

SUBDIVISION APPLICATION

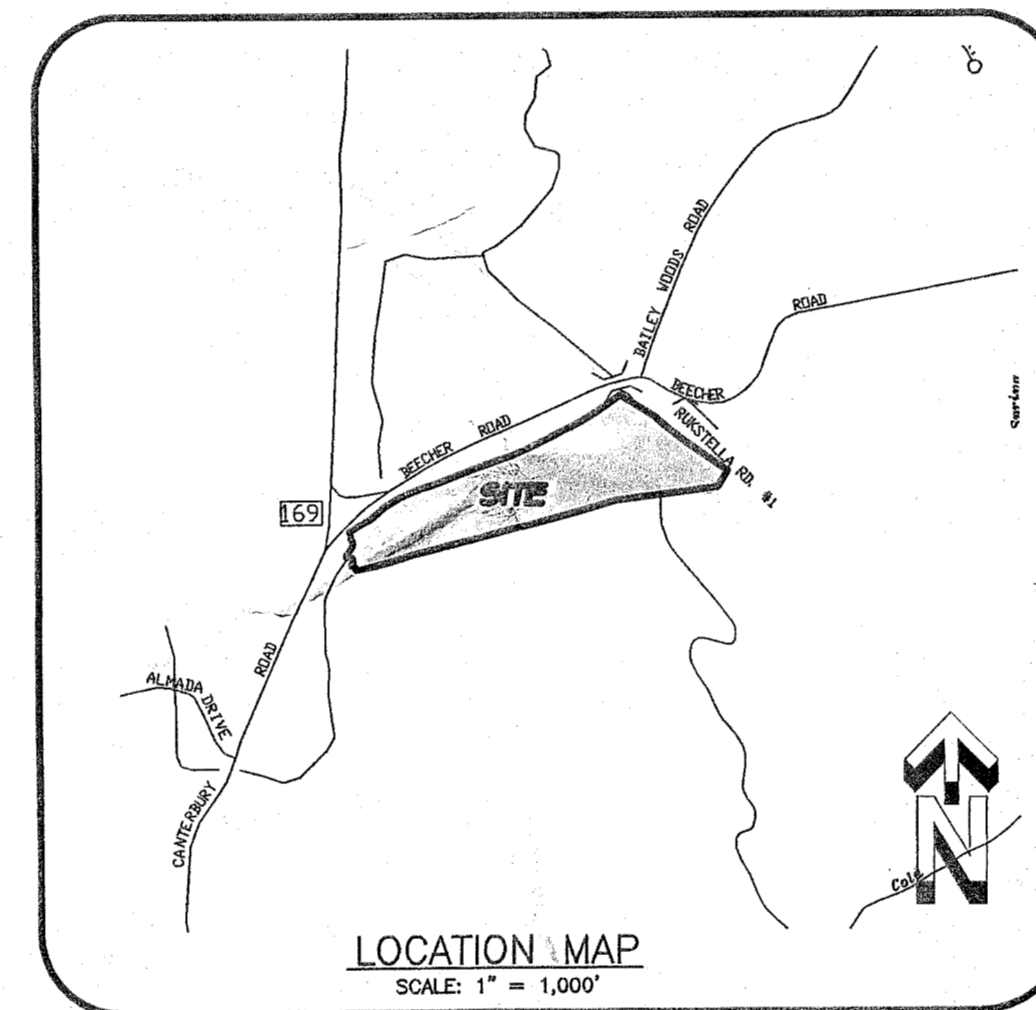
PROPOSED 5 LOT SUBDIVISION

PREPARED FOR

VBL Properties LLC

Beecher Road
Brooklyn, Connecticut

June 4, 2020



PREPARED BY

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

CLA Engineers, Inc.
CIVIL • STRUCTURAL • SURVEYING
317 Main Street Norwich, Connecticut
(860) 886-1966 Fax (860) 886-9165
e-mail: cla@claengineers.com

INDEX OF DRAWINGS

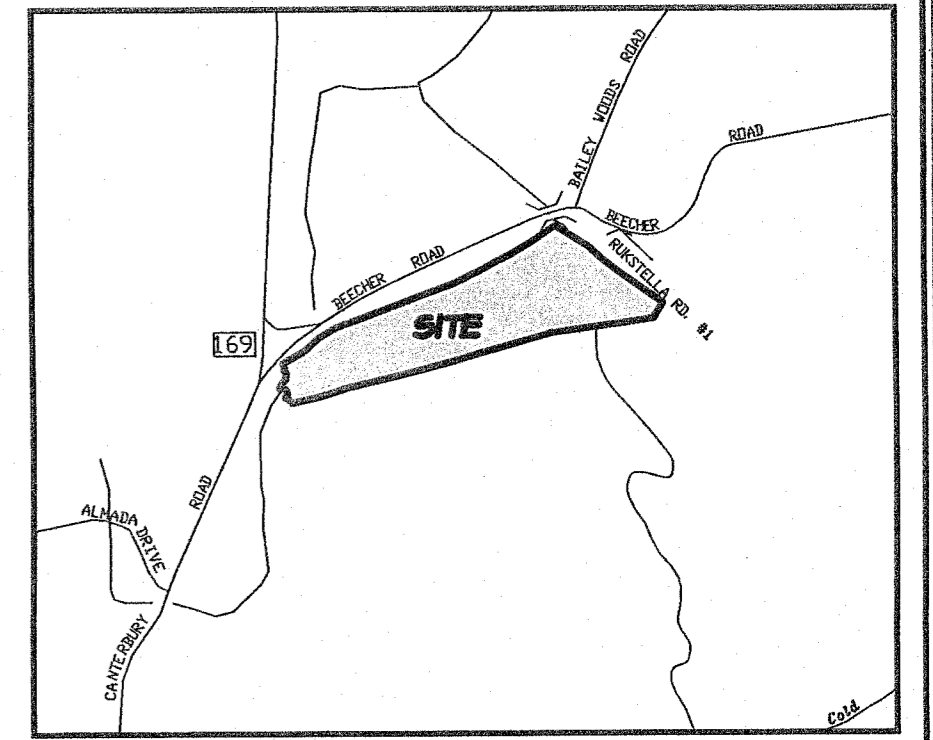
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APPROVED BY THE BROOKLYN
INLAND WETLANDS COMMISSION

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

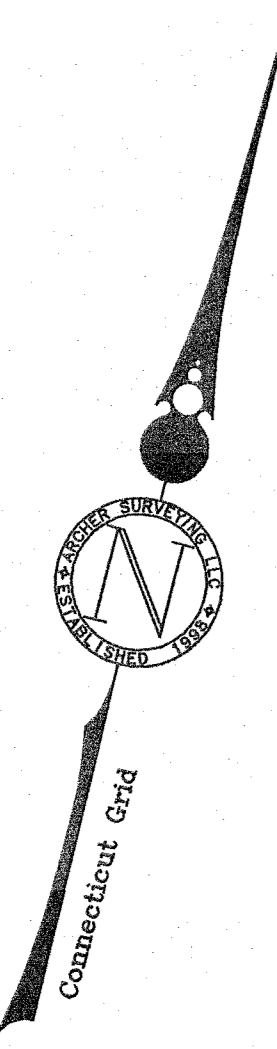
APPROVED BY THE BROOKLYN
PLANNING AND ZONING COMMISSION

CHAIRMAN _____ DATE _____
Expiration date per section 8.26C of the Connecticut
General Statutes. Date: _____



Location Map

SCALE
1000 0 1000
1" = 1000 FT



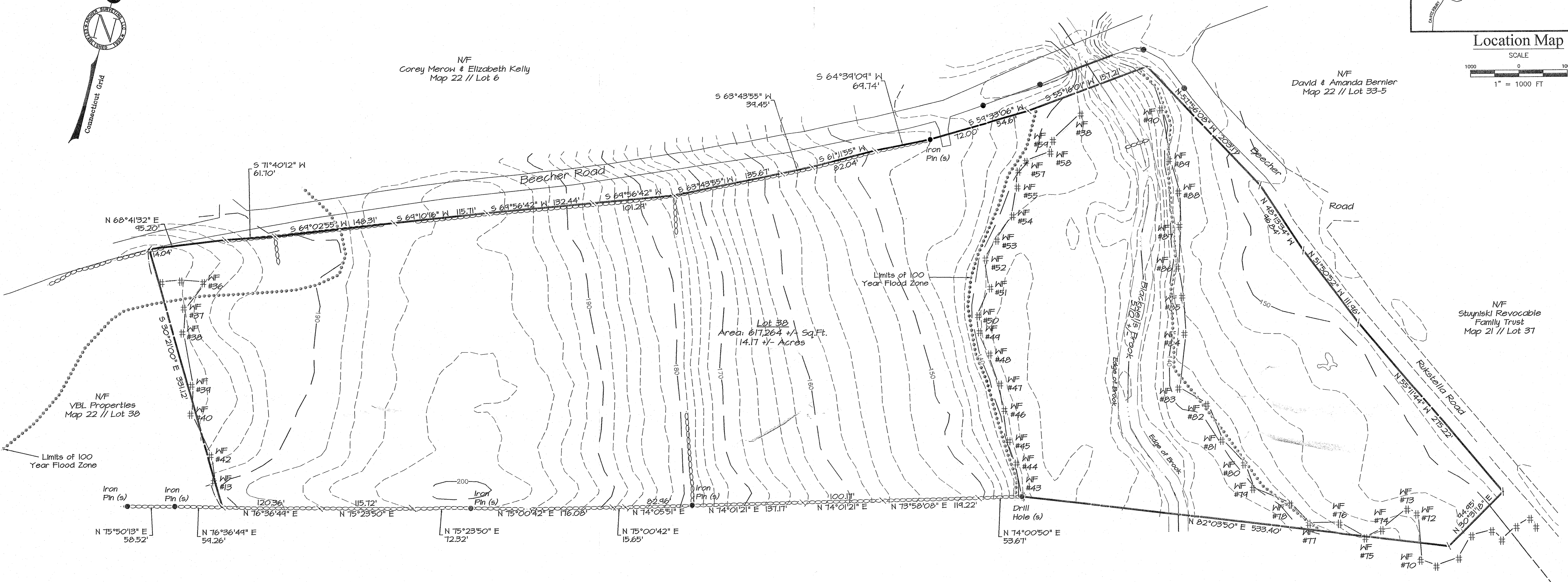
N/F
Corey Meron & Elizabeth Kelly
Map 22 // Lot 6

N/F
David & Amanda Bernier
Map 22 // Lot 33-5

N/F
Stuyinski Revocable
Family Trust
Map 21 // Lot 37

N/F
Charles & William Tyler
Map 21 // Lot 1

N/F
Town of Brooklyn
Map 21 // Lot 3



LEGEND

- PROPERTY LINE
- - - - - EASEMENT
- ○ ○ ○ ○ STONEWALL
- ○ ○ ○ ○ STONEWALL REMAINS
- ~~~~~ EXISTING TREELINE
- 100 YEAR FLOOD LINE
- SILT FENCE
- - - - - EXISTING INDEX CONTOUR
- - - - - EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- ■ ■ ■ ■ WETLANDS FLAG
- |— BUILDING SETBACK
- IRON PIN FOUND
- DRILL HOLE FOUND
- IRON PIN SET
- DRILL HOLE SET
- FENCE POST
- PERCOLATION TEST
- TEST PIT
- PROPERTY POINT
- CL&P 1645 UTILITY POLE
- TREE WITH FENCE

Map References

1. Prepared for the Town of Stratford, Rukstella Road, Brooklyn, Conn., Scale: 1"=100', Date May 24, 1986, Prepared by: David Mamlick
2. Lot Division Plan, Prepared for River Junction Estates, LLC, Showing Parcel "D-1", Rukstella Road, Brooklyn, Connecticut, Date: Jan. 2011, Prepared by: Messier & Associates
3. 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
4. Division of Property, "First Time Split", Prepared for: VBL Properties LLC, Beecher Road, Brooklyn, Connecticut, Prepared by: Archer Surveying LLC

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 #3B 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 000B A, Panel B 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
Paul M. Archer LLS #10021
11-18-2020
Date

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

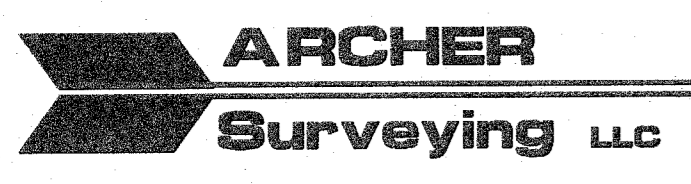
Existing Condition Plan

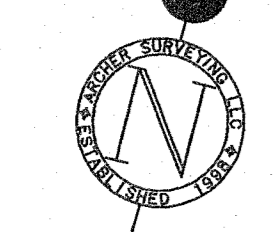
Prepared For:
VBL Properties LLC
Beecher Road
Brooklyn, Connecticut

DRAWING SCALE: 1"=60'
0 30 60 120

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

REVISIONS	
7/10	Added 100yr Flood





Proposed Open Space Easement In Favor of the Town of Brooklyn
Total Area: 3.12 Acres
Lot 38: 1.10 Acres / Lot 38-5: 2.02 Acres

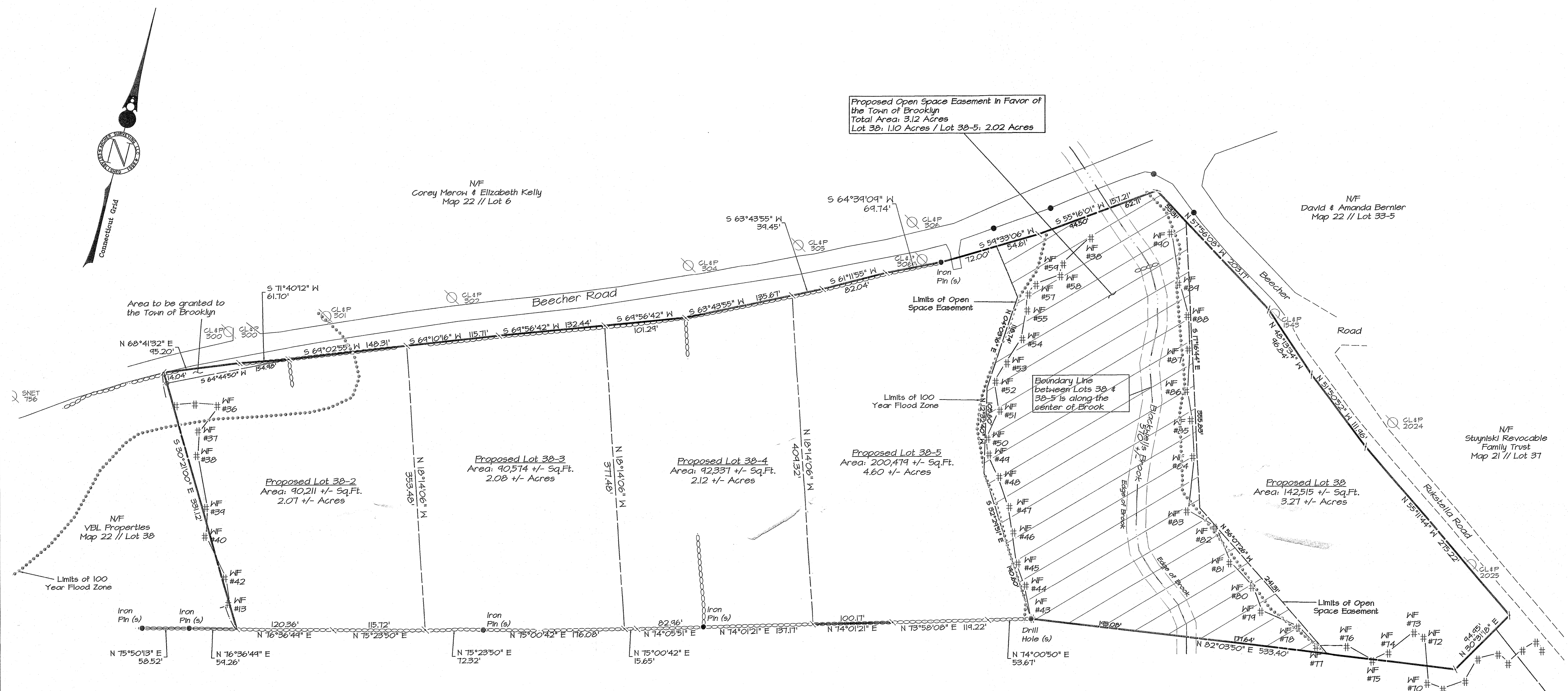
NF
Corey Merow & Elizabeth Kelly
Map 22 // Lot 6

NF
David & Amanda Bernier
Map 22 // Lot 33-5

NF
Stuyinski Revocable Family Trust
Map 21 // Lot 37

NF
Charles & William Tyler
Map 21 // Lot 1

NF
Town of Brooklyn
Map 21 // Lot 3



LEGEND

- PROPERTY LINE
- - - EASEMENT
- ○ ○ ○ ○ STONEWALL
- ○ ○ ○ ○ STONEWALL REMAINS
- ~ ~ ~ EXISTING TREELINE
- 100 YEAR FLOOD LINE
- - - SILT FENCE
- - - EXISTING INDEX CONTOUR
- - - EXISTING CONTOUR
- - - PROPOSED CONTOUR
- # WETLANDS FLAG
- BUILDING SETBACK
- IRON PIN FOUND
- DRILL HOLE FOUND
- IRON PIN SET
- DRILL HOLE SET
- FENCE POST
- PERCOLATION TEST
- TEST PIT
- PROPERTY POINT
- UTILITY POLE
- 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 Association of Land Surveyors, Inc. on September 26, 1996.
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 - 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 000B 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, Field Verified by Robert Russo, and field located by Archer Surveying LLC
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
Paul M. Archer LLS #16013111
11-18-2020
Date

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

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

REVISIONS	
08-04-20	Located Centerline of Brook
11-02-20	Revised Lots 38-5 & 38 / Open Space

Sheet No. 3 of 9 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) = 28
 FLOW FACTOR (FF) = 1.5
 PERCOLATION FACTOR (PF) = 1.00 (UP TO 10.0 MIN./INCH)
 MLSS REQUIRED: 28 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 FOR THE CONNECTICUT PUBLIC HEALTH CODE FOR USE WITHIN THE LEACHING AREA:

1. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
2. 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).
3. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
4. 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

1. PROPOSED SEPTIC SYSTEM TO BE STAKED IN THE FIELD BY A LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT.
2. A BENCHMARK SHALL BE SET WITHIN 10'-15' OF THE PROPOSED SEPTIC SYSTEM PRIOR TO CONSTRUCTION.
3. 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.
4. 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.
5. 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.
6. 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.
7. ALL FILL MATERIAL SHALL BE CLEAN EARTH FREE OF STUMPS, ORGANICS, CONSTRUCTION DEBRIS AND TOPSOIL.
8. 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

0"-11" TOPSOIL
11"-30" Very Fine Sandy Loam
30"-40" Medium Sand
40"-69" Compact Gray Loamy Sand/Mottled
MOTTLES: 40"
GROUNDWATER: NO
LEDGE: NO
ROOTS: NO
RESTRICTIVE: NO

TP: 2B

0"-14" TOPSOIL
14"-32" Fine Loamy Sand
32"-75" Gray very Fine Loamy Sand /Mottled
MOTTLES: 27"
GROUNDWATER: NO
LEDGE: NO
ROOTS: NO
RESTRICTIVE: NO

TP: 3A

0"-7" TOPSOIL
7"-21" Very fine Sandy Loam
21"-38" Gray Compact Very Fine Sandy Loam
38"-73" Hardpan
MOTTLES: 21"
GROUNDWATER: NO
LEDGE: NO
ROOTS: NO
RESTRICTIVE: NO

TP: 3B

0"-8" TOPSOIL
8"-30" Fine Loamy Sand
30"-45" Gray Medium Sand
30"-45" Hardpan
MOTTLES: 45"
GROUNDWATER: NO
LEDGE: NO
ROOTS: NO
RESTRICTIVE: NO

TP: 4A

0"-8" TOPSOIL
8"-37" Fine Sandy Loam
37"-60" Gray Compact Sandy Pan
MOTTLES: NO
GROUNDWATER: NO
LEDGE: NO
ROOTS: NO
RESTRICTIVE: 37"

TP: 4B

0"-8" TOPSOIL
8"-23" Loamy Sand
23"-37" Gray very Fine Loamy Sand
37"-66" Gray Compact Very Fine Sand/Coarse
MOTTLES: 37"
GROUNDWATER: 64"
LEDGE: NO
ROOTS: NO
RESTRICTIVE: NO

LEGEND

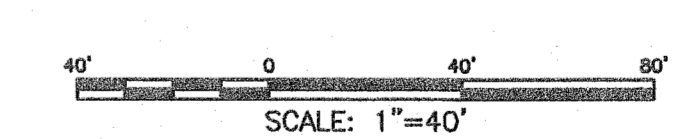
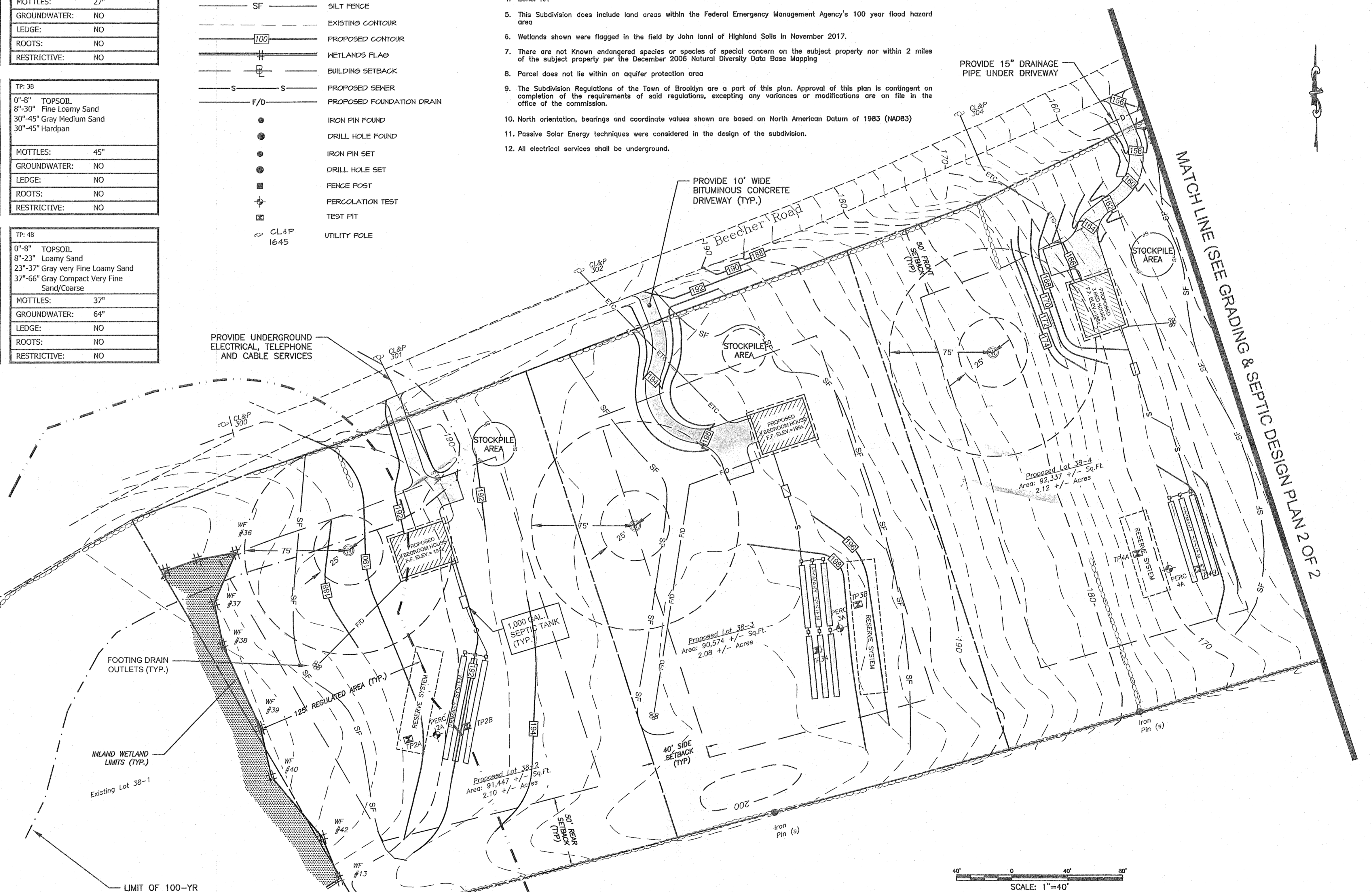
- PROPERTY LINE
- EASEMENT
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- STONEWALL REMAINS
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- PROPOSED CLEARING LIMITS
- SF SILT FENCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- WETLANDS FLAG
- BUILDING SETBACK
- PROPOSED SEWER
- PROPOSED FOUNDATION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

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, 1998.
 - 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
2. Parcels shown as 38 on Assessors Tax Map 22 of the Brooklyn Assessors Office
3. Property is owned by: VBL Properties, LLC
4. Zone: RA
5. This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area
6. Wetlands shown were flagged in the field by John Ianni of Highland Soils in November 2017.
7. 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
8. Parcel does not lie within an aquifer protection area
9. The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on the completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.
10. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
11. Passive Solar Energy techniques were considered in the design of the subdivision.
12. All electrical services shall be underground.

Map References

1. Prepared for the Town of Stratford, Rukastella Road, Brooklyn, Conn., Scale: 1"=100', Date May 29, 1986, Prepared by: David Marnicki
2. Lot Division Plan, Prepared for River Junction Estates, LLC, Showing Parcel "D-1", Rukastella Road, Brooklyn, Connecticut, Date: Jan. 2011, Prepared by: Messier & Associates
3. 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"

TIME	READING (INCHES)
9:33	6.75
9:49	10.0
10:19	13.0
10:39	14.5

PERCOLATION RATE > 13.3 MIN./IN.

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

PERCOLATION DATA
 PERC # 3A - DEPTH 29"

TIME	READING (INCHES)
9:35	5.75
9:56	10.0
10:11	14.5
10:46	17.0

PERCOLATION RATE > 14 MIN./IN.

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

PERCOLATION DATA
 PERC # 4A - DEPTH 26"

TIME	READING (INCHES)
10:23	3.0
10:48	9.5
10:58	11.0
11:08	12.0

PERCOLATION RATE > 10 MIN./IN.

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

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

No.	DATE	REVISION
7	11/24/20	VARIOUS MODIFICATIONS
6	11/02/20	VARIOUS MODIFICATIONS
5	08/04/20	VARIOUS MODIFICATIONS
4	07/28/20	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) 886-1986 Fax (860) 886-9165

VBL PROPERTIES LLC

PROPOSED 5 LOT SUBDIVISION
 BEECHER ROAD & RUKSTELLA ROAD
 BROOKLYN CT

GRADING & SEPTIC DESIGN PLAN 1 OF 2

Project No. CIA-6382
 Proj. Engineer D.H.
 Date: 03/18/20
 Sheet No. 4 of 9



Notes

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- 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 2008 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 commissioner.
- 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
11:35	16.0

PERCOLATION RATE > 6.4 MIN./IN.
NOTES: PERCOLATION TEST PERFORMED ON 5/23/2018 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

MOTTLES: 28"
GROUNDWATER: NO
LEDGE: NO
ROOTS: NO
RESTRICTIVE: NO

TP: 5B
0"-12" TOPSOIL
12"-38" Loamy Sand
38"-75" Gray Compact Very Fine Loamy Sand

MOTTLES: 38"
GROUNDWATER: 69"
LEDGE: NO
ROOTS: NO
RESTRICTIVE: 37"

Test Pits Performed by CLA Engineers, Inc on 9/16/20

TP: 5
0"-11" Very dark brown fine sandy loam
11"-27" Yellow brown sandy loam with light brown mottles @ 27"
37"-70" Yellow brown fine sandy loam, dense @ 36" with grey mottles

MOTTLES: 27"
GROUNDWATER: NO
LEDGE: NO
ROOTS: 36"
RESTRICTIVE: NO

TP: 6
0"-11" Very dark brown fine sandy loam
11"-29" Yellow brown sandy loam with stones
29"-53" Dense grey brown fine sandy loam with stones

MOTTLES: 28"
GROUNDWATER: NO
LEDGE: NO
ROOTS: 33"
RESTRICTIVE: NO

LEGEND

- PROPERTY LINE
- EASEMENT
- STONEWALL
- STONEWALL 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: 660 SF

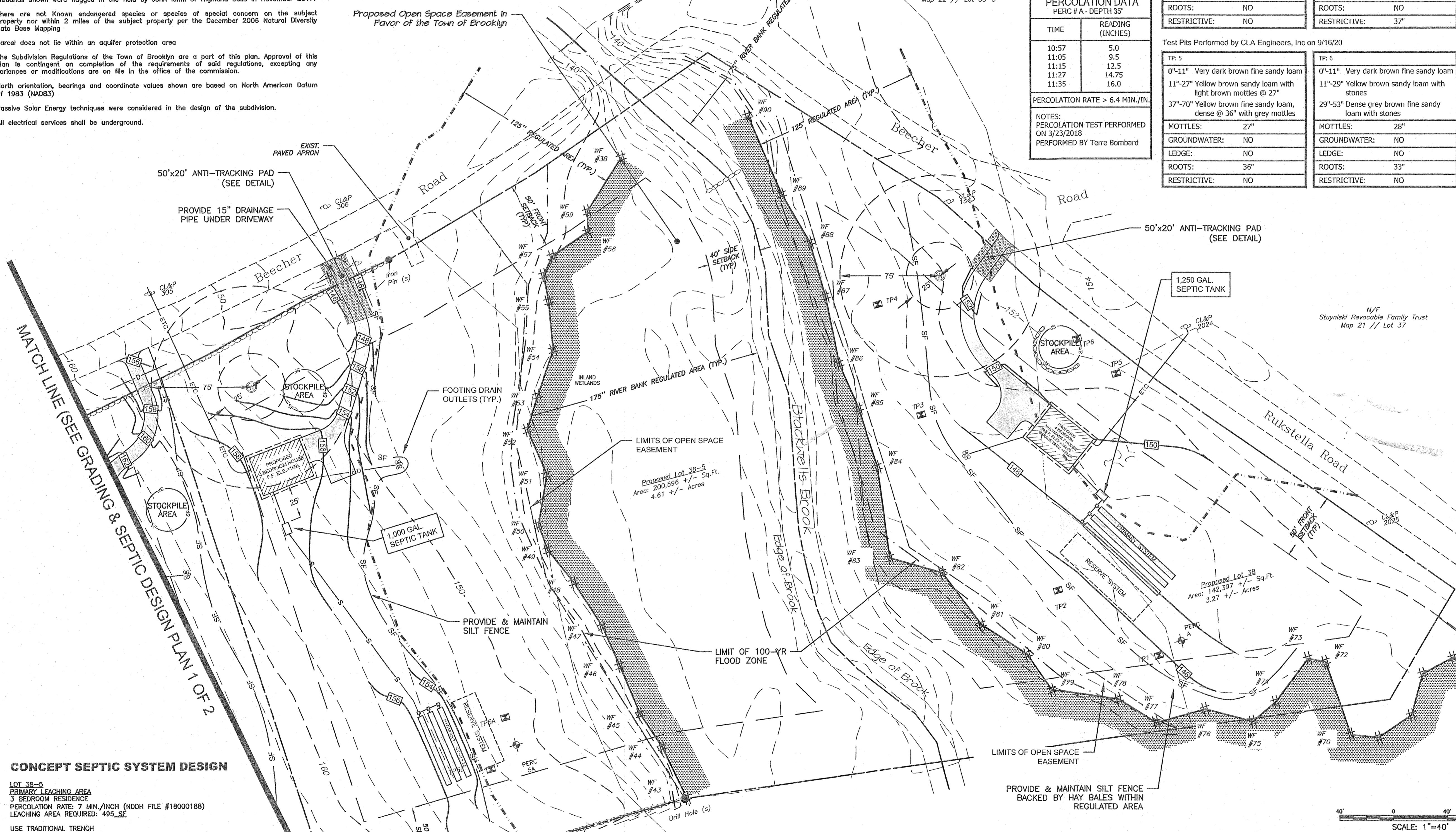
USE TRADITIONAL TRENCH
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
REQUIRED LENGTH = 660 SF / 3 SF/LF = 220 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 27"
SLOPE = 3.1%

HYDRAULIC FACTOR (HF) = 34
FLOW FACTOR (FF) = 2.0
PERCOLATION FACTOR (PF) = 1.0 (UP TO 10.0 MIN./INCH)
MLSS REQUIRED: 34 x 2.0 x 1.00 = 68 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

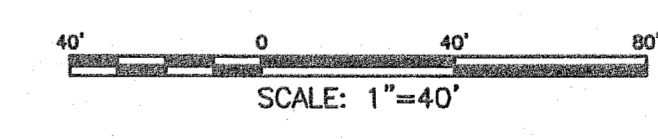
USE TRADITIONAL TRENCH
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
REQUIRED LENGTH = 495 SF / 3 SF/LF = 165 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 28"
SLOPE = 6.1%

HYDRAULIC FACTOR (HF) = 28
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 1.00 (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



ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 778-2240

No.	DATE	REVISION
7	11/04/20	VARIOUS MODIFICATIONS
6	11/02/20	VARIOUS MODIFICATIONS
5	08/04/20	VARIOUS MODIFICATIONS
4	07/09/20	SHEET NO. CHANGES
3	05/19/20	VARIOUS MODIFICATIONS
2	06/16/20	WETLAND FLAGS ADDED
1	06/01/20	VARIOUS MODIFICATIONS

CLA Engineers, Inc.
CIVIL · STRUCTURAL · SURVEYING

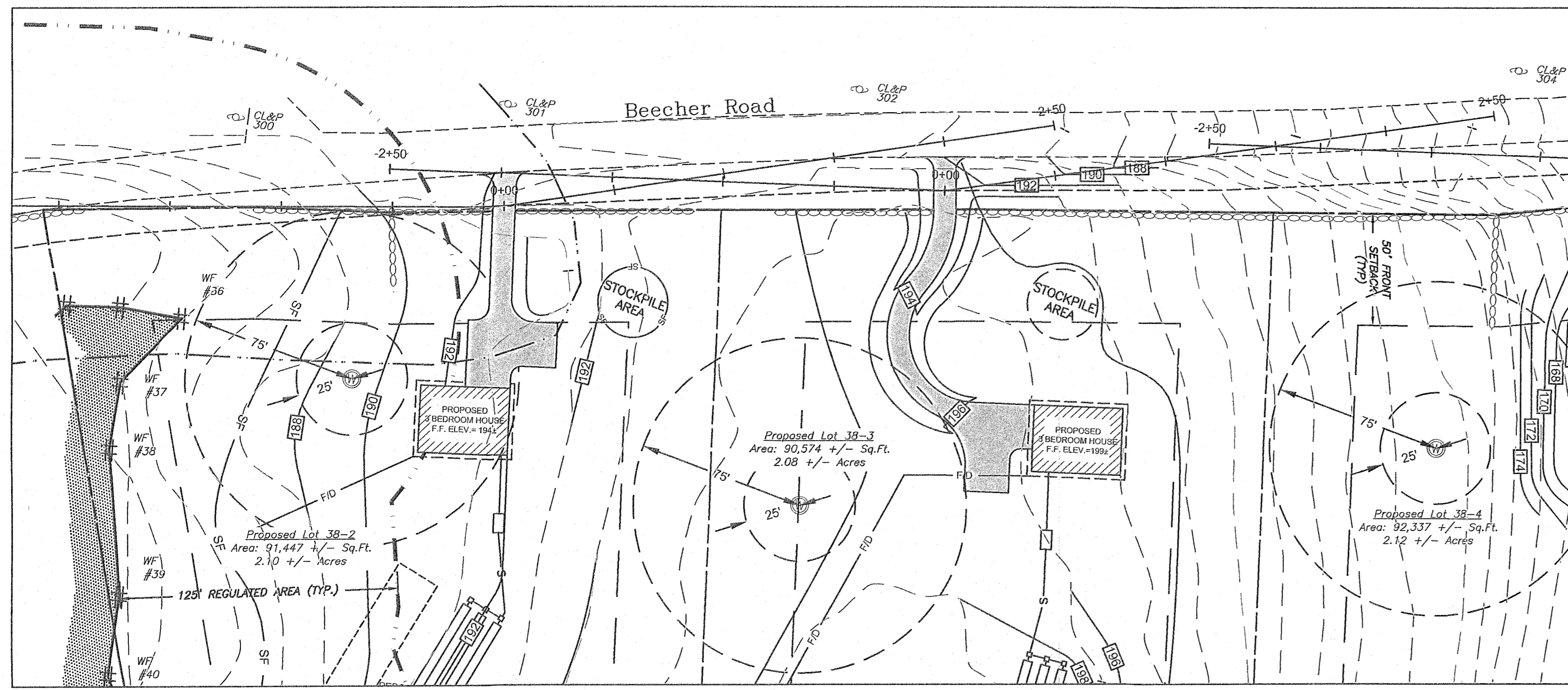
317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

VBL PROPERTIES LLC

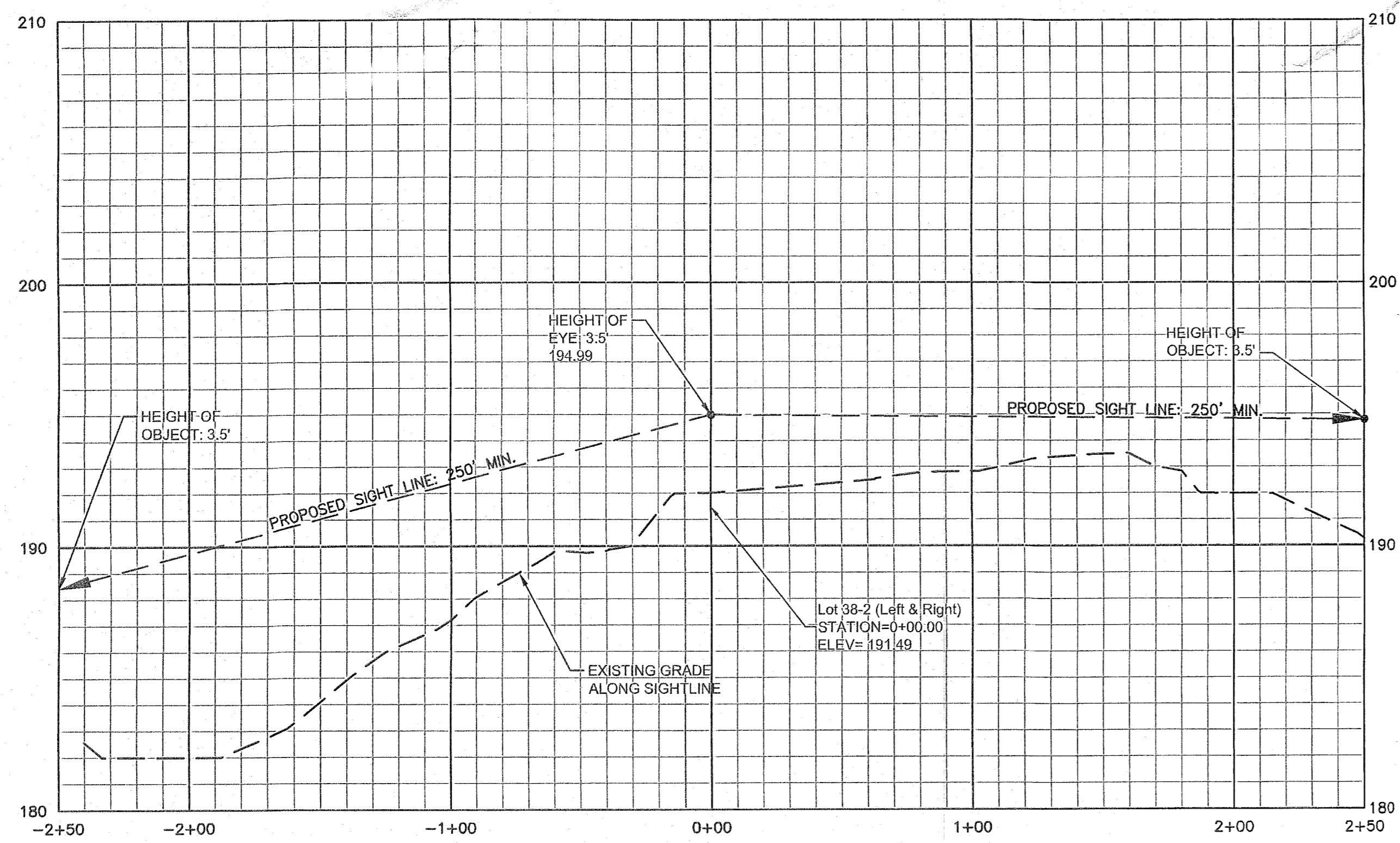
**PROPOSED 5 LOT SUBDIVISION
BEECHER ROAD & RUKSTELLA ROAD
BROOKLYN CT**

GRADING & SEPTIC DESIGN PLAN 2 OF 2

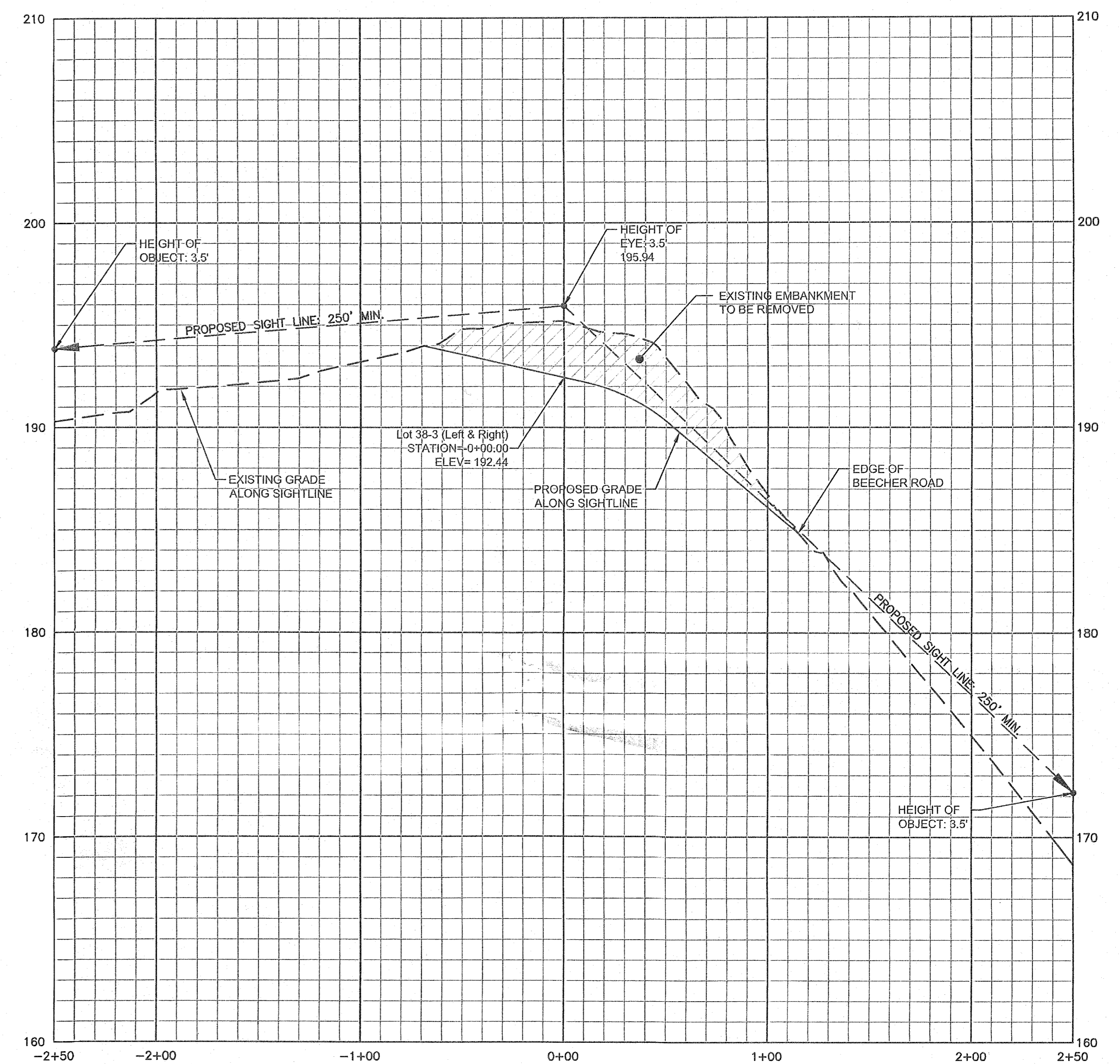
Project No.
CLA-6382
Proj. Engineer
D.H.
Date:
03/18/20
Sheet No.
5 of 9



SCALE: 1"=40'



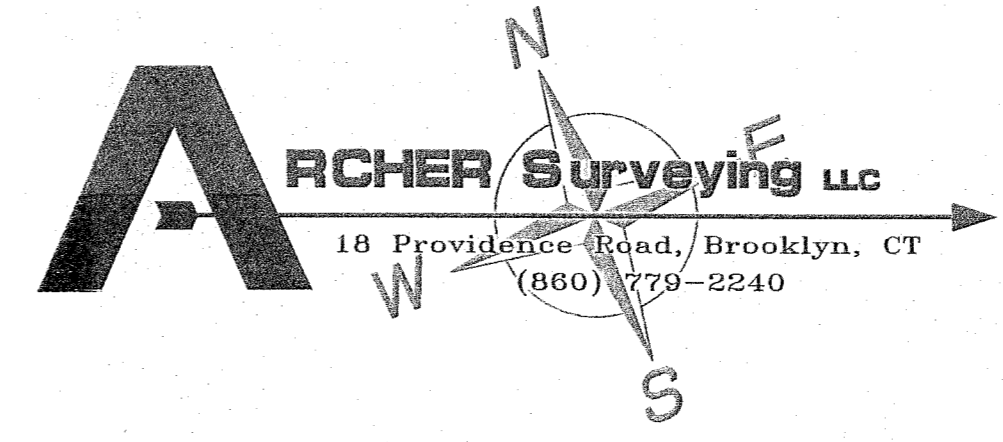
Driveway Lot 38-2 (Left & Right)
Horiz. Scale: 1" = 40'
Vert. Scale: 1" = 4'



Driveway Lot 38-3 (Left & Right)
Horiz. Scale: 1" = 40'
Vert. Scale: 1" = 4'

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

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



7	11/04/20	VARIOUS MODIFICATIONS
6	11/02/20	VARIOUS MODIFICATIONS
5	08/04/20	VARIOUS MODIFICATIONS
4	07/18/20	SHEET NO. CHANGES
3	06/17/20	VARIOUS MODIFICATIONS
2	06/16/20	WETLAND FLAGS ADDED
1	06/01/20	VARIOUS MODIFICATIONS
No.	DATE	REVISION

CLA Engineers, Inc.
Civil • Structural • Surveying
317 Main Street Norwich, CT 06360
(860) 886-1986 Fax (860) 886-9165

VBL PROPERTIES LLC

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

DRIVEWAY SIGHTLINE PLAN & PROFILE

Project No. CLA-6382
Proj. Engineer D.H.
Date: 03/18/20
Sheet No. 6 of 9

EROSION & SEDIMENTATION CONTROL NARRATIVE

- 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.
- 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.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE.
- 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.
- STAKED HAY BALE SILT BARRIERS OR SILT FENCE SHALL BE INSTALLED AROUND ANY TEMPORARY STOCKPILE AREAS. TEMPORARY VEGETATIVE COVER MAY BE REQUIRED (SEE NOTE).
- 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.
- CONTINUOUS DUST CONTROL USING WATER, CALCIUM CHLORIDE OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED ROADWAY SURFACES.
- 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.
- 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.
- WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISHED GRADED SHALL BE COMPLETED PRIOR TO OCTOBER 15.
- 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.
- 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.
- 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.
- 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 ONSITE DURING CONSTRUCTION TO MEET UNEXPECTED EROSION NEEDS

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

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 GLEAT MARKS ARE PARALLEL TO THE CONTOURS.

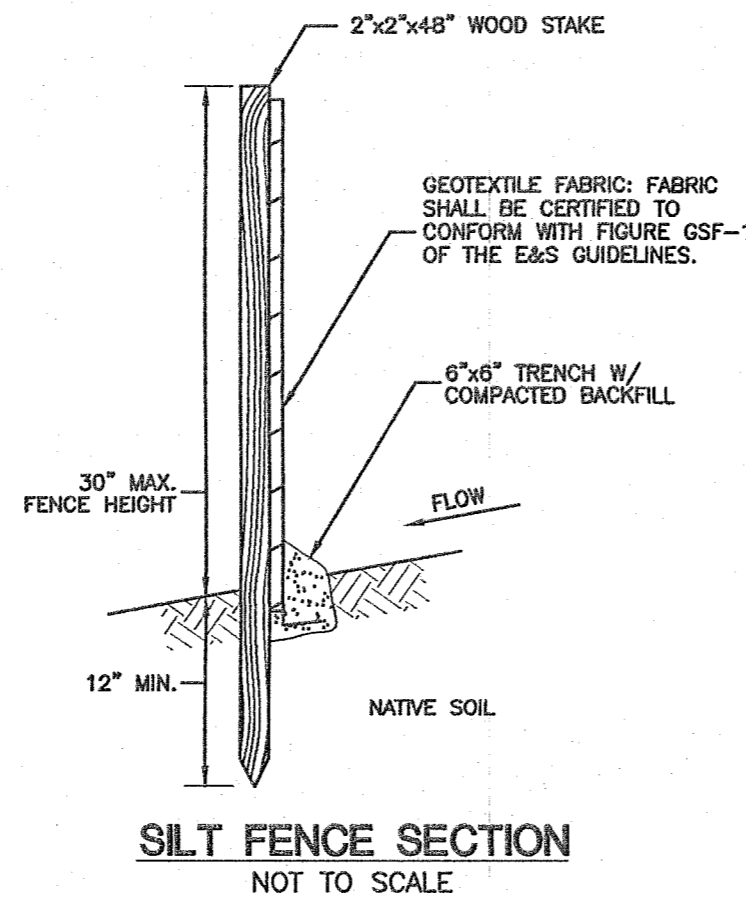
PERMANENT VEGETATIVE COVER

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.

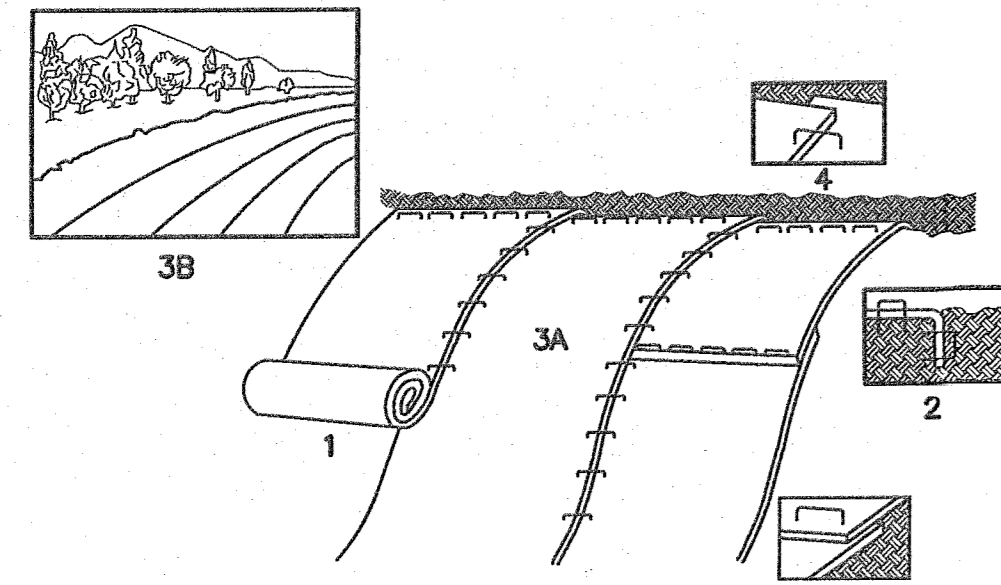
- APPLY AGRICULTURAL GROUND LIMESTONE AT THE RATE OF TWO TONS PER ACRE OR 100 LBS. PER 1000 S.F.
- APPLY 10-10-10 FERTILIZER OR EQUIVALENT AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER 1000 S.F.
- WORK LIMESTONE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES.
- INSPECT SEEDBED BEFORE SEEDING.
-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

TYPICAL SEED MIXTURE

ALL DISTURBED AREAS	LBS./ACRE	LBS./1000 S.F.
KENTUCKY BLUEGRASS	20	0.45
CREeping RED FESCUE	20	0.45
PERENNIAL RYEGRASS	5	0.10
	45	1.00



SILT FENCE SECTION
NOT TO SCALE

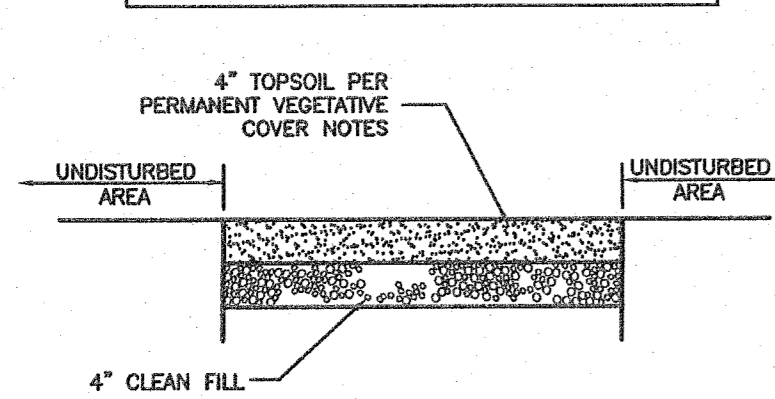


ANTI-TRACKING PAD DETAIL
NOT TO SCALE

- PROVIDE 4\"/>

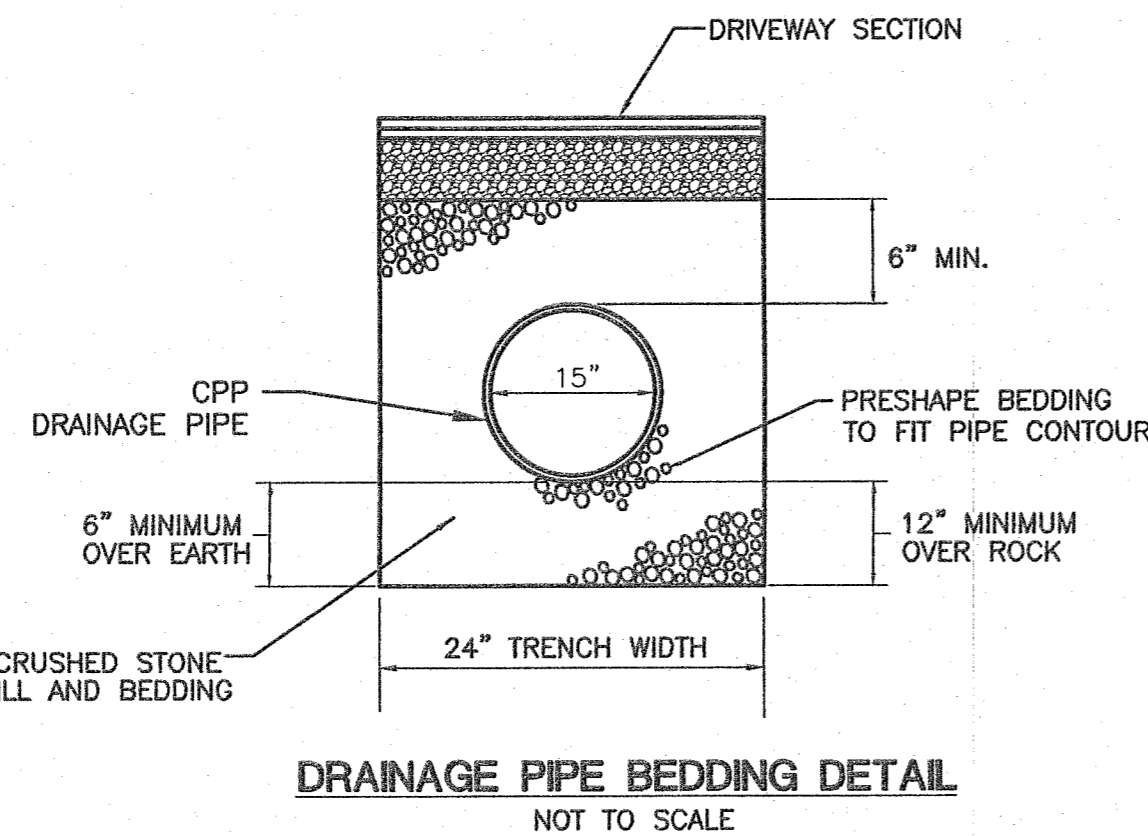
NOTE: ALL PERMANENT EROSION CONTROL BLANKETS ARE TO BE NORTH AMERICAN GREEN BOWEN C1252EN OR APPROVED EQUAL.

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

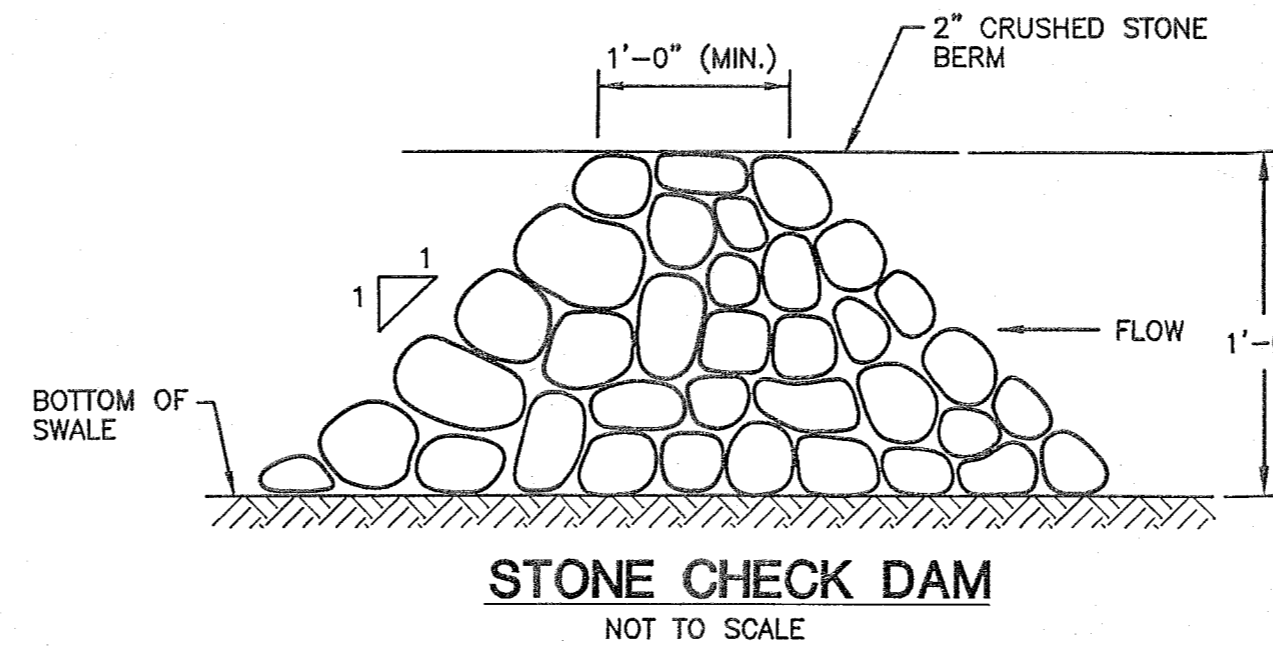


TYPICAL LOAM & SEED SECTION DETAIL (FOR ALL DISTURBED AREAS)

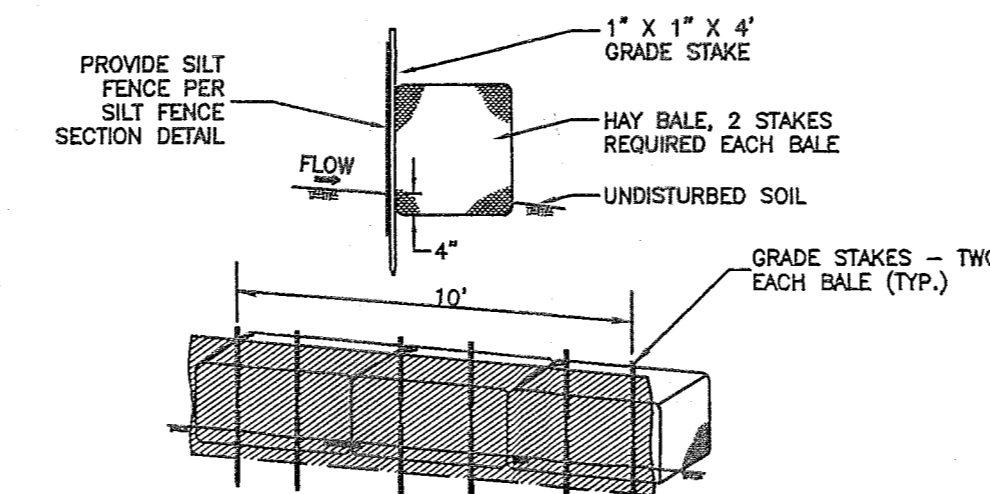
SLOPE STABILIZATION DETAILS
NOT TO SCALE



DRAINAGE PIPE BEDDING DETAIL
NOT TO SCALE

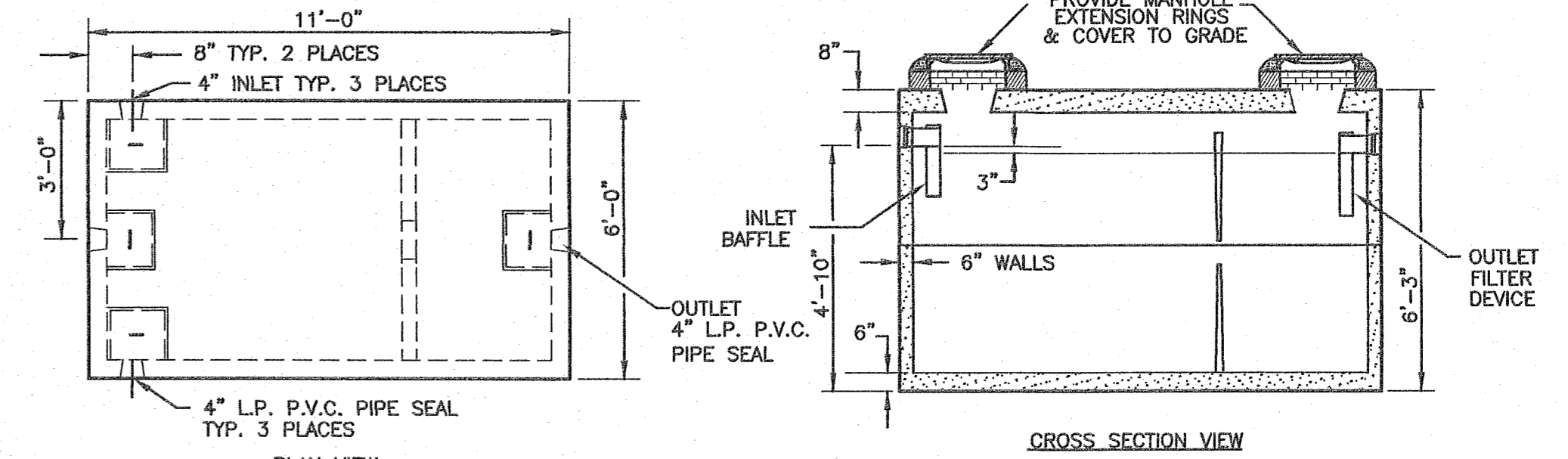


STONE CHECK DAM
NOT TO SCALE

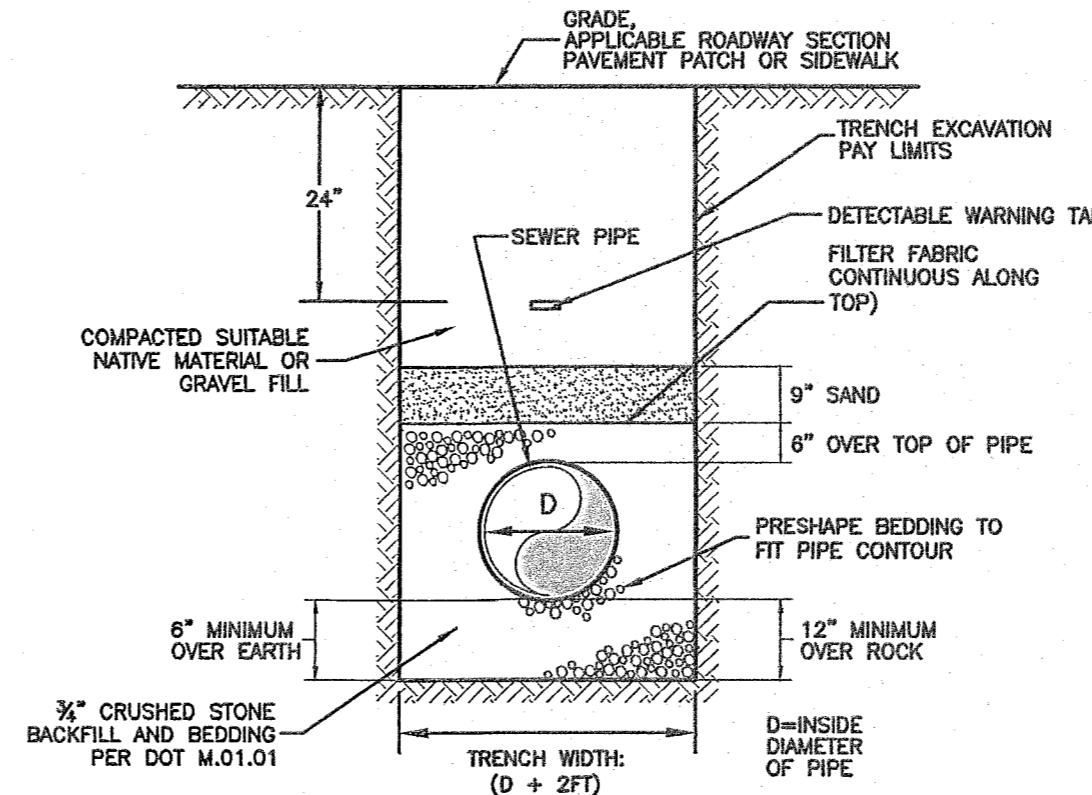


HAY BALE/SILT FENCE EROSION PROTECTION
NOT TO SCALE

- CONSTRUCTION NOTES:**
- SILT FENCE FILTER CLOTH TO BE SECURELY FASTENED TO GRADE STAKE WITH STAPLES, 6\"/>

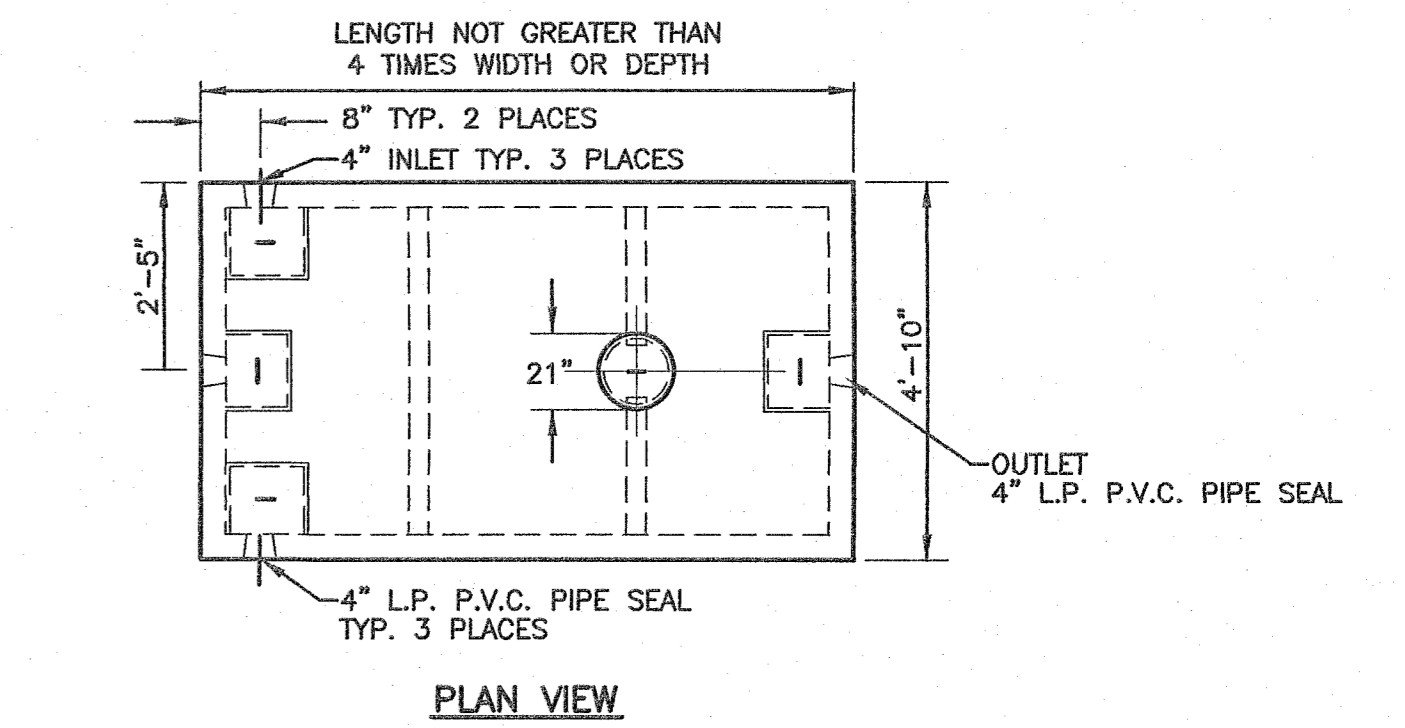


1,250 GALLON SEPTIC TANK
NOT TO SCALE

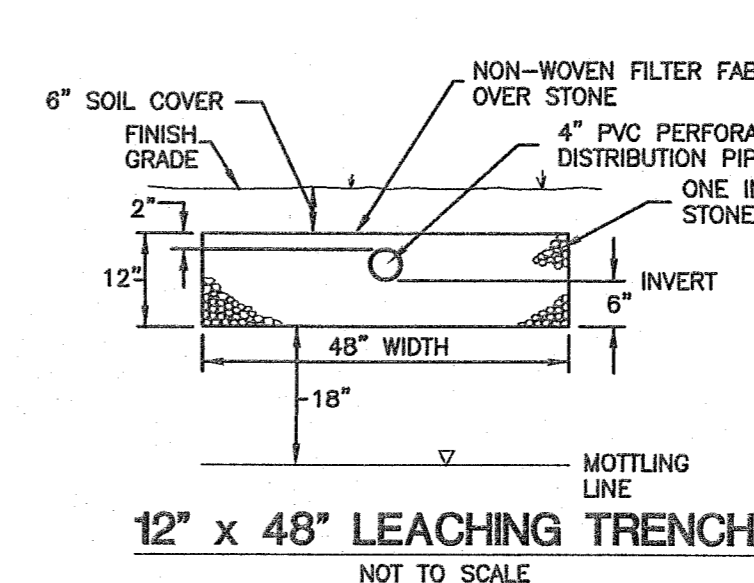
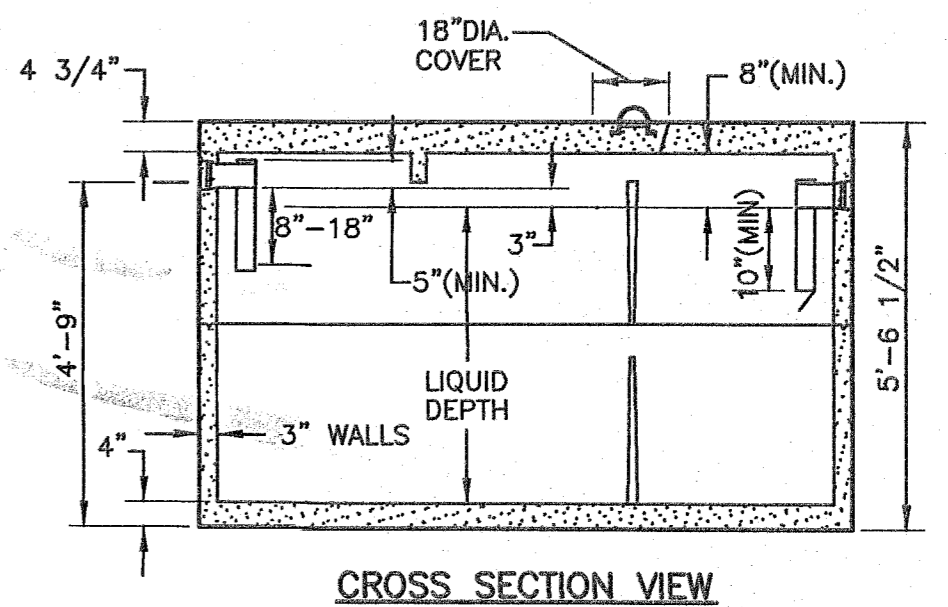


TRENCH DETAIL: SANITARY SEWER PIPE
NOT TO SCALE

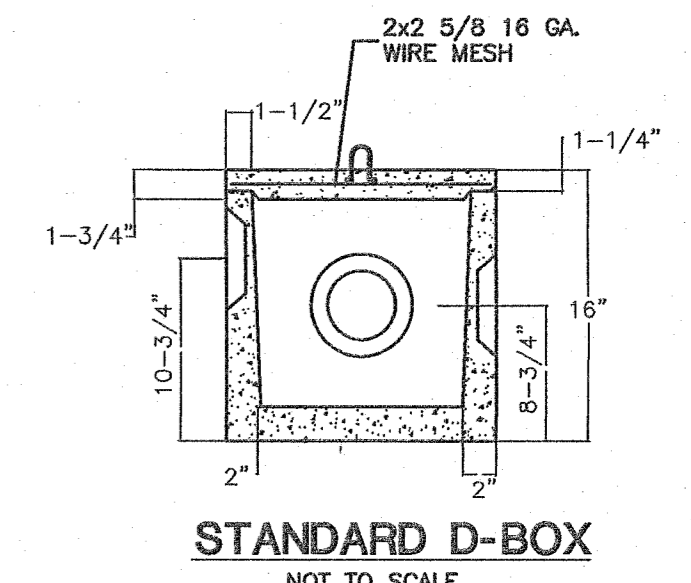
- NOTES:**
- D=INSIDE DIAMETER OF PIPE.
 - TRENCH WIDTHS NOTED ARE SET TO ESTABLISH PAY LIMITS ONLY.
 - ALL EXCAVATIONS MUST MEET OSHA STANDARDS.
 - CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 90% OF THE DRY DENSITY FOR THAT MATERIAL.



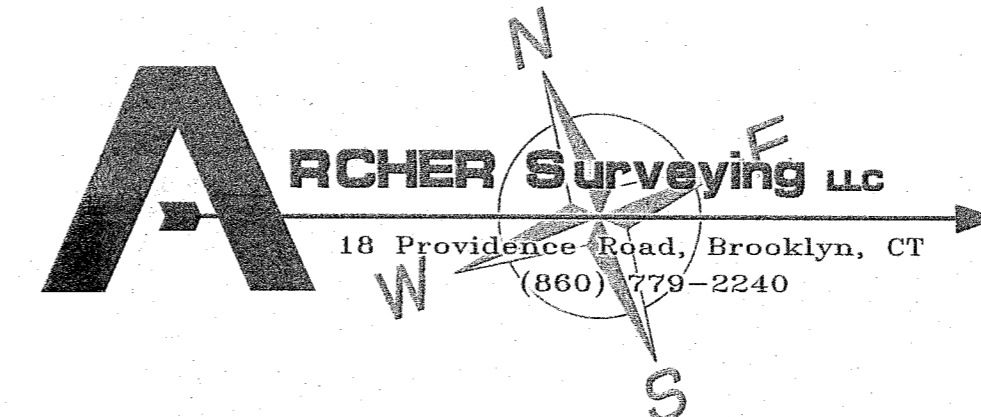
1,000 GALLON SEPTIC TANK
NOT TO SCALE



12' x 48' LEACHING TRENCH
NOT TO SCALE

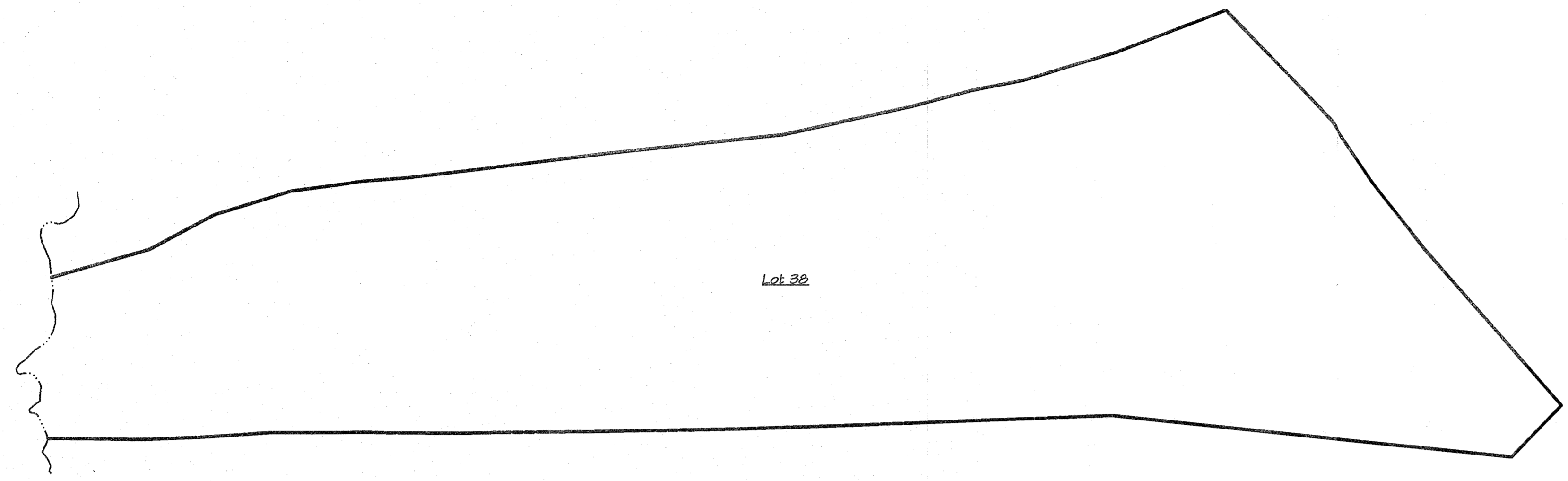


STANDARD D-BOX
NOT TO SCALE

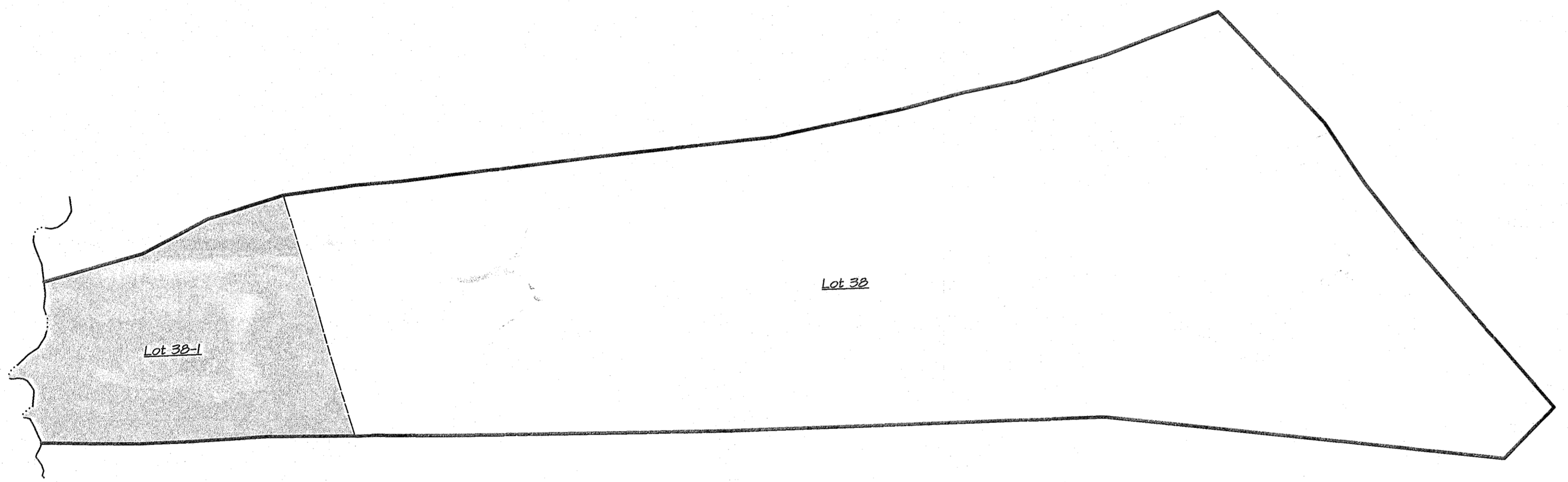


<p>CLA Engineers, Inc. Civil • Structural • Surveying</p> <p>317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165</p>		<p>Project No. CLA-6382</p> <p>Prof. Engineer D.H.</p> <p>Date: 03/18/20</p> <p>Sheet No. 7 of 9</p>
<p>VBL PROPERTIES LLC</p> <p>PROPOSED 5 LOT SUBDIVISION BEECHER ROAD & RUKSTELLA ROAD BROOKLYN CT</p> <p>CONSTRUCTION DETAILS</p>		<p>7 11/04/20 VARIOUS MODIFICATIONS</p> <p>6 11/02/20 VARIOUS MODIFICATIONS</p> <p>5 06/09/20 VARIOUS MODIFICATIONS</p> <p>4 07/08/20 SHEET RE. CHANGES</p> <p>3 06/19/20 VARIOUS MODIFICATIONS</p> <p>2 06/16/20 WELAND FLAGS ADDED</p> <p>1 06/01/20 VARIOUS MODIFICATIONS</p> <p>No. DATE REVISION</p>

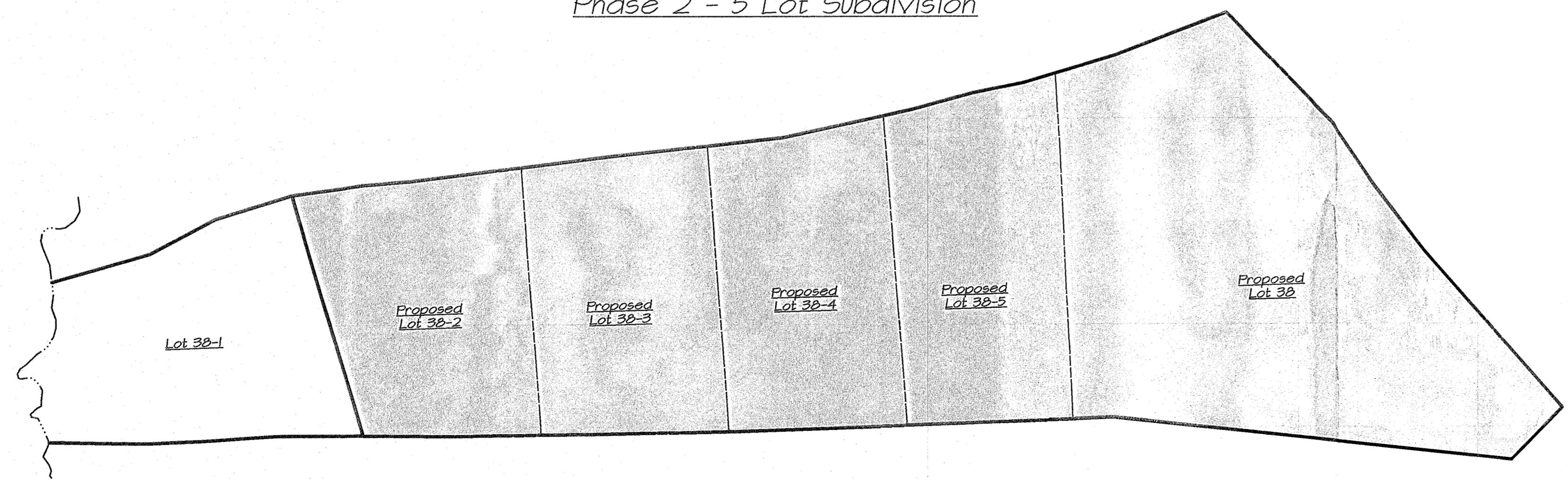
Original Tract



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 Mullaney	September 1993	142 / 211
Bruce Ashworth & Judith Mullaney	Judith Mullaney Trust	January 1999	204 / 263
Judith Mullaney Trust	VBL Properties LLC	October 2016	583 / 259

History Plan
 "Proposed 5 Lot Subdivision"

Prepared For:
VBL Properties LLC
 Beecher Road
 Brooklyn, Connecticut

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

Sheet No. 8 OF 9 Project No. 1500 Date: June 2020



LEGEND

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

Soil Data	
3	Ridgebury, Leicester and Whitman soils, 0 to 8 percent slopes, Extremely stony
13	Wapole sandy loam, 0 to 3 percent slopes
15	Scarboro Muck, 0 to 3 percent slopes
17	Timakwa and Natchaug soils, 0 to 2 percent slopes
38C	Hinckley Loam sand, 3 to 15 percent slopes

38E	Hinckley Loamy Sand, 15 to 45 percent slopes
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes
10B	Saco Silt Loam
701B	Ninigret Fine sandy Loam, 3 to 8 Percent slopes

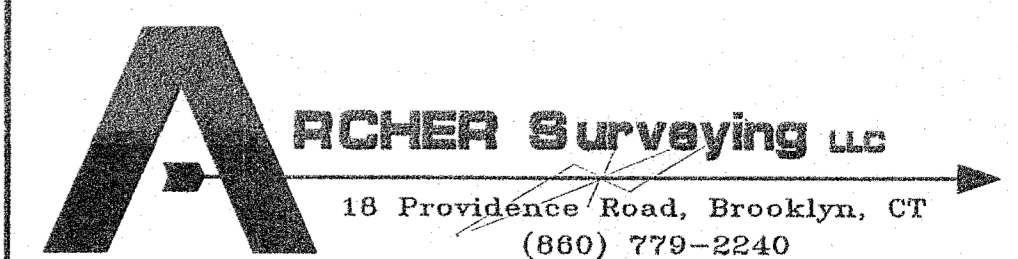
To My Knowledge and Belief this Map is substantially Correct as noted herein.

Paul M. Archer LLS #70013 Date

Site Analysis Plan

Prepared For:
VBL Properties LLC
 Beecher Road
 Brooklyn, Connecticut

DRAWING SCALE: 1"=60' 0 30 60 120



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