

**LEGEND**

---	CENTERLINE
---	TRACT BOUNDARY
---	PROPERTY LINE
---	LEGAL R.O.W. EASEMENTS
---	REQUIRED R.O.W.
---	EXISTING CONTOUR
---	EXISTING WATER LINE
---	EXISTING SAN. SEWER LINE
---	EXISTING TELEPHONE LINE
---	EXISTING GAS LINE
---	EXISTING ELECTRIC LINE
---	EXISTING STORM SEWER/INLET
---	EXISTING MANHOLE
---	EXISTING CURBLINE
---	UTILITY POLE
---	EXISTING VALVE, VENT. CO.

**STEEP SLOPE LEGEND:**

[Pattern]	15%-25% SLOPES	14,463 SF
[Pattern]	SIGNIFICANT SLOPES >25%	14,827 SF
<b>TOTAL STEEP SLOPE AREAS:</b>		<b>29,290 SF</b>

**SOILS LEGEND:**  
 THE ENTIRE SITE IS COMPRISED OF THE FOLLOWING SOIL TYPE:  
 UuS0 Urban Land-Udorthents Shale and Sandstone Complex 0-25% Slopes  
 Depth to Bedrock: 20-99 Inches  
 Depth to Water Table: More than 80 Inches  
 HYDROLOGIC SOIL GROUP: A

**TRACT BOUNDARY SEGMENTS:**

SEGMENT	DESCRIPTION
1	RADIUS= 20.00 FT ARC LENGTH= 13.51 FT CHORD BEARING= N72°19'00"E CHORD LENGTH= 13.25 FT
2	RADIUS= 375.00 FT ARC LENGTH= 126.43 FT CHORD BEARING= S79°40'30"E CHORD LENGTH= 125.83 FT

**TRACT AREAS:**

GROSS TRACT AREA=	163,972 SF (3.7643 AC)
LE VALLEY FORGE RD TABAK AVE-ULTIMATE R/W AREA=	12,987 SF (0.2981 AC)
SCHUYLKILL PARKWAY SR 3021 R/W AREA=	80,320 SF (1.8439 AC)
NET LOT AREA=	70,665 SF (1.6223 AC)

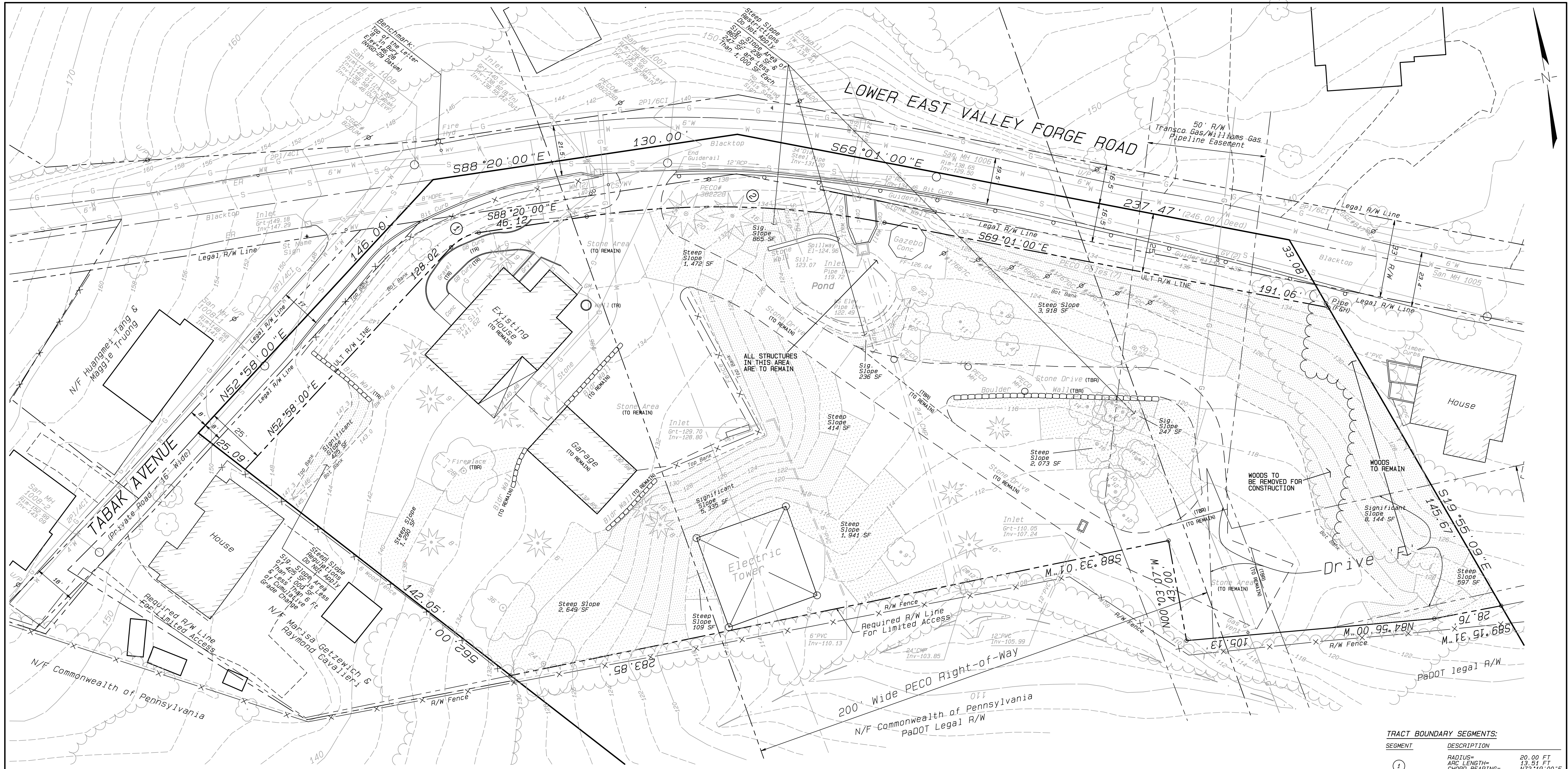
DATE		REVISIONS	REVISION NO.	PROJECT TITLE :
				<b>555 LOWER EAST VALLEY FORGE ROAD</b>
				UPPER MERION TOWNSHIP-MONTGOMERY COUNTY-PENNSYLVANIA
DATE		REVISIONS	REVISION NO.	DRAWING TITLE :
				<b>OVERALL SITE EXISTING FEATURES PLAN</b>
DATE		REVISIONS	REVISION NO.	PREPARED BY :
				<b>JOSEPH M. ESTOCK</b>
				Consulting Engineers & Land Surveyors
DATE		REVISIONS	REVISION NO.	SCALE
				1" = 30'
DATE		REVISIONS	REVISION NO.	FILE NO.
18 DECEMBER 2019				16008
DATE		REVISIONS	REVISION NO.	FIELD BOOK
				344
DATE		REVISIONS	REVISION NO.	SHT. NO.
				2 of 10

**UNDERGROUND UTILITIES**  
 PA. ACT 197 OF 1996-ONE CALL NOTIFICATION (1-800-242-1776)  
 DATE: 11-29-2018 SERIAL NO.: 20183330864

ALL LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DEVELOPED FROM EXISTING UTILITIES RECORDS AND/OR ABOVE GROUND EXAMINATION OF THE UNDERGROUND UTILITIES RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXISTENCE OF UTILITIES AND FOR NOTIFYING THE UTILITY COMPANIES AT LEAST THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO VERIFY LOCATION AND DEPTH OF SAME.

**JOSEPH M. ESTOCK**  
 REGISTERED PROFESSIONAL ENGINEER  
 P.E. 037320E  
 PENNSYLVANIA

**355 South Henderson Road**  
 King of Prussia, PA 19406-2407  
 (610) 265-3035 - Fax (610) 962-9855  
 joe@josephmestock.com



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---	EXISTING STORM SEWER/INLET
---	EXISTING MANHOLE
---	EXISTING CURBLINE
---	UTILITY POLE
---	EXISTING VALVE, VENT. CO.
---	TO BE REMOVED
---	TO REMAIN

**STEEP SLOPE LEGEND:**

[Pattern]	15%-25% SLOPES 14,463 SF
[Pattern]	SIGNIFICANT SLOPES +25% 14,827 SF
TOTAL STEEP SLOPE AREAS: 29,290 SF	

**SOILS LEGEND:**

THE ENTIRE SITE IS COMPRISED OF THE FOLLOWING SOIL TYPE:

UvSd Urban Land-Udorthents  
Shale and Sandstone Complex  
8-25% Slopes

Depth to Bedrock: 20-99 Inches  
Depth to Water Table: More than 80 Inches

HYDROLOGIC SOIL GROUP: A

**NOTE:**  
ALL EXISTING TREES AS SHOWN ON THE SITE ARE TO BE PRESERVED. THE ONLY TREES THAT ARE TO BE REMOVED ARE THOSE TREES THAT MAY BE LOCATED IN THE AREA SHOWN AS "WOODS TO BE REMOVED FOR CONSTRUCTION".

- LIST OF UNDERGROUND UTILITY USERS:**
- WATER:** AQUA PENNSYLVANIA, INC. 762 WEST LANCASTER AVENUE BRYN MAWR, PA 19010 (610) 645-4230
  - SEWER:** UPPER MERION TWP MUNICIPAL AUTHORITY 175 WEST VALLEY FORGE ROAD KING OF PRUSSIA, PA 19406 (610) 275-1534
  - GAS:** PECO ENERGY CO. 680 RIDGE PIKE PLYMOUTH MEETING, PA 19462-1945 (610) 941-1768
  - ELECTRIC:** PECO ENERGY CO. 2301 MARKET STREET P.O. BOX 8699 PHILADELPHIA, PA 19101-8699 (215) 941-4000
  - TELEPHONE:** VERIZON PENNSYLVANIA, INC. SUITE 401, BUILDING B WAYNE, PA 19087 (610) 964-6132

DATE	REVISIONS	REVISION NO.

GRAPHIC SCALE 1"=20'

0 20 40 60

UNDERGROUND UTILITIES  
PA. ACT 197 OF 1996-ONE CALL NOTIFICATION (1-800-242-1776)  
DATE: 11-29-2018 SERIAL NO.: 2018330684

REVISION NO.

JOSEPH M. ESTOCK  
ENGINEER  
PE037320E

PROJECT TITLE :

## 555 LOWER EAST VALLEY FORGE ROAD

UPPER MERION TOWNSHIP-MONTGOMERY COUNTY-PENNSYLVANIA

DRAWING TITLE :

### PARTIAL SITE EXISTING FEATURES/DEMOLITION PLAN

PREPARED BY :

JOSEPH M. ESTOCK  
Consulting Engineers & Land Surveyors

355 South Henderson Road  
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(610) 265-3035 - Fax (610) 962-9855  
joe@josephmestock.com

SCALE	DATE	FILE NO.	FIELD BOOK	SHT. NO.
1" = 20'	18 DECEMBER 2019	16008	344	3 of 10

**TRACT BOUNDARY SEGMENTS:**

SEGMENT	DESCRIPTION	RADIUS=	ARC LENGTH=	CHORD BEARING=	CHORD LENGTH=
1		20.00 FT	13.51 FT	N72°19'00"E	13.29 FT
2		375.00 FT	126.43 FT	S78°40'30"E	125.63 FT

**ZONING:**  
DISTRICT: "R-2" RESIDENTIAL

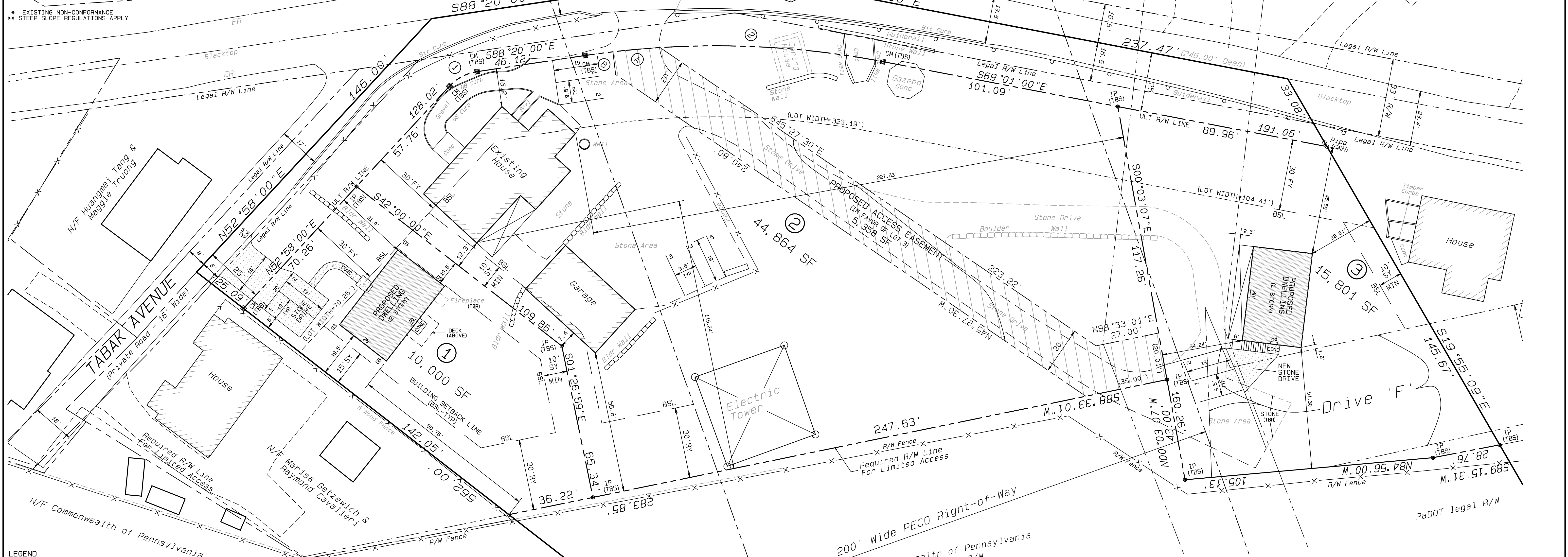
REQUIREMENTS:	REQUIRED	LOT 1 PROVIDED	LOT 2 PROVIDED	LOT 3 PROVIDED (**)
LOT AREA:	10,000 SF (MIN)	10,000 FT	44,864 FT	15,801 FT
LOT WIDTH:	70 FT (MIN/BSL)	70.26 FT	323.19 FT	104.41 FT
SETBACKS:				
FRONT YARD:	30 FT (MIN)	31.0 FT	16.2 FT (M)	45.59 FT
SIDE YARD:	10 FT (MIN)	10.5 FT	12.3 FT	28.01 FT
REAR YARD:	25 FT (AGRY)	30.0 FT	39.83 FT	52.25 FT
BUILDING COVERAGE:	30 % (MAX)	80.76 FT	115.24 FT	51.30 FT
IMPERVIOUS SURFACE:	40 % (MAX)	13 %	7 %	6 %
BUILDING HEIGHT:	35 FT (MAX-2.5 STY)	≤35 FT	2.5 STY	≤35 FT
ACCESSORY STRUCTURE SETBACKS:				
LOCATION:	REAR QUARTER OF LOT	N/A	REAR	N/A
SIDE YARD:	4 FT (MIN)	N/A	7.4 FT	N/A
REAR YARD:	10 FT (MIN)	N/A	56.6 FT	N/A
PARKING:				
SINGLE-FAMILY DWELLINGS:	2 PS/DWELLING +1 PS/EA BEDROOM OVER 3 BEDROOMS	2 PS	5 PS	2 PS

**TRACT BOUNDARY SEGMENTS:**

SEGMENT	DESCRIPTION	LENGTH
1	RADIUS= 20.00 FT ARC LENGTH= 13.51 FT CHORD BEARING= N22°19'00"E CHORD LENGTH= 13.25 FT	13.51 FT
2	RADIUS= 375.00 FT ARC LENGTH= 126.43 FT CHORD BEARING= S78°40'30"E CHORD LENGTH= 125.83 FT	126.43 FT
A	RADIUS= 375.00 FT ARC LENGTH= 20.00 FT CHORD BEARING= S84°59'36"E CHORD LENGTH= 20.00 FT	20.00 FT
B	N03°28'44"E	9.64 FT

**ACCESS EASEMENT SEGMENTS:**

SEGMENT	DESCRIPTION	LENGTH
1	RADIUS= 20.00 FT ARC LENGTH= 13.51 FT CHORD BEARING= N22°19'00"E CHORD LENGTH= 13.25 FT	13.51 FT
2	RADIUS= 375.00 FT ARC LENGTH= 126.43 FT CHORD BEARING= S78°40'30"E CHORD LENGTH= 125.83 FT	126.43 FT
A	RADIUS= 375.00 FT ARC LENGTH= 20.00 FT CHORD BEARING= S84°59'36"E CHORD LENGTH= 20.00 FT	20.00 FT
B	N03°28'44"E	9.64 FT



**LEGEND**

---	CENTERLINE
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---	EXISTING TELEPHONE LINE
---	EXISTING GAS LINE
---	EXISTING ELECTRIC LINE
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---	PROPOSED STORM SEWER/INLET
---	PROPOSED WATER LINE
---	PROPOSED SAN. SEWER LINE
---	PROPOSED ELECTRIC LINE
---	PROPOSED TELEPHONE LINE
---	PROPOSED GAS LINE
---	EXISTING MANHOLE
---	PROPOSED MANHOLE
---	EXISTING CURBLINE
---	PROPOSED CURBLINE
---	UTILITY POLE
---	EXISTING VALVE, VENT. CO.
---	BOULDER WALL
---	PROPOSED DWELLING SINGLE-FAMILY DETACHED
---	PROPOSED DRIVEWAY BLACKTOP/STONE
---	PROPOSED CONCRETE PADS/WALKS

**PROPOSED COVERAGES:**

LOT	BUILDING AREA	BUILDING COVERAGE	IMPERVIOUS AREAS
LOT 1	1,000 SF	10 %	CONCRETE (FRONT) = 1,000 SF CONC/DECK (REAR) = 96 SF BOULDER WALL (NEW) = 242 SF TOTAL = 1,278 SF IMPERVIOUS SURFACE COVERAGE = 13 %
LOT 2	2,918 SF	7 %	BUILDINGS = 2,918 SF PORCH = 241 SF CONCRETE (FRONT) = 94 SF GB CURBS (3) = 49 SF BOULDER WALLS (3) = 125 SF MISC. STRUCTURES (3) = 334 SF TOTAL = 3,762 SF IMPERVIOUS SURFACE COVERAGE = 8 %
LOT 3	1,000 SF	6 %	BUILDINGS = 1,000 SF FRONT PORCH = 240 SF SIDE STEPS = 60 SF CONCRETE (SIDE) = 20 SF BOULDER WALL = 69 SF TOTAL = 1,389 SF IMPERVIOUS SURFACE COVERAGE = 9 %

**PROJECT TITLE :**  
555 LOWER EAST VALLEY FORGE ROAD  
UPPER MERION TOWNSHIP-MONTGOMERY COUNTY-PENNSYLVANIA

**DRAWING TITLE :**  
SITE LAYOUT PLAN

**REVISIONS**

DATE	REVISIONS	REVISION NO.

**GRAPHIC SCALE** 1" = 20'

0 20 40 60

**UNDERGROUND UTILITIES**  
PA. ACT 197 OF 1996-ONE CALL NOTIFICATION (1-800-242-1776)  
DATE: 11-29-2018 SERIAL NO.: 2018330884

**JOSEPH M. ESTOCK**  
REGISTERED PROFESSIONAL ENGINEER  
PE037320E  
PENNSYLVANIA

**PREPARED BY :**  
JOSEPH M. ESTOCK  
Consulting Engineers & Land Surveyors

**SCALE** 1" = 20'

**DATE** 18 DECEMBER 2019

**FILE NO.** 16008

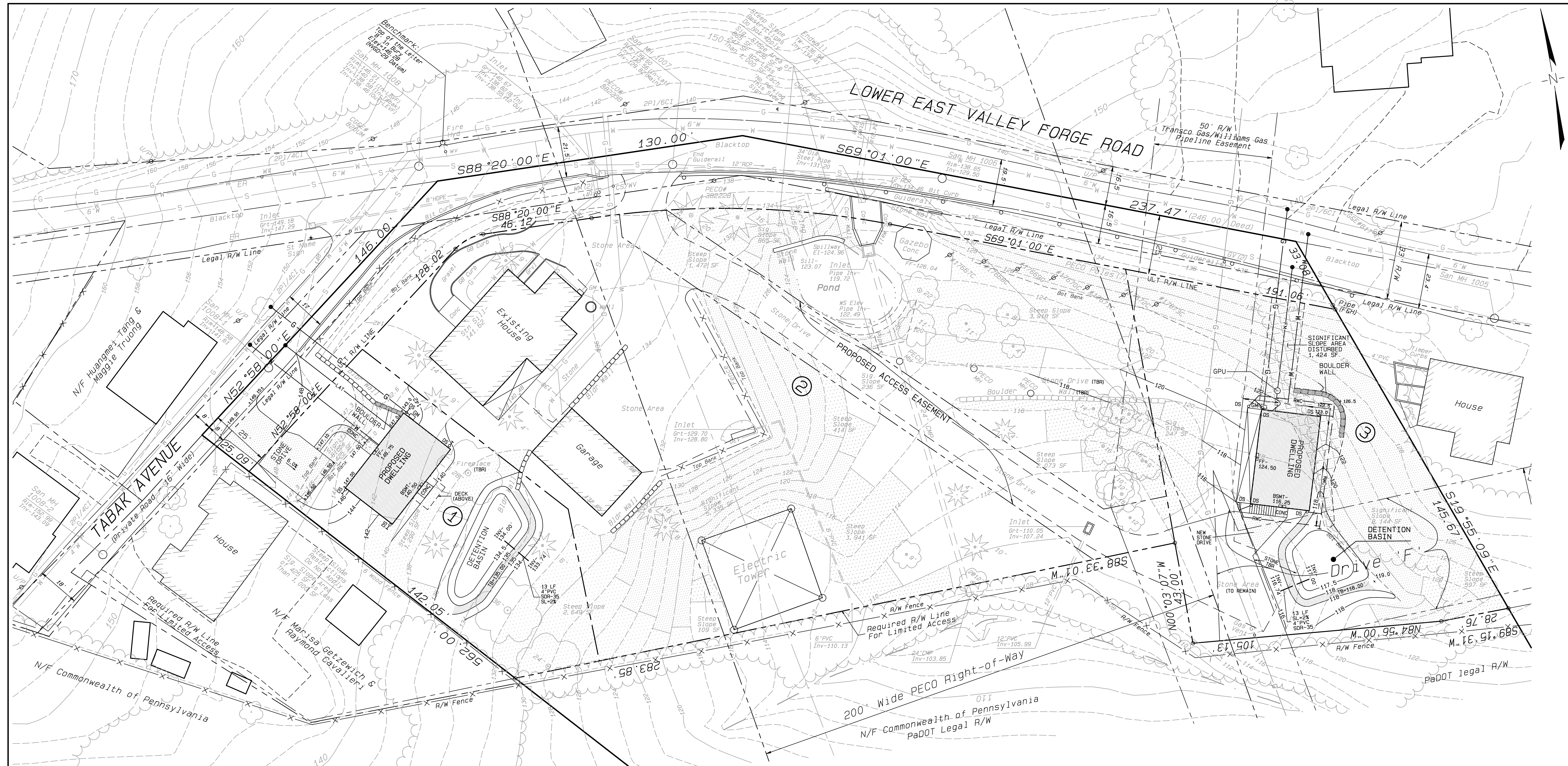
**FIELD BOOK** 344

**SHT. NO.** 4 of 10

**MONUMENT LEGEND**  
■ CM (TBS) CONCRETE MONUMENT (TO BE SET)  
● IP (TBS) IRON PIN (TO BE SET)

**PA. ACT 197 OF 1996-ONE CALL NOTIFICATION (1-800-242-1776)**  
DATE: 11-29-2018 SERIAL NO.: 2018330884

**ALL LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DEVELOPED FROM EXISTING UTILITIES RECORDS AND/OR ABOVE GROUND EXAMINATION OF THE UTILITIES OR STRUCTURES IS NOT GUARANTEED NOR IS IT GUARANTEED THAT ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXISTENCE OF UTILITIES AND FOR NOTIFYING THE UTILITY COMPANIES AT LEAST THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO VERIFY LOCATION AND DEPTH OF SAME.**



**LEGEND**

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---	EXISTING CURBLINE		
---	PROPOSED CURBLINE		
---	UTILITY POLE		
---	EXISTING VALVE, VENT. CO.		
---	EXISTING BOULDER WALL		
---	PROPOSED BOULDER WALL		

**AVERAGE SLOPE CALCULATIONS:**  
 AVERAGE SLOPE FORMULA:  
 $S = \frac{0.0023 \times I \times L}{A}$

LOT 1:	S= AVERAGE SLOPE	13.9 %
	I= CONTOUR INTERVAL	2 FEET
	L= COMBINED LENGTH CONTOURS	692 LF
	A= LOT AREA	0.2296 AC
LOT 2:	S= AVERAGE SLOPE	14.7 %
	I= CONTOUR INTERVAL	2 FEET
	L= COMBINED LENGTH CONTOURS	3,295 LF
	A= LOT AREA	1.0299 AC
LOT 3:	S= AVERAGE SLOPE	21.4 %
	I= CONTOUR INTERVAL	2 FEET
	L= COMBINED LENGTH CONTOURS	1,688 LF
	A= LOT AREA	0.3627 AC

**STEEP SLOPE REGULATIONS**  
 (APPLY TO LOT 3 ONLY)

<b>LOT 3 STEEP SLOPE AREAS:</b>	SIGNIFICANT SLOPE AREA= 7,223 SF
	STEEP SLOPE AREA= 2,107 SF
	TOTAL STEEP SLOPE AREA= 9,330 SF
<b>LOT 3 STEEP SLOPE AREAS DISTURBED:</b>	SIGNIFICANT SLOPE AREA= 1,424 SF (19.7 %)
	STEEP SLOPE AREA= 0 SF
	TOTAL STEEP SLOPE AREA DISTURBED= 1,424 SF (15.3 %)

**OVERALL SITE STEEP SLOPE AREAS:**

SIGNIFICANT SLOPE AREA=	14,827 SF
STEEP SLOPE AREA=	14,463 SF
TOTAL STEEP SLOPE AREA=	29,290 SF

**CONSTRUCTION NOTES:**

- BENCHMARK - TOP OF THE LETTER 'B' IN 'BURY' ON THE FIRE HYDRANT LOCATED ON THE NORTHERLY SIDE OF LOWER EAST VALLEY FORGE ROAD AT THE INTERSECTION OF TABAK AVENUE. ELEVATION = 145.28 FEET (NGVD DATUM)
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROPRIATE PADOT PUB. 408 - SPECIFICATIONS, PADOT PUB. 72 - STANDARDS FOR ROADWAY CONSTRUCTION AND THE UPPER MERION TOWNSHIP STANDARDS SPECIFICATIONS.
- ALL UTILITY SERVICES TO THE HOUSES MUST BE INSTALLED UNDERGROUND.

**LIST OF UNDERGROUND UTILITY USERS:**

**WATER:** AQUA PENNSYLVANIA, INC. 762 WEST LANCASTER AVENUE BRYN MAWR, PA 19010 (610) 645-4230

**SEWER:** UPPER MERION TWP MUNICIPAL AUTHORITY 175 WEST VALLEY FORGE ROAD KING OF PRUSSIA, PA 19406 (610) 275-1534

**GAS:** PECO ENERGY CO. 680 RIDGE PIKE PLYMOUTH MEETING, PA 19462-1945 (610) 941-1768

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DATE	REVISIONS	REVISION NO.

GRAPHIC SCALE 1"=20'

0 20 40 60

**UNDERGROUND UTILITIES**  
 PA. ACT 197 OF 1996-ONE CALL NOTIFICATION (1-800-242-1776)  
 DATE: 11-29-2018 SERIAL NO.: 20183330684

**PROJECT TITLE:**  
**555 LOWER EAST VALLEY FORGE ROAD**  
 UPPER MERION TOWNSHIP-MONTGOMERY COUNTY-PENNSYLVANIA

**DRAWING TITLE:**  
**POST-CONSTRUCTION STORMWATER MANAGEMENT & GRADING PLAN**

**PREPARED BY:**  
**JOSEPH M. ESTOCK**  
 Consulting Engineers & Land Surveyors

**SCALE:** 1" = 20'

**DATE:** 18 DECEMBER 2019

**FILE NO.:** 16008

**FIELD BOOK:** 344




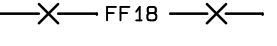
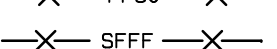
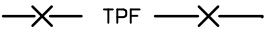

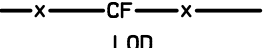



**SHT. NO.:** 5 of 10

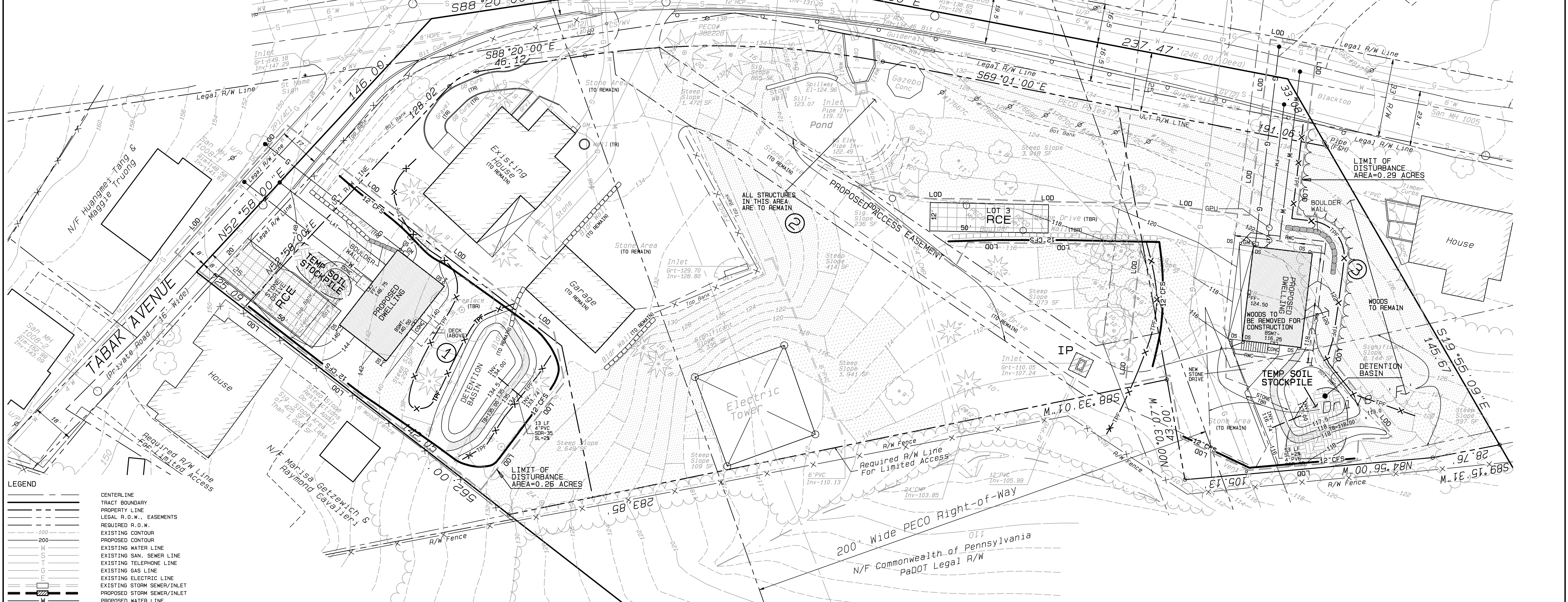
**JOSEPH M. ESTOCK**  
 REGISTERED PROFESSIONAL ENGINEER  
 P.E. NO. 1007320E  
 PENNSYLVANIA

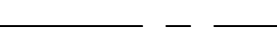
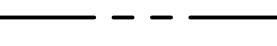
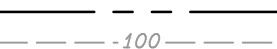
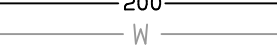
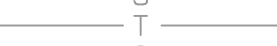
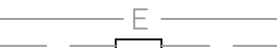

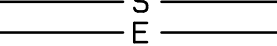
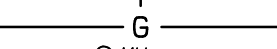
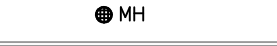

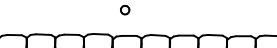










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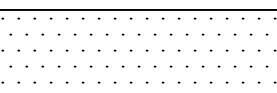
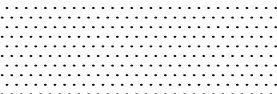


**EROSION & SEDIMENT CONTROL LEGEND**

-  RCE ROCK CONSTRUCTION ENTRANCE
-  IP INLET PROTECTION
-  TSS TOPSOIL STOCKPILE
-  FF18 FILTER FABRIC FENCE (18" HIGH)
-  FF30 FILTER FABRIC FENCE (30" HIGH)
-  SFFF SUPER FILTER FABRIC FENCE
-  TPF TREE PROTECTION FENCE
-  SAF SAFETY FENCE
-  12" CFS COMPOST FILTER SOCK
-  CF CONSTRUCTION FENCE
-  LOD LIMIT OF DISTURBANCE LINE



- LEGEND**
-  CENTERLINE
  -  TRACT BOUNDARY
  -  PROPERTY LINE
  -  LEGAL R.O.W. - EASEMENTS
  -  REQUIRED R.O.W.
  -  EXISTING CONTOUR
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  -  PROPOSED GAS LINE
  -  EXISTING MANHOLE
  -  PROPOSED MANHOLE
  -  EXISTING CURBSIDE
  -  PROPOSED CURBSIDE
  -  UTILITY POLE
  -  EXISTING VALVE, VENT. CO.
  -  EXISTING BOULDER WALL
  -  PROPOSED BOULDER WALL
  -  PROPOSED DWELLING SINGLE-FAMILY DETACHED
  -  PROPOSED DRIVEWAY BLACKTOP/STONE
  -  PROPOSED CONCRETE PADS/WALKS

- STEEP SLOPE LEGEND:**
-  15%-25% SLOPES
  -  SIGNIFICANT SLOPES >25%
- SOILS LEGEND:**
- THE ENTIRE SITE IS COMPRISED OF THE FOLLOWING SOIL TYPE:
- UusD Urban Land-Udorthents Shale and Sandstone Complex 8-25% Slopes
  - Depth to Bedrock: 20-99 Inches
  - Depth to Water Table: More than 80 Inches
  - HYDROLOGIC SOIL GROUP: A

- CONSTRUCTION SEQUENCE:**
1. INSTALL ALL COMPOST FILTER SOCKS AND ALL TREE PROTECTION FENCING THAT MAY BE REQUIRED.
  2. INSTALL ROCK CONSTRUCTION ENTRANCES FOR LOTS 1 AND 3 IN THE EXISTING AND PROPOSED DRIVEWAY LOCATIONS AND PLACE INLET PROTECTION FOR THE EXISTING INLET ON LOT 2
  3. CLEAR AND GRUB THE BUILDING SITES OF VEGETATION IN CONFLICT WITH CONSTRUCTION ACTIVITIES. DEMOLISH AND REMOVE FROM SITE ALL EXISTING STRUCTURES CALLED OUT AS "TO BE REMOVED."
  4. STRIP AND STOCKPILE TOPSOIL.
  5. ROUGH GRADE ENTIRE BUILDING SITES TO SUBGRADE ELEVATIONS.
  6. COMMENCE WITH BASEMENT EXCAVATIONS AND SUBSEQUENT BUILDING CONSTRUCTION.
  7. INSTALL ALL UTILITY CONNECTIONS AND RAINWATER CONDUCTORS.
  8. CONSTRUCT THE DETENTION BASINS ON LOTS 1 AND 3. EXTEND THE RAINWATER CONDUCTORS TO MEET THE FINISH GRADE OF THE BASINS.
  9. FINISH GRADE AND TOPSOIL ALL DISTURBED AREAS.
  10. SEED AND MULCH ALL DISTURBED AREAS AND ESTABLISH PERMANENT VEGETATIVE COVER. DO NOT PROCEED TO THE NEXT ITEM IN THE SEQUENCE UNTIL PERMANENT STABILIZATION IS ACHIEVED.
  11. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
- (FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED PERMANENTLY STABILIZED, THE DISTURBED AREA SHALL BE COVERED BY A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION.)

DATE	REVISIONS	REVISION NO.

GRAPHIC SCALE 1"=20'

0 20 40 60

UNDERGROUND UTILITIES  
PA. ACT 197 OF 1996-ONE CALL NOTIFICATION (1-800-242-1776)  
DATE: 11-29-2018 SERIAL NO.: 2018330864

PROJECT TITLE :

## 555 LOWER EAST VALLEY FORGE ROAD

UPPER MERION TOWNSHIP-MONTGOMERY COUNTY-PENNSYLVANIA

DRAWING TITLE :

### EROSION & SEDIMENT CONTROL PLAN

PREPARED BY :

**JOSEPH M. ESTOCK**  
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SCALE 1" = 20'

DATE 18 DECEMBER 2019

FILE NO. 16008

FIELD BOOK 344

SHT. NO. 7 of 10

**EROSION AND SEDIMENTATION CONTROL NOTES**

**A. GENERAL NOTES**

- EROSION AND SEDIMENT BMP'S MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMP'S.
- STORMWATER INLETS WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS, MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED.
- STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
- VEHICLES AND EQUIPMENT MUST ENTER DIRECTLY TO AND EXIT FROM THE SITE AT THE POINT WHERE THE ROCK CONSTRUCTION ENTRANCE HAS BEEN PLACED.
- ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO THE CONTROLS FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE CONTROLS.
- AT LEAST THREE DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITY LOCATIONS.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE.
- THE PROJECTS RECEIVING WATERCOURSE IS THE SCHUYLKILL RIVER WITHIN THE SCHUYLKILL RIVER WATERSHED, AND THE CHAPTER 93 CLASSIFICATION IS WWF, MF.

**B. FILTER FABRIC FENCING & STRAW BALE BARRIERS**

- FILTER FABRIC FENCING AND STRAW BALE BARRIERS MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF EACH FENCE OR BARRIER SECTION MUST EXTEND 8 FEET UP SLOPE AT 45 DEGREES TO THE ALIGNMENT OF THE MAIN FENCE OR BARRIER.
- SEDIMENT MUST BE REMOVED WHERE ACCUMULATIONS REACH 1/3 THE ABOVE GROUND HEIGHT OF FILTER FABRIC FENCING OR 1/3 THE ABOVE GROUND HEIGHT OF STRAW BALE BARRIERS.
- ANY FILTER FABRIC FENCING OR STRAW BALE BARRIER WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH ROCK FILTER OUTLETS.
- STRAW BALE BARRIERS SHOULD NOT BE USED FOR MORE THAN 3 MONTHS.

**C. SEDIMENT REMOVAL**

- SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
- ALL SILT AND FOREIGN MATTER SHALL BE REMOVED FROM THE TOP OF THE BINDER COURSE AND PROPERLY DISPOSED OF BEFORE WEARING SURFACE IS INSTALLED.
- ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
- SEDIMENT REMOVED FROM BMP'S SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN TOPSOIL STOCKPILES.

**D. OPERATOR'S RESPONSIBILITY**

- MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL DEVICES IS THE RESPONSIBILITY OF THE OPERATOR DURING CONSTRUCTION.
- THE RETENTION/SEDIMENT BASIN WILL BE CONSTRUCTED AND MAINTAINED BY THE OPERATOR. THE MAINTENANCE OF THIS BASIN WILL BE TRANSFERRED TO THE PERMITTEE UPON THE COMPLETION OF FINAL STABILIZATION.
- THE OPERATOR IS RESPONSIBLE FOR PROVIDING DIVERSION TRENCHES, EROSION CHECKS, BERMS, ETC. OR OTHER MEANS OF ACCEPTED PRACTICE AS REQUIRED ON THE SITE TO PREVENT ACCELERATED RUNOFF AND EROSION, WHICH MAY NOT BE INDICATED, BUT IS WITHIN THE INTENT OF THIS PLAN.
- THE OPERATOR MUST INSURE THE PROPER OPERATION OF THE DEVICES IS NOT HINDERED DUE TO EXCESSIVE SEDIMENT BUILDUP OR UNAUTHORIZED ACTS OF THIRD PARTIES.
- SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE OPERATOR TO ELIMINATE ALL SUCH PROBLEMS.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMP'S AFTER EACH RUNOFF EVENT AND ON A DAILY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RETENING MUST BE PERFORMED IMMEDIATELY IF EROSION AND SEDIMENT CONTROL BMP'S FAIL TO PERFORM AS EXPECTED. REPLACEMENT BMP'S OR MODIFICATIONS TO THOSE INSTALLED WILL BE REQUIRED.
- 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 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THIS SITE.
- IT IS THE INTENT OF THIS PLAN TO MEET REQUIREMENTS OF SOIL EROSION CONTROL.
- THE OPERATOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART I, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBCHAPTER C, PROTECTION OF NATURAL RESOURCES, ARTICLE II, WATER RESOURCES, CHAPTER 102 EROSION CONTROL.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
- AT ANY TIME PRIOR TO STABILIZATION SHOULD ANY E & S PROBLEMS OCCUR WHICH REQUIRE ADDITIONAL MEASURES, IMMEDIATE ACTION MUST BE TAKEN TO CORRECT THE PROBLEM.
- THE OPERATOR 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 OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
- ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO BMP'S FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE BMP'S.
- AT STREAM CROSSINGS, 50 FOOT STREAM BANK BUFFERS AND AREAS SHOULD BE MAINTAINED, OR BARRIERS, CLEARING, SOOT DISTURBANCES, EXCAVATION, AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STACKING CUT LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, MELTING PIPE SECTIONS, REVEALING AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS.

**E. MULCHING**

- MULCHING OF DISTURBED OR SEEDING AREA SHALL BE FURNISHED, PLACED, ANCHORED AND MAINTAINED IN ACCORDANCE WITH PENNDOT PUBL. 408, SECTION 805.
- MULCHING SHALL BE PLACED IMMEDIATELY AFTER SEEDING OR WITHIN 48 HOURS AFTER SEEDING IS COMPLETE.
- HAY OR STRAW SHALL BE UNIFORMLY PLACED IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 3.0 TONS PER ACRE.
- MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS SHOULD BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER.
- STRAW MULCH SHOULD BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN

**F. SEEDING**

- SEEDING SHALL BE PLACED IN ACCORDANCE WITH PENNDOT PUBL. 408, SECTION 804.
- SEED FORMULAS:

FORMULA AND SPECIES	% BY WT	MTN. % PURITY	MTN. % GERMINATION	MAX. W. NEED	SEEDING RATE LBS/1000 SQ. YDS.	TOTAL
<b>FORMULA B</b>						21.0
* PERENNIAL RYEGRASS MIXTURE	30	98	99	0.15	4.0	4.0
* CREEPING RED FESCUE OR CHEWINGS FESCUE	30	98	95	0.15	3.0	3.0
* KENTUCKY BLUEGRASS MIXTURE	50	98	80	0.20	11.0	11.0
<b>FORMULA C</b>						9.0
* CROWNVEITCH	45	99	70	0.10	4.5	4.5
* ANNUAL RYEGRASS	55	98	90	0.15	4.5	4.5
<b>FORMULA D</b>						21.0
* TALL FESCUE	70	98	85	0.15	15.0	15.0
* CREEPING RED FESCUE OR CHEWINGS FESCUE	30	98	85	0.15	6.0	6.0
<b>FORMULA E</b>						10.0
* ANNUAL RYEGRASS	100	98	90	0.15	10.0	10.0
<b>FORMULA L</b>						24.0
* HARD FESCUE MIXTURE	55	98	85	0.15	13.0	13.0
* CREEPING RED FESCUE	35	98	85	0.15	8.5	8.5
* ANNUAL RYEGRASS	10	98	90	0.15	2.5	2.5
<b>FORMULA M</b>						10.5
* TALL FESCUE	70	98	85	0.15	7.5	7.5
* BIRDSPOOT TREFOIL MIXTURE	20	98	80	0.10	2.0	2.0
* REDTOP	10	98	80	0.15	1.0	1.0

- APPLICATION DATES:
- |                   |  |
|-------------------|--|
| FORMULA B, D, & L | MARCH 15 TO JUNE 15<br>AUGUST 1 TO OCTOBER 15  |
| FORMULA C         | RYEGRASS PORTION:<br>MARCH 1 TO OCTOBER 15<br><br>CROWNVEITCH PORTION:<br>ANYTIME EXCEPT SEPTEMBER & OCTOBER |
| FORMULA E         | MARCH 15 TO OCTOBER 15   |
| FORMULA M         | APRIL 1 TO JUNE 15<br>AUGUST 15 TO SEPTEMBER 15  |

- SOIL SUPPLEMENTS MAY BE ADDED IN ACCORDANCE WITH SECTION 804 OR AS FOLLOWS:

FERTILIZER - STANDARD QUALITY	200 LBS. PER 1000 S.Y.
0-20-20 BASIC FERTILIZER	100 LBS. PER 1000 S.Y.
10-10-10 STARTER FERTILIZER	100 LBS. PER 1000 S.Y.
LIME AGRICULTURAL LIMESTONE	500 LBS. PER 1000 S.Y.
90% MINIMUM OF CARBONATES	

- FORMULA B SHALL BE USED TO ESTABLISH FINAL VEGETATION IN LAWN AREAS. FORMULA D SHALL BE USED TO ESTABLISH FINAL VEGETATION IN ROUGH AREAS, AND FORMULA E SHALL BE USED TO ESTABLISH TEMPORARY VEGETATION. FORMULAS C, L, AND W SHALL BE USED AS SPECIFICALLY INDICATED ON THE PLAN.

- SEEDING AND MULCHING SCHEDULE

- THE DIVERSIONS, CHANNELS, SEDIMENT BASINS, SEDIMENT TRAPS, AND STOCKPILES, WHEN USED, MUST BE STABILIZED IMMEDIATELY.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS.
- AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% 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 AND OTHER MOVEMENTS.

- UTILITY LINE TRENCH EXCAVATION

- CONSTRUCTION REQUIREMENTS

- 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 SEPARATELY IDENTIFIED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
- LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT. PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED IN THE SAME DAY.
- WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.
- ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.
- ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
- SOILS EXCAVATED FROM EXISTING SURFACE LAYER SHOULD BE STOCKPILED SEPARATELY AND RETURNED AS FINAL SURFACE LAYER FOLLOWING TRENCH BACKFILLING.
- TRENCH PLUGS WILL BE SPACED IN ACCORDANCE WITH AND BE CONSTRUCTED OF THE MATERIALS AS INDICATED ON THE TRENCH PLUG DETAIL.

- AT ALL CROSSINGS OF WATERS OF THE COMMONWEALTH, TRENCH PLUGS WILL BE INSTALLED AT THE BANKS AFTER TRENCH EXCAVATION, THE PLUGS MAY BE TEMPORARILY REMOVED WHEN PLACING THE PIPE, BUT THEN REPLACED.

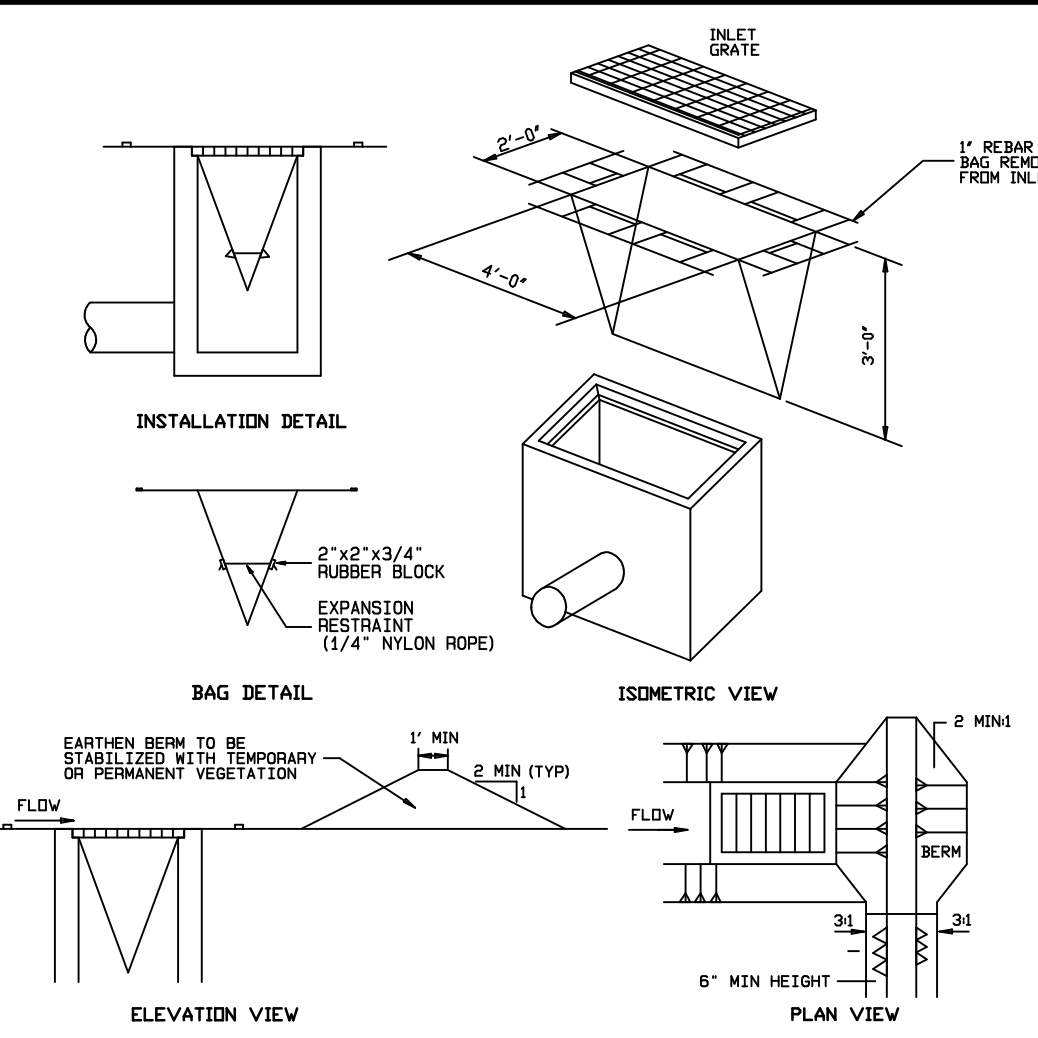
- CONSTRUCTION OF THE CROSSING WILL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE "PIPELINES AND UTILITY LINE PROJECTS" SECTION OF THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL.

**2. EXCEPTIONS**

- IN CERTAIN CASES TRENCHES CANNOT BE BACKFILLED UNTIL THE PIPE IS HYDROSTATICALLY TESTED, OR ANCHORS AND OTHER PERMANENT FEATURES INSTALLED. IN THESE CASES, ALL ACTIVITIES LISTED UNDER ITEM 1 WILL REMAIN IN EFFECT WITH THE FOLLOWING EXCEPTIONS:
- DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX DAYS, ALL PRESSURE TESTING AND THE COMPLETE BACKFILLING OF THE OPEN TRENCH MUST BE COMPLETED BY THE SEVENTH WORKING DAY.
- IF DAILY BACKFILLING IS DELAYED, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS, APPROPRIATE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES/FENCES WILL BE INSTALLED, AND THE AREAS SEEDED AND MULCHED WITHIN THE NEXT TWO CALENDAR DAYS.

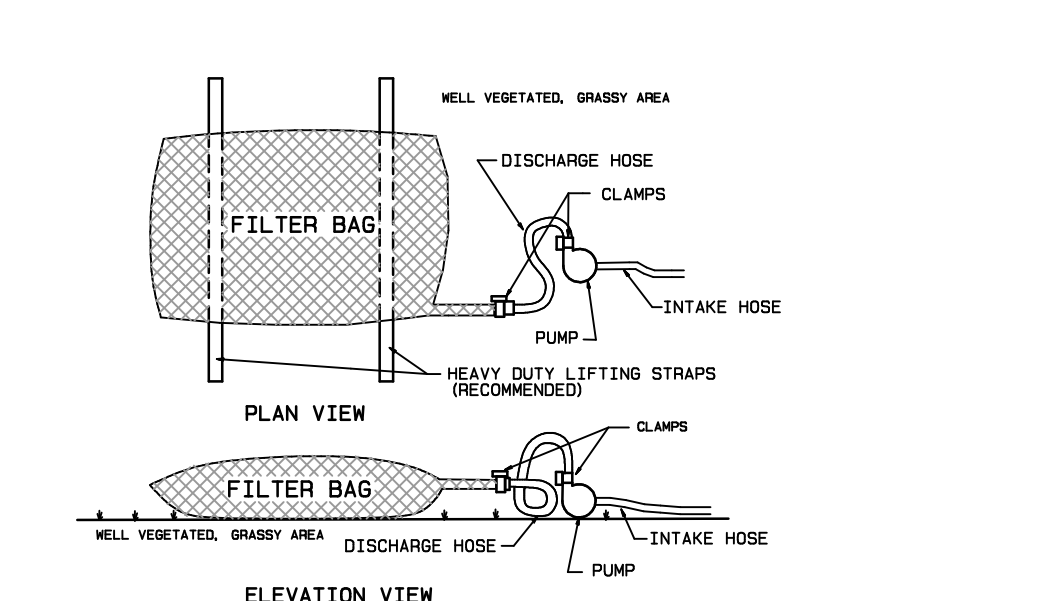
**1. CLEAN FILL**

- IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL MUST REST WITH THE CONTRACTOR.
- CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL, THE TERM INCLUDES SOIL, ROCK, STONE, DREGGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. THE TERM "USE ASPHALT" DOES NOT INCLUDE MILLLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.
- CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE SHALL QUALIFY AS CLEAN FILL PROVIDED THE FILLING REVEALS THAT THE FILL DOES NOT CONTAIN CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE ABOVE THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
- ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY AS CLEAN FILL. A COPY OF FORM FP-001 MUST BE OBTAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.
- ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL INSPECTIONS, SCREENING, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE RECORDS, SANDBOX MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSMISSION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
- FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 267 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT [www.pacode.com](http://www.pacode.com).



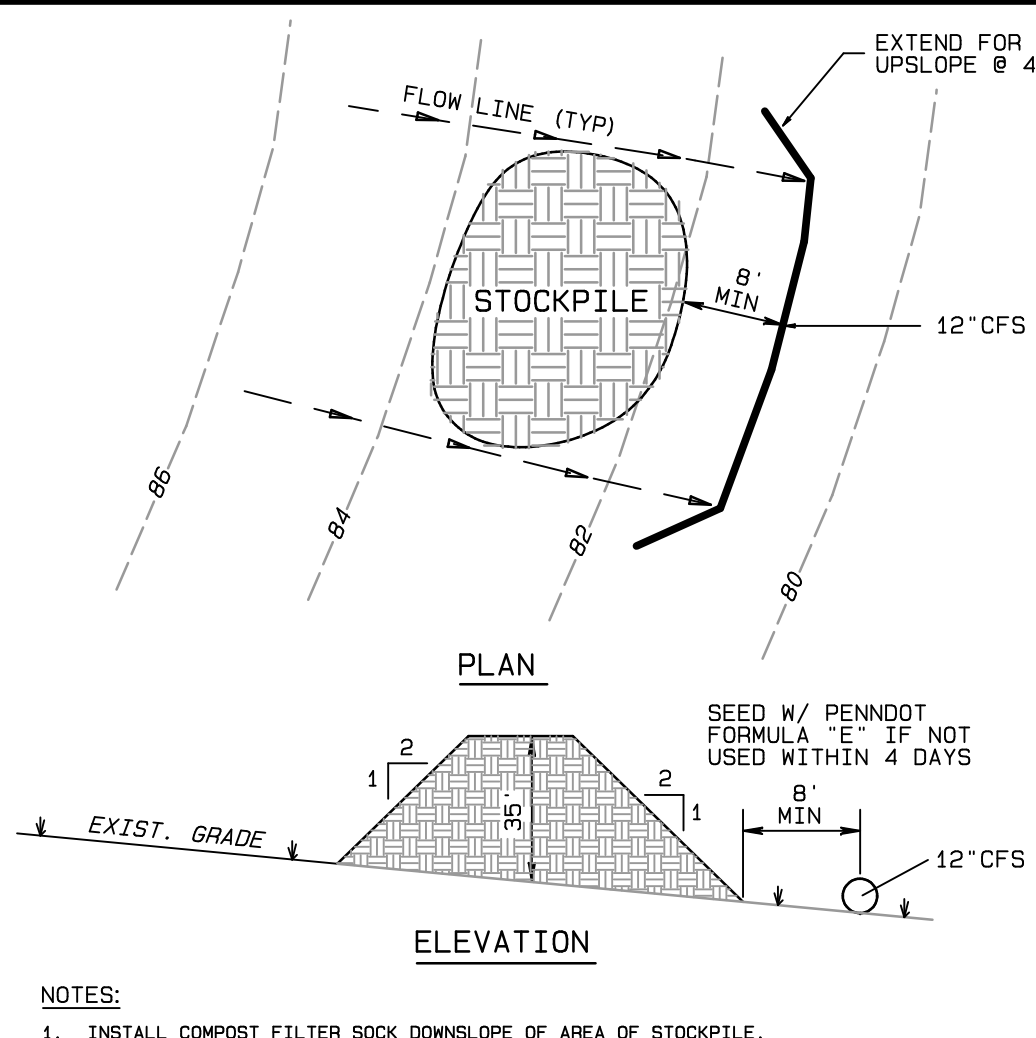
Maximum Drainage Area = 1/2 acre.  
Inlet protection shall not be required for inlet tributary to sediment basin or trap.  
Berm shall be provided for all installations.  
Roller earthmover shall be maintained until roadway is stoneed. Road subbase shall be maintained until roadway is graded. Earthmover shall be removed or maintained until permanent stabilization is completed or finish permanently.  
As a minimum, the fabric shall have a minimum grab tensile strength of 50 lbs., a minimum burst strength of 200 lbs., a minimum tear strength of 50 lbs., a minimum elongation at break of 10% and a minimum modulus of 100 lbs./in. The fabric shall be replaced if it is damaged or if it is found to be inadequate.  
Inlet filter bags shall be inspected on a weekly basis and after each runoff event. Bags shall be replaced if they are damaged or if they are found to be inadequate. Bags shall be replaced if they are damaged or if they are found to be inadequate. Bags shall be replaced if they are damaged or if they are found to be inadequate.  
DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARD.

**STANDARD CONSTRUCTION DETAIL #4-16  
FILTER BAG INLET PROTECTION-TYPE M INLET**  
(NTS) IP



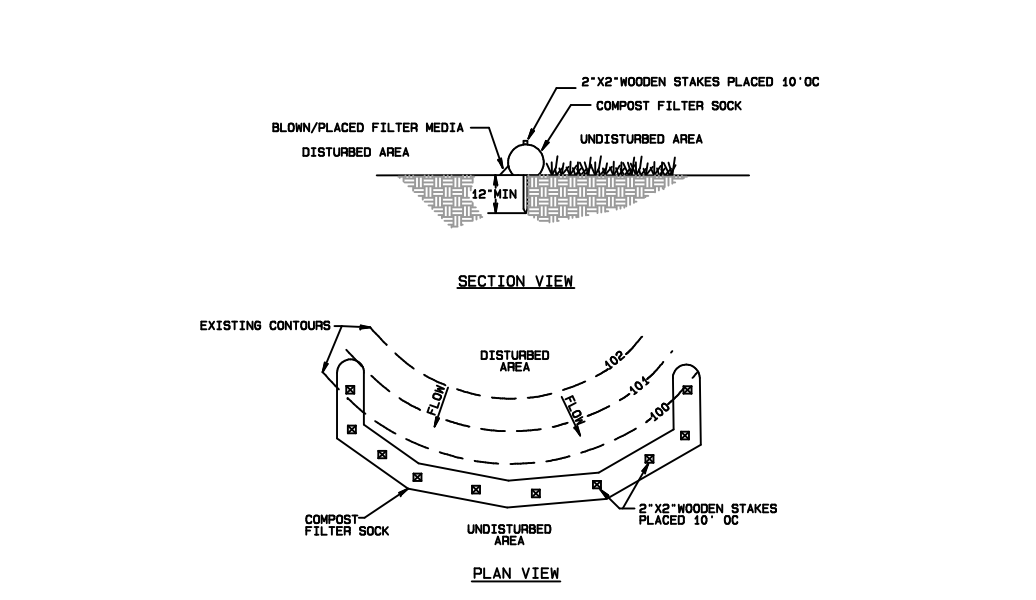
**STANDARD CONSTRUCTION DETAIL #3-16  
PUMPED WATER FILTER BAG**  
(NTS)

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH COBALT-DIETZEL ZIPPER SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM POLYPROPYLENE NONWOVEN FABRIC WITH A MINIMUM TENSILE STRENGTH OF 100 LBS. AND A SUITABLE MEANS OF ATTACHING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. BAGS SHALL BE OPENED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE POLLUTION. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 3:1 OR SLOPES GREATER THAN 3:1 UNLESS OTHERWISE AUTHORIZED. NON-POLLUTING MATERIALS MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STRENGTHS.  
NO EXCESSIVE SEDIMENT REMOVAL IS REQUIRED FOR MOST INSTALLATIONS. COMPOST OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN 50 OR 60 WATERWAYS. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAG IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURED TO A PIECE OF PVC PIPE AS RECOMMENDED FOR THIS PURPOSE.  
THE PUMPING RATE SHOULD BE NO GREATER THAN 700 GPM (1.0 CFS) UNLESS SPECIFIED OTHERWISE BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND EXPOSED.  
FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



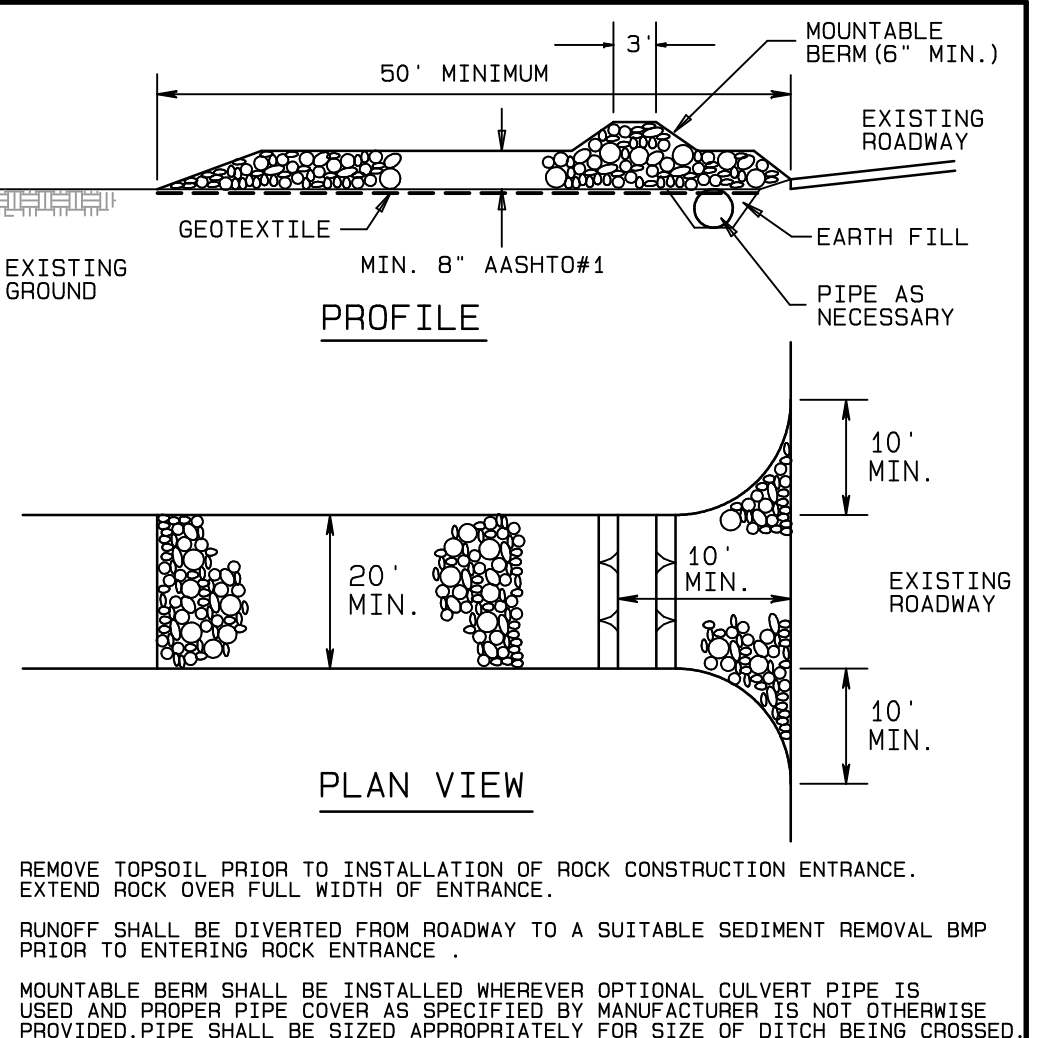
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.  
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK ENTRANCE.  
MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL DITCH PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH WHEN CROSSED.  
MAINTENANCE:  
ROCK CONSTRUCTION ENTRANCE THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. ANY SEDIMENT ACCUMULATED ON THE PUBLIC ROADWAY SHOULD BE REMOVED IMMEDIATELY AND RETURNED TO THE CONSTRUCTION SITE.

**TEMPORARY SOIL STOCKPILE  
AND MAINTENANCE DETAIL**  
(NTS)

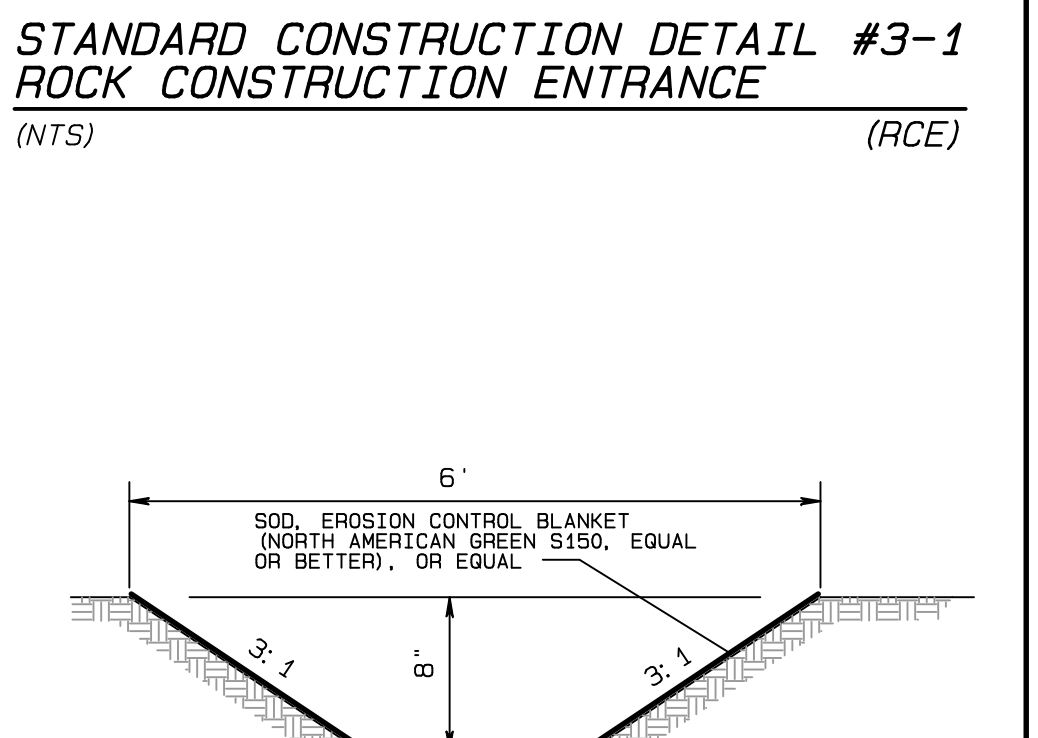


ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.  
SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPLACED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS OR REPAIRED WITHIN 24 HOURS OF DETECTION.  
BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTOGRAPHER SOCKS AFTER 1 YEAR.  
POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.  
UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND REVEALED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

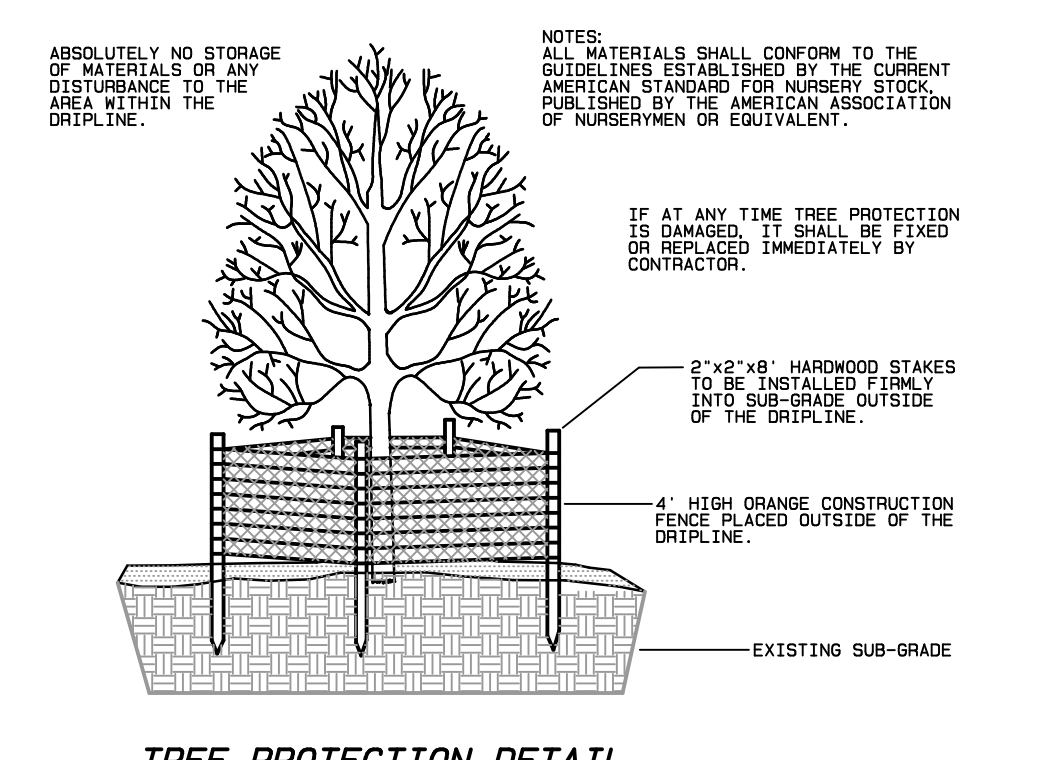
**COMPOST FILTER SOCK  
STANDARD CONSTRUCTION DETAIL #4-1**  
(NTS)



**STANDARD CONSTRUCTION DETAIL #3-1  
ROCK CONSTRUCTION ENTRANCE**  
(NTS) (ACE)



**SWALE DETAIL**  
(NTS)



**TREE PROTECTION FENCE DETAILS**  
(NTS)

Specifications	
Material:	High-Density Polyethylene
Aperture Size:	3.9 in. x 0.6 in.
Minimum Tensile:	
Strength:	2,000 lbs./ft. of width
Temperature Range:	- 60°F to 150°F
Nominal Porosity:	55%
Ultraviolet Resistance:	Fully Stabilized

Ordering Information			
Color	Roll Size	Ordering Code	Weight
Orange	4 ft. x 100 ft.	UX405016	33 lbs.
Orange	4 ft. x 50 ft.	UX405014	17 lbs.
Black	4 ft. x 100 ft.	UX400016	33 lbs.
Black	4 ft. x 50 ft.	UX400014	17 lbs.

PROJECT TITLE :		555 LOWER EAST VALLEY FORGE ROAD	
DATE		UPPER MERION TOWNSHIP-MONTGOMERY COUNTY-PENNSYLVANIA	
REVISIONS		DRAWING TITLE :	
REVISION NO.		EROSION & SEDIMENT CONTROL NARRATIVE AND DETAILS	
PA. ACT 197 OF 1986-ONE CALL NOTIFICATION (1-800-242-1776) DATE: 11-29-2018 SERIAL NO.: 2018330684		PREPARED BY :	
UNDERGROUND UTILITIES		JOSEPH M. ESTOCK	
355 South Henderson Road King of Prussia, PA 19406-2407 (610) 265-3035 Fax (610) 962-9855 joe@josephmestock.com		SCALE	
AS NOTED		DATE	
18 DECEMBER 2019		FILE NO.	
16008		FIELD BOOK	
344		SHT. NO.	
		8 of 10	



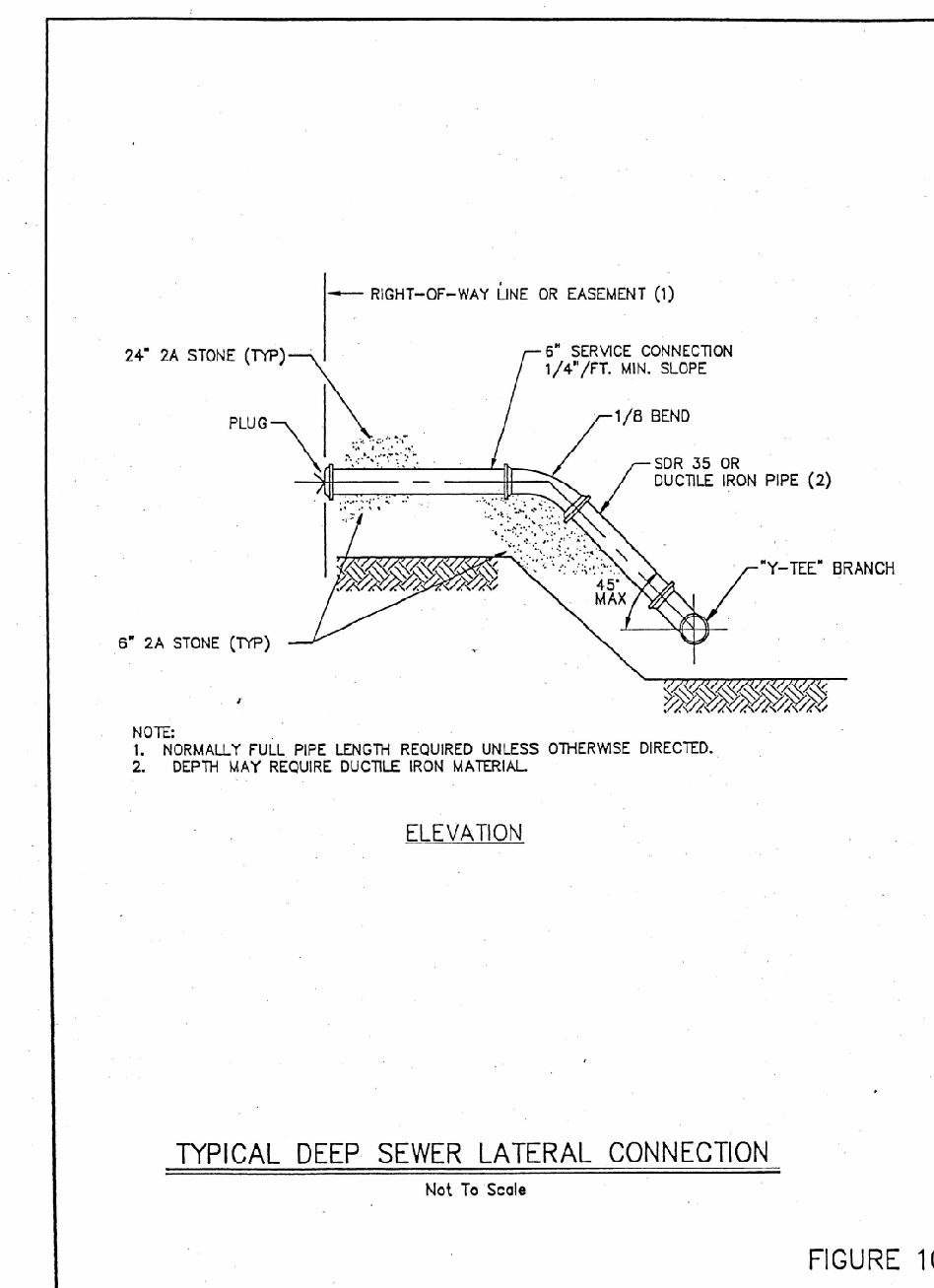


FIGURE 10

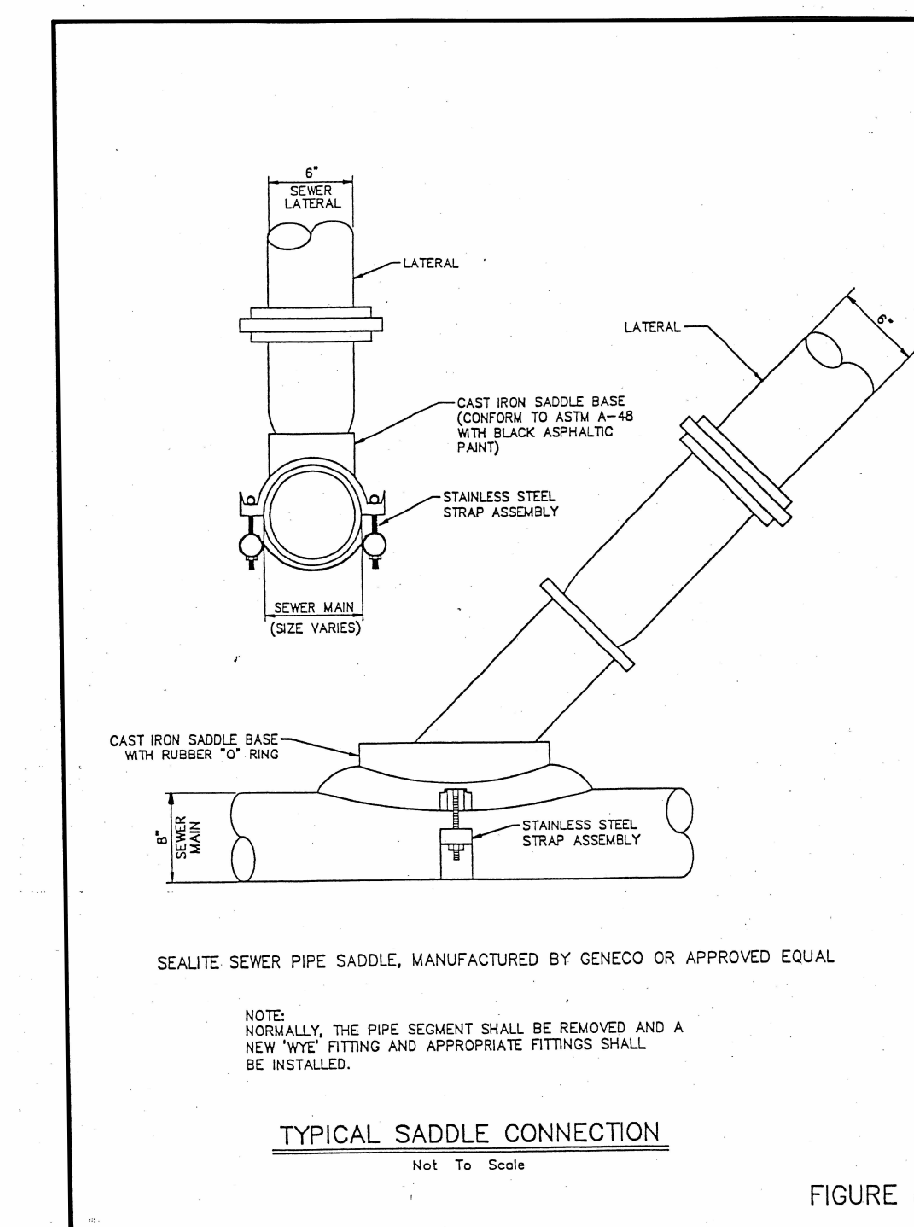
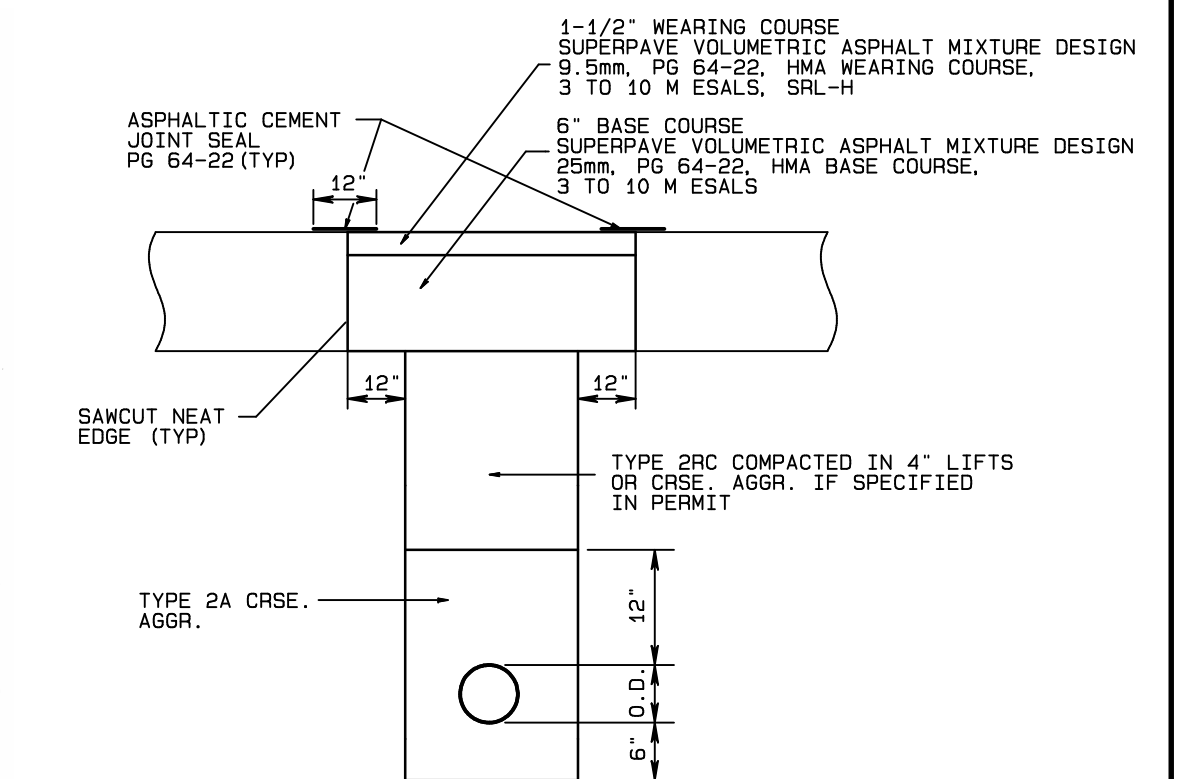


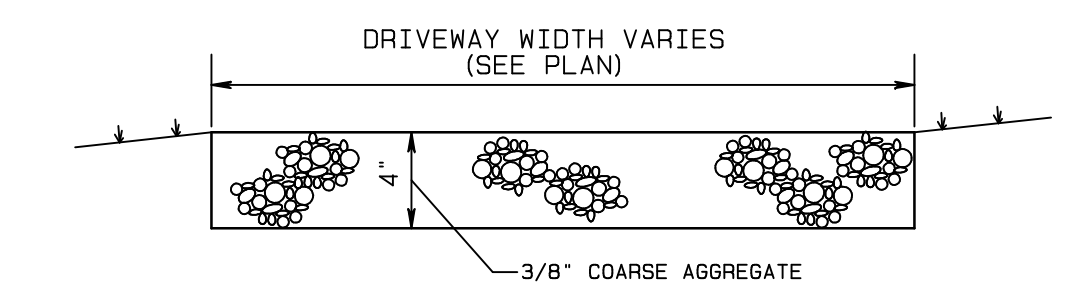
FIGURE 8



NOTE: EXPOSED VERTICAL AND HORIZONTAL SURFACES SHALL BE PREPARED AS PER PUB. 408 SECT. 401.3 (F)

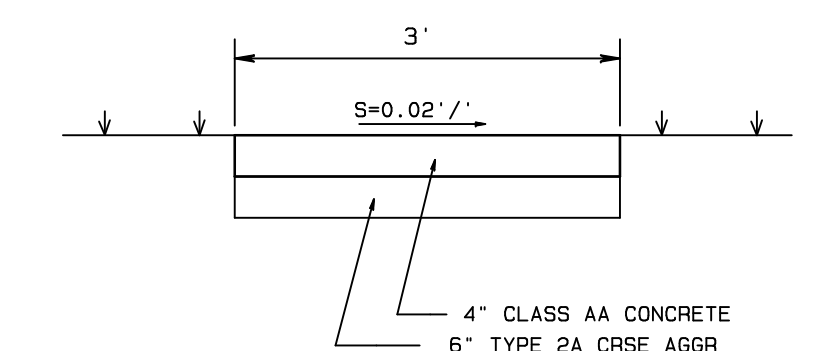
**FLEXIBLE PAVEMENT RESTORATION**

(NTS)



**STONE DRIVEWAY DETAIL**

(NTS)



NOTE: WALK SHALL BE CONSTRUCTED IN 20' SECTIONS, SEPARATED BY 1/2" PREMOULDED EXPANSION JOINT MATERIAL AND TO BE INSTALLED AT ALL STRUCTURES. WALKS TO BE SCORED EVERY 4' AT 1" DEEP.

**CONCRETE SIDEWALK**

(NTS)

		PROJECT TITLE :	
		<b>555 LOWER EAST VALLEY FORGE ROAD</b>	
		UPPER MERION TOWNSHIP-MONTGOMERY COUNTY-PENNSYLVANIA	
		DRAWING TITLE :	
		<b>CONSTRUCTION DETAILS</b>	
		PREPARED BY :	
		<b>JOSEPH M. ESTOCK</b> Consulting Engineers & Land Surveyors	
DATE	REVISIONS	REVISION NO.	
UNDERGROUND UTILITIES PA. ACT 197 OF 1996-ONE CALL NOTIFICATION (1-800-242-1776) DATE: 11-29-2018 SERIAL NO.: 2018330884		SCALE AS NOTED DATE 18 DECEMBER 2019 FILE NO. 16008 FIELD BOOK 344 SHT. NO. 9 of 10	



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DATE	REVISIONS	REVISION NO.

GRAPHIC SCALE 1" = 60'

60 0 60 120 180

UNDERGROUND UTILITIES  
PA. ACT 187 OF 1996-ONE CALL NOTIFICATION (1-800-242-1776)  
DATE: SERIAL NO.:

ALL LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DEVELOPED FROM EXISTING UTILITIES RECORDS AND/OR ABOVE GROUND EXAMINATION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES OR STRUCTURES IS NOT GUARANTEED NOR IS IT GUARANTEED THAT ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXISTENCE OF UTILITIES AND FOR NOTIFYING THE UTILITIES COMPANIES AT LEAST THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO VERIFY LOCATION AND DEPTH OF SAME.

REVISION NO.

JOSEPH M. ESTOCK  
ENGINEER  
PE037320E  
PENNSYLVANIA

PROJECT TITLE :				
<b>555 LOWER EAST VALLEY FORGE ROAD</b>				
UPPER MERION TOWNSHIP-MONTGOMERY COUNTY-PENNSYLVANIA				
DRAWING TITLE :				
<b>AERIAL PHOTOGRAPH PLAN</b>				
PREPARED BY :				
<b>JOSEPH M. ESTOCK</b>				
Consulting Engineers & Land Surveyors				
SCALE	DATE	FILE NO.	FIELD BOOK	SHT. NO.
1" = 60'	18 DECEMBER 2019	16008	344	10 of 10

355 South Henderson Road  
King of Prussia, PA 19406-2407  
(610) 265-3035 - Fax (610) 962-9855  
joe@josephmestock.com