

RECEIVED

JUN 04 2020

INLAND WETLANDS & WATERCOURSES COMMISSION
TOWN OF BROOKLYN, CONECTICUT

Date 6/4/20

Application # 060920B

APPLICATION -- INLAND WETLANDS & WATERCOURSES

APPLICANT VBL Properties LLC MAILING ADDRESS 8 Finn Lane Plainfield CT 06374
APPLICANT'S INTEREST IN PROPERTY OWNER PHONE 860-823-9597 EMAIL _____

PROPERTY OWNER IF DIFFERENT _____ PHONE _____
MAILING ADDRESS _____ EMAIL _____

ENGINEER/SURVEYOR (IF ANY) Paul Archer (Archer Surveying)
ATTORNEY (IF ANY) _____

PROPERTY LOCATION/ADDRESS Beecher Road
MAP # 22 LOT # 38 ZONE RA TOTAL ACRES 14.17 ACRES OF WETLANDS ON PROPERTY 2.77 ACRES
ACRES

PURPOSE AND DESCRIPTION OF THE ACTIVITY 5 Lot Subdivision
- Single Family Homes, Driveways, Well, Septic & Minor
Grading

WETLANDS EXCAVATION AND FILL:

FILL PROPOSED _____ CUBIC YDS _____ SQ FT _____
EXCAVATION PROPOSED _____ CUBIC YDS _____ SQ FT _____
LOCATION WHERE MATERIAL WILL BE PLACED: ON SITE _____ OFF SITE _____
TOTAL REGULATED AREA ALTERED: SQ FT _____ ACRES _____

EXPLAIN ALTERNATIVES CONSIDERED (REQUIRED): None

MITIGATION MEASURES (IF REQUIRED): WETLANDS/WATERCOURSES CREATED: CY _____ SQFT _____ ACRES _____

IS PARCEL LOCATED WITHIN 500FT OF AN ADJOINING TOWN? NO IF YES, WHICH TOWN(S) _____
IS THE ACTIVITY LOCATED WITHIN THE WATERSHED OF A WATER COMPANY AS DEFINED IN CT GENERAL STATUTES 25-32A? NO

THE OWNER AND APPLICANT HEREBY GRANT THE BROOKLYN IWWC, THE BOARD OF SELECTMAN AND THEIR AUTHORIZED AGENTS PERMISSION TO ENTER THE SUBJECT PROPERTY FOR THE PURPOSE OF INSPECTION AND ENFORCEMENT OF THE IWWC REGULATIONS OF THE TOWN OF BROOKLYN. IF THE COMMISSION DETERMINES THAT OUTSIDE REVIEW IS REQUIRED, APPLICANT WILL PAY CONSULTING FEE.

NOTE: DETERMINATION THAT THE INFORMATION PROVIDED IS INACCURATE MAY INVALIDATE THE IWWC DECISION AND RESULT IN ENFORCEMENT ACTION.

APPLICANT: Beth Le... DATE 6/5/20

OWNER: Beth Le... DATE 6/5/20



Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete and mail this form in accordance with the instructions on pages 2 and 3 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, only use one code): _____
- 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 ACTION IS OCCURRING (print name): Brooklyn
does this project cross municipal boundaries (check one)? yes no
if yes, list the other town(s) in which the action is occurring (print name(s)): _____
- LOCATION (see instructions for information): USGS quad name: _____ or number: _____
subregional drainage basin number: _____
- NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): VBL LLC
- NAME & ADDRESS / LOCATION OF PROJECT SITE (print information): BERTHA ROAD
briefly describe the action/project/activity (check and print information): temporary permanent description: 5 lot SUBDIVISION, PERIMETER FENCES, WALLS, SEPTIC M.-WATER EXHAUST
- ACTIVITY PURPOSE CODE (see instructions, only use one code): B B
- ACTIVITY TYPE CODE(S) (see instructions for codes): 12
- WETLAND / WATERCOURSE AREA ALTERED (must provide acres or linear feet):
wetlands: 0 acres open water body: 0 acres stream: 0 linear feet
- UPLAND AREA ALTERED (must provide acres): 0.03 acres
- AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0 acres

DATE RECEIVED:

PART III: To Be Completed By The DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

CLA Engineers, Inc.

Civil • Structural • Survey

317 MAIN STREET • NORWICH, CT 06360 • (860) 886-1966 • (860) 886-9165 FAX

July 8, 2020

Inland Wetlands Commission
Town of Brooklyn
69 South Main Street
Suite 22
Brooklyn, CT 06234

RE: CLA 6382
VBL Properties LLC Subdivision
Beecher Rd

To the Commission:

CLA Engineers was retained by VBL Properties LLC to conduct a wetlands investigation and functional assessment on the parcel of land, located at Beecher and Rukstella Roads that is proposed to be developed for a residential subdivision. The 14.68 acre site is located within the Town of Brooklyn and is currently a combination of farm field and wooded undeveloped land. The approximate site location is shown on the cover sheet of the site plans. The purposes of the investigation were to: confirm the wetland delineation, provide background data in the form of determining wetland functions, and assess the potential for wetland impacts due to the proposed development.

Wetlands were previously delineated by John Ianni of Highland Soils according to the State of Connecticut statutory definition as described in Section 22a of the State Statutes. CLA conducted field work in June and July of 2020 and confirmed that the previous wetland delineation is substantially correct. Several old wetland flags were found and re-flagged and new flags were hung along virtually the same line that was previously determined.

After wetland delineation confirmation was complete, the wetland resources of the site were surveyed by conducting a deliberate walk through of the site, traversing each wetland in order to collect data characteristic of that wetland. During the walk through, vegetation identifiable was noted, described and divided into communities.

Site Setting

The VBL site has several vegetative cover types that were established by past land use. Portions of the site have been used for agriculture and a farm fields is still present. Other areas were used for agriculture and then allowed to revert to woodland at various times in

the past. The abundant stonewalls indicate that nearly all of the land was previously cleared and used (as was most of Connecticut) for farm fields until the early 20th century.

The upland forest type is mixed hardwood uplands and the wetland is a combination of floodplain forest and red maple swamp. The areas of upland have mixed hardwoods such as red maple, red oak, locust and black birch. The wetlands are dominated by red maple trees with other species such as yellow birch and pin oak in lesser numbers.

The land uses surrounding the site include residential, agricultural and woodland. The residential development is primarily located to the east. Undeveloped farmland and woodland surrounds the site to the north, west and south.

Throughout the site slopes vary from moderate to nearly flat. The surface water drains to Blackwell's Brook on the eastern side of the site and to an on-site wetland on the western side of the site. The slopes on the east and west side of Blackwell's Brook are abrupt at the edge of the wetland and indicate the transition from upland soils to the edge of the alluvial soils that flank the brook.

Surficial Geology and Soils

Southern New England was overlain by glacial ice as recently as 12,000-15,000 years ago. The materials that the glaciers deposited over top the local bedrock determine the surficial geology of the region and of the VBL site. Glacial deposits are generally divided into three categories: glacial till (un-stratified sand, silt and rock), glaciofluvial (water sorted, stratified sand and gravel), and glaciolacustrine (stratified sand, silt and clay that settled out in lakebeds). The type of glacial deposits present on the site includes both glacial till and glacial outwash. In addition, the soils along Blackwell's Brook were deposited by that stream after the glacier retreated and are regulated by the State of Connecticut as wetland soils.

The soils formed in till deposits typically have sandy loam to silt loam textures and in this case they are coarser, sandy loams. The slopes are moderate to flat throughout the site and this leads to differences in soil mapping classification as listed by the NRCS.

The soils formed in glacial outwash are stratified and contain layers of sand and gravel.

The alluvial soils on this site are also all either poorly or very poorly drained and have variable textures that include layers of sand, gravel, silt and organic matter. All of these soils have been delineated as wetland.

Table 1 is a summary table of the soils found on the site.

Table 1 - Soil Types and Properties at the VBL Site

<u>Soil Series</u>	<u>Parent Material</u>	<u>Drainage Class</u>	<u>Texture/Characteristics</u>
*108 Saco	Alluvium	Very Poorly Drained	Fine Sandy Loam Extremely Stony
*17 Scarboro muck	Decayed organic matter	Very poorly drained	Mucky
*3 Ridgebury, Leicester and Whitman	Glacial Till	Somewhat poorly to very poorly drained	Stony sandy loam
60 Canton and Charlton	Glacial Till	Well Drained	Fine sandy loam
701 Ninigret	Glacial Outwash	Moderately Well Drained	Sandy loam
38 Hinckley	Glacial Outwash	Excessively drained	Loamy sand
*13 Walpole	Glacial Outwash	Poorly	Sandy loam

* Wetland soil types

Wetland Descriptions and Functions

This VBL site has one wetland system that surrounds Blackwell's Brook and a second system that occupies a depression on the site's west side. Under the USFWS system, the Blackwell's Brook system is classified as Riverine, upper perennial (RU) with a rock bottom while the western wetland is a palustrine deciduous swamp (PF01) that is seasonally flooded/saturated. It has gentle slopes and is sparsely vegetated.

The typical vegetation of both wetlands includes: trees such as red maple trees and saplings, yellow birch trees and saplings; shrubs such as spice bush, highbush blueberry, winterberry holly, sweet pepperbush, clammy azalea, and alder and plants such as skunk cabbage, cinnamon fern, sphagnum, royal fern, and sensitive fern.

The principle functions of these wetlands are numerous, especially those associated with Blackwell's Brook. The CTDEEP NDDB (December 2019) shows no known habitat of threatened, endangered or special concern species. The functions were found to include:

- Wildlife habitat
- Fish/shellfish habitat
- Floodwater retention/detention
- Groundwater recharge/discharge
- Biomass production export
- Sediment/toxicant reduction
- Nutrient processing
- Shoreline stabilization
- Recreation
- Aesthetics
- Educational opportunities

These values are mainly associated with the Blackwell's Brook wetland and are supported by several important features of that wetland:

- Presence of a perennial stream
- Areas of undeveloped buffer
- Limited development within the watershed
- Evidence of use by a diversity of wildlife species.

Potential for Impacts

As shown on the project plans there are no proposed activities in the inland wetlands. However, work in the upland review zone will include:

- Clearing and grading
- Construction of driveways, houses and septic systems
- Installation of erosion and sedimentation controls
- Construction of utilities

These activities in the upland review zone present limited potential for wetland impacts. The site has only moderate slopes and short length of slope. CLA believes that the Best Management Practices (BMPs) measures shown on the plans for erosion and sediment control and stormwater management will be adequate in preventing wetland impacts if properly installed and maintained.

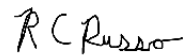
CLA notes that in order to minimize the potential for impacts to wetlands, the E&S has been designed in compliance with the CTDEEP 2002 E&S Manual.

Summary

The proposed development activities will not directly impact wetlands. The work in the upland review zone can be managed with BMPS so as to not impact wetlands during construction. The post construction stormwater treatment is protective of the wetlands. In summary, if the proposed erosion and sedimentation control measures are adhered to, CLA believes that there will be no adverse wetland impacts.

Please contact me if you have any questions.

Very truly yours,

A handwritten signature in black ink that reads "R C Russo". The letters are cursive and somewhat stylized.

Robert C. Russo
Soil Scientist

Appendix A

Soils Data

(108) The Saco series consists of very deep, very poorly drained soils formed in silty alluvial deposits. They are nearly level soils on flood plains, subject to frequent flooding. Slope ranges from 0 to 2 percent. Permeability is moderate in the silty layers and rapid or very rapid in the underlying sandy materials. Mean annual temperature is about 50 degrees F. and mean annual precipitation is about 47 inches.

(17) The Scarboro series consists of very deep, very poorly drained soils in sandy glaciofluvial deposits on outwash plains, deltas, and terraces. They are nearly level soils in depressions. Slope ranges from 0 through 3 percent. Saturated hydraulic conductivity is high or very high. Mean annual temperature is about 49 degrees F. (9 degrees C.) and the mean annual precipitation is about 44 inches (1118 millimeters).

(3) The Ridgebury series consists of very deep, somewhat poorly and poorly drained soils formed in lodgment till derived mainly from granite, gneiss and/or schist. They are commonly shallow to a densic contact. They are nearly level to gently sloping soils in depressions in uplands. They also occur in drainageways in uplands, in toeslope positions of hills, drumlins, and ground moraines, and in till plains. Slope ranges from 0 to 15 percent. Saturated hydraulic conductivity is moderately high or high in the solum and very low to moderately low in the substratum. Mean annual temperature is about 9 degrees C. and the mean annual precipitation is about 1143 mm.

(60) The Canton series consists of very deep, well drained soils formed in a loamy mantle underlain by sandy till. They are on nearly level to very steep moraines, hills, and ridges. Slope ranges from 0 to 45 percent. Saturated hydraulic conductivity is moderately high or high in the solum and high or very high in the substratum. The mean annual temperature is about 9 degrees C and the annual precipitation is about 1205 mm.

(701) The Ninigret series consists of very deep, moderately well drained soils formed in loamy over sandy and gravelly glacial outwash. They are nearly level to strongly sloping soils on glaciofluvial landforms, typically in slight depressions and broad drainage ways. Slope ranges from 0 through 15 percent. Saturated hydraulic conductivity is moderately high or high in the solum and high or very high in the substratum. Mean annual temperature is about 49 degrees F. and mean annual precipitation is about 48 inches.

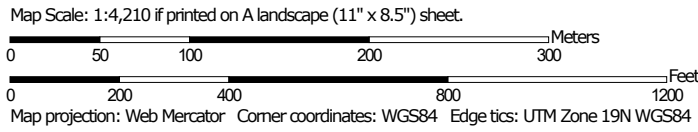
(38) The Hinckley series consists of very deep, excessively drained soils formed in glaciofluvial materials. They are nearly level through very steep soils on outwash terraces, outwash plains, outwash deltas, kames, kame terraces, and eskers. Saturated hydraulic conductivity is high or very high. Slope ranges from 0 to 60 percent. Mean annual temperature is about 7 degrees C, and mean annual precipitation is about 1143 mm.

(13) The Walpole Series consists of very deep, poorly drained sandy soils formed in outwash and stratified drift. They are nearly level to gently sloping soils in low-lying positions on terraces and plains. Slope ranges from 0 to 8 percent. Saturated hydraulic conductivity is moderately high or high in the surface layer and subsoil, and high or very high in the substratum. Mean annual temperature is about 48 degrees F., and mean annual precipitation is about 43 inches.

Soil Map—State of Connecticut
(Beecher Rd)



Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

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



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

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

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

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: State of Connecticut

Survey Area Data: Version 19, Sep 13, 2019

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

Date(s) aerial images were photographed: Apr 14, 2011—Aug 27, 2016

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	3.3	6.3%
13	Walpole sandy loam, 0 to 3 percent slopes	3.2	6.1%
15	Scarboro muck, 0 to 3 percent slopes	2.8	5.3%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	1.4	2.7%
34B	Merrimac fine sandy loam, 3 to 8 percent slopes	0.2	0.3%
38C	Hinckley loamy sand, 3 to 15 percent slopes	10.5	20.0%
38E	Hinckley loamy sand, 15 to 45 percent slopes	1.9	3.6%
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	10.2	19.5%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	0.7	1.4%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	5.3	10.2%
108	Saco silt loam	6.2	11.8%
701B	Ninigret fine sandy loam, 3 to 8 percent slopes	6.7	12.8%
Totals for Area of Interest		52.3	100.0%

Appendix B

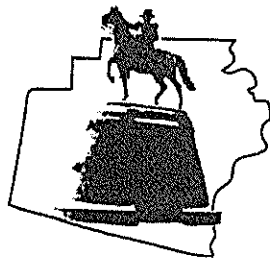
Photographs



Photograph 1 Typical floodplain wetland along Blackwell's Brook



Photograph 2 Blackwell's Brook at northern end of site



Brooklyn Land Use Department

69 South Main Street
Brooklyn CT 06234
(860) 779-3411 x 31

Inland Wetlands Zoning Enforcement _____ Blight Enforcement _____

SITE INSPECTION NUMBER

1 2 3 4 5

Beecher Rd
Address

609 6-18-2020
Date

KUNK coverage was observed in the uplands but the soil is 10yr 5/6 at 18"

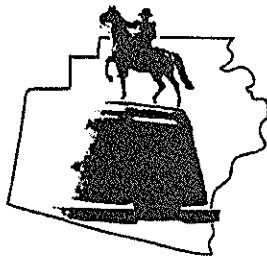
I met Paul Archer and Bob Russo
John Ianni flagged the site, according
to Paul. John Ianni did not write
a report for this site, according to
Paul. Bob Russo will write a report
for the delineation after he field reviews
the delineation. The upland review area
should be 175' according to Bob Russo.

The lot on Rukstello Rd is sloping (Lot 38).
Elderberry and Winterberry indicator plants were observed
in the uplands. Some of Ianni's orange and blue flags
were visible in the woods on Lot 38. Bob Russo said he
would check the entire site for wetlands. Spice bush -

(Lindera benzoin) was observed in uplands - rated by USFWS
as being found in wetlands 66% of the time.
Commission Representative M Washburn

Owner or Authorized Signature _____

Paul will send pdf of version 2 to
me and Syl Pauley.



Brooklyn Land Use Department

69 South Main Street
Brooklyn CT 06234
(860) 779-3411 x 31

Inland Wetlands

Zoning Enforcement _____

Blight Enforcement _____

SITE INSPECTION NUMBER

1 2 3 4 5 7

Beecher Rd

6-18-2020

Address

Date

We checked lots on 2 sides of Blackwell's Brook and lot 38-2 which is the western-most lot.
All lots with URAs were inspected.

Commission Representative

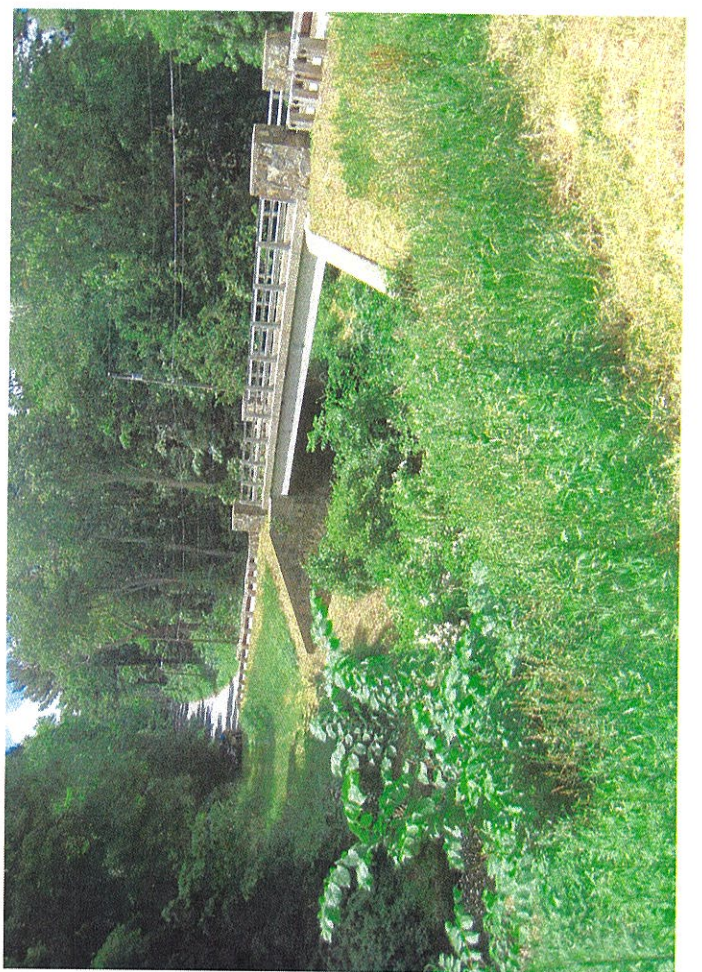
M Washburn

Owner or Authorized Signature _____

2



10-10



SUBDIVISION APPLICATION

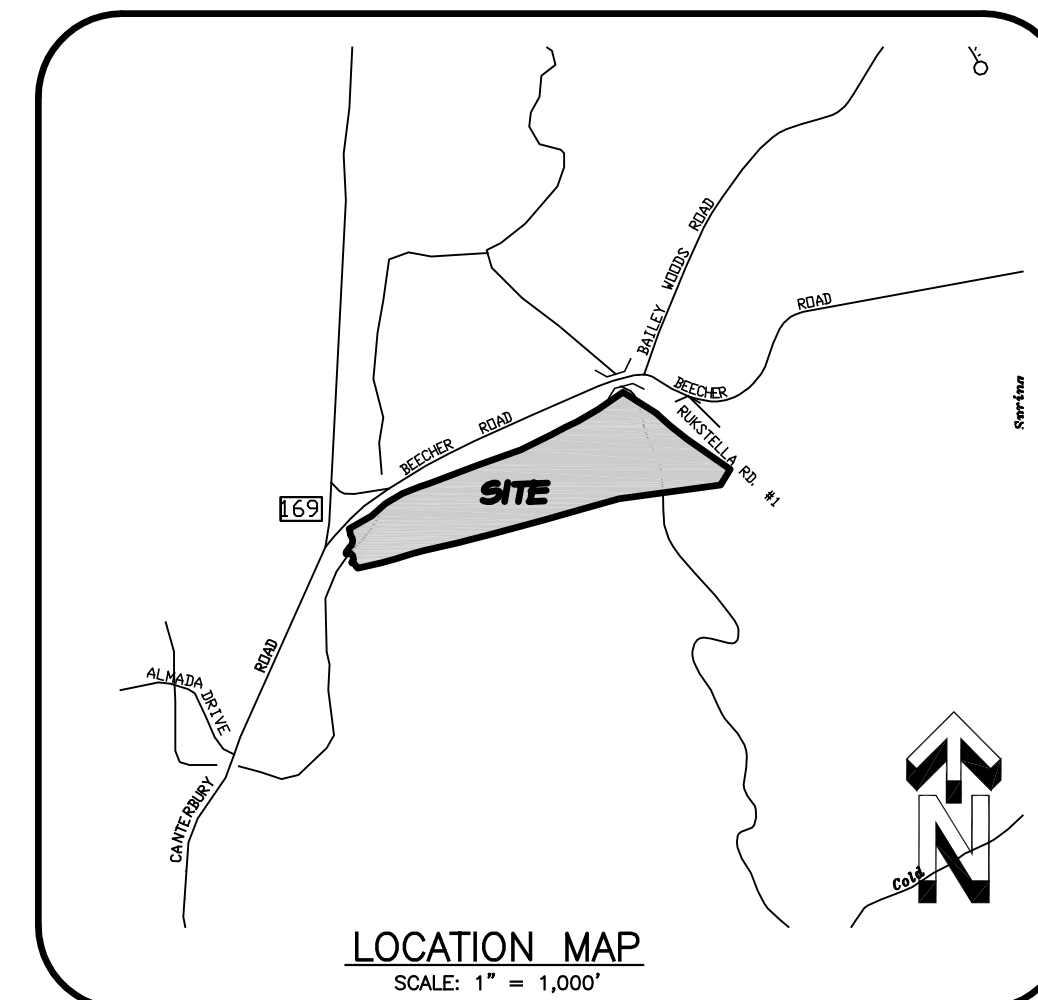
PROPOSED 5 LOT SUBDIVISION

PREPARED FOR

VBL Properties LLC

Beecher Road
Brooklyn, Connecticut

June 4, 2020



PREPARED BY



INDEX OF DRAWINGS

COVER SHEET	SHEET 1 OF 8
PERIMETER SURVEY	SHEET 2 OF 8
SUBDIVISION PLAN	SHEET 3 OF 8
SITE DEVELOPMENT PLAN #1	SHEET 4 OF 8
SITE DEVELOPMENT PLAN #2	SHEET 5 OF 8
SITE LINE	SHEET 6 OF 8
DETAIL SHEET	SHEET 7 OF 8
PARCEL HISTORY PLAN	SHEET 8 OF 8

APPROVED BY THE BROOKLYN
INLAND WETLANDS COMMISSION

CHAIRMAN _____ DATE _____
Expiration date per section 22A-42A of the Connecticut
General Statutes. Date: _____

APPROVED BY THE BROOKLYN
PLANNING AND ZONING COMMISSION

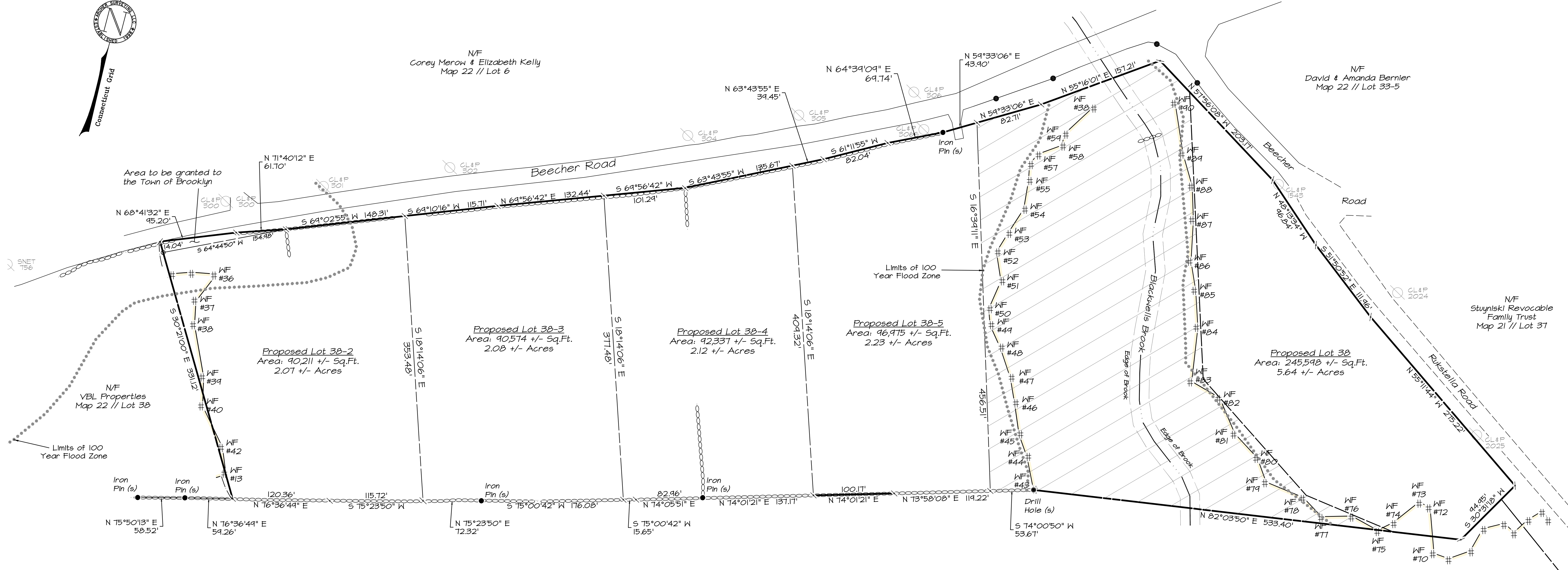
CHAIRMAN _____ DATE _____
Expiration date per section 8-26C of the Connecticut
General Statutes. Date: _____

I have reviewed the inland-wetlands shown on this plan
and they appear to be substantially the same as those
which I delineated in the field.

Certified Soil Scientist



Connecticut Grid



LEGEND

- PROPERTY LINE
- - - EASEMENT
- o o o o o STONEWALL
- o o o o o STONEWALL REMAINS
- ~ ~ ~ EXISTING TREELINE
- 100 YEAR FLOOD LINE
- SILT FENCE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- PROPOSED CONTOUR
- W W W W W WETLANDS FLAG
- BUILDING SETBACK
- o IRON PIN FOUND
- o IRON PIN SET
- o DRILL HOLE SET
- o FENCE POST
- o PERCOLATION TEST
- o TEST PIT
- o PROPERTY POINT
- o UTILITY POLE
- o TREE WITH FENCE

Notes

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Associations of Land Surveyors, Inc. on September 26, 1996
 - This Survey conforms to a Class "A2" Horizontal Accuracy
 - Class "T2" Vertical Accuracy
 - Survey Type: Subdivision Plan
 - Boundary Determination: Resurvey on Existing Boundary
 - Original on Proposed Boundary
 - Intent: 5 Lot Subdivision
2. Total Area of Subdivision = 14.17 Acres
3. Zone = RA
4. Owner / Applicant = VBL Properties LLC
8 Finn Lane, Plainfield, CT 06374
5. Parcel is shown as Lot #38 on Assessor's Map #22
6. This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area, as shown on Firm Map 090164 0008 A, Panel 8 of 10, Effective Date: Jan. 3, 1985
7. Wetlands shown were flagged in the field by John Ianni, Certified Soil Scientist in April 2018
8. There are not known endangered species or species of special concern on the subject property per the December 2006 Natural Diversity Data Base Mapping
9. Parcel does not lie within an aquifer protection area
10. The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.
11. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
12. Passive Solar Energy techniques were considered in the design of the subdivision

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Paul M. Archer LLS #10013 Date

No Certification is expressed or implied unless this map bears the embossed seal of the land surveyor whose signature appears hereon.

REVISIONS	
08-04-20	Located Centerline of Brook

Subdivision Plan
"Proposed 5 Lots"

Prepared For:
VBL Properties LLC
Beecher Road
Brooklyn, Connecticut

DRAWING SCALE: 1"=60'

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Sheet No. 3 of 8 Project No. 1500 Date: June 2020

CONCEPT SEPTIC SYSTEM DESIGN

LOT 38-2
 PRIMARY LEACHING AREA
 3 BEDROOM RESIDENCE
 PERCOLATION RATE: 13 MIN./INCH (NDDH FILE #18000188)
 LEACHING AREA REQUIRED: 675 SF

USE TRADITIONAL TRENCH
 EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
 REQUIRED LENGTH = 675 SF / 3 SF/LF = 225 LF

MLSS CALCULATION
 HYDRAULIC FACTORS
 DEPTH TO RESTRICTIVE LAYER = 27"
 SLOPE = 5.1%
 HYDRAULIC FACTOR (HF) = 30
 FLOW FACTOR (FF) = 1.5
 PERCOLATION FACTOR (PF) = 1.25 (10.1 TO 20.0 MIN./INCH)
 MLSS REQUIRED: 30 x 1.5 x 1.25 = 56.25 LF

PROPOSED SYSTEM
 USE 3 ROWS OF 75 LF
 LEACHING AREA PROVIDED = 675 SF

RESERVE LEACHING AREA
 USE SAME AS PRIMARY SYSTEM

LOT 38-3
 PRIMARY LEACHING AREA
 3 BEDROOM RESIDENCE
 PERCOLATION RATE: 14 MIN./INCH (NDDH FILE #18000188)
 LEACHING AREA REQUIRED: 675 SF

USE TRADITIONAL TRENCH
 EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
 REQUIRED LENGTH = 675 SF / 3 SF/LF = 225 LF

MLSS CALCULATION
 HYDRAULIC FACTORS
 DEPTH TO RESTRICTIVE LAYER = 21"
 SLOPE = 3.3%
 HYDRAULIC FACTOR (HF) = 48
 FLOW FACTOR (FF) = 1.5
 PERCOLATION FACTOR (PF) = 1.25 (10.1 TO 20.0 MIN./INCH)
 MLSS REQUIRED: 48 x 1.5 x 1.25 = 90 LF

PROPOSED SYSTEM
 USE 3 ROWS OF 90 LF
 LEACHING AREA PROVIDED = 810 SF

RESERVE LEACHING AREA
 USE SAME AS PRIMARY SYSTEM

LOT 38-4
 PRIMARY LEACHING AREA
 3 BEDROOM RESIDENCE
 PERCOLATION RATE: 10 MIN./INCH (NDDH FILE #18000188)
 LEACHING AREA REQUIRED: 495 SF

USE TRADITIONAL TRENCH
 EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
 REQUIRED LENGTH = 495 SF / 3 SF/LF = 165 LF

MLSS CALCULATION
 HYDRAULIC FACTORS
 DEPTH TO RESTRICTIVE LAYER = 23"
 SLOPE = 10.2%
 HYDRAULIC FACTOR (HF) = 26
 FLOW FACTOR (FF) = 1.5
 PERCOLATION FACTOR (PF) = 1.00 (UP TO 10.0 MIN./INCH)
 MLSS REQUIRED: 26 x 1.5 x 1.00 = 39 LF

PROPOSED SYSTEM
 USE 3 ROWS OF 80 LF
 LEACHING AREA PROVIDED = 540 SF

RESERVE LEACHING AREA
 USE SAME AS PRIMARY SYSTEM

SELECT FILL SPECIFICATION

SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS PER THE CONNECTICUT PUBLIC HEALTH CODE FOR USE WITHIN THE LEACHING AREA:

- THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
- UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE).
- THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REMEASURED AND THE SIEVE ANALYSIS STARTED.
- THE REMAINING SAMPLE SHALL MEET THE FOLLOWING CRITERIA:

SIEVE SIZE	PERCENT PASSING	WET SIEVE	DRY SIEVE
#4	100	100	100
#10	70-100	70-100	70-100
#40	10-50*	10-75	10-75
#100	0-20	0-5	0-5
#200	0-5	0-2.5	0-2.5

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75 IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10 AND THE #200 SIEVE DOES NOT EXCEED 5.

SEPTIC NOTES

- PROPOSED SEPTIC SYSTEM TO BE STAKED IN THE FIELD BY A LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT.
- A BENCHMARK SHALL BE SET WITHIN 10'-15' OF THE PROPOSED SEPTIC SYSTEM PRIOR TO CONSTRUCTION.
- ALL WORK AND MATERIAL (SEPTIC TANK, DISTRIBUTION BOX, PIPE) SHALL CONFORM TO THE CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEM.
- SEWER LINE FROM FOUNDATION WALL TO SEPTIC TANK SHALL BE 4" SCHEDULE 40 PVC - ASTM D 1785 AND JOINTS PER HEALTH DEPT. CODE. PIPE FROM SEPTIC TANK TO DISTRIBUTION LINES SHALL BE 4" SOLID PVC CONFORMING TO STD-3034 AND SDR-35.
- SYSTEMS SHALL BE SET LEVEL FOR ENTIRE LENGTH AND HAVE A CENTER TO CENTER SPACING AS CALLED FOR IN THE CONNECTICUT PUBLIC HEALTH CODE. THERE ARE PRESENTLY NO KNOWN WATER WELLS WITHIN 75' OF THE PROPOSED SEPTIC SYSTEMS.
- CLEAR AND GRUB THE AREA WHERE THE SEPTIC SYSTEMS AND HOUSES ARE TO BE CONSTRUCTED. ALL TOPSOIL IS TO BE STRIPPED AND STOCKPILED FOR FUTURE USE.
- ALL FILL MATERIAL SHALL BE CLEAN EARTH FREE OF STUMPS, ORGANICS, CONSTRUCTION DEBRIS AND TOPSOIL.
- TOPSOIL SHALL BE RE-APPLIED OVER ALL FILL AREAS AND ALL DISTURBED AREAS TO PROVIDE A MINIMUM DEPTH OF FOUR INCHES IN ACCORDANCE WITH THE SLOPE STABILIZATION DETAILS.

DEEP TP DATA / SOIL DESCRIPTIONS

PERFORMED BY: Terre Bombard
 WITNESSED BY: Northeast District Department of Health DATE: March 20, 2018

TP: 2A	TP: 2B
0'-11" TOPSOIL	0'-14" TOPSOIL
11'-30" Very Fine Sandy Loam	14'-32" Fine Loamy Sand
30'-40" Medium Sand	32'-75" Gray very Fine Loamy Sand / Mottled
40'-69" Compact Gray Loamy Sand / Mottled	
MOTTLES: 40"	MOTTLES: 27"
GROUNDWATER: NO	GROUNDWATER: NO
LEDGE: NO	LEDGE: NO
ROOTS: NO	ROOTS: NO
RESTRICTIVE: NO	RESTRICTIVE: NO

TP: 3A	TP: 3B
0'-7" TOPSOIL	0'-8" TOPSOIL
7'-21" Very fine Sandy Loam	8'-23" Fine Loamy Sand
21'-38" Gray Compact Very Fine Sandy Loam	30'-45" Gray Medium Sand
38'-73" Hardpan	30'-45" Hardpan
MOTTLES: 21"	MOTTLES: 45"
GROUNDWATER: NO	GROUNDWATER: NO
LEDGE: NO	LEDGE: NO
ROOTS: NO	ROOTS: NO
RESTRICTIVE: NO	RESTRICTIVE: NO

TP: 4A	TP: 4B
0'-8" TOPSOIL	0'-8" TOPSOIL
8'-37" Fine Sandy Loam	8'-23" Loamy Sand
37'-60" Gray Compact Sandy Pan	23'-37" Gray very Fine Loamy Sand
	37'-66" Gray Compact Very Fine Sand / Coarse
MOTTLES: NO	MOTTLES: 37"
GROUNDWATER: NO	GROUNDWATER: 64"
LEDGE: NO	LEDGE: NO
ROOTS: NO	ROOTS: NO
RESTRICTIVE: 37"	RESTRICTIVE: NO

LEGEND

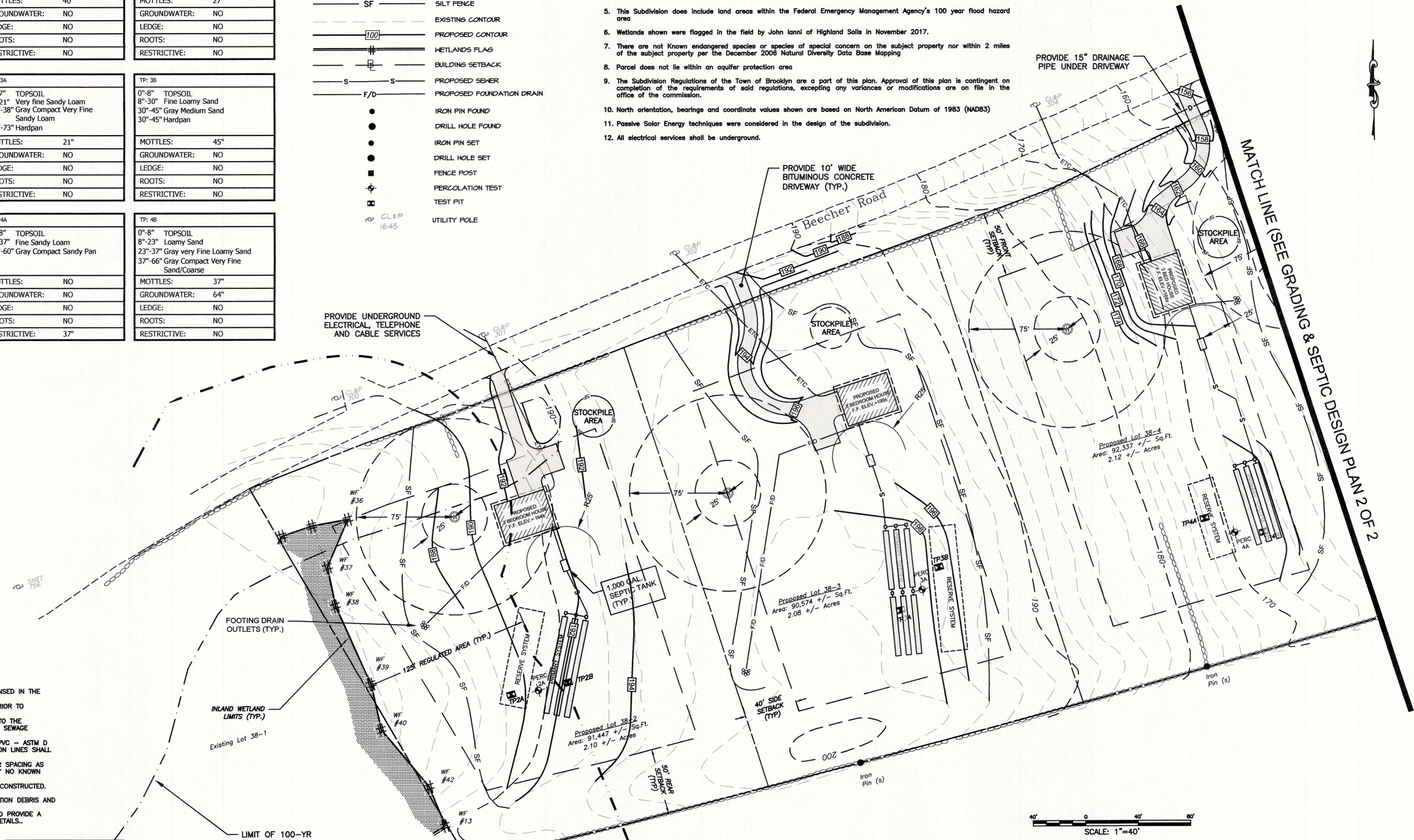
- PROPERTY LINE
- - - EASEMENT
- o o o o o o o o o o STONEHALL
- o o o o o o o o o o STONEHALL REMAINS
- o o o o o o o o o o EXISTING TREELINE
- ~ ~ ~ ~ ~ PROPOSED CLEARING LIMITS
- SF --- SILT FENCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- WETLANDS FLAG
- BUILDING SETBACK
- PROPOSED SEWER
- F/D --- PROPOSED FOUNDATION DRAIN
- IRON PIN FOUND
- IRON PIN SET
- DRILL HOLE SET
- FENCE POST
- ⊕ PERCOLATION TEST
- ⊗ TEST PIT
- CL&P 1645 UTILITY POLE

Notes

- This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 28, 1996.
 - This Survey conforms to a Class "C" Horizontal Accuracy
 - This Survey conforms to a Class "T-2" Vertical Accuracy
 - Survey Type: Site Development Plan
 - Boundary Determination: Resurvey
 - Intent: 5 Lot Subdivision
- Parcels shown as 38 on Assessors Tax Map 22 of the Brooklyn Assessors Office
- Property is owned by: VBL Properties, LLC
- Zone: RA
- This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area
- Wetlands shown were flagged in the field by John Ianni of Highland Soils in November 2017.
- There are not Known endangered species or species of special concern on the subject property nor within 2 miles of the subject property per the December 2006 Natural Diversity Data Base Mapping
- Parcel does not lie within an aquifer protection area
- The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.
- North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
- Passive Solar Energy techniques were considered in the design of the subdivision.
- All electrical services shall be underground.

Map References

- Prepared for the Town of Stratford, Rukstella Road, Brooklyn, Conn., Scale: 1"=100', Date May 29, 1986, Prepared by: David Marricki
- Lot Division Plan, Prepared for River Junction Estates, LLC, Showing Parcel "D-1", Rukstella Road, Brooklyn, Connecticut, Date: Jan. 2011, Prepared by: Messier & Associates
- Town of Brooklyn, Map showing land to be acquired for the State Highway Purposes from Homer Beecher on the Brooklyn Canterbury Road, Scale: 1"=20', Date Oct. 1929



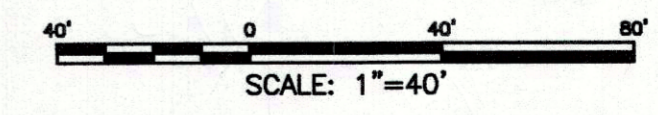
PERCOLATION DATA PERC # 2A - DEPTH 31"		PERCOLATION DATA PERC # 3A - DEPTH 29"		PERCOLATION DATA PERC # 4A - DEPTH 26"	
TIME	READING (INCHES)	TIME	READING (INCHES)	TIME	READING (INCHES)
9:23	6.75	9:35	5.75	10:23	3.0
9:49	10.0	9:56	10.0	10:48	9.5
10:19	13.0	10:11	14.5	10:58	11.0
10:39	14.5	10:46	17.0	11:09	12.0

PERCOLATION RATE > 13.3 MIN./IN. PERCOLATION RATE > 14 MIN./IN. PERCOLATION RATE > 10 MIN./IN.

NOTES:
 PERCOLATION TEST PERFORMED ON 5/17/2018 PERFORMED BY Terre Bombard

To My Knowledge and Belief this Map is substantially Correct as noted hereon.
 Robert A. DeLuca, P.E. #18756 Date

ARCHER Surveying LLC
 18 Providence Road, Brooklyn, CT
 (860) 779-2240



No.	DATE	REVISION
5	06/06/20	VARIOUS MODIFICATIONS
4	07/09/20	SHEET NO. CHANGES
3	06/19/20	VARIOUS MODIFICATIONS
2	06/16/20	WETLAND FLAGS ADDED
1	06/01/20	VARIOUS MODIFICATIONS

CLA Engineers, Inc.
 CIVIL • STRUCTURAL • SURVEYING
 317 Main Street Norwich, CT 06360
 (860) 886-1966 Fax (860) 886-9165

Project No. CLA-6382
 Proj. Engineer D.H.
 Date: 03/18/20
 Sheet No. 4

VBL PROPERTIES LLC
PROPOSED 5 LOT SUBDIVISION
 BEECHER ROAD & RUKSTELLA ROAD
 BROOKLYN CT
 GRADING & SEPTIC DESIGN PLAN 1 OF 2

Notes

- This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996.
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 - This Survey conforms to a Class "T-2" Vertical Accuracy
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- Parcel does not lie within an aquifer protection area
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- North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
- Passive Solar Energy techniques were considered in the design of the subdivision.
- All electrical services shall be underground.

Map References

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- Town of Brooklyn, Map showing land to be acquired for the State Highway Purposes from Homer Beecher on the Brooklyn Canterbury Road, Scale: 1"=20', Date Oct. 1929

PERCOLATION DATA PERC # 5A - DEPTH 27"	
TIME	READING (INCHES)
10:30	5.5
10:51	8.5
11:06	14.0

PERCOLATION RATE > 7 MIN./IN.

NOTES:
PERCOLATION TEST PERFORMED ON 5/17/2018
PERFORMED BY Terre Bombard

PERCOLATION DATA PERC # A - DEPTH 35"	
TIME	READING (INCHES)
10:57	5.0
11:05	9.5
11:15	12.5
11:27	14.75
11:34:35	16.0

PERCOLATION RATE > 6.4 MIN./IN.

NOTES:
PERCOLATION TEST PERFORMED ON 3/23/2018
PERFORMED BY Terre Bombard

DEEP TP DATA / SOIL DESCRIPTIONS	
PERFORMED BY: Terre Bombard	
WITNESSED BY: Northeast District Department of Health DATE: March 20, 2018	
TP: 5A 0'-7" TOPSOIL 7"-28" Loamy Sand 28"-61" Gray Very Fine Loamy Sand/Mottled	TP: 5B 0'-12" TOPSOIL 12"-38" Loamy Sand 38"-75" Gray Compact Very Fine Loamy Sand
MOTTLES: 28"	MOTTLES: 38"
GROUNDWATER: NO	GROUNDWATER: 69"
LEDGE: NO	LEDGE: NO
ROOTS: NO	ROOTS: NO
RESTRICTIVE: NO	RESTRICTIVE: 37"
TP: 1 0'-9" TOPSOIL 9"-37" Reddish Brown Very Fine Loamy Sand 37"-70" Gray Very Fine Loamy Sand	TP: 2 0'-10" TOPSOIL 10"-27" Reddish Brown Very Fine Loamy Sand 27"-39" Gray Very Fine Loamy Sand/Wet Mottled 39"-52" Groundwater
MOTTLES: 44"	MOTTLES: 27"
GROUNDWATER: 63" seepage @44"	GROUNDWATER: 39"
LEDGE: NO	LEDGE: NO
ROOTS: NO	ROOTS: NO
RESTRICTIVE: NO	RESTRICTIVE: NO

LEGEND

- PROPERTY LINE
- EASEMENT
- STONEHALL
- STONEHALL REMAINS
- EXISTING TREELINE
- PROPOSED CLEARING LIMITS
- SF SILT FENCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- WETLANDS FLAG
- BUILDING SETBACK
- PROPOSED SEWER
- F/D PROPOSED FOUNDATION DRAIN
- IRON PIN FOUND
- DRILL HOLE FOUND
- IRON PIN SET
- DRILL HOLE SET
- FENCE POST
- ⊕ PERCOLATION TEST
- ⊕ TEST PIT
- ⊕ CL&P 1645 UTILITY POLE

CONCEPT SEPTIC SYSTEM DESIGN

LOT 38
PRIMARY LEACHING AREA
4 BEDROOM MULTI-FAMILY RESIDENCE
PERCOLATION RATE: 6.4 MIN./INCH (NDDH FILE #18000188)
LEACHING AREA REQUIRED: 860_SF

USE TRADITIONAL TRENCH
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
REQUIRED LENGTH = 660 SF / 3 SF/LF = 220 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 27"
SLOPE = 8.2%
HYDRAULIC FACTOR (HF) = 28
FLOW FACTOR (FF) = 2.0
PERCOLATION FACTOR (PF) = 1.0 (UP TO 10.0 MIN./INCH)
MLSS REQUIRED: 26 x 2.0 x 1.00 = 52 LF

PROPOSED SYSTEM
USE 3 ROWS OF 75 LF
LEACHING AREA PROVIDED = 675_SF

RESERVE LEACHING AREA
USE SAME AS PRIMARY SYSTEM

CONCEPT SEPTIC SYSTEM DESIGN

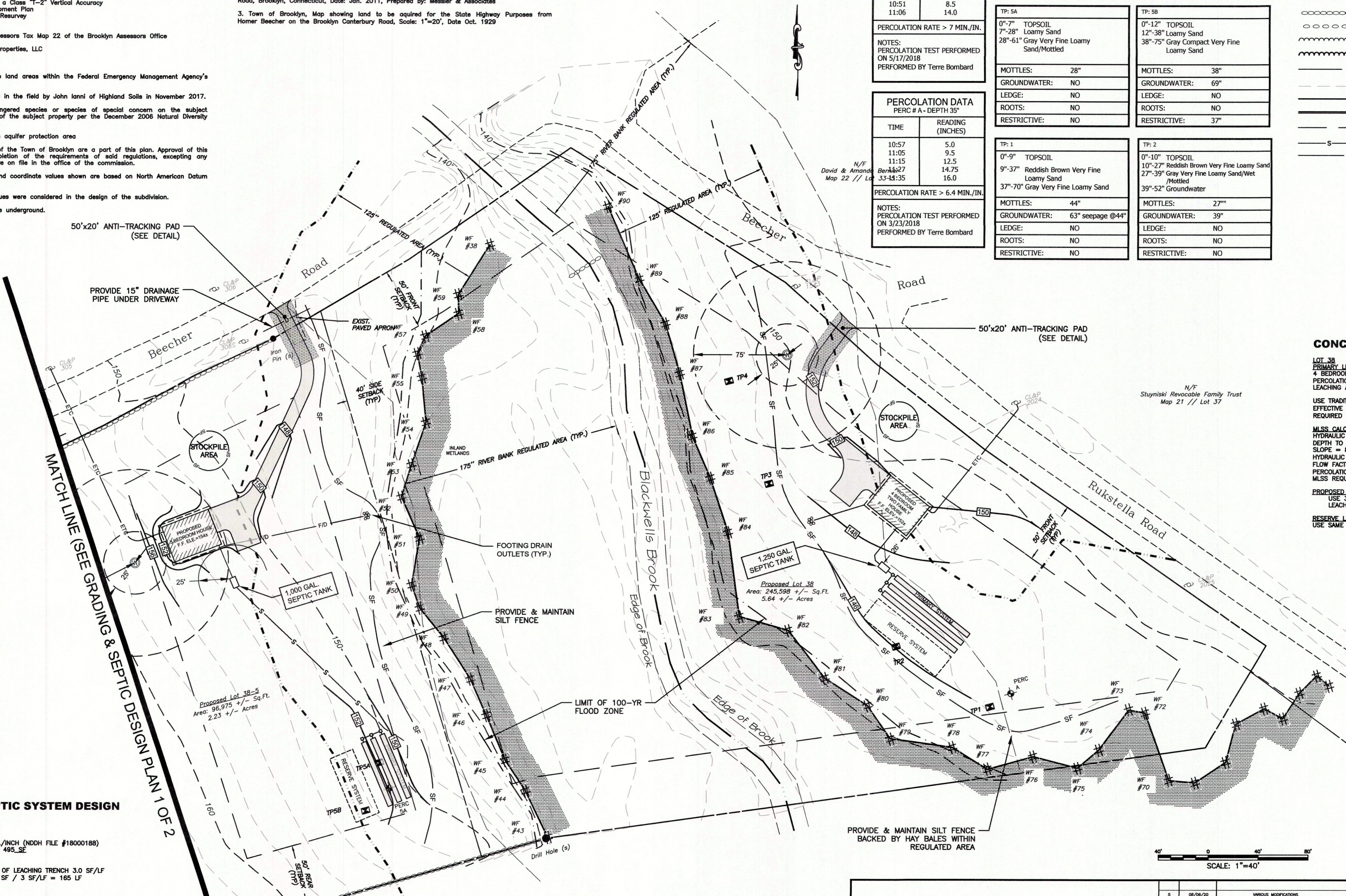
LOT 38-5
PRIMARY LEACHING AREA
3 BEDROOM RESIDENCE
PERCOLATION RATE: 7 MIN./INCH (NDDH FILE #18000188)
LEACHING AREA REQUIRED: 495_SF

USE TRADITIONAL TRENCH
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
REQUIRED LENGTH = 495 SF / 3 SF/LF = 165 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 28"
SLOPE = 6.1%
HYDRAULIC FACTOR (HF) = 28
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 1.0 (UP TO 10.0 MIN./INCH)
MLSS REQUIRED: 28 x 1.5 x 1.00 = 42 LF

PROPOSED SYSTEM
USE 3 ROWS OF 55 LF
LEACHING AREA PROVIDED = 495_SF

RESERVE LEACHING AREA
USE SAME AS PRIMARY SYSTEM



SCALE: 1"=40'

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Robert A. DeLuca, P.E. #18756 Date

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

No.	DATE	REVISION
5	06/06/20	VARIOUS MODIFICATIONS
4	07/06/20	SHEET NO. CHANGES
3	06/18/20	VARIOUS MODIFICATIONS
2	06/18/20	WETLAND FLAGS ADDED
1	06/01/20	VARIOUS MODIFICATIONS



CLA Engineers, Inc.
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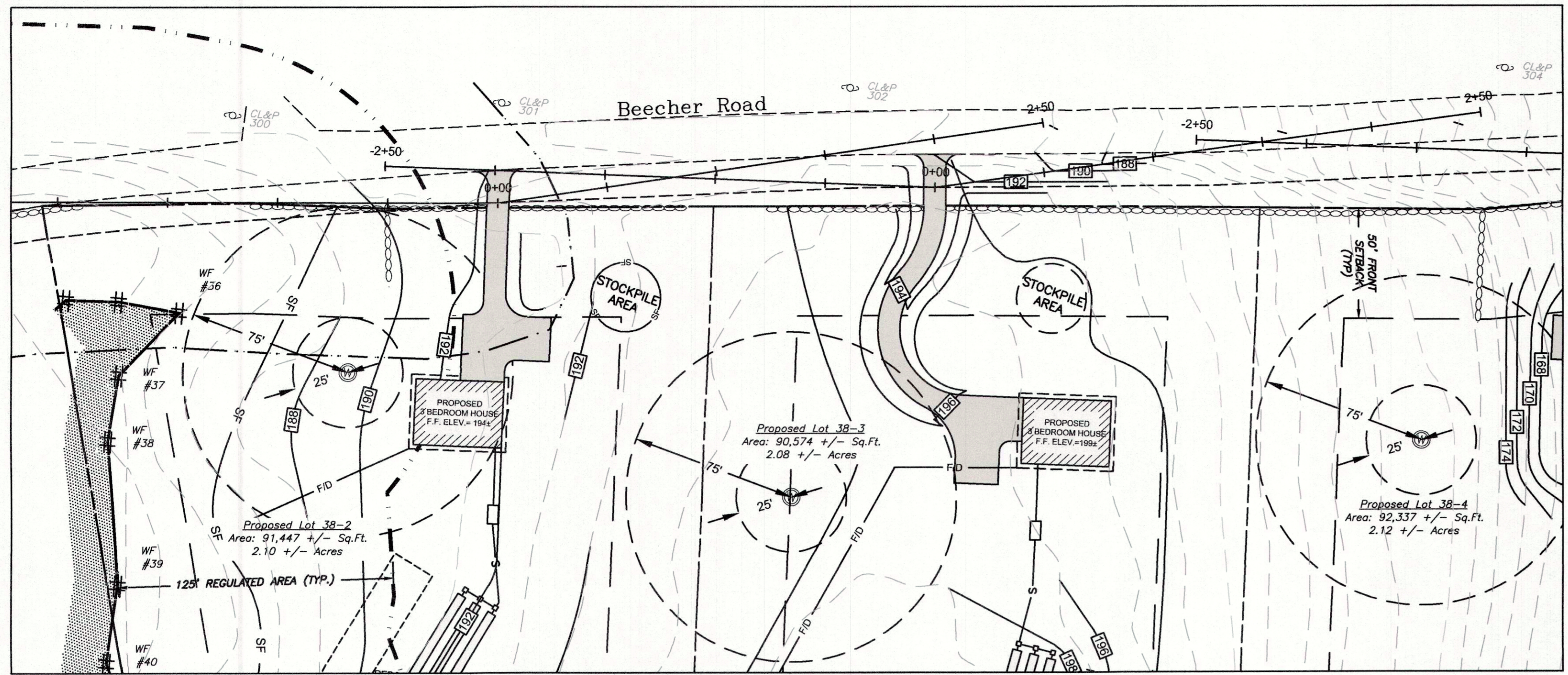
317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

VBL PROPERTIES LLC

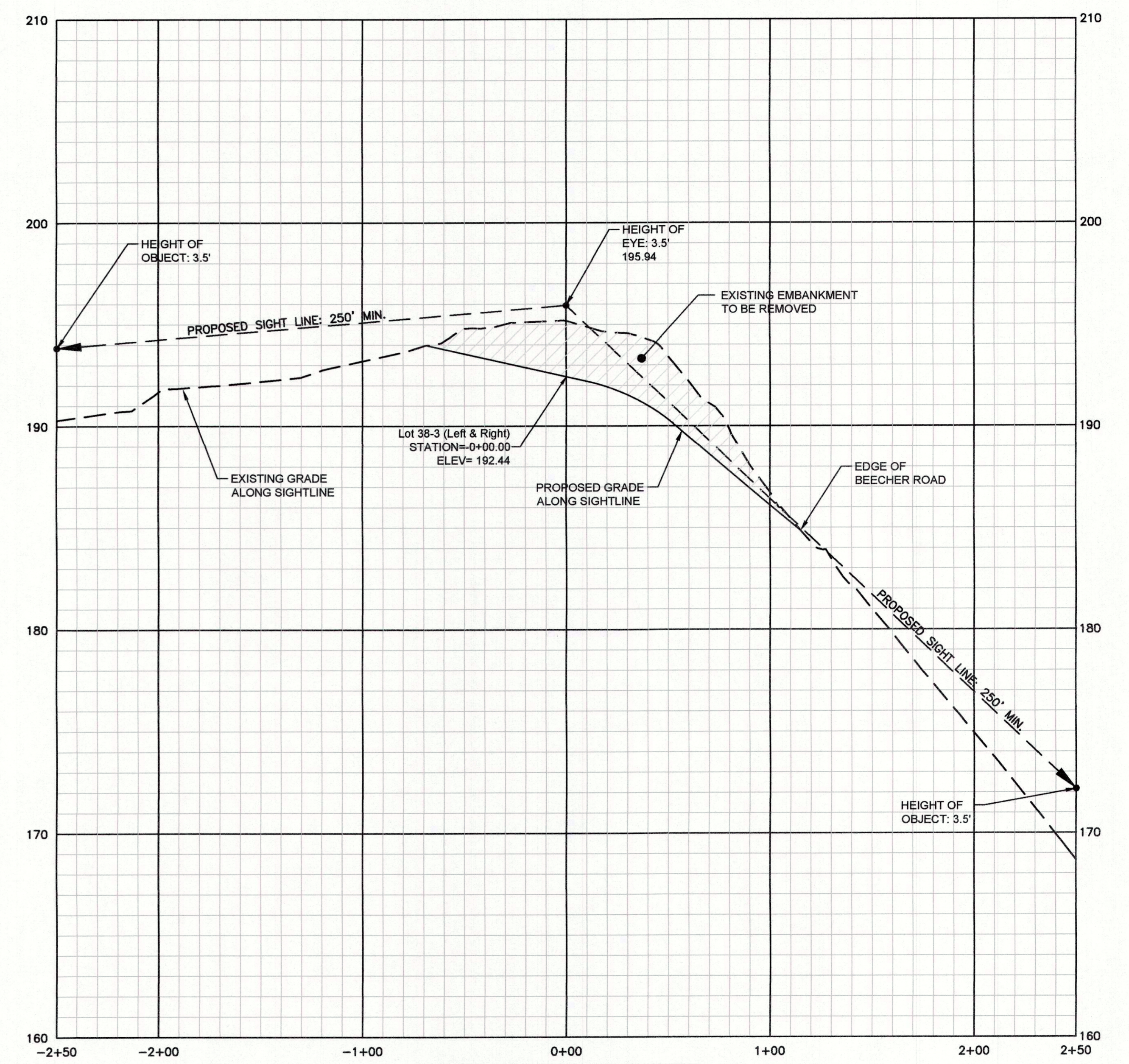
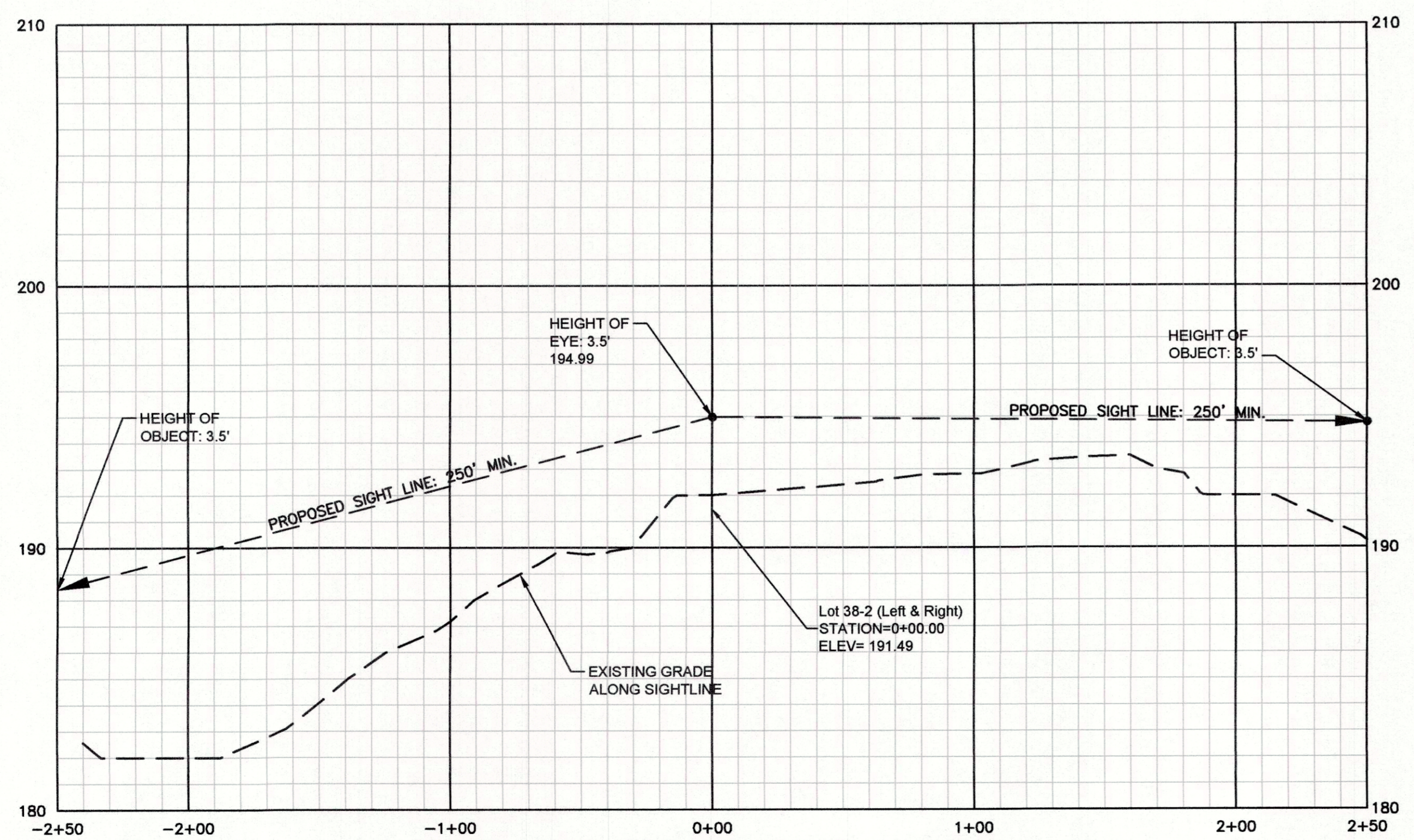
**PROPOSED 5 LOT SUBDIVISION
BEECHER ROAD & RUKSTELLA ROAD
BROOKLYN CT**

GRADING & SEPTIC DESIGN PLAN 2 OF 2

Project No. CLA-6382
Proj. Engineer D.H.
Date: 03/18/20
Sheet No. **5**

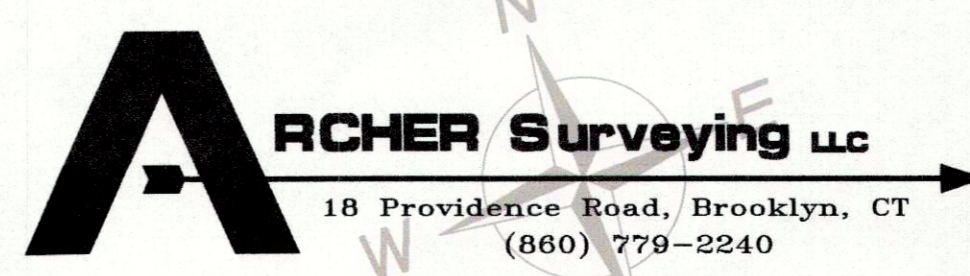


SCALE: 1" = 40'



To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Robert A. DeLuca, P.E. #18756 Date



No.	DATE	REVISION
5	06/06/20	VARIOUS MODIFICATIONS
4	07/09/20	SHEET NO. CHANGES
3	06/19/20	VARIOUS MODIFICATIONS
2	06/16/20	WETLAND FLAGS ADDED
1	06/01/20	VARIOUS MODIFICATIONS

CLA Engineers, Inc.
CIVIL • STRUCTURAL • SURVEYING

317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

Project No. CLA-6382
Proj. Engineer D.H.
Date: 03/18/20
Sheet No. 6

VBL PROPERTIES LLC

**PROPOSED 5 LOT SUBDIVISION
BEECHER ROAD & RUKSTELLA ROAD
BROOKLYN CT**

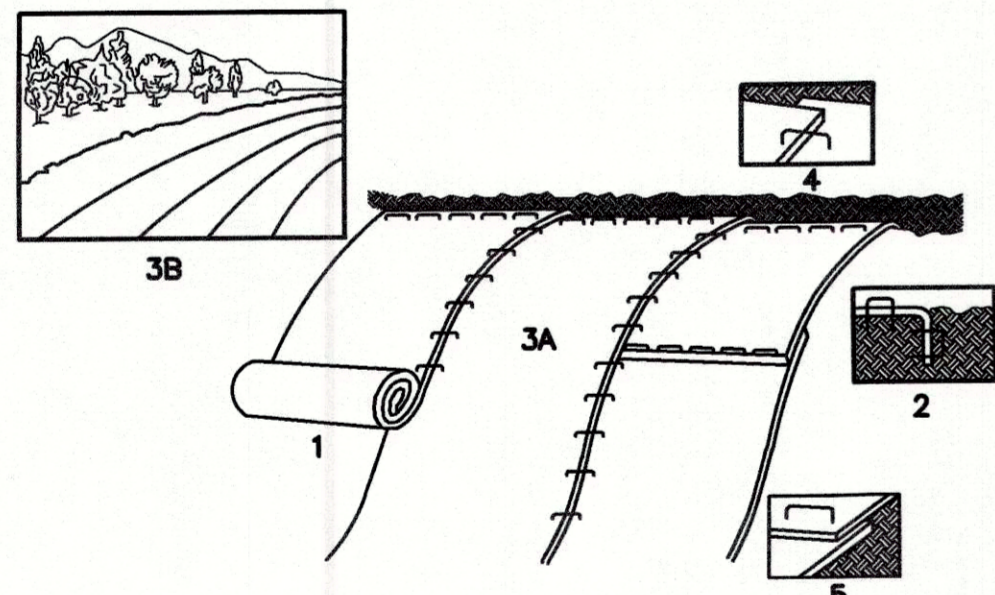
DRIVEWAY SIGHTLINE PLAN & PROFILE

EROSION & SEDIMENTATION CONTROL NARRATIVE

1. THE EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS HAVE BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
2. THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL MEASURES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDED SILT FENCE, STONE CHECK DAMS AND/OR OTHER EROSION CONTROL MEASURES AS NEEDED OR DIRECTED BY THE ENGINEER OR TOWN STAFF TO ADEQUATELY PREVENT SEDIMENT TRANSPORT.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE.
4. THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT. SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED.
5. STAKED HAY BALE SILT BARRIERS OR SILT FENCE SHALL BE INSTALLED AROUND ANY TEMPORARY STOCKPILE AREAS. TEMPORARY VEGETATIVE COVER MAY BE REQUIRED (SEE NOTE).
6. INLET SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED UNDER THE GRATES OF ALL NEW CATCH BASINS AT THE TIME OF INSTALLATION, AND UNDER THE GRATES OF EXISTING CATCH BASINS IN THE CONSTRUCTION AREA.
7. CONTINUOUS DUST CONTROL USING WATER, CALCIUM CHLORIDE OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PAILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED ROADWAY SURFACES.
8. IF DEWATERING IS NECESSARY DURING ANY TIME OF CONSTRUCTION A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS SHOWN IN THE HAY-BALE BARRIER DEWATERING DETAIL OR ALTERNATE METHOD PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
9. ALL DISTURBED AREAS SHALL BE RESTORED PER THE SLOPE STABILIZATION AND PERMANENT VEGETATION DETAILS. ALL DISTURBED AREAS THAT ARE SLOPED LESS THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) SLOPE SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED PER THE PERMANENT VEGETATIVE COVER SPECIFICATIONS. EROSION CONTROL MATTING SHALL BE PROVIDED ON ALL DISTURBED AREAS THAT ARE SLOPED MORE THAN THREE HORIZONTAL TO ONE VERTICAL (3:1). IF FINAL SEEDING OF DISTURBED AREAS IS NOT TO BE COMPLETED BEFORE OCTOBER 15, THE CONTRACTOR SHALL PROVIDE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY PERMANENT SEEDING.
11. WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISHED GRADED SHALL BE COMPLETED PRIOR TO OCTOBER 15.
12. ANY EROSION WHICH OCCURS WITHIN THE DISTURBED AREAS SHALL BE IMMEDIATELY REPAIRED AND STABILIZED. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE RETURNED TO THE SITE. POST SEEDING, INTERCEPTED SEDIMENT, IF ANY, SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE TOWN AND ENGINEER.
13. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS RE-ESTABLISHED OR SLOPES ARE STABILIZED AND REMOVAL IS APPROVED BY THE TOWN.
14. UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
15. THE CONTRACTOR SHALL PROVIDE THE NAME AND EMERGENCY CONTACT INFORMATION FOR THE PROJECT PERSONNEL RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROLS PRIOR TO THE START OF CONSTRUCTION.

NOTE: THE CONTRACTOR SHALL CONTINUALLY STORE THE FOLLOWING MATERIALS ON SITE DURING CONSTRUCTION TO MEET UNEXPECTED EROSION NEEDS

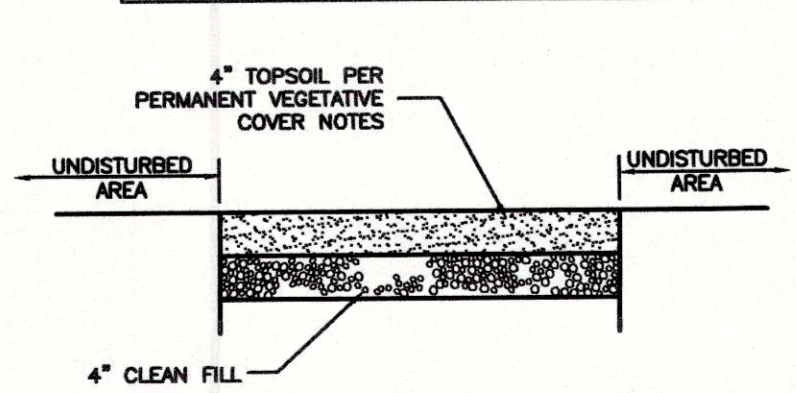
- * 100 LF OF SILT FENCE
- * 10 HAY BALES
- * 10 CY OF WOOD CHIPS OR CRUSHED STONE



1. PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAID FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZER & MULCH)
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP x 6" WIDE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKET (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

NOTE: ALL PERMANENT EROSION CONTROL BLANKETS ARE TO BE NORTH AMERICAN GREEN BROWNE CT12525B OR APPROVED EQUAL.

EROSION CONTROL MATTING DETAIL (FOR 3:1 SLOPES OR GREATER)



TYPICAL LOAM & SEED SECTION DETAIL (FOR ALL DISTURBED AREAS)

SLOPE STABILIZATION DETAILS

TEMPORARY VEGETATIVE COVER

A TEMPORARY SEEDING OF RYE GRASS WILL BE COMPLETED WITHIN 15 DAYS OF THE FORMATION OF STOCKPILES. IF THE SOIL IN THE STOCKPILES HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS IT SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE THE FERTILIZER, LIME AND SEED IS APPLIED. 10-10-10 FERTILIZER AT A RATE OF 7.5 POUNDS PER 1000 S.F. LIMESTONE AT A RATE OF 90 LBS. PER 1000 S.F. SHALL BE USED. RYE GRASS APPLIED AT A RATE OF 1 LB. PER 1000 S.F. SHALL PROVIDE THE TEMPORARY VEGETATIVE COVER. STRAW FREE FROM WEEDS AND COARSE MATTER SHALL BE USED AT A RATE OF 70-90 LBS. PER 1000 S.F. AS A TEMPORARY MULCH. APPLY MULCH AND DRIVE TRACKED EQUIPMENT UP AND DOWN SLOPE OVER ENTIRE SURFACE SO CLEAR MARKS ARE PARALLEL TO THE CONTOURS.

PERMANENT VEGETATIVE COVER

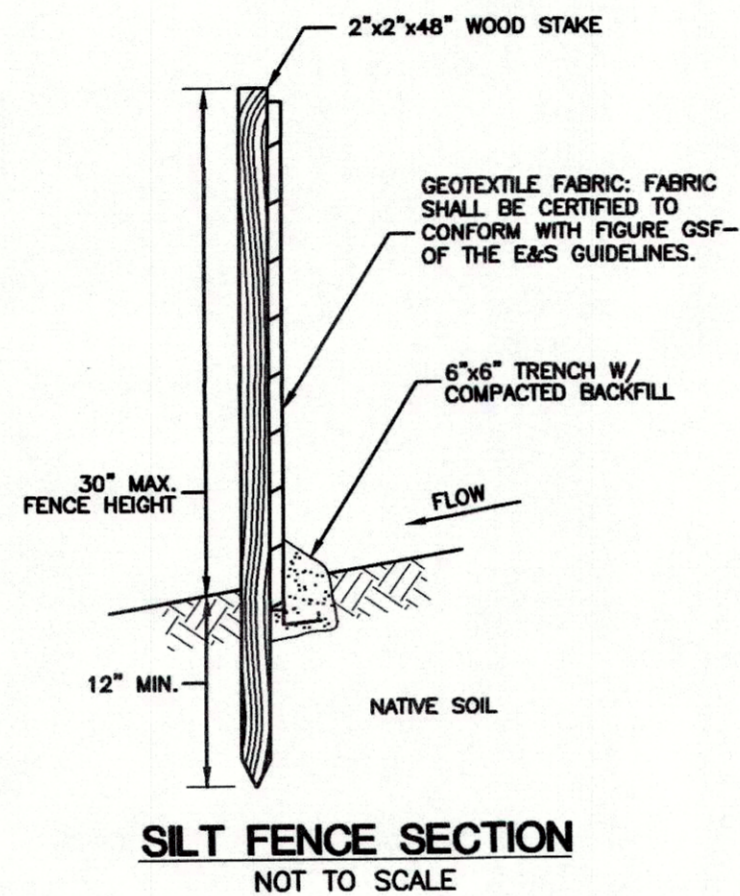
TOPSOIL WILL BE REPLACED ONCE THE EXCAVATIONS HAVE BEEN COMPLETED AND THE SLOPES ARE GRADED AS SHOWN ON THE PLANS. PROVIDE SLOPE PROTECTION AS CALLED FOR ON THE PLANS AND DETAILS. TOPSOIL SHALL BE SPREAD AT A MINIMUM COMPACTED DEPTH OF 4 INCHES. ONCE THE TOPSOIL HAS BEEN SPREAD, ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION WILL BE REMOVED AS WELL AS DEBRIS.

- APPLY AGRICULTURAL GROUND LIMESTONE AT THE RATE OF TWO TONS PER ACRE OR 100 LBS. PER 1000 S.F.
- APPLY 10-10-10 FERTILIZER OR EQUIVALENT AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER 1000 S.F.
- WORK LIMESTONE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES.
- INSPECT SEEDBED BEFORE SEEDING.
- IF TRAFFIC HAS COMPACTED THE SOIL, RETILL COMPACTED AREAS.
- APPLY THE FOLLOWING GRASS SEED MIX:

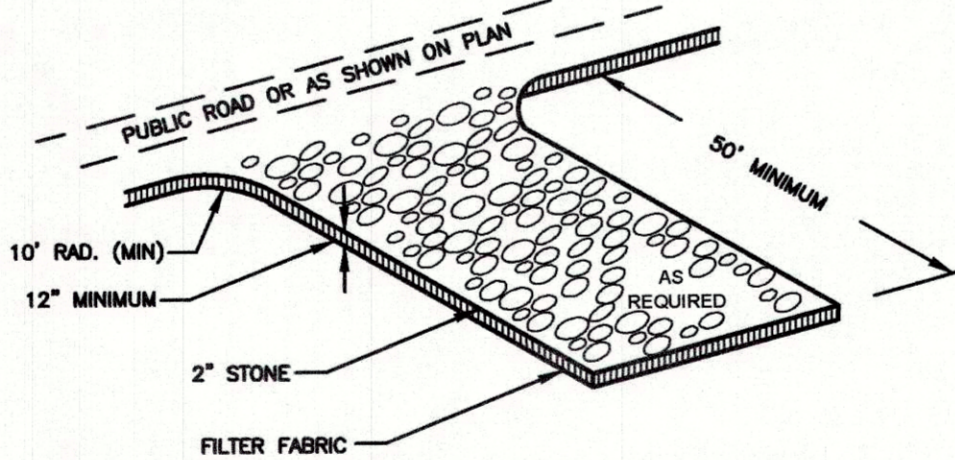
TYPICAL SEED MIXTURE

ALL DISTURBED AREAS
 KENTUCKY BLUEGRASS
 CREEPING RED FESCUE
 PERENNIAL RYEGRASS

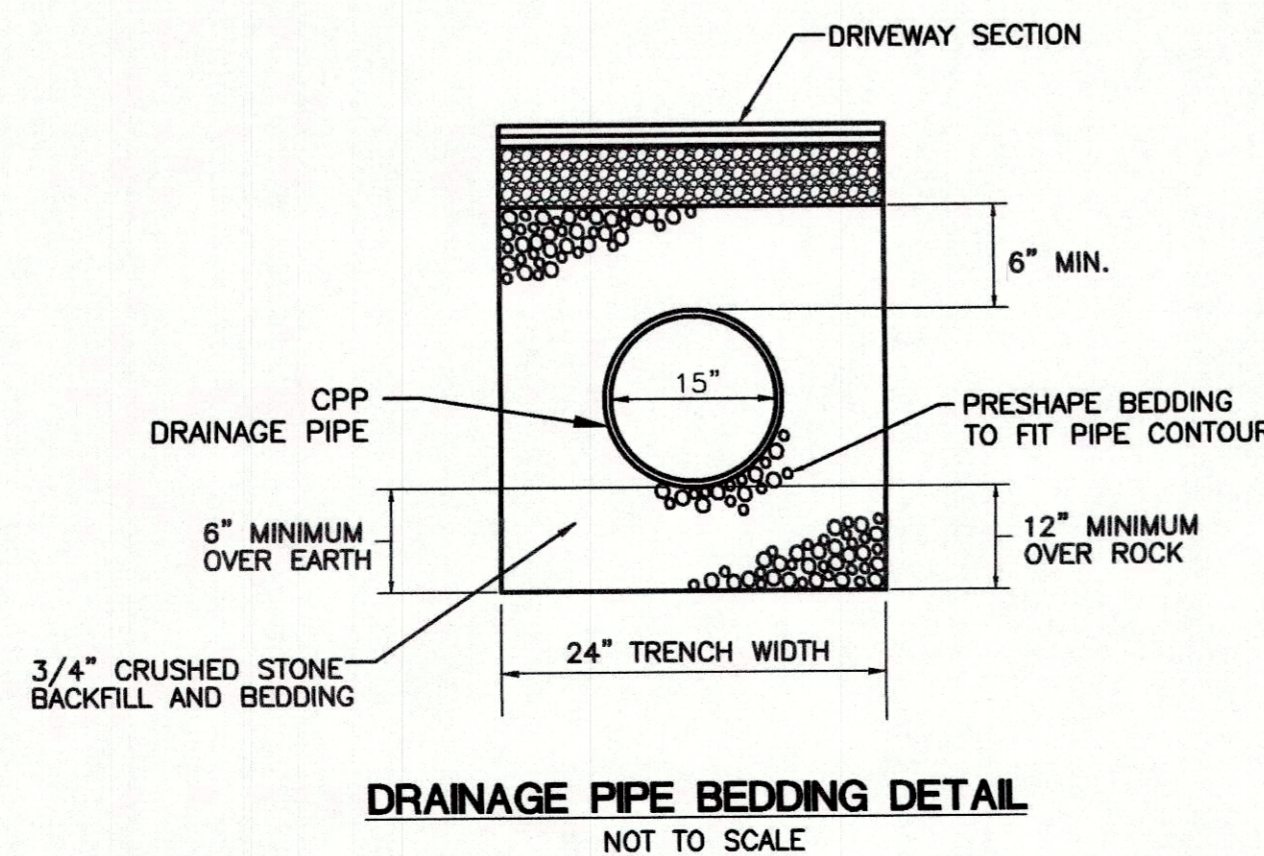
LBS./ACRE	LBS./1000 S.F.
20	0.45
20	0.45
5	0.10
45	1.00



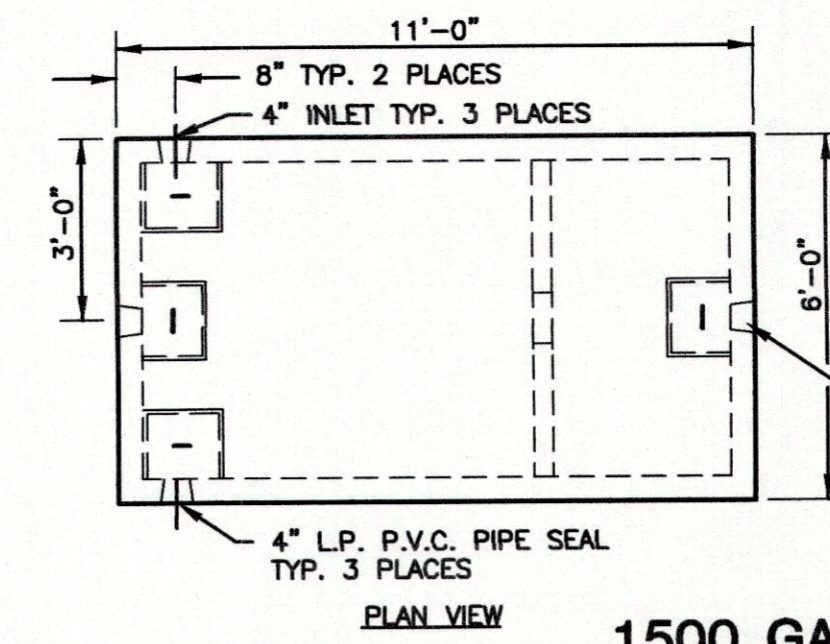
SILT FENCE SECTION
NOT TO SCALE



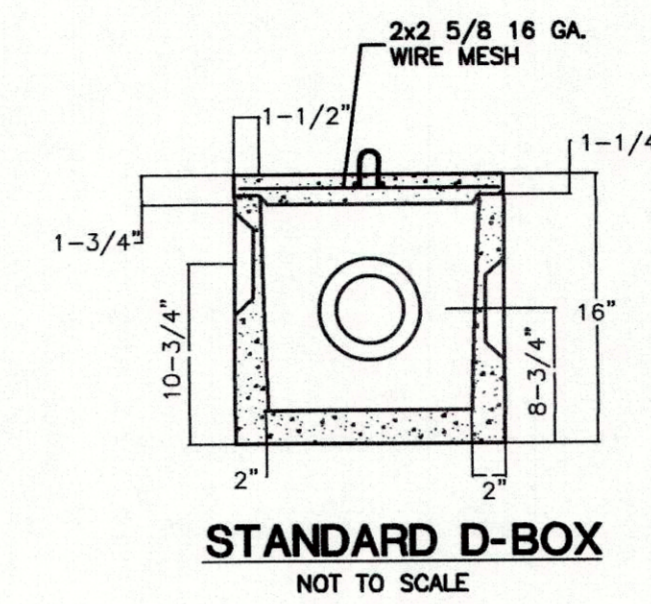
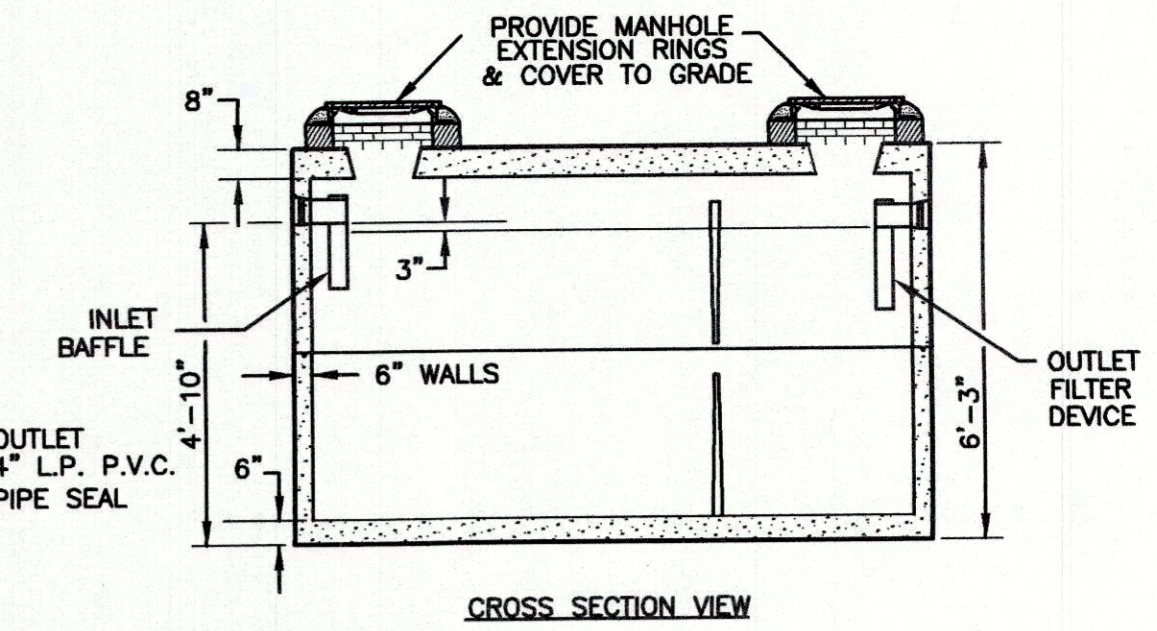
ANTI-TRACKING PAD DETAIL
NOT TO SCALE



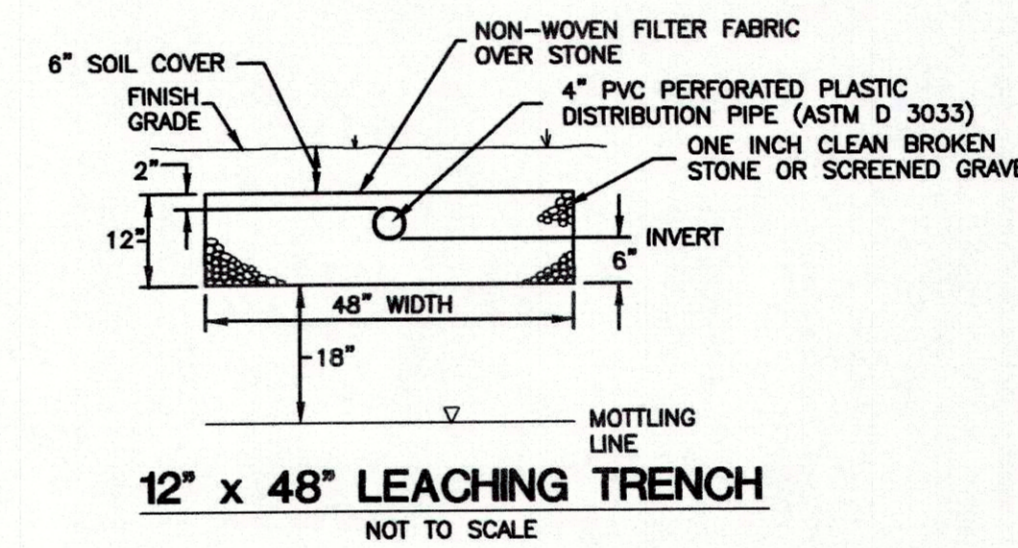
DRAINAGE PIPE BEDDING DETAIL
NOT TO SCALE



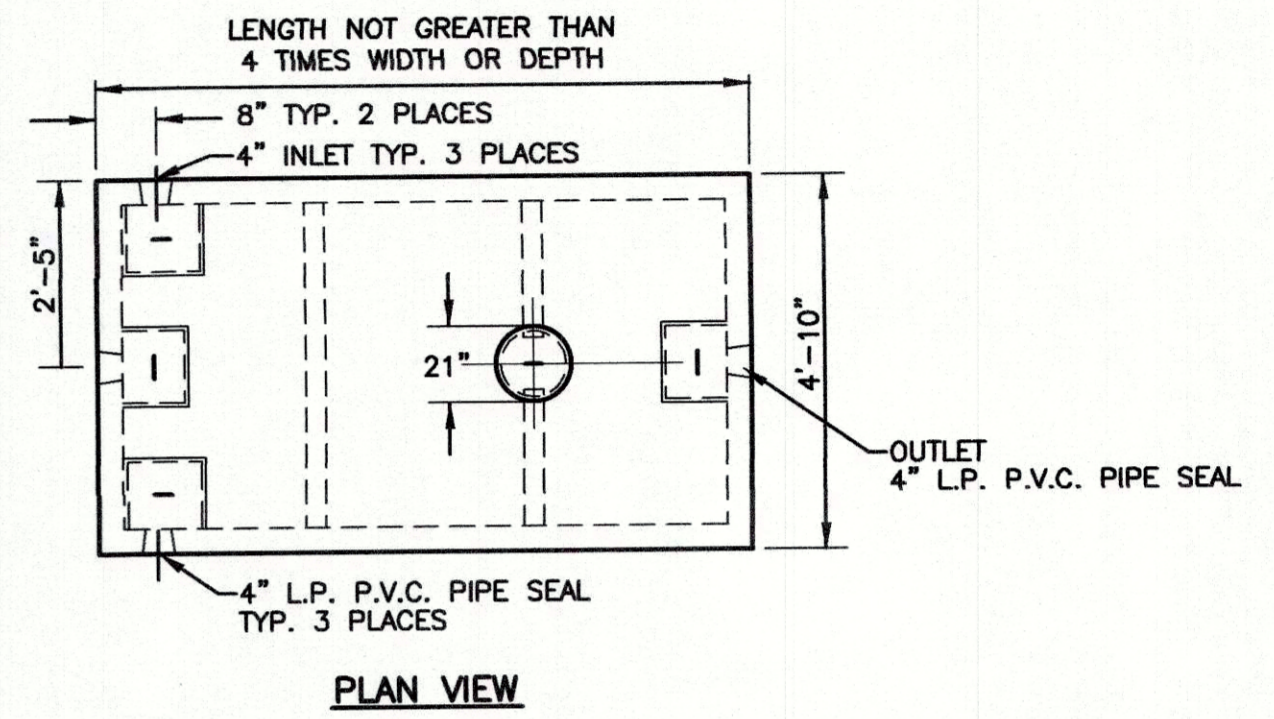
1500 GALLON SEPTIC TANK
NOT TO SCALE



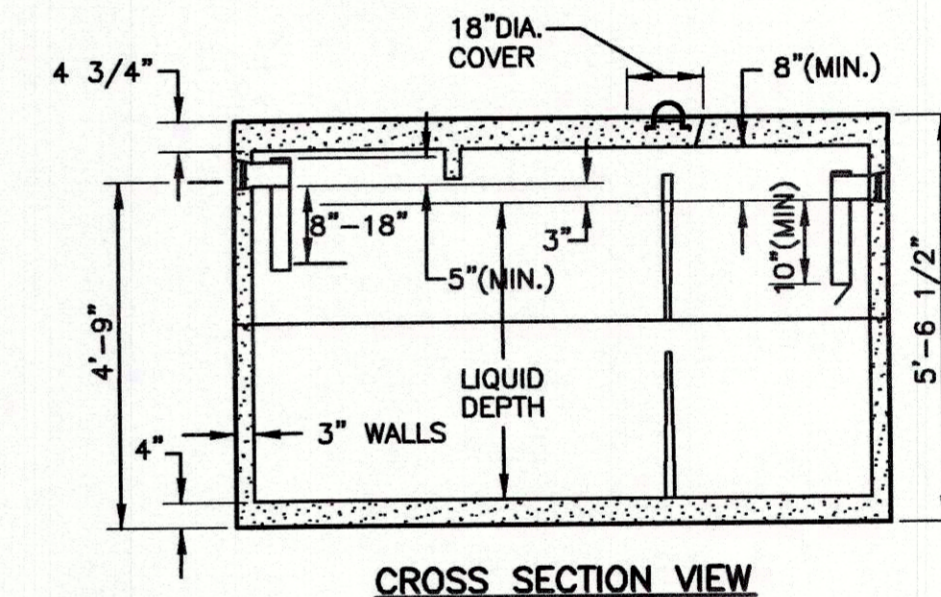
STANDARD D-BOX
NOT TO SCALE



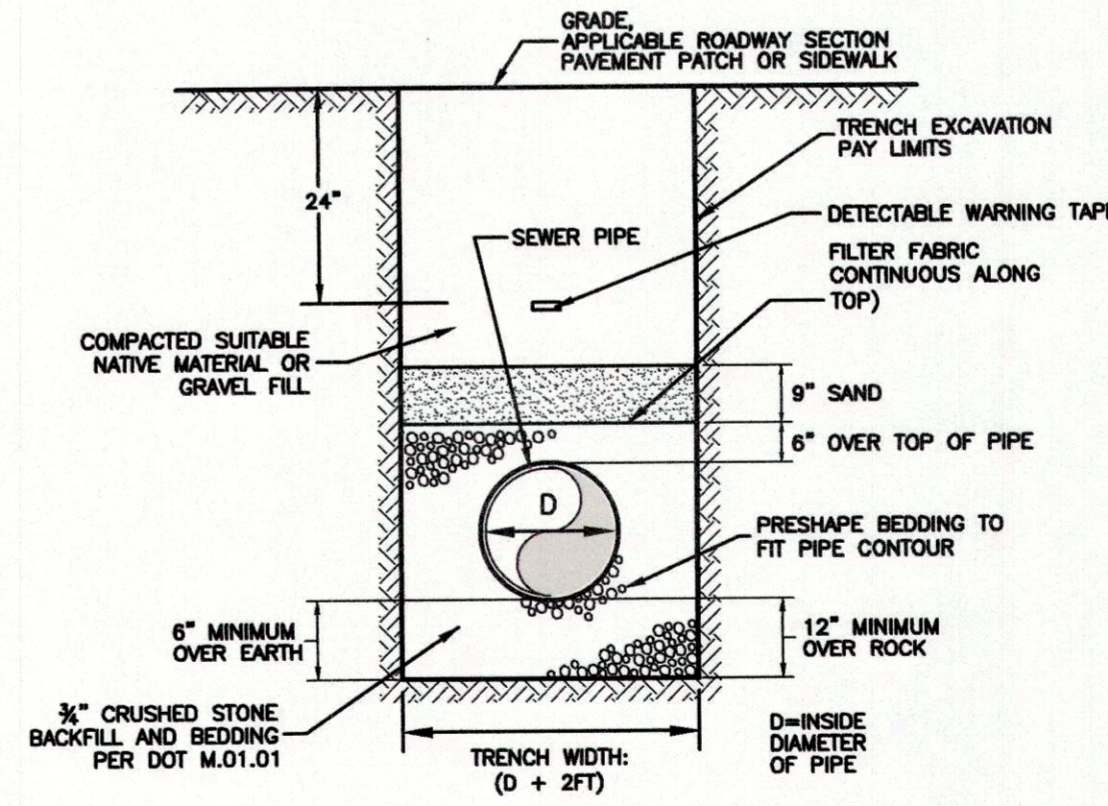
12" x 48" LEACHING TRENCH
NOT TO SCALE



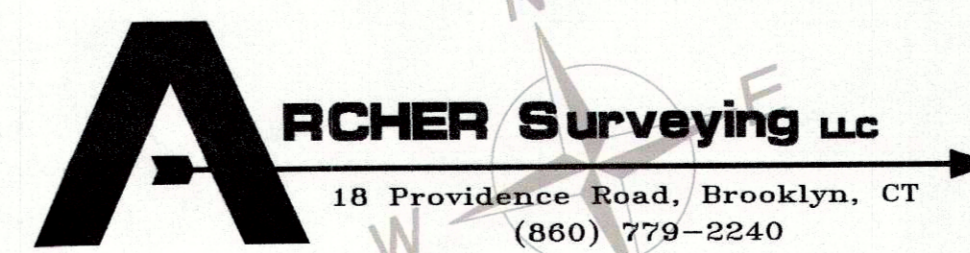
1000 GALLON SEPTIC TANK
NOT TO SCALE



CROSS SECTION VIEW

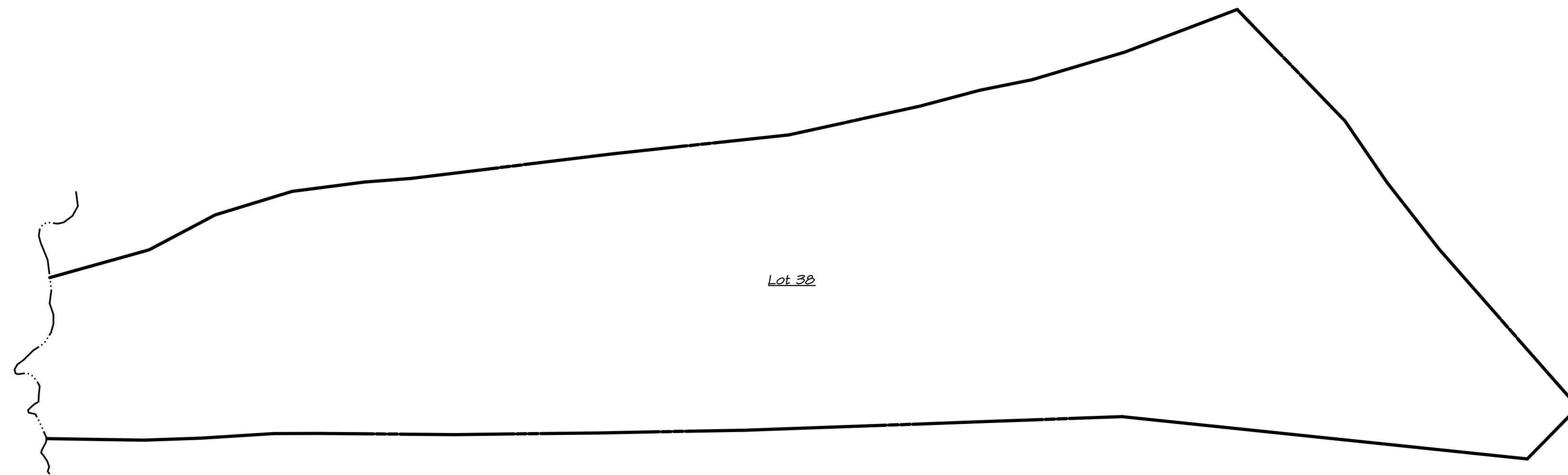


TRENCH DETAIL: SANITARY SEWER PIPE
NOT TO SCALE

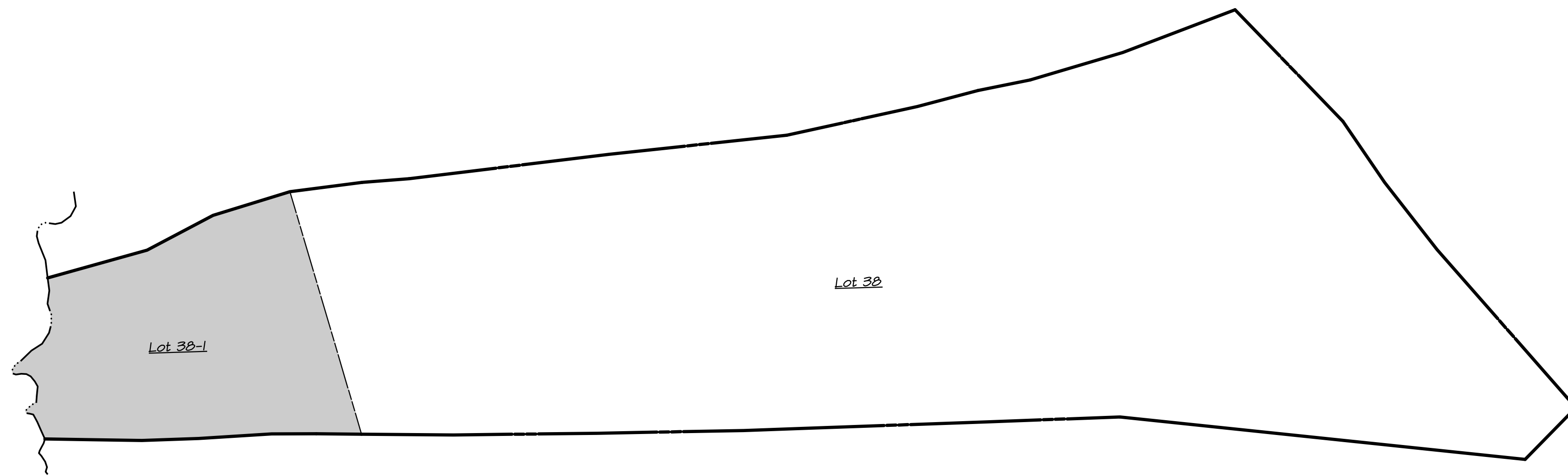


<p>CLA Engineers, Inc. Civil • Structural • Surveying</p> <p>317 Main Street Norwich, CT 06360 (860) 886-1986 Fax (860) 886-9165</p>		<p>Project No. CLA-6382 Proj. Engineer D.H. Date: 03/18/20 Sheet No. 7</p>
<p>VBL PROPERTIES LLC</p> <p>PROPOSED 5 LOT SUBDIVISION BEECHER ROAD & RUKSTELLA ROAD BROOKLYN CT</p> <p>CONSTRUCTION DETAILS</p>		

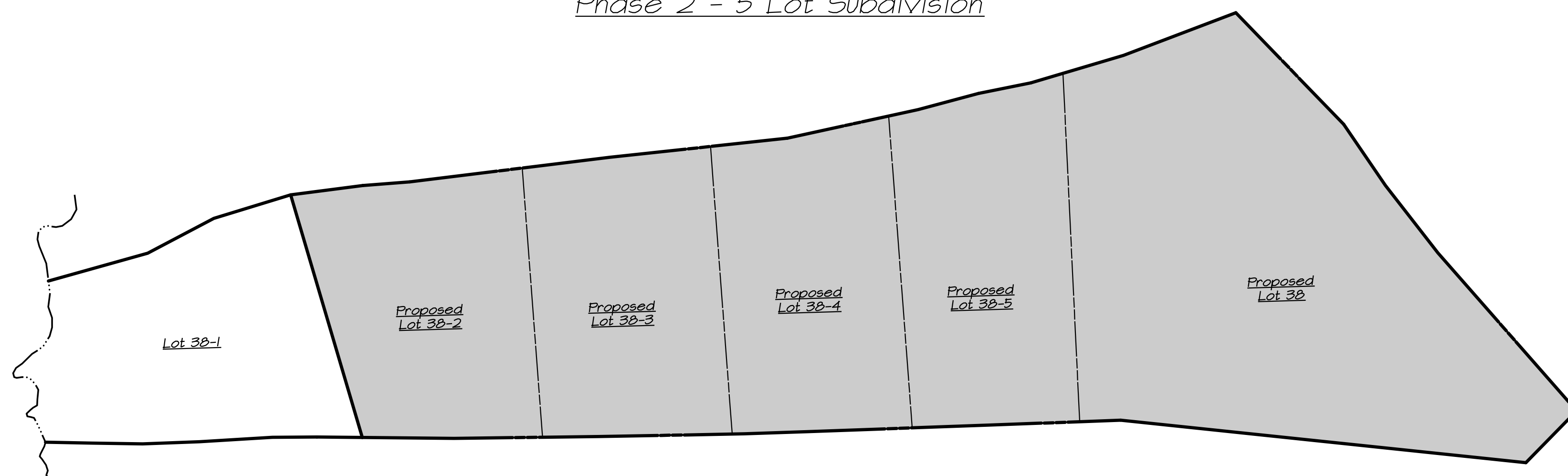
Original Tract



Phase 1 - Free Split



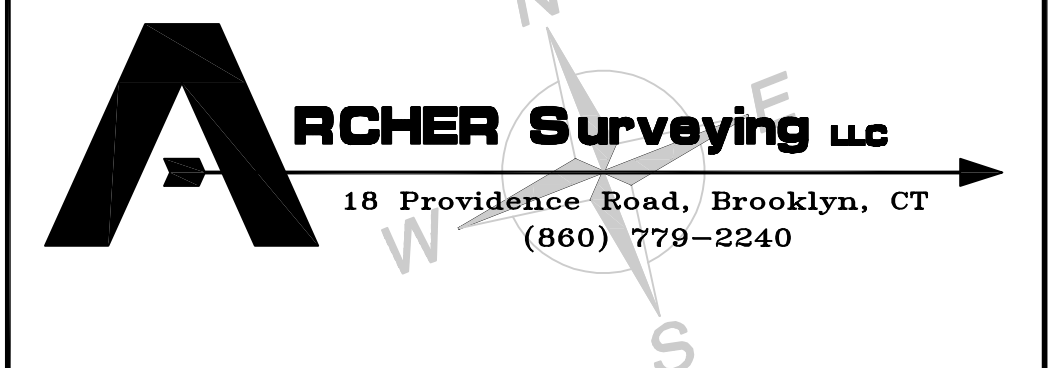
Phase 2 - 5 Lot Subdivision



Grantor	Grantee	Date	Vol. / Pg.
	Paul Ashworth	September 1992	129 / 87
Paul Ashworth	Bruce Ashworth & Judith Millaney	September 1993	142 / 211
Bruce Ashworth & Judith Millaney	Judith Millaney Trust	January 1999	204 / 263
Judith Millaney Trust	VBL Properties LLC	October 2016	583 / 259

History Plan
"Proposed 5 Lot Subdivision"

Prepared For:
VBL Properties LLC
Beecher Road
Brooklyn, Connecticut





NORTHEAST DISTRICT DEPARTMENT OF HEALTH

69 SOUTH MAIN STREET, UNIT 4, BROOKLYN, CT 06234

860-774-7350/FAX 860-774-1308 WWW.NDDH.ORG

July 23, 2020

VBL Properties, LLC
8 Finn Lane
Plainfield, CT 06374

SUBJECT: FILE #18000188 -- BEECHER ROAD #, MAP #22, LOT #38, BROOKLYN, CT

Dear VBL Properties, LLC:

Upon review of the subdivision plan (CLA ENGINEERS INC, VBL PROPERTIES, PROJ#CLA-6382, DRAWN 03/18/2020, REVISED 06/19/2020) submitted to this office on 06/29/2020 for the above referenced subdivision, The Northeast District Department of Health concurs with the feasibility of this parcel of land for future development. Additionally, approval to construct individual subsurface sewage disposal systems may be granted based on compliance with appropriate regulations and the Technical Standards as they apply to individual building lots with the following notations:

1. Lots # 38, 38-2, 38-3 & 38-5 require that a Professional Engineer design and submit individual plot plan(s) for review and approval prior to construction.
2. Lots # 38-4 require surveyor's plot plan(s) to be submitted for review and approval prior to construction.
3. Proposed lots # 38 is based on a 4 bedroom multi-family home at the location tested. If the number of bedrooms are increased, septic system sizes will require an increase per the Technical Standards.
4. Proposed lots # 38-2, 38-3, 38-4, & 38-5 are based on 3 bedroom homes at the locations tested. If the number of bedrooms are increased, septic system sizes will require an increase per the Technical Standards.
5. Additional soil testing will be required in the area of the proposed primary septic system on Lot # 38 for verification of soil conditions at the time of septic system design. 4 bedroom multi-family home will require a 1500 gallon septic tank.

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

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

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

Sincerely,

Sherry McGann, RS
Registered Sanitarian ~ NDDH

cc: Town of Brooklyn; CLA Engineers; Archer Surveying