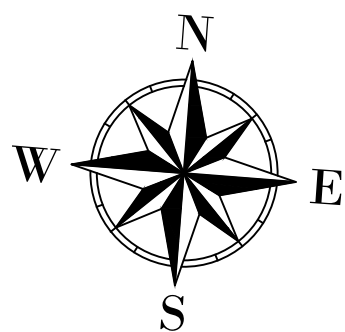


PRELIMINARY/FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN

EAGLE & RADNOR ROADS, WAYNE



ADJOINING PROPERTIES:

LANDS N/F:*

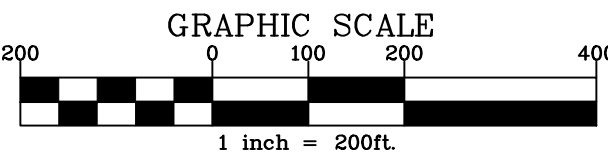
1. FOLIO # 36-0201268-00
2 PAUL RD
MARINO REYNOLDS FAMILY TRUST
MAP #36-06-055:000
BOOK 5952 PAGE 0258

2. FOLIO # 36-02-00979050
4 PAUL RD
VANDEBEEK M LOUIS & DIANE
MAP #36-06-055:004
BOOK 1040 PAGE 2020

* PER BASE PLAN



VICINITY MAP INCLUDING STRUCTURES WITHIN 500' OF SITE
DVRPC 2015 AERIAL IMAGERY, TILE PA-X28-Y082, PASDA WEBSITE



CIVIL ENGINEER:

SITE ENGINEERING CONCEPTS, LLC
ATTN: PATRICK SPELLMAN, P.E.
P.O. BOX 1992 SOUTHEASTERN, PA 19399
P: 610-523-9002
E: PSPELLMAN@SITE-ENGINEERS.COM

LANDSCAPE ARCHITECT:

JONATHAN ALDERSON LANDSCAPE ARCHITECTS
ATTN: JONATHAN ALDERSON
P.O. BOX 661
WAYNE, PA 19087
P: 610-341-9925
E: JONATHAN@JONATHANALDERSON.COM

ATTORNEY:

SAUL EWING ARNSTEIN & LEHR LLP
ATTN: DAVID J. FALCONE
1200 LIBERTY RIDGE, SUITE 200
WAYNE, PA 19087-5569
P: 610-251-5752
E: DAVID.FALCONE@SAUL.COM

OWNER/APPLICANT:

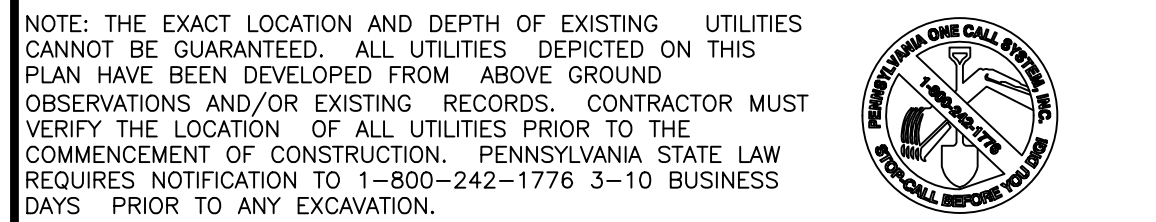
CG WAYNE, LLC
ATTN: DEVIN TUOHEY
161 LEVERINGTON AVENUE, SUITE 101
PHILADELPHIA, PA 19147
P: 347-330-0048
E: DTUOHEY@CONCORDIAGROUP.BIZ

DRAWING SCHEDULE

1. COVER SHEET
 2. EXISTING FEATURES PLAN
SOIL, VEGETATION & WATER RESOURCES MAP
 3. SUBDIVISION PLAN
 4. E&SC PLAN & DEMOLITION PLAN
 5. E&SC NOTES & DETAILS
 6. E&SC DETAILS
 7. PRELIMINARY LAND DEVELOPMENT PLAN & PCSM PLAN
 8. PCSM DETAILS & NOTES
 9. STORM PROFILES & DETAILS
 10. DETAILED GRADING AND DIMENSIONS PLAN
 11. UTILITY PLAN
 12. SANITARY PROFILES & CONSTRUCTION DETAILS
 13. CONSTRUCTION DETAILS
 14. DETAILS AND PRE-CONSTRUCTION DRAINAGE AREAS
 15. POST-CONSTRUCTION DRAINAGE AREAS
- PLANS PREPARED BY JONATHAN ALDERSON
LANDSCAPE ARCHITECTS:
16. L001 - TREE REMOVALS AND PRESERVATION PLAN
 17. L101 - PLANTING PLAN

3.	1/15/2021	REVISE PER TOWNSHIP 2ND REVIEW LETTERS AND PC INPUT
2.	12/7/2020	REVISE PER TOWNSHIP REVIEW LETTERS AND PC INPUT
1.	9/18/2020	RELOCATE LOT 1 DRIVEWAY
NUM.	DATE	REVISION
PLAN PREPARED BY:		
SITE ENGINEERING CONCEPTS, LLC		
P.O. BOX 1992		
SOUTHEASTERN, PA 19399		
P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM		
PRELIMINARY/FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN		
PLAN PREPARED FOR:		
CG WAYNE, LLC		
EAGLE & RADNOR ROAD, WAYNE, PA 19087		
RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA		
SEPT. 15, 2020		
COVER SHEET		SHEET 1 of 17
PATRICK SPELLMAN, P.E. PE-40021		SCALE: 1" = 200'







- (a) SOIL TYPES: SEE BELOW TABLE.
- (b) CONTOUR LINES: SEE EXISTING SURVEY PLAN.
- (c) DATUM: SEE EXISTING SURVEY PLAN.
- (d) FLOODPLAIN AREAS: SEE WATER RESOURCES MAP ON EXISTING SURVEY PLAN.
- (e) BASE FLOOD ELEVATION: SEE WATER RESOURCES MAP EXISTING SURVEY PLAN.
- (f) FLOODPLAIN SOILS: SEE WATER RESOURCES MAP EXISTING SURVEY PLAN.
- (g) STEEP SLOPE AREAS: SEE EXISTING SURVEY PLAN.

(a) FOREST AREAS AND GROVE AREAS: SEE TREE REMOVAL & PREPARATION PLAN PREPARED BY JLA, SHEET 12

(b) LARGE TREES OVER 6" IN CALIPER: SEE TREE REMOVAL & PREPARATION PLAN PREPARED BY JLA, SHEET 12.

(c) OTHER SIGNIFICANT VEGETATION: N/A

(a) STREAMS: SEE EXISTING SURVEY PLAN. UNNAMED TRIBUTARY TO GULPH CREEK, WWF/MF DESIGNATION. IN PROJECT AREA ARE SHOWN ON PLAN...NAME...CLASS

(b) SWALES: NO NATURE DRAINAGE SWALES.

(c) LAKES AND PONDS: NONE

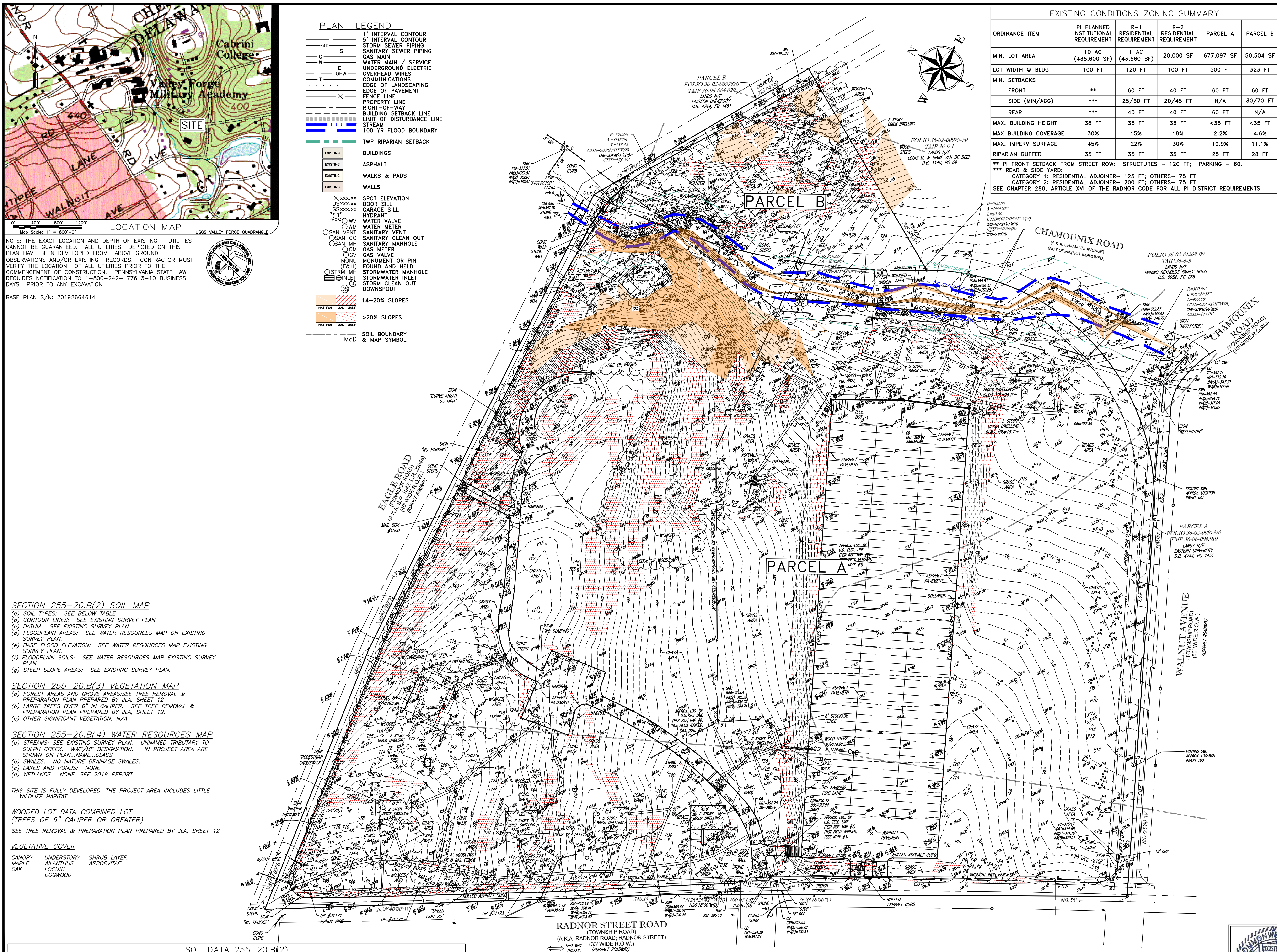
(d) WETLANDS: NONE. SEE 2019 REPORT.

WOODED LOT DATA COMBINED LOT
(TREES OF 6" CALIPER OR GREATER)

SEE TREE REMOVAL & PREPARATION PLAN PREPARED BY JLA, SHEET 12

CANOPY	UNDERSTORY	SHRUB LAYER
MAPLE	AILANTHUS	ARBORVITAE
OAK	LOCUST	
	DOGWOOD	

SOIL DATA 255-20.B(2)													
(PER WEB SOIL SURVEY, USDA, NRCS AS OF SEPTEMBER 1, 2020)													
MAP SYMBOL	SOIL NAME	% SLOPE	INCHES TO HIGH WATER	INCHES TO BEDROCK	LAND CAPABILITY	DRAINAGE CLASS	HSG	HYDROIC SOIL	DWELLING W/BASEMENT	LAWNS	ROADS	SEPTIC DRAIN	DEEP INFILTRATION
GeB	GLENELG CHANNERY LOAM	3-8	>80"	60-80"	2e (NONIRRIg)	WELL	B	NO	NOT	SOMEWHAT	SOMEWHAT	SLIGHTLY	SOMEWHAT
GeC	GLENELG CHANNERY LOAM	8-15	>80"	40-60"	3e (NONIRRIg)	WELL	B	NO	SOMEWHAT	SOMEWHAT	SOMEWHAT	SLIGHTLY	SOMEWHAT
GeC2	GLENELG CHANNERY LOAM	8-15	>80"	>80"	3e (NONIRRIg)	WELL	B	NO	VERY	VERY	VERY	VERY	SEVERELY
GeB	GLENVILLE SILT LOAM	3-8	0-6"	29-31"	2e (NONIRRIg)	MODERATE	C/D	NO	VERY	VERY	VERY	VERY	SEVERELY
m	MAD LANDS	0-8	>80"	40-72"	7e (NONIRRIg)	WELL	C	NO	SOMEWHAT	SOMEWHAT	SOMEWHAT	SLIGHTLY	SOMEWHAT



EXISTING CONDITIONS ZONING SUMMARY						
ORDINANCE ITEM	PI PLANNED INSTITUTIONAL REQUIREMENT	R-1 RESIDENTIAL REQUIREMENT	R-2 RESIDENTIAL REQUIREMENT	PARCEL A	PARCEL	
MIN. LOT AREA	10 AC (435,600 SF)	1 AC (43,560 SF)	20,000 SF	677,097 SF	50,504 SF	
LOT WIDTH @ BLDG	100 FT	120 FT	100 FT	500 FT	323 FT	
MIN. SETBACKS						
FRONT	**	60 FT	40 FT	60 FT	60 FT	
SIDE (MIN/AGG)	***	25/60 FT	20/45 FT	N/A	30/70 FT	
REAR	***	40 FT	40 FT	60 FT	N/A	
MAX. BUILDING HEIGHT	38 FT	35 FT	35 FT	<35 FT	<35 FT	
MAX. BUILDING COVERAGE	30%	15%	18%	2.2%	4.6%	
MAX. IMPERVY SURFACE	45%	22%	30%	19.9%	11.1%	
RIPARIAN BUFFER	35 FT	35 FT	35 FT	25 FT	28 FT	

*** PI FRONT SETBACK FROM STREET ROW: STRUCTURES - 120 FT; PARKING - 60.
 *** REAR & SIDE YARD:
 CATEGORY 1: RESIDENTIAL ADJOINER- 125 FT; OTHERS- 75 FT
 CATEGORY 2: RESIDENTIAL ADJOINER- 200 FT; OTHERS- 75 FT
 SEE CHAPTER 280, ARTICLE XVI OF THE RADNOR CODE FOR ALL PI DISTRICT REQUIREMENTS.

"BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED FOR EASTERN UNIVERSITY, PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED MARCH 31, 2010, LAST REVISED DECEMBER 20, 2019.

1. PROPERTY KNOWN AS LOT 36-02-0097870 & LOT 36-02-0097820 AS IDENTIFIED ON THE TAX MAPS OF DELAWARE COUNTY, ROBERTSON TOWNSHIP, COMMONWEALTH OF PENNSYLVANIA.
2. AREA = 850,552 SQUARE FEET OR 19.526 ACRES.
3. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AND RECORDS AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED, BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE 'X' (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2.
6. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
7. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88, BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS).
8. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.

1. MAP #6 OF THE OFFICIAL TAX MAPS OF DELAWARE COUNTY, RADNOR TOWNSHIP, COMMONWEALTH OF PENNSYLVANIA.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM: FLOOD INSURANCE RATE MAP, DELAWARE COUNTY, PENNSYLVANIA (ALL JURISDICTIONS) PANEL 17 OF 250" PREPARED BY FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP REVISED NOVEMBER 18, 2009, MAP NUMBER 42045C0017F.
3. MAP ENTITLED "RECORD PLAN PREPARED FOR MICHAEL G. & JEANNE D. O'NEILL, RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA" PREPARED BY TURNER-PAHTUKSI ASSOCIATES, INC., DATED OCTOBER 4, 1991, LAST REVISED JANUARY 1992, SHEET 1 OF 5. RECORDED AS PLAN VOLUME 17, PAGE 410.
4. MAP ENTITLED "MAIN EXTENSION FOR CHAMOUNIX ROAD, RADNOR, DELAWARE COUNTY" PREPARED BY AQUA PENNSYLVANIA INCORPORATED, DATED 1-11-08, PROJECT #561.07, PLATE F19,G20, SHEET 2 OF 16
5. MAP ENTITLED "WATER MAIN REPLACEMENT FOR: EAGLE ROAD (S.R. 1042) FROM RADNOR ROAD TO KING OF PRUSSIA ROAD, RADNOR TOWNSHIP, DELAWARE CO., PENNSYLVANIA" PREPARED BY AQUA PENNSYLVANIA, INC., DATED 01/2007.
6. MAP ENTITLED "GRID MAP NO. 40C2-EH12, DELAWARE COUNTY" DELCO MAP NO. 2018, DATED 10-5-06, SHEET 1 OF 1.
7. MAP ENTITLED "GRID MAP NO. 40C2-C078, DELCHESTER REGION" DATED 11-30-06, SHEET 1 OF 1.
8. MAP ENTITLED "TREE EVALUATION FOR THE EASTERN DEVELOPMENT", PREPARED BY JONATHAN ANDERSON LANDSCAPE ARCHITECTS, INC. DATED 9/4/2019.
9. UTILITY LOCATION MAPS OBTAINED FROM PECO ENERGY COMPANY.

NET LOT CALCULATION (SF)				
	PARCEL A		PARCEL B	
GROSS LOT AREA	792,229		58,395	
LESS				
RIGHT OF WAYS (R DISTRICTS)	88,612		6,384	
FLAG LOT ACCESS STRIP	0		0	
75% OF:				
FLOODPLAIN	16,782	12,587	2010	1,508
WETLANDS	0	0	0	0
SLOPES GREAT THAN 20%	18,578	13,934	0	0
NET LOT AREA	677,097		50,504	

EXISTING IMPERVIOUS COVERAGE SUMMARY (SQ. FT.)		
	PARCEL A	PARCEL B
GROSS LOT AREA	792,229	58,395
BUILDINGS	17,244	2,669
WALKWAYS/SIDEWALKS	18,723	398
PATIOS, DECKS	0	0
DRIVEWAY	122,024	3166
OTHER	0	244
TOTAL IMPERVIOUS COVERAGE	157,991	6,477
TOTAL BUILDING %	2.2%	4.6%
TOTAL IMPERY %	19.9%	11.1%

THE APPLICANT PROPOSES REMOVE THE 14 EXISTING DWELLING AND ALL ASSOCIATED IMPROVEMENTS AND SUBDIVIDE PARCEL A AND B INTO 20 SINGLE FAMILY LOTS.

3.	1/15/2021	REVISE PER TOWNSHIP 2ND REVIEW LETTERS AND PC INPUT
2.	12/7/2020	REVISE PER TOWNSHIP REVIEW LETTERS AND PC INPUT
1.	9/18/2020	RELOCATE LOT 1 DRIVEWAY
NUM.	DATE	REVISION

PLAN PREPARED BY:

SITE ENGINEERING CONCEPTS, LLC

P.O. BOX 1992

SOUTHEASTERN, PA 19399

P: 610-240-0450 F: 610-240-0451 E:INFO@SITE-ENGINEERS.COM

PRELIMINARY/FINAL SUBDIVISION AND LAND

PRELIMINARY/FINAL SUBDIVISION AND LAND
DEVELOPMENT PLAN

PLAN PREPARED FOR:
CG HEALTH, LLC

CG WAYNE, LLC
EAGLE & BADNOR ROAD, WAYNE, PA 19087

RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

RADNOR TOWNSHIP	DELAWARE COUNTY	PENNSYLVANIA
		SEPT. 15, 2020

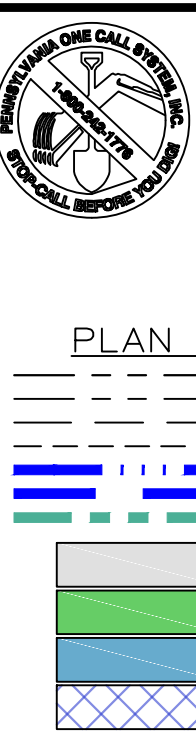
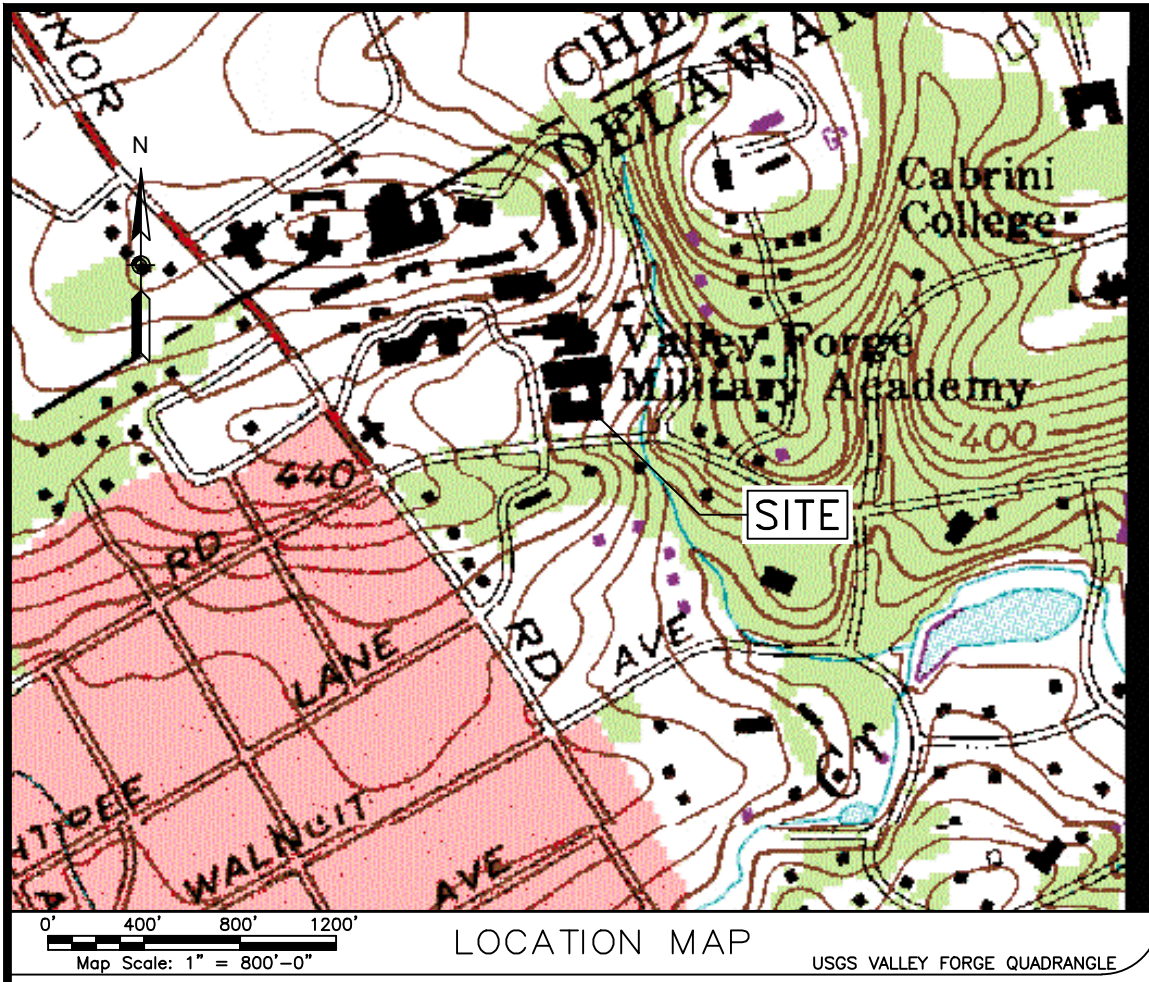
EXISTING FEATURES PLAN

SOILS, VEGETATION, AND SHEET

2 of 17

WATER RESOURCES MAP | SCALE: 1" = 1 MI.

SCALE: 1" = 60'



EASEMENT PLANTING PROHIBITED
PLANTINGS OTHER THEN GRASS ARE PROHIBITED WITHIN THE SANITARY SEWER EASEMENTS

BASE SURVEY PLAN

"BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED FOR EASTERN UNIVERSITY, PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED MARCH 31, 2010, LAST REVISED DECEMBER 20, 2019. SEE EXISTING FEATURES SHEET FOR COMPLETE LIST OF NOTES AND REFERENCES.



PARCEL B
FOLIO 36-02-0097820
TMP 36-06-004-020
LANDS N/F
EASTERN UNIVERSITY
D.B. 4744, PG 1451

OFFER OF SEWER DEDICATION

APPLICANT AND ITS SUCCESSORS AND ASSIGNS IN TITLE TO THE PROPERTY HEREBY MAKES A CONTINUING OFFER OF DEDICATION, AT NO COST, TO RADNOR TOWNSHIP TO DEDICATE THE PUBLIC SANITARY AND STORM SEWER AND ASSOCIATED EASEMENTS AS SHOWN ON THIS PLAN. THIS OFFER OF DEDICATION SHALL BE A RESTRICTIVE COVENANT THAT RUNS WITH THE LAND WHICH MAY BE ENFORCED AND ACCEPTED BY THE TOWNSHIP AGAINST ALL SUCCESSORS AND ASSIGNS IN TITLE.

OFFER OF RIGHT OF WAY DEDICATION

APPLICANT AND ITS SUCCESSORS AND ASSIGNS IN TITLE TO THE PROPERTY HEREBY MAKES A CONTINUING OFFER OF DEDICATION, AT NO COST, TO RADNOR TOWNSHIP TO DEDICATE THE PROPOSED BEECHTREE LANE RIGHT OF WAY AS SHOWN ON THIS PLAN. THIS OFFER OF DEDICATION SHALL BE A RESTRICTIVE COVENANT THAT RUNS WITH THE LAND WHICH MAY BE ENFORCED AND ACCEPTED BY THE TOWNSHIP AGAINST ALL SUCCESSORS AND ASSIGNS IN TITLE.

WAIVERS REQUESTED

THE APPLICANT RESPECTFULLY REQUESTS THE FOLLOWING WAIVERS:
A) SECTION 255-12A REQUIRING A PRELIMINARY LAND DEVELOPMENT PLAN FOR A MAJOR SUBDIVISION. THE WAIVER IS REQUESTED TO THE EXTENT NECESSARY FOR PERMIT REVIEW AND APPROVAL OF THIS APPLICATION AS A PRELIMINARY/FINAL LAND DEVELOPMENT PLAN.
B) PARTIAL WAIVER OF 255-21.8(1)(n) REQUIRING SIGNIFICANT MAN-MADE FEATURES WITHIN 500 FEET OF THE SITE BE PROVIDED ON THE PLAN. AERIAL IMAGERY IS USED TO PROVIDE DETAIL BEYOND THE SITE BOUNDARIES WHERE SURVEY DATA CAN NOT LEGALLY BE COLLECTED (E.G.: PRIVATE PROPERTY). A PARTIAL WAIVER IS REQUESTED TO THE EXTENT NECESSARY TO NOT PROVIDE THOSE ITEMS WHICH ARE NOT VISIBLE ON AERIAL IMAGERY (E.G.: SEWER LINES, STORM DRAINS, EASEMENTS, ETC.).

EXISTING CONDITIONS ZONING SUMMARY

ORDINANCE ITEM	EXISTING DISTRICTS	PROPOSED
MIN. LOT AREA	PI PLANNED INSTITUTIONAL REQUIREMENT 10 AC (435,600 SF)	R-1 RESIDENTIAL REQUIREMENT 1 AC (43,560 SF)
LOT WIDTH @ BLDG	100 FT	120 FT
MIN. SETBACKS		R-2 RESIDENTIAL REQUIREMENT 20,000 SF
FRONT	**	60 FT
SIDE (MIN/AGG)	***	25/60 FT
REAR	***	40 FT
MAX. BUILDING HEIGHT	38 FT	35 FT
MAX BUILDING COVERAGE	30%	15%
MAX. IMPERV. SURFACE	45%	22%
RIAPARIAN BUFFER	35 FT	35 FT
* PARENT TRACTS IN PI & R-1. ZONING MAP CHANGE TO R-2 ZONING PROPOSED FOR SUBDIVISION ** PI FROM STREET ROW: STRUCTURES - 120 FT; PARKING - 60. *** REAR & SIDE YARD: CATEGORY 1: RESIDENTIAL ADJOINER- 125 FT; OTHERS- 75 FT CATEGORY 2: RESIDENTIAL ADJOINER- 200 FT; OTHERS- 75 FT SEE CHAPTER 280, ARTICLE XVI OF THE RADNOR CODE FOR ALL PI DISTRICT REQUIREMENTS.		

PROPOSED LOTS

LOT #	GROSS LOT AREA SF	PROPOSED ROW & <50' WIDTH	FLOODPLAINS & >20% SLOPES (1)	PROPOSED LOT AREA 20,000 SF MIN. (2)	ALLOWABLE IMPERVIOUS (30%)	LOT WIDTH @ BLDG LINE (100' MIN)	DEPTH TO STREET LINE	DEPTH/WIDTH RATIO 2.5:1 MAX (3)
1	60,460	942	5,171	55,640	18,138	138	270	2.0
2	29,605	3,015	0	26,590	8,882	121	213	1.8
3	24,055	2,926	0	21,129	7,217	115	184	1.6
4	24,982	3,271	0	21,711	7,495	129	171	1.3
5	33,042	8,799	0	24,243	9,913	151	169	1.1
6	27,067	3,234	0	23,833	8,120	108	230	2.1
7	33,684	10,408	0	23,276	10,105	173	135	0.8
8	25,137	5,020	0	20,117	7,541	138	169	1.2
9	27,528	3,827	0	23,701	8,258	114	213	1.9
10	23,663	1,813	0	21,850	7,099	101	155	1.5
11	47,308	1,795	4,831	41,890	14,192	100	206	2.1
12	54,736	1,885	10,305	45,122	16,421	100	231	2.3
13	25,818	4,766	0	21,052	7,745	127	190	1.5
14	23,857	2,878	0	20,979	7,157	115	160	1.4
15	31,144	8,981	0	22,163	9,343	138	162	1.2
16	85,686	17,860	0	67,826	25,706	233	376	1.6
17	59,016	7,204	0	51,812	17,705	154	324	2.1
18	47,552	7,267	0	40,285	14,266	152	284	1.9
19	107,825	12,095	13,598	85,532	32,348	430	239	0.6
20	58,395	6,384	0	50,504	17,519	286	185	0.6

(1) ASSUMES PORTIONS OF SLOPES ARE MAN-MADE AS SHOWN AND QUALIFY FOR EXEMPTIONS PER 280-112.1. NO WETLANDS PRESENT PER 8/1/2019 WETLAND MAP PREPARED BY PENNONTI ASSOCIATES, INC.
(2) LOT AREA = GROSS LOT AREA LESS ROW AND 75% OF EACH OF THE FOLLOWING: FLOODPLAINS, WETLANDS AND >20% SLOPES.
(3) LOTS 11 & 12 BASE ON AVERAGE WIDTH TO ALLOW TREE PRESERVATION AREA.

COMMONWEALTH OF PENNSYLVANIA,
COUNTY OF _____
ON THE _____ DAY OF _____, 20____, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____, WHO ACKNOWLEDGED _____

TO BE A MEMBER OF THE OWNER OF THE PROPERTY SHOWN ON THE PLAN, BEING AUTHORIZED TO DO SO, ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF THE PROPERTY SHOWN THEREON, SITUATED IN THE TOWNSHIP OF _____ COUNTY, PENNSYLVANIA, AND DESCRIBED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.

WITNESS MY HAND AND NOTARIAL SEAL THE DAY AND YEAR AFORESAID
NOTARY PUBLIC:
MY COMMISSION EXPIRES: _____

RADNOR TOWNSHIP
THIS IS TO CERTIFY THE BOARD OF COMMISSIONERS HAS APPROVED THIS LAND DEVELOPMENT PLAN FOR _____ ON THE _____ DAY OF _____, 20____, FOR RECORDING AT THE RECORDER OF DEEDS OF DELAWARE COUNTY, MEDIA, PENNSYLVANIA. OFFERS OF DEDICATION HAVE BEEN ACCEPTED/REJECTED, BONDS, FUNDS OR SECURITIES IN ESCROW HAVE BEEN FILED WITH THE TOWNSHIP AND ACCEPTED TO COVER ALL IMPROVEMENTS SHOWN ON THE PLAN AND REQUIRED UNDER THE SUBDIVISION/LAND DEVELOPMENT AGREEMENT. APPROVED BY THE RADNOR TOWNSHIP BOARD OF COMMISSIONERS ON _____, 20____.

CHAIR _____
MEMBER _____
TOWNSHIP ENGINEER _____
ATTEST: _____
MANAGER _____

DELAWARE COUNTY PLANNING COMMISSION STAMP

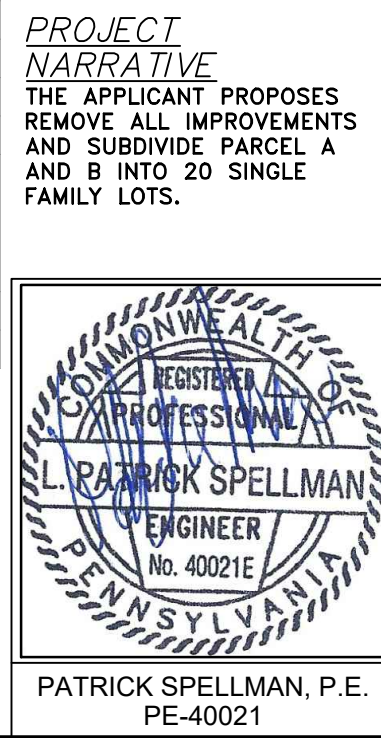
DELAWARE COUNTY RECORDER OF DEEDS STAMP

3.	1/15/2021	REVISE PER TOWNSHIP 2ND REVIEW LETTERS AND PC INPUT
2.	12/7/2020	REVISE PER TOWNSHIP REVIEW LETTERS AND PC INPUT
1.	9/18/2020	RELOCATE LOT 1 DRIVEWAY
NUM.	DATE	REVISION

PLAN PREPARED BY:
SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTON, PA 19399
P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

PRELIMINARY/FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN
PLAN PREPARED FOR:
CG WAYNE, LLC
EAGLE & RADNOR ROAD, WAYNE, PA 19087
RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA
SEPT. 15, 2020

SUBDIVISION PLAN
SHEET 3 of 17
SCALE: 1" = 60'



PROJECT NARRATIVE
THE APPLICANT PROPOSES REMOVE ALL IMPROVEMENTS AND SUBDIVIDE PARCEL A AND B INTO 20 SINGLE FAMILY LOTS.

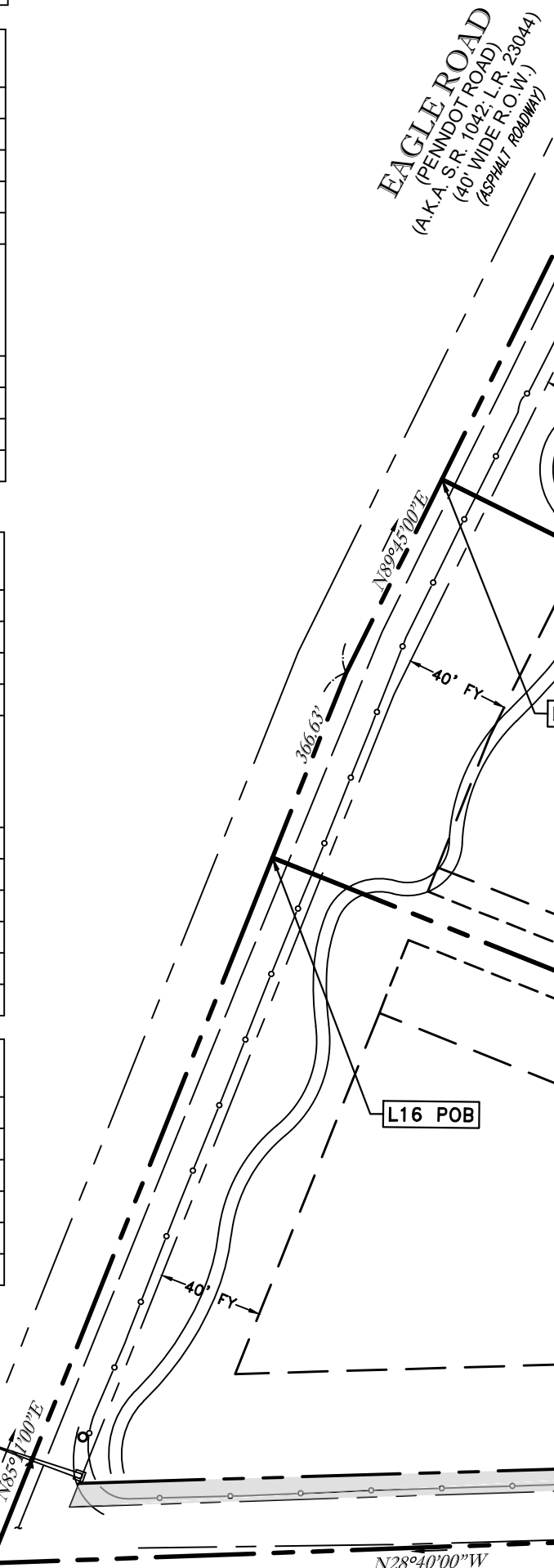
LOT #19 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	CHORD S00°47'55"E	ARC= 206.90'; RADIUS= 870.66'; CHORD= 206.42'	
2	S77°23'45"W	356.81	
3	S01°46'53"E	143.52	
4	S08°15'09"E	60.00	
5	N28°16'16"W	60.00	
6	N01°46'53"W	159.06	
7	N31°33'38"W	153.78	
8	N00°15'00"W	141.32	
9	N89°45'00"E	428.76	

LOT #18 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S00°15'00"E	141.32	
2	S31°33'38"E	153.78	
3	S82°23'00"W	120.14	
4	S04°44'08"E	211.62	
5	CHORD S87°00'50"W	ARC= 20.02'; RADIUS= 255.00'; CHORD= 20.02'	
6	N04°44'08"W	205.31	
7	N33°00'33"W	173.08	
8	N00°15'00"W	149.63	
9	N89°45'00"E	152.39	

LOT #17 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S00°15'00"E	149.63	
2	S33°00'33"E	173.08	
3	S04°44'08"E	205.31	
4	CHORD S85°00'50"W	ARC= 20.02'; RADIUS= 255.00'; CHORD= 20.02'	
5	S04°44'08"E	200.57	
6	S69°49'07"W	159.89	
7	N25°31'42"W	152.76	
8	N04°49'00"W	213.25	
9	N85°11'00"E	76.07	
10	N89°45'00"E	82.55	

LOT #16 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S04°49'00"E	213.25	
2	S25°31'42"E	152.76	
3	S61°41'50"W	171.16	
4	N28°40'00"E	463.97	
5	N85°11'00"E	280.56	

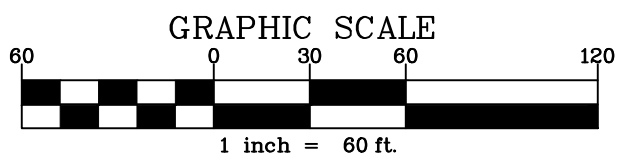
LOT #15 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S25°02'22"E	192.05	
2	S64°50'41"W	163.48	
3	N28°25'42"W	106.65	
4	N28°40'00"W	76.17	
5	N61°41'50"E	171.16	



LOT #14 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S01°43'53"E	159.06	
2	S28°16'16"E	60	
3	S75°12'25"W	57.17	
4	N89°51'45"W	74.14	
5	CHORD N89°32'59"W	ARC= 8.12'; RADIUS= 255.00'; CHORD= 6.12'	
6	N04°44'08"W	211.62	
7	N82°23'00"E	120.14	

LOT #13 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S01°43'53"E	159.06	
2	S28°16'16"E	60	
3	S75°12'25"W	57.17	
4	N89°51'45"W	74.14	
5	CHORD N89°32'59"W	ARC= 8.12'; RADIUS= 255.00'; CHORD= 6.12'	
6	N04°44'08"W	211.62	
7	N82°23'00"E	120.14	

RADNOR STREET ROAD
(TOWNSHIP ROAD)
(A.K.A. RADNOR ROAD, RADNOR STREET)
750' WIDE (33' WIDE R.O.W.)
(ASPHALT ROADWAY)



LOT #11 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	CHORD S24°09'35"E	ARC= 118.21'; RADIUS= 870.66'; CHORD= 118.21'	
2	CHORD S27°05'41"E	ARC= 10.00'; RADIUS= 300.00'; CHORD= 10.00'	
3	S75°39'35"W	148.84	
4	S32°55'01"W	119.90	
5	N65°43'58"W	128.34	
6	N71°08'40"W	100.00	
7	N51°45'53"W	100.00	
8	N69°41'02"E	308.73	

LOT #10 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S71°08'49"E	100.00	
2	S64°54'43"W	128.34	
3	S55°36'15"W	179.45	
4	S22°36'15"E	179.45	
5	N19°25'04"W	226.43	

LOT #9 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S19°25'04"E	226.43	
2	S64°54'43"W	128.34	
3	S55°36'15"W	179.45	
4	S22°36'15"E	179.45	
5	N19°25'04"W	226.43	

LOT #4 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S67°24'59"W	129.57	
2	N22°36'15"W	179.45	
3	N55°36'24"E	132.12	
4	S22°40'17"E	206.49	

LOT #5 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S67°25'00"W	182.88	
2	N26°18'00"W	171.32	
3	N64°54'34"E	194.11	
4	S22°36'15"E	179.45	

LOT #6 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	N28°18'00"W	108.03	
2	N64°54'40"E	252.51	
3	S27°08'34"E	98.29	
4	S55°36'24"E	60.58	
5	S64°54'34"W	194.11	

LOT #7 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S25°05'26"E	202.36	
2	S64°54'40"W	164.22	
3	N28°18'00"W	202.21	
4	N64°50'41"E	168.48	

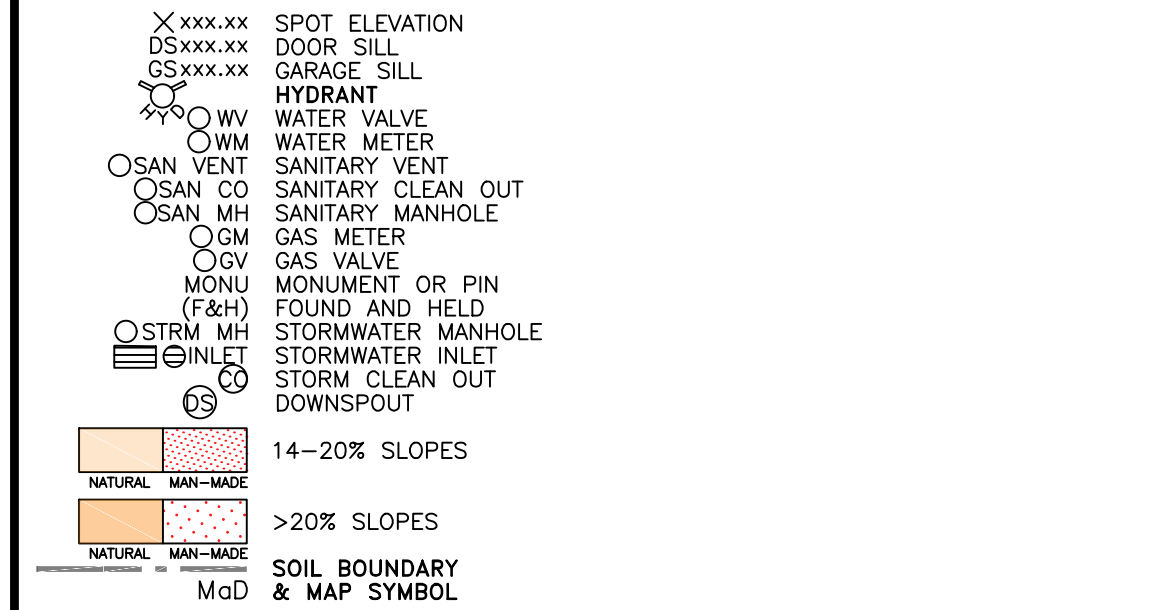
LOT #8 METES & BOUNDS			
COURSE	BEARING	DISTANCE	
1	S01°08'15"W	175.42	
2	S64°54'43"W	88.30	
3	N25°05'26"W	202.36	
4	N64°50'41"E	15.26	
5	CHORD N78°02'57"E	ARC= 40.04'; RADIUS= 255.00'; CHORD= 20.29'	
6	S88°51'43"E	42.46	

EASEMENT #1 PRIVATE ACCESS AND UTILITY			
COURSE	BEARING	DISTANCE	
1	N27°14'46"E	20.00	
2	S64°54'44"W	70.43	
3	S21°21'12"E	235.94	
4	S67°59'15"W	20.00	
5	N21°21'12"W	228.01	
6	N67°43'56"W	134.93	
7	N71°08'49"W	41.11	
8	CHORD S28°56'29"W	ARC= 30.39'; RADIUS= 60.00'; CHORD= 20.29'	

EASEMENT #2 PRIVATE STORM			
COURSE	BEARING	DISTANCE	
1	N22°35'35"W	156.39	
2	S67°19'43"W	9.97	
3	N22°36'15"W	179.45	
4	N55°36'24"W	10.22	

EASEMENT #3 PRIVATE STORM			
COURSE	BEARING	DISTANCE	
1	S27°08'34"E	98.29	
2	N55°36'24"E	71.74	
3	N64°54'43"E	115.16	
4	N41°47'11"E	139.89	
5	N32°55'01"E	119.90	
6	N75°39'35"E	74.79	
7	S11°03'23"E	20.03	
8	S75°39'35"W	65.92	
9	S32°53'03"W	113.56	
10	S41°47'11"W	145.53	
11	S64°54'43"W	117.62	
12	S55°36'24"W	92.83	
13	N27°08'34"W	151.72	
14	N64°54'43"W	20.01	

EASEMENT #4 PRIVATE STORM		
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REPORTING AND RECORD KEEPING
THE E&S PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

E&S CONTROL NOTES

1. E&S CONTROL FOR TRENCH CONSTRUCTION WILL CONSIST OF PLACING EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH AND BACKFILLING AND STABILIZING WITHIN THE SAME WORK DAY.
2. EROSION AND SEDIMENT CONTROL MUST BE CONSTRUCTION STARTED, AND FUNCTIONAL, BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPs.
3. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED, AREAS MUST BE STABILIZED, AND EROSION AND SEDIMENT CONTROL MUST BE MAINTAINED PROPERLY.
4. CONTRACTOR MUST CLEAN DRIVEWAY AND ROAD OF ANY SEDIMENT AT THE END OF EACH WORK DAY.
5. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
6. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST 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, RESURFACING, RESEEDING, REINSEEDING, RESETTLING, MUST BE COMPLETED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

X
EROSION CONTROL MAINTENANCE REQUIREMENTS

1. SILT BARRIER, TREE PROTECTION FENCING, AND THE ROCK CONSTRUCTION ENTRANCE MUST BE CHECKED ON A DAILY BASIS AND AFTER ALL STORM EVENTS TO ENSURE THAT THEY ARE STILL FUNCTIONING PROPERLY. IF NOT, THEY SHALL BE REPAIRED OR CLEANED OF SEDIMENT.
2. SEDIMENT MUST BE REMOVED FROM SILT BARRIER WHEN ACCUMULATIONS REACH 1/2 OF THE ABOVE GROUND HEIGHT OF FENCE OR AS RECOMMENDED BY MANUFACTURER.
3. ANY SECTION OF SILT BARRIER WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
4. DIVERSION BERMS, STONED CONSTRUCTION STAGING AREAS, AND INLETS/PIPING SHALL BE PROVIDED AS REQUIRED OR AS DIRECTED BY THE TOWNSHIP SO AS TO ENSURE ACCEPTABLE CONDITIONS DURING THE CONSTRUCTION PHASE

NOTICE OF TERMINATION

UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER CH. 102.22(A)(2) (RELATIVE TO PERMIT STABILIZATION) AND INSTALLATION OF BMPs IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH CH. 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT. THE NOTICE OF TERMINATION MUST INCLUDE:

- (1) THE FACILITY NAME, ADDRESS AND LOCATION.
- (2) THE OPERATOR NAME AND ADDRESS.
- (3) THE PERMIT NUMBER.
- (4) THE REASON FOR PERMIT TERMINATION.
- (5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH §102.8(W) AND PROOF OF COMPLIANCE WITH §102.8(W)(2).

FINAL CERTIFICATION.

THE PERMITEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS: " (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA. C.S.A. CHAPTER 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, CORRECT, AND DO NOT CONFORM TO ANY OF THE 10% OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES." (1) THE PERMITEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE PCSM PLAN. (2) THE PERMITEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs.

BASE SURVEY PLAN
 "BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED FOR EASTERN UNIVERSITY, PREPARED
 BY CONTROL POINT ASSOCIATES, INC., DATED MARCH 31, 2010, LAST REVISED
 DECEMBER 20, 2019. SEE EXISTING FEATURES SHEET FOR COMPLETE LIST OF NOTES
 AND REFERENCES.

3.	1/15/2021	REVISE PER TOWNSHIP 2ND REVIEW LETTERS AND PC
2.	12/7/2020	REVISE PER TOWNSHIP REVIEW LETTERS AND PC INF
1.	9/18/2020	RELOCATE LOT 1 DRIVEWAY
NUM.	DATE	REVISION


 GRAPHIC SCALE
 0 30 60 120
 FEET

PLAN PREPARED BY:
SITE ENGINEERING CONCEPTS, L.P.
 P.O. BOX 1992
 SOUTHEASTERN, PA 19399
 P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

1 inch = 60 ft.

*PRELIMINARY/FINAL SUBDIVISION AND LAND
DEVELOPMENT PLAN*

PLAN PREPARED FOR:
CG WAYNE, LLC

EAGLE & RADNOR ROAD, WAYNE, PA 19087

	RADNOR TOWNSHIP	DELAWARE COUNTY	PENNSYLVANIA
			SEPT. 15, 2011

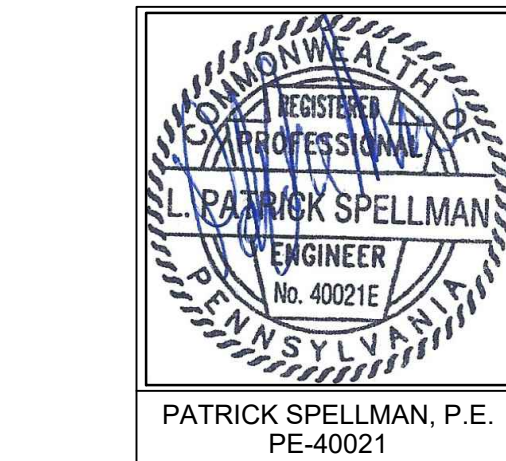


PATRICK SPELLMAN, P.E.
PE-40021

EROSION & SEDIMENT CONTROL PLAN DEMOLITION PLAN

SHEET
4 of 4

SCALE: 1" = 10'



EROSION AND SEDIMENTATION CONTROL NOTES

1. 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) MUST 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 MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE 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.
3. 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 1-800-242-1777 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4. 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.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. 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 THIS E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE 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.
9. 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.
10. 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 2601.1 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.
11. 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.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. TOP-1001 MUST BE RETAINED BY THE PROPERTY OWNER FOR FILL MATERIAL AFFECTED BY EROSION, FLOODING, OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL. DUE TO ANALYTICAL TESTING, IF THE SITE WILL HAVE NO EXCESS FILL, DISPOSITION OF EXCESS FILL DUE TO ANALYTICAL TESTING, THE RESPONSIBILITY OF CLEAN FILL DETERMINATION AND ENVIRONMENTAL DUE DILIGENCE RESTS ON THE APPLICANT.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
14. 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. INSPECTIONS OF EROSION AND SEDIMENT BMPs SHALL BE PERFORMED IMMEDIATELY AFTER EACH RUNOFF EVENT. REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
15. A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
16. SEDIMENT TRACKED ON ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
17. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
18. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SOILS) PRIOR TO PLACEMENT OF TOPSOIL. TOPSOIL SHALL BE STOCKPILED AND HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTCROPS SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
19. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
20. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
21. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOO, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
22. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
23. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
24. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
25. UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES EXCEEDS 4 DAYS, THE SITE SHALL BE IMMEDIATELY RESEED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.
26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPLETE BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDING AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS DURING NON-GERMINATING PERIODS. MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
29. E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
33. FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES AS PROVIDED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN WISDOMANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

CLEAN FILL NOTES

THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE PERMITTEES.

CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. FILL THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED 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 USED ASPHALT DOES NOT INCLUDE MILLED 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 AS CLEAN FILL. FILL PP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM PP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM PP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM PP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM PP-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 PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANITARY MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSDUCER 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 MATERIALS 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 THE DEPARTMENT'S POLICY MANAGEMENT OF FILL. IF THE FILL MATERIAL DOES NOT QUALIFY AS CLEAN FILL, IT SHALL BE REMOVED FROM THE SITE AND THE 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 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PACODE.COM.

UTILITY LINE TRENCH EXCAVATION NOTES

A. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF THE UTILITY LINE TO BE EXCAVATED.

B. WORK CROWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING SHALL BE SEPARATE AND OPERATE SEPARATE FROM CLEARING AND GRUBBING, AND SITE RESTORATION AND DEMOLITION OPERATIONS.

C. SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

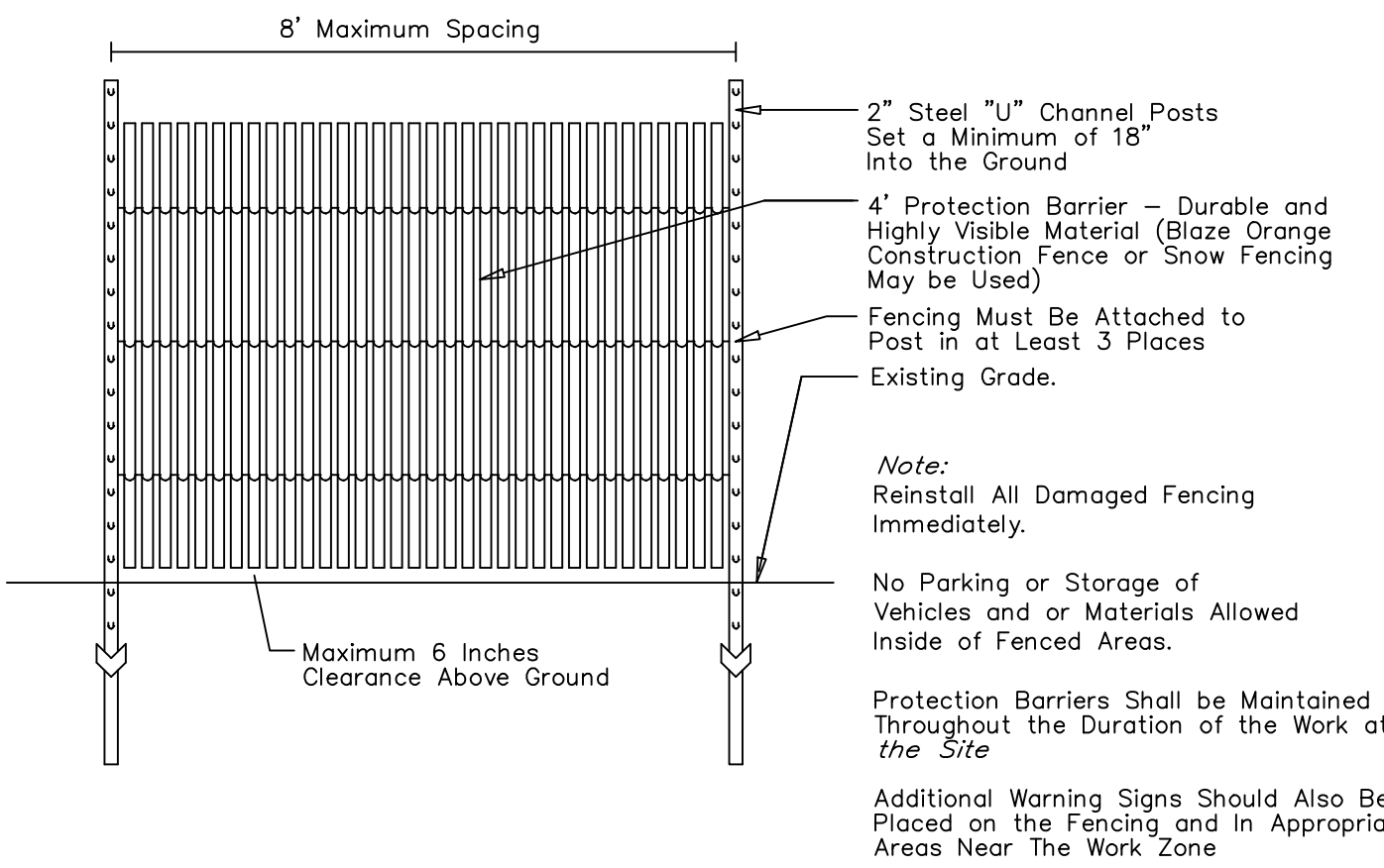
D. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING.

E. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED TO A DRAINAGE OR FILTRATION DEVICE.

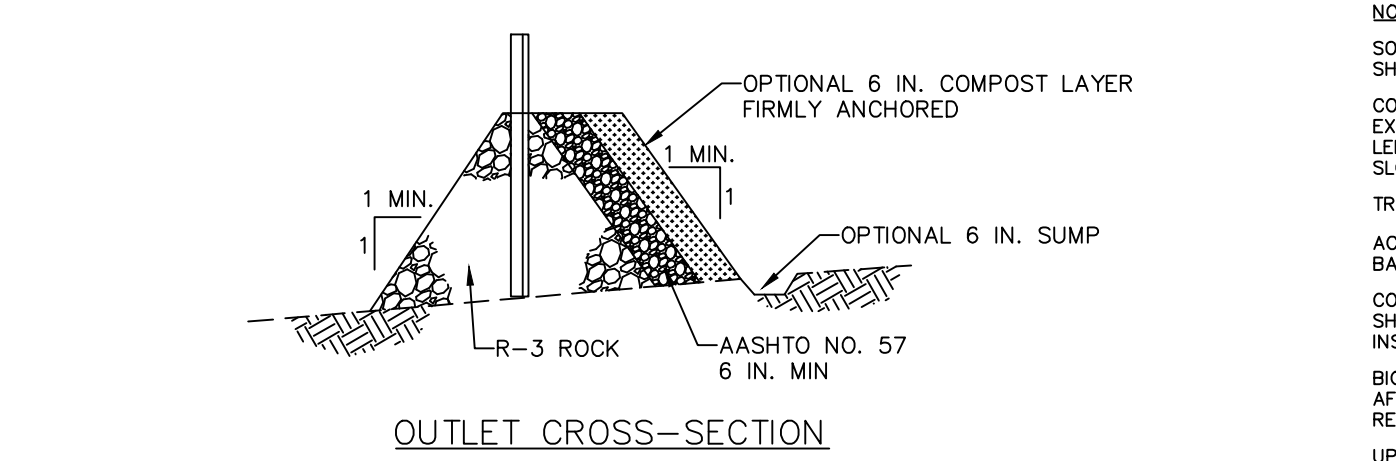
F. THE BACKFILLING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.

EROSION CONTROL MAINTENANCE REQUIREMENTS

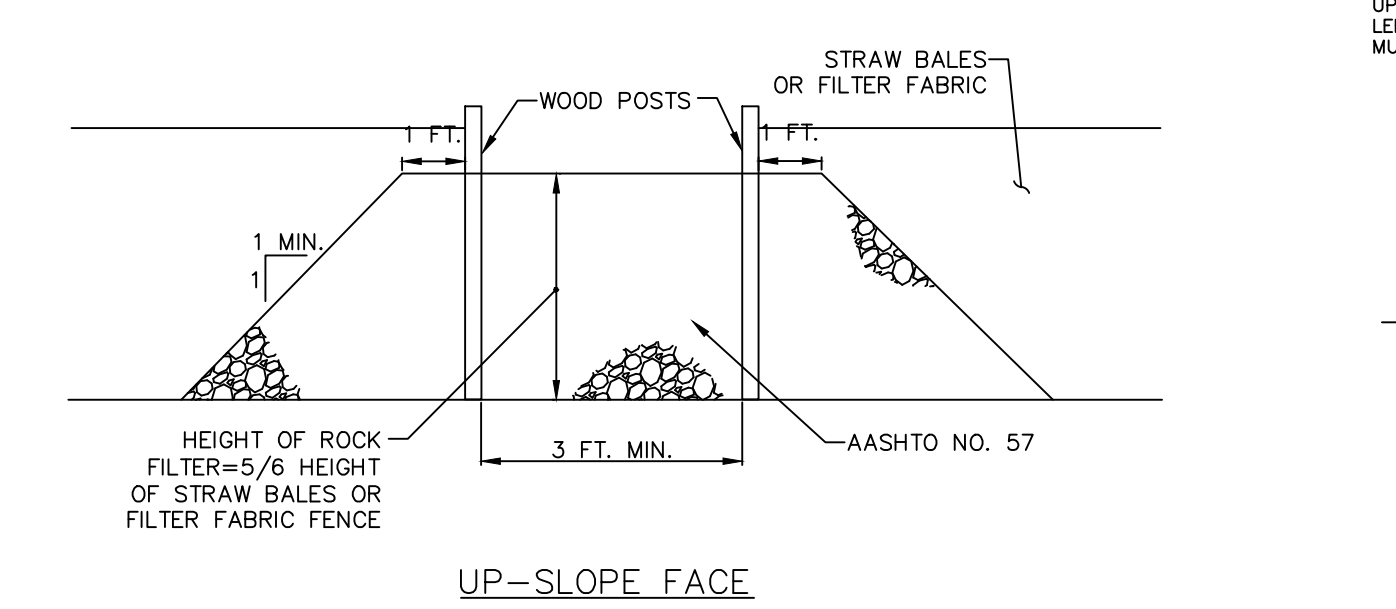
1. **SILT BARRIER, TREE PROTECTION FENCING, AND THE ROCK CONSTRUCTION ENTRANCE MUST BE CHECKED ON A DAILY BASIS PRIOR TO ANY STORM EVENTS TO ENSURE THAT THEY ARE STILL FUNCTIONING PROPERLY. IF NOT, THEY SHALL BE REPLACED OR CLEANED OF SEDIMENT.**
2. **SEDIMENT MUST BE REMOVED FROM SILT BARRIER WHEN ACCUMULATIONS REACH 1/2 OF THE ABOVE GROUND HEIGHT OF THE TRENCH OR AS RECOMMENDED BY MANUFACTURER.**
3. **ANY SECTION OF SILT BARRIER WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITHIN 24 HOURS TO ROCK FILTER OUTLET.**
4. **DIVERSION BERMS, STONED CONSTRUCTION STAGING AREAS, AND INLETS/PUMPS SHALL BE PROVIDED AS REQUIRED OR AS DIRECTED BY THE TOWNSHIP SO AS TO ENSURE APPROPRIATE CONDITIONS DURING THE CONSTRUCTION PHASE.**



CONSTRUCTION FENCING



OUTLET CROSS-SECTION



NOTES:

- A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.
- SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6

ROCK FILTER OUTLET

NOT TO SCALE

SEEDING & MULCHING NOTES

1. ANY DISTURBED AREA ON WHICH CONSTRUCTION ACTIVITY HAS CEASED MUST BE IMMEDIATELY SEEDED AND MULCHED. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE (1) YEAR SHALL BE IMMEDIATELY MULCHED AND SEEDED WITH A QUICK-GROWING TEMPORARY SEED MIXTURE. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN ONE YEAR SHALL BE IMMEDIATELY MULCHED AND SEEDED WITH THE PERMANENT SEED MIXTURE.
2. DIVERSIONS, CHANNELS, SWALES, SEDIMENT BASINS, SEDIMENT TRAPS AND SOIL STOCKPILES SHALL BE SEEDED AND MULCHED IMMEDIATELY.
3. HAY/STRAW MULCH SHALL BE APPLIED AT A RATE OF AT LEAST 1 LB PER 100 SQ. FT.
4. AREAS UTILIZING VEGETATIVE STABILIZATION MUST BE SEEDED AND MULCHED WITHIN THE APRIL 15th TO OCTOBER 15th GERMINATION WINDOW. SEEDING WILL BE ACCOMPLISHED THROUGH HYDROSEEDING OR CONVENTIONAL SEEDING METHODS.
5. GEOTEXTILE EROSION CONTROL CHANNEL LINING AND SLOPE PROTECTION SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS IMMEDIATELY UPON THE COMPLETION OF GRADING ACTIVITIES.

PERMANENT SEED MIXTURE

PARTS BY PERCENT	WEIGHT	PURITY	GERMINATION
NAME			
KENTUCKY BLUE GRASS VARIETIES	33%	95%	85%
PENNSTAR OR PENNFINE			
PERENNIAL RYEGRASS	33%	95%	85%
ANNUAL RYEGRASS	33%	95%	85%

MULCH: SHALL BE HAY WHICH IS FREE OF WEEDS AND SEEDS, NOT MOLDY OR ROTTEN, AND SHALL BE APPLIED TO ALL AREAS AT A RATE OF 3 TONS PER ACRE, ON STEEP SLOPE AREAS (GREATER THAN 3:1), COVER SEEDED AREAS WITH AN ACCEPTABLE GEOTEXTILE EROSION CONTROL BLANKET.

SOD: KENTUCKY BLUEGRASS SOD (IF CALLED FOR)

SOD SHALL BE GROWN UNDER THE SUPERVISION OF THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE BUREAU OF PLANT INDUSTRY OR SHALL BE COMPOSED OF ONLY BLUE TAC CERTIFIED SEED.

SEED: ALL SEED SHALL BE FRESH, ALL NEW CROP SEED SHALL BE LABELED IN ACCORDANCE WITH THE U.S. DEPARTMENT OF AGRICULTURE RULES AND REGULATIONS UNDER THE FEDERAL SEED ACT IN EFFECT ON THE DATE OF INVITATION FOR BIDS. ALL SEED SHALL BE FURNISHED IN SCALE STANDARD TO KIND, PERCENT BY WEIGHT, PURITY AND GERMINATION. THE GRASS SEED SHALL CONTAIN THE PERCENTAGES OF PURITY AND GERMINATION INDICATED ON THE LIST FURNISHED WITH THE APPLICABLE PLAN. SEED MIX SHALL BE AS SPECIFIED, SPREAD AT THE RATE OF 5 POUNDS PER 1,000 SQUARE FEET (MINIMUM), FOR SLOPE 3:1 OR GREATER, USE 7.5 POUNDS OF SEED PER 1,000 SQUARE FEET.

TEMPORARY SEED MIXTURE

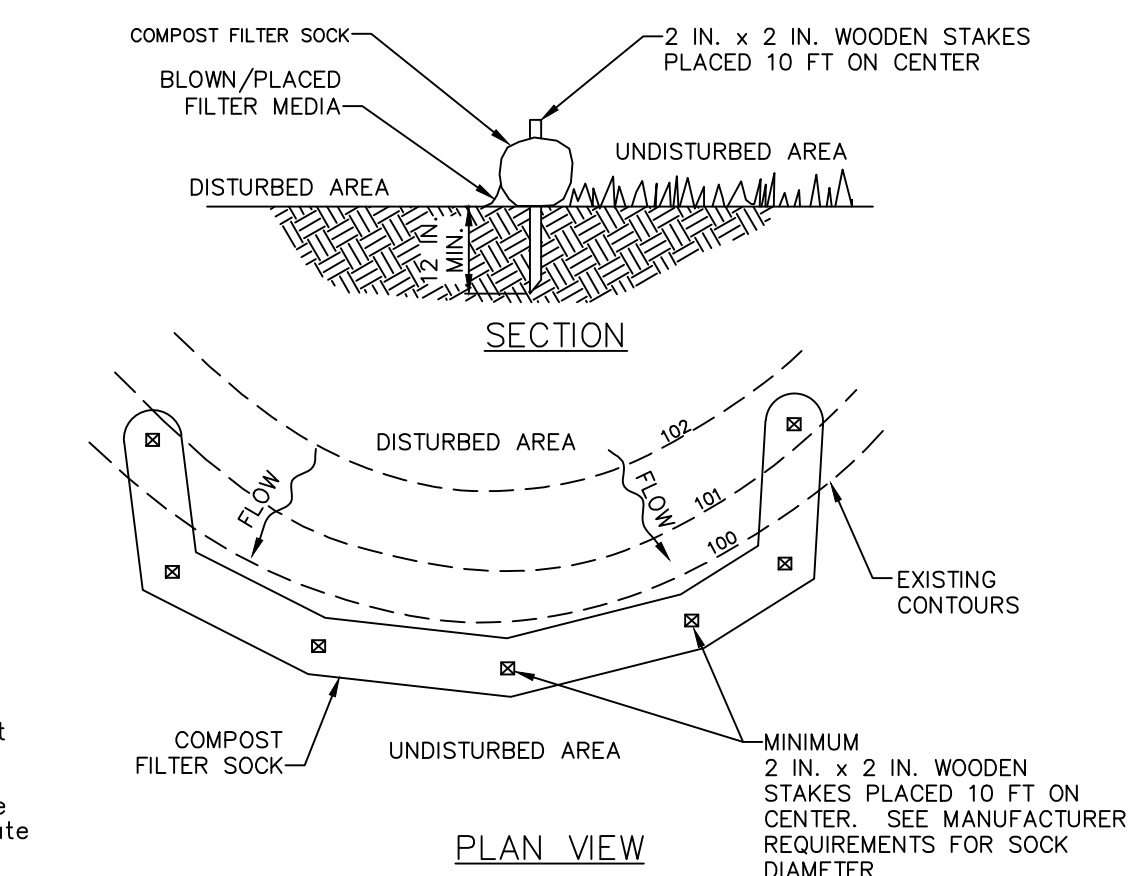
SEED PREPARATION: APRIL 1 TO TOP OF AGRICULTURAL-GRADE LIMESTONE PER ACRE PLUS FERTILIZER AT THE RATE OF 50-50-50 PER ACRE, WORK INTO THE SOIL WHERE POSSIBLE. SECURE A SOIL TEST BEFORE APPLICATION OF PERMANENT SEEDING. AFTER SEEDING, MULCH WITH HAY OR STRAW AT A RATE OF 3 TONS PER ACRE.

SPECIES:	LBS/ACRE:
FOR SPRING SEEDING (UP TO JUNE 15)	
ANNUAL RYEGRASS	40
OR SPRING OATS	96 (3 BU)
OR SPRING OATS PLUS RYEGRASS	64 LBS OATS (2 BU) + 20 LBS ANNUAL RYEGRASS
PERENNIAL RYEGRASS	
OR WINTER WHEAT	180 (3 BU)
OR WINTER RYE	168 (3 BU)
FOR LATE SPRING & SUMMER SEEDING (JUNE 16 TO AUGUST 15)	
ANNUAL RYEGRASS	40
OR JAPANESE OR FOXTAIL MILLET	35
OR SUDANGRASS	40
OR SPRING OATS	96 (3 BU)
OR WINTER WHEAT	180 (3 BU)
OR WINTER RYE	168 (3 BU)
FOR LATE SUMMER & FALL SEEDING (AUGUST 16 TO OCTOBER 15)	
ANNUAL RYEGRASS	40
OR WINTER RYE	168 (3 BU)
OR WINTER WHEAT	180 (3 BU)
OR SUDANGRASS	96

(CAN BE USED BUT WILL WINTER KILL)

§102.4(b)(5)(x) MAINTENANCE, INSPECTION AND REPLACEMENT REQUIREMENTS

1. ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR RESEED IMMEDIATELY.
2. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.
3. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.



NOTES:

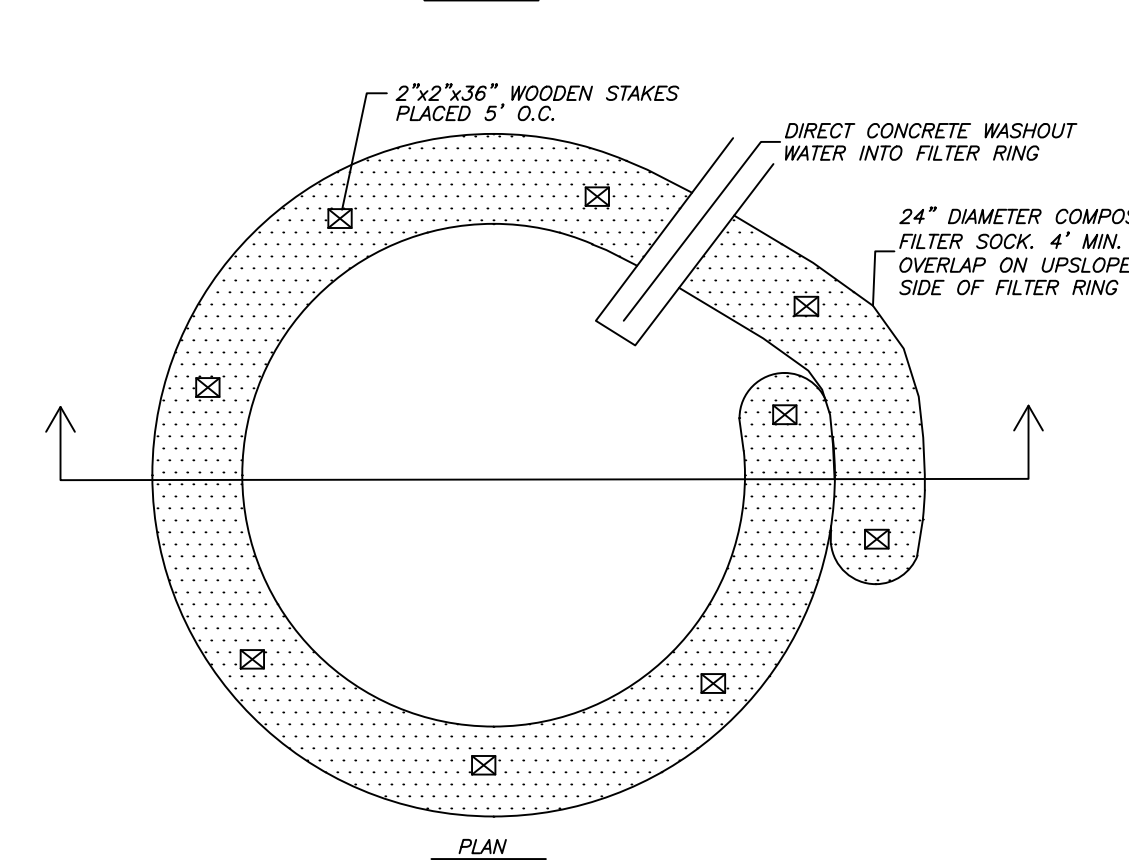
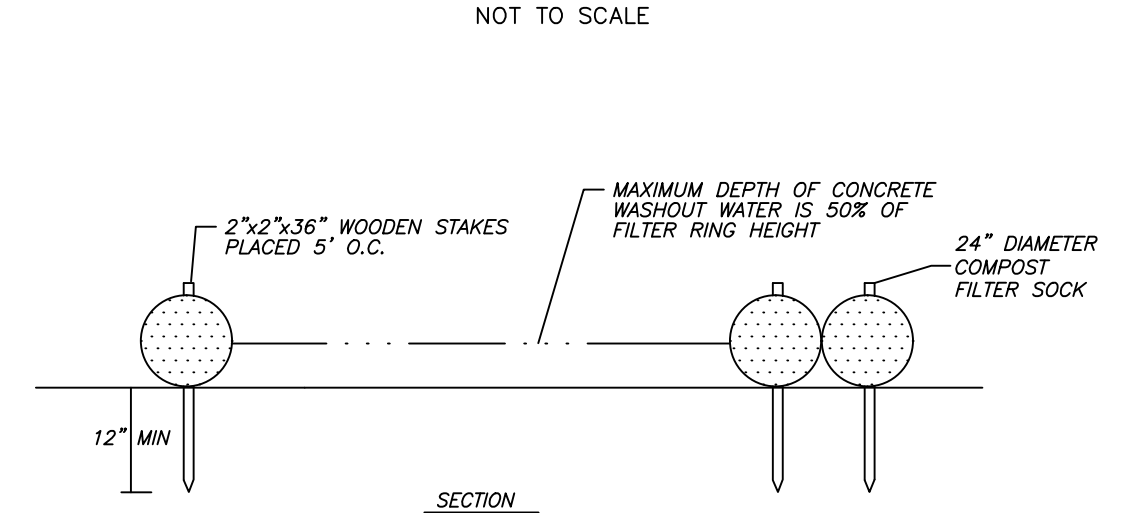
- SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.
- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE 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 VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

SOCK ID	DIAMETER
STOCK FILES	8"
ALL OTHERS	12"

STANDARD CONSTRUCTION DETAIL #4-1

COMPOST FILTER SOCK

NOT TO SCALE



INSTALLATION NOTES:

1. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS. CARE SHOULD BE TAKEN TO ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOMEMBRANE AT ALL LOCATIONS.

2. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.

3. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

4. FOR MORE INFORMATION CONTACT: WEBSITE <http://www.filtertreat.com>

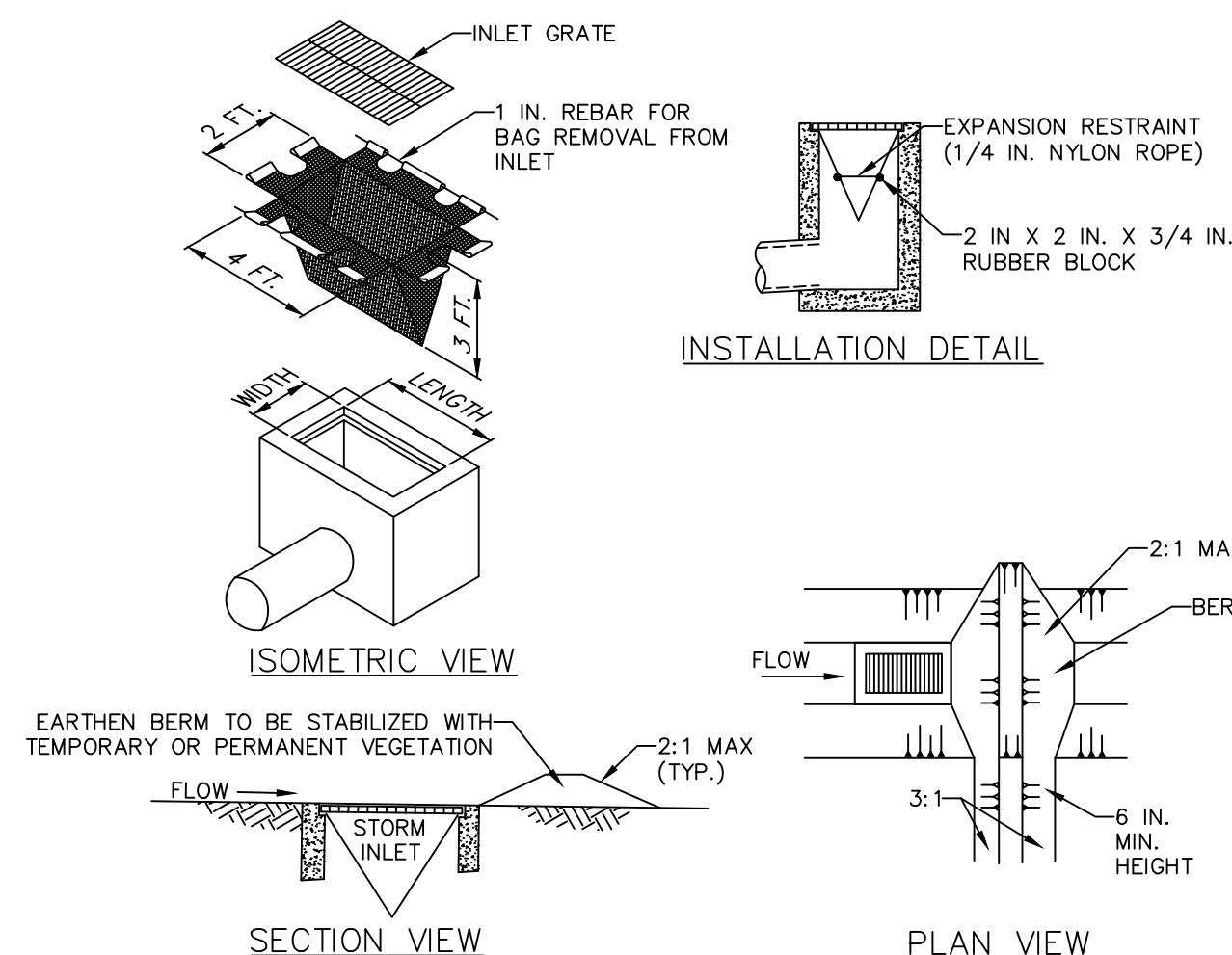
- GENERAL NOTES:
1. FOR ANY PROJECT ON WHICH CONCRETE WILL BE POURED OR OTHERWISE FORMED ON SITE, A SUITABLE WASHOUT FACILITY MUST BE PROVIDED FOR CLEANING OF CHUTES, FORMS, AND HOPPERS FOR THE DELIVERY VEHICLES UNLESS ALL DELIVERY VEHICLES WILL BE CLEANED OFF SITE.
2. UNDER NO CIRCUMSTANCES MAY WASH WATER BE ALLOWED TO ENTER ANY SURFACE WATERS, OR SUBURBAN AREAS.
3. PLASTIC LINERS MUST BE PROVIDED TO DRIVERS SO THEY ARE AWARE OF THE WASHOUT FACILITIES. MAINTENANCE NOTES:
1. CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED IMMEDIATELY.
2. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.
3. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

CONCRETE WASHOUT DETAIL (USING COMPOST SOCK)

(TAKEN FROM 2012 PA DEP E&S/PCSM PROGRAM MANUAL PG 58)

E&S CONTROL NOTES

1. E&S CONTROL FOR TRENCH CONSTRUCTION WILL CONSIST OF PLACING EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH AND BACKFILLING AND STABILIZING WITH THE SAME WORK DAY.
2. EROSION AND SEDIMENT BMPs MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPs.
3. 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.
4. CONTRACTOR MUST WASH VEHICLE TIRES PRIOR TO LEAVING SITE. SHOULD WASHING TIRES PROVE INEFFECTIVE, CONTRACTOR MUST INSTALL ROCK WASHOUT ENTRANCE.
5. CONTRACTOR MUST CLEAN DRIVEWAY AND ROAD OF ANY SEDIMENT AT THE END OF EACH WORK DAY.
6. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
7. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST 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 RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.



NOTES:

- MAXIMUM DRAINAGE AREA = 1/2 ACRE.
- INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
- ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

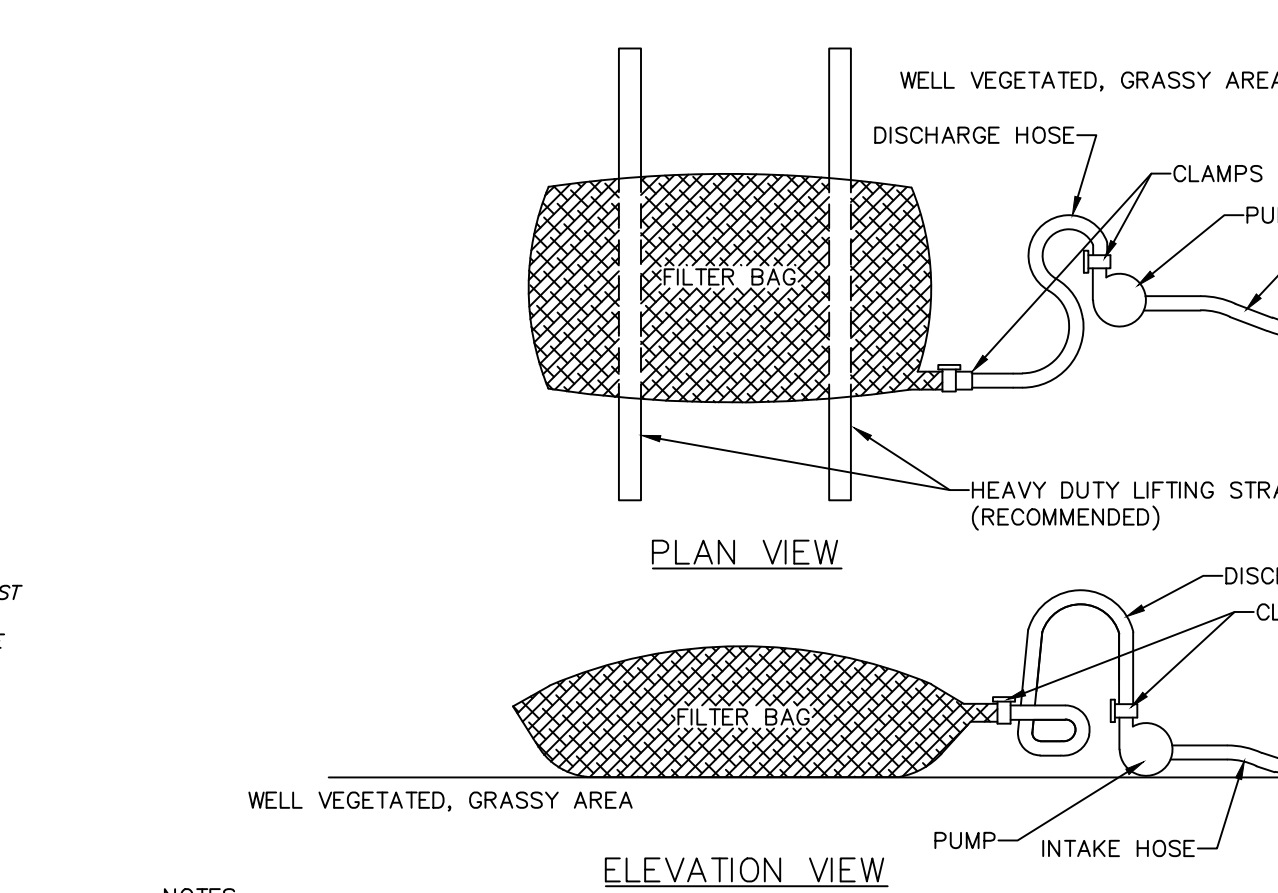
INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-16

FILTER BAG INLET PROTECTION - TYPE M INLET

NOT TO SCALE



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4933	110 LB
MULLEN BURST	ASTM D-5786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRIPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 3:1. FOR SLOPES EXCEEDING 3:1, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

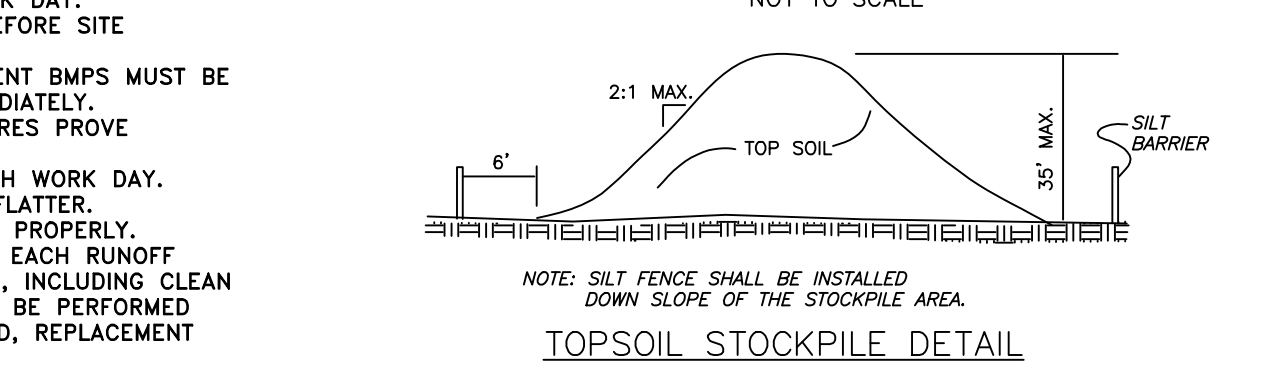
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16

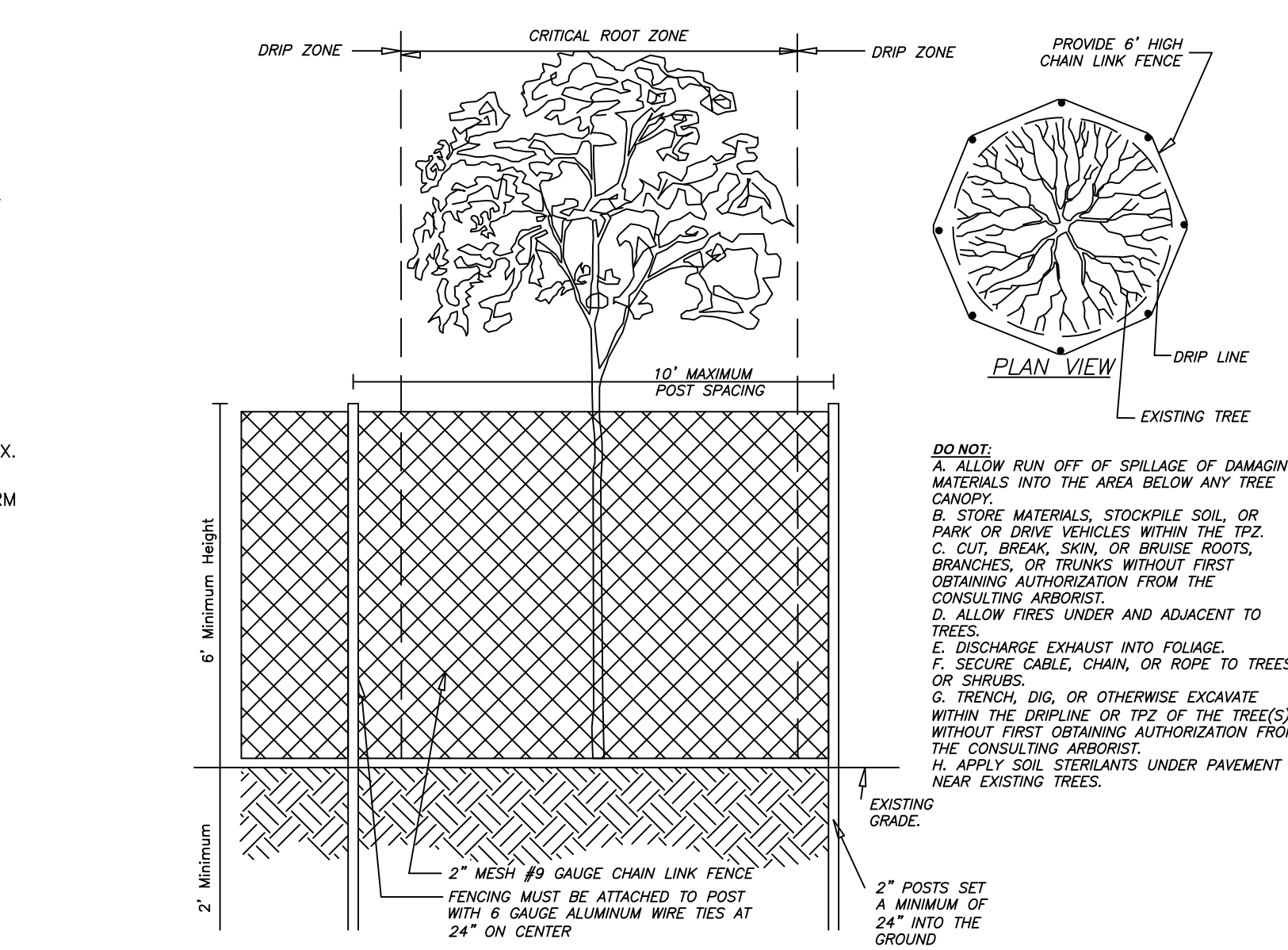
PUMPED WATER FILTER BAG

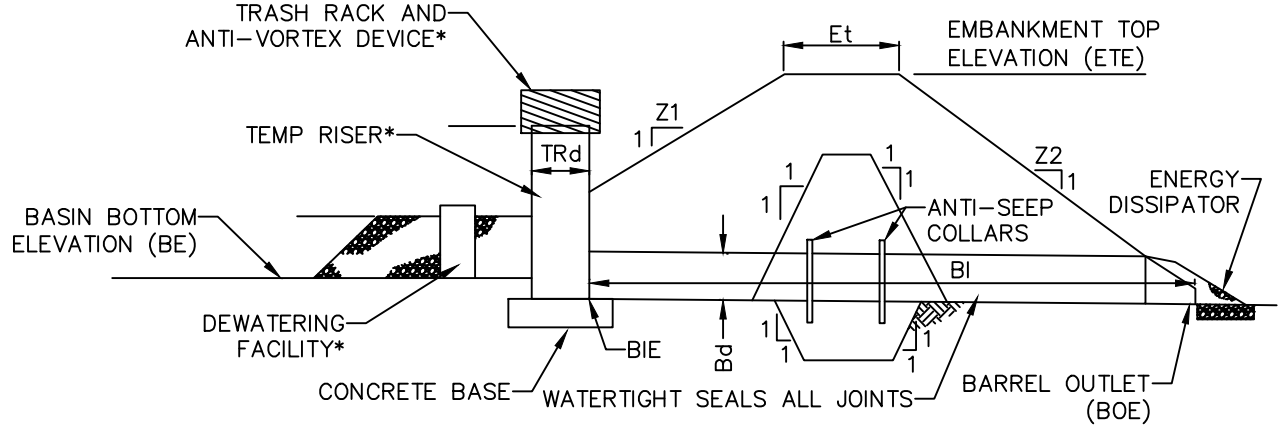
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NOTE: SILT FENCE SHALL BE INSTALLED DOWN SLOPE OF THE STOCKPILE AREA.

TOPSOIL STOCKPILE DETAIL





* ALSO REFER TO SEDIMENT BASIN TEMPORARY RISER, EMERGENCY SPILLWAY, ENERGY DISSIPATER, TRASH RACK AND ANTI-VORTEX DEVICE, AND SEDIMENT STORAGE DEWATERING FACILITY DETAILS.

BASIN NO.	TEMPORARY RISER			BARREL				
	Z1 (FT)	Z2 (FT)	DIA TRd (IN)	CREST ELEV TRCE (FT)	MAT'L	DIA Bd (IN)	INLEY ELEV BIE (FT)	OUTLET ELEV BOE (FT)
1	2	3	15	355.25	HDPE	8	353.5	348

EMBANKMENT					CLEANOUT ELEV COE (FT)	BOTTOM ELEV BE (FT)
TOP ELEV ETE (FT)	TOP WIDTH ETw (FT)	KEY TRENCH DEPTH (FT)	KEY TRENCH WIDTH (FT)	KEY TRENCH COE (FT)		
359	5	2	2	353	353.5	

NOTES:

SEDIMENT BASINS, INCLUDING ALL APPURTENANT WORKS, SHALL BE CONSTRUCTED TO THE DETAIL AND DIMENSIONS SHOWN ON THE E&S PLAN DRAWINGS.

AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO A DEPTH OF TWO FEET PRIOR TO ANY PLACEMENT AND COMPACTION OF EARTHEN FILL. FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6" TO 9" IN. THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS. UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS. TREES SHALL NOT BE PLANTED ON THE EMBANKMENT.

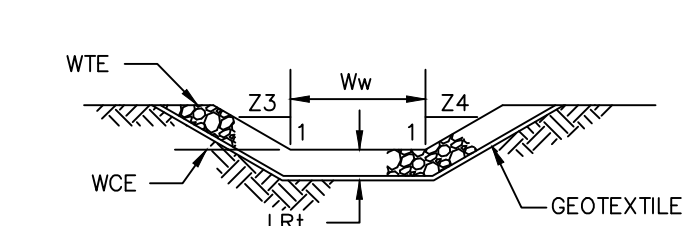
ACCESS SHALL BE PROVIDED FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES.

A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH BASIN. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN IN THE MANNER DESCRIBED IN THE E&S PLAN.

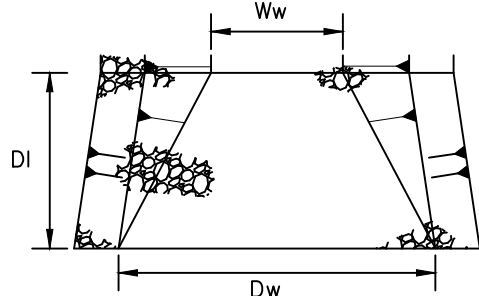
INSPECT ALL SEDIMENT BASINS ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. CHECK BASIN EMBANKMENTS, SPILLWAYS, AND OUTLETS FOR EROSION, PIPING AND SETTLEMENT. NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY. DISPLACED RIPRAP WITHIN THE OUTLET ENERGY DISSIPATER SHALL BE REPLACED IMMEDIATELY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS SHALL BE STABILIZED INSIDE THE BASIN BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. THE DEVICE SHOWN IN STANDARD CONSTRUCTION DETAIL #7-16 MAY BE USED TO DEWATER SATURATED SEDIMENT PRIOR TO ITS REMOVAL. ROCK FILTERS SHALL BE ADDED AS NECESSARY.

STANDARD CONSTRUCTION DETAIL #7-6
SEDIMENT BASIN EMBANKMENT AND SPILLWAY DETAILS
PERFORATED RISER

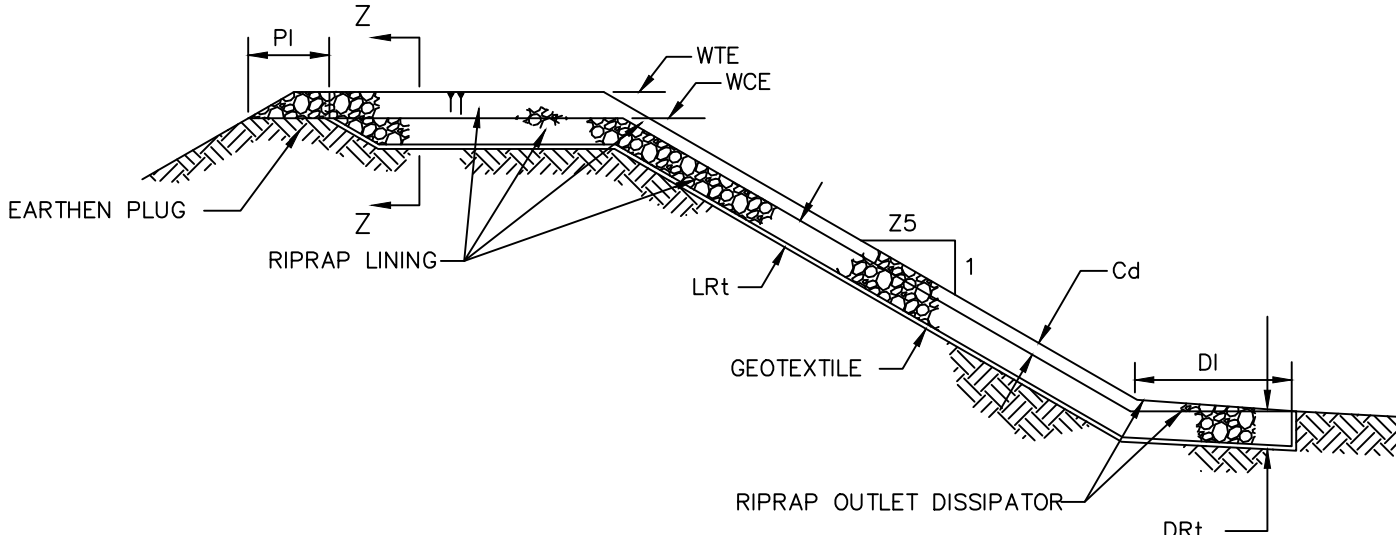
NOT TO SCALE



WEIR
SECTION Z-Z



RIPRAP OUTLET DISSIPATOR
PLAN VIEW



EMBANKMENT SECTION ALONG EMERGENCY SPILLWAY

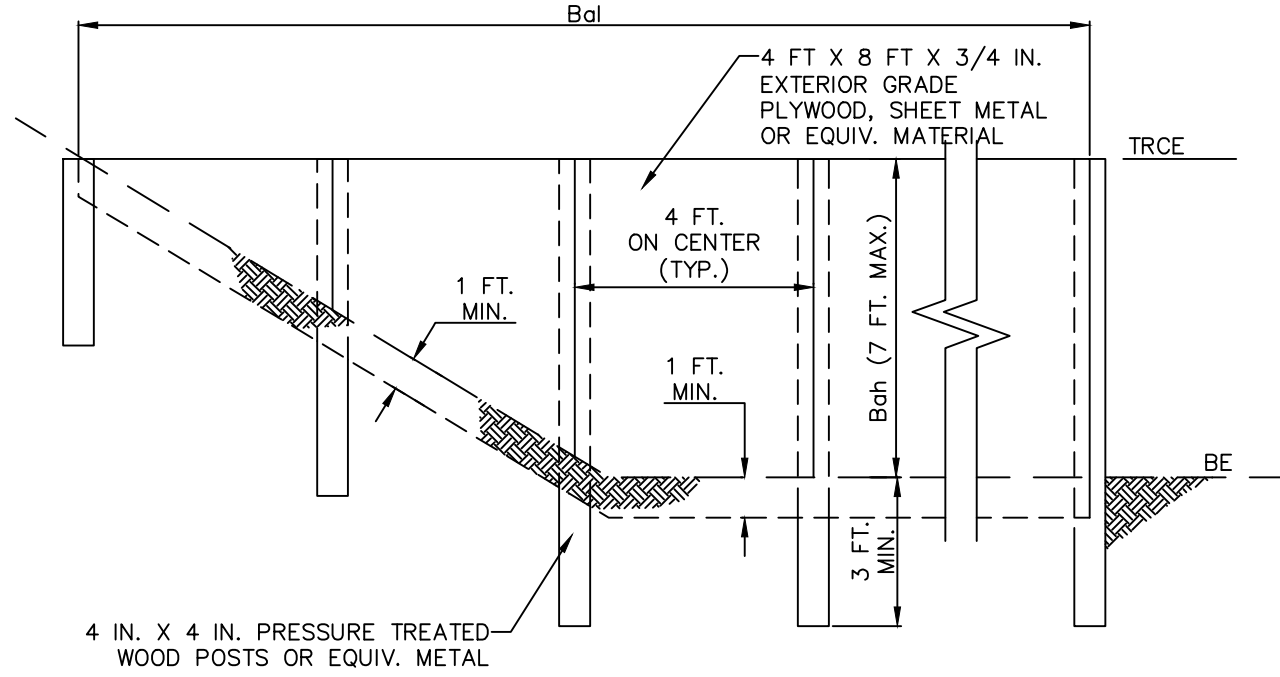
BASIN NO.	WEIR				LINING		CHANNEL		DISSIPATOR				
	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WIDTH Ww (FT)	RIPRAP SIZE (R-)	RIPRAP THICK. LRT (IN)	Z5 (FT)	DEPTH Cd (FT)	LENGTH DI (FT)	WIDTH Dw (FT)	RIPRAP SIZE (R-)	RIPRAP THICK. DRT (IN)
1	3	3	359	358	20	5	15	5	.5	10	5	5	15

NOTES:

DIMENSION PI SHALL BE 5' MINIMUM.
DISPLACED RIPRAP WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY.

STANDARD CONSTRUCTION DETAIL #7-12
SEDIMENT BASIN EMERGENCY SPILLWAY
WITH RIPRAP LINING

NOT TO SCALE



BASIN OR TRAP NO.	BAFFLE		TEMPORARY RISER		BOTTOM ELEV BE (FT)
	LENGTH Bal (FT)	HEIGHT Baf (FT)	CREST ELEV. TRCE (FT)		
1	188	4	357.3		353.5

NOTES:

SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.

AN ACCEPTABLE ALTERNATIVE IS TO INSTALL A SUPER SILT FENCE AT THE BAFFLE LOCATION

IN POOLS WITH DEPTHS EXCEEDING 7', THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION.

BAFFLES SHALL BE TIED INTO ONE SIDE OF THE BASIN UNLESS OTHERWISE SHOWN ON THE PLAN DRAWINGS.

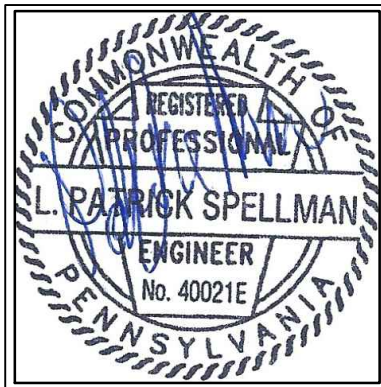
SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.

DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTION.

BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

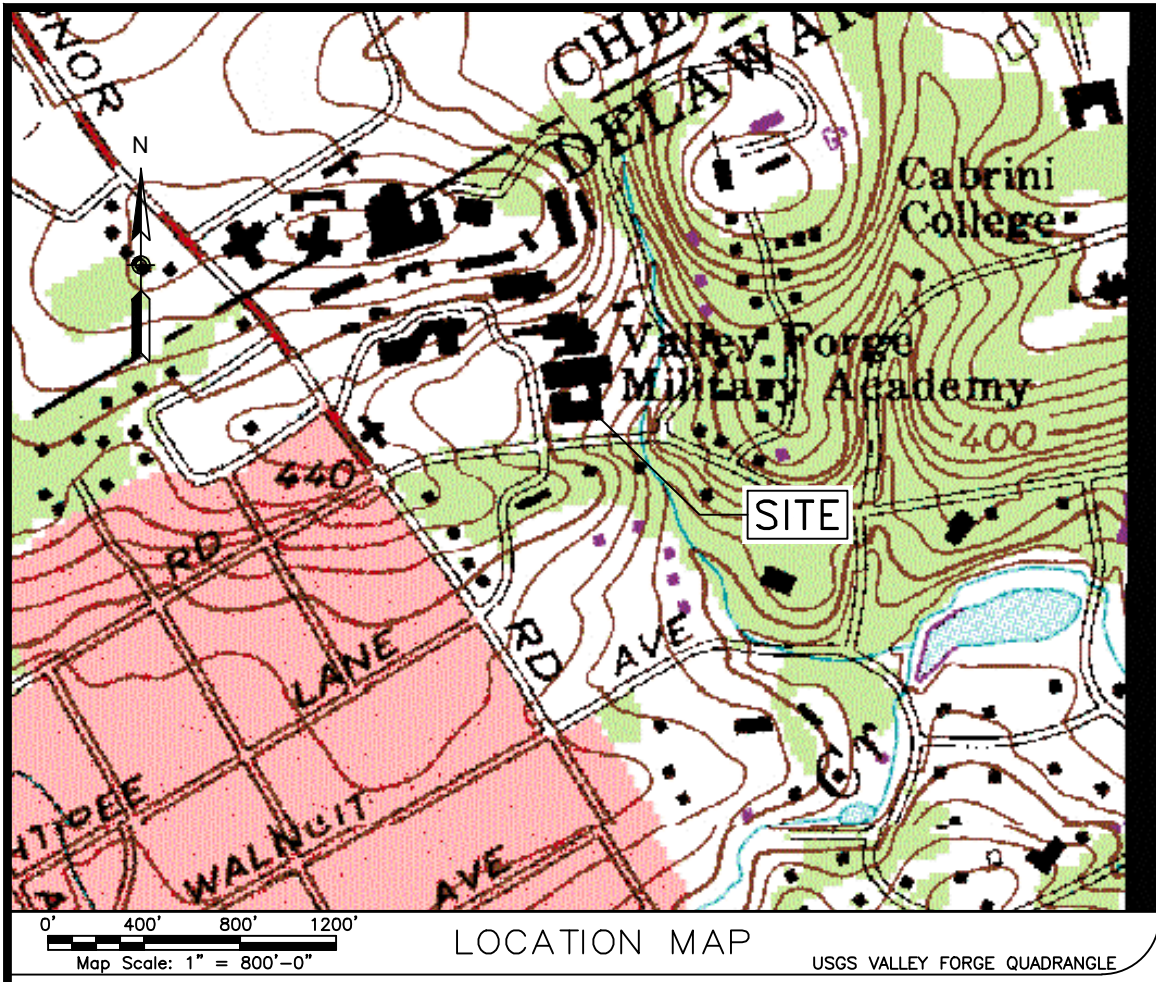
STANDARD CONSTRUCTION DETAIL #7-14
BAFFLE

NOT TO SCALE



PATRICK SPELLMAN, P.E.
PE-40021

3.	1/15/2021	REVISE PER TOWNSHIP 2ND REVIEW LETTERS AND PC INPUT
2.	12/7/2020	REVISE PER TOWNSHIP REVIEW LETTERS AND PC INPUT
1.	9/18/2020	RELOCATE LOT 1 DRIVEWAY
NUM.	DATE	REVISION
PLAN PREPARED BY:		
SITE ENGINEERING CONCEPTS, LLC		
P.O. BOX 1992		
SOUTHEASTERN, PA 19399		
P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM		
PRELIMINARY/FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN		
PLAN PREPARED FOR:		
CG WAYNE, LLC		
EAGLE & RADNOR ROAD, WAYNE, PA 19087		
RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA		SEPT. 15, 2020
E&S DETAILS		SHEET 6 of 17
		SCALE: 1" = NTS



NOTE: THE EXACT LOCATION AND DEPTH OF EXISTING UTILITIES CANNOT BE GUARANTEED. ALL UTILITIES DEPICTED ON THIS PLAN HAVE BEEN DEVELOPED FROM ABOVE GROUND OBSERVATIONS AND/OR EXISTING RECORDS. CONTRACTOR MUST VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. PENNSYLVANIA STATE LAW REQUIRES NOTIFICATION TO 1-800-242-1776 3-10 BUSINESS DAYS PRIOR TO ANY EXCAVATION.
BASE PLAN S/N: 2019266414



PLAN LEGEND

BOLD LINES: PROPOSED	
FADED LINES: EXISTING	
ST- 5' INTERVAL CONTOUR	
S- STORM SEWER PIPING	
L- SANITARY SEWER MAIN	
W- GAS MAIN	
E- WATER MAIN / SERVICE	
OWH- UNDERGROUND ELECTRIC	
OWH- OVERHEAD WIRE	
COMM- COMMUNICATIONS	
EDG- EDGE OF LANDSCAPING	
EDG- EDGE OF PAVEMENT	
PR- PROPERTY LINE	
RT- RIGHT-OF-WAY	
BL- BUILDING SETBACK LINE	
AL- ACCESSORY SETBACK LINE	
100 YR FLOOD BOUNDARY	
TWP RIPARIAN SETBACK	
EXISTING BUILDINGS	
EXISTING ASPHALT	
EXISTING WALKS & PADS	
EXISTING WALLS	
XXXXXX- SPOT ELEVATION	
DSXXXXXX- DOOR SILL	
GSXXXXXX- GARAGE SILL	
OW- WATER VALVE	
OWM- WATER METER	
OSAN VENT- SANITARY VENT	
OSAN CO- SANITARY CLEAN OUT	
OSAN MH- SANITARY MANHOLE	
GM- GAS VALVE	
GMV- GAS METER	
MONU- MONUMENT OR PIN	
(F&H)- FOUND AND HELD	
STRM MH- STORMWATER MANHOLE	
SINLET- STORMWATER INLET	
CO- STORM CLEAN OUT	
DOWNSPUT	
14-20% SLOPES	
NATURAL, MAN-MADE	
>20% SLOPES	
NATURAL, MAN-MADE	
SOIL BOUNDARY & MAP SYMBOL	



SEWAGE PLANNING MODULE APPROVAL REQUIRED.
THE PLANNING MODULE APPLICATION WAS SUBMITTED ON JANUARY 13, 2021. THE APPLICATION REQUESTS SIX ADDITIONAL EDU'S AS 14 CURRENTLY EXIST WITH THE HOUSES TO BE REMOVED. THE APPLICANT REQUESTS FINAL PLAN APPROVAL CONDITIONED ON RECEIVING PLANNING MODULE APPROVAL PRIOR TO THE CONSTRUCTION OF THE FINAL SIX HOMES.

UNIT SIZE (# OF BEDROOMS)
THE APPLICANT ANTICIPATES OFFERING HOMES WITH 5 BEDROOMS.

ZONING REQUIREMENTS

ORDINANCE ITEM	EXISTING		PROPOSED
	PI PLANNED INSTITUTIONAL REQUIREMENT	R-1 RESIDENTIAL REQUIREMENT	
MIN. LOT AREA	10 AC (435,600 SF)	1 AC (43,560 SF)	20,000 SF
LOT WIDTH @ BLDG	100 FT	120 FT	100 FT
MIN. SETBACKS			
FRONT	(1)	60 FT	40 FT
SIDE (MIN/AGG)	(2)	25/60 FT	20/45 FT
REAR	(2)	40 FT	40 FT
MAX. BUILDING HEIGHT	38 FT	35 FT	35 FT
MAX. BUILDING COVERAGE	30%	15%	18%
MAX. IMPERV SURFACE	45%	22%	30%
RIPIARIAN BUFFER	35 FT	35 FT	35 FT

(1) PI FRONT SETBACK FROM STREET ROW: STRUCTURES - 120 FT; PARKING - 60.
(2) REAR & SIDE YARD: CATEGORY 1: RESIDENTIAL ADJOINER- 125 FT; OTHERS- 75 FT; CATEGORY 2: RESIDENTIAL ADJOINER- 200 FT; OTHERS- 75 FT

PROPOSED ZONING SUMMARY

LOT #	LOT AREA SF (1)	LOT WIDTH @ BLDG LINE FT	FRONT YARD FT (2)	MINIMUM SIDE YARD FT (2)	AGGREGATE SIDE YARD FT (2)	REAR YARD FT (2)	BUILDING HEIGHT FT (2)
1	55,640	138	164.7	71.3	143.5	78.7	<35'
2	26,590	121	81.1	22.7	55.1	69.3	<35'
3	21,129	115	72.0	20.0	49.5	58.1	<35'
4	21,711	129	57.4	22.4	64.3	40.0	<35'
5	24,243	151	40.0	40.0	N/A	40.0	<35'
6	23,833	108	41.6	20.9	51.5	114.9	<35'
7	23,276	173	41.0	28.1	N/A	75.2	<35'
8	20,117	138	42.0	21.8	56.6	66.2	<35'
9	23,701	114	40.3	20.9	50.7	73.7	<35'
10	21,850	101	41.1	20.0	45.0	50.7	<35'
11	41,890	100	58.7	25.8	55.3	215.1	<35'
12	45,122	100	65.0	26.5	77.9	238.7	<35'
13	21,052	127	52.5	20.0	49.6	55.9	<35'
14	20,979	115	45.0	22.8	56.0	56.2	<35'
15	22,163	138	40.7	32.3	N/A	57.4	<35'
16	67,826	233	41.0	41.9	N/A	41.5	<35'
17	51,812	154	184.0	45.3	100.3	40.4	<35'
18	40,285	152	154.4	26.4	69.8	40.6	<35'
19	85,532	430	146.6	42.3	303.0	42.0	<35'
20	50,504	286	96.0	25.0	N/A	46.4	<35'

- (1) LOT AREA = TOTAL AREA LESS ROW AND 75% OF EACH OF THE FOLLOWING:
FLOODPLAINS, WETLANDS AND 20%+ SLOPES.
(2) YARD SETBACKS AND COVERAGE ESTIMATES BASED ON PRELIMINARY SKETCH, ACTUAL COVERAGE TO BE DETERMINED WITH GRADING PERMIT APPLICATIONS, AND NOT TO EXCEED AMOUNTS PERMITTED BY APPLICABLE CODE REQUIREMENTS.
(3) IMPERVIOUS AND BUILDING COVERAGE PERCENTAGE BASED ON GROSS LOT AREA.

PROPOSED IMPERVIOUS COVERAGE

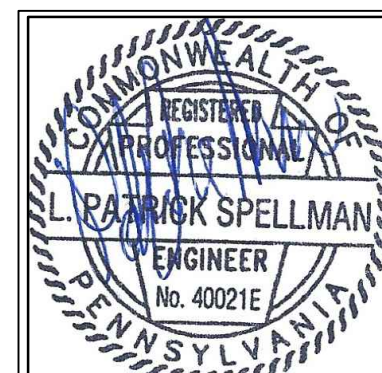
LOT #	GROSS LOT AREA SF	BUILDING COVERAGE SF (1)	% BLDG CVR (2)	WALKS/ SIDEWALKS SF (1)	PATIOS, DECKS SF (1)	DRIVE WAY SF (1)	OTHER SF (1)	TOTAL IMPERVIOUS COVERAGE SF (1)	% IMP CVR (2)
1	60,460	3,227	5.3%	300	441	3,312	0	7,280	12.0%
2	29,605	3,321	11.2%	359	470	2,367	0	6,517	22.0%
3	24,055	3,125	13.0%	210	418	1,985	0	5,738	23.9%
4	24,982	3,252	13.0%	375	249	2,138	0	6,014	24.1%
5	33,042	3,022	9.1%	369	474	1,944	0	5,809	17.6%
6	27,067	2,867	10.6%	330	282	1,751	0	5,230	19.3%
7	33,684	2,720	8.1%	348	476	1,807	0	5,351	15.9%
8	25,137	2,980	11.9%	354	381	1,509	0	5,224	20.8%
9	27,528	3,401	12.4%	289	320	1,645	0	5,655	20.5%
10	23,663	3,268	13.8%	350	267	2,228	0	6,113	25.8%
11	47,308	3,399	7.2%	274	320	2,131	164	6,288	13.3%
12	54,736	3,573	6.5%	327	320	2,206	0	6,426	11.7%
13	25,818	2,642	10.2%	317	391	2,206	0	5,556	21.5%
14	23,857	2,790	11.7%	436	364	1,878	208	5,676	23.8%
15	31,144	2,927	9.4%	268	381	1,934	0	5,510	17.7%
16	85,686	3,348	3.9%	936	350	1,957	247	6,838	8.0%
17	59,016	2,899	4.9%	289	434	3,683	0	7,305	12.4%
18	47,552	2,699	5.7%	264	443	3,685	0	7,091	14.9%
19	107,825	3,054	2.8%	275	441	3,750	0	7,520	7.0%
20	58,395	3,421	5.9%	310	313	3,979	89	8,112	13.9%

- (1) YARD SETBACKS AND COVERAGE ESTIMATES BASED ON PRELIMINARY SKETCH, ACTUAL COVERAGE TO BE DETERMINED WITH GRADING PERMIT APPLICATIONS, AND NOT TO EXCEED AMOUNTS PERMITTED BY APPLICABLE CODE REQUIREMENTS.
(2) IMPERVIOUS AND BUILDING COVERAGE PERCENTAGE BASED ON GROSS LOT AREA.

FULL GRADING AND UTILITY PLANS

1" CONTOURS AND SPOT ELEVATIONS NOT SHOWN FOR CLARITY. SEE SHEET 10 FOR FULL GRADING PLAN WITH SPOT ELEVATIONS AND DIMENSIONS.
SOME UTILITIES NOT SHOWN FOR CLARITY. SEE SHEET 11 FOR FULL UTILITY PLAN.

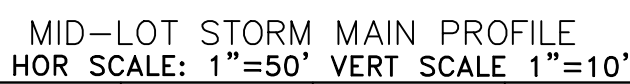
PROJECT NARRATIVE
THE APPLICANT PROPOSES REMOVE THE 14 EXISTING DWELLING AND ALL ASSOCIATED IMPROVEMENTS AND SUBDIVIDE PARCEL A AND B INTO 20 SINGLE FAMILY LOTS.



3.	1/15/2021	REVISE PER TOWNSHIP 2ND REVIEW LETTERS AND PC INPUT
2.	12/7/2020	REVISE PER TOWNSHIP REVIEW LETTERS AND PC INPUT
1.	9/18/2020	RELOCATE LOT 1 DRIVEWAY
NUM.	DATE	REVISION

PLAN PREPARED BY:
SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTERN, PA 19399
P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

PRELIMINARY/FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN
PLAN PREPARED FOR:
CG WAYNE, LLC
EAGLE & RADNOR ROAD, WAYNE, PA 19087
RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA
SEPT. 15, 2020
PRELIMINARY LAND DEVELOPMENT & PCSM PLAN
SHEET 7 of 17
SCALE: 1" = 50'



PROFILE VIEW

LEVEL SPREADER DETAIL

SECTION A-A

SECTION A-A

NOTES

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

RIPRAP APRON AT PIPE OUTLET

Scope

Requirements

Installation

PIPE DIAMETER, in (mm)						
Diameter	12	15	18	24	30	36
in (mm)	(300)	(375)	(450)	(600)	(750)	(900)
W	6.5	7.5	7.5	7.5	7.5	6.5
in (mm)	(165)	(191)	(191)	(191)	(191)	(165)
M	10	10	10	10	10	20.0
in (mm)	(254)	(254)	(254)	(254)	(254)	(508)
W	6.5	6.5	6.5	6.5	6.5	5.5
in (mm)	(165)	(165)	(165)	(165)	(165)	(141)
M	25.0	25.0	32.0	36.0	58.0	58.0
in (mm)	(635)	(635)	(813)	(914)	(1473)	(1473)
W	29.0	29.0	35.0	45.0	63.0	59.0
in (mm)	(737)	(737)	(889)	(1143)	(1600)	(1500)



FRONT VIEW



PLAN PREPARED BY	
------------------	--

P.O. BOX 1002

F.O. BOX 1992
SOUTHEASTERN, PA 19006

SOUTHEASTERN, PA 19399

P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

T. 010-240-0400 T. 010-240-0401 E: INFO@SITE-ENGINEERS.COM

PRELIMINARY/FINAL SUBDIVISION AND LAND

DEVELOPMENT PLAN

PLAN PREPARED FOR:

PLAN PREPARED FOR:
CC WAYNE LLC

CG WAYNE, LLC
EAGLE PARK ROAD, WAYNE, PA 19382

EAGLE & RADNOR ROAD, WAYNE, PA 19087

RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

	SEPT 15 2020
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STORM PROFILES CONTENTS

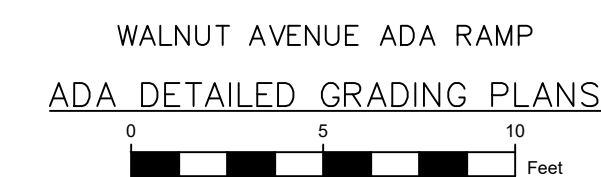
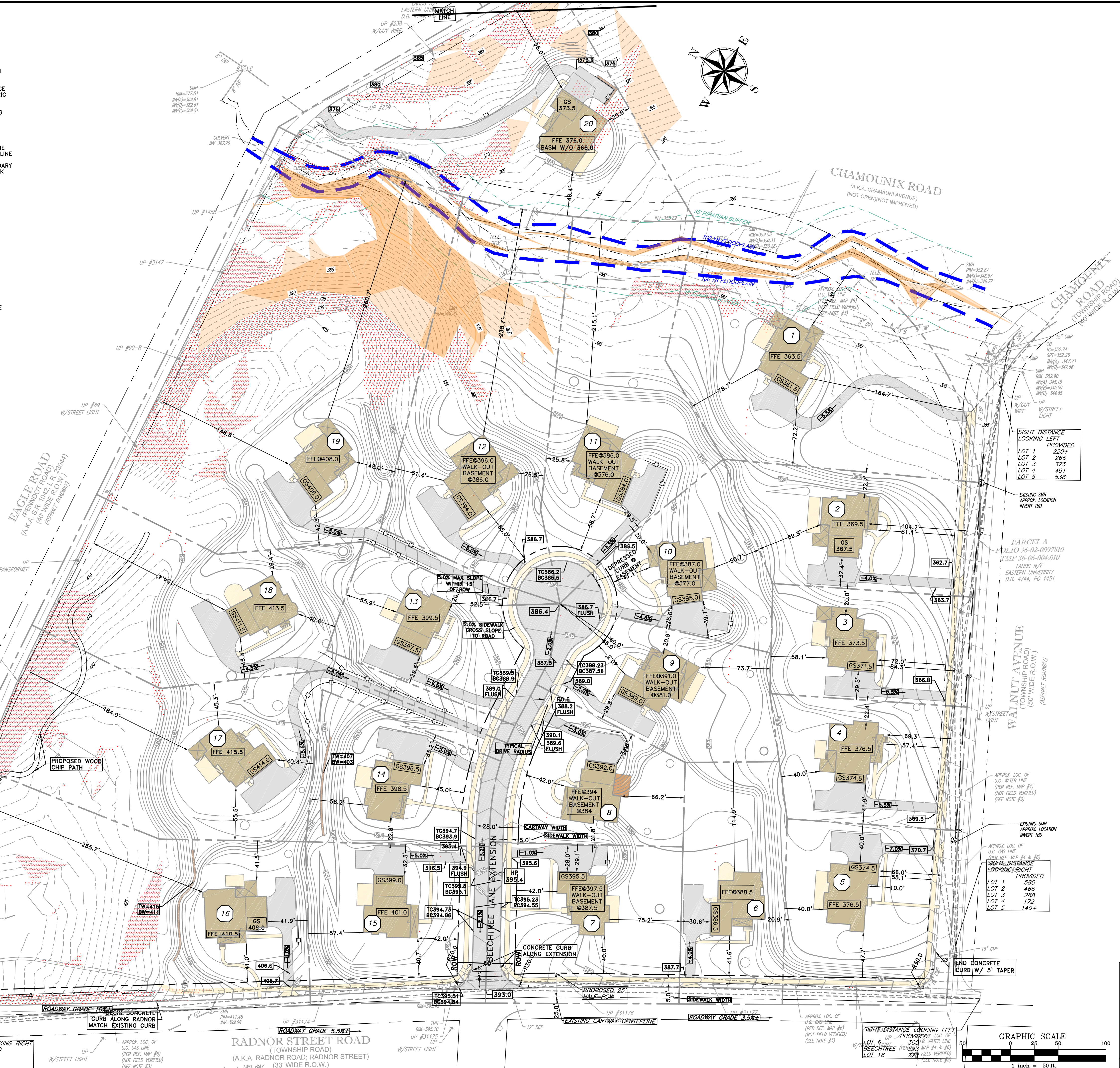
STORM PROFILES SHEET

AND DETAILS 9 of 17

9 of 17

[illegible]

	AS NOTED
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PLAN PREPARED BY:
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P.O. BOX 1992
SOUTHEASTERN, PA 19399
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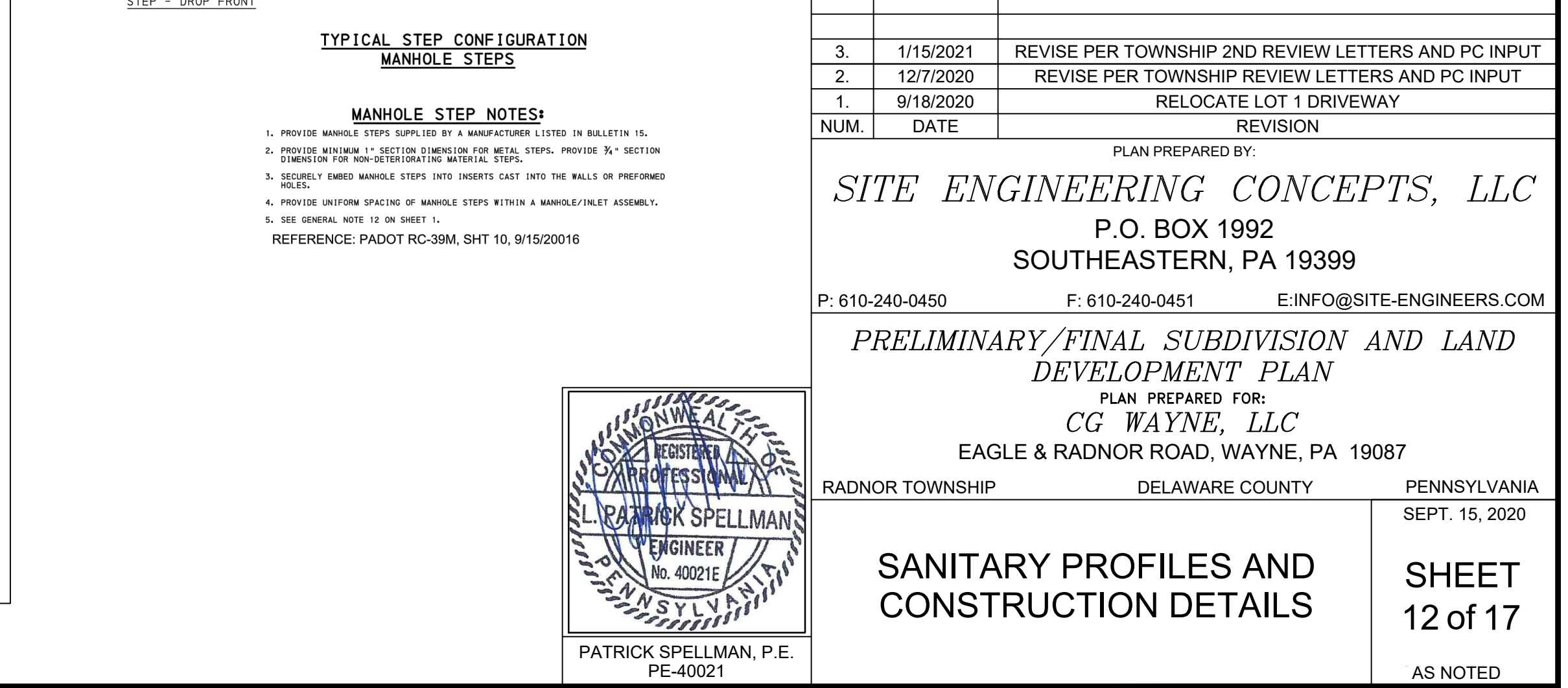
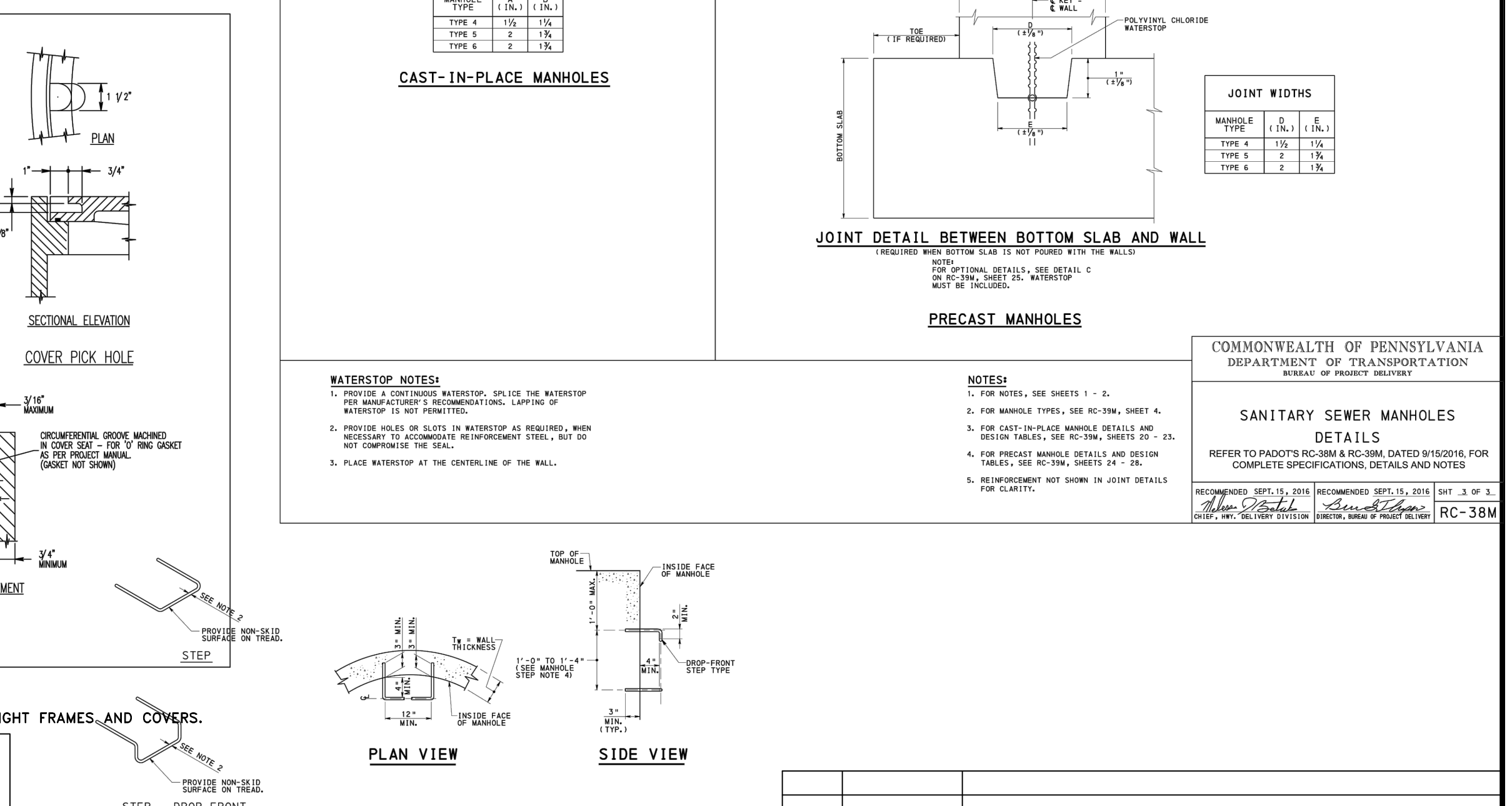
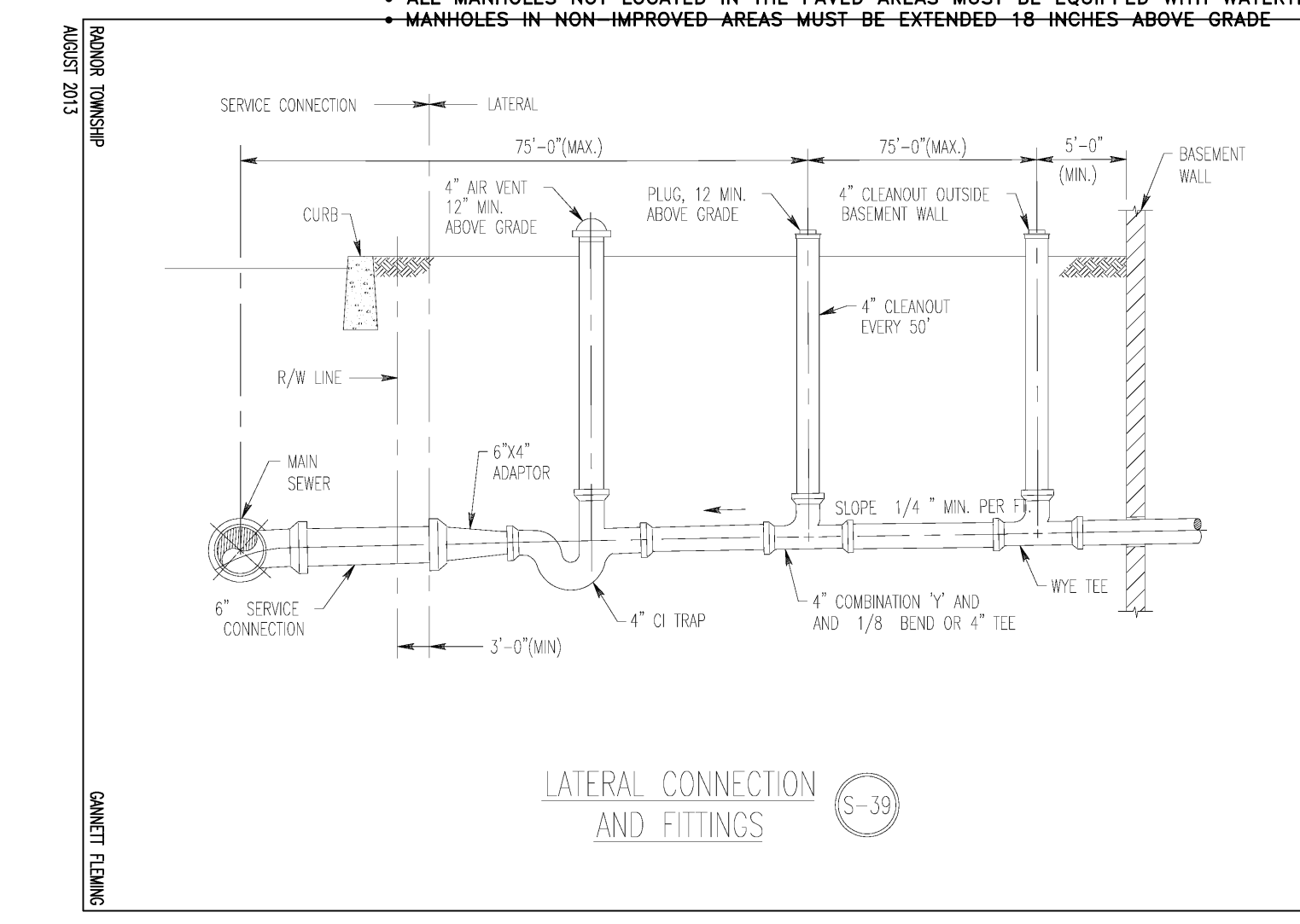
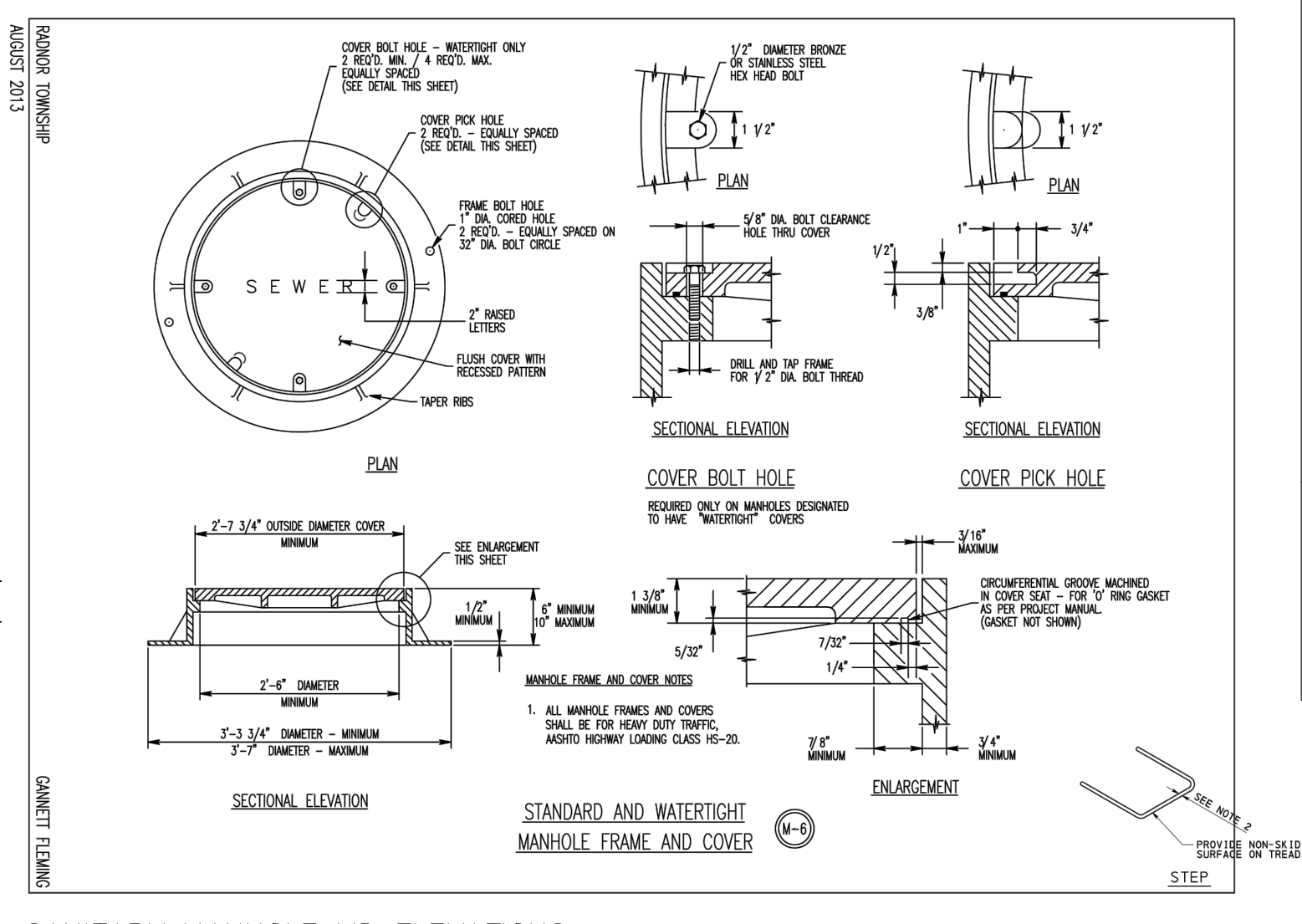
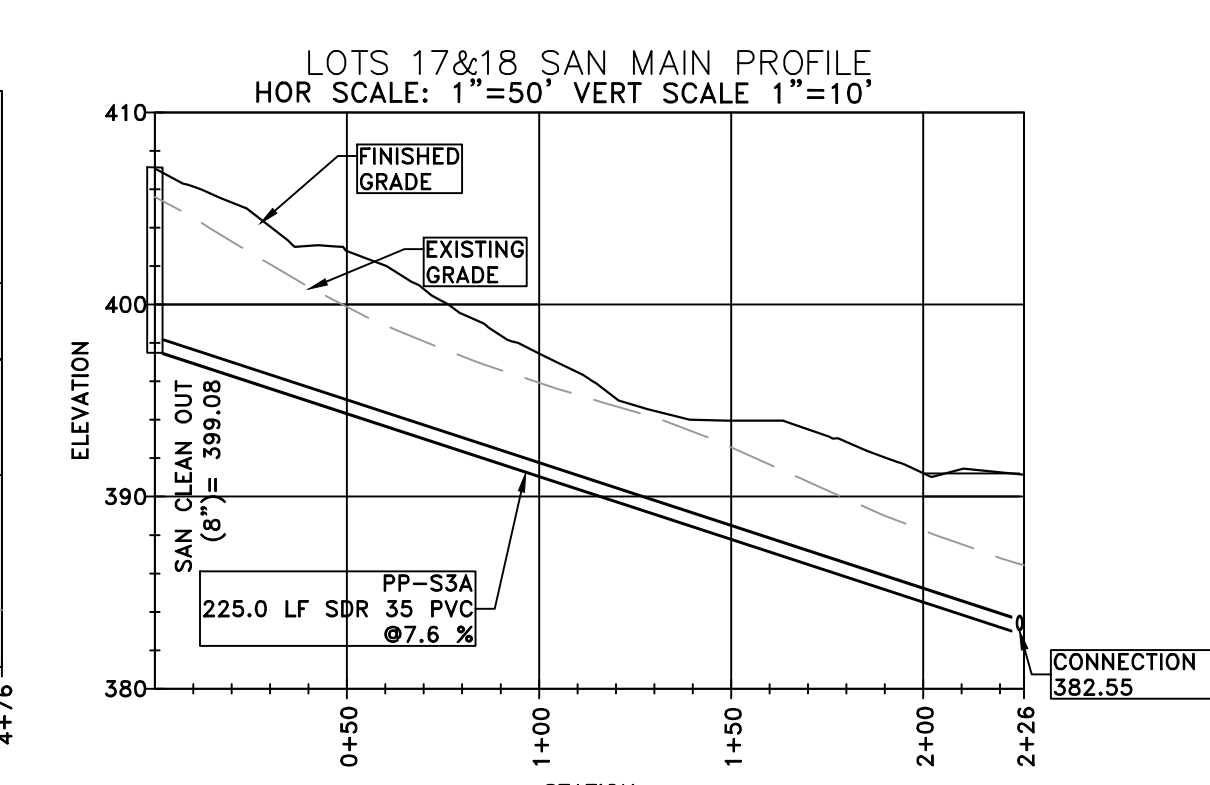
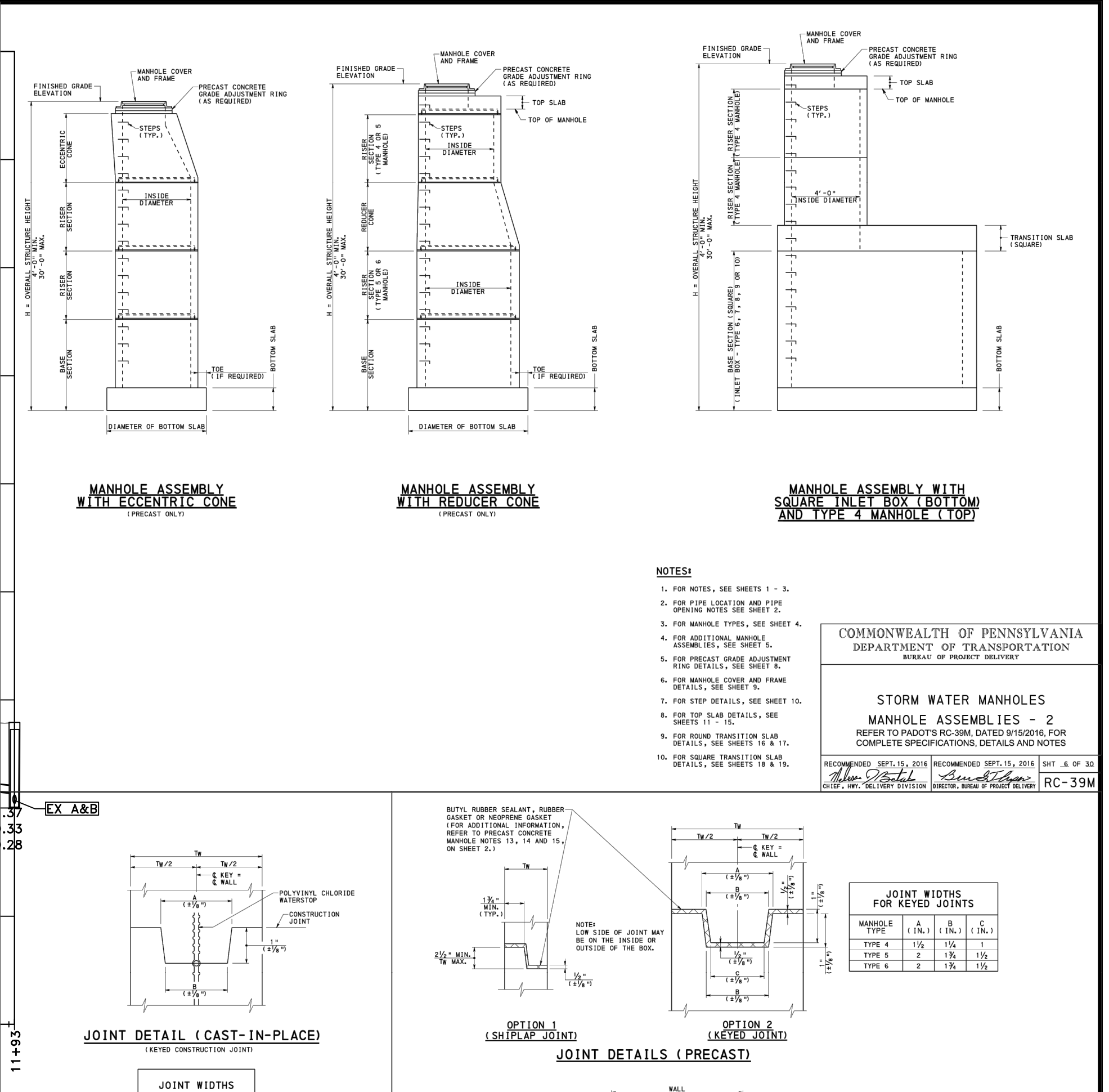
PRELIMINARY/FINAL SUBDIVISION AND LAND
DEVELOPMENT PLAN

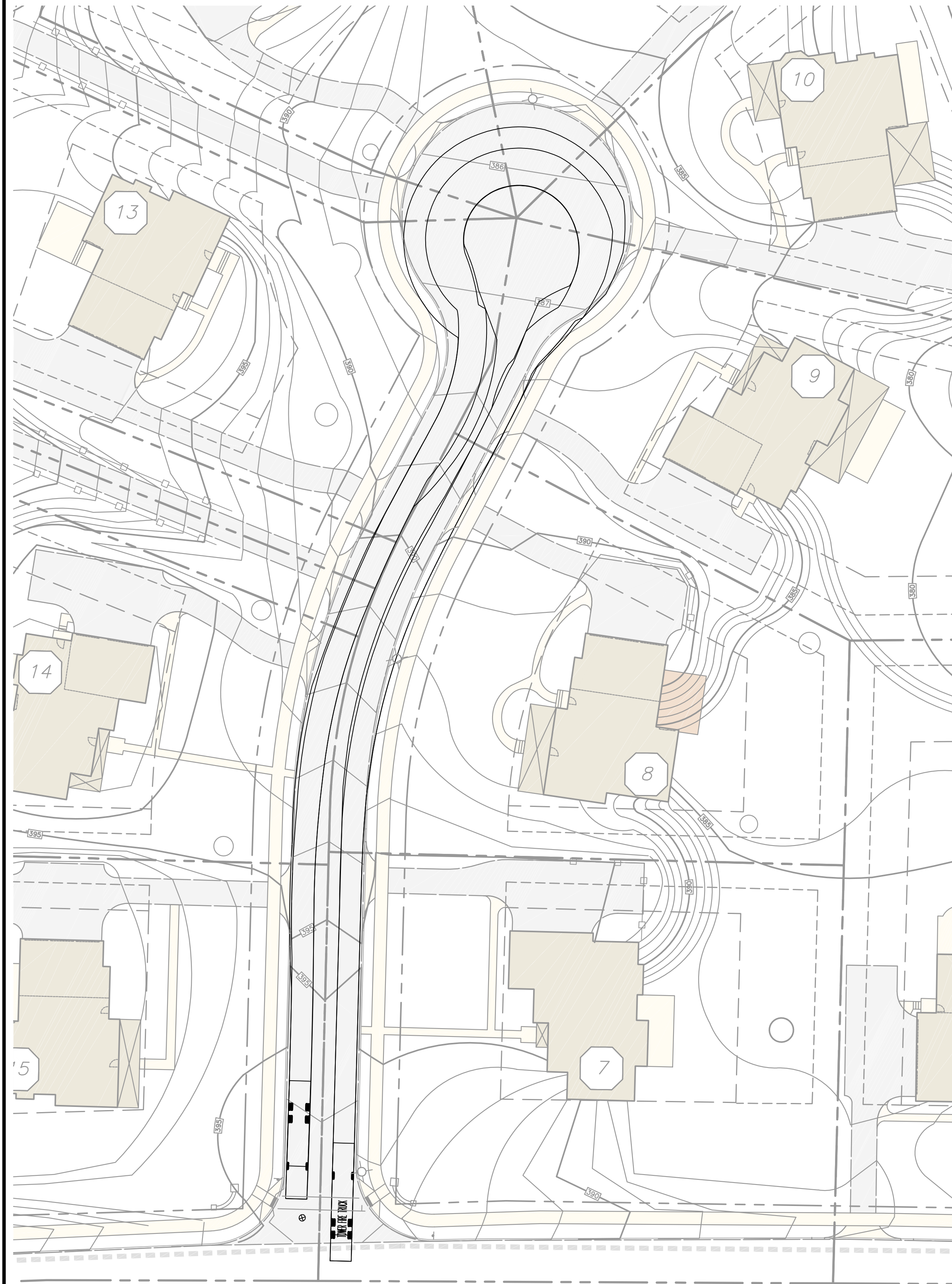
RADNOR TOWNSHIP	DELAWARE COUNTY	PENNSYLVANIA
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SHEET
10 of 17

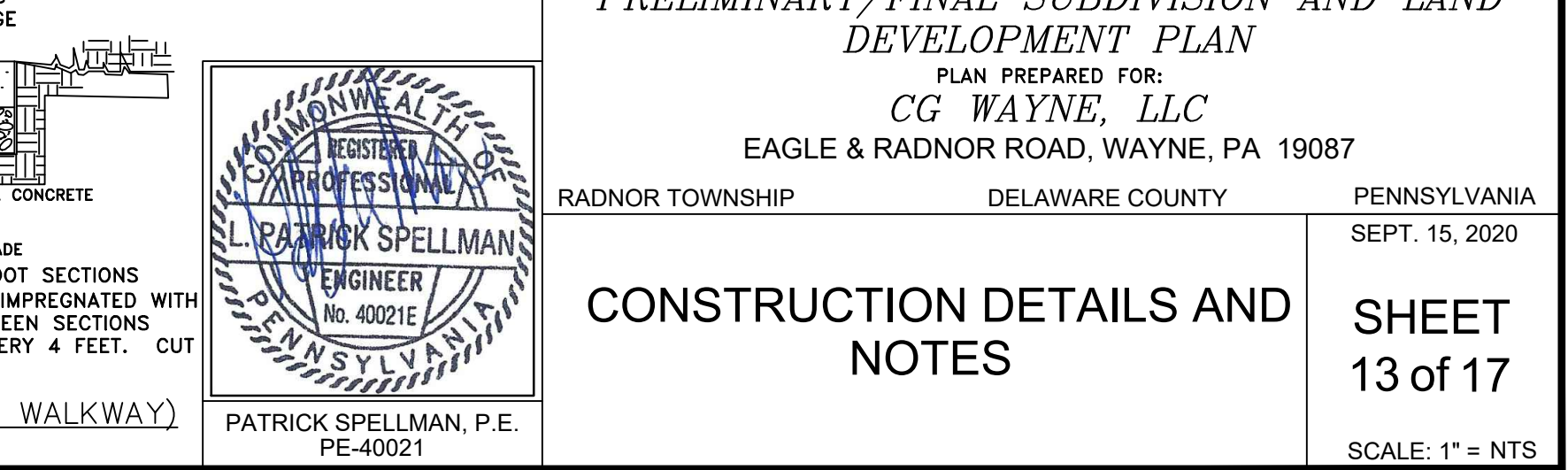
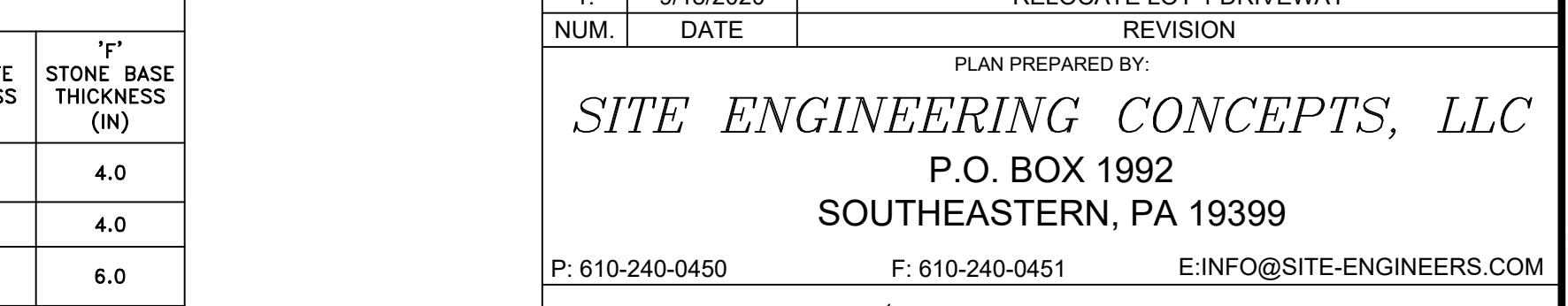
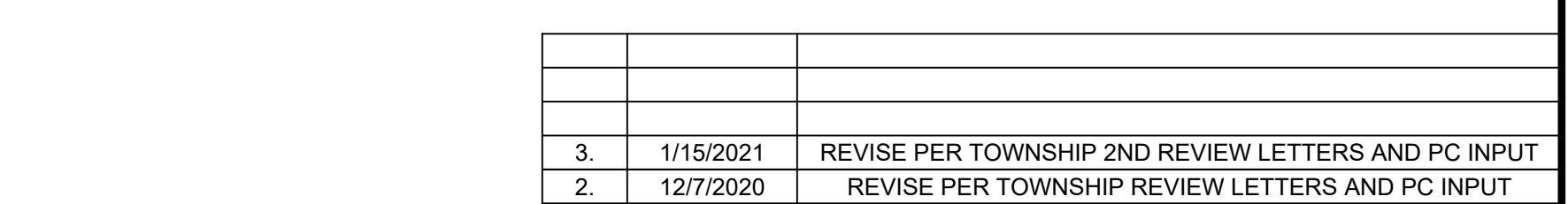
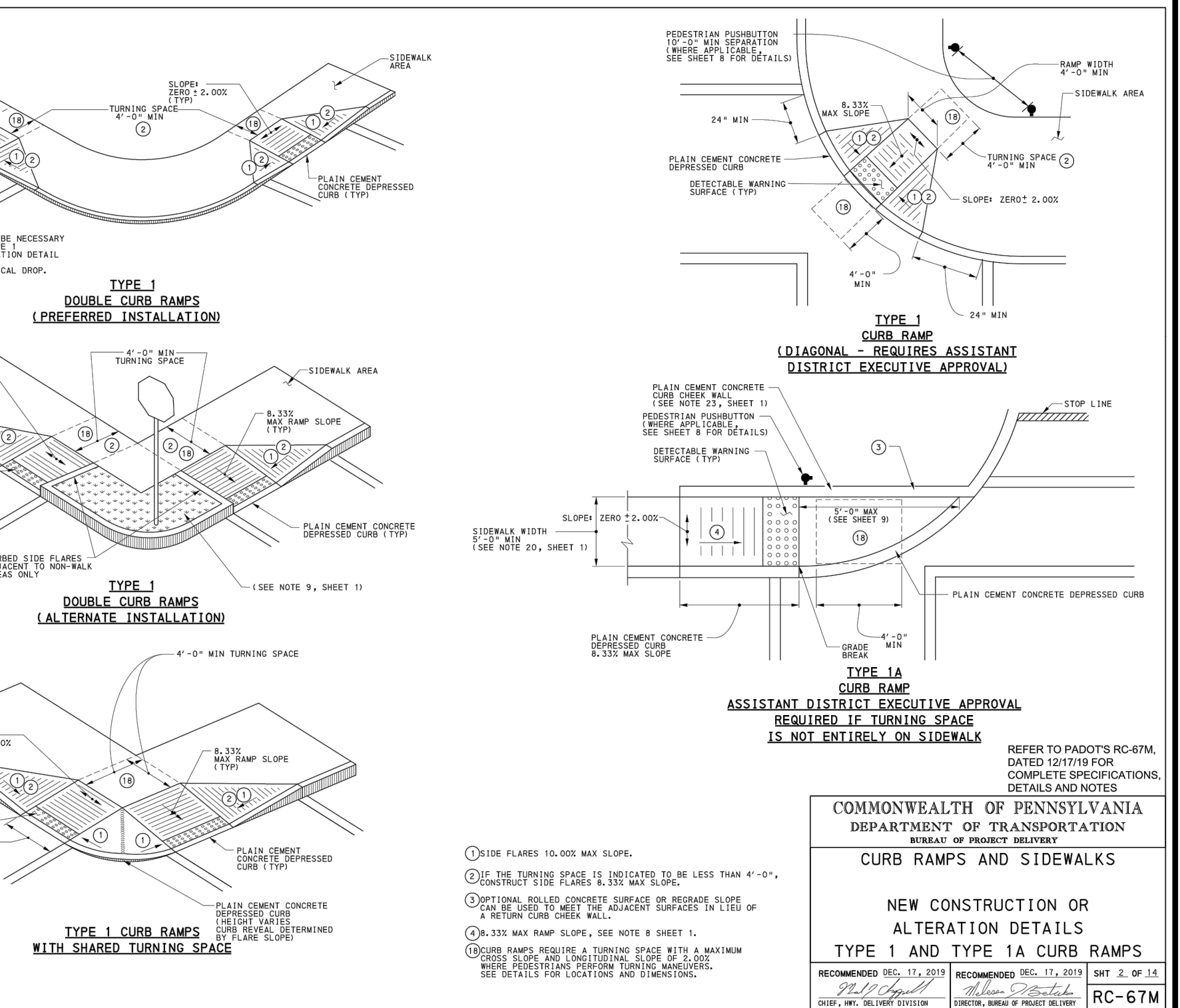
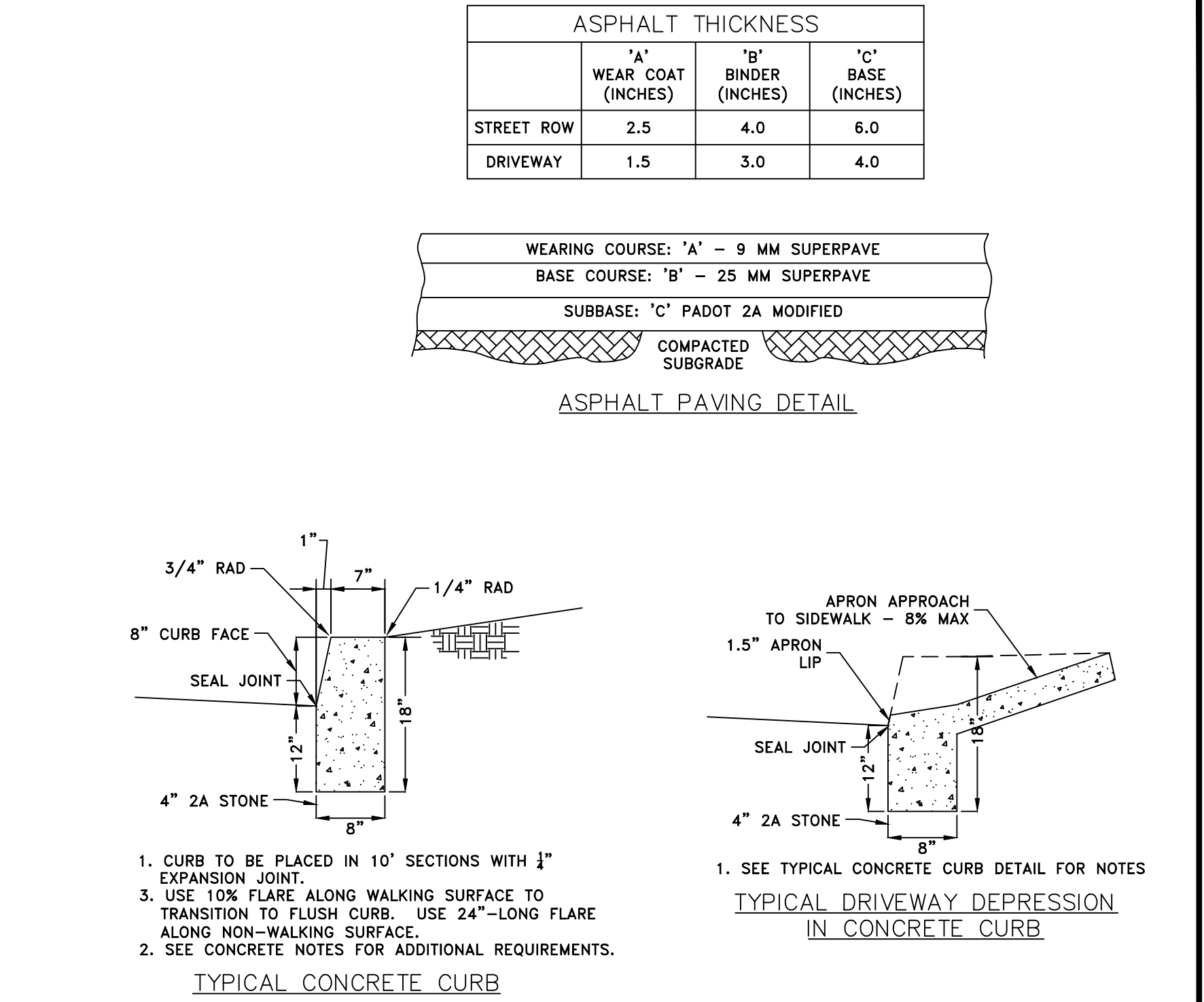
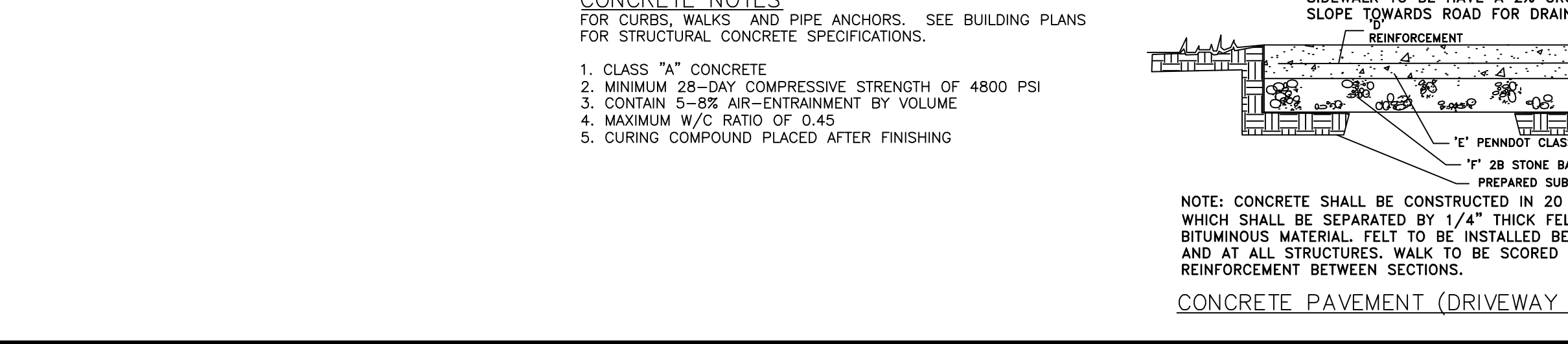
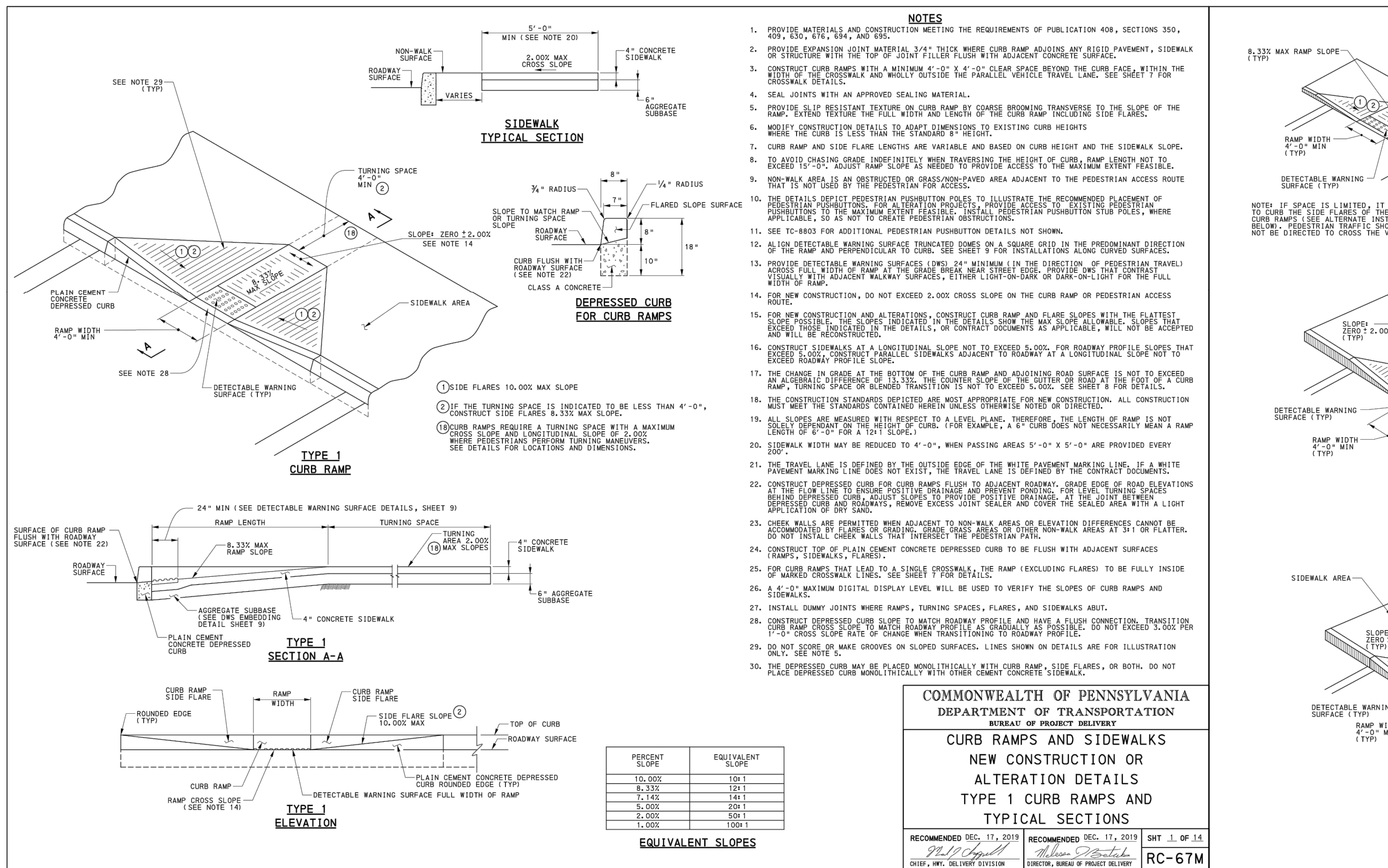
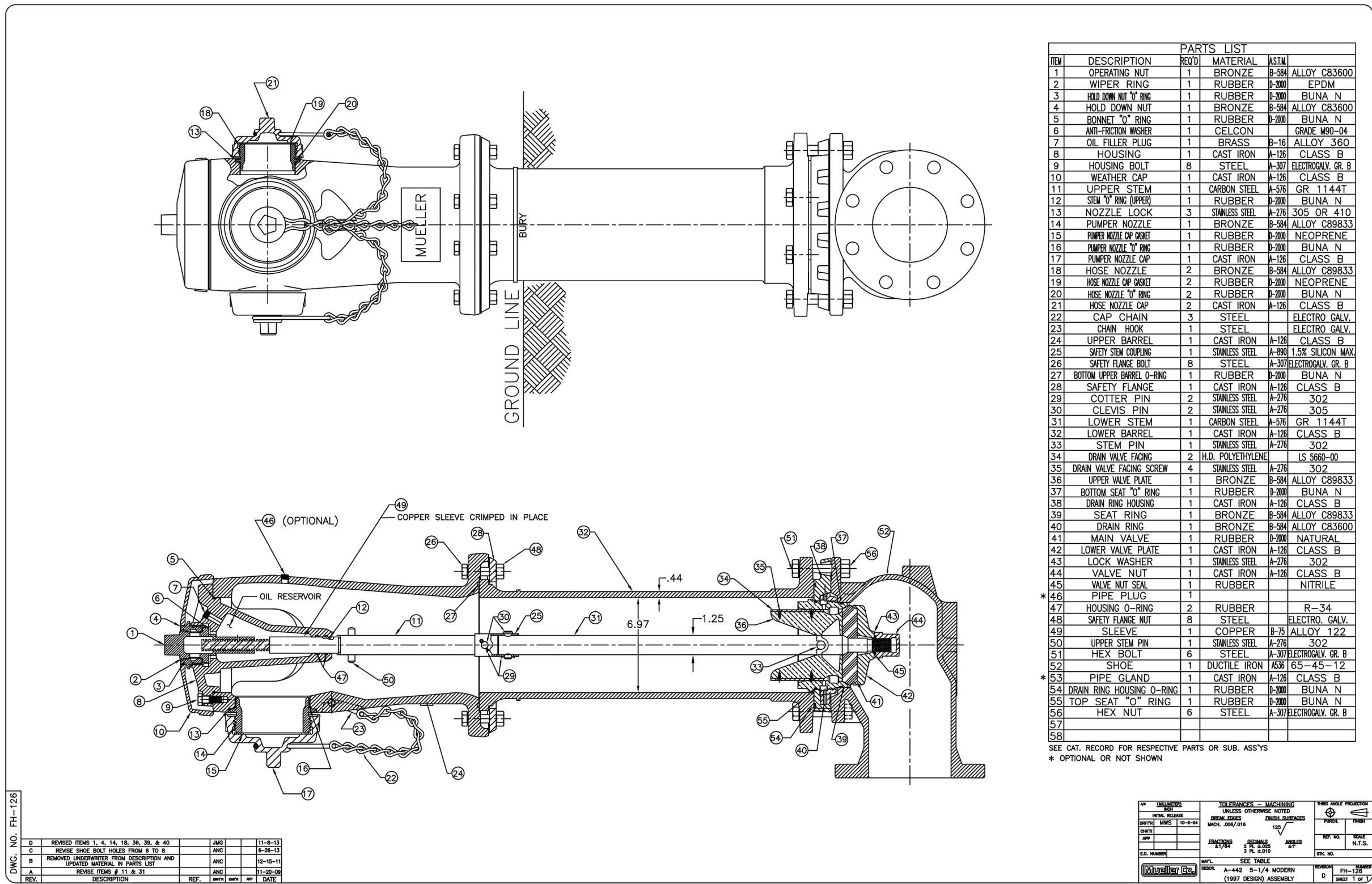
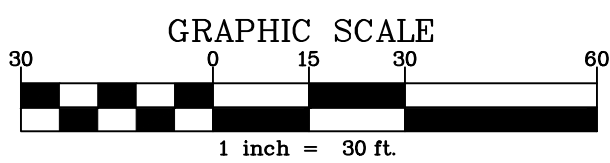
SCALE: 1" = 50'

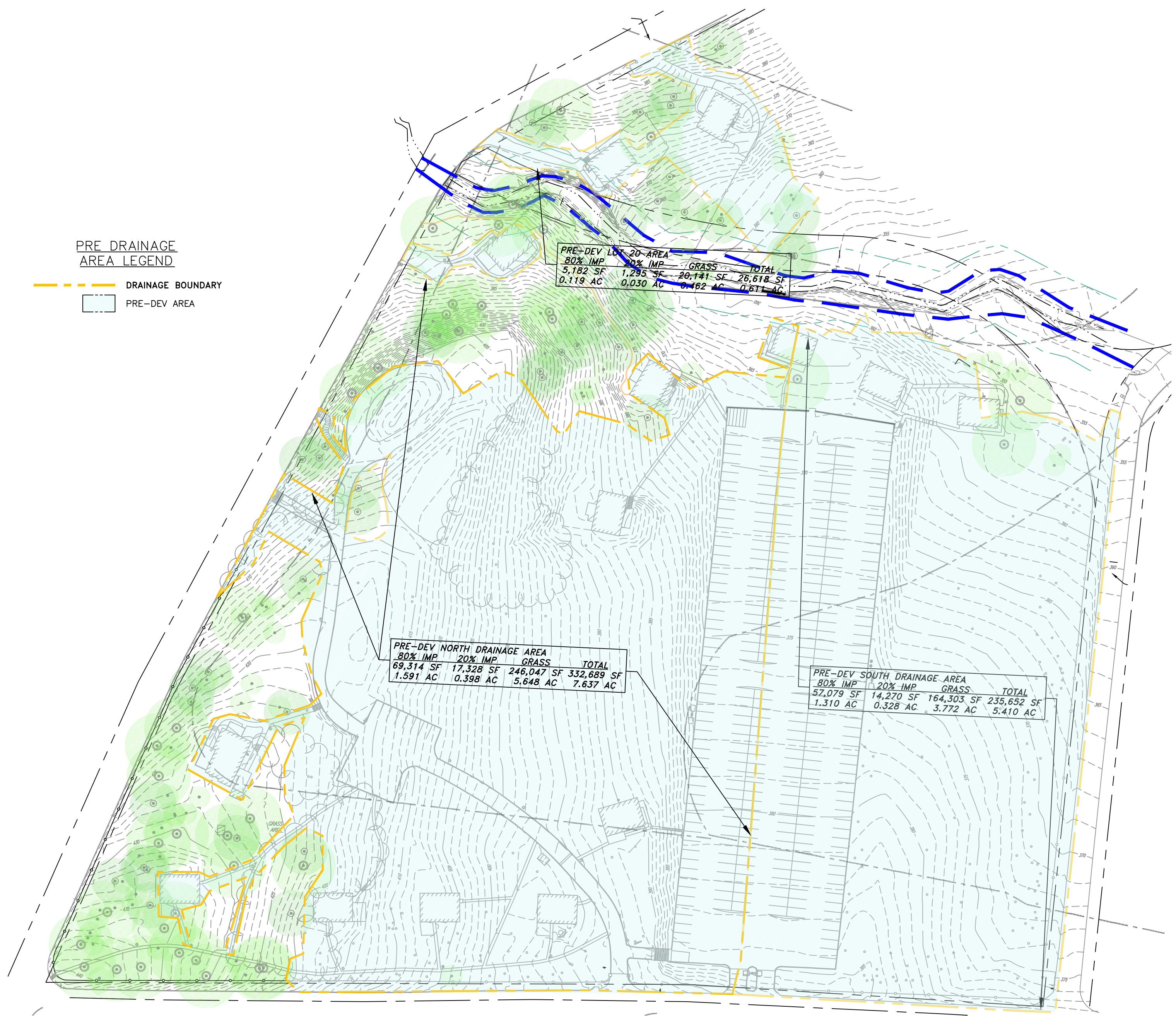




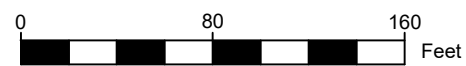


EMERGENCY VEHICLE TURNING TEMPLATE





PRE DRAINAGE AREAS



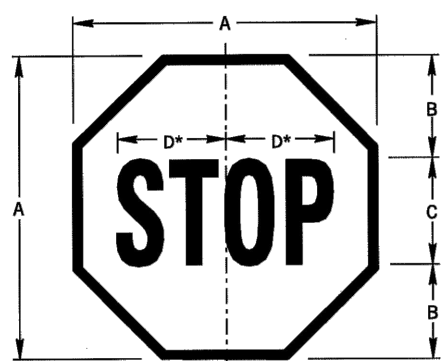
RI-1

STOP SIGN

(a) Justification. The Stop Sign (RI-1) is authorized for use on those streets or highways which intersect with a through highway or at a stop intersection so designated by the Department with reference to State-designated highways or local authorities with reference to highways under their jurisdiction. The RI-1 sign is also authorized for use in work zones involving one-lane, two-way roadways. At intersections where all approaches are controlled by an RI-1 sign, a supplemental ALL-WAY plaque (RI-3P) shall be mounted below each RI-1 sign.

(b) Authorization. Before local authorities designate any highway as a through highway or stop intersection which will intersect or affect a State-designated highway, approval of such designation shall first be obtained from the Department. Approval to install RI-1 signs in work areas shall not require the approval of the Department or local authorities when the conditions stipulated in the Department's Temporary Traffic Control Guidelines are satisfied.

(c) Size. The standard size RI-1 sign shall be 30" x 30" for single lane conventional highways and 36" x 36" for multi-lane conventional highways. The 24" x 24" size shall only be used for alleys with restrictive physical conditions and vehicle usage that prohibits the installation of the standard size RI-1. A sign that is mounted back-to-back with a RI-1 sign should stay within the edges of the RI-1 sign. If necessary, the size of the RI-1 sign should be increased so that any other sign installed back-to-back with it remains within the edges of the RI-1 sign.



DIMENSIONS - IN						
SIGN SIZE A x A	B	C	D	BOR- DER	BLANK STD.	
18" x 18"	6	6C	8	0.4	---	
24" x 24"	8	8C	10	0.6	BI-24	
30" x 30"	10	10C	12.6	0.8	BI-30	
36" x 36"	12	12C	15	0.8	BI-36	
48" x 48"	16	16C	20	1.2	BI-48	

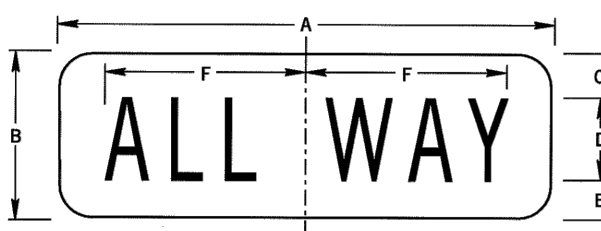
COLOR:
LEGEND AND BORDER:
WHITE (REFLECTORIZED)
BACKGROUND:
RED (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: *[Signature]* Date: 02-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

RI-3P

ALL WAY PLAQUE

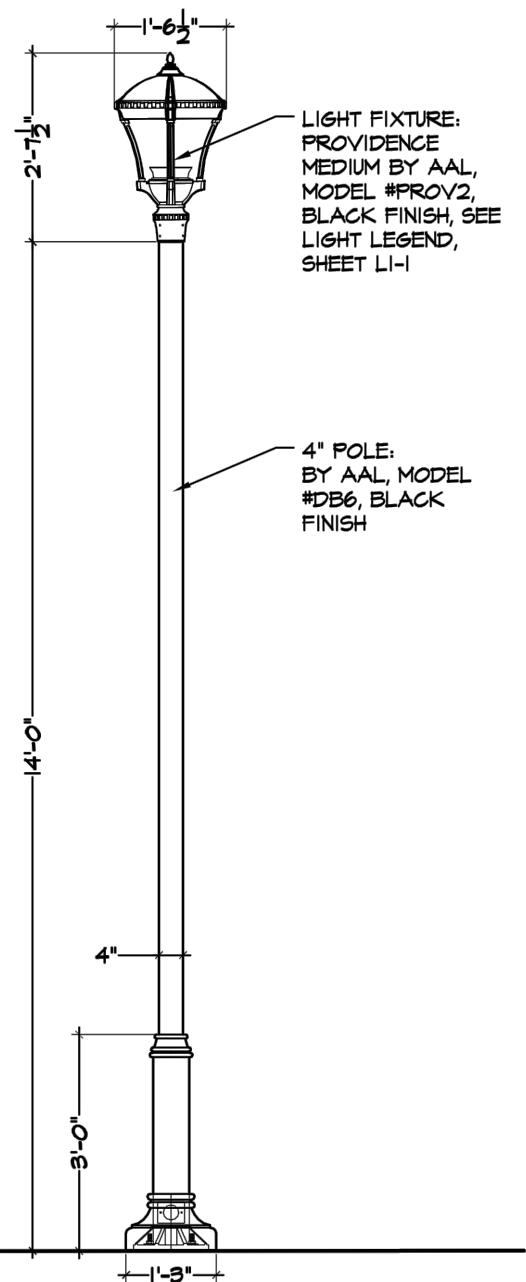
(a) Justification. The All Way Plaque (RI-3P) shall be used below the Stop Sign (RI-1) at multiway stop intersections to indicate that all approaches are required to stop.



DIMENSIONS - IN								
SIGN SIZE A x B	C	D	E	F	G	MAR- GIN	BOR- DER	BLANK STD.
18" x 6"	1.5	3C	1.5	7.3	0.4			BS-1806

COLOR:
LEGEND AND BORDER:
WHITE (REFLECTORIZED)
BACKGROUND:
RED (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: *[Signature]* Date: 02-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations



W14-2
NO OUTLET SIGN

The No Outlet Sign (W14-2) shall be authorized for use just beyond the last intersected street, facing traffic entering a street which has no connection with any other street beyond that point.



DIMENSIONS - IN									
SIGN SIZE A x A	B	C	D	E	F	G	MAR- GIN	BOR- DER	BLANK STD.
30" x 30"	6D	4	1	4.8	14	14.5	0.5	0.8	BS-30
36" x 36"	7D	5	1.2	6.1	16.3	16.9	0.6	0.8	BS-36

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
YELLOW (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: *[Signature]* Date: 02-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations



PATRICK SPELLMAN, P.E.
PE-40021

architectural
area lighting

PROV2
ARCHITECTURAL AREA/SITE

ORDERING GUIDE

CATALOG #

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

Example: PROV2-36L-325-3K-4W-8L-SLA-DF-HS-ADS-UNV

HOUSING	PROV2	LED Quantity	Lumen output	CCT/CRI	Distribution	Finish
Mounting	Providence Model 210	36L 30 LED	295 4000A Microport Crossover	AWM Amber 9500m Peak	1 Type I	BL3 Black Gloss Smooth
PROV2			325 3200A 4000 Lumens	3K7 3000K, 70 CRI	2 Type II	BL7 Black Matte Textured
			400 4000A 4000 Lumens	4K7 4000K, 70 CRI	3 Type III	DB3 Dark Bronze Gloss
			525 7000A Microport Crossover	5K7 5000K, 70 CRI	4W Type IV Wide	DB7 Dark Bronze Matte Textured
			615 6500A 7500 Lumens		5D Type V Square	DTT Copper Matte Textured
					5W Type V Wide	LOS Light Gray Gloss Smooth
						LS7 Light Gray Matte Textured
						PSS Platinum Silver Gloss Smooth
						VST Vantana Silver Matte Textured
						WH5 White Gloss Smooth
						WH7 White Matte Textured
						Color Option
						CCT Custom Color

Mounting	Optional Lens	Options	Mounting Options	Voltage
Pole Mount	Slide over 1" CO Pole	HS Pole Side Street 1"	ADS Adaptor 1" CO Pole	UNV 120-277V
CHND, UNIT	Standard Mount	FLN Black Coated Finish	PCA Photocatalytic Anticorrosion	
PT23	PT23	SPK Cast Spikes	EPAC Egress Adapter Contemporary	
PT3	PT3	SPR Black Coated Spikes		
PT4	PT4	SP Single Pole (201, 277V)		
PA6	PA6	DF Double Pole (208, 240V)		
PA2	PA2			
PA3	PA3			
SL41	SL41			
TRABL4	TRABL4			
TRABL4	TRABL4			
TRABL4	TRABL4			
TRABL4	TRABL4			
TRABL5	TRABL5			
TRABL5	TRABL5			
TRABL5	TRABL5			
TRABL5	TRABL5			
TRABL5	TRABL5			
TRABL5	TRABL5			
Wall Mount				
VMA55	VMA55			
VMA55	VMA55			

DIMENSIONS

Notes:
1. Will fit freely
2. Colored lens is available only with T3 and T5W distribution
3. Pole side Street is available only with T1, T2, T3 and T5W distribution
4. Consult factory for custom color, marine and corrosion finish options

Hubbell Lighting

3.	1/15/2021	REVISE PER TOWNSHIP 2ND REVIEW LETTERS AND PC INPUT
2.	12/7/2020	REVISE PER TOWNSHIP REVIEW LETTERS AND PC INPUT
1.	9/18/2020	RELOCATE LOT 1 DRIVEWAY
NUM.	DATE	REVISION
PLAN PREPARED BY:		
SITE ENGINEERING CONCEPTS, LLC		
P.O. BOX 1992		
SOUTHEASTERN, PA 19399		
P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM		
PRELIMINARY/FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN		
PLAN PREPARED FOR:		
CG WAYNE, LLC		
EAGLE & RADNOR ROAD, WAYNE, PA 19087		
RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA		
DETAILS AND PRE-CONSTRUCTION DRAINAGE AREAS		SHEET 14 of 17
		AS NOTED

RADNOR TOWNSHIP TREE REPLACEMENT FORMULA:
For every tree greater than 30" DBH, 6 Trees will be planted, 4 of which will be Canopy Trees

For every tree between 19 and 29" DBH, 3 Trees will be planted, 2 of which will be Canopy Trees

For every tree between 6 and 18" DBH, 1 Tree will be planted.

TREES TO BE REMOVED

Symbol	Count	Size/Quality	Replacement Requirement: total trees	number of which must be canopy trees
	17	Heritage Tree (30"+)	102	68
	21	19-29" DBH	63	42
	65	6-18" DBH	65	0
	73	<5" DBH	0	0
	41	Hazards/>30% Dead	0	0
Total Required			230	110

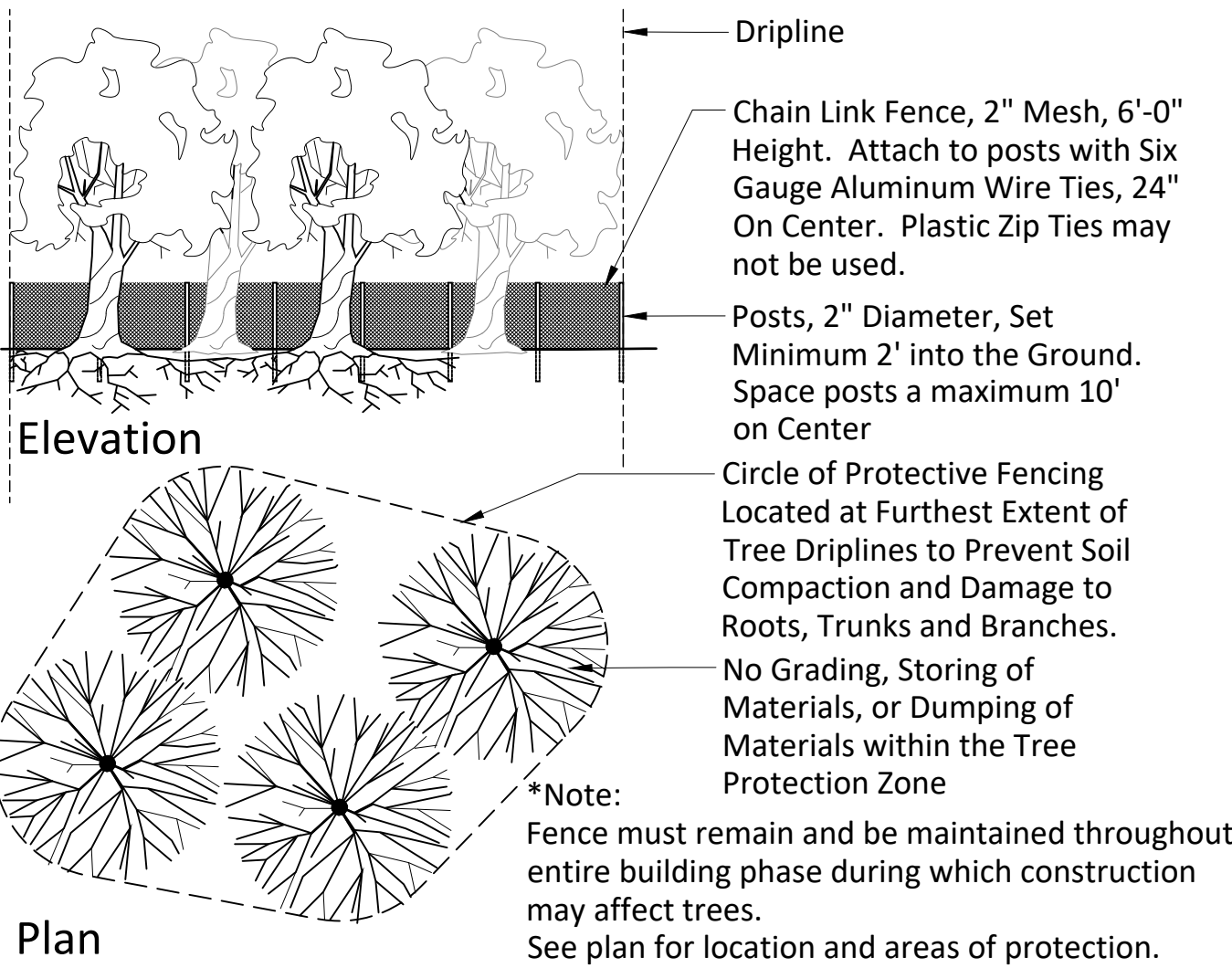
TREES PRESERVED
(Shaded Area Indicates Approx. Root Zone)

	41	Heritage Tree (30"+)	
	46	19-29" DBH	
	90	6-18" DBH	
	15	<5" DBH	
	41	Transplant	

----- Proposed Limit of Disturbance
----- Proposed Tree Fence Location
DBH, Type Inventory Key* Information for Trees to be Removed
*Hazard Trees Will be Inventoried for Shade Tree Review

NOTE:
ALL TRANSPLANTS WILL BE PLANTED IN AREAS OUTSIDE OF THE LIMIT OF DISTURBANCE TO ALLOW FOR A SINGLE MOVE. SEE SHEET L101 FOR LOCATION OF TRANSPLANTS.

ALL TRANSPLANTS TO INCLUDE ONGOING WATERING THROUGH THE FIRST GROWING SEASON AND SUPPLEMENTAL WATERING DURING PERIODS OF DROUGHT THROUGH THE SECOND AND THIRD GROWING SEASONS.



BASE INFORMATION TAKEN FROM 191217 ACAD-R-Concordia
Concept-Model.dwg and R-1912-20 CP BASE UPDATE.dwg by: Site
Engineering Concepts LLC
PO Box 1992, Southeastern, PA 19399
TEL: 610.240.0451

0 25' 50' 100' 150'

CALL BEFORE YOU DIG!
PA ONE-CALL 1.800.242.1776
www.paonecall.org

NOT FOR CONSTRUCTION

NOTES:
THIS DRAWING IS TO ILLUSTRATE THE WORK TO BE DONE
THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR
THE CONSTRUCTION OF THE WORK OR THE SAFETY
ASPECTS OF CONSTRUCTION, AND NOTHING ON THIS
DRAWING SHALL BE USED TO SUPPORT ANY CLAIM
OR CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE
FOR KNOWING HOW THEY AFFECT THE WORK. THE
LANDSCAPE ARCHITECT HAS NO LIABILITY FOR ANY
ACKNOWLEDGMENT OF THESE RESPONSIBILITIES, AND
THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING
THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE
FOR ANY CHARGES DUE TO THESE CONDITIONS WILL BE
FORTHCOMING.

JONATHAN LANDSCAPE
ALDERSON ARCHITECTS, LLC
Post Office Box 661 Wayne, Pennsylvania 19087-0661
(610) 341-9925 Fax (610) 341-9926
e-mail: Information@jonathanalderson.com

EASTERN DEVELOPMENT
WAYNE
PENNSYLVANIA

ISSUED:
Land Development 08/28/2020
Revision 12/10/2020
Revision 1/08/2021

PAONECALL
REGISTERED LANDSCAPE ARCHITECT
JONATHAN E. ALDERSON
191217

DATE: 2021-01-08
CHECKED: JF
DRAWN BY: JF
PROJECT #: 00650

SHEET: 16 of 17

L001
Tree Removals
and
Preservation
Plan

SCALE: 1" = 50'

EASTERN PLANT SCHEDULE						1/8/2021
ID	#	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARKS
Trees, Shrubs and Vines						
ARA	11	<i>Acer rubrum</i> 'Armstrong'	Fastigate Red Maple	2 1/2"-3" cal.	B&B	
ARO	14	<i>Acer rubrum</i> 'October Glory'	Red Maple	2 1/2"-3" cal.	B&B	
AS	23	<i>Acer saccharum</i> 'Green Mountain'	Sugar Maple	2 1/2"-3" cal.		
BN	13	<i>Betula nigra</i> 'Heritage'	Heritage River Birch	8-10'	B&B	multi-stem
CC	28	<i>Cercis canadensis</i>	Redbud	8-10'	B&B	multi stem
CV	28	<i>Crataegus viridis</i> 'Winter King'	Winter King Hawthorne	8-10'	B&B	
CJ	10	<i>Cryptomeria japonica</i> 'Yoshino'	Japanese Cedar	8-10'	B&B	
LS	12	<i>Liquidambar styraciflua</i> 'Rotundiloba'	Sweet Gum	2 1/2"-3" cal.		
MV	22	<i>Magnolia virginiana</i>	Sweetbay Magnolia	8-10'	B&B	
NS	32	<i>Nyssa sylvatica</i>	Black Gum	2 1/2"-3" cal.		
PA	16	<i>Picea abies</i>	Norway Spruce	8-10'	B&B	
PS	11	<i>Pinus strobus</i>	White Pine	8-10'	B&B	
PO	15	<i>Platanus occidentalis</i> 'Exclamation'	American Sycamore	2 1/2"-3" cal.	B&B	
QA	8	<i>Quercus alba</i>	White Oak	2 1/2"-3" Cal.	B&B	
QB	44	<i>Quercus bicolor</i>	Swamp White Oak	2 1/2"-3" Cal.	B&B	
QP	14	<i>Quercus phellos</i>	Willow Oak	2 1/2"-3" cal.	B&B	
TD	5	<i>Taxodium distichum</i>	Bald Cypress	8-10'	B&B	

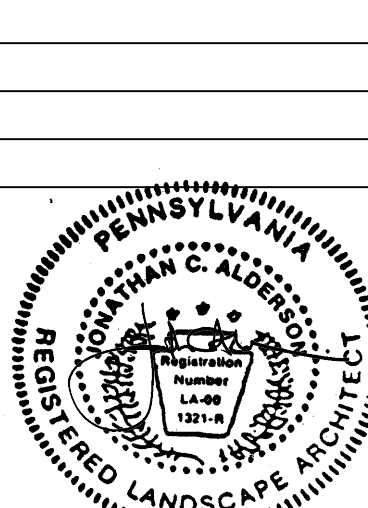


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EASTERN DEVELOPMENT
WAYNE
PENNSYLVANIA

ISSUED:
Land Development 8/28/2020
Revision 12/10/2020
Revision 1/8/2020



DATE: 2021-01-08
CHECKED: JF
DRAWN BY: JF
PROJECT #: 00650

SHEET: 17 of 17

L101
Planting Plan

SCALE: 1" = 50'