EROSION CONTROL LEGEND

FILTER FABRIC FENCE — FF-18

LIMITS OF CONSTRUCTION — LOC

ROCK FILTER

CONSTRUCTION ENTRANCE

STOCKPILED TOPSOIL — STOCKPILE

ORANGE CONSTRUCTION FENCE

SCHEDULE FOR INSPECTION

Upon completion of each stage of development, all erosion control device (permanent and/or temporary) shall be inspected for adequacy.

The permittee and co-permittee must ensure that visual site i Inspections are conducted bi-weekly, and after each runoff event by qualified personnel, trained and experienced in erosion and sediment control, to ascertain that the BMP's are operational and effective in preventing pollution to the waters of the Commonwealth. A written report of each inspection shall be kept, and include:

(1) a summary of site conditions, BMP's, and compliance; and

(2) the date, time, and the name of the person conducting the inspection.

DEVICE	NECESSARY REPAIR
Stockpiled Topsoil	Re-seed or re-mulch any areas where seeding has been damaged by water runoff or seeding techniques have not sufficiently germinated.
Fabric Fencing	Cleanout upon silt reaching one half the fence height, replacing any damaged posts or fabric immediately.
Rock Filter	Cleanout upon silt reaching 1/2 the stone height, replacing any stone immediately.
Construction Entrance	Replace and reposition any moved
Seeding and Mulching	Re-seed or re-mulch any areas where seeding has been damaged by water runoff or seeding techniques have not sufficiently germinated.

These repair techniques will be performed upon any damage or worn erosion control device.

Replacement of any erosion control item will be determined upon completion of a stage, or after a serious erosion producing storm. It will be at this time that any device will be repaired or replaced. The inspector will make these decisions.

BMP MAINTENANCE PROGRAM

1. DURING DEVELOPMENT OF THE SITE, THE CONTRACTOR SHALL CHECK ON A DAILY BASIS ALL SITE ACTIVITIES AND ALL EROSION CONTROL DEVICES TO INSURE THAT ALL EFFECTED AREAS ARE PROTECTED WITH PROPERLY FUNCTIONING FACILITIES.
2. INSPECTIONS SHALL BE CONDUCTED ON A WEEKLY BASIS AND FOLLOWING ALL RUNOFF EVENTS. CLEANING AND/OR REPLACEMENT OF DEFECTIVE EROSION AND SEDIMENT CONTROL DEVICES, OR OF ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING BUT NOT LIMITED TO RESTONING, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY.

WHEN THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED FROM THE SITE AND ANY DISTURBED AREAS SHALL BE IMMEDIATELY STABILIZED.

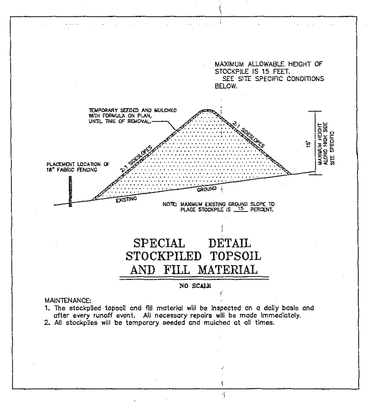
NOTE: VEGETATED AREAS SHALL BE CONSIDERED PERMANENLTY STABILIZED WHEN A UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED, OR THE DISTURBED AREA IS COVERED WITH AN ACCEPTABLE BMP WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.

SEED, MULCH, AND FERTILIZATION SPECIFICATIONS

FOR A DETAILED SEEDING, MULCH, AND FERTILIZATION SPECIFICATIONS PLEASE REFER TO THE EROSION CONTROL NARRATIVE UNDER THE SECTIONS OF LIME, FERTILIZER, AND MULCHING SPECIFICATIONS AND PERMANENT & TEMPORARY SEEDING SPECIFICATIONS

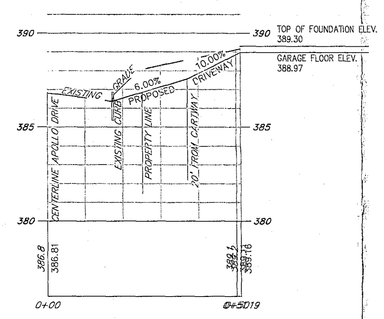
RECYCLING AND DISPOSAL NOTES

ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS. NO BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

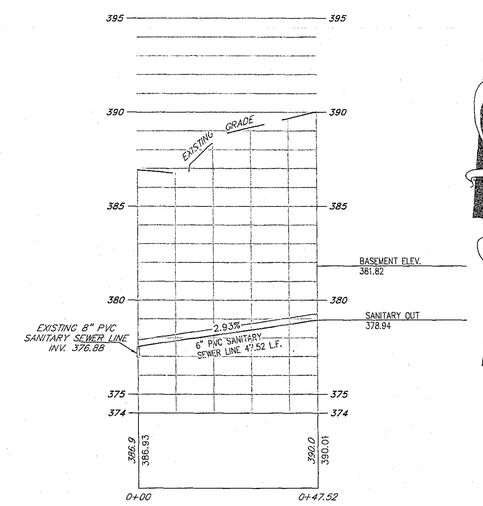


SPECIAL DETAIL
STOCKPILED TOPSOIL AND FILL MATERIAL
NO SCALE

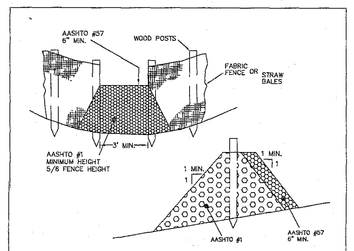
MAINTENANCE:
1. The stockpiled topsoil and fill material will be inspected on a daily basis and after every runoff event. All necessary repairs will be made immediately.
2. All stockpiles will be temporary seeded and mulched at all times.



DRIVEWAY PROFILE
STA 0+00 TO STA 0+51.19
HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 4'
DATUM ELEV: 380.00

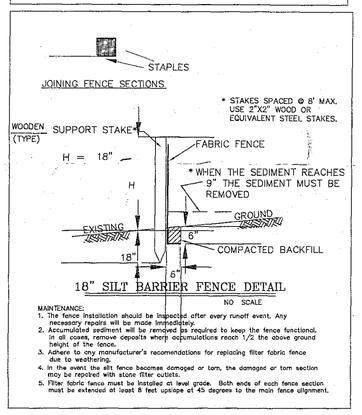


SANITARY PROFILE
STA 0+00 TO STA 0+47.52
HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 4'
DATUM ELEV: 374.00



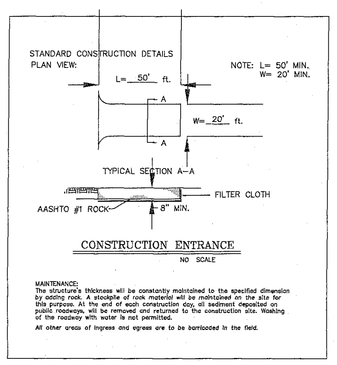
STONE FILTER OUTLET
NO SCALE

MAINTENANCE:
A. THE STRUCTURE'S THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING STONE. A STOCKPILE OF STONE WILL BE PROVIDED ON THE SITE FOR THE MAINTENANCE OF THIS DEVICE.
B. THE STRUCTURE WILL BE INSPECTED ON A WEEKLY BASIS AND IMMEDIATLY AFTER EACH RUNOFF EVENT. IF THIS STRUCTURE IS DAMAGED UPON INSPECTION IT MUST BE REPAIRED IMMEDIATELY.



18" SILT BARRIER FENCE DETAIL
NO SCALE

MAINTENANCE:
1. The fence installation should be inspected after every runoff event. Any damaged or worn fence should be repaired.
2. Accumulated sediment will be removed as required to keep the fence functional. In all cases, remove deposits when accumulations reach 1/2 the above ground height of the fence.
3. Adhere to any manufacturer's recommendations for replacing filter fabric fence due to weathering.
4. Promptly replace any fence becomes damaged or torn, the damaged or torn section must be replaced with stone filter outlet.
5. Filter fabric fence must be installed at level grade. Both ends of each fence section must be extended at least 8 feet upslope at 45 degrees to the main fence alignment.



CONSTRUCTION ENTRANCE
NO SCALE

MAINTENANCE:
The structure's thickness will be constantly maintained to the specified dimension by adding rock. A stockpile of rock material will be maintained on the site for this purpose. At the end of each construction day, all sediment deposited on paved roadways shall be scraped or removed back to the construction site. Washing of the roadway with water is not permitted.
All other areas of ingress and egress are to be barricaded in the field.

STANDARD EROSION AND SEDIMENTATION CONTROL PLAN NOTES

General Notes

Only limited disturbance will be permitted to provide access to (construct sediment traps, diversion terraces, etc.) for grading and acquiring borrow to construct those controls.

Erosion and sedimentation controls must be constructed, stabilized, and functional before site disturbance within the tributary areas of those controls.

After final site stabilization has been achieved, temporary erosion and temporary erosion and sedimentation controls must be removed. Areas disturbed during removal of the controls must be stabilized immediately. posted at the construction site.

Vehicles and equipment may neither enter directly to nor exit directly from the site onto any roadway.

At the end of each working day, any sediment tracked or conveyed onto a public roadway will be removed and redeposited onto the construction site. Removal can be completed through the use of mechanical or hand tools, but must never be washed off the road by use of water.

Sediment removed from E&SPC controls & facilities shall be disposed of in landscaped areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized, or placed in topsoil stockpiles.

All pumping of sediment laden water shall be through a dirt bag filtration device, or equivalent sediment removal facility, over non-disturbed vegetated areas. Discharge points should be established to provide for maximum distance to active waterways.

All excavation for utility line installation shall be limited to the amount that can be excavated, installed, backfilled and stabilized within one working day. All excavated material shall be deposited on the upslope side of the trench.

Should unforseen erosive conditions develop during construction, the contractor shall take action to remedy such conditions and to prevent damage to adjacent properties as a result of increased runoff and/or sediment displacement.

The contractor is advised to become thoroughly familiar with the provisions of the Appendix E4, Erosion Control Rules and Regulations, Title 25, Part 1, Department of Environmental Protection, Protection of Natural Resources, Article III, Water Resources, Chapter 102, Erosion Control.

A copy of this erosion and sedimentation control report and plans must be at the site at all times.

Filter Fabric Notes

Filter fabric fence must be installed at level grade. Both ends of each fence section must extend at least 8 feet upslope at 45 degrees to the main fence alignment.

Sediment must be removed when accumulations reach 1/2 the above ground height of the fence.

Any fence section which has been undermined or topped must be immediately replaced with a rock filter outlet.

Where ends of filter fabric come together, they must be overlapped, folded and stapled to prevent sediment bypass. The toe anchor must be backfilled and compacted to a density equal to the surrounding soil.

Stabilization Notes

Stockpile heights must not exceed 35 feet. Stockpile slopes must be 2:1 or flatter.

Upon completion of an earth disturbance activity or any stage or phase of an activity, the operator shall stabilize immediately the disturbed areas to protect from accelerated erosion. During non-germinating periods, mulch must be applied at the specified rate. Disturbed areas which are not at finished grade and which will be redisturbed within 1 year may be stabilized in accordance with temporary seeding specifications. Disturbed areas, which are either at finished grade or will not be redisturbed within 1 year, must be stabilized in accordance with permanent seeding specifications.

All topsoil stockpiles must be stabilized immediately.

Hay or straw mulch must be applied at rates of at least 3.0 tons per acre.

Until the site has achieved final stabilization, the owner and/or contractor shall properly implement, operate and maintain all the best management practices. Maintenance shall include inspections of all erosion and sedimentation control after each runoff event and on a weekly basis. All preventative and remdial maintenance work, including clean out, repair, replacement, regrading, reseeding, remulching, and renetting, must be performed immediately.

An area shall be considered to have achieved final stabilization when it has a minimum of 70% uniform perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding or other movements.

Mulch with mulch control netting or erosion control blankets must be installed on all slopes greater than 3:1.

Rock Filter Outlet Notes

Sediment must be removed when accumulations reach 1/3 of the outlets.

The height of the rock filter should equal 5/6 the height of the straw bales or filter fabric.

Rock Construction Entrance

Rock construction entrance thickness will be constantly maintained to the specific dimensions by adding rock. A stockpile of rock material will be maintained on the site for this purpose. At the end of each construction day, all sediment deposited on public roadways will be removed and returned to the construction site.

Construction Sequence Notes

Before implementing any revisions to the approved erosion and sediment control plan or revisions to other plans which may affect the effectiveness of the approved E&S control plan, the operator must receive approval of the revisions from the Northampton County Conservation District.

The operator shall remove from the site, recycle or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 PA Code 260.1 et seq., 271.1 e. seq. and 287.1 et seq.

Before disposing of soil or receiving borrow for the site, the operator must assure that each spoil or borrow area has an erosion and sediment control plan approved by the Northampton County Conservation District, and which is being implemented and maintained according to Chapter 102 regulations.

TOPSOIL SUPPLEMENT AND SPECIFICATIONS

Immediately after each section of final grading has been completed, all disturbed areas shall be permanently stabilized. To achieve this a thin layer of topsoil, 2 to 4 inch depth, shall be evenly dispersed over all disturbed areas then permiantly seed and mulch according to the specifications within the Narrative.

Note, in the event that the site does not have enough native topsoil to cover the disturbed areas, the contractor shall make arrangements to extract topsoil from an other site that has been pre-approved by the Northampton County Conservation District.

TEMPORARY AND PERMANENT STABILIZATION

AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED.

Temporary seeding and mulching techniques will be utilized in disturbed areas prior to the final stage of permanent stabilization. Such areas will consists of stockpiled topsoil, earth berms, etc.

Temporary seed types are: annual Ryegrass, winter wheat and winter rye. Seed shall be applied at a rate of 4 lbs. per acre. Temporary seeding may take place from Spring to October 1.

Temporary mulch types: Timothy hay, wheat or oat straw.

Mulch shall be applied evenly at a rate of 3 tons per acre.

TEMPORARY AND PERMANENT SEEDING SPECIFICATIONS

SPECIFICATIONS: The Department recommends the use of the Penn State Agronomy Guide as the resource to use for selecting seed varieties, soil amendments, and rates, depth, and dates for seeding methods. Specifications for these items may also be obtained from Penn DOT's Publication 408, Section 800 or by contacting the applicable county conservation district. Upon selection of a reference, the specifications contained in that reference for seeding, mulching, and soil amendments. The following specification will be used for this project.

(TEMPORARY)

SPECIES*	Annual Ryegrass
% PURE LIVE SEED:	90 %
APPLICATION RATE:	40 LB./ACRE
FERTILIZER TYPE:	10-10-10 (X-X-X)
FERTILIZER APPL. RATE:	150 LB./ACRE
LIMING RATE:	1 T./ACRE
MULCH TYPE:	Timothy Hay, Wheat or Oat Straw
MULCHING RATE:	3 T./ACRE

(PERMANENT)

SPECIES*	Kentucky Bluegrass	Perennial Ryegrass
% PURE LIVE SEED:	100	100 %
APPLICATION RATE:	30	3 20 LB./ACRE
FERTILIZER TYPE:	10-20-20 (X-X-X)	
FERTILIZER APPL. RATE:	930 LB./ACRE	
LIMING RATE:	4 T./ACRE	
MULCH TYPE:	Timothy Hay, Wheat or Oat Straw	
MULCHING RATE:	3 T./ACRE	
ANCHOR MATERIAL:	N/A	
ANCHORING METHOD:	N/A	
RATE OF ANCHOR MATERIAL APPL.:	N/A	
SEEDING SEASON DATES:	Spring to October 1	

(PERMANENT-STEEP SLOPE) (≥ 3:1)

SPECIES*	Fescue	Perennial Ryegrass
% PURE LIVE SEED:	100	100 %
APPLICATION RATE:	30	3 20 LB./ACRE
FERTILIZER TYPE:	10-20-20 (X-X-X)	
FERTILIZER APPL. RATE:	930 LB./ACRE	
LIMING RATE:	4 T./ACRE	
MULCH TYPE:	Timothy Hay, Wheat or Oat Straw	
MULCHING RATE:	3 T./ACRE	
ANCHOR MATERIAL:	N/A	
ANCHORING METHOD:	N/A	
RATE OF ANCHOR MATERIAL APPL.:	N/A	
SEEDING SEASON DATES:	Spring to October 1	

*If more than one species is used, indicate application rate for each species.
NOTE: Show information from this sheet on plan drawings.

SCHEDULE OF EARTH MOVING ACTIVITIES
634 APOLLO DRIVE, TAX MAP ID # M6SE3 – 6 – 28B

SPECIAL NOTES

The Northampton County Conservation District must be notified in writing a minimum of 3 days prior to any earth disturbance on the site.

The contractor must contact the Northampton County Conservation District and the PA Fish Commission 10 days prior to any earth moving within the wetlands or creek

All Erosion and Sedimentation Control devices must be installed and in working order prior to any earth disturbance on the site, including clearing and grubbing of any vegetation.

All existing utilities shown on the plans, above or underground, are shown at their approximate locations. Also the engineer does not guarantee all existing utilities on the site are shown on the plans. The contractor is responsible to verify the existence of all utilities and to call the PENNSYLVANIA ONE CALL SYSTEM (Toll Free 1-800-242-1776) before they dig, drill, or blast.

No earth disturbance during winter conditions is permitted. If the contractor wishes to continue earth disturbance during winter conditions, he must first receive written permission from the Northampton County Conservation District.

This project will have no excess spoil material left over upon completion of site construction. This spoil will be evenly distributed throughout the site as shown on the plan.

A signed copy of the Erosion and Sedimentation Control Plans, narrative and associated permits must be available on the job site at all times.

If, at any time prior to stabilization, any E&S problems occur which require (additional) controls, immediate action must be taken to correct the problem.

The contractor must contact the Northampton County Conservation District prior to any earth disturbance to schedule a pre-construction meeting.

No gubbing may occur until downstream erosion and sedimentation controls are installed and functional.

The contractor shall comply with all DEP and municipal regulations in recycling/disposal of wastes at the construction site. Construction wastes on this site may include, but are not limited to, excess soil materials, building materials, concrete wash water, sanitary wastes, etc. Wherever possible, recycling of excess materials is preferred, rather than disposal.

SCHEDULE OF EARTH MOVING ACTIVITIES
634 APOLLO DRIVE, TAX MAP ID # M6SE3 – 6 – 28B
EARTH DISTURBANCE: 0.3650 ACRES

STAGE 1

Prior to any earth disturbance, PA ONE CALL must be contacted to identify any utilities within the area. During this stage of construction the following Erosion and Sedimentation Control Devices are to be installed.

A. Install a rock construction entrance to be used during the first part of construction. All vehicles must use this entrance prior to exiting the site.
B. Install all runs of the filter fabric fencing as shown on the plans. Install the swale rock filters.

Once stage 1 is completed, the contractor may proceed to Stage 2.

STAGE 2

During this stage of construction the following work will begin in the order as follows:
A. Strip topsoil in the area of the proposed lot and stockpile at the location shown on the mapping. Immediately stabilize the topsoil pile.
B. Construct the lot and associated utilities (i.e. water and sewer laterals)
C. Construct and stabilize the driveway. Once the bituminous base course has been installed, install the construction entrance at the intersection of the driveways and APOLLO DRIVE
D. Once the lot has been constructed, regrade the lot and immediately stabilize.
E. Once the lot is stabilized, remove the temporary erosion and sediment controls. Stabilize the areas disturbed by the removal of these controls.

NOTE Stabilization is defined as a 70% vegetative cover of erosion resistant perennial species or when the disturbed area is covered with an acceptable BMP which permanently minimizes accelerated erosion and sedimentation.

S I T E D A T A

1. OWNER:
   MARY E. GRASSI
   2360 RAYA WAY
   EASTON PA 18045-5781
2. SITE ADDRESS:
   634 APOLLO DRIVE
3. TAX MAP ID # M6SE3 - 6 - 28B
4. D.B.V. 2020-1 PG 011306
5. LOT AREA: 15,044.96 SQFT. / 0.345 AC.
6. ZONING DISTRICT RR (RESIDENTIAL DISTRICT)
   MINIMUM LOT SIZE - 15,000 SQFT.
   MINIMUM LOT WIDTH - 100 FT.
   FRONT YARD MINIMUM - 35 FT.
   SIDE YARD MINIMUM - 15 FT.
   REAR YARD MINIMUM - 40 FT.
   MAXIMUM HEIGHT - 2.5 STORIES / 35 FT.
   MAXIMUM BUILDING COVERAGE - 15%
   MAXIMUM IMPERIOUS COVERAGE - 50%
7. LOT TO BE SERVED BY PUBLIC WATER & PUBLIC SEWER
8. LOT WIDTH: 104.54'
9. EXISTING BUILDING COVERAGE 0.00 SQFT. OR 0.0% RATIO
   PROPOSED BUILDING COVERAGE 2,255.38 SQ.FT. OR 14.99% RATIO
10. EXISTING IMPERVIOUS COVERAGE 0.00 SQ.FT. OR 0.0% RATIO
    PROPOSED IMPERVIOUS COVERAGE 2,825.46 SQFT. OR 18.78% RATIO
11. DISTURBANCE AREA 15,888.05 SQ.FT. OR 0.3647 ACRE
    TOTAL DISTURBED AREA RATIO 105.72%
12. SOIL TYPES:
    DvB - URBAN LAND-DUFFIELD COMPLEX, 0 TO 8 PERCENT SLOPES
    DATA FROM WEB SOIL SURVEY

NOTE:
BENCHMARK FOR PROJECT IS TAKEN FROM THE RIM OF THE SANITARY MANHOLE WHICH IS LOCATED AT THE EAST END OF APOLLO DRIVE ELEV. 387.16

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER LARRY S. TUROSCY No.16705-E

COMMONWEALTH OF PENNSYLVANIA REGISTERED SURVEYOR LARRY S. TUROSCY No.14112-E

I, LARRY S. TUROSCY A REGISTERED ENGINEER OF THE COMMONWEALTH OF PENNSYLVANIA DO HEREBY CERTIFY THAT THIS DESIGN IS IN COMPLIANCE WITH REGULATIONS PROMULGATED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES, TITLE 25, CHAPTER 73 STANDARDS FOR SEWAGE DISPOSAL FACILITIES.

3-09-20
DATE

LARRY S. TUROSCY, P.E. 16705-E R.S. 14112-E
499 RIVERVIEW DRIVE, P.O. BOX 68
WALNUTPORT, PA 18088
(610) 767-8545

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 DIAL 8-1-1 BEFORE YOU DIG!

DIAL 8-1-1 OR 1-800-242-1776 NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS PRIOR TO START OF EXCAVATION.

PENNSYLVANIA ONE CALL SYSTEM SERIAL NUMBER

BUILDER
STEVE YAVORSKI CONSTRUCTION
3151 APPLEBUTTER ROAD
DANIELSVILLE PA 18038
610-972-3958

OUTSIDE AGENCY REVISION BLOCK

REVISION DATE	CORRESPONDENCE AGENCY

MUNICIPAL REVISION BLOCK

REVISION DATE	CORRESPONDENCE AGENCY

LEHIGH ENGINEERING ASSOCIATES, INC.
499 RIVERVIEW DRIVE, P.O. BOX 68
610 767 8545 FAX 610 767 5798

LOCATED IN:
CITY OF BETHLEHEM
COUNTY OF NORTHAMPTON
COMMONWEALTH OF PENNSYLVANIA

GRADING, UTILITY & EROSION & SEDIMENTATION CONTROL PLAN FOR:

634 Apollo Drive
Tax ID # M6SE3 - 6 - 28B

DATE: 03/09/2020
SCALE : 1" = 20'
DRAWN BY: ADR
JOB: 006511
SHEET 01 of 01

#20031395

6511_APOLLO DRIVE GRADING PLAN 03-10-2020.dwg