

ROBERT LAGA
Chairman

NICHOLAS FANNIN
Vice Chairman

RICHARD FRANZETTI, P.E.
Wetland Inspector

ROSE TROMBETTA
Secretary

TOWN OF CARMEL
ENVIRONMENTAL CONSERVATION BOARD



60 McAlpin Avenue
Mahopac, New York 10541
Tel. (845) 628-1500 - Ext. 190
www.ci.carmel.ny.us

BOARD MEMBERS

Edward Barnett
Anthony Federice
Nicole Sedran

ENVIRONMENTAL CONSERVATION BOARD AGENDA

MARCH 2, 2023 – 7:30 P.M.

EXTENSION OF WETLAND PERMIT

<u>APPLICANT</u>	<u>ADDRESS</u>	<u>TAX MAP #</u>	<u>COMMENTS</u>
1. MK Realty	Route 6 & Old Route 6	55.6-1-44,45	Site Plan

SUBMISSION OF AN APPLICATION OR LETTER OF PERMISSION

2. NYCDEP West Branch Auxiliary Dam	34 Drewville Road	65.-1-5	Site Plan (Planning Board Referral)
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MISCELLANEOUS

3. Minutes – 02/16/23



February 10, 2023

Town of Carmel Environmental Conservation Board
Carmel Town Hall
60 McAlpin Avenue
Mahopac, New York 10541

RE: MK Realty Site Plan
U.S. Route 6 and Old Route 6
Tax Map #55.06-1-44 & 45
Town of Carmel Wetland Permit #844

Dear Chairman and Members of the Board:

This letter has been prepared to request an approval extension of Wetland Permit #844. At the time of the last wetland permit extension in March of 2021, your Board had decided to amend the permit to have run concurrently with the Planning Board Site Plan Approval which was set to expire in March of 2023. The applicant received a re-grant of Site Plan Approval at the February 9, 2023 Planning Board meeting and is now seeking extension of the wetland permit. Enclosed herewith please find the updated Approval List for the Board's reference.

The project plans have not changed and no construction activities have taken place on the property since the wetland permit was issued by your Board in 2011. As you are aware, the applicant is actively searching for a user for the approved commercial development of the site. Should any site plan revisions be required in support of a potential user on the property, it is understood that an amended site plan approval will be required by the Planning Board and a new wetland permit will be required from your Board.

If you have any questions or comments, please feel free to contact our office.

Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By: _____

Zachary M Pearson, P.E.
Principal Engineer

ZMP

cc: Kevin Dwyer

Insite File No. 04235.100



**MK REALTY
APPROVAL LIST
February 9, 2023**

AGENCY	APPROVAL	EXPIRATION DATE
Carmel Planning Board	Site Plan	March 11, 2025
Carmel Environmental Conservation Board	Wetland Permit	March 14, 2023
Putnam County Department of Health	Sewer	February 9, 2028
New York City Department of Environmental Protection	Sewer	January 19, 2026
New York City Department of Environmental Protection	Stormwater Pollution Prevention Plan	August 16, 2026
New York State Department of Transportation	Highway Work Permit	Transferred to the new NYSDOT Permit in May of 2015. (No Expiration Date)
New York State Department of Environmental Conservation	Stormwater Pollution Prevention Plan Coverage	General Permit Coverage obtained March 19, 2011. (No Expiration Date)

New York City
Department of Environmental Protection

West Branch Auxiliary Dam Slope Improvements
(CRO – 534)

Town of Carmel
Environmental Conservation Board

February 2023

WEST BRANCH AUXILIARY SLOPE IMPROVEMENT
ENVIRONMENTAL CONSERVATION BOARD APPLICATION

FORMS:

- SEQR Environmental Assessment Form
- Disclosure Addendum Statement to Application, Petition & Request
- Town of Carmel Site Plan Completeness Certification Form
- Town of Carmel Application for Wetland Permit or Letter of Permission
- Town of Carmel Application for Tree Cutting Permit

SUPPORTING DOCUMENTATION:

- Site Plan Narrative
- Attachment 1 –West Branch Auxiliary Dam Slope Improvements Preliminary Site Plan drawings, Work Zone Traffic Control Plans, Truck Routes, Parcel Map
- Attachment 2 – Existing and Proposed Site Views
 - Existing and Post-Construction of Northbound View from State Route 6
 - Existing and Post-Construction of Southbound View from State Route 6
 - Existing and Post-Construction of Parking Area and Stormwater Management Basin View from State Route 6
 - Existing and Post-Construction View of Seepage Chamber from DEP-Only Parking Area
- Attachment 3 – Stormwater Pollution Prevention Plan, February 2022
 - DEP-BEC acceptance letter
- Attachment 4 – Project Area Zoning Map
- Attachment 5 – Permit List and Approved Permits

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information			
NYCDEP - BEDC			
Name of Action or Project: NYCDEP West Branch Auxiliary Dam Slope Safety Improvements (CRO-534)			
Project Location (describe, and attach a location map): West Branch Auxiliary Dam: U.S. Route 6 east of Drawville Road, Carmel, NY (See Figures 1 and 2 in Attachment C)			
Brief Description of Proposed Action: See Site Plan Narrative			
Name of Applicant or Sponsor: Erik LeClair / Camp Dresser McKee & Smith		Telephone: (518) 782-4573	
		E-Mail: leclaires@cdmsmith.com	
Address: 11 British American Blvd, Suite 200			
City/PO: Latham		State: NY	Zip Code: 12110
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			NO <input type="checkbox"/>
			YES <input checked="" type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: USACE, NYSDEC, NYSOOT			NO <input type="checkbox"/>
			YES <input checked="" type="checkbox"/>
3. a. Total acreage of the site of the proposed action? _____ 4.00 acres			
b. Total acreage to be physically disturbed? _____ 3.58 acres			
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ 480+ acres			
4. Check all land uses that occur on, are adjoining or near the proposed action.			
5. <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban)			
<input checked="" type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input checked="" type="checkbox"/> Other(Specify) water supply reservoir			
<input type="checkbox"/> Parkland			

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Consistent with the adopted comprehensive plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO	YES	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES	
If Yes, identify: _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES	
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Are public transportation services available at or near the site of the proposed action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES	
If the proposed action will exceed requirements, describe design features and technologies:			
Not Applicable _____	<input type="checkbox"/>	<input type="checkbox"/>	
10. Will the proposed action connect to an existing public/private water supply?	NO	YES	
If No, describe method for providing potable water: _____			
No occupied space created or modified by proposed project	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Will the proposed action connect to existing wastewater utilities?	NO	YES	
If No, describe method for providing wastewater treatment			
Private septic system services the Gatehouse (Shaft 10) located on the opposite side of US Route 6, adjacent to the West Branch Reservoir	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO	YES	
Gatehouse located outside the proposed limits of work	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres:			
State regulated Freshwater - LC 30. Stream 864-220 C(T) The Auxiliary Dam and maintenance road are located within the 100-foot adjacent area to this wetland. Trees within 20 feet of the auxiliary dam would be cut, including those within the 100-foot adjacent area. Existing 12-inch drainage line from toe of slope to existing weir box would be replaced in kind. Area would be restored. No permanent impact to regulated freshwater wetland is anticipated.			

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

Shoreline Forest Agricultural/grasslands Early mid-successional

Wetland Urban Suburban

15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?

NO	YES
<input type="checkbox"/>	<input checked="" type="checkbox"/>

16. Is the project site located in the 100-year flood plan?

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

17. Will the proposed action create storm water discharge, either from point or non-point sources?

If Yes,

a. Will storm water discharges flow to adjacent properties?

NO	YES
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?

NO	YES
<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, briefly describe:

Post construction roadway stormwater would be captured by the use of curbing, catch basins, and piping directing stormwater to reconstructed drainage swales at the groins of the Auxiliary Dam. On-site stormwater management structures including stone-lined swale and bioretention area. Stormwater runoff naturally flows to the onsite wetland/stream corridor.

18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?

If Yes, explain the purpose and size of the impoundment:

Proposed project is the maintenance of an existing dam. Post-construction stormwater controls include the creation of a bioretention basin.

NO	YES
<input type="checkbox"/>	<input checked="" type="checkbox"/>

19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?

If Yes, describe:

Town of Carmel closed incinerator landfill

NO	YES
<input type="checkbox"/>	<input checked="" type="checkbox"/>

20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?

If Yes, describe:

DEC ID 340018:

NO	YES
<input type="checkbox"/>	<input checked="" type="checkbox"/>

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: ERIK LECLAIR Date: 6-15-22

Signature: *Erik Leclair* Title: PROJECT MANAGER

**TOWN OF CARMEL
PLANNING BOARD**

60 MCALPIN AVENUE, MAHOPAC, NY 10541 - 845-628-1500 – FAX 845-628-7085

DISCLOSURE ADDENDUM STATEMENT TO APPLICATION, PETITION & REQUEST

Mindful of the provisions of Section 809 of the General Municipal Law of the State of New York, and Penal Provisions thereof as well, the undersigned applicant states that no State officer, Officer, or Employee of the Town of Carmel, or of the County of Putnam, has any interest, financial or otherwise, in this application or with, or in the applicant as defined in said statute, except the following person or persons who is or are represented to have only the following type of interest, in the nature and to the extent hereinafter indicated:

NONE

NAMES: ADDRESSES: RELATIONSHIP OR INTEREST
(FINANCIAL OR OTHERWISE)

This disclosure addendum statement is annexed to and made a part of the petition, application and request made by the undersigned applicant to the following board or office or political subdivision of the Town of Carmel.

- | | |
|---|--|
| <input type="checkbox"/> CARMEL TOWN BOARD | <input type="checkbox"/> ZONING ENFORCEMENT OFFICER |
| <input type="checkbox"/> ZONING BOARD OF APPEALS | <input type="checkbox"/> ARCHITECTURAL REVIEW BOARD |
| <input type="checkbox"/> BUILDING INSPECTOR | <input checked="" type="checkbox"/> ENVIRONMENTAL CONSERVATION BOARD |
| <input checked="" type="checkbox"/> CARMEL PLANNING BOARD | <input type="checkbox"/> OTHER |

DATED: 6-15-22

Camp Dresser McKee & Smith

INDIVIDUAL APPLICANT

[Signature]

CORPORATE APPLICANT

ROBERT LAGA
Chairman

NICHOLAS FANNIN
Vice Chairman

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APPLICATION FOR WETLAND PERMIT OR LETTER OF PERMISSION

Name of Applicant: Erik LeClair, Camp Dresser McKee & Smith

Address of Applicant: 11 British American Blvd, Suite 200 Email: leclaires@cdmsmith.com

Telephone# 518-0782-4573 Name and Address of Owner if different from Applicant:

NYCDEP BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION (NYCDEP BEDC)

Property Address: West Branch Auxiliary Dam; US Route 6
east of Drewville Road, Carmel NY Tax Map # 65.-1-5

Agency Submitting Application if Applicable: NYCDEP BEDC

Location of Wetland: Refer to Sheet G-004.

Size of Work Section & Specific Location: Refer to Site Plans attached.

Will Project Utilize State Owned Lands? If Yes, Specify: No.

Type and extent of work (feet of new channel, yards of material to be removed, draining, dredging, filling, etc). A brief description of the regulated activity (attach supporting details).

Refer to the attached Project Description.

Proposed Start Date: 12/1/2023 Anticipated Completion Date: 3/31/2026 Fee Paid \$

CERTIFICATION

I hereby affirm under penalty of perjury that information provided on this form is true to the best of my knowledge and belief, false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law. As a condition to the issuance of a permit, the applicant accepts full legal responsibility for all damage, direct or indirect, or whatever nature, and by whomever suffered, arising out of the project described here-in and agrees to indemnify and save harmless the Town of Carmel from suits, actions, damages and costs of every name and description resulting from the said project.

SIGNATURE

2-17-2023

DATE

ROBERT LAGA
Chairman

NICHOLAS FANNIN
Vice Chairman

RICHARD FRANZETTI
Wetland Inspector

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APPLICATION FOR A TREE CUTTING PERMIT

Name of Applicant: Erik LeClair, Camp Dresser McKee & Smith

Address: 11 British American Blvd, Suite 200 Tel. No. 518-0782-4573

Owner of Property: City of New York

Address: 71 Smith Avenue, Kingston NY Tel. No. _____

Tax Map Number: 65.-1-5 Total Land Area Involved: Project area is 4 acres with 3.6 acres of work area.

Number of trees of each species to be cut: 78 Range, in inches, of diameter, measured 4 & 1/2 feet
above the ground of the trees to be cut: 4" - 44" (Refer to page 4 of the project narrative.)

Total Board Foot Volume for each species to be cut: Refer to attached table

A Sketch Map drawn to scale must be attached showing:

1. Boundaries of Property.
2. Access Roads into property and proposed roads and skid trails in the property.
3. Area within the property where cutting will occur.
4. Location and size of product loading areas.
5. Any area of the property defined as a wetland by the Town of Carmel Wetland Law.
6. If tree cutting operation is to be conducted in stages, each stage shall be shown on the sketch map.
7. Scale of map.

A written statement must be attached stating that each tree to be removed has been designated with paint or other distinctive means at two points so as to be readily visible. One point shall be low enough on the tree so as to be visible on the stump after the tree is removed.

Permit Fee is: - Up to 5 acres - \$500.00 - 5 to 25 acres - \$1,000.00 - Over 25 acres - \$1,500.00

SIGNATURE OF OWNER

SIGNATURE OF APPLICANT

All property owners within 500 feet of the subject property must be notified by U.S. Mail prior to commencement of the operation.

**NYCDEP WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS
ENVIRONMENTAL CONSERVATION BOARD APPLICATION**

Common Name	Number to be Removed	Diameter at Breast Height (inches)	Average DBH (Inches)	Average Tree Height (feet)¹	Log Board Foot Calculator² (board feet) per tree	Log Board Foot Calculator² (board feet) total species
White Pine	9	14 to 36	25	65	1,792	16,124
Norway Maple	7	8 to 18	13	50	253	1,772
Black Birch	11	6 to 16	11	45	138	1,516
Red Maple	13	8 to 16	12	75	300	3,900
Sugar Maple	12	4 to 28	16	70	630	7,560
Shagbark Hickory	3	6 to 10	8	75	75	225
Slippery Elm	2	6 to 10	8	65	65	130
European Larch	11	6 to 16	11	85	260	2,863
White Ash	3	10 to 23	16.5	65	635	1,904
White Oak	2	26 to 44	35	70	4,204	8,409
Amelanchier Sp.	1	6	6	70	18	18
Hop Hornbeam	2	5 to 8	6.5	35	14	27
American Elm	2	6 to 7	6.5	70	27	55

Notes:

1. Tree heights are based on USDA US Forest Research Data.
2. Doyle Log Scale used to calculate log board foot volume.
3. All trees within the proposed work area have been tagged and numbered near breast height as listed on the plans. Prior to commencing tree cutting, the Construction Manager will add the tree numbers with paint at stump level.

Project Description

The proposed project (Contract CRO-534) includes improving the stability of the downstream slope increasing the downstream slope stability factor of safety to meet or exceed the minimum required factors of safety as outlined in the New York State Department of Environmental Conservation (NYSDEC) "Guidelines for Design of Dams"; installing subsurface drainage to eliminate ponding conditions at the toe of slope; reconstructing U.S. Route 6 along the crest of the dam; and improving the management of roadway drainage. The project will bring the dam into conformance with current NYSDEC Dam Safety Guidelines and the reconstructed U.S. Route 6 that passes over the Auxiliary Dam crest will better meet current NYSDOT standards.

The tax parcel (block 65.-1-5) the Auxiliary Dam resides within is 45.83 acres in size and is zoned as a waterbody. The project area is approximately 4 acres in size although physical work would be confined to an area of 3.6 acres. The block and lot map is included in **Attachment 1** and project area zoning map are provided in **Attachment 4** with a list of adjoining property owners within 500 feet of all boundaries of the project site.

The reconstruction of the auxiliary dam crest and downstream slope would temporarily impact traffic along this section of U.S. Route 6. Project work has been discussed closely with NYSDOT as well as the Town of Carmel. In addition, freshwater wetlands regulated by US Army Corps of Engineers (USACE), NYSDEC and the Town of Carmel are located at the toe of the downstream side of the auxiliary dam. Existing site structures (maintenance road, dam drainage structure and a portion of the auxiliary dam itself) reside within 100 feet of the wetland boundary. In addition, an existing 12" drainage pipe that carries seepage from the toe of the slope to a weir box located in the wetland has failed. In kind replacement of the failed pipe would be required and would result in a temporary impact to the wetland. Construction activities would be required within the wetland regulated by USACE and NYSDEC and the NYSDEC regulated 100-foot adjacent area. Tree removal and cutting required for dam safety and construction purposes would be limited to the period between November 1 and March 31 in consideration of the Northern Long-Eared Bat and Indiana Bat.

Construction is anticipated to take place over two construction seasons. Generally, the first construction season would be utilized to address the dam slope while the second construction season work would focus on the improvements and widening U.S. Route 6 and final site restoration.

Approximately 3,500 cubic yards of unsuitable material would be disposed of offsite and approximately 20,000 cubic yards of material would be brought to the site over the two construction seasons. Soil samples from the site were collected between October 31 and November 18, 2016. The lab analysis indicated that no special handling, disposal or health and safety measures are anticipated to be required for handling excavated soils. The proposed project does not include the construction of above ground structures. The proposed work would be inspected by a full-time construction manager and the designer would be onsite as required.

Work at this location would require special consideration to limit the risk of construction-related material entering the West Branch Reservoir. The proposed project work that would be closest to the Reservoir involves the improvements to U.S. Route 6 at the crest of the dam. This work would be

approximately 25 feet from the reservoir and its banks. A turbidity curtain (or curtains) would be installed in the reservoir when work takes place to prevent impact to the Reservoir.

Existing Conditions

The New York City Department of Environmental Protection (DEP) operates a series of water supply reservoirs servicing the City of New York (“the City”) and upstate communities. The West Branch Reservoir is located in the DEP East of Hudson reservoir system and is part of the Croton Watershed. It is controlled by two dams, the West Branch Main Dam and West Branch Auxiliary Dam (NYS ID 231-0511B). Both dams are owned by the City and are operated by DEP Bureau of Water Supply – Dam Safety. The reservoir and dam are located in the Town of Carmel in Putnam County, New York.

The West Branch Auxiliary Dam was completed in 1895. The dam is approximately 1.3 miles southwest of the main dam on the southern tip of the West Branch Reservoir. The dam is 64 feet high and 750 feet long and carries U.S. Route 6 along the crest of the dam. Drewville Road is to the south. The upstream slope is approximately 2H:1V (Horizontal to Vertical). Plans indicate the downstream slope is at 2.4H:1V; however, the upper 10 feet of the slope adjacent to the roadway is steeper at approximately 1.8:1.

Inspections were completed on the Auxiliary Dam in 2008 and 2009 to identify potential issues associated with movement of the downstream slope. The issues identified were pavement cracking; surface drainage problems, leaning guide rail and utility poles; erosion and slope stability of the downstream slope; and ponded water at the downstream toe. In 2012, URS and CDM in joint venture performed a detailed study of the dam, evaluated the site conditions, investigated several options for remediation, and ultimately recommended flattening the downstream slope and widening the crest of the dam. The recommended action includes flattening the downstream slope and widening the crest of the auxiliary dam. Implementation of this work will address the slope stability issues identified in the report, extend the life of the dam and improve U.S. Route 6, as the widening of the dam provides room for the construction of a shoulder and minor widening of the lanes. These roadway improvements have been coordinated with the NYSDOT.

Wetlands

Freshwater wetlands were delineated by CDM Smith on the project site on June 14, 2016. Wetlands were delineated in accordance with the New York State Freshwater Wetland Act and the USACE 1987 Wetlands Delineation Manual (Environmental Laboratory, 1987)[the Manual], and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (v 2.0)(ERDC/EL TR-12-1 dated January 2012)[the Regional Supplement]. Three areas were flagged with wetland characteristics and subsequently named Wetlands 1 through 3. The boundaries of each of the wetlands were flagged with blue tape. Wetland #1 did not fully meet the definition of a jurisdictional wetland and is approximately 2,351 square feet in size. The area is primarily characterized as a stone lined seepage drainage feature located at the toe of the dam slope. This feature collects water that drains through two pipes beneath the onsite maintenance road and ultimately empties into the wetland and associated stream. Wetlands #2 and #3 were determined to be jurisdictional wetlands. Wetland #2 coincides with the area identified as NYSDEC regulated freshwater wetland LC-30 and falls under USACE

jurisdiction. Wetland LC-30 is located to the east of the dam slope and is approximately 48 acres in size. NYSDEC conducted a site visit on November 2, 2017 and confirmed their jurisdiction of Wetland #2 (LC-30) as flagged in the field. Wetland #3 is approximately 4,120 square feet in size and is located towards the northern extent of the dam slope in an area that is regularly mowed. Wetland #3 is under the jurisdiction of USACOE.

Permits required to conduct work in the wetland areas have been filed through the state and federal agencies (NYSDEC and USACE). Permits, once issued by NYSDEC and USACE will be provided to the Town of Carmel per the requirements of the Town Code.

Proposed Project

The following provides a highlight of the proposed site changes.

Tree Removal

Tree cutting is required to establish a 20-foot clear area at both ends of the dam in accordance with DEC Dam Safety Guidelines and to provide safe access to the site entrance driveway for large construction vehicles. Approximately 78 trees will be cut to create the required 20-foot clear area, to establish a temporary gravel construction access road and to modify the existing site entrance driveway off Drewville Road to provide safe construction vehicle access. Tree cutting would be limited to the period between November 1 and March 31 in consideration of the Northern Long Bat and the Indiana Bat.

The list of trees to be removed is summarized in the table below and the locations shown in the Tree Removal Plan drawings in **Attachment 1**.

Summary of Trees to Be Removed

Common Name	Number to be Removed	Diameter at Breast Height (inches)
White Pine	9	14 to 36
Norway Maple	7	8 to 18
Black Birch	11	6 to 16
Red Maple	13	8 to 16
Sugar Maple	12	4 to 28
Shagbark Hickory	3	6 to 10
Slippery Elm	2	6 to 10
European Larch	11	6 to 16

Common Name	Number to be Removed	Diameter at Breast Height (inches)
White Ash	3	10 to 23
White Oak	2	26 to 44
Amelanchier Sp.	1	6
Hop Hornbeam	2	5 to 8
American Elm	2	6 to 7

Excavation and Fill of Dam Slope

Excavation and fill construction activities would be progressed from the toe of slope to the crest of the dam. Construction activities on the dam would be restricted to a defined area. Material along the downstream slope would be removed in steps or benches to reduce the tendency of the new embankment to slide down the existing slope. The material that is removed to create the benching would be tested and reused as embankment fill if found to be suitable. In addition, topsoil removed would be stored and reused upon completion of the embankment fill. Drawings are provided in **Attachment 1**.

Reconstruction of U.S. Route 6

U.S. Route 6 would be reconstructed within the limits of the dam crest. Currently, the existing roadway has two 11-foot wide travel lanes with two-foot wide shoulders. The proposed roadway would shift the centerline by approximately 3 feet towards the downstream side of the dam creating two 11.5-foot wide travel lanes and 2.5-foot wide shoulders. A Work Zone Traffic Control (WZTC) plan would be implemented with temporary traffic control measures during construction in coordination with the NYSDOT, Putnam County and Town of Carmel. Drawings are provided in **Attachment 1**. Site photos reflecting existing site conditions and anticipated post-construction conditions are provided in **Attachment 2**.

Installation of Instrumentation

Several pieces of instrumentation are proposed to be installed. Specifically, six inclinometers would be installed at two locations located in the flat area adjacent to the guide railing at the top of the downstream slope. Four water level sensors would be installed to measure water level elevation in the three existing V-notch weirs and the proposed monitoring vault within the existing seepage chamber. The four existing vibrating wire piezometers, grouted casings, and data collection systems would be maintained in their current location. The existing casings would be extended to meet the proposed slope ground surface elevation. An additional eight vibrating wire piezometers would be installed at four new well locations.

Site Drainage Improvements

Site drainage improvements would be implemented throughout this project. Improvements include underdrains and surface drainage structures to U.S. Route 6 and along the crest of the dam. Roadway runoff would be carried to the southern abutment of the dam where it would be directed to a stone-lined drainage swale with check dams. The swale would then carry water to a drainage structure near the base of the dam, where it would be directed to a water quality feature (i.e. vegetated bio-retention basin) and then piped beneath the access roadway to discharge into the wetland. The roadway drainage system would be isolated from the downstream slope's surface drainage along with the monitored toe drain seepage collection system. The stone-lined drainage swale at the northern groin would be realigned to follow the contour of the new groin and would direct runoff from northern end of the dam to the existing wetland. A new curtain drainage system would be installed along the toe of the dam to collect seepage from below the toe of the downstream slope. All existing drainage pipes would be removed and replaced. Newly installed drainage pipes will be connected to each of the existing curtain drain discharge points and v-notch weirs.

To address roadway runoff, the improvements include a post-construction treatment practice – a bioretention basin. The bioretention basin will be located adjacent to the dam and will provide water volume control and water quality treatment for roadway drainage captured along the reconstructed portion of Route 6. Water exiting the bioretention basin will be directed to the onsite wetlands. Drawings are provided in **Attachment 1**.

Temporary and Permanent Impacts to Onsite Wetlands

Temporary and permanent impacts are to be a result from work activities in each of the three delineated wetlands. The following table provides a summary of these impacts from construction activities to the three areas flagged as exhibiting wetland characteristics.

Summary of Temporary and Permanent Impact on Onsite Wetlands

Delineated Areas	Temporary Impact (square feet)	Permanent Impact (Fill) (square feet)
Wetland 1	0	2,351
Wetland 2	1,500	0
Wetland 3	500	0

As shown in the table, construction activities would result in a permanent impact of 2,351 square feet to Wetland 1; 1,500 square feet of temporary impact to Wetland 2; and 500 square feet of temporary impact to Wetland 3. Work activities conducted in Wetland 1 includes filling in the existing stormwater drainage feature to flatten out the downstream slope. Work activities to be conducted in Wetland 2 includes the replacement of a failed 12-inch drainage pipe. Approximately 1,500 square feet of wetland would be temporarily impacted to repair the drainage feature. Wetland soils would be stockpiled separately and used to backfill and restore the trenched area upon completion of the pipe replacement.

The existing auxiliary dam toe of slope and maintenance road are within the NYSDEC 100-foot adjacent area to Wetland 2. The maintenance road would be replaced in the same location. The dam slope, toe of slope and seepage drainage collection system would be replaced in an area further east of the current locations. However, no new permanent structures are being constructed within wetland. Work activities to be conducted in Wetland 3 includes the area being used as second contractor site access point from U.S. Route 6. Approximately 500 square feet of wetland would be temporarily impacted during construction activities. Impacts from construction vehicles will be mitigated through the use of geotextile matting or equivalent materials.

The stone-lined drainage feature identified as Wetland 1 would be permanently filled as part of this proposed project to allow for the flattening of the downward facing slope bringing the dam into compliance with current dam safety guidelines. The drainage system will continue to direct water to the wetlands as it currently does. Areas disturbed in Wetland 2 and Wetland 3 would be restored to pre-existing conditions resulting in no reduction of wetland area or function. In addition, there is no direct work activities in the reservoir or onsite stream. A turbidity curtain would be installed in the reservoir to protect water quality during the reconstruction of U.S. Route 6. The turbidity curtain would be removed upon completion of work activities on U.S. Route 6. Therefore, it is not anticipated that construction activities will cause either temporary or permanent adverse impacts to the jurisdictional wetlands.

Permits required to conduct work in the wetland areas have been filed through the state and federal agencies (NYSDEC and USACE). Permits, once issued by NYSDEC and USACE will be provided to the Town of Carmel per the requirements of the Town Code.

Site Landscaping

The proposed project would disturb approximately 3.6 acres of land and require the removal of approximately 3,500 cubic yards of material. Approximately 20,000 cubic yards of material would be brought to the site to reconstruct the face of the dam and improvements to U.S. Route 6. Disturbance from construction activities would be limited to the extent practicable. The vegetation that would be removed from the face of the West Branch Auxiliary Dam would be restored and revegetated with native low maintenance vegetation after slope construction. Trees would not be replanted on the dam groins or adjoining slope (20-foot clear area). Limited tree and shrub planting will take place at the entrance driveway on Drewville Road as the conclusion of all work. In addition, similar habitat is provided for dependent wildlife species beyond the 20-foot clear area in the forested area to the east of the auxiliary dam and other areas of the 2,000 acres associated with the West Branch Reservoir. Other site areas impacted from construction activities including the small area of the wetlands disturbed to replace the 12-inch drainage pipe, would be restored and revegetated with similar native vegetation.

The 20-foot clear area will be revegetated with DEP Bureau of Water Supply (BWS) specified goose-deterrent field grass cover when construction is complete. The cleared area at the site entrance will be replanted with trees and shrubs. A bioretention basin will be constructed adjacent to the dam for collection and water quality treatment of the captured roadway drainage. Proposed planting at the site entrance and within the basin has been coordinated with DEP-BWS Natural Resources staff.

Miscellaneous Site Work

The existing site maintenance driveway that parallels Drewville Road would be restored and resurfaced at the end of construction. Specifically, the portion of the driveway that parallels the toe of slope would be restored with gravel while the upper portion of the driveway would be restored with asphalt. Existing overhead utilities along U.S. Route 6 would be relocated on new poles along the north-bound lane of the highway. The low-level outlet pipes that run from the gate house to the fountain are currently plugged with grout at both ends. An intermediate vault within these pipelines within the dam is currently filled with gravel. The gravel would be removed from this intermediate vault to allow for manhole access so that waterflow due to seepage through these pipes could be visually monitored by DEP-BWS staff.

Proposed Project Construction

Construction is anticipated to occur over two construction seasons. Construction would not take place during the winter months due to unsafe working conditions for the contractor. The first construction season would occur in 2023 and focus on stabilizing the downstream slope of the dam. Equipment expected on site includes excavators, backhoes, skid steers, dump trucks, chippers and hand-held equipment. Heavy equipment is not expected to be routinely used in either construction season. Approximately 50 truckloads of excavated material that cannot be reused on site would be removed and approximately 1,550 truckloads of material would be delivered to the project site during the first construction season. Excavated soil would be reused onsite to the maximum extent practicable. It is estimated that the duration of construction activities would last approximately 6 months and occur during the daytime hours between 7 AM to 5 PM.

The second construction season would occur in 2024 and focus on improvements to U.S. Route 6, installation of stormwater controls and final site restorations. Anticipated equipment during this phase of construction includes backhoes, pavers, dump trucks, pick-up trucks, and excavators. Approximately 120 truckloads of excavated material that cannot be reused onsite would be removed and approximately 110 truckloads of material would be delivered to the project site. It is estimated that construction activities would occur for a duration of 4 months and take place during the nighttime hours between 8 PM to 6 AM (as requested by the Town of Carmel).

Construction during each of the seasons would take place Monday through Friday and not include holidays, in accordance with the Town of Carmel Code. Work would be inspected by a full-time construction manager and the designer would be on site as required.

Construction Sequencing:

It is anticipated that construction mobilization would occur over a duration of 4 months. During this period of time, the contractor would be assembling equipment, potentially conducting tree removal activities, and preparing submittals required prior to going onto the project site. Construction activities during the first season would occur over an approximate 6-month period and are summarized below:

- Install erosion and sediment control practices prior to initiating construction activities. This includes the installation of a double row of silt fencing to exclude Bog Turtle from work area.

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- Trees within 20 feet of the proposed toe of slope would be cut and stumps removed. This is required to meet current NYSDEC Dam Safety Guidelines and to provide a safe working environment for the contractor and DEP personnel. Limited to the period between November 1 and March 31.
- Construct temporary improvements to existing Access Road driveway and establish contractor staging area.
- Remove the stone swale at the existing toe of slope providing area for construction of the new downstream slope.
- Install a subsurface curtain drainage system to collect seepage along the proposed toe of the dam and connect the system to three existing measuring weir boxes. The curtain drain would consist of perforated HDPE pipe surrounded by crushed stone and a filter sand layer.
- Replace failed drainage pipe within wetland.
- Remove and temporarily store existing topsoil and embankment fill excavated from the slope. The excavated embankment fill would be re-used in construction of the proposed embankment slope. Topsoil would be re-used for turf establishment on the slope.
- Place embankment fill on the downstream slope of the dam. The fill would widen the dam crest by approximately 8 feet, and provide a single, consistent slope of 2.4:1 over the full height of the downstream slope.
- Seed completed embankment and adjoining work areas.
- Install bioretention feature and associated plantings and piping.
- Relocate the existing stone-lined drainage swales at both abutments of the dam to the newly established groins of the reconfigured slope.
- Excavate gravel fill from the existing intermediate, low-level outlet pipe vault located along the masonry outlet tunnel running from the gatehouse to the fountain. Install a manhole access to the vault through the proposed embankment fill.
- Remove the 3-foot diameter low-level outlet pipe from the outlet tunnel to allow access for inspection of the tunnel, and to facilitate monitoring of seepage through the tunnel walls.
- Replace the existing masonry seepage chamber at the toe of slope with a concrete structure and establish access to the chamber through the new slope via a manhole.
- Maintain four existing vibrating wire piezometers, grouted casings, and data collection systems, and extend casing to meet proposed slope ground surface elevation.
- Install eight new piezometer sensors at four new well locations.

- Install four water level sensors to measure water elevation in three existing V-notch weirs and seepage chamber.
- Reconfigure two existing inclinometer wells to allow future access from within the roadway shoulder. Install six permanent inclinometers in the two existing wells.

The following work is anticipated to occur during the second construction season over a duration of approximately 4 months. Construction activities would occur during the overnight period from 8 PM to 6 AM to limit the impacts on traffic. Activities are summarized below:

- Reconstruct U.S. Route 6 within the limits of the dam crest. This work includes removal and replacement in-kind of the existing galvanized steel guide railing, asphalt pavement, and partial removal of the granular subbase. Lane and shoulder widths would be increased as approved by NYSDOT.
- Install a closed highway drainage system along U.S. Route 6 using NYSDOT-approved drainage structures and piping. The drainage system would outlet at a stone-lined swale at the north side of Drewville Road.
- Relocate the existing overhead utility lines to new utility poles within the limits of work along U.S. Route 6. (Maybe completed during the first year of construction.)
- Restore and resurface the maintenance access roadway adjacent to Drewville Road at the end of construction.
- Install trees and shrubs at restored entrance driveway on Drewville Road.
- Revegetate (loam and seed) remaining disturbed areas.

Erosion and Sedimentation Control Measures

Erosion and sedimentation control measures and spill prevention requirements would be implemented prior to initiating land disturbing construction activities. These measures would prevent silt, sediment, fuels, solvents, lubricants, concrete, grout or other pollutants from migrating offsite as runoff or entering the wetlands, reservoir or existing stormwater control measures. Construction would not start until all erosion and sedimentation control measures and best management practices (BMPs) are in place. Furthermore, the work activities along the slope would be restricted to only clearing and excavating areas within this discreet work area to limit the area of soil exposed and subject to erosion at any given time. Specifically, the work area will be limited to an area that is 50-foot wide by up to 750-foot long (length of dam) in accordance with the Contract Documents. In addition, the work area would be backfilled and stabilized as work progresses up the slope to ensure the slope remains stable throughout the work.

Control measures anticipated to be used throughout the duration of the project would include:

- **Silt Fence:** A temporary barrier of geotextile fabric or filter cloth and reinforced with posts would be installed along the toe of the dam at the east side of the project site. The silt

- fencing would intercept sediment-laden runoff from the areas of disturbed soil thereby preventing the flowing of sediment outside the project boundary.
- **Turbidity Curtain:** A temporary turbidity curtain would be placed in the reservoir when work is initiated on the US Route 6 roadway at the crest of the dam.
 - **Storm Drain Inlets Protection:** A temporary, semi-permeable barrier would be installed within storm drain inlets in the project area to filter and settle out sediments from runoff before it enters the storm inlet.
 - **Dust Suppression:** Visual air monitoring would be performed concurrently with site construction activities. Dust suppression may include the use of water. The site may be sprayed with water until the surface is wet. This is especially effective on the driving areas and entrance ways to the construction work areas.
 - **Temporary Seeding and Mulching:** Areas disturbed or rough graded that are subject to erosion would receive a temporary seeding in combination with straw mulch or a suitable equivalent.
 - **Erosion Control Blankets:** Erosion control blankets would be used on slopes 3 horizontal to 1 vertical or steeper to stabilize soils. Blankets to be placed immediately after seeding.
 - **Maintenance of Site Grading:** The site would be maintained and graded such that all stormwater runoff is diverted to soil erosion and sediment control features.
 - **Stockpiling Restrictions:** Stockpiling of soils would be restricted to a designated area at the project site. Silt fence would surround the soil stockpiles to prevent migration and to capture loose soil.
 - **Site Restoration:** The final site restoration includes grading and spreading loam and seeding on the non-rip rap work area. The temporary staging area would be restored (graded and replanted) at the conclusion of the work.

As mentioned earlier under Site Drainage improvements, post construction roadway drainage would be directed by curbing to catch basins and piped to newly lined stone groins located on the southern and northern ends of the auxiliary dam that would ultimately drain into the downgradient wetlands. Coordination of the stormwater improvements with the Town of Carmel would take place as the Town is a Local MS4. Permanent changes to the roadway drainage would also be discussed with New York State Department of Transportation (NYSDOT) as U.S. Route 6 is under their jurisdiction. The proposed action would not result in a significant adverse impact to the local stormwater collection system as the roadway drainage and auxiliary dam seepage would be addressed onsite. The new stormwater collection system would direct roadway drainage to the groin swales reducing the potential for erosion of the downstream slope. The erosion and sedimentation control measures to be implemented during construction and post-construction measures are reflected on the project drawings (**Attachment 1**) and detailed in the Stormwater Pollution Prevention Plan (**Attachment 3**).

Construction Traffic

Notification of the project will extend beyond the site plan review process to ensure the public is aware of lane closures and other potential project impacts. Road messaging boards will be used as well as

notification on the Town website. Traffic impacts during construction activities would be maintained and minimized to the extent possible throughout the duration of the proposed project. During construction of the embankment fill (construction season 1), contractor vehicular access to the project site would be primarily via the gated West Branch Auxiliary Dam site access road off Drewville Road. Some construction related traffic such as material deliveries may access the site from the secondary driveway off U.S. Route 6. This would minimize traffic impacts to U.S. Route 6 with construction vehicles entering and exiting the site. In addition, contractor parking would not be permitted along Drewville Road or U.S. Route 6. Instead, contractor parking would be strictly limited to the auxiliary dam itself to reduce any traffic that may be created from contractor's vehicles.

During the first construction season U.S. Route 6 is expected to remain open to traffic in both directions. However, temporary lane closures may occur throughout the project to allow for safe movement of equipment or to provide for worker safety. Temporary lane closures will be limited to non-peak hours between 9 AM to 3 PM. Based on the traffic impact study, the addition of construction traffic was determined to have a minimal impact on the existing traffic conditions.

During the second construction season, temporary impacts to traffic will occur during the reconstruction of U.S. Route 6. It was determined that the existing hourly volume of vehicles using U.S. Route 6 dramatically decreases after 7 PM. Therefore, work is scheduled to start at 8 PM. Specifically, nighttime lane closures would be required during reconstruction of the roadway. During the nighttime reconstruction of U.S. Route 6, traffic would be maintained using temporary traffic signals controlling alternating one-way traffic. Emergency services (i.e., fire and ambulance) will have the ability to pre-empt temporary signals when necessary. Occasional closures of both lanes would be necessary but are expected to be infrequent and short duration (< 15 minutes) to allow for safe construction operations such as relocating channelizing devices, equipment or materials. At the end of each work night, the roadway would be reopened fully to allow for two-way traffic to flow freely during the daytime period. During the first season of construction, temporary signals at the Route 6/Drewville Road intersection will be covered when not in use and use of the signals will be limited at the contractor's staging area across from Shaft 10. The roadway during the ongoing work would likely be a gravel surface or compacted subbase. The speed limit through this area would be reduced to 25 miles per hour for the duration of the work. In addition, a Work Zone Traffic Control (WZTC) plan would be implemented in coordination with the NYSDOT, Putnam County and Town of Carmel. The WZTC is provided in **Attachment 1**.

In summary, the addition of construction related traffic to Drewville Road and U.S. Route 6 during the first construction season is anticipated to result in a small delay during the peak hour. The impact to traffic during the second construction season is unavoidable but of limited duration. The work zone protection plans provided in **Attachment 1** would ensure worker and traffic safety. Nighttime construction during the second construction season minimizes the potential impact on traffic through this corridor as both the northbound and southbound lanes of U.S. Route 6 would be open to traffic during the daytime hours when vehicle numbers are at their highest. Although traffic passing through the work zone would be impacted during the proposed work is unavoidable, the impact is for a limited duration. It is not anticipated that additional personnel will be required for long-term maintenance of the site; therefore, increased traffic volumes at the site are not expected beyond the construction period.

Noise

Potential noise related impacts during construction activities would result from the operating equipment including backhoes, hauling trucks, excavators, skid steers, dump trucks, grading equipment and hand-held power equipment. Private homes are located along Drewville Road, to the north, south and east of the proposed project work area. The closest residence to the project site is approximately 830 feet north of the work area off U.S Route 6. In addition, the closest residence on Drewville Road is located 1100 feet from the work area along the crest of the dam. There are residences directly across the reservoir approximately 1,700 feet from the crest of the dam.

Slope stabilization excavation and fill activities conducted during the first construction season would require the use of construction equipment that would generate noise throughout the normal daytime hours. According to the Town of Carmel noise code (Chapter 104-14 D.), construction activities are to be conducted to not produce sound level exceeding an L_{10} of 70 db(A) when measured at a distance of 400 feet in a residential-zoned district during the hours of 8:00 AM to 6:00 PM. Construction activities during the second construction season would occur between the hours of 6 PM to 8 AM.

Contractors are required to adhere to the requirements of the Town Code for Noise. Although the Town Noise Code references sound at a distance of 400 feet from the work area, no residences are located at that distance. As mentioned, the closest residences are approximately 830 feet from the work area (north on U.S. Route 6); 1,000 feet from the work area (south on Drewville Road); and 1,700 feet from the work area (across the reservoir on Washington Avenue). Noise Code requirements are anticipated to be met during daytime construction activities conducted during the first construction season. However, there is a potential for nighttime construction activities during the second construction season to exceed the Town Noise Code.

An assessment of potential nighttime noise impacts was conducted using the Roadway Construction Noise Model (RCNM). The RCNM is used to predict construction noise levels that can then be compared to noise level requirements and forecast compliance. Based on the assumptions within this model, nighttime noise would exceed the limit of 55 db(A) at a distance of 400 feet from the work area. However, it is important to note that there are no residences within 400 feet from the work area. At the closest residence located 850 feet north of the work area along U.S. Route 6, the nighttime noise level of 55 would be exceeded by 6.6 db(A). The calculation did not assume noise attenuation from topography and vegetation. Therefore, densely vegetated forested areas present between the work area and surrounding residences have the potential to act as a buffer and reduce the noise level below the level calculated by the model. In addition, it was determined that noise levels from construction activities would not exceed Noise Code levels at the properties across the reservoir along Washington Avenue. Construction activities during both seasons are anticipated to occur during the growing season when trees and vegetation are leafed out.

Nighttime noise is generally more noticeable as ambient noise levels are lower. The contract documents would inform the selected contractor of the requirements of the Town of Carmel Noise Code. Noise generated from the use of various types of construction equipment is for a limited duration and all equipment would be maintained to meet the manufacturer's requirements for noise attenuation (ex.

Exhaust muffler). Therefore, the temporary noise impacts during construction would not be considered significant.

Lighting

Nighttime work during the second construction season to reconstruct U.S. Route 6 would require the use of lighting to ensure both worker and traffic safety. Contractors are required to adhere to the requirements of the Town Code for Lighting. There is a potential for nighttime lighting to become visible to nearby residents. As mentioned, there are residences approximately 830 feet north of the work area off U.S. Route 6; 1,000 feet south of the work area off Drewville Road; and 1,700 feet west of the work area across the reservoir. Existing tree cover and vegetation between the work area and surrounding residences will help reduce impacts from lighting. The anticipated duration of nighttime lighting is limited to approximately 4-month period and is an essential requirement for the safety of both construction workers and traffic. Therefore, the potential impact is minimal.

Permits and Approvals

The following tables identify potential discretionary permits and approvals required to construct the proposed project:

Summary of Federal Permits

Agency	Permit/Approval
US ACE	Nationwide Permit #3-Maintenance (Attached)

Summary of New York State Permits/Approvals

Agency	Permit/Approval
NYSDEC	Protection of Waters Permit Dams and Impoundment Structures (Construct, Reconstruct, or Repair) (Attached)
NYSDEC	Protection of Waters – Stream Disturbance (Bed and Bank); Navigable Waters (Excavation and Fill) (Attached)
NYSDEC	Freshwater Wetlands (Attached)
NYSDEC	State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activities (GP 0-20-001)

Summary of Local Permits/Approvals

Agency	Permit/Approvals
NYCPDC	Design Commission Final Approval (Attached)
NYCDEP	Stormwater Pollution Prevention Plan Approval (Attached)
Town of Carmel	Site Plan Approval (Pending ECB Approval)
Town of Carmel	Building Permit

NYSDOT

Agency	Permit/Approvals
NYSDOT	Highway Work Permit for Utility Work (Contractor Application)

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NYCDEP West Branch Auxiliary Dam Slope Safety Improvements

NYC DEP Bureau of Environmental Planning and Assessment (BEPA) is the Lead Agency and is conducting the environmental review of this proposed project in accordance with NY SEQRA. The Lead Agency determination will be provided to the Town when available.

DEP-Regulatory & Engineering Programs (REP) has reviewed the Stormwater Pollution Prevention Plan (SWPPP) dated February 3, 2022 and provided its approval. The SWPPP and REP approval are provided in **Attachment 3**. The Town Engineer will conduct a review of the SWPPP for impact to the Town's MS4 for work performed outside of the NYSDOT-maintained roadway.

WEST BRANCH AUXILIARY SLOPE IMPROVEMENT
ENVIRONMENTAL CONSERVATION BOARD APPLICATION

Attachment 1

West Branch Auxiliary Dam Slope Stability Improvements:

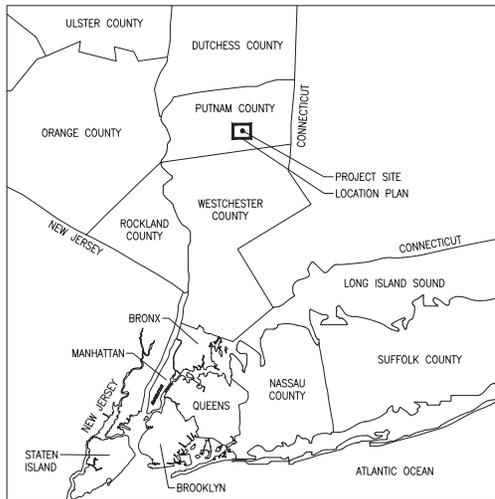
- **Site Plan Drawings**
- **Work Zone Traffic Control Plans**
- **Truck Routes**
- **Parcel Map**



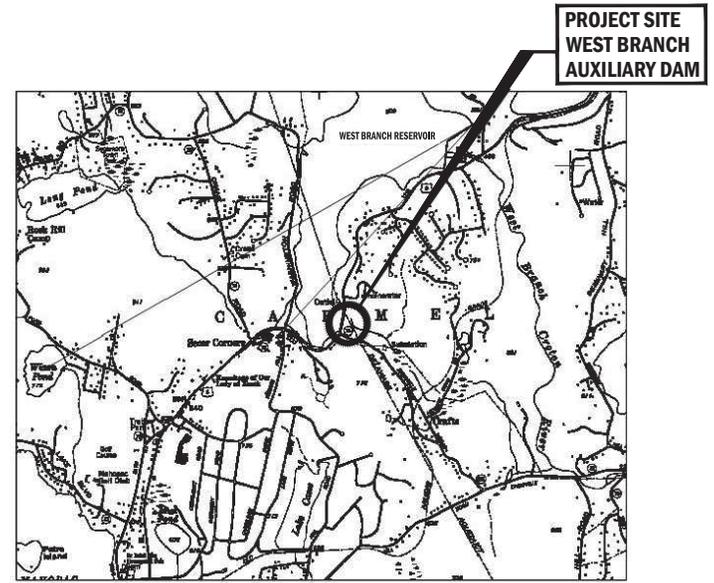
**NEW YORK CITY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION**

**WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS
CONTRACT CRO-534**

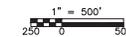
**PUTNAM COUNTY, NEW YORK
MAY 2022**



KEY PLAN
NOT TO SCALE



LOCATION PLAN



100% SUBMISSION

SEAN McANDREW, P.E.
EXECUTIVE DIRECTOR
WATER SYSTEM CAPITAL PROGRAM

ANA BARRIO
DEPUTY COMMISSIONER
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION

ROHIT T. AGGARWALA
COMMISSIONER
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Lead: David B. & Data: POWELL, Thursday, May 26, 2022, and Data: Powell/Weekend, Friday, 1:20:03 PM
 Plot Size: ANSI (D) (22.00 X 34.00 INCHES) Plot Scale: N/A
 Plot Style Table: BIDD_C_Drawing.ctb
 Drawing Name: & Location: C:\p\POWELL\LD\028637\G-001.00.dwg

INDEX OF DRAWINGS		
SHEET #	DRAWING #	SHEET TITLE
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2	G-001.00	INDEX
3	G-002.00	LEGEND & ABBREVIATIONS
4	G-003.00	GENERAL NOTES
5	G-004.00	SITE PLAN OVERVIEW
6	V-001.00	EXISTING CONDITIONS PLAN (1 OF 5)
7	V-002.00	EXISTING CONDITIONS PLAN (2 OF 5)
8	V-003.00	EXISTING CONDITIONS PLAN (3 OF 5)
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59	G-049.00	SOIL EROSION & SEDIMENT CONTROL DETAILS (2 OF 2)
60	C-050.00	GUIDE RAIL PLAN (1 OF 3)
61	C-051.00	GUIDE RAIL PLAN (2 OF 3)
62	C-052.00	GUIDE RAIL PLAN (3 OF 3)
63	C-053.00	GUIDE RAIL DETAILS (1 OF 6)
64	C-054.00	GUIDE RAIL DETAILS (2 OF 6)
65	C-055.00	GUIDE RAIL DETAILS (3 OF 6)
66	C-056.00	GUIDE RAIL DETAILS (4 OF 6)
67	C-057.00	GUIDE RAIL DETAILS (5 OF 6)
68	C-058.00	GUIDE RAIL DETAILS (6 OF 6)

INDEX OF DRAWINGS		
SHEET #	DRAWING #	SHEET TITLE
69	C-059.00	SIGN & PAVEMENT MARKING PLAN (1 OF 3)
70	C-060.00	SIGN & PAVEMENT MARKING PLAN (2 OF 3)
71	C-061.00	SIGN & PAVEMENT MARKING PLAN (3 OF 3)
72	L-001.00	TREE REMOVAL PLAN (1 OF 4)
73	L-002.00	TREE REMOVAL PLAN (2 OF 4)
74	L-003.00	TREE REMOVAL PLAN (3 OF 4)
75	L-004.00	TREE REMOVAL PLAN (4 OF 4)
76	GI-001.00	INSTRUMENTATION LEGEND
77	I-001.00	INSTRUMENTATION PLAN
78	I-002.00	CONTROL SYSTEM ARCHITECTURE
79	I-003.00	AUXILIARY DAM MONITORING P&ID
80	I-004.00	INSTALLATION DETAILS (1 OF 2)
81	I-005.00	INSTALLATION DETAILS (2 OF 2)

NYSDDOT ITEM #	DESCRIPTION	UNIT
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY
203.03	EMBANKMENT IN PLACE	CY
203.21	SELECT STRUCTURAL FILL	CY
206.0201	TRENCH AND CULVERT EXCAVATION	CY
207.20	GEOTEXTILE BEDDING	SY
207.21	GEOTEXTILE SEPARATION	SY
209.110601	CHECK DAM (DITCH BOTTOM WIDTH 0.0FT TO 3FT) - PERMANENT	EA
209.13	SILT FENCE - TEMPORARY	LF
209.1501	TURBIDITY CURTAIN - TEMPORARY	LF
209.1801	ROLLED EROSION CONTROL PRODUCT, CLASS 1 TYPE A, SHORT TERM	SY
209.22	CONSTRUCTION ENTRANCE	SY
304.11	SUBBASE COURSE, TYPE 1	CY
304.15	SUBBASE COURSE, OPTIONAL TYPE	CY
402.097204	9.5 F2 TOP COURSE HMA, 70 SERIES COMPACTION	TON
402.197904	19 F9 BINDER COURSE HMA, 70 SERIES COMPACTION	TON
402.377904	37.5 F9 BASE COURSE HMA, 70 SERIES COMPACTION	TON
407.0103	STRAIGHT TACK COAT	GAL
416.10000018	COLD RECYCLING ASPHALT CONCRETE - COARSE	SY
416.20000018	ASPHALT EMULSION	GAL
416.22000018	PERFORMANCE GRADED BINDER	GAL
416.30000018	FOG SEAL	GAL
418.7603	ASPHALT PAVEMENT JOINT ADHESIVE	LF
490.30	MISCELLANEOUS COLD MILLING	SY
520.09000010	SAW CUTTING ASPHALT CONCRETE	LF
552.17	SHIELDS AND SHORING	SF
603.171116	GALVANIZED STEEL END SECTIONS - PIPE (2-2/3" X 1/2" CORRUGATIONS) 15 INCH DIAMETER, 16 GAUGE	EA
603.171216	GALVANIZED STEEL END SECTIONS - PIPE (2-2/3" X 1/2" CORRUGATIONS) 18 INCH DIAMETER, 16 GAUGE	EA
603.171614	GALVANIZED STEEL END SECTIONS - PIPE (2-2/3" X 1/2" CORRUGATIONS) 30 INCH DIAMETER, 16 GAUGE	EA
603.98060005	POLYVINYL CHLORIDE PRESSURE PIPE (SEWER) 6 NPS	LF
603.98100402	SMOOTH INTERIOR PERFORATED CORRUGATED POLYETHYLENE UNDERDRAIN PIPE - 4 INCH DRAIN PIPE (12")	LF
603.9812	SMOOTH INTERIOR CORRUGATED POLYETHYLENE CULVERT AND STORM DRAIN PIPE (15")	LF
603.9815	SMOOTH INTERIOR CORRUGATED POLYETHYLENE CULVERT AND STORM DRAIN PIPE (15")	LF
603.9824	SMOOTH INTERIOR CORRUGATED POLYETHYLENE CULVERT AND STORM DRAIN PIPE (24")	LF
604.10	PREFABRICATED ADJUSTMENT RINGS FOR MANHOLES	EA
604.300203	RECTANGULAR DRAINAGE STRUCTURE - STRUCTURE TYPE 02 - FRAME NO. 03	LF
604.301873	RECTANGULAR DRAINAGE STRUCTURE - STRUCTURE TYPE R FOR CAST IRON R3 FRAME	LF
604.4048	4FT DIAMETER PRECAST MANHOLE	LF
604.4072	6FT DIAMETER PRECAST MANHOLE	LF
605.0901	UNDERDRAIN FILTER, TYPE I	CY
605.1602	PERFORATED POLYVINYL CHLORIDE UNDERDRAIN PIPE (6")	LF

SUMMARY OF PROPOSED WORK & CONSTRUCTION SEQUENCE

1. PROVIDE REQUIRED SUBMITTALS & OBTAIN APPROVALS
2. MOBILIZE TO PROJECT SITE
3. IMPLEMENT SWPPP & INSTALL SOIL & WATER POLLUTION CONTROL MEASURES
4. INSTALL WORK ZONE TRAFFIC CONTROL SYSTEMS
5. COMPLETE TREE REMOVALS
6. CONSTRUCT TEMPORARY SITE ACCESS ROAD & ENTRANCE WIDENING
7. INSTALL EMBANKMENT TOE DRAIN & SEEPAGE INSTRUMENTATION
8. CONSTRUCT BIOSWALE
9. INSTALL SLOPE MONITORING INSTRUMENTATION
10. ACCESS LOW LEVEL OUTLET TUNNEL & REMOVE OUTLET PIPE
11. CONSTRUCT EMBANKMENT FILL
12. INSTALL HIGHWAY DRAINAGE SYSTEM
13. CONSTRUCT ROUTE 6 IMPROVEMENTS
14. PARTIALLY REMOVE TEMPORARY SITE ACCESS ROAD
15. RESURFACE EXISTING SITE ACCESS ROAD
16. SITE RESTORATION
17. CONTRACT CLOSEOUT

HIGHLIGHTED SHEETS INCLUDED IN SUBMISSION FOR TOWN OF CARMEL ENVIRONMENTAL CONTROL BOARD REVIEW.
 ONLY SHEETS PERTINENT TO ECB APPLICATION INCLUDED.

NYSDDOT ITEM #	DESCRIPTION	UNIT
606.10	BOX BEAM GUIDE RAILING	LF
606.100002	BOX BEAM GUIDE RAILING (SHOP BENT OR SHOP MITERED)	LF
606.120101	BOX BEAM END ASSEMBLY, TYPE I	EA
606.18	WEAK-POST, CORRUGATED BEAM GUIDE RAIL	LF
606.180001	WEAK-POST, CORRUGATED BEAM GUIDE RAIL (SHOP CURVED)	LF
606.22	ANCHORAGE UNITS FOR CORRUGATED BEAM GUIDE RAILING	EA
606.71	REMOVING AND DISPOSING CORRUGATED BEAM GUIDE RAILING	LF
606.73	REMOVING AND DISPOSING BOX BEAM GUIDE RAILING	EA
606.7910	REMOVING AND DISPOSING ANCHORAGE UNITS FOR CORRUGATED BEAM GUIDE RAILING AND MEDIAN BARRIER	LF
606.8101	GUIDE RAIL TRANSITION WEAK-POST CORRUGATED BEAM TO BOX BEAM GUIDE RAIL (ONE OR TWO WAY OPERATION)	EA
609.0401	CAST-IN-PLACE CONCRETE CURB	LF
610.1402	TOPSOIL - ROADSIDE	CY
610.1601	TURF ESTABLISHMENT - ROADSIDE	SY
619.01	BASIC WORK ZONE TRAFFIC CONTROL	LS
619.1301	TEMPORARY TRAFFIC SIGNALS	ELOC
619.1302	TEMPORARY TRAFFIC SIGNALS	ELOC
619.1303	TEMPORARY TRAFFIC SIGNALS	ELOC
619.1304	TEMPORARY TRAFFIC SIGNALS	ELOC
619.1305	TEMPORARY TRAFFIC SIGNALS	ELOC
619.1712	TEMPORARY POSITIVE BARRIER - CATEGORY 2 (PINNING PERMITTED)	LF
619.24	NIGHTTIME OPERATIONS	LS
619.25	TRAFFIC CONTROL SUPERVISOR	MO
620.03	LIGHT STONE FILL	CY
620.04	MEDIUM STONE FILL	CY
620.0801	BEDDING MATERIAL, TYPE 1	CY
623.03	CRUSHED STONE (BY WEIGHT)	TON
625.01	SURVEY OPERATIONS	LS
645.5202	GROUND MOUNTED SIGN PANELS LESS THAN OR EQUAL TO 30 SQ FT, WITH 2-BARS, HIGH VISIBILITY SHEETING	SF
645.81	TYPE A SIGN POSTS	EA
645.81090003	RETROREFLECTIVE SIGN POST STRIP	EA
646.22	DELINEATOR, SNOWPLOWING MARKER, SUPPLEMENTARY SNOWPLOWING MARKER PANELS	EA
646.31	STEEL POST, 1.1 LB/FT	EA
647.51	REMOVE AND DISPOSE SIGN PANEL, SIGN PANEL ASSEMBLY SIZE 1 (UNDER 30 SQ FT)	EA
647.83001002	REMOVE AND DISPOSE OF DELINEATORS AND/OR REFERENCE MARKERS WITH OR WITHOUT POSTS	EA
655.0706	CAST FRAME F3, UNMOUNTABLE CURB BOX CUB3 & RETICULINE GRATE G3	EA
655.1003	WELDED FRAME & RECTANGULAR GRATE 3	EA
655.1202	MANHOLE FRAME AND COVER	EA
685.01	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 15 MILS	LF
685.02	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 15 MILS	LF

100% SUBMISSION
 DATE SUBMITTED: 5/26/2022

	DESIGNED BY: M. POWELL CHECKED BY: E. LECLAR DESIGN LEAD: S. MURPHY	DRAWN BY: M. POWELL 11500 American Blvd, Suite 200 Luben, NY 12110 Tel: (518) 782-6800	APPROVED FOR THE CITY OF NEW YORK L. SINGH ACCOUNTABLE MANAGER J. COSTA PORTFOLIO MANAGER	*WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION, 7209.2.* NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS PUTNAM COUNTY, NEW YORK INDEX	DATE: 1/11/2023 SCALE: N/A SHEET NO.: 2 OF 81 DRAWING NO.: G-001.00
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LEGEND

EXISTING

--- ST ---	STORM SEWER DRAINAGE LINE	(D)	STORM SEWER MANHOLE
--- SAN ---	SANITARY SEWER LINE	[]	CATCH BASIN
--- O/H ---	OVERHEAD UTILITY LINE	[]	STORM SEWER WEIR
--- U/G ---	UNDERGROUND GAS LINE	(S)	SANITARY SEWER MANHOLE
---	DEEP UTILITY LINE	(WH)	MONITORING WELL
---	TREE LINE	(U)	UTILITY POLE
---	EDGE OF WATER/FLOW LINE	(G)	GUY POLE
---	DRIVEWAY	(T)	CONIFEROUS TREE
---	EDGE OF PAVEMENT	(D)	DECIDUOUS TREE
--- xxx ---	MAJOR CONTOUR	(T)	TRAFFIC SIGN
---	MINOR CONTOUR	(B)	CONTROL BENCHMARK
o o o	BOX BEAM GUIDERAIL	(P)	CONTROL POINT
--- R ---	CONTROL BASELINE	(A)	CDM SMITH HAND AUGER BORING
---	RIGHT-OF-WAY LINE	(B)	CDM SMITH BORING
o o o o o	STONE WALL	(B)	URS-CDM BORING (2010)
---	DITCH		
---	ROADWAY CENTERLINE		
o o o o o	STONE RIP-RAP		

PROPOSED

--- ST ---	STORM SEWER DRAINAGE LINE	(D)	STORM SEWER MANHOLE
--- SAN ---	SANITARY SEWER LINE	[]	CATCH BASIN
--- SPG ---	SEEPAGE COLLECTION LINE	(S)	SANITARY SEWER MANHOLE
--- O/H ---	OVERHEAD UTILITY LINE	(U)	UTILITY POLE
--- X O/H ---	OVERHEAD UTILITY LINE REMOVAL	(G)	GUY POLE
---	TREE LINE/LIMITS OF CLEARING	(T)	TRAFFIC SIGN
---	EDGE OF PAVEMENT	(B)	MANHOLE
--- xxx ---	MAJOR CONTOUR	(P)	SOLAR PANEL DATA COLLECTION UNIT & ANTENNA
---	MINOR CONTOUR	(T)	CONIFEROUS TREE REMOVAL
o o o	BOX BEAM GUIDERAIL	(D)	DECIDUOUS TREE REMOVAL
---	ROADWAY CENTERLINE		
---	TURBIDITY CURTAIN		
o o o	SAFETY FENCE		
o o o o o	STONE RIP-RAP		

ABBREVIATIONS

APPROX	APPROXIMATE	RR	RAILROAD
ASPH	ASPHALT	RT	RIGHT
B	BORING	SAN	SANITARY
BIT	BITUMINOUS CONCRETE	SICPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE
BW	BOTTOM OF WALL	SMH	SANITARY MANHOLE
CB	CATCH BASIN	SQ	SQUARE
CC	CONCRETE CURB	ST	STORM
CLF	CHAIN LINK FENCE	STA	STATION
CMP	CORRUGATED METAL PIPE	T	TANGENT
CO	CLEAN OUT	TEMP	TEMPORARY
COMM	COMMUNICATION	TGL	THEORETICAL GRADE LINE
CONC	CONCRETE	TW	TOP OF WALL
CONST	CONSTRUCTION	TYP	TYPICAL
CR	COUNTY ROUTE	W	WIDE/WIDTH
DIP	DUCTILE IRON PIPE	W/	WITH
DMH	DRAINAGE MANHOLE	XFMR	TRANSFORMER
EHS	ENVIRONMENTAL HEALTH & SAFETY	UG	UNDERGROUND
EOP	EDGE OF PAVEMENT	UNO	UNLESS NOTED OTHERWISE
E	EASTING	UP	UTILITY POLE
ELEC	ELECTRIC	V	VERTICAL
EL	ELEVATION	Ø	DIAMETER
ELEV	ELEVATION	Δ	DELTA
EX, EXIST	EXISTING	R	BASELINE
FNC	FENCE	C	CENTERLINE
FND	FOUND		
FO	FIBER-OPTIC		
GRES	GEOSYNTHETIC REINFORCED EARTH SYSTEM		
H	HORIZONTAL		
HDPE	HIGH-DENSITY POLYETHYLENE		
HMA	HOT-MIX ASPHALT		
IN	INCHES		
INV	INVERT		
L	LENGTH		
LT	LEFT		
MAX	MAXIMUM		
N	NORTHING		
N/A	NOT APPLICABLE / NOT AVAILABLE		
N/F	NOW/FORMERLY		
NYCDEP	NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION		
NYSDEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
NYSDOT	NEW YORK STATE DEPARTMENT OF TRANSPORTATION		
NYSEG	NEW YORK STATE ELECTRIC & GAS		
OH	OVERHEAD		
PI	POINT OF INTERSECTION		
PL	PROPERTY LINE		
PROP	PROPOSED		
PVI	POINT OF VERTICAL INTERSECTION		
PVC	POLYVINYL CHLORIDE PIPE		
PVMT	PAVEMENT		
R	RADIUS		
RCP	REINFORCED CONCRETE PIPE		
RD	ROAD		
REC	RECORD		
ROW	RIGHT OF WAY		

100% SUBMISSION
DATE SUBMITTED: 5/26/2022

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DESIGNED BY: M. POWELL CHECKED BY: E. LECLAIR DESIGN LEAD: S. MURPHY	DRAWN BY: M. POWELL  11500 American Blvd, Suite 200 Luben, NY 12110 Tel: (518) 784-6800	 	APPROVED FOR THE CITY OF NEW YORK L. SINGH ACCOUNTABLE MANAGER D. COSTA PORTFOLIO MANAGER	*WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.* NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS PUTNAM COUNTY, NEW YORK LEGEND & ABBREVIATIONS	DATE: 1/11/2023 SCALE: N/A SHEET NO.: 3 OF 81 DRAWING NO.: G-002.00
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NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

GENERAL NOTES

GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY THE ACCOUNTABLE MANAGER AT THE NYC ENVIRONMENTAL PROTECTION, BUREAU OF ENGINEERING DESIGN & CONSTRUCTION AT LEAST 20 DAYS BEFORE THE START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING.
- PRIOR TO ANY WORK PERMITS BEING ISSUED, A PRE-CONSTRUCTION MEETING WILL BE HELD TWENTY (20) DAYS IN ADVANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT). THE CONTRACTOR SHALL PROVIDE A CONSTRUCTION SCHEDULE TO THE NYSDOT TWENTY (20) DAYS IN ADVANCE TO THE NYSDOT MEETING. THE ARRANGEMENTS FOR THE MEETING WILL BE COORDINATED BY THE NYCDPEP.
- CONTRACTOR SHALL PROVIDE ACCESS FOR EMERGENCY TRAFFIC AT ALL TIMES UPON DEMAND. THE CONTRACTOR SHALL BE REQUIRED TO MOVE AND RESTORE BARRICADES AS ORDERED BY THE ENGINEER FOR EMERGENCY ACCESS AT NO DIRECT PAYMENT. CONTRACTOR SHALL MAINTAIN AT ALL TIMES A MINIMUM OF TEN (10) FEET OF ROADWAY ACCESS ON US ROUTE 6 FOR EMERGENCY VEHICLES.
- ELEVATIONS SHOWN ON THIS DRAWING REFER TO VERTICAL DATUM NAVD 1988. TO CONVERT FROM NAVD 1988 TO NGVD 1929 ADD 1.038 FEET.
- THE CONTRACTOR SHALL FIELD VERIFY EXISTING LOCATIONS, DIMENSIONS AND ELEVATIONS PRIOR TO THE START OF WORK IN ACCORDANCE TO NYSDOT STANDARD SPECIFICATION SECTION 625, SURVEY OPERATIONS.
- REFER TO WORK ZONE TRAFFIC CONTROL PLANS FOR TRAFFIC RELATED NOTES.
- THE CONTRACTOR SHALL PROVIDE THREE (3) VARIABLE MESSAGE SIGN (VMS) BOARDS DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT PROPOSED SIGN LOCATIONS AND MESSAGES TO BE DISPLAYED FOR REVIEW AND APPROVAL. BY THE ENGINEER. THE CONTRACTOR IS HEREBY ADVISED THAT INITIALLY APPROVED LOCATION OF SIGNS AND MESSAGES TO BE DISPLAYED CAN BE REVISED AS NEEDED BASED ON ACTUAL FIELD CONDITIONS IN COORDINATION WITH THE ENGINEER AT NO ADDITIONAL COST. THE REPOSITIONING OF SIGNS AND CHANGES TO ITS VARIABLE MESSAGE LIBRARY SHALL BE DEEMED INCLUDED IN THE CONTRACTOR'S BID PRICE FOR ITEM 619.01.
- BEFORE LEAVING THE CONSTRUCTION AREA, PROVISIONS MUST BE MADE TO REMOVE EXCESS SOIL, DUST AND DIRT FROM VEHICLES IN ORDER TO KEEP THE PUBLIC STREETS CLEAN. ADDITIONALLY, STREETS WILL NEED TO BE CLEANED PERIODICALLY OR EVERYDAY TO REMOVE SAID DUST/DIRT.
- CONTRACTOR SHALL FREQUENTLY DAMPEN SOIL IN WORK AREA TO REDUCE DUST FROM THE WORK. THE COST FOR DUST CONTROL SHALL BE DEEMED INCLUDED IN THE CONTRACTOR'S BID PRICE FOR ITEM 619.01.
- MATERIALS USED FOR THE TEMPORARY ACCESS ROAD SHALL CREATE A DURABLE SURFACE (CRUSHED STONE OR EQUAL) AND SHALL LIMIT TRACKING OF SEDIMENT ONTO ADJACENT ROADWAYS OR SURFACES. THE CONTRACTORS ATTENTION IS DIRECTED TO THE STEEP SLOPE OF THE TEMPORARY ACCESS ROAD, AND THIS ROAD SHALL BE MAINTAINED THROUGHOUT THE CONTRACT.
- ALL REQUIRED PERMITS LISTED IN SPECIFICATION 01 41 00 - REGULATORY REQUIREMENTS MUST BE APPROVED PRIOR TO INITIATION OF WORK (CLEARING AND GRUBBING). THIS INCLUDES PERMITS TO BE OBTAIN BOTH BY THE CONTRACTOR AND THE OWNER (ON BEHALF OF THE CONTRACTOR).

GENERAL CONDITIONS

- LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY, AND ARE NOT WARRANTED TO BE CORRECT. ALL EXISTING UTILITIES SHALL BE VERIFIED FOR SERVICE, SIZE, INVERT ELEVATION, LOCATIONS ETC. PRIOR TO THE START OF ANY WORK IN THE GENERAL AREA. CONTRACTOR MUST NOTIFY "DIG SAFELY, NEW YORK" AT 1-800-962-7962 OR 811 WITHIN NEW YORK, AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION. NOTIFY ENGINEER IN WRITING OF ANY AND ALL DISCREPANCIES PRIOR TO COMMENCING ANY WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND MAINTAINING THE EXISTING OVERHEAD AND BURIED UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
- THE DESIGNATED COMPETENT PERSON FOR EXCAVATION SHALL HAVE A CERTIFIED EXCAVATOR CERTIFICATION AS PROVIDED FOR IN NEW YORK STATE.
- THE RESPONSIBILITY FOR SAFETY IN, ON OR ABOUT THE JOBSITE SHALL BE THAT OF THE CONSTRUCTION CONTRACTOR. THESE DRAWINGS DO NOT INCLUDE COMPONENTS WHICH MAY BE NECESSARY FOR CONSTRUCTION SAFETY. REFER TO EHS SPECIFICATION SECTION 01 35 27.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION, EXCEPT WHERE SPECIFICALLY DETAILED IN THE PLANS. SPECIFICATIONS, SWPPP, PERMIT REQUIREMENTS AND WORK RESTRICTIONS. LIKEWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SEQUENCE OF THE WORK, EXCEPT WHERE SPECIFICALLY DETAILED IN THE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURFACE AND GROUNDWATER CONTROL DURING THE WORK OF THE CONTRACT. TEMPORARY WATER CONTROL MEASURES SHALL BE, AT MINIMUM, AS REQUIRED BY THE PROJECT PLANS, SPECIFICATIONS, AND PERMIT CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL MEASURES NECESSARY FOR WATER CONTROL NECESSARY TO EXECUTE THE WORK OF THE CONTRACT IN THE DRY. CONTRACTOR'S METHODS OF WATER CONTROL ARE SUBJECT TO LIMITS AND CONDITIONS AS DESCRIBED IN THE PLANS AND SPECIFICATIONS. THE RESERVOIR WATER LEVEL IS CONTROLLED BY THE NYCDPEP AT THEIR SOLE DISCRETION.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL DURING THE WORK OF THE CONTRACT. TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE, AT MINIMUM, AS REQUIRED BY THE PROJECT PLANS, DETAILS AND SPECIFICATIONS, AND PERMIT CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL MEASURES NECESSARY FOR THE PREVENTION OF SEDIMENT DISCHARGE OR EROSION AT THE SITE. WORK SHALL BE DONE IN ACCORDANCE WITH NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SPOES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY PERMIT NUMBER GP-0-20-001 & SWPPP. SEE DRAWINGS C-042.00 TO C-049.00 FOR TEMPORARY SEDIMENT AND EROSION CONTROL NOTES.
- THE CONTRACTOR SHALL RESTORE AREAS DISTURBED BY CONSTRUCTION PER THE PLANS AND SPECIFICATIONS. WHERE NO SPECIFIC INSTRUCTION IS GIVEN, RESTORATION SHALL BE TO THE ORIGINAL CONDITION AND AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS SPECIFICALLY INFORMED THAT THE RESTORATION REQUIREMENT APPLIES TO ALL AREAS DISTURBED AS A RESULT OF THE PROJECT.
- IN THE EVENT OF THE DISCOVERY OF THE PRESENCE OF AN ENDANGERED PLANT OR ANIMAL IN THE WORK AREA OR STAGING AREAS, ALL WORK IN THE IMMEDIATE AREA OF THE FIND SHALL STOP AND THE OWNER AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY. WORK IN THE IMMEDIATE AREA SHALL BE DISCONTINUED UNTIL CLEARANCE IS GRANTED BY THE OWNER. REFER TO SPECIFICATION SECTION 01 14 00 - WORK RESTRICTIONS.
- IN THE EVENT OF THE DISCOVERY OF A PREVIOUSLY UNKNOWN ARCHEOLOGICAL SITE, POTENTIAL CULTURAL ARTIFACTS OR RESOURCES, OR ANY OTHER UNUSUAL ITEMS OR CONDITIONS, ALL WORK IN THE IMMEDIATE AREA OF THE FIND SHALL STOP AND THE OWNER AND ENGINEER WILL BE NOTIFIED IMMEDIATELY. WORK IN THE IMMEDIATE AREA SHALL BE DISCONTINUED UNTIL CLEARANCE IS GRANTED BY THE OWNER. REFER TO SPECIFICATION SECTION 01 14 00 - WORK RESTRICTIONS.
- THE CONTRACTOR IS HEREBY NOTIFIED THERE IS LIMITED WORK AREA AND LIMITED AREAS FOR STAGING AS NOTED ON DRAWING G-004.00. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING MEANS AND METHODS WHICH ACCOUNT FOR THESE SITE CONSTRAINTS. NO STOCKPILES WILL BE ALLOWED IN WORK AREAS.
- THE CONTRACTOR IS HEREBY NOTIFIED THAT NO CONCRETE WASHOUT IS ALLOWED ON THE PROJECT SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SECURITY GATES, AND SHALL REMOVE, STORE AND RESET THE EXISTING SECURITY GATE TO THE CURRENT CONDITION. THE SUCCESSFUL BIDDER WILL COORDINATE WITH NYCDPEP BUREAU OF POLICE AND SECURITY.
- THE CONTRACTOR SHALL PROVIDE A SAFETY FENCE ALONG THE EDGE OF THE TREE CLEARING LINE TO PREVENT ACCESS INTO THE WETLANDS.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A STABLE AND DRY EXCAVATION USING DEWATERING SYSTEMS. DEWATERING MUST BE CONTROLLED AND MONITORED TO ENSURE SOIL/SLOPE STABILITY. SLOPE STABILIZING MATERIALS (I.E. SAND, STONE, FILTER FABRIC, ETC.) MUST BE AVAILABLE ON SITE AND READY FOR USE. THE CONTRACTOR MUST BE PREPARED TO FILL AND STABILIZE ANY EXCAVATION EXHIBITING SIGNS OF POTENTIAL SLOPE FAILURE.
- THE CONTRACTOR SHALL PREPARE A CONSTRUCTION PROTECTION PLAN MEETING NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION (OPRHP) REQUIREMENTS SPECIFIC TO AVOIDING IMPACT TO THE WEST BRANCH AUXILIARY DAM GATEHOUSE LOCATED ALONG US ROUTE 6.
- THE CONTRACTOR SHALL MAINTAIN THE PERMANENT ACCESS ROAD THROUGHOUT THE DURATION OF THE WORK, INCLUDING IMPORTING GRAVEL SUBBASE AS REQUIRED TO ACCOMMODATE TRUCK TRAFFIC. NO ADDITIONAL PAYMENT WILL BE MADE FOR MAINTAINING THE ACCESS ROAD.
- THE CONTRACTOR SHALL MILL A PORTION OF THE EXISTING PAVEMENT WITHIN THE FULL DEPTH RECONSTRUCTION AREA SHOWN ON THE PLANS IN ADDITION TO THE PAVEMENT MILLING AND OVERLAY AREA SHOWN ON THE PLANS. CONTRACTOR SHALL MILL PAVEMENT TO PRODUCE THE REQUIRED QUANTITIES OF MILLINGS FOR RESURFACING THE ACCESS ROAD. PAYMENT FOR THE MILLING IS INCLUDED UNDER ITEM 490.30. ALL REMAINING PAVEMENT TO BE REMOVED IS INCLUDED UNDER ITEM 203.02.
- THE GENERAL SCOPE OF WORK FOR THIS PROJECT IS TO CONSTRUCT SLOPE IMPROVEMENTS TO THE WEST BRANCH AUXILIARY DAM AND RECONSTRUCT PORTIONS OF US ROUTE 6 WITHIN PROJECT LIMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIAL, EQUIPMENT, AND LABOR NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS, NOTES, AND DETAILS, AS SHOWN ON THE FINAL CONDITIONS PLAN.
- TREE CUTTING SHALL ONLY OCCUR BETWEEN NOVEMBER 1ST AND MARCH 31ST IN CONSIDERATION OF THE NORTHERN LONG EARED BAT AND THE INDIANA BAT.

RECOMMENDED HIGHWAY CONSTRUCTION STAGING

THE FOLLOWING HIGHWAY CONSTRUCTION STAGING IS RECOMMENDED BASED ON COORDINATION WITH THE TOWN OF CARMEL AND NYCDPEP. CONTRACTOR MAY PROPOSE REVISIONS TO HIGHWAY CONSTRUCTION STAGING FOR APPROVAL BY THE ENGINEER PRIOR TO IMPLEMENTING ANY WORK ZONE TRAFFIC CONTROL MEASURES.

STAGE I

PLACE EMBANKMENT FILL FROM BASE OF DAM TO TOP OF PROPOSED SUBBASE COURSE. MAINTAIN EXISTING TRAFFIC PATTERNS ON US ROUTE 6 AS SHOWN ON SHEET C-020.00.

STAGE II

INSTALL PROPOSED DRAINAGE PIPES AND CATCH BASINS. DRAINAGE STRUCTURES TO BE SET TO TOP OF SUBBASE GRADE. COVER

EXISTING STRUCTURES WITH STEEL PLATING. INSTALL SUBBASE COURSE WITHIN THE LIMITS OF THE DRAINAGE TRENCH TO THE FINAL SUBBASE LIMITS TO THE EAST. MAINTAIN EXISTING TRAFFIC PATTERNS ON US ROUTE 6 AS SHOWN ON SHEET C-021.00.

STAGE III

REMOVE EXISTING PAVEMENT STRUCTURE AND INSTALL SUBBASE COURSE FROM EXISTING CENTERLINE TO LIMITS OF DRAINAGE TRENCH INSTALLED DURING STAGE II. REMOVE EXISTING GUIDE RAILING AND PLACE TEMPORARY CONCRETE BARRIER ALONG SHOULDER. ESTABLISH WORK ZONE TRAFFIC CONTROL WITH TEMPORARY TRAFFIC SIGNALS FOR ONE-LANE TWO-WAY ALTERNATING TRAFFIC AS SHOWN ON SHEETS C-022.00 TO C-023.00. REMOVE EXISTING PAVEMENT AND CONSTRUCT SUBBASE IN TWO PHASES TO ALLOW ONE TRAVEL LANE OPEN TO TRAFFIC AT ALL TIMES.

STAGE IV

INSTALL BASE COURSE AND BINDER COURSE PAVEMENT. PROVIDE TEMPORARY EMBANKMENT AT EDGE OF PAVEMENT TO ENSURE STABILITY OF PAVEMENT COURSES. ADJUST DRAINAGE STRUCTURES TO FINISHED GRADE. ESTABLISH WORK ZONE TRAFFIC CONTROL WITH TEMPORARY TRAFFIC SIGNALS FOR ONE-LANE TWO-WAY ALTERNATING TRAFFIC AS SHOWN ON SHEETS C-022.00 TO C-023.00. PAVING OPERATIONS SHALL OCCUR IN TWO PHASES TO ALLOW ONE TRAVEL LANE OPEN TO TRAFFIC AT ALL TIMES.

STAGE V

INSTALL CURBING USING A CONCRETE BASE WITHIN THE PAVEMENT LIMITS. CONTRACTOR MAY ELECT TO USE BASE AND BINDER COURSES IN LIEU OF CONCRETE BASE IF PAVED WIDTH FOR CURB INSTALLATION IS 4' WIDE MINIMUM. BACKFILL BEHIND CURB USING EMBANKMENT AND TOPSOIL & SEEDING TO FINISHED GRADE. INSTALL GUIDE RAILING ON EAST AND WEST SIDES OF THE ROADWAY. INSTALL PROPOSED SIGNAGE. ESTABLISH WORK ZONE TRAFFIC CONTROL WITH SHOULDER CLOSURE AS SHOWN ON SHEET C-024.00. MAINTAINING ONE LANE OF TRAFFIC IN EACH DIRECTION. ESTABLISH WORK ZONE TRAFFIC CONTROL WITH TEMPORARY TRAFFIC SIGNALS FOR ONE-LANE TWO-WAY ALTERNATING TRAFFIC AS SHOWN ON SHEETS C-022.00 TO C-023.00 IF REQUIRED FOR GUIDE RAILING INSTALLATION.

STAGE VI

INSTALL TOP COURSE PAVEMENT TO FINISHED GRADE. ESTABLISH WORK ZONE TRAFFIC CONTROL WITH FLAGGING OPERATION FOR ONE-LANE TWO-WAY ALTERNATING TRAFFIC AS SHOWN ON SHEET C-028.00 FOR WORK AREAS OUTSIDE THE TEMPORARY TRAFFIC SIGNAL LIMITS, AND WITH TEMPORARY TRAFFIC SIGNALS FOR ONE-LANE TWO-WAY ALTERNATING TRAFFIC AS SHOWN ON SHEETS C-022.00 TO C-023.00 AND C-025.00 TO C-026.00 FOR WORK AREAS WITHIN THE SIGNAL LIMITS. PAVING OPERATIONS SHALL OCCUR IN ONE LANE AT A TIME TO MAINTAIN TRAFFIC IN ONE LANE AT ALL TIMES.

STAGE VII

COMPLETE STRIPING OPERATIONS AND FINAL CLEANING OF THE SITE. ESTABLISH WORK ZONE TRAFFIC CONTROL WITH FLAGGING OPERATION FOR ONE-LANE TWO-WAY ALTERNATING TRAFFIC AS SHOWN ON SHEET C-028.00 FOR WORK AREAS OUTSIDE THE TEMPORARY TRAFFIC SIGNAL LIMITS, AND WITH TEMPORARY TRAFFIC SIGNALS FOR ONE-LANE TWO-WAY ALTERNATING TRAFFIC AS SHOWN ON SHEETS C-022.00 TO C-023.00 AND C-025.00 TO C-026.00 FOR WORK AREAS WITHIN THE SIGNAL LIMITS. STRIPING OPERATIONS SHALL OCCUR IN ONE LANE AT A TIME TO MAINTAIN TRAFFIC IN ONE LANE AT ALL TIMES.

PAYMENT NOTES:

- NYSDOT STANDARD PAYMENT ITEMS ARE USED FOR MEASUREMENT AND PAYMENT OF VARIOUS WORK ITEMS AS LABELED WITHIN THE PLANS. WITHIN PAYMENT LIMITS OF THE ROADWAY (US ROUTE 6 AND DREWVILLE ROAD) ARE IDENTIFIED WITH NYSDOT PAYMENT ITEM NUMBERS AND SHALL BE PAID BY UNIT PRICE. SPECIFIC ITEMS OF WORK WITHIN THE PROJECT SITE (OUTSIDE OF THE ROADWAY) WHICH ARE LABELED WITH NYSDOT ITEM NUMBERS SHALL ALSO BE PAID BY UNIT PRICE. ALL WORK NOT SPECIFICALLY IDENTIFIED WITH NYSDOT STANDARD PAY ITEM NUMBERS OR AS UNIT PRICE ITEMS IN THE BID ITEM LIST SHALL BE INCLUDED AND PAID UNDER THE LUMP SUM PAYMENT ITEMS LS-1 TO LS-5.
- INSTALLATION AND MAINTENANCE OF TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL MEASURES IN ACCORDANCE WITH THE SWPPP SHALL BE PAID UNDER LUMP SUM LS-3, EXCEPT WITHIN THE ROADWAY WORK LIMITS WHERE THEY ARE SPECIFICALLY IDENTIFIED FOR PAYMENT UNDER A NYSDOT UNIT PRICE PAYMENT ITEM NUMBER.
- FOR ADDITIONAL PAYMENT DETAILS REFER TO SPECIFICATION 01 27 00 - MEASUREMENT AND PAYMENT.

SURVEY DETAILS:

- FIELD SURVEY PERFORMED BY RYAN BIGGS CLARK DAVIS ENGINEERING & SURVEYING IN DECEMBER 2016 AND SUPPLEMENTED IN MAY 2021.
- BATHYMETRIC SURVEY PERFORMED BY SHUMAKER CONSULTING ENGINEERING & LAND SURVEYING IN SEPTEMBER 2016.
- WETLAND DELINEATION FLAGGING WAS COMPLETED BY CDM SMITH IN AUGUST, 2016.

UTILITY POLE RELOCATION:

- ALL UTILITY POLE AND OVERHEAD LINE RELOCATIONS SHOWN ON THE PLANS ARE TO BE COMPLETED BY THE UTILITY OWNERS AT THEIR EXPENSE. THE CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH EACH UTILITY OWNER TO AVOID CONSTRUCTION DELAY. ANY COSTS TO THE CONTRACTOR FOR COORDINATION WITH UTILITY OWNERS OR ACCOMMODATIONS MADE FOR SITE ACCESS BY THE UTILITY OWNERS SHALL BE INCLUDED IN THE PRICE BID FOR PAYMENT ITEMS LS-2 AND LS-3. THE CONTRACTOR SHALL NOT BE ENTITLED TO ANY ADDITIONAL PAYMENT RESULTING FROM DELAYS RESULTING FROM THE UTILITY RELOCATIONS.

100% SUBMISSION
DATE SUBMITTED: 5/26/2022

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY: S. MURPHY	DRAWN BY: S. MURPHY
CHECKED BY: E. LECLAR	SECTION MANAGER: E. LECLAR
DESIGN LEAD: S. MURPHY	

	
11000 Amsterdam Blvd, Suite 200 Latham, NY 12110 Tel: (518) 762-8900	



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L. SINGH ACCOUNTABLE MANAGER	
J. COSTA PORTFOLIO MANAGER	

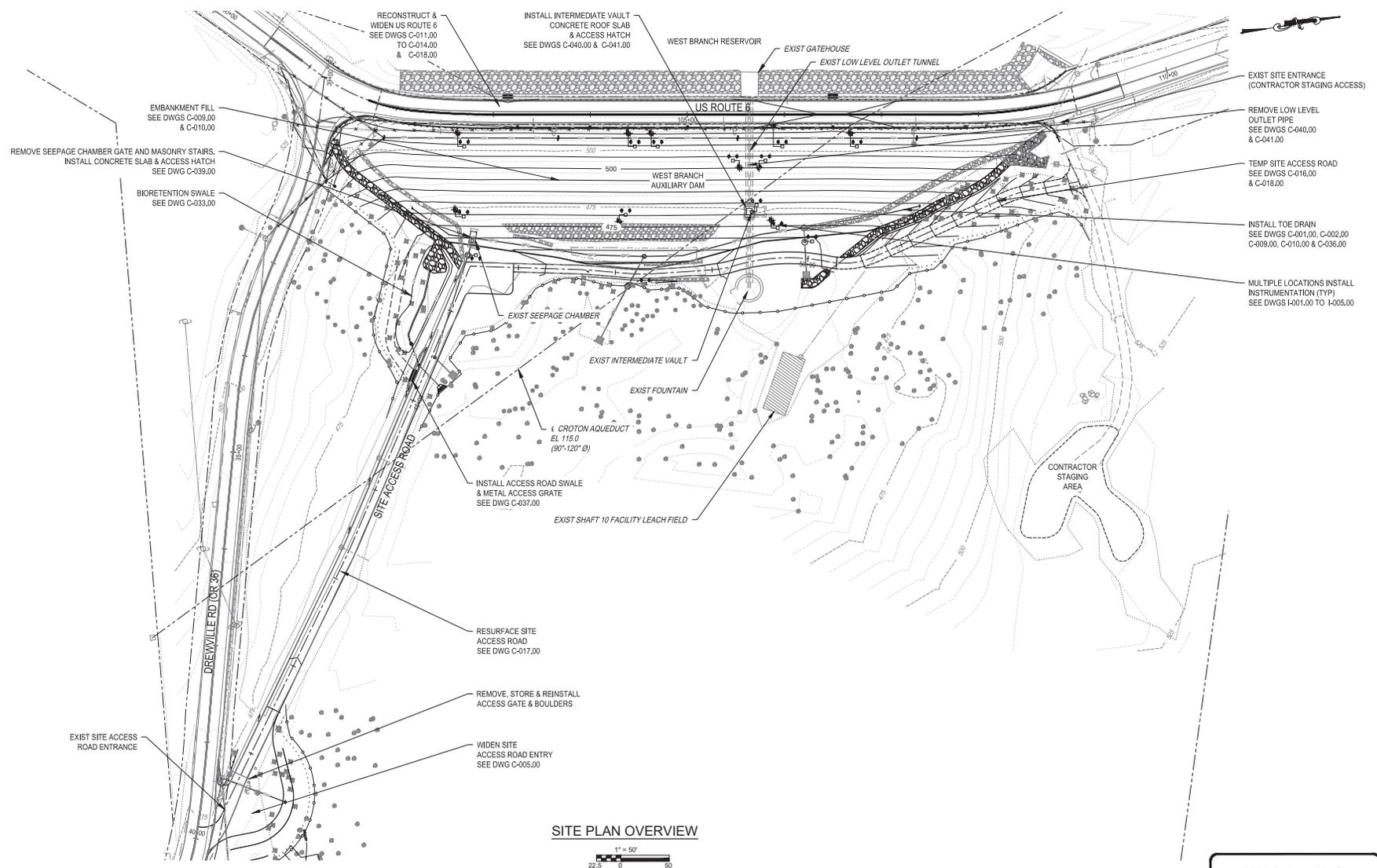
APPROVED FOR THE CITY OF NEW YORK L. SINGH ACCOUNTABLE MANAGER J. COSTA PORTFOLIO MANAGER	*WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S/HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION, 7209.2.*
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--

WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS PUTNAM COUNTY, NEW YORK GENERAL NOTES	DATE: 1/11/2023 SCALE: NA SHEET NO: 4 OF 81 DRAWING NO: G-003.00
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Lead: Steven B. & Date: P01VEILLI.DWG, Thursday, February 03, 2022 10:46:42 AM
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 Plot Style: TableBEC.ctb
 Drawing Name: G:\Location\C:\p\p\01VEILLI.DWG\266637\G-003.00.dwg

Last Saved By: GDM POWELL LLP, Saturday, May 21, 2022 and Date Plotted: Wednesday, February 1, 2022 5:49:53 PM
 Plot Size (ANSI) (12.00 X 34.00 INCHES) Plot Scale: 1"=50'
 Drawing Name: & Location: C:\p\POWELL\LAND\0268637\G-004.00.dwg



SITE PLAN OVERVIEW



100% SUBMISSION
 DATE SUBMITTED: 5/26/2022

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
 M. POWELL
 CHECKED BY:
 E. LECLAIR
 DESIGN LEAD:
 S. MURPHY
 SECTION MANAGER:
 E. LECLAIR

DRAWN BY:
 M. POWELL

 11000 American Blvd, Suite 200
 Luben, NY 12110
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 L. SINGH
 ACCOUNTABLE MANAGER
 J. COSTA
 PORTFOLIO MANAGER

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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK
 SITE PLAN OVERVIEW

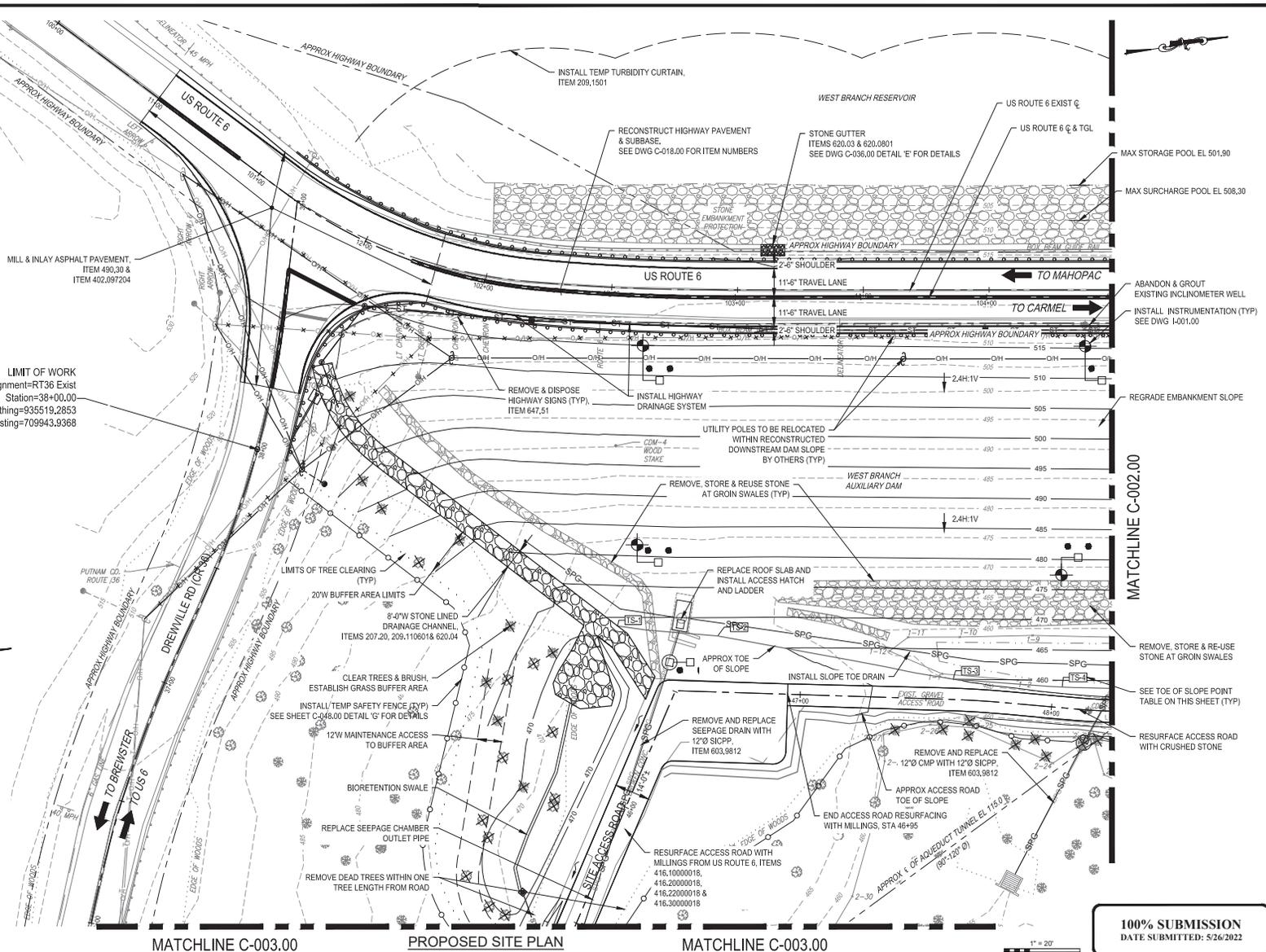
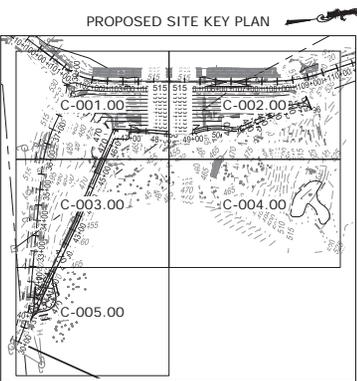
DATE: 1/11/2023
 SCALE: 1"=50'
 SHEET NO.:
 5 OF 81
 DRAWING NO.
 G-004.00

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Last Saved By: E. Leclair, Wednesday, November 16, 2022 4:04:40 PM
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 Drawing Name: & Location: C:\p\p\POWELL\DWG\226637\C-001.DWG

TOE OF SLOPE POINT TABLE				
POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
13	TS-1	468.77	935649.13	710036.48
14	TS-2	467.40	935687.78	710046.86
15	TS-3	460.00	935777.32	710079.03
16	TS-4	458.87	935819.56	710089.15
17	TS-5	458.97	935849.09	710094.51
18	TS-6	460.21	935898.17	710098.10
19	TS-7	468.08	935964.64	710089.78
20	TS-8	470.16	936031.45	710094.85
21	TS-9	474.35	936088.56	710094.23

LIMIT OF WORK
 Alignment=RT36 Exist
 Station=38+00.00
 Northing=935519.2853
 Easting=709943.9368



100% SUBMISSION
 DATE SUBMITTED: 5/26/2022

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
 M. POWELL
 CHECKED BY:
 E. LECLAIR
 DESIGN LEAD:
 S. MURPHY
 SECTION MANAGER:
 E. LECLAIR

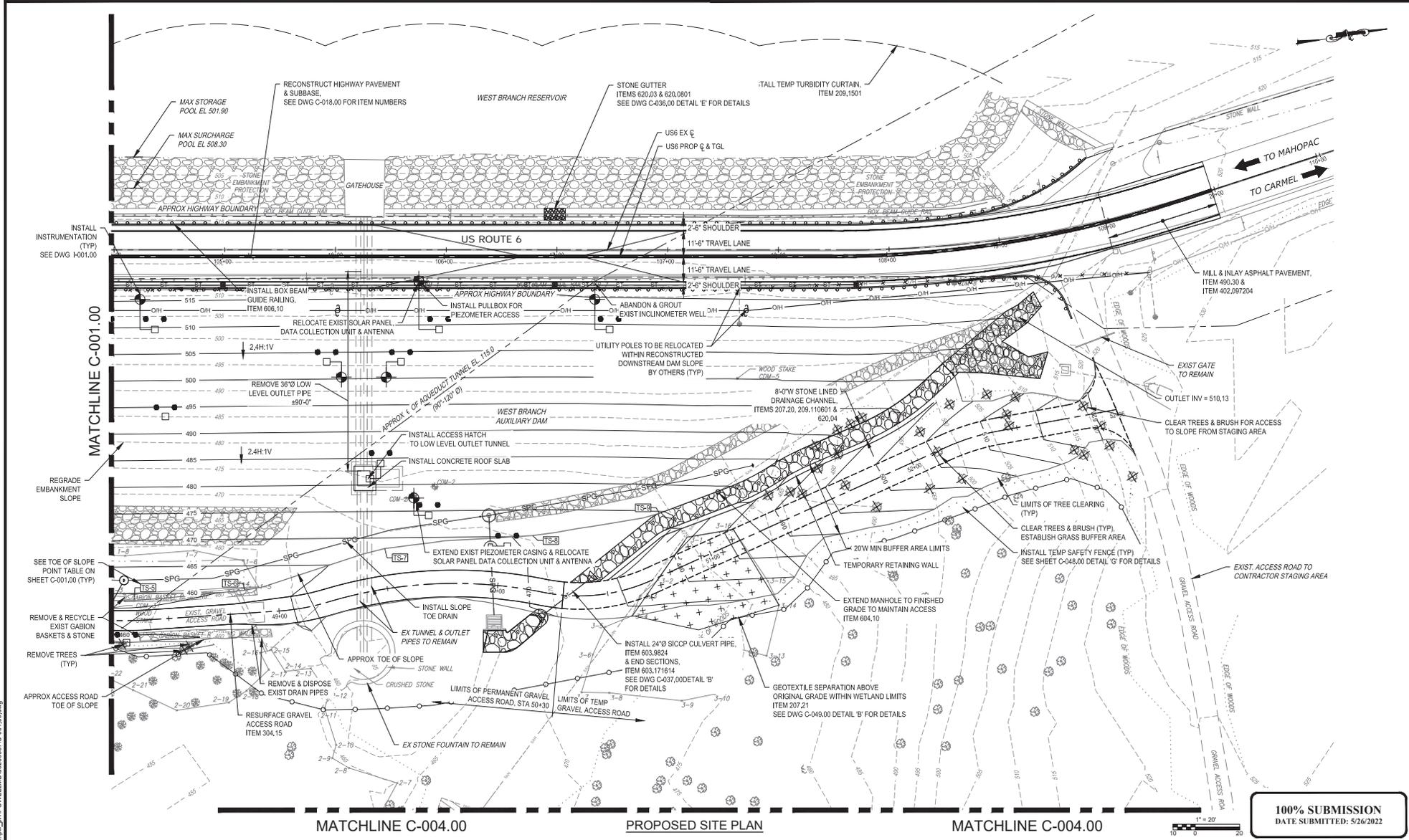
DRAWN BY:
 M. POWELL

APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 J. COSTA
 PORTFOLIO MANAGER

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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK
 PROPOSED SITE PLAN (1 OF 5)
 DATE: 1/11/2023
 SCALE: 1"=20'
 SHEET NO.:
 11 OF 81
 DRAWING NO.:
 C-001.00

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DATE SUBMITTED: 5/26/2022

Lead: Ryan B. & Dan POWELL LLP, Wednesday, November 16, 2022, at Date Plotted: Wednesday, February 7, 2023, 5:50:47 PM
 Plot Size: ANSI D (22.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\p\POWELL\DWG\0286637\C-001.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
M. POWELL
 CHECKED BY:
E. LECLAR
 DESIGN LEAD:
S. MURPHY
 SECTION MANAGER:
E. LECLAR

DRAWN BY:
M. POWELL

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 P. COSTA
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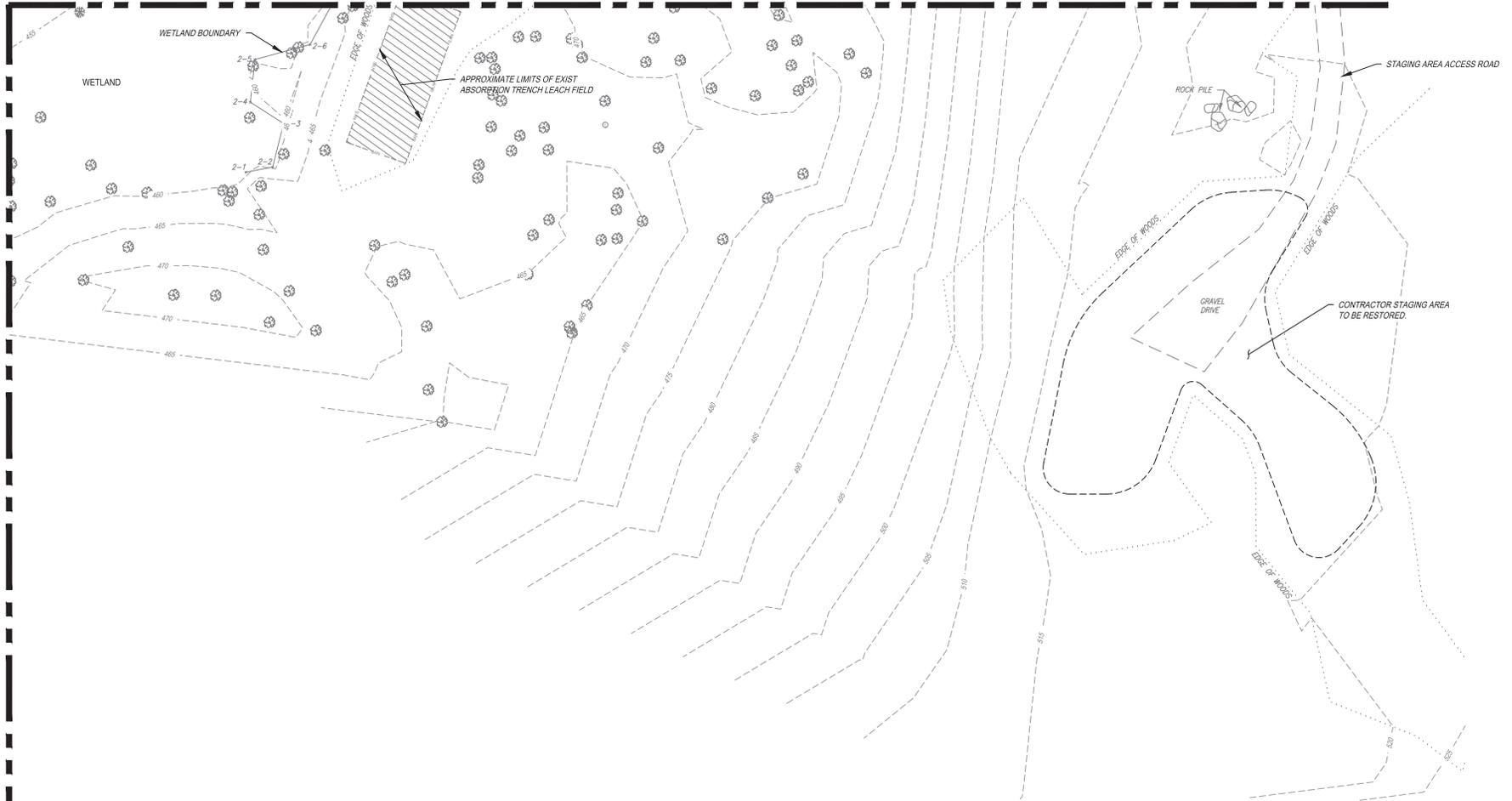
WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
 PROPOSED SITE PLAN (2 OF 5)
 DATE: 1/11/2023
 SCALE: 1"=20'
 SHEET NO.:
 12 OF 81
 DRAWING NO.:
 C-002.00

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MATCHLINE C-002.00

MATCHLINE C-003.00



PROPOSED SITE PLAN



100% SUBMISSION
DATE SUBMITTED: 5/26/2022

L&L CONSULTING & DESIGN, INC. 16, 2020 and Date Printed/Uploaded: February 7, 2023 5:57 PM
 Plot Size (ANSI) D (24.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name & Location: C:\p\POWELL\LAND\0266637\C-001.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
M. POWELL
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL
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D. COSTA
PORTFOLIO MANAGER

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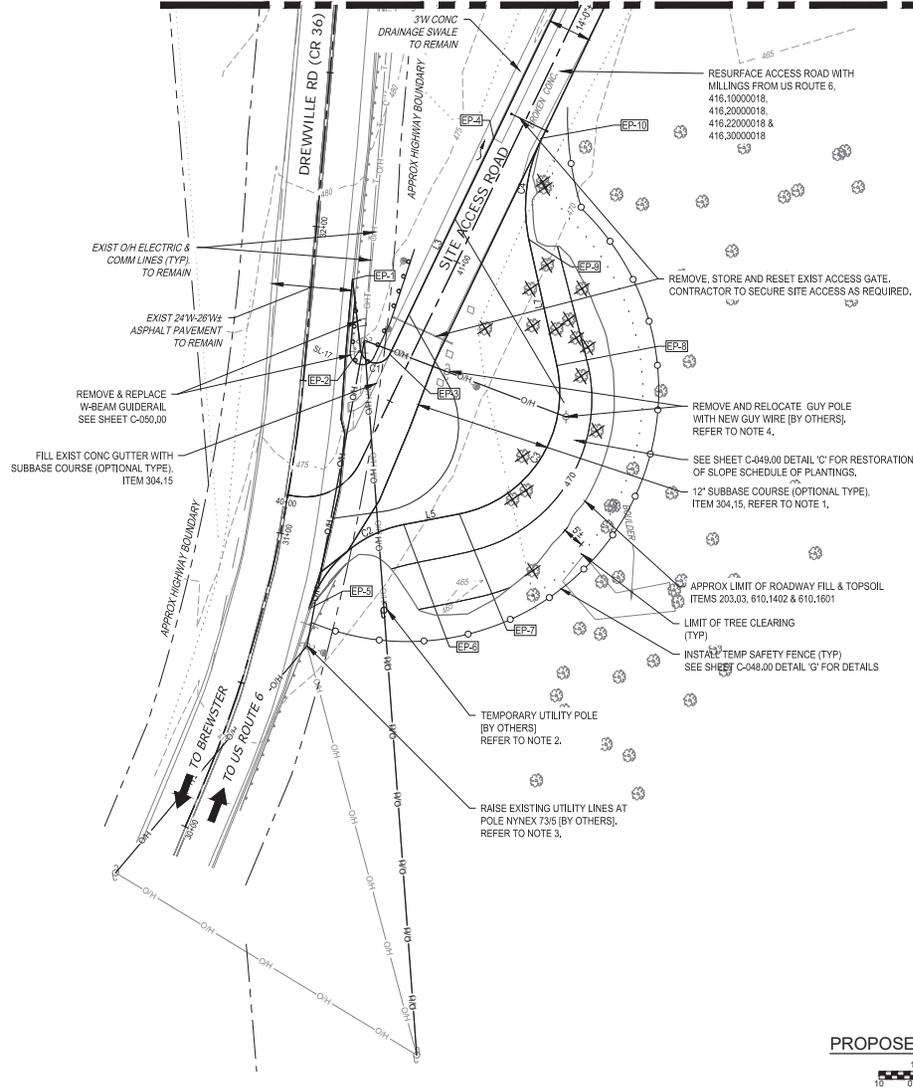
WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK

PROPOSED SITE PLAN (4 OF 5)

DATE: 1/11/2023
SCALE: 1"=20'
SHEET NO.:
14 OF 81
DRAWING NO.:
C-004_00

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MATCHLINE C-003.00



NOTE:

1. CONTRACTOR SHALL RESTORE SITE ENTRANCE AT THE COMPLETION OF WORK BY REMOVING 6" OF SUBBASE COURSE AND REPLACING WITH 6" TOPSOIL & SEED, ITEMS 203.02, 610,1402 & 610,1601 SEE DWG C-049.00 DETAILS 'C' & 'D'
2. A TEMPORARY UTILITY POLE SHALL BE INSTALLED BY NYSEG TO RAISE THE NEUTRAL WIRE TO HIGHEST PRACTICAL EXTENT TO OBTAIN INCREASED VERTICAL CLEARANCE AT ENTRANCE.
3. OVERHEAD UTILITIES ON POLE NYNEX 73/5 (DIRECTLY EAST OF THE DREWILLE RD CONSTRUCTION ENTRANCE) TO BE RASIED TO HIGHEST PRACTICAL EXTENT TO OBTAIN INCREASED VERTICAL CLEARANCE AT ENTRANCE.
4. GUY POLE SHALL BE RELOCATED BY NYSEG, OUTSIDE OF THE WIDENED CONSTRUCTION ENTRANCE.

EDGE OF PAVEMENT LINE & CURVE TABLE			
ID#	BEARING / DELTA	RADIUS	LENGTH
C1	148°03'51"	5.00'	12.92'
L1	N87°06'09"W		22.84'
C4	037°28'08"	50.00'	32.70'
L7	S86°46'53"W		41.87'
C3	091°48'47"	40.00'	64.10'
L5	N01°24'44"W		18.34'
C2	061°41'03"	40.00'	43.06'
L3	S54°53'28"E		77.52'

EDGE OF PAVEMENT POINT TABLE				
POINT #	DESCRIPTION	NORTHING	EASTING	
3	EP-1	935329.09	710524.03	
4	EP-2	935327.94	710546.84	
5	EP-3	935337.04	710549.95	
6	EP-4	935381.62	710486.54	
7	EP-5	935297.87	710626.91	
8	EP-6	935332.56	710605.02	
9	EP-7	935350.89	710604.57	
10	EP-8	935389.84	710562.33	
11	EP-9	935387.48	710520.53	
12	EP-10	935396.49	710488.97	

PROPOSED SITE PLAN



100% SUBMISSION
DATE SUBMITTED: 5/26/2022

Last Saved By: E. Leclair & Date: 5/26/2022 10:13:29 PM
 Plot Size: ANSI (D) (24.00 X 36.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\pwworking\m2022\16_2022\16_2022.dwg
 User: E. Leclair

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
M. POWELL
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL

APPROVED FOR THE CITY OF NEW YORK

L. SINGH
ACCOUNTABLE MANAGER

P. COSTA
PORTFOLIO MANAGER

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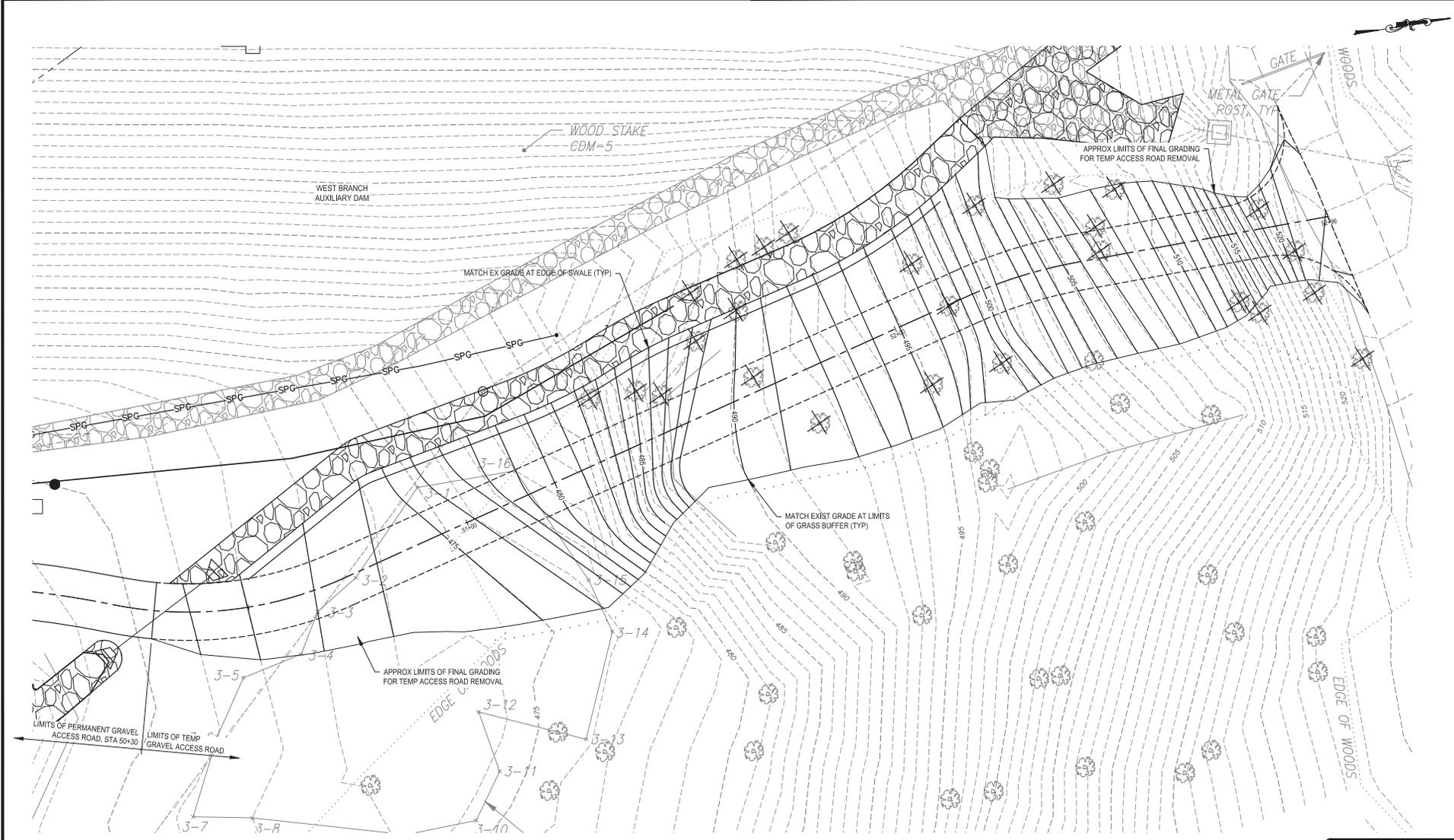
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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK

PROPOSED SITE PLAN (5 OF 5)

DATE: 1/11/2023
SCALE: 1"=20'
SHEET NO.:
15 OF 81
DRAWING NO.
C-005.00

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GRADING PLAN
 1" = 20'
 10' 0' 20'

100% SUBMISSION
 DATE SUBMITTED: 5/26/2022

Last Saved By: & Date Modified: Thursday, May 26, 2022 and Date Plotted: Wednesday, February 4, 2023 6:51:35 PM
 Plot Size: 34.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\p\p\DWELLING\0268637C\008.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
 CHECKED BY:
E. LECLAR
 DESIGN LEAD:
S. MURPHY
 SECTION MANAGER:
E. LECLAR

DRAWN BY:
S. MURPHY

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 Latham, NY 12110
 Tel: (518) 762-6800



APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 P. COSTA
 PORTFOLIO MANAGER

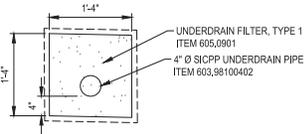
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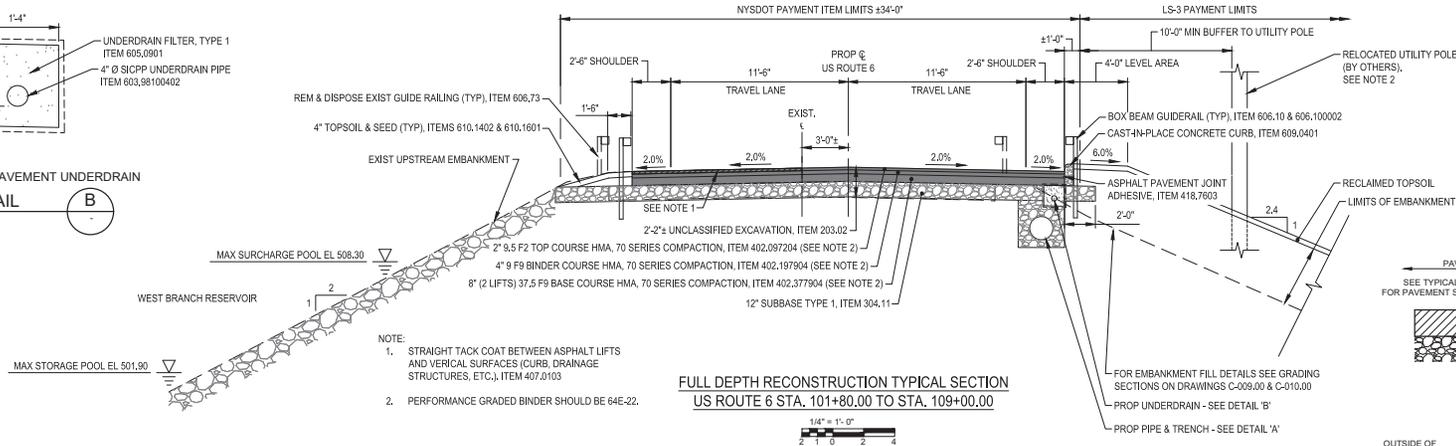
WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK
 FINAL SITE GRADING PLAN - TEMPORARY ACCESS ROAD

DATE: 1/11/2023
 SCALE: 1"=20'
 SHEET NO.:
 18 OF 81
 DRAWING NO.:
 C-008.00

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ASPHALT PAVEMENT UNDERDRAIN
DETAIL B
NTS

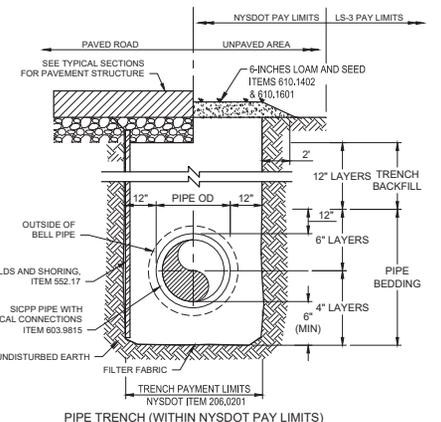


FULL DEPTH RECONSTRUCTION TYPICAL SECTION
US ROUTE 6 STA. 101+80.00 TO STA. 109+00.00



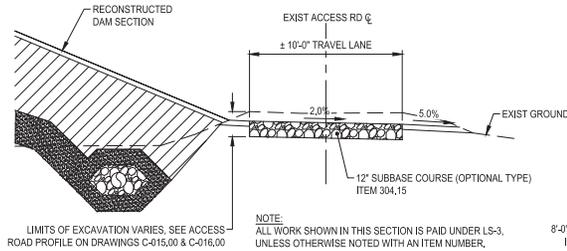
- NOTE:
- STRAIGHT TACK COAT BETWEEN ASPHALT LIFTS AND VERTICAL SURFACES (CURB, DRAINAGE STRUCTURES, ETC.), ITEM 407.0103
 - PERFORMANCE GRADED BINDER SHOULD BE 64E-22.

- NOTE:
- CONTRACTOR SHALL MILL A PORTION OF THE EXISTING PAVEMENT TO PRODUCE THE REQUIRED QUANTITIES OF MILLINGS FOR RESURFACING THE ACCESS ROAD, PAYMENT FOR THE MILLING IS INCLUDED UNDER ITEM 490.30. ALL REMAINING PAVEMENT TO BE REMOVED SHALL BE PAID UNDER ITEM 203.02.
 - CONTRACTOR SHALL COORDINATE WITH EACH UTILITY OWNER FOR THE RELOCATION OF THE EXISTING UTILITY POLES AND OVERHEAD UTILITY LINES. THE POLES AND OVERHEAD LINES WILL BE RELOCATED BY THE UTILITY OWNERS AT THEIR OWN EXPENSE.

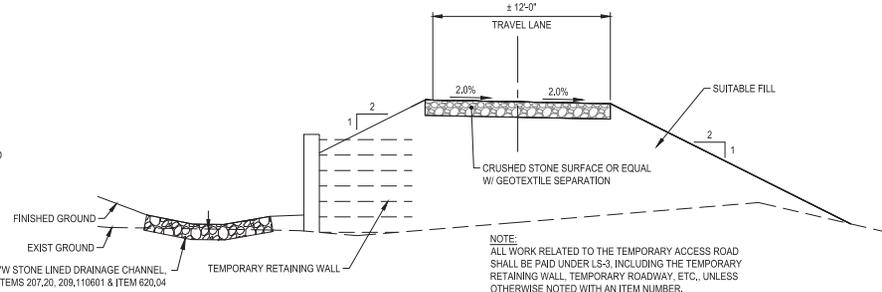
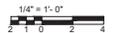


PIPE TRENCH (WITHIN NYSOT PAY LIMITS)
DETAIL A
NTS

- PIPE TRENCH NOTES:
- PIPE BEDDING-SELECT GRANULAR FILL MATERIAL COMPACTED IN LAYERS TO 95% MAXIMUM DENSITY. (ASTM D1557 MODIFIED PROCTOR), ITEM 203.21.
 - TRENCH BACKFILL-COMMON FILL MATERIAL COMPACTED IN LAYERS TO 92% MAX. DENSITY AND 98% UNDER PAVED AREAS. (ASTM D1557 MODIFIED PROCTOR). INCLUDED UNDER ITEM 206.0201. BACKFILL MATERIALS SHALL BE EITHER OF THE SAME TYPE & COMPOSITION AS THE MATERIALS REMOVED OR GREATER STRUCTURAL ADEQUACY. EXCAVATED MATERIALS MIXED WITH DELETERIOUS SUBSTANCES DURING CONSTRUCTION SHALL NOT BE USED FOR BACKFILLING.
 - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. DEWATER AS NECESSARY, INCLUDED IN ITEM 206.0201.
 - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF FLOW.
 - SHEETING SHALL BE DRIVEN BELOW THE UTILITY INVERT IF REQUIRED FOR LATERAL SUPPORT OR UNSUITABLE MATERIAL REMOVAL. WHERE DRIVEN BELOW PIPE INVERT, SHEETING SHALL BE CUT OFF A MIN OF 12" ABOVE TOP OF PIPE OR HIGHER, AS AUTHORIZED BY THE ENGINEER, AND LEFT IN PLACE. IN NO CASE SHALL SHEETING LEFT IN PLACE EXTEND HIGHER THAN 30" BELOW SURFACE GRADE UNLESS SPECIFICALLY APPROVED. BRACING SHALL BE PROVIDED AS REQUIRED.
 - THIS DETAIL APPLIES ONLY TO AREAS WITHIN THE NYSOT PAY ITEM LIMITS. SEE DETAIL 'D' ON DRAWING C-037.00 FOR PIPE TRENCH DETAILS WITHIN THE LIMITS OF LS-3.



PERMANENT GRAVEL ACCESS ROAD TYPICAL SECTION
STA 46+95.00 TO STA. 50+30.00



TEMPORARY ACCESS ROAD TYPICAL SECTION
STA. 50+30.00 TO STA. 52+95.79



Last Saved By: E. Leclair; Date: 2022-05-26 10:34 AM; File Path: C:\Users\leclair\OneDrive\Documents\Drawings\2022\05\26\1034\1034.dwg; Plot Style Table: BRED.ctb; Drawing Name: C:\Users\leclair\OneDrive\Documents\Drawings\2022\05\26\1034\1034.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
M. POWELL
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL

APPROVED FOR THE CITY OF NEW YORK

L. SINGH
ACCOUNTABLE MANAGER

D. COSTA
PORTFOLIO MANAGER

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96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
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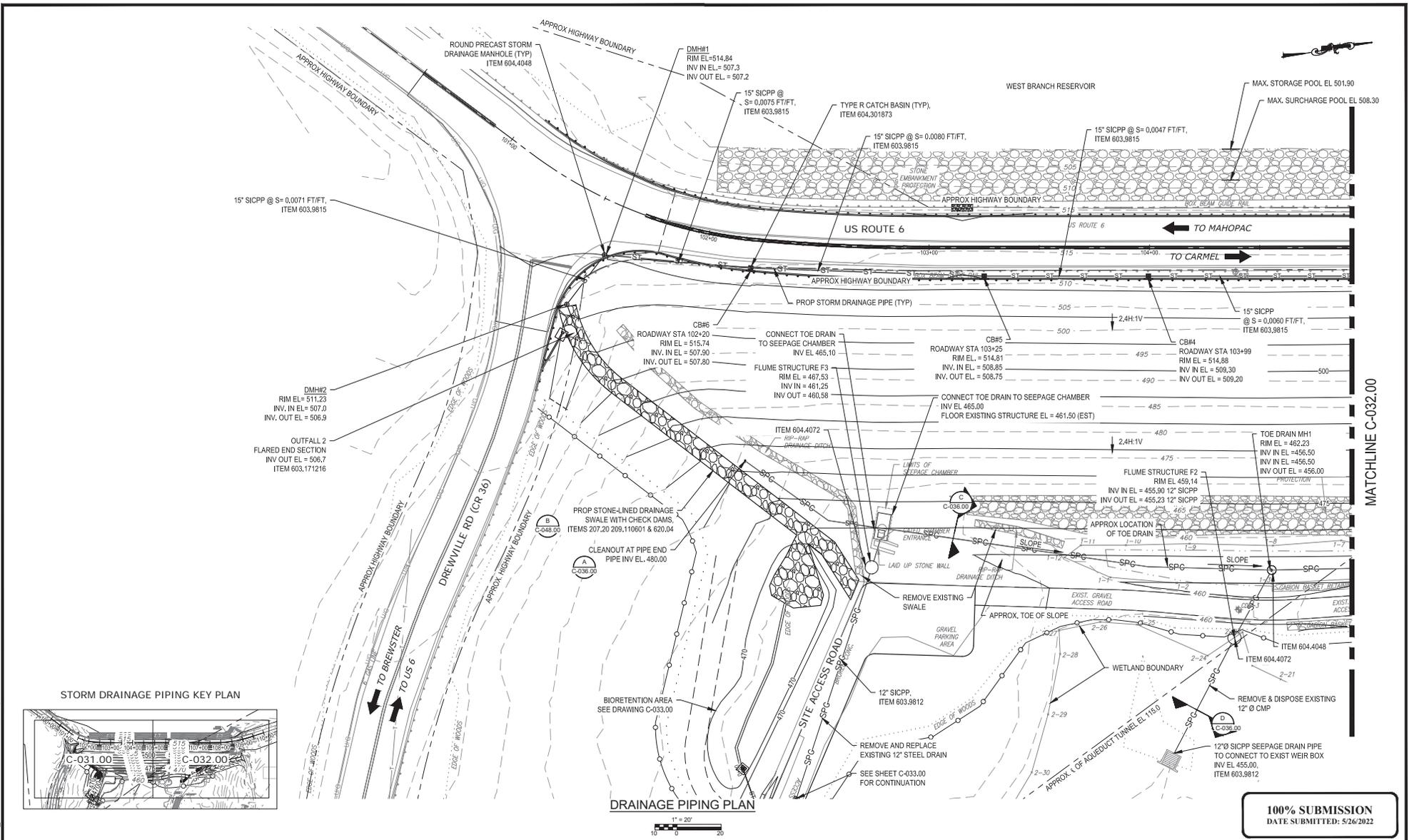
WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS
SUTPAM COUNTY, NEW YORK

TYPICAL ROADWAY SECTIONS
(2 OF 2)

DATE: 1/11/2023
SCALE: 1/4"=1'-0"
SHEET NO.: 28 OF 81
DRAWING NO.: C-018.00

100% SUBMISSION
DATE SUBMITTED: 5/26/2022

Last Saved By: C:\p\DWELL\DW... Thursday, May 08, 2022 and Drain Plan of Wednesday, February 1, 2023 5:54:41 PM
 Paper Size (ANSI) (D) (24.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: S:\Location\C:\p\DWELL\DW\026637C\031.DWG Plot Style: Tuba\BECO_Drainings.ctb



NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
D. ROSENTHAL
 CHECKED BY:
E. LECLAR
 DESIGN LEAD:
D. ROSENTHAL
 SECTION MANAGER:
E. LECLAR

DRAWN BY:
R. HANES

APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 D. COSTA
 PORTFOLIO MANAGER

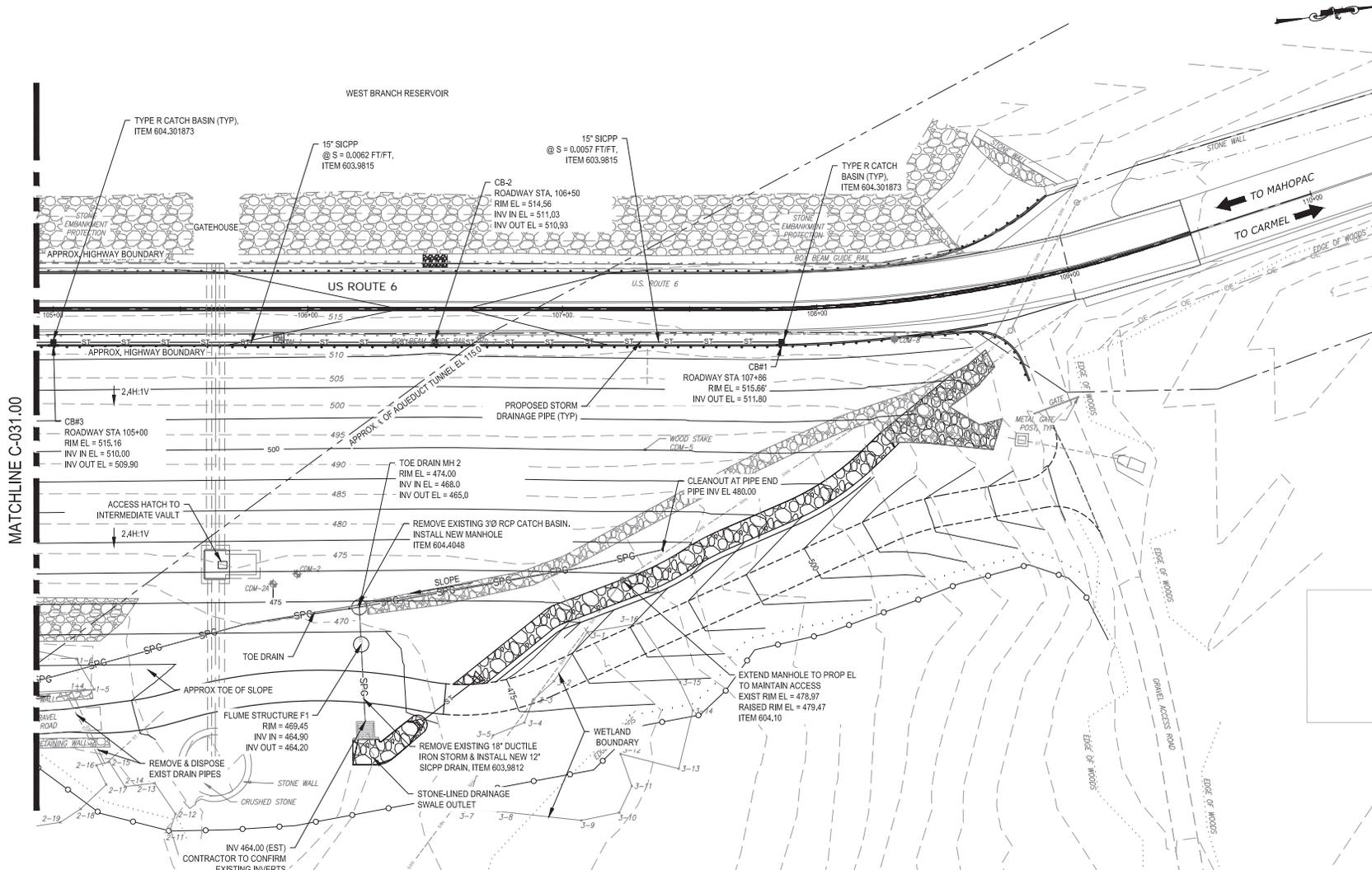
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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK

DRAINAGE & PIPING PLAN (1 OF 2)

DATE: 1/11/2023
 SCALE: 1"=20'
 SHEET NO.:
41 OF 81
 DRAWING NO.:
C-031.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



MATCHLINE C-031.00

DRAINAGE PIPING PLAN



100% SUBMISSION
DATE SUBMITTED: 5/26/2022

Lead: Steven B. & John P. Powell LLC, Thursday, May 26, 2022, 4:54:23 PM
 File: S:\2022\Projects\West Branch Auxiliary Dam Slope Safety Improvements\Drawings\2022\DWG\20220526\20220526.DWG
 Plot Style: TabledBEOC_Drawing.ctb
 Drawing Name: & Location: C:\p\p\POWELL\DWG\20220526\20220526.DWG

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
D. ROSENTHAL
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
D. ROSENTHAL
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
R. HANES
CDM Smith
11800 American Blvd, Suite 200
Lutherville, NY 12110
Tel: (518) 762-6800



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

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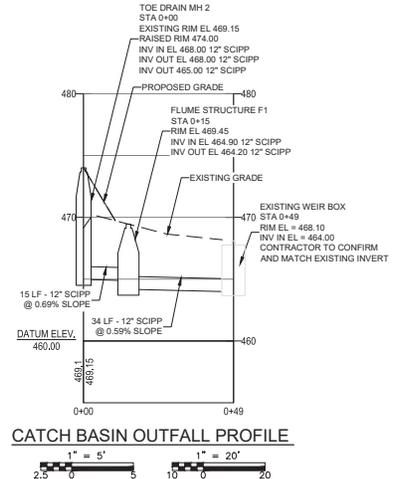
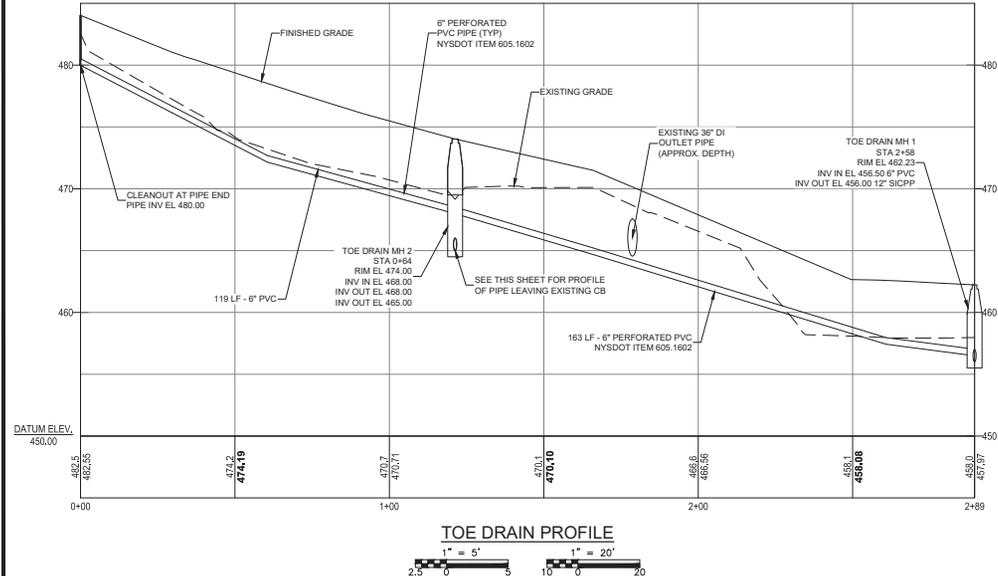
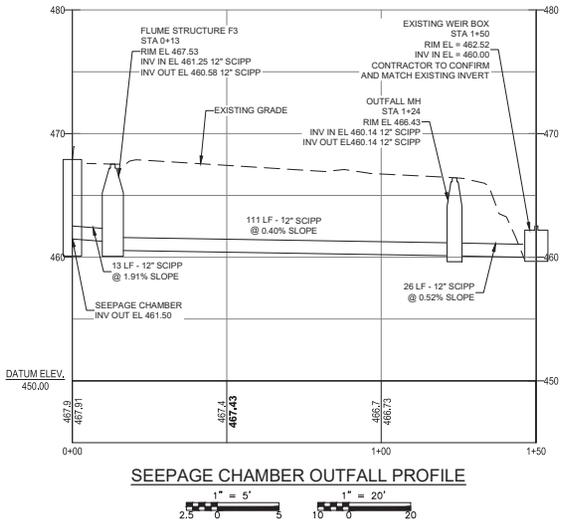
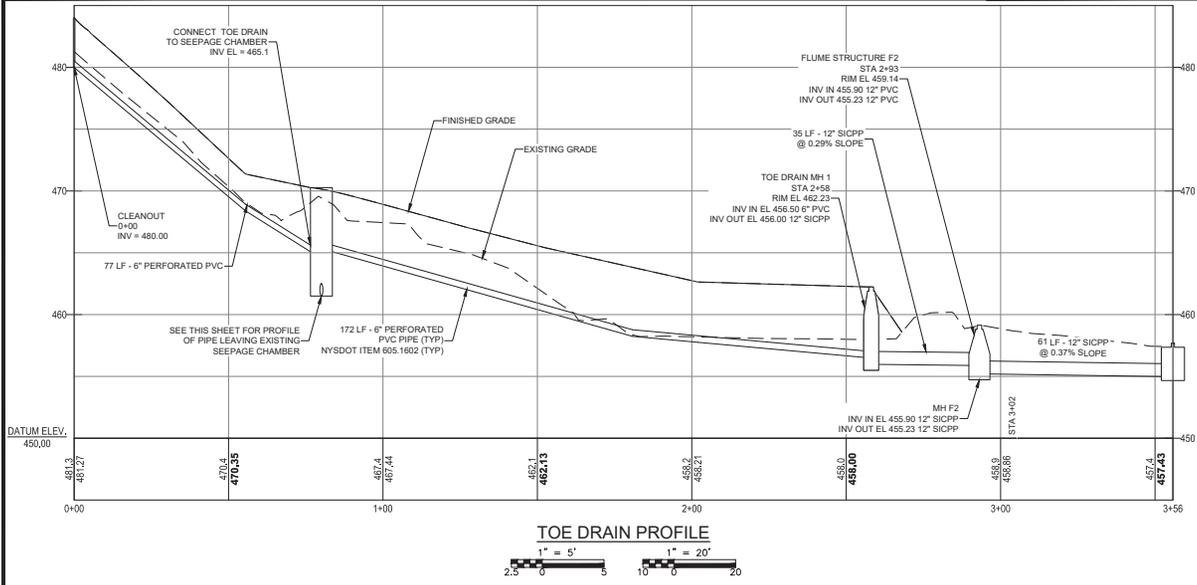
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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
DRAINAGE & PIPING PLAN (2 OF 2)

DATE: 1/11/2023
SCALE: 1"=20'
SHEET NO.: 42 OF 81
DRAWING NO.: C-032.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Lead: Sanyal, B. & Date: P01WELL.DWG, Thursday, May 05, 2022, and Drain: P01WELL.DWG, Thursday, May 05, 2022, 5:54:58 PM.
 Pipe Size: 30.00 X 34.00 (INCHES) Pipe Scale: 1"=20'
 Plot Style: TablesBEEQC_Drawing.ctb
 Drawing Name & Location: C:\p\p01WELL\DWG\0266637\C-034-00.dwg



- PAYMENT NOTES:**
- ALL 12" SCIPP SHOWN ARE ITEM 603.9812
 - ALL MANHOLES [MH] SHOWN ARE ITEM 604.4048, WITH FRAME AND COVERS ITEM 655.1202
 - FLUME STRUCTURES ARE ITEM 604.4072, MANHOLE FRAME AND COVER ITEM 655.1202

100% SUBMISSION
 DATE SUBMITTED: 5/26/2022

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY: D. ROSENTHAL
 CHECKED BY: E. LECLAIR
 DESIGN LEAD: D. ROSENTHAL
 SECTION MANAGER: E. LECLAIR

DRAWN BY: R. HANES



APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 J. COSTA
 PORTFOLIO MANAGER

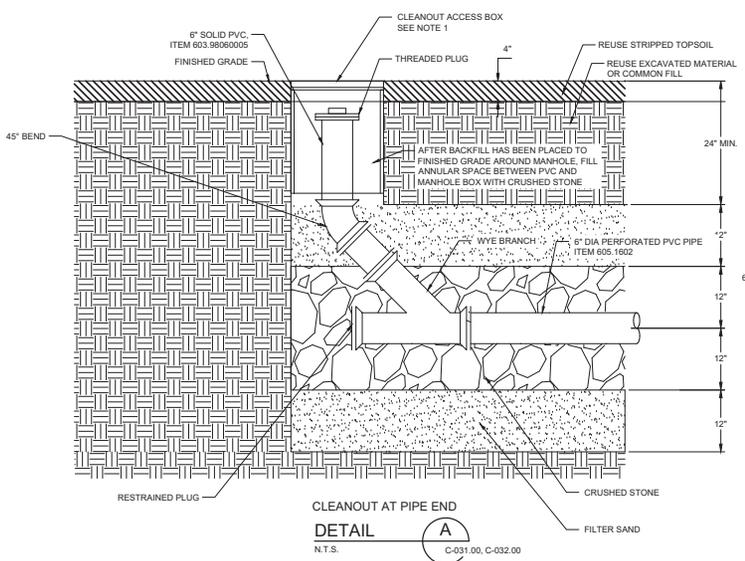
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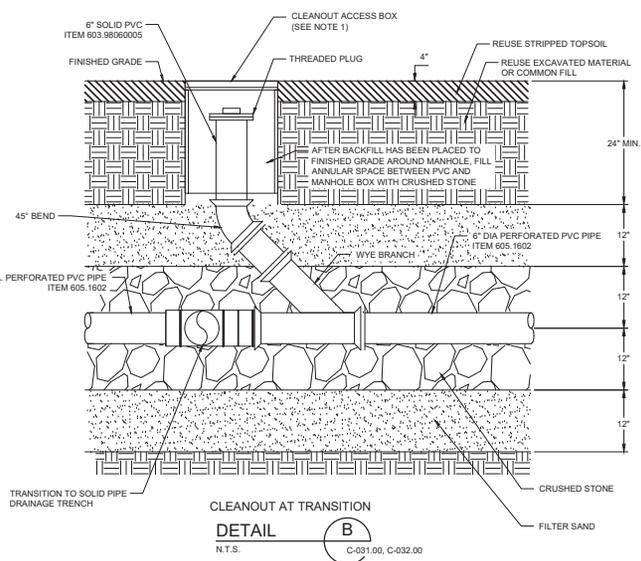
WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK
 TOE DRAIN PIPING PROFILE

DATE: 1/11/2023
SCALE: 1"=20'
SHEET NO.: 45 OF 81
DRAWING NO. C-035.00

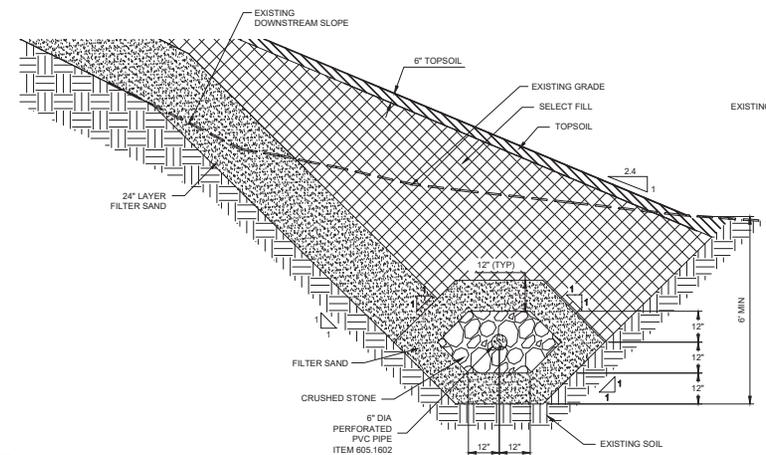
Last Saved By: B. & B. PAVELLO, L.L.P., Friday, October 28, 2022, 4:55:03 PM
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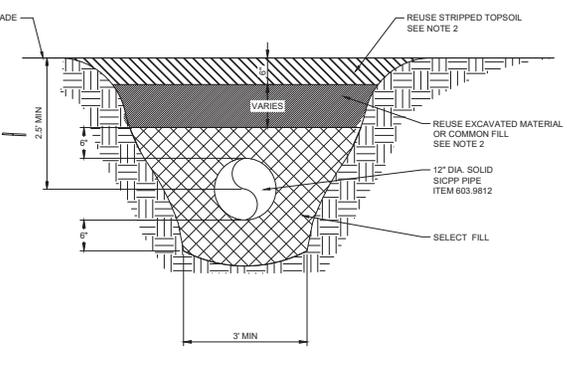
CLEANOUT AT PIPE END
DETAIL A
 N.T.S. C-031.00, C-032.00



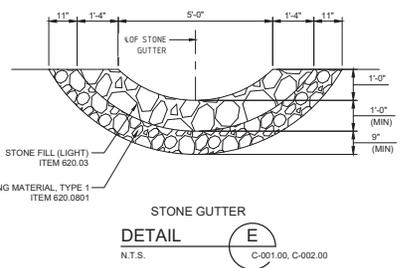
CLEANOUT AT TRANSITION
DETAIL B
 N.T.S. C-031.00, C-032.00



TOE DRAIN
DETAIL C
 N.T.S. C-031.00, C-032.00



SOLID PIPE DRAINAGE TRENCH
DETAIL D
 N.T.S. C-031.00, C-032.00



STONE GUTTER
DETAIL E
 N.T.S. C-001.00, C-002.00

- NOTES:**
- CLEANOUT BOXES SHALL BE RATED FOR AT LEAST AASHTO H10 TRUCK LOADING (8,000 LBS). REFER TO SPECIFICATION 33 41 53 FOR ADDITIONAL DETAILS AND REQUIREMENTS.
 - SOIL EXCAVATED FOR PIPE TRENCHING WITHIN WETLAND BOUNDARIES SHALL BE STOCKPILED AND REUSED AS TRENCH COVER FILL ABOVE THE SELECT FILL PIPE BEDDING MATERIAL.

- NOTES:**
- CONTRACTOR SHALL PLACE FILTER SAND AND CRUSHED STONE INCREMENTALLY TO ACHIEVE THE LAYER THICKNESSES AND GEOMETRY OF THE TOE DRAIN AS DEPICTED IN DETAIL 'C'

100% SUBMISSION
 DATE SUBMITTED: 5/26/2022
 REVISED 10/28/2022

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
D. ROSENTHAL
 CHECKED BY:
E. LECLAR
 DESIGN LEAD:
D. ROSENTHAL
 SECTION MANAGER:
E. LECLAR



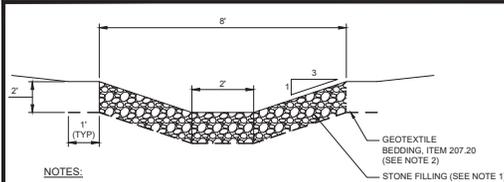
APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 P. COSTA
 PORTFOLIO MANAGER

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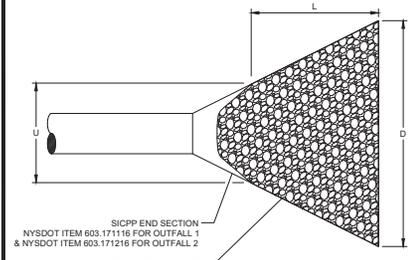
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 CORONA, NEW YORK 11368
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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK
 DRAINAGE DETAILS (1 OF 2)
 DATE: 10/28/2022
 SCALE: N/A
 SHEET NO.: 46 OF 81
 DRAWING NO.: C-036.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



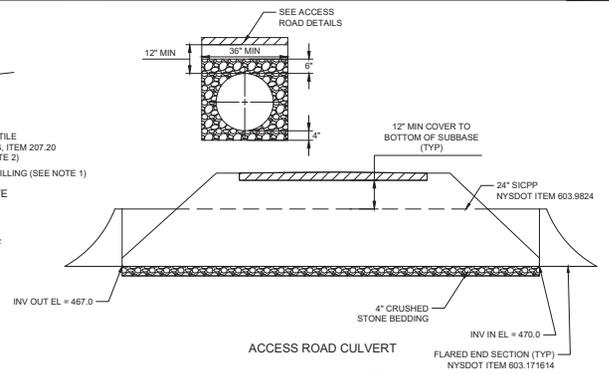
DETAIL A
NTS
C-010/00



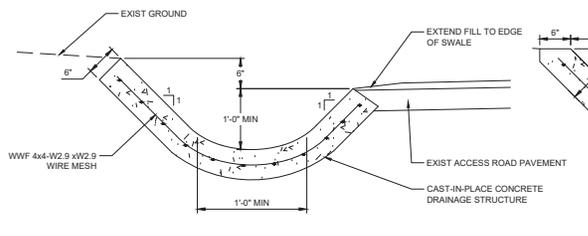
DETAIL E
NTS

STORM PIPE NO.	LENGTH L - (FT)	DEPTH (IN)	UPSTREAM WIDTH-U (FT)	DOWNSTREAM WIDTH-D (FT)
OUTFALL 1 & 2	6	12	3	7

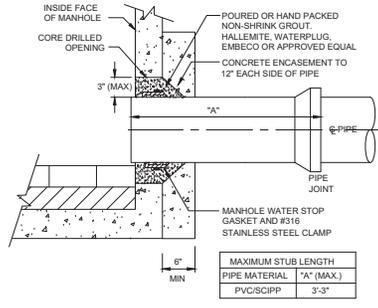
- NOTES:**
- PIPE BEDDING-SELECT GRANULAR FILL MATERIAL COMPACTED IN LAYERS TO 95% MAXIMUM DENSITY. (ASTM D1557 MODIFIED PROCTOR)
 - TRENCH BACKFILL-COMMON FILL MATERIAL COMPACTED IN LAYERS TO 92% MAX. DENSITY AND 98% UNDER PAVED AREAS. (ASTM D1557 MODIFIED PROCTOR).
 - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. DEWATER AS NECESSARY.
 - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF FLOW.
 - IF UNSUITABLE FOUNDATION IS ENCOUNTERED REMOVE UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. REPLACE WITH STRUCTURAL FILL COMPACTED TO 95% MAX. DENSITY (ASTM D1557 MODIFIED PROCTOR).
 - SHEETING SHALL BE DRIVEN BELOW THE UTILITY INVERT IF REQUIRED FOR LATERAL SUPPORT OR UNSUITABLE MATERIAL REMOVAL. WHERE DRIVEN BELOW PIPE INVERT, SHEETING SHALL BE CUT OFF A MIN OF 12" ABOVE TOP OF PIPE OR HIGHER, AS AUTHORIZED BY THE ENGINEER, AND LEFT IN PLACE. IN NO CASE SHALL SHEETING LEFT IN PLACE EXTEND HIGHER THAN 30" BELOW SURFACE GRADE UNLESS SPECIFICALLY APPROVED. BRACING SHALL BE PROVIDED AS REQUIRED.
 - BACKFILL MATERIALS SHALL BE EITHER OF THE SAME TYPE & COMPOSITION AS THE MATERIALS REMOVED, OR GREATER STRUCTURAL ADEQUACY. EXCAVATED MATERIALS MIXED WITH DELETERIOUS SUBSTANCES DURING CONSTRUCTION SHALL NOT BE USED FOR BACKFILLING.
 - FOR INSTALLATIONS IN PAVEMENT, ALL EXISTING PAVEMENT SHALL BE CUT SQUARELY WITH A SAW. WEARING SURFACE SHALL BE SAME TYPE AND THICKNESS AS THE EXISTING PAVEMENT.
 - METAL ACCESS GRATE SHALL BE RATED FOR AT LEAST AASHTO H10 TRUCK LOADING (8,000 LBS). REFER TO SPECIFICATION 05 50 00 FOR ADDITIONAL DETAILS AND REQUIREMENTS.



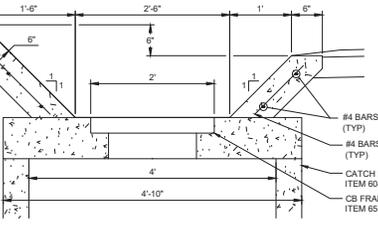
DETAIL B
NTS



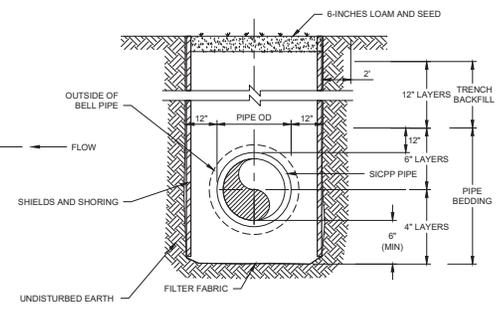
SECTION G
N.T.S.



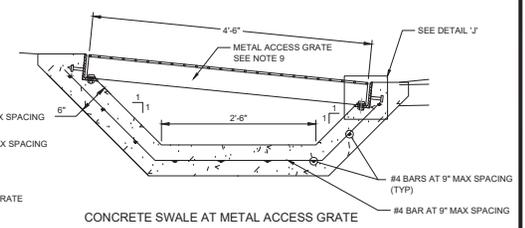
DETAIL C
NTS



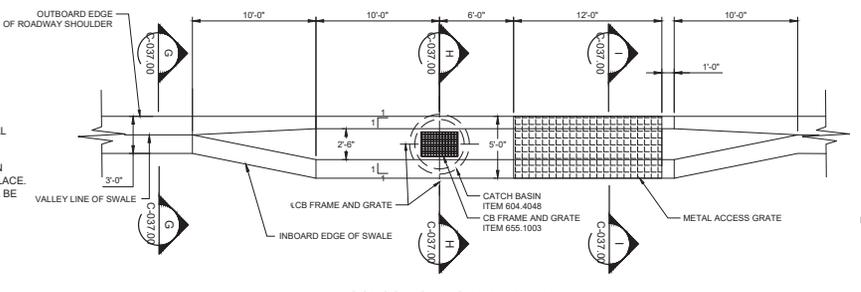
SECTION H
N.T.S.



DETAIL D
NTS

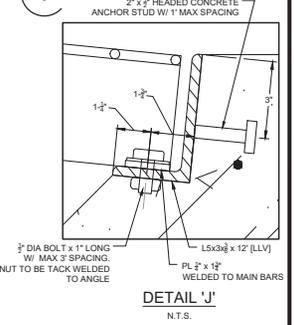


SECTION I
N.T.S.



ACCESS ROAD SWALE PLAN

- NOTES:**
- CONCRETE SWALE LONGITUDINAL SLOPE TO BE FIELD MEASURED TO MATCH EXISTING GRADE.



DETAIL J
N.T.S.

100% SUBMISSION
DATE SUBMITTED: 5/26/2022

Lead: Steven B. & Ryan POWELL L.L.D., Thursday, May 26, 2022 and Date: Printed Wednesday, February 1, 2023 5:55:48 PM
 Project: SWALE (ANSI) (2022.05.24.00) (INCHES) Plot Scale: N/A
 Plot Style Table: BIDD_C307.ctb
 Drawing Name: & Location: C:\p\POWELL\LD\0268637\C-037.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
D. ROSENTHAL
CHECKED BY:
E. LECLAR
DESIGN LEAD:
D. ROSENTHAL
SECTION MANAGER:
E. LECLAR



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

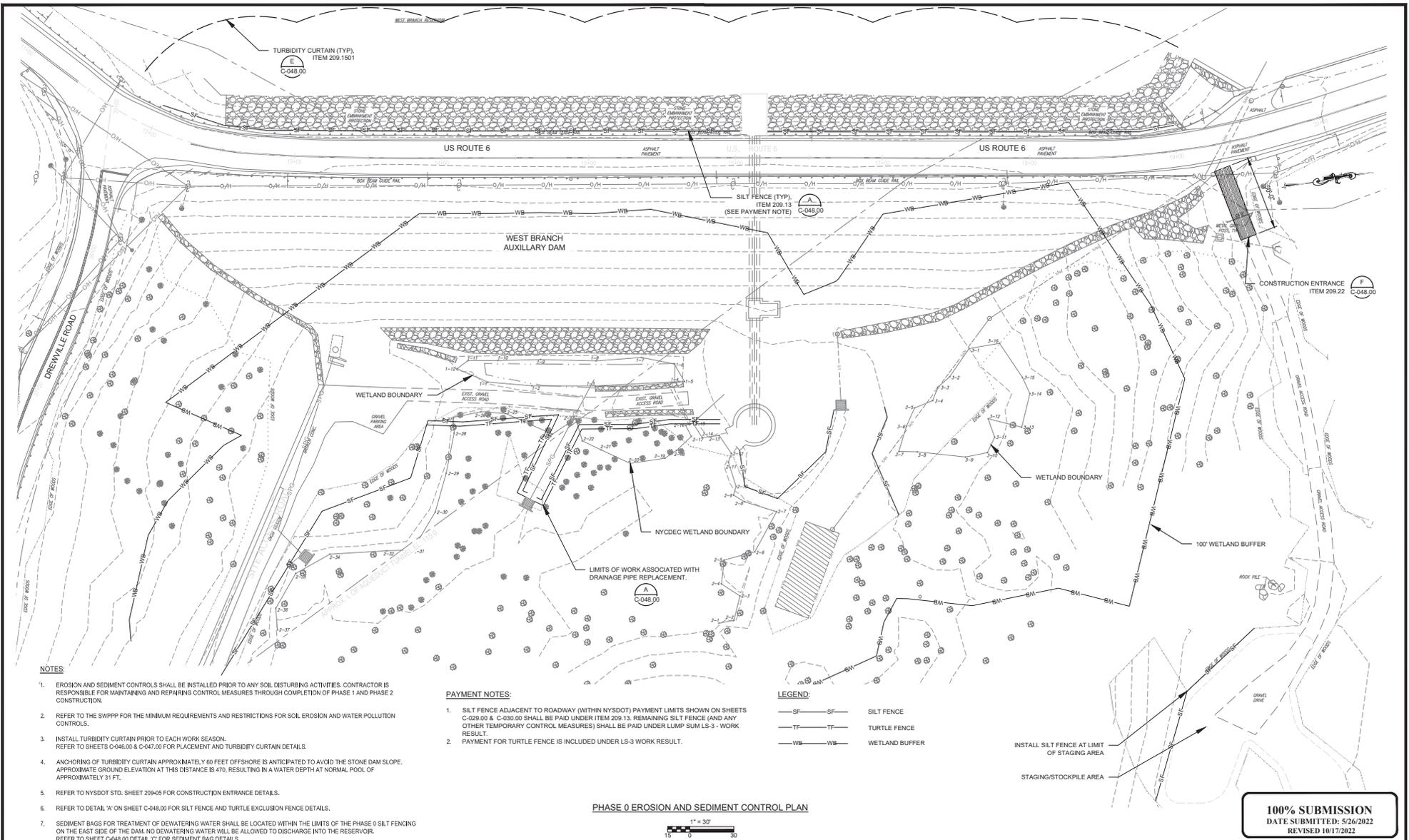
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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
DRAINAGE DETAILS (2 OF 2)
DATE: 1/11/2023
SCALE: N/A
SHEET NO.: 47 OF 81
DRAWING NO.: C-037.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Lead: Sarah B. & Chris Pomeroy, LLC, Monday, December 12, 2022 at 03:30:04 PM
 File Path: S:\Projects\West Branch Auxiliary Dam\12-2022\03-30-2022\DWG\Phase 0\SWPPP\ANSI D (24.00 X 34.00) NCHES\Plot Scale: 1"=20'
 Drawing Name: & Location: C:\p\l\lowell\m\02686197\C-042.dwg



- NOTES:**
1. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBING ACTIVITIES. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND REPAIRING CONTROL MEASURES THROUGH COMPLETION OF PHASE 1 AND PHASE 2 CONSTRUCTION.
 2. REFER TO THE SWPPP FOR THE MINIMUM REQUIREMENTS AND RESTRICTIONS FOR SOIL EROSION AND WATER POLLUTION CONTROLS.
 3. INSTALL TURBIDITY CURTAIN PRIOR TO EACH WORK SEASON. REFER TO SHEETS C-046.00 & C-047.00 FOR PLACEMENT AND TURBIDITY CURTAIN DETAILS.
 4. ANCHORING OF TURBIDITY CURTAIN APPROXIMATELY 60 FEET OFFSHORE IS ANTICIPATED TO AVOID THE STONE DAM SLOPE. APPROXIMATE GROUND ELEVATION AT THIS DISTANCE IS 470, RESULTING IN A WATER DEPTH AT NORMAL POOL OF APPROXIMATELY 31 FT.
 5. REFER TO NYSDOT STD. SHEET 209-05 FOR CONSTRUCTION ENTRANCE DETAILS.
 6. REFER TO DETAIL 'A' ON SHEET C-048.00 FOR SILT FENCE AND TURTLE EXCLUSION FENCE DETAILS.
 7. SEDIMENT BAGS FOR TREATMENT OF DEWATERING WATER SHALL BE LOCATED WITHIN THE LIMITS OF THE PHASE 0 SILT FENCING ON THE EAST SIDE OF THE DAM. NO DEWATERING WATER WILL BE ALLOWED TO DISCHARGE INTO THE RESERVOIR. REFER TO SHEET C-048.00 DETAIL 'C' FOR SEDIMENT BAG DETAILS.
- PAYMENT NOTES:**
1. SILT FENCE ADJACENT TO ROADWAY (WITHIN NYSDOT) PAYMENT LIMITS SHOWN ON SHEETS C-029.00 & C-030.00 SHALL BE PAID UNDER ITEM 209.13. REMAINING SILT FENCE (AND ANY OTHER TEMPORARY CONTROL MEASURES) SHALL BE PAID UNDER LUMP SUM LS-3 - WORK RESULT.
 2. PAYMENT FOR TURTLE FENCE IS INCLUDED UNDER LS-3 WORK RESULT.

- LEGEND:**
- ST — ST — SILT FENCE
 - TT — TT — TURTLE FENCE
 - WB — WB — WETLAND BUFFER

INSTALL SILT FENCE AT LIMIT OF STAGING AREA
STAGING/STOCKPILE AREA

PHASE 0 EROSION AND SEDIMENT CONTROL PLAN



100% SUBMISSION
DATE SUBMITTED: 5/26/2022
REVISED 10/17/2022

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
R. HANES
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
D. ROSENTHAL
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
R. HANES

APPROVED FOR THE CITY OF NEW YORK

L. SINGH
ACCOUNTABLE MANAGER

D. COSTA
PORTFOLIO MANAGER

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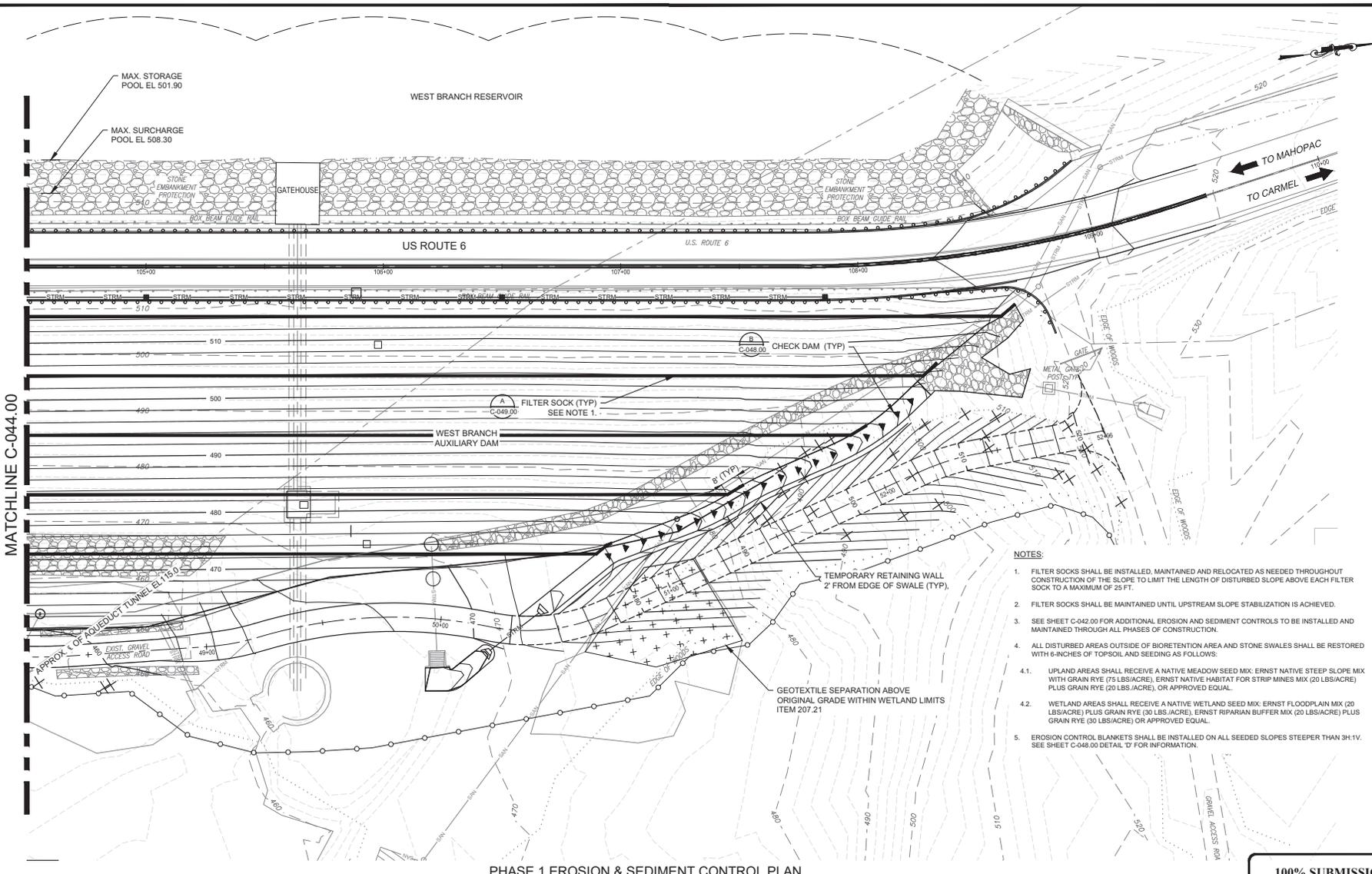
NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK

PHASE 0 SOIL EROSION & SEDIMENT CONTROL PLAN
(1 OF 2)

DATE: 1/11/2023
SCALE: 1"=20'
SHEET NO: 52 OF 81
DRAWING NO: C-042.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



- NOTES:**
1. FILTER SOCKS SHALL BE INSTALLED, MAINTAINED AND RELOCATED AS NEEDED THROUGHOUT CONSTRUCTION OF THE SLOPE TO LIMIT THE LENGTH OF DISTURBED SLOPE ABOVE EACH FILTER SOCK TO A MAXIMUM OF 25 FT.
 2. FILTER SOCKS SHALL BE MAINTAINED UNTIL UPSTREAM SLOPE STABILIZATION IS ACHIEVED.
 3. SEE SHEET C-042.00 FOR ADDITIONAL EROSION AND SEDIMENT CONTROLS TO BE INSTALLED AND MAINTAINED THROUGH ALL PHASES OF CONSTRUCTION.
 4. ALL DISTURBED AREAS OUTSIDE OF BIORETENTION AREA AND STONE SWALES SHALL BE RESTORED WITH 6-INCHES OF TOPSOIL AND SEEDING AS FOLLOWS:
 - 4.1. UPLAND AREAS SHALL RECEIVE A NATIVE MEADOW SEED MIX: ERNST NATIVE STEEP SLOPE MIX WITH GRASS RYE (20 LBS/ACRE), ERNST NATIVE HABITAT FOR STRIP MINES MIX (20 LBS/ACRE) PLUS GRASS RYE (20 LBS/ACRE), OR APPROVED EQUAL.
 - 4.2. WETLAND AREAS SHALL RECEIVE A NATIVE WETLAND SEED MIX: ERNST FLOODPLAIN MIX (20 LBS/ACRE) PLUS GRASS RYE (20 LBS/ACRE), ERNST RIPARIAN BUFFER MIX (20 LBS/ACRE) PLUS GRASS RYE (20 LBS/ACRE) OR APPROVED EQUAL.
 5. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SEEDED SLOPES STEEPER THAN 3H:1V. SEE SHEET C-045.00 DETAIL 'D' FOR INFORMATION.

PHASE 1 EROSION & SEDIMENT CONTROL PLAN



100% SUBMISSION
DATE SUBMITTED: 5/26/2022

East Side Rd. & Gate Pave/Well Ltd., Thursday, May 26, 2022, 4:56:08 PM
 Plot Size: ANSI (D) (24.00 X 36.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\p\p\DWELLING\0286837\C-044.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
R. HANES
CHECKED BY:
E. LECLAR
DESIGN LEAD:
D. ROSENTHAL
SECTION MANAGER:
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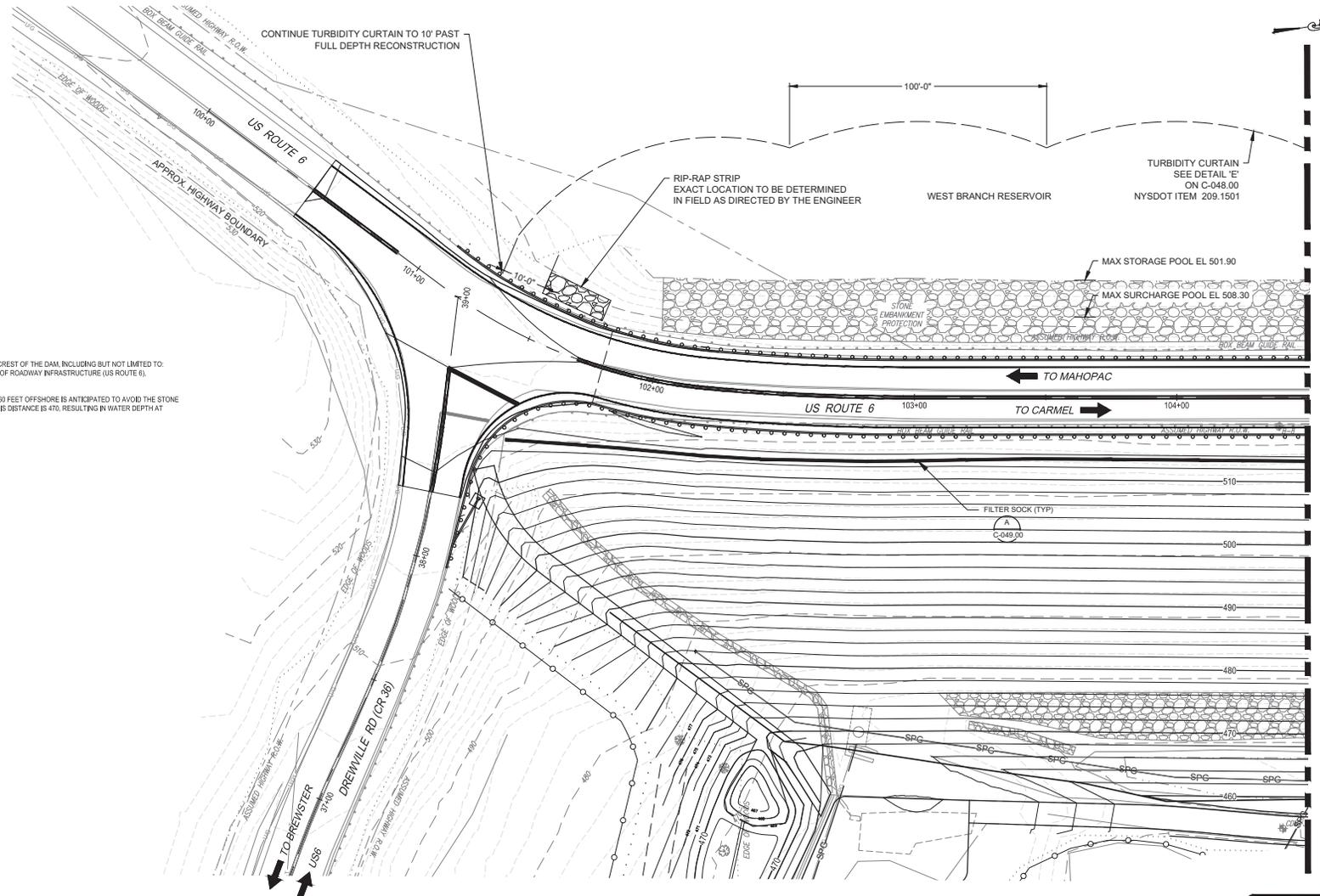
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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
PHASE 1 SOIL EROSION & SEDIMENT CONTROL PLAN
(2 OF 2)

DATE: 1/11/2023
SCALE: 1"=20'
SHEET NO.: 55 OF 81
DRAWING NO.: C-045.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



- NOTES:
1. INSTALL TURBIDITY CURTAIN PRIOR TO WORK AT THE CREST OF THE DAM, INCLUDING BUT NOT LIMITED TO: UTILITY POLE RELOCATION, REMOVAL OR PLACEMENT OF ROADWAY INFRASTRUCTURE (US ROUTE 6), PLACEMENT OF FILL AT THE CREST OF THE DAM.
 2. ANCHORING OF TURBIDITY CURTAIN APPROXIMATELY 60 FEET OFFSHORE IS ANTICIPATED TO AVOID THE STONE DAM SLOPE. APPROXIMATE GROUND ELEVATION AT THIS DISTANCE IS 470, RESULTING IN WATER DEPTH AT NORMAL POOL OF APPROXIMATELY 31 FT.

PHASE 2 EROSION & SEDIMENT CONTROL



MATCHLINE C-047.00

100% SUBMISSION
DATE SUBMITTED: 5/26/2022

L&L CONSULTING, INC. & DATE: 05/26/2022, Thursday, May 26, 2022, 11:56:45 AM
 Plot Size: 34.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\p\p\DWG\100286837\C-046.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
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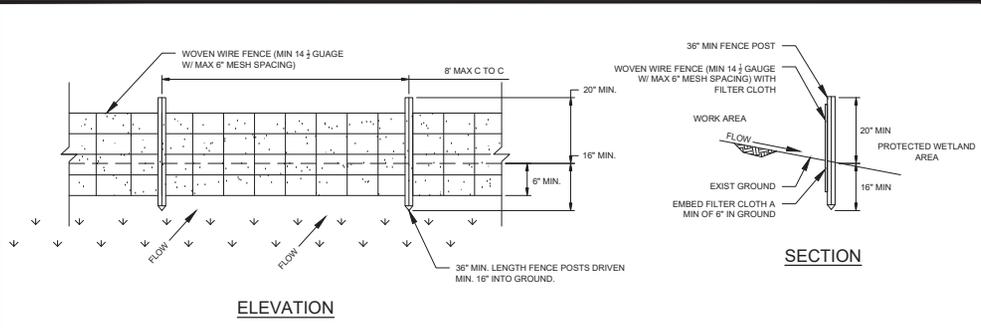
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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
PHASE II SOIL EROSION & SEDIMENT CONTROL PLAN
(1 OF 2)

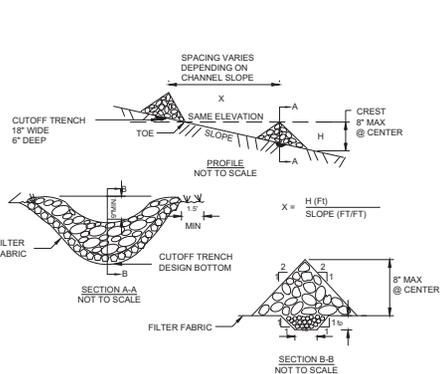
DATE: 1/11/2023
SCALE: 1"=20'
SHEET NO.:
56 OF 81
DRAWING NO.:
C-046.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



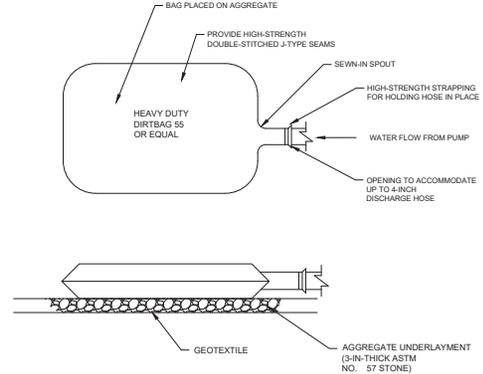
ELEVATION

SILT FENCE & TURTLE FENCE
DETAIL A
NTS C-042.00



PERMANENT CHECK DAM (ITEM 209.110602)

DETAIL B
NTS C-031.00, C-044.00, C-045.00

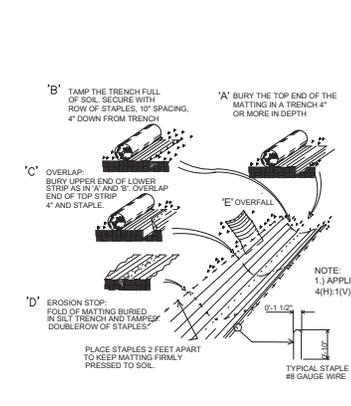


SEDIMENT BAG

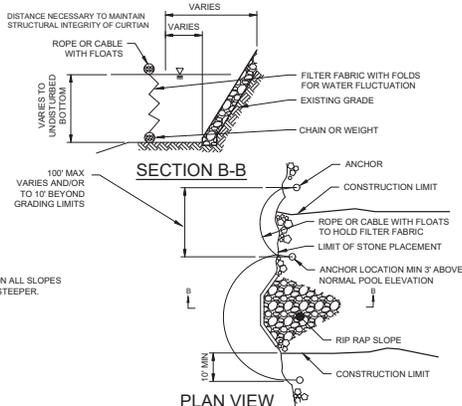
DETAIL C
NTS C-042.00

- TURTLE EXCLUSION FENCE NOTES:**
- PRIOR TO CONSTRUCTION ACTIVITY WITHIN THE WETLAND AREA, WORK AREA SHALL BE INVESTIGATED BY A QUALIFIED/TRAINED INDIVIDUAL (HERPETOLOGIST) TO ENSURE NO BOG TURTLES ARE PRESENT.
 - TURTLE EXCLUSION FENCING (DOUBLE ROW SILT FENCE) SHALL BE INSTALLED AS SHOWN ON THE PLAN AND SPACED 12 INCHES APART.
 - INSPECTION OF THE WORK AREA SHALL TAKE PLACE EACH MORNING BY THE QUALIFIED/TRAINED INDIVIDUAL (HERPETOLOGIST) PRIOR TO CONSTRUCTION ACTIVITIES.

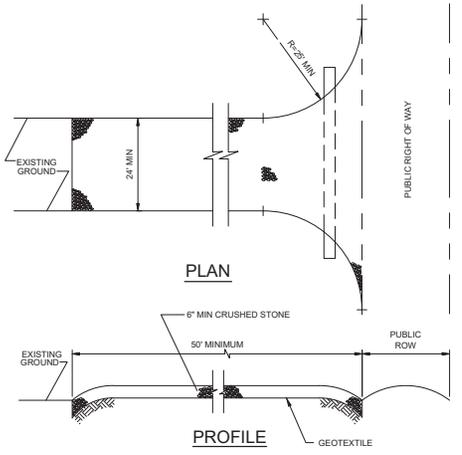
- SILT FENCE NOTES:**
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER 1" OR 1 1/2" TYPE, OR HARDWOOD.
 - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTERCLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUIVALENT.
 - PREFABRICATED UNITS SHALL BE GEOFAB, ENVIRONFENCE, OR APPROVED EQUIVALENT.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



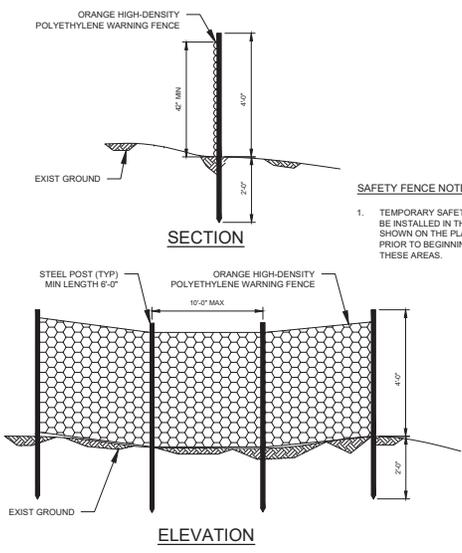
EROSION CONTROL BLANKET
DETAIL D
NTS C-044.00, C-045.00



TURBIDITY CURTAIN (ITEM 209.1501)
DETAIL E
NTS C-042.00, C-045.00, C-047.00



STABILIZED CONSTRUCTION ENTRANCE (ITEM 209.22)
DETAIL F
NTS C-042.00



TEMPORARY SAFETY FENCE
DETAIL G
NTS C-001.00

- SAFETY FENCE NOTES:**
- TEMPORARY SAFETY FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS OR A.O.B.E. PRIOR TO BEGINNING ANY WORK IN THESE AREAS.

100% SUBMISSION
DATE SUBMITTED: 5/26/2022

NOTES: SEE SHEETS C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
R. HANES
CHECKED BY:
E. LECLAR
DESIGN LEAD:
D. ROSENTHAL
SECTION MANAGER:
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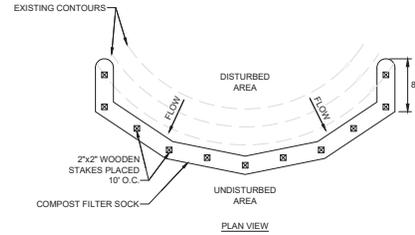
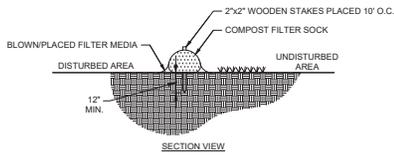
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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
SOIL EROSION & SEDIMENT CONTROL DETAILS
(1 OF 2)

DATE: 1/11/2023
SCALE: N/A
SHEET NO.:
58 OF 81
DRAWING NO.:
C-048.00

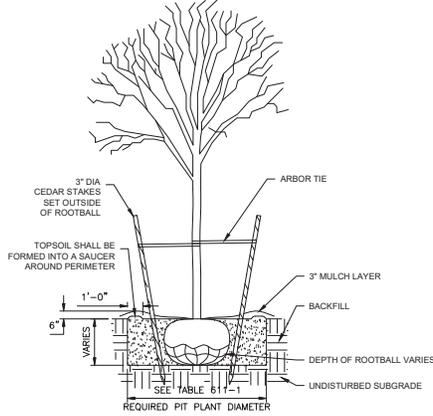
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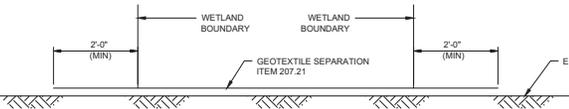
COMPOST FILTER SOCK
DETAIL
A
NTS C-044.00, C-045.00

NOTES:

1. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
2. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
4. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
5. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
6. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCKS, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.



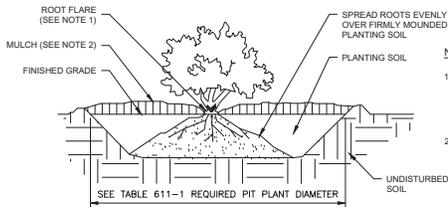
TREE PLANTING & STAKE DETAIL
DETAIL
D
NTS



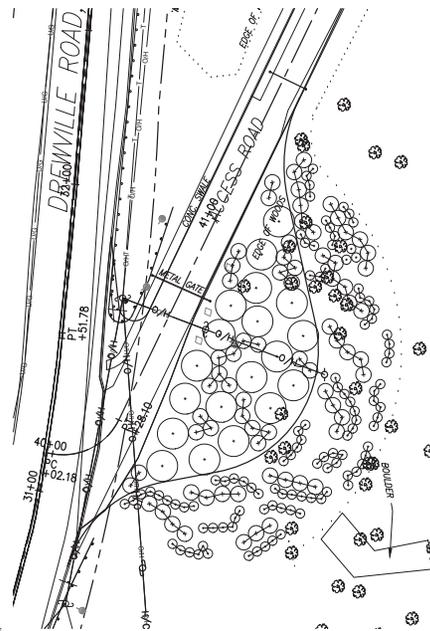
WETLAND PROTECTION GEOTEXTILE SEPARATION DETAIL
DETAIL
B
NTS C-002.00

NOTES:

1. PLACE GEOTEXTILE SEPARATION OVER WETLAND SURFACE PRIOR TO TEMPORARY ACCESS ROAD PLACEMENT.
2. PAYMENT FOR REMOVAL AND DISPOSAL OF THE GEOTEXTILE AFTER THE TEMPORARY ACCESS ROAD IS REMOVED IS INCLUDED UNDER LS-3, WORK RESULT.
3. PLACEMENT AND REMOVAL OF THE GEOTEXTILE SHALL BE COMPLETE WITH MINIMAL DISTURBANCE TO THE WETLAND SOIL.



SHRUB PLANTING DETAIL
DETAIL
E
NTS



SITE ENTRANCE RESTORATION PLANTINGS
DETAIL
C
NTS C-005.00

TABLE 611-1 - REQUIRED PLANT PIT DIAMETER	
ROOT SPREAD / ROOT BALL DIAMETER	PLANT PIT DIAMETER
UNDER 2'-0"	3X THE ROOT SPREAD OR ROOT BALL DIAMETER
FROM 2'-0" TO 4'-0"	2.5X THE ROOT SPREAD OR ROOT BALL DIAMETER
OVER 4'-0"	2X THE ROOT SPREAD OR ROOT BALL DIAMETER

NOTES:

1. MULCH SHALL BE A MAXIMUM OF 3" DEEP AND TAPERED DOWN TO LEAVE THE ROOT FLARE EXPOSED. WHEN PLANTING ON SLOPES, DOWNHILL SIDE MUST BE STABILIZED APPROPRIATELY OR SEEDING ON DOWNHILL SIDE MAY BE SPECIFIED.
2. THE ROOT FLARE SHALL BE VISIBLE AND LEVEL WITH SURROUNDING SOIL.

PLANT SCHEDULE - UPPER FLATTENED AREA

QTY	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE (GALLONS)
TREES			
3	QUERCUS ALBA	WHITE OAK	#5 OR LARGER
3	QUERCUS RUBRA	RED OAK	#5 OR LARGER
3	ACER SACCHARUM	SUGAR MAPLE	#5 OR LARGER
3	ACER RUBRUM	RED MAPLE	#5 OR LARGER
3	LIRIODENDRON TULIPIFERA	TULIP POPLAR	#5 OR LARGER
4	BETULA LENTA	SWEET BIRCH	#5 OR LARGER
SHRUBS			
6	VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	(3) #2 & (3) #3
6	CORNUS FLORIDA	FLOWING DOGWOOD	(3) #2 & (3) #3
6	VIBURNUM PRUNIFOLIUM	BLACKHAW VIBURNUM	(3) #2 & (3) #3
6	HAMAMELIS VIRGINIANA	AMERICAN WITCH HAZEL	(3) #2 & (3) #3
5	AMELANCHIER CANADENSIS	SERVICEBERRY	(3) #2 & (2) #3

SEED MIX

20 LB/ACRE	ERNMX-123 NATIVE UPLAND FORAGE & COVER MIX
------------	--

PLANT SCHEDULE - LOWER SLOPED FILL AREA

QTY	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE (GALLONS)
SHRUBS			
9	VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	(5) #2 & (4) #3
9	CORNUS FLORIDA	FLOWING DOGWOOD	(5) #2 & (4) #3
6	VIBURNUM PRUNIFOLIUM	BLACKHAW VIBURNUM	(5) #2 & (4) #3
9	HAMAMELIS VIRGINIANA	AMERICAN WITCH HAZEL	(5) #2 & (4) #3
9	AMELANCHIER CANADENSIS	SERVICEBERRY	(5) #2 & (4) #3
HERBACEOUS SHRUBS			
50	POLYSTICHUM ARISTICHOIDES	CHRISTMAS FERN	(25) #2 & (25) #3
50	PARTHENOCISSUS QUIQUEFOLIA	VIRGINIA CREEPER	(25) #2 & (25) #3

SEED MIX

30 LB/ACRE	ERNMX-123 NATIVE UPLAND FORAGE & COVER MIX
------------	--

NOTES:

1. THE PLANTING SCHEDULE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. NYC DEP BWS NATURAL RESOURCES STAFF TO PROVIDE PLANTINGS LOCATION IN THE FIELD AT TIME OF INSTALLATION.
2. THE PLANTINGS ARE BROKEN INTO TWO SEPARATE AREAS: THE UPPER FLATTENED AREA OF THE WIDENED ENTRANCE, AND THE LOWER SLOPED FILL AREA.
3. TREES WITHIN 15' OF THE WORK SHALL BE PROTECTED AS OUTLINED IN SPECIFICATION 31 10 10 - SITE CLEARING.
4. ALL PLANTINGS SHALL BE VERIFIED BY THE TOWN OF CARMEL WETLANDS INSPECTOR PRIOR TO INSTALLATION.
5. ALL PLANTINGS SHALL BE INSTALLED PER §142 OF THE TOWN OF CARMEL TOWN CODE.

100% SUBMISSION
DATE SUBMITTED: 5/26/2022

NYSED, SEE SECTION C, PAGE C-045.00, 05-24-2022, E:\0504\05_24_2022\0504_05_24_2022\0504_05_24_2022.dwg
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 Date: 05/26/2022 11:29:01 AM
 Plot Style Table: BIDD.ctb
 Drawing Name: & Location: C:\p\01\working\0504\0504.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
R. HANES
CHECKED BY:
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11800 American Blvd, Suite 200
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APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

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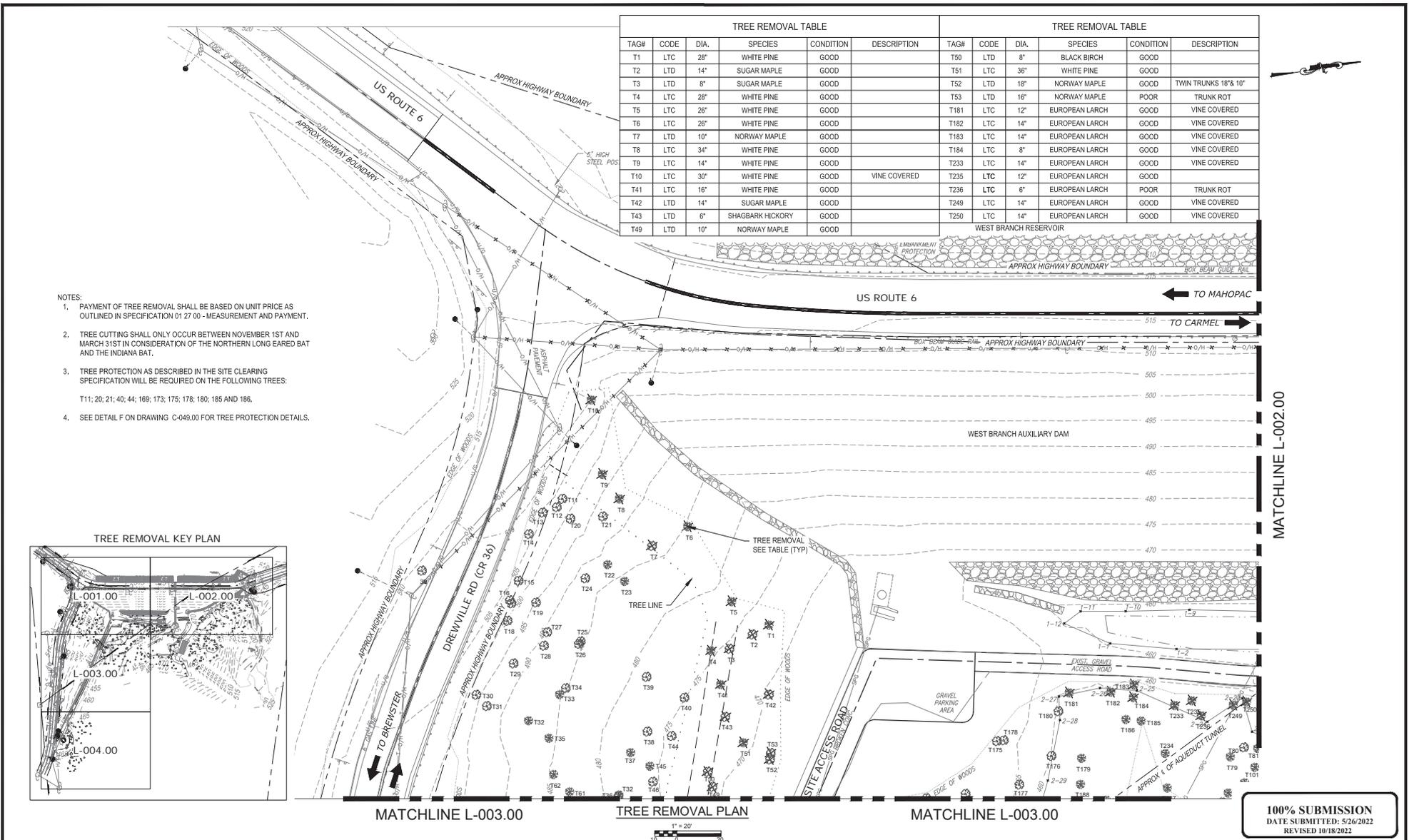
NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
SOIL EROSION & SEDIMENT CONTROL DETAILS
(2 OF 2)

DATE: 12/12/2022
SCALE: 1"=20'
SHEET NO.:
59 OF 81
DRAWING NO.
C-049.00

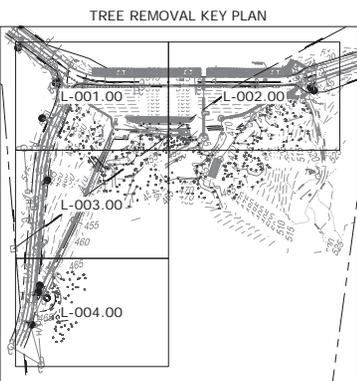
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Last Saved By: E. Leclair, Tuesday, October 18, 2022 and Date Plotted: Wednesday, February 1, 2023 5:58:06 PM
 Paper Size (ANSI): 24.00 X 34.00 (INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\p\POWELL\DWG\026637L-001.00.dwg



TREE REMOVAL TABLE					TREE REMOVAL TABLE						
TAG#	CODE	DIA.	SPECIES	CONDITION	DESCRIPTION	TAG#	CODE	DIA.	SPECIES	CONDITION	DESCRIPTION
T1	LTC	28"	WHITE PINE	GOOD		T50	LTD	8"	BLACK BIRCH	GOOD	
T2	LTD	14"	SUGAR MAPLE	GOOD		T51	LTC	36"	WHITE PINE	GOOD	
T3	LTD	8"	SUGAR MAPLE	GOOD		T52	LTD	18"	NORWAY MAPLE	GOOD	TWIN TRUNKS 18" & 10"
T4	LTC	28"	WHITE PINE	GOOD		T53	LTD	16"	NORWAY MAPLE	POOR	TRUNK ROT
T5	LTC	26"	WHITE PINE	GOOD		T181	LTC	12"	EUROPEAN LARCH	GOOD	VINE COVERED
T6	LTC	26"	WHITE PINE	GOOD		T182	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED
T7	LTD	10"	NORWAY MAPLE	GOOD		T183	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED
T8	LTC	34"	WHITE PINE	GOOD		T184	LTC	8"	EUROPEAN LARCH	GOOD	VINE COVERED
T9	LTC	14"	WHITE PINE	GOOD		T233	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED
T10	LTC	30"	WHITE PINE	GOOD	VINE COVERED	T235	LTC	12"	EUROPEAN LARCH	GOOD	
T41	LTC	16"	WHITE PINE	GOOD		T236	LTC	6"	EUROPEAN LARCH	POOR	TRUNK ROT
T42	LTD	14"	SUGAR MAPLE	GOOD		T249	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED
T43	LTD	6"	SHAGBARK HICKORY	GOOD		T250	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED
T49	LTD	10"	NORWAY MAPLE	GOOD							

- NOTES:
- PAYMENT OF TREE REMOVAL SHALL BE BASED ON UNIT PRICE AS OUTLINED IN SPECIFICATION 01 27 00 - MEASUREMENT AND PAYMENT.
 - TREE CUTTING SHALL ONLY OCCUR BETWEEN NOVEMBER 1ST AND MARCH 31ST IN CONSIDERATION OF THE NORTHERN LONG EARED BAT AND THE INDIANA BAT.
 - TREE PROTECTION AS DESCRIBED IN THE SITE CLEARING SPECIFICATION WILL BE REQUIRED ON THE FOLLOWING TREES:
T11; 20; 21; 40; 44; 169; 173; 175; 178; 180; 185 AND 186.
 - SEE DETAIL F ON DRAWING C-049.00 FOR TREE PROTECTION DETAILS.



DESIGNED BY: S. MURPHY	DRAWN BY: M. POWELL
CHECKED BY: E. LECLAIR	ACCOUNTABLE MANAGER: L. SINGH
DESIGN LEAD: S. MURPHY	APPROVED FOR THE CITY OF NEW YORK: D. COSTA
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NEW YORK CITY
 ENVIRONMENTAL PROTECTION

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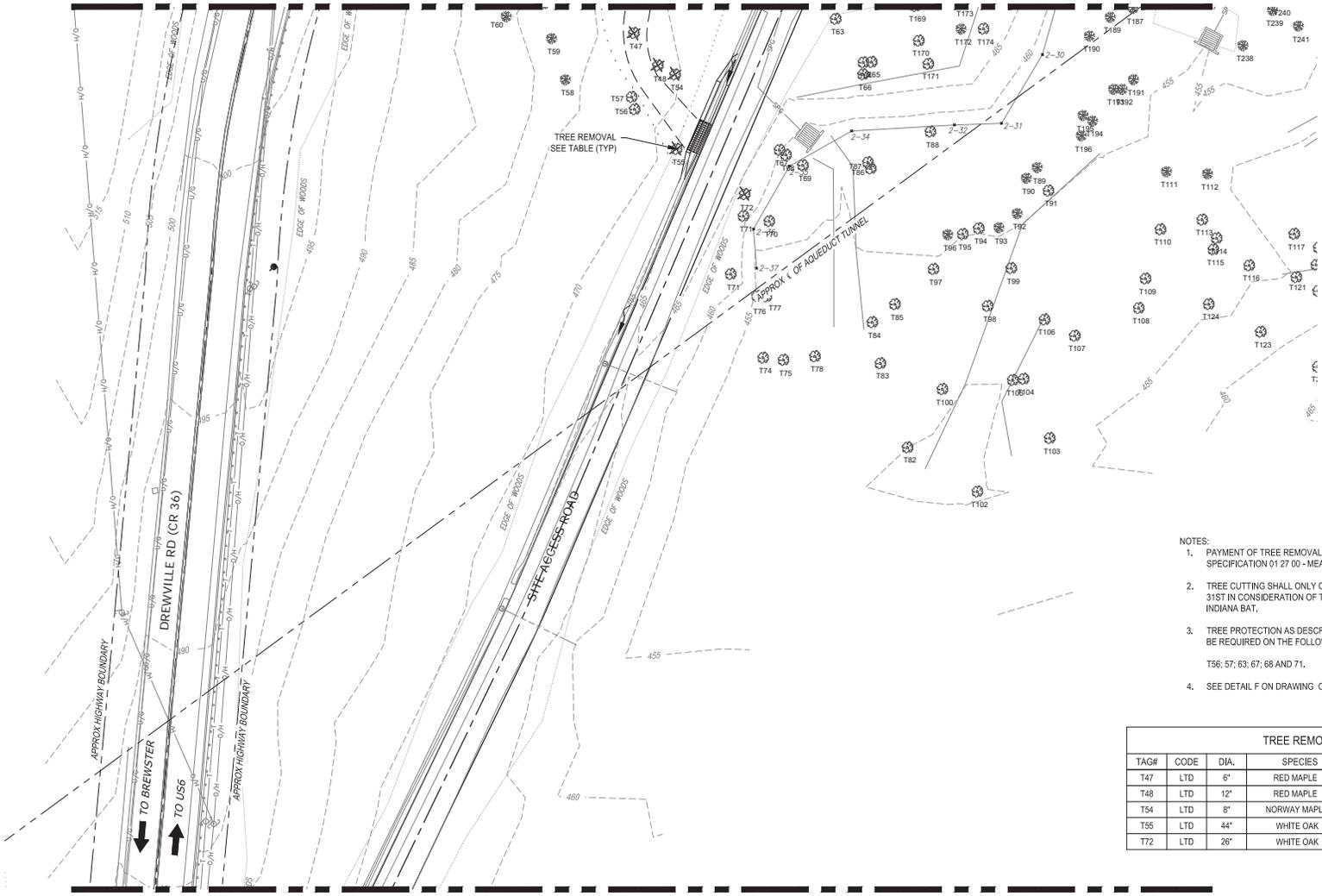
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WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
 SUTNAM COUNTY, NEW YORK
 TREE REMOVAL PLAN (1 OF 4)

DATE: 1/11/2023
SCALE: 1"=20'
SHEET NO.: 72 OF 81
DRAWING NO. L-001.00

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MATCHLINE L-001.00



MATCHLINE L-004.00

TREE REMOVAL PLAN



- NOTES:
- PAYMENT OF TREE REMOVAL SHALL BE BASED ON UNIT PRICE AS OUTLINED IN SPECIFICATION 01 27 00 - MEASUREMENT AND PAYMENT.
 - TREE CUTTING SHALL ONLY OCCUR BETWEEN NOVEMBER 1ST AND MARCH 31ST IN CONSIDERATION OF THE NORTHERN LONG EARED BAT AND THE INDIANA BAT.
 - TREE PROTECTION AS DESCRIBED IN THE SITE CLEARING SPECIFICATION WILL BE REQUIRED ON THE FOLLOWING TREES:
T56; 57; 63; 67; 68 AND 71.
 - SEE DETAIL F ON DRAWING C-049.00 FOR TREE PROTECTION DETAILS.

TREE REMOVAL TABLE					
TAG#	CODE	DIA.	SPECIES	CONDITION	DESCRIPTION
T47	LTD	6"	RED MAPLE	GOOD	
T48	LTD	12"	RED MAPLE	GOOD	
T54	LTD	8"	NORWAY MAPLE	GOOD	VINE COVERED
T55	LTD	44"	WHITE OAK	POOR	TRUNK ROT
T72	LTD	26"	WHITE OAK	POOR	TRUNK ROT

100% SUBMISSION
DATE SUBMITTED: 5/26/2022
REVISED 10/18/2022

Last Saved By: E. Leclair, Thursday, October 18, 2023 and Date Plotted: Wednesday, February 1, 2025, 5:58:45 PM
 Paper Size: ANSI D (22.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\p\p\POWELL\DWG\026637\L-001.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

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PORTFOLIO MANAGER

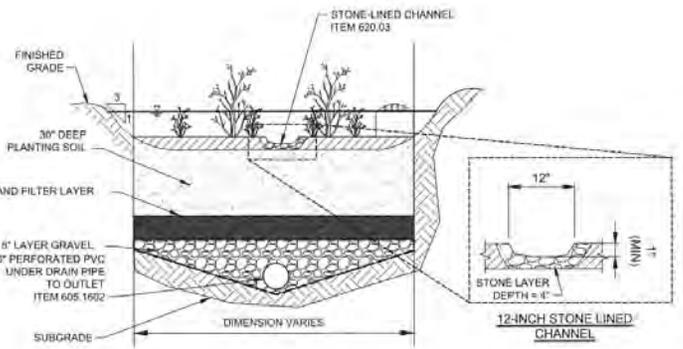
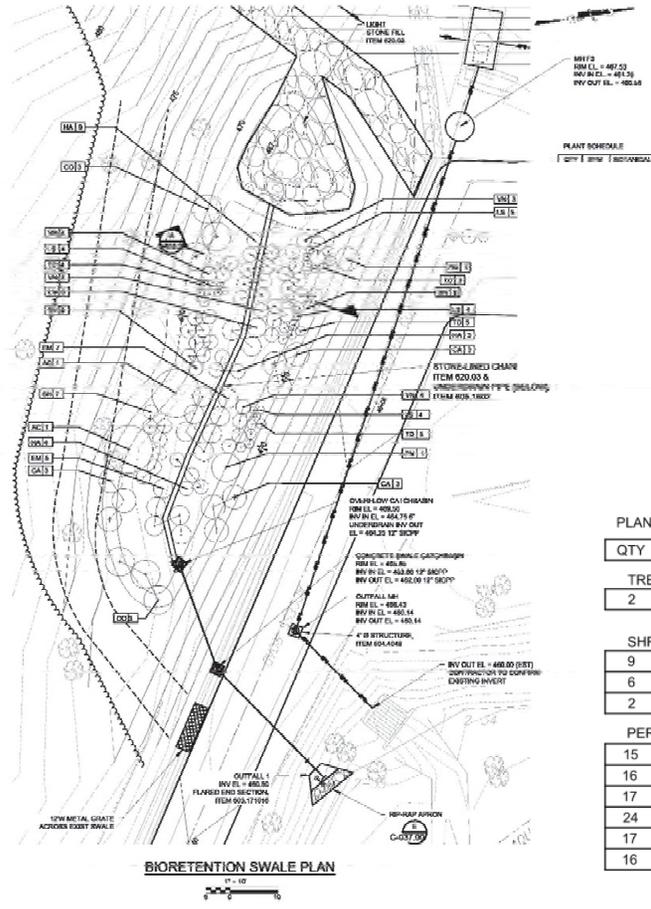
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96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
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WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS
SUTNAM COUNTY, NEW YORK
TREE REMOVAL PLAN (3 OF 4)
DATE: 1/11/2023
SCALE: 1"=20'
SHEET NO.: 74 OF 81
DRAWING NO.: L-003.00

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Last Saved By: P. JENKINS Tuesday, February 01, 2022 12:27:43 PM
 Project Name: WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS (NCHES) Plot Scale: 1" = 30'
 Drawing Name: & Location: C:\pwr_gf1\pwr\mcd\02666901\001_00.dwg



BIORETENTION AREA
DETAIL A
 N.T.S. C-833.00

PLANT SCHEDULE

QTY	SYM	BOTANICAL NAME	COMMON NAME	COND	SIZE
TREES					
2	AC	AMELANCHIER CANADENSIS	SERVICEBERRY	B&B	4 - 5'
SHRUBS					
9	CA	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	CONT.	2 GALLON
6	CO	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	CONT.	2 GALLON
2	PM	PHOTINIA MELANOCARPA	BLACK CHOKEBERRY	CONT.	2 GALLON
PERENNIALS					
15	EM	EUTROCHIMUM MACULATUM	JOE PYE WEED	CONT.	1 GALLON
16	HA	HELENIUM AUTUMNALE	SNEEZEWEED	CONT.	1 GALLON
17	LS	LOBELIA SIPHILITICA	PURPLE CONEFLOWER	CONT.	1 GALLON
24	SN	SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	CONT.	1 GALLON
17	TD	THALICTRUM DIOICUM	EARLY MEADOW-RUE	CONT.	1 GALLON
16	VN	VERNONIA NOVEBORACENSIS	NEW YORK IRONWEED	CONT.	1 GALLON

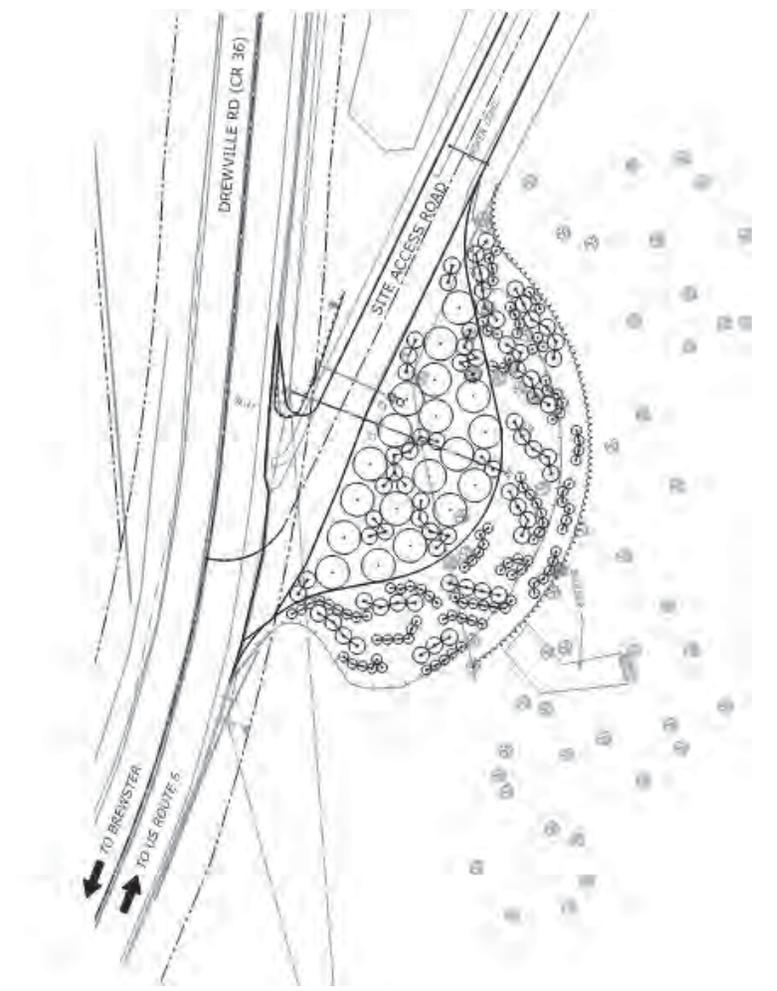
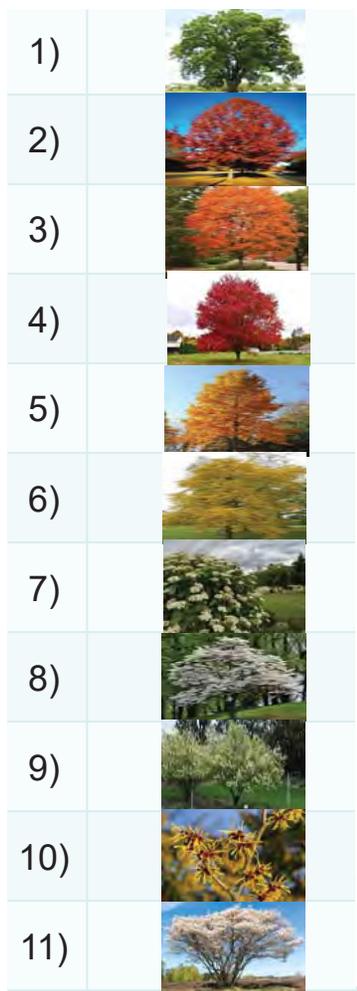
BIORETENTION PLANTING

TOWN OF CARMEL
 PRELIMINARY
 SITE PLAN APPLICATION

DESIGNED BY: P. JENKINS	DRAWN BY: P. JENKINS	APPROVED FOR THE CITY OF NEW YORK: L. SINGH ACCOUNTABLE MANAGER	<p> <small>*WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.*</small> </p>	NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK BIORETENTION PLANTING	DATE: 9/5/2022 SCALE: 1" = 30' SHEET NO.: 35 OF 49 DRAWING NO.: L-005.00
CHECKED BY: J. LAROSA						
DESIGN LEAD: P. JENKINS	SECTION MANAGER: E. LECLAIR	P. COSTA PORTFOLIO MANAGER				

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Last Saved By: P. JENKINS, Tuesday, February 01, 2022 and Date Plotted (User): February 01, 2022 12:27:43 PM
 Paper Size (ANSI): D (24.00 X 36.00 INCHES) Plot Scale: 1" = 30'
 Plot Style Table: BECD_Drawing.ctb
 Drawing Name & Location: C:\pwr_gf1\pwwel\mcd\02686901\001_00.dwg



PLANT SCHEDULE

QTY	BOTANICAL NAME	COMMON NAME
TREES		
3	QUERCUS ALBA	WHITE OAK
3	QUERCUS RUBRA	RED OAK
3	ACER SACCHARUM	SUGAR MAPLE
3	ACER RUBRUM	RED MAPLE
3	LIRIODENDRON TULIPIFERA	TULIP POPLAR
4	BETULA LENTA	SWEET BIRCH
SHRUBS		
6	VIBURNUM DENTATUM	SOUTHERN ARROWWOOD
6	CORNUS FLORIDA	FLOWING DOGWOOD
6	VIBURNUM PRUNIFOLIUM	BLACKHAW VIBURNUM
6	HAMAMELIS VIRGINIANA	AMERICAN WITCH HAZEL
5	AMELANCHIER CANADENSIS	SERVICEBERRY
SEED MIX		
20 LB/ACRE	ERNMX-123 NATIVE UPLAND FORAGE & COVER MIX	

PLANT SCHEDULE

QTY	BOTANICAL NAME	COMMON NAME
SHRUBS		
9	VIBURNUM DENTATUM	SOUTHERN ARROWWOOD
9	CORNUS FLORIDA	FLOWING DOGWOOD
6	VIBURNUM PRUNIFOLIUM	BLACKHAW VIBURNUM
9	HAMAMELIS VIRGINIANA	AMERICAN WITCH HAZEL
9	AMELANCHIER CANADENSIS	SERVICEBERRY
HERBACEOUS SHRUBS		
50	POLYSITICHUM ARISTICHOIDES	CHRISTMAS FERN
50	PARTHENOCISSUS QUIQUEFOLIA	VIRGINIA CREEPER
SEED MIX		
30 LB/ACRE	ERNMX-123 NATIVE UPLAND FORAGE & COVER MIX	

SITE ENTRANCE PLANTING

TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

NO	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
P. JENKINS
CHECKED BY:
J. LAROSA
DESIGN LEAD:
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SECTION MANAGER:
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APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

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CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK

SITE ENTRANCE PLANTING

DATE: 5/5/2022
SCALE: 1" = 30'
SHEET NO.:
36 OF 49
DRAWING NO.
L-006.00

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 Drawing Name: & Location: C:\w\p\10\w\m\m\226931\301-C-019-00.dwg

GENERAL

- THE CONTRACTOR SHALL MAINTAIN TRAFFIC THROUGHOUT THE LENGTH AND DURATION OF THE CONTRACT IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 619 OF THE NEW YORK STATE STANDARD SPECIFICATIONS, THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NYS SUPPLEMENT, AND THE BASIC WORK ZONE TRAFFIC CONTROL DETAILS IN THE PLANS OR AS ORDERED BY ENGINEER (AGEE).
- FOR TYPICAL APPLICATIONS OF TRAFFIC CONTROL DEVICES IN CONSTRUCTION AREAS NOT SPECIFIED ON THE PLANS, THE PROVISIONS OF PART 6 OF THE NATIONAL MUTCD AND NYS SUPPLEMENT SHALL APPLY. THE STANDARDS OF APPLICATION NOTED THEREIN AND ON THE PLANS ARE TO BE CONSIDERED MINIMUM STANDARDS, WHERE OPTIONS EXIST FOR SIGN SHAPE, AND THE DIAMOND SHAPE SHALL BE USED.
- FLAGGERS MUST BE ABLE TO COMMUNICATE WITH EACH OTHER IN THE SAME LANGUAGE AND MUST BE ABLE TO UNDERSTAND AND TAKE INSTRUCTIONS/DIRECTIONS FROM THE ENGINEER OR INSPECTOR.

LANE CLOSURES

- THE CONTRACTOR SHALL SCHEDULE WORK SO THAT ALL TRAVEL LANES IN EACH DIRECTION ARE OPEN WHEN THE CONTRACTOR'S OPERATIONS ARE CLOSED DOWN OR SUBSTANTIALLY CLOSED DOWN, THE MINIMUM WIDTH OF A TRAVELED LANE SHALL BE 10 FEET UNLESS OTHERWISE SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL MAINTAIN TRAFFIC AND SHALL PROVIDE FLAGGERS AS SHOWN ON THE PLANS OR ABOVE TO CONTROL TRAFFIC MOVEMENT AT THE SITE OF WORK OPERATIONS REQUIRING TEMPORARY CLOSING OF PORTIONS OF THE TRAVELED WAY.
- THE CONTRACTOR SHALL PERFORM ALL ROADWAY RECONSTRUCTION DURING NIGHTTIME WORK HOURS OF 8:00 P.M. TO 6:00 A.M. CONTRACTOR SHALL FULLY OPEN THE ROADWAY TO UNRESTRICTED TWO-WAY TRAFFIC AT THE END OF EACH WORK SHIFT. NO LANE CLOSURES ARE PERMITTED FROM 6:00 A.M. TO 8:00 P.M. UNLESS APPROVED IN ADVANCE BY NYCDOT AND NYS DOT.
- THE OWNER AND/OR NYCDOT RESERVES THE RIGHT TO PRECLUDE LANE OR SHOULDER CLOSURES DURING PERIODS OF INCLEMENT WEATHER, WET OR ICY PAVEMENT, REDUCED VISIBILITY, TRAFFIC ACCIDENTS OR OTHER EMERGENCIES.
- THE OWNER AND/OR NYCDOT MAY ALTER ANY LANE OR SHOULDER CLOSURES SHOULD TRAFFIC CONDITIONS OR OTHER UNFORESEEN CIRCUMSTANCES ARISE WHICH WOULD ADVERSELY AFFECT TRAFFIC FLOW.
- THE CONTRACTOR IS ALERTED TO THE FACT THAT INCIDENT MANAGEMENT OR TRAFFIC CONDITIONS MIGHT FORCE HIGHER CONSTRUCTION MOVEMENT TO STOP, EVEN DURING TIME WHERE SUCH OPERATION WOULD NORMALLY BE PERMITTED.
- THE CONTRACTOR SHALL HAVE NO CLAIM AGAINST NYCDOT OR ANY OTHER MUNICIPAL ENTITY FOR ANY DELAYS OR EXTRA COSTS INCURRED IN COMPLYING WITH THESE RESTRICTIONS.
- LANE OR SHOULDER CLOSURES THAT WILL BE HIGHLY DISRUPTIVE TO TRAFFIC REQUIRE A ONE-WEEK ADVANCE ADVERTISING THROUGH VMS (VARIABLE MESSAGE SIGNS) TO FOREWARN LOCAL AND REGULAR HIGHWAY USERS OF THE EXPECTED DELAYS.
- THE NYS DOT REGION 8 TRAFFIC MANAGEMENT CENTER MUST BE NOTIFIED AT: (914) 742-4100
 - AT LEAST TWO DAYS BEFORE SCHEDULED LANE OR SHOULDER CLOSURES AND IF THE SCHEDULE IS CANCELED OR DELAYED.
 - EACH OCCURRENCE WHEN A LANE OR SHOULDER CLOSURE IS SETUP (BY TELEPHONE ONLY FROM THE FIELD SITE) AND
 - EACH OCCURRENCE WHEN A LANE OR SHOULDER CLOSURE IS REMOVED AND NORMAL HIGHWAY OPERATION RESUMES (BY TELEPHONE ONLY FROM THE FIELD SITE).

WORK RESTRICTIONS FOR HOLIDAYS AND OTHER EVENTS

- THE CONTRACTOR WILL NOT BE ALLOWED TO PERFORM ANY WORK DISRUPTIVE TO TRAFFIC, INCLUDING BUT NOT LIMITED TO LANE OR SHOULDER CLOSURES ON THE FOLLOWING HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING, CHRISTMAS DAY AND THE RELIGIOUS HOLIDAYS LISTED IN SPECIFICATION SECTION 01 14 00 - WORK RESTRICTIONS, CONSTRUCTION ACTIVITIES THAT WILL RESULT IN TEMPORARY LANE/SHOULDER CLOSURES SHALL BE SUSPENDED TO MINIMIZE TRAVEL DELAYS ASSOCIATED WITH ROAD WORK FOR THESE HOLIDAYS AS FOLLOWS:

HOLIDAY	FALLS ON	TEMPORARY LANE CLOSURES ARE NOT ALLOWED FROM
NEW YEAR'S DAY INDEPENDENCE DAY CHRISTMAS DAY	SUNDAY OR MONDAY	6:00 AM FRIDAY BEFORE TO 6:00 AM TUESDAY AFTER
	TUESDAY	6:00 AM SATURDAY BEFORE TO 6:00 AM WEDNESDAY AFTER (STARTING AT 6:00 AM FRIDAY BEFORE TO 6:00 AM WEDNESDAY AFTER FOR CHRISTMAS DAY)
	WEDNESDAY	6:00 AM TUESDAY BEFORE TO 6:00 AM THURSDAY AFTER (STARTING AT 6:00 AM SATURDAY BEFORE TO 6:00 AM THURSDAY AFTER FOR CHRISTMAS DAY)
	THURSDAY	6:00 AM THURSDAY TO 6:00 AM MONDAY AFTER (STARTING AT 6:00 AM WEDNESDAY BEFORE TO 6:00 AM MONDAY AFTER FOR CHRISTMAS DAY)
MEMORIAL DAY	FRIDAY OR SATURDAY	6:00 AM THURSDAY BEFORE TO 6:00 AM MONDAY AFTER
THANKSGIVING DAY	MONDAY	6:00 AM FRIDAY BEFORE TO 6:00 AM TUESDAY AFTER
RELIGIOUS HOLIDAYS	THURSDAY	6:00 AM WEDNESDAY BEFORE TO 6:00 AM MONDAY AFTER
	N/A	4:00 PM DAY BEFORE TO 8:00 AM DAY AFTER

WORK AREA COORDINATION

- WHEN TWO OR MORE WORK AREAS ARE ADJACENT, OVERLAP, OR ARE IN CLOSE PROXIMITY AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL ENSURE THERE IS NO CONFLICT IN SIGNING AND THAT LANE CONTINUITY IS MAINTAINED THROUGHOUT ALL WORK AREAS.
- THE CONTRACTOR SHALL COORDINATE ALL CONTRACT WORK WITH ANY UTILITY WORK, SUBCONTRACTOR WORK, PUBLIC MAINTENANCE OPERATIONS OR OTHER CONSTRUCTION ACTIVITIES IN THE AREA TO ENSURE THAT THERE ARE NO BASIC WORK ZONE TRAFFIC CONTROL CONFLICTS.
- OUTSIDE THE PERMANENT CLOSURE AREA ALL VEHICLES, EQUIPMENT, WORKERS, AND ACTIVITIES SHALL BE RESTRICTED TO ONE SIDE OF THE ROADWAY AT A TIME.

CONES, DRUMS, BARRICADES AND MARKERS

- ALL CHANNELIZING/DELINEATION DEVICES ARE TO BE PLACED SO AS TO PROVIDE A MINIMUM OF 2 FEET CLEARANCE TO THE TRAVELED WAY UNLESS OTHERWISE SHOWN ON THE PLANS, THE CONTRACTOR SHALL MAKE CERTAIN THAT PLACEMENT OF CONES, DRUMS AND MARKERS OR BARRICADES SHALL NOT INTERFERE WITH SIGHT DISTANCE.
- LONGITUDINAL SPACING SHALL BE 1 FOOT FOR EVERY 1 MPH OF THE SPEED LIMIT, BUT NOT MORE THAN 40 FEET, (IE- 30 MPH = 30 FOOT SPACING), REDUCED SPACING MAY BE REQUIRED AS SHOWN ON THE PLANS OR ABOVE. INTERSECTIONS AND DRIVEWAYS SHALL BE CHANNELIZED AT FOOT SPACING.
- A DRUM MOUNTED WITH A TYPE B FLASHING HIGH INTENSITY WARNING LIGHT SHALL BE PLACED ON ALL APPROACHES TO A BUMP OR DIP IN THE PAVEMENT (A PAVEMENT CONDITION CONSIDERED BY THE ENGINEER TO BE SUFFICIENTLY ABRUPT ENOUGH TO CAUSE CONSIDERABLE DISCOMFORT, CARGO SHIFTING, OR DEFLECTION OF A VEHICLE FROM ITS TRUE COURSE AT PREVAILING DRIVING SPEEDS), THE COST OF THESE DRUMS AND LIGHTS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 619.01, BASIC WORK ZONE TRAFFIC CONTROL.
- PROVIDE A LATERAL BUFFER SPACE OF 1 FOOT BETWEEN THE WORK ZONE AND THE LINE OF DELINEATION DEVICES WHERE POSSIBLE.
- FOR CLARITY, THE BASIC WORK ZONE TRAFFIC CONTROL DRAWINGS MAY NOT SHOW ALL CHANNELIZING DEVICES, CHANNELIZING DEVICES SHALL BE PLACED FROM THE BEGINNING OF THE TAPER, AND CONTINUE THROUGH THE ACTIVITY AREA ADJACENT TO TRAFFIC.
- THE COST OF ANY DELINEATION AND GUIDING DEVICES (CONES, DRUMS, ETC.) SHALL BE INCLUDED IN THE PRICE BID FOR BID ITEM TRAFFIC CONTROL.
- DRUMS ARE THE PREFERRED CHANNELIZING DEVICES TO BE USED DURING THE HOURS OF DARKNESS, TYPE A LIGHTS SHALL BE REQUIRED ON THE FIRST TWO DRUMS AND ON THE FIRST TWO DRUMS AFTER EACH INTERSECTION, CONES AND VERTICLE PANELS MAY BE USED IN WELL LIT AREAS.
- CONTRACTOR SHALL MAINTAIN LANE WIDTHS OF 10 FT OR GREATER AT ALL TIMES.

PRELIMINARY WORK

- PRIOR TO THE START OF ANY WORK OPERATIONS, ALL RELATED WORK FOR PROPOSED WORK ZONE TRAFFIC CONTROL, AS DETERMINED BY THE ENGINEER, SHALL BE COMPLETE, THIS INCLUDES, BUT IS NOT LIMITED TO, ALL SIGNS, SIGNALS, PAVEMENT MARKINGS, BARRIERS, DELINEATION (CONES, DRUMS, ETC.), FLAGGERS, PAVEMENT MODIFICATIONS, AND ANY OTHER RELATED WORK.

SIGNS

- THE CORRECT SEQUENCE AND SPACING OF APPROPRIATE SIGNS MUST BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE NATIONAL MUTCD AND NYS SUPPLEMENT, THE PROPOSAL, AND AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.
- COLORS USED FOR CONSTRUCTION SIGNING (INCLUDING TEMPORARY OR MODIFIED GUIDE SIGNS) SHALL BE BLACK LEGEND ON ORANGE BACKGROUND WITH THE FOLLOWING EXCEPTIONS: EMERGENCY SERVICE MARKERS, ROUTE MARKERS AND THEIR CORRESPONDING AUXILIARY SIGNS SHALL BE THE COLORS SPECIFIED IN THE NATIONAL MUTCD AND NYS SUPPLEMENT, (ANY AUXILIARY SIGNS WHICH ARE NOT INCLUDED IN THE NATIONAL MUTCD AND NYS SUPPLEMENT SHALL BE BLACK LEGEND ON ORANGE BACKGROUND), BLANK COVERS USED TO COVER PORTIONS OF EXISTING SIGNS SHALL BE OF A COLOR AND REFLECTORIZED MATERIAL MATCHING THAT OF THE SIGN BEING PARTIALLY COVERED, ANY REGULATORY SIGNS REQUIRED SHALL BE THE COLORS SPECIFIED IN THE NATIONAL MUTCD AND NYS SUPPLEMENT.
- THE CONTRACTOR SHALL INSTALL GUIDE SIGN G20-1 AT THE LIMITS OF THE PROJECT AND ROAD WORK AHEAD INITIAL WARNING SIGN W20-1 ON ALL SIDE ROADS (EXCEPT DEAD END STREETS) WHENEVER A CONSTRUCTION CONDITION EXISTS AT OR NEAR THE INTERSECTION, SIGN PLACEMENT SHALL BE IN ACCORDANCE WITH NATIONAL MUTCD AND NYS SUPPLEMENT, THESE SIGNS SHALL BE COVERED OR REMOVED WHEN THERE IS NO CONSTRUCTION CONDITION IN EFFECT.
- DURING WINTER SHUTDOWN IF APPLICABLE, EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION, ALL INAPPROPRIATE CONSTRUCTION SIGNS SHALL BE REMOVED OR COVERED ABOVE, AND THE ENTIRE HIGHWAY SYSTEM OPEN TO TRAFFIC.
- W-8-1 BUMP SIGNS SHALL BE PLACED ON ALL APPROACHES 200 FEET AHEAD OF A BUMP OR DIP IN THE PAVEMENT CAUSED BY CONSTRUCTION OPERATIONS SUCH AS ROAD PLATES, ETC., NUMEROUS BUMPS OR DIPS SHALL WARRANT THE USE OF W-8-1 ROUGH ROAD SIGNS INSTEAD OF W-8-1 BUMP SIGNS, THE COST OF THE SIGNS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM TRAFFIC CONTROL.
- THE CONTRACTOR SHALL TAKE ALL ACTION, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY, TO ELIMINATE A BUMP, ONLY IF IT IS NOT POSSIBLE OR FEASIBLE, IN THE OPINION OF THE ENGINEER, TO ELIMINATE A BUMP SHALL IT BE ALLOWED TO REMAIN.
- IF ADVANCE SIGNING OBSTRUCTS THE VISIBILITY OF THE FLAGGER OR CONFLICTS WITH DRIVEWAYS OR SIDEWALKS, SIGNS SHOULD BE MOVED UPSTREAM AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.
- THE CONTRACTOR SHALL TRIM ANY FOLIAGE OBSTRUCTING THE VISIBILITY OF SIGNS, WHETHER PERMANENT OR TEMPORARY, NEEDED FOR THE WORK ZONE TRAFFIC CONTROL, AS DETERMINED BY THE ENGINEER, THE COST SHALL BE INCLUDED IN THE PRICE BID FOR BID ITEM 619.01 - BASIC WORK ZONE TRAFFIC CONTROL.
- ANY CONSTRUCTION SIGNS DEEMED NECESSARY BY THE ENGINEER AND NOT ON THE PLANS SHALL BE INCLUDED IN THE PRICE FOR BID ITEM TRAFFIC CONTROL.

- ALL SIGNS NECESSARY FOR THE BASIC WORK ZONE TRAFFIC CONTROL, INCLUDING RELOCATION AND/OR MODIFICATION AND/OR RESTORATION OF EXISTING SIGN PANELS AS NOTED IN THE PLANS, STANDARD SPECIFICATIONS, NATIONAL MUTCD AND NYS SUPPLEMENT, OR ABOVE SHALL BE INCLUDED IN THE PRICE FOR BID ITEM TRAFFIC CONTROL.
- ANY DAMAGE TO EXISTING SIGNS IS TO BE DOCUMENTED AND ANY SUBSEQUENT DAMAGE REMEDIED, THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE DONE, DUE TO THE CONTRACTOR'S METHODS, TO TEMPORARILY REMOVE, RELOCATE OR COVER SIGN PANELS OR SIGN TEXT, REFER TO SECTION 645-5.09 "COVERING SIGN PANELS", IN THE NYS DOT STANDARD SPECIFICATIONS.
- ALL SIGNS SHALL BE MOUNTED AT A HEIGHT PER THE NATIONAL MUTCD AND NYS SUPPLEMENT.

PUBLIC INGRESS AND EGRESS

- THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS AT LEAST ONE DAY IN ADVANCE OF CLOSING DRIVEWAYS AND SHALL PROVIDE PROPERTY OWNERS WITH PROPER ACCESS ABOVE TO THEIR DRIVEWAYS AND SHALL MAINTAIN THEM THROUGHOUT ALL WORK AREAS AND SHALL DELINEATE THEM BY MEANS OF SIGNS, CONES, AND/OR DRUMS ABOVE, THE COSTS FOR SIGNS AND ANY OTHER DELINEATION AND GUIDING DEVICES (CONES, DRUMS, ETC.) SHALL BE INCLUDED IN THE PRICE FOR BID ITEM TRAFFIC CONTROL.
- WHERE DIRECT ACCESS TO DRIVEWAYS IS NOT POSSIBLE DUE TO NECESSARY CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL PLAN ALTERNATE MEANS OF ACCESS AND SUBMIT SUCH PLANS TO THE ENGINEER FOR APPROVAL, OCCUPANT SHALL HAVE 24 HOURS NOTICE OF ANY CHANGES, COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE FOR BID ITEM TRAFFIC CONTROL.
- SIGNS DENOTING COMMERCIAL ESTABLISHMENTS SHALL BE PROVIDED AND PLACED NEXT TO COMMERCIAL DRIVEWAYS, SIGNS SHALL BE AS SHOWN IN THE PLANS AND/OR AS APPROVED BY THE ENGINEER, THE COST FOR THESE SIGNS SHALL BE INCLUDED IN THE PRICE FOR BID ITEM TRAFFIC CONTROL, SIGNS SHALL NOT BE PLACED AT A LOCATION THAT OBSTRUCTS SIGHT DISTANCES.
- WHEN A SIDE ROAD OR DRIVEWAY INTERSECTS THE HIGHWAY WITHIN THE TEMPORARY TRAFFIC CONTROL ZONE, ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERCTED AND FLAGGERS POSTED AT APPROPRIATE LOCATIONS OR ABOVE, ALL COSTS INVOLVED SHALL BE INCLUDED IN THE PRICE FOR BID ITEM TRAFFIC CONTROL.

CONSTRUCTION INGRESS AND EGRESS

- VEHICLES, MATERIALS, AND/OR EQUIPMENT, INCLUDING OUT OF SERVICE SIGNS, SHALL NOT BE PARKED OR STORED WITHIN 30 FEET OF A ROADWAY USED BY THE GENERAL PUBLIC OR ANY OTHER AREAS DEEMED HAZARDOUS BY THE ENGINEER.
- THE CONTRACTOR SHALL KEEP TO A MINIMUM MOVEMENT OF CONSTRUCTION VEHICLES AND EQUIPMENT IN AND OUT OF DESIGNATED TRAVEL LANES.

PAVEMENT MARKINGS

- PRIOR TO THE BEGINNING OF ANY WORK, THE CONTRACTOR SHALL INVENTORY ALL EXISTING PAVEMENT MARKINGS SO THAT THE PAVEMENT MARKINGS CAN BE LAID OUT AND REPLACED IN KIND BY THE CONTRACTOR UPON COMPLETION OF WORK, PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR TRAFFIC CONTROL.
- WHERE PAVEMENT MARKINGS ARE REMOVED, THEY SHALL BE REMOVED BY A METHOD, SUBJECT TO APPROVAL BY THE ENGINEER, WHICH WILL FULLY REMOVE THE MARKINGS AND CAUSE NO SIGNIFICANT DAMAGE TO THE PAVEMENT, PAVEMENT MARKINGS WHICH ARE COVERED SHALL BE COVERED UTILIZING AN APPROVED PAVEMENT MARKING COVERING TAPE, SPECIFICALLY DESIGNED FOR THE PURPOSE OF COVERING PAVEMENT MARKINGS, AND APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE PAVEMENT MARKINGS AT ALL TIMES ON ALL PAVEMENT, WHETHER EXISTING, TEMPORARY OR NEW, UNTIL PERMANENT MARKINGS ARE INSTALLED OR RESTORED, THIS SHALL INCLUDE AT ALL APPROPRIATE LOCATIONS, EDGE LINES, LANE LINES (SOLID OR BROKEN), CHANNELIZING LINES, DOTTED LINES, PLUS ALL MARKINGS ORDERED BY THE ENGINEER, ALL MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE NATIONAL MUTCD AND NYS SUPPLEMENT AND SHALL INDICATE ACTUAL CONDITIONS AT ALL TIMES.

FLAGGERS

- ALL FLAGGERS MUST BE ADEQUATELY TRAINED IN FLAGGING OPERATIONS BY NYS DOT RECOGNIZED TRAINING PROGRAMS, THE CONTRACTOR SHALL SUBMIT A LIST OF CERTIFIED FLAGGERS TO THE ENGINEER FOR REVIEW AND APPROVAL IN ADVANCE OF ANY FLAGGING OPERATIONS.
- WHEN FLAGGERS ARE BEING USED FOR TRAFFIC CONTROL PURPOSES, FLAGGER SIGNS W20-7A SHALL BE PLACED AS SHOWN IN THE PROPOSAL, OR ABOVE ON ALL APPROACHES TO THE AREAS BEING FLAGGED, THE COST OF FLAGGER SIGNS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM TRAFFIC CONTROL, FLAGGER SIGNS SHALL NOT BE USED FOR BRIEF PERIODS OF INCIDENTAL FLAGGING, FLAGGER SIGNS SHALL NOT BE VISIBLE WHEN FLAGGERS ARE NOT BEING USED.
- STOP/SLOW PADDLES SHALL BE USED FOR FLAGGING AND SHALL CONFORM TO THE REQUIREMENTS IN THE NATIONAL MUTCD AND NYS SUPPLEMENT BUT SHALL BE A MINIMUM OF 24 INCH, THE COST OF THESE PADDLES AND ALL FLAGGERS SHALL BE INCLUDED IN THE PRICE FOR BID ITEM TRAFFIC CONTROL.
- FLAGGERS SHALL NOT POSITION THEMSELVES DIRECTLY IN THE PATH OF ONCOMING TRAFFIC, THE FLAGGER SHOULD STAND EITHER ON THE SHOULDER ADJACENT TO THE TRAFFIC BEING CONTROLLED OR IN THE CLOSED CHANNELIZED LANE, AT ALL TIMES, THE CONTRACTOR SHALL PROVIDE FLAGGERS WITH A CLEAR ESCAPE PATH, FREE OF PARKED VEHICLES, EQUIPMENT OR OTHER OBSTACLES.
- THE CONTRACTOR SHALL PROVIDE FLAGGERS WHERE SIGHT DISTANCES ARE IMPAIRED BY THE OPERATION OR IN ANY OTHER SITUATION ABOVE.
- FLAGGERS SHALL BE REQUIRED TO USE TWO-WAY RADIOS, WALKIE-TALKIES, OR OTHER FORMS OF ENHANCED COMMUNICATION WHEN ONE FLAGGER IS NOT VISIBLE TO THE OTHER OR IF THE ENGINEER DEEMS IT NECESSARY, ALL COSTS SHALL BE INCLUDED IN THE PRICE FOR BID ITEM TRAFFIC CONTROL.
- FLAGGERS SHALL USE THE FREE HAND FOR EMPHASIS AS SHOWN IN THE NATIONAL MUTCD AND NYS SUPPLEMENT, EACH FLAGGER SHALL CONTROL NO MORE THAN ONE APPROACH OF TRAFFIC UNLESS THE APPROACHES PRESENT UNUSUALLY LOW SPEEDS AND/OR UNUSUALLY LOW VOLUMES, WITH ADEQUATE SIGHT DISTANCE FOR THE SAFE HANDLING OF TRAFFIC, AS DETERMINED BY THE ENGINEER.

- THE ENGINEER SHALL DETERMINE THE NUMBER OF FLAGGERS NEEDED FOR EACH WORK ZONE, UNDER CERTAIN GEOMETRIC AND TRAFFIC SITUATIONS, MORE THAN ONE FLAGGER STATION MAY BE REQUIRED FOR EACH DIRECTION OF TRAFFIC, AT TWO WAY, UNUSUALLY LOW-VOLUME AND/OR UNUSUALLY LOW-SPEED SHORT LANE CLOSINGS, WHERE ADEQUATE SIGHT DISTANCE IS AVAILABLE FOR SAFE HANDLING OF TRAFFIC, THE USE OF ONE FLAGGER MAY BE SUFFICIENT, IN THIS SITUATION, A POSITION MAY HAVE TO BE TAKEN OPPOSITE THE WORK TO OPERATE EFFECTIVELY.
- FLAGGER STATIONS SHOULD BE VISIBLE FAR ENOUGH AHEAD TO PERMIT ALL VEHICLES TO STOP, THE FLAGGER SHOULD BE STATIONED FAR ENOUGH AHEAD OF THE WORK FORCE TO WARN THEM (FOR EXAMPLE WITH HORNS, WHISTLES, ETC.) OF APPROACHING DANGER, SUCH AS VEHICLES OUT OF CONTROL.
- WHEN A SIDE ROAD OR DRIVEWAY INTERSECTS THE HIGHWAY WITHIN THE TEMPORARY TRAFFIC CONTROL ZONE, ADDITIONAL TRAFFIC CONTROL DEVICES AND FLAGGERS SHALL BE PROVIDED.

NIGHTTIME OPERATIONS AND LIGHTING PLAN

- THE CONTRACTOR IS TO SUBMIT A NIGHTTIME OPERATIONS AND LIGHTING PLAN TO THE ENGINEER FOR APPROVAL, THE PLAN SHALL BE UPDATED AS NECESSARY AND INCLUDE ALL DETAILS FOR TRAFFIC CONTROL AND LIGHTING PLAN AS IN ACCORDANCE WITH SECTION 619 OF THE NYS DOT STANDARD SPECIFICATIONS (US CUSTOMARY UNITS) DATED JANUARY 1, 2020 WITH CURRENT ADDITIONS AND MODIFICATIONS.

PAVEMENT EDGE DROP-OFF

- THE CONTRACTOR SHALL SUBMIT ALTERNATE TRAFFIC CONTROL PLANS TO THE ENGINEER FOR APPROVAL, AT LEAST 30 CALENDAR DAYS PRIOR TO PROPOSED WORK WHICH WILL CREATE A DROP-OFF OF OVER 24 INCHES WITHIN 10 FEET FROM THE EDGE OF THE TRAVELED WAY FOR DURATIONS LONGER THAN ONE SHIFT.
- THE CONTRACTOR SHALL PROVIDE PAVEMENT EDGE DROP-OFF PROTECTION IN ACCORDANCE WITH THE TABLE BELOW, CHANNELIZING DEVICES USED TO MARK DROP-OFFS SHALL BE PLACED AS PRACTICABLE TO NOT REDUCE THE AVAILABLE TRAVEL LANE WIDTH AT THE ELEVATION OF THE OPEN TRAVEL LANE IN ORDER TO PROVIDE MAXIMUM TARGET VALUE AND VISIBILITY FOR MOTORISTS.
- A DROP-OFF OF GREATER THAN 24 INCHES WITHIN 10 FEET FROM THE EDGE OF THE TRAVELED WAY TO REMAIN AT THE END OF A WORK SHIFT SHALL BE SEPARATED FROM TRAFFIC WITH TEMPORARY BARRIER, FOR POSTED SPEED LIMITS OF 45 MPH AND LESS, A DROP-OFF OF GREATER THAN 24 INCHES WITHIN 10 FEET FROM THE EDGE OF THE TRAVELED WAY THAT IS 100-FEET OR LESS IN LENGTH WILL BE ALLOWED WITH CHANNELIZING DEVICES CONSISTING OF DRUMS, EXTRA TALL CONES OR OVERSIZED VERTICAL PANELS ONLY AT A MAXIMUM SPACING OF 20 FEET FOR SHORT DURATIONS NOT TO EXCEED ONE WORK SHIFT.
- CONTRACTOR SHALL BEGIN WORK TO ELIMINATE UNPROTECTED DROP-OFFS CREATED BY CONTRACT WORK WITHIN 7 CALENDAR DAYS OF THE COMPLETION OF THE WORK CREATING THE DROP-OFF, WORK SHALL CONTRIBUTE IN A TIMELY MANNER UNTIL SUCH TIME AS THE UNPROTECTED DROP-OFF CONDITION IS ELIMINATED.
- WHERE PAVEMENT EDGE LINES ARE NOT PROVIDED, CHANNELIZING DEVICES SHALL BE PRECEDED BY A "NO SHOULDER" W8-2 SIGN, REPEATED AT ALL INTERSECTIONS, WHERE PAVEMENT EDGE LINES ARE PROVIDED, CHANNELIZING DEVICES SHALL BE PRECEDED BY "SHOULDER DROP-OFF" W8-17 SIGNS, REPEATED AT ALL INTERSECTIONS.

DROP-OFF HEIGHT	DRUM / VERTICAL PANEL SPACING (FT)	TUBULAR MARKER SPACING (FT)	TALL CONE SPACING (FT)	SIGNS
DROP-OFF AT OR WITHIN SHOULDER AREA				
WITHIN 4 FT. FROM TRAVEL LANE				
2-6 IN	100	N/A	N/A	SHOULDER DROP-OFF
6-24 IN	40	N/A	N/A	SHOULDER DROP-OFF
MORE THAN 4 FT. FROM TRAVEL LANE				
2-6 IN	200	100	100	SHOULDER DROP-OFF
6-24 IN	40	N/A	N/A	SHOULDER DROP-OFF
DROP-OFF OUTSIDE OF SHOULDER EDGE				
SHOULDER WIDTH ≤ 10 4 FT.				
2-6 IN	100	N/A	N/A	SHOULDER DROP-OFF
6-24 IN	40	N/A	N/A	SHOULDER DROP-OFF
SHOULDER WIDTH > 4 FT.				
2-6 IN	200	100	100	SHOULDER DROP-OFF
6-24 IN	100	40	40	SHOULDER DROP-OFF

**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.	SECTION MANAGER: E. LECLAR

DESIGNED BY: S. MURPHY
 CHECKED BY: E. LECLAR
 DESIGN LEAD: S. MURPHY

DRAWN BY: S. MURPHY

GPM Smith
 Environmental Protection

APPROVED FOR THE CITY OF NEW YORK
 J. SINGH
 ACCOUNTABLE MANAGER

J. COSTA
 PORTFOLIO MANAGER

11 5000 American Blvd, Suite 200
 Latham, NY 12110
 Tel: (518) 756-6900

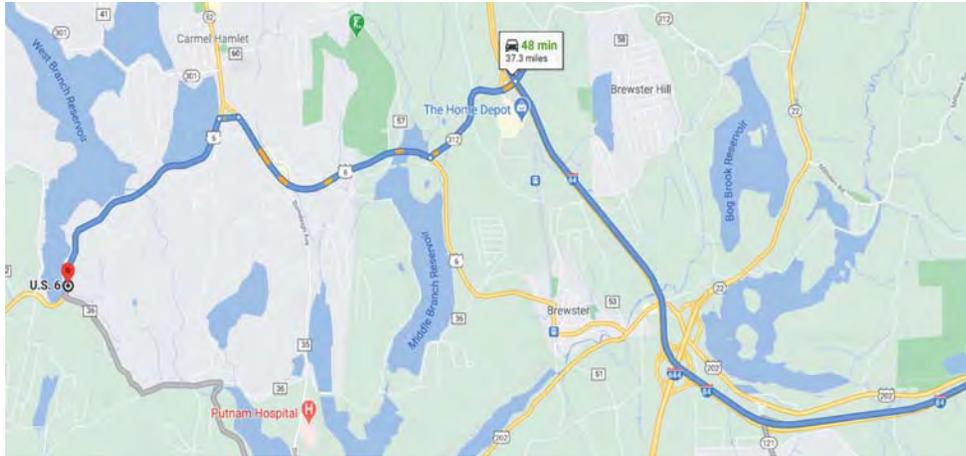
**NEW YORK CITY
ENVIRONMENTAL PROTECTION**
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

WARNING: IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION, 7209.2.

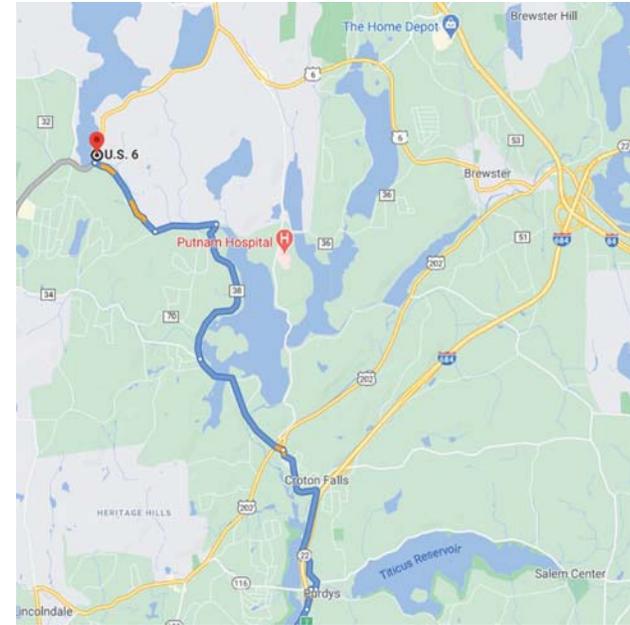
**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK**

DATE: 9/5/2022
 SCALE: N/A
 SHEET NO.:
 37 OF 49
 DRAWING NO. C-019.00

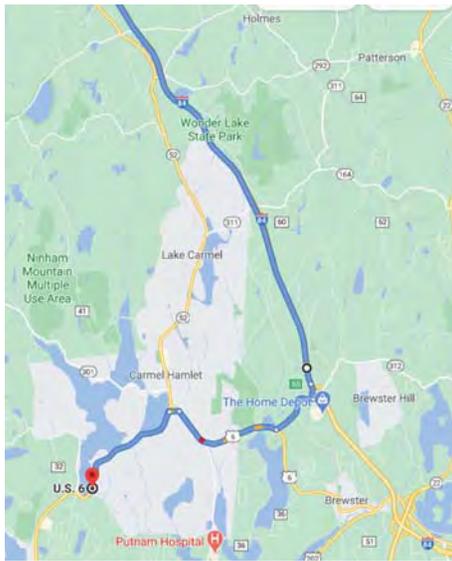
WORK ZONE TRAFFIC CONTROL NOTES



TRUCK ROUTES FROM THE EAST



TRUCK ROUTES FROM THE SOUTH



TRUCK ROUTES FROM THE NORTH

- NOTES:
- 1) REGIONAL SOIL/FILL QUARRY SOURCES ARE TO BE LOCATED WITHIN 50 MILES OF THE PROJECT SITE.
 - 2) TRUCKS ARE ASSUMED TO USE INTERSTATES I-84 AND I-684 TO REDUCE DELIVERY TIMES.

TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

Last Saved By: 6 Data-POWERLUMD_Edby: April 22, 2022 and Date Plotted: Wednesday, May 4, 2022, 1:14:14 PM
 Paper Size (ANSI) (D: 34.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\pwr_pl\lowellmnd\26261\00\Parcel Map.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
M. POWELL
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL
GPM Smith
11 8100 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 765-6600



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

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CORONA, NEW YORK 11368
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WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK

TRUCK ROUTES

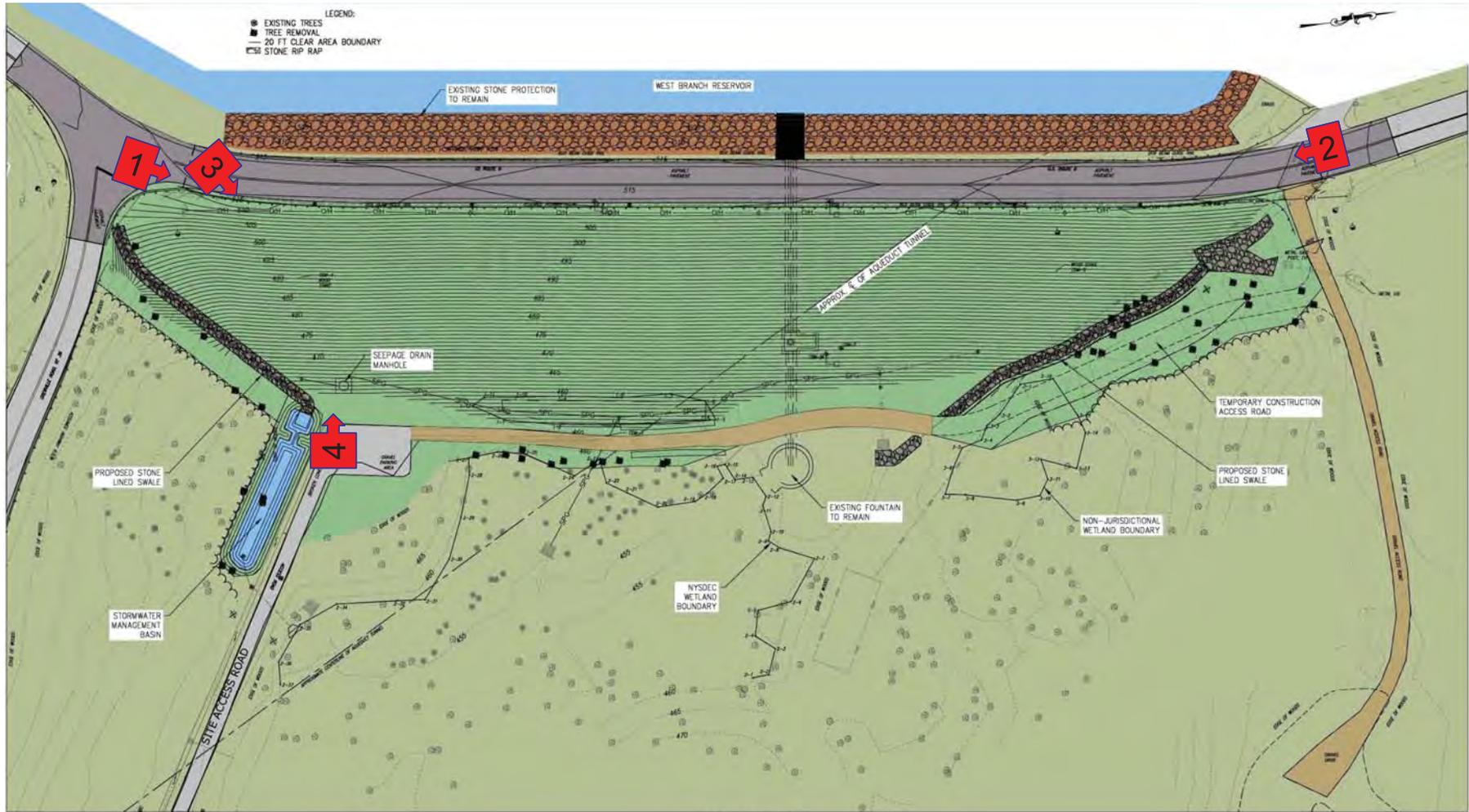
DATE: 5/5/2022
SCALE:
SHEET NO:
49 OF 49
DRAWING NO.

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

WEST BRANCH AUXILIARY SLOPE IMPROVEMENT
ENVIRONMENTAL CONSERVATION BOARD APPLICATION

Attachment 2
Figures

Proposed Site Plan Renderings



PROPOSED PLAN
1" = 30'
0 15 30

Site Rendering – View No. 1



1 Existing View



1 Proposed View

Northbound View From State Route 6

Site Rendering – View No. 2



2 Existing View



2 Proposed View

Southbound View From State Route 6

Site Rendering – View No. 3



3 Existing View



3 Proposed View

Parking Area and Stormwater Management Basin View From State Route 6

Site Rendering – View No. 4



4 → Existing View



4 → Proposed View

View of Seepage Chamber From DEP-Only Parking Area

WEST BRANCH AUXILIARY SLOPE IMPROVEMENT
ENVIRONMENTAL CONSERVATION BOARD APPLICATION

Attachment 3

Stormwater Pollution Prevention Plan, February 2022

DEP-BEC Acceptance letter, February 9, 2022



New York City
**Department of
Environmental Protection**

STORMWATER POLLUTION PREVENTION PLAN DETERMINATION

Pursuant to the authority granted under:

Article 11 of the New York State Public Health Law;
Rules and Regulations For The Protection From Contamination, Degradation and
Pollution Of The New York City Water Supply and Its Sources, 15 RCNY Chapter 18,
10 NYCRR Part 128.

New York City Department of Environmental Protection (DEP) makes the following determination with respect to the stormwater pollution prevention plan (SWPPP) described below:

Name of Project: Contract CRO-534 - West Branch Auxiliary Dam Slope Improvements

Location: US Route 6 and Drewville Road
(T) Carmel, Putnam County
Tax Map # be 54.-1-29.-1 and 65.-1-12
DEP Log# 2018-CF-0020-SP.1

Owner: New York City Department of Environmental Protection/BEDC

Address: 16 Little Hollow Road, P.O. Box 620
Grahamsville, New York 12740

Drainage Basin: Croton Falls Reservoir

General Description: The purpose of this project (Contract CRO-534) is to address the issues associated with the downward movement of the downstream slope of the dam. The proposed project includes improving the stability of the downstream slope using approved select fill materials to flatten the downstream slope. DEP review and approval is required by Sections 18-39(b)(4)(iv) of the “Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources” (Watershed Regulations). Approximately 4 acres of disturbance and 1.2 acres of new impervious surfaces are proposed. Runoff reduction, stormwater management and treatment will be provided using a bioretention area and grass filter strips. The SWPPP shall be implemented in accordance with the report and plans titled “Stormwater Pollution Prevention Plan for West Branch Auxiliary Dam Slope Improvements” prepared by Darcy A. Rosenthal, P.E., dated February 3, 2022 (see appendix A).

STORMWATER POLLUTION PREVENTION PLAN DETERMINATION

West Branch Auxiliary Dam Slope Improvements
(T) Carmel, New York

February 8, 2022
Page 2 of 4

(XX) Approved

() Denied

Conditions of Approval:

This approval is granted with the following conditions:

- The regulated activity must be conducted in compliance with the plans as approved, listed in Appendix A, all applicable accepted standards, and all applicable laws, rules and regulations.
- Any alteration or modification of the SWPPP must be approved by DEP prior to implementation; DEP may opt to issue an amended SWPPP Determination.
- The applicant must schedule a pre-construction conference prior to the start of construction. Present at the meeting should be the applicant, the design engineer, the general contractor, and DEP staff.
- The applicant must notify DEP at least forty-eight (48) hours prior to the commencement of construction activity so that compliance inspections may be scheduled by DEP.
- All erosion and sediment controls must be properly installed and maintained until the site has been stabilized and the risk of erosion eliminated. Final stabilization is defined in the General Permit as all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 80% cover for the area has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed.
- At the completion of the project, the applicant is required to submit as-built drawings for all stormwater management, runoff reduction and water quality facilities.
- The stormwater management and water quality facilities must be maintained in accordance with the maintenance schedule included in the SWPPP as approved by DEP.
- This approval shall expire and thereafter be null and void unless construction is completed within Five (5) years of the date of issuance or within any extended period of time approved by DEP upon good cause shown.
- In the event that the material submitted is inaccurate or misleading, this approval is not valid and construction of this project is in violation of DEP regulations.
- Failure to comply with any of the conditions of this approval is a violation of this approval and the *Rules and Regulations For The Protection From Contamination, Degradation and Pollution Of The New York City Water Supply and Its Sources*.
- A copy of the approved plans and determination should be maintained for record, and a copy must be available for inspection at the construction site.

STORMWATER POLLUTION PREVENTION PLAN DETERMINATION

West Branch Auxiliary Dam Slope Improvements
(T) Carmel, New York

February 8, 2022
Page 3 of 4

- DEP shall be provided access to the project site during the construction phase for monitoring and inspection purposes.
- This approval and all conditions of the approval are binding on the owner of the property where the facility is to be located. Any references to the “applicant” in this approval or in any conditions of this approval shall be deemed to refer to the owner of such property.

Date: February 8, 2022

Determination made by:

Danny Shedlo

Danny Shedlo, P.E.
Section Chief
EOH Regulatory & Engineering Programs

STORMWATER POLLUTION PREVENTION PLAN DETERMINATION

West Branch Auxiliary Dam Slope Improvements
(T) Carmel, New York

February 8, 2022
Page 4 of 4

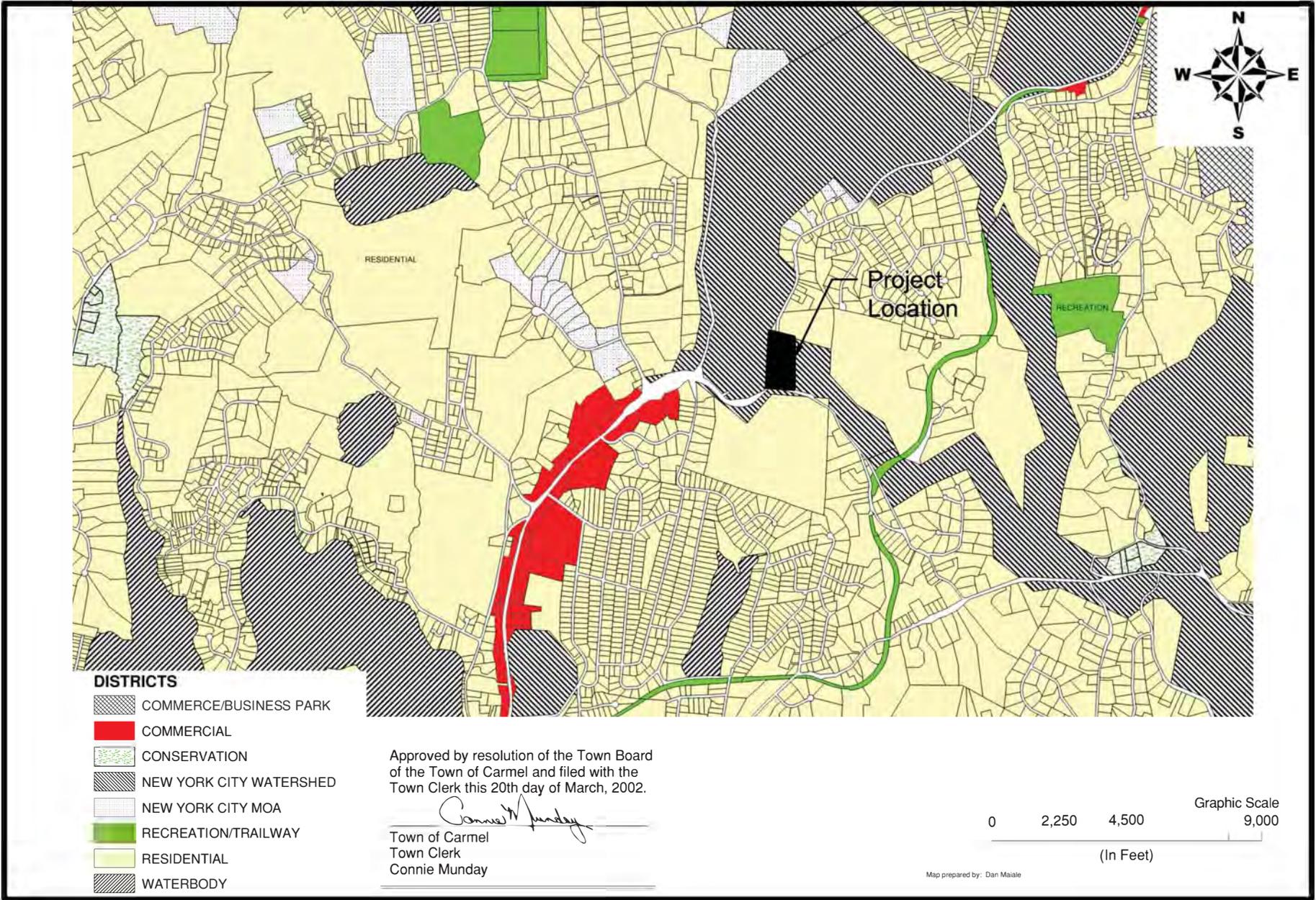
APPENDIX A

The following documents were prepared by Darcy A. Rosenthal, P.E. for Contract CRO-534 - West Branch Auxiliary Dam Slope Improvements, all dated February 3, 2022:

1. Stormwater Pollution Prevention Plan
2. Drainage & Piping Plan
3. Bioretention Swale Plan & Details
4. Storm Drain Piping Profile
5. Toe Drain Piping Profile
6. Drainage Details
7. Soil Erosion & Sediment Control Plan
8. Soil Erosion & Sediment Control Plan Details

WEST BRANCH AUXILIARY SLOPE IMPROVEMENT
ENVIRONMENTAL CONSERVATION BOARD APPLICATION

Attachment 4
Project Area Zoning Map



Attachment 4
Zoning Map - Town Of Carmel
NYCDEP West Branch Reservoir Auxiliary Dam
Slope Safety Improvements

WEST BRANCH AUXILIARY SLOPE IMPROVEMENT
ENVIRONMENTAL CONSERVATION BOARD APPLICATION

Attachment 5
List of Permits and Approvals

Encinas, Marcie (Puskarik)

Subject: FW: NYC DEP Contract CRO-534 Application Follow-Up

From: Orzel, Brian A CIV USARMY CENAN (USA) <Brian.A.Orzel@usace.army.mil>

Sent: Wednesday, June 22, 2022 6:17:33 PM

To: Salzberg, Spencer <SSalzberg@dep.nyc.gov>

Cc: Singh, Linda (Bhoamwat) <LindaSi@dep.nyc.gov>; Costa, Paul <pcosta@dep.nyc.gov>; LeClair, Erik S <leclaires@cdmsmith.com>

Subject: RE: NYC DEP Contract CRO-534 Application Follow-Up

Spencer,

All of the current Nationwide General Permits will expire on March 14, 2026.

Brian

Brian A. Orzel
Project Manager, Civil Engineer
NY District US Army Corps of Engineers
Regulatory Branch
26 Federal Plaza, Room 16-406
New York, New York 10278-0090

Please note in order to ensure our continuity of operations and improve the timeliness of permit application reviews due to the current COVID-19 virus, effective immediately, the New York District, U.S. Army Corps of Engineers is requiring that all new permit applications be submitted to the New York District electronically. Until further notice, the New York District will no longer process any paper permit applications. This electronic processing procedure will increase the efficiency of correspondence, furthering the goal of providing timely decisions. Please see the link below to the Regulatory Branch Operational Modification Special Public Notice describing the instructions for electronic application submittals:

<https://www.nan.usace.army.mil/Portals/37/docs/regulatory/publicnotices/Non%20Project%20Specific/2020/CENAN-OP-R%20PN%20Electronic%20Submission%20of%20Permit%20Applications%2027MAR2020.pdf?ver=2020-03-31-163215-913>.

From: Salzberg, Spencer <SSalzberg@dep.nyc.gov>

Sent: Wednesday, June 22, 2022 5:32 PM

To: Orzel, Brian A CIV USARMY CENAN (USA) <Brian.A.Orzel@usace.army.mil>

Cc: Singh, Linda (Bhoamwat) <LindaSi@dep.nyc.gov>; Costa, Paul <pcosta@dep.nyc.gov>; LeClair, Erik S <leclaires@cdmsmith.com>

Subject: [URL Verdict: Neutral][Non-DoD Source] RE: NYC DEP Contract CRO-534 Application Follow-Up

Hello Brian,

Thank you for your e-mail and the information.

Would you be so kind as to advise as to when the authorization expires?

Spencer

Spencer Sal zberg | Seni or Permi t Manager
NYC Department of Envi ronmental Protection | Bureau of Engi neeri ng Desi gn & Constructi on
96-05 Horace Hardi ng Expressway – Fi fth Floor
Corona, NY 11368
Phone (718) 595-7206
Cell ul ar (718) 757-6110
Fax (718) 595-5999 | E-mai l SSal zberg@dep.nyc.gov

Spencer Sal zberg | Seni or Permi t Manager
NYC Department of Envi ronmental Protection | Bureau of Engi neeri ng Desi gn & Constructi on
Sutton Park Offi ce – 1st Floor
465 Col umbus Avenue
Val hall a, NY 10595
Phone (914) 749-5465
E-mai l SSal zberg@dep.nyc.gov

From: Orzel, Brian A CIV USARMY CENAN (USA) <Brian.A.Orzel@usace.army.mil>

Sent: Tuesday, June 21, 2022 4:24 PM

To: Sal zberg, Spencer <SSal zberg@dep.nyc.gov>

Cc: Singh, Linda (Bhoamwat) <LindaSi@dep.nyc.gov>; Costa, Paul <pcosta@dep.nyc.gov>; LeClair, Erik S <leclaires@cdmsmith.com>

Subject: [EXTERNAL] RE: NYC DEP Contract CRO-534 Application Follow-Up

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. Forward suspect email to phish@cyber.nyc.gov as an attachment (Click the More button, then forward as attachment).

Spencer,

We received the pre-construction notification for NWP 3 for the above referenced project on March 3, 2022.

Due to my excessive work load, I was unable to provide a written determination within 45 days of its submission.

In accordance with the current nationwide general permit regulations (Federal Register dated December 27, 2021, pages 73522 to 73583), if the Corps of Engineers district does not respond to a pre-construction notification within 45 days of receipt, then the applicant may proceed with the project as proposed.

That means that the applicant must perform the work as proposed in your pre-construction notification. Any substantive changes to the project would require the applicant to submit a new notification to this office.

If you have any questions, let me know.

Brian

Brian A. Orzel
Project Manager, Civil Engineer
NY District US Army Corps of Engineers
Regulatory Branch
26 Federal Plaza, Room 16-406
New York, New York 10278-0090

Please note in order to ensure our continuity of operations and improve the timeliness of permit application reviews due to the current COVID-19 virus, effective immediately, the New York District, U.S. Army Corps of Engineers is requiring that all new permit applications be submitted to the New York District electronically. Until further notice, the New York District will no longer process any paper permit applications. This electronic processing procedure will increase the efficiency of correspondence, furthering the goal of providing timely decisions. Please see the link below to the Regulatory Branch Operational Modification Special Public Notice describing the instructions for electronic application submittals:

<https://www.nan.usace.army.mil/Portals/37/docs/regulatory/publicnotices/Non%20Project%20Specific/2020/CENAN-OP-R%20PN%20Electronic%20Submission%20of%20Permit%20Applications%2027MAR2020.pdf?ver=2020-03-31-163215-913>.

From: Salzberg, Spencer <SSalzberg@dep.nyc.gov>
Sent: Tuesday, May 24, 2022 4:43 PM
To: Brendan Newell (Brendan.M.Newell@USACE.ARMY.mi) <brendan.m.newell@usace.army.mi>; Ryan, Alexandra R (Alex) CIV USARMY CENAN (USA) <Alexandra.Ryan@usace.army.mil>; PublicNotice, CENAN NAN02 <CENAN.PublicNotice@usace.army.mil>
Cc: Singh, Linda (Bhoamwat) <LindaSi@dep.nyc.gov>; Costa, Paul <pcosta@dep.nyc.gov>; LeClair, Erik S <leclaires@cdmsmith.com>
Subject: [Non-DoD Source] NYC DEP Contract CRO-534 Application Follow-Up

Hello Ms. Ryan and Mr. Newell,

I wanted to follow-up on my voice messages from earlier this afternoon about the Joint Permit Application (JPA) package submitted in support of NYC Department of Environmental Protection (NYC DEP) contract CRO-534 (West Branch Auxiliary Dam Slope Safety improvements).

Our design consultants at CDM Smith (cc:d here) submitted the application package for the subject project to the U.S. Army Corps of Engineers (US ACOE) on May 3 via Secure File Transfer (SFT). Due to its file size, the application was only available via SFT. We wanted to confirm US ACOE's receipt of the JPA and to inquire about the status of the review.

Mr. Newell and Ms. Ryan, would either of you be so kind as to advise if your team is in receipt of the application package? Please do let us know if you'd like us to transmit the materials again or if you have any questions.

To keep them apprised, I have cc'd NYC DEP's Accountable Manager Linda Singh, NYC DEP's Portfolio Manager Paul Costa and our design consultant at CDM Smith.

Linda, Paul, Erik, was there anything else you wanted to ask, clarify or mention?

Thank you Ms. Ryan and Mr. Newell,
We appreciate your time and guidance,

Spencer

Spencer Salzberg | Senior Permit Manager
NYC Department of Environmental Protection | Bureau of Engineering Design & Construction
96-05 Horace Harding Expressway – Fifth Floor
Corona, NY 11368
Phone (718) 595-7206
Cellular (718) 757-6110
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Spencer Salzberg | Senior Permit Manager
NYC Department of Environmental Protection | Bureau of Engineering Design & Construction
Sutton Park Office – 1st Floor
465 Columbus Avenue
Valhalla, NY 10595
Phone (914) 749-5465
E-mail SSalzberg@dep.nyc.gov



PERMIT
Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:

NYC DEPT OF ENVIRONMENTAL
PROTECTION
96-05 HORACE HARDING EXPY FL 5
CORONA, NY 11368
(718) 595-4906

Facility:

WEST BRANCH AUXILIARY DAM CRO-534

WEST BRANCH RESERVOIR
CARMEL, NY 10512

Facility Location: in CARMEL in PUTNAM COUNTY

Facility Principal Reference Point: NYTM-E: 608.159 NYTM-N: 4583.972
Latitude: 41°24'00.1" Longitude: 73°42'22.0"

Authorized Activity: This permit authorizes improvements to the West Branch Auxiliary Dam (NYS ID: 231-0511B), and disturbances to Freshwater Wetland LC-30, its 100-foot adjacent area, and Crafts Brook [DEC Waters Index No. H-31-P44-23-1, Class C(T)] associated with the NYCDEP West Branch Reservoir Auxiliary Dam Slope Improvements Project. This project includes flattening/stabilizing the downstream slope, installing drainage infrastructure, and reconstructing US Route 6 which is carried over the dam crest.

Permit Authorizations

Dam - Under Article 15, Title 5

Permit ID 3-3720-00447/00001

New Permit

Effective Date: 1/20/2023

Expiration Date: 12/31/2029

Freshwater Wetlands - Under Article 24

Permit ID 3-3720-00447/00002

New Permit

Effective Date: 1/20/2023

Expiration Date: 12/31/2029

Stream Disturbance - Under Article 15, Title 5

Permit ID 3-3720-00447/00004

New Permit

Effective Date: 1/20/2023

Expiration Date: 12/31/2029

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: CHRISTOPHER LANG, Deputy Regional Permit Administrator

Address: NYSDEC Region 3 Headquarters
21 S Putt Corners Rd
New Paltz, NY 12561



Chris Lang

Authorized Signature: _____

Digitally signed by Chris Lang

Date: 2023.01.20 09:16:28 -0500

Distribution List

Jennifer Ross, DEC Dam Safety
Sarah Pawliczak, DEC Ecosystem Health
Town of Carmel
Brian Orzel, USACE
Linda Singh, NYCDEP
Paul Costa, NYCDEP
Maria Tupper-Goebel, NYCDEP
Joe Damrath, NYCDEP
Erik LeClair, CDM Smith

Permit Components

NATURAL RESOURCE PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

NATURAL RESOURCE PERMIT CONDITIONS - Apply to the Following Permits: DAM; FRESHWATER WETLANDS; STREAM DISTURBANCE

1. Conformance With Plans All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or applicant's agent as part of the permit application. Such approved plans were prepared by the applicant or applicant's agent, and consist of the materials referenced in Natural Resource Permit Condition 2.

2. Approved Construction Documents All work shall be accomplished in strict conformance with the approved construction documents, as follows:

DRAWINGS: West Branch Auxiliary Dam Slope Safety Improvements, Sheets 1-81, prepared by CDM Smith, dated 5/26/2022, signed and stamped by Erik LeClair NY P.E. License # 077876

SPECIFICATIONS: West Branch Reservoir Auxiliary Dam Slope Improvement Project, Appendix J – Specifications, dated April 2022, pages 1210 – 1525.

3. Notification of Intent to Commence Work The permittee or their representative must notify the Department no less than 48 hours prior to the commencement of work. This notification must be sent via email, to Sarah Pawliczak (sarah.pawliczak@dec.ny.gov) and Jennifer Ross (jennifer.ross@dec.ny.gov).



4. Schedule Pre-construction Conference At least 2 weeks prior to commencement of construction, the permittee shall contact the DEC Dam Safety Section to arrange a pre-construction conference with department staff. Attendees should include the permittee, contractor and supervising engineer. Such a conference may be held at the project site or in the DEC Region 3 office at the discretion of DEC staff. Construction schedules, construction methods, environmental controls, supervisor responsibilities, permit terms and conditions, and contingency plans (in the event of poor weather, equipment breakdown, etc.) are to be addressed at the pre-construction conference.

5. Tree Cutting Time Restriction In order to prevent adverse impacts to State-listed bat species, all tree removal for this project must take place between November 1 and March 31. Any tree cutting outside this window is strictly prohibited.

6. Install Controls as Shown on Plans Prior to commencement of the activities authorized herein, the permittee shall install securely anchored silt fencing and/or continuous staked straw bales as shown on the plans or drawings referenced in this permit.

7. Maintain Erosion Controls These erosion control devices shall be maintained until all disturbed land is fully vegetated to prevent any silt or sediment from entering the freshwater wetland or its adjacent area. Silt fencing, hay bales and any accumulated silt or sediment shall be completely removed for disposal at an appropriate upland site.

8. Dam Safety Section Contact Information When used in this permit, the contact information for the Dam Safety Section is:

Dam Safety Section
Attn: Jennifer Ross
NYSDEC Headquarters
625 Broadway
Albany, NY12233

9. Precautions Against Contamination of Waters All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate or any other environmentally deleterious materials associated with the project.

10. Stockpile Areas Excavated materials and/or fill materials shall be stockpiled more than 100 feet landward of the wetland or water body and shall be contained by straw bales or silt fencing to prevent erosion.

11. Clean Fill Only All fill shall consist of clean soil, sand and/or gravel that is free of the following substances: asphalt, slag, flyash, broken concrete, demolition debris, garbage, household refuse, tires, woody materials including tree or landscape debris, and metal objects. The introduction of materials toxic to aquatic life is expressly prohibited.

12. Equipment Use in Regulated Areas Weight distributing mats and low-pressure ground equipment shall be used to prevent rutting and soil disturbance within the regulated wetland and wetland adjacent areas, as necessary.



13. Construction Schedule Within 2 weeks after start of construction, provide the Department's Dam Safety Section with a construction schedule indicating timing of major work items. Provide updated schedules as needed to indicate significant changes to the schedule.

14. Start of Construction The permittee shall notify the Department's Dam Safety section of the proposed date of the preconstruction meeting. The permittee shall notify the Department's Dam Safety section of the proposed date for start of construction within 1 week after issuing the Notice to Proceed to the selected construction contractor.

15. Construction Reports Construction reports shall be submitted to the Dam Safety Section on a monthly basis and shall, at a minimum, consist of:

Contractor's Progress Schedule including revisions, a summary of major work completed, a summary of observations made by the on-site representative; a summary of observations made by the construction engineer during his/her site inspections; construction photos; and copies of all lab and field test results, such as soil gradation data and soil compaction tests.

16. Construction Engineer Within two weeks of the date of permit issuance, the permittee shall notify the Dam Safety Section, by certified mail (return receipt requested), of the name, address, telephone number and license number of the registered professional engineer responsible for oversight of the dam construction work (construction engineer) and for submission of the construction certification and "as-built" records required under this permit.

17. As-Built Records Within four weeks after completion of the permitted work, the permittee shall provide to the Dam Safety Section, one complete set of "as-built" records. "As-built" records shall include at a minimum:

Photos of major work items, record drawings, embankment and foundation materials, and construction history. The "as-built" records shall be signed and sealed by the construction engineer and shall include identification of all changes to the approved construction documents.

The "as-built" records shall be signed and sealed by the construction engineer and shall include identification of all changes to the approved construction documents.

18. Completion of Work Within two weeks after the completion of the permitted work, the permittee shall provide the Dam Safety Section by certified mail (return receipt requested) an original signed and sealed statement from the construction engineer that the project has been completely constructed under his/her care and supervision and in accordance with the construction documents approved by the Department ("certification"), with a copy to the Regional Permit Administrator.

19. Substantial Deviations Any substantial deviation from the approved construction documents must be approved in writing by the Dam Safety Section prior to implementation. All deviations from the approved plans shall be indicated in the "as-built" records.

20. Substantial Completion At least two weeks before the anticipated date, the permittee shall cause the construction engineer to notify the Dam Safety Section in writing by certified mail (return receipt requested) that the work will be substantially complete and ready to impound water so that an inspection of the dam can be scheduled. The Dam Safety Section may waive the inspection in writing and/or issue an Approval to Fill letter after receiving this notification.



21. Disposal of Material Any demolition debris, excess construction materials, and/or excess excavated materials shall be immediately and completely disposed of on an approved upland site more than 100 feet from any regulated waterbody or wetland. These materials shall be suitably stabilized so as not to re-enter any water body, wetland, or wetland adjacent area; and must be disposed of in accordance with all local, state, and federal statutes, regulations, or ordinances.

22. Invasive Species (Non-native Vegetation) To prevent the unintentional introduction or spread of invasive species, the permittee must ensure that all construction equipment be cleaned of mud, seeds, vegetation and other debris before entering any approved construction areas within the state regulated freshwater wetland or its 100 foot adjacent area.

23. Temporary Mulch, Final Seeding If seeding is impracticable due to the time of year, a temporary mulch shall be applied and final seeding shall be performed at the earliest opportunity when weather conditions favor germination and growth but not more than six months after project completion.

24. Seed, Mulch Disturbed Areas All areas of soil disturbance resulting from this project shall be seeded with an appropriate perennial grass, and mulched with straw immediately upon completion of the project, within two days of final grading, or by the expiration of the permit, whichever is first.

25. Prior Approval of Changes Affecting Wetland Areas If the permittee desires to make any minor changes to the scope of work shown in the approved plans referenced in Natural Resource Permit Condition 2 which affects DEC Freshwater Wetlands or their adjacent areas, the permittee shall submit a request via email to Sarah Pawliczak of the DEC Bureau of Ecosystem Health (sarah.pawliczak@dec.ny.gov) to make such proposed changes. The proposed changes shall not be implemented unless authorized in writing by the Department. Issuance of such approval without modification of the permit is at the Department's discretion.

26. State May Order Removal or Alteration of Work If future operations by the State of New York require an alteration in the position of the structure or work herein authorized, or if, in the opinion of the Department of Environmental Conservation it shall cause unreasonable obstruction to the free navigation of said waters or flood flows or endanger the health, safety or welfare of the people of the State, or cause loss or destruction of the natural resources of the State, the owner may be ordered by the Department to remove or alter the structural work, obstructions, or hazards caused thereby without expense to the State, and if, upon the expiration or revocation of this permit, the structure, fill, excavation, or other modification of the watercourse hereby authorized shall not be completed, the owners, shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may require, remove all or any portion of the uncompleted structure or fill and restore to its former condition the navigable and flood capacity of the watercourse. No claim shall be made against the State of New York on account of any such removal or alteration.

27. State May Require Site Restoration If upon the expiration or revocation of this permit, the project hereby authorized has not been completed, the applicant shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may lawfully require, remove all or any portion of the uncompleted structure or fill and restore the site to its former condition. No claim shall be made against the State of New York on account of any such removal or alteration.



28. State Not Liable for Damage The State of New York shall in no case be liable for any damage or injury to the structure or work herein authorized which may be caused by or result from future operations undertaken by the State for the conservation or improvement of navigation, or for other purposes, and no claim or right to compensation shall accrue from any such damage.

GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. Facility Inspection by The Department The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. Relationship of this Permit to Other Department Orders and Determinations Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. Applications For Permit Renewals, Modifications or Transfers The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC Region 3 Headquarters
21 S Putt Corners Rd
New Paltz, NY12561

4. Submission of Renewal Application The permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Dam, Freshwater Wetlands, Stream Disturbance.

5. Permit Modifications, Suspensions and Revocations by the Department The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

- a. materially false or inaccurate statements in the permit application or supporting papers;



- b. failure by the permittee to comply with any terms or conditions of the permit;
- c. exceeding the scope of the project as described in the permit application;
- d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. Permit Transfer Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



Item E: SEQR Type I Action, No Significant Impact Under the State Environmental Quality Review Act (SEQR), the project associated with this permit is classified as a Type I Action with NYC Dept of Environmental Protection designated as the lead agency. It has been determined that the project will not have a significant effect on the environment.



April 11, 2022

CERTIFICATE 28069

RESOLVED That the Design Commission, having considered designs for the stabilization of the West Branch Auxiliary Dam, West Branch Reservoir, US Route 6 and Drewville Road, Town of Carmel, Putnam County, submitted by the Department of Environmental Protection, represented by exhibits 5768-W, X, Y, Z & AA of record in this matter, hereby gives to the same unanimous final approval.

Final approval is conditioned upon commencement of work before April 11, 2024 and submission of comprehensive photographic documentation of the completed project consisting of 8" x 10" archival-quality color photographs.

A true copy of resolution adopted by
the Design Commission at its meeting
on April 11, 2022.



Keri Butler
Executive Director

**Philip Aarons, Kenseth Armstead, Laurie Hawkinson, Karen Kiehl, Deborah Marton,
Susan Morgenthau, Signe Nielsen, Ethel Sheffer, Merryl H. Tisch, Mary Valverde,**
Commissioners