



EasyGrantsID: 92486

National Fish and Wildlife Foundation – Long Island Sound Futures Fund 2026, Full Proposal

Title: Oxoboxo River: Preservation and Restoration Plan

Organization: Town of Montville

Grant Information

Title of Project

Oxoboxo River: Preservation and Restoration Plan

Total Amount Requested	\$ 100,374.06
Matching Contributions Proposed	\$33,458.02
Proposed Grant Period	10/05/ 2026 - 07/02/ 2027

Project Description

The Town of Montville and The Mohegan Tribe are partnering to establish the Oxoboxo River as a restored recreational and ecological spine, linking its headwaters to the brackish waters of Horton Cove and Thames River estuary through an assessment of water quality, recreational amenities and habitat restoration. We will work to develop strategies to address this impaired Class B watercourse. This initiative will create a master plan identifying priority restoration areas, addressing point source pollution and culminating with a new restored riparian park at the former Picker's Pond dam site, which integrating habitat restoration, nature-based resilience, and Mohegan cultural narratives into a future Heritage Multi-Use Trail. The CT DEEP 2012 Oxoboxo Brook Watershed Summary will be the initial guide to frame final work plans (provided in the upload section).

Project Abstract

The Town of Montville with the Mohegan Tribe, proposes a Plan for the Oxoboxo River, a 6,768-acre watershed serving the Thames River identified as an impaired Class B watercourse. The Oxoboxo is a planned recreational spine, connecting headwaters at Oxoboxo Lake to the Thames River. Historically impacted by centuries of industrialization, and still home to industrial uses such including outdoor scrap recycling and Rand Whitney container board, the corridor is becoming a focal point for Montville's Town Center revitalization. This initiative will establish a critical water quality baseline while developing targeted strategies to enhance and mitigate identified point-source pollutants.

Restoration of the Picker's Pond, where recent dam removal requires a habitat restoration and stabilization. The scope includes wetland delineation, topographic surveying, services from landscape architects and engineers, and habitat quality observations along the River corridor. These findings will inform a Master Plan for a new riparian park, transforming the former impoundment into a focal point for the Oxoboxo Heritage Multi-Use Trail. By integrating Mohegan cultural narratives and educational trail signage, the project fosters community stewardship and nature-based resilience. This planning effort is a necessary precursor to large-scale implementation, ensuring future capital improvements provide measurable nitrogen reduction and habitat connectivity for the Long Island Sound watershed.

Organization and Primary Contact Information

Organization	Town of Montville
Organization Type	State or Local Government
City, State, Country	,,

Region (if international)

Primary Contact	Dennis Goderre
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Position/Title

Phone and E-mail

x ; dgoderre@montville-ct.org

Additional Contacts

Role	Name



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Project Location Information

Project Location Description	Oxoboxo River from tributary with Thames River to Oxoboxo Lake. Restoration location at Piker's Pond, intersection of RTs 163 and 32, site of former dam.
Project Country(ies)	North America - United States
Project State(s)	Connecticut
Project Congressional District(s)	District 2 (CT)

Permits and Approvals

Permits/Approvals Description:

Permits/Approvals Status:

Permits/Approvals Agency-Contact Person:

Permits/Approvals Submittal-Approval Date:



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Activities and Outcomes

Funding Strategy: Habitat Restoration

Metric: LISFF - Fish passage improvements - # of barriers assessed and/or with design plans

Required: Recommended

Description: Enter the # of in-stream barriers with assessments or engineering/design plans completed in this grant. In the notes, provide the barrier's SARP ID (aquaticbarriers.org). If the barrier(s) is not in SARP, provide its lat/long or its name and source.

Starting Value 0.00 # of barriers assessed and/or with design plans

Target value 12.00 # of barriers assessed and/or with design plans

Note: There are 12 dams (exclusive of dams on tributaries of the Oxoboxo) along the 7 miles of the Oxoboxo River. 9 are documented in aquaticbarriers.org. The intent is to document each photographically, determine those which would be appropriate for removal and prioritize removal based upon impacts to recreation, habitat and aesthetics.

GAY CEMETERY POND DAM

LONGITUDE: -72.101608

LATITUDE: 41.438675

CONGDON POND DAM

LONGITUDE: -72.120906

LATITUDE: 41.444077

BRODIE POND DAM

LONGITUDE: -72.130138

LATITUDE: 41.448772

RED MILL POND DAM

LONGITUDE: -72.131443

LATITUDE: 41.450161

ROCKLAND POND DAM

LONGITUDE: -72.138258

LATITUDE: 41.453610

WHEELER POND DAM

LONGITUDE: -72.142289

LATITUDE: 41.457112

OAKDALE POND DAM

LONGITUDE: -72.159839

LATITUDE: 41.470135

WEDGE POND DAM



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LONGITUDE: -72.163245

LATITUDE: 41.471990

SCHOFIELD POND DAM

LONGITUDE: -72.166462

LATITUDE: 41.474076

PARISH POND DAM

LONGITUDE: -72.182928

LATITUDE: 41.478930

DVOREK DAM

LONGITUDE: -72.187145

LATITUDE: 41.481460

OXOBOXO LAKE DAM

LONGITUDE: -72.193208

LATITUDE: 41.484653

Funding Strategy: Planning, Research, Monitoring

Metric: LISFF - Management or Governance Planning - # plans developed

Required: Recommended

Description: Enter the number of plans developed that had input from multiple stakeholders. In NOTES section: describe the type of plan, campaign or strategy e.g., watershed, feasibility/suitability/alternatives analyses, conceptual or engineered plan.

Starting Value 0.00 # plans developed

Target value 7.00 # plans developed

- Note: 1. Identify top 6 priority point source pollutants and strategy to address, inc. cost if possible. technical implementation method shall be outlined.
2. Develop Picker's Pond habitat restoration plan and cost for inclusion in capital planning and future funding. This includes conceptual plans for all restoration and public park/access areas.
3. Outline a story board for se along the planned Oxoboxo Heritage Trail conveying the ecological and cultural story of the Oxoboxo and Thames River.
4. Integrate and share the story of The Mohegan Tribe's cultural presence and the significance of the Oxoboxo and Thames River to the Tribe.
5. Strategies to be included in the new Plan of Development to reinforce policy needs noted in Metric: Outreach / Technical Assistance. POCD will be underway in July 2026, and recommendations from the LISFF effort will be included.
6. Create a webpage with the town of Montville website dedicated to building awareness of the Oxoboxo as a ecological and culturally significant waterway. Includes methods of water quality protection.
7. Identify and photo document each of the 14 dams and prioritize removal as may be appropriate.



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Funding Strategy: Capacity, Outreach, Incentives

Metric: LISFF - Outreach/ Technical Assistance - # workshops, webinars, meetings

Required: Recommended

Description: Enter the # of workshops, webinars, meetings held. In NOTES section: provide a short description of the type/content of event.

Starting Value	0.00 # workshops, webinars, meetings
Target value	4.00 # workshops, webinars, meetings

Note: Conduct three public outreach workshops to build awareness to community and leadership:

1. One roundtable discussion with property owners and leadership to understand the use of the corridor and impacts activities have on water quality and public access/enjoyment.
2. Public open house communicating initial findings, needs and assets of the Oxoboxo.
3. Presentation to community leadership (town council/boards/commissions) to communicate findings and recommended policy changes.
4. Open presentation to general public whom are interested in learning about the project, impacts and possible involvement.



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I. PERSONNEL									\$11,458.02
Staff Name	Position	Annual Salary	Project Hours	Hourly Rate	LOE (%)	Project Salary	% Fringe	\$ Fringe	Total Personnel
Dennis Goderre	Director of Land Use and Development	\$118,725.00	60.00	\$57.08	3	\$3,424.76	55.20	\$1,890.47	\$5,315.23
Meredith Badalucca	Assistant Planner	\$86,375.00	42.00	\$41.53	2	\$1,744.11	29.56	\$515.56	\$2,259.67
Stacy Radford	ZEO/IWW Officer	\$71,805.00	40.00	\$34.52	2	\$1,380.87	25.03	\$345.63	\$1,726.50
Katherine Rose	Administrative Assistant	\$61,010.00	50.00	\$29.33	2	\$1,466.59	47.05	\$690.03	\$2,156.62
Totals						\$8,016.33		\$3,441.69	\$11,458.02

II. TRAVEL	\$1,360.00
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Domestic Airfare – Per Flight

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			\$0.00

International Airfare – Per Flight

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			\$0.00



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Train – Per Ticket

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			\$0.00

Rental Car – Per Day

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost
SubTotal				\$0.00

Taxis – Per Trip

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			\$0.00

Mileage – Per Mile

Purpose/Destination	Unit Cost	Quantity	Total Cost
Travel by Consultant (Assumed)	\$0.72	500	\$360.00
SubTotal			\$360.00

Gasoline – Per Gallon

Purpose/Destination	Unit Cost	Quantity	Total Cost



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SubTotal **\$0.00**

Per Diem (M&IE) – Per Day

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **\$0.00**

Lodging – Per Night

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **\$0.00**

Meals (no M&IE) – Per Meal

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost
Outreach Event Food/Drinks	2	\$500.00	1	\$1,000.00

SubTotal **\$1,000.00**

III. EQUIPMENT **\$0.00**

Item Name	Description	Unit Cost	Quantity	Total Cost

IV. MATERIALS & SUPPLIES **\$1,000.00**

Type	Purpose	Unit of Measure	Unit Cost	Quantity	Total Cost
Printing	Outreach Materials	Lump sum	\$1,000.00	1	\$1,000.00



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V. CONTRACTUAL SERVICES

\$86,556.04

Subcontract/Contract – Per Agreement

Contractor Name	Description	Total Cost
TBD - Lab Testing @\$500 each	Water quality testing	\$6,000.00
TBD	- Planning Services	\$78,056.04
Town Attorney	Picker's Pond Easement	\$2,000.00
Online Survey Tool		\$500.00

SubTotal

\$86,556.04

Subgrant – Per Agreement

Subrecipient	Description	Total Cost

SubTotal

\$0.00

VI. OTHER DIRECT COSTS

\$0.00

Type	Purpose	Unit of Measure	Unit Cost	Quantity	Total Cost

VII. TOTAL DIRECT COSTS

\$100,374.06

VIII. INDIRECT COSTS

\$0.00

Explanation of Modified Total Direct Cost Base(MTDC)	Rate Type	NICRA Expiration	\$MTDC	Rate(%)	Total Cost



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IX. TOTAL PROJECT COSTS

\$100,374.06



Title: Oxoboxo River: Preservation and Restoration Plan
Organization: Town of Montville

Budget Narrative

Budget Narrative:

1. Personnel

Personnel -

2. Travel

Domestic Airfare - Per Flight -

International Airfare - Per Flight -

Train - Per Ticket -

Rental Car - Per Day -

Taxis - Per Trip -

Mileage - Per Mile -

Gasoline - Per Gallon -

Per Diem (M&IE) - Per Day -

Lodging - Per Night -

Meals (No M&IE) - Per Meal -

3. Equipment



Title: Oxoboxo River: Preservation and Restoration Plan
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Equipment -

4. Materials and Supplies

Materials and Supplies -

5. Contractual Services

Subcontract/Contract - Per
Agreement -

Subgrant - Per Agreement -

6. Other Direct Costs

Other Direct Costs -

7. Indirect Costs

Indirect Costs -



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Matching Contributions

Matching Contribution Amount:	\$7,500.00
Type:	Cash
Status:	Pledged
Source:	The Mohegan Tribe
Source Type:	Non-Federal
Description:	Tribal cash contribution

Matching Contribution Amount:	\$7,500.00
Type:	Cash
Status:	Received
Source:	Town of Montville
Source Type:	Non-Federal
Description:	Land Use Department Budget

Matching Contribution Amount:	\$11,458.02
Type:	In-kind
Status:	Received
Source:	Town of Montville
Source Type:	Non-Federal
Description:	Staff management, planning and outreach time

Matching Contribution Amount:	\$5,000.00
Type:	Cash
Status:	Received
Source:	Town of Montville
Source Type:	Non-Federal
Description:	Set aside for zoning evaluation and Plan of development watershed review/protection. review LID and threats to Oxoboxo watershed. Draft recommended revisions



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Organization: Town of Montville

Matching Contribution Amount:	\$2,000.00
Type:	Cash
Status:	Received
Source:	Town of Montville
Source Type:	Non-Federal
Description:	Legal Services to draft easement agreement for Picker's Pond improvements

Total Amount of Matching Contributions:	\$33,458.02
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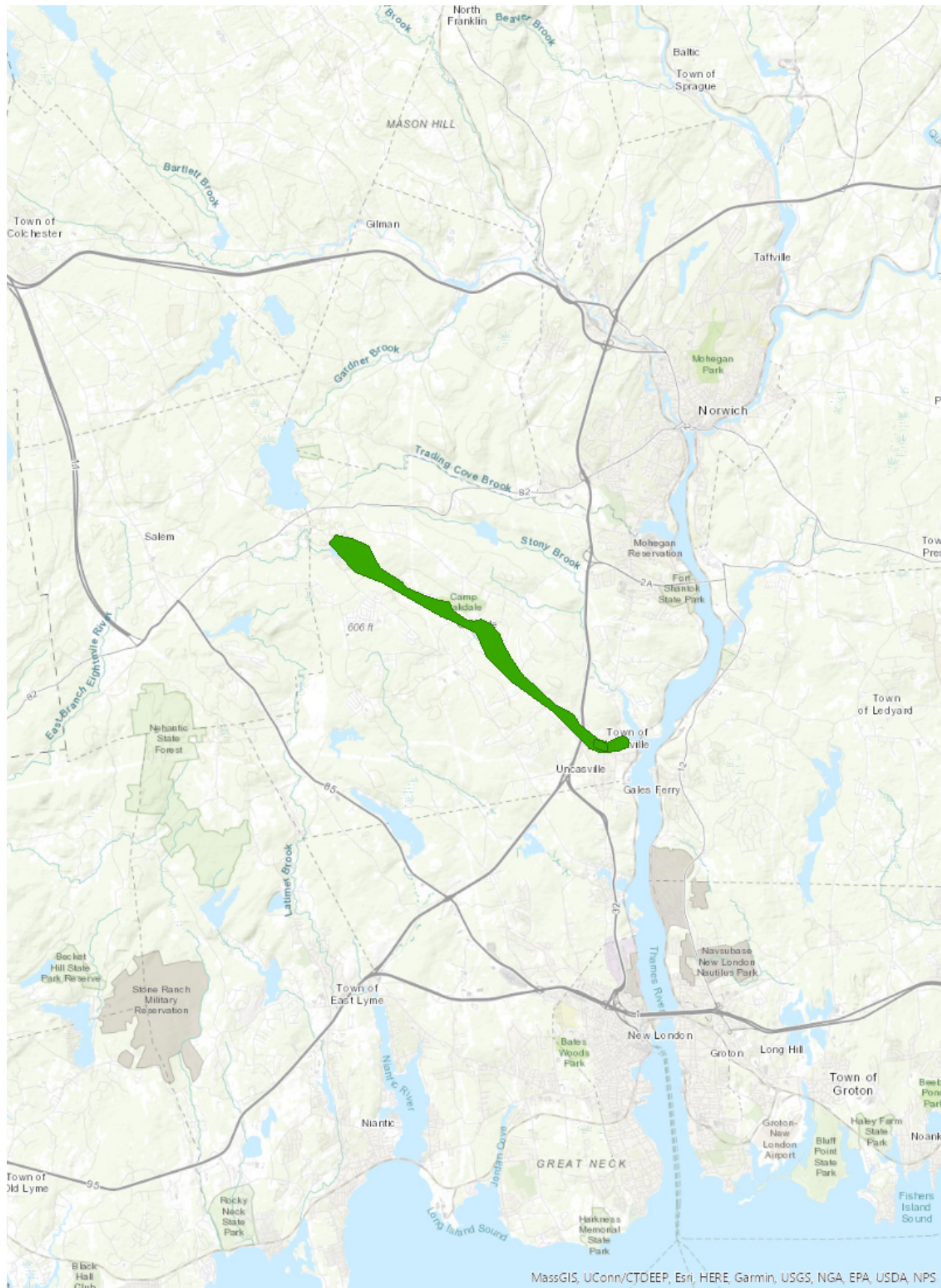
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The following pages contain the uploaded documents, in the order shown below, as provided by the applicant:

Upload Type	File Name	Uploaded By	Uploaded Date
LISFF Full Proposal Narrative 2026	LISFF Montville Narrative 05-2026.docx	Goderre, Dennis	05/18/2026
LISFF Data Collection Info Form 2026	LISFF Montville Data Collection 05-2026.docx	Goderre, Dennis	05/13/2026
Letters of Support	LISFF Mohegan Tribe Support.pdf	Goderre, Dennis	05/13/2026
Letters of Support	Montville TNC LOS 05152026.pdf	Goderre, Dennis	05/18/2026
Letters of Support	LISFF_Courtney_Letter_PlaceHold.docx	Goderre, Dennis	05/18/2026
Letters of Support	Oxoboxo LISFF_Joint_Letter of Support.pdf	Goderre, Dennis	05/12/2026
Letters of Support	LISFF Mayor Bunnell Support Letter 05-2026.pdf	Goderre, Dennis	05/13/2026
Letters of Support	LISFF Pickers Pond.pdf	Goderre, Dennis	05/11/2026
Conceptual Plans	Attachment C - Plan Route LR.pdf	Goderre, Dennis	05/08/2026
Conceptual Plans	Attachment C - Route Photos LR.pdf	Goderre, Dennis	05/08/2026
Conceptual Plans	TownCenter Plan with Pickers Pond.pdf	Goderre, Dennis	05/08/2026
Engineered Plans	Picker Pond Dam Removal Plans 10-27-2017LR.pdf	Goderre, Dennis	05/07/2026
Statement of Litigation	Statement+of+Litigation.doc	Goderre, Dennis	05/07/2026
Board of Trustees, Directors, or equivalent	Leadership.docx	Goderre, Dennis	05/11/2026
Applicant Controls Questionnaire	LISFF Montville Controls Questionnaire 05-2026.pdf	Goderre, Dennis	05/13/2026
Other Documents	Images of the Oxoboxo River corridor.pdf	Goderre, Dennis	05/12/2026



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Other Documents	Pickers Pond Aerial.pdf	Goderre, Dennis	05/11/2026
Other Documents	DEEP Watershed 2012.pdf	Goderre, Dennis	05/11/2026

The following uploads do not have the same headers and footers as the previous sections of this document in order to preserve the integrity of the actual files uploaded.

MONTVILLE Connecticut: Long Island Sound Futures Fund 2026 Proposal Narrative

1. CCMP Project Goal: Check **one** “Goal” from [the Long Island Sound Comprehensive Conservation and Management Plan for Long Island Sound](#) (CCMP) which describes the primary outcome of the proposed project:

- ☒ Clean Waters and Healthy Watersheds
- ☐ Thriving Habitats and Abundant Wildlife
- ☐ Sustainable and Resilient Communities
- ☐ Informed and Engaged Public

2. CCMP Project Type: Check **one** category that describes the primary project activities.

A. For planning:

- | | |
|--|--|
| ☐ EPA 9 Element watershed plan | ☒ Site Assessment and Conceptual Design |
| ☐ Community Engagement, Planning and Priority setting | ☐ Final Design and Permits |
| ☐ Feasibility, Suitability or Alternatives Analysis | ☐ Partnership to scale up water quality or habitat restoration project implementation |

3. Data Collection: ☒ Check if your project proposes to collect data¹ and is using this data for environmental decision making. **NOTE: if checking this section, YOU MUST complete the QAPP Data Collection Information Form and add to the Uploads section of your Easygrants online proposal.**

Provided under Data Collection Information Form.

4. Problem/Solution: Describe the following:

A. Specific problem(s) addressed by the project

RESPONSE: The current state of the Oxoboxo River is a corridor in transition that lacks a roadmap. While the 2020 removal of the Picker’s Pond dam was a milestone for fish passage and flooding, it inadvertently created a "successional void"—a landscape that was never formally restored or managed. Today, this unmanaged area is being rapidly colonized by invasive species and scarred by unchecked bank erosion, a combination that threatens to undo the ecological gains of the original dam removal. However, as a highly visible location, this presents a unique restoration opportunity to build public awareness and create a centerpiece of ecological and cultural awareness. We are partnered with the Mohegan Tribe to address this problem and will utilize the final product for incorporation into our next

¹ Examples of data collection or use that require a Quality Assurance Project Plan (QAPP): new data collection, existing data use, data collection associated with development or design of plans, sample results, observations, measurements, surveys and survey results (people and environmental media), mapping environmental processes or conditions, water or other environmental media monitoring, secondary data, model development or use. If you are not sure if the project requires a QAPP contact Carrie.Clingan@nfwf.org and provide a short description (one to two paragraphs about the project methods).

Plan of Conservation and Development, which is being updated after more than 10-years from its last comprehensive update. The new POCD planning commences July 1, 2026.

This instability is not isolated to this one dam site; stormwater runoff and a legacy of historical channelization have left the river's banks vulnerable throughout the corridor. Without a professional engineering and ecological plan to stabilize these failing reaches, ongoing erosion continues to dump significant sediment loads into the Thames River, smothering downstream habitats and degrading the water quality of Horton Cove.

Layered over these physical challenges is the river chemistry. The corridor remains a hub for both historic industrial sites and active operations, ranging from scrap recycling to containerboard manufacturing. However, the Town currently lacks a scientific baseline to identify or quantify the heavy metals, hydrocarbons, and nutrients originating from these point sources. We seek to overcome this.

This technical deficit is occurring at a critical crossroads for Montville. As the Town embarks on a comprehensive overhaul of its Zoning Regulations and Plan of Conservation and Development (POCD), there is a temporary "planning window" to codify protection. Without the data-driven framework provided by this assessment, the Town risks missing its best opportunity to implement nature-based infrastructure and transform the Oxoboxo from an industrial backlot into a protected, resilient "recreational spine."

B. How the project will help address/solve the problem

RESPONSE: There are five main problems we seek to address:

1. **Restoration & Stabilization Design:** This project will develop a Master Plan for the Picker's Pond site that replaces successional, invasive growth with engineered riparian buffers. The plan will utilize nature-based solutions to stabilize eroded banks, ensuring the river remains resilient during peak flow events.
2. **Point Source Identification & Strategy:** By establishing 12 testing locations and building upon prior town and State testing assessments from the headwaters of Oxoboxo Lake to the Thames, the Town will pinpoint specific pollutant contributors. This allows for the creation of targeted mitigation strategies to treat runoff at the source before it enters the main stem.
3. **Data-Driven Regulatory Update:** Technical findings from wetland delineations, topographic surveys, and habitat observations will be directly embedded into the new Zoning Regulations and POCD. This ensures that requirements for erosion control, point-source mitigation, and riparian protection are codified during this critical planning window. Utilize the 2012 CT DEEP Oxoboxo Brook Watershed Summary as a starting point to base decisions/direction.
4. **Capital Improvement Framework:** By developing professional cost estimates and a management plan, the project moves the "recreational spine" from a concept to a shovel-ready capital plan, providing a clear path for future infrastructure investment.

5. **Informing the public and business:** this effort will also work to inform and educate the public on how their actions impact the Oxoboxo, offering ways to improve decision making and create pathways to implement measures of water treatment for major pollution contributor.
- C. Why the problem and solution are relevant to protection and restoration of the health and/or living resources of the Sound. For projects in non-coastal CT or the upper basin watershed states (MA, NH, VT) describe the direct benefit of the project to the Sound in terms of reducing downstream nitrogen/nutrient pollution loading

RESPONSE: The Oxoboxo River is a direct conveyor of nutrients and pollutants to the Thames River and the Long Island Sound. The solution of identifying and mitigating point-source pollutants at the headwaters and throughout the Town Center directly reduces the nitrogen and heavy metal loading that causes hypoxia and habitat degradation in the Sound. Furthermore, stabilizing erosion at the Picker's Pond site acts as a localized "sediment trap," preventing siltation that smothers downstream living resources. By aligning local land-use regulations with watershed health, this project provides a scalable model for reducing downstream nutrient loading and protecting the Sound's coastal ecosystem.

5. Implementation Actions: Review the [Long Island Sound Partnership CCMP Actions](#) and [CCMP Appendix B: Objective and Action Technical Explanations](#). **NOTE:** You must identify the IA action associated with your project metrics entered in Easygrants for your proposal. Please select *no more than three IAs*.

Table: CCMP Actions

CCMP Action #	CCMP Action Title
CWHW 1-3	Collaborate with stakeholders and partners to develop plans, tools, and strategies that support nutrient reduction actions to improve overall ecosystem management
CWHW 4-1	Identify existing and emerging contaminants of concern and support mitigation efforts as warranted
CWHW 2-2	Implement nature-based solutions and other practices that improve and maintain water quality and ecosystem health

6. Workplan: Provide a work plan, including a: description of *each* major activity to be undertaken by the project and the method used to carry out that activity, timetable indicating when activities and accomplishments and a description of strategy and resources for long-term maintenance/monitoring.

RESPONSE: The focus of this effort is the main stem of the Oxoboxo River. Tributaries may be evaluated based upon consultation with the selected consultant.

This project is anticipated to be no longer than 9 months.

1. Historic Data Consolidation and Community Survey. Consolidate and organize historic MS4 and CT DEEP Stormwater Permit testing locations and results. This will establish a baseline of legacy data

for the corridor. The Oxoboxo Brook Watershed Summary by CT DEEP (2012) will be the basis of finalizing this workplan.

Conduct an online survey of the public specific to the Oxoboxo watershed, creating a baseline on general community awareness, interest and priority of water resource protection and enhancement.

2. Regulatory Literature Review. Review prior DEP documentation and report/recommendations (see Oxoboxo Brook Watershed Summary by CT DEEP 2012). This ensures the current assessment aligns with historical findings and state-level objectives.

3. Corridor Base Mapping. Develop base mapping using town GIS for the ~7 mile main stem corridor. This will serve as the foundational spatial layer for all subsequent environmental and land-use analysis.

4. Picker's Pond Base Mapping. Incorporate picker's pond Base mapping using prior dam survey work/as built.

5. Wetland Delineation. Perform professional wetland delineation at pickers pond. This establishes the strict jurisdictional boundaries required for any future nature-based engineering.

6. Field Survey and As-Built Documentation. Conduct a field Survey of wetland delineation and as built conditions of past dam removal as exists currently.

7. Stakeholder Outreach Integration. Engage CT DEEP, local organizations, residents and landowners and stakeholders through the outreach program outlined herein. This engagement plan will be integrated throughout the work plan at key milestones to obtain maximum input and impact.

8. Dam Inventory and Connectivity Assessment. Photo document all dams, if access can be obtained. Conduct a high level visual inspection to assess appropriateness of dam removal and set priorities. Evaluate fish ladder opportunities when dam's are not appropriate for removal. Set criteria for evaluation such as historic value, aesthetics, recreation, high impact on enhancement to aquatic ecosystem and fish passage. Consider fish ladder candidates and utilize CT DEEP priority for such as down stream most dams as priority (at Horton Cove). Obtain dam safety reports from CT DEEP, document pertinent findings.

9. Zoning and Regulatory Review. Review zoning and outline recommendations to enhance water quality improvements that can be made to help achieve enhanced water quality and quantity. Such as LID, impervious coverage, etc.

10. General Water Quality Testing. Conduct water quality testing at 12 sites along the Oxoboxo, and test for bacteria, nitrogen, heavy metals, dissolved oxygen. Sites shall supplement data gaps from prior test, or may include retesting.



11. DEEP Stream Assessment. Assess the river based upon DEEP stream assessment criteria. This assessment will likely be a baseline or outline to use to move forward and base priority.

12. Prioritized Protection Plan. Prepare plan moving forward prioritize the rivers protection, starting with high impact, mid to low. This may include such items as dam removal, addressing point source discharges, policy amendments, land owner improvements.

13. Picker's Pond Master Plan and Phasing. Prepare master plan for pickers pond for riparian habitat restoration and public access with educational components. Integrate Oxoboxo Heritage Multi use trails and trailhead into the design. Integrate the bridge design using the existing remains of the dam impoundment and headwalls, integrate riparian buffer and flood area restoration, and create a concept plan which ids plant materials and purpose. Depict stream restoration if necessary to ensure aquatic habitat is supported. This includes review of prior work completed under the dam remove. Develop a phasing plan for this work into 2-3 phases with associate cost estimates.

14. Cultural and Ecological Storyboarding. Create a plan of cultural and ecological education for Picker's pond and identify 4-6 locations along the Oxoboxo river corridor to tell the 'story' of the corridor's significance. This includes an initial storyboard connecting the geology, ecology, native American heritage, settlement to modern day impacts and restoration.

15. Report Drafting and Review. Prepare a draft and final report incorporating comments from key stakeholders and staff's review.

16. Final Public Presentation. Present to Town Council and Planning and Zoning Commission at a joint public meeting.

Month	Activity
1-2	1. Historic Data Consolidation
1	2. Regulatory Literature Review
1-2	3. Corridor Base Mapping
1-2	4. Picker's Pond Base Mapping
1-2	5. Wetland Delineation
1-2	6. Field Survey and As-Built Documentation
3	7. Stakeholder Outreach Integration
2-3	8. Dam Inventory and Connectivity Assessment

Month	Activity
2-3	9. Zoning and Regulatory Review
2-3	10. General Water Quality Testing
3-4	11. DEEP Stream Assessment
4-6	12. Prioritized Protection Plan
4-7	13. Picker's Pond Master Plan and Phasing
4-7	14. Cultural and Ecological Storyboarding
7-8	15. Report Drafting and Review
9	16. Final Public Presentation

Long-Term Maintenance and Monitoring Strategy

Strategy: The project is designed to transition from a Planning Phase to an Implementation Phase within the Town's Capital Improvement Program (CIP). By embedding the findings into the Town's Zoning Regulations and POCD, the project ensures that future private and public developments along the corridor are legally required to maintain the river's health.

Resources:

- **Town Staffing:** The Department of Land Use and Development will oversee the enforcement of new zoning standards. Public Works will assume maintenance of the Picker's Pond park area.
 - **Partnerships:** The Mohegan Tribe will remain a long-term partner for cultural programming and stewardship.
 - **Digital Monitoring:** The watershed webpage will serve as a repository for future testing data, allowing the Town to track water quality improvements as point-source mitigation strategies are implemented.
 - **Capital Planning:** The professional cost estimates generated by this grant will be used to secure Round 10 CIF funding or other implementation-focused grants for the physical construction of the park and trail.
2. **Engagement:** Describe the outreach and community engagement activities and how the community has been or will be engaged in project development and implementation, including how those activities will be monitored and measured.

RESPONSE: 1. Early Agency Coordination Engage CT DEEP early. This ensures that all proposed testing protocols, stream assessments, and dam evaluations align directly with state standards and future funding requirements from the outset.

2. Online survey. Prepare and conduct during the first 2 months of the project, an online survey which helps to establish a baseline of knowledge, awareness, interest and support for water resource protection of the Oxoboxo River.

3. Commercial and Industrial Business Roundtable. Conduct and facilitate a round table discussion with businesses to understand their needs and explain possible impacts. This proactive dialogue will help align the river restoration goals with the operational realities of the commercial sites along the corridor.

4. Town Hall Open House and Continuous Exhibit. Conduct a 8 hour (10AM – 6pm) open house led by town staff in town hall; maintain an exhibit in town hall at prominent location for public viewing during final 3 months of project tasks and 3 months following. This provides flexible, extended access for residents to view the base mapping, historical data, and conceptual designs at their own pace.

5. Phased Public Roundtables and Presentations. Engage public in a round table discussion and presentation during initial stages of plan and after baseline research conducted. This two-part approach ensures the community has a voice in shaping the vision before plans are drawn, and allows them to review the science once the data is collected.

6. Town Council Presentation. Present final report and recommendations to town council. This ensures the elected body is fully briefed on the assessment findings, priority matrices, and capital phasing required for implementation.

7. POCD Committee Integration. Present final recommendations to POCD committee, incorporate into POCD. This critical step codifies the "recreational spine" and water quality recommendations into Montville's official 10-year planning document.

8. Dedicated Digital Education and Communication Portal. Staff to prepare a webpage(s) to educate and communicate progress and final recommendations. Web page shall be per Kent part of land use department. This will serve as the central, transparent hub for the public to access testing data, project milestones, and the final master plan.

- 3. Qualifications.** Describe the organizational qualifications and capacity, staff, and/or consultants. Where consultants are proposed but not yet selected, describe the experience and qualifications sought and the responsibility(ies) of the project team in project delivery.

RESPONSE: Consultant Team Selection: The Town of Montville will publicly bid the majority of these services through an RFP process to select the most qualified team, then negotiate the final scope and fee based upon this work plan provided above and their expertise. The team will consist of a

multidiscipline group of professionals, either one firm or multiple firms under one lead team member, with expertise in natural resources, ecology, landscape architecture, engineering, and stormwater management.

Town staff will support this team include:

Dennis Goderre, Director of Land Use and Development: Dennis has over thirty years' experience in land development, planning, permitting and strategic implementations. Dennis will manage the team, conduct design services and public outreach, zoning regulation drafting and public communications as in-kind services. Dennis is a AICP planner and CT licensed landscape architect.

CLA Engineer is the Town's on-call engineer. CLA will provide technical assistance as needed regarding MS4 requirements and status, wetland reviews and past practices. Their insight on improvements, issues, point source and opportunities within the Oxoboxo corridor will be valuable.

The Mohegan Tribe. The Mohegan Tribe are a community partner with the Town of Montville. We collaborate closely on important local and governmental social and policy matters. Their heritage is vital to Montville and the region. While bringing financial support to this project, their historical resources team and commitment to ecological preservation will be a welcome team member.

Meredith Badalucca, Assist Planner: Meredith is a lifelong resident of Montville, who joined the Land Use & Development Department in January 2021 as our administrative assistant. She attended CAZEO Land Use Academy in early 2022 and went on to become the Zoning & Wetlands Enforcement Officer in June 2022. She received her Certified Zoning Enforcement Officer certification in December 2023. Both of these positions, as well as, her institutional knowledge of the town as a resident, have been valuable in her role as Assistant Planner in the last three years. As the Assistant Planner, she reviews all site plan, special permit and subdivision applications for compliance with our regulations and she assists the Director of Planning with Text Amendments, Zone Changes, POCD and Housing Plan updates.

8. Prior LISFF Grant(s). If you have received a prior grant under LISFF in the period 2021-2023 provide a one-paragraph summary of progress associated with that grant relative to proposed activities and outcomes.

RESPONSE

The Town has not received such funding.



NFWF

Town of Montville: Data Collection form

Provide a short, bulleted list or narrative concerning:

- What is the project proposed to accomplish?

The project will create a data-driven framework and Master Plan to address the "successional void" left by the 2020 Picker's Pond dam removal, stabilize eroding banks, and mitigate point-source pollution. It will provide the technical justification needed to codify water resource protections (such as Low Impact Development and impervious coverage limits) directly into Montville's updated Zoning Regulations and Plan of Conservation and Development (POCD). Ultimately, it transforms the Oxoboxo River into a protected, resilient "recreational spine" with actionable, shovel-ready capital improvement phases.

- Methods/surveys/data collection activity(ies) to be conducted to achieve the project objectives? For example: field sampling or assessments, survey type(s), visual assessment, density estimates, photographic documentation, secondary data (ex. literature review), GIS analysis, public opinion/stakeholder assessment, public workshops, expert interviews, modeling assessment etc.

Water Quality Sampling: Testing at 12 targeted locations along the main stem for bacteria, dissolved oxygen, nitrogen and heavy metals.

Biological/Physical Assessment: Preliminary stream assessments using CT DEEP criteria as guideline.

Engineering Field Work/delineation: Professional wetland delineation and topographic/as-built field surveys at the Picker's Pond site. Provide summary memo regarding functions and values.

Visual Assessment: Photographic and visual inventory of 12 existing dams to evaluate conditions, fish passage opportunities, removal viability and general corridor aesthetics.

Secondary Data Analysis: Consolidation of historic MS4 testing data and previous CT DEEP reports.

Public Opinion Survey: An online survey to establish a baseline of community awareness and priorities regarding the watershed.

- What data will be collected and/or measured, informed, assessed and/or interpreted?

Chemistry: Concentrations of bacteria, nitrogen, heavy metals, and dissolved oxygen.

Ecological: CT DEEP stream assessment parameters, wetland boundaries, and riparian habitat conditions.

Historic: Identify likely and known historic resources.

Scenic: Assess corridor for scenic/ aesthetic qualities.

Physical: Topographic contours, dam structural conditions, and areas of high-velocity bank erosion via GIS.

Social: Baseline community knowledge and stakeholder input from public roundtables and online surveys.

- Who will use and/or how will the data be used *e.g.*, local government, public education/outreach, management decision-making etc.

Local Government: The Town of Montville will use the data to update municipal Zoning Regulations and the POCD, and to prioritize Capital Improvement Program (CIP) funding for shovel-ready restoration phases.

Public Education: The data will populate a dedicated municipal watershed webpage and inform cultural/ecological storyboarding along the Heritage Multi-Use Trail. Incorporate MS4 requirements. Management & Business: The Town will share findings with commercial/industrial landowners during dedicated roundtables to collaboratively address point-source discharges.

- Geographic scope of the project?

The approximately 7-mile main stem corridor of the Oxoboxo River located entirely within Montville, CT. The assessment spans from the headwaters near Oxoboxo Lake down to the discharge point at the Horton Cove estuary.

- Date proposed to begin data collection, assessment or measurement?

Secondary data collection (historic MS4 records), public surveys, and wetland delineation will begin in Month 1 of the project. Active in-stream water quality testing and DEEP stream assessments will commence in Months 2 and 3.

- Who will develop the QAPP *e.g.*, applicant organization a consultant, etc.?
 - ☐ Applicant organization
 - ☐ Partner
 - ☒ External consultant
 - ☐ Other explain:



**Mohegan
Tribe**
MUNDU WIGO

May 13, 2026

National Fish and Wildlife Foundation
1133 15th Street NW, Suite 1000
Washington, DC 20005

RE: Support for the Town of Montville's 2026 LISFF Application – Oxoboxo River Assessment

To the LISFF Review Committee,

The Mohegan Tribe is pleased to partner with the Town of Montville and offer our fiscal and staffing support associated with the application to the 2026 Long Island Sound Futures Fund (LISFF). As a committed partner in this endeavor, the Tribe is providing a monetary match to ensure the success of the Oxoboxo River Assessment and Restoration Plan, an initiative that honors the ecological and cultural significance of this vital waterway.

The Oxoboxo River is more than an ecological artery; it is a landscape deeply woven into the heritage of the Tribe and the history of this region. For generations, these waters have sustained the land, and though the industrial era left its mark upon the corridor, our shared commitment to stewardship has begun to turn the tide. This proposal represents a critical step in that journey, providing the technical framework needed to establish water quality baselines and identify new opportunities for pollutant reduction.

A central priority of this plan is the restoration of the Picker's Pond site. Following the successful removal of the dam, the area now requires a thoughtful restoration plan to heal the landscape and provide a scenic, accessible space for the public. By integrating this site into the broader Oxoboxo Heritage Multi-Use Trail, we are ensuring that conservation is a lived experience for the community. This project will:

- Identify specific pollutant sources to improve downstream water quality in the Thames River and the Long Island Sound.
- Develop engineering strategies for habitat restoration at the former dam site, focusing on riparian health and the design of educational and recreational features at Picker's Pond.
- Foster community stewardship by creating sustainable parking, trail improvements, and accessible infrastructure that connects residents and visitors directly to the river's beauty.

THE MOHEGAN TRIBE



13 Crow Hill Road • Uncasville, CT 06382 • Telephone (860) 862-6100

National Fish and Wildlife Foundation

May 13, 2026

Page 2

Beyond the ecological benefits, we are encouraged by the opportunity to integrate the story of how this landscape has shaped our Tribe's culture. This project highlights the vital, symbiotic relationship between nature and humanity, emphasizing the profound importance of ecological restoration. Weaving this narrative into the history of the region's settlement and its future trajectory creates a compelling story—one in which the Oxoboxo River, Thames River and Long Island Sound will play a central role in telling for generations to come.

This assessment is a necessary precursor to large-scale implementation that will yield measurable benefits for the Long Island Sound watershed for decades to come. The Mohegan Tribe is proud to collaborate with the Town of Montville on this effort to enhance our community's environmental resilience and preserve the heritage of the Oxoboxo for future generations.

Sincerely,



James Gessner
Chairman



The Nature Conservancy in Connecticut
55 Church Street, Floor 3
New Haven, CT 06510

Tel: [203] 568-6296
Fax [203] 568-6271
nature.org/ct

Long Island Future Fund Review Team

May 15, 2026

The Nature Conservancy is pleased to enthusiastically support the Long Island Future Fund Grant Program application submitted by the Town of Montville. The proposal entitled “Oxoboxo River: Preservation and Restoration Plan” will help to reduce the conveyance of nutrients and pollutants to the Thames River and Long Island Sound through a comprehensive suite of interventions for a river corridor that lacks a road map. More specifically this proposal helps integrate nature-based solutions via a Master Plan for the corridor, identify point source pollutant contributors, embed ecological and topographic data directly into new zoning regulations, develop professional cost estimates and a strategic plan for implementation, and inform better decision making by the public and businesses along the corridor that ultimately reduce pollution contributions. We are particularly encouraged by the proposed integration of nature-based solutions coupled with updates of regulations and Plan of Conservation and Development to simultaneously improve the habitat and water quality. This courageous suite of proposed actions to improve ecological health and resilience through local initiative will undoubtedly place the Town of Montville in a leadership role amongst other municipalities – a role this community is well suited to support. The Connecticut Chapter of the Nature Conservancy fully endorses this proposal because of the exemplary team of community-based professionals, leaders, and practitioners assembled and their strong commitment and proactive stance on reducing impacts to the environment along the Oxoboxo River.

The Nature Conservancy is the world’s largest, non-profit, conservation organization dedicated to conserving the lands and waters on which all life depends. In Connecticut, the Conservancy has had the distinct pleasure of working directly with leadership, staff, and residents of Montville. We have been continuously impressed by the overall willingness of this community to embrace the need for progressive planning on issues involving the environment and community resilience building. What is proposed here in this Long Island Future Fund Grant is yet another example from this leading community striving to achieve a more resilient, vibrant, and sustainable environment for its residents. We are thrilled that the proposed actions will ultimately benefit current and future generation of residents, business owners, and decision makers.

The Nature Conservancy is committed to assisting with this endeavor because it contributes to our shared objectives of improving the environment and increasing the resilience of communities in Connecticut and beyond. We sincerely hope that this critically important proposal is funded.

Best regards,

Adam W. Whelchel, PhD
Director of Science
awhelchel@tnc.org
(860) 970-8442

May 15, 2026

A letter of support will be forthcoming from Congressman Joe Courtney via Julia McGrath. She has informed me a letter will be forthcoming and transmitting to your office upon its completion.

 McGrath, Julia <Julia.McGrath@mail.house.gov>   Reply  Reply all  Forward  ...
To: Carver, Noah <Noah.Carver2@mail.house.gov>; Leonard Bunnell Sr.
Cc: Cindy Breton; Dennis Goderre; Tim May Tue 5/12/2026 3:40 PM

 You replied on Thu 5/14/2026 3:28 PM

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Mayor,

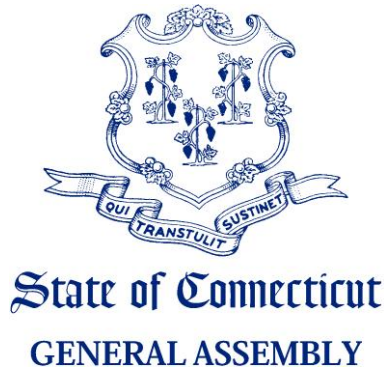
I am happy to facilitate a letter from the Congressman. I will let you know if we need any more information.

All best,
Julia



Julia McGrath
Grants and Special Projects Coordinator
Congressman Joe Courtney (CT-2)
55 Main Street Suite 250 | Norwich, CT 06360
P: 860-886-0139 | F: 860-886-2974
   

...



May 8, 2026

National Fish and Wildlife Foundation
1133 15th Street NW, Suite 1000
Washington, DC 20005

RE: Support for the Town of Montville's 2026 LISFF Application – Oxoboxo River Assessment

To the LISFF Review Committee,

As the legislative delegation representing the Town of Montville, we are writing to offer our support for the Town's application to the 2026 Long Island Sound Futures Fund (LISFF) for the Oxoboxo River Assessment and Restoration Plan. This proposal is further supported by The Mohegan Tribe's monetary match and support. We emphasize that the Oxoboxo River is vital to the region's ecology and heritage.

The Oxoboxo River is a vital ecological artery for our region, serving as a direct tributary to the Thames River and ultimately the Long Island Sound. For too long, the historical industrial use of this corridor has impacted the river. Fortunately, the remediation of industrial lands has significantly improved water quality. But more work remains, including building awareness, testing for baseline establishment, identifying opportunities to improve water quality and restoration at Picker's Pond dam removal site. This proposal provides a path forward by establishing a water quality baseline and a comprehensive restoration framework for the Picker's Pond Dam and Site.

What makes this project particularly compelling is its integration with the Oxoboxo Heritage Multi-Use Trail, a vision taking shape by Town leadership and recent state investments. By pairing environmental restoration with a planned multi-use path, Montville is ensuring that conservation isn't just a technical exercise, but a public asset. This project will:

- Identify specific pollutant sources to improve downstream water quality in the Sound.
- Develop engineering strategies for habitat restoration at the dam removal site, riparian health, and the eventual recreation and educational features Picker's Pond site.
- Foster community stewardship by connecting residents and visitors directly to the river via sustainable, accessible infrastructure.

This assessment is a necessary precursor to large-scale implementation that will yield measurable benefits for the Long Island Sound watershed for decades to come. We strongly urge the National Fish and Wildlife Foundation and its partners to support this critical investment in Montville's environmental and community resilience.

Respectfully,



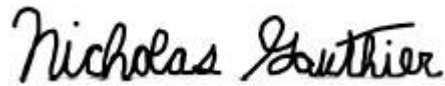
Cathy Osten
State Senator, 19th District



Martha Marx
State Senator, 20th District



Nick, Menapace
State Representative, 37th District



Nick Gauthier
State Representative, 38th District



Larry Pemberton
State Representative, 139th District

TOWN OF MONTVILLE

Office of the Mayor

310 Norwich-New London Turnpike
Uncasville, Connecticut 06382



May 13, 2026

Grant Selection Committee
Long Island Sound Futures Fund National Fish and Wildlife Foundation
1133 15th St NW, Suite 1000
Washington, DC 20005

Re: Letter of Support – Oxoboxo River Corridor Assessment & Restoration Plan

Dear Grant Review Committee,

As the Mayor and Chief Executive Officer of the Town of Montville, I am writing to formally support the Town's grant application for the Oxoboxo River Corridor Assessment & Restoration Plan.

This project is important for Montville. The proposed assessment and master plan at Picker's Pond will provide the technical data we need to update our Plan of Conservation and Development (POCD) and support economic development through enhanced natural resources, recreation and heritage awareness. It will also establish a clear roadmap for future capital improvements at the Picker's Pond site and along the river corridor.

The Town is fully committed to this initiative. We will provide the monetary match of \$7,500, additional in-kind match via administrative support outlined in the application, utilizing staff from our Land Use and Public Works departments to ensure the project stays on schedule. Furthermore, our partnership with The Mohegan Tribe and their dedicated monetary match of \$7,500, along with staffing resources, will strengthen our work effort. We appreciate your review and consideration of our application.

Sincerely,

Leonard G. Bunnell, Sr
Mayor

May 11, 2026

Grant Selection Committee
Long Island Sound Futures Fund National Fish and Wildlife Foundation
1133 15th St NW, Suite 1000
Washington, DC 20005

RE: Letter of Support – Oxoboxo River Assessment and Restoration Plan

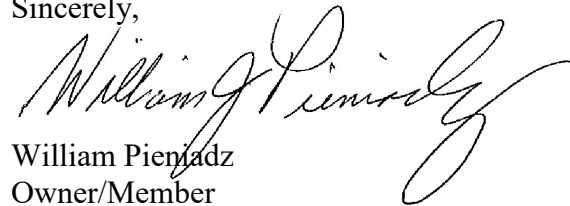
To the Grant Selection Committee:

As the owner of 362 Route 32 (Pickers Pond LLC), I am writing to express my support for the Town of Montville's grant application to the Long Island Sound Futures Fund.

Having previously supported the Town's efforts regarding the Oxoboxo Heritage Multi-Use Trail, I am committed to the continued revitalization of this corridor. I will grant the Town of Montville and its partners permission to access my property at 362 Route 32 for the purposes of the proposed environmental assessments, wetland delineations, and topographic surveys.

Furthermore, I am willing to collaborate with the Town on the eventual restoration and management of the Picker's Pond area as outlined in this proposal and creation of a public park with trails and interactive signage. I believe this project is a vital step in transforming the river into a resilient community asset and I look forward to its success.

Sincerely,

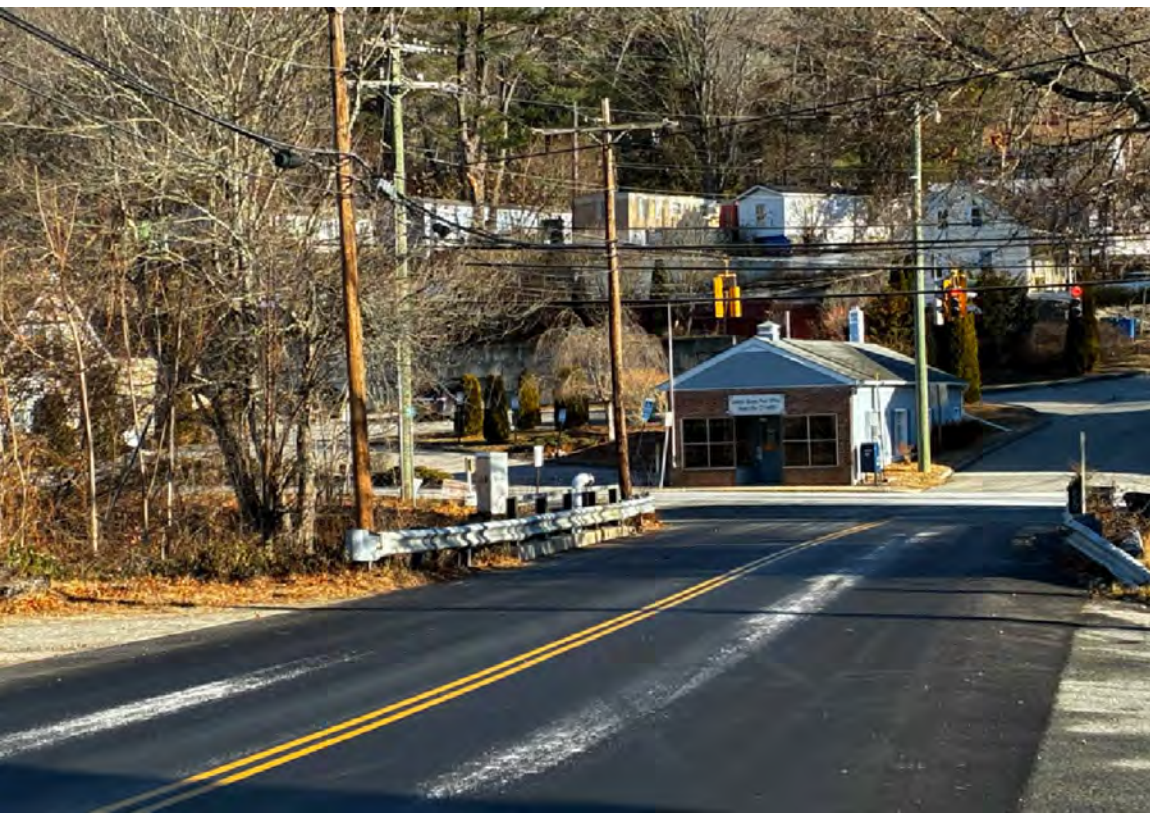
A handwritten signature in black ink, appearing to read "William Pieniadz", written in a cursive style.

William Pieniadz
Owner/Member
Picker's Pond LLC

24/25



1a. Palmettown: Bridge St looking south, bridge over former rail.



1b. Palmettown: Bridge St looking north to village post office and businesses along RT 163



2a. Town owned property subject of 52 residential units. Property will convey trail after redevelopment.



2b. View looking east from town property toward rail line.



3. View of rail bed from Hamel Street looking west.



4. View of rail bed looking east; used by local scrap yard. path and uses will require separation; owner engaged in conversation



5. View from rail bed toward



6. View of rail bed/path along Oxoboxo Brook heading towards the I-395 bridge, under which the rail line travels.



7. View under the I-395 bridge. Space is ample for the path's passage.



8. View under I-395 from east side looking west.



9A. View of signalized intersection with ample sight lines for crossing and ped phase addition.



9B. View of crossing looking to north side landing.



10. View of ROW along RT 163; limited private land owner coordination required.



11. View of RT 163 ROW.



12. View of RT 163 ROW.



13. Abandoned rail line segment.



14. Remnants of former dam will create unique interest to the trail story and as an amenity to a new future park.



15. Existing Dam remains could be utilized for bridge crossing points, leading to the RT 32 and 163 crossing.



Attachment C: Photos

December 18, 2025

Applicant: Town of Montville



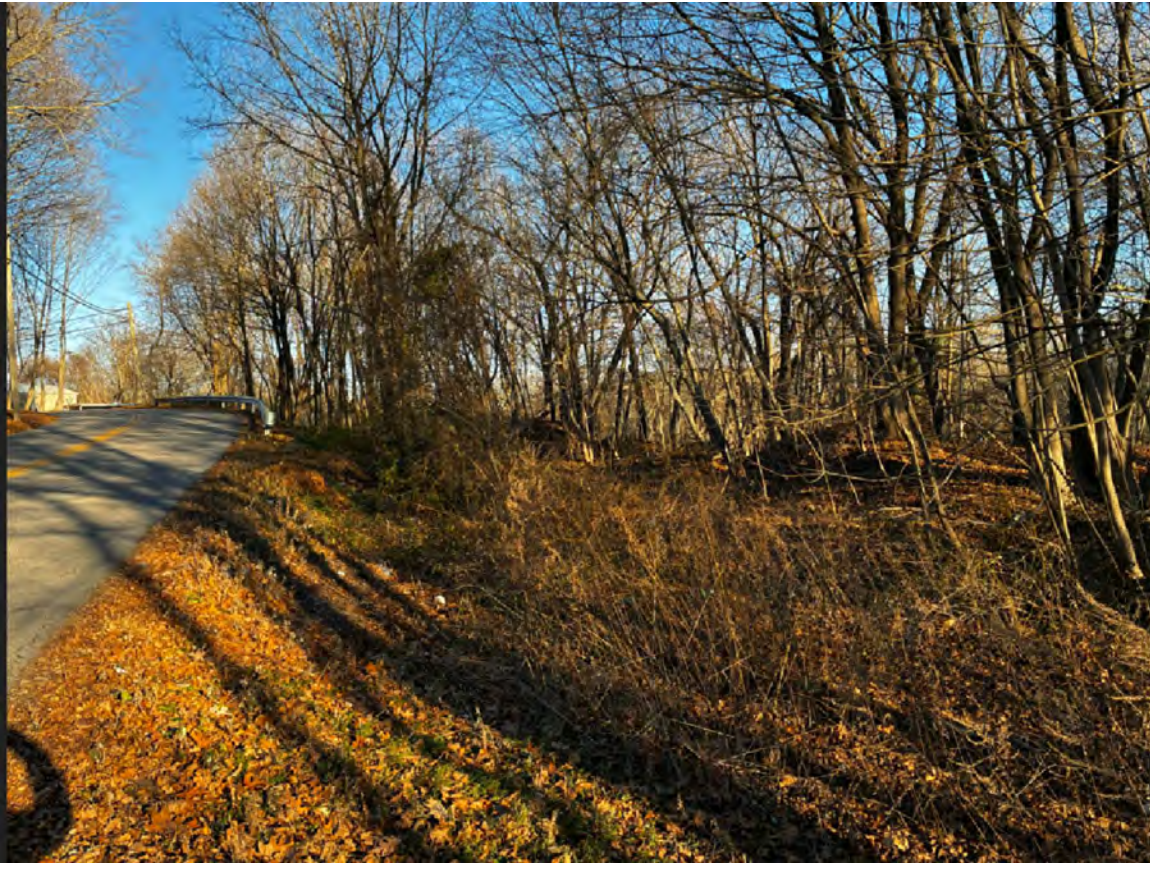
16. A view of the dam remains from stream level.



17. View of Crescent Street from RT 32 at Oxoboxo Loft entry. Trail can readily serve this 72 unit affordable housing development.



18. Blumenthal Drive may readily accommodate shared use with path network.



19. View from Pink Row looking east along abandoned rail line.



20. View of abandoned railway at crossing of Cemetery Pond.



21. View east from terminus of Depot Road, intersection of path's off site route towards abandoned railway.



22. View south from Depot Road, a quiet street readily available for multi use path shared segment.



23. View looking south of Peter Ave where sharrows is easily possible.



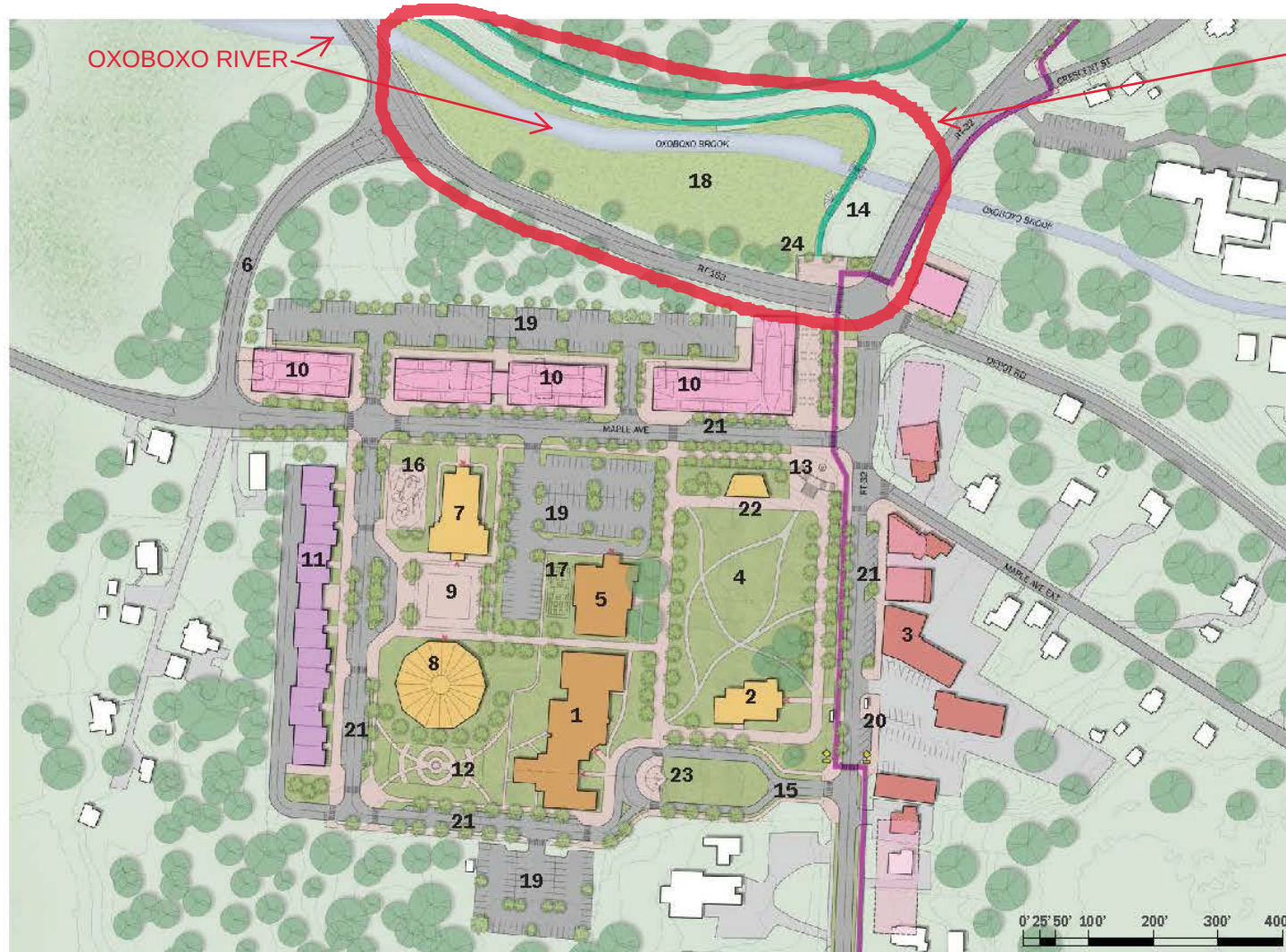
24. View of boat launch to be renovated by DEEP Sportfishing Grant.



25. View looking south at renovated boat launch and fishing pier funded by DEEP Sportfishing Grant.

FOCUS AREA 1A : MONTVILLE TOWN GREEN

PROPOSED RESIDENTIAL: ~ 140 UNITS



RESTORED PICKER'S POND DAM (REMOVED) AREA AS NOTED IN THE RECENTLY COMPLETED TOWN CENTER MASTER PLAN; FEATURES ARE HIGHLIGHTED IN THE BELOW KEY

KEY

- 1 TOWN HALL
- 2 LIBRARY ANNEX
- 3 EXISTING COMMERCIAL
- 4 TOWN GREEN
- 5 SENIOR CENTER
- 6 NEW TRUCK ACCESS ROAD
- 7 MULTI-USE THEATER
- 8 INNOVATION CENTER
- 9 PLAZA
- 10 MIXED-USE MED DENSITY
- 11 TOWNHOMES
- 12 ROSE GARDEN
- 13 GRAND STAIR & PLAZA

- 14 PEDESTRIAN BRIDGE
- 15 NEW TOWN HALL ENTRY & LAWN
- 16 PLAYGROUND
- 17 COMMUNITY GARDEN
- 18 RESTORED RIPARIAN PARK
- 19 PARKING
- 20 BUS STOP
- 21 TREE LINED SIDEWALK W/ PARKING
- 22 BAND SHELL
- 23 WAR MEMORIAL & FLAGS
- 24 RIPARIAN PARK PLAZA
- 25 RAISED CROSSWALK

LEGEND

- | | |
|---|--|
| CIVIC | TOWNHOMES |
| COMMERCIAL (EXISTING) | RIPARIAN RESTORATION |
| ARTS & CULTURE | MULTI-USE PATH |
| MIXED-USE MED DENSITY | OXOBOXO HERITAGE TRAIL |
| MIXED-USE (FUTURE) | RAPID FLASH BEACON |

SITE PLAN NORTH



MONTVILLE, CT
CONNECTICUT
 Economic & Community Development

REVIVE & RENEW ROUTES 163/32

TOWN HALL MEETING - MARCH 26, 2026

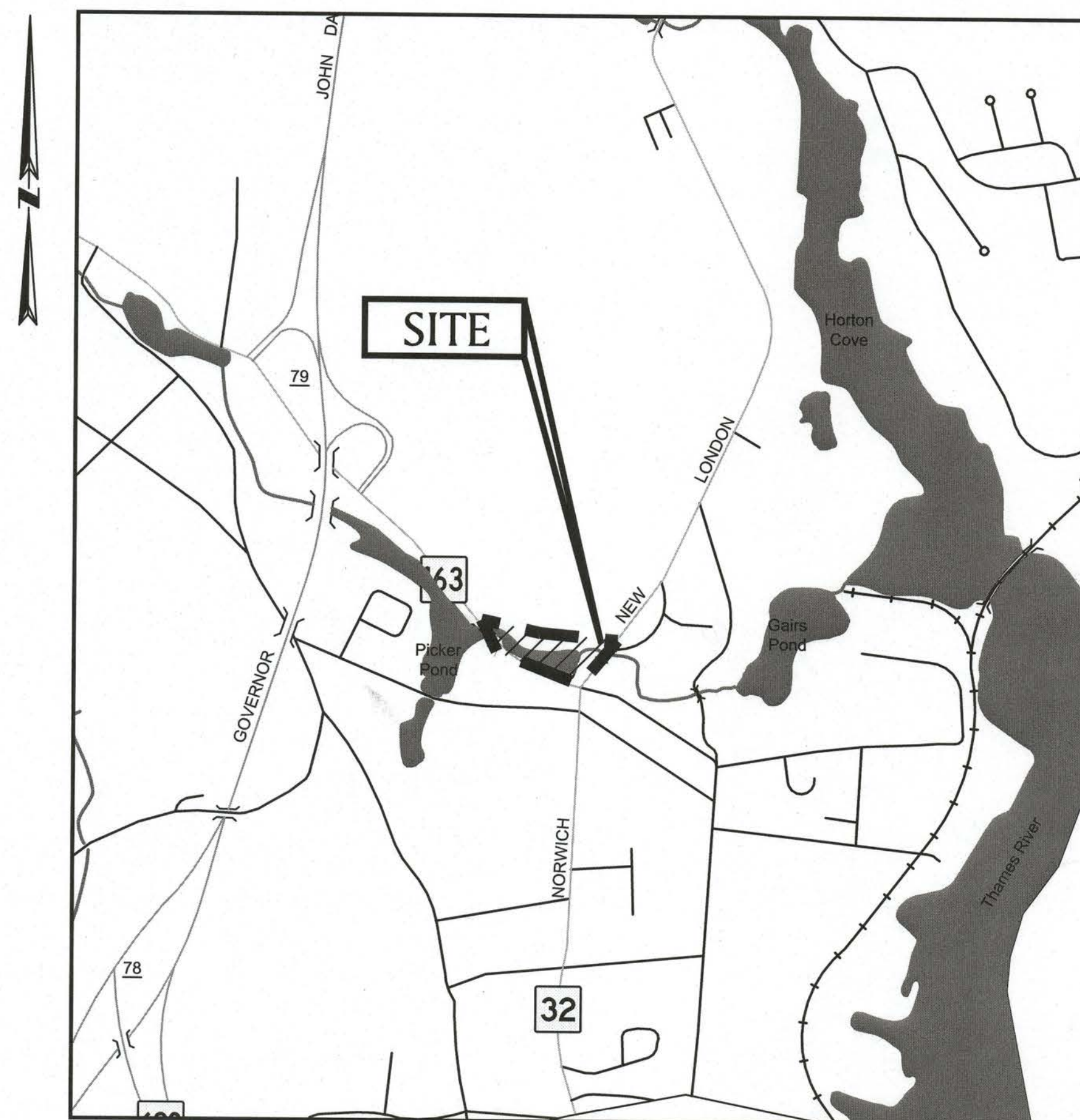


PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163 INTERSECTION
UNCASVILLE, CONNECTICUT

OCTOBER 27, 2017

REVISED: JULY 25, 2018



SITE MAP

500 0 1,000 2,000 3,000 feet
SCALE: 1"=1,000'

INDEX OF DRAWINGS

T-1.0	TITLE SHEET
EC-1.0	EXISTING CONDITIONS PLAN
C-1.0-1.1	CONSTRUCTION ACCESS, WATER CONTROL, & SEQUENCING PLAN
C-2.0	MAINTENANCE & PROTECTION OF TRAFFIC
C-3.0	REMOVALS PLAN
C-4.0	PROPOSED GENERAL PLAN & PROFILE
C-5.0-5.2	PROPOSED STREAM CROSS SECTIONS
C-6.0-6.1	DETAILS
L-1.0-1.1	ONSITE DISPOSAL & RESTORATION PLAN

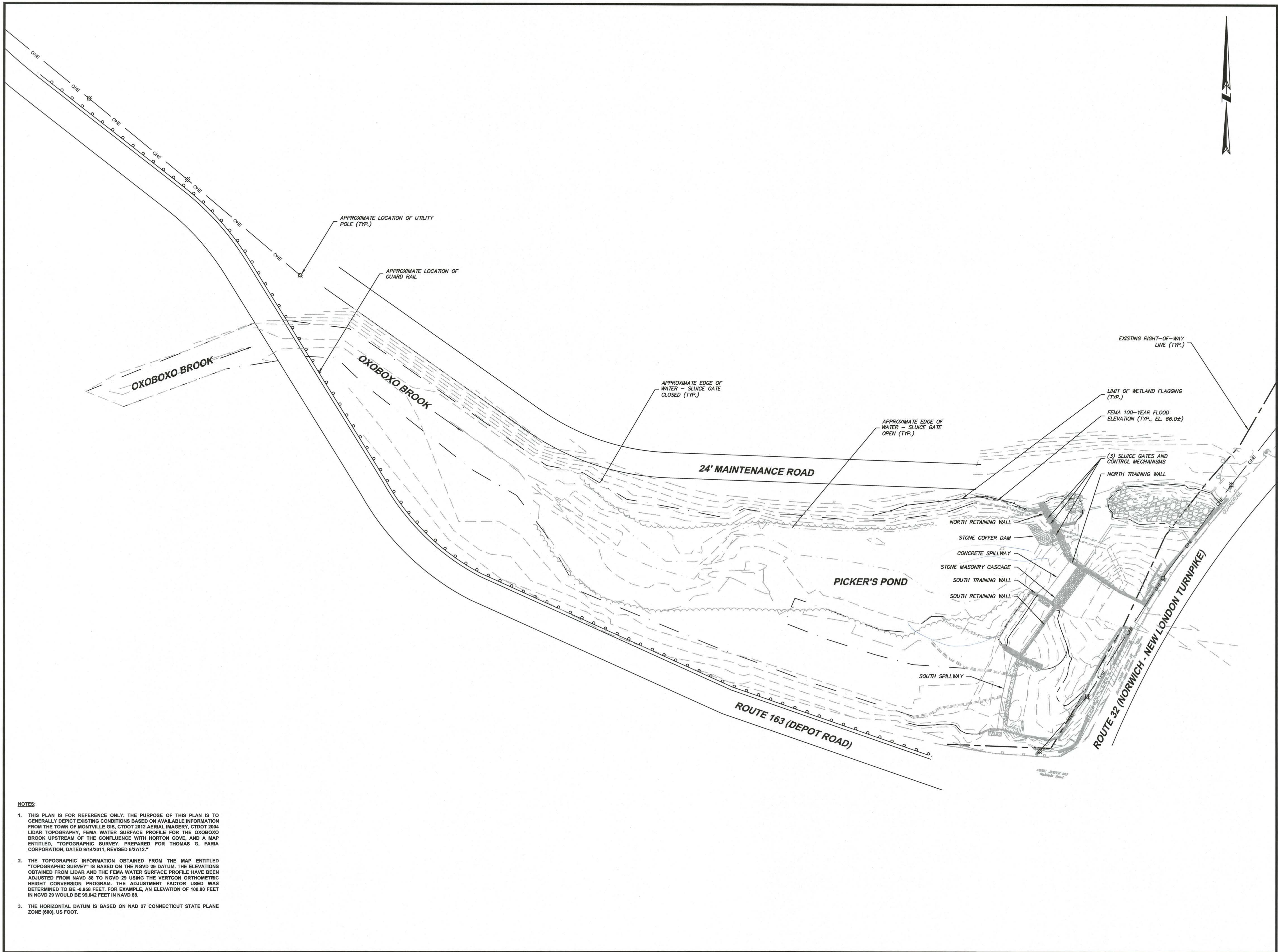
PREPARED FOR:

DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

PREPARED BY:

 **BSC GROUP**
300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

Picker's Pond
Dam



- NOTES:
1. THIS PLAN IS FOR REFERENCE ONLY. THE PURPOSE OF THIS PLAN IS TO GENERALLY DEPICT EXISTING CONDITIONS BASED ON AVAILABLE INFORMATION FROM THE TOWN OF MONTVILLE GIS, CTDOT 2012 AERIAL IMAGERY, CTDOT 2004 LIDAR TOPOGRAPHY, FEMA WATER SURFACE PROFILE FOR THE OXOBOXO BROOK UPSTREAM OF THE CONFLUENCE WITH HORTON COVE, AND A MAP ENTITLED, "TOPOGRAPHIC SURVEY, PREPARED FOR THOMAS G. FARIA CORPORATION, DATED 9/14/2011, REVISED 6/27/12."
 2. THE TOPOGRAPHIC INFORMATION OBTAINED FROM THE MAP ENTITLED "TOPOGRAPHIC SURVEY" IS BASED ON THE NGVD 29 DATUM. THE ELEVATIONS OBTAINED FROM LIDAR AND THE FEMA WATER SURFACE PROFILE HAVE BEEN ADJUSTED FROM NAVD 88 TO NGVD 29 USING THE VERTCON ORTHOMETRIC HEIGHT CONVERSION PROGRAM. THE ADJUSTMENT FACTOR USED WAS DETERMINED TO BE -0.958 FEET. FOR EXAMPLE, AN ELEVATION OF 100.00 FEET IN NGVD 29 WOULD BE 99.042 FEET IN NAVD 88.
 3. THE HORIZONTAL DATUM IS BASED ON NAD 27 CONNECTICUT STATE PLANE ZONE (600), US FOOT.

PICKER POND DAM
REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

EXISTING CONDITIONS
PLAN

OCTOBER 27, 2017

REVISIONS:		
No.	DATE	DESCRIPTION
	07/25/18	RESPONSE TO DAM SAFETY

PREPARED FOR:
DAKOTA PARTNERS, INC.
DSFA
WALTHAM, MA 02451

BSC GROUP
300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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SCALE: 1" = 40'

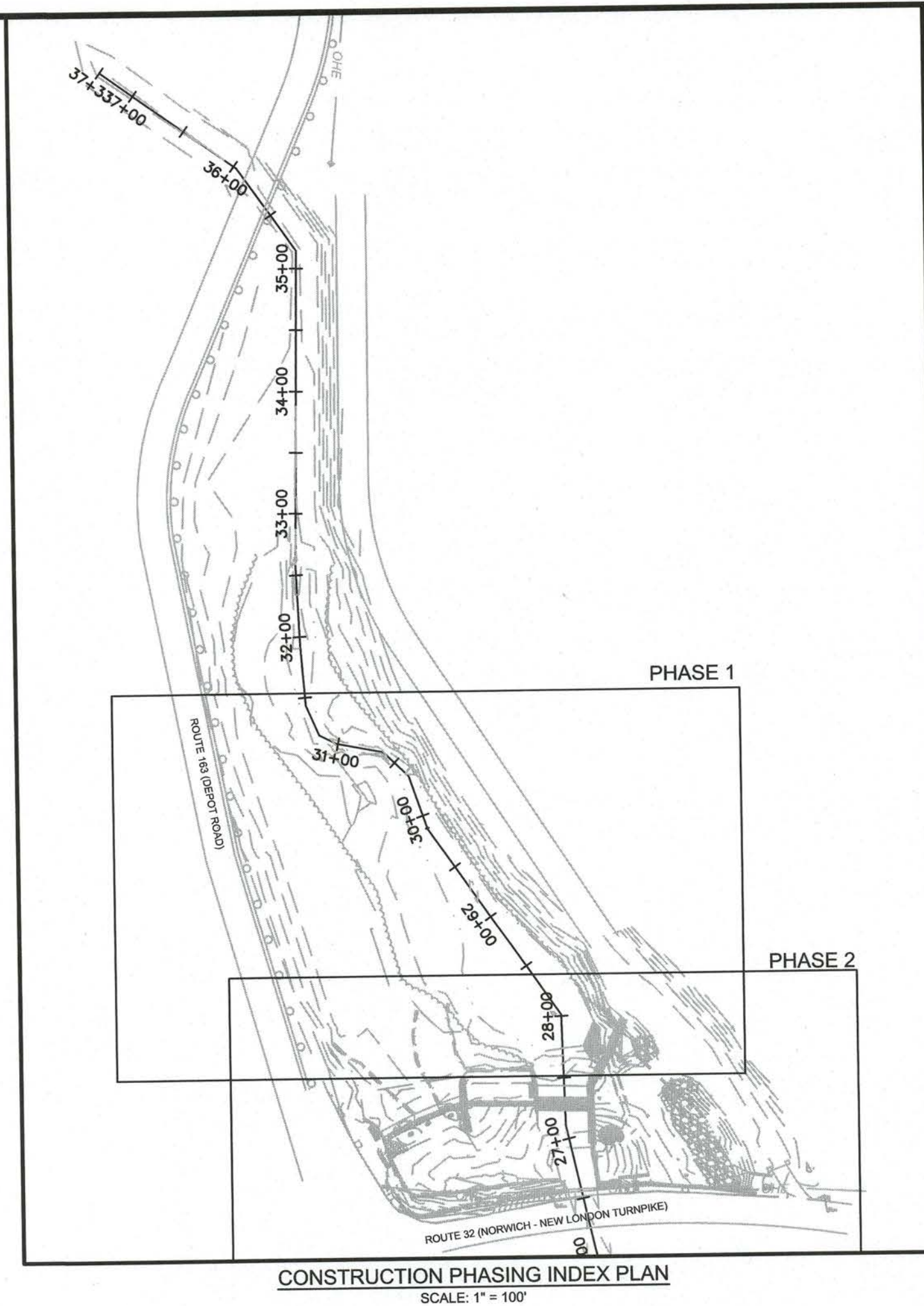
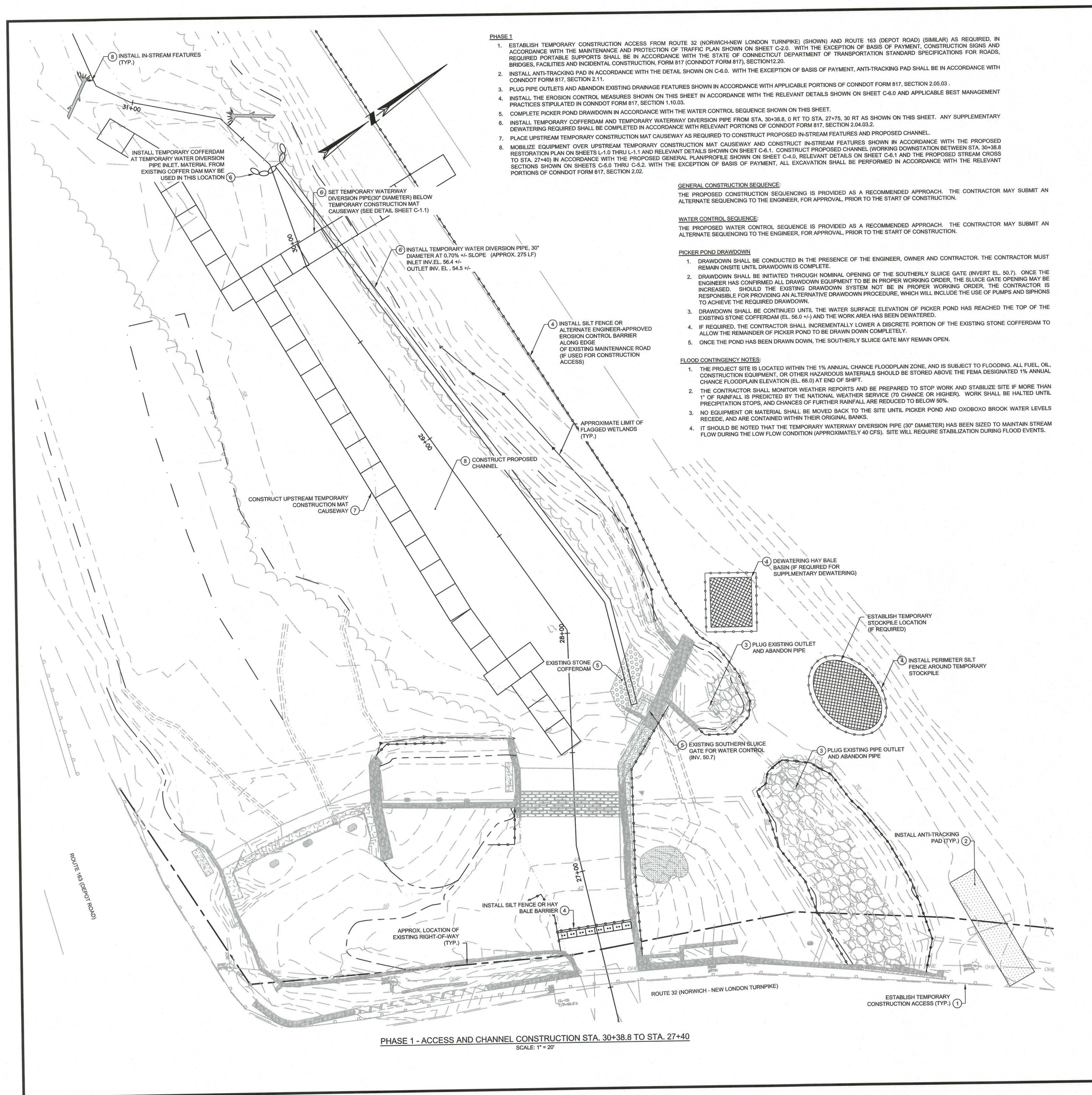


FILE: 8364900-EC.DWG

DWG. NO:

JOB. NO: 83649.00

EC-1.0



DAVID D'AMATO, PE No. 24227

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

CONSTRUCTION ACCESS,
WATER CONTROL AND
SEQUENCING PLAN

OCTOBER 27, 2017

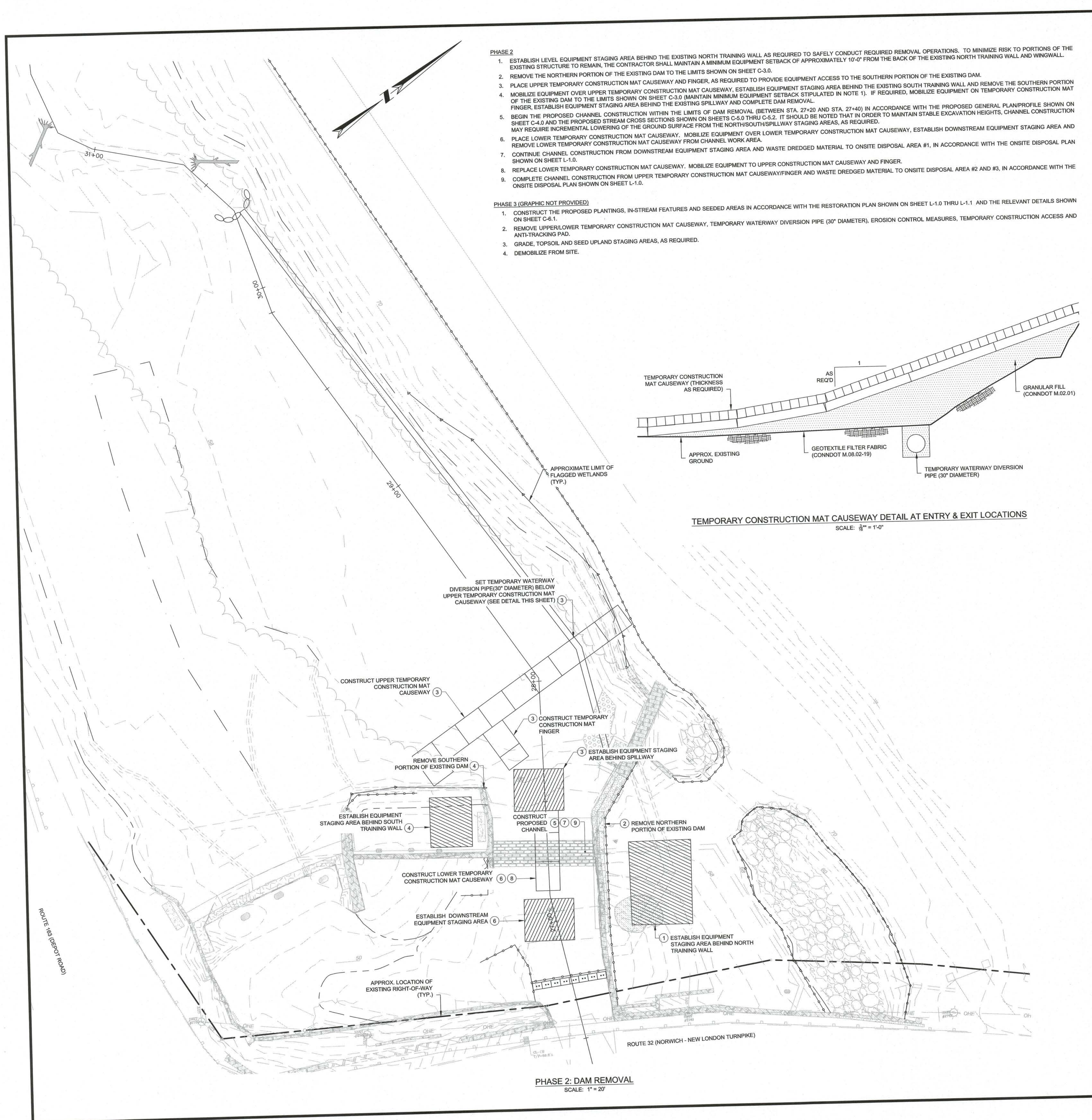
REVISIONS:		
No.	DATE	DESCRIPTION
07/25/18		RESPONSE TO DAM SAFETY

PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

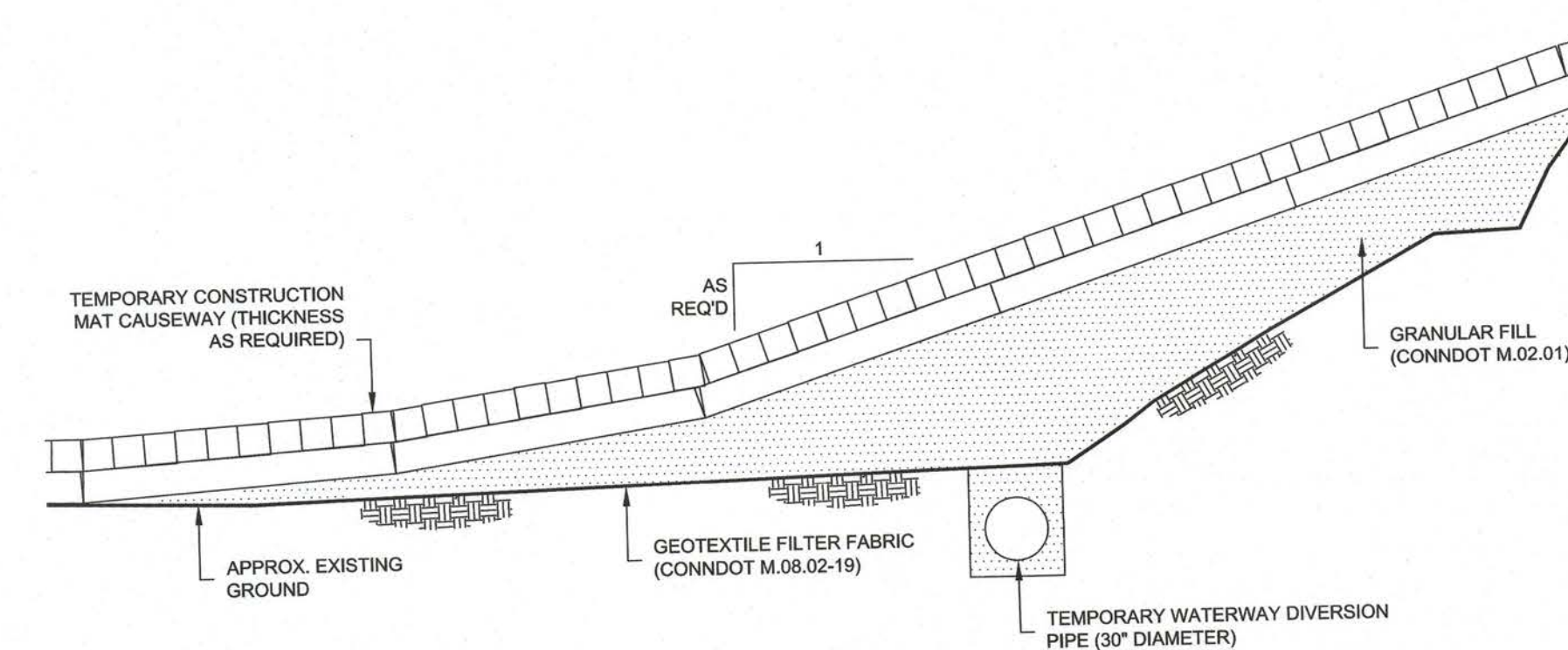
BSC GROUP
300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

© 2017 BSC GROUP, INC.
SCALE: 1" = 20'
0 10 20 40 FEET

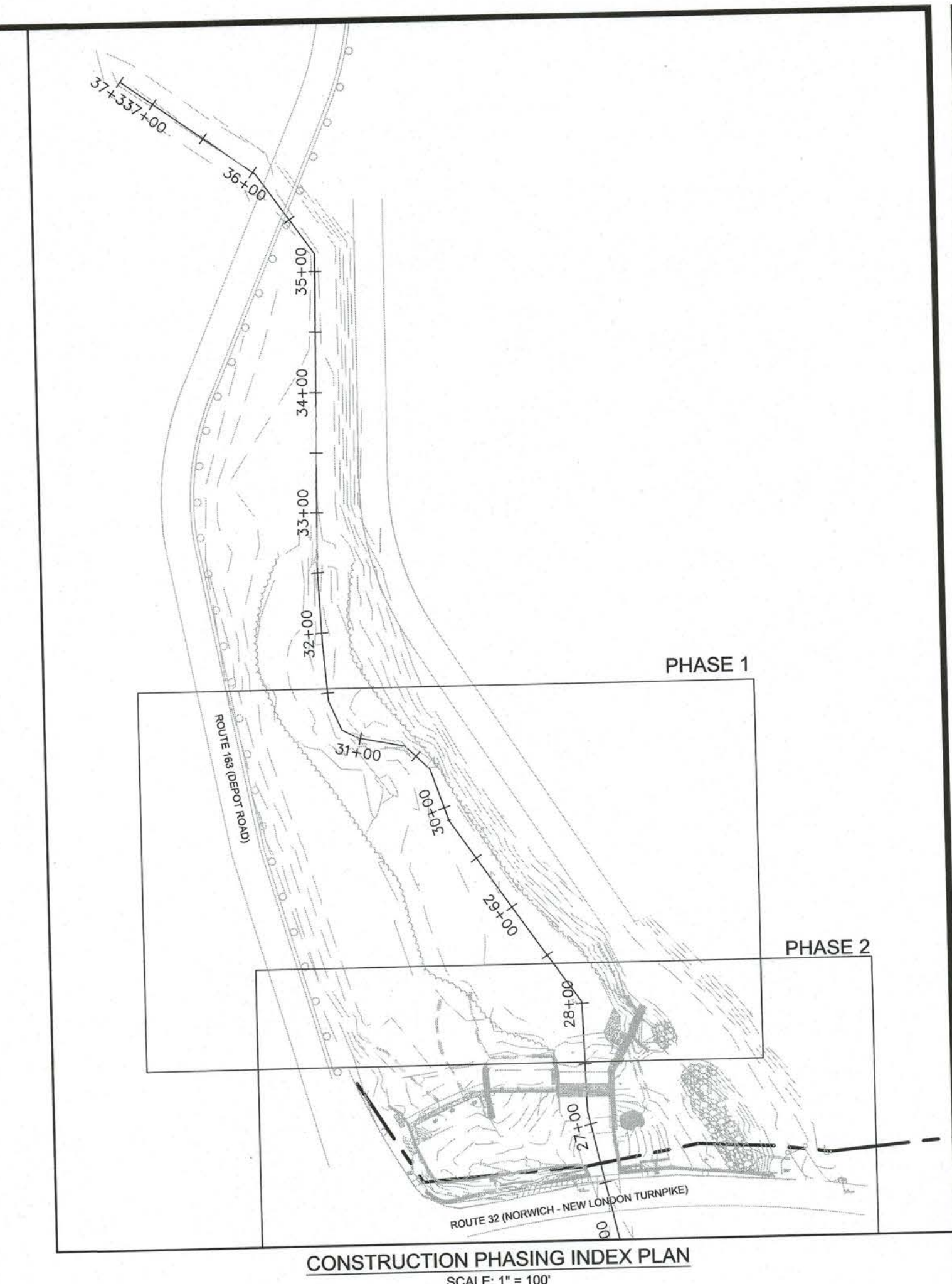
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DWG. NO:
JOB. NO: 83649.00
C-1.0



- PHASE 2**
1. ESTABLISH LEVEL EQUIPMENT STAGING AREA BEHIND THE EXISTING NORTH TRAINING WALL AS REQUIRED TO SAFELY CONDUCT REQUIRED REMOVAL OPERATIONS. TO MINIMIZE RISK TO PORTIONS OF THE EXISTING STRUCTURE TO REMAIN, THE CONTRACTOR SHALL MAINTAIN A MINIMUM EQUIPMENT SETBACK OF APPROXIMATELY 10'-0" FROM THE BACK OF THE EXISTING NORTH TRAINING WALL AND WINGWALL.
 2. REMOVE THE NORTHERN PORTION OF THE EXISTING DAM TO THE LIMITS SHOWN ON SHEET C-3.0.
 3. PLACE UPPER TEMPORARY CONSTRUCTION MAT CAUSEWAY AND FINGER, AS REQUIRED TO PROVIDE EQUIPMENT ACCESS TO THE SOUTHERN PORTION OF THE EXISTING DAM.
 4. MOBILIZE EQUIPMENT OVER UPPER TEMPORARY CONSTRUCTION MAT CAUSEWAY. ESTABLISH EQUIPMENT STAGING AREA BEHIND THE EXISTING SOUTH TRAINING WALL AND REMOVE THE SOUTHERN PORTION OF THE EXISTING DAM TO THE LIMITS SHOWN ON SHEET C-3.0 (MAINTAIN MINIMUM EQUIPMENT SETBACK STIPULATED IN NOTE 1). IF REQUIRED, MOBILIZE EQUIPMENT ON TEMPORARY CONSTRUCTION MAT FINGER, ESTABLISH EQUIPMENT STAGING AREA BEHIND THE EXISTING SPILLWAY AND COMPLETE DAM REMOVAL.
 5. BEGIN THE PROPOSED CHANNEL CONSTRUCTION WITHIN THE LIMITS OF DAM REMOVAL (BETWEEN STA. 27+20 AND STA. 27+40) IN ACCORDANCE WITH THE PROPOSED GENERAL PLAN/PROFILE SHOWN ON SHEET C-4.0 AND THE PROPOSED STREAM CROSS SECTIONS SHOWN ON SHEETS C-5.0 THRU C-5.2. IT SHOULD BE NOTED THAT IN ORDER TO MAINTAIN STABLE EXCAVATION HEIGHTS, CHANNEL CONSTRUCTION MAY REQUIRE INCREMENTAL LOWERING OF THE GROUND SURFACE FROM THE NORTH/SOUTH SPILLWAY STAGING AREAS, AS REQUIRED.
 6. PLACE LOWER TEMPORARY CONSTRUCTION MAT CAUSEWAY. MOBILIZE EQUIPMENT OVER LOWER TEMPORARY CONSTRUCTION MAT CAUSEWAY, ESTABLISH DOWNSTREAM EQUIPMENT STAGING AREA AND REMOVE LOWER TEMPORARY CONSTRUCTION MAT CAUSEWAY FROM CHANNEL WORK AREA.
 7. CONTINUE CHANNEL CONSTRUCTION FROM DOWNSTREAM EQUIPMENT STAGING AREA AND WASTE DREDGED MATERIAL TO ONSITE DISPOSAL AREA #1, IN ACCORDANCE WITH THE ONSITE DISPOSAL PLAN SHOWN ON SHEET L-1.0.
 8. REPLACE LOWER TEMPORARY CONSTRUCTION MAT CAUSEWAY. MOBILIZE EQUIPMENT TO UPPER CONSTRUCTION MAT CAUSEWAY AND FINGER.
 9. COMPLETE CHANNEL CONSTRUCTION FROM UPPER TEMPORARY CONSTRUCTION MAT CAUSEWAY/FINGER AND WASTE DREDGED MATERIAL TO ONSITE DISPOSAL AREA #2 AND #3, IN ACCORDANCE WITH THE ONSITE DISPOSAL PLAN SHOWN ON SHEET L-1.0.
- PHASE 3 (GRAPHIC NOT PROVIDED)**
1. CONSTRUCT THE PROPOSED PLANTINGS, IN-STREAM FEATURES AND SEEDED AREAS IN ACCORDANCE WITH THE RESTORATION PLAN SHOWN ON SHEET L-1.0 THRU L-1.1 AND THE RELEVANT DETAILS SHOWN ON SHEET C-6.1.
 2. REMOVE UPPER/LOWER TEMPORARY CONSTRUCTION MAT CAUSEWAY, TEMPORARY WATERWAY DIVERSION PIPE (30" DIAMETER), EROSION CONTROL MEASURES, TEMPORARY CONSTRUCTION ACCESS AND ANTI-TRACKING PAD.
 3. GRADE, TOPSOIL AND SEED UPLAND STAGING AREAS, AS REQUIRED.
 4. DEMOBILIZE FROM SITE.



TEMPORARY CONSTRUCTION MAT CAUSEWAY DETAIL AT ENTRY & EXIT LOCATIONS
SCALE: 1/8" = 1'-0"



CONSTRUCTION PHASING INDEX PLAN
SCALE: 1" = 100'

DAVID D'AMATO, PE No. 24227

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163 INTERSECTION
IN
UNCASVILLE CONNECTICUT

CONSTRUCTION ACCESS,
WATER CONTROL AND
SEQUENCING PLAN

OCTOBER 27, 2017

REVISIONS:		
No.	DATE	DESCRIPTION
1	07/25/18	RESPONSE TO DAM SAFETY

PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

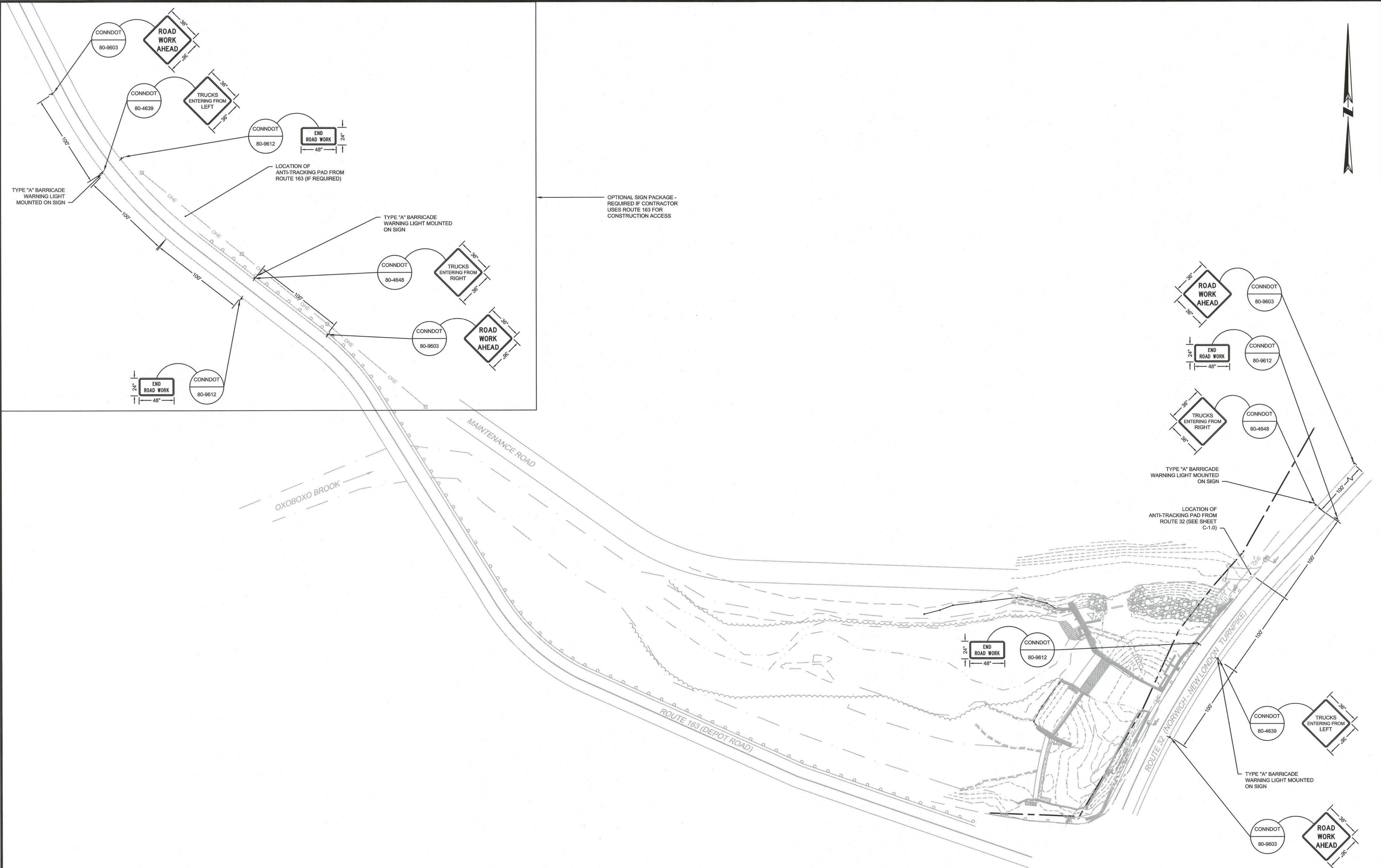
BSC GROUP
300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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SCALE: 1" = 20'
0 10 20 40 FEET

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DWG. NO:
JOB. NO: 83649.00

C-1.1

PICKER POND DAM REMOVAL - OCTOBER 27, 2017



FRANCIS J. VACCA, PE NO. 29098

PICKER POND DAM
REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

MAINTENANCE &
PROTECTION OF TRAFFIC

OCTOBER 27, 2017

REVISIONS:		
No.	DATE	DESCRIPTION
	07/25/18	RESPONSE TO DAM SAFETY

PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

BSC GROUP
300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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SCALE: 1" = 50'

0 25 50 100 FEET

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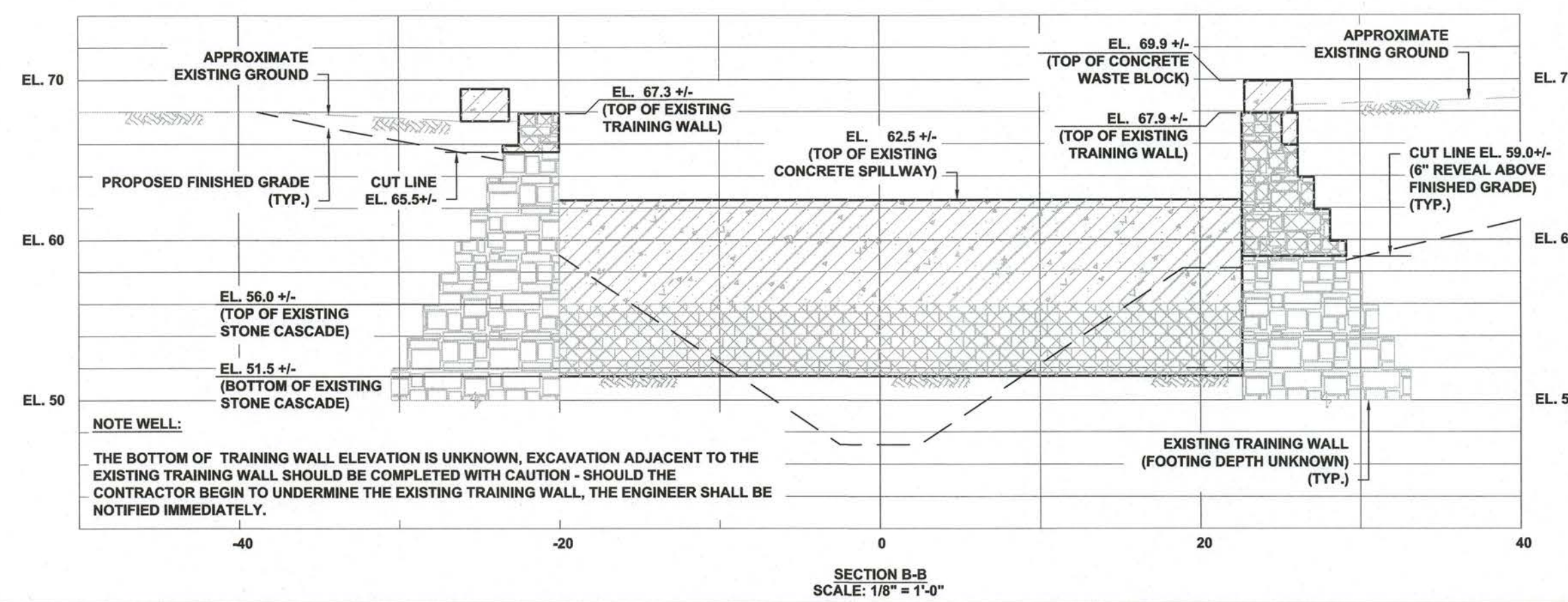
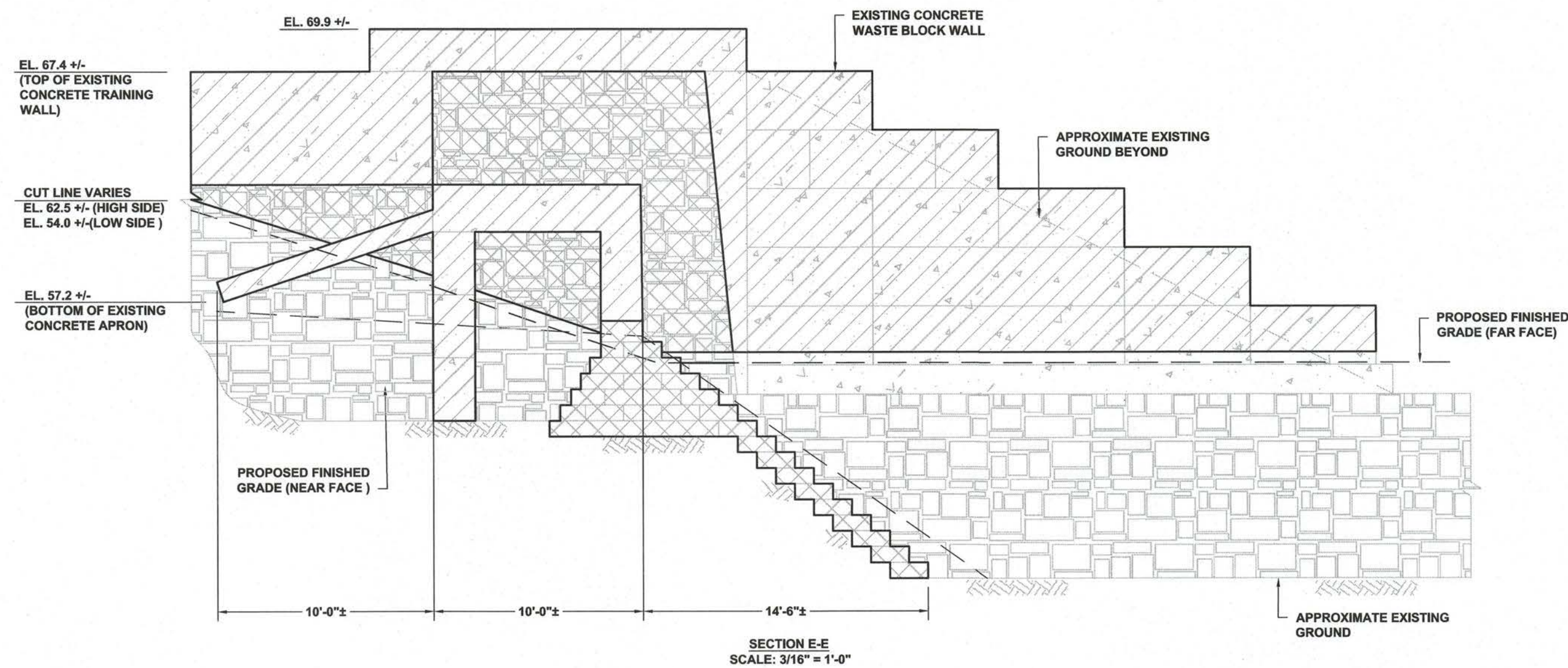
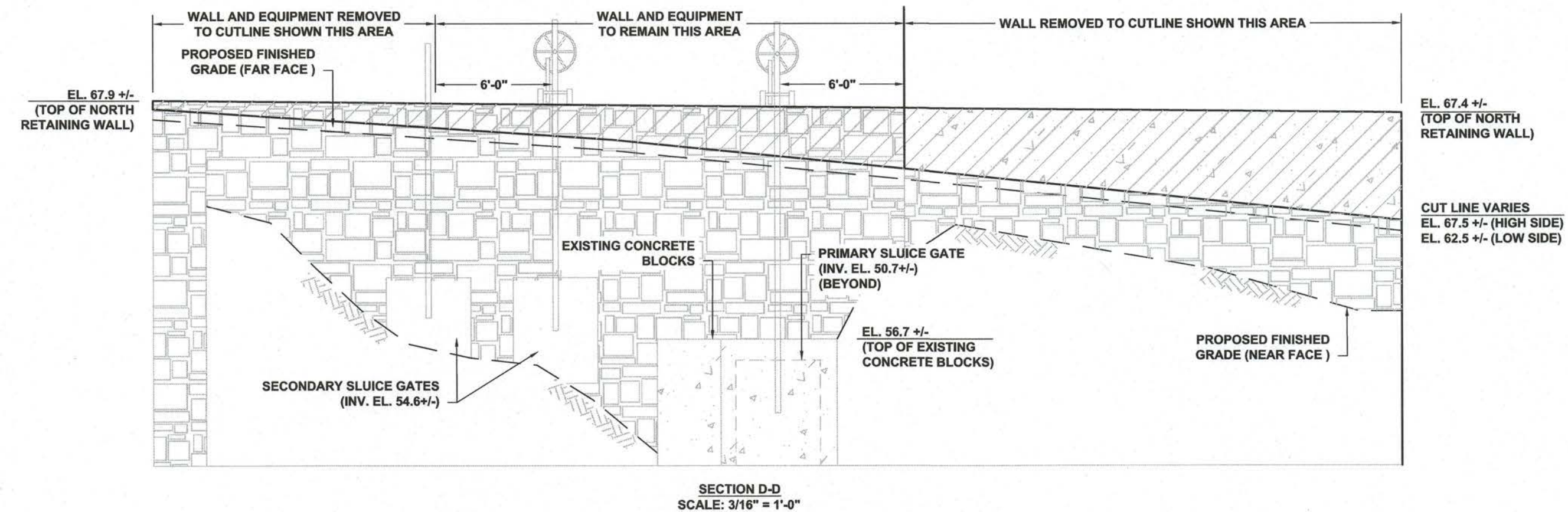
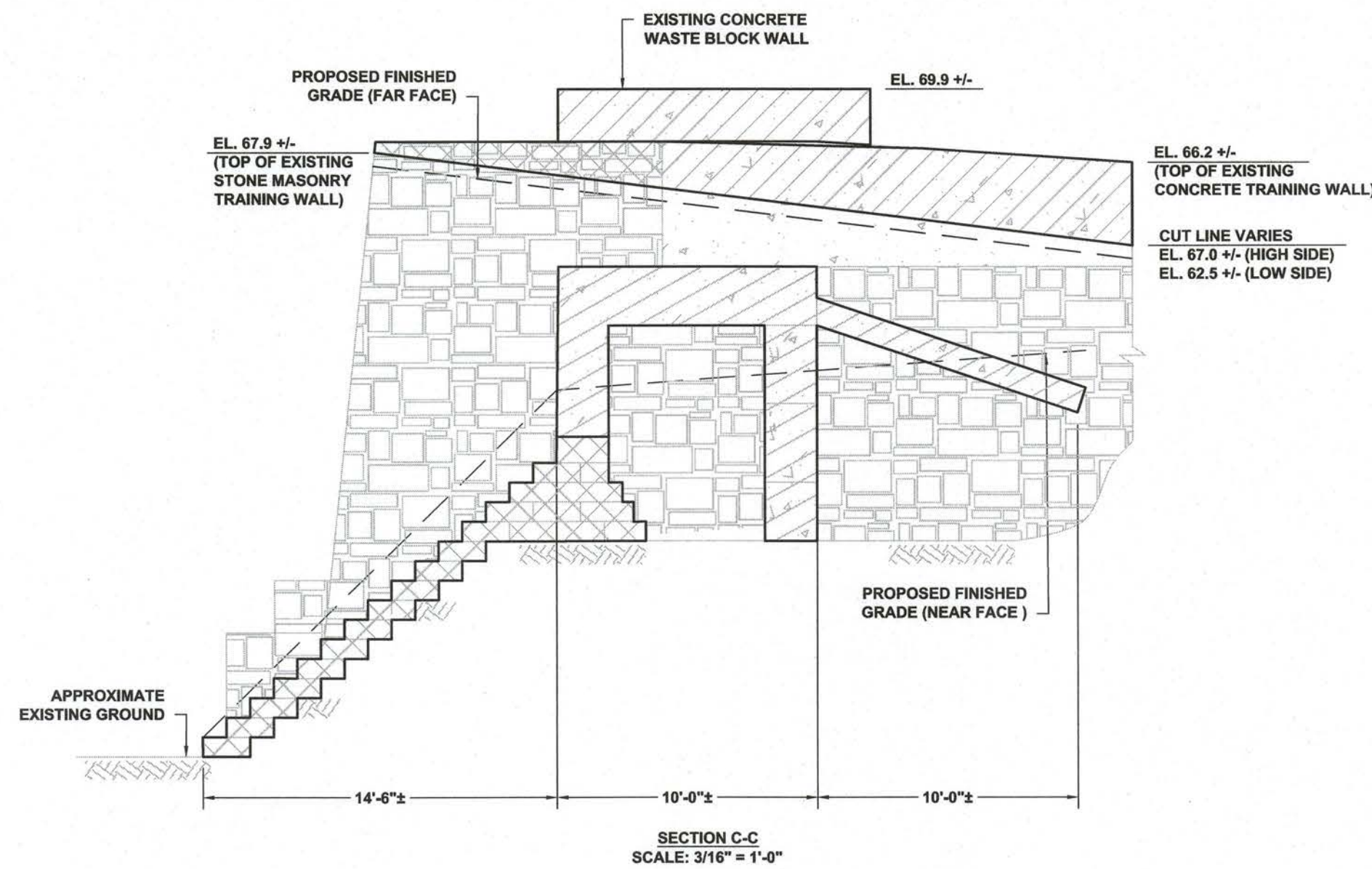
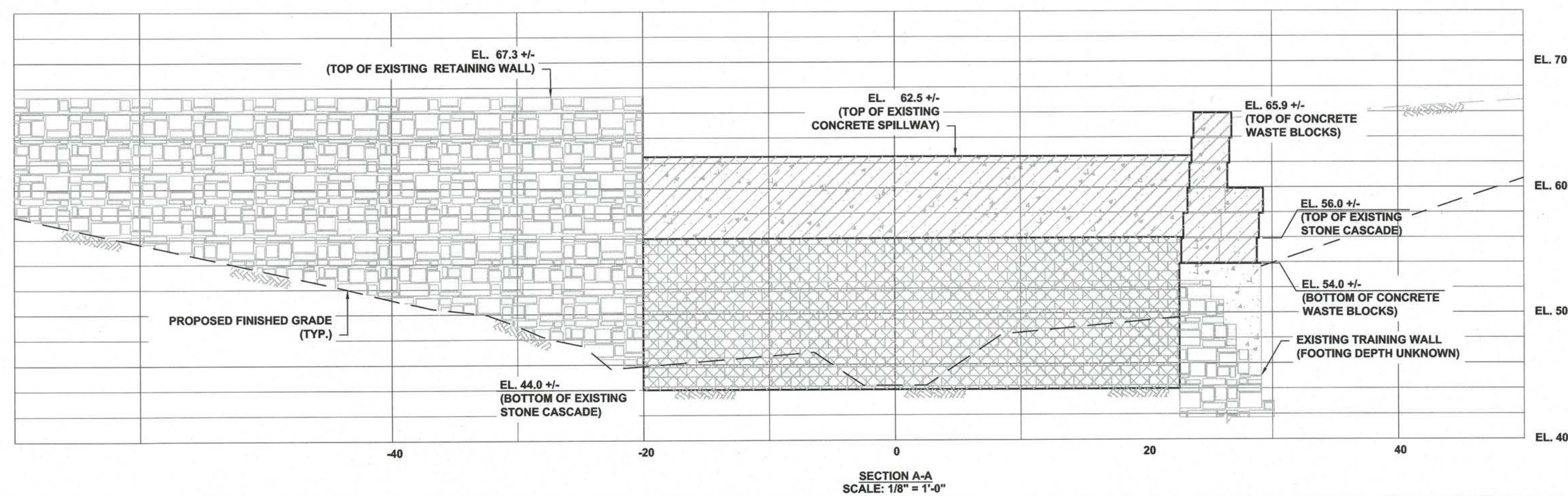
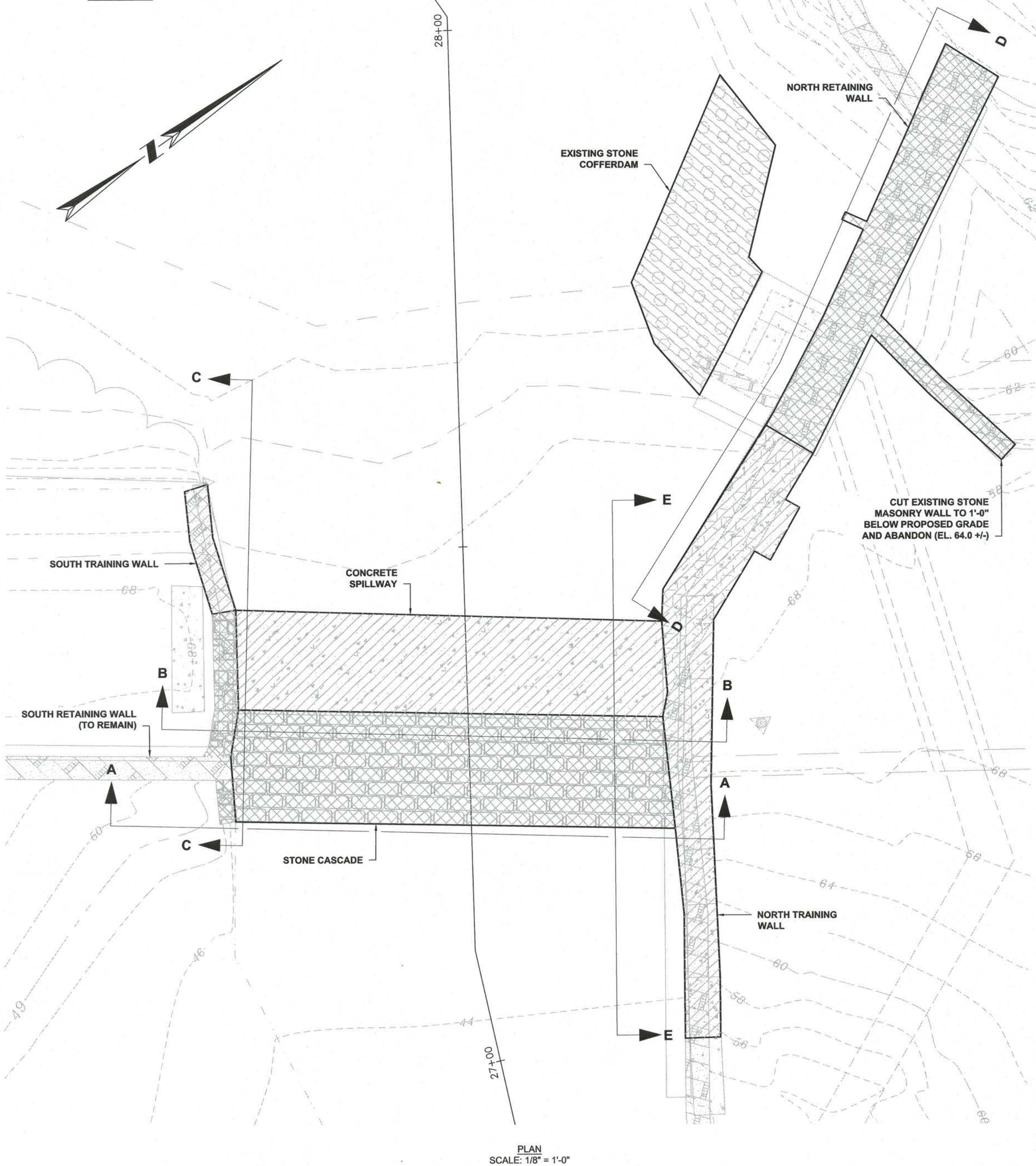
JOB. NO: 83649.00

C-2.0

NOTES:

- CONTRACTOR SHALL NOTIFY "CALL BEFORE YOU DIG" (1-800-322-4455) AND VERIFY UTILITY MARK-OUT WITH THE OWNER PRIOR TO THE INITIATION OF ANY SITE DISTURBANCE.
- ALL SIGNAGE SHALL CONFORM TO THE CONNECTICUT DEPARTMENT OF TRANSPORTATION (CONNDOT) BUREAU OF ENGINEERING & CONSTRUCTION CATALOG OF SIGNS, LATEST EDITION. IF THERE IS ANY CONFLICT OR DISCREPANCY BETWEEN SIGNAGE REPRESENTED HEREON AND THAT REPRESENTED IN THE CONNDOT STANDARDS, CONNDOT STANDARD SIGNAGE SHALL BE USED.
- EXISTING SIGNS IN CONFLICT WITH TEMPORARY SIGNS SHALL BE COVERED, REMOVED, OR REVISED TO MEET FIELD CONDITIONS.
- THE LOCATIONS OF TEMPORARY SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET FIELD CONDITIONS PENDING APPROVAL FROM THE ENGINEER.
- SEE SHEET C-4.0 FOR ADDITIONAL PLAN NOTES.

- LEGEND
- REMOVAL OF EXISTING MASONRY
 - REMOVAL OF EXISTING COFFERDAM
 - REMOVAL OF EXISTING CONCRETE



- DAM DEMOLITION NOTES:
1. WORK THIS SHEET WITH SHEET C-1.1. WITH THE EXCEPTION OF BASIS OF PAYMENT, REMOVAL OF THE EXISTING DAM SHALL BE IN ACCORDANCE WITH CONDOT FORM 817, SECTION 9.74.
 2. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR DETERMINATION.
 3. THE CONTRACTOR IS EXPECTED TO PROVIDE FIELD ENGINEERING SERVICES DURING CONSTRUCTION TO ESTABLISH AND RECORD LINE, GRADE AND ELEVATIONS. EXACT ELEVATIONS, SLOPES, AND CHANNEL SHAPES WILL BE APPROVED IN THE FIELD BY THE ENGINEER.
 4. ALL CONCRETE, CEMENT, MORTAR AND REINFORCING STEEL SHALL BE REMOVED BY MECHANICAL MEANS AND DISPOSED/RECYCLED OFF SITE. NO BLASTING WILL BE ALLOWED.
 5. CONTRACTOR MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS THROUGHOUT THE DURATION OF THE PROJECT.
 6. THE CONTRACTOR SHALL MAINTAIN STREAM FLOW AT ALL TIMES WITH USE OF TEMPORARY PIPES, AND/OR COFFERDAMS, AS REQUIRED.
 7. LARGE MASONRY STONES AND BOULDERS FREE OF CONCRETE AND MORTAR SHALL BE RETAINED FOR USE AS IN-STREAM FEATURES, IF REQUIRED.

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

REMOVALS PLAN

OCTOBER 27, 2017

REVISIONS:			
No.	DATE	DESCRIPTION	COMMENTS (SHP)
1	07/25/18	RESPONSE TO DAM SAFETY	

PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

BSC GROUP
300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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SCALE: AS SHOWN

FILE: 8364900-DEMO.DWG
DWG. NO:
JOB. NO: 83649.00

C-3.0

Line Table: Oxoboxo Brook				
Line #	Direction	Length	Start Point	End Point
L1	N67°44'17"W	51.88	(N: 220601.90, E: 775503.18)	(N: 220621.56, E: 775455.17)
L2	N56°34'16"W	90.33	(N: 220621.56, E: 775455.17)	(N: 220671.32, E: 775379.78)
L3	N89°49'56"W	187.27	(N: 220671.32, E: 775379.78)	(N: 220671.86, E: 775192.52)
L4	N73°55'24"W	45.64	(N: 220671.86, E: 775192.52)	(N: 220684.50, E: 775148.66)

DREDGINGS SUMMARY TABLE	
DREDGED MATERIAL	2,200 CY
ONSITE DISPOSAL AREA #1	1,720 CY
ONSITE DISPOSAL AREA #2	440 CY
ONSITE DISPOSAL AREA #3	40 CY
TOTAL ONSITE MATERIAL DISPOSAL	2,200 CY

TEMPORARY & PERMANENT FILL			
MATERIAL	PERM/TEMP	AREA	VOLUME
CLASS V RIPRAP	PERM	7,650 SF	850 CY
CLASS I RIPRAP	PERM	7,650 SF	142 CY
CONNDOT #4	PERM	7,650 SF	94 CY
CONNDOT #67	PERM	7,650 SF	94 CY
30" HDPE PIPE	TEMP	625 SF	45 CY
TIMBER MATS	TEMP	3,240 SF	120 CY
TOTAL		0.26 AC*	1,180 CY PERM 165 CY TEMP

*TOTAL AREA DOES NOT INCLUDE OVERLAPPING AREAS OF DISTURBANCE.

LEGEND

- RIGHT-OF-WAY LINE
- LIMIT OF FLAGGED WETLANDS
- TOPOGRAPHY: MAJOR INTERVAL
- TOPOGRAPHY: MINOR INTERVAL
- TOPOGRAPHY: SPOT ELEVATION
- PROPOSED CHANNEL BOTTOM
- RIP RAP OR STONE
- BOULDER RIFFLES
- POINT OF HORIZONTAL INTERSECTION
- POINT OF VERTICAL INTERSECTION
- OXOBOXO BROOK CENTERLINE STATION
- TOP OF WALL ELEVATION

NOTES:

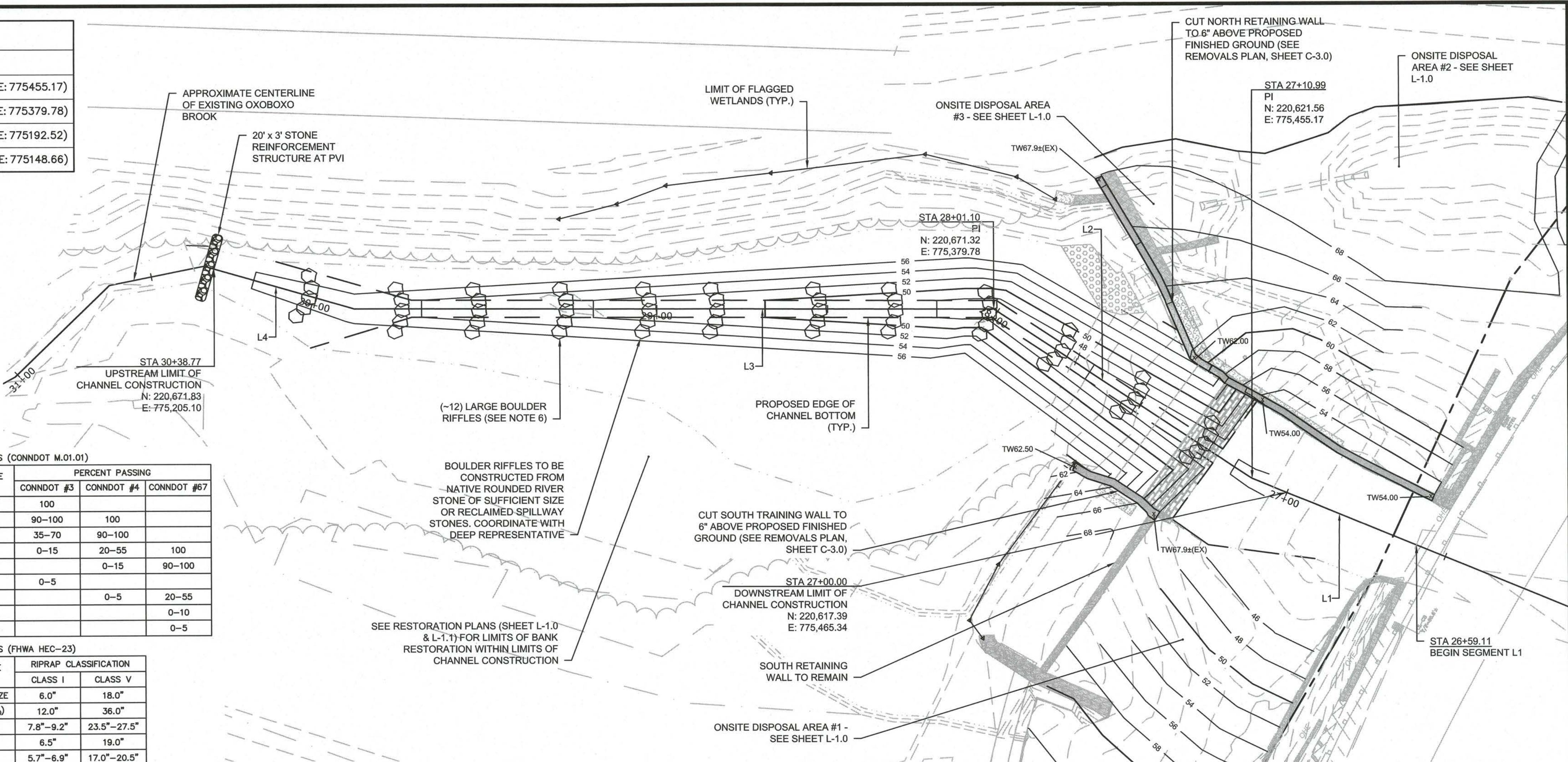
- CONTRACTOR SHALL NOTIFY "CALL BEFORE YOU DIG" (1-800-922-4455) AND VERIFY UTILITY MARK-OUT WITH THE OWNER PRIOR TO THE INITIATION OF ANY SITE DISTURBANCE.
- IMPLEMENTING WORKER SAFETY AND/OR HEALTH PROTOCOLS THAT ADDRESS COMPLIANCE WITH RULES, LAWS, AND REGULATIONS PERTAINING TO CONSTRUCTION SAFETY AND/OR THE POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE-SPECIFIC PHYSICAL OR CHEMICAL HAZARDS IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFICATION OF THE LOCATION AND NATURE OF ALL SUBSURFACE UTILITIES AT THE PROJECT WHICH MAY BE AFFECTED BY THE WORK. COORDINATE WITH RESPECTIVE UTILITY OWNERS AND PERFORM VERIFICATION OF TYPE, LOCATION AND INVERTS AS REQUIRED.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY AND ALL DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- THIS DRAWING IS INTENDED TO DEPICT THE LOCATION, LAYOUT, AND MATERIALS OF CONSTRUCTION AND IS INTENDED TO BE USED IN CONJUNCTION WITH THE DETAILS AND APPLICABLE SECTIONS OF CONNDOT FORM 617.
- THE POSITION, SIZE, AND NUMBER OF RIFFLES SHALL BE DETERMINED IN THE FIELD BY A REPRESENTATIVE FROM THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION (CT DEEP) (MAXIMUM OF 12" DROP IN ELEVATION FOR EACH RIFFLE). IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DEEP REPRESENTATIVE ONE WEEK (7 DAYS) IN ADVANCE OF THE ANTICIPATED RIFFLE INSTALLATION DATE TO ALLOW SUFFICIENT SCHEDULING.
- STONE REINFORCEMENT STRUCTURE AT PVI SHALL BE CONSTRUCTED PER THE TYPICAL STREAM SECTION DETAIL ON SHEET C-6.1. THE TOP OF THE STRUCTURE SHALL BE FLUSH WITH THE EXISTING STREAM BED AND SHALL EXTEND TO THE LIMITS SHOWN ON THE PLANS.
- VERTICAL DATUM BASED ON NGVD 29, HORIZONTAL DATUM BASED ON NAD 27.
- THE LOCATIONS OF EXISTING SITE FEATURES AS SHOWN HAVE BEEN OBTAINED FROM MAPS, SURVEYS, FIELD INSPECTIONS, AND OTHER AVAILABLE INFORMATION. THEY MUST BE CONSIDERED APPROXIMATE BOTH TO LOCATION, SIZE, AND AS-BUILT CONDITION AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL FIELD CONDITIONS.
- THE DIMENSIONS SHOWN ON THE PLANS, INCLUDING THE INTENDED DIMENSIONS OF THE WORK, MAY VARY FROM ACTUAL EXISTING CONDITIONS IN THE FIELD. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASUREMENTS TO VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS AS WELL AS OTHER DIMENSIONS HE MAY DEEM APPROPRIATE TO FACILITATE THE COMPLETION OF THE WORK.
- ENGAGE A CONNECTICUT-LICENSED LAND SURVEYOR TO PERFORM LAND-SURVEYING SERVICES REQUIRED, INCLUDING, BUT NOT LIMITED TO VERIFICATION AND LAYOUT OF PROPOSED IMPROVEMENTS, DIMENSIONS, AND ELEVATIONS. REPORT DISCREPANCIES TO THE ENGINEER.
- UNLESS OTHERWISE INDICATED, ALL DISTURBED AREAS SHALL BE RESTORED WITH SIX (6) INCHES OF LOAM, SEEDED, FERTILIZED, AND MULCHED. PROVIDE ADDITIONAL EROSION CONTROLS AS REQUIRED.
- PROPOSED GRADES INDICATE DESIGN INTENT. VERIFY ELEVATIONS AND MAKE ADJUSTMENTS TO MEET FIELD CONDITIONS. DO NOT PROCEED WITH ANY ADJUSTMENT OR FIELD MODIFICATION UNTIL APPROVED BY THE ENGINEER.
- GRADE TRANSITION BETWEEN TOPOGRAPHIC LINES AND SPOT GRADES SHALL BE UNIFORM UNLESS OTHERWISE INDICATED.
- UNLESS OTHERWISE INDICATED, BLEND TRANSITIONS IN ELEVATION BETWEEN NEW WORK AND AREAS TO REMAIN AT A MAXIMUM SLOPE OF 1V:2H AND RESTORE WITH SIX (6) INCHES OF LOAM AND SEED. PROVIDE ADDITIONAL EROSION CONTROLS AS REQUIRED. COORDINATE WITH ENGINEER IF DIMENSIONAL CONSTRAINTS REQUIRE STEEPER SLOPES.
- PROVIDE FOR THE LAYOUT AND STAKING/MARKING OF THE PROPOSED LOCATION OF ALL PROPOSED SITE IMPROVEMENTS, INCLUDING FURNISHINGS. OBTAIN ENGINEER'S APPROVAL OF THE LAYOUT PRIOR TO PROCEEDING WITH THE WORK.
- UNLESS OTHERWISE INDICATED, LINES ARE PARALLEL OR PERPENDICULAR TO THE LINE FROM WHICH THEY ARE MEASURED.

STONE SIZES (CONNDOT M.01.01)

U.S. SIEVE SIZE	PERCENT PASSING		
	CONNDOT #3	CONNDOT #4	CONNDOT #67
2-1/2"	100		
2"	90-100	100	
1-1/2"	35-70	90-100	
1"	0-15	20-55	100
3/4"		0-15	90-100
1/2"	0-5		
3/8"		0-5	20-55
#4			0-10
#8			0-5

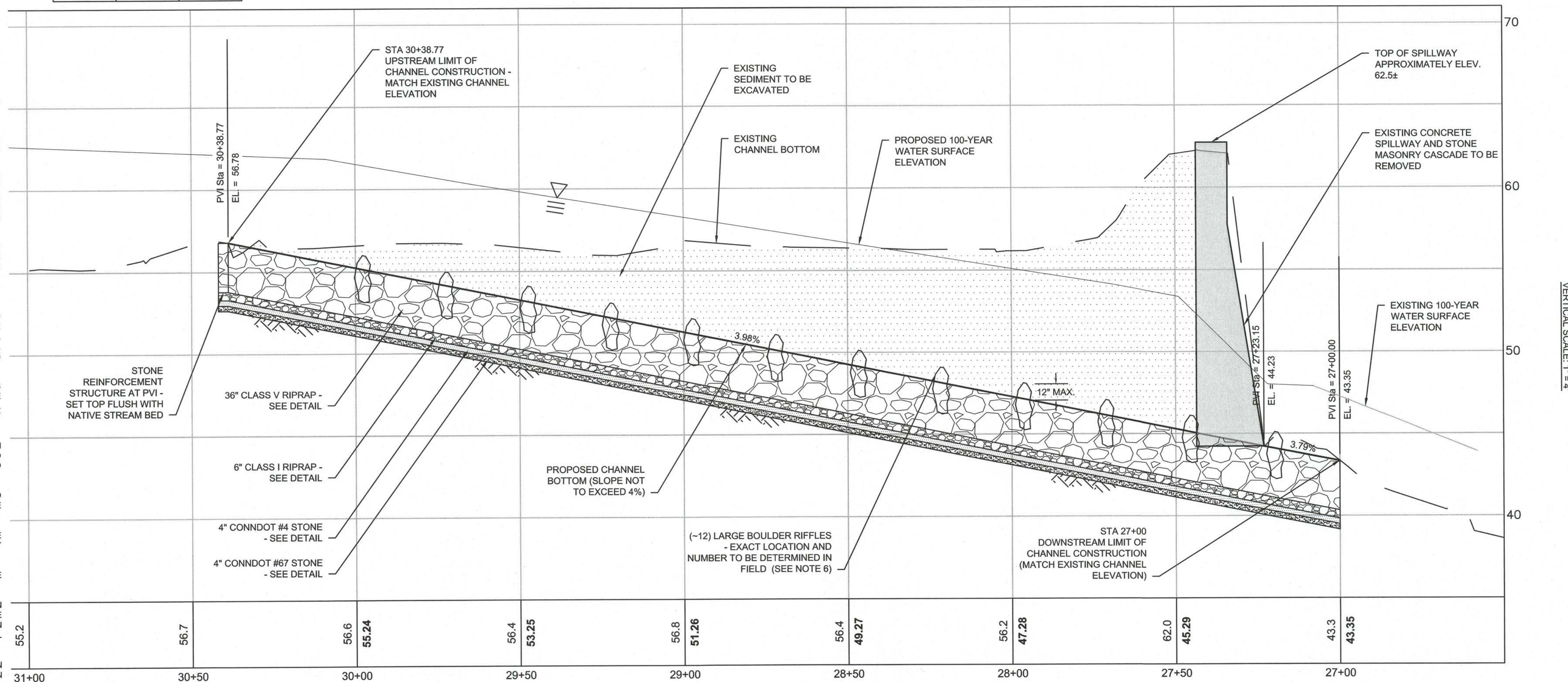
STONE SIZES (FHWA HEC-23)

PARTICLE SIZE	RIPRAP CLASSIFICATION	
	CLASS I	CLASS V
MEDIAN SIZE	6.0"	18.0"
MAX (d ₁₀₀)	12.0"	36.0"
d ₈₅	7.8"-9.2"	23.5"-27.5"
d ₆₀	6.5"	19.0"
d ₅₀	5.7"-6.9"	17.0"-20.5"
d ₁₅	3.7"-5.2"	11.0"-15.5"
d ₁₀	4.0"	12.5"



GENERAL PLAN

SCALE: 1" = 20'



PROFILE

HORIZONTAL SCALE: 1" = 20'

FRANCIS J. VACCA, PE

No. 29098

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

PROPOSED GENERAL PLAN & PROFILE

OCTOBER 27, 2017

REVISIONS:

No.	DATE	DESCRIPTION
07/25/18		RESPONSE TO DAM SAFETY

PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

BSC GROUP

300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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SCALE: 1" = 20'

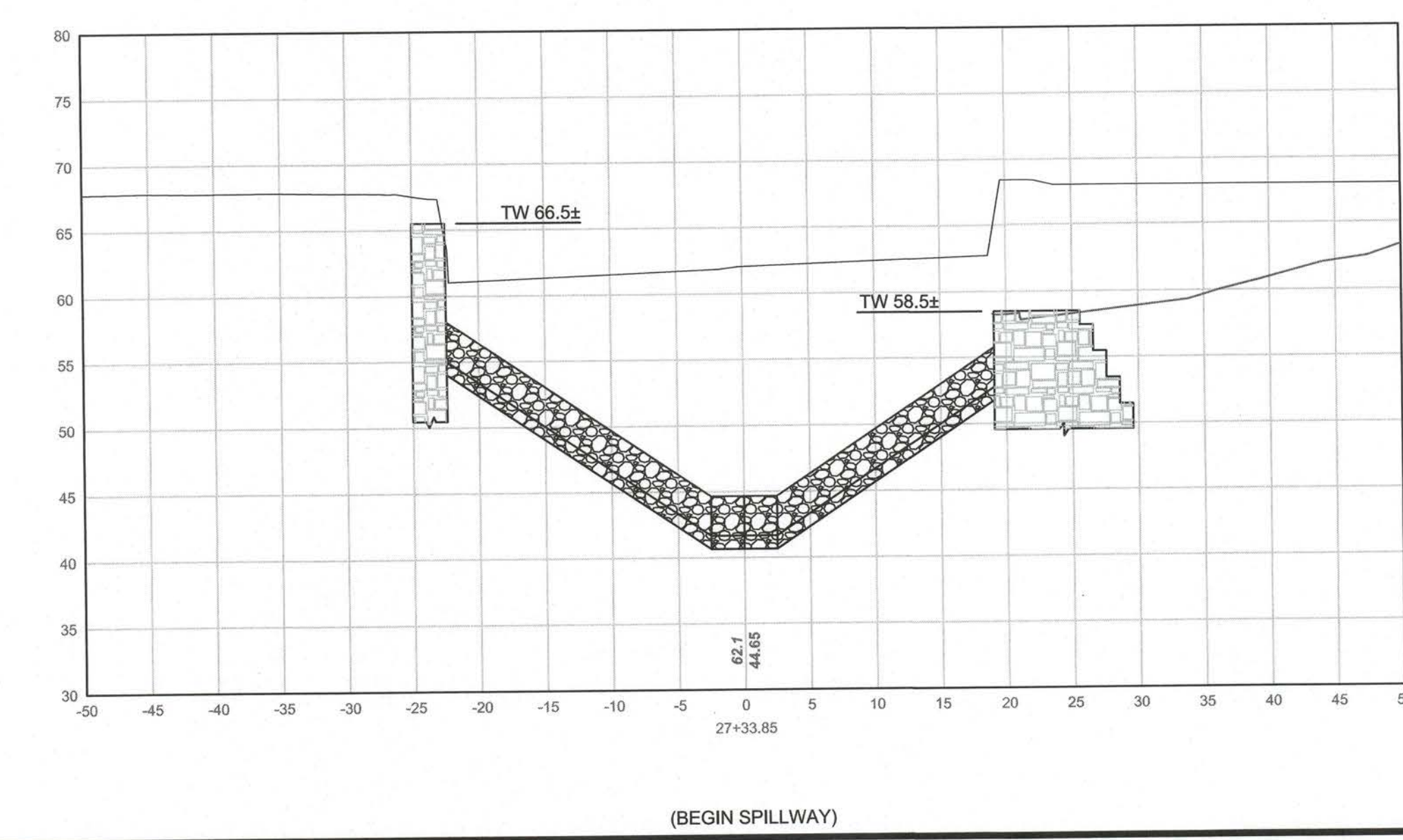
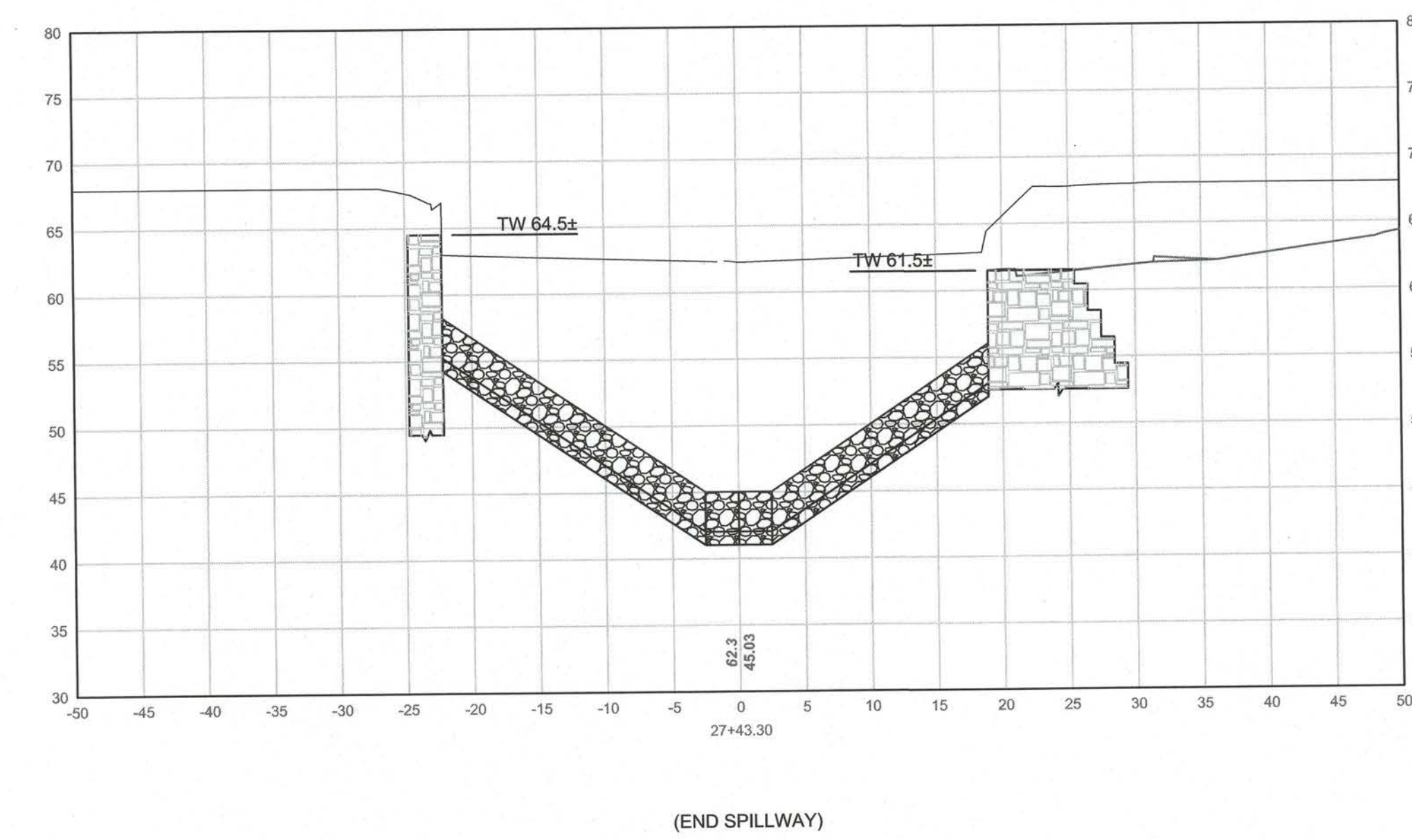
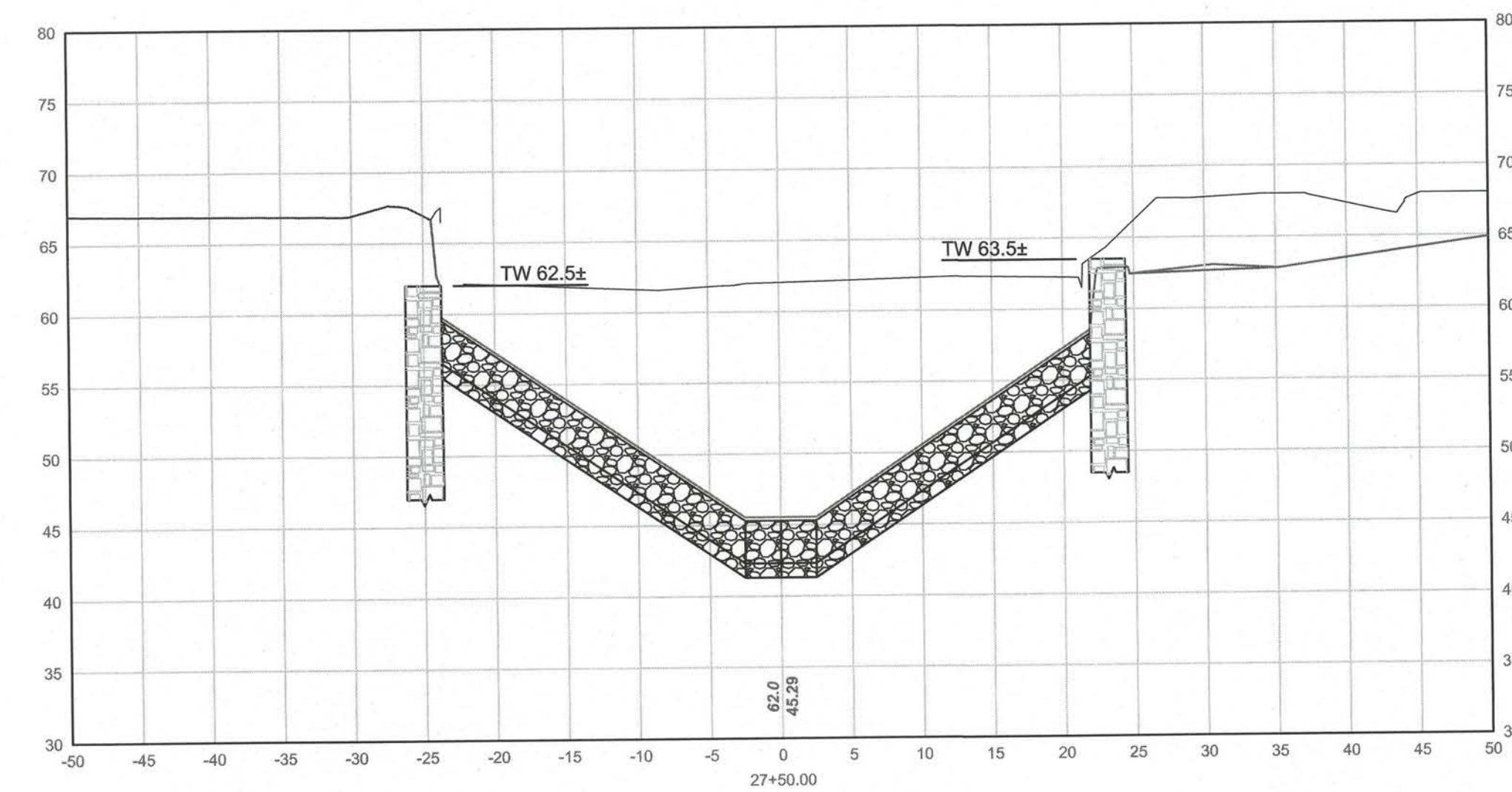
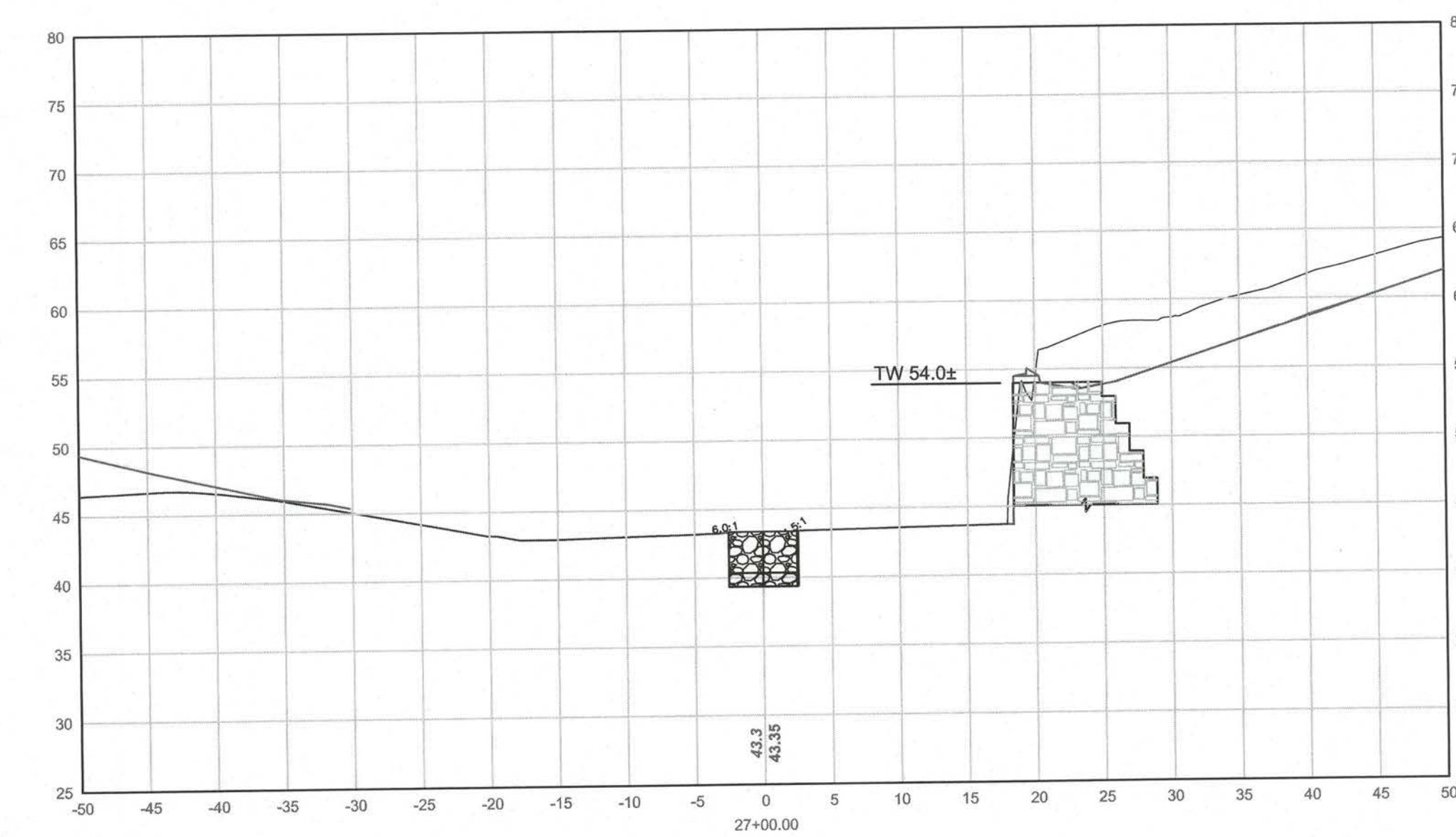
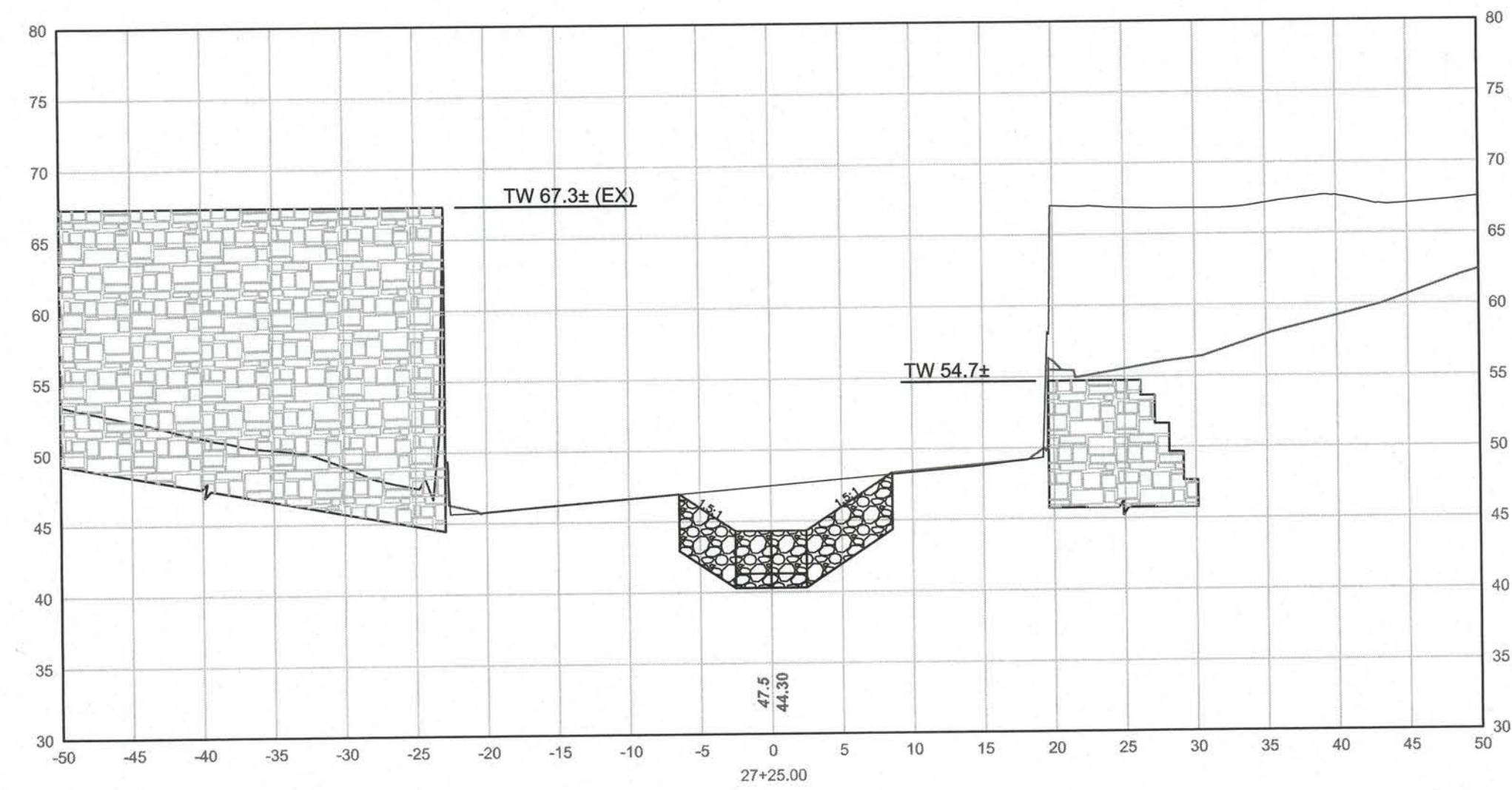


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JOB. NO: 83649.00

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FRANCIS J. VACCA, PE No. 29098

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

PROPOSED STREAM CROSS SECTIONS

OCTOBER 27, 2017

REVISIONS:		
No.	DATE	DESCRIPTION
	07/25/18	RESPONSE TO DAM SAFETY

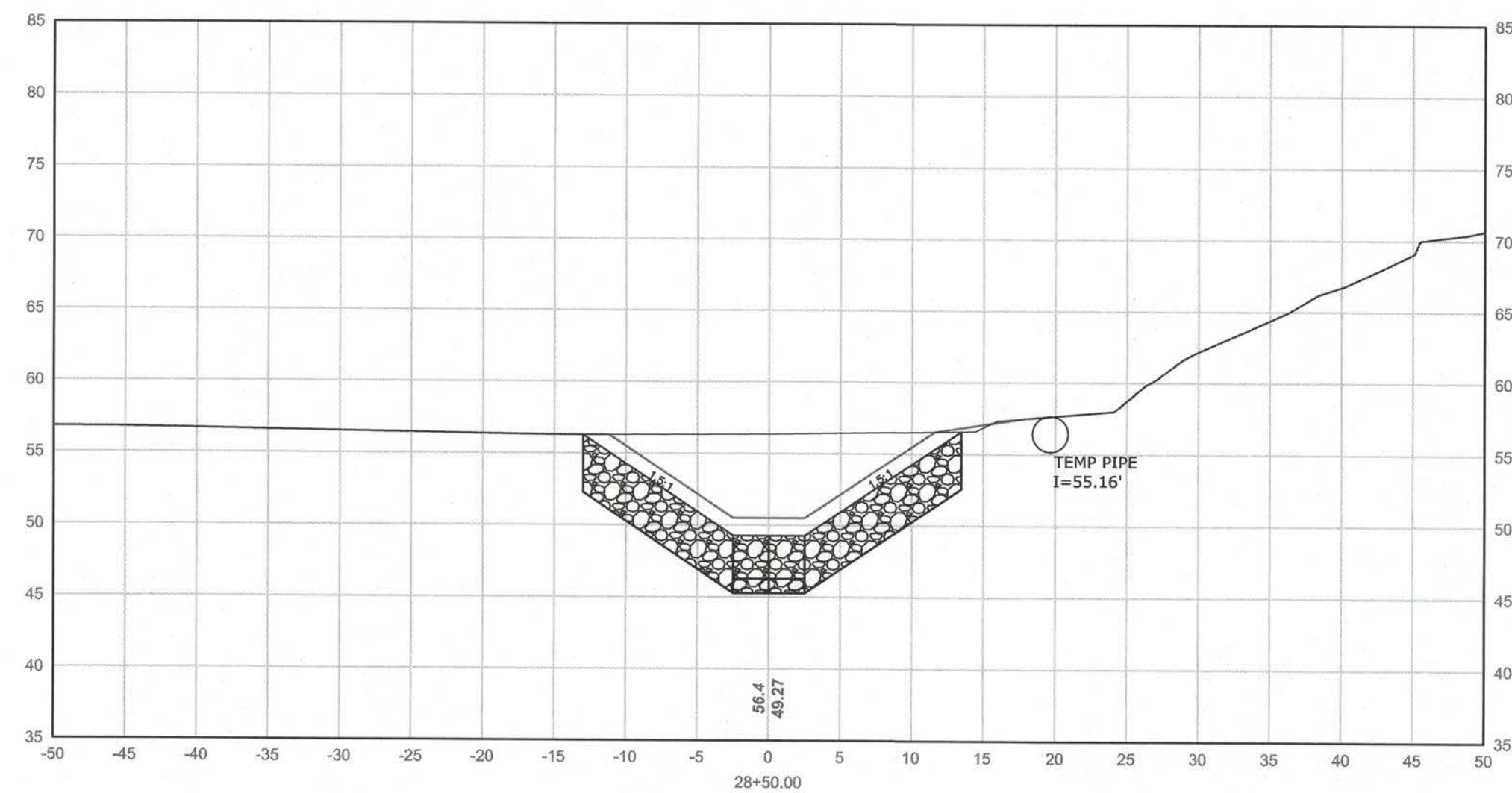
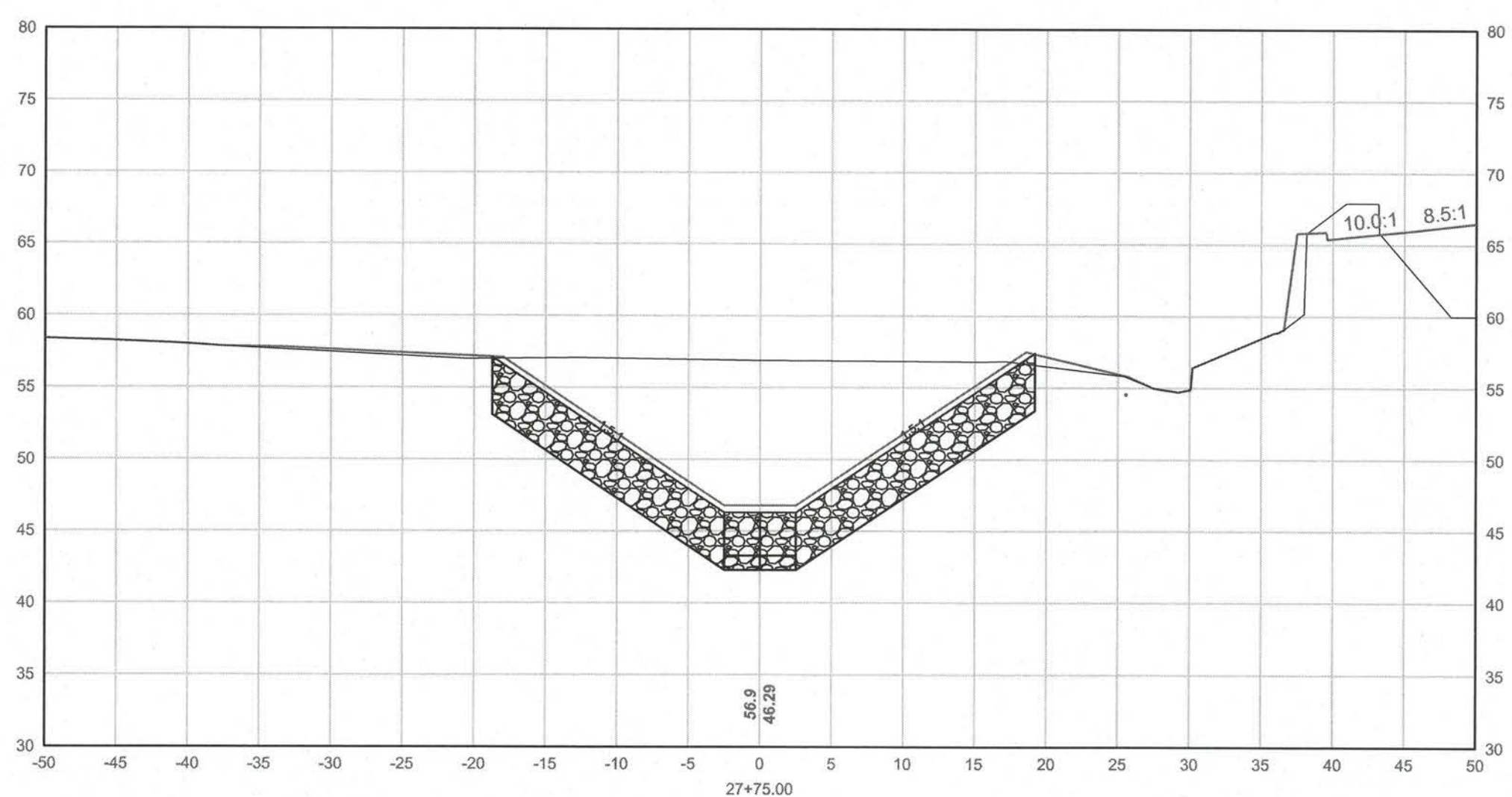
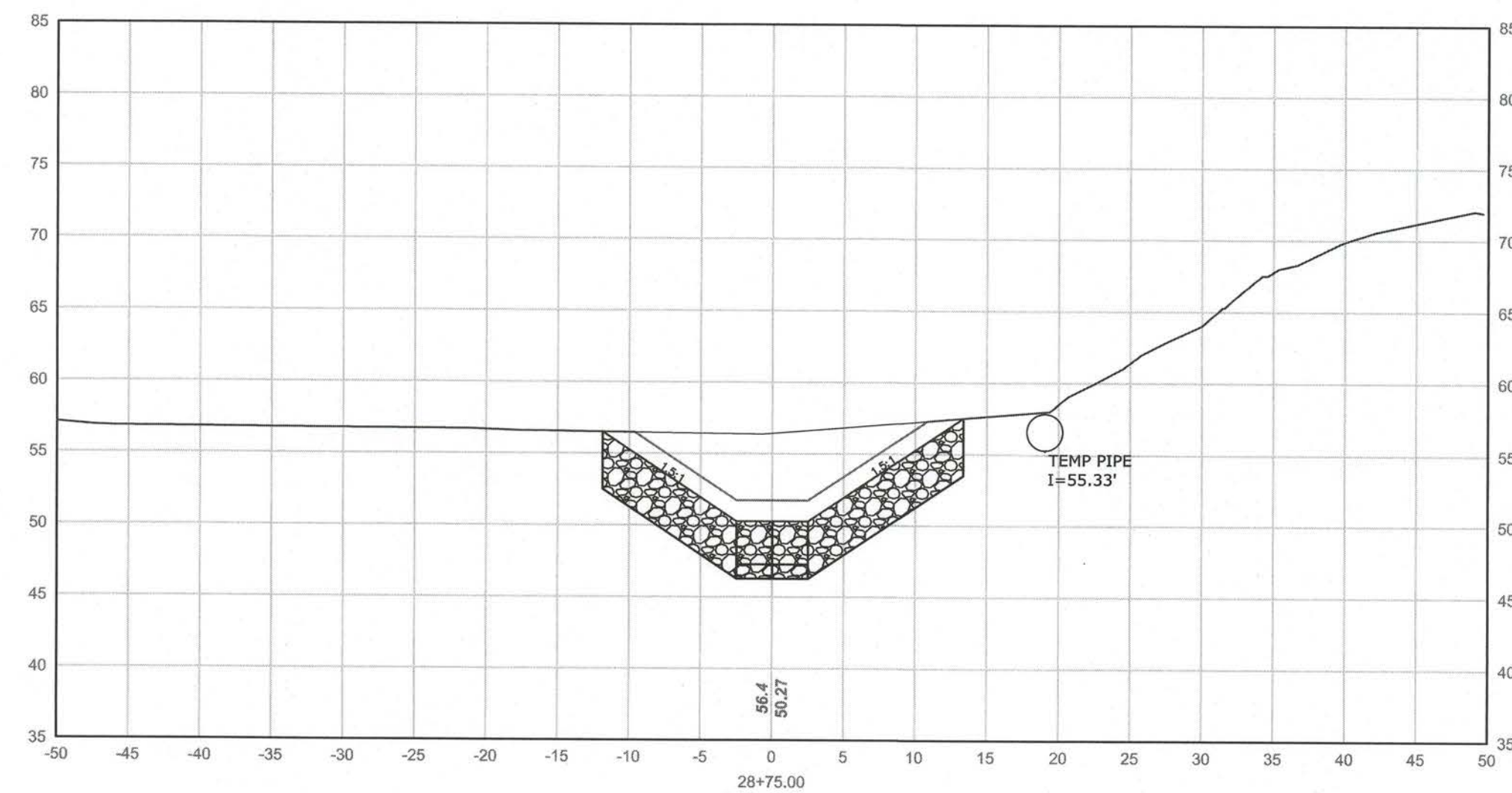
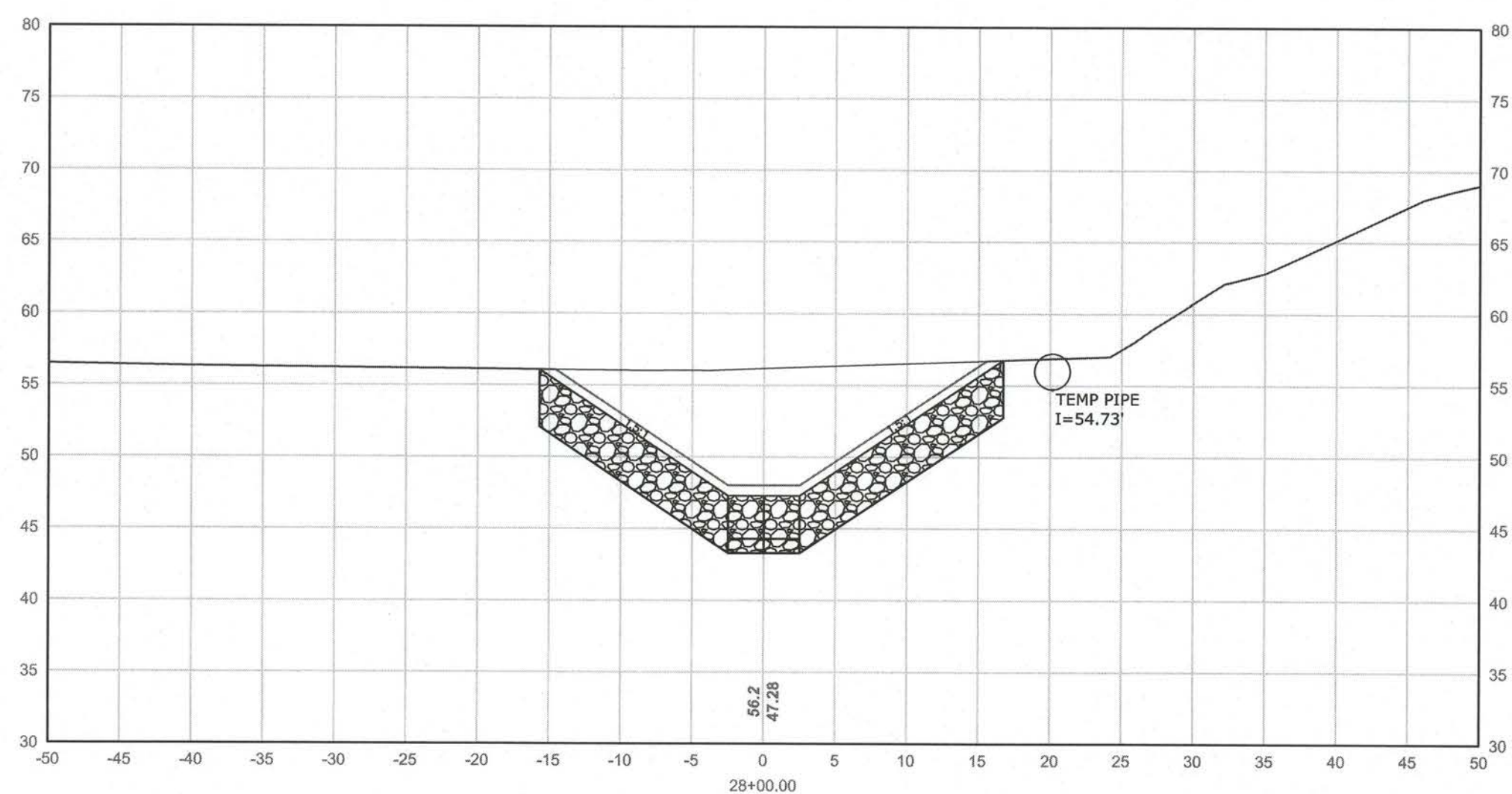
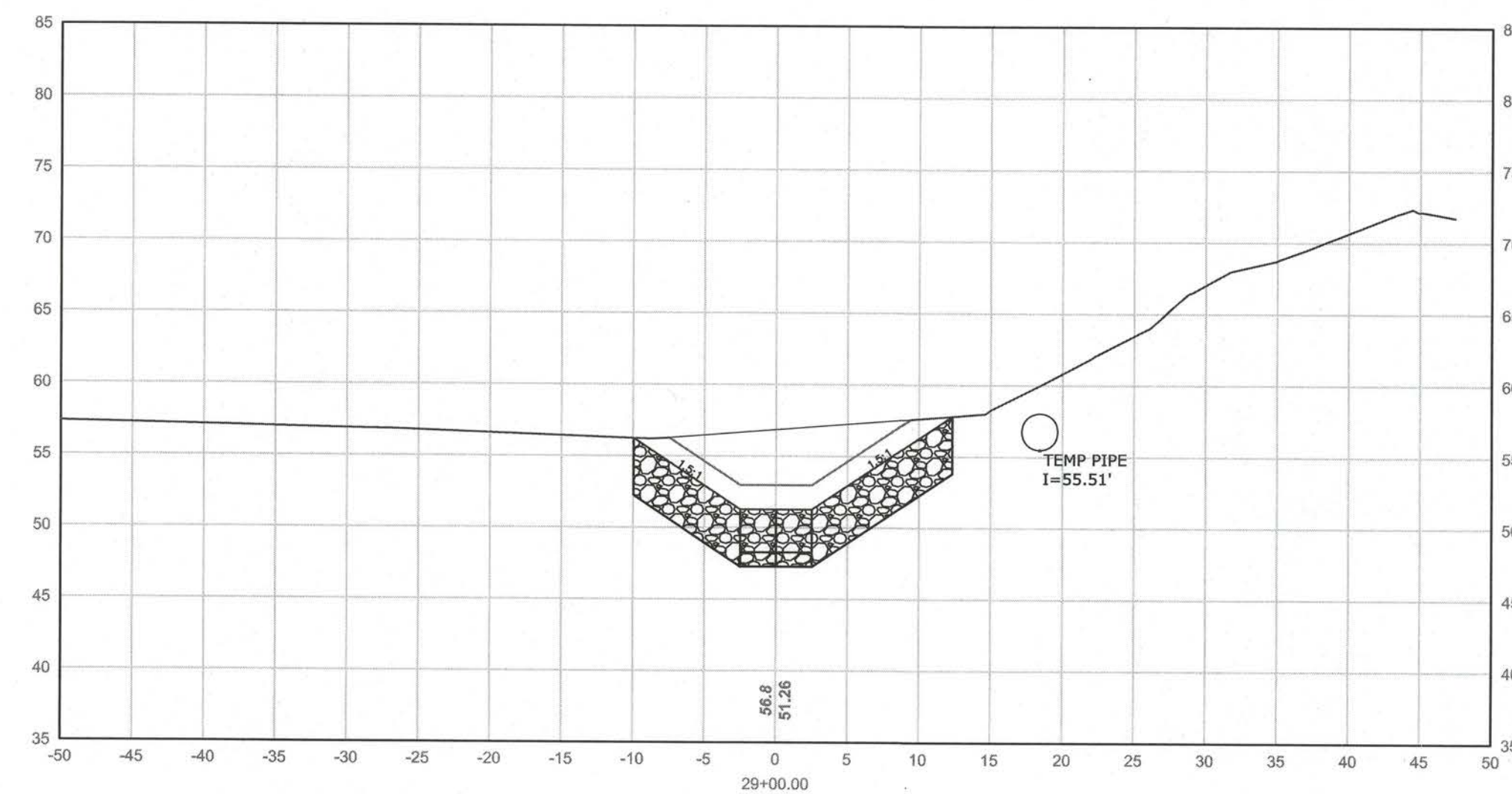
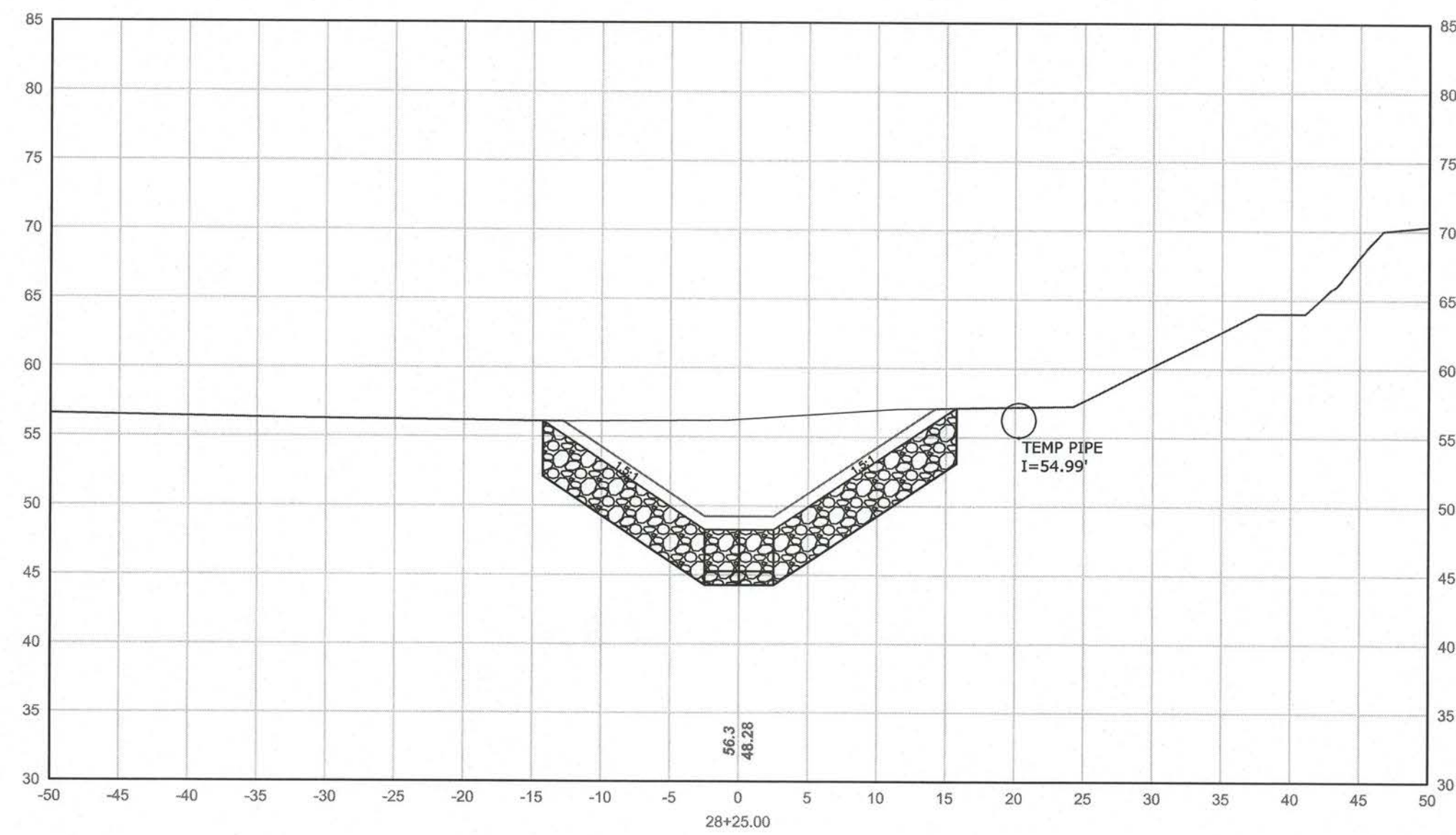
PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

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300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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SCALE: 1" = 10'
0 5 10 20 FEET

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DWG. NO:
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FRANCIS J. VACCA, PE No. 29098

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

PROPOSED STREAM
CROSS SECTIONS

OCTOBER 27, 2017

REVISIONS:

No.	DATE	DESCRIPTION
07/25/18		RESPONSE TO DAM SAFETY

PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

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300 Winding Brook Drive
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860 652 8227

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SCALE: 1" = 10'

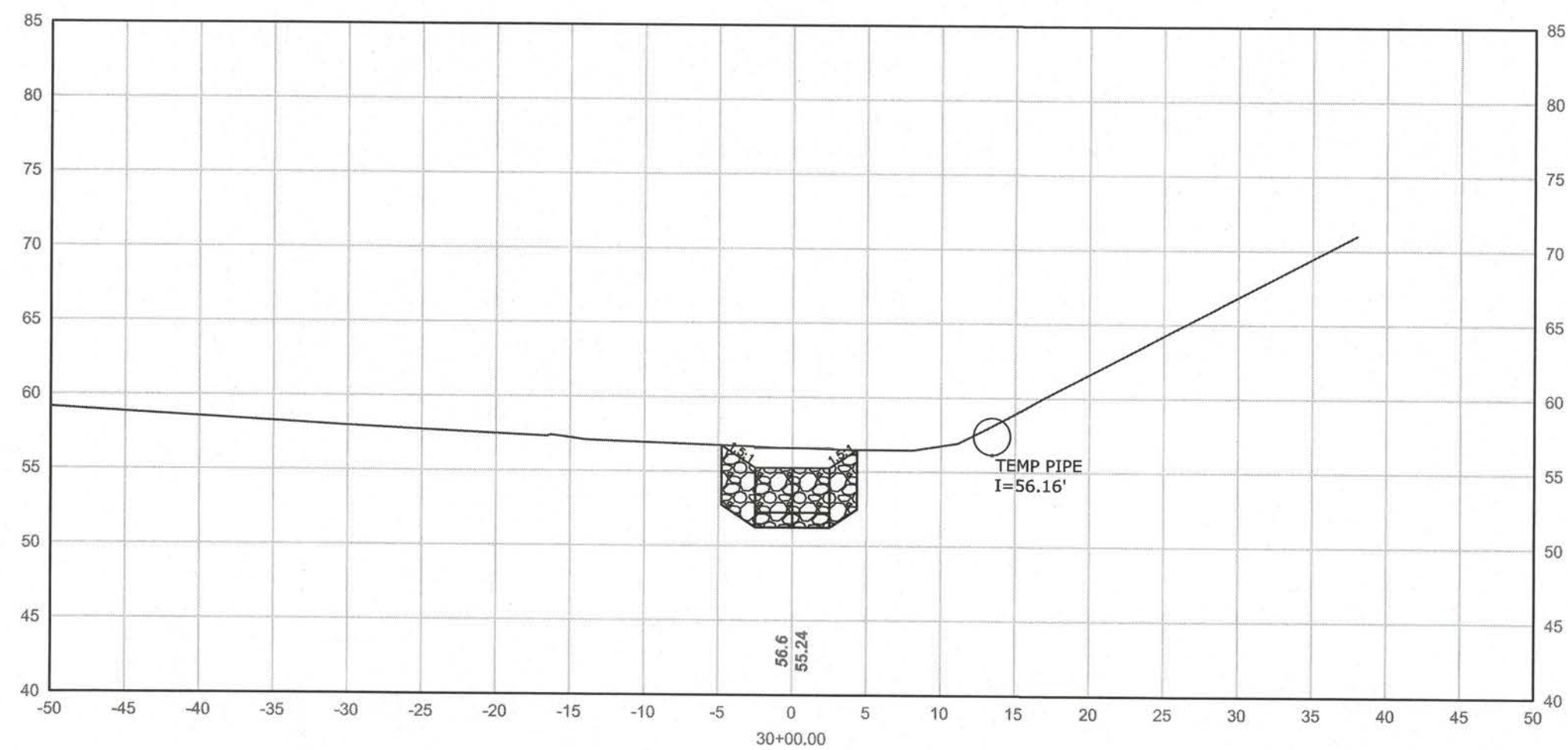
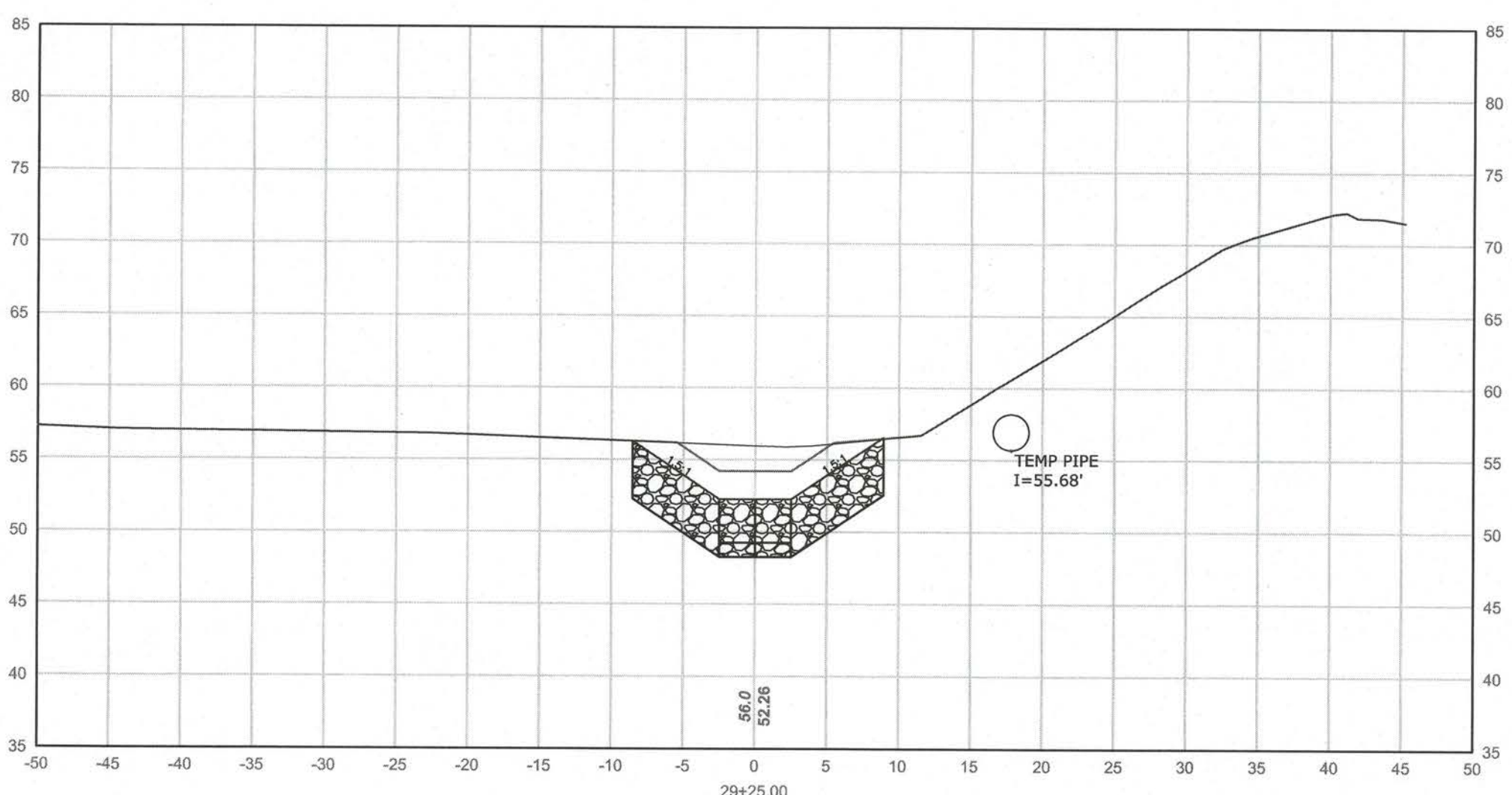
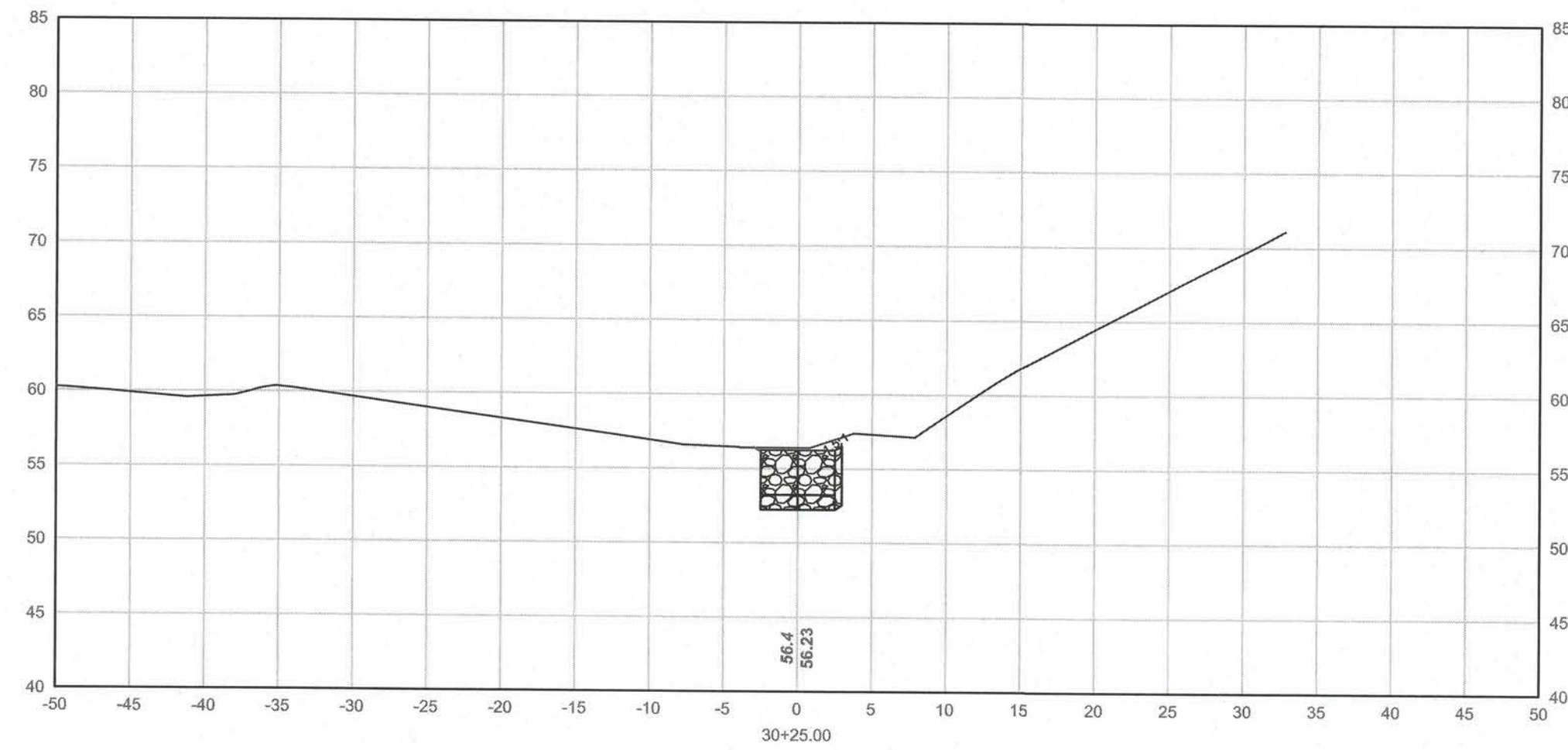
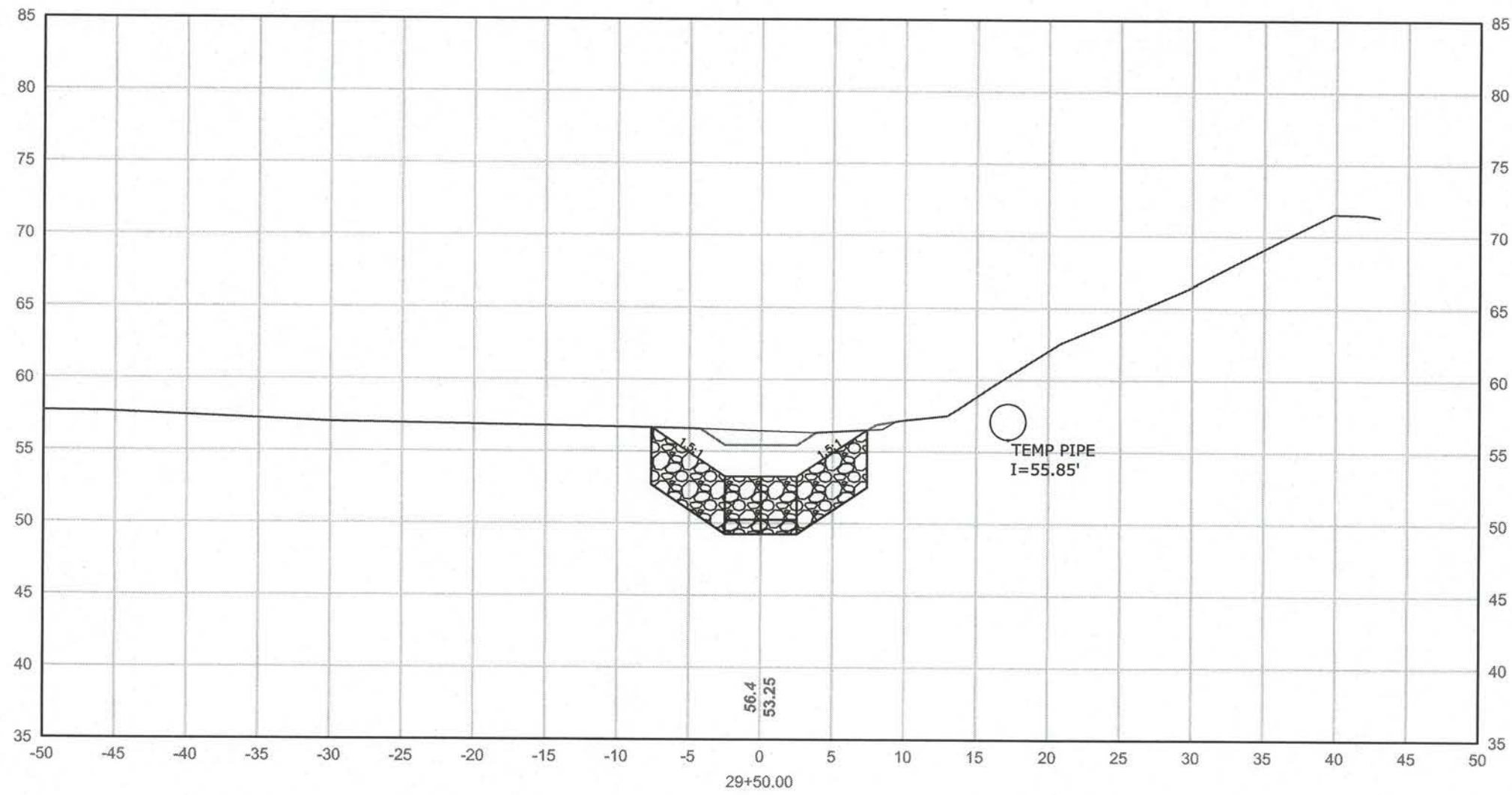
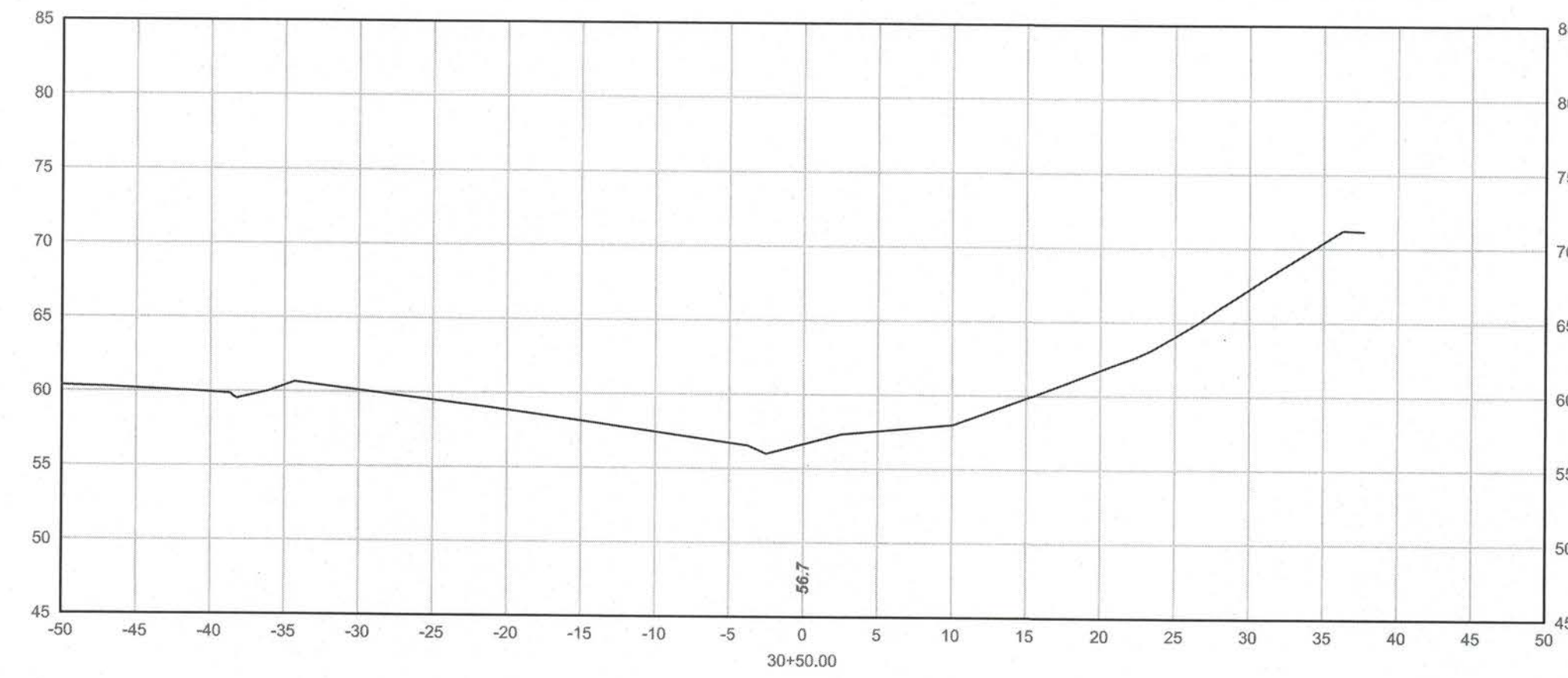
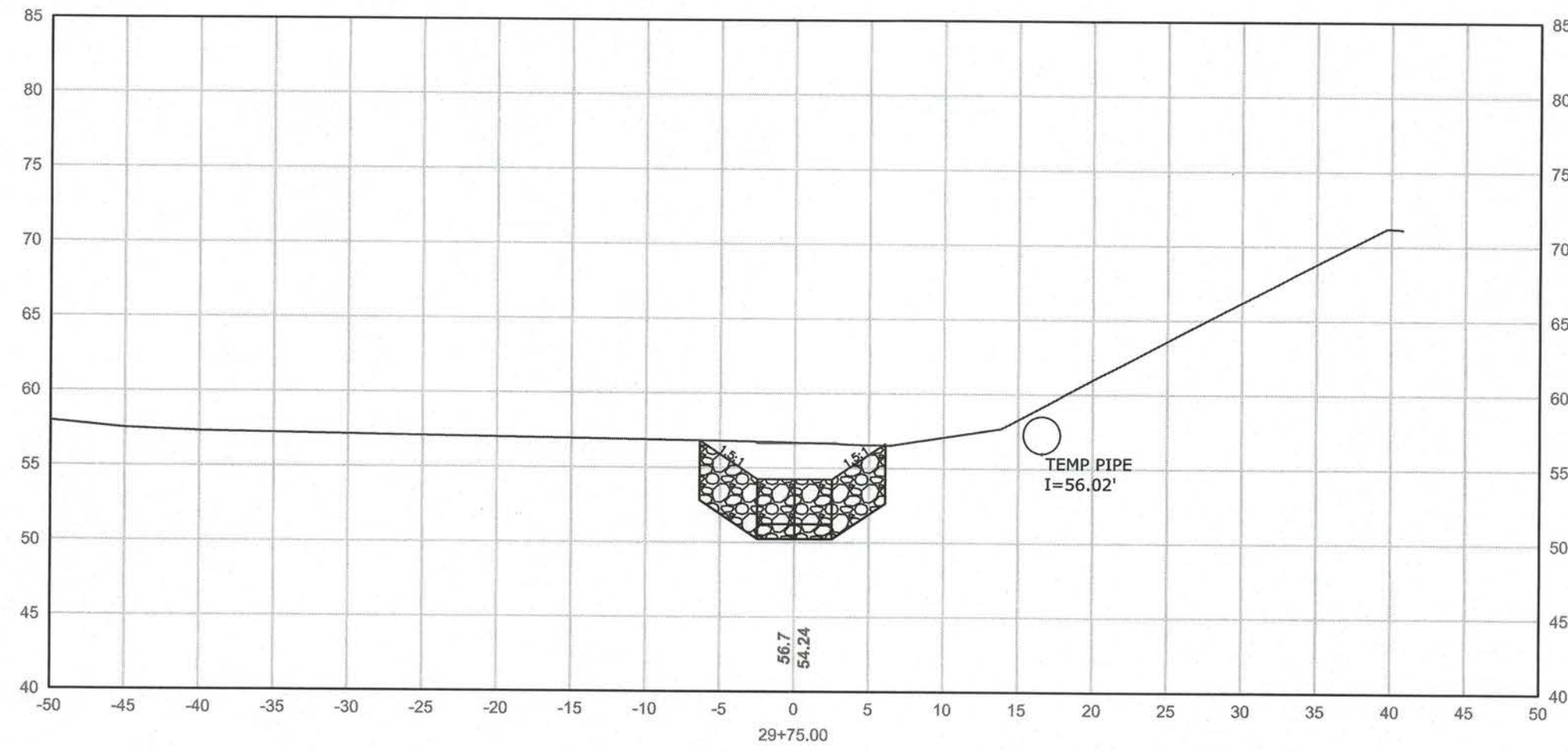


FILE: 8364900-XSEC.DWG

DWG. NO:

JOB. NO: 83649.00

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FRANCIS J. VACCA, PE No. 29098

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

PROPOSED STREAM CROSS SECTIONS

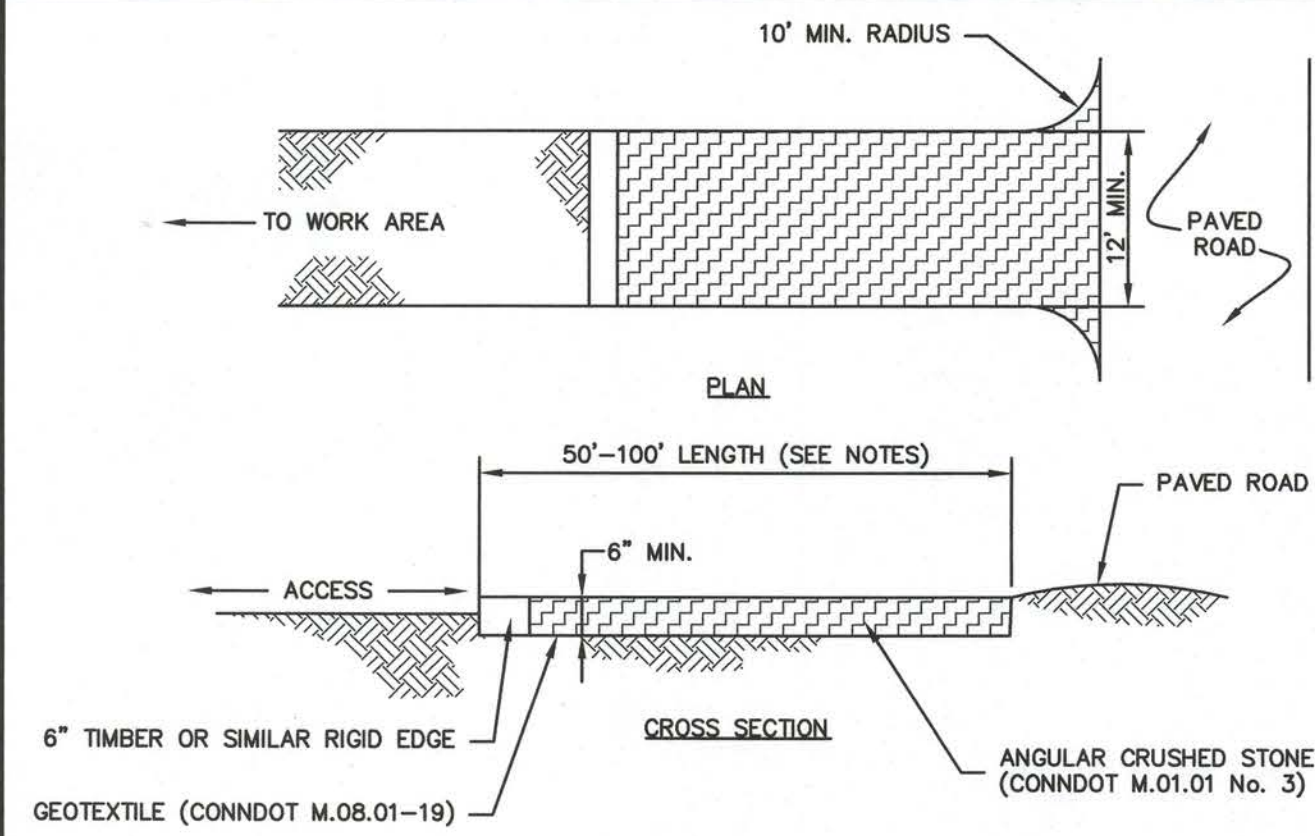
OCTOBER 27, 2017

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No.	DATE	DESCRIPTION
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Glastonbury, Connecticut 06033
860 652 8227

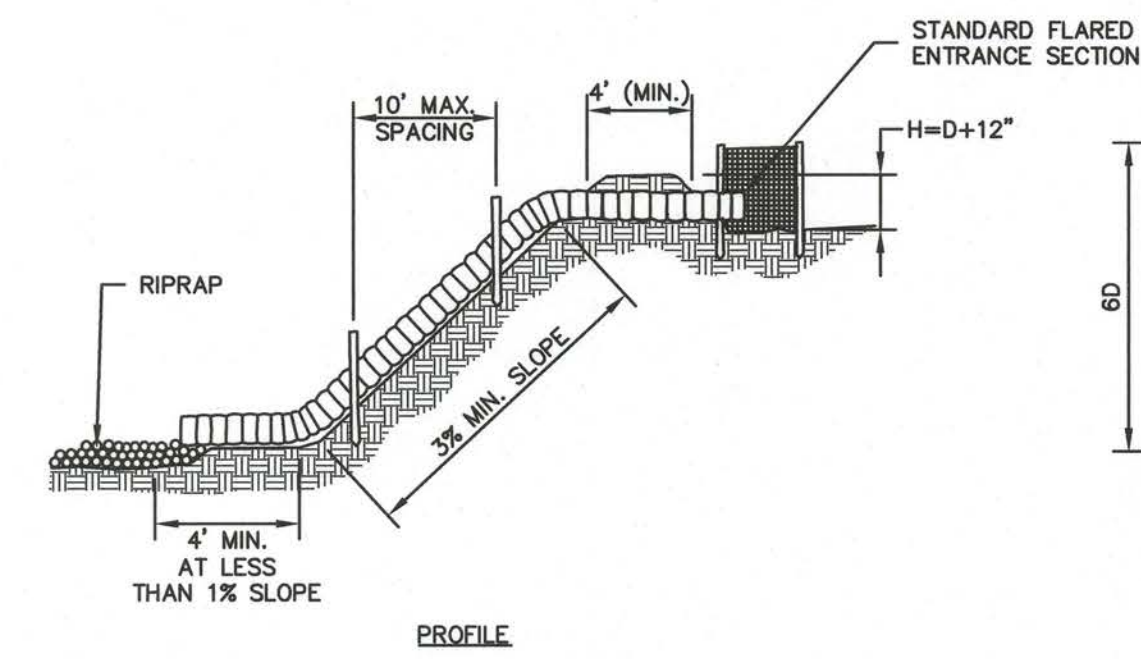
© 2017 BSC GROUP, INC.
SCALE: 1" = 10'
0 5 10 20 FEET
FILE: 8364900-XSEC.DWG
DWG. NO:
JOB. NO: 83649.00
C-5.2



- NOTES:**
1. REMOVE TOPSOIL AND ORGANICS PRIOR TO CRUSHED STONE PLACEMENT.
 2. INSTALL SUB-BASE OF FREE DRAINING BACKFILL OR ROAD STABILIZATION GEOTEXTILE AS NECESSARY ON UNSTABLE SOILS.
 3. LENGTH SHALL BE 50 FOOT MINIMUM. WHERE TRACKED SEDIMENTS CONTAIN LESS THAN 80% SAND, LENGTH SHALL BE 100 FOOT MINIMUM.
 4. IF THE GRADE OF THE CONSTRUCTION ENTRANCE DRAINS TO THE PAVED SURFACE AND IT EXCEEDS 2% SLOPE, CONSTRUCT ENTRANCE AT LEAST 15 FEET FROM ITS ENTRANCE ONTO THE PAVED SURFACE WHILE DIVERTING RUN-OFF WATER TO A SETTLING OR FILTERING AREA.
 5. CONSTRUCT ANY DRAINAGE AND SETTLING FACILITIES REQUIRED TO ACCOMMODATE VEHICLE WASHING OPERATIONS. DIVERT ALL WASH WATER AWAY FROM ENTRANCE TO THE SETTLING AREA.
 6. MAINTAIN ENTRANCE IS A CONDITION THAT WILL PREVENT WASHING OF SEDIMENT ONTO PAVED SURFACES.

ANTI-TRACKING PAD

SCALE: NONE
EC-101-CT



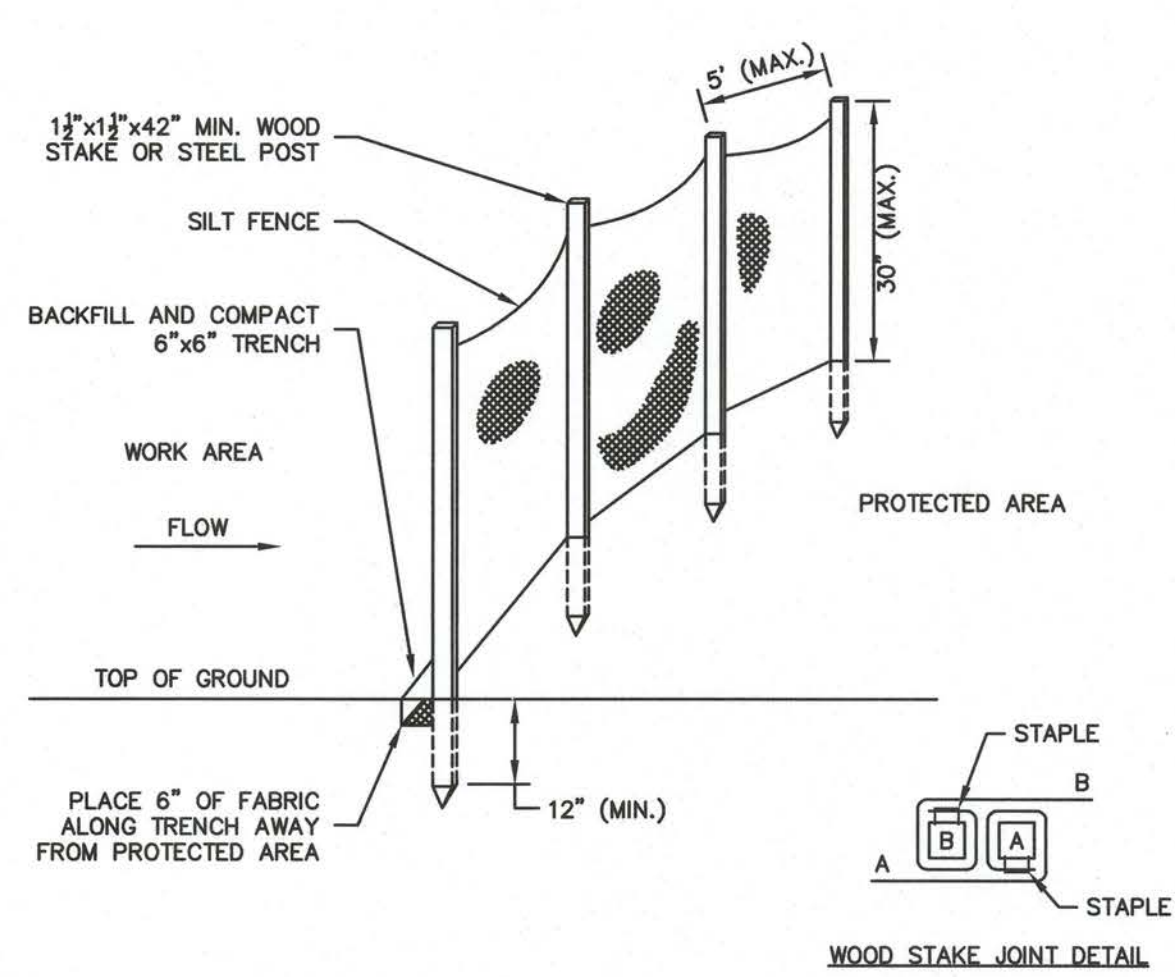
- GENERAL NOTES**
1. THE PIPE SLOPE DRAIN SHALL HAVE A SLOPE OF 3% OR STEEPER.
 2. TOP OF THE EARTH DIKE OVER THE INLET PIPE AND ALL DIKE CARRYING WATER TO THE PIPE SHALL BE AT LEAST (1) ONE FOOT HIGHER THAN THE TOP OF THE PIPE.
 3. ADD 0.3 FOOT TO DIKE HEIGHT FOR SETTLEMENT.
 4. SOIL AROUND AND UNDER THE SLOPE PIPE SHALL BE HAND TEMPERED IN 4-INCH LIFTS.
 5. THE PIPE SHALL BE PLASTIC OR CORRUGATED METAL PIPE WITH WATERTIGHT 12-INCH WIDE CONNECTING BANDS OR FLANGE CONNECTIONS.
 6. PIPE ANCHORS TO BE PLACED AT 10-FOOT MAXIMUM SPACING.
 7. RIPRAP TO BE (6) SIX INCHES IN A LAYER AT LEAST 12 INCHES THICKNESS AND PRESSED INTO THE SOIL.
 8. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

TEMPORARY PIPE SLOPE DRAIN (REQ'D)

SCALE: NONE
EC-115-CT

EROSION & SEDIMENTATION CONTROL NOTES (REFERENCE SHEET C-1.0-1.1):

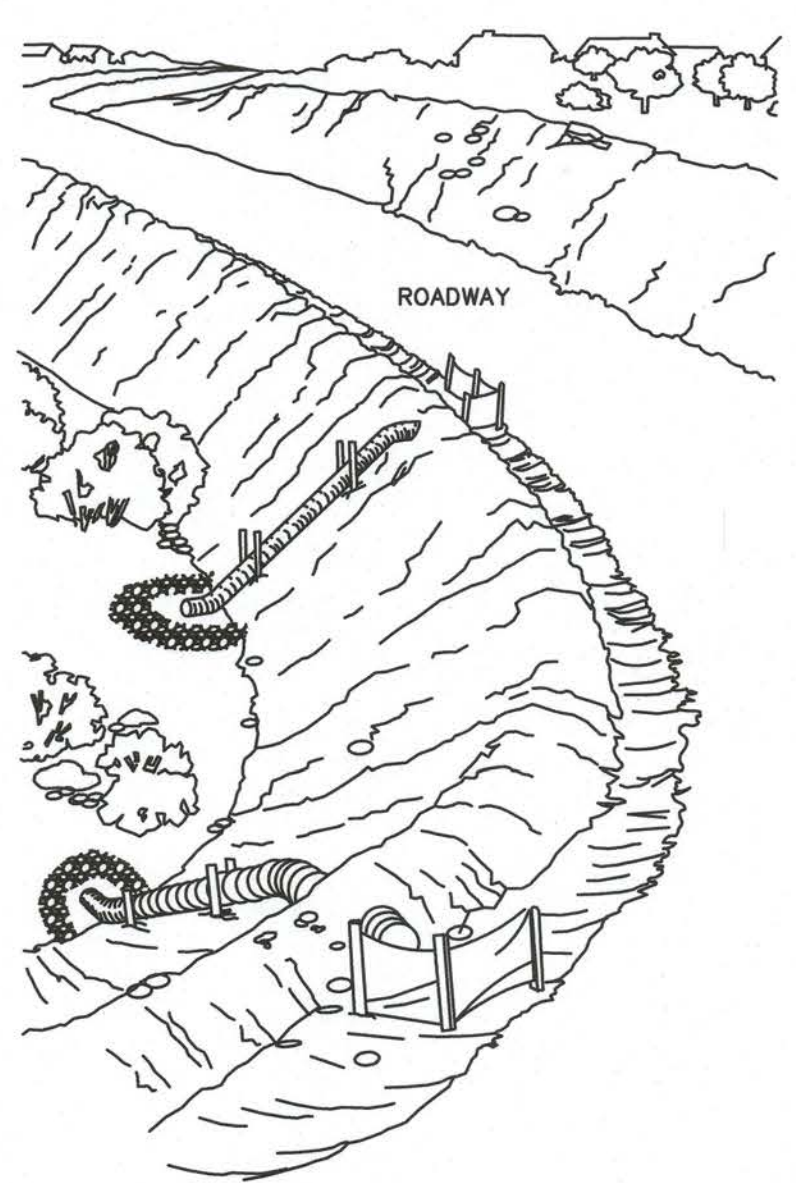
1. THIS PLAN IS FOR EROSION AND SEDIMENTATION (E&S) CONTROL ONLY. SEE OTHER PLANS FOR THE SCOPE OF CONSTRUCTION WORK.
2. DO NOT PROCEED WITH THE WORK UNTIL ALL E&S CONTROL MEASURES ARE IN-PLACE AND HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.
3. THE MEASURES SPECIFIED HEREON ARE THE MINIMUM REQUIREMENTS FOR E&S CONTROL AND ARE SHOWN IN GENERAL SIZE AND LOCATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL E&S CONTROL MEASURES ARE CONFIGURED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION OF SOILS AND PREVENT THE TRANSPORT OF SEDIMENTS AND OTHER POLLUTANTS TO ANY RESOURCE AREAS. PROVIDE ADDITIONAL E&S MEASURES AS REQUIRED TO CONTROL EROSION AND SILTATION THROUGHOUT THE DURATION OF THE CONSTRUCTION AS CONDITIONS DICTATE AND/OR AS DIRECTED BY THE OWNER OR THE ENGINEER.
4. MONITOR AND INSPECT ALL E&S MEASURES IN AN ONGOING MANNER THROUGHOUT THE WORK AND TAKE CORRECTIVE MEASURES, AS REQUIRED, TO MINIMIZE EROSION OF SOILS AND PREVENT THE TRANSPORT OF SEDIMENTS AND OTHER POLLUTANTS TO ANY RESOURCE AREAS.
5. ANY EROSION AND SEDIMENTATION MEASURE IMPLEMENTED BEYOND THAT SHOWN HEREON SHALL CONFORM TO APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT'S 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL."
6. ANY STOCKPILED MATERIAL SHALL BE SUBJECT TO EROSION CONTROL MEASURES THAT INCLUDE A MINIMUM OF SILT FENCE OR HAY BALE BARRIER COVER STOCKPILES IF SIGNIFICANT RAINFALL IS PREDICTED.
7. PROVIDE TEMPORARY SEEDING WITH MULCH ON ALL EXPOSED SOIL AREAS WHERE WORK WILL BE SUSPENDED FOR LONGER THAN 30 DAYS. APPLY SEED AND MULCH WITHIN THE FIRST 7 DAYS OF SUSPENDING WORK. WHEN SEEDING IS NOT POSSIBLE DUE TO SEASONAL WEATHER CONDITIONS OR OTHER FACTORS, PROVIDE TEMPORARY STRUCTURAL SOIL PROTECTION SUCH AS MULCH, WOODCHIPS, EROSION CONTROL MATTING, OR COMPOST.
8. ALL TEMPORARY SLOPES IN EXCESS OF 3 (HORIZONTAL) TO 1 (VERTICAL) SHALL BE STABILIZED WITH EROSION CONTROL MATTING OR APPROVED EQUIVALENT.
9. NO RUNOFF SHALL BE ALLOWED TO ENTER ANY STORMWATER SYSTEM OR EXIT THE SITE PRIOR TO TREATMENT FOR SEDIMENT REMOVAL.
10. THE CONTRACTOR SHALL MAINTAIN A CLEAN CONSTRUCTION SITE AND SHALL NOT ALLOW THE ACCUMULATION OF RUBBISH OR CONSTRUCTION DEBRIS. ALL TRASH SHALL BE CLEANED ON A DAILY BASIS AND THE SITE SHALL BE LEFT IN A NEAT CONDITION AT THE END OF EACH WORK DAY.
11. TAKE ALL NECESSARY PRECAUTIONS TO AVOID THE SPILLAGE OF FUEL OR OTHER POLLUTANTS AND ADHERE TO ALL APPLICABLE POLICIES AND REGULATIONS RELATED TO SPILL PREVENTION, CONTROL, AND RESPONSE.
12. FOR DUST CONTROL, PERIODICALLY MOISTEN EXPOSED SOIL SURFACES WITH WATER AND MAINTAIN ADEQUATE MOISTURE LEVELS, IF NECESSARY.
13. SWEEP ADJACENT ROADWAYS IF MUD OR SOIL IS TRACKED ON TO THEM, OR AS DIRECTED BY THE ENGINEER. SHOULD THE CONSTRUCTION ENTRANCE FAIL TO PREVENT THE TRACKING OF SOILS OR SEDIMENT OFF OF THE PROJECT SITE, A WASHING RACK SHALL BE INSTALLED ALONG WITH APPROPRIATE MEASURES TO COLLECT RESULTING WASTEWATER.



- GENERAL NOTES**
1. FOR SLOPE & SWALE INSTALLATIONS, EXTEND FENCE UP SLOPE SUCH THAT BOTTOM ENDS OF FENCE WILL BE HIGHER THAN THE TOP OF THE LOWEST PORTION OF FENCE.
 2. FOR FENCE INSTALLED ON LEVEL TERRAIN INSTALL WING SECTIONS PERPENDICULAR TO MAIN BARRIER AT 50'-100' INTERVALS.

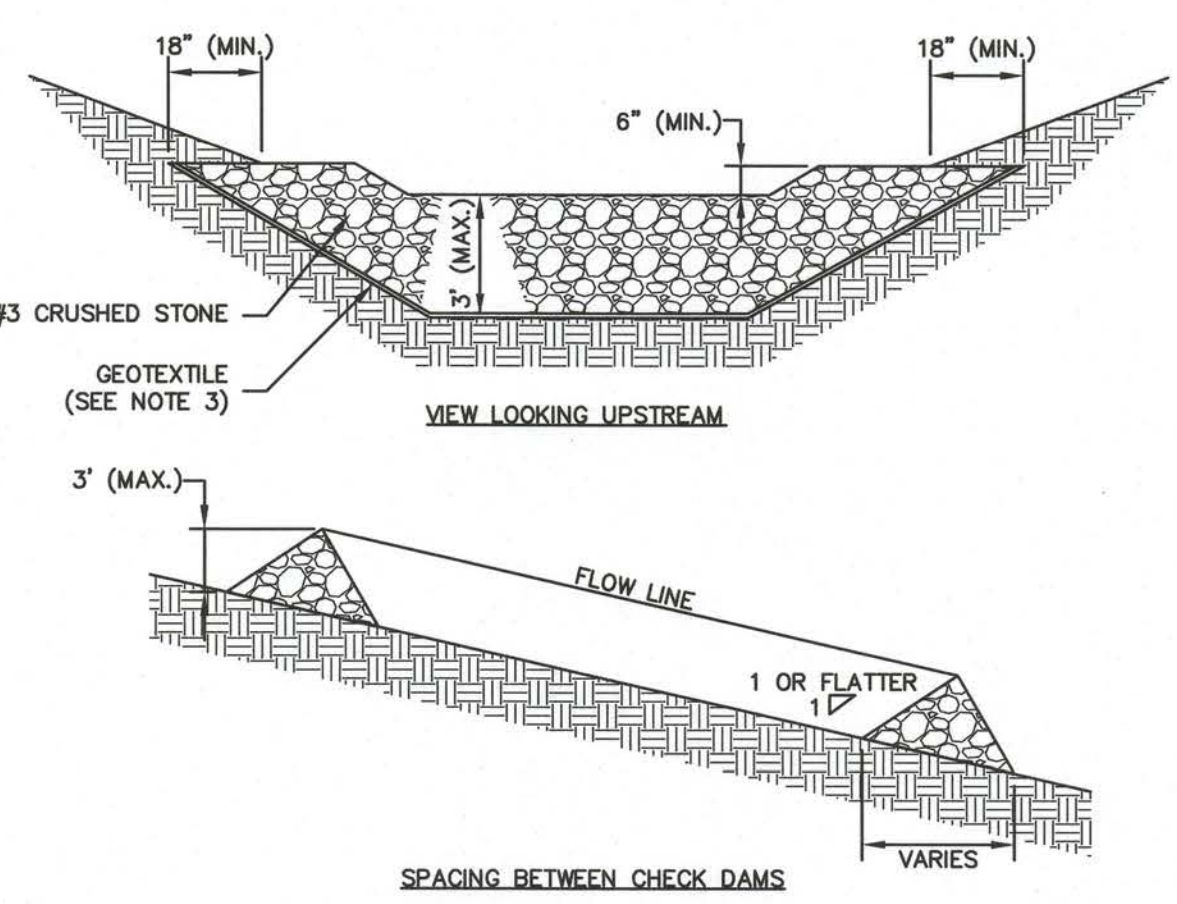
SILT FENCE BARRIER

SCALE: NONE
EC-107



HAY BALE BARRIER

SCALE: NONE
EC-106-CT

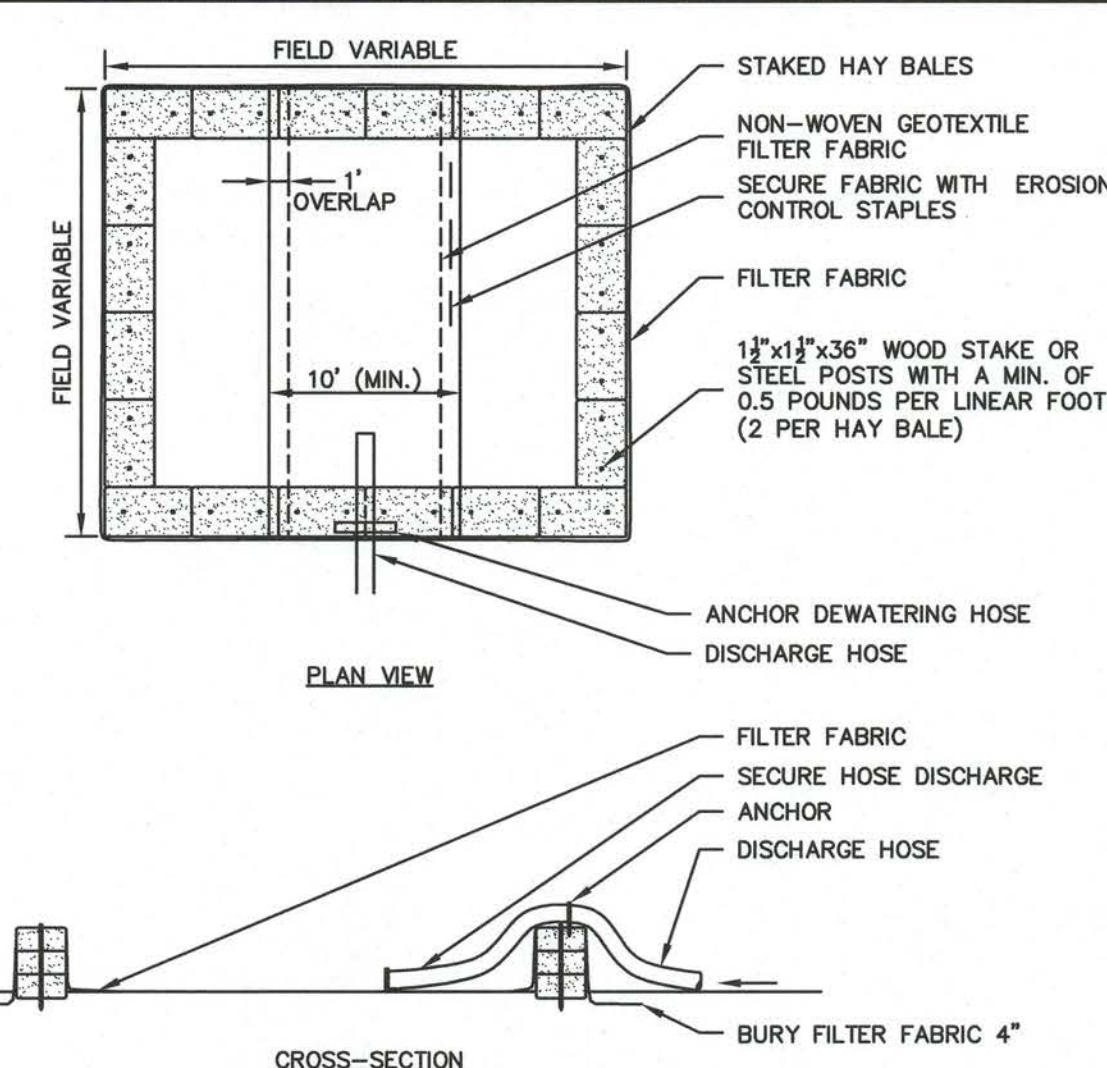


- GENERAL NOTES**
1. KEY STONE INTO THE DITCH BANKS AND EXTEND INTO THE ABUTMENTS A MINIMUM OF 18" TO PREVENT FLOW FROM FLANKING THE CHECK DAM.
 2. THE MAXIMUM SPACING BETWEEN CHECK DAMS SHALL BE SUCH THAT THE TOE OF THE UPSTREAM CHECK DAM IS AT THE SAME ELEVATION AS THE TOP OF THE CENTER OF THE DOWNSTREAM CHECK DAM.
 3. A GEOTEXTILE FABRIC MAY BE INSTALLED UNDER THE STONE CHECK DAMS IF NECESSARY TO PROVIDE A STABLE FOUNDATION AND FACILITATE REMOVAL.

STONE CHECK DAM (REQ'D)

SCALE: NONE
EC-108-CT

TEMPORARY E&S MEASURES MAINTENANCE SCHEDULE		
E&S MEASURE	MAINTENANCE MEASURES	SCHEDULE
HAY BALES/ SILT FENCE BARRIER	REPAIR/REPLACE WHEN FAILURE OBSERVED, REMOVE SILT WHEN ACCUMULATION REACHES APPROX. HALF HEIGHT OF BARRIER	WEEKLY & WITHIN 24 HOURS AFTER STORM GENERATING A DISCHARGE
TARP TEMPORARY STOCKPILES	ENSURE TARP IS SECURED OVER STOCKPILE AT THE END OF EACH DAY	DAILY
ANTI-TRACKING PAD	SWEEP PAVED ROADWAY ADJACENT TO SITE ENTRANCE AS NECESSARY, REFRESH STONE AS NECESSARY, REMOVE SILTED GRAVEL	WEEKLY



- GENERAL NOTES**
1. NUMBER OF BALES MAY VARY DEPENDING ON SITE CONDITIONS.
 2. THE BASIN TO BE SIZED ACCORDING TO: CUBIC FEET OF STORAGE = PUMP DISCHARGE RATE(gpm) x 16.
 3. SIZE SHOWN ON PLANS SHALL BE ADJUSTED AS REQUIRED FOR THE ACTUAL PUMPING RATE.

DEWATERING HAY BALE BASIN (TYPE 1) (IF REQ'D)

SCALE: NONE
EC-114-CT

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

DETAILS

OCTOBER 27, 2017

REVISIONS:		
No.	DATE	DESCRIPTION
	07/25/18	RESPONSE TO DAM SAFETY

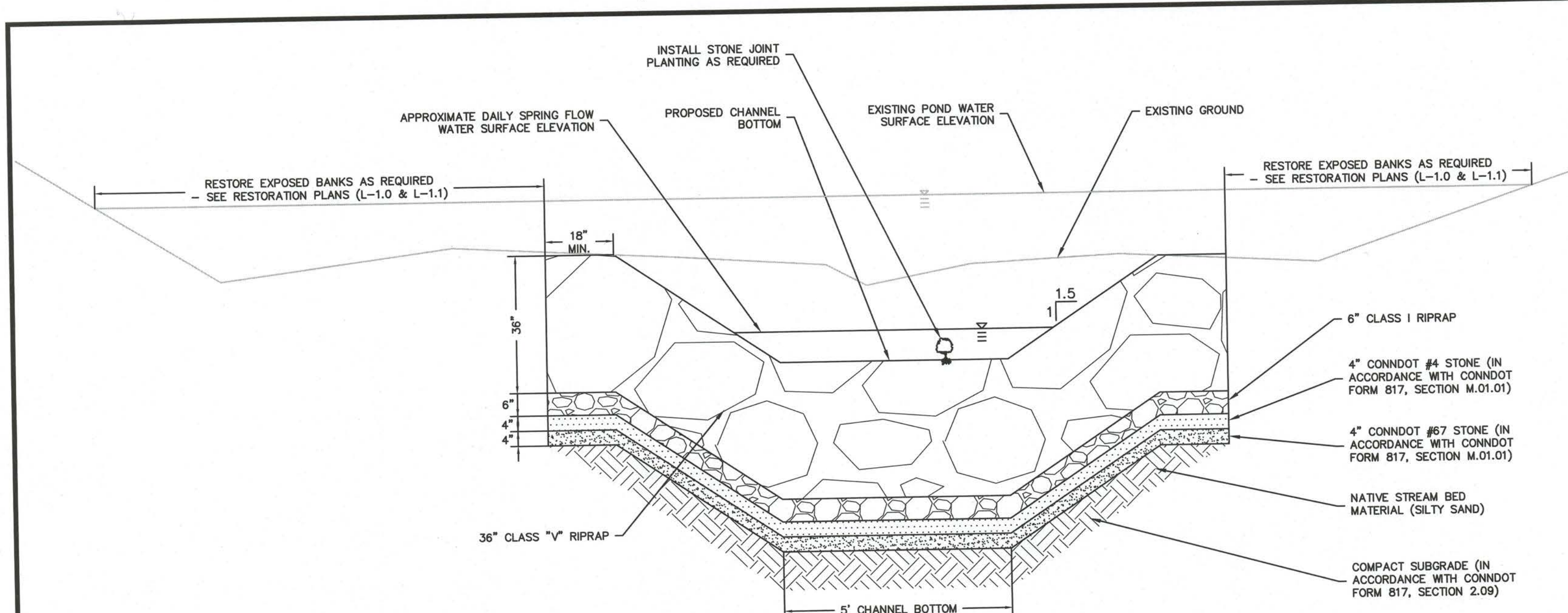
PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

BSC GROUP
300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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FILE: 8364900-DET.DWG
DWG. NO:
JOB. NO: 83649.00
C-6.0

TYPICAL CHANNEL SECTION
SCALE: NONE



STONE SIZES (CONNDOT M.01.01)

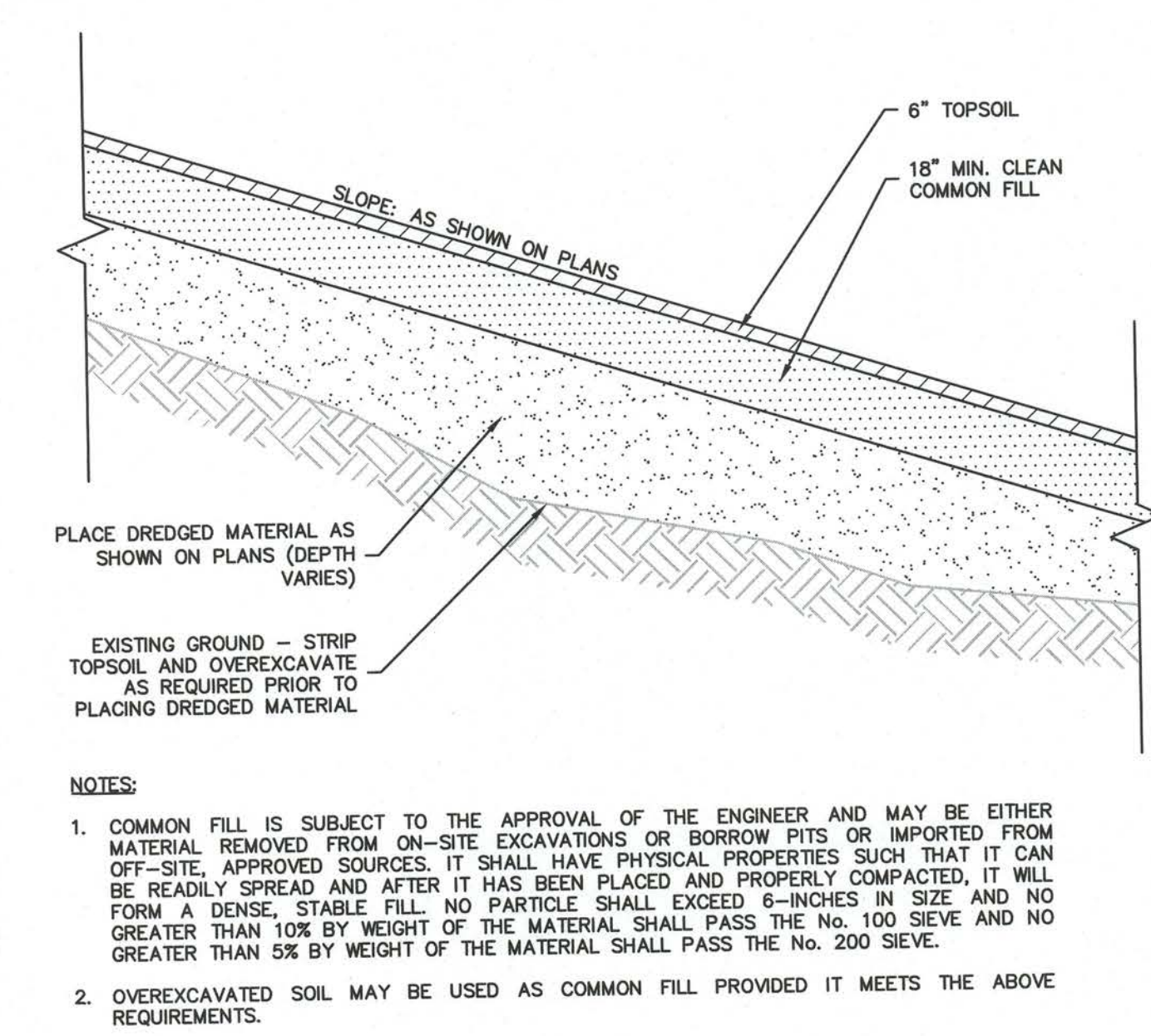
U.S. SIEVE SIZE	PERCENT PASSING		
	CONNDOT #3	CONNDOT #4	CONNDOT #57
2-1/2"	100		
2"	90-100	100	
1-1/2"	35-70	90-100	
1"	0-15	20-55	100
3/4"		0-15	90-100
1/2"	0-5		
3/8"		0-5	20-55
#4			0-10
#8			0-5
d ₅₀	1.8"	1.1"	0.4"

NATIVE STREAM BED MATERIAL (SILTY SAND)

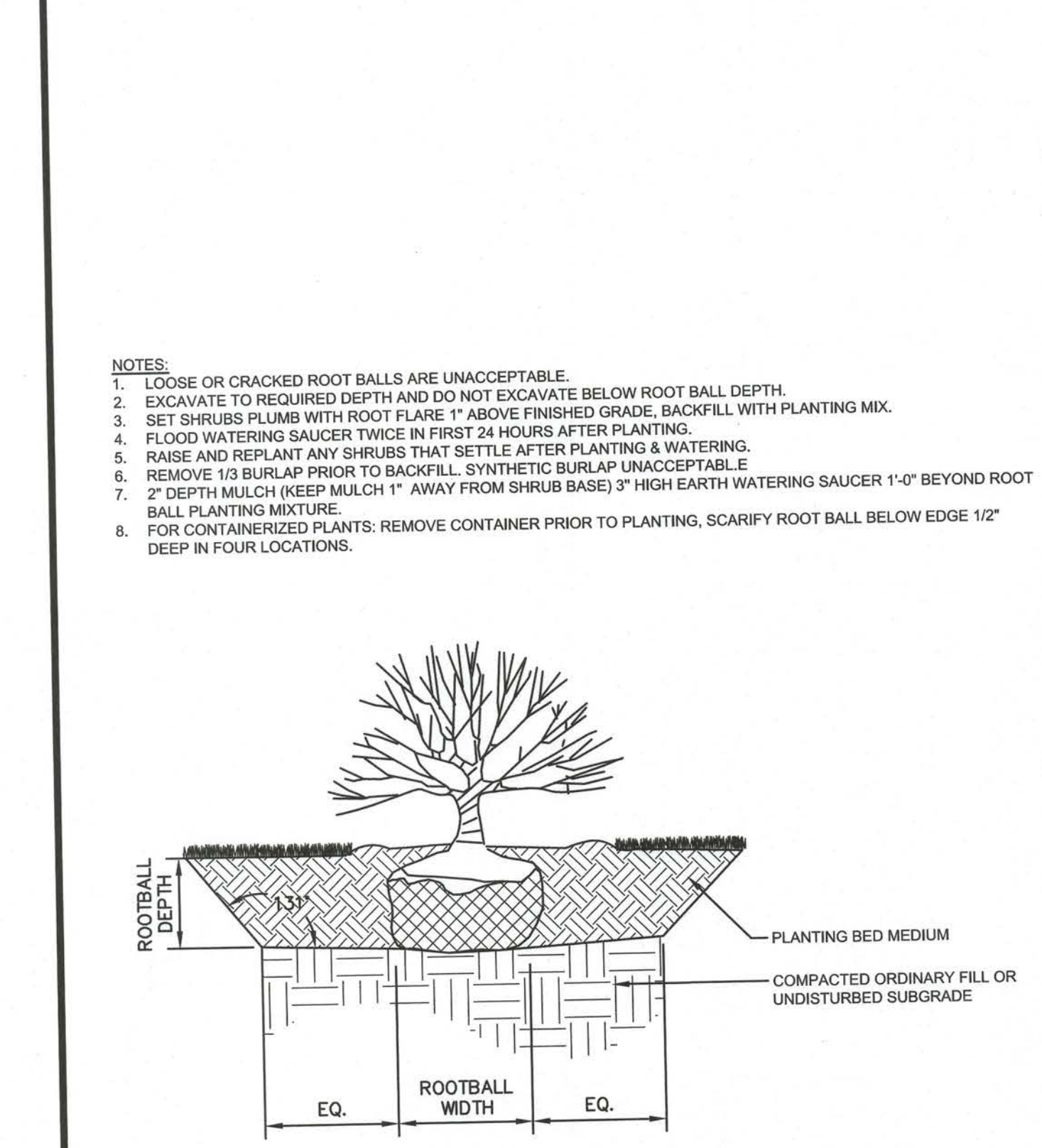
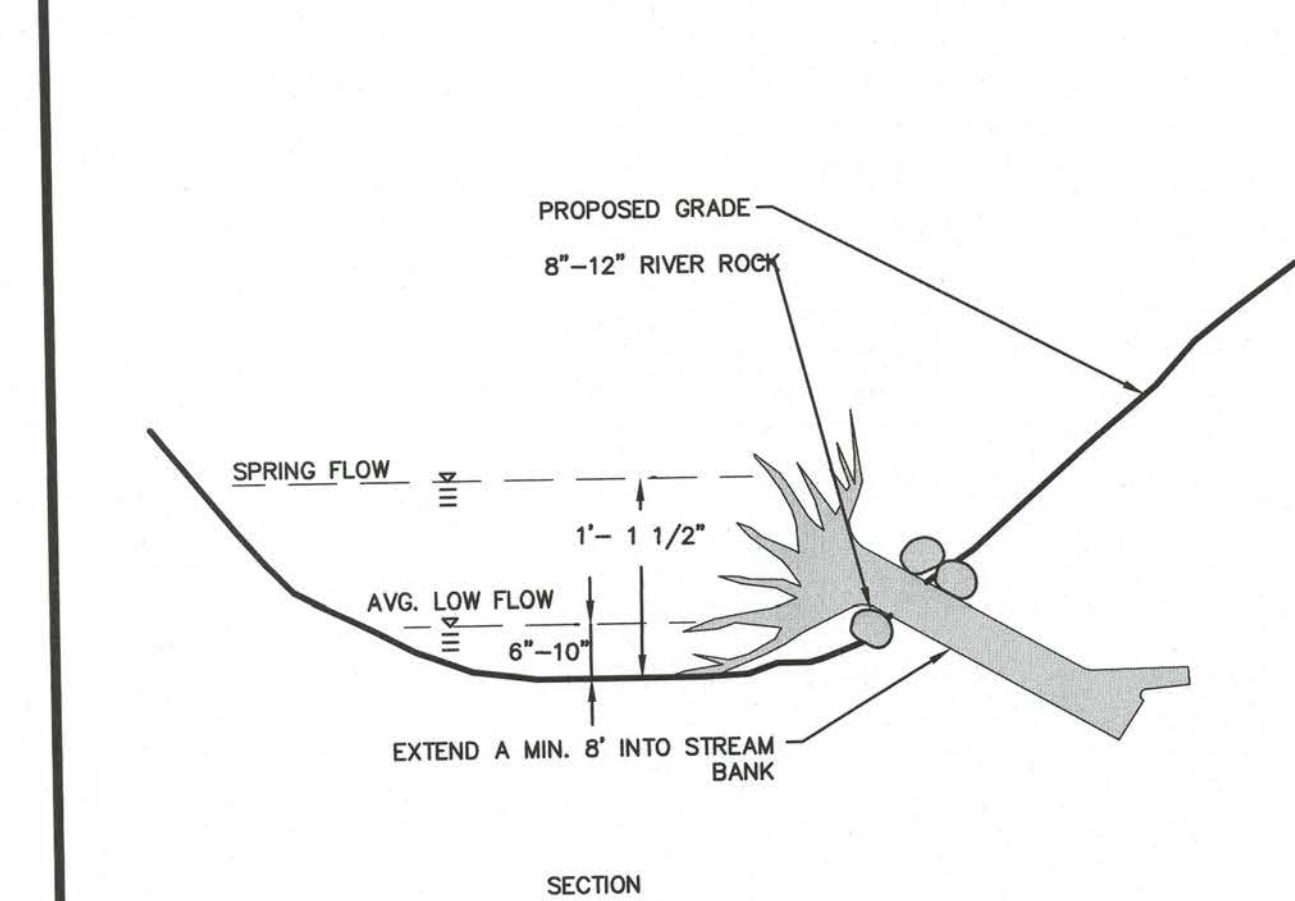
U.S. SIEVE SIZE	PERCENT PASSING
3/4"	100
1/2"	100
3/8"	100
1/4"	94
#4	91
#10	65
#40	31
#50	23
#100	16
#200	12
d ₅₀	0.04"

STONE SIZES (FHWA HEC-23)

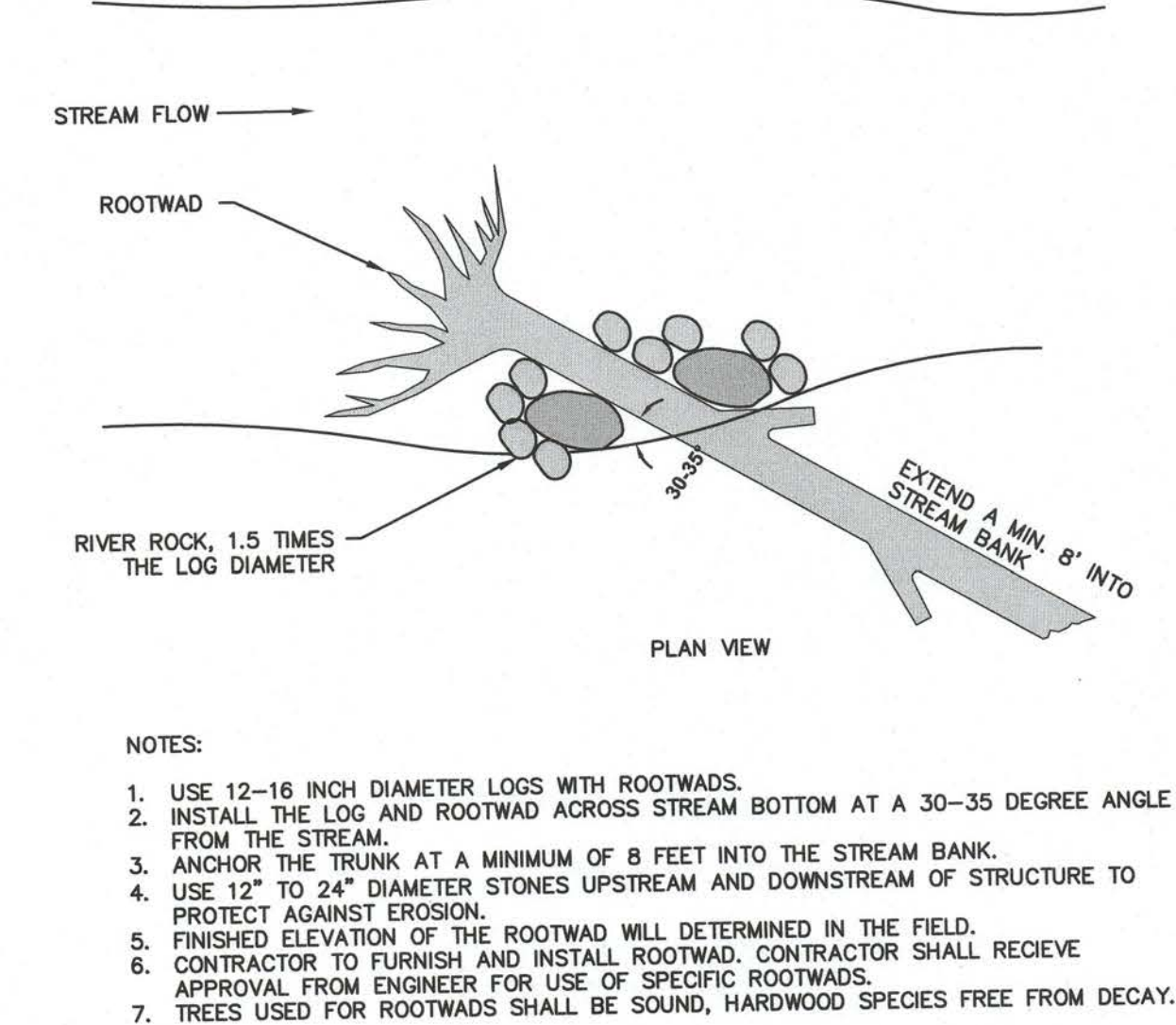
PARTICLE SIZE	RIPRAP CLASSIFICATION	
	CLASS I	CLASS V
MEDIAN SIZE	6.0"	18.0"
MAX (d ₁₀₀)	12.0"	36.0"
d ₈₅	7.8"-9.2"	23.5"-27.5"
d ₆₀	6.5"	19.0"
d ₅₀	5.7"-6.9"	17.0"-20.5"
d ₁₅	3.7"-5.2"	11.0"-15.5"
d ₁₀	4.0"	12.5"



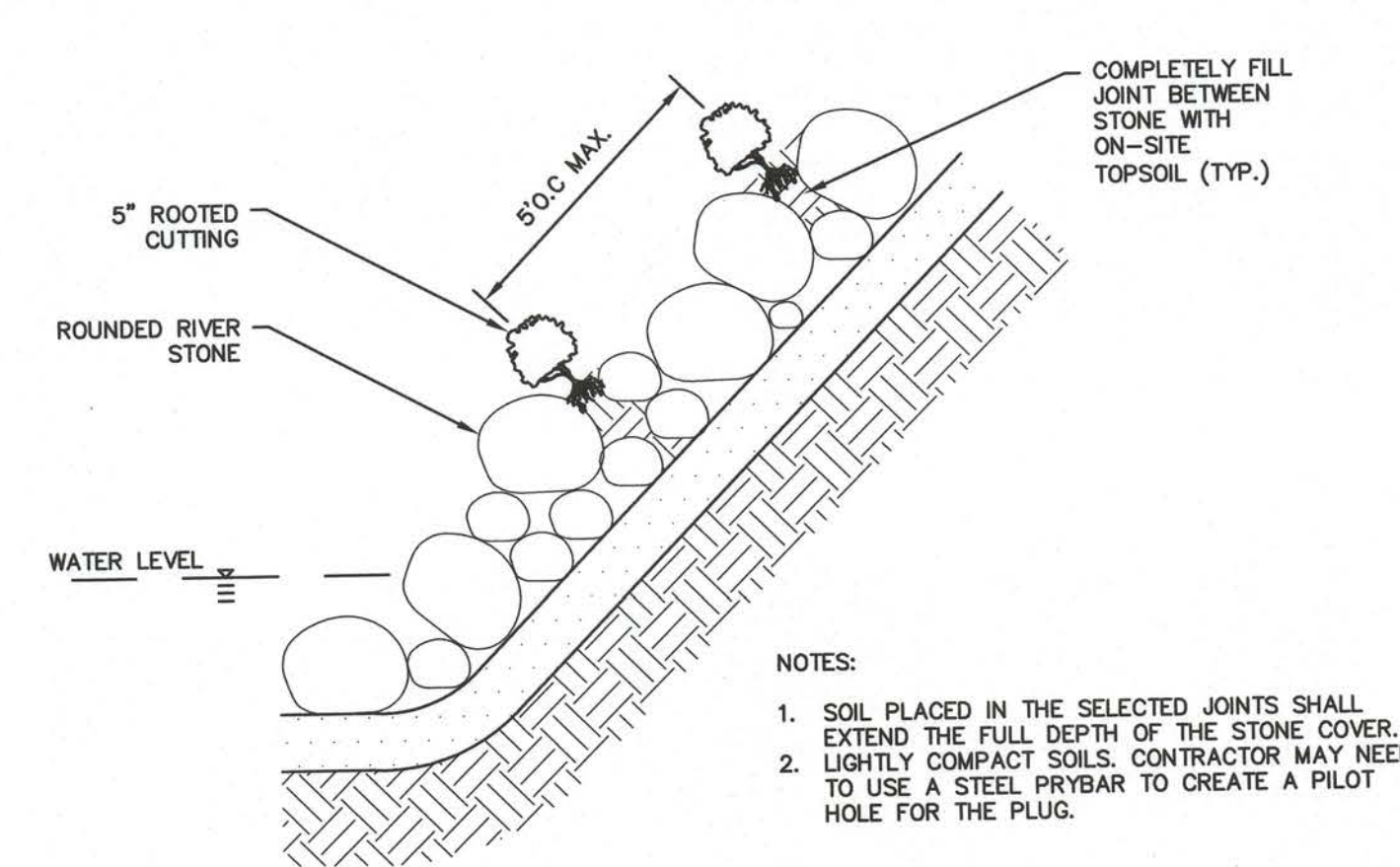
TYPICAL SEDIMENT DISPOSAL CAP
SCALE: NONE



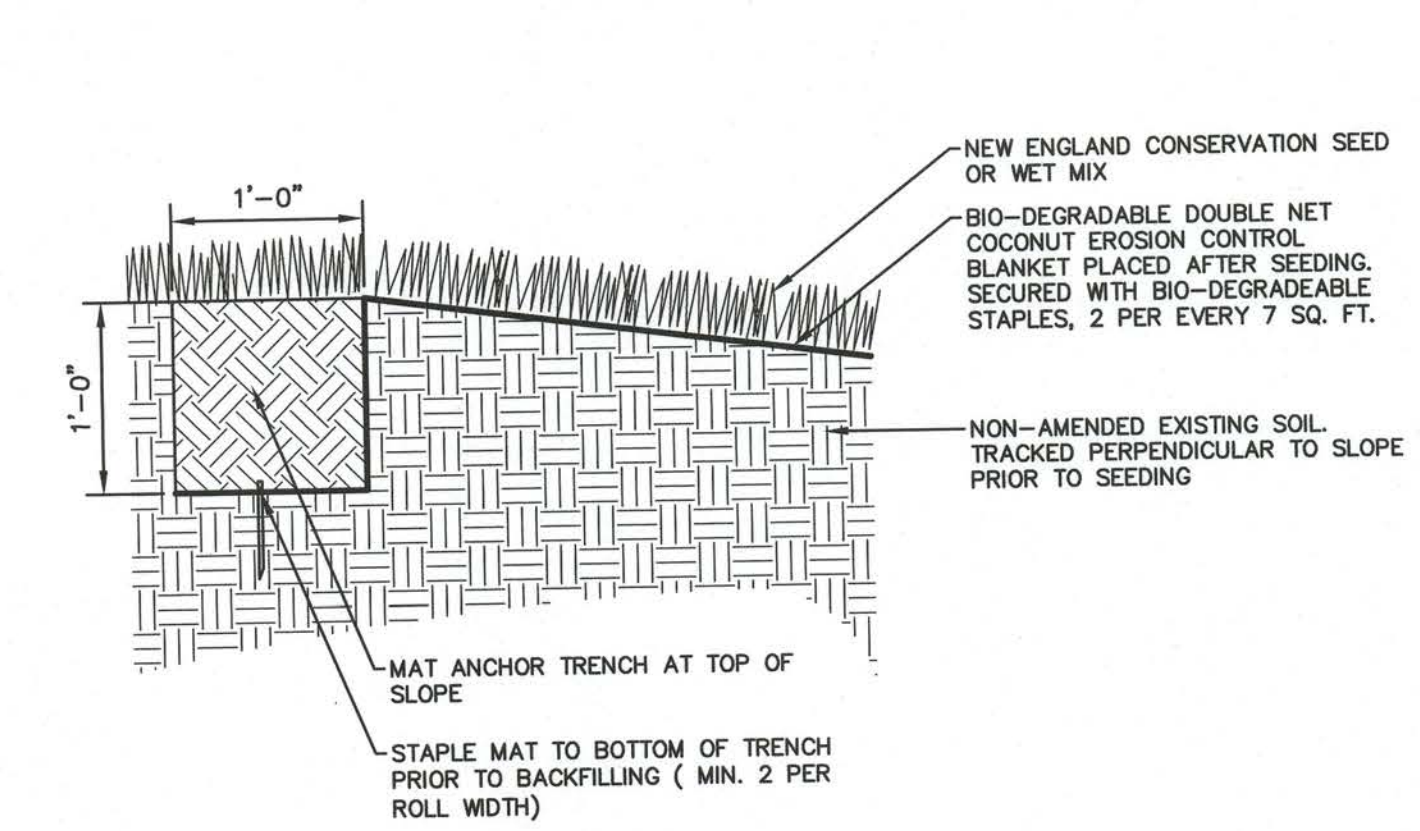
TYPICAL SHRUB PLANTING
SCALE: NONE



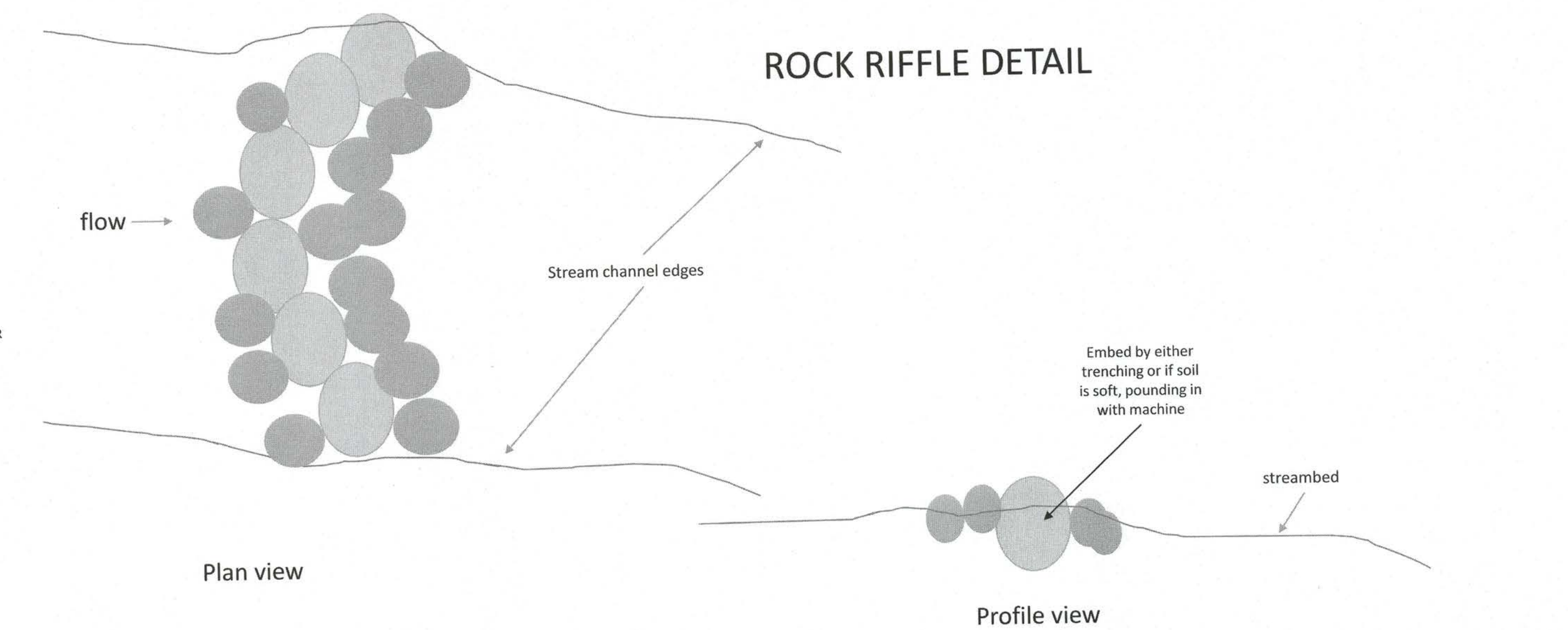
ROOTWAD DEFLECTOR
SCALE: NONE



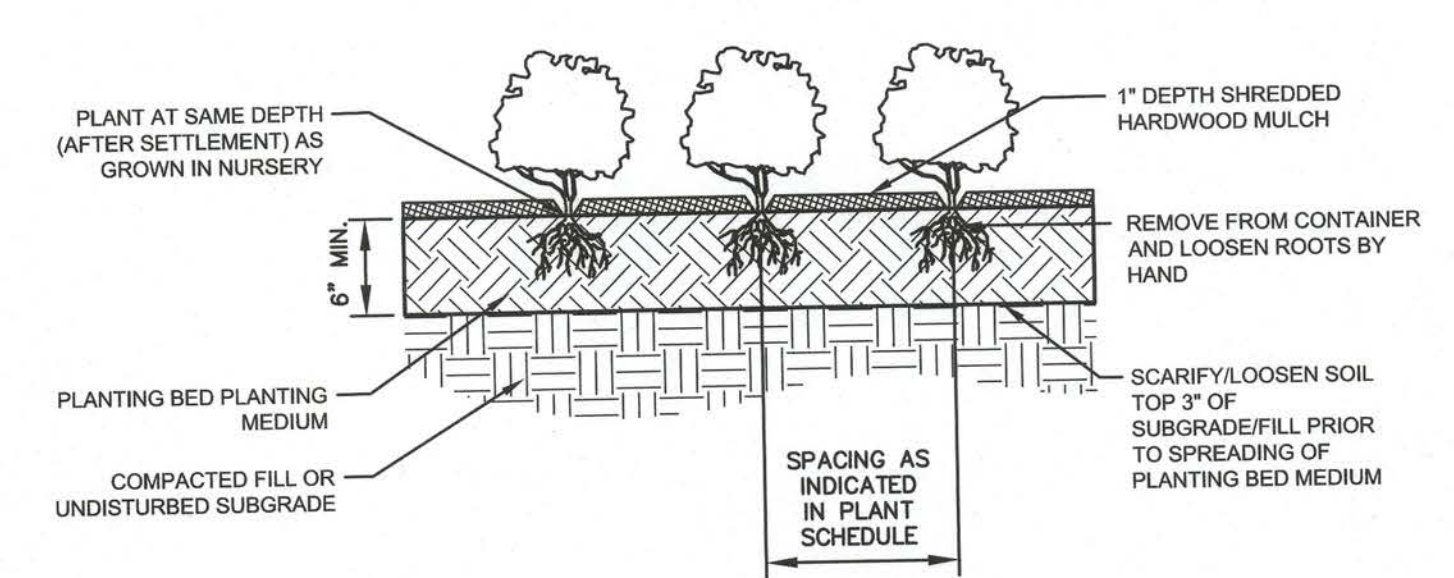
ROUNDED STONE JOINT PLANTING
SCALE: NONE



VEGETATED SLOPE
SCALE: NONE



ROCK RIFFLE DETAIL



TYPICAL GROUNDCOVER PLANTING
SCALE: NONE

FRANCIS J. VACCA, PE No. 29098

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

DETAILS

OCTOBER 27, 2017

REVISIONS:

No.	DATE	DESCRIPTION
	07/25/18	RESPONSE TO DAM SAFETY

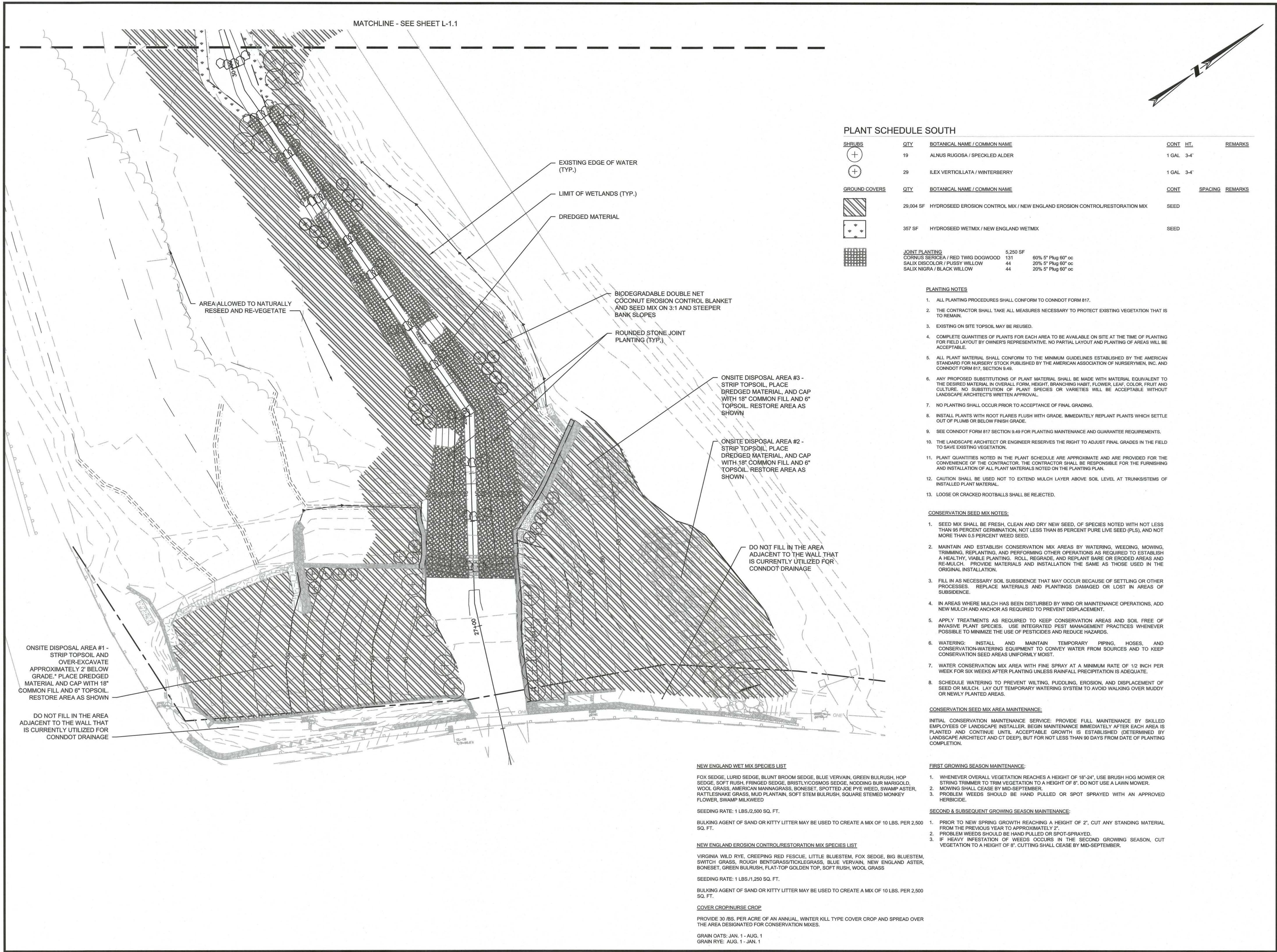
PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

BSC GROUP
300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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DWG. NO:
JOB. NO: 83649.00
C-6.1

PICKER POND DAM REMOVAL - OCTOBER 27, 2017



JESSE A. HARRIS, PLA No. 1224

PICKER POND DAM REMOVAL

ROUTE 32 / ROUTE 163
INTERSECTION
IN
UNCASVILLE
CONNECTICUT

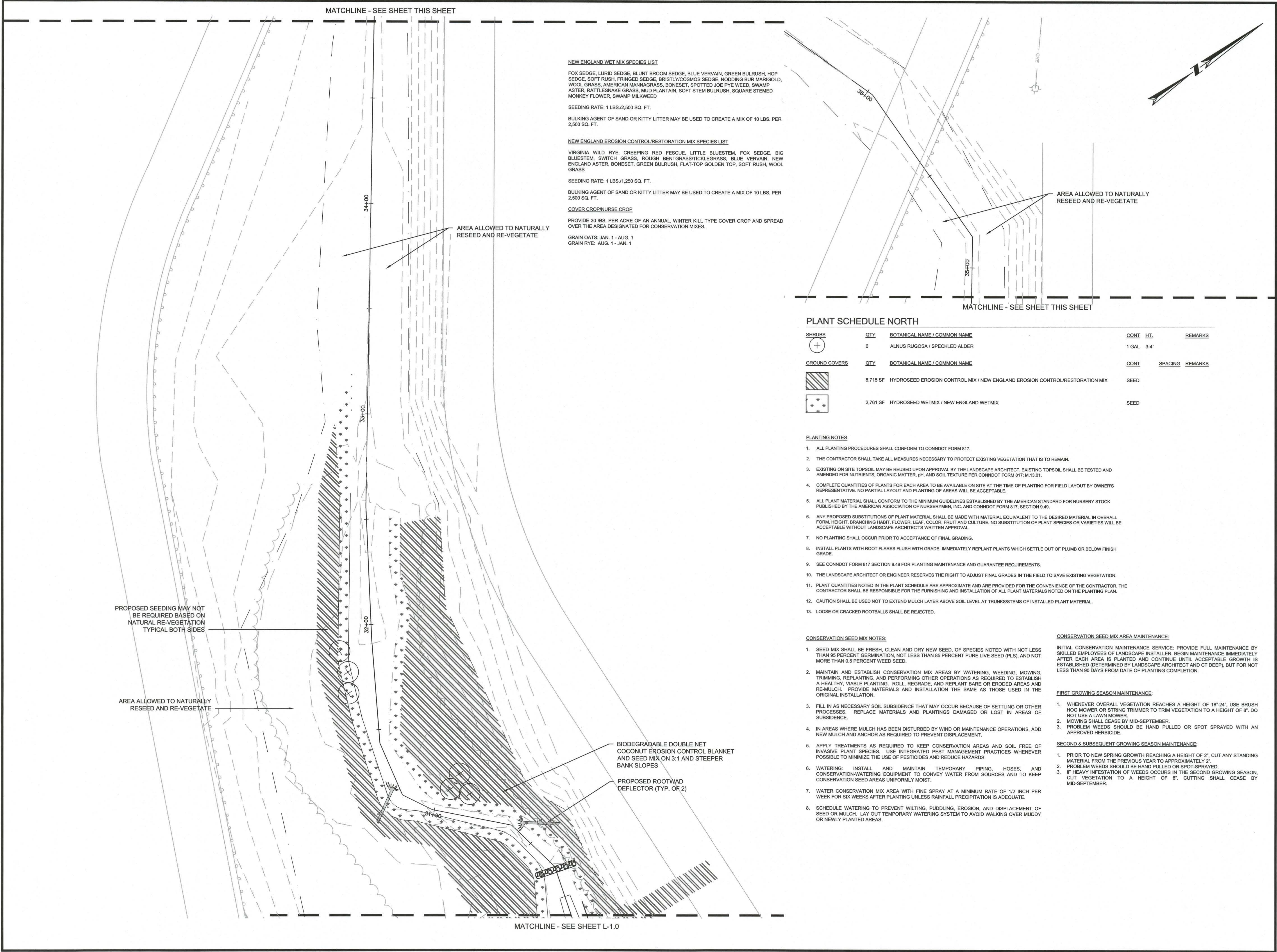
ONSITE DISPOSAL & RESTORATION PLAN

OCTOBER 27, 2017

REVISIONS:		
No.	DATE	DESCRIPTION
	07/25/18	RESPONSE TO DAM SAFETY

PREPARED FOR:
DAKOTA PARTNERS, INC.
1264 MAIN STREET
WALTHAM, MA 02451

BSC GROUP
300 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227





NFWF

Statement of Litigation

Instructions: Save this document on your computer and complete. The final narrative should not exceed two (2) pages; do not delete the text provided below. Once complete, upload this document into the on-line application as instructed.

Litigation: In the space provided below, state any litigation (including bankruptcies) involving your organization and either a federal, state, or local government agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. Federal, state, and local government applicants are not required to complete this section. If your organization is not involved in any litigation, please state below.

Town of Montville is not required to complete this section

Town of Montville: Legislative Leadership

Mayor Term: November 2023-2027

Office of the Mayor

Leonard G. Bunnell Sr. *Mayor*

Cindy J. Breton

Executive Assistant to Mayor

Office of the Mayor

Montville Town Hall, First Floor

310 Norwich-New London Tpke.

Uncasville, CT 06382

Office Hours

8:00 am - 4:30 pm Monday-Friday

Tel: (860) 848.6778

Fax: (860) 848.4534

Term: November 10, 2025 - November 8, 2027

Correspondence to Town Councilors can be addressed to:

Montville Town Council

310 Norwich-New London Turnpike

Uncasville, CT 06382

Councilor	Party	Phone
Tim May - Chair Town Hall, Uncasville	D	(860) 884-9671
Joseph Jaskiewicz Town Hall, Uncasville	D	(860) 625-7583
Nick Sabilia Town Hall, Uncasville	D	(860) 501-8201
Rachael Novak Town Hall, Uncasville	R	(860) 908-2356
Billy Caron - Deputy Chair Town Hall, Uncasville	D	(860) 608-0969
Brian Baker Town Hall, Uncasville	R	(860) 625-1434
Kate Southard Town Hall, Uncasville	D	(860) 235-9169

APPLICANT CONTROLS AND CAPABILITIES QUESTIONNAIRE



INSTRUCTIONS: The Applicant Controls Questionnaire (Questionnaire) is required with the submission of a NFWF full proposal. An authorized representative with adequate knowledge of your organization's capability, competence, resources, policies, and procedures should complete and sign the Questionnaire and submit it along with your organization's most recent Single Audit Report (if applicable). Please do not include copies of policies and procedures unless requested.

NFWF utilizes this Questionnaire to perform a risk assessment and determine an organization's eligibility and capacity to manage a NFWF award. Negative responses do not mean an organization is not eligible for an award. Depending on the type of award and the responses herein, NFWF may require additional documentation and/or reporting requirements to raise an organization's capacity and mitigate any potential compliance, audit, financial, or programmatic risks.

ORGANIZATION LEGAL NAME: Town of Montville

ORGANIZATION EIN: 06-6002039

ORGANIZATION UEI (use the relevant UEI number of your organization (in case of multiple UEIs) QMAJADJNQ5K5

ORGANIZATION ADDRESS: 310 Norwich New London Tpke
Uncasville, CT 06382

Audits and U.S. Federal Funding Experience: The following information provides insight into your organization's experience and performance in administering past awards.

1. Does your organization have a current Single Audit report (within the last two years) on file with the Federal Audit Clearinghouse?

☒ Yes

☐ No

2. If you responded "Yes" above, does your organization's most recent Single Audit report include any audit findings, material weaknesses, and/or significant deficiencies? If yes, please describe whether your organization has implemented the recommended corrective actions to address the findings. If you responded "No" above, select "N/A".

☒ Yes

☐ No

☐ N/A

Corrective action has been implemented.

3. Has your organization been suspended or debarred from any government contracting process? If yes, please explain if the suspension and debarment are still in effect.

APPLICANT CONTROLS AND CAPABILITIES QUESTIONNAIRE



☐ Yes

☒ No

N/A

4. Has your organization managed a federal award before? If yes, provide a summary of your most recent awards, including period of performance, awarding agency or pass-through entity, federal program, and size of award.

☒ Yes

☐ No

ARPA, \$5,477,453.41

5. In the past three (3) years has your organization, or any unit or office thereof, been audited by an external donor/funder or agent thereof? If yes, please list all such audits and attach copies of final audit reports (if available)

☐ Yes

☒ No

[Enter response here.](#)

Billing and Accounts Tracking Capacities: The following questions help NFWF understand your accounting practices to ensure both NFWF and your organization are able to comply with all funding source requirements.

6. Does your organization have a written accounting manual or written policies and procedures that outline the treatment and safeguarding of assets, methods of cost allocation, if applicable, document retention, cost allowability, etc.? If no, please explain.

☒ Yes

☐ No

[Enter response here.](#)

7. Does your accounting system (or other management system) allow organizational expenses to be tracked: (a) to a specific project on which your organization is working and, (b) to specific cost-type categories (e.g., personnel, supplies, travel, indirect, etc.)? If no, please describe the limits of expense tracking at your organization.

☒ Yes

☐ No

[Enter response here.](#)

APPLICANT CONTROLS AND CAPABILITIES QUESTIONNAIRE



8. Is your organization able to perform projects on a cost-reimbursable basis? If no, please note that advance payments are considered on a case-by-case basis and are dependent upon your organization's ability to minimize the time elapsing between the receipt and disbursement of funds.

☒ Yes

☐ No

If available, advance payment would be preferred.

9. If your organization is funded by more than one funder, does the organization have procedures to prevent commingling of funds and to ensure costs are allocated fairly and consistently across the various funders? If no, please explain.

☒ Yes

☐ No

Enter response here.

10. Does your organization have a fraud prevention policy that enables the organization to detect, investigate, and report any fraudulent activity immediately? If no, please explain.

☒ Yes

☐ No

Enter response here.

11. Does your organization have a timekeeping system or documented process that allows staff time (including key personnel) to be tracked to specific funding sources supporting the project? If no, please explain.

☒ Yes

☐ No

Enter response here.

Organizational Policies and Procedures: The following questions help NFWF understand additional organizational practices to ensure compliance with varying funding source requirements.

12. Does your organization maintain formal evidence of employment with its employees, and conduct background checks for each employee before they are hired? If no, please explain.

☒ Yes

☐ No

Enter response here.

APPLICANT CONTROLS AND CAPABILITIES QUESTIONNAIRE



13. Does your organization maintain general liability insurance? If no, please explain.

☒ Yes

☐ No

Enter response here.

14. I certify that our organization maintains a written policy on conflict-of-interest that meets the requirements of the federal government. I also certify we will notify NFWF **in writing** if our organization finds a **potential** conflict of interest **relative** to a NFWF-funded project. If no, please explain why you do not feel a conflict-of-interest policy is necessary for your organization or the administration of this project.

☒ Yes

☐ No

Enter response here.

Questions Specific to Budget Line Items in Your Proposal

15. Does your organization use documented procurement procedures for the acquisition of property or services that ensure full and open competition? If no, please explain. Select "N/A" if your project(s) does not involve the acquisition of property or contractual services.

☒ Yes

☐ No

☐ N/A

Enter response here.

APPLICANT CONTROLS AND CAPABILITIES QUESTIONNAIRE



16. Does your organization have a process for determining the appropriate legal instrument (grant agreement vs. contract for goods/services) and has an appropriate legal/contracting officer confirmed that your organization has the ability to implement the contractual arrangements as envisioned? Select "N/A" if your project(s) does not involve subawards or contractual services.

☒ Yes

☐ No

☐ N/A

Enter response here.

17. Does your organization maintain written policies for property management that include regular inventory audits/verifications? Select "N/A" if your project(s) does not involve equipment or real property.

☐ Yes

☐ No

☒ N/A

Enter response here.

I certify to the best of my knowledge and belief that the above information is true, complete, and accurate and that I am authorized to submit on behalf of the organization represented above.

SIGNATURE of Authorized Representative

A handwritten signature in black ink, which appears to read "Julie Chapman", is written over a horizontal line.

Date

5/13/26

NAME AND TITLE

Julie Chapman; Finance Director

APPLICANT CONTROLS AND CAPABILITIES QUESTIONNAIRE



Appendix 1: Glossary

Single Audit Report: Single Audit, previously known as the OMB Circular A-133 Audit, is an organization-wide financial statement and federal awards' audit of a non-federal entity that expends US \$1,000,000 or more in federal funds in one year.

Federal Audit Clearinghouse (FAC): FAC maintains a public database of completed audits, distributes single audit reporting packages to federal agencies, supports the Office of Management and Budget (OMB) in the oversight and assessment of federal award audit requirements, and helps auditors and auditees to minimize the reporting burden of complying with single audit requirements. For the purpose of this Questionnaire, NFWF would like to know whether your organization uploaded the most recent single audit report on FAC (if applicable).

Audit Finding: This refers to a material noncompliance with and violation of provisions of the applicable federal statutes, regulations, internal controls, and terms and conditions of the federal award.

Significant deficiency: This refers to a deficiency or a combination of deficiencies, in internal control over financial reporting, that is less severe than a material weakness. However, it is important enough to merit undertaking corrective action by your organization.

Material weakness: This refers to a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the organization's financial statements will not be prevented, detected, or corrected on a timely basis.

Corrective action: This refers to action taken by an audited organization to correct the identified deficiencies, produces recommended improvements, and demonstrates that deficiencies and audit findings are either invalid or do not warrant auditee action.

Suspension: This refers to an action taken by a debarring official to temporarily exclude or disqualify an organization or a person from bidding on, receiving, or participating in federally funded grants or contracts for a specific period pending the completion of an investigation, legal or administrative proceedings.

Debarment: This refers to an action taken by a debarring official that excludes or disqualifies a person or an organization for a specific period, generally not longer than three (3) years.

Federal award: This refers to financial assistance that a non-federal entity receives directly from a federal awarding agency or indirectly from a pass-through entity.

Awarding agency: This refers to a federal agency that awards a grant or other financial assistance to a recipient directly.

Pass-through entity: This refers to a non-federal entity that provides a sub-award to a sub-recipient to carry out part of a federal program.

APPLICANT CONTROLS AND CAPABILITIES QUESTIONNAIRE



Document retention: This refers to maintaining and keeping financial records, supporting documents, statistical records and all other non-federal entities records pertinent to the federal award.

Cost allowability: This refers to costs that could be incurred because they were allowed under a grant agreement. An allowable cost must be reasonable, such that a prudent person would pay for it.

Indirect costs: This refers to any cost that is not directly identified with a single cost objective but rather a combination of cost objectives.

Cost reimbursable: This refers to a contractual mechanism between two parties whereby payments are made for allowable costs incurred by the other party.

Fraud prevention policy: This refers to the implementation of a strategy to prevent, detect, and report fraudulent activities under an award.

Conflict of interest: This refers to a situation when an individual's personal interests could compromise his/her judgement.

Procurement: This refers to acquisition of goods and services pursuant to applicable procurement requirements.

Grant agreement: This is a legal instrument of financial assistance between a federal awarding agency or pass-through entity and a non-federal entity.

Contract: This is a legal instrument by which a recipient or sub-recipient purchases property or services to carry out the project or program under a federal award.

Equipment: This refers to tangible personal property including information technology (IT) systems having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds the lesser of the capitalization level established by the non-federal entity for financial statement purposes or US \$10,000.

Real property: This means land including land improvements, structures, and appurtenances excluding moveable machinery and equipment.

APPLICANT CONTROLS AND CAPABILITIES QUESTIONNAIRE



Appendix 2: Useful Resources and References

1. Single Audit Requirements: <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F>
2. Financial management requirements (<https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.302>)
3. Subrecipient and contractor determinations (<https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR031321e29ac5bbd/section-200.331>)
4. Requirements for pass-through entities (<https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR031321e29ac5bbd/section-200.332>)
5. Procurement standards (<https://www.ecfr.gov/current/title-2/part-200/subject-group-ECFR45ddd4419ad436d>).
6. Audit findings: <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F/subject-group-ECFRa73e47c9a286e6/section-200.516>
7. Conflict of interest: <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-B/section-200.112>
8. Equipment requirements: <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.313>
9. Supplies requirements: <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.314>
10. Mandatory disclosures: <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-B/section-200.113>

Images of the Oxoboxo River corridor

Town WPCA Facility and Oxoboxo Loft

The WPCA facility, upper right corner, is located adjacent to the Oxoboxo River confluence with Horton Cove. The Oxoboxo Lofts, lower left corner, was a major pollutant of the River, but has recently been remediated and provides 72 affordable housing units, with no vacancy at the moment.



Connecticut Scrap

CT Scrap is a recycling facility located on both sides of the Oxoboxo, which is shown channelized in the picture below and pond along the upper portion of the image. Debris and stored, stripped and shipped as scrap to locations thorough out the region. (April 2026)



Rand Whitney Container Board (Below)

RW has been a mainstay along the Oxoboxo River and relied on its water supply to sustain its operation, which is located within its building. Water from the Oxoboxo is used under DEEP permits for container board production.



Paper Mill and Yale's Scrap Yard (Below)

A paper mill (upper portion of picture) dating to the 1700's and expanded, but now deteriorating and is abandoned and is a focus of the town for remediation, broking discussions between the property owner and a possible developer. Below half of the image is Yale's Scrap Yard. The Oxoboxo travels long right side of the image.



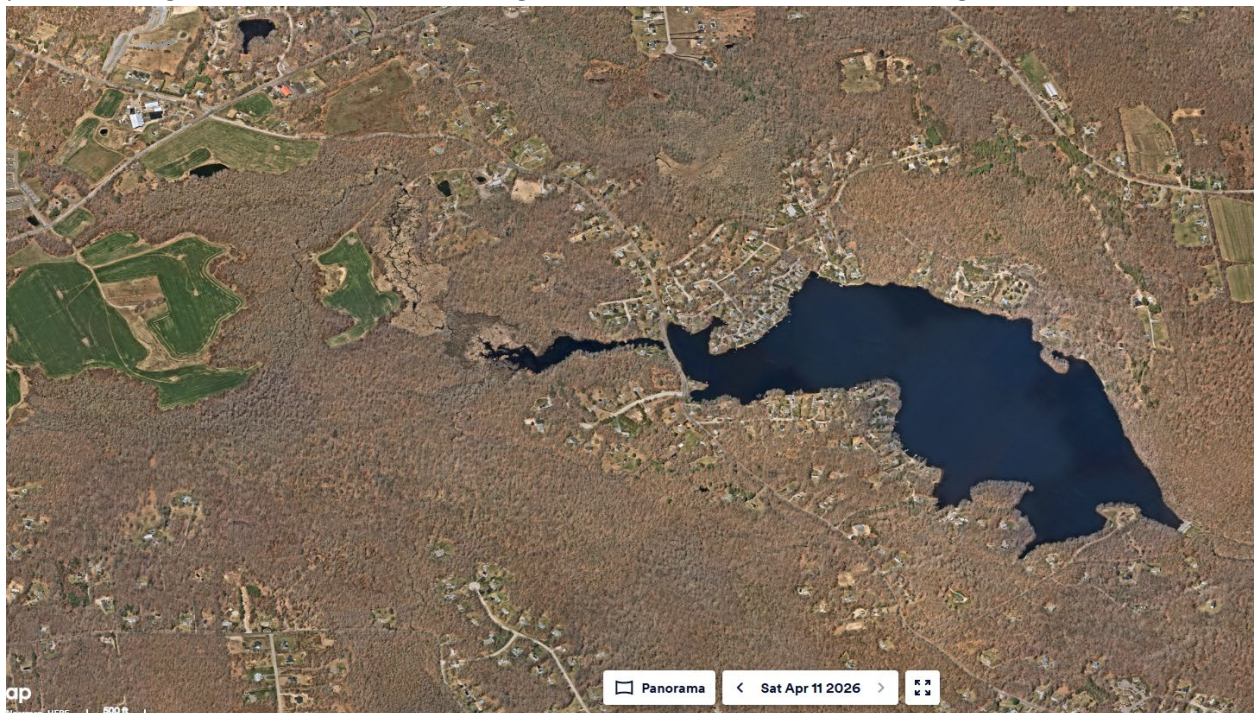
Transfer Station and former Dump (Below)

Located along Wheelers Pond, a portion of the Oxoboxo River, is the Town Transfer station and town dump, now the site of the depicted solar panels and depicted in the center of the below image.



Oxoboxo Lake

Located at the headwaters of the River is Oxoboxo Lake, surrounded by residential development and proximal to agricultural fields which drainage into the wetlands of the Lake's origin.



Pickers Pond: Current conditions

April 2026; after 2020 Dam Removal



April 2019: Before Dam Removal





Oxoboxo Brook

Watershed Summary

WATERSHED DESCRIPTION AND MAPS

The Oxoboxo Brook watershed covers an area of approximately 6,518 acres in southeastern Connecticut (Figure 1). The watershed is located primarily in Montville, CT, with northern portions extending into Salem, CT.

The Oxoboxo Brook watershed includes one segment impaired for recreation due to elevated bacteria levels. This segment was assessed by Connecticut Department of Energy and Environmental Protection (CT DEEP) and included in the CT 2010 303(d) list of impaired waterbodies. The other segment (CT3004-00_02) in the watershed is currently unassessed as of the writing of this document. This does not mean there are no potential issues on this segment, but indicates a lack of current data to evaluate the segment as part of the assessment process. An excerpt of the Integrated Water Quality Report is included in Table 1 to show the status of other waterbodies in the watershed (CTDEEP, 2010).

Oxoboxo Brook begins at the dam outlet to Oxoboxo Lake in Montville, CT, flows southerly parallel to Old Colchester Road, crosses Oxoboxo Dam Road and Williams Road, continues through Paris Pond, Scholfield Pond, and Oakdale Pond, bisects Meeting House Lane, enters Wheeler Pond, flows between Route 163 and Maple Avenue through Rockland Pond and Red Mill Pond, crosses Route 395, flows through a second Red Mill Pond, crosses Norwich-New London Turnpike (Route 32), and ends at the inlet to Horton Cove along the Thames River in Montville, CT. The bacteria impaired segment (CT3004-00_01) consists of 2.62 miles of the river in Montville, CT (Figure 2). This impaired segment begins at the dam outlet to Wheeler Pond in Montville, CT, flows between Route 163 and Maple Avenue through Rockland Pond and Red Mill Pond, crosses Route 395 and Route 32, and ends at the inlet to Gay Cemetery Pond in Horton Cove along the Thames River in Montville, CT.

The impaired segment of Oxoboxo Brook has a water quality classification of B. Designated uses include habitat for fish and other aquatic life and wildlife, recreation, and industrial and agricultural water supply. As there are no designated beaches in this segment of the Oxoboxo Brook, the specific recreation impairment is for non-designated swimming and other water contact related activities.

Impaired Segment Facts

Impaired Segment: Oxoboxo Brook (CT3004-00_01)

Municipalities: Montville

Impaired Segment Length (miles): 2.62

Water Quality Classification: Class B

Designated Use Impairment: Recreation

Sub-regional Basin Name and Code: Oxoboxo Brook, 3004

Regional Basin: Thames Main Stem

Major Basin: Thames

Watershed Area (acres): 6,518

MS4 Applicable? Yes

Applicable Season: Recreation Season (May 1 to September 30)

Figure 1: Watershed location in Connecticut

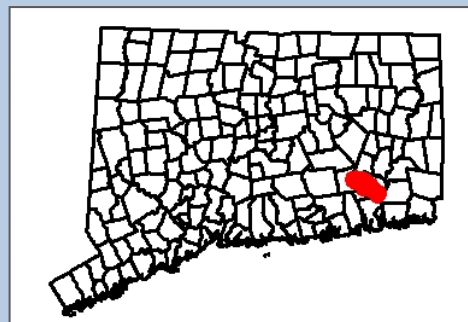
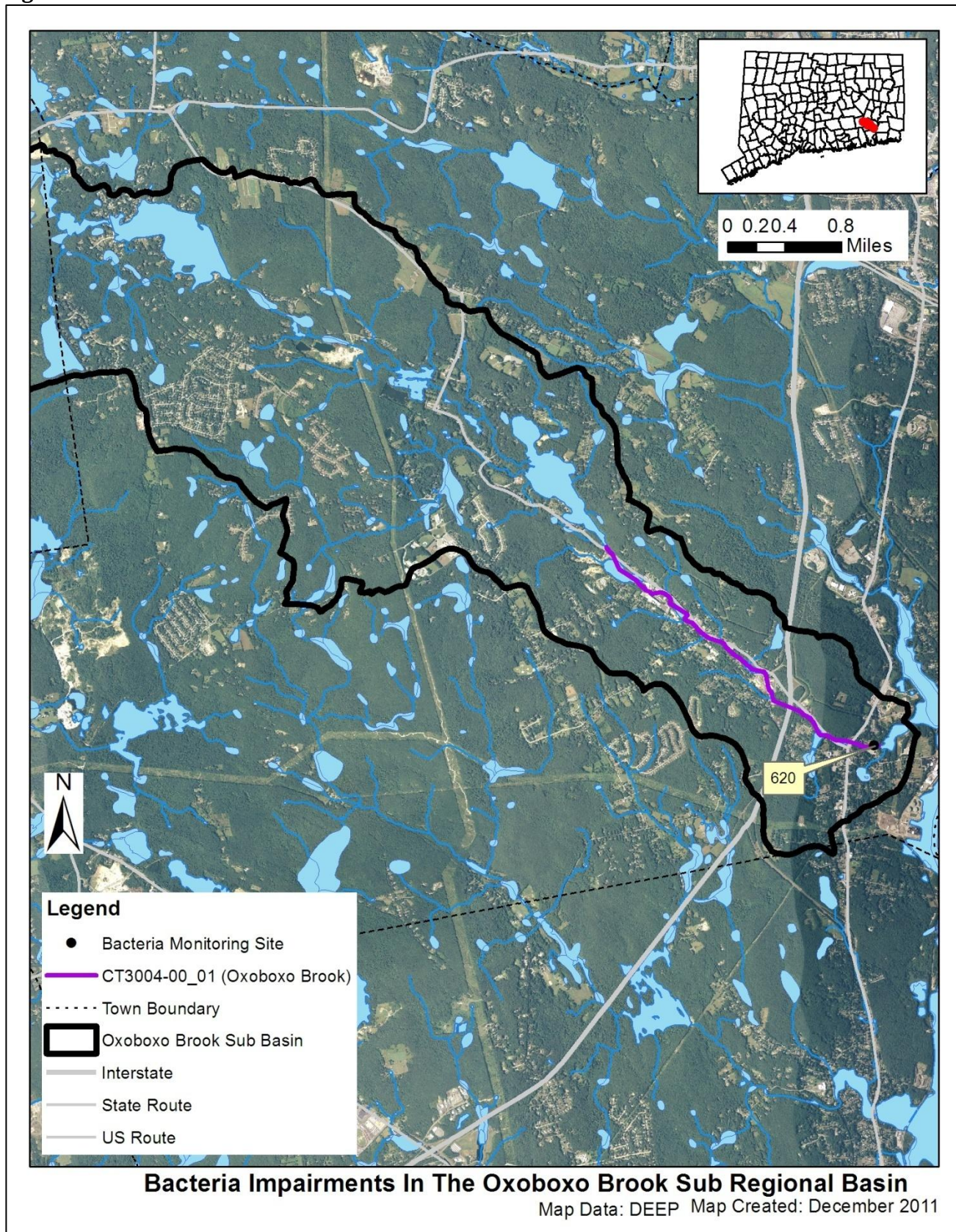


Table 1: Impaired segment and nearby waterbodies from the Connecticut 2010 Integrated Water Quality Report

Waterbody ID	Waterbody Name	Location	Miles	Aquatic Life	Recreation	Fish Consumption
CT3004-00_01	Oxoboxo Brook-01	From mouth at head of tide (inlet to Gay Cemetery Pond, Horton Cove, Thames River), US to Wheeler Pond outlet dam, Montville. (Segment includes Rockland Pond)	2.62	U	NOT	FULL
CT3004-00_02	Oxoboxo Brook-02	From inlet to Wheeler Pond (northwestern portion, DS of Meeting House Lane road crossing), US to Oxoboxo Lake outlet dam. (Includes Scholfield Pond)	2.95	U	U	FULL
Shaded cells indicate impaired segment addressed in this TMDL FULL = Designated Use Fully Supported NOT = Designated Use Not Supported U = Unassessed						

Figure 2: GIS map featuring general information of the Oxoboxo Brook watershed at the sub-regional level



Land Use

Existing land use can affect the water quality of waterbodies within a watershed (USEPA, 2011c). Natural processes, such as soil infiltration of stormwater and plant uptake of water and nutrients, can occur in undeveloped portions of the watershed. As impervious surfaces (such as rooftops, roads, and sidewalks) increase within the watershed landscape from commercial, residential, and industrial development, the amount of stormwater runoff to waterbodies also increases. These waterbodies are negatively affected as increased pollutants from nutrients and bacteria from failing and insufficient septic systems, oil and grease from automobiles, and sediment from construction activities become entrained in this runoff. Agricultural land use activities, such as fertilizer application and manure from livestock, can also increase pollutants in nearby waterbodies (USEPA, 2011c).

As shown in Figures 3 and 4, the Oxoboxo Brook watershed consists of 58% forest, 26% urban, 10% water, and 6% agricultural land uses. Upstream of the impairment are large tracts of forested land with hayfields, row crops, and livestock farms along Route 163 on the outskirts of the watershed. Several residential areas and developed open spaces, including the Quaker Hill Rod & Gun Club, are located immediately adjacent to Oxoboxo Brook. A large sand pit and dumpsite with an identified septage lagoon near Paris Pond and a motel and community area with tennis and basketball courts at the Route 163 crossing are located adjacent to Oxoboxo Brook as well. Wheeler Pond is heavily developed with residential homes located adjacent to or near the shoreline. Several pockets of disturbed areas with exposed soil can be found on the east and west side of Wheeler Pond. Also identified was a livestock or horse pasture to the north, a large home with lawn extending right to the shoreline to the southeast, and an industrial area with exposed soil to the west. The impaired segment of Oxoboxo Brook continues through industrial and commercial development areas, which include car lots, Advanced Self Storage, the American Legion, Montville Animal Control, Connecticut Scrap lot downstream of Picker Pond, Natchaug Hospital Joshua Center, St. Patrick Cemetery, and Montville Wastewater Treatment Plant.

Figure 3: Land use within the Oxoboxo Brook watershed

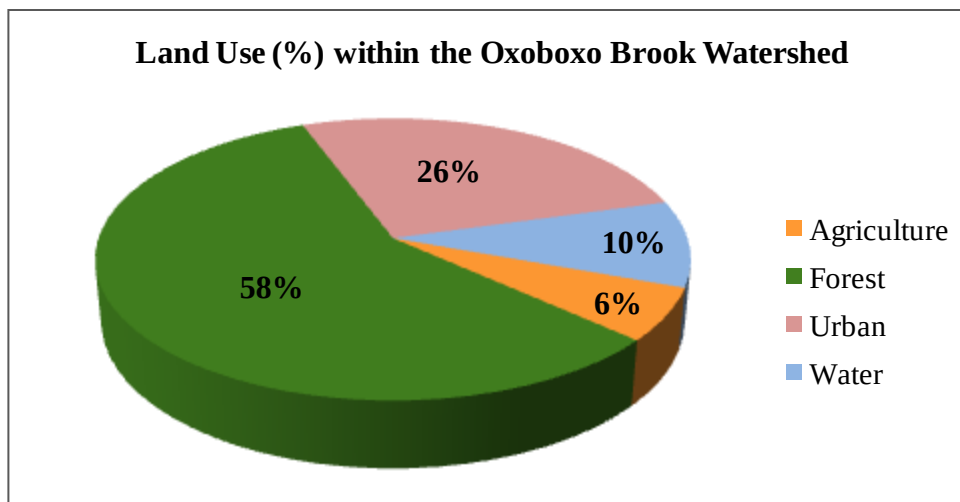
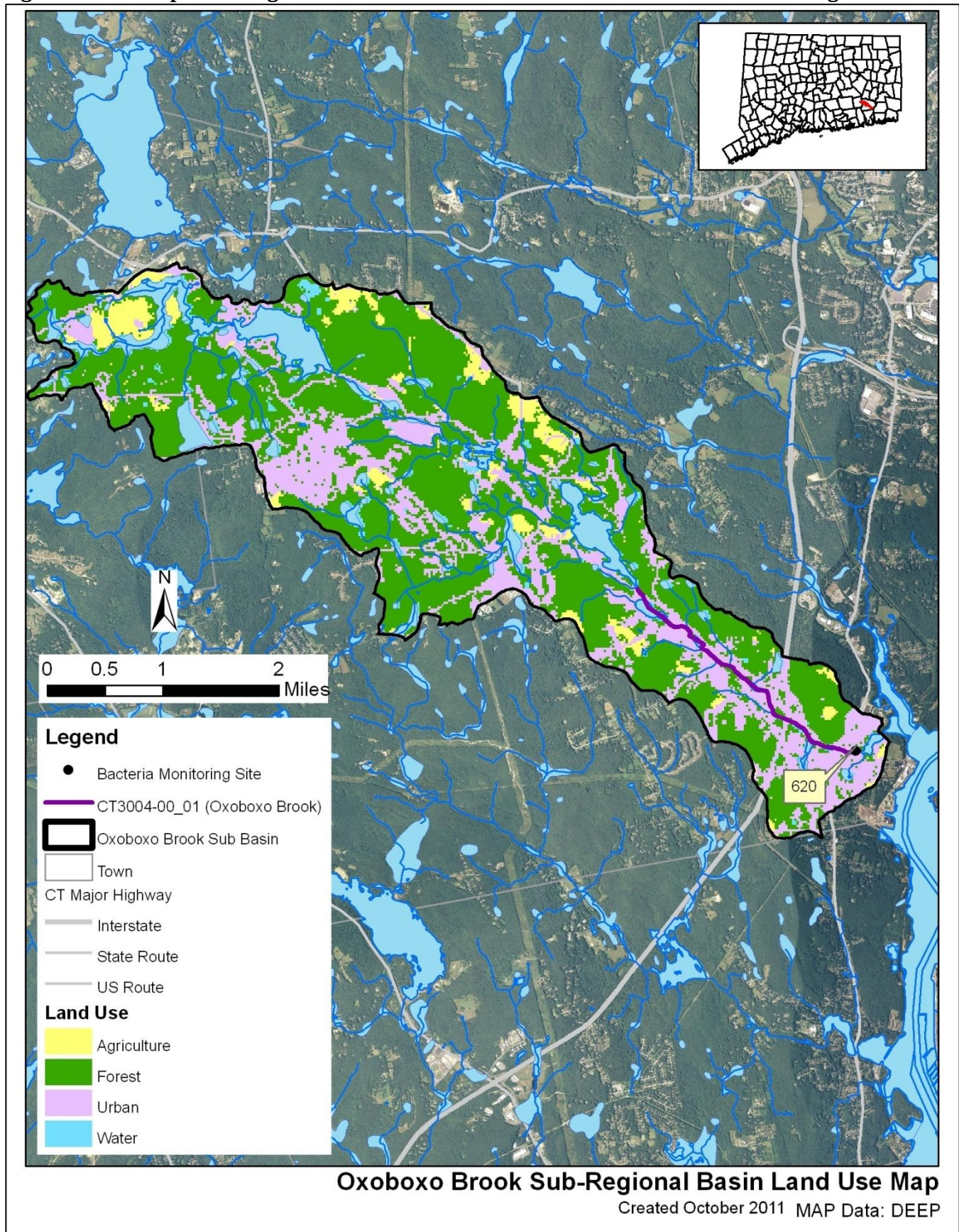


Figure 4: GIS map featuring land use for the Oxoboxo Brook watershed at the sub-regional level

WHY IS A TMDL NEEDED?

E. coli is the indicator bacteria used for comparison with the CT State criteria in the CT Water Quality Standards (WQS) (CTDEEP, 2011). All data results are from CT DEEP, USGS, Bureau of Aquaculture, or volunteer monitoring efforts at stations located on the impaired segments.

Table 2: Sampling station location description for the impaired Segment in the Oxoboxo Brook watershed

Waterbody ID	Waterbody Name	Station	Station Description	Municipality	Latitude	Longitude
CT3004-00_01	Oxoboxo Brook	620	At Faria Company (Pink Row Road)	Montville	41.436594	-72.106153

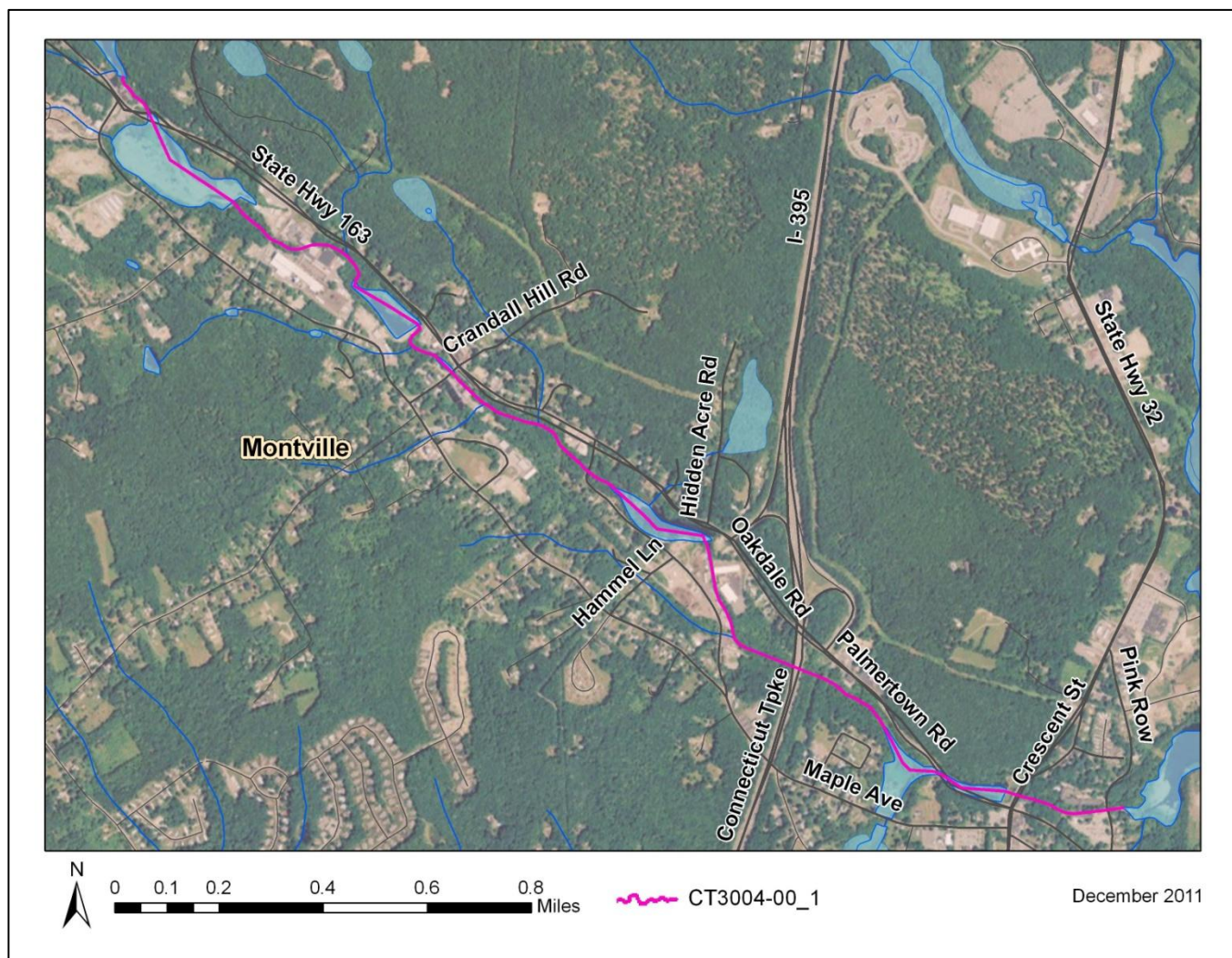
Oxoboxo Brook (CT3004-00_01) is a Class B freshwater river (Figure 5). Its applicable designated uses are habitat for fish and other aquatic life and wildlife, recreation, and industrial and agricultural water supply. Water quality analyses were conducted using data from one sampling location from 2006-2009 (Station 620) (Table 2).

The water quality criteria for *E. coli*, along with bacteria sampling results for Station 620 from 2006-2009, are presented in Table 10. The annual geometric mean was calculated for Station 620 and exceeded the WQS for *E. coli* in 2008. Single sample values at this station also exceeded the WQS for *E. coli* twice in 2007 and once in 2008.

To aid in identifying possible bacteria sources, the geometric mean was calculated for Station 620 for wet-weather and dry-weather sampling days, where appropriate (Table 10). For Oxoboxo Brook, the *E. coli* geometric mean for samples taken in wet weather was well over three times the dry weather samples.

Due to the elevated bacteria measurements presented in Table 10, this segment of Oxoboxo Brook did not meet CT's bacteria WQS, was identified as impaired, and was placed on the CT List of Waterbodies Not Meeting Water Quality Standards, also known as the CT 303(d) Impaired Waters List. The Clean Water Act requires that all 303(d) listed waters undergo a TMDL assessment that describes the impairments and identifies the measures needed to restore water quality. The goal is for all waterbodies to comply with State WQS.

Figure 5: Aerial map of Oxoboxo Brook



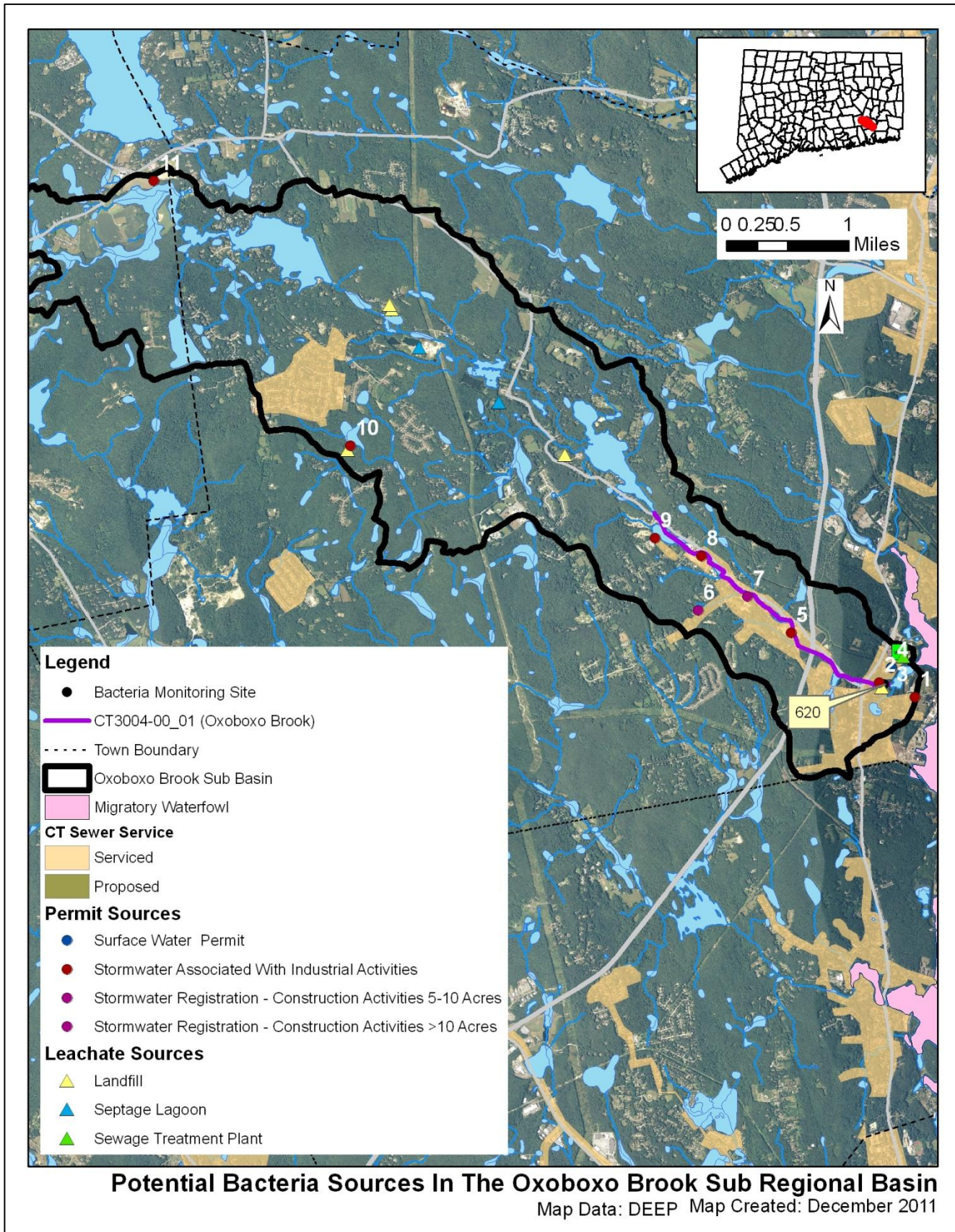
POTENTIAL BACTERIA SOURCES

Potential sources of indicator bacteria in a watershed include point and non-point sources, such as stormwater runoff, agriculture, sanitary sewer overflows (collection system failures), illicit discharges, and inappropriate discharges to the waterbody. Potential sources that have been tentatively identified in the watershed based on land use (Figures 3 and 4) and a collection of local information for the impaired waterbody is presented in Table 3 and Figure 6. However, the list of potential sources is general in nature and should not be considered comprehensive. There may be other sources not listed here that contribute to the observed water quality impairment in the study segments. Further monitoring and investigation will confirm listed sources and discover additional ones. Some segments in this watershed are currently listed as unassessed by CT DEEP procedures. This does not suggest that there are no potential issues on this segment, but indicates a lack of current data to evaluate the segment as part of the assessment process. For some segments, there are data from permitted sources, and CT DEEP recommends that any elevated concentrations found from those permitted sources be addressed through voluntary reduction measures. More detailed evaluation of potential sources is expected to become available as activities are conducted to implement these TMDLs.

Table 3: Potential bacteria sources in the Oxoboxo Brook watershed

Impaired Segment	Permit Source	Illicit Discharge	CSO/SSO Issue	Failing Septic System	Agricultural Activity	Stormwater Runoff	Nuisance Wildlife/Pets	Other
Oxoboxo Brook CT3004-00_01	x	x		x	x	x	x	x

Figure 6: Potential sources in the Oxoboxo Brook watershed at the sub-regional level



The potential sources map for the impaired basin was developed after thorough analysis of available data sets. If information is not displayed in the map, then no sources were discovered during the analysis. The following is the list of potential sources that were evaluated: problems with migratory waterfowl, golf course locations, reservoirs, proposed and existing sewer service, cattle farms, poultry farms, permitted sources of bacteria loading (surface water discharge, MS4 permit, industrial stormwater, commercial stormwater, groundwater permits, and construction related stormwater), and leachate and discharge sources (agricultural waste, CSOs, failing septic systems, landfills, large septic tank leach fields, septage lagoons, sewage treatment plants, and water treatment or filter backwash).

Point Sources

Permitted sources within the watershed that could potentially contribute to the bacteria loading are identified in Table 4. This table includes permit types that may or may not be present in the impaired watershed. A list of active permits in the watershed is included in Table 5. Additional investigation and monitoring may reveal the presence of additional discharges in the watershed. Available effluent data from each of these permitted categories found within the watershed are compared to the CT State WQS for the appropriate receiving waterbody use and type. When available, bacteria data results from these permitted sources are listed in Table 6.

Table 4: General categories list of other permitted discharges

Permit Code	Permit Description Type	Number in watershed
CT	Surface Water Discharges	1
GPL	Discharge of Swimming Pool Wastewater	0
GSC	Stormwater Discharge Associated with Commercial Activity	0
GSI	Stormwater Associated with Industrial Activity	8
GSM	Part B Municipal Stormwater MS4	1
GSN	Stormwater Registration – Construction	2
LF	Groundwater Permit (Landfill)	0
UI	Underground Injection	0

Permitted Sources

As shown in Table 5, there are multiple permitted discharges in the Oxoboxo Brook watershed. Bacteria data from 2001-2003 for three industrial permitted facilities are included in Table 6. Though this data cannot be compared to a water quality standard as there is no recreation standard for fecal coliform bacteria, samples from two outfalls at Thomas G. Faria Corporation (GSI1414) both exceeded 2,000 colonies/100mL in 2003. Samples from four outfalls at Rand-Whitney Container Board (GSI723) exceeded 1,700 colonies/100ml on at least one sampling date in 2001 and 2002, with the maximum being 33,000 colonies/100ml in 2002. Smurfit-Stone Container Corporation (GSI532) also had high counts above 1,400 colonies/100ml, but is located downstream of the impaired segment of Oxoboxo Brook.

Since the MS4 permits are not targeted to a specific location, but the geographic area of the regulated municipality, there is no one accurate location on the map to display the location of these permits. One

dot will be displayed at the geographic center of the municipality as a reference point. Sometimes this location falls outside of the targeted watershed and therefore the MS4 permit will not be displayed in the Potential Sources Map. Using the municipal border as a guideline will show which areas of an affected watershed are covered by an MS4 permit.

Several permitted sources and MS4 outfalls may be high contributors of bacterial contamination to the impaired segment of Oxoboxo Brook. Downstream of Picker Pond along Oxoboxo Brook, an MS4 outfall and permitted source at D&W Transport & Leasing exceeded single sample values on all sample dates. Downstream of Red Mill Pond in a commercial area along Route 163, sampling at Rand-Whitney Container Board revealed high fecal coliform counts with a maximum of 33,000 colonies/100mL. Thomas G. Faria Corporation along Route 32 downstream of the lower portion of Red Mill Pond had outfall sampling results above 2,000 colonies/100mL. Other permitted sources of particular concern include: Yale's Auto Salvage, Inc, a large car salvage yard with exposed soil at the outlet of Wheeler Pond; and Kobyluck Sand & Gravel, Inc, a large sand and gravel pit along Oxoboxo Dam Road upstream of the impaired segment.

Table 5: Permitted facilities within the Oxoboxo Brook watershed

Town	Client	Permit ID	Permit Type	Site Name/Address	Map #
Montville	Rand-Whitney Container Board L.P.	GSI000723	Stormwater Associated With Industrial Activities	Rand-Whitney Container Board L.P.	8
Montville	Yale Auto Salvage, Inc.	GSI001162	Stormwater Associated With Industrial Activities	Yale's Inc.	9
Montville	Kobyluck Sand And Gravel, Inc.	GSI002041	Stormwater Associated With Industrial Activities	Kobyluck Sand & Gravel, Inc.	10
Montville	Town of Montville	GSM000067	Part B Municipal Stormwater MS4	Montville, Town of	NA
Montville	1129 Route 32, Llc	GSN001818	Stormwater Registration - Construction Activities 5-10 Acres	Lot 7B	7
Montville	9R Burlake, Llc	GSN002105	Stormwater Registration - Construction Activities >10 Acres	Gay Hill Subdivision	6
Uncasville	Town Of Montville	CT0100935	Surface Water Permit	Montville WPCF	4
Uncasville	Smurfit-Stone Container Corporation	GSI000527	Stormwater Associated With Industrial Activities	Smurfit-Stone Container Corporation	1
Uncasville	Thomas G. Faria Corporation	GSI001414	Stormwater Associated With Industrial Activities	Thomas G. Faria Corporation	2
Uncasville	Town Of Montville	GSI001968	Stormwater Associated With Industrial Activities	Montville WPCF	3
Uncasville	D.W. Transport & Leasing	GSI001111	Stormwater Associated With Industrial Activities	D.W. Transport & Leasing, Inc.	5

Table 6: Industrial permits on Oxoboxo Brook and available fecal coliform data (colonies/100mL). The results cannot be compared to the water quality standard as there is no recreation standard for fecal coliform.

Town	Location	Permit Number	Receiving Water	Sample Location	Sample Date	Result
Montville	Thomas G. Faria	GSI1414	Oxoboxo Brook	outfall #1	02/27/02	>120
Montville	Thomas G. Faria	GSI1414	Oxoboxo Brook	outfall #1	07/24/03	>2000
Montville	Thomas G. Faria	GSI1414	Oxoboxo Brook	outfall #2	02/27/02	>120
Montville	Thomas G. Faria	GSI1414	Oxoboxo Brook	outfall #2	07/24/03	>2000
Montville	Stone Container Corp	GSI532	Oxoboxo Brook	swale	07/26/01	2,600
Montville	Stone Container Corp	GSI532	Oxoboxo Brook	swale	09/27/02	1,400
Montville	Rand-Whitney Containerboard	GSI723	Oxoboxo Brook	001	09/21/01	40
Montville	Rand-Whitney Containerboard	GSI723	Oxoboxo Brook	001	09/26/02	33,000
Montville	Rand-Whitney Containerboard	GSI723	Oxoboxo Brook	003	09/21/01	430
Montville	Rand-Whitney Containerboard	GSI723	Oxoboxo Brook	003	09/26/02	1,700
Montville	Rand-Whitney Containerboard	GSI723	Oxoboxo Brook	007	09/21/01	750
Montville	Rand-Whitney Containerboard	GSI723	Oxoboxo Brook	007	09/26/02	1,900
Montville	Rand-Whitney Containerboard	GSI723	Oxoboxo Brook	008	09/21/01	23
Montville	Rand-Whitney Containerboard	GSI723	Oxoboxo Brook	008	09/26/02	3,200

Municipal Stormwater Permitted Sources

Per the EPA Phase II Stormwater rule all municipal storm sewer systems (MS4s) operators located within US Census Bureau Urbanized Areas (UAs) must be covered under MS4 permits regulated by the appropriate State agency. There is an EPA waiver process that municipalities can apply for to not participate in the MS4 program. In Connecticut, EPA has granted such waivers to 19 municipalities. All participating municipalities within UAs in Connecticut are currently regulated under MS4 permits by CT DEEP staff in the MS4 program.

The US Census Bureau defines a UA as a densely settled area that has a census population of at least 50,000. A UA generally consists of a geographic core of block groups or blocks that exceeds the 50,000 people threshold and has a population density of at least 1,000 people per square mile. The UA will also include adjacent block groups and blocks with at least 500 people per square mile. A UA consists of all or part of one or more incorporated places and/or census designated places, and may include additional territory outside of any place. (67 FR 11663)

For the 2000 Census a new geographic entity was created to supplement the UA blocks of land. This created a block known as an Urban Cluster (UC) and is slightly different than the UA. The definition of a UC is a densely settled area that has a census population of 2,500 to 49,999. A UC generally consists of a geographic core of block groups or blocks that have a population density of at least 1,000 people per square mile, and adjacent block groups and blocks with at least 500 people per square mile. A UC consists of all or part of one or more incorporated places and/or census designated places; such a place(s) together with adjacent territory; or territory outside of any place. The major difference is the total population cap of 49,999 people for a UC compared to >50,000 people for a UA. (67 FR 11663)

While it is possible that CT DEEP will be expanding the reach of the MS4 program to include UC municipalities in the near future they are not currently under the permit. However, the GIS layers used to create the MS4 maps in this Statewide TMDL did include both UA and UC blocks. This factor creates some municipalities that appear to be within an MS4 program that are not currently regulated through an MS4 permit. This oversight can explain a municipality that is at least partially shaded grey in the maps and there are no active MS4 reporting materials or information included in the appropriate appendix. While these areas are not technically in the MS4 permit program, they are still considered urban by the cluster definition above and are likely to contribute similar stormwater discharges to affected waterbodies covered in this TMDL.

As previously noted, EPA can grant a waiver to a municipality to preclude their inclusion in the MS4 permit program. One reason a waiver could be granted is a municipality with a total population less than 1000 people, even if the municipality was located in a UA. There are 19 municipalities in Connecticut that have received waivers, this list is: Andover, Bozrah, Canterbury, Coventry, East Hampton, Franklin, Haddam, Killingworth, Litchfield, Lyme, New Hartford, Plainfield, Preston, Salem, Sherman, Sprague, Stafford, Washington, and Woodstock. There will be no MS4 reporting documents from these towns even if they are displayed in an MS4 area in the maps of this document.

The list of US Census UCs is defined by geographic regions and is named for those regions, not necessarily by following municipal borders. In Connecticut the list of UCs includes blocks in the following Census Bureau regions: Colchester, Danielson, Lake Pocotopaug, Plainfield, Stafford, Storrs, Torrington, Willimantic, Winsted, and the border area with Westerly, RI (67 FR 11663). Any MS4 maps showing these municipalities may show grey areas that are not currently regulated by the CT DEEP MS4 permit program.

The impaired segment of the Oxoboxo Brook watershed is located within the Town of Montville, CT. The town is largely urbanized, as defined by the U.S. Census Bureau, and is required to comply with the General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems (MS4 permit) issued by the Connecticut Department of Energy and Environmental Protection (DEEP) (Figure 7). This general permit is only applicable to municipalities that are identified in Appendix A of the MS4 permit that contain designated urban areas and discharge stormwater via a separate storm sewer system to surface waters of the State. The permit requires municipalities to develop a Stormwater Management Plan (SMP) to reduce the discharge of pollutants and protect water quality. The MS4 permit is discussed further in the "TMDL Implementation Guidance" section of the core TMDL document. Additional information regarding stormwater management and the MS4 permit can be obtained on CTDEEP's website (http://www.ct.gov/dep/cwp/view.asp?a=2721&q=325702&depNav_GID=1654).

Multiple MS4 outfalls have been sampled for *E. coli* bacteria in the watershed (Table 7). In Montville, three MS4 outfalls were sampled from 2006-2011. All outfalls exceeded the single sample water quality standard of 410 colonies/100 mL on at least one sampling date.

Figure 7: MS4 areas of the Oxoboxo Brook watershed

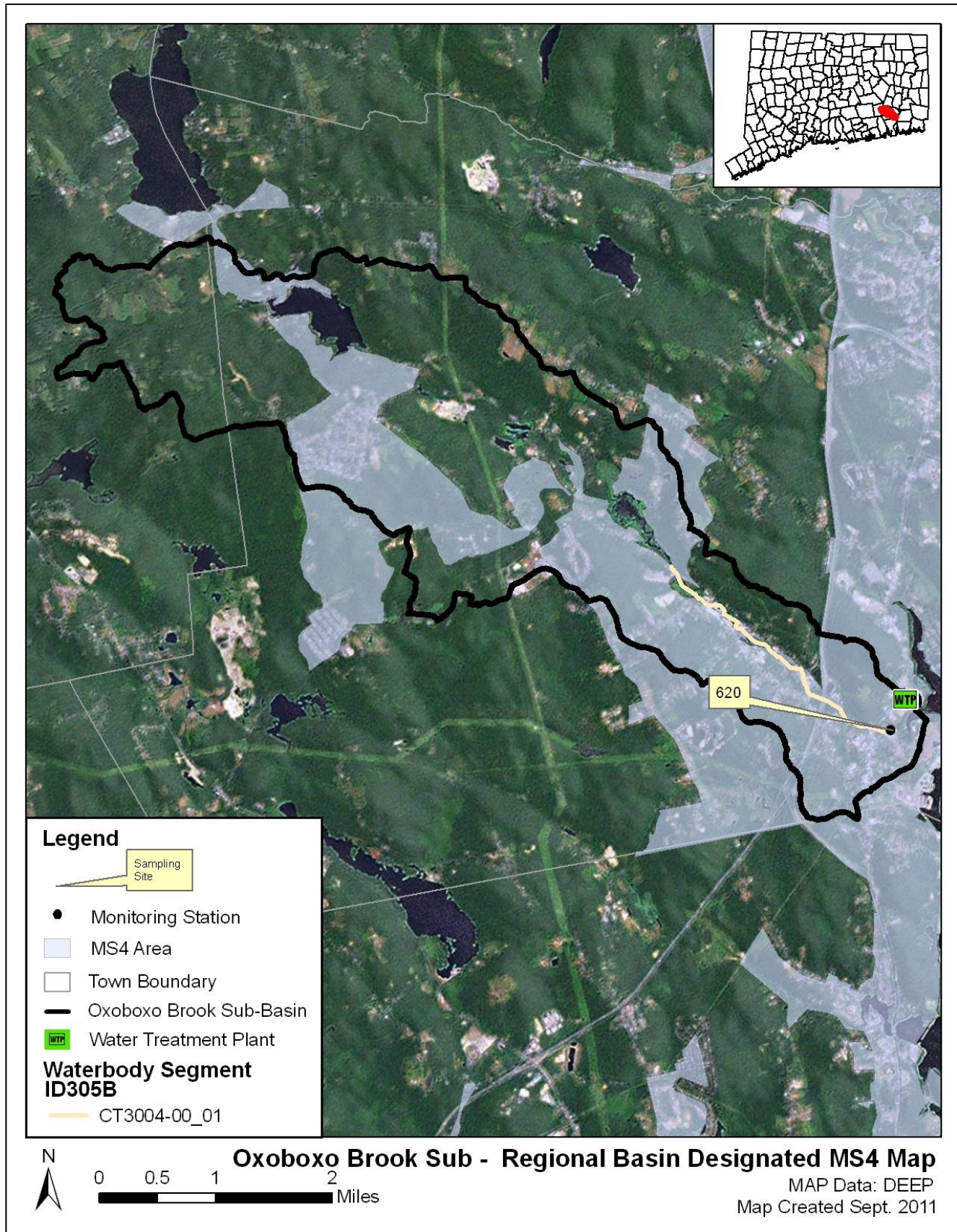


Table 7: List of MS4 sample locations and *E. coli* (colonies/100 mL) results in the Oxoboxo Brook watershed

Town	Location	MS4 Type	Receiving Waters	Sample Date	Result
Montville	I 400 Maple Ave - "D&W Transport"	Industrial	Oxoboxo Brook	12/01/06	20,000
Montville	I 400 Maple Ave - "D&W Transport"	Industrial	Oxoboxo Brook	12/13/06	1,000
Montville	I 400 Maple Ave - "D&W Transport"	Industrial	Oxoboxo Brook	09/11/07	2,000
Montville	I 400 Maple Ave - "D&W Transport"	Industrial	Oxoboxo Brook	01/11/08	4,000
Montville	I 400 Maple Ave - "D&W Transport"	Industrial	Oxoboxo Brook	04/26/08	6,000
Montville	I 400 Maple Ave - "D&W Transport"	Industrial	Oxoboxo Brook	06/06/09	17,330
Montville	I 400 Maple Ave - "D&W Transport"	Industrial	Oxoboxo Brook	10/19/11	>24,200
Montville	R20-2	Residential	Oxoboxo Brook	10/19/11	540
Montville	R40-2 Jeffery Manor Rd	Residential	Oxoboxo Brook	12/01/06	40
Montville	R40-2 Jeffery Manor Rd	Residential	Oxoboxo Brook	12/13/06	10
Montville	R40-2 Jeffery Manor Rd	Residential	Oxoboxo Brook	09/11/07	2,000
Montville	R40-2 Jeffery Manor Rd	Residential	Oxoboxo Brook	01/11/08	20
Montville	R40-2 Jeffery Manor Rd	Residential	Oxoboxo Brook	04/26/08	10
Montville	R40-2 Jeffery Manor Rd	Residential	Oxoboxo Brook	06/06/09	60
Montville	R40-2 Jeffery Manor Rd	Residential	Oxoboxo Brook	10/19/11	400
Shaded cells indicate an exceedance of single-sample based water quality criteria (410 colonies/100 mL)					

Publicly Owned Treatment Works

As shown in Figure 7, there is one publicly owned treatment works (POTW), or wastewater treatment plant, in the Oxoboxo Brook watershed near the outlet of Horton Cove, downstream of the impaired segment in Montville, CT. The Montville Water Pollution Control Facility (CT0100935) discharges directly to Gay Cemetery Pond downstream of the mouth of Oxoboxo Brook before it heads to Horton Cove along the Thames River. However, there are currently no data available for this facility.

Non-point Sources

Non-point source pollution (NPS) comes from many diffuse sources and is more difficult to identify and control. NPS pollution is often associated with land-use practices. Examples of NPS that can contribute bacteria to surface waters include insufficient septic systems, pet and wildlife waste, agriculture, and contact recreation (swimming or wading). Potential sources of NPS within the Oxoboxo Brook watershed are described below.

Stormwater Runoff from Developed Areas

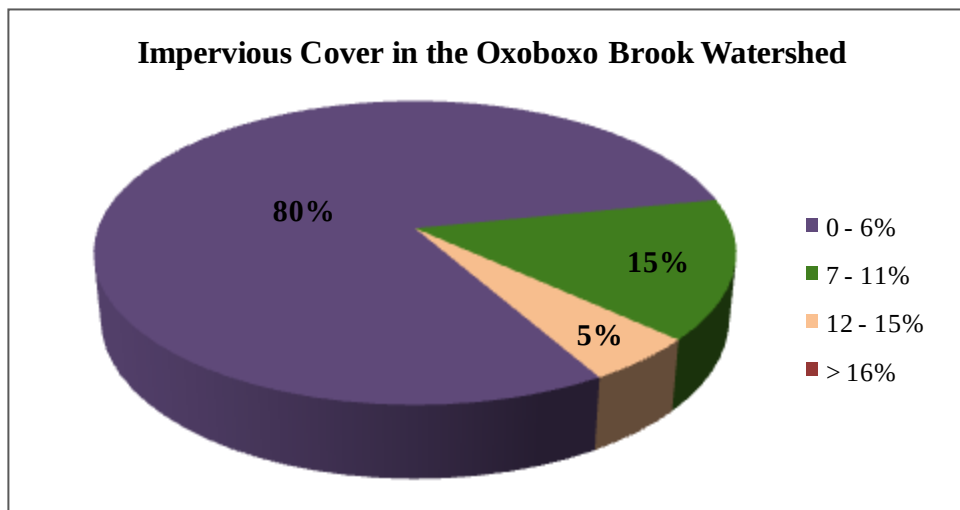
Approximately 26% of the land use in the watershed is considered urban, particularly near the impaired segment, which flows through the commercial and industrial development along Oakdale Road (Route 163) (Figures 4 and 9). Car lots, landfills, hospitals, cemeteries, gun clubs, motels, and tennis-basketball courts depict this urban area. Urban areas are often characterized by impervious cover, or surface areas such as roofs and roads that force water to run off land surfaces rather than infiltrate into the soil. Studies have shown a link between increasing impervious cover and degrading water quality conditions in a

Oxoboxo Brook Watershed TMDL

watershed (CWP, 2003). In one study, researchers correlated the amount of fecal coliform to the percent of impervious cover in a watershed (Mallin *et al.*, 2000).

As shown in Figure 8, approximately 15% of the Oxoboxo Brook watershed contains 7-11% impervious cover and 5% contains 12-15% impervious cover, particularly in the lower half of the area around the impaired segment (Figure 9). Water quality data taken at Station 620, located at the very downstream extent of the impaired segment, exceeded the geometric mean during wet-weather, which suggests that stormwater runoff may be a source of bacteria to the Oxoboxo Brook (Table 10).

Figure 8: Range of impervious cover (%) in the Oxoboxo Brook watershed

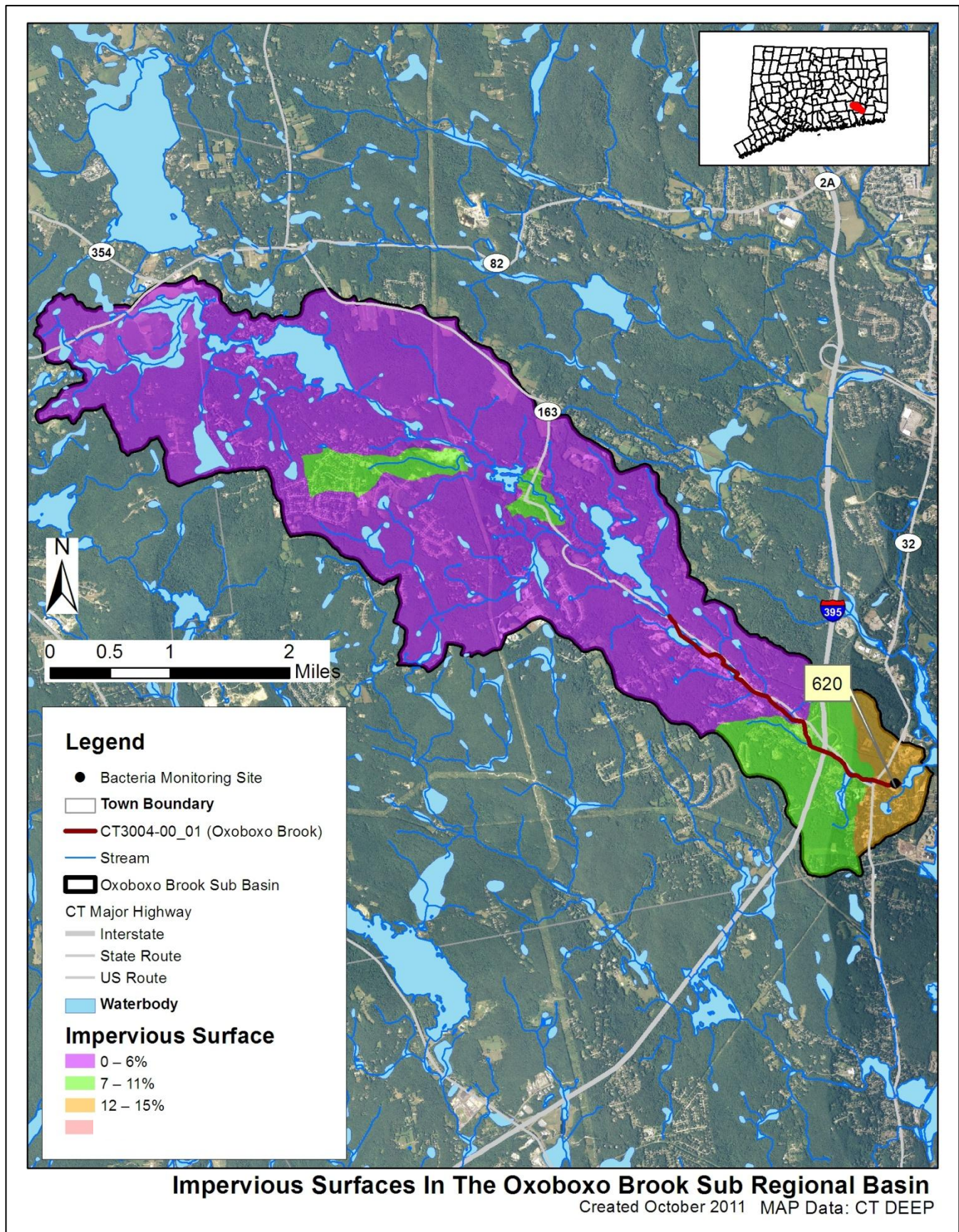


Insufficient Septic Systems and Illicit Discharges

As shown in Figure 6, the majority of the watershed upstream of Wheeler Pond relies on onsite wastewater treatment systems, such as septic systems. Insufficient or failing septic systems can be significant sources of bacteria by allowing raw waste to reach surface waters. A septage lagoon was identified at D&W Transport & Leasing just downstream of Paris Pond and adjacent to the impaired segment of Oxoboxo Brook. In Connecticut, local health directors or health districts are responsible for keeping track of any reported insufficient or failing septic systems in a specific municipality. The Town of Montville is a sovereign nation and is part of the Uncas Health District (<http://www.uncashd.org/>).

The area immediately surrounding the impaired segment of Oxoboxo Brook, downstream of Rockland Pond, is serviced by the municipal sewer system (Figure 6). Sewer system leaks and other illicit discharges or connections can contribute bacteria to nearby surface waters.

Figure 9: Impervious cover (%) for the Oxoboxo Brook sub-regional watershed



Wildlife and Domestic Animal Waste

Wildlife and domestic animals within the Oxoboxo Brook watershed represent another potential source of bacteria. With the construction of roads and drainage systems, these wastes may no longer be retained on the landscape, but instead may be conveyed via stormwater to the nearest surface water. These physical land alterations can exacerbate the impact of natural sources on water quality (USEPA, 2001). As the majority of the watershed upstream and along portions of the impaired segment is undeveloped, wildlife waste may be a potential source of bacteria to Oxoboxo Brook. Residential development and community parks in the watershed are located near the Oxoboxo Brook as well. As such, waste from domestic animals, such as dogs, may also be contributing to bacteria concentrations in the impaired segment of the Oxoboxo Brook watershed.

The Quaker Hill Rod & Gun Club is located within the Oxoboxo Brook watershed upstream of the impaired segment (Figure 6). A mansion along Wheeler Pond with a large open lawn extending right to the shoreline may serve as a geese attractant as well. Geese and other waterfowl are known to congregate in open areas including recreational fields, agricultural crop fields, and golf courses. In addition to creating a nuisance, large numbers of geese can also create unsanitary conditions on the grassed areas and cause water quality problems due to bacterial contamination associated with their droppings. Large populations of geese can also lead to habitat destruction as a result of overgrazing on wetland and riparian plants.

Agricultural Activities

Agricultural operations are an important economic activity and landscape feature in many areas of the State. Runoff from agricultural fields may contain pollutants such as bacteria and nutrients (USEPA, 2011a). This runoff can include pollutants from farm practices such as storing manure, allowing livestock to wade in nearby waterbodies, applying fertilizer, and reducing the width of vegetated buffer along the shoreline. Agricultural land use makes up 6% of the Oxoboxo Brook watershed. Although there are no major agricultural areas near the impaired segment, there are multiple hayfields, row crops, and livestock farms located in the upper half of the Oxoboxo Brook watershed upstream of the impaired segment along Route 163. Agricultural activities are most likely a small source of bacteria to Oxoboxo Brook; however, an identified livestock or horse farm near the north shore of Wheeler Pond should be monitored for potential contamination.

Additional Sources

As identified in Figure 6, four landfills are located upstream of the impaired segment, three of which are along the main stem flowing directly to Wheeler Pond. One landfill is also located at the mouth of the impaired segment near Station 620.

There may be other sources not listed here or identified in Figure 6 that contribute to the observed water quality impairment in Oxoboxo Brook. Further monitoring and investigation will confirm the listed sources and discover additional ones. More detailed evaluation of potential sources is expected to become available as activities are conducted to implement this TMDL.

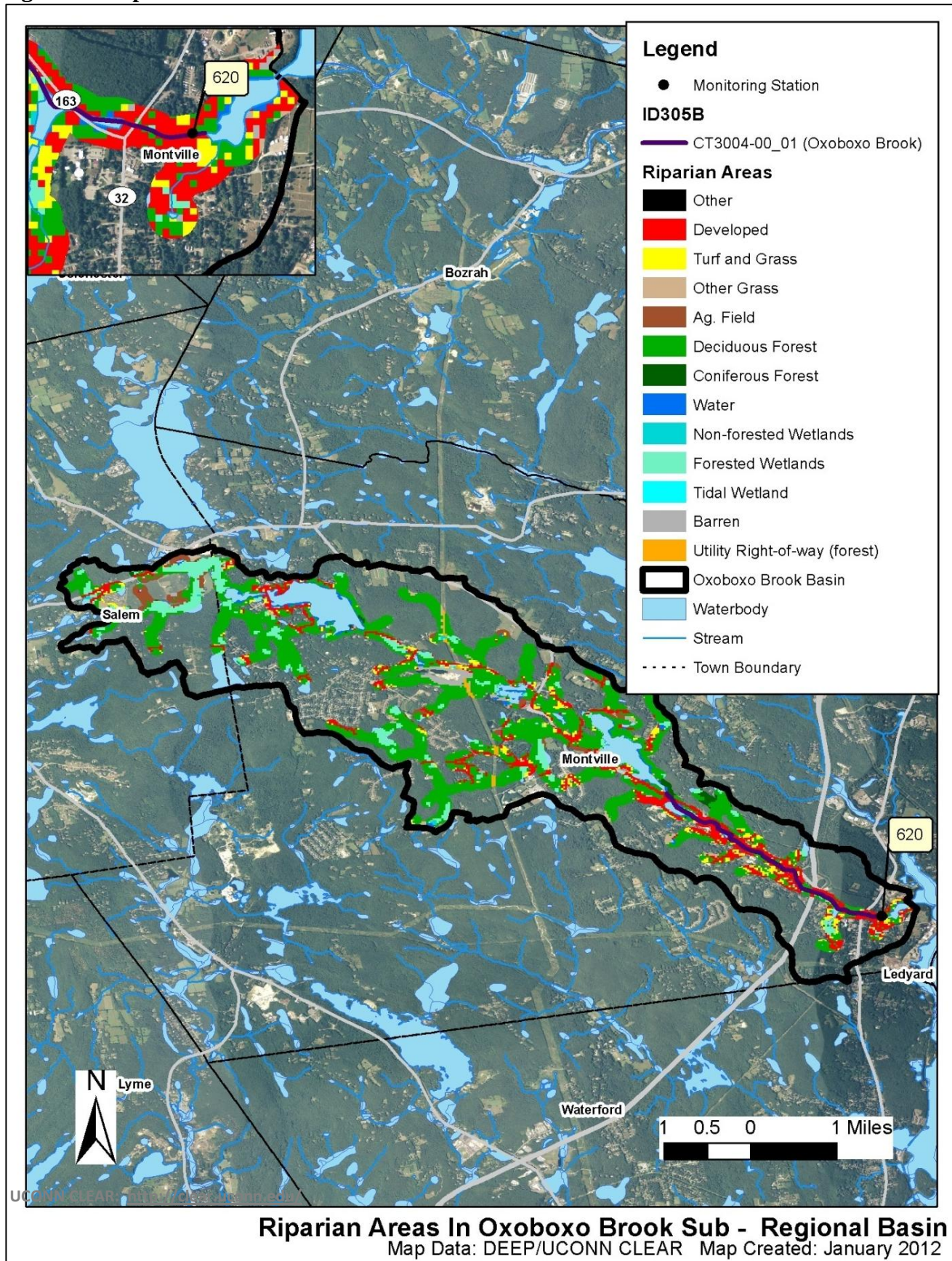
Land Use/Landscape***Riparian Buffer Zones***

The riparian buffer zone is the area of land located immediately adjacent to streams, lakes, or other surface waters. The boundary of the riparian zone and the adjoining uplands is gradual and not always well-defined. However, riparian zones differ from uplands because of high levels of soil moisture, frequent flooding, and the unique assemblage of plant and animal communities found there. Through the interaction of their unique soils, hydrology, and vegetation, natural riparian areas influence water quality as contaminants are taken up into plant tissues, adsorbed onto soil particles, or modified by soil organisms. Any change to the natural riparian buffer zone can reduce the effectiveness of the natural buffer and has the potential to contribute to water quality impairment (USEPA, 2011b).

The CLEAR program at UCONN has created streamside buffer layers for the entire State of Connecticut (<http://clear.uconn.edu/>), which have been used in this TMDL. Analyzing this information can reveal potential sources and implementation opportunities at a localized level. The land use directly adjacent to a waterbody can have direct impacts on water quality from surface runoff sources.

The majority of the riparian zone for the impaired segment of Oxoboxo Brook is characterized by developed land use (Figure 10). Riparian areas upstream of this impaired segment are characterized by forested land use with small portions of developed and barren areas. As previously noted, if not properly treated, runoff from developed areas may contain pollutants such as bacteria and nutrients.

Figure 10: Riparian buffer zone information for the Oxoboxo Brook watershed



CURRENT MANAGEMENT ACTIVITIES

CT DEEP's Non-Point Source Pollution Program administers a Non-Point Source Grant Program with funding from EPA under Section 319 of the Clean Water Act (319 grant). A \$75,000 grant under this program was awarded to the University of Connecticut's Departments of Plant Science and Cooperative Extension to create multiple on-site demonstration projects or season-long consultations on proper agricultural BMPs with the goal to quantify reductions in pesticide and nutrient loading to the Oxoboxo Brook and surrounding watersheds (<http://www.depdata.ct.gov/maps/nps/npsmap.htm>).

As indicated previously, Montville is regulated under the MS4 program. The MS4 General Permit is required for any municipality with urbanized areas that initiates, creates, originates or maintains any discharge of stormwater from a storm sewer system to waters of the State. The MS4 permit requires towns to design a Stormwater Management Plan (SMP) to reduce the discharge of pollutants in stormwater to improve water quality. The plan must address the following 6 minimum measures:

1. Public Education and Outreach.
2. Public Involvement/Participation.
3. Illicit discharge detection and elimination.
4. Construction site stormwater runoff control.
5. Post-construction stormwater management in new development and redevelopment.
6. Pollution prevention/good housekeeping for municipal operations.

Each town is also required to submit an annual update outlining the steps they are taking to meet the six minimum measures. All updates that address bacterial contamination in the watershed are summarized in Table 8.

Table 8: Summary of MS4 requirement updates related to the reduction of bacterial contamination from Montville, CT (Permit # GSM000067)

Minimum Measure	Montville MS4 General Permit (2010)
Public Outreach and Education	1) Will include a stormwater tab to the Town of Montville website.
Public Involvement and Participation	1) Provided extensive recycling options for residents, including hazardous waste, yard waste, furniture, electronics, etc.
Illicit Discharge Detection and Elimination	1) Completed outfall mapping and integrated into town GIS. 2) Will develop an illicit discharge ordinance.
Construction Site Stormwater Runoff Control	1) Conducted periodic inspections during town road construction and subdivision construction.
Post Construction Stormwater Management	1) Encouraged Design Engineers and Developers to implement stormwater treatment practices.
Pollution Prevention and Good Housekeeping	1) Conducted annual street sweeping and catch basin cleaning program. 50% of drainage structures are cleaned once every two years. 2) Trained municipal employees and contractors on preventing pollutant runoff from municipal operations.

RECOMMENDED NEXT STEPS

The Town of Montville has developed and implemented programs to protect water quality from bacterial contamination. Future mitigative activities are necessary to ensure the long-term protection of the Oxoboxo Brook and have been prioritized below.

1) Continue monitoring of permitted sources.

Previous discharge sampling from Rand-Whitney Container Board and Thomas G. Faria Corporation along the impaired segment of Oxoboxo Brook has shown elevated levels of fecal coliform bacteria, an indicator of bacterial pollution (Table 6). Several industrial and construction permits have been identified adjacent to the impaired segment, including D&W Transport & Leasing, Yale's Auto Salvage, Inc, and Kobyluck Sand & Gravel, Inc, and may pose a threat to the water quality in Oxoboxo Brook (Figure 6). Further monitoring will provide information essential to better locate, understand, and reduce pollution sources. If any current monitoring is not done with appropriate bacterial indicator based on the receiving water, then a recommended change during the next permit reissuance is to include the appropriate indicator species. If facility monitoring indicates elevated bacteria, then implementation of permit required, and voluntary measures to identify and reduce sources of bacterial contamination at the facility are an additional recommendation. Regular monitoring should be established for all permitted sources to ensure compliance with permit requirements and to determine if current requirements are adequate or if additional measures are necessary for water quality protection.

Section 6(k) of the MS4 General Permit requires a municipality to modify their Stormwater Management Plan to implement the TMDL within four months of TMDL approval by EPA if stormwater within the municipality contributes pollutant(s) in excess of the allocation established by the TMDL. For discharges to impaired waterbodies, the municipality must assess and modify the six minimum measures of its plan, if necessary, to meet TMDL standards. Particular focus should be placed on the following plan components: public education, illicit discharge detection and elimination, stormwater structures cleaning, and the repair, upgrade, or retrofit of storm sewer structures. The goal of these modifications is to establish a program that improves water quality consistent with TMDL requirements. Modifications to the Stormwater Management Plan in response to TMDL development should be submitted to the Stormwater Program of DEEP for review and approval.

Table 9 details the appropriate bacteria criteria for use as waste load allocations established by this TMDL for use as water quality targets by permittees as permits are renewed and updated, within the Oxoboxo Brook watershed.

For any municipality subject to an MS4 permit and affected by a TMDL, the permit requires a modification of the SMP to include BMPs that address the included impairment. In the case of bacteria related impairments municipal BMPs could include: implementation or improvement to existing nuisance wildlife programs, septic system monitoring programs, any additional measures that can be added to the required illicit discharge detection and elimination (IDDE) programs, and increased street sweeping above basic permit requirements. Any non-MS4 municipalities can implement these same types of initiatives in effort to reduce bacteria source loading to impaired waterways.

Any facilities that discharge non-MS4 regulated stormwater should update their Pollution Prevention Plan to reflect BMPs that can reduce bacteria loading to the receiving waterway. These BMPs could include nuisance wildlife control programs and any installations that increase surface infiltration to reduce overall

stormwater volumes. Facilities that are regulated under the Commercial Activities Stormwater Permit should report any updates to their SMP in their summary documentation submitted to DEEP.

Table 9. Bacteria (e.coli) TMDLs, WLAs, and LAs for Recreational Use

		Instantaneous <i>E. coli</i> (#/100mL)						Geometric Mean <i>E. coli</i> (#/100mL)	
Class	Bacteria Source	WLA ⁶			LA ⁶			WLA ⁶	LA ⁶
B ⁴	Non-Stormwater NPDES	235	410	576				126	
	CSOs	235	410	576				126	
	SSOs	0	0	0				0	
	Illicit sewer connection	0	0	0				0	
	Leaking sewer lines	0	0	0				0	
	Stormwater (MS4s)	235 ⁷	410 ⁷	576 ⁷				126 ⁷	
	Stormwater (non-MS4)				235 ⁷	410 ⁷	576 ⁷		126 ⁷
	Wildlife direct discharge				235 ⁷	410 ⁷	576 ⁷		126 ⁷
	Human or domestic animal direct discharge ⁵				235	410	576		126

- (1) **Designated Swimming.** Procedures for monitoring and closure of bathing areas by State and Local Health Authorities are specified in: Guidelines for Monitoring Bathing Waters and Closure Protocol, adopted jointly by the Department of Environmental Protections and the Department of Public Health. May 1989. Revised April 2003 and updated December 2008.
- (2) **Non-Designated Swimming.** Includes areas otherwise suitable for swimming but which have not been designated by State or Local authorities as bathing areas, waters which support tubing, water skiing, or other recreational activities where full body contact is likely.
- (3) **All Other Recreational Uses.**
- (4) Criteria for the protection of recreational uses in Class B waters do not apply when disinfection of sewage treatment plant effluents is not required consistent with Standard 23. (Class B surface waters located north of Interstate Highway I-95 and downstream of a sewage treatment plant providing seasonal disinfection May 1 through October 1, as authorized by the Commissioner.)
- (5) Human direct discharge = swimmers
- (6) Unless otherwise required by statute or regulation, compliance with this TMDL will be based on ambient concentrations and not end-of-pipe bacteria concentrations
- (7) Replace numeric value with "natural levels" if only source is naturally occurring wildlife. Natural is defined as the biological, chemical and physical conditions and communities that occur within the environment which are unaffected or minimally affected by human influences (CT DEEP 2011a). Sections 2.2.2 and 6.2.7 of this Core Document deal with BMPs and delineating type of wildlife inputs.

2) Identify areas along Oxoboxo Brook to implement Best Management Practices (BMPs) to control stormwater runoff.

As noted previously, 26% of the Oxoboxo Brook watershed is considered urban, and the Town of Montville is a MS4 community regulated by the MS4 program. The impaired segment flows through industrial and commercial development along Route 163, and Station 620 at the mouth of Oxoboxo Brook exceeded wet-weather geometric mean limits. As such, stormwater runoff is most likely contributing bacteria to the waterbodies. To identify other areas that are contributing bacteria to the impaired segment, Montville should continue to conduct wet-weather sampling at stormwater outfalls that discharge directly to the impaired segment of the Oxoboxo Brook watershed. Outfalls that have previously shown high bacteria concentrations should be prioritized for BMP installation (Table 6). To treat stormwater runoff, the towns should identify areas along the impaired segment to install BMPs designed to encourage stormwater to infiltrate into the ground before entering the waterbodies. These BMPs would disconnect impervious areas and reduce pollutant loads to the river. More detailed information and BMP recommendations can be found in the core TMDL document.

3) Implement a program to evaluate the sanitary sewer system.

The lower portion of the Oxoboxo Brook watershed, particularly along Route 163 parallel to the impaired segment, relies on a municipal sewer system (Figure 6). Montville has already begun mapping of stormwater outfalls. It is important for Montville to continue to develop a program that evaluates its sanitary sewer and reduce leaks and overflows. This program should include periodic inspections of the sewer line.

4) Evaluate municipal education and outreach programs regarding animal waste.

As most of the Oxoboxo Brook watershed upstream of the impaired segment is undeveloped and the impaired segment itself flows through portions of residential development, any education and outreach program should highlight the importance of picking up after horses, dogs, and other pets and not feeding waterfowl and wildlife. The town and residents can take measures to minimize waterfowl-related impacts such as allowing tall, coarse vegetation to grow in the riparian areas of the Oxoboxo Brook that are frequented by waterfowl. Waterfowl, especially grazers like geese, prefer easy access to water. Maintaining an uncut vegetated buffer along the shore will make the habitat less desirable to geese and encourage migration. In addition, any educational program should emphasize that feeding waterfowl, such as ducks, geese, and swans, may contribute to water quality impairments in Oxoboxo Brook and can harm human health and the environment. Animal wastes should be disposed of away from any waterbody or storm drain system. BMPs effective at reducing the impact of animal waste on water quality include installing signage, providing pet waste receptacles in high-use areas, enacting ordinances requiring the clean-up of pet waste, and targeting educational and outreach programs in problem areas.

5) Develop a system to monitor septic systems.

Though the majority of the area surrounding the impaired segment relies on the municipal sanitary sewer system, most residents upstream of the impaired segment rely on septic systems. If not already in place, Montville should establish a program to ensure that existing septic systems are properly operated and maintained, and create an inventory of existing septic systems through mandatory inspections. Inspections help encourage proper maintenance and identify failed and sub-standard systems. Policies that govern the eventual replacement of sub-standard systems within a reasonable timeframe can be adopted. Montville can also develop a program to assist citizens with the replacement and repair of older and failing systems.

6) Ensure there are sufficient buffers on agricultural lands along the Oxoboxo Brook.

Agricultural land use represents 6% of the Oxoboxo Brook watershed, and may be a concern for water quality, especially with an identified livestock or horse farm within the riparian buffer zone of Wheeler Pond (Figure 10). If not already in place, agricultural producers should work with the CT Department of Agriculture and the U.S. Department of Agriculture Natural Resources Conservation Service to develop conservation plans for their farming activities within the watershed. These plans should focus on ensuring that there are sufficient stream buffers, that fencing exists to restrict livestock and horse access to streams and wetlands, and that animal waste handling, disposal, and other appropriate Best Management Practices (BMPs) are in place.

BACTERIA DATA AND PERCENT REDUCTIONS TO MEET THE TMDL

Table 10: Oxoboxo Brook Bacteria Data

Waterbody ID: CT3004-00_01**Characteristics:** Freshwater, Class B, Habitat for Fish and other Aquatic Life and Wildlife, Recreation, and Industrial and Agricultural Water Supply**Impairment:** Recreation (*E. coli* bacteria)**Water Quality Criteria for *E. coli*:**

Geometric Mean: 126 colonies/100 mL

Single Sample: 410 colonies/100 mL

Percent Reduction to meet TMDL:

Geometric Mean: 43%

Single Sample: 94%

Data: 2006-2009 from CT DEEP targeted sampling efforts, 2012 TMDL Cycle**Single sample *E. coli* (colonies/100 mL) data from Station 620 on Oxoboxo Brook with annual geometric means calculated**

Station Name	Station Location	Date	Results	Wet/Dry	Geomean
620	At Faria Company (Pink Row Road)	6/21/2006	108 [†]	dry	73
620	At Faria Company (Pink Row Road)	6/28/2006	325 [†]	dry	
620	At Faria Company (Pink Row Road)	7/3/2006	73	dry	
620	At Faria Company (Pink Row Road)	7/11/2006	98	dry	
620	At Faria Company (Pink Row Road)	7/18/2006	98	dry	
620	At Faria Company (Pink Row Road)	7/27/2006	26 [†]	dry	
620	At Faria Company (Pink Row Road)	8/2/2006	75	dry	
620	At Faria Company (Pink Row Road)	8/9/2006	31	dry	
620	At Faria Company (Pink Row Road)	8/16/2006	140	wet	
620	At Faria Company (Pink Row Road)	8/23/2006	20	dry	
620	At Faria Company (Pink Row Road)	9/11/2006	74	dry	

Single sample *E. coli* (colonies/100 mL) data from Station 620 on Oxoboxo Brook with annual geometric means calculated (continued)

Station Name	Station Location	Date	Results	Wet/Dry	Geomean
620	At Faria Company (Pink Row Road)	6/6/2007	250	wet	113
620	At Faria Company (Pink Row Road)	6/13/2007	31	dry	
620	At Faria Company (Pink Row Road)	6/20/2007	170	dry	
620	At Faria Company (Pink Row Road)	7/11/2007	52 [†]	dry	
620	At Faria Company (Pink Row Road)	7/19/2007	1100	wet	
620	At Faria Company (Pink Row Road)	7/26/2007	52	dry	
620	At Faria Company (Pink Row Road)	8/9/2007	180	wet	
620	At Faria Company (Pink Row Road)	8/23/2007	41	wet	
620	At Faria Company (Pink Row Road)	9/4/2007	10	dry	
620	At Faria Company (Pink Row Road)	9/12/2007	1200	wet	
620	At Faria Company (Pink Row Road)	6/4/2008	320	wet**	221* (43%)
620	At Faria Company (Pink Row Road)	6/11/2008	110	dry**	
620	At Faria Company (Pink Row Road)	6/19/2008	305 [†]	dry**	
620	At Faria Company (Pink Row Road)	6/25/2008	150	wet**	
620	At Faria Company (Pink Row Road)	7/2/2008	150	dry**	
620	At Faria Company (Pink Row Road)	7/9/2008	260	dry**	
620	At Faria Company (Pink Row Road)	7/16/2008	180	dry**	
620	At Faria Company (Pink Row Road)	7/23/2008	120	wet**	
620	At Faria Company (Pink Row Road)	7/30/2008	130 [†]	dry**	
620	At Faria Company (Pink Row Road)	8/6/2008	7300* (94%)	wet**	
620	At Faria Company (Pink Row Road)	8/13/2008	250	dry**	
620	At Faria Company (Pink Row Road)	8/21/2008	41	dry**	

Single sample *E. coli* (colonies/100 mL) data from Station 620 on Oxoboxo Brook with annual geometric means calculated (continued)

Station Name	Station Location	Date	Results	Wet/Dry	Geomean
620	At Faria Company (Pink Row Road)	6/3/2009	41	dry**	51
620	At Faria Company (Pink Row Road)	6/11/2009	86	wet**	
620	At Faria Company (Pink Row Road)	6/25/2009	41	dry**	
620	At Faria Company (Pink Row Road)	7/9/2009	240	wet	
620	At Faria Company (Pink Row Road)	7/16/2009	10	dry	
620	At Faria Company (Pink Row Road)	7/23/2009	52 [†]	wet	
620	At Faria Company (Pink Row Road)	7/29/2009	52	dry	
620	At Faria Company (Pink Row Road)	8/6/2009	73 [†]	dry	
620	At Faria Company (Pink Row Road)	8/13/2009	86	dry	
620	At Faria Company (Pink Row Road)	8/20/2009	20	dry	

Shaded cells indicate an exceedance of water quality criteria

[†] Average of two duplicate samples

** Weather conditions for selected data taken from Hartford because local station had missing data

*Indicates single sample and geometric mean values used to calculate the percent reduction

Wet and dry weather geometric mean values for Station 620 on Oxoboxo Brook

Station Name	Station Location	Years Sampled	Number of Samples		Geometric Mean		
			Wet	Dry	All	Wet	Dry
620	At Faria Company (Pink Row Road)	2006-2009	13	30	101	251	68

Shaded cells indicate an exceedance of water quality criteria

Weather condition determined from rain gages at Norwich Public Utility Plant in Norwich, CT and Hartford Bradley International Airport

REFERENCES

- Costa, Joe (2011). Calculating Geometric Means. Buzzards Bay National Estuary Program. **Online:** <http://www.buzzardsbay.org/geomean.htm>
- CTDEEP (2010). State of Connecticut Integrated Water Quality Report. **Online:** http://www.ct.gov/dep/lib/dep/water/water_quality_management/305b/ctiwqr10final.pdf
- CTDEEP (2011). State of Connecticut Water Quality Standards. **Online:** http://www.ct.gov/dep/lib/dep/water/water_quality_standards/wqs_final_adopted_2_25_11.pdf
- CWP (2003). Impacts of Impervious Cover on Aquatic Systems. Center for Watershed Protection. **Online:** http://clear.uconn.edu/projects/tmdl/library/papers/Schueler_2003.pdf
- Federal Register 67 (March 15, 2002) 11663-11670. Urban Area Criteria for Census 2000.
- Mallin, M.A., K.E. Williams, E.C. Escham, R.P. Lowe (2000). Effect of Human Development on Bacteriological Water Quality in Coastal Wetlands. Ecological Applications 10: 1047-1056.
- USEPA (2001). Managing Pet and Wildlife Waste to Prevent Contamination of Drinking Water. **Online:** http://www.epa.gov/safewater/sourcewater/pubs/fs_swpp_petwaste.pdf.
- USEPA (2011a). Managing Nonpoint Source Pollution from Agriculture. **Online:** <http://water.epa.gov/polwaste/nps/outreach/point6.cfm>
- USEPA (2011b). Riparian Zone and Stream Restoration. **Online:** <http://epa.gov/ada/eco/riparian.html>
- USEPA (2011c). Land Use Impacts on Water. **Online:** <http://epa.gov/greenkit/toolwq.htm>