

# Proposed Residential Conservation Subdivision

## Roxbury Road East Lyme, Connecticut

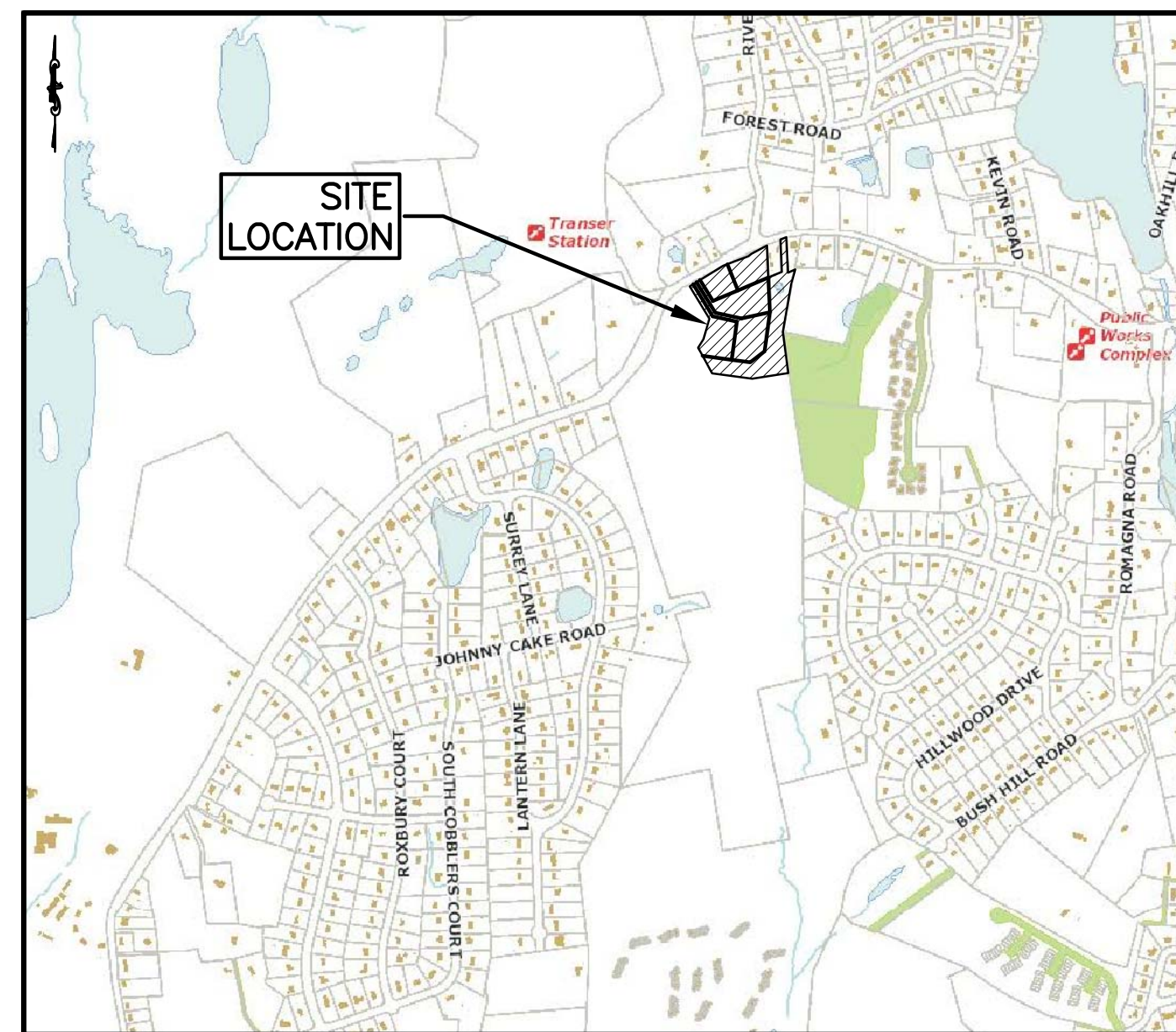
Prepared for  
**Roxbury Road, LLC**  
282 Franklin Street  
Norwich, Connecticut 06360

### PROPERTY OWNER & APPLICANT

PROPERTY OWNER & APPLICANT:  
ROXBURY ROAD, LLC  
282 FRANKLIN STREET  
NORWICH, CT 06360

### LEGEND TO DRAWINGS

EXISTING		PROPOSED
— — — — —	PROPERTY LINE	— — — — —
— — — — —	LOT LINE	— — — — —
— — — — —	CATCH BASIN & CULVERT	— — — — —
— W — — —	WATER MAIN & SERVICE	— W — — —
— G — — —	GAS	— G — — —
— 126 — — —	CONTOUR	— 126 — — —
124.2 x	SPOT ELEVATION	124.2 x
⊙	UTILITY POLE	⊙
— E — — —	ELECTRIC	— E — — —
— T — — —	TELEPHONE	— T — — —
— — — — —	UG ELEC/TELE/CABLE	— — — — —
— — — — —	SILT FENCE	— — — — —
— — — — —	FENCE	— — — — —
— — — — —	RETAINING WALL	— — — — —
— — — — —	STONE WALL	— — — — —
⊕	TEST HOLE	⊕
PERC #	PERCOLATION TEST	PERC #
— — — — —	TREE/SHRUB LINE	— — — — —
— — — — —	INLAND WETLAND LIMITS	— — — — —
— — — — —	INLAND WETLAND REG. AREA	— — — — —
— — — — —	FOOTING DRAIN	— — — — —
— — — — —	SEPTIC SYSTEMS	— — — — —



**LOCATION MAP**  
SCALE: 1"=±1,000'

Revised: August 5, 2021  
Revised: January 27, 2020  
November 25, 2019

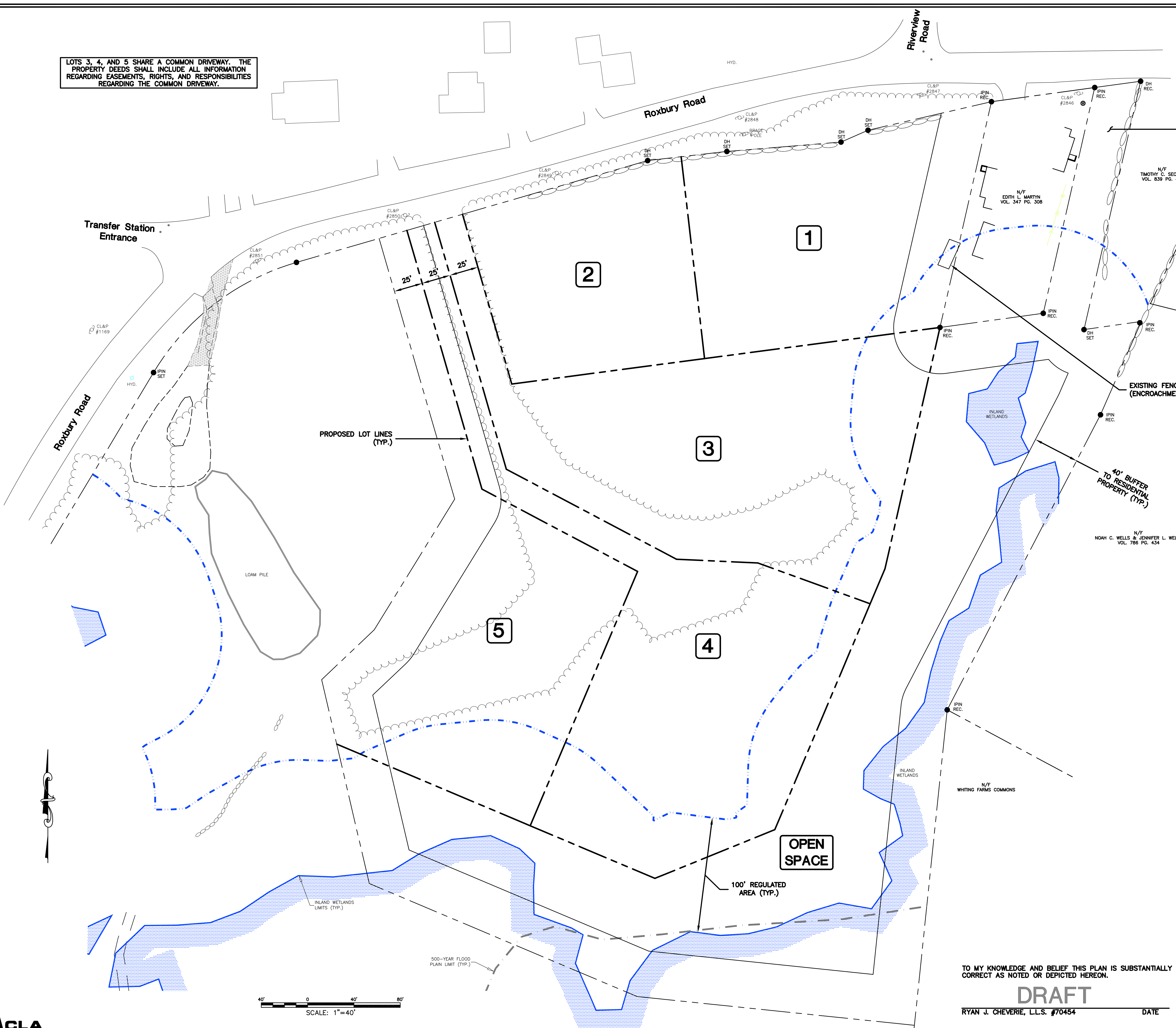
**CLA Engineers, Inc.**  
CIVIL · STRUCTURAL · SURVEYING  
317 Main Street Norwich, CT 06360  
(860) 886-1966 Fax (860) 886-9165

### INDEX TO DRAWINGS

DRAWING NO.	DESCRIPTION OF DRAWINGS
1	Subdivision Map
2	Topographic Map
3	Site Context Map
4	Natural and Cultural Resources and Site Analysis Plan
5	Subdivision Plan of Development
6	Subdivision Grading Plan
7	Septic System & Water Service Plan
8	Soil Testing Data
9	Sight Line Plan & Profiles
10	Common Driveway Plan & Profile
11	Erosion & Sedimentation Control and Landscaping Plan
12	Stormwater Management Plan and Erosion & Sedimentation Control Details
13-14	Construction Details
15	Conventional Subdivision Layout

APPROVED BY THE EAST LYME PLANNING COMMISSION  
CHAIRMAN/SECRETARY: \_\_\_\_\_  
APPROVAL DATE: \_\_\_\_\_  
FILING DEADLINE: \_\_\_\_\_  
EXPIRATION DATE: \_\_\_\_\_

LOTS 3, 4, AND 5 SHARE A COMMON DRIVEWAY. THE PROPERTY DEEDS SHALL INCLUDE ALL INFORMATION REGARDING EASEMENTS, RIGHTS, AND RESPONSIBILITIES REGARDING THE COMMON DRIVEWAY.



**SURVEY NOTES**

**MAP REFERENCES**

**LOT AREA TABLE**

LOT #	AREA (S.F.)	AREA (AC.)
1	41,792±	0.96±
2	30,030±	0.69±
3	58,551±	1.31±
4	51,653±	1.19±
5	46,068±	1.06±
OPEN SPACE	128,083±	2.94±

**OPEN SPACE CALCULATIONS**

OPEN SPACE WILL BE SET ASIDE IN ACCORDANCE WITH THE CONSERVATION DESIGN DEVELOPMENT REGULATIONS SET FORTH IN SECTION 23.6 OF THE ZONING REGULATIONS. THE LOTS ARE LOCATED IN THE RU-40 ZONE AND WILL BE SERVICED BY INDIVIDUAL SEPTIC; 30% OPEN SPACE IS REQUIRED.

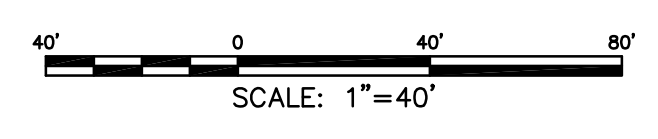
TOTAL SUBDIVISION AREA: 375,160 SF\*  
 OPEN SPACE AREA: 128,083 SF  
 OPEN SPACE PERCENTAGE (30% MIN.): 128,083 / 375,160 = ~~34.1%~~  
 NO MORE THAN 50% OF THE OPEN SPACE SHALL BE WETLANDS OR STEEP SLOPES  
 INLAND WETLANDS: 3,517 + 33,034 + 9,661 = 46,212 SF  
 STEEP SLOPES (25% OR MORE): 755 + 2,522 + 216 + 41 = 3,534 SF  
 TOTAL AREA: 46,212 + 3,534 = 49,746 SF  
 PERCENTAGE: 49,746 / 128,083 = ~~38.8%~~

\* INCLUDES 25' ACCESS STRIPS FOR REAR LOTS THAT ARE NOT INCLUDED IN THE LOT AREA CALCULATION PER ZONING REQUIREMENTS.

APPROVED BY THE EAST LYME PLANNING COMMISSION  
 CHAIRMAN/SECRETARY: \_\_\_\_\_  
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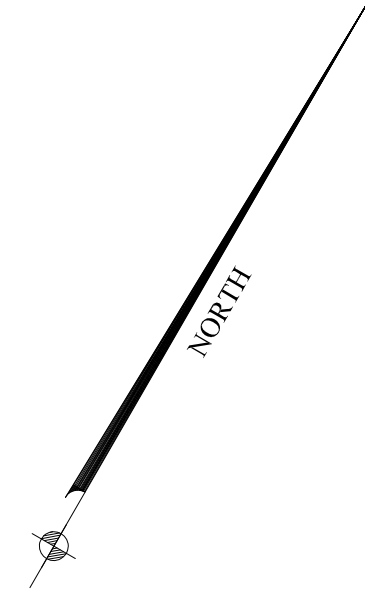
<b>CLA Engineers, Inc.</b> CIVIL · STRUCTURAL · SURVEYING 317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165		Project No. CLA-6359 Proj. Engineer K.J.H. Date: 11/25/19 Sheet No. <b>1</b>
Roxbury Road East Lyme, Connecticut <b>Proposed Residential          Conservation Subdivision</b> Subdivision Map		<b>1</b>

TO MY KNOWLEDGE AND BELIEF THIS PLAN IS SUBSTANTIALLY CORRECT AS NOTED OR DEPICTED HEREON.  
**DRAFT**  
 RYAN J. CHEVERIE, L.L.S. #70454 DATE \_\_\_\_\_



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- NOTES:**
1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. IT IS A PROPERTY SURVEY BASED ON A RESURVEY AND CONFORMS TO HORIZONTAL ACCURACY CLASS A-2.
  2. FOR SUBJECT PROPERTY REFERENCE IS MADE TO THE TOWN OF EAST LYME LAND RECORDS VOLUME 973 - PAGE 413.
  3. TOTAL AREA OF PROPERTY - 2,690,204 SQUARE FEET± (61.76 ACRES±).
  4. TOPOGRAPHIC INFORMATION CONFORMS TO T-2 MAPPING STANDARDS. BASE FOR LEVELS: APPROXIMATE N.A.V.D. 1988.
  5. LIMITS OF INLAND WETLANDS SHOWN WERE DELINEATED BY MARK H. SULLIVAN, C.P.S.S.



**LEGEND:**

VOL.	VOLUME
PG.	PAGE
N/F	NOW OR FORMERLY
S.F.	SQUARE FEET
DH	DRILL HOLE
IP	IRON PIPE
IPIN	IRON PIN
REC.	RECOVERED
CB	CATCH BASIN
CL&P	CONNECTICUT LIGHT & POWER
---	EXISTING CONTOUR

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. THIS MAP IS NOT VALID WITHOUT A LIVE SIGNATURE AND THE EMBOSSED SEAL OF THE SURVEYOR HEREON.

RICHARD A. DESCHAMPS L.S.#7019 DATE

PROJECT NO.	17-078
DRAWN BY:	R.A.D.
DATE:	6/22/17
SCALE:	1"=60'
SHEET	1 OF 1

REVISIONS	

TOPOGRAPHIC MAP  
PREPARED FOR

**ROXBURY ROAD, LLC**

ROXBURY ROAD  
EAST LYME, CONNECTICUT

---

**ADVANCED SURVEYS, LLC.**  
25 Apple Lane, Colchester CT. 06415  
Phone & Fax (860) 267-5979

M:\6000\6300\6359 Roxbury Road Subdivision\Drawings\6359 Roxbury Road Subdivision - Sheet 02 - Topo Advanced Survey.dwg



**WETLAND SOIL TYPES**

THE AREA IS GENERALLY COMPOSED OF THE FOLLOWING SOIL TYPES:

- 3 RIDGEBURY, LEICESTER, AND WHITMAN SOILS, 0 TO 8 PERCENT SLOPES, EXTREMELY STONY
- 15 SCARBORO MUCK, 0 TO 3 PERCENT SLOPES
- W WATER

SOIL TYPE BOUNDARY

**NOTES**

1. AERIAL PHOTOGRAPHY IS THE 2016 CTECO ORTHOPHOTOGRAPHY.
2. CONTOURS ARE THE 2016 CT LIDAR.
4. OFFSITE PROPERTY LINES ARE BASED ON ASSESSORS DATA.

APPROVED BY THE EAST LYME PLANNING COMMISSION  
 CHAIRMAN/SECRETARY: \_\_\_\_\_  
 APPROVAL DATE: \_\_\_\_\_  
 FILING DEADLINE: \_\_\_\_\_  
 EXPIRATION DATE: \_\_\_\_\_

		<b>CLA Engineers, Inc.</b> CIVIL • STRUCTURAL • SURVEYING	
		317 Main Street Norwich, CT 06360 (860) 866-1966 Fax (860) 866-9165	
No.	DATE	REVISION	
2	8/5/2021	Misc. Revisions for Planning Submittal	Project No. CLA-6359 Proj. Engineer K.J.H. Date: 11/25/19 Sheet No. <b>3</b>
1	1/27/2020	Misc. Additions & Revisions for Submittal	
Roxbury Road East Lyme, Connecticut			
<b>Proposed Residential Conservation Subdivision</b>			
Site Context Map			

SCALE: 1"=200'



**SOIL TYPES**

THE AREA IS GENERALLY COMPOSED OF THE FOLLOWING SOIL TYPES:

- 3\* RIDGEBURY, LEICESTER, AND WHITMAN SOILS, 0 TO 8 PERCENT SLOPES, EXTREMELY STONY
- 15\* SCARBORO MUCK, 0 TO 3 PERCENT SLOPES
- 29B AGAWAM FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES
- 73C CHARLTON-CHATFIELD COMPLEX, 0 TO 15 PERCENT SLOPES, VERY ROCKY
- 75E HOLLIS-CHATFIELD-ROCK OUTCROP COMPLEX, 15 TO 45 PERCENT SLOPES
- 76E ROCK OUTCROP-HOLLIS COMPLEX, 3 TO 45 PERCENT SLOPES
- 302 DUMPS
- 701A NINGRET FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES
- W WATER

\* TYPICAL WETLAND SOIL COMPLEX

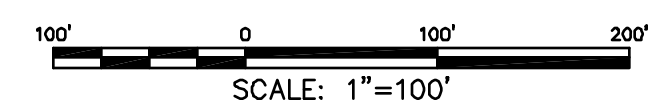
SOIL TYPE BOUNDARY

**NOTES**

1. AERIAL PHOTOGRAPHY IS THE 2016 CTECO ORTHOPHOTOGRAPHY.
2. ONSITE CONTOURS ARE BASED ON FIELD SURVEY.
3. OFFSITE CONTOURS ARE THE 2016 CT LIDAR.
4. OFFSITE PROPERTY LINES ARE BASED ON ASSESSORS DATA.

APPROVED BY THE EAST LYME PLANNING COMMISSION  
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<b>CLA Engineers, Inc.</b> CIVIL • STRUCTURAL • SURVEYING		317 Main Street Norwich, CT 06360 (860) 866-1966 Fax (860) 866-9165			
No.	DATE	REVISION	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"> <b>Roxbury Road</b>            East Lyme, Connecticut  <b>Proposed Residential</b>  <b>Conservation Subdivision</b>            Natural and Cultural Resources and            Site Analysis Plan         </td> <td style="width: 50%; text-align: center;">           Project No.            CLA-6359            Proj. Engineer            K.J.H.            Date:            11/25/19            Sheet No.  <span style="font-size: 2em; font-weight: bold;">4</span> </td> </tr> </table>	<b>Roxbury Road</b> East Lyme, Connecticut <b>Proposed Residential</b> <b>Conservation Subdivision</b> Natural and Cultural Resources and Site Analysis Plan	Project No. CLA-6359 Proj. Engineer K.J.H. Date: 11/25/19 Sheet No. <span style="font-size: 2em; font-weight: bold;">4</span>
<b>Roxbury Road</b> East Lyme, Connecticut <b>Proposed Residential</b> <b>Conservation Subdivision</b> Natural and Cultural Resources and Site Analysis Plan	Project No. CLA-6359 Proj. Engineer K.J.H. Date: 11/25/19 Sheet No. <span style="font-size: 2em; font-weight: bold;">4</span>				
2 8/5/2021 Misc. Revisions for Planning Submittal					
1 1/27/2020 Misc. Additions & Revisions for Submittal					



LOTS 3, 4, AND 5 SHARE A COMMON DRIVEWAY. THE PROPERTY DEEDS SHALL INCLUDE ALL INFORMATION REGARDING EASEMENTS, RIGHTS, AND RESPONSIBILITIES REGARDING THE COMMON DRIVEWAY.

PROVIDE 12' WIDE BITUMINOUS CONCRETE COMMON DRIVEWAY

PROVIDE 10' WIDE BITUMINOUS CONCRETE DRIVEWAY

PROVIDE 10' WIDE BITUMINOUS CONCRETE DRIVEWAY

PROTECT EXISTING STONE WALL FROM DAMAGE DURING CONSTRUCTION. RESTORE ANY SECTIONS DISTURBED DURING CONSTRUCTION.

REMOVE PORTION OF STONE WALL FOR DRIVEWAY CONSTRUCTION

PROVIDE TEMPORARY AND PERMANENT TRENCH REPAIR OVER UNDERGROUND UTILITY CROSSINGS (TYP.)

PROVIDE UNDERGROUND ELECTRICAL, TELEPHONE AND CABLE SERVICES (TYP.)

PROVIDE 20'x20' CRUSHED STONE TURN-AROUND

PROPOSED LOT LINES (TYP.)

FEASIBLE HOUSE LOCATIONS 30'x40' HOUSE WITH 24'x24' GARAGE (TYP.)

PROVIDE PLACARDS ALONG THE 100' REGULATED AREA AT ±50' O.C. IN ACCORDANCE WITH THE INLAND WETLANDS CONDITIONS OF APPROVAL (TYP.)

INLAND WETLANDS WITHIN OPEN SPACE: ±9,661 SF

SCALE: 1"=40'



Roxbury Road

Roxbury Road

Riverview Road

Transfer Station Entrance

OPEN SPACE ACCESS TO ROXBURY ROAD

EXISTING FENCE/PEN (ENCROACHMENT)  
STEEP SLOPE WITHIN OPEN SPACE: ±755 SF  
INLAND WETLANDS WITHIN OPEN SPACE: ±3,517 SF

40' BUFFER TO RESIDENTIAL PROPERTY (TYP.)

STEEP SLOPE WITHIN OPEN SPACE: ±2,522 SF

PROPOSED TREE LINE AND CLEARING LIMITS (TYP.)

STEEP SLOPE WITHIN OPEN SPACE: ±216 SF

INLAND WETLANDS WITHIN OPEN SPACE: ±33,034 SF

OPEN SPACE

100' REGULATED AREA (TYP.)

**DEVELOPMENT STANDARDS & CONTROLS**

Zone: Rural District (RU-40) / Conservation Design Development					
ITEM	REQUIRED	LOT 1	LOT 2	LOT 3	LOT 4 LOT 5
FRONT YARD SETBACK	10'	±53'	±66'	±36'	±52' ±41'
REAR YARD SETBACK	30'	±87'	±62'	±71'	N.A. N.A.
REAR YARD SETBACK (PERIMETER)	50'	N.A.	N.A.	N.A.	±161' ±158'
SIDE YARD SETBACK	15'	±109'	±24'	±117'	±71' ±30'
SIDE YARD SETBACK (PERIMETER)	50'	±59'	N.A.	±182'	±72' ±72'
LOT COVERAGE	25%	±4.2%	±5.9%	±3.1%	±3.3% ±3.9%
BUILDING SETBACK TO WETLANDS	100'	±144'	±333'	±221'	±137' ±189'

**OPEN SPACE CALCULATIONS**

OPEN SPACE WILL BE SET ASIDE IN ACCORDANCE WITH THE CONSERVATION DESIGN DEVELOPMENT REGULATIONS SET FORTH IN SECTION 23.6 OF THE ZONING REGULATIONS. THE LOTS ARE LOCATED IN THE RU-40 ZONE AND WILL BE SERVICED BY INDIVIDUAL SEPTIC; 30% OPEN SPACE IS REQUIRED.

TOTAL SUBDIVISION AREA: 375,160 SF\*  
 OPEN SPACE AREA: 128,083 SF  
 OPEN SPACE PERCENTAGE (30% MIN.): 128,083 / 375,160 = 34.1%

NO MORE THAN 50% OF THE OPEN SPACE SHALL BE WETLANDS OR STEEP SLOPES

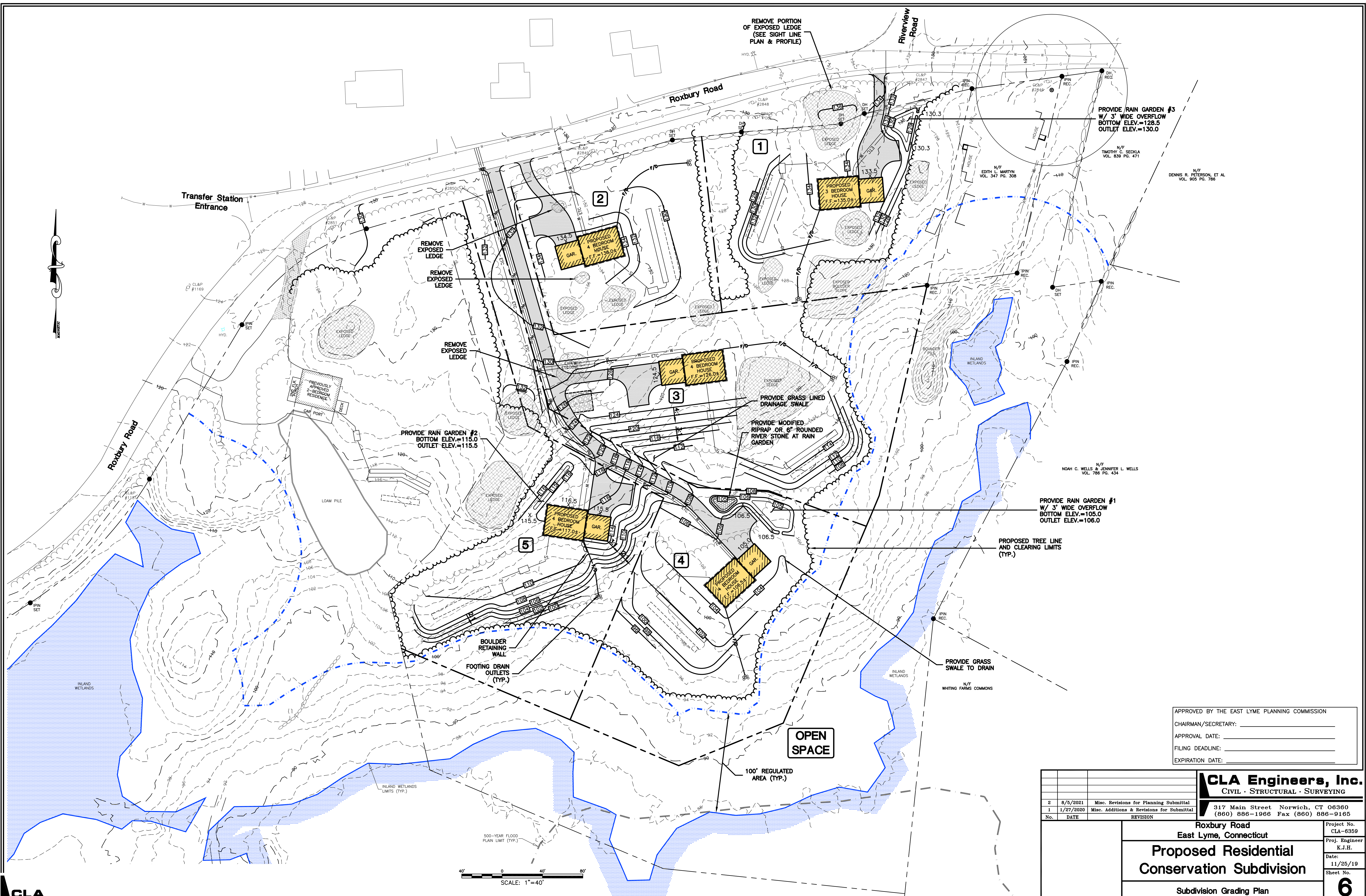
INLAND WETLANDS: 3,517 + 33,034 + 9,661 = 46,212 SF  
 STEEP SLOPES (25% OR MORE): 755 + 2,522 + 216 + 41 = 3,534 SF  
 TOTAL AREA: 46,212 + 3,534 = 49,746 SF  
 PERCENTAGE: 49,746 / 128,083 = 38.8%

\* INCLUDES 25' ACCESS STRIPS FOR REAR LOTS THAT ARE NOT INCLUDED IN THE LOT AREA CALCULATION PER ZONING REQUIREMENTS.

APPROVED BY THE EAST LYME PLANNING COMMISSION  
 CHAIRMAN/SECRETARY: \_\_\_\_\_  
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<p><b>CLA Engineers, Inc.</b>          CIVIL · STRUCTURAL · SURVEYING</p>		<p>317 Main Street Norwich, CT 06360          (860) 886-1966 Fax (860) 886-9165</p>
<p>2 8/6/2021 Misc. Revisions for Planning Submittal</p>	<p>1 1/27/2020 Misc. Additions &amp; Revisions for Submittal</p>	<p>Project No. CLA-6359          Proj. Engineer K.J.H.          Date: 11/25/19          Sheet No. 5</p>
<p>Roxbury Road          East Lyme, Connecticut</p>		<p>Subdivision Plan of Development</p>
<p><b>Proposed Residential Conservation Subdivision</b></p>		<p>5</p>

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REMOVE PORTION OF EXPOSED LEDGE (SEE SIGHT LINE PLAN & PROFILE)

PROVIDE RAIN GARDEN #3  
W/ 3' WIDE OVERFLOW  
BOTTOM ELEV.=128.5  
OUTLET ELEV.=130.0

Transfer Station Entrance

REMOVE EXPOSED LEDGE

REMOVE EXPOSED LEDGE

PROVIDE RAIN GARDEN #2  
BOTTOM ELEV.=115.0  
OUTLET ELEV.=115.5

PROVIDE GRASS LINED DRAINAGE SWALE

PROVIDE MODIFIED RIPRAP OR 6" ROUNDED RIVER STONE AT RAIN GARDEN

PROVIDE RAIN GARDEN #1  
W/ 3' WIDE OVERFLOW  
BOTTOM ELEV.=105.0  
OUTLET ELEV.=106.0

PROPOSED TREE LINE AND CLEARING LIMITS (TYP.)

PROVIDE GRASS SWALE TO DRAIN

BOULDER RETAINING WALL

FOOTING DRAIN OUTLETS (TYP.)

OPEN SPACE

100' REGULATED AREA (TYP.)

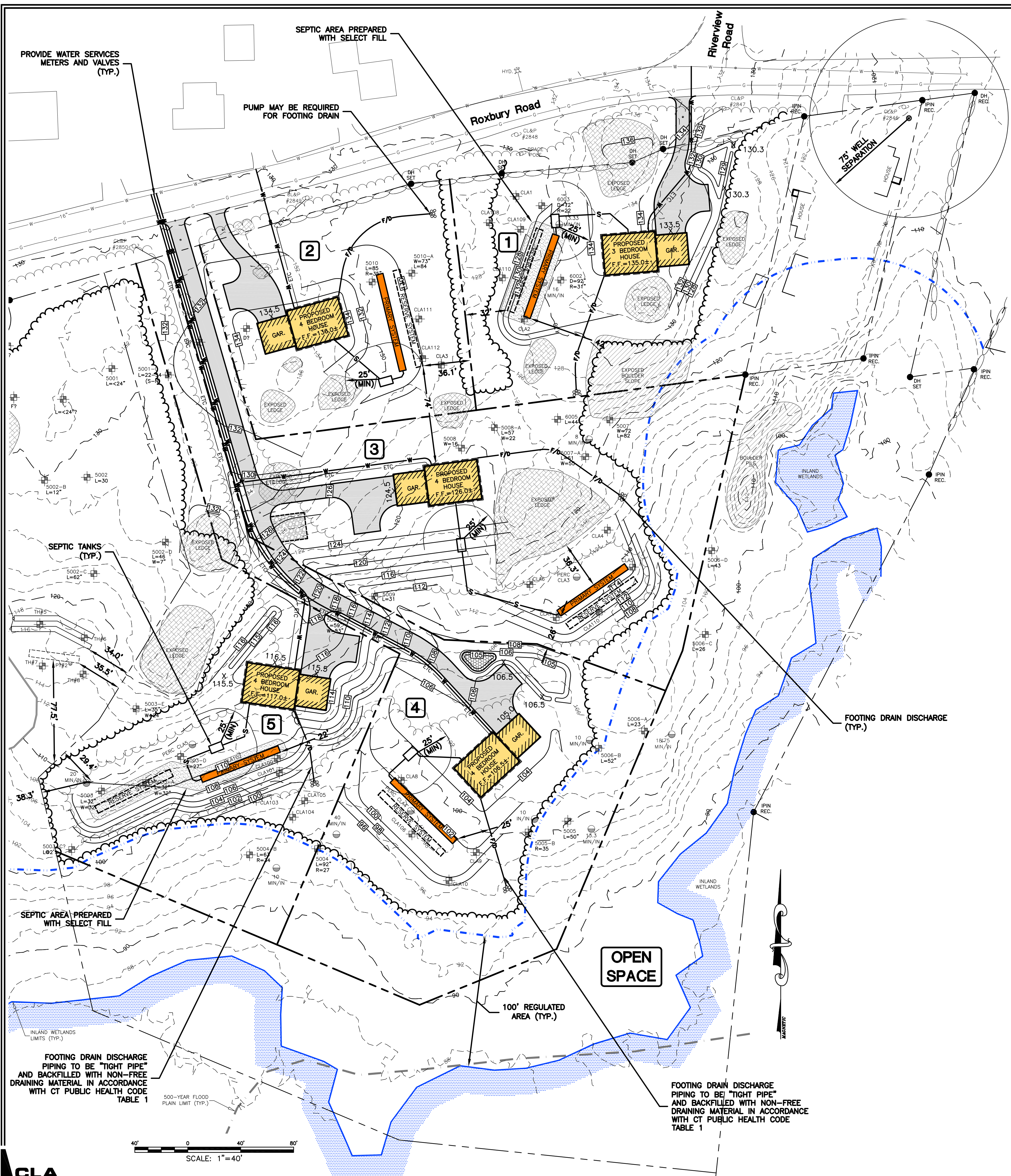
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1	1/27/2020	Misc. Additions & Revisions for Submittal	
No.	DATE	REVISION	
<p>Roxbury Road East Lyme, Connecticut</p> <p><b>Proposed Residential Conservation Subdivision</b></p> <p>Subdivision Grading Plan</p>			

SCALE: 1"=40'

CLA

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**SEPTIC SYSTEM DESIGNS**

**LOT 1**  
 PRIMARY LEACHING AREA  
 3 BEDROOM RESIDENCE  
 PERCOLATION RATE: 16 MIN./INCH (PFANNER PERC)  
 LEACHING AREA REQUIRED: 787.5 SF

USE GEOMATRIX GST 6218  
 EFFECTIVE LEACHING AREA OF GST 6218 = 14.0 SF/LF  
 REQUIRED LENGTH = 675 SF / 14.0 SF/LF = 48.2 LF

MLSS CALCULATION  
 HYDRAULIC FACTORS  
 DEPTH TO RESTRICTIVE LAYER:  
 A = 18" B = 18" RS DEPTH = 18"  
 SLOPE: 2.5 VF / 25 LF = 10%  
 HYDRAULIC FACTORS (HF) = 30  
 FLOW FACTORS  
 3 BEDROOM HOUSE: FF = 1.5  
 PF = 1.25 (10.1 TO 20.0 MIN./INCH)  
 MLSS REQUIRED: 30 x 1.5 x 1.25 = 45.8 LF

PROPOSED SYSTEM  
 USE 1 ROWS OF 66 LF  
 LEACHING AREA PROVIDED = 924 SF

RESERVE LEACHING AREA  
 USE SAME AS PRIMARY SYSTEM

**LOT 2**  
 PRIMARY LEACHING AREA  
 4 BEDROOM RESIDENCE  
 PERCOLATION RATE: 15-20 MIN./INCH  
 LEACHING AREA REQUIRED: 787.5 SF

USE GEOMATRIX GST 6218  
 EFFECTIVE LEACHING AREA OF GST 6218 = 14.0 SF/LF  
 REQUIRED LENGTH = 787.5 SF / 14.0 SF/LF = 56.25 LF

MLSS CALCULATION  
 HYDRAULIC FACTORS  
 DEPTH TO RESTRICTIVE LAYER:  
 A = 35" B = 35" RS DEPTH = 35"  
 SLOPE: 2 VF / 70 LF = 2.8%  
 HYDRAULIC FACTORS (HF) = 34  
 FLOW FACTORS  
 4 BEDROOM HOUSE: FF = 1.75  
 PF = 1.25 (10.1 TO 20.0 MIN./INCH)  
 MLSS REQUIRED: 34 x 1.75 x 1.25 = 74.4 LF

PROPOSED SYSTEM  
 USE 1 ROWS OF 75 LF  
 LEACHING AREA PROVIDED = 1,050 SF

RESERVE LEACHING AREA  
 USE SAME AS PRIMARY SYSTEM

**LOT 3**  
 PRIMARY LEACHING AREA  
 4 BEDROOM RESIDENCE  
 PERCOLATION RATE: 5 MIN./INCH  
 LEACHING AREA REQUIRED: 577.5 SF

USE GEOMATRIX GST 6212  
 EFFECTIVE LEACHING AREA OF GST 6212 = 10.0 SF/LF  
 REQUIRED LENGTH = 577.5 SF / 10.0 SF/LF = 57.8 LF

MLSS CALCULATION  
 HYDRAULIC FACTORS  
 DEPTH TO RESTRICTIVE LAYER:  
 A = 35" B = 35" RS DEPTH = 35"  
 SLOPE: 4 VF / 70 LF = 5.7%  
 HYDRAULIC FACTORS (HF) = 28  
 FLOW FACTORS  
 4 BEDROOM HOUSE: FF = 1.75  
 PF = 1.0 (UP TO 10.0 MIN./INCH)  
 MLSS REQUIRED: 28 x 1.75 x 1.0 = 49 LF

PROPOSED SYSTEM  
 USE 1 ROWS OF 60 LF  
 LEACHING AREA PROVIDED = 600 SF

RESERVE LEACHING AREA  
 USE SAME AS PRIMARY SYSTEM

**LOT 4**  
 PRIMARY LEACHING AREA  
 4 BEDROOM RESIDENCE  
 PERCOLATION RATE: 20 MIN./INCH  
 LEACHING AREA REQUIRED: 787.5 SF

USE GEOMATRIX GST 6218  
 EFFECTIVE LEACHING AREA OF GST 6218 = 14.0 SF/LF  
 REQUIRED LENGTH = 787.5 SF / 14.0 SF/LF = 56.3 LF

MLSS CALCULATION  
 HYDRAULIC FACTORS  
 DEPTH TO RESTRICTIVE LAYER:  
 A = 23" B = 23" RS DEPTH = 23"  
 SLOPE: 4 VF / 53 LF = 7.5%  
 HYDRAULIC FACTORS (HF) = 30  
 FLOW FACTORS  
 4 BEDROOM HOUSE: FF = 1.75  
 PF = 1.25 (10.1 TO 20.0 MIN./INCH)  
 MLSS REQUIRED: 30 x 1.75 x 1.25 = 65.6 LF

PROPOSED SYSTEM  
 USE 1 ROW OF 66 LF  
 LEACHING AREA PROVIDED = 924 SF

RESERVE LEACHING AREA  
 USE SAME AS PRIMARY SYSTEM

**LOT 5**  
 PRIMARY LEACHING AREA  
 4 BEDROOM RESIDENCE  
 PERCOLATION RATE: 30 MIN./INCH  
 LEACHING AREA REQUIRED: 875 SF

USE GEOMATRIX GST 6212  
 EFFECTIVE LEACHING AREA OF GST 6212 = 10.0 SF/LF  
 REQUIRED LENGTH = 875 SF / 10 SF/LF = 87.5 LF

MLSS CALCULATION  
 HYDRAULIC FACTORS  
 DEPTH TO RESTRICTIVE LAYER:  
 A = 24" B = 24" RS DEPTH = 24"  
 SLOPE: 8 VF / 52 LF = 15.3%  
 HYDRAULIC FACTORS (HF) = 24  
 FLOW FACTORS  
 4 BEDROOM HOUSE: FF = 1.75  
 PF = 1.5 (20.1 TO 30.0 MIN./INCH)  
 MLSS REQUIRED: 24 x 1.75 x 1.5 = 63 LF

PROPOSED SYSTEM  
 USE 1 ROW OF 88 LF  
 LEACHING AREA PROVIDED = 880 SF

RESERVE LEACHING AREA  
 USE SAME AS PRIMARY SYSTEM

**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 ASTM-D-3034 AND SDP-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.

**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 REWEIGHED AND THE SIEVE ANALYSIS STARTED.
  - THE REMAINING SAMPLE SHALL MEET THE FOLLOWING CRITERIA:
- | SIEVE SIZE | PERCENT PASSING WET SIEVE | PERCENT PASSING DRY SIEVE |
|------------|---------------------------|---------------------------|
| #4         | 100                       | 100                       |
| #10        | 70-100                    | 70-100                    |
| #40        | 10-50*                    | 10-75                     |
| #100       | 0-20                      | 0-5                       |
| #200       | 0-5                       | 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.

APPROVED BY THE EAST LYME PLANNING COMMISSION

CHAIRMAN/SECRETARY: \_\_\_\_\_

APPROVAL DATE: \_\_\_\_\_

FILING DEADLINE: \_\_\_\_\_

EXPIRATION DATE: \_\_\_\_\_

<p><b>CLA Engineers, Inc.</b>          CIVIL · STRUCTURAL · SURVEYING</p>		<p>317 Main Street Norwich, CT 06360          (860) 886-1966 Fax (860) 886-9165</p>
<p>2 8/6/2021 Misc. Revisions for Planning Submittal</p>	<p>1 1/27/2020 Misc. Additions &amp; Revisions for Submittal</p>	<p>Project No. CLA-6359          Proj. Engineer K.J.H.          Date: 11/25/19          Sheet No. 7</p>
<p>Roxbury Road          East Lyme, Connecticut</p>		<p><b>Proposed Residential          Conservation Subdivision</b></p>
<p>Septic System &amp; Water Service Plan</p>		<p>7</p>

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**TEST HOLE DATA**

Test Hole #5001C  
depth=22" - sloping to 54" (south to north)  
0-7" leaf litter/ ts  
7-28" red brown fine silty loam wet seeps @ 45"  
25-36" YB fine sandy loam damp  
36-54" gray brown med-coarse sand and gravel damp, loose  
tree roots to 44"

Test Hole #5001  
adjacent to 5001C hit ledge at <4"

Test Hole #5002  
depth 30" sloping to 78" south to north.  
0-9" leaf litter/ ts  
9-29" light red brown med-coarse sandy loam, wet, loose  
29-40" YB fine silty loam, loose, wet  
40-78" gray brown fine silty loam, mottled, damp  
note: ledge found @ 36" just north of hole  
redox @ 44", seeps @ 62", roots to 43"

Test Hole 5002C  
depth 62" ledge@62"  
0-7" ts  
7-43" YB fine silty loam, loose, wet  
43-62" compact yellow to gray brown med coarse sand,  
trace gravel  
no apparent redox, roots to 50" seeps @ 53"

Test Hole 5002D  
depth 46" perched water 7"  
not suitable

TEST HOLE 5003  
depth=32" ledge @32" gw@32" perched

TEST HOLE 5003A  
depth=32", ledge @32" gw@32" perched

Test Hole 5003F  
depth=35" ledge @ 35" seeps @ 24"  
not suitable

Test Hole 5003D  
depth=27" ledge @ 27" seeps @ 24"  
not suitable

TEST HOLE 5004  
depth = 92" gw standing @77", seeps @ 34"  
0-9" leaf litter /ts  
9-28" light ob med coarse sandy loam, wet, loose  
28-92 stratified gray brown fine-med sandy loam,  
loose, saturated, mottled  
redox @ 27" roots to 36"

TEST HOLE 5004B  
depth = 63" gw staining @ 60", seeps @ 31" redox @ 34"  
0-7" leaf litter /ts  
7-22" light reddrown very fine silty loam, damp, loose  
22-28 light brown fine sandy loam, loose, wet  
28-63" lightgray very fine silty sand loose saturated, mottled  
roots to 42" refusal?

TEST HOLE 5005  
depth=50" ledge @50"  
0-5" leaf litter/ts  
5-24" light red to orange brown med coarse sandy loam  
24-50" gray brown med coarse sand, rocks, trace gravel  
roots to 47", no gw, no redox

TEST HOLE 5005B  
depth 72"  
0-5" leaf litter/ts  
5-24" ob med coarse sandy loam damp loose  
24-35" stratified yellow to gray loose med coarse sandy  
loam roots to 54"  
35-72" compact gray coarse sand w/rocks, wet compact  
mottles @ 35"(restrictive)

TEST HOLE 5006  
depth 36"/ledge @ 36"

TEST HOLE 5006A (s/w of 5005 & 5006)  
depth 23 to 30" ledge

TEST HOLE 5006B (in vicinity of tp 5006)  
depth 52"/ledge @ 52"  
0-3" leaf litter/ts  
3-17 ob fine sandy loam loose  
17-52" stratified light yellow to gray brown fine sand,  
compact, rocky  
roots to 47", no gw, no redox, ledge @ 52"

Test Hole 5006C  
depth 26" ledge @ 26"  
not suitable

Test Hole 5006D  
0-7 TS/leaf litter  
7-38" OB med coarse silty sand loose  
38-43" gray brown med coarse sand, trace gravel  
roots to 35" no ground water, no redox

TEST HOLES RECORDED BY BOB RUSSO (CLA ENGINEERS) AND DANIELLE HOLMES OF THE LEDGE LIGHT HEALTH DISTRICT ON 10/29/19

CLA 1 \*NOT SUITABLE\*  
0-7" LEAF LITTER & TS  
7"-37" YB FINE SANDY LOAM  
ROOTS TO 37"

TOTAL DEPTH: 95"  
WATER: 16" SEEPING, 37" STANDING  
MOTTLES/REDOX: REDOX @ 26"  
LEDGE: N/A

CLA 2  
0-4" LEAF LITTER & TS  
4"-30" LIGHT BROWN SANDY LOAM  
30"-62" GRAY BROWN GLACIAL TILL, MOTTLED  
ROOTS TO 56"

TOTAL DEPTH: 84"  
WATER: SEEPS @ 22", STANDING @ 62"  
MOTTLES/REDOX: REDOX @ 22"  
LEDGE: N/A

CLA 3  
0-5" LEAF LITTER & TS  
5"-36" YB MED. FINE SANDY LOAM  
ROOTS TO 32"  
36"-48" GRAY BROWN GLACIAL TILL  
loam roots to 54"

TOTAL DEPTH: N/A  
WATER: STANDING @ 48"  
MOTTLES/REDOX: REDOX @ 35"  
LEDGE: 33" - 62" SLOPING EAST TO WEST

CLA 4  
0-6" LEAF LITTER & TS  
6"-28" OB MED SANDY LOAM  
28"-44" GRAY BROWN GLACIAL TILL  
ROOTS TO 34"

TOTAL DEPTH: 44"  
WATER: N/A  
MOTTLES/REDOX: N/A  
LEDGE: 44"

CLA 5  
0-3" LEAF LITTER & TS  
3"-26" OB MED. SANDY LOAM  
26"-102" GRAY BROWN GLACIAL TILL (MED COARSE)  
ROOTS TO 55"

TOTAL DEPTH: 111"  
WATER: STANDING @ 102"  
MOTTLES/REDOX: REDOX @ 39"  
LEDGE: N/A

CLA 6  
LEDGE @ 6" - 24" SLOPING NW TO SE  
LARGE LEDGE OUTCROP N OF PIT

TOTAL DEPTH: N/A  
WATER: N/A  
MOTTLES/REDOX: N/A  
LEDGE: 6"

CLA 7  
0-8" LEAF LITTER & TS  
8"-35" OB FINE SANDY LOAM  
35"-72" GRAY BROWN GLACIAL TILL  
ROOTS TO 66"

TOTAL DEPTH: 77"  
WATER: STANDING @ 72"  
MOTTLES/REDOX: REDOX @ 35"  
LEDGE: N/A

CLA 8  
0-4" TS & LEAF LITTER  
4"-22" ORANGE TO RED BROWN MED.  
SANDY LOAM, SATURATED  
22"-36" LIGHT YB  
36"-52" DARK GRAY BROWN GLACIAL TILL  
ROOTS TO 52"

TOTAL DEPTH: 72"  
WATER: SEEPING @ 24", STANDING @ 52"  
MOTTLES/REDOX: REDOX @ 30"  
LEDGE: 72"

CLA 9  
0-5" LEAF LITTER & TS  
5"-23" OB MED. SANDY LOAM  
23"-67" DARK GRAY BROWN GLACIAL TILL  
ROOTS TO 42"

TOTAL DEPTH: 71"  
WATER: STANDING @ 67"  
MOTTLES/REDOX: REDOX @ 23"  
LEDGE: N/A

CLA 10  
0-2" LEAF LITTER & TS  
2"-16" OB MED. SANDY LOAM, WET  
16"-31" GRAY BROWN GLACIAL TILL, WET  
ROOTS TO 16"

TOTAL DEPTH: 31"  
WATER: N/A  
MOTTLES/REDOX: N/A  
LEDGE: 31"

**PERCOLATION TEST DATA**  
RECORDED BY JACK MCCARTNEY (CLA ENGINEERS)  
ON 11/08/2019

**PERC. #CLA 3**  
PRESOAK: 9:00±  
HOLE DEPTH: 12"  
TIME READING  
START 4:25"  
5 MIN 7"  
10 MIN 8.5"  
15 MIN 9.5"  
20 MIN 10.5"  
25 MIN 11.5"  
30 MIN 12.5"  
PERC. RATE = 5 MINUTE/INCH

RECORDED BY JACK MCCARTNEY (CLA ENGINEERS)  
ON 11/08/2019

**PERC. #CLA 4**  
PRESOAK: 9:30±  
HOLE DEPTH: 12"  
TIME READING  
START 3"  
5 MIN 3.5"  
10 MIN 4.5"  
15 MIN 5.25"  
20 MIN 6.25"  
25 MIN 6.5"  
30 MIN 7.25"  
35 MIN 7.5"  
40 MIN 8.25"  
45 MIN 8.5"  
50 MIN 8.75"  
55 MIN 9.25"  
60 MIN 9.5"  
65 MIN 9.75"  
70 MIN 10.25"  
75 MIN 10.5"  
80 MIN 10.5"  
85 MIN 10.75"  
90 MIN 11"  
LAST 30 MIN: 1.5" DROP  
PERC. RATE = 20 MINUTE/INCH

RECORDED BY JACK MCCARTNEY (CLA ENGINEERS)  
ON 11/08/2019

**PERC. #CLA 5**  
PRESOAK: 9:45±  
HOLE DEPTH: 12"  
TIME READING  
START 2.5"  
10 MIN 3.75"  
20 MIN 4.25"  
30 MIN 4.75"  
40 MIN 5.25"  
50 MIN 5.5"  
60 MIN 6.25"  
70 MIN 6.25"  
80 MIN 6.75"  
90 MIN 7.25"  
100 MIN 7.5"  
110 MIN 7.75"  
120 MIN 8.25"  
130 MIN 8.5"  
140 MIN 8.75"  
LAST 30 MIN: 1" DROP  
PERC. RATE = 30 MINUTE/INCH

ADDITIONAL PERCOLATION TESTS PERFORMED BY J. ROBERT PFANNER & ASSOCIATES, P.C. RATES AND LOCATIONS ARE INCLUDED ON THE PLANS

**TEST DATA FOR EXISTING LOT**  
TEST HOLE DATA  
WITNESSED BY DAVID J. HELD, P.E., L.S. &  
KIMBERLY WHITE, LEDGE LIGHT HEALTH DISTRICT  
8/15/17

TH #5 0"-7" - TOPSOIL & LEAF LITTER  
7"-26" - BROWN FINE SANDY LOAM  
26"-85" - COMPACT SANDY TILL  
MOTTILING @26"  
ROOTS@35"  
NO WATER, NO LEDGE

TH #7 0"-6" - TOPSOIL & LEAF LITTER  
6"-23" - BROWN FINE SANDY LOAM  
23"-36" - LIGHT BROWN MOD. COMPACT SILTY LOAM  
NO MOTTILING  
ROOTS@31"  
NO WATER, LEDGE@31"

TH #6 0"-3" - TOPSOIL & LEAF LITTER  
3"-10" - BROWN FINE SANDY LOAM  
10"-36" - LIGHT BROWN SILTY LOAM  
36"-72" - COMPACT SAND & GRAVEL (TILL)  
MOTTILING @30"  
ROOTS@32"  
NO WATER, LEDGE@72"

TH #8 0"-8" - TOPSOIL & LEAF LITTER  
8"-24" - BROWN FINE SANDY LOAM  
24"-37" - LIGHT BROWN MOD. COMPACT SILTY LOAM  
37"-61" - COMPACT SAND & GRAVEL (TILL)  
MOTTILING @29"  
ROOTS@30"  
NO WATER, LEDGE@50"

PERCOLATION TEST DATA  
PERFORMED BY ADVANCED SURVEYS, LLC  
8/15/17

PERC. #1  
DEPTH - 22"  
PRESOAK - 8:10AM  
8:50 - 7 1/2"  
9:00 - 10 1/4"  
9:10 - 13 3/4"  
9:20 - 1"  
9:30 - 15 1/4"  
9:40 - 18 1/4"  
9:50 - 17 1/4"  
PERC RATE - 10 MINUTES PER INCH

PERC. #2  
DEPTH - 24"  
PRESOAK - 12:05  
12:50 - 1"  
1:05 - 10 1/4"  
1:15 - 13 5/8"  
1:25 - 15 3/4"  
1:35 - 17 5/8"  
1:45 - 19"  
1:55 - 20 1/4"  
PERC RATE - 8 MINUTES PER INCH

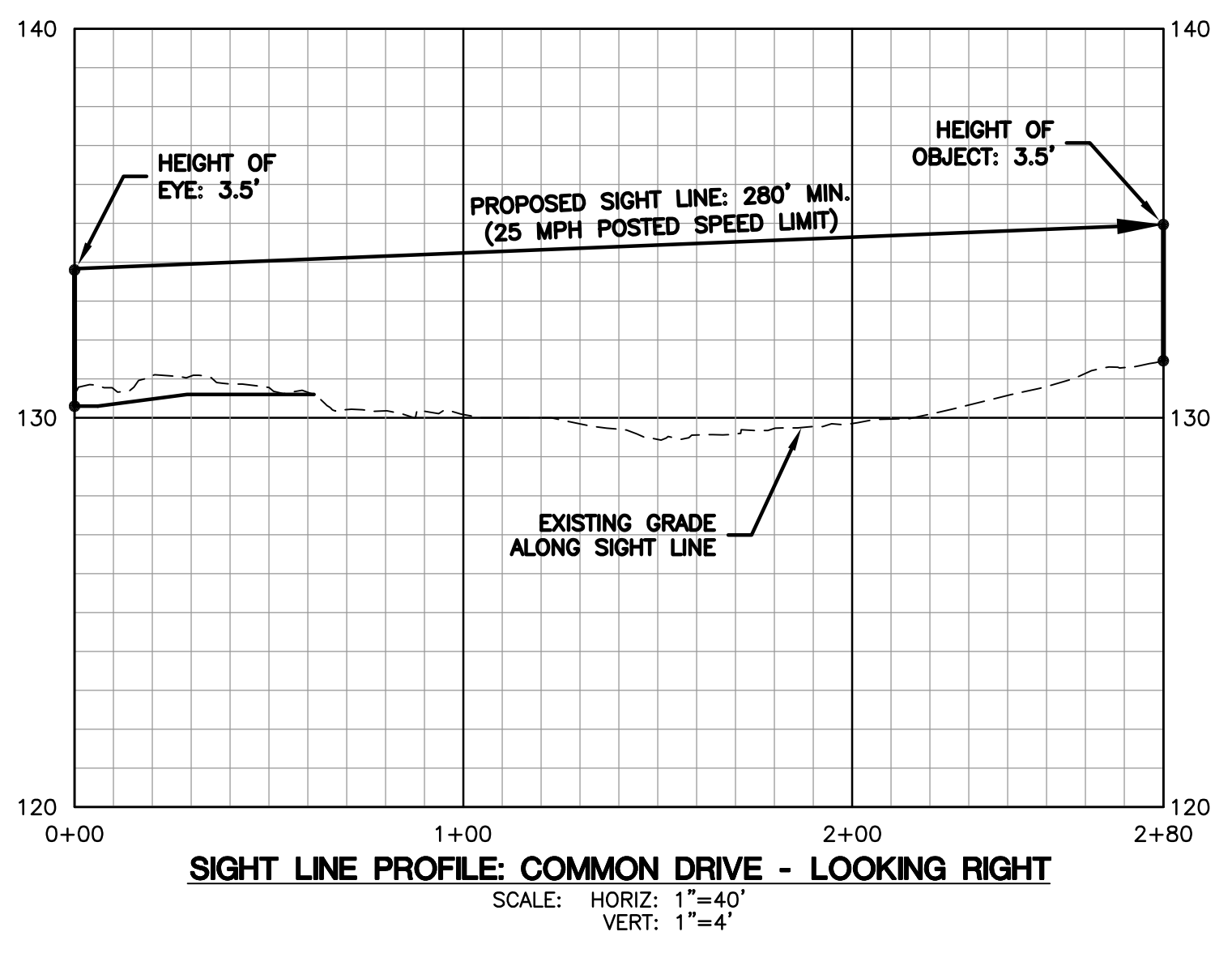
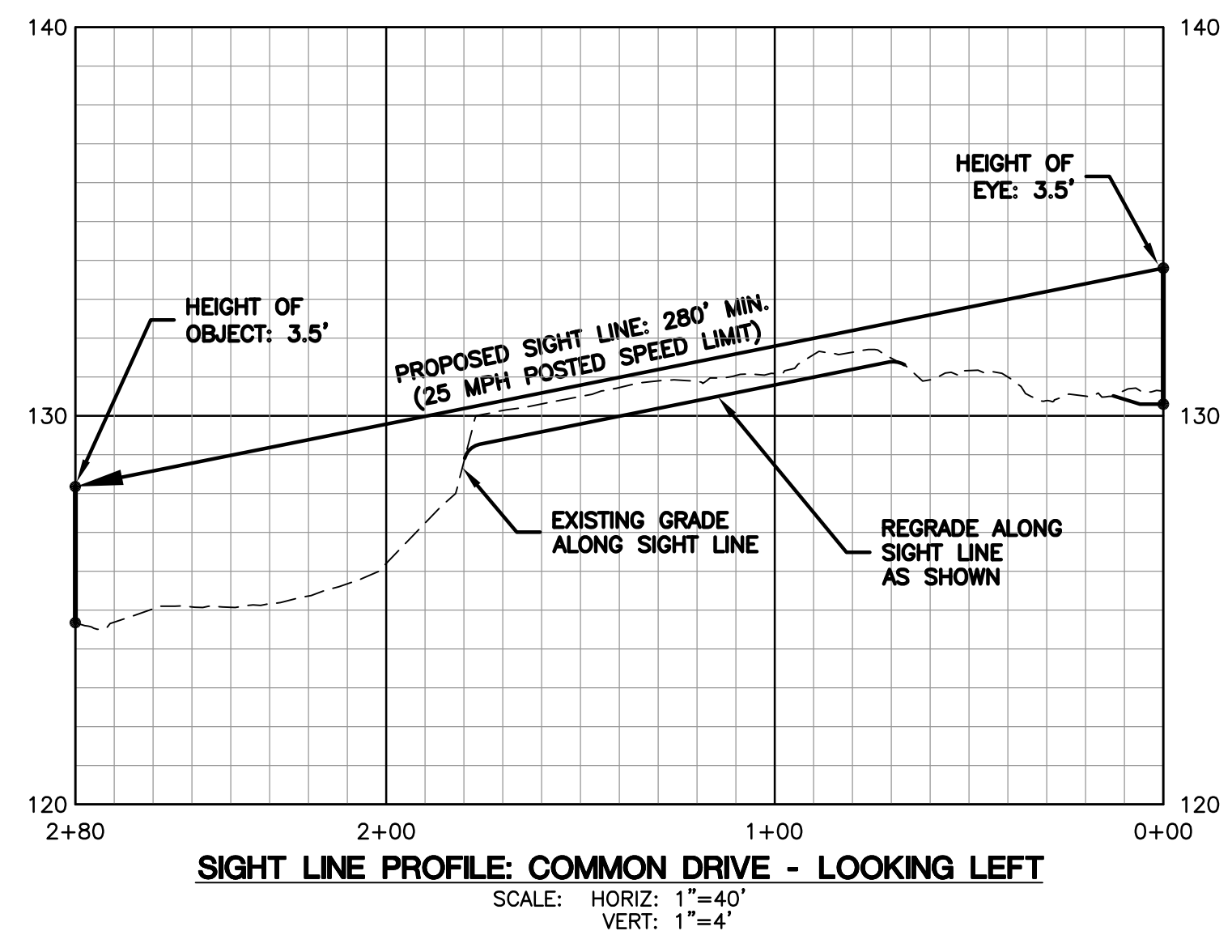
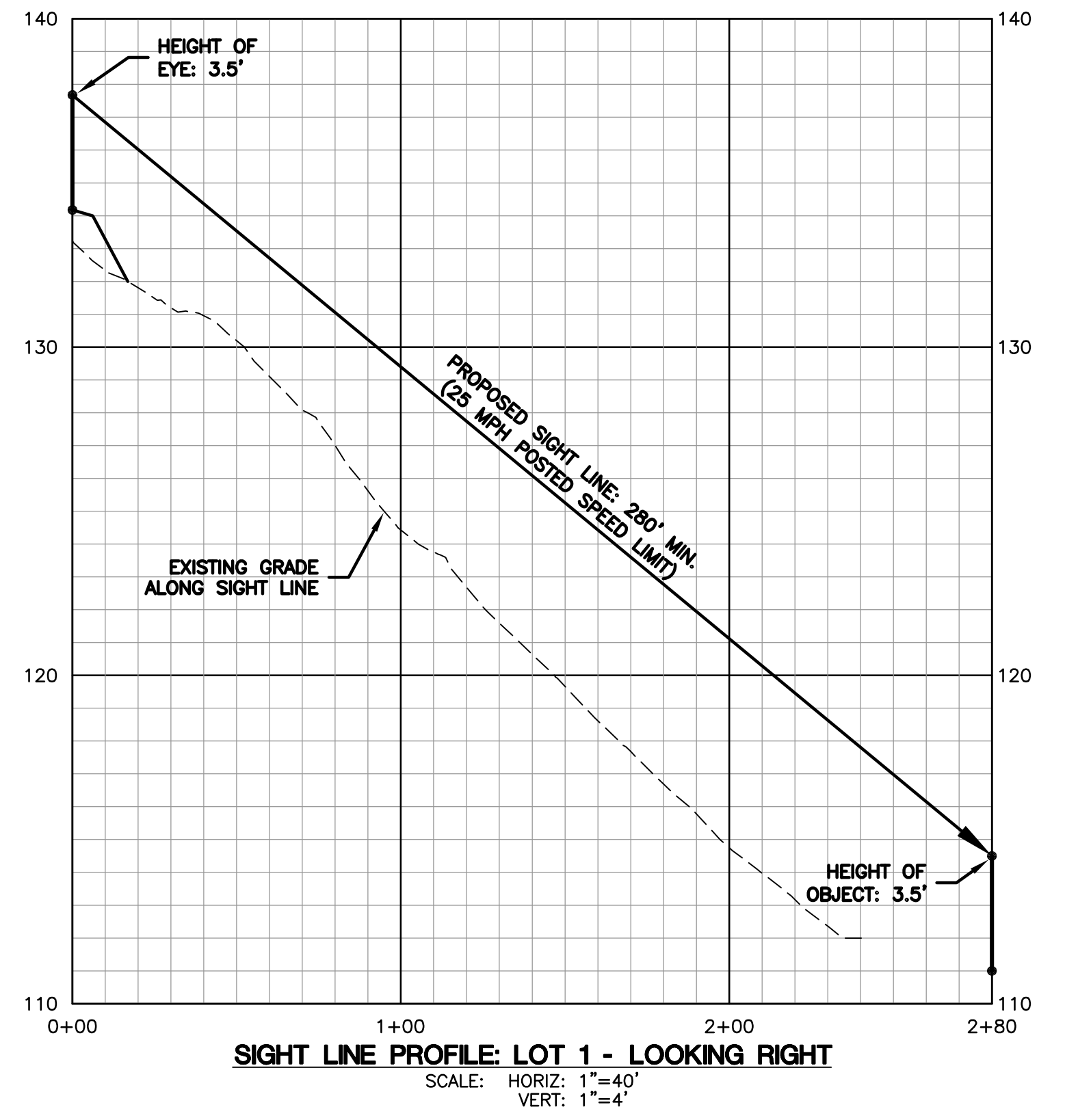
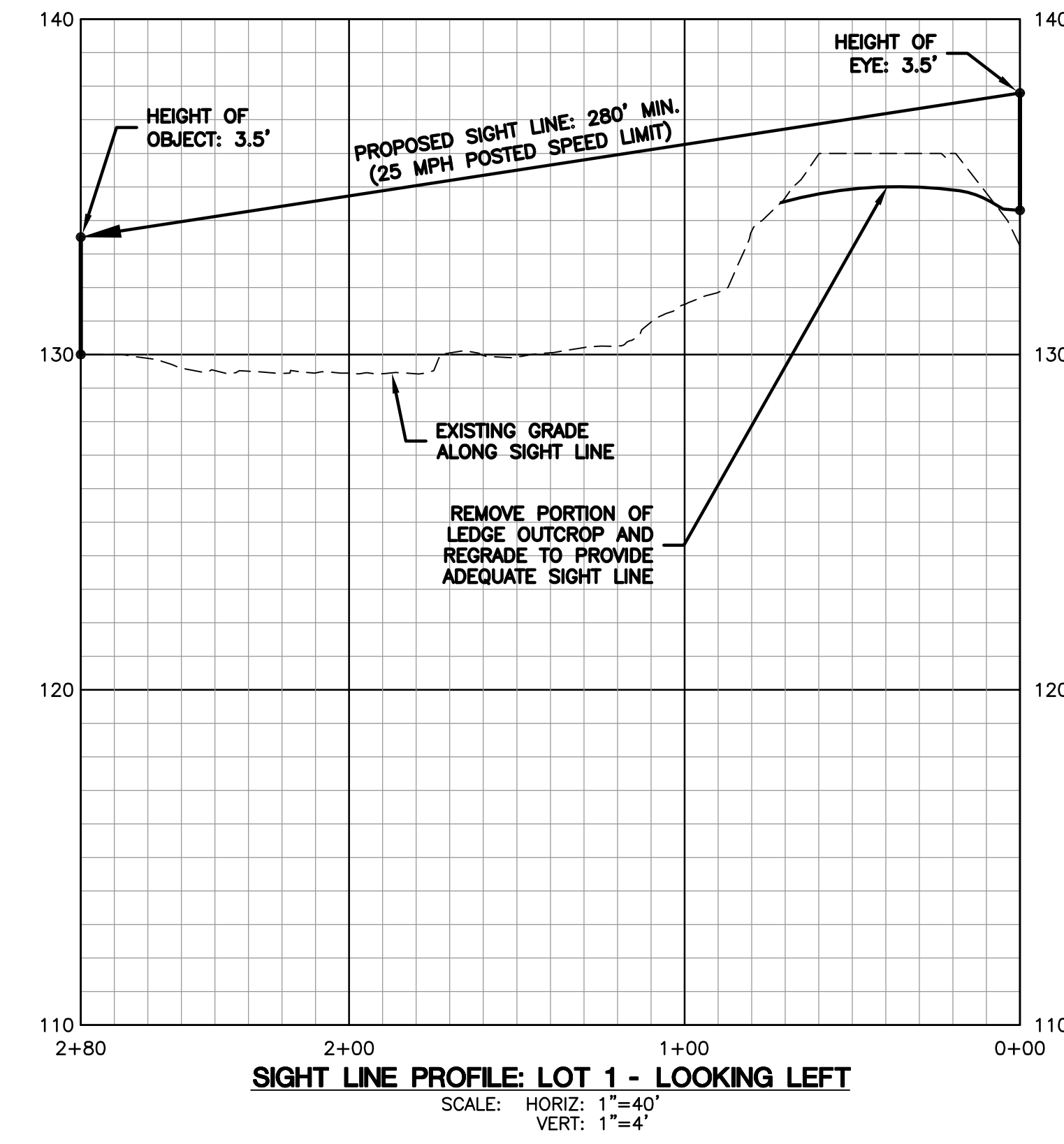
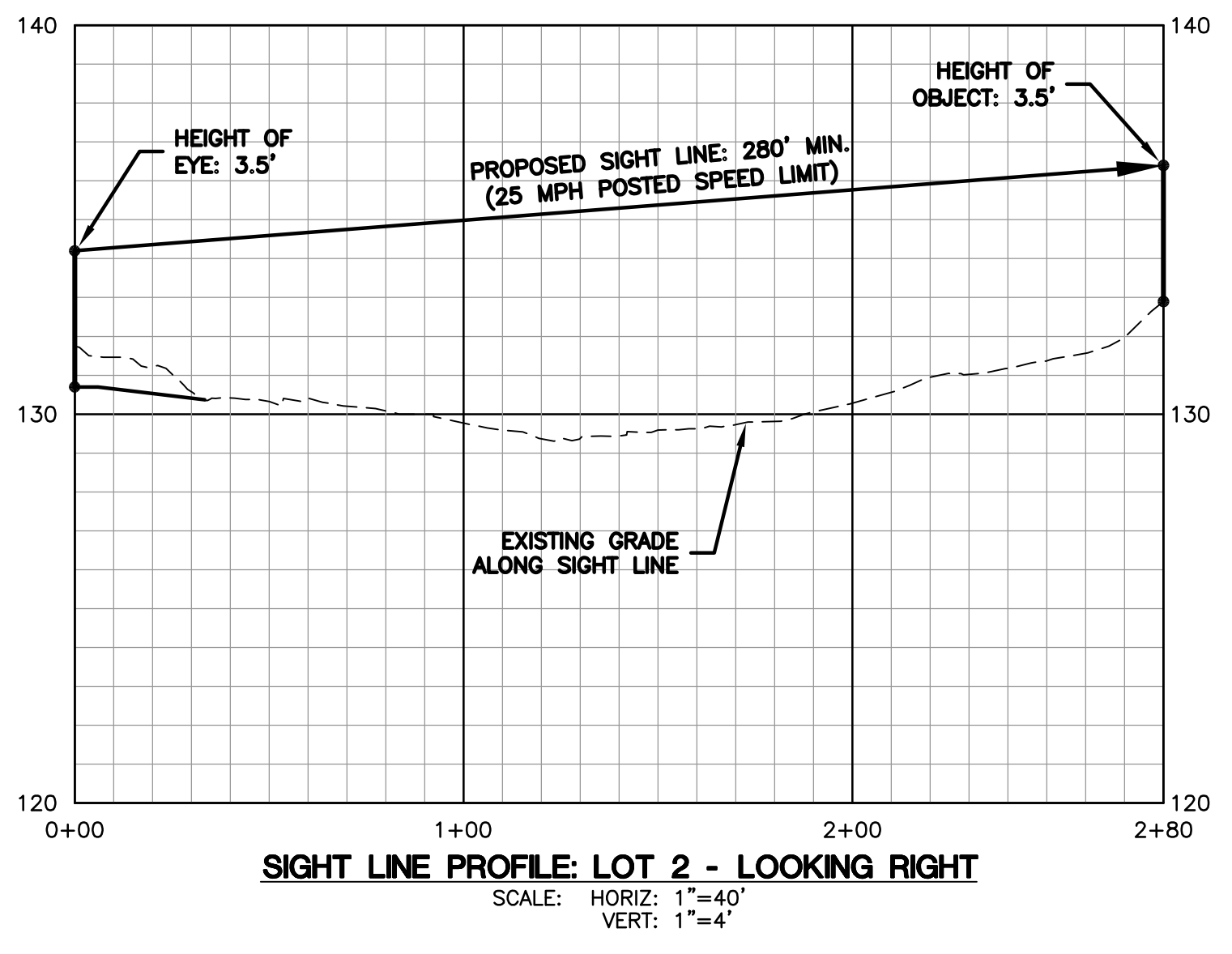
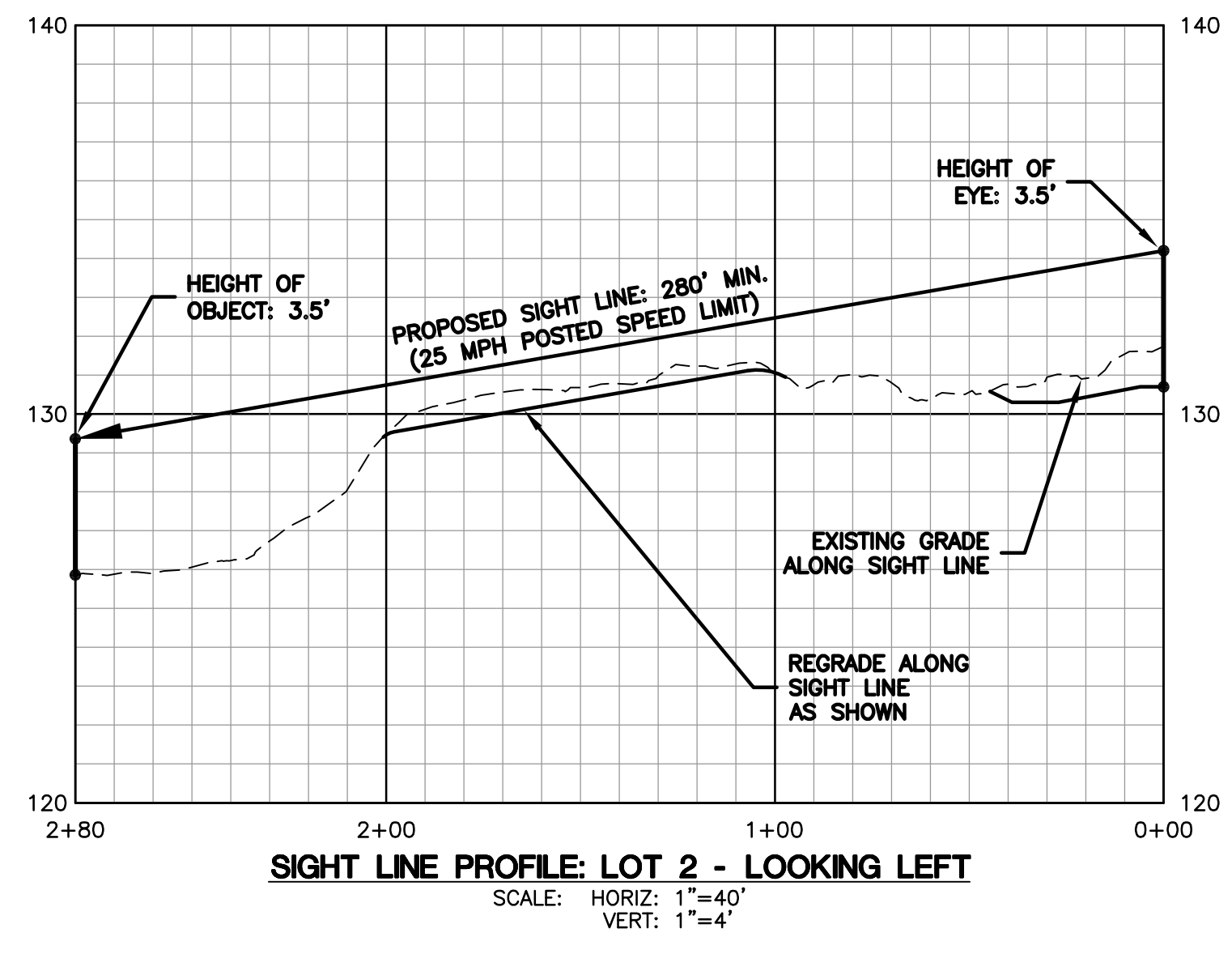
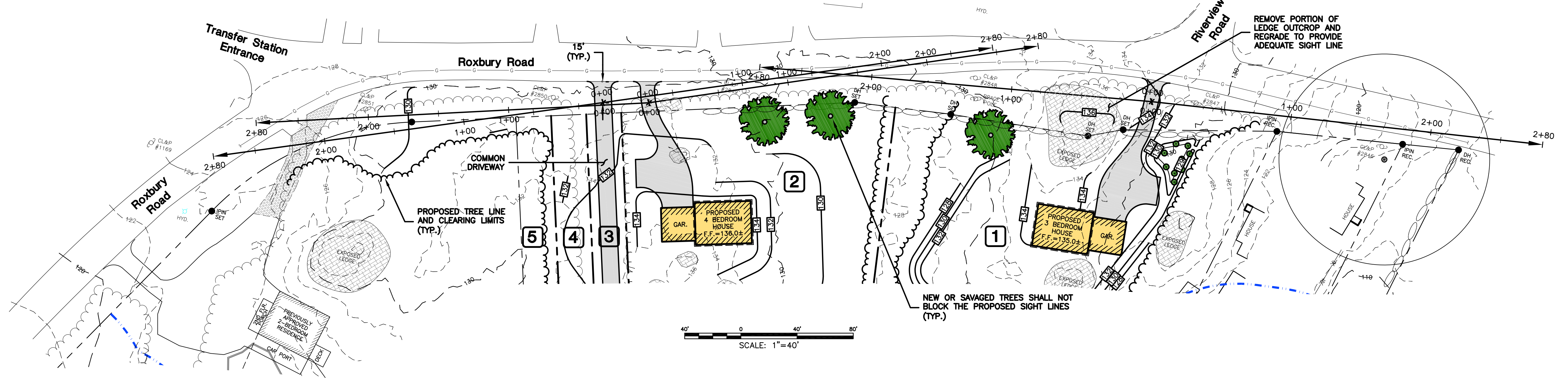
APPROVED BY THE EAST LYME PLANNING COMMISSION  
CHAIRMAN/SECRETARY: \_\_\_\_\_  
APPROVAL DATE: \_\_\_\_\_  
FILING DEADLINE: \_\_\_\_\_  
EXPIRATION DATE: \_\_\_\_\_

**CLA Engineers, Inc.**  
CIVIL · STRUCTURAL · SURVEYING

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

2		8/6/2021	Misc. Revisions for Planning Submittal
1		1/27/2020	Misc. Additions & Revisions for Submittal
No.	DATE	REVISION	
<p><b>Roxbury Road</b> East Lyme, Connecticut</p> <p><b>Proposed Residential Conservation Subdivision</b></p> <p>Soil Testing Data</p>			
Project No. CLA-6359			Proj. Engineer K.J.H.
Date: 11/25/19			Sheet No. 8





APPROVED BY THE EAST LYME PLANNING COMMISSION

CHAIRMAN/SECRETARY: \_\_\_\_\_

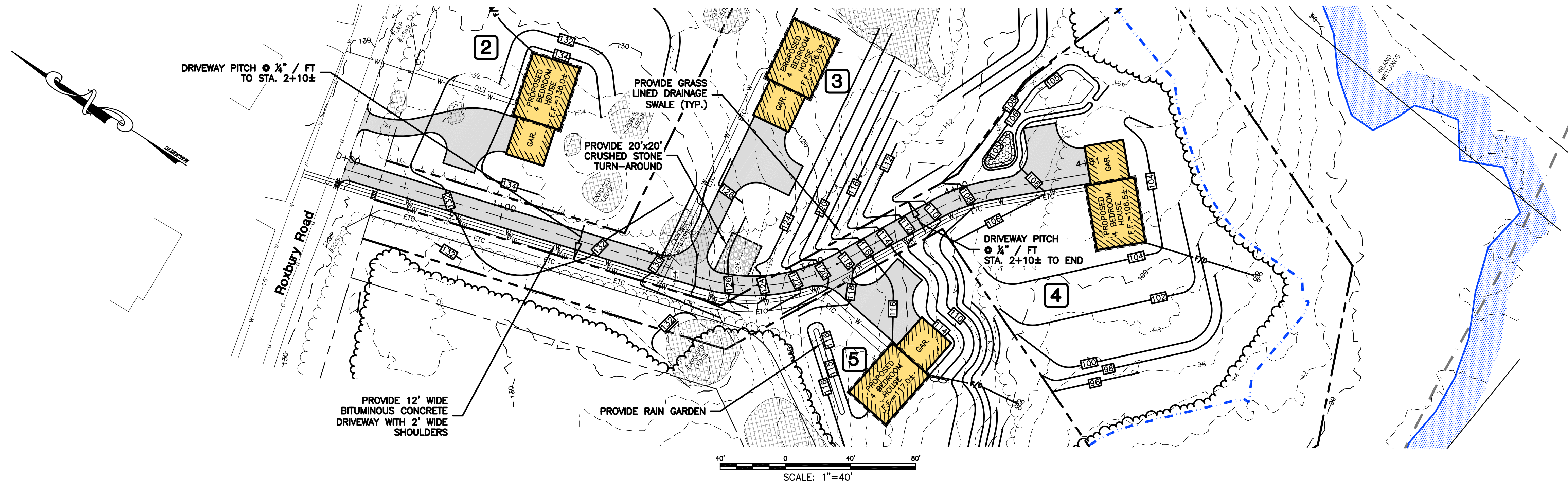
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FILING DEADLINE: \_\_\_\_\_

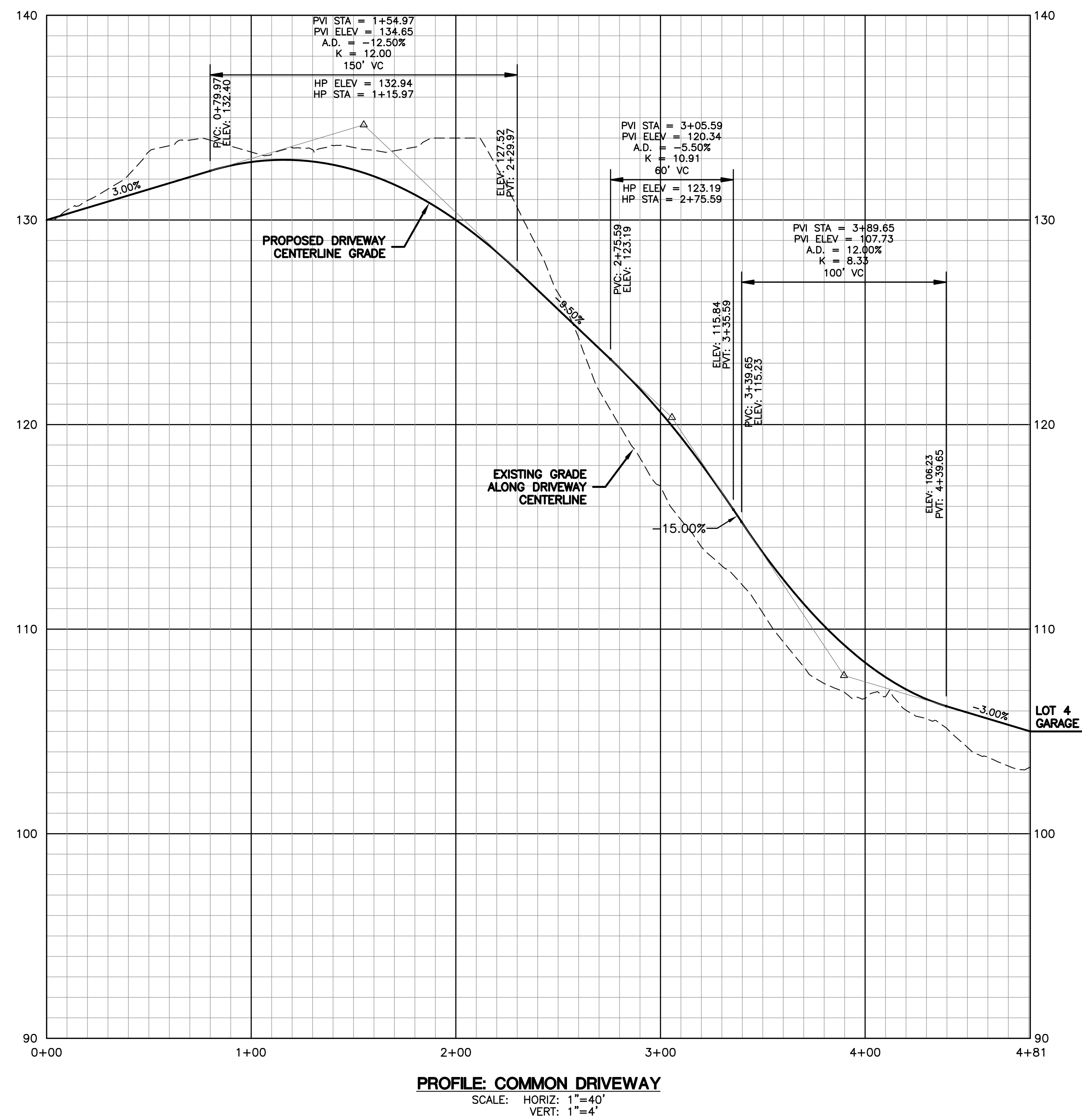
EXPIRATION DATE: \_\_\_\_\_

<b>CLA Engineers, Inc.</b> CIVIL · STRUCTURAL · SURVEYING 317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165		Project No. CLA-6359 Proj. Engineer K.J.H. Date: 11/25/19 Sheet No. <b>9</b>
2 8/6/2021 Misc. Revisions for Planning Submittal 1 1/27/2020 Misc. Additions & Revisions for Submittal	<b>Roxbury Road</b> <b>East Lyme, Connecticut</b> <b>Proposed Residential</b> <b>Conservation Subdivision</b> Sight Line Plan & Profiles	

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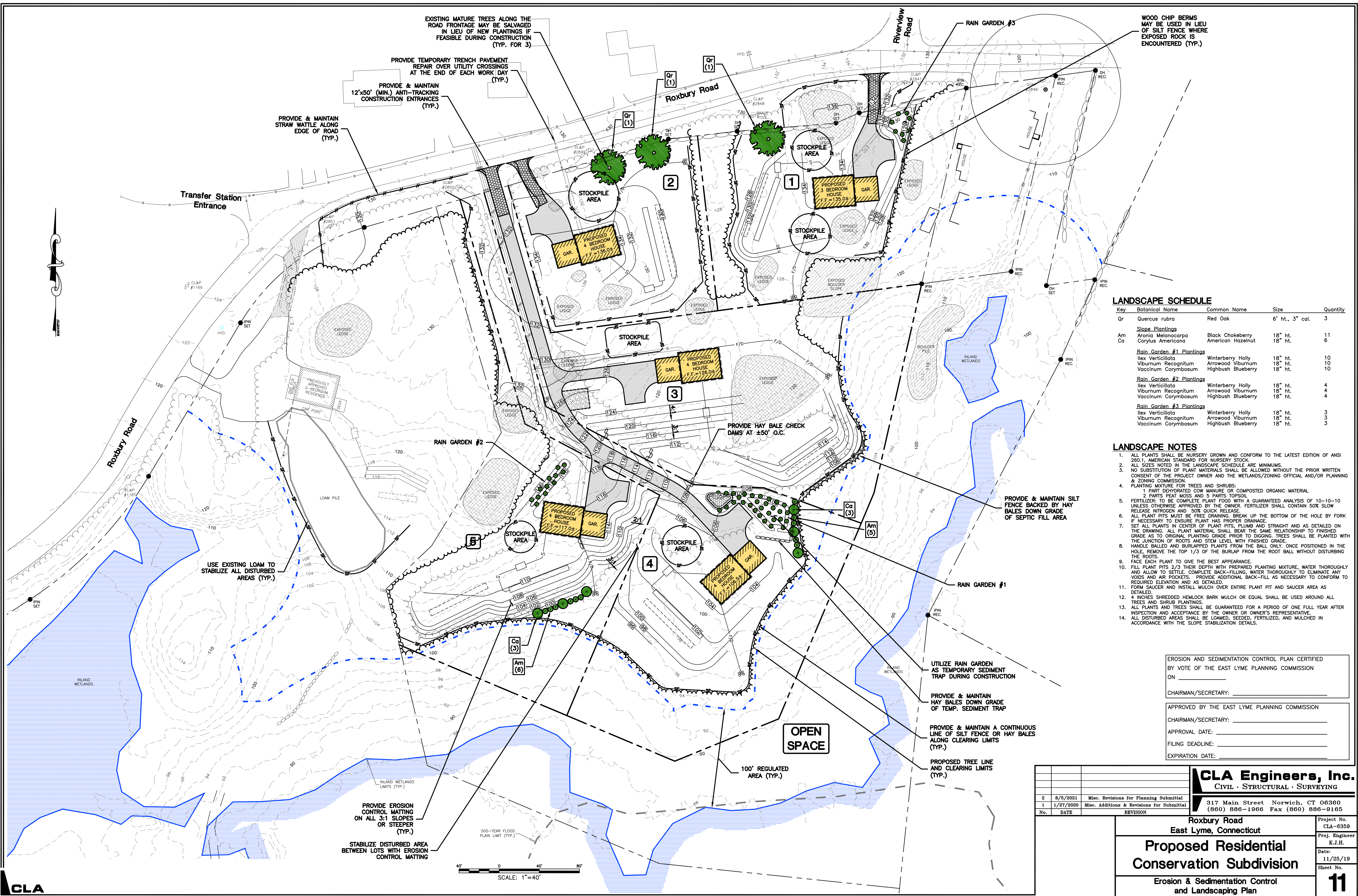


LOTS 3, 4, AND 5 SHARE A COMMON DRIVEWAY. THE PROPERTY DEEDS SHALL INCLUDE ALL INFORMATION REGARDING EASEMENTS, RIGHTS, AND RESPONSIBILITIES REGARDING THE COMMON DRIVEWAY.



APPROVED BY THE EAST LYME PLANNING COMMISSION  
 CHAIRMAN/SECRETARY: \_\_\_\_\_  
 APPROVAL DATE: \_\_\_\_\_  
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<b>CLA Engineers, Inc.</b> CIVIL · STRUCTURAL · SURVEYING 317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165		Project No. CLA-6359 Proj. Engineer K.J.H. Date: 11/25/19 Sheet No. <b>10</b>
2 8/6/2021 Misc. Revisions for Planning Submittal 1 1/27/2020 Misc. Additions & Revisions for Submittal	Roxbury Road East Lyme, Connecticut <b>Proposed Residential          Conservation Subdivision</b> Common Driveway Plan & Profiles	



**LANDSCAPE SCHEDULE**

Key	Botanical Name	Common Name	Size	Quantity
Qr	Quercus rubra	Red Oak	6' ht., 3" cal.	3
<b>Slope Plantings</b>				
Am	Aronia Melanocarpa	Black Chokeberry	18" ht.	11
Ca	Corylus Americana	American Hazelnut	18" ht.	6
<b>Rain Garden #1 Plantings</b>				
	Ilex Verticillata	Winterberry Holly	18" ht.	10
	Viburnum Recognitum	Arrowwood Viburnum	18" ht.	10
	Vaccinium Corymbosum	Highbush Blueberry	18" ht.	10
<b>Rain Garden #2 Plantings</b>				
	Ilex Verticillata	Winterberry Holly	18" ht.	4
	Viburnum Recognitum	Arrowwood Viburnum	18" ht.	4
	Vaccinium Corymbosum	Highbush Blueberry	18" ht.	4
<b>Rain Garden #3 Plantings</b>				
	Ilex Verticillata	Winterberry Holly	18" ht.	3
	Viburnum Recognitum	Arrowwood Viburnum	18" ht.	3
	Vaccinium Corymbosum	Highbush Blueberry	18" ht.	3

- LANDSCAPE NOTES**
- ALL PLANTS SHALL BE NURSERY GROWN AND CONFORM TO THE LATEST EDITION OF ANSI 260.1, AMERICAN STANDARD FOR NURSERY STOCK.
  - ALL SIZES NOTED IN THE LANDSCAPE SCHEDULE ARE MINIMUMS.
  - NO SUBSTITUTION OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE PRIOR WRITTEN CONSENT OF THE PROJECT OWNER AND THE WETLANDS/ZONING OFFICIAL AND/OR PLANNING & ZONING COMMISSION.
  - PLANTING MIXTURE FOR TREES AND SHRUBS:  
1 PART DEHYDRATED COW MANURE OR COMPOSTED ORGANIC MATERIAL  
2 PARTS PEAT MOSS AND 5 PARTS TOPSOIL
  - FERTILIZER: TO BE COMPLETE PLANT FOOD WITH A GUARANTEED ANALYSIS OF 10-10-10 UNLESS OTHERWISE APPROVED BY THE OWNER. FERTILIZER SHALL CONTAIN 50% SLOW RELEASE NITROGEN AND 50% QUICK RELEASE.
  - ALL PLANT PITS MUST BE FREE DRAINING. BREAK UP THE BOTTOM OF THE HOLE BY FORK IF NECESSARY TO ENSURE PLANT HAS PROPER DRAINAGE.
  - SET ALL PLANTS IN CENTER OF PLANT PITS. PLUMB AND STRAIGHT AND AS DETAILED ON THE DRAWING. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS TO ORIGINAL PLANTING GRADE PRIOR TO DIGGING. TREES SHALL BE PLANTED WITH THE JUNCTION OF ROOTS AND STEM LEVEL WITH FINISHED GRADE.
  - HANDLE BALLED AND BURLAPPED PLANTS FROM THE BALL ONLY. ONCE POSITIONED IN THE HOLE, REMOVE THE TOP 1/3 OF THE BURLAP FROM THE ROOT BALL WITHOUT DISTURBING THE ROOTS.
  - FACE EACH PLANT TO GIVE THE BEST APPEARANCE.
  - FILL PLANT PITS 2/3 THEIR DEPTH WITH PREPARED PLANTING MIXTURE. WATER THOROUGHLY AND ALLOW TO SETTLE. COMPLETE BACK-FILLING. WATER THOROUGHLY TO ELIMINATE ANY VOIDS AND AIR POCKETS. PROVIDE ADDITIONAL BACK-FILL AS NECESSARY TO CONFORM TO REQUIRED ELEVATION AND AS DETAILED.
  - FORM SAUCER AND INSTALL MULCH OVER ENTIRE PLANT PIT AND NEARBY AREA AS DETAILED.
  - 4 INCHES SHREDDED HEMLOCK BARK MULCH OR EQUAL SHALL BE USED AROUND ALL TREES AND SHRUB PLANTINGS.
  - ALL PLANTS AND TREES SHALL BE GUARANTEED FOR A PERIOD OF ONE FULL YEAR AFTER INSPECTION AND ACCEPTANCE BY THE OWNER OR OWNER'S REPRESENTATIVE.
  - ALL DISTURBED AREAS SHALL BE LOAMED, SEEDED, FERTILIZED, AND MULCHED IN ACCORDANCE WITH THE SLOPE STABILIZATION DETAILS.

EROSION AND SEDIMENTATION CONTROL PLAN CERTIFIED BY VOTE OF THE EAST LYME PLANNING COMMISSION ON \_\_\_\_\_

CHAIRMAN/SECRETARY: \_\_\_\_\_

APPROVED BY THE EAST LYME PLANNING COMMISSION

CHAIRMAN/SECRETARY: \_\_\_\_\_

APPROVAL DATE: \_\_\_\_\_

FILING DEADLINE: \_\_\_\_\_

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No.	DATE	REVISION
2	8/6/2021	Misc. Revisions for Planning Submittal
1	1/27/2020	Misc. Additions & Revisions for Submittal

Roxbury Road  
East Lyme, Connecticut

**Proposed Residential Conservation Subdivision**

Erosion & Sedimentation Control and Landscaping Plan

Project No. CLA-6359  
Proj. Engineer K.J.H.  
Date: 11/25/19  
Sheet No. **11**

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## EROSION & SEDIMENTATION CONTROL NARRATIVE

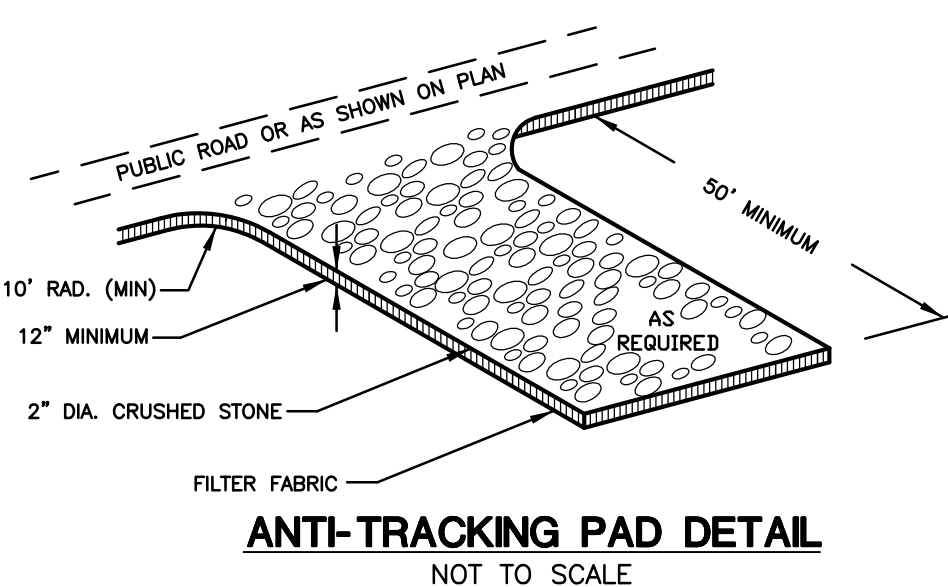
- THE EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS HAVE BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
- THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL MEASURES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDE 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 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 WITHIN 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.
- THE WETLANDS ENFORCEMENT OFFICER SHALL BE NOTIFIED AT LEAST 2 BUSINESS DAYS PRIOR TO CONSTRUCTION TO INSPECT EROSION CONTROLS.
- THE WETLAND ENFORCEMENT OFFICER SHALL BE NOTIFIED AT THE COMPLETION OF WORK FOR FINAL INSPECTION AND SIGN OFF OF PERMIT COMPLIANCE.

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

## STORMWATER MANAGEMENT & POLLUTION PREVENTION PLAN

- DURING CONSTRUCTION**
- POLLUTION PREVENTION TEAM:** THE OWNER & CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THE PROVISIONS OF THIS PLAN.
  - SWEEPING:** IMPERVIOUS SURFACES BEYOND THE WORK SITE SHALL BE SWEEPED CLEAN OF SAND, SILT AND LITTER DAILY AT THE END OF THE WORK DAY.
  - OUTSIDE STORAGE:** ACCESSORIES OR EQUIPMENT STORED OUTSIDE SHALL BE COVERED OR MAINTAINED TO MINIMIZE POSSIBILITY OF THESE MATERIALS OR THEIR RESIDUE PASSING TO STORM WATER.
  - WASHING:** NO WASHING OF VEHICLES, ACCESSORIES, EQUIPMENT OR APPLIANCES IN WORK SITE.
  - MAINTENANCE AND INSPECTION:**
    - THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY RAINFALL OF 0.25" OR MORE AND AFTER SNOW MELT.
    - SEDIMENT DEPOSITS MUST BE REMOVED WHEN WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
    - DAILY DUST CONTROL USING WATER, OR APPROVED EQUAL, SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED SURFACES.
  - SPILLS OR ACCIDENTAL DISCHARGES:**
    - COMPLY WITH STATE AND FEDERAL REGULATIONS TO CONTAIN AND CLEAN UP ANY SPILL OR DISCHARGE AND DISPOSE OF MATERIALS AT AN APPROPRIATE FACILITY.
    - CONTACT CONNECTICUT DEEP OIL AND CHEMICAL SPILL RESPONSE DIVISION (860) 424-3338
    - THE FOLLOWING STEPS SHOULD BE PERFORMED AS SOON AS POSSIBLE:
      - STOP THE SOURCE OF THE SPILL
      - CONTAIN THE SPILL
      - COVER SPILL WITH ABSORBENT MATERIAL SUCH AS KITTY LITER, SAWDUST OR OIL ABSORBENT PADS. DO NOT USE STRAW.
      - DISPOSE OF ABSORBENT IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.



## 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 CLEAT 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

### TYPICAL SEED MIXTURE FOR STEEP SLOPES (2:1 OR GREATER)

CT DEP SEED MIX NO. 6	LBS./ACRE	LBS./1000 S.F.
CREeping RED FESCUE	20	0.50
REDTOP (STREEKER, COMMON)	2	0.05
PERENNIAL RYEGRASS	20	0.50
	42	1.05

THE RECOMMENDED SEEDING DATES ARE:  
APRIL 1 - JUNE 15 AND AUGUST 15 - OCTOBER 15

IMMEDIATELY FOLLOWING SEEDING, FIRM SEED BED WITH A ROLLER AND MULCH WITH WEED FREE STRAW. IF PERMANENT VEGETATIVE COVER IS HAS NOT BEEN ESTABLISHED BY OCTOBER 15, APPLY A TEMPORARY VEGETATIVE COVER ON THE TOPSOIL.

## VEGETATIVE COVER FOR RAIN GARDENS

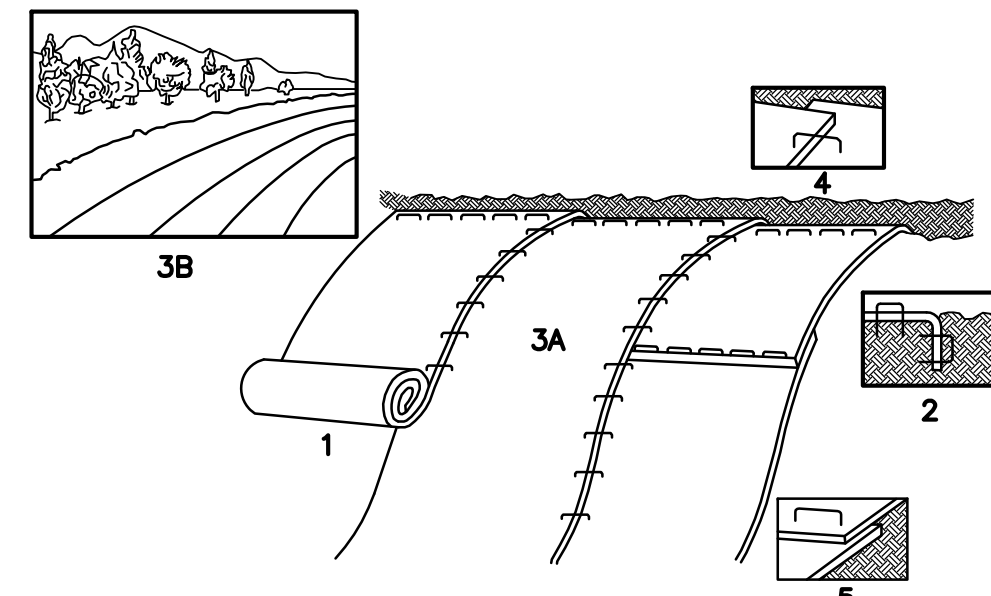
SEED MIXTURE FOR WETLAND AREAS AND AREAS ADJACENT TO WETLANDS SHALL BE THE "NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR MOIST SITES" FROM NEW ENGLAND WETLAND PLANTS, AMHERST, MA, TELEPHONE NO. 413-548-8000

THE BEST RESULTS ARE OBTAINED WITH A SPRING SEEDING. SUMMER AND FALL SEEDING REQUIRE A LIGHT MULCHING OF WEED FREE STRAW TO CONSERVE MOISTURE. LATE FALL AND WINTER DORMANT SEEDING REQUIRE A 10% INCREASE IN THE SEEDING RATE. FERTILIZATION IS NOT REQUIRED UNLESS THE SOILS ARE PARTICULARLY INFERTILE.

### RAIN GARDEN SEED MIXTURE

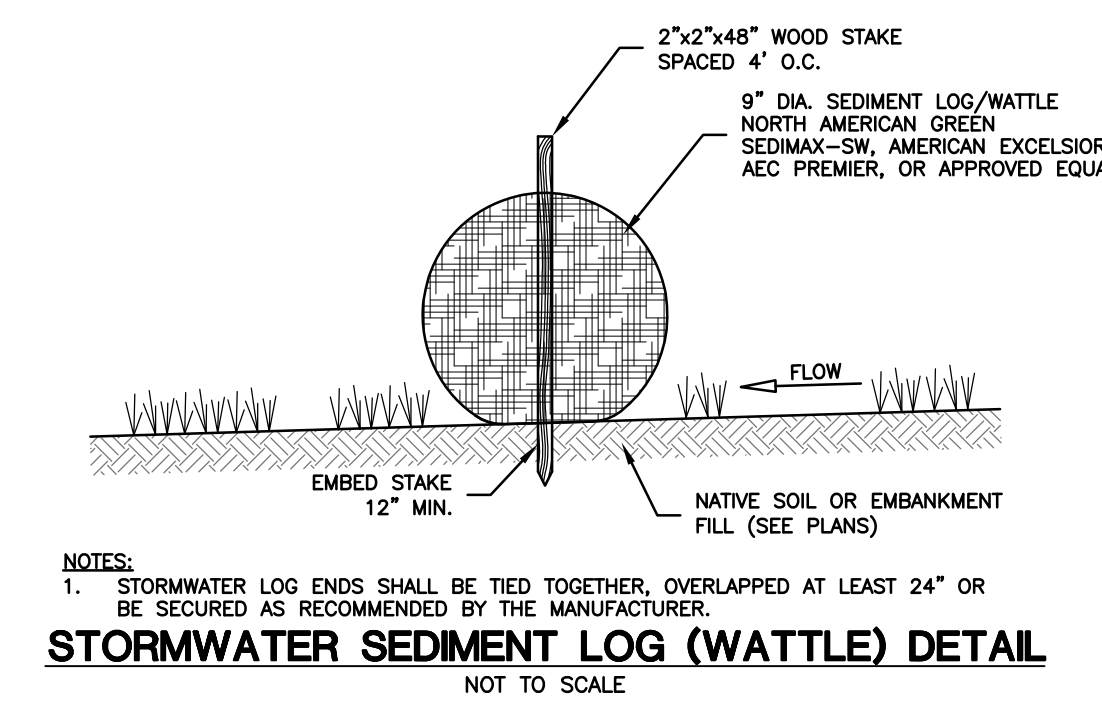
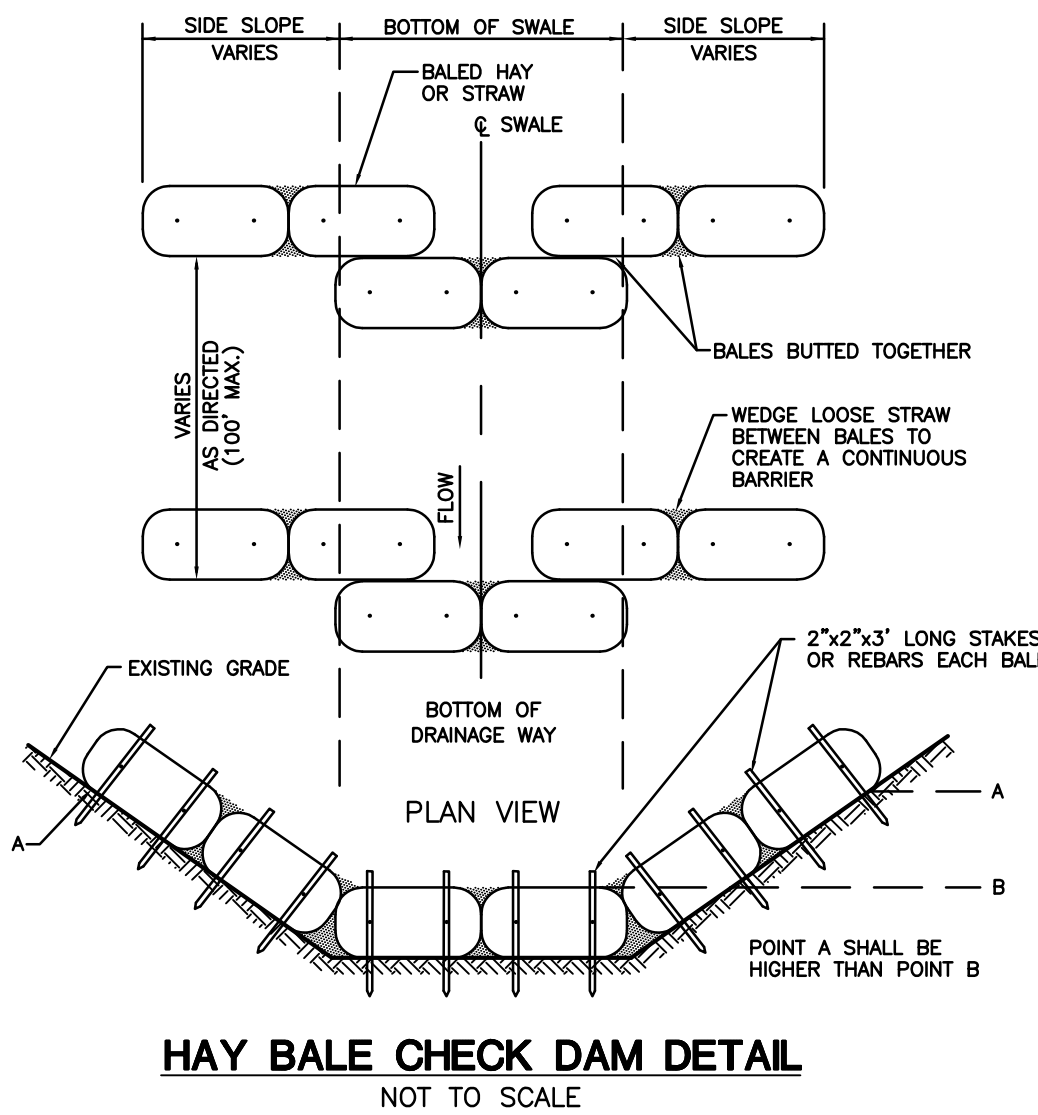
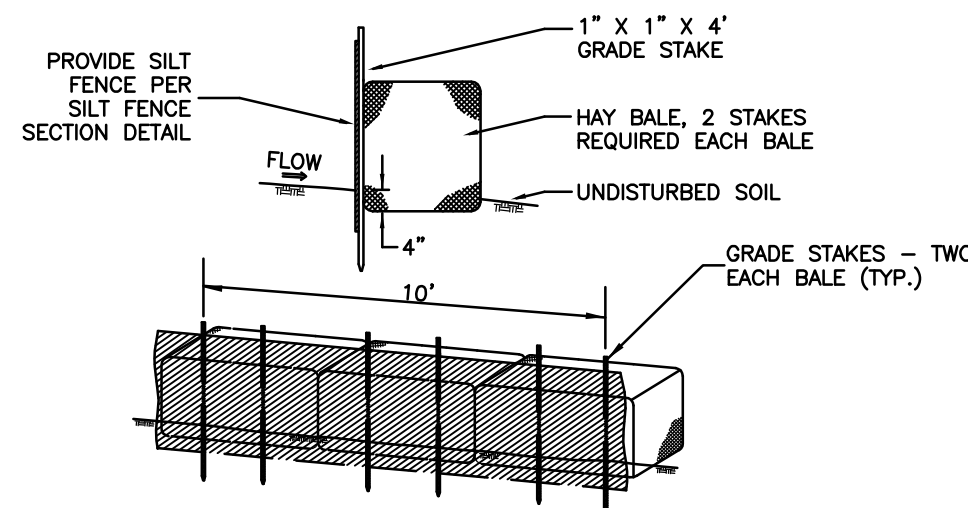
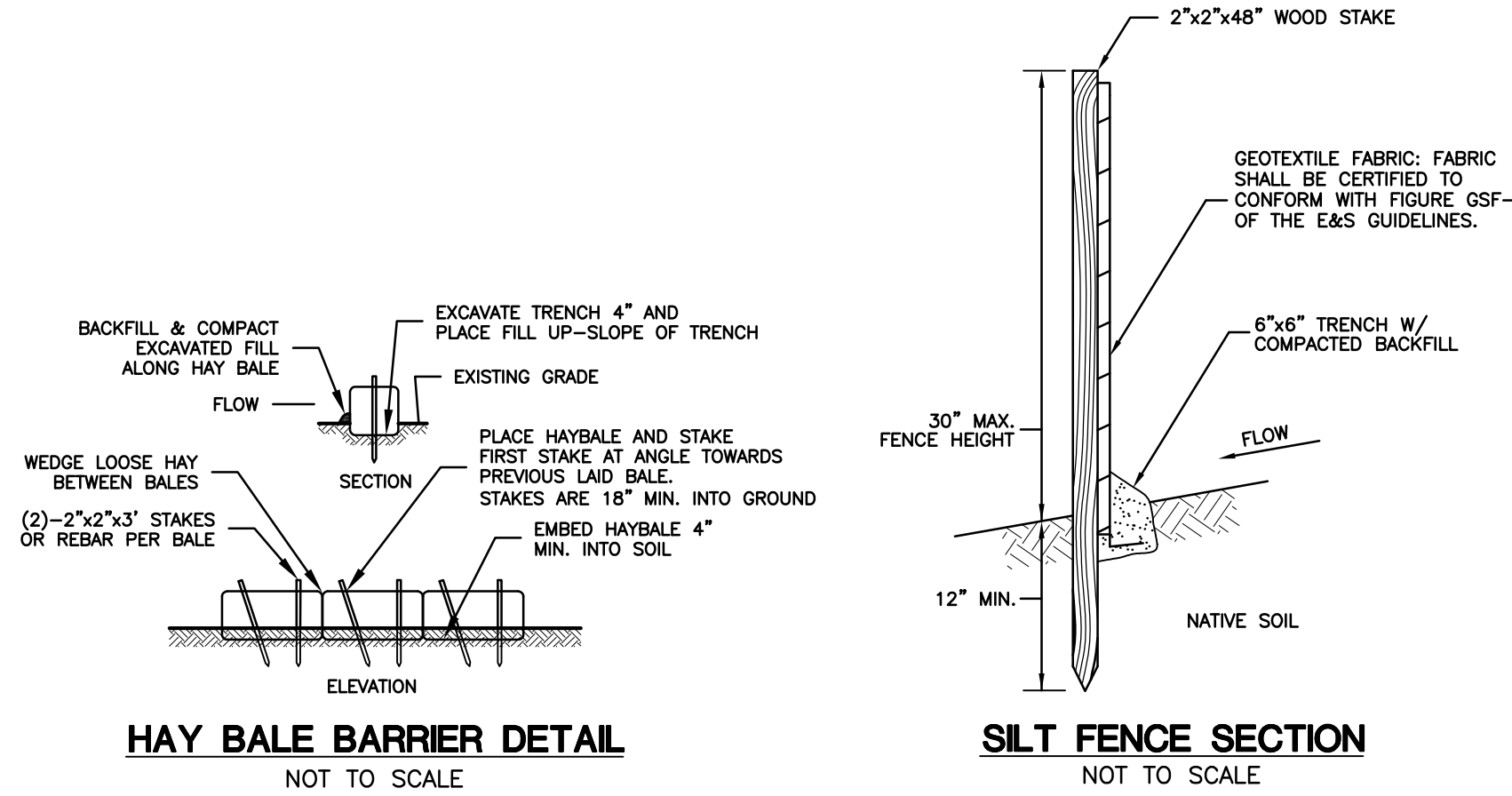
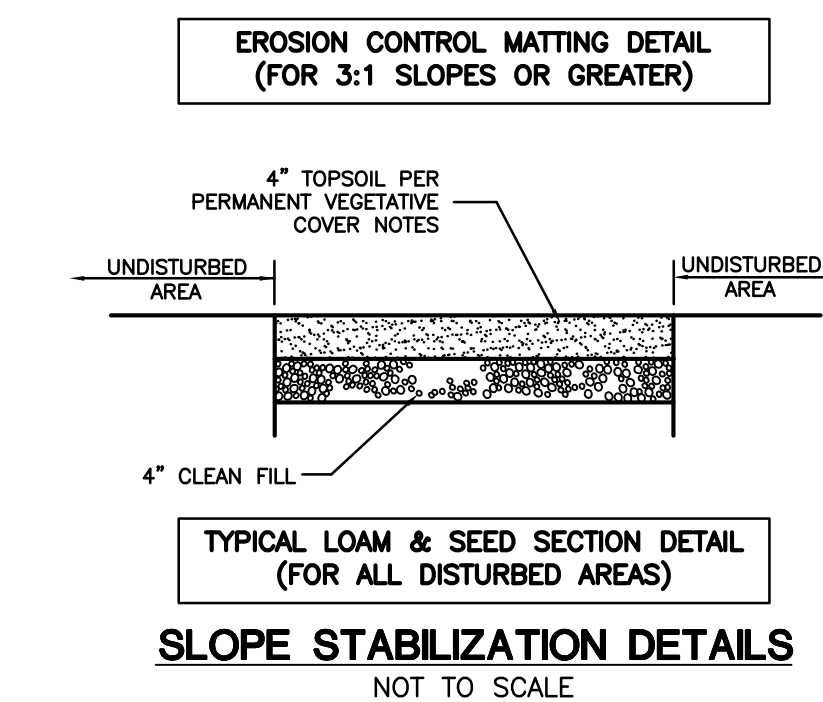
NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES	LBS./ACRE	LBS./1000 S.F.
	35	0.80

SPECIES: Virginia Wild Rye, (*Elymus virginicus*), Creeping Red Fescue, (*Festuca rubra*), Little Bluestem, (*Schizachyrium scoparium*), Big Bluestem, (*Andropogon gerardi*), Fox Sedge, (*Carex vulpinoidea*), Switch Grass, (*Panicum virgatum*), Rough Bentgrass, (*Agristis scabra*), New England Aster, (*Aster novae-angliae*), Boneset, (*Eupatorium perfoliatum*), Grass Leaved Goldenrod, (*Eulthomia graminifolia*), Green Bulrush, (*Scirpus atrovirens*), Blue Vervain, (*Verbena hastata*), Soft Rush, (*Juncus effusus*), Wool Grass, (*Scirpus cyperinus*)

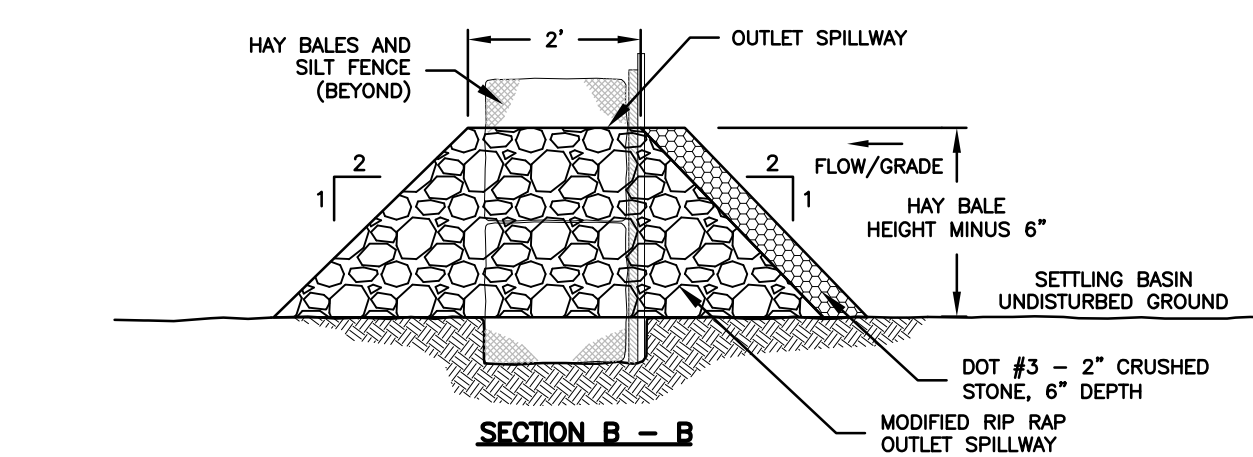
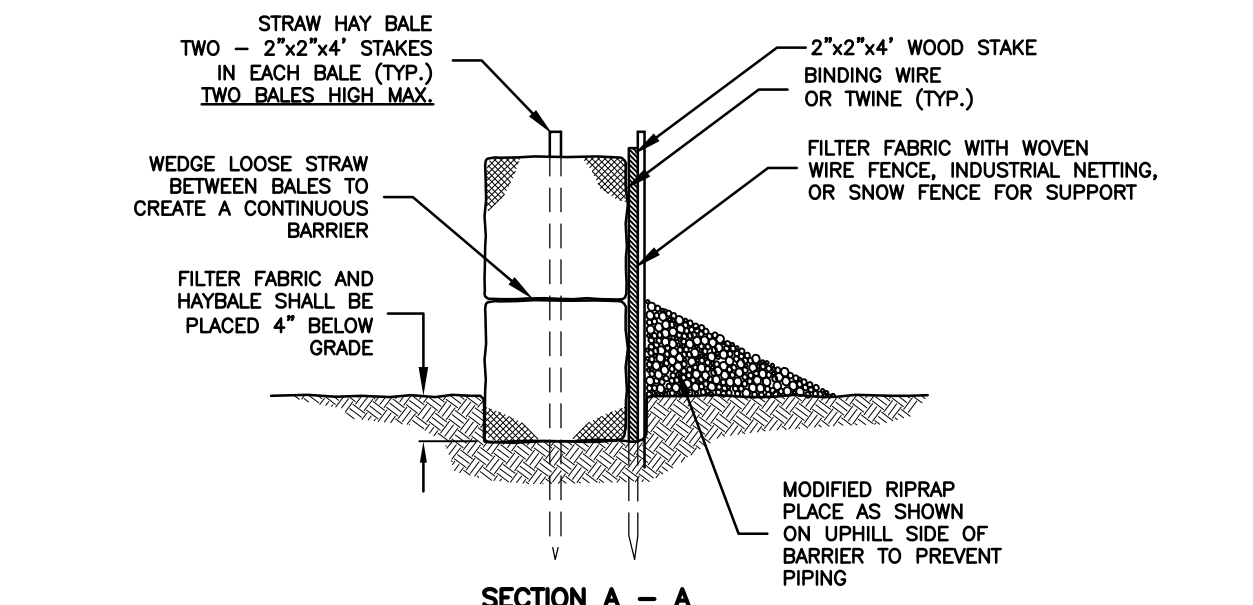
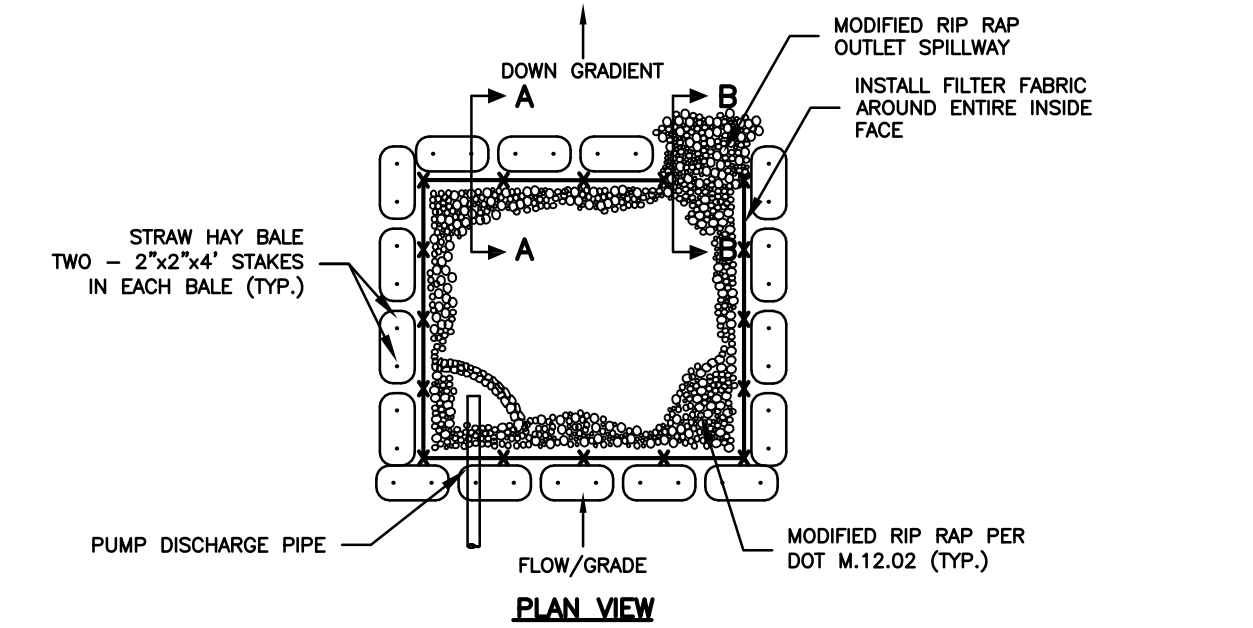
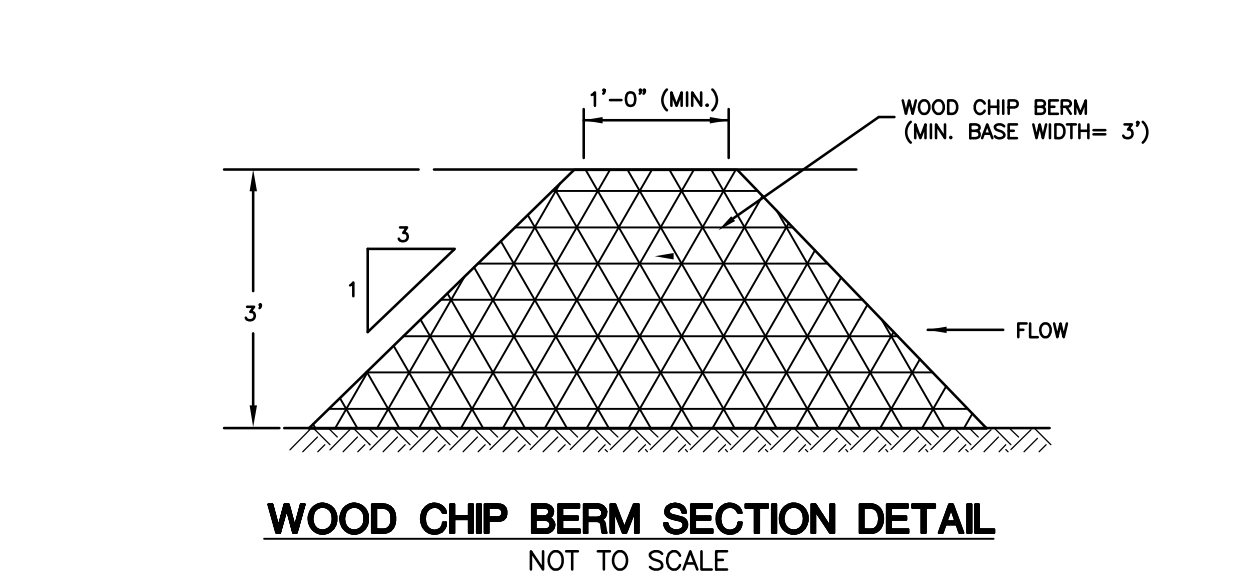


- PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAID FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZE & MULCH)
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP x 6" WIDE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- ROLL THE BLANKET (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
- 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 BIONET C12828N OR APPROVED EQUAL.



- NOTES:
- STORMWATER LOG ENDS SHALL BE TIED TOGETHER, OVERLAPPED AT LEAST 24" OR BE SECURED AS RECOMMENDED BY THE MANUFACTURER.



- CONSTRUCTION NOTES:
- SILT FENCE FILTER CLOTH TO BE SECURELY FASTENED TO GRADE STAKE WITH STAPLES, 6" ON CENTER.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN ONE ANOTHER THEY SHALL OVERLAP BY 6" AND BE FOLDED.
  - BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.

- DEWATERING PLAN**
- A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS FOLLOWS:
- PUMP INLET SHALL BE PROTECTED WITH FILTER FABRIC & CRUSHED STONE.
  - PUMP SHALL BE STAGED OUTSIDE OF WETLANDS.
  - THE WATER SHALL BE PUMPED TO A DEWATERING STRUCTURE WHICH SHALL BE LOCATED AT LEAST 50 FEET FROM ANY REGULATED WETLAND AREA OR AS SHOWN ON THE PLANS.
  - THE DEWATERING STRUCTURE SHALL BE SIZED TO ACCOMMODATE PUMP DISCHARGE RATE.  $REQUIRED VOLUME (C.F.) = PUMP DISCHARGE (G.P.M.) \times 18$
  - THE DEWATERING STRUCTURE SHALL DISCHARGE TO A VEGETATED AREA.
  - ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN AND PROPERLY DISPOSED OF WHEN ACCUMULATION REACHES HALF OF THE REQUIRED STORAGE VOLUME.
  - DEWATERING AREA SHALL BE RESTORED WITH NEW ENGLAND EROSION CONTROL SEED MIX.



EROSION AND SEDIMENTATION CONTROL PLAN CERTIFIED  
BY VOTE OF THE EAST LYME PLANNING COMMISSION  
ON \_\_\_\_\_

CHAIRMAN/SECRETARY: \_\_\_\_\_

APPROVED BY THE EAST LYME PLANNING COMMISSION  
CHAIRMAN/SECRETARY: \_\_\_\_\_

APPROVAL DATE: \_\_\_\_\_

FILING DEADLINE: \_\_\_\_\_

EXPIRATION DATE: \_\_\_\_\_

<b>CLA Engineers, Inc.</b> CIVIL · STRUCTURAL · SURVEYING		Project No. CLA-6359
2 8/6/2021 Misc. Revisions for Planning Submittal 1 1/27/2020 Misc. Additions & Revisions for Submittal	317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165	
Roxybury Road East Lyme, Connecticut		Proj. Engineer K.J.H.
<b>Proposed Residential          Conservation Subdivision</b>		Date: 11/25/19
Stormwater Management Plan and Erosion & Sedimentation Control Details		Sheet No. <b>12</b>

**DEVELOPMENT**

THE PROPOSED DEVELOPMENT IS A 5 LOT RESIDENTIAL SUBDIVISION SERVICED BY PRIVATE DRIVEWAYS. THE PROPOSED LIMITS OF DISTURBANCE HAVE BEEN SHOWN ON PLANS. THE PROPOSED DEVELOPMENT WILL DISTURB APPROXIMATELY 4.6 ACRES.

1. THERE IS NO PROPOSED INLAND WETLAND DISTURBANCE.
2. THERE IS NO PROPOSED WORK WITHIN THE 100-FOOT INLAND WETLAND REGULATED AREA.
3. THERE IS NO 100-YEAR FLOOD PLAIN LOCATED ON THE LOT. A PORTION OF THE LOT LIES WITHIN THE 500-YEAR FLOOD PLAIN. NO WORK HAS BEEN PROPOSED WITHIN THIS AREA. (FIRM MAP #0901100479J, MAP EFF. AUGUST 5, 2013)
4. NO PORTION OF THE LOT LIES WITHIN A CT DEEP NATURAL DIVERSITY DATABASE AREA.
5. NO PORTION OF THE LOT LIES WITHIN THE COASTAL MANAGEMENT AREA.
6. NO PORTION OF THE LOT LIES WITHIN THE AQUIFER PROTECTION AREA.
7. THE RESIDENTIAL LOTS WILL BE SERVED BY ONSITE SEPTIC SYSTEMS.
8. THE RESIDENTIAL LOTS WILL BE SERVED BY THE MUNICIPAL WATER SYSTEM.

**GENERAL NOTES**

1. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 811 AT LEAST 2 FULL WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
2. INFORMATION SHOWN ON THE DRAWINGS RELATING TO MATERIALS, CONDITIONS, AND/OR LOCATIONS OF EXISTING STRUCTURES AND UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING FIELD SURVEY, UTILITY COMPANY AND TOWN RECORD MAPS AND DRAWINGS, AND IS NOT GUARANTEED ACCURATE OR COMPLETE.
3. THE CONTRACTOR SHALL EXCAVATE TEST PITS AS NEEDED OR AS DIRECTED TO VERIFY UTILITY INFORMATION.
4. PASSAGE OF TRAFFIC ON ROADWAYS/DRIVEWAYS: A MINIMUM OF ONE LANE FOR TRAFFIC SHALL BE MAINTAINED THROUGH THE SITE AT ALL TIMES. THE CONTRACTOR SHALL PERFORM HIS OPERATIONS TO MINIMIZE DISRUPTIONS TO TRAFFIC WITHIN THE PROJECT SITE. A SINGLE LANE OF TRAFFIC MUST BE MAINTAINED AT ALL TIMES FOR RESIDENTS, BUSINESSES AND EMERGENCY VEHICLES.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF TRAFFIC, TRAFFIC CONTROL, TEMPORARY SIGNING OR BARRICADES AND LANE CLOSURES. CONTINUOUS ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.
6. CONSTRUCTION SIGNS MUST CONFORM TO THE SIGNING REQUIREMENTS OUTLINED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)". ALL SIGN FACES SHALL BE REFLECTORIZED.
7. THE CONTRACTOR SHALL CONFINE HIS OPERATIONS AND ACTIVITIES FOR CONSTRUCTION PURPOSES WITHIN THE STREET LINES, EASEMENTS AND PROPERTY AS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PAVEMENT, ROADWAY, SIDEWALKS, ETC., OUTSIDE OF THE WORK AREA AND SHALL REPAIR SUCH DAMAGE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY AND PERMANENT SUPPORT OF ALL EXISTING UTILITY POLES IN AN ADJACENT TO THE CONSTRUCTION AREA AND SHALL COMPLY WITH ALL THE REQUIREMENTS AND SPECIAL DETAILS FOR THE SUPPORT OF UTILITIES REQUIRED BY UTILITY AGENCIES.
9. MATERIAL STOCKPILE AND STAGING AREAS: THE CONTRACTOR SHALL LOCATE STOCKPILE, MATERIAL STORAGE AND EQUIPMENT STORAGE AREAS AS SHOWN ON THE PLANS. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL IDENTIFY THESE AREAS AND PROVIDE EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED. ADJUSTMENTS TO THESE LOCATIONS MAY BE MADE IN THE FIELD PROVIDED THAT EROSION AND SEDIMENTATION CONTROL MEASURES ARE FURNISHED & INSTALLED AND IN NO CASE MAY THEY BE LOCATED WITHIN THE 100-FOOT REGULATED AREAS.
10. IF BLASTING IS PERFORMED A PRE-BLAST SURVEY WILL BE REQUIRED. ANY AND ALL BLASTING SHALL CONFORM TO THE REGULATIONS SET FORTH BY THE TOWN AND SHALL BE APPROVED BY THE APPROPRIATE TOWN AGENCIES AND ADJACENT UTILITY OWNERS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTING TO GRADE ALL FRAMES, GRATES, COVERS, VALVE BOXES, ACCESS COVERS, AND ALL OTHER ITEMS WHICH NORMALLY MUST HAVE A FIXED RELATION TO FINISHED GRADE.
12. ALL WORK TO CONFORM TO THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 817, DATED JANUARY 2019, AS REVISED.
13. ALL FILL MATERIAL (BORROW) IMPORTED TO THE SITE SHALL BE "CLEAN FILL" IN ACCORDANCE WITH DEEP'S SOLID WASTE MANAGEMENT REGULATIONS (RCSA SECTION 22a-209-1).



**UTILITY NOTES**

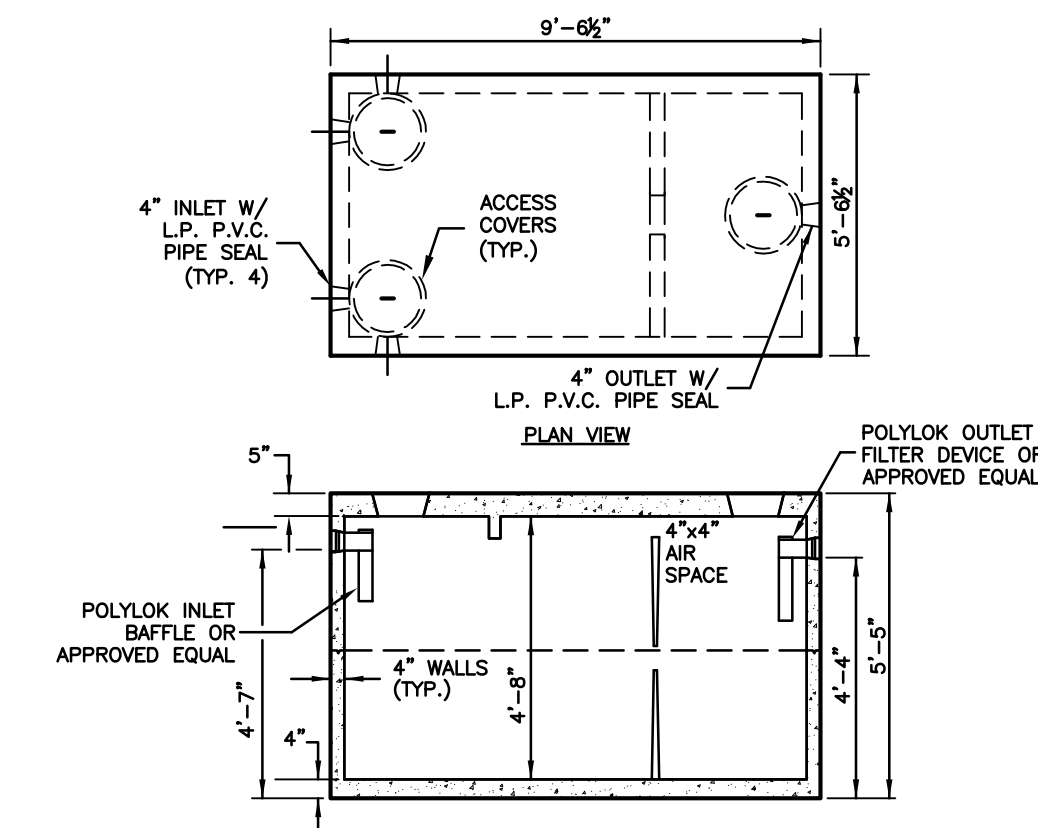
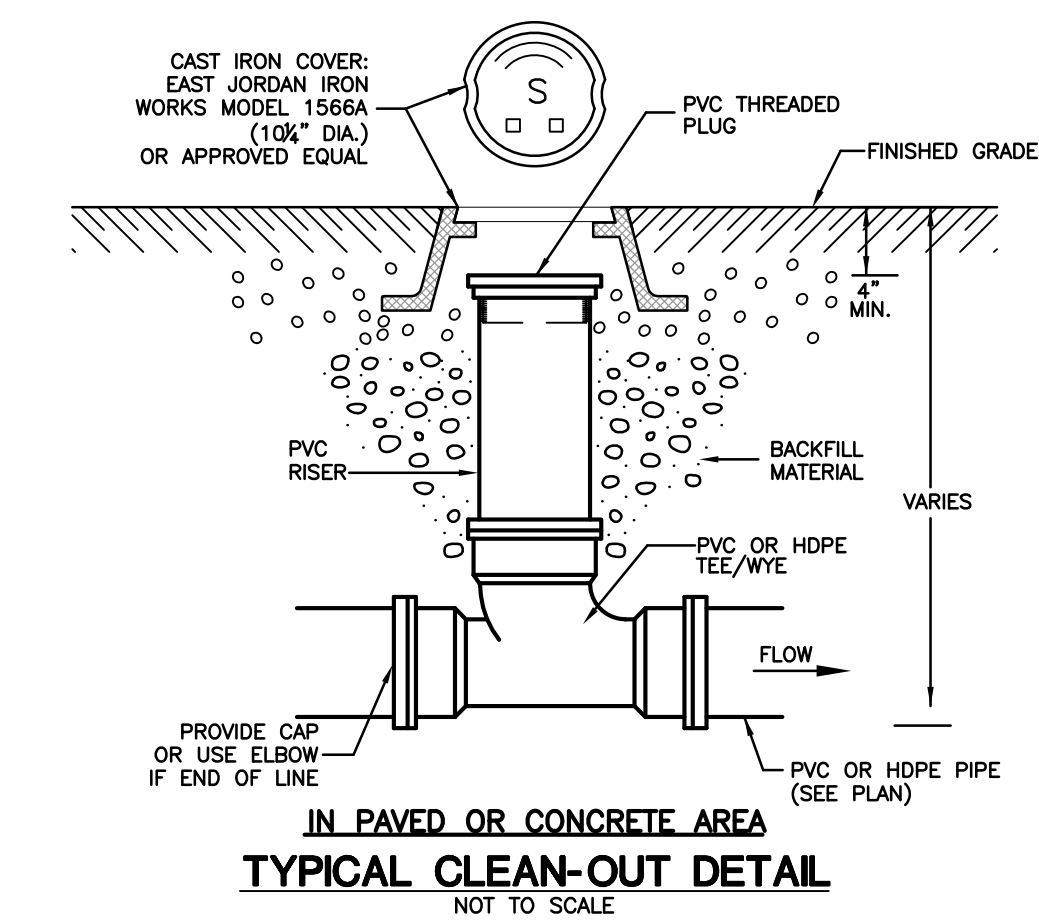
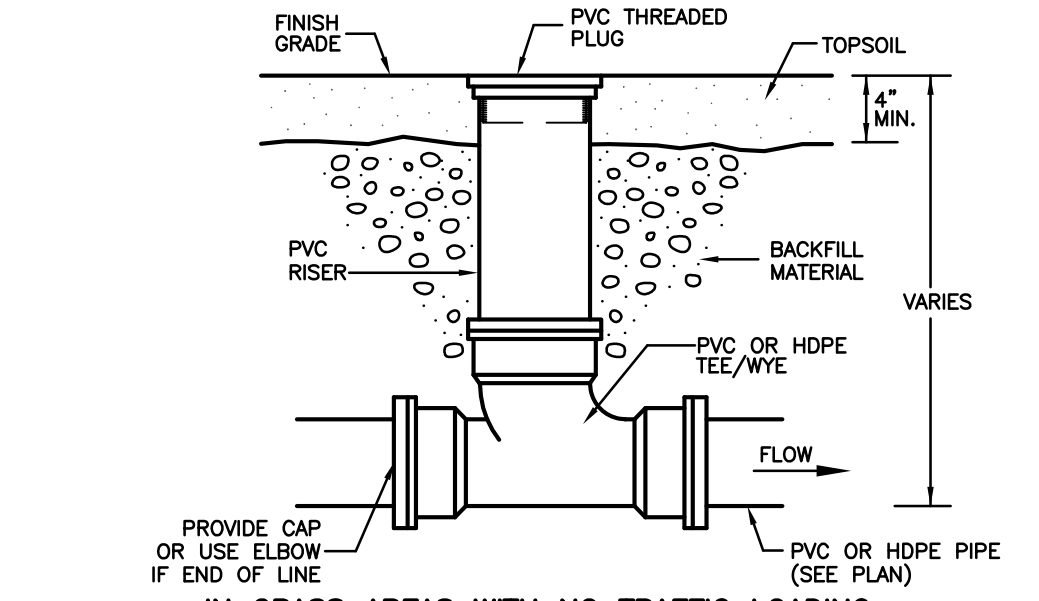
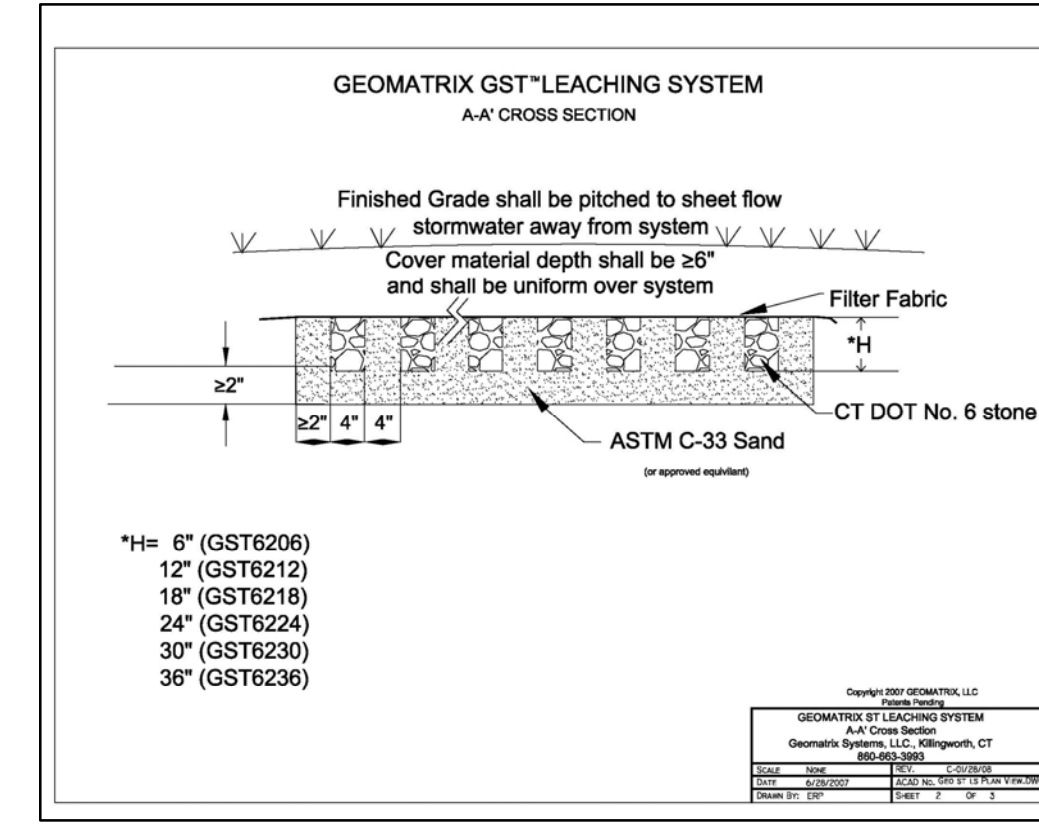
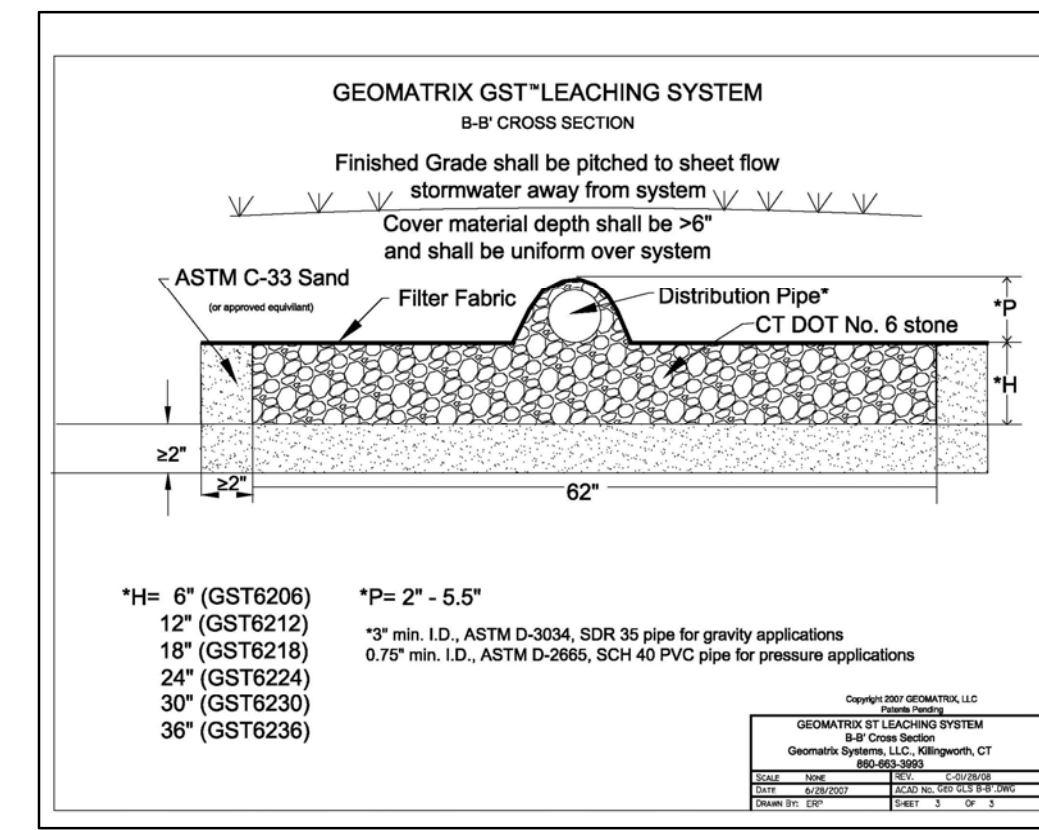
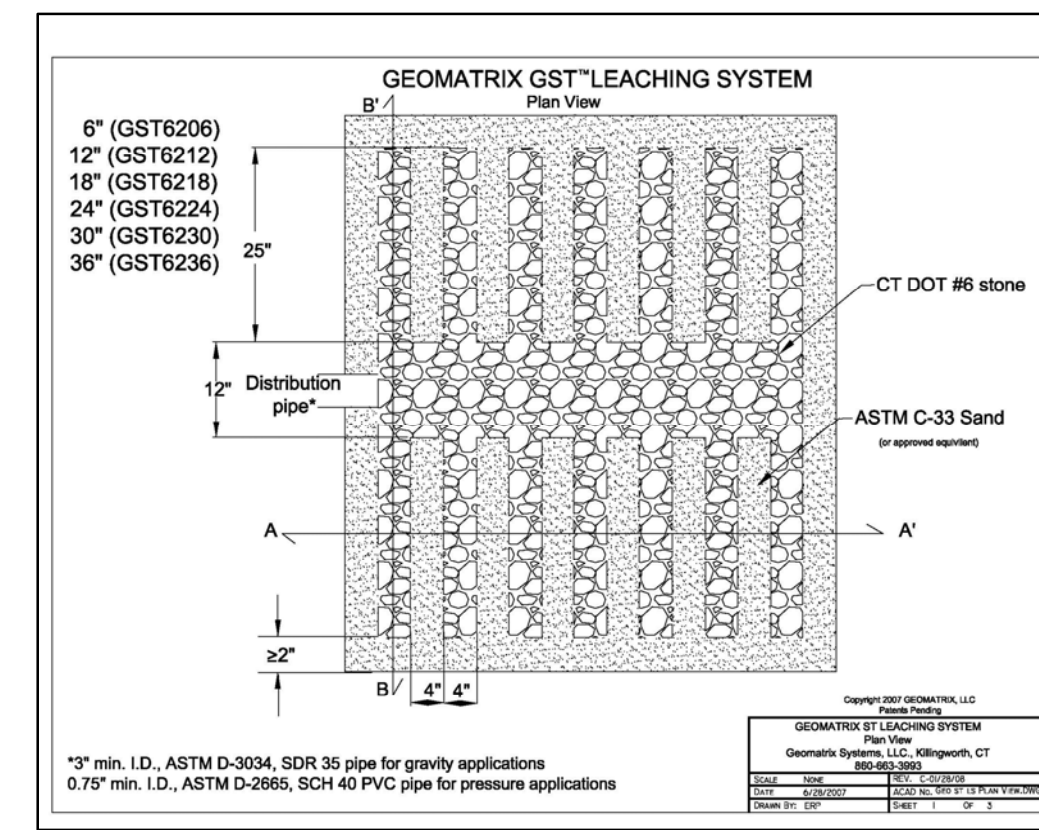
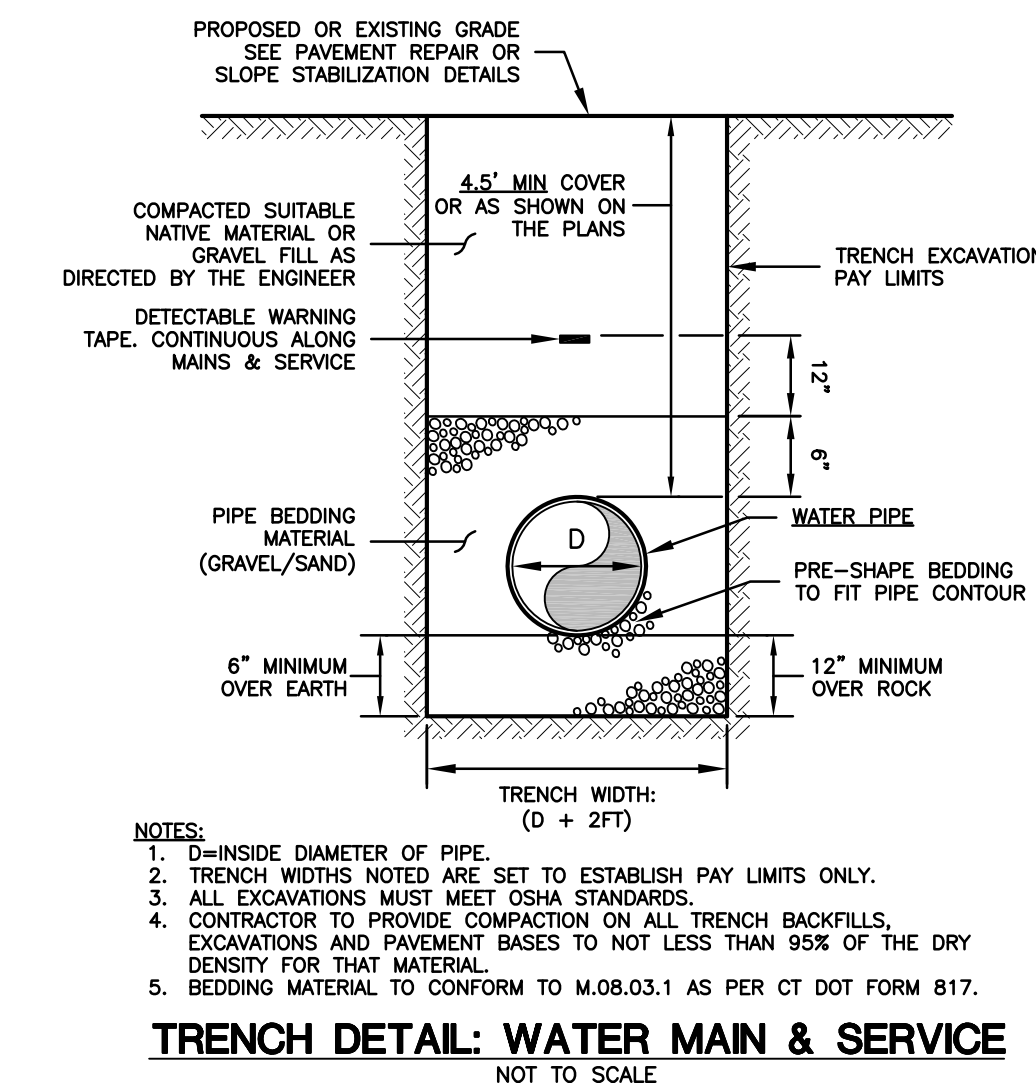
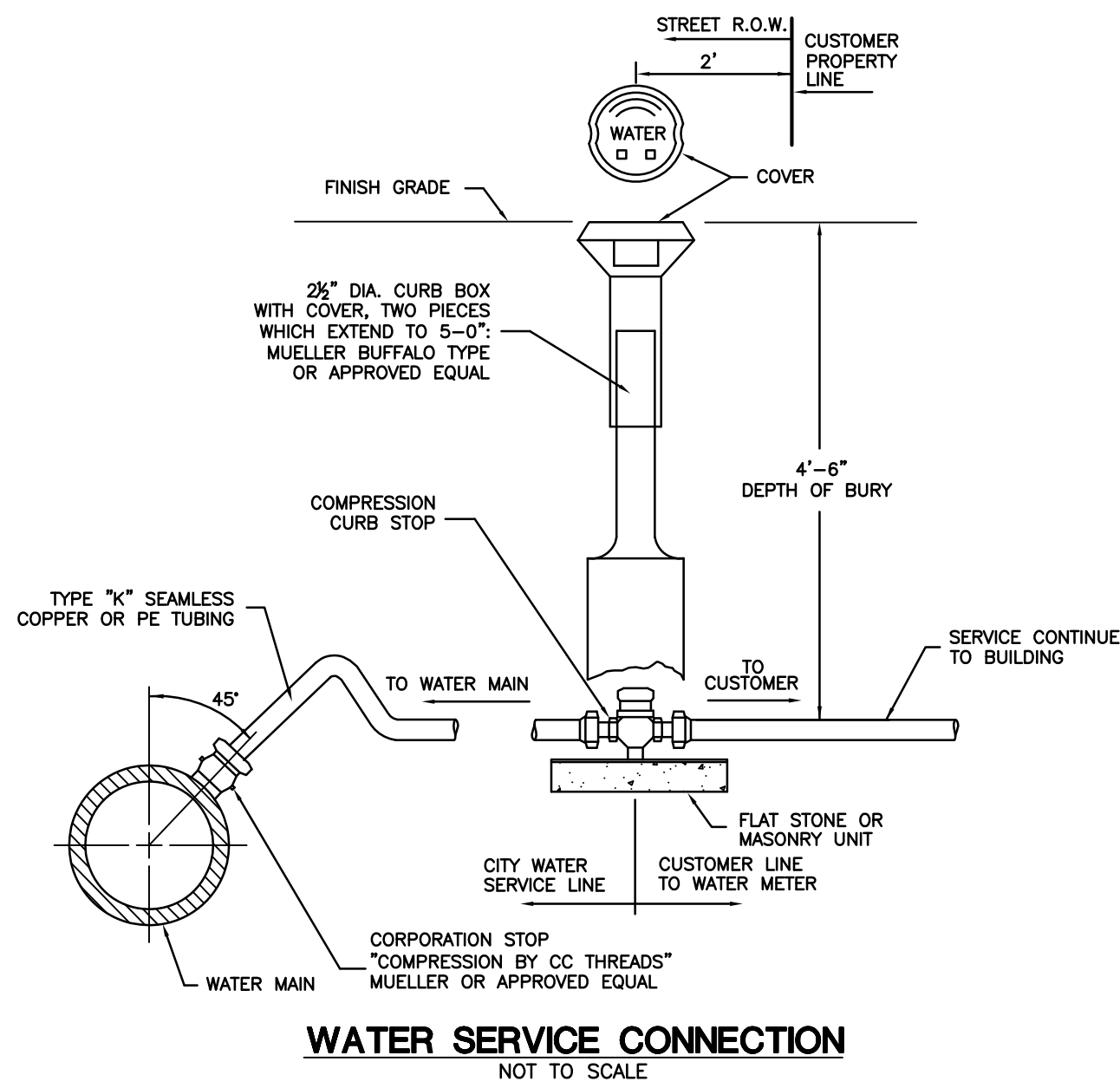
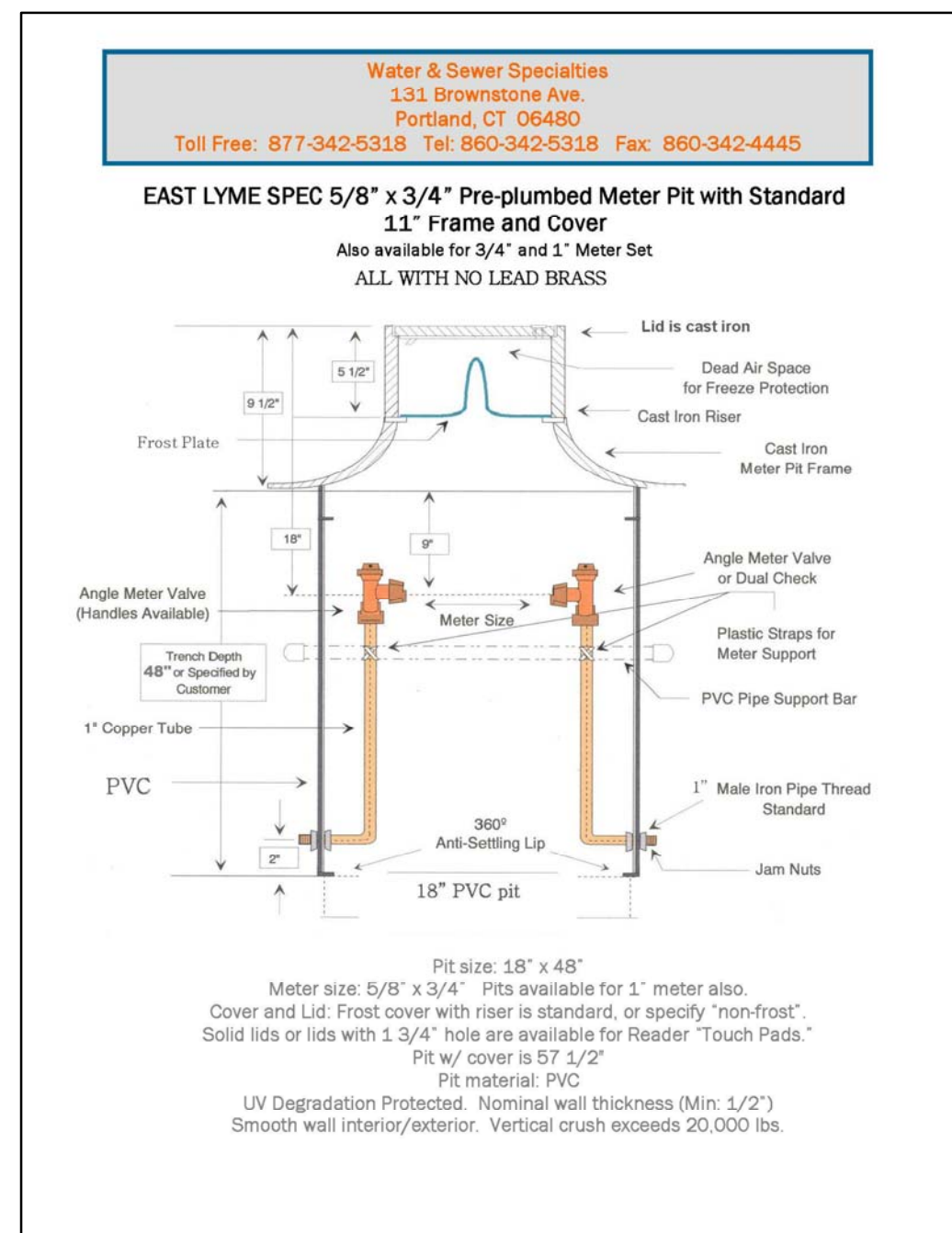
1. ALL UTILITY AND SERVICE INSTALLATIONS SHALL CONFORM TO THE TOWN OF EAST LYME REQUIREMENTS AND ALL OTHER PRIVATE UTILITY COMPANY REQUIREMENTS.
2. THE WATER INSTALLATION SHALL BE COORDINATED AND INSPECTED BY THE TOWN OF EAST LYME.
3. WATER DISINFECTION AND PRESSURE TESTING - ALL WATER SERVICES AND OTHER PIPING AND APPURTENANCES SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA C600 AND DISINFECTED IN ACCORDANCE WITH AWWA C651 PRIOR TO FINAL CONNECTION TO THE MAINS.
4. SITE MUST BE AT SUBGRADE BEFORE UTILITIES CAN BE INSTALLED.
5. CONTRACTOR TO COORDINATE GAS/ELECTRIC INSTALLATION WORK WITH EVERSOURCE (IF APPLICABLE).

**CONSTRUCTION SEQUENCE**

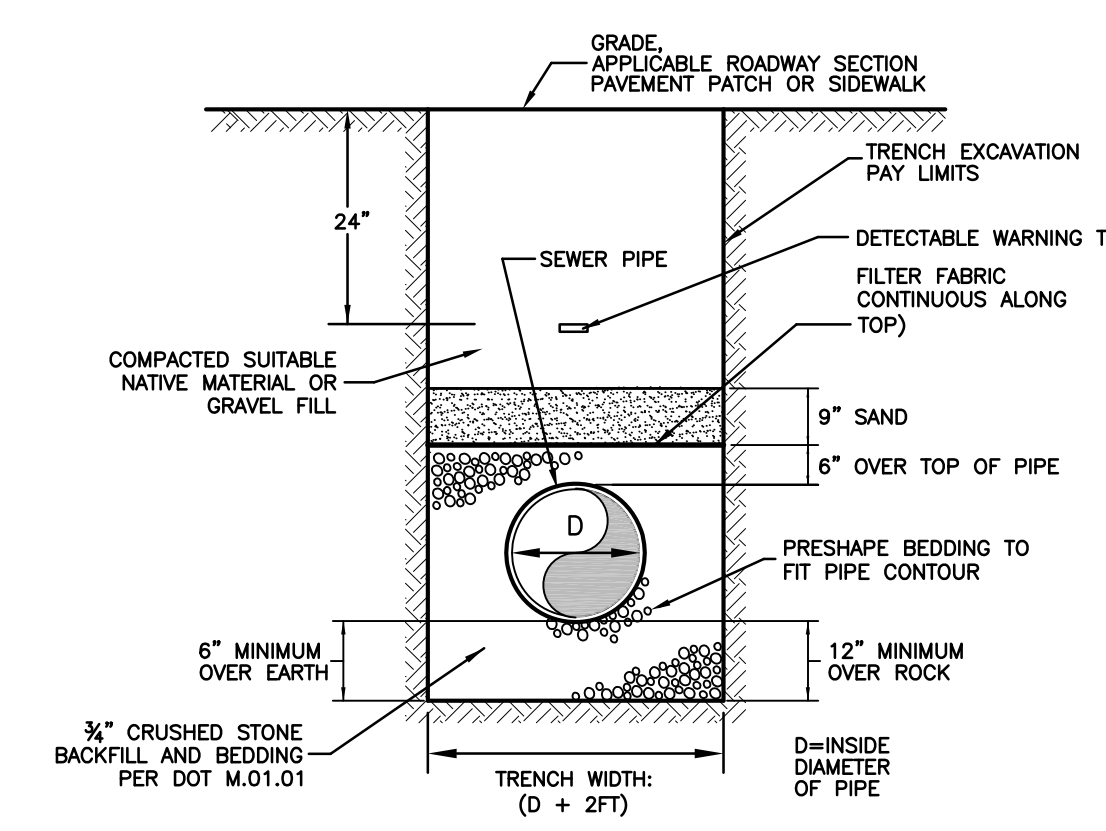
IT IS ANTICIPATED THAT THE CONSTRUCTION ACTIVITIES WILL BEGIN DURING THE LATE WINTER OF 2020 AND WILL BE COMPLETED IN APPROXIMATELY 18 MONTHS.

**CONSTRUCTION SEQUENCE:**

1. PRIOR TO ANY SITE DISTURBANCE CONTACT "CALL BEFORE YOU DIG" 811 TO MARK EXISTING UTILITY LOCATIONS.
2. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE EROSION AND SEDIMENTATION CONTROL PLAN & NARRATIVE.
3. CLEAR AND GRUB THE PROPOSED WORK AREA.
4. CUT & FILL FOR THE DRIVEWAYS, SEPTIC SYSTEMS, AND FOUNDATIONS TO ESTABLISH THE SITE SUBGRADE.
5. INSTALL PROPOSED UNDERGROUND UTILITIES.
6. FINISH GRADE THE DRIVEWAYS INSTALL BITUMINOUS SURFACE COURSES AS CALLED FOR IN THE SECTION DETAILS.
7. INSTALL ALL LANDSCAPING. LOAM, SEED, FERTILIZE AND MULCH ALL DISTURBED AREAS AROUND THE ROAD CONSTRUCTION.
8. AFTER ALL DISTURBED AREAS ARE STABILIZED AND WITH PRIOR APPROVAL FROM TOWN STAFF, REMOVE EROSION AND SEDIMENTATION CONTROL MEASURES.



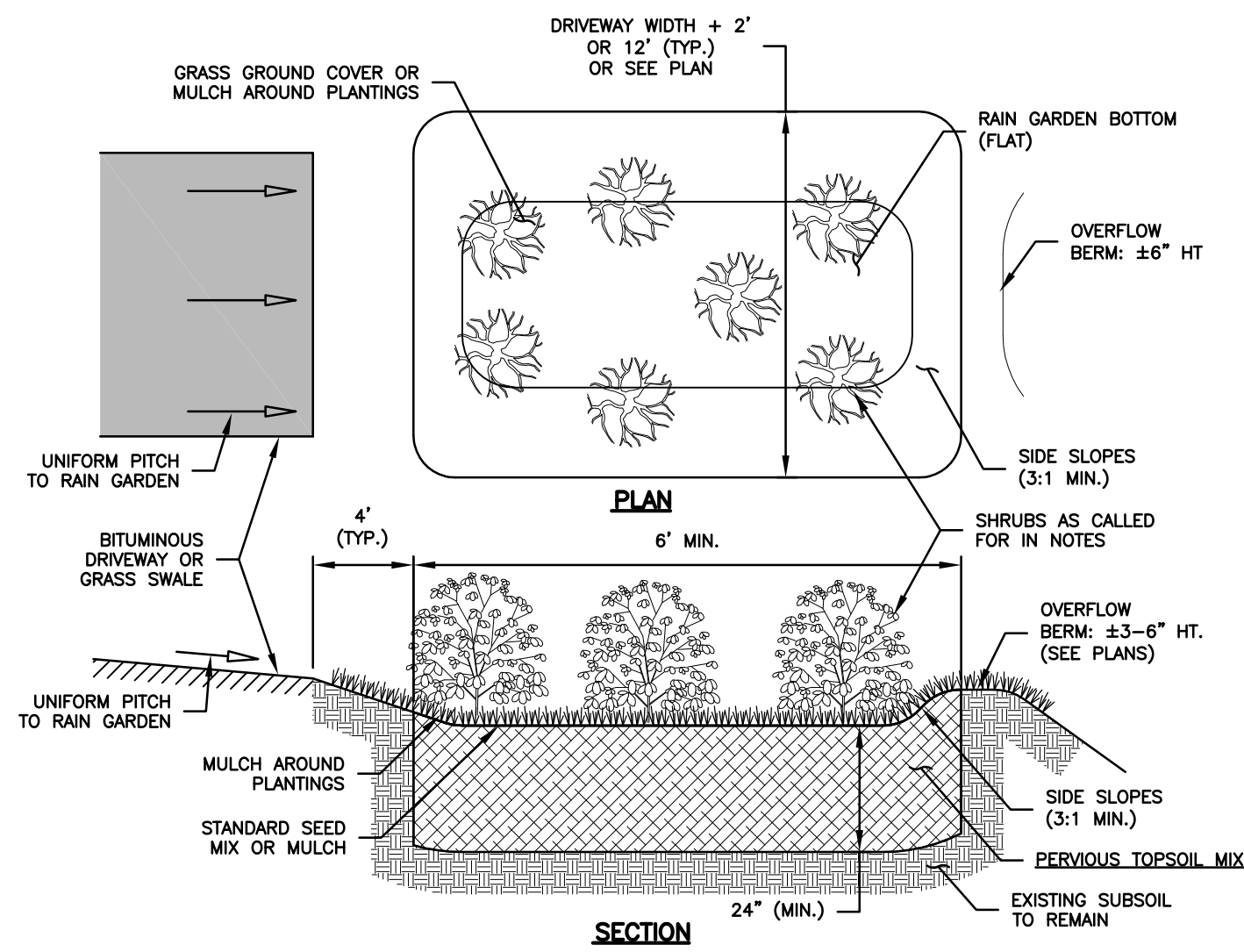
- 1250 GALLON SEPTIC TANK**  
NOT TO SCALE
1. DIMENSIONS MAY VARY DEPENDING ON TANK MANUFACTURER (LIMITED CONCRETE SHOWN)
  2. CONCRETE - 4,000 P.S.I. AT 28 DAYS
  3. STEEL REINFORCEMENT - ASTM A-615 GR. 60, A-185 OR A-497, 1" MIN. COVER
  4. CONSTRUCTION JOINT-SEALED WITH 1" DIA. BUTYL RUBBER OR EQUIVALENT.
  5. SEPTIC TANK SHALL MEET THE REQUIREMENTS OF SECTION 5 OF THE CT PUBLIC HEALTH CODE
  6. PROVIDE RISERS AND ACCESS COVER TO WITHIN 12" OF FINISHED GRADE. TANK ACCESS COVERS TO REMAIN IN PLACE.



- TRENCH DETAIL: SANITARY SEWER PIPE**  
NOT TO SCALE
- NOTES:
1. D=INSIDE DIAMETER OF PIPE.
  2. TRENCH WIDTHS NOTED ARE SET TO ESTABLISH PAY LIMITS ONLY.
  3. ALL EXCAVATIONS MUST MEET OSHA STANDARDS.
  4. CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL.

APPROVED BY THE EAST LYME PLANNING COMMISSION  
CHAIRMAN/SECRETARY: \_\_\_\_\_  
APPROVAL DATE: \_\_\_\_\_  
FILING DEADLINE: \_\_\_\_\_  
EXPIRATION DATE: \_\_\_\_\_

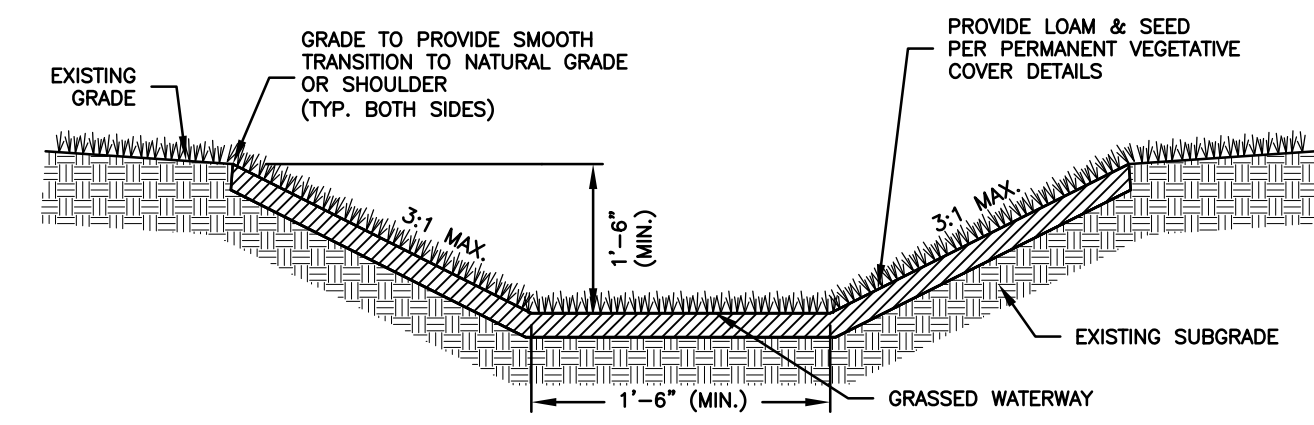
		<b>CLA Engineers, Inc.</b> CIVIL · STRUCTURAL · SURVEYING 317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165		Project No.	CLA-6359
				Proj. Engineer	K.J.H.
		<b>Proposed Residential Conservation Subdivision</b> Construction Details		Date:	11/25/19
				Sheet No.	13



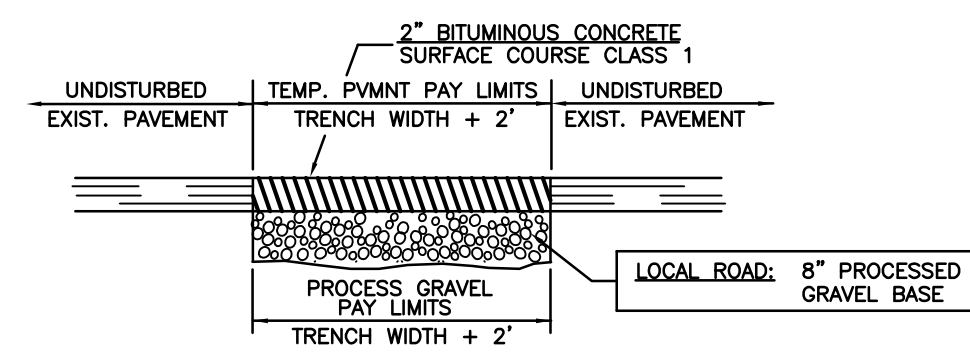
- NOTES:**
- PERVIOUS TOPSOIL MIX SHALL MEET THE REQUIREMENTS OF DOT FORM 817, ARTICLE M.13.01.1 WITH THE FOLLOWING GRADATION:
 

SIEVE	% PASSING
#10	100%
#40	60-80%
#80	5%
#200	0%
  - DO NOT COMPACT MATERIAL DURING INSTALLATION.
  - EXCAVATE RAIN GARDEN TO THE GRADES SPECIFIED WITH SIDEWALLS AS NEAR TO VERTICAL AS POSSIBLE. INSTALL PERVIOUS TOPSOIL MIX. DO NOT COMPACT TOPSOIL MIX.
  - SEED MIX SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN THE VEGETATIVE COVER NARRATIVE HEREIN.
  - INSTALL SHRUBS AND ALL PLANTINGS IN CONFORMANCE WITH THE CONSTRUCTION DETAILS AND LANDSCAPING NOTES HEREIN.
- LANDSCAPE SCHEDULE:**
- EACH RAIN GARDEN SHALL BE PLANTED IN ACCORDANCE WITH THE LANDSCAPE SCHEDULE.
- TYPICAL MAINTENANCE:**
- MOW BOTTOM, AS NEEDED.
  - REPLENISH MULCH AROUND PLANTINGS YEARLY, AS NEEDED.
  - REMOVE SEDIMENT AND LEAF LITTER TWICE YEARLY
    - BETWEEN NOVEMBER 15 AND DECEMBER 15 (AFTER LEAF FALL)
    - DURING APRIL (AFTER SNOW MELT)

**TYPICAL RAIN GARDEN DETAILS**  
NOT TO SCALE

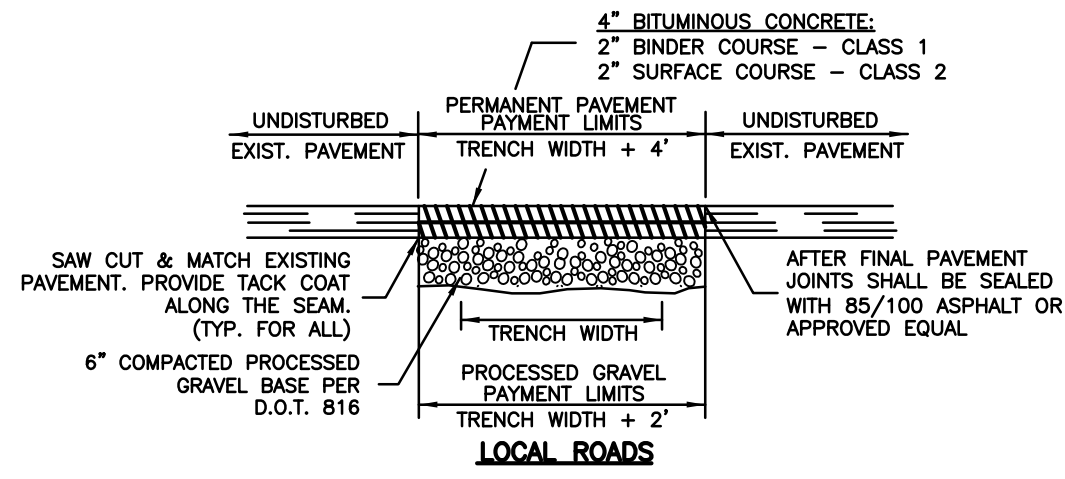


**GRASS LINED DRAINAGE SWALE**  
NOT TO SCALE



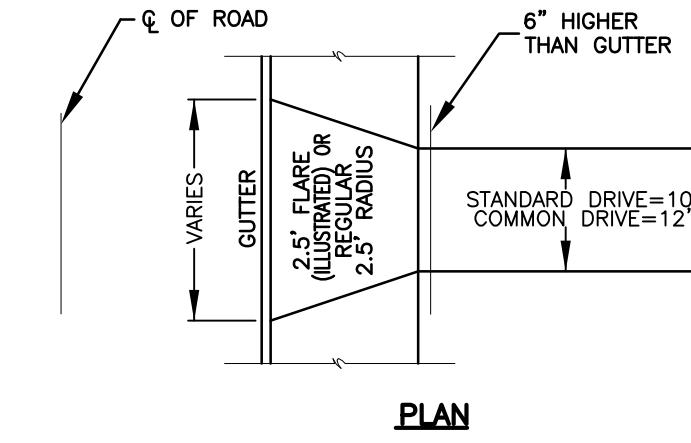
- NOTES:**
- CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL.
  - TEMP. PAVEMENT SHALL BE PLACED AT THE END OF WEEK OR AS DIRECTED BY THE OWNER OR ENGINEER.
  - PROCESSED GRAVEL MUST BE INSTALLED AT THE TIME OF TEMPORARY PAVING.
  - TEMPORARY PAVEMENT SHALL REMAIN IN PLACE FOR A MINIMUM OF 30 DAYS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT.

**TEMPORARY TRENCH PAVEMENT REPAIR**  
NOT TO SCALE

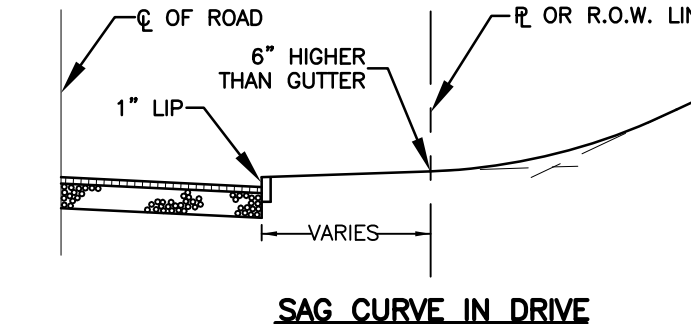


- NOTES:**
- CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL.

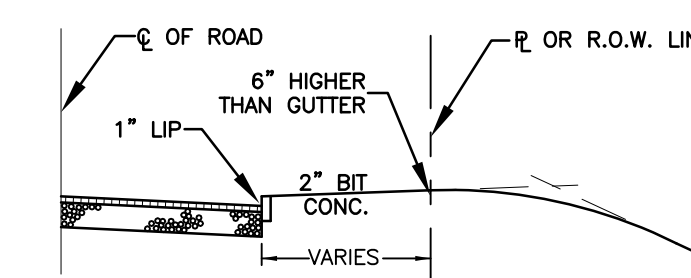
**PERMANENT TRENCH PAVEMENT REPAIR**  
NOT TO SCALE



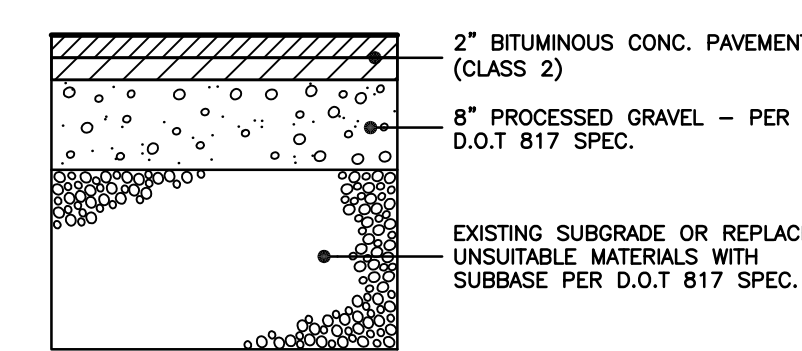
**SAG CURVE IN DRIVE**  
NOT TO SCALE



**CREST CURVE IN DRIVE**  
NOT TO SCALE

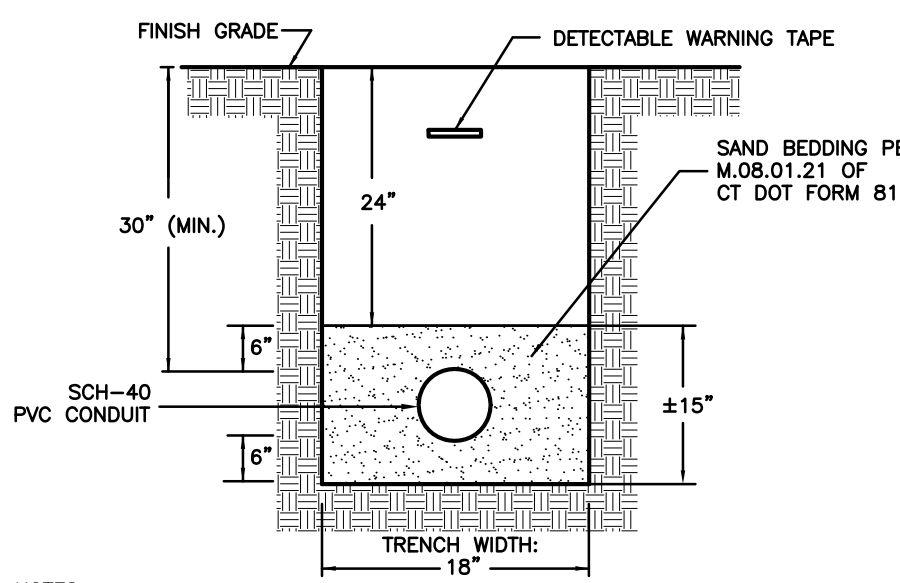


**DRIVEWAY DETAIL**  
NOT TO SCALE



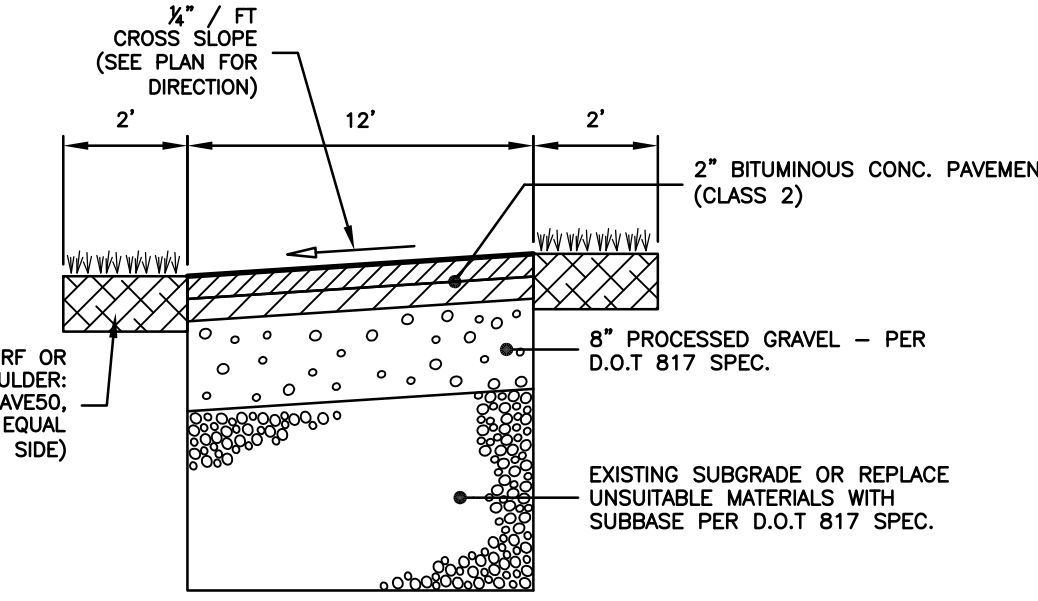
- NOTES:**
- PROVIDE CONTINUOUS TACK COAT ALONG EDGE WHEN MATCHING EXISTING PAVEMENT
  - CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL WHEN TESTED IN ACCORDANCE WITH AASHTO T180, METHOD D

**TYPICAL DRIVEWAY SECTION DETAIL**  
NOT TO SCALE



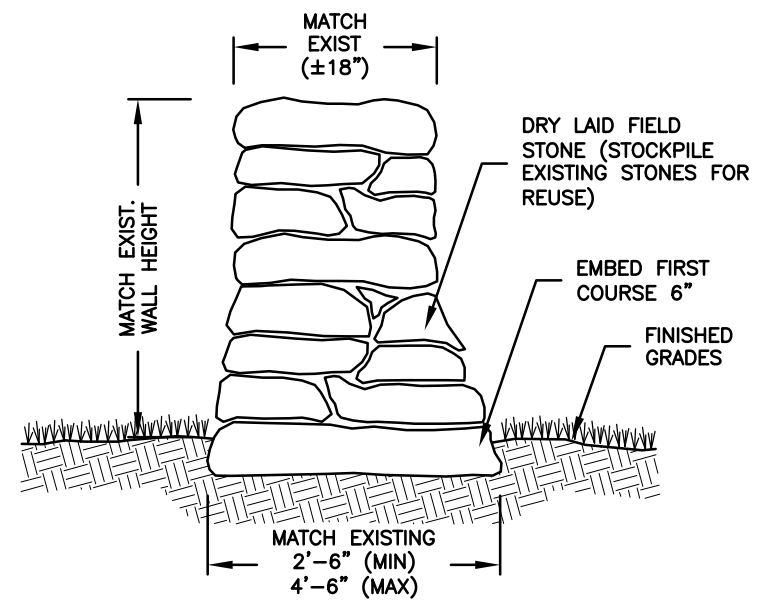
- NOTES:**
- TRENCH WIDTHS NOTED ARE SET TO ESTABLISH PAY LIMITS ONLY.
  - ALL EXCAVATIONS MUST MEET OSHA STANDARDS.
  - CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL.
  - MAINTAIN 2" SEPARATION BETWEEN MULTIPLE CONDUIT TRENCHES

**TYPICAL CONDUIT TRENCH DETAIL**  
NOT TO SCALE

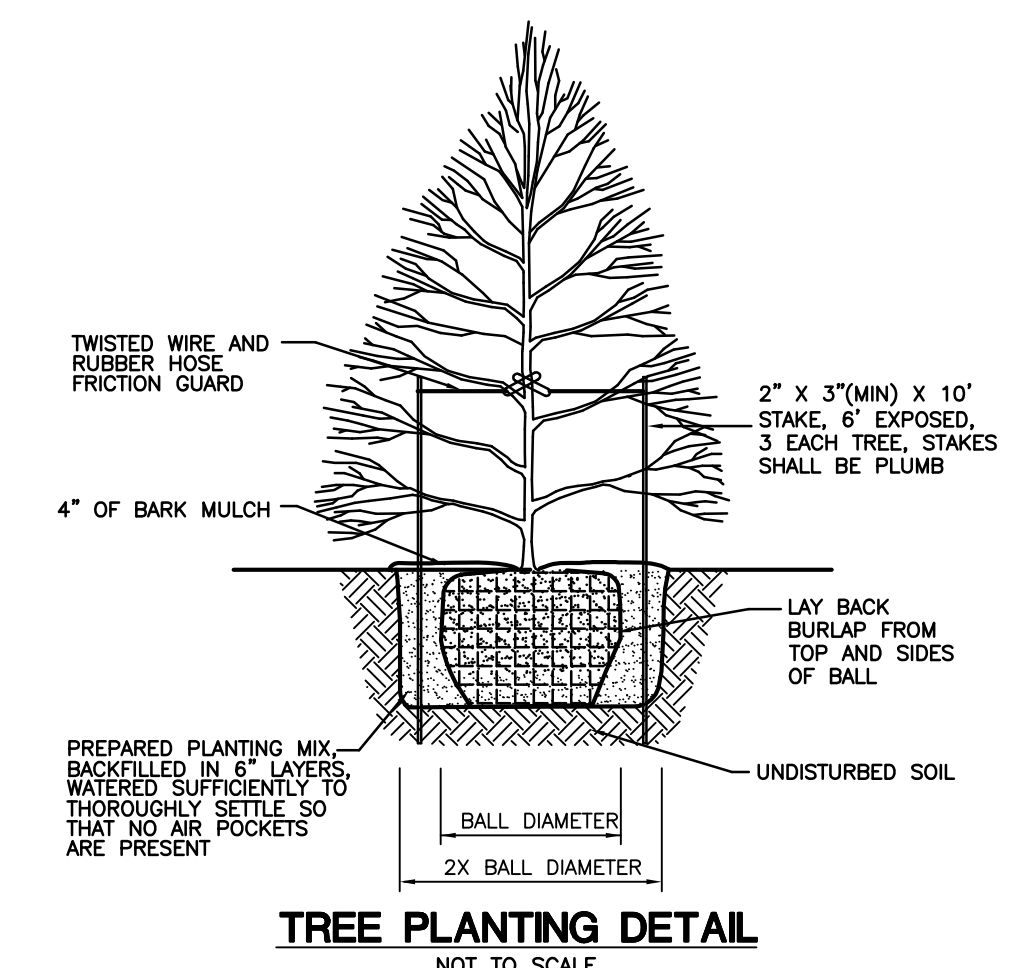


- NOTES:**
- PROVIDE CONTINUOUS TACK COAT ALONG EDGE WHEN MATCHING EXISTING PAVEMENT
  - CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL WHEN TESTED IN ACCORDANCE WITH AASHTO T180, METHOD D

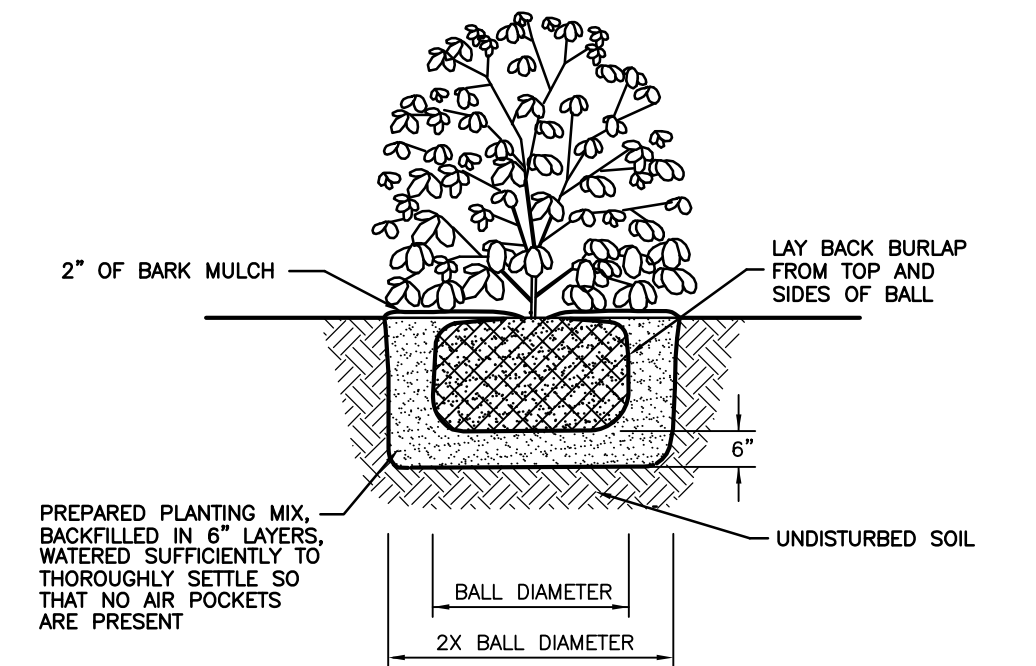
**TYPICAL COMMON DRIVEWAY SECTION DETAIL**  
NOT TO SCALE



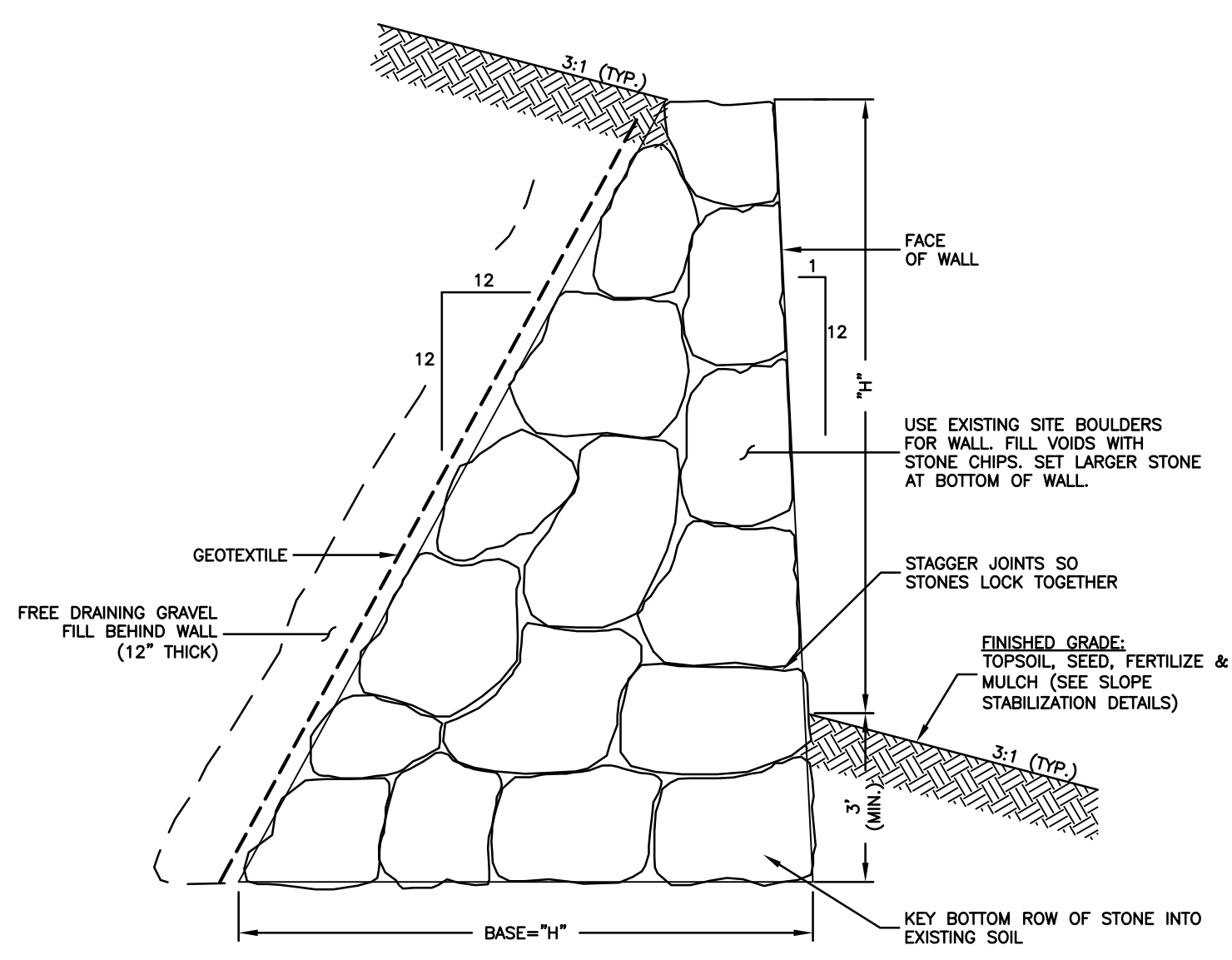
**STONE WALL FENCE SECTION**  
NOT TO SCALE



**TREE PLANTING DETAIL**  
NOT TO SCALE



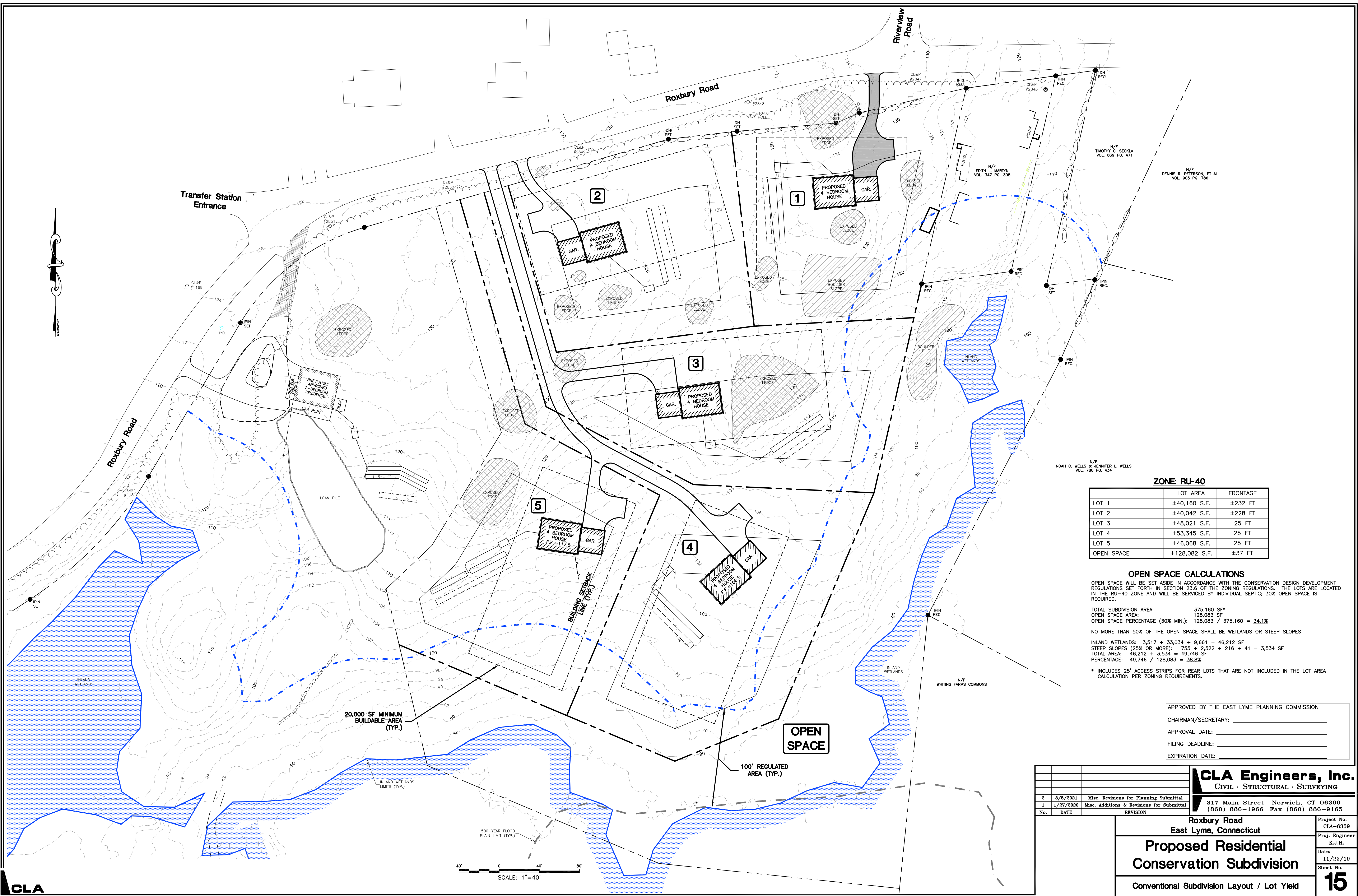
**SHRUB PLANTING DETAIL**  
NOT TO SCALE



**BOULDER WALL DETAIL**  
NOT TO SCALE

APPROVED BY THE EAST LYME PLANNING COMMISSION  
 CHAIRMAN/SECRETARY: \_\_\_\_\_  
 APPROVAL DATE: \_\_\_\_\_  
 FILING DEADLINE: \_\_\_\_\_  
 EXPIRATION DATE: \_\_\_\_\_

			<b>CLA Engineers, Inc.</b> CIVIL · STRUCTURAL · SURVEYING	
2	8/6/2021	Misc. Revisions for Planning Submittal	317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165	
1	1/27/2020	Misc. Additions & Revisions for Submittal	Project No. CLA-6359	
No.	DATE	REVISION	Proj. Engineer K.J.H.	
Roxbury Road East Lyme, Connecticut			Date: 11/25/19	
<b>Proposed Residential Conservation Subdivision</b>			Sheet No.	
Construction Details			<b>14</b>	



N/OAH C. WELLS & JENNIFER L. WELLS  
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**ZONE: RU-40**

LOT	LOT AREA	FRONTAGE
LOT 1	±40,160 S.F.	±232 FT
LOT 2	±40,042 S.F.	±228 FT
LOT 3	±48,021 S.F.	25 FT
LOT 4	±53,345 S.F.	25 FT
LOT 5	±46,068 S.F.	25 FT
OPEN SPACE	±128,083 S.F.	±37 FT

**OPEN SPACE CALCULATIONS**

OPEN SPACE WILL BE SET ASIDE IN ACCORDANCE WITH THE CONSERVATION DESIGN DEVELOPMENT REGULATIONS SET FORTH IN SECTION 23.6 OF THE ZONING REGULATIONS. THE LOTS ARE LOCATED IN THE RU-40 ZONE AND WILL BE SERVICED BY INDIVIDUAL SEPTIC; 30% OPEN SPACE IS REQUIRED.

TOTAL SUBDIVISION AREA: 375,160 SF\*  
 OPEN SPACE AREA: 128,083 SF  
 OPEN SPACE PERCENTAGE (30% MIN.): 128,083 / 375,160 = **34.1%**

NO MORE THAN 50% OF THE OPEN SPACE SHALL BE WETLANDS OR STEEP SLOPES

INLAND WETLANDS: 3,517 + 33,034 + 9,661 = 46,212 SF  
 STEEP SLOPES (25% OR MORE): 755 + 2,522 + 216 + 41 = 3,534 SF  
 TOTAL AREA: 46,212 + 3,534 = 49,746 SF  
 PERCENTAGE: 49,746 / 128,083 = **38.8%**

\* INCLUDES 25' ACCESS STRIPS FOR REAR LOTS THAT ARE NOT INCLUDED IN THE LOT AREA CALCULATION PER ZONING REQUIREMENTS.

APPROVED BY THE EAST LYME PLANNING COMMISSION

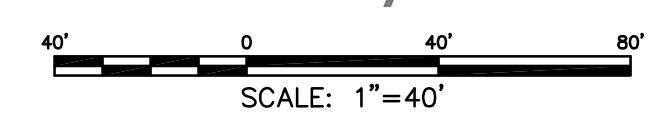
CHAIRMAN/SECRETARY: \_\_\_\_\_

APPROVAL DATE: \_\_\_\_\_

FILING DEADLINE: \_\_\_\_\_

EXPIRATION DATE: \_\_\_\_\_

<p><b>CLA Engineers, Inc.</b>          CIVIL · STRUCTURAL · SURVEYING</p> <p>317 Main Street Norwich, CT 06360          (860) 886-1966 Fax (860) 886-9165</p>		<p>Project No.          CLA-6359</p> <p>Proj. Engineer          K.J.H.</p> <p>Date:          11/25/19</p> <p>Sheet No.  <b>15</b></p>
<p>2 8/6/2021 Misc. Revisions for Planning Submittal</p> <p>1 1/27/2020 Misc. Additions &amp; Revisions for Submittal</p>	<p><b>Roxbury Road</b>          East Lyme, Connecticut</p> <p><b>Proposed Residential Conservation Subdivision</b></p> <p>Conventional Subdivision Layout / Lot Yield</p>	



CLA

M:\6000\6300\6359 Roxbury Road Subdivision\Drawings\6359 Roxbury Road Subdivision - Sheet 15 Conventional Layout.dwg