

SELECT FILL SPECIFICATION

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

1. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SLEEVE.

2. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SLEEVE (THIS IS THE GRAVEL PORTION OF THE

3. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED,
4. THE REMAINING SAMPLE SHALL MEET THE FOLLOWING CRITERIA:

0-2.5

WET SIEVE 70-100 10-50* 10-75 0-20

0-5

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

SEPTIC NOTES

- . PROPOSED SEPTIC SYSTEM TO BE STAKED IN THE FIELD BY A LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT.
- 2. A BENCHMARK SHALL BE SET WITHIN 10'-15' OF THE PROPOSED SEPTIC SYSTEM PRIOR TO CONSTRUCTION.
- 3. ALL WORK AND MATERIAL (SEPTIC TANK, DISTRIBUTION BOX, PIPE) SHALL CONFORM TO THE CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEM. 4. SEWER LINE FROM FOUNDATION WALL TO SEPTIC TANK SHALL BE 4" SCHEDULE 40 PVC - ASTM D 1785 AND JOINTS PER HEALTH DEPT. CODE.
- PIPE FROM SEPTIC TANK TO DISTRIBUTION LINES SHALL BE 4" SOLID PVC CONFORMING TO STMD-3034 AND SDR-35. 5. SYSTEMS SHALL BE SET LEVEL FOR ENTIRE LENGTH AND HAVE A CENTER TO CENTER SPACING AS CALLED FOR IN THE CONNECTICUT PUBLIC
- HEALTH CODE. THERE ARE PRESENTLY NO KNOWN WATER WELLS WITHIN 75' OF THE PROPOSED SEPTIC SYSTEMS. 6. CLEAR AND GRUB THE AREA WHERE THE SEPTIC SYSTEMS AND HOUSES ARE TO BE CONSTRUCTED. ALL TOPSOIL IS TO BE STRIPPED AND
- STOCKPILED FOR FUTURE USE.

 7. ALL FILL MATERIAL SHALL BE CLEAN EARTH FREE OF STUMPS, ORGANICS, CONSTRUCTION DEBRIS AND TOPSOIL.
- 8. TOPSOIL SHALL BE RE-APPLIED OVER ALL FILL AREAS AND ALL DISTURBED AREAS TO PROVIDE A MINIMUM DEPTH OF ACCORDANCE WITH THE SLOPE STABILIZATION DETAILS..

DEEP TEST PIT DATA	/ SOIL DESCRIPTIONS		.ATION DAT. - DEPTH 23"
PERFORMED BY:Donovan Moe	DADTMENT OF HEALTH DATE: 02/20/2021	TIME	DROP (INCHES)
TEST PIT: 1 O" - 10" Topsoil / Organics 10" - 16" Orange Brown Fine Sand Loam 16" - 34" Tan Compact Sand Loam 34" - 78" Grey Sand & Gravel MOTTLES: 36" GROUNDWATER: 66" LEDGE: NO ROOTS: 46"	TEST PIT: 2 O" - 10" Topsoil / Organics 10" - 27" Dark Brown Fine Sand 27" - 48" Grey Compact Sand 48" - 70" Sand & Gravel MOTTLES: 32" GROUNDWATER: 62" LEDGE: NO ROOTS: 32"	NOTES:	6.0 7.0 8.0 8.5 9.25 9.5 10.0 11.0 11.5 12.0 RATE > 6.0 MIN./
RESTRICTIVE: NO TEST PIT: 3 0" - 12" Topsoil / Organics	RESTRICTIVE: NO TEST PIT: 4 0" - 10" Topsoil / Organics	PERFORMED BY Donovan Mod PERCOLATION DAT PERC 2 - DEPTH 17"	
12" - 30" Tan Orange Fine Sand Loam 30" - 48" Grey Sand Layer 48" - 72" Sand & Gravel	10" - 24" Tan Orange Fine Sand Loam 24" - 80" Saturated Grey Sand & Gravel	TIME 11:04	DROP (INCHES) 6.25
MOTTLES: 30" GROUNDWATER: 65" LEDGE: NO ROOTS: NO RESTRICTIVE: NO	MOTTLES: 28" GROUNDWATER: 74" LEDGE: NO ROOTS: 30" RESTRICTIVE: NO	11:10 11:16 11:22 11:34 11:46 11:58	8.25 9.75 10.625 12.125 13.125 14.625
		PERCOLATION	RATE > 8.0 MIN.

PERCOLATION RATE: 6.0 MIN./INCH (NDDH FILE #21000307) LEACHING AREA REQUIRED: 557.5 SE

EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF REQUIRED LENGTH = 557.5 SF / 3 SF/LF = 186 LF

PERCOLATION FACTOR (PF) = 1.75 (LESS THAN 10.0 MIN./INCH) MLSS REQUIRED: $32 \times 1.0 \times 1.75 = \underline{52.5 \text{ LF}}$

PERCOLATION RATE: 8.0 MIN./INCH (NDDH FILE #21000307) LEACHING AREA REQUIRED: 557.5 SF

EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF REQUIRED LENGTH = 557.5 SF / 3 SF/LF = 186 LF

PERCOLATION FACTOR (PF) = 1.75 (LESS THAN 10.0 MIN./INCH) MLSS REQUIRED: $34 \times 1.0 \times 1.75 = \underline{59.5 \text{ LF}}$

USE TRADITIONAL TRENCH

DEPTH TO RESTRICTIVE LAYER = 32"

LEACHING AREA PROVIDED = 585 SF

HYDRAULIC FACTOR (HF) = 32FLOW FACTOR (FF) = 1.0

PROPOSED SYSTEM
USE 3 ROWS OF 65 LF

RESERVE LEACHING AREA USE SAME AS PRIMARY SYSTEM

PROPOSED LOT 2
PRIMARY LEACHING AREA
4 BEDROOM RESIDENCE

USE TRADITIONAL TRENCH

DEPTH TO RESTRICTIVE LAYER = 28"

LEACHING AREA PROVIDED = 585 SF

HYDRAULIC FACTOR (HF) = 34FLOW FACTOR (FF) = 1.0

PROPOSED SYSTEM
USE 3 ROWS OF 65 LF

RESERVE LEACHING AREA USE SAME AS PRIMARY SYSTEM

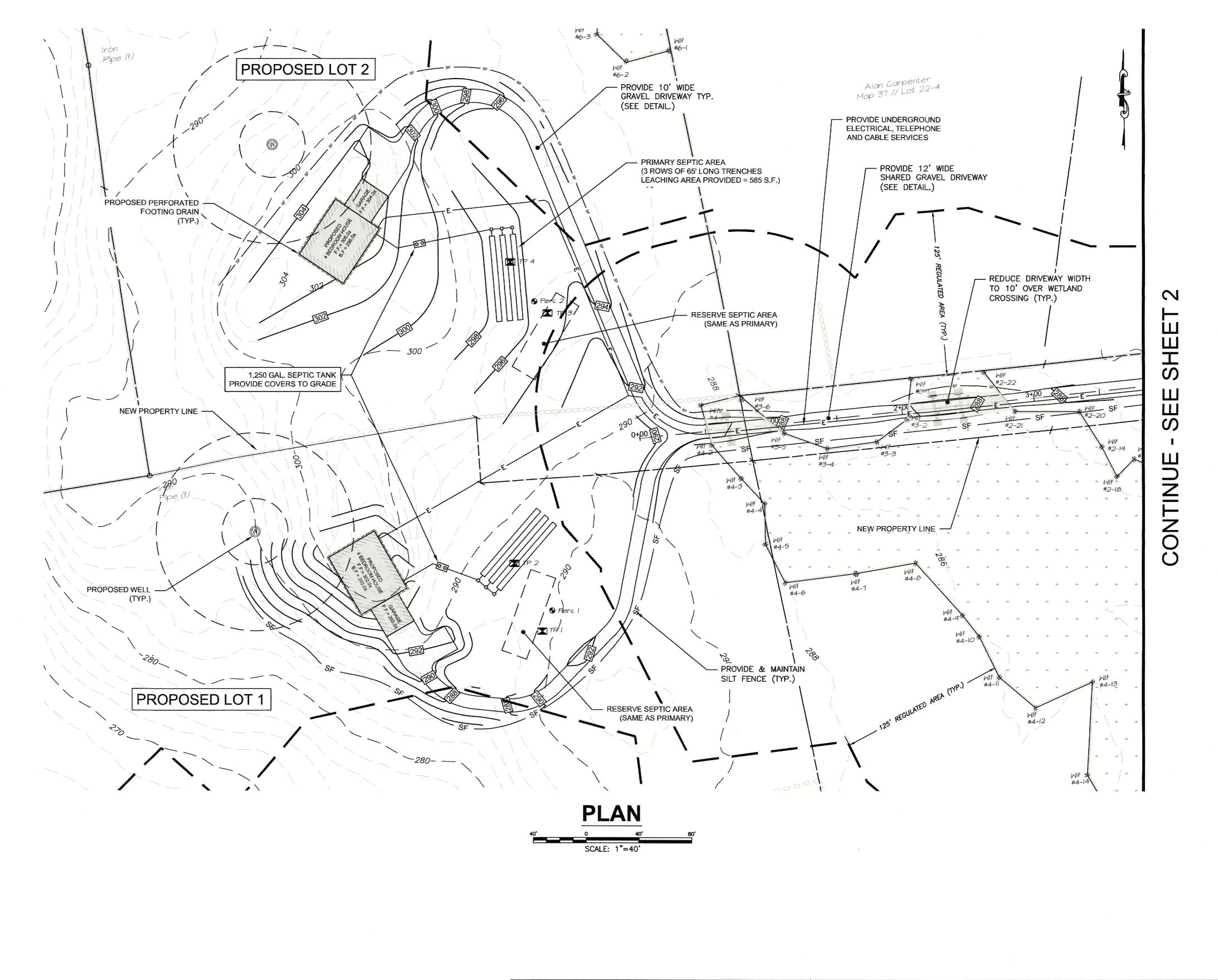
MLSS CALCULATION
HYDRAULIC FACTORS

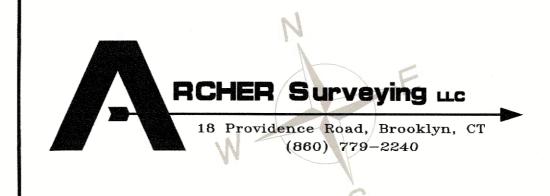
SLOPE = 4.0%

MLSS CALCULATION HYDRAULIC FACTORS

SLOPE = 5.0%

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ROVIDE A MININ	IUM DEPTH OF FOUR	INCHES IN
<u> </u>		-
PERCO	LATION DATA	
PERC 1	- DEPTH 23"	
TIME	DROP (INCHES)	
11:10	6.0	
11:12 11:14	7.0	
11:14	8.0 8.5	
11:18	9.25	
11:20	9.5	
11:22 11:25	10.0 11.0	
11:28	11.5	
11:31	12.0	
PERCOLATION	RATE > 6.0 MIN./IN.	
NOTES: PERCOLATION ON 3/30/2021 PERFORMED E		
	LATION DATA	
	LATION DATA - DEPTH 17"	
	LATION DATA	
PERC 2 TIME 11:04	LATION DATA - DEPTH 17" DROP (INCHES) 6.25	
PERC 2 TIME 11:04 11:10	LATION DATA - DEPTH 17" DROP (INCHES) 6.25 8.25	
PERC 2 TIME 11:04	LATION DATA - DEPTH 17" DROP (INCHES) 6.25 8.25 9.75	
PERC 2 TIME 11:04 11:10 11:16 11:22 11:34	DROP (INCHES) 6.25 8.25 9.75 10.625 12.125	
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PERC 2 TIME 11:04 11:10 11:16 11:22 11:34 11:46 11:58 PERCOLATION NOTES: PERCOLATION ON 3/30/2021	DROP (INCHES) 6.25 8.25 9.75 10.625 12.125 13.125 14.625 RATE > 8.0 MIN./IN.	





2 06/30/21 VARIOUS MODIFICATIONS 1 05/10/21 VARIOUS MODIFICATIONS No. DATE

CLA Engineers, Inc.

Proj. Engine

R.A.D.

04/30/21

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Sheet No.

A. KAUSCH & SONS, LLC

GRADING & SITE DESIGN

LOTS 019-37-17, 019-37-20 & 019-37-21 CHURCH ST. SITE DEVELOPMENT BROOKLYN, CT

CLA

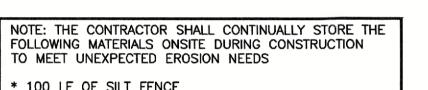
Civil · Structural · Surveying (860) 886-1966 Fax (860) 886-9165

317 Main Street Norwich, CT 06360

CLA-6639

EROSION & SEDIMENTATION CONTROL NARRATIVE

- 1. THE EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS HAVE BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
- THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL MEASURES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDED SILT FENCE, STONE CHECK DAMS AND/OR OTHER EROSION CONTROL MEASURES AS NEEDED OR DIRECTED BY THE ENGINEER OR TOWN STAFF TO ADEQUATELY PREVENT SEDIMENT TRANSPORT.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE.
- 4. THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT. SEDIMENT DEPOSITS MUST BE REMOVED WHEN WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE
- CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED. STAKED HAY BALE SILT BARRIERS OR SILT FENCE SHALL BE INSTALLED AROUND ANY TEMPORARY
- STOCKPILE AREAS. TEMPORARY VEGETATIVE COVER MAY BE REQUIRED (SEE NOTE). INLET SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED UNDER THE GRATES OF ALL NEW CATCH BASINS AT THE TIME OF INSTALLATION, AND UNDER THE GRATES OF EXISTING CATCH BASINS
- IN THE CONSTRUCTION AREA. CONTINUOUS DUST CONTROL USING WATER, CALCIUM CHLORIDE OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED
- TRENCHES AND GRAVELED ROADWAY SURFACES. 8. IF DEWATERING IS NECESSARY DURING ANY TIME OF CONSTRUCTION A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS SHOWN IN THE HAY-BALE BARRIER DEWATERING DETAIL OR ALTERNATE
- METHOD PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. ALL DISTURBED AREAS SHALL BE RESTORED PER THE SLOPE STABILIZATION AND PERMANENT VEGETATION DETAILS. ALL DISTURBED AREAS THAT ARE SLOPED LESS THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) SLOPE SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED PER THE PERMANENT VEGETATIVE COVER SPECIFICATIONS. EROSION CONTROL MATTING SHALL BE PROVIDED ON
- ALL DISTURBED AREAS THAT ARE SLOPED MORE THAN THREE HORIZONTAL TO ONE VERTICAL (3:1). 10. IF FINAL SEEDING OF DISTURBED AREAS IS NOT TO BE COMPLETED BEFORE OCTOBER 15, THE CONTRACTOR SHALL PROVIDE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY PERMANENT SEEDING.
- 11. WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISHED
- GRADED SHALL BE COMPLETED PRIOR TO OCTOBER 15. 12. ANY EROSION WHICH OCCURS WITHIN THE DISTURBED AREAS SHALL BE IMMEDIATELY REPAIRED AND STABILIZED. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE RETURNED TO THE SITE. POST SEEDING, INTERCEPTED SEDIMENT, IF ANY, SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE TOWN AND ENGINEER.
- 13. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS RE-ESTABLISHED OR SLOPES ARE STABILIZED AND REMOVAL IS APPROVED BY THE TOWN.
- 14. UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT
- 15. THE CONTRACTOR SHALL PROVIDE THE NAME AND EMERGENCY CONTACT INFORMATION FOR THE PROJECT PERSONNEL RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROLS PRIOR TO THE START OF CONSTRUCTION.



- * 100 LF OF SILT FENCE * 10 HAY BALES

* 10 CY OF WOOD CHIPS OR CRUSHED STONE

TEMPORARY VEGETATIVE COVER

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

PERMANENT VEGETATIVE COVER

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

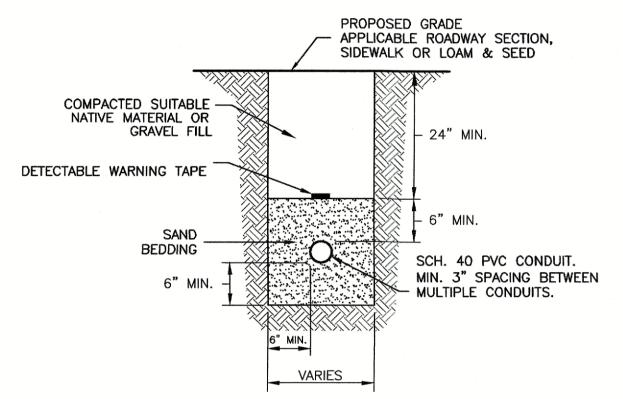
- APPLY AGRICULTURAL GROUND LIMESTONE AT THE RATE OF TWO TONS PER ACRE OR 100 LBS. PER 1000 S.F.
- APPLY 10-10-10 FERTILIZER OR EQUIVALENT AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER 1000 S.F.
- WORK LIMESTONE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES.
- INSPECT SEEDBED BEFORE SEEDING. -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

TYPICAL SEED MIXTURE

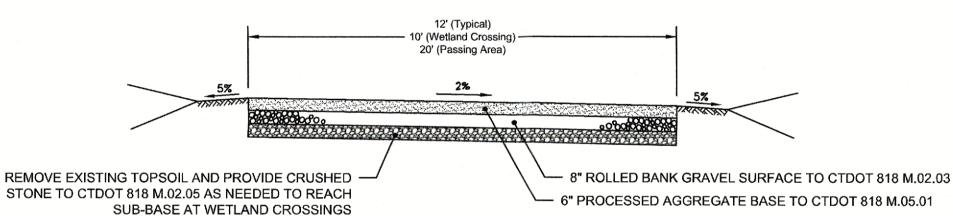
ALL DISTURBED AREAS KENTUCKY BLUEGRASS CREEPING RED FESCUE PERENNIAL RYEGRASS

APPLY THE FOLLOWING GRASS SEED MIX:

LBS./ACRE LBS./1000 S.F. 0.45 0.45

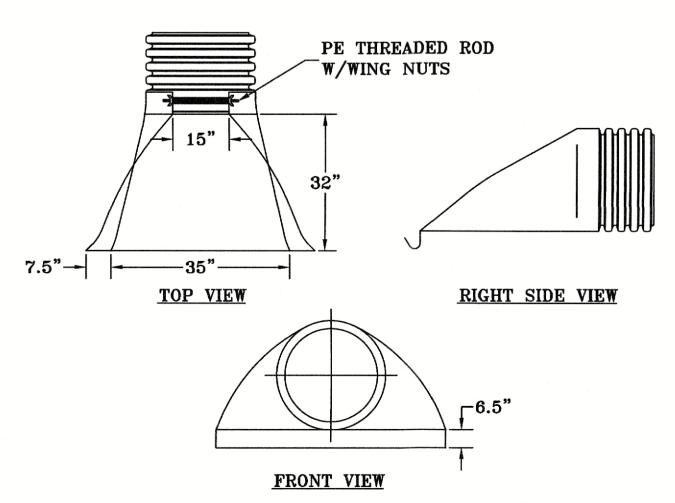


TRENCH DETAIL: ELECTRICAL CONDUIT NOT TO SCALE



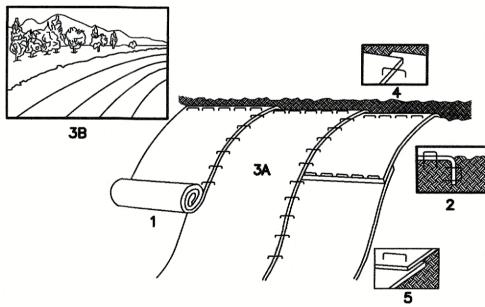
TYPICAL DRIVEWAY CROSS SECTION

NOT TO SCALE



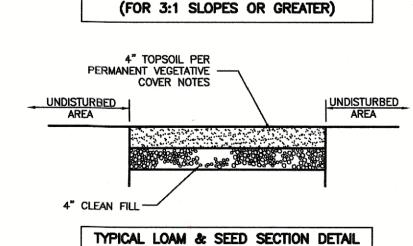
HDPE FLARED END SECTION

NOT TO SCALE



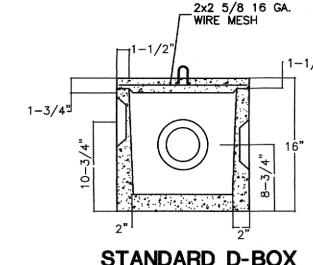
- PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAID FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZE & MULCH) BEGIN AT THE TOP OF THE SLOPE BY ANCHORING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

NOTE: ALL PERMANENT EROSION CONTROL BLANKETS ARE TO BE NORTH AMERICAN GREEN BIONET C125BN OR APPROVED EQUAL. EROSION CONTROL MATTING DETAIL

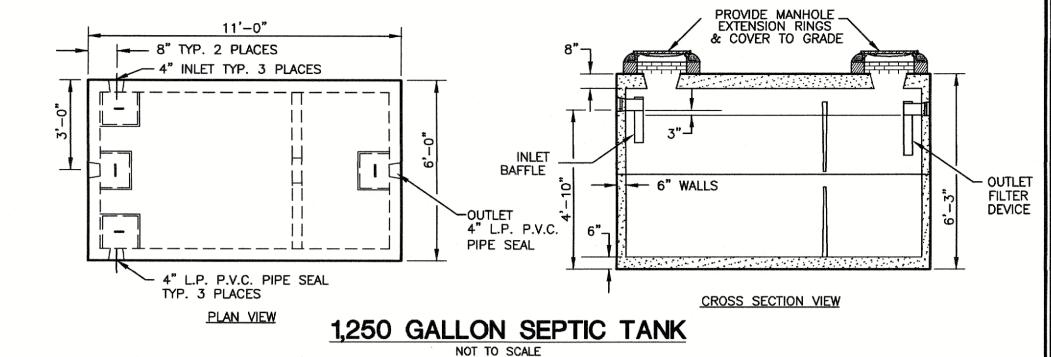


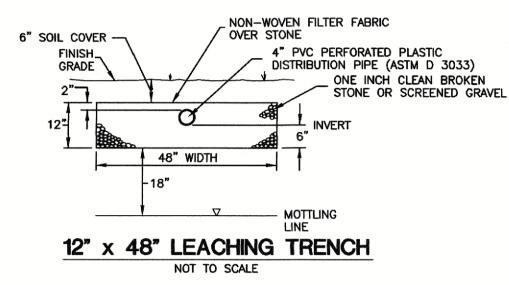
(FOR ALL DISTURBED AREAS) SLOPE STABILIZATION DETAILS

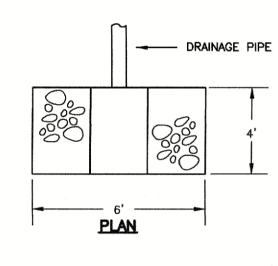
NOT TO SCALE

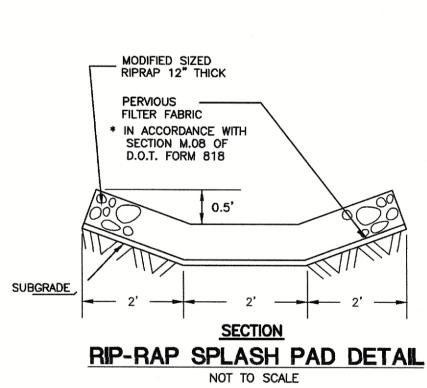


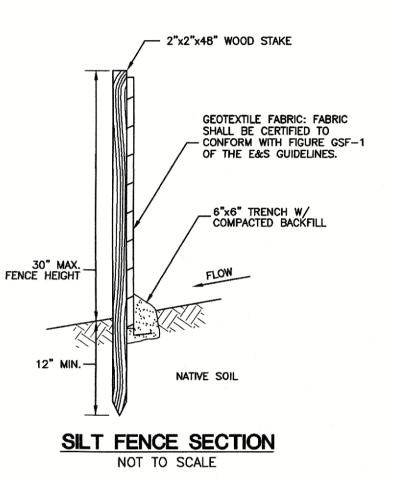
STANDARD D-BOX NOT TO SCALE

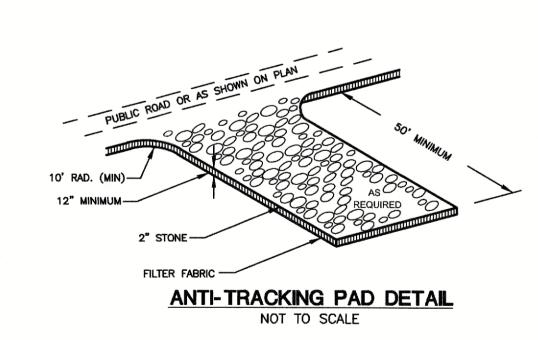


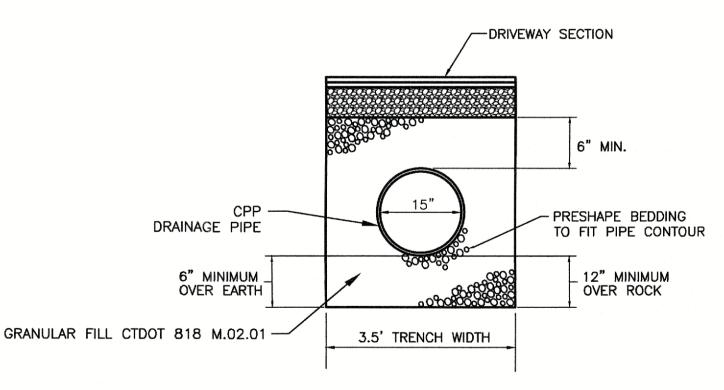




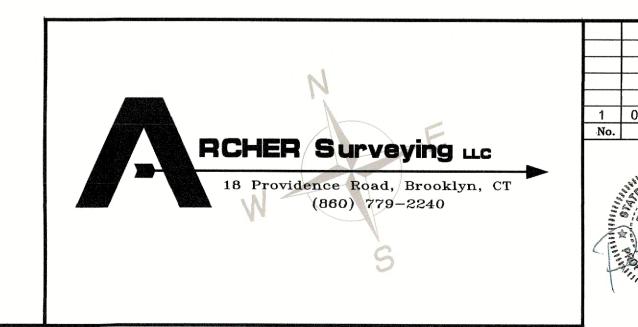


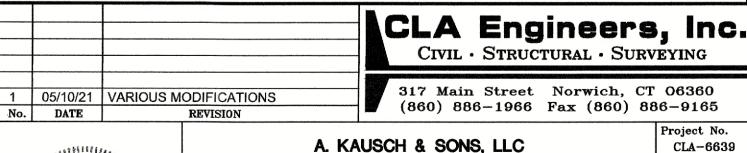






DRAINAGE PIPE BEDDING DETAIL NOT TO SCALE





LOTS 019-37-17, 019-37-20 & 019-37-21 CHURCH ST. SITE DEVELOPMENT BROOKLYN, CT

NOTES & CONSTRUCTION DETAILS

Proj. Enginee

R.A.D.

04/30/21

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Sheet No.