



TOWN OF PUTNAM

MUNICIPAL COMPLEX

TOWN HALL

200 SCHOOL STREET

PUTNAM, CONNECTICUT 06260

Planning Commission Hybrid Meeting

May 22, 2023 6:00 P.M.

Conference Room 201 2nd Floor

Agenda:

Call to Order & Roll Call:

Continue Public Hearing on Application 2023-02 Putnam River Road, LLC & 285 River Road, LLC request for an 11 lot Subdivision and Gravel Excavation for properties located at 357 River Road, Town Assessors Map 043, Lot 010, Zoned Agricultural-2 and 285 River Road, Town Assessors Map 043 Lot 005, Zoned Agricultural-2. Development will include the excavation of gravel to create two permanent ponds. VOTE REQUIRED

Regular Meeting:

1. Review minutes of the April 24, 2023 meeting. VOTE REQUIRED
2. Correspondence:
3. Public Participation:
4. New Business: (Review/ Discussion/Action)
 - A. Application 2023-02 Putnam River Road, LLC & 285 River Road, LLC request for an 11 lot Subdivision and Gravel Excavation for properties located at 357 River Road, Town Assessors Map 043, Lot 010, Zoned Agricultural-2 and 285 River Road, Town Assessors Map 043 Lot 005, Zoned Agricultural-2. Development will include the excavation of gravel to create two permanent ponds. VOTE REQUIRED

Other Business: VOTE REQUIRED

Accepting of an application for a text amendment to the Subdivision Regulations for Flood Plain Regulations

Comments By Commissioners:

Adjournment

Join Zoom Meeting

Zoom Meeting

<https://us06web.zoom.us/j/88330122097?pwd=QXNRTFYrL3VMamZyMTR5dWRZU3U2QT09>

Meeting ID: 883 3012 2097

Passcode: DuA3fd

Phone +1 929 205 6099 US (New York)

Meeting ID: 883 3012 2097

Passcode: 618908

Find your local number: <https://us06web.zoom.us/j/kdy6Q30L98>



TOWN OF PUTNAM

MUNICIPAL COMPLEX

TOWN HALL

200 SCHOOL STREET

PUTNAM, CONNECTICUT 06260

Planning Commission Hybrid Meeting Minutes

April 24, 2023 6:00 P.M.

Conference Room 201 2nd Floor

Present: Edward Briere-Chairman, Robert Greene, Patricia Gilman, Warren Salvas

Absent: Marnie Ciquera

Opened public hearing on Application 2023-01 LSE Scorpius LLC, request for a one lot subdivision for the property located at 112 Hawkins Rd., Town Assessors Map 026 Lot 71, Zoned R-40 and HC, Owner Robert J. Guillot. The plans panels were reviewed with the Commission. 5500 solar panels are being proposed. Motion by Patricia Gilman to close the public hearing, second by Warren Salvas. ALL WERE IN FAVOR.

Opened public hearing on Application 2023-02 Putnam River Road, LLC & 285 River Road, LLC request for an 11 lot Subdivision and Gravel Excavation for properties located at 357 River Road, Town Assessors Map 043, Lot 010, Zoned Agricultural-2 and 285 River Road, Town Assessors Map 043 Lot 005, Zoned Agricultural-2. Development will include the excavation of gravel to create two permanent ponds. David Held of Provost & Rovero along with Attorney Heller reviewed the plans. David Held reviewed a conventional subdivision versus the OSRD subdivision design. A narrative letter dated April 24, 2023 representing the applicant's opinion of a conventional subdivision versus OSRD was read aloud and is placed on file with the application. Peter McMorris of 341 River Road requested the public hearing to remain open for further review of the plans with his Attorney. Motion by Patricia Gilman to continue the public hearing to the May meeting, second by Warren Salvas. ALL WERE IN FAVOR.

Regular Meeting:

Review minutes of the February 27, 2023 meeting.

Motion by Patricia Gilman to accept the minutes, second by Robert Greene. ALL WERE IN FAVOR

Correspondence Received:

Letter from the Connecticut Siting Council regarding Docket No. 514 – Glenvale, LLC d/b/a/ Glenvale Solar application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 4.0-megawatt-AC solar photovoltaic electric generating facility located at 56 River Road, Putnam, Connecticut and associated electrical interconnection. **Hearing Notice Thursday, June 15, 2023**, begins with an evidentiary session at 2:00 p.m., and continuing with a public comment session at 6:00 p.m.

Public Participation: None

New Business:

Application 2023-01 LSE Scorpius LLC, request for a one lot subdivision for the property located at 112 Hawkins Rd., Town Assessors Map 026 Lot 71, Zoned R-40 and HC, Owner Robert J. Guillot.

Motion by Edward Briere to approve, second by Robert Greene. ALL WERE IN FAVOR

Application 2023-02 Putnam River Road, LLC & 285 River Road, LLC request for an 11 lot Subdivision and Gravel Excavation for properties located at 357 River Road, Town Assessors Map 043, Lot 010, Zoned Agricultural-2 and 285 River Road, Town Assessors Map 043 Lot 005, Zoned Agricultural-2. Development will include the excavation of gravel to create two permanent ponds.

Motion by Patricia Gilman to table, second by Warren Salvas. ALL WERE IN FAVOR

Other Business:

Comments By Commissioners: None

Motion by Edward Briere to adjourn at 7:06 P.M., second by Robert Greene. ALL WERE IN FAVOR.

Respectfully submitted by Brenda Roy.

Please note these minutes have not been accepted by the Commission and will be placed on their next meeting agenda.

Zoom Meeting

Join Zoom Meeting

<https://us06web.zoom.us/j/89063457899?pwd=K1FOZTFvTVVpbDJseE5ycVJzNCtLUT09>

Meeting ID: 890 6345 7899

Passcode: 6c8EFK

Phone +1 929 205 6099 US (New York)

Meeting ID: 890 6345 7899

Passcode: 066860

Find your local number: <https://us06web.zoom.us/j/kewiTcxCKT>

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

March 14, 2023

**285 River Road, LLC & Putnam River Road, L.L.C.
285 & 357 River Road
Proposed 11 Lot Resubdivision**

P & R Job #203095

APPLICATION PACKAGE CONTENTS – Resubdivision Application

1. Application fee \$1,335.00
2. Planning Commission application form
3. Cover letter and waiver request
4. Lots 1-6 approval letter from NDDH dated 9/28/2022
5. Lots 7-11 approval letter from NDDH dated 9/28/2022
6. 6 copies of plans revised to 1/20/2023



APPLICATION # _____

DATE RECEIVED 3.14.2023

SCHEDULED MEETING DATE _____

PLANNING COMMISSION

Check one:

- ☐ APPLICATION FOR SUBDIVISION
☒ APPLICATION FOR RE-SUBDIVISION
☐ CORRECTION OF AN EXISTING NON-CONFORMANCE

\$1335.00 ck#
16535
lm

APPLICANT AND ENGINEER

Name of Applicant Putnam River Road, L.L.C. and 285 River Road, LLC Phone # 860-234-0907
Applicant's Address P.O. Box 271, Putnam, CT 06260
Engineer Provost & Rovero, Inc. Phone # 860-230-0856
Engineer's Address P.O. Box 191, Plainfield, CT 06374
Owner (if different from applicant) _____
Owner's Address _____ Phone # _____

PROPERTY INFORMATION

Subdivision Name: Putnam River Road, L.L.C. and 285 River Road, LLC
Number of Lots 11 Total Acreage 96.492 acres
Zoning Classification AG-2 Location 285 & 357 River Road
Assessor's Map # 43 Lot # 5 & 10
Does this plan encompass or is it adjacent to: X Wetlands X Flood Hazard Area _____ Aquifer _____
If this application is for a re-subdivision: Original approval date August 2016 Town Clerk's Map # 1578

SUBDIVISION IMPROVEMENTS

Sewage Disposal: X Private _____ Public _____ Drinking Water: X Private _____ Public _____

IMPROVEMENT LIST

Total length of new street measured at centerline: 0
Total length of curbs for new streets: 0
Total length of sidewalks for development: 0
Total number of catch basins: 0
Total number of manholes: Drainage: 0 Sanitary Sewer: 0
Total length of drain pipes: 10" 12" 15" 18"
Other: Size: _____ Length _____
Total length of water pipes: 6" 8" 12" 16"
Other: Size: _____ Length _____
Total length of sanitary sewers: 8" 10" 12" 15"
Other: Size: _____ Length _____
Total number of permanent bounds: 22
Approximate cubic yards of rock and ledge excavation: _____
Approximate cubic yards of gravel excavation: 363,000
Approximate cubic yards of fill: _____

APPLICATION CHECKLIST

The following check list is to be completed by the applicant to insure that all required material is submitted. Failure to submit all required material shall cause the submission to be deemed incomplete. Any incomplete applications will be rejected by the Planning Commission. The Commission will use this form to verify that all required material has been received.

<u>SUBDIVISION PLAN</u>	<u>Applicant's Checklist</u>	<u>Planning Commission's Checklist</u>
Name of Subdivision	☒	☐
Name, Address & Phone # of Owner	☒	☐
Name, Address & Phone # of Applicant	☒	☐
Name, Address & Phone # of Engineer	☒	☐
Date	☒	☐
North Arrow	☒	☐
Scale (1" - 40')	☒	☐
Location Map (1" - 1000')	☒	☐
Zoning Classification/Municipal Boundary Line	☒	☐
Existing and proposed contours	☒	☐
Property location with respect to surrounding property & streets	☒	☐
Names of adjoining property owners	☒	☐
Names of adjoining streets	☒	☐
Location of all water bodies, streams & other pertinent features (swamps, railroads, buildings, parks, cemeteries, drainage ditches, bridges, signs)	☒	☐
Location of existing and proposed streets, easements and other rights-of-way and their names	☒	☐
Location, dimension, area & building setback lines of all proposed & existing lots	☒	☐
Location of groundwater test holes	☒	☐
Location & dimension of property to be dedicated to the Town	☐	☐
Bearings and lengths of all lines and all curve data	☒	☐
Location of all monuments, iron pins and drill holes	☒	☐
Location of 50-foot wetland buffer zone (no activity)	☒	☐
Location of proper soil, erosion and sediment control	☒	☐
Location of proposed building and septic system	☒	☐
Calculation for proposed Performance Bond	☒	☐
Calculation for street intersection sight lines	☐	☐
Signature boxes for Commission: Planning, Expiration date, Wetland and Zoning (if applicable)	☒	☐
Approval from Northeast District Department of Health	☒	☐

FEE SCHEDULE

Public Hearing Fee:	\$175.00	Due with Application
Sub-Division & Re-Subdivision Fee:	\$100.00/Per Lot	Due with Application
Inspection of construction of new or rebuilt road, drainage and other site improvements:	2% of estimated cost	Due within one (1) week of final approval of application

Town of Putnam 126 Church Street Putnam, CT 06260 (860) 963-6803 Phone (860) 963-5398 Fax

Provost & Rovero, Inc.

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March 14, 2023

Planning Commission
Town of Putnam
200 School Street
Putnam, CT 06260

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

Dear Commissioners:

Attached hereto, please find an application for the proposed 11 lot resubdivision of 96.492 acres of land owned by the above referenced applicants. This project includes the excavation of approximately 363,000 cubic yards of earth and based on our conversation with the Land Use Agent, a separate application for Special Permit approval of the excavation work by the Putnam Zoning Commission has been submitted in parallel with this application. Each of the 11 lots will be accessed by existing road frontage either on River Road or Modock Road. This project was approved by the Putnam Inland Wetlands and Watercourses Commission at their February 8, 2023 meeting.

This project is proposed as a conventional design rather than an Open Space Residential Development (OSRD). We believe that the larger lots created through the conventional design are more in keeping with the rural nature of the surrounding residential properties and due to the physical characteristics of the subject property, a substantial portion of the total subdivision area is likely to remain undeveloped in perpetuity due to the presence of steep slopes, ledge and wetlands.

Waiver Requests

Section 202.B.4.n – The project will not include the construction of any new streets and all grading associated with the house construction will maintain existing drainage patterns. We don't believe a comprehensive drainage report is warranted for this project.

Section 202.C.1.a.ix – This project does not include any public improvements. We don't believe a bond is necessary for the private improvements shown on the plans.

Section 306 – The project is located in a rural area and there are no known schools or commercial areas within one mile of the project.

Section 309 – The project is abutted by the Airline Trail to the north. Given the nature of this existing public open space/recreation additional land area may be of no public benefit and no open space land dedication is proposed as part of this subdivision. Substantial land areas within the subdivision are not practically

developable due to wetlands, steep slopes and/or ledge and are likely to remain undeveloped in perpetuity simply because of the physical limitations present.

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 faint circular stamp.

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



NORTHEAST DISTRICT DEPARTMENT OF HEALTH

69 SOUTH MAIN STREET • UNIT 4 • BROOKLYN, CT 06234
PHONE (860) 774-7350 • FAX (860) 774-1308 • WEB SITE WWW.NDDH.ORG

September 28, 2022

285 River Road LLC.
PO Box 271
Putnam, CT 06260

SUBJECT: FILE #22000293 -- RIVER ROAD #357, MAP #43, LOT #10, PUTNAM, CT

Dear 285 River Road LLC.:

Upon review of the Sub Division plan (PROVOST & ROVERO, INC., JOB# 203095, 285 RIVER ROAD, DRAWN 06/29/2022, REVISED 07/29/2022) submitted to this office on 08/09/2022 for the above referenced Sub Division, The Northeast District Department of Health concurs with the feasibility of this parcel of land for future development. Additionally, approval to construct individual subsurface sewage disposal systems may be granted based on compliance with appropriate regulations and the Technical Standards as they apply to individual building lots with the following notations:

1. Lots: 7, 8, 9, 10 and 11 require that a Professional Engineer design and submit individual plot plan(s) for review and approval prior to construction.
2. Proposed lots are based on 3 bedroom homes at the locations tested. If the number of bedrooms are increased, septic system sizes will require an increase per the Technical Standards.
3. Additional testing may be required at time engineer's plan is submitted.
4. Lot 9, proposed house does not have footing drains. A letter from the building official's office will be required stating that footing drains are not required at time engineer's plan is submitted.
5. M.L.S.S. is not met for lots 9, 10 and 11. This must be addressed at time engineer's plan is submitted with calculation and spot grades.

Be advised you must receive approval from the appropriate commissions in the Town of Putnam prior to construction of these lots.

This letter is NOT to be construed as an APPROVAL TO CONSTRUCT the septic system and DOES NOT indicate that the Northeast District Department of Health endorses approval for issuance of any building permit.

Should you have any questions, please feel free to contact the sanitarian that reviewed your plan.

Sincerely,

Maureen Marcoux, RS
Senior Sanitarian-NDDH

cc: Town of Putnam; Provost & Rovero, Inc.



NORTHEAST DISTRICT DEPARTMENT OF HEALTH

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September 28, 2022

285 River Road LLC.
PO Box 271
Putnam, CT 06260

SUBJECT: FILE #22000255 -- RIVER ROAD #285, MAP #43, LOT #5, PUTNAM, CT

Dear 285 River Road LLC.:

Upon review of the Sub Division plan (PROVOST & ROVERO, INC., JOB# 203095, 285 RIVER ROAD, DRAWN 06/29/2022, REVISED 07/29/2022) submitted to this office on 08/09/2022 for the above referenced Sub Division, The Northeast District Department of Health concurs with the feasibility of this parcel of land for future development. Additionally, approval to construct individual subsurface sewage disposal systems may be granted based on compliance with appropriate regulations and the Technical Standards as they apply to individual building lots with the following notations:

1. Lots: 1, 2, 3, 4, 6 require that a Professional Engineer design and submit individual plot plan(s) for review and approval prior to construction.
2. Proposed lots are based on 3 bedroom homes at the locations tested. If the number of bedrooms are increased, septic system sizes will require an increase per the Technical Standards.
3. Additional testing may be required at time engineer's plan is submitted.
4. M.L.S.S. is not met for lot 1. This must be addressed at time engineer's plan is submitted with calculation and spot grades.

Be advised you must receive approval from the appropriate commissions in the Town of Putnam prior to construction of these lots.

This letter is NOT to be construed as an APPROVAL TO CONSTRUCT the septic system and DOES NOT indicate that the Northeast District Department of Health endorses approval for issuance of any building permit.

Should you have any questions, please feel free to contact the sanitarian that reviewed your plan.

Sincerely,

Maureen Marcoux, RS
Senior Sanitarian-NDDH

cc: Town of Putnam; Provost & Rovero, Inc.

PROPOSED 11 LOT RESUBDIVISION

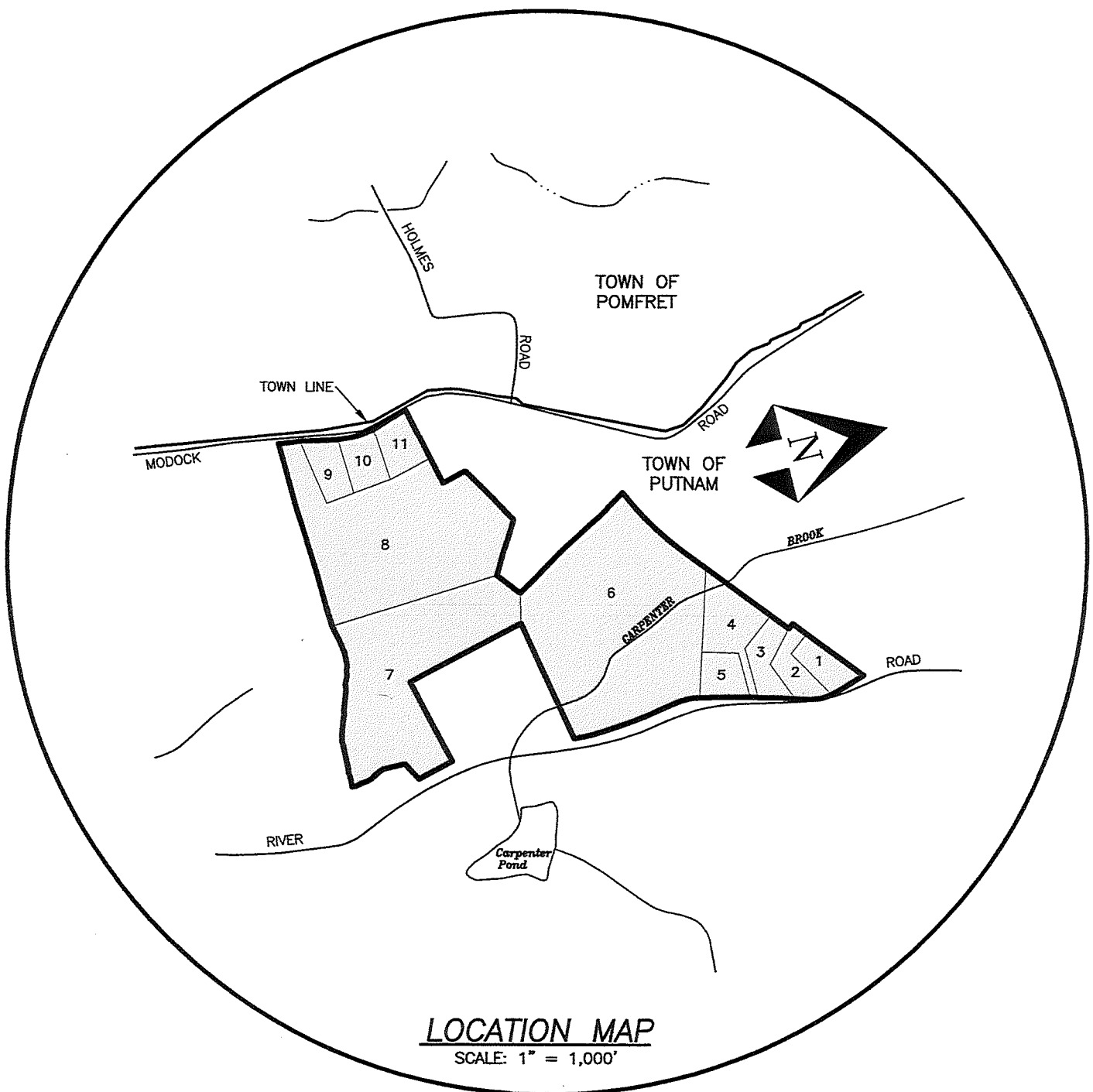
RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

OWNER & APPLICANT:

PUTNAM RIVER ROAD, L.L.C. & 285 RIVER ROAD, LLC
P.O. BOX 271
PUTNAM, CT 06260

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



INDEX TO DRAWINGS

TITLE	SHEET No.
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EXCAVATION PLAN No. 1-3	10-12 OF 18
EXCAVATION CROSS SECTIONS	13-16 OF 18
DETAIL SHEET 1 & 2	17-18 OF 18

PREPARED BY:

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
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DATE	REVISIONS
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CIA

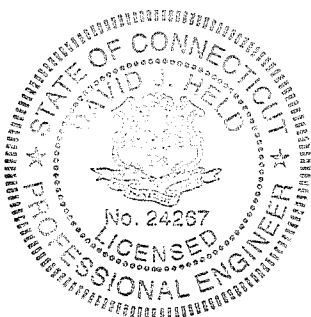
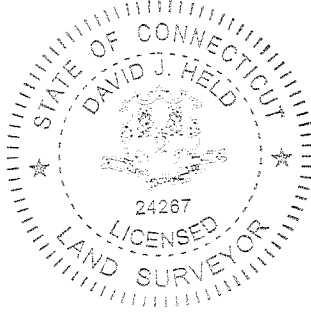
JUNE 29, 2022

FINAL APPROVAL BY THE TOWN OF
PUTNAM PLANNING COMMISSION

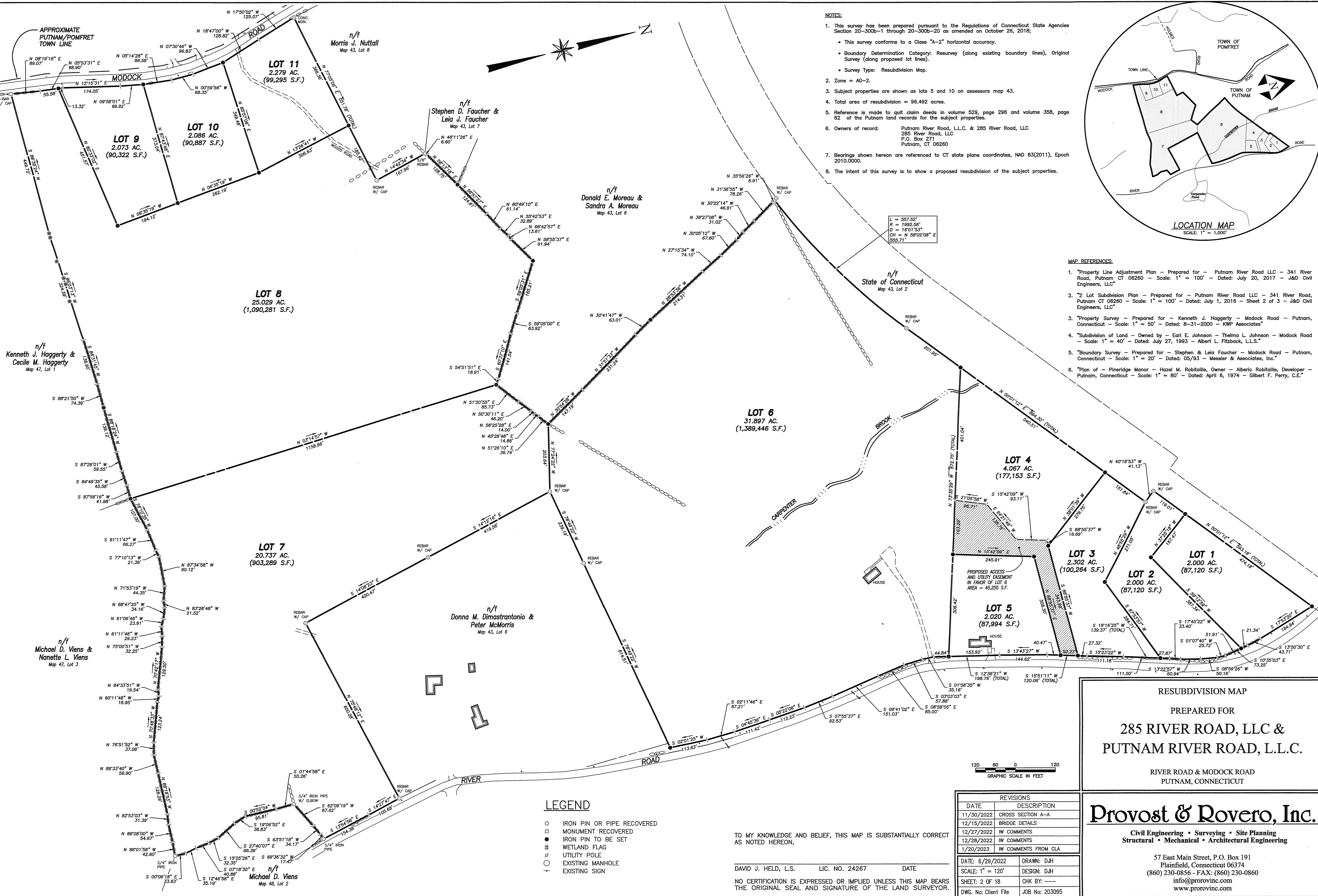
CHAIRMAN / SECRETARY DATE

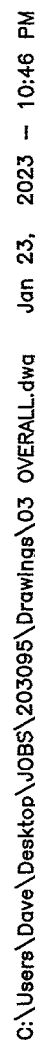
APPROVED BY THE TOWN OF PUTNAM INLAND
WETLAND AND WATER COURSES COMMISSION

CHAIRMAN / SECRETARY DATE



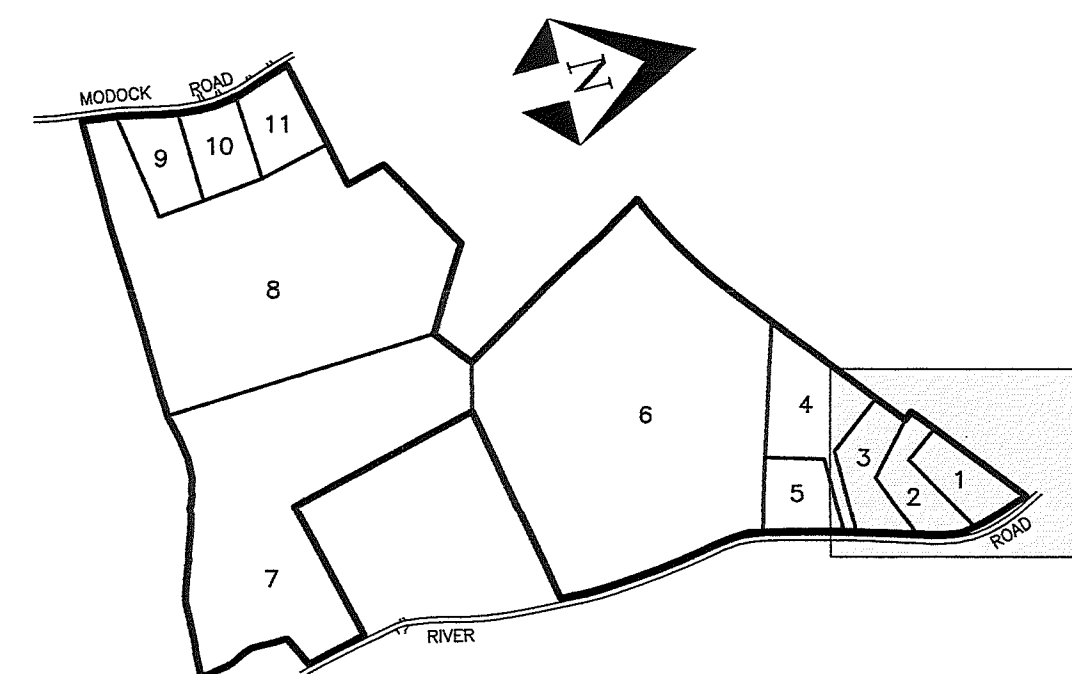
ENGINEER DATE



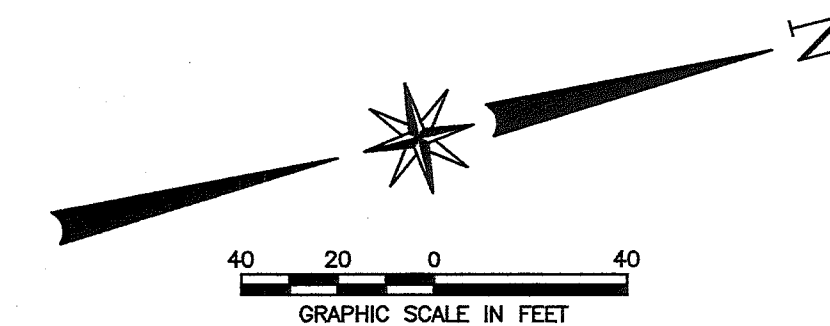




- NOTES:
- This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-1 through 20-300b-20 as amended on October 26, 2018;
This map was prepared from record research, other maps, limited field measurements and other sources. It is not to be construed as a 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.
 - The subject parcel is shown as lots 5 and 10 on assessor's map 43.
 - Zone: AG-2.
 - Owner of record: Putnam River Road, L.L.C. & 285 River Road, LLC
P.O. Box 271
Putnam, CT 06260
 - 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.



KEY MAP
SCALE: 1" = 800'



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
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- 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. 1

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
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 4 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095

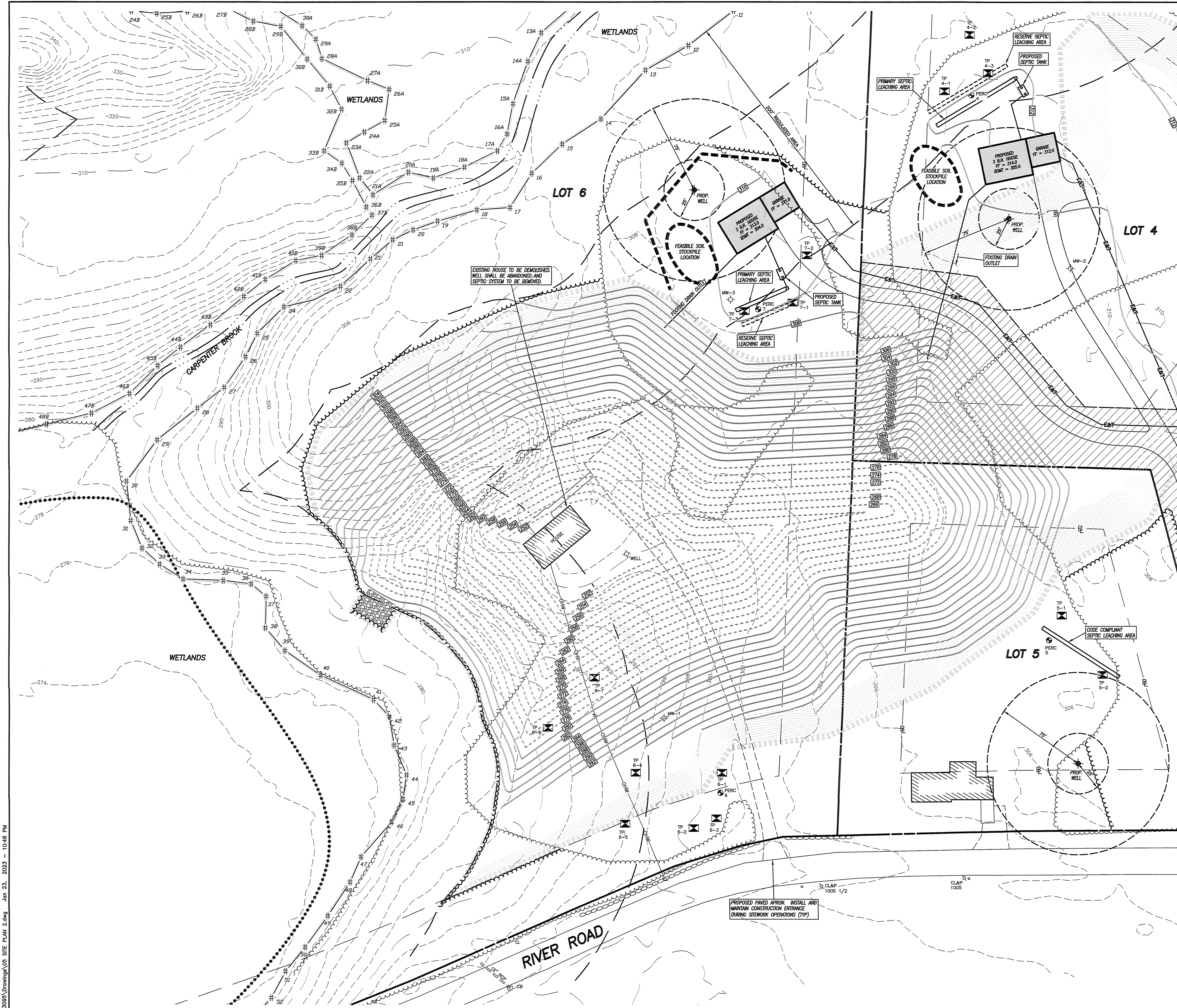
TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT
AS NOTED HEREON,

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

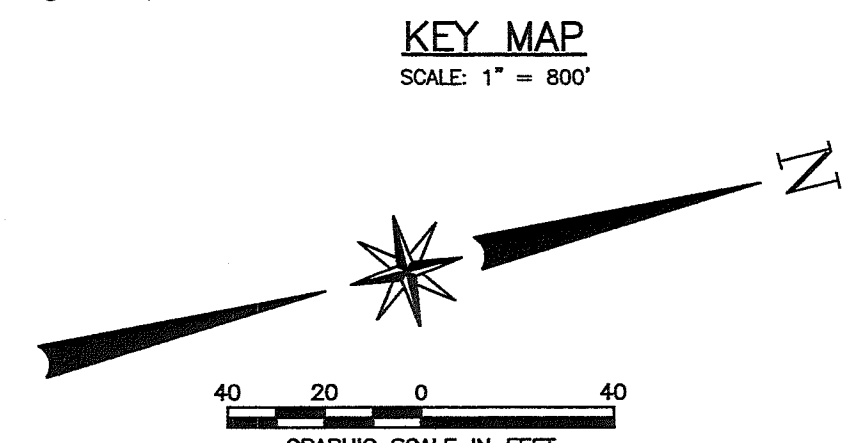
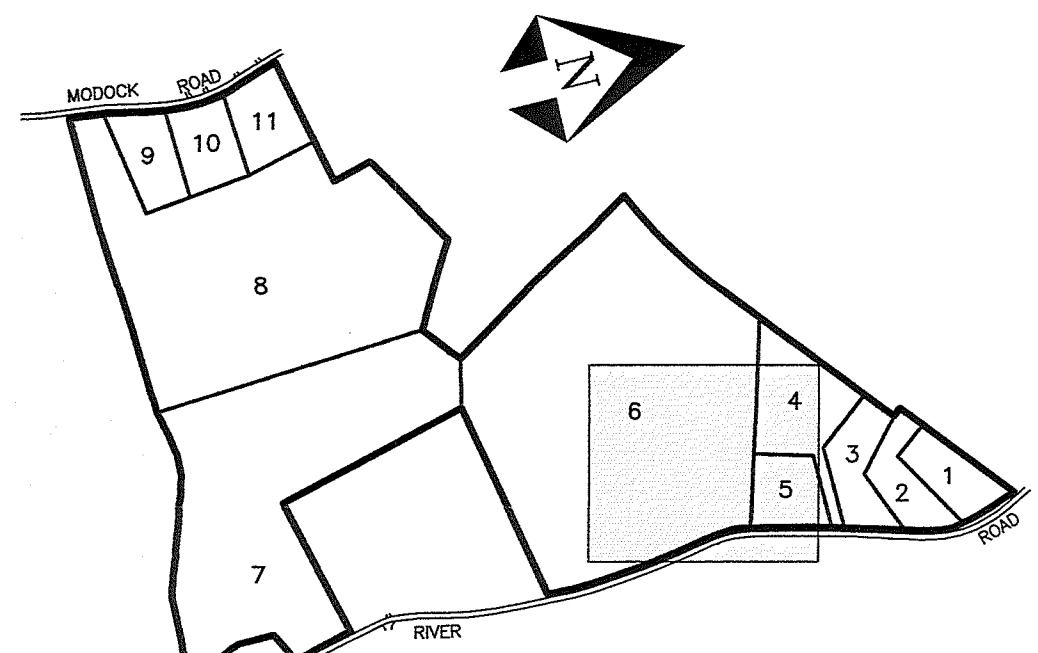
NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS
THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

ENGINEER	DATE
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C:\Users\Dave\Desktop\UGBS\203095 Drawings\UG SITE PLAN 2.dwg Jan 23, 2023 10:48 PM



- NOTES:
- 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.
 - The subject parcel is shown as lots 5 and 10 on assessor's map 43.
 - Zone: AG-2.
 - Owner of record: Putnam River Road, L.L.C. & 285 River Road, LLC
P.O. Box 271
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LEGEND

- IRON PIN OR PIPE RECOVERED
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SITE PLAN No. 2

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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www.prorovinc.com

REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 5 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095

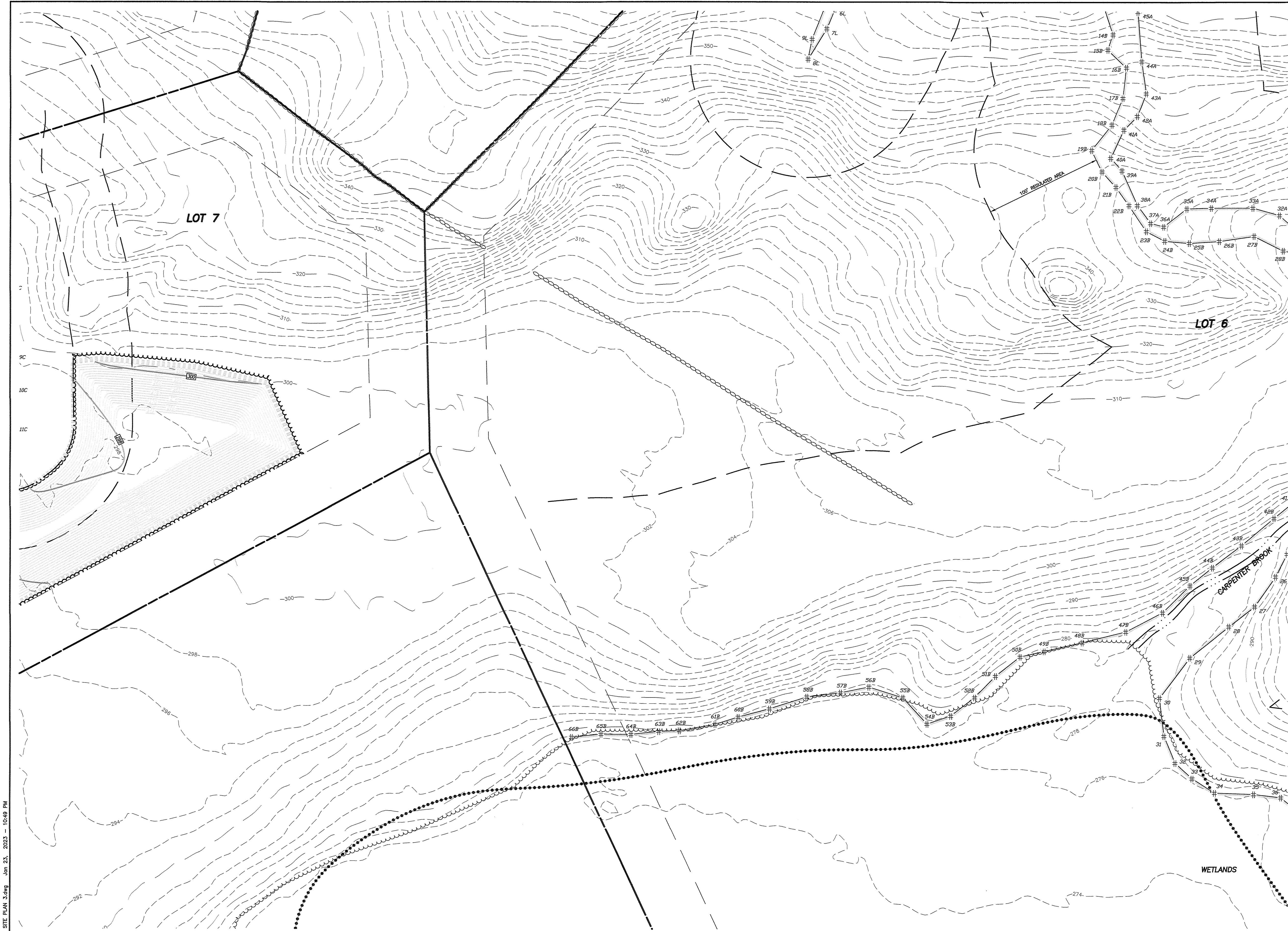
TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON,

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

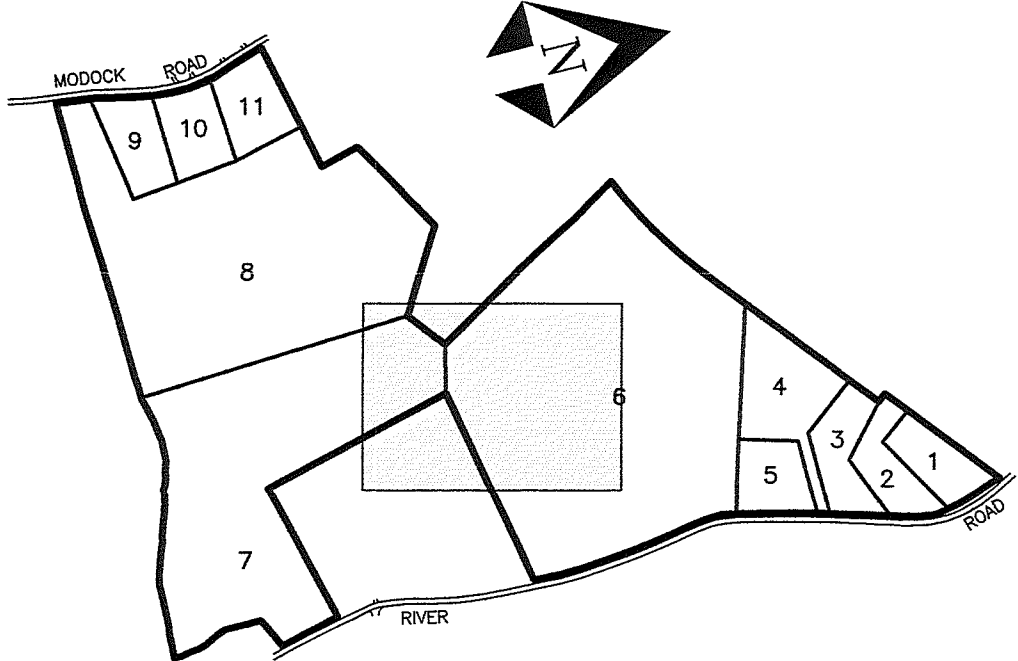
NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

ENGINEER	DATE
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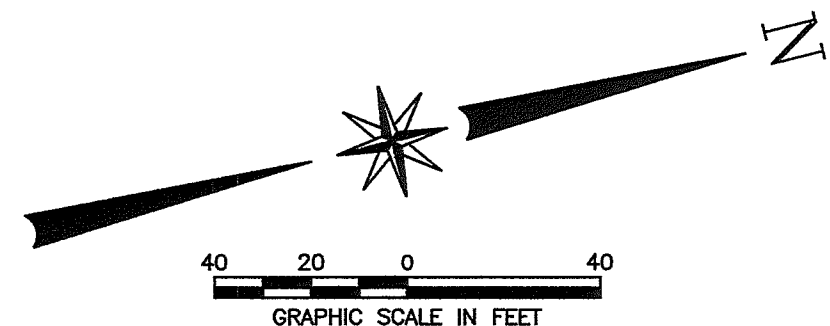
C:\Users\Dave\Desktop\JOBS\203095\Drawings\03 SITE PLAN 3.dwg Jan 23, 2023 10:49 PM



- NOTES:
- 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.
 - The subject parcel is shown as lots 5 and 10 on assessor's map 43.
 - Zone: AG-2.
 - Owner of record: Putnam River Road, L.L.C. & 285 River Road, LLC
P.O. Box 271
Putnam, CT 06260
 - 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'.
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 - Wetlands shown were flagged in the field by Joseph Theroux, certified soil scientist in 2021.



KEY MAP
SCALE: 1" = 800'



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

SITE PLAN No. 3
PREPARED FOR
**285 RIVER ROAD, LLC &
PUTNAM RIVER ROAD, L.L.C.**
RIVER ROAD & WODOCK ROAD
PUTNAM, CONNECTICUT

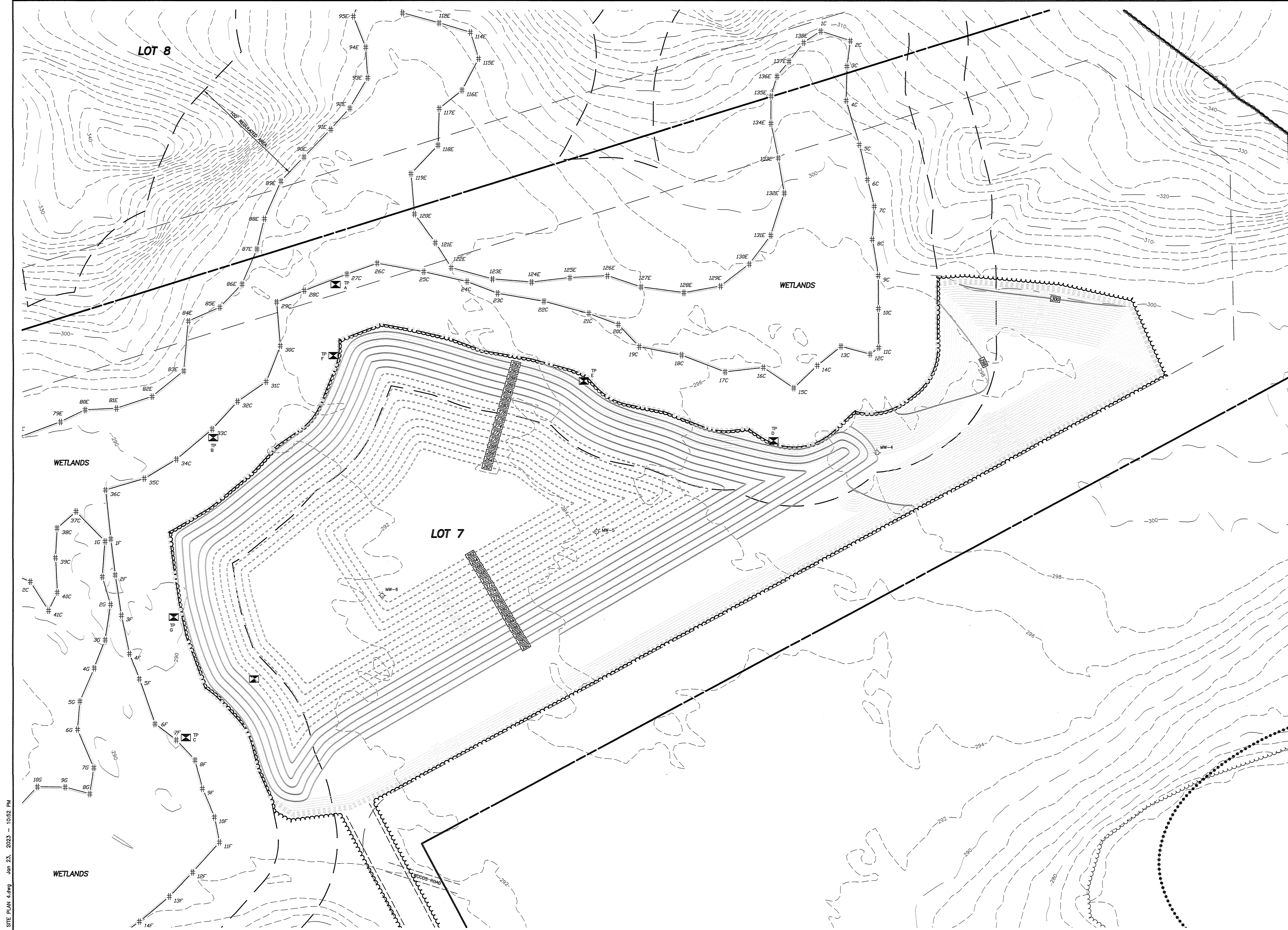
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Structural • Mechanical • Architectural Engineering
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TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT
AS NOTED HEREON,

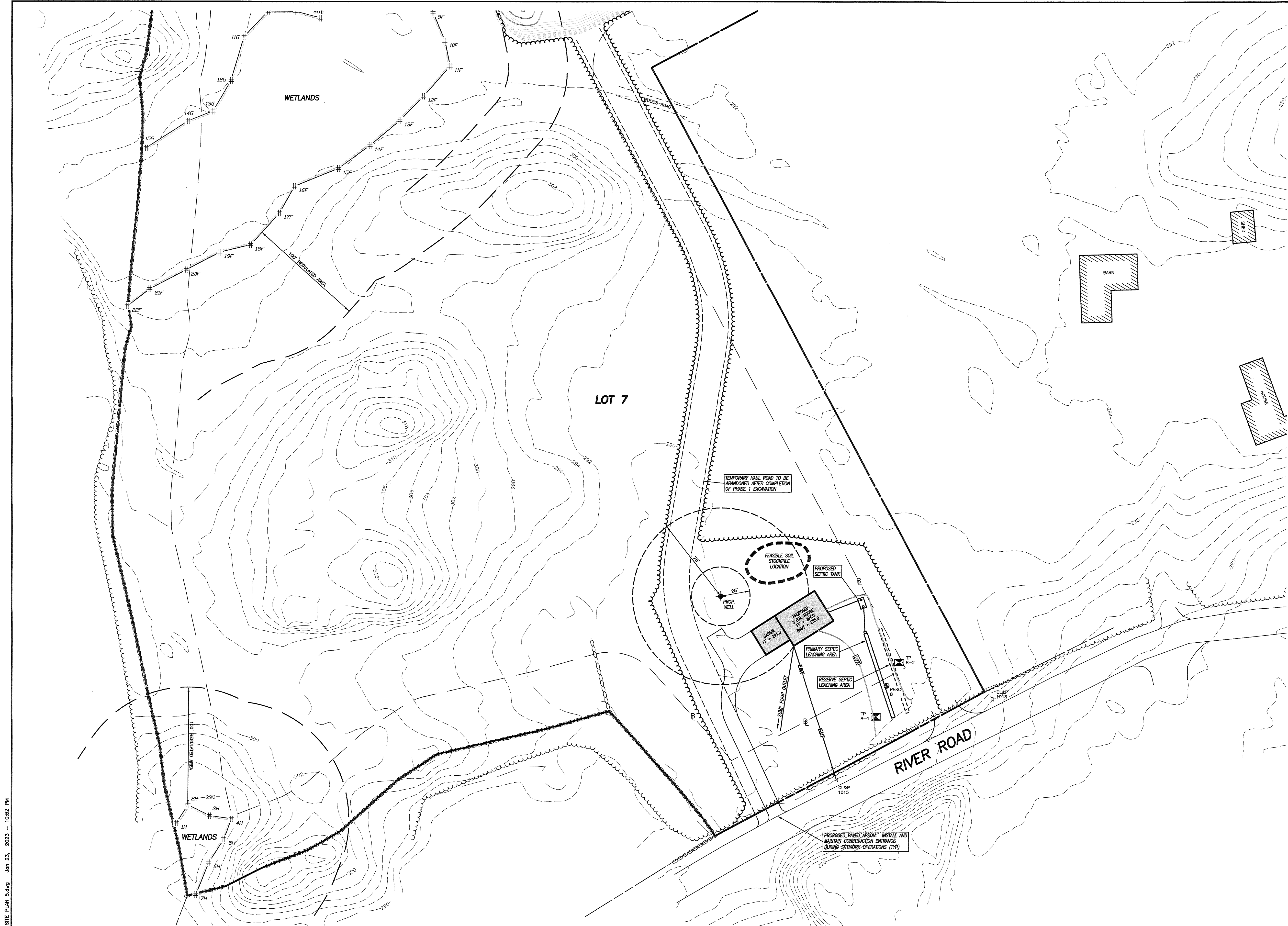
ENGINEER	DATE
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DAVID J. HELD, L.S. LIC. NO. 24267 DATE
NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS
THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

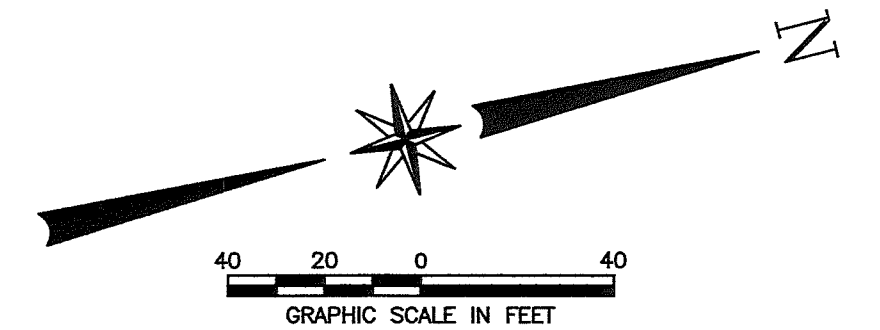
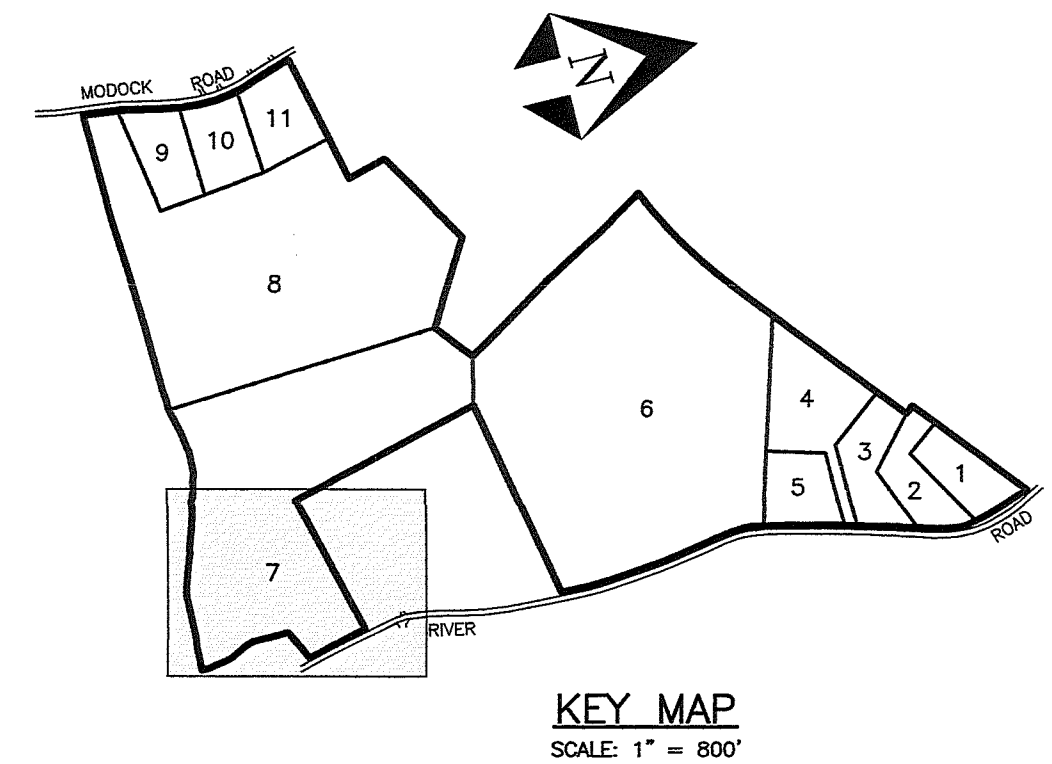
REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 6 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095



C:\Users\Dave\Desktop\JOBS\203095\Drawings\08 SITE PLAN 5.dwg Jan 23, 2023 - 10:52 PM



- NOTES:
- 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;
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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

SITE PLAN No. 5

PREPARED FOR

**285 RIVER ROAD, LLC &
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REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA

DATE: 6/29/2022	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 8 OF 18	CHK BY: —
DWG. No: Client File	JOB No: 203095

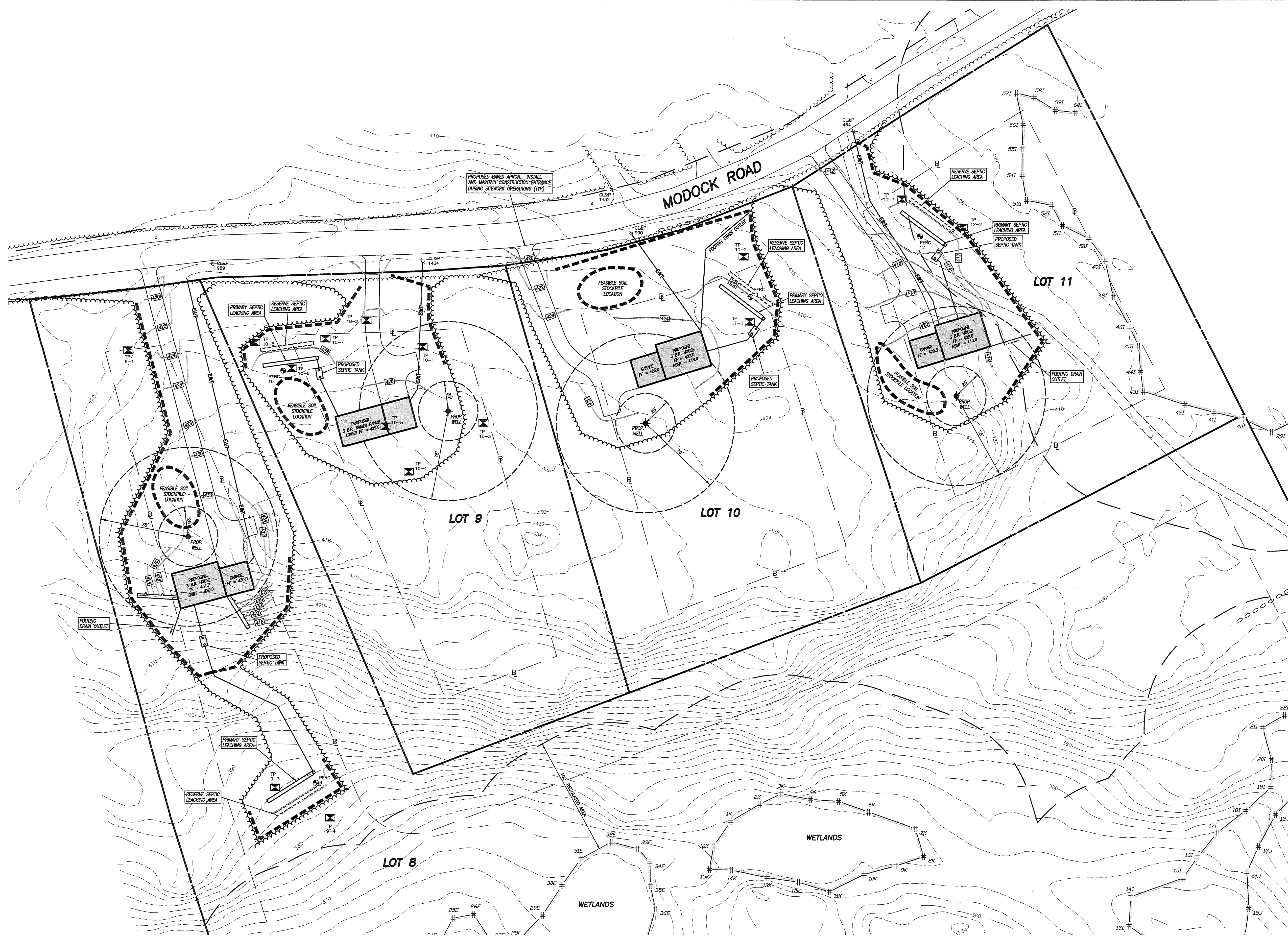
TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT
AS NOTED HEREON,

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

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS
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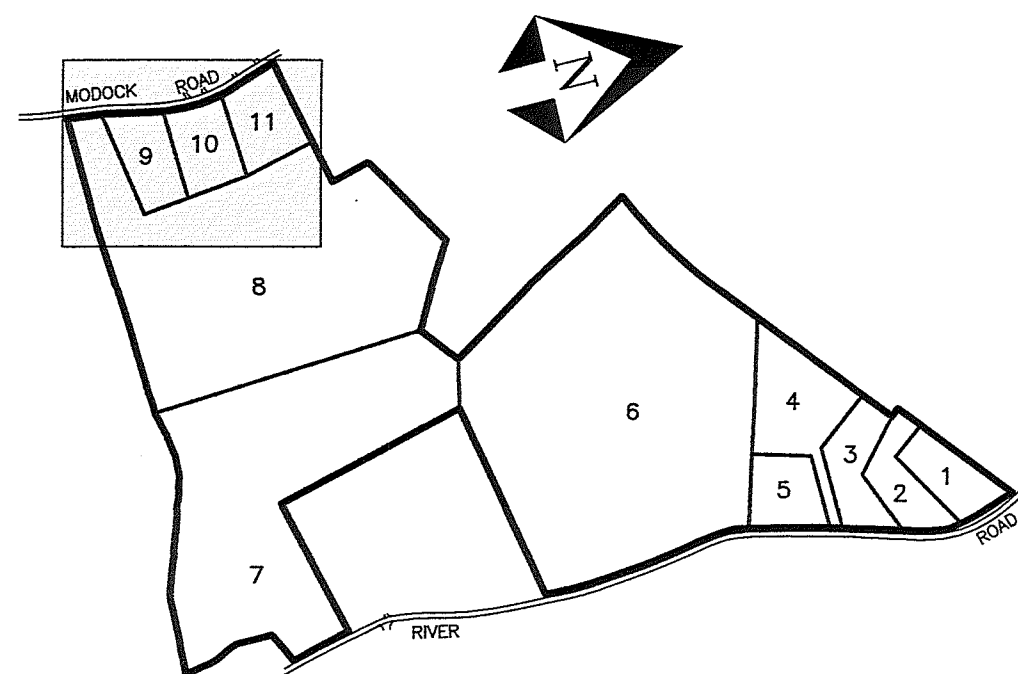
ENGINEER	DATE
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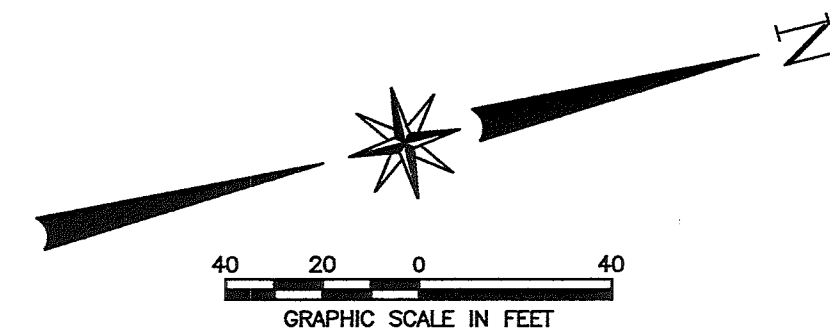


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KEY MAP
SCALE: 1" = 800'



LEGEND

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- MONUMENT RECOVERED
- IRON PIN TO BE SET
- # WETLAND FLAG
- U UTILITY POLE
- EXISTING MANHOLE
- ⊕ EXISTING SIGN
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- LIMIT OF 100 YEAR FLOOD
- BUILDING SETBACK LINE
- PROPOSED U.G. UTILITIES

SITE PLAN No. 6

PREPARED FOR

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

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PUTNAM, CONNECTICUT

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

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

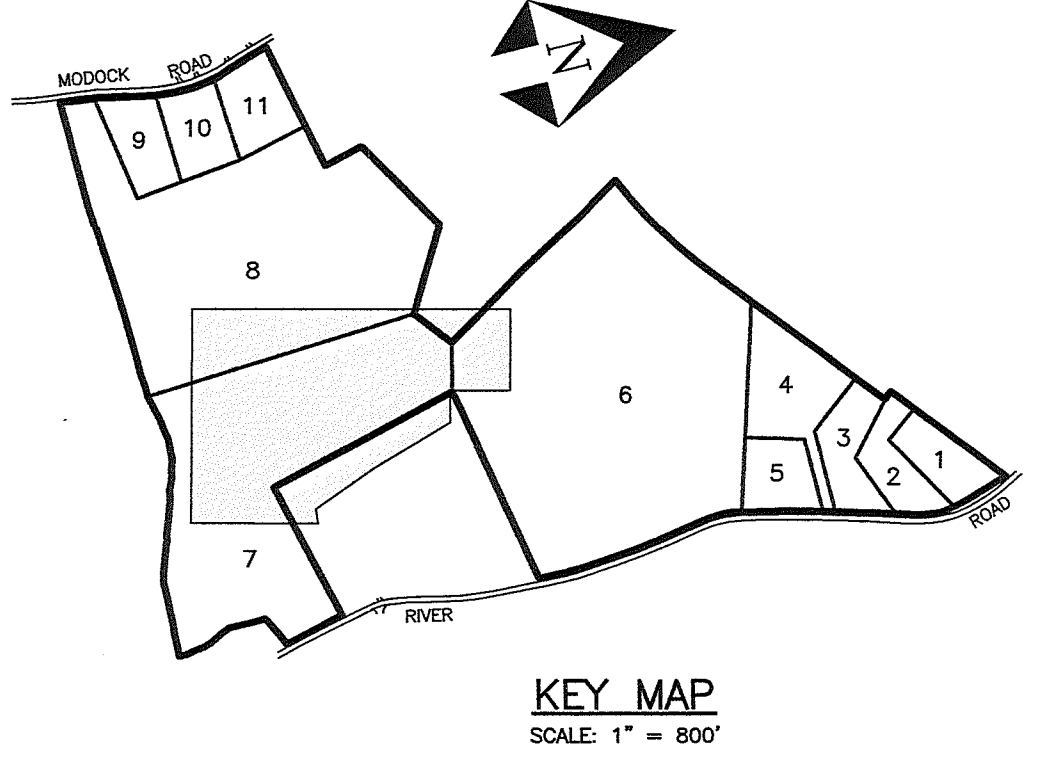
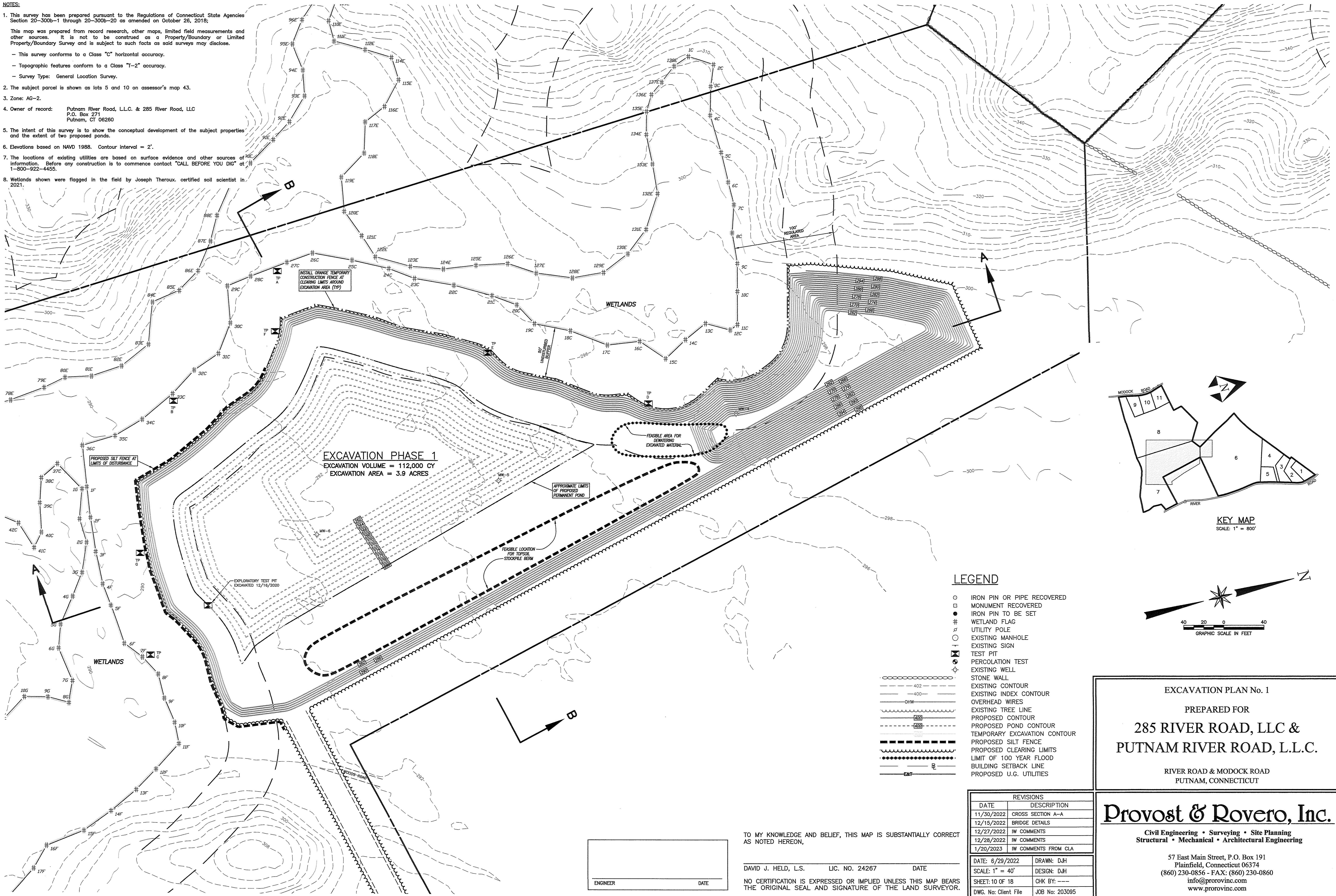
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ENGINEER	DATE
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REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022 DRAWN: DJH	
SCALE: 1" = 40' DESIGN: DJH	
SHEET: 9 OF 18 CHK BY: ---	
DWG. No: Client File JOB No: 203095	

NOTES:

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P.O. Box 271
Putnam, CT 06260
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- PROPOSED CLEARING LIMITS
- LIMIT OF 100 YEAR FLOOD
- BUILDING SETBACK LINE
- PROPOSED U.G. UTILITIES

EXCAVATION PLAN No. 1

PREPARED FOR
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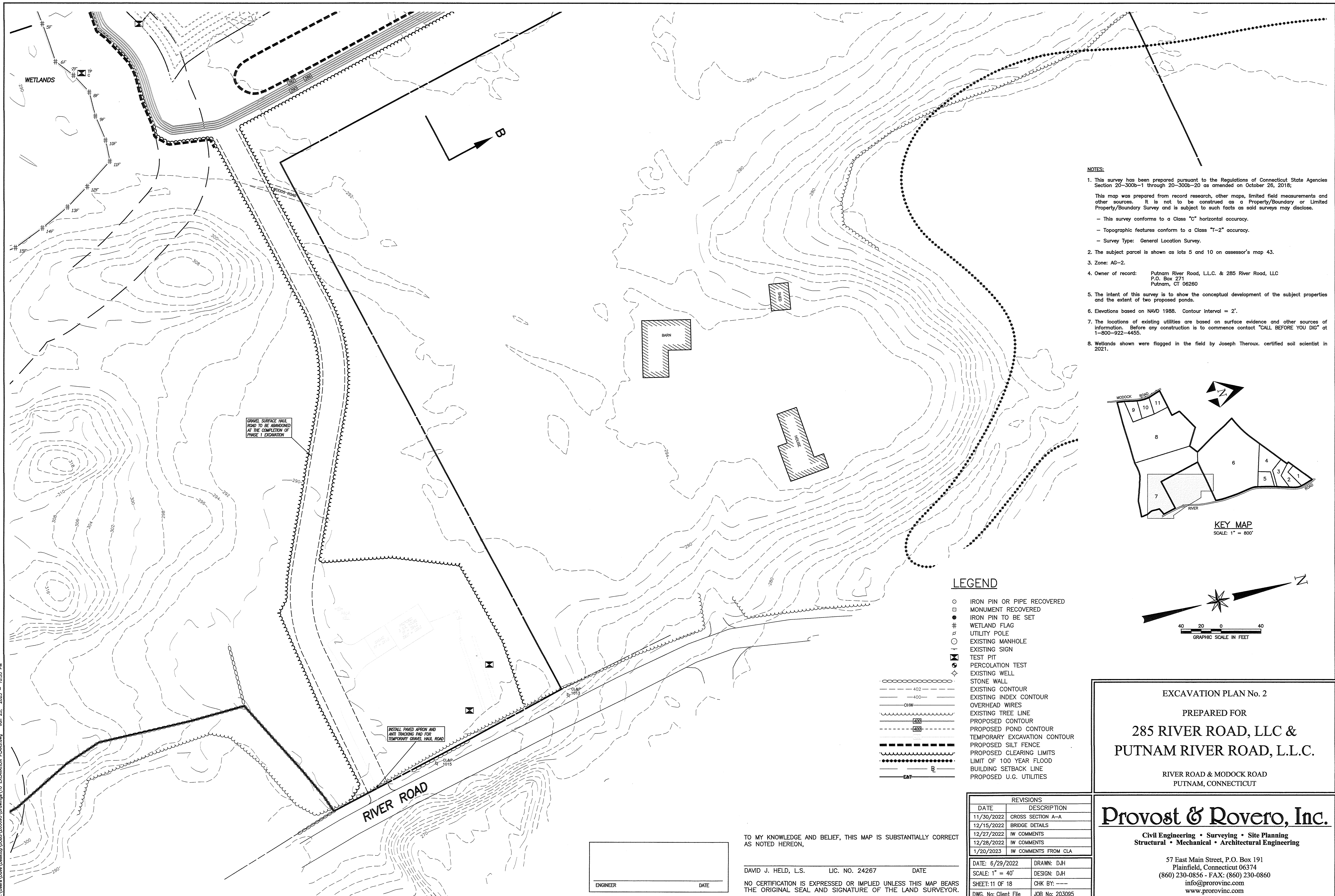
REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 10 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095

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

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

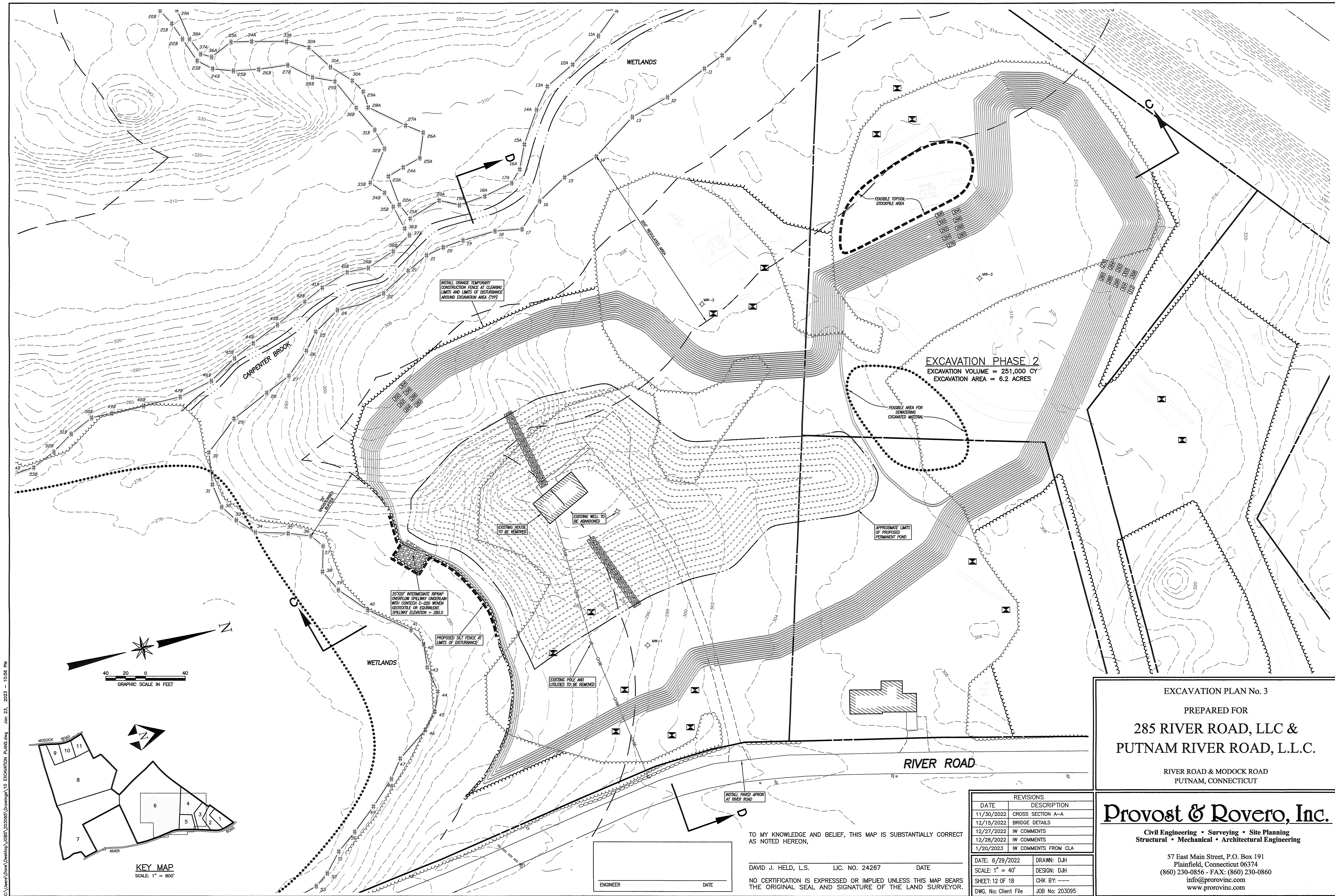
NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS
THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

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

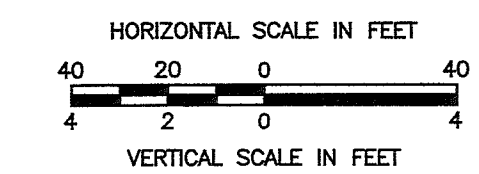
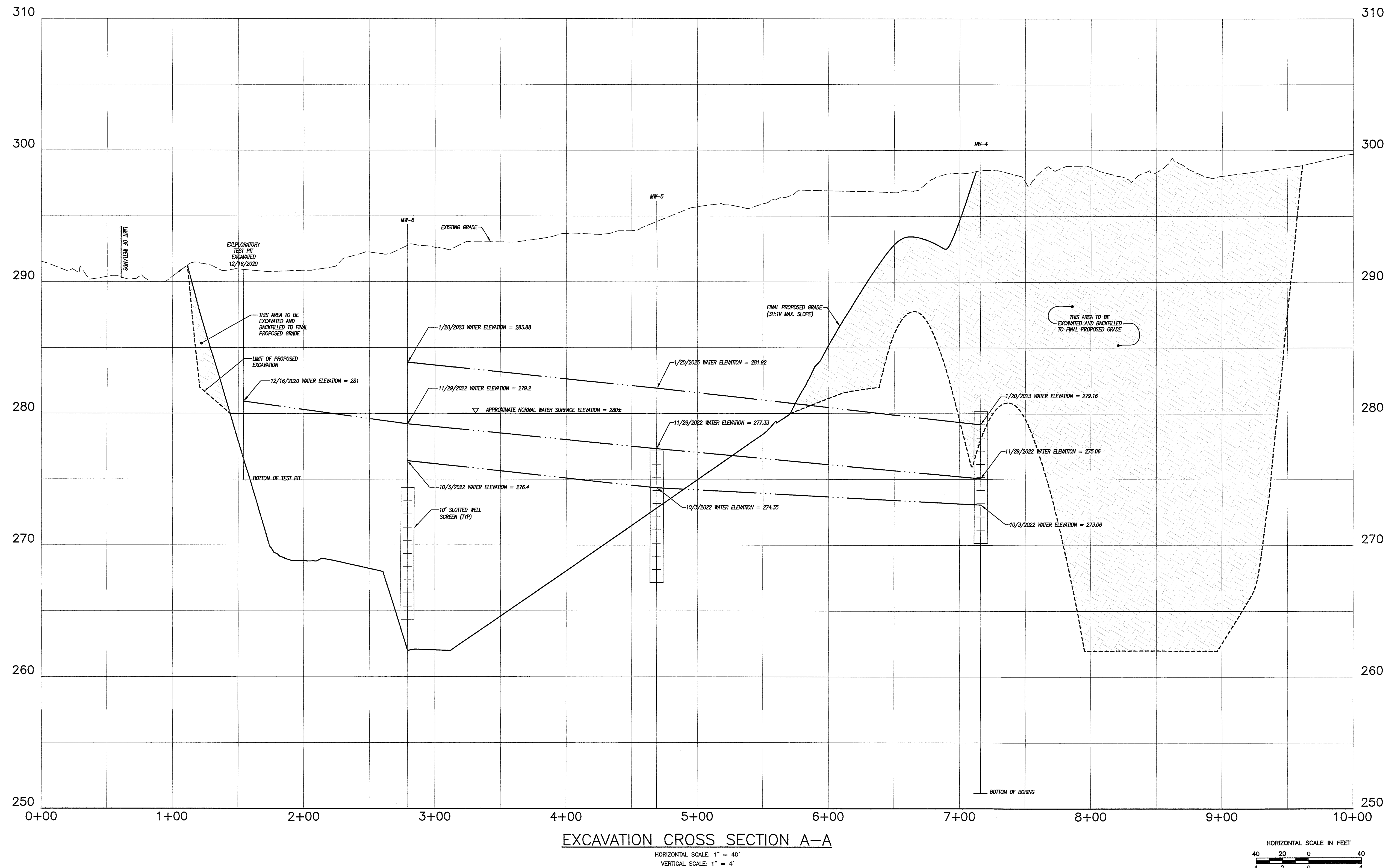
DAVID J. HELD, L.S. LIC. No. 24267 DATE
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REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022 DRAWN: DJH	
SCALE: 1" = 40' DESIGN: DJH	
SHEET: 12 OF 18 CHK BY: ---	
DWG. No: Client File	JOB No: 203095

EXCAVATION PLAN No. 3
PREPARED FOR
**285 RIVER ROAD, LLC &
PUTNAM RIVER ROAD, L.L.C.**
RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

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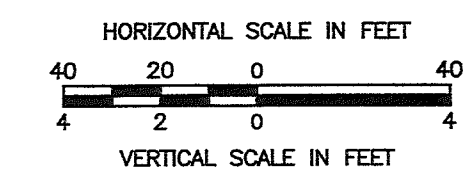
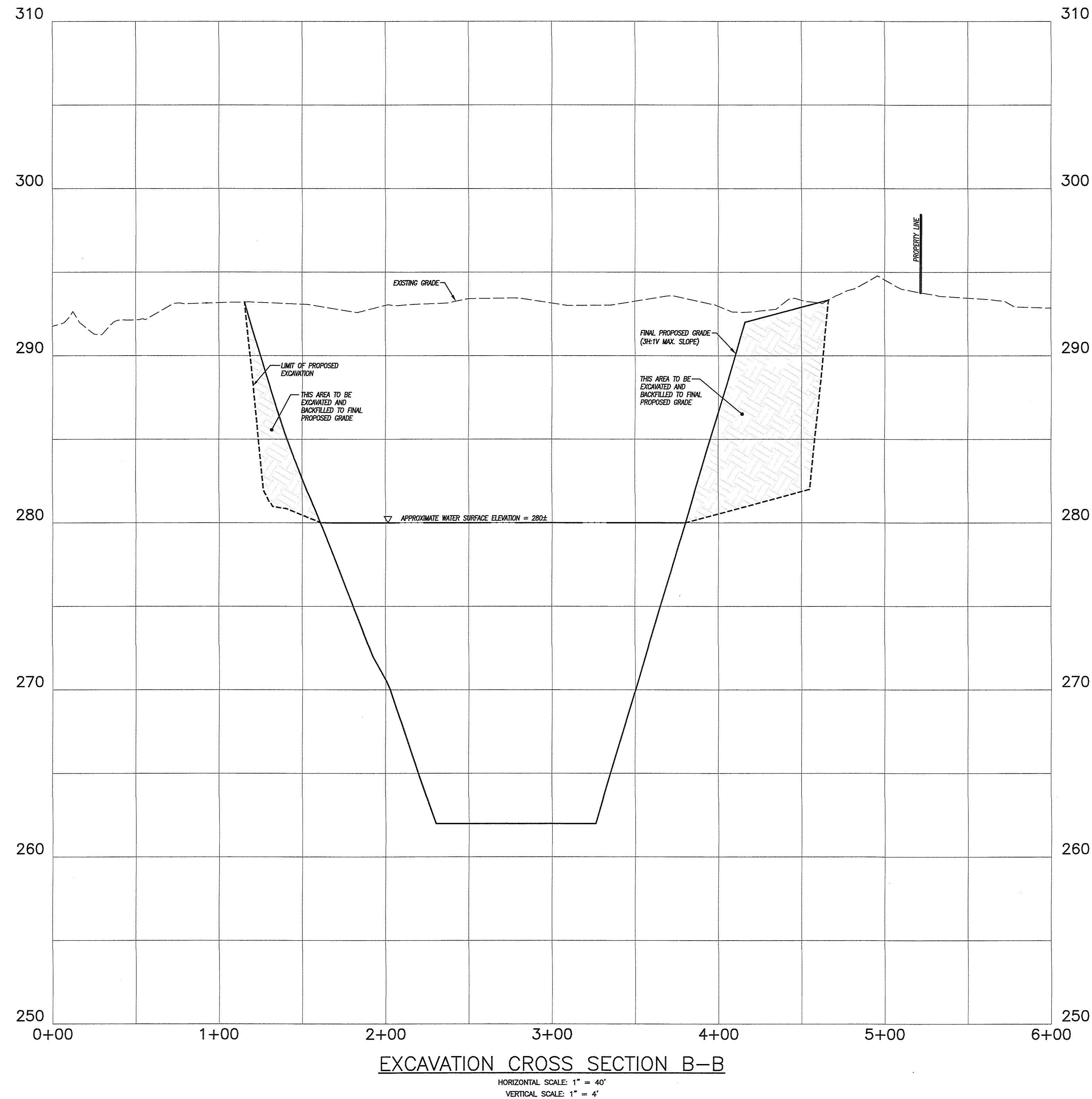
ENGINEER _____ DATE _____

REVISIONS	
DATE	DESCRIPTION
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12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022	DRAWN: DJH
SCALE: AS SHOWN	DESIGN: DJH
SHEET: 13 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095

EXCAVATION CROSS SECTION A-A
PREPARED FOR
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RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

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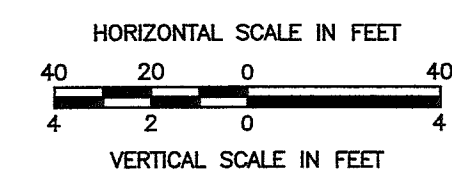
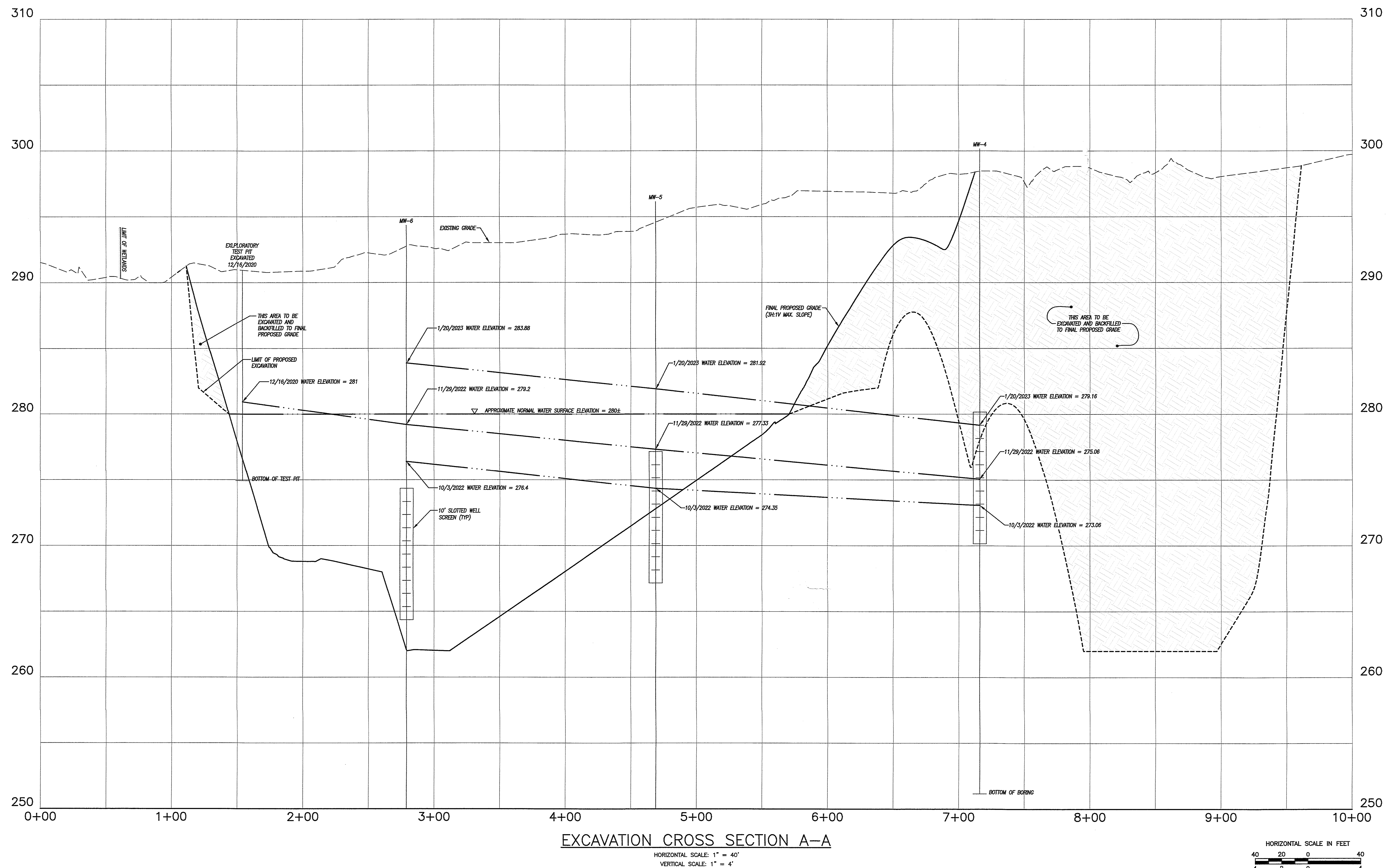
ENGINEER	DATE
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REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022	DRAWN: DJH
SCALE: AS SHOWN	DESIGN: DJH
SHEET: 14 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095

EXCAVATION CROSS SECTION B-B
PREPARED FOR
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PUTNAM RIVER ROAD, L.L.C.**
RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

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Plainfield, Connecticut 06374
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ENGINEER _____ DATE _____

REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022	DRAWN: DJH
SCALE: AS SHOWN	DESIGN: DJH
SHEET: 13 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095

EXCAVATION CROSS SECTION A-A

PREPARED FOR

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

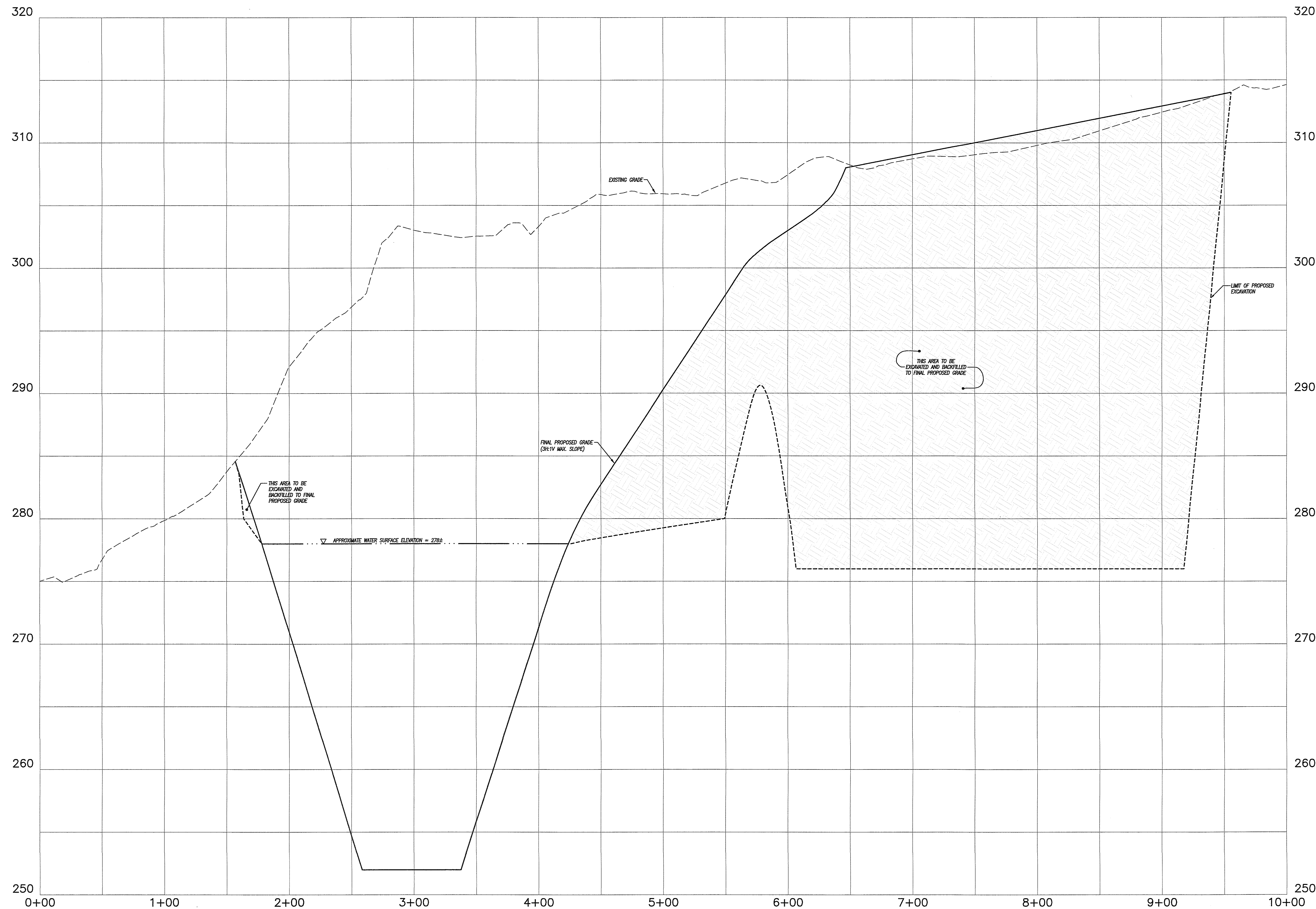
RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

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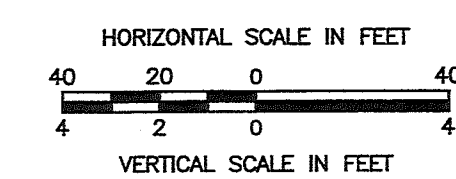
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EXCAVATION CROSS SECTION C-C

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



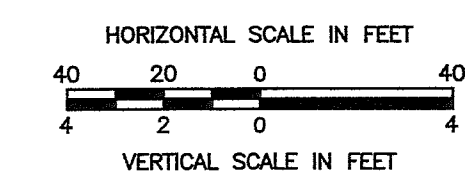
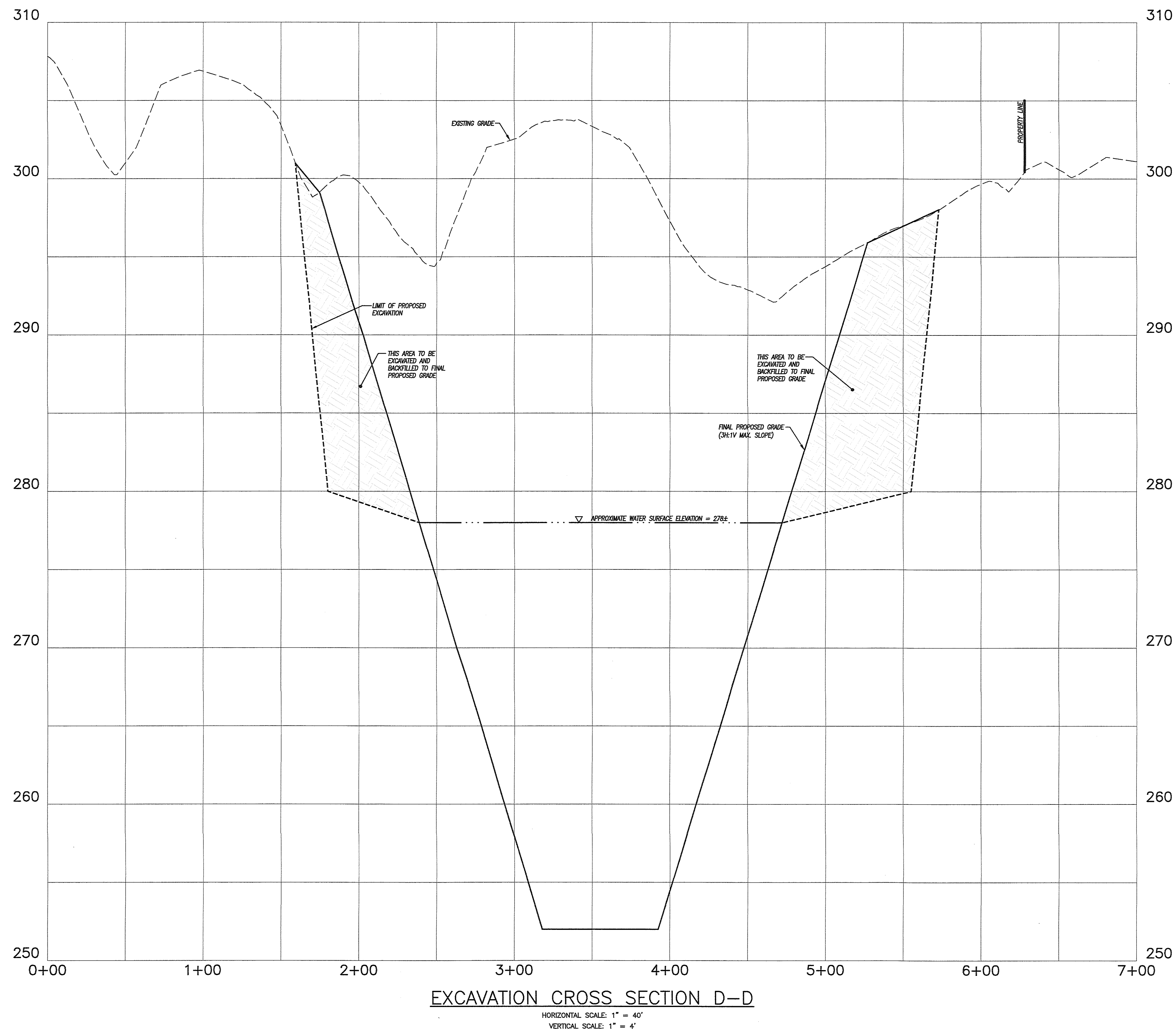
ENGINEER	DATE
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REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022	DRAWN: DJH
SCALE: AS SHOWN	DESIGN: DJH
SHEET: 15 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095

EXCAVATION CROSS SECTION C-C
PREPARED FOR
**285 RIVER ROAD, LLC &
PUTNAM RIVER ROAD, L.L.C.**
RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

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ENGINEER	DATE
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REVISIONS	
DATE	DESCRIPTION
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA

DATE: 6/29/2022	DRAWN: D.J.H.
SCALE: AS SHOWN	DESIGN: D.J.H.
SHEET: 16 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095

EXCAVATION CROSS SECTION D-D
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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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 grassed 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, discing, 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 seedlings 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 fill 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 reoccurrence 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 allowed for completion of the excavation work shown without the approval of by the Putnam Wetlands Agent and Zoning Agent. If blasting is required, the owner is responsible for obtaining all other necessary permits.

2. The emergency contact for operations at this site is Jeffrey Rowson (860) 428-7110. A different emergency contact may be designated if operations are completed 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. A watering truck shall be available for use at the site at all times.

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 363,000 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 downcutting 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, and gravel haul road.

4. Install temporary orange construction fencing at the limits of clearing and limits of disturbance around the excavation area.

5. Install the temporary gravel haul road to the Phase 1 excavation area.

6. Install silt fence at the down gradient limits of the Phase 1 excavation area perimeter.

7. 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.

8. Begin excavation by downcutting the entire Phase 1 area to an elevation approximately 2' above the water table.

9. 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.

10. 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.

11. Loam and seed disturbed areas and side slopes to establish permanent vegetative cover. See Restoration Notes below for additional details.

12. Upon the establishment of permanent vegetative stabilization of Phase 1, the gravel haul road shall be abandoned in place. This road may be utilized in the future for access to the permanent pond and other areas of the property as may be required from time to time.

13. Limits of clearing/disturbance for Phase 2 excavation shall be field staked or flagged by a licensed land surveyor.

14. 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.

15. Clear and grub trees for the excavation of Phase 2.

16. 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.

17. Install silt fence at the down gradient limits of the Phase 2 excavation area perimeter.

18. 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.

19. Begin excavation by downcutting the entire Phase 2 area to an elevation approximately 2' above the water table.

20. 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.

21. Excavate the southerly portion of Phase 2 to the proposed final elevations beginning with the installation of the riprap overflow spillway. Side slopes and the area adjacent to property boundaries shall be backfilled as required to establish proposed grades.

22. Loam and seed disturbed areas and side slopes to establish permanent vegetative cover. See Restoration Notes below for additional details.

23. 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. Silt shall be dewatered prior to being delivered to the site for restoration.

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:

Variety	Lbs/Acre
Switchgrass (Blackwell, Shelter, Cave-in-rock)	4.0
Big Bluestem (Niagra, Kaw)	4.0
Little Bluestem (Blaze, Aldous, Camper)	2.0
Sand Lovegrass (NE-27, Bend)	1.5
Bird's-foot Trefoil (Empire, Viking)	2.0
TOTAL	13.5

1. Hay or straw mulch shall be utilized on 3H:1V slopes to provide temporary stabilization during establishment of permanent vegetative cover. In general, no slopes greater than 3H:1V will be allowable. In the event that steeper slopes are necessary in isolated locations to transition to existing natural grades, no slopes should be steeper than 2H:1V. Install temporary erosion control blankets on 3H:1V and steeper slopes.

7. Fertilizer and lime shall be provided as required to establish a permanent vegetative cover.

8. In lieu of the manual application of mulch and fertilizer, the restoration area may be planted with hydroseeding methods with a suitable tackifier, mulch and fertilizer mix.

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6-1	0'-5" 5'-27" 27'-67" Mottling GWT N/A Ledge Restrictive	organics, topsoil brown sandy loam, rocks gray boney mottled very fine sand N/A N/A N/A N/A 27"																																																																																																																								
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6-2	0'-14" 14'-24" 24'-68" Mottling GWT N/A Ledge Restrictive	topsoil, garbage tan loamy sand, boney gray mottled loamy sand N/A N/A N/A N/A 27"																																																																																																																								
6-3	0'-10" 10'-15" 15'-44" 44'-78" Mottling GWT N/A Ledge Restrictive	organics, topsoil loamy sand gray very fine loamy sand, silty sandy & gravel, boney N/A N/A N/A N/A 15"																																																																																																																								
7-1	0'-8" 8'-24" 24'-73" Mottling GWT N/A Ledge	topsoil gravely loam sand, large rocks coarse sand & gravel, boney N/A N/A N/A 75"																																																																																																																								
7-2	0'-8" 8'-22" Mottling GWT N/A Ledge	topsoil, roots loamy fine sand, roots, rocks N/A N/A N/A 22" (unsuitable)																																																																																																																								
7-3	0'-8" 8'-24" 24'-72" Mottling GWT N/A Ledge	topsoil, roots loamy sand with fines, large rocks boney coarse sands & gravel N/A N/A N/A N/A																																																																																																																								
8-1	0'-10" 10'-30" 30'-75" Mottling GWT N/A Ledge Restrictive	organics, topsoil sandy loam, some gravel, roots coarse sands and gravel with rotten rocks N/A N/A N/A N/A 30"																																																																																																																								
8-2	0'-7" 7'-30" 30'-70" Mottling GWT N/A Ledge Restrictive	organics, topsoil sandy loam, some gravel, roots coarse sands & gravel with rotten rock N/A N/A N/A N/A 30"																																																																																																																								
9-1	0'-4" 4'-19" Ledge	organics, topsoil, roots sandy loam, roots 18"-19" (unsuitable)																																																																																																																								
9-3	0'-4" 4'-26" 26'-32" 32'-74" Mottling GWT N/A Ledge Restrictive	organics, topsoil, roots sandy loam, roots, rocks loamy fine sand, some roots, rocks compact rocks, silty loamy fine sand N/A N/A N/A N/A 32"																																																																																																																								
9-4	0'-5" 5'-14" 14'-29" 29'-63" Mottling GWT N/A Ledge Restrictive	organics, topsoil, roots sandy loam, roots, rocks loamy fine sand, few roots, rocks compact silty loamy very fine sand, rocks N/A N/A N/A N/A 29"																																																																																																																								
10-1	0'-2" 2'-15" 15'-22" 22'-36" Mottling GWT N/A Ledge	organics, topsoil brown fine sandy loam tan sandy loam, mod. compact gray compact sandy pan N/A N/A N/A 36" (unsuitable)																																																																																																																								
10-2	0'-3" 3'-16" 16'-24" 24'-34" Mottling GWT N/A Ledge	organics, topsoil brown fine sandy loam mod. compact fine sandy loam compact gray sandy pan N/A N/A N/A 34" (unsuitable)																																																																																																																								
10-3	0'-2" 2'-16" 16'-22" 22'-44" Mottling GWT N/A Ledge Restrictive	organics, topsoil, large rocks brown fine sandy loam tan loamy fine sand gray sandy pan, moist N/A N/A N/A N/A 22"																																																																																																																								
TEST PIT	DEPTH	SOIL DESCRIPTION																																																																																																																								
10-4	0'-2" 2'-18" 18'-23" 23'-54" Mottling GWT N/A Ledge	organics, topsoil brown fine sandy loam mod. compact tan loamy fine sand compact gray sandy pan, moist N/A N/A N/A 54"																																																																																																																								
10-5	0'-3" 3'-17" 17'-30" 30'-46" Mottling GWT N/A Ledge Restrictive	organics, topsoil, roots brown fine sandy loam tan loamy fine sand gray compact pan N/A N/A N/A N/A 30"																																																																																																																								
10-6	0'-3" 3'-16" 16'-26" 26'-58" Mottling GWT N/A Ledge Restrictive	organics, topsoil brown fine sandy loam mod. compact tan loamy fine sand compact gray pan, mottled N/A N/A N/A N/A 58"																																																																																																																								
10-7	0'-3" 3'-20" 20'-32" 32'-73" Mottling GWT N/A Ledge Restrictive	organics, topsoil brown fine sandy loam mod. compact tan loamy fine sand gray boney pan, rotten rock N/A N/A N/A N/A 32"																																																																																																																								
10-8	0'-4" 4'-15" 15'-26" 26'-75" Mottling GWT N/A Ledge Restrictive	organics, topsoil brown fine sandy loam, some rocks mod. compact tan loamy fine sand compact gray mottled pan N/A N/A N/A N/A 26"																																																																																																																								
11-1	0'-3" 3'-23" 23'-33" Mottling GWT N/A Ledge Restrictive	organics, topsoil sandy loam, roots, rocks moist tan loamy fine sand, large rocks mottled gray sandy pan, moist N/A N/A N/A 33"																																																																																																																								
11-2	0'-4" 4'-16" 16'-23" 23'-75" Mottling GWT N/A Ledge Restrictive	organics, topsoil tan loamy fine sand, mod. compact moist, compact grayish tan sandy pan N/A N/A N/A N/A 23"																																																																																																																								
12-1	0'-6" 6'-22" 22'-24" 24'-68" Mottling GWT N/A Ledge Restrictive	organics, topsoil, roots, rocks sandy loam, roots, rocks loamy fine sand, few roots compact silty loamy fine sand N/A N/A N/A N/A 68"																																																																																																																								
12-2	0'-5" 5'-26" 26'-72" Mottling GWT N/A Ledge Restrictive	organics, topsoil, roots, rocks loamy sand with fines, roots, rocks compact silty loamy fine sand with rocks N/A N/A N/A N/A 26"																																																																																																																								

DETAIL SHEET No. 1

PREPARED FOR

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

RIVER ROAD & MODOCK ROAD
PUTNAM, CONNECTICUT

Provest & Rovero, Inc.

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

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info@prorovinc.com
www.prorovinc.com

REVISIONS	
DATE	DESCRIPTION
11/30/2022	C

SEPTIC SYSTEM DESIGN CRITERIA

LOT 1
TP 1-3, 1-4, 1-5
Depth to restrictive layer = 27 in.
Slope % = 2.8 %
Number of Bedrooms = 3
Percolation rate = 4.6 min/in
Max. depth into exist. grade = 0 in.
System Size = 495 s.f.

Hydraulic Factor = 42
Flow Factor = 1.50
Perc Factor = 1.00

42 x 1.50 x 1.00 = 63.0'

MLSS = 63.0'

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 x 1.50 x 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 x 1.50 x 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 x 1.50 x 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 x 1.50 x 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
Depth 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 x 1.50 x 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 x 1.50 x 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 x 1.50 x 1.00 = 45.0'

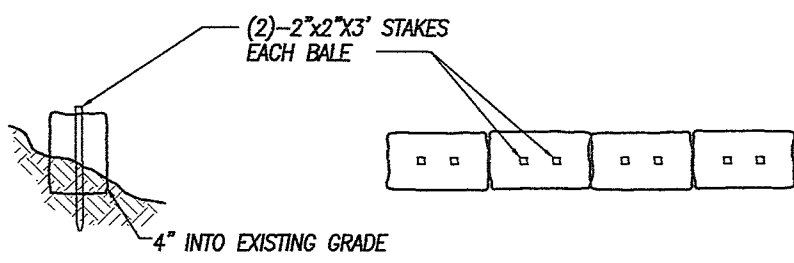
MLSS = 45.0'

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

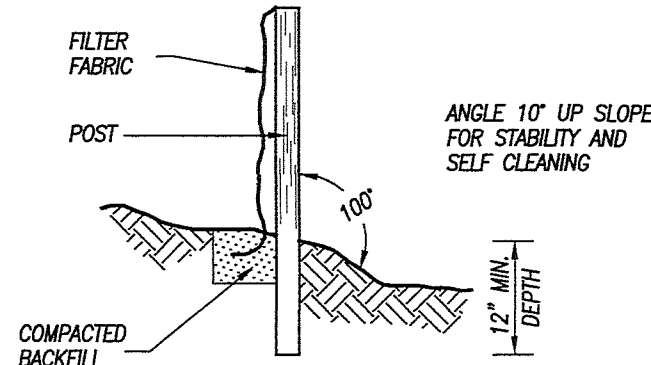
28 x 1.50 x 1.00 = 42.0'

MLSS = 42.0'



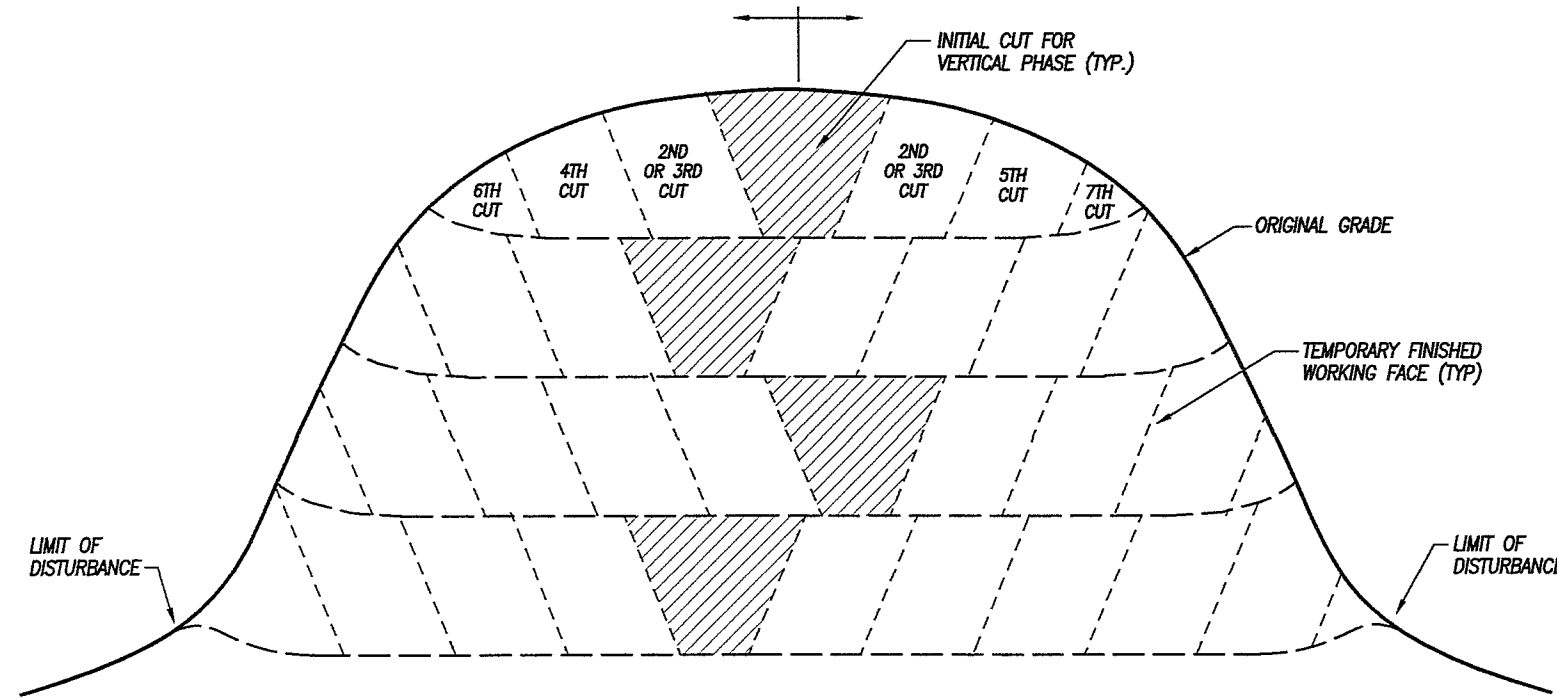
HAYBALE BARRIER

NOT TO SCALE



SILT FENCE

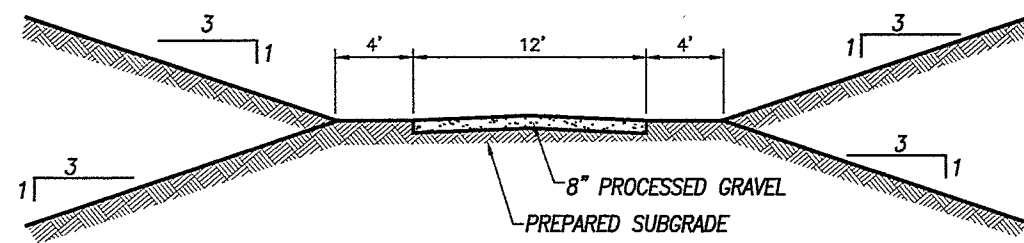
NOT TO SCALE



EXCAVATION PROGRESSES IN BOTH DIRECTIONS FOR ENTIRE LENGTH OF EACH VERTICAL SUBPHASE. STARTING AT BOTTOM OF INITIAL CUT, THEN AN INITIAL CUT IS MADE FOR THE SUBSEQUENT LOWER VERTICAL SUBPHASE AND THE PROCESS CONTINUES.

DETAIL SHOWING "DOWNCUTTING" EXCAVATION METHOD

NOT TO SCALE



RESIDENTIAL GRAVEL DRIVEWAY DETAIL

NOT TO SCALE

DETAIL SHEET No. 2

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
11/30/2022	CROSS SECTION A-A
12/15/2022	BRIDGE DETAILS
12/27/2022	IW COMMENTS
12/28/2022	IW COMMENTS
1/20/2023	IW COMMENTS FROM CLA
DATE: 6/29/2022	DRAWN: DJH
SCALE: AS SHOWN	DESIGN: DJH
SHEET: 18 OF 18	CHK BY: ---
DWG. No: Client File	JOB No: 203095

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



TOWN OF PUTNAM
MUNICIPAL COMPLEX
TOWN HALL
200 SCHOOL STREET • PUTNAM, CT 06260

AGENDA ITEM COVERSHEET

PLANNING COMMISSION

Application # _____

Date Received _____

Scheduled Meeting Date _____

ITEM

**Proposed Text Amendment to the
Town of Putnam, Connecticut Subdivision Regulations**
As prepared by Connecticut Department of Energy & Environmental Protection
ARTICLE III
319 Floodplains

Submitted by: Bruce Fitzback, Land Use Agent

Town Attorney Review Required: Yes, Attorney Roberts had no comment on the presented amendments.

This text amendment, as required by FEMA, prepared by CT DEEP must be adopted prior to the effective date (September 7, 2023) of the revised FEMA Flood Maps. Our final revisions and the date of our scheduled Town Meeting need to be delivered to NECCOG by the first week in August.

Financial Summary:

If the text amendment is not adopted prior to September 7, 2023, the town will no longer be eligible to participate in the National Flood Insurance Program.

Staff Recommendation:

Motion to approve the text amendment.

Respectfully submitted,

Bruce Fitzback, Land Use Agent

Supporting Materials (if yes, list attachments):

CT DEEP letter dated April 4, 2023



April 4, 2023

Chad Sessums
Building Official and Zoning Enforcement Officer
Town of Putnam
Town Hall
200 School Street
Putnam, CT 06260

RE: Comprehensive Review of the Town of Putnam's Flood Damage Prevention Ordinance (Chapter 211), Zoning Regulations (Section 605) and Subdivision Regulations

Dear Mr. Sessums:

On July 17, 2020, the Federal Emergency Management Agency (FEMA) presented your community with new preliminary Flood Insurance Rate Maps (FIRM). **These maps are currently scheduled to become effective on September 7, 2023.** In order for your community to remain eligible to participate in the National Flood Insurance Program (NFIP), the Town of Putnam must adopt revised regulations for development in designated FEMA floodplains that meet or exceed the minimum federal standards of 44 CFR 60.3 prior to the effective date of the community's new FIRM. FEMA issued a letter dated March 7, 2023 to the Town of Putnam outlining these requirements and providing the new effective map date.

In order to assist the community in this map revision process, the CTDEEP has reviewed your community's existing floodplain management regulations for compliance with 44 CFR 60.3. The review indicated that revisions to the community's existing floodplain regulations are needed in order to maintain minimum compliance with the NFIP minimum standards.

The following comments were generated as a result of the recent review and are presented in the order of your current regulations. Comments or words written in bold or strike-through text indicate the definition, section, or wording is required for minimum compliance with FEMA regulations and recently adopted state floodplain management requirements. Text in italics is for explanation purposes.

SUBDIVISION REGULATIONS

The Subdivision Regulations do not contain the required minimum floodplain management standards for subdivision proposals in the floodplain. Please add the bold text shown below as new Article III Section 319.

ARTICLE III

319 Floodplains

If a proposed subdivision, including the placement of a manufactured home park or subdivision, is located in a Special Flood Hazard Area (SFHA) the following requirements shall apply:

1. All subdivision proposals shall be consistent with the need to minimize flood damage.
2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.
4. The Building Official shall require the applicant to provide BFE data for all subdivision proposals, including manufactured home parks and subdivisions. In all special flood hazard areas where base flood elevation (BFE) data is not available, the applicant shall provide a hydrologic and hydraulic engineering analysis performed by a registered professional engineer that generates BFEs for all subdivision proposals and other proposed development, including manufactured home parks and subdivisions.

ZONING REGULATIONS (Section 605)

Please edit the sections below with the bold text provided. Remove any strikethrough text.

B. Minimum Site Development Requirements

3. No structural use and no filling shall be permitted within the floodway unless permitted by the Commission as a Special Permit for such public purposes as road crossings, minor recreational improvements, or safety improvements, provided that **certification, with supporting technical data, by a registered professional engineer is provided demonstrating, through hydrologic and hydraulic analyses performed in accordance with standard engineering practice, that encroachments shall not result in any (0.00 feet) increase in flood levels during occurrence of the base flood discharge published by FEMA. Fences in the floodway must be aligned with the flow and be of an open design. A permit may be given which allows encroachments resulting in increases in base flood elevations provided the community first obtains a conditional floodway revision by meeting the requirements of C.F.R. 44, Chapter 1, Subsection 65.12.**

C. Building Floor Elevations

1. **The lowest floor elevation of all stories in any residential building shall be raised to or above the base flood elevation plus one (1.0) foot.**
2. Stories used exclusively for mechanical ~~or storage~~ **or utility equipment in a non-residential structure** may be built below the **base flood elevation** provided that **the structure is dry flood-proofed to one (1.0) foot above the base flood elevation. The areas of the structure below the required elevation must be made watertight with walls substantially impermeable to the passage of water, and provided that such structures are composed of structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. A registered professional engineer or architect shall review and/or develop structural design specifications and plans for the construction, and shall certify that the design and methods of construction are in accordance with acceptable standards of practice for meeting the provisions of this section. Such certification shall be provided to the Building Official on the FEMA Dry Floodproofing Certificate.**

D. Development in a Flood Hazard Area

Development proposals shall be examined by the Commission to determine applicability of the Flood Hazard Regulations **and the Flood Damage Prevention Ordinance.** If any construction or alteration of structures are proposed in a flood prone area as shown on the Town of Putnam **Flood Insurance Rate Map**, the applicant shall demonstrate to the Commission that the proposal is consistent with the need . . .

Any development proposals ~~which encompass five (5) acres or more~~ shall include base flood elevation data.

The Commission shall require:

1. All new construction and substantial improvements of residential structures to have the lowest floor (including basement) elevated to or above the base flood **elevation plus one (1.0) foot**;
2. All new construction and substantial improvements of non-residential structures to have the lowest floor (including basement) elevated or **dry** flood-proofed to or above the base flood **elevation plus one (1.0) foot**; and

FLOOD DAMAGE PREVENTION ORDINANCE (Chapter 211)

Article II DEFINITIONS, 211-5 Terms Defined

Please add the following definitions in bold text to Section 211-5. Please remove the definitions "Addition (To An Existing Building)", "Flood Hazard Boundary Map (FHBM)", "Floor" and National Geodetic Vertical Datum (NGVD)" as these definitions are no longer applicable.

BASE FLOOD ELEVATION (BFE)

The elevation of the crest of the base flood or 100-year flood. The height in relation to mean sea level expected to be reached by the waters of the base flood at pertinent points in the floodplains of coastal and riverine areas.

This is an optional definition, but it is recommended. This is not a required federal definition.

COST

As related to substantial improvements, the cost of any reconstruction, rehabilitation, addition, alteration, repair or other improvement of a structure shall be established by a detailed written contractor's estimate. The estimate shall include, but not be limited to: the cost of materials (interior finishing elements, structural elements, utility and service equipment); sales tax on materials, building equipment and fixtures, including heating and air conditioning and utility meters; labor; built-in appliances; demolition and site preparation; repairs made to damaged parts of the building worked on at the same time; contractor's overhead; contractor's profit; and grand total. Items to be excluded include: cost of plans and specifications, survey costs, permit fees, outside improvements such as landscaping, sidewalks, fences, yard lights, irrigation systems, and detached structures such as garages, sheds, and gazebos.

EXISTING MANUFACTURED HOME PARK OR SUBDIVISION

A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured home are to be affixed (including, as a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date, October 18, 1988, of the floodplain management regulations adopted by the community.

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION

The preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

The federal agency that administers the National Flood Insurance Program (NFIP).

This is an optional definition, but it is recommended. This is not a required federal definition.

FINISHED LIVING SPACE