



**TOWN OF ARLINGTON, MASSACHUSETTS**

**BID 17-05**

**MYSTIC RIVERFRONT RESTORATION PROJECT**

**APRIL 2017**

**FUNDED BY**

**MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**NATURAL RESOURCES DAMAGES PROGRAM**

**GRANT BWSC-NRD-2015-02**

SHEET LIST

1. CONSTRUCTION NOTES
2. EXISTING CONDITIONS PLAN
3. DEMOLITION AND SEDIMENT CONTROL PLAN
4. RIVERFRONT RESTORATION PLAN
5. PROPOSED RESOURCE AREA PLAN
6. PLANTING PLAN
7. CONSTRUCTION DETAILS

GENERAL NOTES:

1. THE PROJECT AREA IS LOCATED ON LAND OWNED BY THE MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION (DCR). WORK COMPLETED IN THIS AREA WILL BE SUBJECT TO AN AGREEMENT BETWEEN THE TOWN OF ARLINGTON AND DCR AND IN ACCORDANCE WITH AN APPROVED DCR CONSTRUCTION ACCESS PERMIT. THE TOWN WILL OBTAIN THE CONSTRUCTION ACCESS PERMIT FROM DCR FOLLOWING AWARD OF THE CONTRACT.
2. THE PROJECT AREA IS ADJACENT TO THE MYSTIC RIVER AND IS WITHIN THE 200-FOOT RIVERFRONT RESOURCE AREA. A NOTICE OF INTENT HAS BEEN FILED WITH THE TOWN OF ARLINGTON CONSERVATION COMMISSION AND THE CONTRACTOR IS TO COMPLETE THE CONTRACT WORK IN ACCORDANCE WITH THE CONSERVATION COMMISSION REQUIREMENTS.
3. THE PROJECT AREA IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (ZONE AE). THE FLOOD ZONE ELEVATION FOR THIS AREA IS 7.00- FEET.
4. THE CONTRACT DRAWINGS HAVE BEEN DEVELOPED FROM AVAILABLE RECORDS, AERIAL IMAGERY, AND PROJECT SITE OBSERVATIONS. ON-THE-GROUND CONDITIONS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS.
5. AN ON-THE-GROUND SURVEY WAS NOT CONDUCTED DURING THE PREPARATION OF THE CONTRACT DRAWINGS.
6. ALL ELEVATIONS AND INVERTS SHOWN ON THE CONTRACT DRAWINGS ARE ESTIMATED BASED ON AVAILABLE STORMWATER DRAINAGE SYSTEM RECORDS AND PLANS.
7. LOCATIONS AND DIMENSIONS OF FEATURES SHOWN ON THE CONTRACT DRAWINGS ARE APPROXIMATE IN NATURE.
8. THE CONTRACTOR MUST CONTACT DIG-SAFE AND NOTIFY ALL UTILITIES PRIOR TO PERFORMING ANY EXCAVATION WORK. THE TOWN OF ARLINGTON IS NOT A MEMBER OF DIG-SAFE AND MUST BE NOTIFIED DIRECTLY AT LEAST 72-HOURS PRIOR TO EXCAVATION WORK AT 781-316-3310 OR 781-316-3301.
9. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SEDIMENTATION AND EROSION CONTROL DEVICES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CONSERVATION COMMISSION REQUIREMENTS FOR THE DURATION OF THE PROJECT. THE CONTRACT DOCUMENTS PRESENT THE MINIMAL REQUIRED SEDIMENTATION AND EROSION CONTROL DEVICES.
10. THE CONTRACTOR SHALL MAINTAIN THE ABILITY OF THE TOWN'S STORMWATER DRAINAGE SYSTEM TO DISCHARGE STORMWATER FROM THE PROJECT AREA OUTFALL TO THE MYSTIC RIVER THROUGHOUT CONSTRUCTION BY THEIR OWN MEANS AND METHODS.
11. WORK SHALL BE COMPLETED DURING PERIODS OF DRY WEATHER TO THE EXTENT PRACTICAL.
12. WORK HOURS SHALL BE 7:00 AM TO 4:00 PM MONDAY TO FRIDAY UNLESS OTHERWISE NOTED OR APPROVED BY THE TOWN.

PLANTING NOTES:

1. PLANTING SHALL BE COMPLETED DURING THE GROWING SEASON AS DEFINED BY THE ENGINEER, EXCLUDING THE MONTHS OF JULY AND AUGUST. PLANTING WILL NOT BE ALLOWED IN JULY OR AUGUST TO LIMIT THE RISK OF HEAT STRESS TO THE NEW PLANTINGS.
2. NEW PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
3. NEW PLANTS TO BE BALLED AND BURLAPPED OR CONTAINER-GROWN, UNLESS OTHERWISE NOTED ON THE PLANTING LIST.
4. SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS.
5. PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING, HABITAT, FLOWER, LEAF, COLOR, FRUIT, AND CULTURE.
6. LOCATE AND VERIFY EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT CONFLICTS TO THE PROJECT MANAGER.
7. STAKE LOCATION OF PROPOSED PLANTINGS FOR APPROVAL BY THE TOWN PRIOR TO THE COMMENCEMENT OF PLANTING.
8. ALL PLANT BEDS AND INDIVIDUAL TREE PITS SHALL RECEIVE THREE INCHES (3") OF BARK MULCH FOLLOWING COMPLETION OF PLANTING.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED, STOLEN, DEAD, DECLINING, OR LOST MATERIAL UNTIL COMPLETION OF MAINTENANCE PERIODS OR GUARANTEE PERIODS. MAINTENANCE AND GUARANTEE PERIODS SHALL BE FOR A PERIOD OF TWO-YEARS FROM INSTALLATION.
10. CONTRACTOR SHALL APPLY LOAM AND SEED TO ALL DISTURBED AREAS WITHIN THE PROJECT AREA UPON WHICH TREE/SHRUB PLANTINGS ARE NOT OTHERWISE REQUIRED. AREAS TO BE SEEDED SHALL RECEIVE SIX INCHES (6") OF LOAM, MEASURED AFTER COMPACTION, PRIOR TO SEEDING.

ABBREVIATIONS:

- APPROX APPROXIMATELY  
 BVW BORDERING VEGETATED WETLAND  
 EQUIV EQUIVALENT  
 FT FOOT/FEET  
 LB POUND(S)  
 MAX MAXIMUM  
 MIN MINIMUM  
 NTS NOT TO SCALE  
 TYP TYPICAL

NOTES

No.	Revision/Issue	Date

Town of  
**ARLINGTON**  
*Engineering Division*  
 51 Grove Street  
 Arlington, MA 02476

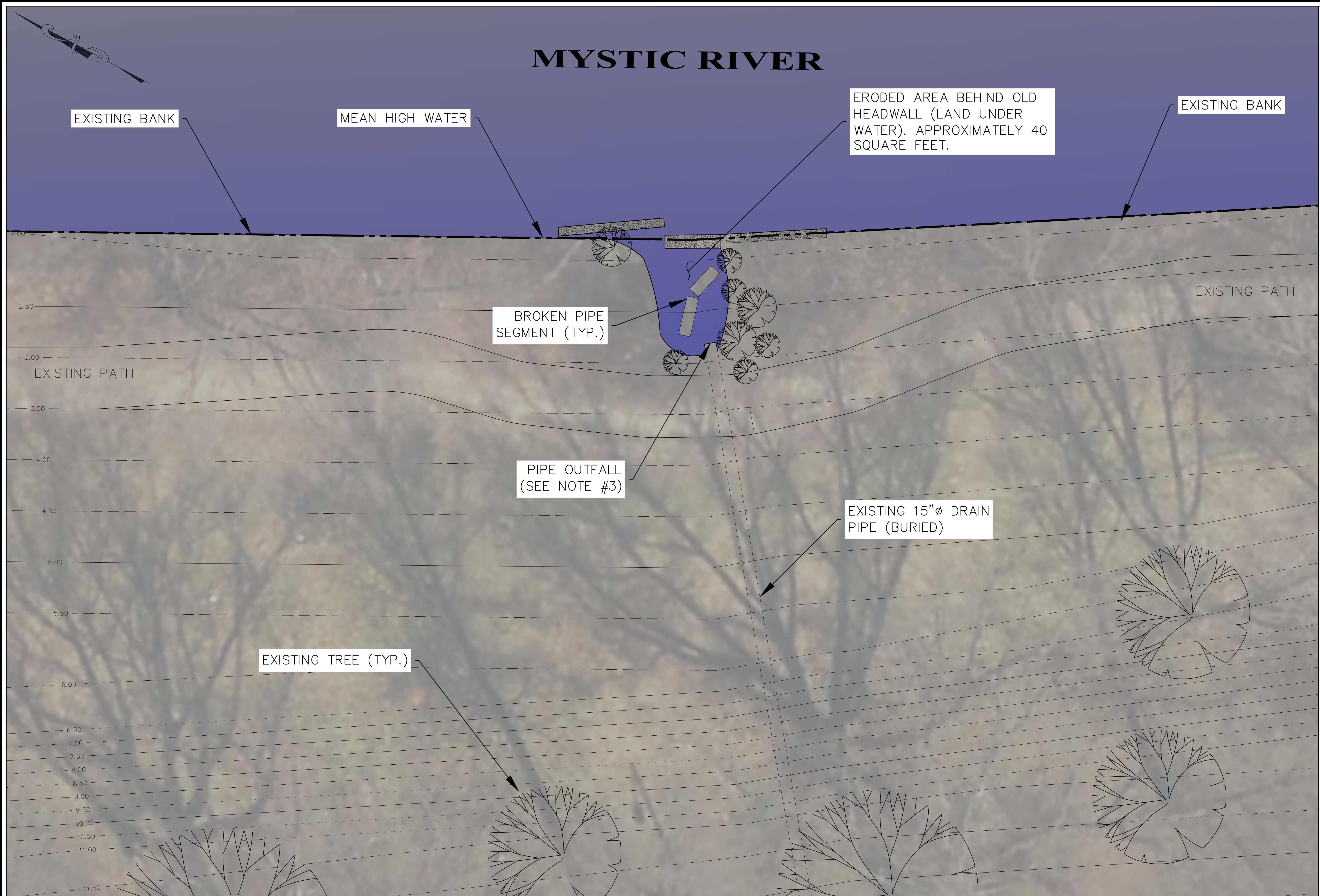
**MYSTIC RIVERFRONT  
 RESTORATION PROJECT**

**CONSTRUCTION  
 NOTES**

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# MYSTIC RIVER



## NOTES

1. THE PROJECT AREA IS LOCATED WITHIN THE 200-FT RIVERFRONT BOUNDARY.
2. THE PROJECT AREA IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN (FLOOD ZONE AE; FLOOD ZONE ELEV. = 7.00').
3. THE 15"Ø DRAIN PIPE WAS ORIGINALLY CONNECTED TO THE EXISTING HEADWALL STRUCTURE. EROSION BEHIND THE HEADWALL EXPOSED APPROX. 10-LF OF PIPE, WHICH OVER TIME COLLAPSED, RESULTING IN THE CURRENT OUTFALL LOCATION.
4. A MAJORITY OF THE RIVERBANK IN THE VICINITY OF THE PROJECT AREA IS WOODED. FOR CLARITY, ONLY TREES ALONG THE RIVERBANK THAT ARE IMPACTED BY THE PROJECT ARE SHOWN ON THIS PLAN.

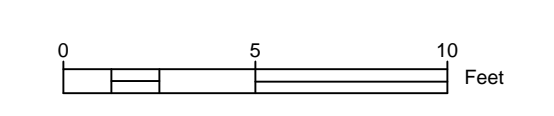
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## MYSTIC RIVERFRONT RESTORATION PROJECT

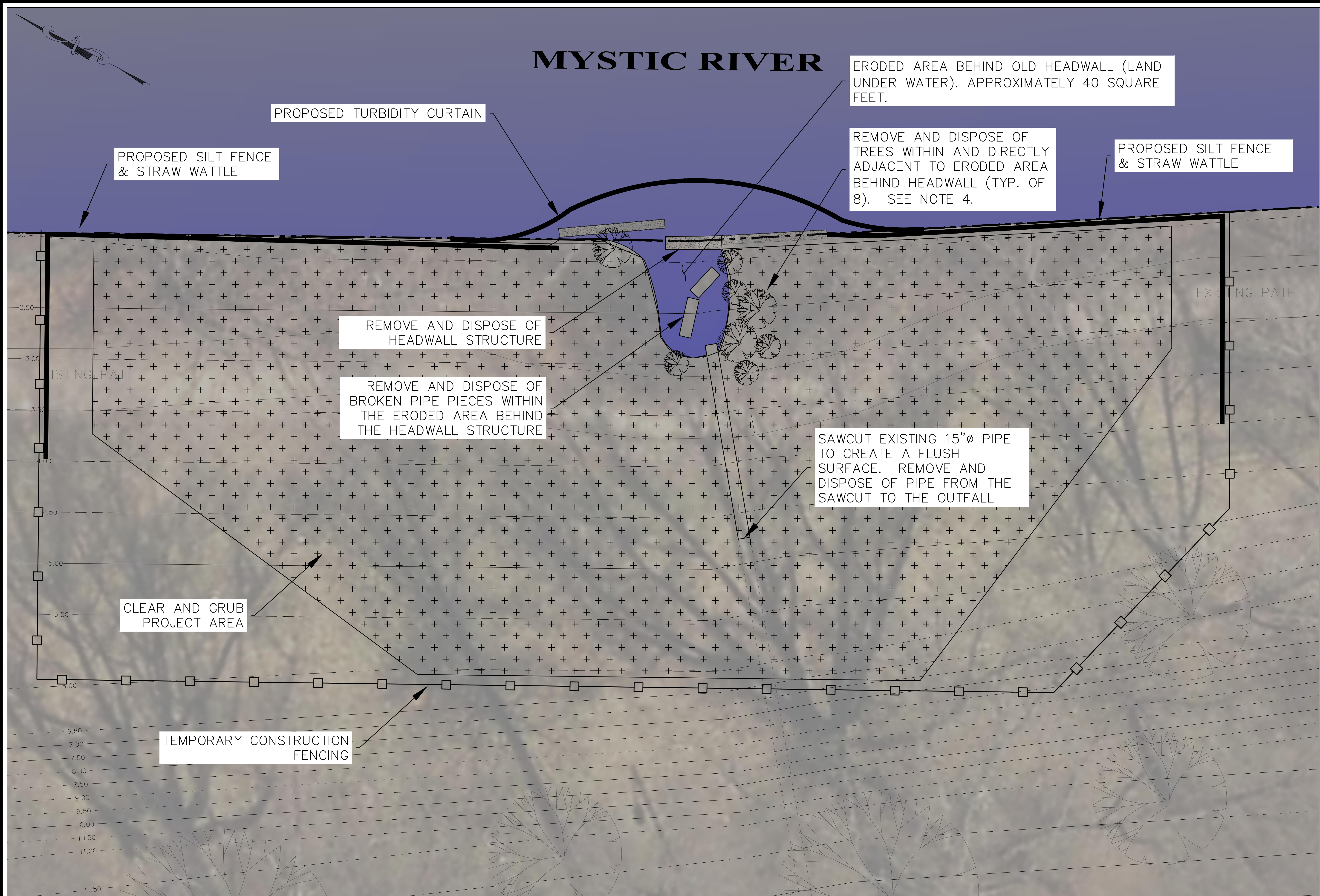
### EXISTING CONDITIONS PLAN

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Scale: 1" = 5'	
Date: APRIL 2017	





# MYSTIC RIVER



ERODED AREA BEHIND OLD HEADWALL (LAND UNDER WATER). APPROXIMATELY 40 SQUARE FEET.

REMOVE AND DISPOSE OF TREES WITHIN AND DIRECTLY ADJACENT TO ERODED AREA BEHIND HEADWALL (TYP. OF 8). SEE NOTE 4.

PROPOSED SILT FENCE & STRAW WATTLE

PROPOSED TURBIDITY CURTAIN

PROPOSED SILT FENCE & STRAW WATTLE

REMOVE AND DISPOSE OF HEADWALL STRUCTURE

REMOVE AND DISPOSE OF BROKEN PIPE PIECES WITHIN THE ERODED AREA BEHIND THE HEADWALL STRUCTURE

SAWCUT EXISTING 15"Ø PIPE TO CREATE A FLUSH SURFACE. REMOVE AND DISPOSE OF PIPE FROM THE SAWCUT TO THE OUTFALL

CLEAR AND GRUB PROJECT AREA

TEMPORARY CONSTRUCTION FENCING

- NOTES**
1. THE PROJECT AREA IS LOCATED WITHIN THE 200-FT RIVERFRONT BOUNDARY.
  2. CONTRACTOR SHALL PROVIDE PROPER SLOPE STABILIZATION AND EROSION CONTROL BARRIERS FOR THE DURATION OF CONSTRUCTION. BARRIERS, INCLUDING CAPTURED SEDIMENT, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
  3. TREES TO BE REMOVED SHALL BE FLAGGED BY TOWN OFFICIALS PRIOR TO THE PRE-BID SITE WALK AND AGAIN PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
  4. TREES NOT DENOTED FOR REMOVAL SHALL BE PROVIDED WITH ADEQUATE PROTECTION AGAINST DAMAGE FROM CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL REPLACE ANY TREES TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION.

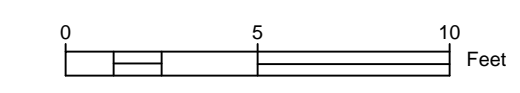
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**MYSTIC RIVERFRONT RESTORATION PROJECT**

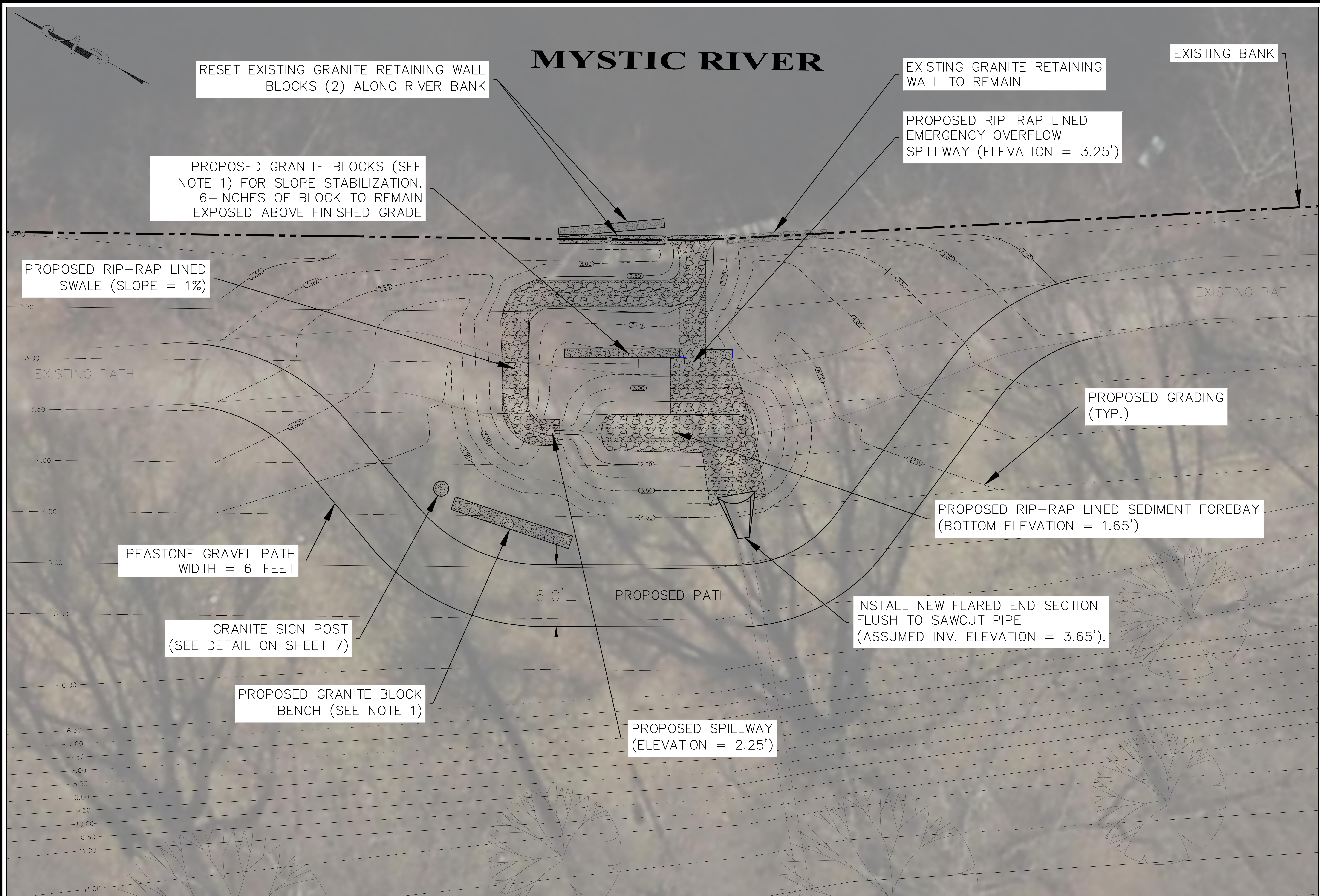
**DEMOLITION AND SEDIMENT CONTROL PLAN**

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# MYSTIC RIVER



RESET EXISTING GRANITE RETAINING WALL BLOCKS (2) ALONG RIVER BANK

PROPOSED GRANITE BLOCKS (SEE NOTE 1) FOR SLOPE STABILIZATION. 6-INCHES OF BLOCK TO REMAIN EXPOSED ABOVE FINISHED GRADE

PROPOSED RIP-RAP LINED SWALE (SLOPE = 1%)

PEASTONE GRAVEL PATH WIDTH = 6- FEET

GRANITE SIGN POST (SEE DETAIL ON SHEET 7)

PROPOSED GRANITE BLOCK BENCH (SEE NOTE 1)

PROPOSED SPILLWAY (ELEVATION = 2.25')

EXISTING GRANITE RETAINING WALL TO REMAIN

PROPOSED RIP-RAP LINED EMERGENCY OVERFLOW SPILLWAY (ELEVATION = 3.25')

EXISTING BANK

PROPOSED GRADING (TYP.)

PROPOSED RIP-RAP LINED SEDIMENT FOREBAY (BOTTOM ELEVATION = 1.65')

INSTALL NEW FLARED END SECTION FLUSH TO SAWCUT PIPE (ASSUMED INV. ELEVATION = 3.65').

## NOTES

1. PROPOSED GRANITE BLOCKS SHOWN ON THE PLAN ARE TO BE SOURCED FROM THE ARLINGTON DPW TOWN YARD. CONTRACTOR IS RESPONSIBLE FOR TRANSPORTING THE BLOCKS FROM THE TOWN YARD TO THE PROJECT AREA AND SETTING THEM IN THE INDICATED LOCATIONS.
2. SEDIMENTATION AND EROSION BARRIERS SHALL BE MAINTAINED IN PLACE AS SHOWN ON SHEET 3 FOR THE DURATION OF THE PROJECT CONSTRUCTION.
3. SEE GENERAL NOTES ON SHEET 1 FOR WET WEATHER CONSTRUCTION RESTRICTIONS.

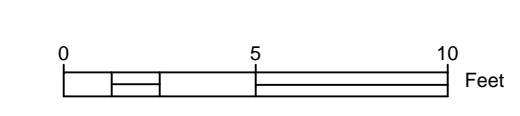
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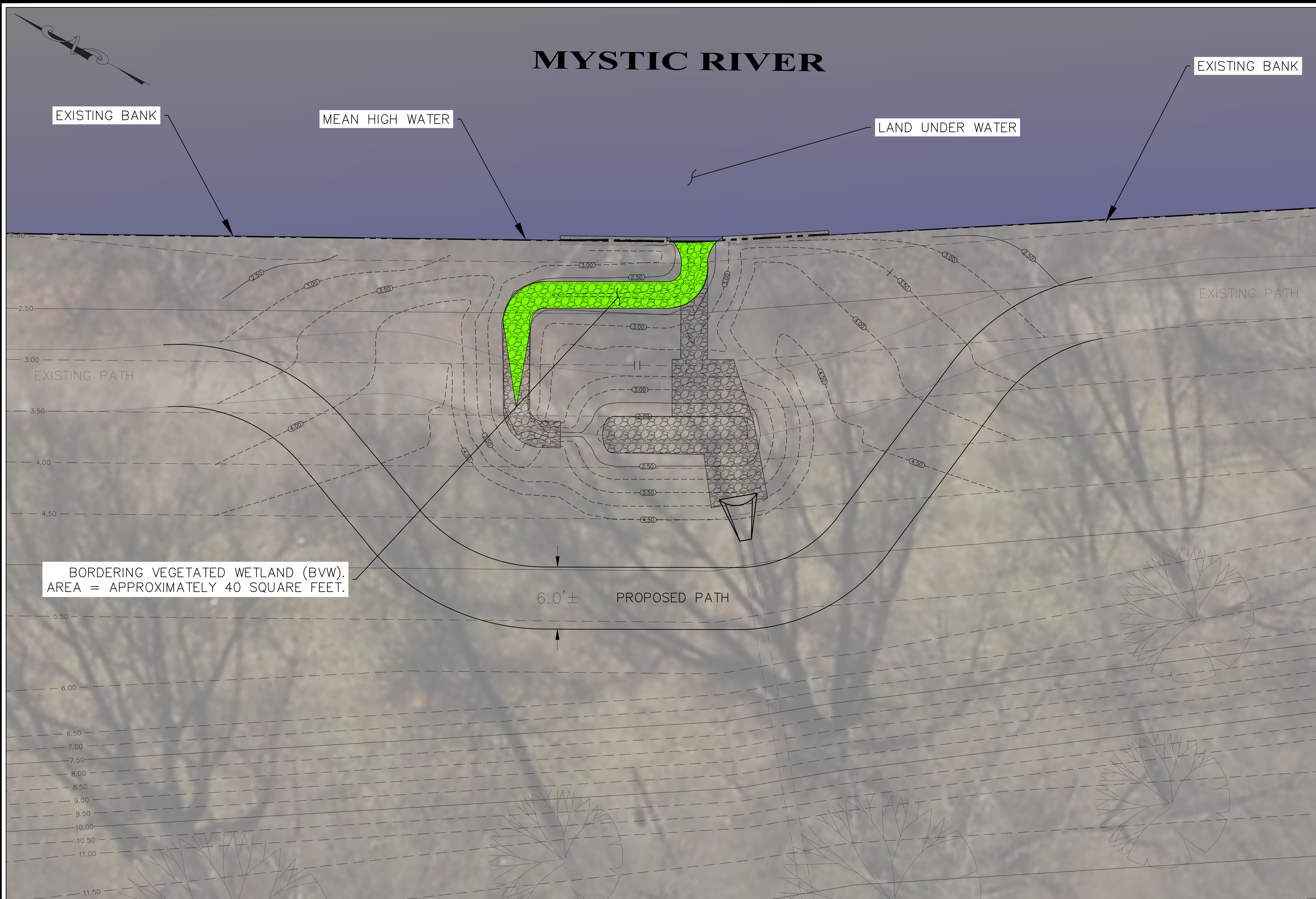
**RIVERFRONT RESTORATION PLAN**

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Scale: 1" = 5'	
Date: APRIL 2017	





# MYSTIC RIVER



## NOTES

1. NO NEW WORK IS PRESENTED ON THIS SHEET FOR THE CONTRACTOR. BORDERING VEGETATED WETLAND (BVW) PRESENTED FOR PERMITTING.

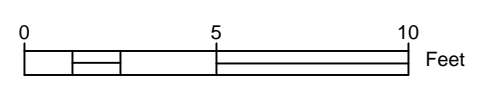
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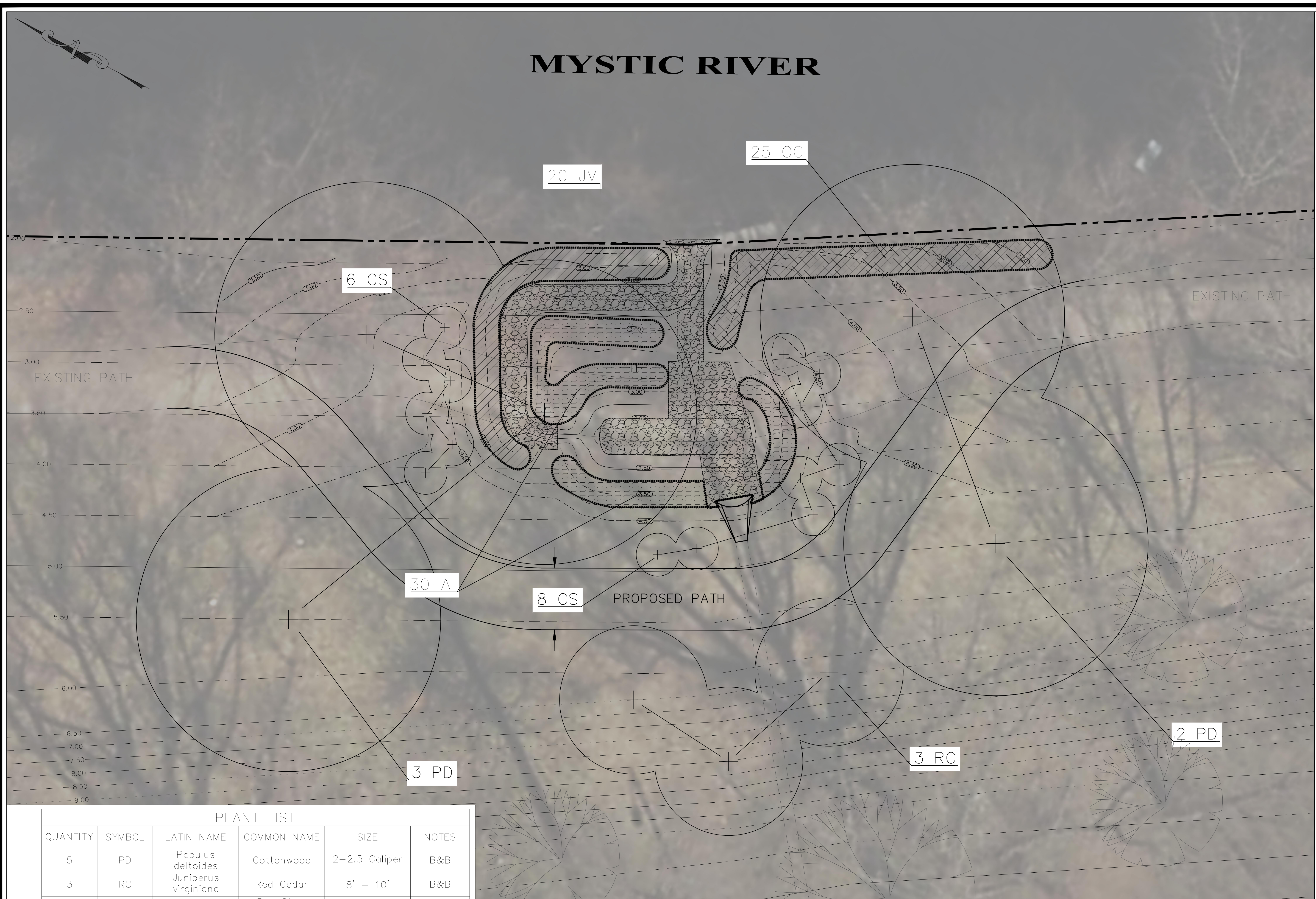
### PROPOSED RESOURCE AREA PLAN

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Scale: 1" = 5'	
Date: APRIL 2017	





# MYSTIC RIVER



- NOTES**
1. NO PLANTINGS SHALL BE COMPLETED DURING THE MONTHS OF JULY OR AUGUST DUE TO RISK OF HEAT STRESS.
  2. CONTRACTOR TO LOAM AND SEED ALL AREAS DISRUPTED BY CONSTRUCTION ACTIVITIES NOT OTHERWISE CALLED OUT FOR PLANTING.
  3. SEE SHEET 1 FOR DETAILED PLANTING NOTES.

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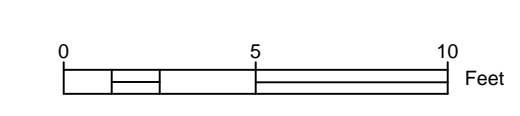
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**MYSTIC RIVERFRONT RESTORATION PROJECT**

**PLANTING PLAN**

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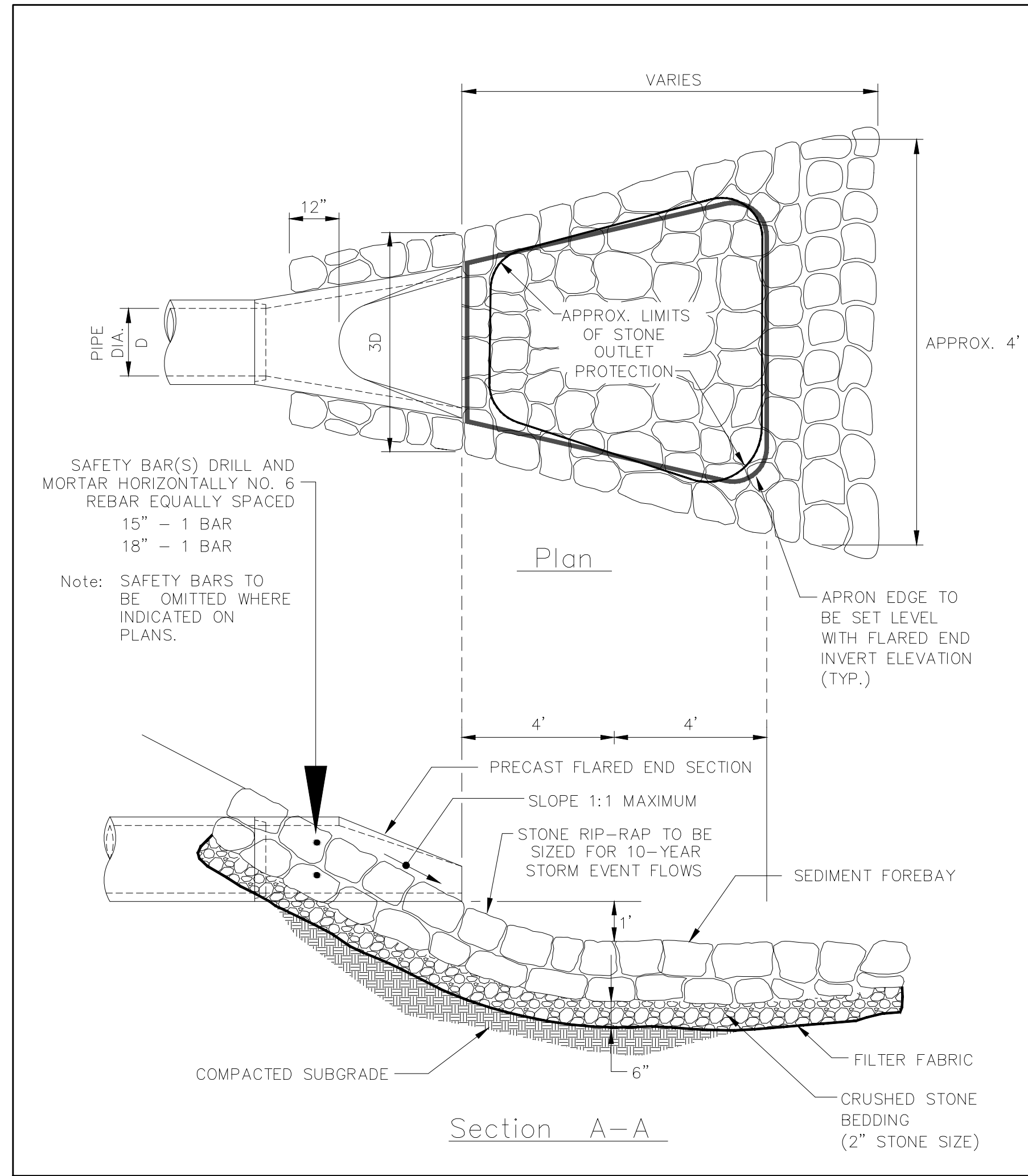
QUANTITY	SYMBOL	LATIN NAME	COMMON NAME	SIZE	NOTES
5	PD	Populus deltoides	Cottonwood	2-2.5 Caliper	B&B
3	RC	Juniperus virginiana	Red Cedar	8' - 10'	B&B
14	CS	Cornus redosier	Red Stem Dogwood	3' - 4'	#3 G.C.
20	JV	Juncus (Var.)	Rushes (Var.)	0'-2"	Plug
30	AI	Asclepias incarnata	Swamp Milkweed	0'-2"	Plug
25	OC	Osmunda cinnamomea	Cinnamon Fern	0'-2"	Plug



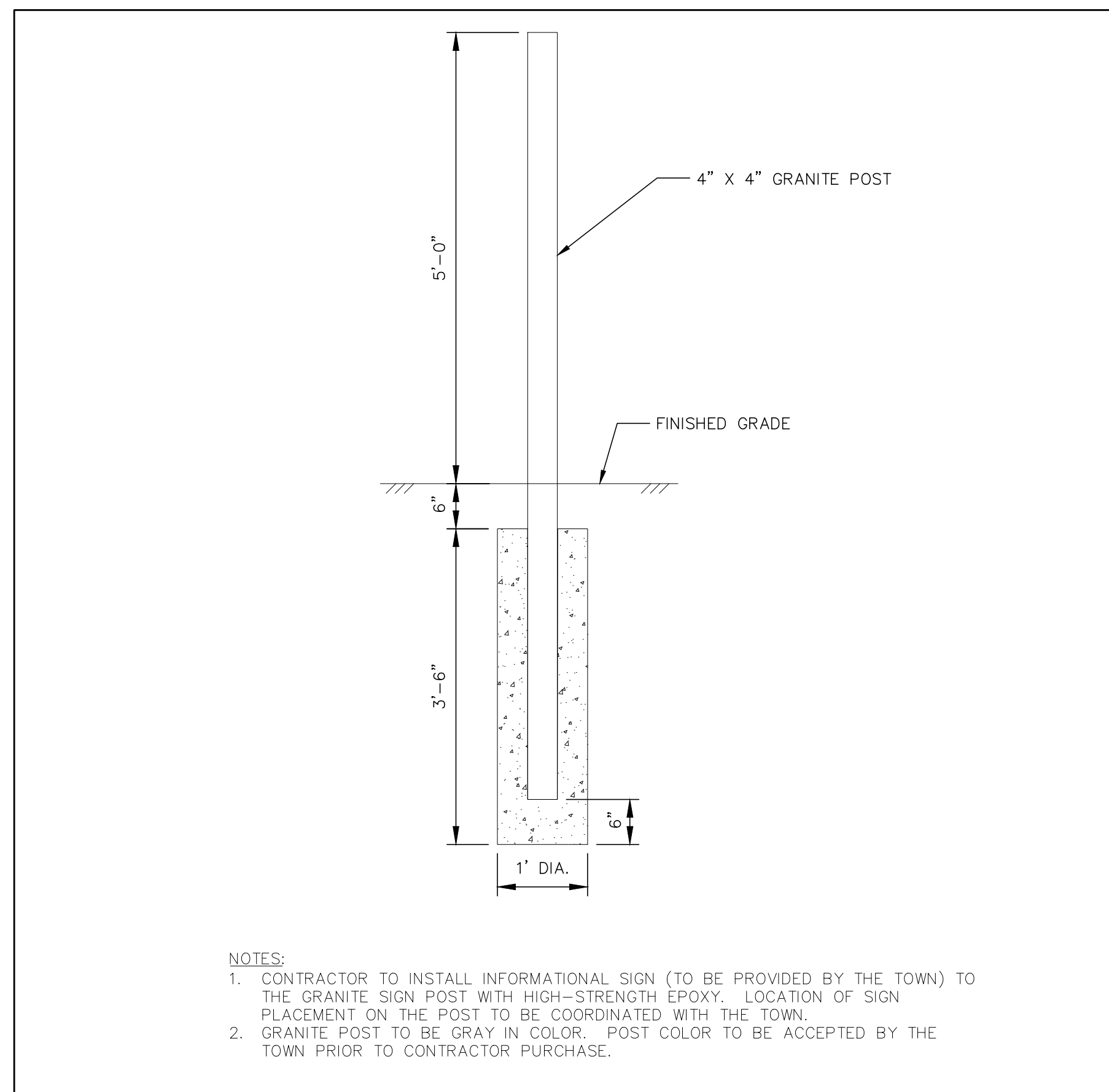
**PLUG PLANTING LEGEND**

- JUNCUS (VARIOUS)**
- ASCLEPIAS INCARNATA**
- OSMUNDA CINNAMOMEA**

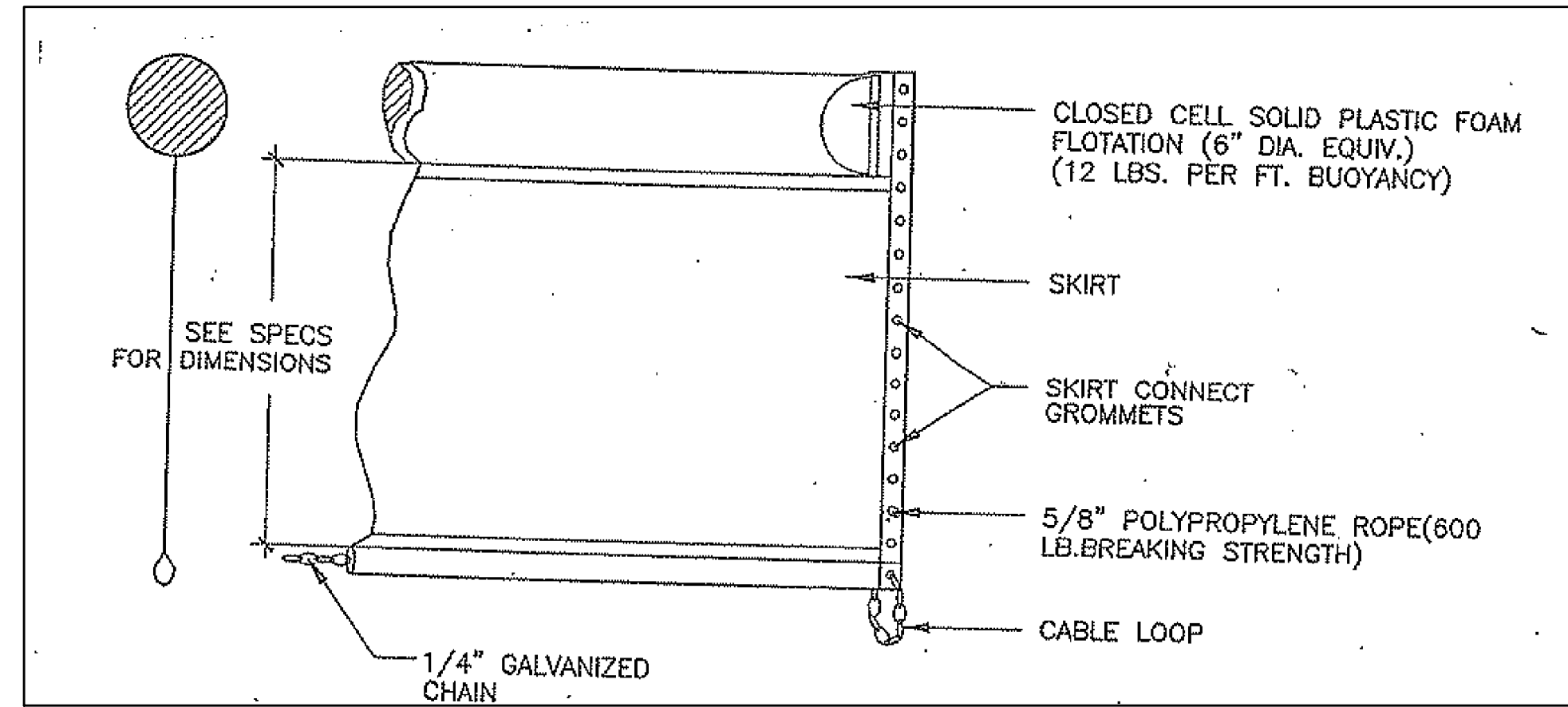




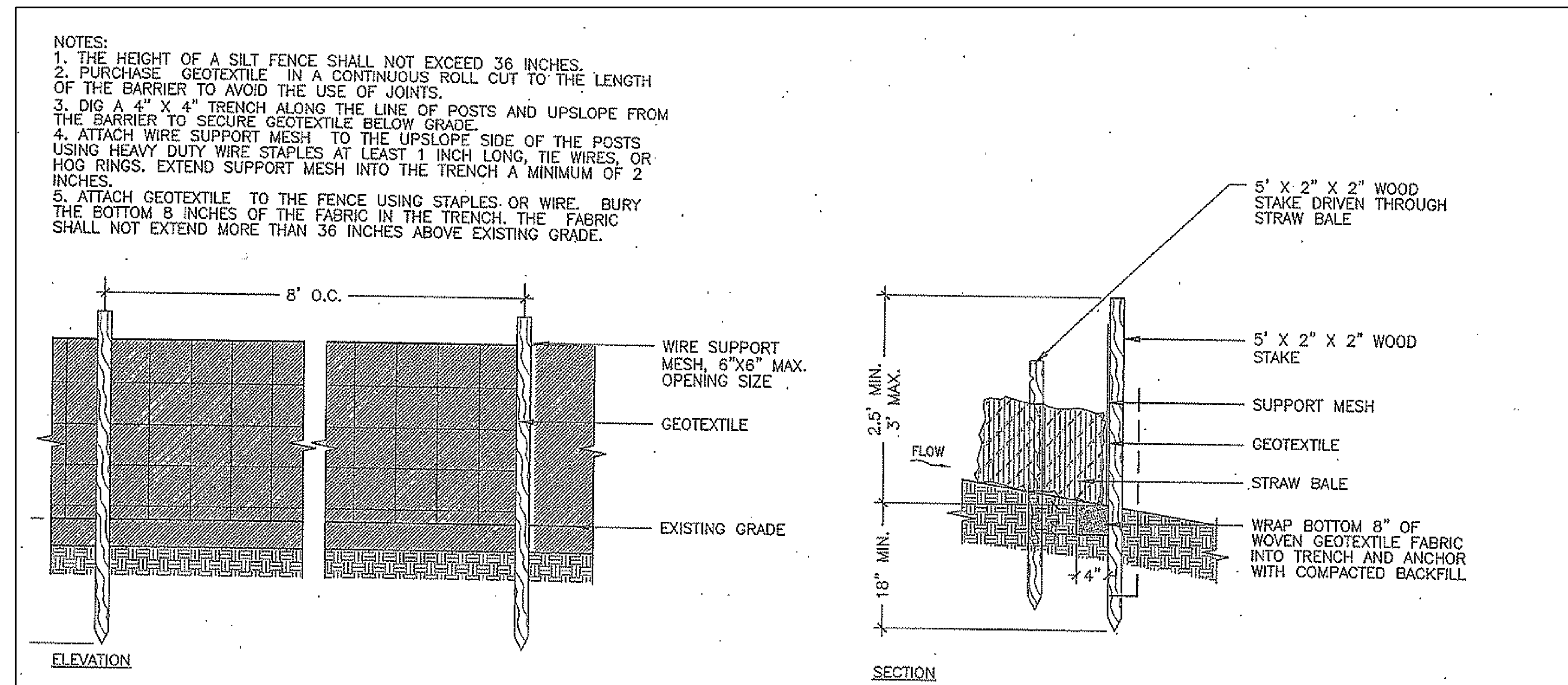
**TYPICAL FLARED END SECTION**



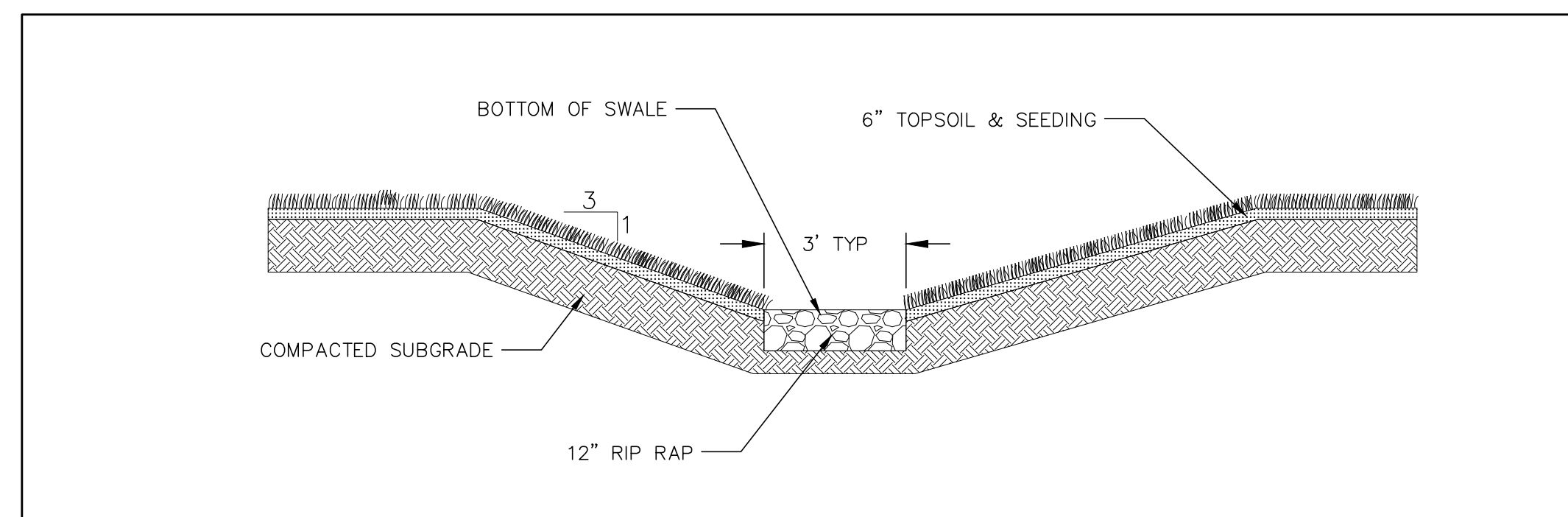
**GRANITE SIGN POST DETAIL**



**TYPICAL TURBIDITY CURTAIN**



**TYPICAL SILT FENCE & STRAW BALES**



**TYPICAL STONE-LINED SWALE SECTION**

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