

**ATTACHMENT E  
STORMWATER POLLUTION CONTROL PLAN**

**Replacement of Bridge No. 01904  
U.S. Route 1 over Jordan Brook  
Waterford, CT**

**State Project No. 152-149**

**Connecticut Department of Transportation**

January 2016

This Stormwater Pollution Control Plan (SPCP) is prepared to comply with the requirements for the General Permit for Stormwater Discharges (GPSD) from Construction Activities. Also to be considered part of the SPCP are the proposed construction plans, special provisions, and the Connecticut Department of Transportation's "Standard Specifications for Roads, Bridges and Incidental Construction" (Form 816) including supplements thereto and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

## Table of Contents

<b>1. Site Description .....</b>	<b>3</b>
Site Description.....	3
Estimated Disturbed Area .....	4
Estimated Runoff Coefficient .....	4
Receiving Waters .....	5
Extent of Wetlands on Site .....	5
<b>2. Construction Sequencing.....</b>	<b>5</b>
<b>3. Control Measures.....</b>	<b>7</b>
Erosion and Sedimentation Controls .....	7
Temporary Stabilization Practices .....	8
Permanent Stabilization Practices.....	8
Structural Measures .....	9
Maintenance.....	9
<b>4. Dewatering Wastewaters.....</b>	<b>9</b>
Dewatering Guidelines.....	9
<b>5. Post-Construction Stormwater Management.....</b>	<b>10</b>
Runoff Reduction and Low Impact Development .....	10
Post-Construction Guidelines .....	10
Post-Construction Performance Standards.....	11
<b>6. Other Controls .....</b>	<b>11</b>
Waste Disposal .....	11
Washout Areas.....	11
Anti-Tracking Pads and Dust Control.....	12
Post-Construction.....	12
Maintaining and Storing Vehicles and Equipment .....	12
<b>7. Inspections .....</b>	<b>13</b>
Inspection Guidelines.....	13
<b>8. Keeping Plans Current.....</b>	<b>14</b>
Revisions to Stormwater Pollution Control Plans: .....	14
<b>9. Monitoring Requirements .....</b>	<b>14</b>
<b>10. Contractors.....</b>	<b>15</b>
General .....	15
Certification Statement .....	15

**Appendix A – Figures**

**Appendix B – Outlet Protection Calculations**

**Appendix C – Plan Sheets (Reduced to 11x17)**

**Appendix D – Stormwater Monitoring Report Form**

**Appendix E – Notice of Termination Form**

## 1. Site Description

---

### Site Description

This project involves the total replacement of Bridge No. 01904, U.S. Route 1 over Jordan Brook. The bridge is located in Waterford, approximately 0.9 miles south of Route 156. The project is approximately 750-feet in length with construction limits extending (beyond the curblines) approximately 20-feet north of and 50-feet south of the existing roadway. The anticipated construction time for project completion, including utility work, is 20 months.

Bridge No. 01904 is a single-span concrete slab on stone rubble masonry abutments built in 1916. There are no records of the bridge being rehabilitated. The bridge carries one lane of traffic in the northbound and southbound directions of U.S. Route 1 and is located on a long tangent at the low point of a large sag vertical curve. The existing roadway low point is located approximately 75-feet south of the bridge. The bridge has a 10-foot clear span normal to the brook, a roadway width of 30-feet, and an out-to-out deck width of 39-feet. The existing bridge height, measured between the streambed and the low chord, is approximately 3.3-feet.

The existing bridge has been determined to be structurally deficient due to the serious condition of the substructure. The existing bridge is also hydraulically inadequate. Due to the deficiencies of the bridge, the bridge will be completely replaced. The proposed bridge is a three-sided (rigid frame) precast concrete box culvert. The proposed bridge will have a 30-foot clear span, a roadway width of 32-feet, and an out-to-out width (structure length) of 50-feet. The bridge will span over the existing abutments and be founded on micropiles. The existing abutments will not be completely removed, but will be cut down below the existing grades after the proposed abutments are installed. Boulders will be installed along the line of the existing abutments to provide a natural channel edge and prevent flow from spreading too wide and shallow during low flow conditions.

The proposed clear height, measured between the streambed and the low chord, will be approximately 6-feet. The proposed bridge will remain normal to the roadway. The proposed roadway will support one 12-foot travel lane and 4-foot shoulder for each direction of U.S. Route 1 traffic. A 5-foot sidewalk will be installed along the north gutter and a minimum 10-foot grass shelf will be installed along the south gutter. The shelf is necessary to provide sight distance for the driveway immediately southeast of the bridge. Grass, and not a sidewalk, is provided to limit the amount of impervious area. The proposed low chord is approximately 1.9-feet higher than the existing low elevation imposed by the 24-inch water main at the upstream face of the bridge.

The channel bottom will be maintained both upstream and downstream. The disturbed channel banks upstream and downstream of the bridge and the area between the existing and proposed abutments will be stabilized with rounded stone riprap.

Two lanes of traffic will be maintained throughout construction. The existing bridge is not wide enough to maintain traffic while replacing portions of the structure. Therefore, a temporary roadway and bridge is proposed to be located south of the existing structure.

### Estimated Disturbed Area

There will be 1.12 acres of disturbed erodible area during construction of this project. The total area disturbed, including milling and overlay area, is 1.24 acres. This area includes sections of U.S. Route 1 at the northern and southern limits of construction. The total site area, which includes all area within the transportation right-of-way, is 1.54 acres.

### Estimated Runoff Coefficient

#### Pre-Construction Condition

	<b>Runoff Coefficient</b>	<b>Area (acres)</b>
Wooded Area	0.40	0.16
Grass Area	0.60	0.79
Impervious Area	0.90	0.59
<b>Total Area</b>		<b>1.54</b>

$$C_{\text{weighted}} = \frac{(0.40)(0.16) + (0.60)(0.79) + (0.90)(0.59)}{1.54} = 0.69$$

#### Post-Construction Condition

	<b>Runoff Coefficient</b>	<b>Area (acres)</b>
Wooded Area	0.40	0.07
Grass Area	0.60	0.87
Impervious Area	0.90	0.60
<b>Total Area</b>		<b>1.54</b>

$$C_{\text{weighted}} = \frac{(0.40)(0.07) + (0.60)(0.87) + (0.90)(0.60)}{1.54} = 0.71$$

There are two existing stormwater networks. Both networks are west of the existing bridge. The first network's inlets are a "D-G" endwall north of the roadway (just west of Reynolds Lane) and a roadway catch basin along the north curbline. These structures connect to an existing structure located below the sidewalk (all three structures are located approximately 300-feet west of the bridge) and outlet through the northwest wingwall of the bridge (EO-1).

The second network consists of a roadway basin and outlet at the northwest corner of the bridge. This outlet (EO-2) is located adjacent to EO-1. The networks capture runoff from the existing roadway and residential property areas north and south of U.S. Route 1. The existing outlets (EO-1 and EO-2) currently discharge against the flow of Jordan Brook and will be replaced during construction.

One stormwater outlet will replace the two existing outlets. The proposed outlet (PO-1) will be placed downstream and to the west of the proposed bridge. The existing "D-G" endwall will connect to the proposed stormwater system. The roadway structures will be replaced and the existing structure

located below the sidewalk will be removed. The new outlet will be placed beyond the limits of the proposed roadway embankment slope and will discharge onto a preformed scour hole. The proposed drainage system is designed to perform in accordance with the CTDOT Drainage Manual.

During construction, there will be two temporary outlets. TO-1 is located approximately 10-feet south of PO-1. All stormwater west of the bridge will outlet through TO-1. Since the riprap splash pad of TO-1 is within the existing wetland limit, the outlet will be relocated to the edge of the wetland limit (the proposed PO-1 outlet) after the temporary roadway is removed. TO-2 is located east of the bridge and will discharge stormwater captured in a catch basin placed between the existing roadway and the temporary roadway. This basin and outlet is provided to decrease stormwater spread across the temporary roadway.

### **Receiving Waters**

The existing stormwater discharges into Jordan Brook in the area of Bridge No. 01904. Jordan Brook flows from north to south beneath U.S. Route 1. Jordan Brook continues to flow south into Jordan Cove which discharges into Long Island Sound. The project area is located within FEMA Flood Zone AE on map number 09011C0482G (New London County) (see FEMA FIRM, Figure 1, Appendix A).

### **Extent of Wetlands on Site**

Inland wetlands associated with Jordan Brook exist north and south of the bridge. The proposed drainage outlet (PO-1) will discharge at the edge of the wetlands west of the brook. There will be temporary wetland impacts associated with the installation and removal of the temporary riprap splash pad and installation of the proposed riprap splash pad. Additional temporary impacts are due to temporary utility pole placement and the removal of a downstream footbridge. The bridge replacement causes both temporary and permanent impacts.

A total of 741 square feet (0.017 acres) of permanent impact and 3,111 square feet (0.071 acres) of temporary impact, for an overall total of 3,852 square feet (0.088 acres) of impact is expected for the Site. Wetland functions and values are not expected to be adversely impacted when viewing the wetland system as a whole. Proper outfall protection and native plantings all will aid in offsetting the wetland loss.

## **2. Construction Sequencing**

---

The selected contractor will be required to stabilize disturbed areas using approved management practices to comply with construction sequencing, erosion and sedimentation control plans and this Stormwater Pollution Control Plan (SPCP). All construction will be in accordance with the 2002 E&S Guidelines. Construction is anticipated to start in April 2016 and be completed by November 2017.

The suggested sequence of construction is as follows:

1. Conduct a preconstruction meeting.
2. Verify subsurface information by contacting Call Before You Dig at 1-800-922-4455.
3. Install erosion controls at the limits of disturbed slopes. Approximate 1 week period.
4. Perform clearing and grubbing activities. Approximate 2 week period.
5. Construct access road for overhead utility relocation. Approximate 1 week period.
6. Relocate overhead utilities. Approximate 7 week period.
7. Temporarily relocate 12-inch water main along south side. Approximate 1 week period.
8. Begin Stage 2. Install temporary earth retaining system for temporary bridge. Approximate 1 week period.
9. Construct temporary bridge, roadway, sidewalk and stormwater outlets (TO-1 and TO-2) and install temporary traffic control measures. Approximate 3 week period.
10. Shift traffic to temporary bridge.
11. Install temporary 16-inch water main bypass for 24-inch water main located at north of bridge. Approximate 1 week period.
12. Construct debris shield and remove existing bridge deck. Approximate 2 week period.
13. Remove outlets EO-1 and EO-2. Install cofferdam around proposed foundations. Approximate 2 week period.
14. Construct pile cap for rigid frame and wingwalls 1A and 2A. Approximate 9 week period.
15. Place boulders and partially backfill behind boulders. Approximate 2 week period.
16. Install precast concrete three sided rigid frame units. Approximate 1 week period.
17. Complete backfill behind boulders and install riprap. Approximate 1 week period.
18. Install utility bridge and new 24-inch water main. Approximate 1 week period.
19. Provide temporary erosion and sedimentation controls to stabilize any disturbed areas. Approximate 1 week period
20. Winter shutdown. Approximate 17 week period.
21. Place sandbags and remove cofferdams. Approximate 2 week period.
22. Construct sidewalk and bridge parapet along the north side. Approximate 1 week period.
23. Construct barrier walls 1A and 2A. Approximate 1 week period.
24. Install membrane waterproofing and first layer of HMA. Approximate 1 week period.
25. Install TPCBC and complete roadway construction. Approximate 1 week period.
26. Install traffic control measures for Stage 3. Approximate 1 week period.
27. Begin Stage 3. Shift traffic onto newly constructed bridge.
28. Remove the temporary bridge, sidewalk and approaches. Approximate 2 week period.
29. Install cofferdam for construction of remainder of bridge foundation. Approximate 1 week period.
30. Construct pile cap for rigid frame and wingwalls 1B and 2B. Approximate 8 week period.
31. Place boulders and partially backfill behind boulders. Approximate 2 week period.
32. Install precast concrete three sided rigid frame units. Approximate 1 week period.
33. Complete backfill behind boulders and install riprap. Approximate 1 week period.
34. Place sandbags and remove cofferdams. Approximate 2 week period.
35. Construct bridge parapet and curb along the south side. Approximate 2 week period.
36. Relocate and connect 12-inch water main south of structure. Approximate 2 week period.
37. Construct barrier wall 2B. Approximate 1 week period.
38. Complete roadway construction. Approximate 2 week period.
39. Relocate outlet riprap (PO-1) and restore temporary area. Approximate 1 week period.

40. Clean structures of construction sediment, remove remaining silt fence and file "Notice of Termination Form."
41. Perform final project cleanup. Approximate 1 week period.
42. Remove all temporary erosion and sedimentation controls upon permanent stabilization.

If the construction sequencing activities create an area of disturbance between two (2) acres and five (5) acres per discharge point, the Contractor must submit to the Engineer a revised SPCP for review and approval. The SPCP must include locations of the temporary sedimentation trap per discharge point with a capacity to contain 134 cubic yards per acre of material in accordance with the 2002 E&S Guidelines. The Contractor shall provide an inspection and maintenance plan for the temporary sedimentation trap as part of the amended SPCP.

### 3. Control Measures

---

Erosion and sedimentation controls will conform to and be maintained in accordance with the "2002 Connecticut Guidelines for Soil Erosion and Sediment Control" (E&S Guidelines), "State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, 2004" (Form 816), included supplements dated January 2015 thereto, and the Contract Plans and Documents.

The location of the erosion and sedimentation controls are shown on the construction plans (see Appendix C, Drawing Number HWY-05). Additional measures, if required, are contained in the above documents.

#### Erosion and Sedimentation Controls

The Connecticut Department of Transportation (CTDOT) will have construction inspection personnel assigned to the project in order to oversee the Contractor's operations to ensure compliance with the provisions of the Standard Specifications. Further CTDOT oversight is provided by the District 2 Environmental Coordinator and the Office of Environmental Planning.

The following timelines will be followed for the proposed construction activities:

- If construction activities are complete or have been temporarily halted for more than seven (7) days, stabilization activities will be implemented within three (3) days.
- Areas that remain disturbed but inactive for at least 30 days shall receive temporary seeding or soil protection within seven (7) days.
- Disturbed areas that do not establish a vegetative cover within 30 days of seeding shall have erosion control blankets installed. Prior to the erosion control blanket installation, the soil would be prepared with the application of lime, fertilizer, and seed.
- Areas that will be disturbed past the planting season will be covered with a long-term, non-vegetative stabilization method that will provide protection through the winter.
- Stabilization practices will be implemented as quickly as possible in accordance with the Guidelines.

- The Contractor shall stabilize disturbed areas with temporary or permanent measures as quickly as possible after the land is disturbed. Requirements for soil stabilization are detailed in Form 816 Section 1.10.03, Best Management Practices.

### **Temporary Stabilization Practices**

Prior to, and during, construction, temporary stabilization measures will be installed. The temporary measures will be removed after final stabilization. Temporary measures include the following:

- Erosion Control Matting: Erosion control matting shall be placed just downstream of the riprap splash pad at the outlet of the proposed stormwater network (PO-1).
- Silt Fence: Silt fence shall be placed at the base of the embankment slopes.
- Anti-Tracking Pads: Construction entrances (gravel anti-tracking pads) shall be constructed at truck access points to off-road routes.
- Dust Control: Routine sweeping and application of dust suppression agents, including water and calcium chloride, over exposed subbase shall be completed for dust control.

Stabilization practices shall be implemented no more than three days after completion, as final grades are reached, or if work has been suspended for more than seven days.

Temporary seeding shall be spread over any disturbed areas which will remain inactive for at least 30 days. Areas to remain disturbed through winter shall be protected with non-vegetative stabilization measures. The Contractor must provide an Erosion and Sedimentation Control Plan for each winter season during construction operations.

The Contractor may use other controls in the project as necessary if they conform to the E&S Guidelines and are approved by the Engineer. The contractor will be required to provide the necessary details for any erosion controls not specifically called for on the project plans.

During construction, all areas disturbed by the construction activity that have not been stabilized, structural control measures, and locations where vehicles enter or exit the site shall be inspected at least once every seven calendar days. During working hours, these areas shall be inspected following any storm in which 0.1 inches or greater of rain occurs. During non-working hours, these areas shall be inspected within 24 hours following any storm in which 0.5 inches or greater of rain occurs.

### **Permanent Stabilization Practices**

All new embankments disturbed by construction and unpaved areas that are graded or disturbed by construction will receive erosion control matting, topsoil, landscape plantings, mulch and/or turf establishment. The Contractor may use other permanent stabilization practices approved by the Engineer and conforming to the E&S Guidelines.

During construction, permanent stabilization measures will be installed. Riprap splash pads will provide permanent protection at the proposed storm outlets. Proposed landscaping will be placed along the edges of the disturbed wetland areas to restore lost vegetation and steep slopes will be stabilized.

## **Structural Measures**

Structural measures will be utilized to minimize the exposure of soils and disturbance to the existing wetlands around the project site. Erosion Control Matting will be installed at the bottom of the existing embankment slopes. Cofferdams and dewatering structures will be installed to handle and treat intrusive water during construction operations shown on the environmental permit plans. After construction, the cofferdams and dewatering structures will be removed and the embankments will be regraded to match existing conditions. A 4-foot deep sump will be installed at the final catch basin prior to discharge to aid in stormwater treatment.

## **Maintenance**

All construction activities and related activities shall conform to the requirements of Section 1.10 "Environmental Compliance" of Form 816. In general, all construction activities shall proceed in such a manner so as not to pollute any wetlands, watercourses, water body, and conduit carrying stormwater. The Contractor shall limit, in so far as possible, the surface area of earthen materials exposed by construction activity and immediately provide temporary and permanent pollution control to prevent soil erosion and contamination on the site. Water pollution control provisions and best management practices per Section 1.10.03 of Form 816 shall be administered during construction. Control measures shall be inspected and maintained in accordance with the E&S Guidelines and as directed by the Engineer.

## **4. Dewatering Wastewaters**

---

### **Dewatering Guidelines**

During the installation of the substructure components of the bridge and storm drainage at the project site, dewatering structures will be placed to handle and treat stormwater and groundwater. The dewatering structures will be located outside of the wetland limits. The dewatering structures will be used during the installation of both the temporary and permanent drainage features.

The dewatering structures will be inspected during use. The structures will be cleaned when the sediment accumulation equals one-half the required storage volume. The accumulated sediment will be disposed of properly. When dewatering has been completed, the area will be regraded to finished grade and stabilized.

Prior to any dewatering, the Contractor must submit to the Engineer a written proposal for specific methods and devices to be used, and must obtain the Engineer's written approval of such methods and devices. If the Engineer determines that a pumping operation is causing turbidity problems, the Contractor shall halt said operation until a means of controlling the turbidity is submitted by the Contractor in writing to the Engineer, approved in writing by the Engineer and implemented by the Contractor. No discharge of dewatering wastewater shall contain or cause a visible oil sheen, floating solids or foaming in the receiving water.

Dewatering activities will conform to Section 1.10, Environmental Compliance from Form 816. Best Management Practices will be utilized as appropriate and will be consistent with the E&S Guidelines.

## 5. Post-Construction Stormwater Management

---

### Runoff Reduction and Low Impact Development

Runoff reduction and Low Impact Development (LID) measures are limited due to private property and wetland constraints along this linear roadway project. Area to the north of the roadway and west of the river is within the Congregation Ohave Sholem Cemetery. Area to the north of the roadway and east of the river is within residential property. Area south of the roadway and west of the river is within wetlands. Area south of the roadway east of the river is within residential property.

Project design measures included to reduce runoff include maximizing sheet flow, staging slope disturbance during construction and installing landscaping.

There are slopes associated with the installation of the temporary roadway along U.S. Route 1. The slopes have been graded at 2:1 to prevent disturbance to the existing wetlands. The pavement of the temporary roadway will be removed and the area will be regraded to a flatter 6H:1V slope. The area will be permanently stabilized with topsoil and turf establishment and proposed plantings as shown on the Landscaping Plan (see Appendix C, Drawing Number LDS-01).

Along the length of the project, the proposed curbing matches the existing curbing. Due to the limited space within the existing right-of-way and private property impacts, drainage swales could not be installed. Also, the limited right-of-way and existing wetland areas prevent the installation of a large treatment area. The roadway runoff will flow along the curblines into catch basins, through the proposed stormwater drainage system, and will discharge through the outlet located just southwest of the bridge. The proposed design provides stormwater improvements with sumps and properly sized outlet pads.

All proposed and temporary stormwater outlets will discharge onto a riprap splash pad. The splash pads are designed based on the calculated flow using criteria within the CTDOT Drainage Manual. The splash pads will prevent scour at the outlets and minimize the potential for downstream erosion by reducing the velocity of the concentrated stormwater flow. The proposed outlet is placed away from the brook to reduce the chance of flood water disturbance and to maximize overland flow.

### Post-Construction Guidelines

Once construction is complete, a series of stormwater management techniques will remain to ensure the control of sediment in stormwater discharges. The proposed catch basins will be installed with sumps. The final catch basin prior to the outlet will have a 4-foot sump. A riprap splash pad will be installed at the stormwater outlet point to minimize the potential of erosion by reducing the velocity of concentrated storm flows (see Appendix B for calculations).

- Litter/debris will be removed from the site regularly.
- Mowing and maintenance of the turf areas and vegetated areas will occur as needed.
- Riprap outlet protection will be inspected and repaired annually or as needed.

## Post-Construction Performance Standards

All post-construction stormwater structures will be cleaned of construction sediment and all temporary erosion control measures will be removed when disturbed areas are permanently stabilized. Upon permanent stabilization, a termination notice pursuant to Section 6 of the General Permit will be filed.

The State of Connecticut will be responsible for the maintenance and any required repairs to the stormwater management techniques. The catch basin sumps will be cleaned of sediment and the outlet point will be inspected for damage and cleaned as required. The fill slopes will be inspected to ensure the slopes remain stable with no erosion.

## 6. Other Controls

---

### Waste Disposal

Construction site waste shall be properly managed and disposed of during the entire construction period. Additionally,

- A waste collection area will be designated. The selected area will minimize truck travel through the site and will not drain directly to the adjacent wetlands.
- Waste collection shall be scheduled regularly to prevent the containers from overflowing.
- Spills shall be cleaned up immediately.
- Defective containers that may cause leaks or spills will be identified through regular inspection. Any found to be defective will be repaired or replaced immediately.
- Any stockpiling of materials should be confined to the designated area as defined by the engineer.

### Washout Areas

Washout of applicators, containers, vehicles and equipment for concrete shall be conducted in a designated washout area. No surface discharge of washout wastewaters from the area will be allowed. All concrete washwater will be directed into a container or pit such that no overflows can occur. Washout shall be conducted in an entirely self-contained system and will be clearly designed and flagged or signed where necessary. The washout area shall be located outside of any buffers and at least 50 feet from any stream, wetland or other sensitive water or natural resources as determined or designated by CTDOT Office of Environmental Planning.

The designated area shall be designed and maintained such that no overflows can occur during rainfall or after snowmelt. Containers or pits shall be inspected at least once a week to ensure structural integrity, adequate holding capacity and will be repaired prior to future use if leaks are present. The contractor shall remove hardened concrete waste when it accumulates to a height of ½ of the container or pit or as necessary to avoid overflows. All concrete waste shall be disposed of in a manner consistent with all applicable laws, regulations and guidelines.

## **Anti-Tracking Pads and Dust Control**

Off-site vehicle tracking of sediments and the generation of dust shall be minimized. Temporary anti-tracking pads from the active work site to the existing pavement will be installed and maintained at the locations shown on the plans. The contractor shall:

- Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces.
- Provide periodic top dressing with additional stone or additional length as conditions demand.
- Repair any measures used to trap sediment as needed.
- Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces.
- Ensure roads adjacent to a construction site are left clean at the end of each day.

If the construction entrance is being properly maintained and the action of a vehicle traveling over the stone pad is not sufficient to remove the majority of the sediment, then the contractor shall either:

- Increase the length of the construction entrance,
- Modify the construction access road surface, or
- Install washing racks and associated settling area or similar devices before the vehicle enters a paved surface.

For construction activities which cause airborne particulates, wet dust suppression shall be utilized. Construction site dust will be controlled by sprinkling the ground surface with water until it is moist on an as-needed basis. The volume of water sprayed shall be such that it suppresses dust yet also prevents the runoff of water.

## **Post-Construction**

Upon completion of construction activities and stabilization of the site, all temporary construction features shall be removed. All treatment measures, including dewatering structures, shall be cleaned of construction sediment and any remaining silt fence or hay bales shall be removed prior to acceptance of the project by CTDOT. Sediment shall be properly disposed of in accordance with all applicable laws, regulations and guidelines.

## **Maintaining and Storing Vehicles and Equipment**

The contractor shall take measures to prevent any contamination to wetlands and watercourses while maintaining and storing construction equipment on the site. All chemical and petroleum containers stored on site shall be provided with impermeable containment which will hold at least 110% of the volume of the largest container, or 10% of the total volume of all containers in the area, whichever is larger, without overflow from the containment area. All chemicals and their containers shall be stored under a roofed area except for those stored in containers of 100 gallon capacity or more, in which case double-walled tanks will suffice. Additionally, refueling east of the project site will not be allowed in order to prevent impact to the existing non-community and non-public wells.

## 7. Inspections

---

### Inspection Guidelines

All construction activities shall be inspected initially for Plan implementation and then weekly for Routine Inspections.

A rain gauge shall be maintained on-site throughout construction to document rainfall amounts. All areas disturbed by the construction activity that have not been stabilized, all erosion and sedimentation control measures, all structural control measures, soil stockpile areas, washout areas and locations where vehicles enter or exit the site shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and impacts to receiving waters at least once every seven calendar days and within 24 hours of the end of a storm that produces 0.1 inches or greater of rain.

Once final stabilization is complete, the site shall be inspected at least once every month for three months.

Qualified personnel provided by the DOT District 2 Office shall conduct Inspections.

Items to be inspected: the following items shall be inspected as described below:

<u>Item</u>	<u>Procedure</u>
Silt Fence	Silt fence shall be inspected to ensure that the fence line is intact with no breaks or tears. The fence shall be firmly anchored to the ground. Areas where the fence is excessively sagging or where support posts are broken or uprooted shall be noted. Depth of sediment behind the fence shall be noted.
Catch Basin Protection	Protective measures shall be inspected to ensure that sediment is not entering the catch basins. Catch basin sumps shall be monitored for sediment deposition. Hay bales shall be inspected to ensure they have not clogged.
Vehicle Entrances / Exits	Locations where vehicles enter or exit the site shall be inspected for evidence of off-site tracking.
General	Construction areas and the perimeter of the site shall be inspected for any evidence of debris that may blow or wash off site or that has blown or washed off site. Construction areas shall be inspected for any spills or unsafe storage of materials that could pollute off site waters.

## 8. Keeping Plans Current

---

### Revisions to Stormwater Pollution Control Plans:

CTDOT shall amend the Plan if the actions required by the Plan fail to prevent pollution or otherwise comply with provisions of the General Permit. The Plan shall also be amended whenever there is a change in contractors or sub-contractors at the site. If the results of the inspections require modifications to the Stormwater Pollution Control Plan, the plans shall be revised as soon as practicable after the inspection. Such modifications shall provide for a timely implementation of any changes to non-engineered controls on the site within 24 hours and implementation of any changes to the plan within 3 (three) calendar days following the inspection. For Engineered measures, corrective actions shall be implemented on site within 7 (seven) days and incorporated into a revised Plan within 10 (ten) days of the date of inspection.

In no event shall the requirements to keep the Plan current or update a Plan, relieve the permittee and their contactor(s) of the responsibility to properly implement any actions required to protect the waters of the State and to comply with all conditions of the permit.

## 9. Monitoring Requirements

---

Turbidity monitoring inspection sampling during construction shall be conducted at least once per month when there is a discharge of stormwater. A written report summarizing the scope of the inspection, the name(s) and qualifications of inspection personnel, the date and time of the inspection, major observations relative to the implementation of the Stormwater Pollution Control Plan, and actions taken shall be completed within 24 hours of the inspection. This report shall be retained as part of the Stormwater Pollution Control Plan for at least five years after the date of the inspection.

As outlined in the General Permit, monthly turbidity monitoring is required throughout the project's construction. The turbidity monitoring shall be conducted at the stormwater outlet locations depicted on the Plan utilizing a procedure consistent with 40 CFR Part 136 ([http://www.epa.gov/region9/qa/pdfs/40cfr136\\_03.pdf](http://www.epa.gov/region9/qa/pdfs/40cfr136_03.pdf)) and may be taken manually or by an in-situ turbidity probe or other automatic sampling device equipped to take individual turbidity readings. The physical location of each outlet shall be clearly identified in the field. See Appendices A and C for each outlet location.

A representative discharge sample may be obtained. The first sample shall be taken within the first hour of stormwater discharge from the site and at least three grab samples shall be taken during a storm event and shall be representative of the flow and characteristics of the discharge. Sampling shall be conducted at least monthly when there is a discharge of stormwater from the site while construction activity is ongoing, until final stabilization of the drainage area associated with each outfall is achieved.

Samples shall be taken during normal working hours, which for this project shall be defined as Monday through Friday, 7:30 am to 4 pm. If a storm continues past working hours, sampling shall

resume the following morning or the morning of the next working day following a weekend or Holiday, as long as the discharge continues. Sampling may be temporarily suspended when conditions exist that may reasonably pose a threat to the safety of the person taking the sample.

Within 30 days following the end of each month, the stormwater sampling results shall be submitted on the Stormwater Monitoring Report (SMR) and submit in accordance with Net DMR. If there is no stormwater discharge during a month, sampling is not required, however, SMR's indicating "no discharge" shall still be submitted as required.

## **10. Contractors**

---

### **General**

This section shall identify all Contractors and Subcontractors who will perform on site actions which may reasonably be expected to cause or have the potential to cause pollution of the waters of the State.

### **Certification Statement**

All contractors and subcontractors must sign the attached statement. All certification will be included in the Stormwater Pollution Control Plan.

## State Project No. 152-149

U.S. Route 1 over Jordan Brook  
Waterford, CT

“I certify under penalty of law that I have read and understand the terms and conditions of the general permit for the discharge of stormwater associated with construction activity. I understand that as Contractor on the project, I am covered by this general permit, and must comply with the terms and conditions of this permit, including, but not limited to, the requirements of the Stormwater Pollution Control Plan prepared for this project.”

### GENERAL CONTRACTOR

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

Firm: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### SUBCONTRACTOR

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

Firm: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**General:**

This Stormwater Pollution Control Plan (SPCP) is prepared to comply with the requirements for the General Permit for Stormwater Discharges (GPSD) from Construction Activities. Also to be considered part of the SPCP are the proposed construction plans, special provisions, and the Connecticut Department of Transportation's "Standard Specifications for Roads, Bridges and Incidental Construction" (Form 816) including supplements thereto and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control and 2004 Stormwater Quality Manual.

**List of applicable Figures / Plans:**

**Appendix A – Figures**

FEMA FIRM – Waterford	Figure 1
Location Map	Figure 2
Existing Drainage Map	Figure 3
Temporary Drainage Map	Figure 4
Proposed Drainage Map	Figure 5
NRCS Soil Resource Report	Figure 6.1-6.3

**Appendix B – Outlet Protection Calculations**

**Appendix C – Plan Sheets (Reduced to 11x17)**

Miscellaneous Details	HWY-03 & HWY-04
Highway Plan	HWY-05
M&PT Stage 1	HWY-14
Landscaping Plan	LDS-01

**Appendix D – Stormwater Monitoring Report Form**

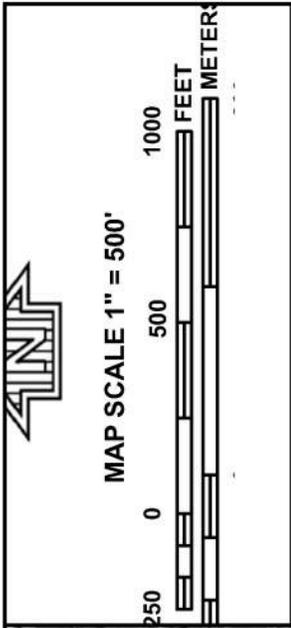
**Appendix E – Notice of Termination Form**

**State Project Nos. 152-149  
Replacement of Bridge No. 01904  
U.S. Route 1 over Jordan Brook**

**Stormwater Pollution Control Plan**

**Appendix A  
Figures**

**Bridge No. 01904  
Waterford, Connecticut**



**NATIONAL FLOOD INSURANCE PROGRAM**

**NFIP**

PANEL 0482G

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**NEW LONDON COUNTY,**  
**CONNECTICUT**  
**ALL JURISDICTIONS**

PANEL 482 OF 554  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
NEW LONDON, CITY OF	090100	0482	G
WATERFORD, TOWN OF	090107	0482	G

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

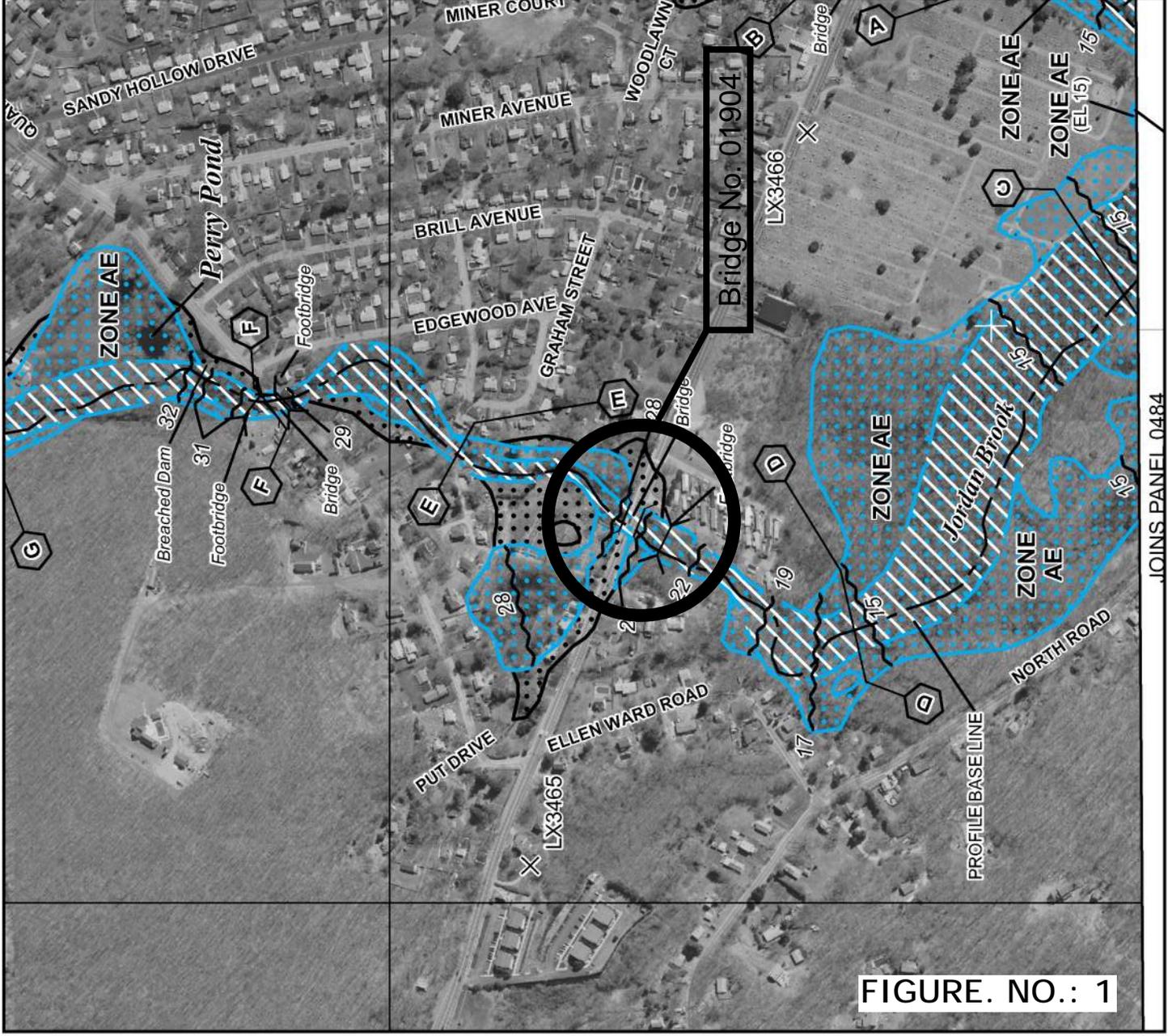
**MAP NUMBER**  
09011C0482G

**EFFECTIVE DATE**  
JULY 18, 2011

Federal Emergency Management Agency

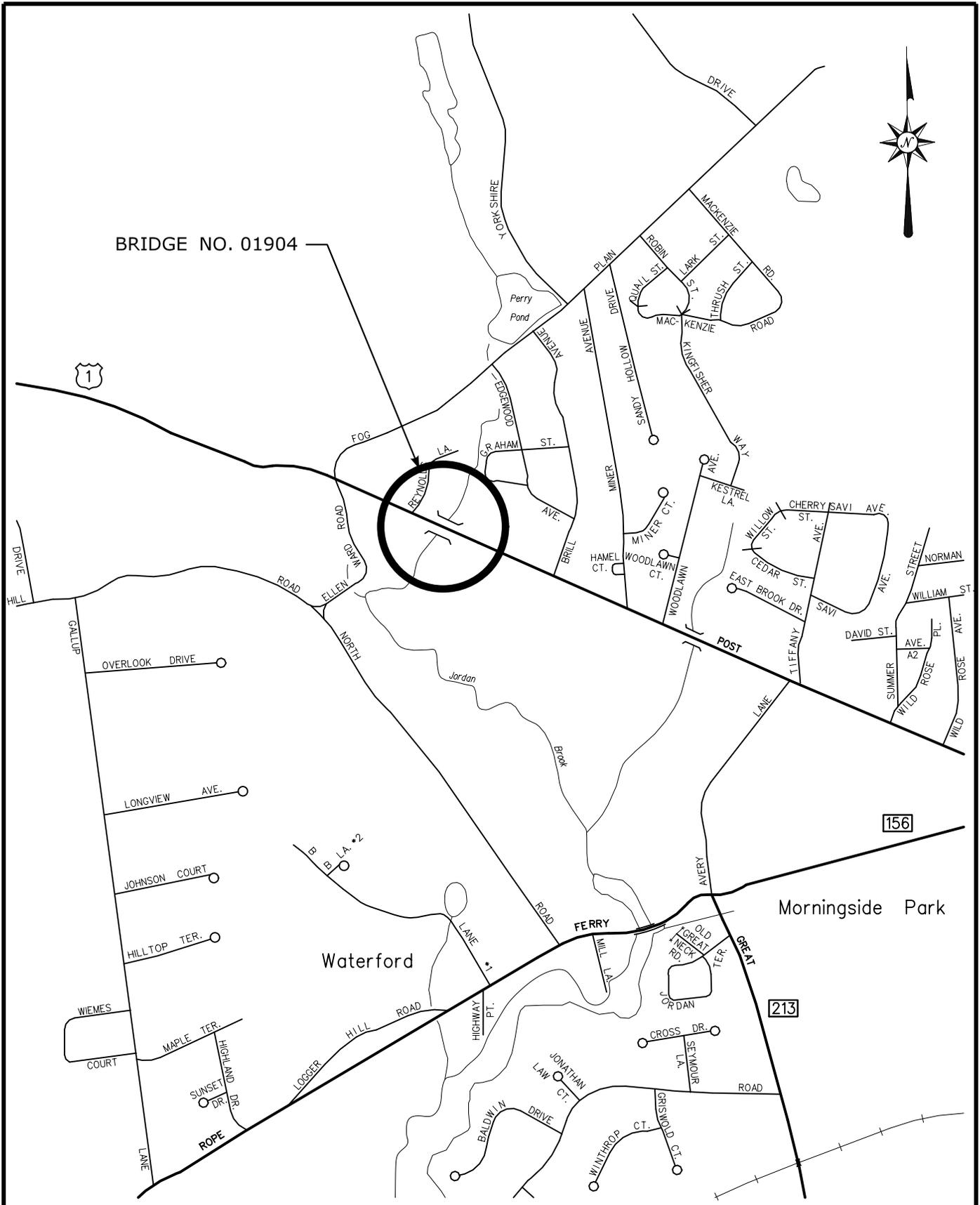


This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



JOINS PANEL 0484

FIGURE. NO.: 1



BRIDGE NO. 01904



156

Morningside Park

Waterford

213



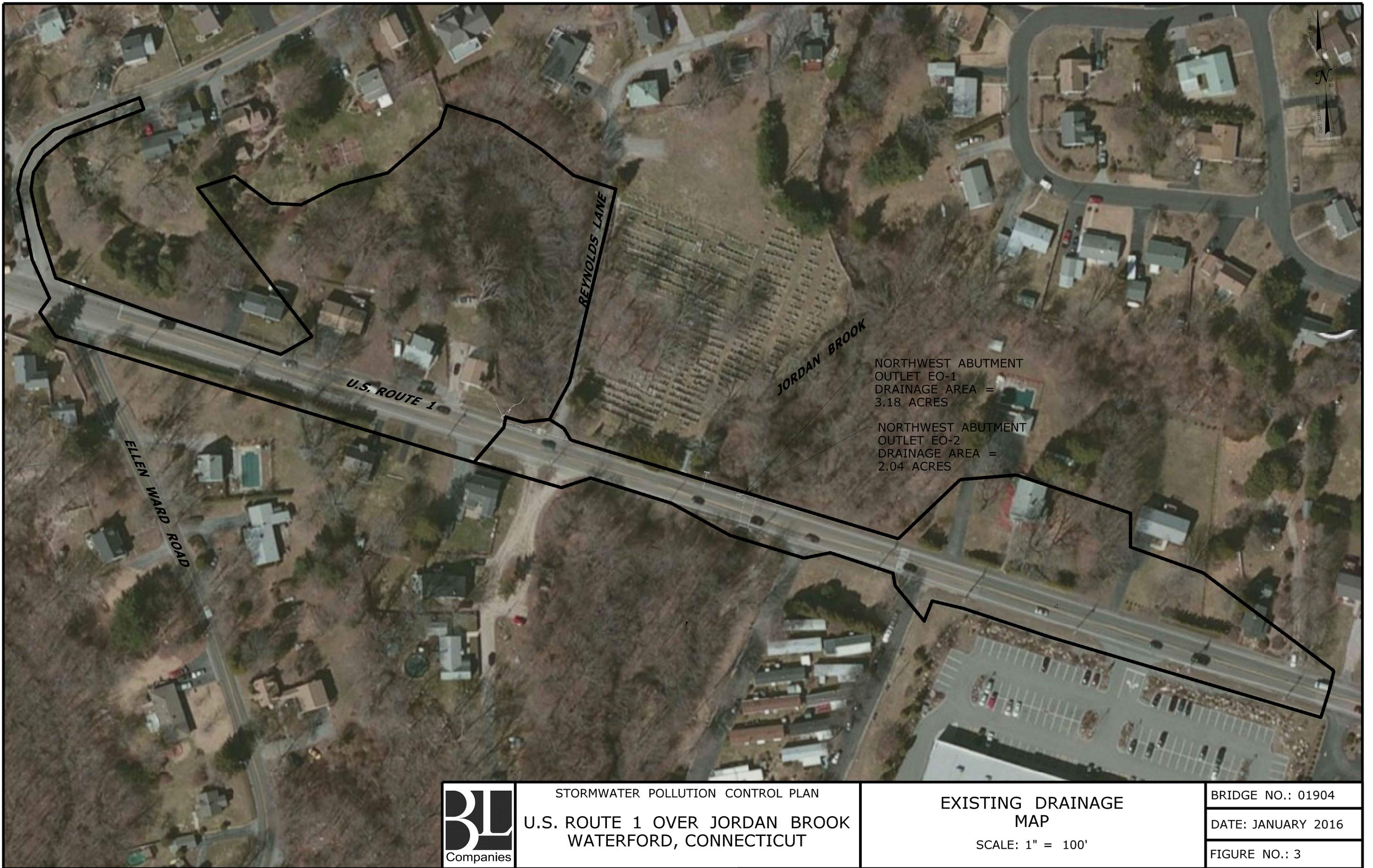
U.S. ROUTE 1  
OVER  
JORDAN BROOK  
WATERFORD, CONNECTICUT

LOCATION MAP

BRIDGE NO.: 01904

DATE: JANUARY 2016

SCALE: 1" = 1000'



COORDINATE GRID  
 5  
 3  
 2  
 1  
 0  
 1  
 2  
 3  
 4  
 5

REYNOLDS LANE

JORDAN BROOK

U.S. ROUTE 1

ELLEN WARD ROAD

NORTHWEST ABUTMENT  
 OUTLET EO-1  
 DRAINAGE AREA =  
 3.18 ACRES

NORTHWEST ABUTMENT  
 OUTLET EO-2  
 DRAINAGE AREA =  
 2.04 ACRES



STORMWATER POLLUTION CONTROL PLAN  
 U.S. ROUTE 1 OVER JORDAN BROOK  
 WATERFORD, CONNECTICUT

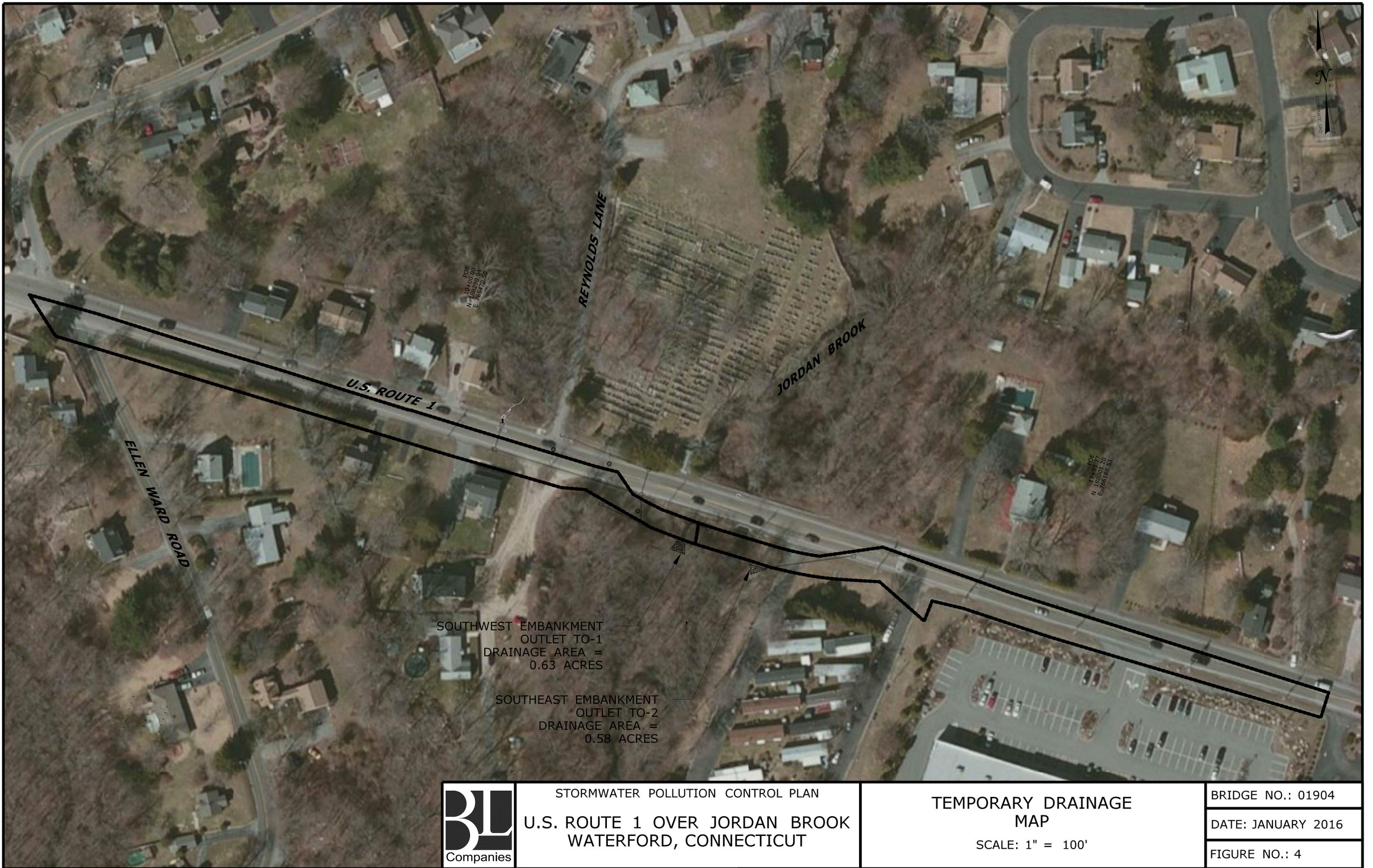
EXISTING DRAINAGE  
 MAP

SCALE: 1" = 100'

BRIDGE NO.: 01904

DATE: JANUARY 2016

FIGURE NO.: 3



STORMWATER POLLUTION CONTROL PLAN  
 U.S. ROUTE 1 OVER JORDAN BROOK  
 WATERFORD, CONNECTICUT

TEMPORARY DRAINAGE  
 MAP

SCALE: 1" = 100'

BRIDGE NO.: 01904

DATE: JANUARY 2016

FIGURE NO.: 4

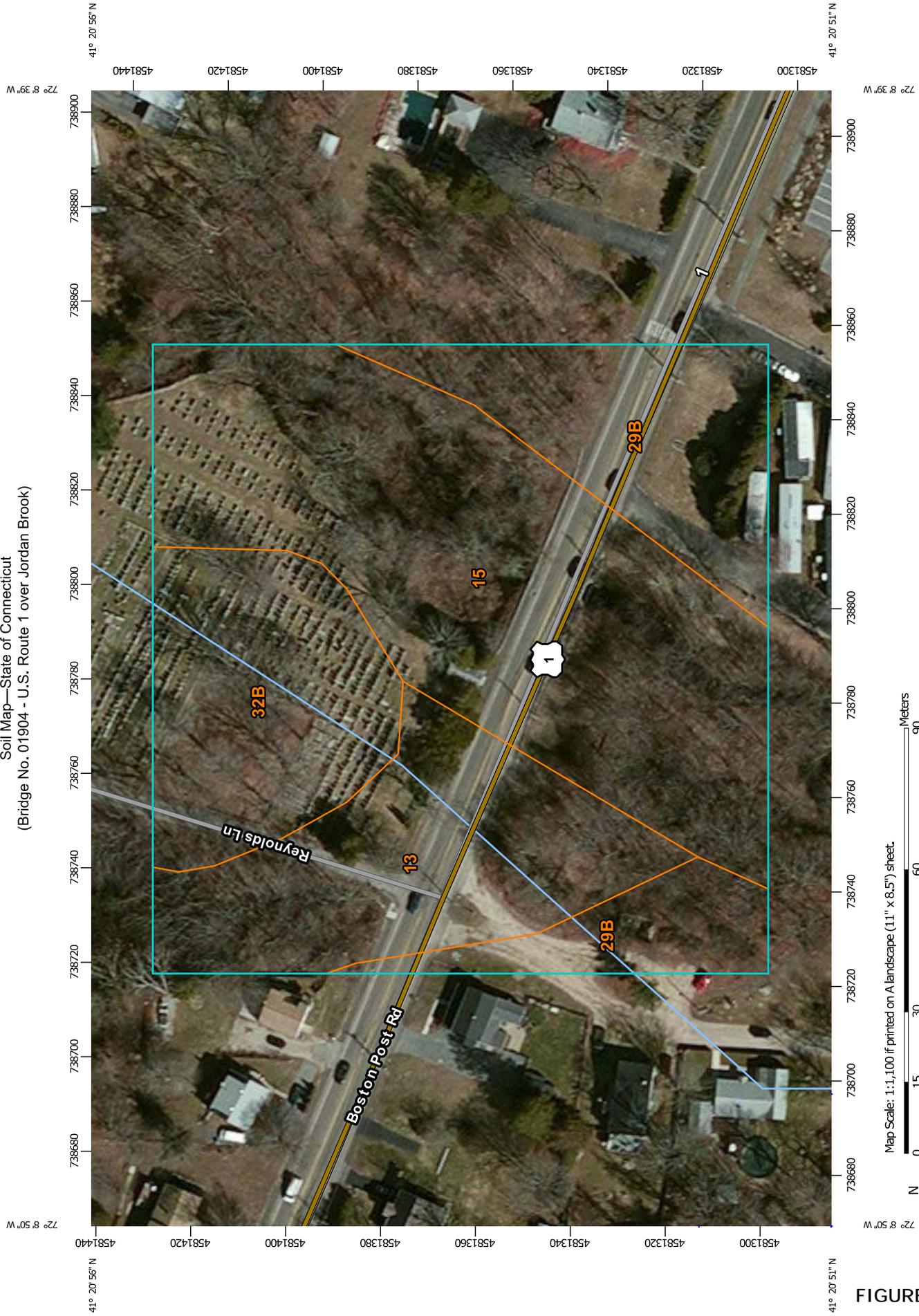


STORMWATER POLLUTION CONTROL PLAN  
**U.S. ROUTE 1 OVER JORDAN BROOK**  
 WATERFORD, CONNECTICUT

**PROPOSED DRAINAGE**  
**MAP**  
 SCALE: 1" = 100'

BRIDGE NO.: 01904  
 DATE: JANUARY 2016  
 FIGURE NO.: 5

Soil Map—State of Connecticut  
(Bridge No. 01904 - U.S. Route 1 over Jordan Brook)



Map Scale: 1:1,100 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

FIGURE NO.: 6.1

## MAP LEGEND

<b>Area of Interest (AOI)</b>		<b>Soils</b>		<b>Area of Interest (AOI)</b>	
Area of Interest (AOI)		Soil Map Unit Polygons		Spoil Area	
Soil Map Unit Lines		Soil Map Unit Points		Stony Spot	
Soil Map Unit Points		<b>Special Point Features</b>		Very Stony Spot	
<b>Special Point Features</b>		Blowout		Wet Spot	
Blowout		Borrow Pit		Other	
Borrow Pit		Clay Spot		Special Line Features	
Clay Spot		Closed Depression		<b>Water Features</b>	
Closed Depression		Gravel Pit		Streams and Canals	
Gravel Pit		Gravelly Spot		<b>Transportation</b>	
Gravelly Spot		Landfill		Rails	
Landfill		Lava Flow		Interstate Highways	
Lava Flow		Marsh or swamp		US Routes	
Marsh or swamp		Mine or Quarry		Major Roads	
Mine or Quarry		Miscellaneous Water		Local Roads	
Miscellaneous Water		Perennial Water		<b>Background</b>	
Perennial Water		Rock Outcrop		Aerial Photography	
Rock Outcrop		Saline Spot			
Saline Spot		Sandy Spot			
Sandy Spot		Severely Eroded Spot			
Severely Eroded Spot		Sinkhole			
Sinkhole		Slide or Slip			
Slide or Slip		Sodic Spot			
Sodic Spot					

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut  
Survey Area Data: Version 11, Nov 19, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 28, 2011—May 12, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

FIGURE NO.: 6.2

## Map Unit Legend

State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
13	Walpole sandy loam	0.9	20.4%
15	Scarboro muck	1.8	42.5%
29B	Agawam fine sandy loam, 3 to 8 percent slopes	0.9	20.4%
32B	Haven and Enfield soils, 3 to 8 percent slopes	0.7	16.7%
<b>Totals for Area of Interest</b>		<b>4.3</b>	<b>100.0%</b>

**State Project Nos. 152-149  
Replacement of Bridge No. 01904  
U.S. Route 1 over Jordan Brook**

**Stormwater Pollution Control Plan**

**Appendix B  
Outlet Protection Calculations**

**Bridge No. 01904  
Waterford, Connecticut**

ENGLISH OUTLET PROTECTION

REALIGNMENT OF ROUTE 2																										
SCOUR HOLE																										
System Outlet	Pipe Rise (in)	Pipe Span (in)	Design Year (yr)	Design Q (cfs)	Vel. (ft/s)	TW depth (ft)	Well Defined Channel (Y/N)	TW Cond. (Y/N)	CHANNEL			RIPRAP APRON			TYPE C APRON			Type 1 or 2	R <sub>s</sub> <sup>2</sup> (Q/Rp <sup>5</sup> ) <sup>1.333</sup> TW	Stone Size (ft)	Type (13)	F (ft)	C (ft)	B (ft)	Area of Riprap (ft <sup>2</sup> )	Volume of Riprap (CUY)
									Bottom Width (ft)	Side Slope H:1V	Riprap APRON TYPE (3)	SCOUR HOLE? (Y/N)	La LENGTH (ft)	La Minimum (ft)	S BED SLOPE	MAX. Shear str. (lb/ft <sup>2</sup> ) (6)	RIPRAP TYPE (7)									
O-1	36	36	10	3.81	4.52	0.81				*	*	A	*	11.3	12	*	Modified	9.00	17.40	*	*	*	*	*	138.4	5.9
O-Temp 1	12	12	2	3.12	3.35	0.46				*	*	A	*	6.6	12	*	Modified	3.00	11.40	*	*	*	*	*	86.4	3.2
O-Temp 2	12	12	2	1.06	3.19	0.44				*	*	A	*	2.9	12	*	Modified	3.00	11.40	*	*	*	*	*	86.4	3.2

Color Legend:  
User Input Calculated

NOTES:

The following are references to the CTDOT Drainage Manual:

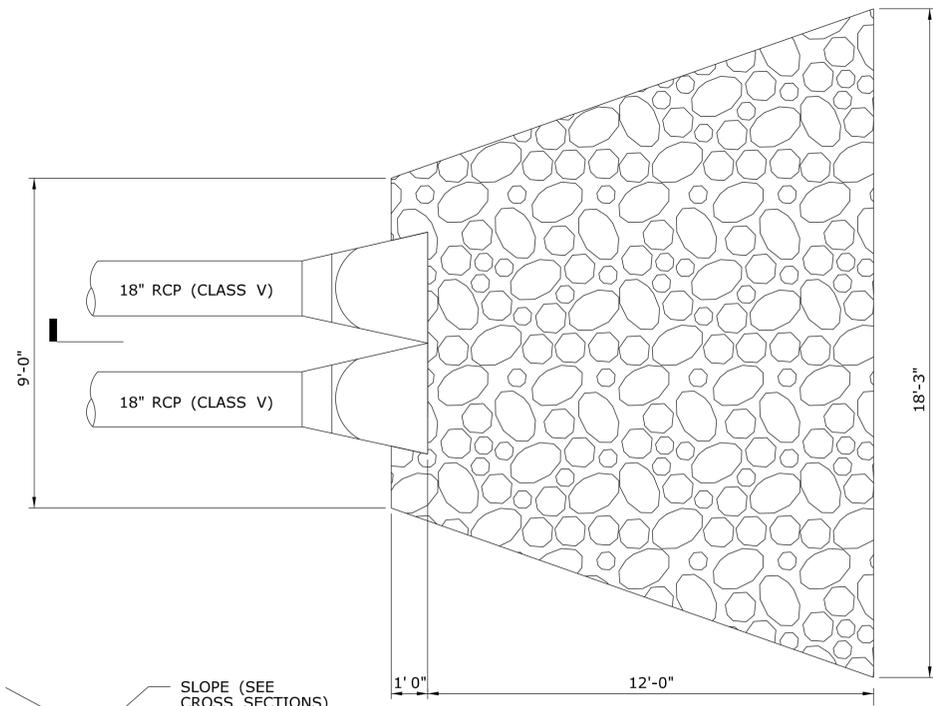
- (1) For a "free outfall" condition use the normal depth of the pipe as an approximation.
- (2) Min = TW/5(Pipe Rise), Max=TW/5(Pipe Rise), \* - Does not apply to a well defined channel
- (3) Apron type from Section 11.13.5
- (4) Scour Holog? : Table 11-12.1 or Table 11-13.1 (Use column (2) to determine which table to use.)  
 If the velocity in column "F" is > 14fps Then a Scour Hole is required.
- (5) Computed La (11.31 or 11.32)
- (6) Max. Shear Stress from equation (7.12)
- (7) Riprap: Type C Table 7-4
- (8) Width 1: Type A & B Table 11-11  
 Type A = Comps worksheet (W<sub>s</sub>)  
 Type C = Comps worksheet (W<sub>s</sub>)
- (9) Width 2: Type A = 3(Pipe Rise)+.7(La)  
 Type B = 3(Pipe Rise)+.4(La)  
 Type C = Width 1
- (10) Scour Hole Type: Type 1: Depth = .5(Pipe Rise)  
 Type 2: Depth = Pipe Rise  
 (see Figure 11-15)
- (11) Common part of equation for stone size (d<sub>50</sub>)  
 (see equations: 11.35 and 11.36)
- (12) Stone size (d<sub>50</sub>)  
 (see equations: 11.35 and 11.36)
- (13) Type of Riprap required based on the stone size in (11)  
 (see Chart on page 11.13-5)
- (14) Scour Hole dimensions  
 (see Figure 11-15)

**State Project Nos. 152-149  
Replacement of Bridge No. 01904  
U.S. Route 1 over Jordan Brook**

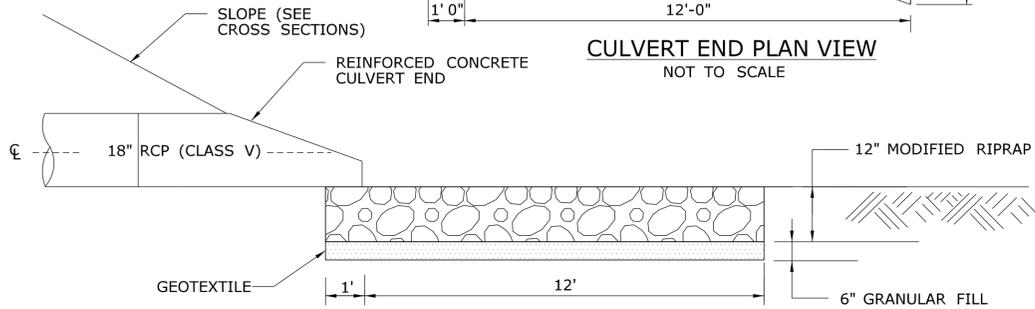
**Stormwater Pollution Control Plan**

**Appendix C  
Plan Sheets (Reduced to 11x17)**

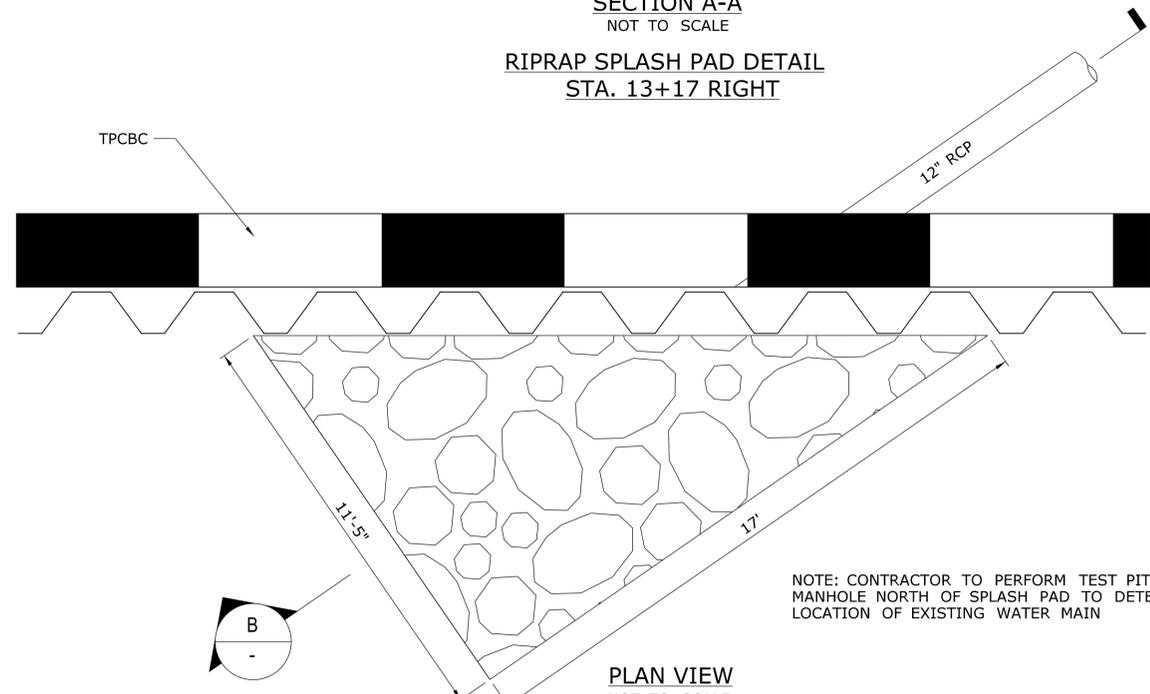
**Bridge No. 01904  
Waterford, Connecticut**



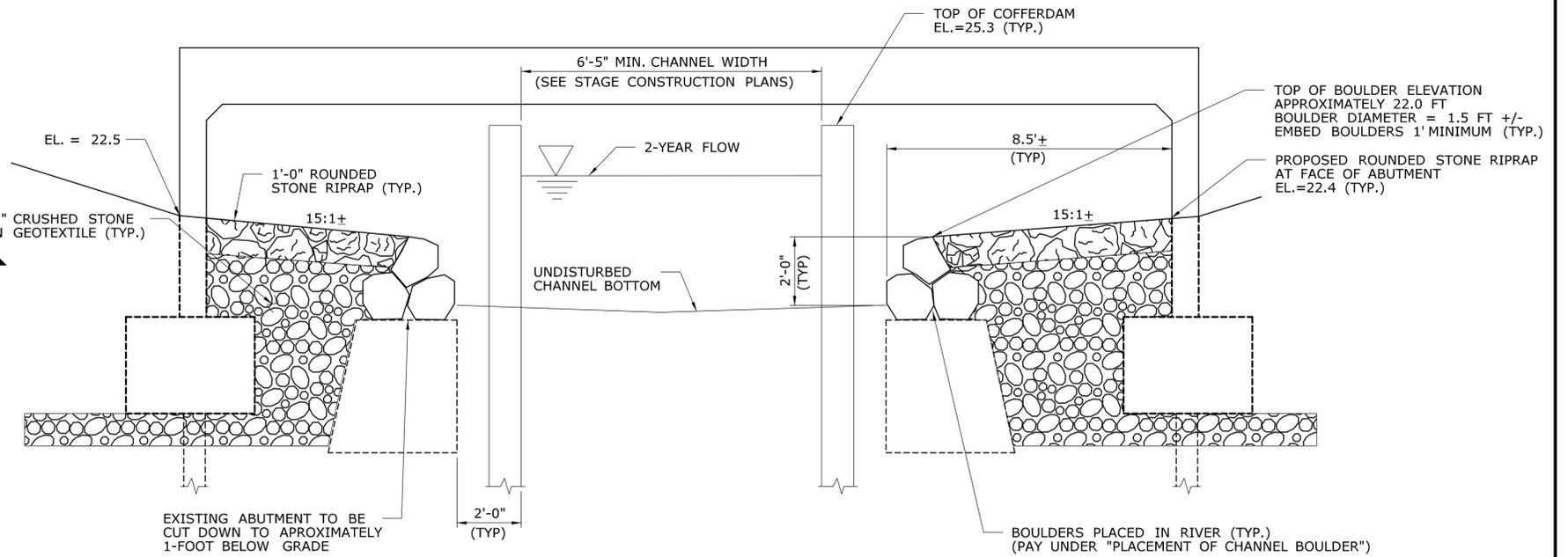
**CULVERT END PLAN VIEW**  
NOT TO SCALE



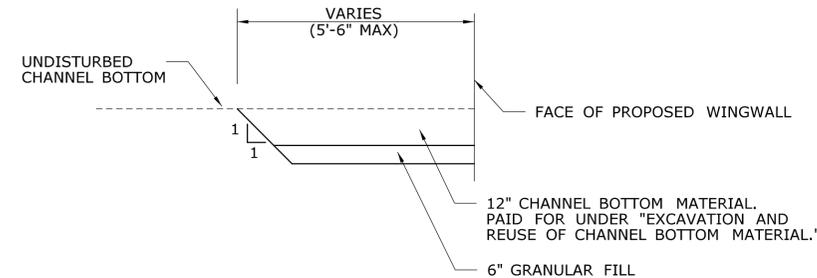
**SECTION A-A**  
NOT TO SCALE  
**RIPRAP SPLASH PAD DETAIL**  
STA. 13+17 RIGHT



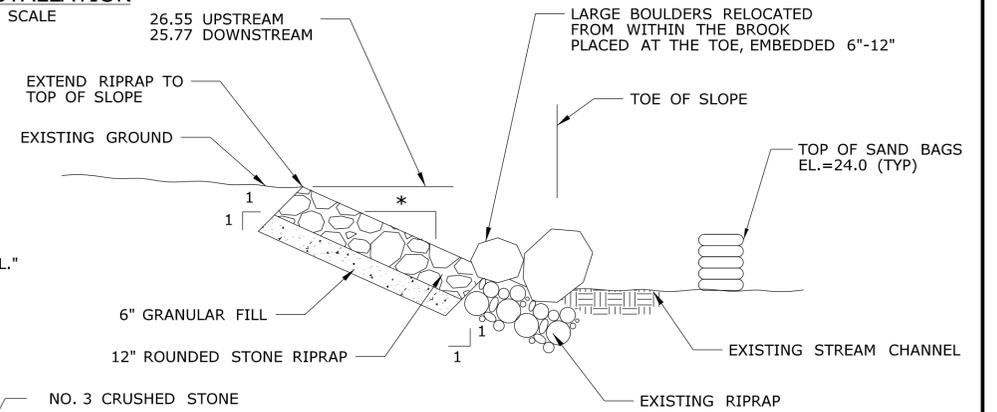
**PLAN VIEW**  
NOT TO SCALE  
**TEMPORARY RIPRAP SPLASH PAD DETAIL**  
STA. 204+00 RIGHT



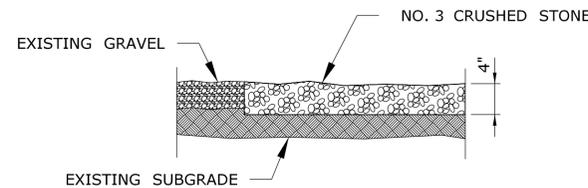
**BOULDER INSTALLATION**  
NOT TO SCALE



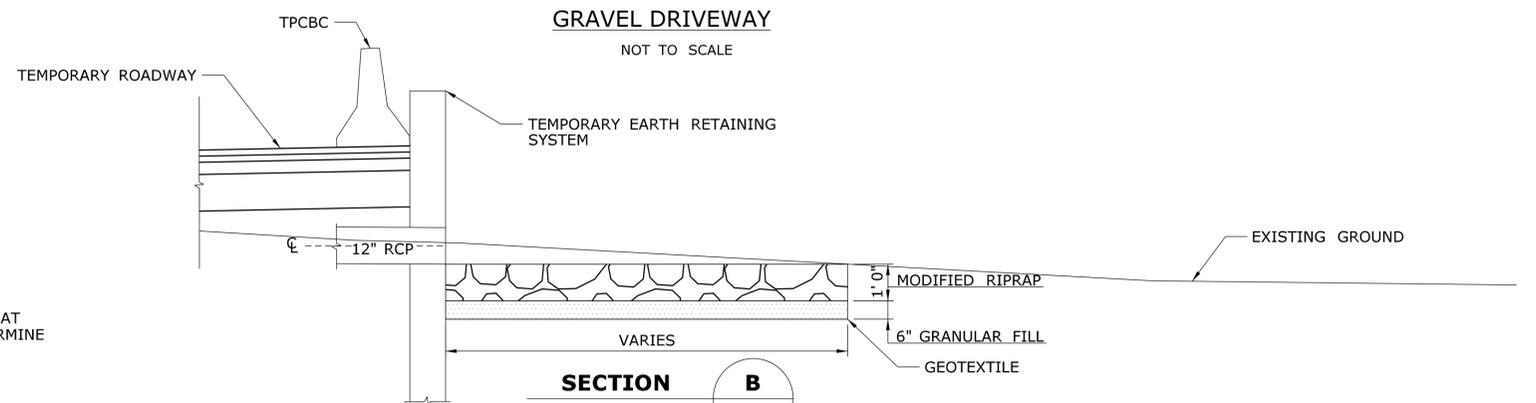
**UPSTREAM WINGWALL DETAIL**  
NOT TO SCALE



**CHANNEL SLOPE PROTECTION**  
NOT TO SCALE



**GRAVEL DRIVEWAY**  
NOT TO SCALE



**SECTION B**  
NOT TO SCALE  
**TEMPORARY RIPRAP SPLASH PAD DETAIL**  
STA. 204+00 RIGHT

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/7/2015

DESIGNER/DRAFTER:  
**M. LOSYEVA**  
CHECKED BY:  
**J. KOERNER**  
SCALE AS NOTED



SIGNATURE/BLOCK:  
Alfred Benesch & Company  
90 National Drive  
Glastonbury, CT

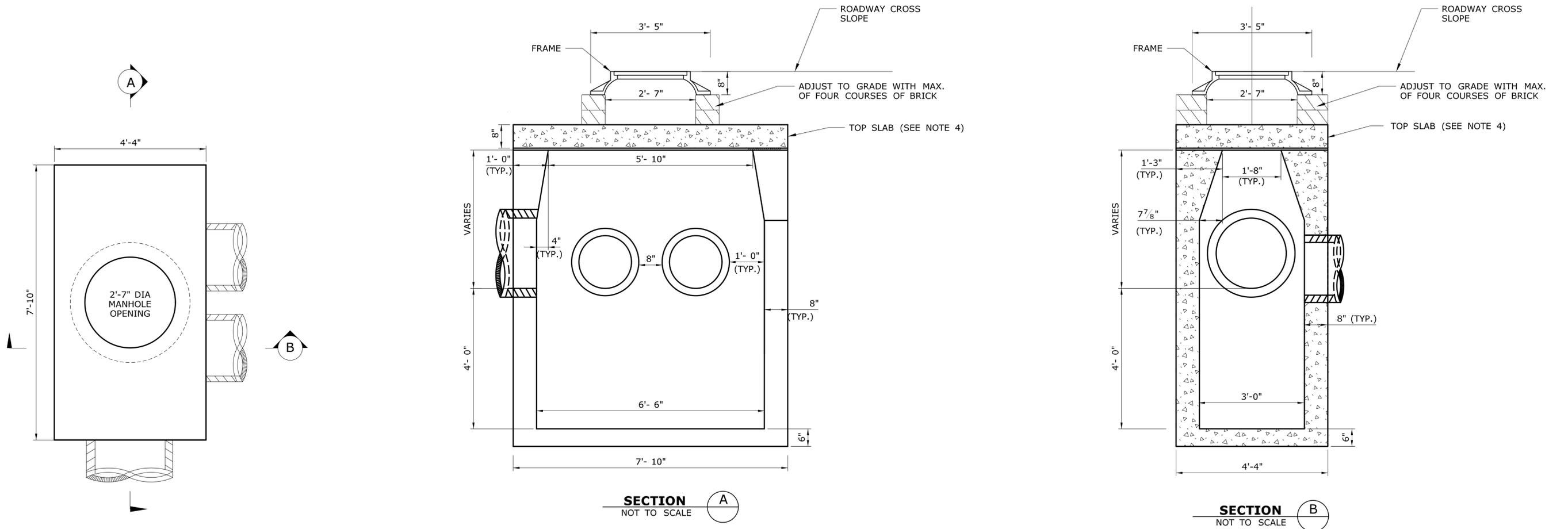
PROJECT TITLE:  
**REPLACEMENT OF BRIDGE #01904**  
**U.S. ROUTE 1 OVER**  
**JORDAN BROOK**

TOWN:  
**WATERFORD**  
DRAWING TITLE:  
**MISCELLANEOUS DETAILS**

PROJECT NO.:  
**152-149**  
DRAWING NO.:  
**HWY-03**  
SHEET NO.:  
**03.03**

**DRAINAGE NOTES:**

1. FOR INVERT & TOP OF FRAME ELEVATIONS REFER TO ROADWAY CROSS SECTIONS.
2. FOR ADDITIONAL DETAILS AND NOTES PERTAINING TO CATCH BASINS, FRAMES AND GRATES REFER TO STANDARD SHEET NOS. HW-507\_01 AND HW-507\_08.
3. FOR MANHOLE FRAME & COVER DETAILS AND GENERAL NOTES REFER TO STANDARD SHEET NO. HW-507\_10.
4. IN ADDITION TO ANY OTHER LOADING CONDITIONS, CATCH BASIN SHALL BE DESIGNED FOR HL 93 LIVE LOADING AS PER AASHTO LRFD BRIDGE DESIGNED SPECIFICATIONS.



**CONVERT CB TO MH**  
NOT TO SCALE

**SECTION A**  
NOT TO SCALE

**SECTION B**  
NOT TO SCALE

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER:  
**M. LOSYEVA**  
CHECKED BY:  
**J. KOERNER**  
SCALE AS NOTED



SIGNATURE/BLOCK:  
  
Alfred Benesch & Company  
90 National Drive  
Glastonbury, CT

PROJECT TITLE:  
**REPLACEMENT OF BRIDGE #01904  
U.S. ROUTE 1 OVER  
JORDAN BROOK**

TOWN:  
**WATERFORD**  
DRAWING TITLE:  
**MISCELLANEOUS DETAILS**

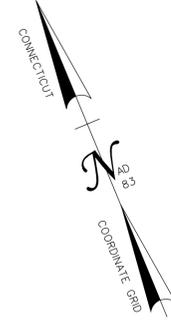
PROJECT NO.  
**152-149**  
DRAWING NO.  
**HWY-04**  
SHEET NO.  
**03.04**

Plotted Date: 7/7/2015

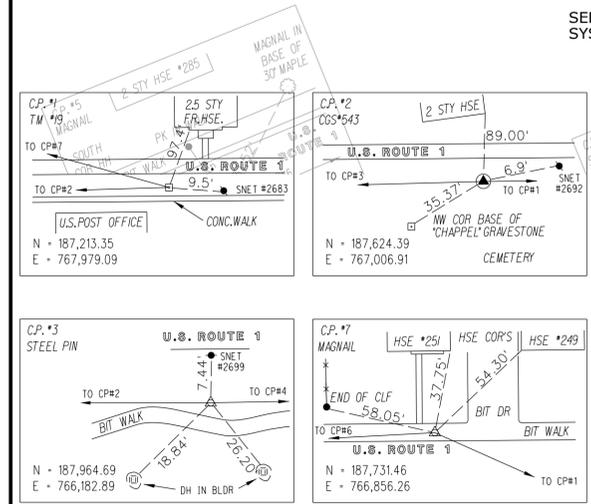
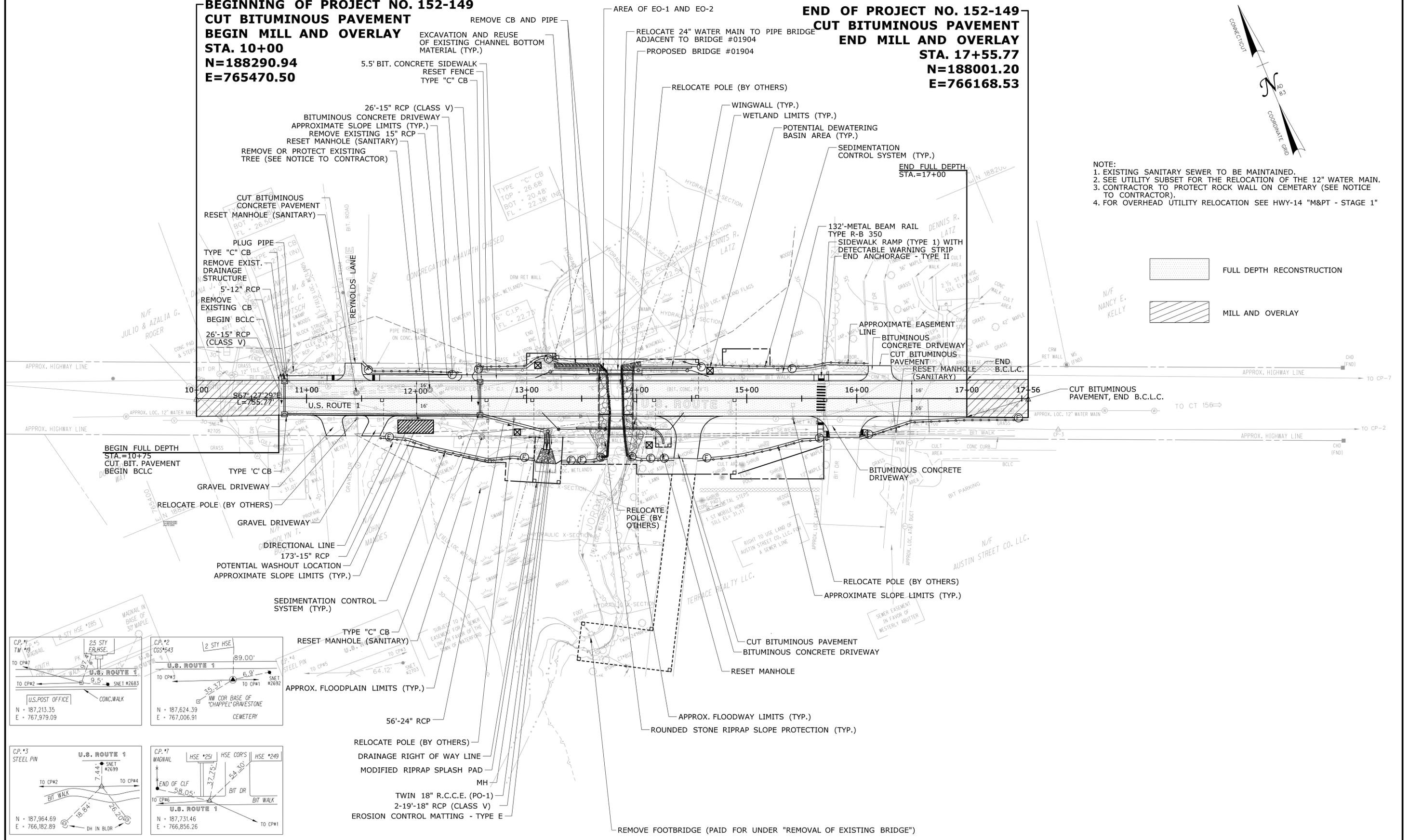
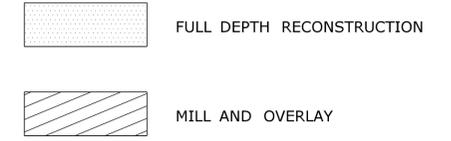
Filename: ...\\HW\_MSH\_152-0149\_MDS-02.dgn

**BEGINNING OF PROJECT NO. 152-149**  
**CUT BITUMINOUS PAVEMENT**  
**BEGIN MILL AND OVERLAY**  
**STA. 10+00**  
**N=188290.94**  
**E=765470.50**

**END OF PROJECT NO. 152-149**  
**CUT BITUMINOUS PAVEMENT**  
**END MILL AND OVERLAY**  
**STA. 17+55.77**  
**N=188001.20**  
**E=766168.53**



- NOTE:  
 1. EXISTING SANITARY SEWER TO BE MAINTAINED.  
 2. SEE UTILITY SUBSET FOR THE RELOCATION OF THE 12" WATER MAIN.  
 3. CONTRACTOR TO PROTECT ROCK WALL ON CEMETARY (SEE NOTICE TO CONTRACTOR).  
 4. FOR OVERHEAD UTILITY RELOCATION SEE HWY-14 "M&PT - STAGE 1"



REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER:  
**M. LOSYEVA**  
 CHECKED BY:  
**J. KOERNER**  
 SCALE IN FEET  
 0 40 80  
 SCALE 1"=40'



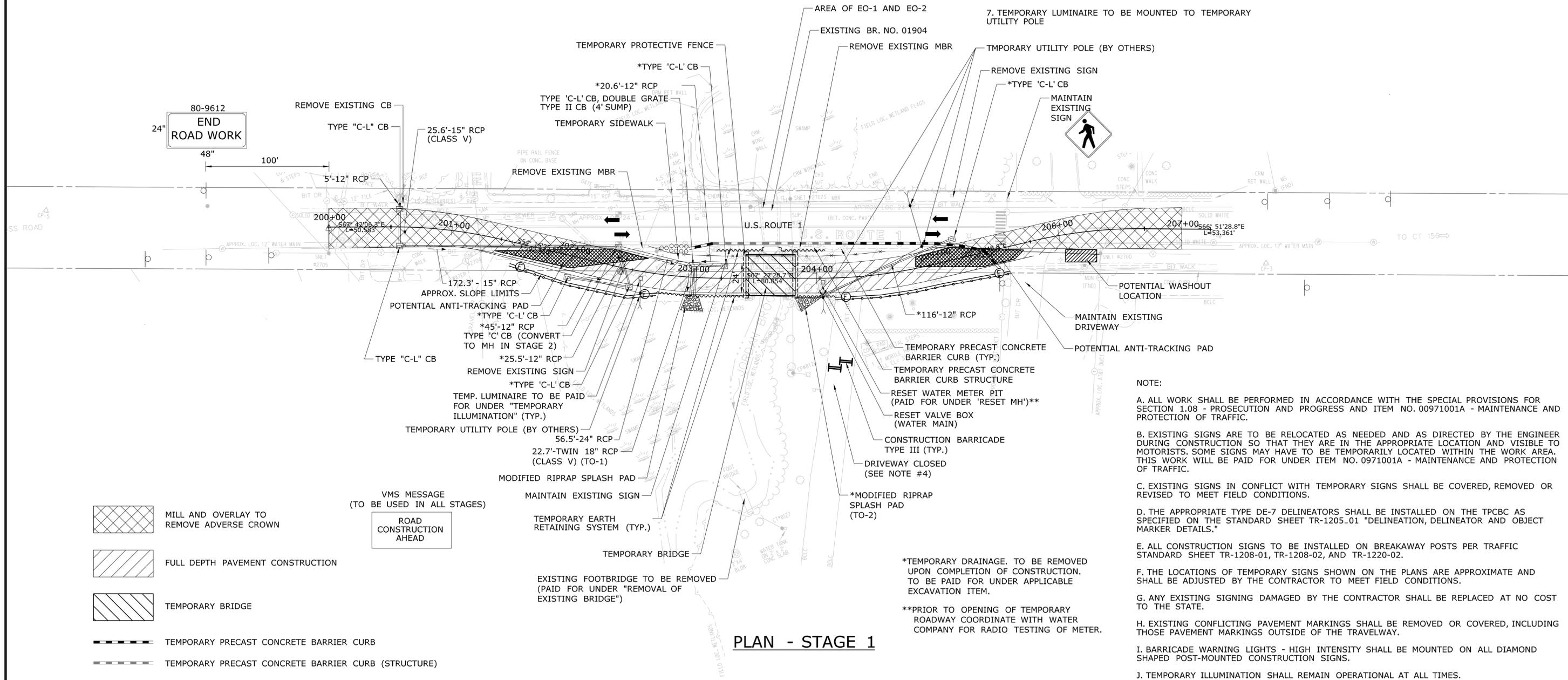
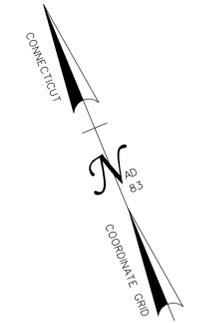
SIGNATURE/BLOCK:  
 PROJECT TITLE:  
**REPLACEMENT OF BRIDGE #01904**  
**U.S. ROUTE 1 OVER**  
**JORDAN BROOK**

TOWN:  
**WATERFORD**  
 DRAWING TITLE:  
**HIGHWAY PLAN**  
**DISCHARGE PERMIT**

PROJECT NO.  
**152-149**  
 DRAWING NO.  
**HWY-05**  
 SHEET NO.

NOTE:

1. ALL EXISTING SIGNS RELOCATED DURING STAGE CONSTRUCTION TO BE PAID FOR UNDER 'REMOVAL AND RELOCATION OF EXISTING SIGNS'. ALL NEW CONSTRUCTION SIGNS TO BE PAID FOR UNDER 'CONSTRUCTION SIGNS BRIGHT FLUORESCENT SHEETING'.
2. SERIES 16-H (80-1608) SIGN TO BE LOCATED IN ADVANCE OF THE PROJECT SUCH THAT A MOTORIST CAN AVOID THE CONSTRUCTION SITE
3. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY SHOULD ANY UTILITY OWNED LUMINAIRE (EXISTING OR TEMPORARY) LOCATED WITHIN THE PROJECT LIMITS FAIL TO OPERATE DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT EVERSOURCE AT (860) 947-2000 TO REPORT AN INOPERABLE LUMINAIRE AND TO ARRANGE FOR ITS REPAIRS.
4. CONTRACTOR TO PROVIDE ACCESS TO APPROVED SERVICE VEHICLES AND EMERGENCY VEHICLES, AS REQUIRED, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
5. CONTRACTOR TO PROTECT EXISTING UNDERGROUND TELECOMMUNICATION CONDUIT AND SANITARY SEWER.
6. DUE TO POTENTIAL CONFLICT WITH UNDERGROUND AND OVERHEAD UTILITIES, A DRIVEN TEMPORARY EARTH RETAINING SYSTEM MAY NOT BE FEASIBLE.
7. TEMPORARY LUMINAIRE TO BE MOUNTED TO TEMPORARY UTILITY POLE

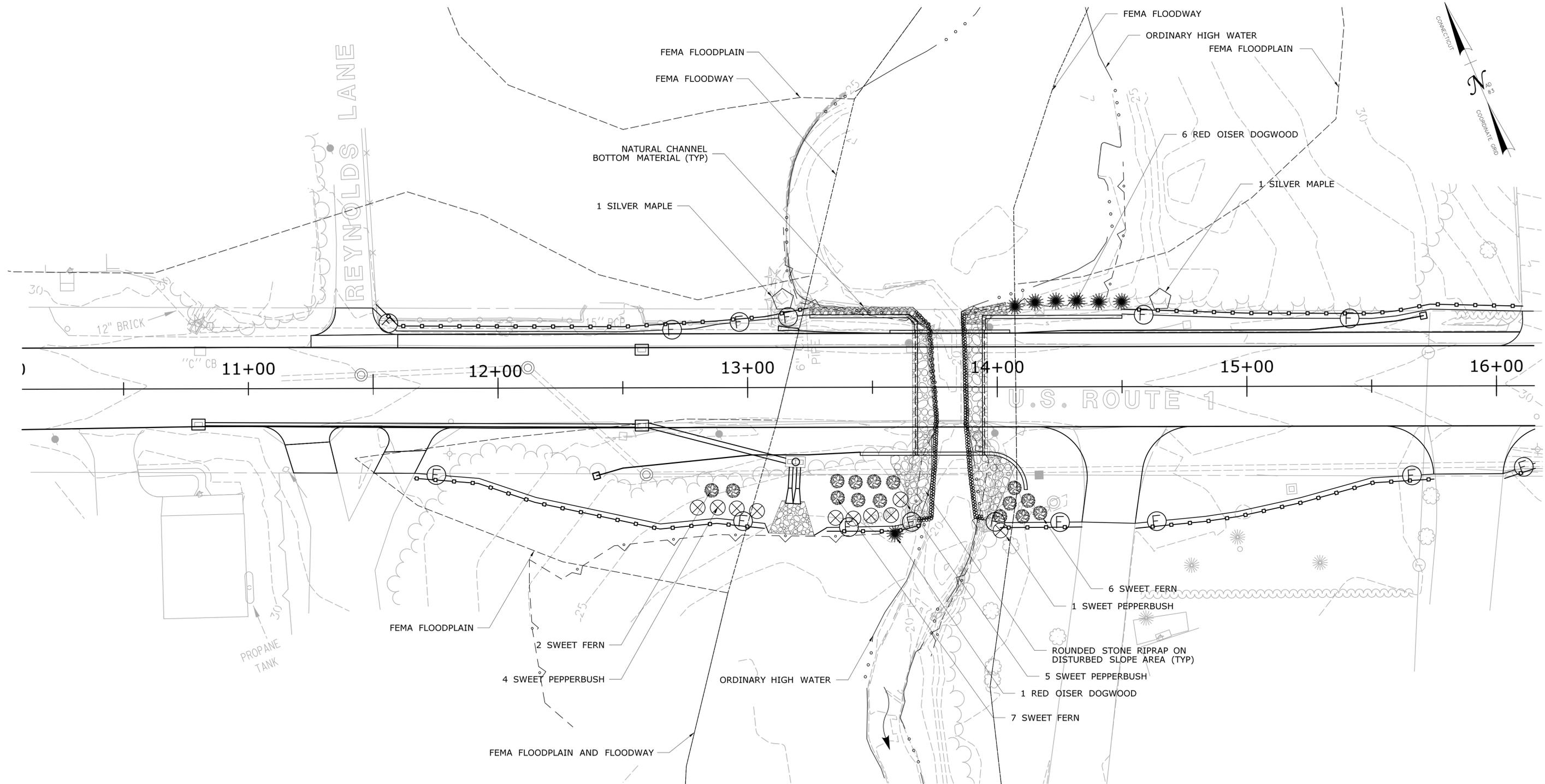


PLAN - STAGE 1

NOTE:

- A. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR SECTION 1.08 - PROSECUTION AND PROGRESS AND ITEM NO. 00971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
- B. EXISTING SIGNS ARE TO BE RELOCATED AS NEEDED AND AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION SO THAT THEY ARE IN THE APPROPRIATE LOCATION AND VISIBLE TO MOTORISTS. SOME SIGNS MAY HAVE TO BE TEMPORARILY LOCATED WITHIN THE WORK AREA. THIS WORK WILL BE PAID FOR UNDER ITEM NO. 0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
- C. EXISTING SIGNS IN CONFLICT WITH TEMPORARY SIGNS SHALL BE COVERED, REMOVED OR REVISED TO MEET FIELD CONDITIONS.
- D. THE APPROPRIATE TYPE DE-7 DELINEATORS SHALL BE INSTALLED ON THE TPCBC AS SPECIFIED ON THE STANDARD SHEET TR-1205-01 "DELINEATION, DELINEATOR AND OBJECT MARKER DETAILS."
- E. ALL CONSTRUCTION SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-01, TR-1208-02, AND TR-1220-02.
- F. THE LOCATIONS OF TEMPORARY SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET FIELD CONDITIONS.
- G. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
- H. EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR COVERED, INCLUDING THOSE PAVEMENT MARKINGS OUTSIDE OF THE TRAVELWAY.
- I. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS.
- J. TEMPORARY ILLUMINATION SHALL REMAIN OPERATIONAL AT ALL TIMES.

<table border="1"> <tr> <td>DESIGNER/DRAFTER: <b>M. LOSYEVA</b></td> <td rowspan="2"> </td> <td rowspan="2">                 STATE OF CONNECTICUT                  DEPARTMENT OF TRANSPORTATION             </td> </tr> <tr> <td>CHECKED BY: <b>J. KOERNER</b></td> </tr> </table>	DESIGNER/DRAFTER: <b>M. LOSYEVA</b>		STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	CHECKED BY: <b>J. KOERNER</b>	PROJECT TITLE: <b>REPLACEMENT OF BRIDGE #01904                  U.S. ROUTE 1 OVER                  JORDAN BROOK</b>	TOWN: <b>WATERFORD</b>	PROJECT NO. <b>152-149</b>
DESIGNER/DRAFTER: <b>M. LOSYEVA</b>				STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION			
CHECKED BY: <b>J. KOERNER</b>							
SCALE IN FEET 0 40 80 SCALE 1"=40'	SIGNATURE/ BLOCK:	DRAWING TITLE: <b>M&amp;PT - STAGE 1                  DRAINAGE PERMIT</b>	DRAWING NO. <b>HWY-14</b>				
REV. DATE REVISION DESCRIPTION SHEET NO.	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	FILENAME: \$FILEAS\$	SHEET NO.				



**LANDSCAPE SCHEDULE**

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	NWI	SIZE	COMMENTS
⊗	10	<i>CLETHRA ALNIFOLIA</i>	SWEET PEPPERBUSH	FAC	18"-24" HT. B.B.	MINIMUM 5-FOOT SPACING
☼	7	<i>CORNUS SERICEA</i>	RED OISER DOGWOOD	FACW	18"-24" HT. CONTAINER	MINIMUM 5-FOOT SPACING
◻	2	<i>ACER SACCHARINUM</i>	SILVER MAPLE	FACW	2"-2 1/2" CAL. B.B.	MINIMUM 10-FOOT SPACING
●	15	<i>COMPTONIA PEREGRINA</i>	SWEET FERN	UPL	18"-24" HT. B.B.	MINIMUM 5-FOOT SPACING
	120 SY	WOOD CHIP MULCH				

06 - LANDSCAPING	
DRAWING NO.	DRAWING TITLE
LDS-01	LANDSCAPING PLAN

DESIGNED BY:  
BL COMPANIES

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

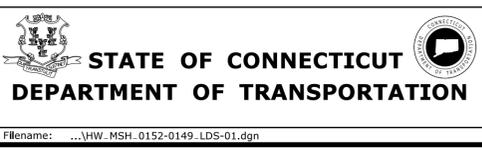
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/23/2015

DESIGNER/DRAFTER:  
**KL/NJP**

CHECKED BY:  
**KL**

SCALE IN FEET  
0 20 40  
SCALE 1"=20'



SIGNATURE/  
BLOCK:

DESIGNED BY:  
**BL**  
BL COMPANIES, INC.  
355 RESEARCH PARKWAY  
MERIDEN, CT 06450

PROJECT TITLE:  
**REPLACEMENT OF BRIDGE #01904  
U.S. ROUTE 1 OVER  
JORDAN BROOK**

TOWN:  
**WATERFORD**

DRAWING TITLE:  
**LANDSCAPING PLAN**

PROJECT NO.  
**152-149**

DRAWING NO.  
**LDS-01**

SHEET NO.  
**06.01**

**State Project Nos. 152-149  
Replacement of Bridge No. 01904  
U.S. Route 1 over Jordan Brook**

**Stormwater Pollution Control Plan**

**Appendix D  
Stormwater Monitoring Report Form**

**Bridge No. 01904  
Waterford, Connecticut**



**Connecticut Department of  
Energy & Environmental Protection**  
Bureau of Materials Management & Compliance Assurance  
Water Permitting & Enforcement Division

**General Permit for the Discharge of Stormwater and Dewatering Wastewaters from  
Construction Activities, issued 8/21/13, effective 10/1/13**  
**Stormwater Monitoring Report**

**SITE INFORMATION**

Permittee: Connecticut Department of Transportation

Mailing Address: 171 Salem Turnpike, Norwich, CT 06360

Business Phone: 860-823-3204 ext.: \_\_\_\_\_ Fax: \_\_\_\_\_

Contact Person: Kenneth E. Fagnoli Title: District 2 Engineer

Site Name: Bridge No. 01904

Site Address: U.S. Route 1 over Jordan Brook

Receiving Water (name, basin): Jordan Brook

Stormwater Permit No. GSN GSN

**SAMPLING INFORMATION (Submit a separate form for each outfall)**

Outfall Designation: \_\_\_\_\_ Date/Time Collected: \_\_\_\_\_

Outfall Location(s) (lat/lon or map link): \_\_\_\_\_

Person Collecting Sample: \_\_\_\_\_

Storm Magnitude (inches): \_\_\_\_\_ Storm Duration (hours): \_\_\_\_\_

Size of Disturbed Area at any time: \_\_\_\_\_

**MONITORING RESULTS**

Sample #	Parameter	Method	Results (units)	Laboratory (if applicable)
1	Turbidity			
2	Turbidity			
3	Turbidity			
4	Turbidity			

(provide an attachment if more than 4 samples were taken for this outfall)

Avg = \_\_\_\_\_

**STATEMENT OF ACKNOWLEDGMENT**

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please send completed form to:

DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION  
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE  
79 ELM STREET  
HARTFORD, CT 06106-5127  
ATTN: NEAL WILLIAMS

**State Project Nos. 152-149  
Replacement of Bridge No. 01904  
U.S. Route 1 over Jordan Brook**

**Stormwater Pollution Control Plan**

**Appendix E  
Notice of Termination Form**

**Bridge No. 01904  
Waterford, Connecticut**



# General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

## Notice of Termination Form

Please complete and submit this form in accordance with the general permit (DEP-PED-GP-015) in order to ensure the proper handling of your termination. Print or type unless otherwise noted.

Note: Ensure that for commercial and industrial facilities, registrations under the *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (DEP-PED-GP-014) or the *General Permit for the Discharge of Stormwater from Commercial Activities* (DEP-PED-GP-004) have been filed where applicable. For questions about the applicability of these general permits, please call the Department at 860-424-3018.

### Part I: Registrant Information

1. Permit number: <b>GSN</b>			
2. Fill in the name of the registrant(s) as indicated on the registration certificate: Registrant: <b>Kenneth E. Fagnoli, Connecticut DOT, District 2 Engineer</b>			
3. Site Address: <b>171 Salem Turnpike</b>			
City/Town: <b>Norwich</b>	State: <b>CT</b>	Zip Code: <b>06360</b>	
4. Date all storm drainage structures were cleaned of construction sediment: Date of Completion of Construction: Date of Last Inspection (must be at least three months after final stabilization pursuant to Section 6(b)(6)(D) of the general permit):			
5. Check the post-construction activities at the site (check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Capped Landfill
<input checked="" type="checkbox"/> Other (describe): <b>Transportation</b>			

### Part II: Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."	
_____ Signature of Permittee	_____ Date
_____ Name of Permittee (print or type)	_____ Title (if applicable)

Note: Please submit this Notice of Termination Form to:  
STORMWATER PERMIT COORDINATOR  
BUREAU OF WATER MANAGEMENT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
79 ELM STREET  
HARTFORD, CT 06106-5127