GENERAL NOTES

- BOUNDARY INFORMATION IS BASED UPON A FIELD SURVEY CONDUCTED BY SLR AND TOPOGRAPHIC INFORMATION IS
- INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG", 1-800-922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE
- ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES
- SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002, AND IN ALL CASES BEST MANAGEMENT
- ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" TOPSOIL AND BE SEEDED WITH GROUND COVER SEED MIX, AS SHOWN ON THE PLANS, ALL VEGETATIVE ESTABLISHMENT SHALL CONFORM TO THE "STANDARDS FOR ORGANIC LAND CARE, NORA CONNECTICUT 2011," AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
- IN ALL CASES, TOPSOIL AND OTHER CONSTRUCTION MATERIALS SHALL BE DRAWN FROM THE ON-SITE STOCKPILES OF EXISTING MATERIAL. ONLY WHEN ON-SITE STOCKPILES HAVE BEEN USED SHALL MATERIAL BE IMPORTED TO THE SITE.
- ALL STORM DRAIN PIPE HDPE UNLESS OTHERWISE INDICATED.
- . ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE
- 10. ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE CITY OF TORRINGTON REQUIREMENTS AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 818 AND ADDENDUMS
- THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT
- 12. COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE.
- 13. THE PROPERTY OWNER MUST MAINTAIN (REPAIR/REPLACE WHEN NECESSARY) THE SILTATION CONTROL UNTIL ALL DEVELOPMENT ACTIVITY IS COMPLETED AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED
- 14. A SUPPLY OF ABSORBENT SPILL RESPONSE MATERIAL SHOULD BE KEPT ON-SITE TO CLEAN UP ANY SPILLS OF HAZARDOUS

CONSTRUCTION SEQUENCE

- PRIOR TO COMMENCEMENT OF WORK A PRECONSTRUCTION MEETING SHALL BE HELD WITH CITY STAFF AND REPRESENTATIVES OF THE CONTRACTOR AND OWNER. AT THIS MEETING, ONE PERSON WILL BE PLACED IN CHARGE OF SEDIMENT AND EROSION CONTROL FOR THE ENTIRE SITE.
- CONTRACTOR TO STAKE OUT LIMIT OF DISTURBANCE AND VEGETATION TO BE RETAINED. NO DISTURBANCE IS TO TAKE PLACE BEYOND THE LIMITS OF WORK SHOWN.
- CONTRACTOR TO INSTALL SEDIMENT AND EROSION CONTROLS ALONG THE PERIMETER, AND STABILIZED CONSTRUCTION
- I. CLEAR AND GRUB SITE AND STOCKPILE TOPSOIL. PLACE SEDIMENT FILTER FENCE AND HAYBALES AROUND STOCKPILES.
- CONTRACTOR TO INSTALL TEMPORARY SEDIMENT TRAPS PER THE SEDIMENT AND EROSION CONTROL PLAN.
- 5. INITIATE MASS EARTHWORK OPERATIONS AFTER ALL BASINS, BERMS, SWALES, SILT FENCE & HAYBALES ARE INSTALLED
- . INSTALL UTILITIES, RV SITES AND PARKING LOTS/DRIVEWAYS WHERE NOTED ON THE PLANS.
- . SLOPES ARE TO BE ESTABLISHED AS SOON AS PRACTICAL BEFORE UTILITY INSTALLATION. STABILIZE ALL SLOPES IMMEDIATELY AFTER THEIR ESTABLISHMENT.
- . THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MODIFIED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER AND DESIGNATED CITY REPRESENTATIVE AS NECESSITATED BY CHANGING SITE CONDITIONS.

GENERAL CONSTRUCTION NOTES

- TEMPORARY SEDIMENT BASINS SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER. CLEAN THE SEDIMENT BASIN WHEN SEDIMENT
- SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF
- 3. INSPECTION OF THE SITE FOR EROSION SHALL CONTINUE FOR A PERSON OF THREE MONTHS AFTER COMPETITION WHEN RAINFALLS OF ONE INCH OR MORE OCCUR.
- 4. THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER AND BUILDING MATERIALS SUCH THAT NONE OF THE ABOVE
- 5. A COPY OF ALL PLANS AND REVISIONS, AND THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MAINTAINED ON-SITE

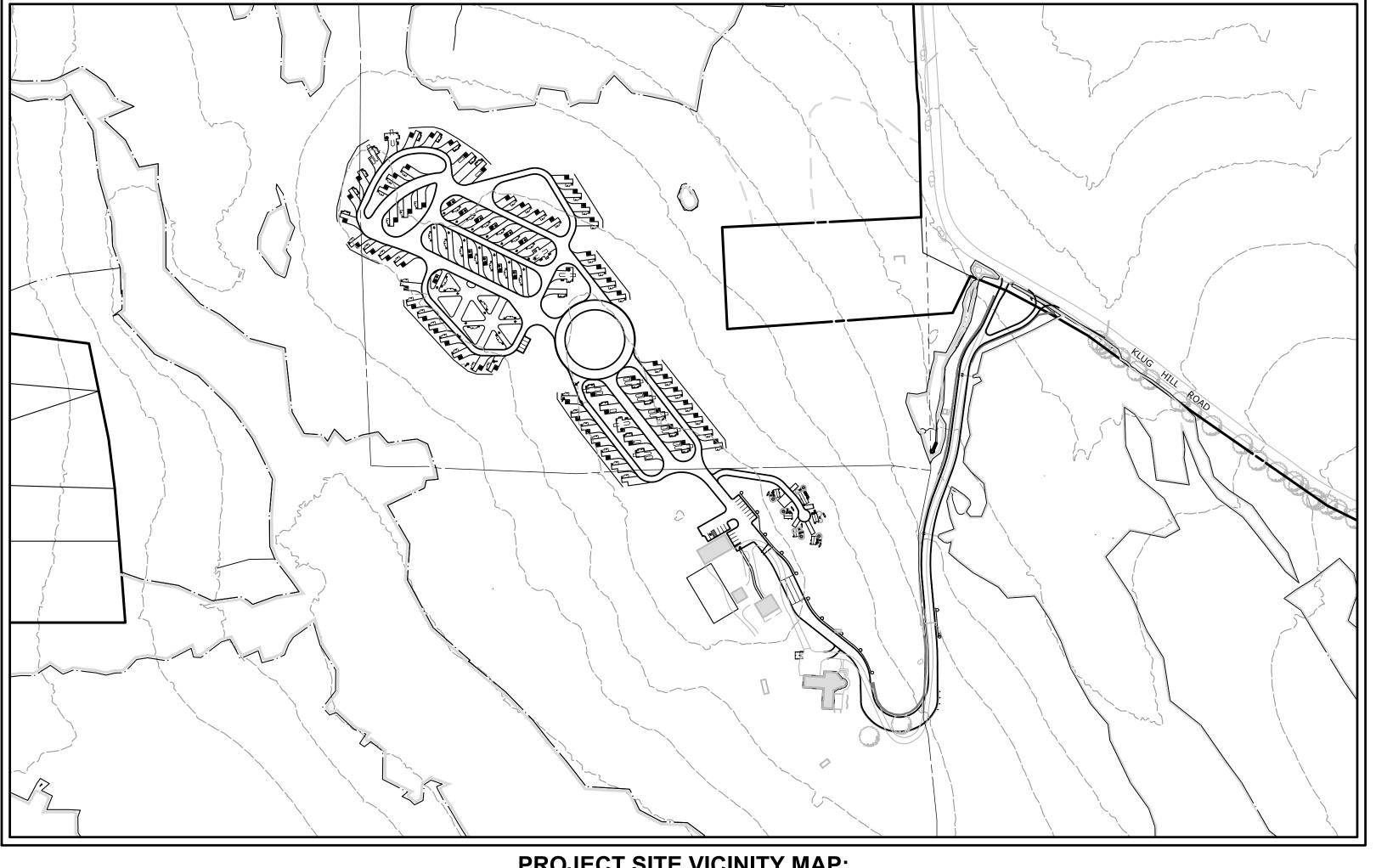
OPERATION AND MAINTENANCE PLAN (POST-CONSTRUCTION)

- ALL CATCH BASIN SUMPS SHOULD BE INSPECTED TWO TIMES PER YEAR AND SEDIMENT REMOVED WHEN IT EXTENDS TO WITHIN SIX INCHES OF THE OUTLET PIPE INVERT, NOT LESS THAN ONCE PER YEAR. THE SEDIMENT SHALL BE DISPOSED
- 2. A VEGETATIVE OR IMPROVED COVER SHALL BE MAINTAINED ON ALL EARTH SURFACES TO MINIMIZE SOIL EROSION, USE OF FERTILIZER SHOULD BE MINIMIZED AND APPLIED USING PRUDENT APPLICATION PROCEDURES.
- 3. A LOG OF ALL INSPECTION AND CLEANING SHALL BE MAINTAINED BY THE OCCUPANT AND BE AVAILABLE FOR
- 4. DURING CONSTRUCTION AND FOR THREE MONTHS AFTER PROJECT COMPLETION INSPECTION OF SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MADE ON A WEEKLY BASIS AND AFTER RAINFALL EVENTS OF 1/2" OR GREATER. A LOG OF SUCH INSPECTIONS SHALL BE MAINTAINED AT THE SITE.

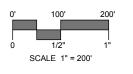
LITCHFIELDS HILLS CT KOA CAMPGROUND

232 KLUG HILL ROAD TORRINGTON, CONNECTICUT

REGULATORY SUBMISSION NOVEMBER 9, 2022 LAST REVISED: FEBRUARY 6, 2023



PROJECT SITE VICINITY MAP:



PROJECT DATA

EXISTING ZONE:	R-60		
PROPOSED USE:	RECREATIONAL VEHICLE PARK		
TOTAL PARCEL AREA:	±225.87 AC.		
TOTAL PROPOSED RV SITES:	92 SITES		

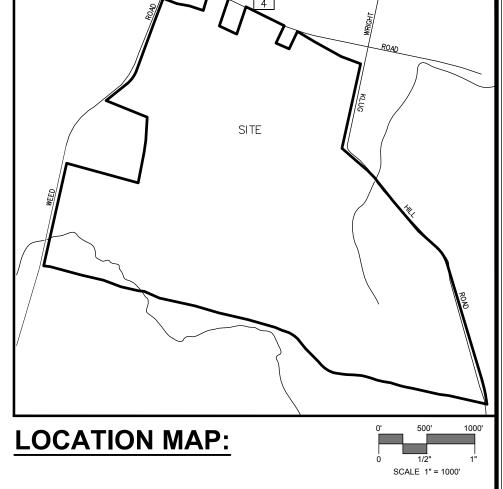
R-60 -DIMENSIONAL CRITERIA	REQ'D/PERMITTED	PROPOSED/PROVIDED
LOT AREA	60,000 SF (MIN)	±225.87 AC.
LOT WIDTH	200' (MIN)	>200'
FRONT YARD SETBACK	50' (MIN)	>50'
SIDE YARD SETBACK	25' (MIN)	>25'
REAR YARD SETBACK	100' (MIN)	>100'
IMPERVIOUS SURFACE RATIO	30% (MAX)	<30%
BUILDING COVERAGE RATIO	10% (MAX)	<10%

RV PARK -DIMENSIONAL CRITERIA	REQ'D/PERMITTED	PROPOSED/PROVIDED	
LOT AREA	25 AC. (MIN)	±225.87 AC.	
PARK DENSITY	1 SITE PER 40,000 SF (MIN)	1 SITE PER ±106,942 SF	
RV SITE AREA	1500 SF (30' W X 50' D) (MIN)	>1500 SF PER SITE	
SETBACK FROM ANY PROPERTY LINE	100' (MIN)	>100'	
COMMON RECREATION AREA	150 SF PER SITE (MIN)	> 150 SF PER SITE	

PREPARED BY:







OWNER:

GREENSTONE INVESTMENTS, INC 232 KLUG HILL ROAD TORRINGTON, CT 06790

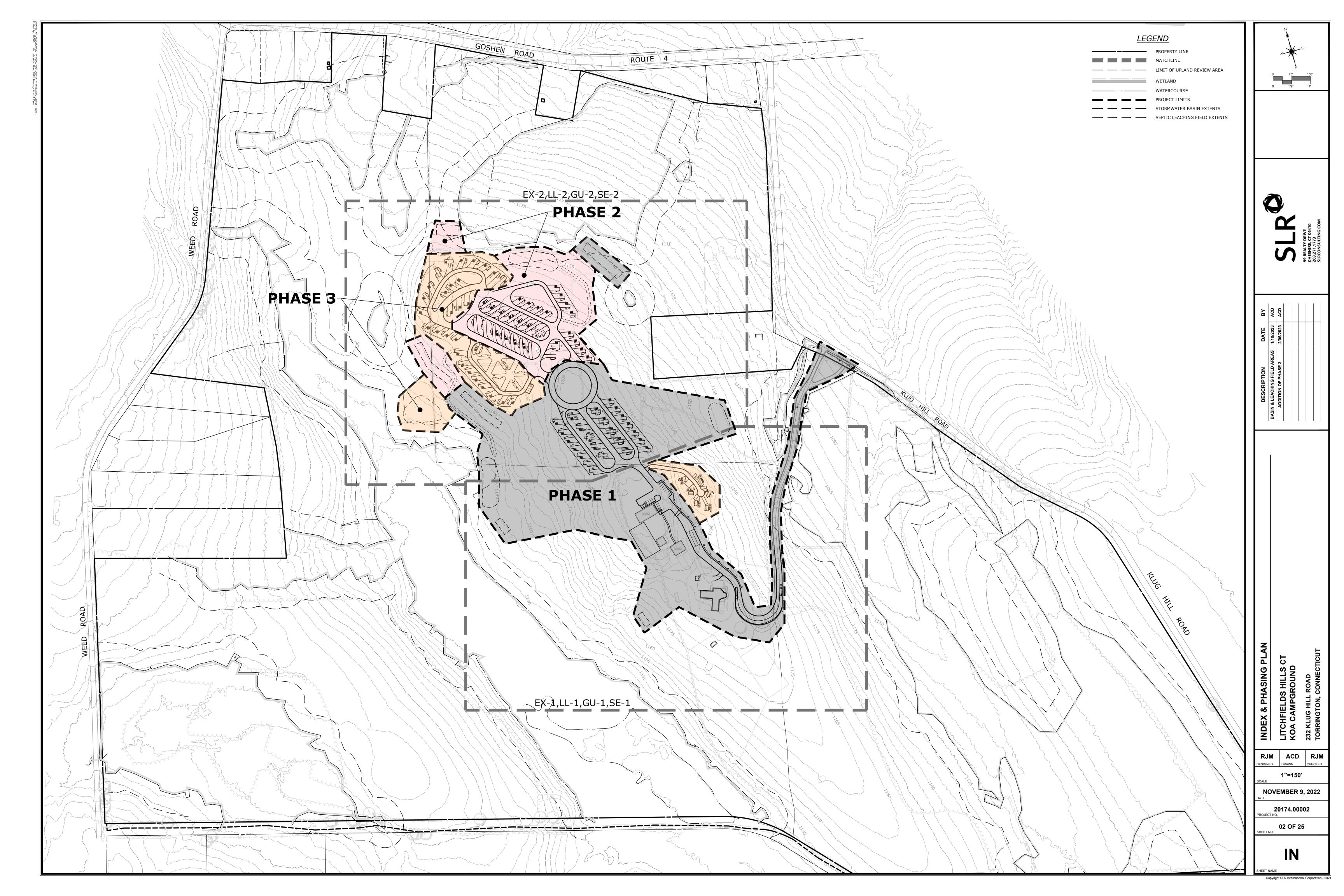
APPLICANT:

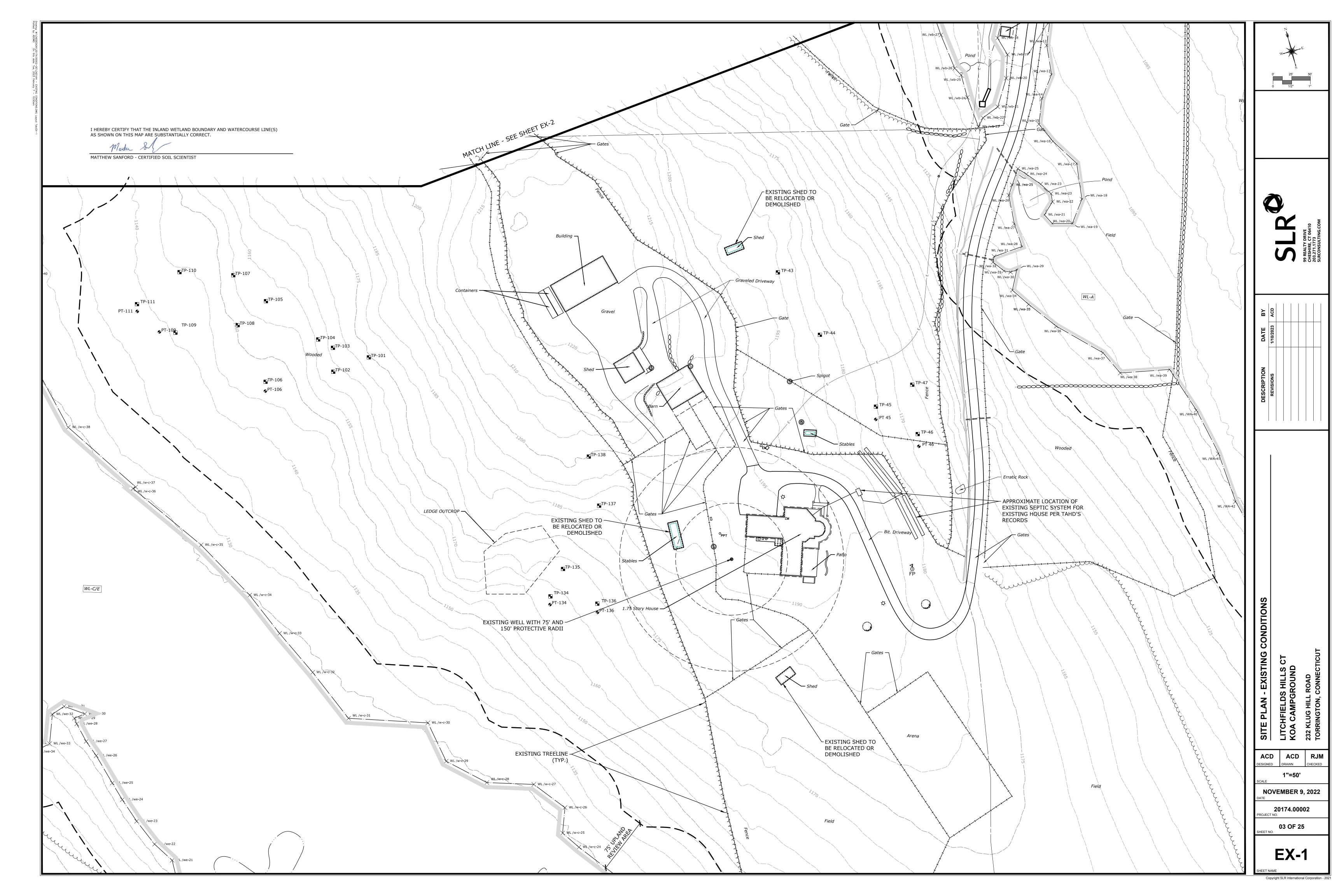
LELAH CAMPO COZY HILLS II CAMPGROUND 1311 BANTAM ROAD BANTAM, CT 06750

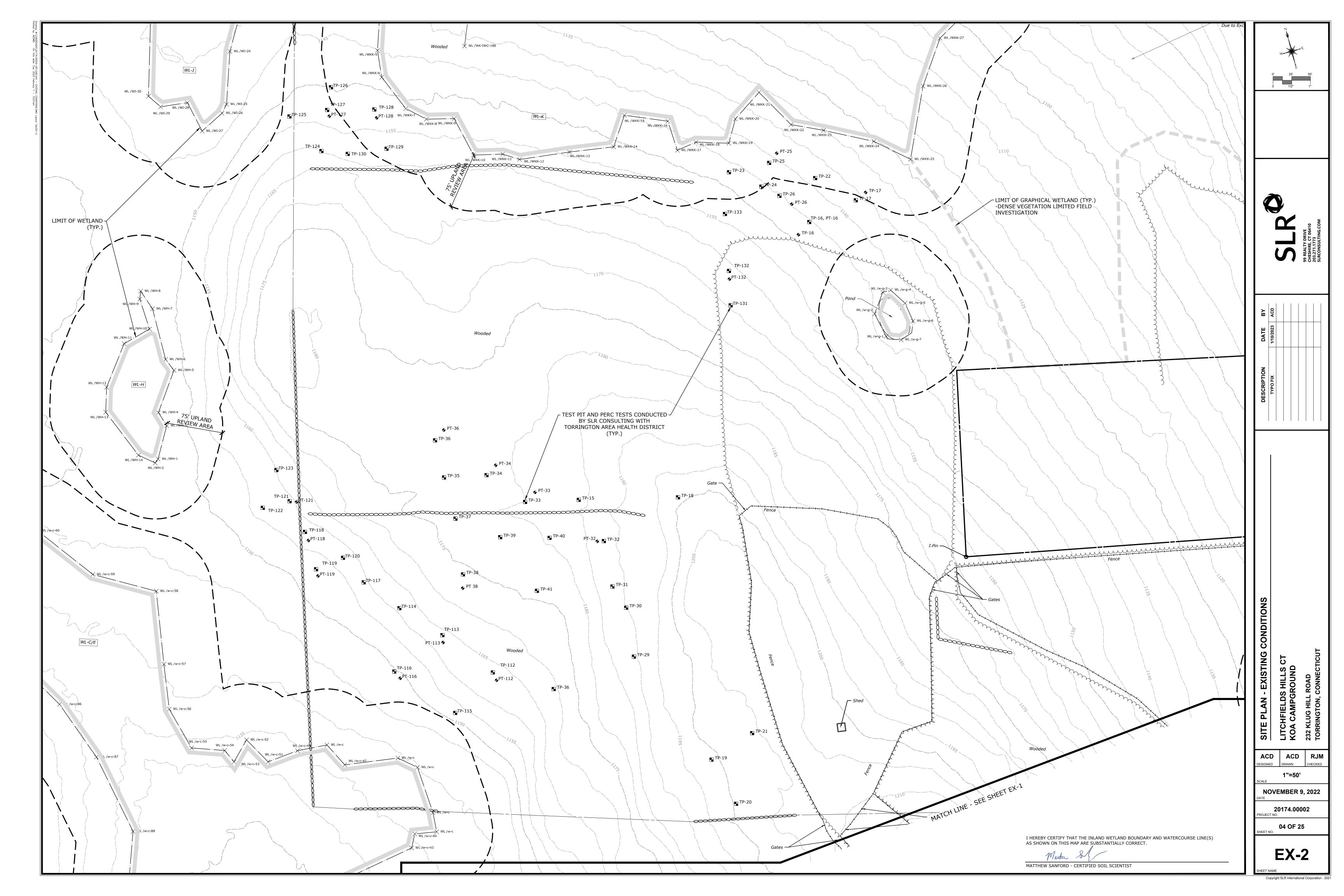
LIST OF DRAWINGS

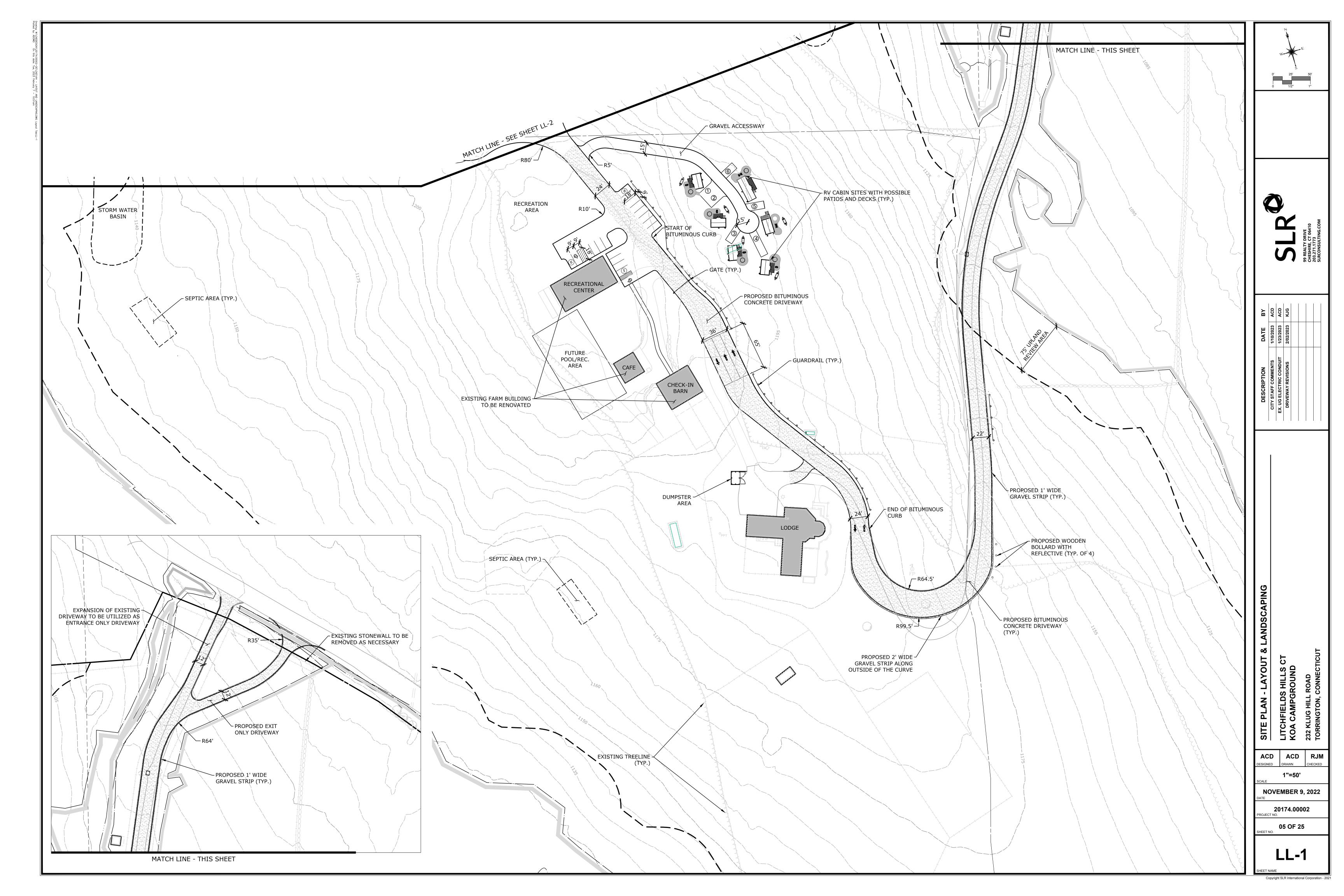
NO.	NAME	TITLE
01		TITLE SHEET
02	IN	INDEX & PHASING PLAN
03 - 04	EX-1 - 2	EXISTING CONDITIONS
05 - 06	LL-1 - 2	SITE PLAN - LAYOUT AND LANDSCAPING
07 - 08	GR-1 - 2	SITE PLAN - GRADING
09 - 10	UT -1-2	SITE PLAN - UTILITIES
11 - 12	SE-1 - 2	SEDIMENT AND EROSION CONTROL PLAN
13 - 14	PP-1 - 2	SITE PLAN - PLAN & PROFILE
14 - 16	SD-1 - SD-2	SEPTIC SYSTEM - SOIL TESTING RESULTS
17	SD-3	SEPTIC SYSTEM - MLSS DATA TABLE
18 - 20	SD-4 - SD-6	SEPTIC SYSTEM - SEPTIC DESIGN & CROSS SECTIONS
21 - 25	SD-7 - SD-11	SITE DETAILS

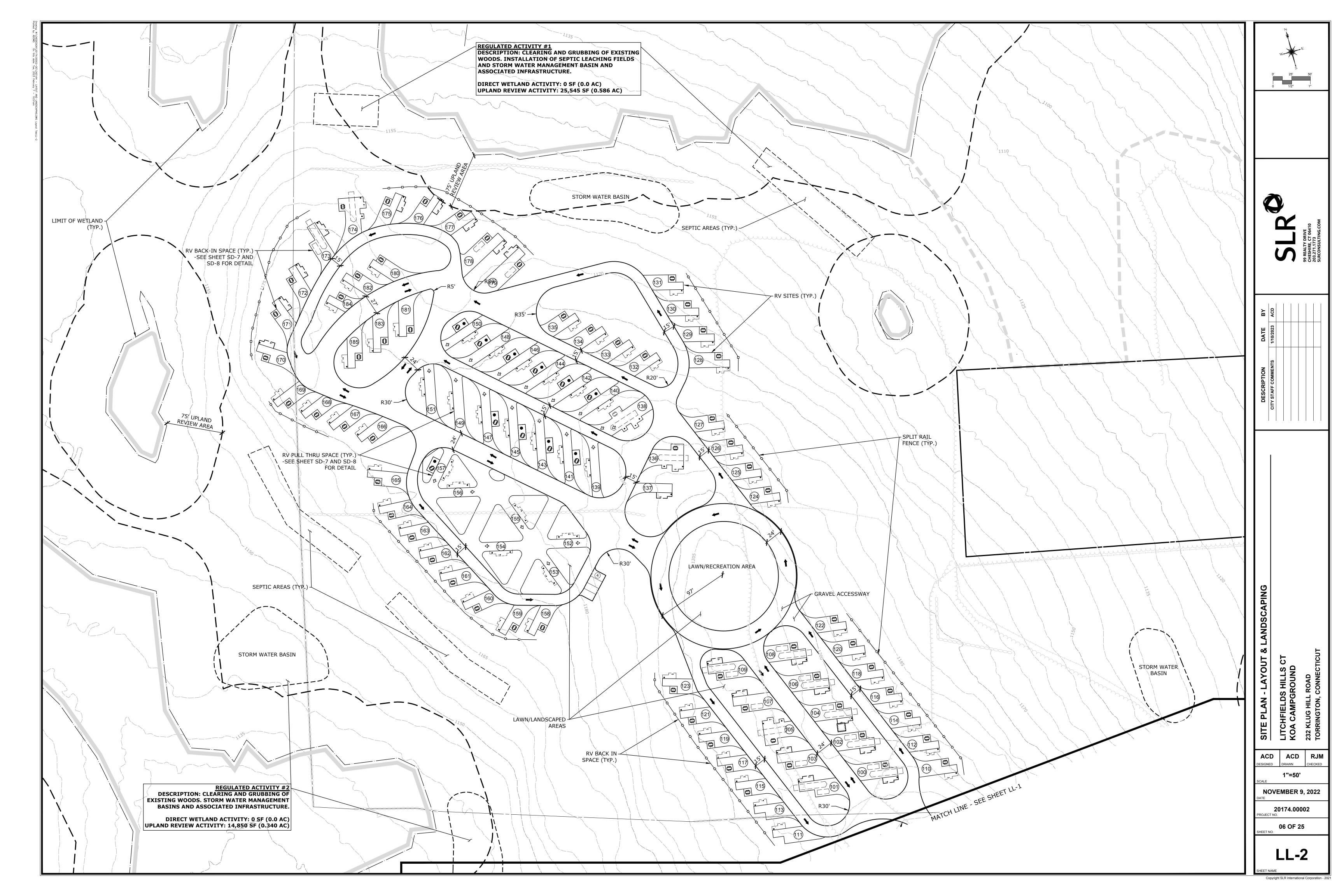
Know what's below. Call before you dig. www.cbyd.com

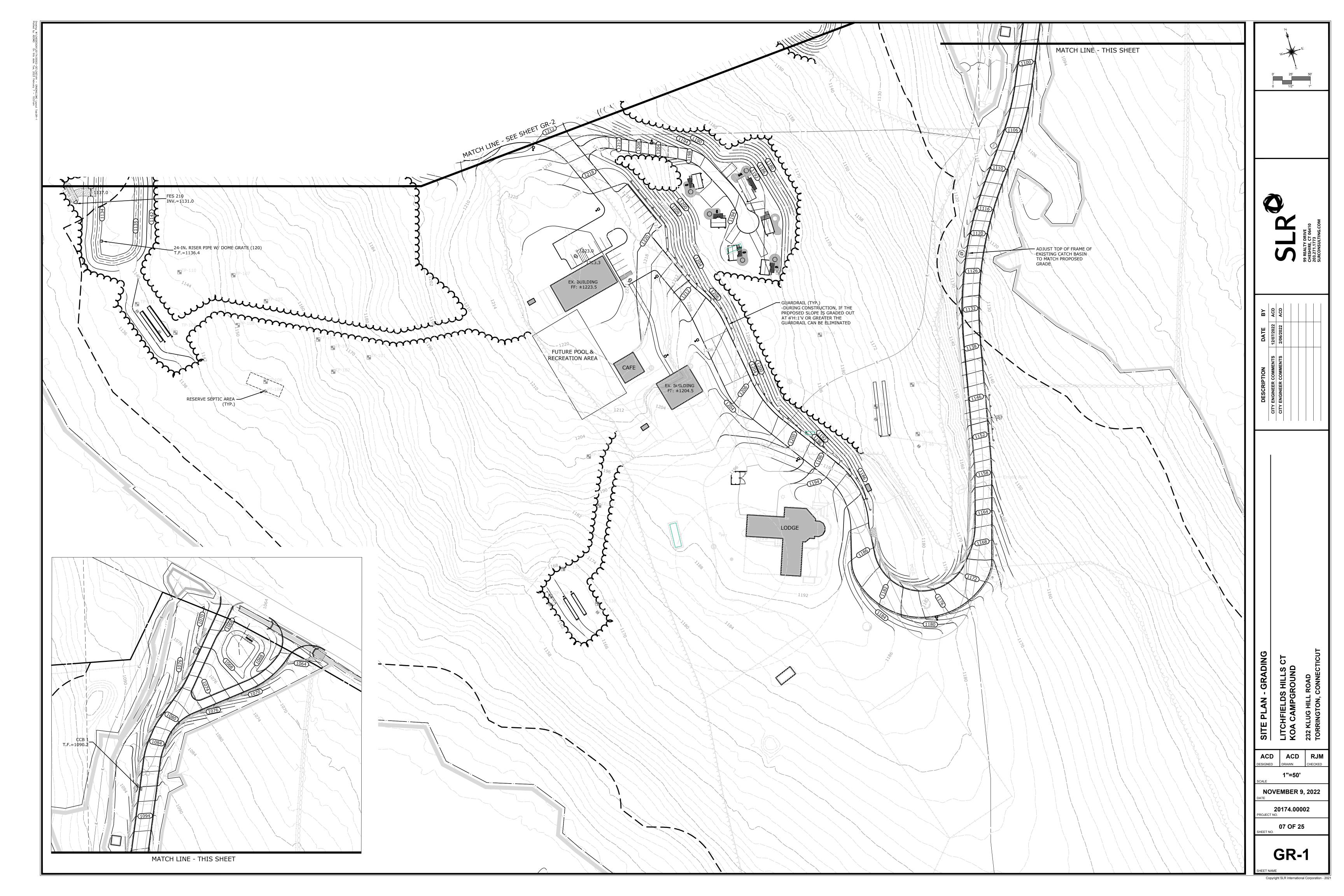


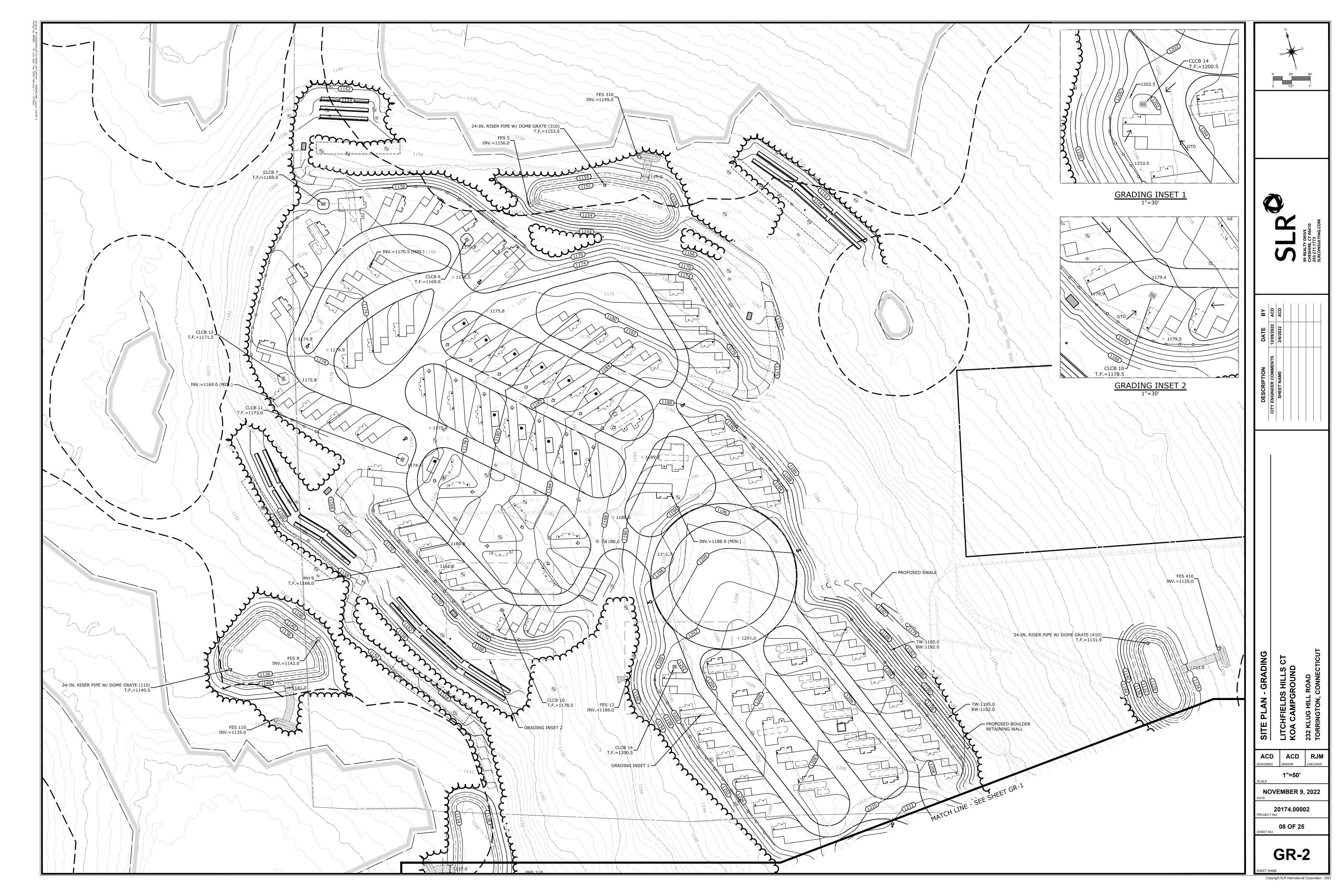


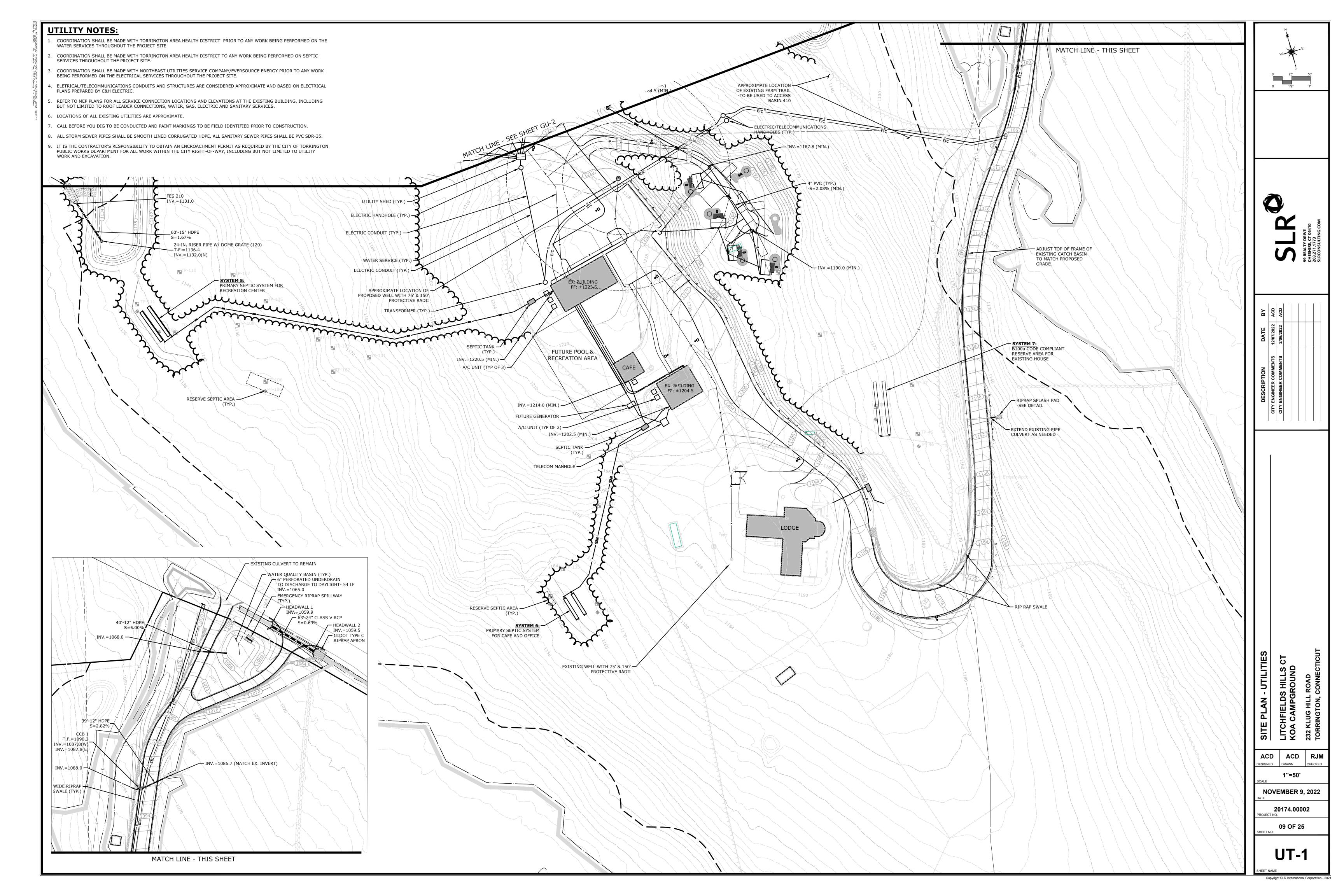




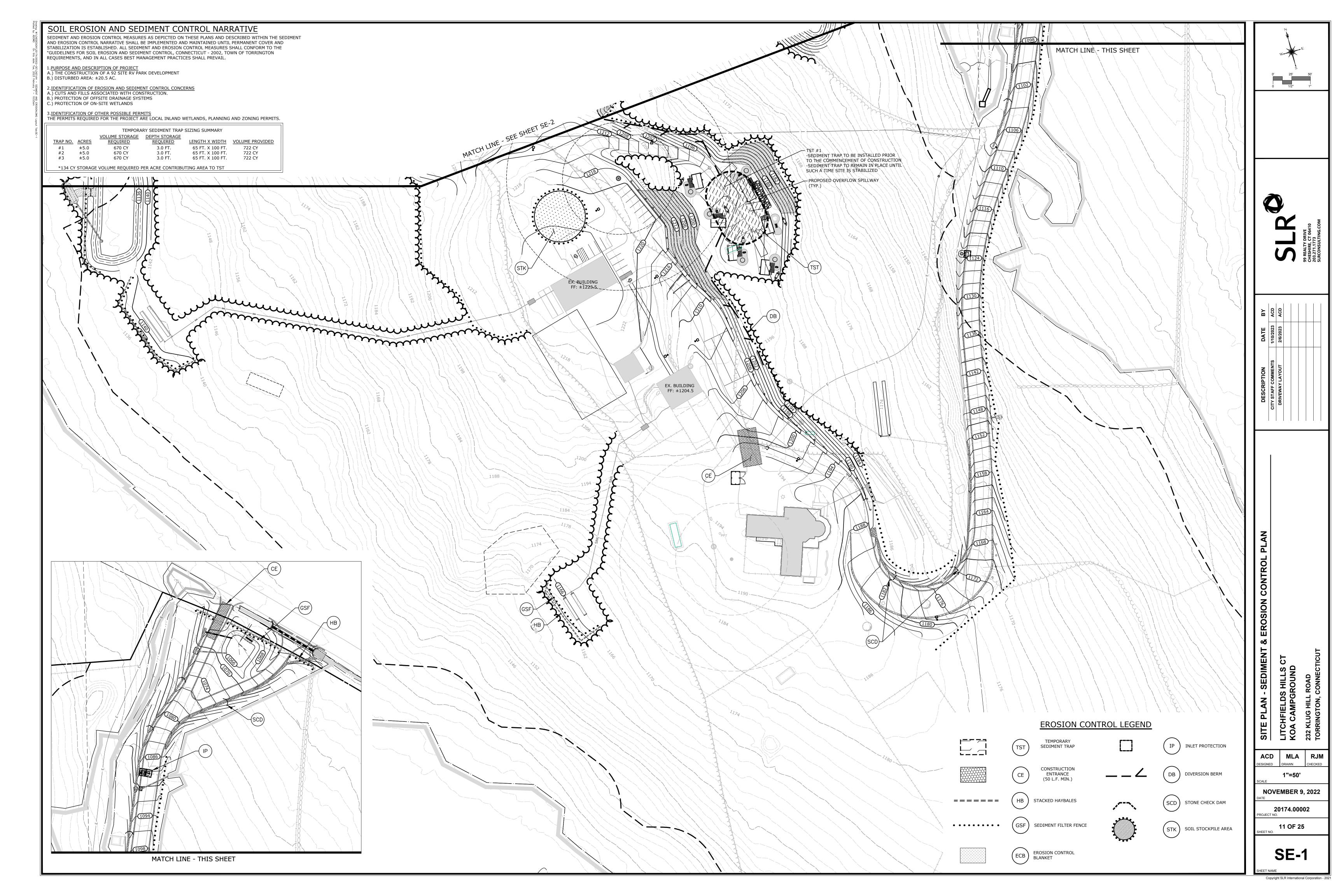


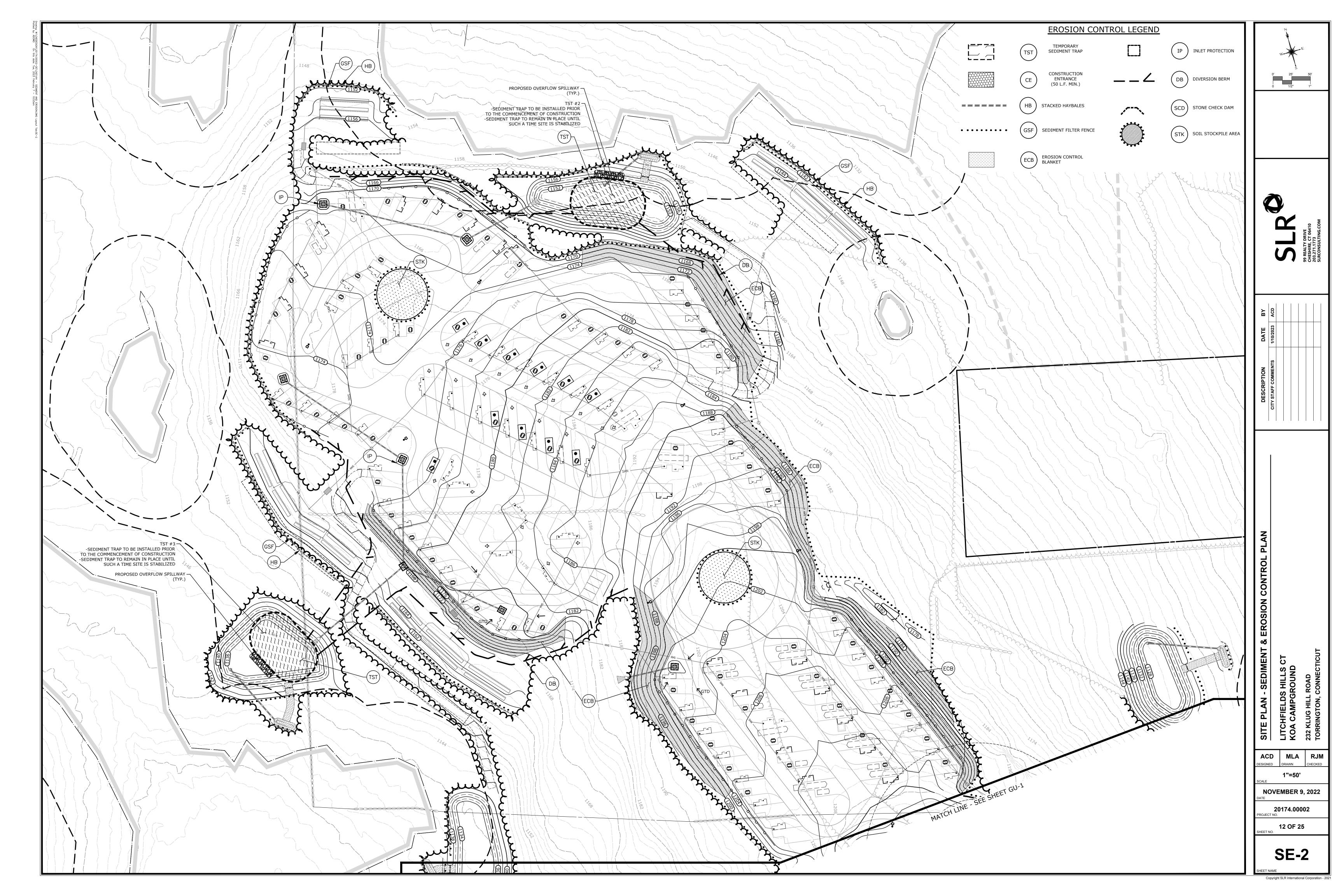


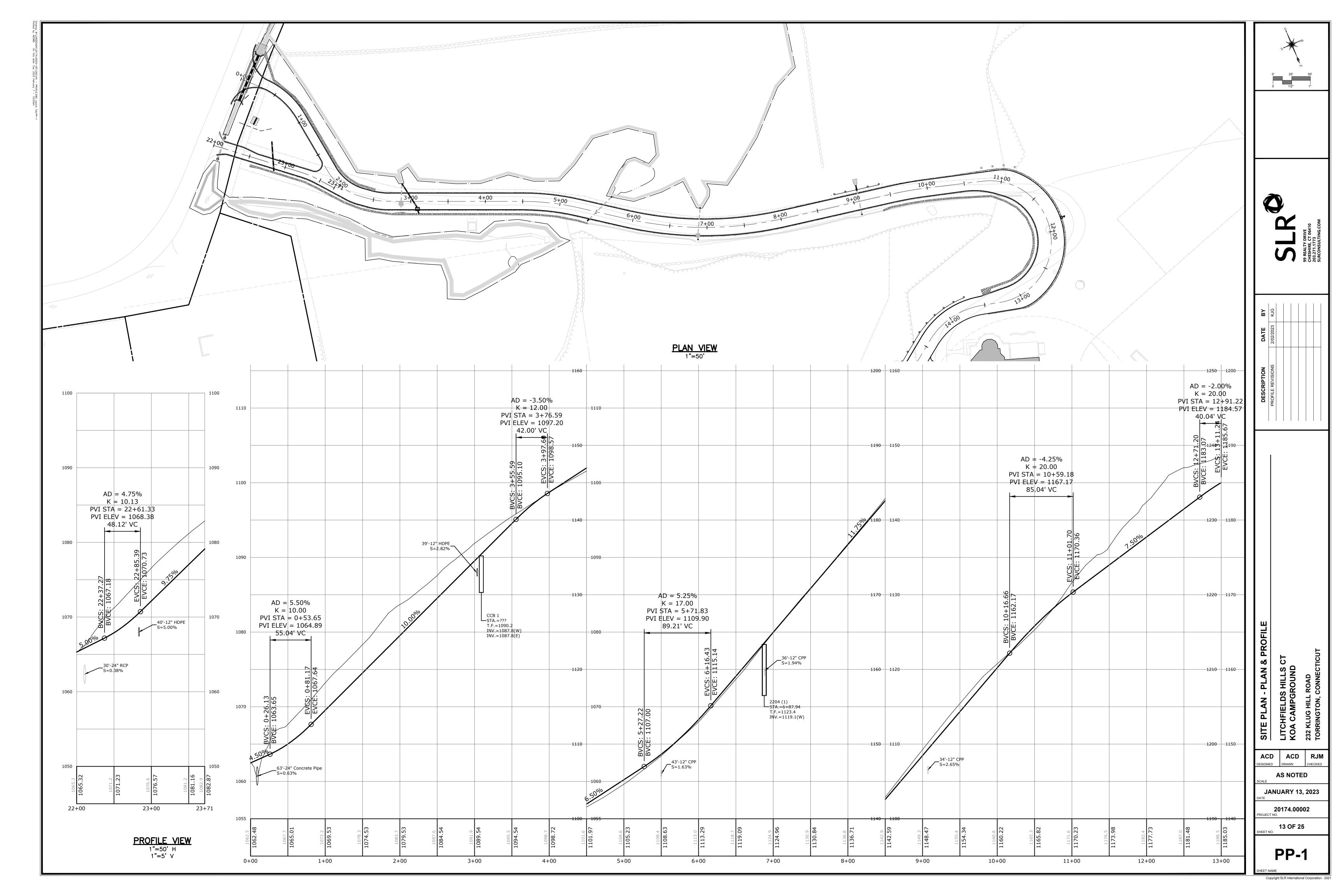


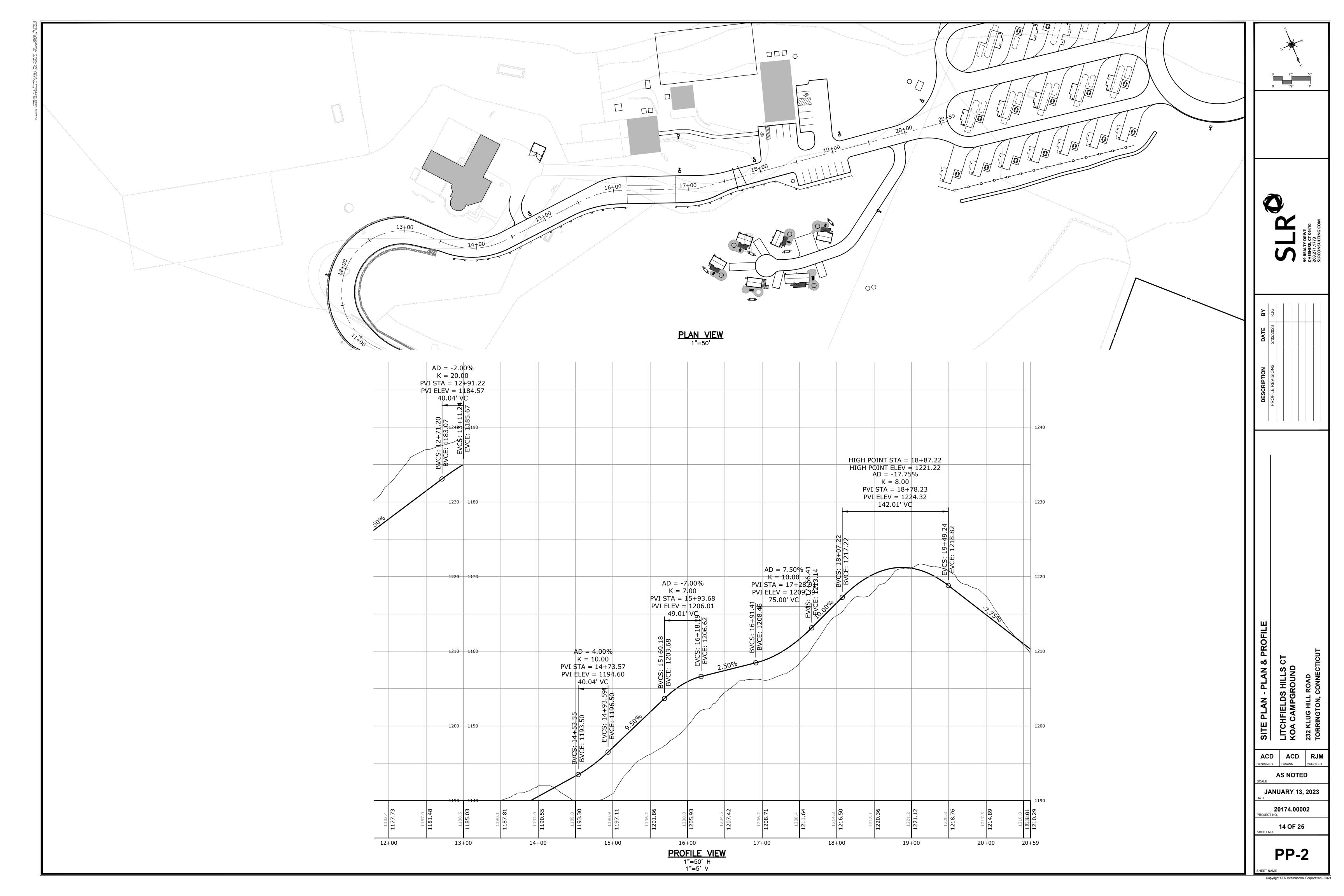












RATE: 1.1-10.0

RATE: 10.1-20.0

LITCHFIELDS HILLS KOA CAMPGROUND

MLA RJM **NOT TO SCALE**

NOVEMBER 9, 2022

20174.00002

15 OF 25

SD-1

Copyright SLR International Corporation - 202

PERC:

DEPTH: 20" RATE: 1.1-10.0 **SERITY DRIVE**69 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773

DESCRIPTION DATE BY

SEPTIC SYSTEM - SOIL TESTING RES LITCHFIELDS HILLS CT KOA CAMPGROUND

--- MLA RJM
SIGNED DRAWN CHECKED

NOT TO SCALE

NOVEMBER 9, 2022 20174.00002

16 OF 25

SD-2

NAME
Copyright SLR International Corporation - 202

SEPTIC SYSTEM DESIGN

Septic System Design

Design Criteria	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7
Testpits in or near System	16, 17, 22, 23, 24, 25, 26	125, 126, 127, 128	118, 119, 120, 121, 122, 123	112, 113, 114, 115, 116	106, 108, 109, 110, 111	134, 135, 136	45,46,47
Percolation Tests in or near System	16, 17, 26	127, 128	118, 121	112,113	106, 109, 111	134, 136	45,46
Testpit(s) Used for Design	16, 17, 22, 23, 24, 25, 26	125, 126, 127, 128	118, 119, 120, 121, 122, 123	112, 113, 114, 115, 116	106, 108, 109, 110, 111	134, 135, 136	45,46,47
Percolation Rate (Min/inch)	1.1-10.0	1.1-10.0	PL	1.1-10.0	1.1-10.0	1.1-10.0	10.1-20.0
Required Effective Area (sq. ft.)	2437.5	1312.5	2437.5	2437.5	619.20	387.5	787.5
Restrictive Layer	Mottling	Mottling/Compact	Compact/Diggable	Compact/Diggable	Compact	Mottling/Firm	Compact
Receiving Soil Depth (inch)	(36" (Top of System to RL)+ 26.5" (Avg. depth to RL)/2 = 31.25" Avg.	See Septic Design Sheets (Avg. depth to RL) = 42.5" Avg.	(42" (Top of System to RL)+ 37.5" (Avg. depth to RL)/2 = 39.75" Avg.	(42" (Top of System to RL)+ 32.5" (Avg. depth to RL)/2 = 37.2" Avg.	(30" (Top of System to RL)+ 31.5" (Avg. depth to RL)/2 = 30.75" Avg.	(Avg. depth to RL) = 33" Avg.	(Avg. depth to RL = 33.3" Avg.
Slope (%)	10.1-15.0	8.1-10.0	10.1-15.0	>15.0	10.1-15.0	10.1-15.0	>15.0
Hydraulic Factor (HF)	20	18	18	16	20	20	18
Flow Factor (FF)	6.5	3.5	6.5	6.5	2.06	1.03	1.75
Percolation Factor (PF)	1	1	1	1	1	1	1.25
MLSS (ft.)	130	63	117	104	41.28	20.67	39.38
Primary System Type	18" C.G.*	18" C.G.*	18" C.G.*	18" C.G.*	12" C.G.	12" C.G.**	
Effective Leaching (SF/LF)	7.0	7.0	7.0	7.0	5.9	5.9	
Length Used (ft.)	2x176	3x64	2x176	2x176	2x56	2x32	
Effective Leaching Area Provided (SF)	2464	1344	2464	2464	660.8	389.6	
Center to Center Spacing (ft.)	12	12	12	12	12	12	
Reserve System Type	18" C.G.*	18" C.G.	18" C.G.*	18" C.G.*	18" C.G.*	Mantis Double-Wide 100	12" C.G.
Effective Leaching (SF/LF)	7.0	6.2	7.0	7.0	7	20	5.9
Length Used (ft.)	2x176	2x112	2x176	3x120	2x48	1x20	2x72
Effective Leaching Area Provided (SF)	2464	1388.8	2464	2520	672	400	849.5
Center to Center Spacing (ft.)	12	12	12	12	12	N/A	12
C.G. = Concrete Gallery							
*Top Distribution Pipe/ **1' of Stone at Each	End of Row						



BY	ACD			
DATE	12/20/2022			
DESCRIPTION	TAHD COMMENTS			

SEPTIC SYSTEM - MLSS DATA TABLE
LITCHFIELDS HILLS CT
KOA CAMPGROUND

232 KLUG HILL ROAD
TORRINGTON, CONNECTICUT

ACD MLA RJM
DESIGNED DRAWN CHECKED

NOT TO SCALE
SCALE

NOVEMBER 9, 2022
DATE

20174.00002
PROJECT NO.

SD-3

SYSTEM 1 STANDARD 18"X48" CONCRETE -LEACHING GALLERIES WITH TOP LOAD DISTRIBUTION PIPE ROW 2 D-BOX P-22 DISTRIBUTION BOX 100% RESERVE SEPTIC AREA **■**TP-133 RIMARY SEPTIC SYSTEM FOR 26 163'-4" SDR-35 PVC (OR APPROVED EQUAL) S=0.50% MIN. MAINTAIN MIN. 1' COVER WL /w-g-3 - 2,000 GALLON CONCRETE WL/w-g-1

SYSTEM DESIGN

DESIGN BASIS: CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS DATED JANUARY 2018, AS AMENDED.

FLOW: 26 RV SITES

PERC RATE: 1.1-10.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 2437.5 SQ.FT. RESTRICTIVE LAYER = MOTTLING AT 24" - TP-26

SLOPE = 10.1-15.0%

RS DEPTH = [36" (TOP OF SYSTEM TO RESTRICTIVE LAYER) + 26.5" (AVERAGE DEPTH TO RESTRICTIVE LAYER)] / 2 = 31.25"

HYDRAULIC FACTOR (HF) = 20 FLOW FACTOR (FF) = 6.5

PERCOLATION FACTOR (PF) = 1.0 MLSS = 20*6.5*1.0 = 130 LF

PRIMARY AREA - USE 352 LF (2 ROWS OF 176') OF 18"X48" CONCRETE GALLERIES WITH TOP

LOAD DISTRIBUTION PIPE EFFECTIVE LEACHING AREA PROVIDED = 2,464 SF (2X176 LF @ 7.0 SQ.FT./L.F.)

RESERVE AREA
PERC RATE: 11.1-20.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 2,437.5 SQ.FT. RESTRICTIVE LAYER = 31" - TP-16

RESERVE AREA - USE 352 LF (2 ROWS OF 176') OF 18"X48" CONCRETE GALLERIES WITH TOP LOAD DISTRIBUTION PIPE EFFECTIVE LEACHING AREA PROVIDED = 2,464 SF (2X176 LF @ 7.0 SQ.FT./L.F.)

SEPTIC SYSTEM INVERT ELEVATIONS

SEPTIC TANK INLET = 1161.00 SEPTIC TANK OUTLET = 1160.75

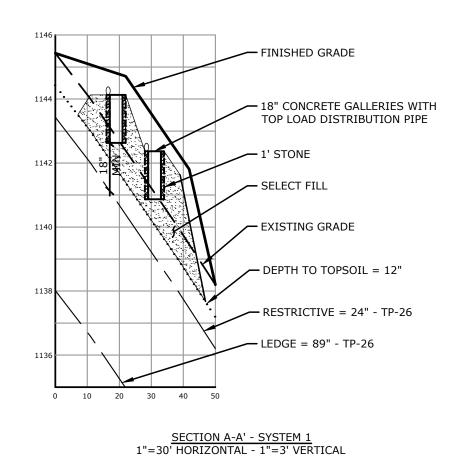
D-BOX = 1144.70

ROW 1 D-BOX = 1144.25(HLO)= 1144.35

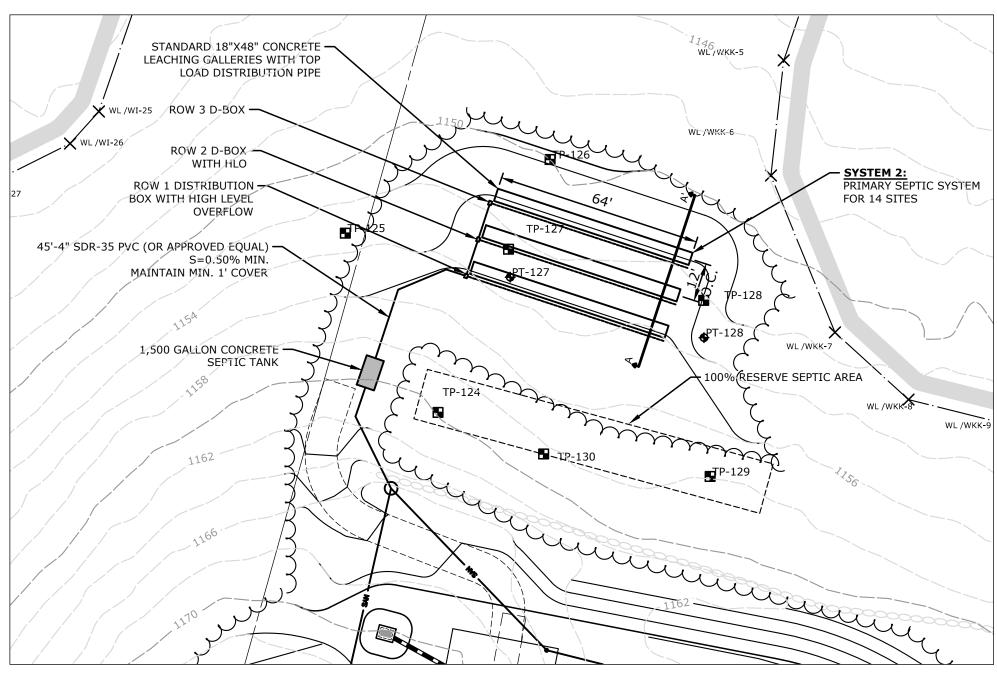
ROW 1 INVERT ELEVATION = 1144.13

ROW 1 BOTTOM ELEVATION = 1142.63 ROW 2 D-BOX = 1142.50

ROW 2 INVERT ELEVATION = 1142.37 ROW 2 BOTTOM ELEVATION = 1140.87



SYSTEM 2



SYSTEM DESIGN

DESIGN BASIS: CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS DATED JANUARY 2018, AS AMENDED.

FLOW: 14 RV SITES

PERC RATE: 1.1-10.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 1312.5 SQ.FT. RESTRICTIVE LAYER = MOTTLING AT 37" - TP-127

SLOPE = 8.1-10.0%RS DEPTH = (52" (TOP OF SYSTEM TO RL) + 33" (AVERAGE DEPTH TO RESTRICTIVE LAYER

HYDRAULIC FACTOR (HF) = 18 FLOW FACTOR (FF) = 3.5

PERCOLATION FACTOR (PF) = 1.0

MLSS = 18*3.5*1.0 = 63 LFPRIMARY AREA - USE 192 LF (3 ROWS OF 64') OF 18"X48" CONCRETE GALLERIES) EFFECTIVE LEACHING AREA PROVIDED = 1,344 SF (3X64 LF @ 7.0 SQ.FT./L.F.)

RESERVE AREA
PERC RATE: 1.1-10.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 1,312.5 SQ.FT. RESTRICTIVE LAYER = 24"

RESERVE AREA - USE 224 LF (2 ROWS-112' LONG) OF 18"X48" CONCRETE GALLERIES) EFFECTIVE LEACHING AREA PROVIDED = 1,388.8 SF (224 LF @ 6.2 SQ.FT./L.F.)

SEPTIC SYSTEM INVERT ELEVATIONS

SEPTIC TANK INLET = 1156.75 SEPTIC TANK OUTLET = 1156.50

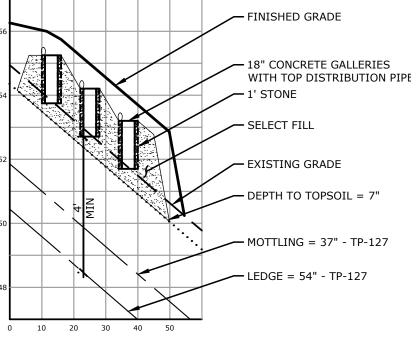
ROW 1 D-BOX = 1155.35(HLO) = 1155.45

ROW 1 BOTTOM ELEVATION = 1153.75

ROW 1 INVERT ELEVATION = 1155.25

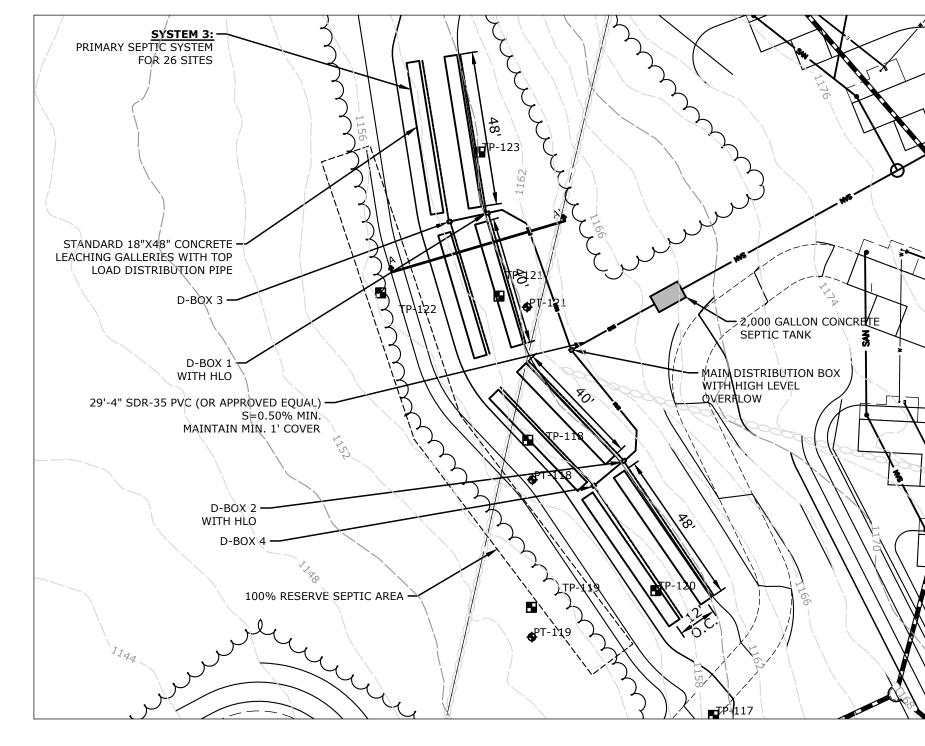
ROW 2 D-BOX = 1154.30(HLO) = 1154.40

ROW 2 INVERT ELEVATION = 1153.20 ROW 2 BOTTOM ELEVATION = 1152.70 ROW 3 D-BOX = 1153.30ROW 3 INVERT ELEVATION = 1153.20 ROW 3 BOTTOM ELEVATION = 1151.70



<u>SECTION A-A' - SYSTEM 2</u> 1"=30' HORIZONTAL - 1"=3' VERTICAL

SYSTEM 3



SYSTEM DESIGN

DESIGN BASIS: CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS DATED JANUARY 2018, AS AMENDED.

FLOW: 26 RV SITES

PERC RATE: 1.1-10.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 2437.5 SQ.FT

RESTRICTIVE LAYER = DIGGABLE LEDGE AT 37" - TP-123 SLOPE = 10.1-15.0% RS DEPTH = [42" (TOP OF SYSTEM TO RESTRICTIVE LAYER) + 37.50"

(AVERAGE DEPTH TO RESTRICTIVE LAYER)] / 2 = 39.75" HYDRAULIC FACTOR (HF) = 18

FLOW FACTOR (FF) = 6.5 PERCOLATION FACTOR (PF) = 1.0 MLSS = 18*6.5*1.0 = 117 LF

PRIMARY AREA - USE 352 LF (2 ROWS OF 176') OF 18"X48" CONCRETE GALLERIES WITH TOP LOAD DISTRIBUTION PIPE

EFFECTIVE LEACHING AREA PROVIDED = 2,464 SF (2X176 LF @ 7.0 SQ.FT./L.F.)

RESERVE AREA
PERC RATE: 1.1-10.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 2,437.5 SQ.FT.

RESTRICTIVE LAYER = 37" - TP-119

RESERVE AREA - USE 352 LF (2 ROWS OF 176') OF 18"X48" CONCRETE GALLERIES WITH TOP LOAD DISTRIBUTION PIPE

EFFECTIVE LEACHING AREA PROVIDED = 2,464 SF (352LF @ 7.0 SQ.FT./L.F.)

SEPTIC SYSTEM INVERT ELEVATIONS

SEPTIC TANK INLET = 1163.00 SEPTIC TANK OUTLET = 1162.75 MAIN D-BOX = 1162.0

ROW 1

D-BOX 1 = 1161.20(HLO) = 1161.30SECTION 1 INVERT ELEVATION = 1161.07 SECTION 1 BOTTOM ELEVATION = 1159.57

D-BOX 2 = 1161.45(HLO) = 1161.55

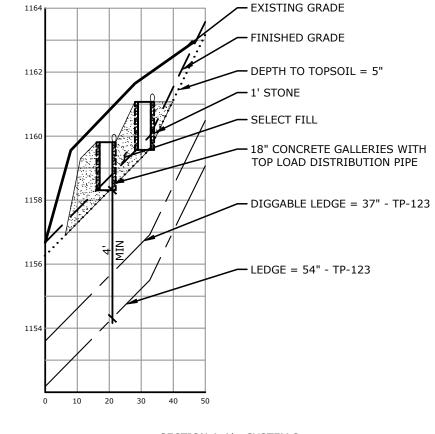
SECTION 2 INVERT ELEVATION = 1161.35 SECTION 2 BOTTOM ELEVATION = 1159.85

ROW 2

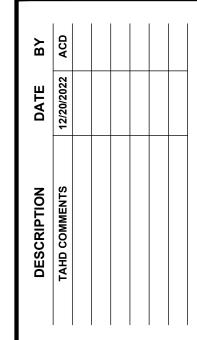
D-BOX 3 = 1159.95SECTION 1 INVERT ELEVATION = 1159.81

SECTION 1 BOTTOM ELEVATION = 1158.31 D-BOX 4 1159.60 SECTION 2 INVERT ELEVATION = 1159.50

SECTION 2 BOTTOM ELEVATION = 1158.00



SECTION A-A' - SYSTEM 3



LITCHFIELDS HILLS C KOA CAMPGROUND

ACD | MLA | RJM **AS NOTED NOVEMBER 9, 2022** 20174.00002

18 OF 25

SYSTEM DESIGN

DESIGN BASIS: CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS DATED JANUARY 2018, AS AMENDED.

FLOW: 26 RV SITES

PERC RATE: 1.1-10.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 2,437.5 SQ.FT. RESTRICTIVE LAYER = DIGGABLE AT 35" - TP-114

SLOPE = >15.0%RS DEPTH = [42" (TOP OF SYSTEM TO RESTRICTIVE LAYER) + 32.5"

(AVERAGE DEPTH TO RESTRICTIVE LAYER)] / 2 =37.2"

HYDRAULIC FACTOR (HF) = 16 FLOW FACTOR (FF) = 6.5

PERCOLATION FACTOR (PF) = 1.0 MLSS = 16*6.5*1.0 = 104 LF

PRIMARY AREA - USE 352 LF (2 ROWS OF 176') OF 18"X48" CONCRETE GALLERIES WITH TOP LOAD DISTRIBUTION PIPE

EFFECTIVE LEACHING AREA PROVIDED = 2,464 SF (2X176 LF @ 7.0 SQ.FT./L.F.)

RESERVE AREA
PERC RATE: 1.1-10.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 2,437.5 SQ.FT. RESTRICTIVE LAYER = 25"

RESERVE AREA - USE 360 LF (3 ROWS OF 120') OF 18"X48" CONCRETE GALLERIES WITH TOP LOAD DISTRIBUTION PIPE)

EFFECTIVE LEACHING AREA PROVIDED = 2,520 SF (360 LF @ 7.0 SQ.FT./L.F.)

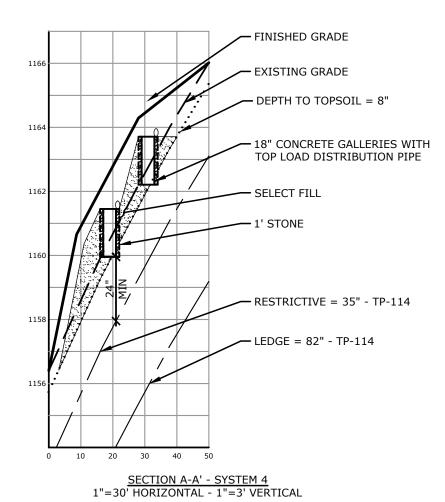
SEPTIC SYSTEM INVERT ELEVATIONS

SEPTIC TANK INLET = 1169.00 SEPTIC TANK OUTLET = 1168.75 MAIN D-BOX = 1164.00 ROW 1 D-BOX = 1163.80

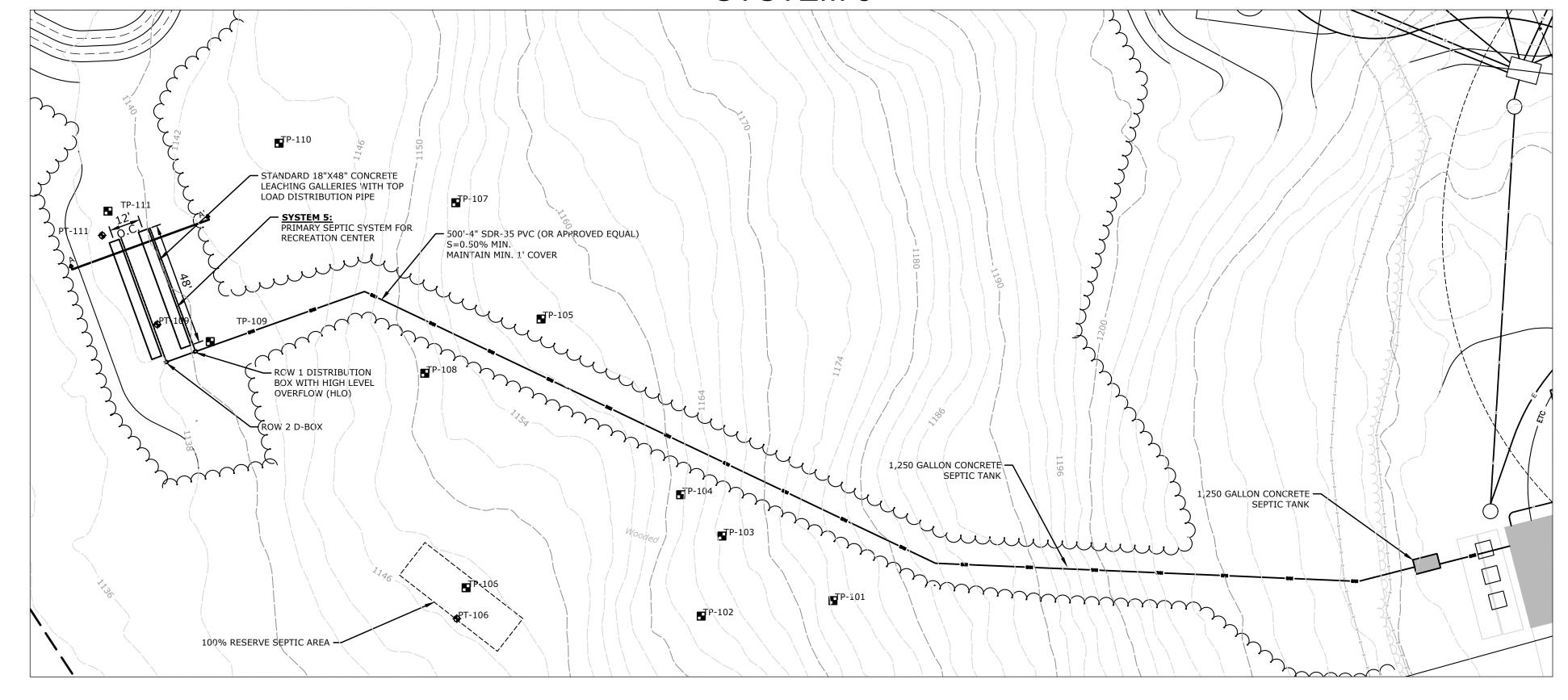
(HLO)= 1163.90 ROW 1 INVERT ELEVATION = 1163.71 ROW 1 BOTTOM ELEVATION = 1162.21

ROW 2 D-BOX = 1161.55

ROW 2 INVERT ELEVATION = 1161.44 ROW 2 BOTTOM ELEVATION = 1159.94



SYSTEM 5



SYSTEM DESIGN

DESIGN BASIS: CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS DATED JANUARY 2018, AS AMENDED.

FLOW: RECREATION CENTER

PERC RATE: 1.1-10.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 619.2 SQ.FT. RESTRICTIVE LAYER = COMPACT AT 29" - TP-111

SLOPE = 10.1-15.0% RS DEPTH = [30" (TOP OF SYSTEM TO RESTRICTIVE LAYER) + 31.5"

(AVERAGE DEPTH TO RESTRICTIVE LAYER)] / 2 =30.75"

HYDRAULIC FACTOR (HF) = 20 FLOW FACTOR (FF) = 2.36 PERCOLATION FACTOR (PF) = 1.0

MLSS = 20*2.36*1.0 = 47.28 LFPRIMARY AREA - USE 112 LF (2 ROWS OF 56') OF 12"X48" CONCRETE GALLERIES EFFECTIVE LEACHING AREA PROVIDED = 660.8 (2X56 LF @ 5.9 SQ.FT./L.F.)

RESERVE AREA
PERC RATE: 1.1-10.0 MIN/INCH
EFFECTIVE AREA REQUIRED = 619.2 SQ.FT.

RESTRICTIVE LAYER = 35"

RESERVE AREA - USE 96 LF (2 ROWS OF 48') OF 18"X48" CONCRETE GALLERIES WITH TOP LOAD DISTRIBUTION PIPE

EFFECTIVE LEACHING AREA PROVIDED = 672 SF (96 LF @ 7.0 SQ.FT./L.F.)

SEPTIC SYSTEM INVERT ELEVATIONS

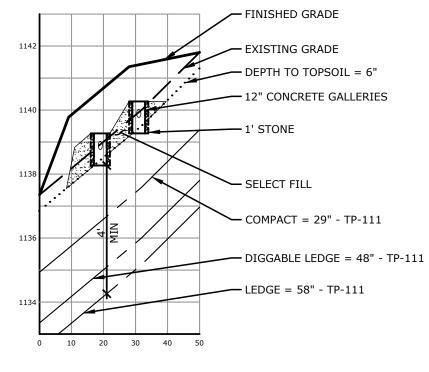
SEPTIC TANK INLET = 1191.75 SEPTIC TANK OUTLET = 1191.50

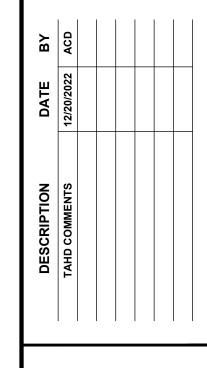
ROW 1 D-BOX = 1139.90(HLO)= 1140.00

ROW 1 INVERT ELEVATION = 1139.77

ROW 1 BOTTOM ELEVATION = 1139.27

 $ROW\ 2\ D-BOX\ =\ 1138.90$ ROW 2 INVERT ELEVATION = 1138.77 ROW 2 BOTTOM ELEVATION = 1138.27

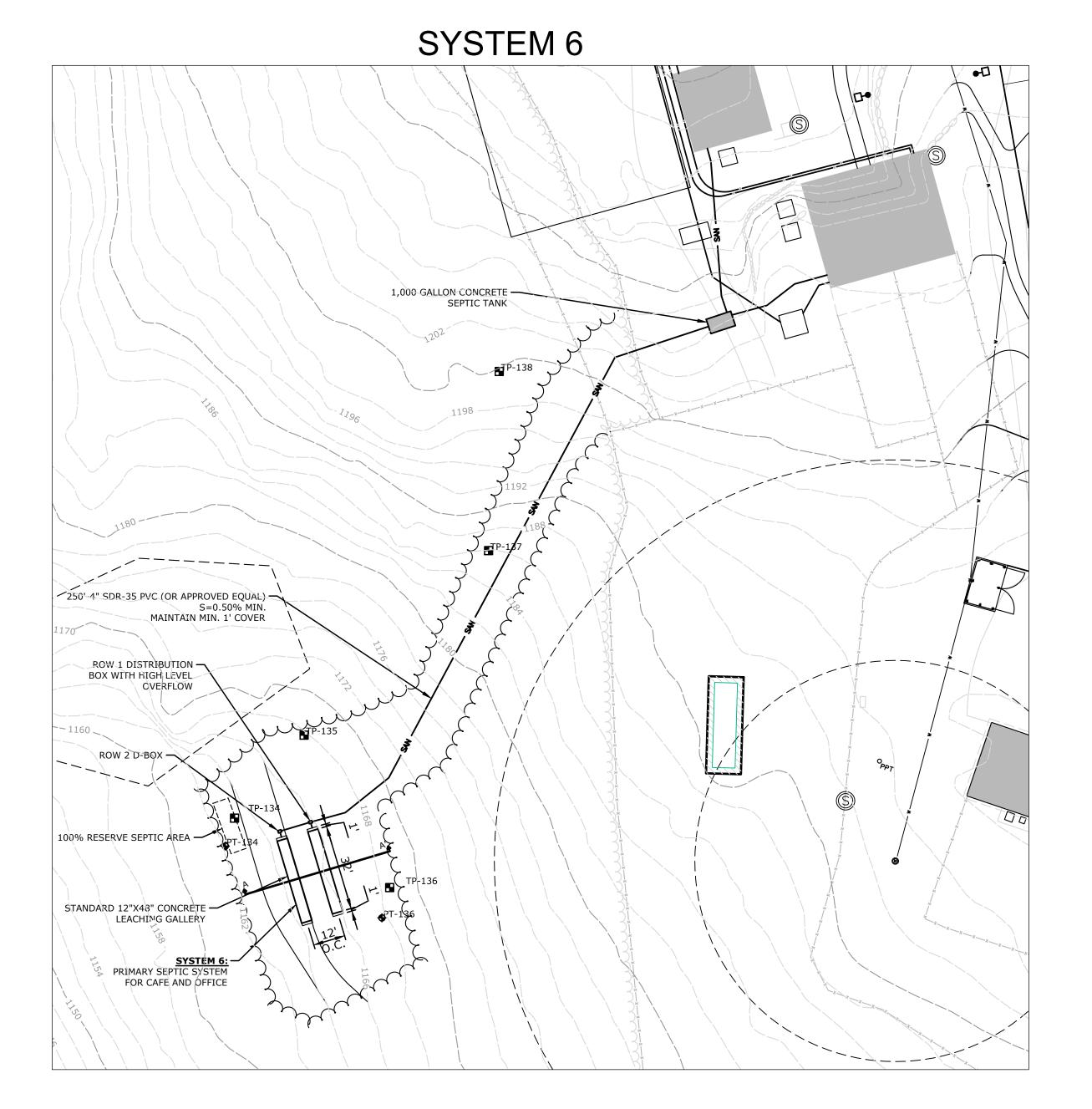




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SYSTEM DESIGN

DESIGN BASIS: CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS DATED JANUARY 2018, AS AMENDED.

FLOW: CAFE/OFFICE

PERC RATE: 1.1-10.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 387.5 SQ.FT. RESTRICTIVE LAYER = COMPACT AT 31" - TP-134

SLOPE = 10.1-15.0% RS DEPTH = (AVERAGE DEPTH TO RESTRICTIVE LAYER) =33.5"

HYDRAULIC FACTOR (HF) = 20

FLOW FACTOR (FF) = 1.03 PERCOLATION FACTOR (PF) = 1.0

MLSS = 20*1.03*1.0 = 20.67 LFPRIMARY AREA - USE 64 LF (2 ROW OF 32' OF 12"X48" CONCRETE GALLERIES AND 1 LF OF

12"X48" STANDARD LEACHING TRENCH AT EACH END OF EACH ROW)
EFFECTIVE LEACHING AREA PROVIDED = 389.6 (2X32 LF @ 5.9 SQ.FT./L.F. AND 4 LF @ 3.0 SQ.FT./L.F.)

RESERVE AREA
PERC RATE: 1.1-10.0 MIN/INCH
EFFECTIVE AREA REQUIRED = 387.5 SQ.FT. RESTRICTIVE LAYER = 31"

RESERVE AREA - USE 20 LF (1 ROW-20' LONG) MANTIS DOUBLE WIDE 100 EFFECTIVE LEACHING AREA PROVIDED = 400 SF (20 LF @ 11.0 SQ.FT./L.F.)

SEPTIC SYSTEM INVERT ELEVATIONS

SEPTIC TANK INLET = 1201.5 SEPTIC TANK OUTLET = 1201.25 ROW 1 D-BOX = 1166.00

ROW 1 INVERT ELEVATION = 1165.88 ROW 1 BOTTOM ELEVATION = 1165.38

 $ROW\ 2\ D-BOX\ =\ 1164.60$

(HLO)= 1166.10

ROW 2 INVERT ELEVATION = 1164.47 ROW 2 BOTTOM ELEVATION = 1163.97

- FINISHED GRADE EXISTING GRADE DEPTH TO TOPSOIL = 7" SELECT FILL 12" CONCRETE GALLERIES ➤ COMPACT = 31" - TP-134 ➤ LEDGE = 77" - TP-134

<u>SECTION A-A' - SYSTEM 6</u> 1"=30' HORIZONTAL - 1"=3' VERTICAL

SYSTEM 7



SYSTEM DESIGN

DESIGN BASIS: CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS DATED JANUARY 2018, AS AMENDED.

FLOW: EXISTING HOUSE (4 BEDROOMS)

PERC RATE: 10.1-20.0 MIN/INCH

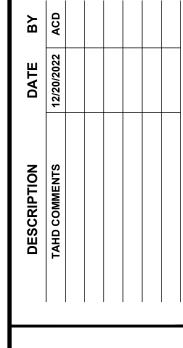
EFFECTIVE AREA REQUIRED = 787.5 SQ.FT.
RESTRICTIVE LAYER = COMPACT AT 28" - TP-45

SLOPE = >15.0%RS DEPTH = (AVERAGE DEPTH TO RESTRICTIVE LAYER) =33.3"

HYDRAULIC FACTOR (HF) = 18 FLOW FACTOR (FF) = 1.75

PERCOLATION FACTOR (PF) = 1.25 MLSS = 18*1.75*1.25 = 39.375 LF

RESERVE AREA - USE 144 LF (2 ROW OF 72' OF 12"X48" CONCRETE GALLERIES) EFFECTIVE LEACHING AREA PROVIDED = 849.6 SF (2X72 LF @ 5.9 SQ.FT./L.F.)



LITCHFIELDS HILLS C KOA CAMPGROUND

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SEDIMENT & EROSION CONTROL SPECIFICATIONS

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION, AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATER BODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INSOFAR

AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF

LAND GRADING

INSOFAR AS POSSIBLE, EROSION ON THE SITE.

1. THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES, SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:

ADJACENT WETLANDS, WATERCOURSES, AND WATER BODIES, AND TO PREVENT,

- a. THE PERMANENT CUT FACE OF EARTH EXCAVATION SHALL NOT BE
- STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1). b. THE PERMANENT EXPOSED FACES OF EARTHEN FILLS SHALL NOT BE

STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).

- c. THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN
- ONE HORIZONTAL TO FOUR VERTICAL (1:4). d. PROVISION SHOULD BE MADE TO CONDUCT SURFACE WATER SAFELY
- TO STORM DRAINS TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES. e. EXCAVATIONS SHOULD NOT BE MADE SO CLOSE TO PROPERTY LINES AS
- TO ENDANGER ADJOINING PROPERTY WITHOUT PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTLING, OR CRACKING.
- f. NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE OR WASH UPON THE PREMISES OF ANOTHER OWNER OR UPON ADJACENT WETLANDS, WATERCOURSES, OR WATER BODIES BODIES.
- g. PRIOR TO ANY REGRADING, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE

TOPSOILING

- 1. TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH, AND MAINTENANCE OF VEGETATION.
- 2. UPON ATTAINING FINAL UPGRADES, SCARIFY SURFACE TO PROVIDE A GOOD BOND WITH TOPSOIL
- 3. REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS AND CONSTRUCTION
- 4. APPLY LIME ACCORDING TO SOIL TEST OR AT THE RATE OF TWO (2) TONS PER ACRE

- 1. TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS
- 2. TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE.
- 3. TOPSOIL SHOULD BE RELATIVELY FREE OF SUBSOIL MATERIAL AND MUST BE FREE OF STONES (OVER 1" IN DIAMETER), LUMPS OF SOIL, ROOTS, TREE LIMBS, TRASH, OR CONSTRUCTION DEBRIS. IT SHOULD BE FREE OF ROOTS OR RHIZOMES SUCH AS THISTLE, KNOTGRASS, AND QUAKERS.
- 4. AN ORGANIC MATTER CONTENT OF SIX PERCENT (6%) IS REQUIRED. AVOID LIGHT COLORED SUBSOIL MATERIAL.
- 5. SOLUBLE SALT CONTENT OF OVER 500 PARTS PER MILLION (PM) IS LESS SUITABLE. AVOID TIDAL MARSH SOILS BECAUSE OF HIGH SALT CONTENT AND SULFUR ACIDITY.
- 6. THE pH SHOULD BE MORE THAN 6.0. IF LESS, ADD LIME TO INCREASE pH TO AN ACCEPTABLE LEVEL.

APPLICATION:

- 1. AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN.
- 2. SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST SIX INCHES (6") OR TO THE DEPTH SHOWN ON THE LANDSCAPING PLANS.

TEMPORARY VEGETATIVE COVER

L. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED, AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS MORE THAN 30 DAYS. AREAS TO BE LEFT EXPOSED FOR MORE THAN 30 DAYS SHALL BE SEEDED WITHIN 7 DAYS OF SUSPENSION OF CONSTRUCTION ACTIVITIES. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED IF AREAS WILL NOT BE PERMANENTLY SEEDED BY

SITE PREPARATION:

- 1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
- 2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
- 3. APPLY LIME ACCORDING TO SOIL TEST OR AT A RATE OF ONE (1) TON OF GROUND DOLOMITIC LIMESTONE PER ACRE (5 LBS. PER 100 SQ. FT.).
- 4. APPLY FERTILIZER ACCORDING TO SOIL TEST OR AT THE RATE OF 300 LBS. OF 10-10-10 PER ACRE (7 LBS. PER 1,000 SQ. FT.) AND SECOND APPLICATION OF 200 LBS. OF 10-10-10- (5 LBS. PER 1,000 SQ. FT.) WHEN GRASS IS FOUR INCHES (4") TO SIX INCHES (6") HIGH. APPLY ONLY WHEN GRASS IS DRY
- 5. UNLESS HYDROSEEDED, WORK IN LIME AND FERTILIZER TO A DEPTH OF FOUR (4") INCHES USING A DISK OR ANY SUITABLE EQUIPMENT.
- 6. TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING. **ESTABLISHMENT:**
- 1. SELECT APPROPRIATE SPECIES FOR THE SITUATION. NOTE RATES AND SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING
- 2. APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
- 3. UNLESS HYDROSEEDED, COVER RYEGRASS SEEDS WITH NOT MORE THAN 1/4
- INCH OF SOIL USING SUITABLE EQUIPMENT. 4. MULCH IMMEDIATELY AFTER SEEDING IF REQUIRED. (SEE VEGETATIVE
- COVER SELECTION & MULCHING SPECIFICATION BELOW.) APPLY STRAW OR HAY MULCH AND ANCHOR TO SLOPES GREATER THAN 3% OR WHERE CONCENTRATED FLOW WILL OCCUR.

PERMANENT VEGETATIVE COVER

1. PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED SHALL BE SEEDED WITHIN 7 DAYS OF ESTABLISHMENT OF FINAL GRADES.

SITE PREPARATION:

- INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
- 2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA. 3. PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE
- 4. APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN.
- 5. APPLY FERTILIZER ACCORDING TO SOIL TEST OR:
- SPREAD SEEDING: WORK DEEPLY IN SOIL, BEFORE SEEDING, 300 LBS. OF 10-10-10 FERTILIZER PER ACRE (7 LBS. PER 1,000 SQ. FT.); THEN SIX (6) TO EIGHT (8) WEEKS LATER, APPLY ON THE SURFACE AN ADDITIONAL 300 LBS. OF 10-10-10 FERTILIZER PER ACRE. AFTER

SEPTEMBER 1, TEMPORARY VEGETATIVE COVER SHALL BE APPLIED.

FALL SEEDING: WORK DEEPLY IN SOIL, BEFORE SEEDING, 600 LBS. OF 10-10-10 FERTILIZER PER ACRE (14 LBS. PER 1,000 SQ. FT.).

VEGETATIVE COVER SELECTION & MULCHING

- TEMPORARY VEGETATIVE COVER:
- PERENNIAL RYEGRASS 3 LBS./1,000 SQ.FT.
- (LOLIUM PERENNE)
- * PERMANENT VEGETATIVE COVER: BARON KENTUCKY BLUEGRASS JAMESTOWN II CHEWINGS FESCUE 20%
- PALMER PERENNIAL RYEGRASS * LOFTS - "TRIPLEX GENERAL" MIX OR APPROVED EQUAL
- RECOMMENDED TIME SEEDING. 5 LB./1000 S.F. SEEDING RATE.
- SPRING SEEDING: 4/1 to 5/31 FALL SEEDING: 8/16 to 10/15
- TEMPORARY MULCHING:
- STRAY OR HAY 70-90 LBS./1,000 SQ.FT.
- (TEMPORARY VEGETATIVE AREAS)
- WOOD FIBER IN HYDROMULCH SLURRY 25-50 LBS./1,000 SQ. FT.

ESTABLISHMENT:

- 1. SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING).
- 2. SELECT ADAPTED SEED MIXTURE FOR THE SPECIFIC SITUATION. NOTE RATES AND THE SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPEC. BELOW)
- 3. APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
- 4. COVER GRASS AND LEGUME SEED WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT (EXCEPT WHEN HYDROSEEDING).
- 5. MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO TEMPORARY MULCHING SPECIFICATIONS. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).
- 6. USE PROPER INOCULANT ON ALL LEGUME SEEDINGS, USE FOUR (4) TIMES NORMAL RATES WHEN HYDROSEEDING.
- 7. USE SOD WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IN CRITICAL AREAS WHERE IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER TO PREVENT EROSION.

MAINTENANCE:

- 1. TEST FOR SOIL ACIDITY LIME AS REQUIRED.
- 2. ON SITES WHERE GRASSES PREDOMINATE, BROADCAST ANNUALLY 500 POUNDS OF 10-10-10 FERTILIZER PER ACRE (12 LBS. PER 1,000 SQ. FT.) OR AS NEEDED ACCORDING TO ANNUAL SOIL TESTS.
- 3. ON SITES WHERE LEGUMES PREDOMINATE, BROADCAST AS INDICATED BY SOIL TEST 300 POUNDS OF 0-20-20 OR EQUIVALENT PER ACRE (8 LBS PER

EROSION CHECKS

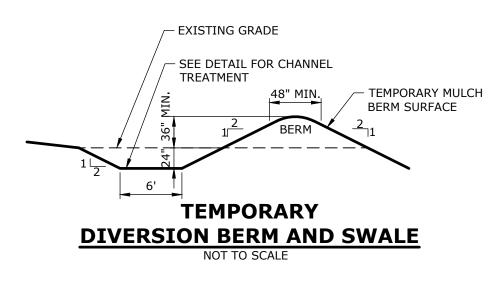
1. TEMPORARY PERVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND OR GEOTEXTILE FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION.

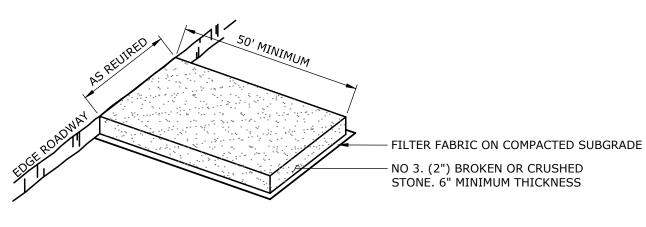
CONSTRUCTION:

- 1. BALES SHOULD BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- 2. EACH BALE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR (4")
- 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES OR REINFORCEMENT BARS DRIVEN THROUGH THE BALES AND INTO THE GROUND. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- 4. GEOTEXTILE FABRIC SHALL BE SECURELY ANCHORED AT THE TOP OF A THREE FOOT (3') HIGH FENCE AND BURIED A MINIMUM OF FOUR INCHES (4") TO THE SOIL. SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF TWO FEET (2').

INSTALLATION AND MAINTENANCE:

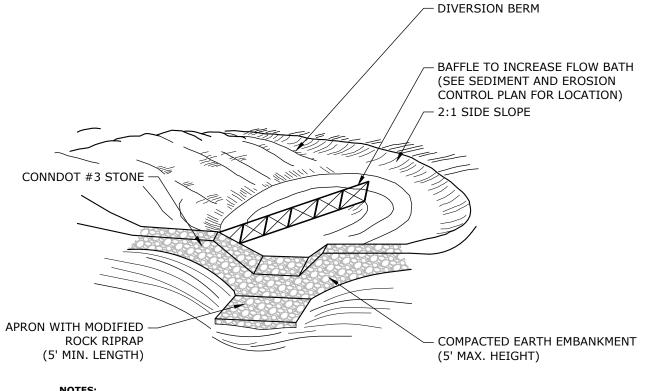
- 1. BALED HAY EROSION BARRIERS SHALL BE INSTALLED AT ALL STORM SEWER
- 2. BALED HAY EROSION BARRIERS AND GEOTEXTILE FENCE SHALL BE INSTALLED AT THE LOCATION INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEEMED APPROPRIATE DURING CONSTRUCTION.
- 3. ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED.
- 4. INSPECTION SHALL BE FREQUENT (AT MINIMUM MONTHLY AND BEFORE AND AFTER HEAVY RAIN) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 5. EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM WATER FLOW OR DRAINAGE.





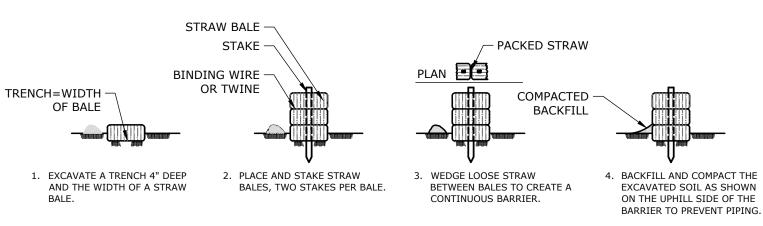
1. CONSTRUCTION ENTRANCE PAD SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH GENERATE VEHICULAR TRACKING OF MUD.

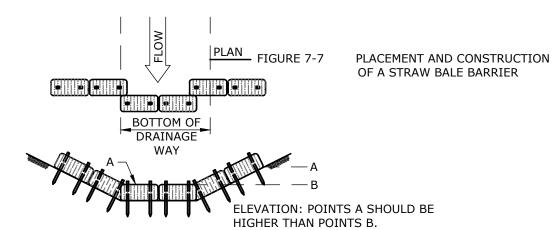
CONSTRUCTION ENTRANCE PAD



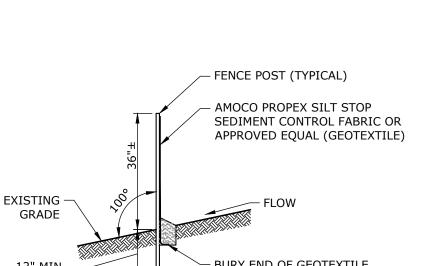
1. REFER TO SEDIMENT & EROSION CONTROL PLAN FOR APPROXIMATE

TEMPORARY SEDIMENT TRAP

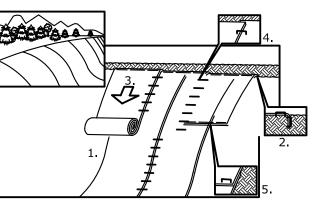




PLACEMENT & CONSTRUCTION OF A HAY BALE BARRIER



SEDIMENT FILTER FENCE

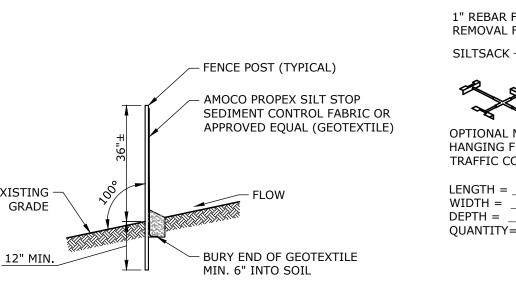


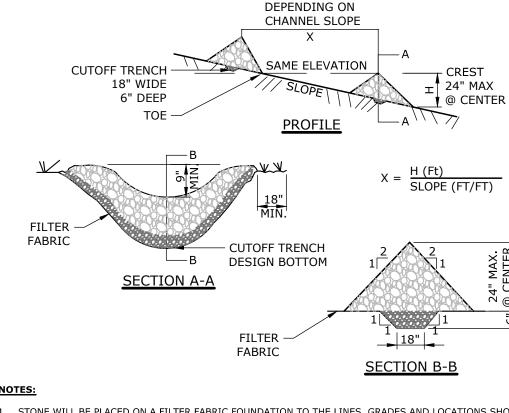
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME FERTILIZER AND SEED NOTE: WHEN USING SCC225 DO NOT SEED PREPARED AREA. SCC225 MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER 3. ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH

APPROXIMATELY 2" OVERLAP.

5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAP AREA, APPROXIMATELY 12" APART. REFER TO GENERAL STAPLE PATTERN GUIDE IN <u>NORTH AMERICAN GREEN</u> CATALOG FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOP

APPLICATION OF EROSION CONTROL BLANKET ON SLOPES NOT TO SCALE



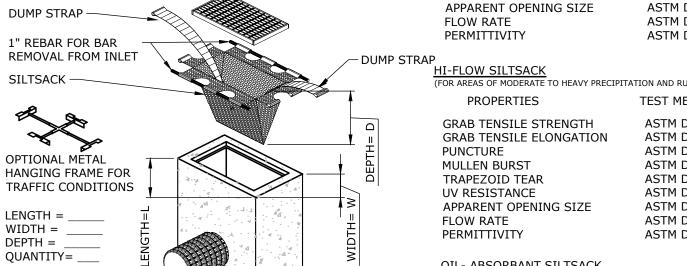


SPACING VARIES

- 1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN
- 2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
- 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE
- 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- 5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT

STONE CHECK DAM

SILTSACK SPECIFICATIONS THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS. REGULAR FLOW SILTSACK 2 EACH DUMP STRAPS OR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF) **EXPANSION RESTRAINT** TEST METHOD **PROPERTIES** UNITS (1/4" NYLON ROPE, 2" GRAB TENSILE STRENGTH ASTM D-4632 300 LBS FLAT WASHERS) GRAB TENSILE ELONGATION ASTM D-4632 20% **PUNCTURE** ASTM D-4833 MULLEN BURST ASTM D-3786 TRAPEZOID TEAR ASTM D-4533



INLET SEDIMENT CONTROL DEVICE

120 LBS 800 PST 120 LBS ASTM D-4355 **UV RESISTANCE** 80% ASTM D-4751 40 US SIEVE ASTM D-4491 40GAL/MIN/SQ F ASTM D-4491 0.55 SEC-1 HI-FLOW SILTSACK
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF) TEST METHOD UNITS ASTM D-4632 265 LBS ASTM D-4632 20% ASTM D-4833 135 LBS ASTM D-3786 420 PSI ASTM D-4533 45 LBS ASTM D-4355 ASTM D-4751 20 US SIEVE ASTM D-4491 200 GAL/MIN/SQ FT ASTM D-4491 1.5 SEC-1

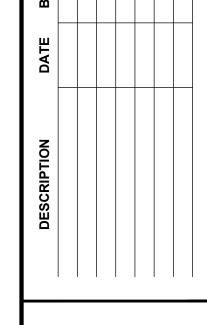
FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

DEPENDING ON YOUR PARTICULAR APPLICATION, THE SILTSACK CAN BE MADE FROM EITHER ONE OF THE ABOVE FABRICS WITH AND OIL-ABSORBANT PILLOW INSERT OR, MADE COMPLETELY FROM AN

OIL-ABSORBANT SILTSACK, WITH A WOVEN PILLOW INSERT.

EROSION CONTROL MAINTENANCE INTERVALS				
EROSION CONTROL MEASURE	CONTROL OBJECTIVE	INSPECTION/MAINTENANCE	FAILURE INDICATORS	REMOVAL
TEMPORARY SEDIMENT TRAP (TST)	- DETAIN SEDIMENT-LADEN RUNOFF FROM SMALL DISTURBED AREAS LONG ENOUGH TO ALLOW A MAJORITY OF THE SEDIMENT TO SETTLE OUT.	INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. STONE OUTLET SHOULD BE AT LEAST 1 FOOT BELOW CREST OF EMBANKMENT. SEDIMENT MUST BE REMOVED WHEN ACCUMULATION REACHES 1/2 OF THE REQUIRED WET STORAGE.	- TURBID WATER - EXCESSIVE SEDIMENT ACCUMULATION - OVERTOPPING EVIDENCE	TST MAY BE REMOVED ONCE THE CONTRIBUTING DRAINAGE AREA IS PERMANENTLY STABILIZED.
SILT FENCE (SF) (RELATED: IP, STK)	- INTERCEPT, AND REDIRECT/DETAIN SMALL AMOUNTS OF SEDIMENT FROM SMALL DISTURBED AREAS DECREASE VELOCITY OF SHEET FLOW PROTECT SENSITIVE SLOPES OR SOILS FROM EXCESSIVE WATER FLOW.	INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. ACCUMULATED SEDIMENT MUST BE REMOVED ONCE ITS DEPTH IS EQUAL TO ½ THE TRENCH HEIGHT. INSPECT FREQUENTLY DURING PUMPING OPERATIONS IF USED FOR DEWATERING OPERATIONS.	- PHYSICAL DAMAGE OR DECOMPOSITION - EVIDENCE OF OVERTOPPED OR UNDERCUT FENCE - EVIDENCE OF SIGNIFICANT FLOWS EVADING CAPTURE - REPETITIVE FAILURE	SILT FENCE MAY BE REMOVED AFTER UPHILL AND SENSITIVE AREAS HAVE BEEN PERMANENTLY STABILIZED.
HAY BALES (HB)	- INTERCEPT, AND REDIRECT/DETAIN SMALL AMOUNTS OF SEDIMENT FROM SMALL DISTURBED AREAS DECREASE VELOCITY OF SHEET FLOW PROTECT SENSITIVE SLOPES OR SOILS FROM EXCESSIVE WATER FLOW.	INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. ACCUMULATED SEDIMENT MUST BE REMOVED ONCE THE DEPTH OF SEDIMENT IS EQUAL TO ½ THE HEIGHT OF THE BARRIER. INSPECT FREQUENTLY DURING PUMPING OPERATIONS IF USED FOR DEWATERING OPERATIONS.	- PHYSICAL DAMAGE OR DECOMPOSITION - EVIDENCE OF OVERTOPPED OR UNDERCUT FENCE - EVIDENCE OF SIGNIFICANT FLOWS EVADING CAPTURE - REPETITIVE FAILURE	HAY BALES MAY BE REMOVED AFTER UPHILL AREAS HAVE BEEN PERMANENTLY STABILIZED.
CONSTRUCTION ENTRANCE (CE)	- REDUCE THE TRACKING OF SEDIMENT OFF-SITE ONTO PAVED SURFACES.	INSPECT AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. PERIODIC ADDITION OF STONE, OR LENGTHENING OF ENTRANCE MAY BE REQUIRED AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES AS A RESULT OF INEFFICIENCY OF CONSTRUCTION ENTRANCE SHALL BE IMMEDIATELY REMOVED.	- SEDIMENT IN ROADWAY ADJACENT TO SITE	CONSTRUCTION ENTRANCE MAY BE REMOVED ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, AND ALL OTHER SECTIONS OF ROADWAY HAVE BEEN PERMANENTLY PAVED.
CATCH BASIN INLET PROTECTION (IP)	- PROHIBIT SILT IN CONSTRUCTION-RELATED RUNOFF FROM ENTERING STORM DRAINAGE SYSTEM.	INSPECT AFTER ANY RAIN EVENT. IF FILTER BAG INSIDE CATCH BASIN CONTAINS MORE THAN 6" OF SEDIMENT, REMOVE SEDIMENT FROM BAG. CHECK SURROUNDING SILT FENCE AND HAY BALES PER NOTED ABOVE.	- RIPPED BAG - FAILED HAY BALES / SILT FENCE - SIGNIFICANT SILT PRESENCE IN STORM DRAINAGE SYSTEM OUTFLOW.	INLET PROTECTION MAY BE REMOVED ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, AND ALL SECTIONS OF ROADWAY HAVE BEEN PERMANENTLY PAVED.
STOCKPILE PROTECTION (STK)	- RETAIN SOIL STOCKPILE IN LOCATIONS SPECIFIED, AND REDUCE WATER-TRANSPORT.	INSPECT SILT FENCE AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. PERIODIC REINFORCEMENT OF SILT FENCE, OR ADDITION OF HAY BALES MAY BE NECESSARY.	- EVIDENCE OF STOCK PILE DIMINISHING DUE TO RAIN EVENTS - FAILURE OF SILT FENCE	STOCKPILE PROTECTION MAY BE REMOVED ONCE THE STOCKPILE IS USED OR REMOVED.





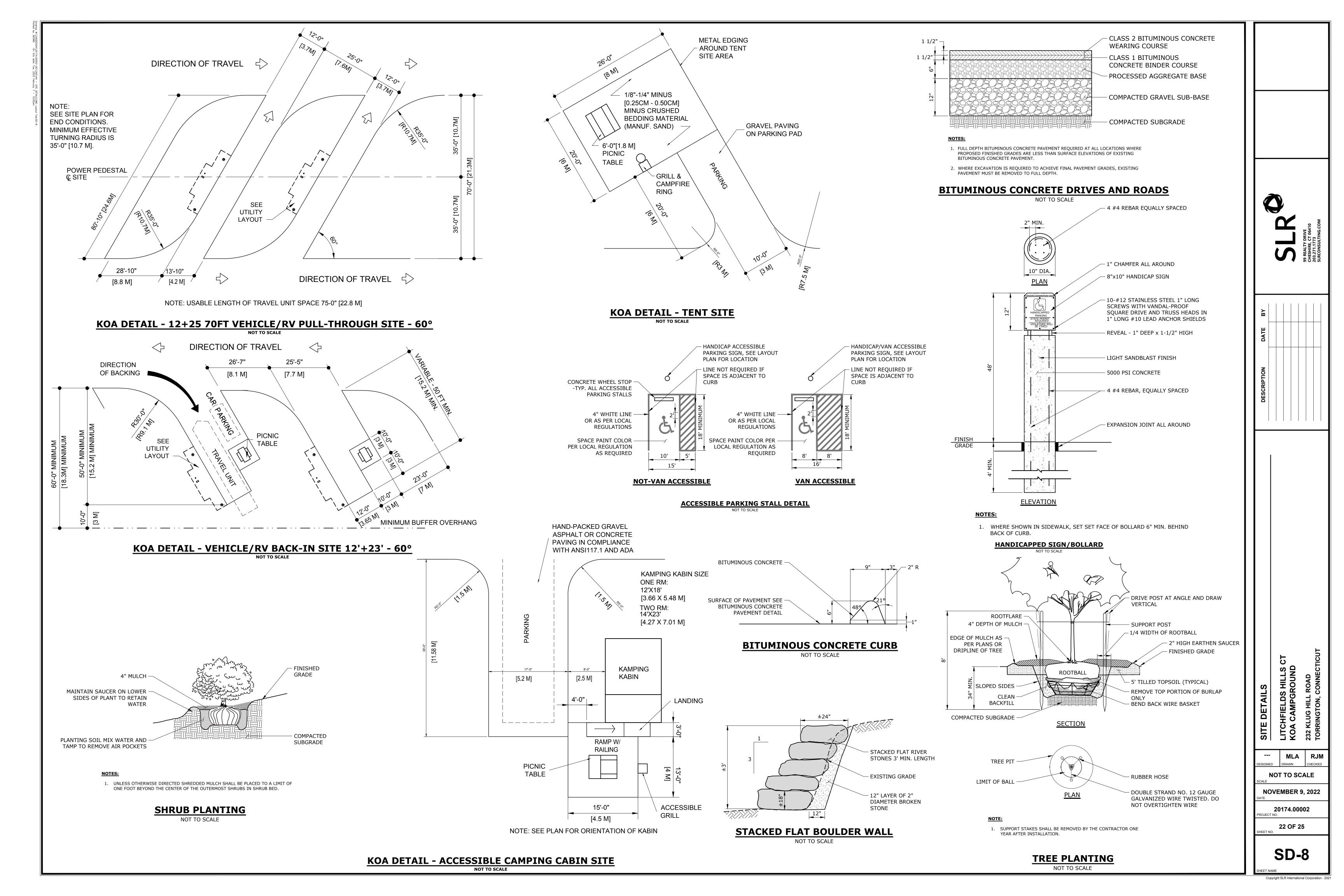
LITCHFIELDS HILLS KOA CAMPGROUND

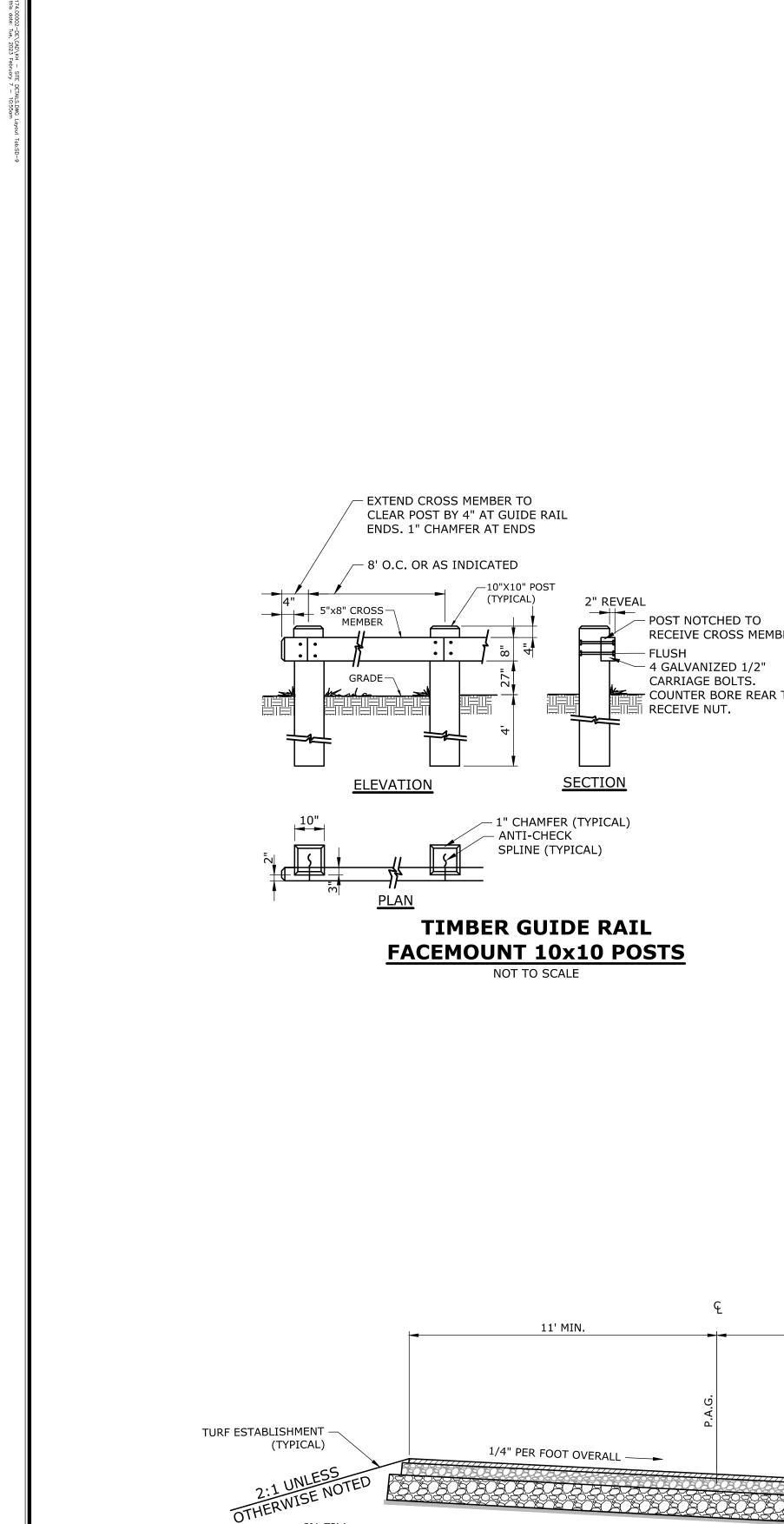
NOT TO SCALE NOVEMBER 9, 2022 20174.00002

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RECEIVE CROSS MEMBER

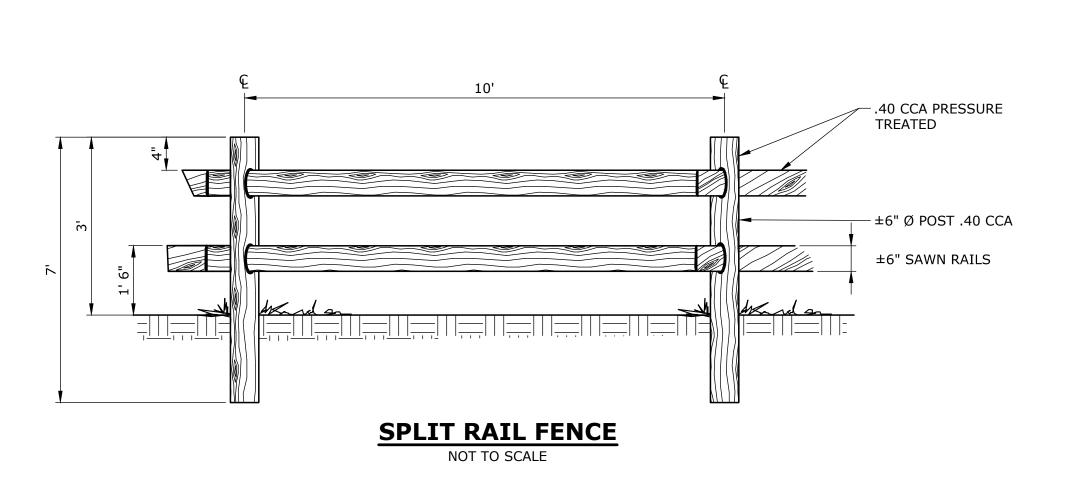
ROADWAY CROSS SECTION - TYPICAL

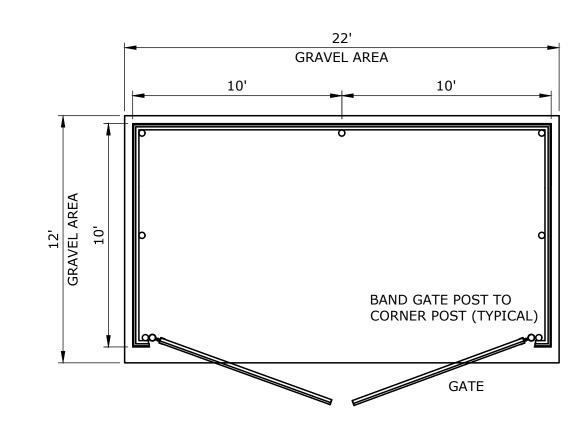
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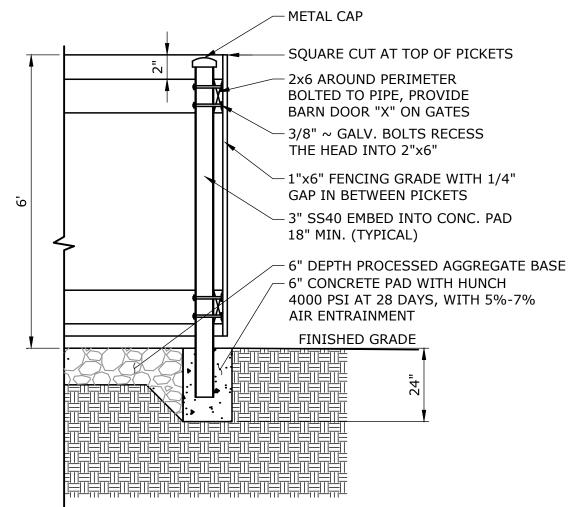
─ 4 GALVANIZED 1/2"

CARRIAGE BOLTS. COUNTER BORE REAR TO

TECEIVE NUT.



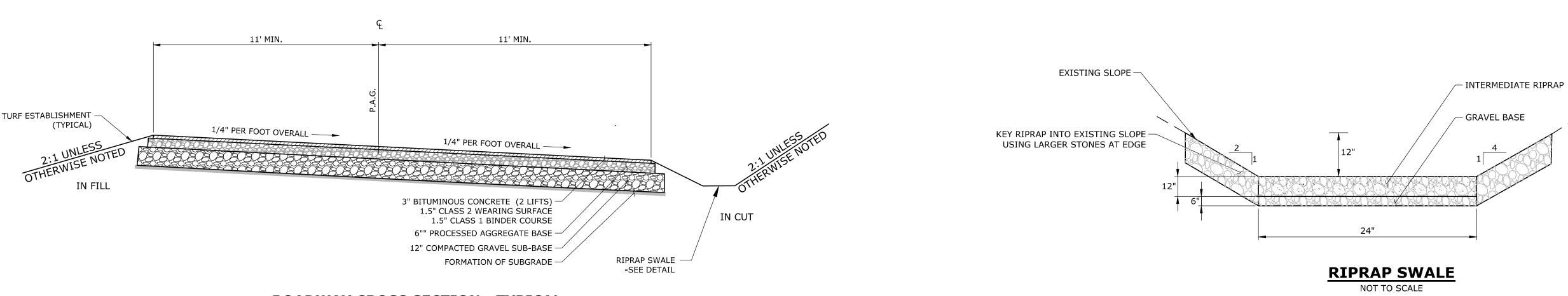




NOTES:

1. ALL WOODS TO BE WHITE CEDAR.

DUMPSTER SCREEN WITH STEEL FRAME NOT TO SCALE



ACD ACD RJM

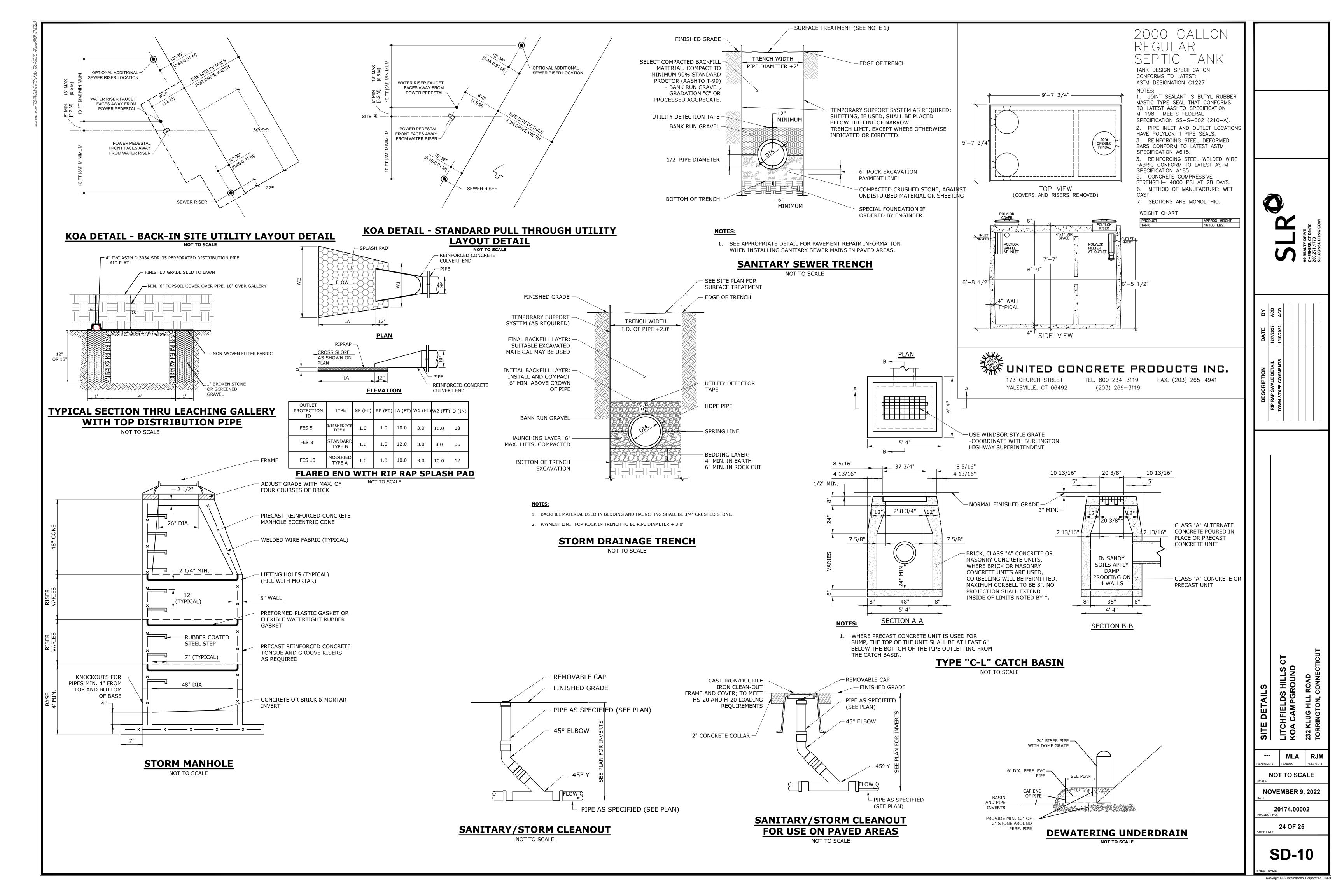
AS NOTED

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PROVIDE MIN. 12" OF

CONCRETE HEADWALL

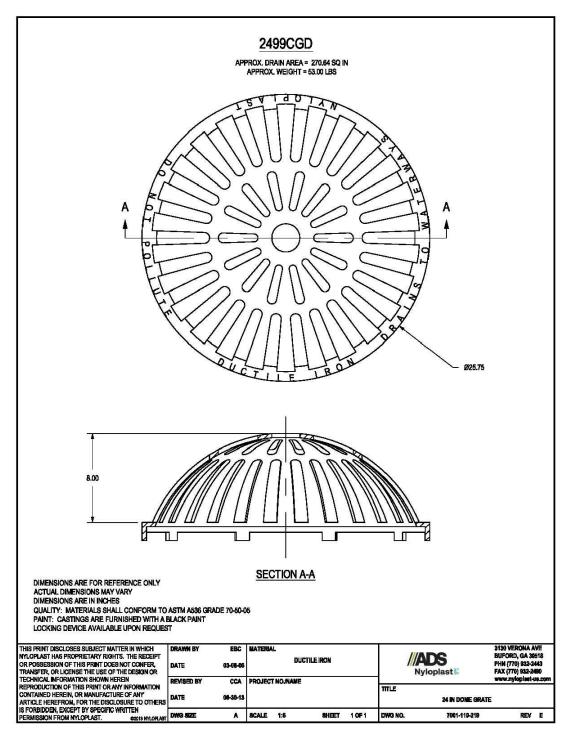
NOT TO SCALE

2" STONE AROUND

NOTE: FOR BASINS 110 AND 330

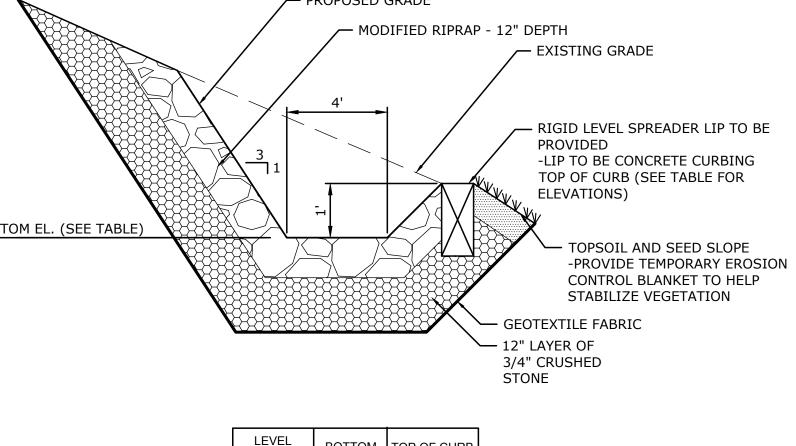
DEWATERING UNDERDRAIN

ACCORDANCE WITH FORMATION OF EMBANKMENT



<u>DET 110</u>		<u>DET 310</u>	
TOP OF BERM ELEVATION	1142.0	TOP OF BERM ELEVATION	1156.0
OVERFLOW ELEVATION	1140.5	OVERFLOW ELEVATION	1153.5
100-YEAR WATER SURFACE ELEV.	1141.0	100-YEAR WATER SURFACE ELEV.	1155.0
LOW FLOW ORIFICE DIAMETER	6.0"	LOW FLOW ORIFICE DIAMETER	8.0"
LOW FLOW ORIFICE INVERT	1137.0	LOW FLOW ORIFICE INVERT	1152.0
OUTLET PIPE DIAMETER	15"	OUTLET PIPE DIAMETER	15"
OUTLET PIPE INVERT	1136.0	OUTLET PIPE INVERT	1151.0
BASIN BOTTOM ELEVATION	1136.0	BASIN BOTTOM ELEVATION	1151.0
DET 120		<u>DET 410</u>	
TOP OF BERM ELEVATION	1138.0	TOP OF BERM ELEVATION	1134.0
OVERFLOW ELEVATION	1136.4	OVERFLOW ELEVATION	1131.9
100-YEAR WATER SURFACE ELEV.	1137.0	100-YEAR WATER SURFACE ELEV.	1133.0
LOW FLOW ORIFICE DIAMETER	6.0"	LOW FLOW ORIFICE DIAMETER	8.0"
LOW FLOW ORIFICE INVERT	1134.4	LOW FLOW ORIFICE INVERT	1129.1
OUTLET PIPE DIAMETER	15"	OUTLET PIPE DIAMETER	15"
OUTLET PIPE INVERT	1134.0	OUTLET PIPE INVERT	1128.0
BASIN BOTTOM ELEVATION	1134.0	BASIN BOTTOM ELEVATION	1128.0

DETENTION BASIN OUTLET CONTROL STRUCTURES



LEVEL SPREADER ID	BOTTOM EL. (FT)	TOP OF CURB EL. (FT)
110	1135.0	1136.0
120	1133.0	1134.0
310	1149.0	1150.0
410	1125.0	1126.0

LEVEL SPREADER NOT TO SCALE

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LITCHFIELDS HILLS KOA CAMPGROUND

MLA RJM

NOT TO SCALE

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