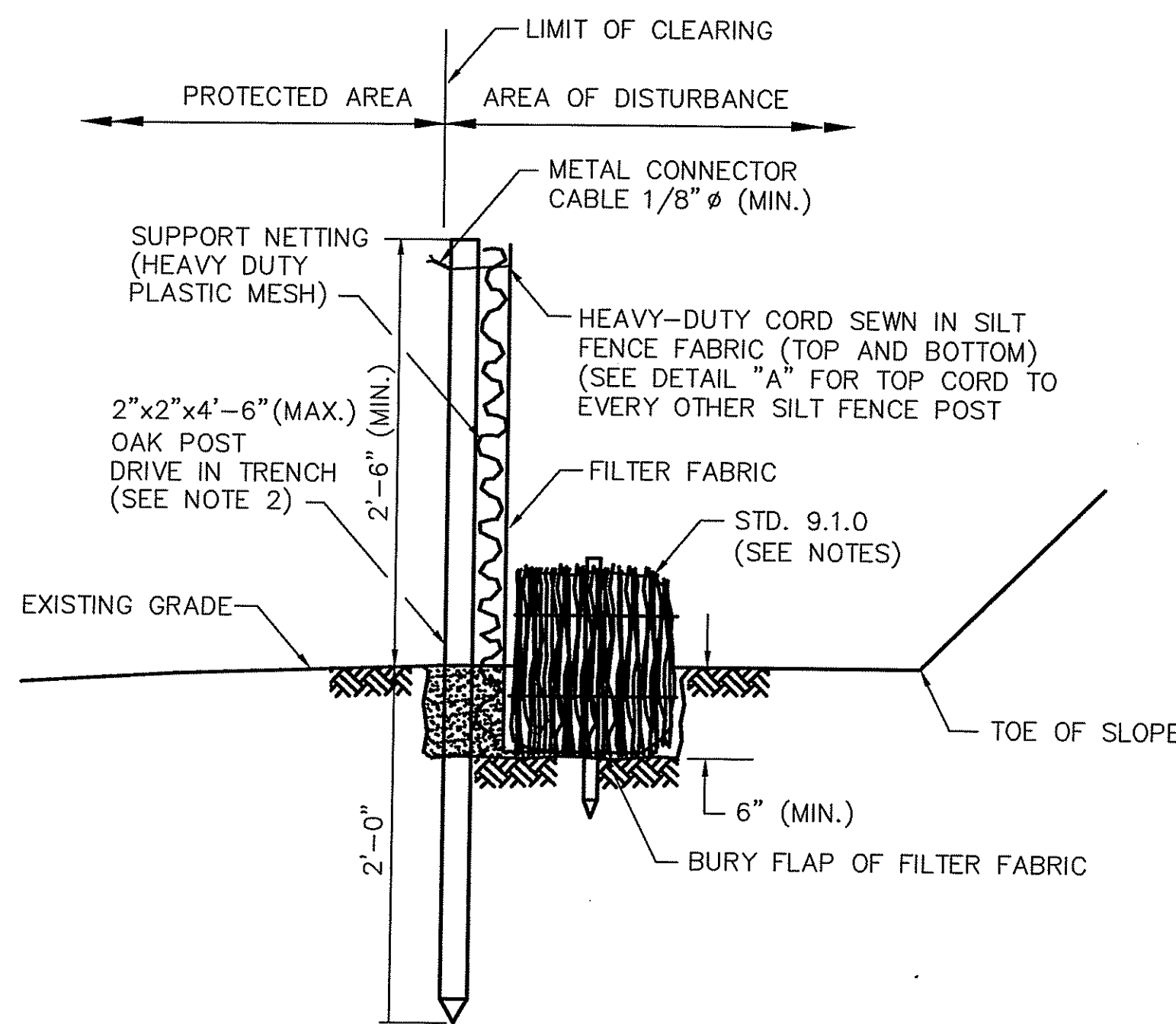


2 EMERGENCY SPILLWAY STA 0+00 TO STA 2+33
C-7



3 CELLULAR CONCRETE EROSION CONTROL MAT TERMINATION DETAIL
C-7

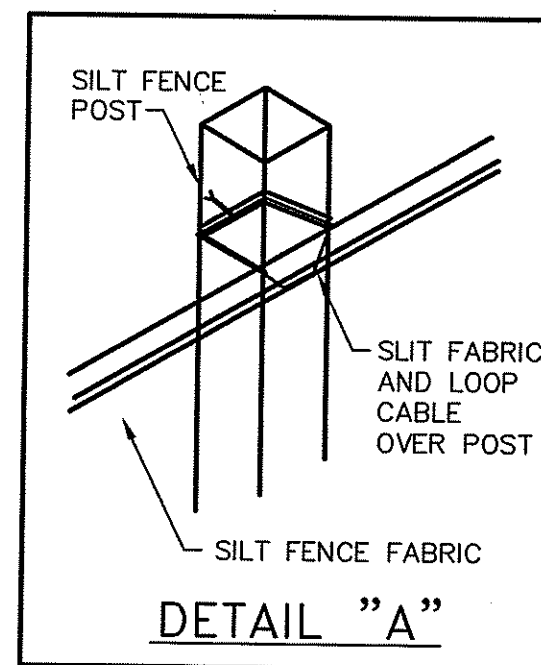
NOTE :
1. THIS DETAIL APPLIES TO UPSTREAM AND DOWNSTREAM ENDS OF THE AREA OF COVERAGE WITH CELLULAR CONCRETE EROSION CONTROL MATS.



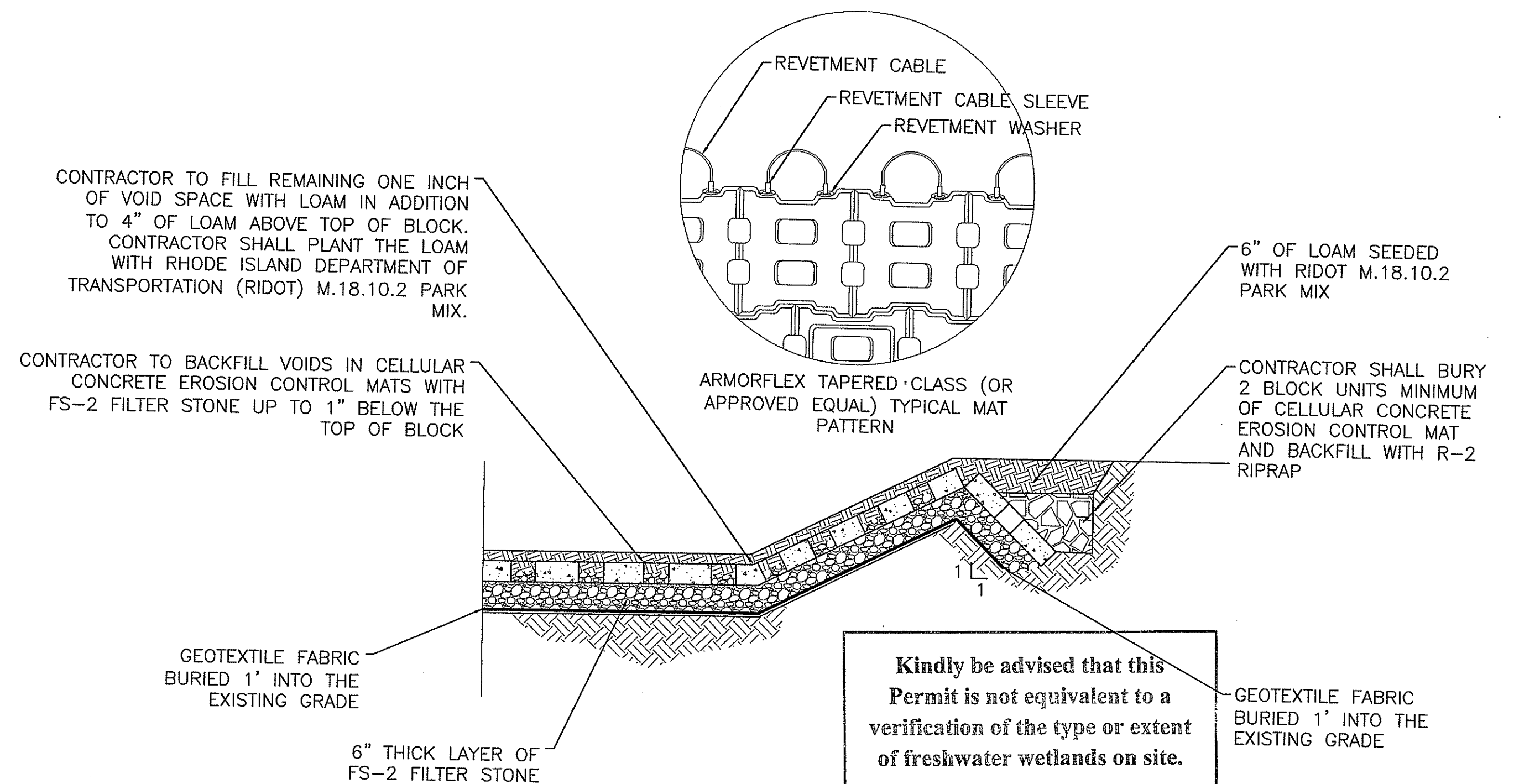
4 SILTFENCE/HAYBALE COMBINATION DETAIL
C-7

NOTES :

1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. STD. 9.1.0 IS INSTALLED "TIGHT" AGAINST SILT FENCE. THOROUGHLY COMPACT EXCAVATED SOILS BACK INTO TRENCH AFTER INSTALLATION OF EROSION CONTROL DEVICE. SILT FENCE FABRIC SHALL NOT BE SLIT. STD. 9.1.0 POST SHALL BE DRIVEN THROUGH SILT FENCE FABRIC. 2"x2"x4'-6" (MAX.) OAK POST FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
3. 1"x1"x4'-6" (MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE AND BALED HAY SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.



DETAIL "A"

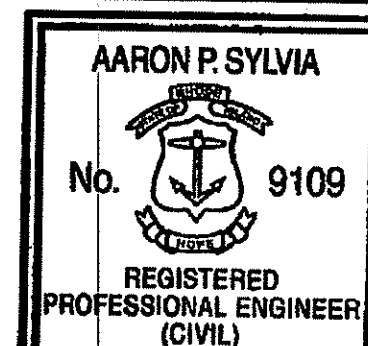


5 CELLULAR CONCRETE EROSION CONTROL MAT TOP OF SLOPE DETAIL
C-7

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

The LOUIS BERGER GROUP, Inc.



Aaron P. Sylvia
REGISTERED PROFESSIONAL ENGINEER
6/17/2011
DATE

DRAWN BY:
AS
DEPT CHECK:
CF
PROJECT CHECK:
TP

CAROLINA TROUT POND SPILLWAY REPAIR, RICHMOND, RI

RIDEM PROJ. No.
09-11

DETAILS

C-7

SHEET
8 OF 8

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 22 2011 FILE # 11-0278
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Coen

