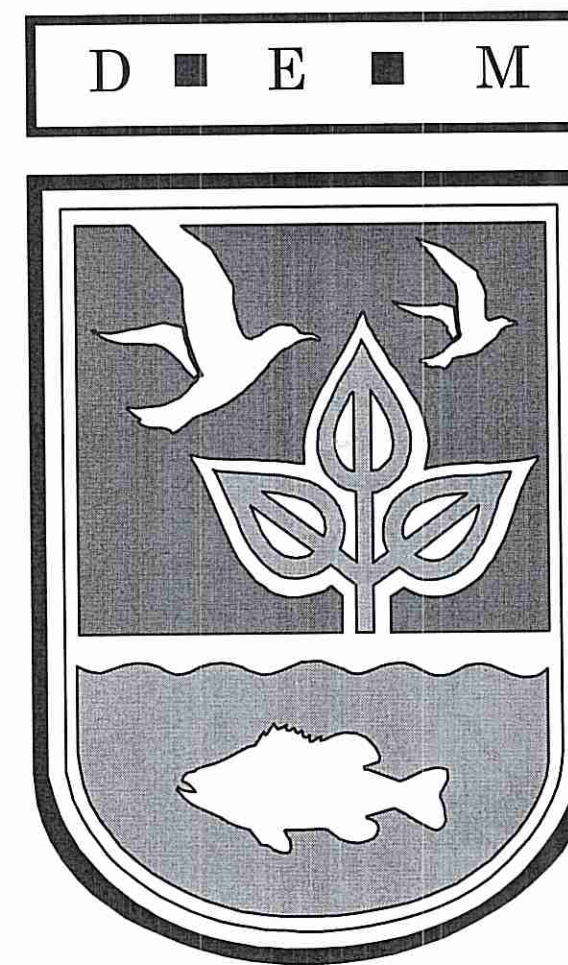


STATE OF RHODE ISLAND



DEPARTMENT OF ENVIRONMENTAL
MANAGEMENT

DIVISION OF PLANNING AND DEVELOPMENT

FRESHWATER BOAT RAMP IMPROVEMENTS

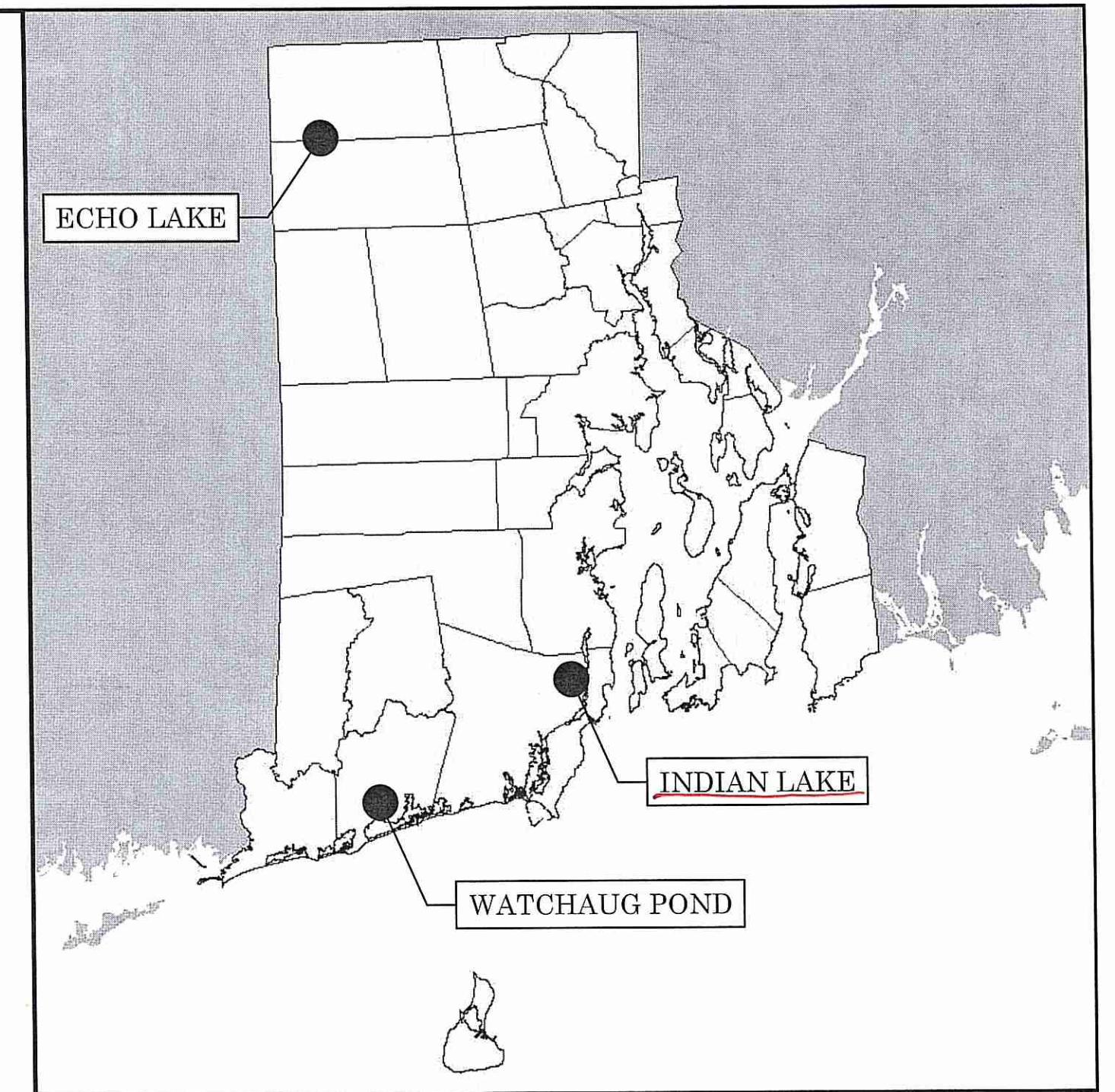
WATCHAUG POND, INDIAN LAKE, ECHO LAKE

P&D CONTRACT NUMBER 13-17

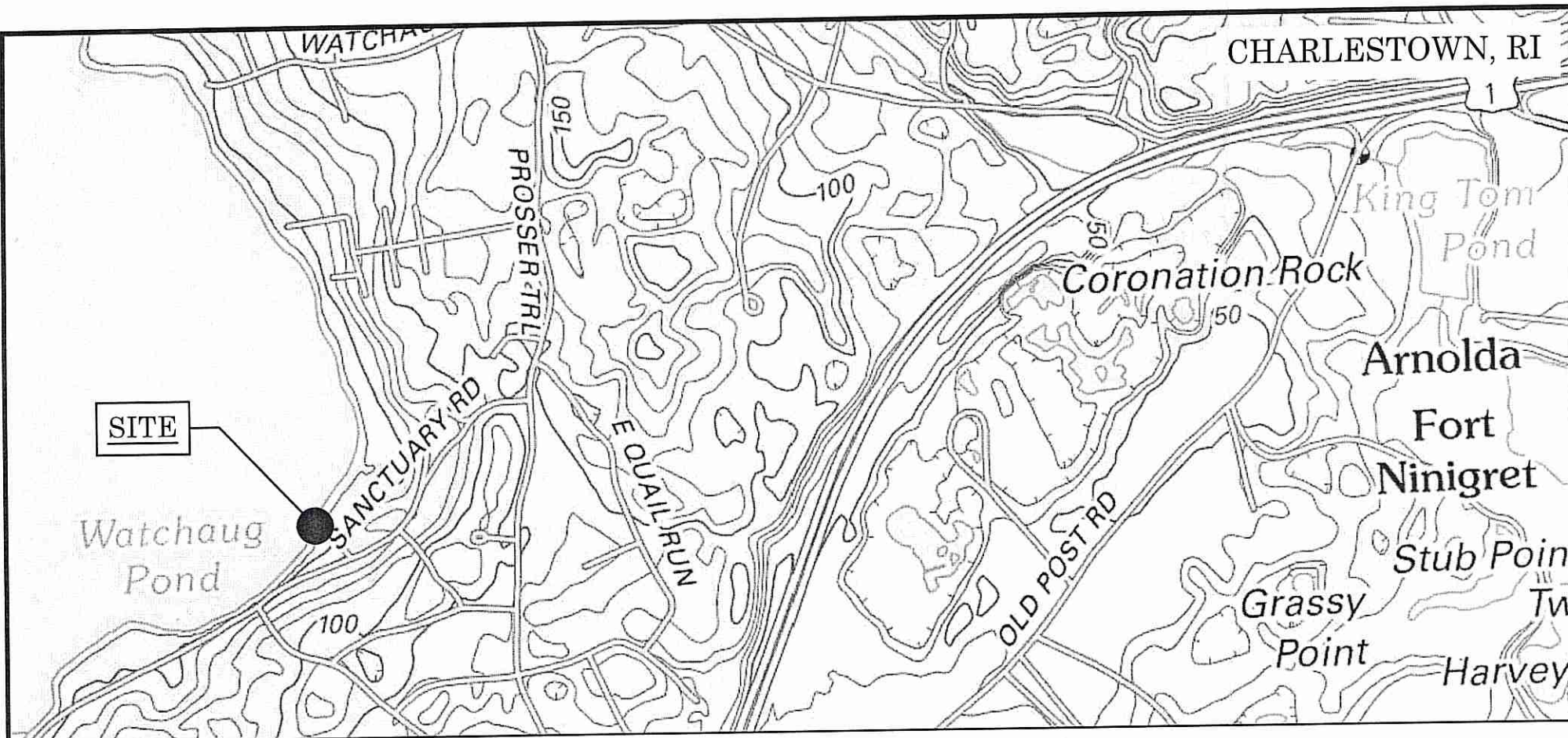
AUGUST, 2017

LIST OF DRAWINGS

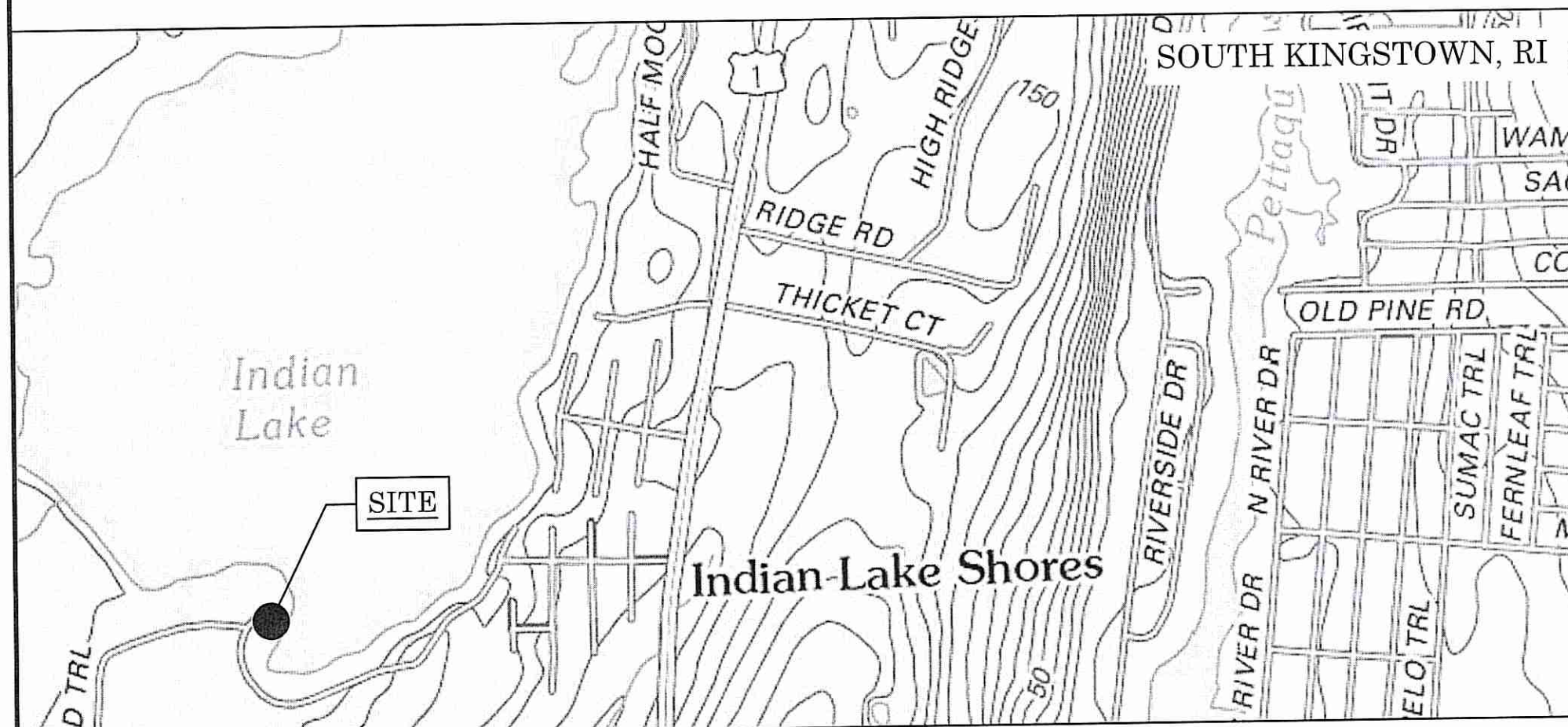
- C1 - WATCHAUG POND EXISTING CONDITIONS AND DEMOLITION PLAN
- C2 - WATCHAUG POND SITE PLAN AND BOAT RAMP PROFILE
- C3 - ECHO LAKE EXISTING CONDITIONS AND DEMOLITION PLAN
- C4 - ECHO LAKE SITE PLAN AND SECTIONS
- C5 - INDIAN LAKE EXISTING CONDITIONS AND DEMOLITION PLAN
- C6 - INDIAN LAKE SITE PLAN AND BOAT RAMP PROFILE
- C7 - SECTIONS AND DETIALS
- C8 - PRECAST CONCRETE BOAT RAMP SLABS



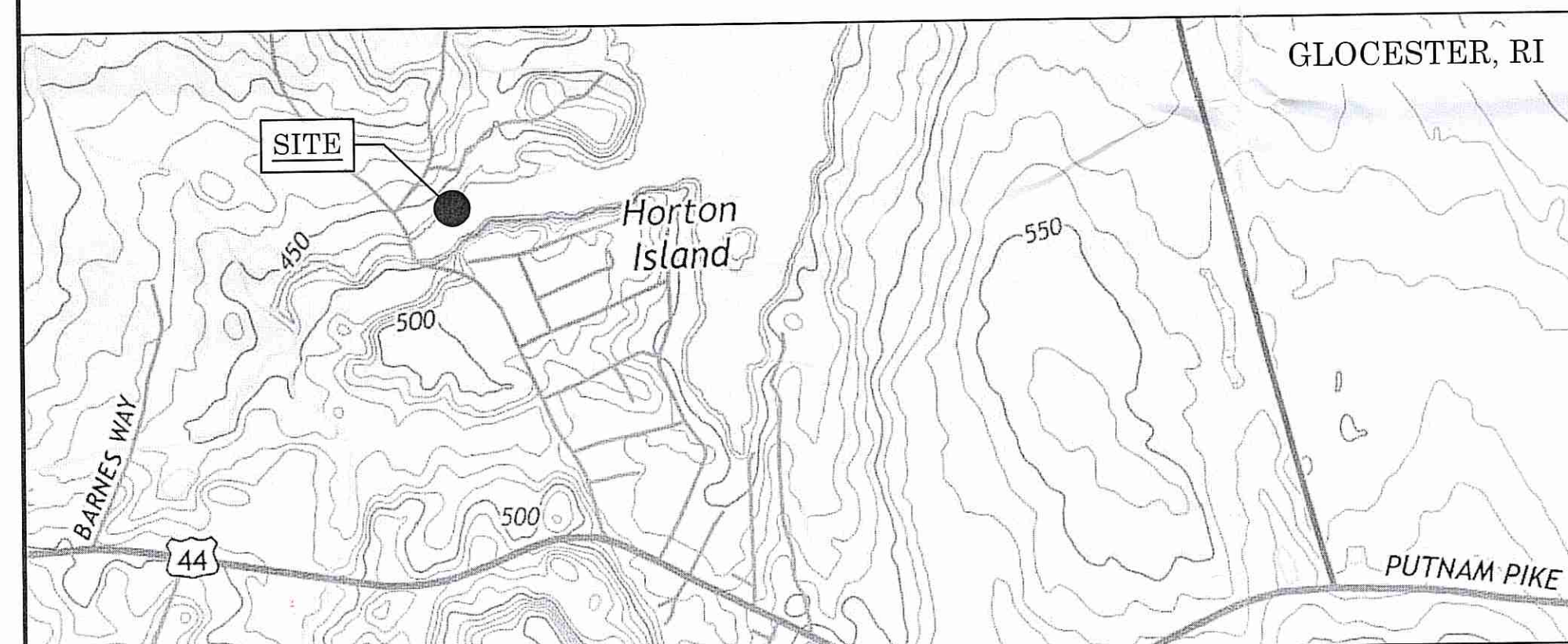
PROJECT LOCATION
NOT TO SCALE



WATCHAUG POND LOCUS MAP



INDIAN LAKE LOCUS MAP



ECHO LAKE LOCUS MAP

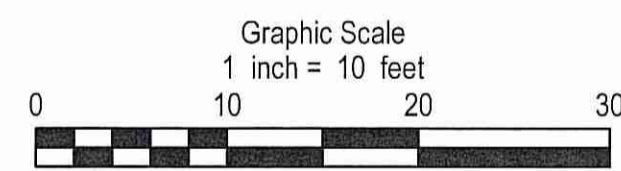
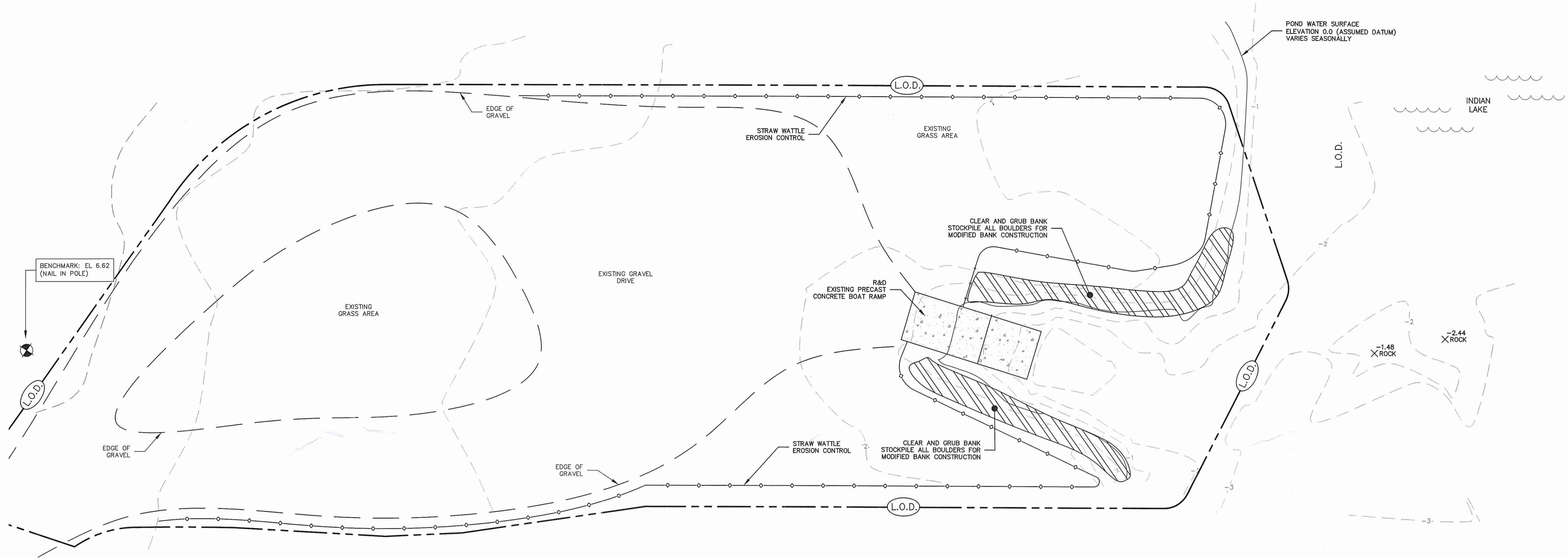
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED OCT 31 2017 FILE # 17-0200
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

OCT 17 2017



APPROVED BY _____ RIDEM DIRECTOR
APPROVED BY _____ RIDEM ASSOCIATE DIRECTOR
APPROVED BY _____ RIDEM CHIEF, DIVISION PLANNING & DEVELOPMENT
APPROVED BY _____ RIDEM CHIEF, OPERATING DIVISION





DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH COMMENTS
AS SPECIFIED IN THE COMMENTS
DATED OCT 31 2017 17-0200
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

OCT 17 2017

1	Construction Set Revisions	9/7
No.	Description	Date
REVISIONS:		

STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF PLANNING AND DEVELOPMENT

The Nature Conservancy
Protecting nature. Preserving life.

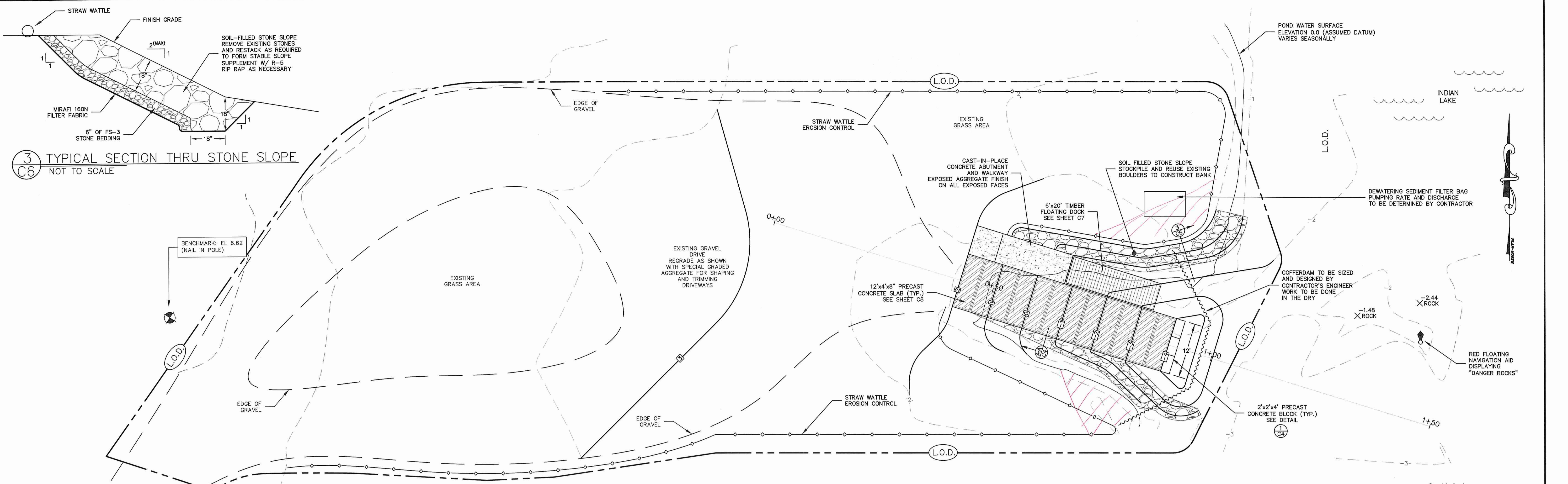
FRESHWATER BOAT RAMP
IMPROVEMENTS
(WATCHAUG, ECHO, INDIAN)

Design by: AFA
Drawn by: AFA
Checked by:
Date: August, 2017
Scale: 1" = 10'-0"
P&D Project No.: 13-17

ANDRES F. AVELEDO
No. 12256
10/16/17
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

INDIAN LAKE
EXISTING CONDITIONS
AND DEMOLITION PLAN

C5
SHEET 6 OF 9
2017



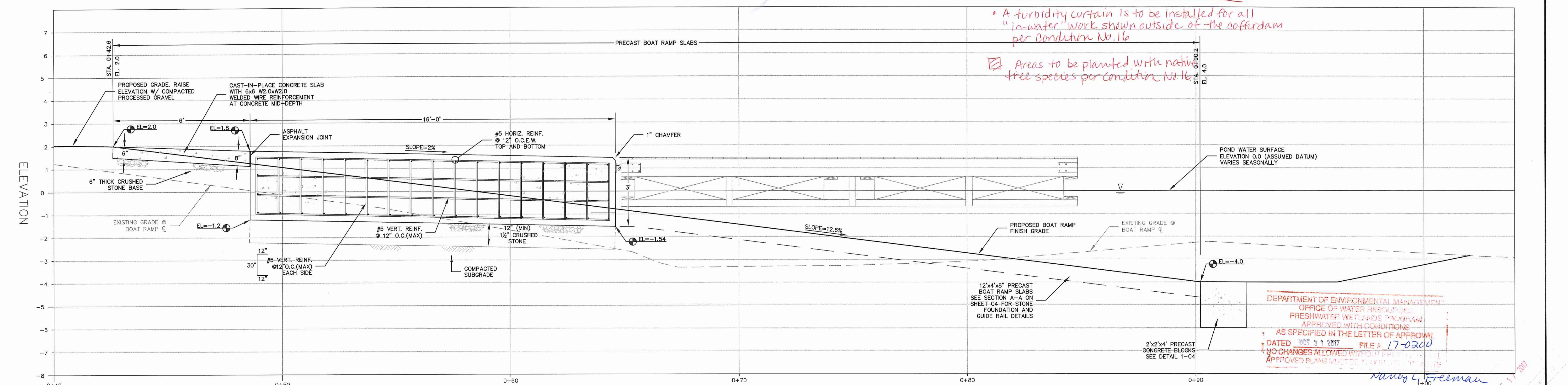
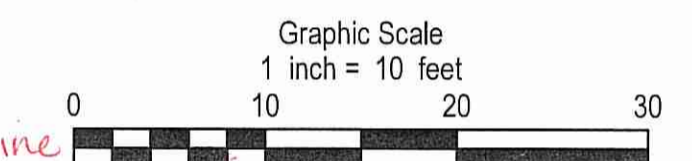
3 TYPICAL SECTION THRU STONE SLOPE
NOT TO SCALE

1 SITE PLAN
SCALE 1"=10'-0"

NOTE:
1. ALL EQUIPMENT SHALL REMAIN OUT OF THE WATERWAY FOR GRADING OPERATIONS OUTSIDE OF THE COFFERDAM. Grading operations are for stonework for shoreline stabilization - see Condition No. 16
Per R.I.D.E.H.'s Freshwater Wetlands Program:

A turbidity curtain is to be installed for all "in-water" work shown outside of the cofferdam per Condition No. 16

Areas to be planted with native tree species per Condition No. 16



2 BOAT RAMP AND FLOAT PROFILE
SCALE 1"=2'-0"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED OCT 31 2017 FILE # 17-0200
NO CHANGES ALLOWED WITHOUT PRIOR WRITTEN APPROVAL
APPROVED PLANS MUST BE AT THE SITE

Andy L. Freeman
10/30/17
OCT 11 2017

No.	Description	Date
1	Construction Set Revisions	9/7
2	Revised per regulatory comments	10/3
REVISIONS:		

STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF PLANNING AND DEVELOPMENT



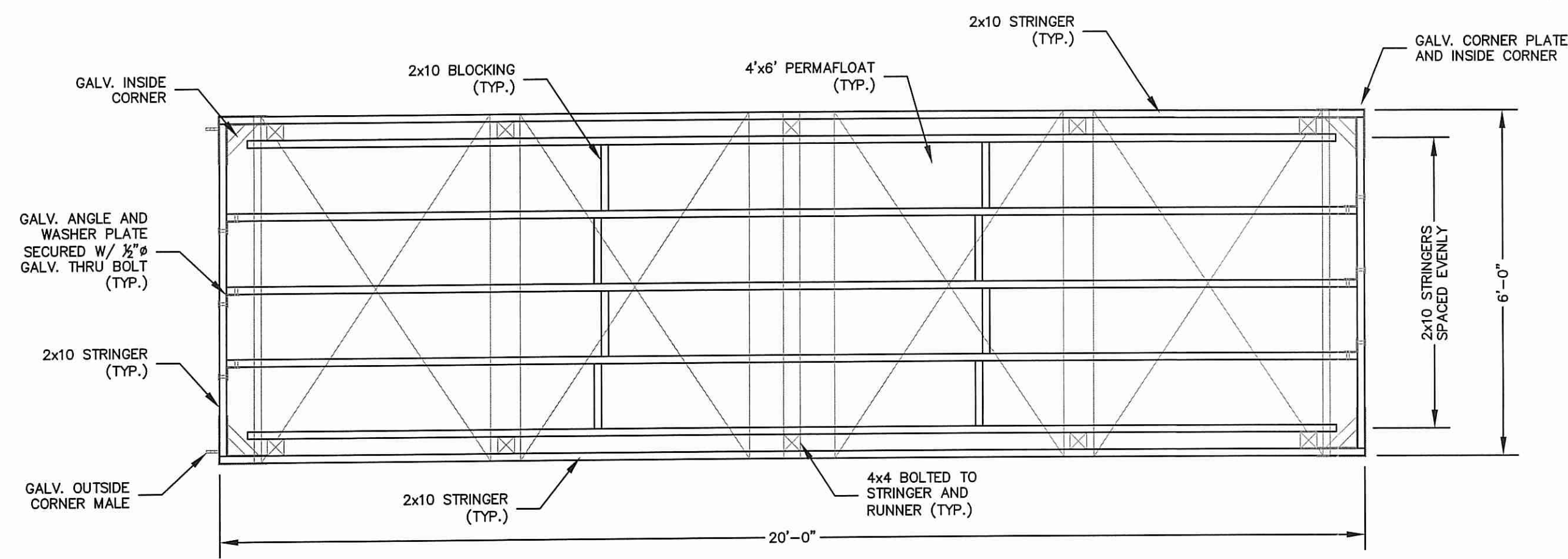
FRESHWATER BOAT RAMP
IMPROVEMENTS
(WATCHAUG, ECHO, INDIAN)

Design by: AFA
Drawn by: AFA
Checked by:
Date: August, 2017
Scale: As Noted
P&D Project No.: 13-17

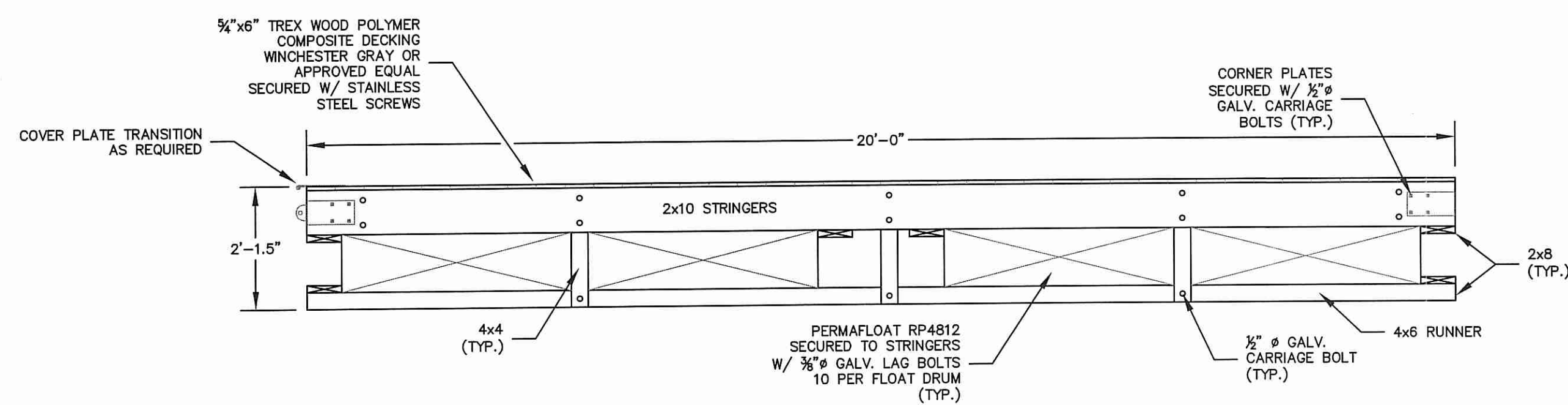
ANDRES F. AVELEDO
No. 12256
REGISTERED PROFESSIONAL ENGINEER
CIVIL

INDIAN LAKE
SITE PLAN
AND PROFILE

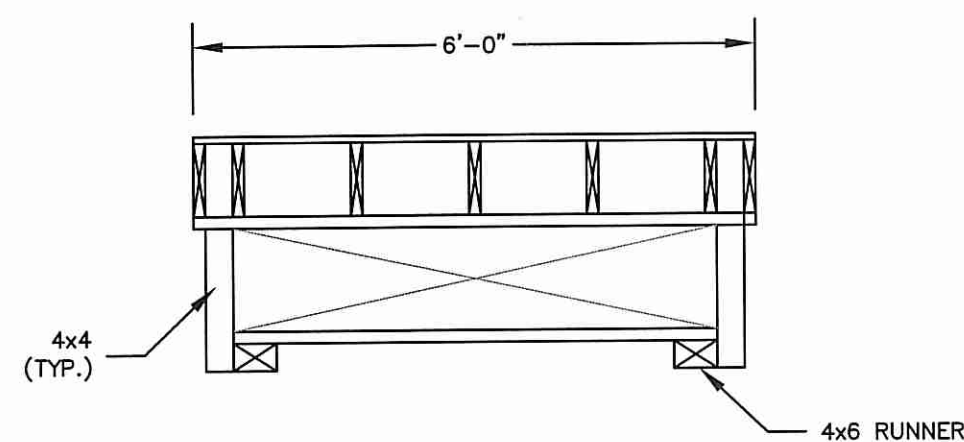
C6
SHEET 7 OF 9
3 of 4



1 TIMBER FLOAT FRAMING PLAN
C7 SCALE 1"=2"



2 TIMBER FLOAT ELEVATION
C7 SCALE 1"=2"

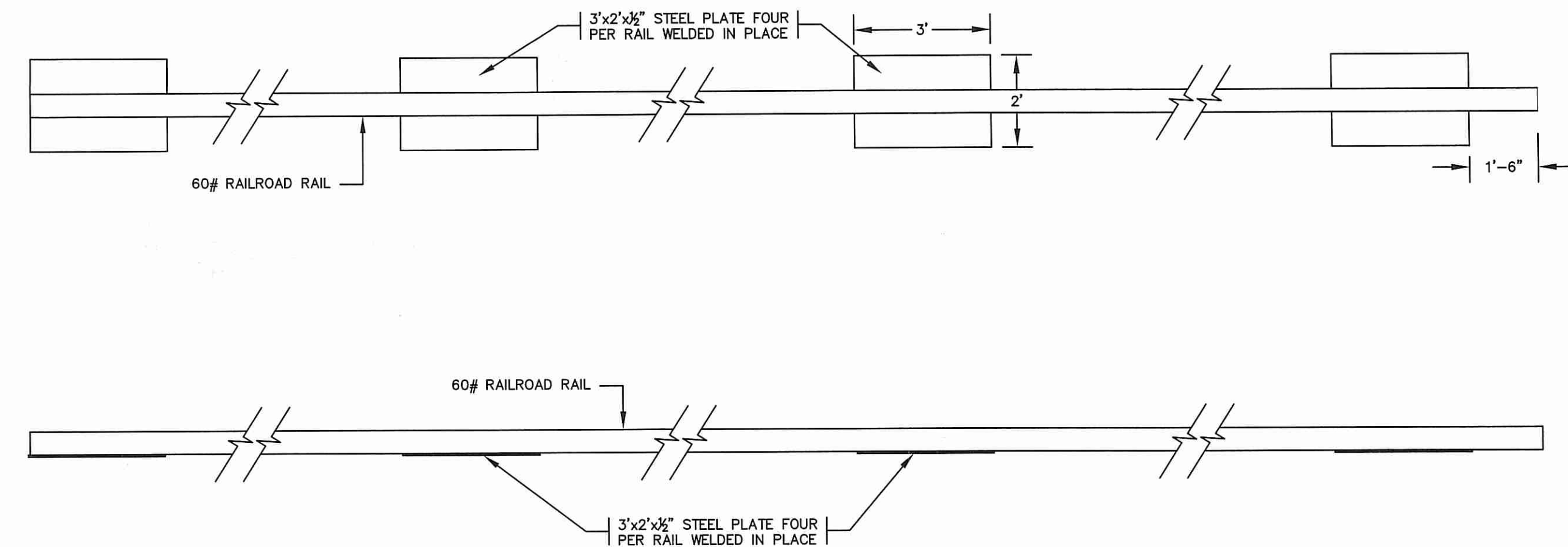


3 TIMBER FLOAT SECTION
C7 SCALE 1"=2"

PLANT SCHEDULE			
QTY.	SIZE	COMMON NAME	BOTANICAL NAME
5	6 FT.	GRAY BIRCH	BETULA POPULIFOLIA
3	6 FT.	RED MAPLE	ACER RUBRUM
4	#5	BAYBERRY	MYRICA PENNSYLVANICA
4	#5	WINTERBERRY	ILEX VERTICILLATA
4	#5	EARLY LOW BUSH BLUEBERRY	VACCINIUM ANGSTIFOLIUM

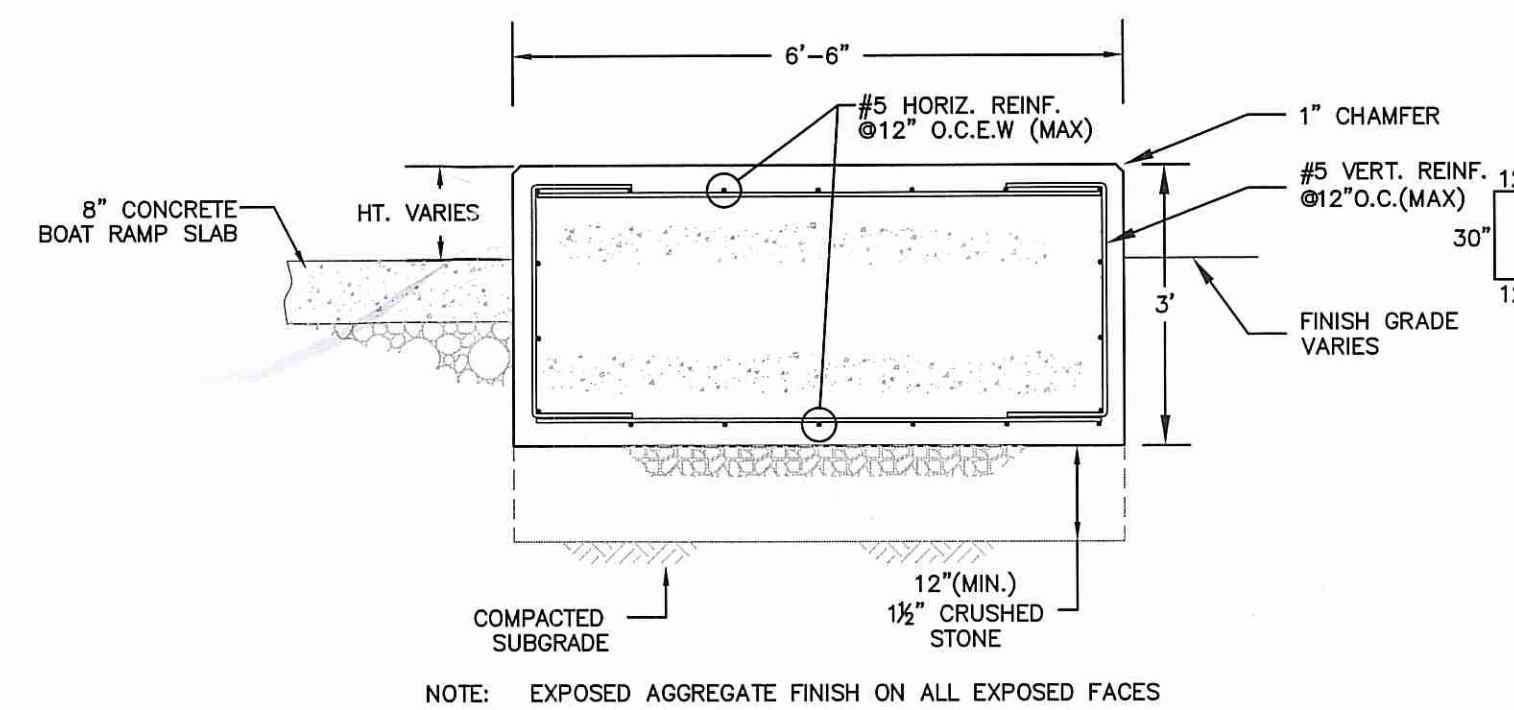
PLANTING NOTES:

- ALL PLANT MATERIALS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z60.1-2004). PLANT ACCORDING TO ANSI A300 PART 6.
- PROVIDE A WARRANTY FOR TREE, SHRUB AND GROUND COVER PLANTINGS FOR A MINIMUM OF ONE YEAR FROM FINAL ACCEPTANCE. REPLACEMENT PLANTS SHALL BE OF THE SAME SIZE AND SPECIES AS SPECIFIED. CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND MAINTENANCE OF ALL PLANTINGS PRIOR TO FINAL ACCEPTANCE.
- ALL PLANTING LOCATIONS WILL BE MARKED IN THE FIELD BY RIDEM STAFF UPON REQUEST BY THE CONTRACTOR. NO PLANTING SHALL TAKE PLACE WITHOUT THE AUTHORIZATION OF THE OWNER.
- THE CONTRACTOR SHALL SALVAGE AND REPLANT ALL SHRUBS SELECTED BY THE OWNER.

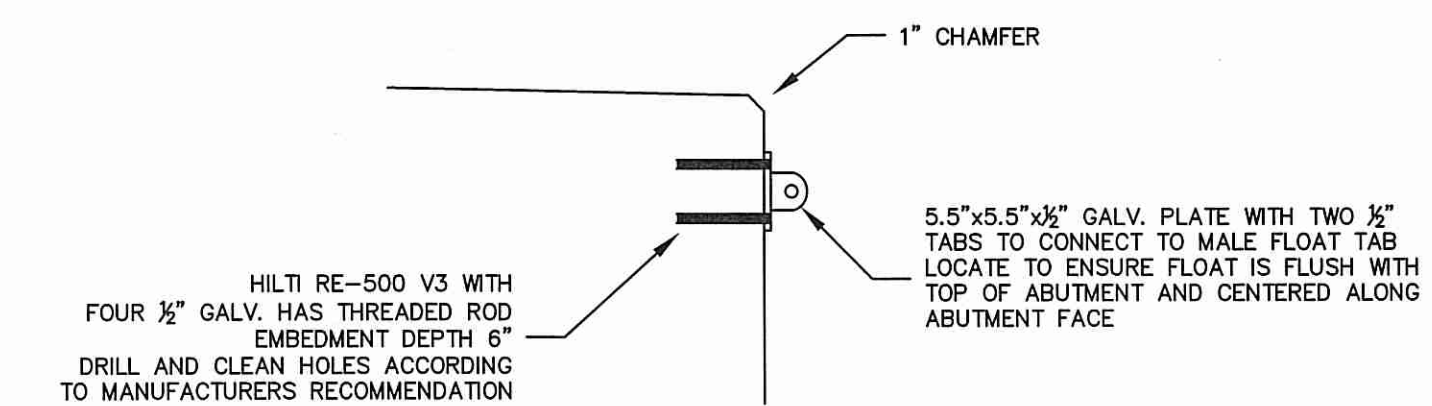


- NOTE:
- THE CONTRACTOR MAY CONSTRUCT THE GUIDEWAY SYSTEM WITH USED RAILROAD RAILS UPON APPROVAL OF THE OWNER AND ENGINEER.
 - ALL BOAT RAMP SLABS SHALL BEAR EVENLY ON TWO RAILS AS DEPICTED IN THE TYPICAL BOAT RAMP SECTION.
 - RAILS SHALL BE USED AS A GUIDE TO SCREED PEA STONE AND ENSURE UNIFORM STONE BEARING SURFACE OVER ENTIRE BOAT RAMP SLAB.

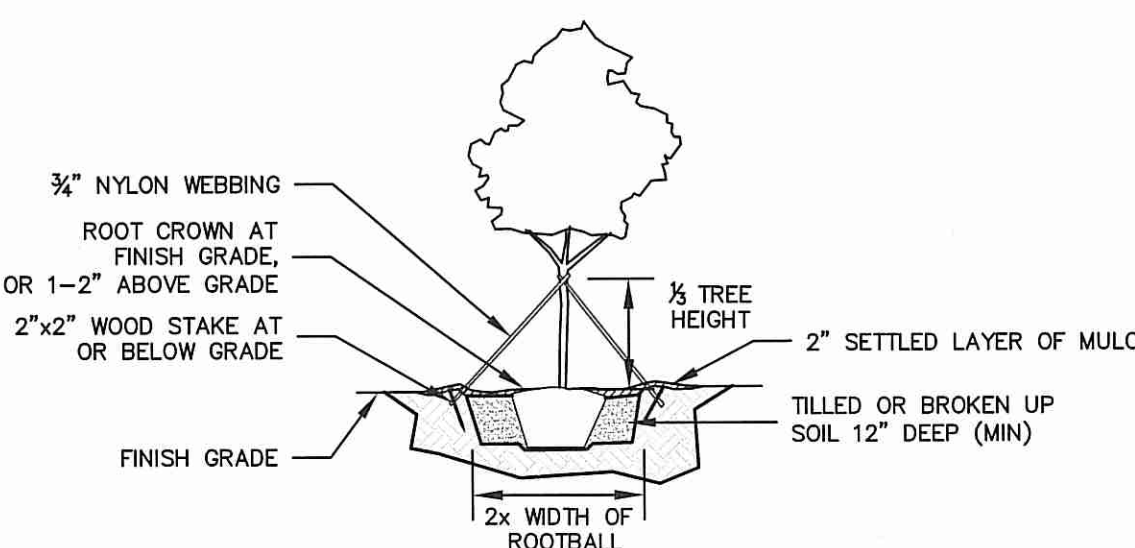
4 STEEL GUIDERAILS
C7 NOT TO SCALE



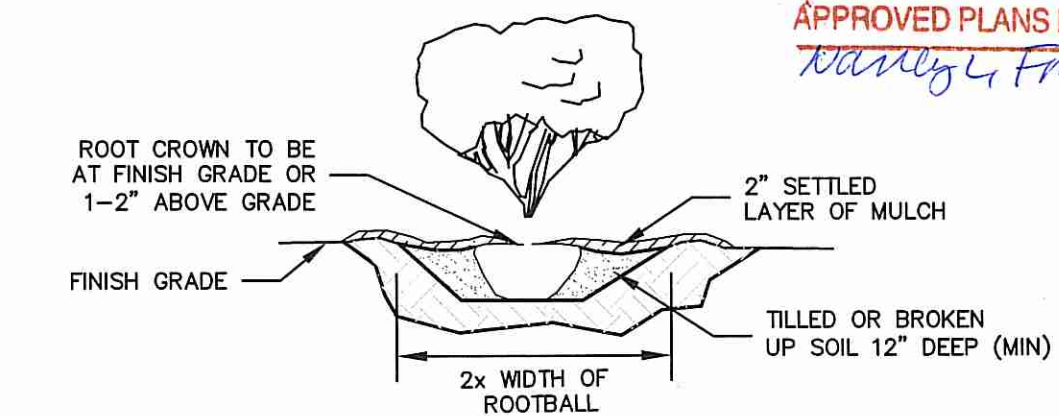
5 TYPICAL ABUTMENT CROSS SECTION
C7 SCALE 1"=2"



6 TYPICAL FLOAT HINGE CONNECTION
C7 NOT TO SCALE



7 TREE PLANTING DETAIL
C2 NOT TO SCALE



8 SHRUB PLANTING DETAIL
INDIVIDUAL PLANTING HOLE
C2 NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 03/31/2017 FILE # 17-020
NO CHANGES ALLOWED WITHOUT PROJECT APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Mandy L. Freeman

OCT 17 2017

No.	Description	Date
1	Construction Set Revisions	9/7
2	Planting Schedule	10/3
REVISIONS:		

STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF PLANNING AND DEVELOPMENT

The Nature Conservancy
Protecting nature. Preserving life.

FRESHWATER BOAT RAMP
IMPROVEMENTS
(WATCHAUG, ECHO, INDIAN)

Design by: AFA
Drawn by: AFA
Checked by:
Date: August, 2017
Scale: As Noted
P&D Project No.: 13-17

ANDRES F. AVELEDO
No. 12256
REGISTERED PROFESSIONAL ENGINEER
CIVIL

SECTIONS AND DETAILS

C7
SHEET 8 OF 9
4 of 4