

Vermont Department of Environmental Conservation

Watershed Management Division
Rutland Regional Office
88 Merchants Row, Suite 430 Asa Bloomer Building
Rutland, VT 05701-5903

Agency of Natural Resources

[cell] 802-490-6163

[fax] 802-786-5915

<http://dec.vermont.gov/watershed>

Town of Readsboro
Attn: Rebecca Stone
301 Phelp Lane
PO Box 187
Readsboro, VT 05350
phone: (802) 423-5652

email: admin@readsboro.org

Statutory Authority:

*This permit is issued under Title 10,
Vermont Statutes Annotated, Chapter 41,
Subchapter 2, Alteration of Streams.*

Permit No.: SA-07-017-2016 INDIVIDUAL STREAM ALTERATION PERMIT

Project: **School Street Bank Stabilization**

Lat/Lon: **N 42.7712 / W 72.9494**

Description: Project is located in the Town of Readsboro and will consist of bank stabilization on the West Branch of the Deerfield River. A six foot depth toe will be installed, if ledge is not present, at the toe of slope and the exposed bank stabilized with riprap stone then topsoil in an area of approximately 380 feet by 120 feet.

The subject project is hereby authorized under the above statutes, subject to the following conditions:

- 1) **Construction Drawings** - The reviewed design plans are dated 08/11/2015, and revised on 05/18/2016, as prepared by Holden Engineering (design engineer). Any change to these plans will require a review and acceptance by the Vermont Agency of Natural Resource (ANR) River Management Engineer (RME).
- 2) **Pre-Construction Meeting** - Design Engineer and Contractor shall contact Josh Carvajal at (802) 490-6163 or joshua.carvajal@vermont.gov, two weeks prior to commencement of construction to schedule a site meeting to discuss the project plans and details and confirm the reference marks for bankfull widths.
- 3) **Instream Work Dates** - Construction activities within the bed and bank of the stream may commence upon the issuance of this final authorization and submittal of additional information requested below. Instream work activity must be completed between June 1 and October 1, unless approved by the RME.
- 4) **Stream Diversion** - It is not anticipated that a stream diversion will be utilized (as per design engineer), though the need to isolate the active work area from flood flows will be reevaluated at the site meeting. A temporary berm may need to be constructed with material removed from the existing stream to isolate active work area from high flows; this material may be dispersed back into the stream upon completion.
- 5) **Dewatering** - Provisions for filtering of dewatering from excavations for the stone toe and/or the control of turbid discharges into the stream during construction activities shall be submitted to the RME and the design engineer for review and acceptance prior to commencement of any work within the project limits.
- 6) **Sketch plan** - Locations of the construction staging areas and access routes shall be provided to the RME and design engineer by the contractor for review and acceptance prior to commencement of any work.
- 7) **Schedule and Sequencing** - A project schedule and sequencing of activities shall be provided by the Contractor to the RME and design engineer for review and acceptance prior to project commencement.

- 8) Inspections and Reporting - Design Engineer (or an applicant approved designee) will conduct onsite inspections and prepare weekly reports on current activities at the site, including but not limited to photographs of the active work area, description of completed work, and upcoming work for the next week. Reports to be submitted on Friday of each week via email to the RME and Town of Readsboro.

This permit expires on December 31, 2017 and it may be revoked at any time an inspection reveals the project is in non-compliance with any of the above listed conditions or a stop work order is issued in writing by ANR.

This authorization will be posted for a ten-day public comment period. This letter will constitute final approval.

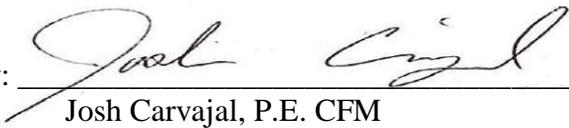
Please be aware that the proposed project is located in a municipality that participates in the National Flood Insurance Program (NFIP) and involves a development activity (including construction of structures, the placement of fill, storage of equipment, grading, excavating, etc...) within the Special Flood Hazard Area (SFHA) as delineated on the FEMA Flood Insurance Rate Maps (FIRMs). A review will be required by the municipality's floodplain manager for compliance with local flood hazard regulations. Please contact the local zoning administrator for more information and the ANR Regional Floodplain Manager for technical assistance.

This permit does not relieve you of the responsibility of obtaining permission from the affected property owners, nor the responsibility of obtaining any and all other necessary Local, State, or Federal permits.

Recent litigation involving the public trust doctrine raises concern that agency permits for stream alterations, dams or a water quality certificate may be challenged for lack of jurisdiction or authority. We want to alert you to the possibility that litigation or legislative action may modify or retroactively affect the agency's actions.

If the project is constructed as you have described, as shown on the above referenced approved plans and according to the above conditions, there is no reason to expect any violation of VT Water Quality Standards.

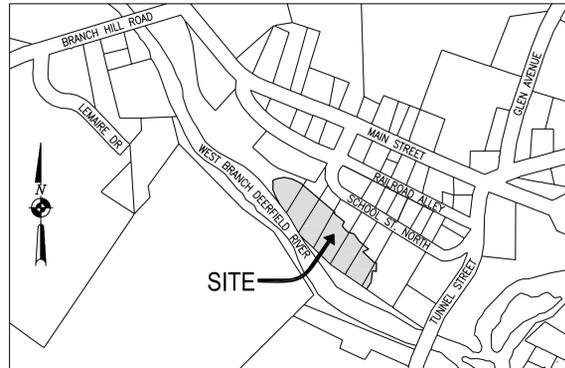
Signed this 27th day of May, 2016
Alyssa B. Schuren, Commissioner
Department of Environmental Conservation

by: 

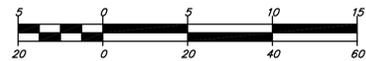
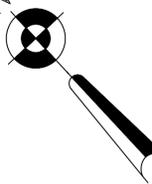
Josh Carvajal, P.E. CFM
River Management Engineer

cc: Project e-file
Doug Brodeur – Holden Engineering
John-Broker Campbell – ANR Regional Floodplain Manager
Angela C. Repella – Army Corps of Engineer
Lael Will – Fisheries Biologist

Proj. Created: 07/21/15
1520159_School_Si... Readsboro, VT.dwg\A.dwg\CADD\ May 18, 2016 RUCAD



- ARMY CORPS JURISDICTION NOTES:**
1. THE AVERAGE VOLUME OF FILL TO BE PLACED PER LINEAR FOOT BELOW THE ORDINARY HIGH WATER MARK IS 0.88 CY PER L.F.
 2. THE SQUARE FEET OF AREA OF FILL TO BE PLACED BELOW THE OHWM IS 4,100 SF.
 3. THE LINEAR FEET OF STREAM BANK IMPACT IS 425 L.F.
 4. THERE ARE NO TEMPORARY FILLS NECESSARY TO COMPLETE THE PROJECT.
 5. TREE CLEARING AREA: 7,144 SF TOTAL (TREE CLEARING HAS BEEN COMPLETED).
 6. THE DIMENSIONS SHOWN ON THIS PLAN WILL NEED TO BE FIELD VERIFIED DURING CONSTRUCTION ACTIVITIES.
 7. VERTICAL ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
 8. FEMA FLOOD LINE REFERENCES THE FEDERAL EMERGENCY MANAGEMENT AGENCIES (FEMA) FEDERAL INSURANCE RATE MAP (FIRM) PANEL No.: 50003C056D (EFFECTIVE DATE: DEC. 02, 2015)
 9. THE WEST BRANCH OF THE DEERFIELD RIVER HAS NO PUBLISHED FEMA FEDERAL INSURANCE STUDY (FIS).
 10. THERE ARE NO LETTERS OF MAP AMENDMENT (LOMA) IN THE VICINITY OF THE PROJECT.
 11. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE COORDINATES.
 12. IDEAL BANK FULL WIDTH (75') REFERENCE LINE IS SHOWN FOR DISCUSSION PURPOSES AND BASED ON RECOMMENDATIONS PREPARED BY MSR ENGINEERING, MEMORANDUM MM# 5277-04 (JUNE, 2014)



HOLDEN TRANSPORTATION ENGINEERING

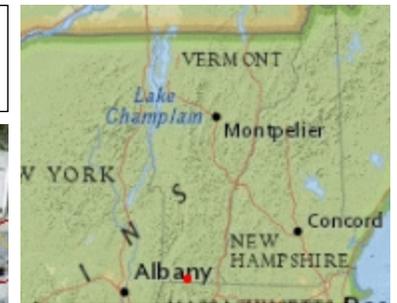
56 Old Suncook Road - Unit #4
PO Box 480 Concord, N.H. 03302
(603) 225-6449

9 Constitution Drive
Bedford, N.H. 03110
(603) 472-2078

SLOPE STABILIZATION & GRADING PLAN
WEST BRANCH DEERFIELD RIVER BANK STABILIZATION DESIGN
READSBORO, VT

DATE	REVISION DESCRIPTION	DR. BY	CHK. BY	BOOK	PAGE
01-27-2016	GRADING REVISIONS PER REVIEW	REL	TD		
03-16-2016	GRADING REVISIONS PER REVIEW	REL	TD		
04-19-2016	ARMY CORPS JURISDICTION REVIEW	REL	MT		
05-16-2016	VITDEC REVIEW (JCARVAJAL)	REL	DB		
05-18-2016	ADD 75' IDEAL BANK FULL WIDTH LINE (DISCUSSION ONLY)	REL	DB		

Date: 08/11/2015
Scale: 1" = 20'
Drawn By: REL
Checked By: TD
Job No: 1520159
Sheet No. 1 of 3



LEGEND

- DFIRM Floodways
- DFIRM Preliminary Floodways
- Special Flood Hazard Areas (A Counties)
 - AE (1-percent annual chance flood)
 - A (1-percent annual chance floodpl)
 - AO (1-percent annual chance zone feet)
 - 0.2-percent annual chance flood ha
- Special Flood Hazard Areas (F DFIRM)
 - AE (1-percent annual chance flood)
 - A (1-percent annual chance floodpl)
 - AO (1-percent annual chance zone feet)
 - 0.2-percent annual chance flood ha
- VTRANS State and Town Long
- VTRANS State Short Structure
- Town Bridge
- Town Culvert
- Stream
- Parcels (where available)
- Town Boundary

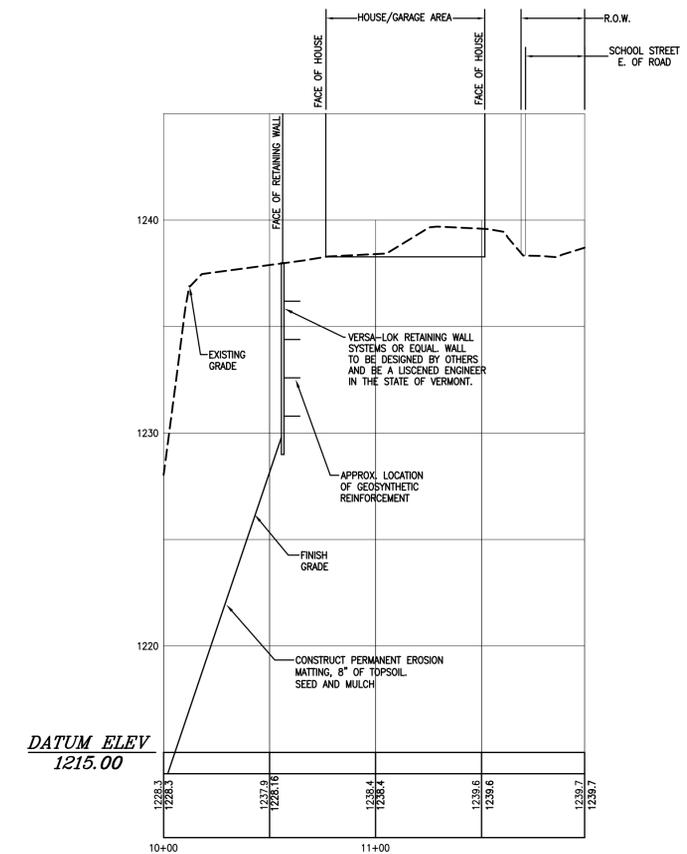
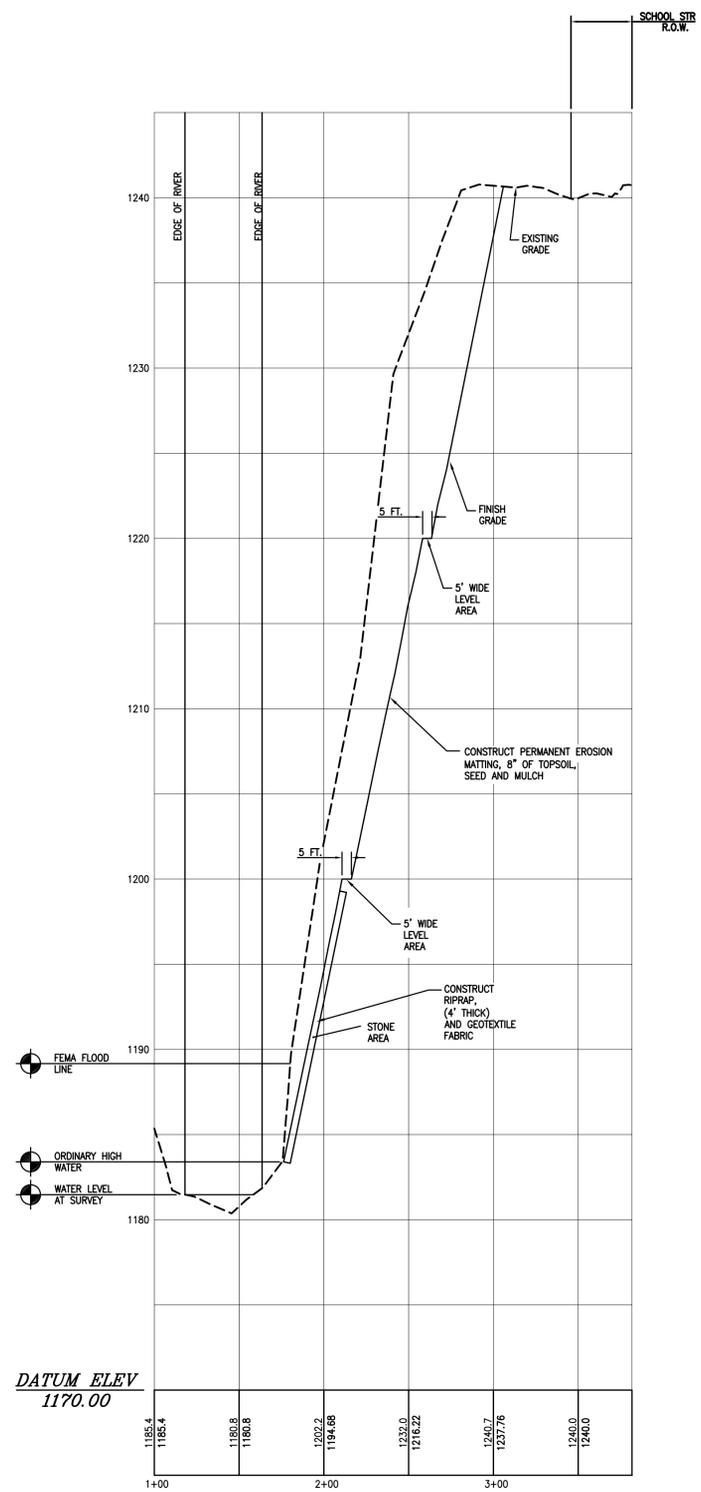
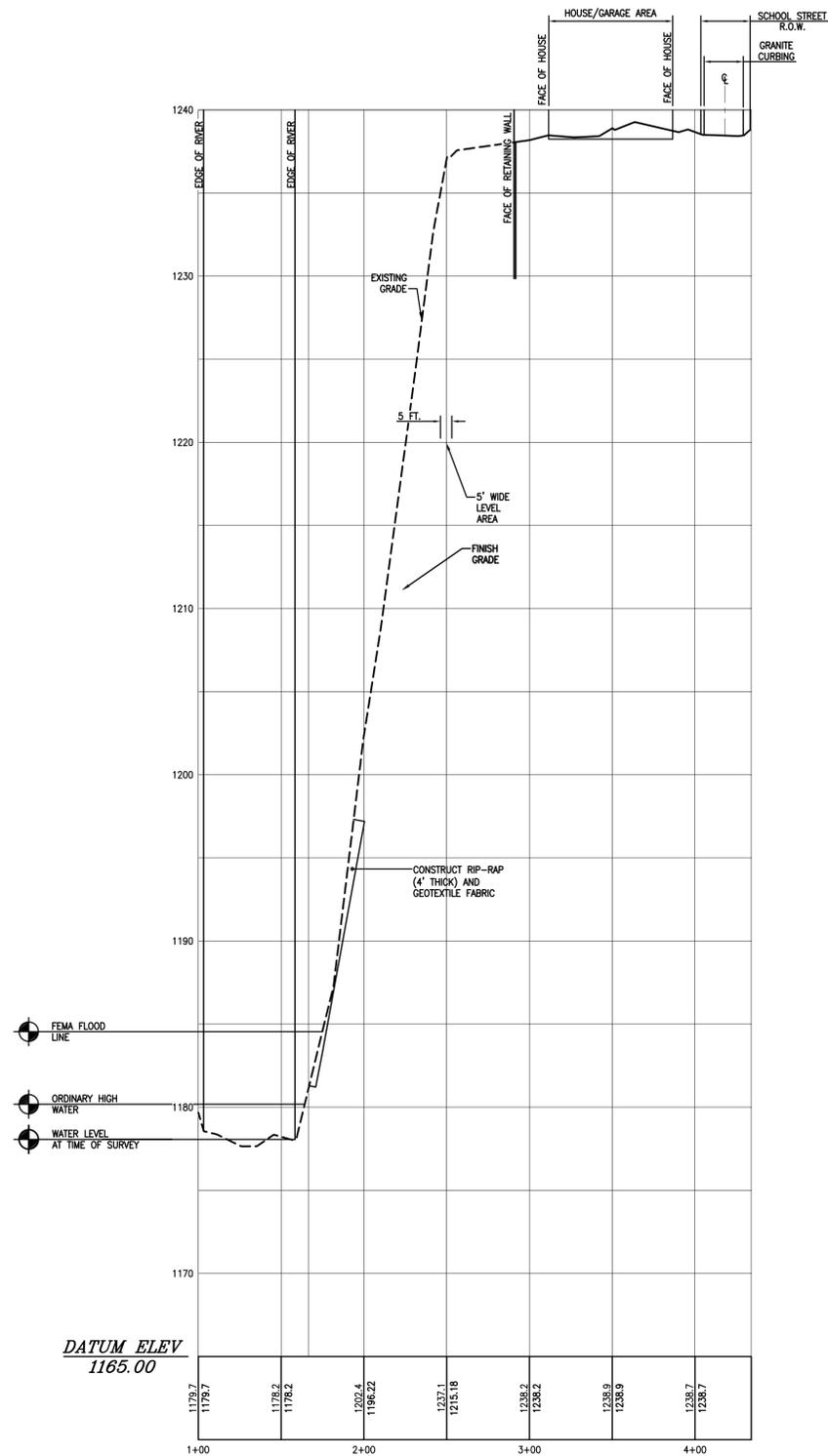
1: 1,970
May 23, 2016

NOTES

Map created using ANR's Natural Resources Atlas

100.0 0 50.00 100.0 Meters
 WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 164 Ft. 1cm = 20 Meters
 © Vermont Agency of Natural Resources THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.



SECTION "A"
 VERT. SCALE: 1" = 5'
 HORZ. SCALE: 1" = 50'

SECTION "B"
 VERT. SCALE: 1" = 5'
 HORZ. SCALE: 1" = 50'

SECTION "C"
 HORZ. SCALE: 1" = 40'

HOLDEN TRANSPORTATION ENGINEERING

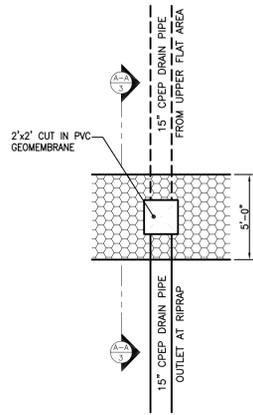
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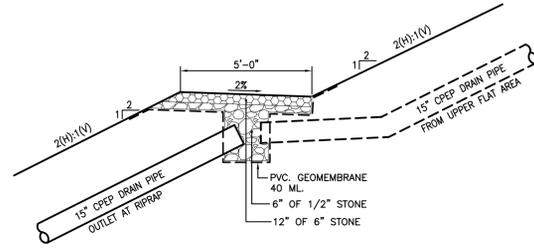
SLOPE CROSS SECTIONS
WEST BRANCH DEERFIELD RIVER BANK STABILIZATION DESIGN
READSBORO, VT

DATE	REVISION DESCRIPTION	DR. BY	CHK. BY
01-27-2016	GRADING REVISIONS PER REVIEW	REL	TD
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Date: 08/11/2015
 Scale: AS SHOWN
 Drawn By:
 Checked By: TD
 Job No: 1520159
 Sheet No. 2 of 3



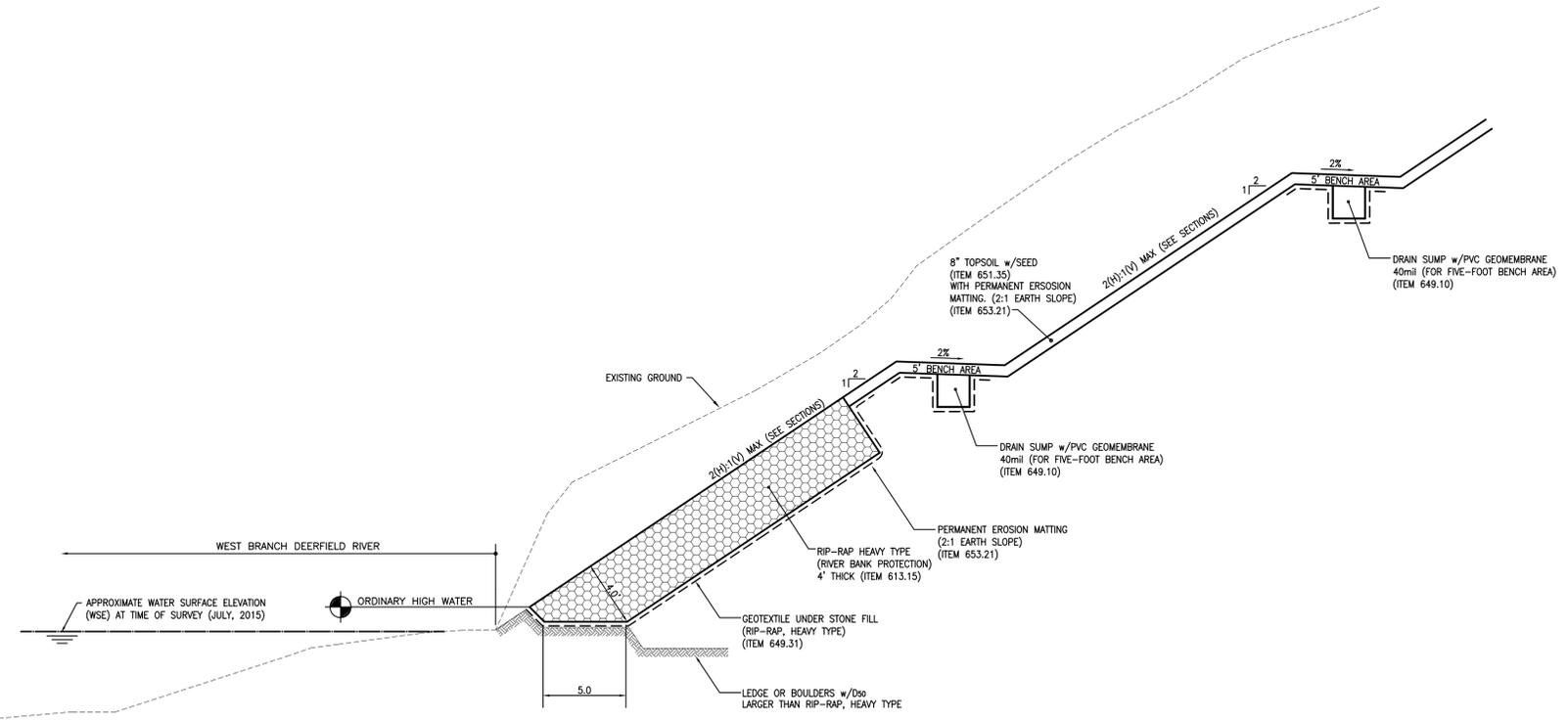
PLAN VIEW



SECTION A-A

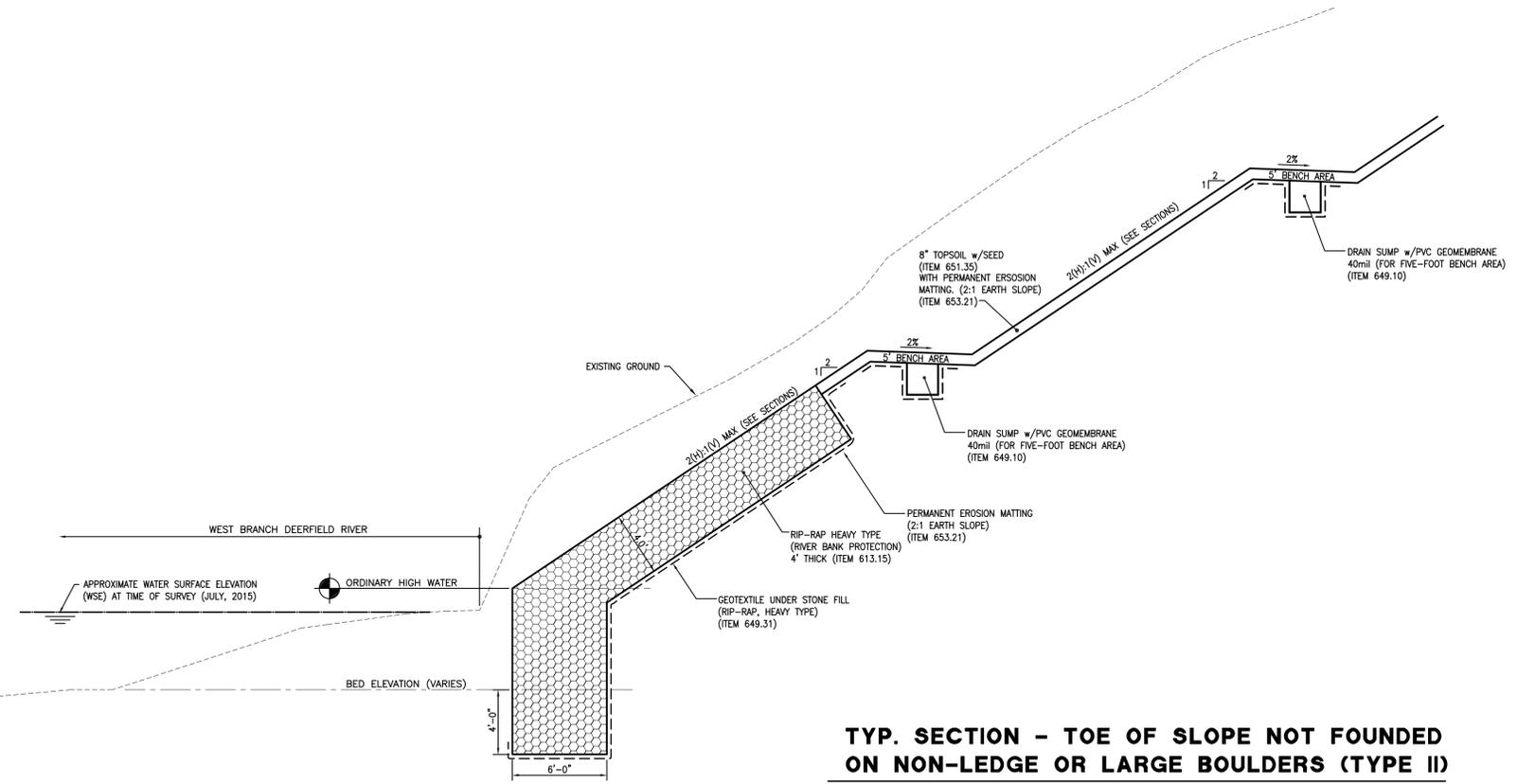
BENCH AREA - DETAIL

SCALE: 1" = 5'



TYP. SECTION - TOP OF SLOPE FOUNDED ON LEDGE OR LARGE BOULDER RIVER BED (TYPE I)

SCALE: 1" = 5'



TYP. SECTION - TOE OF SLOPE NOT FOUNDED ON NON-LEDGE OR LARGE BOULDERS (TYPE II)

SCALE: 1" = 5'