

CLA Engineers, Inc.

Civil • Structural • Survey

317 MAIN STREET

NORWICH, CT 06360

(860) 886-1966

(860) 886-9165 FAX

January 17, 2023

Mr. Bruce Fitzback
Town of Putnam
Land Use Agent
200 School Street
Putnam CT 06260

RE: 285 River Rd LLC and Putnam River Rd LLC
Inland wetland application review
Town of Putnam
CLA 7399

Dear Mr. Fitzback:

Per your request, CLA has reviewed the application for permit made by 285 River Rd LLC and Putnam River Rd LLC on behalf of the Town of Putnam Inland Wetlands and Watercourses Commission. This review included several different activities. On January 9, 2023, CLA's Soil Scientist (Robert Russo) and Professional Engineer (Robert DeLuca) walked site. CLA also reviewed all submitted material including third party reports. CLA reviewed: engineering aspects of project for consistency with Putnam's Land Use Regulations, proposed drainage and related calculations for consistency with industry standards and the CT DEP Stormwater Quality Manual, and proposed E&S measures for consistency with the CT DEP Guidelines for Soil Erosion and Sediment Control.

The information reviewed included:

1. 12-30-22 Monitor Well Readings.pdf prepared by Provost & Rovero.
2. The Putnam Inland Wetlands Application Form submitted by the applicant, dated 7/12/22.
3. The completed CTDEEP Statewide Reporting Form.
4. A letter from the soils scientist, Joseph Theroux CSS, dated 7/29/22.
5. A letter from Putnam landowner Delia Fay AICP dated November 29, 2022.
6. A hydrogeological letter of report dated October 11, 2022 submitted by One Earth Environmental on behalf of the applicant.
7. The applicant's certification dated October 3, 2022.
8. A petition for a public hearing for this application dated 9/27/22.
9. The 18-sheet plan set revised to 12/28/22 prepared by Provost & Rovero.
10. The property access form completed by the applicant dated October 3, 2022.

11. A response to comment letter from Provost & Rovero to Bruce Fitzback, Land Use Agent, Dated December 16, 2022.
12. A response to comment letter from Provost & Rovero to Bruce Fitzback , Land Use Agent, Dated December 19, 2022.
13. A PDF file titled “Revised Sheets 16-17.pdf” containing details, narrative and bridge design.
14. A PDF file “River Rd subdiv and gravel pit_site plans_11-30-22.pdf” that is a markup of Provost & Rovero Plans for the bridge crossing of Carpenter Brook
15. PDF files “Soil Report Map.pdf” and “Soil Report.pdf”
16. A soil and surficial materials map prepared by Provost & Rovero dated 10/5/2022
17. An alternate plan titled “Excavation Plan No.2” 12/15/2022 prepared by Provost & Rovero.
18. A set of project plans dated 12/15/22 prepared by Provost & Rovero
19. A Hydrogeologic Impact Assessment dated December 29, 2022 prepared by Weston and Sampson for Attorney Michael P. Carey.
20. Boring log data for six borings/monitoring wells installed on the site on 2/8/21, 2/9/21 and 2/10/21 by Glacier Drilling
21. Town of Putnam Inland Wetland Regulations

CLA has the following comments, divided into general comments regarding the potential for wetland impacts and comments that reflect request for edits or additions to the site plans:

General Comments Regarding Potential for Wetland Impacts

1. Per the project plans revised to 12/28/22, there are no proposed direct wetland impacts such as filling, excavation or discharge to inland wetlands.
2. Based on the 12/28/22 plans, there is no longer a proposal to construct a clear span bridge over Carpenter Brook as was shown in previous submittals. This is a positive revision in that it further limits the potential for wetland impacts. It is CLA’s experience this type of revision, i.e. one that further reduces the potential for wetland impact, does not require submittal of a new application to the Commission. In fact, this is a typical occurrence during the Commission’s consideration of an application.
3. CLA believes that the applicant has presented a reasonable set of alternatives that minimize the potential for direct wetland impact; however, the potential for hydrologic impacts needs further consideration.
4. The available hydrologic data are incomplete and do not assure the commission of a lack of hydrologic impact to wetlands. CLA concurs with the Weston and Sampson Hydrogeologic Impact Assessment that the currently available data cannot rule out the potential for the Phase 1 fringe wetland to experience a hydrologic change due to a steepening of the vertical groundwater gradient due to the proposed excavation. Additional hydrologic data collection and impact analysis in that part of the site is warranted. This may result in the need for a functional analysis of those wetlands.

5. The available hydrologic data are incomplete with regard to duration and period. CLA's experience indicates that ground water levels should be monitored through at least one full wet season (December through early May) in order to predict seasonal fluctuation and seasonal high water. For this site, it is important to understand if the northerly proposed basin will discharge water to the nearby wetland, and if so, how much and when. This also may require a functional analysis of that wetland. Note that the water level here rose approximately 3 feet from November 2022 to December 2022. The applicant's Hydrogeologist had only data through October 2022 available
6. Test pit data for some of the pits around the northerly proposed pond (lots 5 and 6) are missing and should be provided (i.e. TP--6 and TP 6-7). Also TP 7-1 and 7-2 show shallow depths to ledge. Boring log data indicate greater depth to bedrock than is shown by the test pits. Additional data are needed to determine if the site requires excavation of ledge, and if so, does the rock to be removed present the potential for acidic runoff?
7. The CTDEEP Natural Diversity Database does not indicate any known protected species on the site, thus no additional protection measures are warranted.
8. Carpenter Brook is not shown as a cold water stream on CTDEEP <https://ctdeepwatermonitoring.github.io/ColdWaterHab/>, thus the vegetated buffer to remain around it appears adequate.

Editorial Comments

1. Show feasible soil stockpile locations for each lot and the pond excavation.
2. Show additional stabilization of the sediment to be deposited on 3:1 slopes, using either erosion mats or a spray on fiber mat.
3. The sediments to be deposited on site are proposed to come from a washing operation. Indicate how de-watering will be accomplished.
4. Show feasible de-watering locations and details for materials to leave the site.
5. Provide protection from erosion due to "run on" for the northerly pond excavation.
6. The site should have weekly E&S inspection and reporting to the Town.
7. A water tank truck should be on site at all times for dust suppression.
8. Provide orange construction fence at the limits of clearing to minimize the potential for over excavation.

Sincerely,

Robert C Russo

Robert C. Russo
Soil Scientist



INLAND WETLAND COMMISSION

APPENDIX A

APPLICATION FOR PERMIT

This application is for the use of inland wetlands and water courses.

The meetings are held on the second Wednesday of every month at 7:00pm in the Town Hall. If an on-site inspection is canceled due to inclement weather, the applicant is asked to call the office at 963-6803 30 minutes before the scheduled inspection to see if or when the inspection will be held.

Name of Applicant Putnam River Road, L.L.C. and 285 River Road, LLC

Applicant's Address P.O. Box 271, Putnam, CT 06260

Phone # 860-234-0907

Owner of Land Putnam River Road, L.L.C. and 285 River Road, LLC

Owner's Address P.O. Box 271, Putnam, CT 06260

Location and description of proposed activity: 285 River Road and 357 River Road

12 lot residential subdivision. Development will include the excavation of gravel to create two permanent ponds.

Activity & Purpose Code

Please CHECK one in each column that best describes the activity proposed.

<u>Code</u>	<u>Activity Type</u>	<u>Code</u>	<u>Activity Purpose</u>
☐	1 Filling	☐	A Residential Improvement by homeowner
☒	2 Excavation	☒	B New residential development - single family
☐	3 Land Clearing	☐	C New residential development - multi- family/condo
☐	4 Stream Channel	☐	D Commercial/Industrial Uses
☐	5 Stream Stabilization	☐	E Municipal Improvements
☐	6 Stream Clearance	☐	F Utility Company Improvements
☐	7 Culverting	☐	G Agriculture, Forestry or Conservation
☐	8 Und. Grd. Util.	☐	H Wetland Creation/Restoration
☐	9 Roadway Construction	☐	I Storm Water/Flood Control
☐	10 Drainage Improvements	☐	J Erosion/Sediment Control
☐	11 Pond Dredge/Dam Construction	☐	K Recreation/Boating/Navigation
☐	12 Activity Buffer/Set Back Area	☐	L Routine Maintenance
☐	13 Other: Please describe: _____		

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Project Name (if applicable) _____

Estimate of Linear Footage affecting Wetlands _____

0

Affected number of acres in which Wetlands are part of
the impacted area for Multi-Family, Condos and
Commercial Development _____

N/A

TO BE COMPLETED BY THE COMMISSION

Application Number _____

2022-09

Date of Receipt _____

7.12.2022 CK# 16183

Application Approved (date) _____

Conditions of approval if applicable _____

Application Denied (date) _____

Reason(s) for Denial _____

Signature of Chairman or Secretary of Commission _____

Date _____

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Application Procedure

1. Applicant will have a map showing the property boundaries, any wetlands on the property, proposed buildings, septic area, drainage if applicable and the dimension between these areas in scale 1" - 200' or less
2. Applicant must provide an approximate estimate of the linear footage of the wetlands that are affected by said proposal. This is for multi-family, condominiums or commercial development. Contact with the Zoning Official may clarify the nature of your project
3. Applicant must provide an approximate estimate of the number of acres that are affected by said proposal dealing with multi-family, condominiums and commercial development in which wetlands are part of that impacted area within the watershed.
4. Applicant will supply a copy of the soil scientist report with the application to the Wetlands Commission to be reviewed at the meeting by the Commission.
5. Applicant will have the soil scientist number the wetland flags and record the numbers of the flags on the site plan according to their location in the field. The location on the site map must match the field location.
6. If the applicant's estimates are not accurate, payment of the correct amount must be made before the Wetlands final approval of the application.
7. And any other information deemed necessary by the Commission.

Fee Schedule

1.	Permitted and non-regulated	\$40.00
2.	One lot regulated	\$40.00
3.	Regulated Area	
	Two (2) - Ten (10) lots	\$100.00
	Ten (10) - Twenty (20) lots	\$200.00
	Over Twenty (20+) lots	\$300.00
4.	Multi-Family/Condominium Regulated area	
	Zero (0) to Five (5) Acres	\$50.00
	Per linear foot of wetlands additional	\$0.35
	Over Five (5) acres	\$100.00
	Per linear foot of wetlands additional	\$0.35
5.	Commercial	
	Zero (0) to Five (5) Acres	\$100.00
	Per linear foot of wetlands additional	\$0.50
	Over Five (5) acres	\$300.00
	Per linear foot of wetlands additional	\$0.50

All applications must be submitted one week prior to the regularly scheduled monthly meeting.



Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete - print clearly - and mail this form in accordance with the instructions on pages 2 and 3 to:
Wetlands Management Section, Inland Water Resources Division, CT DEEP, 79 Elm Street – 3rd Floor, Hartford, CT 06106

PART I: To Be Completed By the Municipal Inland Wetlands Agency Only

1. DATE ACTION WAS TAKEN (enter one year and month): Year _____ Month _____
2. ACTION TAKEN (enter one code letter): _____
3. WAS A PUBLIC HEARING HELD (check one)? Yes _____ No _____
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
(type name) _____ (signature) _____

PART II: To Be Completed By the Municipal Inland Wetlands Agency or the Applicant

5. TOWN IN WHICH THE ACTION IS OCCURRING (type name): Purman
Does this project cross municipal boundaries (check one)? Yes _____ No X
If Yes, list the other town(s) in which the action is occurring (type name(s)): _____
6. LOCATION (see directions for website information): USGS Quad Map Name: Purman or Quad Number: 28
Subregional Drainage Basin Number: 3700
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): Purman River Road, L.L.C. & 285 River Road, LLC
8. NAME & ADDRESS/LOCATION OF PROJECT SITE (type information): 285 River Road, 357 River Road
Briefly describe the action/project/activity (check and type information): Temporary _____ Permanent X
Description: 12 lot residential subdivision and gravel/pond excavation
9. ACTIVITY PURPOSE CODE (enter one code letter): B
10. ACTIVITY TYPE CODE(S) (enter up to four code numbers): 2, 12, 14, _____
11. WETLAND / WATERCOURSE AREA ALTERED (type in acres or linear feet as indicated):
Wetlands: 0.034 acres Open Water Body: 0 acres Stream: 60± linear feet
12. UPLAND AREA ALTERED (type in acres as indicated): 15± acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type in acres as indicated): 4± acres

DATE RECEIVED:

PART III: To Be Completed By the DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

16183

PROVOST & ROVERO, INC.
ENGINEERING SURVEYING SITE PLANNING
57 E. MAIN ST. P.O. BOX 191 PLAINFIELD, CT 06374
(860) 230-0856 FAX (860) 230-0860

Jewett City Savings Bank
Jewett City, CT 06351

51-7433/2111



7/12/22

PAY TO THE
ORDER OF

Town of Putnam

Two hundred sixty and 00/100

\$ 260.00

DOLLARS

MEMO

203015 IW Application

AUTHORIZED SIGNATURE

~~COPIED TO FILE~~

Provost & Rovero, Inc.

Civil Engineering • Surveying • Site Planning • Structural • Mechanical • Architectural Engineering

P.O. Box 191
57 East Main Street
Plainfield, CT 06374

Telephone (860) 230-0856
Fax (860) 230-0860
www.prorovinc.com

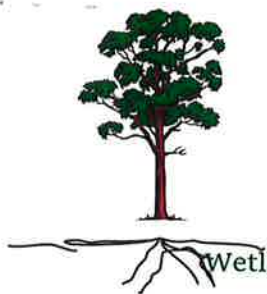
July 12, 2022

**Putnam River Road, L.L.C. & 285 River Road, LLC
Proposed 12 Lot Resubdivision**

P & R Job #203095

APPLICATION PACKAGE CONTENTS – Inland Wetlands

1. Application fee \$260.00
2. Inland Wetlands Commission application form
3. 3 copies of plans dated 6/29/2022
4. DEEP Activity Reporting Form



Joseph R. Theroux

~ Certified Forester/ Soil Scientist ~

Phone 860-428-7992 ~ Fax 860-376-6842

P.O. Box 32, Voluntown, CT. 06384

Forestry Services ~ Environmental Impact Assessments

Wetland Delineations and Permitting ~ E&S/Site Monitoring

Wetland function and value assessments

7/29/2022

Provost & Rovero, Inc.
57 East Main St.
P.O. Box 191
Plainfield, CT. 06374

Attn: Mr. David Held

Re: Wetland delineation, 285 & 357 River Road, Putnam, CT.

Dear Mr. Held,

At your request I have delineated the inland wetlands and watercourses on the above referenced property.

Fluorescent pink flags with a corresponding location number delineate the boundary between the upland soils and inland wetlands and watercourses.

These wetland soils have been delineated in accordance with the standards of the National Cooperative Soil Survey and the definitions of wetlands as found in the Connecticut Statutes, Chapter 440, Section 22A-38.

Flag numbers WF-1 through WF-52 delineate the southern and eastern boundary of Carpenter Brook, its adjacent floodplain soils, inland wetlands and the large marsh adjacent to River Road.

Flag numbers WF-1A through WF-62 A and WF-1B through WF-66 B delineate an intermittent watercourse, its adjacent forested wetlands and the western boundary of Carpenter Brook, its adjacent floodplain soils, inland wetlands and the western limits of the marsh. The intermittent watercourse flows to the east from the western property boundary and joins with Carpenter Brook.

Flag numbers WF-1C through WF-47C, WF-1D through WF-31D, WF-1E through WF-138E, WF-1I through WF-60I and WF-1J through WF-34J delineate a large palustrine forested wetland complex located in the southwestern portion of the property. This complex has several intermittent watercourses within its boundaries which flow downslope to the southeast. These watercourses receive hydrology from the larger portions of inland wetlands, from surface runoff and groundwater breakout.

Flag numbers WF-1F through W-22F and WF-1G through WF-15G delineate a palustrine forested wetland located on the southeast property line. The eastern portion of this wetland was historically trenched in an effort to channel flows through the adjacent uplands to and from the adjacent wetland.

Flag numbers WF-1H through WF-7H delineate a small forested wetland in the southeast property corner. This wetland has formed in a depressed area due to persistent wetness from the shallow seasonal water tables.

Flag numbers WF-1K through WF-16K delineate a potential vernal pool in the western portion of the property that has formed in a depression in the topography. On the dates of the delineation, (October 5th-14th, 2021), this area was inundated.

Flag numbers WF-1L through WF-14L delineate a small forested wetland and intermittent watercourse adjacent to the "B" series watercourse in the northwest portion of the property. This wetland and watercourse have formed from seasonal groundwater breakout.

These wetlands and watercourses have formed from the persistent wetness from the high seasonal water tables, perched water tables trapped by ledge or compact till horizons and surface runoff.

The typical hydric soils found in these wetlands are characterized by thick organic topsoil horizons, shallow redoximorphic features and low chroma colors within 20 inches of the soil surface.

If you have any questions concerning the delineation or this report, please feel free to contact me.

Thank you,

Joseph R. Theroux

Joseph R. Theroux
Certified Soil Scientist
Member SSSSNE, NSCSS, SSSA.

Provost & Rovero, Inc.

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P.O. Box 191
57 East Main Street
Plainfield, CT 06374

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www.prorovinc.com

December 16, 2022

Town of Putnam
Inland Wetlands Commission
Attention: Bruce Fitzback, Land Use Agent
200 School Street
Putnam, CT 06260

**RE: 285 River Road & 357 River Road – Proposed 11 Lot Resubdivision – Putnam, CT
P&R Job No. 203095**

Dear Mr. Fitzback:

Attached please find three copies of revised plans for the above referenced project. The plan revisions have been prepared to address comments and concerns raised during the November 30, 2022 public hearing about the proposed temporary bridge crossing of Carpenter Brook and are summarized as follows:

1. The “Excavation Sequence of Operations” notes on sheet 16 (note #5) have been revised to better clarify that access for installation of the temporary bridge over Carpenter Brook may be provided from both sides of the bridge for the necessary construction. Reference is also made to specific bridge construction notes on sheet 17.
2. Specific bridge construction and removal notes have been added to sheet 17 requiring the completion of construction and removal without equipment operations or other direct impacts within wetlands. Stabilization and restoration requirements following removal are also specified.
3. The proposed bridge span has been increased by 10’ to provide 40’ between abutment faces. This will provide additional construction space without potential intrusion into the wetlands. The increased span will also minimize the necessary excavation and filling for installation of the abutment blocks.
4. The longitudinal bridge section and construction and removal notes specify staked straw wattles for temporary erosion and sedimentation control during construction. Inspection opportunities and requirements for the town’s wetlands agent have also been included.

If you have any questions or need additional information, please do not hesitate to contact us at your convenience.

Sincerely,



David J. Held, P.E., L.S.
Provost & Rovero, Inc.

Provost & Rovero, Inc.

Civil Engineering • Surveying • Site Planning • Structural • Mechanical • Architectural Engineering

P.O. Box 191
57 East Main Street
Plainfield, CT 06374

Telephone (860) 230-0856
Fax (860) 230-0860
www.prorovinc.com

December 19, 2022

Town of Putnam
Inland Wetlands Commission
Attention: Bruce Fitzback, Land Use Agent
200 School Street
Putnam, CT 06260

**RE: 285 River Road & 357 River Road – Proposed 11 Lot Resubdivision – Putnam, CT
P&R Job No. 203095**

Dear Mr. Fitzback:

Attached please find three copies of plans depicting alternate access proposals for the excavation of Phase 1. These alternate plans are being provided in response to discussion at the November 30, 2022 public hearing. A brief summary of each alternate is provided below.

Alternate Plan No. 1

Alternate Plan No. 1 depicts in red a temporary haul road from River Road through the proposed Phase 2 excavation area and contemplates an at grade crossing of Carpenter Brook utilizing timber swamp mats. This at grade crossing would be installed along the alignment of the existing woods road and at grade stream crossing. Upon consideration, this alternate design was rejected due to both the initial direct wetland impact and the possibility of additional impact caused by the on-going maintenance and eventual removal of the timber mat system.

Alternate Plan No. 2

Alternate Plans No. 2-1 and 2-2 depict in red a temporary haul road from River Road along the northerly boundary of Lot 7 adjacent to the McMorris property. This road alignment was chosen to optimize sightlines for truck traffic entering and exiting River Road. Upon consideration, this alternate design was rejected due to the potential for increased impact from truck traffic to both the McMorris property and any other traffic utilizing this section of River Road.

Alternate Plan No. 3

Alternate Plan No. 3 is the previously proposed temporary bridge crossing of Carpenter Brook as shown on the project plans revised 7/29/2022. This previously proposed temporary bridge has a clear span of 30' and accomplishes the crossing of Carpenter Brook with no direct wetland impacts. Upon consideration, this alternate design was ultimately rejected in favor of Alternate No. 4 described below because the applicant has the ability to modify the bridge to provide an increased span and therefore a greater buffer to the wetland resource.

Alternate Plan No. 4

Alternate Plan No. 4 is the current proposal to cross Carpenter Brook with a temporary bridge. This alternate was chosen as a modification of Alternate No. 3 because it provides an increased buffer to the wetland

resource with a 40' clear span. The amount of grading necessary for the bridge approaches is also reduced with this design.

If you have any questions or need additional information, please do not hesitate to contact us at your convenience.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. J. Held", written over a large, stylized capital "D".

David J. Held, P.E., L.S.
Provost & Rovero, Inc.

EROSION AND SEDIMENT CONTROL PLAN: REFERENCE IS MADE TO: 1. Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines). 2. Soil Survey of Connecticut, N.R.C.S. SILT FENCE INSTALLATION AND MAINTENANCE: 1. Dig a 6" deep trench on the uphill side of the barrier location. 2. Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground. 3. Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill. 4. Inspect and repair barrier after heavy rainfall. 5. Inspections will be made at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs. 6. Sediment deposits are to be removed when they reach a height of 1 foot behind the barrier or half the height of the barrier and are to be deposited in an area which is not regulated by the inland wetlands commission. 7. Replace or repair the fence within 24 hours of observed failure. Failure of the fence has occurred when sediment fails to be retained by the fence because: – the fence has been overtopped, undercut or bypassed by runoff water, – the fence has been moved out of position (knocked over), or – the geotextile has decomposed or been damaged. HAY BALE INSTALLATION AND MAINTENANCE: 1. Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other. 2. Each bale shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from passing between the bales. 3. Inspect bales at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. 4. Remove sediment behind the bales when it reaches half the height of the bale and deposit in an area which is not regulated by the Inland Wetlands Commission. 5. Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because: – the barrier has been overtopped, undercut or bypassed by runoff water, – the barrier has been moved out of position, or – the hay bales have deteriorated or been damaged. TEMPORARY VEGETATIVE COVER: SEED SELECTION Grass species shall be appropriate for the season and site conditions. Appropriate species are outlined in Figure TS-2 in the 2002 Guidelines. TIMING CONSIDERATIONS Seed with a temporary seed mixture within 7 days after the suspension of grading work in disturbed areas where the suspension of work is expected to be more than 30 days but less than 1 year. SITE PREPARATION Install needed erosion control measures such as diversions, grade stabilization structures, sediment basins and grossed waterways. Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. SEEDBED PREPARATION Loosen the soil to a depth of 3–4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, disking, harrowing, raking or dragging with a section of chain link fence. Avoid excessive compaction of the surface by equipment traveling back and forth over the surface. If the slope is tracked, the cleat marks shall be perpendicular to the anticipated direction of the flow of surface water. If soil testing is not practical or feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10–10–10 or equivalent. Additionally, lime may be applied using rates given in Figure TS-1 in the 2002 Guidelines. SEEDING Apply seed uniformly by hand cyclone seeder, drill, cultipacker type seeder or hydroseeder at a minimum rate for the selected species. Increase seeding rates by 10% when hydroseeding. MULCHING Temporary seedings made during optimum seeding dates shall be mulched according to the recommendations in the 2002 Guidelines. When seeding outside of the recommended dates, increase the application of mulch to provide 95%–100% coverage. MAINTENANCE Inspect seeded area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion. Where seed has moved or where soil erosion has occurred, determine the cause of the failure. Repair eroded areas and install additional controls if required to prevent recurrence of erosion. Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover). PERMANENT VEGETATIVE COVER: Refer to Permanent Seeding Measure in the 2002 Guidelines for specific applications and details related to the installation and maintenance of a permanent vegetative cover. In general, the following sequence of operations shall apply: 1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a uniform depth approximating existing conditions on imported silt or suitable on-site materials. 2. Apply agricultural ground limestone. Apply fertilizer. Quantities shall be determined based on laboratory soil tests. Work lime and fertilizer into the soil to a depth of 4". 3. Inspect seedbed before seeding. If traffic has compacted the soil, retille compacted areas. 4. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 – October 1. 5. Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch. EROSION AND SEDIMENT CONTROL NARRATIVE: PRINCIPLES OF EROSION AND SEDIMENT CONTROL The primary function of erosion and sediment controls is to absorb erosional energies and reduce runoff velocities that force the detachment and transport of soil and/or encourage the deposition of eroded soil particles before they reach any sensitive area. KEEP LAND DISTURBANCE TO A MINIMUM The more land that is in vegetative cover, the more surface water will infiltrate into the soil, thus minimizing stormwater runoff and potential erosion. Keeping land disturbance to a minimum not only involves minimizing the extent of exposure at any one time, but also the duration of exposure. Phasing, sequencing and construction scheduling are interrelated. Phasing divides a large project into distinct sections where construction work over a specific area occurs over distinct periods of time and each phase is not dependent upon a subsequent phase in order to be functional. A sequence is the order in which construction activities are to occur during any particular phase. A sequence should be developed on the premise of "first things first" and "last things last" with proper attention given to the inclusion of adequate erosion and sediment control measures. A construction schedule is a sequence with time lines applied to it and should address the potential overlap of actions in a sequence which may be in conflict with each other. – Limit areas of clearing and grading. Protect natural vegetation from construction equipment with fencing, tree armoring, and retaining walls or tree wells. – Route traffic patterns within the site to avoid existing or newly planted vegetation. – Phase construction so that areas which are actively being developed at any one time are minimized and only that area under construction is exposed. Clear only those areas essential for construction. – Sequence the construction of storm drainage systems so that they are operational as soon as possible during construction. Ensure all outlets are stable before outletting storm drainage flow into them. – Schedule construction so that final grading and stabilization is completed as soon as possible. SLOW THE FLOW Detachment and transport of eroded soil must be kept to a minimum by absorbing and reducing the erosive energy of water. The erosive energy of water increases as the volume and velocity of runoff increases. The volume and velocity of runoff increases during development as a result of reduced infiltration rates caused by the removal of existing vegetation, removal of topsoil, compaction of soil and the construction of impervious surfaces. – Use diversions, stone dikes, silt fences and similar measures to break flow lines and dissipate storm water energy. – Avoid diverting one drainage system into another without calculating the potential for downstream flooding or erosion. KEEP CLEAN RUNOFF SEPARATED Clean runoff should be kept separated from sediment laden water and should not be directed over disturbed areas without additional controls. Additionally, prevent the mixing of clean off-site generated runoff with sediment laden runoff generated on-site until after adequate filtration of on-site waters has occurred. – Segregate construction waters from clean water. – Divert site runoff to keep it isolated from wetlands, watercourses and drainage ways that flow through or near the development until the sediment in that runoff is trapped or detained. REDUCE ON SITE POTENTIAL INTERNALLY AND INSTALL PERIMETER CONTROLS While it may seem less complicated to collect all waters to one point of discharge for treatment and just install a perimeter control, it can be more effective to apply internal controls to many small sub-drainage basins within the site. By reducing sediment loading from within the site, the chance of perimeter control failure and the potential off-site damage that it can cause is reduced. It is generally more expensive to correct off-site damage than it is to install proper internal controls. – Control erosion and sedimentation in the smallest drainage area possible. It is easier to control erosion than to contend with sediment after it has been carried downstream and deposited in unwanted areas. – Direct runoff from small disturbed areas to adjoining undisturbed vegetated areas to reduce the potential for concentrated flows and increase settlement and filtering of sediments. – Concentrated runoff from development should be safely conveyed to stable outlets using rip rapped channels, waterways, diversions, storm drains or similar measures. – Determine the need for sediment basins. Sediment basins are required on larger developments where major grading is planned and where it is impossible or impractical to control erosion at the source. Sediment basins are needed on large and small sites when sensitive areas such as wetlands, watercourses, and streets would be impacted by off-site sediment deposition. Do not locate sediment basins in wetlands or permanent or intermittent watercourses. Sediment basins should be located to intercept runoff prior to its entry into the wetland or watercourse. – Grade and landscape around buildings and septic systems to divert water away from them. EXCAVATION NOTES: 1. No blasting or on-site processing is anticipated for completion of the work shown. If blasting is required, the owner is responsible for obtaining all necessary permits. 2. The emergency contact for operations at this site is Jeffrey Rawson (860) 428-7110. A different emergency contact may be designated if operations are conducted by a different party. 3. The allowable hours of operation shall be 7:00 AM to 4:30 PM, Monday through Friday and 7:00 AM to 12:00 noon on Saturday. No operations shall be allowed on Sundays, Christmas, New Years Day, Memorial Day, Fourth of July, Labor Day and Thanksgiving except by special permission of the Putnam Zoning Commission or its designated agent. 4. The owner and/or site operator shall provide adequate dust control to prevent any off-site nuisance. The preferred dust control measure is the application of water to vehicular travel areas. 5. The owner/operator shall install any necessary barricades or barriers to provide protection around the perimeter of open excavation faces and steep slopes. 6. Excavation operations shall be completed in accordance with all appropriate Mine Safety & Health Administration (MSHA) rules and regulations. 7. The proposed excavation shown hereon is anticipated to be completed over the course of several years. The total amount of material to be excavated per the proposed grades shown hereon is approximately 385,000 CY. All useable material excavated will be transported off-site for processing and/or consumer sales. Over excavation of suitable material within the limits of disturbance and limits of excavation shown hereon is allowable. Over excavation shall not include the blasting or removal of ledge rock. Silt from off-site aggregate washing and processing shall be imported as necessary to establish final subgrade elevations. 8. The site operator is responsible for determining the most appropriate means and methods for excavating material in the applicable phases. In general, excavation shall begin with stripping and stockpiling of topsoil and subsoil which will be utilized for site restoration. Removal of material should begin with a dewatering technique to ensure complete internal drainage with the disturbed area (bowl effect). 9. The entire site, including the active excavation area shall be maintained in a self-contained condition to prevent the discharge of sediment laden stormwater to undisturbed areas, Carpenter Brook, adjacent properties or wetlands. 10. All trucks leaving the site shall have the loads covered. 11. No stumps, trimmings, brush or other deleterious materials shall be buried on site. All such materials shall be chipped for use in site restoration or shall be properly disposed of at an off site facility. EXCAVATION SEQUENCE OF OPERATIONS: 1. Limits of clearing/disturbance for Phase 1 excavation shall be field staked or flagged by a licensed land surveyor. 2. Contact CALL BEFORE YOU DIG at 1-800-922-4455 to verify the location of underground utilities prior to the start of any ground disturbance. 3. Clear and grub trees for the Phase 1 excavation area, temporary gravel haul road and temporary bridge. 4. Install the temporary gravel haul road to the temporary bridge location. 5. Install the temporary bridge. At the option of the site operator/contractor, temporary access to the bridge site may be provided through Lots 6 and 7 to allow construction from both sides. See Bridge Construction Notes on Detail Sheet No. 2. 6. Install the remainder of the temporary gravel haul road to the Phase 1 excavation area. 7. Install silt fence at the down gradient limits of the Phase 1 excavation area perimeter. 8. Strip topsoil and subsoil. An adequate quantity of topsoil and subsoil shall be stockpiled on the site for final restoration. Stockpiles should be within the approved limits of excavation and shall be protected with perimeter erosion controls and/or temporary seeding as required. 9. Begin excavation by dewatering the entire Phase 1 area to an elevation approximately 2' above the water table. 10. Excavate the northerly portion of Phase 1 to the proposed final elevation and then backfill to the proposed final subgrade elevation. Subgrade elevations shall allow for containment during dewatering of excavated materials. 11. Excavate the southerly portion of Phase 1 to the proposed final elevations. Side slopes and the area adjacent to property boundaries shall be backfilled as required to establish proposed grades. 12. Loam and seed disturbed areas and side slopes to establish permanent vegetative cover. See Restoration Notes below for additional details. 13. Upon the establishment of permanent vegetative stabilization of Phase 1, the temporary bridge shall be removed. Any disturbed areas remaining after removal of the bridge should be stabilized with loam, seed and permanent vegetation. Erosion control blankets shall be utilized for the stabilization of stream channel banks adjacent to Carpenter Brook. The gravel haul road shall be abandoned in place. 14. Limits of clearing/disturbance for Phase 2 excavation shall be field staked or flagged by a licensed land surveyor. 15. Contact CALL BEFORE YOU DIG at 1-800-922-4455 to verify the location of underground utilities prior to the start of any ground disturbance. 16. Clear and grub trees for the excavation of Phase 2. 17. Demolish the existing house, remove electrical utilities, abandon the well and remove the existing septic system. Abandonment of the well shall be coordinated with the installation of a new well to serve 285 River Road. 18. Install silt fence at the down gradient limits of the Phase 2 excavation area perimeter. 19. Strip topsoil and subsoil. An adequate quantity of topsoil and subsoil shall be stockpiled on the site for final restoration. Stockpiles should be within the approved limits of excavation and shall be protected with perimeter erosion controls and/or temporary seeding as required. 20. Begin excavation by dewatering the entire Phase 2 area to an elevation approximately 2' above the water table. 21. Excavate the northerly portion of Phase 2 to the proposed final elevation and then backfill to the proposed final subgrade elevation. Subgrade elevations shall allow for containment during dewatering of excavated materials. 22. Excavate the southerly portion of Phase 2 to the proposed final elevations. Side slopes and the area adjacent to property boundaries shall be backfilled as required to establish proposed grades. 23. Loam and seed disturbed areas and side slopes to establish permanent vegetative cover. See Restoration Notes below for additional details. 24. Temporary erosion and sediment controls shall be removed after the establishment of permanent vegetative cover. RESTORATION NOTES: 1. Restoration of disturbed areas shall take place following the completion of excavation or other work. Sufficient restoration bonding should be maintained as required by the Town to cover the restoration cost for disturbed/open site areas. 2. Final restoration shall begin with establishing the required subgrade elevations. Proposed grades shown are approximate and may be adjusted to match field conditions at the time of restoration. In general, all disturbed slopes shall be graded to a 3H:1V maximum gradient. 3. Prepare the restoration area by spreading a 12" min. thickness (compacted) layer of silt or washing fines. 4. Complete restoration by spreading on-site stockpiled topsoil to an approximate minimum thickness of 4" (compacted) and seeding for a permanent vegetative cover. On-site topsoil stockpiles may be supplemented with composted organic matter, wood chips and imported topsoil as necessary to provide a suitable planting medium. 5. Spread seed for a permanent vegetative cover over the prepared restoration area. The permanent vegetative cover may be a suitable wildlife habitat mix or the following mixture which is suitable for use in all locations: <table><tr><th>Variety</th><th>Lbs/Acre</th></tr><tr><td>Switchgrass (Blackwell, Shelter, Cave-in-rock)</td><td>4.0</td></tr><tr><td>Big Bluestem (Niagra, Kaw)</td><td>4.0</td></tr><tr><td>Little Bluestem (Blaze, Aldous, Camper)</td><td>2.0</td></tr><tr><td>Sand Lovegrass (NE-27, Bend)</td><td>1.5</td></tr><tr><td>Bird's-foot Trefoil (Empire, Viking)</td><td>2.0</td></tr><tr><td>TOTAL T3.5</td><td></td></tr></table> <table><tr><th>Variety</th><th>Lbs/Acre</th></tr><tr><td>Switchgrass (Blackwell, Shelter, Cave-in-rock)</td><td>4.0</td></tr><tr><td>Big Bluestem (Niagra, Kaw)</td><td>4.0</td></tr><tr><td>Little Bluestem (Blaze, Aldous, Camper)</td><td>2.0</td></tr><tr><td>Sand Lovegrass (NE-27, Bend)</td><td>1.5</td></tr><tr><td>Bird's-foot Trefoil (Empire, Viking)</td><td>2.0</td></tr><tr><td>TOTAL T3.5</td><td></td></tr></table> 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LOT 1	Depth to restrictive layer = 31 in.
TP 1-3, 1-4, 1-5	Slope % = 11.8 %
Depth to restrictive layer = 27 in.	Number of Bedrooms = 3
Slope % = 2.8 %	Percolation rate = 6.6 min/in
Number of Bedrooms = 3	Max. depth into exist. grade = 11 in.
Percolation rate = 4.6 min/in	System Size = 495 s.f.
Max. depth into exist. grade = 0 in.	
System Size = 495 s.f.	
Hydraulic Factor = 42	Hydraulic Factor = 20
Flow Factor = 1.50	Flow Factor = 1.50
Perc Factor = 1.00	Perc Factor = 1.00
	20 x 1.50 x 1.00 = 30.0'
42 x 1.50 x 1.00 = 63.0'	
MLSS = 63.0'	MLSS = 30.0'

LOT 2
 TP 2-1, 2-2
 Depth to restrictive layer = 29 in.
 Slope % = 9.5 %
 Number of Bedrooms = 3
 Percolation rate = 2.8 min/in
 Max. depth into exist. grade = 1 in.
 System Size = 495 s.f.

 Hydraulic Factor = 26
 Flow Factor = 1.50
 Perc Factor = 1.00

 $26 \times 1.50 \times 1.00 = 39.0'$

 MLSS = 39.0'

LOT 3
 TP 3-1, 3-2
 Depth to restrictive layer = 26 in.
 Slope % = 2.5 %
 Number of Bedrooms = 3
 Percolation rate = 3.2 min/in
 Max. depth into exist. grade = 2 in.
 System Size = 495 s.f.
 Hydraulic Factor = 48
 Flow Factor = 1.50
 Perc Factor = 1.00
 $48 \times 1.50 \times 1.00 = 72.0'$
 MLSS = 72.0'

LOT 4
 TP 4-1, 4-3
 Depth to restrictive layer = 28 in.
 Slope % = 1.1 %
 Number of Bedrooms = 3
 Percolation rate = 4.6 min/in
 Max. depth into exist. grade = 2 in.
 System Size = 495 s.f.

 Hydraulic Factor = 49
 Flow Factor = 1.50
 Perc Factor = 1.00

 $49 \times 1.50 \times 1.00 = 73.5'$

 MLSS = 73.5'

LOT 5
 TP 5-1, 5-2
 Depth to restrictive layer = 30 in.
 Slope % = 1.1 %
 Number of Bedrooms = 3
 Percolation rate = 3.0 min/in
 Max. depth into exist. grade = 1 in.
 System Size = 495 s.f.

 Hydraulic Factor = 49
 Flow Factor = 1.50
 Perc Factor = 1.00

 $49 \times 1.50 \times 1.00 = 73.5'$

 MLSS = 73.5'

LOT 6
TP 7-1, 7-3
Depth to restrictive layer = 72 in.
Slope % = 2.4 %
Number of Bedrooms = 3
Percolation rate = 5.7 min/in
Max. depth into exist. grade = 24 in.
System Size = 495 s.f.

MLSS is not applicable

LOT 7
 TP 8-1, 8-2
 Slope to restrictive layer = 30 in.
 Slope % = 1.2 %
 Number of Bedrooms = 3
 Percolation rate = 2.8 min/in
 Max. depth into exist. grade = 6 in.
 System Size = 495 s.f.

 Hydraulic Factor = 49
 Flow Factor = 1.50
 Perc Factor = 1.00

 $49 \times 1.50 \times 1.00 = 73.5'$

 MLSS = 73.5'

LOT 8
 TP 9-3, 9-4
 Depth to restrictive layer = 31 in.
 Slope % = 11.8 %
 Number of Bedrooms = 3
 Percolation rate = 6.6 min/in
 Max. depth into exist. grade = 11 in.
 System Size = 495 s.f.

 Hydraulic Factor = 20
 Flow Factor = 1.50
 Perc Factor = 1.00

 $20 \times 1.50 \times 1.00 = 30.0'$

 MLSS = 30.0'

LOT 9
 TP 10-6, 10-7, 10-8
 Depth to restrictive layer = 28 in.
 Slope % = 5.7 %
 Number of Bedrooms = 3
 Percolation rate = 9.6 min/in
 Max. depth into exist. grade = 8 in.
 System Size = 495 s.f.
 Hydraulic Factor = 30
 Flow Factor = 1.50
 Perc Factor = 1.00
 30 x 1.50 x 1.00 = 45.0'
 MLSS = 45.0'

LOT 10
 TP 11-1, 11-2
 Depth to restrictive layer = 28 in.
 Slope % = 5.3 %
 Number of Bedrooms = 3
 Percolation rate = 8.0 min/in
 Max. depth into exist. grade = 5 in.
 System Size = 495 s.f.

 Hydraulic Factor = 30
 Flow Factor = 1.50
 Perc Factor = 1.00

 $30 \times 1.50 \times 1.00 = 45.0'$

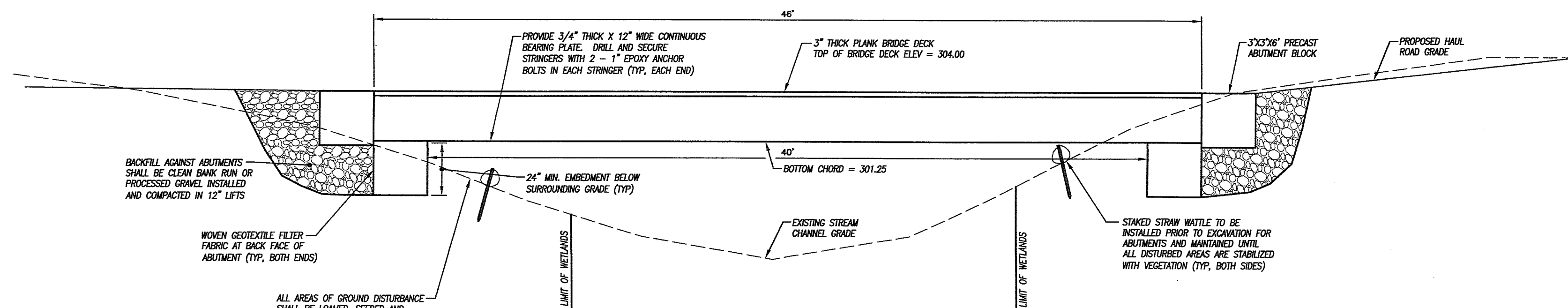
 MLSS = 45.0'

LOT 11
 TP 12-1, 12-2
 Depth to restrictive layer = 25 in.
 Slope % = 8.9 %
 Number of Bedrooms = 3
 Percolation rate = 8.0 min/in
 Max. depth into exist. grade = 6 in.
 System Size = 495 s.f.

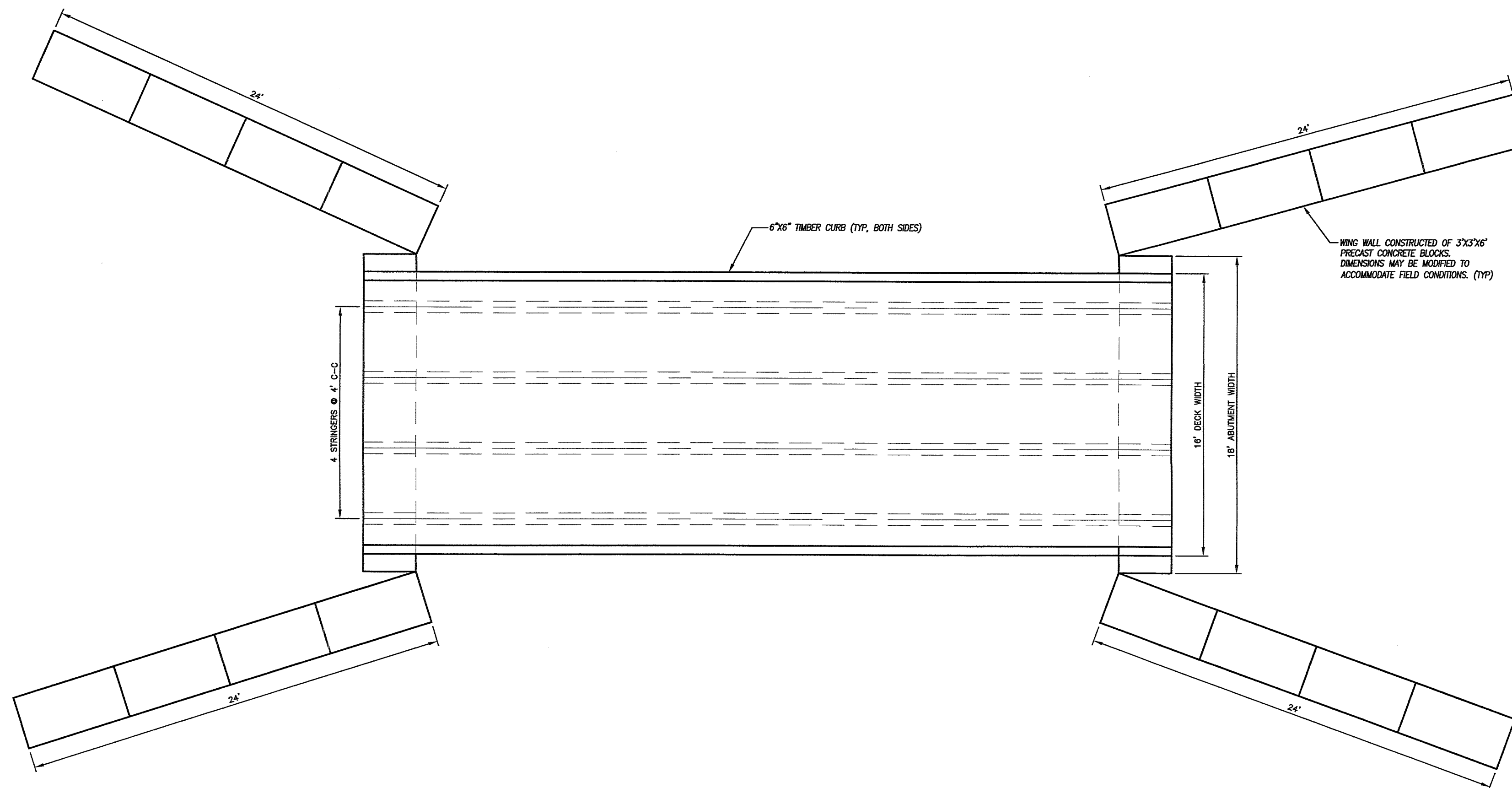
 Hydraulic Factor = 28
 Flow Factor = 1.50
 Perc Factor = 1.00

 $28 \times 1.50 \times 1.00 = 42.0'$

 MLSS = 42.0'

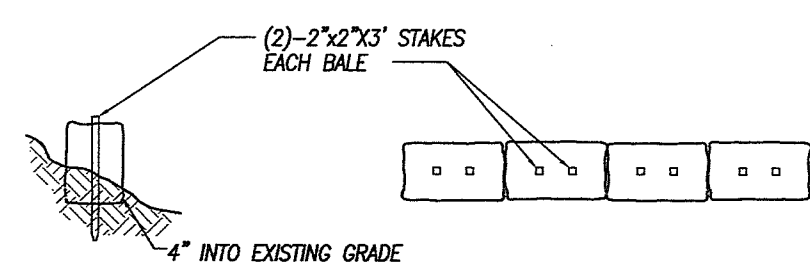


SCALE: 1" = 5'

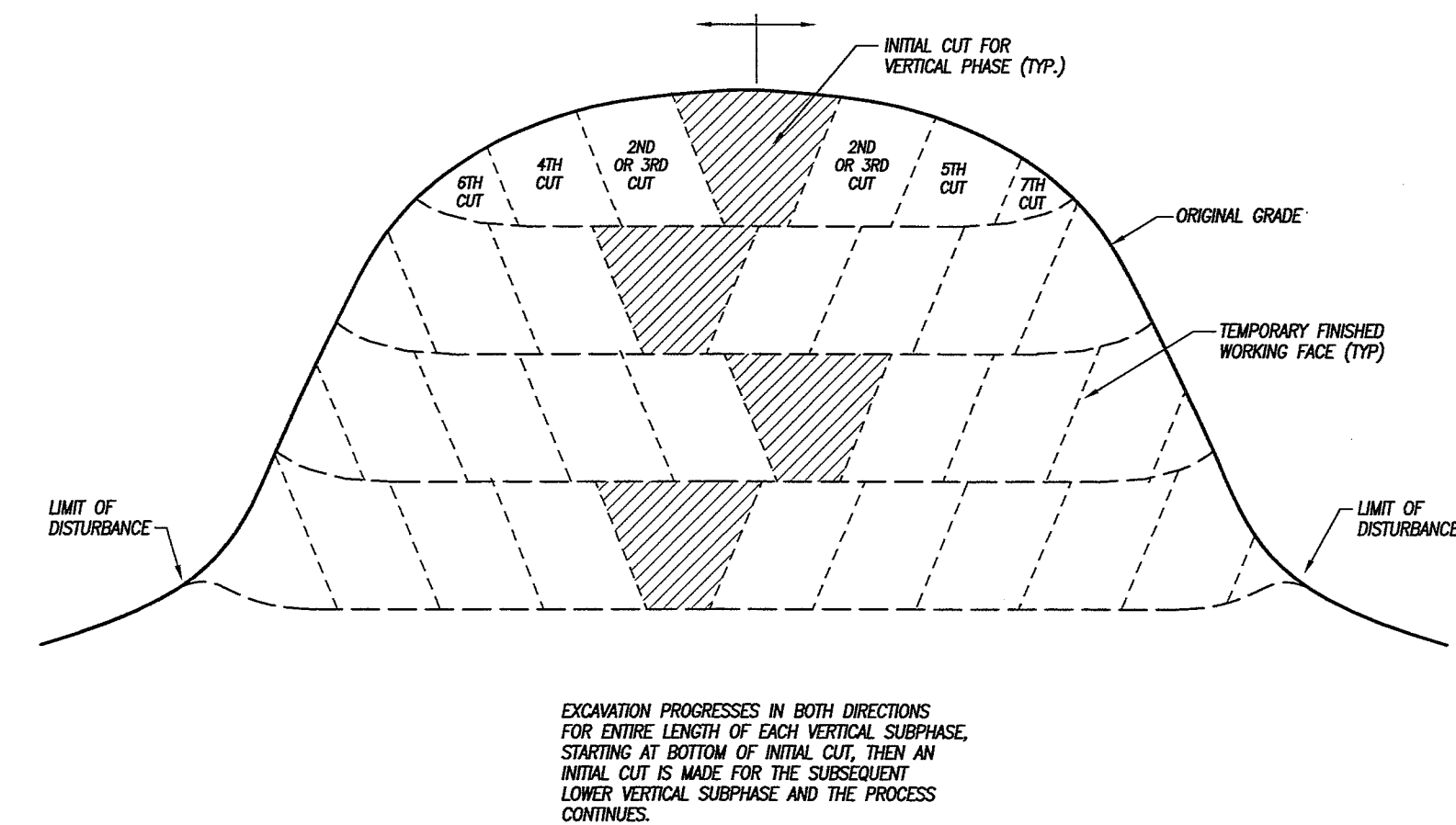


SCALE: 1" = 5'

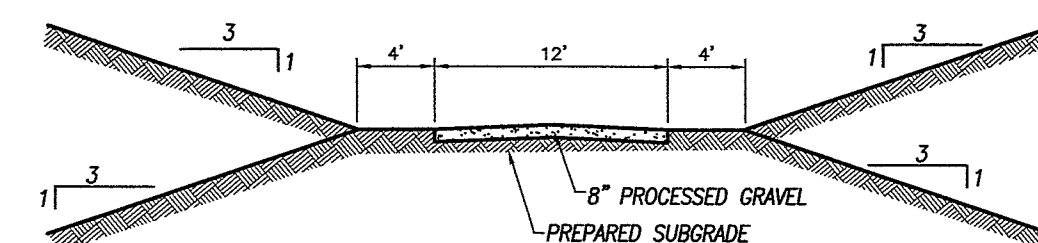
1. The bridge shall be installed without operating equipment within wetlands or watercourses. Temporary access to the construction area shall be provided through Lots 6 and 7 if necessary to accomplish the bridge construction.
2. The bridge shall be installed during a period of low flow in Carpenter Brook.
3. All materials necessary for construction of the bridge abutments shall be staged on site to allow for expeditious completion of abutments.
4. Prior to starting bridge construction, the contractor shall verify that whether forecasts do not anticipate significant precipitation events for a one week period to allow for substantial completion of the bridge prior to a significant precipitation event.
5. Staked straw wattles shall be installed at the limits of disturbance prior to any ground disturbance. The Putnam Wetlands Agent shall be notified when wattles have been installed and shall be given 24 hours for inspection of the installation prior to any additional work on the bridge. Wattles shall be maintained until disturbed areas are stabilized with vegetation.
6. Immediately after installation of abutment blocks, all disturbed areas shall be stabilized with loam, seed, mulch and temporary erosion control blankets.
7. At the completion of restoration operations in the Phase 1 excavation area and certification from the Putnam Wetlands Agent and Putnam Zoning Agent that no additional work is required, the bridge shall be removed. Removal work should be done during a period of low flow in Carpenter Brook. Removal work shall also be coordinated with scheduled seeding dates to allow for rapid establishment of permanent vegetation following removal.
8. Prior to the start of bridge removal work, staked straw wattles shall be installed at the limits of any anticipated ground disturbance. Wattles shall be maintained until all disturbed areas are permanently stabilized with vegetation. The Putnam Wetlands Agent shall be notified when wattles have been installed and shall be given 24 hours for inspection of the installation prior to any additional removal work.
9. No equipment shall be operated within wetlands or watercourses for removal of the bridge.
10. After abutment blocks have been removed, the resulting voids shall be backfilled with compacted clean fill and all disturbed areas shall be stabilized with 6" of topsoil, seed and mulch. See Restoration Notes on Detail Sheet No. 1 for seed mix requirements. Seeded areas shall be protected with temporary erosion control blankets.



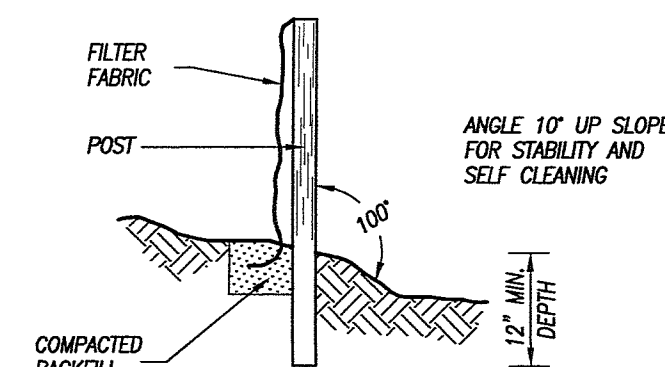
HAYBALE BARRIER



NOT TO SCALE



NOT TO SCALE



SILT FENCE
NOT TO SCALE

PREPARED FOR

285 RIVER ROAD, LLC &
PUTNAM RIVER ROAD, L.L.C.

RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

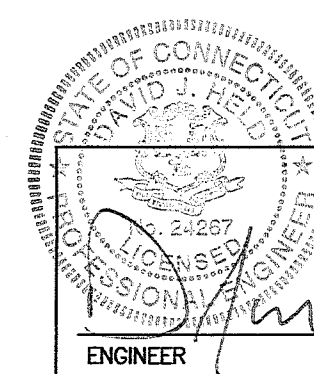
Provost & Rovero, Inc.

**Civil Engineering • Surveying • Site Planning
Structural • Mechanical • Architectural Engineering**

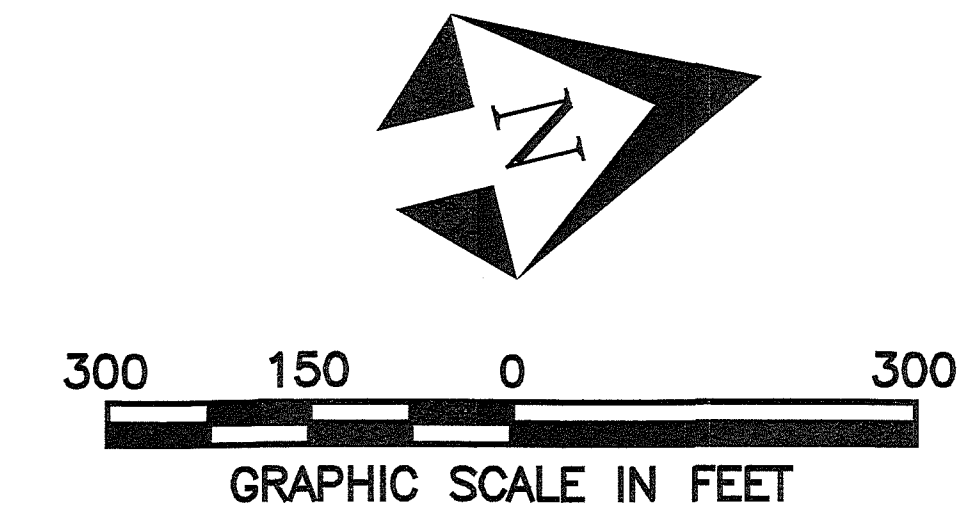
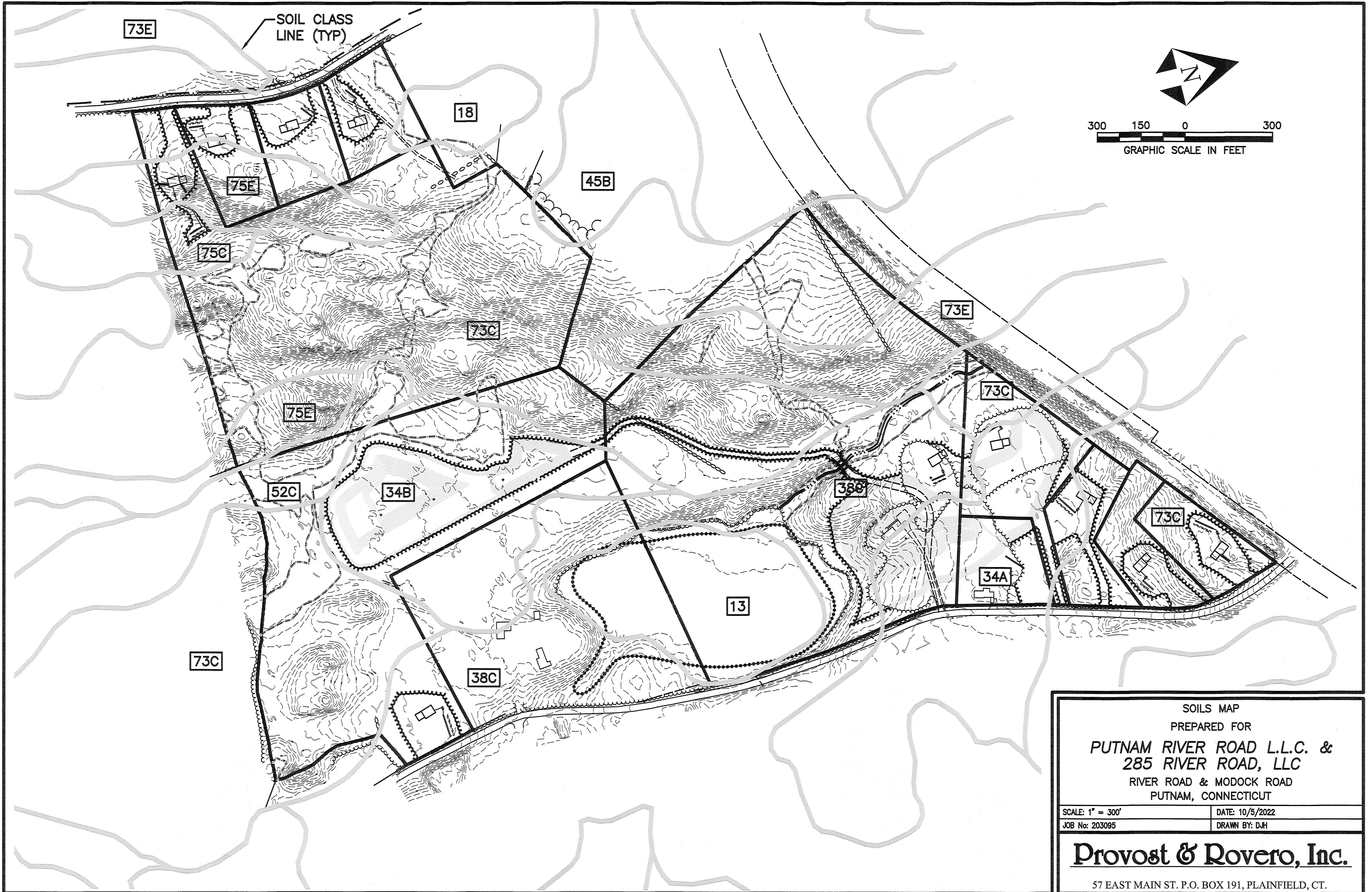
57 East Main Street, P.O. Box 191
Plainfield, Connecticut 06374
(860) 230-0856 - FAX: (860) 230-0860
info@prorovinc.com
www.prorovinc.com

REVISIONS	
DATE	DESCRIPTION
7/29/2022	MISC. REVISIONS
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS

DATE: 6/29/2022	DRAWN: DJH
SCALE: AS SHOWN	CHK: DJH
SHEET: 17 OF 17	DESIGN BY: ---
DWG. No: Client File	JOB No: 203095



C:\Users\Dave\Desktop\JOBS\203095\Drawings\SOILS MAP.dwg Nov 30, 2022 - 12:06 PM



SOILS MAP
PREPARED FOR
**PUTNAM RIVER ROAD L.L.C. &
285 RIVER ROAD, LLC**
RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

SCALE: 1" = 300'	DATE: 10/5/2022
JOB No: 203095	DRAWN BY: DJH

Provost & Rovero, Inc.
57 EAST MAIN ST. P.O. BOX 191, PLAINFIELD, CT.

1. Surficial material lines are taken from GIS data provided by the CT DEEP and are based on "Surficial Materials Map of Connecticut - 1992 - U.S. Geological Survey".



Til

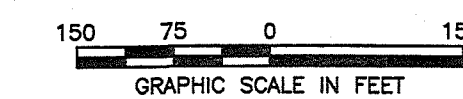
SG

Sand and Gravel

—SURFICIAL MATERIAL
CLASS LINE (TYP)

SG/S/F

Sand and Gravel overlying Sand overlying Fines

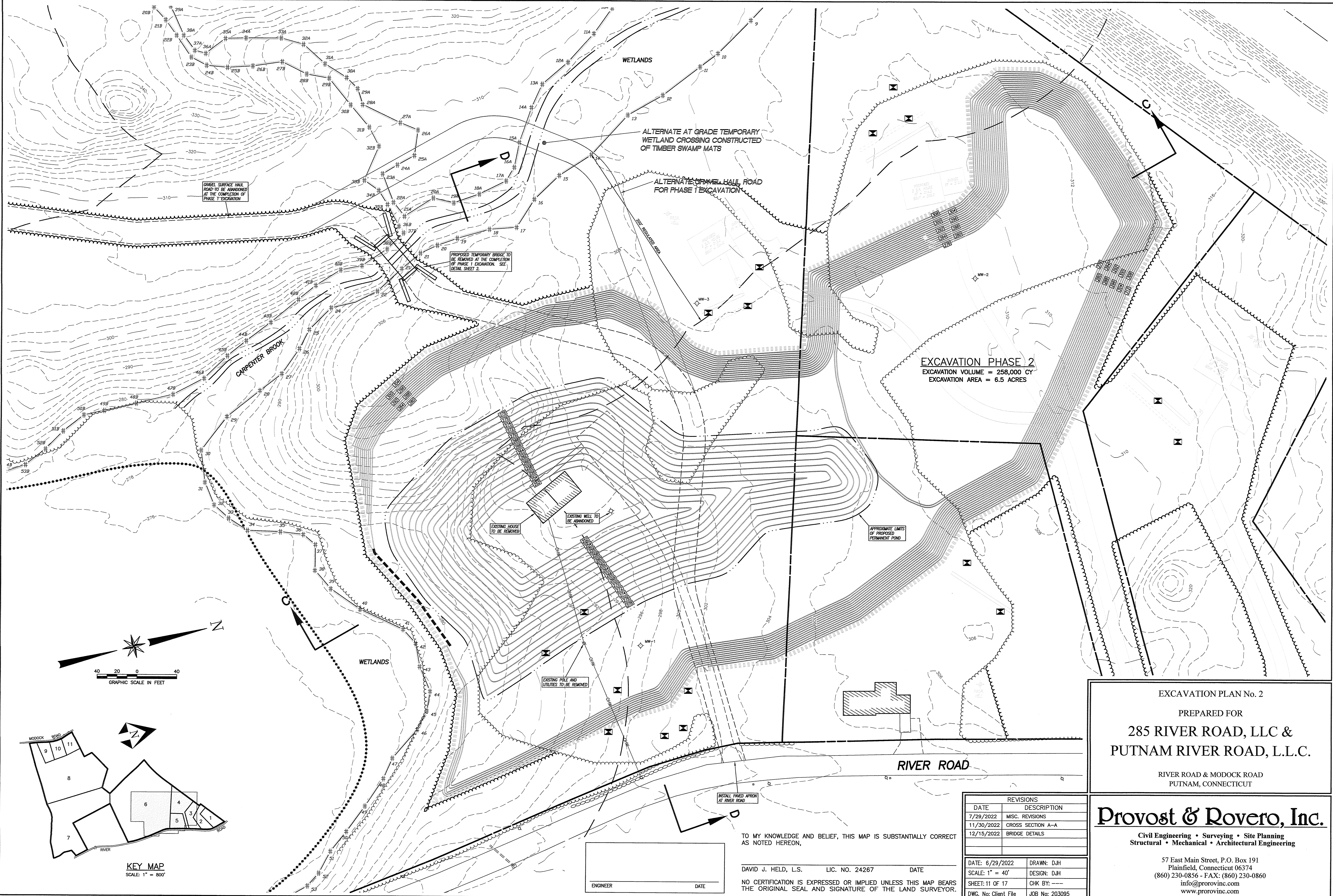


REVISIONS	
DATE	DESCRIPTION

DATE: 10/5/2022	DRAWN: DJH
SCALE: 1" = 150'	DESIGN: ---
SHEET: 1 OF 1	CHK BY: ---
DWG. No: Client File	JOB No: 203095

RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

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Plainfield, Connecticut 06374
(860) 230-0856 - FAX: (860) 230-0860
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www.prorovinc.com



EXCAVATION PLAN No. 2

PREPARED FOR

**285 RIVER ROAD, LLC &
PUTNAM RIVER ROAD, L.L.C.**

RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

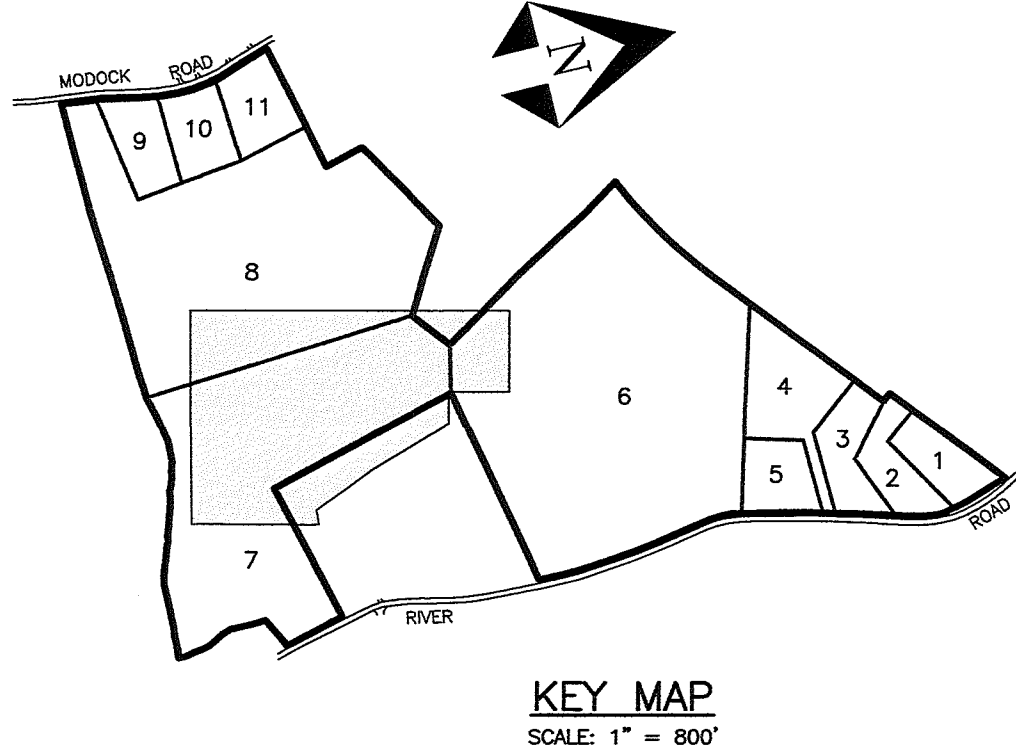
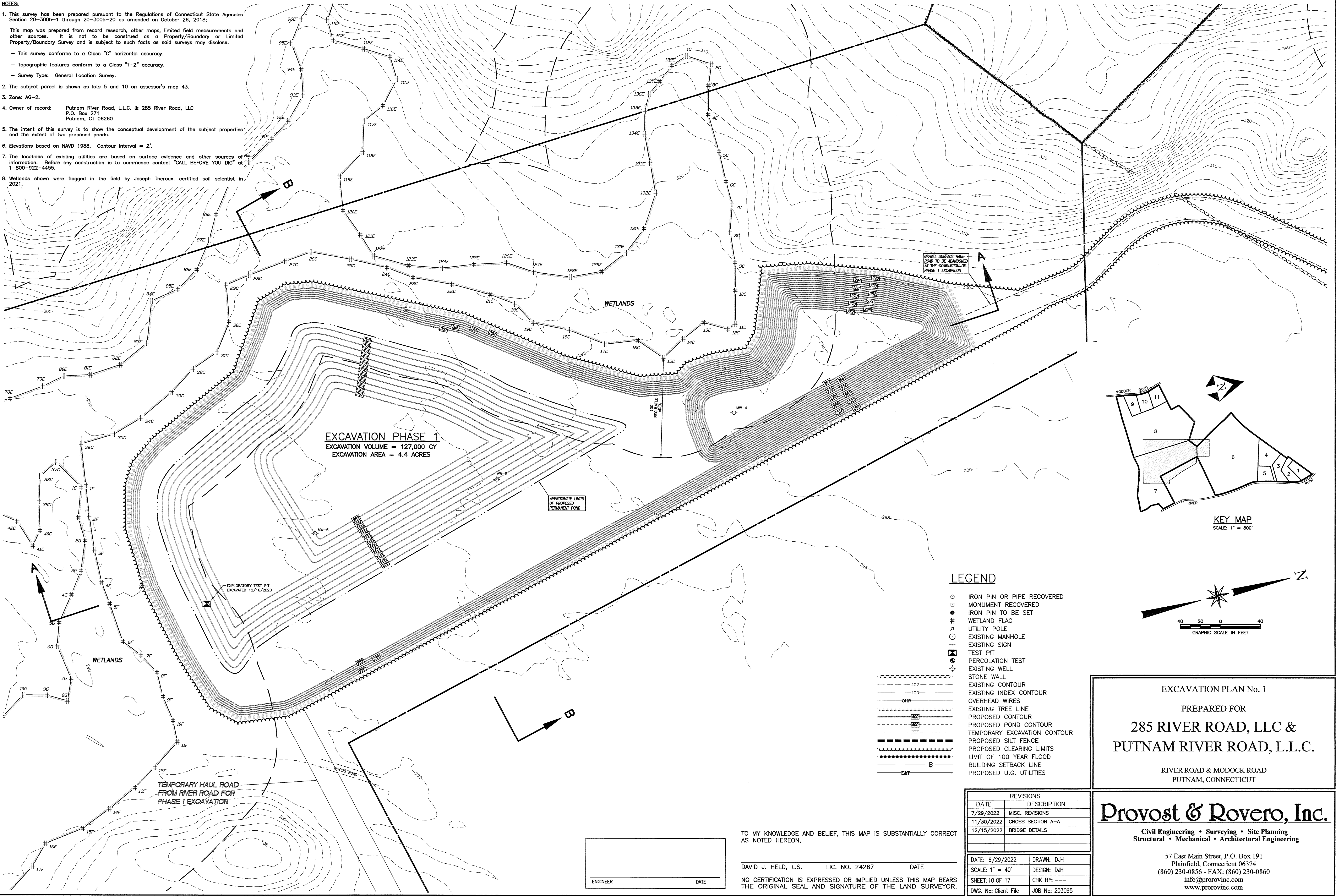
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Plainfield, Connecticut 06374
(860) 230-0856 - FAX: (860) 230-0860
info@prorovinc.com
www.prorovinc.com

NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-1 through 20-300b-20 as amended on October 26, 2018;
This map was prepared from record research, other maps, limited field measurements and other sources. It is not to be construed as a Property/Boundary or Limited Property/Boundary Survey and is subject to such facts as said surveys may disclose.
- This survey conforms to a Class "C" horizontal accuracy.
- Topographic features conform to a Class "T-2" accuracy.
- Survey Type: General Location Survey.
2. The subject parcel is shown as lots 5 and 10 on assessor's map 43.
3. Zone: AG-2.
4. Owner of record: Putnam River Road, L.L.C. & 285 River Road, LLC
P.O. Box 271
Putnam, CT 06260
5. The intent of this survey is to show the conceptual development of the subject properties and the extent of two proposed ponds.
6. Elevations based on NAVD 1988. Contour interval = 2'.
7. The locations of existing utilities are based on surface evidence and other sources of information. Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1-800-922-4455.
8. Wetlands shown were flagged in the field by Joseph Theroux, certified soil scientist in 2021.



LEGEND

- IRON PIN OR PIPE RECOVERED
- MONUMENT RECOVERED
- IRON PIN TO BE SET
- WETLAND FLAG
- UTILITY POLE
- EXISTING MANHOLE
- EXISTING SIGN
- TEST PIT
- PERCOLATION TEST
- EXISTING WELL
- STONE WALL
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- OVERHEAD WIRES
- EXISTING TREE LINE
- PROPOSED CONTOUR
- PROPOSED POND CONTOUR
- TEMPORARY EXCAVATION CONTOUR
- PROPOSED SILT FENCE
- PROPOSED CLEARING LIMITS
- LIMIT OF 100 YEAR FLOOD
- BUILDING SETBACK LINE
- PROPOSED U.G. UTILITIES

EXCAVATION PLAN No. 1

PREPARED FOR
**285 RIVER ROAD, LLC &
PUTNAM RIVER ROAD, L.L.C.**

RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

Provost & Rovero, Inc.

Civil Engineering • Surveying • Site Planning
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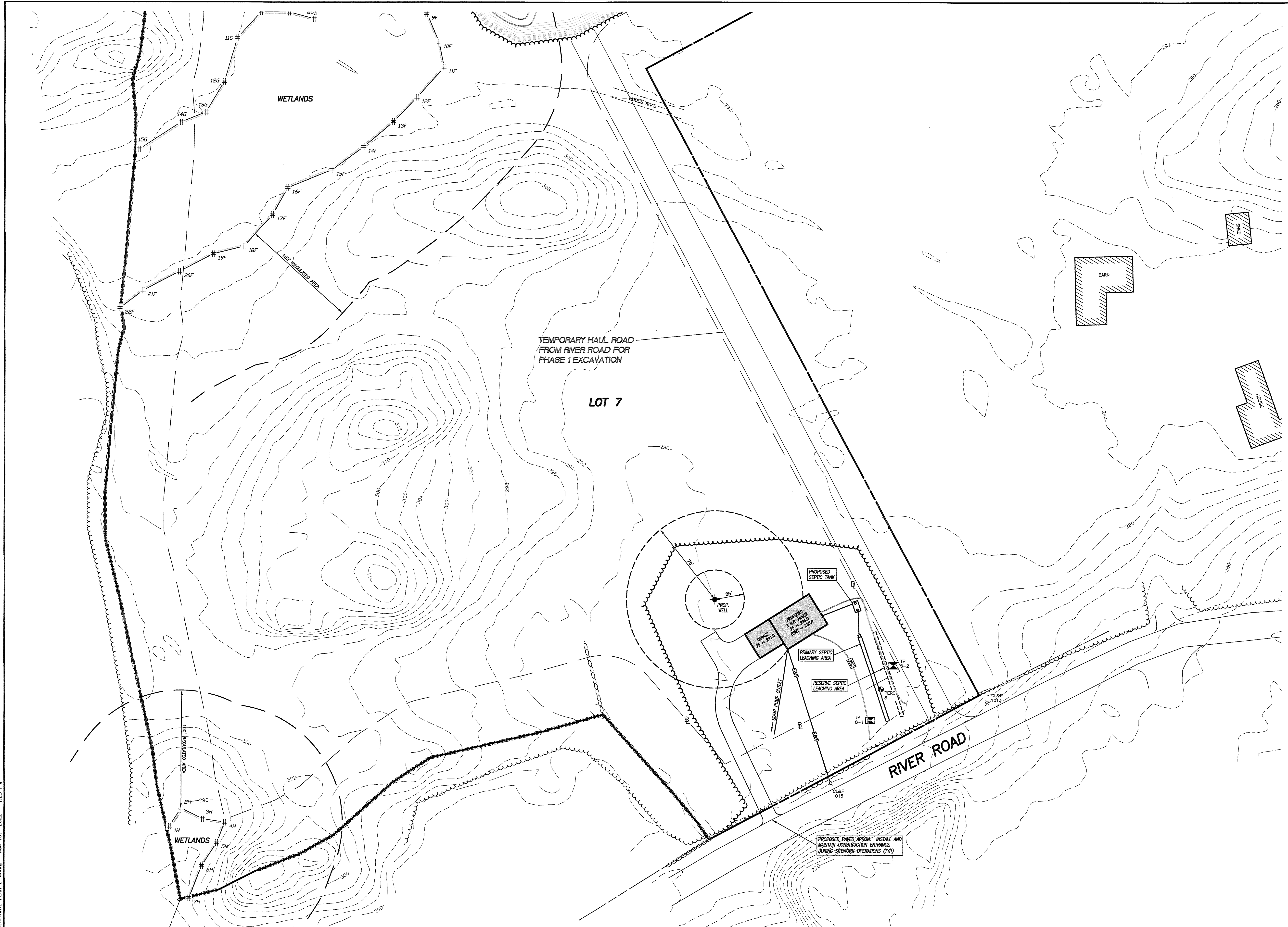
REVISIONS	
DATE	DESCRIPTION
7/29/2022	MISC. REVISIONS
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
DATE: 6/29/2022	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 10 OF 17	CHK BY: ---
DWG. No: Client File	JOB No: 203095

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT
AS NOTED HEREON,

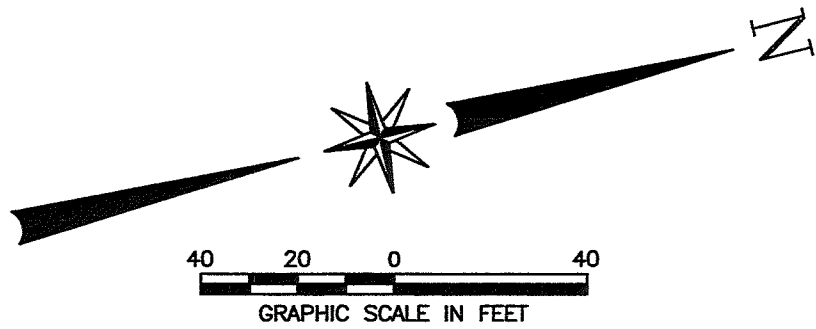
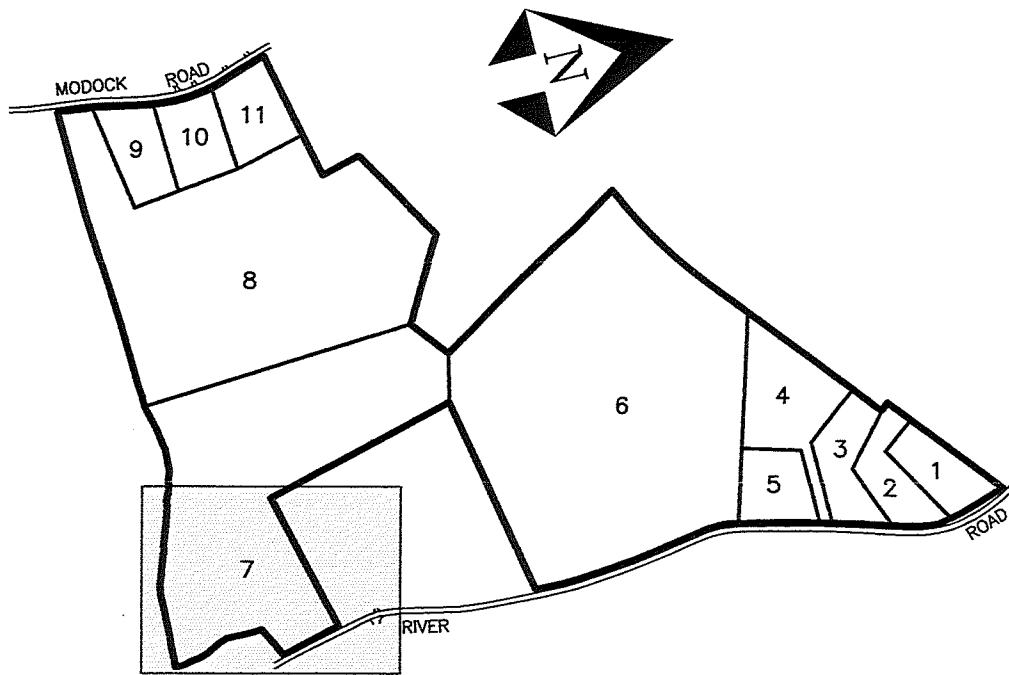
DAVID J. HELD, L.S. LIC. NO. 24267 DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS
THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

ENGINEER	DATE
----------	------



- NOTES:
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 - The intent of this survey is to show the conceptual development of the subject properties and the extent of two proposed ponds.
 - Elevations based on NAVD 1988. Contour interval = 2'.
 - The locations of existing utilities are based on surface evidence and other sources of information. Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1-800-922-4455.
 - Wetlands shown were flagged in the field by Joseph Theroux, certified soil scientist in 2021.



LEGEND

- IRON PIN OR PIPE RECOVERED
- ◻ MONUMENT RECOVERED
- IRON PIN TO BE SET
- # WETLAND FLAG
- U UTILITY POLE
- EXISTING MANHOLE
- EXISTING SIGN
- ⊗ TEST PIT
- ⊙ PERCOLATION TEST
- ⊕ EXISTING WELL
- STONE WALL
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- OHW— OVERHEAD WIRES
- EXISTING TREE LINE
- PROPOSED CONTOUR
- PROPOSED POND CONTOUR
- TEMPORARY EXCAVATION CONTOUR
- PROPOSED SILT FENCE
- PROPOSED CLEARING LIMITS
- LIMIT OF 100 YEAR FLOOD
- BUILDING SETBACK LINE
- PROPOSED U.G. UTILITIES

SITE PLAN No. 5

PREPARED FOR

285 RIVER ROAD, LLC &
PUTNAM RIVER ROAD, L.L.C.

RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

Provost & Rovero, Inc.

Civil Engineering • Surveying • Site Planning
Structural • Mechanical • Architectural Engineering

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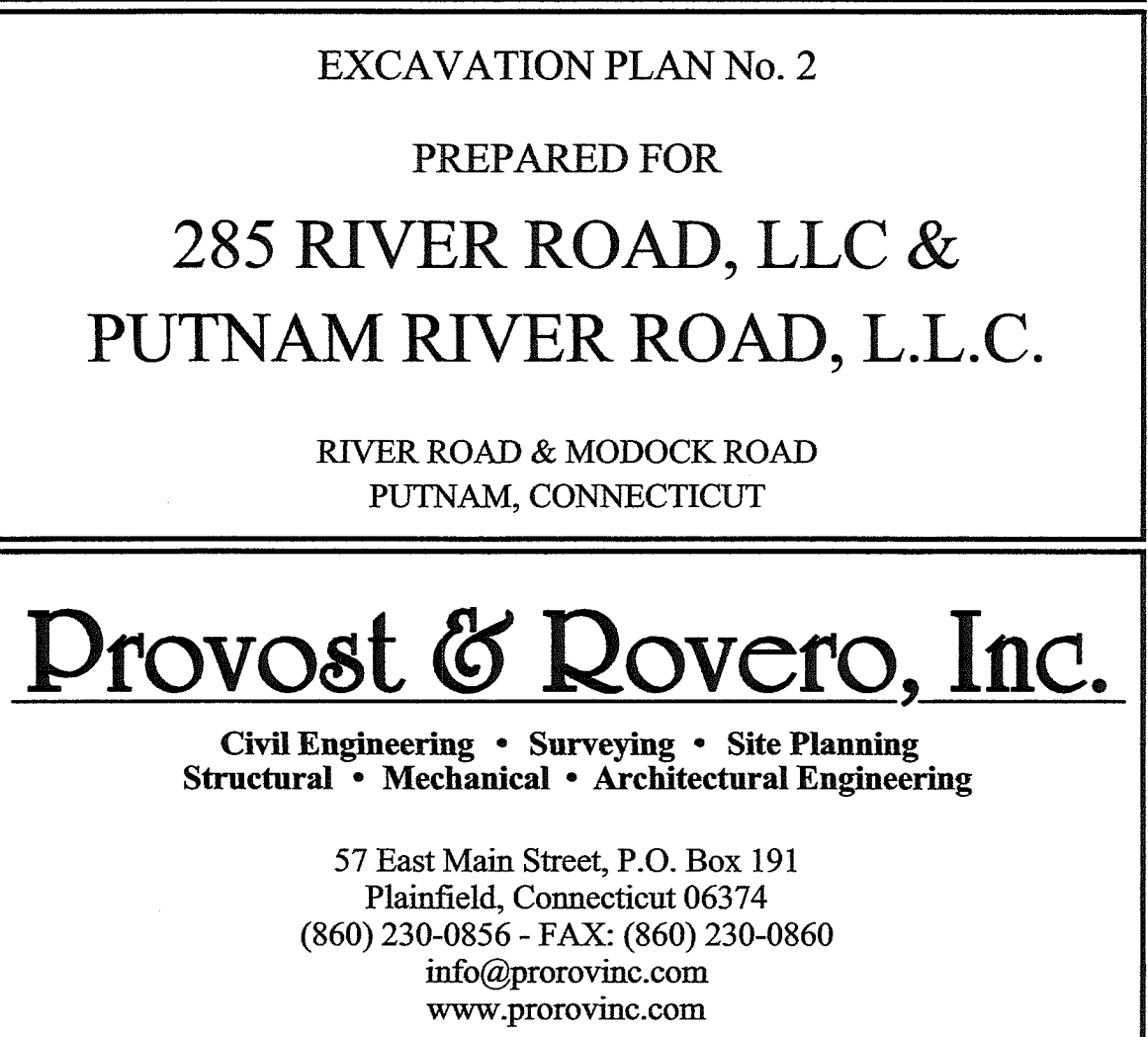
REVISIONS	
DATE	DESCRIPTION
7/29/2022	MISC. REVISIONS
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
DATE: 6/29/2022	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 8 OF 17	CHK BY: ---
DWG. No: Client File	JOB No: 203095

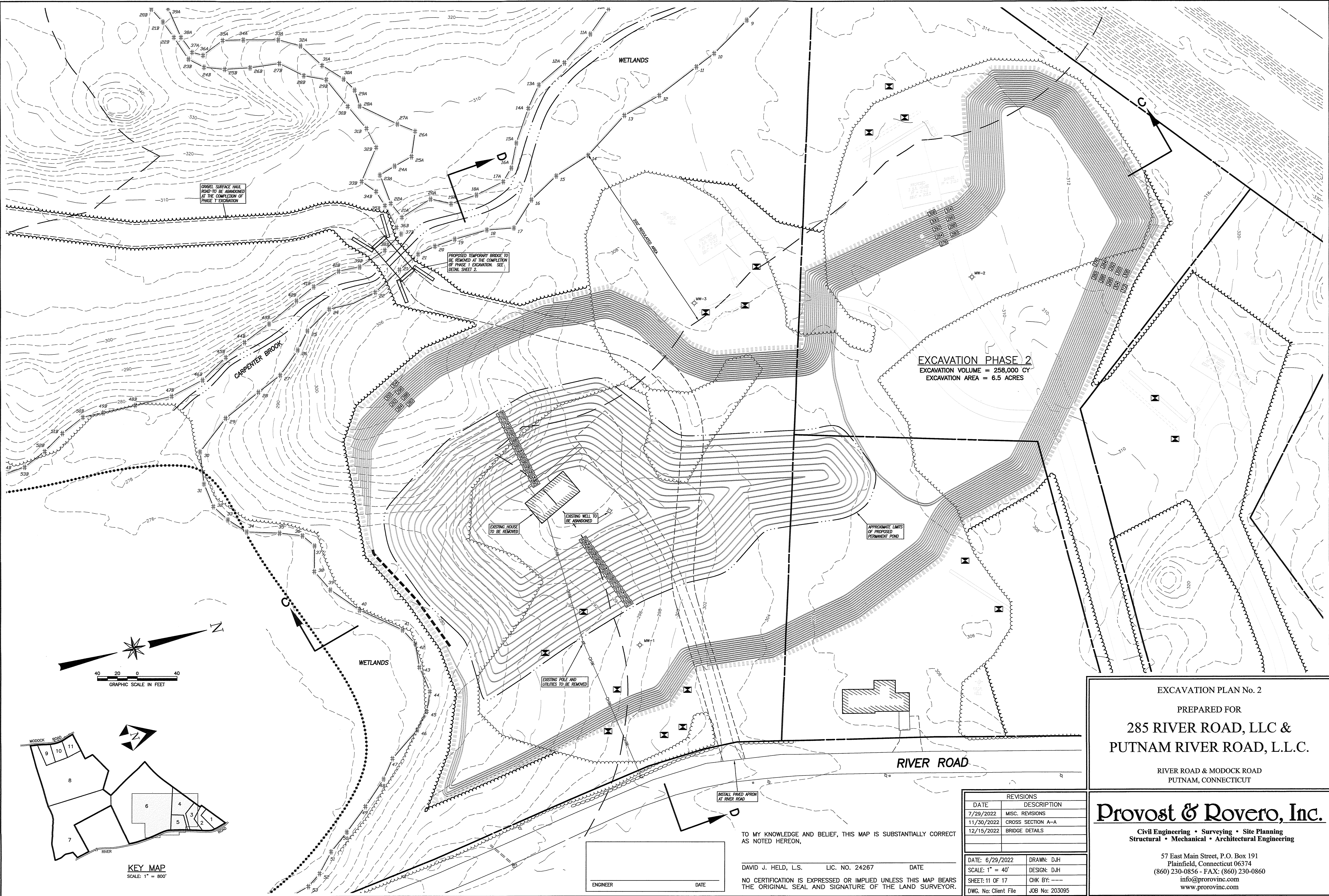
TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT
AS NOTED HEREON,

DAVID J. HELD, L.S. LIC. NO. 24267 DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS
THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

ENGINEER	DATE
----------	------





EXCAVATION PLAN No. 2

PREPARED FOR

**285 RIVER ROAD, LLC &
PUTNAM RIVER ROAD, L.L.C.**

RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

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REVISIONS	
DATE	DESCRIPTION
7/29/2022	MISC. REVISIONS
11/30/2022	GROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
DATE: 6/29/2022	
SCALE: 1" = 40'	
SHEET: 11 OF 17	
DWG. No: Client File	
DRAWN: DJH	
DESIGN: DJH	
CHK BY: ---	
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TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON,

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ENGINEER DATE