



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

General Permit Registration Form for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, effective 10/1/13 (electronic form)

Prior to completing this form, you **must** read the instructions for the subject general permit at [DEEP-WPED-INST-015](#).
This form must be filled out electronically before being printed.
You must submit the registration fee along with this form.

The [status of your registration](#) can be checked on the DEEP's ezFile. Portal. Please note that DEEP will no longer mail certificates of registration.

Part I: Registration Type

Select the appropriate boxes identifying the registration type and registration deadline.

CPPU USE ONLY

App #: _____

Doc #: _____

Check #: _____

Program: Stormwater

Registration Type		Registration Timeline	
☐	Re-registration Existing Permit No. GSN _____	On or before February 1, 2014* *Note: Failure to renew a permit by this date will require submission of new registration. Re-registrants must only complete Parts I, II, III, IV - Question 1, VII and submit Attachment A.	
☒	New Registration (Refer to Section 2 of the permit for definitions of Locally Exempt and Locally Approvable Projects)	☒ Locally Approvable Size of soil disturbance: 9.87	New registration - Sixty (60) days prior to the initiation of the construction activity for: For sites with a total soil disturbance area of 5 or more acres
		☐ Locally Exempt Size of soil disturbance: _____	☐ New registration - Sixty (60) days prior to the initiation of the construction activity for: Sites with a total disturbance area of one (1) to twenty (20) acres except those with discharges to impaired waters or tidal wetlands
			☐ New registration - Ninety (90) days prior to the initiation of the construction activity for: (i) Sites with a total soil disturbance area greater than twenty (20) acres, or (ii) Sites discharging to a tidal wetland (that is not fresh-tidal and is located within 500 feet), or (iii) Sites discharging to the impaired water listed in the "Impaired Waters Table for Construction Stormwater Discharges"

Part II: Fee Information

1. New Registrations

a. Locally approvable projects (registration only):

☒ \$625

b. Locally exempt projects (registration and Plan):

☐ \$3,000 total soil disturbance area $\geq$ one (1) and < twenty (20) acres.

☐ \$4,000 total soil disturbance $\geq$ twenty (20) acres and < fifty (50) acres.

☐ \$5,000 total soil disturbance $\geq$ fifty (50) acres.

2. Re-Registrations

☐ \$625 (sites previously registered prior to September 1, 2012)

☐ \$0 (sites previously registered between to September 1, 2012 and effective date of this permit)

Total Fee: \$625.00

The fees for municipalities shall be half of those indicated in subsections (a), (b) and (c) above pursuant to Section 22a-6(b) of the Connecticut General Statutes. State and Federal agencies shall pay the full fees specified in this subsection. The registration will not be processed without the fee. The fee shall be non-refundable and shall be paid by certified check or money order payable to the Department of Energy and Environmental Protection.

Part III: Registrant Information

- If a registrant is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of the State. If applicable, the registrant's name shall be stated **exactly** as it is registered with the Secretary of the State. This information can be accessed at [CONCORD](#)
- If a registrant is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).

1. Registrant /Client Name: <u>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</u>	
Registrant Type: <u>State Agency</u>	
Secretary of the State business ID #: _____	
Mailing Address: <u>4 Brewery Street</u>	
City/Town: <u>New Haven</u>	State: <u>CT</u> Zip Code: <u>06511</u>
Business Phone: <u>(203) 401-5160</u>	ext.: _____
<i>Example:(xxx) xxx-xxxx</i>	
Contact Person: <u>Michael Mendick, PE, CCM</u>	Title : <u>District Engineer</u>
E-Mail: <u>michael.mendick@ct.gov</u>	
2. List billing contact:	
Name: <u>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</u>	
Mailing Address: <u>4 Brewery Street</u>	
City/Town: <u>New Haven</u>	State: <u>CT</u> Zip Code: <u>06511</u>
Business Phone: <u>(203) 401-5160</u>	ext.: _____
Contact Person: <u>Michael Mendick, PE, CCM</u>	Title : <u>District Engineer</u>

3. List primary contact for departmental correspondence and inquiries:

Name: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

Mailing Address: 4 Brewery Street

City/Town: New Haven

State: CT

Zip Code: 06511

Business Phone: (203) 401-5160

ext.

Contact Person: Michael Mendick, PE, CCM

Title: District Engineer

4. List owner of the property on which the activity will take place:

Name: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

Mailing Address: 4 Brewery Street

City/Town: New Haven

State: CT

Zip Code: 06511

Business Phone: (203) 401-5160

ext.

Contact Person: Michael Mendick, PE, CCM

5. List preparer:

Name: VN ENGINEERS, INC.

Mailing Address: 116 Washington Ave

City/Town: North Haven

State: CT

Zip Code: 06473

Business Phone: (203) 234-7862

ext.

Contact Person: Laurence Cafaro

Title: Traffic / Civil Engineer

6. List design professional:

Name: VN ENGINEERS, INC.

Mailing Address: 116 Washington Ave

City/Town: North Haven

State: CT

Zip Code: 06473

Business Phone: (203) 234-7862

ext.

Contact Person: Laurence Cafaro

Title: Traffic / Civil Engineer

7. List Reviewing Qualified Professional (for locally approvable projects only):

Name: VN ENGINEERS, INC.

Mailing Address: 116 Washington Ave

City/Town: North Haven

State: CT

Zip Code: 06473

Business Phone: (203) 234-7862

ext.

Contact Person: Robert Gomez

Title: Design Manager / VP

Part IV: Site Information

1. Site Name: 0118-0171 CTDOT District 1 Maintenance Facility

Street Address or Description of Location: 280 West St

City/Town: Rocky Hill

State: CT

Zip Code: 06067

Brief Description of construction activity:

This project consists of the construction of a new facility at the existing site at 280 West Street, Rocky Hill, CT. This new facility will house District 1 Headquarters operations, including construction, survey, maintenance, bridge safety and human resources personnel, along with the existing CTDOT Materials Testing Lab operations and staff currently located

Project Start Date: 16 May 2025

Anticipated Completion Date: 30 Nov 2027

Normal working hours: 9 to 5

2. **MINING** : Is the activity on the site in question part of mining operations (i.e. sand and gravel)? ☐ Yes ☒ No

If yes, mining is not authorized by this general permit. You must submit the Registration Form for the General Permit for the Discharge of Stormwater Associated with Industrial Activity.

3. **COMBINED OR SANITARY SEWER**: Does all of the stormwater from the proposed activity discharge to a combined or sanitary sewer (i.e. a sewage treatment plant)? ☐ Yes ☒ No

If yes, this activity is not regulated by this permit. Contact the Water Permitting & Enforcement Division at 860-424-3018.

4. **INDIAN LANDS**: Is or will the facility be located on federally recognized Indian lands? ☐ Yes ☒ No

5. **COASTAL BOUNDARY**: Is the activity which is the subject of this registration located

within the coastal boundary as delineated on DEEP approved coastal boundary maps? ☐ Yes ☒ No

The coastal boundaries fall within the following towns: Branford, Bridgeport, Chester, Clinton, Darien, Deep River, East Haven, East Lyme, Essex, Fairfield, Greenwich, Groton (City and Town), Old Lyme, Guilford, Hamden, Ledyard, Lyme, Madison, Milford, Montville, New London, New Haven, North Haven, Norwalk, Norwich, Old Saybrook, Orange, Preston, Shelton, Stamford, Stonington (Borough and Town), Stratford, Waterford, West Haven, Westbrook and Westport.

If "yes", and this registration is for a new authorization or a modification of an existing authorization where the physical footprint of the subject activity is modified, you must provide documentation to the DEEP Office of Long Island Sound Programs or the local governing authority has issued a coastal site plan approval or determined the project is exempt from coastal site plan review. Provide this documentation with your registration as Attachment B. See guidance in Appendix D of the general permit. Information on the coastal boundary is available at the local town hall or on the [Connecticut Coastal Resources Map](#) . Additional DEEP Maps and Publications are available by contacting DEEP Staff at 860-424-3555.

6. **ENDANGERED OR THREATENED SPECIES**:

In order to be eligible to register for this General permit, each registrant must either perform a self-assessment, obtain a limited one-year determination, or obtain a safe-harbor determination regarding threatened and endangered species. This may include the need to develop and implement a mitigation plan. While each alternative has different limitations, the alternatives are not mutually exclusive; a registrant may register for this General Permit using more than one alternative, See Appendix A of the general Permit. Each registrant must complete this AND Attachment C to this Registration form and a registrant who does not or cannot do so is not eligible to register under this General Permit.

Each registration must perform a review of the Department's Natural Diversity Database maps to determine if the site of the construction activity is located within or in proximity (within ¼ mile) to a shaded area.

- a. Provide the date of the NDDDB maps were reviewed: 19 Mar 2025 (Print a copy of the NDDDB map you viewed since it must be submitted with this registration as part of Attachment C.)

- b. For a registrant using a limited one-year determination or safe harbor determination to register for this General Permit, provide the Department's Wildlife Division NDDDB identification number for any such determination:

202408121

(The number is on the determination issued by the Department's Wildlife Division).

For more information on threatened and endangered species requirements, refer to Appendix A and section 3(b)(2) of this General Permit, Visit the DEEP website at [Natural Diversity Data Base](#) or call the NDDDB at 860-424-3011.

- c. I verify that I have completed Attachment C to this Registration Form. ☒ Yes

7. **WILD AND SCENIC RIVERS:** Is the proposed project within the watershed of a designated

Wild and Scenic River? (See Appendix H for guidance)

☐ Yes ☒ No

8. **AQUIFER PROTECTION AREAS:** Is the site located within a mapped

[Aquifer Protection Area](#) , as defined in Section 22a-354h of the CT General Statutes?

(For additional guidance, please refer to Appendix C of the General Permit)

☐ Yes ☒ No

9. **Connecticut Guidelines for Soil Erosion and Sediment Control Guidelines:** Is the activity in accordance with Connecticut Guidelines for Soil Erosion and Sediment Control Guidelines and local erosion & sediment control ordinances, where applicable?

☒ Yes ☐ No

10. HISTORIC AND/OR ARCHAEOLOGICAL RESOURCES:

Has the site of the proposed activity been reviewed (using the process outlined in Appendix G of this permit) for historic and/or archaeological resources?

☒ Yes ☐ No

- a. The review indicates the proposed site does not have the potential for historic/ archaeological resources, OR

☒ Yes ☐ No

- b. The review indicated historic and/ or archaeological resource potential exists and the proposed activity is being or has been reviewed by the Offices of Culture and Tourism, OR

☐ NA ☐ Yes ☒ No

- c. The proposed activity has been reviewed and authorized under an Army Corps of Engineers Section 404 wetland permit.

☐ NA ☐ Yes ☒ No

11. CONSERVATION OR PRESERVATION RESTRICTION:

Is the property subject to a conservation or preservation restriction?

☐ Yes ☒ No

If Yes, proof of written notice of this registration to the holder of such restriction or a letter from the holder of such restriction verifying this registration is in compliance with the terms of the restriction, must be submitted as Attachment D.

Part V: Stormwater Discharge Information

Table 1

Outfall #	a) Type	b) Pipe Material	c) Pipe Size	d) Note: To find lat/long, go to: CT ECO . A decimal format is required here. Directions on how to use CT ECO to find lat. /long. and conversions can be found in in Part V, section d of the DEEP-WPED-INST-015 .		e) What method was used to obtain your latitude/longitude information?
				Longitude (Format: -xx.xxxxx)	Latitude (Format: xx.xxxxx)	
EO-01	Pipe	Concrete	<input <="" td="" type="text" value="15"/> <td> -72.650743 </td> <td> 41.653423 </td> <td> CT ECO </td>	-72.650743	41.653423	CT ECO
EO-02	Pipe	Concrete	<input <="" td="" type="text" value="48"/> <td> -72.64861 </td> <td> 41.653660 </td> <td> CT ECO </td>	-72.64861	41.653660	CT ECO

Part V: Stormwater Discharge Information Continued

Table 2

2. Provide the following information about the receiving water(s)/wetland(s) that receive stormwater runoff from your site, either directly or through the storm sewer system:							
Outfall #	Dates when this outfall will be active:	a) To what system or receiving water does your stormwater runoff discharge? either "storm sewer or wetlands" or "waterbody" (If you select storm sewer or wetlands, columns c.1&2 of this table are not required to be completed)	b) What is your watershed ID (freshwater) or 305b ID (estuary)? (Section 3.b, DEP-GP-INST-015 of the explains how to find this information)	c.1) Is your receiving water identified as an impaired water in the "Impaired Waters Table for Construction Stormwater Discharges?"	If you answered yes to question c.1, then answer the question below c.2) Has any Total Maximum Daily Load (TMDL) been approved for your receiving waterbody?	For the drainage area associated with each outfall: Effective Impervious Area Before Construction (sq ft)	For the drainage area associated with each outfall: Effective Impervious Area After Construction (sq ft)
EO-01	Start: 16 May 2025 End: _____	Storm Sewer or Wetlands	_____	☐ Y ☐ N ☒ NA	☐ Y ☐ N ☒ NA	15353	14258
EO-02	Start: 16 May 2025 End: _____	Waterbody	412	☐ Y ☐ N ☒ NA	☐ Y ☐ N ☒ NA	280649	211507
_____	Start: _____ End: _____	Select One	_____	☐ Y ☐ N ☐ NA	☐ Y ☐ N ☐ NA	_____	_____
_____	Start: _____ End: _____	Select One	_____	☐ Y ☐ N ☐ NA	☐ Y ☐ N ☐ NA	_____	_____
_____	Start: _____ End: _____	Select One	_____	☐ Y ☐ N ☐ NA	☐ Y ☐ N ☐ NA	_____	_____
Provide the total effective impervious area for the entire site(sq ft):						296002	225765

Part V: Stormwater Discharge Information (continued)

Impaired waters: If you answered "yes" to Table 2, question 2.c.1, **verify** that the project's Pollution Control Plan (Plan) addresses the control measures below in Question 1 or 2, as appropriate.

1. **If the impaired water does not have a TMDL**, confirm compliance by selecting 1.a. or 2.b. below:

a. No more than 3 acres is disturbed at any time; ☐ Yes

OR

b. Stormwater runoff from a 2 yr, 24 rain event is **retained**. ☐ Yes

2. **If the impaired water has a TMDL**, confirm compliance by selecting 2.a. and 2.b. below and either question 2.c.1. or 2.c.2. below:

a. The Plan documents there is sufficient remaining Waste Load Allocations (WLA) in the TMDL for the proposed discharge, ☐ Yes

AND

b. Control measures shall be implemented to assure the WLA will not be exceeded, ☐ Yes

AND

c. 1. Stormwater discharges will be monitored for the indicator pollutant identified in the TMDL, ☐ Yes

OR

2. The Plan documents specific requirements for stormwater discharges specified in the TMDL. ☐ Yes

Part VI: Pollution Control Plan Availability (check one of the following four categories)

- ☐ I am registering a Locally Exempt project and submitting the required electronic Plan (in Adobe™ PDF or similarly publically available format) pursuant to Section 3(c)(2)(E) of this permit.
- ☐ Plan is attached to this registration form
- ☐ Plan is available at the following Internet Address (URL): _____
- ☐ I am registering a Locally Approvable project and have chosen not to submit the Plan with this registration pursuant to Section 3(c)(1) of this permit.
- ☒ I am registering a Locally Approvable project and have chosen to make my Plan electronically available pursuant to Section 4(c)(2)(N) of this permit.
- ☒ Plan is attached to this registration form
- ☐ Plan is available at the following Internet Address (URL): _____
- ☐ I am registering a Locally exempt project and do not have the capability to submit the Plan electronically. Therefore, I am submitting a paper copy with this registration as Attachment E.

Part VII: Registrant Certification

The registrant *and* the individual(s) responsible for actually preparing the registration must sign this part. A registration will be considered incomplete unless all required signatures are provided.

For New Registrants:

"I hereby certify that I am making this certification in connection with a registration under such general permit, submitted to the commissioner by E OF CONNECTICUT DEPARTMENT OF TRANSPORTA for an activity located at 280 West St, Rocky Hill, CT 06067 and that all terms and conditions of the general permit are being met for all discharges which have been initiated and such activity is eligible for authorization under such permit. I further certify that a system is in place to ensure that all terms and conditions of this general permit will continue to be met for all discharges authorized by this general permit at the site. I certify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(8)(A) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I certify that I have made an affirmative determination in accordance with Section 3(b) (8) (B) of this general permit. I understand that the registration filed in connection with such general permit is submitted in accordance with and shall comply with the requirements of Section 22a-430b of Connecticut General Statutes, as amended by Public Act 12-172. I also understand that knowingly making any false statement made in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under Section 53a-157b of the Connecticut General Statutes and any other applicable law."

For Re-registrants:

"I hereby certify that I am making this certification in connection with a registration under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, submitted to the commissioner by _____ for an activity located at _____

and that all terms and conditions of the general permit are being met for all discharges which have been initiated and such activity is eligible for authorization under such permit. I further certify that all designs and plans for such activity meet the current terms and conditions of the general permit in accordance with Section 5(b)(5)(C) of such general permit and that a system is in place to ensure that all terms and conditions of this general permit will continue to be met for all discharges authorized by this general permit at the site. I verify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(8)(A) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this verification is based is true, accurate and complete to the best of my knowledge and belief. I also understand that knowingly making any false statement made in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under Section 53a-157b of the Connecticut General Statutes and an other applicable law."

_____	_____
Signature of Registrant	
Michael Mendick, PE, CCM	District Engineer
Name of Registrant (print or type)	Title (if applicable)
_____	_____
Signature of Preparer and Date (if different than above)	
Laurence Cafaro	Traffic / Civil Engineer
Name of Preparer (print or type)	Title (if applicable)

Part VIII: Professional Engineer (or Landscape Architect, where appropriate) Design Certification (for publically approvable and exempt projects)

The following certification must be signed by a Professional Engineer, or Landscape Architect where appropriate.

"I hereby certify that I am a _____ licensed in the State of Connecticut. I am making this certification in connection with a registration under such general permit, submitted to the commissioner by <u>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</u> for an activity located at <u>280 West St, Rocky Hill, CT 06067</u> . I certify that I have thoroughly and completely reviewed the Stormwater Pollution Control Plan for the project or activity covered by this certification. I further certify, based on such review and on the standard of care for such projects, that the Stormwater Pollution Control Plan has been prepared in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, the Stormwater Quality Manual, as amended, and the conditions of the general permit, and that the controls required for such Plan are appropriate for the site. I further certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I also understand that knowingly making any false statement in this certification may subject me to sanction by the Department and/or be punishable as a criminal offense, including the possibility of fine and imprisonment, under Section 53a-157b of the Connecticut General Statutes and any other applicable law."	
Signature of Design Professional and Date	
<u>Laurence Cafaro</u>	<u>PEN.0037481</u>
Name of Professional (print or type)	License Number
Affix P.E/L.A Stamp Here	

Part IX: Reviewing Qualified Professional Certification

The following certification must be signed by a) a Conservation District reviewer OR, b) a qualified soil erosion and sediment control and/ or professional engineer

☐ Review Certification by Conservation District:	
1.) District: _____	
Date of Affirmative Determination: _____	
“ I am making this certification in connection with a registration under General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, submitted to the commissioner by _____ for an activity located at _____.	
I have personally examined and am familiar with the information that provides the basis for this certification, and I affirm, based on the review described in Section 3(b)(11)(C) of this general permit and on the standard of care for such projects, that the Stormwater Pollution Control Plan is adequate to assure that the activity authorized under this general permit will comply with the terms and conditions of such general permit and that all stormwater management systems: (i) have been designed to control pollution to the maximum extent achievable using measures that are technologically available and economically practicable and that conform to those in the Guidelines and the Stormwater Quality Manual; (ii) will function properly as designed; (iii) are adequate to ensure compliance with the terms and conditions of this general permit; and (iv) will protect the waters of the state from pollution.”	
_____ Signature of District Professional and Date	
_____ Name of District Professional	_____ License Number (if applicable)
Or	
☒ Review Certification by Qualified Professional:	
Company Name: <u>VN ENGINEERS, INC.</u>	
Name: <u>Robert Gomez</u>	
License #: <u>23842</u>	
Level of independency of professional:	
Required for all projects disturbing over 1 acre:	
1. I verify I am not an employee of the registrant.	☒ Yes
2. I verify I have no ownership interest of any kind in the project for which the registration is being submitted.	☒ Yes
Required for projects with 15 or more acres of site disturbance (in addition to questions 1&2):	
3. I verify I did not engage in any activities associated with the preparation, planning, designing or engineering of the soil erosion and sediment control plan or stormwater management systems plan for this registrant.	☐ Yes
4. I verify I am not under the same employ as any person associated with the preparation, planning, designing or engineering of the soil erosion and sediment control plan or stormwater management systems plan for this registrant.	☐ Yes

Part IX: Reviewing Qualified Professional Certification (continued)

"I hereby certify that I am a qualified professional engineer or qualified soil erosion and sediment control professional, or both, as defined in the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities and as further specified in Sections 3(b)(11)(A) and (B) of such general permit. I am making this certification in connection with a registration under such general permit, submitted to the commissioner by ATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION for an activity located at 280 West St, Rocky Hill, CT 06067 .

I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(11)(C) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I certify, based on my review of all information described in Section 3(b)(11)(C) of such general permit and on the standard of care for such projects, that I have made an affirmative determination in accordance with Sections 3(b)(11)(D)(i) and (ii) of this general permit. I understand that this certification is part of a registration submitted in accordance with Section 22a-430b of Connecticut General Statutes, as amended by Public Act 12-172, and is subject to the requirements and responsibilities for a qualified professional in such statute. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under Section 53a-157b of the Connecticut General Statutes and any other applicable law."

Signature of Reviewing Qualified Professional

VN ENGINEERS, INC.

23842

Name of Reviewing Qualified Professional

License No.

Affix P.E./ L.A. Stamp Here

Note: Please submit the fee along with a completed, printed and signed Registration Form and all additional supporting documents to:

**CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127**

Template Date: September 20, 2024

STORMWATER POLLUTION CONTROL PLAN SWPCP

**CTDOT – NEW DISTRICT 1 HQ, MATERIALS TESTING LAB,
SIGNAL LAB, AND SIGN SHOP
Rocky Hill, CT**

**State Project No.: 0118-0171
ezFile No. 125207**



Connecticut Department of Transportation

03/19/2025

This Stormwater Pollution Control Plan (SWPCP) is prepared to comply with the requirements for the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities and the Connecticut Guidelines for Soil Erosion and Sediment Control (E&S Guidelines) as amended.

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Development & Contents of Plan

The Plan shall consist of site plan drawings and a narrative. The Plan shall be prepared in accordance with sound engineering practices, and shall be consistent with the [Connecticut Guidelines for Soil Erosion and Sediment Control](#), as amended, the [Connecticut Stormwater Quality Manual](#), as amended, and any applicable requirements of the General Permit.

Site Description

Site Description

This project consists of the construction of a new facility at the existing site at 280 West Street, Rocky Hill, CT. This new facility will house District 1 Headquarters operations, including construction, survey, maintenance, bridge safety and human resources personnel, along with the existing CTDOT Materials Testing Lab operations and staff currently located on this site. Additional departments will be housed in this new facility, including the Sign Shop and Signal Lab which will be relocated from their current facilities. The new facility consists of administration areas, lab testing and workshop areas, storage areas and mechanical utility spaces, maintenance vehicle bays, loading and receiving docks, site parking and motor pool parking. The new CTDOT District 1 Headquarters, Materials Testing Lab, Signal Lab, and Sign Shop Facility will bring together essential operations and capabilities to support the new facility's multi-purpose mission. The facility area is anticipated to be approximately 133,000 GSF; the existing lab facility located at the project site will remain operational until the new District 1 Headquarters facility has been constructed. Additional demolition and sitework construction activities will be required after the existing lab facility has been vacated by Department personnel. Once the new building is completed and commissioned the buildings functions will relocate, and the existing building will be demolished to install surface parking and the proposed stormwater management systems.

The total site area for the project is 12.41 acres. Currently, this site does not discharge into an impaired waterbody, Hog Brook. However, Hog Brook does discharge into an impaired waterbody, the Connecticut River. It is not listed on CTDEEP's 303 (d) Impaired Waters Table for Construction Stormwater Discharges and is not impaired by sediment or turbidity. Therefore, special requirements for new discharges to impaired waters do not apply. This project does not fall within an Aquifer Protection Area; however, this project does fall within an MS4 Priority Area. Additionally, this project does not outfall within the National Wild and Scenic Rivers System in Connecticut. The project site is not located within a Cold-Water Fisheries area.

The existing site is currently owned by CTDOT and consists of the materials lab building, one access driveway, and a parking area that wraps around the building in the westerly and southerly direction of the site. Loading docks, a detached garage, and a shed are present on the site as well and are located behind the building. Currently, under the existing conditions there is no formal storm drainage system for the existing parking lot. The existing parking lot is currently graded to sheet flow to the southwestern direction towards existing wetlands. As for the building and roof drainage, pipes are fed to a storm drainage manhole on the western side of the building. Stormwater is then conveyed through an 18" RCP pipe to a town-owned manhole at the edge of the site's

property line. The town-owned drainage system then travels north until it crosses underneath West Street and ultimately discharges into Hog Brook. Additionally, along the northern side of the site adjacent to West Street there currently is a roadside drainage system and swale that is owned by the State. This drainage system captures stormwater running off the site and off West Street. This drainage system travels north underneath West Street to where it is discharged into a flat field on the Veterans Home and Hospital Commission. The stormwater then travels and makes its way ultimately to Hog Brook.

Site work for this project includes the construction of the new building and associated parking areas, driveways, access roads, sidewalks and ramps, loading docks, retaining walls, various site utilities, electric vehicle (EV) chargers, and amenities. In the proposed condition, new piping and catch basins have been placed throughout the site to capture stormwater runoff from the proposed parking lots and building work. The proposed conditions will maintain similar drainage patterns to the existing conditions. The proposed drainage systems will be routed through either underground or above ground detention facilities prior to being discharged off the site. The main parking area will be curb less to allow stormwater to sheet flow off directly into the above ground detention facility. Catch basins will be constructed with standard 2-foot sumps and 4-foot sumps to prevent the discharge of sediments and floating contaminants. Catch basins with the 4-foot sumps will be constructed prior to the above-ground detention facility and will allow sediment to settle by gravity efficiently removing total suspended solids (TSS) and freeing oil from stormwater runoff. These structures will act as pretreatment measures.

Environmental Considerations

- Currently, the site does not discharge into an impaired waterbody, Hog Brook Brook. However, Hog Brook does discharge into an impaired waterbody, the Connecticut River. It is not listed on CTDEEP's 303 (d) Impaired Waters Table for Construction Stormwater Discharges and is not impaired by sediment or turbidity.
- There are no Aquifer Protection Areas (APAs) in the project area.
- This project is within a MS4 Priority Area.
- Stormwater outfall does not discharge to a river within the Nation Wild and Scenic Rivers System of Connecticut.
- The project is not located within a Cold-Water Fisheries area.
- New provisions restricting tree clearing between April 15th to October 31st will be implemented as a protection measure for the tri-colored bat.

Outfall #	Type	Pipe Material	Pipe Size	Longitude	Latitude	Method to Obtain Information
EO-01	Endwall	Concrete	15"	-72.65074	41.65342	CTECO
EO-02	Endwall	Concrete	48"	-72.64861	41.65366	CTECO

Outfall #	Dates when this outfall is active	To what receiving water does your storm runoff discharge	Watershed ID	Is receiving water identified as an impaired water?	Has any TMDL been approved for your receiving waterbody?	Effective Impervious Area Before Construction (sqft)	Effective Impervious Area After Construction (sqft)
EO-01	05/16/2025	Storm Sewer	N/A	NO	NO	15,353	14,258
EO-02	05/16/2025	Hog Brook	N/A	NO	NO	280,649	211,507

Estimated Disturbed Area

The total area for this project site is 12.41 acres. Of this area, 9.87 acres will be disturbed by construction activities regardless of phasing. The proposed SWPCP cannot account for unexpected findings in construction or changes that are required during construction which may affect the overall disturbance area. Based on this possibility of unexpected and investigatory work findings, some additional disturbance beyond what was depicted in the SWPCP plan sheets in Appendix A may be required. Additional disturbed areas have been included in the SWPCP narrative/calculations and the ezFile polygon to account for the possibility of additional disturbed areas within the project limits being required. If it is found that changes to disturbed area, engineered, or non-engineered or post-construction measures have the potential to increase the quantity or quantity of pollution, the appropriate BMPs will be incorporated at any/all locations where this may occur. If any of this additional area or changes in BMP's/measures are required in construction, the SWPCP and plans will be updated to "Keep the Plans Current" as required by the General Permit.

Estimated Runoff Coefficient

The runoff coefficient assumed for pavement is 0.9 and for gravel roads is 0.7. For the pervious areas, a coefficient of 0.3 was assumed.

Pre-Construction

$$(9.04 \text{ ac.} \times 0.3) + (3.37 \text{ ac.} \times 0.9) + (0.00 \text{ ac.} \times 0.7) = 0.46$$

$$9.04 \text{ ac.} + 3.37 \text{ ac.} + 0.00 \text{ ac.}$$

Post-Construction

$$(5.81 \text{ ac.} \times 0.3) + (6.60 \text{ ac.} \times 0.9) + (0.00 \text{ ac.} \times 0.7) = 0.62$$

$$5.81 \text{ ac.} + 6.60 \text{ ac.} + 0.00 \text{ ac.}$$

Receiving Waters

The name of the receiving water is the Hog Brook and wetlands associated with Hog Brook. Hog Brook converges and discharges into the Connecticut River. The Connecticut River ultimately outlets into Long Island Sound.

Extent of Wetlands on Site

There are delineated wetlands in the vicinity of the project area. The wetlands are in the southern and western portions of the site. There will be no temporary and permanent impacts to the associated wetlands on this project. Additionally, according to the FEMA Flood Rate Insurance Map (FIRM) there are no 100-year floodplains and floodways mapped at the proposed project location depicted on FEMA Map Number 09003C0519F, effective date September 26th, 2008, included in Appendix A.

Construction Sequencing

The Contractor will be given approximately 663 days for the construction of all phases of the project, which shall be revised as necessary to keep the Plan current.

The suggested sequence of construction is as follows:

1. Conduct a preconstruction meeting.
2. Verify the surveyed staked-out limits of the project and clearly identify the limits of disturbance (LOD).
3. Install erosion and sedimentation controls where soil will be exposed or susceptible to erosion (e.g., affected inlet/outlets, disturbed slopes, toe of slopes, etc.).
4. Conduct the plan implementation inspection.
5. Perform clearing and grubbing activities.
6. Apply temporary stabilization measures for disturbed areas in accordance with Temporary Stabilization Practices.
7. Install permanent stormwater control measures (e.g., stormwater basins) in the early phase of construction.
8. Construction Sequencing: See construction narrative below.
9. Establish turf on all exposed soil surfaces and as shown on the Plan Sheets and stabilize according to the slope stabilization details.
10. Stabilize the disturbed areas. Establish an appropriate seeding mixture per Plan Sheets, on all remaining disturbed areas.
11. Remove erosion and sedimentation controls when it has been determined that the disturbed areas have been stabilized. (This determination will be made by the Qualified Inspector).
12. All post-construction stormwater structures shall be cleaned of construction sediment and any remaining sediment control systems (SCS) shall be removed prior to the filing of the "Notice of Termination Form: Non-Solar Projects."
13. Ensure the project area is cleaned, free of debris, and catch basins have been cleaned, etc.

Construction Staging

The contractor shall follow the limits of the operations chart and staging requirements specified by CTDOT. Currently the contractor limits of operations have been designated to allow the contractor to complete the construction of the new building in two phases. Phase 1 would allow for the demolition of the existing site in the northeastern, eastern, and southeastern portions of site to facilitate the construction of the new building, retaining wall, northeastern access driveway, and parking lot. Once the building construction is complete, Phase 2 would then allow for the demolition of the existing building, and northwestern, western, and southwestern sections of the site. This would then facilitate the construction of the main parking area, access driveway, an above ground detention basin, and other site amenities.

The requirement for sediment traps or basins shall not apply to flows from off-site areas and flows from areas of the site that are either undisturbed or have undergone final stabilization.

If the areas of disturbance have a contributing drainage area that contains 2-5 acres of disturbed soils per discharge point, a temporary sedimentation trap must be provided. The Contractor must submit

to the Qualified Inspector a revised SWPCP for review and approval.

If the areas of disturbance have a contributing drainage area that contains greater than five acres of disturbed soils per discharge point, a temporary engineered sedimentation basin must be provided. The Contractor must submit to the Qualified Inspector a revised SWPCP for review and approval. The SWPCP must include locations of the temporary engineered sedimentation basin designed and installed in accordance with the E&S Guidelines, as amended. The Contractor shall provide an inspection and maintenance plan for the engineered sedimentation basin as part of the amended SWPCP.

Control Measures

Best Management Practices have been incorporated into the project design to minimize erosions and sedimentation (E&S) and the discharge of pollutants during construction activities (see the plans in Appendix C for erosion and sedimentation controls). All E&S controls will be installed prior to land disturbance and remain in place for the entire duration of the work activities associated with that phase and any other applicable phases. Control Measures will be in accordance with the 2024 E&S Guidelines, the 2024 Stormwater Quality Manual, or by Special Provisions accepted by the Department. The locations of E&S controls are shown on the plans in Appendix C.

It is anticipated that hay bales, siltation fences made of geotextile fabric, and/or erosion control logs will be utilized for E&S controls throughout the project work areas. In addition, anti-tracking pads will be installed at construction entrances as needed to reduce the potential for tracking mud and dirt onto nearby public roadways. Existing drainage inlets will be protected with silt sacks, fiber rolls, and hay bales as needed throughout construction. Stone or straw wattles may be used to prevent run-on to paved surfaces in cut locations.

A completed MS4 Maximum Extent Practicable (MEP) Worksheet is required for the project as effective impervious cover is changing pre to post construction. The MEP Worksheet is provided in Appendix D.

Impaired Waters

Currently, the site does not discharge into an impaired waterbody, Hog Brook. However, Hog Brook does discharge into an impaired waterbody, the Connecticut River. It is not listed on CTDEEP's 303 (d) Impaired Waters Table for Construction Stormwater Discharges and is not impaired by sediment or turbidity. Impaired Waters locations are provided in Appendix D.

Erosion and Sedimentation Controls

The Department of Transportation (Department) will have a Qualified Inspector assigned to the project to oversee the Contractor's operations and to ensure compliance with the provisions of the Contract. Further Department oversight is provided by the District 5 Environmental Coordinator and the Office of Environmental Planning.

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

- The Contractor shall stabilize disturbed areas with temporary or permanent measures as quickly as possible after the land is disturbed.
- Areas that remain disturbed but inactive for at least 14 days shall receive temporary seeding or soil protection within seven (7) days.
- Areas that will be disturbed past the planting season will be covered with a long-term, non-vegetative stabilization method that will provide protection through the winter.
- If construction activities are completed to final grade, permanent stabilization measures shall take place within seven (7) days.

The Department projects are required to have Preconstruction Meetings with the Contractor. The Contractor is required to review and understand the Contract Plans and Specifications as well as to develop an E&S Plan for review and approval by the Engineer. The Contractor's E&S plan shall demonstrate compliance with the Stormwater Permit requirement for a double row of sediment control barriers at all disturbed locations.

Double Row of Erosion and Sediment Control Barriers

- A double row of sediment control barrier shall be utilized between any disturbed area and downgradient wetland or watercourse within 50 feet, unless there would be an adverse impact to adjacent wetlands/watercourses due to installation of a double row (i.e., would result in larger wetland/watercourse impact.)
- Additional erosion control barriers (double row of SCS) may also be required within the project area. Factors to be reviewed by the Engineer include but are not limited to: the contributing disturbed area, drainage area, slope, length of slope, and flow conditions to maintain sheet flow. If determined necessary, the Engineer will direct the Contractor to install and maintain additional rows of erosion control barrier (or equivalent).

Soil Stabilization and Protection

Temporary and permanent soil stabilization practices for managing disturbed areas on the project site are described in detail in the Temporary and Permanent Stabilization Practices sections below.

These practices include temporary seeding, turf establishment, and use of vegetative cover, crushed stone, or riprap to stabilize the site. Soil stockpiles will be located the maximum distance from regulated resources and have a geotextile silt fence or hay bale barrier installed approximately 10 feet from the toe of slope. Side slopes of the stockpiles will be no steeper than 2:1. Stockpiles that will not be used for a period greater than one month, and less than 12 months will be protected with temporary seeding/mulch, matting, or other acceptable means to prevent soil migration. Permanent vegetated measures will be instituted if soil stockpiles will be dormant for more than 12 months. Vegetation will be preserved to the maximum extent possible, and any disturbed portions of the site will be minimized and stabilized throughout the duration of the construction activity at the site.

Reverse Slope Benches

The 2024 E&S Guidelines, as amended, requires that Reverse Slope Benches be utilized “whenever the vertical height of any slope steeper than 3H:1V exceeds 15 feet, except when engineered slope stabilization structures measures are included in the slope and/or a detailed soils mechanical analysis calculation has confirmed that an acceptable factor of safety exists for the finished slope”. The CTDOT has determined that slope benching is not feasible/practical in this location due to the limited space available in the constrained roadway corridor and highway right-of-way. The CTDOT Soils and Foundations unit has determined that Connecticut soils which are 2H:1V or flatter, have appropriate drainage, as they do not become saturated, are located above the groundwater table, and are considered stable. Slopes that do not meet the criteria above require analysis by a Professional Engineer with experience in geotechnical engineering or soil mechanics.

The surficial stability of permanent slopes (i.e., prevention of erosion, rilling, and rutting) is typically provided through surface erosion control measures (i.e., vegetation establishment, erosion control matting, or crushed stone blanket.) Refer to ***Section Control Measures***. An engineering soil mechanics analysis is not required in association with these types of measures.

Temporary Stabilization Practices

Temporary or permanent vegetation or other ground cover will be maintained at all times in all the areas of the site, except those undergoing active disturbance. Types of temporary BMPs which may be used on-site include but are not limited to:

- **Erosion Control Matting**: On slopes steeper than 2:1 erosion control matting shall be used to stabilize the topsoil or as necessary and directed by the Qualified Inspector. ECM type shall be disclosed and selected from the Department’s [Qualified Products List](#), as amended.
- **Sedimentation Control System (SCS)**: SCS shall be placed at the toe of the slope or as directed by the Qualified Inspector.
- **Anti-Tracking Pads**: Construction entrances (gravel anti-tracking pads) shall be constructed at truck access/exit points to off-road route. Access road(s) should grade away from the main roadway or waterbody.
- **Dust Control**: Routine sweeping and application of dust suppression agents, including but not limited to, water and calcium chloride, over exposed subbase shall be completed for dust control. Additional measures may be necessary to minimize dust within the project limits and within staging and stockpile areas.
- **Temporary Seeding**: Areas that will remain disturbed but inactive for at least 14 calendar days shall receive temporary seeding or soil protection within 7 days, unless a new discharge to an impaired water is proposed.
- **Impaired Waters**: For those areas for which construction activity will be temporarily suspended for a period of greater than 14 days, temporary stabilization measures shall be implemented within 3 days of such suspension of activity.

- Catch Basin Inlet Protection: Catch basin inlet protection shall be used to reduce the amount of sediment entering the storm drainage system during construction.

Stabilization practices shall be implemented after completion, as final grades are reached, within seven (7) days.

Temporary seeding shall be spread over any disturbed areas which will remain inactive for at least 14 days. Areas to remain disturbed through winter shall be protected with non-vegetative stabilization measures. The Contractor must provide an Erosion and Sedimentation Control plan for each winter season during construction operations.

The Contractor may elect to utilize other controls in conformance with the E&S Guidelines as amended, as approved by the Qualified Inspector. The Contractor will be required to provide the necessary details for any erosion controls not specifically called for on the project plans.

During construction, all areas disturbed by the construction activity that have not been stabilized, structural control measures, and locations where vehicles enter or exit the site shall be inspected at least once a week and within 24 hours of the end of a storm that generates a discharge. For storms that end on a weekend, holiday, or other time in which normal working hours will not commence within 24 hours, an inspection is required within 24 hours following any storm in which 0.5 inches or greater of rain occurs. For lesser storms, inspection shall occur immediately upon the start of subsequent normal working hours.

Permanent Stabilization Practices

During construction, the following methods of permanent stabilization shall be installed:

- Topsoiling: Once final grades have been established, topsoil shall be applied to provide a suitable growth medium for vegetation, if required.
- Permanent Stabilization: Once soils have been brought to final grade; permanent stabilization shall be used to stabilize the soil with a vegetative cover or, with crushed stone for slope protection or riprap, shall be applied, if required. Disturbed areas below the wetland limit shall be seeded with the appropriate seed mix. The Qualified Inspector will verify compliance with this requirement on the Notice of Termination Form: Non-Solar Projects.
- Landscaping: Wood chip mulch shall be placed around the plants. Plantings (trees, shrubs, etc.) and permanent seeding may be established together. Wood chip mulch shall NOT be utilized in wetland areas.

All new embankments and unpaved areas that are graded or disturbed by construction will receive erosion control matting, topsoil and/or seed establishment. The Contractor may use other permanent stabilization practices that have been accepted by the Qualified Inspector or CTDOT that are in conformance to the E&S Guidelines.

All areas disturbed by construction shall receive 4 inches of topsoil and conservation seeding for slopes unless otherwise noted or identified on the contract plans.

Structural Measures

Structural measures shall be used to divert flows away from exposed soils, store flows, limit runoff, and minimize the discharge of pollutants. The SCS at catch basins will be installed in all existing and proposed catch basins within the project limits or immediately downgradient of project limits. Catch basins with standard 2-foot sumps and 4-foot sumps will be utilized and allow for sediment and debris to settle out of the stormwater. Catch basins with 4-foot sumps will be used within this project prior to the above ground detention basins. The proposed drainage systems have been designed to maintain the current flow patterns and the existing discharge point locations therefore opportunities for additional structural measures are limited. The building site will infiltrate stormwater from either the above ground or underground detention basin prior to discharging off the site. Perforated underdrains have been proposed adjacent to the building and the access road in the southwestern section of the site to capture runoff coming from the access road.

Maintenance

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

Dewatering Wastewaters

Dewatering Guidelines

When dewatering is necessary, pumps used shall not be allowed to discharge directly into a wetland, watercourse, or stormwater drainage system. Prior to any dewatering, the Contractor must submit to the Engineer a written proposal for specific methods and devices to be used on site. Written approval must be obtained from the Engineer for methods and devices, including, but not limited to, the pumping of water into a temporary sedimentation basin, providing surge protection at the inlet or outlet of pumps, floating the intake of a pump, or any other method for minimizing and retaining the suspended solids. If the Qualified Inspector determines that a pumping operation is causing turbidity problems, the Contractor shall halt said operation until a means of controlling the turbidity is submitted by the Contractor in writing to the Engineer. Once written acceptance is received from the Engineer with the concurrence of CTDOT, the Contractor may implement the turbidity control measures.

No discharge of dewatering wastewater shall contain or cause a visible oil sheen, floating solids or foaming in the receiving water. If required, all activities are to be performed in compliance with the Department's Standard Specifications.

Post-Construction Stormwater Management

Post-construction stormwater controls will be in conformance with the 2024 Stormwater Quality Manual and the CTDOT's qualified product list or by Special Provision accepted by the Department.

The CTDOT Consultant Inspector (Qualified Inspector) may provide direction to install other BMPs during the construction process to minimize the discharge of pollutants, and stormwater discharges that will occur after construction operations have been completed.

- Minimal Curbing: Curbing shall be avoided wherever possible to maximize overland sheet flow and encourage infiltration.
- Outlet Protection: Riprap outlet protection shall be used at the proposed outlet to decrease velocity and the potential for erosion (e.g., apron, splash pad, etc.).
- Catch Basins: Catch basins shall be used, especially adjacent to outlets, to intercept pollutants and debris.
- MS4 Measures: List any permanent post construction water quality BMP's by including the completed [CTDOT MS4 Maximum Extent Possible \(MEP\) sheet](#) in Appendix D of the Plan.

Post-Construction Guidelines

After the project is complete, the Department will perform the following maintenance and restorative measures:

- Litter/debris and sweepings will be removed from the site, as needed.
- Mowing and maintenance of the seeded areas and vegetated areas will occur, as needed.
- Riprap outlet protection will be inspected and cleaned, as needed.
- Stormwater drainage system will be cleaned of sediment/debris, as needed.
- Identify, inspect, and maintain all stormwater quality BMPs included within the project, as per the MS4 or manufacturer recommendations.

Post Construction Performance Standards and Control Measure

Redevelopment:

The project area is less than 40% effective impervious cover in the existing condition; therefore, redevelopment is not applicable to this project. In order to comply with the Department's MS4 Permit requirements, projects shall seek to reduce the effective impervious cover (as defined in the Construction Stormwater General Permit effective 12/31/20; modification date 11/25/22 Permit) to the maximum extent practicable.

Other Development:

The project area is less than 40% effective impervious cover in the existing condition; therefore, other development is applicable to this project. The following breakdown of change in impervious area prior to new BMPs is provided below. Currently the existing site has an overall total impervious area of 3.37 acres, and of that 3.37 acres 0.52 acres is disconnected through natural dispersion in the existing condition. In the proposed condition, the project increases the impervious area to a total of 6.60 acres, and of that 6.60 acres 0.78 acres is disconnected through natural dispersion prior to the implementation of any new stormwater BMPs.

[Post-construction Impervious Area (5.82 ac.)] – [Pre-construction Impervious Area (2.85 ac.)] = [Change in Impervious Area (2.97 ac.)] (***)Prior to New BMPs)

Through the implementation of stormwater BMPs approximately 2.01 acres will be disconnected as part of this project. However, there will be an increase in effective impervious cover and DCIA of approximately 0.96 acres after the implementation of stormwater BMPs. The DCIA calculation is included in the MS4 Maximum Extent Practical (MEP) Worksheet in Appendix D.

Water quality volume was determined using the following equation:

$$WQV = \frac{(P)(R)(A)}{12}$$

where:

WQV = water quality volume (cubic feet)

P = 1.3 inches (90th percentile rainfall event)

R = volumetric runoff coefficient = 0.05+0.009(*I*)

I = post- development impervious area (percent) after application of non-structural LID site planning and design strategies and before application of structural stormwater BMPs

A = post-development total drainage area of site or design point (square feet)

Area (A) =	12.41	acres
Area (A) =	0.01939	square miles
Design Precipitation (P) =	1.3	inch
% Impervious Cover (I) =	53.0	
Volumetric Runoff Coefficient (R) =	0.529	
WQV =	0.711	ac-ft
=	30951	cu-ft
1/2 WQV =	0.355	ac-ft
=	15475	cu-ft

The water quality retention volume requirement for the site is 0.711 ac-ft. Through the utilization of the underground detention basin located underneath pavement in the northeastern section of the site and an above ground detention basin located in the western section of the site approximately 0.408 ac-ft was able to be retained in the proposed condition. The proposed water quality retention volume for the site of 0.408 ac-ft does not meet the minimum requirement. This existing site currently has multiple limitations and constraints that are affecting the ability to obtain the full water quality volume. Existing geometric site constraints such as adjacent wetlands, the proposed building footprint size and lack of space in the southern section of the site relative to the property line are issues. Additionally, the existing site's HSG Soil Type is another limitation as the site currently sits on soil type C and C/D. Infiltration tests and borings were performed throughout the site and have confirmed the low infiltration rates associated with type C and C/D soils. Shallow bedrock was found in the southeastern section of the site as well, which caused the removal of an additional underground detention basin during the design phase. Several approaches have been included in the project to maximize runoff reduction on-site, including removal of curbing/natural dispersion, hay bales, siltation fences, stone or straw wattles, and/or erosion control logs to prevent runoff.

Runoff Reduction and LID Practices

Due to the limited amount of available right-of-way, geometric site constraints and soil classification LID practices are limited and have been incorporated to the maximum extent practical. See Appendix D for additional information pertaining to soil information, MS4 documentation, and Areas of Environmental Concern (AOEC's).

This site currently has HSG Soil Types C and C/D located throughout, and infiltration tests and borings have confirmed the low infiltration rates associated with the type C and C/D soils. Borings have found shallow bedrock in the southeastern section of the site that has affected the proposed locations of runoff reduction and LID practices.

Suspended Solids and Floatable Removal

Runoff Reduction Measures employed to minimize the discharge of suspended solids and floatable (e.g., oil and grease, other floatable liquids, floatable solids, trash, etc.) will include standard 2-foot sumps for catch basins, 4-foot sumps for catch basins prior to the above-ground detention facility, preformed scour holes, and underground and above detention facilities.

Velocity Dissipation:

Velocity dissipation is an important long-term control to reduce the potential for erosion and sedimentation within the project area after construction. For this project outlet protection will be incorporated via preformed scour holes. The proposed drainage will be conveyed through BMPs prior to discharging at each location.

Inspections and maintenance of drainage structures will be conducted regularly and will be replaced as needed to maintain long-term control of erosion and sedimentation.

Other Controls (Non-Structural)

Waste Disposal

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

The following is applicable:

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

Washout Areas

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

Washout Area(s) will be site located by the Contractor, approved by the Qualified Inspector and the SWPCP revised, as appropriate. The "Concrete Washout Area" detail shows the recommended method of construction for the washout area. The designated area shall be designed and maintained such that no overflows can occur during rainfall or after snowmelt. Concrete Washout Area detail is provided in Appendix C.

Anti-tracking Pads and Dust Control

(Form 819- Sections 2.11, 9.39, 9.42, and 9.43)

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

The Contractor shall:

- Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces.

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

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

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

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

Maintaining and Storing Vehicles and Equipment- Storage of Chemicals & Petroleum Products

The Contractor shall take measures to prevent any contamination to wetlands and watercourses while maintaining and storing construction equipment on the site. All chemical and petroleum containers stored on site shall be provided with impermeable containment which will hold at least 110% of the volume of the largest container, or 10% of the total volume of all containers in the area, whichever is larger, without overflow from the containment area. All chemicals and their containers shall be stored under a roofed area except for those stored in containers of 100-gallon capacity or more, in which case double-walled tanks will suffice. Accumulation of rainwater within secondary containment must be visually inspected for sheen prior to being discharged. If any sheen is identified; the accumulated water must be removed by the Contractor to an appropriate off-site location.

Cold Water Stream Habitat

This project is not located within the Cold-Water Fisheries Area. Coordination with CTDEEP Fisheries is only required in the event the project impacts a Cold-Water Fisheries Area.

Inspections

The Qualified Inspector will conduct site inspections once a week or after any rain event of 0.1 inches or greater during normal working hours. The Qualified Inspector conducting inspections shall fill out a [Construction Site Environmental Inspection Report \(CSEIR\)](#) for each inspection described below.

Each report shall be retained as a part of the SWPCP and shall be uploaded to the COMPASS Environmental subfolder available for CTDEEP request. The report shall include a statement that,

in the judgment of the Qualified Inspector(s) conducting the site inspection, the site is either in compliance or out of compliance with the terms and conditions of the Plan and permit. If the site inspection indicates that the site is out of compliance, the inspection report shall include a summary of the remedial actions required to bring the site back into compliance, review Keeping Plans Current.

Plan Implementation Inspections

For each phase of construction, the site shall be inspected at least once within the first 30 days of construction activity and at least three times, with 7 or more days between inspections, within the first 90 days of construction activity to confirm compliance and proper initial implementation of all control measures.

Routine Inspections

The Permittee will maintain a rain gauge on-site to document rainfall amounts. During construction, all areas disturbed by the construction activity that have not been stabilized, all erosion and sediment control measures, structural control measures, soil stockpile areas, washout areas, and locations where vehicles enter or exit the site shall be inspected for evidence of or the potential for pollutant entering the drainage systems and impacts to the receiving waters at least every seven (7) calendar days and within 24 hours of the end of a storm that generates a discharge.

For storms that end on a weekend, holiday, or other time in which normal working hours will not commence within 24 hours, an inspection is required within 24 hours following any storm in which 0.5 inches or greater of rain occurs. For lesser storms, inspection shall occur immediately upon the start of subsequent normal working hours.

Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least weekly until final stabilization has been achieved.

Qualified Inspectors provided by the Department's District 5 Office shall conduct inspections.

The following items shall be inspected as described below:

<u>Item</u>	<u>Procedure</u>
Sedimentation Control System (SCS)	The SCS shall be inspected to ensure that the fence line is intact with no breaks or tears. The fence shall be firmly anchored to the ground. Areas where the fence is excessively sagging or where support posts are broken or uprooted shall be noted. Depth of sediment behind the fence shall be noted if sediment needs to be removed.
Concrete Washout Area	Containers or pits shall be inspected at least once a week to ensure structural integrity, adequate holding capacity and will be repaired prior to future use if leaks are present. The contractor shall remove hardened concrete waste when it accumulates to a height of ½ of the container or pit or as

	necessary to avoid overflows. All concrete waste shall be disposed of in a manner consistent with all applicable laws, regulations and guidelines.
Catch Basin Protection	Protective measures shall be inspected to ensure that sediment is not entering the catch basins. Catch basin sumps shall be monitored for sediment deposition.
Erosion Control Matting	Inspect erosion control matting and repair any dislodged or failed blankets immediately. Replace any washed out seed or topsoil.
Anti-tracking Pad	Locations where vehicles enter or exit the site shall be inspected for evidence of off-site tracking.
Dust Control	Measures shall be taken for the purpose of allaying (diminishing) dust conditions. Measures may include the use of sweeping equipment and/or the application of water or calcium chloride.
General	Construction areas and the perimeter of the site shall be inspected for any evidence of debris that may blow or wash off-site or that has blown or washed off site. Construction areas shall be inspected for any spills or unsafe storage of materials that could pollute off site waters.

Post-Construction Inspection

Upon completion of construction activities and stabilization of the site, all post-construction stormwater structures, including standard 2-foot sumps for catch basins, 4-foot sumps for catch basins, HDS units, infiltration trenches, and underground infiltration basins/chambers shall be cleaned of construction sediment or debris and the site inspected to confirm compliance with all post-construction stormwater management requirements. Sediment shall be properly disposed of in accordance with all applicable laws, regulations, and guidelines. Any remaining sediment control system(s) SCS shall be removed prior to acceptance of the project by the Department.

Final Stabilization Inspection

Once CTDOT has made a determination that the site has achieved final stabilization, the site shall be inspected, and photo documented by the District Environmental Coordinator (DEC) to confirm that no active erosion or sedimentation is present and site stabilization has been maintained.

Final stabilization is achieved when a full growing season is completed. A **full growing season** is defined as the timeframe encompassed by **two consecutive full seeding seasons**: April 1 through June 15, and August 15 through October 1. If final stabilization is achieved during a seeding season, the following seeding season will be considered the first full seeding season after final stabilization has been achieved, the DEC will verify compliance with this requirement on the Notice of Termination: Non-Solar Projects.

Keeping Plans Current

Revisions to Stormwater Pollution Control Plans

The Department will amend the Plan if the actions required by the Plan fail to prevent pollution or otherwise comply with provisions of the General Permit. The Plan shall also be amended whenever there is a change in contractors or sub-contractors at the site, or a change in design, construction, operation, or maintenance at the site which has not otherwise been addressed in the plan.

If the results of the inspections require modifications to the Stormwater Pollution Control Plan, the plans shall be revised as soon as practicable after the inspection. Such modifications shall provide for a timely implementation of any changes to non-engineered controls on the site within 24 hours and implementation of any changes to the plan within 3 (three) calendar days following the inspection. For Engineered measures, corrective actions shall be implemented on site within 7 (seven) days and incorporated into a revised Plan within 10 (ten) days of the date of inspection.

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

Contractors

General

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

Certification Statement

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

State Project No. 0118-0171

**CTDOT – New District 1 HQ, Materials Testing Lab, Signal Lab, and Sign Shop
Rocky Hill, CT**

“I certify under penalty of law that I have read and understand the terms and conditions of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. I understand that as Contractor on the project, I am covered by this General Permit, and must comply with the terms and conditions of this permit, including, but not limited to, the requirements of the Stormwater Pollution Control Plan prepared for this project.”

GENERAL CONTRACTOR

Signed: _____

Date: _____

Title: _____

Firm: _____

Telephone: _____

Address: _____

SUBCONTRACTOR

Signed: _____

Date: _____

Title: _____

Firm: _____

Telephone: _____

Address: _____

General:

This Stormwater Pollution Control Plan (SWPCP) is prepared to comply with the requirements for the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. Also, to be considered part of the SWPCP are the proposed construction plans, special provisions, and the Connecticut Department of Transportation's "Standard Specifications for Roads, Bridges, Facilities and Incidental Construction" (Form 819) including supplements thereto and the Connecticut Guidelines for Erosion and Sediment Control (E&S Guidelines) and Stormwater Quality Manual (SWQ Manual), as amended.

List of Applicable Figures / Plans:

Appendix A – Figures

- Existing Drainage Area Maps
- Proposed Drainage Area Maps
- Disturbed Erodible Area Maps
- USDA Soil Maps

Appendix B – Drainage Calculations

- Water Quality Calculations
- Outlet Protection Calculations

Appendix C – Plan Sheets

- 03 – Civil Subset (Select Sheets)
- 04 – Landscape Subset (Select Sheets)

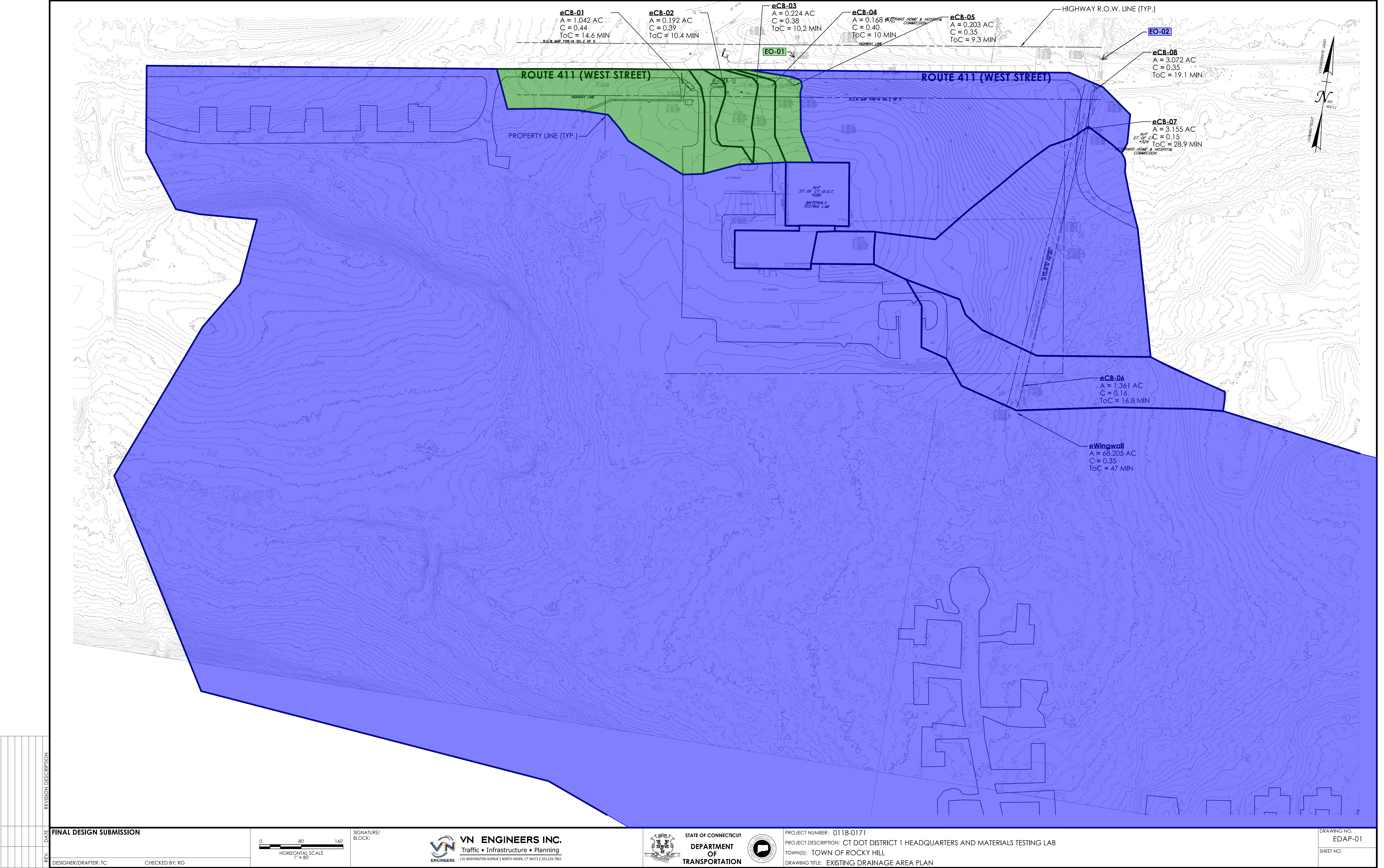
Appendix D- CTDOT MS4 Project Design Maximum Extent Practicable Worksheet

Appendix E- Construction Site Environmental Inspection Report (CSEIR)

Appendix F – Notice of Termination Form: Non-Solar Projects

Appendices

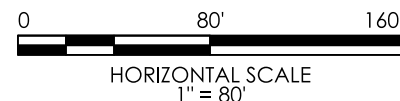
Appendix A: Figures



REV.	DATE	REVISION DESCRIPTION

FINAL DESIGN SUBMISSION

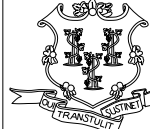
DESIGNER/DRAFTER: TC CHECKED BY: RG



SIGNATURE/
BLOCK:



VN ENGINEERS INC.
Traffic • Infrastructure • Planning
116 WASHINGTON AVENUE | NORTH HAVEN, CT 06473 | 203.234.7862

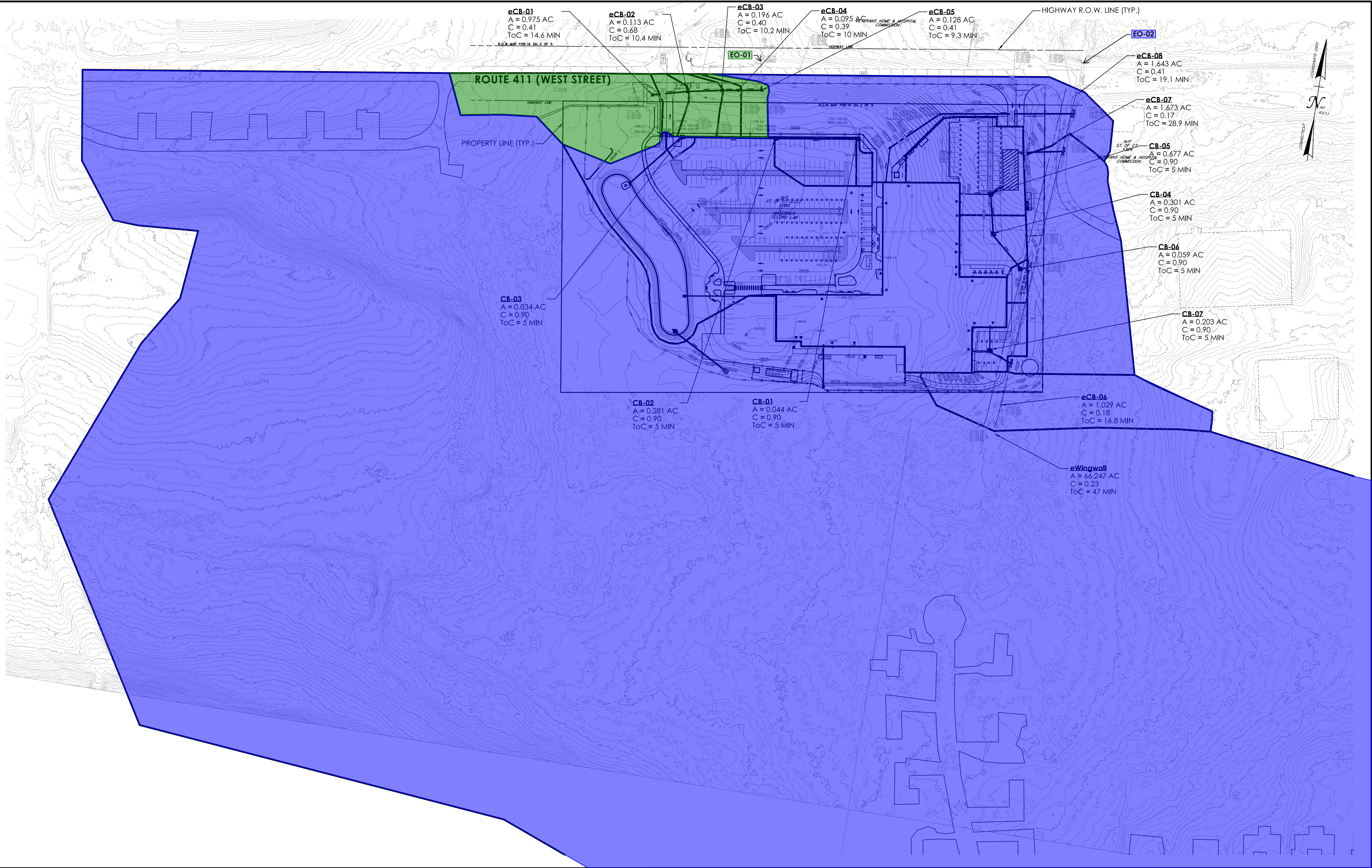


STATE OF CONNECTICUT
**DEPARTMENT
OF
TRANSPORTATION**



PROJECT NUMBER: 0118-0171
PROJECT DESCRIPTION: CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS TESTING LAB
TOWN(S): TOWN OF ROCKY HILL
DRAWING TITLE: EXISTING DRAINAGE AREA PLAN

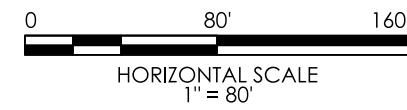
DRAWING NO.
EDAP-01
SHEET NO.



REV.	DATE	REVISION DESCRIPTION

FINAL DESIGN SUBMISSION

DESIGNER/DRAFTER: TC CHECKED BY: RG



SIGNATURE/
BLOCK:



VN ENGINEERS INC.
Traffic • Infrastructure • Planning
116 WASHINGTON AVENUE | NORTH HAVEN, CT 06473 | 203.234.7862



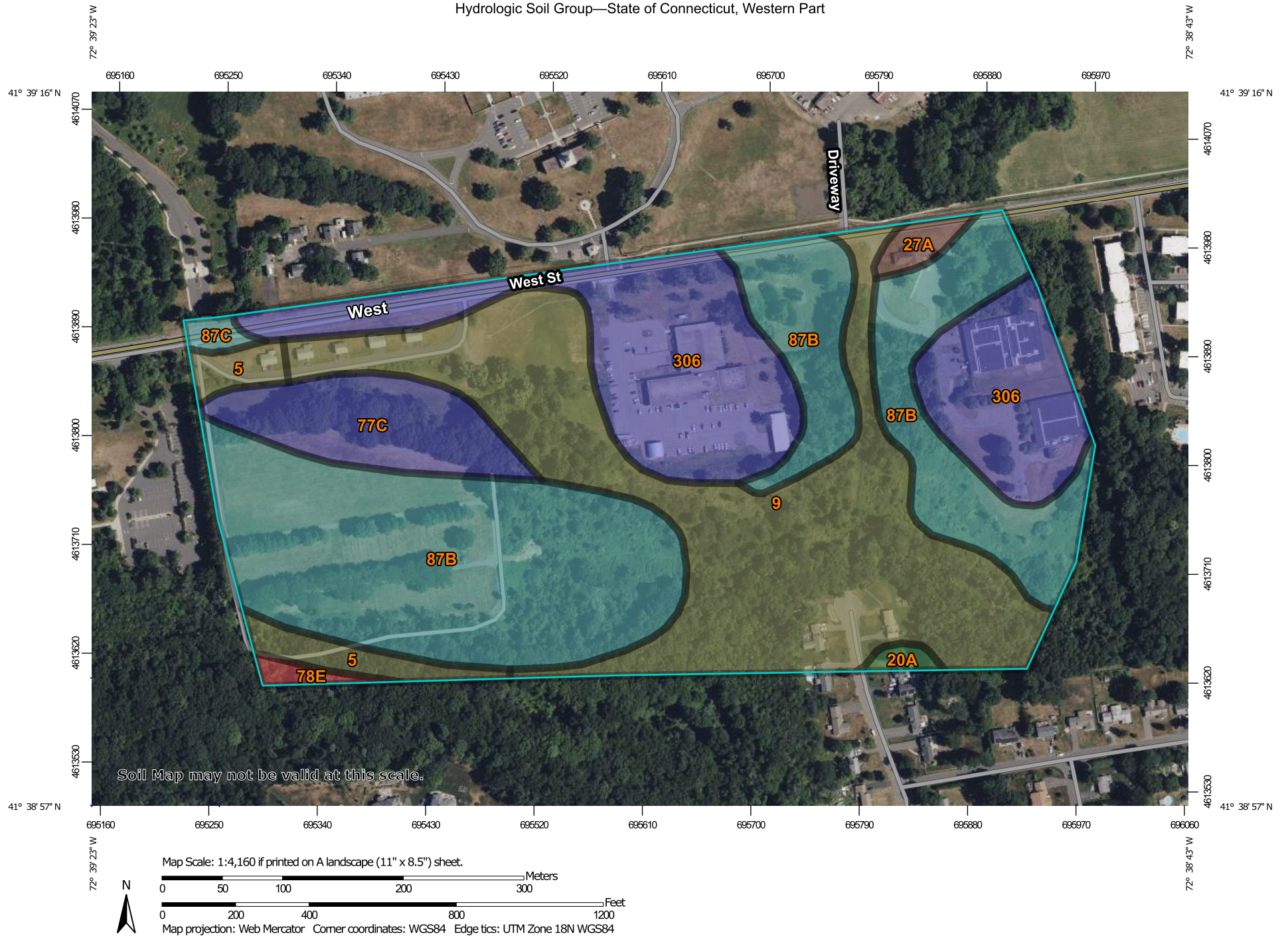
STATE OF CONNECTICUT
**DEPARTMENT
OF
TRANSPORTATION**



PROJECT NUMBER: 0118-0171
PROJECT DESCRIPTION: CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS TESTING LAB
TOWN(S): TOWN OF ROCKY HILL
DRAWING TITLE: PROPOSED DRAINAGE AREA PLAN

DRAWING NO.
PDAP-01
SHEET NO.

Hydrologic Soil Group—State of Connecticut, Western Part



MAP LEGEND**Area of Interest (AOI)**
 Area of Interest (AOI)
Soils**Soil Rating Polygons**

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points

-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available

Water Features
 Streams and Canals
Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background
 Aerial Photography
MAP INFORMATION

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

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

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: State of Connecticut, Western Part
Survey Area Data: Version 1, Sep 15, 2023

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

Date(s) aerial images were photographed: Jun 14, 2022—Oct 6, 2022

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
5	Wilbraham silt loam, 0 to 3 percent slopes	C/D	1.8	3.0%
9	Scitico, Shaker, and Maybid soils, 0 to 3 percent slopes	C/D	17.5	29.3%
20A	Ellington silt loam, 0 to 5 percent slopes	A/D	0.3	0.5%
27A	Belgrade silt loam, 0 to 5 percent slopes	B/D	0.6	0.9%
77C	Cheshire-Holyoke complex, 3 to 15 percent slopes, very rocky	B	3.8	6.4%
78E	Holyoke-Rock outcrop complex, 15 to 45 percent slopes	D	0.3	0.6%
87B	Wethersfield loam, 3 to 8 percent slopes	C	22.4	37.5%
87C	Wethersfield loam, 8 to 15 percent slopes	C	0.3	0.6%
306	Udorthents-Urban land complex	B	12.6	21.2%
Totals for Area of Interest			59.7	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix B: Drainage Calculations

Water Quality Volume (WQV) Calculation

PROJECT 0118-0171 D1 Rocky Hill
DATE 7/12/2024
SUBJECT Total Site WQV
Notes:

PREPARED BY LRC
CHECKED BY RSG

TOTAL SITE AREA (A) = 12.41 acres

DRAINAGE AREAS

Drainage Area	Impervious Area
Subcatchment-1	6.60
Subcatchment-2	0.00
Subcatchment-3	0.00
Total Impervious	6.60

659.8%

WATER QUALITY VOLUME (WQV) CALCULATION

Design Precipitation (P) = 1.3 inch
% Impervious Cover (I) = 53
Volumetric Runoff Coefficient (R) = 0.529

WQV =	0.711	ac-ft
	30951	cu-ft

1/2 WQV=	0.355	ac-ft
=	15475	cu-ft

Water Quality Volume (WQV) Calculation

PROJECT 0118-0171 D1 Rocky Hill
DATE 7/12/2024
SUBJECT Watershed DA 200C WQV
Notes: TO UNDERGROUND CHAMBERS

PREPARED BY LRC
CHECKED BY RSG

TOTAL SITE AREA (A) = 1.53 acres

DRAINAGE AREAS

Drainage Area	Impervious Area
Subcatchment-1	1.32
Subcatchment-2	0.00
Subcatchment-3	0.00
Total Impervious	1.32

132.0%

WATER QUALITY VOLUME (WQV) CALCULATION

Design Precipitation (P) = 1.3 inch
% Impervious Cover (I) = 86
Volumetric Runoff Coefficient (R) = 0.826

WQV =	0.137	ac-ft
	5967	cu-ft

1/2 WQV=	0.068	ac-ft
=	2984	cu-ft

BMP - WQF / WQF Calculations

PROJECT 0118-0171 D1 Rocky Hill
DATE 7/12/2024
SUBJECT Watershed DA 200C WQV

PREPARED BY LRC
CHECKED BY RSG

WATER QUALITY VOLUME (WQV) CALCULATION

Drainage Area to BMP (A) = 1.53 acres
= 0.00239 square miles

BMP DRAINAGE AREA

Drainage Area	Impervious Area
Subcatchment-1	<u>1.32</u>
Subcatchment-2	<u>0.00</u>
Subcatchment-3	<u>0.00</u>
Total Impervious	1.32

Design Precipitation (P) = 1.3 inch
% Impervious Cover (I) = 86
Volumetric Runoff Coefficient (R) = 0.826

WQV =	0.137	ac-ft
	5967	cu-ft

1/2 WQV=	0.068	ac-ft
=	2984	cu-ft

WATER QUALITY FLOW (WQF) CALCULATION

RUNOFF CURVE NUMBER (CN)

Runoff Depth (Q) = 1.074 inches
CN = 98 Figure 2-1 (SWQM)

TIME OF CONCENTRATION (Tc), 10 minute minimum

Tc = 10 min
Tc = 0.17 hours

Initial Abstraction (I_a) = 0.041 Table 4-1 (SWQM)
 I_a/P Calculation = 0.032
Unit Peak Discharge (q_u) = 650 Exhibit 4-111 (SWQM)

WQF =	1.67	cfs
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1/2 WQF =	0.83	cfs
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Water Quality Volume (WQV) Calculation

PROJECT0118-0171 D1 Rocky Hill

DATE7/12/2024

SUBJECTWatershed DA 300A WQV

Notes:TO ABOVEGROUND BASIN

PREPARED BYLRC

CHECKED BYRSG

TOTAL SITE AREA (A) = 3.63 acres

DRAINAGE AREAS

Drainage Area	Impervious Area
Subcatchment-1	2.58
Subcatchment-2	0.00
Subcatchment-3	0.00
Total Impervious	2.58

258.0%

WATER QUALITY VOLUME (WQV) CALCULATION

Design Precipitation (P) = 1.3 inch

% Impervious Cover (I) = 71

Volumetric Runoff Coefficient (R) = 0.690

WQV =	0.271	ac-ft
	11814	cu-ft

1/2 WQV=	0.136	ac-ft
=	5907	cu-ft

BMP - WQF / WQF Calculations

PROJECT 0118-0171 D1 Rocky Hill
DATE 7/12/2024
SUBJECT Watershed DA 300A WQV

PREPARED BY LRC
CHECKED BY RSG

WATER QUALITY VOLUME (WQV) CALCULATION

Drainage Area to BMP (A) = 3.63 acres
= 0.00567 square miles

BMP DRAINAGE AREA

Drainage Area	Impervious Area
Subcatchment-1	<u>2.58</u>
Subcatchment-2	<u>0.00</u>
Subcatchment-3	<u>0.00</u>
Total Impervious	2.58

Design Precipitation (P) = 1.3 inch
% Impervious Cover (I) = 71
Volumetric Runoff Coefficient (R) = 0.690

WQV =	0.271	ac-ft
	11814	cu-ft

1/2 WQV=	0.136	ac-ft
=	5907	cu-ft

WATER QUALITY FLOW (WQF) CALCULATION

RUNOFF CURVE NUMBER (CN)

Runoff Depth (Q) = 0.897 inches
CN = 96 Figure 2-1 (SWQM)

TIME OF CONCENTRATION (Tc), 10 minute minimum

Tc = 10 min
Tc = 0.17 hours

Initial Abstraction (I_a) = 0.083 Table 4-1 (SWQM)
 I_a/P Calculation = 0.064
Unit Peak Discharge (q_u) = 600 Exhibit 4-111 (SWQM)

WQF =	3.05	cfs
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1/2 WQF =	1.53	cfs
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Pipe Information

	Inlet (Elev.)	Outlet (Elev.)	Pipe Length (ft)	Pipe Slope	Mannings Roughness Coefficient, n
18" RCP	164.90	164.00	123	0.73%	0.013

Scour Hole Calcs

(Ref: ConnDOT Drainage Manual 11.13.6)

Sp = Inside Diameter for circular sections or Maximum inside pipe span for non-circular sections, m (ft)

Q = pipe (design) discharge, cms (cfs)

TW = Tailwater depth, m (ft)

Rp = maximum inside pipe rise, m (ft)

Note: Sp = Rp = inside diameter for circular sections

d₅₀ = Median stone size requiredd₅₀ = (0.0125Rp²/TW)(Q/Rp^{2.5})^{1.33} (ft) (eq. 11.35)

Sp = Rp = 1.5 ft (Max. inside span)

TW = 0.97 ft

A = 1.15 sf

V = 5.51 ft/s

Q = VA = 6.35 cfs

d₅₀ = 0.09 ftd₅₀ < 0.42 ft Use Modified Riprap

Type 1 and 2 preformed scour hole dimensions (11.37)

(See Figure 11-15)

Basin Length, m (ft) = C = 3Sp + 6F

Basin inlet & outlet Width, m (ft) = B = 2Sp + 6F

Type 1 Basin Depression, m (ft) = F = 0.5Rp

Type 2 Basin Depression, m (ft) = F = Rp

Modified	d ₅₀ < 0.13m (0.42 ft)
Intermediate	0.13m (0.42 ft) < d ₅₀ < 0.20m (0.67 ft)
Standard	0.20m (0.67 ft) < d ₅₀ < 0.38m (1.25 ft)
Special Design	0.38m (1.25 ft) < d ₅₀

Scour Hole Design

Type 1

Use Type 2 for Infiltration Basins

F = 0.8

C = 9

B = 8

Type 2

F = 1.5

C = 14

B = 12

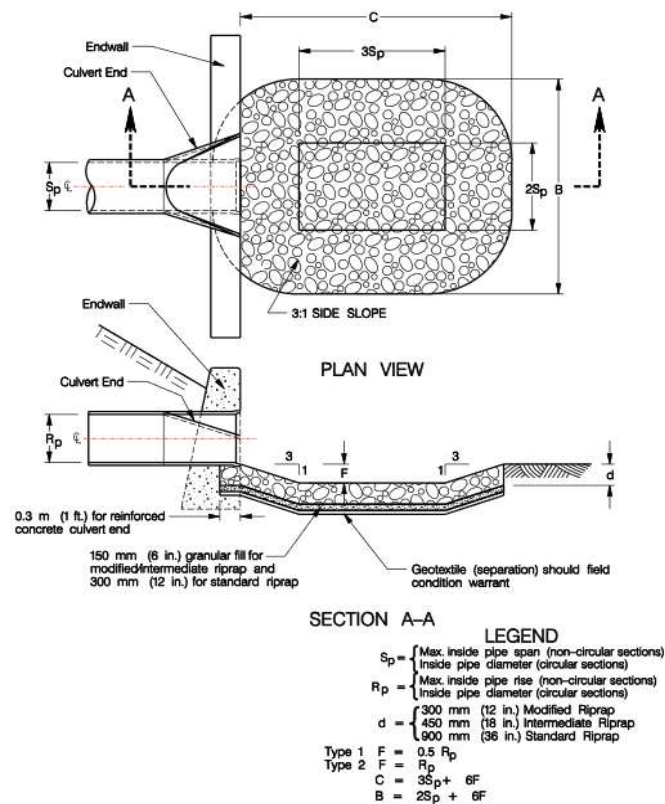


Figure 11-15 Preformed Scour Hole Type 1 and Type 2



Pipe Information

	Inlet (Elev.)	Outlet (Elev.)	Pipe Length (ft)	Pipe Slope	Mannings Roughness Coefficient, n
18" RCP	164.00	163.50	107	0.5%	0.013

Scour Hole Calcs

(Ref: ConnDOT Drainage Manual 11.13.6)

Sp = Inside Diameter for circular sections or Maximum inside pipe span for non-circular sections, m (ft)

Q = pipe (design) discharge, cms (cfs)

TW = Tailwater depth, m (ft)

Rp = maximum inside pipe rise, m (ft)

Note: Sp = Rp = inside diameter for circular sections

d₅₀ = Median stone size requiredd₅₀ = (0.0125Rp²/TW)(Q/Rp^{2.5})^{1.33} (ft) (eq. 11.35)

Sp = Rp = 1.5 ft (Max. inside span)

TW = 1.35 ft

A = 1.44 sf

V = 6.02 ft/s

Q = VA = 8.69 cfs

d₅₀ = 0.10 ftd₅₀ < 0.42 ft Use Modified Riprap

Type 1 and 2 preformed scour hole dimensions (11.37)

(See Figure 11-15)

Basin Length, m (ft) = C = 3Sp + 6F

Basin inlet & outlet Width, m (ft) = B = 2Sp + 6F

Type 1 Basin Depression, m (ft) = F = 0.5Rp

Type 2 Basin Depression, m (ft) = F = Rp

Modified	d ₅₀ < 0.13m (0.42 ft)
Intermediate	0.13m (0.42 ft) < d ₅₀ < 0.20m (0.67 ft)
Standard	0.20m (0.67 ft) < d ₅₀ < 0.38m (1.25 ft)
Special Design	0.38m (1.25 ft) < d ₅₀

Scour Hole Design

Type 1

Recommend type 1 due to smaller footprint

F = 0.8

C = 9

B = 8

Type 2

F = 1.5

C = 14

B = 12

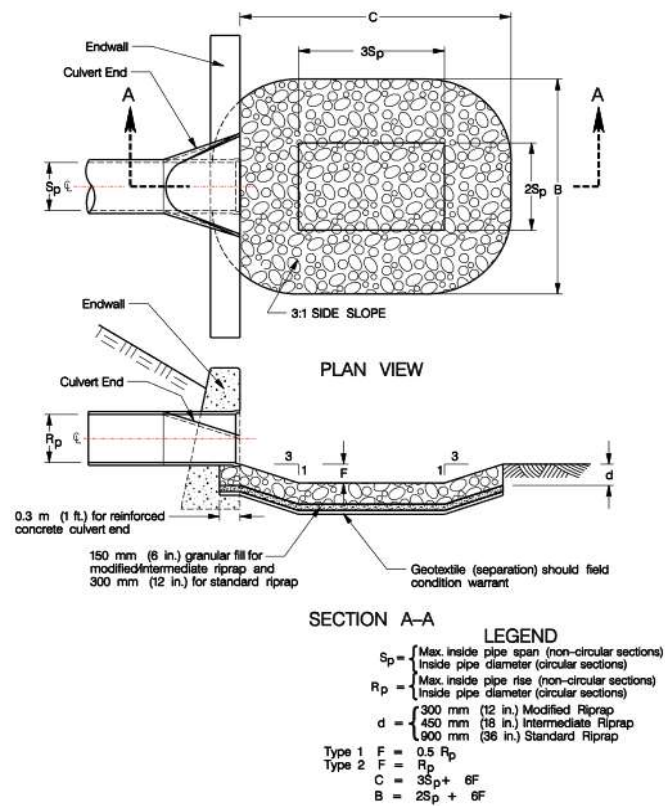


Figure 11-15 Preformed Scour Hole Type 1 and Type 2



Pipe Information

	Inlet (Elev.)	Outlet (Elev.)	Pipe Length (ft)	Pipe Slope	Mannings Roughness Coefficient, n
6" Perimeter Drain	165.17	164.00	164	0.7%	0.013

Scour Hole Calcs

(Ref: ConnDOT Drainage Manual 11.13.6)

Sp = Inside Diameter for circular sections or Maximum inside pipe span for non-circular sections, m (ft)

Q = pipe (design) discharge, cms (cfs)

TW = Tailwater depth, m (ft)

Rp = maximum inside pipe rise, m (ft)

Note: Sp = Rp = inside diameter for circular sections

d₅₀ = Median stone size requiredd₅₀ = (0.0125Rp²/TW)(Q/Rp^{2.5})^{1.33} (ft) (eq. 11.35)

Sp = Rp = 0.5 ft (Max. inside span)

TW = 0.43 ft

A = 0.19 sf

V = 2.69 ft/s

Q = VA = 0.50 cfs

d₅₀ = 0.03 ftd₅₀ < 0.42 ft Use Modified Riprap

Type 1 and 2 preformed scour hole dimensions (11.37)

(See Figure 11-15)

Basin Length, m (ft) = C = 3Sp + 6F

Basin inlet & outlet Width, m (ft) = B = 2Sp + 6F

Type 1 Basin Depression, m (ft) = F = 0.5Rp

Type 2 Basin Depression, m (ft) = F = Rp

Modified	d ₅₀ < 0.13m (0.42 ft)
Intermediate	0.13m (0.42 ft) < d ₅₀ < 0.20m (0.67 ft)
Standard	0.20m (0.67 ft) < d ₅₀ < 0.38m (1.25 ft)
Special Design	0.38m (1.25 ft) < d ₅₀

Scour Hole Design

Type 1

Use Type 2 for Infiltration Basins

F = 0.3

C = 3

B = 3

Type 2

F = 0.5

C = 5

B = 4

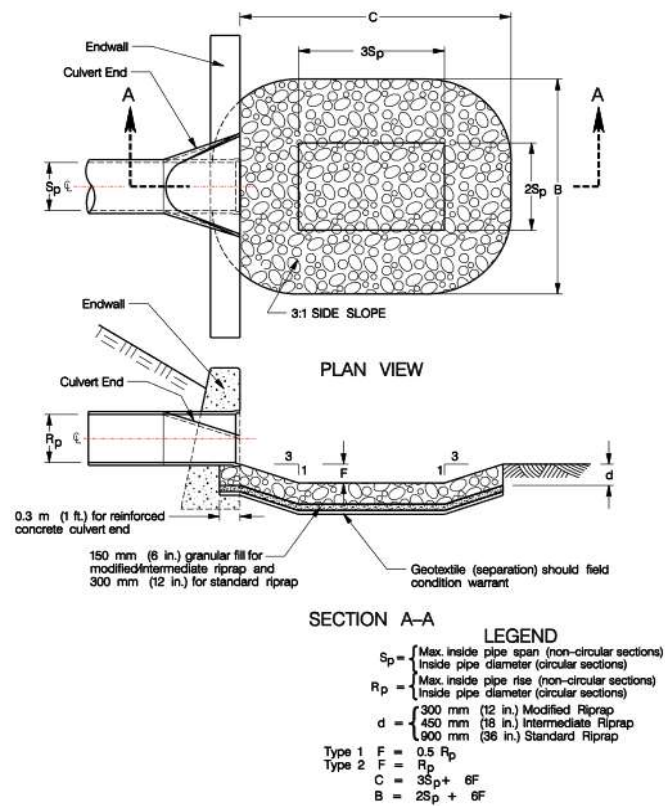


Figure 11-15 Preformed Scour Hole Type 1 and Type 2



Pipe Information

	Inlet (Elev.)	Outlet (Elev.)	Pipe Length (ft)	Pipe Slope	Mannings Roughness Coefficient, n
10" PVC Roof Drain	162.82	162.10	54	1.3%	0.013

Scour Hole Calcs

(Ref: ConnDOT Drainage Manual 11.13.6)

Sp = Inside Diameter for circular sections or Maximum inside pipe span for non-circular sections, m (ft)

Q = pipe (design) discharge, cms (cfs)

TW = Tailwater depth, m (ft)

Rp = maximum inside pipe rise, m (ft)

Note: Sp = Rp = inside diameter for circular sections

d₅₀ = Median stone size required

$$d_{50} = (0.0125 R_p^2 / TW) (Q / R_p)^{2.5 \cdot 1.33} \text{ (ft)} \quad (\text{eq. 11.35})$$

$$Sp = Rp = 0.83 \text{ ft} \quad (\text{Max. inside span})$$

$$TW = 0.73 \text{ ft}$$

$$A = 0.28 \text{ sf}$$

$$V = 6.90 \text{ ft/s}$$

$$Q = VA = 1.96 \text{ cfs}$$

$$d_{50} = 0.05 \text{ ft}$$

d₅₀ < 0.42 ft Use Modified Riprap

Type 1 and 2 preformed scour hole dimensions (11.37)

(See Figure 11-15)

$$\text{Basin Length, m (ft)} = C = 3Sp + 6F$$

$$\text{Basin inlet \& outlet Width, m (ft)} = B = 2Sp + 6F$$

$$\text{Type 1 Basin Depression, m (ft)} = F = 0.5Rp$$

$$\text{Type 2 Basin Depression, m (ft)} = F = Rp$$

Modified	$d_{50} < 0.13\text{m (0.42 ft)}$
Intermediate	$0.13\text{m (0.42 ft)} < d_{50} < 0.20\text{m (0.67 ft)}$
Standard	$0.20\text{m (0.67 ft)} < d_{50} < 0.38\text{m (1.25 ft)}$
Special Design	$0.38\text{m (1.25 ft)} < d_{50}$

Scour Hole Design

Type 1

Recommend type 1 due to smaller footprint

$$F = 0.4$$

$$C = 5$$

$$B = 4$$

Type 2

$$F = 0.8$$

$$C = 7$$

$$B = 7$$

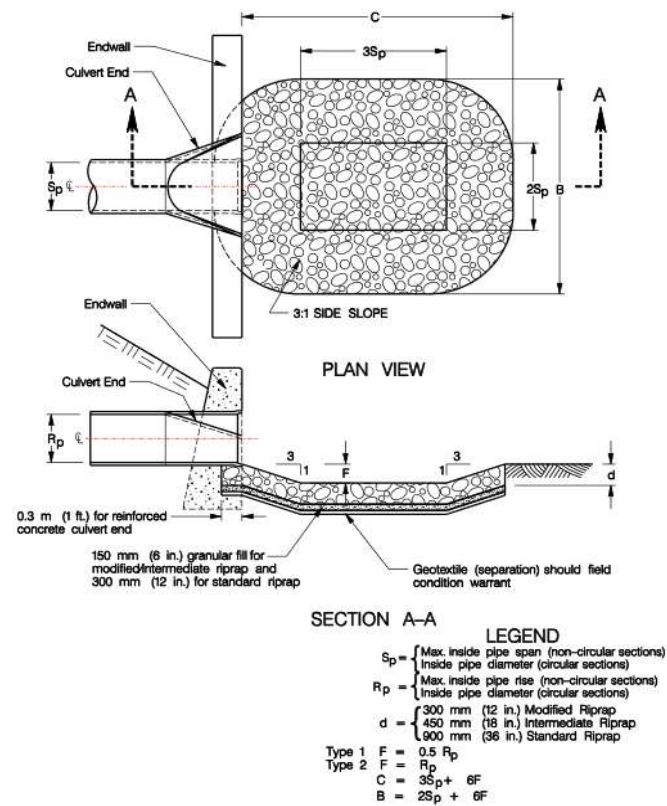


Figure 11-15 Preformed Scour Hole Type 1 and Type 2

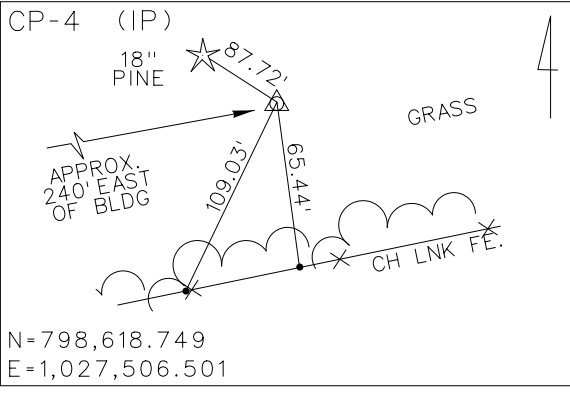
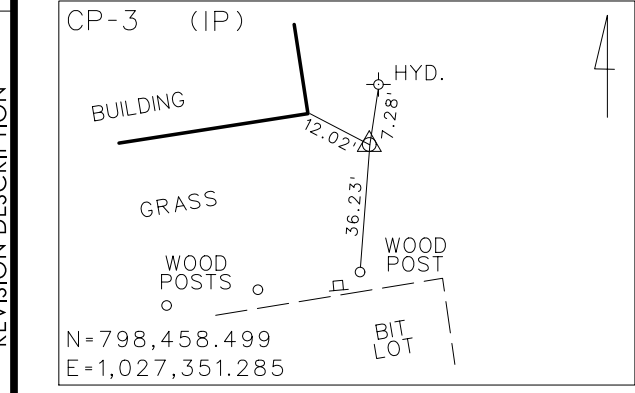
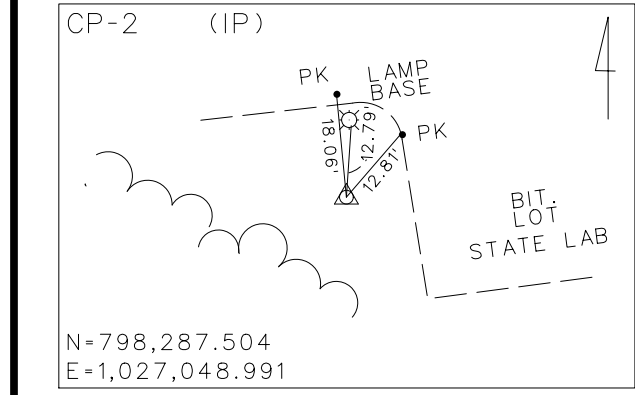
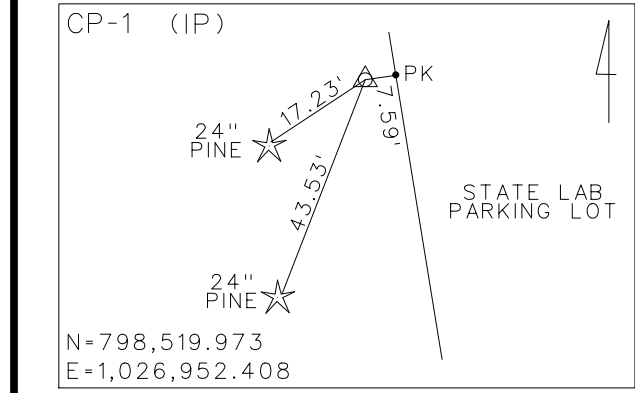
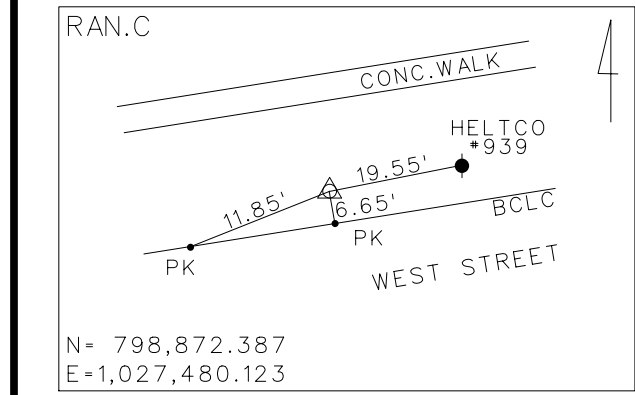
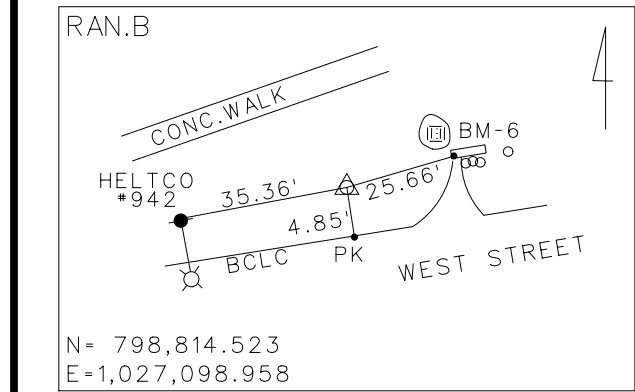
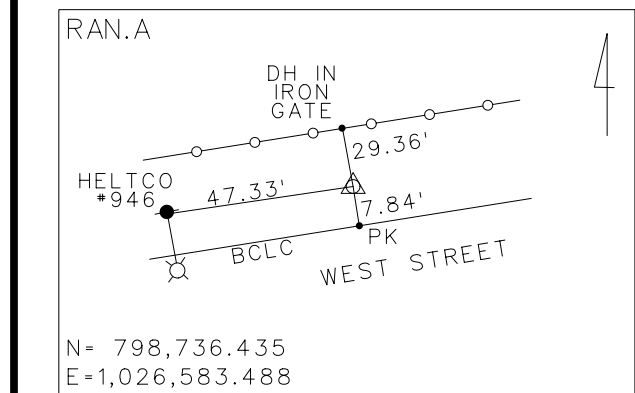
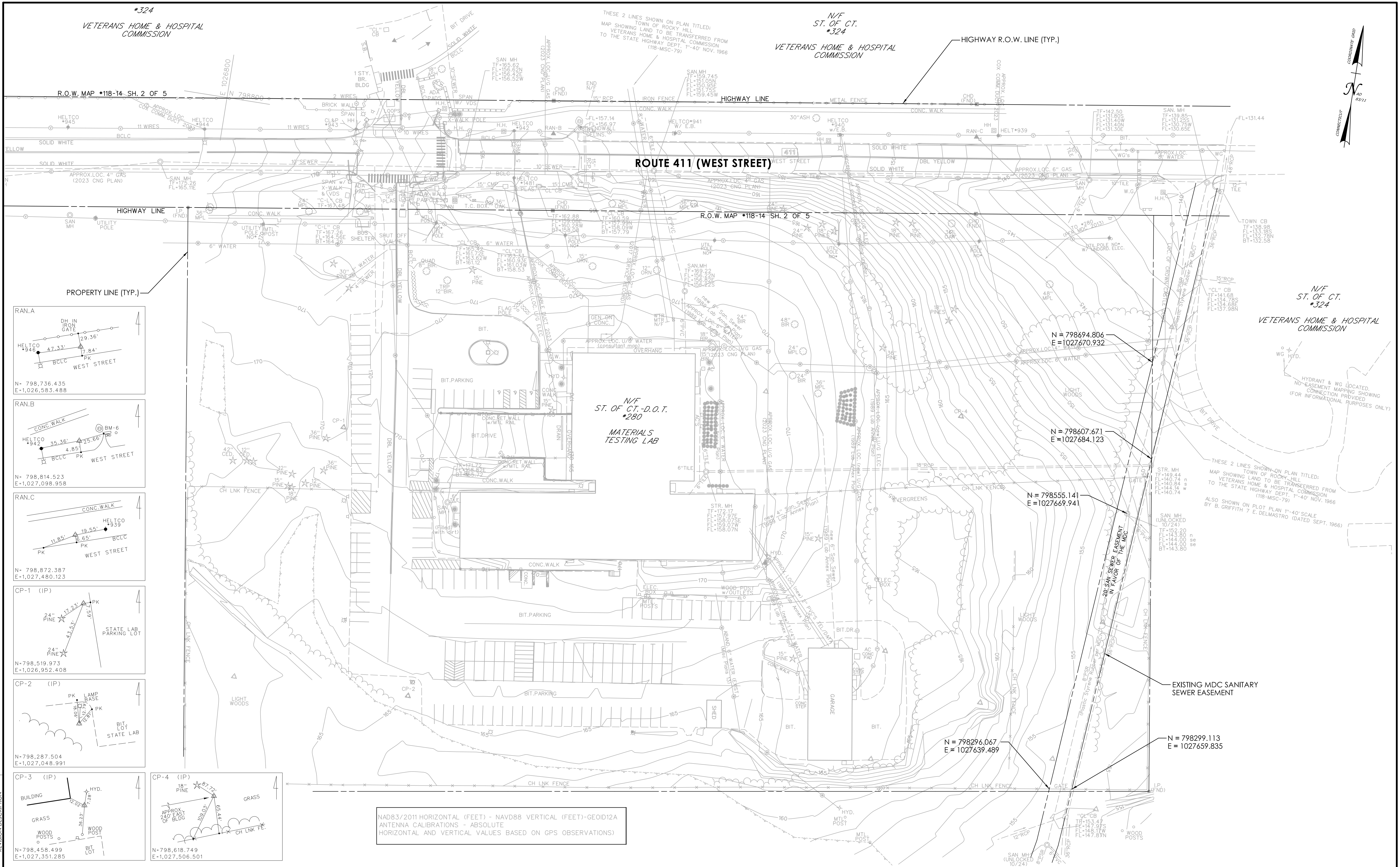
Appendix C: Plan Sheets

#324

VETERANS HOME & HOSPITAL
COMMISSION

N/F
ST. OF CT.
#324

VETERANS HOME & HOSPITAL
COMMISSION

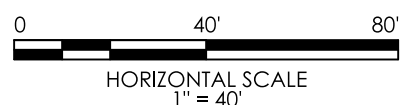


NAD83/2011 HORIZONTAL (FEET) - NAVD88 VERTICAL (FEET)-GEOD12A
ANTENNA CALIBRATIONS - ABSOLUTE
HORIZONTAL AND VERTICAL VALUES BASED ON GPS OBSERVATIONS)

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

YN ENGINEERS INC.
Traffic • Infrastructure • Planning
1100 WASHINGTON AVENUE
NORTH HAVEN, CT 06473
(203) 234-1900



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

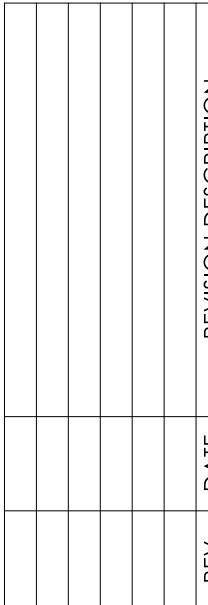
PROJECT TITLE:
**CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS
TESTING LAB**

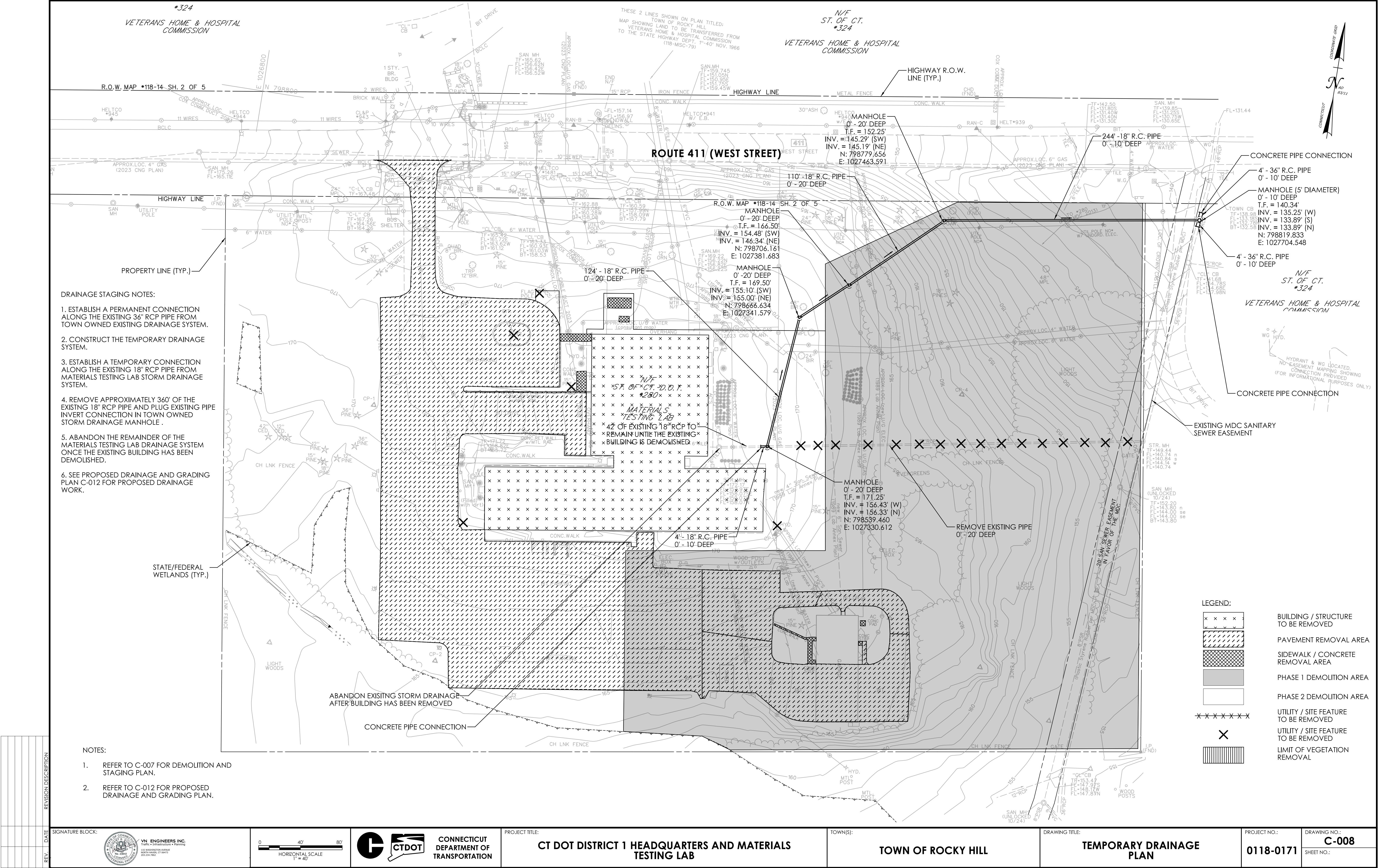
TOWN(S):
TOWN OF ROCKY HILL

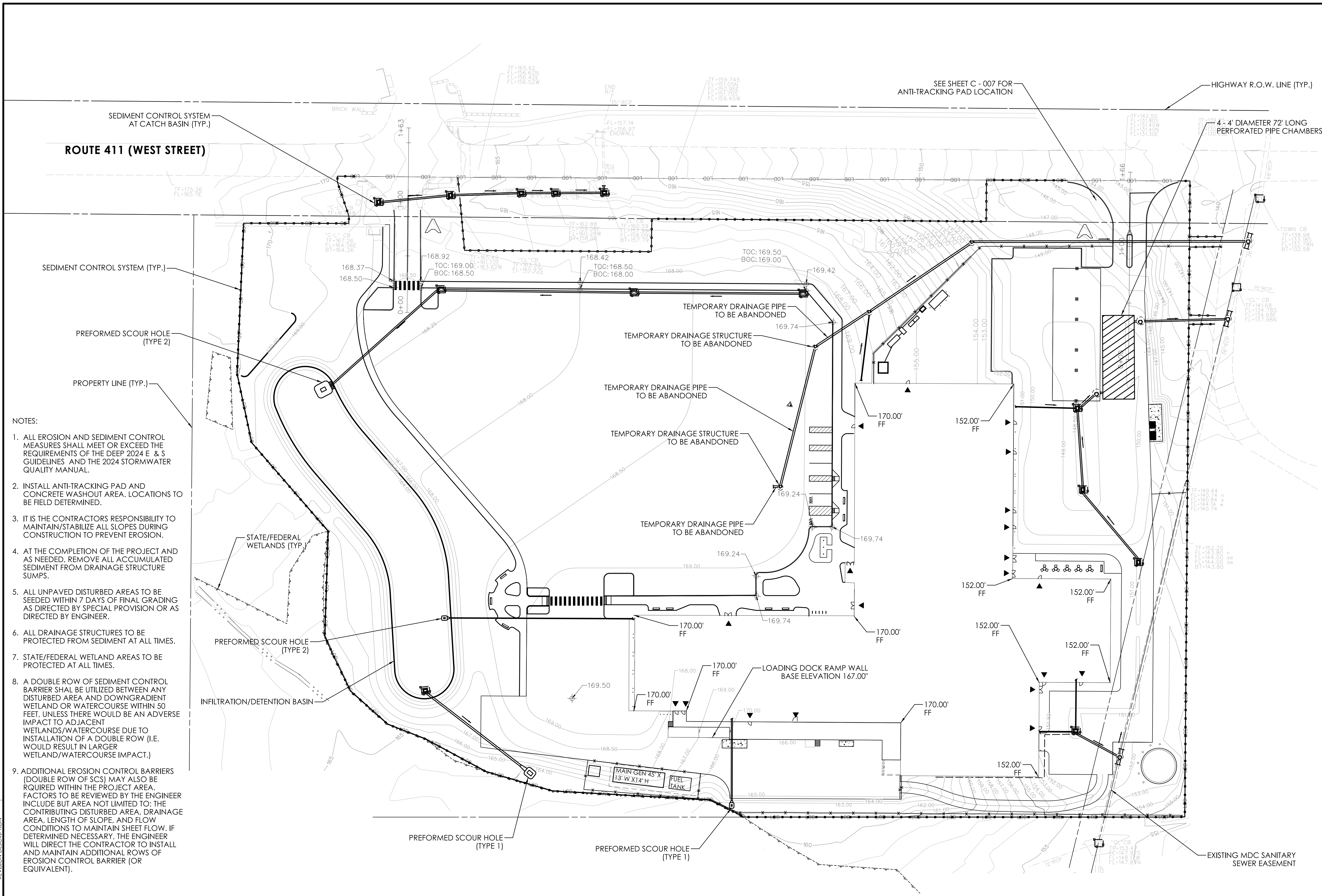
DRAWING TITLE:
**EXISTING CONDITIONS
PLAN**

PROJECT NO.:
0118-0171

DRAWING NO.:
C-006
SHEET NO.:







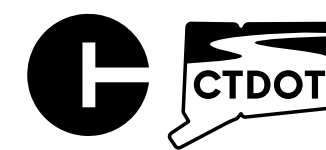
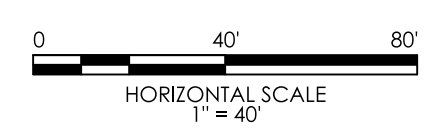
-
- Diagram illustrating a typical infiltration/detention basin. The components shown are:
- STATE/FEDERAL WEILANDS (TYP.)
 - PREFORMED SCOUR HOLE (TYPE 2)
 - INFILTRATION/DETENTION BASIN

SIGNATURE BLOCK:



YN ENGINEERS INC.
Traffic • Infrastructure • Planning

156 WASHINGTON AVENUE
SUITE 200
MIDDLETOWN, CT 06457
203.234.7902



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE: **CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS TESTING LAB**

TOWN(S): **TOWN OF ROCKY HILL**

DRAWING TITLE:

**SEDIMENTATION AND
EROSION CONTROL PLAN**

PROJECT NO.:	0118-0171
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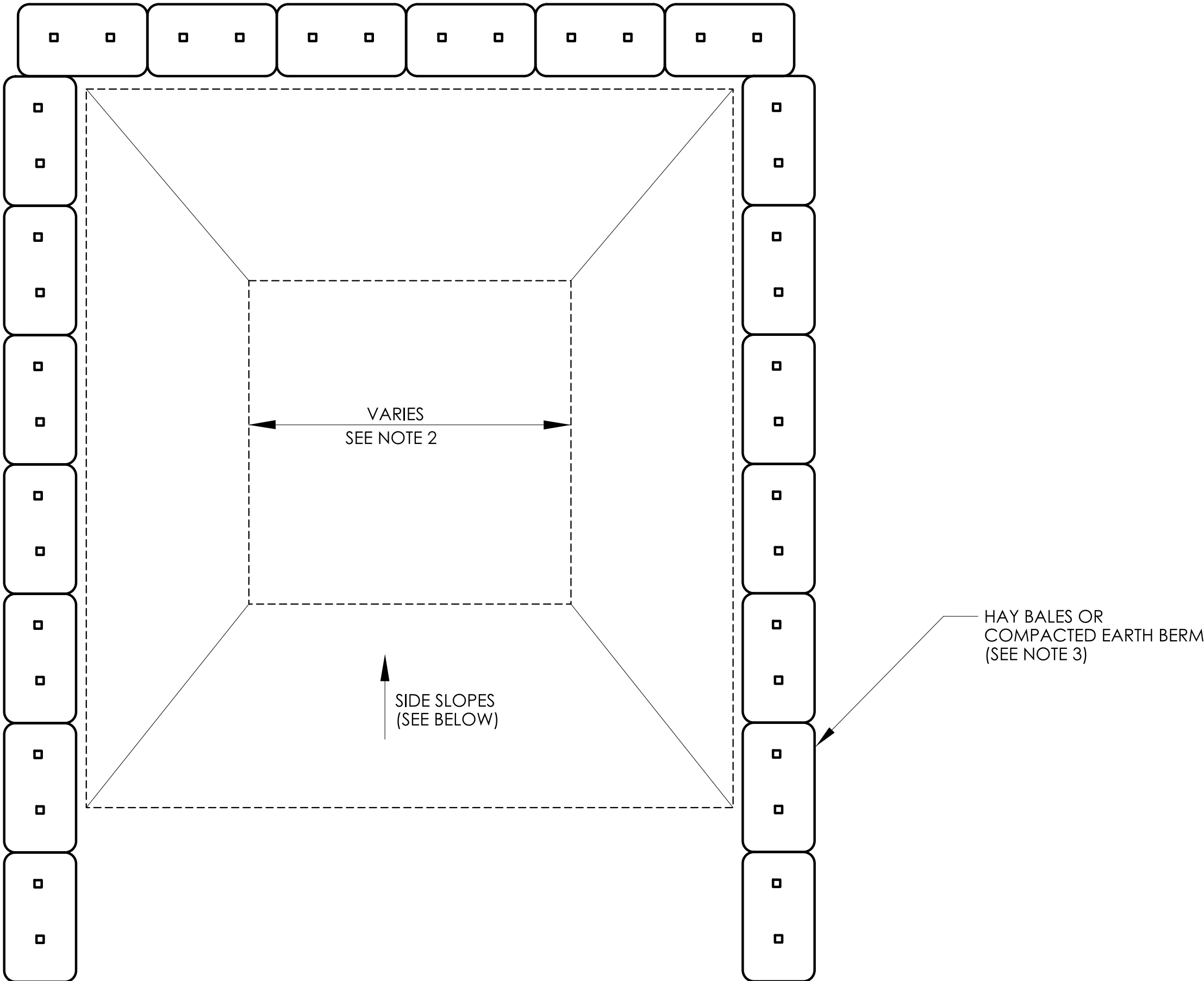
DRAWING NO.:	C-012-1. A4
SHEET NO.:	

GENERAL NOTES:

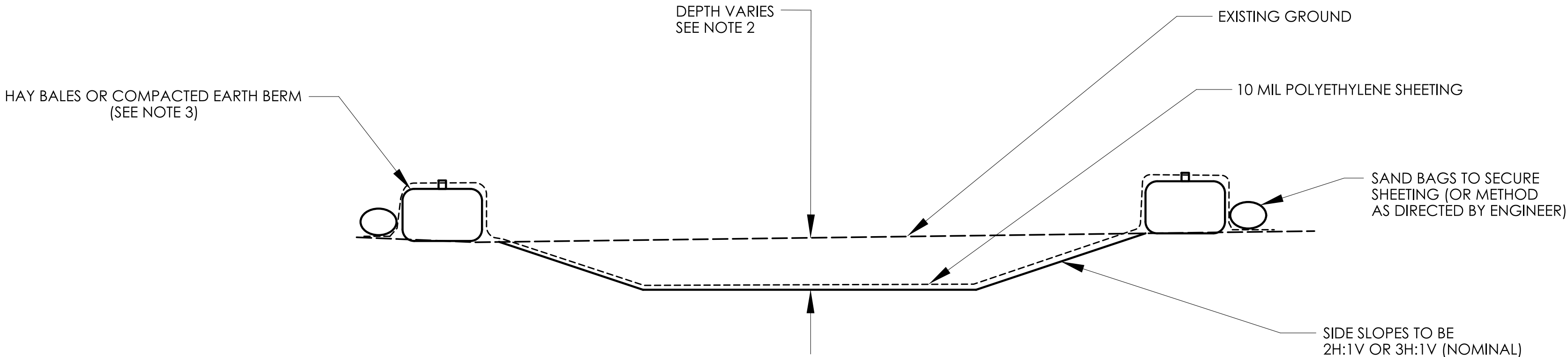
1. CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.
2. THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING OF THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER.

LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED AT LEAST 50 FEET FROM ANY STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE RESOURCE. THE FLOOD CONTINGENCY PLAN MUST ADDRESS THE CONCRETE WASHOUT IF THE WASHOUT IS TO BE LOCATED WITHIN THE FLOODPLAIN.

SIZE: THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING, BUT NOT LIMITED TO, OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.
3. SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.
4. SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED METHOD.
5. WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS.
6. HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S DEPTH. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.



PLAN
N.T.S.



CONCRETE WASHOUT AREA
N.T.S.
(SEE NOTE 2)

REVISION DESCRIPTION			
REV.	DATE	DESCRIPTION	

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NORTH HAVEN, CT 06473
203.234.1962



PROJECT TITLE:

CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS TESTING LAB

TOWN(S):

TOWN OF ROCKY HILL

DRAWING TITLE:

MISCELLANEOUS DETAILS - 02

PROJECT NO.:

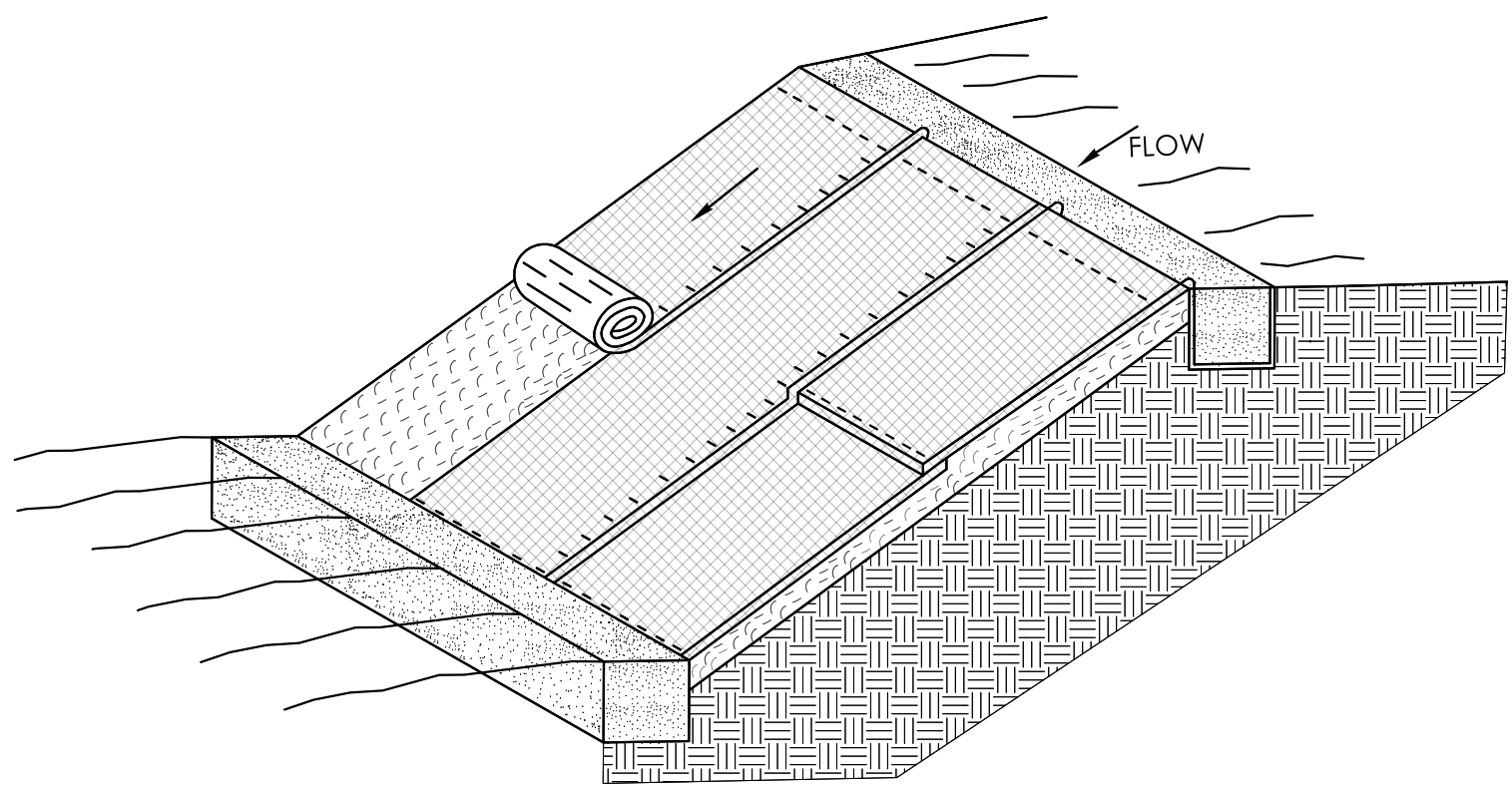
0118-0171

DRAWING NO.:

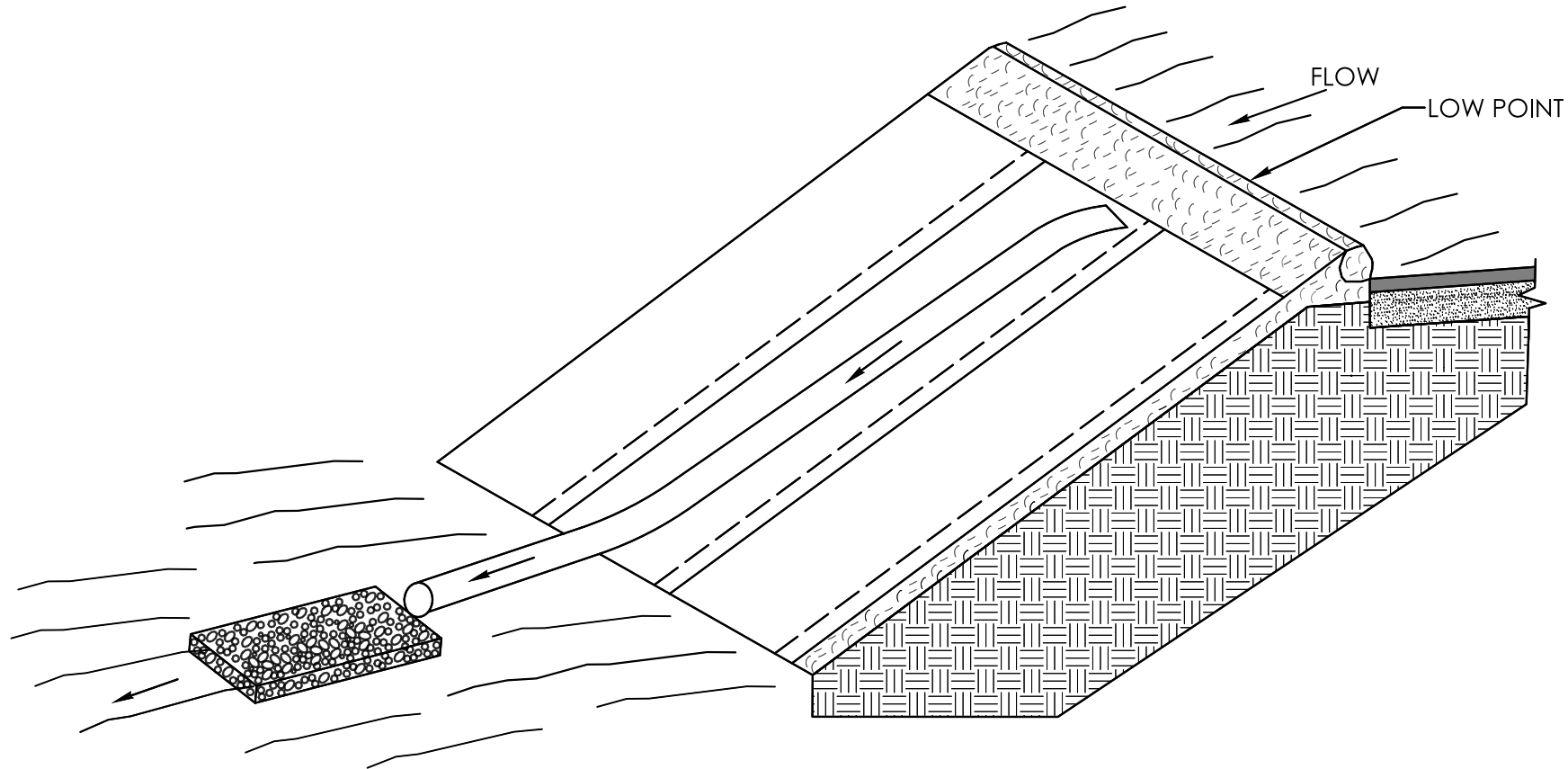
C-018

SHEET NO.:

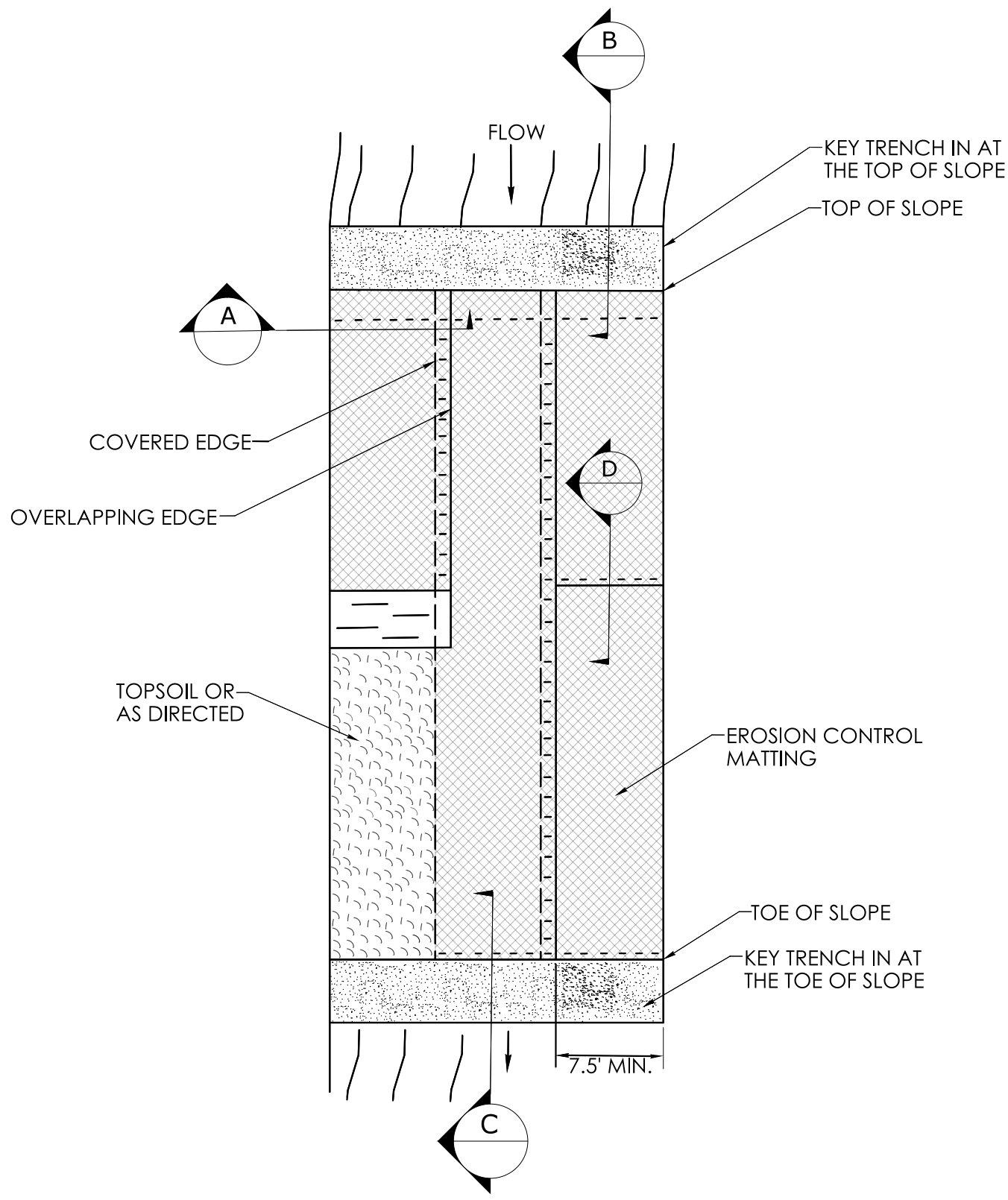
GENERAL NOTE:
1. USE THE MINIMUM DIMENSIONS SHOWN OR AS RECOMMENDED BY THE MANUFACTURER.



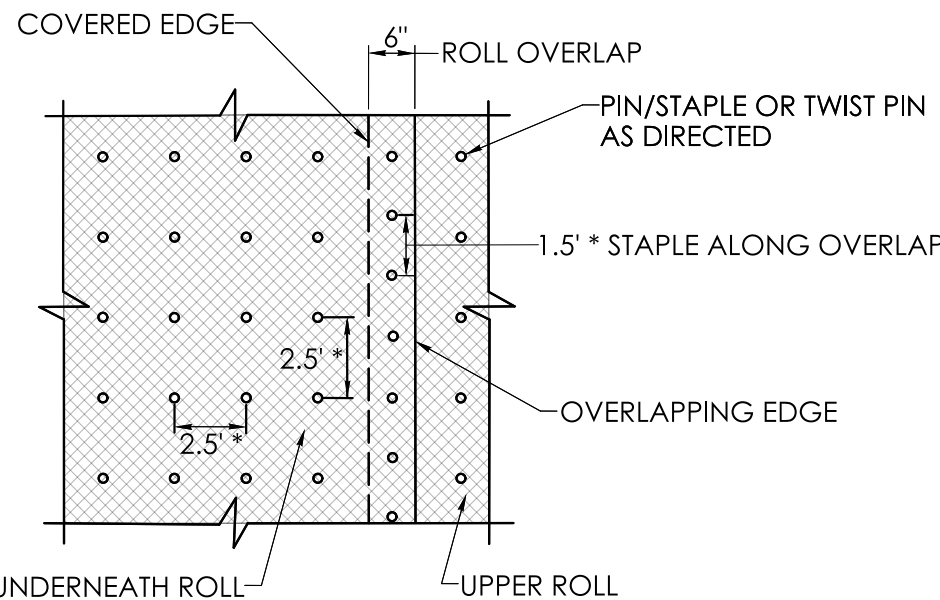
TYPICAL EROSION CONTROL MATTING
N.T.S.



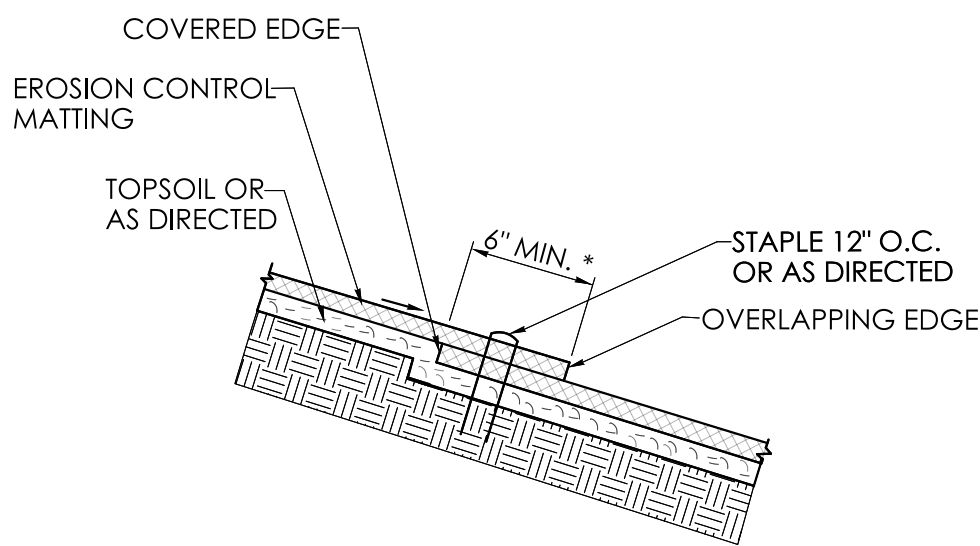
TEMPORARY SLOPE DRAIN
N.T.S.



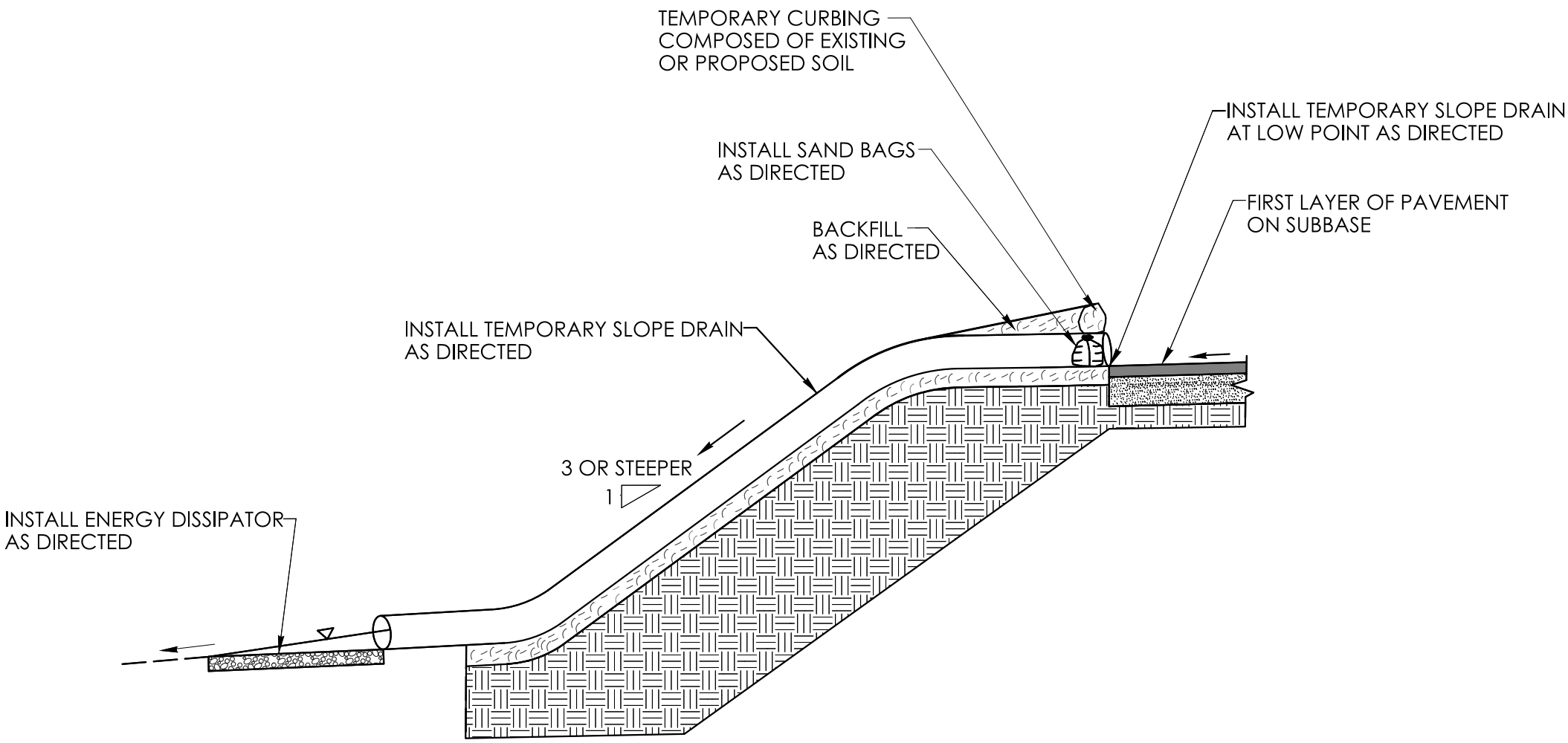
PLAN
N.T.S.



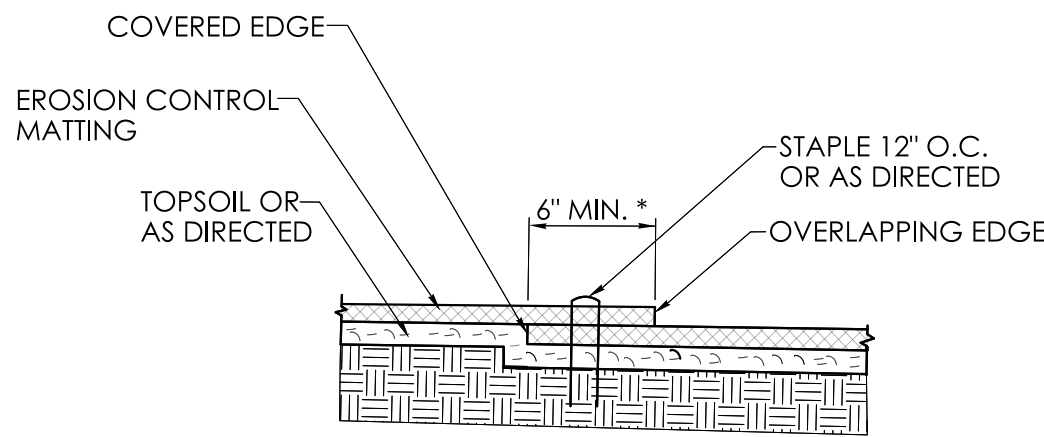
STAPLE PATTERN
* SEE NOTE 1
N.T.S.



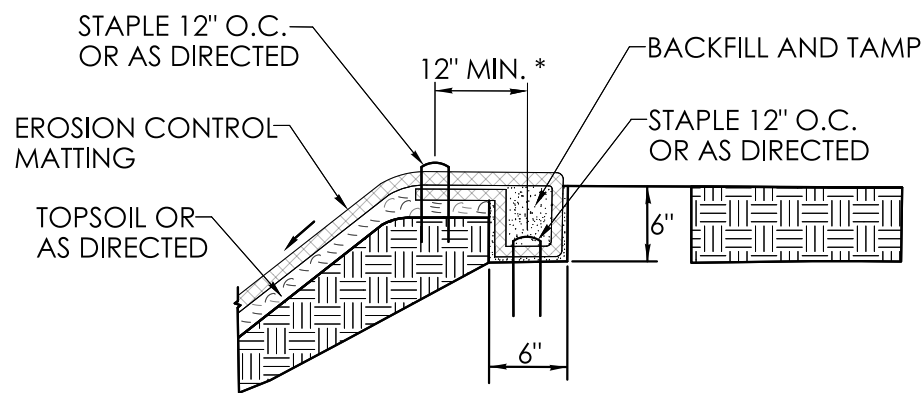
SECTION D
N.T.S.



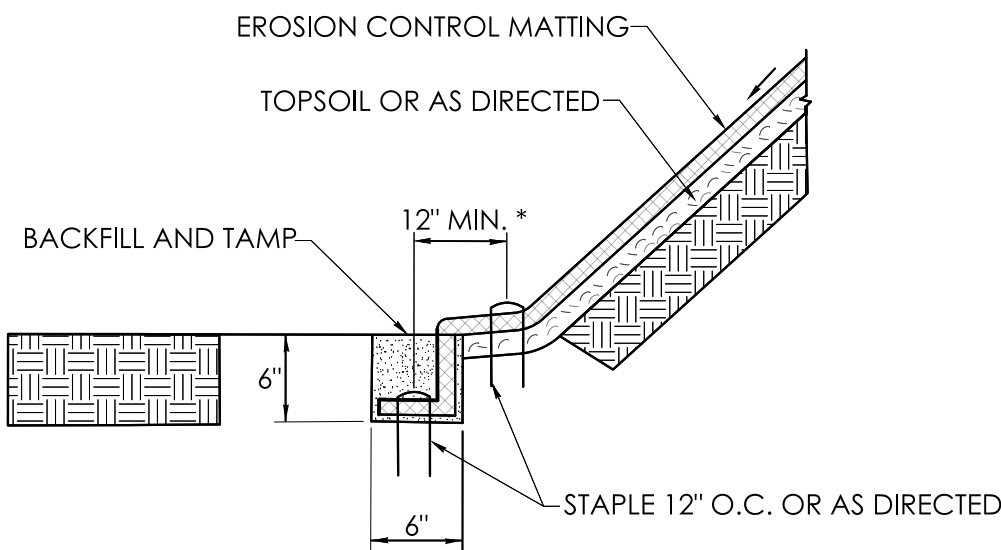
TEMPORARY SLOPE DRAIN SECTION
N.T.S.



SECTION A
N.T.S.



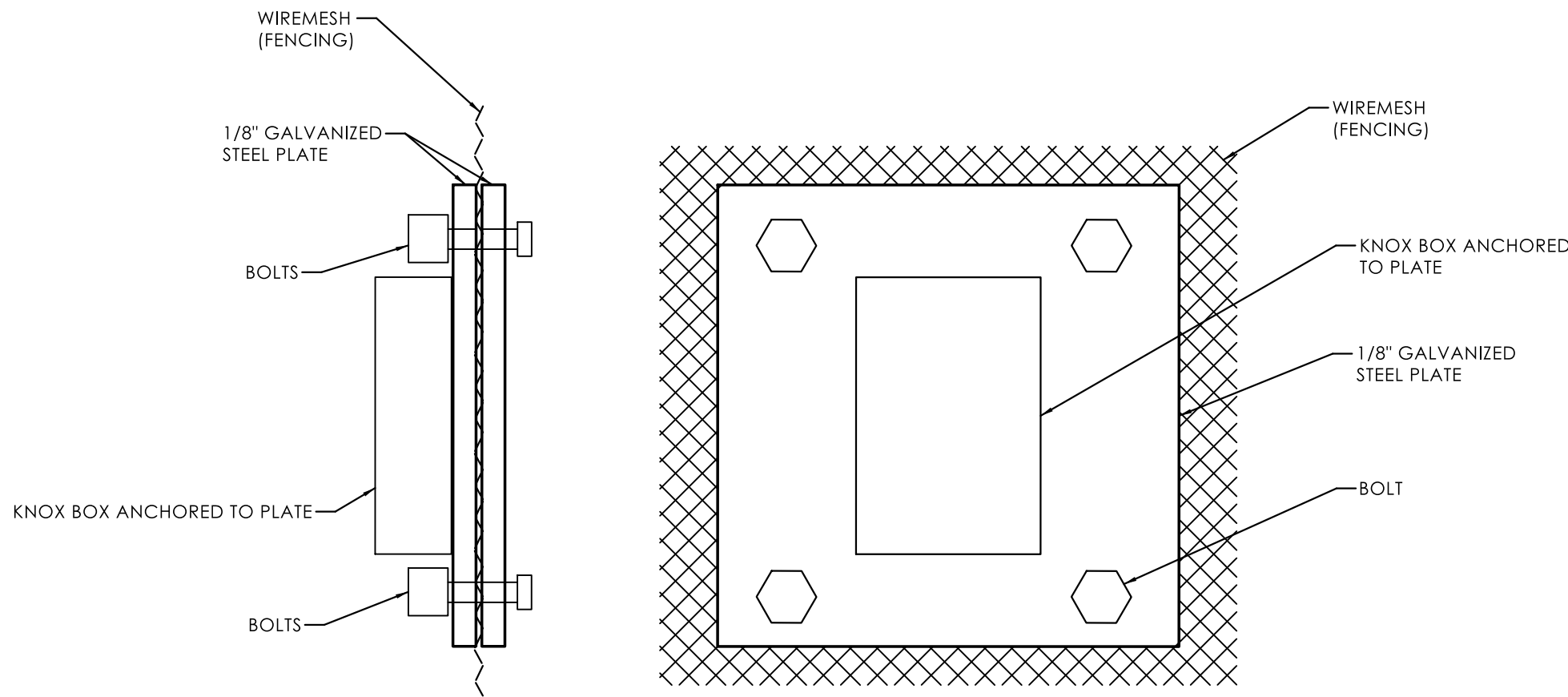
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KEY IN TRENCH AT TOP OF SLOPE
* SEE NOTE 1
N.T.S.



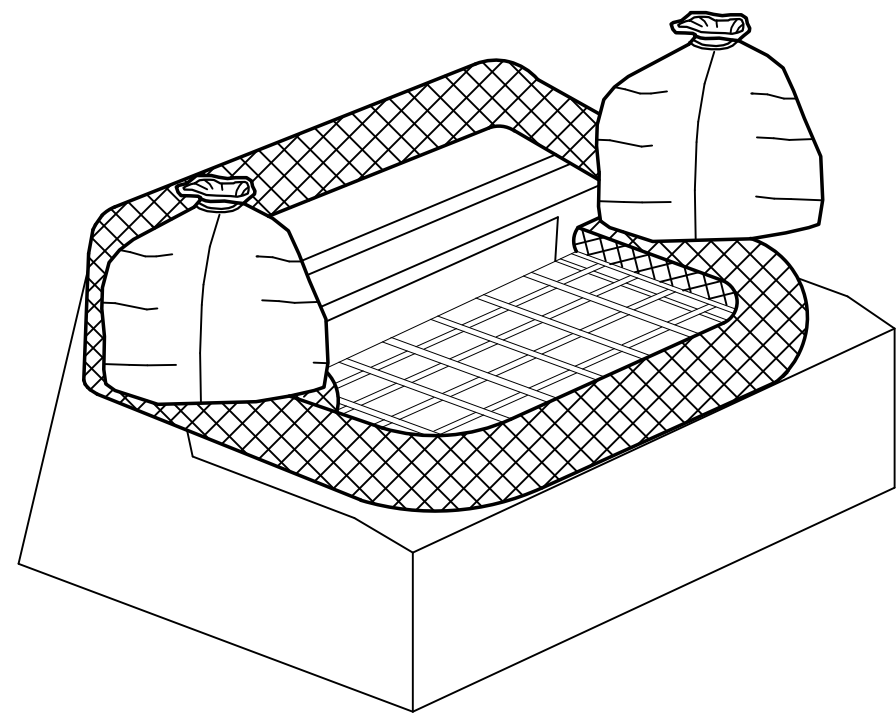
SECTION C
KEY TRENCH AT TOE OF SLOPE
N.T.S.

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:		 YN ENGINEERS INC. Traffic • Infrastructure • Planning 120 MANHATTAN AVENUE NORTH HAVEN, CT 06473 203 234-1962	 CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE:	TOWN(S):	DRAWING TITLE:	PROJECT NO.:	DRAWING NO.:
				CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS TESTING LAB	TOWN OF ROCKY HILL	MISCELLANEOUS DETAILS - 03	0118-0171	C-019 SHEET NO.:

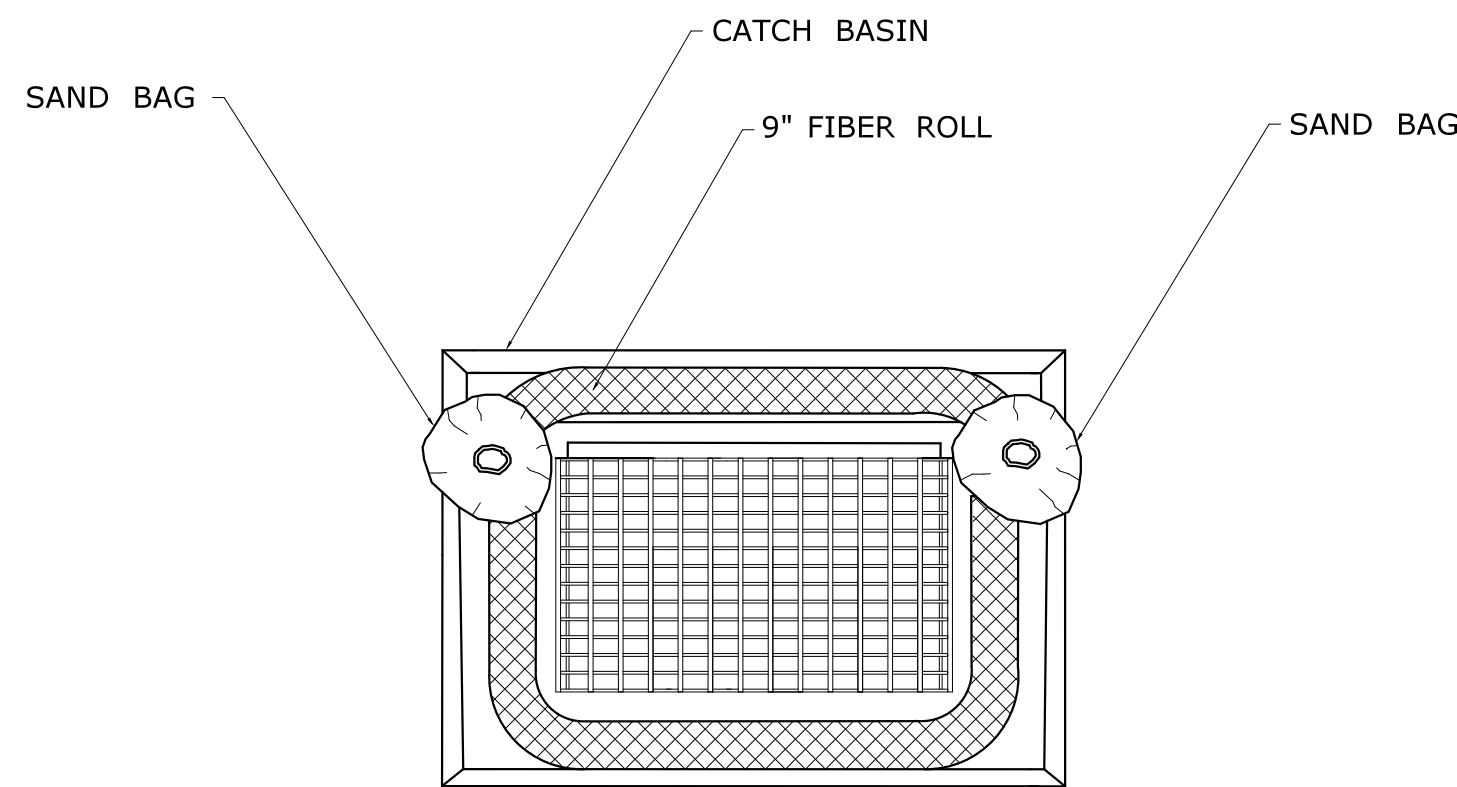


KNOX BOX INSTALLATION
N.T.S.

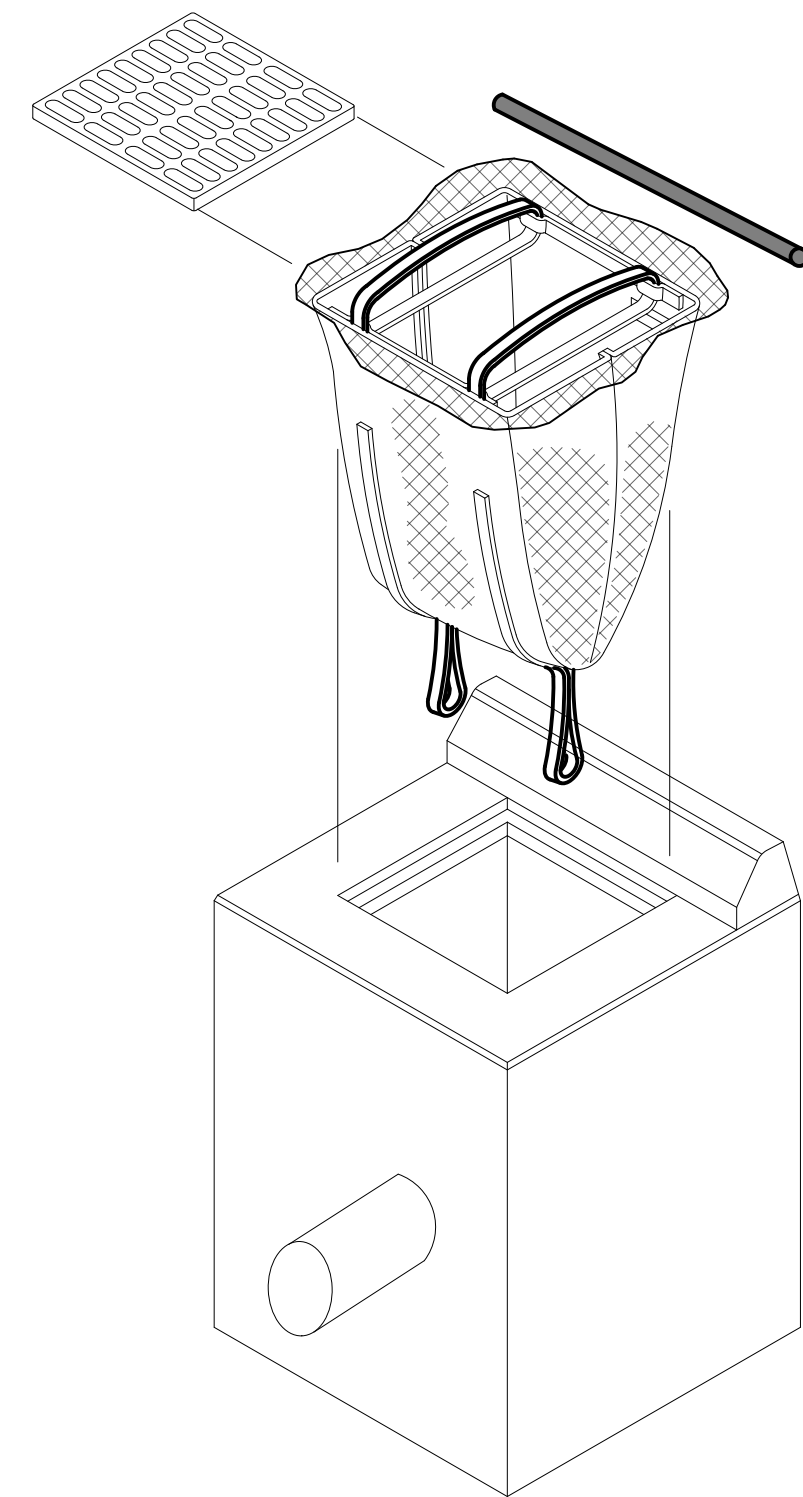


FIBER ROLL AROUND
TYPE "C" OR "C-L" CATCH BASIN TOP
N.T.S.

NOTE: THIS ITEM WILL BE MEASURED BY EACH SEDIMENT
CONTROL SYSTEM AT CATCH BASIN

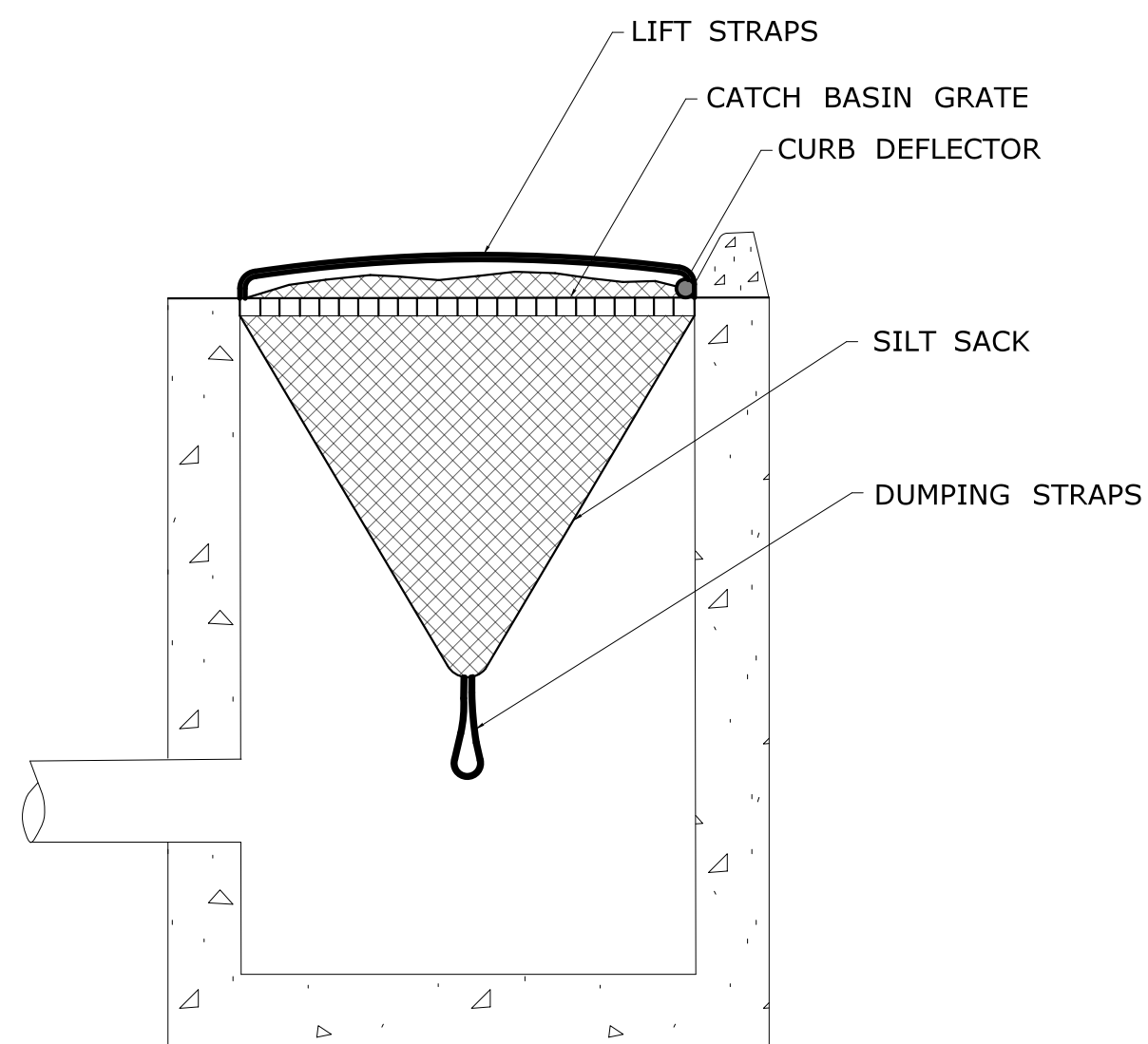


PLAN
N.T.S.



INLET SEDIMENT CONTROL DEVICE
AT TYPE "C" OR "C-L" CATCH BASIN
N.T.S.

NOTE: THIS ITEM WILL BE MEASURED BY EACH SEDIMENT
CONTROL SYSTEM AT CATCH BASIN



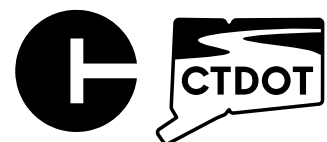
SECTION
N.T.S.

REV.	DATE	REVISION DESCRIPTION

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116 MANHATTAN AVENUE
NORTH HAVEN, CT 06473
(203) 234-1963



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:
**CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS
TESTING LAB**

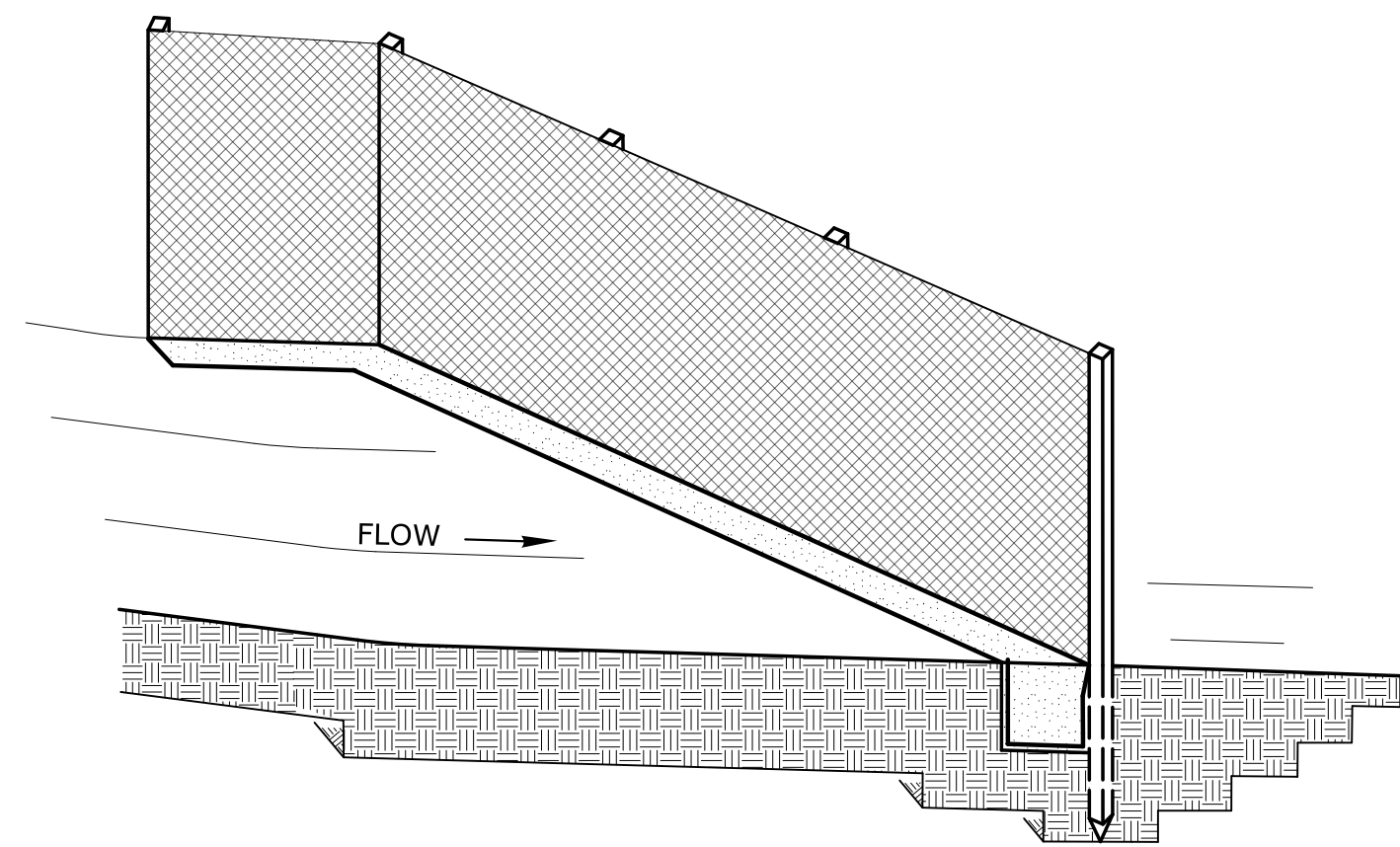
TOWN(S):
TOWN OF ROCKY HILL

DRAWING TITLE:
MISCELLANEOUS DETAILS - 04

PROJECT NO.:
0118-0171

DRAWING NO.:
C-020

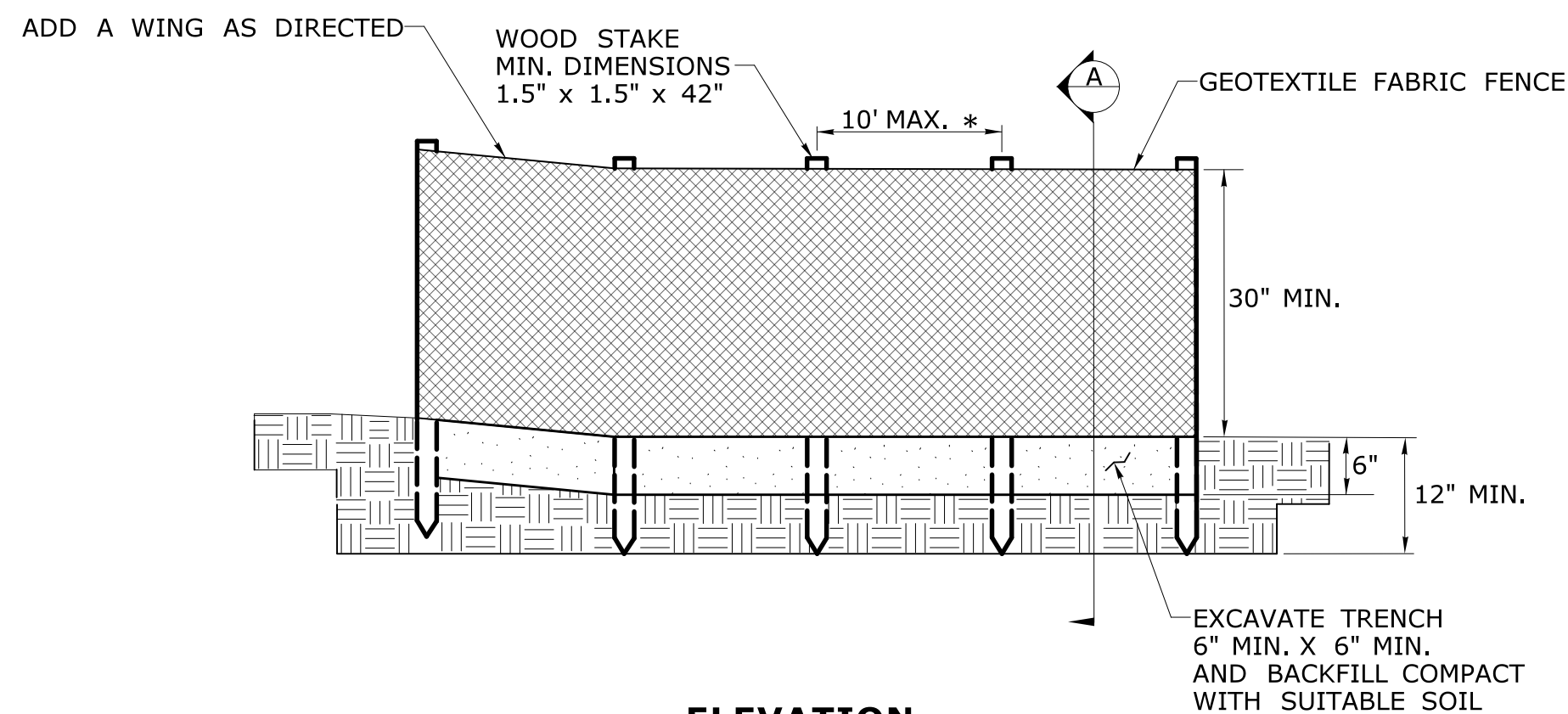
SHEET NO.:



SEDIMENTATION CONTROL SYSTEM

N.T.S.

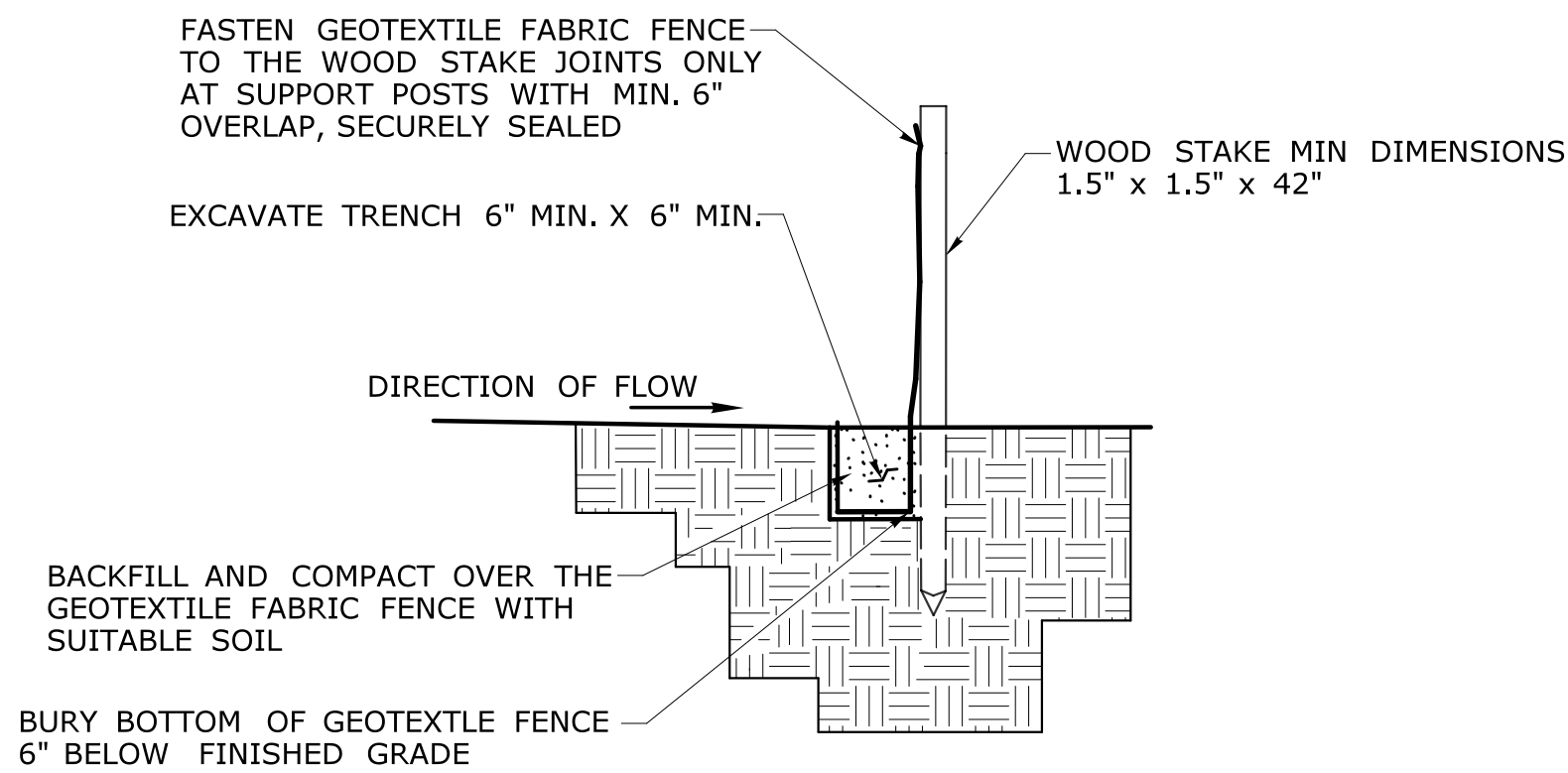
INSTALL THE WING WHEN THE FENCE IS MORE THAN 4' FROM THE TOE OF SLOPE AND THE FENCE LINE GRADIENT IS 5% OR MORE



ELEVATION

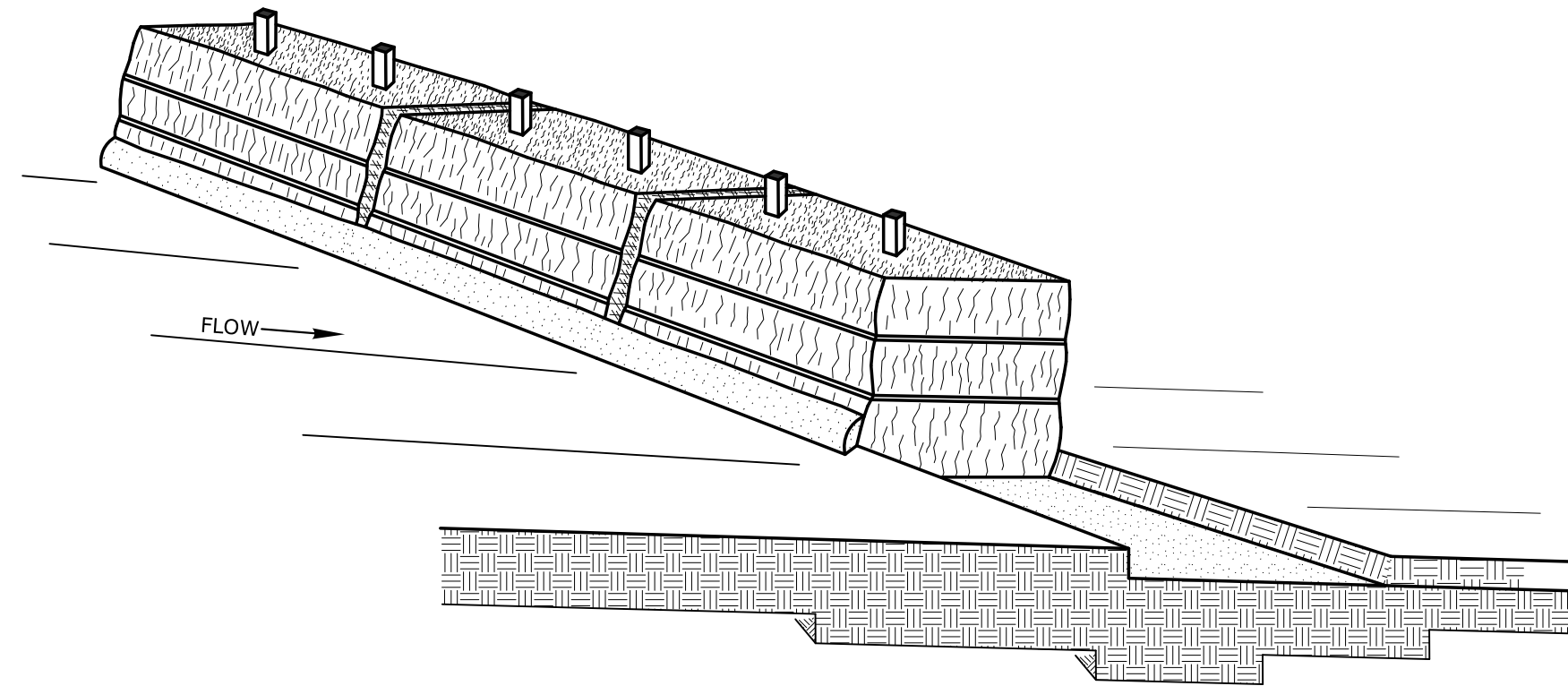
N.T.S.

* FOR SLOPES STEEPER THAN 2:1 USE A 5' POST SPACING OR AS DIRECTED BY THE ENGINEER



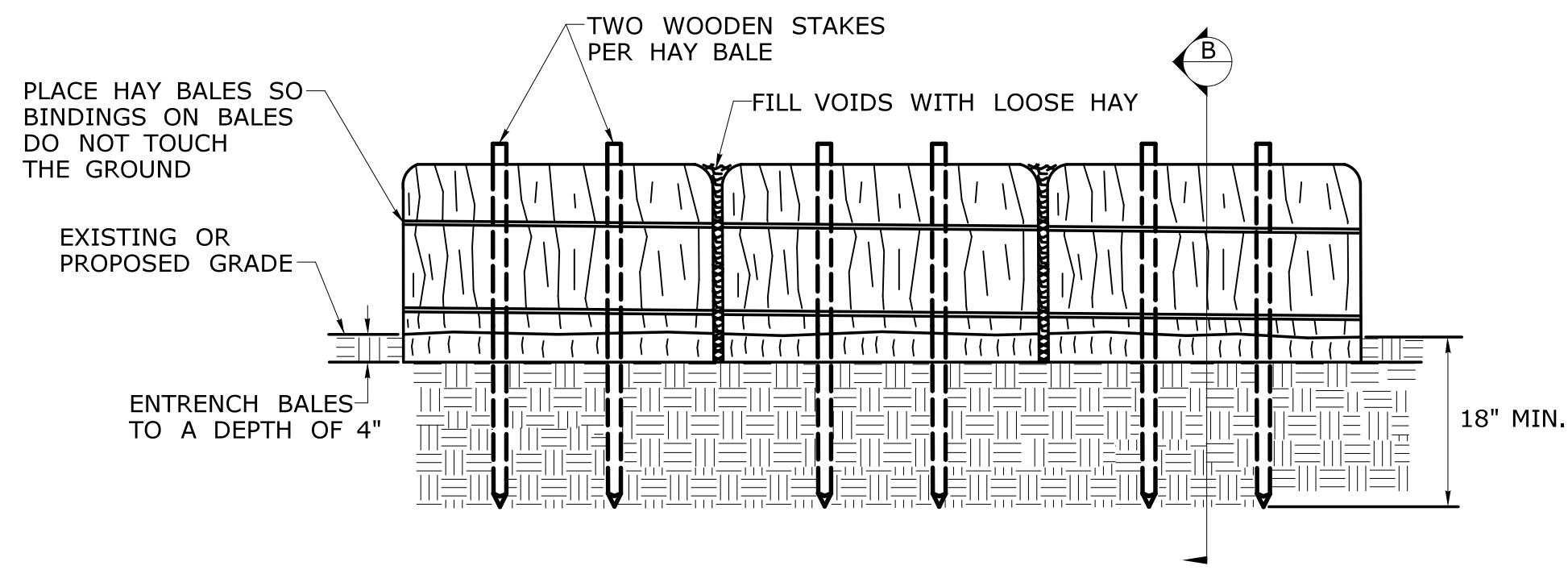
SECTION A

N.T.S.



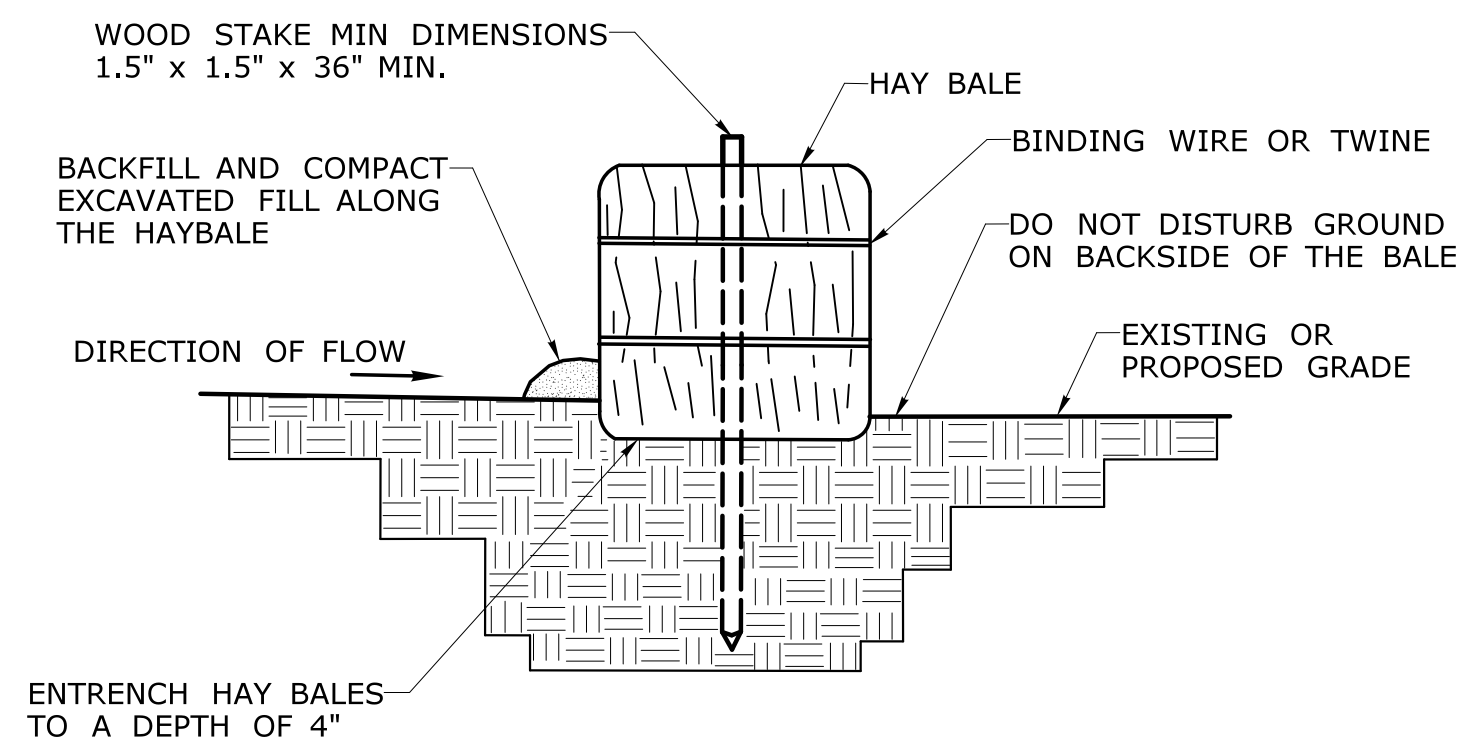
SEDIMENTATION CONTROL SYSTEM

N.T.S.



ELEVATION

N.T.S.



SECTION B

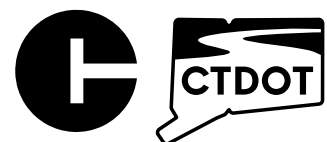
N.T.S.

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Traffic • Infrastructure • Planning
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NORTH HAVEN, CT 06473
203.234.1963



CONNECTICUT
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TRANSPORTATION

PROJECT TITLE:

CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS
TESTING LAB

TOWN(S):

TOWN OF ROCKY HILL

DRAWING TITLE:

MISCELLANEOUS DETAILS - 05

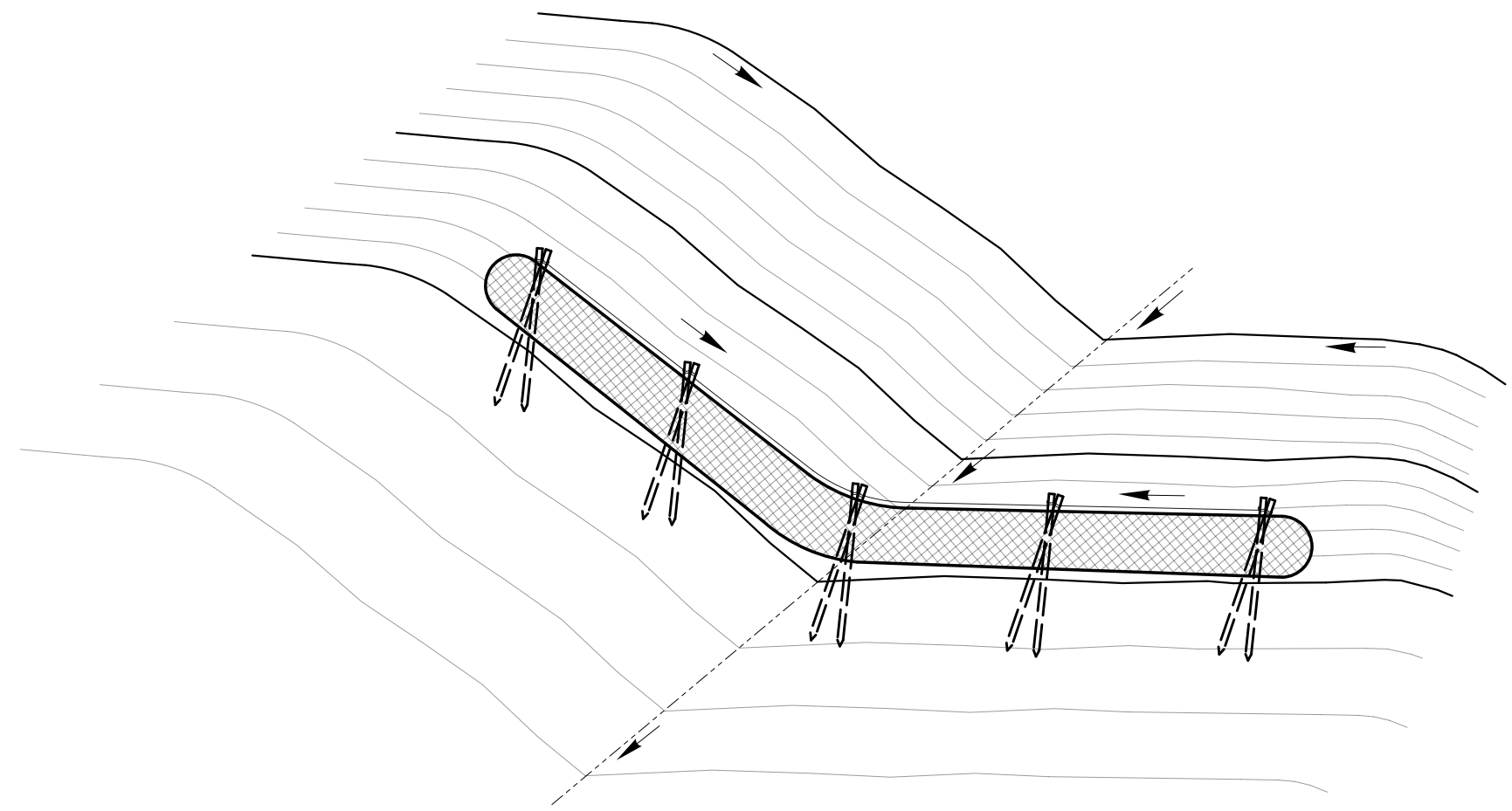
PROJECT NO.:

0118-0171

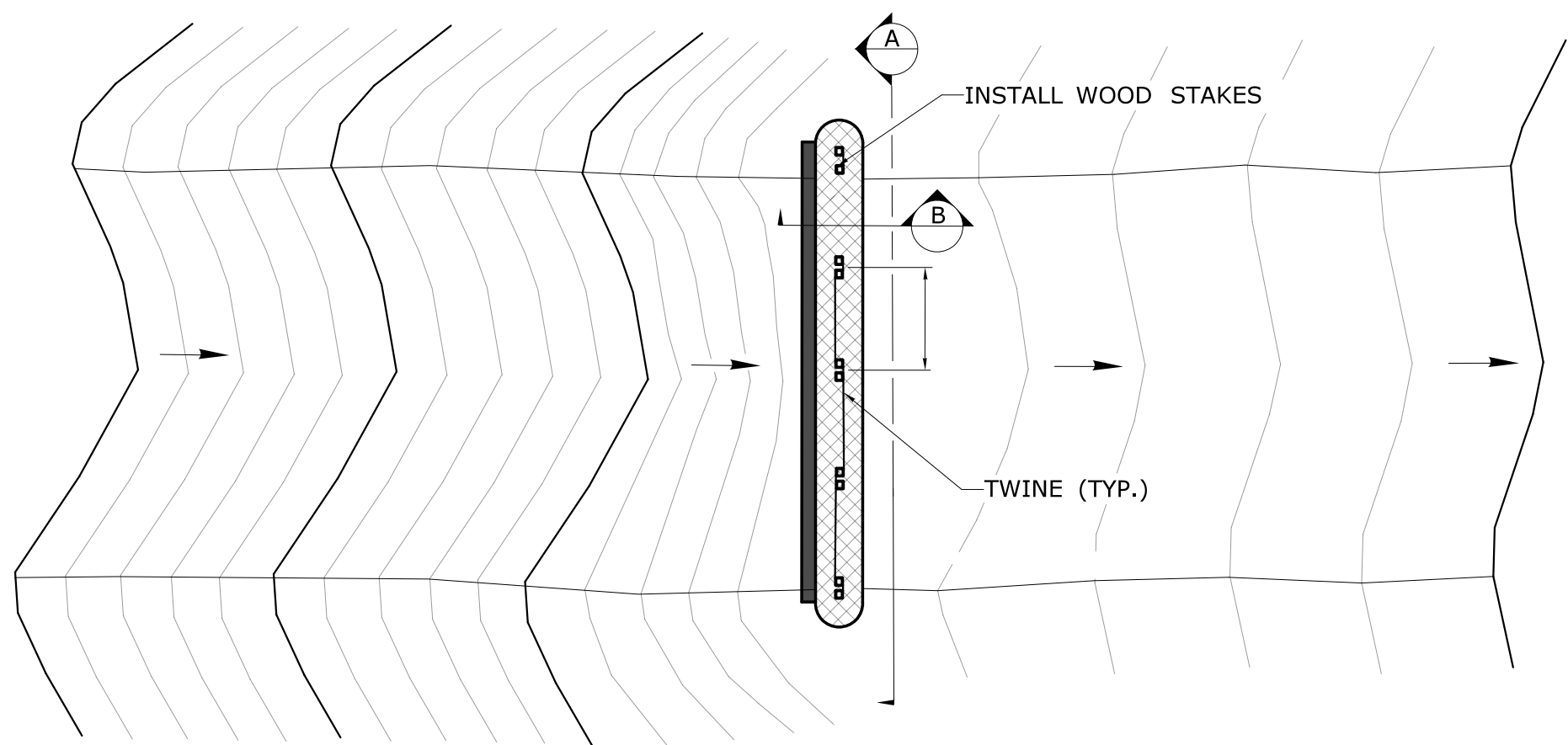
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C-021

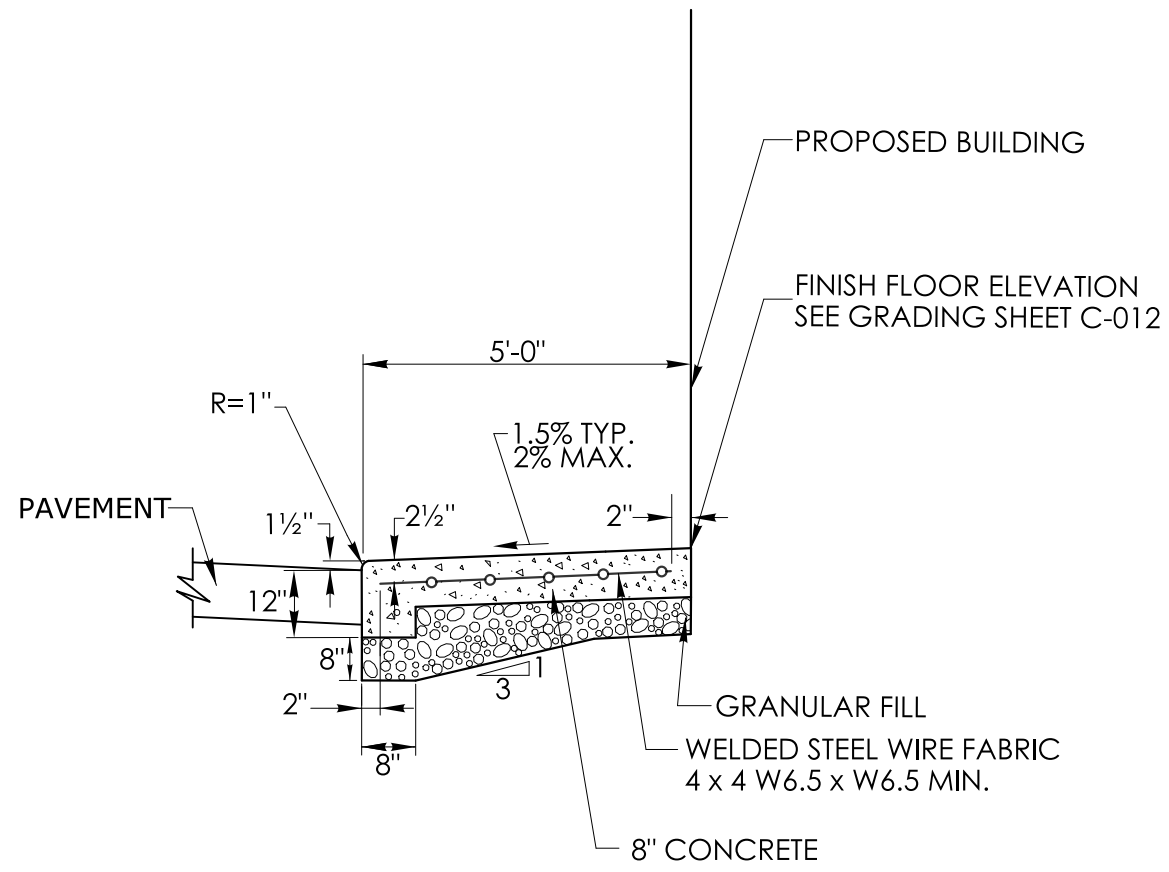
SHEET NO.:



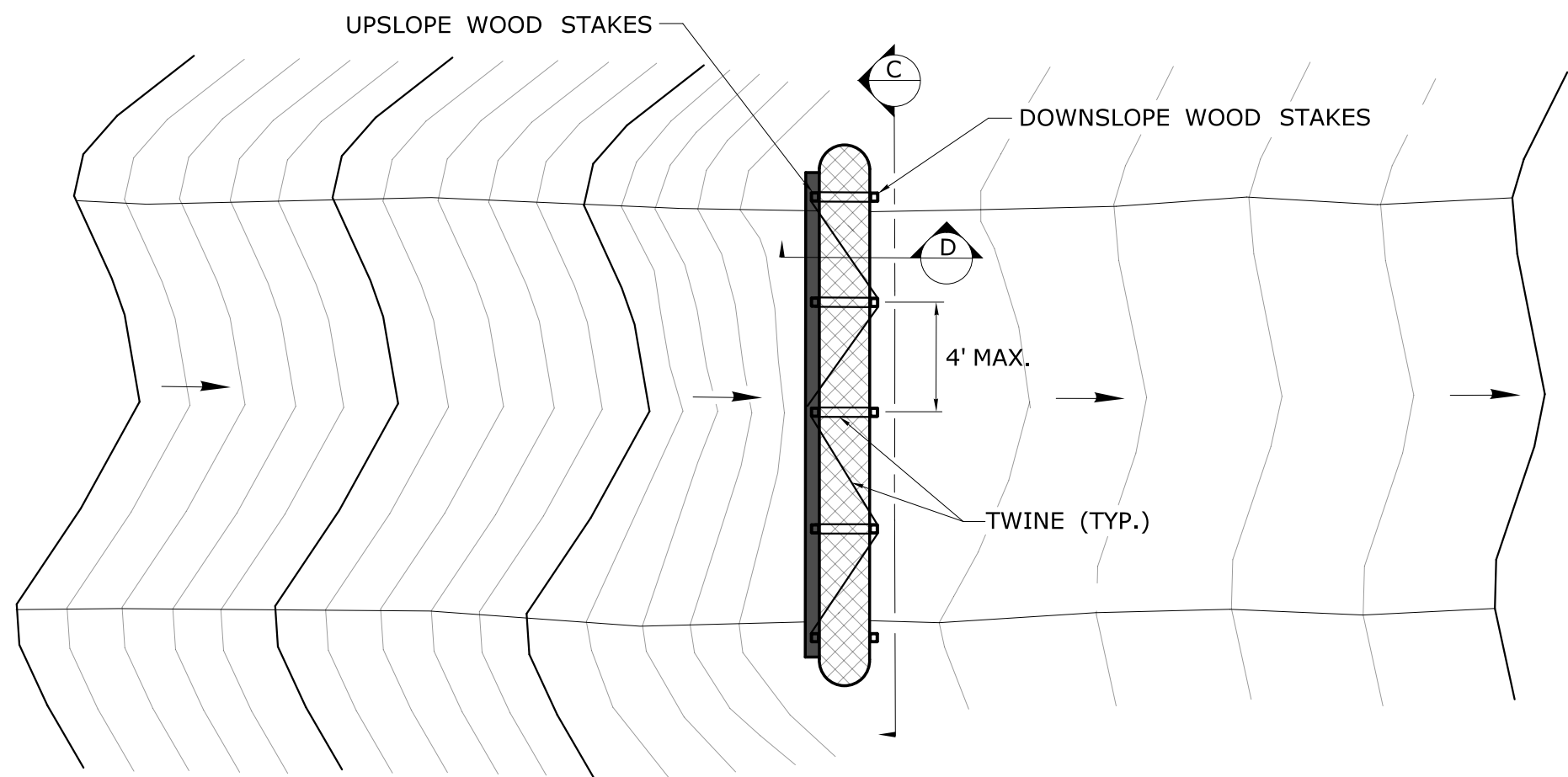
FIBER ROLL IN A CHANNEL
N.T.S.



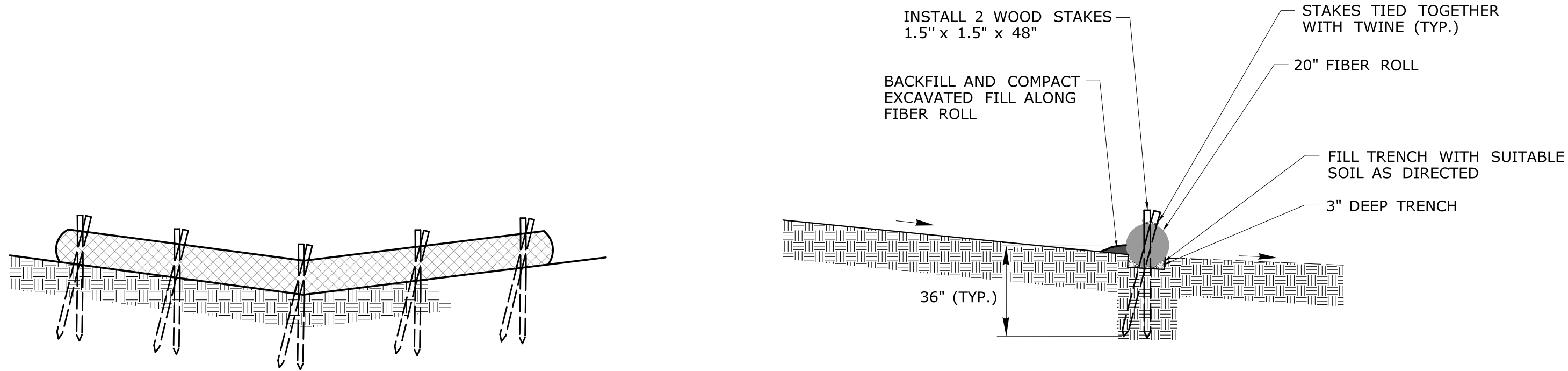
PLAN
N.T.S.
FIBER ROLL IN A CHANNEL



CONCRETE APRON DETAIL
N.T.S.

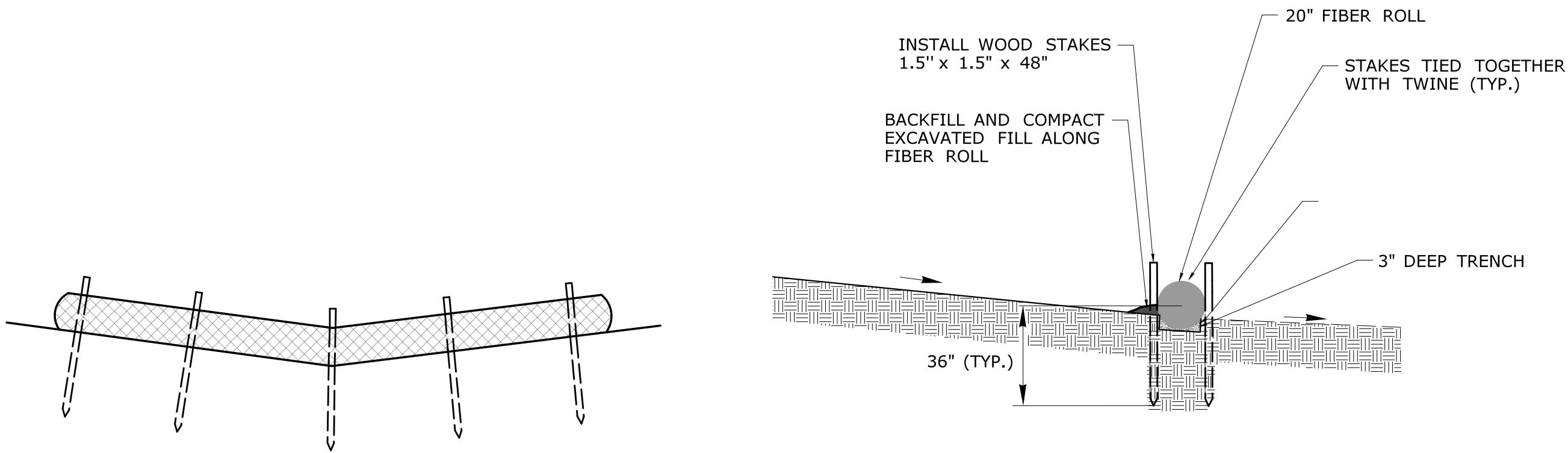


PLAN
N.T.S.
ALTERNATIVE WOOD STAKING PLAN
FOR FIBER ROLL IN A CHANNEL



SECTION A
N.T.S.

SECTION B
N.T.S.

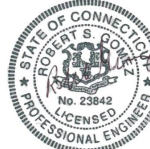


SECTION C
N.T.S.

SECTION D
N.T.S.

REV.	DATE	REVISION DESCRIPTION

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Traffic • Infrastructure • Planning
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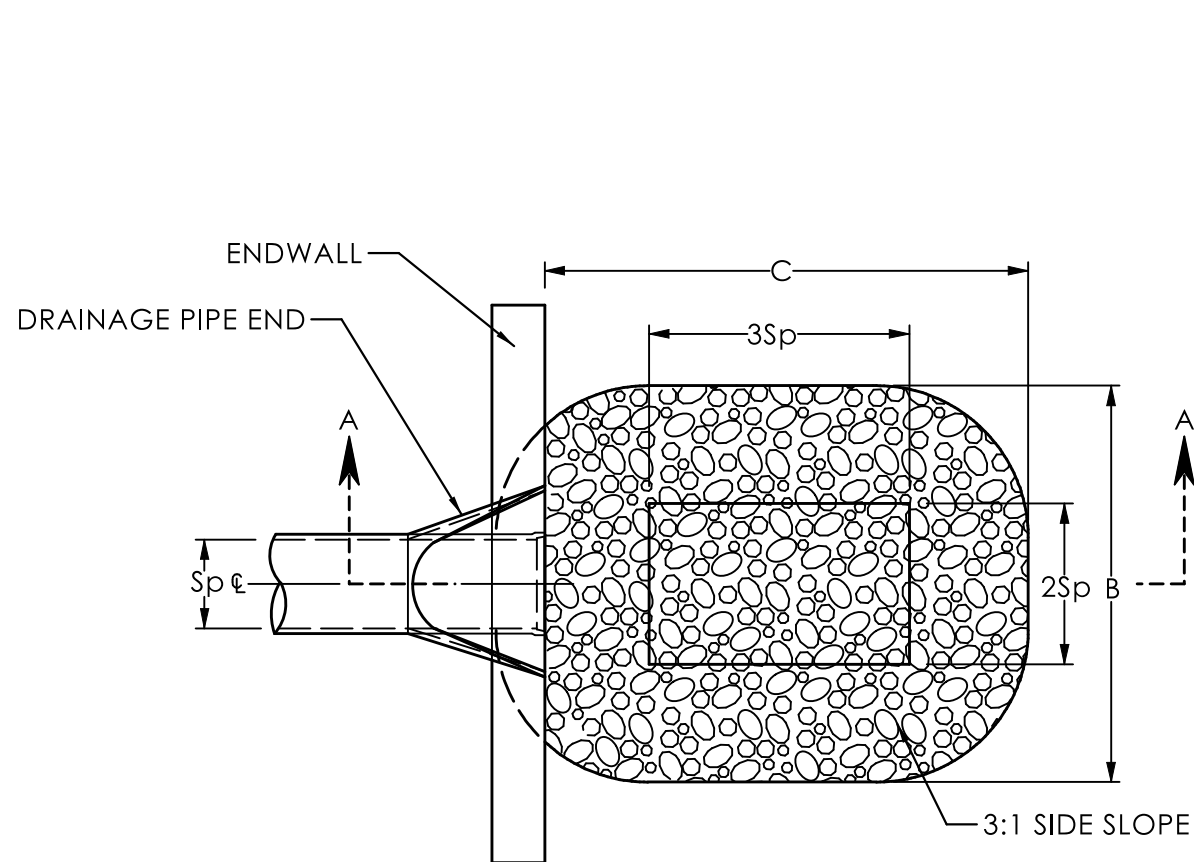
PROJECT TITLE:
**CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS
TESTING LAB**

TOWN(S):
TOWN OF ROCKY HILL

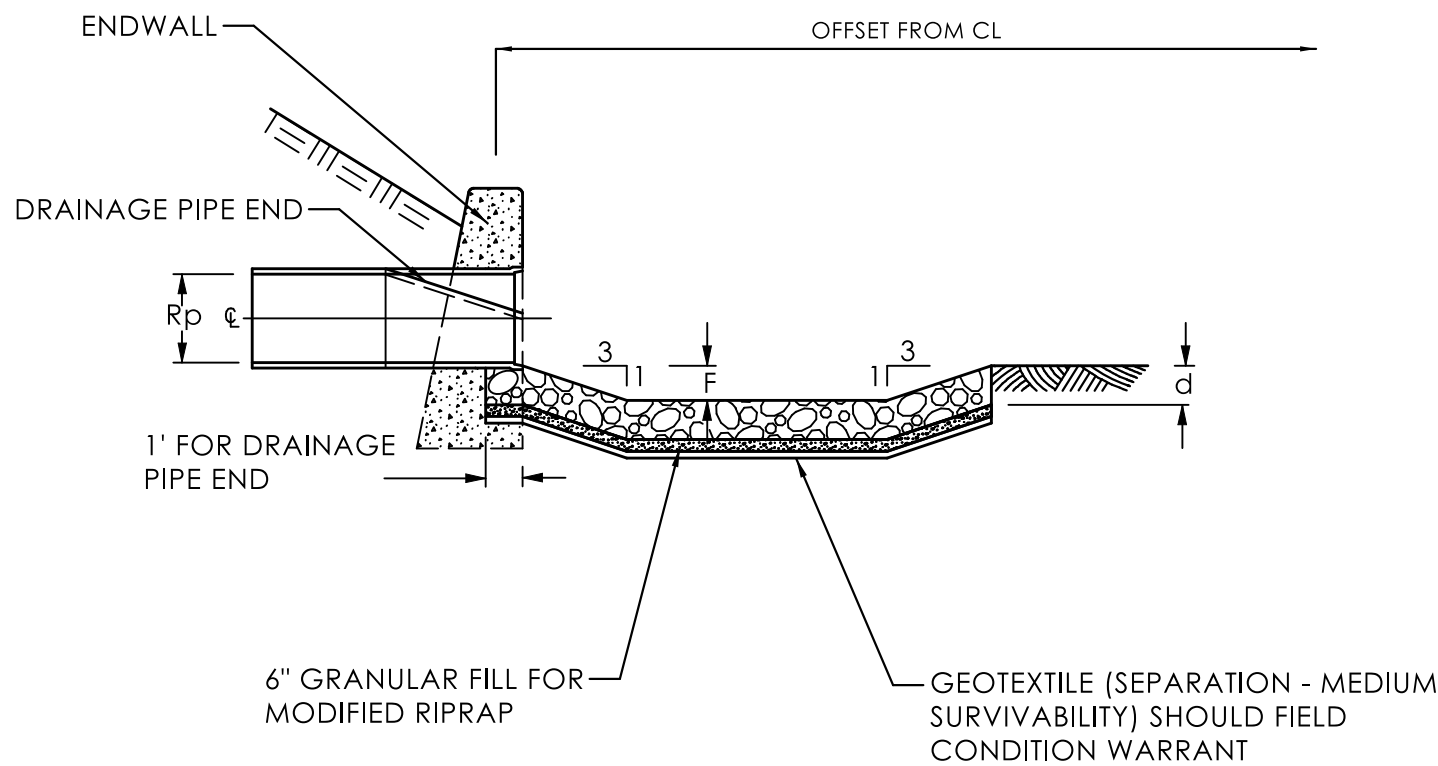
DRAWING TITLE:
MISCELLANEOUS DETAILS - 06

PROJECT NO.:
0118-0171

DRAWING NO.:
C-022
SHEET NO.:



PLAN VIEW



SECTION A-A

LEGEND

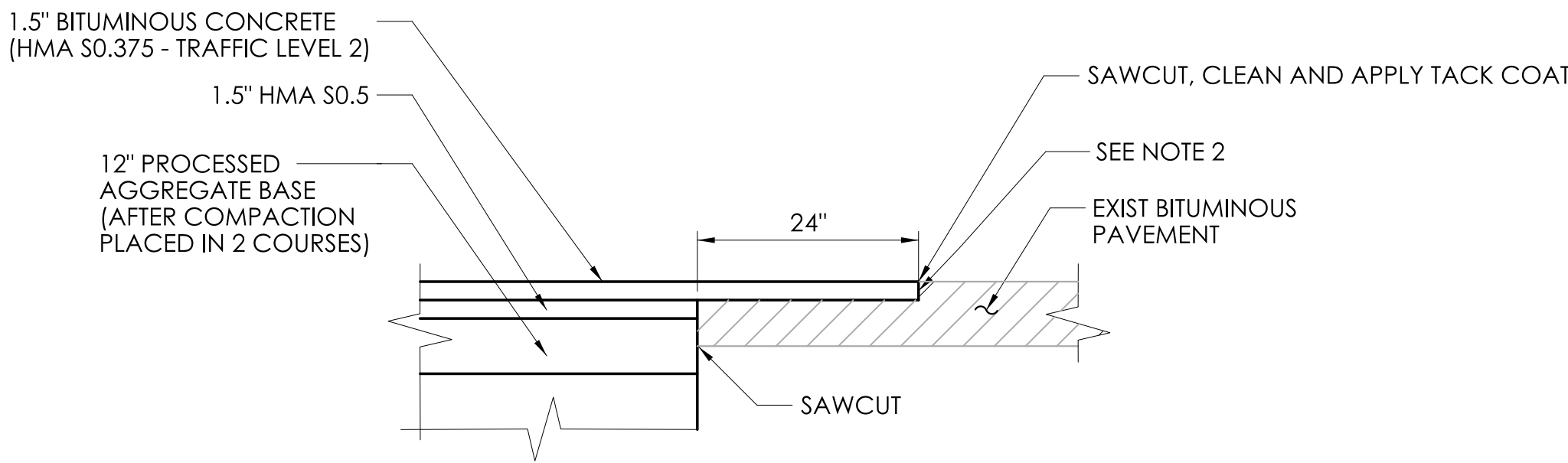
Sp = Rp = INSIDE PIPE DIAMETER
d = 12" MODIFIED RIPRAP
TYPE 1 F = 0.5 Rp
C = 3Sp + 6F
B = 2Sp + 6F

PREFORMED SCOUR HOLE TYPE 1 & TYPE 2

TYPE 1 & TYPE 2 SCOUR HOLES

NOT TO SCALE
MINIMUM DIMENSIONS PROVIDED IN TABLES

TYPE 1 & TYPE 2 SCOUR HOLES						
LOCATION	RIPRAP TYPE	2SP	3SP	B	C	F
INFILTRATION / DETENTION BASIN INLET	MODIFIED	3.00'	4.50'	12.00'	14.00'	1.50'
INFILTRATION / DETENTION BASIN OUTLET	MODIFIED	3.00'	4.50'	8.00'	9.00'	0.80'
6" PERIMETER DRAIN	MODIFIED	1.00'	1.50'	4.00'	5.00'	0.50'
10" PVC ROOF DRAIN	MODIFIED	1.67'	2.50'	4.00'	5.00'	0.40'

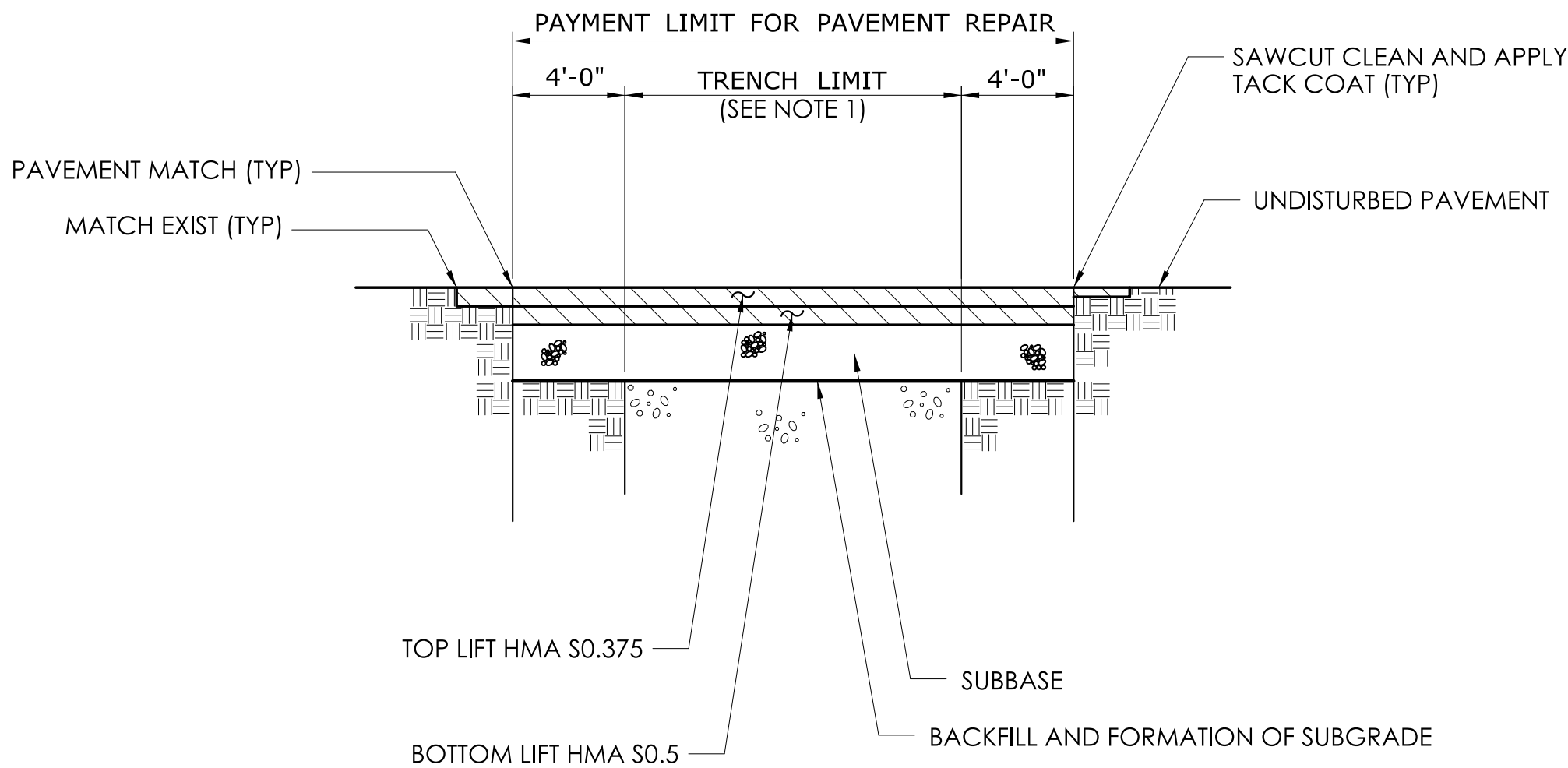


PAVEMENT MATCH NOTES:

- THIS DETAIL IS TO BE USED AT ALL PAVEMENT TIE-INS WHERE "MATCH EXIST" IS CALLED FOR ON THE PLANS.
- OVERLAP HMA S0.5 OVER MILLED EXIST PAVEMENT.
- PAVEMENT MATCH TREATMENT WILL BE INCIDENTAL TO THE WORK.

PAVEMENT MATCH

N.T.S.

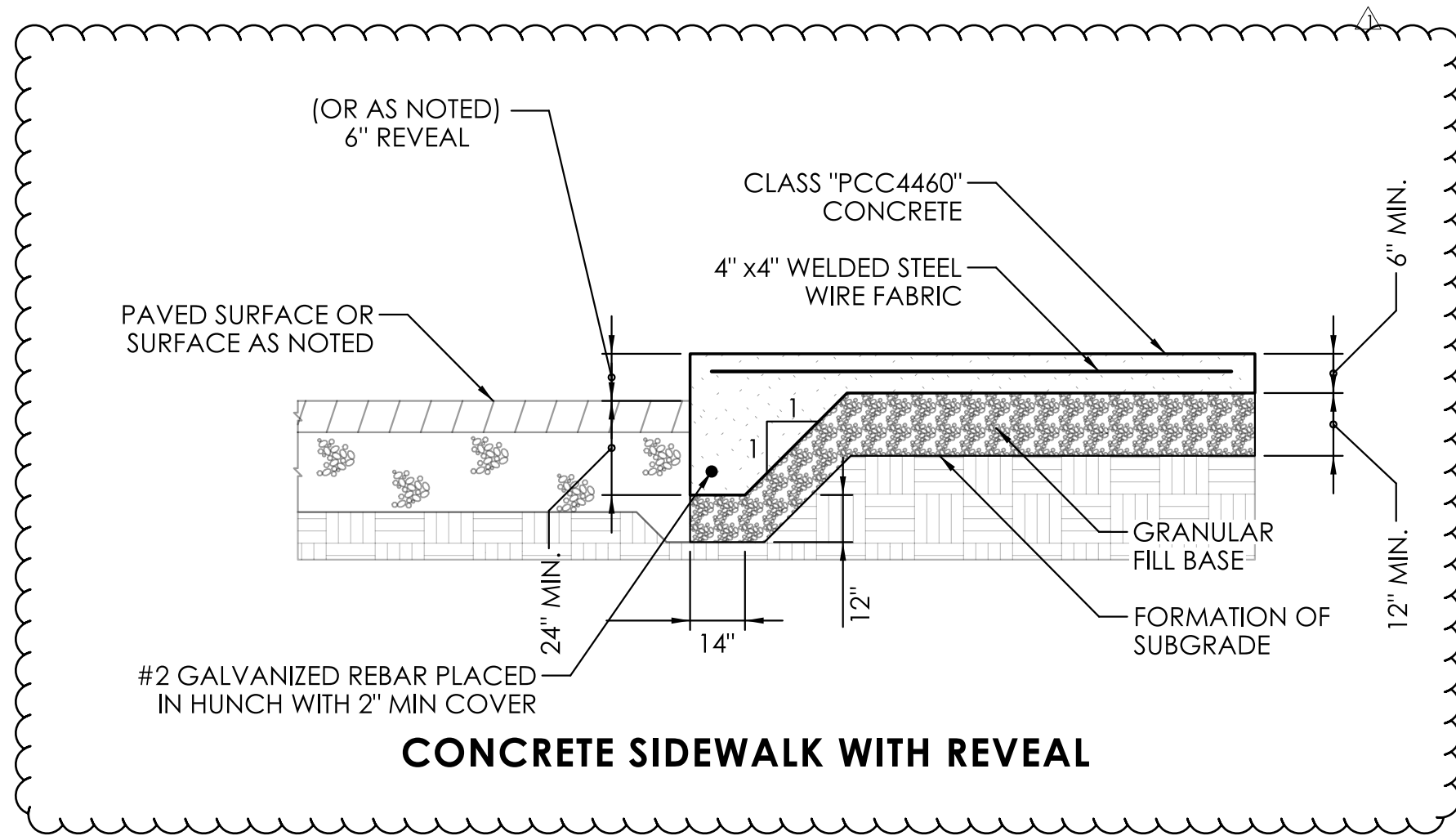


PAVEMENT REPAIR NOTES:

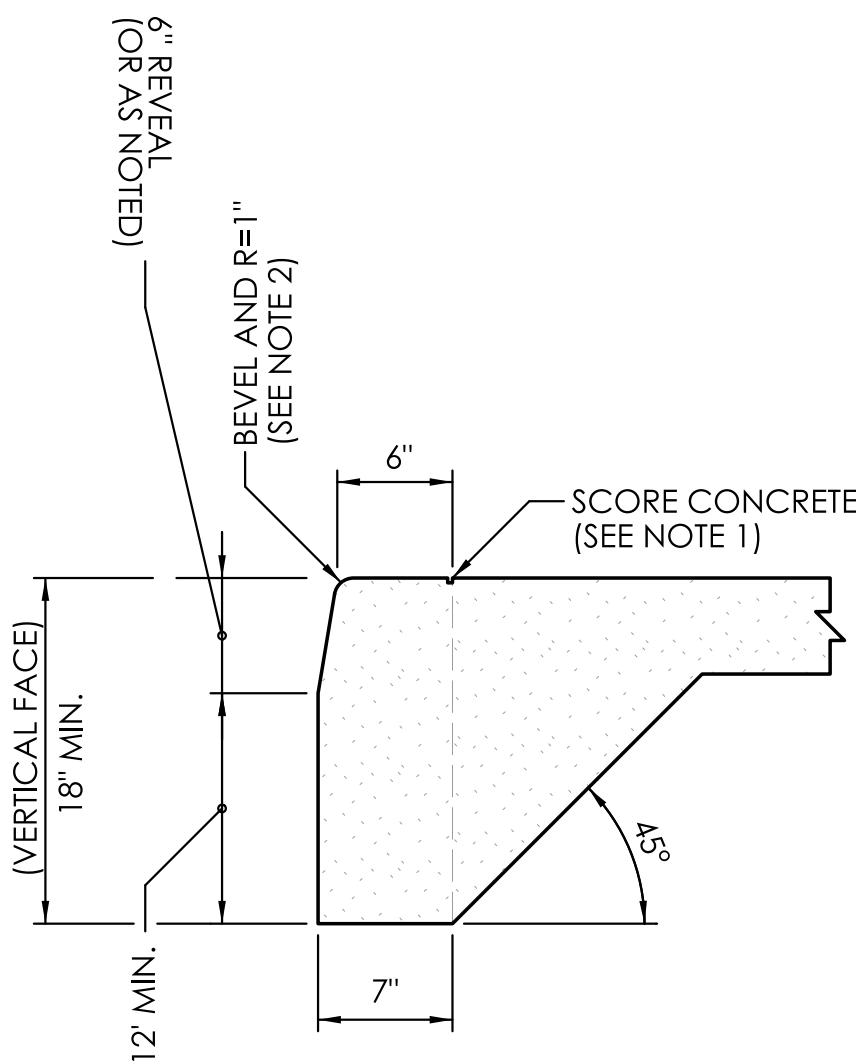
- THE LIMIT OF THE TRENCH SHALL BE AS SHOWN IN TRENCH EXCAVATION DETAILS FOR EACH RESPECTIVE UTILITY OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL SAWCUT ALL EXISTING PAVEMENT AT THE LIMITS OF PAVEMENT REPAIR UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- SAWCUTTING, REMOVAL OF EXISTING PAVEMENT FROM TRENCH LIMITS TO LIMITS OF PAVEMENT REPAIR, HMA S0.375 ITEM 0406172 AND HMA S0.5 ITEM 0406171, PROCESSED AGGREGATE AND SUBBASE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR EACH RESPECTIVE ITEM. THE CLEANING AND APPLICATION OF TACK COAT TO THE EXISTING PAVEMENT SURFACES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND NOT MEASURED FOR PAYMENT.
- PAVEMENT MATCH DETAIL SHALL BE USED WHERE PAVEMENT REPAIR MATCHES EXISTING PAVEMENT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- WHERE DIRECTED BY THE ENGINEER, MATCH THE THICKNESS OF ADJACENT ROADWAY PMA, PROCESSED AGGREGATE, AND SUBBASE LAYERS, TO BE PAID FOR AT THE RESPECTIVE UNIT COSTS. IN UTILITY TRENCHES WHERE ADEQUATE DEPTH IS NOT AVAILABLE TO CONSTRUCT PAVEMENT REPAIR SECTION AS SHOWN, REDUCE SUBBASE AS NECESSARY.

PAVEMENT REPAIR

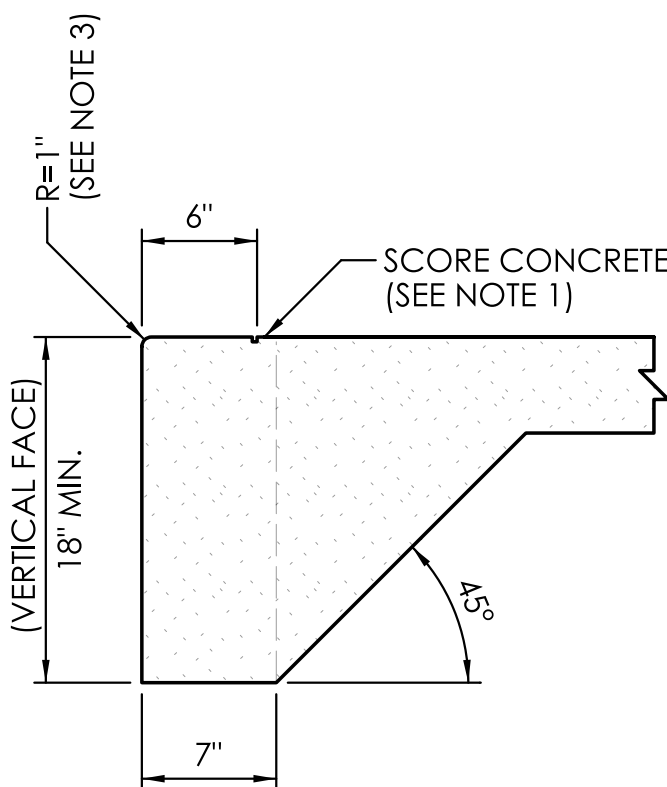
N.T.S.



CONCRETE SIDEWALK WITH REVEAL



BEVELED CORNER
(INTEGRAL CURB WITH REVEAL)



SQUARE CORNER
(FLUSH INTERGRAL CURB)

CONCRETE SIDEWALK NOTES:

- ADD SCORE MARK 6" FROM EDGE ONLY WHEN "INTERGAL CURB" IS SPECIFIED ON PLANS;
- USE BEVELED CORNER DETAIL ONLY WHEN "INTERGAL CURB" AND REVEAL HEIGHT IS SPECIFIED ON THE PLANS;
- USE SQUARE CORNER DETAIL FOR FLUSH SIDEWALK; USE 1" RADIUS WHEN SIDEWALK IS ADJACENT TO BALLAST OR UNPAVED SURFACE TO PROTECT TIRES; USE ½" RADIUS WHEN ADJACENT PAVED SURFACE IS LEVEL WITH TOP OF SIDEWALK;
- FOR SIDEWALKS AT BUILDING EXTERIOR SHOP DOORWAYS, USE SQUARE CORNER ALONG THE REVEAL; USE SINGLE SIDEWALK SEGMENT AND OMIT SCORE MARKS;

CONCRETE SIDEWALK

N.T.S.

REV	DATE	REVISION DESCRIPTION
1	03/07/25	Addendum 4

SIGNATURE BLOCK:

 VN ENGINEERS INC.
Traffic • Infrastructure • Planning
100 BROADVIEW AVENUE
PO BOX 1000
ROCKY HILL, CT 06473
(860) 224-1361



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:

CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS
TESTING LAB

TOWN(S):

TOWN OF ROCKY HILL

DRAWING TITLE:

MISCELLANEOUS DETAILS - 08

PROJECT NO.:

0118-0171

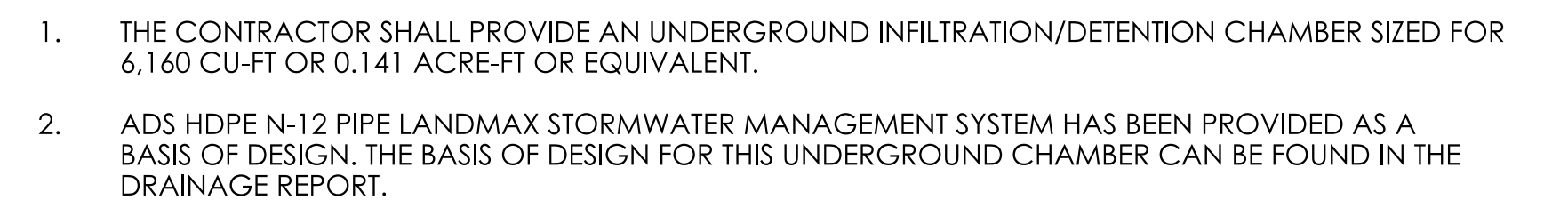
DRAWING NO.:

C-024

SHEET NO.:



1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR FULL DEPTH OF STRUCTURE.
3. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. MANHOLE FRAME AND COVER (4" DEPTH) SHALL BE SET IN FULL MORTAR BED.



PAGE NO.:



Use 3/4" Standard Meter with 3/4" Bore for 3-Inch and 4-Inch Meters within Pits

PAGE 87

Latest Revision: JANUARY 2017

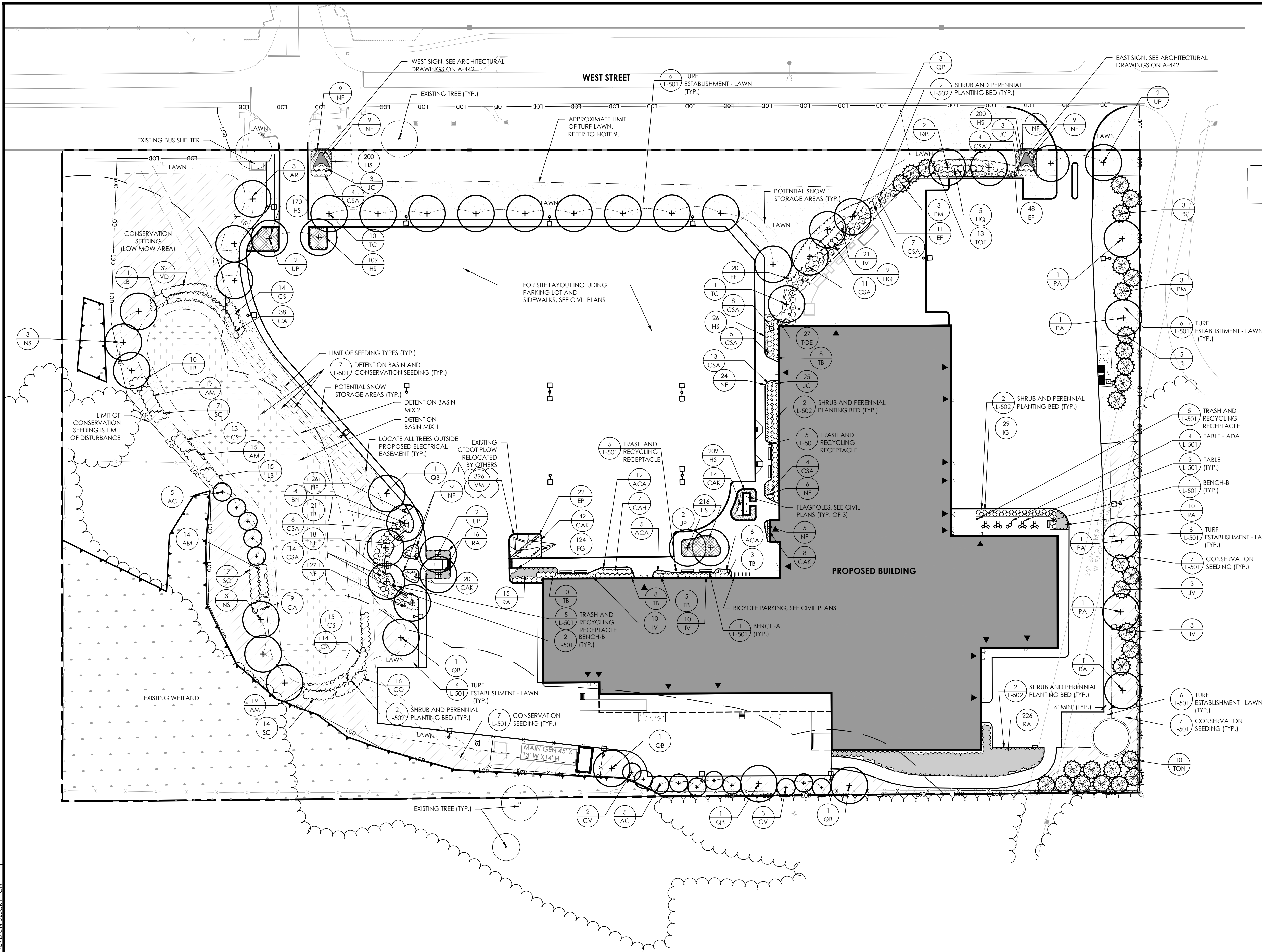
NOTES:

1. SPACER FURNISHED BY THE OWNER. SPACER SIZE FOR 3" METER SHALL BE 18". SPACER FOR 4" METER SHALL BE 20".
2. GATE VALVES SHALL HAVE NON-RISING STEMS.
3. BYPASS IS ONLY ALLOWED UNDER CERTAIN CIRCUMSTANCES. CONTACT OWNER TO DETERMINE IF A BYPASS IS NECESSARY. BYPASS SHOULD BE SAME SIZE AS METER.

**STANDARD METER INSTALLATION WITH BYPASS
FOR 3-INCH AND 4-INCH METERS WITHIN PIT**

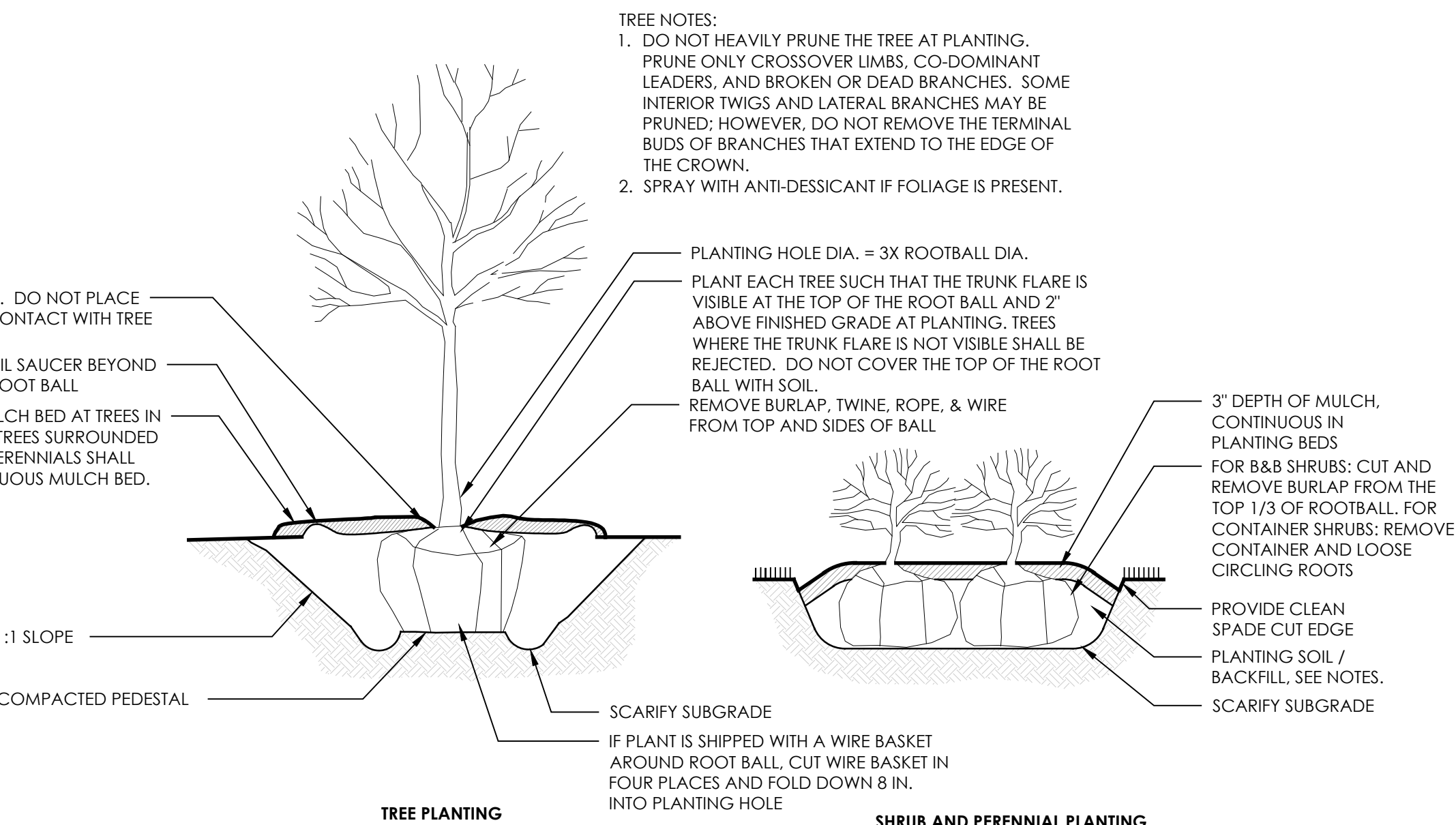
THE METROPOLITAN DISTRICT
WATER STANDARD DETAILS

[illegible]



- NOTES**
1. REFER TO THE COMPASS CONTRACTOR'S USER MANUAL FOR LANDSCAPE SUBMITTAL TEMPLATES AND OTHER INFORMATION.
 2. THE CONTRACTOR SHALL SUPPLY ALL PLANTS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT LIST. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT LIST AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER NUMBER SHALL APPLY.
 3. ALL PLANTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION AND SHALL BE LOCATED AT THE GROWING SITE BY THE CONTRACTOR. FOR THE APPROVAL OF THE LANDSCAPE ARCHITECT, ANY INSTALLATIONS WHICH WERE NOT APPROVED BY THE LANDSCAPE ARCHITECT AND WHICH ARE SUBSEQUENTLY REQUESTED TO BE REMOVED, WILL BE DONE AT THE CONTRACTOR'S EXPENSE.
 4. PRECISE LOCATION OF ITEMS NOT DIMENSIONED ON THE PLAN ARE TO BE FIELD STAKED BY THE CONTRACTOR AND SHALL BE SUBJECT TO THE REQUIREMENTS SPECIFIED IN THE PREVIOUS NOTE.
 5. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGED VEGETATION AND SHALL REPLACE OR REPAIR ANY DAMAGE, AT HIS OWN EXPENSE.
 6. REFER TO SOIL PREPARATION SPECIFICATION FOR THE REQUIREMENTS AND PLACEMENT OF TOPSOIL AND PLANTING SOIL.
 7. ALL SHRUB AND PERENNIAL PLANTING BEDS AND TREE PITS, UNLESS OTHERWISE NOTED, SHALL BE MULCHED TO A DEPTH OF 3" WITH SHREDDED BARK MULCH.
 8. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES IN THE FIELD. WHERE PLANT MATERIAL MAY INTERFERE WITH UTILITIES, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT TO COORDINATE THEIR INSTALLATION.
 9. SHOULD ANY SPECIFIED PLANT MATERIAL BE UNAVAILABLE IN THE REGION, THE CONTRACTOR SHALL SUBMIT A PLANT MATERIAL RFC PRIOR TO THE PLANT MATERIAL SUBMITTAL PACKAGE.
 10. WHERE A SIZE RANGE IS GIVEN IN THE PLANT SCHEDULE, AT LEAST 50% OF THE PLANTS PROVIDED SHALL BE OF THE LARGER SIZE.
 11. TOPSOIL AND SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND NOT COVERED BY OTHER SITE IMPROVEMENTS.
 12. SEE CIVIL DRAWINGS FOR SITE LAYOUT AND HARDSCAPE MATERIALS.
 13. REFER TO L-502 FOR PLANT SCHEDULE.

KEYNOTE LEGEND		
EXISTING	KEYNOTE TEXT	PROPOSED
---	LIMIT OF DISTURBANCE	LOD
---	PROPERTY LINE	---
---	WETLAND LIMIT	---
---	WETLAND BUFFER	---
---	TREE LINE	---
---	DOOR LOCATIONS	---
---	BUILDING	---
---	DECIDUOUS TREE	---
---	EVERGREEN TREE	---
---	ORNAMENTAL/ UNDERSTORY TREE	---
---	DECIDUOUS SHRUBS	---
---	EVERGREEN SHRUBS	---
---	SHRUB AND/OR PERENNIAL PLANTING BED	---
---	CONSERVATION SEEDING	---
---	TURF ESTABLISHMENT (LAWN)	---
---	DETENTION BASIN MIX 1	---
---	DETENTION BASIN MIX 2	---
---	SNOW STORAGE AREAS	---



SCALE 1" = 1'-0"

2

L-502

1	03/07/25	Addendum 4
DEV	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

FHI
studio

416 Asylum Street
Hartford, CT 06103
860-247-7200
fhistudio.com



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:

CT DOT DISTRICT 1 HEADQUARTERS AND MATERIALS TESTING LAB

TOWN(S):

TOWN OF ROCKY HILL

DRAWING TITLE:

LANDSCAPE DETAILS

PROJECT NO.:

0118-0171

DRAWING NO.:

I-502

SHEET NO.: 04.4.A4

LASTED SAVED BY: KatherineMontgomery FILE NAME: C:\Users\KatherineMontgomery\FHl Studio\2074 CTDOT District 1 HQ - General\Dwg\2074-Details.dwg
PLOTTED DATE: 3/5/25

PLANT SCHEDULE											
CATEGORY	SYM.	NO.	ITEM NO.	BOTANICAL NAME	COMMON NAME	SIZE	COND.	MATURE SIZE (HEIGHT)	MATURE SIZE (WIDTH)	PLANTING DISTANCE	NATIVE OR NATIVE CULTIVAR
DECIDUOUS TREES	AR	3	0949039	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.	B&B	50' - 70'	15'		NC
	AC	10	0949711	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	6'-8' HT.	B&B	25' - 30'	15' - 20'		N
	BN	4	0949039	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	12'-14' HT. MULTI-STEM	B&B	40' - 50'	25' - 35'		NC
	CV	5		CHIONANTHUS VIRGINICUS	FRINGE TREE	5'-7'	B&B	12' - 20'	12' - 20'		N
	NS	6	0949735	NYSSA SYLVATICA	BLACK TUPELO	2 1/2" - 3" CAL.	B&B	30' - 50'	20' - 30'		N
	PA	5	0949799	PLATANUS X ACERFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANETREE	3" - 3 1/2" CAL.	B&B	60' - 85'	60' - 75'		
	QB	5	0949090	QUERCUS BICOLOR	SWAMP WHITE OAK	2 1/2" - 3" CAL.	B&B	50' - 60'	50' - 60'		N
	QP	5	0949979	QUERCUS PALUSTRIS	PIN OAK	2 1/2" - 3" CAL.	B&B	60'-75'	25' - 40'		N
	TC	11	0949991	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2 1/2" - 3" CAL.	B&B	50'-70'	35' - 40'		
UP	8		ULMUS PARVIFOLIA 'ALLEE'	CHINESE LACEBARK ELM	3" - 3 1/2" CAL.	B&B	60'-70'	40' - 60'			
EVERGREEN TREES	JV	6	0949602	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	4' - 5' HT.	B & B	20' - 40'	15' - 25'		N
	PS	11		PINUS STROBUS	EASTERN WHITE PINE	6' - 8' HT.	B & B	50'-80'	20'-40'	20'	N
	PM	3	0949658	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6' - 8' HT.	B & B	40'-80'	12'-20'	15'	N
	TOE	40		THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6' - 8' HT.	B & B	12'-14'	6' - 8'	4' - 5'	NC
TON	10	0949672	THUJA OCCIDENTALIS 'NIGRA'	DARK AMERICAN ARBORVITAE	6' - 8' HT.	B & B	20'-30'	12'-15' OR 5-10'	6' O.C.	NC	
DECIDUOUS SHRUBS	AM	65		ARONIA MELANOCARPA	BLACK CHOKEBERRY	#3	CONT.	3'-6'	3'-6'	4'-6' O.C.	N
	CA	61		CLETHRA ALNIFOLIA	SUMMERSWEET	#3	CONT.	5'-7'	4'-6'	4' O.C.	N
	CO	16		CEPHALANTHUS OCCIDENTALIS	BUTTON BUSH	#3	CONT.	6'-12'	6'-12'	4' O.C.	N
	CS	42		CORNUS SERICEA	RED TWIG DOGWOOD	#3	CONT.	3'-6'	3'-6'	4' O.C.	N
	CAH	7		CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SUMMERSWEET	#5	CONT.	5'7"	4'-6'	4'-6' O.C.	N
	CSA	76		CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC FIRE RED TWIG DOGWOOD	#3	CONT.	3'-4'	3'-4'	3' O.C.	NC
	HQ	14		HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	OAK LEAF HYDRANGEA	18" - 24" HT.&SP.	CONT.	4'-6'	6'-8'	5' O.C.	
	LB	36		LINDERA BENZOIN	NORTHERN SPICEBUSH	#3	CONT.	6' - 12'	6' - 12'	6' - 8' O.C.	N
	RA	267		RHUS AROMATICA 'GRO-LOW'	LOW GROW FRAGRANT SUMAC	18" - 24" HT.	CONT.	2'-6'	4'-6'	3'-4' O.C.	NC
	SC	38		SAMBUCUS CANADENSIS	ELDERBERRY	#3	CONT.	10'-12'	8'-12'	4' O.C.	N
	IV	41		ITEA VIRGINICA 'LITTLE HENRY'	VIRGINIA SWEETSPIRE	2' - 3' HT.	CONT.	2' - 3'	2' - 3'	3'-4' O.C.	
	VD	32		VIBURNUM DELA'TATUM	ARROWWOOD VIBURNUM	#3	CONT.	6' - 10'	6' - 10'	4' O.C.	
EVERGREEN SHRUBS	IG	29		ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	24" - 30" HT.	CONT.	3'-4'	3'-4'	3'-4' O.C.	NC
	JC	31		JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	#3	CONT.	3'-4'	6'-8'	3'-4' O.C.	
	TB	55		TAXUS BACCATA 'REPANDENS'	REPANDENS ENGLISH YEW	#3	CONT.	2'-4'	6'-15'	4'-6' O.C.	
PERENNIALS	ACA	23		ANEMONE CANADENSIS	CANADA WINDFLOWER	1 GAL.	CONT.	1'-2'	3'-5'	2' O.C.	N
	CAK	84		CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	2 GAL.	CONT.	3'-5'	1.5'-2.5'	2.5'	
	EF	179		EUONYMUS FORTUNEI 'COLORATUS'	PURPLE WINTERCREEPER	2 GAL.	CONT.	18" SPACING	0.5'-0.75'	1'-3"	
	EP	22		ECHINACEA PURPUREA 'MAGNUS'	PURPLE CONE FLOWER	1 GAL.	CONT.	2.5'-3'	1'-1.5'	18"	NC
	FG	124		FESTUCA GLAUCA 'ELIJAH BLUE'	ELIJAH BLUE FESCUE	1 GAL.	CONT.	0.75'-1'	0.5'-0.75'	12"	
	HS	1130		HEMEROCALLIS 'STELLA DE ORO'	STELLA DE ORO DAYLILY	1 GAL.	CONT.	18" SPACING	0.75 - 1'	0.75 - 1'	
	NF	176		NEPETA FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	1 GAL.	CONT.	2'-3"	1.5'-2'	2'-3"	
	VM	396		VINCA MINOR	COMMON PERIWINKLE	4"	CONT.	0.25 - 0.5'	0.50 - 1.5'	8" O.C.	

PLANT LIST

1

L-502

Appendix D: CTDOT MS4 Project Design Maximum Extent Practical Worksheet

**CTDOT MS4 Project Design
Maximum Extent Practicable (MEP) Worksheet**

Section 1: Project Information

Project Number: 0118-0171

Title/Description: CTDOT DISTRICT 1 HEADQUARTERS AND MATERIAL TESTING LABS

Location: ROCKY HILL

Section 2: Existing Conditions

EC1	Total Project Area	12.41 acres		
EC2	Pre-construction Total Impervious Area	3.37 acres		
EC3	Pre-Construction Disconnected Impervious Area	0.52 acres		
EC4	Pre-construction DCIA for the Project (<i>EC2 minus EC3</i>)	2.85 acres	22.96 % (EC4/EC1)	
EC5	Soil Infiltration Potential Data Source: ☒ Existing Report / Soils Map ☒ Field Verified	☐ Good/Fair	☐ Poor	☒ Mixed
EC6	Depth to Maximum Groundwater	☒ TBD	_____ to _____ ft below grade	
EC7	Depth to Bedrock	☒ TBD	_____ to _____ ft below grade	
EC8	Aquifer Protection Area? (from PNDF)	☐ Yes	☒ No	
EC9	MS4 Priority Area? (from PNDF)	☒ Yes (See Below)	☐ No	
<i>Check All That Apply</i> ☒ Urbanized Area ☒ DCIA >11% ☐ Impaired Waterbody (See Below)				
<i>Select All Impairments That Apply</i>				
EC10	Contamination known or suspected to be present? (From Environmental Compliance)	☐ Yes	☒ No	
EC11	Adjoining DOT ROW beyond project limits available for stormwater quality management	0 _____ acres		

NOTES:

Worksheet users should refer to the current *CT DOT MS4 Project Design MEP Worksheet V4 Instructions*

Reference the CT DEEP Stormwater Quality Manual (SWQM) for design and the New England Stormwater Retrofit Manual for Crediting

CTDOT MS4 Design MEP Worksheet Version 4 Revised 2/15/2024

Page 1 of 3

**CTDOT MS4 Project Design
Maximum Extent Practicable (MEP) Worksheet**

Section 3: Designed Conditions

Section 3A: Document Water Quality Volume (WQV) Retained and/or Treated (ac-ft)

Water Quality Volume Documentation			30% Design	60% Design	90% Design	FDP
DC1	WQV design goal	☒ Full ☐ ½-WQV (Full = EC4 % ≤ 40%)	ac-ft ☒ TBD	0.711 ac-ft	0.711 ac-ft	0.711 ac-ft
DC2	WQV goal retained (refer to page 3)		ac-ft	0.574 ac-ft	0.408 ac-ft	0.408 ac-ft
DC3	WQV goal treated (refer to page 3)		ac-ft	0 ac-ft	0 ac-ft	0 ac-ft

Did the Project Retain and/or Treat the Entire WQV Goal? ☐ Yes ☒ No

Section 3B: Document Changes in Directly Connected Impervious Area (DCIA) Pre to Post Construction (acres)

DCIA Documentation		30% Design	60% Design	90% Design	FDP
DC4	Post-construction Total Impervious Area	ac. ☒ TBD	6.60 ac.	6.60 ac.	6.60 ac.
DC5	Post-construction DCIA before new BMPs	ac. ☒ TBD	5.82 ac.	5.82 ac.	5.82 ac.
DC6	DCIA Disconnected by new BMPs (from Pg 3)	ac. ☒ TBD	5.49 ac.	2.01 ac.	2.01 ac.
DC7	Final Post-construction DCIA (DC5 minus DC6)	ac. ☒ TBD	0.33 ac.	3.81 ac.	3.81 ac.
DC8	Pre-construction DCIA (refer to EC4 from Pg 1)	2.85 ac.	2.85 ac.	2.85 ac.	2.85 ac.
DC9	Change in DCIA from pre- to post-construction (DC7 minus DC8) Can be positive (DCIA gained) or negative (DCIA lost)	ac. ☒ TBD	-2.52 ac.	0.96 ac.	0.96 ac.
Date completed		7/17/2024	7/22/2024	10/17/2024	12/30/2024
Completed by (initials)		LRC	LRC	LRC	LRC
Reviewed by (initials)		TGC	TGC	TGC	TGC

NOTES:

Due to the existing site constraints such as wetlands, the proposed building footprint, and the lack of space in the northerly portion of the site only two basins have been proposed. Overall, the total peak flows coming off the site in the proposed condition are less than the existing condition. Field Infiltration Testing has been conducted to determine the actual infiltration rates and can be found in Appendix K of the Drainage Report. Bedrock has been encountered in the southeastern portion of the parcel through existing borings.

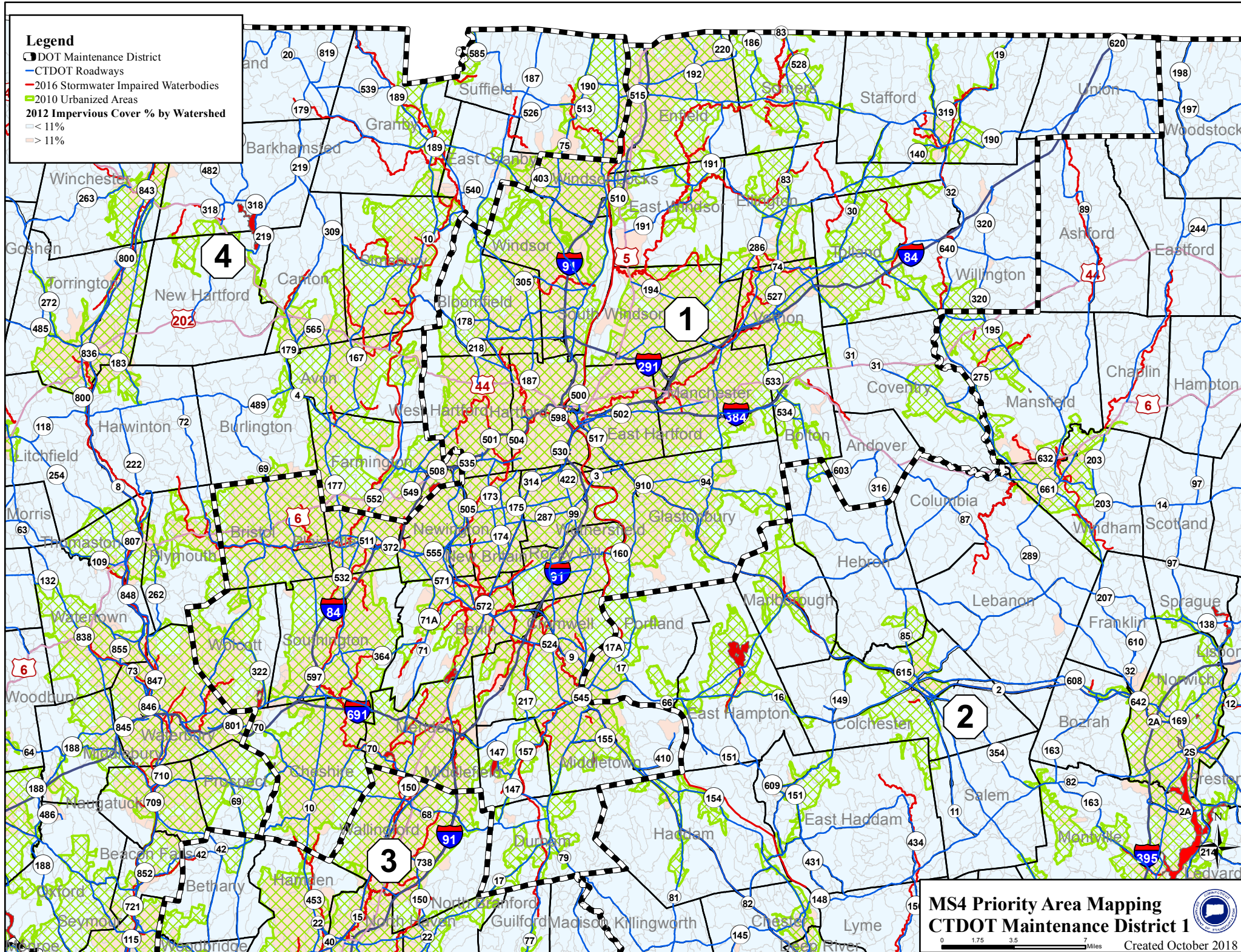
Section 4: Stormwater BMP Selection Summary											
Design Phase ☐ 30% ☐ 60% ☐ 90% ☒ FDP	BMP Type	WQV Retained* (ac-ft)	WQV Treated* (ac-ft)	DCIA Captured by BMP (ac)	Runoff Depth from DCIA Captured by BMP (in)	HSG Soil Type	DCIA Disconnection Credit (%)**	DCIA Disconnection Credit (ac)	(TP) reduction %**	(TSS) reduction %**	(TN) reduction %*
BMP Category											
Infiltration	Detention Basin	0.271	0	2.58	1.30	C/D	38	0.98	13	46	17
Infiltration	UG Chamber	0.137	0	1.32	1.30	C	78	1.03	95	99	98
TOTAL		0.408	0					2.01			
		To Row DC2	To Row DC3					To Row DC6			

The proposed Detention Basin and Underground Chamber were designed to store 100% WQV for two of the design discharge point areas. These BMP's proposed will attenuate the peak flows coming off the site from the overall site. Field Infiltration Testing has been conducted to determine the actual infiltration rates and can be found in Appendix K of the Drainage Report. Bedrock has been encountered in the southeastern portion of the parcel through existing borings.

** Refer to the CT DEEP Stormwater Quality Manual (SWQM) [Stormwater Manual \(ct.gov\)](http://www.ct.gov/deep/ctswm/) and New England Stormwater Retrofit Manual [Stormwater Retrofit Manual \(snepnetwork.org\)](http://www.snepnetwork.org/) to determine disconnection and pollutant removal percentages. BMPs should be designed to meet specific TP, TN and TSS pollutant reductions to the maximum extent practicable when the entire WQV cannot be retained. Pollutant Reduction Targets are: New Development TP 60%, TN 40%, TSS 90%. Redevelopment TP 50%, TN, 30% TSS 80%. (Page 48 of the SWQM)

Legend

- DOT Maintenance District
- CTDOT Roadways
- 2016 Stormwater Impaired Waterbodies
- 2010 Urbanized Areas
- 2012 Impervious Cover % by Watershed
 - < 11%
 - > 11%



Towns with
Aquifer Protection Areas

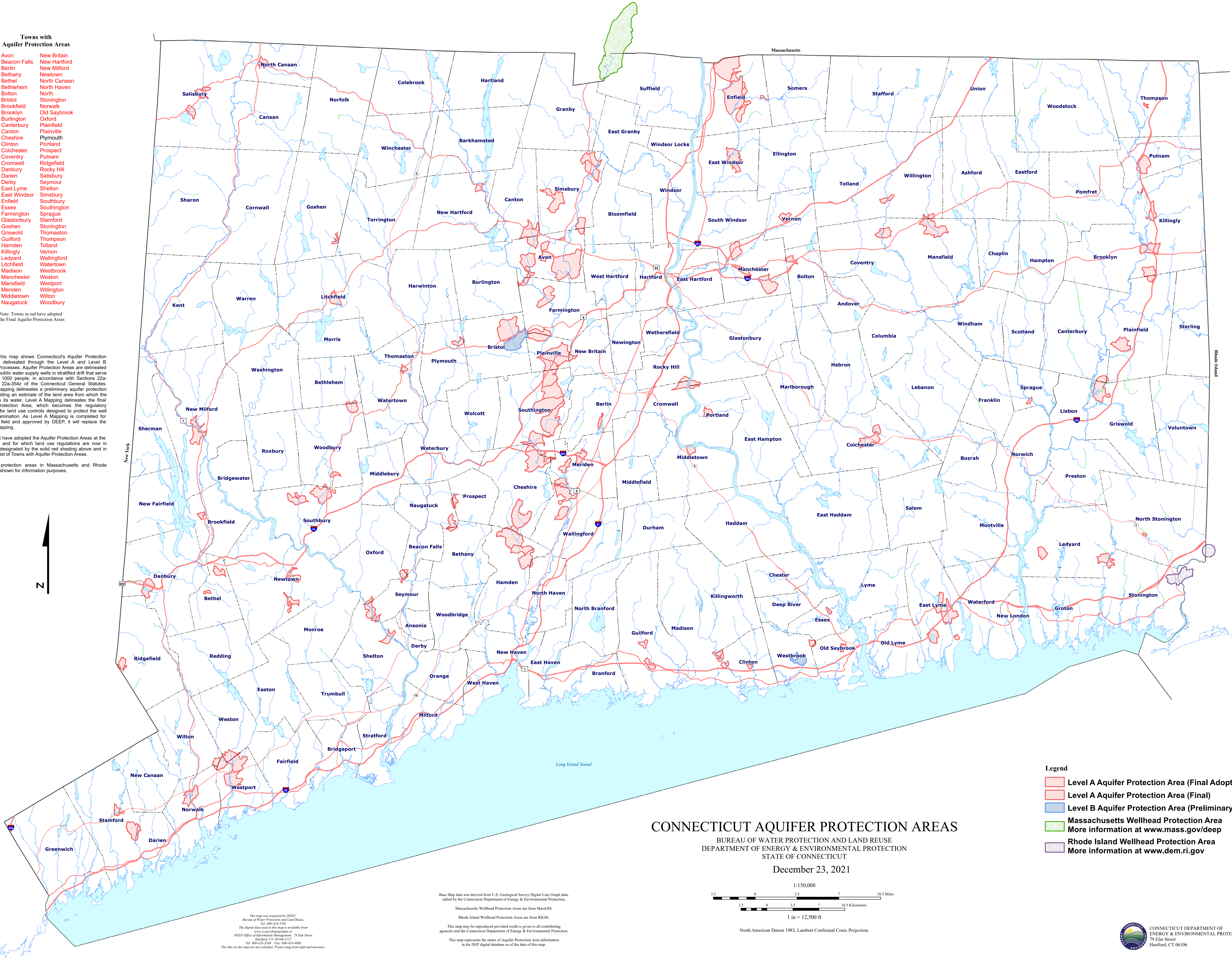
Avon New Britain
Beacon Falls New Hartford
Berlin New Milford
Bethany Newtown
Bethel North Canaan
Bethlehem North Haven
Bolton North
Bristol Storington
Brookfield Norwalk
Brooklyn Old Saybrook
Burlington Oxford
Canterbury Plainfield
Canton Plainville
Cheshire Plymouth
Clinton Portland
Colchester Prospect
Coventry Putnam
Cromwell Ridgefield
Danbury Rocky Hill
Darien Salisbury
Derby Seymour
East Lyme Shelton
East Windsor Simsbury
Enfield Southbury
Essex Southington
Farmington Sprague
Glastonbury Stamford
Goshen Stonington
Griswold Thomaston
Guilford Thompson
Hamden Tolland
Killingly Vernon
Ledyard Wallingford
Litchfield Watertown
Madison Westbrook
Manchester Weston
Mansfield Westport
Meriden Willington
Middletown Wilton
Naugatuck Woodbury

Note: Towns in red have adopted
the Final Aquifer Protection Areas

NOTE: This map shows Connecticut's Aquifer Protection
Areas, as delineated through the Level A and Level B
Mapping Processes. Aquifer Protection Areas are delineated
for active public water supply wells in stratified drift that serve
more than 1000 people, in accordance with Sections 22a-
354c and 22a-354d of the Connecticut General Statutes.
Level B Mapping delineates a preliminary aquifer protection
area, providing an estimate of the land area from which the
well draws its water. Level A Mapping delineates the final
Aquifer Protection Area, which becomes the regulatory
boundary for land use controls designed to protect the well
from contamination. As Level A Mapping is completed for
each well field and approved by DEEP, it will replace the
Level B Mapping.

Towns that have adopted the Aquifer Protection Areas at the
local level and for which land use regulations are now in
place are designated by the solid red shading above and in
red in the list of Towns with Aquifer Protection Areas.

Wellhead protection areas in Massachusetts and Rhode
Island are shown for information purposes.



CONNECTICUT AQUIFER PROTECTION AREAS

BUREAU OF WATER PROTECTION AND LAND REUSE
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
STATE OF CONNECTICUT

December 23, 2021

Base Map data was derived from U.S. Geological Survey Digital Line Graph data,
edited by the Connecticut Department of Energy & Environmental Protection,
Massachusetts Wellhead Protection Areas are from MassGIS.

Rhode Island Wellhead Protection Areas are from RIGIS.

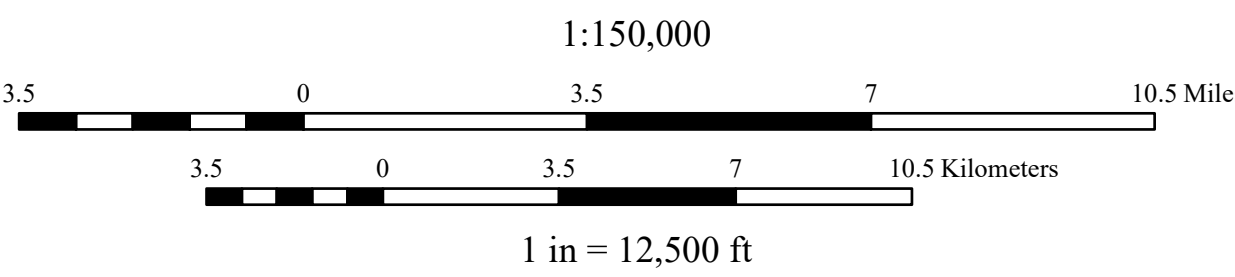
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agencies and the Connecticut Department of Energy & Environmental Protection.

This map represents the status of Aquifer Protection Area information
in the DEP digital database as of the date of this map.

This map was prepared by DEEP,
Bureau of Water Protection and Land Reuse,
Tel: 860-424-3704
The digital data used in this map is available from
www.ct.gov/deep/depdata or
DEEP Office of Information Management, 79 Elm Street
Hartford, CT 06106-3127
Tel: 860-424-3500 Fax: 860-424-4008
The info on this map are not collected. Protect map from light and moisture.

Legend

- Level A Aquifer Protection Area (Final Adopted)
- Level A Aquifer Protection Area (Final)
- Level B Aquifer Protection Area (Preliminary)
- Massachusetts Wellhead Protection Area
More information at www.mass.gov/deep
- Rhode Island Wellhead Protection Area
More information at www.dem.ri.gov



North American Datum 1983, Lambert Conformal Conic Projection.

Appendix E: Construction Site Environmental Inspection Report (CSEIR)

DOT Environmental Inspection Report

Instructions

The following Construction Site Environmental Inspection Report (CSEIR) is to be used on all Department of Transportation (DOT) construction projects. A new form must be filled out at a minimum of once a week and within twenty four (24) hours after any storm event with precipitation greater than .10 inches. For projects that hold an Individual Inland Wetlands Permit from the Connecticut Department of Environmental Protection (DEP), a monthly submittal including all the completed CSEIRs will need to be sent to DEP. For all other DOT projects the CSEIRs must be kept in the field office as part of the Stormwater Pollution Control Plan (SWPCP).

Using the Inspection Report:

This CSEIR is designed to be customized according to the SWPCP that has been developed for each individual construction project. It will need to be adjusted to match the existing site conditions and indicate the most current Best Management Practices (BMPs) being implemented at any given date. At the beginning of construction for each project, a site plan shall be developed that identifies, by number, all potential discharge locations that will collect runoff from a disturbed area during the current phase of construction. Once the discharge locations have been identified by number, a brief description of the BMP will need to be listed in the site specific section of the CSEIR. Examples of a site specific BMPs include construction entrances, temporary sediment traps, temporary sediment basins, or localized areas of silt fence (e.g., silt fence along Main Street; silt fence along toe of slope at Wetland A, etc.). All areas that will be used for construction operations need to be included in the site specific BMPs section including Staging Areas, Waste Stockpile Areas, and Field Office locations.

To facilitate simpler inspections, the “General Information” section and “BMP and Location” section can be filled out on a blank inspection report at the beginning of construction and then copied for re-use as long as the site specific locations remain the same. Any additional BMPs or other changes that result from staged construction or corrective actions need to be included on the site plan and CSEIR within three (3) days following an inspection.

During the site inspection the inspector will need to walk the site with a copy of the site map and CSEIR. Each numbered location will need to be inspected and any deficiencies or maintenance issues identified and documented.

The “Overall Site Issues Reference Checklist” should be consulted when completing the CSEIR to help identify any locations where maintenance or additional BMPs may be required. This checklist is not submitted with the CSEIR but should be kept on file for future reference.

Overall Site Issues Reference Checklist

Below are some general site issues that should be assessed during inspections. This Check List should be consulted during the site inspection and used to determine the appropriate BMP corrective actions required in BMP Maintenance section above. **Not required to be included with CSEIR submission or as part of certification**

BMP/activity	Completed	Maint. Required	Corrective Action by Contractor- Note completion date and action taken
Are all slopes and disturbed areas not actively being worked properly stabilized?	☐ Yes ☐ No	☐ Yes ☐ No	
Is there any evidence of erosion occurring throughout the project site?	☐ Yes ☐ No	☐ Yes ☐ No	
Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	☐ Yes ☐ No	☐ Yes ☐ No	
Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	☐ Yes ☐ No	☐ Yes ☐ No	
Are discharge points and receiving waters free of any sediment deposits?	☐ Yes ☐ No	☐ Yes ☐ No	
Are storm drain inlets properly protected?	☐ Yes ☐ No	☐ Yes ☐ No	
Is the construction exit preventing sediment from being tracked into the street?	☐ Yes ☐ No	☐ Yes ☐ No	
Is trash/litter from work areas collected and placed in covered dumpsters?	☐ Yes ☐ No	☐ Yes ☐ No	
Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	☐ Yes ☐ No	☐ Yes ☐ No	
Are vehicle and equipment fueling, cleaning, and maint. areas free of spills, leaks, or any other deleterious material?	☐ Yes ☐ No	☐ Yes ☐ No	
Are materials that are potential stormwater contaminants stored inside or under cover?	☐ Yes ☐ No	☐ Yes ☐ No	
Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐ Yes ☐ No	☐ Yes ☐ No	
(Other) Describe	☐ Yes ☐ No	☐ Yes ☐ No	

**State of Connecticut
Department of Transportation
Construction Site Environmental Inspection Report**

This Form Must Be Completed At Least Once a Week and within Twenty Four (24) Hours* Of the End of a Storm Event That Is 0.1 inches or Greater * Next Working Day as Directed by Engineer

General Information			
Project Number		Date	
Permit Number(s)		Location	
Contractor			
Project Engineer		Phone No	
Type of Inspection: Check all that apply ☐ Weekly ☐ Pre-storm event ☐ Post-storm event			
Weather at time of this inspection? ☐ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snowing ☐ High Winds Temperature: _____			
Start Date: _____ Time: _____ Duration (hrs): _____ Precipitation (in) ≈ _____			

Site-specific BMPs - Number the structural and non-structural BMPs on your site map and list them below (add as many BMPs as necessary). Carry a copy of the numbered site map for reference with you during your inspections. Note- If have additional locations add rows. Site Map Attached ☐ Yes ☐ No

Location	BMPs Installed	BMP Maint. Required	Remedial Action Required	Remedial Action* If yes, provide description and date contractor notified	Date Fixed	Repeat Failure
	☐ Yes ☐ No	☐ Yes ☐ No				☐ Yes ☐ No
	☐ Yes ☐ No	☐ Yes ☐ No				☐ Yes ☐ No
	☐ Yes ☐ No	☐ Yes ☐ No				☐ Yes ☐ No
	☐ Yes ☐ No	☐ Yes ☐ No				☐ Yes ☐ No
	☐ Yes ☐ No	☐ Yes ☐ No				☐ Yes ☐ No
	☐ Yes ☐ No	☐ Yes ☐ No				☐ Yes ☐ No

Are there any sediment discharges to a regulated area or potential wetland occurring or have any occurred since the last inspection? ☐ Yes ☐ No

If yes, contact the District Environmental Coordinator immediately and submit project incident report (include description of the discharge including location, time identified, and the approximate amount of sediment)

Incident report attached to this CSEIR? ☐ Yes ☐ No

"I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief."

Prepared By: _____

Title:	Signature:	Date:
---------------	-------------------	--------------

Review By: _____

Title: _____ **Signature:** _____ **Date:** _____

I acknowledge receipt of a copy of the CSEIR and will perform the required maintenance or remedial action indicated in the report.

Contractor: _____

Title: _____ **Signature:** _____ **Date:** _____

Appendix F: Notice of Termination Form: Non-Solar Projects



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

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

Notice of Termination Form: Non-Solar Projects

This Notice serves as a request to terminate the below listed permit as well as any applicable Letter(s) of Credit.

Part I: Permittee Information

The below information is required in accordance with Section 6(b) of the General Permit.

1. Permit Number: GSN
2. Registrant:
3. Site Address:
City/Town: State: Zip Code:
4. Date of completion of construction:
Date all storm drainage structures were cleared of construction
sediment and debris:
Beginning and Ending Dates of post-construction inspections:
Date of final stabilization inspection(s)*:
Qualified Inspector who conducted
the Final Stabilization Inspection:
(This person must sign Part III)
5. Check the post-construction activity(ies)** at the site (check all that apply):

☐ Industrial	☐ Residential	☐ Capped Landfill
☐ Commercial	☐ Solar Array	☐ Other:

* The Final Stabilization Inspection must occur at least one full growing season after final stabilization has been achieved. A full growing season is defined as the timeframe encompassed by two consecutive full seeding seasons: April 1 through June 15, and August 15 through October 1. If final stabilization is achieved during a seeding season, the following seeding season will be considered the first full seeding season after final stabilization has been achieved.

** If the post-construction activity involves solar arrays, the Department may require that the "Solar Projects: Notice of Termination Form" be used. Any questions regarding the necessity of such a form for the project can be sent via email to DEEP.StormwaterStaff@ct.gov.

Locally Approvable Projects Must Complete the following Part II - (Attach additional sheets as needed)

Part II: Locally Approvable Post-Construction Inspection Certification

The below information is required in accordance with Section 5(b)(4)(C)(i) of the General Permit.

Certification by a Qualified Professional Engineer / Qualified Soil Erosion and Sediment Control Professional / District Representative

"I hereby certify that I am a qualified professional engineer / a qualified soil erosion and sediment control professional / a representative of the District in which the site is located as defined in Section 2 of the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (general permit). I am familiar with the site described in this Notice of Termination and the requirements of the general permit. I certify, based on my personal inspection of the site pursuant to Section 6(a) of the general permit that all post-construction measures have been installed as specified in the permittee's Stormwater Pollution Control Plan and in accordance with Section 5(b)(2)(C) of the general permit and that all such measures have been cleaned of construction sediment and debris. I understand that this certification is part of a registration submitted in accordance with section 22a-430b of Connecticut General Statutes and is subject to the requirements and responsibilities for a qualified professional in such statute. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

Signature of Qualified Professional Engineer / Qualified Soil Erosion and Sediment Control Professional / Representative of the District

Date

Printed Name of Qualified Professional Engineer / Qualified Soil Erosion and Sediment Control Professional / Representative of the District

Title

Check off the qualifications of the signatory of the above part:

☐ Qualified Professional Engineer ☐ Qualified Soil Erosion and Sediment Control Professional ☐ Representative of the District

Locally Exempt Projects Must Complete the following Part II - (Attach additional sheets as needed)

Part II: Locally Exempt Post-Construction Inspection Certification

The below information is required in accordance with Section 5(b)(4)(C)(ii) of the General Permit.

Certification by a Qualified Professional Engineer / Qualified Soil Erosion and Sediment Control Professional

"I hereby certify that I am a qualified professional engineer / a qualified soil erosion and sediment control professional as defined in Section 2 of the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (general permit). I am familiar with the site described in this Notice of Termination and the requirements of the general permit. I certify, based on my personal inspection of the site pursuant to Section 6(a) of the general permit that all post-construction measures have been installed as specified in the permittee's Stormwater Pollution Control Plan and in accordance with Section 5(b)(2)(C) of the general permit and that all such measures have been cleaned of construction sediment and debris. I understand that this certification is part of a registration submitted in accordance with section 22a-430b of Connecticut General Statutes and is subject to the requirements and responsibilities for a qualified professional in such statute. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

Signature of Qualified Professional Engineer / Qualified Soil
Erosion and Sediment Control Professional

Date

Printed Name of Qualified Professional Engineer / Qualified Soil
Erosion and Sediment Control Professional

Title

Check off the qualifications of the signatory of the above part:

☐ Qualified Professional Engineer

☐ Qualified Soil Erosion and
Sediment Control Professional

Part II: State Agency Post-Construction Inspection Certification

The below information is required in accordance with Section 5(b)(4)(C)(iii) of the General Permit.

Certification by a DOT District Engineer or his/her designee / a DOT District Environmental Coordinator / a designated employee of another state agency

"I hereby certify that I am a DOT District Engineer or his/her designee / a DOT District Environmental Coordinator / a designated employee of another state agency as defined in Section 2 of the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (general permit). I am familiar with the site described in this Notice of Termination and the requirements of the general permit. I certify, based on my personal inspection of the site pursuant to Section 6(a) of the general permit that all post-construction measures have been installed as specified in the permittee's Stormwater Pollution Control Plan and in accordance with Section 5(b)(2)(C) of the general permit and that all such measures have been cleaned of construction sediment and debris. I understand that this certification is part of a registration submitted in accordance with section 22a-430b of Connecticut General Statutes and is subject to the requirements and responsibilities for a qualified professional in such statute. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

Signature

Date

Printed Name

Title

Check off the qualifications of the signatory of the above part:

- ☐ Qualified Professional Engineer ☐ Qualified Soil Erosion and Sediment Control Professional ☐ Representative of the District

All Projects Must Complete the following Part III - (Attach additional sheets as needed)

Part III: Final Stabilization Inspection Certification

The below information is required in accordance with Section 5(b)(4)(D) of the General Permit.

Certification by a Qualified Inspector

"I hereby certify that I am a qualified inspector as defined in Section 2 of the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (general permit). I am familiar with the site described in this Notice of Termination and the requirements of the general permit. I certify, based on my personal inspection of the site pursuant to Section 6(a) of the general permit that the site has been stabilized, as defined in Section 2 of the general permit, for a period of no less than one full growing season following the cessation of construction activities. I further certify that there is no active erosion or sedimentation present on site and no disturbed areas remain exposed. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

Signature of Qualified Inspector

Date

Printed Name of Qualified Inspector

Title

All Projects Must Complete the following Part IV - (Attach additional sheets as needed)

Part IV: Permittee Certification

The below information is required in accordance with Section 5(b)(4)(D) of the General Permit.

Certification by the Permittee

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

Signature of Permittee

Date

Printed Name of Permittee

Title

All Projects Must Complete the following Part V - (Attach additional documentation as needed)

Part V: Additional Submittals

The following attachments are required to be submitted along with the Notice of Termination Form:

- ☐ Post-Construction Inspection Report (must contain photos with time stamps)
- ☐ Final Stabilization Inspection Report (must contain photos with time stamps)

Complete and submit this form in accordance with the general permit (DEEP-WPED-GP-015) to ensure the proper handling of the termination. Print or type unless otherwise noted.

Submit this Notice of Termination Form to the address below, as well as via email to DEEP.StormwaterStaff@ct.gov:

WATER PERMITTING AND ENFORCEMENT DIVISION/STORMWATER GROUP
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127