

Job Name:

**Union Residence**

Address: 212 Morris Lane

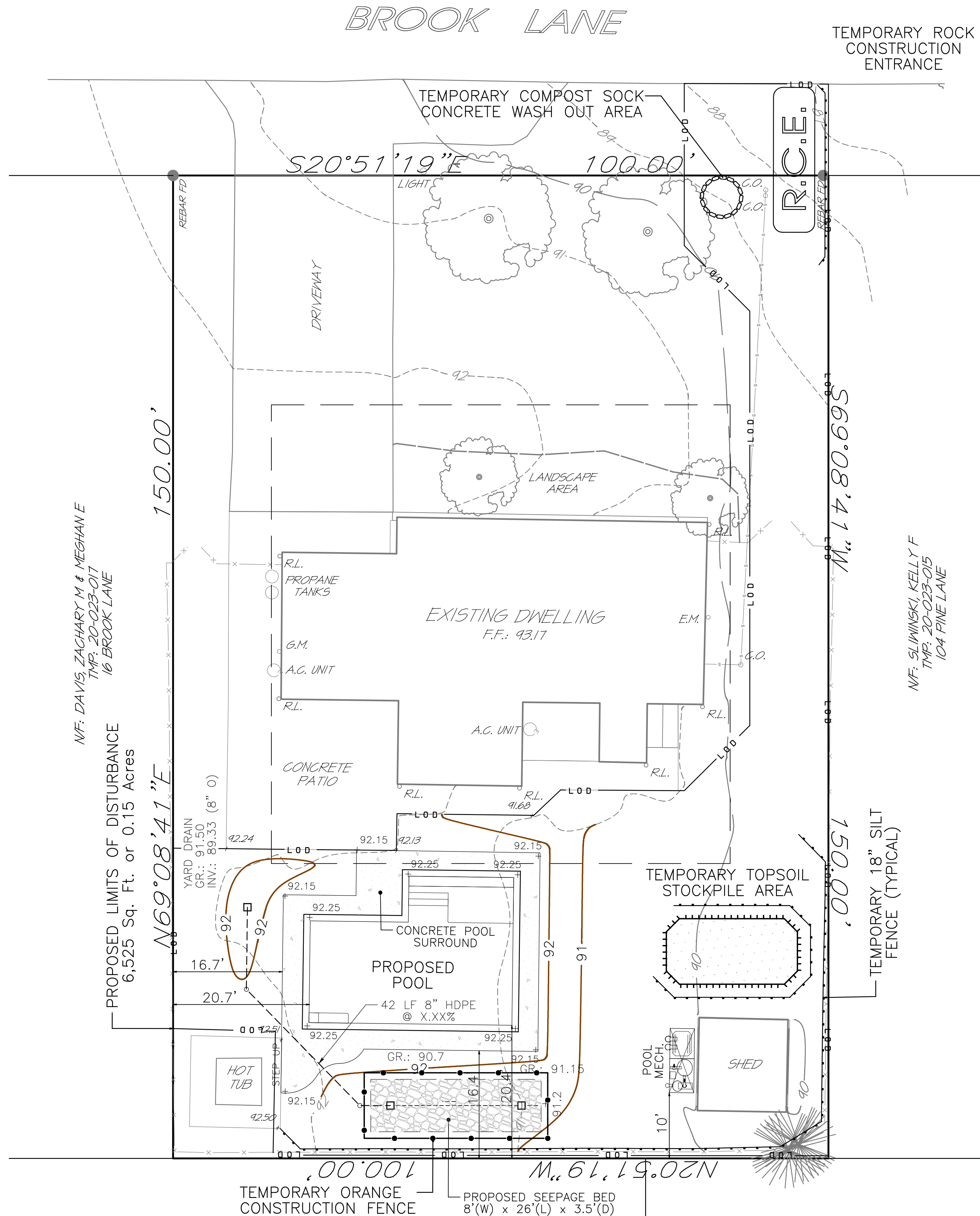
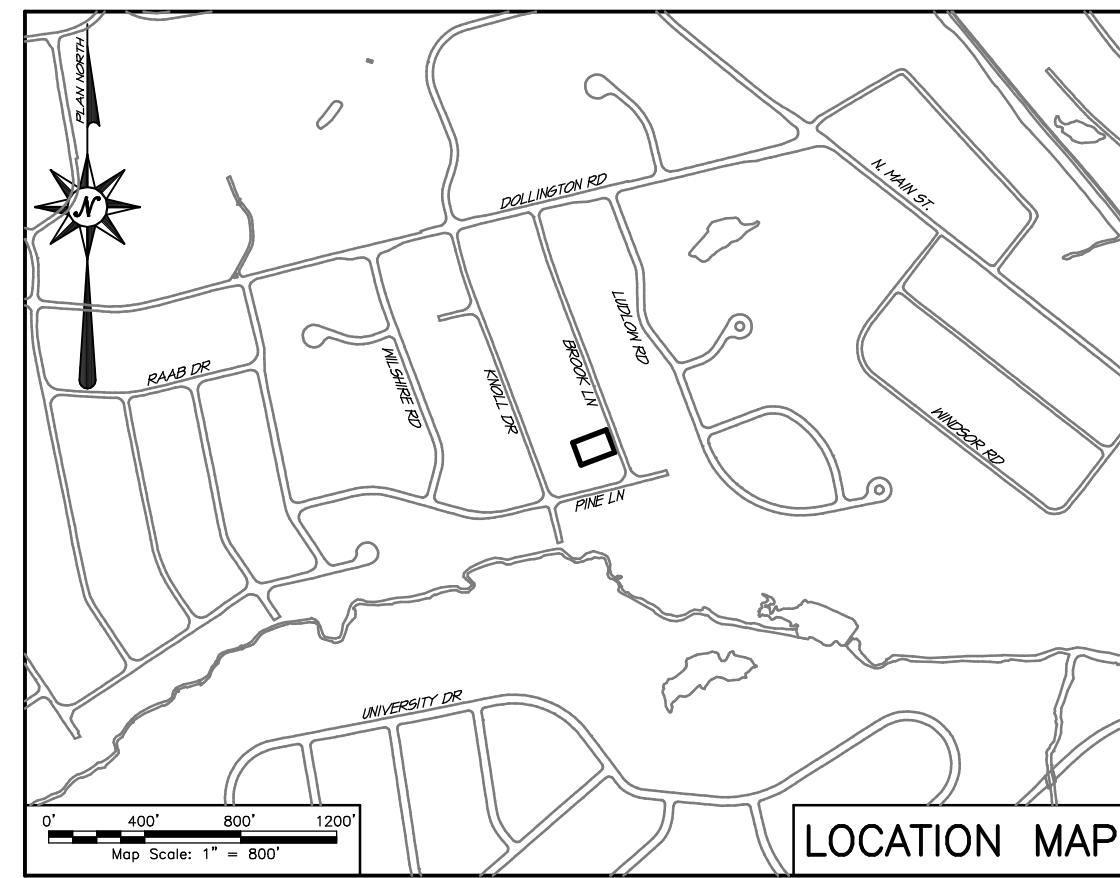
Scale:

Drawn By:

Description:

Revision Date 10/31/24





**GENERAL NOTES:**

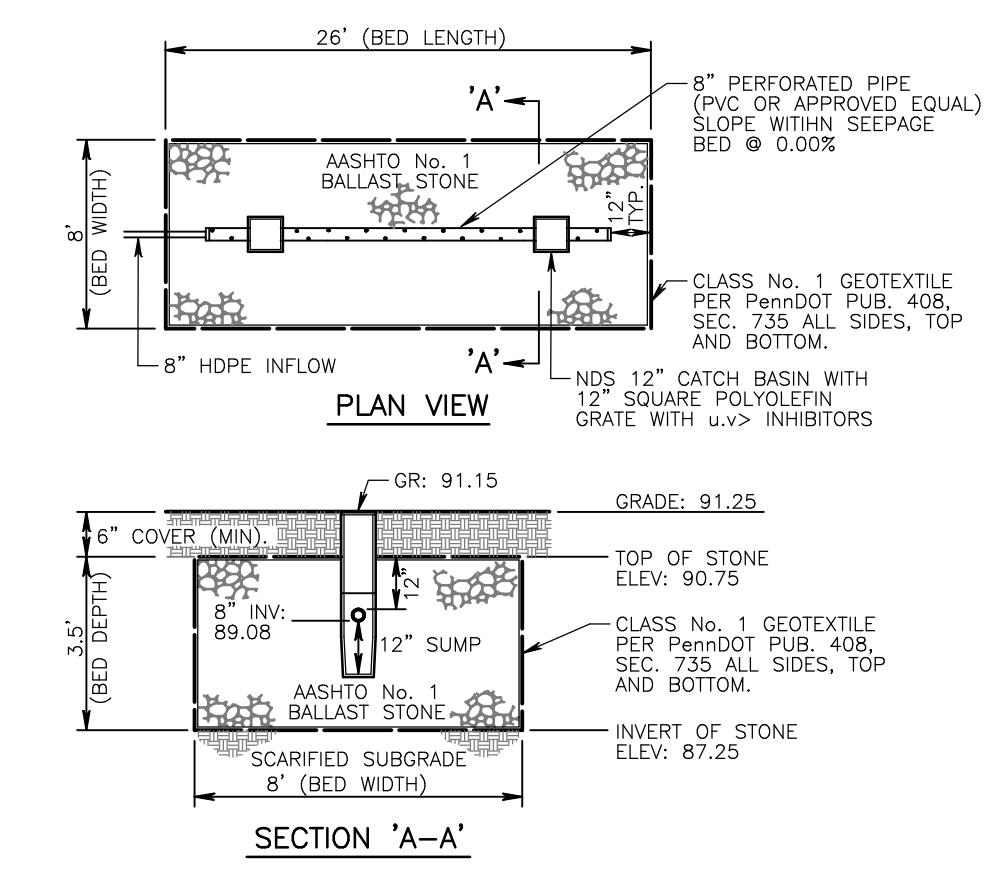
1. Outbound & topographic survey information was taken from a field survey performed by Woodrow & Associates, Inc. during the month of September 2024.
2. All proposed fencing shall comply with all applicable Township ordinance standards and specifications. All gates shall open in an outward direction and must be equipped with self-closing and latching devices in compliance with 2015 ISPS, Section 27-803.1, 11.1.1.0.
3. All proposed pool construction shall be in strict accordance with the 2015 International Swimming Pool and Spa Code, Section 305.
4. Temporary construction fence must be installed around the pool area once excavated and until such time the pool is filled and final perimeter pool fencing has been installed.
5. The Township Engineers office must be contacted a minimum of 48 hours in advance of installation of Stormwater Management Facilities.
6. Any damage within the right of way of Brook Lane caused by the contractor during pool construction shall be repaired/replaced as directed by the Township Engineer at the sole expense of the owner/contractor.
7. Each dwelling door that directly accesses the pool area shall be equipped with an alarm that sounds at least thirty (30) seconds when the door is opened and is audible throughout the dwelling. (Pennsylvania Uniform Construction Code - Swimming Pool).
8. The contractor shall make end-of-day checks on all Erosion & Sediment Control measures. Any repairs needed shall be corrected immediately.
9. During construction no mud may be tracked from the development onto the surrounding roadways (whether or not they are dedicated), and no oil or dirt from construction operations shall be permitted to settle on adjoining properties. Adequate water provisions shall be onsite to help contain dust to within the active work area.
10. The property owner shall sign and record an Operations and Maintenance Agreement with the Township for the proposed Storm Trap Basin.

**GRADING AND DRAINAGE NOTES:**

1. All contractors working on this project shall comply with the requirements of P.L. 852, No. 287, December 10, 1974, as amended on December 12, 1986 P.L. 1574, No. 172. Contractors must notify PA One Call System, Inc. three (3) days prior to the start of any construction. 1-800-242-7772.
2. Contractors shall not encroach onto adjoining properties unless a temporary grading easement has been obtained from the adjoining owners. All property lines must be adequately marked and any area that proposed grading encroaches within five (5) feet of the property line the contractor shall install temporary Orange Construction Fence to prevent encroachment onto adjoining properties.
3. All contractors working on this project shall ensure that all construction performed is in accordance with all applicable OSHA (Occupational Safety and Health Administration) standards and specifications.
4. The contractor shall ensure that all necessary permits and approvals have been obtained prior to commencement of any site construction activities.
5. Erosion and sedimentation control measures shall be in place and functional prior to any earth disturbance or grading work within the tributary area.
6. Burying of trees, tree stumps and construction debris is prohibited. All debris shall be removed and disposed of in strict accordance with all Federal, State and Local Municipality standards and specifications. Tree stumps may be ground or chipped and spread on site.
7. All construction requirements, methods, materials and specifications shall be in accordance with all Municipal Authority Standards, Municipality Standards and Penn-DOT Form 408 (Latest Edition) there in the case of conflict the more stringent requirement shall apply.
8. All precast storm sewer structures such as inlets, storm manholes, endwalls, etc. shall conform to the Commonwealth of Pennsylvania Department of Transportation Publication #72 (latest edition). Shop Drawings shall be submitted to the Township Engineers Office for review and approval prior to fabrication.
9. All utility installation must be in accordance with the requirements of the Pennsylvania Uniform Construction Code, as adopted by the Municipality.
10. All slopes with grades three (3) foot horizontal to one (1) foot vertical (3:1) shall be stabilized with a North American Green or approved equal Erosion Control Blanket installed in strict accordance with manufacturer standards and specifications. See Erosion Control Plans for location and details.
11. Any spring encountered during construction of the roadway shall be underdrained to the nearest inlet. Other spring locations found outside the roadway shall be underdrained to the nearest inlet or watercourse.
12. The minimum slope in grassed areas shall not be less than 2% and the minimum in paved areas shall not be less than 1%.
13. Site grading shall be performed in accordance with these plans. The contractor shall be responsible for removing and replacing all soil, yielding or unsuitable materials and replacing with suitable materials. All excavated or filled areas shall be compacted to 95% of modified proctor maximum density per A.S.T.M. Test D-1557, moisture content at time of placement shall be no more than 2% above nor 3% below optimum, contractor shall submit a compaction report prepared by a qualified soils engineer, registered within the state where the work is performed, verifying that all filled areas and subgrade areas within the building pad area and areas to be paved have been compacted in accordance with these plans.
14. Any/all storm water conveyance system(s) and detention facilities shown on these plans are a basic and perpetual part of the storm water management system for this Township, and as such, are to be protected, maintained and preserved in accordance with the approved final plans. The Township and/or its agents may reserve the right and privilege to enter upon such lands from time to time for the purpose of inspection of said storm water management system in order to determine that the structural design and integrity are being maintained.
15. A minimum of six (6) inches of clean topsoil shall be provided on all lawn and planting areas.
16. Subbase material for sidewalks, curb, or asphalt shall be free of organics and other unsuitable materials. Should subbase be deemed unsuitable, subbase is to be removed and filled with approved fill material compacted to 95% optimum density (as determined by modified proctor method).
17. Any damage caused within the right of way as a result of construction shall be repaired at the expense of the Owner.
18. The Owner agrees to make necessary corrective measures to alleviate any drainage issues that on this property and/or adjacent properties that might arise for a period of 6-months after the improvements have been completed, as deemed necessary by the Township.

**IMPERVIOUS SURFACE TABULATION:**

EXISTING:	MAX. IMPERVIOUS SURFACE:	R-2 RESIDENTIAL MEDIUM DISTRICT	PERCENT
DWELLING: 2,051 S.F.	DRIVEWAY: 1,254 S.F.	CONC. PATIO/WALKS: 1,145 S.F.	24%
HOT TUB PAD: 176 S.F.	SHED: 74 S.F.	BILCO: 32 S.F.	
SUBTOTAL: 4,732 S.F.			
POOL PERMIT PLAN:			
DWELLING: 2,051 S.F.	DRIVEWAY: 1,254 S.F.	CONC. PATIO/WALKS: 1,145 S.F.	
HOT TUB PAD: 176 S.F.	SHED: 74 S.F.	BILCO: 32 S.F.	
SUBTOTAL: 5,320 S.F.			
NET INCREASE: 588 S.F.			
PREDEVELOPMENT: 4,732 S.F. OR 31.55%			
POST DEVELOPMENT: 5,320 S.F. OR 35.47%			



**SEEPAGE BED CALCULATION**  
 NET SITE IMPERVIOUS INCREASE = (1,720) Sq. Ft.  
 RUN-OFF CAPTURE STORAGE REQUIRED:  
 $R_v = 2.00 \text{ in.} \times (\text{Total ImperVIOUS Area in Sq. Ft.}) = \text{Cu. Ft. of Recharge}$   
 $R_v = 2.00 \text{ in.} \times (1,720) = (286.667) \text{ Cu. Ft. of Recharge}$   
 $R_v = (286.667) / (0.40 \text{ Stone Voids}) = (716.667) \text{ Cu. Ft. SAY 720}$   
 $V_p = (8) \text{ Ft. Width} \times (26) \text{ Ft. Length} \times (3.5) \text{ Ft. Depth}$   
 $V_p = (728.0) \text{ Cu. Ft. Provided}$

**DOUBLE INLET IN-LINE SEEPAGE BED**  
 Not To Scale

**POST CONSTRUCTION MAINTENANCE PROGRAM:**

The applicant/owner, its assigns shall be responsible for the ownership and maintenance of the proposed BMP's shown on this plan in perpetuity. All BMP's shall be maintained in accordance with all applicable Township Standards and Specifications as so designated in the Ownership and Maintenance agreement as entered into between the Owner and the Township.

**MAINTENANCE OF THE SEEPAGE BED:**

1. The applicant/owner, shall ensure that all catch basins within the system are inspected and cleaned after each runoff event. Remove any debris such as lawn, clippings, leaves or accumulated trash that may prohibit runoff from entering the catch basins.
2. The applicant/owner, shall ensure that the overlying vegetation of the seepage bed should be maintained in good vegetated conditions, and any bare spots revegetated immediately.
3. The applicant/owner, shall ensure that no vehicular traffic is permitted over or on the seepage bed and care should be taken to avoid excessive compaction by lawn equipment.
4. The applicant/owner, shall ensure all roof leaders that lead to the seepage bed are free and clear of any debris that may cause clogging of the seepage bed inflow pipe. Quarterly flushing of the catch basins and inflow pipe are required.

Should any of the BMP's shown on this plan fail to function as designed, the applicant/owner shall be responsible for all corrective measures including but not limited to cleaning, flushing, repair or replacement as necessary or directed by the Township Engineers Office.

**OWNER ACKNOWLEDGEMENT:**

I/we Ernest P. Falco acknowledge that the stormwater management facilities shown on these plans can only be altered or removed after approval of a revised plan by the applicable municipality, owner also agrees to all above listed BMP maintenance program requirements.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

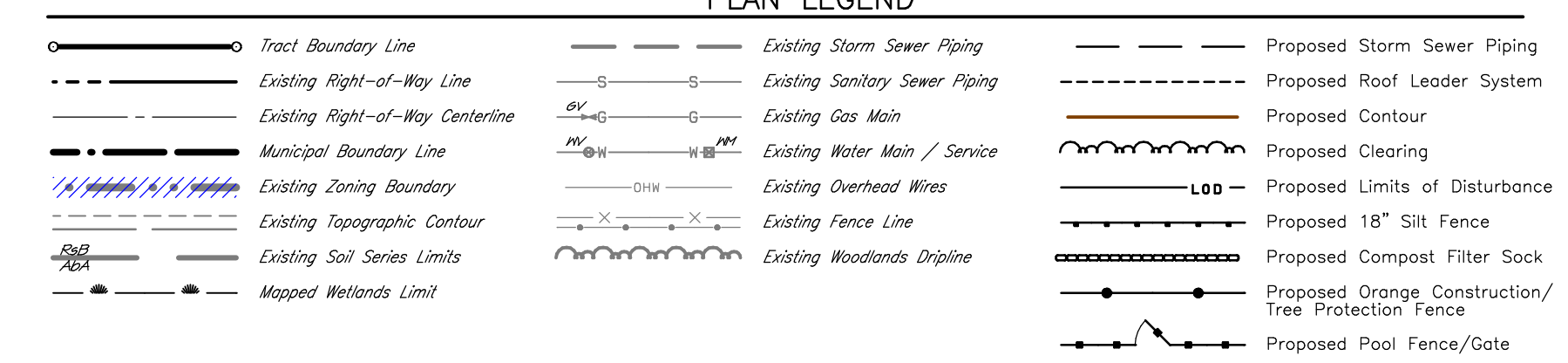
**PROJECT SOILS DATA**

Soils Type:	Slopes:	Depth to Restrictive Feature:	Depth to Water Table:	Hydrologic Soil Group:
Ux/D Urban-land Landscape Complex	0 to 8 percent	42-99' to lithic bedrock	>=80"	B

**ACKNOWLEDGEMENT:**

I, TIMOTHY P. WOODROW, P.E. ACKNOWLEDGE THAT THE PROPOSED GRADING ACTIVITIES SHOWN ON THIS PLAN SHALL NOT SIGNIFICANTLY INCREASE STORMWATER RUNOFF TO, AND/OR OTHERWISE ADVERSELY IMPACT, DOWNSTREAM PROPERTIES, EXCEPT AS MAY BE PART OF AN APPROVED STORMWATER RUNOFF COLLECTION AND MANAGEMENT PLAN.

Signature: \_\_\_\_\_ Date: 10/03/2022

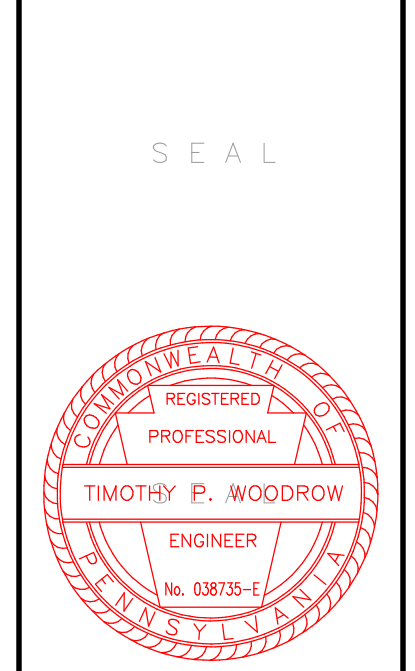
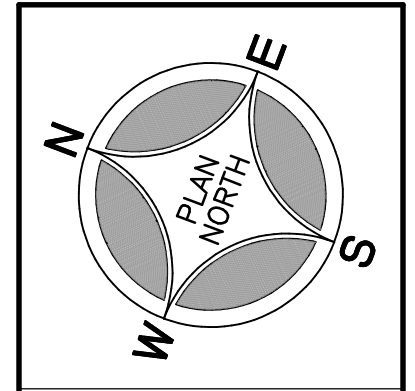


**PROJECT SHEET INDEX**

SHEET NO.	SHEET DESCRIPTION:
1 of 2	SITE IMPROVEMENTS PLAN
2 of 2	CONSTRUCTION DETAILS SHEET 'A'

**REVISIONS**

NO.	DATE	DESCRIPTION



PROJECT SERIAL NUMBER FOR DESIGN: 2023-016  
 Month: \_\_\_\_\_ 2023

**Pennsylvania 811**  
 A Heavy Line and Light Penetration Corporation

Parcel Information:  
 20-023-016  
 Block 023 Unit 016

Deed Area: 15,000 Sq. Ft.  
 Legal RW: n/a  
 Util. RW: n/a  
 NET Area: 15,000 Sq. Ft.

Applicant:  
**Ernest P. Falco**  
 18 Brook Lane  
 Yardley, PA 19067

Scale in Feet (1" = 20')  
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 ALL RIGHTS RESERVED

**WOODROW & ASSOCIATES, INC.**  
 MUNICIPAL / CIVIL CONSULTING ENGINEERS  
 1108 North Bethlehem Pike / Suite 5 - Lower Gwynedd - PA 19002  
 Phone: (215) 242-2948 Web: www.woodrowinc.com

Layer List:  
 Sh01\_PPP  
 Job No:  
 19-501-D24-08  
 Plan Date:  
 SEPTEMBER 18, 2024  
 Sheet No:



# EROSION and SEDIMENTATION CONTROL

## I. GENERAL NOTES:

- All earth disturbance activities shall proceed in accordance with the following construction sequence, each stage shall be completed before any following stage is initiated. Clearing and grubbing shall be limited to those areas designated in each stage.
- At least 7 days before starting any earth disturbance activities, the operator shall invite all interested parties to inspect the site. The interested parties shall include the local conservation district, the local conservation district engineer, and the local county conservation district engineer.
- At least 3 days before starting any earth disturbance activities, all contractors involved in these activities shall submit a One Call System, Form 23 (1-242-1776) for locations of all buried utilities within the permitted area.
- All structures associated with the construction of sediment removal facilities must be in place (functional) prior to any earth disturbance within the tributary area.
- If at any time prior to stabilization any EAS problems occur which require additional measures, immediate action must be taken to correct the problem.
- The local County Conservation District must be notified at least three days prior to any earth disturbance activity.
- The Erosion and Sedimentation Control Plan was prepared by the staff of Woodrow & Associates, Inc. under the direction of Mr. Timothy P. Woodrow, P.E.
- Any sediment removed from the BMPs may be used in landscaped areas associated with a temporary seep and much applied at the recommended rates.

# STANDARD PLAN NOTES

## VI. RECYCLING AND DISPOSAL METHODS:

- 102.2(a): This chapter requires persons preparing or conducting earth disturbance activities to design and maintain BMPs to minimize the potential for accelerated erosion and sedimentation.
- Stockpile heights must not exceed 35 feet. Stockpile slopes must be 2:1 or flatter.
- The operator/responsible person (O/R/P) in site shall ensure that the approved erosion and sedimentation control plan is being implemented and maintained for the duration of construction. BMPs shall be maintained for the duration of construction.
- Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and sedimentation, the O/R/P shall immediately notify the local conservation district engineer to initiate potential for accelerated erosion and sedimentation.
- The O/R/P shall ensure that an erosion and sediment control plan has been prepared, approved by the local Conservation District, and is being implemented and maintained for the duration of construction.
- All pumping of sediment-laden water shall be through a sediment control BMP, such as a sand trap, silt filter bag discharging over undisturbed areas.
- A copy of the approved erosion and sediment control plan must be available on the project site at all times.
- Erosion and sediment BMPs must be constructed, stabilized and functional before site disturbance begins within the tributary area of those BMPs.
- After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed. Areas disturbed during removal of the BMPs must be stabilized immediately.
- At least (7) days before starting any earth disturbance activity, the O/R/P shall invite all interested parties to inspect the site. The interested parties shall include the local conservation district engineer, the local conservation district engineer, and the local county conservation district engineer.
- Immediately after earth disturbance activities cease, the O/R/P shall stabilize any areas disturbed by the activity. During non-rainfall periods, much must be applied at the recommended rates. Disturbed areas which are not stabilized prior to the start of rain must be stabilized in accordance with the temporary vegetative stabilization methods or other methods approved by the local conservation district engineer within one year must be stabilized in accordance with the permanent vegetative stabilization methods or other methods approved by the local conservation district engineer.
- Upon temporary cessation of an earth disturbance activity that will exceed 72 hours, the site shall be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending final stabilization.
- An area shall be considered to have achieved final stabilization when it has a minimum percent (percentage) vegetative cover or other permanent non-vegetative cover to a density sufficient to prevent soil erosion. This density shall be determined by the local conservation district engineer or other authorized personnel. The O/R/P shall ensure that the area is stabilized and maintained to resist sliding and other movement.
- Until a site is stabilized, erosion and sediment BMPs must be maintained properly. Maintenance must include inspections of all erosion control BMPs after each runoff event to ensure proper operation. Erosion and sediment BMPs that are not functioning properly shall be repaired, replaced, re-grassed, re-seeded, re-mulched and re-netting must be performed after each runoff event. Erosion and sediment BMPs that are not functioning properly shall be repaired, replaced, re-grassed, re-seeded, re-mulched and re-netting must be performed after each runoff event.
- Sediment removed from BMPs shall be disposed of on-site in landscaped areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized or placed in soil stockpiles and stabilized.
- All building materials and wastes must be removed from the site and recycled in accordance with DEP's Solid Waste Regulations (29 Pa Code 201.41 et seq., 271.1 et seq. and 287.1 et seq.), and/or any additional local, state or federal regulations. No building materials (such as asphalt) or other materials shall be stored, used, burned, dumped or discharged on the site.
- Upon temporary cessation of activity on site longer than 72 hours, the site will be temporarily stabilized with straw mulch or an equivalent.
- During grading operations, necessary measures for dust control shall be exercised.

## III. INTENT OF CONSTRUCTION PROGRAM:

The intent of this program is to prevent accelerated erosion of the exposed site soils during the construction and permanent site development. The program requires retention of all sediments on the construction site while minimizing the impact of erosion and sediment on the receiving water body. These objectives will be achieved by minimizing exposure time of potentially erodible soils to runoff and installation of the temporary and permanent construction practices in proper sequence. The program requires the design and construction of sediment removal facilities that will be designed and implemented throughout the entire development. The various sediment removal methods must be designed and directed to prevent undue disturbance of prepared and protected surfaces.

## IV. SURFACE STABILIZATION CRITERIA:

All denuded soil surfaces including soil stockpiles that are subject to erosion shall be stabilized either temporarily or permanently. Stabilized areas on government subsidence is considered adequate protection. Disturbed areas which are not stabilized prior to the start of rain must be stabilized in accordance with the temporary vegetative stabilization methods or other methods approved by the local conservation district engineer within one year must be stabilized in accordance with the permanent vegetative stabilization methods or other methods approved by the local conservation district engineer. Sedimentation period shall be from April 1st to June 15th and August 15th to October 15th, during non-rainfall periods mulched areas shall be limited, fertilized, seeded and mulched.

## V. EROSION CONTROL DEVICES / MAINTENANCE PROGRAM:

**STABILIZED CONSTRUCTION ENTRANCE:**  
Entrances are to be constructed per Ch. 102 Standard Construction Detail #16 and the details provided with this plan set. The stabilized construction entrance shall be maintained so that sedimentation does not become ineffective. Any buildup of mud or soil on the street shall be cleaned at the end of each working day by hand or mechanical sweeping.

**SILT FENCES:**  
Silt fences shall be installed per Ch. 102 Standard Construction Detail #19-22 the construction details provided, with rock outlets at existing and graded low points. Sediment shall be installed per Ch. 102 Standard Construction Detail #19-22 the construction details provided, with rock outlets at existing and graded low points. Sediment shall be installed per Ch. 102 Standard Construction Detail #19-22 the construction details provided, with rock outlets at existing and graded low points. Sediment shall be installed per Ch. 102 Standard Construction Detail #19-22 the construction details provided, with rock outlets at existing and graded low points.

## VI. UTILITY TRENCH EXCAVATION:

Utility trench excavation shall be completed in accordance with the following requirements:

- Expose trench excavations have high potential for accelerated erosion and sedimentation. Since these excavations are usually located at lower elevations along or across earth disturbance sites, open trenches serve to concentrate sediment upon runoff and convey it to site boundaries or waterways. The most important erosion and sediment pollution control consideration for trench construction is limiting and specific scheduling of work activities.
- Limit advance clearing and grubbing operations to a distance equal to two times the length of pipe installation that can be completed in one day.
- Work crews and equipment for trenching, placement of pipe, plug construction and backfilling will be self contained and separate from clearing and site restoration and stabilization operations.
- Limit daily trench excavation to the length of pipe placement, plug installation and backfilling that can be completed the same day.
- Water which accumulates in the open trench will be completely removed by pumping in accordance with item 6.5 of section m, before pipe placement and/or backfilling begins.
- On the day following pipe placement and trench backfilling, the disturbed area will be graded to final contours and appropriate temporary erosion and sediment pollution control measures/facilities will be installed. Seeding and mulching of disturbed areas will be done at the end of each week.

## VII. SOLID RESOLUTIONS:

**Water Grading:**  
Contractor to ensure proper stabilization. Methods to include, seeding and mulching at the recommended rates and were necessary the placement of an approved erosion control blanket.

**Road Fill:**  
Contractor to ensure all fill used for roadway construction is placed and compacted in appropriate lifts. Should material not be suitable for roadway construction the contractor may import suitable material from an area within the permitted area.

**Topsoil:**  
Contractor to ensure proper stabilization. Methods to include, seeding and mulching at the recommended rates and were necessary the placement of an approved erosion control blanket.

**Concrete Washout Areas:**  
Contractor to ensure all fill used for basin embankment construction is placed and compacted in appropriate lifts. Should material not be suitable for basin embankment construction the contractor may import suitable material from an area within the permitted area.

**Concretes, Diversions and Wetlands:**  
Contractor to ensure all fill used for basin embankment construction is placed and compacted in appropriate lifts. Should material not be suitable for basin embankment construction the contractor may import suitable material from an area within the permitted area.

## VIII. MULCHING AND SEEDING SPECIFICATIONS:

All seeded areas should be mulched or blanketed to minimize the potential for failure to establish desired vegetation cover. Mulching may also be used as a temporary stabilization of disturbed areas until the permanent stabilization measures are implemented. Mulching should be applied immediately after seeding or at the termination of grading operations during non-rainfall periods.

Straw and hay mulch should be anchored or tacked immediately after application to prevent blowing away. A tractor-driven roller or similar device should be used to apply the mulch at a depth of 3 inches deep. This method should be limited to slopes no steeper than 3:1V. The mulch should be applied in a continuous blanket, until seeding is completed. If directed, increase the rate of application, depending upon the material, season, soil conditions or method of application.

Synthetic binders, or chemical binders, may be used as recommended by the manufacturer to anchor mulch in place. Synthetic binders should be applied in accordance with the manufacturer's instructions. Mulch on slopes of 6% or steeper should be held in place with light-weight plastic, fiber, or paper nets may be applied over the mulch according to manufacturer's recommendations.

Shaded paper hydro-mulch should not be used on slopes steeper than 5:1. Wood fiber hydro-mulch may be used on slopes steeper than 4:1. A tarp should be applied over this hydro-mulch should be 2000 lb/ac at a minimum.

## IX. SOIL AMENDMENT APPLICATION RATES:

Mulch Type:	Per Acre:	Per 1,000 S.F.:	Per 1,000 S.F.:	Notes:
Straw	3 tons	140 lbs.	1,240 lbs.	Either wheat or oat straw, free of weeds, not chipped or baled.
Hay	3 tons	140 lbs.	1,240 lbs.	Timothy, mixed cover and clover, free of weeds, not chipped or baled.
Wood Chips	4-6 tons	185-275 lbs.	1,850-2,500 lbs.	Must present permission of sites and legumes
Hydrumim 1 ton	47 lbs.	415		See limitations above

## VI. RECYCLING AND DISPOSAL METHODS:

The contractor shall follow all Local Ordinances when handling and disposing of construction trash including any Local Recycling Programs.

## III. INTENT OF CONSTRUCTION PROGRAM:

The intent of this program is to prevent accelerated erosion of the exposed site soils during the construction and permanent site development. The program requires retention of all sediments on the construction site while minimizing the impact of erosion and sediment on the receiving water body. These objectives will be achieved by minimizing exposure time of potentially erodible soils to runoff and installation of the temporary and permanent construction practices in proper sequence. The program requires the design and construction of sediment removal facilities that will be designed and implemented throughout the entire development. The various sediment removal methods must be designed and directed to prevent undue disturbance of prepared and protected surfaces.

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- Limit advance clearing and grubbing operations to a distance equal to two times the length of pipe installation that can be completed in one day.
- Work crews and equipment for trenching, placement of pipe, plug construction and backfilling will be self contained and separate from clearing and site restoration and stabilization operations.
- Limit daily trench excavation to the length of pipe placement, plug installation and backfilling that can be completed the same day.
- Water which accumulates in the open trench will be completely removed by pumping in accordance with item 6.5 of section m, before pipe placement and/or backfilling begins.
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**Water Grading:**  
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Synthetic binders, or chemical binders, may be used as recommended by the manufacturer to anchor mulch in place. Synthetic binders should be applied in accordance with the manufacturer's instructions. Mulch on slopes of 6% or steeper should be held in place with light-weight plastic, fiber, or paper nets may be applied over the mulch according to manufacturer's recommendations.

Shaded paper hydro-mulch should not be used on slopes steeper than 5:1. Wood fiber hydro-mulch may be used on slopes steeper than 4:1. A tarp should be applied over this hydro-mulch should be 2000 lb/ac at a minimum.

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Wood Chips	4-6 tons	185-275 lbs.	1,850-2,500 lbs.	Must present permission of sites and legumes
Hydrumim 1 ton	47 lbs.	415		See limitations above

## SEEDING SCHEDULE:

Seeding to conform to specifications outlined in Section 804 – Seeding and Soil Supplements of PADOT Publication 408/2003 (latest revision).

A silt test should be performed in order to determine actual time and fertilizer needs of the project site instead of using the generic application rates listed below.

## TEMPORARY SEEDING SPECIFICATION – FORMULA E:

100% ANNUAL REGRASS (LOLIUM MULTIFLORUM) 10.0 lbs./1,000 sq. ft.

70% Tall Fescue (Festuca Arvensis var., Kentucky 31): 15.0 lbs./1,000 sq. ft.

30% Creeping Red Fescue or Chewings Fescue: 6.0 lbs./1,000 sq. ft.

## SEEDING RATES FOR THE ABOVE MIXTURES:

Spread seeds where indicated and at the rates specified above (and Table A, Pub. 408, Section 804). Spread seeds with the following dates, or as otherwise indicated or directed:

- Formula B: August 01 to October 15
- Formula E: March 15 to October 15

## SOIL SUPPLEMENTS:

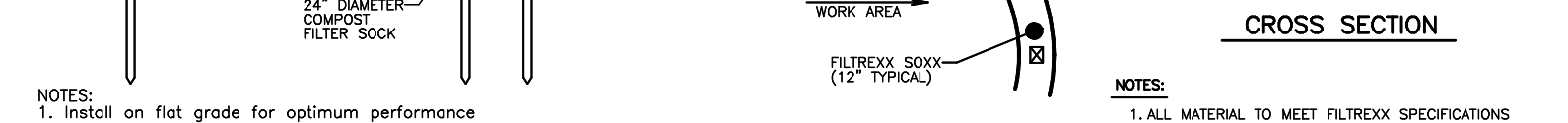
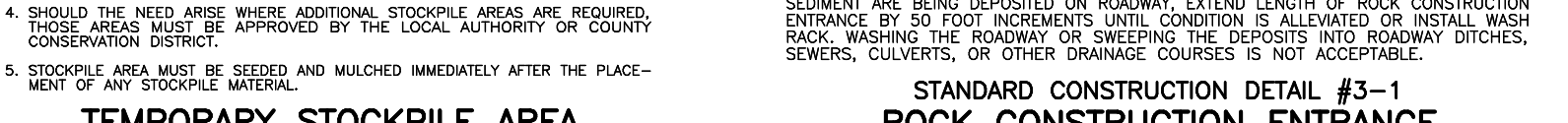
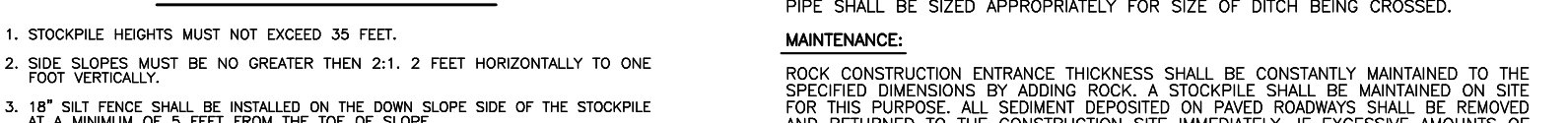
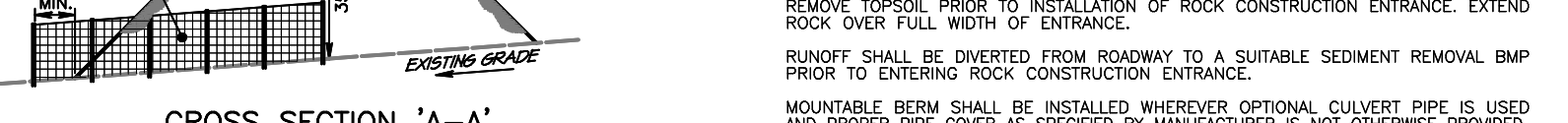
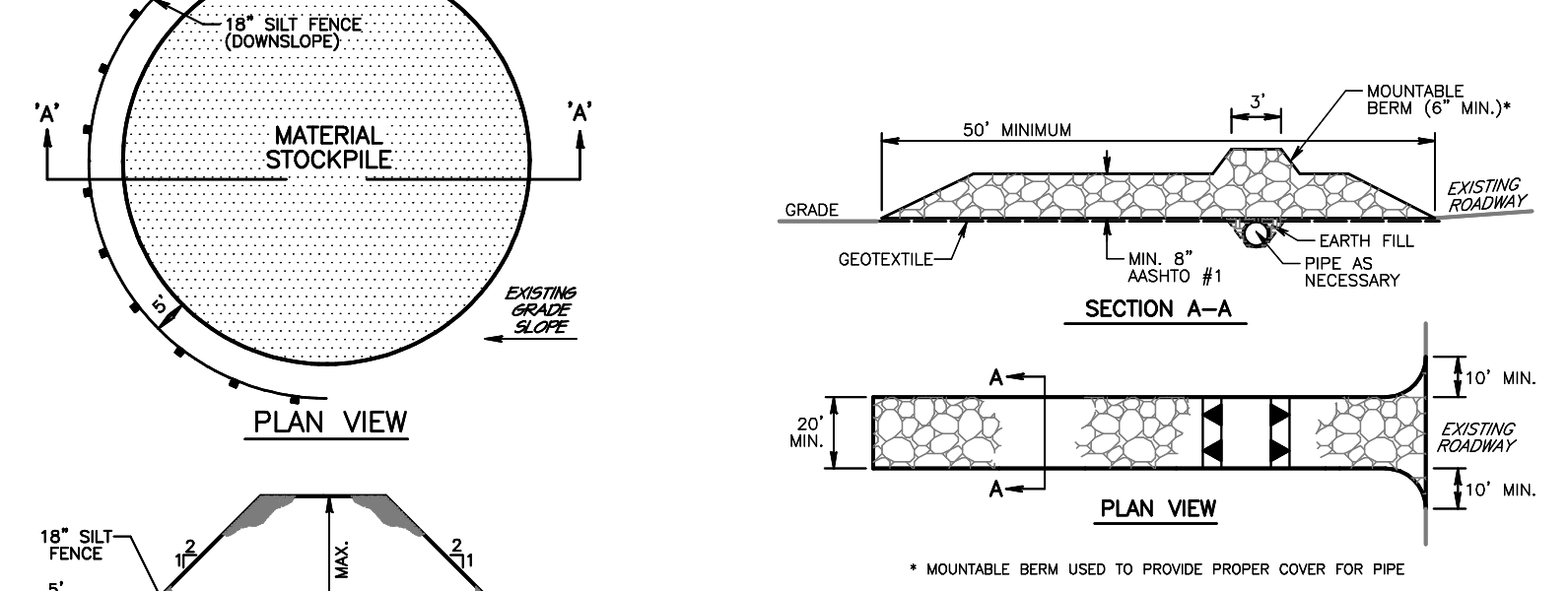
Purchased agricultural limestone and commercial fertilizer shall be applied to all disturbed areas where it is needed in both temporary and permanent conditions at the following rates:

Soil Amendment	Permanent Seeding Application Rate	Notes
Agricultural Lime	6 tons 240 lb. 2,480 lb.	Or as per soil test; may not be required in agricultural fields
10-10-20 Fertilizer	1,000 lb. 25 lb. 210 lb.	Or as per soil test; may not be required in agricultural fields

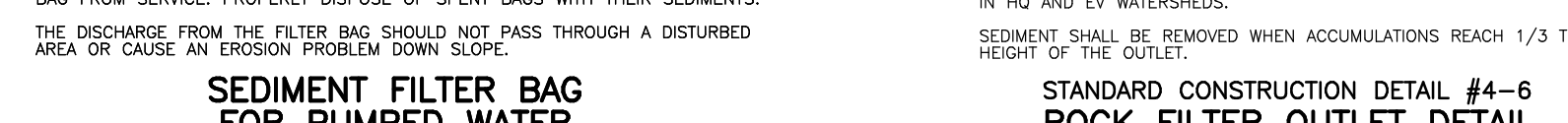
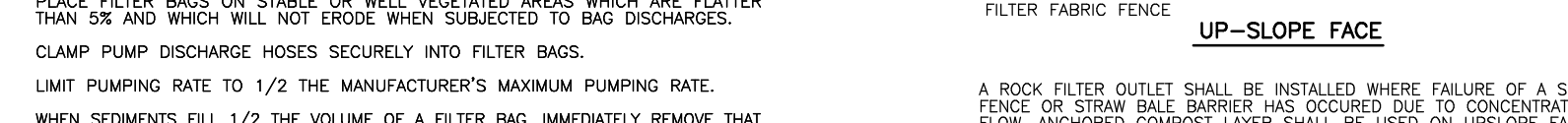
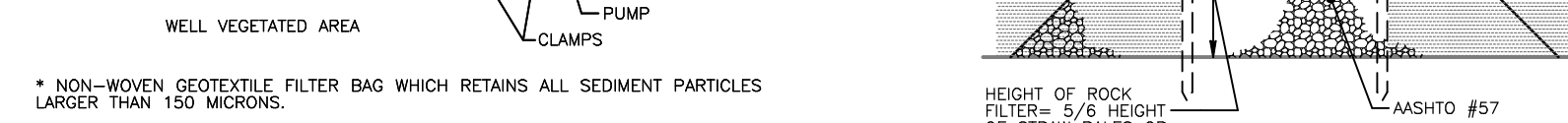
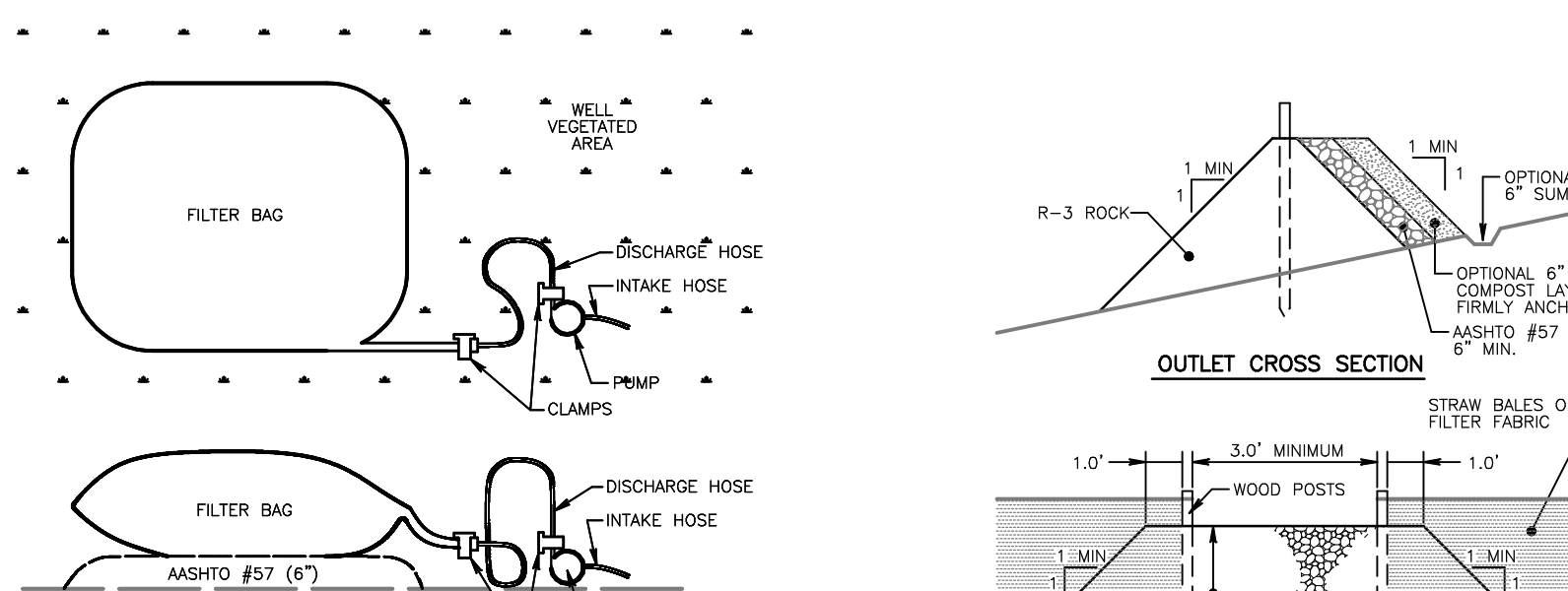
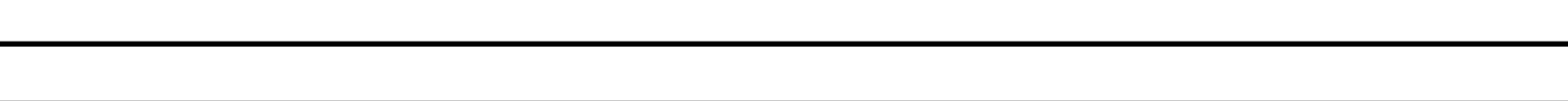
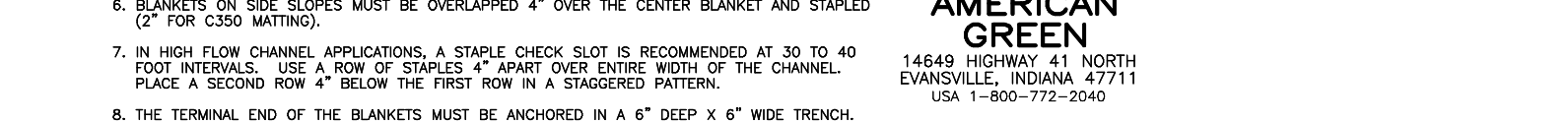
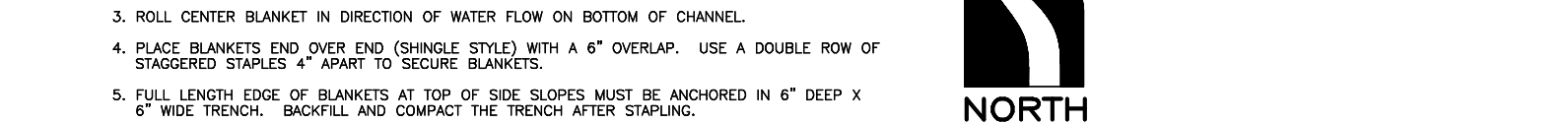
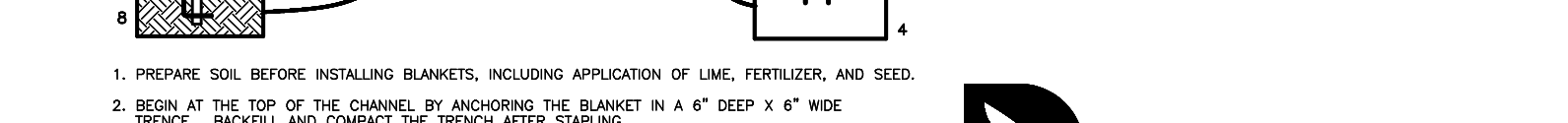
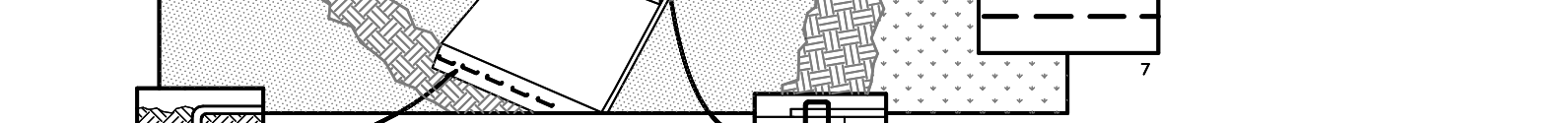
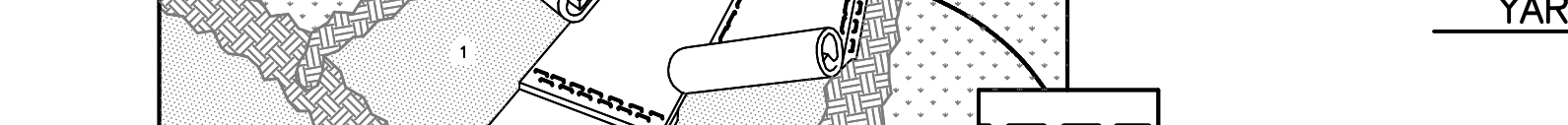
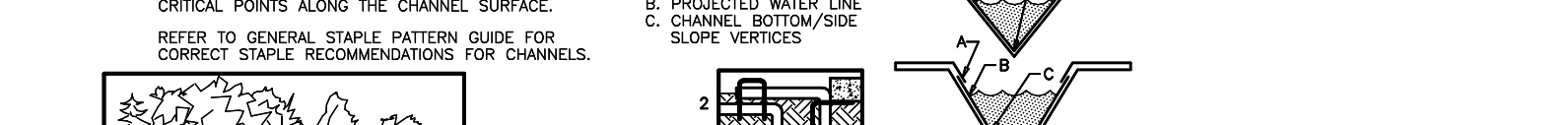
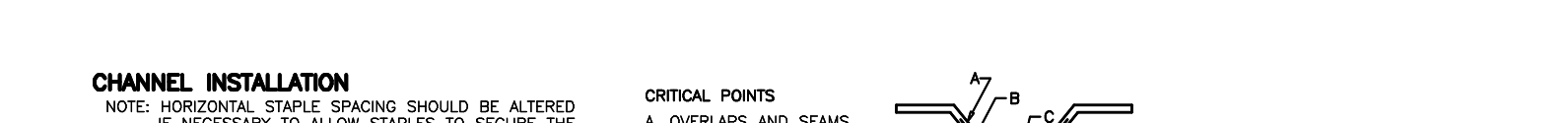
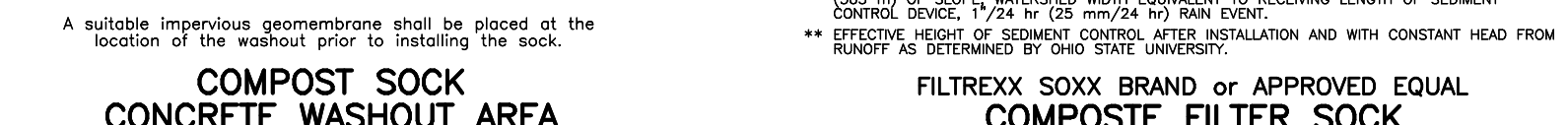
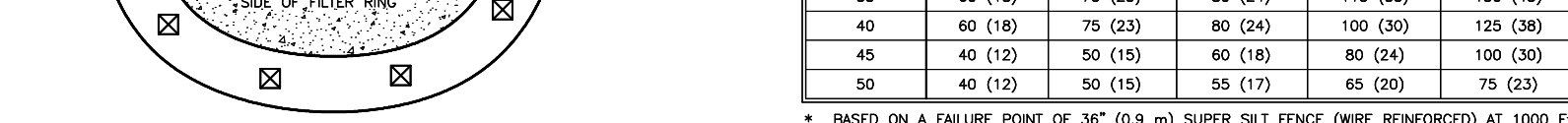
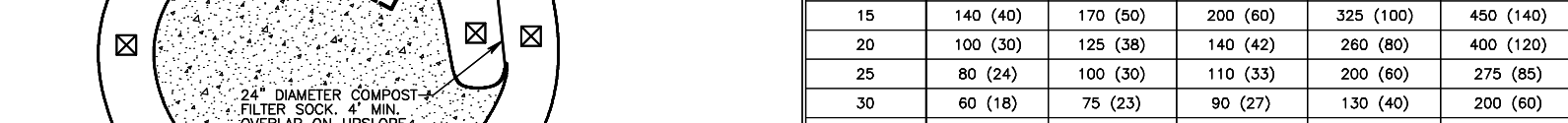
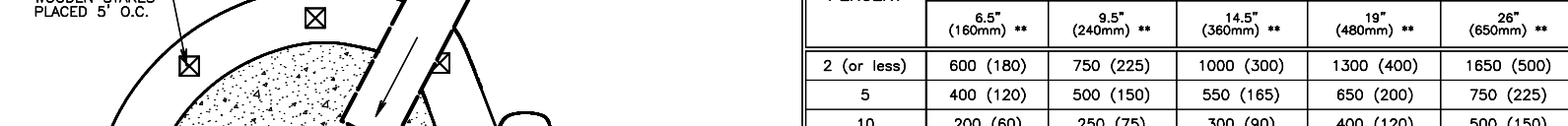
## TEMPORARY SEEDING APPLICATION RATE

Soil Amendment	Temporary Seeding Application Rate	Notes
Agricultural Lime	1 ton 40 lb. 410 lb.	Typically not required for topsoil stockpiles
10-10-10 Fertilizer	500 lb. 12.5 lb. 100 lb.	Typically not required for topsoil stockpiles

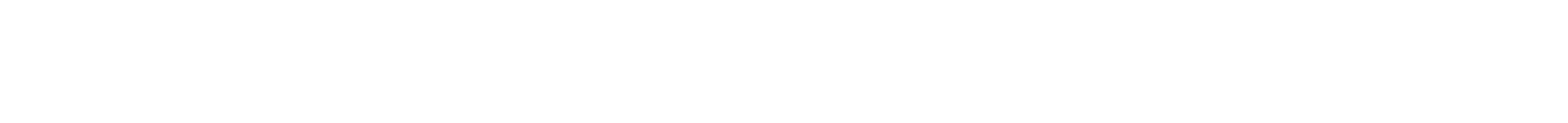
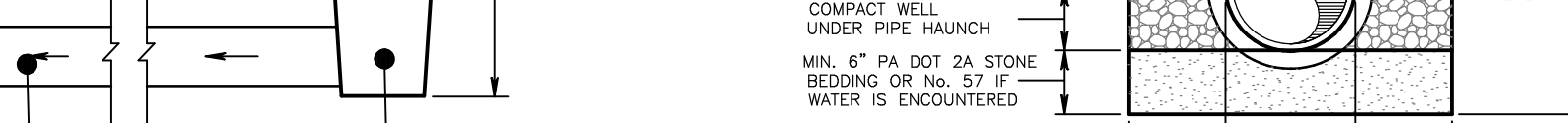
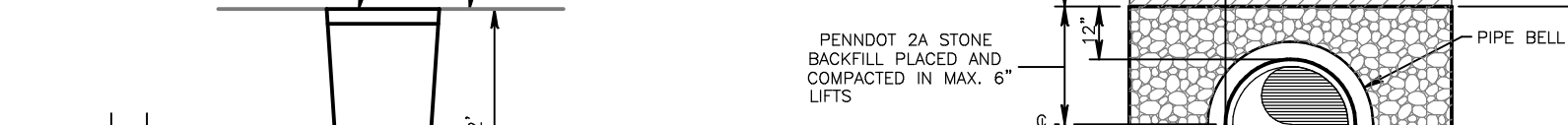
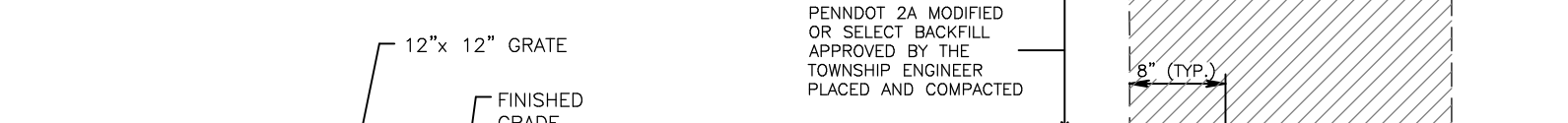
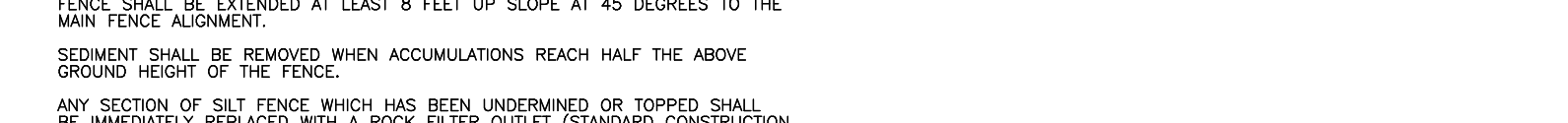
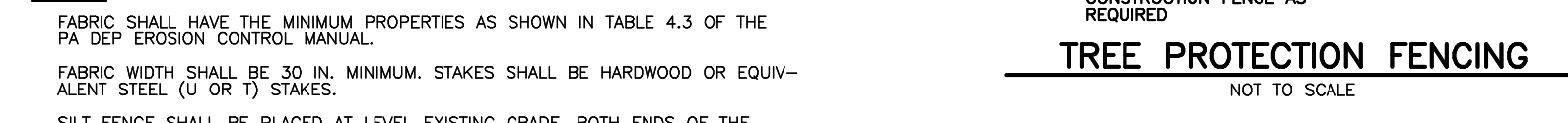
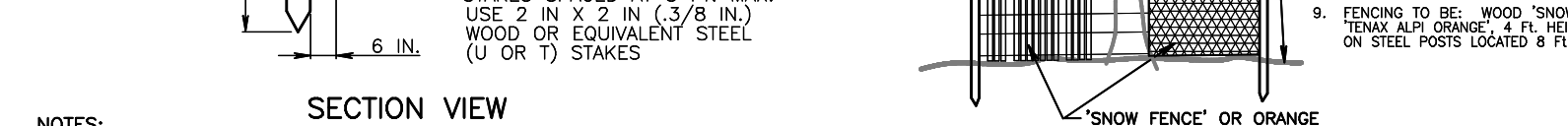
Adapted from Penn State, *Erosion Control and Conservation Plantings on Nonirrigated*



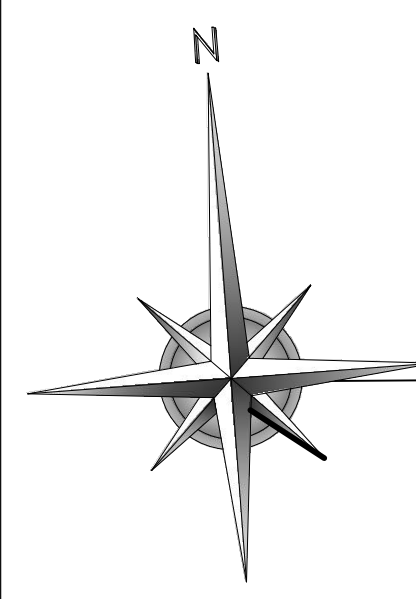
SLOPE PERCENT	Minimum Slope Length Above Sediment Control in Feet (meters)			
	15 (4.6)	20 (6.1)	25 (7.6)	30 (9.1)
2 (or less)	800 (243)	750 (228)	1000 (305)	1300 (400)
5	400 (120)	500 (150)	550 (165)	600 (200)
10	200 (60)	250 (75)	300 (90)	400 (120)
15	140 (40)	170 (50)	200 (60)	225 (68)
20	100 (30)	125 (38)	140 (42)	200 (60)
25	80 (24)	100 (30)	115 (35)	200 (60)
30	60 (18)	75 (23)	90 (27)	130 (40)
35	60 (18)	75 (23)	90 (27)	115 (35)
40	60 (18)	75 (23)	90 (27)	100 (30)
45	40 (12)	50 (15)	60 (18)	80 (24)
50	40 (12)	50 (15)	55 (17)	65 (20)



SLOPE PERCENT	Minimum Slope Length Above Sediment Control in Feet (meters)			
	15 (4.6)	20 (6.1)	25 (7.6)	30 (9.1)
2 (or less)	800 (243)	750 (228)	1000 (305)	1300 (400)
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10	200 (60)	250 (75)	300 (90)	400 (120)
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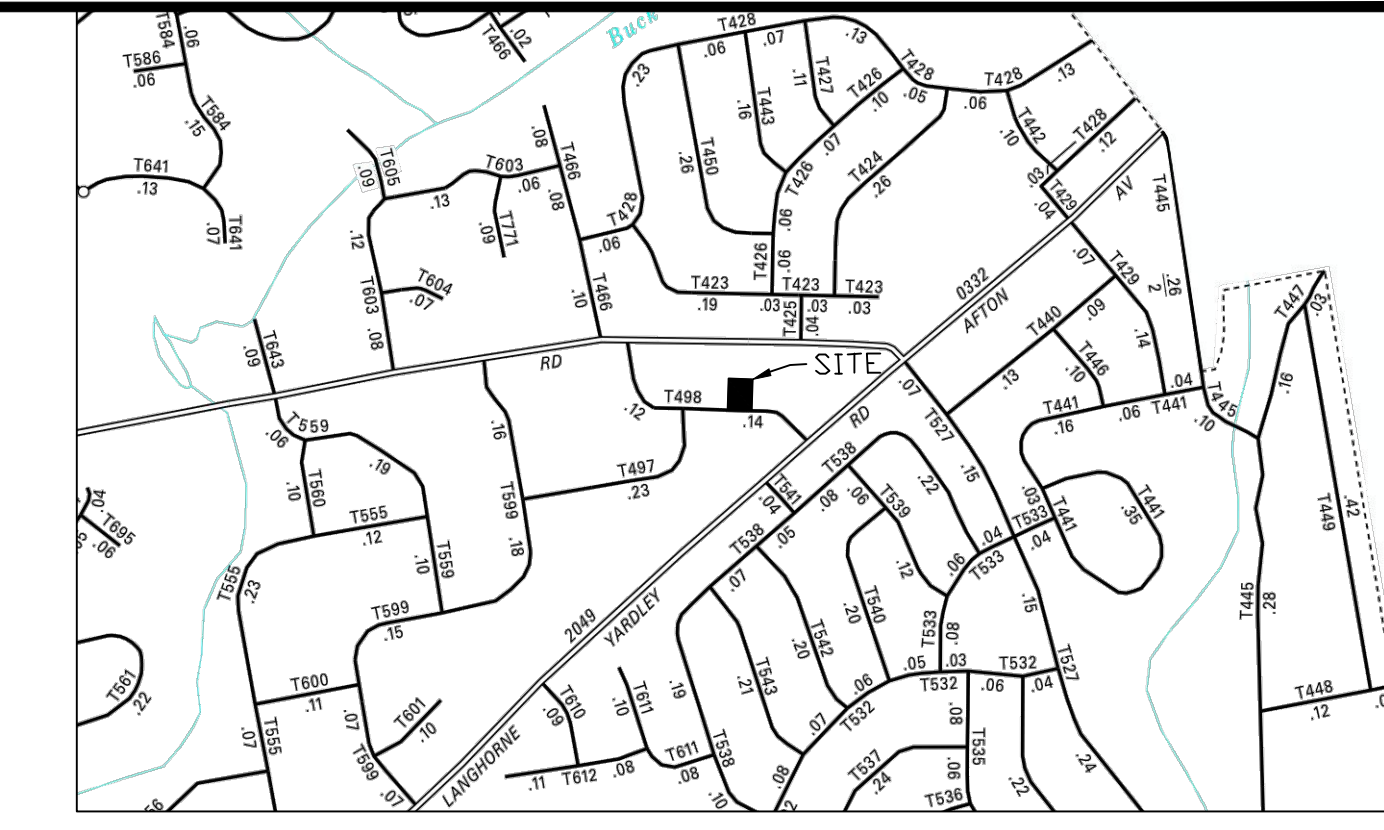
NF: WALTER & EMILIE CULLERTON  
313 YARDLEY NEWTOWN ROAD  
YARDLEY, PA 19067  
PARCEL ID: 20-022-007

NF: WALTER CHOROMANSKI  
311 YARDLEY NEWTOWN ROAD  
YARDLEY, PA 19067  
PARCEL ID: 20-022-008

**ZONING SCHEDULE**

ZONING DISTRICT: R-2 RESIDENTIAL SINGLE FAMILY HIGH DENSITY  
SINGLE FAMILY DETACHED DWELLING

ORDINANCE ITEM	REQUIREMENT:	EXISTING:	PROPOSED:
MINIMUM LOT AREA	16,500 SF.	20,000 SF.	20,000 SF.
MINIMUM SETBACKS:			
FRONT	40 Ft.	44 Ft.	44 Ft.
SIDE	15 Ft.	28 Ft.	28 Ft.
SIDE AGGREGATE	30 Ft.	56 Ft.	56 Ft.
REAR	50 Ft.	60 Ft.	60 Ft.
SWIMMING POOL	10 Ft.	N/A	35 Ft.
LOT WIDTH AT FRONT BUILDING LINE	110 Ft.	125 Ft.	125 Ft.
MAXIMUM BUILDING HEIGHT	35 Ft.	<35 Ft.	<35 Ft.
MAXIMUM IMPERVIOUS COVERAGE	28%	25.1%	27.3%



LOCATION MAP 1"=1,000'

**GENERAL NOTES:**

OWNER/APPLICANT: ROBERT & TRACY THOMPSON  
8 SCAMMEL DRIVE  
YARDLEY, PA 19067

SITE ADDRESS: 8 SCAMMEL DRIVE  
YARDLEY, PA 19067

1. PARCEL IDENTIFIER: 20-022-019
2. SOURCE OF TITLE: INSTRUMENT NUMBER - 2006111649, GRANTOR - HARRIS, ROBERT GRANTEE - THOMPSON, ROBERT
3. TOTAL CONTENTS: 20,000 SF.
4. TOPOGRAPHY SHOWN PER FIELD SURVEY PERFORMED BY MULLIN ENGINEERING LLC, DATED JULY 2024 APPROXIMATE USGS. SITE BENCHMARK IS THE BOTTOM STEP OF THE REAR DECK. THE ELEVATION OF THE BOTTOM STEP OF THE REAR DECK = 171.07
5. ACCORDING TO THE FLOOD INSURANCE RATE MAPS FOR BUCKS COUNTY, MAP NUMBER 4201700451J, EFFECTIVE MARCH 16, 2015, THERE ARE NO FLOODPLAIN AREAS LOCATED ON THIS SITE.
6. SOIL MAPPING IS BASED ON THE UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY. THE SITE CONSISTS OF URBAN LAND-LANSDALE COMPLEX (UrB) 0% TO 8% SLOPES.
7. THE UNDERLYING GEOLOGIC FORMATION FOR THIS SITE IS STOCKTON FORMATION (Trs) CONSISTING OF ARKOSIC SANDSTONE AND SILTSTONE.
8. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES AND FACILITIES CANNOT BE GUARANTEED. THE CONTRACTOR MUST VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND/OR FACILITIES PRIOR TO BEGINNING ANY EARTH-MOVING ACTIVITIES.
9. THE AREA OF THE LIMIT OF DISTURBANCE IS 3,116 SF.
10. THE SITE DRAINS TO BUCK CREEK. BUCK CREEK HAS A STREAM DESIGNATION OF WWF (WARM WATER FISHES)
11. PUBLIC WATER AND PUBLIC SEWER SERVE THE SITE.
12. WHERE A WALL OF A DWELLING UNIT SERVES AS PART OF THE BARRIER (FENCE) AND CONTAINS A DOOR THAT PROVIDES DIRECT ACCESS TO THE POOL, THE APPLICABLE PROVISIONS OF THE TOWNSHIP'S BUILDING CODE SHALL REGULATE THAT ACCESS.
13. ANY DOOR FROM THE RESIDENCE THAT PROVIDES DIRECT ACCESS TO THE POOL MUST HAVE AN AUDIBLE ALARM.

**EXISTING IMPERVIOUS BREAKDOWN**

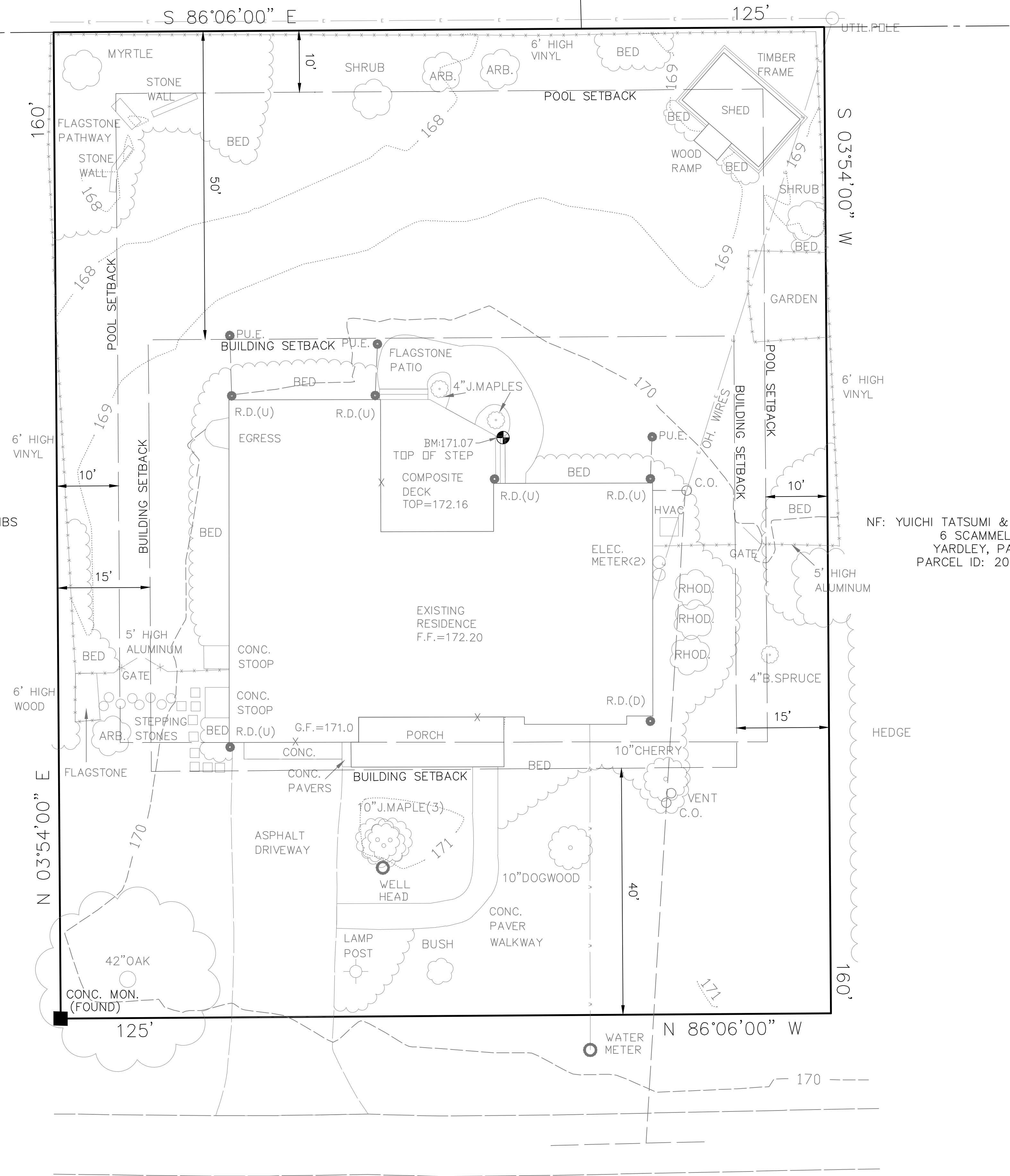
HOUSE	2,903 SF.
DRIVEWAY	717 SF.
FRONT PORCH	196 SF.
FRONT WALKWAY	182 SF.
REAR DECK	391 SF.
REAR FLAGSTONE PATIO	269 SF.
SHED	187 SF.
SIDE STOOPS	35 SF.
FLAGSTONE	29 SF.
CONCRETE PADS	58 SF.
STONE WALLS	16 SF.
FLAGSTONE PATHWAY	10 SF.
STEPPING STONES	34 SF.
<b>TOTAL</b>	<b>5,027 SF.</b>

**LEGEND**

- EXISTING 5' CONTOURS
- EXISTING 1' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED 2' CONTOURS
- EXISTING DRIVEWAY
- PROPOSED DRIVEWAY
- EXISTING ROAD
- PROPOSED ROAD
- EXISTING ROW LINE
- PROPOSED BUILDING
- BUILDING SETBACK LINE
- PROPERTY LINE
- 30 30" SILT FENCE
- 18 18" SILT FENCE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED STORM
- EXISTING SEWER
- EXISTING WATER
- PROPOSED WATER SERVICE
- PROPOSED SEWER LATERAL
- PROPOSED CONCRETE
- ROCK CONSTRUCTION ENTRANCE
- STEEP SLOPES 15%-25%
- VERY STEEP SLOPES >25%
- EXISTING WETLANDS
- LIMIT OF DISTURBANCE
- TREE TO BE REMOVED
- TREE PROTECTION FENCE

NF: MICHAEL & SUSANNAH COMBS  
10 SCAMMEL ROAD  
YARDLEY, PA 19067  
PARCEL ID: 20-022-020

NF: YUICHI TATSUMI & MUH KHENG CHAI  
6 SCAMMEL ROAD  
YARDLEY, PA 19067  
PARCEL ID: 20-022-018



**SCAMMEL DRIVE**

PENNSYLVANIA ONE CALL SYSTEM, INC.  
CALL 3 WORKING DAYS BEFORE YOU DIG  
**1-800-242-1776**  
POCS SERIAL NUMBER: \_\_\_\_\_

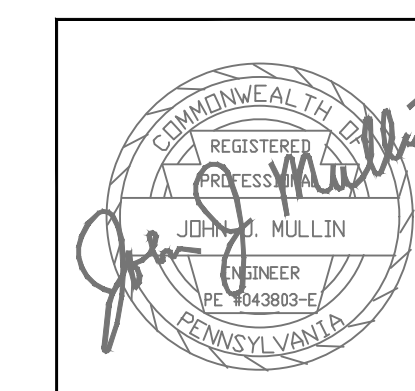
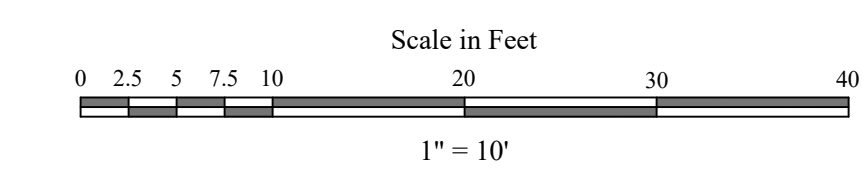
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**PENNSYLVANIA ACT 187 REQUIREMENTS**  
UNDERGROUND UTILITIES, SERIAL NO. \_\_\_\_\_  
MULLIN ENGINEERING LLC DOES NOT GUARANTEE THE ACCURACY OF THE LOCATION FOR EXISTING SURFACE UTILITY SHOWN ON THE PLANS, NOR DOES MULLIN ENGINEERING LLC GUARANTEE THAT ALL SURFACE UTILITIES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

**EXCAVATIONS, TRENCHING, AND SHORING**  
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERE TO:

- (1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2001 SUPPLEMENT PART 1926.1050 - "EXCAVATIONS, TRENCHING AND SHORING".
- (2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 228) DATED 1985 (REVISED).

**PARCEL IDENTIFIER: 20-022-019**



NO.	DATE	REVISION

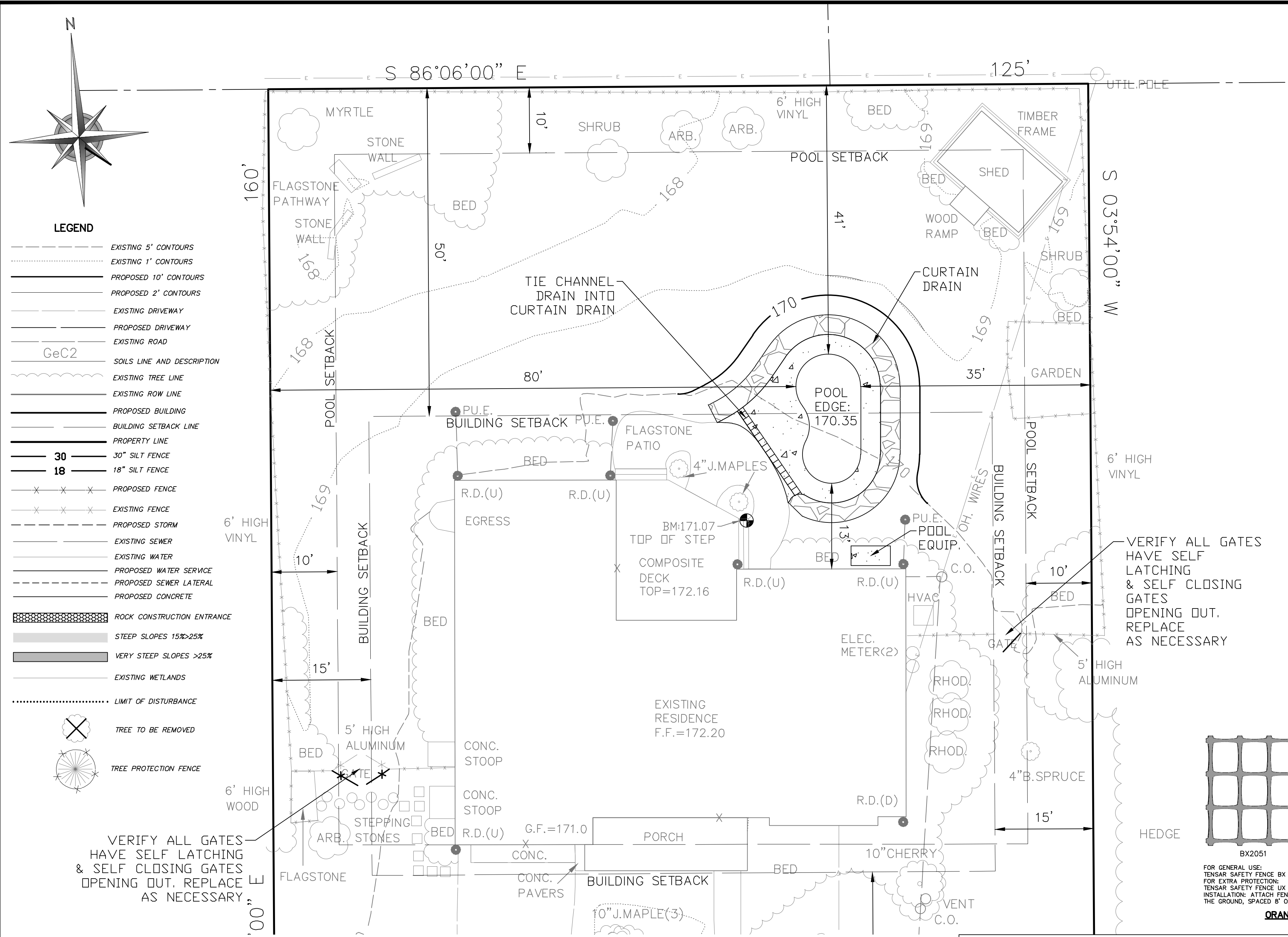
**EXISTING CONDIMONS PLAN**  
FOR  
**8 SCAMMEL DRIVE**  
LOWER MAKEFIELD - BUCKS COUNTY - PENNSYLVANIA

**Mullin Engineering**  
Civil Engineer

412 Monterey Lane West Chester, PA 19380 Tel: (610) 420-5309

PROJECT NO. **24839**  
F.B.  
SCALE: 1" = 10' DATE: 08/29/2024 DRAWN BY: PJM CHECKED BY: JJM DRAWING





**LEGEND**

- EXISTING 5' CONTOURS
- EXISTING 1' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED 2' CONTOURS
- EXISTING DRIVEWAY
- PROPOSED DRIVEWAY
- EXISTING ROAD
- SOILS LINE AND DESCRIPTION
- EXISTING TREE LINE
- EXISTING ROW LINE
- PROPOSED BUILDING
- BUILDING SETBACK LINE
- PROPERTY LINE
- 30' SILT FENCE
- 18' SILT FENCE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED STORM
- EXISTING SEWER
- EXISTING WATER
- PROPOSED WATER SERVICE
- PROPOSED SEWER LATERAL
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- EXISTING WETLANDS
- LIMIT OF DISTURBANCE
- TREE TO BE REMOVED
- TREE PROTECTION FENCE

VERIFY ALL GATES HAVE SELF LATCHING & SELF CLOSING GATES OPENING OUT. REPLACE AS NECESSARY



PENNSYLVANIA ONE CALL SYSTEM, INC.  
CALL 3 WORKING DAYS BEFORE YOU DIG  
**1-800-242-1776**  
POCS SERIAL NUMBER: \_\_\_\_\_

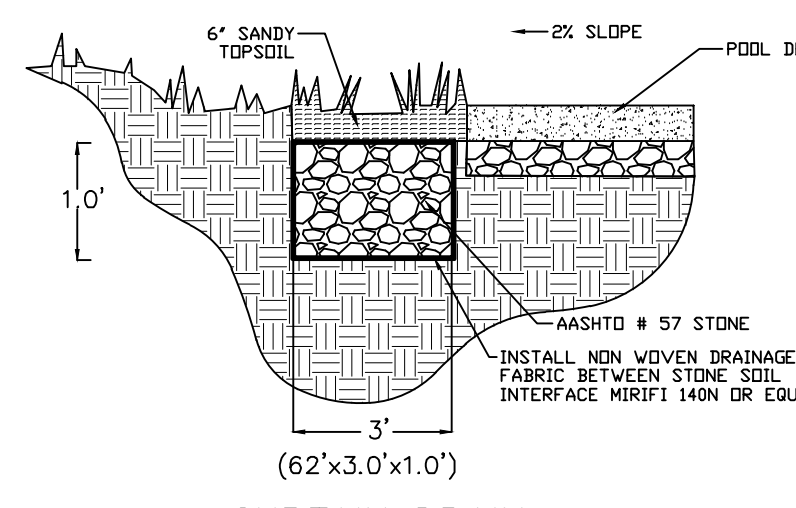
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PENNSYLVANIA ACT 187 REQUIREMENTS  
UNDERGROUND UTILITIES SERIAL NO. \_\_\_\_\_  
MULLIN ENGINEERING LLC DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITIES SHOWN ON THE PLANS, NOR DOES MULLIN ENGINEERING LLC GUARANTEE THAT ALL SUBSURFACE UTILITIES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

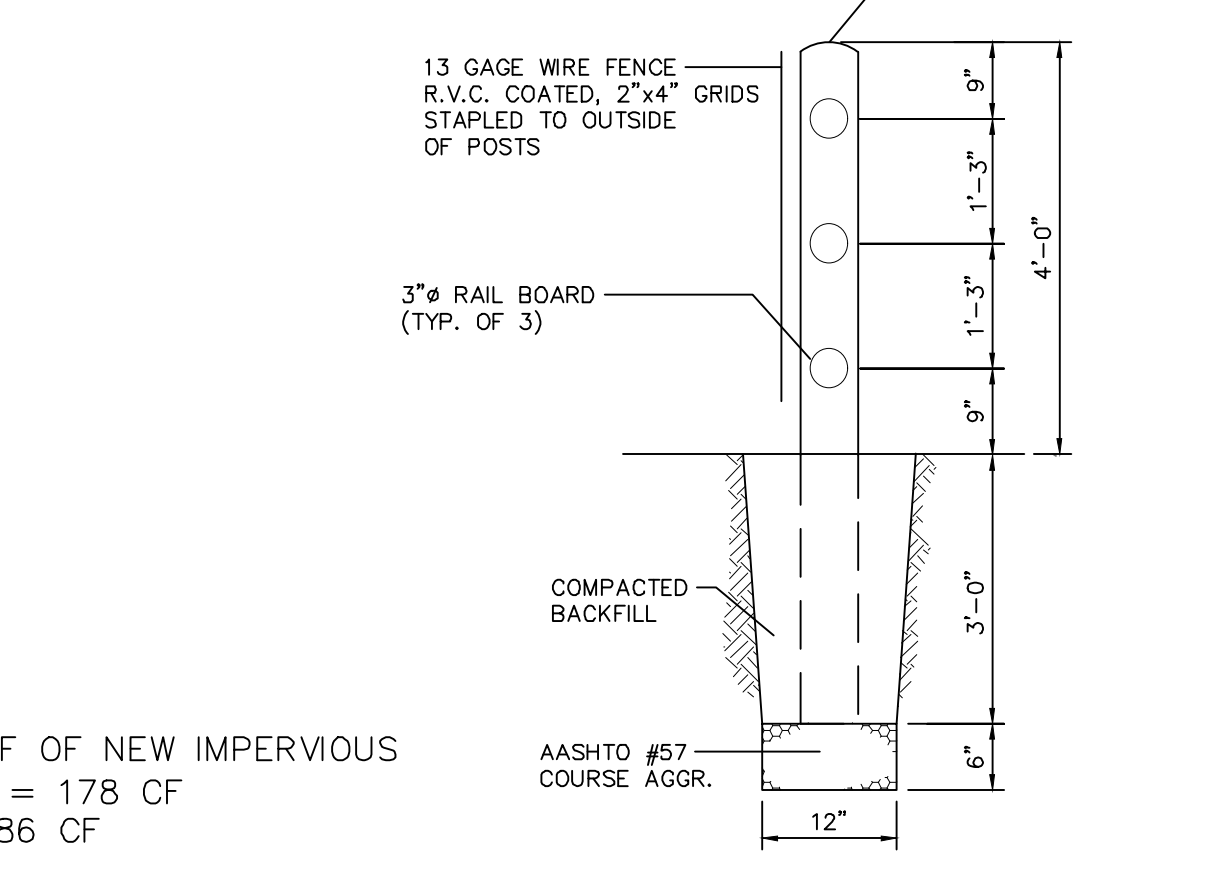
EXCAVATIONS, TRENCHING, AND SHORING  
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THEREOF:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2001) SUBPART C PART 1926.750 - "EXCAVATIONS, TRENCHING AND SHORING".  
(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REV.10-20).

STORMWATER CALCULATIONS  
SIMPLIFIED METHOD FOR LESS THAN 1,000 SF OF NEW IMPERVIOUS REQUIRED = 426 SF x 2 / 12 IN/FT / 0.4 = 178 CF  
PROVIDED = 62 FT x 3.0 FT x 1.0 FT = 186 CF  
IMPERVIOUS PROPOSED = 426 SF



**CURTAIN DRAIN**  
THE ENTIRE POOL DECK SHALL BE SURROUNDED BY THE CURTAIN DRAIN



**SECURITY FENCE DETAIL**  
N.T.S.

**NDS**  
We put water in its place

851 N HARVARD AVE.  
LINDSAY, CA 93247  
TOLL FREE: 1-800-726-1994  
PHONE: (559) 562-9888  
FAX: (559) 562-4488  
www.ndspro.com

**NOTES:**  
1. EXISTING SOILS SHOULD BE EVALUATED TO ENSURE PROPER STRUCTURAL AND PERMEABILITY PROPERTIES.  
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
3. DO NOT SCALE DRAWING.  
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.  
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.  
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.caddetails.com/info/AND-ENTER](http://www.caddetails.com/info/AND-ENTER) REFERENCE NUMBER 558-173.

**SPEED-D CHANNEL DRAIN**  
TYPICAL PEDESTRIAN TRAFFIC INSTALLATION

**ZONING SCHEDULE**

ZONING DISTRICT: R-2 RESIDENTIAL SINGLE FAMILY HIGH DENSITY  
SINGLE FAMILY DETACHED DWELLING

ORDINANCE ITEM	REQUIREMENT:	EXISTING:	PROPOSED:
MINIMUM LOT AREA	16,500 SF.	20,000 SF.	20,000 SF.
MINIMUM SETBACKS:			
FRONT	40 Ft.	44 Ft.	44 Ft.
SIDE	15 Ft.	28 Ft.	28 Ft.
SIDE AGGREGATE	30 Ft.	56 Ft.	56 Ft.
REAR	10 Ft.	60 Ft.	60 Ft.
SWIMMING POOL		N/A	35 Ft.
LOT WIDTH AT FRONT BUILDING LINE	110 Ft.	125 Ft.	125 Ft.
MAXIMUM BUILDING HEIGHT	35 Ft.	<35 Ft.	<35 Ft.
MAXIMUM IMPERVIOUS COVERAGE	28%	25.1%	27.3%

**EXISTING IMPERVIOUS BREAKDOWN**

HOUSE	2,903 SF.
DRIVEWAY	717 SF.
FRONT PORCH	196 SF.
FRONT WALKWAY	182 SF.
REAR DECK	391 SF.
REAR FLAGSTONE PATIO	269 SF.
SHED	187 SF.
SIDE STOOPS	35 SF.
FLAGSTONE	29 SF.
CONCRETE PADS	58 SF.
STONE WALLS	16 SF.
FLAGSTONE PATHWAY	10 SF.
STEPPING STONES	34 SF.
POOL SURFACE	159 SF.
POOL DECK	249 SF.
POOL EQUIPMENT	18 SF.
<b>TOTAL</b>	<b>5,027 SF.</b>

**PROPOSED IMPERVIOUS BREAKDOWN**

HOUSE	2,903 SF.
DRIVEWAY	717 SF.
FRONT PORCH	196 SF.
FRONT WALKWAY	182 SF.
REAR DECK	391 SF.
REAR FLAGSTONE PATIO	269 SF.
SHED	187 SF.
SIDE STOOPS	35 SF.
FLAGSTONE	29 SF.
CONCRETE PADS	58 SF.
STONE WALLS	16 SF.
FLAGSTONE PATHWAY	10 SF.
STEPPING STONES	34 SF.
POOL SURFACE	159 SF.
POOL DECK	249 SF.
POOL EQUIPMENT	18 SF.
<b>TOTAL</b>	<b>5,453 SF.</b>

**NEW IMPERVIOUS BREAKDOWN**

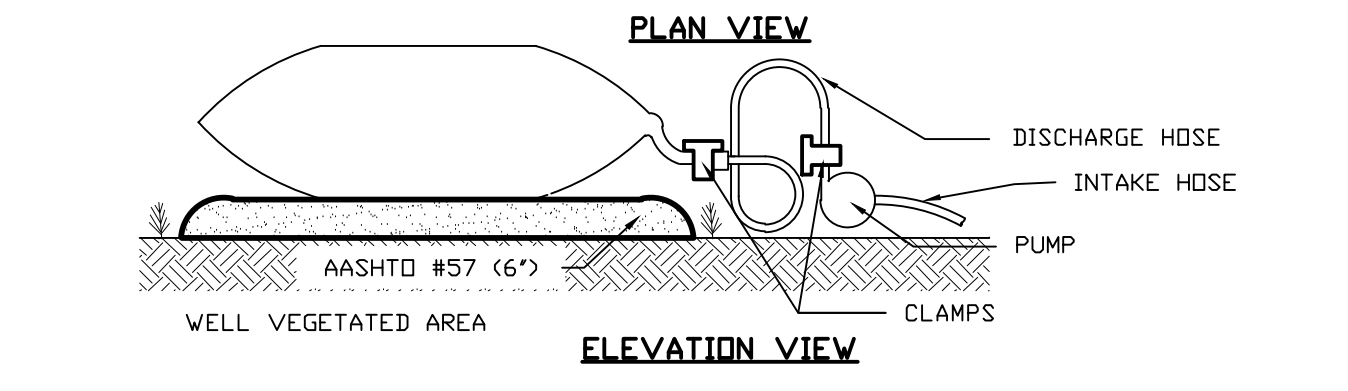
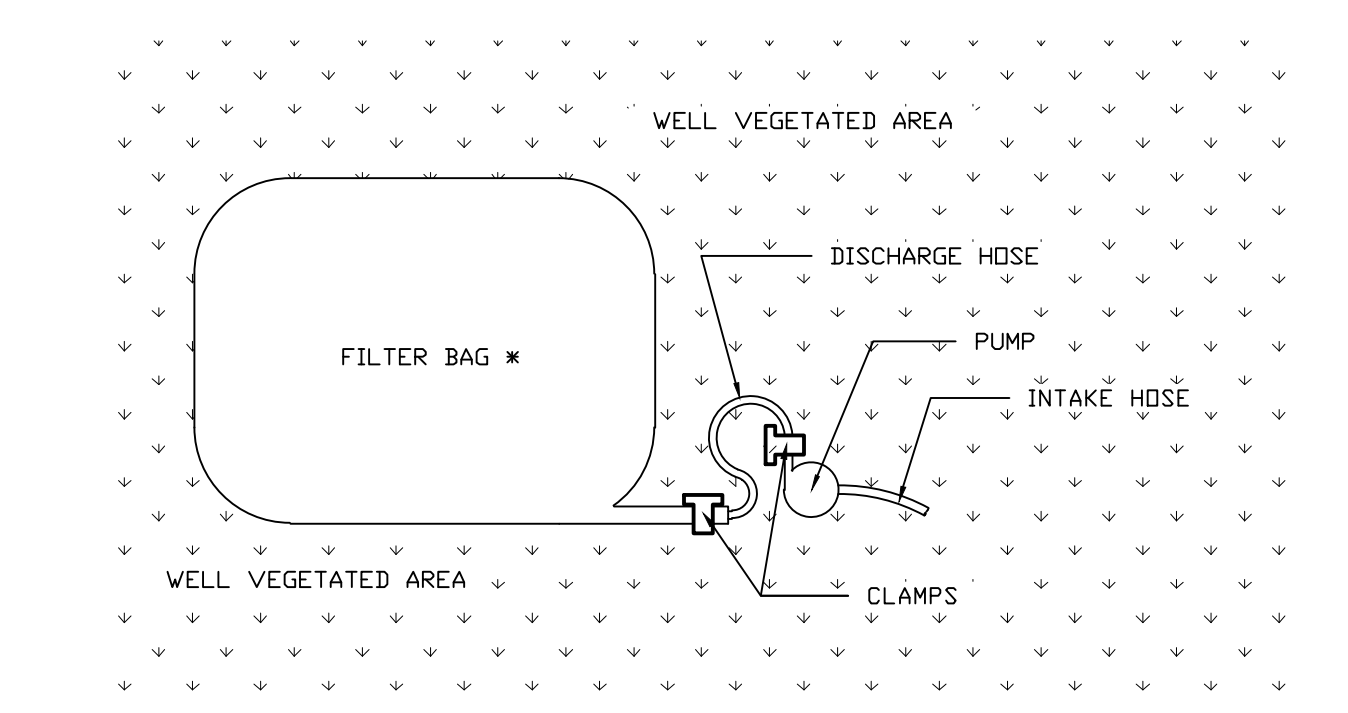
POOL SURFACE	159 SF.
POOL DECK	249 SF.
POOL EQUIPMENT	18 SF.
<b>TOTAL</b>	<b>426 SF.</b>

**GENERAL NOTES:**

OWNER/APPLICANT: ROBERT & TRACY THOMPSON  
8 SCAMMEL DRIVE  
YARDLEY, PA 19067

SITE ADDRESS: 8 SCAMMEL DRIVE  
YARDLEY, PA 19067

- PARCEL IDENTIFIER: 20-022-019
- SOURCE OF TITLE: INSTRUMENT NUMBER - 2006111649, GRANTOR - HARRIS, ROBERT GRANTEE - THOMPSON, ROBERT
- TOTAL CONTENTS: 20,000 SF.
- TOPOGRAPHY SHOWN PER FIELD SURVEY PERFORMED BY MULLIN ENGINEERING LLC, DATED JULY 2024 APPROXIMATE USGS. SITE BENCHMARK IS THE BOTTOM STEP OF THE REAR DECK. THE ELEVATION OF THE BOTTOM STEP OF THE REAR DECK = 171.07
- ACCORDING TO THE FLOOD INSURANCE RATE MAPS FOR BUCKS COUNTY, MAP NUMBER 4201700451J, EFFECTIVE MARCH 16, 2015, THERE ARE NO FLOODPLAIN AREAS LOCATED ON THIS SITE.
- SOIL MAPPING IS BASED ON THE UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY. THE SITE CONSISTS OF URBAN LAND-LANSDALE COMPLEX (UrB) 0% TO 8% SLOPES.
- THE UNDERLYING GEOLOGIC FORMATION FOR THIS SITE IS STOCKTON FORMATION (Trs) CONSISTING OF ARKOSIC SANDSTONE AND SILTSTONE.
- COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES AND FACILITIES CANNOT BE GUARANTEED. THE CONTRACTOR MUST VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND/OR FACILITIES PRIOR TO BEGINNING ANY EARTH-MOVING ACTIVITIES.
- THE AREA OF THE LIMIT OF DISTURBANCE IS 3,116 SF.
- THE SITE DRAINS TO BUCK CREEK. BUCK CREEK HAS A STREAM DESIGNATION OF WWF (WARM WATER FISHES).
- PUBLIC WATER AND PUBLIC SEWER SERVE THE SITE.
- WHERE A WALL OF A DWELLING UNIT SERVES AS PART OF THE BARRIER (FENCE) AND CONTAINS A DOOR THAT PROVIDES DIRECT ACCESS TO THE POOL, THE APPLICABLE PROVISIONS OF THE TOWNSHIP'S BUILDING CODE SHALL REGULATE THAT ACCESS.
- ANY DOOR FROM THE RESIDENCE THAT PROVIDES DIRECT ACCESS TO THE POOL MUST HAVE AN AUDIBLE ALARM.



\* NON-WOVEN GEOTEXTILE FILTER BAG WHICH RETAINS ALL SEDIMENT PARTICLES LARGER THAN 150 MICRONS.

PLACE FILTER BAGS IN STABLE OR WELL VEGETATED AREAS WHICH ARE FLATTER THAN 5% AND WHICH WILL NOT ERODE WHEN SUBJECTED TO BAG DISCHARGES.

CLAMP PUMP DISCHARGE HOSES SECURELY INTO FILTER BAGS.

LIMIT PUMPING RATE TO 1/2 THE MANUFACTURER'S MAXIMUM PUMPING RATE.

WHEN SEDIMENTS FILL 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE. PROPERLY DISPOSE OF SPENT BAGS WITH THEIR SEDIMENTS.

THE DISCHARGE FROM THE FILTER BAG SHOULD NOT PASS THROUGH A DISTURBED AREA OR CAUSE AN EROSION PROBLEM DOWN SLOPE.

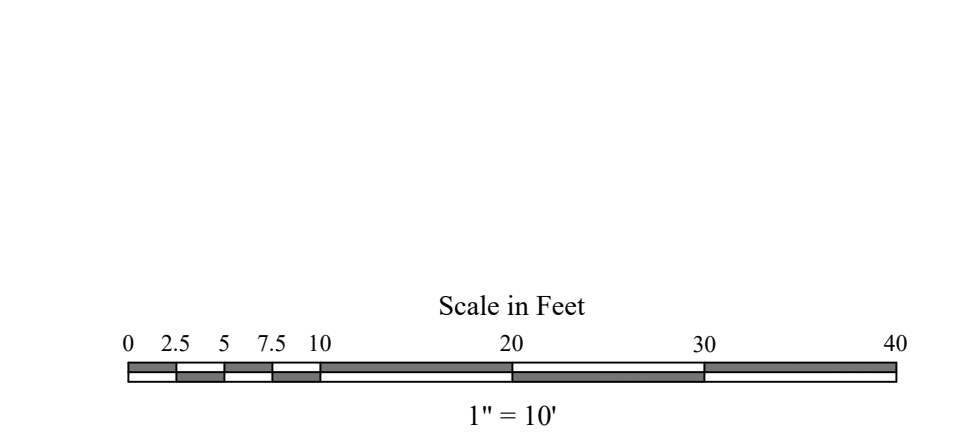
**FIGURE 3.18**  
Typical Compost Sock Washout Installation

**NOTES:**  
1. WEIR OR FLAP GATE FOR OPTIMUM PERFORMANCE  
2. 3\"/>

A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the socks.  
Adapted from Filtrtex

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**SEDIMENT FILTER BAG FOR PUMPED WATER**  
N.T.S.



NO.	DATE	REVISION

**GRADING PLAN**  
FOR  
**8 SCAMMEL DRIVE**

LOWER MAKEFIELD - BUCKS COUNTY - PENNSYLVANIA

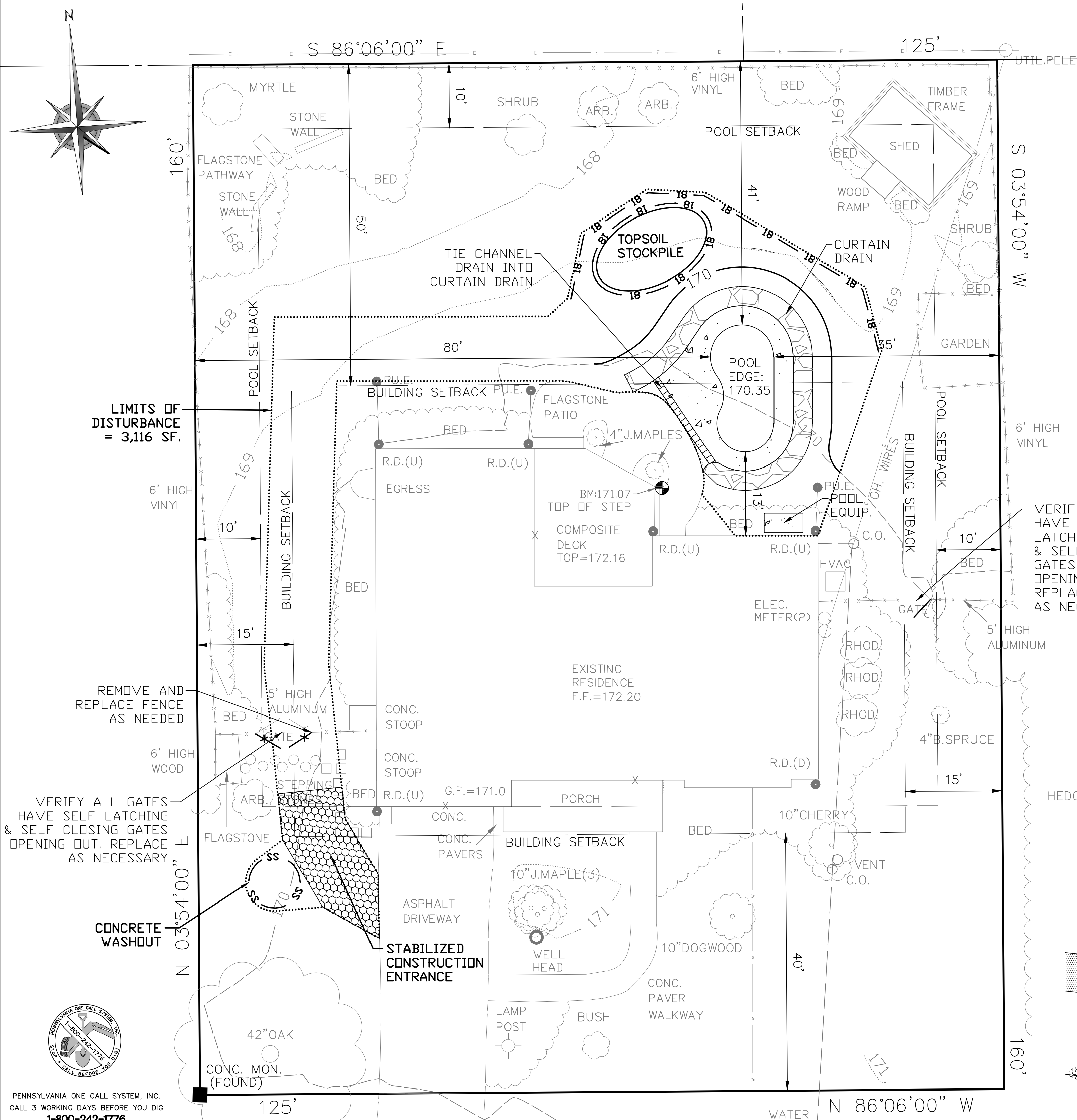
**Mullin Engineering**  
Civil Engineer

412 Monterey Lane West Chester, PA 19380  
Tel: (610) 420-5309

SCALE 1" = 10'	DATE 08/29/2024	DRAWN BY PJM	CHECKED BY JJM	DRAWING 24839
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PROJECT NO. 24839  
F.B.





**BCOD EROSION/SEDIMENT CONTROL PLAN STANDARD NOTES**

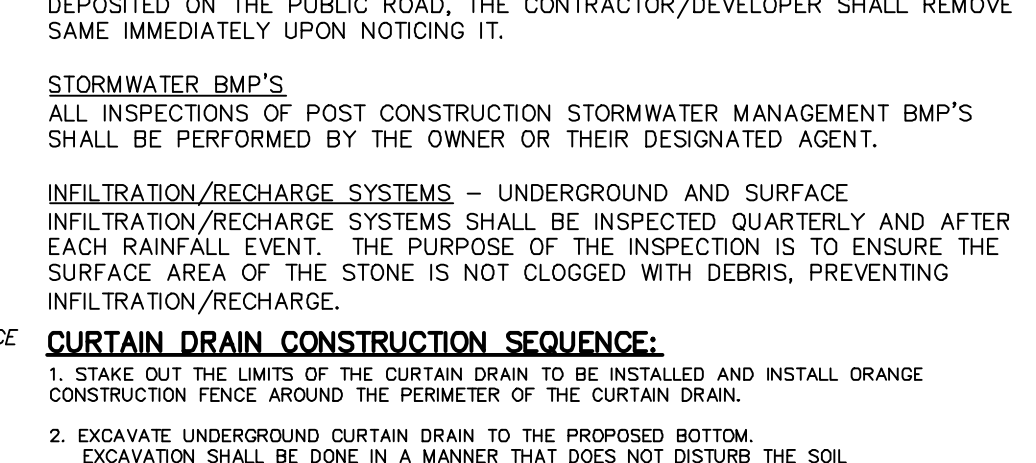
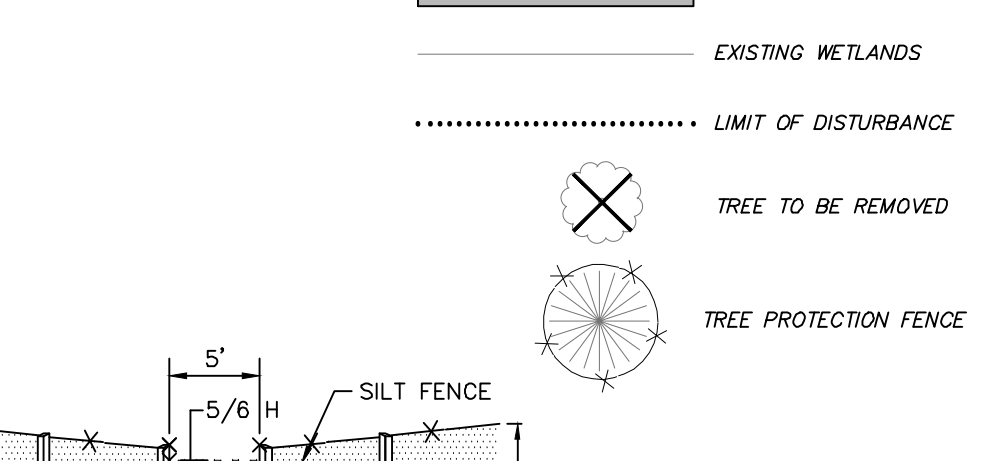
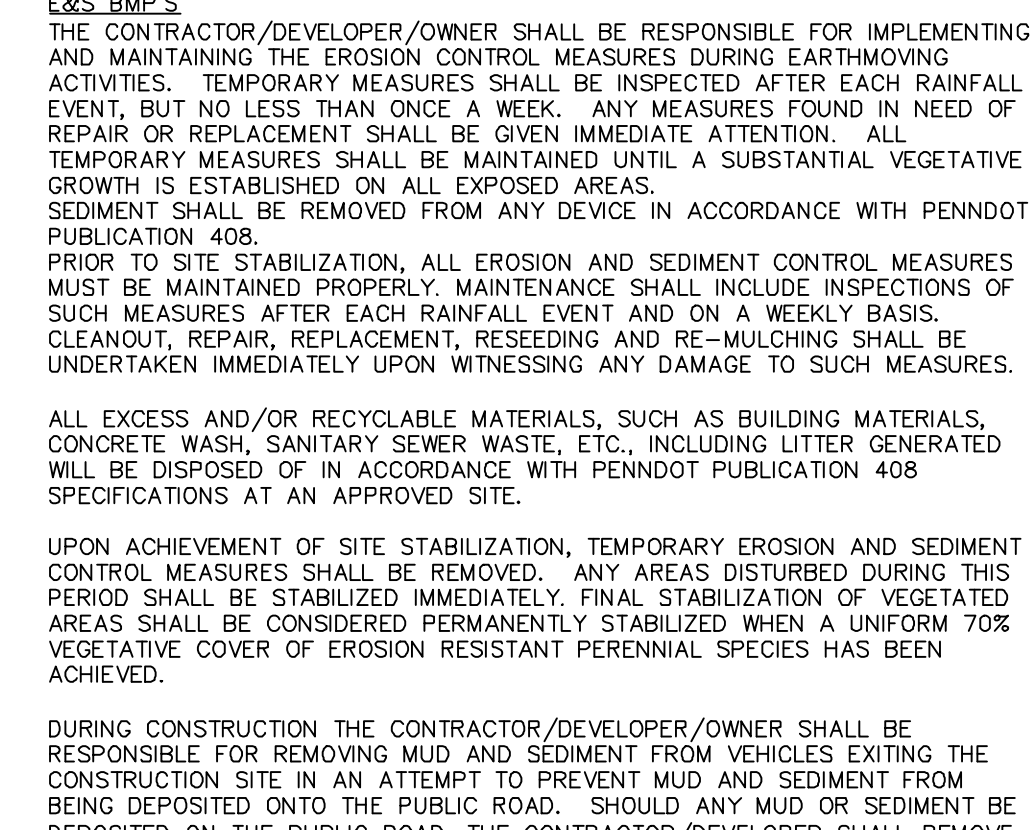
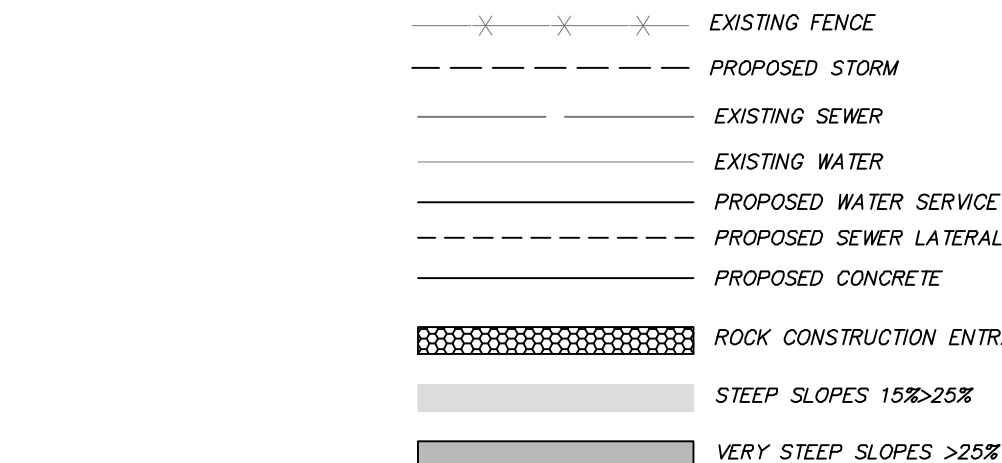
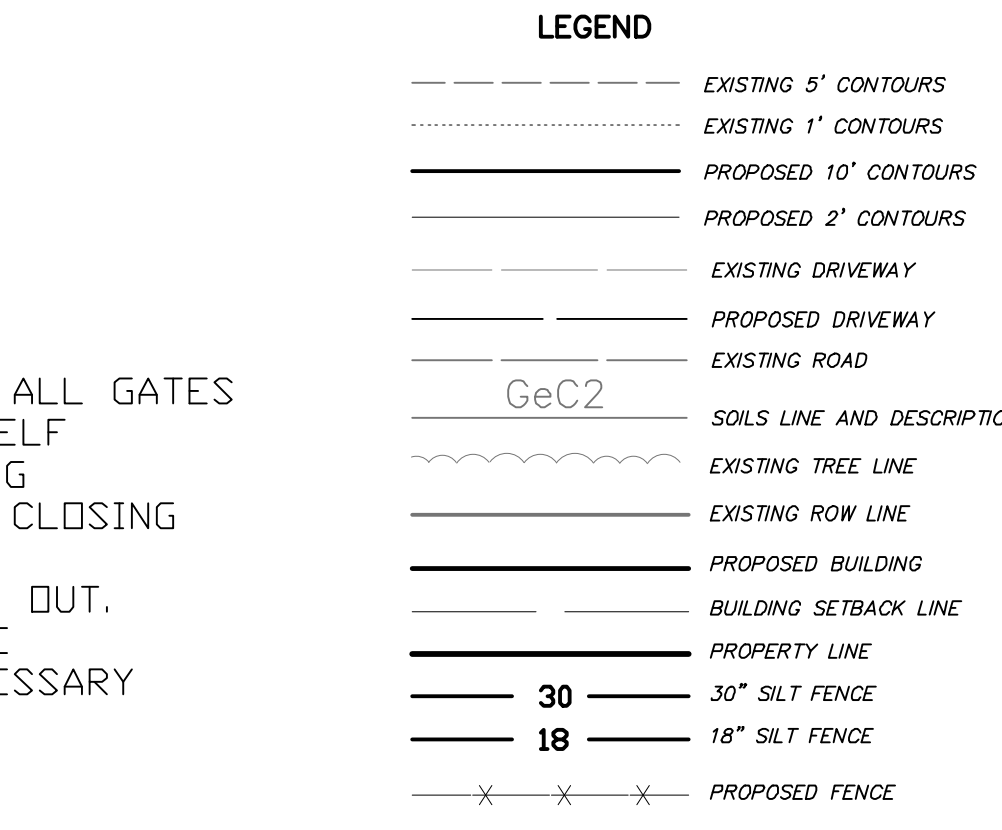
- STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET; STOCKPILE SLOPES MUST NOT EXCEED 2:1.
- THE OPERATOR/RESPONSIBLE PERSON (O/RP) ON SITE SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE O/RP SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs) TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
- THE O/RP SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED AND APPROVED BY THE BUCKS COUNTY CONSERVATION DISTRICT AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOILS AND/OR ROCK SPOIL AND BORROW AREAS REGARDLESS OF THEIR LOCATIONS.
- ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER AN UNDISTURBED AREA.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
- EROSION AND SEDIMENT BMPs MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPs.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE REMOVED, AREAS DISTURBED DURING THE REMOVAL OF THE BMPs MUST BE STABILIZED IMMEDIATELY.
- AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, THE O/RP SHALL NOTIFY ALL CONTRACTORS INVOLVED IN THAT ACTIVITY, THE LANDOWNER, ALL APPLICABLE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN DESIGNER AND THE BUCKS COUNTY CONSERVATION DISTRICT TO A PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED IN THAT ACTIVITY SHALL NOTIFY THE PENNSYLVANIA ONE-CALL SYSTEM (INC. AT 1-800-242-1776 TO DETERMINE ANY UNDERGROUND UTILITY LOCATIONS.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY CEASES, THE O/RP SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITY, DURING NON-GERMINATING PERIODS MULCH MUST BE APPLIED AT SPECIFIED RATES; DISTURBED AREAS THAT ARE NOT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS.

**SEEDING SPECIFICATIONS:**

- TEMPORARY STABILIZATION SHALL BE PROVIDED TO ALL BARE SOIL AREAS THAT WILL REMAIN UNDISTURBED FOR 72 HOURS OR LONGER.
- TOPSOIL SHALL BE STRIPPED (FULL DEPTH) PRIOR TO EXCAVATION/EARTHMOVING ACTIVITIES, STOCKPILED AND SEEDED IMMEDIATELY FOLLOWING COMPLETION OF TOPSOIL STRIPPING WITH:
  - ANNUAL RYE GRASS AT A RATE OF 45 POUNDS/ACRE
  - LIMESTONE APPLIED AT THE RATE OF 180 POUNDS/1,000 SQUARE FEET (4 TONS/ACRE)
  - 5-5 FERTILIZER APPLIED AT THE RATE OF 12 POUNDS/1,000 SQUARE FEET (1/4 TONS/ACRE)
  - AIR-DRIED STRAW MULCH COVER OF 140 POUNDS/1,000 SQUARE FEET (3 TONS/ACRE)
- PERMANENT: THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT THE EROSION AND WASHING OF SOIL AND SEDIMENT FROM THE PROPERTY. THE CONTRACTOR SHALL EXPOSE ONLY WHAT IS ABSOLUTELY NECESSARY AT ONE TIME. PERMANENT SWALES AND OTHER EXPOSED AREAS SHALL RECEIVE A MINIMUM OF 4" TOPSOIL BEFORE THE FOLLOWING SEED, NUTRIENTS AND MULCH:
  - LIMESTONE APPLIED AT THE RATE OF 180 POUNDS/1,000 SQUARE FEET (4 TONS/ACRE)
  - 10-20-20 FERTILIZER, OR EQUIVALENT, APPLIED AT THE RATE OF 12 POUNDS/1,000 SQUARE FEET (1/4 TONS/ACRE)
  - SEED MIXTURE OF 15% KENTUCKY BLUEGRASS, 35% KENTUCKY FESCUE, 25% PERENNIAL RYE GRASS AND 25% PERENNIAL RYE GRASS
  - MULCH - AIR DRIED STRAW APPLIED AT A RATE OF 140 POUNDS/1,000 SQUARE FEET (3 TONS/ACRE) SHALL BE PLACED OVER ALL EXPOSED AREAS AFTER SEEDING.
- PERMANENT SEEDING SHALL BE COMPLETED IMMEDIATELY UPON COMPLETION OF EARTHMOVING ACTIVITIES. SPOTS WHERE SEEDING DOES NOT GERMINATE SHALL BE RE-FERTILIZED, RE-LIMED AND RESEEDED PER ABOVE SPECIFICATIONS TO ASSURE A GOOD GROWTH OVER THE ENTIRE EXPOSED AREA. NON-GERMINATING PERIODS ARE BETWEEN JUNE 15 THRU AUGUST 15, AND SEPTEMBER 30 THRU APRIL 15. AREAS DISTURBED DURING THESE PERIODS MUST BE LIMED, FERTILIZED, SEEDING AND MULCHED WITHIN 72 HOURS OF THE ENDING OF THOSE PERIODS.

**APPENDIX C - STANDARD E&S PLAN NOTES**

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) SHALL BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY WILL REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL NOTIFY THE LANDOWNER, THE LANDOWNER'S APPLICABLE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE E&S PLAN.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAP. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT SUFFICIENT TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. STOCKPILES SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FRICTION MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREA.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RESETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED. ALL MAINTENANCE WORK SHALL BE UNDERTAKEN IMMEDIATELY UPON NOTICING ANY DAMAGE TO SUCH MEASURES.
- ALL EXCESS AND/OR RECYCLABLE MATERIALS, SUCH AS BUILDING MATERIALS, CONCRETE WASH, SANITARY SEWER WASTE, ETC., INCLUDING LITTER GENERATED WILL BE DISPOSED OF IN ACCORDANCE WITH PENNDOT PUBLICATION 408 SPECIFICATIONS AT AN APPROVED SITE.
- UPON ACHIEVEMENT OF SITE STABILIZATION, TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED. ANY AREAS DISTURBED DURING THIS PERIOD SHALL BE STABILIZED IMMEDIATELY. FINAL STABILIZATION OF VEGETATED AREAS SHALL BE CONSIDERED PERMANENTLY STABILIZED WHEN A UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED.
- DURING CONSTRUCTION THE CONTRACTOR/DEVELOPER/OWNER SHALL BE RESPONSIBLE FOR REMOVING MUD AND SEDIMENT FROM VEHICLES EXITING THE CONSTRUCTION SITE. IN AN ATTEMPT TO PREVENT MUD AND SEDIMENT FROM BEING DEPOSITED ONTO THE PUBLIC ROAD, SHOULD ANY MUD OR SEDIMENT BE DEPOSITED ON THE PUBLIC ROAD, THE CONTRACTOR/DEVELOPER SHALL REMOVE SAME IMMEDIATELY UPON NOTICING IT.
- STORMWATER BMP'S ALL INSPECTIONS OF POST CONSTRUCTION STORMWATER MANAGEMENT BMP'S SHALL BE PERFORMED BY THE OWNER OR THEIR DESIGNATED AGENT.
- INFILTRATION/RECHARGE SYSTEMS - UNDERGROUND AND SURFACE INFILTRATION/RECHARGE SYSTEMS SHALL BE INSPECTED QUARTERLY AND AFTER EACH RAINFALL EVENT. THE PURPOSE OF THE INSPECTION IS TO ENSURE THE SURFACE AREA OF THE STONE IS NOT CLOGGED WITH DEBRIS, PREVENTING INFILTRATION/RECHARGE.
- CURTAIN DRAIN CONSTRUCTION SEQUENCE:
  - STAKE OUT THE LIMITS OF THE CURTAIN DRAIN TO BE INSTALLED AND INSTALL ORANGE CONSTRUCTION FENCE AROUND THE PERIMETER OF THE CURTAIN DRAIN.
  - EXCAVATE UNDERGROUND CURTAIN DRAIN TO THE PROPOSED BOTTOM. EXCAVATION SHALL BE DONE IN A MANNER THAT DOES NOT DISTURB THE SOIL STRUCTURE OF THE INFILTRATION ZONE.
  - PLACE FILTER FABRIC IN THE EXCAVATION AND TACK IT UP TO THE SIDES. ALLOW SUFFICIENT FABRIC TO OVERLAP THE TOP OF THE CURTAIN DRAIN.
    - NOTE: CURTAIN DRAIN FILTER FABRIC AND STONE SHALL BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL SEDIMENT HAS ENTERED ANY OF THE CURTAIN DRAIN, APPROPRIATE MEASURES (I.E., CLEANING THE SOIL/SEDIMENT FROM THE FABRIC, STONE, ETC. AN OR REPLACEMENT OF THE FABRIC AND STONE)
    - PIECES OF FILTER FABRIC SHALL BE INSTALLED WITH A 12" OVERLAP 12" ON ALL SEAMS.
  - PLACE AASHTO #57 STONE IN THE BOTTOM OF THE CURTAIN DRAIN AND EVENLY DISTRIBUTE ON THE BOTTOM. CARE SHALL BE TAKEN TO ENSURE THAT THE FILTER FABRIC IN THE CURTAIN DRAIN IS NOT TORN DURING INSTALLATION.
    - ALL STONE SHALL BE UNIFORMLY GRADED, CLEAN WASHED AGGREGATE, THE STONE SHALL BE CHECKED AND APPROVED BY THE DESIGN OR SITE ENGINEER BEFORE INSTALLATION INTO THE CURTAIN DRAIN TO ENSURE THAT IT IS CLEAN WASHED STONE.
  - INSTALL THE DISTRIBUTION PIPE AS SHOWN ON THE DETAIL. COMPLETE BACKFILLING OF STONE IN THE CURTAIN DRAIN.
  - COMPLETE PLACEMENT OF THE STONE IN THE CURTAIN DRAIN. OVERLAP FILTER FABRIC ON TOP OF THE CURTAIN DRAIN. BACKFILL OVER THE INFILTRATION AREA WITH RIVER ROCK TO FINISHED GRADE.
  - THE INSTALLATION OF THE CURTAIN DRAIN SHALL BE DONE DURING NON-RAINY PERIODS TO PREVENT SEDIMENT DEPOSITION AND CLOGGING OF THE SOIL STRUCTURE. IF RAIN BEGINS AFTER THE EXCAVATION OF THE CURTAIN DRAIN HAS BEEN COMPLETED, FILTER FABRIC SHALL BE PLACED ON THE CURTAIN DRAIN AREA. THE FILTER FABRIC SHALL BE REMOVED AND REPLACED OF SEDIMENT ACCUMULATES IN THE CURTAIN DRAIN AREA.
    - CURTAIN DRAIN FILTER FABRIC AND STONE SHALL BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL SEDIMENT HAS ENTERED ANY OF THE CURTAIN DRAIN, APPROPRIATE MEASURES (I.E., CLEANING THE SOIL/SEDIMENT FROM THE FABRIC, STONE, ETC. AN OR REPLACEMENT OF THE FABRIC AND STONE).



PENNSYLVANIA ONE CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG 1-800-242-1776

POCS SERIAL NUMBER: \_\_\_\_\_

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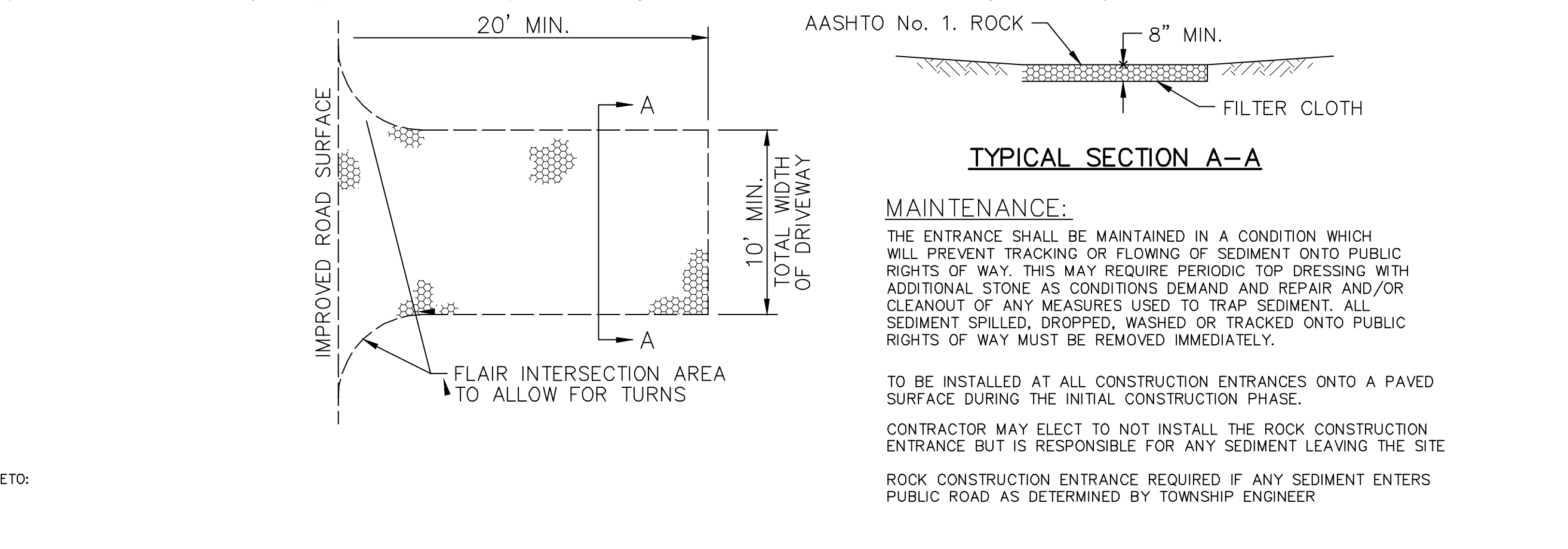
PENNSYLVANIA ACT 187 REQUIREMENTS UNDERGROUND UTILITIES SERIAL NO. MULLIN ENGINEERING LLC DOES NOT GUARANTEE THE ACCURACY OF THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS. THE USER OF THESE PLANS SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, MANUAL OF PRACTICES OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (CIS 200) SUPPLEMENT TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SHORING.

(2) EXCAVATIONS AND TRENCHING OPERATIONS (CIS 2226) DATED 1985 (REVISED).

PARCEL IDENTIFIER: 20-022-019



**MAINTENANCE:**

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.

TO BE INSTALLED AT ALL CONSTRUCTION ENTRANCES ONTO A PAVED SURFACE DURING THE INITIAL CONSTRUCTION PHASE.

CONTRACTOR MAY EJECT TO NOT INSTALL THE ROCK CONSTRUCTION ENTRANCE BUT IS RESPONSIBLE FOR ANY SEDIMENT LEAVING THE SITE.

ROCK CONSTRUCTION ENTRANCE REQUIRED IF ANY SEDIMENT ENTERS PUBLIC ROAD AS DETERMINED BY TOWNSHIP ENGINEER

ANY SILT FENCING WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE REPLACED WITH ROCK FILTER OUTLETS IMMEDIATELY.

SILT FENCE TO BE LOCATED AT THE TOE OF SLOPE OF ALL DISTURBED AREA. POSTS TO BE RED OR WHITE CEDAR OR HARDWOODS MEASURING 2" X 2", TAPERED TO A POINT.

Scale in Feet 0 2.5 5 7.5 10 20 30 40

1" = 10'

**EROSION & SEDIMENT CONTROL PLAN**

FOR

**8 SCAMMEL DRIVE**

LOWER MAKEFIELD - BUCKS COUNTY - PENNSYLVANIA

**Mullin Engineering**  
Civil Engineer

412 Monterey Lane West Chester, PA 19380

Tel: (610) 420-5309

PROJECT NO. 24839

SCALE 1" = 10'

DATE 08/29/2024

DRAWN BY PJM

CHECKED BY JJM

DRAWING



ZONED: R-2	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	16,500 SF	19,500 SF	19,500 SF
MINIMUM LOT WIDTH	110 FT	150 FT	150 FT
MAXIMUM IMPERVIOUS AREA	18%	3,803 SF (19.5%)	4,592 SF (23.5%)
MAXIMUM BUILDING HEIGHT	35 FT	20 FT	20 FT
MINIMUM FRONT YARD	40 FT	39.5 FT	39.5 FT
MINIMUM SIDE YARD (LEFT)	15 FT	22.6 FT	22.6 FT
MINIMUM SIDE YARD (RIGHT)	15 FT	22.1 FT	10.0 FT
MINIMUM REAR YARD	50 FT	60.4 FT	60.4 FT

**LEGEND**

- PROPERTY LINE
- ADJOINING PARCEL LINE
- RIGHT-OF-WAY
- WOOD FENCE
- OVERHEAD WIRE
- LANDSCAPE AREA (LSA)
- MINOR CONTOUR
- MAJOR CONTOUR
- ELEC METER
- MAILBOX
- AIR CONDITIONER
- SANITARY MANHOLE
- TREE
- CLEAN OUT
- UTILITY POLE

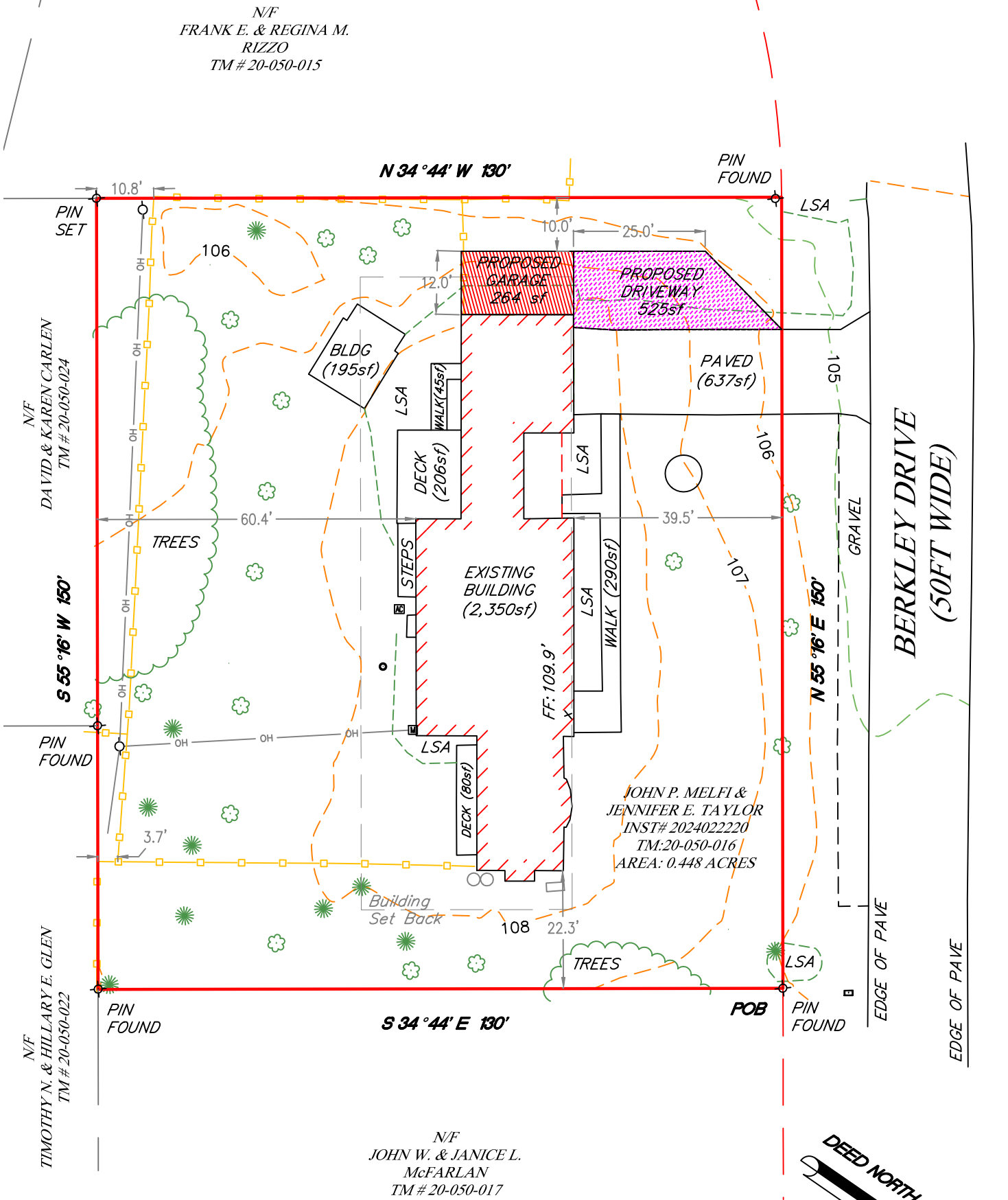
**IMPERVIOUS AREA TABLE**

	EXISTING (sf)	PROPOSED (sf)
DRIVEWAY (PAVED)	637	1,162
WALKS	335	335
HOUSE	2,350	2,614
BUILDING	195	195
DECKS	286	286
<b>TOTAL</b>	<b>3,803sf</b>	<b>4,592sf</b>

1868 Quarry Road  
Quakertown, PA  
18951

PHONE: (716) 353-1469  
EMAIL: Doug@1726.LAND

NOTE: ONLY SURVEY MAPS WITH THE SURVEYOR'S SEAL ARE GENUINE, TRUE, & CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION.



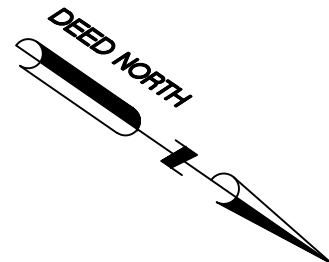
JOHN P. MELFI & JENNIFER E. TAYLOR  
INST# 2024022220  
TM: 20-050-016  
AREA: 0.448 ACRES

NO.	DATE	BY	REVISIONS:

MAP OF RETRACEMENT SURVEY OF LANDS N/F:

**John P. Melfi & Jennifer E. Taylor**  
**20-050-016**

TOWNSHIP OF LOWER MAKEFIELD  
COUNTY OF BUCKS  
COMMONWEALTH OF PENNSYLVANIA



**REFERENCES:**

- 1.) DEED INST#2024022220 RECORDED IN BUCKS COUNTY.
- 2.) PLAN OF LOTS FOR ELANOR M. ERB, RECORDED IN BUCKS COUNTY.
- 3.) CH 200-21 OF LOWER MAKEFIELD, PA ZONING ORDINANCE.

**NOTES**

THE SURVEYING WORK PERFORMED WAS IN ACCORDANCE WITH ESTABLISHED AND ACCEPTED STANDARDS OF PRACTICE FOR THE PROFESSION OF LAND SURVEYING IN THE COMMONWEALTH OF PENNSYLVANIA (DATED NOVEMBER 19, 2021, UPDATED MAY 31, 2022).

AN UP-TO-DATE ABSTRACT OF TITLE AND/OR TITLE REPORT WERE NOT PROVIDED TO THE SURVEYOR AT THE TIME OF THIS SURVEY.

THIS PARCEL IS SUBJECT TO ANY AND ALL RIGHT-OF-WAYS, EASEMENTS, AND/OR AGREEMENTS THAT MAY BE OVER AND ACROSS, OR UNDER THE SAME, WHETHER VISIBLE OR INVISIBLE, OR THAT MAY BE IN EXISTENCE OR OF RECORD FOR SAID PREMISES.

ALL EXISTING TOPOGRAPHY IS ON PA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE) NAD83 DATUM FROM A SURVEY COMPLETED 7/3/24.

**PROPERTY ADDRESS**

7 Berkley Dr.  
Yardley, PA  
19067



1"=25'

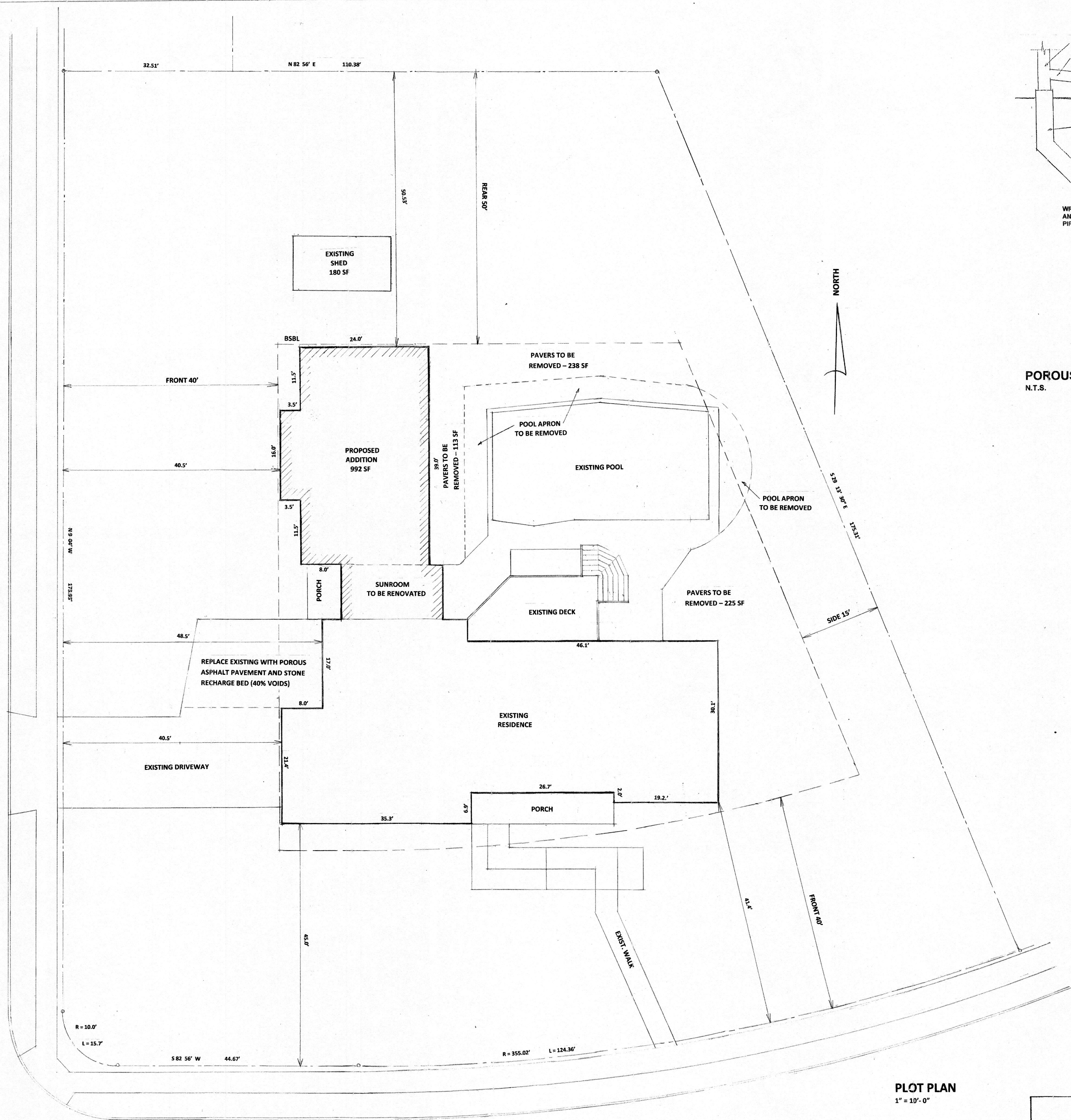
DRAFTED BY: **D.H.B.**  
CHECKED BY: **D.H.B.**  
APPROVED BY: **D.H.B.**  
DATE: **7/17/24**  
PROJECT NO: **224-86**

DRAWING SCALE  
**1"=25'**

DRAWING NO.  
**224-86\_BASE**

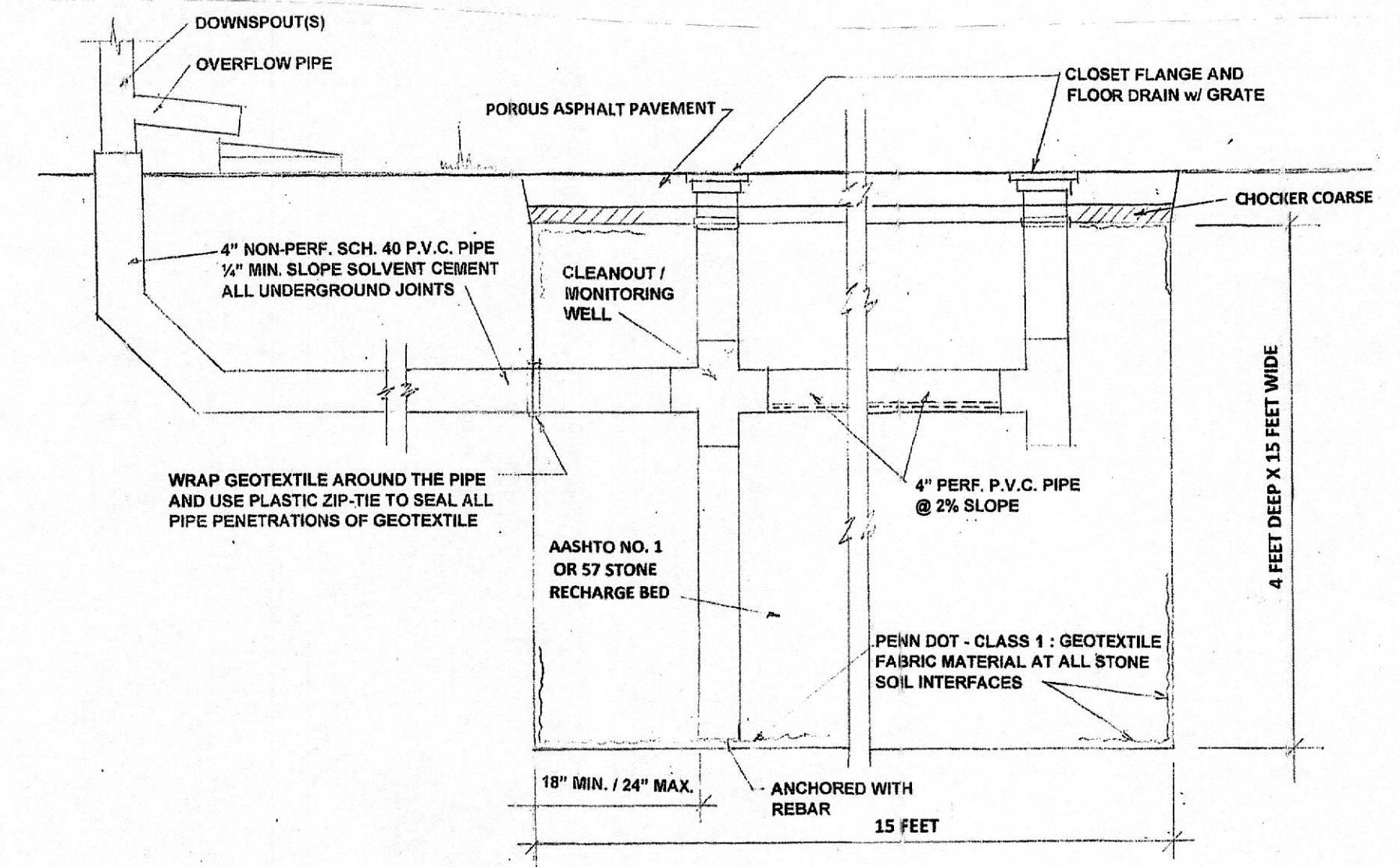


JADE ROAD (56')



PLOT PLAN  
1" = 10'-0"

GAINSWAY ROAD (56')



POROUS PAVEMENT DRY WELL DETAIL  
N.T.S.  
RUNOFF STORAGE VOLUME 360 C.F.

ZONING DATA

R-2 Residential District - Medium-Density

LOT COVERAGE CALCULATIONS

Existing Dwelling	2,713 SF
Existing Sunroom (To be renovated)	240 SF
Existing Driveway	991 SF
Existing Front Porch	185 SF
Existing Deck	306 SF
Existing Pool Apron	700 SF
Existing Pool Patio/Pavers	936 SF
Existing Walkway	280 SF
Shed	180 SF
<b>TOTAL EXISTING</b>	<b>6,531 SF (25.85%)</b>

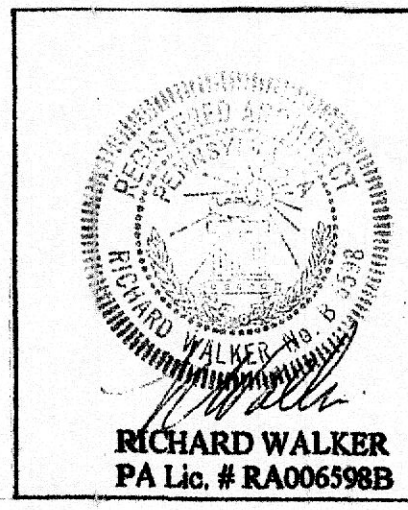
IMPERVIOUS TO BE REMOVED

Pool Apron	325 SF
Patio Pavers	576 SF
<b>TOTAL EXISTING TO BE REMOVED</b>	<b>901 SF</b>

PROPOSED - Addition 992 SF

TOTAL EXISTING, REMOVED & PROPOSED 6,625 SF (26.21%)

	Required	Existing	Proposed
Min. Lot Size	34,000 SF	0.58 AC (25,264.8 SF)	N/C
Min. Lot Width & Front Yard	110 Ft.	173.93 Ft. & 169.0 Ft.	N/C
Max. Impervious Coverage	18% (4,548 SF)	25.85% (6,531 SF)	26.21% (6,625 SF)
Max. Height	35 Ft	<35 Ft.	N/C
Min. Front Yard	40 Ft	40.5 Ft. & 41.4 Ft.	40.5 Ft.
Min. Side Yard	15 Ft	29.0 Ft.	N/C
Min. Rear Yard	50 Ft	101.3 Ft.	50.5 Ft.



**RICHARD WALKER ARCHITECT**  
786 WASHINGTON CROSSING ROAD NEWTOWN, PA 18940  
215-968-5539 FAX 215-860-8583

**JOB NAME**  
PROPOSED ADDITION  
RUSK RESIDENCE  
904 GAINSWAY ROAD  
TOWNSHIP OF LOWER MAKEFIELD  
NEWTOWN, PENNSYLVANIA 19067

**DATE:** Nov. 7, 2024

**PP - 1**



# HACIENDA DESIGN INCORPORATED

**Architect**  
 Hacienda Design, Inc  
 401 Washington Street  
 Morrisville, PA 19067  
 Phone: 215.736.8255  
 Fax: 215.736.8589

**Owner**  
 Thomas and Suzanne Farrell  
 208 West Ferry Road  
 Yardley, PA 19067

## Project Data

Lower Makefield Township Zoning Code  
 Residential District R-2

Commonwealth of Pennsylvania Uniform  
 Construction Code  
 2018 International Residential Code

## Lot Area:

12,750 square feet

Existing Dwelling Area:  
 1156 square feet

Existing Shed area:  
 96 square feet

Proposed Addition area:  
 1946 square feet

Proposed Front Porch area:  
 132 square feet

Proposed Rear Porch area:  
 145 square feet

Building Cover:  
 Existing: 1252 square feet  
 9.8 percent  
 Proposed: 3475 square feet  
 27.3 percent

Existing Driveway Area:  
 1709 square feet

Existing Driveway to be covered by garage:  
 560 square feet

Existing Driveway to be demolished:  
 240 square feet

Existing Walkway Area to be demolished:  
 78 square feet

Proposed Walkway Area:  
 72 square feet

Existing Patio Area:  
 384 square feet to be demolished

Total Impervious Cover:  
 Existing: 3423 square feet  
 26.8 percent  
 Proposed: 4456 square feet  
 34.9 percent  
 26 percent impervious surface permitted  
 Variance requested for impervious surface

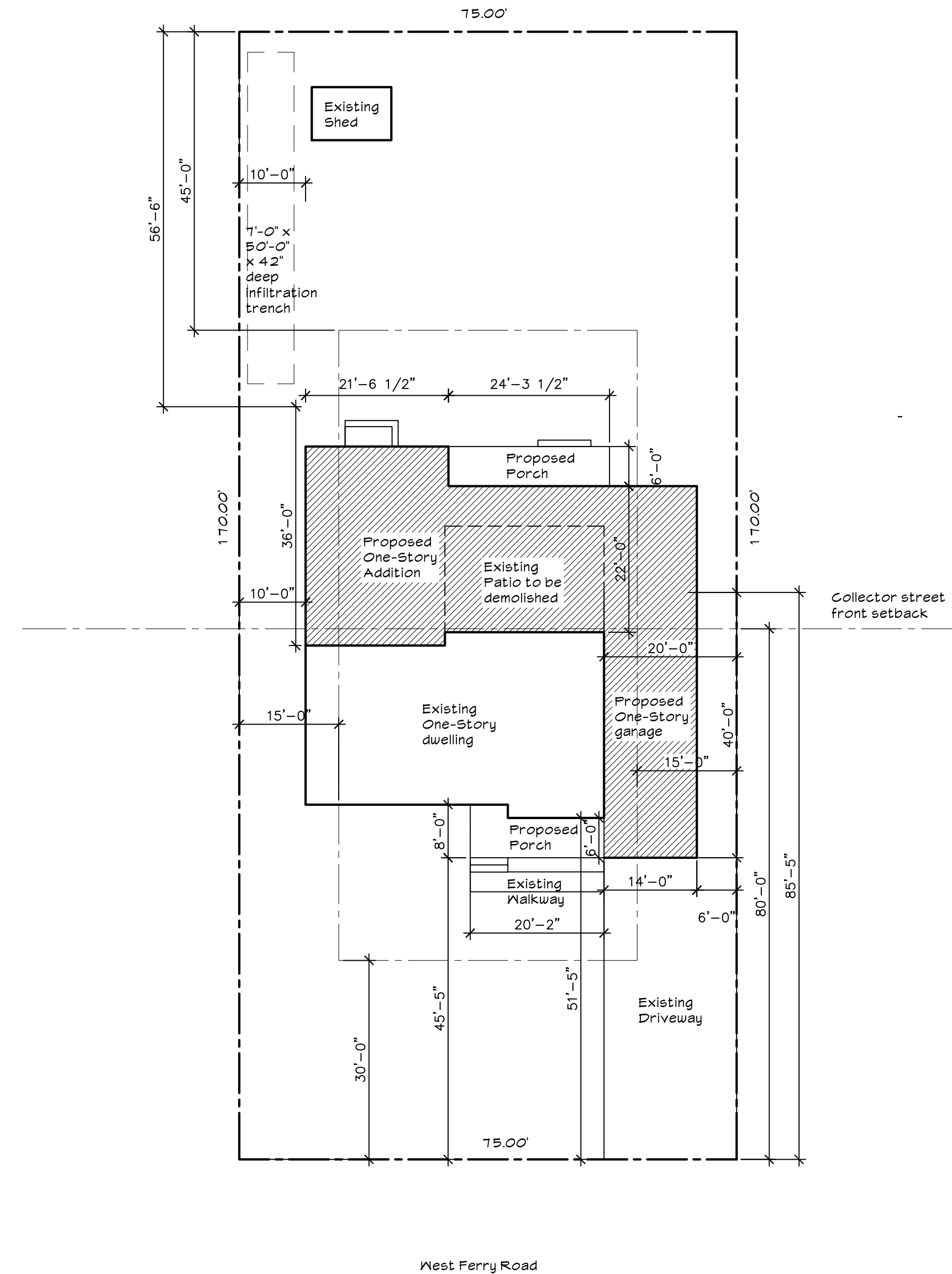
Minimum Yard Setbacks:  
 Front:  
 Required: 30'-0"  
 Provided: 46'-5"

Side:  
 Required: 15'-0"  
 Provided: 10'-0" on left -  
 existing non-conformance

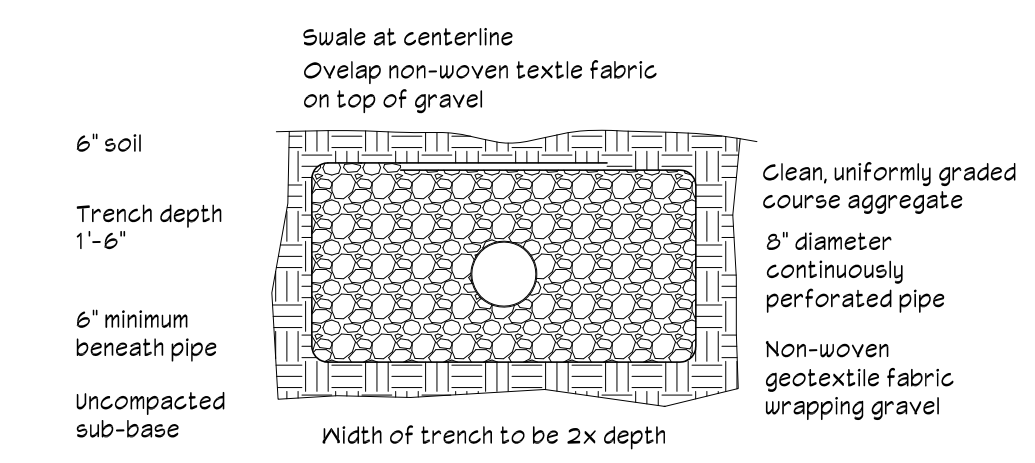
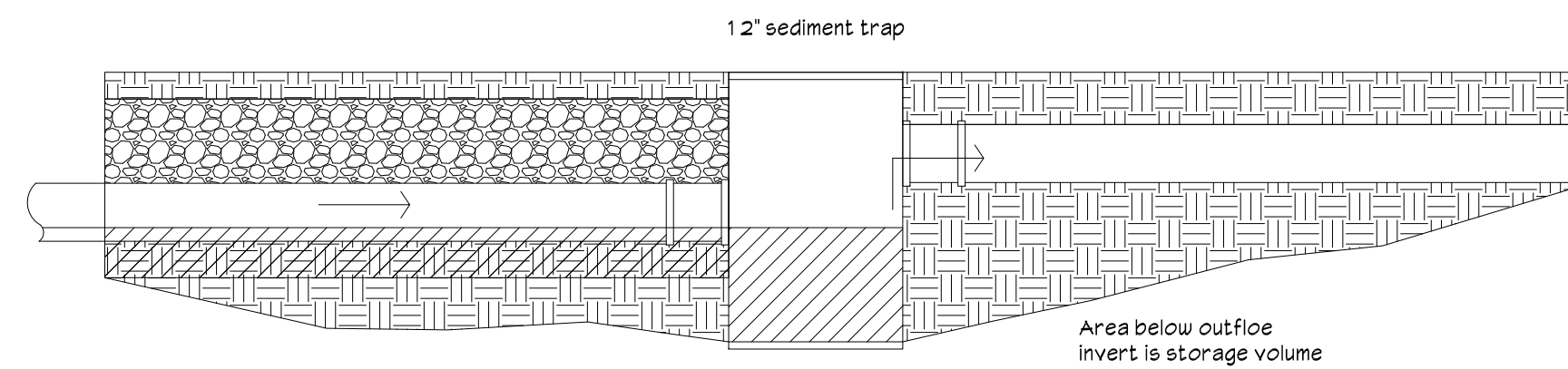
Variance requested to extend existing non-conforming  
 side setback 36'-0" on right at house

Variance requested for 5'-0" side setback at garage

Rear:  
 Required: 45'-0"  
 Provided: 56'-6"



1 PLOT PLAN  
 ST-1 SCALE: 1/16" = 1'-0"



2 INFILTRATION TRENCH DETAIL  
 ST-1 SCALE: 1/2" = 1'-0"

Seal:  
 Tracy L. Miller  
 P.A. R.A. 016689

Project:  
 Farrell residence  
 208 West Ferry Road  
 Yardley, PA 19067  
 Drawing Title:  
 Cover Sheet

Date:  
 1 July 2024  
 Scale: As Noted  
 CAD file: C: Farrell residence  
 Drawn by: TLM  
 Reviewed by: TLM

Revisions:  
 Change:  
 HACIENDA DESIGN INCORPORATED  
 401 Washington Street  
 Morrisville, PA 19067  
 Phone: 215.736.8255  
 Fax: 215.736.8589

ST-1  
 Drawing Number:  
 1 of 1  
 Sheet Number: