PRELIMINARY/FINAL
LAND DEVELOPMENT PLANS
SPRING HOUSE COURT

LOCATED IN
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY

ACT 50 USER LIST

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDER-GROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 121 AS PER THE AMENDMENT OF PA ACT 287 OF 1974, EFFECTIVE OCTOBER 30, 2017 CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.

BOROUGH OF AMBLER
31 E. BUTLER AVENUE, AMBLER, PA. 19002
215-461-1000

BELL TELEPHONE CO. OF PA.
104 WITMER ROAD, HORSHAM, PA. 19044
215-956-2623

BELL TELEPHONE CO. OF PA.
MANAGER-DESIGN CENTER
1260 VIRGINIA DR., FORT WASHINGTON, PA. 19034
1-800-242-1776

TRANSCONTINENTAL GAS PIPELINE CORP.
60 BACTON HILL ROAD RD#3, FRAZER, PA. 19355
215-644-7373

CABLEVISION OF PA.
237 W. GERMANTOWN PIKE
NORRISTOWN, PA. 19401
215-279-7200

UPPER GWYNEDD TOWNSHIP SEWER AUTHORITY
P.O. BOX 203, NORTH WALES, PA. 19454
215-699-5824

PENNSYLVANIA DEPT. OF TRANSPORTATION
P.O. BOX 350, NORRISTOWN, PA. 19401
215-275-2368

LOWER GWYNEDD TOWNSHIP
BETHLEHEM PIKE, P.O. BOX 293
SPRINGHOUSE, PA. 19477
215-646-5302

AMERICAN TELEPHONE & TELEGRAPH COMPANY
125 PORTER ROAD, POTTSTOWN, PA. 19464
215-326-6604 OR 215-687-7512

PHILADELPHIA ELECTRIC COMPANY
400 PARK AVE., WARMINSTER, PA. 18974
412-323-7100

NORTH WALES WATER AUTHORITY
200 W. WALNUT STREET, NORTH WALES, PA. 19454
215-699-4836

SITE STATISTICS

1. SUBJECT TRACT MAY BE IDENTIFIED BY MONTGOMERY COUNTY TAX ASSESSMENT INFORMATION AS FOLLOWS:

   LOWER GWYNEDD TOWNSHIP
   PARID: 39-00-00412-00-8

2. RECORDED DEED DATA IS AS FOLLOWS:

   AS RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC., IN AND FOR THE COUNTY OF MONTGOMERY AT NORRISTON, PENNSYLVANIA IN DEED BOOK 4940, PAGE 2031.

3. NAME AND ADDRESS OF THE OWNER OF THE SUBJECT TRACT:

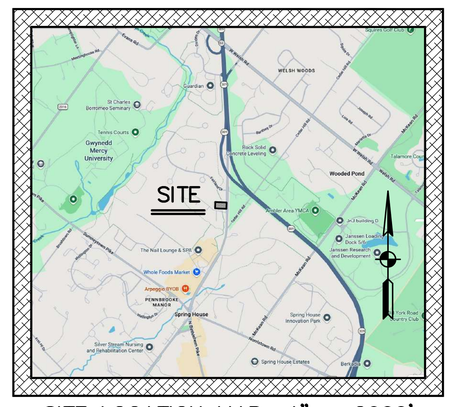
   PAT SPARANGO
   506 S. BETHLEHEM PIKE
   FORT WASHINGTON, PA 19034

4. NAME AND ADDRESS OF THE EQUITABLE OWNER OF THE SUBJECT TRACT:

   HALLMARK HOMES - SPRING HOUSE COURT LLC
   865 EASTON RD, SUITE 320
   WARRINGTON, PA 18976

5. AREA STATISTICS:

   GROSS TRACT AREA = 57,689 S.F.
   NET TRACT AREA = 55,233 S.F.



SITE LOCATION MAP 1" = 2000'

PLAN SHEET INDEX

SHEET NO.	PLAN TITLE	ISSUE DATE	LAST REV'D
	COVER SHEET		
1 OF 13	LAND DEVELOPMENT PLAN	OCT. 1, 2019	JUNE 19, 2026
2 OF 13	EXISTING FEATURES/DEMOLITION PLAN	OCT. 1, 2019	JUNE 19, 2026
3 OF 13	AERIAL PHOTO PLAN	OCT. 1, 2019	JUNE 19, 2026
4 OF 13	CONSTRUCTION IMPROVEMENT PLAN & DETAIL SHEET	OCT. 1, 2019	JUNE 19, 2026
5 OF 13	EROSION AND SEDIMENT CONTROL PLAN	OCT. 1, 2019	JUNE 19, 2026
6 OF 13	EROSION AND SEDIMENT CONTROL DETAIL SHEET	OCT. 1, 2019	JUNE 19, 2026
7 OF 13	PCSM PLAN	OCT. 1, 2019	JUNE 19, 2026
8 OF 13	LANDSCAPE PLAN	OCT. 1, 2019	JUNE 19, 2026
9 OF 13	CONSTRUCTION DETAIL SHEET	OCT. 1, 2019	JUNE 19, 2026
10 OF 13	PLAN AND PROFILE BETHLEHEM PIKE, S.R. 0309	OCT. 1, 2019	JUNE 19, 2026
11 OF 13	PENNDOT DETAIL SHEET	OCT. 1, 2019	JUNE 19, 2026
12 OF 13	PLAN AND PROFILE SANITARY SEWER	OCT. 1, 2019	JUNE 19, 2026
13 OF 13	MAINTENANCE AND PROTECTION OF TRAFFIC PLAN	OCT. 1, 2019	JUNE 19, 2026

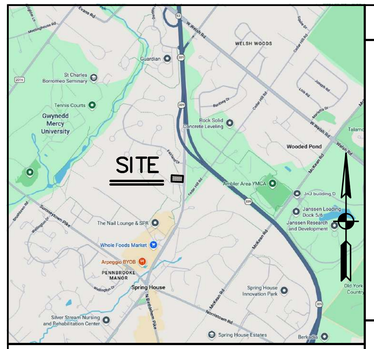
SUPPORTING DOCUMENTS:	DATE
1. POST-CONSTRUCTION STORMWATER PLAN NARRATIVE REPORT	JUNE 19, 2026
2. STORMWATER INFILTRATION REPORT PREPARED BY PENN'S TRAIL ENVIRONMENTAL, LLC	MAY 7, 2019
3. EROSION AND SEDIMENT CONTROL PLAN NARRATIVE	MAY 15, 2026
4. TRAFFIC ACCESS STUDY PREPARED BY HEINRICH & KLEIN ASSOCIATES, INC.	JUNE 14, 2018

PREPARED FOR

HALLMARK HOMES - SPRING HOUSE COURT LLC

865 EASTON ROAD, SUITE 320
WARRINGTON, PA 18976

STA Engineering, Inc.
Civil Engineers • Land Surveyors
2499 KNIGHT ROAD, PENNSBURG, PA 18073
PH: (215) 679-0200; www.stotac.com



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6. SITE ADDRESS:

   1217 NORTH BETHLEHEM PIKE
   AMBLER, PA 19002

7. AREA STATISTICS:

   GROSS TRACT AREA = 57,689 S.F.
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STORMWATER MANAGEMENT NOTES

1. THE BMP FACILITIES SHOWN ON THESE PLANS ARE A BASIC AND PERPETUAL PART OF THE STORMWATER MANAGEMENT SYSTEM FOR THE PROPOSED SITE LOCATED IN LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, AND AS SUCH ARE TO BE PROTECTED AND PRESERVED IN ACCORDANCE WITH THE APPROVED PLANS BY THE OWNERS, THEIR SUCCESSORS AND ASSIGNS OF THESE LANDS. LOWER GWYNEDD TOWNSHIP AND/OR ITS AGENTS RESERVE THE RIGHT AND PRIVILEGE TO ENTER UPON THESE LANDS FROM TIME TO TIME FOR THE INSPECTION OF SAID FACILITIES IN ORDER TO DETERMINE THAT THE STRUCTURAL AND DESIGN INTEGRITY IS BEING MAINTAINED AND THE PROPER OPERATION AND MAINTENANCE OF THE FACILITIES IS BEING CONDUCTED.

2. IN THE EVENT THAT MAINTENANCE AND STRUCTURAL INTEGRITY ARE NOT MAINTAINED BY THE OWNER AS REQUIRED BY THE TOWNSHIP, THE OWNER HEREBY GRANTS TO THE TOWNSHIP THE RIGHT TO ENTER UPON SUCH PROPERTY AND TO PERFORM ANY AND ALL IMPROVEMENTS, REVISIONS OR MAINTENANCE AS MAY BE DETERMINED NECESSARY BY THE TOWNSHIP AND TO RECOVER THE COSTS THEREOF FROM THE PROPERTY OWNER BY ALL LAWFUL MEANS INCLUDING, BUT NOT LIMITED TO, THE IMPOSITION OF A MUNICIPAL LIEN ON THE SUBJECT PROPERTY.

STORMWATER STATEMENT

I ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE TOWNSHIP, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE TOWNSHIP AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT FOR APPROVAL, IF APPLICABLE.

DATE _____ APPLICANT SIGNATURE _____

LEGEND

- DECK OR PATIO
- OPEN SPACE
- BUILDING

ZONING DATA

DATA OBTAINED FROM LOWER GWYNEDD TOWNSHIP ZONING ORDINANCE, REFERENCE TITLE 6, CHAPTER 1269A.

DISTRICT CLASSIFICATION – "E-2" – RESIDENTIAL DISTRICT
PROPOSED USE: CARRIAGE HOMES

	REQUIRED	PROVIDED
MINIMUM LOT AREA:	20 Ac.	1.27 Ac. *
MINIMUM LOT WIDTH @ STREET LINE:	200 FT.	200.03 FT.
MAXIMUM BUILDING COVERAGE:	20 %	12.3 % **
MAXIMUM IMPERVIOUS SURFACE COVERAGE::	40 %	22.3 % **
MAXIMUM BUILDING HEIGHT:	35 FT.	< 35 FT.
MAXIMUM BUILDING LENGTH:	110 FT.	107 FT.
MINIMUM PARKING SPACES EXCLUSIVE OF GARAGES (2.5 SPACES/UNIT):	7.5 SP.	8 SP.
MAXIMUM DENSITY (2.6 UNITS/Ac.):	3 UNITS	3 UNITS
MINIMUM INTERIOR SETBACKS:		
1. SHORT SIDE TO SHORT SIDE:	30 FT.	N/A
2. LONG SIDE TO ANY CONDITION:	60 FT.	N/A
MINIMUM OPEN SPACE:	50 % (0.63 AC.)	84.3 % (1.07 AC.)

* EXISTING NON-CONFORMANCE-VARIANCE GRANTED
** BASED ON 1.27 AC.

ZONING VARIANCE

AT AN MAY 14, 2026 ZONING HEARING, THE LOWER GWYNEDD TOWNSHIP ZONING HEARING BOARD GRANTED A VARIANCE FROM SECTION 1269A.03(a) REQUIRING A LOT AREA OF 20 ACRES FOR DEVELOPMENT.

NOTES

1. EXISTING TOPOGRAPHY AND TITLE LINE INFORMATION TAKEN FROM EXISTING DEEDS, PLANS OF RECORD, THE RESERVE AT TREWELLYN AS-BUILT PLAN, AND A FIELD SURVEY PERFORMED BY THIS OFFICE FEBRUARY 2005 AND UPDATED IN 2019.
2. CONTOUR DATA AS SHOWN HEREON IS BASED ON U.S.G.S. VERTICAL DATUM.

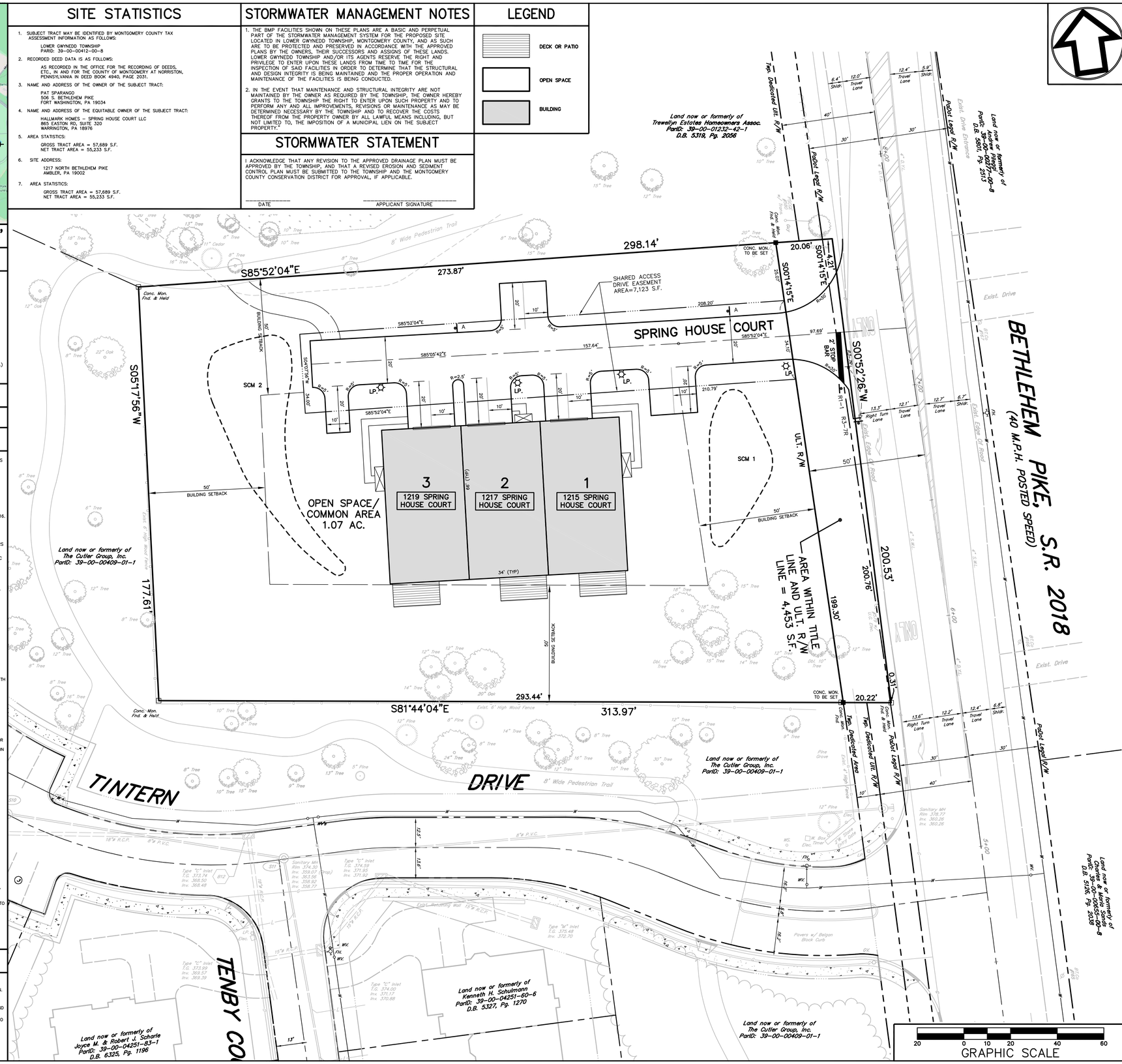
   BENCHMARK ELEVATION: 291.37 USGS/SEWER AUTHORITY DATUM

   BENCHMARK DESCRIPTION: EXISTING MANHOLE #13 ALONG TREWELLYN CREEK. (TAKEN FROM A SURVEY PLAN PREPARED FOR THE CUTLER GROUP, INC., BY URMILER & WALTER, INC. JOB No. 9416E)
3. NO PART OF THIS PROPERTY LIES WITHIN A FLOODPLAIN AREA AS DESCRIBED ON PANEL 278 OF 451 OF THE FEMA FLOOD INSURANCE RATE MAP NUMBER 42091C0278G, EFFECTIVE MARCH 2, 2016.
4. ANY SCALED DIMENSIONS FROM THE PLAN SHALL NOT BE USED FOR CONSTRUCTION WITHOUT CONFIRMATION BY STA ENGINEERING, INC.
5. THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP ENGINEER AND THE BUILDING INSPECTOR 72 HOURS IN ADVANCE OF ANY AND ALL CONSTRUCTION.
6. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND. PROPOSED UNITS TO BE SERVICED WITH PUBLIC WATER PROVIDED BY NORTH WALES WATER AUTHORITY AND PUBLIC SEWER COLLECTION AND CONVEYANCE PROVIDED BY LOWER GWYNEDD TOWNSHIP AND TREATMENT BY AMBLER BOROUGH. EXISTING ON-LOT WATER AND SEWER FACILITIES SHALL BE REMOVED IN ACCORDANCE WITH ALL APPLICABLE PA. D.E.P., LOCAL AND STATE GUIDELINES IF FOUND TO BE PRESENT DURING CONSTRUCTION OF THE CARRIAGE HOMES.
7. CONSTRUCTION OF THE IMPROVEMENTS MUST BE IN ACCORDANCE WITH LOWER GWYNEDD TOWNSHIP AND PADOT PUBLICATION 408 SPECIFICATIONS, THE PENNSYLVANIA DEPARTMENT OF HEALTH OR OTHER APPROPRIATE AGENCIES.
8. CONSTRUCTION OF ALL SANITARY SEWERS AND APPURTENANCES SHALL BE PERFORMED IN ACCORDANCE WITH LOWER GWYNEDD TOWNSHIP STANDARDS. THE PROPOSED SANITARY SEWER CONVEYANCE SYSTEM WILL BE DEDICATED TO, AND OWNED AND MAINTAINED BY, LOWER GWYNEDD TOWNSHIP.
9. NO BURNING OF DEBRIS IS ALLOWED ON THE SITE. ALL WASTE MUST BE DISPOSED OF PROPERLY.
10. THERE SHALL BE NO DISTURBANCE OF OPEN SPACE AREAS BEYOND THE LIMITS OF DISTURBANCE DEPICTED ON THE PLANS AND NO SITE WORK SHALL COMMENCE UNTIL THE APPROPRIATE PROTECTIVE MEASURES ARE INSTALLED.
11. THE BUILDING FOOTPRINTS DEPICTED HEREON HAVE BEEN SHOWN FOR PLANNING AND GRADING PURPOSES ONLY. EXACT CONFIGURATION OF STRUCTURES (i.e. LENGTH, WIDTH, EXTENT) SHALL BE DEPENDENT ON FINAL ARCHITECTURAL DRAWINGS.
12. NO DWELLING CONSTRUCTION ON ANY LOT SHALL BEGIN UNLESS THE LOT IS CLEARLY MARKED WITH A PERMANENT NUMBER AND SIGN FOR IDENTIFICATION.
13. INDIVIDUAL SITE PLANS WITH NECESSARY GRADING INFORMATION SHALL BE SUBMITTED TO THE TOWNSHIP ALONG WITH ANY REQUEST FOR BUILDING PERMITS.
14. AN AS-BUILT FOUNDATION LOCATION PLAN IS TO BE FILED WITH THE TOWNSHIP PRIOR TO PROCEEDING PAST CONSTRUCTION OF THE FIRST FLOOR DECK.
15. ALL SUMP PUMPS AND ROOF DRAINS WILL DISCHARGE TO A VEGETATED SURFACE OR PROPOSED BMP.
16. THE DEVELOPER, IT'S SUCCESSORS AND ASSIGNS, HEREBY RESERVES THE RIGHT TO ENTER UPON EACH AND EVERY LOT AREA OF THE SUBDIVISON/DEVELOPMENT DEPICTED HERON, WHETHER PRIOR OR SUBSEQUENT TO CONVEYANCE OF ANY LOT, UNTIL EXPIRATION OF THE STATUTORY MAINTENANCE PERIOD FOLLOWING DEDICATION OF PUBLIC IMPROVEMENTS AS SET FORTH IN SECTION 509 OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE, AS AMENDED, 53 P.C. 10509, FOR THE PURPOSE OF COMPLETING ANY LANDSCAPING AS REQUIRED BY THE MUNICIPALITY AND, FURTHER, TO MAKE SUCH MODIFICATIONS IN GRADING AND/OR DRAINAGE IMPROVEMENTS ON ANY LOT AS MAY BE NECESSARY IN THE DISCRETION OF THE DEVELOPER, IT'S SUCCESSORS AND ASSIGNS AND/OR THE MUNICIPAL ENGINEER FOR SATISFACTORY STORMWATER MANAGEMENT.
17. PRECAST CONCRETE MONUMENTS SHALL BE SET AS SHOWN HEREON BY A PA LICENSED PROFESSIONAL LAND SURVEYOR. MONUMENTS TO BE THIRTY INCHES BY FOUR INCHES BY FOUR INCHES, WITH FORTY-FIVE DEGREE BEVELED EDGES.
    ■ INDICATES MONUMENTS TO BE SET.
18. ALL LOT CORNERS SHALL BE PINNED AT THE COMPLETION OF FINAL GRADING.
19. COMMON OPEN SPACE SHALL NOT BE SEPARATELY SOLD OR FURTHER DEVELOPED OR SUBDIVIDED.
20. WITHIN OPEN SPACES DEPICTED HEREON (A) CLEARING OF TREES, EXCEPT AS NOTED, IS NOT PERMITTED; (B) DUMPING OF DEBRIS IS NOT PERMITTED; (C) NOXIOUS WEEDS MAY BE REMOVED WITH PERMISSION FROM THE TOWNSHIP; (D) DEBRIS EXISTING PRIOR TO CONSTRUCTION MUST BE REMOVED AND PROPERLY DISPOSED OF.
21. ANY LIGHTING FIXTURES ARE TO BE APPROVED BY LOWER GWYNEDD TOWNSHIP PRIOR TO INSTALLATION.
22. THE AREA BETWEEN THE TITLE LINE AND THE ULTIMATE RIGHT OF WAY OF BETHLEHEM PIKE IS HEREBY OFFERED FOR DEDICATION TO THE AGENCY HAVING JURISDICTION.
23. PROPOSED UNITS TO BE SPRINKLERED PER THE DIRECTION OF THE FIRE MARSHAL.
24. SEWAGE PLANNING APPROVAL WAS GRANTED FOR 3 NEW CARRIAGE HOMES BY LETTER FROM DEP DATED OCTOBER 3, 2006.
25. ANY DAMAGE INCURRED WITHIN THE PUBLIC RIGHT-OF-WAY AS A RESULT OF CONSTRUCTION IS TO BE REPAIRED AT THE OWNER'S SOLE EXPENSE.
26. A HOMEOWNERS ASSOCIATION WILL BE ESTABLISHED FOR OWNERSHIP AND MAINTENANCE RESPONSIBILITIES FOR THE OPEN SPACE AREA, THE STORMWATER MANAGEMENT FACILITIES, THE PAVED TRAIL AND THE SHARED ACCESS DRIVEWAY.
27. DRIVEWAY POST LAMPS WILL BE PROVIDED FOR EACH UNIT AS SHOWN ON THE PLANS.

WAIVERS GRANTED

THE FOLLOWING WAIVERS WERE GRANTED ON MARCH 10, 2020 PER RESOLUTION NO. 2020-07:

1. §1230.16: WHICH REQUIRES A SEPARATE APPLICATION FOR A PRELIMINARY AND FINAL SUBMISSION.
2. §1230.16(c)(2)(3)&(4): WHICH REQUIRES THAT ALL EXISTING FEATURES WITHIN 200 FEET OF THE PROPERTY BOUNDARY BE DEPICTED ON THE PLAN.
3. §1230.37(c) & §1230.61(a): WHICH REQUIRES CURB ALONG ALL EXISTING ROADS ABUTTING A LAND DEVELOPMENT.
4. §1230.38: WHICH REQUIRES THE MAXIMUM CURB CUT OR DRIVEWAY WIDTH AT THE STREET LINE TO BE A MAXIMUM OF 20 FEET.
5. §1230.45 (a): WHICH REQUIRES SIDEWALK ALONG EXISTING STREETS AND PEDESTRIAN TRAILS IN ALL SUBDIVISIONS AND LAND DEVELOPMENTS IN LOCATIONS AS DETERMINED BY THE BOARD OF SUPERVISORS.
6. §1241.401(n): WHICH REQUIRES A MINIMUM PIPE SIZE OF 18-INCH DIAMETER FOR STORM SEWER PIPES.



RECORDING ACKNOWLEDGEMENTS

COMMONWEALTH OF PENNSYLVANIA }
COUNTY OF MONTGOMERY } SS:

ON THIS, THE ____ DAY OF _____, 20__, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED RICHARD R. CARROLL, III, BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE IS THE PRESIDENT OF HALLMARK HOMES – SPRING HOUSE COURT LLC, A PENNSYLVANIA LIMITED LIABILITY CORPORATION, AND THAT HE BEING DULY AUTHORIZED TO DO SO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED BY SIGNING AS PRESIDENT.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

I, RICHARD R. CARROLL, III
, ACKNOWLEDGE MYSELF TO BE THE PRESIDENT OF HALLMARK HOMES – SPRING HOUSE COURT LLC, A PENNSYLVANIA LIMITED LIABILITY CORPORATION, AND THAT AS SUCH BEING AUTHORIZED TO DO SO, CERTIFY THAT THE CORPORATION IS THE SOLE REGISTERED OWNER OF THE LAND HEREIN SUBDIVIDED AND THAT THERE ARE NO SUITS PENDING AFFECTING THE TITLE OF THE SAME AND THAT I DO HEREBY ADOPT THIS PLAN AND DESIRE THE SAME TO BE RECORDED. I DO FURTHER SAVE THE TOWNSHIP HARMLESS AND IDEMNIFY THE TOWNSHIP OF LOWER GWYNEDD AGAINST ANY LIABILITY OR LOSS RESULTING FROM THE SUBDIVISION OR DEVELOPMENT OF THIS PLAT FOR WHATEVER REASON PRESENT OR FUTURE.

HALLMARK HOMES – SPRING HOUSE COURT LLC,
PENNSYLVANIA LIMITED LIABILITY COMPANY
BY: HALLMARK PARTNERS II, LP, A PENNSYLVANIA LIMITED PARTNERSHIP, ITS SOLE MEMBER
BY: HM PARTNERS II, INC., A PENNSYLVANIA CORPORATION, ITS GENERAL PARTNER

BY: _____
RICHARD R. CARROLL, III, PRESIDENT

APPROVED BY THE PLANNING COMMISSION OF THE TOWNSHIP OF LOWER GWYNEDD THIS _____ DAY OF _____, 2026.

_____
CHAIRMAN

_____
SECRETARY

APPROVED BY THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF LOWER GWYNEDD THIS _____ DAY OF _____, 2026.

_____
CHAIRMAN

_____
SECRETARY

_____
TOWNSHIP ENGINEER

MCPC No. 26-0143-001

PROCESSED AND REVIEWED. A REPORT HAS BEEN PREPARED BY THE MONTGOMERY COUNTY PLANNING COMMISSION IN ACCORDANCE WITH THE MUNICIPALITIES PLANNING CODE.

CERTIFIED THIS DATE _____

_____
FOR THE DIRECTOR
MONTGOMERY COUNTY PLANNING COMMISSION

RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC., IN AND FOR THE COUNTY OF MONTGOMERY, AT NORRISTOWN, PENNSYLVANIA IN PLAN BOOK ____ PAGE ____ ON _____ 2026.

_____
RECORDER OF DEEDS

ENGINEER'S CERTIFICATION

I, SUSAN A. RICE, P.E., HEREBY CERTIFY THAT THIS PLAN IS IN CONFORMANCE WITH THE ZONING, BUILDING, SANITATION, AND ALL OTHER APPLICABLE TOWNSHIP ORDINANCES AND REGULATIONS AND THAT THIS PLAN IS ACCURATE TO WITHIN ONE (1) PART IN THREE HUNDRED (300).

_____
SUSAN A. RICE, P.E.

SURVEYOR'S CERTIFICATION

I, CLIFFORD T. STOUT, P.L.S., HEREBY CERTIFY THAT THIS PLAN REPRESENTS A SURVEY MADE BY STA ENGINEERING, INC., THAT THE MONUMENTATION SHOWN HEREON EXISTS AS LOCATED, AND THAT ALL DIMENSIONAL AND GEODETIC DETAILS ARE CORRECT.

_____
CLIFFORD T. STOUT, P.L.S.

No.	REVISIONS	DATE
5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

LAND DEVELOPMENT PLAN
AS PART OF
SPRING HOUSE COURT
PREPARED FOR
HALLMARK HOMES –
SPRING HOUSE COURT LLC
SITE SITUATE IN
LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

STA Engineering, Inc.
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PH: (215) 679-0200; www.stotac.com

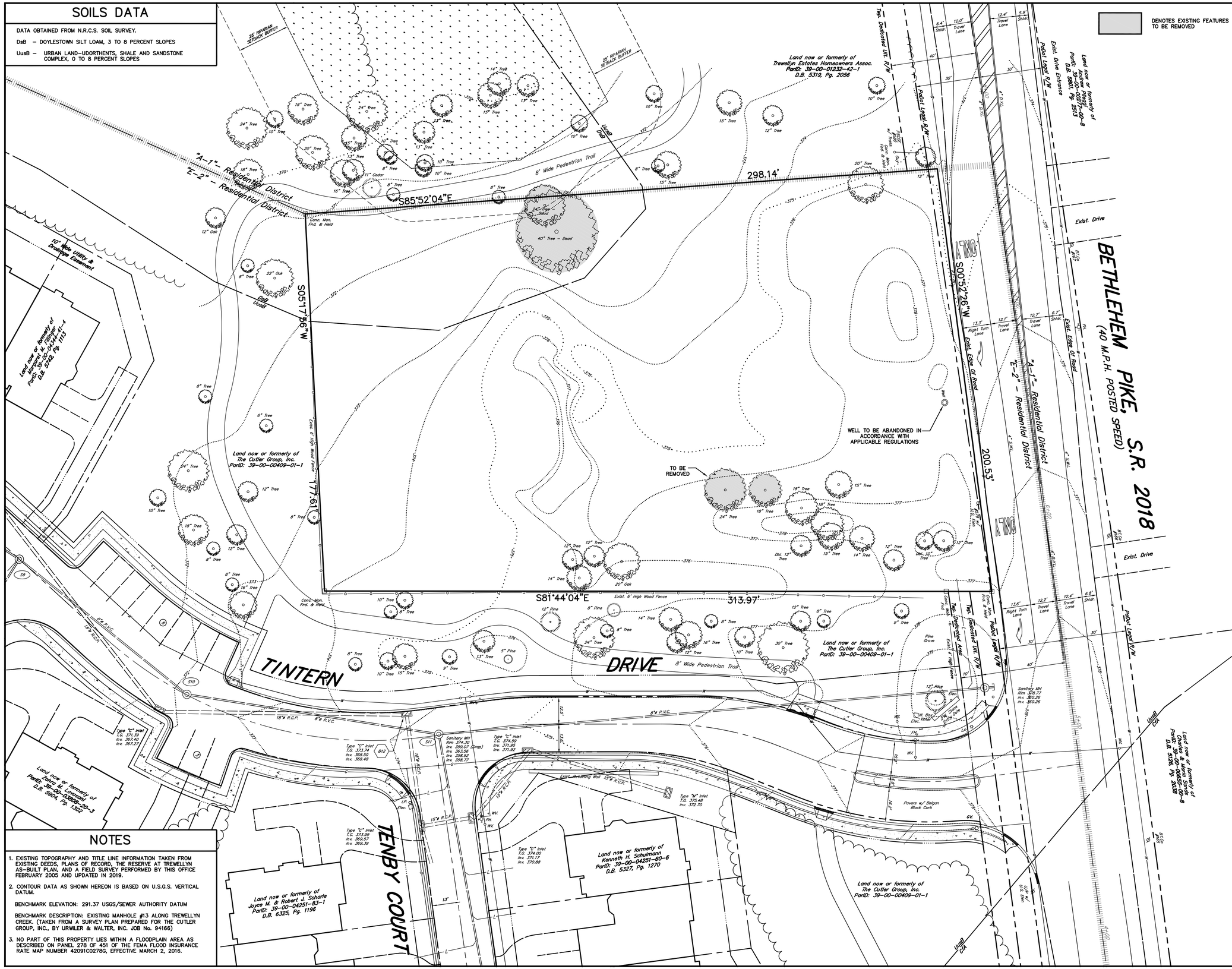
PLAN SCALE HORIZONTAL:	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
1"=20'	J.A..C	S.A.R.	1 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646LD	

SOILS DATA

DATA OBTAINED FROM N.R.C.S. SOIL SURVEY.

DsB – DOYLESTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES

UusB – URBAN LAND–UDORTHENTS, SHALE AND SANDSTONE COMPLEX, 0 TO 8 PERCENT SLOPES



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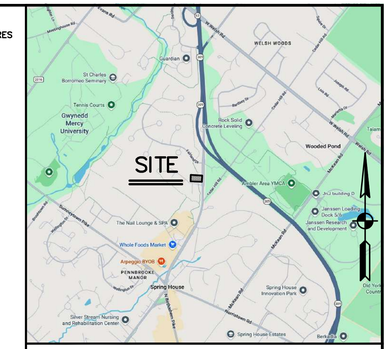

SITE LOCATION MAP 1"=2000'

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   FORT WASHINGTON, PA 19034
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ZONING DATA

DATA OBTAINED FROM LOWER GWYNEDD TOWNSHIP ZONING ORDINANCE, TITLE SIX, CHAPTER 1269A.

DISTRICT CLASSIFICATION – "E–2" – RESIDENTIAL DISTRICT

CRITERIA	REQUIRED/PERMITTED
MINIMUM LOT AREA:	20 Ac.
MINIMUM LOT WIDTH @ STREET LINE:	200 FT.
MAXIMUM BUILDING COVERAGE:	20 %
MAXIMUM IMPERVIOUS SURFACE COVERAGE::	40 %
MAXIMUM BUILDING HEIGHT:	35 FT.
MAXIMUM BUILDING LENGTH:	110 FT.
MINIMUM PARKING SPACES (2.5 SPACES/UNIT):	7.5 SP.
MAXIMUM DENSITY (2.6 UNITS/Ac.):	3 UNITS
MINIMUM INTERIOR SETBACKS:	
1. SHORT SIDE TO SHORT SIDE:	30 FT.
2. LONG SIDE TO ANY CONDITION:	60 FT.
MINIMUM OPEN SPACE:	50 %

20 0 10 20 40 60

GRAPHIC SCALE

No.	REVISIONS	DATE
5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

EXISTING FEATURES/DEMOLITION PLAN

AS PART OF

SPRING HOUSE COURT

PREPARED FOR

HALLMARK HOMES –
SPRING HOUSE COURT LLC

SITE SITUATE IN

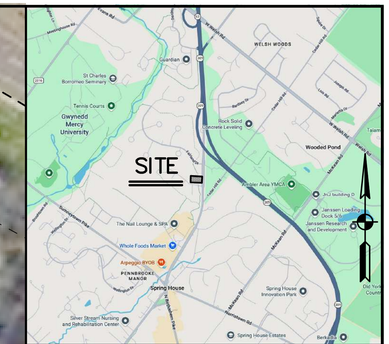
LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

STA Engineering, Inc.

Civil Engineers • Land Surveyors

2499 KNIGHT ROAD, PENNSBURG, PA 18073
PH: (215) 679–0200; www.stotac.com

PLAN SCALE HORIZONTAL:	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
1"=20'	J.A.C.	S.A.R.	2 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646EF	



SITE LOCATION MAP 1"=2000'

20 0 10 20 40 60

GRAPHIC SCALE

No.	REVISIONS	DATE
5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

AERIAL PLAN

AS PART OF

SPRING HOUSE COURT

PREPARED FOR

HALLMARK HOMES – SPRING HOUSE COURT LLC

SITE SITUATE IN

LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

STA Engineering, Inc.
Civil Engineers • Land Surveyors
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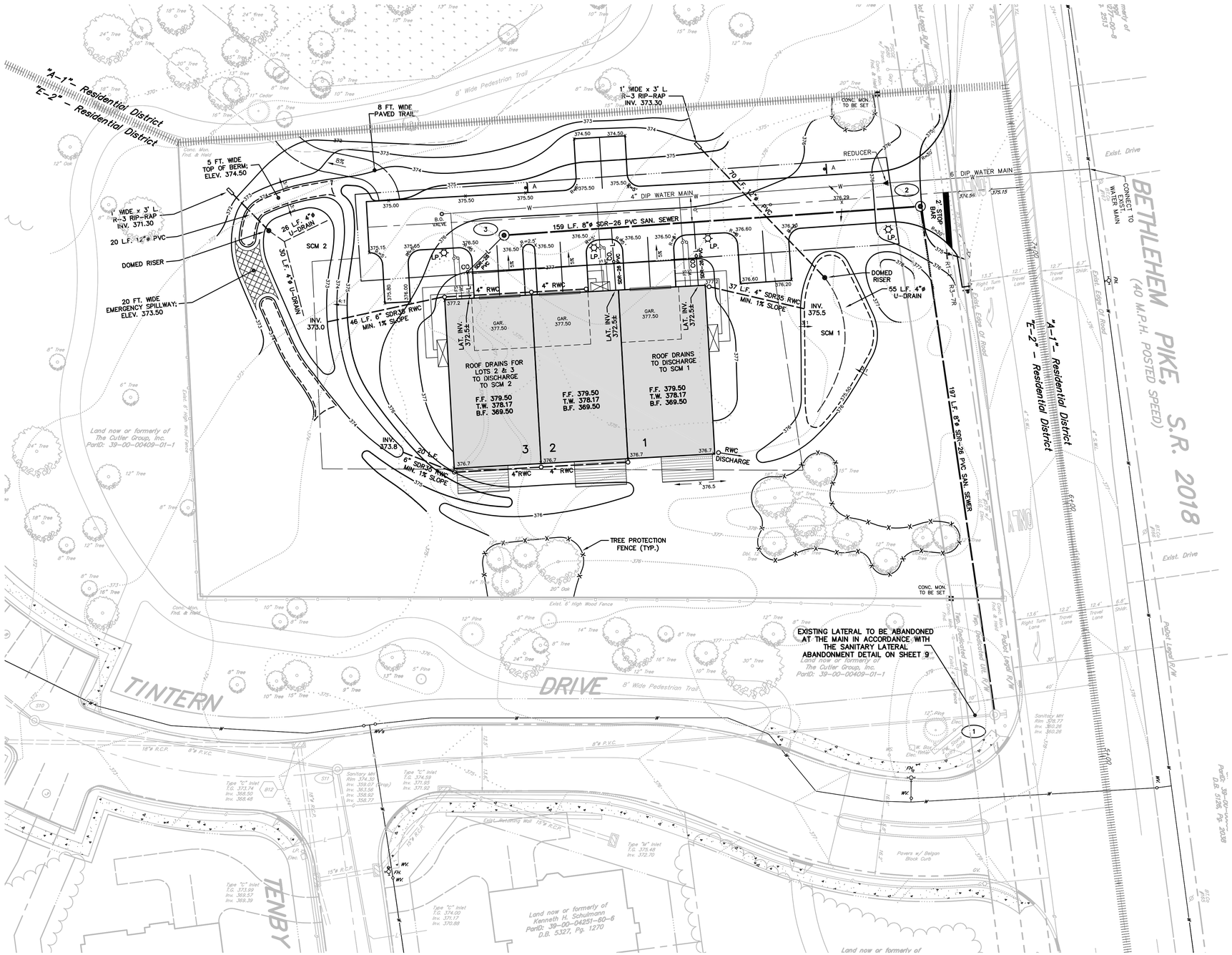
PLAN SCALE HORIZONTAL:	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
1"=50'	J.A.C.	S.A.R.	3 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646AERIAL	



CONSTRUCTION NOTES

1. ALL LAWN AREAS SHALL BE DESIGNED AT A MINIMUM SLOPE OF 2%.
2. ALL PAVED SLOPES TO HAVE A MINIMUM SLOPE OF 1%.
3. ALL STORM SEWER SHALL HAVE A MINIMUM OF 2' OF COVER OVER THE TOP OF THE PIPES.
4. SANITARY SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOWER GWYNEDD TOWNSHIP. SANITARY SEWER MAINS AND LATERALS TO BE CONSTRUCTED WITH SDR-26 PVC.
5. A HORIZONTAL SEPARATION OF 10 FEET AND/OR A VERTICAL CLEARANCE OF 18 INCHES (MEASURED BETWEEN THE OUTER WALLS) SHALL BE MAINTAINED BETWEEN THE SANITARY SEWER AND ANY OTHER UTILITY PIPELINES. WHERE PIPELINES MUST CROSS UNDER A SEWER, THE INSTALLATION MUST ALSO PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING OF THE SEWER. WHERE PROPER CLEARANCES CAN NOT BE PROVIDED, THE SEWER SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CONFLICT.
6. A MINIMUM COVER OF 4 FEET SHOULD BE MAINTAINED OVER SANITARY SEWERS. LATERAL SHALL MAINTAIN A MINIMUM SLOPE OF 1/4-INCH PER FOOT (2%).
7. ALL CONSTRUCTION MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.
8. PUBLIC WATER TO BE PROVIDED BY NORTH WALES WATER AUTHORITY (NWWA). CONNECTION AND CONSTRUCTION TO BE IN ACCORDANCE WITH NWWA STANDARDS AND SPECIFICATIONS WHERE REQUIRED. NWWA TO OBTAIN HOP FOR WATER MAIN EXTENSION.
9. NO PLANTINGS OR STRUCTURES SHOULD BE LOCATED WITHIN THE SANITARY SEWER EASEMENTS OR WITHIN 10 FEET OF THE SEWER OR LATERALS.
10. PRIOR TO GRADING OF THE SITE, TOPSOIL SHOULD BE STRIPPED FROM THE SURFACE AND STOCKPILED IN THE PROPOSED AREAS. AFTER COMPLETION OF ROUGH GRADING, A MINIMUM OF SIX (6) INCHES OF TOPSOIL SHALL BE RETURNED TO REMAINING DISTURBED AREAS PRIOR TO FINISH GRADE AND SEEDING. NO TOPSOIL IS TO BE REMOVED FROM THE SITE WITHOUT TOWNSHIP APPROVAL.
11. A MINIMUM OF 4 FT. OF COVER SHALL BE PROVIDED OVER WATER SERVICES AND LATERALS.
12. ALL UNITS TO BE EQUIPPED WITH AUTOMATIC SPRINKLERS IN ACCORDANCE WITH NFPA STANDARD 13R MULTIPLE UNIT DEVELOPMENTS.

SIGN LEGEND

NEW	R1-1	– STOP SIGN
EXIST. TO BE RELOCATED	R3-7R	– RIGHT LANE MUST TURN RIGHT
NEW	A	– NO PARKING BY ORDER OF FIRE MARSHALL

10' x 20' DECK OR PATIO

20 0 10 20 40 60
GRAPHIC SCALE

No.	REVISIONS	DATE
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1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

CONSTRUCTION IMPROVEMENT PLAN & DETAIL SHEET

AS PART OF

SPRING HOUSE COURT

PREPARED FOR

HALLMARK HOMES –
SPRING HOUSE COURT LLC

SITE SITUATE IN

LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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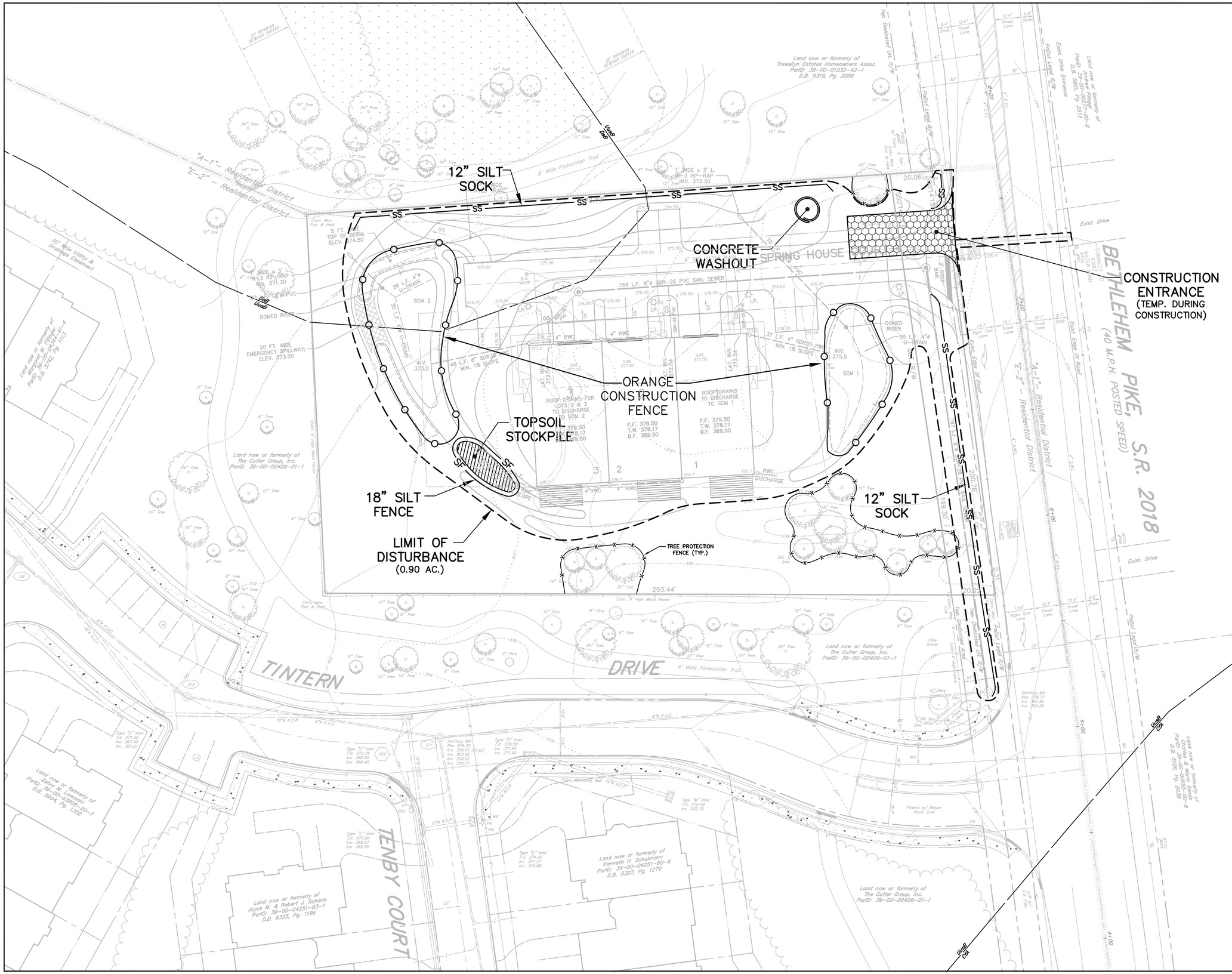
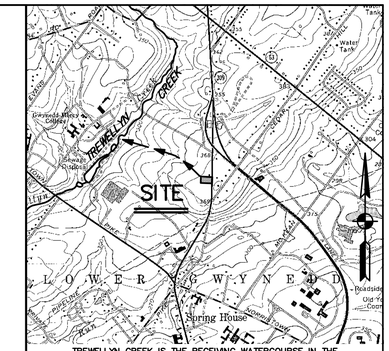
PLAN SCALE HORIZONTAL:	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
1"=20'	J.A.C.	S.A.R.	4 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646CI	





TREWELLYN CREEK IS THE RECEIVING WATERCOURSE IN THE WISSAHICKON WATERSHED. THE CHAPTER 93 CLASSIFICATION FOR TREWELLYN CREEK IS TSF, MF.

SCALE: 1"=2000'

E & S LEGEND

—x—x—x—	TREE PROTECTION FENCE
—SS—	12" SILT SOCK
	18" SILT FENCE
	TIRE CLEANER
	TOPSOIL STOCKPILE
	LIMIT OF DISTURBANCE
	SOIL LINE
—o—o—	ORANGE CONSTRUCTION FENCE

SOILS DATA

DATA OBTAINED FROM N.R.C.S. SOIL SURVEY.

DsB – DOYLESTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES

UusB – URBAN LAND–UDORTHENTS, SHALE AND SANDSTONE COMPLEX, 0 TO 8 PERCENT SLOPES

RECYCLING STATEMENT

INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL.

20 0 10 20 40 60
GRAPHIC SCALE

No.	REVISIONS	DATE
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1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

EROSION & SEDIMENT CONTROL PLAN
AS PART OF
SPRING HOUSE COURT
PREPARED FOR
HALLMARK HOMES – SPRING HOUSE COURT LLC
SITE SITUATE IN
LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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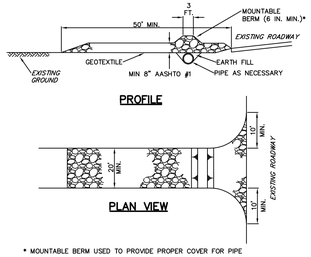
1"=20'	J.A.C.	S.A.R.	5 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646ES	

LIMITATIONS OF PENNSYLVANIA SOILS PERTAINING TO EARTHMOVING PROJECTS (Absence of an X does not mean "No Potential Limitation") NOTE: THIS IS NOT NECESSARILY AN ALL-INCLUSIVE LIST.

SOIL NAME	SOIL SYMBOL	DEPTH TO SEASONAL HIGH WATER TABLE	DEPTH TO BEDROCK	REACTION (pH)	CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH/ LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK – SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Doylestown	DsB	0–1/2	5.0–6.0	6.1	X	C/S	X	X		X	X	X	X	X	X	X				X
Urban Land Udorthents	UusB	>6.6	1.67–8.25	–	X	C/S	X	X				X	X		X	X				

RESOLUTION OF SOIL TYPE LIMITATIONS

1. APPROPRIATE PRECAUTIONS SHOULD BE TAKEN TO SAFEGUARD WORKERS DURING ALL TRENCHING AND EXCAVATION OPERATIONS. ALL APPLICABLE OSHA STANDARDS AND REGULATIONS MUST BE IMPLEMENTED AT ALL TIMES.
2. SUITABLE PRECAUTIONS, SUCH AS COATING WITH NON-CORROSIVE MATERIALS, SHOULD BE TAKEN TO PROTECT UNDERGROUND PIPES, CONDUITS AND STORAGE TANKS FROM SOILS WITH THE POTENTIAL TO CAUSE CORROSION.
3. SEASONAL HIGH WATER TABLES WILL BE MANAGED BY EFFECTIVE SITE GRADING, DRAINAGE FACILITIES WITHIN ROADWAYS, AND BASEMENT DRAINS COUPLED WITH INDIVIDUAL UNIT SUMP PUMPS, IF REQUIRED.
4. WHERE SHALLOW DEPTH TO BEDROCK IS PRESENT, DITCH EXCAVATION DEPTHS, IF THIS IS NOT POSSIBLE, BEDROCK MAY REQUIRE BLASTING IN AREAS WHERE RIPPER TEETH ON EXCAVATING EQUIPMENT CANNOT REMOVE MATERIAL BY MECHANICAL MEANS.
5. NO GRADING SHALL BE PERFORMED IN FROZEN SOILS FOR SOIL TYPES DETERMINED TO HAVE LIMITATIONS DUE TO FROST AND/OR LISTED AS POOR UNDER WINTER GRADING.
6. DISTURBANCE IS LIMITED WITHIN AREAS PRONE TO FLOODING.
7. WHEN UNSUITABLE MATERIAL IS ENCOUNTERED IN EMBANKMENT AND WATERWAY AREAS, SUITABLE MATERIAL THAT COMPLIES WITH COMPACTION DETAIL SPECIFICATIONS MUST BE IMPORTED. MATERIAL MUST BE SUITABLE FOR STABILIZATION AND THE MINIMIZATION OF EROSION. SETBACKS SHOULD COMPLY WITH THE STANDARDS CONTAINED IN CHAPTER 16 OF THE E&S MANUAL UNLESS IT CAN BE SHOWN THAT CUTS AND FILLS DO NOT POSE A HAZARD TO PUBLIC SAFETY OR TO SURFACE WATERS. ROAD FILL MATERIAL MAY NEED TO BE IMPORTED IF SOILS HAVE LOW STRENGTH.
8. INFILTRATION TESTS SHOULD BE PERFORMED ON SITE TO DETERMINE SUITABLE AREAS FOR INFILTRATION FACILITIES.
9. FOR SOILS HAVING LIMITATIONS DUE TO PIPING, SPECIAL CARE SHOULD BE TAKEN WHEN USING THESE SOILS FOR BACKFILL AROUND BASIN OUTFALL PIPES. THE USE OF A FILTER DIAPHRAGM, ANTI-DEEP COLLAR OR OTHER ACCEPTABLE DEVICE MUST BE SPECIFIED.
10. POOR TOPSOIL SHALL BE AMENDED BEFORE RE-SPREADING OVER LAWN AREAS. SOIL TESTING MAY BE REQUIRED TO DETERMINE THE PROPER APPLICATION OF SOIL AMENDMENTS TO PROMOTE GROWTH OF DESIRED VEGETATION.
11. EASILY ERODIBLE SOILS SHALL DISCHARGE TO AN EROSION AND SEDIMENT CONTROL BMP DURING CONSTRUCTION AND STABILIZED WITH APPROPRIATE EROSION CONTROL MATTING AND VEGETATION FOR THE PERMANENT CONDITION. SEDIMENT THAT ACCUMULATES WITHIN THESE BMP'S CAN BE DISPOSED OF WITHIN LANDSCAPED AREAS ON-SITE. DISTURBED AREAS THAT DO NOT DRAIN TO A BMP MUST BE STABILIZED IMMEDIATELY.



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

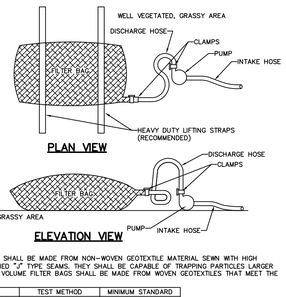
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE

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-4833	110 LB
MULLEN BURST	ASTM D-3786	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 STRAWS 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 5%. FOR SLOPES EXCEEDING 5%, 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

NOT TO SCALE

SEEDING SPECIFICATIONS

TEMPORARY SEEDING (DURING CONSTRUCTION)

MIXTURE NUMBER	SPECIES	SEEDING RATE–PURE LIVE SEED (PLS)* MOST SITES	ADVERSE SITES
1 (OR APPROVED EQUAL)	SPRING OATS (SPRING) OR ANNUAL RYEGRASS (SPRING OR FALL) OR WINTER WHEAT (FALL) OR WINTER RYE (FALL)	64 64 90 56	96 96 120 112

PERMANENT SEEDING FOR LAWN AREAS OUTSIDE OF BMP AREAS

MIXTURE NUMBER	SPECIES	SEEDING RATE–PURE LIVE SEED (PLS)* MOST SITES	ADVERSE SITES
2 (OR APPROVED EQUAL)	FINE FESCUE OR KENTUCKY BLUEGRASS PLUS PERENNIAL RYEGRASS	50 35 25 + 15	75 40 30 + 20
	SUITABLE FOR FREQUENT MOWING. DO NOT CUT SHORTER THAN 4 INCHES.		

* PLS IS THE PRODUCT OF THE PERCENTAGE OF PURE SEED TIMES PERCENTAGE GERMINATION DIVIDED BY 100. FOR EXAMPLE, TO DETERMINE PLS POUNDS, MULTIPLY THE PURE LIVE SEED (PLS) RATE BY THE PLS POUNDS PER ACRE. THE SEED TAG WILL TELL THE PLS CONTENT OF A GIVEN SEED LOT. IF 35% DIVIDE 12 PLS BY 0.35 TO OBTAIN 34.3 POUNDS OF SEED TO PLANT ONE ACRE. ALL MIXTURES IN THIS TABLE ARE SHOWN IN TERMS OF PLS.

NOTE: WHEN A DISTURBED AREA IS TO BE STABILIZED BY VEGETATION, NO MORE THAN 15,000 S.F. SHALL REMAIN FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING ACTIVITIES ARE COMPLETED BEFORE SEEDING AND MULCHING OPERATIONS ARE COMPLETED IS NOT RECOMMENDED.

TABLE 11.2 SOIL AMENDMENT APPLICATION RATE EQUIVALENT

SOIL AMENDMENT	PERMANENT SEEDING APPLICATION RATE PER ACRE	PER 1,000 S.F.	PER 1,000 S.Y.	NOTES
AGRICULTURAL LIME	6 TONS	240 lb.	2,480 lb.	OR AS PER SOIL TEST. MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
10–10–20 FERTILIZER	1,000 lb.	25 lb.	210 lb.	OR AS PER SOIL TEST. MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
TEMPORARY SEEDING APPLICATION RATE				
AGRICULTURAL LIME	1 TON	40 lb.	410 lb.	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES
10–10–10 FERTILIZER	500 lb.	12.5 lb.	100 lb.	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES

Adapted from Penn State, "Erosion Control and Conservation Plantings on Noncropland"

NOTES: A COMPOST BLANKET WHICH MEETS THE STANDARDS OF THIS CHAPTER MAY BE SUBSTITUTED FOR THE SOIL AMENDMENTS SHOWN IN THIS TABLE.

SOIL TESTING IS RECOMMENDED IN ORDER TO DETERMINE APPROPRIATE LIME AND FERTILIZATION RATES.

TABLE 11.6 MULCH APPLICATION RATES

MULCH TYPE	APPLICATION RATE (MIN.) PER ACRE	PER 1,000 S.F.	PER 1,000 S.Y.	NOTES
STRAW	3 TONS	140 lb.	1,240 lb.	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	140 lb.	1,240 lb.	TIMOTHY, MIXED CLOVER AND TIMOTHY OR OTHER NATIVE FORAGE GRASSES
WOOD CHIPS	4–6 TONS	185–275 lb.	1,650–2,500 lb.	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES
HYDROMULCH	1 TON	47 lb.	415 lb.	SEE LIMITATIONS ABOVE

1. STRAW AND HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL – ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR. NOTE: CRIMPING OF HAY OR STRAW BY RUNNING OVER IT WITH TRACKED MACHINERY IS NOT RECOMMENDED.

2. POLYMERIC AND GUM TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAYBE USED TO TACK AND ANCHOR MULCH DURING AND AFTER APPLICATION. ON SLOPES WHERE ANCHORING TOOLS AND EQUIPMENT CANNOT OPERATE OR WHERE ANCHORS ARE TYPICALLY REQUIRED, APPLICATION SHOULD GENERALLY BE HEAVIEST AT EDGES OF SEEDED AREAS AND AT CREESTS OF RIDGES AND BANKS TO PREVENT LOSS BY WIND. THE REMAINDER OF THE AREA SHOULD HAVE BINDER APPLIED UNIFORMLY. BINDERS MAY BE APPLIED AFTER MULCH HAS BEEN LAID BY SPRAYING ONTO THE MULCH. SPRAYING ONTO THE SOIL APPLYING STRAW AND BINDER TOGETHER IS GENERALLY MORE EFFECTIVE.

3. SYNTHETIC BINDERS, OR CHEMICAL BINDERS, MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.

4. MULCH ON SLOPES OF 8% OR STEEPER SHOULD BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

5. SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5%. WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED. THE APPLICATION RATE FOR ANY HYDROMULCH SHOULD BE 2,000 LB/ACRE AT A MINIMUM.

E & S STANDARD 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 1-800-242-1776 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 LOCATIONS SHOWN ON THE PLAN MAPS. STOCKPILES SHALL BE STABILIZED BY VEGETATION COMPLETE WITH SUPPORT MEASURES UNTIL THEY ARE TO BE USED. TOPSOIL SHALL BE PLACED ON 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 THAT ARE SUITABLE TO PREVENT THE 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 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, 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. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OR 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. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, 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 ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT 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 OF 3 TO 5 INCHES – 6 TO 12 INCHES ON COMPACTED SOILS – PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES 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, SOD, 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. FILLS 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. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED 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.
26. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREA. DURING NON-GERMINATING MONTHS, 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 IN ACCORDANCE 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.
27. 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.
28. 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.
29. 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.
30. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING THE 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.
31. 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.
32. 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 BEING INSTITUTED 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 MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
33. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
34. GEOLOGICAL FORMATION: TO THE BEST OF OUR KNOWLEDGE, NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS HAVING THE POTENTIAL TO CAUSE POLLUTION TO SURFACE WATERS EXIST AT THE SITE.
35. THERMAL IMPACT STATEMENT: DURING CONSTRUCTION STORMWATER RUNOFF IS FILTERED THROUGH ON-SITE BMP'S TO THE MAXIMUM EXTENT POSSIBLE TO AVOID THERMAL IMPACTS. RUNOFF IS FILTERED THROUGH COMPOST FILTER SOCKS PROVIDING AN OPPORTUNITY FOR WATER TO COOL BEFORE REACHING THE EXISTING DRAINAGE CHANNELS.
36. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN.
    - A. THE EROSION & SEDIMENT CONTROL PLAN MINIMIZES EXTENT AND DURATION OF EARTH DISTURBANCE. DISTURBANCE IS LIMITED TO ONLY WHAT IS NECESSARY TO CONSTRUCT THE REQUIRED IMPROVEMENTS. THE LIMIT OF DISTURBANCE IS DELINEATED ON THE EROSION AND SEDIMENT CONTROL PLAN. NO EARTH DISTURBANCE SHALL OCCUR OUTSIDE OF THIS DELINEATION AREA.
    - B. THE EROSION & SEDIMENT CONTROL PLAN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION. DISTURBANCE IS LIMITED TO ONLY WHAT IS NECESSARY TO CONSTRUCT THE REQUIRED IMPROVEMENTS AND EXISTING VEGETATION IS PROTECTED TO THE MAXIMUM EXTENT POSSIBLE.
    - C. THE EROSION & SEDIMENT CONTROL PLAN MINIMIZES SOIL COMPACTION. DISTURBANCE IS LIMITED TO ONLY WHAT IS NECESSARY TO CONSTRUCT THE REQUIRED IMPROVEMENTS. NO EARTH DISTURBANCE IS TO OCCUR OUTSIDE THE LIMIT OF DISTURBANCE.
    - D. THE EROSION & SEDIMENT CONTROL PLAN UTILIZES OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF. ALL SEDIMENT-LADEN WATER ULTIMATELY FLOWS TO SEDIMENT FILTER FENCE WHERE SEDIMENT LADEN STORMWATER RUNOFF IS FILTERED BEFORE BEING DISCHARGED OFF-SITE.

CONSTRUCTION SEQUENCE

1. CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND FACILITIES PRIOR TO START OF WORK BY CONTACTING THE PA ONE CALL SYSTEM AT 1-800-242-1776.
2. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE THE FOLLOWING STAGE IS INITIATED (UNLESS OTHERWISE NOTED). CLEARING AND GRUBBING SHALL BE LIMITED TO THOSE AREAS AS DESCRIBED IN EACH STAGE.
3. THE LIMIT OF DISTURBANCE MUST BE CLEARLY MARKED IN THE FIELD (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE OR APPROVED EQUAL) BEFORE ANY EARTH DISTURBANCE ACTIVITIES BEGIN.
4. INSTALL CONSTRUCTION ENTRANCE IN ACCORDANCE WITH DETAIL.
5. INSTALL ALL TREE PROTECTION, SILT FENCE AND ORANGE CONSTRUCTION FENCE AS INDICATED ON THE EROSION AND SEDIMENT C

PCSM NOTES

At such time that the site is stabilized and the temporary during construction erosion and sediment controls are removed, the permanent structural BMP will be installed and functioning. The structural BMP is intended to be a permanent facility that mitigates peak flows and addresses volume control in addition to promoting water quality.

The stormwater management BMP shall be owned and maintained by an HOA in perpetuity. The HOA shall conduct maintenance on a short-term and long-term schedule in accordance with the maintenance procedures outlined in this narrative and on the PCSM plans. The Municipality shall have the right, but not the duty, to inspect the stormwater management facilities, and if the property owner fails to do so, perform necessary maintenance.

Short Term:

Inspect BMP after major storm events for damage and/or erosion activity, paying close attention to the embankments, spillway, and berm. Repair erosion with appropriate measures immediately.

Inspect BMP plantings installed from containers on a monthly basis during the growing season for the first two years to evaluate plant establishment and mortality - replace dead plants with same or like plants able to establish in the cultural conditions present. If necessary, replace plants with a different species suitable to any microclimatic effects that might develop.

Specific BMP Construction Sequence and Long-Term Maintenance Notes:

RAIN GARDEN:

Construction Sequence:

1. Complete site grading and stabilize all areas upstream of the rain garden area.
2. Excavate rain garden to proposed invert depth and scarify the existing soil surfaces. Do not compact in-situ soils. If the area has been subject to compaction or sedimentation during construction, infiltration testing may be required during/prior to the construction of the BMP to verify the volume credits taken by design.
3. Install surrounding embankments and inlet and outlet control structures. Install u-drain in accordance with the detail and provide cap on the u-drain.
4. Install soil mix to required design depth and fine grade, being careful not to compact. Overfill is recommended to account for settlement. Light hand tamping is acceptable if necessary.
5. Prepare for seeding by eliminating any weed growth prior to seed installation using an appropriate herbicide to control undesirable vegetation. For optimal seed establishment, soil ph shall be between 5.5 and 6.5.
6. Apply seed by carefully proportioning seed for the entire area. Broadcast seed in two separate applications by applying seed at half the suggested rate for each application to ensure even and adequate coverage. After the full rate of seeding has been achieved, follow by rolling or tracking seed into the top 1/4 inch of soil to achieve good seed to soil contact - do not roll or track the seed when soil is wet.
7. Cover seeded area with a light layer of salt hay, threshed straw or pine needles.
8. Plant and mulch according to specifications on the landscape plan. Install any anti-grazing measures, if necessary.

Maintenance:

1. While vegetation is being established, pruning and weeding may be required. Weeds should be removed thereafter by hand.
2. Detritus may also need to be removed approximately twice per year. Perennial plantings may be cut down at the end of the growing season.
3. Mulch should be re-spread when erosion is evident and be replenished annually. Once every 2 to 3 years the entire area may require mulch replacement.
4. Rain gardens should be inspected at least four times per year, as well as after every storm greater than 1 inch for sediment build-up, erosion, vegetative conditions, etc.
5. During periods of extended drought, rain gardens may require watering.
6. Rain gardens should not be mowed on a regular basis.
7. Trees and shrubs should be inspected twice per year to evaluate health.
8. Evaluate the drain-down time of the rain garden to ensure the maximum time of 72 hours is not being exceeded. If drain-down time is exceeding the maximum, drain the rain garden via pumping and clean out perforated piping, if included. If slow drainage persists, evaluation by a professional engineer may be required to determine appropriate course of action. This includes but is not limited to replacement of the facility.

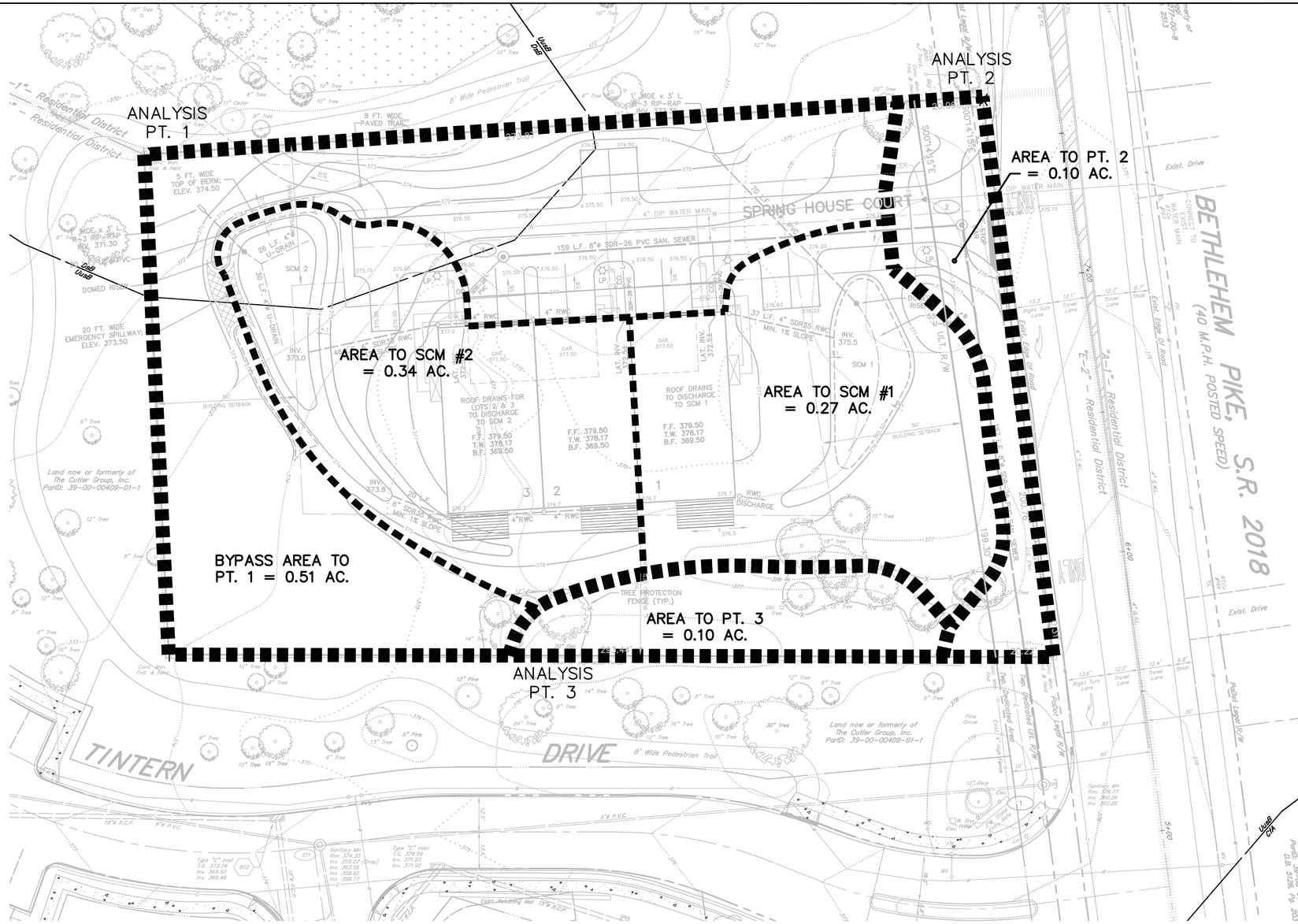
LANDSCAPE RESTORATION:

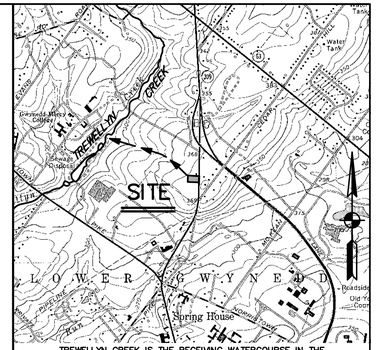
Construction Sequence:

1. All plant material to be installed in accordance with the planting practices stated in Chapter 3 of "Tree Maintenance" by P.P. Pirone (fifth or most recent edition).
2. Take extreme care in handling and installing all plants to prevent damage to bark, branches, and root balls.
3. All planting areas shall be free from weeds prior to the beginning of planting operation. Contact herbicide sprays should only be used as required and all manufactures specifications followed.
4. Prepare tree and shrub planting pits with proper size excavations and backfill during planting with prepared backfill mixture. Backfill in layers, water thoroughly to allow settlement and remove air pockets.
5. Plant root balls at the same relation to grade as previously grown at the nursery. High or low root balls shall not be accepted.
6. Backfill planting soil of 50% topsoil and 50% peat moss shall be mixed with existing soil at a rate of 1/3 planting soil and 2/3 existing soil.
7. Fertilize all plants with appropriate starter fertilizer at time of planting.
8. All plantings must be thoroughly watered within the first 12 hours of installation. The contractor is responsible for providing water for this operation.
9. Mulch all plantings immediately after planting operations are completed with a three-inch (3") layer of finely shredded bark mulch or licorice root. The mulch shall be aged a minimum of 6 months. A granular pre-emergent weed control shall be spread prior to mulching. The limit of this mulch for deciduous trees and single evergreen trees shall be the area of the pit excavation. For all evergreen tree and shrub clusters, a fully mulched bed shall be created. Mulch planting beds entirely around and between all plants for a fully mulched bed. Depth shall be cleanly cut and tapered to match surrounding lawn grades.
10. All shrubs are to be mulched in groups. No singularly mulched shrubs will be accepted, unless a singular specimen shrub in lawn has been shown on the drawings. A continuous mulch bed shall be provided for each grouping or cluster of shrubs to the extent of their collective branch drip line.

Maintenance:

1. Application of a carefully selected herbicide around the protective tree shelters/tubes may be necessary, and reinforced by selective cutting/manual removal, if necessary for the initial 2 to 3 years of growth and may be necessary for up to 5 years until tree growth and tree canopy begins to form, naturally inhibiting weed growth (once shading is adequate, growth of invasive and other weeds will be naturally prevented, and the trees becomes self-maintaining).
2. Review of the new trees should be undertaken intermittently to determine if replacement trees should be provided (some modest rate of planting failure is usual).
3. Landscape restoration areas planted with a proper cover crop can be expected to require annual mowing to control invasive species.





TREWELLYN CREEK IS THE RECEIVING WATERCOURSE IN THE WISSAHICKON WATERSHED. THE CHAPTER 93 CLASSIFICATION FOR TREWELLYN CREEK IS TSF, MF.

SCALE: 1"=2000'

UNIT NO.	BUILDING FOOTPRINT (S.F.)	DRIVE & PARKING (S.F.)	PATIO/DECK (S.F.)	PORCH & SERVICE WALK (S.F.)	8' WIDE TRAIL (S.F.)	ADDITIONAL IMP. (S.F.)	TOTAL DESIGN IMP. COV.* (S.F.)
1	2,224	400	250	160	0	150	3,034
2	2,224	400	250	50	0	150	2,924
3	2,224	400	250	160	0	150	3,034
OPEN SPACE	0	5170	0	0	385	0	5,555
WITHIN R/W	0	900	0	0	0	0	900
TOTAL TRACT	6,672	7270	750	370	385	450	15,897

* This chart is used to document the impervious surface used in the design calculations for stormwater management. Actual building footprint, drive and parking, patio/deck and porch & service walk submitted as part of the building permit plan may deviate from the chart. However, the total impervious coverage column should dictate the maximum impervious coverage allowed on the property without the need for additional stormwater management facilities. Any property owner seeking to increase impervious cover beyond that which is anticipated by this plan will be required to provide additional stormwater management and treatment.

STORMWATER STATEMENT

I, SUSAN A. RICE, P.E., ON THIS DATE HEREBY CERTIFY THAT THIS DRAINAGE PLAN MEETS ALL REQUIREMENTS OF THE LOWER GWYNEDD TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

DATE _____ SUSAN A. RICE, P.E. _____

SOILS DATA

DATA OBTAINED FROM N.R.C.S. SOIL SURVEY.

DsB – DOYLESTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES

UusB – URBAN LAND–UDORTHENTS, SHALE AND SANDSTONE COMPLEX, 0 TO 8 PERCENT SLOPES

RECYCLING STATEMENT

INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL.

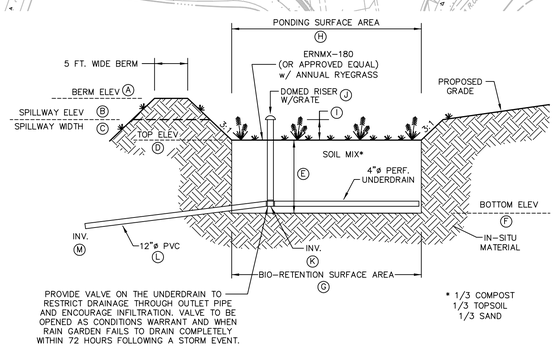
20 0 10 20 40 60
GRAPHIC SCALE

No.	REVISIONS	DATE
5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

PCSM PLAN
AS PART OF
SPRING HOUSE COURT
PREPARED FOR
HALLMARK HOMES – SPRING HOUSE COURT LLC
SITE SITUATE IN
LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

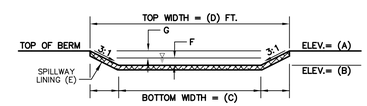
STA Engineering, Inc.
Civil Engineers • Land Surveyors
2499 KNIGHT ROAD, PENNSBURG, PA 18073
PH: (215) 679–0200; www.stotac.com

PLAN SCALE HORIZONTAL:	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
1"=20'	J.A.C.	S.A.R.	7 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646PCSM	



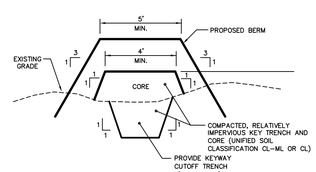
SCM NO.	BERM ELEV. (A)	SPILLWAY ELEV. (B)	SPILLWAY WIDTH (C)	TOP ELEV. (D)	SOIL MIX DEPTH (E)	BOTTOM ELEV. (F)	SURFACE AREA (G)	PONDING SURFACE AREA (H)	SURFACE STORAGE DEPTH (I)	T.G. (J)	U-DRAIN INV. (K)	PIPE LENGTH/ SLOPE (L)	INV. (M)
1	N/A	N/A	N/A	375.50	1.5 FT.	374.00	1,275 S.F.	1,493 S.F.	0.75 FT.	375.75	374.00	70 L.F./0.0100	373.30
2	374.00	373.50	20 FT.	373.00	1.5 FT.	371.50	1,120 S.F.	1,275 S.F.	0.25 FT.	373.25	371.50	20 L.F./0.0100	371.30

INFILTRATION SCM DETAIL

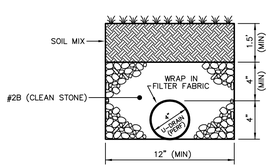


SCM I.D.	TOP OF BERM ELEV. (A)	EMERGENCY SPILLWAY ELEV. (FT.) (B)	BOTTOM WIDTH (FT.) (C)	TOP WIDTH (FT.) (D)	SPILLWAY LINING (E)	FLOW DEPTH (FT.) (F)	FREEBOARD (FT.) (G)
2	374.00	373.50	20	23	S75	0.25	0.25

SCM EMERGENCY SPILLWAY CROSS–SECTION



BERM CONSTRUCTION DETAIL



U–DRAIN DETAIL

Madison Outdoor Post Light 1-Light | Clear Beveled Glass — 9956TZ

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SPECIFICATIONS

Certifications/Qualifications	
ADA Compliant	No
Prop65	No
Dark Sky Compliant	No
Location Rating	Wet
	kichler.com/warranty
Dimensions	
Height	21.75"
Width	9.5"
Weight	5 LBS
Electrical	
Input Voltage	120 V
Light Source	
Light Source	Bulb
Lamp Included	Not Included
# Of Bulbs/LED Modules	1
Max Or Nominal Watt	150 W
Lamp Type	A19
Socket Type	E26 (Medium)
Dimmable	No
Mounting/Installation	
Interior/Exterior	Exterior Product
Mounting Style	POST MOUNT
Modular	No

FIXTURE ATTRIBUTES

Housing/Glass	
Primary Material	Aluminum
Shade Included	No
Product/Ordering Information	
Sku	9956TZ
Finish	Tannery Bronze
UPC	783927136549

Finishes
- Black
- Tannery Bronze

ALSO IN THIS FAMILY

9650BK | 9650TZ | 9653BK
9653TZ | 9654BK | 9654TZ

Kichler.com KICHLER. 1

Accessory Post — 49904BK

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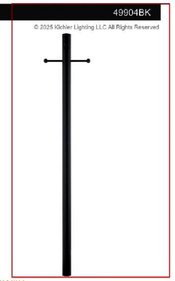


SPECIFICATIONS

Certifications/Qualifications	
ADA Compliant	No
Prop65	No
Dark Sky Compliant	No
	kichler.com/warranty
Dimensions	
Height	84"
Width	3"
Weight	3.85 LBS
Electrical	
Input Voltage	120 V
Light Source	
Dimmable	No
Mounting/Installation	
Interior/Exterior	Exterior Product
Modular	No

FIXTURE ATTRIBUTES

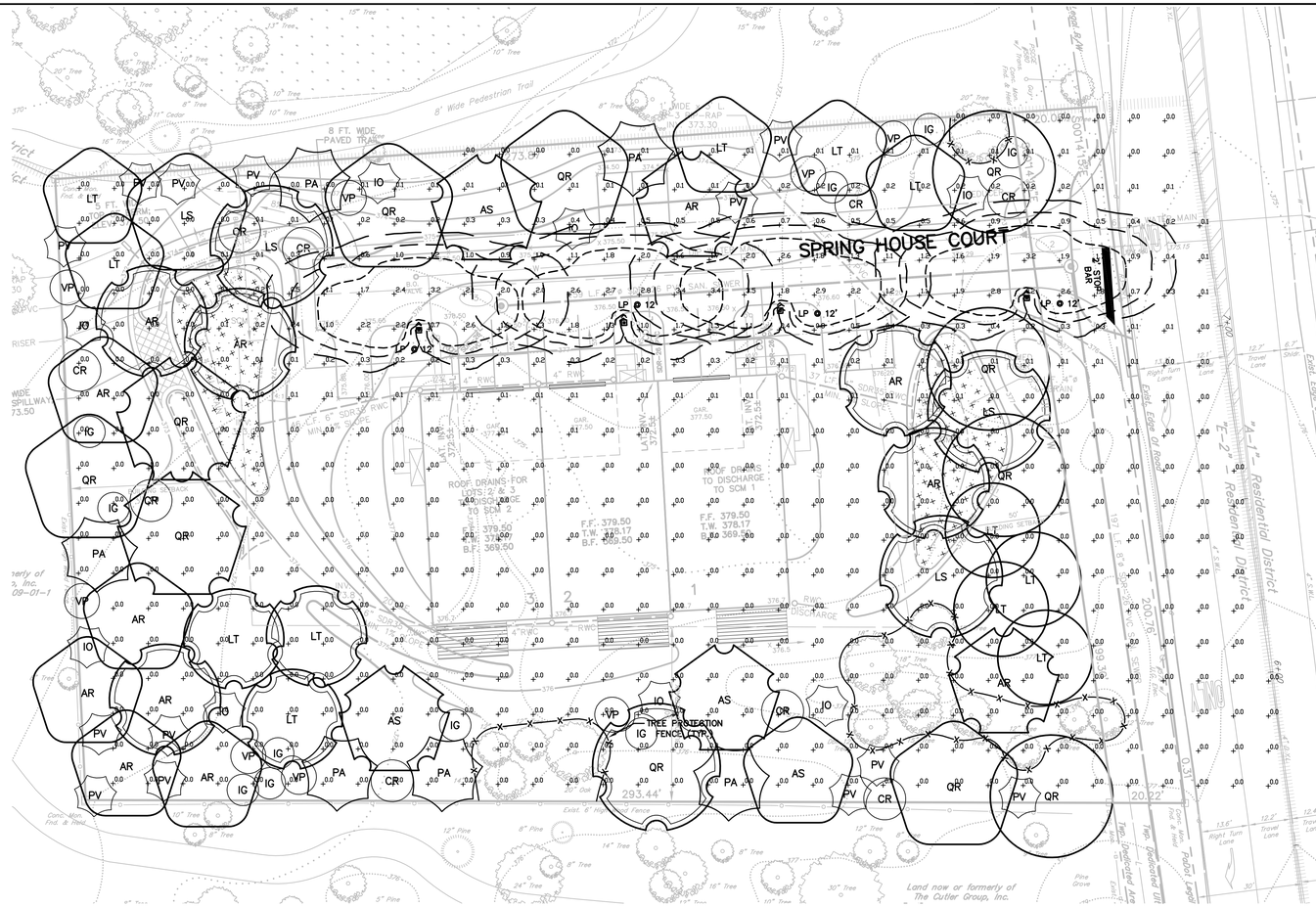
Housing/Glass	
Primary Material	Aluminum
Shade Included	No
Product/Ordering Information	
Sku	49904BK
Finish	Black
UPC	783927300094

Finishes
- Architectural Bronze
- Black

ALSO IN THIS FAMILY

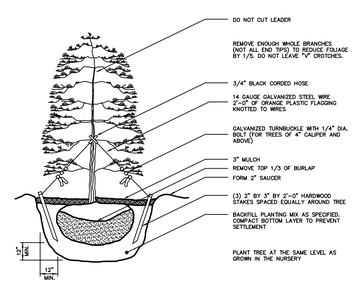
15601WHT
15601AZT | 15601BKT
15620AZT | 15645AZT | 15645BKT

Kichler.com KICHLER. 1

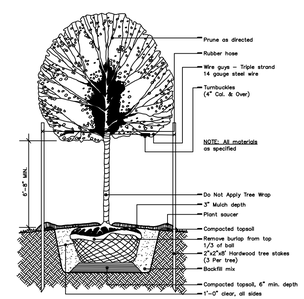


Schedule			
Symbol	Label	QTY	POLE HEIGHT
	LP	4	12 FT.

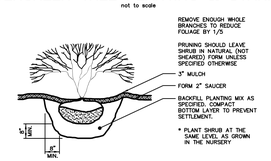
Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Site	+	0.2 fc	3.5 fc	0.0 fc	N/A	N/A



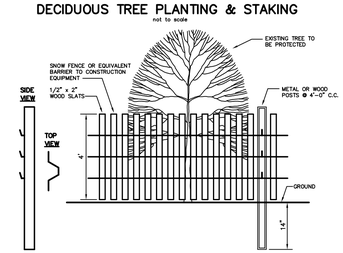
EVERGREEN TREE PLANTING & STAKING
not to scale



DECIDUOUS TREE PLANTING & STAKING
not to scale



SHRUB PLANTING
not to scale



TREE PROTECTION FENCE DETAIL
not to scale

REQUIREMENTS / SYMBOLS

1230.42(a)(1) STREET TREES
REQUIRED: 2 SHADE TREES PER 40 LIN. FT. STREET FRONTAGE
200 LINEAR FEET / 40 = 5 TREES = 10
2 EXISTING TREES: 8 TREES TOTAL

1123O.41(I) REPLACEMENT TREES
REQUIRED: 2" CALIPER REPLACEMENT PER 2 INCH CALIPER OF TREES REMOVED
(1) 24" AND (1) 12" TREE REMOVED = 36" TOTAL TREE CALIPER REMOVED
REPLACEMENT TREES ARE 3" CALIPER = 12 REPLACEMENT TREES

1230.42(d)(1) BUFFER PLANTING
REQUIRED: 1 TREE, 1 EVERGREEN, 1 SHRUB PER 30 FEET OF PROPERTY
SOUTH 314' = 11 EACH, 8 EXISTING TREES: 3 TREES, 11 EVERGREENS, 11 SHRUBS
WEST 178' = 6 EACH, 0 EXISTING TREES: 6 TREES, 6 EVERGREENS, 6 SHRUBS
NORTH 298' = 10 EACH, 3 EXISTING TREES: 7 TREES, 10 EVERGREENS, 10 SHRUBS

1230.42(d)(2) INTERIOR LANDSCAPING
REQUIRED: 2 SHADE TREES PER UNIT = 6

LEGEND

BMP FLOOR MIX: ERNMIX-180 (OR APPROVED EQUAL)

AMENDED SOILS

—X——X——X— TREE PROTECTION FENCE

L.P. LAMP POST

PLANT SCHEDULE

KEY	STREET	REPLACEMENT (3")	USE/QUANTITY BUFFERS SOUTH	WEST	NORTH	INTERIOR	TOTAL PLANTS	NATIVE	ADAPTED	1230.42 REQUIRED PLANTINGS SHADE TREES 2" CALIPER PER 1230.49 A. 3" CALIPER REPLACEMENT TREES — BOTANICAL NAME / COMMON NAME
AR		5	1	4		1	11			ACER RUBRUM / RED MAPLE
AS			1			3	4			ACER SACCHARUM / SUGAR MAPLE
LS		3			1		4			LIQIDAMBAR STYRACIFLUA / SWEETGUM
LT	4	3		1	4		12			LIRIODENDRON TULIPIFERA / TULIPTREE
QR	4	1	1	1	2	2	11			QUERCUS RUBRA / RED OAK
	8	12	3	6	7	6	TOTALS PER USE			
										EVERGREENS 4' HEIGHT PER 1230.49 C.
IO			3	2	3		8			ILEX OPACA / AMERICAN HOLLY
PA			3	1	2		6			PICEA ABIES / NORWAY SPRUCE
PV			5	3	5		13			PINUS VIRGINIANA / VIRGINIA PINE
			11	6	10		TOTALS PER USE			
										SHRUBS 3' HEIGHT PER 1230.49 F.
CR			3	2	4		9			CORNUS RACEMOSA / GRAY DOGWOOD
IG			5	2	3		10			ILEX GLABRA / INKBERRY
VP			3	2	3		8			VIBURNUM PRUNIFOLIUM / BLACKHAW VIBURNUM
			11	6	10		TOTALS PER USE			

6 TOTAL ADAPTED PLANTS
96 TOTAL NATIVE PLANTS
94% NATIVE PLANTS 1230.43(b)

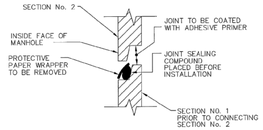
GRAPHIC SCALE
20 0 10 20 40 60

5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

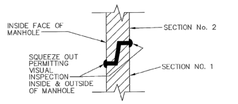
LANDSCAPE PLAN
AS PART OF
SPRING HOUSE COURT
PREPARED FOR
HALLMARK HOMES – SPRING HOUSE COURT LLC
SITE SITUATE IN
LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

STA Engineering, Inc.
Civil Engineers • Land Surveyors
2499 KNIGHT ROAD, PENNSBURG, PA 18073
PH: (215) 679-0200; www.stotac.com

PLAN SCALE HORIZONTAL:	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
1"=20'	J.A.C.	S.A.R.	8 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646LA	

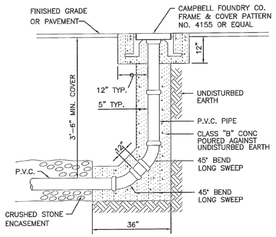


OPEN JOINT



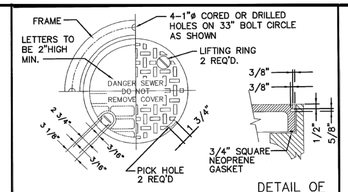
CLOSED JOINT

JOINT DETAIL



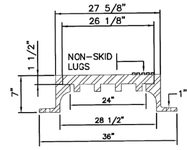
NOTE:
CRUSHED STONE ENCASEMENT SHOWN. REFER TO SPECIFICATIONS FOR BEDDING AND BACKFILL REQUIREMENTS.

JAN. 2, 2001 REVISIONS	PRE-CAST MANHOLE JOINTS AND TRANSITION DETAILS	DRAWN: SCALE: NONE PLATE NO. S-3



PLAN

DETAIL OF PICK HOLE



SECTION

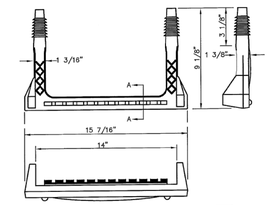
NEENAH R-1642 FRAME
NEENAH 1642-5225 LID

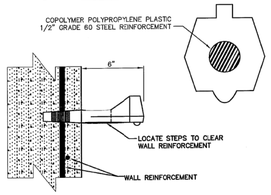
1/2"ø STEEL HANDLE CAST IN

STATIONARY HANDLE

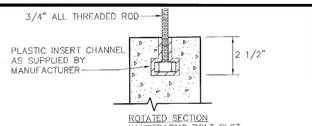
DETAIL OF LIFT RING

JAN. 2, 2001 REVISIONS	CAST IRON MANHOLE FRAME & COVER	DRAWN: SCALE: NONE PLATE NO. S-8

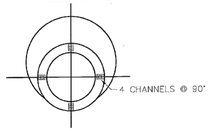


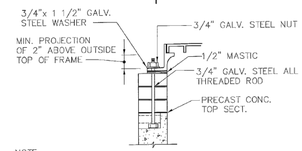


REVISIONS	BCM Engineers ©2000 COPOLYMER POLYPROPYLENE MANHOLE STEP (CPP)	DRAWN: SCALE: NONE PLATE NO. S-12



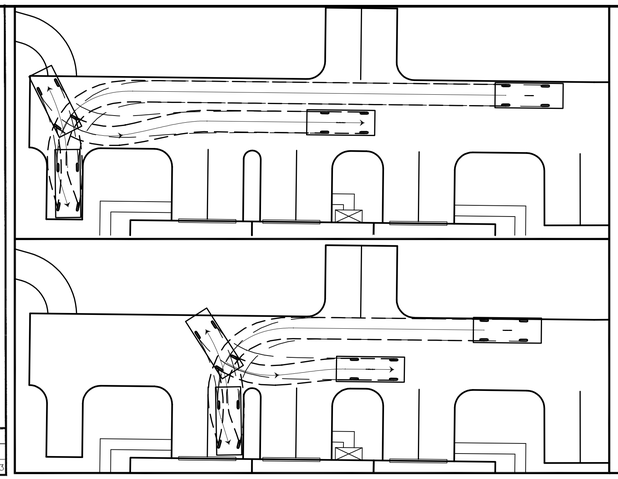
ROTATED SECTION ILLUSTRATING BOLT SLOT

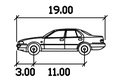




NOTE:
4REQ'D. PER MANHOLE

JAN. 2, 2001 REVISIONS	ANCHOR BOLT DETAIL	DRAWN: SCALE: NONE PLATE NO. S-13

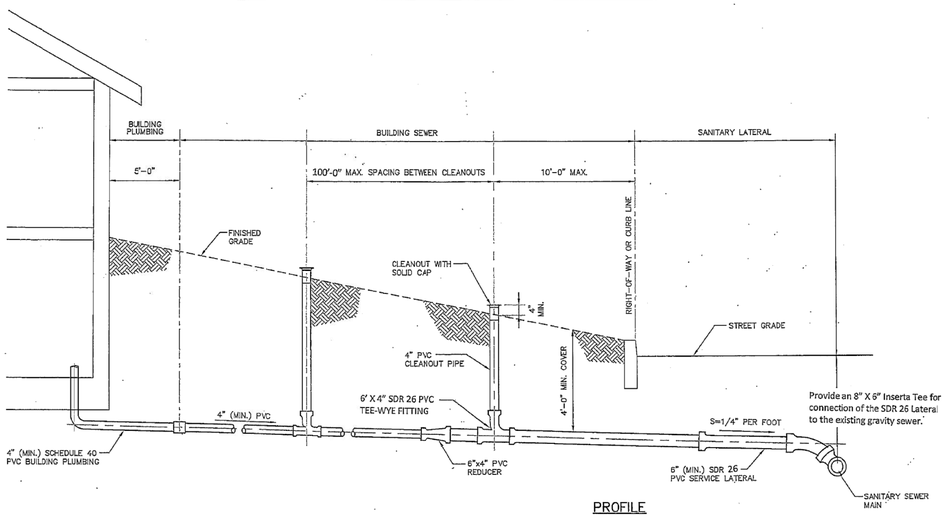




CAR	feet
Width	: 7.00
Track	: 6.00
Lock to Lock Time	6.0
Steering Angle	: 31.6

LEGEND

FRONT TIRE
REAR TIRES

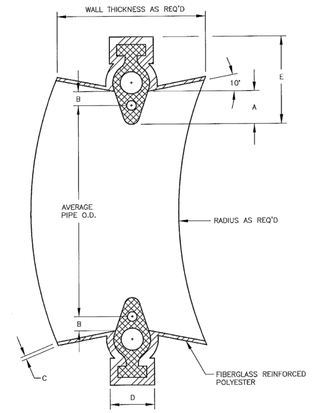


PROFILE

TYPICAL BUILDING SEWER INSTALLATION

NO SCALE

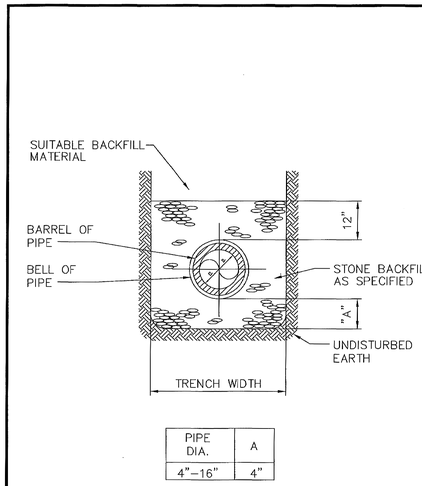
Lower Gwynedd Township
Sewer Lateral Profile



PIPE DIA.	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E
4.00 (101.6) – 6.00 (152.4)	.875 (22.23)	.375 (9.53)	.250 (6.35)	1.250 (31.75)	1.975 (50.17)
8.00 (203.2) – 24.0 (609.6)	1.375 (34.93)	.625 (15.88)	.250 (6.35)	1.500 (38.10)	2.725 (69.22)
30.0 (762.0) – 59.5 (1511.3)	1.750 (44.45)	.750 (19.05)	.250 (6.35)	1.750 (44.45)	3.375 (85.73)
60.0 (1524) – UP	2.125 (53.98)	.875 (22.23)	.250 (6.35)	2.000 (50.80)	4.000 (101.6)

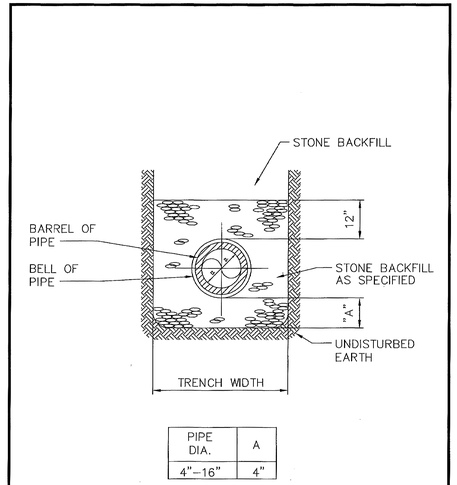
FLATWALL FIELD SLEEVE CAN BE MADE UPON REQUEST.
NOTE: TO DETERMINE OVERALL HEIGHT OF FIELD SLEEVE USE THE FOLLOWING FORMULA:
DIM. E x 2 + A LOK I.D. = HEIGHT

REVISIONS	BCM Engineers ©2000 FIELD SLEEVE DETAIL	DRAWN: GBT SCALE: NONE PLATE NO. S-35



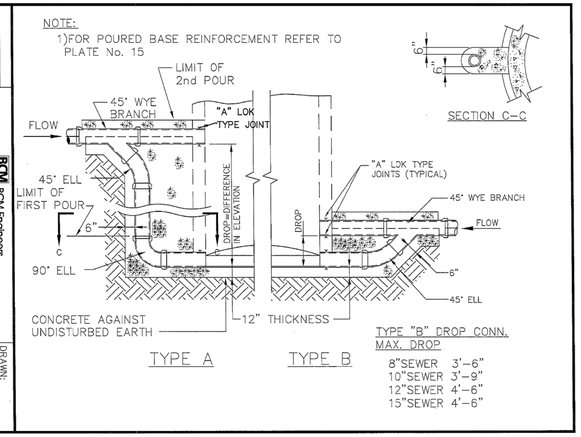
PIPE DIA.	A
4"–16"	4"

JAN. 2, 2001 REVISIONS	STONE BACKFILL IN NON TRAFFIC AREAS	DRAWN: SCALE: NONE PLATE NO. S-29

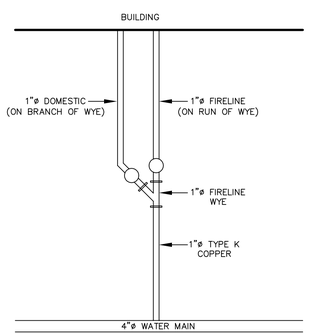


PIPE DIA.	A
4"–16"	4"

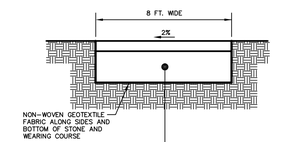
JAN. 2, 2001 REVISIONS	STONE BACKFILL IN TRAFFIC AREA	DRAWN: SCALE: NONE PLATE NO. S-29A



REVISIONS	BCM Engineers ©2000 DROP MANHOLE PVC PIPE INSTALLATION	DRAWN: SCALE: NONE PLATE NO. S-6

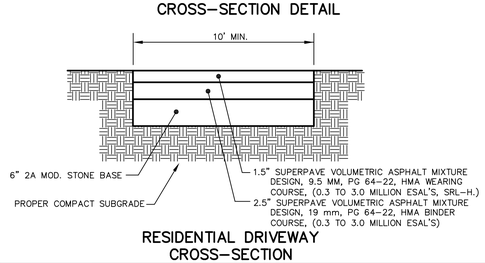


FIRE/WATER SERVICE DETAIL

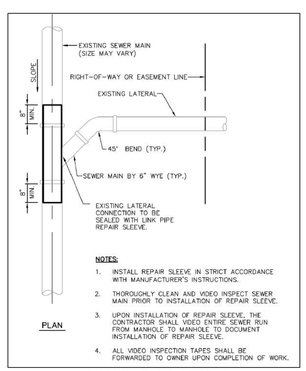


1) 2" SUPERPAVE VOLUMETRIC ASPHALT MIXTURE DESIGN, 9.5 MM, PG 64-22, HMA WEARING COURSE, 0.3-3.0 ESALS, SRL-H.
2) 6" MIN. 2A MODIFIED STONE BASE.
3) PREPARED SUBGRADE

8 FT. WIDE PAVED TRAIL CROSS-SECTION DETAIL



RESIDENTIAL DRIVEWAY CROSS-SECTION



NOTES:
1. INSTALL REPAIR SLEEVE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. THOROUGHLY CLEAN AND VIDEO INSPECT SEWER MAIN PRIOR TO INSTALLATION OF REPAIR SLEEVE.
3. UPON INSTALLATION OF REPAIR SLEEVE, THE CONTRACTOR SHALL VIDEO ENTIRE SEWER RUN FROM MANHOLE TO MANHOLE TO DOCUMENT INSTALLATION OF REPAIR SLEEVE.
4. ALL VIDEO INSPECTION TAPES SHALL BE FORWARDED TO OWNER UPON COMPLETION OF WORK.

SANITARY LATERAL ABANDONMENT DETAIL

No.	REVISIONS	DATE
5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

CONSTRUCTION DETAIL SHEET
AS PART OF
SPRING HOUSE COURT
PREPARED FOR
HALLMARK HOMES – SPRING HOUSE COURT LLC
SITE SITUATE IN
LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

STA Engineering, Inc.
Civil Engineers • Land Surveyors
2499 KNIGHT ROAD, PENNSBURG, PA 18073
PH: (215) 679-0200; www.stotac.com

PLAN SCALE HORIZONTAL:	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
N.T.S.	J.A.C.	S.A.R.	9 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646DET	

445 FT. DESIRABLE STOPPING SIGHT DISTANCE
445 FT. REQUIRED STOPPING SIGHT DISTANCE
800+ FT. AVAILABLE STOPPING SIGHT DISTANCE

540 FT. DESIRABLE STOPPING SIGHT DISTANCE
540 FT. REQUIRED STOPPING SIGHT DISTANCE
800+ FT. AVAILABLE STOPPING SIGHT DISTANCE

DISTANCE TO FAIRLAND DRIVE INTERSECTION = 398'
DISTANCE TO NEAREST DRIVEWAY = NONE

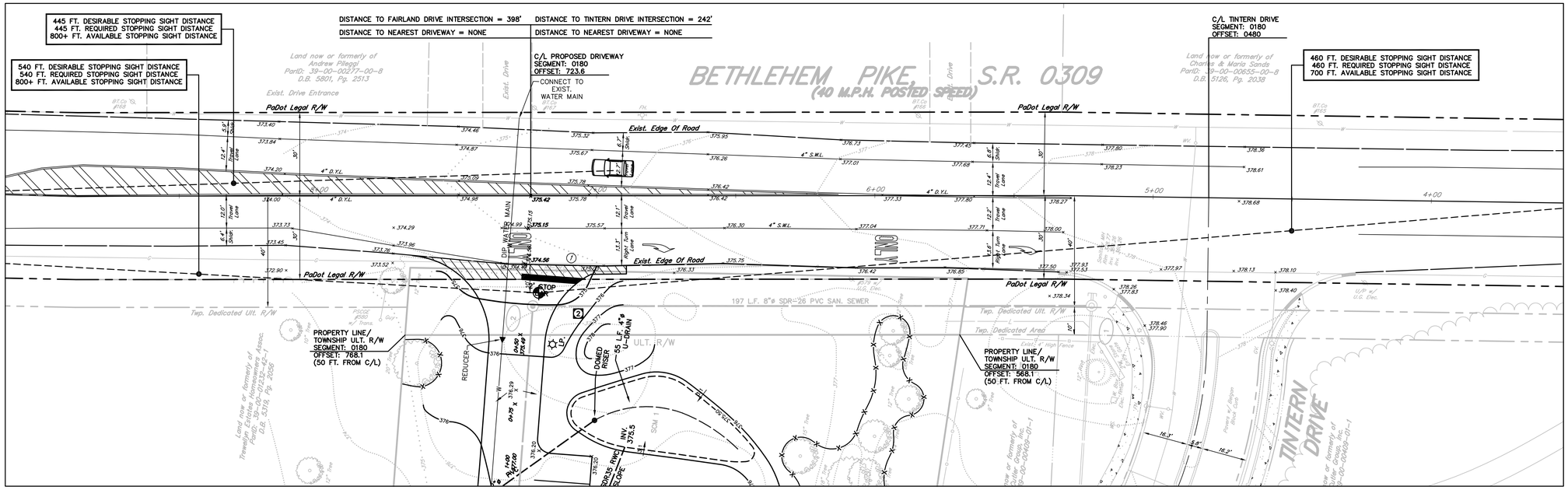
DISTANCE TO TINTERN DRIVE INTERSECTION = 242'
DISTANCE TO NEAREST DRIVEWAY = NONE

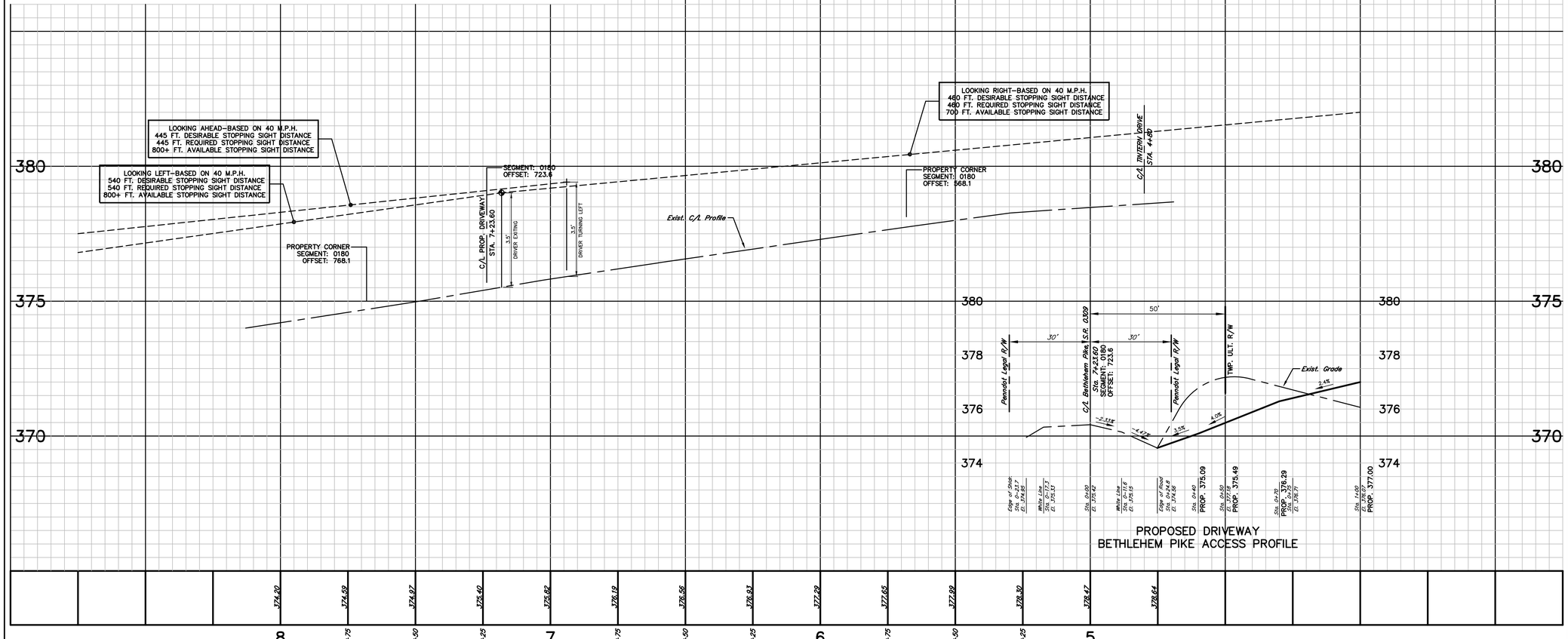
C/L PROPOSED DRIVEWAY
SEGMENT: 0180
OFFSET: 723.6

CONNECT TO EXIST. WATER MAIN

C/L TINTERN DRIVE
SEGMENT: 0180
OFFSET: 0480

460 FT. DESIRABLE STOPPING SIGHT DISTANCE
460 FT. REQUIRED STOPPING SIGHT DISTANCE
700 FT. AVAILABLE STOPPING SIGHT DISTANCE





ACT 50 UTILITY NOTE

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDER-GROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 121 AS PER THE AMENDMENT OF PA ACT 287 OF 1974, EFFECTIVE OCTOBER 30, 2017 CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.

FULL-DEPTH CONSTRUCTION

PERMIT NO. 06102989
EPS NO. 206070

GRAPHIC SCALE

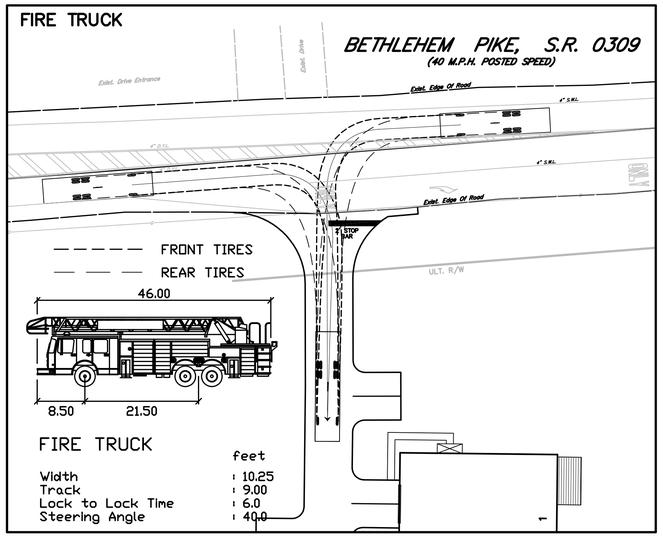
No.	REVISIONS	DATE
5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

PLAN AND PROFILE
OF
BETHLEHEM PIKE, S.R. 0309
AS PART OF
SPRING HOUSE COURT
PREPARED FOR
HALLMARK HOMES – SPRING HOUSE COURT LLC
SITE SITUATE IN
LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

STA Engineering, Inc.
Civil Engineers • Land Surveyors
2499 KNIGHT ROAD, PENNSBURG, PA 18073
PH: (215) 679-0200; www.stotac.com

PLAN SCALE	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
HORIZONTAL: 1" = 20' VERTICAL: 1" = 2'	A.C.H.	S.A.R.	10 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646P309	

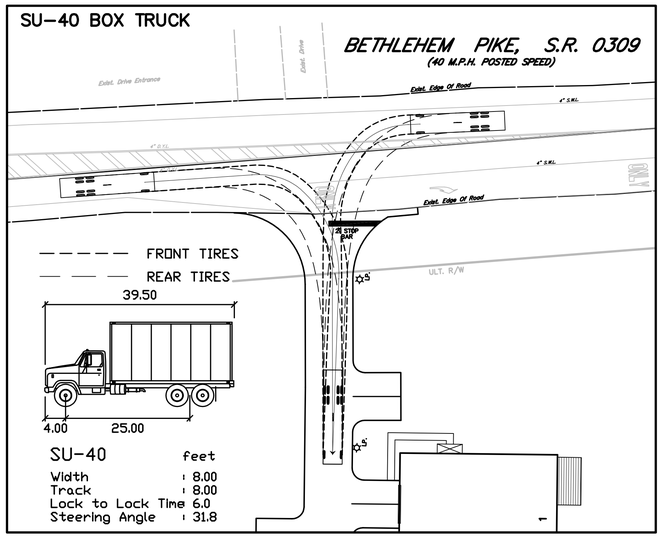
FIRE TRUCK



FIRE TRUCK

	feet
Width	: 10.25
Track	: 9.00
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

SU-40 BOX TRUCK



SU-40

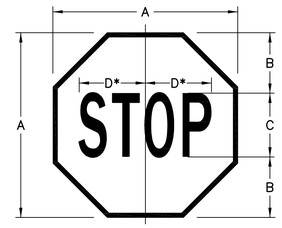
	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	6.0
Steering Angle	: 31.8

SIGN TABULATION – BETHLEHEM PIKE, S.R. 0309

PLAN SYMBOL	OWNER (P -- Pennitee, M -- Municipality, S -- State)	SERIES	SIZE	DESCRIPTION	STATION	STATE ROUTE	SEGMENT	OFFSET	ACTION
1	M	R3-7R	30"x30"	RIGHT LANE MUST TURN RIGHT	7+11 LT	0309	0180	687	RELOCATE
2	P	R1-1	24"x24"	STOP SIGN	7+08 LT	0309	0180	690	NEW

SIGN LEGEND

- (B) EXISTING SIGN TO REMAIN
- [B] EXISTING SIGN TO BE REMOVED
- (B) EXISTING SIGN TO BE RELOCATED
- [B] PROPOSED SIGN



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

DIMENSIONS – IN					
SIGN SIZE A x A.	B	C	D	BOR-DER	BLANK STD.
24" x 24"	8	8C	10	0.6	B1-24

* REDUCE SPACING 40%

R1-1

CONSTRUCTION NOTES

1. THE EXISTING PAVEMENT SECTION FOR S.R. 0309 WAS DETERMINED FROM PENNDOT PAVEMENT HISTORY RMS DATA.
2. THE PROPOSED PAVEMENT SECTION MUST BE AS INDICATED ON THE PLAN, OR MATCH THE EXISTING AS FOUND IN THE FIELD, WHICHEVER IS GREATER. THE PROPOSED PAVEMENT SECTION IS TO BE USED WITH THE PENNDOT LEGAL RIGHT-OF-WAY.
3. SAWCUT ALONG THE EXISTING WHITE LINE AND INSTALL THE FULL DEPTH PAVEMENT SECTIONS, UNLESS OTHERWISE SHOWN ON THE CROSS-SECTIONS.
4. SAWLINE LOCATIONS MAY BE ADJUSTED IN THE FIELD AS NECESSARY BY A PENNDOT FIELD REPRESENTATIVE.
5. NO UNSUITABLE MATERIAL IS TO BE USED IN ANY PORTION OF THE ROADWAY CONSTRUCTION. REMOVE ANY SUBGRADE THAT CANNOT BE PROPERLY COMPACTED AND TREAT AS UNSUITABLE MATERIAL. UNDERCUTTING AND/OR STABILIZATION MAY BE REQUIRED. THE SUBGRADE MUST BE APPROVED BY A PENNDOT REPRESENTATIVE PRIOR TO REPLACEMENT OF THE SUBBASE.
6. SUPERPAVE WEARING LEVELING COURSE WILL BE PLACED IN MAXIMUM LIFTS OF 2.5 INCHES THICK.
7. ALL LONGITUDINAL JOINTS WILL BE SEALED WITH PG 64-22.

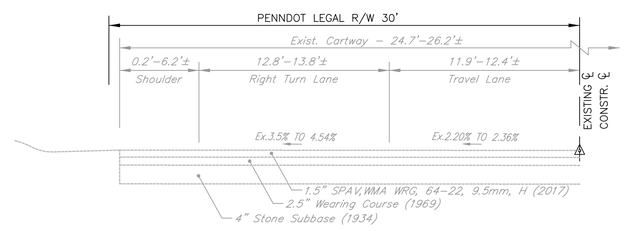
(1) SUPERPAVE ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, PG 64-22, 0.3 TO 3 MILLION DESIGN ESALS, 9.5 MM MIXTURE, 1.5" DEPTH, SRL-H

(2) SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BINDER COURSE, PG 64-22, 0.3 TO 3 MILLION DESIGN ESALS, 19.0 MM MIXTURE, 2.5" DEPTH.

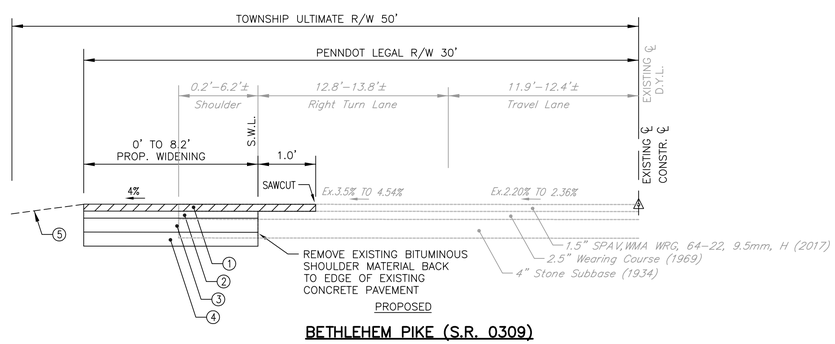
(3) SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BASE COURSE, PG 64-22, 0.3 TO 3 MILLION DESIGN ESALS, 25.0 MM MIXTURE, 6" DEPTH

(4) SUBBASE, 8" DEPTH (NO. 2A)

(5) TOP SOIL, SEEDING AND MULCH. 4:1 MAX. SLOPE.



EXISTING



PROPOSED

BETHLEHEM PIKE (S.R. 0309)

NOT TO SCALE
STA. 6+92 TO STA. 7+61

PADOT NOTES

1. ALL WORK IN PENNDOT RIGHT-OF-WAY IS TO BE BUILT IN ACCORDANCE WITH:
   1. PENNDOT PUBLICATION 408 SPECIFICATIONS
   2. PENNDOT PUBLICATION 34, 35, 41, AND 42
   3. PENNDOT PUBLICATION 72M
   4. PENNDOT PUBLICATIONS 148 AND 149
   5. PENNDOT PUBLICATION 282
   6. PENNDOT PUBLICATION 213 (67 PA CODE, CHAPTER 212)
   7. PENNDOT PUBLICATION 70M
   8. PENNDOT PUBLICATION 111
   9. PENNDOT PUBLICATION 13M
   10. PENNDOT PUBLICATION 236
   11. PENNSYLVANIA CODE TITLE 67, CHAPTERS 441 AND 459
   12. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) – LATEST PENNDOT ADOPTED EDITION
2. THIS PERMIT MAY BE RESTRICTED ON WORKING HOURS AND TIMES FOR HOLIDAYS, WEEKENDS, AND SPECIAL OR UNFORESEEN EVENTS AND WILL REQUIRE APPROVAL FROM THE DISTRICT TRAFFIC ENGINEER PRIOR TO WORKING DURING THESE PERIODS. REFER TO MPT PLAN FOR RESTRICTIONS.
3. FOR PERMITS REQUIRING A STATE INSPECTOR, FOLLOWING THE PERMITTEE'S REQUEST TO BEGIN CONSTRUCTION, ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE COMPLETED WITHOUT TIME INTERRUPTIONS.
4. WHERE ROADWAY IMPROVEMENTS OCCUR IN FRONT OF ANOTHER PERSON OR PERSON'S PROPERTY/FRONTAGE, THE PERMITTEE WILL BE REQUIRED TO PROVIDE EVIDENCE OF THEIR BEING NOTIFIED OF THE PROPOSED WORK.
5. MATERIAL CERTIFICATIONS MUST BE PROVIDED, BY AN APPROVED MANUFACTURER LISTED IN THE DEPARTMENT'S PUBLICATION 35 BULLETIN 15, FOR ALL MATERIALS AND STRUCTURES WITHIN PENNDOT R/W.
6. FINAL APPROVAL OF THE PROPOSED SAWCUT LOCATIONS WILL BE AT THE DISCRETION OF THE INSPECTOR-IN-CHARGE AND WILL BE CONFIRMED AT THE PRE-CONSTRUCTION MEETING. IF THE SAWCUT MUST BE LOCATED WITHIN A TRAVEL LANE, IT WILL BE NECESSARY TO MILL AND OVERLAY THE TRAVEL LANE TO PREVENT A JOINT IN THE WHEEL PATH.
7. MODIFICATIONS TO EXISTING DRAINAGE STRUCTURES MAY RESULT IN THE NEED TO REPLACE THE STRUCTURE. REPLACEMENT WILL BE AT THE DISCRETION OF THE INSPECTOR IN CHARGE.
8. CONTRACTOR WILL NOTIFY THE PENNDOT PRESS OFFICE AT 610-205-6800 A MINIMUM OF TWO WEEKS PRIOR TO RESTRICTING OR CLOSING A TRAVEL LANE.
9. IF THE PROPOSED IMPROVEMENTS REQUIRE THE RELOCATION OF PennDOT FIBER OPTIC CABLE(S), THE PERMITTEE IS RESPONSIBLE FOR THE FULL EXPENSE OF RELOCATING THESE FACILITIES. ANY FIBER OPTIC CABLE THAT REQUIRES RELOCATION MUST BE MOVED BY A CONTRACTOR CERTIFIED BY PennDOT TO PERFORM THIS TYPE OF WORK. CONTRACTOR MUST CONTACT PENNDOT AT 610-205-6934 TO VERIFY LOCATION OF FIBER OPTIC CABLE.
10. SURVEY AND RECORD THE LOCATION OF EVERY SIGN WITHIN LIMITS OF WORK PRIOR TO REMOVING OR RELOCATING ANY SIGN.
11. A COPY OF THE MOST RECENT PENNDOT RC DETAILS WILL BE PROVIDED TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
12. PA ONE CALL: ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDER-GROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974, AS AMENDED, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
13. THE EXISTING SPEED LIMIT ON S.R. 0309 IS 40 M.P.H. THE RIGHT-OF-WAY IS FREE ACCESS.
14. THE DRIVEWAY HAS BEEN DESIGNED (AND WILL BE CONSTRUCTED AND MAINTAINED) CONSISTENT WITH TITLE 67, CHAPTER 441 REGULATIONS.
15. CONTACT PENNSYLVANIA ONE-CALL (1-800-242-1776) THREE WORKING DAYS BEFORE EXCAVATION OR DEMOLITION WORK.
16. THE PERMITTEE SHALL ENSURE THAT THE SIGHT DISTANCE AT THE DRIVEWAYS SERVICING OTHER PROPERTIES OR AT OTHER INTERSECTIONS IS NOT REDUCED [UNLESS EXISTING AND PROPOSED VALUES EXCEED THE DESIRABLE VALUES SPECIFIED IN THE PENNSYLVANIA CODE, TITLE 67, TRANSPORTATION, CHAPTER 441.8.h.1] AS A RESULT OF THE WORK PERFORMED IN ACCORDANCE WITH THE STATE HIGHWAY OCCUPANCY PERMIT. ALL SIGHT DISTANCE OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO EMBANKMENTS AND VEGETATION) SHALL BE REMOVED BY THE PERMITTEE TO PROVIDE A MINIMUM OF 540 FEET OF SIGHT DISTANCE TO THE LEFT AND 460 FEET OF SIGHT DISTANCE TO THE RIGHT FOR A DRIVER EXITING THE PROPOSED INTERSECTION ONTO ALLENTOWN ROAD. THE DRIVER MUST BE CONSIDERED TO BE POSITIONED TEN (10) FEET FROM THE NEAR EDGE OF THE CLOSEST HIGHWAY THROUGH TRAVEL LANE (FROM THE CURBLINE IF CURBING IS PRESENT AT AN EYE HEIGHT OF THREE FEET SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE. THE POINT SIGHTED BY THE EXITING DRIVER SHALL BE THREE FEET SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE LOCATED IN THE CENTER OF THE CLOSEST HIGHWAY TRAVEL LANE DESIGNATED FOR USE BY APPROACHING TRAFFIC. THIS SIGHT DISTANCE SHALL BE MAINTAINED BY THE PERMITTEE.
17. A SEPARATE HIGHWAY OCCUPANCY PERMIT APPLICATION MUST BE SUBMITTED TO THE DEPARTMENT FOR THE RELOCATION OF ANY UTILITIES. THE APPLICANT IS RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY FACILITY AND THE DISTRICT UTILITY UNIT. THE RESPONSIBILITY FOR ENSURING THAT ALL UTILITY POLES WITHIN THE PROPOSED PAVING ARE RELOCATED OUTSIDE OF PAVED AREAS AND SHOULDERS SHALL BE THAT OF THE PERMITTEE. THE UTILITY POLES MUST BE RELOCATED BEFORE THE START OF ANY PAVING OPERATIONS. IF POSSIBLE, THE UTILITY POLES WITHIN THE LIMITS OF WORK SHOULD BE RELOCATED OUTSIDE THE CLEAR ZONE FOR STATE HIGHWAY TRAFFIC. OTHERWISE, THEY MUST BE RELOCATED TO THE EDGE OF THE LEGAL RIGHT-OF-WAY. UTILITY RELOCATIONS MUST BE IN ACCORDANCE WITH P.A.D.O.T. DESIGN MANUAL PART 5. ALL UTILITY RELOCATION PERMITS TAKE PRECEDENCE OVER UTILITY RELOCATION POSITIONS SHOWN ON THESE H.O.P. PLANS.
18. PADOT LEGAL RIGHT OF WAY INFORMATION FOR BETHLEHEM PIKE (S.R. 0309):
    (a) 60 FEET: DRAWINGS FOR CONSTRUCTION OF LEG. ROUTE 153 SECTION M01 IN MONTGOMERY COUNTY, 11 SHEETS, APPROVED MARCH 12, 1984 BY PENNDOT.
    (b) TO THE BEST OF OUR KNOWLEDGE, NO ADDITIONAL RECORDED PLANS ARE AVAILABLE.
19. ACCESS TO ALL DRIVEWAYS MUST BE MAINTAINED AT ALL TIMES.
20. ACCESS SIGNING AND PAVEMENT MARKINGS AUTHORIZED BY THE PERMIT MUST BE MAINTAINED BY THE PERMITTEE.
21. ALL TRENCH OPERATIONS WITHIN THE LEGAL RIGHT-OF-WAY OF THE STATE HIGHWAY MUST BE CONDUCTED IN ACCORDANCE WITH OSHA'S EXCAVATION STANDARD 29 cfr PART 1926, SUBPART p.

PERMIT NO. 06102989
EPS NO. 206070

No.	REVISIONS	DATE
5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

PENNDOT DETAIL SHEET
AS PART OF
SPRING HOUSE COURT
PREPARED FOR
HALLMARK HOMES –
SPRING HOUSE COURT LLC
SITE SITUATE IN
LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

STA Engineering, Inc.
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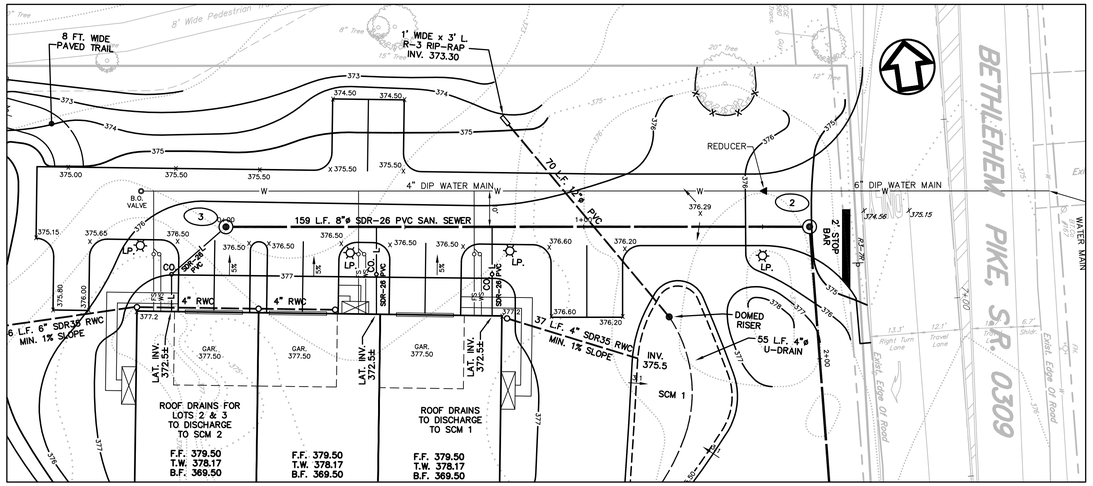
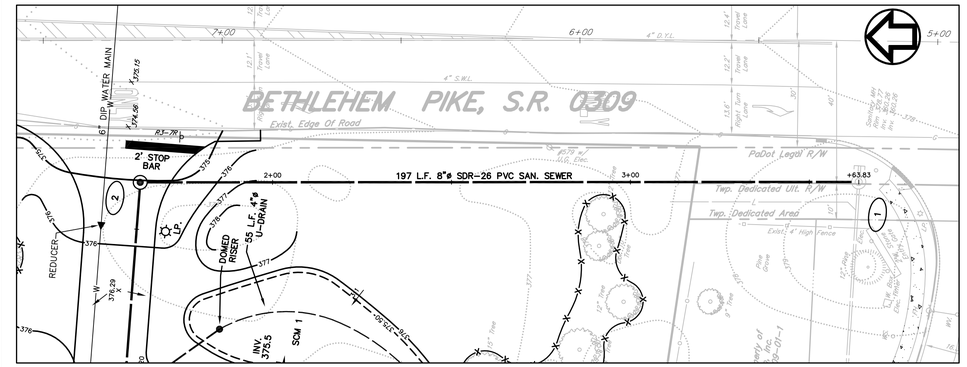
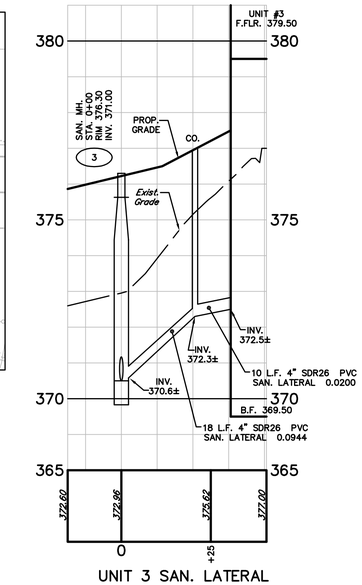
2499 KNIGHT ROAD, PENNSBURG, PA 18073
PH: (215) 679-0200; www.stotac.com

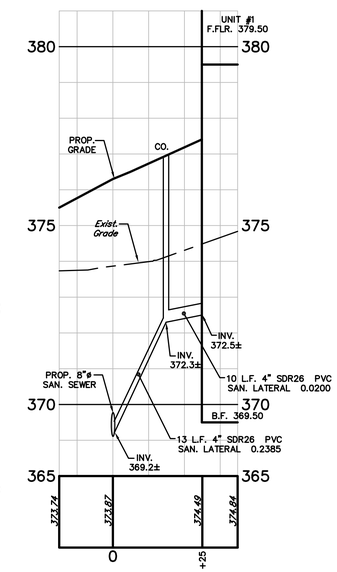
PLAN SCALE HORIZONTAL:	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
N.T.S.	J.A.C.	S.A.R.	11 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646P309	



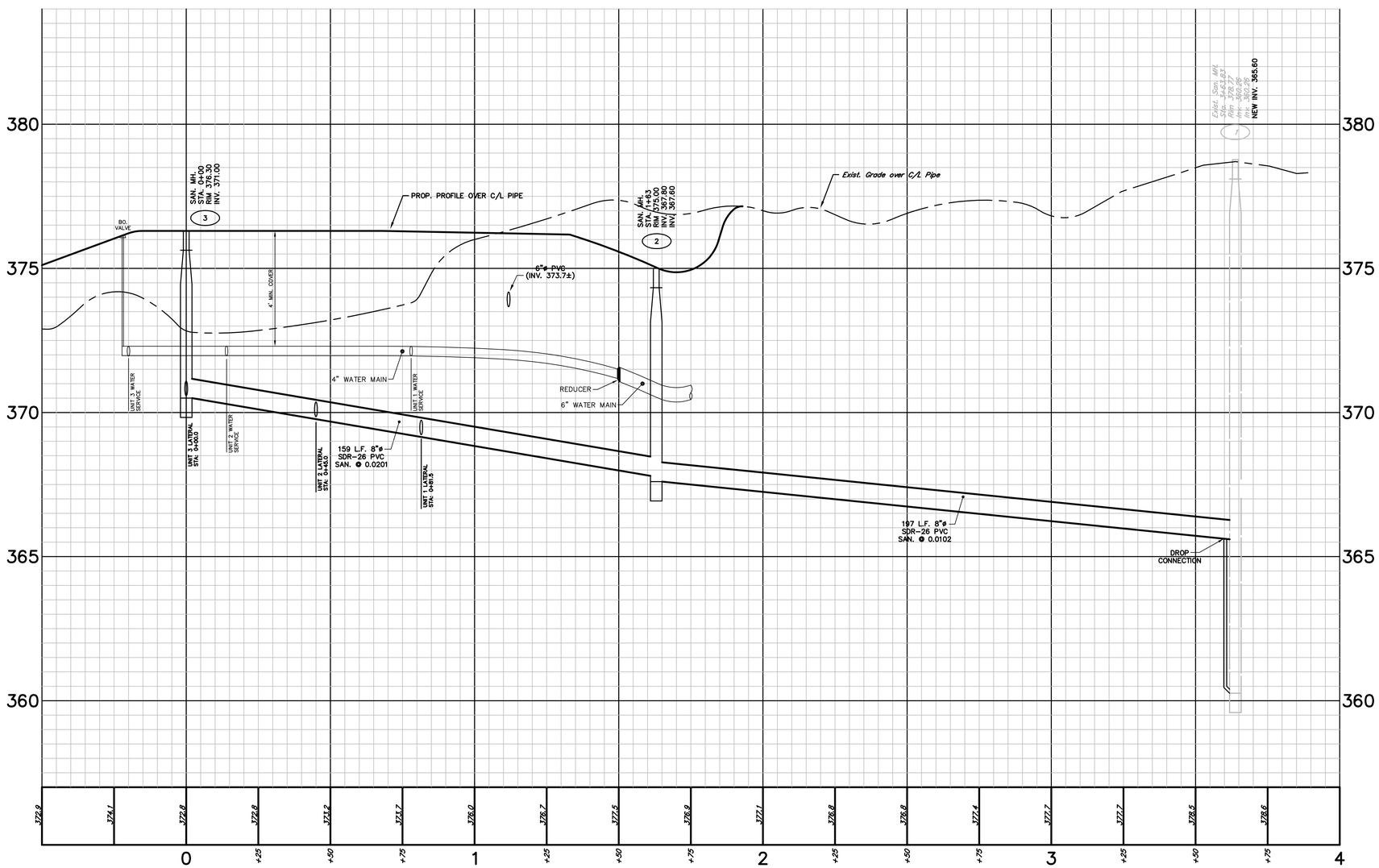


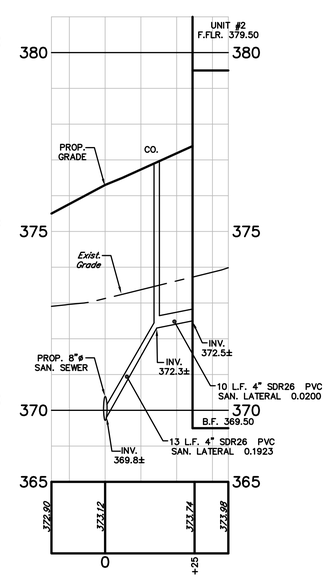


UNIT 3 SAN. LATERAL



UNIT 1 SAN. LATERAL





UNIT 2 SAN. LATERAL

20 0 10 20 40 60

GRAPHIC SCALE

No.	REVISIONS	DATE
5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

PLAN AND PROFILE
OF
SANITARY SEWER
AS PART OF
SPRING HOUSE COURT
PREPARED FOR
HALLMARK HOMES – SPRING HOUSE COURT LLC
SITE SITUATE IN
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PLAN SCALE	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
HORIZONTAL: 1" = 20' VERTICAL: 1" = 2'	J.A..C	S.A.R.	12 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646PSAN	

PATA 101 (Old PATA 5) - Notes

1. The shadow vehicle and traffic control devices are not required if the work space is outside the highway right-of-way, behind barrier, more than 2' behind curb, or 15' or more from the edge of any roadway.

2. For operations of 60 minutes or less, all traffic control devces may be eliminated if a shadow vehicle is present.

3. For divided highways and one-way highways where it is physically possible, advance warning signs should also be placed on the left-hand side of the roadway.

4. When a shadow vehicle is not used, distance A is measured from the Road Work (W20-1) sign location to beginning of work space.

Signs

W20-1

Sign Spacing Chart

Condition	Distance A Feet	B Feet	C Feet	F Feet
Urban 35 MPH or less	100	100	100	100
Urban Greater than 35 MPH	350	350	350	350
Rural	500	500	500	500

When multiple distance plaques are used on advance warning signs, they shall all be of the same series type.
Example: either all "AHEAD" or XXX FEET.

Taper Length Formulas

S	L
40 MPH or less	$L = \frac{WS^2}{60}$
45 MPH or more	L = WS

S = Regulatory Speed Limit
W = Width of Offset
L = Length

Distance and Spacing Quick Reference Chart

Speed MPH	W Feet	L Feet	1/2L Feet	1/3L Feet	Min. Channelizing Devices Per Taper Type (Length) L	1/2L	1/3L	50'	D Feet	E Feet	H Feet
25	10	105	55	35	6	6	6	6	50	155	150
	11	115	60	40							
	12	125	65	45							
30	10	150	75	50	6	6	6	6	60	200	150
	11	165	85	55	7						
	12	180	90	60	7						
35	10	205	105	70	7	6	6	6	70	250	150
	11	225	115	75	8						
	12	245	125	85	8						
40	10	270	135	90	8	6	6	6	80	305	150
	11	295	150	100	9						
	12	320	160	110	9						
45	10	450	225	150	11	6	6	6	90	360	150
	11	495	250	165	12	7					
	12	540	270	180	13	7					
50	10	500	250	170	11	6	6	6	100	425	250
	11	550	275	185	12	7					
	12	600	300	200	13	7					
55	10	550	275	185	11	6	6	6	110	495	250
	11	605	305	205	12	7					
	12	660	330	220	13	7					

Note: Channelizing devices used in taper shall be equally spaced at ½ D Max.

PATA 107 (Old PATA 10a) - Notes

1. Each flagger shall be clearly visible to traffic for a minimum distance of E and shall be in constant communication with all other flaggers.

2. For operations of 15 minutes or less:
   a. The Road Work (W20-1), One Lane Road (W20-4), and Flagger Symbol (W20-7) signs are not required.
   b. All channelizing devices may be eliminated if a shadow vehicle is present.

3. The buffer space shall be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.

4. When a shadow vehicle is not used, distance E is measured from end of taper to beginning of work space.

Signs

W20-1 W20-4 W20-7

Sign Spacing Chart

Condition	Distance A Feet	B Feet	C Feet	F Feet
Urban 35 MPH or less	100	100	100	100
Urban Greater than 35 MPH	350	350	350	350
Rural	500	500	500	500

When multiple distance plaques are used on advance warning signs, they shall all be of the same series type.
Example: either all "AHEAD" or XXX FEET.

Taper Length Formulas

S	L
40 MPH or less	$L = \frac{WS^2}{60}$
45 MPH or more	L = WS

S = Regulatory Speed Limit
W = Width of Offset
L = Length

Distance and Spacing Quick Reference Chart

Speed MPH	W Feet	L Feet	1/2L Feet	1/3L Feet	Min. Channelizing Devices Per Taper Type (Length) L	1/2L	1/3L	50'	D Feet	E Feet	H Feet
25	10	105	55	35	6	6	6	6	50	155	150
	11	115	60	40							
	12	125	65	45							
30	10	150	75	50	6	6	6	6	60	200	150
	11	165	85	55	7						
	12	180	90	60	7						
35	10	205	105	70	7	6	6	6	70	250	150
	11	225	115	75	8						
	12	245	125	85	8						
40	10	270	135	90	8	6	6	6	80	305	150
	11	295	150	100	9						
	12	320	160	110	9						
45	10	450	225	150	11	6	6	6	90	360	150
	11	495	250	165	12	7					
	12	540	270	180	13	7					
50	10	500	250	170	11	6	6	6	100	425	250
	11	550	275	185	12	7					
	12	600	300	200	13	7					
55	10	550	275	185	11	6	6	6	110	495	250
	11	605	305	205	12	7					
	12	660	330	220	13	7					

Note: Channelizing devices used in taper shall be equally spaced at ½ D Max.

PATA 201 (Old PATA 24) - Notes

1. Traffic control devices are not required if the work space is outside the highway right-of-way, behind barrier, more than 2'-0" behind curb, or 15' or more from the edge of the roadway.

2. For divided highways and one-way highways where it is physically possible, advance warning signs should also be placed on the left-hand side of the roadway.

3. When a shadow vehicle is not used, distance A is measured from sign to beginning of work space.

Signs

W20-1 G20-2

Sign Spacing Chart

Condition	Distance A Feet	B Feet	C Feet	F Feet
Urban 35 MPH or less	100	190	100	100
Urban Greater than 35 MPH	350	310	350	350
Rural	500	530	500	500

When multiple distance plaques are used on advance warning signs, they shall all be of the same series type.
Example: either all "AHEAD" or XXX FEET.

Taper Length Formulas

S	L
40 MPH or less	$L = \frac{WS^2}{60}$
45 MPH or more	L = WS

S = Regulatory Speed Limit
W = Width of Offset
L = Length

Distance and Spacing Quick Reference Chart

Speed MPH	W Feet	L Feet	1/2L Feet	1/3L Feet	Min. Channelizing Devices Per Taper Type (Length) L	1/2L	1/3L	50'	D Feet	E Feet	H Feet
25	10	105	55	35	6	6	6	6	50	155	150
	11	115	60	40							
	12	125	65	45							
30	10	150	75	50	6	6	6	6	60	200	150
	11	165	85	55	7						
	12	180	90	60	7						
35	10	205	105	70	7	6	6	6	70	250	150
	11	225	115	75	8						
	12	245	125	85	8						
40	10	270	135	90	8	6	6	6	80	305	150
	11	295	150	100	9						
	12	320	160	110	9						
45	10	450	225	150	11	6	6	6	90	360	150
	11	495	250	165	12	7					
	12	540	270	180	13	7					
50	10	500	250	170	11	6	6	6	100	425	250
	11	550	275	185	12	7					
	12	600	300	200	13	7					
55	10	550	275	185	11	6	6	6	110	495	250
	11	605	305	205	12	7					
	12	660	330	220	13	7					

Note: Channelizing devices used in taper shall be equally spaced at ½ D Max.

PATA 102 (Old PATA 7) - Notes

1. If the work space is completely within a parking lane and parking is present, the taper or shadow vehicle is not required.

2. For operations of 15 minutes or less:
   a. The Road Work (W20-1) sign is not required.
   b. All channelizing devices may be eliminated if a shadow vehicle is present.

3. For divided highways and one-way highways where it is physically possible, advance warning signs should also be placed on the left-hand side of the roadway.

4. When a shadow vehicle is not used, distance E is measured from end of taper to beginning of work space.

Signs

W20-1

Sign Spacing Chart

Condition	Distance A Feet	B Feet	C Feet	F Feet
Urban 35 MPH or less	100	100	100	100
Urban Greater than 35 MPH	350	350	350	350
Rural	500	500	500	500

When multiple distance plaques are used on advance warning signs, they shall all be of the same series type.
Example: either all "AHEAD" or XXX FEET.

Taper Length Formulas

S	L
40 MPH or less	$L = \frac{WS^2}{60}$
45 MPH or more	L = WS

S = Regulatory Speed Limit
W = Width of Offset
L = Length

Distance and Spacing Quick Reference Chart

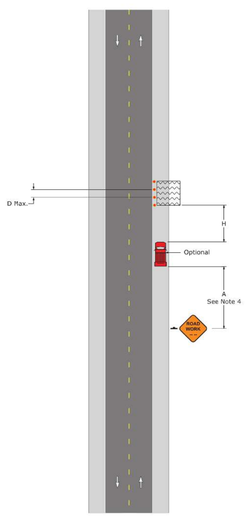
Speed MPH	W Feet	L Feet	1/2L Feet	1/3L Feet	Min. Channelizing Devices Per Taper Type (Length) L	1/2L	1/3L	50'	D Feet	E Feet	H Feet
25	10	105	55	35	6	6	6	6	50	155	150
	11	115	60	40							
	12	125	65	45							
30	10	150	75	50	6	6	6	6	60	200	150
	11	165	85	55	7						
	12	180	90	60	7						
35	10	205	105	70	7	6	6	6	70	250	150
	11	225	115	75	8						
	12	245	125	85	8						
40	10	270	135	90	8	6	6	6	80	305	150
	11	295	150	100	9						
	12	320	160	110	9						
45	10	450	225	150	11	6	6	6	90	360	150
	11	495	250	165	12	7					
	12	540	270	180	13	7					
50	10	500	250	170	11	6	6	6	100	425	250
	11	550	275	185	12	7					
	12	600	300	200	13	7					
55	10	550	275	185	11	6	6	6	110	495	250
	11	605	305	205	12	7					
	12	660	330	220	13	7					

Note: Channelizing devices used in taper shall be equally spaced at ½ D Max.

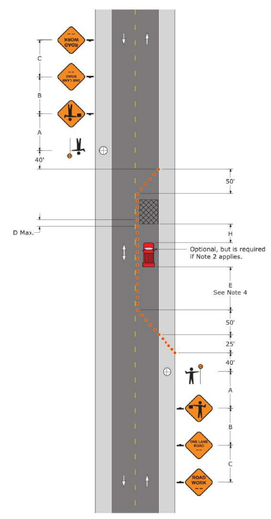
MPT NOTES

1. THIS WORK CONSISTS OF THE MAINTENANCE AND PROTECTION OF TRAFFIC AND THE PROTECTION OF THE PUBLIC WHEN APPROACHING AND DEPARTING THE CONSTRUCTION AREA AND WITHIN THE LIMITS OF CONSTRUCTION.
2. FURNISH, ERECT, PLACE AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES. MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES CONSISTENT WITH THE METHODS INDICATED ON THESE DRAWINGS AND THE FOLLOWING:
   1. PENNDOT PUBLICATION 35;
   2. PENNDOT PUBLICATION 46;
   3. PENNDOT PUBLICATION 72M;
   4. PENNDOT PUBLICATION 111;
   5. PENNDOT PUBLICATION 212;
   6. PENNDOT PUBLICATION 213;
   7. PENNDOT PUBLICATION 236;
   8. PENNDOT PUBLICATION 408; AND
   9. MUTCD, CURRENT EDITION.
3. REMOVE THESE DEVICES IMMEDIATELY UPON COMPLETION OF THE WORK. PENNDOT WILL REMOVE ANY TRAFFIC CONTROL DEVICES ERECTED BY DEPARTMENT FORCES.
4. PERMITTEE MUST ARRANGE FOR INSPECTION OF ALL TRAFFIC CONTROL DEVICES PRIOR TO START OF WORK.
5. COVER OR REMOVE ALL CONFLICTING SIGNS AND ERADICATE ALL CONFLICTING PAVEMENT MARKINGS.
6. MOUNT ALL LONG-TERM ADVANCE WARNING SIGNS ON TYPE III BARRICADES UNLESS OTHERWISE NOTED OR INSTRUCTED BY DISTRICT OFFICE.
7. ALL SIGNS AND DEVICES TO BE MAINTAINED IN NEW OR LIKE NEW CONDITION.
8. DRIVEWAYS WILL BE KEPT ACCESSIBLE AT ALL TIMES. LOCATE ALL SIGNS SO THAT SIGN DISTANCES WILL NOT BE OBSTRUCTED AT DRIVEWAYS AND LOCAL ROADS.
9. ALL CHANNELIZATION DEVICES, BARRICADES, AND SIGNS SHALL HAVE TYPE III OR BETTER PRISMATIC RETROREFLECTIVE SHEETING. SHEETING SHALL BE APPROVED AND LISTED IN PENNDOT PUBLICATION 35 (BULLETIN 15).
10. NO TRAFFIC RESTRICTIONS OR LANE CLOSURES ARE PERMITTED BETWEEN 6:00 AM AND 9:00 AM AND BETWEEN 3:00 PM AND 6:00 PM MONDAYS THROUGH FRIDAYS OR ON LEGAL HOLIDAYS AND WEEKENDS ASSOCIATED WITH LEGAL HOLIDAYS. ALL RESTRICTIONS AND CLOSURES ARE TO BE REMOVED BY NOON ON THE DAY PRIOR TO THE LEGAL HOLIDAY.
11. PERMITTEE SHALL NOTIFY EMERGENCY AUTHORITIES (E.G. POLICE, FIRE, MEDICAL), AFFECTED BUSINESSES, SCHOOL DISTRICT(S), THE GENERAL PUBLIC, THE DISTRICT PERMIT MANAGER AND THE DISTRICT APRAS COORDINATOR AT LEAST FOURTEEN DAYS PRIOR TO ANY SIGNIFICANT TRAFFIC IMPACTS (E.G. LATERAL WIDTH RESTRICTIONS LESS THAN 16 FEET, DETOURS).
12. MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE PATA DRAWINGS 101, 102, 107, AND 201 IN THE CURRENT PENNDOT PUBLICATION 213, "TEMPORARY TRAFFIC CONTROL GUIDELINES."
13. DROPOFFS CREATED BY CONSTRUCTION OPERATIONS SHALL BE TREATED CONSISTENT WITH PUBLICATION 408, SECTION 901.3(J).
14. REMOVE ALL SHORT-TERM WORK ZONE TRAFFIC CONTROL SIGNING UPON COMPLETION OF THAT DAY'S WORK PERIOD.
15. RESTRICTING TRAFFIC FLOW WITHIN THE WORK AREA SHALL BE MINIMIZED TO PREVENT TRAFFIC CONGESTION AND UNSAFE TRAFFIC CONDITIONS.
16. NOTIFY THE LOCAL MUNICIPALITY WHERE SIGNALIZED INTERSECTIONS FALL WITHIN THE WORK ZONE. DO NOT FLAG A SIGNALIZED INTERSECTION WITHOUT THE MUNICIPALITY PLACING THE SIGNAL ON FLASH.
17. MPT PATA DRAWING 102 MAY ONLY BE UTILIZED IF THERE IS ADEQUATE PAVEMENT WIDTH AND/OR SITE FRONTAGE AVAILABLE TO MAINTAIN THE MINIMUM TRAVEL LANE WIDTHS (10'/11'). USE OF MPT PATA DRAWING 102 IS AT THE DISCRETION OF A PENNDOT FIELD REPRESENTATIVE.
18. ALL DISTANCES MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
19. USE TYPE VII REFLECTIVE SHEETING MATERIAL FOR ALL LONG-TERM ADVANCE WARNING SIGNS. TYPE I SHEETING MAY BE USED ON "THIS ROADWAY TO BE UNDER CONSTRUCTION" SIGNS.
20. PROTECT ANY EXCAVATING OBSTRUCTIONS OR CONSTRUCTION WORK, SO AS NOT TO EXPOSE PEDESTRIANS TO HAZARDS.
21. THE CONTRACTOR MUST NOTIFY THE DISTRICT 6-0 PRESS OFFICE AT (610) 205-6800 TWO (2) WEEKS IN ADVANCE OF ANY LANE CLOSURES, RESTRICTIONS OR DETOURS.
22. BARRICADES, LIGHTING DEVICES, AND OTHER TRAFFIC CONTROL MEASURES SHALL BE PLACED IN ACCORDANCE WITH AND SHALL CONFORM TO PENNDOT SPECIFICATIONS PUBLICATION 408/2011, MUTCD STANDARDS, ADN PENNDOT PUBLICATION 213, "TEMPORARY TRAFFIC TRAFFIC CONTROL GUIDELINES", DATED JUNE 2014 AND 67 PA CODE, CHAPTER 212, LAST REVISED FEBRUARY 2008, OR MOST RECENT EDITION.
23. ERADICATE EXISTING PAVEMENT MARKINGS AND TEMPORARILY COVER OR REMOVE ANY SIGNS (INCLUDING OVERHEAD SIGNS) THAT ARE IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL MEASURES. DO NOT ATTACH TAPE OR ADHESIVE TO THE FACE OF ANY SIGNS THAT ARE TEMPORARILY COVERED DURING CONSTRUCTION OPERATIONS. ENSURE DURING THE REMOVAL AND STORAGE OF ALL SIGNS THAT THE SHEETING FACE IS NOT DAMAGED OR SCRATCHED. REPLACE IN KIND ALL SIGNS AND/OR POSTS DAMAGED DURING REMOVAL, STORAGE OR REINSTALLATION.
24. ALL SIGNS ARE TO BE MOUNTED ON TYPE III BARRICADES UNLESS OTHERWISE NOTED.
25. TRAFFIC FLOW WITHIN THE WORK AREA MUST NOT BE STOPPED FOR GREATER THAN A 5 MINUTE PERIOD AT ANY ONE TIME.
26. THE PROPOSED SITE ACCESS AND ASSOCIATED AUXILIARY LANES MUST REMAIN CLOSED WITH "ROAD CLOSED" SIGNS ON TYPE III BARRICADES AND BARRELS UNTIL THE SITE ACCESS/AUXILIARY LANES ARE READY TO BE OPENED.
27. ALL WORKERS SHALL FOLLOW THE REGULATIONS SET FORTH IN TITLE 23 OF THE CODE OF FEDERAL REGULATIONS (CFR) PART 634, EFFECTIVE NOVEMBER 24, 2008 IN REGARD TO THE WORKER'S SAFETY APPAREL.
28. THE CONTRACTOR MUST NOTIFY THE DISTRICT 6-0 TRAFFIC MANAGEMENT CENTER (TMC) TWO (2) DAYS IN ADVANCE OF ANY PROPOSED LANE OR SHOULDER RESTRICTIONS OR ROAD CLOSURES AND AND FIFTEEN (15) MINUTES PRIOR TO THE START OF WORK.

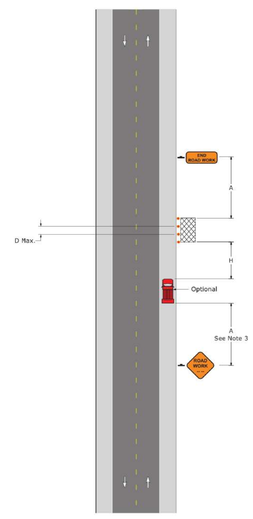
PATA 101 (Old PATA 5)
Work Space On Or Beyond The Shoulder (No Roadway Encroachment)



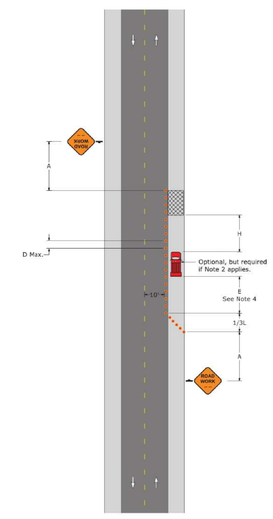
PATA 107 (Old PATA 10a)
Work In One Lane; Two Flaggers

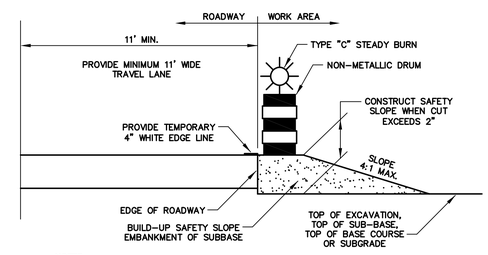


PATA 201 (Old PATA 24)
Work Space Beyond Shoulder



PATA 102 (Old PATA 7)
Work Space On Or Beyond The Shoulder (Minor Roadway Encroachment)





NOTES:

SAFETY BUILD-UP MUST BE USED ANY PLACE WHERE OPEN EXCAVATION ALONG ACTIVE ROADWAYS RESULTS IN A DROPOFF GREATER THAN 2".

A TEMPORARY 4" WHITE EDGE LINE SHALL BE PROVIDED IF THE EXISTING EDGE LINE IS TO BE REMOVED. MINIMUM EFFECTIVE LANE WIDTHS OF 11' SHALL BE PROVIDED. PROVIDE TEMPORARY PAVING AS REQUIRED TO MAINTAIN EFFECTIVE LANE WIDTH.

DROP-OFF DETAIL
(NOT TO SCALE)

PERMIT NO. 06102989
EPS NO. 206070

No.	REVISIONS	DATE
5	PER VARIOUS REVIEWS	JUNE 19, 2026
4	PER EQUITABLE OWNER	MAY 15, 2026
3	REVISE WATER MAIN CONNECTION PER NWWA COMMENT	NOV. 25, 2020
2	PER GILMORE & ASSOC. LTR (5/22/20) & MCMAHON LTR (4/30/20)	JUNE 24, 2020
1	PER VARIOUS REVIEWS	MAR. 12, 2020
	PLAN ORIGINATION DATE	OCT. 1, 2019

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
AS PART OF
SPRING HOUSE COURT
PREPARED FOR
HALLMARK HOMES –
SPRING HOUSE COURT LLC
SITE SITUATE IN
LOWER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

STA Engineering, Inc.
Civil Engineers • Land Surveyors
2499 KNIGHT ROAD, PENNSBURG, PA 18073
PH: (215) 679-0200; www.stotac.com

PLAN SCALE HORIZONTAL:	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
N.T.S.	J.A.C.	S.A.R.	13 OF 13
	PROJECT NUMBER 6646	DRAWING FILE NUMBER 6646DET	