



**TOWN OF KILLINGLY  
INLAND WETLANDS AND WATERCOURSES COMMISSION**

**Monday, March 20, 2023**

**Special Meeting – In Person**

**7:00 PM**

**Second Floor – Room 204**

**Killingly Town Hall**

**172 Main Street**

**Killingly, CT**

*Elysebeth M. Wilson*

2023 MAR 16 PM 2:59

RECEIVED  
TOWN CLERK, KILLINGLY, CT

**AGENDA**

Public can also view this meeting on Facebook Live.

Go to [www.killinglyct.gov](http://www.killinglyct.gov) and click on Facebook Live at the bottom of the page.

- I. **CALL TO ORDER**
- II. **ROLL CALL**
- III. **ADOPTION OF MINUTES** – (Review/Discussion/Action)
  - A. May 2, 2022, Regular Meeting Minutes
- IV. **CITIZENS' PARTICIPATION** – Public comment can be emailed to [publiccomment@killinglyct.gov](mailto:publiccomment@killinglyct.gov) or mailed to Town of Killingly, 172 Main Street, Killingly, CT 06239 on or before the meeting. All public comment received prior to the meeting will be posted on the Town's website [www.killinglyct.gov](http://www.killinglyct.gov).
- V. **Unfinished Business:** – (Review/Discussion/Action)
  - A. **Application 22-1555 of the Town of Killingly** for the dredging of approx. 14,000 cy of material from pond to increase irrigation for recreational fields; 580 Hartford Pike (Owen Bell Park); Map ID 6996, Alt ID 114-43; VC / LD.
  - B. **Application 22-1556 of Meriam & Joel Smith** for jurisdictional ruling, notification of invasive species management; 10 Kies Road; Map ID 4578, Alt ID 222-18, Rural Development Zone.
- VI. **New Business:** (listed in order of receipt) – (Review/Discussion/Action)
  - A. **Application 22-1553 of American Retaining Walls LLC** for construction of a single-family home with associated grading, septic, well and multiple wetlands crossings; 210 Snake Meadow Road; Map ID 9627, Alt ID 246-2 & 247-11, Rural Development Zone.  
  
*If the application is complete the Commission shall decide if a public hearing and/or site walk should be held on each application and continue further action until next month's meeting. The Commission may also delegate to its duly authorized agent.*
- VII. **Correspondence to the Commission**
- VIII. **Staff Report**
  - A. Authorized Agent Applications
  - B. Monthly Zoning/Wetlands Report
  - C. Other

**IX. Town Council Liaison**

**X. Adjournment**

**TOWN OF KILLINGLY  
INLAND WETLANDS AND WATERCOURSES COMMISSION (IWWC)  
REGULAR MEETING MINUTES**

Town Meeting Room  
2<sup>nd</sup> Floor Killingly Town Hall  
172 Main Street  
Danielson, CT

Monday, February 6, 2023, 7:00 p.m.

RECEIVED  
TOWN CLERK, KILLINGLY, CT  
2023 FEB 15 AM 8:12  
Eggersbeth, M., Quisler

I. Call to Order: Chairperson Eggers called the meeting to order at 7:05 p.m.

II. Roll Call:

**Members Present:** Paul Archer, Chairman Sandy Eggers, Vice Chairman Rodney Galton, Secretary Corina Torrey.

**Also Present:** Jonathan Blake, Town Planner/Zoning Enforcement Officer

III. Adoption of Minutes:

**MOTION #1** made by Rodney Galton **SECONDED BY** Corina Torrey that the Inland Wetlands and Watercourses Commission approve May 2, 2022 Regular Meeting Minutes as presented

**VOICE VOTE: UNANIMOUS;**

**MOTION CARRIED**

IV. Citizens' Participation: none

V. Unfinished Business:

**A. Application #22-1553**, Jim Collins for construction of single-family home with associated grading, septic, well and multiple wetlands crossings; 210 Snake Meadow Road; Map ID 9627, Alt ID 246-2 & 247-11; Rural Development Zone

**APPLICANT / ENGINEER COMMENTS:** Normand Thibeault, Killingly Engineering Associates, Killingly Engineering Associates, was present to represent the applicant. He reviewed site plans as submitted into the record. He noted this is a unique property in terms of layout and access. Existing driveway was constructed as part a previous logging operation. There are 3 segments of existing driveway crossings. During construction, there was 2500 sq. ft. of disturbance as part of the logging operation.

Current property owner would like to widen driveway, therefore, creating an additional 2500 sq. ft of disturbance. There will be 3 points where wetlands flow at proposed driveway. Water management design calls for installation of pipes at all 3 pass points.

**IWWC COMMENTS:** After reviewing this application closer and looking at photos of the property it was clarified this permit is only for 210 Snake Meadow Road and should not include abutting properties. Calculations associated to disturbances will need to be modified.

Additionally, current condition of existing crossing areas is not acceptable and IWWC recommends restoration on these areas as part of this application. Wetlands areas were flagged sometime in November 2021. IWWC recommends an updated report from a Soil Scientist be submitted for review.

In fairness, IWWC has not met in many months. Therefore, applicant was not able to receive IWWC recommendations as permitting process moved along. If applicant submits a new application - fees will be waived.

**MOTION #2** made by Rodney Galton **SECONDED BY** Paul Archer that the Inland Wetland and Watercourses Commission deny without prejudice **Application #22-1553**  
**VOICE VOTE: UNANIMOUS; MOTION CARRIED**

- B. Application #22-1555**, Town of Killingly, for dredging of approx. 14,000 cy of material from pond to increase irrigation for recreational fields; 580 Hartford Pike (Owen Bell Park); Map ID 6996, Alt ID 114-43; VC /LD

**TOWN STAFF COMMENTS:** Plans have been reviewed as submitted into the record. Fill is de-watered and re-purposed.

**IWWC COMMENTS:** There were safety concerns associated to edge of pond being too deep. Persons, children, and animals may fall in off the edge, therefore, there is the need for grades to be flattened out at the edge with a gradual increase in depth inward.

A question was asked if a dry hydrant was needed. Fire Department said a dry hydrant was not preferred.

**MOTION #3** made by Rodney Galton **SECONDED BY** Paul Archer that the Inland Wetland and Watercourses Commission table **Application #22-1555**, Town of Killingly,  
**VOICE VOTE: UNANIMOUS; MOTION CARRIED**

- C. Application #22-1556**, Meriam & Joel Smith for Jurisdictional Ruling notification of invasive species management; 10 Kies Road; Map ID 4578, Alt ID 222-18; Rural Development Zone

**TOWN STAFF COMMENTS:** Dave Cappachione, Town Engineer, reviewed application. There is a chemical use proposal associated to this application. It is believed industry standard is being followed as well as best management practices.

There was review of small sketch showing area. Staff is in the process of obtaining additional information on chemical use and will come back to IWWC to present.

**MOTION #4** made by Rodney Galton **SECONDED BY** Paul Archer that the Inland Wetland and Watercourses Commission table **Application #22-1556**  
**VOICE VOTE: UNANIMOUS; MOTION CARRIED**

VI. New Business: None

VII. Correspondence to the Commission: as submitted in agenda packet.

VIII. Staff Report:

A. Authorized Agent Application:

1. App 22-1546 Deborah McSheeney 255 North Shore Rd: removal existing concrete patio & stairs replaced with pavers & granite stairs within 200' of upland review. **APPROVED 6/6/2002.**
2. App 22-1547 American Retaining Wall LLC. Jurisdictional ruling – notification of timber harvest 150,750 board feet by Hull Forest Products. 210 Snake Meadow Rd. **EXEMPT.**



3. App 22-1548 Crista Nolan 1781 Upper Maple St. removal existing concrete stairs to be replaced with granite stairs & rebuild stone wall at waters edge. **APPROVED W/CONDITIONS. 8/10/22.**
4. App 13-1384 Bld. America Co. (Tri-Lakes): 520 Bailey Hill Rd; Phase I of 31-lot subdivision. **FOUR YEAR EXTENSION GRANTED TO JULY 8, 2027 PER CGS 8-3K ON 8.15.22.**
5. App 22-1549 Gospel Light Christian Fellowship; 726 Providence Pike; for construction of church. **APPROVED W/CONDITIONS. 8/25/22.**
6. App 22-1550 Scott Person; 200 Putnam Pike for selective timber harvest. **EXEMPT.**
7. App 22-1551 Scott Wheaton 252 No Shore Rd; for demolition of existing cottage and construction of four-bedroom house. **APPROVED 9.13.22.**
8. App 22-1552 Janice Bosworth 235 No Shore Rd.; addition to existing cottage. **APPROVED 9.13.22.**
9. App 12-1376 Paul Rollins, adjacent to Alexander's Lake, 11 weeks lane. Replace existing wall located adjacent to Alexander's Lake. **FIVE YEAR EXTENSION GRANTED TO NOVEMBER 5, 2027 PER CGS 8-3K ON 9/20/22.**
10. App 22-1554 CDLS Mobile Repair LLC for addition and regrading and fill w/ 200 ft of upland review. 919 No. Main Street. **APPROVED W/CONDITIONS. 10/20/22.**

IX. Town Council Liaison:

X. Adjournment

**MOTION #5** made by Rodney Galton **SECONDED BY** Paul Archer that the Inland Wetland and Watercourses Commission adjourn meeting at 8:05 PM  
**VOICE VOTE: UNANIMOUS; MOTION CARRIED**

Respectfully submitted,  
Sherry Pollard  
IWWC Recording Secretary

# TOWN OF KILLINGLY

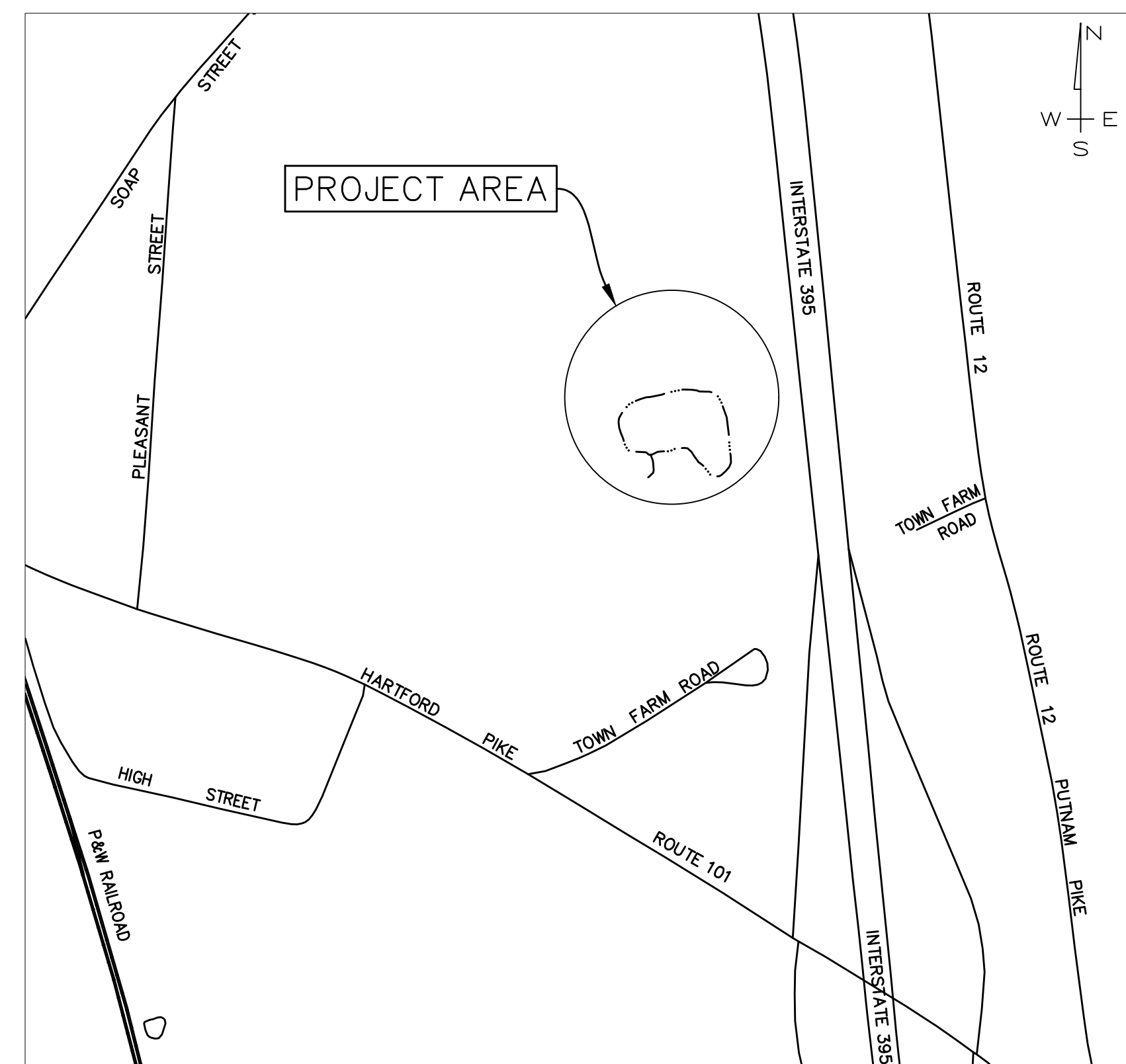
## PLANS

FOR IMPROVEMENTS TO

# OWEN BELL PARK POND

PREPARED BY  
ENGINEERING DEPARTMENT

MARCH, 2023



LOCATION PLAN

\*NOT TO SCALE\*

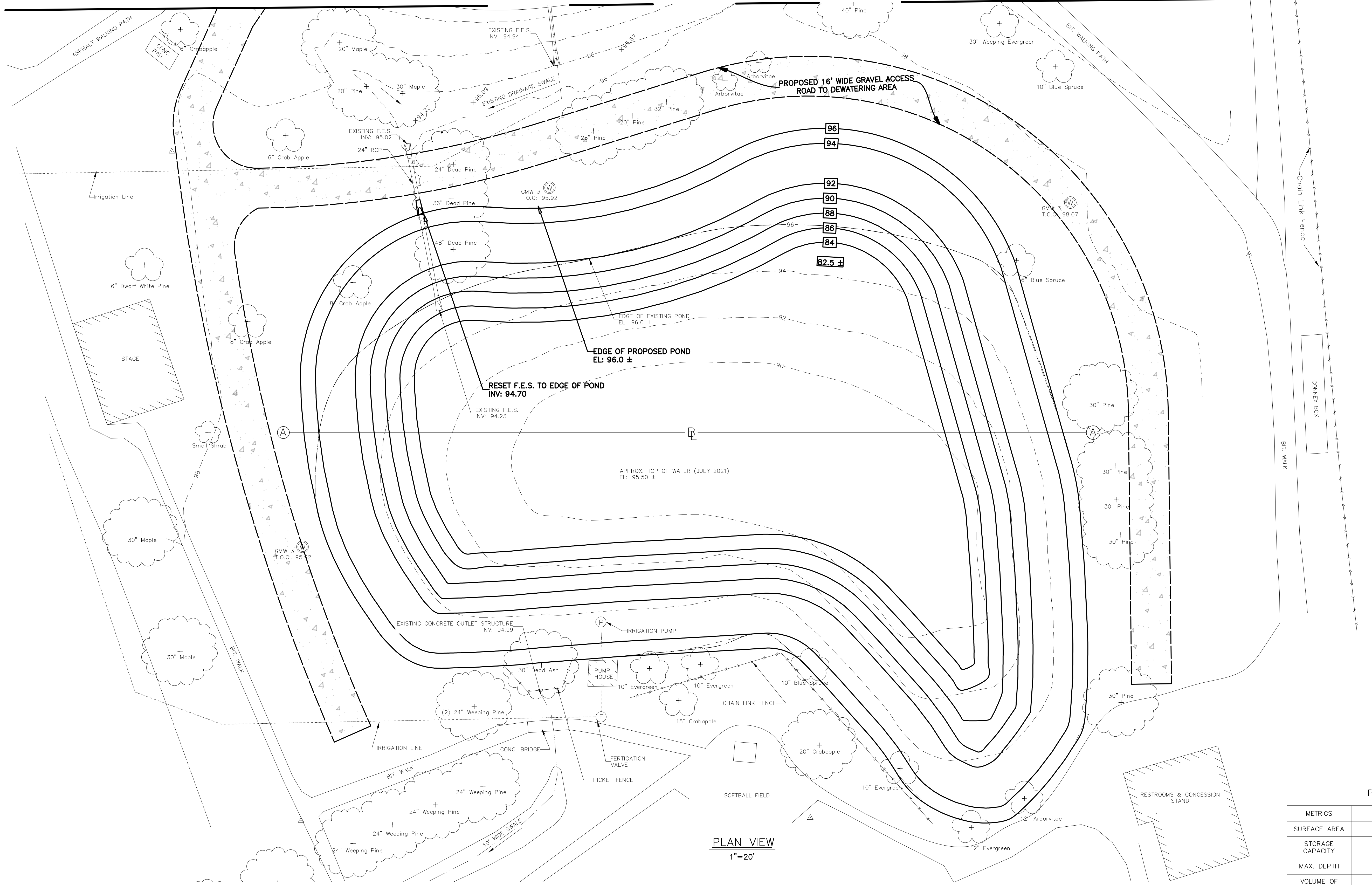
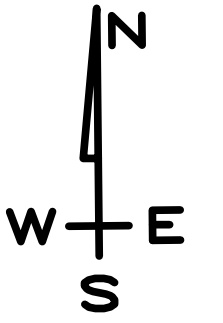
### INDEX TO DRAWINGS

1. TITLE SHEET
2. DREDGING PLAN
3. DEWATERING PLAN
4. DETAILS & NOTES

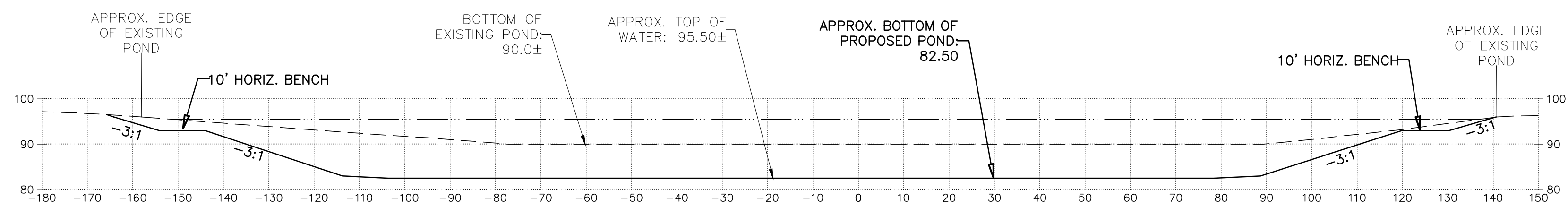
### REVISIONS

1. 3/2/2023 – POND SIDE SLOPE BENCHING

MATCH LINE



PLAN VIEW  
1"=20'



SECTION A-A  
H: 1"=20'  
V: 1"=20'

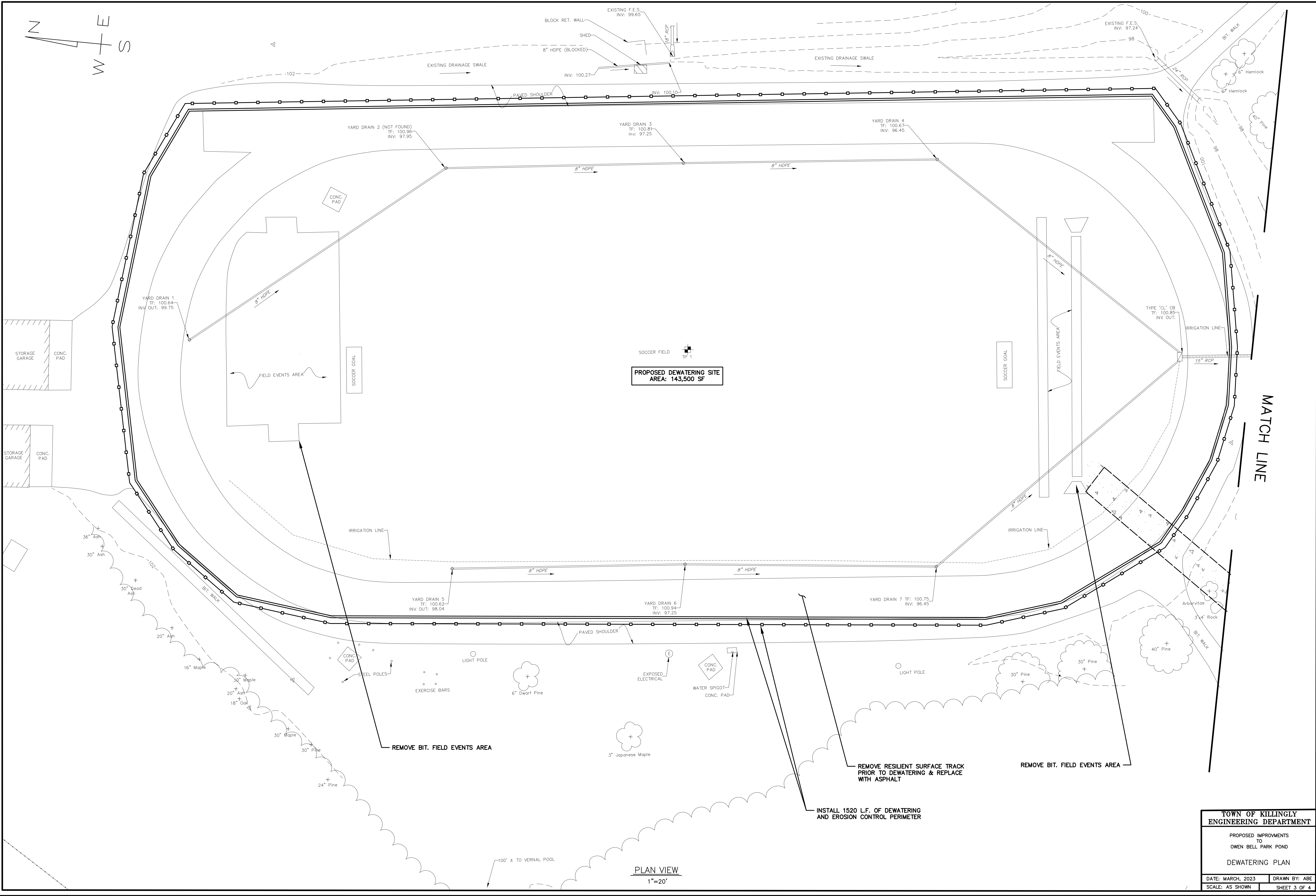
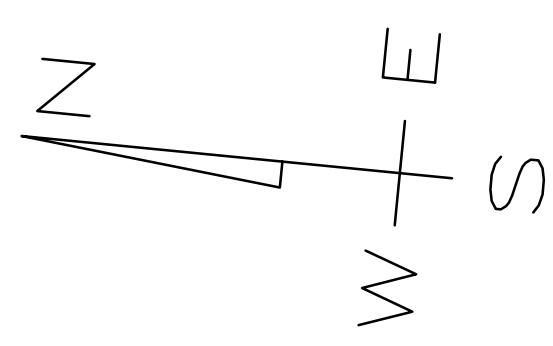
POND COMPARISON TABLE		
METRICS	EXISTING POND	PROPOSED POND
SURFACE AREA	51,237.62 FT <sup>2</sup>	60,742.91 FT <sup>2</sup>
STORAGE CAPACITY	1,300,454 GAL	3,663,305.40 GAL
MAX. DEPTH	± 4.5 FT	± 13 FT
VOLUME OF MATERIAL TO BE REMOVED	-	11,756.81 YD <sup>3</sup>

**TOWN OF KILLINGLY  
ENGINEERING DEPARTMENT**

PROPOSED IMPROVEMENTS  
TO  
OWEN BELL PARK POND

DREDGING PLAN

DATE: MARCH, 2023    DRAWN BY: ABE  
SCALE: AS SHOWN    SHEET 2 OF 4



PLAN VIEW  
 1"=20'

TOWN OF KILLINGLY ENGINEERING DEPARTMENT	
PROPOSED IMPROVEMENTS TO OWEN BELL PARK POND	
DEWATERING PLAN	
DATE: MARCH, 2023	DRAWN BY: ABE
SCALE: AS SHOWN	SHEET 3 OF 4



GENERAL NOTES:

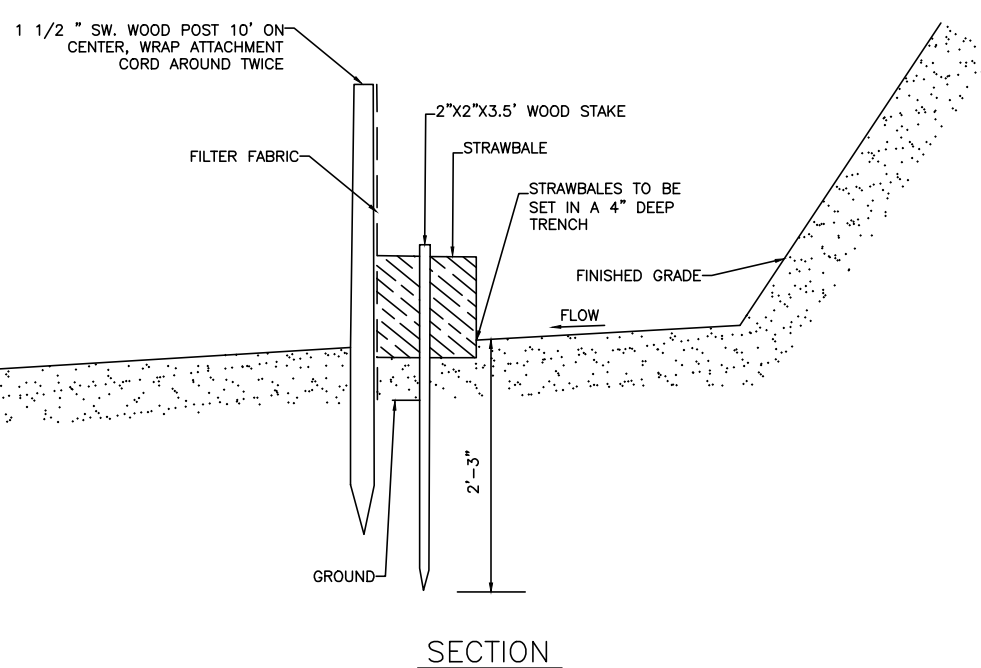
1. THE HORIZONTAL DATUM SHOWN HEREON IS THE NORTH AMERICAN DATUM OF 1983 (NAD 83) CONNECTICUT STATE PLANE COORDINATE SYSTEM, FEET.
2. THE VERTICAL DATUM FOR TOPOGRAPHY SURROUNDING THE POND AND BATHYMETRY IN THE POND REFERENCES NAVD88.
3. POND BOTTOM CONTOURS ARE IN FEET, AND WERE GENERATED USING AUTOCAD CIVIL 3D. DATA TO CREATE CONTOURS FROM WATER DEPTH MEASUREMENTS IN THE FIELD BY THE TOWN OF KILLINGLY STAFF IN JULY 2021 AND CAN ONLY BE CONSIDERED TO REPRESENT CONDITIONS EXISTING AT THAT TIME. THE WATER SURFACE ELEVATION AT THE TIME OF FIELD MEASUREMENTS WAS 95.50 FEET AND ALL WATER DEPTHS ARE REFERENCED TO THIS ELEVATION.
4. PROPOSED DREDGE AND EXCAVATION CONTOURS SHOWN ARE APPROXIMATE. PROJECT OBJECTIVE IS TO DREDGE AND EXCAVATE ACCUMULATED SOFT SEDIMENT WITHIN THE PROJECT LIMITS AND CREATE A BASIN WITH A MAXIMUM DEPTH OF 13 FEET BELOW WATER SURFACE, CONTOURS SHOWN RESULT IN A DREDGE VOLUME OF APPROXIMATELY
5. SEDIMENT DEWATERING TO OCCUR ON ADJACENT SOCCER FIELD TO THE NORTH AS SHOWN ON PLANS.

SEDIMENTATION & EROSION CONTROL NOTES:

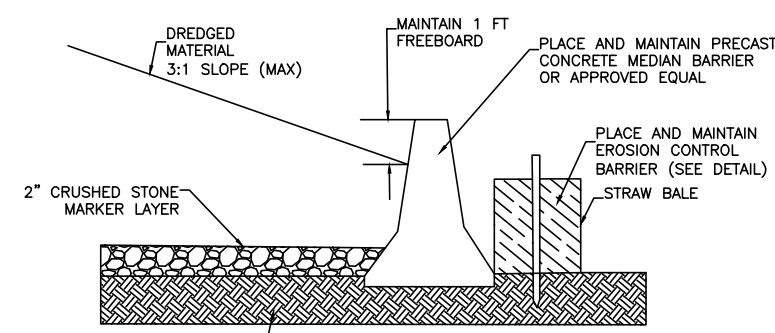
1. THE CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES, AS SPECIFIED ON THE DRAWINGS AS NECESSARY, AND IS REQUIRED BY THE PERMITS.
2. PERIMETER SOIL AND EROSION CONTROLS SHALL BE PLACED PRIOR TO ANY CONSTRUCTION ACTIVITIES, CONTRACTOR TO NOTIFY THE ENGINEER AT LEAST 38 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES. ALL SOIL AND EROSION CONTROLS SHALL BE CHECKED AND REPAIRED AS NECESSARY BY THE CONTRACTOR.
3. ALL STOCKPILE AREAS SHALL BE SURROUNDED BY EROSION CONTROL BARRIERS UNTIL SUCH TIME AS THE MATERIAL IS RESPREAD AND STABILIZED OR TRANSPORTED OFFSITE.
4. TEMPORARY STOCKPILES OF DREDGED/EXCAVATED MATERIAL SHALL BE LOCATED ON-SITE. WITHIN THE DESIGNATED AREAS, ANY MATERIAL NOT RE-USED ON-SITE SHALL BE TRUCKED TO AN ACCEPTABLE OFF-SITE DISPOSAL LOCATION IN ACCORDANCE WITH THE PROJECTS PERMITS.
5. EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY AND DURING AND AFTER EVERY RAIN EVENT, ANY NECESSARY REPLACEMENT OR REPAIR SHALL BE PERFORMED PROMPTLY BY THE CONTRACTOR.
6. DUST SHALL BE CONTROLLED IN ACCORDANCE WITH THE SPECIFICATIONS AND APPLICABLE REGULATIONS.
7. THE CONTRACTOR SHALL PHASE DREDGING OPERATIONS TO MINIMIZE THE AREA DISTURBED OR OPEN TO THE ELEMENTS AT ANY GIVEN TIME.
8. THE SITE SHALL BE LEFT AT A STABLE CONDITION AT THE CLOSE OF EACH DAY.

CONSTRUCTION NOTES:

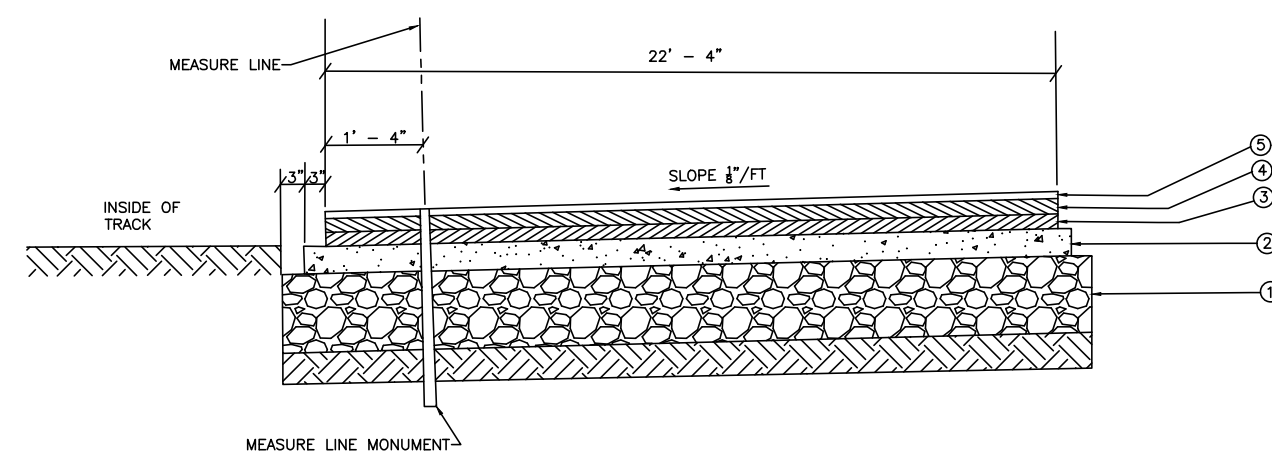
1. THE CONTRACTOR SHALL CALL "DIG SAFE" AT 1-800-344-7223 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL, UNDER THE DIRECTION OF THE ENGINEER, ESTABLISH "CONSTRUCTION LIMITS" ON THE SITE BY ACCEPTABLE VISIBLE MARKERS. ALL WORK AND EQUIPMENT SHALL BE CONFINED TO WITHIN THESE LIMITS, UNLESS OTHERWISE SPECIFICALLY AUTHORIZED.
3. NO CHANGES ARE TO BE MADE UNLESS AUTHORIZED BY THE ENGINEER & OR THE TOWN OF KILLINGLY.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY CODES, REGULATIONS, LEGAL REQUIREMENTS, PERMIT CONDITIONS, ETC.
5. ALL SURFACES DISTURBED BY THIS WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AS DETAILED OR SPECIFIED BY THE ENGINEER.
6. DREDGING SEQUENCE SHALL BE COORDINATED TO MINIMIZE DISTURBANCE OF EXISTING CONDITIONS AND OPERATIONS.
7. DREDGING SHALL TAKE PLACE WITHIN APPROVED WORK WINDOWS.
8. ALL EXISTING PIPING AND STRUCTURES EXPOSED DURING EXCAVATION SHALL BE ADEQUATELY SUPPORTED, BRACED, OR OTHERWISE PROTECTED DURING DREDGING ACTIVITIES.
9. WORK SHALL COMPLY WITH APPLICABLE MUNICIPAL, STATE, AND FEDERAL PERMITS AND REQUIREMENTS.
10. THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH ALL AUTHORIZATIONS NECESSARY FOR CONSTRUCTION AND DREDGED MATERIAL TRANSPORT VEHICLE ENTRY/EXIT/TRAVEL ON STATE AND LOCAL ROADS.
11. NO DREDGED MATERIAL CONTAINING FREE DRAINING LIQUIDS (AS DETERMINED BY THE EPA PAINT FILTER TEST) SHALL BE TRANSPORTED OVER STATE OR LOCAL ROADS.



SECTION  
STRAWBALES AND SILT FENCE (EROSION CONTROL BARRIER)  
N.T.S.

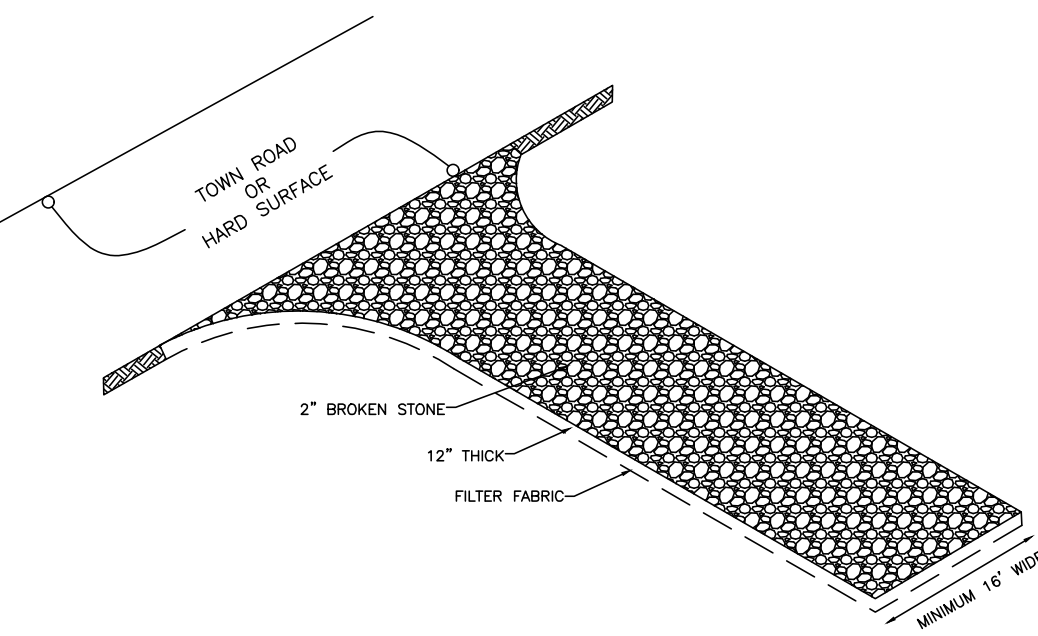


DEWATERING AREA PERIMETER CONTROL  
N.T.S.



- ① - 8" ROLLED GRAVEL SUBBASE  
OMT WHERE NEW TRACK IS LOCATED OVER EXISTING TRACK
- ② - 3" PROCESSED AGGREGATE SUBBASE
- ③ - 1 1/2" CLASS 1 BITUMINOUS CONCRETE
- ④ - 1" CLASS 1 BITUMINOUS CONCRETE
- ⑤ - RESILIENT TRACK SURFACE - SEE SPECIFICATIONS

RESILIENT TRACK SURFACE  
N.T.S.



STABILIZED TEMPORARY CONSTRUCTION ENTRANCE  
N.T.S.

CLARENCE WELTI ASSOC., INC.				CLIENT		PROJECT NAME				
P.O. BOX 397 GLASTONBURY, CONN 06033				TOWN OF KILLINGLY		PROPOSED EXPANSION OF POND AT OWEN BELL PARK				
				LOCATION		550 HARTFORD PKE., KILLINGLY, CT				
TYPE	HSA	CASING	SS	CORE BAR	OFFSET	SURFACE ELEV.		HOLE NO.		MW-1
SIZE I.D.	3.75"		1.375"			GROUND WATER OBSERVATIONS		START DATE		4/14/21
HAMMER WT.			140lbs			AT 5.0 FT. AFTER 0 HOURS		FINISH DATE		4/14/21
HAMMER FALL			30"			E. COORDINATE		FINISH DATE		4/14/21
DEPTH	SAMPLE		A		STRATUM DESCRIPTION + REMARKS					ELEV.
0	NO.	BLOWS/6"	DEPTH							
1	1	3-4-8-9	0.0'-2.0'		TOPSOIL					1.0
2	2	4-4-2-3	2.0'-4.0'		LIGHT BR FINE SAND AND SILT LIGHT GREY BR SILT, SOME FINE SAND					2.0
3	3	2-2-2-5	4.0'-6.0'							
4	4	8-8-9-12	6.0'-8.0'							
5	5	6-20-28	10.0'-11.5'		GREY BR FINE-MED SAND, SOME SILT, LITTLE GRAVEL					10.5
6	6	20-28-20	15.0'-16.5'		DARK GREY BR FINE-CRS SAND, LITTLE GRAVEL, TRACE SILT, FEW COBBLES					13.0
7	7	13-20-25	20.0'-21.5'		GREY BR FINE-CRS SAND, SOME SILT, LITTLE GRAVEL					18.0
8	8	27-23-17	25.0'-26.5'		BOTTOM OF BORING @ 26.5'					26.5
9					2" DIA WELL @ 25.0'					
10					10.0' SCREEN					
11					14.0' RISER					
12					SAND FROM 26.5' TO 20.0'					
13					BACKFILLED FROM 20.0' TO 14.0'					

LEGEND: COL. A:  
SAMPLE TYPE: D-DRY A-AUGER C-CORE U-UNDISTURBED PISTON S-SPLIT SPOON  
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR  
INSPECTOR:  
SHEET 1 OF 2 HOLE NO. MW-1

CLARENCE WELTI ASSOC., INC.				CLIENT		PROJECT NAME				
P.O. BOX 397 GLASTONBURY, CONN 06033				TOWN OF KILLINGLY		PROPOSED EXPANSION OF POND AT OWEN BELL PARK				
				LOCATION		550 HARTFORD PKE., KILLINGLY, CT				
TYPE	HSA	CASING	SS	CORE BAR	OFFSET	SURFACE ELEV.		HOLE NO.		MW-2
SIZE I.D.	3.75"		1.375"			GROUND WATER OBSERVATIONS		START DATE		4/14/21
HAMMER WT.			140lbs			AT 3.0 FT. AFTER 0 HOURS		FINISH DATE		4/14/21
HAMMER FALL			30"			E. COORDINATE		FINISH DATE		4/14/21
DEPTH	SAMPLE		A		STRATUM DESCRIPTION + REMARKS					ELEV.
0	NO.	BLOWS/6"	DEPTH							
1	1	1-2-3-3	0.0'-2.0'		TOPSOIL					1.0
2	2	3-5-18-15	2.0'-4.0'		DARK GREY BR FINE-CRS SAND, LITTLE GRAVEL, TRACE SILT, FEW COBBLES					3.0
3	3	11-28-32-18	4.0'-6.0'							
4	4	12-26-40	10.0'-11.5'		GREY FINE-MED SAND, SOME SILT, LITTLE GRAVEL					18.0
5	5	9-27-29	15.0'-16.5'							
6	6	8-14-17	20.0'-21.5'							
7	7	17-28-29	25.0'-26.5'		BOTTOM OF BORING @ 26.5'					26.5
8					2" DIA WELL @ 24.5'					
9					10.0' SCREEN					
10					14.0' RISER					
11					SAND FROM 26.5' TO 13.0'					
12					BENTONITE SEAL FROM 13.0' TO 11.0'					
13					BACKFILLED FROM 11.0' TO SURFACE					

LEGEND: COL. A:  
SAMPLE TYPE: D-DRY A-AUGER C-CORE U-UNDISTURBED PISTON S-SPLIT SPOON  
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR  
INSPECTOR:  
SHEET 1 OF 1 HOLE NO. MW-2

CLARENCE WELTI ASSOC., INC.				CLIENT		PROJECT NAME				
P.O. BOX 397 GLASTONBURY, CONN 06033				TOWN OF KILLINGLY		PROPOSED EXPANSION OF POND AT OWEN BELL PARK				
				LOCATION		550 HARTFORD PKE., KILLINGLY, CT				
DEPTH	NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS					ELEV.
0	1	2-3-15-13	0.0'-2.0'		TOPSOIL					1.0
2	2	4-3-2-3	2.0'-4.0'		BR FINE-CRS SAND, LITTLE SILT & GRAVEL - FILL TOPSOIL - FILL					2.0
3	3	2-3-1-6	4.0'-6.0'		GREY BR SILT AND FINE SAND					4.0
4	4	11-7-9	10.0'-11.5'		GREY FINE-CRS SAND, LITTLE GRAVEL, TRACE SILT					9.0
5	5	5-8-17	15.0'-16.5'		GREY FINE-MED SAND, SOME SILT, TRACE GRAVEL					16.0
6	6	4-6-60	20.0'-21.5'							
7	7	60	22.0'-22.1'		BOTTOM OF BORING @ 22.0' (AUGER REFUSAL)					22.0
8					2" DIA WELL @ 21.5'					
9					10.0' SCREEN					
10					11.0' RISER					
11					SAND FROM 22.0' TO 9.0'					
12					BENTONITE SEAL FROM 8.0' TO 7.0'					
13					BACKFILLED FROM 7.0' TO SURFACE					

LEGEND: COL. A:  
SAMPLE TYPE: D-DRY A-AUGER C-CORE U-UNDISTURBED PISTON S-SPLIT SPOON  
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR  
INSPECTOR:  
SHEET 2 OF 2 HOLE NO. MW-1

CLARENCE WELTI ASSOC., INC.				CLIENT		PROJECT NAME				
P.O. BOX 397 GLASTONBURY, CONN 06033				TOWN OF KILLINGLY		PROPOSED EXPANSION OF POND AT OWEN BELL PARK				
				LOCATION		550 HARTFORD PKE., KILLINGLY, CT				
TYPE	HSA	CASING	SS	CORE BAR	OFFSET	SURFACE ELEV.		HOLE NO.		MW-3
SIZE I.D.	3.75"		1.375"			GROUND WATER OBSERVATIONS		START DATE		4/14/21
HAMMER WT.			140lbs			AT 4.0 FT. AFTER 0 HOURS		FINISH DATE		4/14/21
HAMMER FALL			30"			E. COORDINATE		FINISH DATE		4/14/21
DEPTH	SAMPLE		A		STRATUM DESCRIPTION + REMARKS					ELEV.
0	NO.	BLOWS/6"	DEPTH							
1	1	2-3-15-13	0.0'-2.0'		TOPSOIL					1.0
2	2	4-3-2-3	2.0'-4.0'		BR FINE-CRS SAND, LITTLE SILT & GRAVEL - FILL TOPSOIL - FILL					2.0
3	3	2-3-1-6	4.0'-6.0'		GREY BR SILT AND FINE SAND					4.0
4	4	11-7-9	10.0'-11.5'		GREY FINE-CRS SAND, LITTLE GRAVEL, TRACE SILT					9.0
5	5	5-8-17	15.0'-16.5'		GREY FINE-MED SAND, SOME SILT, TRACE GRAVEL					16.0
6	6	4-6-60	20.0'-21.5'							
7	7	60	22.0'-22.1'		BOTTOM OF BORING @ 22.0' (AUGER REFUSAL)					22.0
8					2" DIA WELL @ 21.5'					
9					10.0' SCREEN					
10					11.0' RISER					
11					SAND FROM 22.0' TO 9.0'					
12					BENTONITE SEAL FROM 8.0' TO 7.0'					
13					BACKFILLED FROM 7.0' TO SURFACE					

LEGEND: COL. A:  
SAMPLE TYPE: D-DRY A-AUGER C-CORE U-UNDISTURBED PISTON S-SPLIT SPOON  
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR  
INSPECTOR:  
SHEET 1 OF 1 HOLE NO. MW-3

GEOTECHNICAL BORING LOGS



CT DEEP #PMBR.02020  
NYS DEC# 13326  
CT HIC.0647669

2 Tipping Drive  
P.O. Box 231  
Branford, CT 06405  
Phone: 203.245.1212  
www.allhabitat.com

October 19, 2022

Meriam and Joel Smith  
10 Kies Road  
Killingly, CT 06239

Dear Meriam and Joel,

Thank you for your interest in All Habitat Services, LLC for invasive species management needs at your 10 Kies Rd property in Killingly, CT. Based on our site visit and the provided CT DEEP forester recommendations, we are pleased to offer the following proposal for your consideration.

Within your 33-acre property, several areas have been identified for invasive species management. The primary area of concern is the wetland forest stand (Stand 2) containing understory with dominant infestations of Japanese barberry (*Berberis thunbergii*), multiflora rose (*Rosa multiflora*), Oriental bittersweet (*Celastrus orbiculatus*), bush honeysuckles (*Lonicera spp.*), winged euonymus (*Euonymus alatus*), and Japanese stilt grass (*Microstegium vimineum*). The stonewall boundary around the house and fields and up to the forest edge is currently threatened by pressure from Japanese barberry (*Berberis thunbergii*), multiflora rose (*Rosa multiflora*), Oriental bittersweet (*Celastrus orbiculatus*), poison ivy (*Toxicodendron radicans*), bush honeysuckles (*Lonicera spp.*), winged euonymus (*Euonymus alatus*), Japanese stilt grass (*Microstegium vimineum*), Japanese knotweed (*Polygonium cuspidatum*), and wild grape vine (*Vitis riparia*). In addition, the fields to the north and east of the house that have been proposed for pollinator habitat conversion are currently a mix of orchard grasses and infestations of Japanese stilt grass (*Microstegium vimineum*). These areas range in density from low to moderate and will be managed using methods and chemical prescriptions based on the phenological differences of the plants.

Invasive shrub, tree and vine species colonize by root sprouts and seeds that are dispersed primarily by birds. They form dense stands in the understory of bottomland forests and exclude native plants, drastically altering wildlife habitat. In Stand 2, the best method of control for these species on wetland soils is with a selective spot spray application of a thin invert emulsion comprised of the aquatic labeled herbicides Roundup Custom® (Glyphosate) and Polaris AC Complete® (Imazapyr) at a rate of five gallons per acre to the target vegetation. As the herbicide contacts the foliage, it moves through the plant structures into the root system where it disrupts plant growth cycles. Application will be conducted on-foot with low-volume backpack sprayers to reduce drift and any off-target damage to native vegetation.

Along the stonewall, we suggest a thin invert emulsion foliar application with 8% Rodeo® (Glyphosate), 1% Polaris® (Imazapyr), and 0.5% Escort XP® (Metsulfuron methyl) at a rate of five gallons per acre to the target shrub and herbaceous vegetation. Tall growing or large diameter tree, shrub, and vine species such as Oriental bittersweet (*Celastrus orbiculatus*), bush

honeysuckles (*Lonicera spp.*), and winged euonymus (*Euonymus alatus*) will be controlled using basal bark applications of an herbicide with the active ingredient Triclopyr in an ester formulation, such as Garlon4®, mixed in a methylated seed oil carrier. This herbicide penetrates the bark and is translocated throughout the plant, killing the root system. This application is conducted using a low-volume backpack sprayer to wet the entire circumference of the bottom 12 inches of the stem.

To control infestations of Japanese stilt grass (*Microstegium vimineum*) and established grasses in the fields, we recommend a broadcast application of the broad spectrum herbicides Rodeo® (Glyphosate) and Plateau® (Imazapic). These herbicides will efficiently translocate throughout the plant, immediately arresting the growth cycle and limiting the extent of their above ground biomass. Application will be conducted using a UTV machine with a 50- gallon spray tank and low-pressure adjustable spray gun to treat the target areas. We must treat the fields with an herbicide application to ensure any existing grasses, noxious weeds and invasive species have been removed prior to pollinator habitat seeding. Once at least two broadcast herbicide treatments are complete, the entire area should be mowed and cleared of any small debris (i.e. rocks, roots, small branches, etc.) prior to seeding. Once all site preparation is completed, we will bring our GreenScape® seeder to the site in Fall 2024. The seeder is a multi-step system that aerates the soil, drills holes for the seed, and then drills the seed into the provided holes at a pre-set depth.

Based on the prescription we have developed and the density of target species within the management area, we have produced the following assessment of treatment costs.

<b>10 Kies Road Invasive Species Management 2 Year Plan &amp; Pricing</b>				
<b>Work Activity</b>	<b>Target Area</b>	<b>Acreage</b>	<b>Price Per Acre</b>	<b>Total Cost</b>
<b>2023</b>				
Selective Herbicide Application with Follow-up	Stand 2	6.5	\$880.00	\$5,720.00
Selective Herbicide Application with Follow-up	Stonewalls	0.2	\$880.00	\$176.00
<b>Total Cost 2023</b>				<b>\$5,896.00</b>
<b>2024</b>				
Selective Herbicide Application with Follow-up	Stand 2	6.5	\$640.00	\$4,160.00
Selective Herbicide Application with Follow-up	Stonewalls	0.2	\$640.00	\$128.00
Broadcast Herbicide Applications (2)	Fields	1.5 (2)	\$600.00	\$1,800.00
Site Preparation (Mowing, York raking, etc.)	Fields	1.5	\$1,800.00	\$2,700.00
*Conservation Drill Seeding	Fields	1.5	\$2,200.00	\$3,300.00
<b>Total Cost 2024</b>				<b>\$12,088.00</b>

\*Conservation drill seeding not inclusive of seed cost. Seed to be purchased by client in advance of scheduled seeding date (to be determined). Seed availability and prices are subject to changes.

We are confident that the treatment prescription and methods outlined above will provide the best control of the target species. The proposed prescriptions can be sequenced to coincide with specific management priorities. Follow up treatments will take place 4-6 weeks after the initial treatments as needed. Continued site monitoring in concurrence with best management practices will aid in producing the desired reduction of the target invasive species in the management areas.

It is a pleasure to have the opportunity to be considered for this project and we hope that this proposal meets with your approval. Please feel free to contact us again if we may be of any further assistance to you.





Best Regards,

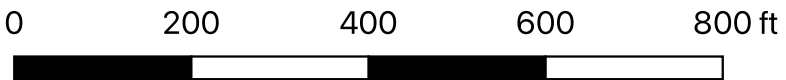
David Roach PMCS.0003538  
General Manager  
All Habitat Services, LLC





**LEGEND**

-  Stand 2- Japanese Barberry Infestation (6.5 ac)
-  Stonewalls (0.2 ac)
-  Proposed Pollinator Habitat (1.5 ac)
-  Smith Property Boundary





-1557

Fee Waived  
per MC

# Killingly Engineering Associates

## Civil Engineering & Surveying



P.O. Box 421 Killingly, CT 06241  
Phone: 860-779-7299  
www.killinglengineering.com

23-000248

March 07, 2023

### Proposed Single Family Home

*Jim Collins*  
*Snake Meadow Road*  
*Killingly, CT*

### APPLICATION PACKAGE CONTENTS – Inland Wetlands

1. Application fee: (Waived)
2. 3- full sized sets of plans & 1- 11 x 17 reduction set– Revised to: 03/07/2023
3. Inland Wetlands Application
4. List of adjacent land owners including across the street
5. DEEP Reporting Form
6. Soil Scientist Delineation Report
7. Web Soil Survey Map
8. GIS mapping
9. Applicant's Certification

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MAR 16 2023

PLANNING & ZONING DEPT.  
TOWN OF KILLINGLY

Property within 500' of adjoining Town boundary? \_\_\_\_\_  
If so, which town(s)? \_\_\_\_\_  
Date the notice was sent by KIWWC to town clerk of adjoining municipality(ies) \_\_\_\_\_  
Receipt date of copy of Applicants notice to adjoining municipality \_\_\_\_\_

Application #: 23-1557  
Date Submitted: 3/16/2023  
Date of Receipt by Comm.: 3/20/2023  
Fee: Waived per TM.  
Staff Initials: LB

**KILLINGLY INLAND WETLANDS & WATERCOURSES COMMISSION APPLICATION**

A \$100.00 base fee (or, for a proposed subdivision, \$100.00 per lot, whichever is greater) plus \$20.00 state fee must accompany each application (**Total fee: \$160.00**). **THIS FEE IS NON-REFUNDABLE.** Checks or money orders should be made payable to the Town of Killingly. **Public hearing fee: \$225.00** required in addition to the above fees if a public hearing is required by the commission(s) and not already included.

**TO BE COMPLETED BY THE APPLICANT - PLEASE PRINT**

Applicant's Name: Jim Collins / American Retaining Wall, LLC  
Day Phone #: 301-807-2049 Evening Phone #: 800-412-9176  
Mailing Address: 666 Upper Maple Street Suite A Danvers, CT  
Owner of Record: Tank  
Mailing Address: \_\_\_\_\_ Phone #: 301-807-2049

Applicant's interest in the land if the applicant is not the property owner: \_\_\_\_\_

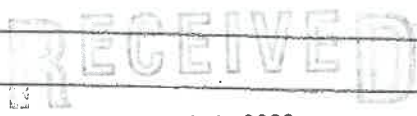
Authorization of property owner: \_\_\_\_\_

**LOCATION OF PROPERTY:**

House # and Street: 210 Snake Meadow Road  
Tax Map Number: 242 Block: \_\_\_\_\_ Lot: 2  
Zoning District: RD Lot Size: 97.67 Acres Lot Frontage: \_\_\_\_\_  
Easements and/or deed restrictions: 50' wide utility easement and right of way in favor of American Retaining Wall, LLC (vol. 711, Pg. 157)

**PURPOSE:**

Provide the purpose and description of the proposed activity, including a list of all proposed regulated activities:  
Proposed construction of single family home with driveway improvements and bridge crossing.



MAR 16 2023

PLANNING & ZONING DEPT.  
TOWN OF KILLINGLY

**ON-SITE WETLANDS AND WATERCOURSES:**

Windham County wetland soil types and areas of each type: *See attached*

Watercourse(s) – type (pond, stream, marsh, bog, drainage ditch, etc.), manmade or natural, and area of each:

*Marsh & Wooded Wetlands*

**ALTERNATIVES:**

List alternatives considered by the applicant and state why the proposal to alter wetlands as set forth in the application is necessary and was chosen:

*Originally considered relocating driveway for a more direct path to the proposed residence but that resulted in a larger area of wetlands disturbance*

**MATERIALS:**

Provide the volume (cubic yard) and nature of materials to be deposited and/or extracted:

*Clean Gravel*

**MITIGATIVE MEASURES:**

List measures to be taken to minimize or avoid any adverse impact on the regulated area:

*Haystacks, Silt Fence & Crushed Stone Berms/Check Dams*

**BIOLOGICAL EVALUATION:**

Describe the ecological communities and functions of the wetlands or watercourses involved with the application and the effects of the proposed regulated activities on these communities and wetland functions:

*Impact Report to be provided*

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TOWN OF WINDHAM

**SITE PLAN\*:**

Scale 1"=40' showing existing and proposed conditions in relation to wetlands and water courses to include, but not be limited to:

Contours

Buildings

Wells

Driveways

Septic Systems

Drainage Systems (Including Culverts, Footing and Curtain Drains)

Erosion and Sedimentation controls

Wetlands

Watercourses

Areas of Excavation and /or Material Deposit

*\*Refer to Section 6.0 – Application Information Requirements and Section 7.0 – Application Evaluation Criteria of the Killingly Inland Wetlands & Watercourses Commission Regulations for information the Commission may require. Professionally prepared plans (Licensed Land Surveyor/Professional Engineer registered in the State of Connecticut, Soil Scientist) may be required for significant activities.*

**ADDITIONAL INFORMATION:**

List additional information submitted by the applicant:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The applicant understands that this application is to be considered complete only when all information and documents required by the Commission have been submitted. The undersigned warrants the truth of all statements contained herein and in all supporting documents according to the best of his/her knowledge and belief. Permission is granted to the Town of Killingly, Killingly Inland Wetlands & Watercourses Commission, and its agent (s) to walk the land, at reasonable times, and perform those tests necessary to properly review the application, both before and after a final decision has been issued.

Applicant's Signature: \_\_\_\_\_

Owner of Record: \_\_\_\_\_

Date: \_\_\_\_\_  
Date: \_\_\_\_\_  
**RECEIVED**

MAR 16 2023



# 200 foot Abutters List Report

Killingly, CT  
March 15, 2023

## Subject Property:

### Abutters:

Parcel Number: 246-001-000  
CAMA Number: 246-001-000-000 9738  
Property Address: 226 SNAKE MEADOW RD

Mailing Address: CONN STATE OF-101 VACANT LAND  
450 CAPITOL AV MS#54FOR  
HARTFORD, CT 061061308

Parcel Number: 246-002-000  
CAMA Number: 246-002-000-000 9627  
Property Address: 210 SNAKE MEADOW RD

Mailing Address: AMERICAN RETAINING WALL LLC  
666 UPPER MAPLE UNIT A  
KILLINGLY, CT 06239

Parcel Number: 247-008-000  
CAMA Number: 247-008-000-000 5786  
Property Address: 206 SNAKE MEADOW RD

Mailing Address: VINCI BENJAMIN L & KATHY & PETER &  
MARC  
20 CLOVER HILL PLACE  
BERLIN, CT 06037

Parcel Number: 247-009-000  
CAMA Number: 247-009-000-000 739  
Property Address: 204 SNAKE MEADOW RD

Mailing Address: BURDICK JEAN E & LYNN E CO-TR  
230 KENYON RD  
HAMPTON, CT 06247

Parcel Number: 247-010-000  
CAMA Number: 247-010-000-000 5785  
Property Address: 230 SNAKE MEADOW RD

Mailing Address: VINCI BENJAMIN L & KATHY & PETER &  
MARC  
20 CLOVER HILL PLACE  
KINSINGTON, CT 06037

Parcel Number: 252-007-000  
CAMA Number: 252-007-000-000 5243  
Property Address: 321 MARGARET HENRY

Mailing Address: TILLINGHAST DORIS REVOCABLE LIV  
TRUST  
3745 LOTUS DR  
SAN DIEGO, CA 92106

Parcel Number: 253-003-000  
CAMA Number: 253-003-000-000 4435  
Property Address: 120 JOB VAUGHN RD

Mailing Address: RAINVILLE WILLIAM W  
258 MARGARET HENRY  
KILLINGLY, CT 06239

Parcel Number: 254-001-000  
CAMA Number: 254-001-000-000 1373  
Property Address: 290 SNAKE MEADOW RD

Mailing Address: DALY-BEYL PATRICIA & SEGUINE MARY  
D  
306 SNAKE MEADOW RD  
KILLINGLY, CT 06239

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MAR 16 2023

PLANNING & ZONING DEPT.  
TOWN OF KILLINGLY



www.cai-tech.com

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.





Connecticut Department of

ENERGY &  
ENVIRONMENTAL  
PROTECTION

GIS CODE #:  
For DEEP Use Only

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MAR 16 2023

79 Elm Street • Hartford, CT 06106-5127

www.ct.gov/deep

Affirmative Action/Equal Opportunity Employer

# Statewide Inland Wetlands & Watercourses Activity Reporting Form

PLANNING & ZONING DEPT.

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:

DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106

Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

## PART I: Must Be Completed By The Inland Wetlands Agency

- DATE ACTION WAS TAKEN: year: \_\_\_\_\_ month: \_\_\_\_\_
- ACTION TAKEN (see instructions - one code only): \_\_\_\_\_
- WAS A PUBLIC HEARING HELD (check one)? yes  no
- NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:  
(print name) \_\_\_\_\_ (signature) \_\_\_\_\_

## PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

- TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): Killingly  
does this project cross municipal boundaries (check one)? yes  no   
if yes, list the other town(s) in which the activity is occurring (print name(s)): \_\_\_\_\_
- LOCATION (see instructions for information): USGS quad name: East Killingly or number: 44  
subregional drainage basin number: \_\_\_\_\_
- NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): Jim Collins
- NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): 210 Snake Meadows Road  
briefly describe the action/project/activity (check and print information): temporary  permanent  description: Proposed  
Single family home with driveway improvements and bridge crossing
- ACTIVITY PURPOSE CODE (see instructions - one code only): A
- ACTIVITY TYPE CODE(S) (see instructions for codes): 1, 2, 9, 12
- WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):  
wetlands: .07 acres open water body: 0 acres stream: 0 linear feet
- UPLAND AREA ALTERED (must provide acres): 4± acres
- AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): .06 acres

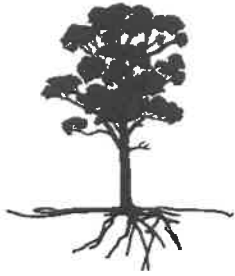
DATE RECEIVED:

PART III: To Be Completed By The DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO



## JOSEPH R. THEROUX

~ CERTIFIED FORESTER/ SOIL SCIENTIST ~  
PHONE 860-428-7992 ~ FAX 860-376-6842  
P.O. Box 32, VOLUNTOWN, CT. 06384  
FORESTRY SERVICES ~ WETLAND IMPACT ASSESSMENT  
WETLAND DELINEATIONS AND PERMITTING ~ E&S/SITE MONITORING  
WETLAND FUNCTION AND VALUE ASSESSMENTS

11/30/21

JIM COLLINS  
666 UPPER MAPLE STREET  
DANIELSON, CT. 06239

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MAR 16 2023

PLANNING & ZONING DEPT.  
TOWN OF KILLINGLY

RE: WETLAND DELINEATION, 210 SNAKE MEADOW RD. KILLINGLY, CT.

DEAR MR. COLLINS,

AT YOUR REQUEST I HAVE DELINEATED THE INLAND WETLANDS AND WATERCOURSES ON YOUR PROPERTY WITHIN 200 FEET OF THE PROPOSED DEVELOPMENT ACTIVITIES.

THESE WETLANDS AND WATERCOURSES 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.

FLUORESCENT PINK FLAGS WITH CORRESPONDING LOCATION FLAG NUMBERS WF-1 THROUGH WF-14, WF-1-1A THROUGH WF-8-1A, AND WF-1A THROUGH WF-7A DELINEATE THE HIGH-WATER MARK OF SNAKE MEADOW BROOK, (PERENNIAL), ITS ADJACENT FLOODPLAIN SOILS, AND INLAND WETLANDS.

WETLAND FLAGS WF-1B THROUGH WF-8B AND WF-1C THROUGH WF-42C DELINEATE A PALUSTRINE FORESTED WETLAND CORRIDOR AND INTERMITTENT WATERCOURSE IN THE WESTERN PORTION OF THE PROPERTY. THE EXISTING WOODS ACCESS ROAD PASSES OVER THIS WETLAND/WATERCOURSE.

WETLAND FLAGS WF-1D THROUGH WF-30D, WF-1E THROUGH WF-29E, AND WF-1F THROUGH WF-11F DELINEATE ANOTHER PALUSTRINE FORESTED WETLAND CORRIDOR AND INTERMITTENT WATERCOURSE IN THE WESTERN PORTION OF THE PROPERTY. THE EXISTING WOODS ACCESS ROAD CROSSES THIS WETLAND/WATERCOURSE COMPLEX AS WELL.

WETLAND FLAGS WF-1K THROUGH WF-11K DELINEATE A SMALL PALUSTRINE FORESTED WETLAND ADJACENT TO THE WOODS ACCESS ROAD IN THE CENTRAL PORTION OF THE PROPERTY.



WETLAND FLAGS WF-1 G THROUGH WF-23G, WF-1 I THROUGH WF-8 I AND WF-1 J THROUGH WF-6 J DELINEATE PALUSTRINE FORESTED WETLANDS ON THE SOUTHERN PROPERTY BOUNDARY ON AND ADJACENT TO JOB VAUGHN RD.

WETLAND FLAGS WF-1 M THROUGH WF-8 M, WF-1 N THROUGH WF-1 O N AND WF-1 O THROUGH WF-13 O DELINEATE THE PALUSTRINE FORESTED WETLANDS, WATERCOURSES AND HYDRIC SOILS FOUND ON THE CENTRAL AND SOUTHERN PORTIONS OF JOB VAUGHN ROAD. ESSENTIALLY, THE MAJORITY OF JOB VAUGHN ROAD EXTENDING TO THE SOUTH OF THIS PROPERTY IS HISTORICALLY FILLED INLAND WETLANDS.

WETLAND FLAGS WF-1 H THROUGH WF-13 H AND WF-1 L THROUGH WF-13 L DELINEATE SMALL PALUSTRINE FORESTED WETLANDS THAT HAVE FORMED IN SLIGHT DEPRESSIONS IN THE TOPOGRAPHY IN THE SOUTHEAST PORTION OF THE PROPERTY.

THE INLAND WETLAND SOILS WHICH WERE FOUND HAVE FORMED AS A RESULT OF THE HIGH AND/OR PERCHED SEASONAL WATER TABLE. THEY ARE CHARACTERIZED BY THICK ORGANIC "A" HORIZONS, SHALLOW REDOXIMORPHIC FEATURES, AND LOW CHROMA COLORS WITHIN 20 INCHES OF THE SOIL SURFACE.

IN CONCLUSION, 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.

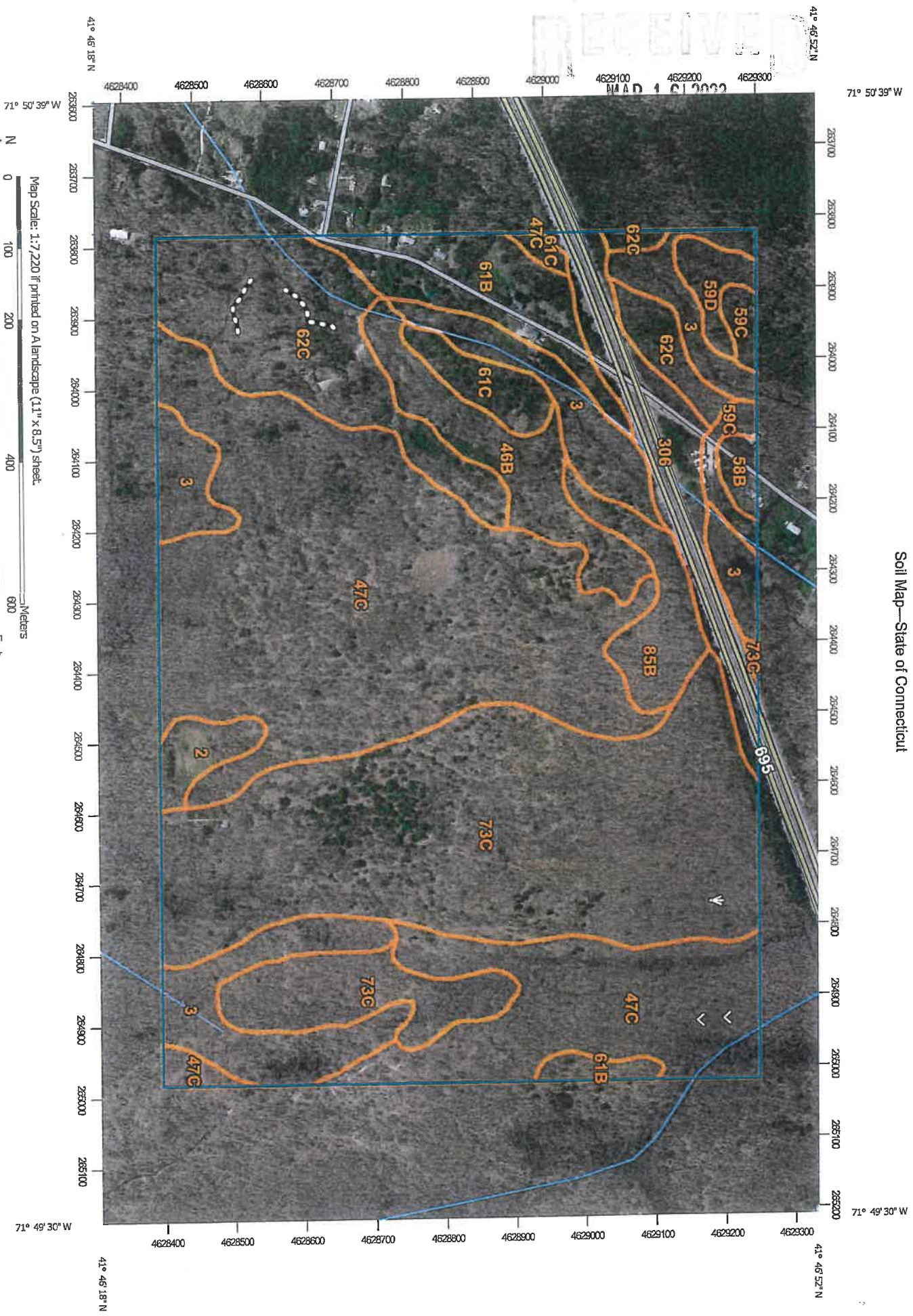
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MAR 16 2023

PLANNING & ZONING DEPT.  
TOWN OF FAIRBURY

RECEIVED  
MAD 1 31 2022

Soil Map—State of Connecticut














Map Scale: 1:7,220 if printed on A landscape (11" x 8.5") sheet.



USDA  
Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

## MAP LEGEND

-  Area of Interest (AOI)
-  Spoil Area
-  Soils
-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points
- Special Point Features**
  -  Blowout
  -  Borrow Pit
  -  Clay Spot
  -  Closed Depression
  -  Gravel Pit
  -  Gravelly Spot
  -  Landfill
  -  Lava Flow
  -  Marsh or swamp
  -  Mine or Quarry
  -  Miscellaneous Water
  -  Perennial Water
  -  Rock Outcrop
  -  Saline Spot
  -  Sandy Spot
  -  Severely Eroded Spot
  -  Sinkhole
  -  Slide or Slip
  -  Sodic Spot
- Water Features**
  -  Streams and Canals
- Transportation**
  -  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
  -  Aerial Photography

## MAP INFORMATION

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

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

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: [www.nrcs.usda.gov/wss](http://www.nrcs.usda.gov/wss)  
 Coordinate System: Web Mercator (EPSG:3857)

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

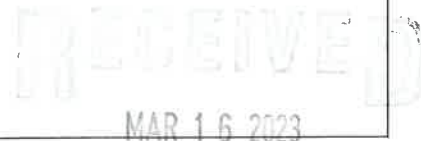
This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut  
 Survey Area Data: Version 21, Sep 7, 2021

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

Date(s) aerial images were photographed: Mar 30, 2011—May 1, 2011

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



PLANNING DEPT.  
 100 W. OF HOLLAND

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ridgebury fine sandy loam, 0 to 3 percent slopes	2.8	1.1%
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	26.0	10.3%
46B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	9.8	3.8%
47C	Woodbridge fine sandy loam, 3 to 15 percent slopes, extremely stony	85.4	33.7%
58B	Gloucester gravelly sandy loam, 3 to 8 percent slopes, very stony	1.3	0.5%
59C	Gloucester gravelly sandy loam, 3 to 15 percent slopes, extremely stony	2.9	1.2%
59D	Gloucester gravelly sandy loam, 15 to 35 percent slopes, extremely stony	2.4	0.9%
61B	Canton and Charlton fine sandy loams, 0 to 8 percent slopes, very stony	11.0	4.4%
61C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes, very stony	4.1	1.6%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	22.2	8.8%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	67.8	26.8%
85B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony	6.2	2.5%
306	Udorthents-Urban land complex	11.3	4.5%
<b>Totals for Area of Interest</b>		<b>253.4</b>	<b>100.0%</b>

RECEIVED

MAR 16 2023

PLANNING AND DEVELOPMENT  
TOWNSHIP OF HARTFORD







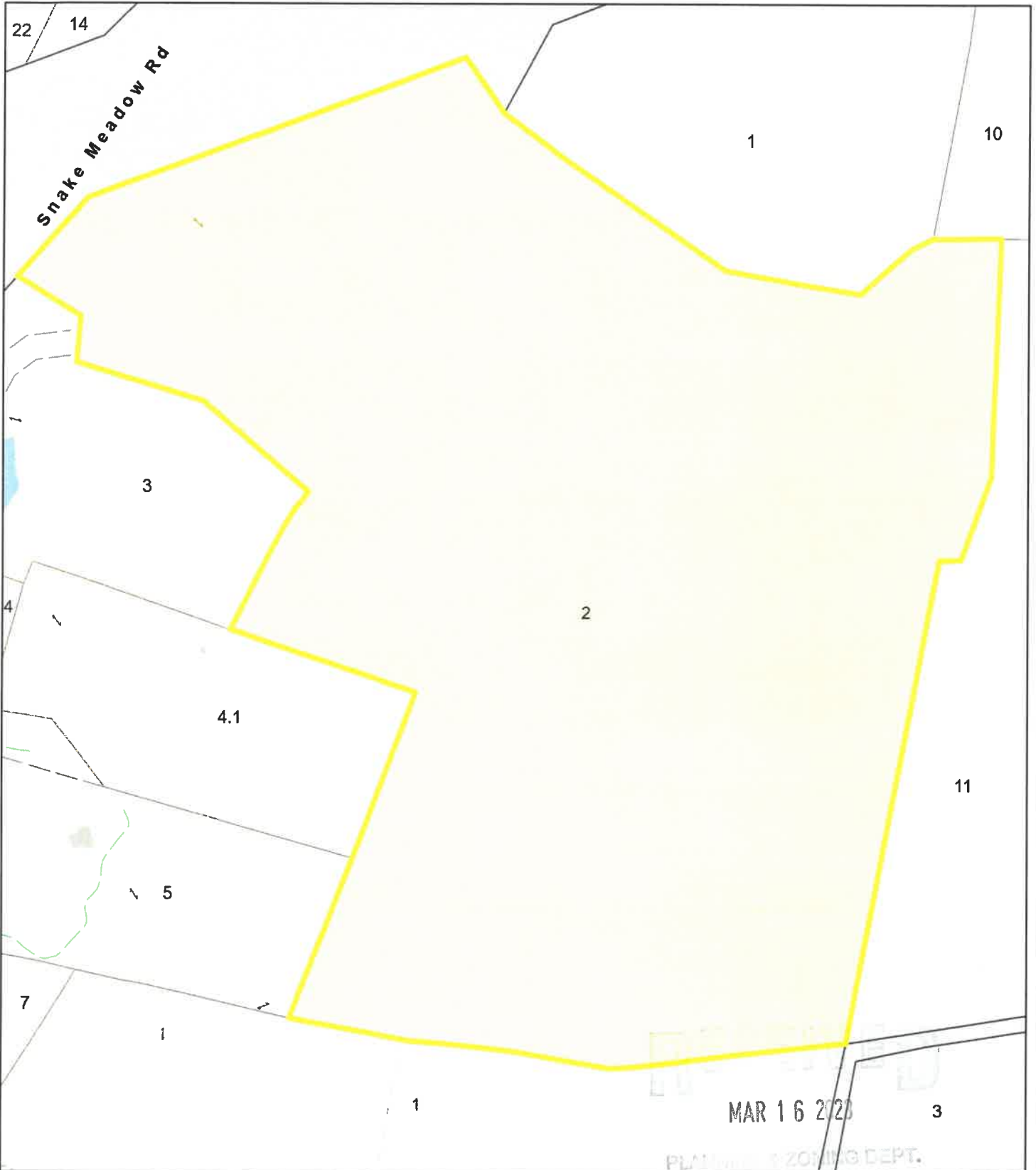
Killingly, CT

1 inch = 280 Feet



www.cai-tech.com

March 6, 2023



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.



**Killingly Engineering Associates**

P.O. Box 421 Killingly, CT 06241  
Phone: 860-779-7299  
www.killinglyengineering.com

March 06, 2023

**Proposed Single Family Home**

***Jim Collins***  
***210 Snake Meadow Road***  
***Killingly, CT***

Per Section 7.10 of the Regulations for the Protection and Preservation of Inland Wetland and Watercourses  
The applicant certifies that:

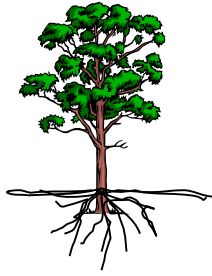
- a. The property on which the regulated activity is proposed is not located within 500 feet of the boundary of an adjoining municipality;
- b. Traffic attributable to the completed project on the site will not use streets within an adjoining municipality to enter or exit the site;
- c. Sewer or water drainage from the project site will not flow through and impact the sewage or drainage system within an adjoining municipality;
- d. Water run-off from the improved site will not impact streets or other municipal or private property within an adjoining municipality.

---

Applicant

Date

RECEIVED  
MAR 16 2023  
PLANNING & ZONING DEPT.  
TOWN OF KILLINGLY



## JOSEPH R. THEROUX

~ CERTIFIED FORESTER/ SOIL SCIENTIST ~

PHONE 860-428-7992 ~ FAX 860-376-6842

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

FORESTRY SERVICES ~ WETLAND IMPACT ASSESSMENTS

WETLAND DELINEATIONS AND PERMITTING ~ E&S/SITE MONITORING

WETLAND FUNCTION & VALUE ASSESSMENTS

3/19/2023

Killingly Engineering Associates  
P.O. Box 421  
Dayville, CT. 06241

Attn: Norm Thibeault

Re: Wetland function & value and impact assessment report for the proposed site development for the Collins property, 210 Snake Meadow Road, Killingly, Connecticut.

Dear Mr. Thibeault,

At your request, I have reviewed the preliminary site plan for the driveway and single-family residence and I have inspected the above referenced property for the purposes of assessing the wetland functions and values and potential impacts to the inland wetlands and watercourses from the construction of the driveway.

The wetland function and value assessment was conducted on March 8<sup>th</sup>, 2023.

### **Existing Conditions**

The property is 97.6 acres in size and is located on the southeast side of Snake Meadow Road in Killingly CT.

The general topography across the property is nearly level to moderately sloping.

The majority of the parcel was recently logged, with the majority of the understory and overstory being removed.

In the western portion of the property 3 separate palustrine forested wetland corridors and watercourses were found where the driveway was constructed. Smaller isolated wetland pockets were also found in the south-central portion of the property.

### **Upland Review Areas**

The 200- foot upland review areas adjacent to the various inland wetlands and watercourses are sparsely vegetated in the overstory with mixed hardwoods in the sawtimber and

polewood size classes. Species observed included: red maple, white ash, white pine, hemlock, black and white oaks, hickory, and birch.

The sparsely vegetated understories are comprised of polewood and saplings in these species as well as shrub species such as ironwood, spicebush, and sweet pepperbush. Vine species included poison ivy, round leaf green briar, and bittersweet.

Herbaceous vegetation observed included numerous fern species, goldenrod, mugwort, black raspberry, skunk cabbage and miscellaneous grasses such as sedges, foxtail and reed canary grass.

Invasives noted included Japanese barberry, multiflora rose, Asiatic bittersweet, mugwort, and winged euonymus.

### **Wetlands**

The first of 3 separate wetland corridors in the western portion of the parcel is the watercourse that the existing driveway crosses via a wooden bridge.

This brook flows to the south from a large palustrine forested wetland found in the northwest portion of the property and the State of Connecticut parcel located to the north.

This wetland corridor is vegetated with red maple in the overstory, and the understory is mainly comprised of shrub species such as sweet pepperbush, speckled alder, spicebush, highbush blueberry, and Japanese barberry. Vines included grape vines, poison ivy and greenbrier.

Herbaceous vegetation included skunk cabbage, cinnamon ferns, wild violets, water pennywort, sphagnum moss and sedges.

Wildlife tracks/sign found or directly observed in and adjacent to the wetland/watercourse included mammals and bird species such as: white tailed deer, eastern coyote, red fox, raccoon, red tailed hawk, American crow, and numerous songbird species.

No fish, reptiles or amphibians were observed although undoubtedly, this wetland complex and brook serves as habitat to these species.

The second palustrine forested wetland corridor, (Wetland #2 delineated by the B and C series flagging), was found to the east of the existing lawn area at the top of the hill. This corridor is oriented north to south and has an intermittent watercourse that flows slowly to the south during significant storm events and when the water table is high.

This wetland corridor is thinly vegetated with black oak, white ash, white pine and red maple in the overstory, and the understory is mainly comprised of shrub species such as sweet pepperbush, spicebush, highbush blueberry, and Japanese barberry. Vines included poison ivy and greenbrier.

Herbaceous vegetation included sphagnum moss and sedges.



Wildlife tracks/sign found or directly observed in and adjacent to the wetland/watercourse included mammals and bird species such as: white tailed deer, eastern coyote, red fox, raccoon, red tailed hawk, American crow, and numerous songbird species.

No reptiles or amphibians were observed although undoubtedly, this wetland complex serves as habitat to these species.

The third palustrine forested wetland corridor, (Wetland #3 delineated by the C and D series flagging), was found to the east of Wetland #2. This corridor is also oriented north to south and has an intermittent watercourse that flows to the south during significant storm events and when the water table is high. Currently it flows across the surface of the constructed driveway.

This wetland corridor is sparsely vegetated with red oak, beech, hickory, white pine and yellow birch polewood in the overstory, and the shrub understory is almost non-existent from the heavy logging that occurred in this area.

Herbaceous vegetation included sphagnum moss and sedges.

Wildlife tracks/sign found or directly observed in and adjacent to the wetland/watercourse included mammals and bird species such as: white tailed deer, eastern coyote, red fox, raccoon, red tailed hawk, American crow, and numerous songbird species.

No reptiles or amphibians were observed although undoubtedly, this wetland complex serves as habitat to these species.

The last two wetlands in close proximity to the constructed driveway and proposed residence are emergent wetland pockets 4 and 5, delineated by the K and H series flagging.

These wetlands were forested wetlands prior to the logging operation, but are now for the most part, emergent wetlands with very few polewood and sapling species such as red oak, and hickory adjacent to or in them. A few highbush blueberry bushes were found along with sphagnum moss and sedges in the depressed areas.

Wildlife tracks/sign found or directly observed in and adjacent to the wetland/watercourse included mammals and bird species such as: white tailed deer, eastern coyote, red fox, raccoon, red tailed hawk, American crow, and numerous songbird species.

No reptiles or amphibians were observed although undoubtedly, these wetland pockets serve as habitat to these species.

## Wetland Functions and Values

The forested wetlands and watercourse(s), were inspected to determine wetland functions and values utilizing the Army Corps. Of Engineers methodology as outlined in ~~the~~ The Highway Methodology Workbook Supplement.

This methodology recognizes 8 separate wetland functions: groundwater recharge/discharge, floodflow alteration/storage, fish/shellfish habitat, sediment/toxicant/pathogen retention, nutrient removal/retention/transformation, production export, sediment/shoreline stabilization and wildlife habitat.

The 6 wetland values include: recreational value, educational/scientific value, uniqueness/heritage value, visual quality/aesthetics, threatened/endangered species habitat and marine fish & shellfish habitat.

### The first watercourse/wetland corridor functions:

The following is a list of the wetland functions exhibited by these wetlands and watercourse and their rationale:

**Ground water recharge/discharge:** The wetland is associated with a watercourse; signs of groundwater recharge and discharge are present and the quality of the water associated with this wetland is high.

**Sediment/toxicant retention:** Potential sources of sediments/toxicants are present in the watershed above this wetland, mineral, fine grained and organic soils are present, the wetland edge is broad and intermittently anaerobic, this wetland corridor is associated with a watercourse, and no indicators of erosive forces or high water velocities are present.

**Nutrient removal/retention:** This wetland is large relative to the size of its watershed, overall potential exists in the wetland, potential sources of nutrients exist, the wetland is saturated for most of the season, slowly drained mineral and organic soils are present, dense vegetation is present, the opportunity for nutrient attenuation exists and water moves slowly through this wetland.

**Production export:** Wildlife food sources grow within the wetland, detritus development is present, there is evidence of wildlife use in this wetland, high vegetation density is present, the wetland contains flowering plants that are used by nectar gathering insects, and indications of export are present.

**Sediment & shoreline stabilization:** Roots from herbaceous grasses and plants, shrub species and trees found in the wetlands bind and stabilize soils which helps prevent erosion along steeper edges of the watercourse & wetlands.

**Fish habitat:** This watercourse is capable of sustaining a fish population and the water quality associated with the watercourse is high.

**Wildlife habitat:** The water quality associated with the wetlands and watercourse is high, the wetland is not fragmented by development, the wetland is contiguous with other wetland

systems, wildlife overland access to other wetlands is present, wildlife food sources are present, and the dominant wetland class includes a wooded swamp and animal signs observed. Wildlife habitat is the primary function of this wetland.

The forested wetlands and watercourse did not exhibit the wetland function of floodflow alteration, due to the lack of flood storage capacity, the presence of the watercourse transporting flood flows downstream.

#### **The first watercourse/wetland corridor values:**

This wetland did not exhibit the wetland values of recreation, uniqueness/heritage value, visual quality/aesthetics value, educational/scientific value, endangered species habitat or marine fish/shellfish habitat.

These values were not exhibited due to the lack of public access, there are no historic features associated with the wetland or watercourse, high noise levels are present, the lack of scenic views, and the property and surrounding area are not shown within the shaded areas on the D.E.E.P. Natural Diversity Database mapping for state or federal listed threatened or endangered species.

#### **Forested wetland/intermittent watercourse functions:**

As the forested wetland/intermittent watercourse corridors #2 and #3 are nearly identical in their nature and characteristics, I have grouped them together for function and value.

The following is a list of the wetland functions exhibited by these wetlands and watercourse and their rationale:

**Ground water recharge/discharge:** The wetlands are associated with an intermittent watercourse; signs of groundwater recharge and discharge are present and the quality of the water associated with the wetlands is high.

**Sediment/toxicant retention:** Mineral, fine grained and organic soils are present, the wetland edge is broad and intermittently anerobic, these wetland corridors are associated with intermittent watercourses, and no indicators of erosive forces or high water velocities are present.

**Nutrient removal/retention:** The wetlands are large relative to the size of its watershed, overall potential exists in the wetlands, potential sources of nutrients exist, the wetlands are saturated for most of the season, slowly drained mineral and organic soils are present, opportunity for nutrient attenuation exists and water moves slowly through the wetlands.

**Production export:** Wildlife food sources grow within the wetlands, detritus development is present, there is evidence of wildlife use in the wetlands, the wetlands contain flowering plants that are used by nectar gathering insects, and indications of export are present.

**Sediment & shoreline stabilization:** Roots from herbaceous grasses and plants, shrub species and trees found in wetlands bind and stabilize soils which helps prevent erosion along steeper edges of the watercourse & wetlands.

**Wildlife habitat:** The water quality associated with the wetlands and watercourses is high, the wetlands are not fragmented by development, the wetlands are contiguous with other wetland systems, wildlife overland access to other wetlands is present, wildlife food sources are present, and the dominant wetland class includes a wooded swamp and animal signs observed. Wildlife habitat is the primary function of these wetlands.

The forested wetlands and watercourses did not exhibit the wetland functions of floodflow alteration and fish habitat due to the lack of flood storage capacity, the presence of the watercourse transporting flood flows downstream, and lack of perennial streamflow/deepwater fish habitat.

**The forested wetland/intermittent watercourse values:**

These wetlands did not exhibit the wetland values of recreation, uniqueness/heritage value, visual quality/aesthetics value, educational/scientific value, endangered species habitat or marine fish/shellfish habitat.

These values were not exhibited due to the lack of public access, there are no historic features associated with the wetland or watercourse, the lack of scenic views, and the property and surrounding area are not shown within the shaded areas on the D.E.E.P. Natural Diversity Database mapping for state or federal listed threatened or endangered species.

**Emergent wetland functions:**

As the emergent wetlands #4 and #5 are nearly identical in their nature and characteristics, I have grouped them together for function and value.

The following is a list of the wetland functions exhibited by these wetlands and their rationale:

**Ground water recharge/discharge:** Signs of groundwater recharge and discharge are present and the quality of the water associated with the wetlands is high.

**Sediment/toxicant retention:** Mineral, fine grained and organic soils are present, the wetland edge is broad and intermittently anoxic, and no indicators of erosive forces or high water velocities are present.

**Nutrient removal/retention:** Overall potential exists in the wetlands, potential sources of nutrients exist, the wetlands are saturated for most of the season, slowly drained mineral and organic soils are present, the opportunity for nutrient attenuation exists and water moves slowly through these wetlands.

**Wildlife habitat:** The water quality associated with the wetlands is high, the wetlands are not fragmented by development, the wetlands are contiguous with other wetland systems, wildlife overland access to other wetlands is present, wildlife food sources are present, and animal signs were observed. Wildlife habitat is the primary function of this wetland.

The emergent wetlands did not exhibit the wetland functions of production export, sediment and shoreline stabilization, floodflow alteration and fish habitat due to the lack of flood storage capacity, the lack of an associated watercourse, lack of wildlife food sources, and lack of perennial streamflow/deepwater fish habitat.

**Emergent wetland values:**

These wetlands did not exhibit the wetland values of recreation, uniqueness/heritage value, visual quality/aesthetics value, educational/scientific value, endangered species habitat or marine fish/shellfish habitat.

These values were not exhibited due to the lack of public access, there are no historic features associated with the wetland or watercourse, the lack of scenic views, and the property and surrounding area are not shown within the shaded areas on the D.E.E.P. Natural Diversity Database mapping for state or federal listed threatened or endangered species.

**Potential wetland impacts:**

The preliminary project plans and site were reviewed to assess the potential impacts to the wetlands and watercourses from the construction of the existing driveway and the proposed single-family residence.

On or about the same time, the property was heavily logged, some land clearing and stumping was completed, and a gravel access road was constructed across the two central forested wetlands, (Wetlands #2 and #3).

**Timber harvesting impacts:**

The timber harvest would be classified as a final harvest, where the majority of the timber 12 to 14 inches in diameter was removed.

This harvest was intensive, where the majority of the forest overstories and understories were mostly removed in both upland and wetland areas. Specifically, wetlands #3, #4, and #5 were heavily cut, with only a few larger trees and smaller saplings left in or adjacent to the wetlands and watercourses.

Technically speaking, wetlands #1, #2, and #3 were not clearcut, as there are still many trees in the 3 inch or larger diameter range in and adjacent to the wetlands.

As defined by CT D.E.E.P. and section 2.1 (e) of the Town of Killingly Inland Wetlands and Watercourses Regulations the definition of clearcutting is as follows:

"Clear-Cutting" means the harvest of timber in a fashion which removes all trees down to a two-inch diameter at breast height. (DBH or diameter at breast height is measured 4.5' above ground level.)

In wetlands #4 and #5, the overstories were completely removed, and the shrub/sapling understories were either cut or damaged to the point of non-existence, resulting in almost no

tree cover. Whether they were clearcut or not is arguable, as much of the wetland delineation flagging is no longer present and there are still few trees above 2 inches in diameter present in and around these areas.

Although this is a significant impact, I would consider this a temporary impact to wildlife habitat in the wetlands due to the lack of cover.

There will be increases in water temperatures within the wetlands and the intermittent watercourses, (wetlands #2 through #5), during periods of inundation when water tables are high. I do not consider this as adverse, as there are no fish populations within these wetlands and watercourses.

The removal of the majority of the canopy however, will benefit the wetlands in several ways.

Firstly there will be a substantial increase the amount of light reaching the ground now, the remaining herbaceous and shrub/sapling vegetation will now grow at an accelerated rate. Species that were light suppressed or currently dormant, in the form of seeds, and species that stump sprout will increase vegetation density significantly within the next growing season. Within the next year, the wetland herbaceous and shrub vegetation will be more dense than it ever was prior to the harvest.

Secondly, with the removal of the majority of the sawtimber and polewood sized trees, losses in wetland hydrology due to water uptake and transpiration will no longer exist. This will significantly increase hydrology and result in longer periods of inundation and soil moisture in the wetlands.

It should also be noted that I observed no significant rutting in or adjacent to the wetlands as a result of the timber harvesting or land clearing. No significant amounts of sediments or erosion were found within the wetlands or watercourse channels.

Overall, I see no significant impacts to water quality as a result of the harvest.

The impacts to wildlife habitat will be temporary, until the existing and future herbaceous and shrub vegetation can respond to the increases in light and water levels.

I would recommend that in wetlands #4 and #5, the remaining treetops be removed and the wetlands should be seeded with New England Wetmix seed mix to help restore herbaceous vegetation quickly.

### **Access road impacts:**

Fill was placed over an existing, historic crossing at wetland #2. This crossing was comprised of a large stone base which was top dressed with gravel. The gradual stream flows from the intermittent watercourse flow through the stone base under the roadbed and emerge on the south side of the crossing.

The second crossing sites at wetland #3 was newly constructed on the portion of a very stony, muddy and rutted woods road. A small upland island exists between the two fingers

of wetlands that the road crosses. The intermittent watercourse flowed over the existing woods road to the south prior to the construction of the gravel access road.

On a routine basis, the frequent disturbance from truck and ATV traffic created significant amounts of erosion and sedimentation within the wetlands and intermittent watercourse.

The new access road has a stone base with a top dressing of stone and gravel. The section of the roadbed where the stream crosses has a depressed stone ford built so the stream flows over the roadbed.

As far as wetland impacts are concerned, in wetland corridor #3, all existing wetland functions within the newly filled sections of the wetlands are now non-existent. The filling of the roadbed also fragments the wetland and may hinder amphibian travel within the corridor.

Although no E&S measures were implemented, no significant amounts of sediments or erosion were found within the wetlands or watercourse channels adjacent to the new roadbed.

No impacts were noted in wetland pockets #4 and #5 as a result of the construction of the access road.

Lastly, there was clearing, grubbing, stump removal and grading performed directly adjacent to the first watercourse where the proposed driveway entrance is located before the bridge crossing. Currently the soils are not stable.

All vegetation was removed along the northwest side of the stream channel and wetland boundary.

Although all the vegetation was removed on this side of the stream channel, I do not think there will be increases in stream temperatures, as there is mature forest canopy shading the stream on its southeast side.

Despite the fact that no E&S measures were installed, I saw only minimal amounts of erosion and sedimentation within the wetlands and watercourse.

I would recommend that silt fencing backed by staked haybales be installed, and the disturbed soils adjacent to the proposed driveway location be seeded and mulched ASAP.

**Proposed activity potential impacts:**

The proposed activity consists of the construction/completion of the access road to the residence, the construction of a 3-bedroom single family residence with associated well and septic system, pool and cabana.

Significant portions of the driveway, the well, and a portion of the yard & residence are proposed within the 200-foot upland review areas.

### **Direct wetland impacts:**

The only direct proposed impacts are the construction, widening and completion of the wetland crossings and driveway construction in wetlands #2 and #3, where reinforced concrete culvert pipes are proposed for a total of 3,400 square feet of disturbance.

No direct wetland disturbance is proposed for the construction of the bridge crossing of the first watercourse

### **Potential indirect impacts:**

The potential short-term impacts associated with any remaining land clearing, stumping, grading and construction activities would include potential sediment discharges during significant storm events if the E&S measures breach.

I would recommend that the following E&S measures be implemented into the project plans:

- E&S measures along the first section of driveway, adjacent to the bridge, adjacent to the wetland/stream crossings and adjacent to wetland #4 should consist of standard silt fencing backed by staked haybales. The staked haybales will do a better job of stopping sediments in the uneven rocky terrain in and adjacent to the wetlands.
- E&S inspections should occur at least weekly and prior to/after significant rainfall events.

It should be noted that 2,760 square feet of wetland mitigation is proposed in wetland #3.

No detail or description is provided for the wetland restoration or mitigation areas, this should be addressed on the detail sheet of the plans.

I would recommend that to further mitigate and augment wetland herbaceous vegetation in the crossing sites and wetlands #4 & #5, any existing tree tops should be removed and the areas should be seeded in with New England Wetmix seed mix.

### **Conclusions:**

It is my opinion that overall, the timber harvest did not adversely impact the wetlands or watercourses. The lack of cover and habitat due to the removal/damage to the understory in the wetlands is temporary until the understory re-establishes.

The N.R.C.S foresters, and D.E.E.P. Wildlife Division commonly prescribe partial clearcuts in and adjacent to wetlands to help establish early successional habitat for grouse and woodcock habitat.

The impacts to the wetlands and watercourses from the filling in the crossing sites is significant and adverse, within the footprint of the filled areas, however the remaining wetlands and sections of the watercourses still exhibit their functions and values.



It is my opinion, provided that the E&S measures are correctly implemented and maintained throughout the project timeframe, the E&S inspections are conducted as proposed and no significant discharges of sediments reach the wetlands or watercourses, the disturbance associated with the construction within the upland review areas adjacent to the wetlands will not significantly impact the wetlands or their existing functions due to erosion and sedimentation.

Once the disturbed areas are re-vegetated and stabilized, the moderately well-drained soils will allow for good infiltration of storm water runoff both during and after construction.

The gradual topography of the site and gentle slopes adjacent to the wetlands will help prevent erosion.

The quick and permanent establishment of vegetation in the disturbed areas is crucial to the prevention of post-construction erosion.

The paving of steeper sections of the driveway & construction of the rip-rap plunge pools and swales to channel, attenuate and treat stormwater off sections of the driveway will help prevent impacts to water quality in the wetlands and watercourses.

In summary, I see no direct or adverse impacts to the existing wetlands or watercourses or their functions and values as a result of the construction of the upland portions of the driveway and residence.

This is provided that the recommended erosion and sedimentation control features are implemented, maintained and monitored throughout the construction and post construction timeframe.

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

Sincerely,

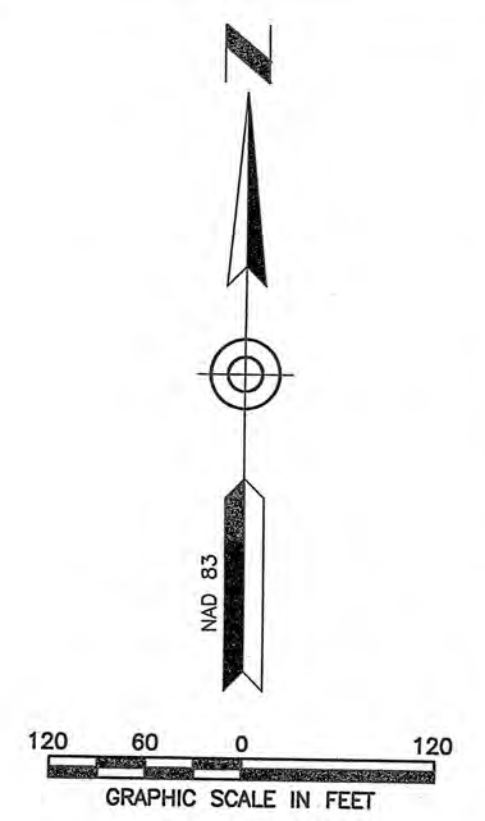
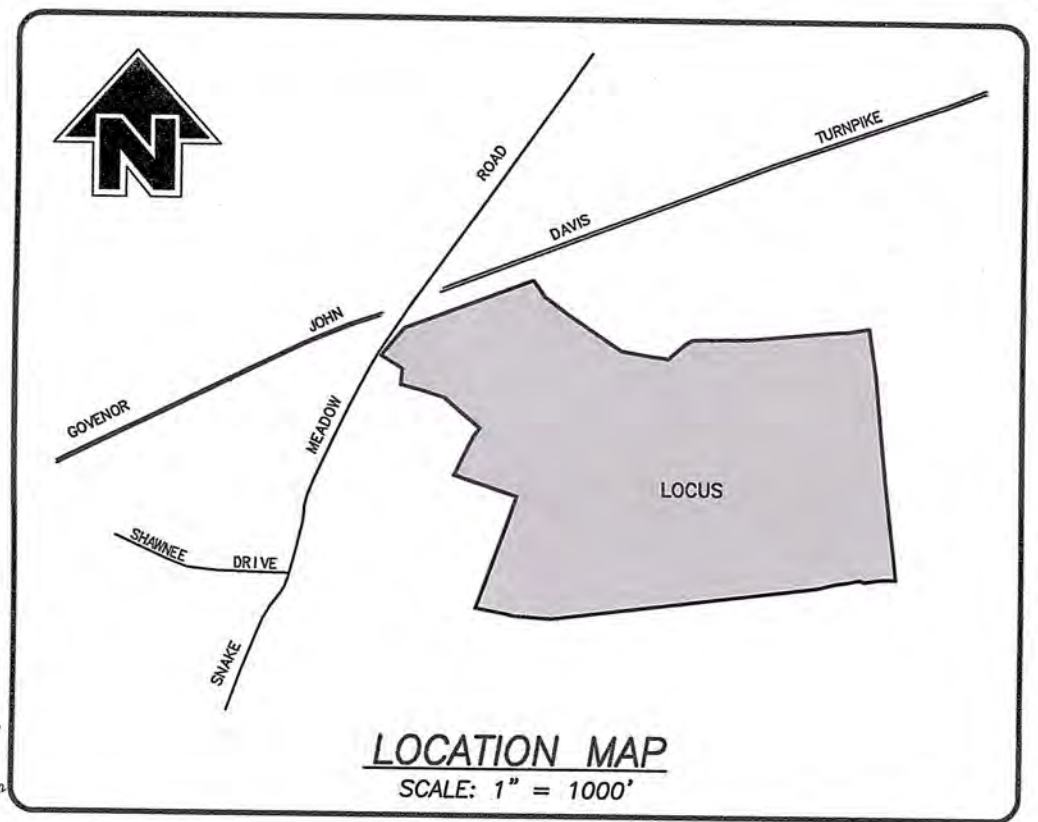
*Joseph R. Theroux*

Joseph R. Theroux  
Certified Forester and Soil Scientist  
Member SSSSNE, SSSA









n/f  
Benjamin L. Vinci  
Kathy Vinci  
Peter Vinci  
&  
Marci Vinci  
Map 247 Lot 8

**NOTES:**

- This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Sections 20-300b-1 through 20-300b-20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996;
  - This survey conforms to a Class "C" horizontal accuracy.
  - Topographic features conform to a Class "T-2", "V-2" vertical accuracy.
  - Survey Type: General Location Survey.
- 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.
- Zone = RD.
- Parcel is shown as Lot #2 on Assessors Map #242.
- Owner of record: American Retaining Wall, LLC  
666 Upper Maple Street Suite A  
Danielson, CT 06239  
See Volume 1375, Page 391
- Elevations shown are based on North American Vertical Datum of 1988 (NAVD 88). Contours shown are taken from Connecticut statewide LIDAR and supplemented with actual field survey. Contour interval = 2'.
- Wetlands shown were delineated in the field by Joseph Theroux, Certified Soil Scientist, in November 30, 2021.

**MAP REFERENCES:**

- "Survey Plan - Prepared for - Mark Greenberg & Associates INC. - Snake Meadow Road - Killingly, Connecticut - Scale: 1" = 20' - Date: 4/27/1989 - Prepared by: KWP Associates".
- "Property Survey - Prepared for - Lisa A. Vance - Snake Meadow Road Killingly, Connecticut - Scale: 1" = 40' - Date: 03/11/98 - Prepared by: KWP Associates".

GENERAL LOCATION SURVEY  
PREPARED FOR  
**AMERICAN RETAINING WALL, LLC**  
210 SNAKE MEADOW ROAD (S.R. 664)  
KILLINGLY, CONNECTICUT

**Killingly Engineering Associates**  
Civil Engineering & Surveying  
114 Westcott Road  
P.O. Box 421  
Killingly, Connecticut 06241  
(860) 779-2299  
www.killinglyengineering.com

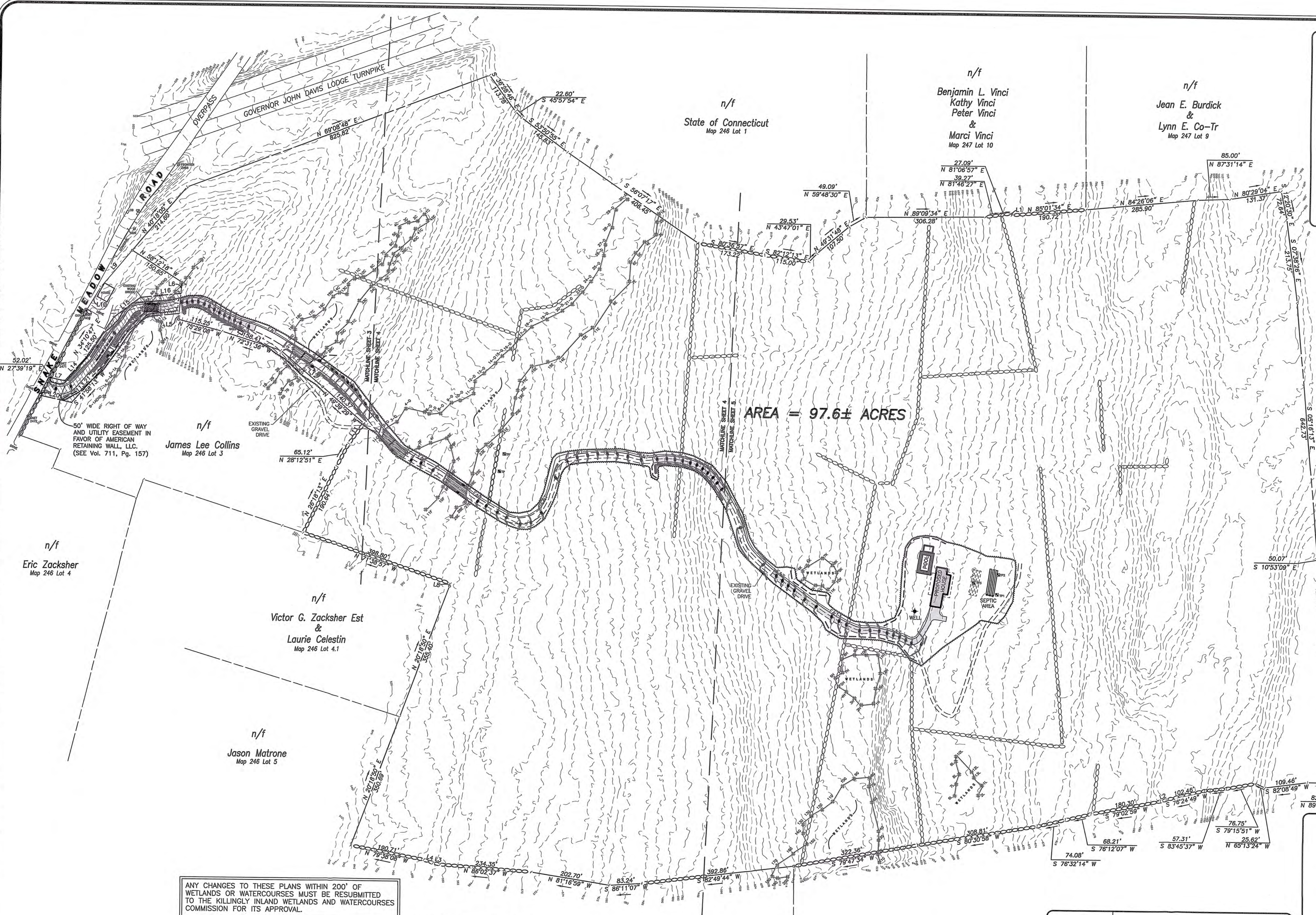
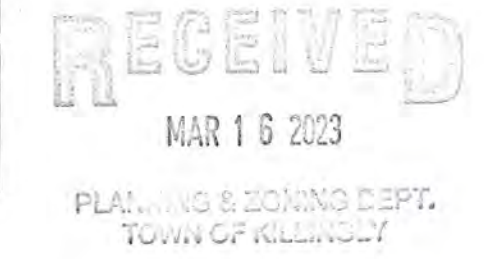
DATE: 06/22/2022	DRAWN: RGS
SCALE: 1" = 120'	DESIGN: ---
SHEET: 2 OF 8	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 21112

DATE	DESCRIPTION
3/07/2023	APPLICATION RESUBMITTAL
10/05/2022	FINAL PLAN REVIEW
DATE	DESCRIPTION
	REVISIONS

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

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE 3-16-2023

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



LINE	BEARING	DISTANCE
L1	S 24°13'34" E	16.88
L2	S 72°00'23" W	15.51
L3	N 77°17'21" W	18.55
L4	N 71°52'49" W	24.50
L5	N 04°30'03" E	14.80
L6	N 04°30'03" E	28.52
L7	S 78°21'30" E	37.56
L8	N 18°52'44" E	6.92
L9	N 40°22'01" E	122.46
L10	N 31°08'09" E	78.45
L11	N 38°12'13" E	62.33
L12	N 49°35'09" W	141.91
L13	N 05°23'57" E	51.83
L14	N 41°58'13" E	81.13
L15	N 53°07'44" E	84.74
L16	N 83°48'48" E	103.70
L17	S 83°48'39" W	80.54
L18	S 53°07'44" W	62.68
L19	S 34°10'47" W	120.56
L20	N 78°21'30" W	80.59

ANY CHANGES TO THESE PLANS WITHIN 200' OF WETLANDS OR WATERCOURSES MUST BE RESUBMITTED TO THE KILLINGLY INLAND WETLANDS AND WATERCOURSES COMMISSION FOR ITS APPROVAL.

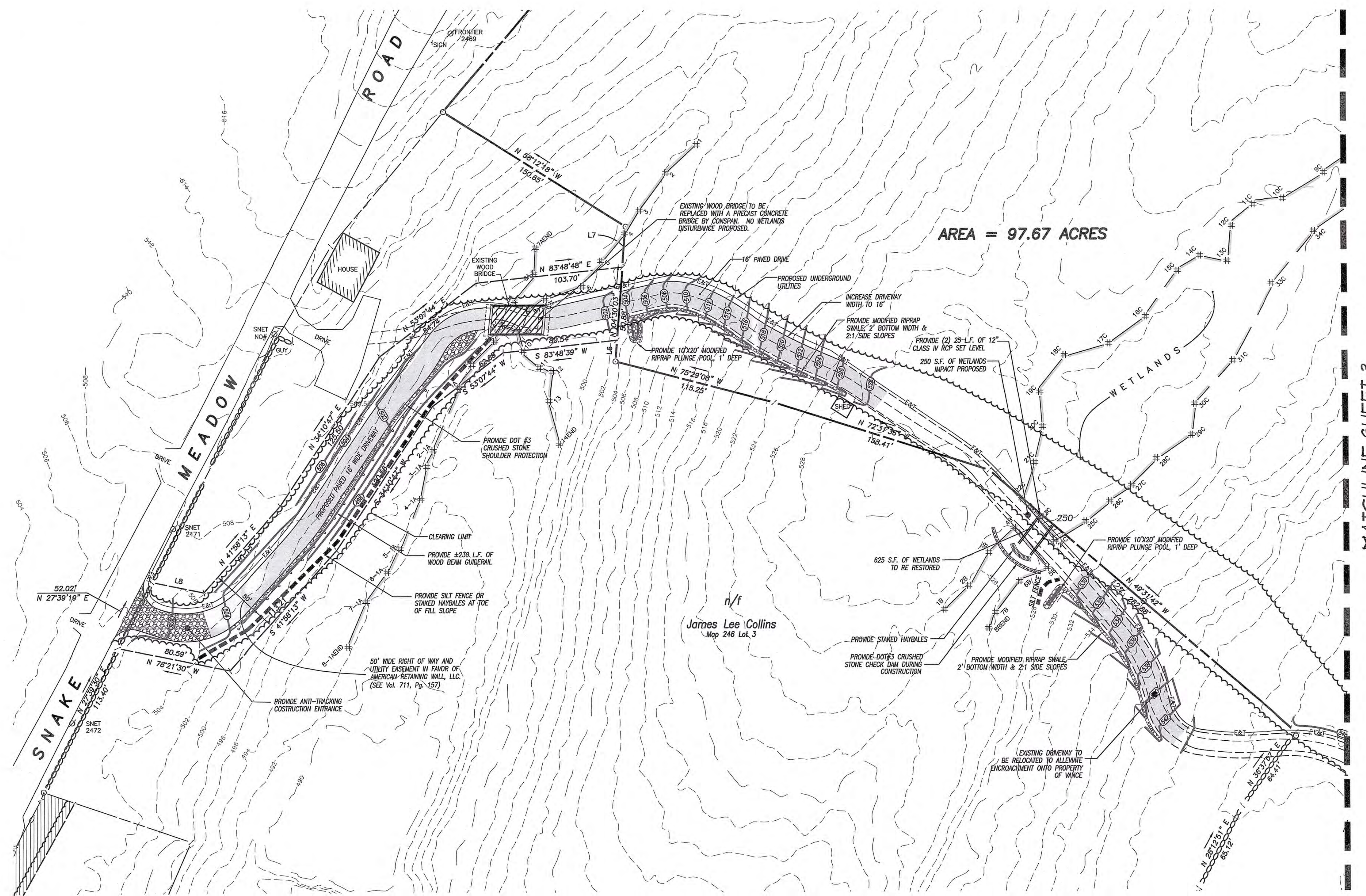
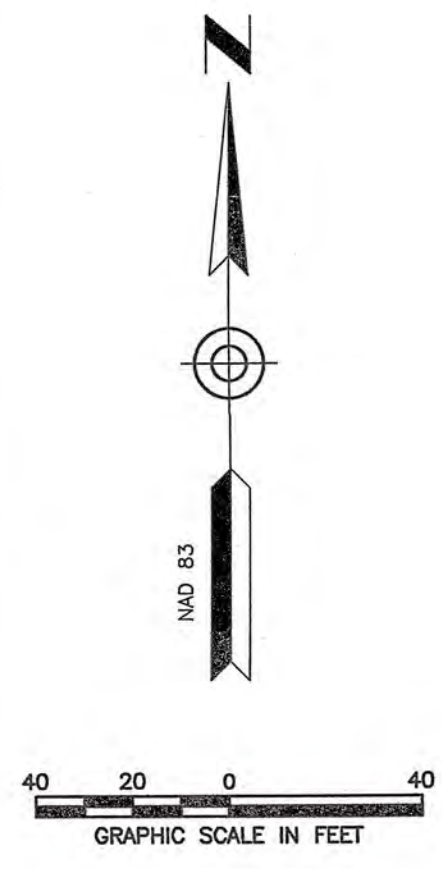
THE APPLICANT WILL CONTACT THE KILLINGLY INLAND WETLANDS AND WATERCOURSES COMMISSION'S AGENT AFTER ALL EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED, PRIOR TO ANY CONSTRUCTION OR EXCAVATION ON THE PROPERTY.

APPROVED BY THE TOWN OF KILLINGLY INLAND WETLANDS COMMISSION  
CHAIRMAN \_\_\_\_\_ DATE \_\_\_\_\_

- LEGEND**
- IRON PIN FOUND
  - ⊕ UTILITY POLE
  - CB CATCH BASIN
  - - - 100' - - - EXISTING CONTOURS
  - ▭ INLAND WETLANDS FLAG
  - ▭ BUILDING SETBACK LINE
  - ○ ○ ○ ○ STONE WALL

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MATCHLINE SHEET 3

AREA = 97.67 ACRES

n/f  
James Lee Collins  
Map 246 Lot 3

3/07/2023	APPLICATION RESUBMITTAL
10/05/2022	FINAL PLAN REVIEW
DATE	DESCRIPTION
	REVISIONS

GENERAL LOCATION SURVEY  
PROPOSED DRIVEWAY DESIGN PLAN  
PREPARED FOR  
**AMERICAN RETAINING WALL, LLC**  
210 SNAKE MEADOW ROAD (S.R.664)  
KILLINGLY, CONNECTICUT

**Killingly Engineering Associates**  
Civil Engineering & Surveying  
114 Westcott Road  
P.O. Box 421  
Killingly, Connecticut 06241  
(860) 779-7299  
www.killinglyengineering.com

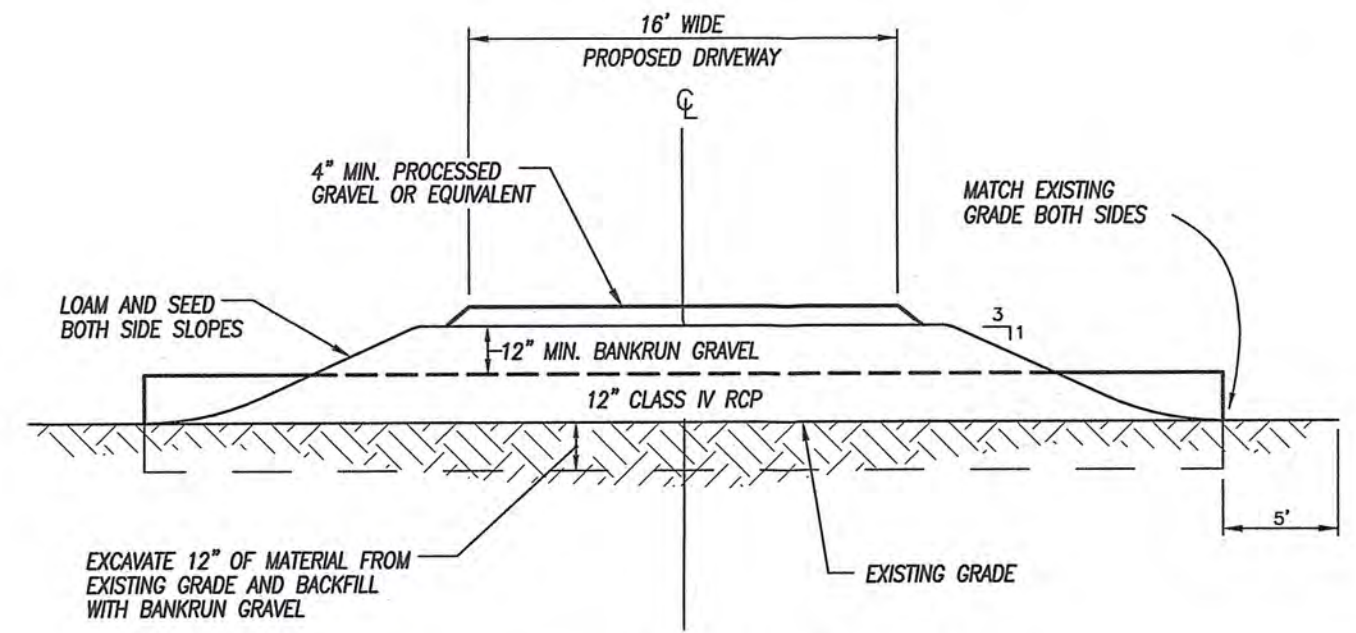
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SCALE: 1" = 40'	DESIGN: NET
SHEET: 3 OF 8	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 21112

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KILLINGLY INLAND WETLANDS COMMISSION

CHAIRMAN \_\_\_\_\_ DATE \_\_\_\_\_



**DRIVEWAY CULVERT  
DETAIL**  
NOT TO SCALE

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TOWN OF KILLINGLY

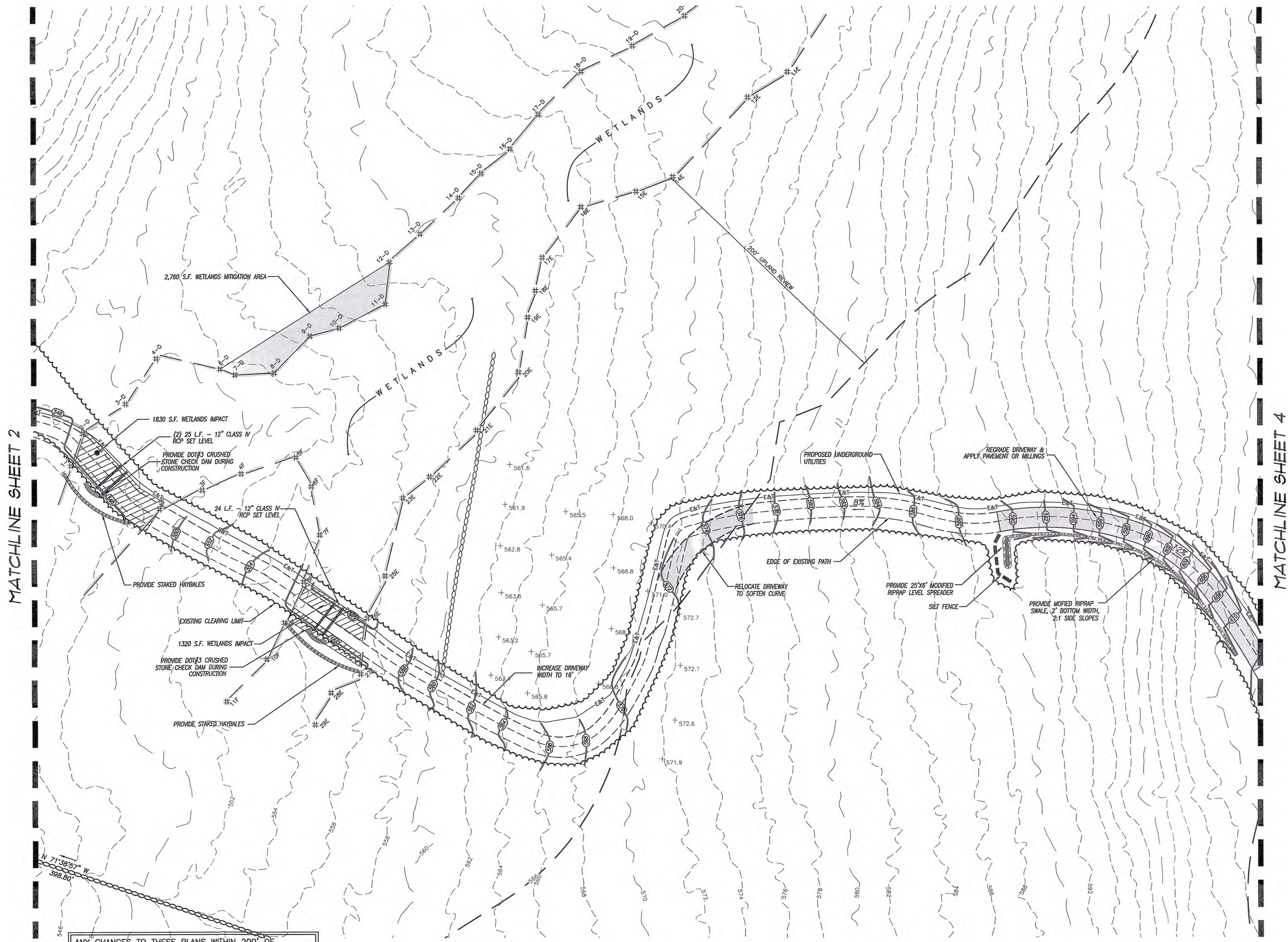
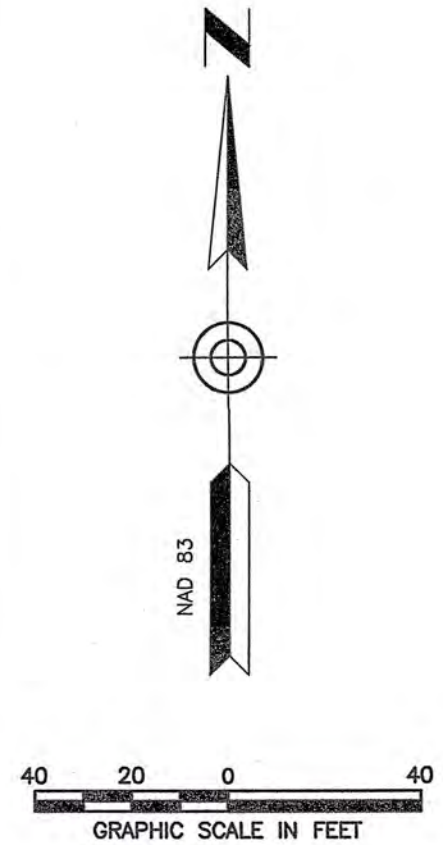


*Norman Thibault Jr.* 3/16/2023  
NORMAND E. THIBAUT, JR., P.E. DATE  
LIC #PEN 0022834

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- LEGEND**
- IRON PIN FOUND
  - ⊕ SIGN
  - UTILITY POLE
  - CB CATCH BASIN
  - 100 --- EXISTING CONTOURS
  - 10 --- PROPOSED CONTOURS
  - W --- INLAND WETLANDS FLAG
  - B --- BUILDING SETBACK LINE
  - S --- STONE WALL





MATCHLINE SHEET 2

MATCHLINE SHEET 4

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CHAIRMAN \_\_\_\_\_ DATE \_\_\_\_\_

- LEGEND**
- IRON PIN FOUND
  - ⊕ SIGN
  - ⊕ UTILITY POLE
  - CATCH BASIN
  - 100 --- EXISTING CONTOURS
  - 100 --- PROPOSED CONTOURS
  - ⊕ INLAND WETLANDS FLAG
  - ⊕ BUILDING SETBACK LINE
  - ⊕ STONE WALL

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10/05/2022	FINAL PLAN REVIEW
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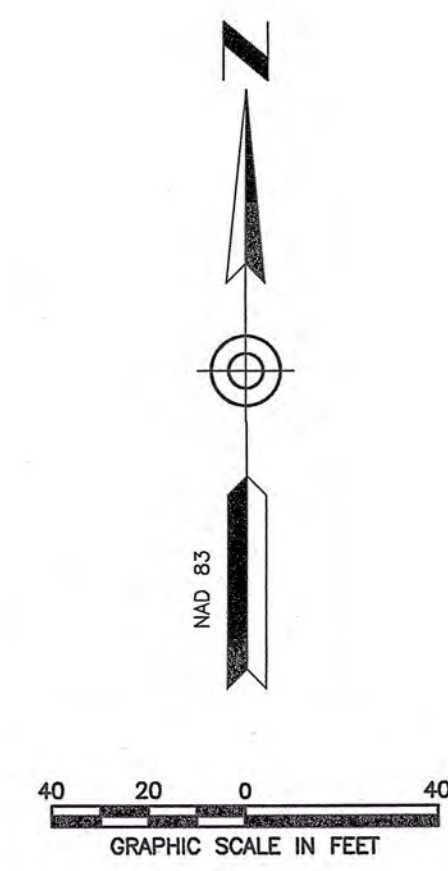
DATE: 06/22/2022	DRAWN: NET
SCALE: 1" = 40'	DESIGN: NET
SHEET: 4 OF 8	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 21112

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TOWN OF KILLINGLY

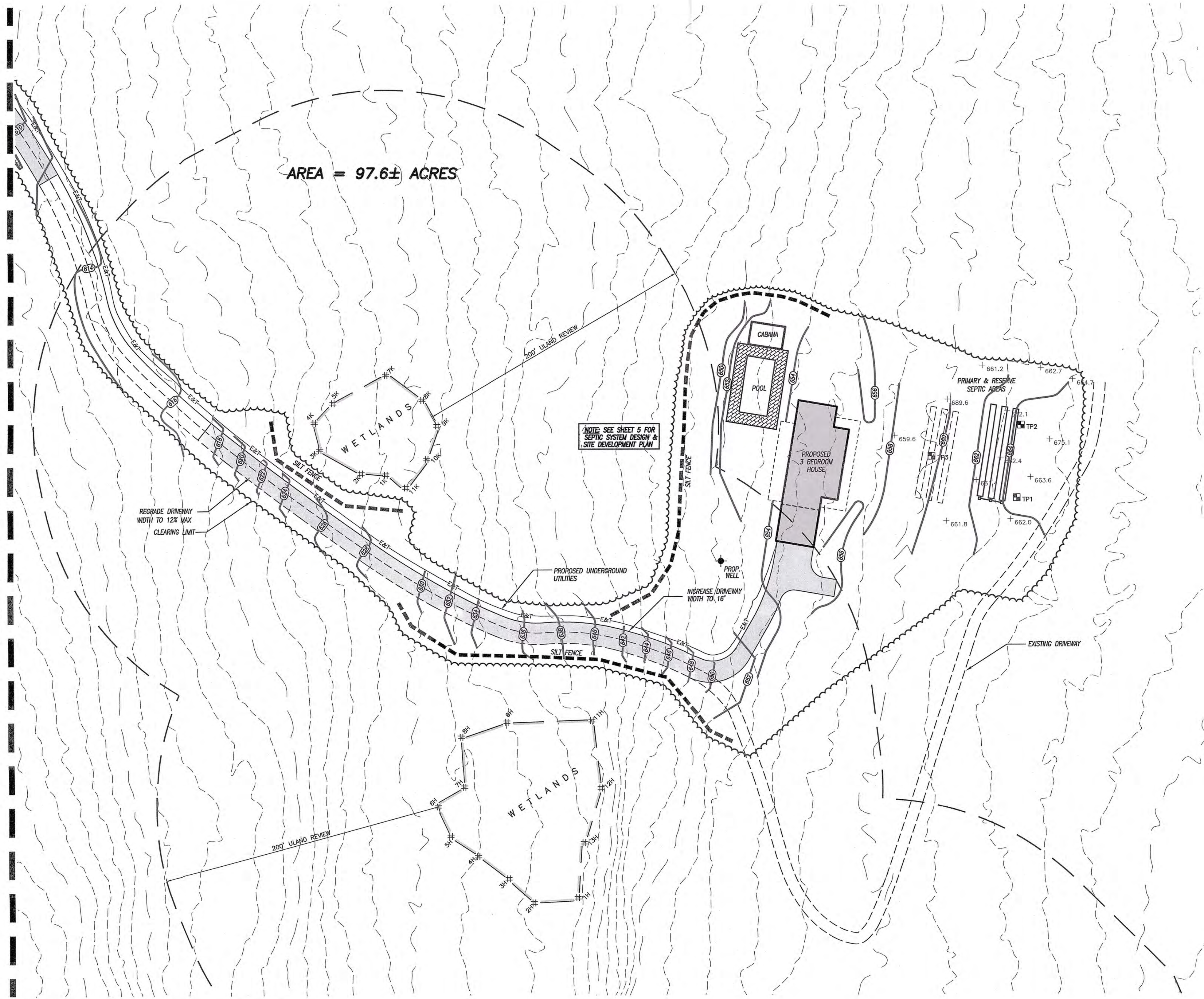


*Norman E. Thibault, Jr.* 3/16/2023  
NORMAN E. THIBAUT, JR., P.E. DATE  
LIC #PEN 0022834





MATCHLINE SHEET 3



NOTE: SEE SHEET 5 FOR SEPTIC SYSTEM DESIGN & SITE DEVELOPMENT PLAN

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- LEGEND**
- IRON PIN FOUND
  - + SIGN
  - ⊕ UTILITY POLE
  - CB CATCH BASIN
  - 100 --- EXISTING CONTOURS
  - 100 --- PROPOSED CONTOURS
  - #--- INLAND WETLANDS FLAG
  - #--- BUILDING SETBACK LINE
  - ⊘ STONE WALL

3/07/2023	APPLICATION RESUBMITTAL
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PROPOSED DRIVEWAY DESIGN PLAN

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DATE: 06/22/2022	DRAWN: NET
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SHEET: 5 OF 8	CHK BY: GG
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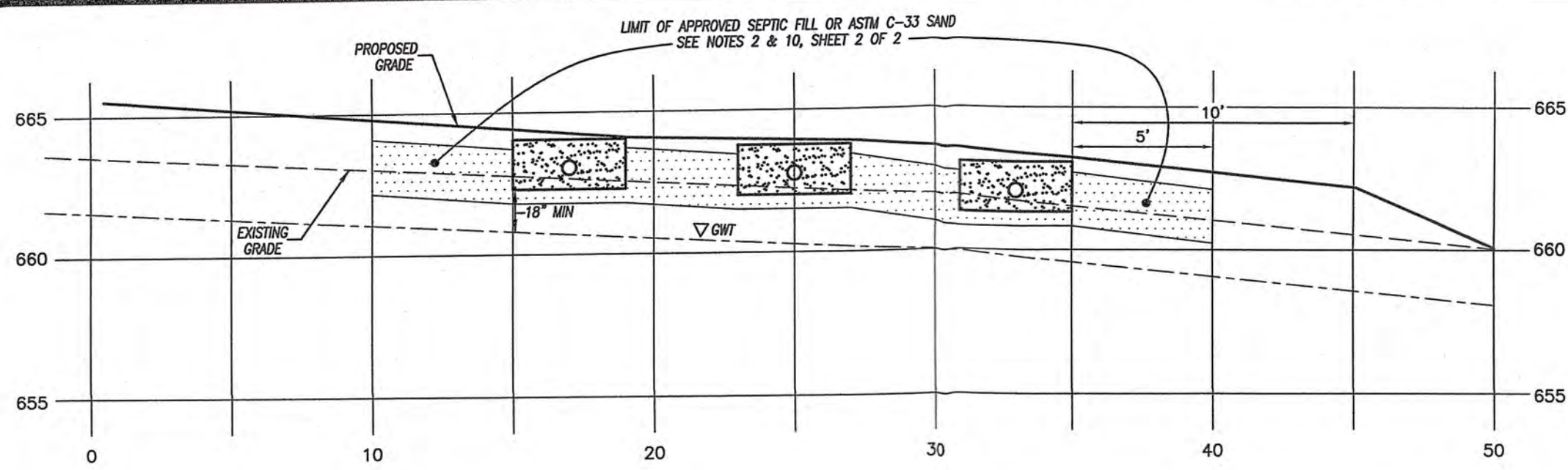
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MAR 16 2023  
PLANNING & ZONING DEPT.  
TOWN OF KILLINGLY



*Norman Thibault Jr* 3/16/2023  
NORMAND E. THIBAUT, JR., P.E. DATE  
LIC #PEN 0022834

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CROSS SECTION "A-A"  
SCALE: 1" = 5'

PERCOLATION TEST RESULT - March 23, 2022  
NORTHEAST DISTRICT DEPARTMENT OF HEALTH.

HOLE 1  
Depth = 22" Rate = 6.7 min./in.

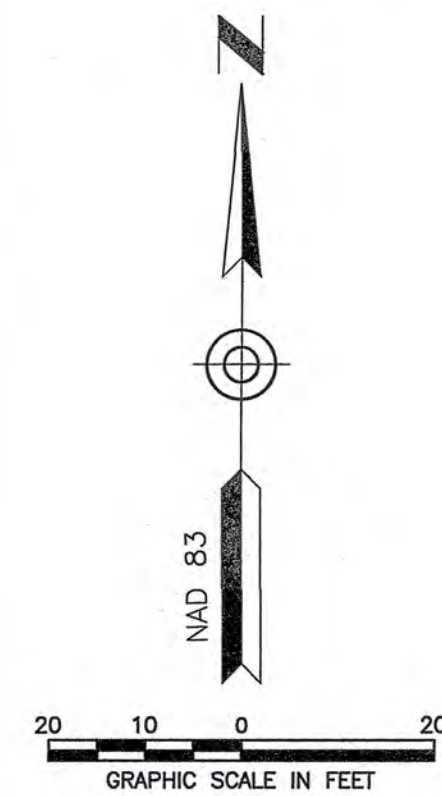
Time	Reading
9:35	5"
9:40	7.5"
9:45	9"
9:50	10.5"
9:55	11.5"
10:00	12.5"
10:05	13.25"
10:10	14"
10:15	17.75"

TEST HOLE DATA - March 23, 2022  
Northeast District Department of Health

TEST PIT	DEPTH	PROFILE
1	0"-8" 8"-23" 23"-60" 60"-73" Ledge N/A 60" Seeps @ 39" 23" Mottling Restrictive	Topsail/Organics Loamy Sand Mottled Grey Comp Pan Groundwater N/A 60" Seeps @ 39" 23" Mottling Restrictive
2	0"-13" 13"-24" 24"-60" 60"-72" Ledge N/A 60" Seeps @ 33" 24" Mottling Restrictive	Topsail/Organics Loamy Sand Mottled Grey Comp Pan Groundwater N/A 60" Seeps @ 33" 24" Mottling Restrictive
3	0"-11" 11"-23" 23"-66" 66"-79" Ledge N/A 66" Seeps @ 36" 23" Mottling Restrictive	Topsail/Organics Loamy Sand Mottled Grey Comp Pan Groundwater N/A 66" Seeps @ 36" 23" Mottling Restrictive

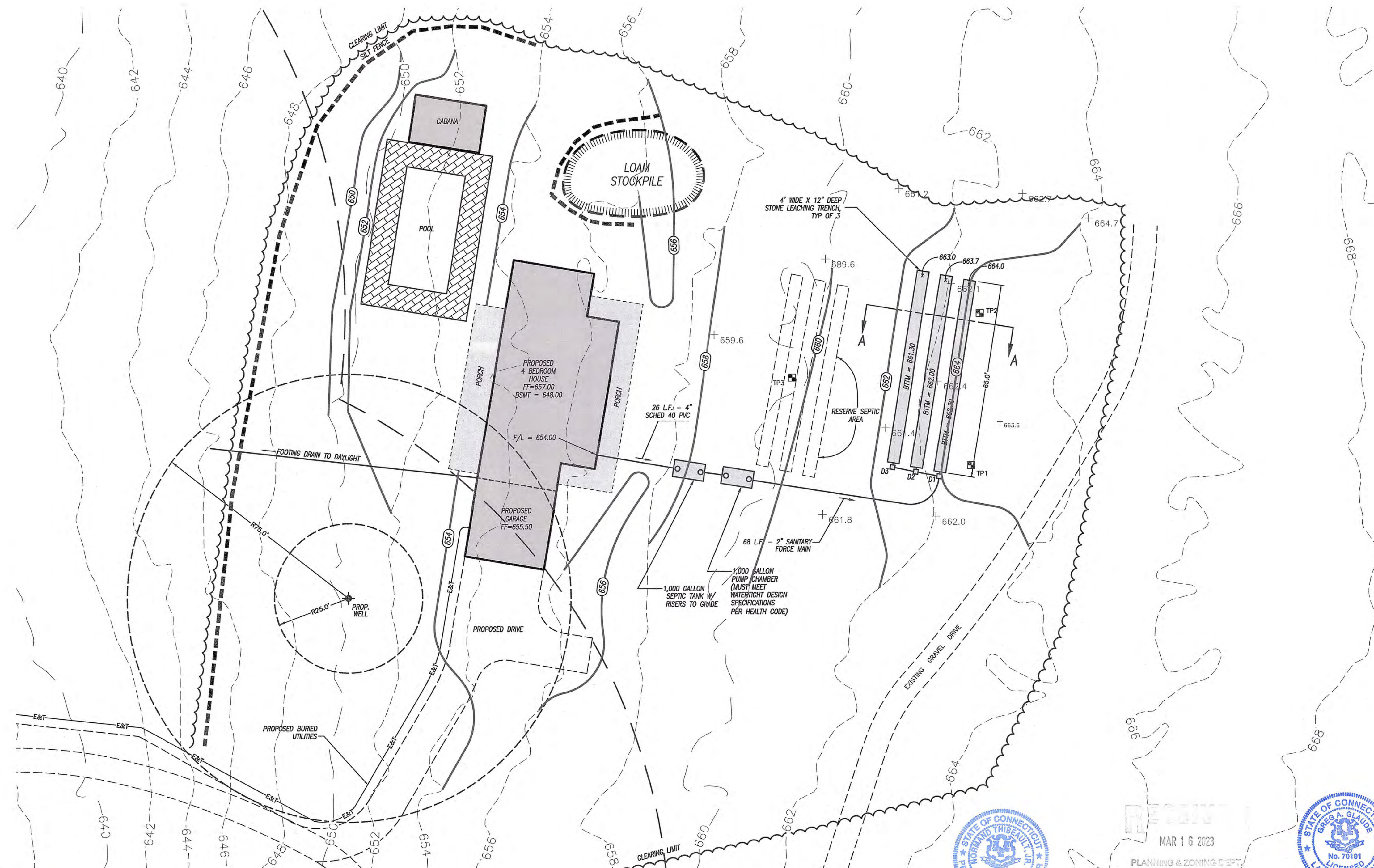
SEPTIC SYSTEM DESIGN DATA

Percolation Rate	= 6.7 min. / in.
4 bedroom house requires	= 577.5 s.f. effective leaching area
Effective Leaching area	= 3 s.f. / l.f. of trench
Length Required	= 577.5/3 = 192.5 l.f.
Length Provided	= 3 (65') = 195 l.f.
Min. Leaching System Spread (MLSS)	= 34 x 1.5 x 1.0 = 51'
MLSS Provided	= 65'
LEACHING FIELD	
3 Trenches @ 65 l.f. each	
Maximum depth into existing grade	= 5'



SURVEYOR SHALL SET A BENCH MARK IN THE AREA OF THE SEPTIC SYSTEM AT THE TIME OF CONSTRUCTION STAKE-OUT.

SEPTIC TANK	
1000 GALLON	
TWO COMPARTMENT	
F/L IN = 653.45	
F/L OUT = 653.20	
PUMP CHAMBER	
1000 GALLON	
TWO COMPARTMENT	
F/L IN = 653.00	
F/L OUT = 652.75	
DISTRIBUTION BOXES	
D-1 (BAFFLED W/ OVERFLOW)	
F/L IN = 662.97	
F/L OUT = 662.80	
OVERFLOW = 663.05	
D-2 (OVERFLOW)	
F/L IN = 662.67	
F/L OUT = 662.50	
F/L OUT = 662.75	
D-3 (STANDARD)	
F/L IN = 661.97	
F/L OUT = 661.80	



1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Sections 20-300b-1 through 20-300b-20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996;

- This survey conforms to a Class "C" horizontal accuracy.
- Topographic features conform to a Class "T-2", "V-2" vertical accuracy.
- Survey Type: General Location Survey.

2. 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.

3. Zone = RD.

4. Parcel is shown as Lot #2 on Assessors Map #242.

5. Owner of record: American Retaining Wall, LLC  
666 Upper Maple Street Suite A  
Danielson, CT 06239  
See Volume 1375, Page 391

6. Elevations shown are based on North American Vertical Datum of 1988 (NAVD 88). Contours shown are taken from Connecticut statewide LIDAR and supplemented with actual field survey. Contour interval = 2'.

7. Wetlands shown were delineated in the field by Joseph Theroux, Certified Soil Scientist, in November 30, 2021.

MAP REFERENCE:  
1. "Survey Plan - Prepared for - Mark Greenberg & Associates INC. - Snake Meadow Road - Killingly, Connecticut - Scale: 1" = 20' - Date: 4/27/1989 - Prepared by: KWP Associates".

DATE	DESCRIPTION
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10/05/2022	FINAL PLAN REVIEW
DATE	REVISIONS

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SEPTIC SYSTEM DESIGN PLAN  
PREPARED FOR  
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DATE: 06/22/2022	DRAWN: RGS
SCALE: 1" = 20'	DESIGN: NET
SHEET: 6 OF 8	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 21112

LEGEND

F.F.	FINISHED FLOOR
Ø	UTILITY POLE
---	EXISTING CONTOURS
---	PROPOSED CONTOURS
---	INLAND WETLANDS FLAG
---	BUILDING SETBACK LINE
○	PERCOLATION TEST HOLE
○	TEST HOLE
---	STONE WALL
---	SILT FENCE

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APPROVED BY THE TOWN OF KILLINGLY INLAND WETLANDS COMMISSION

CHAIRMAN DATE

LINE	BEARING	DISTANCE
L1	S 24°13'44" E	14.89
L2	S 72°00'23" W	15.51
L3	N 71°11'21" W	18.55
L4	N 71°52'49" W	24.60
L5	N 20°29'50" E	17.00
L6	N 04°30'03" E	14.80
L7	N 04°30'03" E	28.52
L8	S 78°21'30" E	17.58

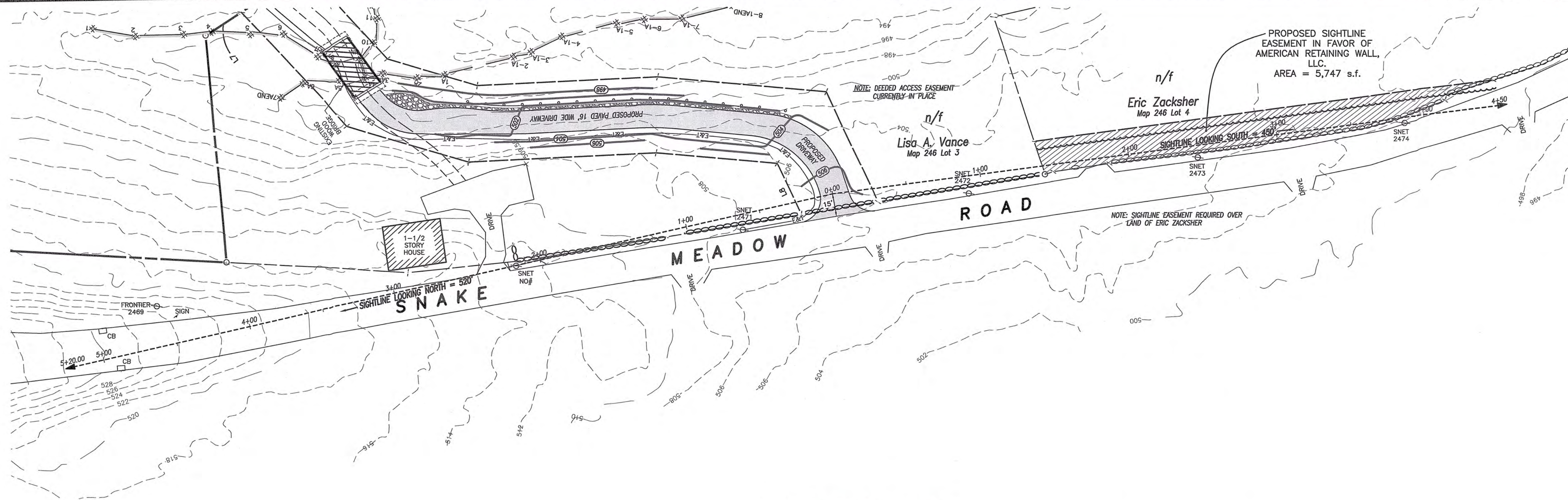
*Normand Thibault, Jr.*  
NORMAND THIBAUT, JR., P.E. No. 22834 DATE 3/16/23

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

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE

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

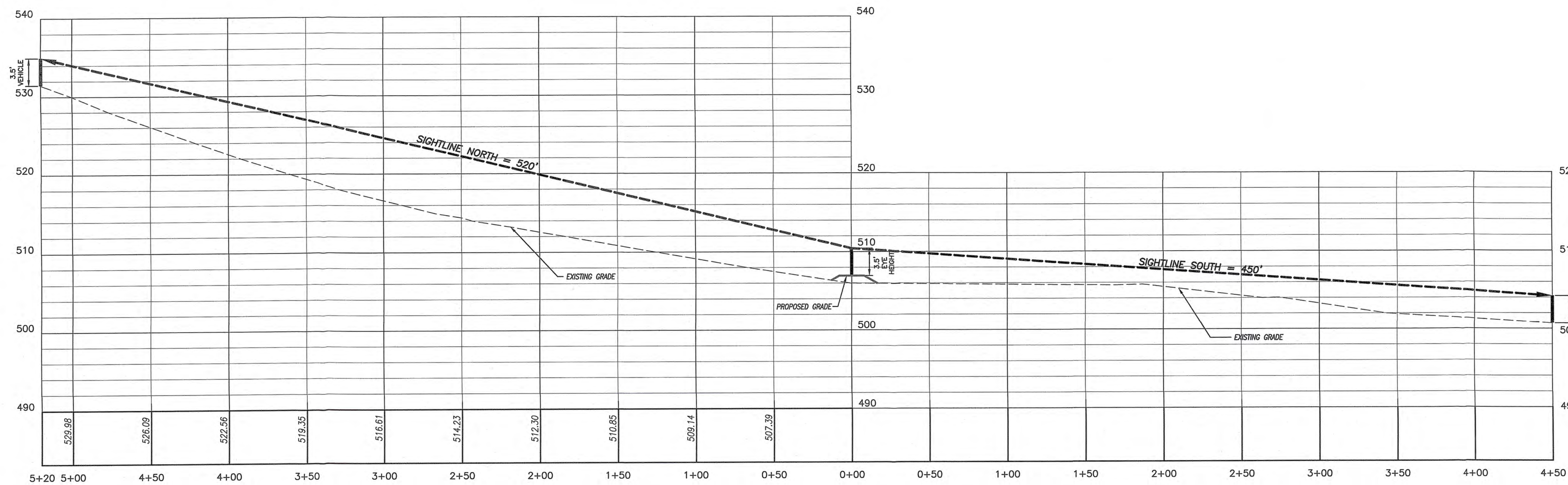




**SIGHTLINE PLAN VIEW**

SCALE = 1" = 40'

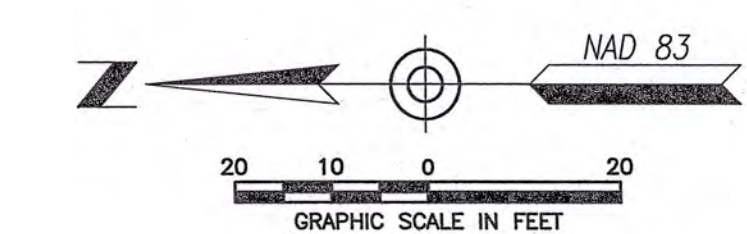
POSTED SPEED LIMIT = 35 M.P.H.



**SIGHTLINE PROFILE**

HORIZONTAL SCALE = 1" = 40'

VERTICAL SCALE = 1" = 4'



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GENERAL LOCATION SURVEY  
SIGHT LINE DEMONSTRATION PLAN  
PREPARED FOR  
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KILLINGLY, CONNECTICUT

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DATE: 06/22/2022	DRAWN: NET
SCALE: AS NOTED	DESIGN: NET
SHEET: 7 OF 8	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 21112

- LEGEND**
- o IRON PIN FOUND
  - t SIGN
  - u UTILITY POLE
  - CB CATCH BASIN
  - - - 100 - - - EXISTING CONTOURS
  - - - 100 - - - PROPOSED CONTOURS
  - W INLAND WETLANDS FLAG
  - ▭ BUILDING SETBACK LINE
  - o-o-o-o-o STONE WALL

LINE	BEARING	DISTANCE
L1	S 24°13'54" E	4.88'
L2	S 72°03'23" W	18.51'
L3	N 77°17'21" W	18.55'
L4	N 71°52'49" W	24.60'
L5	N 89°39'40" E	17.00'
L6	N 04°30'03" E	14.80'
L7	N 04°30'03" E	28.52'
L8	S 78°41'50" E	17.56'

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TOWN OF KILLINGLY



*Norman E. Thibault, Jr.* 3/16/2023  
NORMAN E. THIBAUT, JR., P.E.  
LIC #PEN 0022834



**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 riprapped 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 streams 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.

**SEPTIC SYSTEM CONSTRUCTION NOTES**

- The building, septic system and well shall be accurately staked in the field by a licensed Land Surveyor in the State of Connecticut, prior to construction.
- Topsoil shall be removed and in the area of the primary leaching field scarified, prior to placement of septic fill. Septic fill specifications are as follows:
  - Max. percent of gravel (material between No. 4 & 3 inch sieves) = 45%

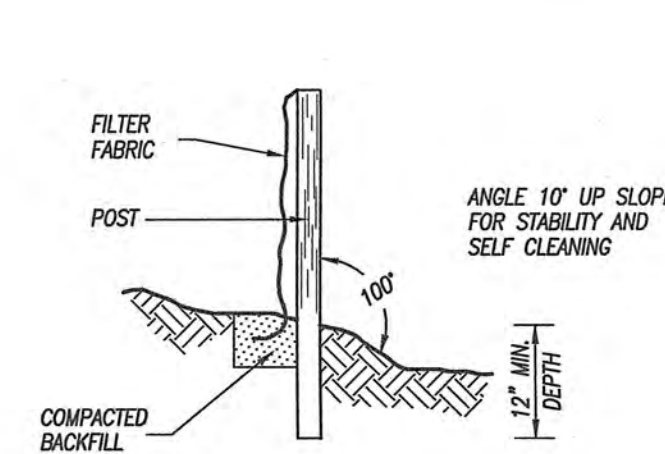
GRADATION OF FILL (MINUS GRAVEL)

SIEVE SIZE	PERCENT PASSING (WET SIEVE)	PERCENT PASSING (DRY SIEVE)
No. 4	100%	100%
No. 10	70% - 100%	70% - 100%
No. 40	10% - 50%	10% - 75%
No. 100	0% - 20%	0% - 5%
No. 200	0% - 5%	0% - 2.5%

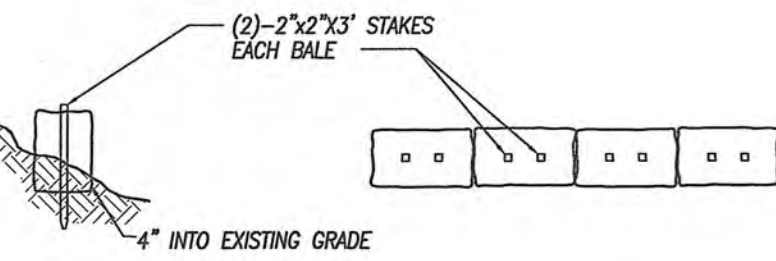
Fill material shall be approved by the sanitarian prior to placement. It shall be compacted in 6" lifts and shall extend a minimum of five feet (5') around the perimeter of the system. Common fill shall extend an additional five feet (5') down gradient of the system (10' total) before tapering off at a maximum slope of 2H:1V.

- Septic tank shall be two compartment precast 1,500 gallon tank with gas deflector and outlet filter as manufactured by Jolley Precast, Inc. or equal.
- Distribution boxes shall be 4 hole precast concrete as manufactured by Jolley Precast, Inc. or equal.
- All precast structures such as septic tanks, distribution boxes, etc. shall be set level on six inches (6") of compacted gravel base at the elevations specified on the plans.
- Solid distribution pipe shall be 4" diameter PVC meeting ASTM D-3034 SDR 35 with compression gasket joints. It shall be laid true to the lines and grades shown on the plans and in no case have a slope less than 0.125 inches per foot.
- Perforated distribution pipe shall be 4" diameter PVC meeting ASTM D-3034 or ASTM F1760 for SDR 35, or ASTM F810 for SDR 38.
- Sewer pipe from the foundation wall to the septic tank shall be schedule 40 PVC meeting ASTM D 1785. It shall be laid true to the grades shown on the plans and in no case shall have a slope less than 0.25 inches per foot.
- Solid footing drain outlet pipe shall be 4" Diameter PVC meeting ASTM D 3034, SDR 35 with compression gasketed joints. Footing drain outlet pipe shall not be backfilled with free draining material, such as gravel, broken stone, rock fragments, etc.
- Septic sand shall meet the requirements of ASTM C-33 with less than 10% passing a 100 sieve and less than 5% passing a 200 sieve

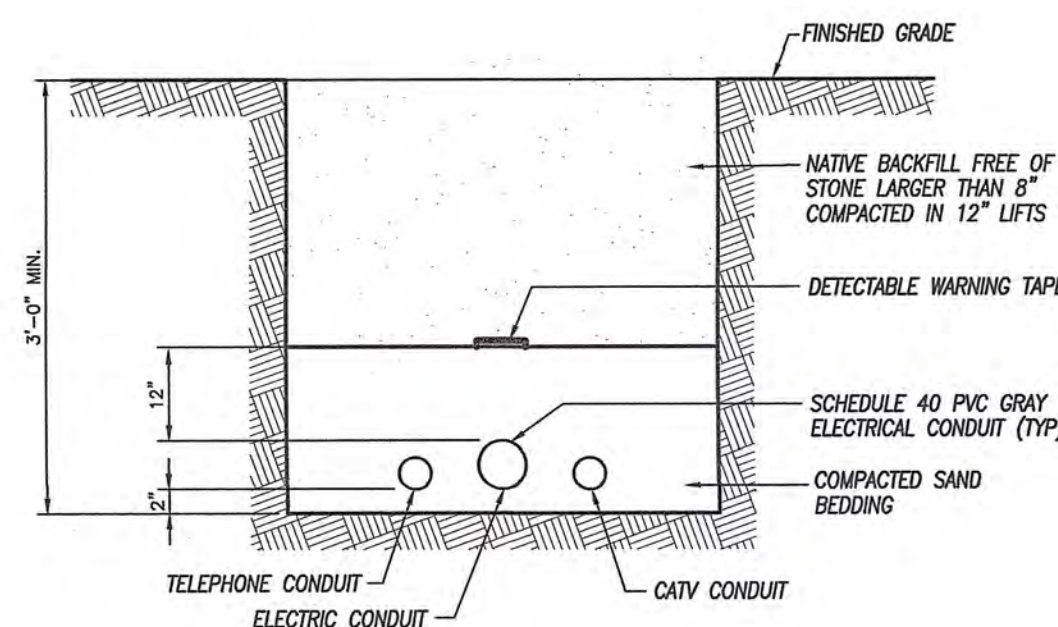
SIEVE SIZE	% PASSING
0.375	100
#4	95-100
#8	80-100
#16	60-85
#30	25-60
#50	10-30
#100	<10
#200	<5



**SILT FENCE**  
NOT TO SCALE

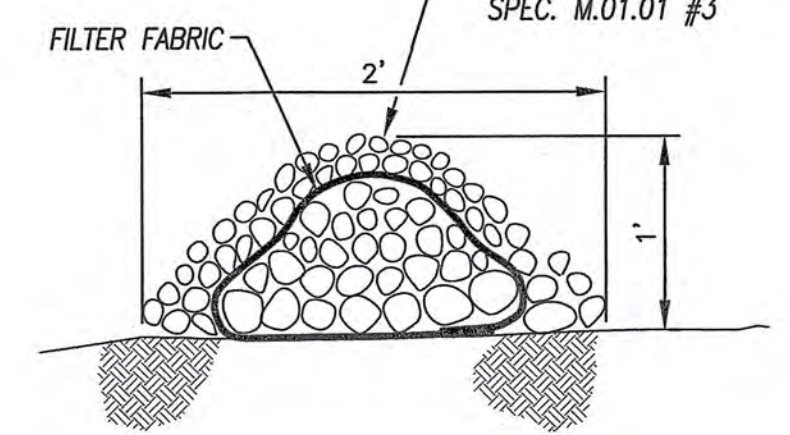


**HAYBALE BARRIER**  
NOT TO SCALE

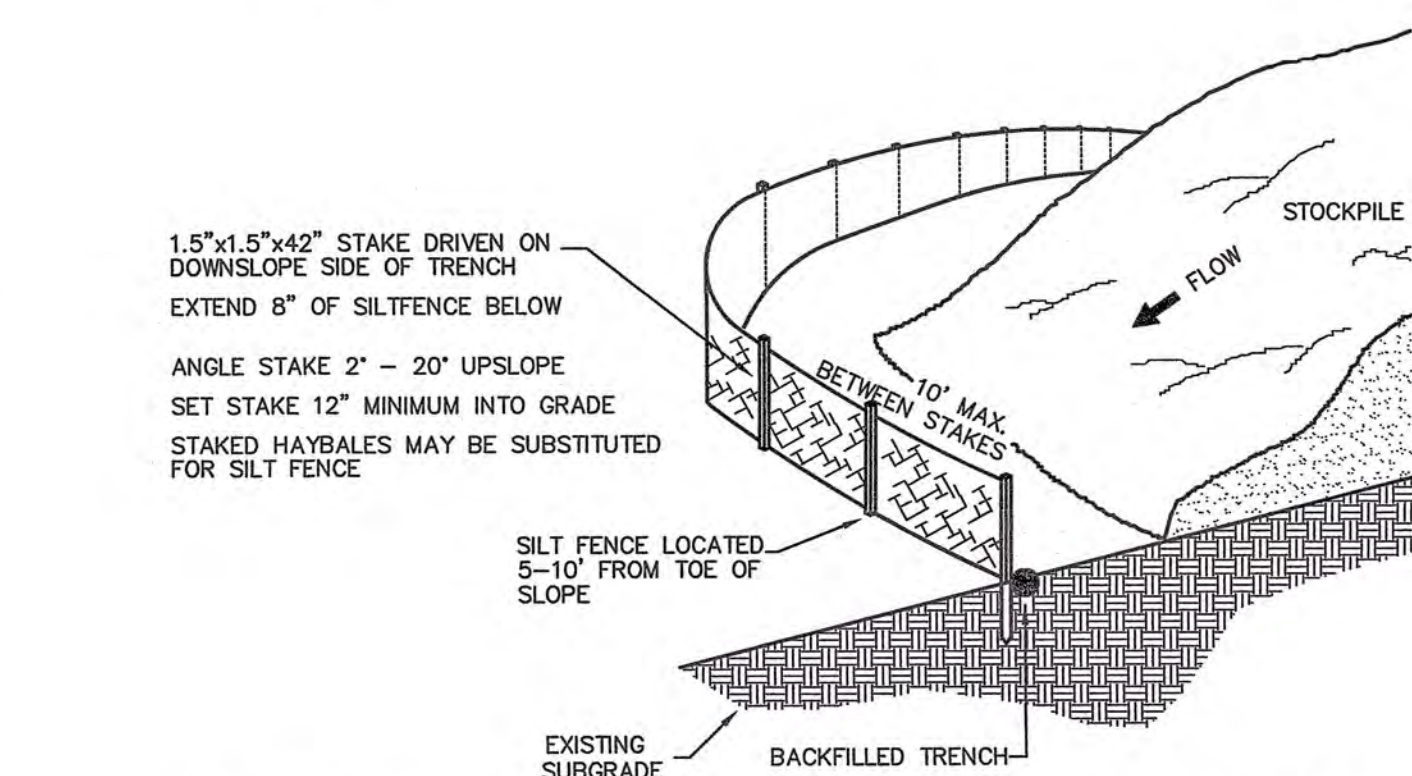


NOTE: CONTRACTOR SHALL PROVIDE SILT/CLAY DAMS AT 100' INTERVALS ALONG PROPOSED UTILITY TRENCH TO AVOID TRANSPORTING INTERCEPTED WATER.

**UNDERGROUND UTILITY TRENCH**  
NOT TO SCALE



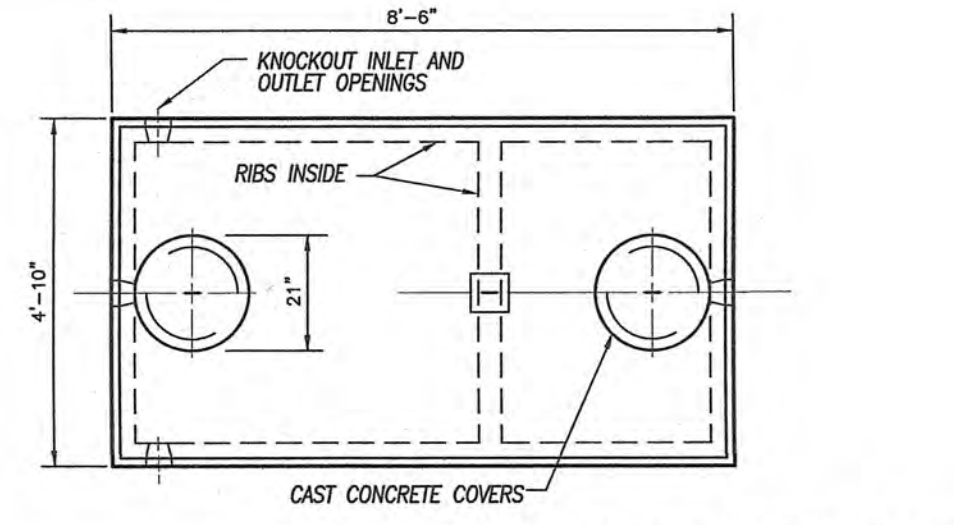
**STONE CHECK DAM**  
NOT TO SCALE



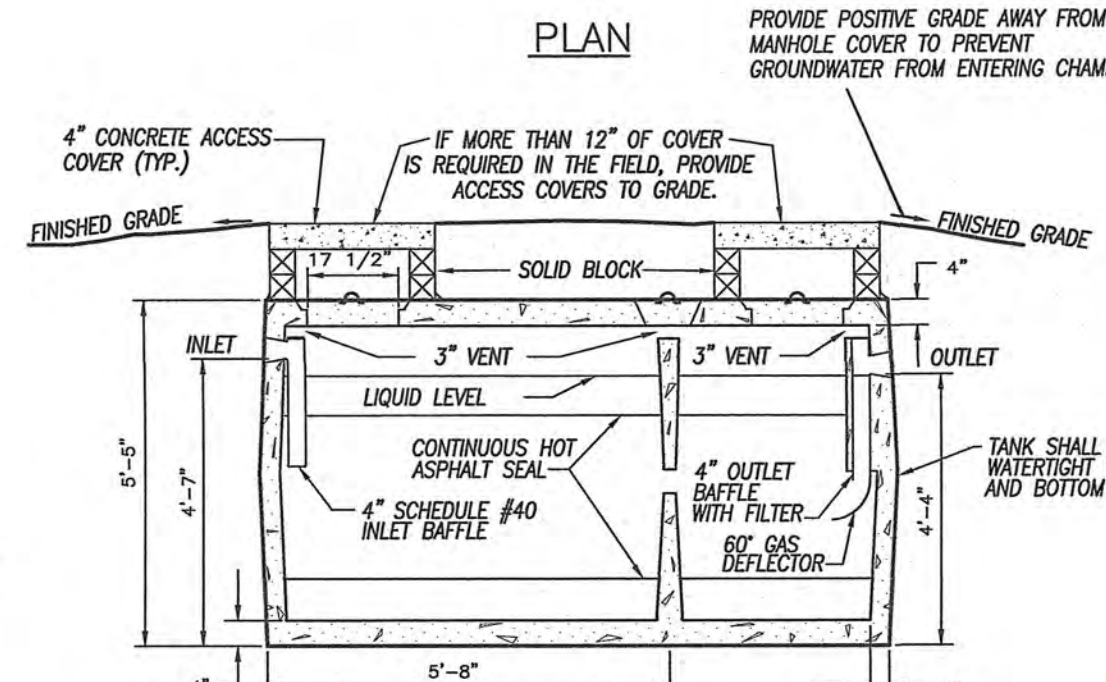
**SILT FENCE @ TOE OF SLOPE APPLICATION**  
NOT TO SCALE

APPROVED BY THE TOWN OF KILLINGLY INLAND WETLANDS COMMISSION

CHAIRMAN \_\_\_\_\_ DATE \_\_\_\_\_

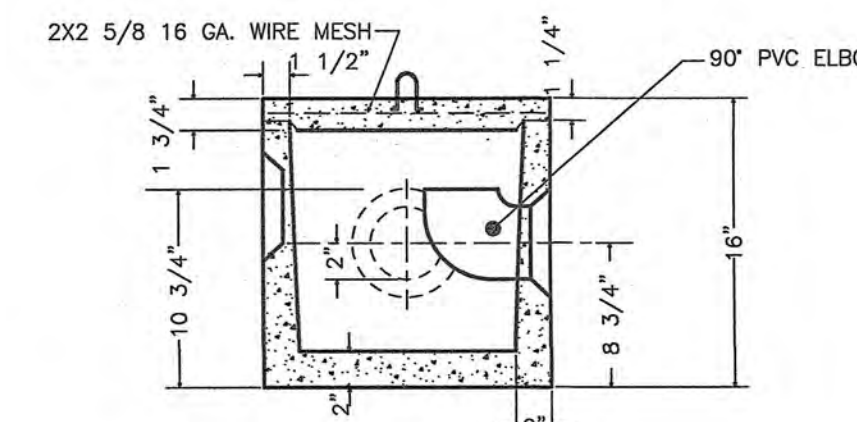


**PLAN**

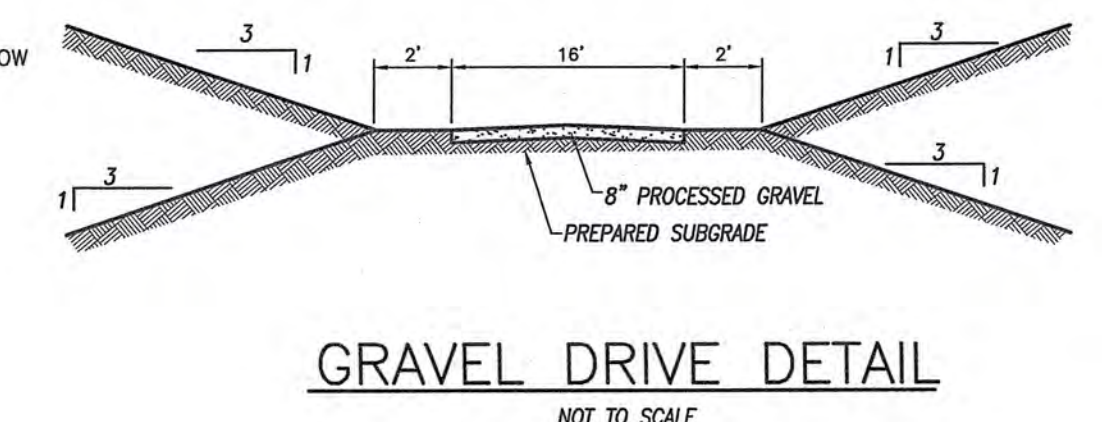


**CROSS SECTION**

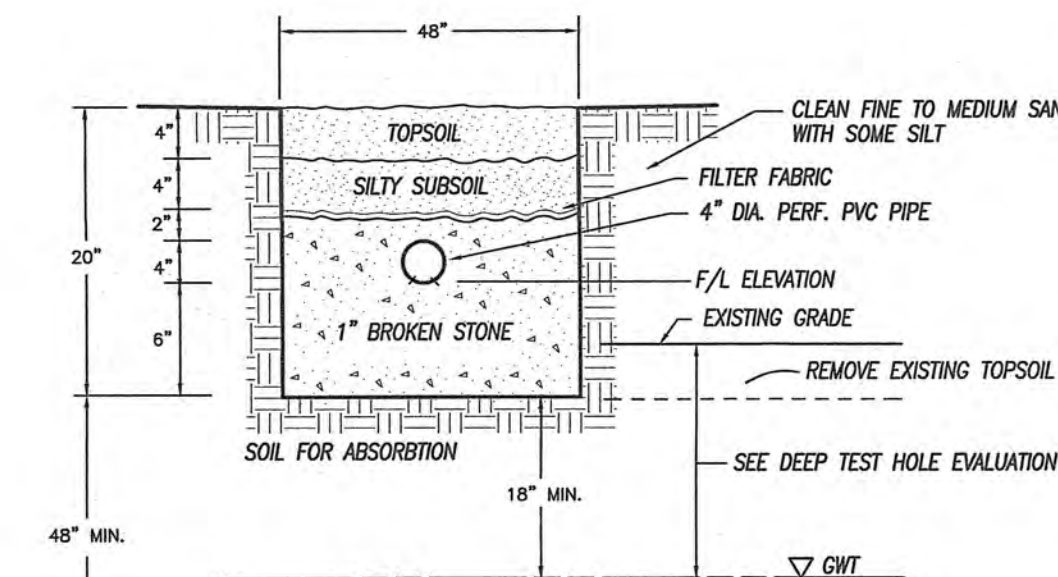
**1000 GALLON 2 COMPARTMENT SEPTIC TANK**  
NOT TO SCALE



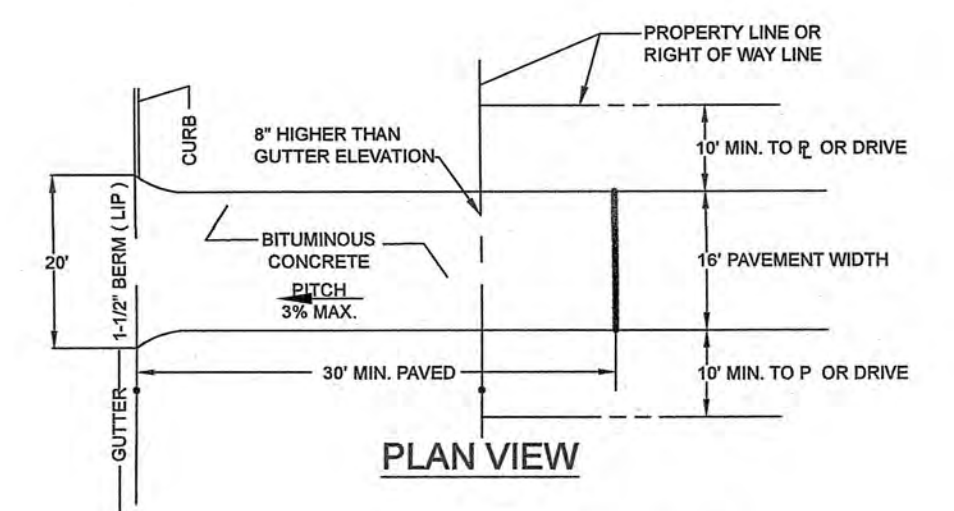
**OVERFLOW D-BOX**  
NOT TO SCALE



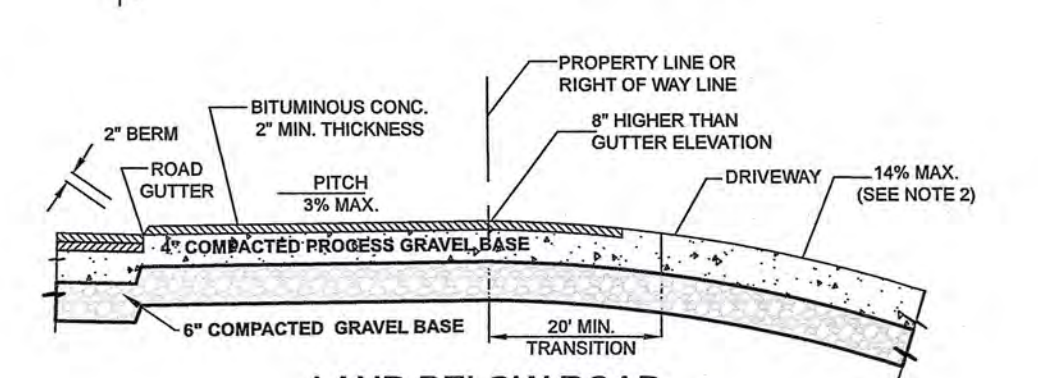
**GRAVEL DRIVE DETAIL**  
NOT TO SCALE



**TYPICAL LEACHING TRENCH SECTION**  
NOT TO SCALE

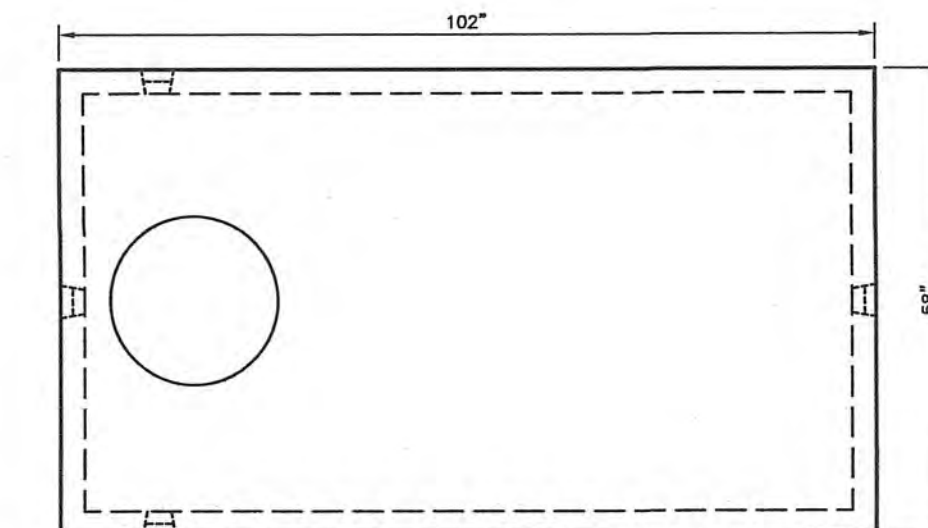


**PLAN VIEW**

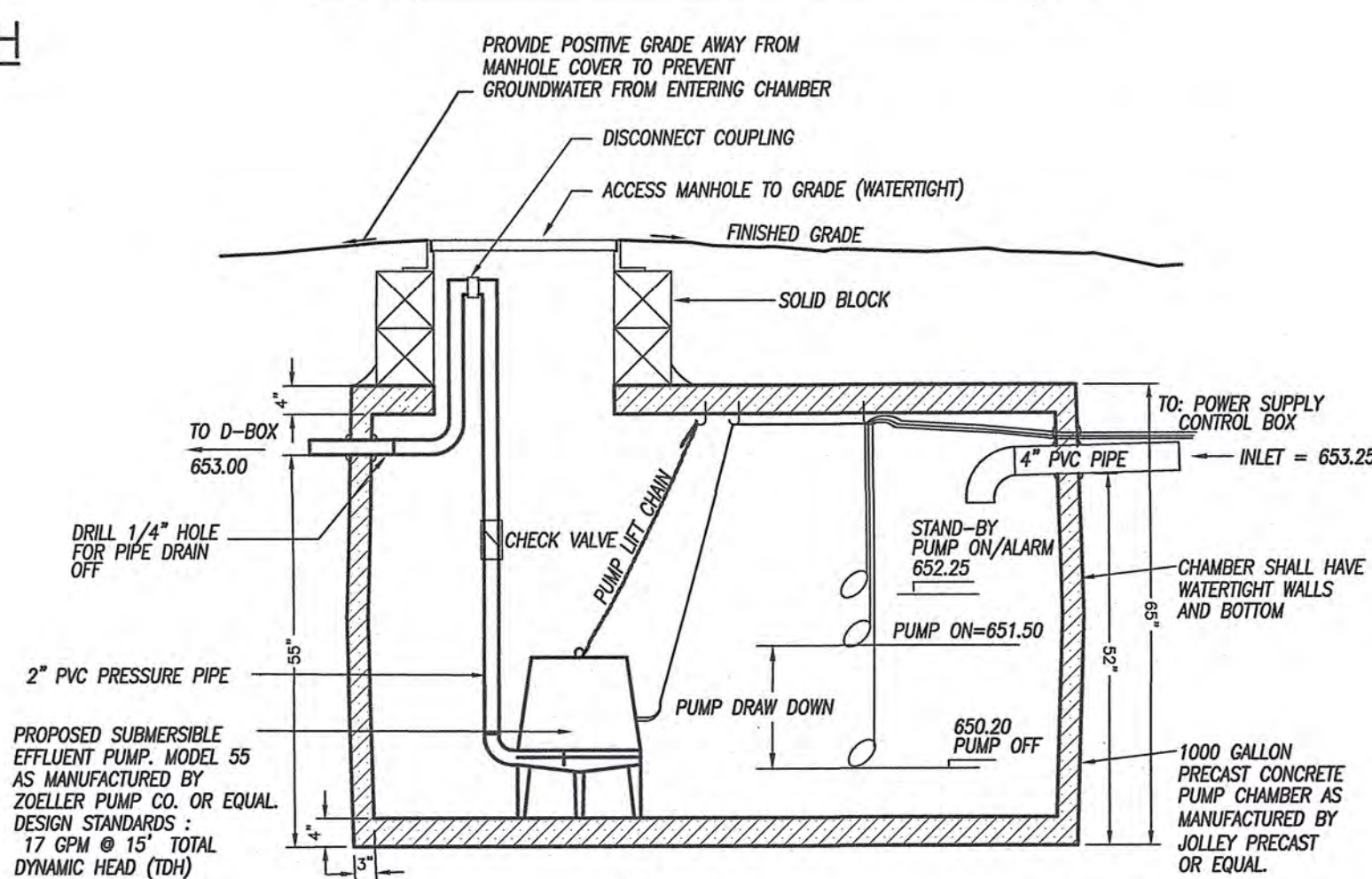


**LAND BELOW ROAD (SECTION)**

**TOWN OF KILLINGLY STANDARD DRIVEWAY DETAIL**  
NOT TO SCALE

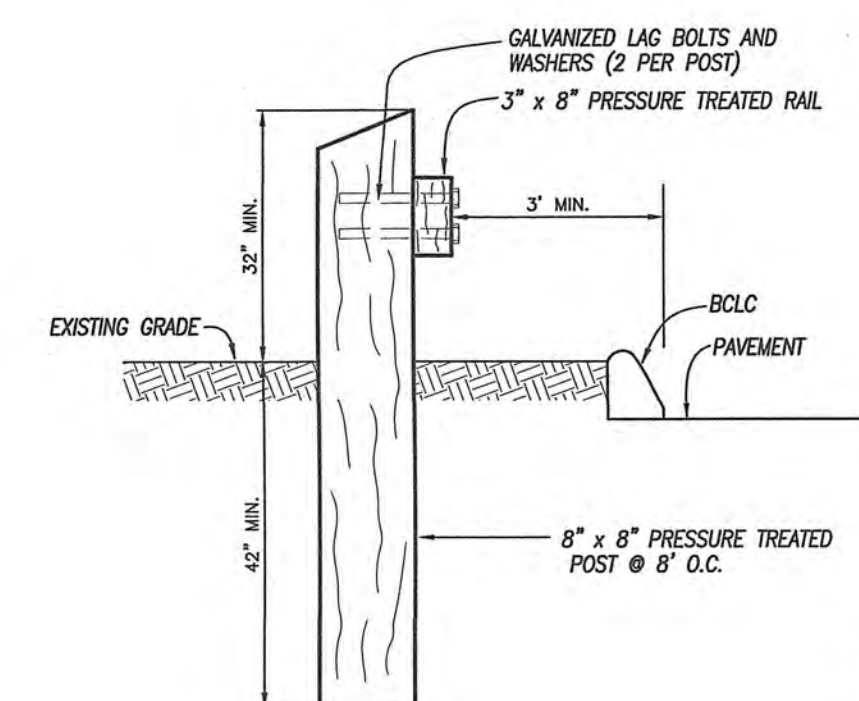


**1000 GALLON SANITARY PUMP CHAMBER**  
NOT TO SCALE

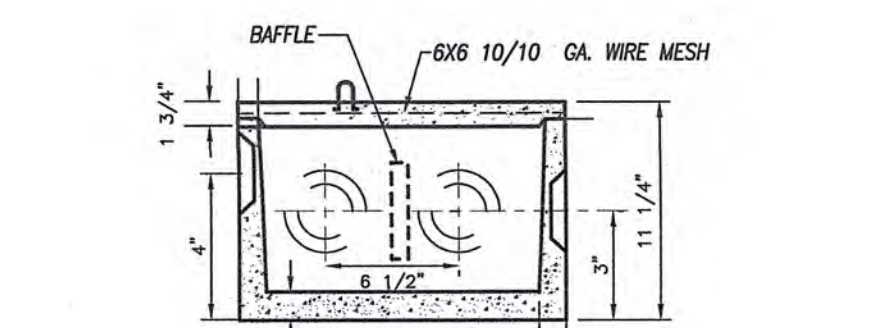


**DESIGN NOTES**

- 1) ALL JOINTS SEALED WITH BUTYL RUBBER SEALANT.
- 2) ALL INLETS AND OUTLETS HAVE STATE-APPROVED SEALS.
- 3) AVAILABLE WITH 8" HEAVY DUTY TOP.
- 4) TYPE II CEMENT ASTM C150-81.
- 5) CONCRETE STRENGTH 5000 PSI. MIN. 28 DAYS.



**WOOD GUIDE RAIL**  
NOT TO SCALE



**6 HOLE D-BOX W/BAFFLE**  
NOT TO SCALE

DATE	DESCRIPTION
3/07/2023	APPLICATION RESUBMITTAL
10/05/2022	FINAL PLAN REVIEW

DETAIL SHEET  
PREPARED FOR

**AMERICAN RETAINING WALL, LLC**

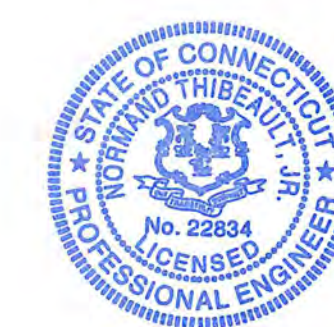
210 SNAKE MEADOW ROAD (S.R. 664)  
KILLINGLY, CONNECTICUT

**Killingly Engineering Associates**  
Civil Engineering & Surveying



114 Westcott Road  
P.O. Box 421  
Killingly, Connecticut 06241  
(860) 779-7299  
www.killinglyeng.com

DATE: 06/22/2022	DRAWN: RGS
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 8 OF 8	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 21112



*Normand Thibault, Jr.* 3/10/2023  
NORMAND THIBAULT, JR., P.E. No. 22854 DATE

RECEIVED  
MAR 16 2023  
PLANNING & ZONING DEPT.  
TOWN OF KILLINGLY