# MODIFICATIONS TO

# CONTRACT EROSION PREVENTION

# AND

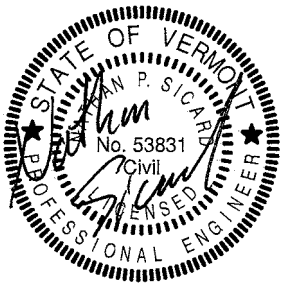
# SEDIMENT CONTROL (EPSC) PLAN

FOR

# CORINTH BRO 1447(29)

FOR

Austin Construction
1149 Main St.
Concord, VT 05824




November, 2014

RUGGLES ENGINEERING SERVICES INC.

Ruggles Engineering Services, 4580 Memorial Drive St. Johnsbury, VT 05819
www.rugglesengineeringservices.com

# EPSC NARRATIVE AMENDED

Section 1.1 through 1.4 are available as part of the Contract Plans (Sheet 51 of 57, dated 08/26/2014). The following amendments are to be considered with the Project Narrative. The project narrative is in the appendix.

**1.1 Project Description**

Add. – 1.1.1: The Project will also include a field office site, waste and borrow. *Site staging will be within the limits of the work area limits of disturbance and at the field office site. The field office site is located approximately 0.7 miles south of the project on VT Highway 25. The site is a previously disturbed log landing.*

Borrow for the project will be from an approved pit with an active 3-9003 MSGP for industrial activity.

**1.2 Site inventory**

1.2.1 Topography:
Add – 1.2.1.1: The proposed staging area includes slopes approximately 2%. Site drainage is towards highway 25 and is approximately 500 feet from the Waits River.

1.2.3 Vegetation:
Add – 1.2.2.1: The proposed access and staging includes exposed sand and gravel areas.

**1.3 Risk Evaluation**

1.3.1 Area of Disturbance

Area of Disturbance at the site is not expected to change from the design plans. Disturbance will include approximately 20,000SF (0.46 acres), the staging area will include an additional 21,000SF (0.47 acres) but the entire staging area will not be disturbed earth, disturbance will include travel areas and stockpile areas.

## 1.5 Sequence and Staging

### 1.5.1 Construction Sequence and Implementation of EPSC Measures.

The construction sequence will be coordinated with the CPM schedule. A copy of the current CPM schedule is included in the appendix.

1.5.1.1. Initial EPSC Measures.

Initial EPSC measures will be installed when the EPSC plan has been approved by the Agency. Project Delineation Fence will be installed to identify the limits of disturbance. Barrier Fence will be used in place of PDF fence within 100 feet of the stream. Project delineation fence will be installed for the Phase 1 work area and will be expanded after winter shut down for the remaining phases. Silt Fence with wire mesh will be installed in areas within 100' of the stream and silt fence will be installed along the limits of disturbance shown on the EPSC Plan.

1.5.1.2. Detour Construction (Phase 1).

The detour construction will occur prior to winter shut down. The temporary bridge installation will require erosion stone, a temporary culvert and silt fence installation since vegetation is not expected to establish during winter conditions.

After the bridge erection, the detour approaches will be constructed. The approaches will remain at approximately the same elevation as the existing highway so the excavation plan shown on the contract plans will not be required. Only temporary ditching will be used to channelize flow as shown on the EPSC plan. The ditch will be stabilized with erosion matting and stone check dams.

1.5.1.3. Abutment Construction (Phase 2)

Abutment construction will occur during the spring of 2015. Abutment construction will include excavation to the existing riverbed ledge. Installation of sediment barriers along this work zone will require backfill with crushed stone.

1.5.1.4. Detour Removal, Approach Construction and Intersection Construction.

The Detour will be removed and traffic will be moved to the final alignment. The detour disturbance will be restored and protected with final EPSC measures as shown on the plan.

1.5.1.5. Final Stabilization

Silt fence and culvert inlet protection will remain until vegetation has been established on the site. Once the site is stable, all structural measures will be removed and property disposed.

### 1.5.2 Off-site Activities.

Off-site activities will include mobilization and demobilization of the office trailer. There will also be an area of the field behind the office trailer where materials may be stored. If erosive materials are stored, silt fence will be installed around the temporary piles.

### 1.5.3 Updates

When updates are necessary Austin Construction will contact Ruggles Engineering Services to submit a revised narrative.

## 1.6 Contact Information

1.6.1 On-Site Plan Coordinator:

George Austin
Austin Construction
1149 Main St.
Concord, VT 05824
(802) 535-5399 (Cell)
Austin@myfairpoint.net

George has over 30 years' experience in highway construction. George is familiar with the EPSC contractor requirements, installation and maintenance methods. George will be onsite to implement the phases of EPSC and to coordinate the monitoring and inspections.

George will have the authority to hault construction and he is capable of ensuring the project will be constructed in accordance with the Plan and the terms of the project permits.

### 1.6.2 Plan Preparer:

Ruggles Engineering Services, Inc.
Nathan P. Sicard, P.E., VT License # 53831, CPESC #8020
4580 Memorial Drive
St. Johnsbury, VT 05819
(802)-748-5898
nate.res@myfairpoint.net

Ruggles Engineering is familiar with the VT Standards and Specifications for Erosion Prevention and Sediment Control, relative sections of the VT Agency of Transportation Standard Specifications for Construction and Contract Special Provisions, and project specific permits.

## 1.7 Schedule

The contractor has prepared the schedule. See Appendix A - SCHEDULES.

## 1.8 Inspection Form

See Appendix B - FORMS.

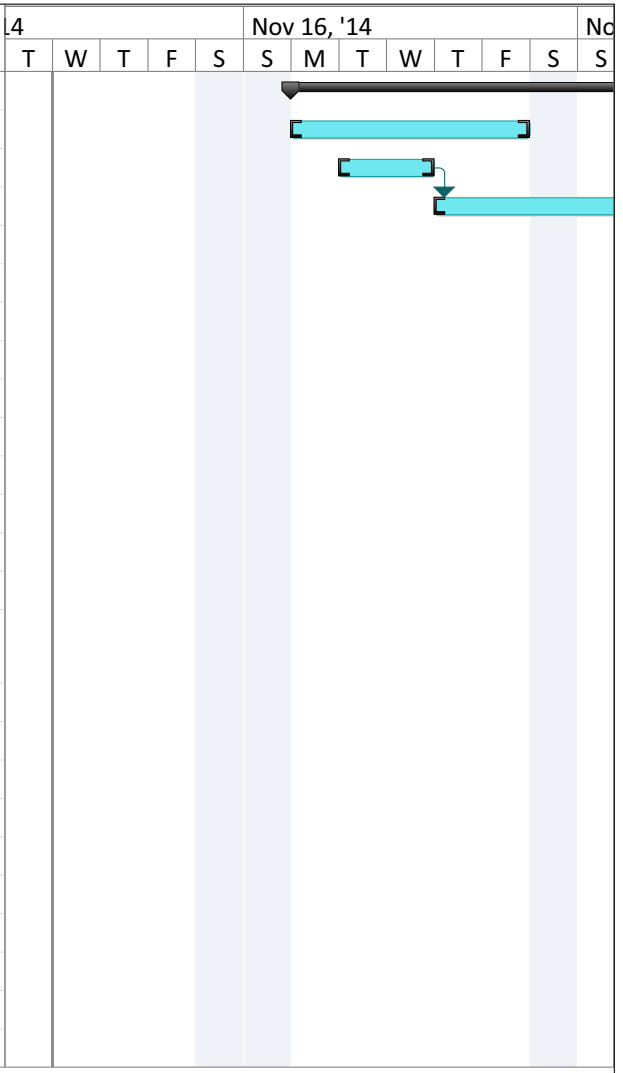
# 2 Erosion Prevention and Sediment Control Plan

See Appendix C – PLANS.

APPENDIX A – SCHEDULES

1. Contractor CPM Schedule – PREPARED BY CONTRACTOR.

| ID | | Task Mode | Task Name | Duration | Start | Finish | Predecessors |
|---|---|---|---|---|---|---|---|
| 1 | | | **Mobilize** | **6 days** | **Mon 11/17/14** | **Mon 11/24/14** | |
| 2 | | | Set up Officce Trailer | 5 days | Mon 11/17/14 | Fri 11/21/14 | |
| 3 | | | Erect Signs | 2 days | Tue 11/18/14 | Wed 11/19/14 | |
| 4 | | | Clearing | 3 days | Thu 11/20/14 | Mon 11/24/14 | 3 |
| 5 | | | **Detour** | **12 days** | **Tue 11/25/14** | **Wed 12/10/14** | **4** |
| 6 | | | Construct Approaches | 8 days | Tue 11/25/14 | Thu 12/4/14 | 4 |
| 7 | | | Construct Bridge | 7 days | Tue 11/25/14 | Wed 12/3/14 | 4 |
| 8 | | | Erect Signals | 3 days | Fri 12/5/14 | Tue 12/9/14 | 6 |
| 9 | | | Switch Traffic | 1 day | Wed 12/10/14 | Wed 12/10/14 | 8 |
| 10 | | | Demolish Bridge | 8 days | Thu 12/11/14 | Mon 12/22/14 | 9 |
| 11 | | | Winter Shutdown | 75 days | Tue 12/23/14 | Mon 4/6/15 | 10 |
| 12 | | | **Abutment 1&2** | **23 days** | **Tue 4/7/15** | **Thu 5/7/15** | **11** |
| 13 | | | Excavate to Bedrock | 10 days | Tue 4/7/15 | Mon 4/20/15 | 11 |
| 14 | | | Inspect | 3 days | Tue 4/21/15 | Thu 4/23/15 | 13 |
| 15 | | | Ledge Excavation if required | 10 days | Fri 4/24/15 | Thu 5/7/15 | 14 |
| 16 | | | **Abutment 1** | **33 days** | **Fri 5/8/15** | **Tue 6/23/15** | |
| 17 | | | Form & Pour Footing | 10 days | Fri 5/8/15 | Thu 5/21/15 | 15 |
| 18 | | | Form & Pour Abutment | 9 days | Fri 5/22/15 | Wed 6/3/15 | 17 |
| 19 | | | Form & Pour Wingwalls | 15 days | Fri 5/29/15 | Thu 6/18/15 | |
| 20 | | | Backfill | 3 days | Fri 6/19/15 | Tue 6/23/15 | 19 |
| 21 | | | **Abutment 2** | **22 days** | **Fri 6/19/15** | **Mon 7/20/15** | |
| 22 | | | Form & Pour Footing | 5 days | Fri 6/19/15 | Thu 6/25/15 | |
| 23 | | | Form & Pour Abutment | 9 days | Fri 6/26/15 | Wed 7/8/15 | 22 |
| 24 | | | Form & Pour Wingwall | 5 days | Thu 7/9/15 | Wed 7/15/15 | 23 |
| 25 | | | Backfill | 3 days | Thu 7/16/15 | Mon 7/20/15 | 24 |




Project: Project2.mppCorinth BRO
Date: Wed 11/12/14

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| Task | | External Milestone | | Manual Summary Rollup | |
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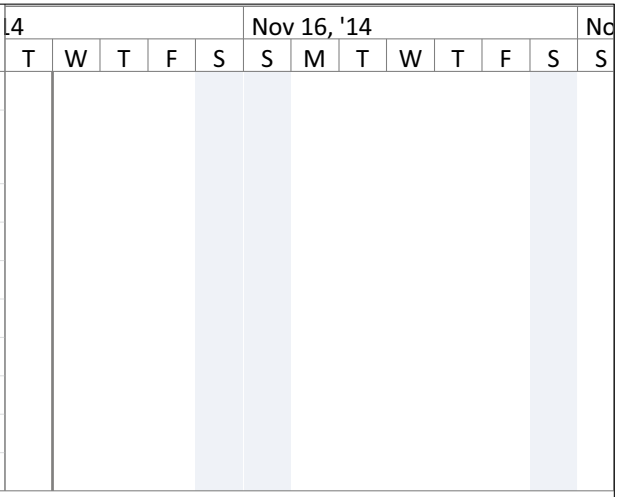
| Milestone | | Inactive Milestone | | Start-only | |
| Summary | | Inactive Summary | | Finish-only | |
| Project Summary | | Manual Task | | Deadline | |
| External Tasks | | Duration-only | | Progress | |

| ID | | Task Mode | Task Name | Duration | Start | Finish | Predecessors |
|---|---|---|---|---|---|---|---|
| 26 | | | Erect NEXT Beams | 7 days | Tue 7/21/15 | Wed 7/29/15 | 25 |
| 27 | | | Construct Concrete Bridge Rail | 15 days | Thu 7/30/15 | Wed 8/19/15 | 26 |
| 28 | | | **Construct Approaches** | **19 days** | **Mon 8/10/15** | **Thu 9/3/15** | |
| 29 | | | Install Drainage | 5 days | Mon 8/10/15 | Fri 8/14/15 | |
| 30 | | | Place Subbase | 4 days | Mon 8/17/15 | Thu 8/20/15 | 29 |
| 31 | | | Install Membrane & Pav | 3 days | Fri 8/21/15 | Tue 8/25/15 | 26,30 |
| 32 | | | Install Rail & Curb | 7 days | Wed 8/26/15 | Thu 9/3/15 | 31 |
| 33 | | | Remove Detour | 10 days | Fri 9/4/15 | Thu 9/17/15 | 32 |
| 34 | | | Pave Topcoat | 1 day | Fri 9/18/15 | Fri 9/18/15 | 33 |
| 35 | | | Demobilize | 8 days | Mon 9/21/15 | Wed 9/30/15 | 34 |

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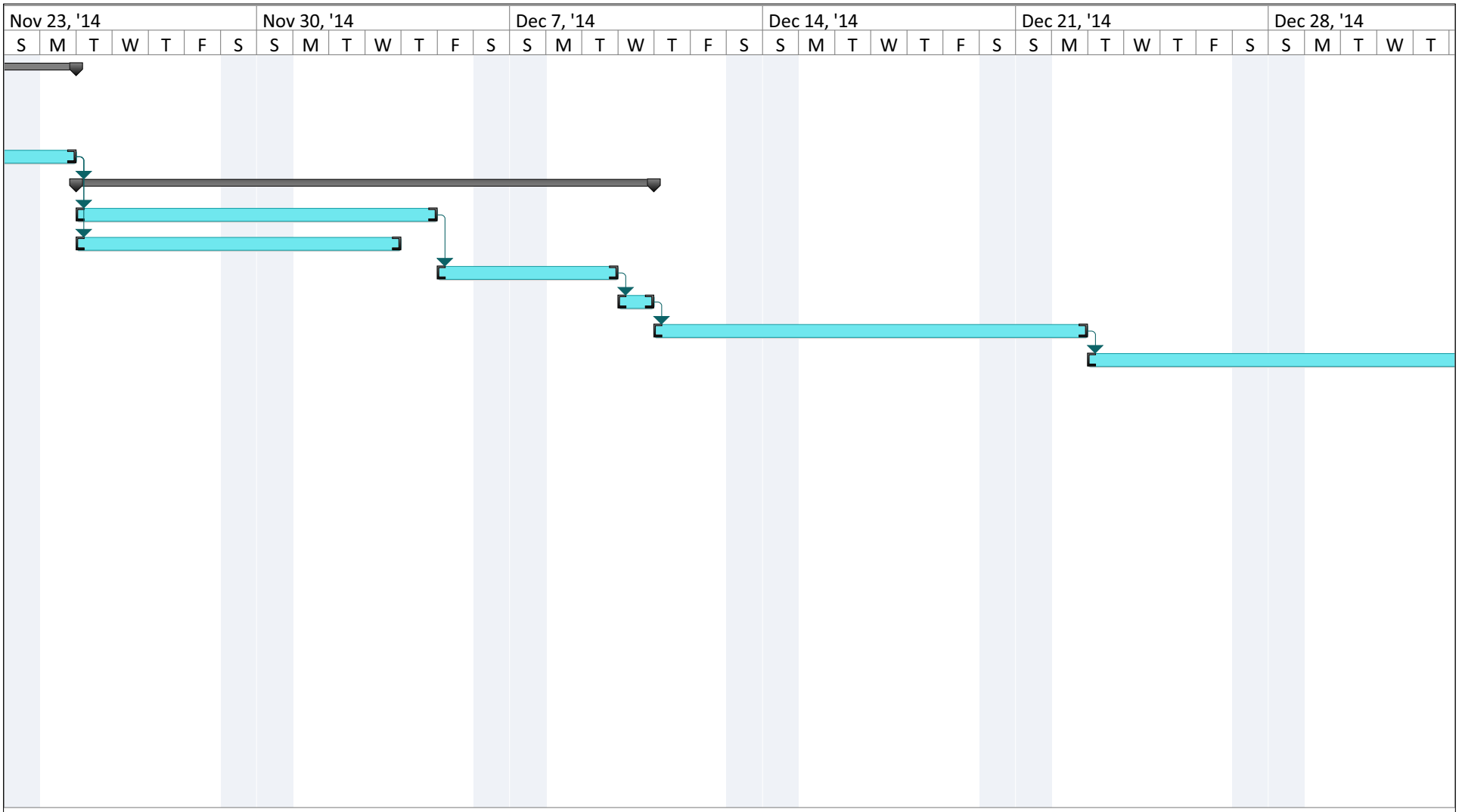


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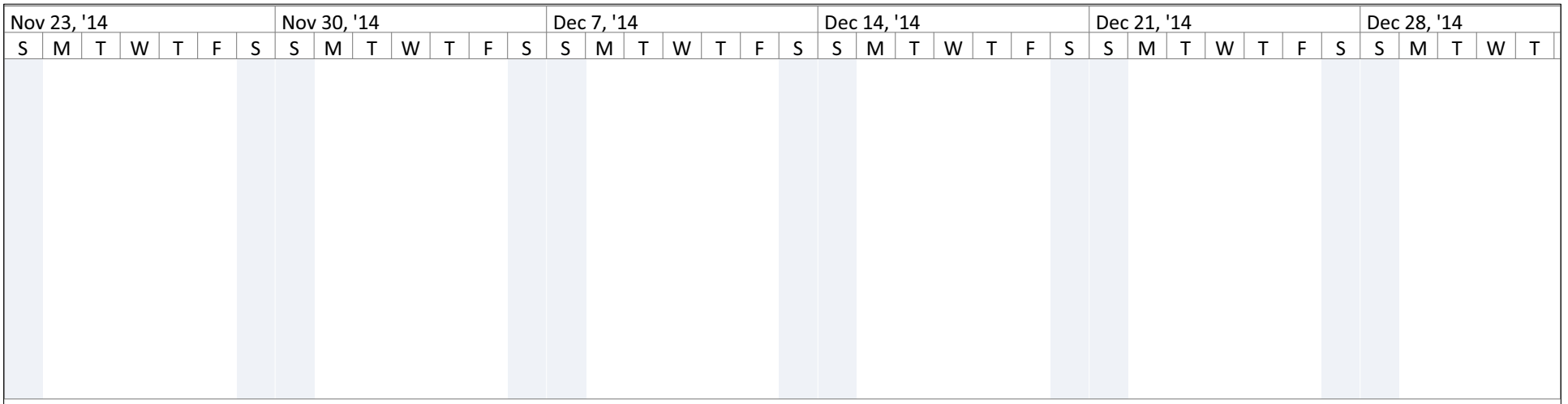


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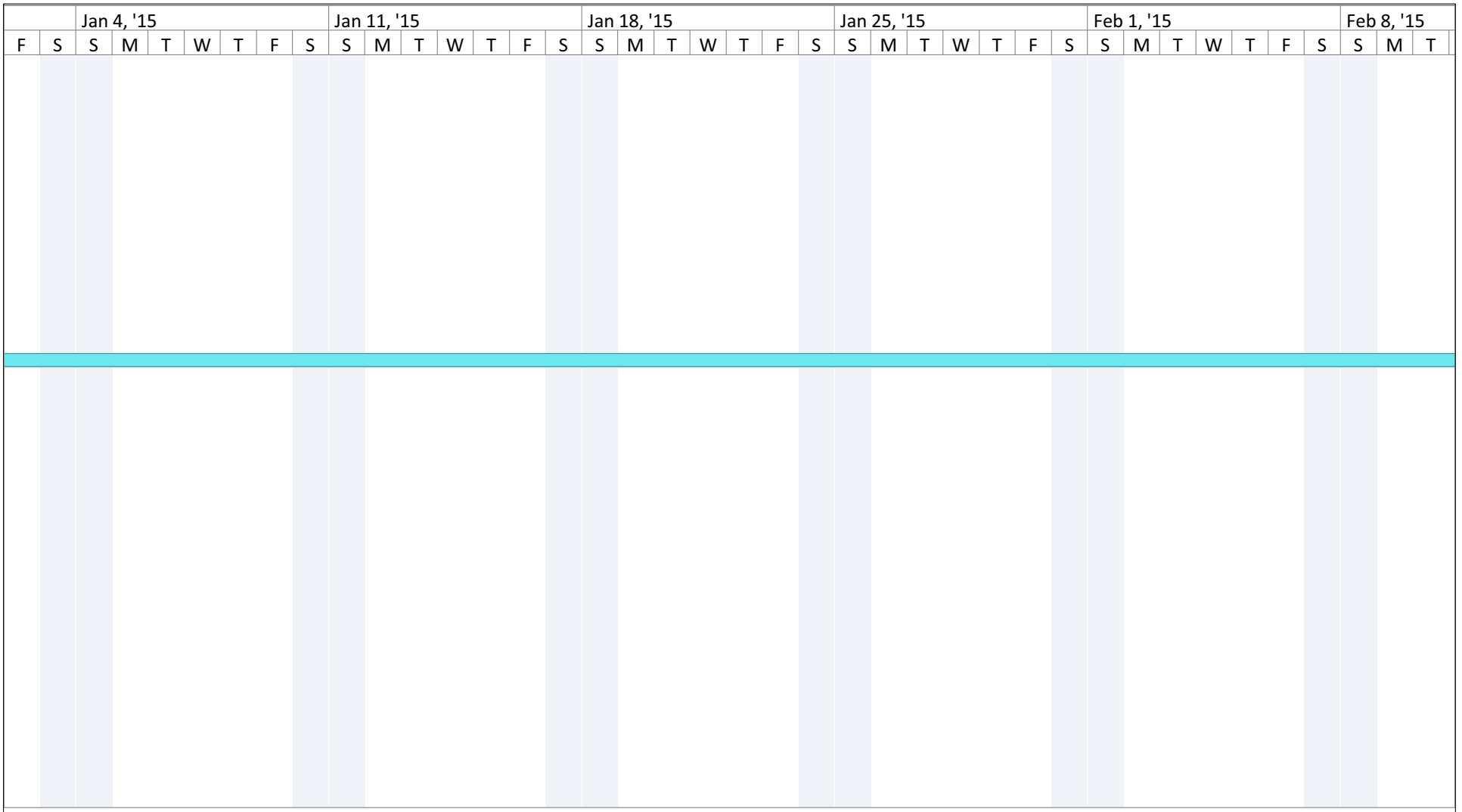


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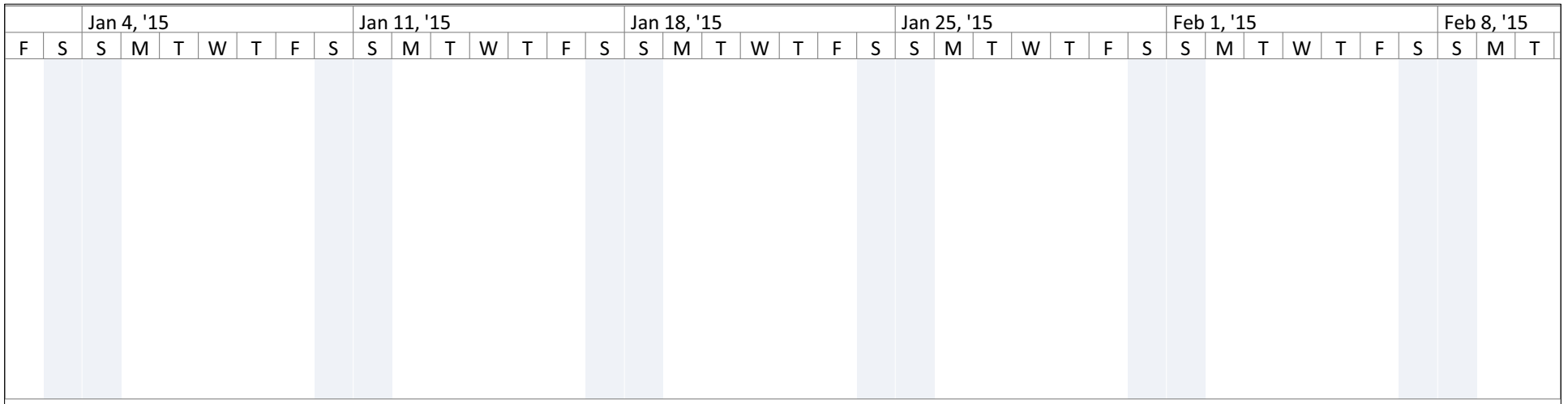


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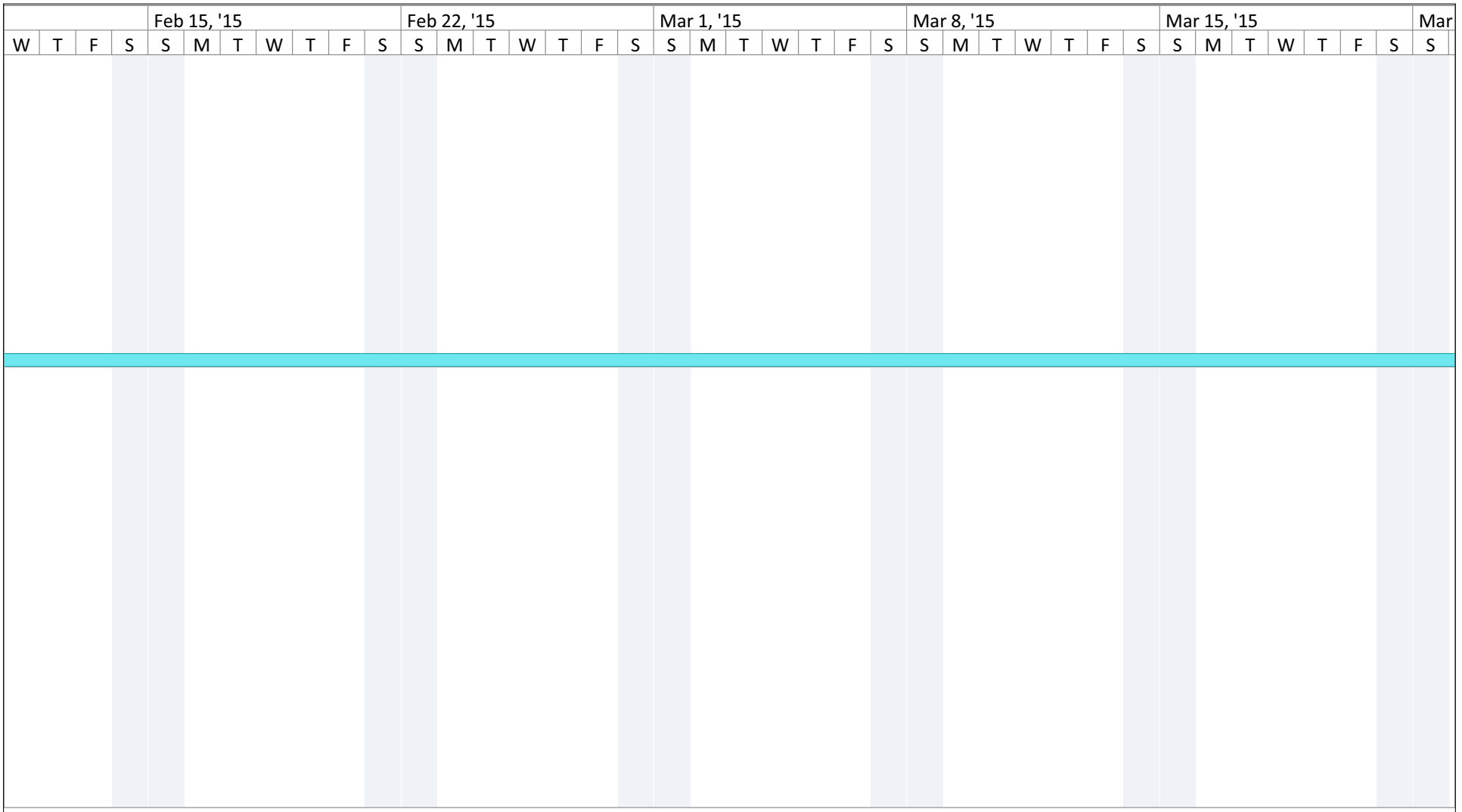


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| | | | | Feb 15, '15 | | | | | | | Feb 22, '15 | | | | | | | Mar 1, '15 | | | | | | | Mar 8, '15 | | | | | | | Mar 15, '15 | | | | | | | Mar |
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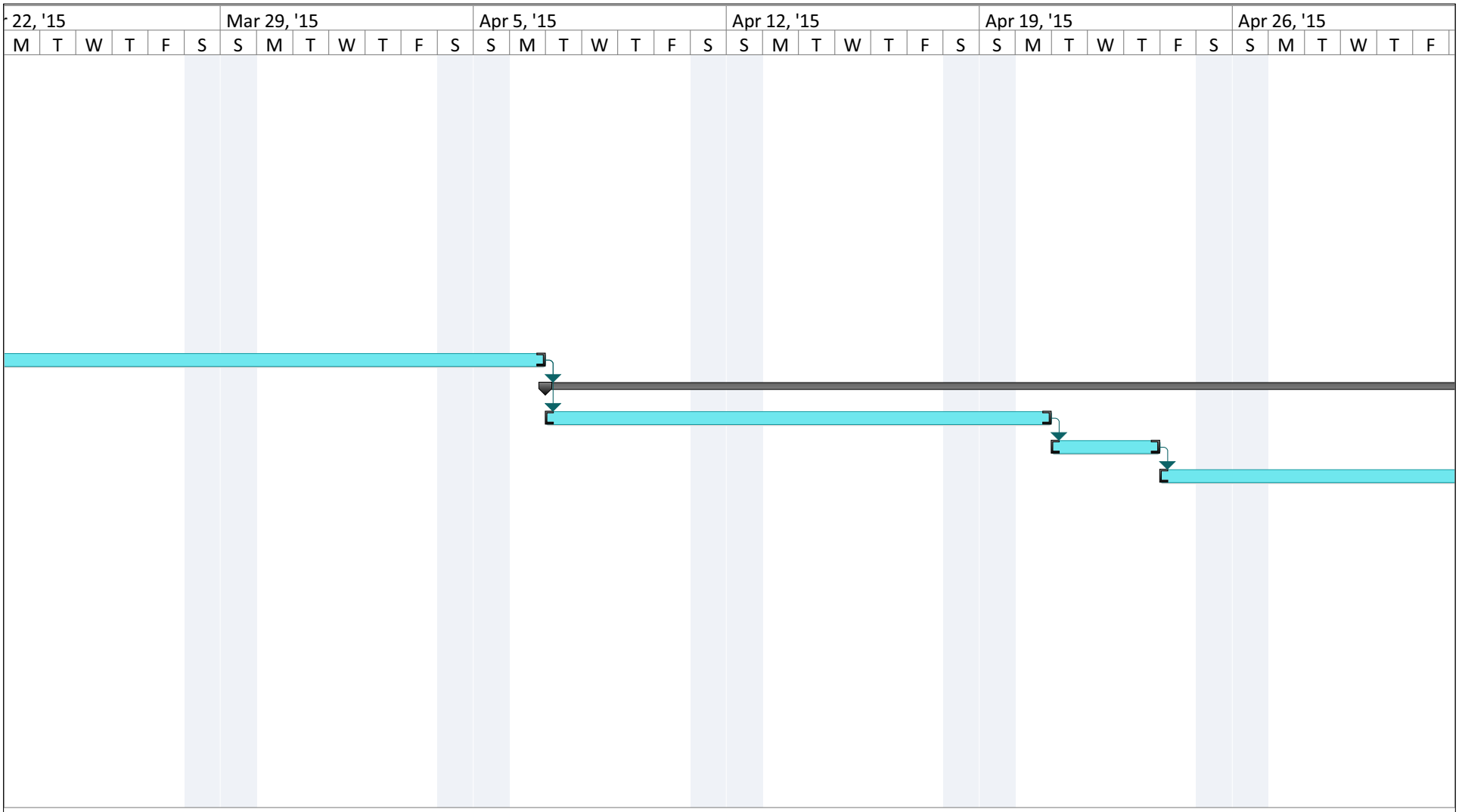


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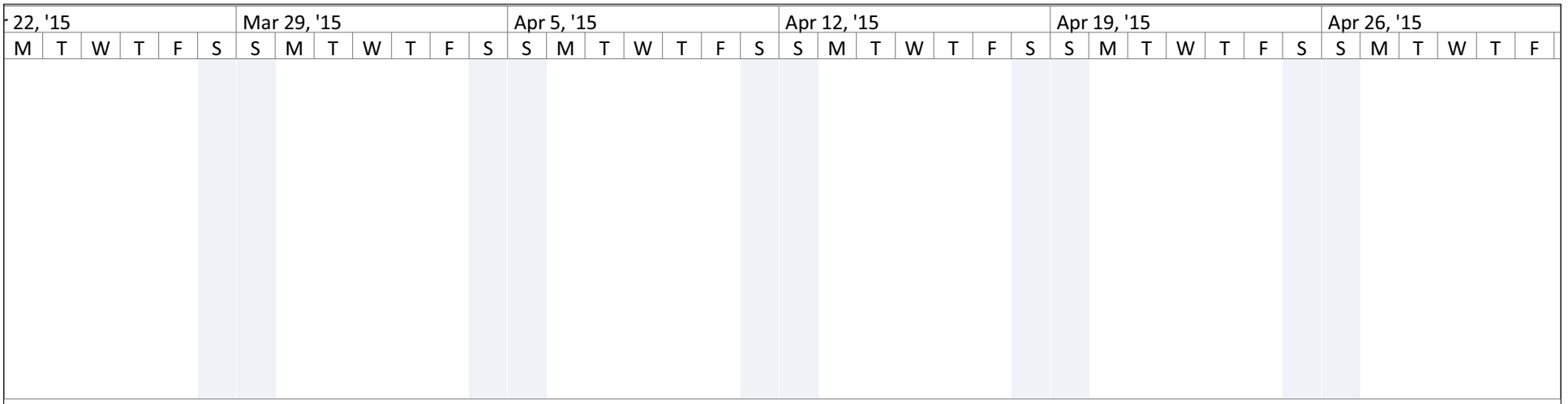


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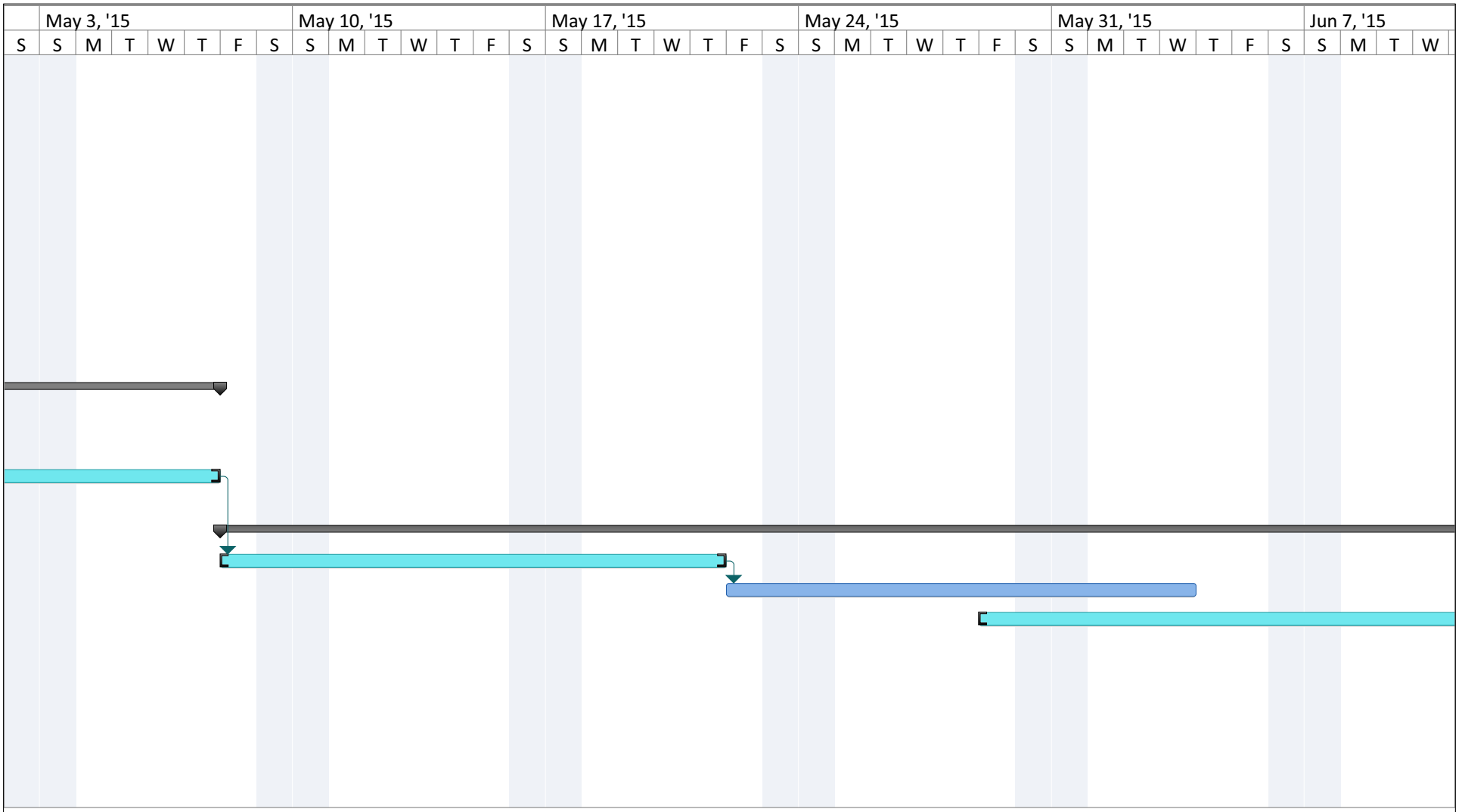


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| | May 3, '15 | | | | | | | May 10, '15 | | | | | | | May 17, '15 | | | | | | | May 24, '15 | | | | | | | May 31, '15 | | | | | | | Jun 7, '15 | | | |
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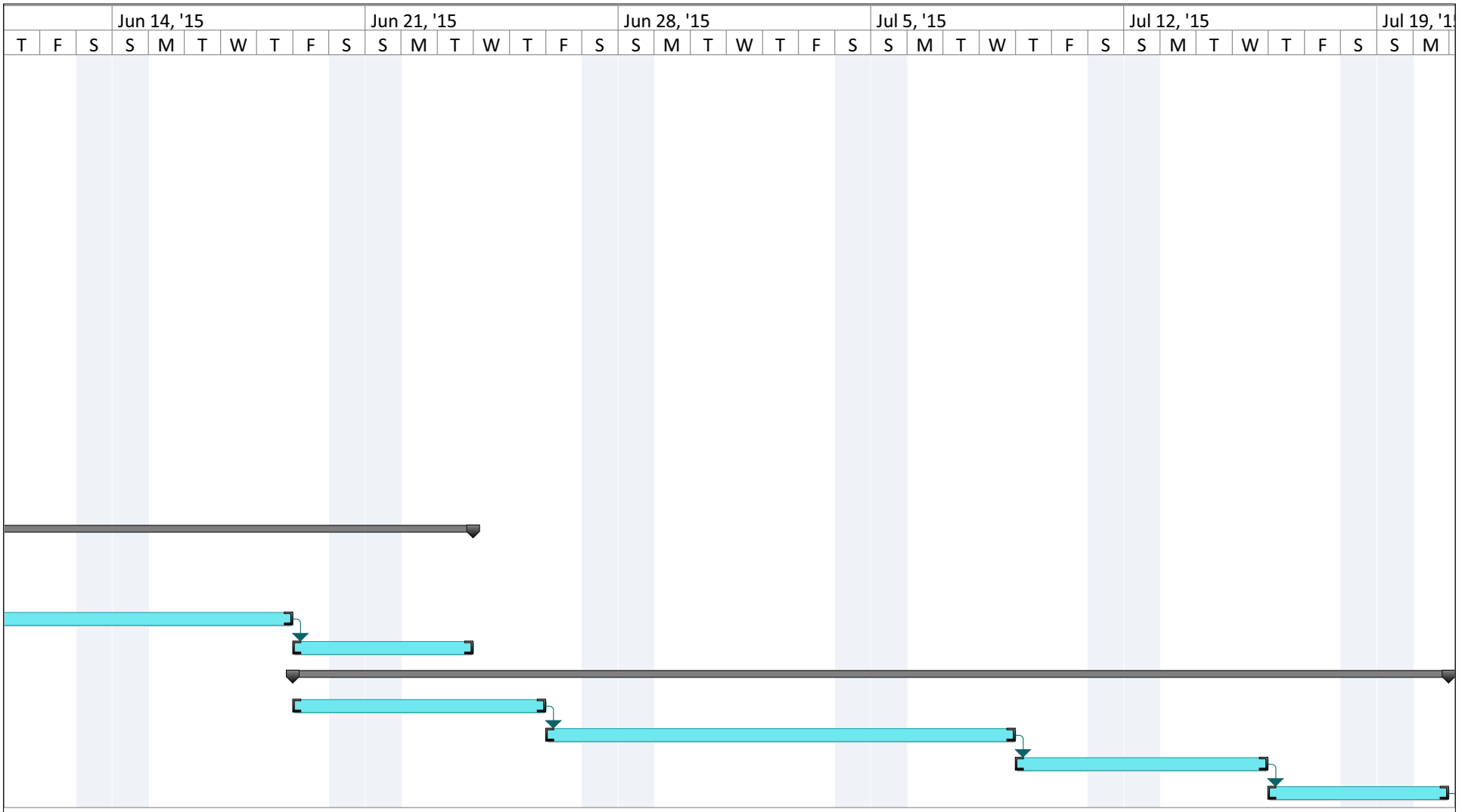


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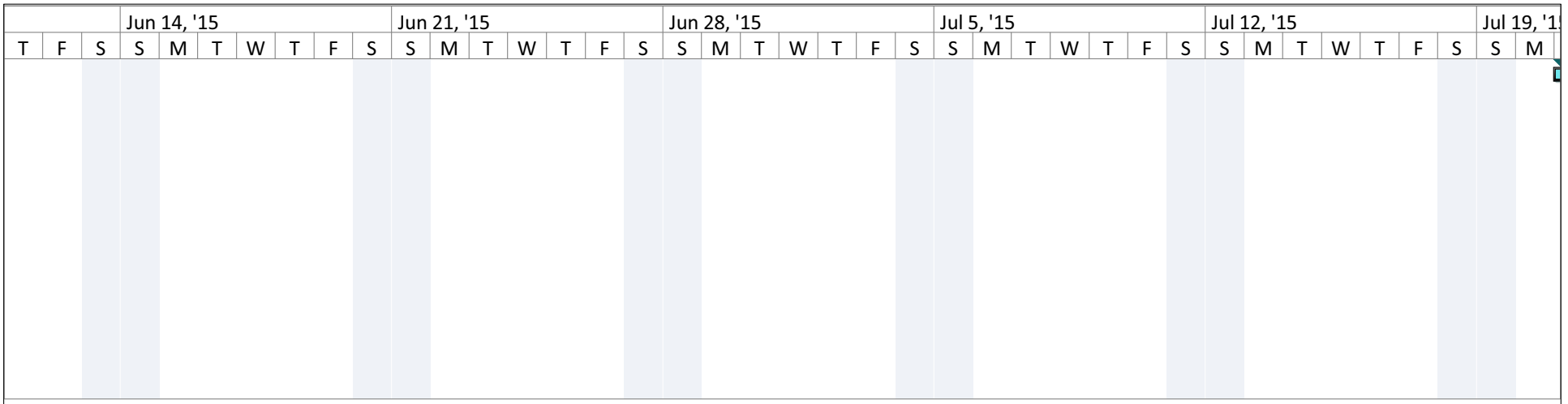


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| .5 | | | | | Jul 26, '15 | | | | | | | Aug 2, '15 | | | | | | | Aug 9, '15 | | | | | | | Aug 16, '15 | | | | | | | Aug 23, '15 | | | | | | |
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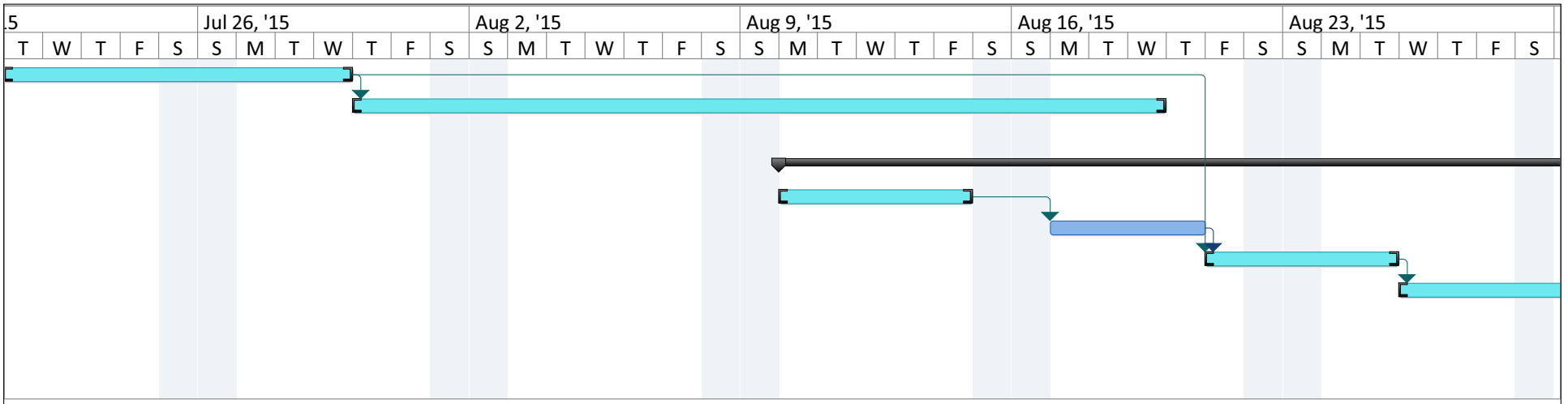


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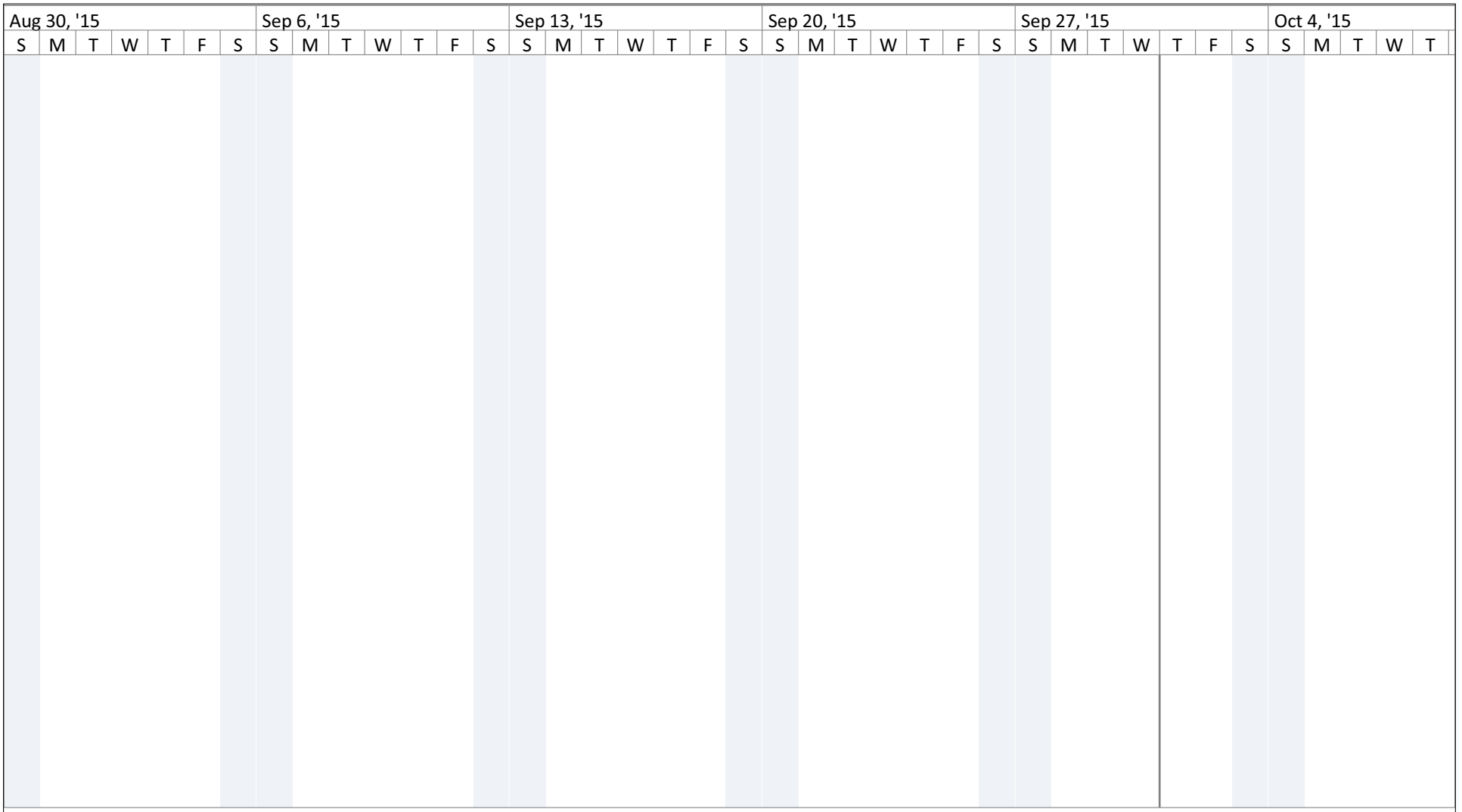


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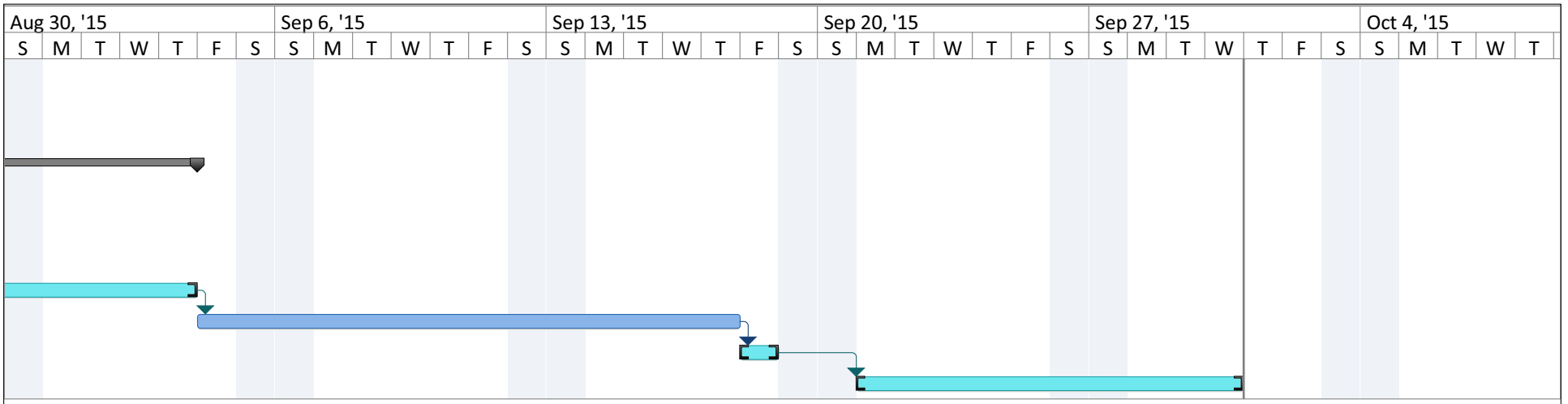


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APPENDIX B – FORMS

1. Off-Site Activities Form.
2. Inspection Form.

# OFF-SITE ACTIVITY REVIEW

## VTRANS ENVIRONMENTAL RESOURCE REVIEW

**Project/District Name:** Corinth BRO 1447(29) **Proposed Area Name:** Martin Property

☒ Waste ☐ Borrow ☒ Staging ☐ Other X: 521740.27 Y: 172987.77 (NAD83, meters)

**Natural Resource Review** Reviewer: John Lepore, Vtrans Biologist

☒ Accepted ☐ Rejected Date 11/5/2014 Signature _____

Comments _____

**Cultural Resource Review** Reviewer: Jen Russell, Vtrans Archaeology Officer

☒ Accepted ☐ Rejected Date 11-6-14 Signature _____

Comments log landing. previously disturbed.

☐ **The Site has been REJECTED for use at this time**

The Contractor is advised to:

- ☐ Seek another site for use
- ☐ Hire an Environmental firm to _____
- ☐ Hire an Archeological consultant to clear Section106 issues

☒ **This site has been ACCEPTED** (Site does not warrant any special conditions)

☐ **This site has been ACCEPTED with the following conditions:**

- ☐ Maintain a minimum buffer of _____feet from _____
- ☐ Orange fencing must be installed to protect nearby resources _____
- ☐ Materials must be placed on geotextile fabric
- ☐ Use of this site must comply with applicable local/state/federal permitting regulations including but not limited to: _____
- ☐ Please contact the Construction Environmental Engineer prior to use of this site.
- ☐ Other: _____

**The VT ANR Low Risk Site Handbook for EPSC measures should be used as a minimum measure for best management practices at waste, borrow and staging sites.**

**A copy of this Review has been faxed to the Resident Engineer/District Tech** ☒ **Yes** ☐ **No**

**A copy of this Review has been delivered to the Construction Env Eng (CEE)** ☒ **Yes** ☐ **No**

## This clearance is for the Natural and Cultural Resources Only.

# OFF-SITE ACTIVITY SUBMITTAL

VTrans Working to Get You There

- **This form is to be completed in its entirety by the Contractor/District Tech** when proposing any waste, borrow, or staging area or any work outside the defined Contract construction limits.
- **Submit to Karen Spooner:** karen.spooner@state.vt.us, Phone: (802)828-2169, Fax: (802)828-2334, VTrans Program Development Division, Environmental Section, One National Life Drive, Montpelier, VT 05633-5001
- **Submit a copy to the Resident Engineer**
- **Allow 21 calendar days (see Section 105.25 (c) of the VTrans Standard Specifications For Construction) for review once the application is administratively complete.**

- **SUBMITTAL INFORMATION**

**Project Name/District:** Corinth BRO 1447(29) **Contractor/District Tech:** Austin Const. Inc.

**Contact:** George Austin **Phone:** 695-2961 **Fax:** 695-4618 **E-mail:** austin@myfairpoint.net

**Resident Engineer:** _____ **Phone:** _____ **Fax:** _____

- **PROPOSAL INFORMATION** (Select one type of area being proposed for use per submittal and describe associated characteristics)

☒ Waste ☐ Borrow ☒ Staging ☐ Other (ex. dewatering location): _____

Material: Type (asphalt, concrete, earthen, etc.) earthen Quantity (yds³) 1700

Total Area of Land Disturbance (sq ft) 21,500

Additional Info: Proposed OGSite Trailer, Staging and Waste Stockpile area at Former log landing

- **LANDOWNER/PROPERTY INFO** (Fill all applicable boxes; **attach a Location Map and Sketch of Area**)

**Name:** Roger L. Martin (Print Name) **Address:** 8678 VT Rte 25 E. Corinth Vt. **Phone:** 802 439 6388

☒ Private Residential/Commercial ☐ Town/State Owned Facility ☐ Other

Additional Info: Waste Earthen Material to be stockpiled for reuse

Are there other users of this site? ☐ Yes ☒ No

Known past uses: Log Landing

☒ Location Map (must be USGS Geological Survey Map (7.5'))

☒ Sketch of Area: ☒ North arrow ☒ Approx scale ☒ Recognizable features

Better Map Rec'd 10/28/14

RE name → Not Known Yet.

**Permit Info:**

Act 250 Permit Exists? ☐ Yes ☒ No If Yes, # _____ Copy Enclosed? ☐

List of Other Existing Permits: _____

**Landowner Agreement** (Signature is required for all private-, town-, and state-owned properties)

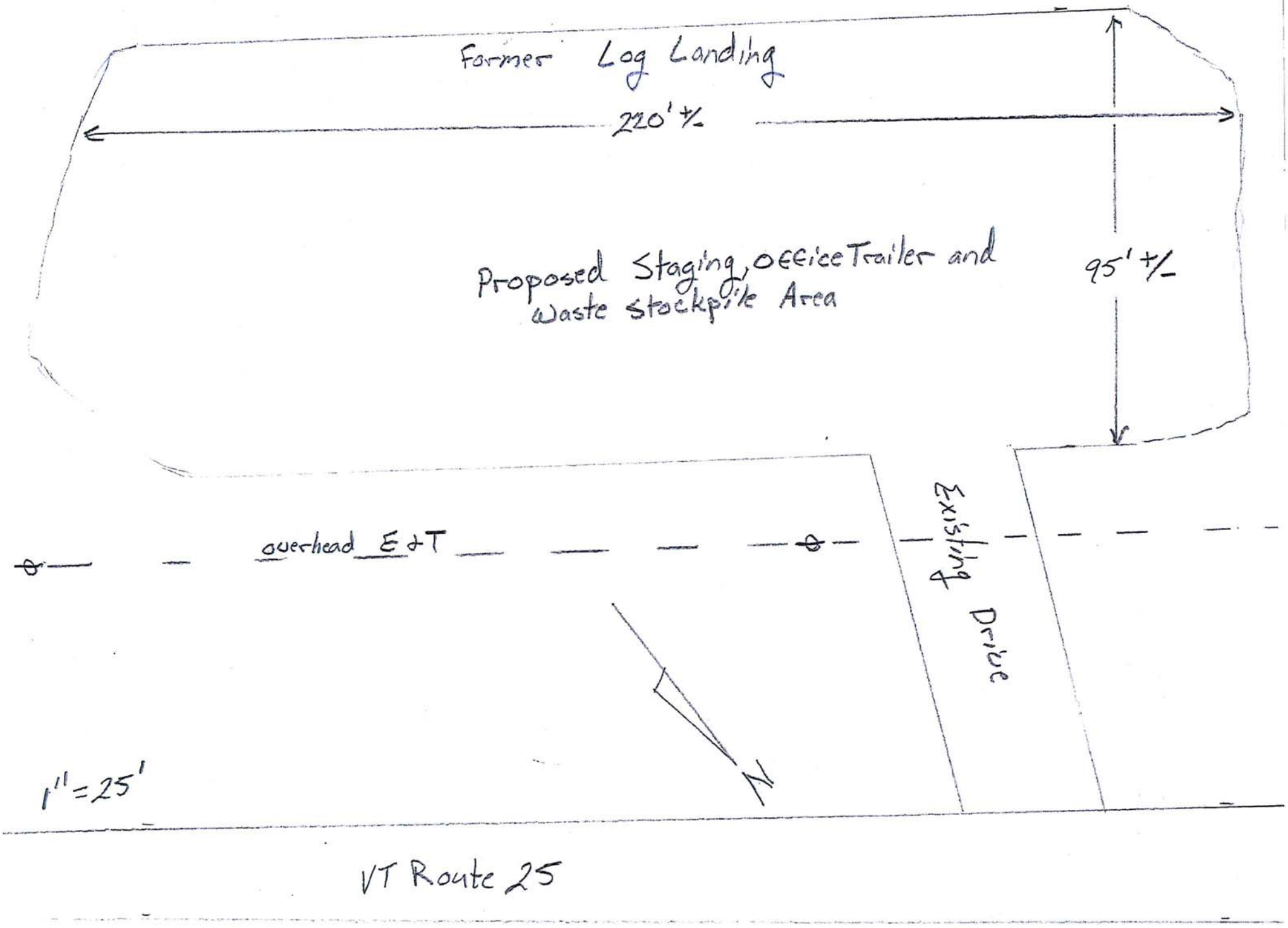
I, Roger L. Martin (Landowner/Facility Manager Signature), warrant that the information in the above permit application is accurate and agree to the use of the proposed area by Austin Const. (Name of Contractor) as shown on the attached sketch. If acting as the agent of the Landowner, I warrant (1) that the Landowner has the full right, power, and authority to authorize the proposed use, (2) that I am authorized to act as the Landowner's agent, and (3) that my authority to act as the Landowner's agent has not been revoked.

Date: 10/27/14

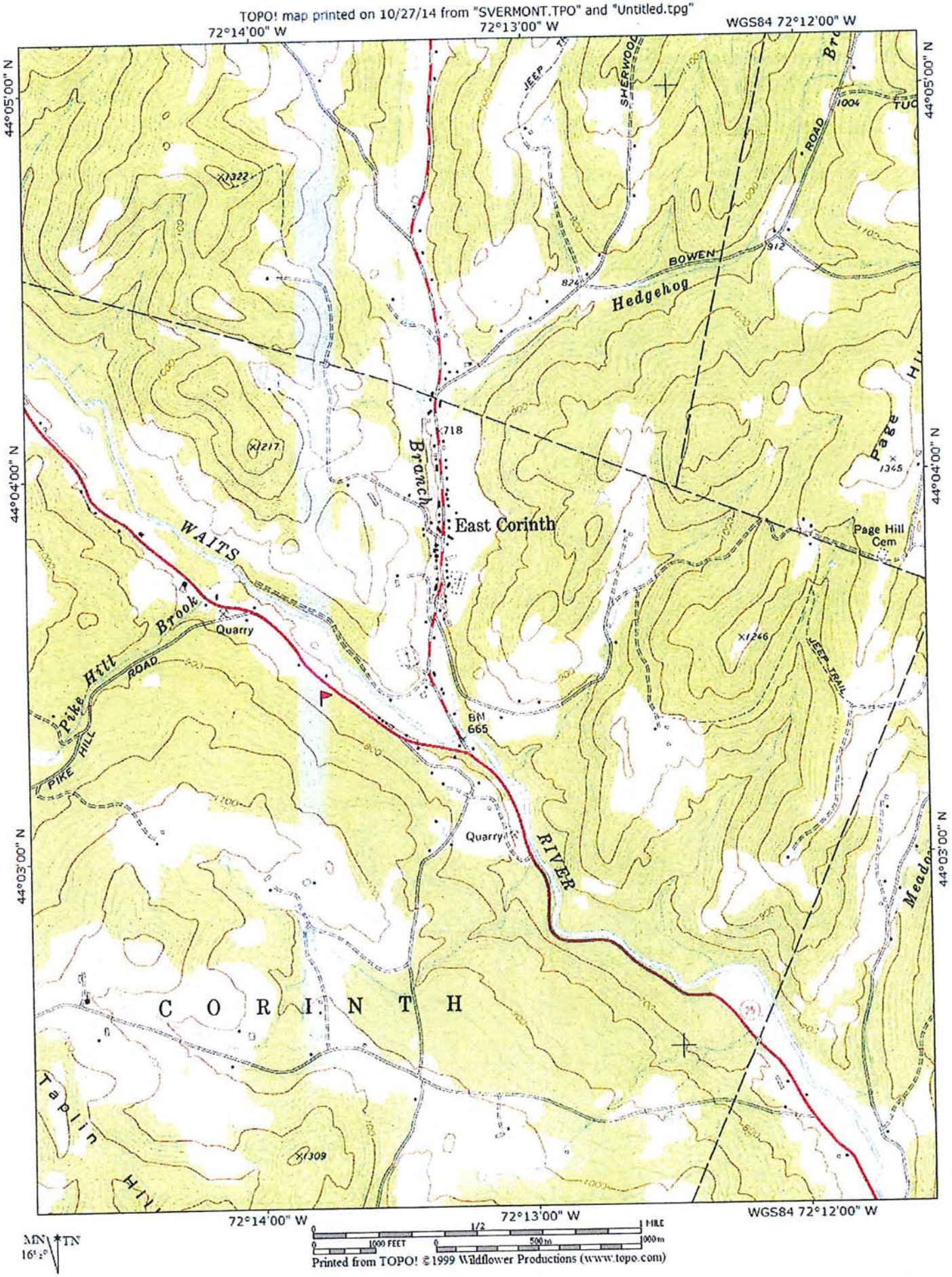
**This clearance is for the Natural and Cultural Resources Only.**

X = 521740.27

Y = 172987.77


Former Log Landing
220' +/-
95' +/-
Proposed Staging, Office Trailer and Waste Stockpile Area
overhead E & T
Existing Drive
N
1" = 25'
VT Route 25

TOPO! map printed on 10/27/14 from "SVERMONT.TPO" and "Untitled.tpg"




MN 16½° TN

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received
10·27·14

Map data ©2014 Google 1000 ft

VERMONT

# Natural Resources Atlas

Vermont Agency of Natural Resources

vermont.gov

## LEGEND

Town Boundary

received
10·28·14

## NOTES

Map created using ANR's Natural Resources Atlas

273.0 0 136.00 273.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

1" = 448 Ft. 1cm = 54 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.

| Vermont Agency of Transportation | EPSC Plan Inspection Report (Non-Jurisdictional and Low Risk Projects) | |
|---|---|---|
| **Project Name:** | **Date:** | **Time Since Last Storm:** |
| **Inspector:** | **On-Site Coordinator:** (signature required) | |

| Measure Inspected | Y | N | STA/Off | Corrective Action (CA) Required | Date CA Occurred |
|---|---|---|---|---|---|
| **Boundary Limits** | | | | | |
| Site boundary markers are up and visible | | | | | |
| Disturbance is only occurring within marked boundaries | | | | | |
| **Disturbance Area Limit** | | | | | |
| Only acreage listed on *Authorization to Discharge* is disturbed at one time | | | | | |
| **Stabilized Construction Entrance/Exit** | | | | | |
| Off site tracking of sediment prevented | | | | | |
| **Sediment Barriers** | | | | | |
| Measure has been installed properly and is functioning as designed | | | | | |
| Accumulated sediment < ½ height of measure | | | | | |
| **Diversion** | | | | | |
| Upland stormwater is diverted around the work area | | | | | |
| **Channelized Runoff** | | | | | |
| Check structures are in place, extend the width of the channel, and have capacity to retain sediment in the next storm event | | | | | |
| Channels are stable with no erosion | | | | | |
| **Exposed Soils Stabilization** | | | | | |
| Seed and mulch, and/or matting placed in accordance w/ permit requirements and/or Specifications | | | | | |
| Soil is seeded and mulched or covered in erosion matting within 48 hours of final grade | | | | | |
| **Winter Stabilization** | | | | | |
| After Sept. 15, all disturbed areas are seeded & mulched to 3" deep or covered w/ matting | | | | | |
| For ongoing construction, exposed soil is mulched prior to forecasted events | | | | | |
| **Dewatering Treatment** | | | | | |
| Measure is preventing a discharge of turbid water from leaving the site | | | | | |
| Accumulated sediment is removed to allow sufficient treatment | | | | | |

* Additional Measures and Discharges shall be reported on the back side of this form.

Vermont Agency of Transportation

# EPSC Plan Inspection Report (Non-Jurisdictional and Low Risk Projects)

| Measure Inspected | Y | N | STA/Off | Corrective Action | Date Taken |
|---|---|---|---|---|---|
| **Additional Measures** | | | | | |
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| **Discharges Noted** | | | | | |
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* If there is a discharge of visibly discolored stormwater from the construction site to waters of the state, the On-Site Plan Coordinator shall inform the Resident Engineer and take corrective action and report the discharge in accordance with Section 6.1 of Permit 3-9020.

APPENDIX C – PLANS

1. EPSC Narrative Section 1-4 (Contract Plans).
2. EPSC Plans and Detail Sheets.

# EPSC PLAN NARRATIVE

## 1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPLACEMENT OF BRIDGE #36, RELATED ROADWAY APPROACH AND CHANNEL WORK AND INCIDENTALS. BRIDGE #36 WILL BE REPLACED WITH A PRECAST CONCRETE BRIDGE OVER TABOR BRANCH, ON NEW FOOTINGS AND ON A NEW ALIGNMENT. BRIDGE #36 IS LOCATED IN THE TOWN OF CORINTH, CHICKEN FARM ROAD (T.H. 16), AT THE INTERSECTION WITH EAST CORINTH ROAD (T.H. 1). THE LENGTH OF THE BRIDGE WILL BE INCREASED TO 65 FEET.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, AS WELL AS WASTE, BORROW AND STAGING AREAS, AND OTHER EARTH DISTURBING ACTIVITIES WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS AS SHOWN ON THE ATTACHED EPSC PLAN.

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 0.55 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

## 1.2 SITE INVENTORY

### 1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE IMMEDIATE PROJECT AREA IS RELATIVELY FLAT AND FEATURES GRASSED LAWN AREAS, UNDERGROWTH ALONG BOTH BANKS OF TABOR BRANCH AND SMALL TO MEDIUM-SIZED TREES. EAST CORINTH ROAD AND TABOR BRANCH ROAD ARE WITHIN THE PROJECT SITE. THERE ARE THREE HOUSES ADJACENT TO THE SITE, AND SEVERAL ADDITIONAL HOUSES ALONG BOTH CHICKEN FARM AND EAST CORINTH ROADS.

### 1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THE TABOR BRANCH IS THE ONLY WATER SOURCE ON THE PROJECT SITE. THE TABOR BRANCH IS CLASSIFIED AS STRAIGHT AND NARROW, WITH A CONFINED CHANNEL THAT CUTS THROUGH LEDGE AT THE SITE. THE STREAM BED CONSISTS OF FINES, GRAVEL, COBBLES AND BOULDERS. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER FROM A FEW NEARBY SLOPES.

### 1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF OPEN GRASSED AREAS, HARDWOOD TREES AND UNDERGROWTH. THE IMPACT TO VEGETATION WILL BE LIMITED TO THE PROPOSED TOE OF SLOPE SHOWN ON THE PLANS. THE CHANNEL WILL NOT BE AFFECTED BY CONSTRUCTION. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

### 1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF FRANKLIN, VERMONT. SOILS ON THE PROJECT SITE ARE THE WESTERLY BANK FEATURES AGAWAM FINE SANDY LOAM, "K FACTOR" = 0.28 AND THE EASTERLY BANK CONSISTS OF WINDSOR LOAMY FINE SAND, "K FACTOR" = 0.17. THE AGAWAM FINE SANDY LOAM IS CONSIDERED MODERATELY ERODIBLE DUE TO K-VALUE WHILE THE WINDSOR LOAMY FINE SAND IS CONSIDERED TO HAVE LOW EROSION POTENTIAL.

**NOTE**: K-VALUES GENERALLY INDICATE THE FOLLOWING:
0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.36 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

### 1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: EAST CORINTH HISTORIC DISTRICT
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: TABOR BRANCH
WETLANDS: NO

## 1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

## 1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

### 1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES.

### 1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

### 1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR'S PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

### 1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

SILT FENCE AND INLET PROTECTION DEVICES SHALL BE USED AT THE LOCATIONS SHOWN ON THE EPSC PLAN.

### 1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCITON SITE.

THE PROJECT AREA IS RELATIVELY FLAT WITH MINIMAL OFF-SITE RUNOFF FLOWING THROUGH THE SITE. THERFORE DIVERSION MEASURES WILL NOT BE NECESSARY.

### 1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

CHECK DAMS TO BE INSTALLED AT THE LOCATIONS SHOWN ON THE EPSC PLAN.

### 1.4.7 CONSTRUCT PERMANENT CONTROLS

THERE ARE NO PERMANENT STORMWATER TREATMENT DEVICES TO BE INSTALLED WITH THIS PROJECT.

### 1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9020 AUTHORIZATION.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

### 1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

### 1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

### 1.4.11 DE-WATERING ACTIVITIES

IT IS NOT ANTICIPATED THAT DEWATERING ACTIVITIES WILL BE REQUIRED.

### 1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS.

## 1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

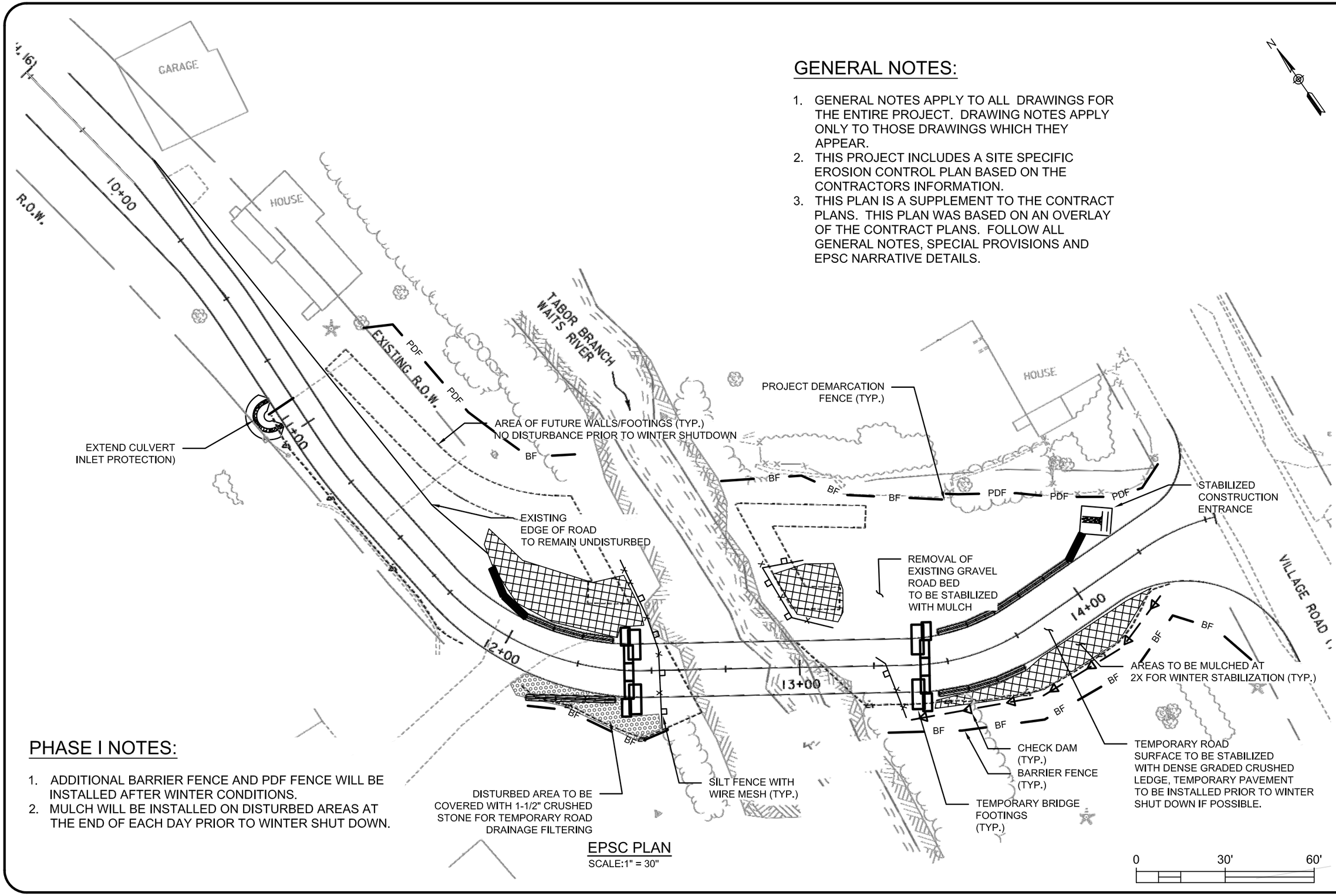
### 1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SUBSECTIONS 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

### 1.5.3 UPDATES

## GENERAL NOTES:

1. GENERAL NOTES APPLY TO ALL DRAWINGS FOR THE ENTIRE PROJECT. DRAWING NOTES APPLY ONLY TO THOSE DRAWINGS WHICH THEY APPEAR.
2. THIS PROJECT INCLUDES A SITE SPECIFIC EROSION CONTROL PLAN BASED ON THE CONTRACTORS INFORMATION.
3. THIS PLAN IS A SUPPLEMENT TO THE CONTRACT PLANS. THIS PLAN WAS BASED ON AN OVERLAY OF THE CONTRACT PLANS. FOLLOW ALL GENERAL NOTES, SPECIAL PROVISIONS AND EPSC NARRATIVE DETAILS.




## EPSC PLAN

SCALE:1" = 30"

## PHASE I NOTES:

1. ADDITIONAL BARRIER FENCE AND PDF FENCE WILL BE INSTALLED AFTER WINTER CONDITIONS.
2. MULCH WILL BE INSTALLED ON DISTURBED AREAS AT THE END OF EACH DAY PRIOR TO WINTER SHUT DOWN.


RUGGLES ENGINEERING SERVICES, INC.
4580 MEMORIAL DRIVE, ST. JOHNSBURY, VT 05819
Civil Engineering-Site Permitting
Water, Sewer and Stormwater System Designs
802-748-5898


JOB No. 14DF4

PREPARED FOR: AUSTIN CONSTRUCTION, INC.

Address: 1149 MAIN ST., CONCORD, VT 05824

PHASE I EROSION CONTROL PLAN - FALL 2014

SITE SPECIFIC EROSION CONTROL PLAN

| REVISIONS | | |
|---|---|---|
| No. | Description | Date |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |

Designed: NPS

Drawn: NPS

Checked: -

DATE: 11/20/14

EPSC 1

Sheet of -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## GENERAL NOTES:

1. GENERAL NOTES APPLY TO ALL DRAWINGS FOR THE ENTIRE PROJECT. DRAWING NOTES APPLY ONLY TO THOSE DRAWINGS WHICH THEY APPEAR.
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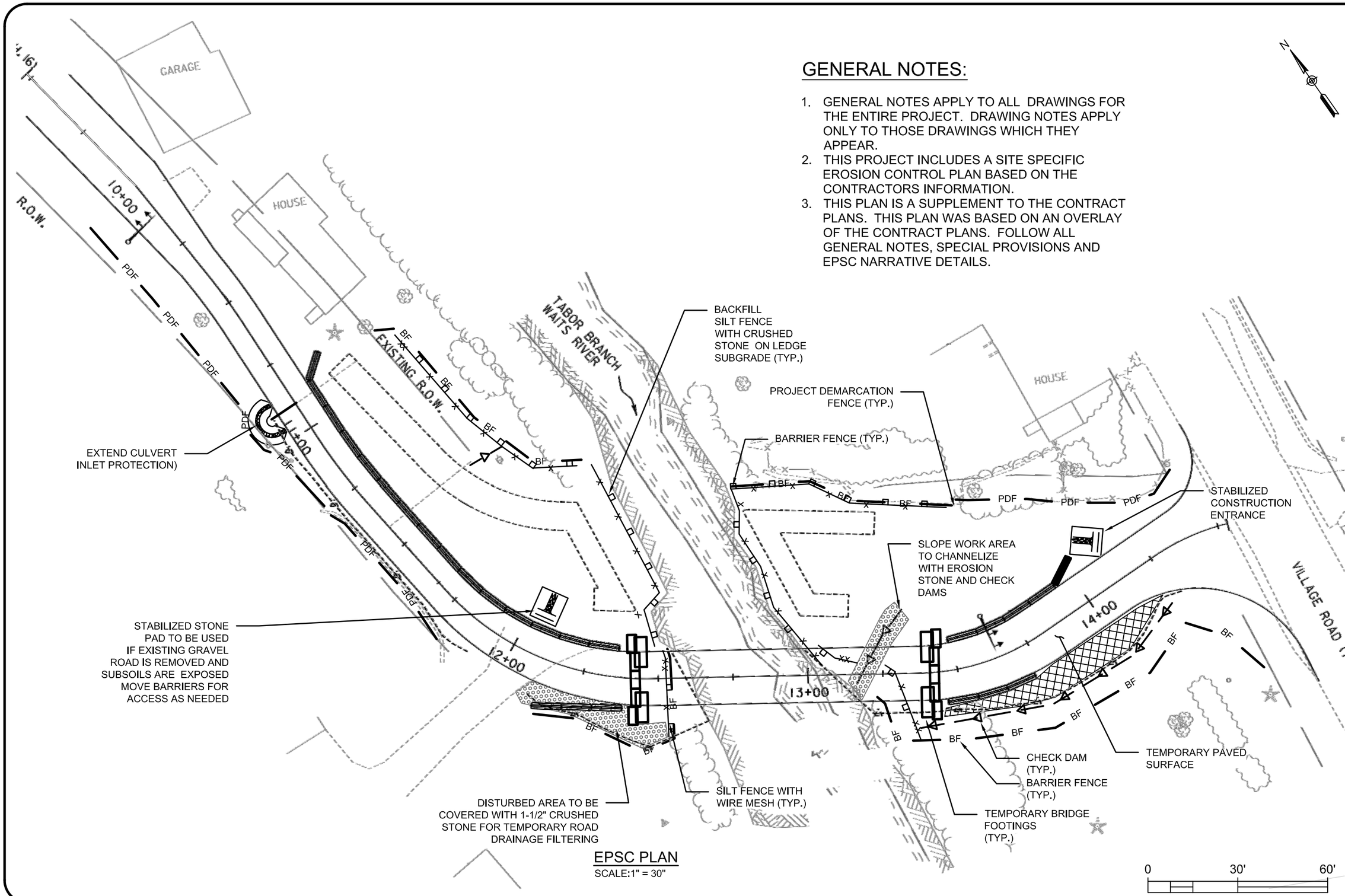


EPSC PLAN
SCALE:1" = 30"

RUGGLES ENGINEERING SERVICES, INC.
4580 MEMORIAL DRIVE, ST. JOHNSBURY, VT 05819
Civil Engineering-Site Permitting
Water, Sewer and Stormwater System Designs
802-748-5898
JOB No. 14DF4

PREPARED FOR: AUSTIN CONSTRUCTION, INC.
Address: 1149 MAIN ST., CONCORD, VT 05824

PHASE II EROSION CONTROL PLAN
SITE SPECIFIC EROSION CONTROL PLAN

| REVISIONS | | |
|---|---|---|
| No. | Description | Date |
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Drawn: NPS
Checked: -
DATE: 11/20/14

EPSC 2

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## GENERAL NOTES:

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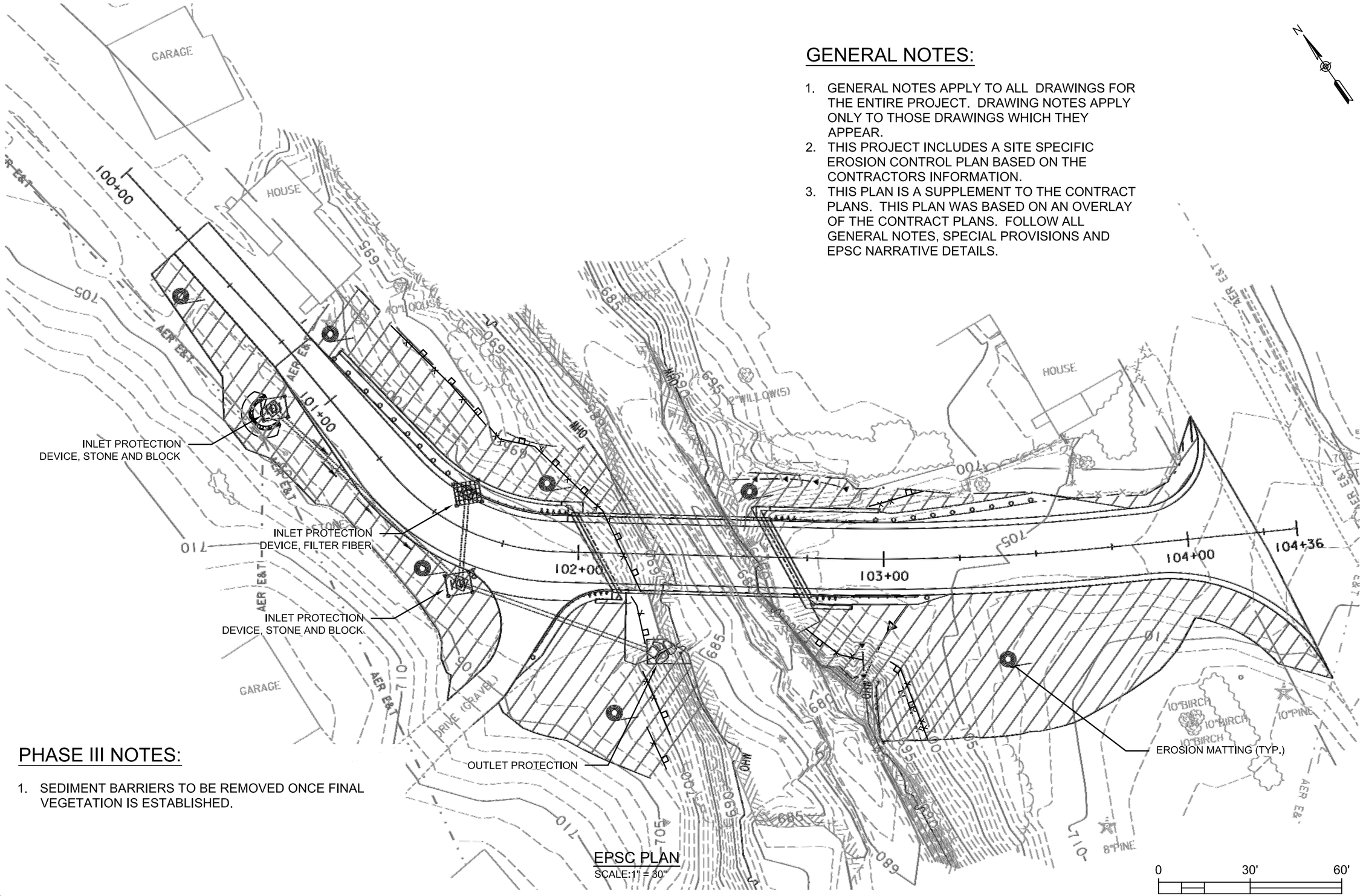


## PHASE III NOTES:

1. SEDIMENT BARRIERS TO BE REMOVED ONCE FINAL VEGETATION IS ESTABLISHED.

EPSC PLAN
SCALE:1" = 30'


RUGGLES ENGINEERING SERVICES, INC.
4580 MEMORIAL DRIVE, ST. JOHNSBURY, VT 05819
Civil Engineering-Site Permitting
Water, Sewer and Stormwater System Designs
802-748-5898


JOB No. 14DF4

PREPARED FOR:
AUSTIN CONSTRUCTION, INC.
1149 MAIN ST., CONCORD, VT 05824
Address

PHASE III - FINAL STABILIZATION
SITE SPECIFIC EROSION CONTROL PLAN

| REVISIONS | | |
|---|---|---|
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Designed: NPS
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Checked: -
DATE: 11/20/14

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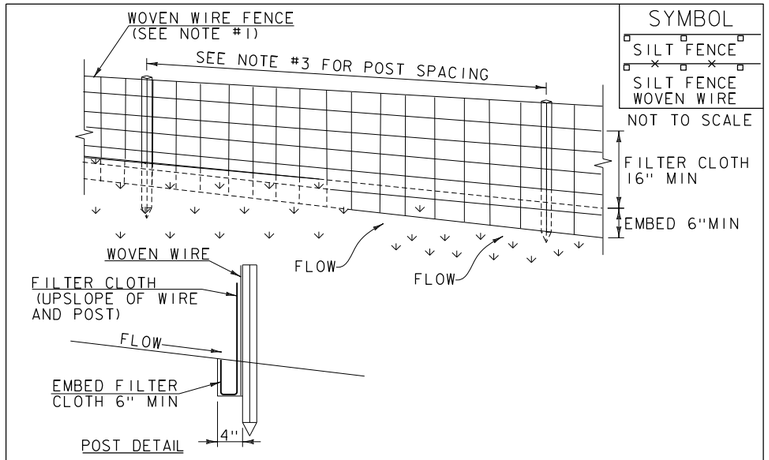



## CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

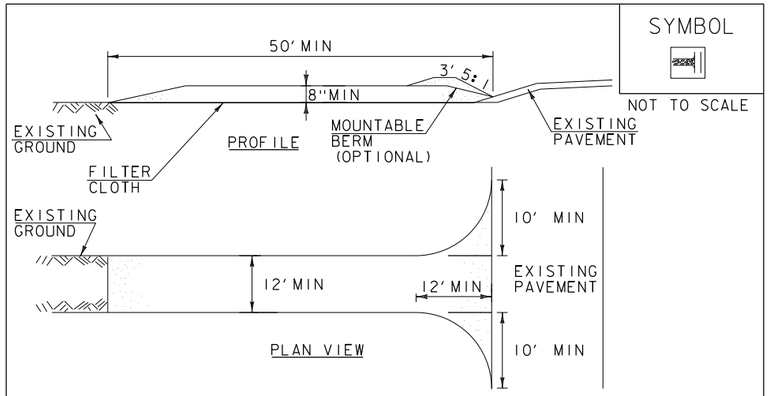
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

### SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).

| REVISIONS | |
|---|---|
| MARCH 21, 2008 | WHF |
| DECEMBER 11, 2008 | WHF |
| JANUARY 13, 2009 | WHF |




## CONSTRUCTION SPECIFICATIONS

1. STONE SIZE- USE 1-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
3. THICKNESS- NOT LESS THAN 8".
4. WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

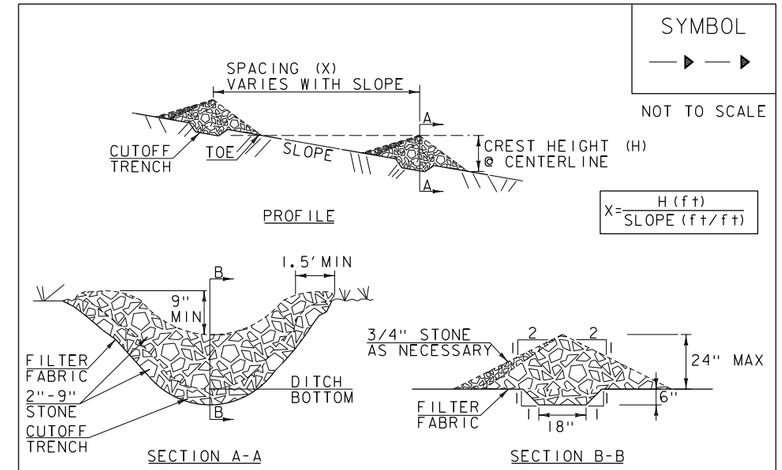
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

### STABILIZED CONSTRUCTION ENTRANCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.

| REVISIONS | |
|---|---|
| MARCH 24, 2008 | WHF |
| JANUARY 13, 2009 | WHF |




## CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OFTHE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

### CHECK DAM

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR TEMPORARY STONE CHECK DAM, TYPE I (PAY ITEM 653.25)

| REVISIONS | |
|---|---|
| MARCH 21, 2008 | WHF |
| JANUARY 8, 2009 | WHF |

PROJECT NAME: CORINTH
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...\drawing\z01j292_typ.dgn
PROJECT LEADER: VTRANS
DESIGNED BY: VTRANS
**EPSC DETAIL SHEET – ECD 1**

PLOT DATE: 8/4/2014
DRAWN BY: VTRANS
CHECKED BY: VTRANS
SHEET 53 OF 57

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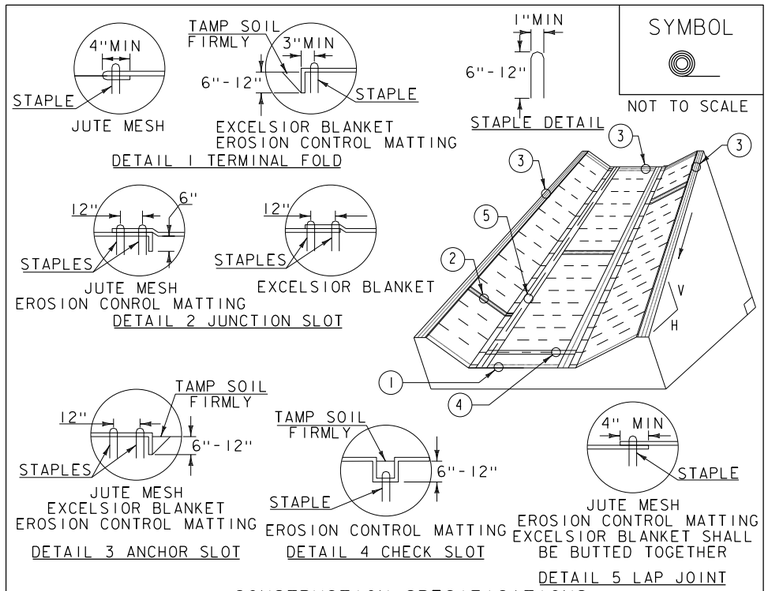



## CONSTRUCTION SPECIFICATIONS

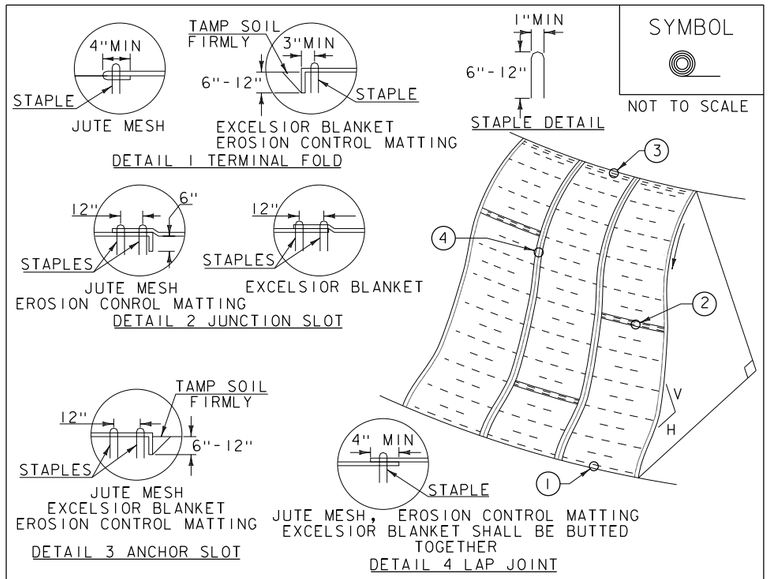
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# ROLLED EROSION CONTROL PRODUCT (RECP) DITCH

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

| REVISIONS | |
|---|---|
| MARCH 8, 2007 | JMF |
| APRIL 16, 2007 | WHF |
| JANUARY 13, 2009 | WHF |




## CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

| REVISIONS | |
|---|---|
| APRIL 16, 2007 | JMF |
| JANUARY 13, 2009 | WHF |

### VAOT RURAL AREA MIX

| | LBS/AC | | | | |
|---|---|---|---|---|---|
| % WEIGHT | BROADCAST | HYDROSEED | NAME | GERM % | PURITY % |
| 37.5% | 22.5 | 45 | CREEPING RED FESCUE | 85% | 98% |
| 37.5% | 22.5 | 45 | TALL FESCUE | 90% | 95% |
| 5.0% | 3 | 6 | RED TOP | 90% | 95% |
| 15.0% | 9 | 18 | BIRDSFOOT TREFOIL | 85% | 98% |
| 5.0% | 3 | 6 | ANNUAL RYE GRASS | 85% | 95% |
| 100% | 60 | 120 | | | |

### VAOT URBAN AREA MIX

| | LBS/AC | | | | |
|---|---|---|---|---|---|
| % WEIGHT | BROADCAST | HYDROSEED | NAME | GERM % | PURITY % |
| 42.5% | 34 | 68 | CREEPING RED FESCUE | 85% | 98% |
| 10.0% | 8 | 16 | PERENNIAL RYE GRASS | 90% | 95% |
| 42.5% | 34 | 68 | KENTUCKY BLUE GRASS | 85% | 85% |
| 5.0% | 4 | 8 | ANNUAL RYE GRASS | 85% | 95% |
| 100% | 80 | 160 | | | |

### SOIL AMENDMENT GUIDANCE

| FERTILIZER | | LIME | |
|---|---|---|---|
| BROADCAST | HYDROSEED | BROADCAST | HYDROSEED |
| 10-20-10 | *FOLLOW* | PELLETIZED | *FOLLOW* |
| 500 LBS/AC | *MANUFACTURER* | 2 TONS/AC | *MANUFACTURER* |

## CONSTRUCTION GUIDANCE

1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER
5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
6. TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
7. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
8. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

# TURF ESTABLISHMENT

| REVISIONS | |
|---|---|
| JUNE 23, 2009 | WHF |
| JANUARY 15, 2010 | WHF |
| FEBRUARY 16, 2011 | WHF |

PROJECT NAME: CORINTH
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...\drawing\z01j292_typ.dgn
PROJECT LEADER: VTRANS
DESIGNED BY: VTRANS
**EPSC DETAIL SHEET – ECD 2**

PLOT DATE: 8/4/2014
DRAWN BY: VTRANS
CHECKED BY: VTRANS
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SYMBOL

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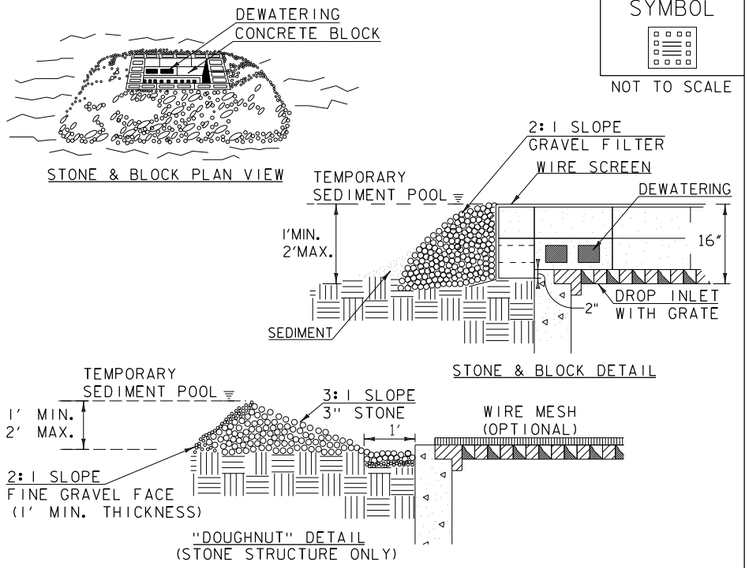


## CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2" MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR ½" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL ½"- ¾" IN DIAMETER PLACED 2" BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1' THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3" STONE AS SHOWN ON THE DRAWINGS.
5. MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STONE & BLOCK DROP INLET PROTECTION

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR INLET PROTECTION DEVICE, TYPE I(PAY ITEM 653.40).

| REVISIONS | |
|---|---|
| MARCH 6, 2008 | WHF |
| JANUARY 13, 2009 | WHF |
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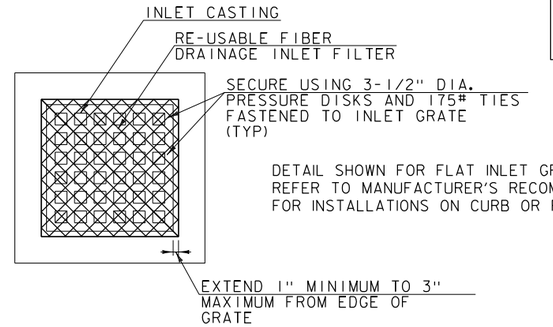
SYMBOL

NOT TO SCALE




DETAIL SHOWN FOR FLAT INLET GRATES ONLY.
REFER TO MANUFACTURER'S RECOMMENDATIONS
FOR INSTALLATIONS ON CURB OR ROUND INLETS.

## CONSTRUCTION SPECIFICATIONS

1. FILTERS SHALL RETAIN ALL CONSTRUCTION DEBRIS AND SHALL RETAIN OR OTHERWISE CONTROL MOST OF THE SEDIMENT PRODUCED BY CONSTRUCTION OPERATIONS.
2. IF CLOGGING OCCURS, INLETS SHALL BE ABLE TO BE EASILY UNCLOGGED BY BROOMING THE SIDES AND TOP OF THE FILTER.
3. INSTALLED FILTERS SHALL BE RESISTANT TO TRAFFIC DAMAGE, INCLUDING TRAFFIC BY STREET CLEANING MACHINES.
4. FILTER UNITS SHALL BE BIODEGRADABLE AND MAY OFTEN BE RE-USED.
5. INSTALL FILTER UNIT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. MINIMUM NUMBER OF ANCHORS PER FILTER UNIT: 7 FOR CURB INLETS, 8 FOR FLAT GRATES.
7. INSPECT ALL INSTALLED FILTER UNITS AFTER EVERY RAIN.
8. INSPECT ALL INSTALLED FILTER UNITS PRIOR TO INITIATING CONSTRUCTION ACTIVITIES FOR THE DAY IF RAIN PERSISTS OVERNIGHT.
9. IF, UPON VISUAL INSPECTION, 50% OR MORE OF FILTER FABRIC SURFACE AREA IS INUNDATED WITH SEDIMENT OR FILTER FABRIC IS CLOGGED, CONTRACTOR SHALL BROOM COLLECTED MATERIAL OFF FILTER UNIT SURFACES AND AWAY FROM EDGES.
10. REMOVE SEDIMENT AND DEBRIS COLLECTED AROUND FILTER UNITS. DISPOSE OF COLLECTED SEDIMENT AND DEBRIS OFF-SITE IN ACCORDANCE WITH THE VERMONT AGENCY OF NATURAL RESOURCES, SOLID WASTE MANAGEMENT RULES.

ORIGINALLY DEVELOPED BY STANTEC

INLET PROTECTION DEVICE, FILTER FIBER

NOTES:
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 900 FOR PAY ITEM 900.620 SPECIAL PROVISION (INLET PROTECTION DEVICE, FILTER FIBER).

PROJECT NAME: CORINTH
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...\drawing\z01j292_typ.dgn
PROJECT LEADER: VTRANS
DESIGNED BY: VTRANS
**EPSC DETAIL SHEET – ECD 3**

PLOT DATE: 8/4/2014
DRAWN BY: VTRANS
CHECKED BY: VTRANS
SHEET 55 OF 57

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