

GENERAL NOTES

- BOUNDARY INFORMATION IS BASED UPON A FIELD SURVEY CONDUCTED BY SLR AND TOPOGRAPHIC INFORMATION IS BASED ON GIS WITH LIMITED FIELD TOPO.
- 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 PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
- THE EXACT LOCATION AND SIZE OF ELECTRIC, TELEPHONE AND CABLE TELEVISION ARE TO BE DETERMINED BY THE RESPECTIVE UTILITY COMPANIES.
- ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- 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 PRACTICES SHALL PREVAIL.
- 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.
- 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 CONFORM TO LOCAL CODE.
- COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITEE.
- 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.
- A SUPPLY OF ABSORBENT SPILL RESPONSE MATERIAL SHOULD BE KEPT ON-SITE TO CLEAN UP ANY SPILLS OF HAZARDOUS MATERIALS.

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 ENTRANCES.
- 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.
- 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 ACCUMULATION EXCEEDS ONE HALF THE WET STORAGE CAPACITY OF THE BASIN.
- SEDIMENT AND EROSION CONTROLS 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.
- INSPECTION OF THE SITE FOR EROSION SHALL CONTINUE FOR A PERSON OF THREE MONTHS AFTER COMPETITION WHEN RAINFALLS OF ONE INCH OR MORE OCCUR.
- THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER AND BUILDING MATERIALS SUCH THAT NONE OF THE ABOVE ENTER WATERS OR WETLANDS.
- A COPY OF ALL PLANS AND REVISIONS, AND THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MAINTAINED ON-SITE AT ALL TIMES DURING CONSTRUCTION.

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 OF IN AN APPROVED LOCATION.
- 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.
- A LOG OF ALL INSPECTION AND CLEANING SHALL BE MAINTAINED BY THE OCCUPANT AND BE AVAILABLE FOR INSPECTION.
- 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.

KLUG HILL RV PARK KOA CAMPGROUND

232 KLUG HILL ROAD
TORRINGTON, CONNECTICUT

REGULATORY SUBMISSION
NOVEMBER 9, 2022



PROJECT SITE VICINITY MAP:



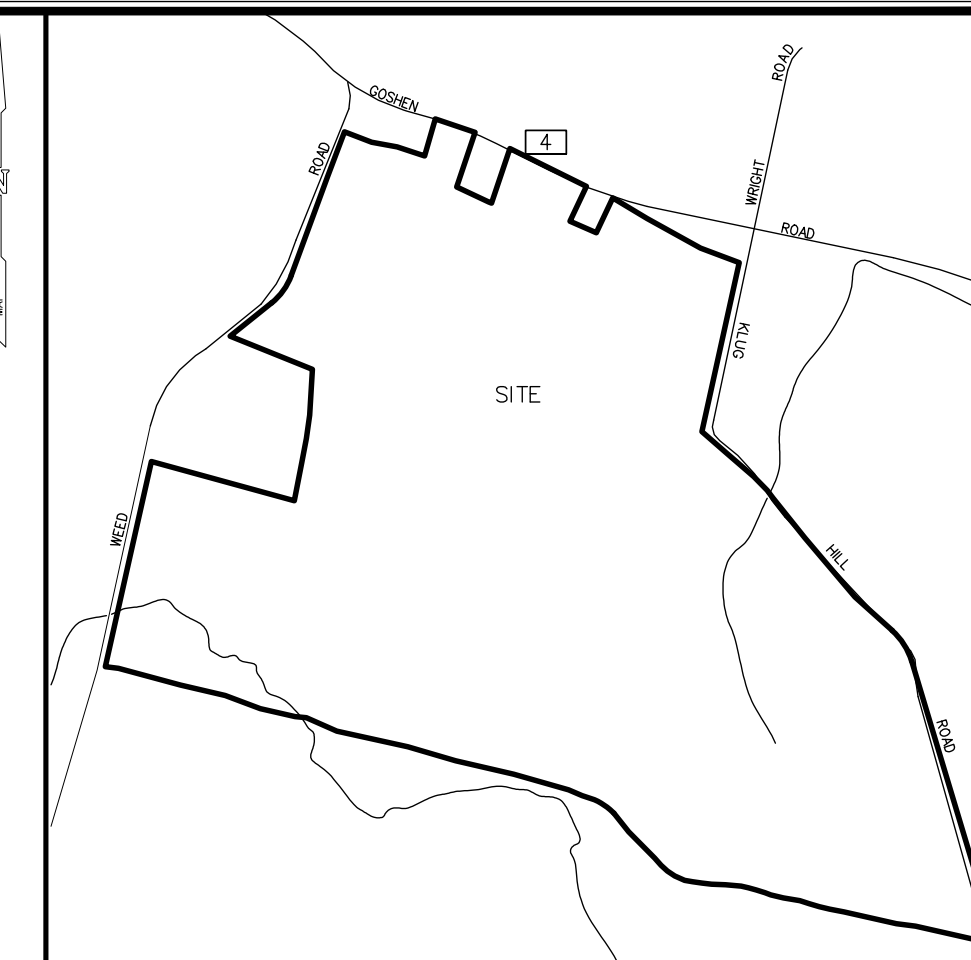
PROJECT DATA

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

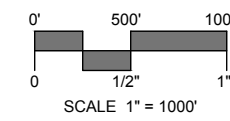
R-60 -DIMENSIONAL CRITERIA	REQ'D/PERMITTED	PROPOSED/PROVIDED
LOT AREA	60,000 SF (MIN)	±225.87 AC.
LOT WIDTH	200' (MIN)	>200'
FRONT YARD SETBACK	50' (MIN)	>50'
SIDE YARD SETBACK	25' (MIN)	>25'
REAR YARD SETBACK	100' (MIN)	>100'
IMPERVIOUS SURFACE RATIO	30% (MAX)	<30%
BUILDING COVERAGE RATIO	10% (MAX)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



LOCATION MAP:



OWNER:

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

APPLICANT:

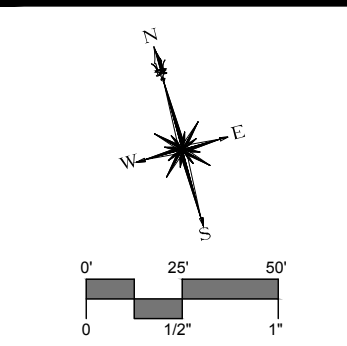
LELAH CAMPO
COZY HILLS II CAMPGROUND
1311 BANTAM ROAD
BANTAM, CT 06750

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	GU-1 - 2	SITE PLAN - GRADING & UTILITIES
09 - 10	SE-1 - 2	SEDIMENT AND EROSION CONTROL PLAN
11 - 12	SD-1 - SD-2	SEPTIC SYSTEM - SOIL TESTING RESULTS
13	SD-3	SEPTIC SYSTEM - MLSS DATA TABLE
14-15	SD-4 - SD-5	SEPTIC SYSTEM - SEPTIC DESIGN & CROSS SECTIONS
16-19	SD-6 - SD-9	SITE DETAILS



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



SLR
 99 REATY DRIVE
 SUITE 100
 TORRINGTON, CT 06460
 203.271.1772
 SLRCONSULTING.COM

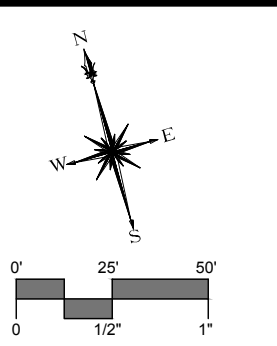
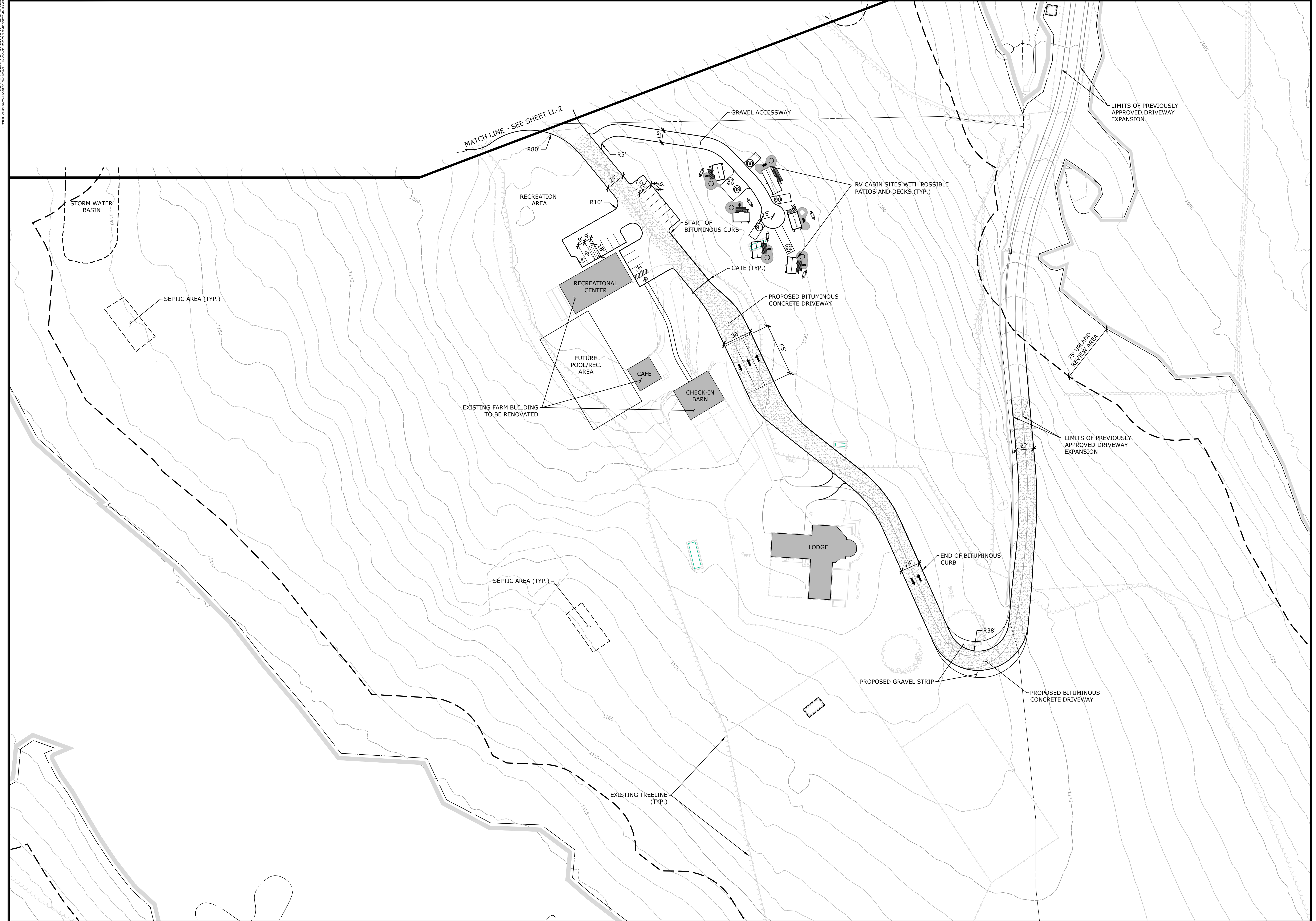
DESCRIPTION	DATE	BY

SITE PLAN - EXISTING CONDITIONS
 KLUG HILL RV PARK
 KOA CAMPGROUND
 232 KLUG HILL ROAD
 TORRINGTON, CONNECTICUT

ACD DESIGNED	ACD DRAWN	RJM CHECKED
SCALE 1"=50'		
DATE NOVEMBER 9, 2022		
PROJECT NO. 20174.00002		
SHEET NO. 04 OF 19		

I HEREBY CERTIFY THAT THE INLAND WETLAND BOUNDARY AND WATERCOURSE LINE(S) AS SHOWN ON THIS MAP ARE SUBSTANTIALLY CORRECT.
Matthew Sanford
 MATTHEW SANFORD - CERTIFIED SOIL SCIENTIST

EX-2
 SHEET NAME



SLR
 99 REALTY DRIVE
 SUITE 100
 TORRINGTON, CT 06460
 203.771.1772
 SLRCONSULTING.COM

DESCRIPTION	DATE	BY

SITE PLAN - LAYOUT & LANDSCAPING
 KLUG HILL RV PARK
 KOA CAMPGROUND
 232 KLUG HILL ROAD
 TORRINGTON, CONNECTICUT

ACD DESIGNED	ACD DRAWN	RJM CHECKED
SCALE 1"=50'		
DATE NOVEMBER 9, 2022		
PROJECT NO. 20174.00002		
SHEET NO. 05 OF 19		

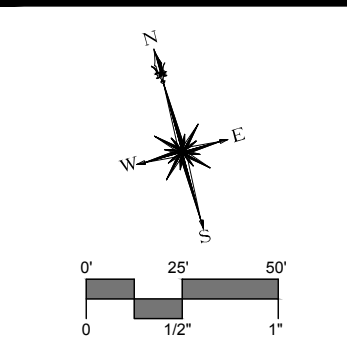
LL-1
 SHEET NAME

PROJECT: 20174.00002 - KLUG HILL RV PARK
 SHEET: LL-1 OF 19
 DATE: 11/09/2022
 DRAWN BY: ACD
 CHECKED BY: RJM
 PROJECT LOCATION: 232 KLUG HILL ROAD, TORRINGTON, CT 06460



REGULATED ACTIVITY #1
 DESCRIPTION: CLEARING AND GRUBBING OF EXISTING WOODS. INSTALLATION OF SEPTIC LEACHING FIELDS AND STORM WATER MANAGEMENT BASIN AND ASSOCIATED INFRASTRUCTURE.
 DIRECT WETLAND ACTIVITY: 0 SF (0.0 AC)
 UPLAND REVIEW ACTIVITY: 25,545 SF (0.586 AC)

REGULATED ACTIVITY #2
 DESCRIPTION: CLEARING AND GRUBBING OF EXISTING WOODS. STORM WATER MANAGEMENT BASINS AND ASSOCIATED INFRASTRUCTURE.
 DIRECT WETLAND ACTIVITY: 0 SF (0.0 AC)
 UPLAND REVIEW ACTIVITY: 14,850 SF (0.340 AC)



SLR
 99 REALTY DRIVE
 SUITE 100
 TORRINGTON, CT 06801
 TEL: 203.771.7171
 WWW.SLRCONSULTING.COM

DESCRIPTION	DATE	BY

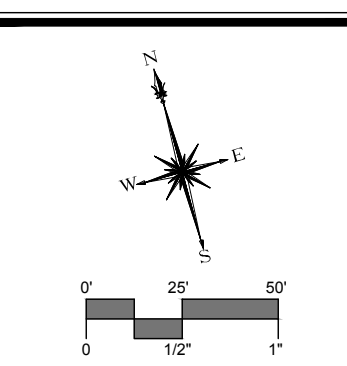
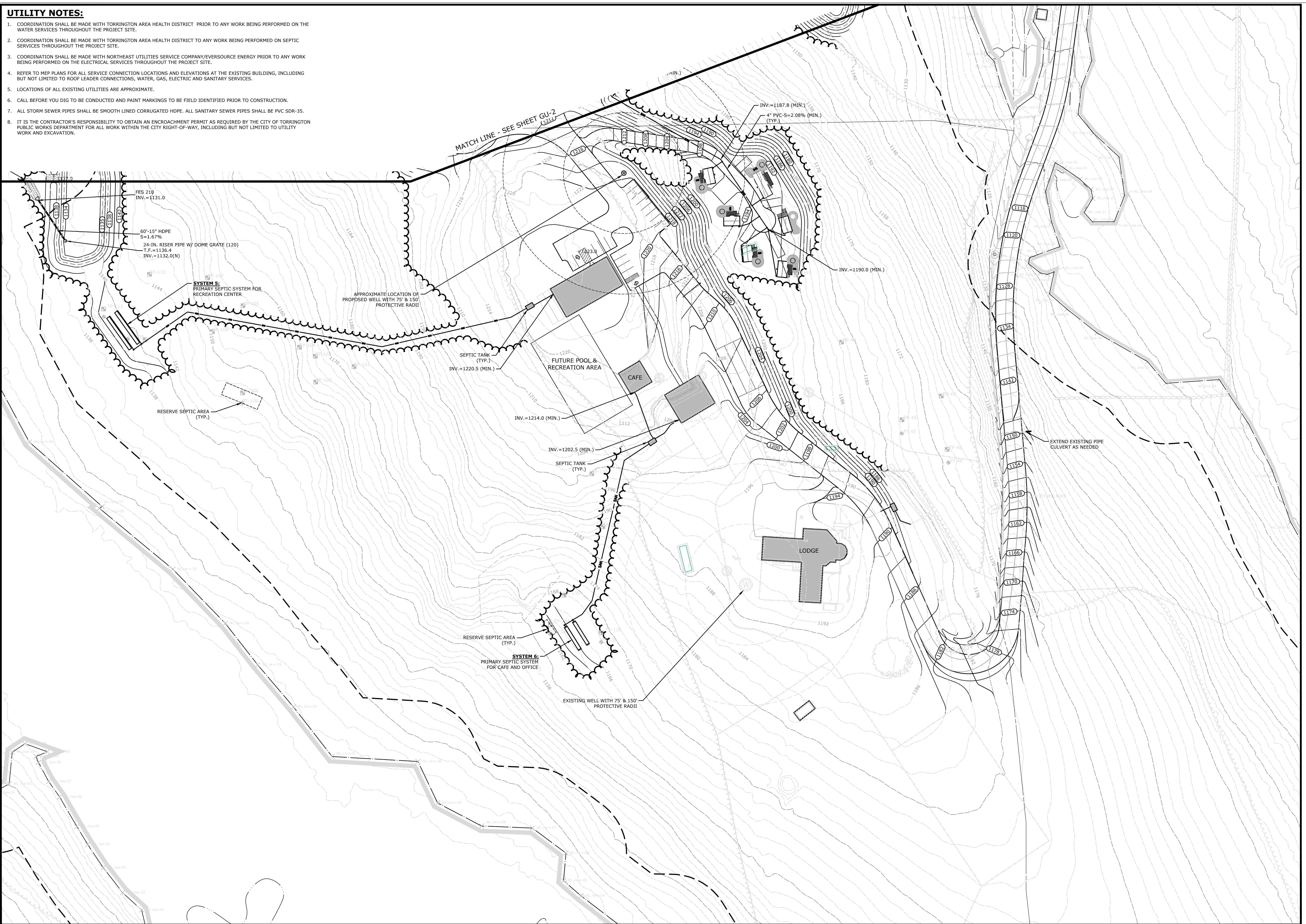
SITE PLAN - LAYOUT & LANDSCAPING
 KLUG HILL RV PARK
 KOA CAMPGROUND
 232 KLUG HILL ROAD
 TORRINGTON, CONNECTICUT

ACD	ACD	RJM
DESIGNED	DRAWN	CHECKED
SCALE: 1"=50'		
DATE: NOVEMBER 9, 2022		
PROJECT NO.: 20174.00002		
SHEET NO.: 06 OF 19		

LL-2

UTILITY NOTES:

- COORDINATION SHALL BE MADE WITH TORRINGTON AREA HEALTH DISTRICT PRIOR TO ANY WORK BEING PERFORMED ON THE WATER SERVICES THROUGHOUT THE PROJECT SITE.
- COORDINATION SHALL BE MADE WITH TORRINGTON AREA HEALTH DISTRICT TO ANY WORK BEING PERFORMED ON SEPTIC SERVICES THROUGHOUT THE PROJECT SITE.
- COORDINATION SHALL BE MADE WITH NORTHEAST UTILITIES SERVICE COMPANY/EVERSOURCE ENERGY PRIOR TO ANY WORK BEING PERFORMED ON THE ELECTRICAL SERVICES THROUGHOUT THE PROJECT SITE.
- REFER TO MEP PLANS FOR ALL SERVICE CONNECTION LOCATIONS AND ELEVATIONS AT THE EXISTING BUILDING, INCLUDING BUT NOT LIMITED TO ROOF LEADER CONNECTIONS, WATER, GAS, ELECTRIC AND SANITARY SERVICES.
- LOCATIONS OF ALL EXISTING UTILITIES ARE APPROXIMATE.
- CALL BEFORE YOU DIG TO BE CONDUCTED AND PAINT MARKINGS TO BE FIELD IDENTIFIED PRIOR TO CONSTRUCTION.
- ALL STORM SEWER PIPES SHALL BE SMOOTH LINED CORRUGATED HDPE. ALL SANITARY SEWER PIPES SHALL BE PVC SDR-35.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AN ENCROACHMENT PERMIT AS REQUIRED BY THE CITY OF TORRINGTON PUBLIC WORKS DEPARTMENT FOR ALL WORK WITHIN THE CITY RIGHT-OF-WAY, INCLUDING BUT NOT LIMITED TO UTILITY WORK AND EXCAVATION.



DESCRIPTION	DATE	BY

SITE PLAN - GRADING & UTILITIES
KLUG HILL RV PARK
KOA CAMPGROUND
 232 KLUG HILL ROAD
 TORRINGTON, CONNECTICUT

ACD DESIGNED	ACD DRAWN	RJM CHECKED
SCALE 1"=50'		
DATE NOVEMBER 9, 2022		
PROJECT NO. 20174.00002		
SHEET NO. 07 OF 19		

GU-1

SOIL EROSION AND SEDIMENT CONTROL NARRATIVE

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, TOWN OF TORRINGTON REQUIREMENTS, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.

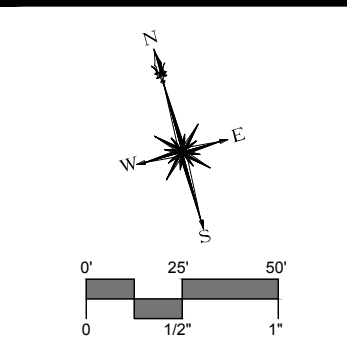
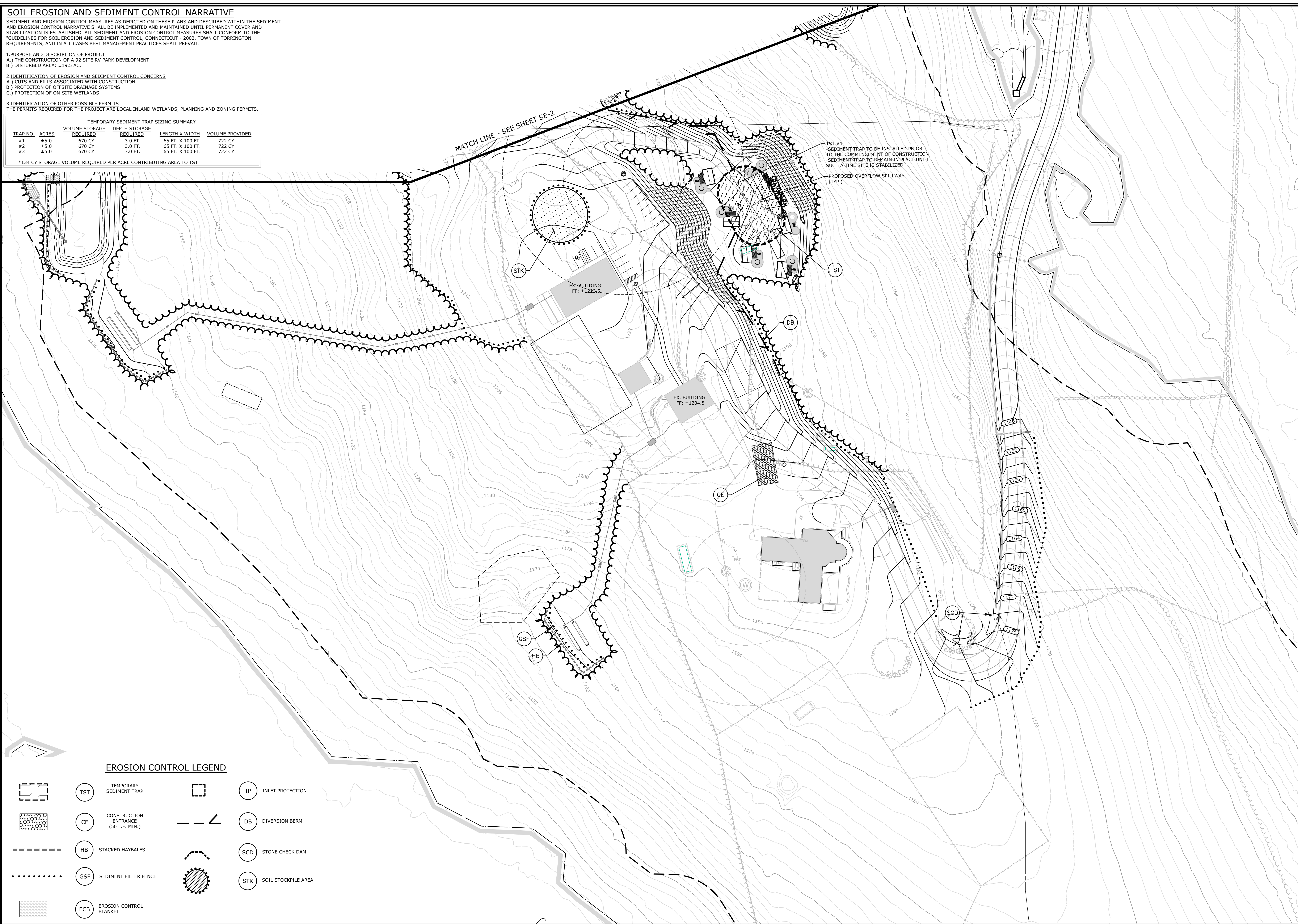
1. PURPOSE AND DESCRIPTION OF PROJECT
 A.) THE CONSTRUCTION OF A 92 SITE RV PARK DEVELOPMENT
 B.) DISTURBED AREA: ±19.5 AC.

2. IDENTIFICATION OF EROSION AND SEDIMENT CONTROL CONCERNS
 A.) CUTS AND FILLS ASSOCIATED WITH CONSTRUCTION.
 B.) PROTECTION OF OFFSITE DRAINAGE SYSTEMS
 C.) PROTECTION OF ON-SITE WETLANDS

3. IDENTIFICATION OF OTHER POSSIBLE PERMITS
 THE PERMITS REQUIRED FOR THE PROJECT ARE LOCAL INLAND WETLANDS, PLANNING AND ZONING PERMITS.

TEMPORARY SEDIMENT TRAP SIZING SUMMARY					
TRAP NO.	ACRES	VOLUME STORAGE REQUIRED	DEPTH STORAGE REQUIRED	LENGTH X WIDTH	VOLUME PROVIDED
#1	±5.0	670 CY	3.0 FT.	65 FT. X 100 FT.	722 CY
#2	±5.0	670 CY	3.0 FT.	65 FT. X 100 FT.	722 CY
#3	±5.0	670 CY	3.0 FT.	65 FT. X 100 FT.	722 CY

*134 CY STORAGE VOLUME REQUIRED PER ACRE CONTRIBUTING AREA TO TST



DESCRIPTION	DATE	BY

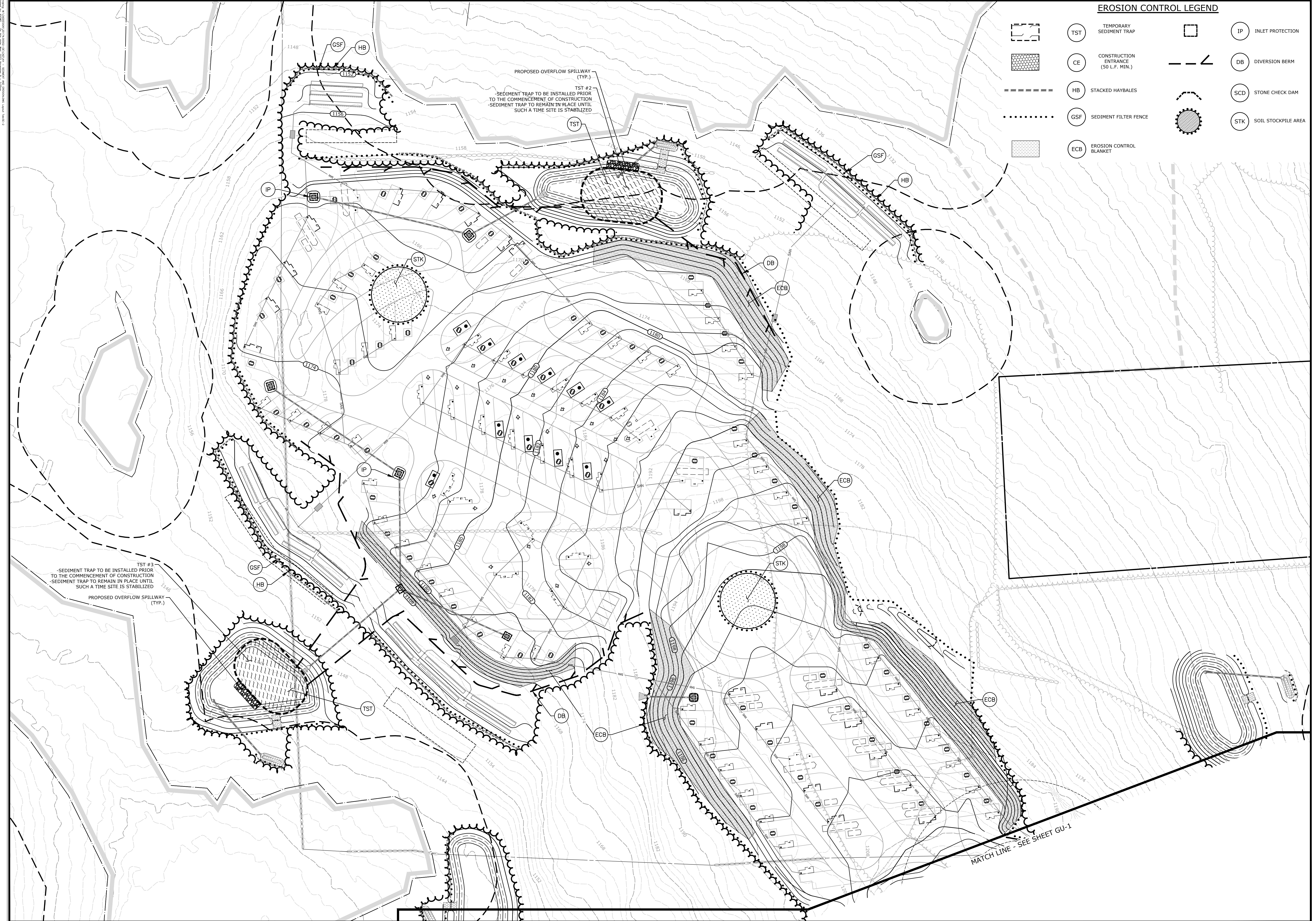
SITE PLAN - SEDIMENT & EROSION CONTROL PLAN
 KLUG HILL RV PARK
 KOA CAMPGROUND
 232 KLUG HILL ROAD
 TORRINGTON, CONNECTICUT

ACD	MLA	RJM
DESIGNED	DRAWN	CHECKED
SCALE: 1"=50'		
DATE: NOVEMBER 9, 2022		
PROJECT NO.: 20174.00002		
SHEET NO.: 09 OF 19		

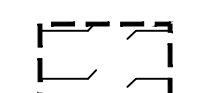
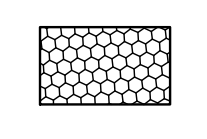



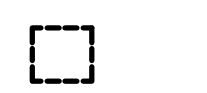
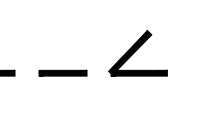

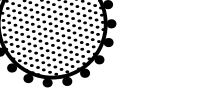
SE-1

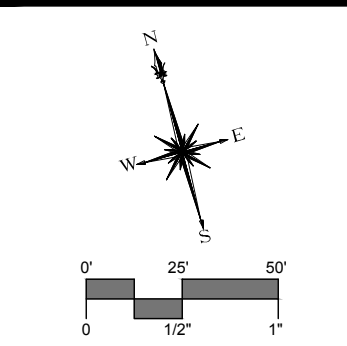
EROSION CONTROL LEGEND

- TST TEMPORARY SEDIMENT TRAP
- CE CONSTRUCTION ENTRANCE (50 L.F. MIN.)
- HB STACKED HAYBALES
- GSF SEDIMENT FILTER FENCE
- ECB EROSION CONTROL BLANKET
- IP INLET PROTECTION
- DB DIVERSION BERM
- SCD STONE CHECK DAM
- STK SOIL STOCKPILE AREA



EROSION CONTROL LEGEND

-  TST TEMPORARY SEDIMENT TRAP
-  CE CONSTRUCTION ENTRANCE (50 L.F. MIN.)
-  HB STACKED HAYBALES
-  GSF SEDIMENT FILTER FENCE
-  ECB EROSION CONTROL BLANKET
-  IP INLET PROTECTION
-  DB DIVERSION BERM
-  SCD STONE CHECK DAM
-  STK SOIL STOCKPILE AREA



DESCRIPTION	DATE	BY

SITE PLAN - SEDIMENT & EROSION CONTROL PLAN
KLUG HILL RV PARK
KOA CAMPGROUND
 232 KLUG HILL ROAD
 TORRINGTON, CONNECTICUT

ACD DESIGNED	MLA DRAWN	RJM CHECKED
SCALE 1"=50'		
DATE NOVEMBER 9, 2022		
PROJECT NO. 20174.00002		
SHEET NO. 10 OF 19		

SE-2

SHEET NAME

Copyright SLR International Corporation - 2021

SEPTIC SYSTEM DESIGN

Design Criteria	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6
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
Percolation Tests in or near System	16, 17, 26	127, 128	118, 121	112, 113	106, 109, 111	134, 136
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
Percolation Rate (Min/inch)	1.1-10.0	1.1-10.0	1.1-10.0	1.1-10.0	1.1-10.0	1.1-10.0
Required Effective Area (sq. ft.)	2437.5	1312.5	2437.5	2437.5	619.20	387.5
Restrictive Layer	Mottling	Mottling/Compact	Compact/Diggable	Compact/Diggable	Compact	Mottling/Firm
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) = 42.3" 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.
Slope (%)	10.1-15.0	8.1-10.0	10.1-15.0	>15.0	10.1-15.0	10.1-15.0
Hydraulic Factor (HF)	20	18	18	16	20	20
Flow Factor (FF)	6.25	3.5	6.5	6.5	2.06	1.03
Percolation Factor (PF)	1	1	1	1	1	1
MLSS (ft.)	125	63	117	104	41.28	20.67
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
Effective Leaching (SF/LF)	7.0	6.2	7.0	7.0	7	20
Length Used (ft.)	2x176	2x112	2x176	3x120	2x48	1x20
Effective Leaching Area Provided (SF)	2464	1388.8	2464	2520	672	400
Center to Center Spacing (ft.)	12	12	12	12	12	N/A
C.G. = Concrete Gallery						
*Top Distribution Pipe/ **1' of Stone at Each End of Row						



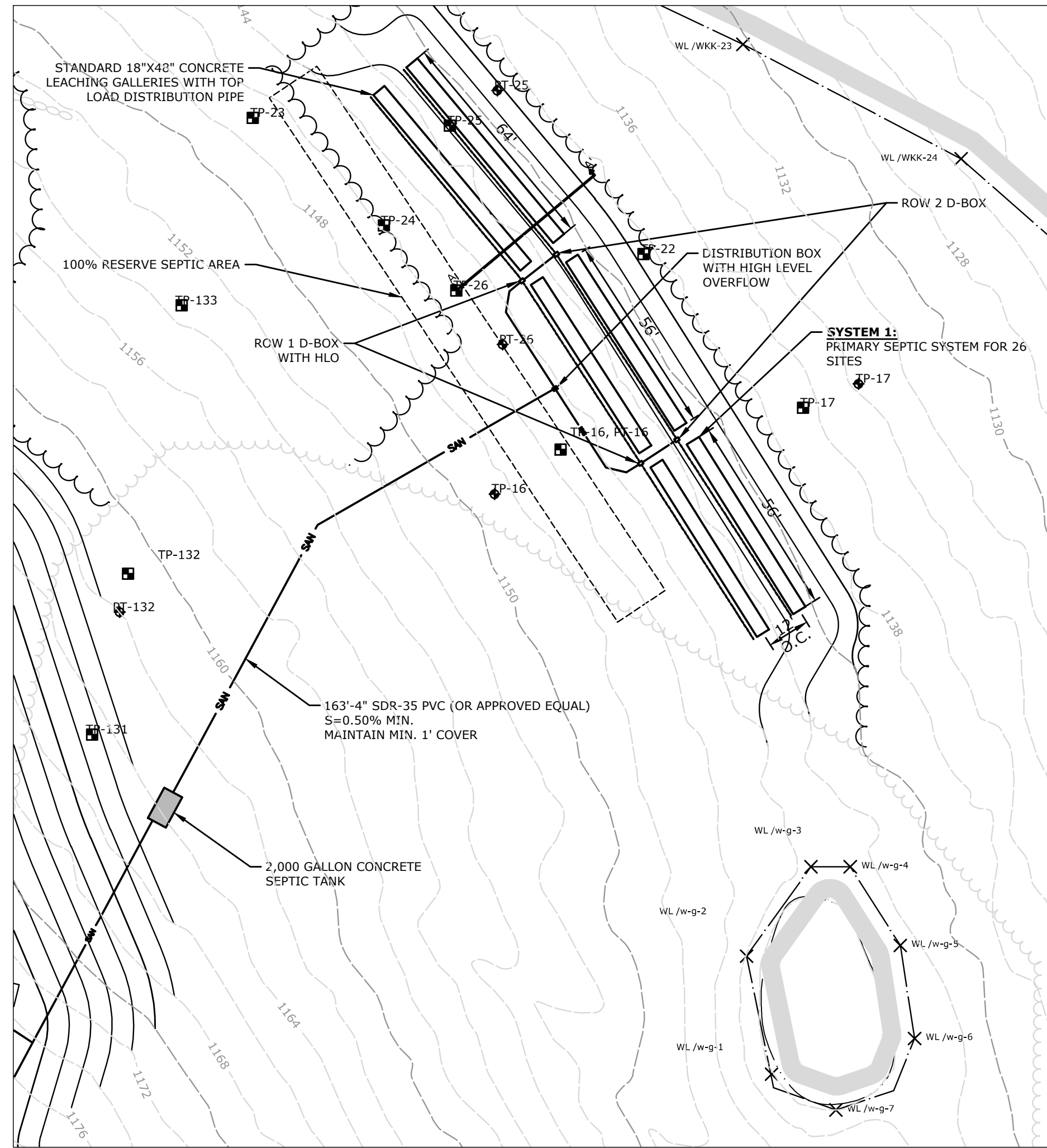
DESCRIPTION	DATE	BY

SEPTIC SYSTEM - MLSS DATA TABLE
 KLUG HILL RV PARK
 KOA CAMPGROUND
 232 KLUG HILL ROAD
 TORRINGTON, CONNECTICUT

ACD <small>DESIGNED</small>	MLA <small>DRAWN</small>	RJM <small>CHECKED</small>
NOT TO SCALE		
NOVEMBER 9, 2022		
20174.00002		
13 OF 19		

SD-3

SYSTEM 1



SYSTEM DESIGN

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

FLOW: 25 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) = 6.25
 PERCOLATION FACTOR (PF) = 1.0
 MLSS = 20*6.25*1.0 = 125 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

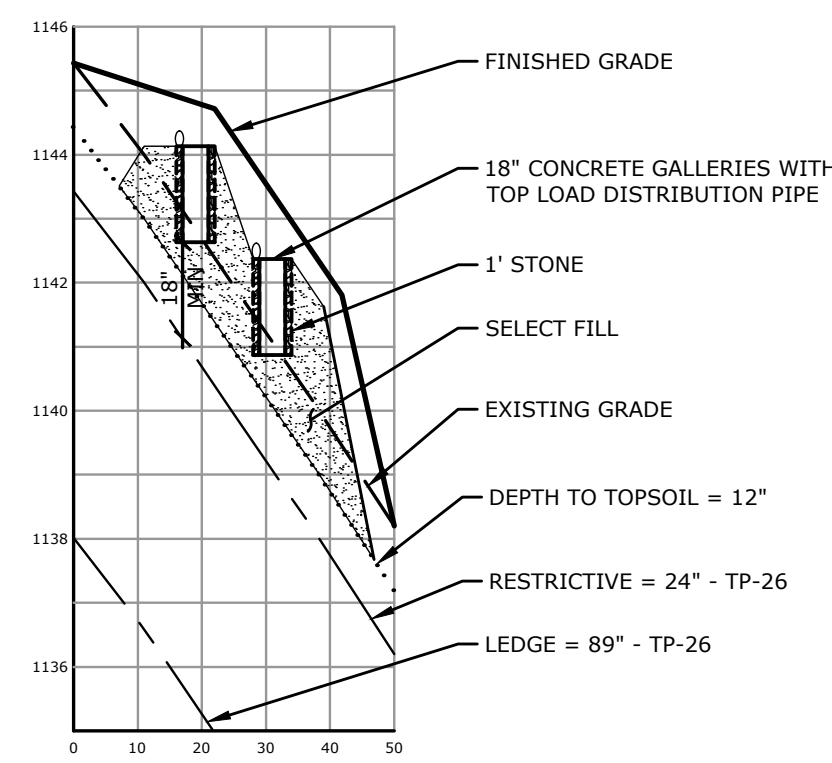
D-BOX = 1144.70

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

ROW 1 INVERT ELEVATION = 1144.13
 ROW 1 BOTTOM ELEVATION = 1142.63

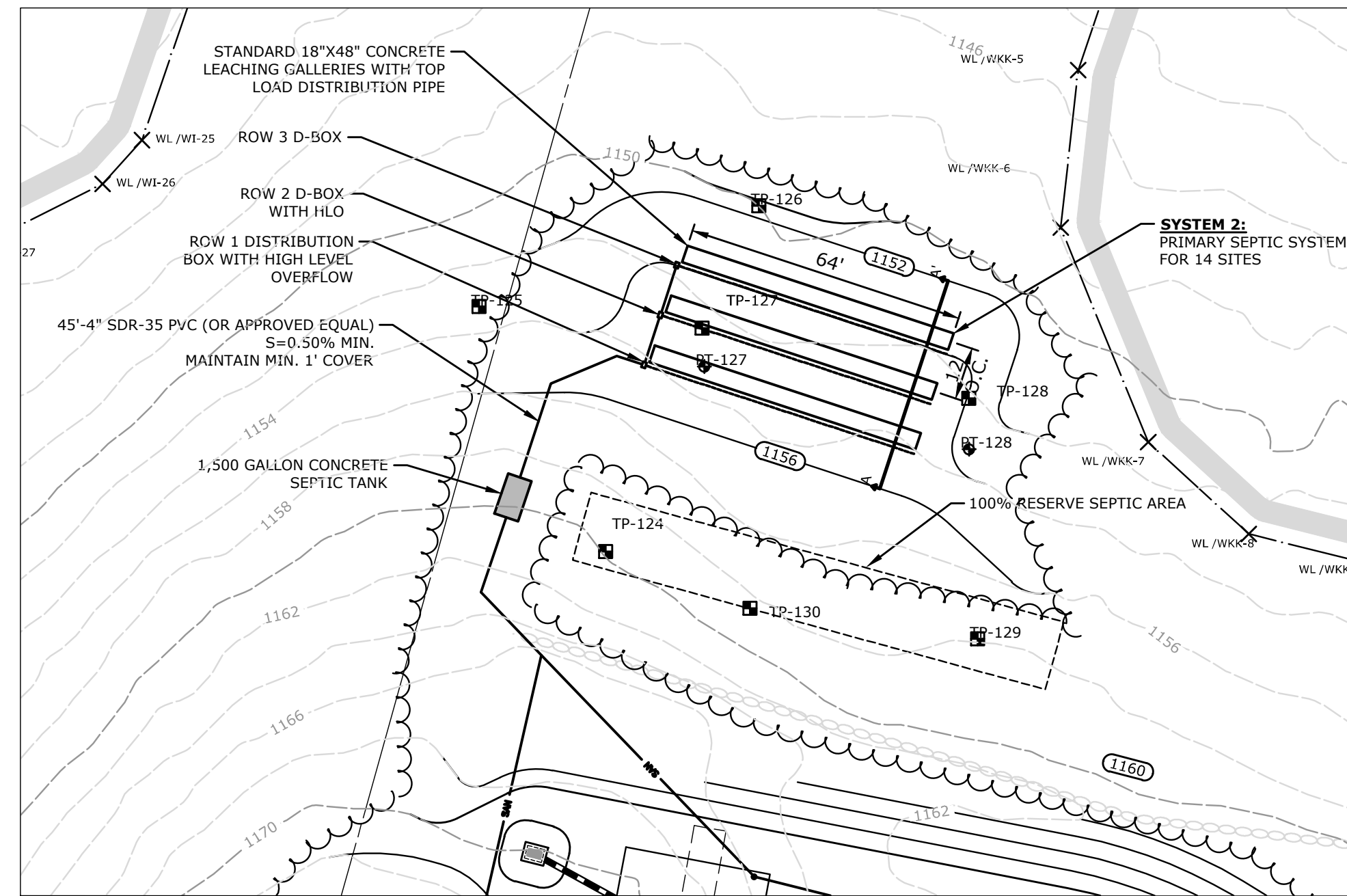
ROW 2 D-BOX = 1142.50

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



SECTION A-A' - SYSTEM 1
 1"=30' HORIZONTAL - 1"=3' VERTICAL

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 = (49" (TOP OF SYSTEM TO RL) + 29" (AVERAGE DEPTH TO RESTRICTIVE LAYER SURROUNDING THE LEACHING SYSTEM)) = 39"
 HYDRAULIC FACTOR (HF) = 20
 FLOW FACTOR (FF) = 3.5
 PERCOLATION FACTOR (PF) = 1.0
 MLSS = 20*3.5*1.0 = 70 LF
 PRIMARY 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: 11.1-10.0 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 = 1155.10
 (HLO)=1155.20

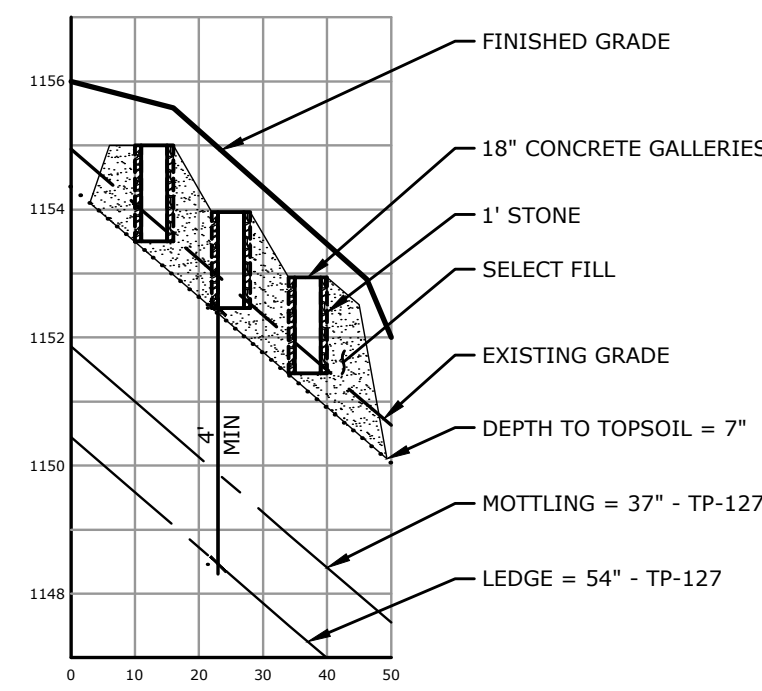
ROW 1 INVERT ELEVATION = 1155.00
 ROW 1 BOTTOM ELEVATION = 1153.5

ROW 2 D-BOX = 1154.10
 (HLO)=1154.20

ROW 2 INVERT ELEVATION = 1153.96
 ROW 2 BOTTOM ELEVATION = 1152.46

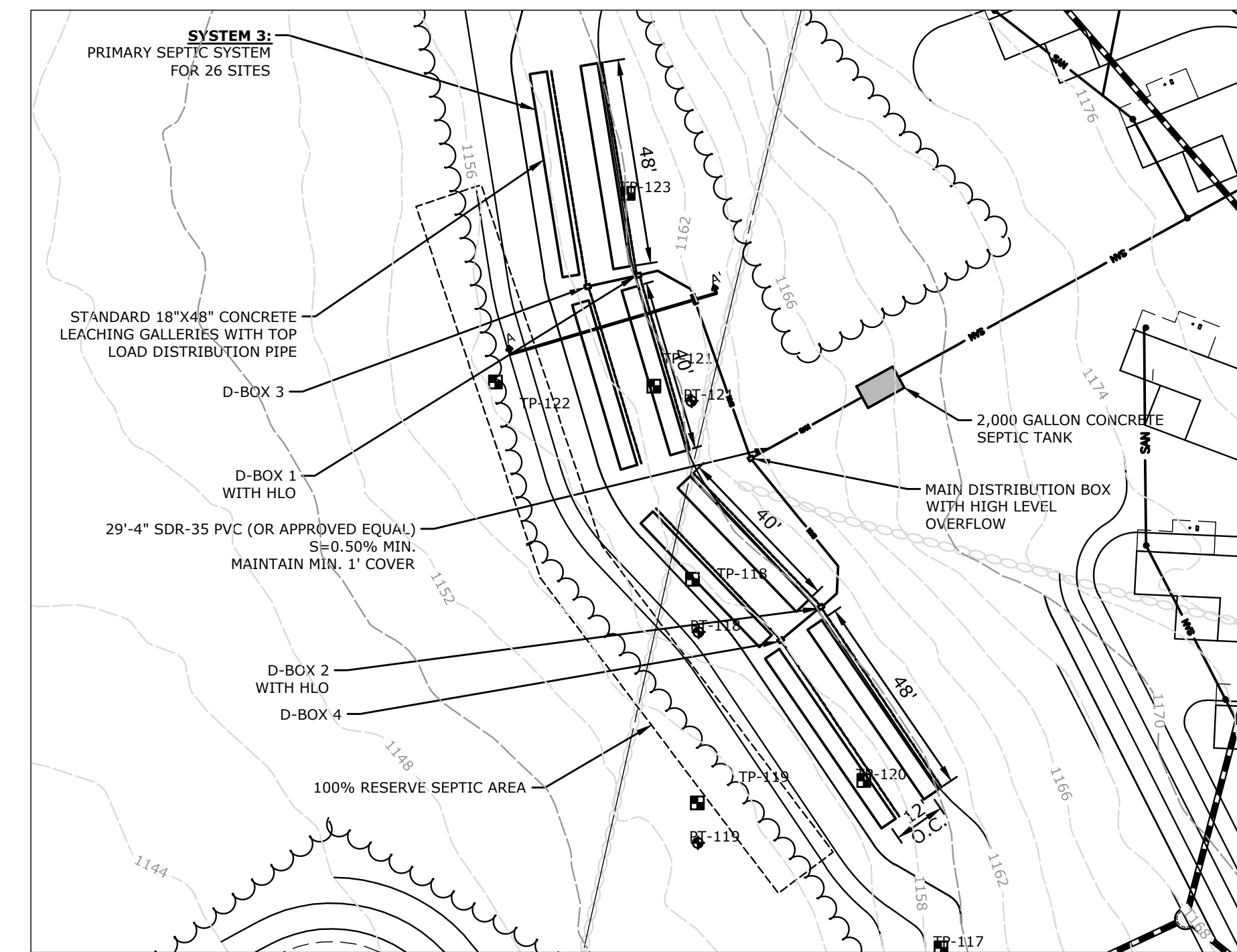
ROW 3 D-BOX = 1153.05

ROW 3 INVERT ELEVATION = 1152.94
 ROW 3 BOTTOM ELEVATION = 1151.44



SECTION A-A' - SYSTEM 2
 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: 11.1-10.0 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

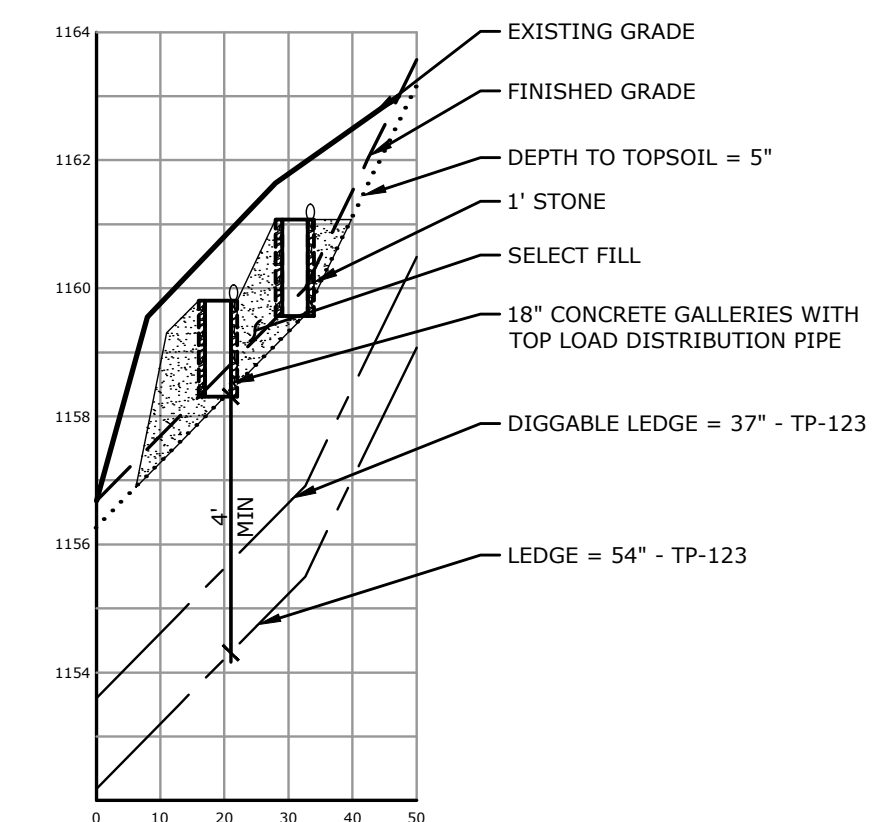
D-BOX 1 = 1161.20
 (HLO)=1161.30
 SECTION 1 INVERT ELEVATION = 1161.07
 SECTION 1 BOTTOM ELEVATION = 1159.57

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 = 1159.95
 SECTION 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
 1"=30' HORIZONTAL - 1"=3' VERTICAL



DESCRIPTION	DATE	BY

SEPTIC SYSTEM - SEPTIC DESIGN & CROSS SECTIONS
 KLUG HILL RV PARK
 KOA CAMPGROUND
 232 KLUG HILL ROAD
 TORRINGTON, CONNECTICUT

ACD	MLA	RJM
DESIGNED	DRAWN	CHECKED

AS NOTED

NOVEMBER 9, 2022

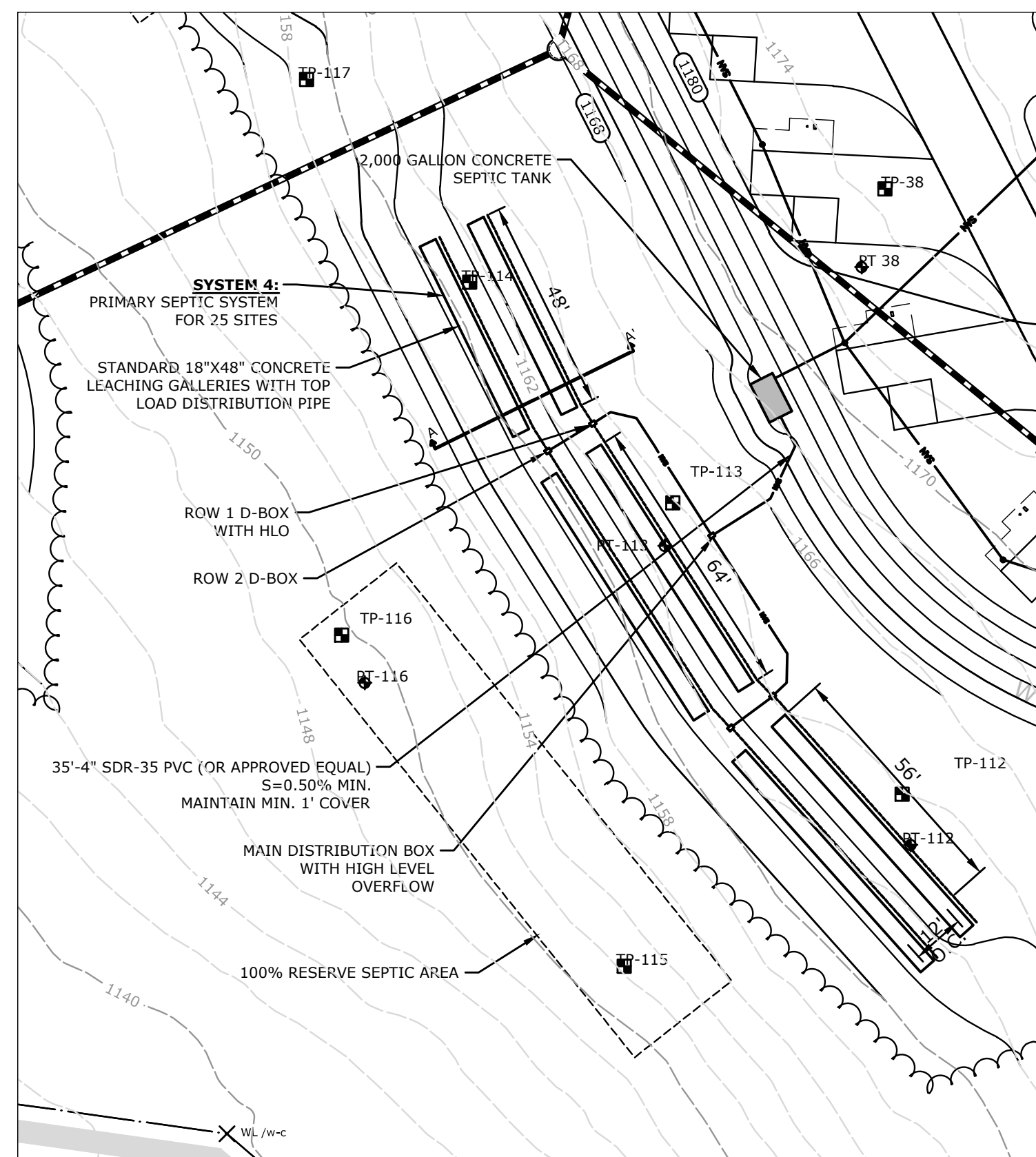
20174.00002

14 OF 19

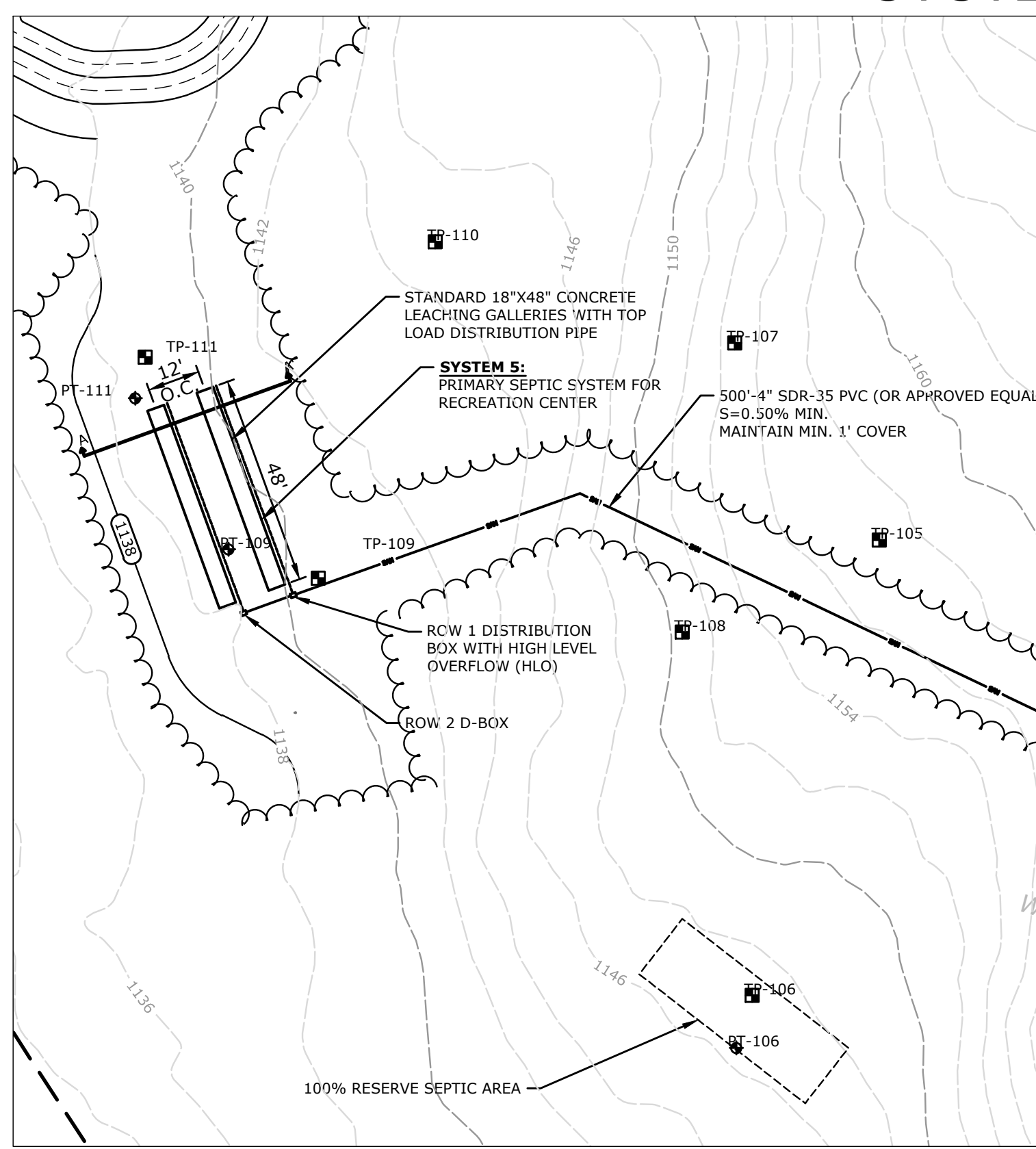
SD-4

DATE PLOTTED: 11/15/2022 10:00 AM
SCALE: 1"=30'
PROJECT: 20174.00002
SHEET: 15 OF 19
DRAWN: RJM
CHECKED: ML
DESIGNED: ACD

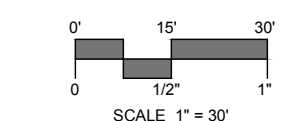
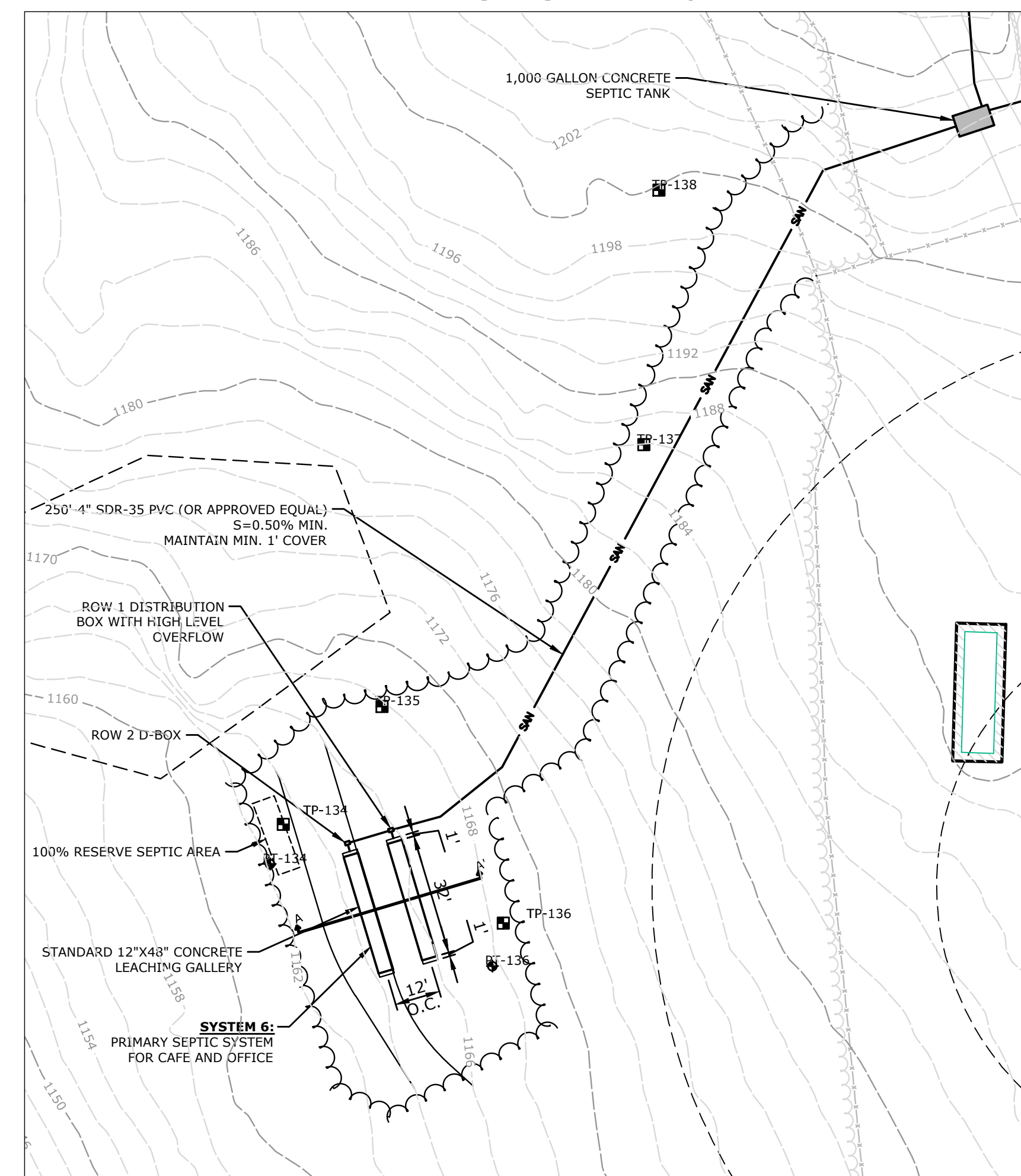
SYSTEM 4



SYSTEM 5



SYSTEM 6



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.)

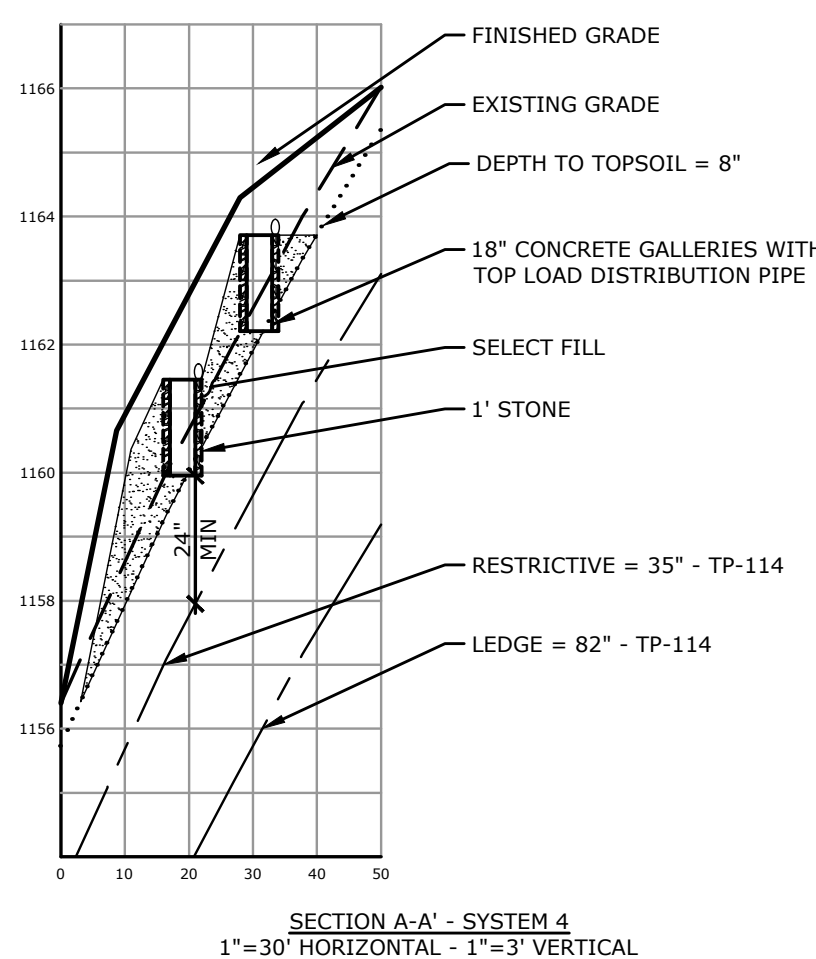
RESERVE AREA

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 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 LF
PRIMARY 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.)

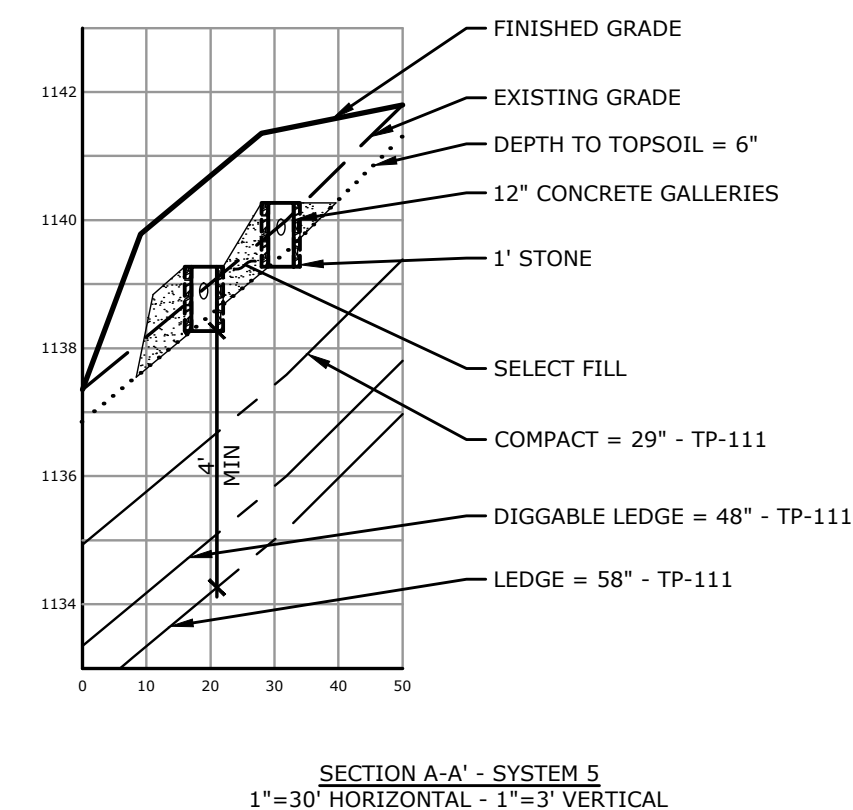
RESERVE AREA

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



SECTION A-A' - SYSTEM 5
1"=30' HORIZONTAL - 1"=3' VERTICAL

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 LF
PRIMARY 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.)

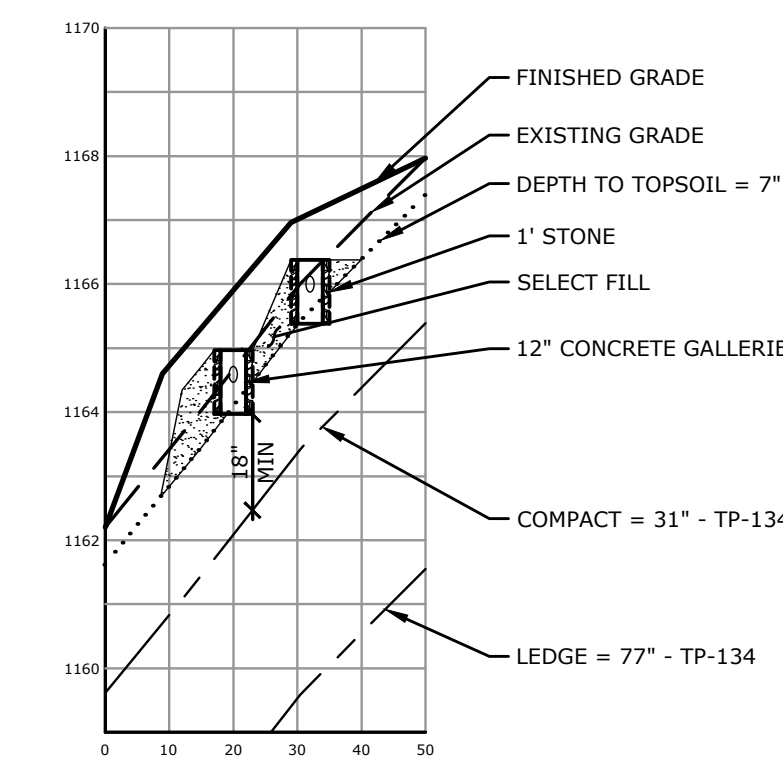
RESERVE AREA

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 (HLO) = 1166.10
ROW 1 INVERT ELEVATION = 1165.88
ROW 1 BOTTOM ELEVATION = 1165.38
ROW 2 D-BOX = 1164.60
ROW 2 INVERT ELEVATION = 1164.47
ROW 2 BOTTOM ELEVATION = 1163.97



SECTION A-A' - SYSTEM 6
1"=30' HORIZONTAL - 1"=3' VERTICAL

DESCRIPTION

DATE BY

ACD	MLA	RJM
DESIGNED	DRAWN	CHECKED
AS NOTED		
NOVEMBER 9, 2022		
DATE		
20174.00002		
PROJECT NO.		
15 OF 19		
SHEET NO.		

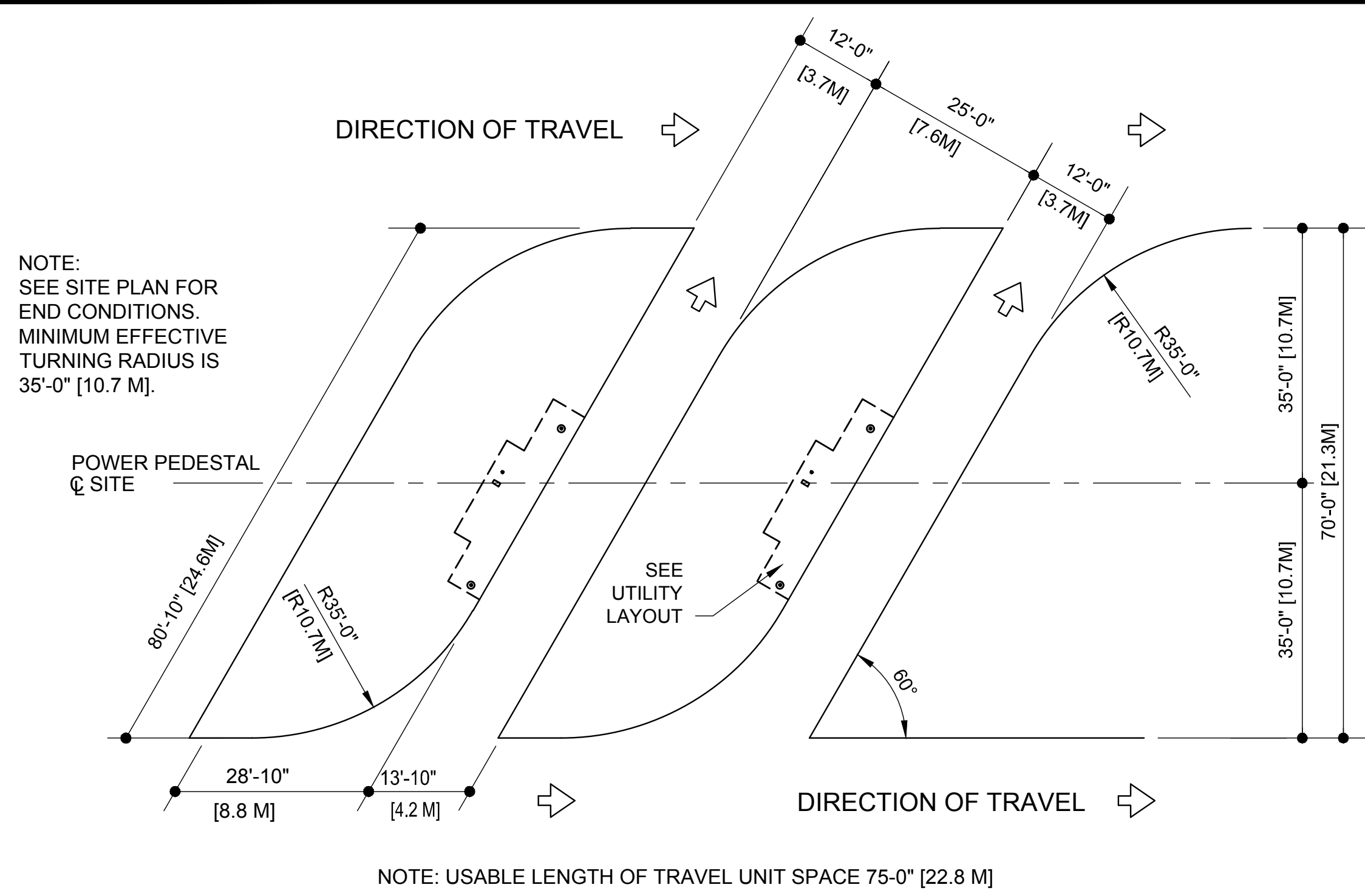
SD-5

SHEET NAME

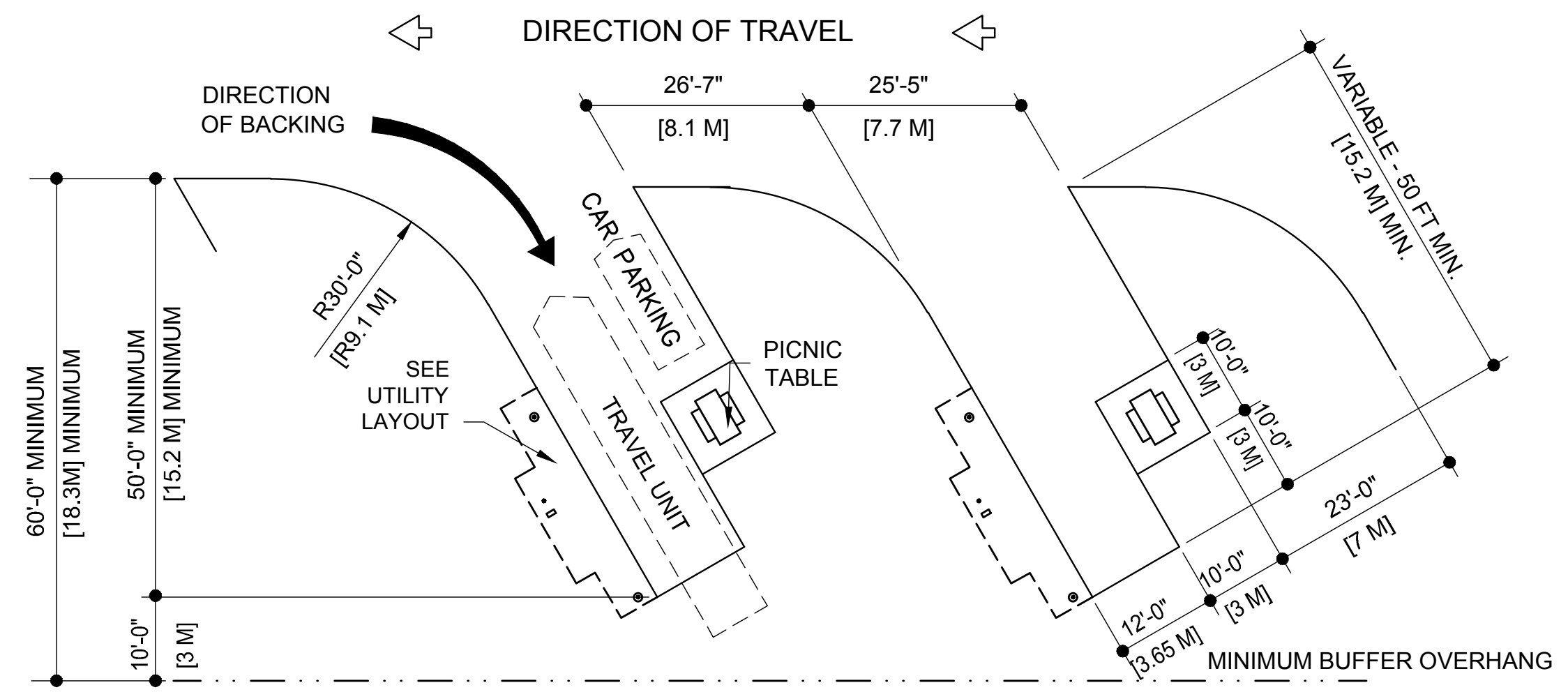
SEPTIC SYSTEM - SEPTIC DESIGN & CROSS SECTIONS
KLUG HILL RV PARK
KOA CAMPGROUND
232 KLUG HILL ROAD
TORRINGTON, CONNECTICUT

SLR
90 REALTY DRIVE
TORRINGTON, CT 06460
203.771.7171
SLRCONSULTING.COM

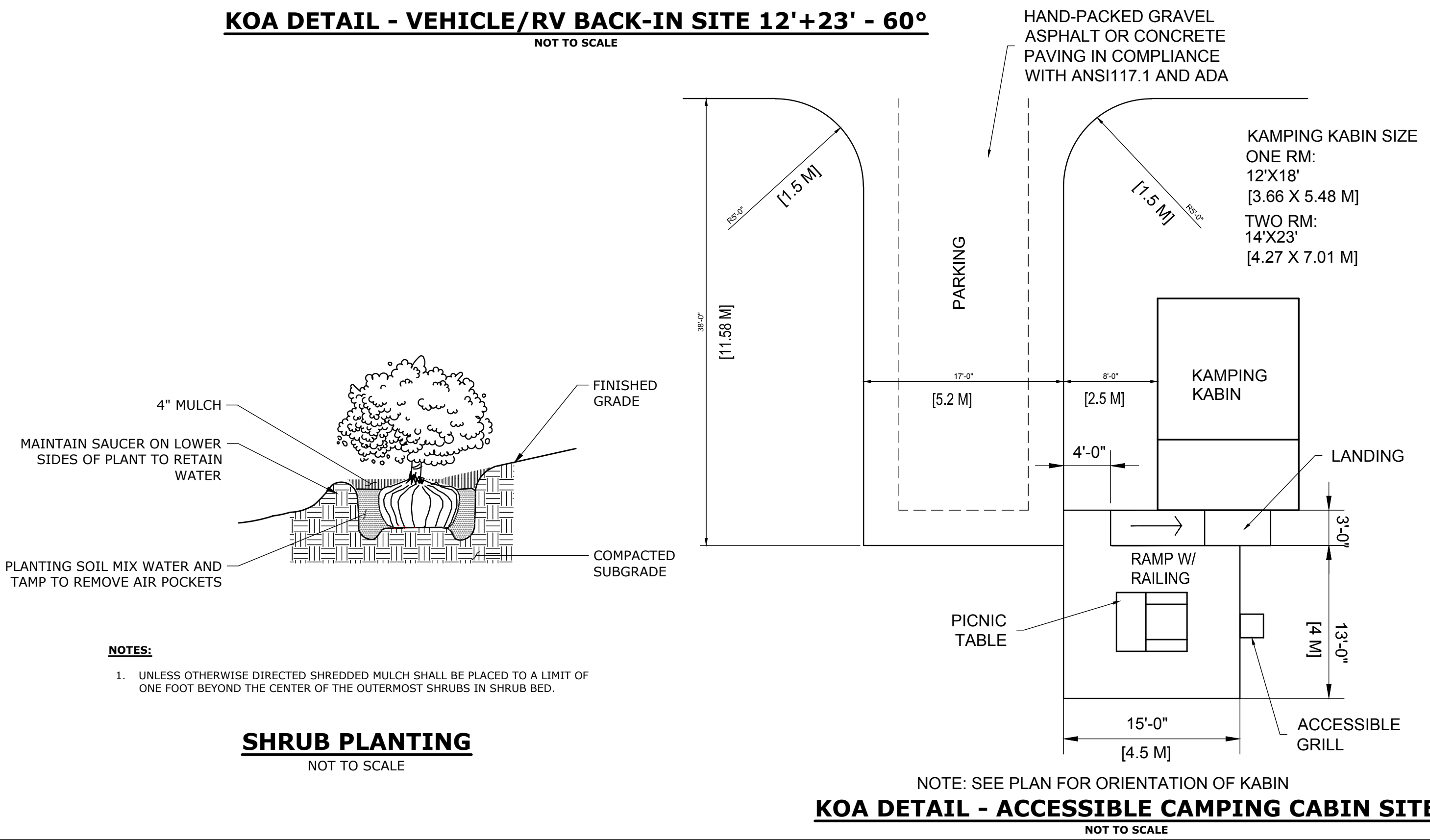
2017.00002 - 4.000000 - 2022.09.09 10:40 AM - 2022.09.09 10:40 AM
 99 REALTY DRIVE SUITE 200 TORRINGTON, CONNECTICUT 06871
 TEL: 203.771.7171 FAX: 203.771.7172
 WWW.SLRCONSULTING.COM



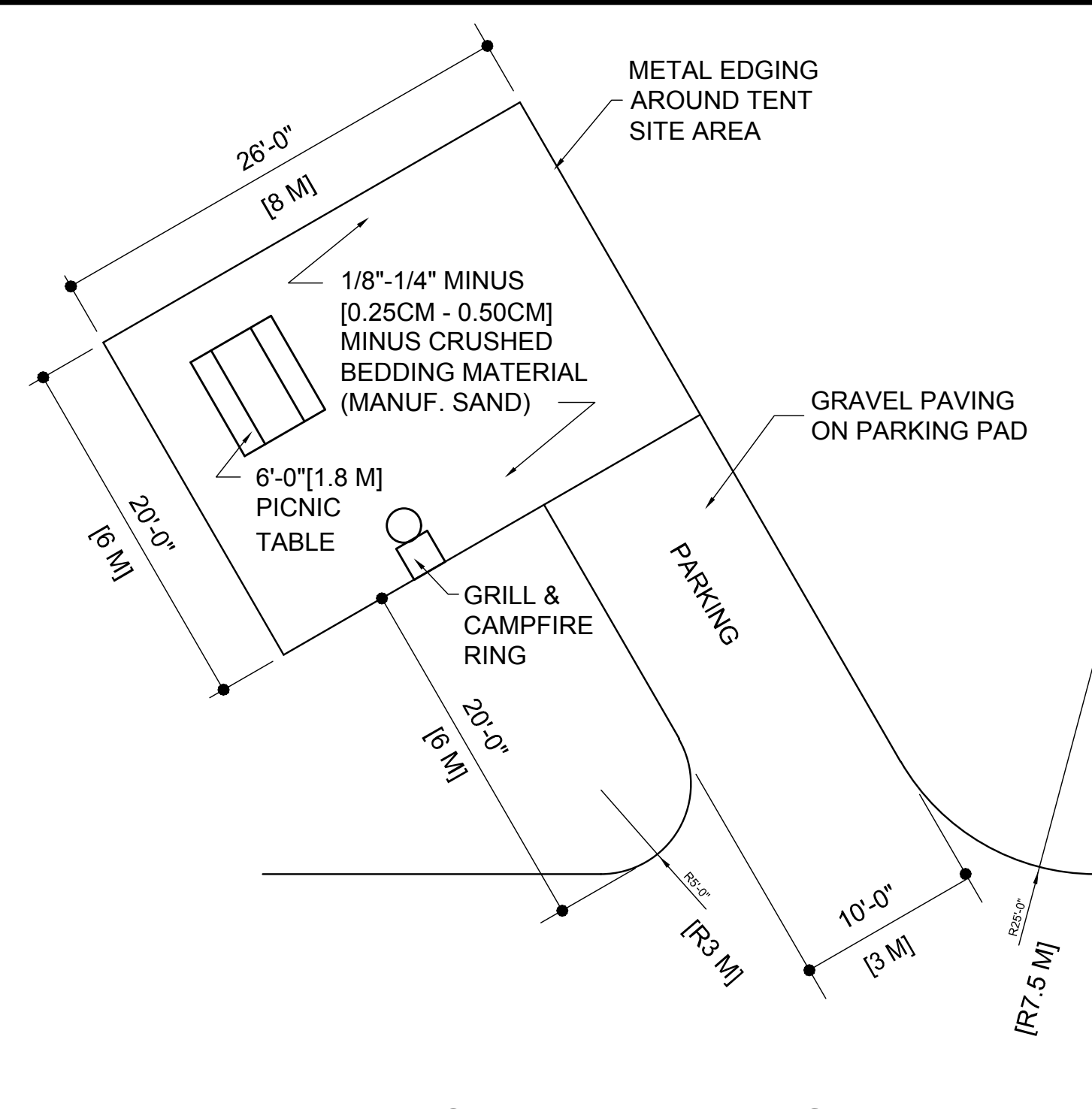
KOA DETAIL - 12+25 70FT VEHICLE/RV PULL-THROUGH SITE - 60°
NOT TO SCALE



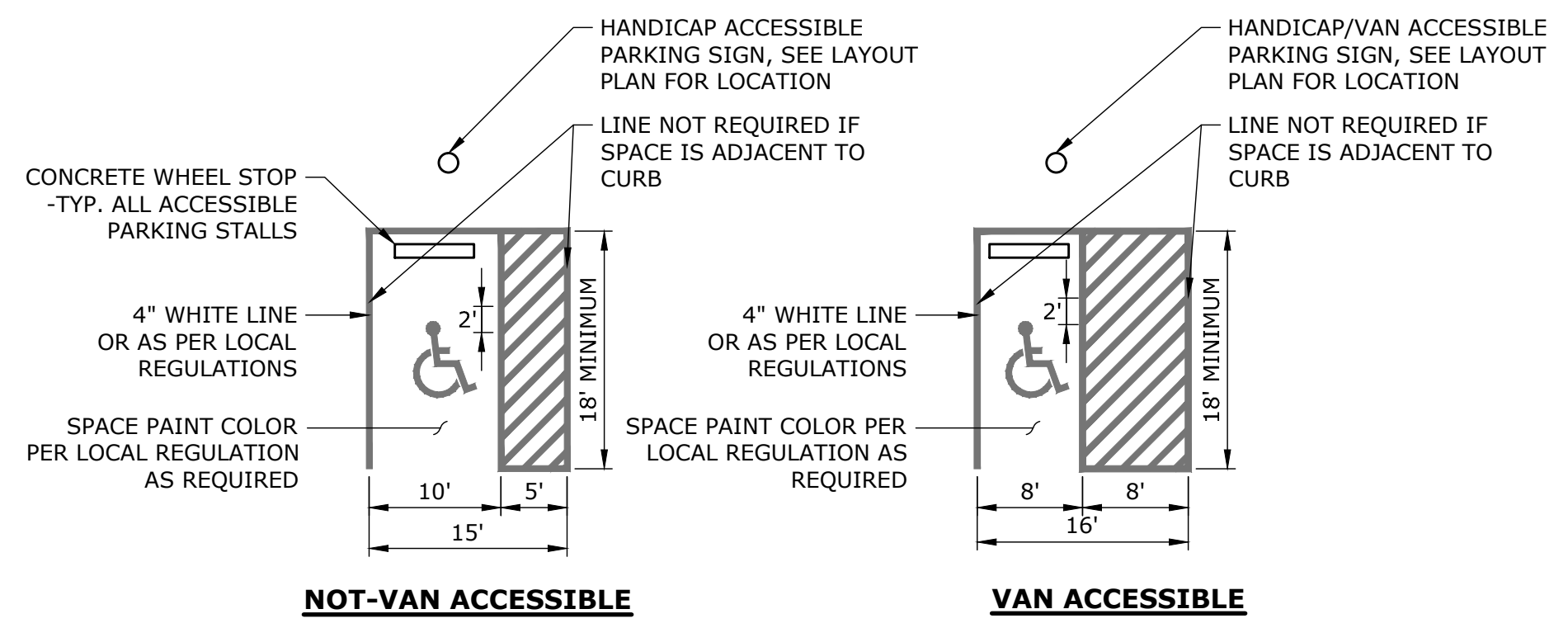
KOA DETAIL - VEHICLE/RV BACK-IN SITE 12'+23' - 60°
NOT TO SCALE



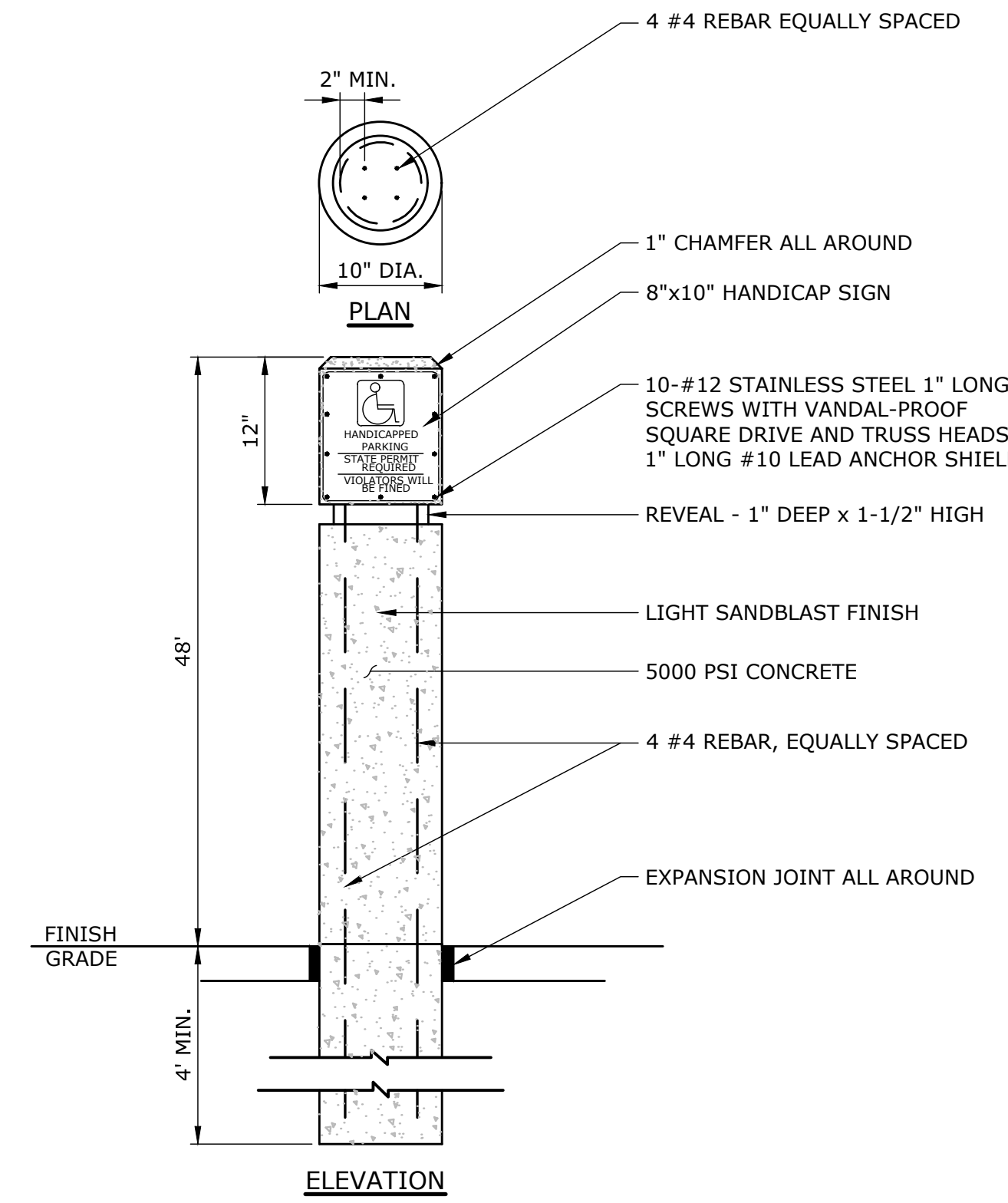
KOA DETAIL - ACCESSIBLE CAMPING CABIN SITE
NOT TO SCALE



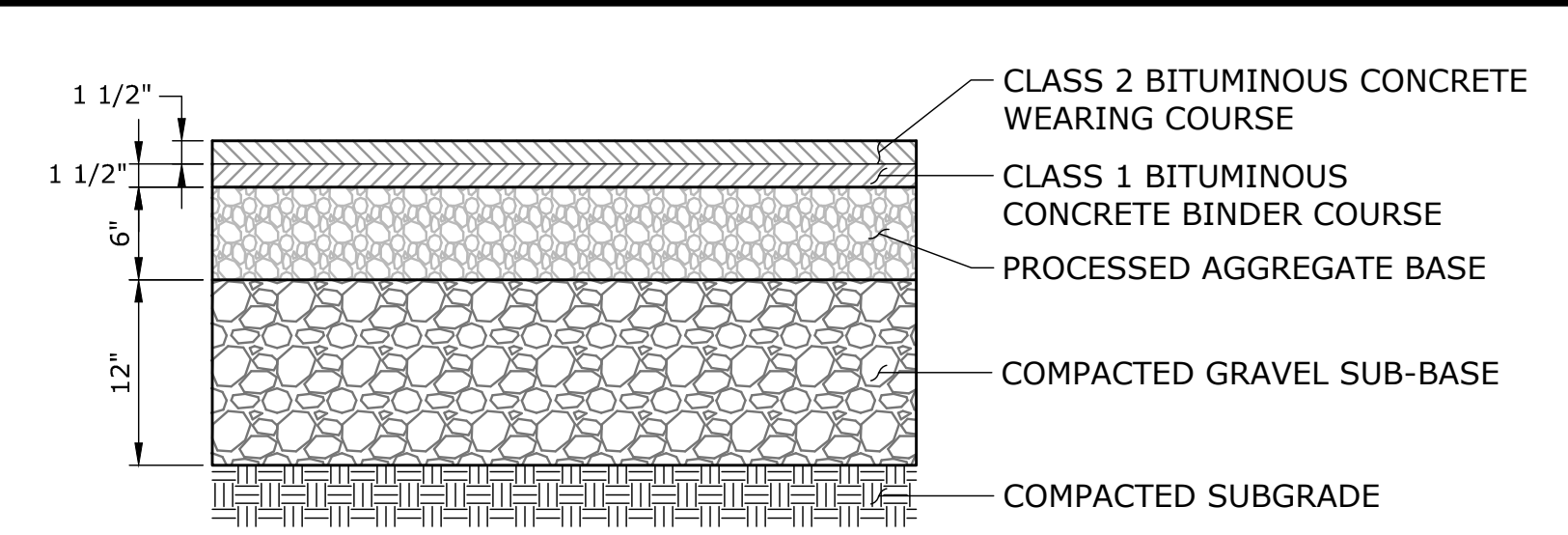
KOA DETAIL - TENT SITE
NOT TO SCALE



ACCESSIBLE PARKING STALL DETAIL
NOT TO SCALE

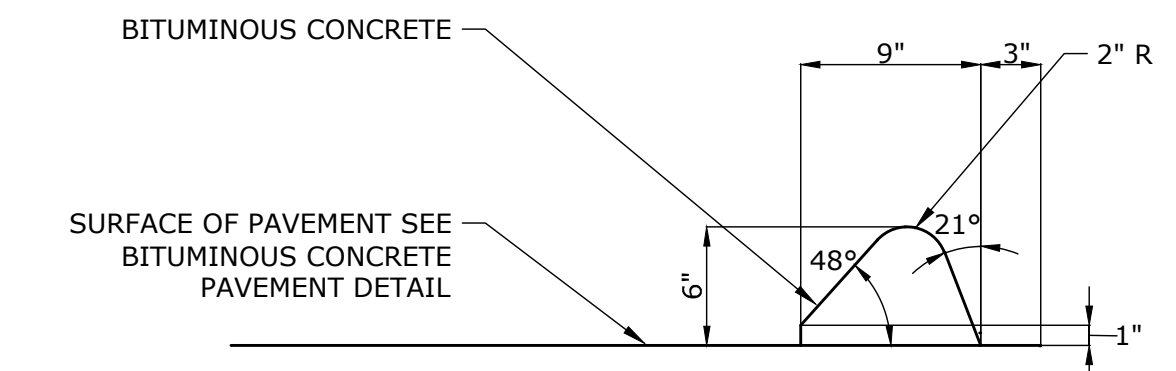


HANDICAPPED SIGN/BOLLARD
NOT TO SCALE

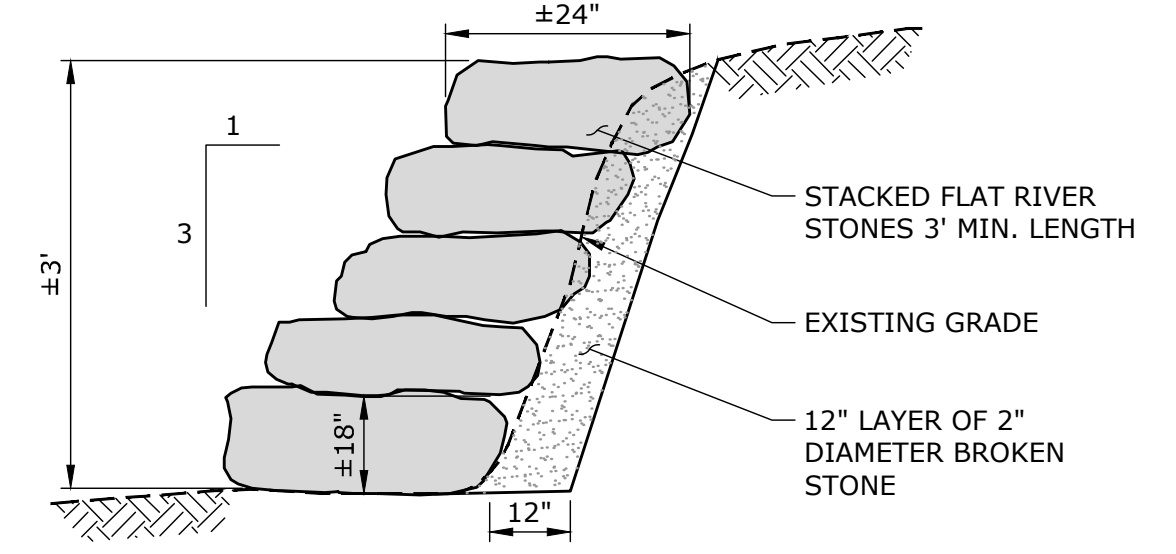


- NOTES:**
- FULL DEPTH BITUMINOUS CONCRETE PAVEMENT REQUIRED AT ALL LOCATIONS WHERE PROPOSED FINISHED GRADES ARE LESS THAN SURFACE ELEVATIONS OF EXISTING BITUMINOUS CONCRETE PAVEMENT.
 - WHERE EXCAVATION IS REQUIRED TO ACHIEVE FINAL PAVEMENT GRADES, EXISTING PAVEMENT MUST BE REMOVED TO FULL DEPTH.

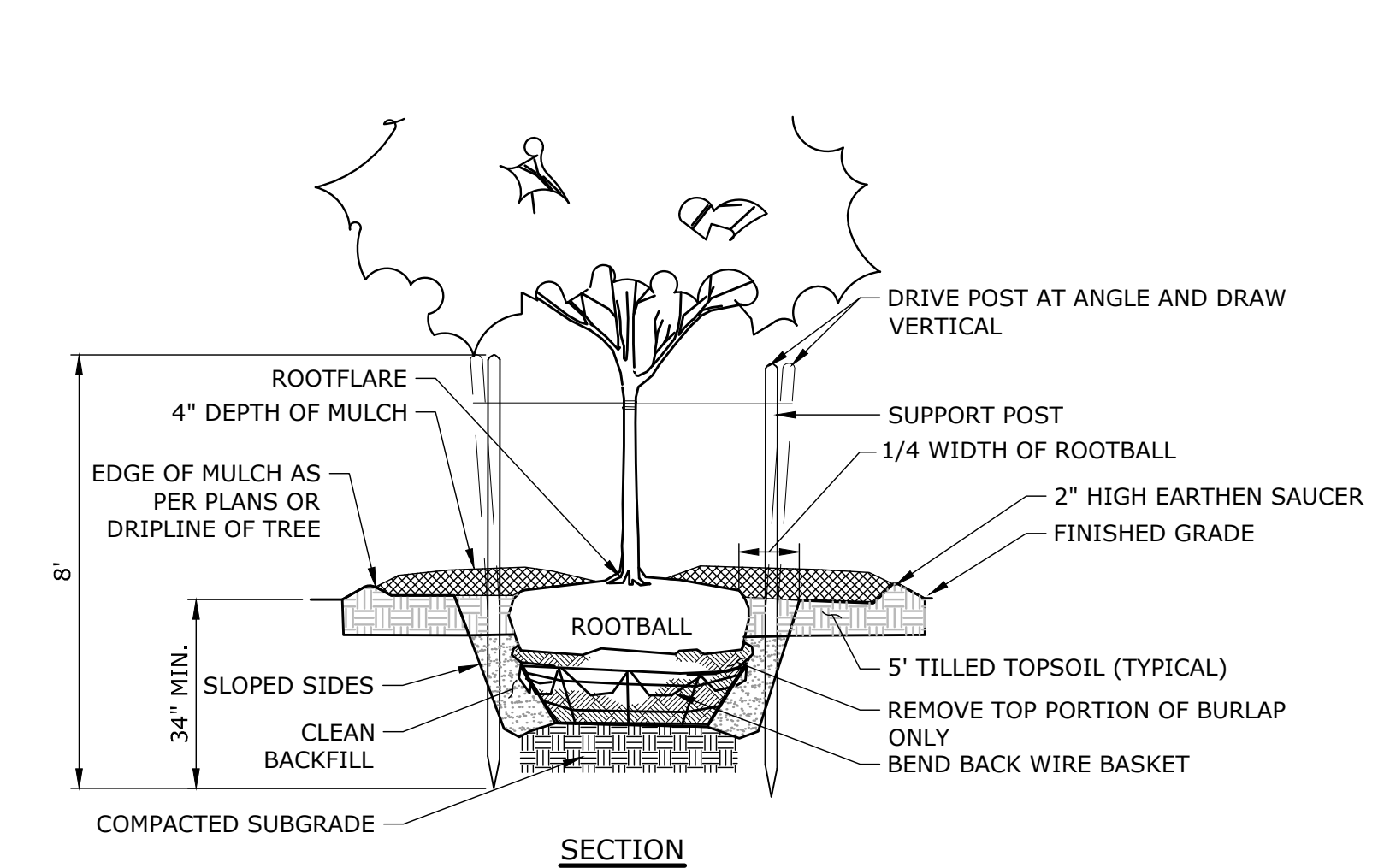
BITUMINOUS CONCRETE DRIVES AND ROADS
NOT TO SCALE



BITUMINOUS CONCRETE CURB
NOT TO SCALE



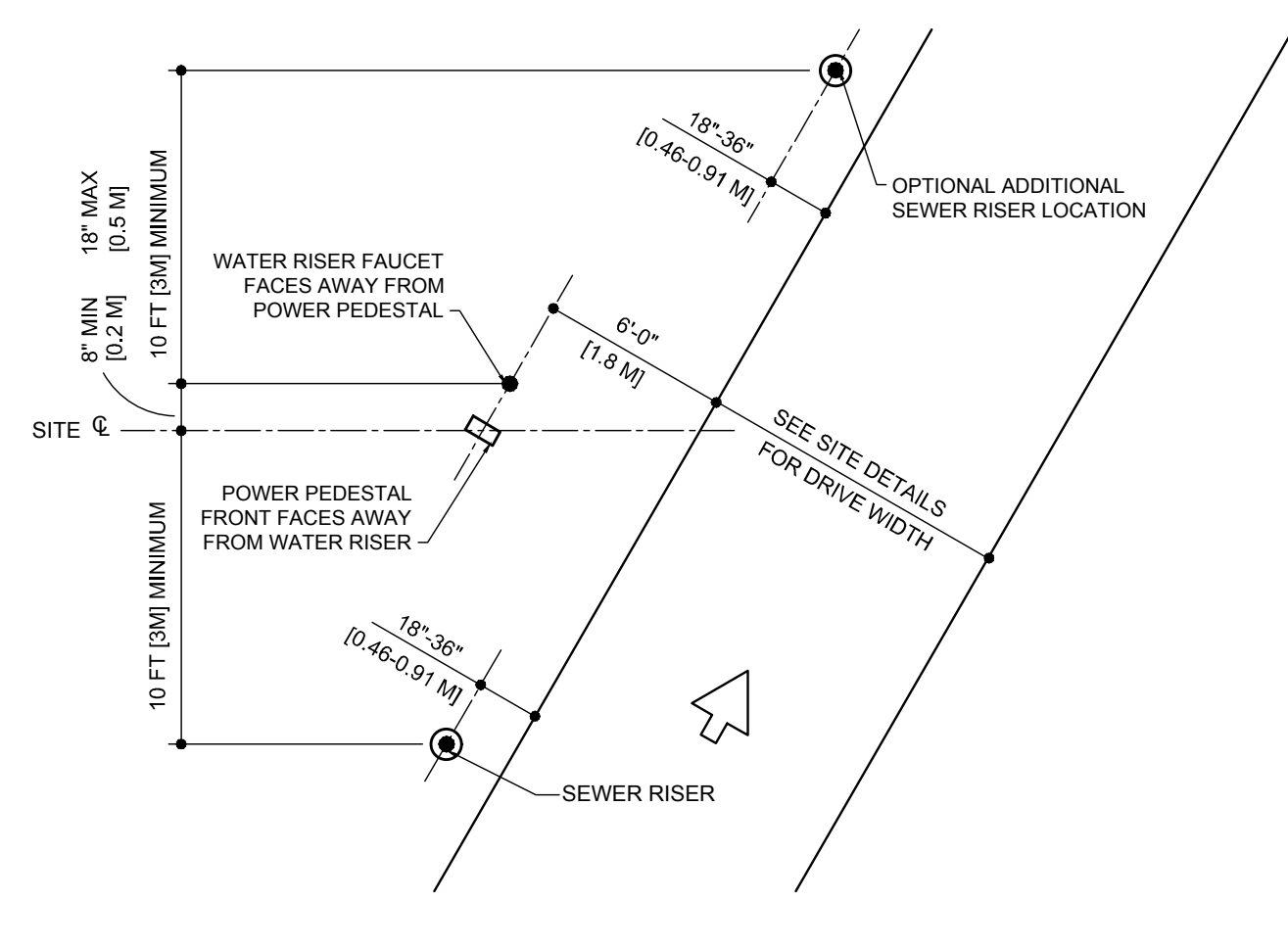
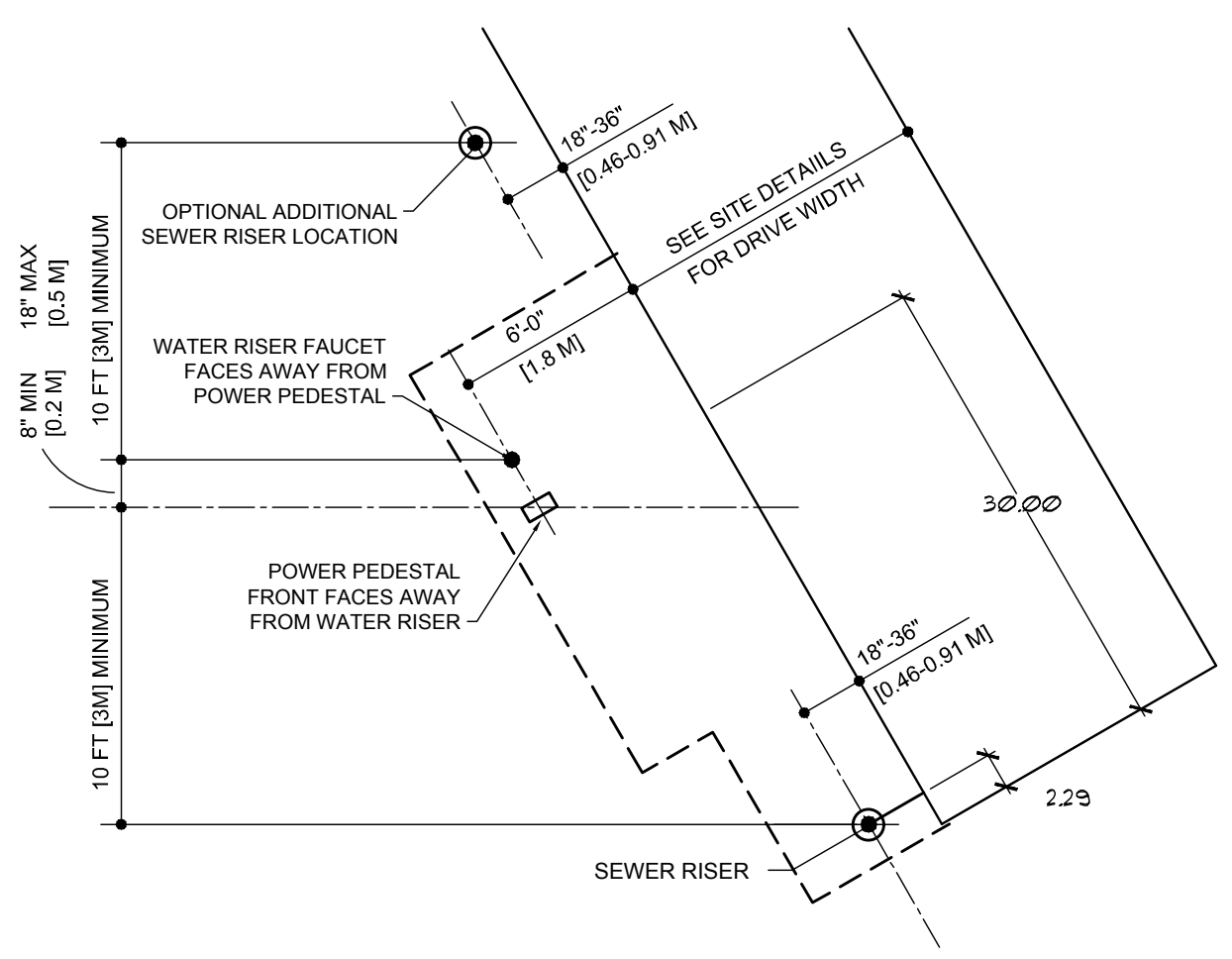
STACKED FLAT BOULDER WALL
NOT TO SCALE



TREE PLANTING
NOT TO SCALE

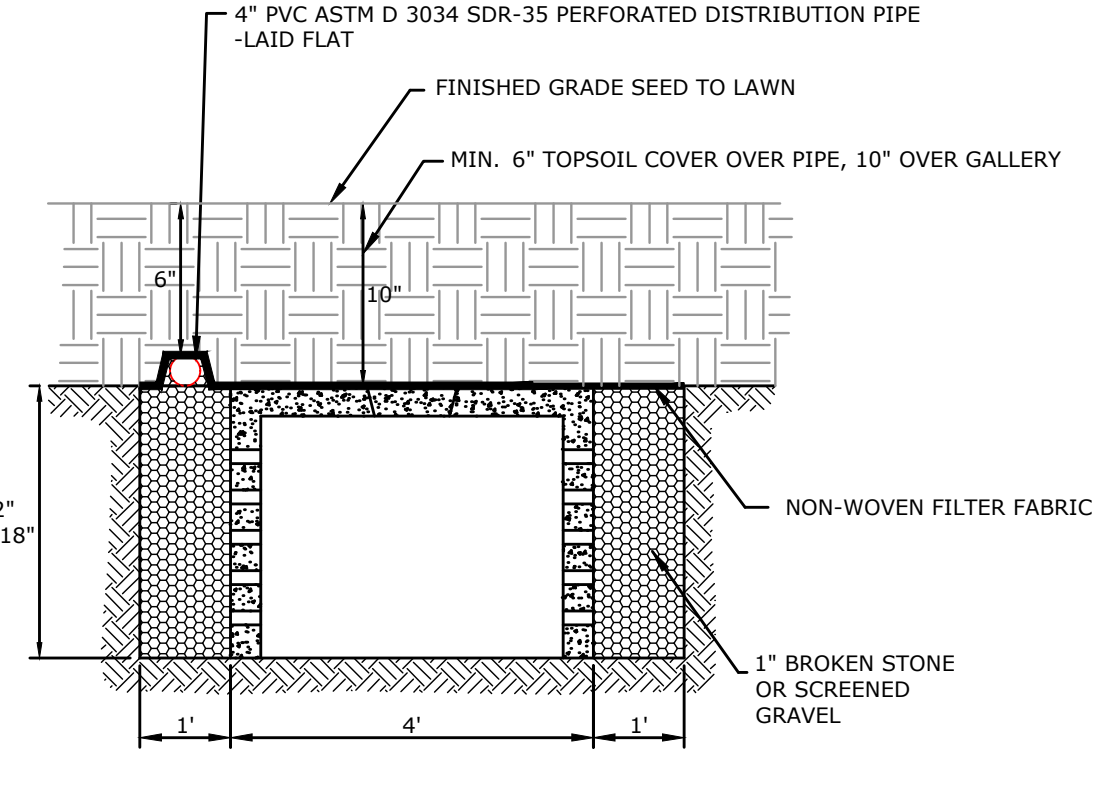
	99 REALTY DRIVE SUITE 200 TORRINGTON, CT 06871 TEL: 203.771.7171 FAX: 203.771.7172 WWW.SLRCONSULTING.COM
	BY: _____ DATE: _____ DESCRIPTION: _____

SIGNED: _____ DRAWN: _____ CHECKED: _____	ML A R J M
NOT TO SCALE	
NOVEMBER 9, 2022	
PROJECT NO. 20174.00002	
SHEET NO. 17 OF 19	
SD-7	

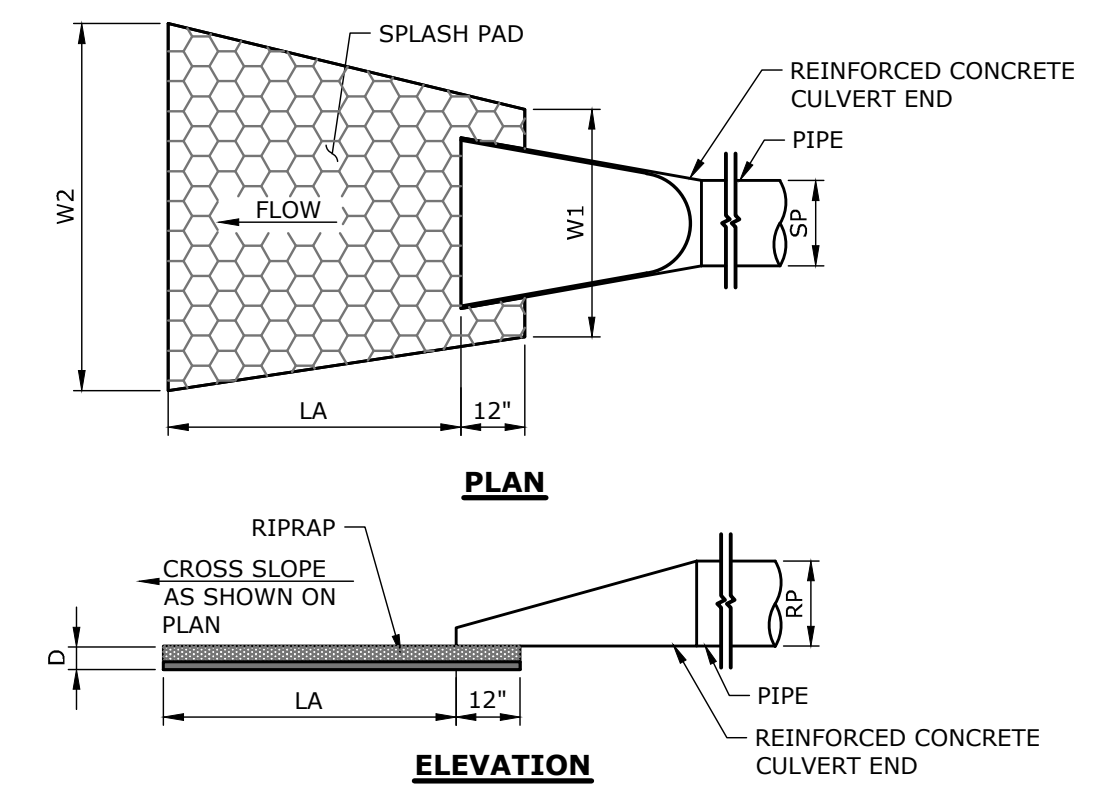


KOA DETAIL - BACK-IN SITE UTILITY LAYOUT DETAIL
NOT TO SCALE

KOA DETAIL - STANDARD PULL THROUGH UTILITY LAYOUT DETAIL
NOT TO SCALE

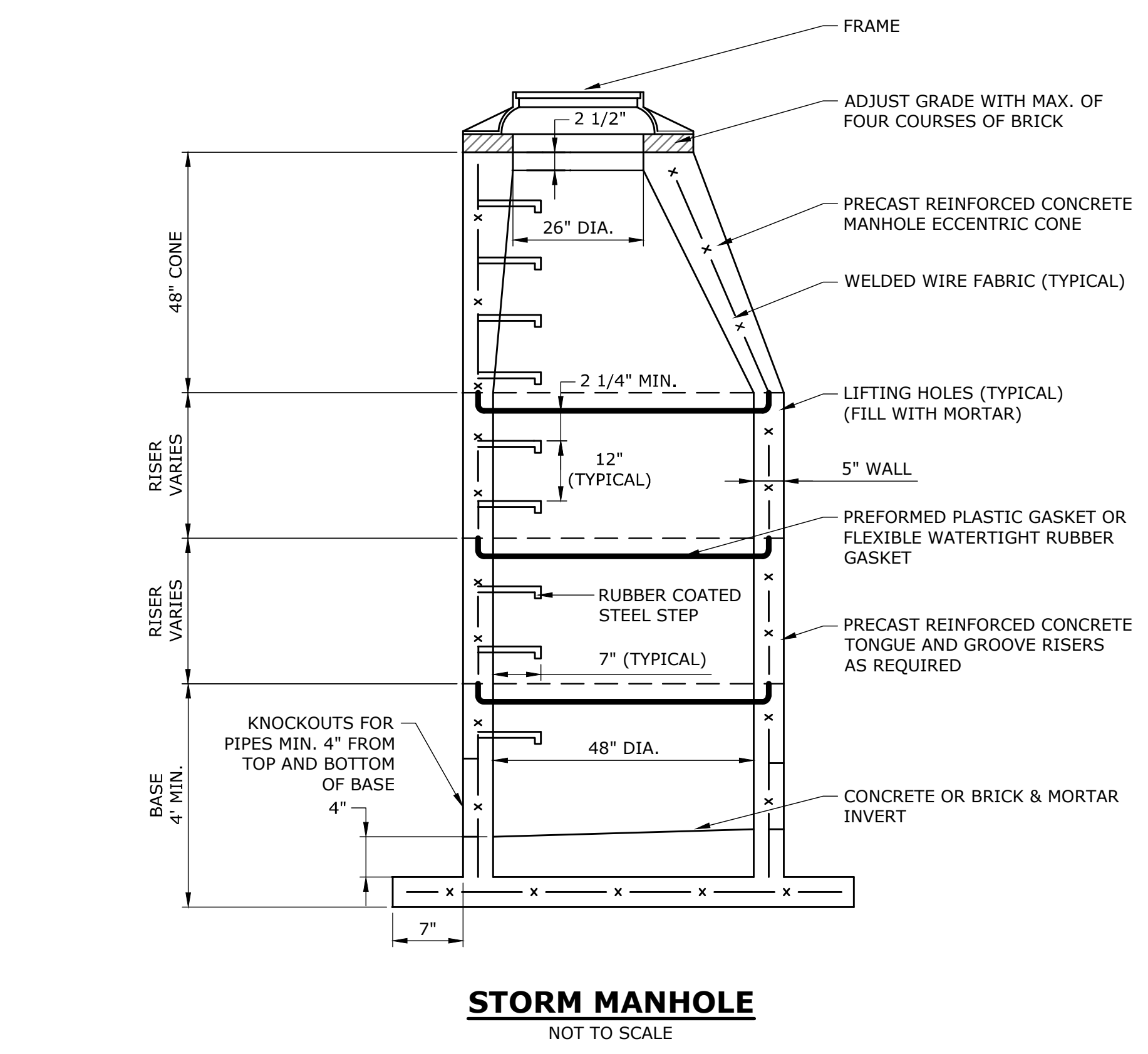


TYPICAL SECTION THRU LEACHING GALLERY WITH TOP DISTRIBUTION PIPE
NOT TO SCALE

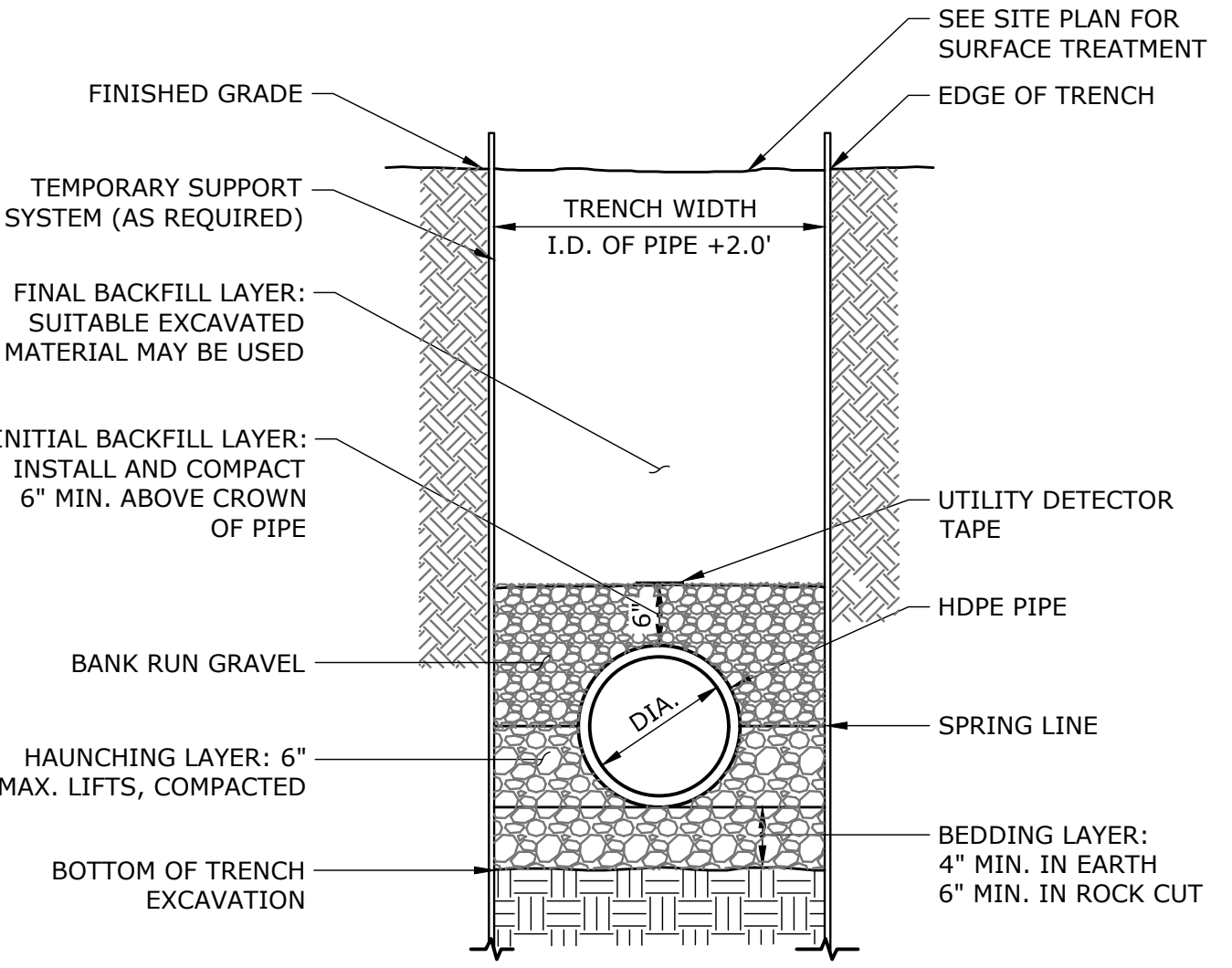


FLARED END WITH RIP RAP SPLASH PAD
NOT TO SCALE

OUTLET PROTECTION ID	TYPE	SP (FT)	RP (FT)	LA (FT)	W1 (FT)	W2 (FT)	D (IN)
FES 5	INTERMEDIATE TYPE A	1.0	1.0	10.0	3.0	10.0	18
FES 8	STANDARD TYPE B	1.0	1.0	12.0	3.0	8.0	36
FES 13	MODIFIED TYPE A	1.0	1.0	10.0	3.0	10.0	12

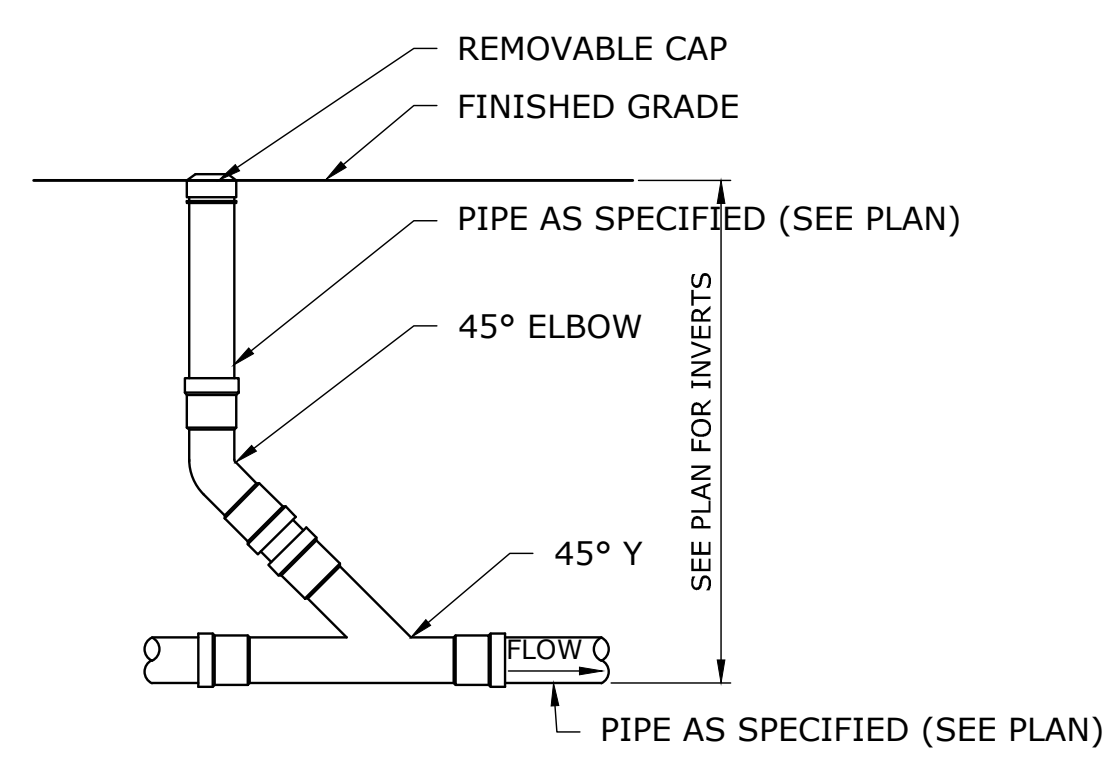


STORM MANHOLE
NOT TO SCALE

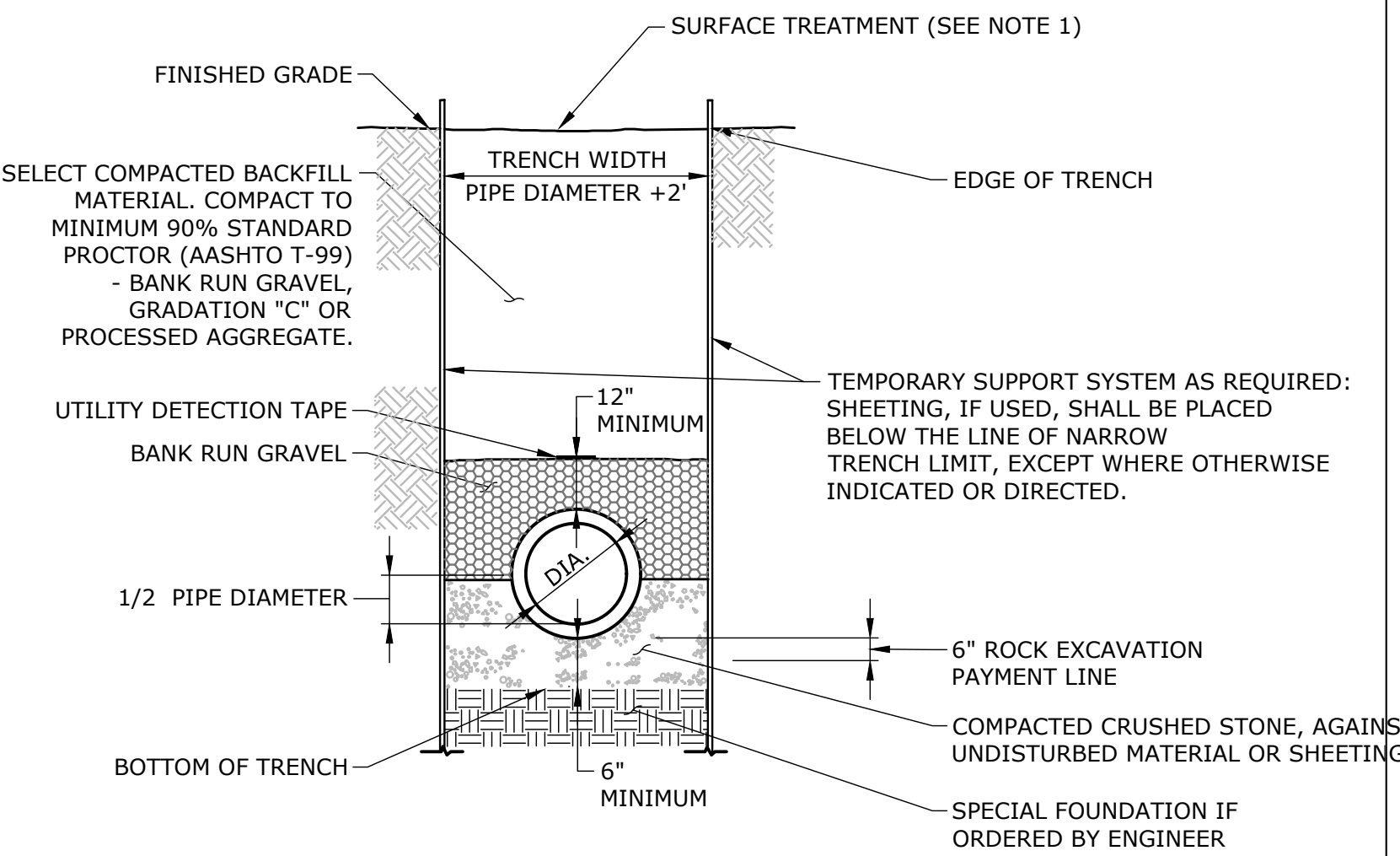


- NOTES:**
- BACKFILL MATERIAL USED IN BEDDING AND HAUNCHING SHALL BE 3/4" CRUSHED STONE.
 - PAYMENT LIMIT FOR ROCK IN TRENCH TO BE PIPE DIAMETER + 3.0'

STORM DRAINAGE TRENCH
NOT TO SCALE

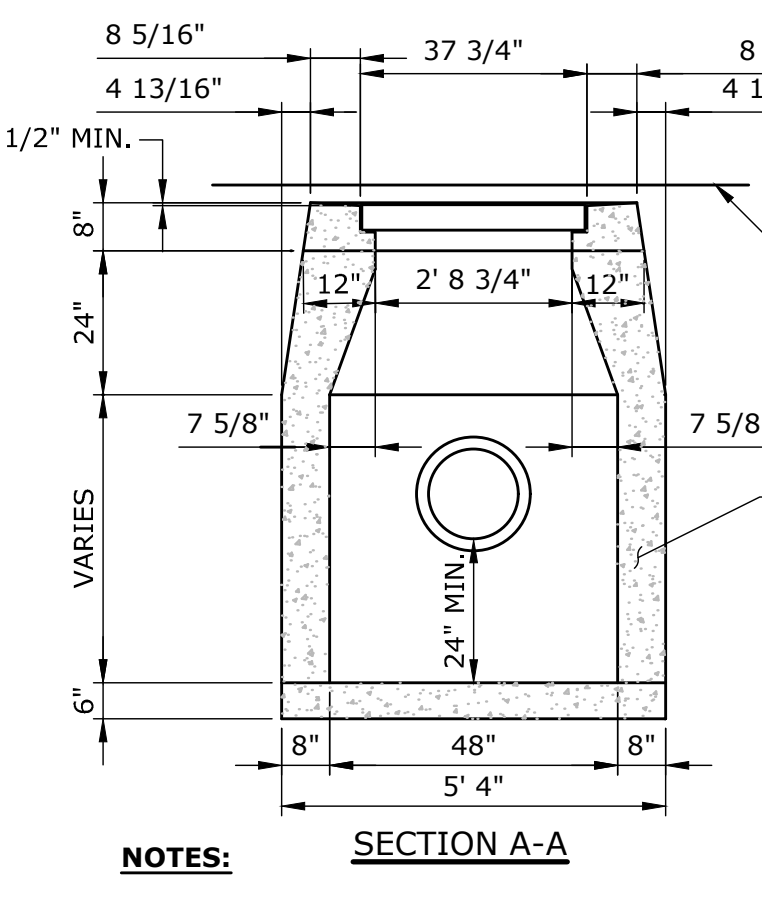
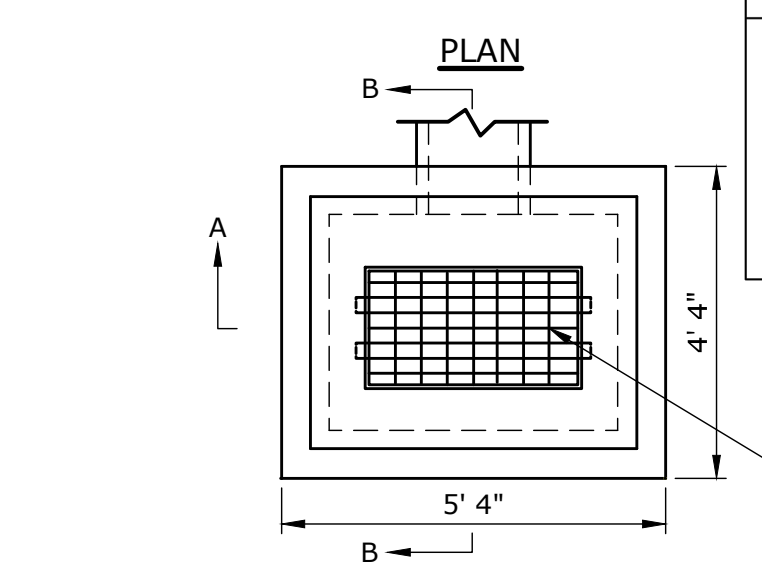


SANITARY/STORM CLEANOUT
NOT TO SCALE



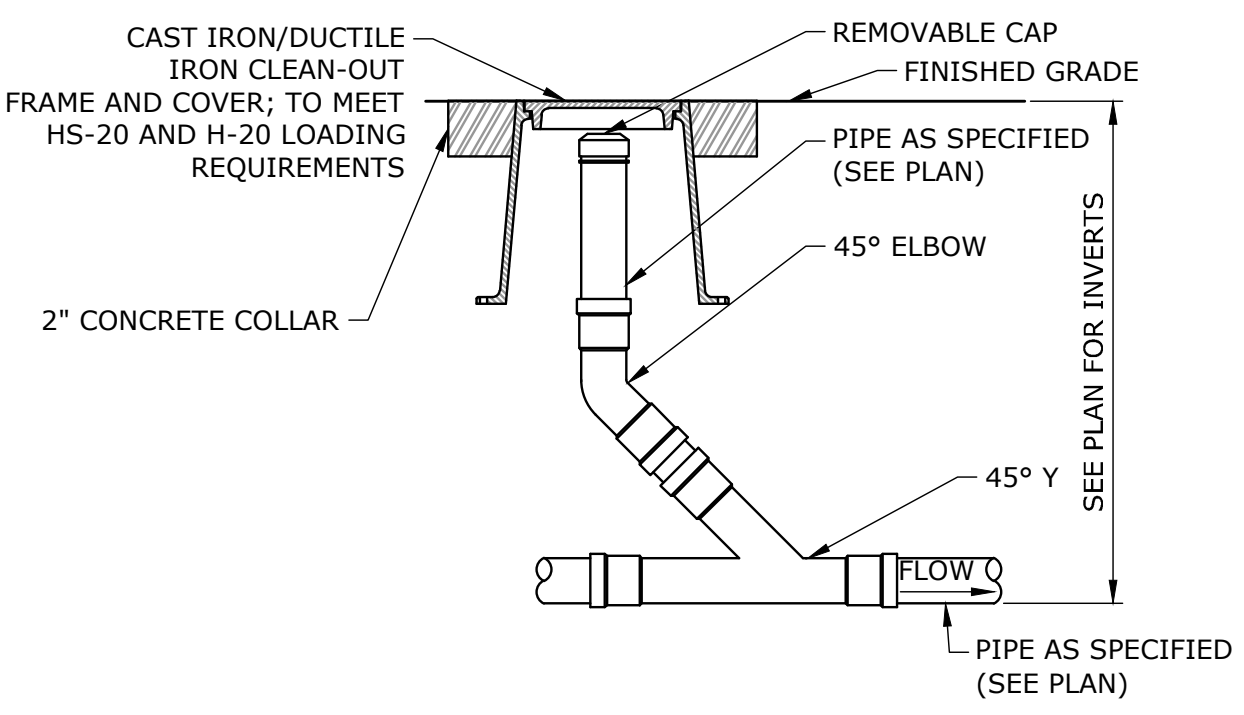
- NOTES:**
- SEE APPROPRIATE DETAIL FOR PAVEMENT REPAIR INFORMATION WHEN INSTALLING SANITARY SEWER MAINS IN PAVED AREAS.

SANITARY SEWER TRENCH
NOT TO SCALE



- NOTES:**
- WHERE PRECAST CONCRETE UNIT IS USED FOR SUMP, THE TOP OF THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLET FROM THE CATCH BASIN.

TYPE "C-L" CATCH BASIN
NOT TO SCALE



SANITARY/STORM CLEANOUT FOR USE ON PAVED AREAS
NOT TO SCALE

2000 GALLON REGULAR SEPTIC TANK

TANK DESIGN SPECIFICATION CONFORMS TO LATEST ASTM DESIGNATION C1227

NOTES:

- JOINT SEALANT IS BUTYL RUBBER MASTIC TYPE SEAL THAT CONFORMS TO LATEST AASHTO SPECIFICATION M-198. MEETS FEDERAL SPECIFICATION SS-5-0021(210-A).
- PIPE INLET AND OUTLET LOCATIONS HAVE POLYLOK II PIPE SEALS.
- REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPECIFICATION A615.
- REINFORCING STEEL WELDED WIRE FABRIC CONFORM TO LATEST ASTM SPECIFICATION A185.
- CONCRETE COMPRESSIVE STRENGTH- 4000 PSI AT 28 DAYS.
- METHOD OF MANUFACTURE: WET CAST.
- SECTIONS ARE MONOLITHIC.

WEIGHT CHART

PRODUCT	APPROX WEIGHT
TANK	16100 LBS.

TOP VIEW
(COVERS AND RISERS REMOVED)

4" SIDE VIEW

UNITED CONCRETE PRODUCTS INC.
173 CHURCH STREET TEL. 800 234-3119 FAX. (203) 265-4941
YALEVILLE, CT 06492 (203) 269-3119



DATE BY

DESCRIPTION

SITE DETAILS
KLUG HILL RV PARK
KOA CAMPGROUND
232 KLUG HILL ROAD
TORRINGTON, CONNECTICUT

DESIGNED	MLA	RJM
SCALE	NOT TO SCALE	
DATE	NOVEMBER 9, 2022	
PROJECT NO.	20174.00002	
SHEET NO.	18 OF 19	

SD-8

FORMATION OF EMBANKMENTS FOR STORMWATER BASINS

1. MATERIALS

ALL FILL MATERIALS SHALL BE OBTAINED FROM REQUIRED EXCAVATIONS OR DESIGNATED BORROW AREAS. FILL MATERIAL SHALL CONTAIN NO FROZEN MATERIAL, SOIL, BRUSH, ROOTS, OR OTHER ORGANIC MATERIAL. EARTH EMBANKMENTS SHALL CONTAIN NO STONES OR ROCK PARTICLES OVER THREE INCHES IN DIAMETER.

THE MATERIAL USED IN THE CENTER PORTION OF THE EMBANKMENT SHALL BE THE MOST IMPERVIOUS MATERIAL OBTAINED FROM THE BORROW AREAS IF REQUIRED. THE MORE PERVIOUS MATERIALS SHALL BE USED IN THE OUTER PORTION OF THE EMBANKMENT AS SHOWN ON THE PLANS.

A. IMPERVIOUS FILL MATERIALS

IMPERVIOUS FILL SHALL BE A GLACIAL TILL, AND TO BE PROVIDED FROM AN OFFSITE SOURCE IN THE QUANTITIES REQUIRED FOR COMPLETION. FILL TO BE APPROVED BY THE ENGINEER. GLACIAL TILL SHALL CONSIST OF HARD AND DURABLE PARTICLES OR FRAGMENTS AND SHALL BE FREE FROM ORGANIC MATTER AND OTHER OBJECTIONABLE MATERIALS. GLACIAL TILL SHALL GENERALLY CONFORM TO THE FOLLOWING GRADATION LIMITS:

U.S. STANDARD SIEVE SIZE	PERCENTAGE PASSING BY WEIGHT
3 INCH	100
NO. 4	60-95
NO. 10	50-95
NO. 40	30-75
NO. 100	20-65
NO. 200	10-40

2. EMBANKMENT FOUNDATION PREPARATION

AREAS WHERE EMBANKMENTS ARE TO BE FORMED SHALL BE CLEARED AND GRUBBED OF ALL TOPSOIL AND OTHER ORGANIC MATERIALS TO A DEPTH OF AT LEAST 24 INCHES, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. FOUNDATION AREAS SHALL BE SCARIFIED TO A DEPTH OF THREE INCHES PRIOR TO PLACEMENT OF FILL MATERIAL.

3. PLACEMENT

NO FILL SHALL BE PLACED UNTIL THE FOUNDATION PREPARATION AND EXCAVATIONS IN THE FOUNDATION HAVE BEEN COMPLETED. NO FILL SHALL BE PLACED ON A FROZEN SURFACE NOR SHALL FROZEN MATERIAL BE INCORPORATED.

A. EMBANKMENT

MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS. THE THICKNESS OF LAYERS SHALL BE SIX INCHES. DURING CONSTRUCTION, THE SURFACE OF THE FILL SHALL HAVE A CROWN OR CROSS-SLOPE OF NOT LESS THAN TWO PERCENT. EACH LAYER OR LIFT SHALL EXTEND OVER THE ENTIRE AREA OF THE FILL.

THE FILL SHALL BE FREE FROM LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFERING SUBSTANTIALLY IN TEXTURE OR GRADATION FROM THE SURROUNDING MATERIAL. THE MORE PERVIOUS MATERIAL SHALL BE PLACED IN THE OUTSIDE PORTION OF THE EMBANKMENT OR AS INDICATED ON THE DRAWINGS. THE FINISHED FILL SHALL BE SHAPED AND GRADED TO THE LINES AND GRADE SHOWN ON THE DRAWINGS.

B. BACKFILL AT THE PIPE OUTLET

BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED THREE INCHES IN THICKNESS AND SHALL BE BROUGHT UP UNIFORMLY AROUND THE OUTLET PIPE AND FLARED END SECTION

4. MOISTURE CONTROL

THE MOISTURE CONTENT OF MATERIALS IN THE EMBANKMENT SHALL BE CONTROLLED TO MEET THE REQUIREMENTS OF SECTION 5, "COMPACTION OF EMBANKMENT." WHEN NECESSARY, MOISTURE SHALL BE ADDED BY USE OF APPROVED SPRINKLING EQUIPMENT. WATER SHALL BE ADDED UNIFORMLY AND EACH LAYER SHALL BE THOROUGHLY DISKED OR HARROWED TO PROVIDE ROPE MIXING. ANY LAYER FOUND TOO WET FOR PROPER COMPACTION SHALL BE ALLOWED TO DRY BEFORE ROLLING. PLACING OR ROLLING OF MATERIAL ON EARTH FILLS WILL NOT BE PERMITTED DURING OR IMMEDIATELY AFTER RAINFALLS WHICH INCREASE THE MOISTURE CONTENT BEYOND THE LIMIT OF SATISFACTORY COMPACTION. THE EARTH FILL SHALL BE BROUGHT UP UNIFORMLY AND ITS TOP SHALL BE KEPT GRADED AND SLOPED SO THAT A MINIMUM OF RAINWATER WILL BE RETAINED THEREON. COMPACTED EARTH FILL DAMAGED BY WASHING SHALL BE ACCEPTABLY REPLACED BY THE CONTRACTOR.

5. COMPACTION

A. EMBANKMENT

EMBANKMENT MATERIAL SHALL BE COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY AT NEAR OPTIMUM MOISTURE CONTENT AND BY THE COMPACTION EQUIPMENT SPECIFIED HEREIN. THE COMPACTION EQUIPMENT SHALL TRAVERSE THE ENTIRE SURFACE OF EACH LAYER OF FILL MATERIAL.

APPROVED TAMPING ROLLERS SHALL BE USED FOR COMPACTING ALL PARTS OF THE EMBANKMENTS WHICH THEY CAN EFFECTIVELY REACH. THE CONTRACTOR SHALL DEMONSTRATE THE EFFECTIVENESS OF THE ROLLER BY ACTUAL SOIL COMPACTION RESULTS OF THE SOIL TO BE USED IN THE EMBANKMENT WITH LABORATORY WORK PERFORMED BY AN APPROVED SOIL TESTING LABORATORY.

B. BACKFILL AT OUTLET CONDUIT

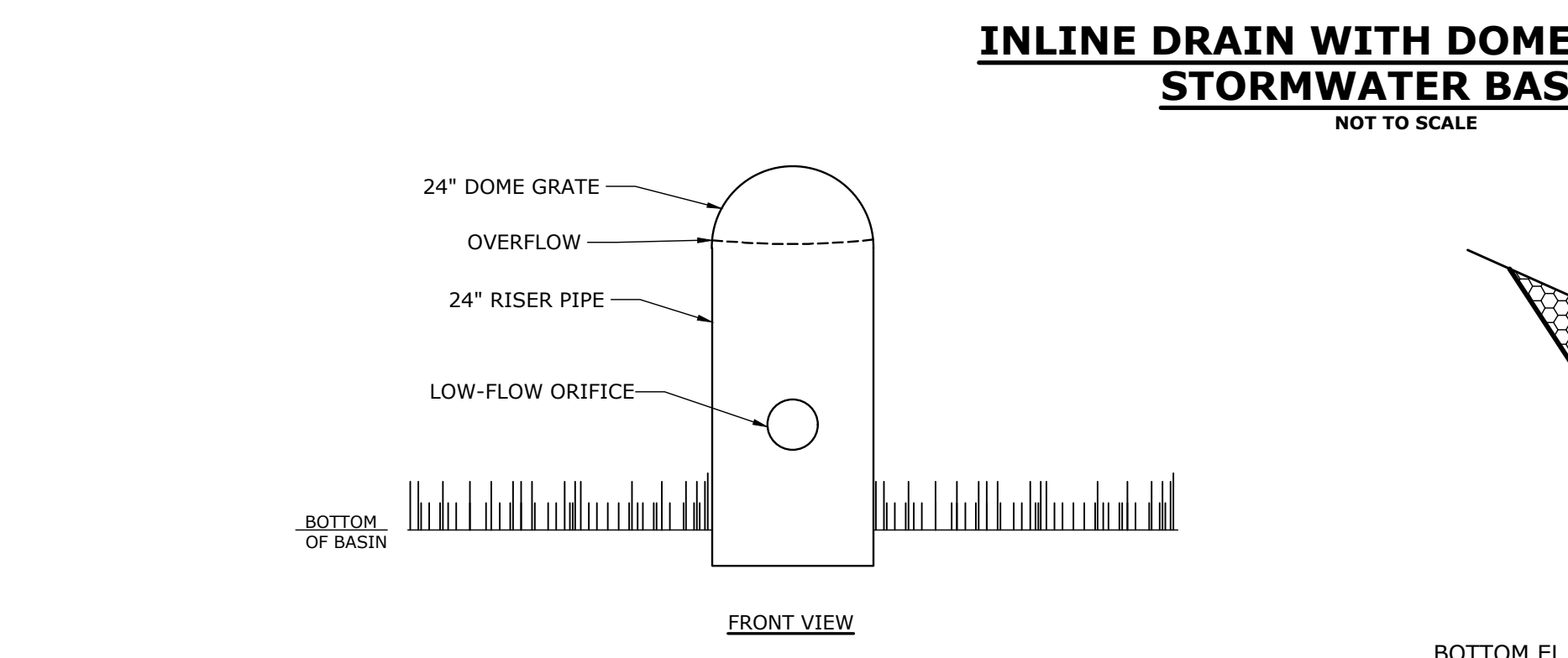
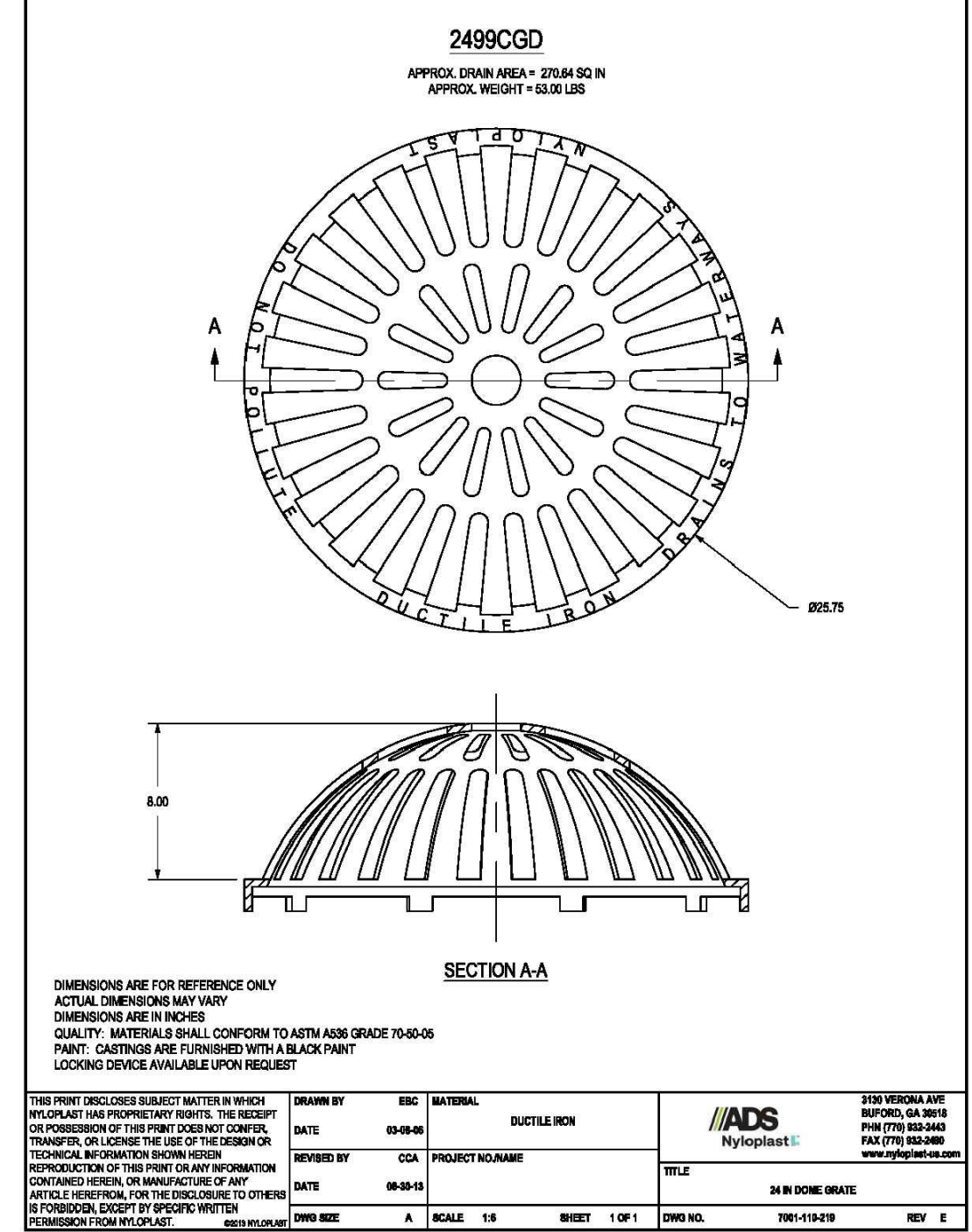
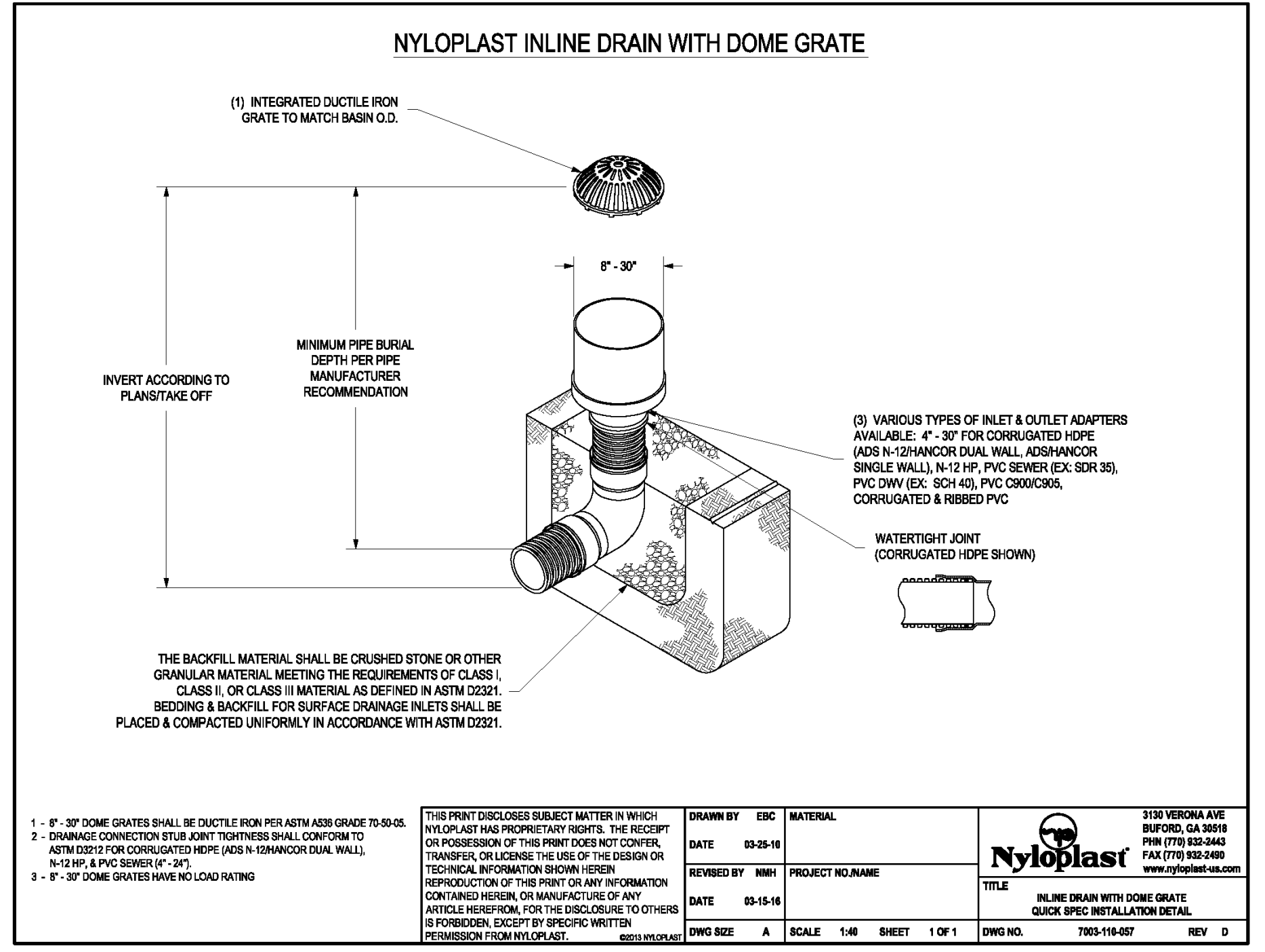
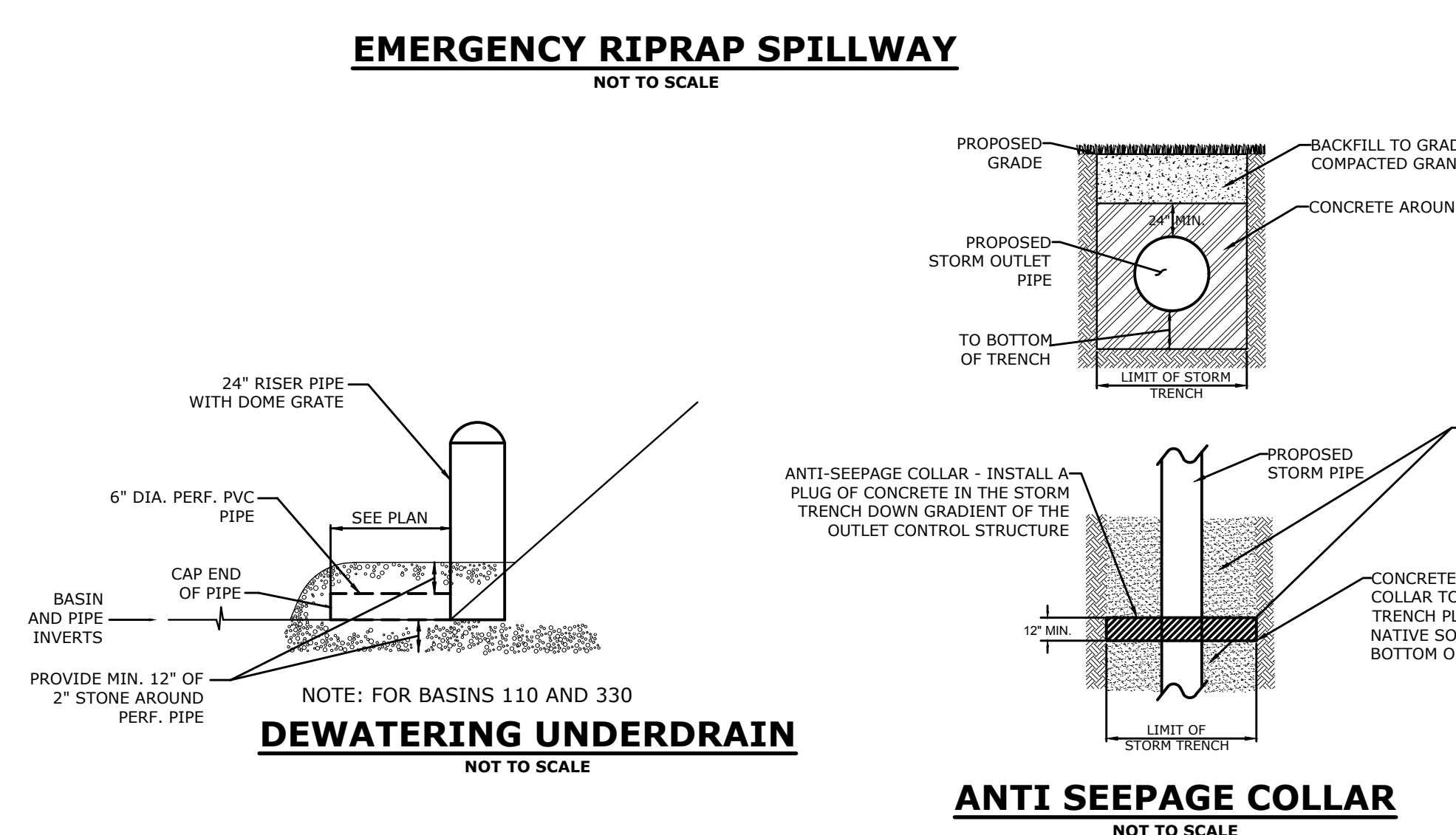
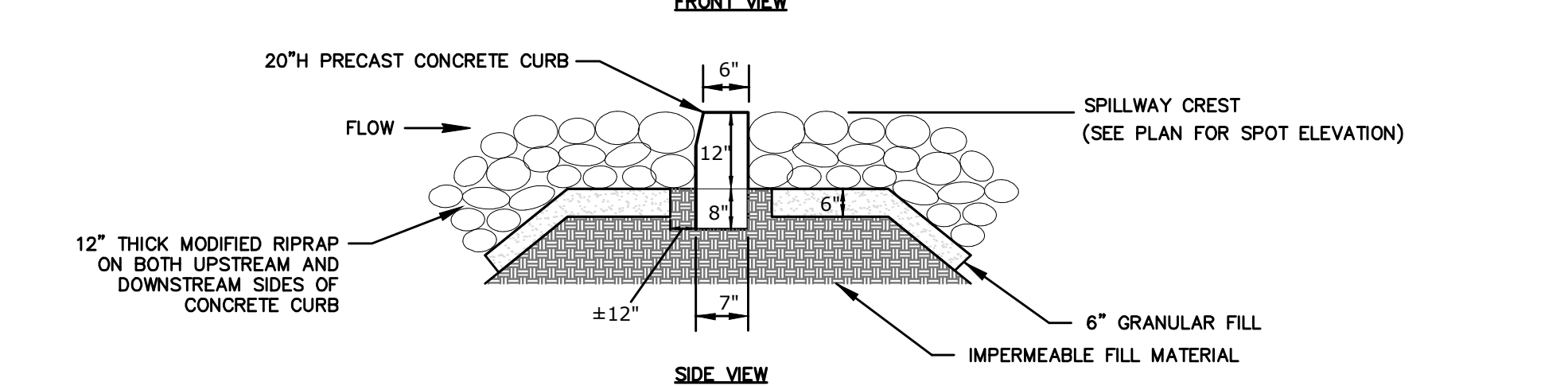
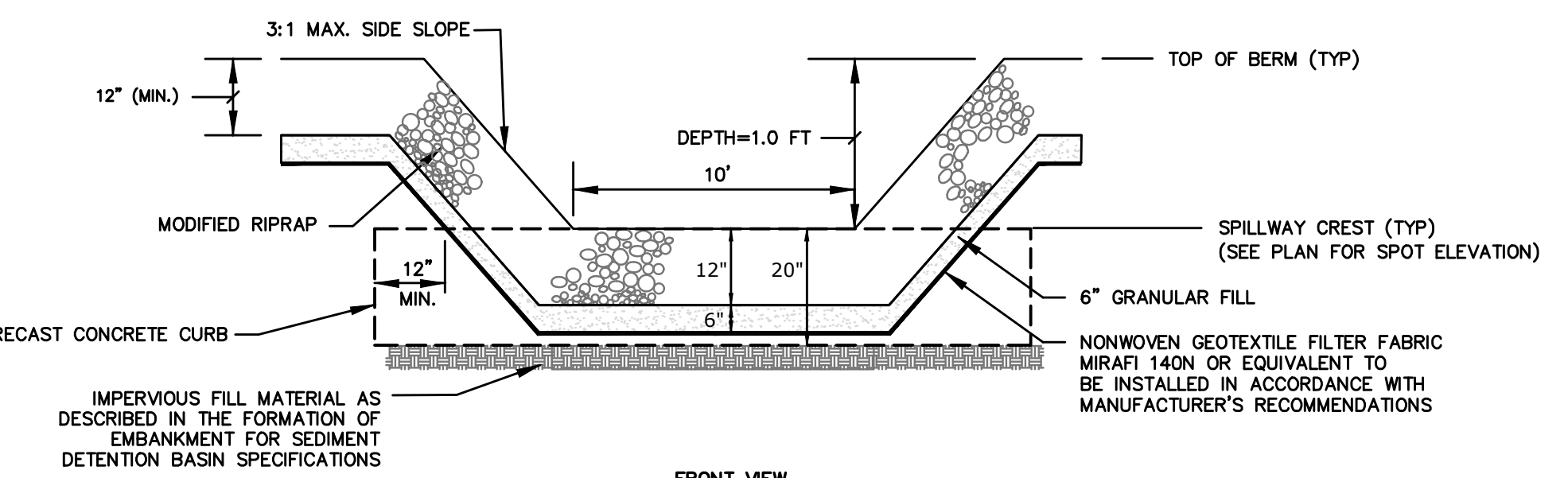
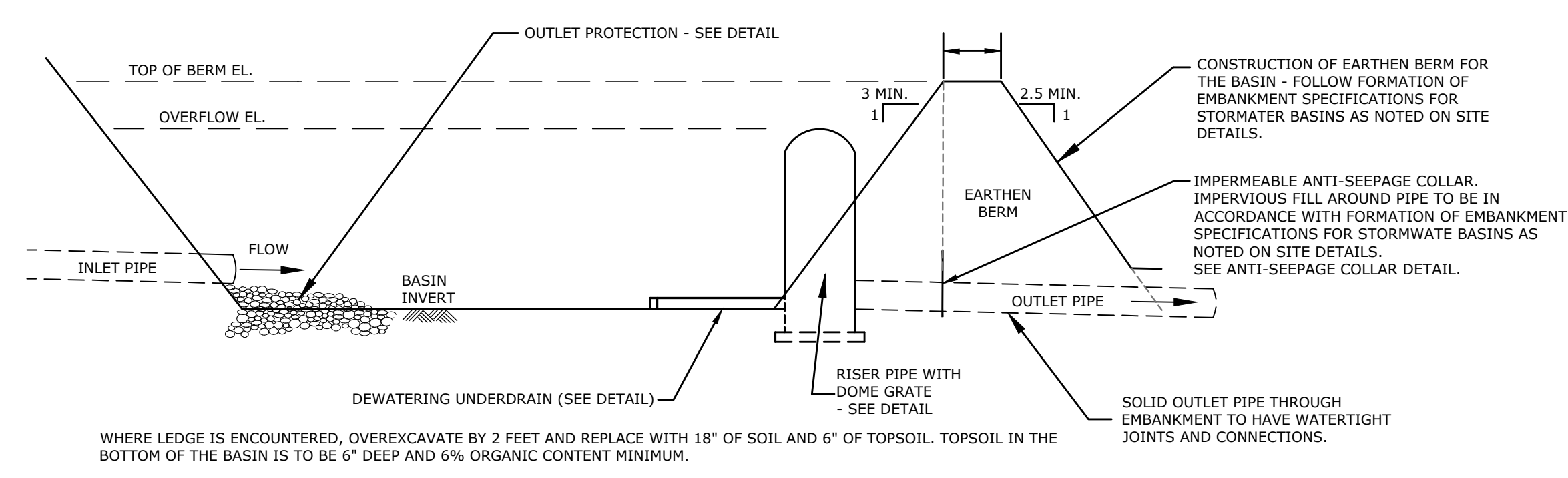
BACKFILL SHALL BE COMPACTED BY HAND TAMPING WITH MECHANICAL TAMPERS. HEAVY EQUIPMENT SHALL NOT BE OPERATED WITHIN TWO FEET OF ANY STRUCTURE. EQUIPMENT SHALL NOT BE ALLOWED TO OPERATE OVER THE OUTLET CONDUITS UNTIL THERE IS 24 INCHES OF FILL OVER THE PIPE CONDUITS.

6. FINISHING EMBANKMENTS

THE EMBANKMENTS SHALL BE CONSTRUCTED TO THE ELEVATIONS, LINES, GRADES AND CROSS-SECTIONS AS SHOWN ON THE DRAWINGS. THE EMBANKMENTS SHALL BE MAINTAINED IN A MANNER SATISFACTORY TO THE ENGINEER AND SURFACES SHALL BE COMPACT AND ACCURATELY GRADED BEFORE TOPSOIL IS PLACED ON THEM. THE CONTRACTOR SHALL CHECK THE EMBANKMENT SLOPES WITH STRING LINES TO INSURE THAT THEY CONFORM TO THE SLOPES GIVEN ON THE PLANS AND ARE UNIFORM FOR THE ENTIRE LENGTH OF THE SLOPE.

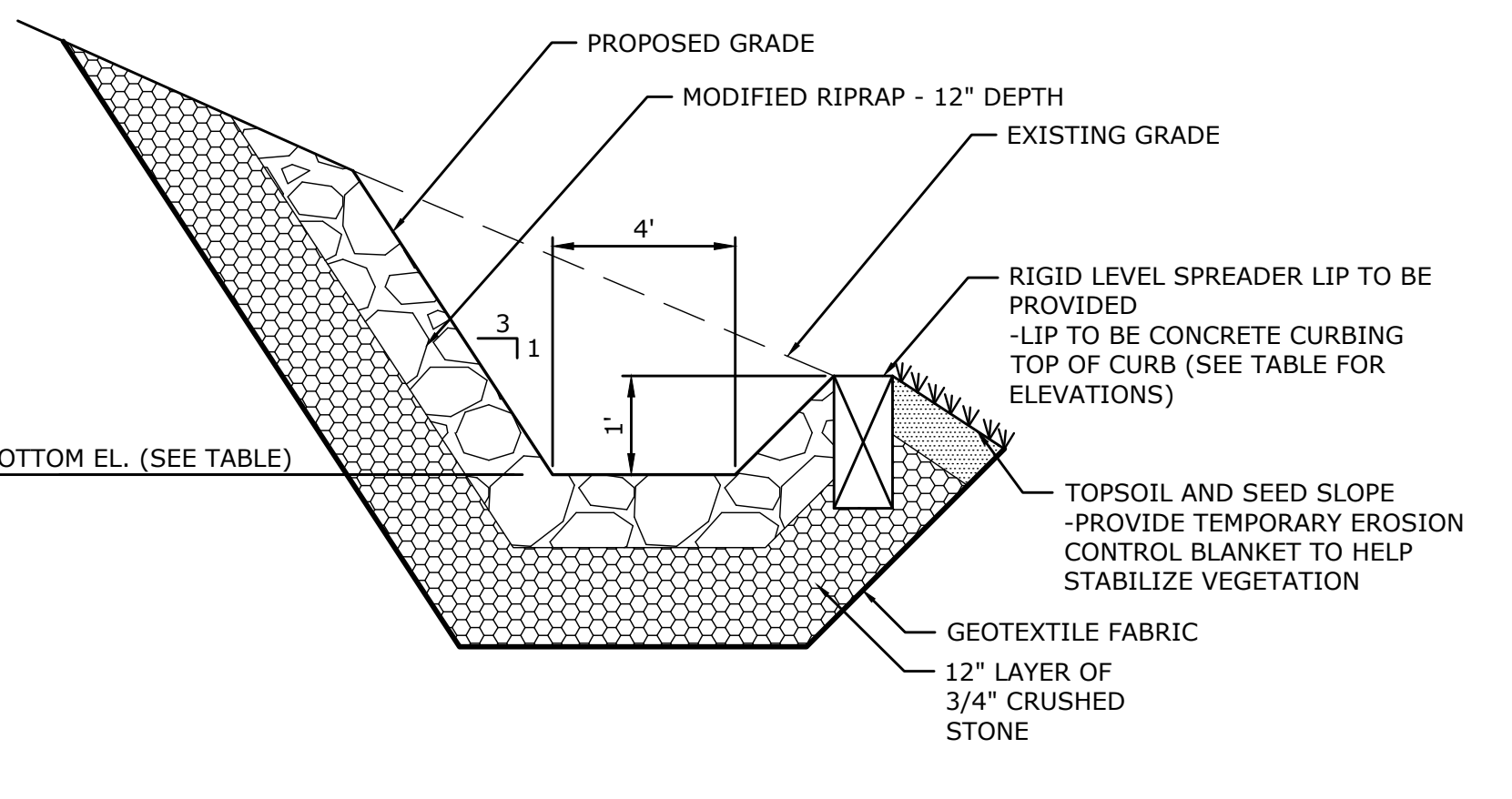
7. CONTROL OF WATER

THE PROJECT SITE IS SUBJECT TO HIGH WATER TABLE. THE CONTRACTOR SHALL USE TEMPORARY PIPES OR PUMPS TO ASSURE PLACEMENT OF SELECT FILL IN DRY CONDITIONS.



DET 110		DET 310	
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		DET 410	
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



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

DETENTION BASIN OUTLET CONTROL STRUCTURES

SCALE: 1"=2'



DESCRIPTION	DATE	BY

SITE DETAILS

KLUG HILL RV PARK
KOA CAMPGROUND
232 KLUG HILL ROAD
TORRINGTON, CONNECTICUT

DESIGNED	MLA	RJM
DRAWN	CHECKED	
NOT TO SCALE		
NOVEMBER 9, 2022		
PROJECT NO. 20174.00002		
SHEET NO. 19 OF 19		
SD-9		