

**ADDENDUM NO. 1**

**TO**

**BIDDING AND CONTRACT REQUIREMENTS AND SPECIFICATIONS**

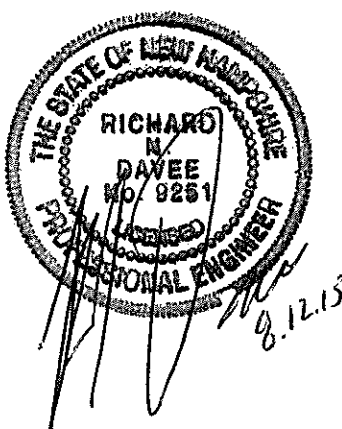
**FOR**

**ROCHESTER RESERVOIR  
WEST END DAM SPILLWAY MODIFICATIONS**

**ROCHESTER, NH**

**BID NO. 16-04**

**August 12, 2015**



**PREPARED BY:  
WRIGHT-PIERCE  
230 Commerce Way, Suite 302  
Portsmouth, New Hampshire 03801  
(603) 430-3728**

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**BIDDING AND CONTRACT REQUIREMENTS AND SPECIFICATIONS  
FOR  
ROCHESTER RESERVOIR  
WEST END DAM SPILLWAY MODIFICATIONS  
ROCHESTER, NH  
BID #16-04**

This Addendum amends and/or supplements the Bid Documents as indicated below. Only these items alter the Bid Documents; any conflicting oral discussions or responses are hereby declared null and void.

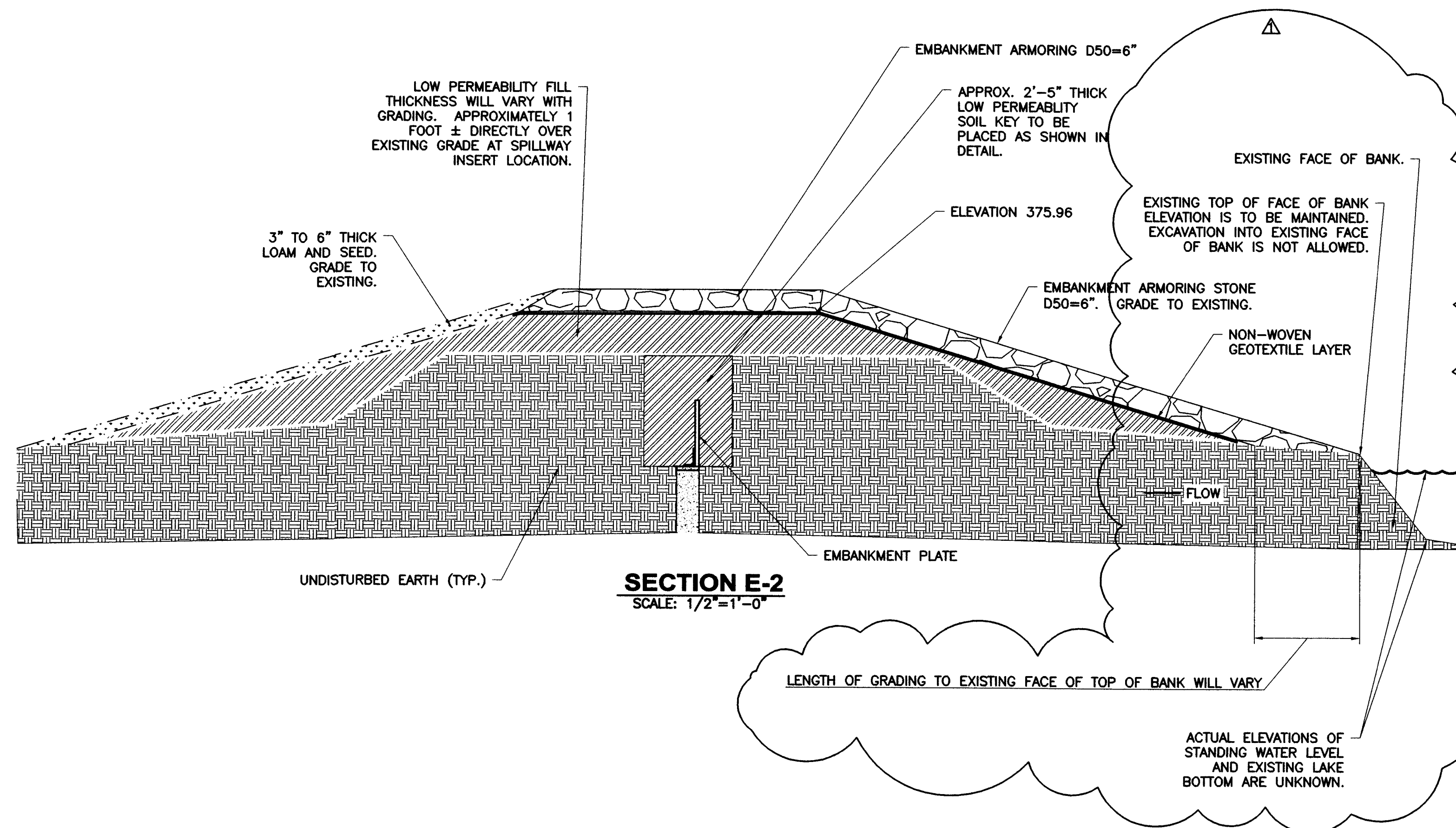
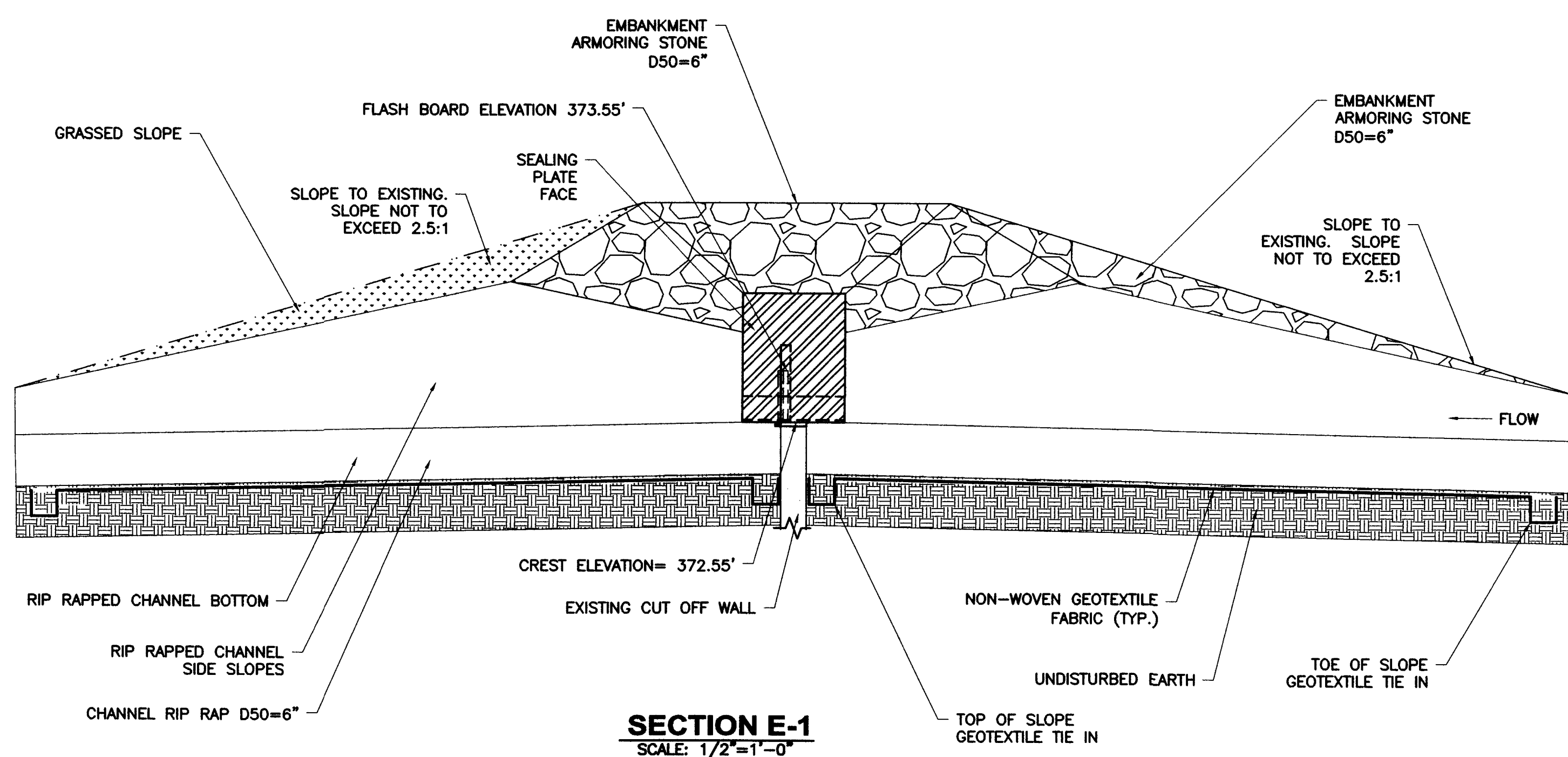
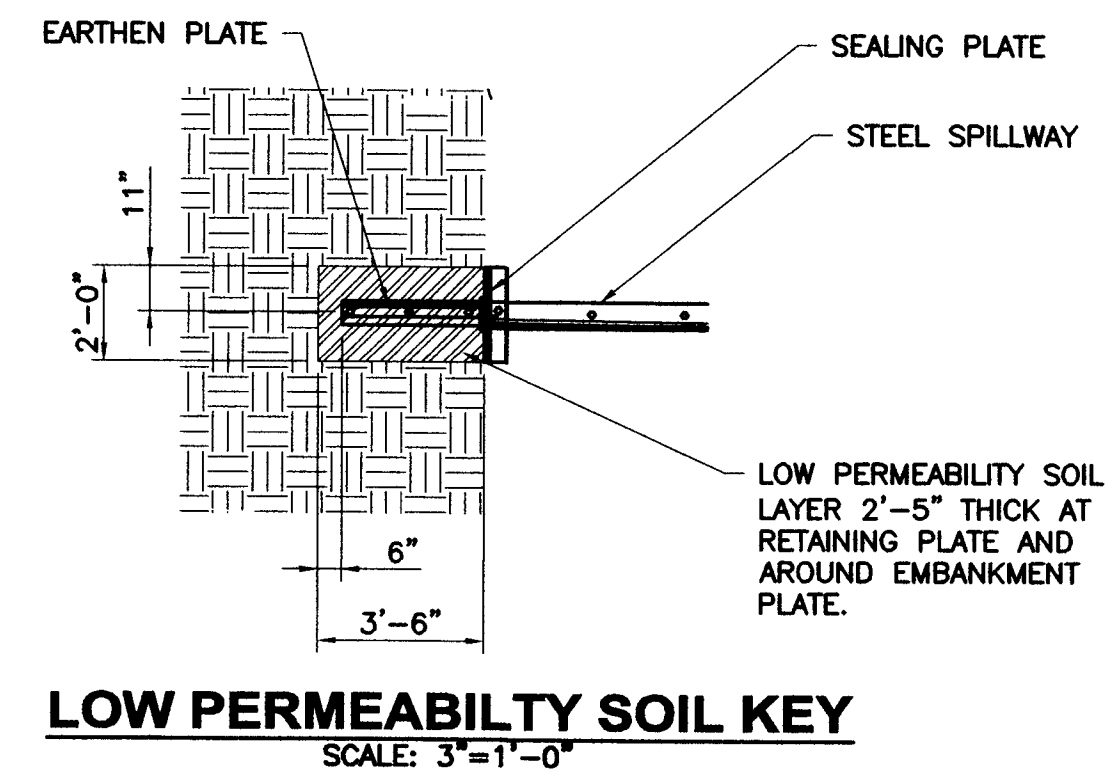
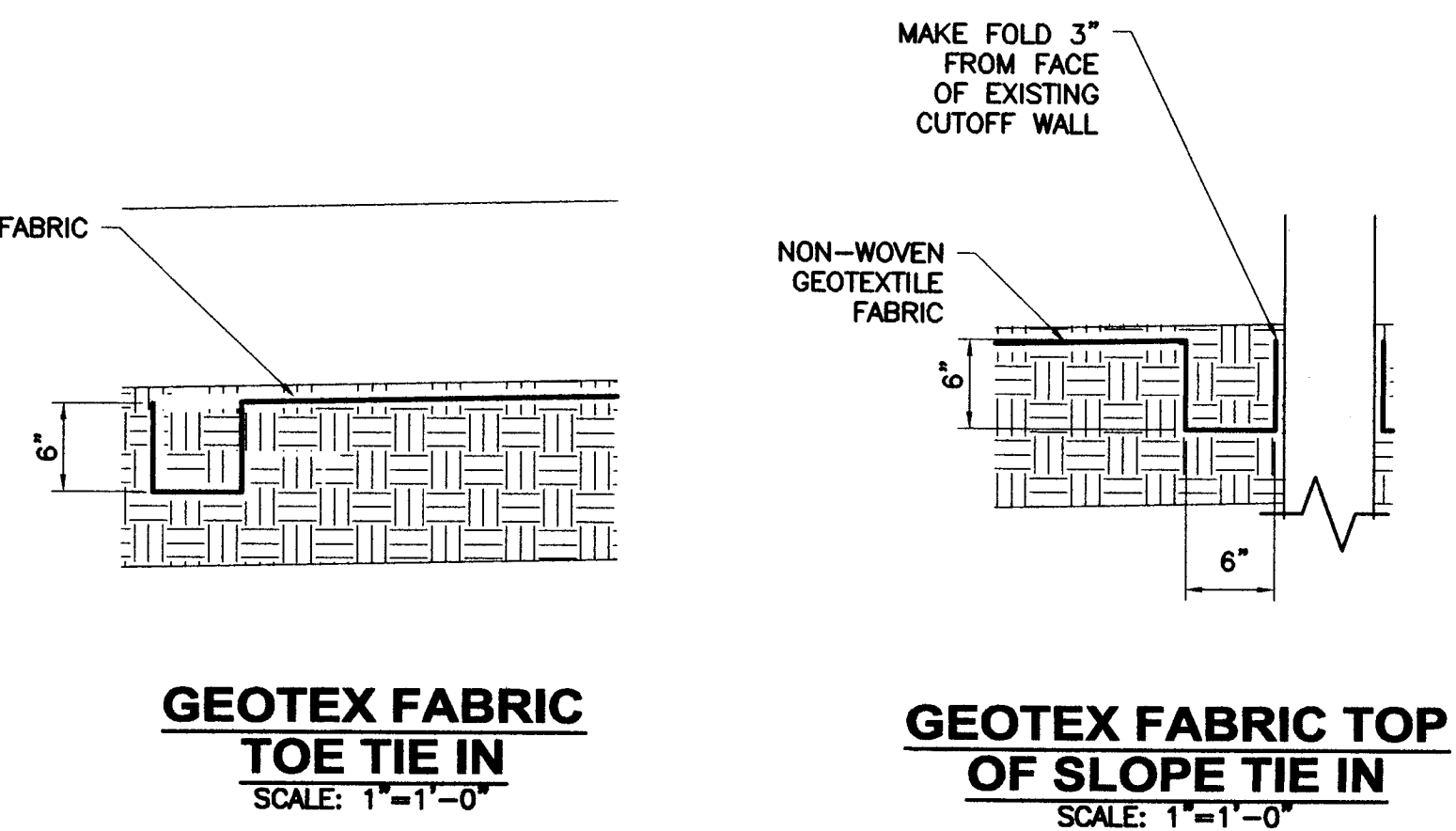
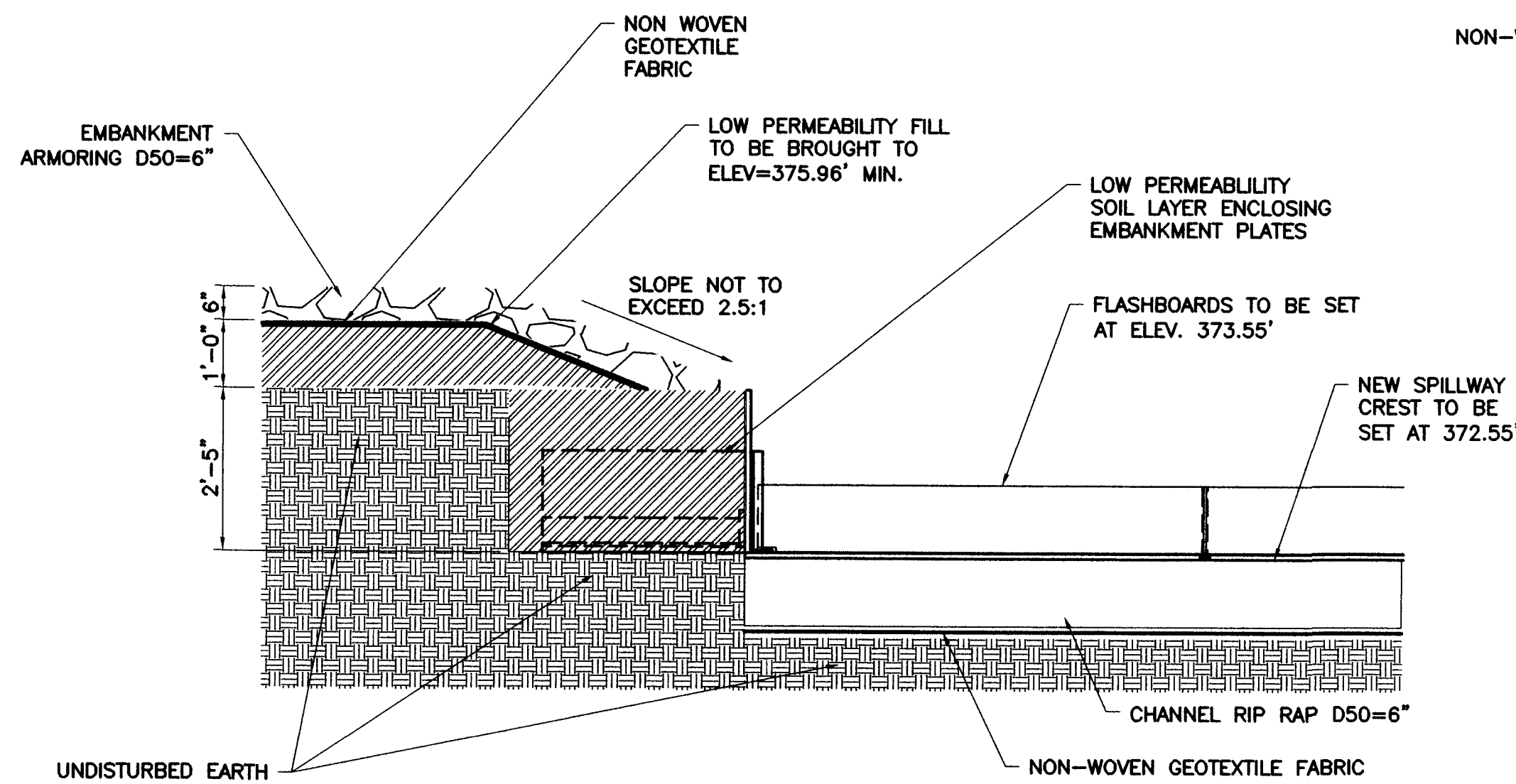
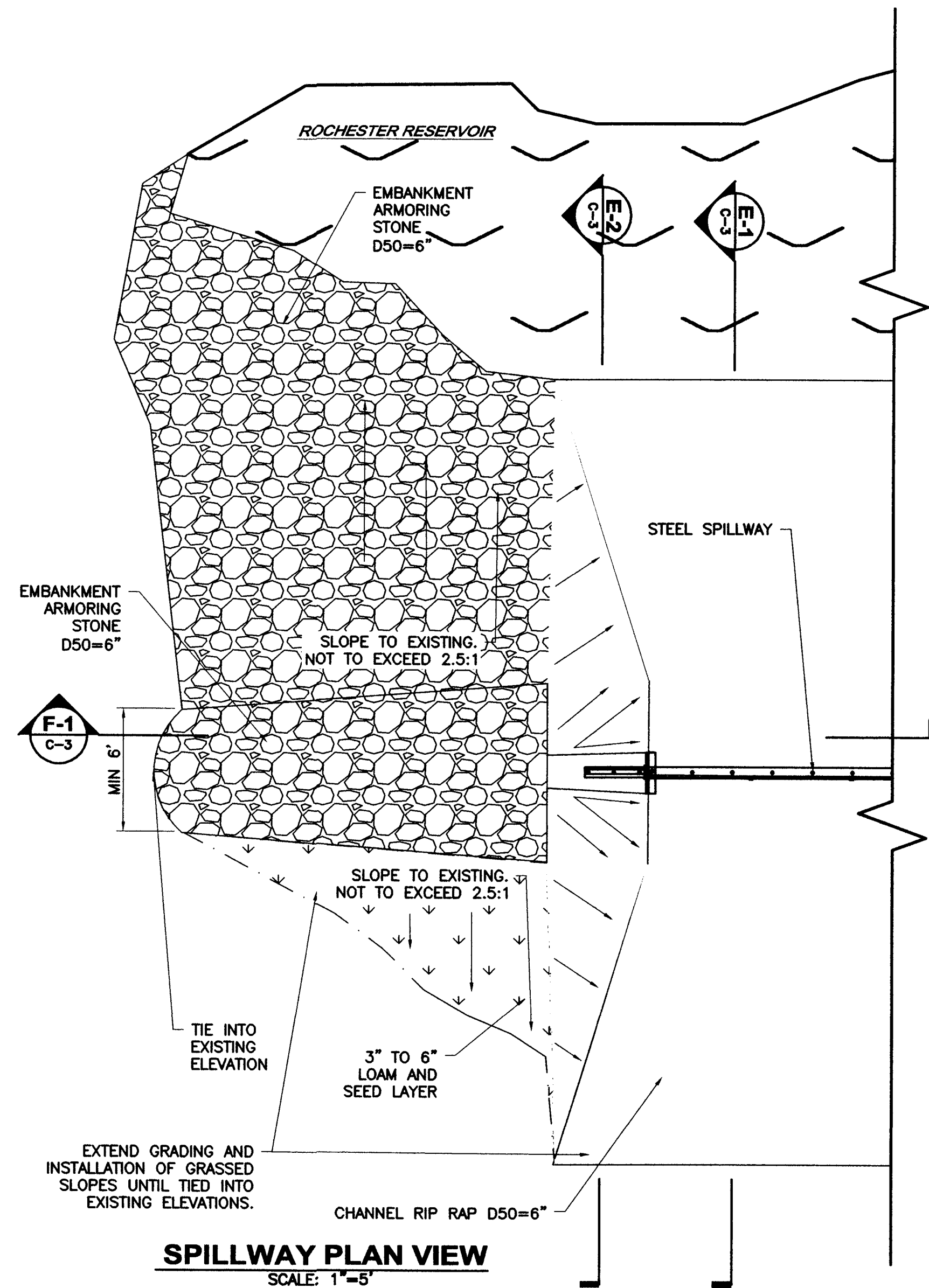
### **GENERAL**

- 1.) Plans
  - a. **REPLACE** Sheet C-3 **WITH** the revised sheet C-3 included with this addendum. Notice that detail section E-2 has been changed.
- 2.) **ADD** the stamped wetlands delineation plan, certification memo, NHDES wetlands permit "20 questions", and FIGURE1 to Appendix C of the specifications. The contractor is to provide erosion control measures including, but not limited to, a turbidity curtain, as shown in FIGURE 1.

### **ANSWERS TO QUESTIONS OF SIGNIFICANCE RECEIVED DURING THE BIDDING PERIOD**

- 1.) **Question:** Is excavation into the face of existing lake bank or lake bottom anticipated, other than in the channel section?

**Answer:** No. The intention of the rip rap placement at the intersection of the surface slope and the top of face of bank is to be over the existing surface at existing elevation, or nearly existing elevation with topsoil stripping. The face of the bank as well as the lake bed are not to be disturbed except for those areas as required for installation of rip rap into the channel.



DESIGNED BY: DBT/RND	NO.	100% FOR BIDDING	APPRO. DATE	7/15
CAD: COORD: DBT	NO.	WETLANDS REVISIONS	DATE	7/15
CHECKED BY: RND	NO.	DATE	7-16-15	
APPROVED BY: RND	NO.	DATE	7-16-15	
PROJECT NO: 12203E	NO.	DATE	7-16-15	

THE STATE OF NEW HAMPSHIRE	PLANNING & CONSTRUCTION
PLANNING & CONSTRUCTION	PLANNING & CONSTRUCTION

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CITY OF ROCHESTER	ROCHESTER RESERVOIR WEST END
DAM SPILLWAY MODIFICATIONS	ROCHESTER, NH
EARTHWORK SECTION DETAILS	

DRAWING	C-3
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## MEMORANDUM

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**VIA:** First class mail/Certified/Facsimile/Hand Delivery/Overnight/E-mail

**TO:** Dylan Thisse

**FROM:** Marc Jacobs, CWS, PWS, CSS, CPESC

**DATE:** April 26, 2015

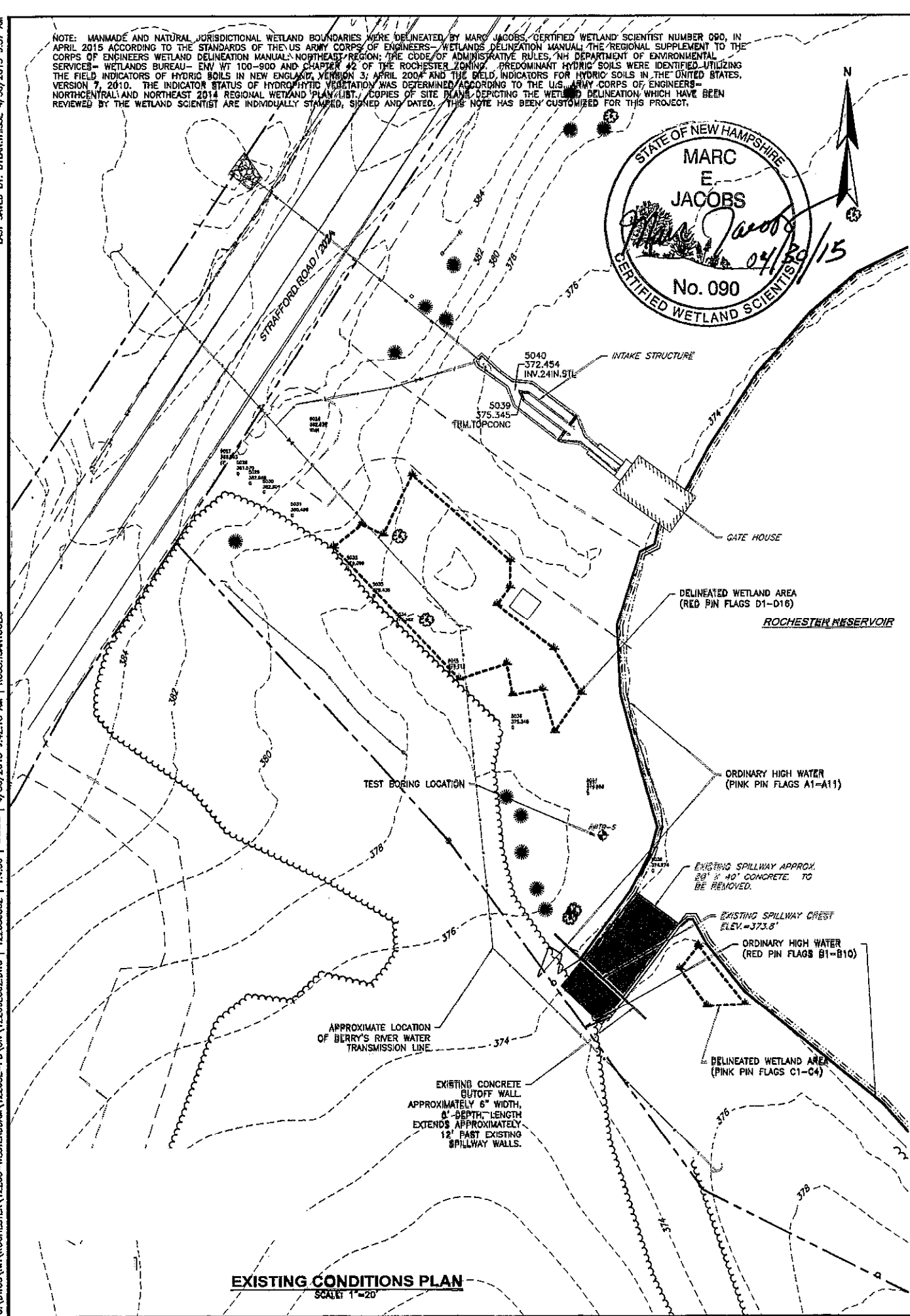
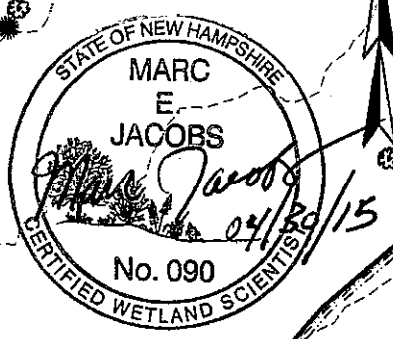
**SUBJECT:** West End Spillway  
Delineation Certification Note

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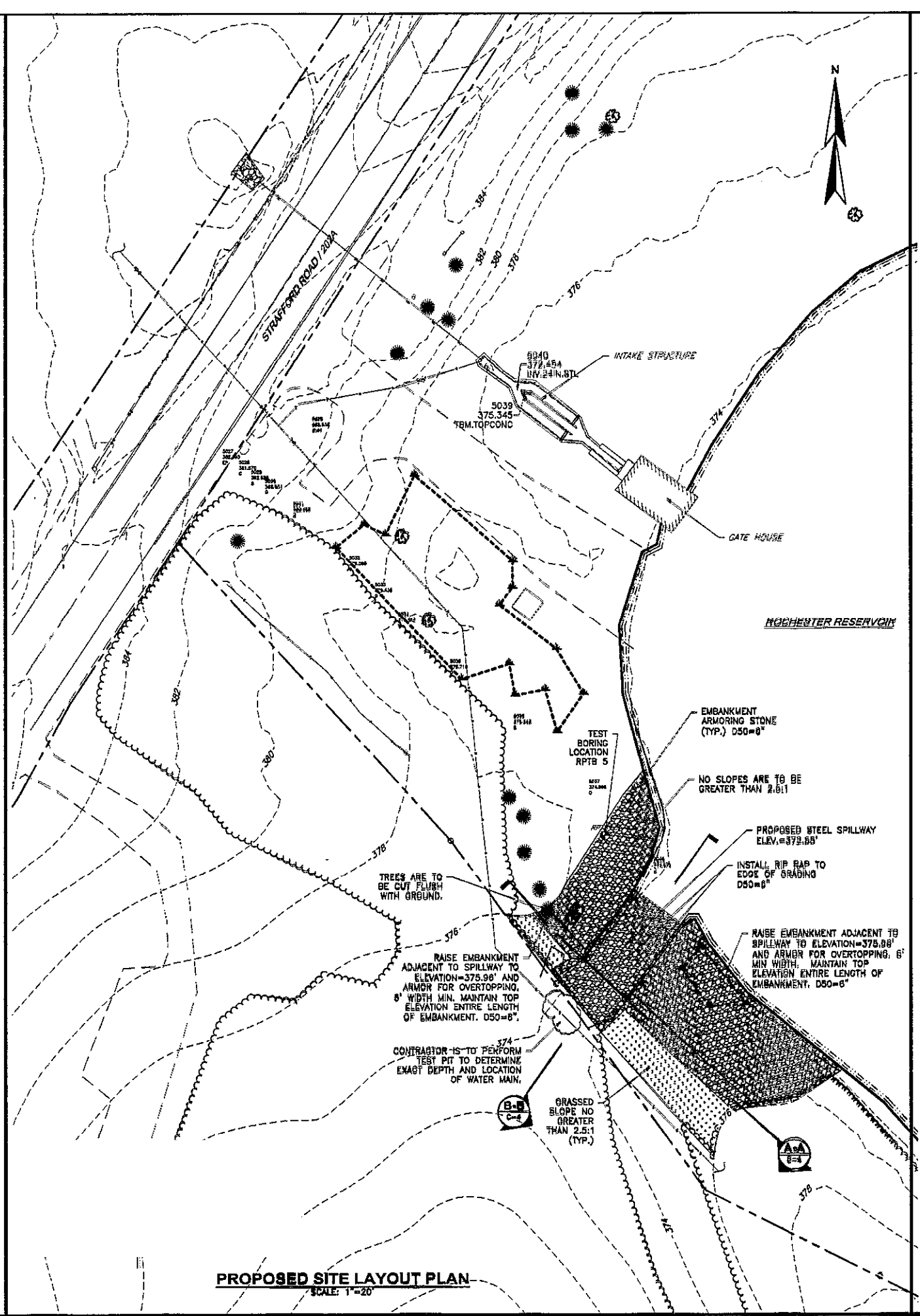
Manmade and natural jurisdictional wetland boundaries were delineated by Marc Jacobs, Certified Wetland Scientist number 090, in April 2015 according to the standards of the US Army Corps of Engineers - Wetlands Delineation Manual; the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region; the Code of Administrative Rules, NH Department of Environmental Services - Wetlands Bureau – Env Wt 100-900 and Chapter 42 of the Rochester Zoning. Predominant hydric soils were identified utilizing the Field Indicators for Identifying Hydric Soils in New England, Version 3, April 2004 and the Field Indicators of Hydric Soils in the United States, Version 7, 2010. The indicator status of hydrophytic vegetation was determined according to the U.S. Army Corps of Engineers - Northcentral and Northeast 2014 Regional Wetland Plant List. Copies of site plans depicting the wetland delineation which have been reviewed by the wetland scientist are individually stamped, signed and dated. This note has been customized for this project.

LAST SAVED BY: DYLAN.HESSE 4/30/2015 9:37 AM  
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NOTE: MANMADE AND NATURAL JURISDICTIONAL WETLAND BOUNDARIES WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST NUMBER 090, IN APRIL 2015 ACCORDING TO THE STANDARDS OF THE U.S. ARMY CORPS OF ENGINEERS' WETLANDS DELINEATION MANUAL, THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHEAST REGION; THE CODE OF ADMINISTRATIVE RULES, NH DEPARTMENT OF ENVIRONMENTAL SERVICES - WETLANDS BUREAU - ENV. WT 100-800 AND CHAPTER 42 OF THE ROCHESTER ZONING, PREDOMINANT HYDRIC SOILS WERE IDENTIFIED UTILIZING THE FIELD INDICATORS OF HYDRIC SOILS IN NEW ENGLAND, VERSION 3, APRIL 2004 AND THE FIELD INDICATORS FOR HYDRIC SOILS IN THE UNITED STATES, VERSION 7, 2010. THE INDICATOR STATUS OF HYDROPHYTIC VEGETATION WAS DETERMINED ACCORDING TO THE U.S. ARMY CORPS OF ENGINEERS' NORTHEAST REGIONAL WETLAND PLANT LIST. COPIES OF SITE MAPS, INCLUDING THE WETLAND DELINEATION WHICH HAVE BEEN REVIEWED BY THE WETLAND SCIENTIST ARE INDIVIDUALLY STAMPED, SIGNED AND DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS PROJECT.



EXISTING CONDITIONS PLAN  
SCALE: 1"=20'



PROPOSED SITE LAYOUT PLAN  
SCALE: 1"=20'

DESIGNED BY: JACOB CIVIL ENGINEER DATE: 4/30/15		CHECKED BY: JAC DATE: 4/30/15		APPROVED BY: JAC DATE: 4/30/15		PROJECT NO.: 12203E	
SUBMITTING AGENCIES		LOCAL PERMITTING		STATE PERMITTING		FEDERAL PERMITTING	
NO. 1		NO. 1		NO. 1		NO. 1	
11/14		11/14		11/14		11/14	
17/15		17/15		17/15		17/15	

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**CITY OF ROCHESTER**  
**ROCHESTER RESERVOIR WEST END**  
**DAM SPILLWAY MODIFICATIONS**  
**ROCHESTER, NH**

**WETLANDS DELINEATION**

**DRAWING**



# WETLANDS PERMIT APPLICATION – ATTACHMENT A MINOR AND MAJOR - 20 QUESTIONS

Water Division/ Wetlands Bureau/ Land Resources Management

Check the Status of your application: <http://des.nh.gov/onestop>



**RSA/ Rule:** RSA 482-A, Env-Wt 100-900

**Env-Wt 302.04 Requirements for Application Evaluation** - For any major or minor project, the applicant shall demonstrate by plan and example that the following factors have been considered in the project's design in assessing the impact of the proposed project to areas and environments under the department's jurisdiction. Respond with statements demonstrating:

1. The need for the proposed impact.

The existing Rochester Reservoir West End dam spillway will be replaced with a new spillway consisting of earthwork, rip rap, and a new steel spillway insert. The current concrete spillway is in disrepair and does not meet the 100 year storm and run up analysis requirements of NHDES. An estimated 1 ft tall armored earthen embankment will also be installed on each side of the spillway, tying into existing grade at the required elevation, to meet the new requirements.

2. That the alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site.

**Options include the following:**

- 1) **No action – The spillway modifications are required by NHDES, no action is not an option.**
- 2) **Modify the East End Dam- Modifications to the east end dam will be much more complicated and pose a greater risk if failure was to occur since it is much larger and is a high hazard dam.**
- 3) **Install a Steel Spillway insert- attaching the steel spillway insert to the existing cutoff wall and grading to the required elevation will meet the DEP's requirements. It creates the least amount of disturbance, and is the most practical and environmentally sound option.**

[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)

3. The type and classification of the wetlands involved.

**Please see the attached classification sketch. Palustrine Emergent Saturated. Palustrine Scrub Shrub Broad-leaved Deciduous Temporarily flooded. Palustrine Forested Seasonally Flooded. Lacustrine, Limnetic, Unconsolidated bottom permanently flooded, impounded.**

4. The relationship of the proposed wetlands to be impacted relative to nearby wetlands and surface waters.

**Temporarily impacted wetland area is part of a larger, seasonally wet, mowed and maintained wetland area that is adjacent to the reservoir. Permanently impacted wetland is a small isolated area off of the banks of the reservoir. Neither wetland area contributes significantly to the surrounding wetlands or surface waters.**

5. The rarity of the wetland, surface water, sand dunes, or tidal buffer zone area.

**Wetlands being effected are not classified as rare.**

6. The surface area of the wetlands that will be impacted.

**215 SF of permanent wetland impact, 2,024 SF of temporary wetland impact. 188 LF of Bank- Lake/Pond impact, 800 SF of Lake Bed (previously concrete spillway bottom). Rip Rap is intended to be placed inside the existing channel and to the high water mark of the existing reservoir banks.**

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7. The impact on plants, fish and wildlife including, but not limited to:
- a. Rare, special concern species;
  - b. State and federally listed threatened and endangered species;
  - c. Species at the extremities of their ranges;
  - d. Migratory fish and wildlife;
  - e. Exemplary natural communities identified by the DRED-NHB; and
  - f. Vernal pools.

None

8. The impact of the proposed project on public commerce, navigation and recreation.

**Ensures that the City of Rochester's drinking water supply is safely maintained. Ensures that the safety spillway overtops before the East End Dam fails. There will be no effect on navigation or recreation, the reservoir is off limits to the public.**

9. The extent to which a project interferes with the aesthetic interests of the general public. For example, where an applicant proposes the construction of a retaining wall on the bank of a lake, the applicant shall be required to indicate the type of material to be used and the effect of the construction of the wall on the view of other users of the lake.

**The only public visual impact will be by the abutter, who has signed off, and from passing vehicles. The Reservoir is not open to the public for any type of recreation or use. Some areas that are currently grass will be 6" Stone Rip Rap after the project is completed.**



10. The extent to which a project interferes with or obstructs public rights of passage or access. For example, where the applicant proposes to construct a dock in a narrow channel, the applicant shall be required to document the extent to which the dock would block or interfere with the passage through this area.

**The project is on City of Rochester property and does not interfere or obstruct existing public rights of passage or access. Public use of the site is prohibited.**

11. The impact upon abutting owners pursuant to RSA 482-A:11, II. For example, if an applicant is proposing to rip-rap a stream, the applicant shall be required to document the effect of such work on upstream and downstream abutting properties.

**The existing concrete channel is to be replaced with a slightly lower rip rap channel. The flows will remain approximately the same due to the use of flash boards to maintain the current spill way crest elevation. In the event of a storm over topping the flashboards by 8" or more, the flashboards will give way and the increased flows from the reservoir will flow through an existing area of overflow which leads to the Berry's River. No area where flow was not previously seen should be effected. Any increased flow due to exceptional conditions is expected to be for a brief period only.**

12. The benefit of a project to the health, safety, and well being of the general public.

**The purpose of this project is to ensure that adequate flow capacity is available at the spillway to protect the City of Rochester's public drinking water supply and the integrity of the East End Dam, as required by NHDES.**

13. The impact of a proposed project on quantity or quality of surface and ground water. For example, where an applicant proposes to fill wetlands the applicant shall be required to document the impact of the proposed fill on the amount of drainage entering the site versus the amount of drainage exiting the site and the difference in the quality of water entering and exiting the site.

**No impact on the surface or groundwater quantity or quality is anticipated. The water level of the reservoir will be lowered below the excavation level to minimize any siltation into the reservoir.**

14. The potential of a proposed project to cause or increase flooding, erosion, or sedimentation.

**There is little potential for this project to increase flooding, erosion, or sedimentation. The top of the reservoir bank being effected will be rip rapped to prevent erosion. the channel embankment will be raised in certain locations from existing to prevent any future flooding. Brief increased flows through the spillway will run through an existing area which currently sees brief flows and is densely vegetated and wooded. Standard erosion control methods will be used during construction.**

15. The extent to which a project that is located in surface waters reflects or redirects current or wave energy which might cause damage or hazards.

**None.**

16. The cumulative impact that would result if all parties owning or abutting a portion of the affected wetland or wetland complex were also permitted alterations to the wetland proportional to the extent of their property rights. For example, an applicant who owns only a portion of a wetland shall document the applicant's percentage of ownership of that wetland and the percentage of that ownership that would be impacted.

**A very small isolated section of wetlands will be permanently impacted. If all abutters (one) permanently impacted a small isolated portion of wetlands proportional to this project size, the effect would be minimal on the overall wetland quantity and quality in the area.**

17. The impact of the proposed project on the values and functions of the total wetland or wetland complex.

**The total wetland will see little to no impact from this project. The current wetland, as classified, is mostly a mowed area, and will only be impacted temporarily. The proposed project would permanently rip rap a small portion of wetland area. Potential impact would be increased runoff from a change in surface material over a small area.**

18. The impact upon the value of the sites included in the latest published edition of the National Register of Natural Landmarks, or sites eligible for such publication.

**None, there are no such sites in the vicinity.**

19. The impact upon the value of areas named in acts of congress or presidential proclamations as national rivers, national wilderness areas, national lakeshores, and such areas as may be established under federal, state, or municipal laws for similar and related purposes such as estuarine and marine sanctuaries.

**None**

20. The degree to which a project redirects water from one watershed to another.

**None**

Additional comments

[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147

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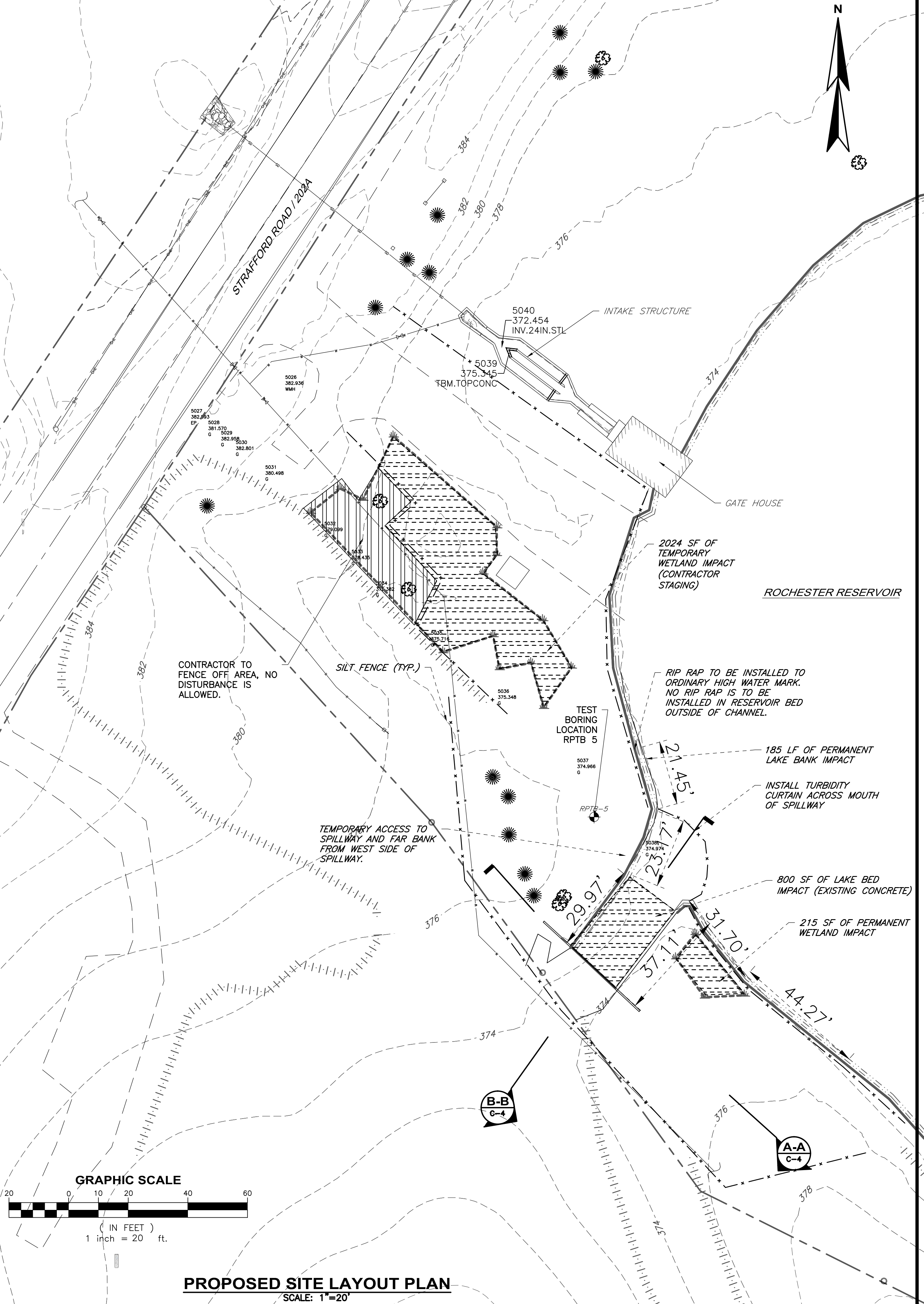
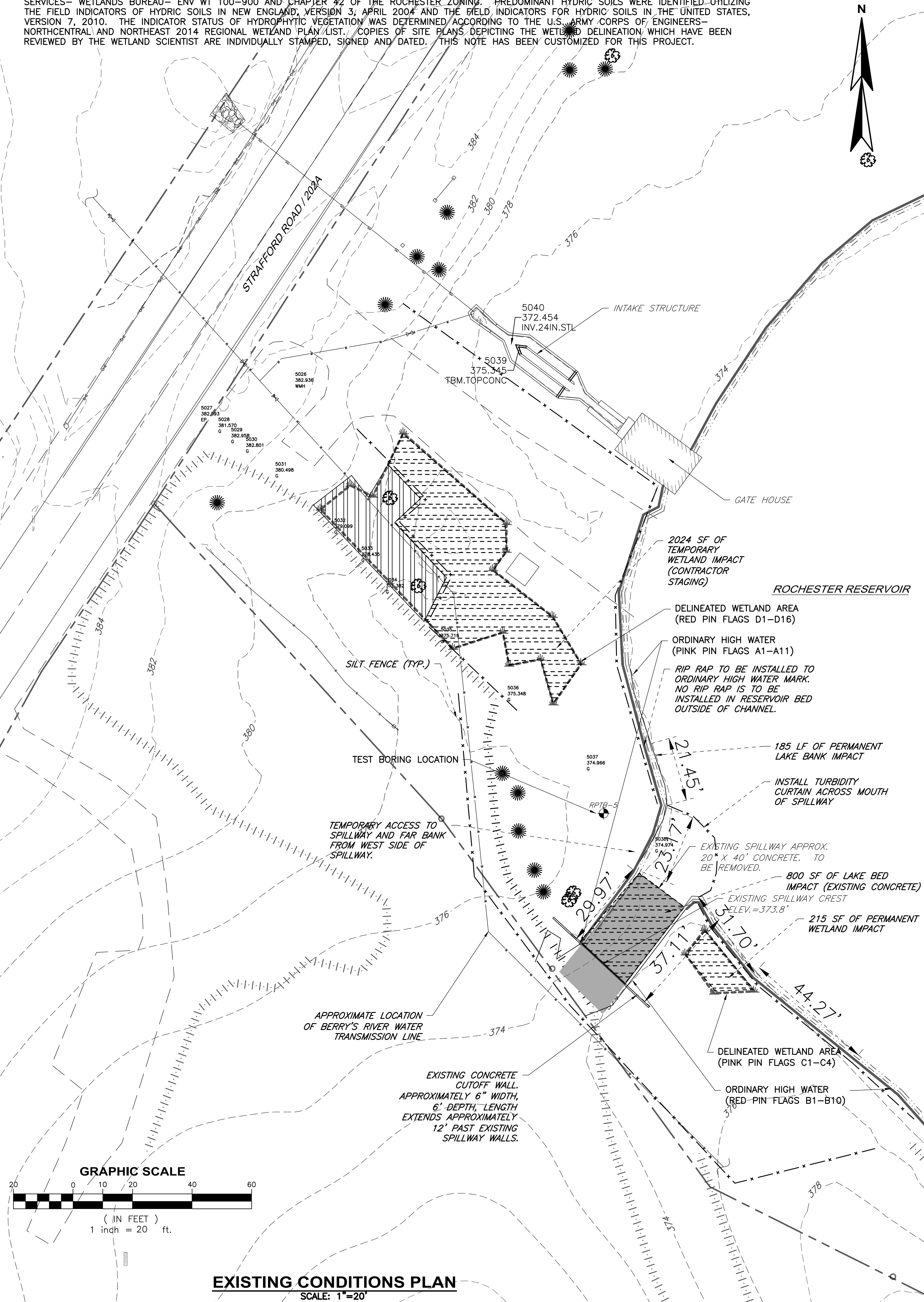
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SUBMISSIONS/REVISIONS		DATE
NO	100% FOR BIDDING	7/15
REVISES WETLANDS REVISIONS		
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NO	CAD COORD. DBT	
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NO	DATE: 7-16-15	
NO	APPROVED BY RND	
NO	DATE: 7-16-15	
NO	PROJECT NO: 12203E	

CITY OF ROCHESTER	
ROCHESTER RESERVOIR WEST END	
DAM SPILLWAY MODIFICATIONS	
ROCHESTER, NH	
EXISTING CONDITIONS AND PROPOSED SITE LAYOUT PLAN	
DRAWING	
FIGURE 1	

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