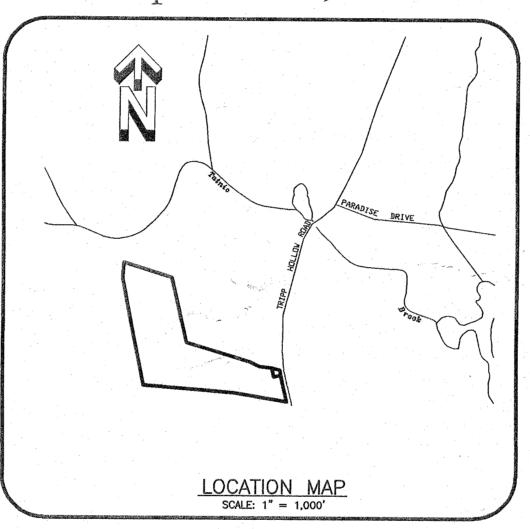
SUBDIVISION APPLICATION

PROPOSED 4 LOT SUBDIVISION

TRIPP HOLLOW ROAD BROOKLYN, CONNECTICUT

SQUARE 1 BUILDING ASSOCIATES

September 1, 2020



PREPARED BY:

RECEIVED DEC 2 4 2020

APPROVED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN

DATE

Expiration date per section 22A-42A of the Connecticut General Statutes.

Date:

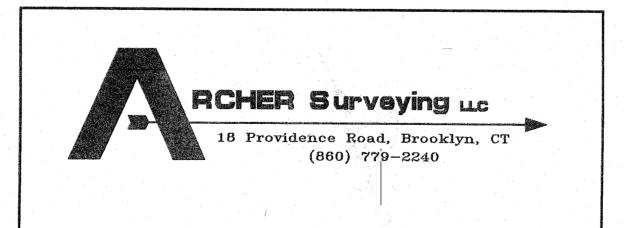
APPROVED BY THE BROOKLYN PLANNING AND ZONING COMMISSION

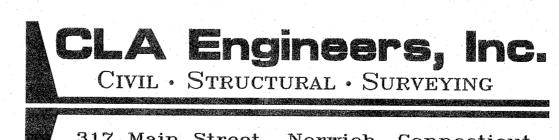
CHAIRMAN

DATE

Expiration date per section 8.26C of the Connecticut General Statutes.

Date:

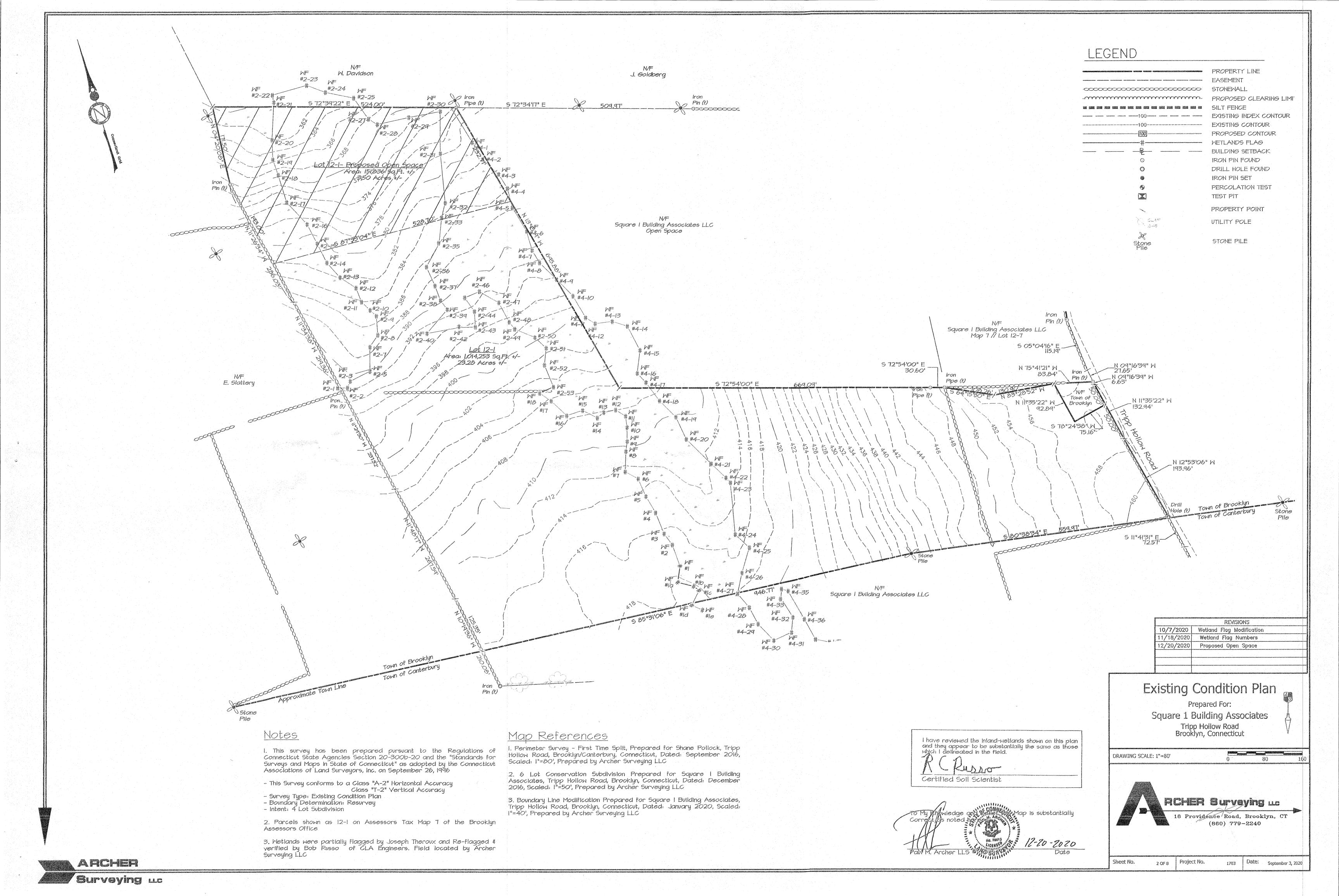


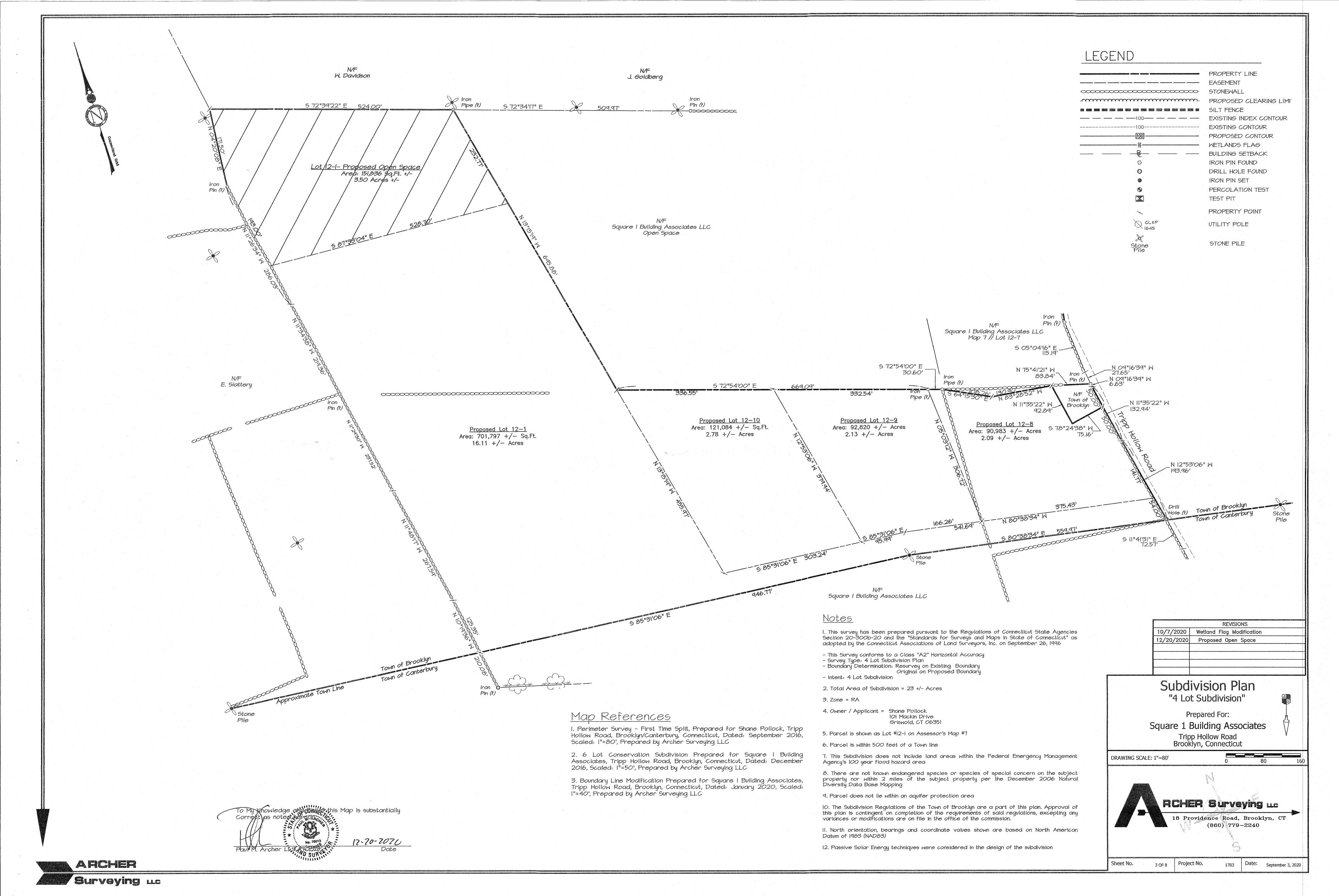


317 Main Street Norwich, Connecticut (860) 886-1966 Fax (860) 886-9165 e-mail: cla@claengineers.com

INDEX OF DRAWINGS

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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:

PERCENT PASSING WET SIEVE

70-100 10-50* 10-75 0-20 0 - 50 - 2.5

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

SEPTIC NOTES

- 1. PROPOSED SEPTIC SYSTEM TO BE STAKED IN THE FIELD BY A LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT.
- 2. A BENCHMARK SHALL BE SET WITHIN 10'-15' OF THE PROPOSED SEPTIC SYSTEM PRIOR TO CONSTRUCTION. 3. ALL WORK AND MATERIAL (SEPTIC TANK, DISTRIBUTION BOX, PIPE) SHALL CONFORM TO THE CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND
- STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEM. 4. SEWER LINE FROM FOUNDATION WALL TO SEPTIC TANK SHALL BE 4" SCHEDULE 40 PVC - ASTM D 1785 AND JOINTS PER HEALTH DEPT. CODE.
- PIPE FROM SEPTIC TANK TO DISTRIBUTION LINES SHALL BE 4" SOLID PVC CONFORMING TO 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 FOUR INCHES IN ACCORDANCE WITH THE SLOPE STABILIZATION DETAILS..

CONCEPT SEPTIC SYSTEM DESIGN

LOT 12-8 PRIMARY LEACHING AREA 3 BEDROOM RESIDENCE

PERCOLATION RATE: 13.3 MIN./INCH (NDDH FILE #21000003) LEACHING AREA REQUIRED: 675 SF

USE TRADITIONAL TRENCH EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF REQUIRED LENGTH = 675 SF / 3 SF/LF = 225 LF

MLSS CALCULATION
HYDRAULIC FACTORS DEPTH TO RESTRICTIVE LAYER = 28" SLOPE = 4.0%HYDRAULIC FACTOR (HF) = 34 FLOW FACTOR (FF) = 1.5

LEACHING AREA PROVIDED = 675 SF

PERCOLATION FACTOR (PF) = 1.25 (10.1 TO 20.0 MIN./INCH) MLSS REQUIRED: $34 \times 1.5 \times 1.25 = 63.75 LF$

RESERVE LEACHING AREA USE SAME AS PRIMARY SYSTEM

PROPOSED SYSTEM
USE 3 ROWS OF 75 LF

LOT 12-9 PRIMARY LEACHING AREA

3 BEDROOM RESIDENCE PERCOLATION RATE: 10 MIN./INCH (NDDH FILE #21000003)

USE TRADITIONAL TRENCH

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

MLSS CALCULATION HYDRAULIC FACTORS

DEPTH TO RESTRICTIVE LAYER = 24" SLOPE = 10.5%HYDRAULIC FACTOR (HF) = 26FLOW FACTOR (FF) = 1.5PERCOLATION FACTOR (PF) = 1.00 (UP TO 10.0 MIN./INCH) MLSS REQUIRED: $26 \times 1.5 \times 1.00 = 39 \text{ LF}$

PROPOSED SYSTEM
USE 3 ROWS OF 55 LF
LEACHING AREA PROVIDED = 495 SF

Lot 12-8

RESERVE LEACHING AREA USE SAME AS PRIMARY SYSTEM

Soil Test Data (NDDH File #21000003)

Soil Testing Conducted on 8/26/20 by Sherry McGann, R.S. & Sherry Vallone, E.H.S.

Lot 12-9

TP 2-B Mottles: 26"

Ground Water: N/0

TP 2-A Mottles: 24" <u>TP 1-A</u> Mottles: 28" Ground Water: N/O

Ground Water: N/0 Roots: 28" Roots: 24" Ledge: N/O Ledge: N/0 0-8" Topsoil 0-11" Topsoil 11-28" OB Very Fine Sandy Loam

8-24" OB Fine Sandy Loam 28-86" GR Mottled Sandy Loam Till 24-92" GR Mottled Sandy Loam Till

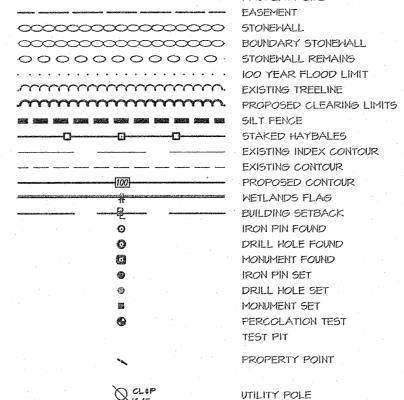
TP 1-B Mottles: 28" Ground Water: N/0 Roots: 28" Ledge: N/0

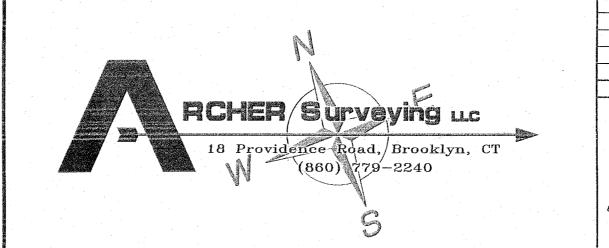
Roots: 26" Ledge: N/0 0-10" Topsoil 0-9" Topsoil

10-28" OB Very Fine Sandy Loam 9-26" OB Fine Sandy Loam 28-91" GR Mottled Sandy Loam Till 26-91" GR Mottled Sandy Loam Till

Perc 2A 1:38 2" Perc 1A 10:36 3" 10:46 5" 1:48 5 1/4" 10:56 7 1/2" 1:58 71/4" 2:08 9" 11:05 8 3/4" 2:18 10" 10.0 minutes/inch 11: 15 9 1/2" 11:25 101/4" 13:33 minutes/inch

PROPOSED SOLID PIPE TRANSITION FROM FOOTING DRAIN TO DAYLIGHT - PROPOSED SOLID PIPE TRANSITION FROM FOOTING DRAIN TO DAYLIGHT (TYP.). (POSSIBLE PUMP REQUIRED). $\frac{1}{0}$ Proposed Lot 12-9 Loopaanananand Area: 96,718 +/- Sqf - PROPOSED PERFORATED 2.22 +/- Acres FOOTING DRAIN - PROVIDE & MAINTAIN SILT FENCE (TYP.) ____ 1,000 GAL, SEPTIC TANK (TYP.) (PROVIDE COVERS TO GRADE) Proposed Lot 12-8 Area: 87,120+/− Sq.Ft. 2.00 +/- Acres PROVIDE & MAINTAIN infunction in the second SILT FENCE PERFORATED FOOTING the supplements DRAIN (ELE.=448±) PROVIDE & MAINTAIN · SILT FENCE **NPROPOSED** BEDROOM HOUS PROVIDE HAY BALE -RESERVE SEPTIC AREA CHECK DAM (SAME AS PRIMARY) (TYP. SEE DETAIL) STOCKPILE munitaling AREA information of the second of t PROVIDE 25' LONG X 20' WIDE : PASSING AREA PROVIDE 15" DRAIN PIPE -UNDER DRIVEWAY PRIMARY SEPTIC AREA -(3 ROWS OF 55' LONG TRENCHES PROVIDE 25' LONG X 20' WIDE -LEACHING AREA PROVIDED = 495 S.F.) 16' SHARED GRAVEL DRIVEWAY --PASSING AREA (SEE DETAIL) 50'x20' ANTI-TRACKING PAD PRIMARY SEPTIC AREA -(2" STONE ON FILTER FABRIC) (3 ROWS OF 75' LONG TRENCHES LEACHING AREA PROVIDED = 675 S.F.) SCALE: 1"=40' LEGEND PROPERTY LINE OOOOOOOOOOOOO BOUNDARY STONEWALL OOOOOOOO STONEWALL REMAINS EXISTING TREELINE MY PROPOSED CLEARING LIMITS SILT FENCE





NCCG COMMENTS ADDRESSED NCCG COMMENTS ADDRESSED WETLAND FLAGS CALLOUTS ADDED 2 | 09/28/20 1 09/20/20 VARIOUS MODIFICATIONS No. DATE REVISION

ACLA Engineers, Inc. CIVIL · STRUCTURAL · SURVEYING 317 Main Street Norwich, CT 06360

Date:

08/24/20

4 of 8

Sheet No.

(860) 886-1966 Fax (860) 886-9165 Project No. SQUARE 1 BUILDING ASSOCIATES. LLC CLA-6503 Proj. Engine D.H.

PROVIDE ELECTRICAL,

SERVICES (TYP.).

— PROPOSED WELL

TELEPHONE AND CABLE

PROPOSED PERFORATED

- PROVIDE 10' WIDE

GRAVEL DRIVEWAY

- PROVIDE BIT.

CONC. APRON

50'x20' ANTI-TRACKING PAD

(2" STONE ON FILTER FABRIC)

PROVIDE BIT.

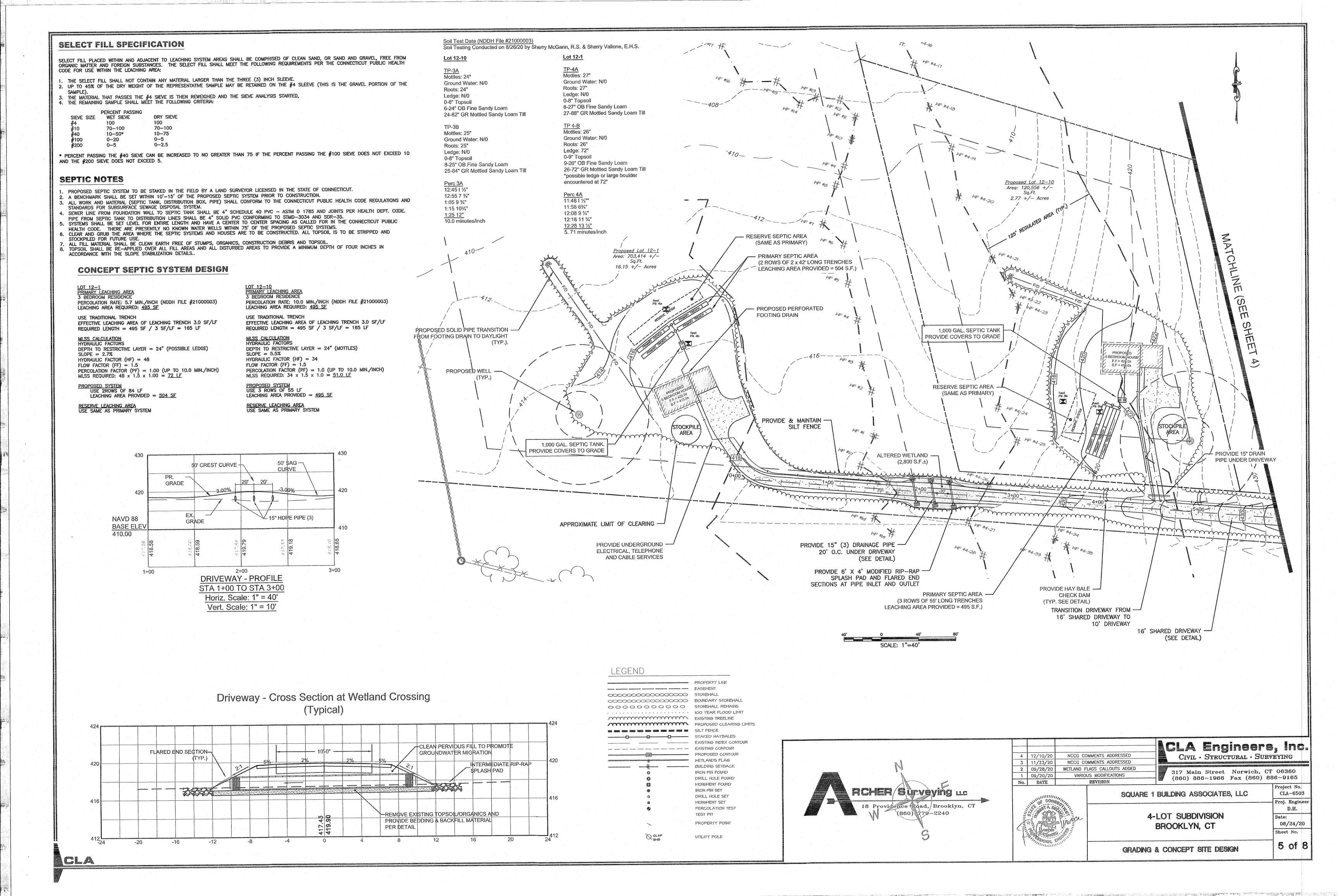
CONC. APRON

FOOTING DRAIN

(TYP.)

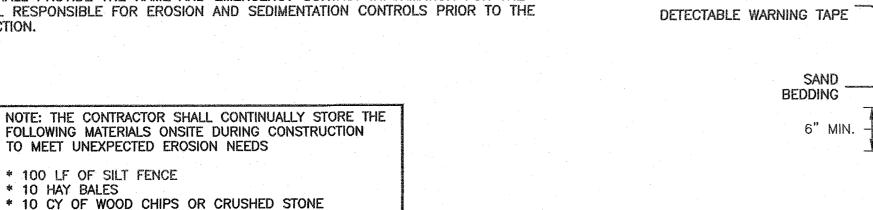
4-LOT SUBDIVISION BROOKLYN, CT

GRADING & CONCEPT SITE DESIGN



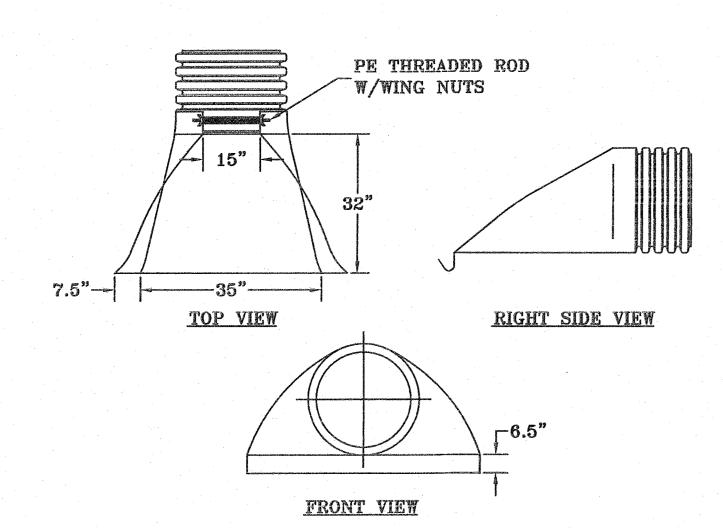
EROSION & SEDIMENTATION CONTROL NARRATIVE

- 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.



10' (Typical) - 8" ROLLED BANK GRAVEL SURFACE TO CTDOT 818 M.02.03 - 6" PROCESSED AGGREGATE BASE TO CTDOT 818 M.05.01

TYPICAL GRAVEL DRIVEWAY CROSS SECTION



HDPE FLARED END SECTION NOT TO SCALE

TEMPORARY VEGETATIVE COVER

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

PERMANENT VEGETATIVE COVER

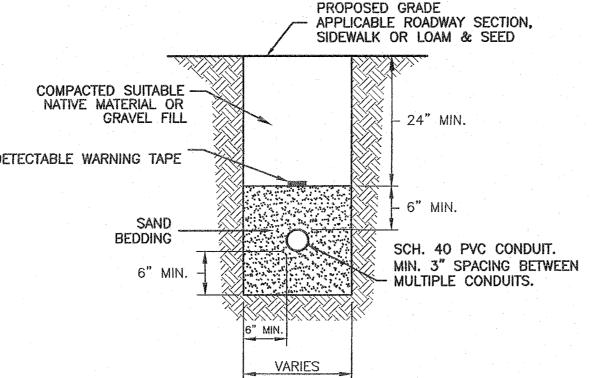
TOPSOIL WILL BE REPLACED ONCE THE EXCAVATIONS HAVE BEEN COMPLETED AND THE SLOPES ARE GRADED AS SHOWN ON THE PLANS. PROVIDE SLOPE PROTECTION AS CALLED FOR ON THE PLANS AND DETAILS. TOPSOIL SHALL BE SPREAD AT A MINIMUM COMPACTED DEPTH OF 4 INCHES. ONCE THE TOPSOIL HAS BEEN SPREAD, ALL STONES TWO INCHES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

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

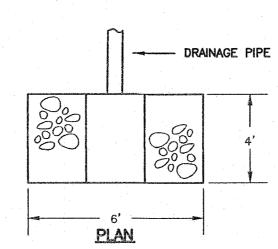
TYPICAL SEED MIXTURE

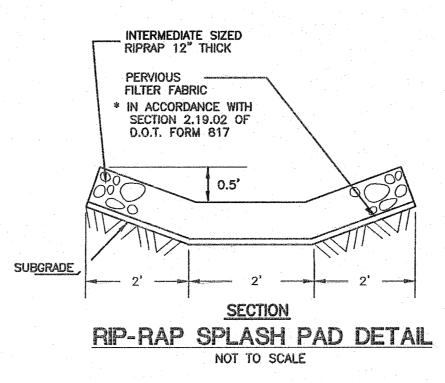
ALL DISTURBED AREAS KENTUCKY BLUEGRASS CREEPING RED FESCUE PERENNIAL RYEGRASS

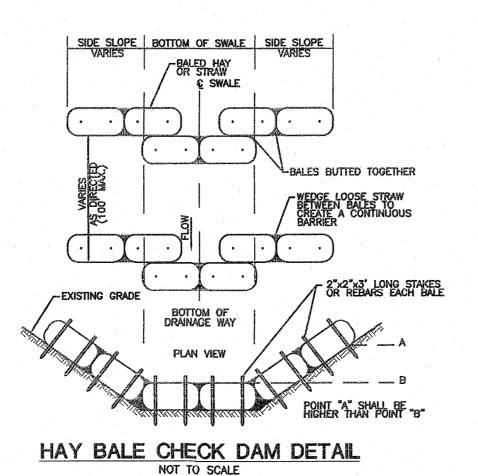
LBS./ACRE LBS./1000 S.F. 20 0.45

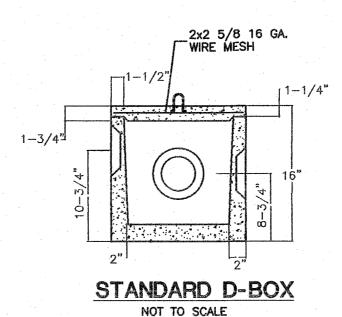


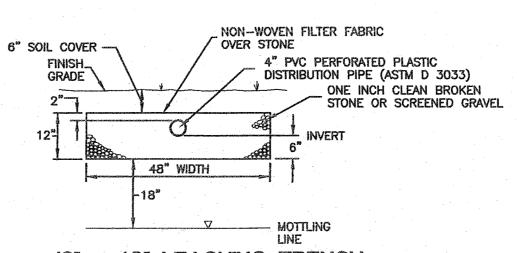
TRENCH DETAIL: ELECTRICAL CONDUIT NOT TO SCALE



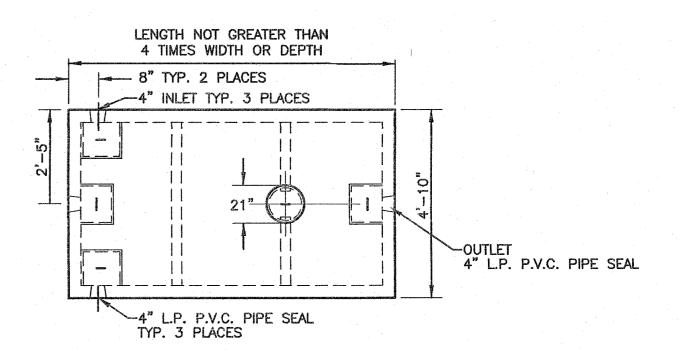


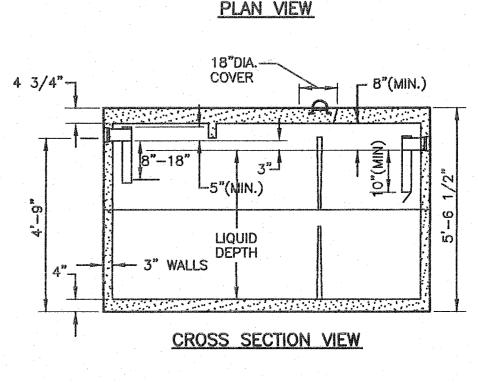




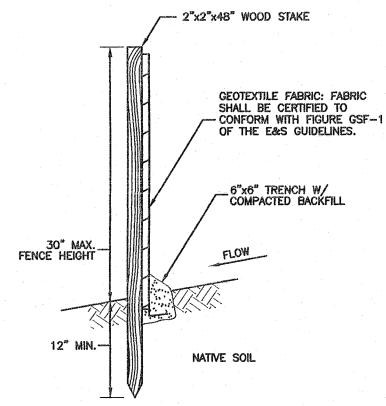


12" x 48" LEACHING TRENCH NOT TO SCALE

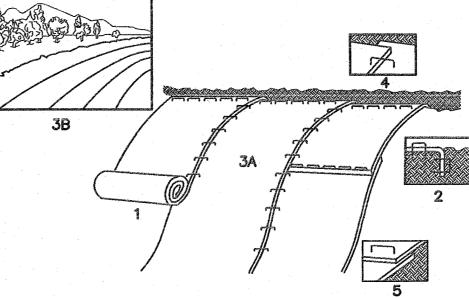




1,000 GALLON SEPTIC TANK

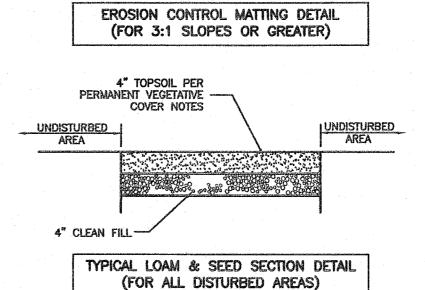


SILT FENCE SECTION NOT TO SCALE

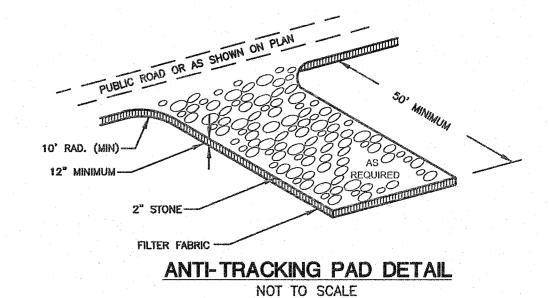


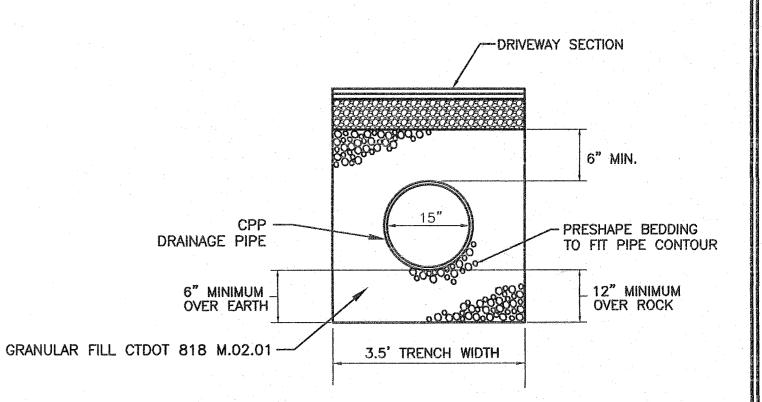
- 1. PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS. INCLUDING APPLICATION OF LIME
- FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAIL FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZE & MULCH) 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP \times 6" WIDE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. 3. ROLL THE BLANKET (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" 5. 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 EXUAL.



SLOPE STABILIZATION DETAILS NOT TO SCALE





DRAINAGE PIPE BEDDING DETAIL NOT TO SCALE

