Planning and Zoning Department
616 Germantown Pike, Lafayette Hill, PA 19444-1821
484-594-2625
www.whitemarshtwp.org

Subdivision and Land Development Cover Page for SLD # 04-22

Project Name: Ashford Consulting, LLC & Ashford Wealth Advisors, LLC

Address: 5 & 15 Germantown Pike

Date: January 27, 2022

Status: Under Review

Updates:
Fire Marshal Review Memo 2.1.2022
Montgomery County Planning Commission Review Letter 2.23.2022
Zoning Compliance Review Letter 3.2.2022
Township Engineer Review Letter 3.31.2022
Waiver Request Letter - Revised 4.7.2022 - SUPERCEDED
Shade Tree Commission Report - July 2022
Zoning Response Letter - 8.8.2022
Land Development Plan Set
Post Construction Stormwater Management Report 8.3.2022
HARB Presentation
HARB Minutes 6.8.2022
Fire Marshal Review Memo 8.16.2022
Zoning Ordinance Compliance Review Letter 8.22.2022
Township Engineer Review Letter - Review #2 - 9.13.2022
Hold Harmless Agreement
Waiver Request Letter - Revised 9.21.2022

PRELIMINARY / FINAL
LAND DEVELOPMENT PLANS
FOR

Ashford Wealth Advisors

SITUATED IN
WHITEMARSH TOWNSHIP,
MONTGOMERY COUNTY, PENNSYLVANIA

WHITEMARSH BOARD OF SUPERVISORS:

THIS PLAN WAS APPROVED BY THE BOARD OF SUPERVISORS OF WHITEMARSH TOWNSHIP AT A MEETING HELD ON THE_____DAY OF _____ , 20___.

_____ _____
(CHAIRMAN) *(SECRETARY)*

WHITEMARSH TOWNSHIP ENGINEER:

_____
(ENGINEER) *(DATE)*

MONTGOMERY COUNTY PLANNING COMMISSION CERTIFICATION:

THIS PLAN WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON _____ _____, MCPC FILE NUMBER_____ .

_____
(DIRECTOR)

CERTIFICATE OF OWNERSHIP AND ACKNOWLEDGEMENT OF PLAN

ON THIS, THE_____ DAY OF _____ , 20___ , BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED_____

_____ ,
(NAME OF OWNER)
WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE IS THE _____OF_____, THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN, AND THAT HE ACKNOWLEDGES THE SAME TO BE HIS ACT AND PLAN AND DESIRES THE SAME BE RECORDED AS SUCH ACCORDING TO LAW.

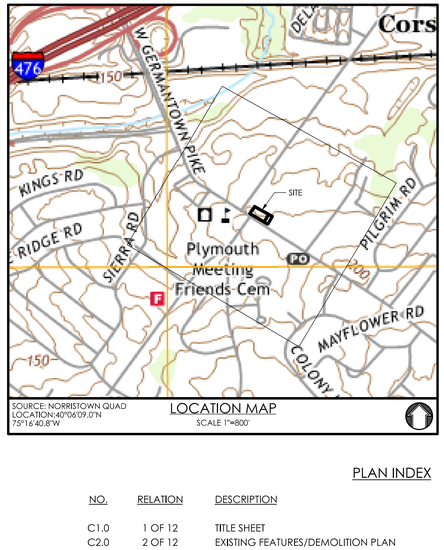
WITNESS MY HAND AND SEAL THE DAY AND DATE ABOVE WRITTEN.

MY COMMISSION EXPIRES:

_____ _____
(NOTARY PUBLIC OR OTHER OFFICER)

I,_____,CERTIFY THAT I AM THE _____ OF _____, THE OWNER OF THE LAND HEREIN SUBDIVIDED (OR DEVELOPED), AND THAT I DO HEREBY ADOPT THIS PLAN AND DESIRE THE SAME TO BE RECORDED.

_____
(OWNER)



SOURCE: NORRISTOWN QUAD
LOCATION:40°06'09.0"N
75°16'40.8"W

LOCATION MAP
SCALE 1"=800'



AERIAL MAP
SCALE 1"=500'

PLAN INDEX

NO.	RELATION	DESCRIPTION	START DATE	REVISION DATE
C1.0	1 OF 12	TITLE SHEET	JANURARY 27, 2022	---
C2.0	2 OF 12	EXISTING FEATURES/DEMOLITION PLAN	JANURARY 27, 2022	---
C3.0	3 OF 12	SITE PLAN	JANURARY 27, 2022	---
C4.0	4 OF 12	GRADING PLAN	JANURARY 27, 2022	---
C5.0	5 OF 12	UTILITY PLAN	JANURARY 27, 2022	---
C6.0	6 OF 12	LANDSCAPE PLAN	JANURARY 27, 2022	---
C7.0	7 OF 12	LIGHTING PLAN	JANURARY 27, 2022	---
C8.0	8 OF 12	EROSION & SEDIMENTATION CONTROL PLAN	JANURARY 27, 2022	---
C8.1	9 OF 12	EROSION & SEDIMENTATION DETAIL SHEET	JANURARY 27, 2022	---
C9.0	10 OF 12	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	JANURARY 27, 2022	---
C9.1	11 OF 12	POST CONSTRUCTION STORMWATER MANAGEMENT DETAIL SHEET	JANURARY 27, 2022	---
C10.0	12 OF 12	CONSTRUCTION DETAIL SHEET	JANURARY 27, 2022	---

APPLICANT
ASHFORD CONSULTING, LLC AND ASHFORD WEALTH ADVISORS, LLC
5 E. GERMANTOWN PIKE
PLYMOUTH METTING, PA 19462
ATTN: ARI FRAZER OR ROSIE SOTO
610-943-3113

ENGINEER / SURVEYOR / LANDSCAPE ARCHITECT
NAVE NEWELL, INC.
900 WEST VALLEY ROAD
SUITE 1100
WAYNE, PENNSYLVANIA 19087
ATTN: JAMES P. BANNON, PE (LICENSE NO. PE082137)
610-265-8323

ZONING HEARING BOARD DECISION NO. 2019-39, ISSUED JANURARY 13, 2020

AS PART OF THE PROPOSED PROJECT, APPLICANT HAS RECEIVED RELIEF:

1. SECTION 116-24.D.(3): A VARIANCE TO ALLOW MORE THAN 30% OF THE AREA OF THE REQUIRED REAR YARD BE COVERED WITH ACCESSORY USES AND STRUCTURES (41.5% OF AREA BETWEEN REAR LOT LINE AND BUILDING USED FOR PROPOSED PARKING AREA).
2. SECTION 116-184.D.(5): A VARIANCE TO ALLOW 24 PARKING SPACES IN PLACE OF THE REQUIRED 28.
3. SECTION 116-291.A.(7)(a)(4): A VARIANCE TO ALLOW LESS THAN 50% OF THE REQUIRED PARKING TO BE LOCATED BETWEEN THE REAR LOT LINE AND REAR PRINCIPAL BUILDING PLANE.
4. SECTION 116-291.C: A VARIANCE TO ELIMINATE THE BUFFER EQUAL TO THE WIDTH OF THE REQUIRED SETBACKS.
5. SECTION 116-294., #6, 8 &9: A VARIANCE TO ALLOW A MAXIMUM OF 66.8% IMPERVIOUS COVERAGE ON LOT 1 AND A MINIMUM OF 33.2% VEGETATED OPEN SPACE ON LOT 1. ALSO, THE APPLICANT REQUESTS A VARIANCE TO ALLOW 34.4% BUILDING COVERAGE ON LOT 2.
6. SECTION 116-296.B: A VARIANCE TO ALLOW PARKING BE SETBACK 3.8 FEET ADJACENT TO RESIDENTIAL LOT.
7. SECTION 116-184.D.: IN THE ALTERNATE, IF THE SPECIAL EXCEPTION IS NOT GRANTED PER SECTION 116-185, THE APPLICANT REQUESTS A VARIANCE TO ALLOW PARKING TO BE LOCATED ON THE ADJACENT LOT.

THE DECISION IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. ALL USE AND DEVELOPMENT PERMITTED BY THIS DECISION SHALL SUBSTANTIALLY CONFORM TO THE EXHIBITS AND TESTIMONY PRESENTED BY THE APPLICANTS, UNLESS INCONSISTENT WITH ANY SPECIFIC CONDITIONS IMPOSED BY THIS BOARD, IN WHICH CASE THESE SPECIFIC CONSITIONS SHALL TAKE PRECEDENCE.
2. THE APPLICANT SHALL APPLY FOR AND OBTAIN ALL PERMITS REQUIRED BY THE TOWNSHIP CODES IN A TIMELY MANNER.
3. THE APPLICANTS SHALL COMPLY WITH ALL REQUIREMENTS OF THE TOWNSHIP UNDER THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AS WELL AS THE GRADING, EROSION CONTROL, STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES ORDINANCE. UNLESS WAIVED BY THE BOARD OF SUPERVISORS.
4. THE APPLICANTS SHALL COMPLY WITH THE REQUIREMENTS OF THE TOWNSHIP WITH RESPECT TO RECORDING A WRITTEN AGREEMENT MEMORIALIZING THE SHARED PARKING AGREEMENT.
5. THE APPLICANTS SHALL PROVIDE A SCREENING BUFFER ALONG THE REAR PROPERTY LINE, TO THE SATISFACTION OF THE TOWNSHIP.
6. THE APPLICANTS SHALL COMPLY WITH ALL REQUIREMENTS OF THE BOARD OF SUPERVISIORS WITH RESPECT TO ISSUANCE OF CERTIFICATE OF APPROPRIATENESS UPON THE RECOMMENDATION OF THE HISTORICAL ARCHITECTURAL REVIEW BOARD.

Nave NEWELL
Where Ideas Get Down to Earth
900 West Valley Road • Suite 1100
Wayne, PA 19087-1830
p. 610.265.8323 f. 610.964.9599
www.navenewell.com

REVISIONS

date:	no.	description	chk'd	by

SEAL:

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: TITLE SHEET

Ashford Wealth Advisors
5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
AS NOTED	JPB

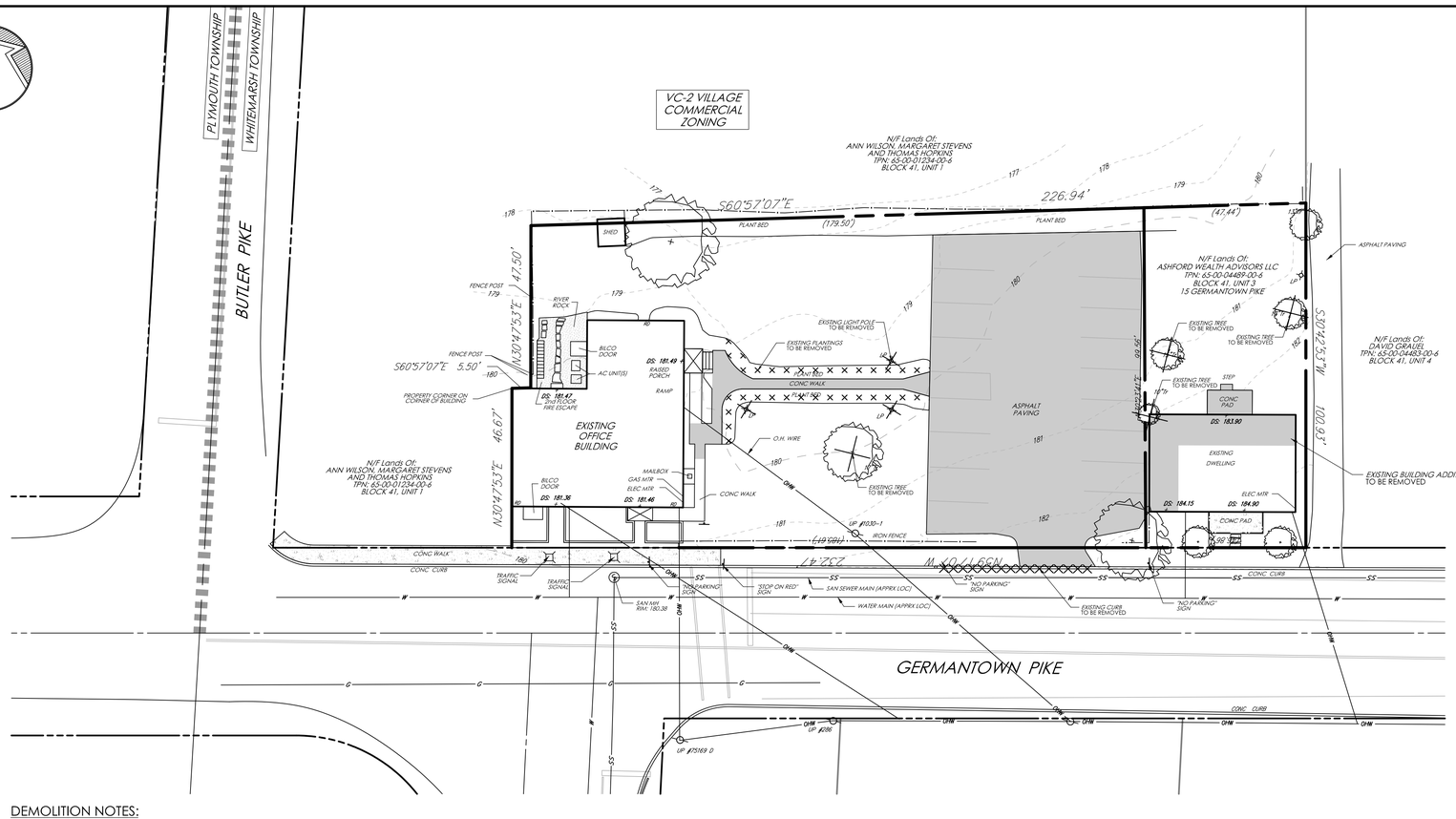
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C1.0

1 OF 12

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DEMOLITION NOTES:

1. LOCATIONS OF EXISTING UTILITIES AS SHOWN HEREIN HAVE BEEN DEVELOPED FROM EXISTING UTILITY RECORDS, PLANS BY OTHERS, ABOVE GROUND EXAMINATION OF THE SITE AND/OR PRIVATE UTILITY LOCATION COMPANY. THE COMPLETENESS OR ACCURACY OF THE LOCATIONS ARE NOT GUARANTEED. THE CONTRACTOR MUST VERIFY LOCATIONS AND DEPTHS OF ALL UTILITIES BEFORE START OF WORK.
2. PRIOR TO STARTING CONSTRUCTION, ALL UTILITY SERVICES IN THE AREA ARE TO BE LOCATED, THE USER NOTIFIED, AND MEASURES TAKEN TO PROTECT THE LINES IN ACCORDANCE WITH PA ACT 287, AS AMENDED. CONTRACTORS ARE TO IMMEDIATELY NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE PLAN INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT PA "ONE-CALL" AT LEAST 72 HOURS TO ANY EXCAVATION OR DEMOLITION ON-SITE.
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE START OF DEMOLITION.
4. THE EXISTING ASPHALT TO BE RESURFACED SHALL BE PATCHED, FILLED AND/OR REPAIRED AS NECESSARY PRIOR TO THE APPLICATION OF THE WEARING COURSE.
5. IN ALL AREAS WHERE FINISHED PAVING IS TO BE PROVIDED, THE CONTRACTOR IS TO BREAK APART EXISTING ASPHALT TO EXISTING SUBBASE STONE. FOLLOWING MILLING, THE EXPOSED SUBGRADE SHALL BE INSPECTED FOR ITS SUITABILITY AS PAVEMENT SUBBASE. IN AREAS WHERE EXISTING ASPHALT WILL BE CONVERTED TO GREEN SPACE OR BUILDING, THE CONTRACTOR IS TO MILL OUT THE EXISTING ASPHALT FOR ITS REUSE ON-SITE AS SUBBASE IN PROPOSED ASPHALT PAVEMENT AREAS. ALL FILL MEASURES TO BE COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL SPECIFICATIONS.
6. WHERE IMPROVEMENTS ARE PROPOSED TO TIE INTO EXISTING FEATURES, THE EXISTING FEATURES SHALL BE FIELD VERIFIED FOR ELEVATION AND LOCATION. IF FIELD LOCATED DATA IS DIFFERENT THAN THE DATA CONTAINED WITH THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL NOTIFY NAVE NEWELL, INC. PRIOR TO ANY DESIGN CHANGES.
7. THE PAVEMENT SECTION AREA DELINEATED ON THE PLANS TO BE MODIFIED SHALL BE USED AS GUIDANCE. EXPAND OR CONTRACT THIS AREA AT THE TIE IN LOCATION TO EXISTING PAVEMENT, SIDEWALK, DRIVEWAY APRONS, AND LOADING AREAS AS THE FIELD CONDITIONS WARRANT. ALL PAVEMENT SEAMS SHALL BE SEALED.
8. SITE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE DISCONNECTION, ABANDONMENT, RELOCATION AND/OR REMOVAL OF ALL APPLICABLE ON-SITE UTILITIES, IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AS WELL AS ANY REQUIREMENTS FROM THE RELEVANT UTILITY COMPANY.
9. ALL DEMOLITION SHALL BE PERFORMED BY A QUALIFIED, LICENSED CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
10. THIS PLAN IS NOT INTENDED TO DEPICT ALL FACETS AND ITEMS TO BE ADDRESSED DURING THE COURSE OF DEMOLITION ACTIVITIES. THIS PLAN IS INTENDED TO REPRESENT ONLY THE READILY VISIBLE, EXISTING IMPROVEMENTS ON-SITE. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE CONDITION PRIOR TO FINALIZING HIS BID AND PROVIDE ALL NECESSARY DEMOLITION SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK OUTLINED ON THESE DRAWINGS. UPON INITIATION OF DEMOLITION, CONTRACTOR SHALL ADVISE THE ENGINEER OF RECORD IMMEDIATELY, SHOULD CONFLICTS ARISE IN THE FIELD.
11. CONTRACTOR IS TO EXERCISE CARE WHEN REMOVING PAVEMENT OVER EXISTING PIPES TO REMAIN. DURING CONSTRUCTION, CONTRACTOR SHALL TAKE STEPS TO MAINTAIN ADEQUATE COVER OVER ALL EXISTING PIPES TO REMAIN AND TO PREVENT CONSTRUCTION TRAFFIC FROM DAMAGING SAID PIPES. IF THE EXISTING PIPES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM IN KIND AT THE CONTRACTORS COST.
12. CONTRACTOR SHALL USE EXTREME CAUTION WHEN REMOVING EXISTING UTILITIES TO PREVENT ANY DISTURBANCE TO UTILITIES THAT ARE TO REMAIN. IF SAID REMAINING UTILITY IS DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITY REPAIRS.
13. ALL UTILITIES TO BE ABANDONED AND LEFT IN PLACE SHALL BE PLUGGED AND FILLED WITH FLOWABLE CONCRETE.
14. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
15. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
16. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CURB
- EXISTING BUILDING
- EXISTING LIGHT POLE
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING TREE
- EXISTING IMPERVIOUS SURFACES TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED
- EXISTING CURB TO BE REMOVED

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

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www.navenewell.com

date:	no.	description	chk'd	by

REVISIONS

SEAL:

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: DEMOLITION PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	JPB

sheet no.

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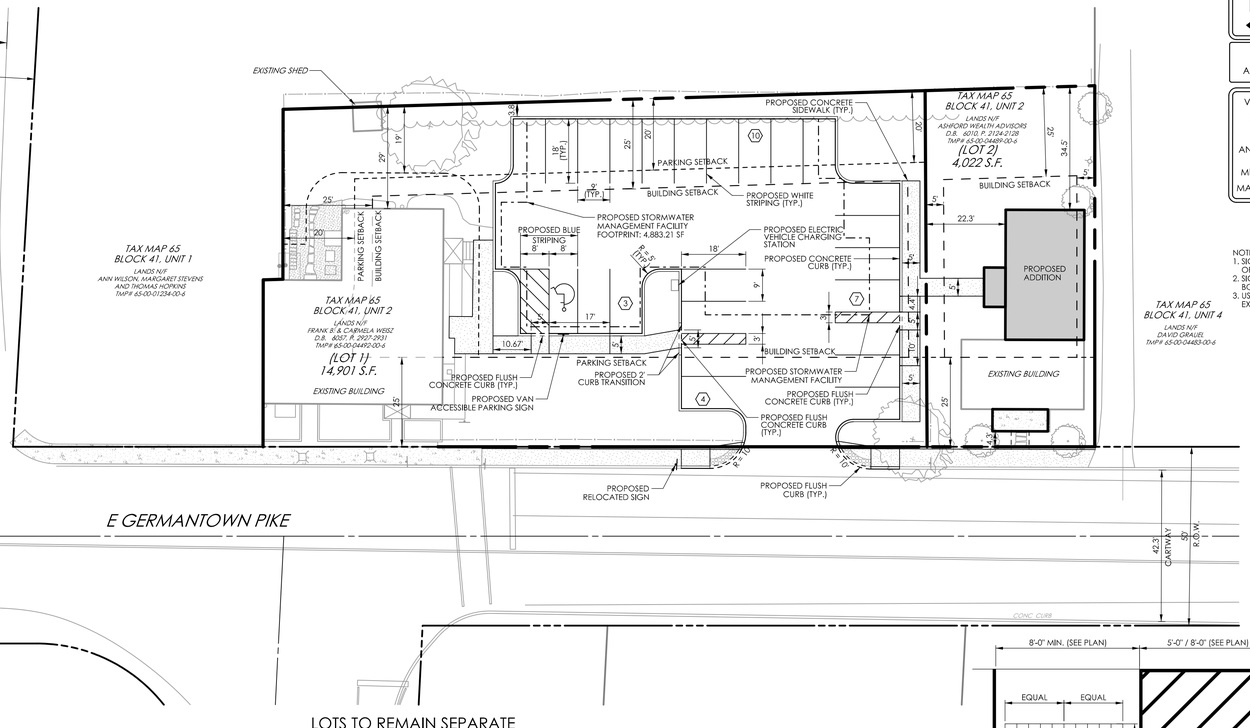
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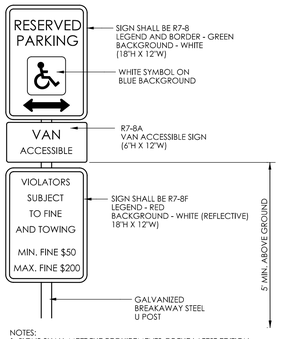
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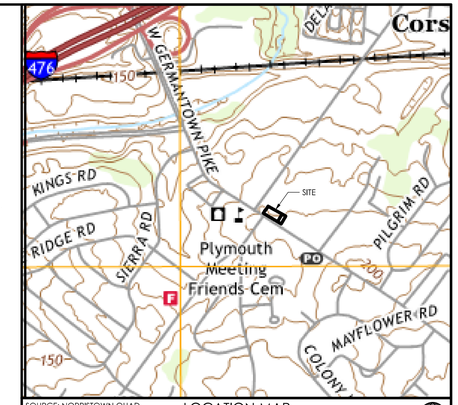




NOTES:
1. SIGNS SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. SIGNS SHALL BE MOUNTED FURTHER BEHIND CURB THAN BOLLARDS TO PREVENT CARS FROM HITTING THEM.
3. USE "ACORN NUTS" OR OTHER METHOD TO AVOID EXPOSED BOLTS.

VAN ACCESSIBLE PARKING SIGN

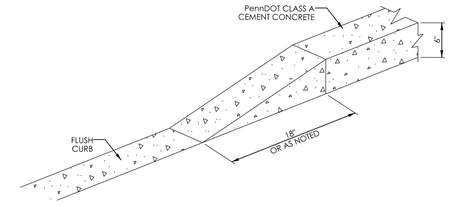
N.T.S.



SOURCE: NORRISTOWN QUAD
LOCATION: 40°06'09.0"N
75°16'40.8"W

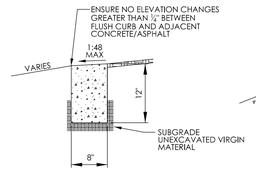
LOCATION MAP

SCALE 1"=800'



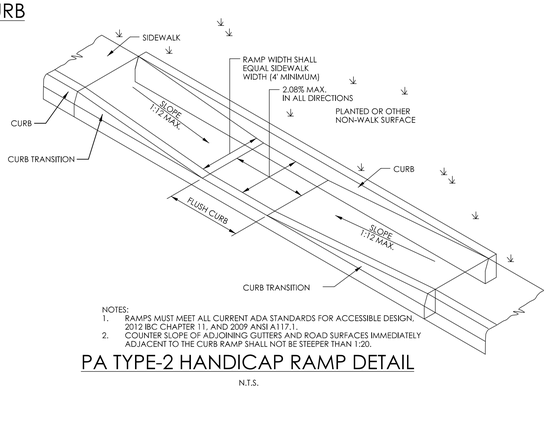
CURB TRANSITION DETAIL

N.T.S.



FLUSH CURB

N.T.S.



NOTES:
1. RAMPS MUST MEET ALL CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN. 2012 IBC CHAPTER 11 AND 2009 ANSI A117.1.
2. COUNTER SLOPE OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20.

PA TYPE-2 HANDICAP RAMP DETAIL

N.T.S.

SITE NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR DETAILED BUILDING, STRUCTURAL, ELECTRICAL, LIGHTING, ELEVATORS, STAIRWELLS AND SIDEWALK INFORMATION AND DETAILS, INCLUDING PAVEMENT FINISHES SHOWN AS ANYTHING OTHER THAN ASPHALT.
2. CONTRACTOR IS TO ENSURE THAT ALL ACCESSIBLE FACILITIES SHALL BE CONSTRUCTED IN CONFORMANCE WITH CURRENT ADA REQUIREMENTS.
3. ALL INTERNAL CURB IS TO BE 6" REVEAL. REFER TO DETAIL SHEET.
4. ALL INTERNAL CURB RADII IS TO BE 5' UNLESS OTHERWISE NOTED.
5. REFER TO THE CONSTRUCTION NOTES PROVIDED ON THE GRADING PLAN FOR ADDITIONAL NOTES. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERSEDE IN ALL CASES. NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IN WRITING.
6. CONTRACTOR TO MATCH EXISTING PAVEMENT, CURB, AND SIDEWALK ELEVATIONS/LOCATIONS WHERE THE PROPOSED IMPROVEMENTS TIE INTO EXISTING FEATURES.

LOTS TO REMAIN SEPARATE

ZONING DATA TABLE

DISTRICT: VILLAGE COMMERCIAL - VC-2
USE: ASHFORD WEALTH ADVISORS - OFFICE

SITE INFORMATION LOT#1

SITE ADDRESS: 5 E GERMANTOWN PIKE
PLYMOUTH MEETING, PA. 19462

PARCEL INFORMATION: NO: 65-00-04492-00-6

SITE INFORMATION LOT#2

SITE ADDRESS: 15 E GERMANTOWN PIKE
PLYMOUTH MEETING, PA. 19462

PARCEL INFORMATION: NO: 65-00-04489-00-6

CLASSIFICATION	PERMITTED USE REQ'S	LOT #1 EXISTING LOT #1	LOT #1 PROPOSED LOT #1	LOT #2 EXISTING LOT #2	LOT #2 PROPOSED LOT #2
LOT AREA:		17,685 S.F.	17,685 S.F.	4,725 S.F.	4,725 S.F.
MAXIMUM BUILDING FOOTPRINT FOR PRE-1940 BUILDINGS WITH ADDITIONS:	8,000 SQUARE FEET	2,467 S.F.	2,467 S.F.	1,415 S.F.	1,626 S.F.
MAXIMUM BUILDING HEIGHT:	3 STORIES = 42 FEET	< 42 FEET	< 42 FEET	< 42 FEET	< 42 FEET
MAXIMUM BUILDING FRONT FACADE WIDTH:	75 FEET	50.2 FEET	50.2 FEET	42.7 FEET	42.7 FEET
MAXIMUM BUILDING COVERAGE:	30%	14.0%	14.0%	29.9%	34.4%‡
MAXIMUM IMPERVIOUS:	60%**	50.0%	66.8%†	30.9%	36.6%
MINIMUM VEGETATED OPEN SPACE, TREES OR LANDSCAPING:	50%***	50.0%	33.2%†	69.1%	63.4%
MINIMUM LOT WIDTH AT SETBACK LINE:	100 FEET	185.4 FEET	185.4 FEET	46.9 FEET*	46.9 FEET*
MINIMUM STREET FRONTAGE:	50 FEET	185.4 FEET	185.4 FEET	46.9 FEET*	46.9 FEET*
MINIMUM BUILDING SEPARATION:	15 FEET	21.5 FEET	21.5 FEET	N/A	N/A
BUILDING SETBACKS:					
FRONT (FROM ULTIMATE R.O.W.):	10 FEET	0.0 FEET*	0.0 FEET*	0.0 FEET*	0.0 FEET*
SIDE:	5 FEET	0.0 FEET*	0.0 FEET*	1.0 FEET*	2.9 FEET*
REAR:	5 FEET	0.0 FEET*	0.0 FEET*	53.9 FEET	33.9 FEET
ADJACENT TO RESIDENTIAL:	25 FEET	0.0 FEET*	0.0 FEET*	53.9 FEET	33.9 FEET
PARKING SETBACKS:					
FRONT (RIGHT-OF-WAY):	10 FEET	0.0 FEET*	0.0 FEET*	0.0 FEET*	N/A
SIDE:	0 FEET	0.0 FEET	6.6 FEET	0.0 FEET	N/A
REAR:	0 FEET	6.1 FEET	3.8 FEET	62.4 FEET	N/A
FROM BUILDING:	10 FEET	1.0 FEET*	13.8 FEET	0.1 FEET*	N/A
ADJACENT TO RESIDENTIAL:	20 FEET	6.1 FEET*	3.8 FEET†	62.4 FEET	N/A

* EXISTING NON-CONFORMITY
** SECTION 116-294(4B) ALLOWS FOR A 60% MAXIMUM IMPERVIOUS WHEN SHARED PARKING IS UTILIZED.
*** SAID PERCENTAGES MAY BE REDUCED COMMENSURATE WITH ANY INCREASE IN IMPERVIOUS COVERAGE PERMITTED.
† VARIANCE GRANTED

PARKING CLASSIFICATION
OFFICE USE: 1 PARKING SPACE PER 250 SQUARE FEET OF GROSS FLOOR AREA

PROPOSED OFFICE AREA: 2,011 NET SQUARE FEET = 8 SPACES REQUIRED

EXISTING PARKING SPACES = 17 SPACES
REQUIRED PARKING SPACES = 25 SPACES (17 EXISTING + 8 REQUIRED)
PROPOSED PARKING SPACES = 24 SPACES†

† VARIANCE GRANTED

NOTE:
1. PARKING STALL AND ACCESS AISLE WIDTHS SHALL BE MEASURED CENTER OF STRIPE TO CENTER OF STRIPE.
2. WHERE AN ADA PARKING STALL IS ADJACENT TO A STANDARD PARKING STALL OR ACCESS AISLE, A YELLOW STRIPE SHALL BE PAINTED NEXT TO THE BLUE STRIPE.

ADA PARKING STALL STRIPING

N.T.S.

TYPE 1A CURB RAMP ASSISTANT DISTRICT EXECUTIVE APPROVAL REQUIRED IF TURNING SPACE IS NOT ENTIRELY ON SIDEWALK

N. T. S

(3) OPTIONAL ROLLED CONCRETE SURFACE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF A RETURN CURB CHEEK WALL.
(4) 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.
(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING TREE
- BUILDING SETBACK LINE
- PARKING SETBACK LINE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED STORMWATER MANAGEMENT FACILITY
- PROPOSED LIGHT POLE
- PROPOSED PARKING COUNT

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

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Wayne, PA 19087-1830
p. 610.265.8323 f. 610.964.9299
www.navenewell.com

date:	no.	description	chk'd	by

REVISIONS

COMMONWEALTH OF PENNSYLVANIA — JAMES P. BANNON, JR. — REGISTERED PROFESSIONAL ENGINEER — No. PE082137

SEAL:

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

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DRAWING NAME: SITE PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	JPB

sheet no.

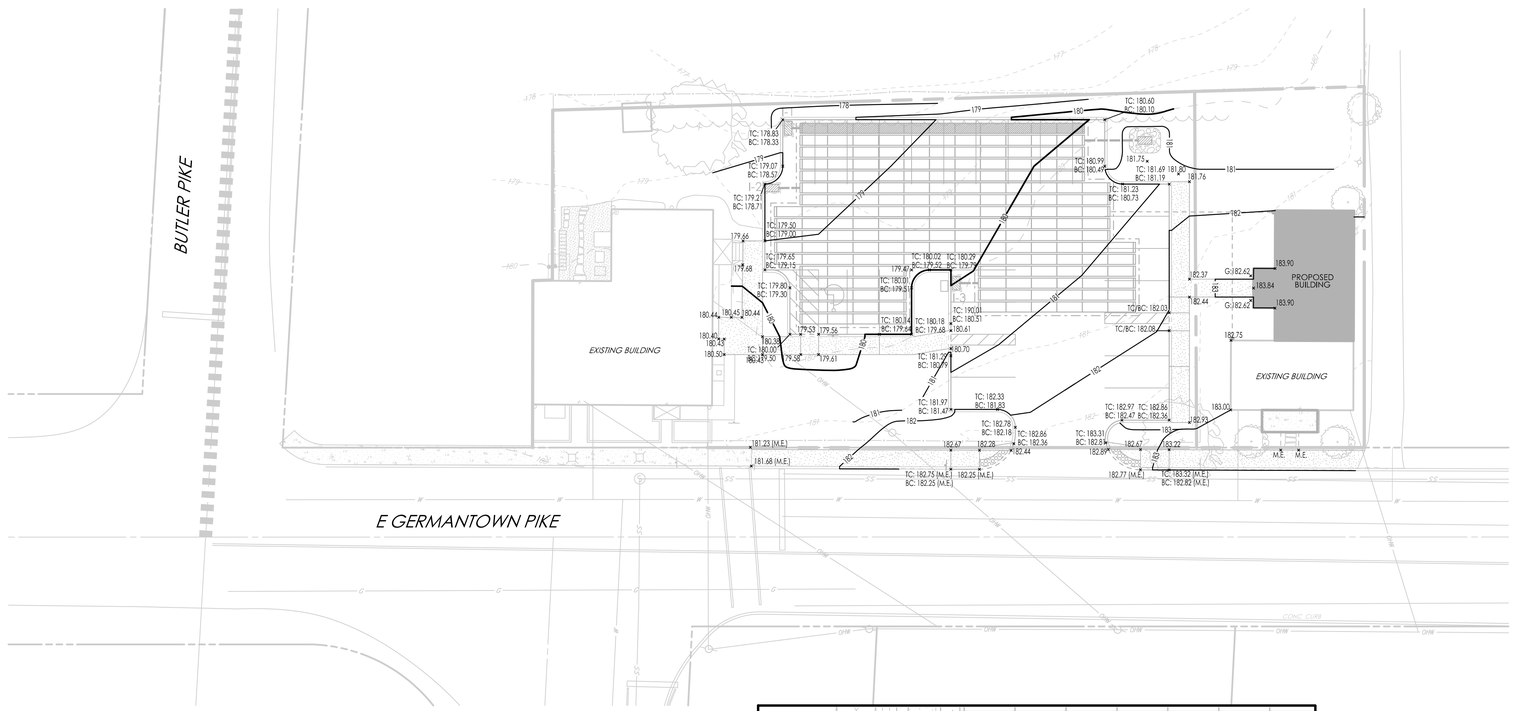
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3 OF 12

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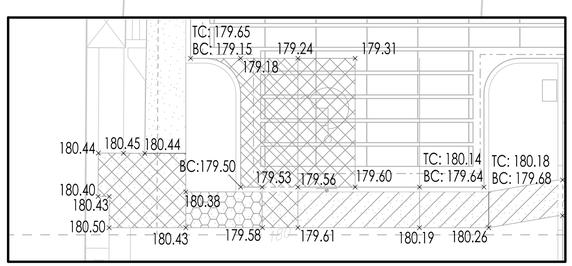


CONSTRUCTION NOTES:

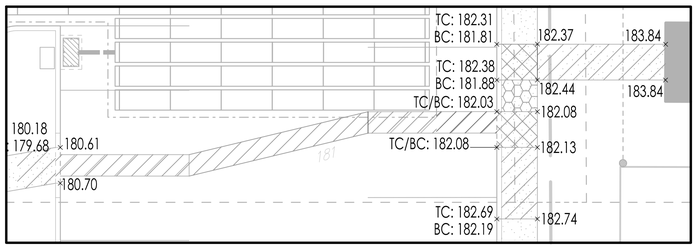
1. INSTALLATION OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE ENGINEERING STANDARDS AND SPECIFICATIONS OF WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, OR OTHER PUBLIC UTILITY CONCERNS.
2. ALL BUILDINGS AND ASSOCIATED UTILITY CONNECTIONS, AS SHOWN, HAVE BEEN PLACED CONCEPTUALLY. CONTRACTOR SHALL REFER TO ARCHITECTS FINAL PLANS FOR EXACT BUILDING DIMENSIONS, UTILITY CONNECTION LOCATIONS AND UTILITY SERVICE SIDING AND MATERIAL.
3. SITE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE DISCONNECTION, ABANDONMENT, RELOCATION AND/OR REMOVAL OF ALL APPLICABLE ON-SITE UTILITIES, IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AS WELL AS ANY REQUIREMENTS FROM THE RELEVANT UTILITY COMPANY.
4. ALL UTILITIES AND STRUCTURES WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS SHALL REMAIN, UNLESS OTHERWISE NOTED.
5. ANY UTILITIES, TO REMAIN, THAT ARE DAMAGED DURING DEMOLITION AND/OR CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED IN KIND BY THE CONTRACTOR AT THEIR OWN EXPENSE.
6. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS, PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. ANY DISCREPANCIES THAT MAY AFFECT PUBLIC SAFETY AND/OR PROJECT COST MUST BE IDENTIFIED IMMEDIATELY TO THE ENGINEER OF RECORD IN WRITING. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE AT THE CONTRACTOR'S OWN RISK.
7. CONSTRUCTION OF PROPOSED UTILITIES SHALL COMMENCE AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. CLEANOUTS AND CURB BOXES WITHIN PAVED AREAS MUST HAVE TRAFFIC LOADING FRAMES AND COVERS.
9. EXISTING STORM STRUCTURES AND PIPES TO BE INSPECTED BY CONTRACTOR PRIOR TO CONSTRUCTION AND ANY DEFICIENCIES FOUND SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
10. ALL UTILITY CONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.
11. ALL WET UTILITIES SHALL HAVE WATERPROOF JOINTS.
12. ANY STRUCTURE, INFRASTRUCTURE, UTILITIES, SEWAGE DISPOSAL SYSTEMS, OR OTHER PROPOSED LAND DISTURBANCE INDICATED ON THE APPROVED FINAL PLAN SHALL ONLY OCCUR AT THE LOCATIONS SHOWN ON THE PLAN. CHANGES TO SUCH LOCATIONS SHALL BE SUBJECT TO ADDITIONAL REVIEW AND REAPPROVAL IN ACCORDANCE WITH THE PROVISIONS OF WHITEMARSH TOWNSHIP.
13. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT THE TIME OF PLACEMENT SHALL BE NO MORE THAN 2% ABOVE OR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT, PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
14. SUBBASE MATERIAL FOR SIDEWALKS, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL AND COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
15. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION AND/OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
16. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
17. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
18. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
19. CROSS SLOPES OF ALL PEDESTRIAN ROUTES SHALL NOT EXCEED 2.08%. THIS INCLUDES CURB RAMPS, SIDEWALKS, ASSOCIATED GUTTERS, AND CROSSWALKS
20. LONGITUDINAL SLOPES ALONG PEDESTRIAN ROUTES SHALL NOT EXCEED 5.00% (EXCEPT ON CURB RAMPS AND RAMPS, SEE BELOW).
21. LONGITUDINAL SLOPES OF CURB RAMPS AND RAMPS SHALL NOT EXCEED 8.33%.
22. GAPS OR OPENINGS ALONG AN PEDESTRIAN ROUTE MUST BE NO MORE THAN 1/2 INCH WIDE.
23. CONTRACTOR TO MATCH EXISTING PAVEMENT, CURB, AND SIDEWALK ELEVATIONS/LOCATIONS WHERE THE PROPOSED IMPROVEMENTS TIE INTO EXISTING FEATURES.
24. ALL GRADING SHALL BE A MAXIMUM OF 3 : 1 SLOPE.
25. SEE SHEET C4.0 FOR DETAILED ADA IMPROVEMENT CONSTRUCTION INFORMATION. CONTRACTOR TO ENSURE COMPLIANCE WITH ADA REGULATIONS.

GRADING NOTES:

1. REFER TO UTILITY PLAN FOR ADDITIONAL NOTES.
2. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE UTILITY PLAN WILL SUPERSEDE IN ALL CASES. NOTIFY ENGINEER OF RECORD OF ANY CONFLICT.
3. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS. ANY METHODS USED TO STRENGTHEN SOIL MUST BE PERFORMED UNDER THE GUIDANCE OF A LICENSED GEOTECHNICAL ENGINEER. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557 AND PLACED IN LAYERS NOT EXCEEDING 8 INCHES THICK OR AS PRESCRIBED BY PROJECT GEOTECHNICAL ENGINEER. MOISTURE CONTENT AT THE TIME OF PLACEMENT SHALL BE NO MORE THAN 2% ABOVE OR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT, PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
4. SUBBASE MATERIAL FOR SIDEWALKS, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL AND COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
5. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION AND/OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
6. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
7. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
8. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
9. CONTRACTOR SHALL ADHERE TO ALL SAFETY REGULATIONS AS REQUIRED BY OSHA, THE PROPERTY OWNER, OR ANY LOCAL, STATE, OR FEDERAL AUTHORITY.
10. DETAILED PLANS AND CALCULATIONS FOR PROPOSED RETAINING WALLS THAT ARE PREPARED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA MUST BE SUBMITTED TO THE TOWNSHIP FOR REVIEW PRIOR TO CONSTRUCTION.
11. CONTRACTOR TO ENSURE COMPLIANCE WITH ADA REGULATIONS.
12. NON-ACCESSIBLE BUILDING ENTRANCES MUST HAVE DIRECTIONAL SIGNAGE DIRECTING PEOPLE TO THE CLOSEST ACCESSIBLE ENTRANCE. DIRECTIONAL SIGNAGE MUST HAVE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
13. THRESHOLDS, TRANSITIONS AND LEVEL CHANGES MUST NOT EXCEED 1/2 INCH IN HEIGHT WITH A BEVEL OF NO MORE THAN 1:2. UNBEVELED LEVEL CHANGES MUST NOT EXCEED 1/4 INCH IN HEIGHT.
14. OBJECTS MAY NOT PROTRUDE MORE THAN 4 INCHES INTO THE CIRCULATION PATH.
15. CROSS SLOPES OF ALL ACCESSIBLE ROUTES SHALL NOT EXCEED 2.08%. THIS INCLUDES CURB RAMPS, SIDEWALKS, ASSOCIATED GUTTERS, AND CROSSWALKS.
16. LONGITUDINAL SLOPES ALONG ACCESSIBLE ROUTES SHALL NOT EXCEED 5.00% (EXCEPT RAMPS AND CURB RAMPS, SEE BELOW).
17. LONGITUDINAL SLOPES OF RAMPS AND CURB RAMPS SHALL NOT EXCEED 8.33%. HANDRAILS ARE REQUIRED AT RAMPS THAT RISE MORE THAN 6" (CURB RAMPS EXCEPTED). THE MAXIMUM RISE OF ANY RAMP IS 30".
18. THE GROUND SURFACE AT THE MANEUVERING CLEARANCE OF DOORS THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL NOT EXCEED 2.08% IN ANY DIRECTION.
19. GAPS OR OPENINGS ALONG AN ACCESSIBLE ROUTE MUST BE NO MORE THAN 1/2 INCH WIDE.
20. ALL ELEVATIONS ARE BASED ON THE NAVD 1988 DATUM.



INSET 1



INSET 2

ADA LEGEND

TURNING AREA/LEVEL LANDING/ADA PARKING SPACE/ADA ACCESS AISLE: SLOPE IN THIS AREA SHALL NOT EXCEED 2.08% IN ANY DIRECTION

ACCESSIBLE ROUTE / PATH OF TRAVEL: LONGITUDINAL SLOPE SHALL NOT EXCEED 5.00% AND CROSS SLOPE SHALL NOT EXCEED 2.08%

RAMP: LONGITUDINAL SLOPE SHALL NOT EXCEED 8.33% AND CROSS SLOPE SHALL NOT EXCEED 2.08%

NOTES

1. ALL ACCESSIBLE ELEMENTS SHALL MEET ALL CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN, 2012 IBC CHAPTER 11, AND 2009 ANSI A117.1.
2. THERE MUST BE MINIMUM 36" CLEARANCE BETWEEN BOLLARDS IN FRONT OF AN ADA ACCESS AISLE.
3. ALL PROPOSED STRIPING SHALL BE 4" YELLOW EXCEPT AS NOTED IN ADA PARKING SPACES AND ACCESS AISLES.
4. ALL SIDEWALK GAPS GREATER THAN 1/2" SHALL BE CAULKED WITH FUEL-RESISTANT CAULK (SIKAFLEX 1CSL) OR EQUIVALENT.
5. ALL ACCESS AISLE STRIPING SHALL BE 2 FEET CENTER TO CENTER.
6. ALL BOLLARDS TO HAVE WHITE SLEEVES.
7. CONTRACTOR SHALL ENSURE THAT ADA ACCESS AISLES AND PARKING SPACES HAVE NO SLOPES GREATER THAN 1:48 (2.08%) IN ANY DIRECTION.
8. CONTRACTOR SHALL ENSURE A MAXIMUM CROSS SLOPE OF 1:48 (2.08%) ON ALL SIDEWALKS.
9. CONTRACTOR SHALL ENSURE ACCESSIBLE ROUTES BETWEEN ACCESS AISLES AND DOORS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPES OF 1:20 (5.00%) AND A MAXIMUM CROSS SLOPE OF 1:48 (2.08%). AT LANDING AREAS AND WHERE TURNING MANEUVERS ARE REQUIRED ENSURE MAXIMUM SLOPE IN ALL DIRECTIONS DOES NOT EXCEED 1:48 (2.08%). CROSSHATCH PATTERNING SHOWN IN AREA OF ACCESSIBLE ROUTE FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE STRIPED IN FIELD.
10. IF RE-GRADING OF ANY PAVED AREA INVOLVES MILLING OR REMOVING MATERIAL, CONTRACTOR TO ENSURE MINIMUM PAVING SECTION AND SUBBASE ARE MAINTAINED, SEE PAVING SECTION DETAILS.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED SPOT GRADE
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

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REVISIONS

no.	description	date:	chk'd by

SEAL:



JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: GRADING PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
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1" = 20'	JPB

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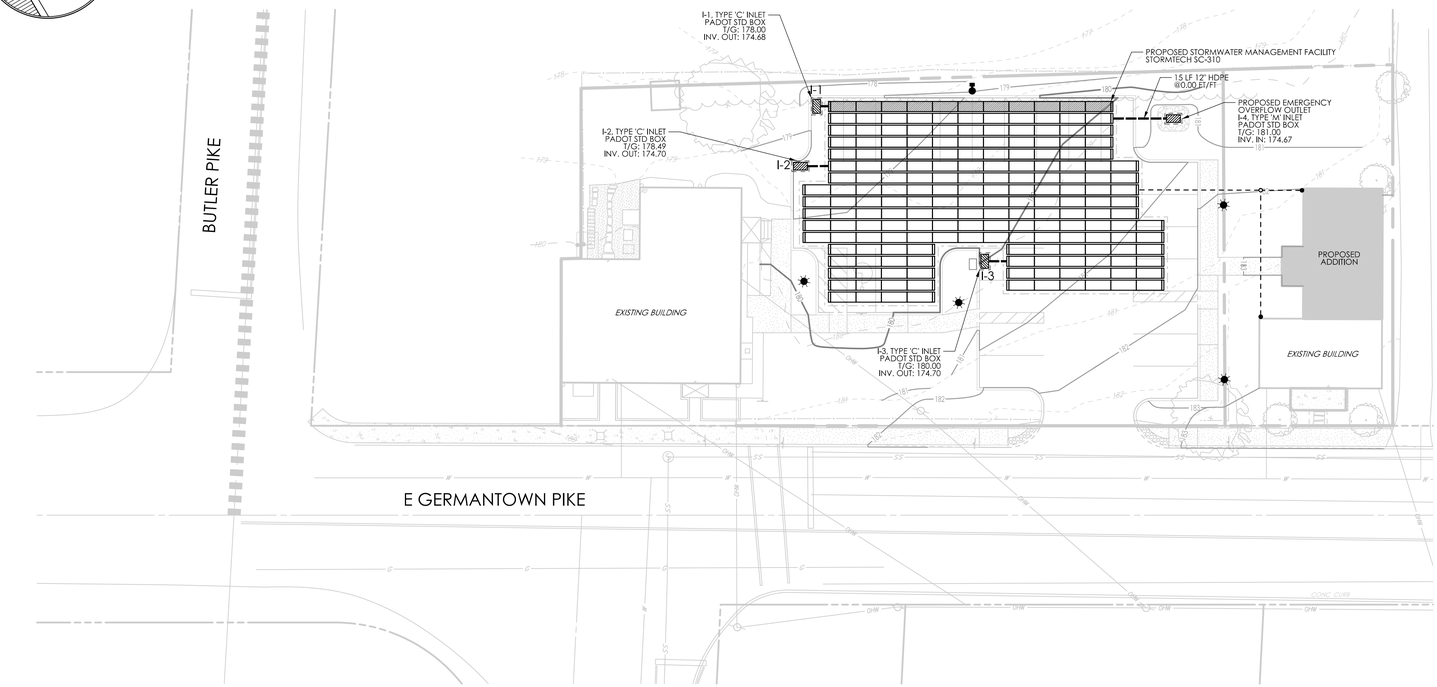
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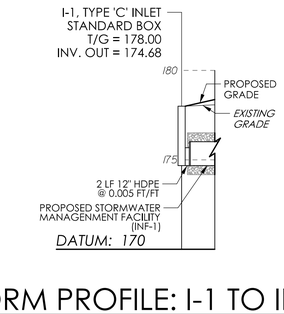
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GRAPHIC SCALE

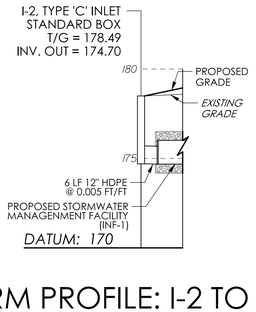
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(IN FEET)
1 inch = 20 ft



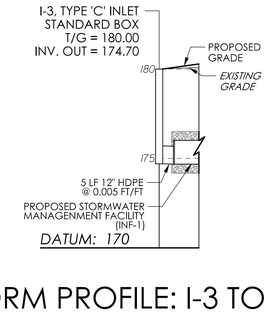
STORM PROFILE: I-1 TO INF-1

SCALE: HORIZONTAL 1" = 40'
VERTICAL 1" = 4'



STORM PROFILE: I-2 TO INF-1

SCALE: HORIZONTAL 1" = 40'
VERTICAL 1" = 4'



STORM PROFILE: I-3 TO INF-1

SCALE: HORIZONTAL 1" = 40'
VERTICAL 1" = 4'

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
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- EXISTING GAS SERVICE WITH VALVE
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- EXISTING LIGHT POLE
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- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT
- PROPOSED LIGHT POLE
- PROPOSED RIP-RAP

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REVISIONS

date:	no.	description	chk'd	by

SEAL:

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: UTILITIES PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

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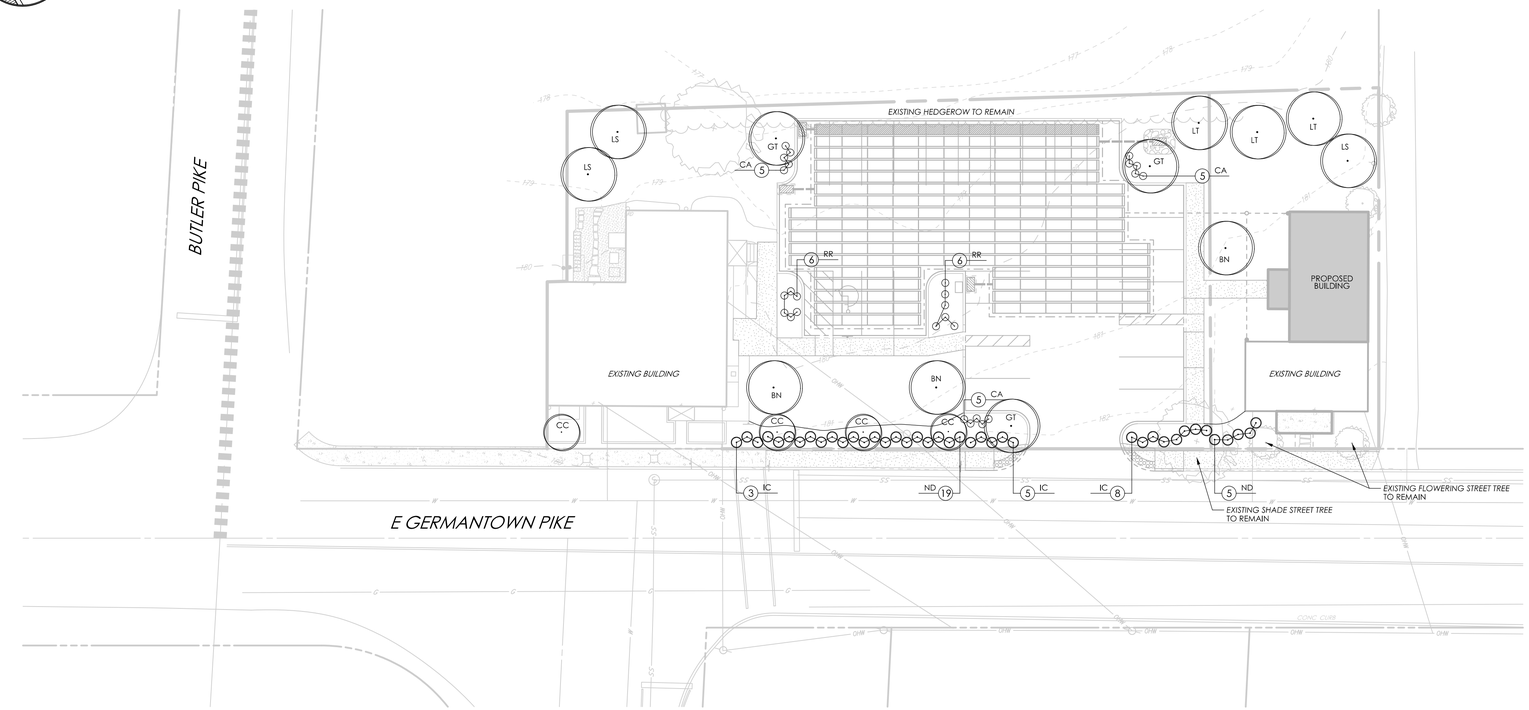
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LANDSCAPE SCHEDULE

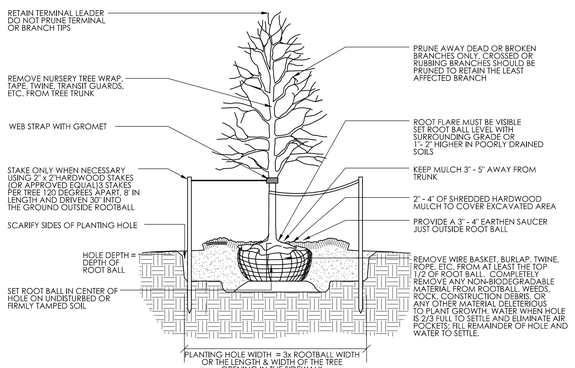
QTY.	SYM.		SIZE	ROOT TYPE	NOTES
SHADE TREES					
3	BN	BETULA NIGRA (RIVER BIRCH)	3" CALIPER	B & B	
3	GT	GLEDITSIA TRIACANTHOS INERMIS (THORNLESS HONEYLOCUST)	3" CALIPER	B & B	
3	LS	LIQUIDAMBAR STYRACIFLUA (SWEETGUM)	3" CALIPER	B & B	
3	LT	LIRIODENDRON TULIPIFERA (TULIP POPLAR)	3" CALIPER	B & B	
ORNAMENTAL TREES					
4	CC	CERCIS CANADENSIS (EASTERN REDBUD)	2" - 2.5" CALIPER MIN. 12' - 14' (HEIGHT)	B & B	
DECIDUOUS SHRUBS					
15	CA	CLETHRA ALNIFOLIA 'HUMMINGBIRD' (SUMMERSWEET)	24" - 36"	# 5 CONT.	
12	RR	ROSA RADRAZT (KNOCKOUT ROSE)	24" - 36"	# 5 CONT.	
EVERGREEN SHRUBS					
16	IC	ILEX CORNUTA 'ROTUNDA' (DWARF CHINESE HOLLY 'ROTUNDA')	24" - 36"	# 5 CONT.	
24	ND	NADINA DOMESTICA 'GULF STREAM' (GULF STREAM HEAVENLY BAMBOO)	24" - 36"	# 5 CONT.	

LANDSCAPE REQUIREMENTS

REQUIREMENTS	REQUIRED	PROPOSED
PARKING LOT LANDSCAPING SECTION 105-39.A ALL PARKING SHALL HAVE AT LEAST ONE, THREE-INCH-CALIPER TREE FOR EVERY TWO PARKING SPACES PROVIDED PROPSOED PARKING= 24 SPACES	12 CANOPY TREES	12 CANOPY TREES
SECTION 105-39.C A MINIMUM OF 10% OF ANY PARKING LOT OVER 2,000 SQ FT IN GROSS AREA SHALL BE DEVOTED TO LANDSCAPING 7850 SQ FT X .01= 785 SQ FT	785 SQ FT	2,573 SQ FT 27 SHRUBS
STREET TREES SECTION 105-48. B SHADE TREES SHALL BE PLANED AT INTERVALS OF NOT MORE THAN 45 FEET, OR FLOWERING STREET TREES AT INTERVALS OF NOT MORE THAN 30 FEET.	5 SHADE TREES OR 8 FLOWERING TREES	0 SHADE TREES * 4 FLOWERING TREES *
BUFFER SCREENING SECTION 105-56.1.E(2)(b) PARKING AREAS SHALL BE BUFFERED FROM ANY ADJACENT ACCESSWAY BY STREET TREES AND BY A FOUR-FOOT-WIDE LANDSCAPED AREA WITH A CONTINUOUS ROW OF TWO-TO THREE-FOOT HIGH SHRUBS.	HEDGE ROW	40 SHRUBS
SECTION 105-56.1.J(1) EXISTING TREES WITH A CAILPER OF 16 INCES OR MORE SHALL NOT BE REMOVED UNLESS THAT ARE EACH REPLACED BY AT LEAST FIVE TREES. TREES REMOVED WITH A 16 INCH CALIPER OR GREATER: 1 x (17" CALIPER)	0 TREES **	0 TREES **
TOTAL LANDSCAPING	12-17 CANOPY TREES 0-8 FLOWERING TREES # OF SHRUBS (SEE ABOVE)	12 CANOPY TREES 4 FLOWERING TREES 67 SHRUBS

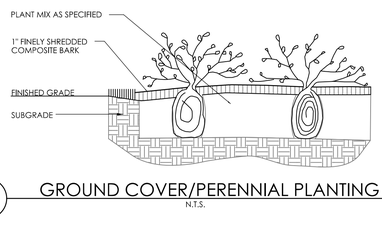
* ONE EXISTING SHADE STREET TREE TO REMAIN
* TWO EXISTING FLOWERING STREET TREES TO REMAIN

** ONE 17 INCH CALIPER TREE TO BE REMOVED. HEALTH OF THE TREE IS IN A VERY POOR CONDITION.

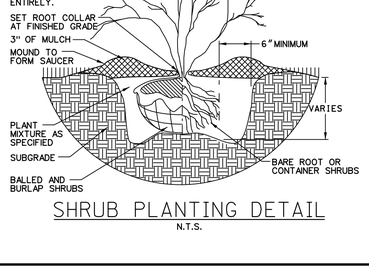


1 DECIDUOUS TREE PLANTINGS
N.T.S.

NOTES:
FASTEN STAKES TO TREE USING 3/4" - 2" WIDE, FLAT, WOVEN POLYPROPYLENE MATERIAL SUCH AS ARBOR TIE (TM) OR USE 3" WIDE WEBBING STRAPS SECURED TO STAKES WITH HEAVY GAUGE WIRE. DO NOT USE WIRE RUN THROUGH HOSE. ATTACH TREE LOOSELY TO ALLOW FLEXING. REMOVE STAKING MATERIAL AFTER ONE YEAR.



2 GROUND COVER/PERENNIAL PLANTING DETAIL
N.T.S.



SHRUB PLANTING DETAIL
N.T.S.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT
- PROPOSED LANDSCAPING

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

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REVISIONS

date:	no.	description	chk'd	by

SEAL:

PAUL E. LEPARD, JR.
Registered Landscape Architect
Pennsylvania License No. LA001327-A

DRAWING NAME: LANDSCAPE PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	BTK
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	PEL

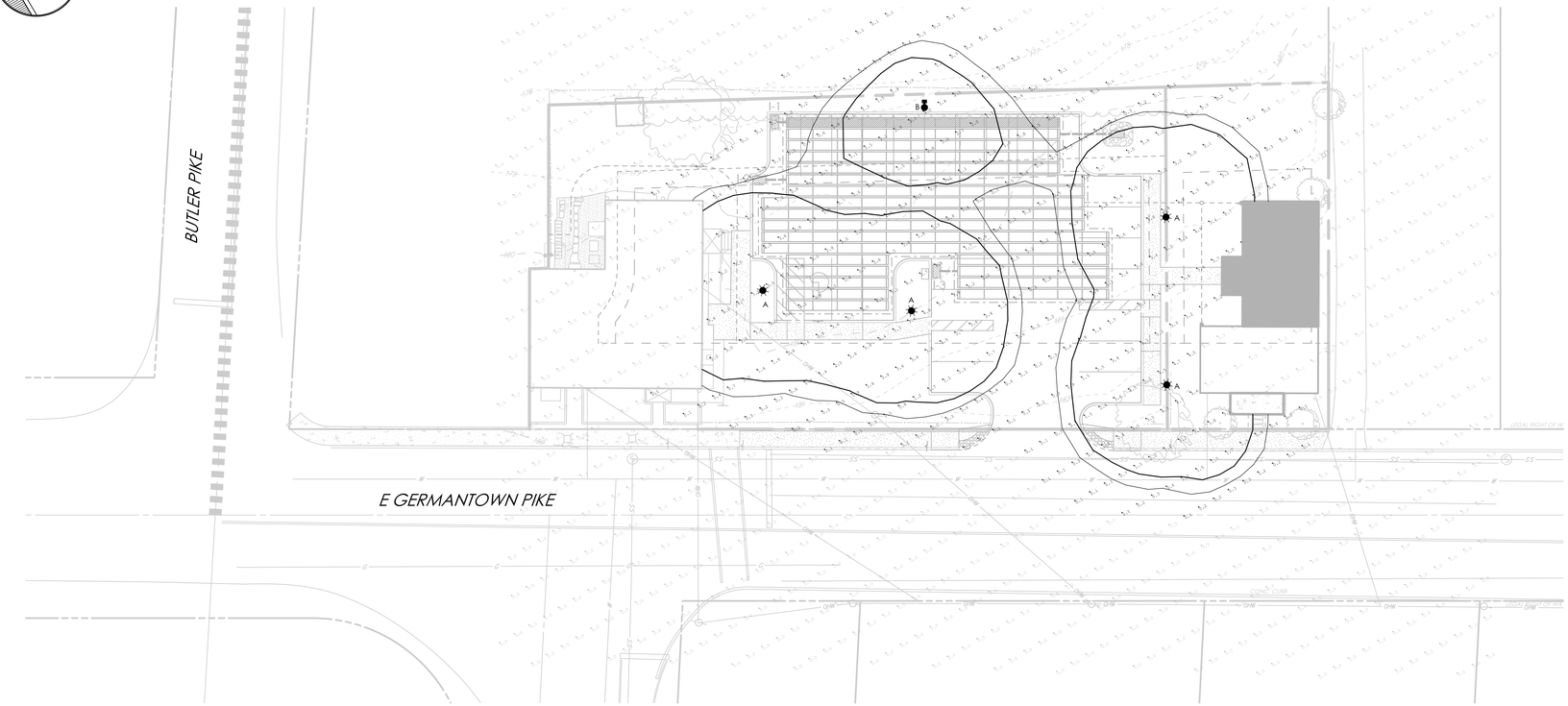
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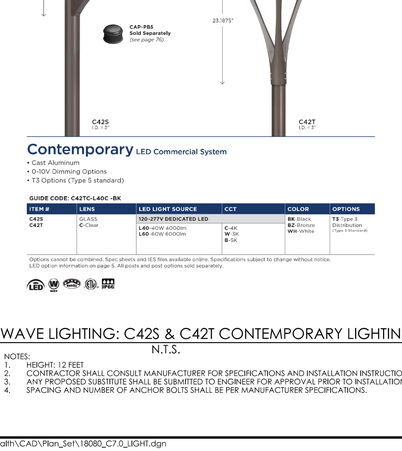


LIGHTING SCHEDULE

QTY.	SYM.	CATALOG NUMBER	IES NUMBER	DESCRIPTION	LOCATION	MOUNTING HEIGHT
4	A	C42TC-L60C-BK	C42TC-L60C-BK.IES	WAVE LIGHTING POST TOP- C42TC BLACK FORMED ALUMINUM HOUSING CLEAR OPTICS/GLASS, LED	SURFACE PARKING	12'
1	B	C42SC-L80C-BK	C42SC-L60C-BK.IES	WAVE LIGHTING POST TOP- C41TC BLACK FORMED ALUMINUM HOUSING CLEAR OPTICS/GLASS, LED	SURFACE PARKING	12'

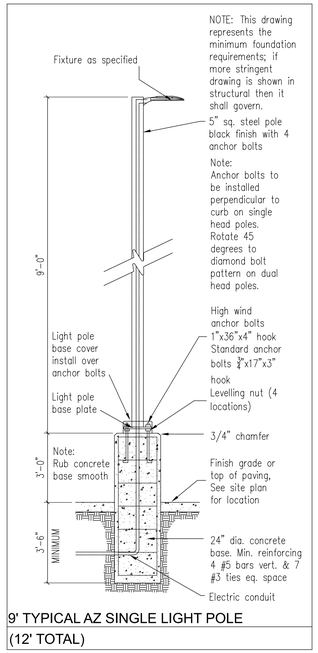
LIGHTING STATISTICS

DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	AVG/MIN
PARKING AREA	1.77 fc	5.1 fc	0.2 fc	8.85:1



4 WAVE LIGHTING: C42S & C42T CONTEMPORARY LIGHTING
N.T.S.

NOTES:
1. HEIGHT: 12 FEET
2. CONTRACTOR SHALL CONSULT MANUFACTURER FOR SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
3. ANY PROPOSED SUBSTITUTE SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
4. SPACING AND NUMBER OF ANCHOR BOLTS SHALL BE PER MANUFACTURER SPECIFICATIONS.



9' TYPICAL AZ SINGLE LIGHT POLE
(12' TOTAL)

5 WAVE LIGHTING: TYPICAL POLE SPECIFICATION
N.T.S.

NOTES:
1. SEE ARCHITECTURALS FOR MORE DETAILS

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT
- PROPOSED FOOTCANDLE
- PROPOSED ISOLINES
- PROPOSED LIGHT POLE

GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft

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date:	no.	description	chk'd	by
		REVISIONS		

SEAL:

PAUL E. LEPARD, JR.
Registered Landscape Architect
Pennsylvania License No. LA001327-A

DRAWING NAME: LIGHTING PLAN

Ashford Wealth Advisors
5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	BTK
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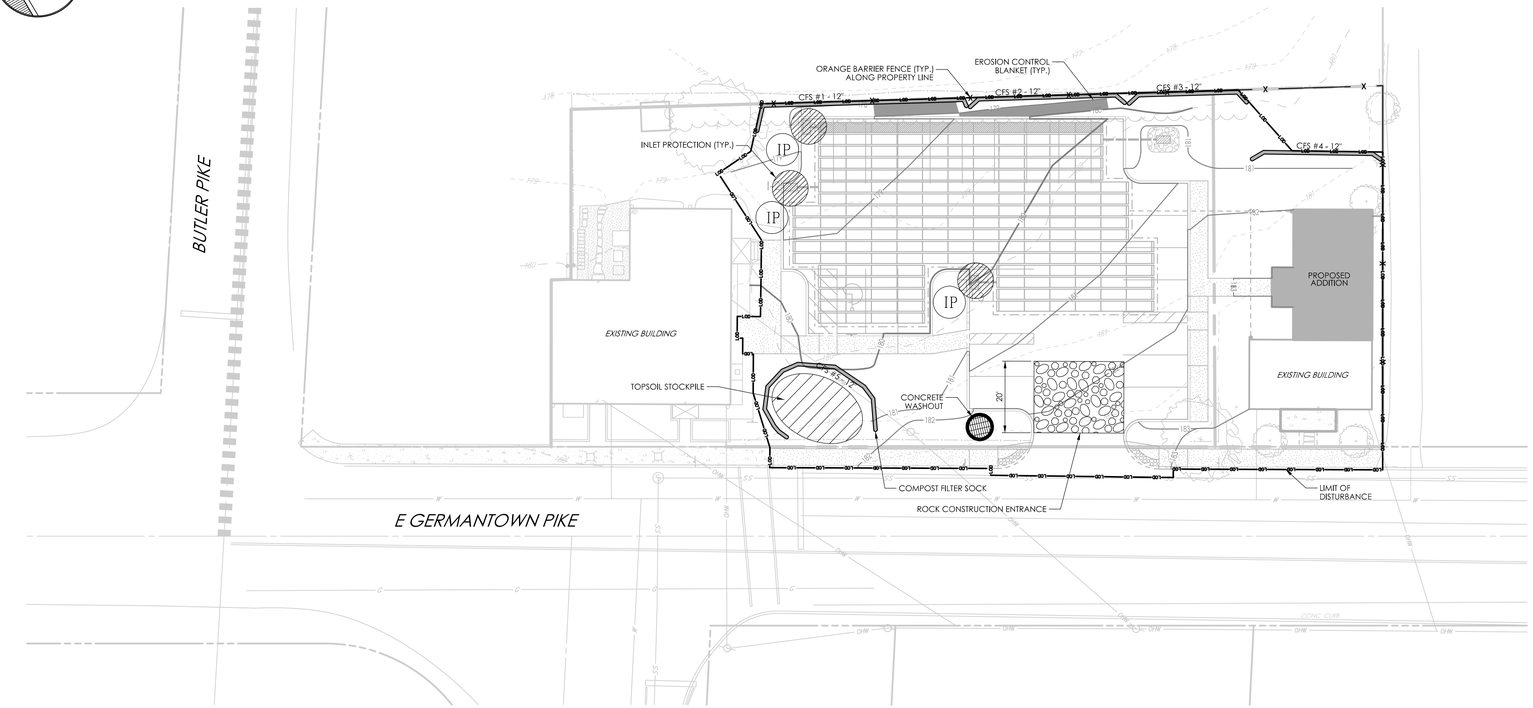
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SOILS LEGEND:

SOILS INFORMATION OBTAINED FROM THE USDA-NRCS WEB SOIL SURVEY, VERSION 10, SURVEY PERFORMED ON FEBRUARY 5, 2019.

UrhB URBAN LAND-DUFFIELD COMPLEX, 0 TO 8 PERCENT SLOPES HSG 'B'

SOIL LIMITATIONS AND RESOLUTIONS

APPLICABILITY TO PROJECT	SOIL LIMITATION	RESOLUTION(S)
YES	CUTBANKS CAVE	PROVIDE APPROPRIATE BENCHING AND/OR SHORING IN AREAS OF EXCAVATION.
YES	CORROSIVE TO CONCRETE / STEEL	INSTALL REBAR TO MINIMUM COVER REQUIREMENTS AND USE EPOXY COATED REBAR. APPLY MOISTURE BARRIER TO SURFACE OF EXPOSED CONCRETE.
NO	DROUGHTY	SOIL SHOULD BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO USE ON SITE. ANY RECOMMENDATIONS PRESCRIBED BY THE GEOTECHNICAL ENGINEER SHALL BE FOLLOWED PRIOR TO USE ON SITE.
YES	EASILY ERODIBLE	SOILS SHALL BE STABILIZED WITH EITHER TEMPORARY OR FINAL STABILIZATION IN AREAS WHERE EARTHWORK IS DELAYED OR STOPPED FOR FOUR CONSECUTIVE DAYS.
NO	FLOODING	AVOID DEVELOPMENT IN FLOOD PRONE AREAS.
NO	DEPTH TO SATURATED ZONE / SEASONAL HIGH WATER TABLE	SOILS SHOULD BE EVALUATED FOR WETNESS PRIOR TO USE IN SITE WORK. IF GEOTECHNICAL ENGINEER DEEMS SOILS TOO WET FOR SITE WORK, THEN SOILS SHALL BE AMENDED OR DRIED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
YES	HYDRIC / HYDRIC INCLUSIONS	SOILS TO BE EVALUATED BY GEOTECHNICAL SPECIALIST. WATER TABLE EVALUATION WILL BE REQUIRED, POSSIBLY IN AREA OF WETLANDS.
YES	LOW STRENGTH / LANDSLIDE PRONE	SOILS SHOULD NOT BE USED FOR STRUCTURAL FILL UNLESS THEY HAVE BEEN EVALUATED BY A GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL ENGINEER DEEMS THEM SUITABLE AS FILL OR PROVIDES RECOMMENDATIONS TO AMEND SOILS MAKING THEM SUITABLE AS FILL.
YES	SLOW PERCOLATION	SOIL TO BE EVALUATED FOR SUITABILITY FOR INFILTRATION PRACTICES.
YES	PIPING	AREAS OF EMBANKMENTS WITH PIPES PASSING THROUGH THEM SHALL HAVE ANTI-SEEP COLLARS INSTALLED PER THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (PA DEP) EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM.
YES	POOR SOURCE OF TOPSOIL	SOIL SHOULD BE AMENDED AS RECOMMENDED TO PROVIDE ADEQUATE MATERIALS NECESSARY FOR REQUIRED PLANT GROWTH.
NO	FROST ACTION	SOILS SHOULD BE FREE OF FROZEN OR MUCKY MATERIALS. FILL SHOULD NOT BE PLACED ON SATURATED OR FROZEN SURFACES. EARTHWORK INVOLVING THESE SOILS SHOULD BE LIMITED TO THE WARMER MONTHS WHEN PRACTICAL.
YES	SHRINK - SWELL	SOILS SHOULD NOT BE USED FOR STRUCTURAL FILL UNLESS THEY HAVE BEEN EVALUATED BY A GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL ENGINEER DEEMS THEM SUITABLE AS FILL OR PROVIDES RECOMMENDATIONS TO AMEND SOILS MAKING THEM SUITABLE AS FILL.
YES	POTENTIAL SINKHOLE	SOILS SHOULD BE EVALUATED FOR SINKHOLE ACTIVITY. INFILTRATION PRACTICES SHOULD BE AVOIDED IN THESE AREAS OR APPLIED WITH CONSIDERATION TO MINIMIZING INFILTRATION RATE. APPLY RECOMMENDATIONS FROM GEOTECHNICAL SPECIALIST. AVOID PLACING INFILTRATION PRACTICES, IF NEEDED, CLOSE TO BUILDINGS OR PRINCIPAL STRUCTURES. ENSURE ALL DRAINAGE SYSTEMS ARE WATERTIGHT.
NO	PONDING	ANY PONDING WATER SHALL BE PUMPED TO A LOCATION OF NO PONDING. ANY SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE PUMPED THROUGH A SEDIMENT CONTROL BMP SUCH AS PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
YES	WETNESS	SOILS SHOULD BE EVALUATED FOR WETNESS PRIOR TO USE IN SITE WORK. IF GEOTECHNICAL ENGINEER DEEMS SOILS TOO WET FOR SITE WORK, THEN SOILS SHALL BE AMENDED OR DRIED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT
- PROPOSED RIP-RAP
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED INLET PROTECTION
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED 12" COMPOST FILTER SOCK
- PROPOSED SOIL STOCKPILE
- EROSION CONTROL BLANKET OR MATTING

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

LIMIT OF DISTURBANCE: 17,934 SF (0.41 ACRES) THIS PLAN IS FOR EROSION AND SEDIMENTATION CONTROL PURPOSES ONLY.

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REVISIONS

date:	no.	description	chk'd	by

SEAL: COMMONWEALTH OF PENNSYLVANIA JAMES P. BANNON ENGINEER No. PE082137 REGISTERED PROFESSIONAL

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: EROSION & SEDIMENT CONTROL PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

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1"=20'	JPB

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SEQUENCE OF CONSTRUCTION:

1. AT LEAST 7 DAYS BEFORE ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER TO AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL MUNICIPALITY PRIOR TO IMPLEMENTATION.
2. STABILIZATION NOTE - UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE. HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES.
3. LIMITS OF DISTURBANCE AND LOCATIONS OF PROPOSED ON-SITE BMPS MUST BE DELINEATED WITH ORANGE CONSTRUCTION FENCE, OR APPROVED EQUAL, PRIOR TO EARTH MOVING ACTIVITIES.
4. PLACE COMPOST FILTER SOCKS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
5. INSTALL STABILIZED CONSTRUCTION ENTRANCE. CONTRACTOR MAY MODIFY LOCATION OF THE CONSTRUCTION ENTRANCES AS REQUIRED DURING CONSTRUCTION. CONTRACTOR TO UTILIZE ACCEPTABLE STANDARDS AND PRACTICES TO ENSURE SEDIMENT IS NOT TRACKED OFF THE PROPERTY AND ONTO PUBLIC RIGHTS-OF-WAY. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY. AS APPROPRIATE
6. PLACE PERIMETER EROSION AND SEDIMENT CONTROLS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN THAT INCLUDES TEMPORARY INLET PROTECTION, COMPOST FILTER SOCK, CONCRETE WASHOUT, AND LOCATIONS FOR TEMPORARY TOPSOIL STOCKPILE AREAS. STABILIZE ANY RESULTANT DISTURBANCE IMMEDIATELY, AS APPROPRIATE.
7. CLEAR AND GRUB TREES AND VEGETATION AS NEEDED THROUGHOUT THE DISTURBANCE AREA.
8. REMOVE AND DISPOSE OF AND/OR RECYCLE PORTION OF EXISTING BUILDING, EXISTING ASPHALT, CONCRETE, GRAVEL, AND CURB.
9. INSTALL THE UNDERGROUND INFILTRATION BED.
10. INSTALL STORM STRUCTURES AND DRAINS (NOTE THAT INLET PROTECTION SHALL BE PROVIDED UNTIL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED) AND SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED.
11. EXCAVATE AND CONSTRUCT THE BUILDING FOUNDATION.
12. CONSTRUCT BUILDING.
13. INSTALL SUBBASE FOR PAVEMENT, SIDEWALKS, CONCRETE CURBING, AND INTERNAL SIDEWALK. PROVIDE STABILIZATION OF ALL CONSTRUCTED PARKING AREAS AND DRIVEWAY TO MINIMUM OF STONE SUBBASE AND COMPLETION OF ALL GRADING AND UTILITY INSTALLATION OF PARKING LOT, CURBS, AND SIDEWALKS. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY.
14. INSTALL LANDSCAPING AND PERFORM FINAL STABILIZATION OF DISTURBED AREAS.
15. UPON STABILIZATION OF SITE, VACUUM STORM DRAIN NETWORK.
16. AFTER AN ON-SITE INSPECTION AND APPROVAL BY A REPRESENTATIVE OF THE LOCAL MUNICIPALITY, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
17. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES, DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT YET AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

INFILTRATION/DETENTION BASIN INSTALLATION SEQUENCE-CRITICAL STAGE

ALL CONSTRUCTION SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING GUIDELINES.
EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS STARTED.

1. DELINEATE AREA OF PROPOSED INFILTRATION/DETENTION BASIN SYSTEM PRIOR TO START OF CONSTRUCTION. SITE CONTRACTOR SHALL TAKE GREAT CARE TO AVOID SOIL DISTURBANCE AND COMPACTION DURING CONSTRUCTION.
2. EXCAVATE AREA OF BED TO SUBGRADE ELEVATION. * CONTRACTOR SHALL TAKE GREAT CARE TO AVOID COMPACTION AND DISTURBANCE OF BED SUBGRADE DURING CONSTRUCTION. DO NOT COMPACT IN-SITU SOILS. HEAVY EQUIPMENT SHALL NOT BE USED WITHIN THE AREA OF THE INFILTRATION/DETENTION BASIN. ALL EQUIPMENT SHALL BE KEPT OUT OF THE EXCAVATED AREA TO THE MAXIMUM EXTENT POSSIBLE.
3. MANUALLY SCARIFY THE EXISTING SOIL SURFACES. PLACE ONE FOOT OF AMENDED SOIL ON TOP OF BED SUBGRADE.
4. UPON COMPLETION OF THE SUB-GRADE WORK, THE ENGINEER SHALL BE NOTIFIED AND INSPECT THE INFILTRATION BED CONFIGURATION.
5. INSTALL OUTLET STRUCTURES AND OUTFALL.
6. GRADE INFILTRATION/DETENTION BASIN AND APPLY PERMANENT STABILIZATION.
7. ENSURE INLETS TO SYSTEM ARE SEALED DURING CONSTRUCTION UNTIL SUCH TIME AS THE CONTRIBUTORY AREA HAS ACHIEVED FULL STABILIZATION.
8. WHEN THE SITE IS FULLY VEGETATED AND THE SOIL MANTLE IS STABILIZED, THE PLAN DESIGNER SHALL BE NOTIFIED AND SHALL INSPECT THE INFILTRATION/DETENTION BASIN DRAINAGE AREA AT HIS/HER DISCRETION BEFORE THE AREA IS BROUGHT ONLINE AND SEDIMENT CONTROL DEVICES ARE REMOVED.

GENERAL NOTES FOR UTILITY CONSTRUCTION

1. EXCAVATED MATERIAL SHOULD BE STAGED ON THE UPSTREAM SIDE OF A TRENCH.
2. THE DAILY EXTENT OF TRENCHING SHOULD NOT EXCEED WHAT CAN BE BACKFILLED AND STABILIZED IN ONE WORKING DAY.
3. EROSION CONTROL BLANKET SHOULD BE PLACED OVER DISTURBED AREAS (NOT INCLUDING AREAS OF PROPOSED ROADWAYS; DURING CONSTRUCTION ACTIVITIES).

MAINTENANCE PROGRAM FOR TEMPORARY SEDIMENTATION CONTROLS STRUCTURES

MAINTENANCE OF ALL TEMPORARY SEDIMENTATION CONTROL STRUCTURES SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND AS STATED BELOW:

1. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ONE-HALF THE ABOVE-GROUND HEIGHT OF SILT FENCING.
2. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS WHEN THE SEDIMENT REACHES THE DESIGNATED CLEANOUT ELEVATION.
3. SEDIMENT MUST BE REMOVED FROM ROCK FILTERS WHEN COLLECTED SEDIMENT BEGINS TO AFFECT THE FILTER'S FUNCTION.
4. SEDIMENT REMOVED FROM THE FACILITIES MAY BE REINCORPORATED INTO THE SITE'S EARTHWORK AS FILL OR TAKEN TO A SAFE, APPROVED LOCATION. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY.

SEEDING & MULCHING SPECIFICATIONS

TEMPORARY: SEEDING SHALL BE COMMON RYE GRASS APPLIED AT 45 LBS. PER ACRE. LIMING TO BE APPLIED AT 1 TON/ACRE. 50-50-50 FERTILIZER TO BE APPLIED AT 1000 LBS/ACRE. HAY OR STRAW MULCH TO BE APPLIED AT 3 TONS/ACRE

PERMANENT: SEEDING SHALL BE 15% KENTUCKY BLUEGRASS, 35% KENTUCKY 31 FESCUE, 25% CHEWINGS FESCUE, 15% PERENNIAL RYE GRASS, AND 10% RECLEANED REDTOP AT A RATE OF 60 LBS. PER ACRE. LIMING TO BE APPLIED AT 3 TONS/ACRE. 10-20-20 FERTILIZER TO BE APPLIED AT 1000 LBS/ACRE. HAY OR STRAW MULCH TO BE APPLIED AT 3 TONS/ACRE.

THE NON-GERMINATING PERIODS ARE BETWEEN 6/15 THROUGH 8/15 AND 9/30 THROUGH 4/15. AREAS DISTURBED DURING THESE PERIODS MUST BE LIMED, FERTILIZED, SEEDED AND MULCHED IMMEDIATELY FOLLOWING THE END OF THOSE PERIODS. TOPSOIL TAKEN FROM CONSTRUCTION AREAS SHALL BE SEEDED WITH VEGETATIVE COVER AND STOCKPILES FOR RE-USE IN FINISH GRADING. THERE IS TO BE NO EARTH DISTURBANCE OR VEGETATIVE CLEARING IN AREAS OUTSIDE OF THE DELINEATED AREAS TO BE DISTURBED.

MAINTENANCE OF TEMPORARY SEDIMENTATION CONTROL STRUCTURES

MAINTENANCE OF ALL TEMPORARY SEDIMENTATION CONTROL STRUCTURES SHALL BE IN ACCORDANCE WITH THESE PLANS AND THE "EROSION AND CONTROL CONTROL NARRATIVE." INSPECTION AND MAINTENANCE OF ALL FACILITIES SHALL BE MADE AFTER EACH RAIN STORM EVENT AND ON A WEEKLY BASIS.

SEDIMENT DISPOSAL:

SILT REMOVED FROM TEMPORARY SEDIMENT CONTROL STRUCTURES SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS LOCATED OUTSIDE OF FLOOD PLAINS, WETLANDS, STEEP SLOPES, AND DRAINAGE SWALES. AREAS OF SEDIMENT DISPOSAL SHALL BE CONSIDERED C.V.A.

DUST CONTROL:

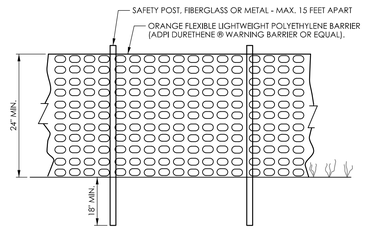
DUST AND OTHER PARTICULATES SHALL BE KEPT WITHIN TOLERABLE LIMITS BY USING WATER. APPLICATION SHALL BE AS NEEDED OR AS DIRECTED BY THE TOWNSHIP ENGINEER OR THE CONSERVATION DISTRICT.

CRITICAL VEGETATION AREAS (C.V.A.):

CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEEDED AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. IN GENERAL, CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1 AND IN ALL DRAINAGE SWALES.

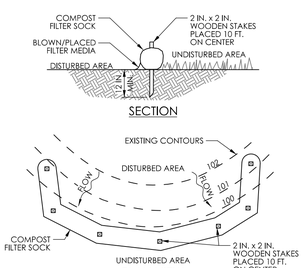
SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE TOWNSHIP 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 TOWNSHIP PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
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, OVER UNDISTURBED VEGETATED AREAS.
14. VEHICLES AND EQUIPMENT MAY ENTER FROM / EXIT FROM THE PUBLIC ROAD ONLY AT THE STABILIZED CONSTRUCTION ENTRANCE.
15. 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.
16. 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.
17. 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.
18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 4 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20. 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.
21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
22. 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.
23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
26. 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.
27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING 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.
28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL MUNICIPALITY OR THE DEPARTMENT.
30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SLCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES 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.



BARRIER FENCE DETAIL

NOT TO SCALE



SECTION

PLAN VIEW

TABLE 4.2 - COMPOST STANDARDS	
ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM

COMPOST FILTER SOCK MIX SPECIFICATIONS

NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTHS ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

WHERE SOCKS ARE PLACED ON PAVED SURFACES, CONCRETE BLOCKS SHOULD BE USED IMMEDIATELY DOWNSLOPE OF THE SOCKS (AT THE SAME INTERVALS RECOMMENDED FOR THE STAKES) TO HELP HOLD THE SOCK IN PLACE.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK

NOT TO SCALE

PLAN VIEW

ELEVATION VIEW

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 STRAPS 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.

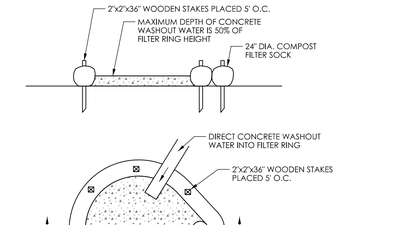
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

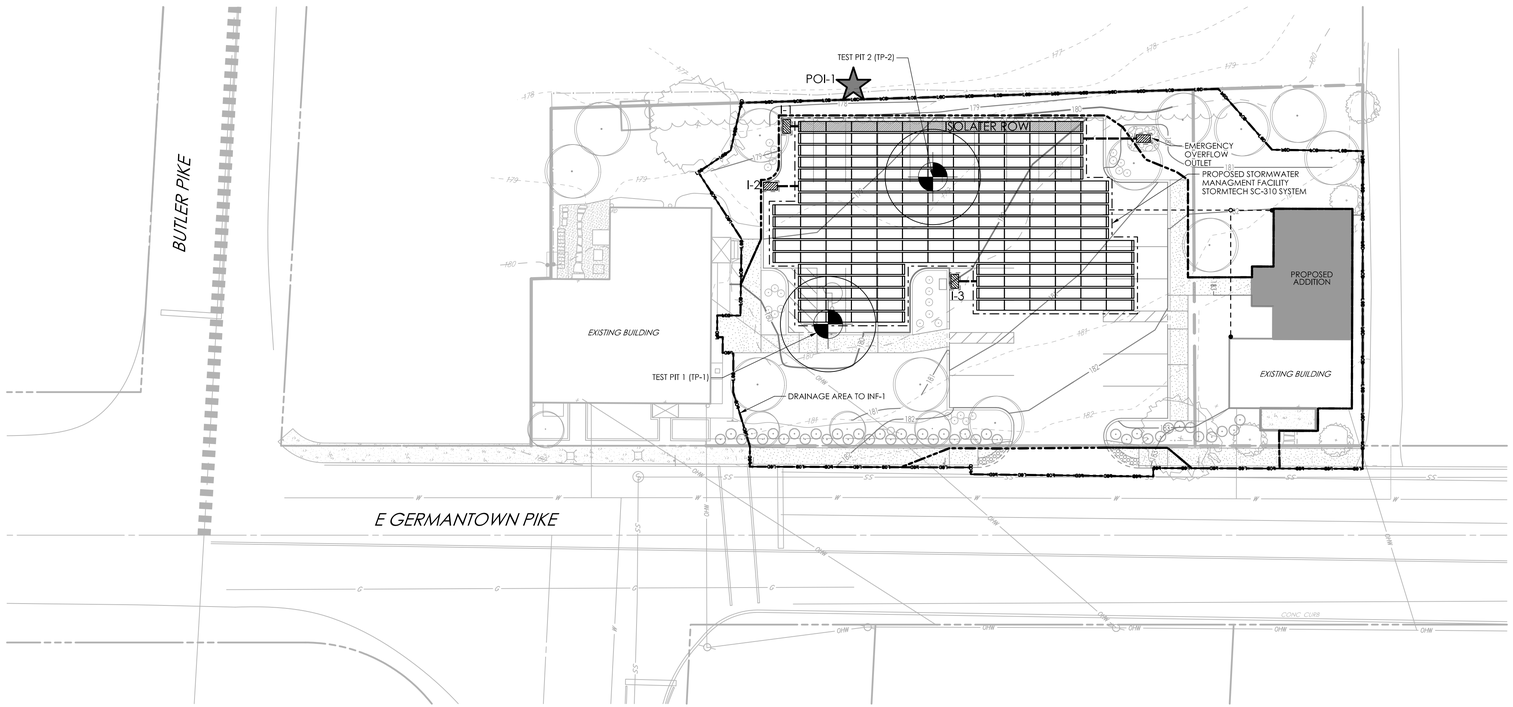
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

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


2"x2"x36" WOODEN STAKES PLACED 5' O.C.
MAXIMUM DEPTH OF CONCRETE WASHOUT WATER IS 50% OF FILTER RING HEIGHT
24" DIA. COMPOST FILTER SOCK
DIRECT CONCRETE WASHOUT WATER INTO FILTER RING
2"x2"x36" WOODEN STAKES PLACED 5' O.C.
24" DIA. COMPOST FILTER SOCK. 4" MIN. OVERLAP ON UP-SLOP



STRUCTURAL BMP MAINTENANCE SCHEDULE

BMP	PROCEDURE	FAILURE / CORRECTIVE ACTION	RESPONSIBLE PARTY*
1. BMP 6.4.3 - SUBSURFACE INFILTRATION BED	INSPECT AND CLEAN UPSTREAM CONVEYANCE SYSTEM BIANNUALLY TO LIMIT SEDIMENT AND DEBRIS FROM BEING CONVEYED TO BASIN. MONITOR BASIN FOLLOWING RAIN EVENTS TO ENSURE DEWATERING OCCURS WITHIN 72 HOURS. INSPECT OUTLET STRUCTURE AND MAINTAIN IN GOOD WORKING ORDER.	FAILURE: OUTLET STRUCTURE CLOGGED OR MODULE SYSTEM BROKEN. CORRECTIVE ACTION: CLEAN OUTLET STRUCTURE TO REMOVE CLOG. REPLACE MODULE(S) AS NEEDED TO CORRECT FAILURE.	OWNER

SOIL TEST DATA

TEST ID	EXISTING GROUND ELEV.	TEST DEPTH (FT)	LIMITING ZONE DEPTH	INFILTRATION RATE (IN/HR)
TP - 1	179.75	5.58	N/A	0.25
TP - 2	178.74	4.58	N/A	0.125
TEST PERFORMED ON NOVEMBER 24, 2021.				

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT
- PROPOSED RIP-RAP
- PROPOSED LANDSCAPING
- LOD — PROPOSED LIMIT OF DISTURBANCE
- DRAINAGE AREA
- TEST PIT
- POINT OF INTEREST

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

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REVISIONS

date:	no.	description	chk'd	by

SEAL: COMMONWEALTH OF PENNSYLVANIA — JAMES P. BANNON — REGISTERED PROFESSIONAL ENGINEER — No. PE082137

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	JPB

sheet no.

C9.0

10 OF 12

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SEQUENCE OF CONSTRUCTION:

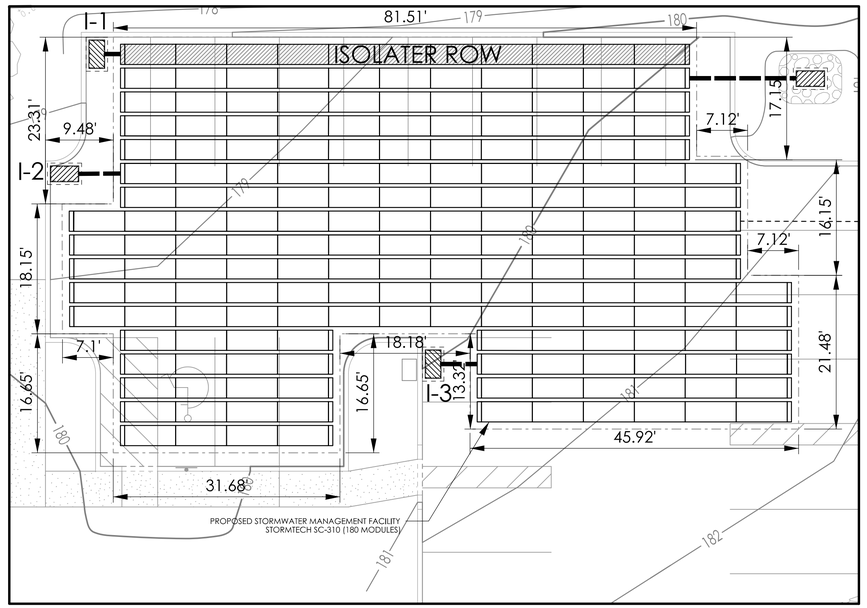
1. AT LEAST 7 DAYS BEFORE ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER TO AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL MUNICIPALITY PRIOR TO IMPLEMENTATION.
2. STABILIZATION NOTE - UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE. HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES.
3. LIMITS OF DISTURBANCE AND LOCATIONS OF PROPOSED ON-SITE BMPS MUST BE DELINEATED WITH ORANGE CONSTRUCTION FENCE, OR APPROVED EQUAL, PRIOR TO EARTH MOVING ACTIVITIES.
4. PLACE COMPOST FILTER SOCKS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
5. INSTALL STABILIZED CONSTRUCTION ENTRANCE. CONTRACTOR MAY MODIFY LOCATION OF THE CONSTRUCTION ENTRANCES AS REQUIRED DURING CONSTRUCTION. CONTRACTOR TO UTILIZE ACCEPTABLE STANDARDS AND PRACTICES TO ENSURE SEDIMENT IS NOT TRACKED OFF THE PROPERTY AND ONTO PUBLIC RIGHTS-OF-WAY. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY, AS APPROPRIATE.
6. PLACE PERIMETER EROSION AND SEDIMENT CONTROLS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN THAT INCLUDES TEMPORARY INLET PROTECTION, COMPOST FILTER SOCK, CONCRETE WASHOUT, AND LOCATIONS FOR TEMPORARY TOPSOIL STOCKPILE AREAS. STABILIZE ANY RESULTANT DISTURBANCE IMMEDIATELY, AS APPROPRIATE.
7. CLEAR AND GRUB TREES AND VEGETATION AS NEEDED THROUGHOUT THE DISTURBANCE AREA.
8. REMOVE AND DISPOSE OF AND/OR RECYCLE PORTION OF EXISTING BUILDING, EXISTING ASPHALT, CONCRETE, GRAVEL, AND CURB.
9. INSTALL THE UNDERGROUND INFILTRATION BED.
10. INSTALL STORM STRUCTURES AND DRAINS (NOTE THAT INLET PROTECTION SHALL BE PROVIDED UNTIL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED) AND SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED.
11. EXCAVATE AND CONSTRUCT THE BUILDING FOUNDATION.
12. CONSTRUCT BUILDING.
13. INSTALL SUBBASE FOR PAVEMENT, SIDEWALKS, CONCRETE CURBING, AND INTERNAL SIDEWALK. PROVIDE STABILIZATION OF ALL CONSTRUCTED PARKING AREAS AND DRIVEWAY TO MINIMUM OF STONE SUBBASE AND COMPLETION OF ALL GRADING AND UTILITY INSTALLATION OF PARKING LOT, CURBS, AND SIDEWALKS. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY.
14. INSTALL LANDSCAPING AND PERFORM FINAL STABILIZATION OF DISTURBED AREAS.
15. UPON STABILIZATION OF SITE, VACUUM STORM DRAIN NETWORK.
16. AFTER AN ON-SITE INSPECTION AND APPROVAL BY A REPRESENTATIVE OF THE LOCAL MUNICIPALITY, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
17. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT YET AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

INFILTRATION/DETENTION BASIN INSTALLATION SEQUENCE-CRITICAL STAGE
ALL CONSTRUCTION SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING GUIDELINES. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS STARTED.

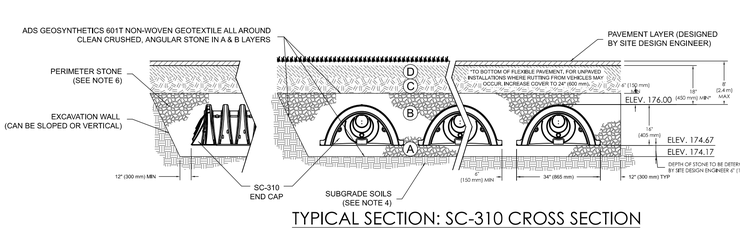
1. DELINEATE AREA OF PROPOSED INFILTRATION/DETENTION BASIN SYSTEM PRIOR TO START OF CONSTRUCTION. SITE CONTRACTOR SHALL TAKE GREAT CARE TO AVOID SOIL DISTURBANCE AND COMPACTION DURING CONSTRUCTION.
2. EXCAVATE AREA OF BED TO SUBGRADE ELEVATION. * CONTRACTOR SHALL TAKE GREAT CARE TO AVOID COMPACTION AND DISTURBANCE OF BED SUBGRADE DURING CONSTRUCTION. DO NOT COMPACT IN-SITU SOILS. HEAVY EQUIPMENT SHALL NOT BE USED WITHIN THE AREA OF THE INFILTRATION/DETENTION BASIN. ALL EQUIPMENT SHALL BE KEPT OUT OF THE EXCAVATED AREA TO THE MAXIMUM EXTENT POSSIBLE.
3. MANUALLY SCARIFY THE EXISTING SOIL SURFACES. PLACE ONE FOOT OF AMENDED SOIL ON TOP OF BED SUBGRADE.
4. UPON COMPLETION OF THE SUB-GRADE WORK, THE ENGINEER SHALL BE NOTIFIED AND INSPECT THE INFILTRATION BED CONFIGURATION.
5. INSTALL OUTLET STRUCTURES AND OUTFALL.
6. GRADE INFILTRATION/DETENTION BASIN AND APPLY PERMANENT STABILIZATION.
7. ENSURE INLETS TO SYSTEM ARE SEALED DURING CONSTRUCTION UNTIL SUCH TIME AS THE CONTRIBUTORY AREA HAS ACHIEVED FULL STABILIZATION.
8. WHEN THE SITE IS FULLY VEGETATED AND THE SOIL MANTLE IS STABILIZED, THE PLAN DESIGNER SHALL BE NOTIFIED AND SHALL INSPECT THE INFILTRATION/DETENTION BASIN DRAINAGE AREA AT HIS/HER DISCRETION BEFORE THE AREA IS BROUGHT ONLINE AND SEDIMENT CONTROL DEVICES ARE REMOVED.

POST-CONSTRUCTION STORMWATER MANAGEMENT NOTES:

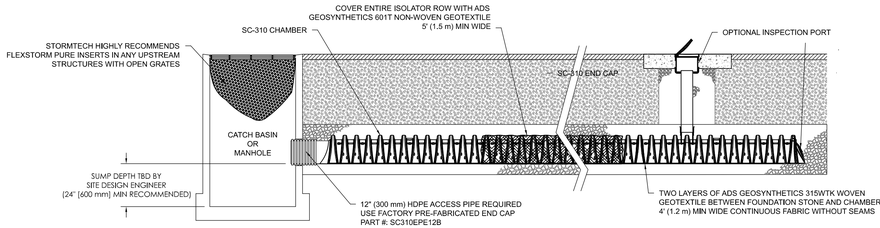
1. PRESERVATION OF EXISTING STREAM CHANNELS, AS WELL AS THE PROTECTION OF THE PHYSICAL, BIOLOGICAL, AND CHEMICAL QUALITIES OF THE RECEIVING STREAM, WILL BE ACHIEVED THROUGH THE IMPLEMENTATION OF APPROVED STORMWATER BMPS THAT WILL REDUCE THE RATE AND RUNOFF VOLUME IN THE POST-DEVELOPMENT CONDITION. WATER QUALITY BMPS ARE ALSO PROPOSED TO MITIGATE POLLUTION IMPACTS.
2. POST-CONSTRUCTION RUNOFF RATES WILL BE REDUCED TO LESS THAN PRE-CONSTRUCTION RUNOFF RATES FOR THE OVERALL SITE THROUGH THE USE OF A SUBSURFACE INFILTRATION BED.
3. THE POST-DEVELOPMENT RUNOFF VOLUME WILL BE REDUCED TO LESS THAN THE PRE-DEVELOPMENT RUNOFF VOLUME THROUGH THE USE OF SOIL AMENDMENTS AND LANDSCAPING.
4. PRE-DEVELOPMENT DRAINAGE PATTERNS WERE MAINTAINED IN THE POST-DEVELOPMENT CONDITION, TO THE EXTENT PRACTICAL. ALL OF THE SITE DISCHARGE DRAINS TO PLYMOUTH CREEK, WHICH HAS A CHAPTER 93 CLASSIFICATION OF WWF- WARM WATER FISHES.
5. THE INTRODUCTION OF ADDITIONAL IMPROVIS SURFACES WAS MINIMIZED TO THE EXTENT PRACTICAL.
6. THE LIMIT OF EARTH DISTURBANCE (INCLUDING GRADING AND LAND CLEARING) IS MINIMIZED AND THE PRESERVATION OF EXISTING VEGETATION IS MAXIMIZED TO THE EXTENT PRACTICAL.
7. NO ADDITIONAL DISCHARGES TO THE WATERCOURSES ARE PROPOSED AS PART OF THIS PROJECT. THE BMPS PROPOSED TO DP001 WILL DISCHARGE TO THE WATERCOURSES VIA EXISTING DRAINAGE FEATURES.
8. SOIL COMPACTION SHALL BE MINIMIZED TO THE EXTENT PRACTICAL, PARTICULARLY IN THE AREAS TO BE PERVIOUS IN THE POST-DEVELOPMENT CONDITION.
9. CHANGES TO THE SITE'S RUNOFF WILL BE MINIMIZED THROUGH THE USE OF A SUBSURFACE INFILTRATION BED
10. THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMPS. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
11. AS-BUILT PLANS OF THE STORMWATER BMPS SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF THE BMP CONSTRUCTION. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER.
13. NO UNTREATED RUNOFF SHALL ENTER ANY BMPS UNTIL FINAL SITE STABILIZATION IS ACHIEVED IN THE TRIBUTARY DRAINAGE AREA. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
14. 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 SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
15. THE PROJECT AREA IS NOT LOCATED IN AN HQ - HIGH QUALITY OR EV - EXCEPTIONAL VALUE WATERSHED.
16. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES MUST BE PROVIDED AS PART OF THE LONG-TERM OPERATION AND MAINTENANCE PROGRAM.
17. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE KEPT ON SITE AND AVAILABLE FOR REVIEW AND INSPECTION BY THE TOWNSHIP.
18. THE POTENTIAL FOR THERMAL IMPACTS IS MINIMIZED THROUGH THE USE OF A SUBSURFACE INFILTRATION BED , WHICH WILL PROVIDE TIME FOR RUNOFF TO COOL.



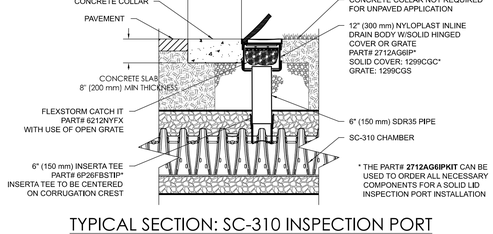
GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft



TYPICAL SECTION: SC-310 CROSS SECTION



TYPICAL SECTION: SC-310 ISOLATOR ROW
N.T.S.



TYPICAL SECTION: SC-310 INSPECTION PORT
N.T.S.

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REVISIONS

no.	description	date:	chk'd	by

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES P. BANNON ENGINEER No. PE082137

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: POST CONSTRUCTION STORMWATER MANAGEMENT DETAIL SHEET

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1" = 10'	JPB

sheet no.

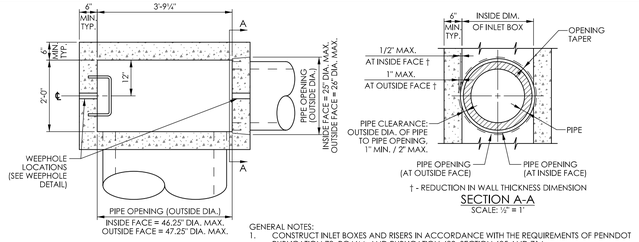
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11 OF 12

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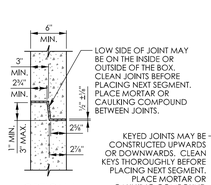


PLAN VIEW
SCALE: ½" = 1'

GENERAL NOTES:
1. CONSTRUCT INLET BOXES AND RISERS IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC46M, AND PUBLICATION 408, SECTION 605 AND 714.
2. PROVIDE PRECAST CONCRETE INLET BOXES AND RISERS SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
3. MINIMUM CONCRETE STRENGTH 4000 PSI @ 28 DAYS (PENNDOT CLASS AA).
4. STEEL REINFORCEMENT OR WELDED WIRE FABRIC (WWF) SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC46M.

† - REDUCTION IN WALL THICKNESS DIMENSION

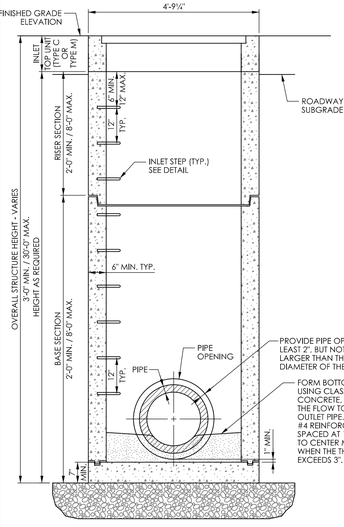
SECTION A-A
SCALE: ½" = 1'



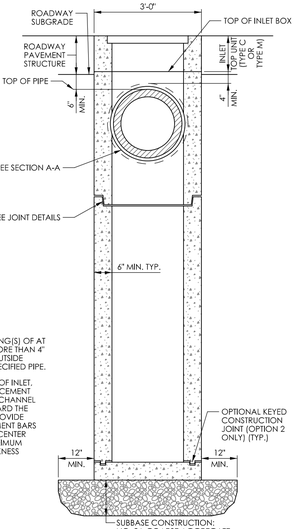
OPTION 1 (SHIPLAP JOINT)
SCALE: 1" = 1'

OPTION 2 (KEYED JOINT)
SCALE: 3" = 1'

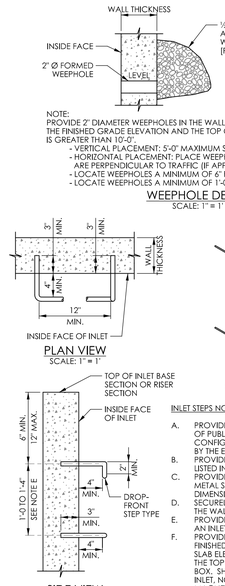
(PRECAST) JOINT DETAILS
SCALE: AS NOTED



TYP. INLET STRUCTURE ASSEMBLY
SCALE: ½" = 1'



TYP. INLET STRUCTURE ASSEMBLY
SCALE: ½" = 1'

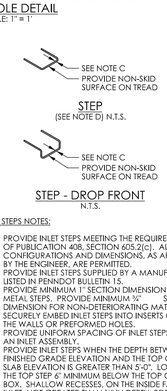


NOTE:
PROVIDE 2" DIAMETER WEEPHOLES IN THE WALLS WHEN THE DEPTH BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF BOTTOM SLAB ELEVATION IS GREATER THAN 10'-0":
- VERTICAL PLACEMENT: 5'-0" MAXIMUM SPACING
- HORIZONTAL PLACEMENT: PLACE WEEPHOLES IN THE SIDE WALLS THAT ARE PERPENDICULAR TO TRAFFIC (IF APPLICABLE).
- LOCATE WEEPHOLES A MINIMUM OF 6" FROM PIPE OPENINGS OR JOINTS.
- LOCATE WEEPHOLES A MINIMUM OF 1'-0" ABOVE OUTLET PIPE INVERT.

WEEPHOLE DETAIL
SCALE: 1" = 1'

PLAN VIEW
SCALE: 1" = 1'

SIDE VIEW
SCALE: 1" = 1'

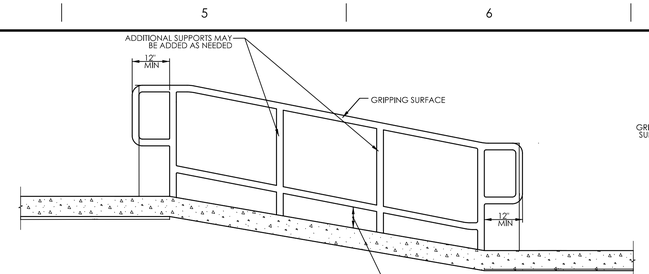


STEP
(SEE NOTE D) N.T.S.

STEP - DROP FRONT
N.T.S.

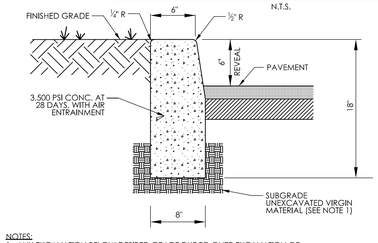
INLET STEPS NOTES:
A. PROVIDE INLET STEPS MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 605.2(c). ALTERNATE CONFIGURATIONS AND DIMENSIONS, AS APPROVED BY THE ENGINEER, ARE PERMITTED.
B. PROVIDE INLET STEPS SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
C. PROVIDE MINIMUM 1" SECTION DIMENSION FOR METAL STEPS. PROVIDE MINIMUM ½" SECTION DIMENSION FOR NON-DETERIORATING MATERIAL STEPS.
D. SECURELY EMBED INLET STEPS INTO INSERTS CAST INTO THE WALLS OR PREFORMED HOLES.
E. PROVIDE UNIFORM SPACING OF INLET STEPS WITHIN AN INLET ASSEMBLY.
F. PROVIDE INLET STEPS WHEN THE DEPTH BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF BOTTOM SLAB ELEVATION IS GREATER THAN 5'-0". LOCATE THE TOP STEP 6" MINIMUM BELOW THE TOP OF THE INLET BOX. SHALLOW RECESSES, ON THE INSIDE FACE OF THE INLET, NOT GREATER THAN ½" IN DEPTH, FORMED BY MAGNETIC STEP FORMERS ARE ACCEPTABLE AND DO NOT REQUIRE PATCHING. FOR FURTHER DETAILS, REFER TO PENNDOT PUBLICATION 72, RC-39M.

TYP. STEP CONFIGURATION - INLET STEPS

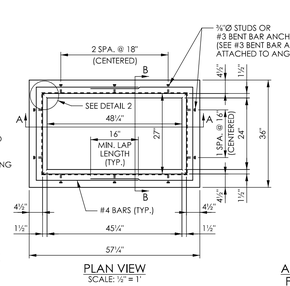


NOTES:
1. HANDRAILS MUST MEET THE REQUIREMENTS OF THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
2. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF RAMP.
3. HANDRAILS SHALL NOT ROTATE IN THEIR FITTINGS.
4. HANDRAILS SHALL BE CONTINUOUS WITHIN THE FULL LENGTH OF THE RAMP RUN.
5. HANDRAILS SHALL BE AT A CONSTANT HEIGHT ABOVE THE RAMP SURFACE.
6. TOP OF GRIPPING SURFACES OF HANDRAILS SHALL BE 34 INCHES MINIMUM AND 38 INCHES MAXIMUM VERTICALLY ABOVE THE RAMP SURFACE.
7. HANDRAIL GRIPPING SURFACES SHALL BE CONTINUOUS ALONG THEIR LENGTH AND SHALL NOT BE OBSTRUCTED ALONG THEIR TOPS OR SIDES. THE BOTTOM OF HANDRAIL GRIPPING SURFACE SHALL NOT BE OBSTRUCTED FOR MORE THAN 20 PERCENT OF THEIR LENGTH
8. CLEARANCE BETWEEN HANDRAIL GRIPPING SURFACE AND ADJACENT SURFACES SHALL BE 1 1/2 INCHES MINIMUM.
9. HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4 INCHES MINIMUM AND 2 INCHES MAXIMUM. HANDRAIL GRIPPING SURFACES WITH A NON- CIRCULAR CROSS SECTION SHALL HAVE A PERIMETER DIMENSION OF 4 INCHES MINIMUM AND 6 1/4 INCHES MAXIMUM, AND A CROSS-SECTION DIMENSION OF 2 1/4 INCHES MAXIMUM.

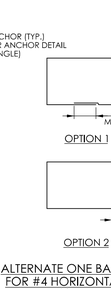
TYPICAL ADA RAMP HANDRAIL DETAIL
N.T.S.



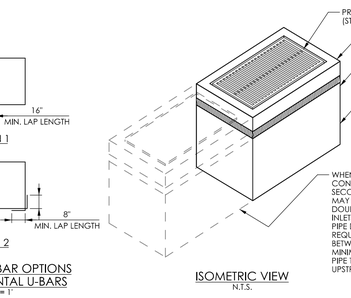
NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH ¾" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. EXPANSION JOINTS SHALL BE PROVIDED AT EQUAL DISTANCES OF NOT MORE THAN 20' AND AT ALL STORM SEWER INLETS. JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, ½" THICK, CONFORMING TO PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. CONTRACTION JOINTS SHALL BE PROVIDED EVERY 10'. THE JOINT SHALL BE RECESSED ¼" FROM THE TOP AND FRONT OF THE CONCRETE CURB.
3. CURB SHALL BE TEMPORARILY BACKFILLED TO FINISHED GRADE WITH SOIL BEHIND AND STONE ON THE ROAD SIDE AS SOON AS IT HAS ATTAINED SUFFICIENT SUPPORTING STRENGTH OR WITHIN 24 HOURS OF POURING (WHICHEVER IS LESS).
4. WHEN NEW CURB IS INSTALLED ALONG AN EXISTING PAVED AREA, THE EXISTING PAVEMENT SHALL BE CUT 2 FEET IN FRONT OF THE NEW CURB FACE IN A STRAIGHT LINE AT A 45 DEGREE ANGLE WITH A CUTTING WHEEL OR PNEUMATIC HAMMER. THE NEW PAVEMENT SHALL BE TACKED AND BUTTED TO THE EXISTING PAVEMENT.
5. THE GENERAL CONTRACTOR OR OWNER IS RESPONSIBLE FOR MAINTAINING ALL CURB UNTIL FORMALLY ACCEPTED BY THE TOWNSHIP. ALL CURB THAT IS BROKEN, CRACKED, OR OUT OF ALIGNMENT SHALL BE REPLACED PRIOR TO FINAL PAVING AND/OR ACCEPTANCE. CURB REPLACEMENT SHALL BE FROM EXPANSION JOINT TO EXPANSION JOINT ONLY.



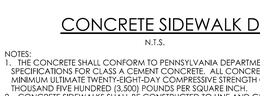
PLAN VIEW
SCALE: ½" = 1'



ALTERNATE ONE BAR OPTIONS FOR #4 HORIZONTAL U-BARS
SCALE: ½" = 1'

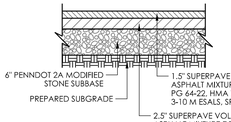


ISOMETRIC VIEW
N.T.S.

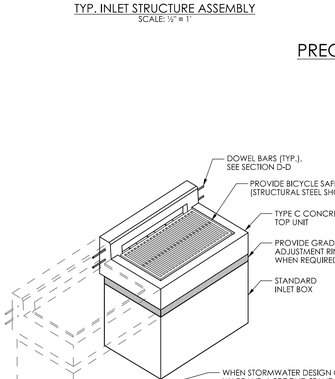


CONCRETE SIDEWALK DETAIL
N.T.S.

NOTES:
1. THE CONCRETE SHALL CONFORM TO PENNSYLVANIA DEPARTMENT OF HIGHWAYS SPECIFICATIONS FOR CLASS A CEMENT CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE TWENTY-EIGHT-DAY COMPRESSIVE STRENGTH OF THREE THOUSAND FIVE HUNDRED (3,500) POUNDS PER SQUARE INCH.
2. CONCRETE SIDEWALKS SHALL BE CONSTRUCTED TO LINE AND GRADE AS APPROVED OR AS ESTABLISHED BY THE TOWNSHIP ENGINEER.
3. THE BED FOR THE CEMENT CONCRETE SIDEWALKS SHALL BE THOROUGHLY COMPACTED, SHALL BE UNIFORMLY FOUR (4) INCHES BELOW THE FINISHED SURFACE. ON THIS FOUNDATION SHALL BE CONSTRUCTED A FOUR-INCH, ONE COURSE CEMENT CONCRETE PAVEMENT. JOINTS SHALL BE MADE EVERY FIVE (5) FEET AND A SPACE OF ONE-FOURTH (1/4) INCH TO ONE-HALF (1/2) INCH LEFT BETWEEN THE BLOCKS AT EVERY TENTH JOINT AND FILLED WITH PREPARED JOINT FILLER. JOINT FILLER SHALL CONSIST OF FIBER MATRIX AND BITUMEN CONTAINING NOT MORE THAN TWENTY-FIVE PERCENT (25%) OF INERT MATERIAL, HAVING A THICKNESS OF ONE-HALF (1/2) INCH. ALL JOINTS SHALL BE AT RIGHT ANGLES TO THE LINES OF THE WALK AND PERPENDICULAR TO THE SURFACE OF THE WALK. IN ALL OTHER RESPECTS THE SPECIFICATIONS FOR CONCRETE CURB SHALL GOVERN.
4. THE FINISHED WORK SHALL BE CURED BY THE USE OF AN APPROVED WHITE PIGMENTED CURING COMPOUND.

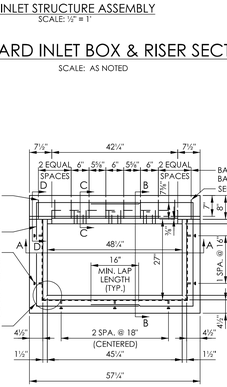


TYPICAL ON-SITE PAVING SECTION
N.T.S.

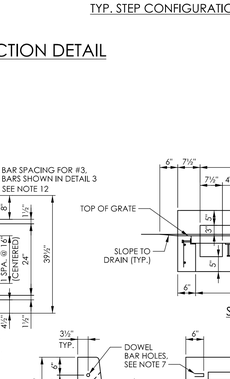


ISOMETRIC VIEW
N.T.S.

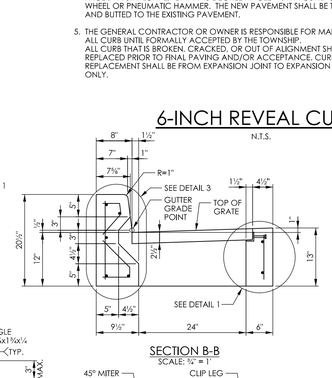
PRECAST STANDARD INLET BOX & RISER SECTION DETAIL
SCALE: AS NOTED



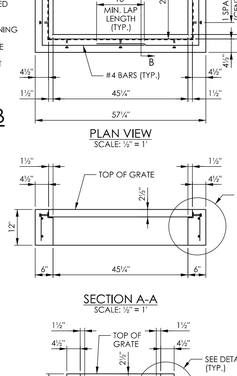
PLAN VIEW
SCALE: ½" = 1'



SECTION A-A
SCALE: ½" = 1'

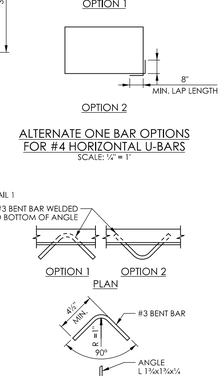


SECTION B-B
SCALE: ½" = 1'

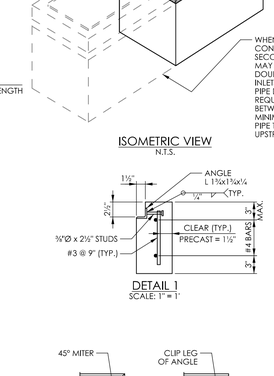


SECTION A-A
SCALE: ½" = 1'

SECTION B-B
SCALE: ½" = 1'



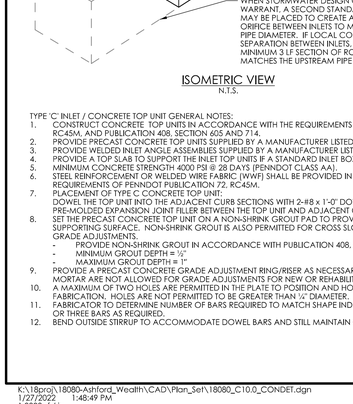
#3 BENT BAR ANCHOR DETAIL ATTACHED TO ANGLE
ALTERNATE DETAIL IN PLACE OF PROVIDING ⅜Ø STUD
SCALE: 1½" = 1'

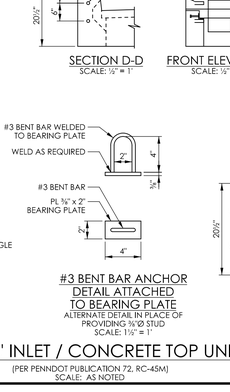


DETAIL 1
SCALE: 1" = 1'

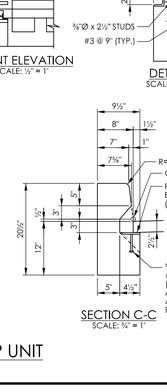
DETAIL 2
SCALE: 1½" = 1'

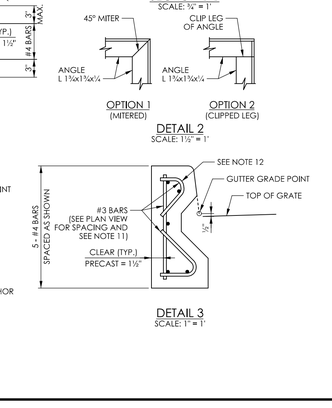
6-INCH REVEAL CURB
N.T.S.





#3 BENT BAR ANCHOR DETAIL ATTACHED TO BEARING PLATE
ALTERNATE DETAIL IN PLACE OF PROVIDING ⅜Ø STUD
SCALE: 1½" = 1'





TYPE 'C' INLET / CONCRETE TOP UNIT GENERAL NOTES:
1. CONSTRUCT CONCRETE TOP UNITS IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC45M, AND PUBLICATION 408, SECTION 605 AND 714.
2. PROVIDE PRECAST CONCRETE TOP UNITS SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
3. PROVIDE WELDED INLET ANGLE ASSEMBLIES SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
4. PROVIDE A TOP SLAB TO SUPPORT THE INLET TOP UNITS IF A STANDARD INLET BOX IS NOT SPECIFIED.
5. MINIMUM CONCRETE STRENGTH 4000 PSI @ 28 DAYS (PENNDOT CLASS AA).
6. STEEL REINFORCEMENT OR WELDED WIRE FABRIC (WWF) SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC45M.
7. PLACEMENT OF TYPE C CONCRETE TOP UNIT:
   DOWEL THE TOP UNIT INTO THE ADJACENT CURB SECTIONS WITH 2-#18 x 1'-0" DOWEL BARS. PLACE ¾" WIDE PRE-MOLDED EXPANSION JOINT FILLER BETWEEN THE TOP UNIT AND ADJACENT CURB.
8. SET THE PRECAST CONCRETE TOP UNIT ON A NON-SHRINK GROUT PAD TO PROVIDE FULL BEARING ON THE SUPPORTING SURFACE. NON-SHRINK GROUT IS ALSO PERMITTED FOR CROSS SLOPE AND LONGITUDINAL GRADE ADJUSTMENTS.
   - PROVIDE NON-SHRINK GROUT IN ACCORDANCE WITH PUBLICATION 408, SECTION 1001.2(d).
   - MINIMUM GROUT DEPTH = ½"
   - MAXIMUM GROUT DEPTH = 1"
9. PROVIDE A PRECAST CONCRETE GRADE ADJUSTMENT RING/RISER AS NECESSARY. BRICK OR BRICK AND MORTAR ARE NOT ALLOWED FOR GRADE ADJUSTMENTS FOR NEW OR REHABILITATION PROJECTS.
10. A MAXIMUM OF TWO HOLES ARE PERMITTED IN THE PLATE TO POSITION AND HOLD THE PLATE IN PLACE DURING FABRICATION. HOLES ARE NOT PERMITTED TO BE GREATER THAN ¼" DIAMETER.
11. FABRICATOR TO DETERMINE NUMBER OF BARS REQUIRED TO MATCH SHAPE INDICATED. PROVIDE ONE, TWO, OR THREE BARS AS REQUIRED.
12. BEND OUTSIDE STIRRUP TO ACCOMMODATE DOWEL BARS AND STILL MAINTAIN CLEARANCE REQUIREMENTS.

TYPE 'C' INLET / CONCRETE TOP UNIT
(PER PENNDOT PUBLICATION 72, RC-45M)
SCALE: AS NOTED

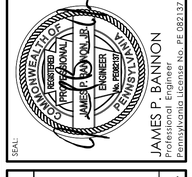
TYPE 'M' INLET / CONCRETE TOP UNIT GENERAL NOTES:
1. CONSTRUCT CONCRETE TOP UNITS IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC45M, AND PUBLICATION 408, SECTION 605 AND 714, AND AASHTO / AWS BRIDGE WELDING CODE.
2. PROVIDE PRECAST CONCRETE TOP UNITS SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
3. PROVIDE WELDED INLET ANGLE ASSEMBLIES SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
4. PROVIDE A TOP SLAB TO SUPPORT THE INLET TOP UNITS IF A STANDARD INLET BOX IS NOT SPECIFIED.
5. MINIMUM CONCRETE STRENGTH 4000 PSI @ 28 DAYS (PENNDOT CLASS AA).
6. STEEL REINFORCEMENT OR WELDED WIRE FABRIC (WWF) SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC45M.
7. PLACEMENT OF TYPE M CONCRETE TOP UNIT:
   PLACE THE TOP UNIT ADJACENT TO THE BACK EDGE OF THE CURB, FLUSH WITH PAVEMENT SURFACE, WHEN REQUIRED WITHIN A CONCRETE MOUNTABLE CURB SECTION.
8. SET THE PRECAST CONCRETE TOP UNIT ON A NON-SHRINK GROUT PAD TO PROVIDE FULL BEARING ON THE SUPPORTING SURFACE. NON-SHRINK GROUT IS ALSO PERMITTED FOR CROSS SLOPE AND LONGITUDINAL GRADE ADJUSTMENTS.
   - PROVIDE NON-SHRINK GROUT IN ACCORDANCE WITH PUBLICATION 408, SECTION 1001.2(d).
   - MINIMUM GROUT DEPTH = ½"
   - MAXIMUM GROUT DEPTH = 1"
9. PROVIDE A PRECAST CONCRETE GRADE ADJUSTMENT RING/RISER AS NECESSARY. BRICK OR BRICK AND MORTAR ARE NOT ALLOWED FOR GRADE ADJUSTMENTS FOR NEW OR REHABILITATION PROJECTS.
10. A MAXIMUM OF TWO HOLES ARE PERMITTED IN THE PLATE TO POSITION AND HOLD THE PLATE IN PLACE DURING FABRICATION. HOLES ARE NOT PERMITTED TO BE GREATER THAN ¼" DIAMETER.
11. FABRICATOR TO DETERMINE NUMBER OF BARS REQUIRED TO MATCH SHAPE INDICATED. PROVIDE ONE, TWO, OR THREE BARS AS REQUIRED.
12. BEND OUTSIDE STIRRUP TO ACCOMMODATE DOWEL BARS AND STILL MAINTAIN CLEARANCE REQUIREMENTS.

TYPE 'M' INLET / CONCRETE TOP UNIT
(PER PENNDOT PUBLICATION 72, RC-45M)
SCALE: AS NOTED

Nave Newell
Where Ideas Get Down to Earth
900 West Valley Road • Suite 1100
Wayne, PA 19087-1830
p. 610.964.8000 f. 610.964.8299
www.navenewell.com

no.	description	date	chk'd	by

REVISIONS



SEAL:
JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: CONSTRUCTION DETAIL SHEET

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
AS NOTED	JPB

sheet no.

C10.0

12 OF 12

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K:\18proj\18080-Ashford_Wealth\CAD\Plan_Set\18080_C10.0_CONDET.dgn
1/27/2022 1:48:49 PM
1.0000 sf / in.
USER: Ekovacik
18080_C10.0_CONDET.dgn 1/27/2022 1:48:54 PM

WHITEMARSH TOWNSHIP
SUBDIVISION and/or LAND DEVELOPMENT APPLICATION

The applicant, or applicant's authorized agent, for the Township to accept submission of the application, must complete each Application item and each Application Submission Checklist item.

Application Type: (check one)
☐ Minor Subdivision ☒ Minor Land Development
☐ Major Subdivision ☐ Major Land Development
☐ Land Development Waiver

Plan Type:
☐ Sketch ☐ Preliminary ☐ Final

INSERT "N/A" FOR NOT APPLICABLE WHERE APPROPRIATE

Name of Subdivision/Land Development: Ashford Wealth Advisors

Location of Subdivision/Land Development: 5, 15 East Germantown Pike
(~~Primary Access Roadway Name~~)

Between: Butler Pike (Roadway Name) and Marple Lane (Roadway Name)

Number of Parcels: 2 **Block Number(s):** 41 **Unit Number(s):** 2 and 3

Parcel Number(s): Unit 2: 65-00-04492-00-6 / Unit 3: 65-00-04489-00-9

Acreage: 22,410 SF (0.51 Ac.) **Total Lots Proposed:** 2 **Zoning District:** VC-2 (Village Commercial)

Water Service Proposed: ☒ Public ☐ Private Sewer Service Proposed: ☒ Public ☐ Private

Applicant Name: Ashford Consulting, LLC and Ashford Wealth Advisors, LLC **Contact Name:** Ari Frazer or Rosie Soto

Phone #: (610) 943-3113 Fax #: (610) 397-8630 Email: ari.m.frazer@ampf.com

Address: 5 East Germantown Pike, Plymouth Meeting, PA 19462

Owner of Record Name (If Different): _____

Phone #: _____ Fax #: _____ Email: _____

Address: _____

Engineer Name: James P. Bannon **Firm Name:** Nave Newell, Inc.

Phone #: (610) 265-8323 Fax #: (610) 265-4299 Email: jbannon@navenewell.net

Address: 900 West Valley Rd., Suite 1100, Wayne, PA 19087

Fees and plans showing all public improvements are submitted with this application. Any additional plan information required by the Township Engineer will be submitted to the Director of Planning and Zoning for distribution. The undersigned applicant agrees to comply with all the provisions of Chapter 105 of the Code of the Township of Whitemarsh, as amended, and agrees to obtain all necessary permits in connection with the proposed subdivision and/or land development.

Whitemarsh Township employees, or township-authorized agents, are hereby granted permission to enter upon the land, if necessary, for site inspections.

Original preliminary and/or original final subdivision and/or land development applications submitted by 4:00pm on the last business day of the month will be reviewed by the Whitemarsh Township Planning Commission at a regular meeting two (2) months following the date of submission or other appropriate meeting date depending upon the results of Township reviews.

I hereby certify, as the undersigned applicant, that I am familiar with the provisions of: [1] Chapter 105, "Subdivision and Land Development", [2] Chapter 58, "Grading, Erosion Control, Stormwater Management and Best Management Practices", and [3] Chapter 55, "Tree Protection Standards" of the Code of the Township of Whitemarsh, as amended, and, to the best of my knowledge and belief, this application and the submitted plans conform to those provisions.

Date of Submission: 1/27/22

Signature: _____

(Original Signature must be submitted)

Printed Name: Ari Frazer

I, **(name)** Ari Frazer **(title)** President of

(entity submitting application) Ashford Consulting, LLC and Ashford Wealth Advisors, LLC do hereby affirm

that I am authorized by the applicant to affix my signature to this application.

Date: 1/27/22 Signature: _____

(Original Signature must be submitted)

WHITEMARSH TOWNSHIP
SUBDIVISION and/or LAND DEVELOPMENT
TIME WAIVER FORM

Date: 1/27/22

Granted to: Whitemarsh Township Board of Supervisors

Name of Subdivision and/or Land Development: Ashford Wealth Advisors

On or about, 1/27/22, I/we submitted for official filing the above-reference application.

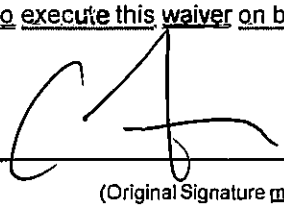
Notwithstanding any contrary provision of the Pennsylvania Municipalities Planning Code or the Code of the Township of Whitemarsh, this letter will serve as notice to Whitemarsh Township that the requirement that action be taken on this application within ninety (90) days is hereby waived, without limitation as to time. This waiver is granted to permit us to make revisions to the application during the application review process.

Further, with the understanding that this waiver is voluntarily given and will be relied upon by Whitemarsh Township, I/we will give Whitemarsh Township written notice (by certified mail or recognized overnight carrier) should we determine that limiting the time of the review process becomes necessary. Whitemarsh Township shall then have ninety (90) days from receipt of such written notice in which to act upon the application.

This waver is not transferable or assignable by the Applicants and shall apply to any and all revised submissions made in relation to the above-referenced application.

I/we represent that I/we have been duly authorized to execute this waiver on behalf of the Applicant.

Date: 1/27/22

Signature: 

(Original Signature must be submitted)

Printed Name: Ari Frazer

Firm Name: Ashford Consulting, LLC and Ashford Wealth Advisors, LLC
(if applicable)

Title: President
(if applicable)

WHITEMARSH TOWNSHIP
REQUEST FOR MODIFICATION (WAIVER) OF
SUBDIVISION and/or LAND DEVELOPMENT ORDINANCE REQUIREMENTS

Pursuant to § 512.1.(b) of the Pennsylvania Municipalities Planning Code, all requests for a modification shall be in writing and shall accompany and be a part of the application for development. The request shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the ordinance involved and the minimum modification necessary.

Check the appropriate line:

☐ No modification (or waiver) of the Whitemarsh Township Subdivision and Land Development Ordinance is requested

☒ I/we hereby request the following modification[s] (or waiver[s]) of the Whitemarsh Township Subdivision and Land Development Ordinance. (The request must identify the applicable Section[s] of the Ordinance, modification[s] requested, and facts of unreasonableness or hardship upon which the request is made; attach additional sheets if necessary).

See attached.

Name of Subdivision and/or Land Development: Ashford Wealth Advisors

Date: 1/27/22 Signature: _____

(Original Signature must be submitted)

Ashford Wealth Advisors

Preliminary/Final land Development Waiver Request List

Submission

1. Ch. 105 12(D) of SALDO to allow the plans to be reviewed and approved simultaneously as both preliminary and final plans, rather than requiring separate preliminary and final plan submissions.

Resolution 2004-8: Grading, Erosion Control, Stormwater Management, and Best Management Practices

2. II(D)(2) –The top of any slope shall be located a minimum of five (5) feet from property line: We are requesting a waiver because we received a parking variance that has the proposed parking lot less than five feet away from the property line. The existing building on the east of the property is also less than five feet away from the property line.

3. II(E)(2)(g)(iv) The minimum diameter of all storm drainage pipes shall be eighteen (18) inches or equivalent thereto. All storm pipes shall be reinforced concrete pipe: We are requesting a waiver from this requirement to use a twelve inch pipe instead of an eighteen inch pipe. The largest pipe size the proposed stormwater system can accommodate is a twelve inch pipe use HDPE storm pipes.

4. II(F)(3)(d)[4][e][7] Infiltration rates shall not be used in computing the storage volume of the infiltration system: We are requesting a waiver to use infiltration in our volume routing. Because we are proposing a no release system, the BMP is designed to hold the 100-year storm. The size of the system will be providing additional volume in the system and modeling infiltration will help minimize the size of the BMP.

5. II(F)(3)(d)[4][g] Any infiltration BMP shall be capable of completely infiltrating the impounded water within 96 hours: We are requesting a waiver because we are using a subsurface system which does not present the same concerns that still water does in above ground BMP facilities. The subsurface system will dewater in 7 days, which is with in DEP's standards. Our design will utilize and emergency overflow inlet in the case of back to storm events.

SUPERSEDED

K:\18proj\18080-Ashford_Wealth\RevResp\Township\Guttanplan_ltr_22-01-25_waiver req letter.docx

FUREY & BALDASSARI, P.C.

ATTORNEYS AT LAW
1043 S. PARK AVENUE
AUDUBON, PA 19403

MICHAEL E. FUREY
JOSEPH J. BALDASSARI*

(610) 666-7500
fax (610) 666-7200

*also member NJ bar

October 1, 2021

Ashford Consulting, LLC
and Ashford Wealth Advisors, LLC
5 E. Germantown Pike
Plymouth Meeting, PA 19462

RE: Whitemarsh Township Zoning Hearing Board
Application of Ashford Consulting, LLC, No. 2021-39

Dear Applicant:

Enclosed herewith please find a true and correct copy of the Decision and Order of the Whitemarsh Township Zoning Hearing Board pursuant to the vote on September 22, 2021 to grant the application with conditions.

You are also hereby advised that all parties have thirty (30) days from the issuance of the Board's Decision and Order to file an appeal to the Court of Common Pleas of Montgomery County.

Sincerely,

MICHAEL E. FUREY
Solicitor to the Whitemarsh Township
Zoning Hearing Board

MEF/js
Enclosure
cc: Charles Guttenplan, Zoning Officer (w/enclosure)
Sean Kilkenny, Esquire (w/enclosure)
Gina Gerber, Esquire (w/enclosure)

WHITEMARSH TOWNSHIP ZONING HEARING BOARD

APPLICATION NO.: 2021-39
APPLICANTS: Ashford Consulting, LLC and
Ashford Wealth Advisors, LLC
Block 041, Units 002 and 003
5 E. Germantown Pike and
15 E. Germantown Pike
Plymouth Meeting, PA 19462
VC-2 – Village Commercial District

HEARING DATE: 09/22/21
VOTE: 09/22/21
WRITTEN DECISION: 10/01/21
COPY MAILED: 10/01/21

DECISION AND ORDER

The Applicants requested a variance from the expiration provisions of the Zoning Ordinance, so as to maintain the validity of the zoning approvals and relief granted in Decision and Order 2019-39.

After completion of a public hearing on the above-referenced Application, pursuant to public notice as required by law, the Zoning Hearing Board of Whitemarsh Township decided and orders as follows:

1. A variance from Section 116-223 is **GRANTED,** so as to continue the validity of the zoning approvals and relief granted in Decision and Order No. 2019-39 until September 30, 2022, with extensions to September 30, 2023, as provided in the following conditions.

THIS DECISION IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. All use and development permitted by this Decision shall substantially conform to the exhibits and testimony presented by the Applicants, unless inconsistent with any specific conditions imposed by this Board, in which case these specific conditions shall take precedence.

2. The Applicants shall comply with all conditions imposed in ZHB Decision and Order No. 2019-39, except that the expiration provisions under Section 116-223 noted therein shall not apply.

3. The Applicants shall comply with all requirements of the Township's Director of Building and Codes with respect to securing the building, and addressing any Property Maintenance Code requirements, including requiring the Applicants to submit a structural engineering report regarding the building, if deemed appropriate by the Director of Building and Codes.

4. The Applicants shall file a complete Land Development Application within four (4) months of the date of this Decision. The Applicants shall diligently pursue and obtain such approvals and permits related to the project as the Township Zoning Officer requires within one (1) year of the date of this Decision. If the Zoning Officer determines that the Applicants are diligently pursuing all such required approvals and permits, the Zoning Officer is authorized to grant up to two (2) consecutive six-month extensions, (to September 30, 2023), to obtain such approvals and permits, as required by the Zoning Officer.

   If an appeal is filed with respect to this Decision and Order (other than by the Applicants), the deadlines set forth above shall not apply, and if the Board's Decision and Order is upheld on appeal, the Applicants shall have one (1) year after the final termination of all appeals, followed by two (2) additional six-month extensions as granted by the Zoning Officer, to obtain such approvals and permits as required by the Zoning Officer.

This Decision and Order of the Board is final and any appeal of it must be filed with the Court of Common Pleas of Montgomery County within thirty (30) days following the copy mailing date set out above.

The Board reserves the right to issue Findings of Fact and Conclusions of Law in the event of an appeal.

No. 2021-39
WHITEMARSH TOWNSHIP ZONING HEARING BOARD:

Robert A. Bacine, Chair

William E. Kramer, Vice Chair

Marc Weinstein

Stanley A. Casacio

James Behr

Randi Rubin

FUREY & BALDASSARI, P.C.

ATTORNEYS AT LAW
1043 S. PARK AVENUE
AUDUBON, PA 19403

MICHAEL E. FUREY
JOSEPH J. BALDASSARI*

(610) 666-7500
fax (610) 666-7200

*also member NJ bar

January 13, 2020

Ashford Consulting, LLC
and Ashford Wealth Advisors, LLC
5 E. Germantown Pike
Plymouth Meeting, PA 19462

RE: Whitemarsh Township Zoning Hearing Board
Application of Ashford Consulting, LLC, No. 2019-39

Dear Applicants:

Enclosed herewith please find a true and correct copy of the Findings of Fact, Conclusions of Law, Decision and Order of the Whitemarsh Township Zoning Hearing Board.

You are also hereby advised that all parties have thirty (30) days from the issuance of the Board's Decision and Order to file an appeal to the Court of Common Pleas of Montgomery County.

Sincerely,

MICHAEL E. FUREY
Solicitor to the Zoning Hearing Board of
Whitemarsh Township

MEF/js
Enclosure
cc: Charles Guttenplan, Zoning Officer (w/enclosure)
Sean Kilkenny, Esquire (w/enclosure)
Debra A. Shulski, Esquire (w/enclosure)
Ann and Roy Wilson (w/enclosure)

BEFORE THE ZONING HEARING BOARD OF WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

APPLICATION OF ASHFORD CONSULTING, LLC
AND ASHFORD WEALTH ADVISORS, LLC NO.: 2019-39

DECISION

I. BACKGROUND

The Applicants, Ashford Consulting, LLC and Ashford Wealth Advisors, LLC filed an application with the Zoning Hearing Board, regarding the properties located at 5 E. Germantown Pike and 15 E. Germantown Pike. The Applicants propose to construct a 792 square foot addition to the building at 15 E. Germantown Pike, with associated parking on the adjacent property located at 5 E. Germantown Pike. A public hearing was conducted on December 11, 2019. The property is zoned VC-2 – Village Commercial District (Subdistrict-2).

The Applicants requested the following relief:

1. A variance from Section 116-24.D.(3), so as to permit 41.5% of the area of the required rear yard to be covered with accessory uses and structures for the proposed parking area, rather than the 30% permitted.

2. A variance from Section 116-184.D.(5), so as to permit 24 parking spaces, rather than the 28 parking spaces required for the office area on both lots.

3. A variance from Section 116-291.A.(7)(a)[4], so as to permit less than 50% of the required parking to be located between the rear lot line and rear principal building plane.

4. A variance from Section 116-291.C, so as to eliminate the buffer equal to the width of the required setbacks.

5. Variances from Sections 116-294. #6, #8, and #9, so as to permit a maximum of 66.8% impervious coverage and 33.2% vegetated open space on Lot 1 (5 E. Germantown Pike), rather than the 60% impervious coverage permitted and the 40% vegetated open space required, and a variance so as to permit 34.4% building coverage on Lot 2 (15 E. Germantown Pike), rather than the 30% permitted.

6. A variance from Section 116-296.B, so as to permit a parking setback to a residential lot of 3.8 feet, rather than the 20 feet required.

7. A special exception under Section 116-185, so as to permit parking to be located on an adjacent lot, rather than on the same lot, and in the alternative, a variance from Section 116-184.D, so as to permit parking to be located on the adjacent lot.

The Zoning Hearing Board members participating in the hearings were Stanley A. Casacio, who served as Chair, Robert A. Bacine, James Behr, and Marc Weinstein, The Applicants were represented by Debra Shulski, Esquire. The following neighboring property owner and her husband entered appearances as parties in opposition to the application:

Ann and Roy Wilson ("Objectors")

The witnesses were duly sworn or affirmed and Notes of Testimony for the hearings were transcribed and are hereby made a part of this record. After the hearing and public discussion, the Board voted unanimously on December 11, 2019 to grant the application. The Board issues Findings of Fact and Conclusions of Law in support of the Decision and Order.

II. FINDINGS OF FACT

1. The Applicants are Ashford Consulting, LLC and Ashford Wealth Advisors, LLC , legal owners of the properties located at 5 E. Germantown Pike and 15 E. Germantown Pike. (N.T. 12/11/19, pp. 15-16, Exhibits A-1, A-2)

2. The following Exhibits were marked and duly admitted into evidence:

TOWNSHIP EXHIBITS:

T-1A	Proof of Publication
T-1B	Meeting Notification
T-1C	Posting of Notice
T-2	Zoning Map
T-3	Tax Map
T-4	Township Engineer Memo Dated November 26, 2019

T-5 Prior Decisions:

ZHB #1991-16
ZHB #1977-29
ZHB #1974-35
ZHB #1966-13
ZHB #1965-14
ZHB #1950-6

APPLICANTS' EXHIBITS:

A-1	Zoning Hearing Board Application dated October 18, 2019
A-2	Property Deeds
A-3	Photographs of Existing Building on Lot 2
A-4	Conceptual Architectural Elevation Plans
A-5	CV of James P. Bannon, P.E.
A-6	Aerial Plan
A-7	Existing Features Plan
A-8	Zoning Plan (consisting of 2 sheets including enlarged view)
A-9	Township Engineer Review Letter

OBJECTORS' EXHIBITS:

Wilson-1	Photos
Wilson-2	1979 Letter

3. The Applicants propose to construct a 792 square foot addition to the building at 15 E. Germantown Pike, with associated parking on the adjacent property located at 5 E. Germantown Pike. (N.T. 12/11/19, pp. 15-16, Exhibits A-4, A-8)

4. The Properties are located in the Village Commercial (VC-2) District. (Exhibit T-2)

5. The Properties measure approximately 22,400 gross square feet (18,923 net) in total. (Exhibits A-7, A-8)

6. The Applicants operate their consulting business out of an historic office building at 5 E. Germantown Pike. (N.T. 12/11/19, p. 11)

7. The adjacent property located at 15 E. Germantown Pike contains a vacant historic structure, constructed in the 1800's. (N.T. 12/11/19, p. 11)

8. The structure at 15 E. Germantown Pike is in a state of significant disrepair. (N.T.

12/11/19, pp. 11-12, Exhibit A-3)

9. The property at 15 E. Germantown Pike suffers from significant physical hardships, including the size of the lot at only 4,725 gross square feet (4,022 net), an undersized nonconforming lot width, and other existing nonconformities, allowing for no off-street parking, and no vehicular access to Germantown Pike (or any other road). (N.T. 12/11/19, pp. 43-44, Exhibits A-7, A-8)

10. The Applicants recently purchased 15 E. Germantown Pike, containing the dilapidated historic structure, with plans to renovate and construct a 792 square foot addition, which the Applicants will then adaptively reuse in conjunction with their businesses. (N.T. 12/11/19, pp. 11-12)

11. Any use of 15 E. Germantown Pike for offices, a permitted use, would require zoning relief, and the financial hardship to preserve, renovate and use the historic building as a stand-alone project renders such an undertaking infeasible. (N.T. 12/11/19, pp. 12-13)

12. As a result, the Applicants, owning the adjacent property, are uniquely positioned to renovate and use the historic structure, and provide the common off-street parking, as a form of shared parking encouraged by the VC District Zoning Ordinance provisions. (N.T. 12/11/19, pp. 13-14)

13. The Applicants presented the testimony of Rosie Soto, the Business Manager for the Applicants' group of businesses. (N.T. 12/11/19, p. 14)

14. The principals of the Applicants have operated their businesses in the Township at 5 E. Germantown Pike for decades now, first leasing 5 E. Germantown Pike, and then acquiring legal title to both 5 E. Germantown Pike and 15 E. Germantown Pike. (N.T. 12/11/19, pp. 16-19, 65-67, Exhibit A-2)

15. The Applicants propose to now operate their businesses out of both buildings (N.T.

12/11/19, pp. 17-19)

16. The Applicants are following the proper procedure by presenting to the Township's Historical Architectural Review Board plans for the renovation of, and addition to, the historic structure at 15 E. Germantown Pike. (N.T. 12/11/19, pp. 22-23)

17. Having worked out of offices at 5 E. Germantown Pike since 2001, Ms. Soto was well familiar with the fact that no one has purchased and renovated for use the property at 15 E. Germantown Pike because of its continuing deteriorating condition, and lack of parking and vehicular access to a public street. (N.T. 12/11/19, pp. 23-24)

18. The Applicants plan to add a centrally located common off-street parking area, and a pedestrian walkway connection between the two (2) buildings. (N.T. 12/11/19, pp. 47-48)

19. The Zoning Officer, Charles Guttenplan, AICP, testified that even though not required in this case, the shared parking in the form of a common off-street parking area, as proposed by the Applicants, is encouraged by the VC District Zoning Ordinance, and the common off-street parking proposal complies with the goals of the Township. (N.T. 12/11/19, pp. 27-28)

20. The Applicants will record cross easements for the common off-street parking arrangement. (N.T. 12/11/19, pp. 30-31)

21. The Applicants presented the testimony of James Bannon, Jr., P.E., an expert in civil engineering ("Civil Engineer"). (N.T. 12/11/19, pp. 39-40, Exhibit A-5)

22. The Civil Engineer verified the testimony of the Applicants, and the statements of counsel, that the buildings located on 5 E. Germantown Pike and 15 E. Germantown Pike are historic structures. (N.T. 12/11/19, pp. 42-43)

23. Seven (7) parking spaces will be added to the existing seventeen (17) parking spaces, for a total of twenty-four (24) parking spaces. (N.T. 12/11/19, pp. 43-44)

24. The Applicants presented uncontroverted testimony that the proposed twenty-four (24) parking spaces will serve the needs of the Applicants' businesses. (N.T. 12/11/19, pp. 20-21, 32-35)

25. The only access to the building at 15 E. Germantown Pike is pedestrian access; the lot is only forty-seven (47) feet wide with the existing building measuring forty-three (43) feet in width. (N.T. 12/11/19, pp. 43-44)

26. No vehicular access is available to 15 E. Germantown Pike and no accessible parking can be provided without an easement over adjacent properties. (N.T. 12/11/19, pp. 43-45)

27. While attempting to provide sufficient parking on this challenging site from a development standpoint, the project design specifies the parking in the rear, so as to be less visible from Germantown Pike. (N.T. 12/11/19, pp. 49-51, Exhibit A-8)

28. The existing parking is nonconforming with respect to its location in the rear yard, and therefore, extending the parking in the same location is not only justified from a hardship standpoint, but represents a de minimis variance under Section 116-24.D.(3).

29. The proposed parking will meet the needs of the Applicants, and the variance from the required parking provisions of Section 116-184.D.(5) is justified on the basis of hardship, as well as qualifying as a de minimis variance in this particular situation. (N.T. 12/11/19, pp. 50-51)

30. Due to the size and shape of these properties, and the locations of the historic buildings, the variance from Section 116-291.A.(7)(a)[4] is justified in that it is simply not possible to comply with the restriction under Section 116-24.D.(3) of no more than 30% of the area between the buildings and the rear lot line occupied by accessory structures (parking), and to have at least 50% of the required parking in that same area.

31. As a result of the unique conditions noted herein, the hardship imposed on the

properties by the zoning requirements related to the location of the parking on the lots is evident, but the relief requested is also de minimis in nature.

32. The requirement to have a buffer equal to the width of the required setback under Section 116-291.C is just not feasible on the property due to its physical limitations and existing nonconformities. (N.T. 12/11/19, pp. 52-53)

33. The hardship imposed by the buffer requirements under Section 116-291.C is evident, when one considers the parking location requirements, but the request for relief is likewise de minimis due to the existing vegetation on the adjacent lot, and the condition imposed by the Board requiring a screening buffer.

34. The request for 66.8% impervious coverage on 5 E. Germantown Pike represents an appropriate balance of providing parking required for the use and minimizing the variance to exceed the coverage requirement; the Applicants' request to reduce the parking space count has the benefit of reducing the impervious coverage.

35. The request for a building coverage of 34.4% on 15 E. Germantown Pike is appropriate due to the hardship caused by the size of the lot, and the need to expand the historic structure for reasonable use.

36. There is currently no stormwater management on either of the properties and, if developed in accordance with this proposal, stormwater management facilities would be required, which will undoubtedly improve the stormwater conditions. (N.T. 12/11/19, pp. 48, 95-97, 100-101, 112-113)

37. The Township Engineer had no objection to the proposed impervious coverage, thus supporting the conclusions of the Applicants' Civil Engineer. (N.T. 12/11/19, p. 54, Exhibit T-4)

38. In order to reasonably develop 15 E. Germantown Pike for the proposed permitted

office use, the parking must be placed on 5. E. Germantown Pike, which necessitates the need for the variances applicable to 5 E. Germantown Pike.

39. The requests for variances under Section 116-294 for the impervious coverage/green space on 5 E. Germantown Pike, and the increase in building coverage to 34.4% on 15 E. Germantown Pike, are therefore supported by a hardship analysis, but also represent de minimis requests.

40. The variance to allow the proposed parking setback of 3.8 feet adjacent to a residential lot is justified by the existing encroachment of the parking lot in the 20 foot setback, with the Applicants proposing to extend the same parking line to accommodate required parking. (N.T. 12/11/19, pp. 54-55)

41. The current parking is located 6.1 feet from the rear property line, and because of the unique physical circumstance of the rear lot line not being parallel to Germantown Pike, the extension of that line necessarily results in a 3.8 foot setback. (N.T. 12/11/19, pp. 54-55)

42. The hardship justifying the setback variance from Section 116-296.B is therefore evident, but considering the nonconformance of the existing parking lot, the variance request is de minimis.

43. Through the Civil Engineer, the Applicants presented compelling, uncontroverted and credible expert testimony that the requirements of the Municipalities Planning Code and the Whitemarsh Township Zoning Ordinance have been met, justifying the granting of the variances. (N.T. 12/11/19, pp. 57-61)

44. With reference to the variances requested, upon consideration of Section 910.2 of the Pennsylvania Municipalities Planning Code, the Board determines the following:

A. There are unique physical circumstances and conditions, including, but not limited to, the fact that the building at 15 E. Germantown Pike is in

significant disrepair, the property has no vehicular access to any street, and the lot will not support any parking whatsoever thus necessitating a common parking area at 5 E. Germantown Pike, all peculiar to these properties, creating an unnecessary hardship which justifies granting the variances.

B. The Applicants presented uncontroverted credible evidence for the Board to conclude that, because of such circumstances and conditions, the properties cannot be developed in strict conformity with the Zoning Ordinance, and the variances are necessary to enable the reasonable use of the properties.

C. The hardship arises from the physical circumstances and conditions unique to these properties, considering that it is financially and practically infeasible to renovate the building at 15 E. Germantown Pike as a stand-alone use, which conditions have not been created by the Applicants.

D. The variances will not alter the essential character of the neighborhood or the district, nor substantially or permanently impair the appropriate use or development of adjacent property, nor be detrimental to the public welfare.

E. The variances are the minimum to afford relief and the least modification possible of the regulations at issue.

45. Under Section 116-217 of the Zoning Ordinance, the Board determines the following:

A. The proposed use will not substantially injure or detract from the use of neighboring property, or from the character of the neighborhood, and the use of property adjacent to the area of the proposed use will be adequately safeguarded by the conditions the Applicants imposed upon themselves, along with those conditions imposed by the Board.

B. The proposed use will not have a harmful effect on local vehicular and pedestrian traffic.

C. The proposed use is consistent with the Whitemarsh Township Comprehensive Plan.

D. The surrounding neighborhood will not be subjected to objectionable noise, lighting, glare, heat, ventilation, smoke, fumes, vapors, dust, dirt, gases or radioactive or electrical disturbances from the proposed use.

E. The proposed use will not unduly burden sanitary, school, police, fire, park or other public facilities.

F. The extensive conditions imposed by this Decision and Order assure compliance with the intent of the Ordinance.

46. The provisions of the Zoning Ordinance, strictly applied, impose an unnecessary hardship and, therefore, the requested variances should be granted.

47. Not only is the unnecessary hardship apparent to justify the granting of the variances, but the variance requests are all de minimis in nature.

48. With reference to the application for a special exception under Section 116-185 to permit common off-street parking, Section 116-218 of the Zoning Ordinances shifts the burden of proof from objectors to an applicant, and the applicant must demonstrate that the proposed use will not be contrary to the health, safety and welfare of the community.

49. Nevertheless, such a provision shifts only the burden of persuasion to the applicant, and the objectors retain the initial duty (or burden) to present evidence that, to a high degree of probability, the proposed use will substantially affect the health, safety and welfare of the community, which evidence the Objectors in this case failed to present.

50. The Objectors did not present any credible expert opinion testimony or evidence, based on empirical data, of any adverse effect that this particular project will have on their property, or the health, safety and welfare of the community.

51. The Objectors presented testimony, unsupported by expert opinion, in opposition to the Application, expressing concerns based on conjecture and solely related to stormwater. (N.T. 12/11/19 pp. 70, 90-94, 150-151)

52. In response to the Objectors' attempts to carry their burden of presenting sufficient evidence, the Applicants introduced sufficient evidence to carry the burden of persuasion that the use will surely not be contrary to the health, safety and welfare of the community.

53. In a special exception case, Section 116-217A.(2) of the Zoning Ordinance instructs the Zoning Hearing Board to consider whether the proposed use will injure or detract from the use of

neighboring property and/or from the character of the neighborhood.

54. The proposed use is not only consistent with the character of the neighborhood, but the proposed use will enhance the neighborhood.

55. The proposal actually meets two (2) of the stated goals of the Village Commercial Zoning District by the preservation, renovation and adaptive reuse of an existing historic building, as well as providing for a common parking area as a form of shared parking (although shared parking is not required for these by-right uses).

56. This is exactly the type of development envisioned by the VC District Zoning Ordinance.

57. In accordance with Section 116-185, the Applicants established that these two (2) adjacent owners will jointly use the common off-street parking area pursuant to appropriately recorded easements, and that some portion of the off-street parking area is located within 200 feet of the entrances of the respective buildings served by the common parking area. (N.T. 12/11/19, pp. 122-123, Exhibit A-8)

58. Through the Civil Engineer, the Applicants presented compelling, uncontroverted and credible expert testimony that the proposal for the common off-street parking meets all objective criteria of the Ordinance, and sufficient evidence to carry the Applicants' burden of persuasion to prove the shared parking will not be contrary to the health, safety and welfare of the community. (N.T. 12/11/19, pp. 57-61)

59. The Applicants are therefore entitled to the Special Exception to establish a common off-street parking area under Section 116-185 of the Zoning Ordinance.

III. DISCUSSION

In Hertzberg v. Zoning Bd. of Adjustment of the City of Pittsburgh, 554 Pa. 249, 721 A.2d 43 (1998), the Supreme Court of Pennsylvania determined that, in evaluating a hardship for a dimensional variance, the Zoning Hearing Board should consider various factors, including financial hardship of bringing the property into compliance with the Code, and the characteristics of the surrounding neighborhood, in determining whether a variance would be appropriate. The Court also held that, when considering a dimensional variance, a Zoning Hearing Board should adopt a somewhat more relaxed standard of scrutiny than when the Board is considering a use variance.

In Marshall v. City of Philadelphia and Zoning Board of Adjustment, 626 Pa. 385, 97 A.3d 323 (2014), the Supreme Court recognized that a property does not have to be valueless in order to obtain a use variance. The Court further indicated that financial hardship may be considered in a use variance case, if the property can only be brought into conformance at a prohibitive expense. The Supreme Court reiterated in the Hertzberg and Marshall cases, that an applicant need not prove that the property cannot be used for any other permitted use in order to be entitled to a use or dimensional variance.

The case before the Board involves the request for minor dimensional variances. The Applicants have presented convincing, uncontroverted testimony that the variances are justified under a hardship analysis, but also represent de minimis variance requests.

The goals of the VC Zoning District Ordinance are to encourage adaptive reuse of historic structures and to provide shared or common off-street parking areas. This proposal meets both of those goals. What is most unique in this case is that 15 E. Germantown Pike has no area for parking and no vehicular access to a road, and cannot be developed for permitted uses in strict conformity with the provisions of the Zoning Ordinance. The need to establish a common off-street parking area

on 5 E. Germantown Pike necessitates and justifies the variance relief requested with respect to that property as well.

The Board carefully considered the concerns of the Objectors. The Objectors' concerns were not focused on the use (and neither can it be because the proposed use is permitted and, in fact, encouraged in the VC District). The Objectors did not present any reason as to why the variances or special exception should not be granted. Rather, the Objectors focused their testimony solely and exclusively on past and existing stormwater concerns in the general area, and conjecture related to future stormwater impacts. While it is acknowledged that the Objectors have no burden of proof in a variance case, the Objectors failed to present any expert-based evidence to the Board that this use will have any adverse effect on the stormwater conditions. The only reasonable conclusion the Board can draw from the only credible expert testimony provided is that there would be no adverse effect on the surrounding properties and, in fact, this development will improve the stormwater conditions.

The proposed use is permitted by right on this property. There will be no adverse effect on the character of the neighborhood and this proposal is not detrimental to the public welfare. Without the relief requested, it is impractical and financially infeasible to use 15 E. Germantown Pike, and, in fact, impossible to do so without providing required parking on 5 E. Germantown Pike. These factors place this case squarely within the discretion of the Board to grant the variances, as provided under the applicable case law. To decide otherwise would actually be an error of law.

With respect to the Special Exception requested for the common off-street parking area, it should be noted that the only way 15 E. Germantown Pike can be used for the proposed office use (permitted by right) is to have a common off-street parking with another property. Other than presenting non-expert testimony speculating about possible future impacts on stormwater, the

Objectors presented no evidence that the proposal will be contrary to the health, safety and welfare of the community. On the other hand, the Applicants presented compelling expert testimony and carried the burden of persuasion, such that the Board could easily conclude that the proposed common off-street parking arrangement will not be contrary to the health, safety and welfare of the community.

Not only is the proposed common off-street parking area necessary for the use of 15 E. Germantown Pike, but such a proposal is consistent with the goals of the Village Commercial zoning. Section 116-288 of the Zoning Ordinance sets forth the stated goals of the Village Commercial Zoning District, two (2) of which are to ...[e]ncourage the retention, rehabilitation, and reuse of historic structure(s) or building(s) built prior to 1940...", and to "...encourage shared access points, parking areas and public spaces..."

The term "shared parking" is not defined by the Village Commercial Zoning Ordinance and therefore shared parking can take many forms. The proposed uses in this case are by-right uses and, therefore a shared parking arrangement is not required, as applicable to conditional uses under Section 116-292.A of the Zoning Ordinance. Although the requirements for a common off-street parking area for required parking spaces under Section 116-185 in the general parking provisions of the Ordinance have no bearing on the interpretation of the "shared parking" related to conditional uses in the Village Commercial District, the proposed common off-street parking area surely comports with the general goals stated in the preamble to the Village Commercial Zoning Ordinance as a form of shared parking encouraged by the Ordinance.

IV. CONCLUSIONS OF LAW

1. The Zoning Hearing Board has jurisdiction over the subject matter of the application.

2. The Applicants are the legal owners of the properties in question.

3. The Applicants and the subject matter are properly before the Board. The Applicants have standing to submit the application. The Objectors have standing to oppose the application.

4. Hearing notices were duly published and posted in accordance with law, by advertisement in the newspaper and posting on the property.

5. With reference to the variances requested, upon consideration of Section 910.2 of the Pennsylvania Municipalities Planning Code, the Board determines the following as a matter of law:

   A. There are unique physical circumstances and conditions, including, but not limited to, the fact that the building at 15 E. Germantown Pike is in significant disrepair, the property has no vehicular access to any street, and the lot will not support any parking whatsoever thus necessitating a common parking area at 5 E. Germantown Pike, all peculiar to these properties, creating an unnecessary hardship which justifies granting the variances.

   B. The Applicants presented uncontroverted credible evidence for the Board to conclude that, because of such circumstances and conditions, the properties cannot be developed in strict conformity with the Zoning Ordinance, and the variances are necessary to enable the reasonable use of the properties.

   C. The hardship arises from the physical circumstances and conditions unique to these properties, considering that it is financially and practically infeasible to renovate the building at 15 E. Germantown Pike as a stand-alone use, which conditions have not been created by the Applicants.

   D. The variances will not alter the essential character of the neighborhood or the district, nor substantially or permanently impair the appropriate use or development of adjacent property, nor be detrimental to the public welfare.

   E. The variances are the minimum to afford relief and the least modification possible of the regulations at issue.

6. Under Section 116-217 of the Zoning Ordinance, the Board determines the following, as a matter of law:

A. The proposed use will not substantially injure or detract from the use of neighboring property, or from the character of the neighborhood, and the use of property adjacent to the area of the proposed use will be adequately safeguarded by the conditions the Applicants imposed upon themselves, along with those conditions imposed by the Board.

B. The proposed use will not have a harmful effect on local vehicular and pedestrian traffic.

C. The proposed use is consistent with the Whitemarsh Township Comprehensive Plan.

D. The surrounding neighborhood will not be subjected to objectionable noise, lighting, glare, heat, ventilation, smoke, fumes, vapors, dust, dirt, gases or radioactive or electrical disturbances from the proposed use.

E. The proposed use will not unduly burden sanitary, school, police, fire, park or other public facilities.

F. The extensive conditions imposed by this Decision and Order assure compliance with the intent of the Ordinance.

7. The Board determines, as a matter of law, that the provisions of the Zoning Ordinance, strictly applied, impose an unnecessary hardship and, therefore, the following relief should be granted:

A. A variance from Section 116-24.D.(3), so as to permit 41.5% of the area of the required rear yard to be covered with accessory uses and structures for the proposed parking area, rather than the 30% permitted.

B. A variance from Section 116-184.D.(5), so as to permit 24 parking spaces, rather than the 28 parking spaces required for the office area on both lots.

C. A variance from Section 116-291.A.(7)(a)[4], so as to permit less than 50% of the required parking to be located between the rear lot line and rear principal building plane.

D. A variance from Section 116-291.C, so as to eliminate the buffer equal to the width of the required setbacks.

E. Variances from Sections 116-294. #6, #8, and #9, so as to permit a maximum of 66.8% impervious coverage and 33.2% vegetated open space on Lot 1 (5 E. Germantown Pike), rather than the 60% impervious coverage permitted and the 40% vegetated open space required, and a variance so as to permit

34.4% building coverage on Lot 2 (15 E. Germantown Pike), rather than the 30% permitted.

F. A variance from Section 116-296.B, so as to permit a parking setback to a residential lot of 3.8 feet, rather than the 20 feet required.

8. Not only are the variances justified in accordance with a hardship analysis, but all variances requested are de minimis in that rigid compliance with the Ordinance in this particular case is not necessary to preserve the public interests sought to be protected by the Ordinance.

9. The evidence presented by the Applicants was sufficient to carry the burden of persuasion that the objective criteria of the Zoning Ordinance have been met, and that the proposed common off-street parking as proposed is not contrary to the health, safety and welfare of the community, and as a result, the Applicants are entitled to the Special Exception under Section 116-185, so as to permit parking to be located on an adjacent lot.

10. Since the Applicants are entitled to the Special Exception under Section 116-185, a variance from Section 116-184.D, so as to permit parking to be located on the adjacent lot, is not required.

V. OPINION

Upon consideration of the Findings of Fact and Conclusions of Law, the Board hereby determines that the application should be granted as set forth hereinafter in the Order.

WHITEMARSH TOWNSHIP ZONING HEARING BOARD

APPLICATION NO.: 2019-39
APPLICANTS: Ashford Consulting, LLC and
Ashford Wealth Advisors, LLC
Block 041, Units 002 and 003
5 E. Germantown Pike and
15 E. Germantown Pike
Plymouth Meeting, PA 19462
VC-2 – Village Commercial District

HEARING DATE: 12/11/19
VOTE: 12/11/19
WRITTEN DECISION: 01/13/20
COPY MAILED: 01/13/20

ORDER

After completion of a public hearing on the above-referenced Application, pursuant to public notice as required by law, the Zoning Hearing Board of Whitemarsh Township decided and orders as follows:

1. A variance from Section 116-24.D.(3), so as to permit 41.5% of the area of the required rear yard to be covered with accessory uses and structures for the proposed parking area, rather than the 30% permitted, is **GRANTED**.

2. A variance from Section 116-184.D.(5), so as to permit 24 parking spaces, rather than the 28 parking spaces required for the office area on both lots, is **GRANTED**.

3. A variance from Section 116-291.A.(7)(a)[4], so as to permit less than 50% of the required parking to be located between the rear lot line and rear principal building plane, is **GRANTED**.

4. A variance from Section 116-291.C, so as to eliminate the buffer equal to the width of the required setbacks, is **GRANTED**.

5. Variances from Sections 116-294. #6, #8, and #9, so as to permit a maximum of 66.8% impervious coverage and 33.2% vegetated open space on Lot 1 (5 E. Germantown Pike), rather than the 60% impervious coverage permitted and the 40% vegetated open space required, and a variance so as to permit 34.4% building coverage on Lot 2 (15 E. Germantown Pike), rather than the 30% permitted, are **GRANTED**.

6. A variance from Section 116-296.B, so as to permit a parking setback to a residential lot of 3.8 feet, rather than the 20 feet required, is **GRANTED**.

7. A special exception under Section 116-185, so as to permit parking to be located on an adjacent lot, rather than on the same lot, is **GRANTED**.

8. The request for a variance from Section 116-184.D, so as to permit parking to be located on the adjacent lot, is not required.

THIS DECISION IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. All use and development permitted by this Decision shall substantially conform to the exhibits and testimony presented by the Applicants, unless inconsistent with any specific conditions imposed by this Board, in which case these specific conditions shall take precedence.

2. The Applicants shall apply for and obtain all permits required by the Township Codes in a timely manner.

3. The Applicants shall comply with all requirements of the Township under the Subdivision and Land Development Ordinance, as well as the Grading, Erosion Control, Stormwater Management and Best Management Practices Ordinance, unless waived by the Board of Supervisors.

4. The Applicants shall comply with the requirements of the Township with respect to recording a written agreement memorializing the shared parking arrangement.

5. The Applicants shall provide a screening buffer along the rear property line, to the satisfaction of the Township.

6. The Applicants shall comply with all requirements of the Board of Supervisors with respect to issuance of Certificate of Appropriateness upon the recommendation of the Historical Architectural Review Board.

This Decision and Order of the Board is final and any appeal of it must be filed with the Court of Common Pleas of Montgomery County within thirty (30) days following the copy mailing date set out above.

The Board reserves the right to issue additional Findings of Fact and Conclusions of Law in the event of an appeal.

Section 116-223 of the Zoning Ordinance provides as follows:

Expiration of granted appeals. Unless otherwise specified by the Board, all approvals granted by the Zoning Hearing Board shall automatically expire 365 days after the date of the decision unless: (1) the applicant has acted upon the approval by obtaining the required permit(s) and paying the prescribed fees for same, or (2) the Zoning Hearing Board decision is on appeal to the courts, at which point, the approval, if upheld on appeal, shall expire 365 days after final determination on appeal.

The Zoning Hearing Board may extend the expiration date of approvals for a 180 day period upon request by the applicant, provided that the applicant is, in the opinion of the Zoning Hearing Board, diligently pursuing governmental and/or regulatory approvals as required. Requests for extensions shall be in writing and submitted to the Zoning Hearing Board at least 30 days before any applicable expiration date. Only one (1) extension may be provided for any application.

WHITEMARSH TOWNSHIP ZONING HEARING BOARD:

Stanley A. Casacio, Chair

James Behr, Vice Chair

Robert A. Bacine

Marc Weinstein

Absent

Alternate

William E. Kramer

Randi Rubin

Whitemarsh TOWNSHIP
616 GERMANTOWN PIKE - LAFAYETTE HILL, PA 19444-1821
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BOARD of SUPERVISORS
Laura Boyle Nester – Chair
Fran McCusker – Vice Chair
Michael Drossner
Vincent Manuele
Jacy Toll

Richard L. Mellor, Jr.
Township Manager

December 9, 2021

Charlie Guttenplan,

RE: Inspection of property and structure located at 15 Germantown Pike

Charlie:

On November 23rd I performed an inspection at 15 Germantown Pike to determine the structural integrity of the building at your request in accordance with the decision with Zoning Hearing Board case #2021-39. I was accompanied by the owners of the property. Below are my findings.

Upon walking the exterior property area it was noticed that there are 3 dead trees very close to Germantown Pike that are a potential hazard to vehicular traffic. These trees must be removed as soon as possible. It was also noticed that the addition on the left side of the building was in very poor condition and the addition in the rear of the building was also in very poor condition. Rot and decay around windows and roof soffit and facia was evident and should be repaired to prevent further damage and decay. The exposed stone should be repointed and the stucco repaired on the exterior of the building.

On examination of the interior I found major damage to the front left addition. Areas of the roof and front wall are in danger of partial collapse. This addition should be demolished. Similar decay was noticed at the rear addition which should also be demolished. Portions of the brick and flue in the fireplace chimney on the right side of the building have been removed at the third floor level severely compromising the integrity of the exposed chimney. These areas need to be repaired immediately. Although the first floor appears to be solid, decay was found at several floor joists in the basement which will need to be repaired or replaced before the building would be reoccupied. Building electrical, heating and plumbing would all need to be replaced.

I found no issues with the main structure. It appears to be constructed with 12" to 14" stone walls and the foundation seems to be in good condition. There were no leaks noticed from the roof and the interior seemed to be in fairly good condition with the exception of cosmetic issues.

I have attached a few photos of the noted areas.

Very truly yours,

Bob Sztubinski
Director of Build and Code Enforcement













Exterior



Inside left front addition



Interior main structure

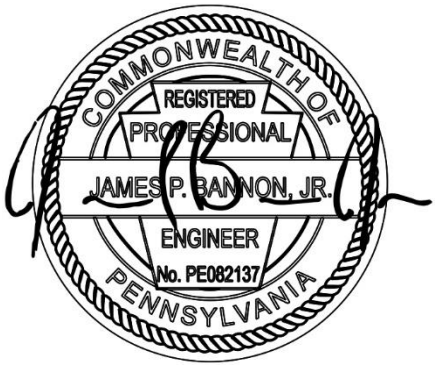


Chimney and basement

POST CONSTRUCTION STORMWATER MANAGEMENT REPORT AND SITE DRAINAGE/EROSION &SEDIMENTATION CALCULATIONS

5 & 15 E. GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

ASHFORD WEALTH ADVISORS



Issued: January 27, 2022
Nave Newell No.: 2018-080.00

Engineers • Planners • Surveyors • Landscape Architects
900 West Valley Road, Suite 1100, Wayne, PA 19087 • 610.265.8323 • fax 610.265.4299 • www.navenewell.com

POST CONSTRUCTION STORMWATER MANAGEMENT REPORT AND SITE DRAINAGE/EROSION AND SEDIMENTATION CALCULATIONS
SUMMARY OF CONTENTS

ASHFORD WEALTH ADVISORS
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

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I.

Post-Construction Stormwater Management (PCSM) Narrative

Introduction

This Post-Construction Stormwater Management Narrative was developed to comply with the requirements of Chapter 102, Title 25 of the Administrative Code, created under the Clean Streams Law, and the Whitemarsh Township Stormwater Management Ordinance and Resolution 2004-8. The Pennsylvania Department of Environmental Protection (PADEP) Pennsylvania Stormwater Best Management Practices Manual was used as a reference in facilities design.

Project Description

This site is located in Whitemarsh Township. The project includes the renovation of an existing parking lot and an addition to an existing building. A no-release subsurface infiltration bed will be utilized to comply with the Township's stormwater peak rate control, volume and water quality requirements.

Existing Conditions
The site is located at 5 and 15 E. Germantown Pike, Montgomery County, PA.

Site topography description: The majority of the site generally drains to the north of the site, away from Germantown Pike.

Existing and Historic land use: The parcels are currently developed. The sites currently have existing buildings and parking lot. There is no evidence of sinkhole activity present.

Watershed Information: The entire area lies within the Schuylkill River Watershed and the site is tributary to Plymouth Creek. Plymouth Creek is currently classified as WWF, MF– Warm Water Fishes, Migratory Fishes by the Pennsylvania Chapter 93 classifications.

Site soils are mapped in the NRCS Soil Survey as follows:

UrhB – Urban land-Duffield complex, 0 to 8 percent slopes, HSG 'B'

Proposed Conditions
The project site is 22,409 SF (0.5144 acres), which is currently occupied by two existing buildings and parking lot. The site will propose renovations to the existing parking lot, in addition to a building addition to the existing building located on the east side of the property. The flow to the neighboring properties will be minimized in the post-development conditions. The project will utilize a no-release subsurface bed with an emergency overflow outlet to meet the township's volume, peak rate, and water quality requirements.

PCSM PLAN STORMWATER ANALYSIS §102.8(g):

Stormwater Management
The stormwater management system for this project is designed to meet the provisions of Resolution 2004-8 and the Whitemarsh Township Grading, Erosion Control, Stormwater Management and Best Management Practices Ordinance (chapter 58 of the Whitemarsh Township Code).

As previously noted, the project site is tributary to the Plymouth Creek and is in the Schuylkill Watershed. Note that the "studied area" includes the entire area within the limit of disturbance. This is depicted on the enclosed drainage area plans.

The following discharge points were established in order to perform the analysis:

Discharge Point Name:	**001**
Location of POI 1:	Located at the north property line
Drainage Area within the LOD:	0.41 AC
Description:	The majority of the study area currently flows overland, to the northern property line. In the proposed conditions, in the studied area a portion will drain to proposed no-release stormwater management facility.

(1) Predevelopment site characterization and assessment of soil and geology including appropriate infiltration and geotechnical studies that identify location and depths of test sites and methods used.

These supplementary reports are provided in Section VI.

VOLUME CONTROL AND WATER QUALITY §102.8(g)(2)

The project is subject to the provisions of the Township of Whitemarsh Stormwater Management Ordinance Resolution 2004-8.

Township Requirement
Per the Township Stormwater Management Ordinance, the post-construction total runoff volume shall not exceed the pre-development total runoff condition for all storms equal to or less than the 2-year, 24-hour duration precipitation (design storm).

Volume Control
The post development total run-off volume shall not exceed the pre-development total run-off volume for all storms equal or less than the 2-year, twenty-four (24) hour duration precipitation design storm per the PA BMP Manual criteria. The two-year runoff volume was evaluated for the disturbed areas associated with the project. In the pre-development study area, all non-

impervious areas and 20% of the existing impervious areas are modeled as "meadow – in good condition". The remaining impervious coverage is modeled as "impervious". Post-development coverages are broken out into lawn and impervious conditions.

Infiltration modeling will be utilized to minimize the size of the system. The 100-year storm will be infiltrated because the proposed BMP will be a no-release system and exceeds the volume requirement.

All volume calculations are based on the SCS Curve Number Method and a 2-year 24-hour rainfall depth of 3.20 inches values from NOAA Atlas 14, Volume 2, Version 3.

Two-year runoff volumes were evaluated for each discharge point. The following BMP's are proposed for this project:

- BMP 6.4.3 Subsurface Infiltration Bed – One subsurface infiltration bed is proposed to be constructed to regulate volume, peak rate, and water quality.

Groundwater Recharge/Infiltration
The Township requires the net two-year volume to be to be infiltrated. Refer to Section V of this report for volume credit calculations.

Stormwater Collection and Conveyance System
The stormwater conveyance network was designed to convey the flows from the 100-year storm event. The Rational Method was used to design the stormwater conveyance system. Runoff intensities were based on the PennDOT Region 5 Intensity Duration Frequency curves. The following Rational runoff coefficients were used:

- Impervious surfaces: C = 0.99
- Pervious surfaces: C = 0.45

Bentley Systems' "StormCAD V8i" software was used to perform all design calculations and hydraulic grade analyses for the proposed conveyance pipes. Associated design calculations are included elsewhere in this report.

Water Quality
The following BMPs are used to meet the water quality requirements of the Township:

- BMP 6.4.3 Subsurface Infiltration Bed

A detailed sequence of construction and operations is included on the E&S Plan and maintenance schedule is included on the PCSM Plan.

RATE CONTROL §102.8(g)(3)

Township Requirement
The site, which falls within the Schuylkill Creek Watershed was analyzed for the design frequency storms as indicated in the Township of Whitemarsh Stormwater Ordinance Resolution 2004-8 for Peak Rate Control Standards.

- 2-year post development to 2-year pre-development
- 5-year post development to 5-year pre-development
- 10 year post development to 10-year pre-development

- 25-year post development to 25-year pre-development
- 50-year post development to 50year pre-development
- 100-year post development to 100-year pre-development

Design Storm	Pre-development Flow (24-Hour)	Allowable Flow	Post-development Flow (24-Hour)
2-year	0.75 cfs	0.75 cfs	0.12 cfs
5-year	1.18 cfs	1.18 cfs	0.21 cfs
10-year	1.57 cfs	1.57 cfs	0.29 cfs
25-year	1.93 cfs	1.93 cfs	0.37 cfs
50-year	2.31 cfs	2.31 cfs	0.45 cfs
100-year	2.69 cfs	2.69 cfs	0.54 cfs

METHODOLGY §102.8(g)(4)

Volume and Rate Control Methodology - The Soil Cover Complex Method was utilized to calculate the pre-development and post-development volumes. The rainfall values from NOAA Atlas 14, Volume 2, Version 3 used for the stormwater calculations. The following rainfall values were used:

Average recurrence interval (years)	Rainfall (inches)
1 year	2.60
2 year	3.20
5 year	4.20
10 year	5.00
25 year	5.70
50 year	6.40
100 year	7.10

Stormwater rate calculations are based on the SCS TR-20 method and were calculated using HydroCAD, Version 10.

SPECIAL CONSIDERATION TO ADDRESS SOIL §102.8(g)(5)

Soil Summary:
The following soils are mapped for the project area per the NRCS Web Soil Survey, dated February 5, 2019.

UrhB– Urban land-Duffield, 0 to 8 percent slopes, HSG 'B'

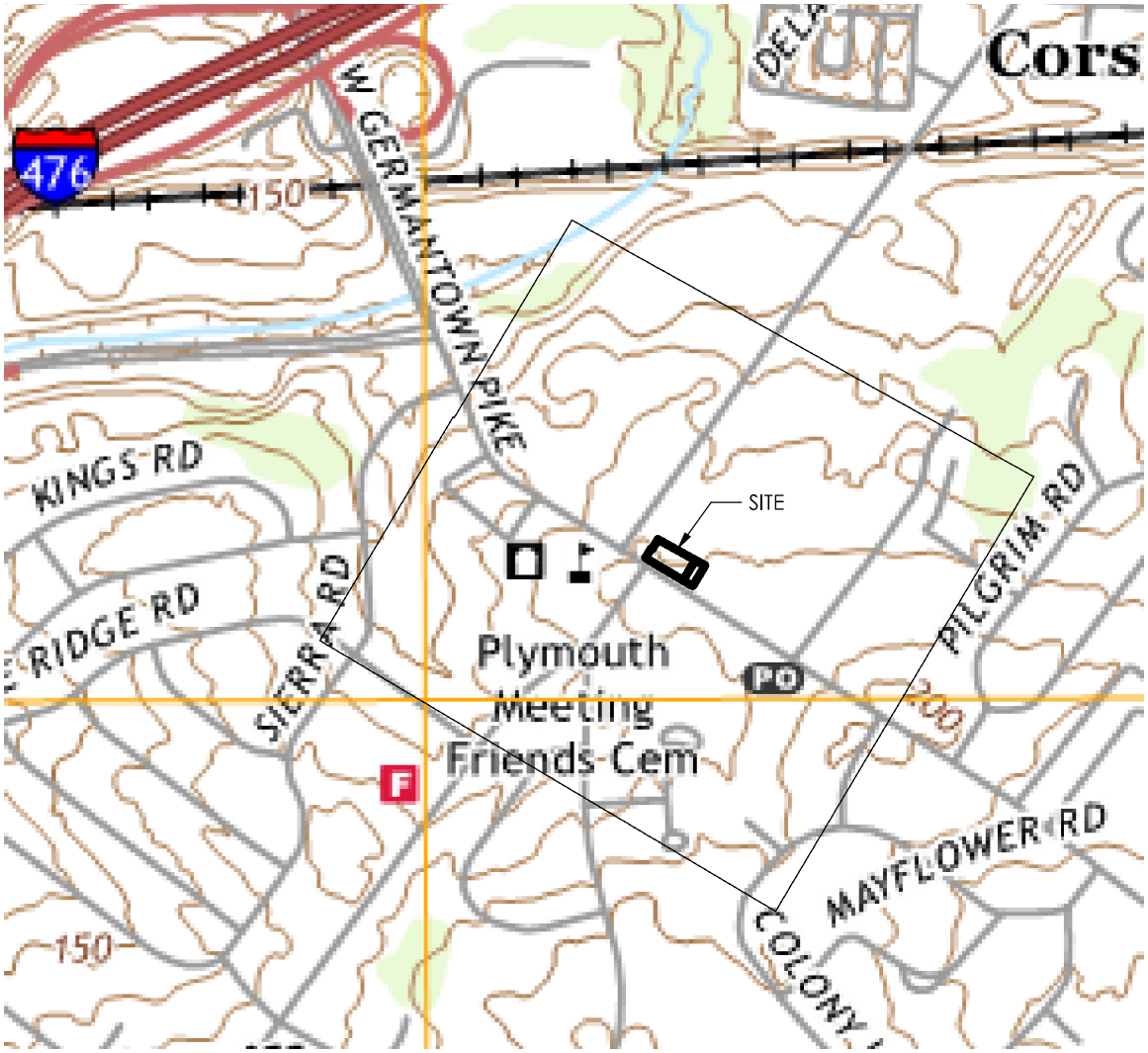
Conclusion
The site will propose renovations to the existing parking lot and an addition to an existing building located on the east side of the property. The stormwater management facility proposed on the project site allow the project to adequately meet the Township and State's stormwater management requirements.

PCSM PLAN PREPARER REQUIREMENTS (§102.8(e))
The plan was prepared under the direction of the following professional:

James P. Bannon, PE
Nave Newell, Inc.
900 West Valley Road, Suite 1100
Wayne, PA 19087
(610) 265-8323

Jim Bannon, PE has over 20 years of experience preparing land development and E&S control plans.

II.



SOURCE: NORRISTOWN QUAD
LOCATION:40°06'09.0"N
75°16'40.8"W

LOCATION MAP

SCALE 1"=800'

Nave Newell

900 West Valley Road • Suite 1100
Wayne, PA 19087-1830
p: 610.265.8323 f: 610.265.4299
www.navenewell.com

DRAWING NAME: LOCATION MAP

PROJECT NAME: ASHFORD WEALTH ADVISORS

SCALE:	DRAWN BY:	PROJECT NUMBER:	SHEET
1" = 800'	EJK	2018-080	1 OF 1
CHK'D BY:	APPROV. BY:	DATE:	
JPB	JPB	1/5/22	

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USER: CWhitty

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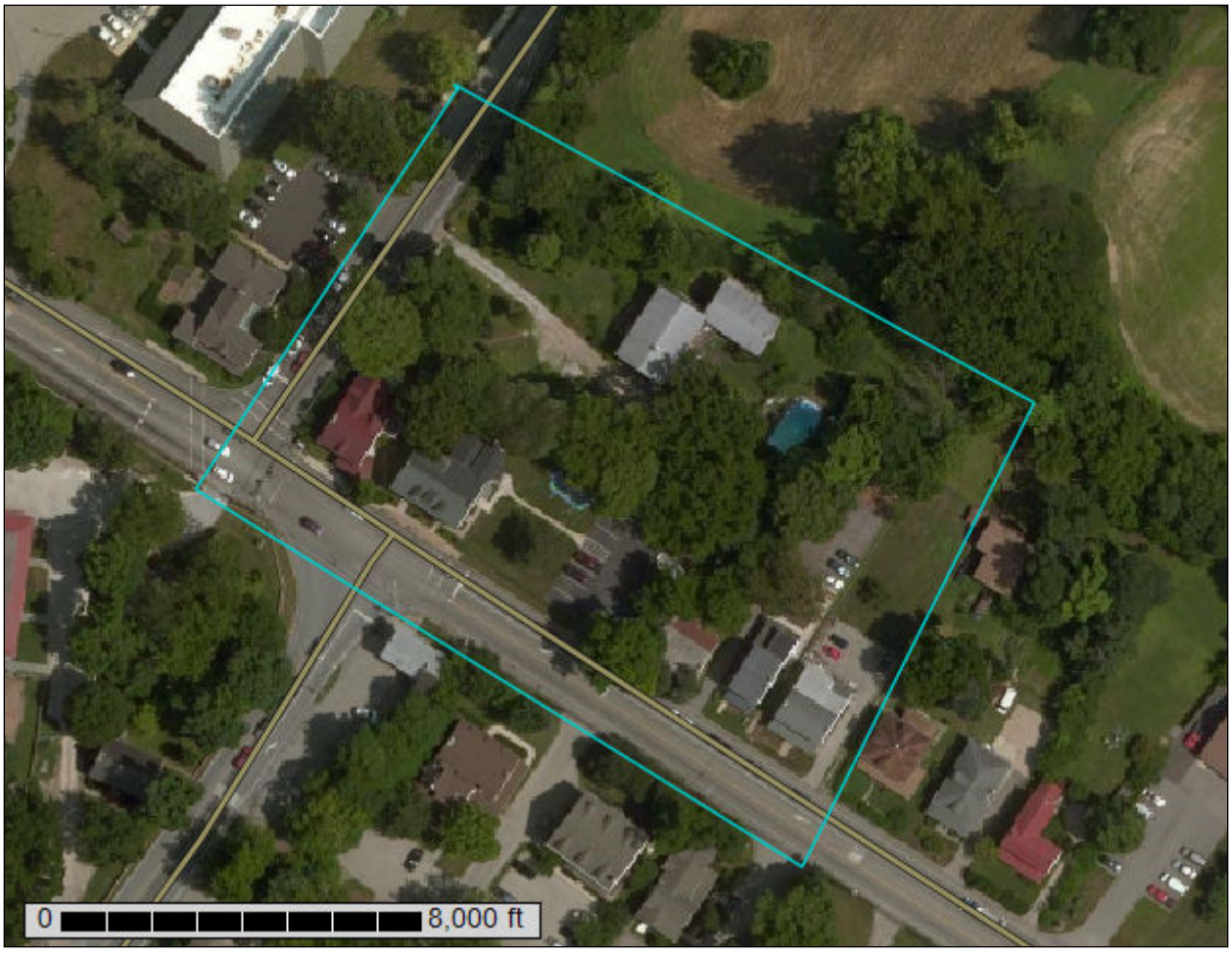
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Montgomery County, Pennsylvania



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,280 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Pennsylvania
Survey Area Data: Version 13, Sep 19, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 17, 2014—Aug 14, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LeB	Lawrenceville silt loam, 3 to 8 percent slopes	0.0	0.1%
UgB	Urban land, 0 to 8 percent slopes	0.0	0.0%
UrhB	Urban land-Duffield complex, 0 to 8 percent slopes	3.2	99.9%
Totals for Area of Interest		**3.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Montgomery County, Pennsylvania

LeB—Lawrenceville silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2fhm6
Elevation: 200 to 1,600 feet
Mean annual precipitation: 38 to 48 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 140 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Lawrenceville and similar soils: 83 percent
Minor components: 17 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lawrenceville

Setting

Landform: Upland slopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Parent material: Loess over residuum weathered from shale and siltstone

Typical profile

Ap - 0 to 12 inches: silt loam
Bt - 12 to 26 inches: silt loam
Btx - 26 to 47 inches: silt loam
C - 47 to 75 inches: silt loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 24 to 38 inches to fragipan; 48 to 99 inches to lithic bedrock
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Lansdale

Percent of map unit: 12 percent

Landform: Hillsides
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Doylestown

Percent of map unit: 3 percent
Landform: Drainageways
Landform position (two-dimensional): Toeslope, footslope, backslope
Landform position (three-dimensional): Head slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: Yes

Chalfont

Percent of map unit: 2 percent
Landform: Upland slopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: No

UgB—Urban land, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2dtyq
Elevation: 800 to 1,500 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 130 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Parent material: Pavement, buildings and other artifically covered areas human transported material

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Udorthents, unstable fill
Percent of map unit: 10 percent
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

UrhB—Urban land-Duffield complex, 0 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2dtyv
Elevation: 200 to 1,500 feet
Mean annual precipitation: 32 to 50 inches
Mean annual air temperature: 44 to 57 degrees F
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition
Urban land: 65 percent
Duffield and similar soils: 25 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Pavement, buildings and other artifically covered areas

Typical profile
C - 0 to 6 inches: variable

Properties and qualities
Slope: 0 to 8 percent
Depth to restrictive feature: 10 to 100 inches to lithic bedrock
Available water storage in profile: Very low (about 0.0 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Description of Duffield

Setting
Landform: Valleys
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

Ap - 0 to 10 inches: silt loam
Bt - 10 to 53 inches: silty clay loam
C - 53 to 72 inches: silt loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 48 to 120 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Clarksburg

Percent of map unit: 4 percent
Landform: Valley flats
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: No

Penlaw

Percent of map unit: 4 percent
Landform: Swales
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

Thorndale

Percent of map unit: 2 percent
Landform: Depressions
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear, concave
Hydric soil rating: Yes

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III.

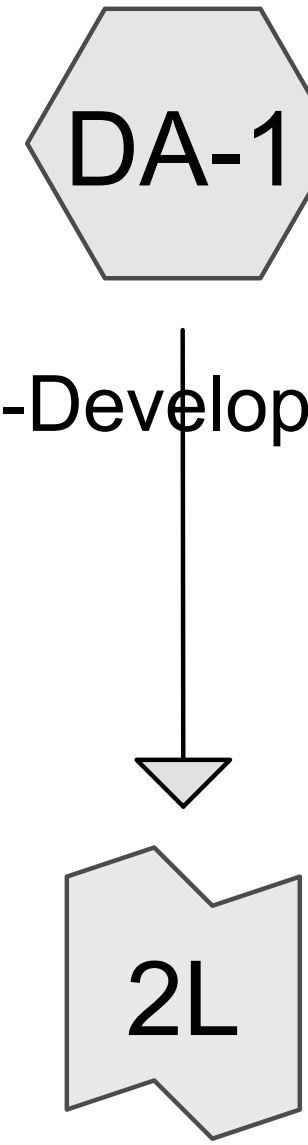
SUMMARY OF FLOWS
Pre-Development/Post Development POI-1

Storm	Pre-Development Flow (CFS)	Allowable Flow* (CFS)	Post-Development Flow (CFS)	Net Change in Runoff (CFS)
1	0.53		0.07	
2	0.75	0.75	0.12	-0.63
5	1.18	1.18	0.21	-0.97
10	1.57	1.57	0.29	-1.28
25	1.93	1.93	0.37	-1.56
50	2.31	2.31	0.45	-1.86
100	2.69	2.69	0.54	-2.15

* Per requirements of Whitemarsh Township Resolution 2004-8

Nave Newell
Where Ideas Get Down to Earth
900 West Valley Road
Suite 1100
Wayne, PA
(610) 265-8323

PROJECT NAME: Ashford Wealth Advisors
JOB #: 20180-080.00 **BY:** CW
DATE: 1/25/2022 **CHK'D:** JPB



Pre-Development POI-1

Subcat Reach Pond Link

Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc., Printed 1/27/2022
HydroCAD® 10.10-6a s/n 07511 © 2020 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
1,525	58	Meadow (20% Impervious) (DA-1)
10,388	58	Meadow, non-grazed, HSG B (DA-1)
6,021	98	Paved parking, HSG B (DA-1)
17,934	**71**	**TOTAL AREA**

Summary for Subcatchment DA-1: Pre-Development

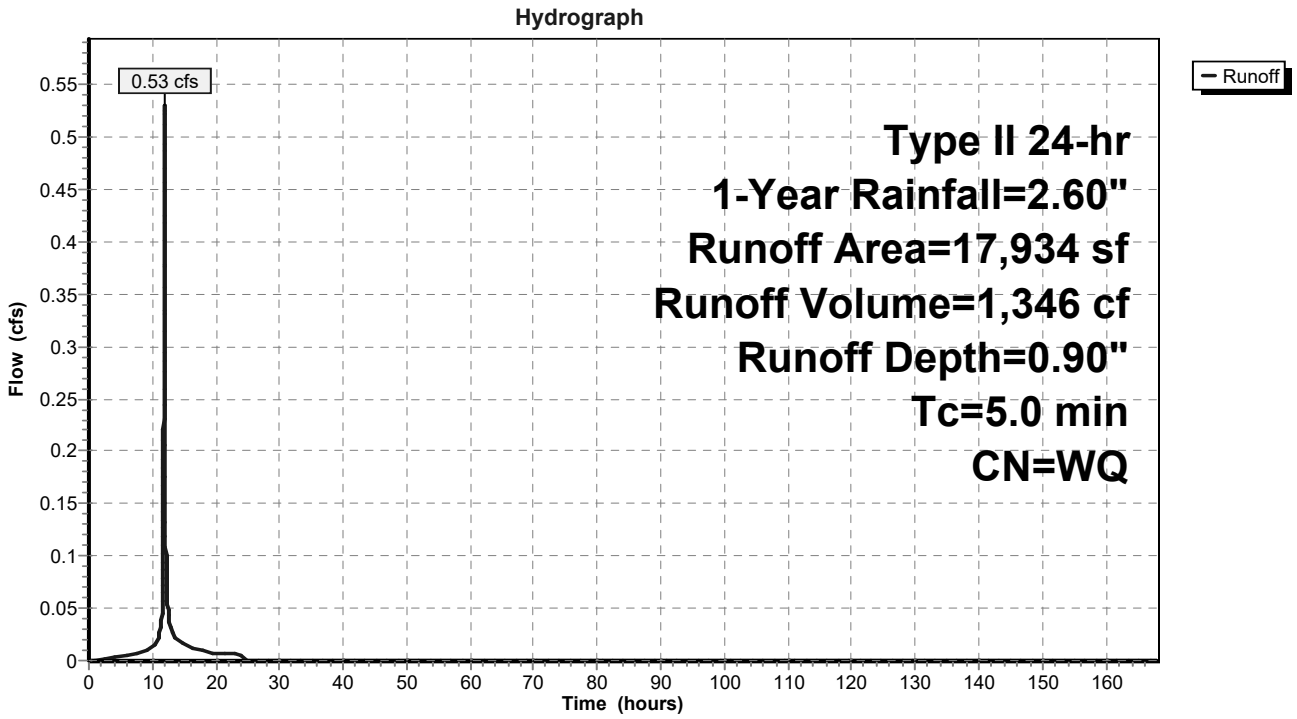
Runoff = 0.53 cfs @ 11.96 hrs, Volume= 1,346 cf, Depth= 0.90"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.60"

	Area (sf)	CN	Description
	10,388	58	Meadow, non-grazed, HSG B
*	1,525	58	Meadow (20% Impervious)
	6,021	98	Paved parking, HSG B
	17,934		Weighted Average
	11,913		66.43% Pervious Area
	6,021		33.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

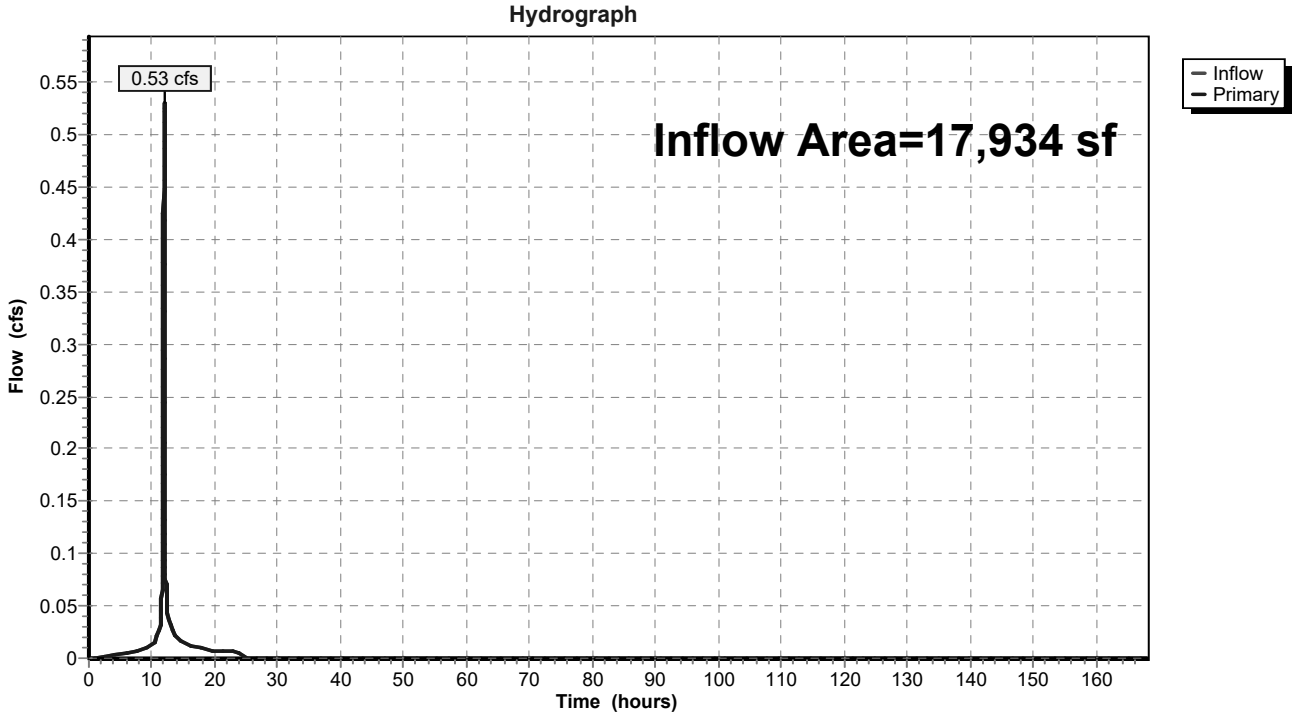


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 33.57% Impervious, Inflow Depth = 0.90" for 1-Year event
Inflow = 0.53 cfs @ 11.96 hrs, Volume= 1,346 cf
Primary = 0.53 cfs @ 11.96 hrs, Volume= 1,346 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

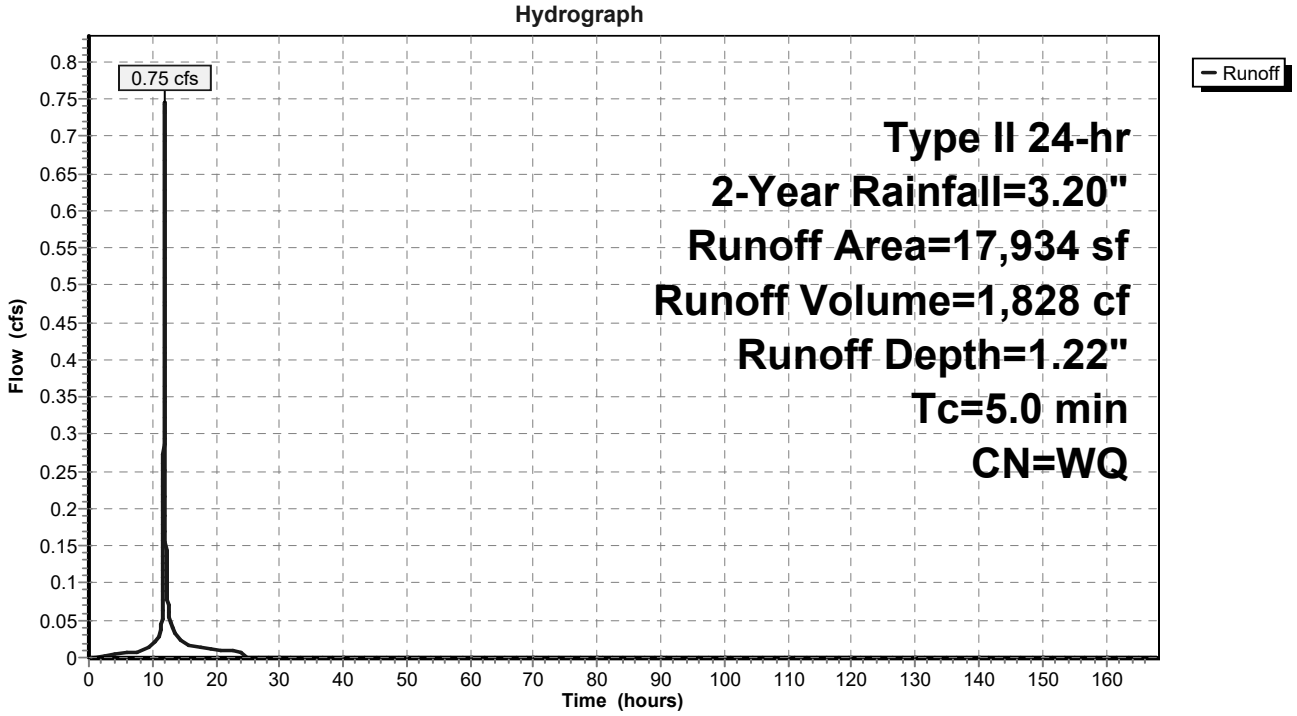
Runoff = 0.75 cfs @ 11.96 hrs, Volume= 1,828 cf, Depth= 1.22"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=3.20"

	Area (sf)	CN	Description
	10,388	58	Meadow, non-grazed, HSG B
*	1,525	58	Meadow (20% Impervious)
	6,021	98	Paved parking, HSG B
	17,934		Weighted Average
	11,913		66.43% Pervious Area
	6,021		33.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

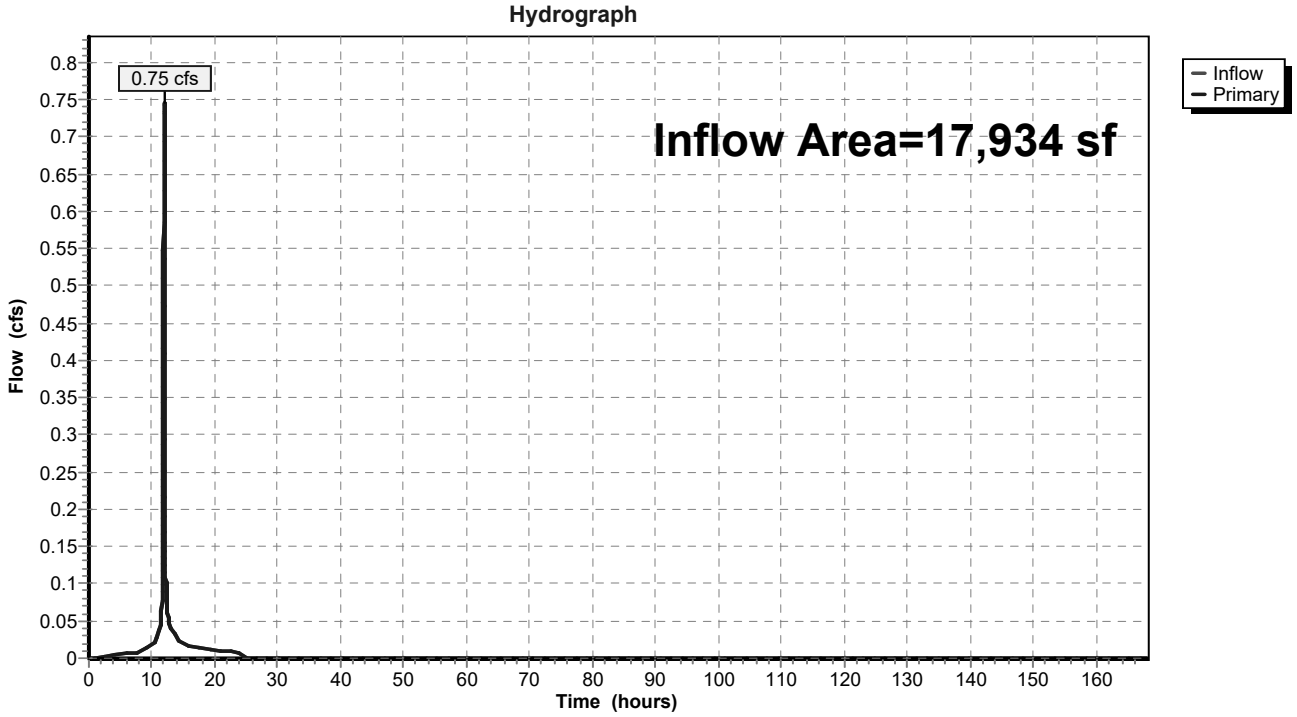


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 33.57% Impervious, Inflow Depth = 1.22" for 2-Year event
Inflow = 0.75 cfs @ 11.96 hrs, Volume= 1,828 cf
Primary = 0.75 cfs @ 11.96 hrs, Volume= 1,828 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

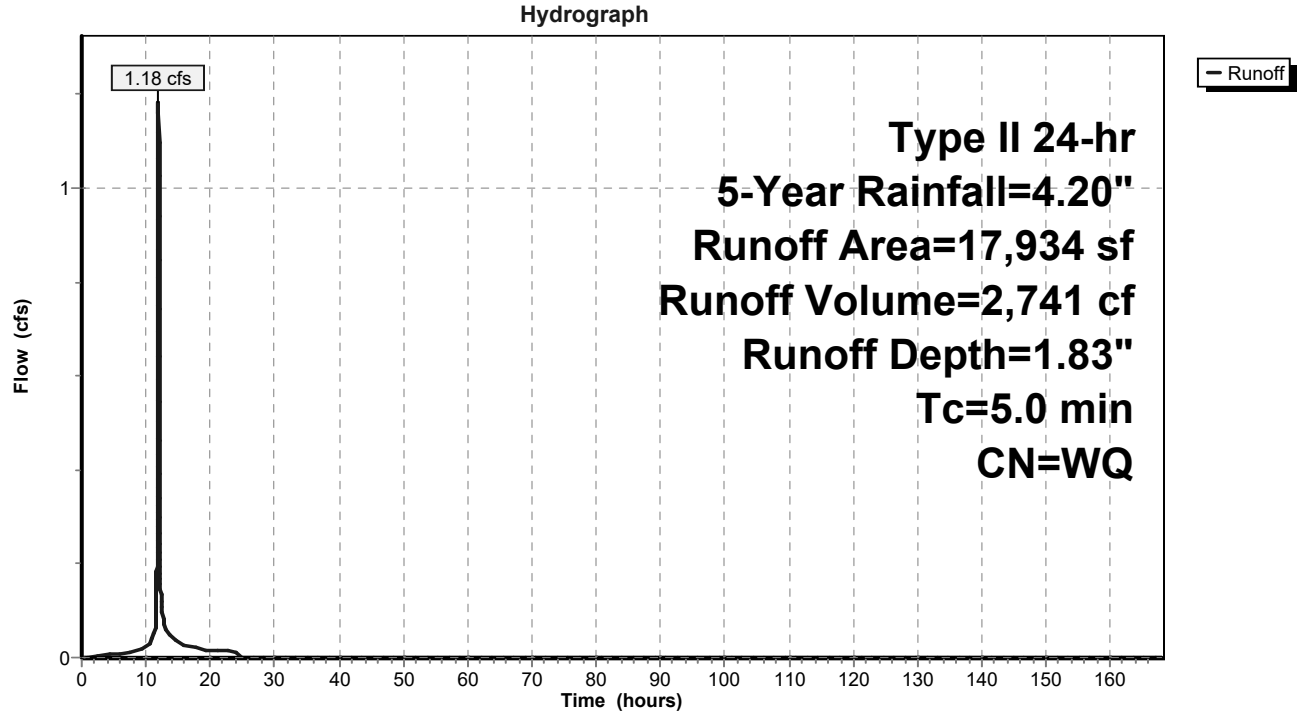
Runoff = 1.18 cfs @ 11.96 hrs, Volume= 2,741 cf, Depth= 1.83"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=4.20"

	Area (sf)	CN	Description
	10,388	58	Meadow, non-grazed, HSG B
*	1,525	58	Meadow (20% Impervious)
	6,021	98	Paved parking, HSG B
	17,934		Weighted Average
	11,913		66.43% Pervious Area
	6,021		33.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

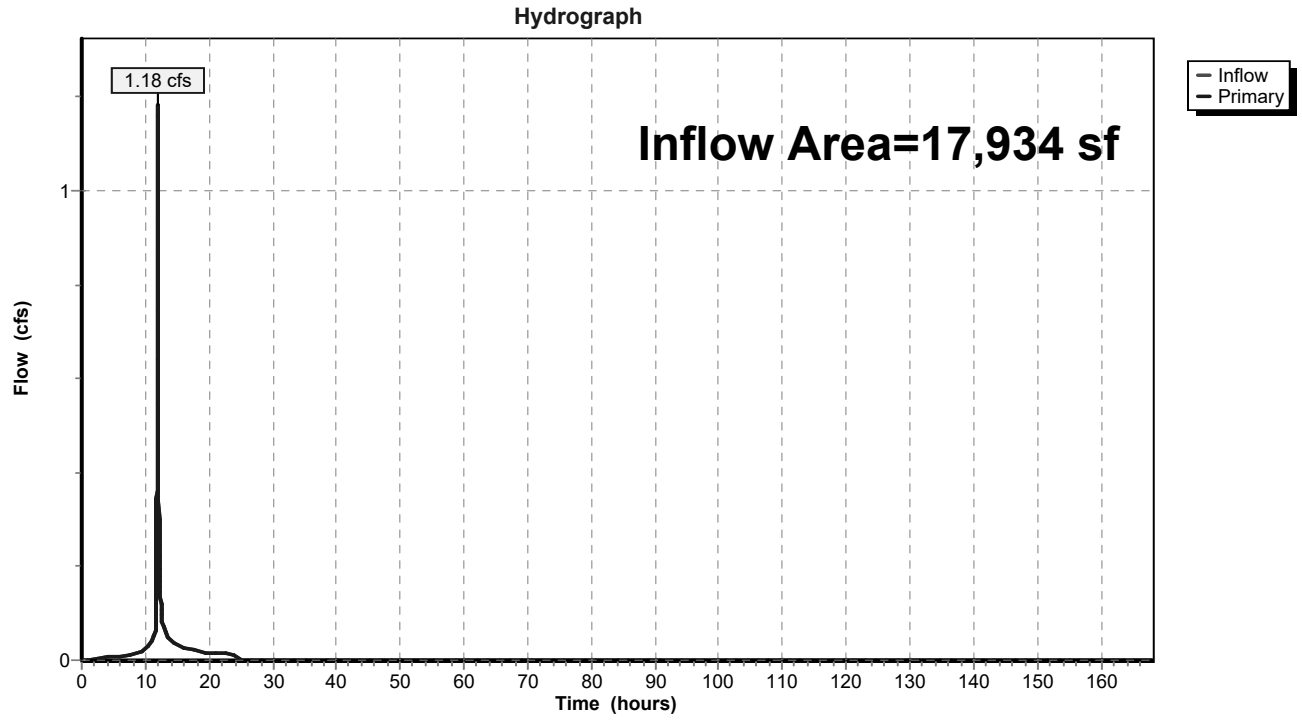


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 33.57% Impervious, Inflow Depth = 1.83" for 5-Year event
Inflow = 1.18 cfs @ 11.96 hrs, Volume= 2,741 cf
Primary = 1.18 cfs @ 11.96 hrs, Volume= 2,741 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

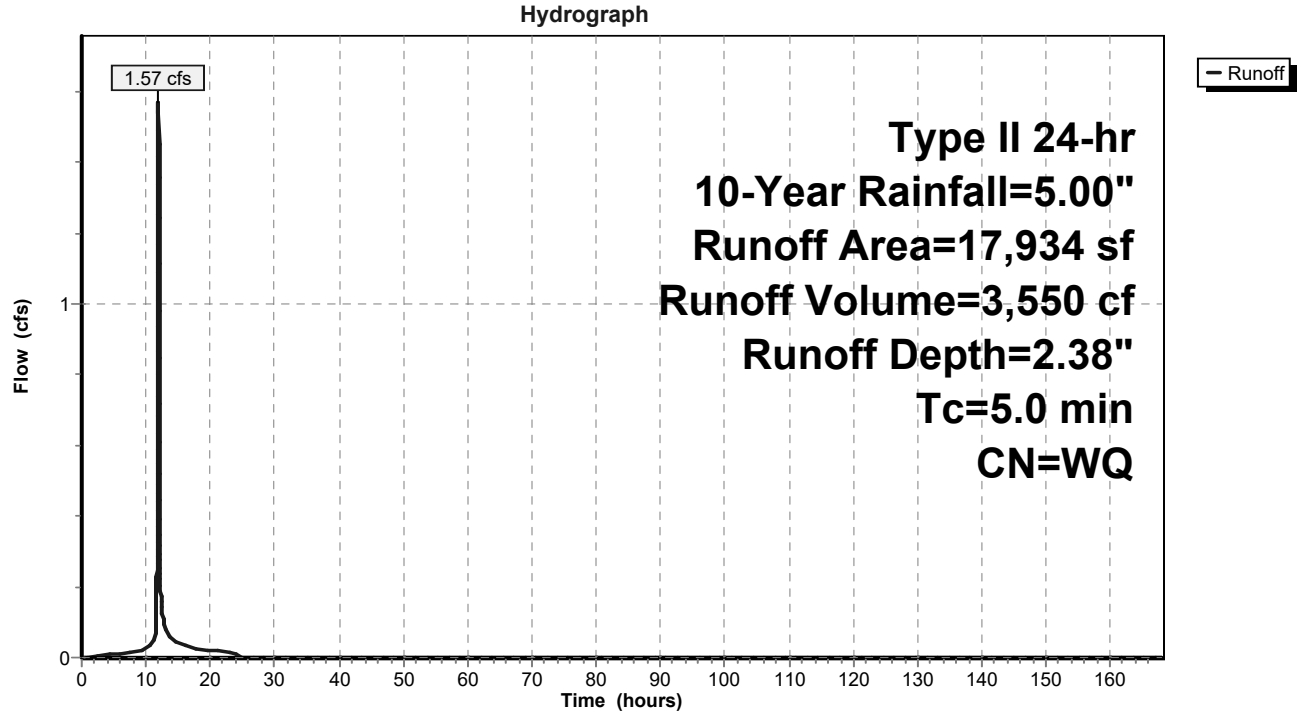
Runoff = 1.57 cfs @ 11.96 hrs, Volume= 3,550 cf, Depth= 2.38"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=5.00"

	Area (sf)	CN	Description
	10,388	58	Meadow, non-grazed, HSG B
*	1,525	58	Meadow (20% Impervious)
	6,021	98	Paved parking, HSG B
	17,934		Weighted Average
	11,913		66.43% Pervious Area
	6,021		33.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

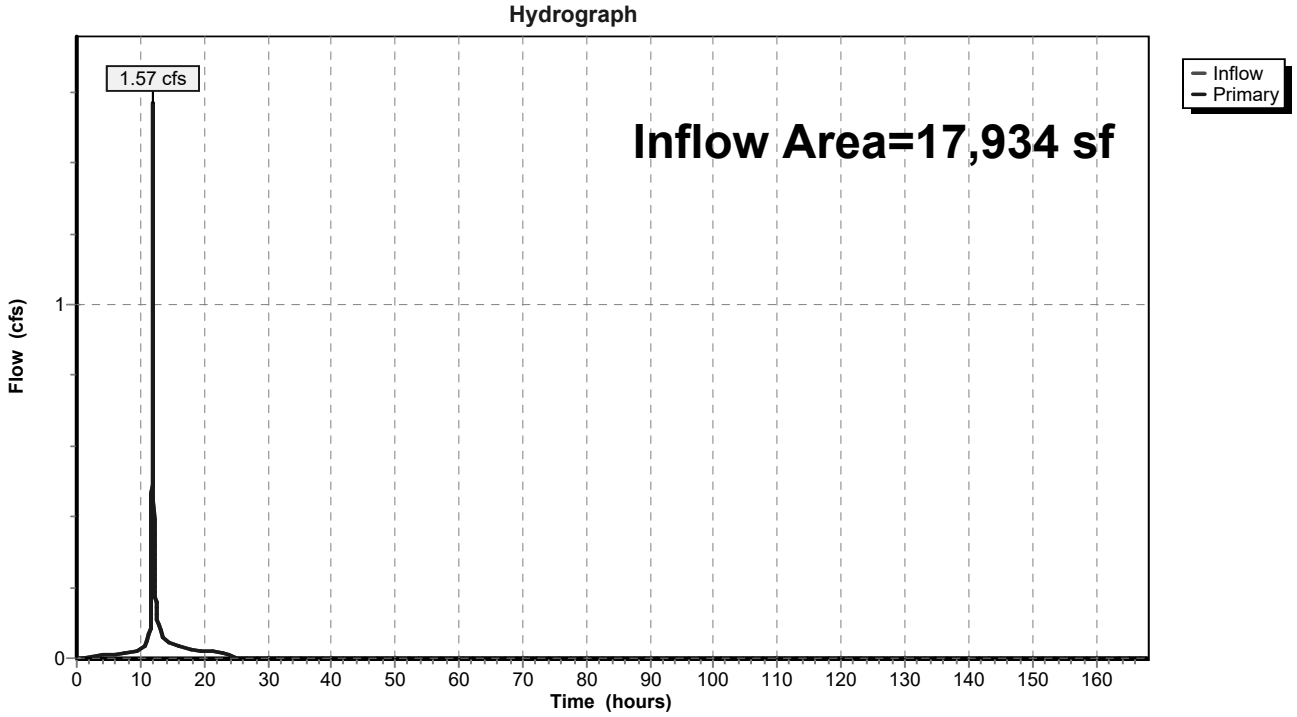


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 33.57% Impervious, Inflow Depth = 2.38" for 10-Year event
Inflow = 1.57 cfs @ 11.96 hrs, Volume= 3,550 cf
Primary = 1.57 cfs @ 11.96 hrs, Volume= 3,550 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

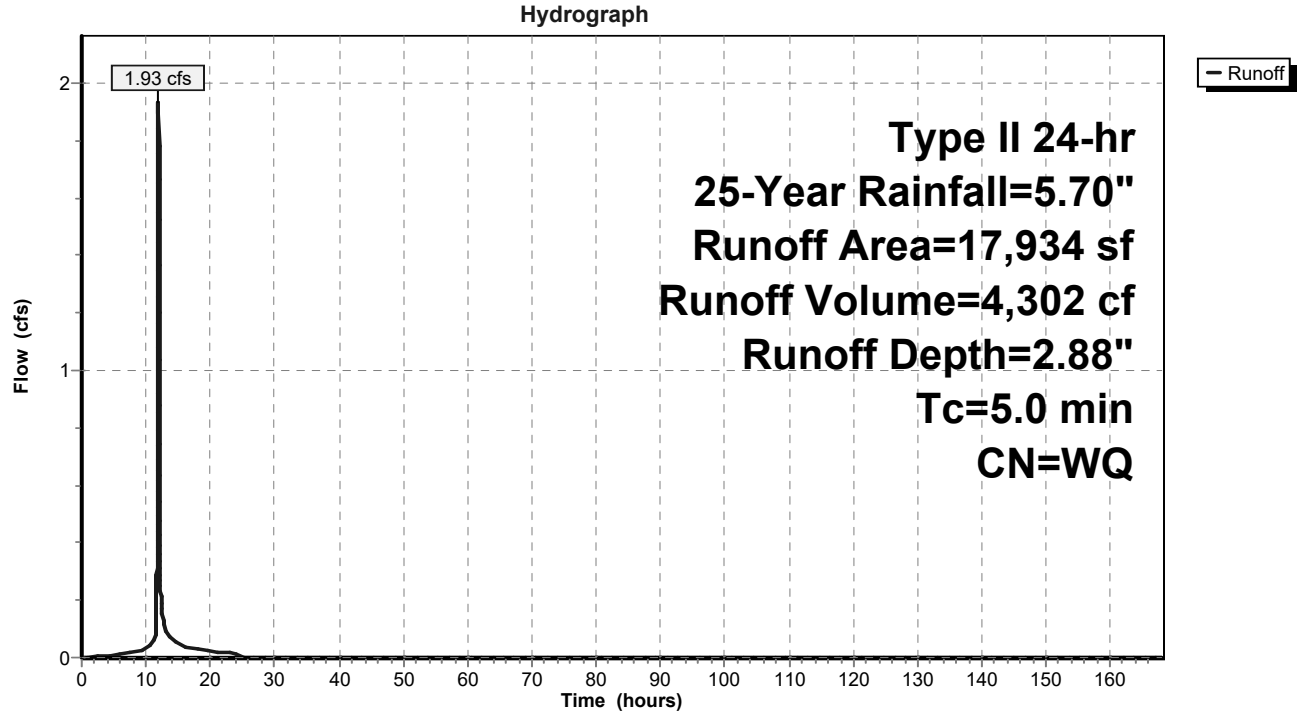
Runoff = 1.93 cfs @ 11.96 hrs, Volume= 4,302 cf, Depth= 2.88"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=5.70"

	Area (sf)	CN	Description
	10,388	58	Meadow, non-grazed, HSG B
*	1,525	58	Meadow (20% Impervious)
	6,021	98	Paved parking, HSG B
	17,934		Weighted Average
	11,913		66.43% Pervious Area
	6,021		33.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

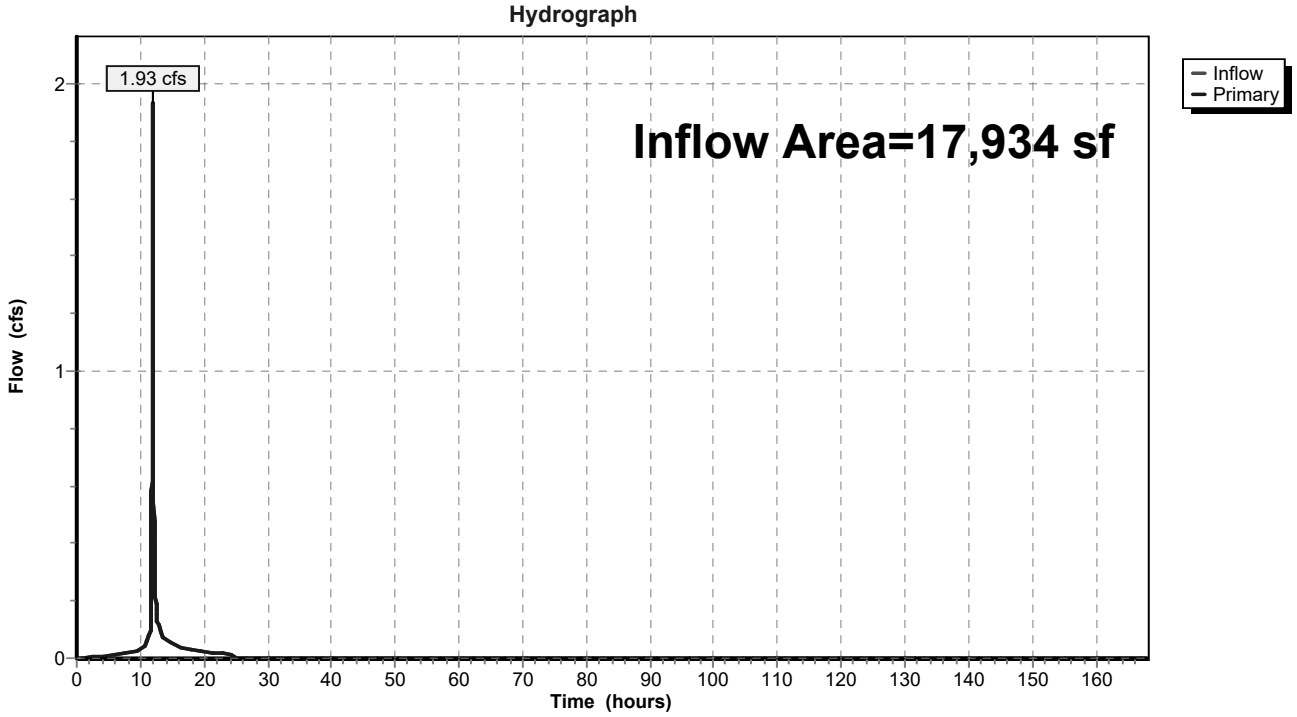


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 33.57% Impervious, Inflow Depth = 2.88" for 25-Year event
Inflow = 1.93 cfs @ 11.96 hrs, Volume= 4,302 cf
Primary = 1.93 cfs @ 11.96 hrs, Volume= 4,302 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

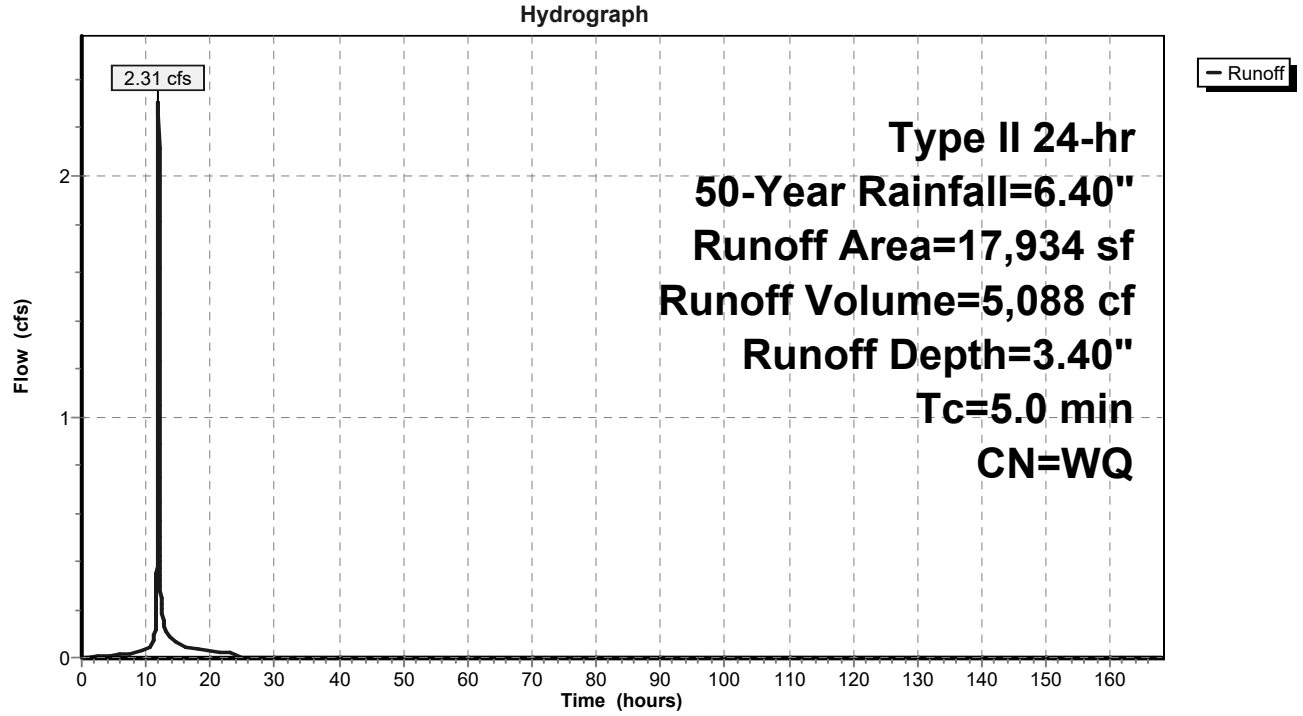
Runoff = 2.31 cfs @ 11.96 hrs, Volume= 5,088 cf, Depth= 3.40"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=6.40"

	Area (sf)	CN	Description
	10,388	58	Meadow, non-grazed, HSG B
*	1,525	58	Meadow (20% Impervious)
	6,021	98	Paved parking, HSG B
	17,934		Weighted Average
	11,913		66.43% Pervious Area
	6,021		33.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

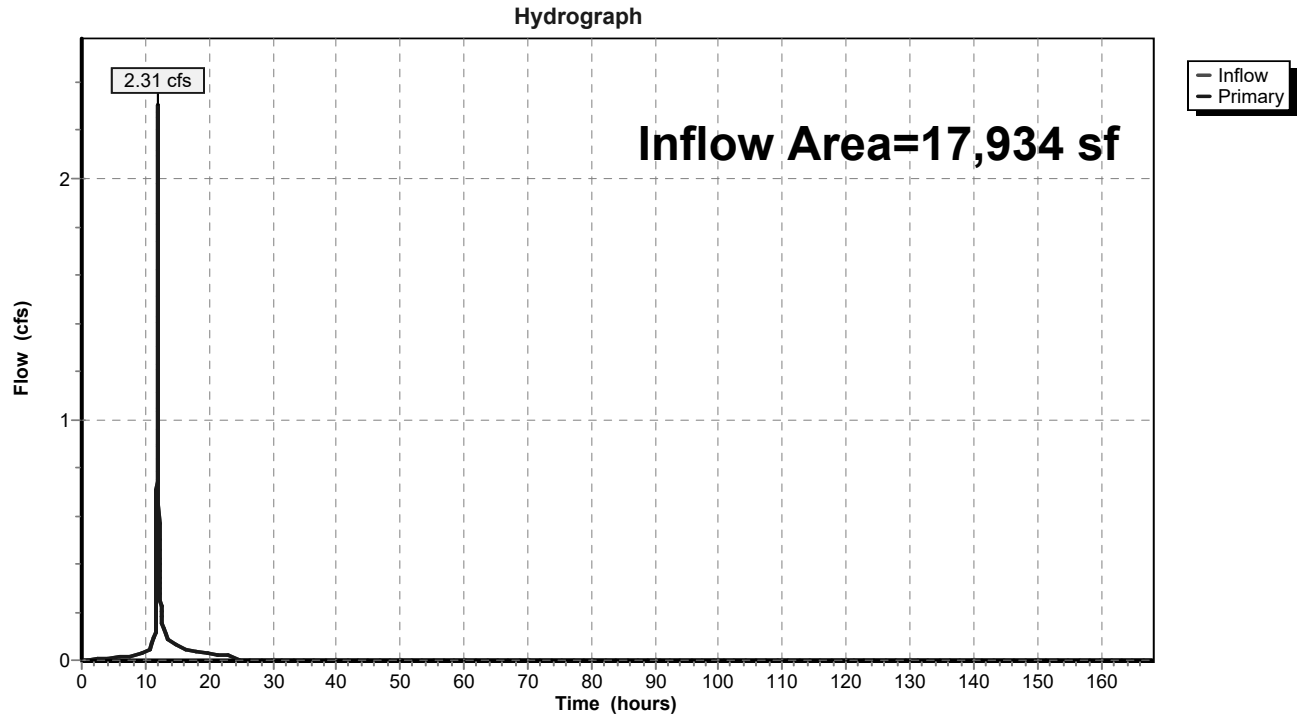


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 33.57% Impervious, Inflow Depth = 3.40" for 50-Year event
Inflow = 2.31 cfs @ 11.96 hrs, Volume= 5,088 cf
Primary = 2.31 cfs @ 11.96 hrs, Volume= 5,088 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

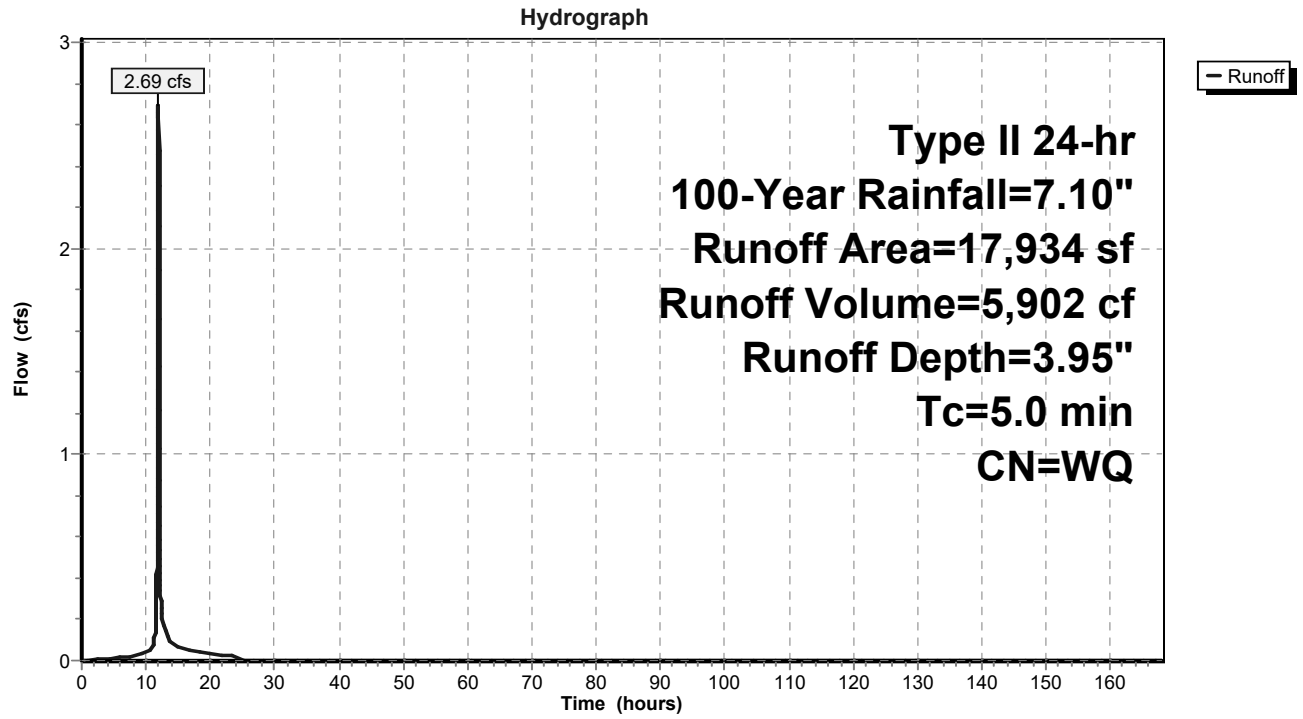
Runoff = 2.69 cfs @ 11.96 hrs, Volume= 5,902 cf, Depth= 3.95"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=7.10"

	Area (sf)	CN	Description
	10,388	58	Meadow, non-grazed, HSG B
*	1,525	58	Meadow (20% Impervious)
	6,021	98	Paved parking, HSG B
	17,934		Weighted Average
	11,913		66.43% Pervious Area
	6,021		33.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

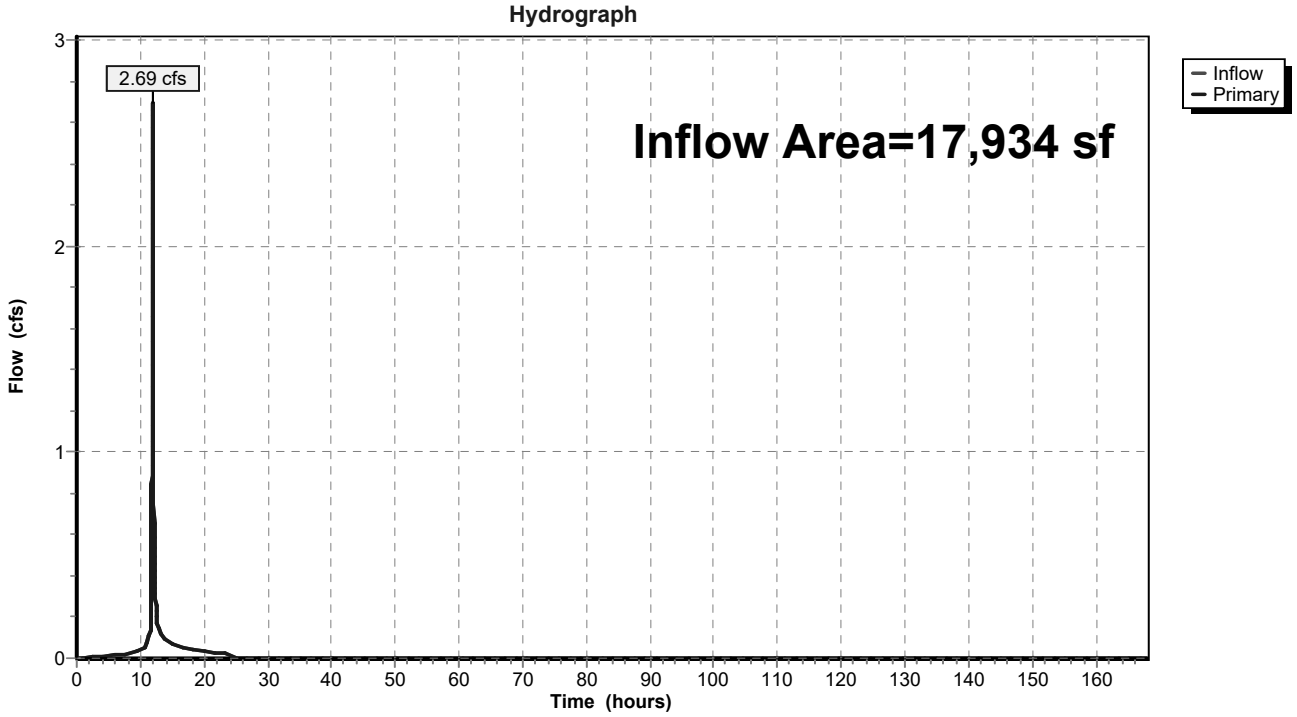


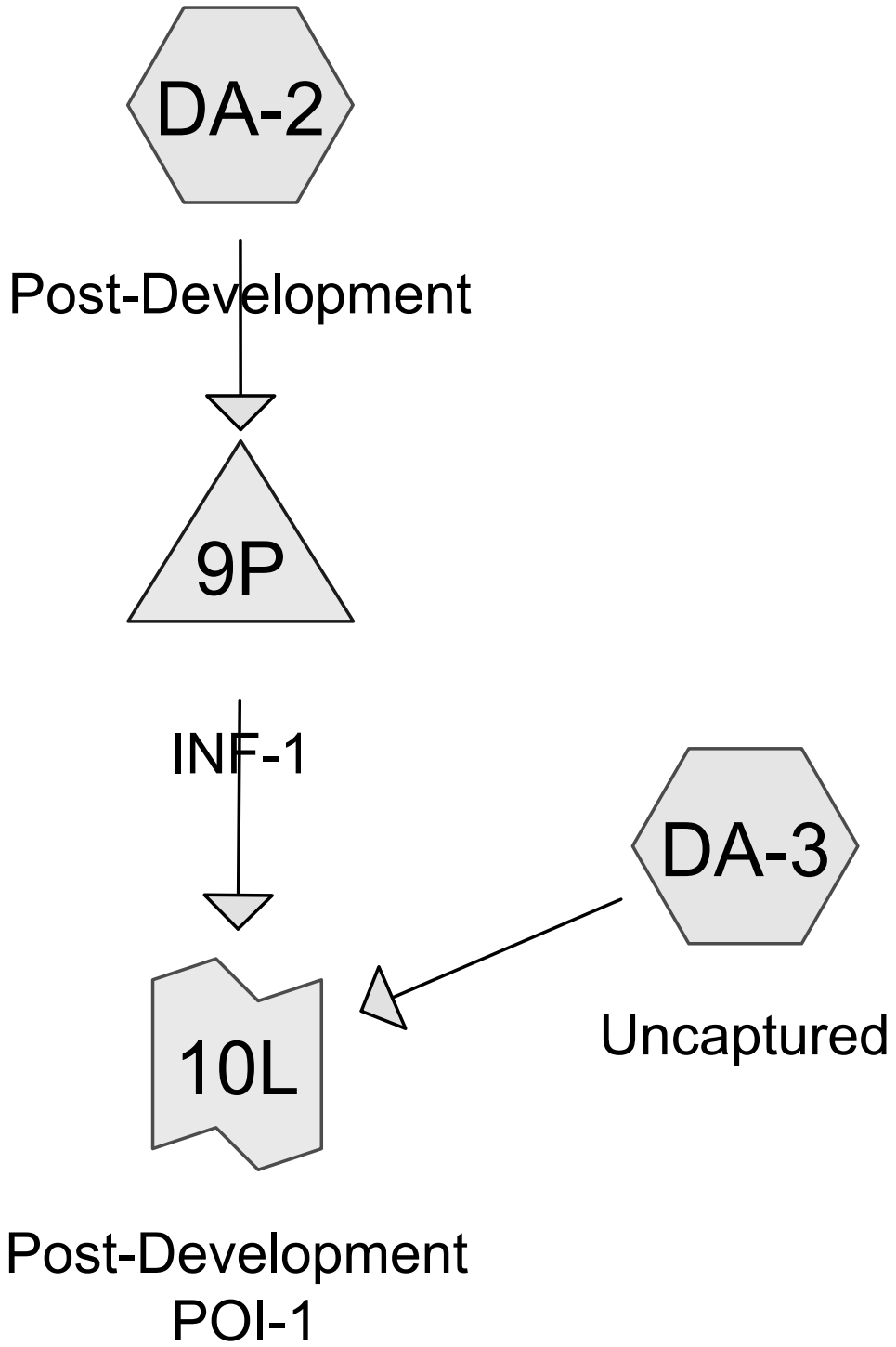
Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 33.57% Impervious, Inflow Depth = 3.95" for 100-Year event
Inflow = 2.69 cfs @ 11.96 hrs, Volume= 5,902 cf
Primary = 2.69 cfs @ 11.96 hrs, Volume= 5,902 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

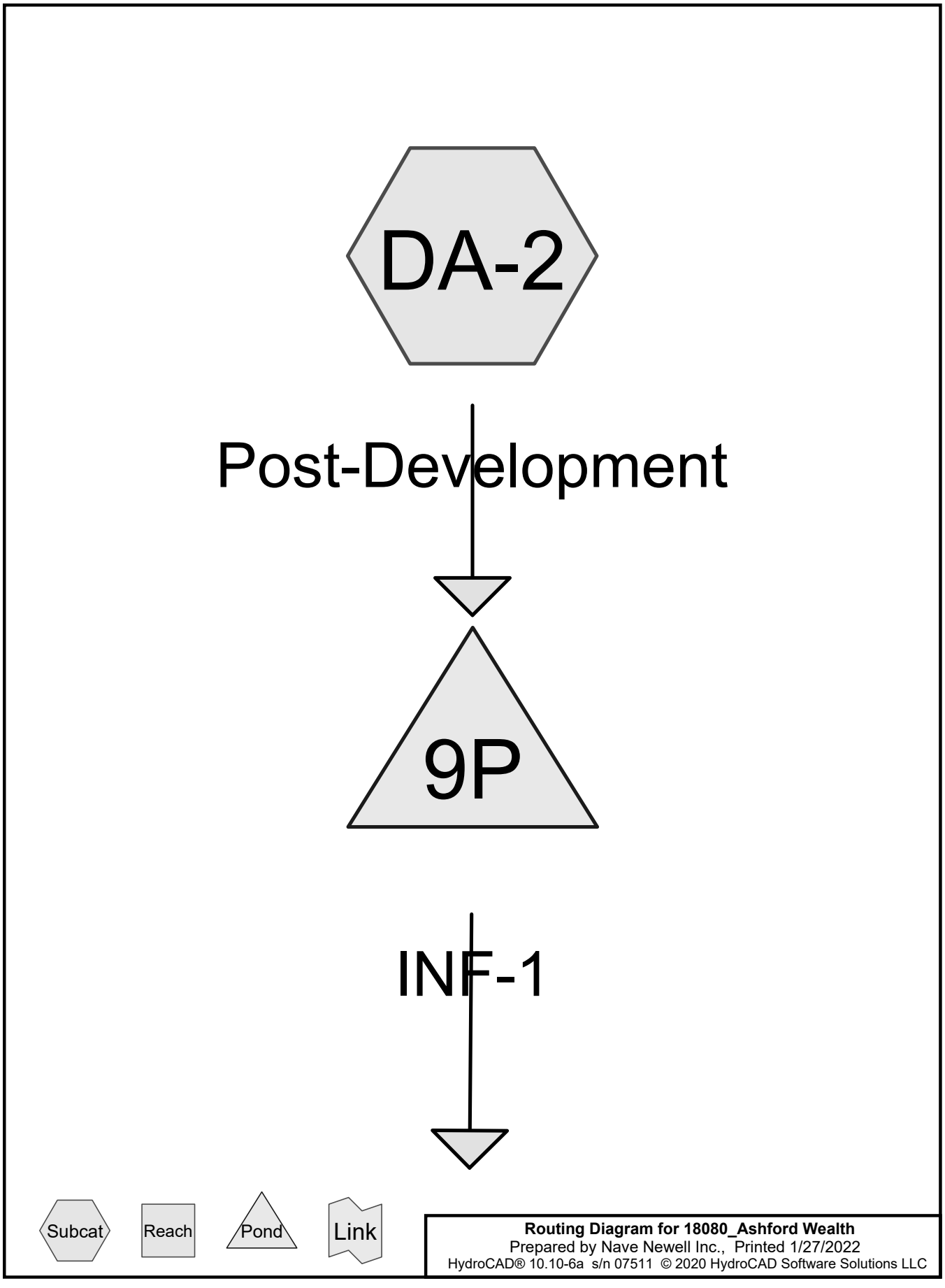
Link 2L: Pre-Development POI-1





Subcat Reach Pond Link

Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc., Printed 1/25/2022
HydroCAD® 10.10-6a s/n 07511 © 2020 HydroCAD Software Solutions LLC



Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc., Printed 1/27/2022
HydroCAD® 10.10-6a s/n 07511 © 2020 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
3,126	61	>75% Grass cover, Good, HSG B (DA-2)
10,916	98	Paved parking, HSG B (DA-2)
14,042	**90**	**TOTAL AREA**

Summary for Subcatchment DA-2: Post-Development

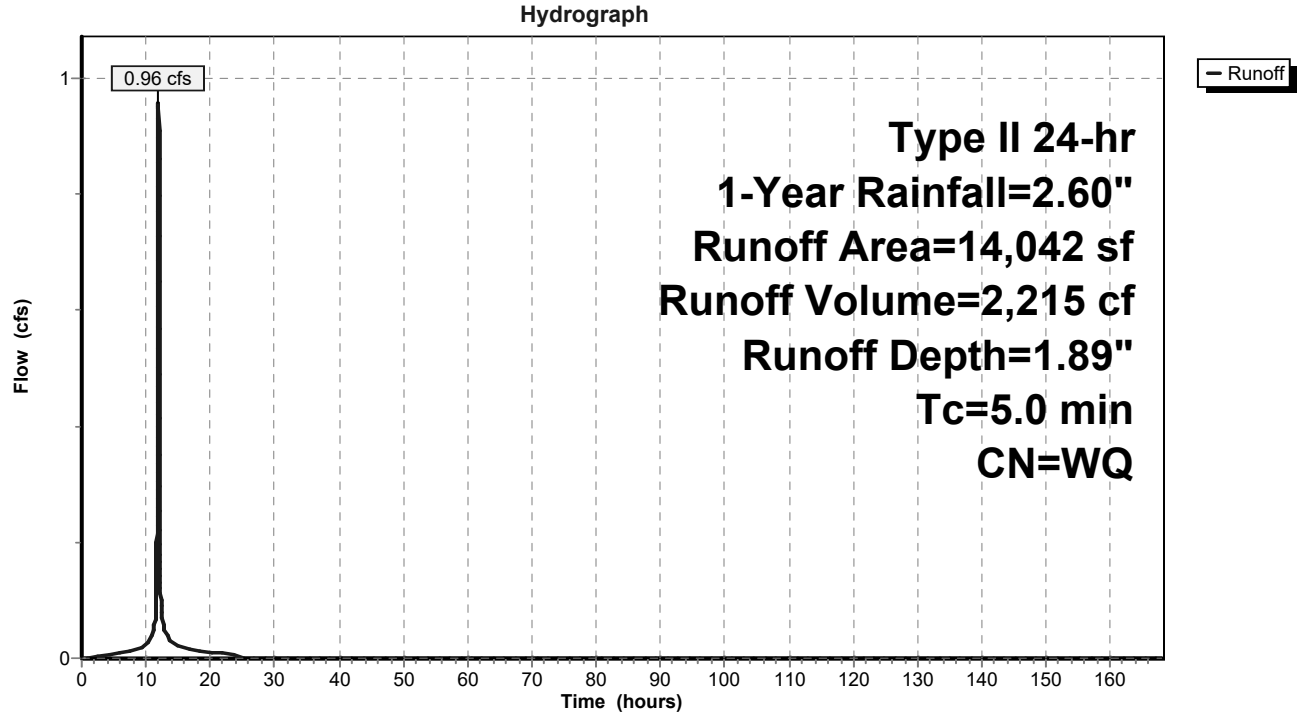
Runoff = 0.96 cfs @ 11.96 hrs, Volume= 2,215 cf, Depth= 1.89"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.60"

Area (sf)	CN	Description
3,126	61	>75% Grass cover, Good, HSG B
10,916	98	Paved parking, HSG B
14,042		Weighted Average
3,126		22.26% Pervious Area
10,916		77.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 14,042 sf, 77.74% Impervious, Inflow Depth = 1.89" for 1-Year event
Inflow = 0.96 cfs @ 11.96 hrs, Volume= 2,215 cf
Outflow = 0.01 cfs @ 17.78 hrs, Volume= 2,215 cf, Atten= 99%, Lag= 349.5 min
Discarded = 0.01 cfs @ 17.78 hrs, Volume= 2,215 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 174.81' @ 17.78 hrs Surf.Area= 4,586 sf Storage= 1,445 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 1,038.1 min (1,799.5 - 761.3)

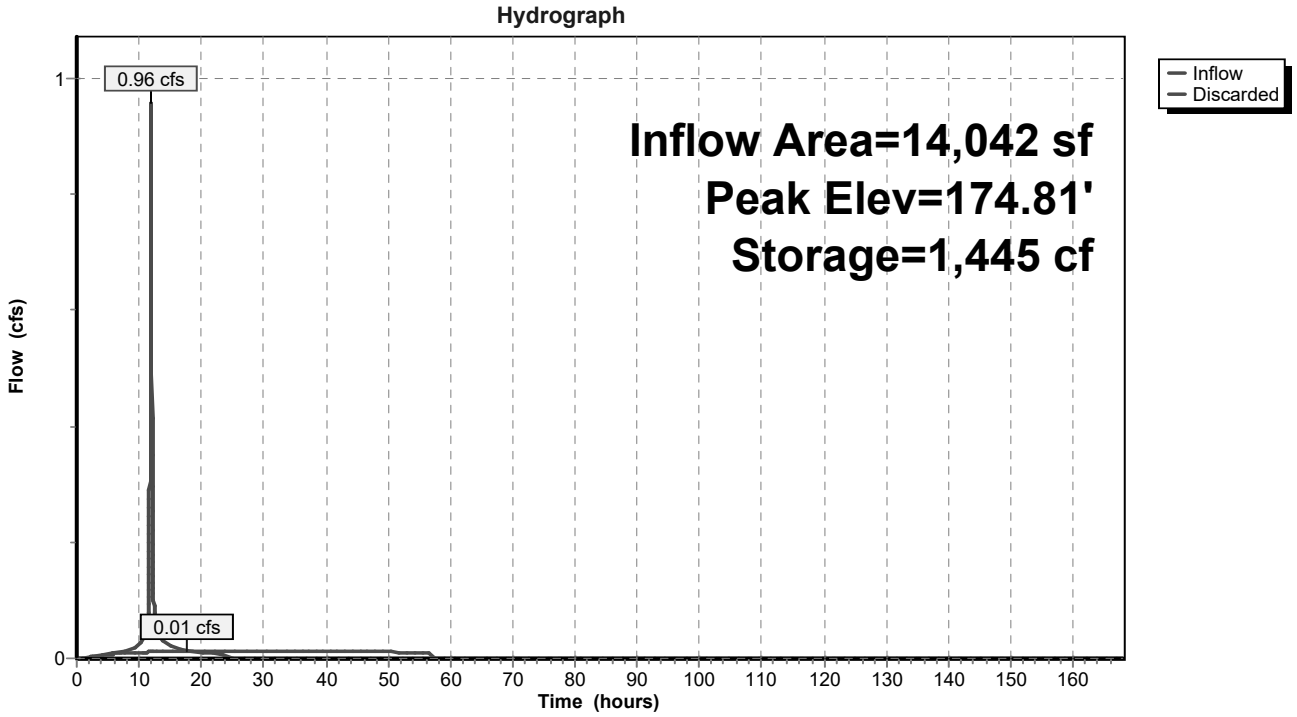
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.01 cfs @ 17.78 hrs HW=174.81' (Free Discharge)
↑**1=Exfiltration** (Controls 0.01 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
0.96 cfs
0.01 cfs
Inflow Area=14,042 sf
Peak Elev=174.81'
Storage=1,445 cf
Flow (cfs)
Time (hours)
0
1
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Summary for Subcatchment DA-2: Post-Development

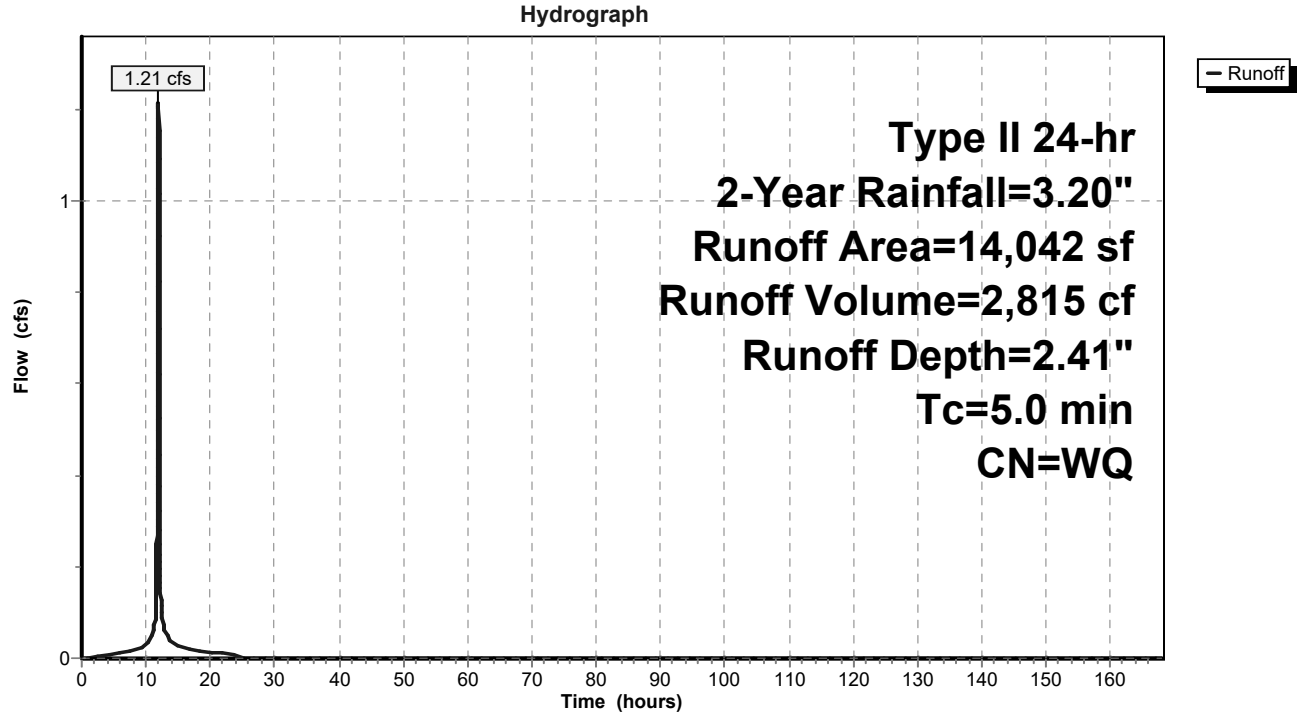
Runoff = 1.21 cfs @ 11.96 hrs, Volume= 2,815 cf, Depth= 2.41"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=3.20"

Area (sf)	CN	Description
3,126	61	>75% Grass cover, Good, HSG B
10,916	98	Paved parking, HSG B
14,042		Weighted Average
3,126		22.26% Pervious Area
10,916		77.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 14,042 sf, 77.74% Impervious, Inflow Depth = 2.41" for 2-Year event
Inflow = 1.21 cfs @ 11.96 hrs, Volume= 2,815 cf
Outflow = 0.01 cfs @ 19.06 hrs, Volume= 2,815 cf, Atten= 99%, Lag= 426.1 min
Discarded = 0.01 cfs @ 19.06 hrs, Volume= 2,815 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 174.95' @ 19.06 hrs Surf.Area= 4,586 sf Storage= 1,945 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 1,329.9 min (2,088.1 - 758.2)

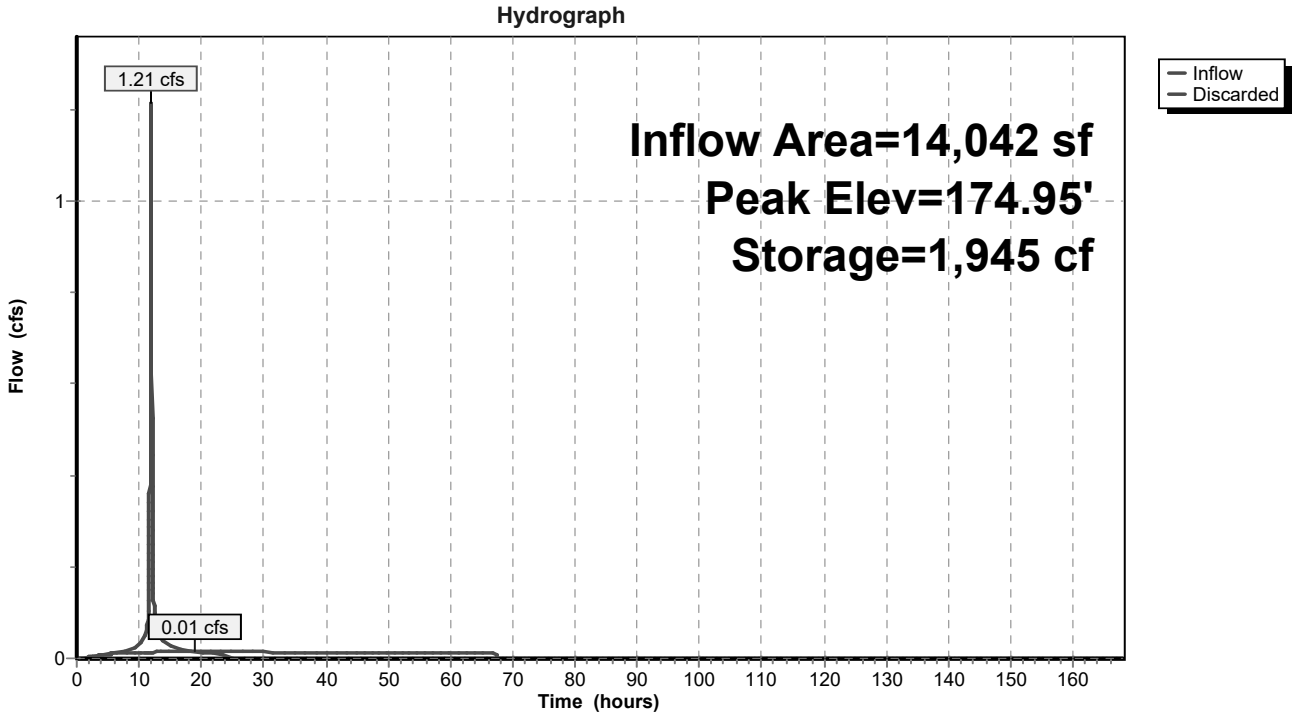
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.01 cfs @ 19.06 hrs HW=174.95' (Free Discharge)
↑**1=Exfiltration** (Controls 0.01 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
1.21 cfs
0.01 cfs
Inflow Area=14,042 sf
Peak Elev=174.95'
Storage=1,945 cf
Flow (cfs)
Time (hours)
0
1
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Summary for Subcatchment DA-2: Post-Development

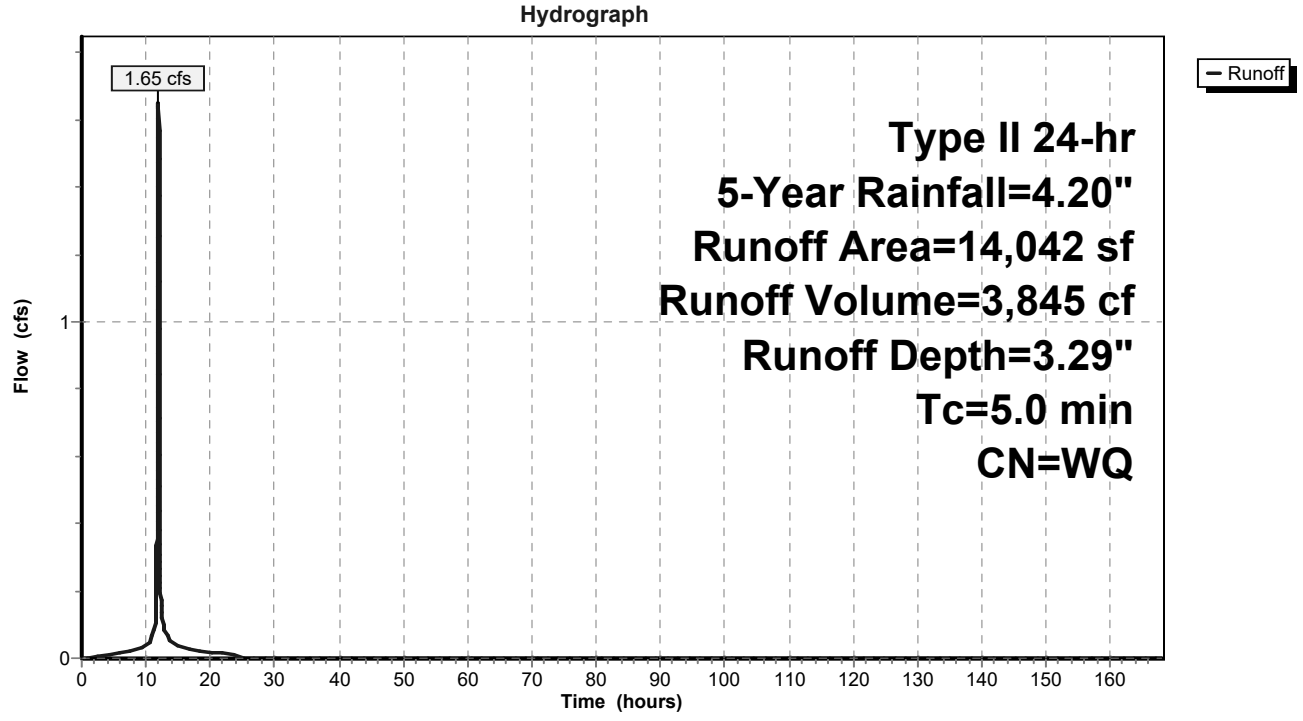
Runoff = 1.65 cfs @ 11.96 hrs, Volume= 3,845 cf, Depth= 3.29"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=4.20"

Area (sf)	CN	Description
3,126	61	>75% Grass cover, Good, HSG B
10,916	98	Paved parking, HSG B
14,042		Weighted Average
3,126		22.26% Pervious Area
10,916		77.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 14,042 sf, 77.74% Impervious, Inflow Depth = 3.29" for 5-Year event
Inflow = 1.65 cfs @ 11.96 hrs, Volume= 3,845 cf
Outflow = 0.02 cfs @ 21.09 hrs, Volume= 3,845 cf, Atten= 99%, Lag= 547.7 min
Discarded = 0.02 cfs @ 21.09 hrs, Volume= 3,845 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 175.21' @ 21.09 hrs Surf.Area= 4,586 sf Storage= 2,840 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 1,802.6 min (2,557.2 - 754.6)

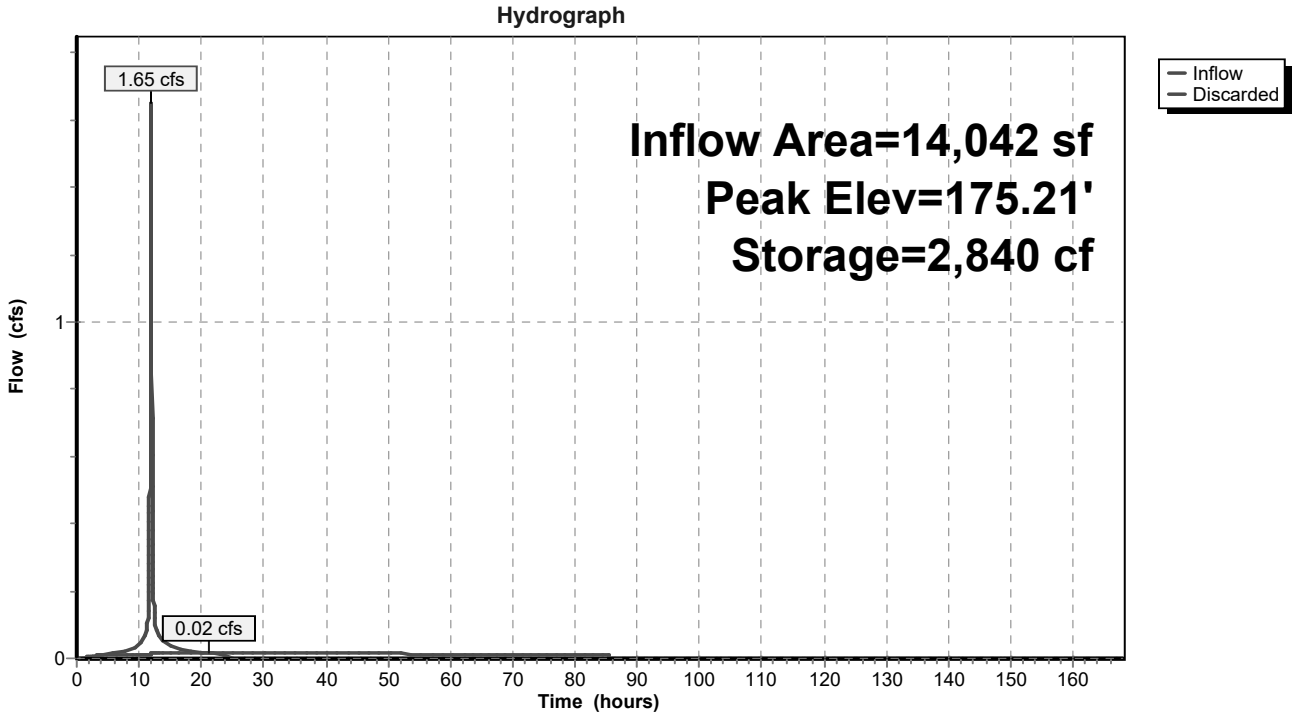
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.02 cfs @ 21.09 hrs HW=175.21' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
1.65 cfs
0.02 cfs
Inflow Area=14,042 sf
Peak Elev=175.21'
Storage=2,840 cf
Flow (cfs)
0
1
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160
Time (hours)

Summary for Subcatchment DA-2: Post-Development

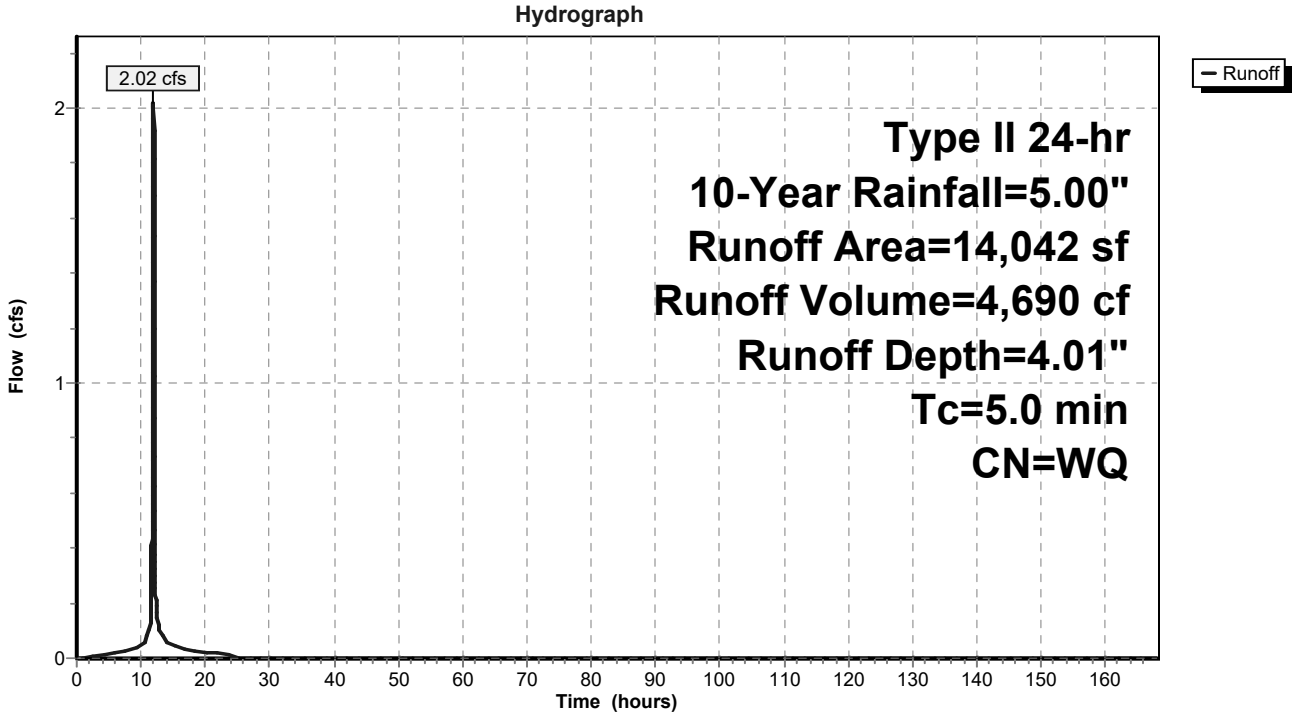
Runoff = 2.02 cfs @ 11.96 hrs, Volume= 4,690 cf, Depth= 4.01"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,126	61	>75% Grass cover, Good, HSG B
10,916	98	Paved parking, HSG B
14,042		Weighted Average
3,126		22.26% Pervious Area
10,916		77.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 14,042 sf, 77.74% Impervious, Inflow Depth = 4.01" for 10-Year event
Inflow = 2.02 cfs @ 11.96 hrs, Volume= 4,690 cf
Outflow = 0.02 cfs @ 23.93 hrs, Volume= 4,690 cf, Atten= 99%, Lag= 718.5 min
Discarded = 0.02 cfs @ 23.93 hrs, Volume= 4,690 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 175.45' @ 23.93 hrs Surf.Area= 4,586 sf Storage= 3,604 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2,155.2 min (2,907.7 - 752.5)

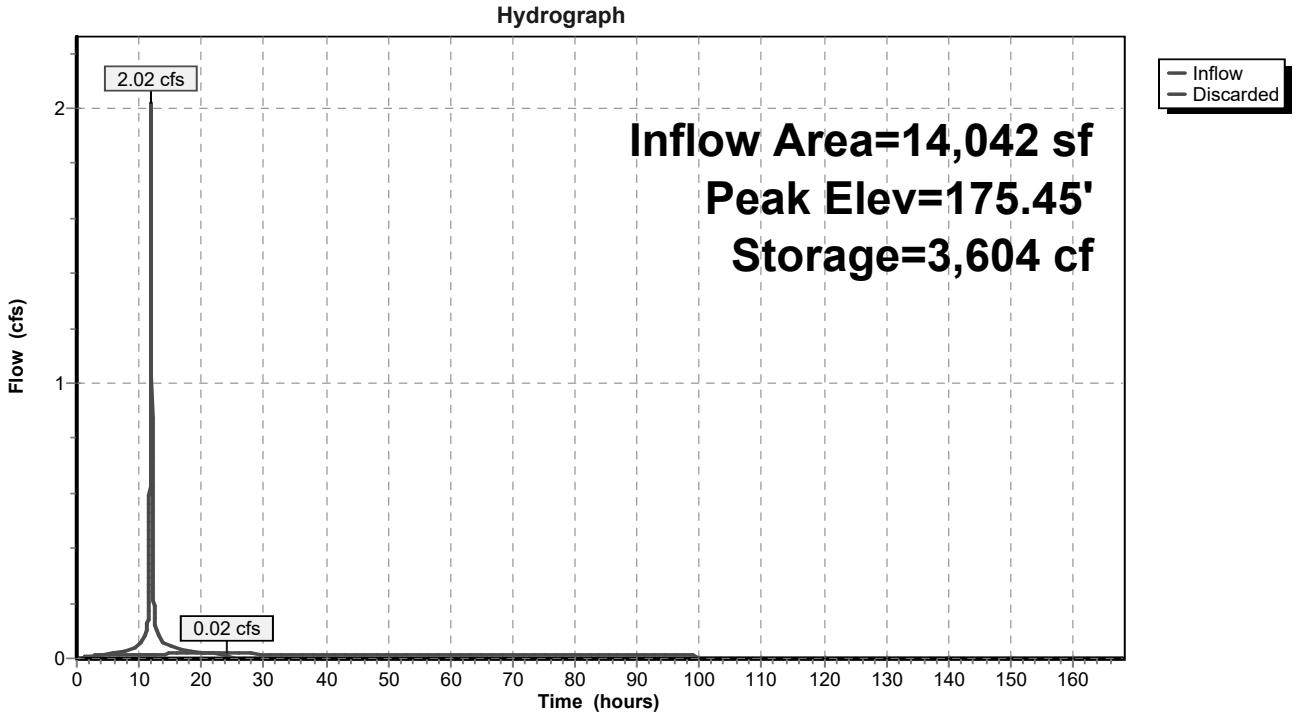
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.02 cfs @ 23.93 hrs HW=175.45' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
2.02 cfs
0.02 cfs
Inflow Area=14,042 sf
Peak Elev=175.45'
Storage=3,604 cf
Flow (cfs)
Time (hours)
0
1
2
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Summary for Subcatchment DA-2: Post-Development

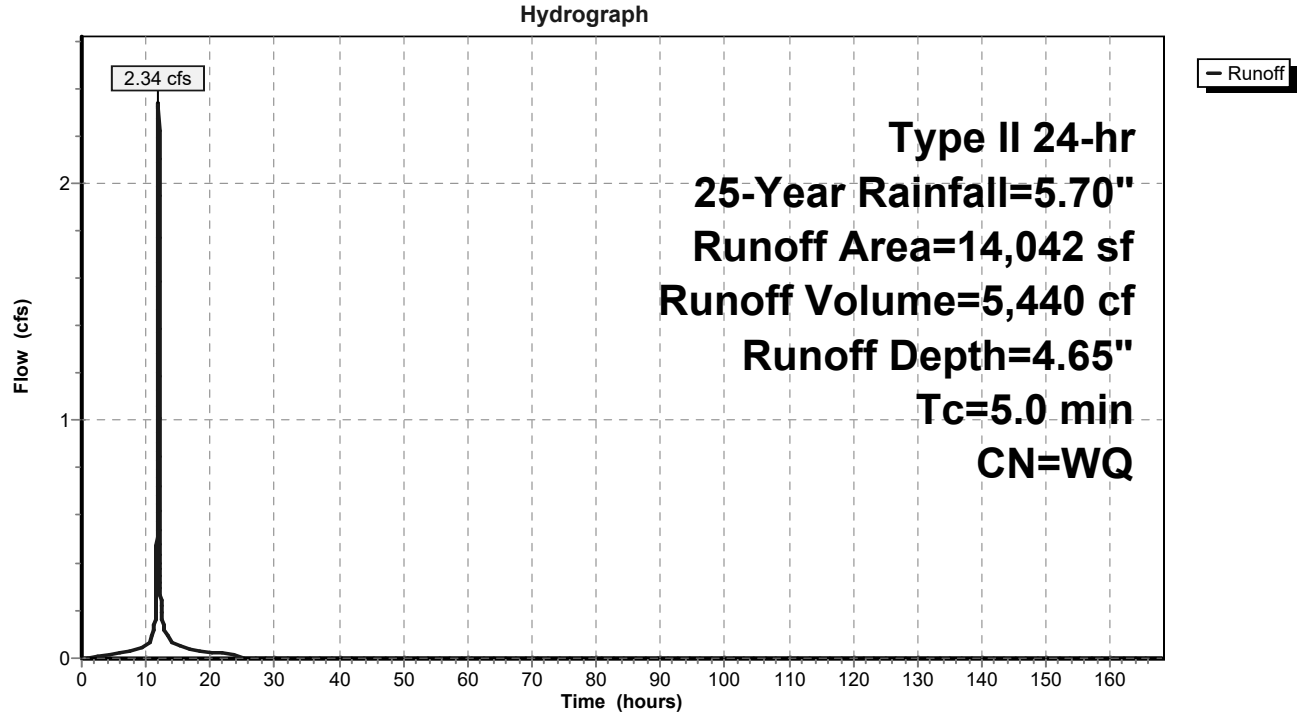
Runoff = 2.34 cfs @ 11.96 hrs, Volume= 5,440 cf, Depth= 4.65"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=5.70"

Area (sf)	CN	Description
3,126	61	>75% Grass cover, Good, HSG B
10,916	98	Paved parking, HSG B
14,042		Weighted Average
3,126		22.26% Pervious Area
10,916		77.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 14,042 sf, 77.74% Impervious, Inflow Depth = 4.65" for 25-Year event
Inflow = 2.34 cfs @ 11.96 hrs, Volume= 5,440 cf
Outflow = 0.02 cfs @ 24.03 hrs, Volume= 5,440 cf, Atten= 99%, Lag= 724.5 min
Discarded = 0.02 cfs @ 24.03 hrs, Volume= 5,440 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 175.69' @ 24.03 hrs Surf.Area= 4,586 sf Storage= 4,291 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2,438.4 min (3,189.5 - 751.1)

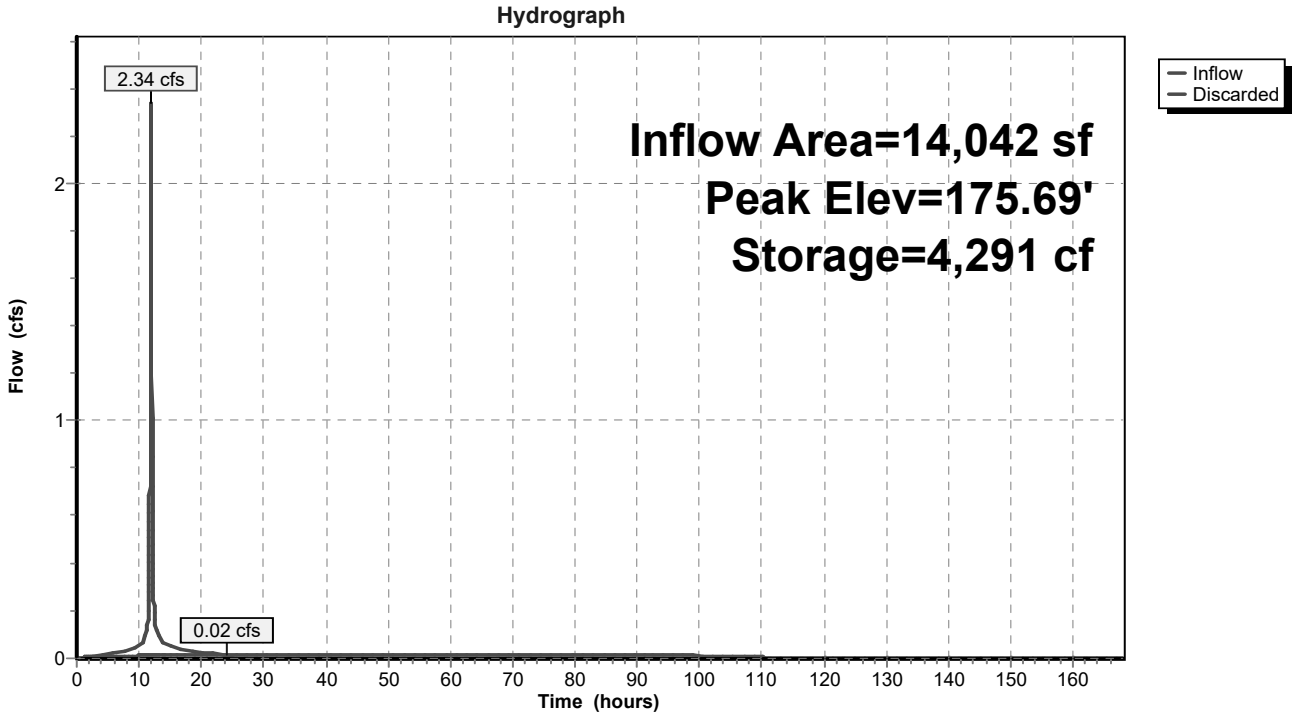
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.02 cfs @ 24.03 hrs HW=175.69' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
2.34 cfs
0.02 cfs
Inflow Area=14,042 sf
Peak Elev=175.69'
Storage=4,291 cf
Flow (cfs)
Time (hours)
0
1
2
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Summary for Subcatchment DA-2: Post-Development

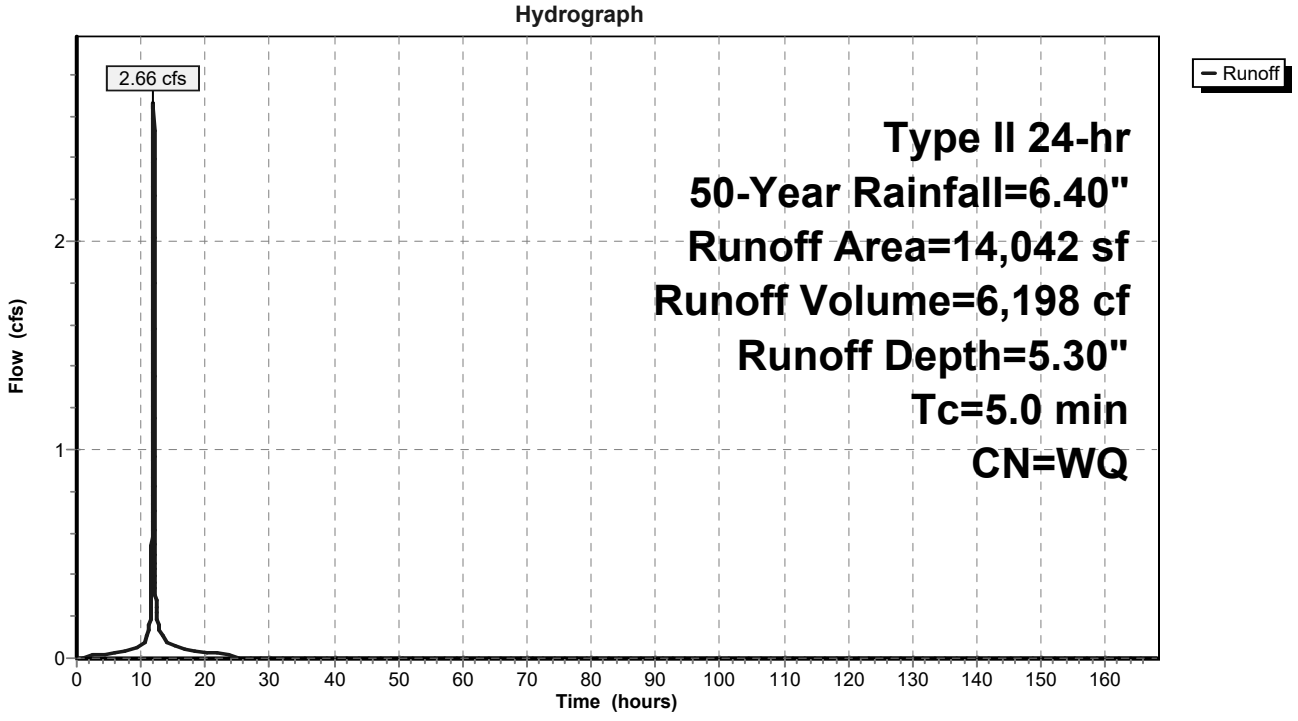
Runoff = 2.66 cfs @ 11.96 hrs, Volume= 6,198 cf, Depth= 5.30"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=6.40"

Area (sf)	CN	Description
3,126	61	>75% Grass cover, Good, HSG B
10,916	98	Paved parking, HSG B
14,042		Weighted Average
3,126		22.26% Pervious Area
10,916		77.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 14,042 sf, 77.74% Impervious, Inflow Depth = 5.30" for 50-Year event
Inflow = 2.66 cfs @ 11.96 hrs, Volume= 6,198 cf
Outflow = 0.02 cfs @ 24.04 hrs, Volume= 6,198 cf, Atten= 99%, Lag= 724.8 min
Discarded = 0.02 cfs @ 24.04 hrs, Volume= 6,198 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 176.02' @ 24.04 hrs Surf.Area= 4,586 sf Storage= 4,977 cf

Plug-Flow detention time= 2,686.3 min calculated for 6,198 cf (100% of inflow)
Center-of-Mass det. time= 2,686.5 min (3,436.4 - 749.9)

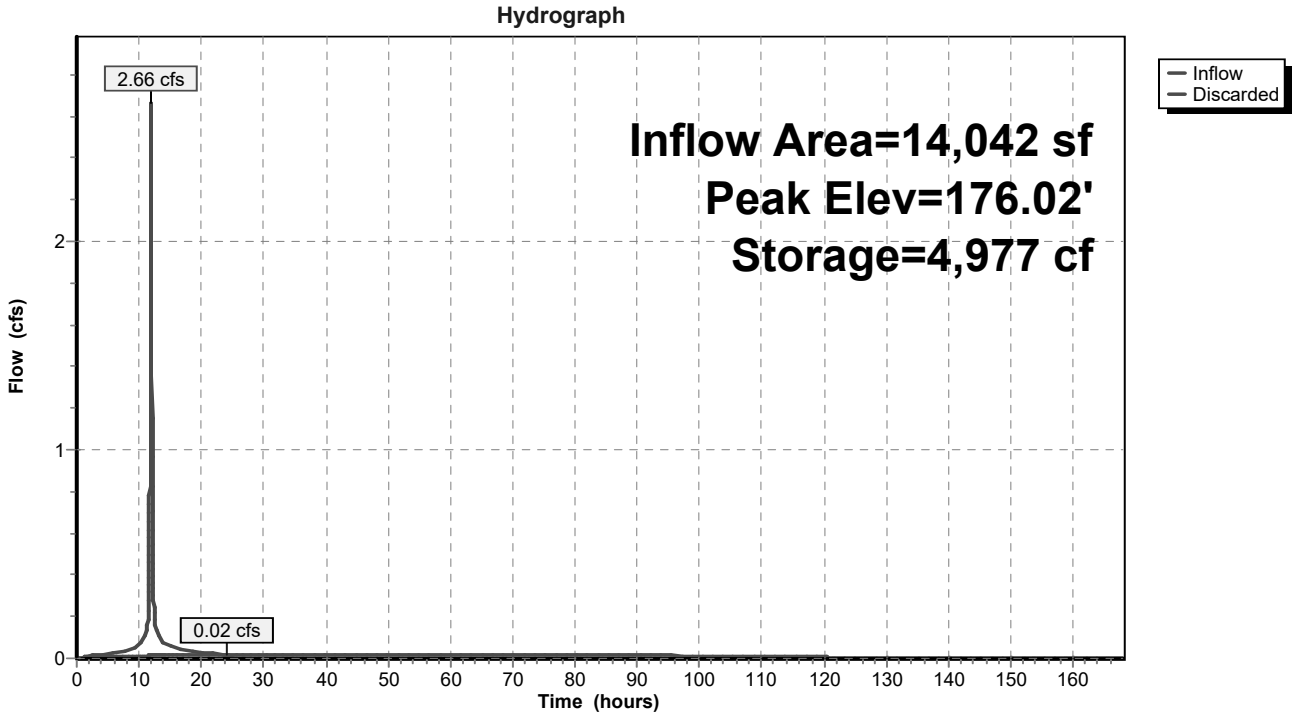
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.02 cfs @ 24.04 hrs HW=176.02' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
2.66 cfs
0.02 cfs
Inflow Area=14,042 sf
Peak Elev=176.02'
Storage=4,977 cf
Flow (cfs)
Time (hours)
0
1
2
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Summary for Subcatchment DA-2: Post-Development

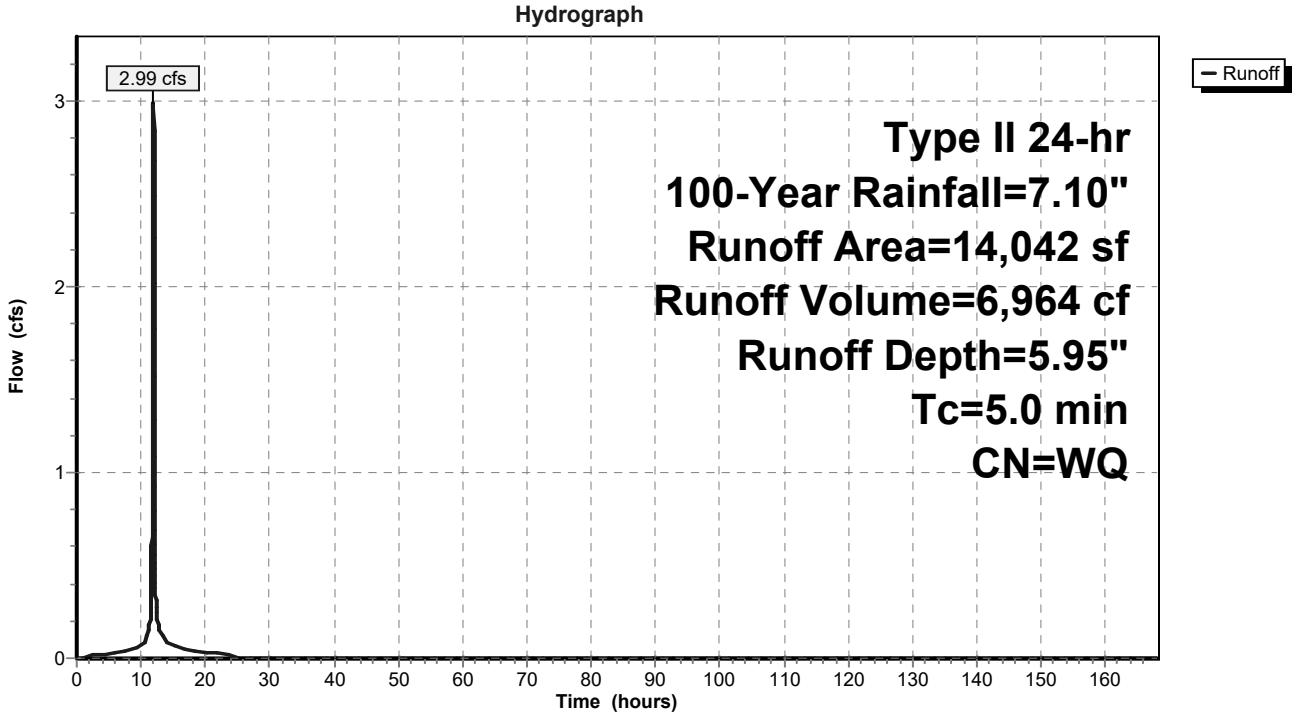
Runoff = 2.99 cfs @ 11.96 hrs, Volume= 6,964 cf, Depth= 5.95"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=7.10"

Area (sf)	CN	Description
3,126	61	>75% Grass cover, Good, HSG B
10,916	98	Paved parking, HSG B
14,042		Weighted Average
3,126		22.26% Pervious Area
10,916		77.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 14,042 sf, 77.74% Impervious, Inflow Depth = 5.95" for 100-Year event
Inflow = 2.99 cfs @ 11.96 hrs, Volume= 6,964 cf
Outflow = 0.02 cfs @ 24.04 hrs, Volume= 6,964 cf, Atten= 99%, Lag= 724.9 min
Discarded = 0.02 cfs @ 24.04 hrs, Volume= 6,964 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 176.39' @ 24.04 hrs Surf.Area= 4,586 sf Storage= 5,659 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2,894.7 min (3,643.6 - 748.9)

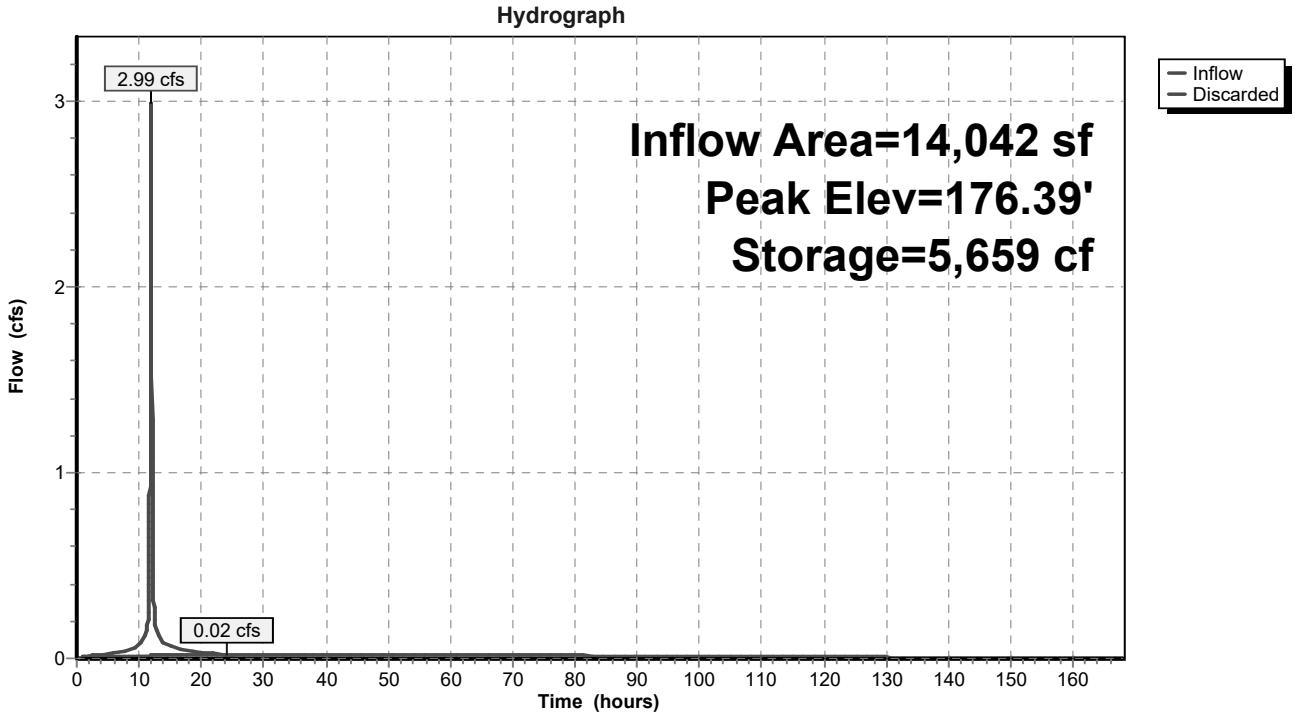
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

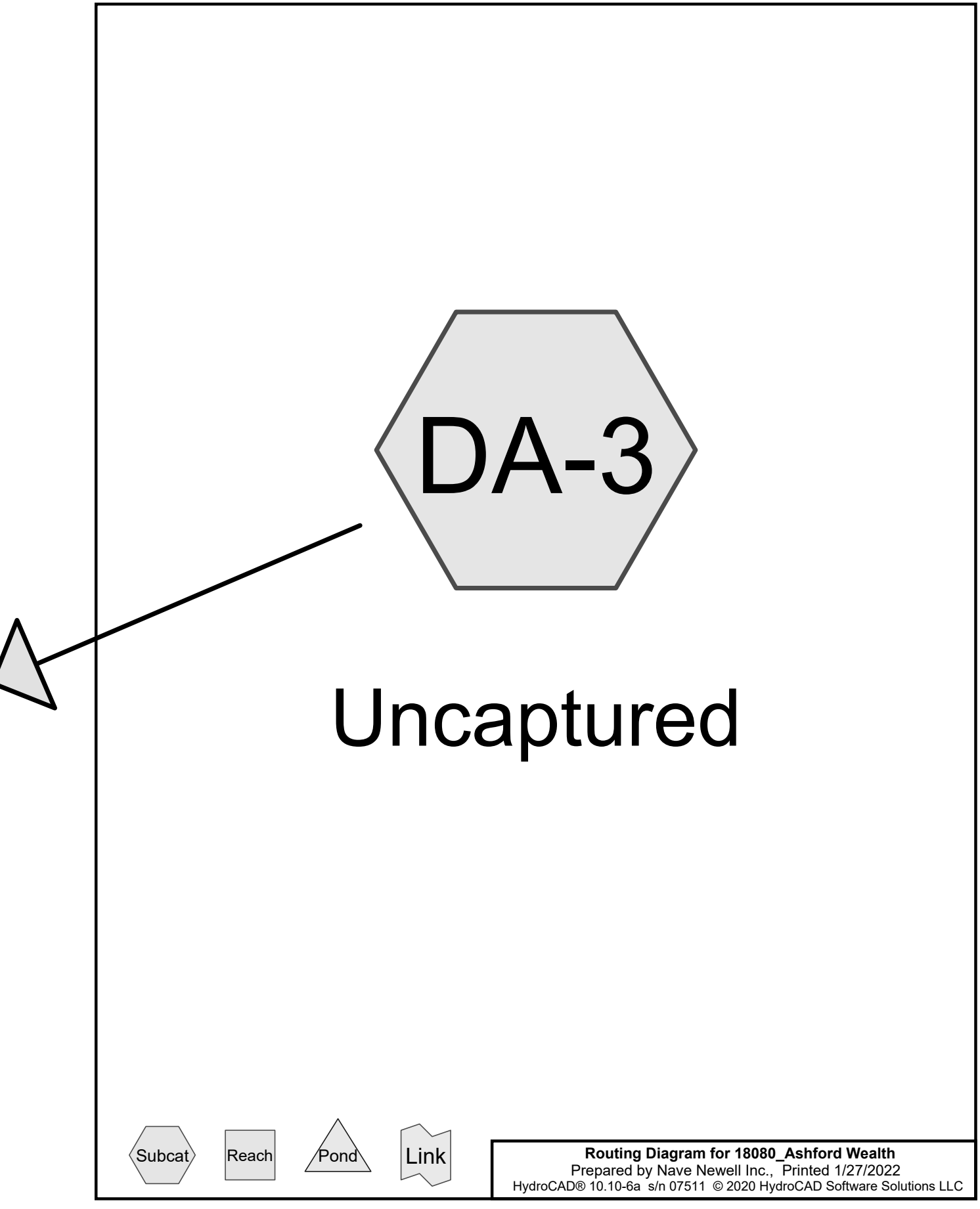
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.02 cfs @ 24.04 hrs HW=176.39' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Pond 9P: INF-1


Hydrograph
Inflow Area=14,042 sf
Peak Elev=176.39'
Storage=5,659 cf
2.99 cfs
0.02 cfs
Inflow
Discarded
Flow (cfs)
Time (hours)
0
1
2
3
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160



Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc., Printed 1/27/2022
HydroCAD® 10.10-6a s/n 07511 © 2020 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
3,260	61	>75% Grass cover, Good, HSG B (DA-3)
632	98	Paved parking, HSG B (DA-3)
3,892	**67**	**TOTAL AREA**

Summary for Subcatchment DA-3: Uncaptured

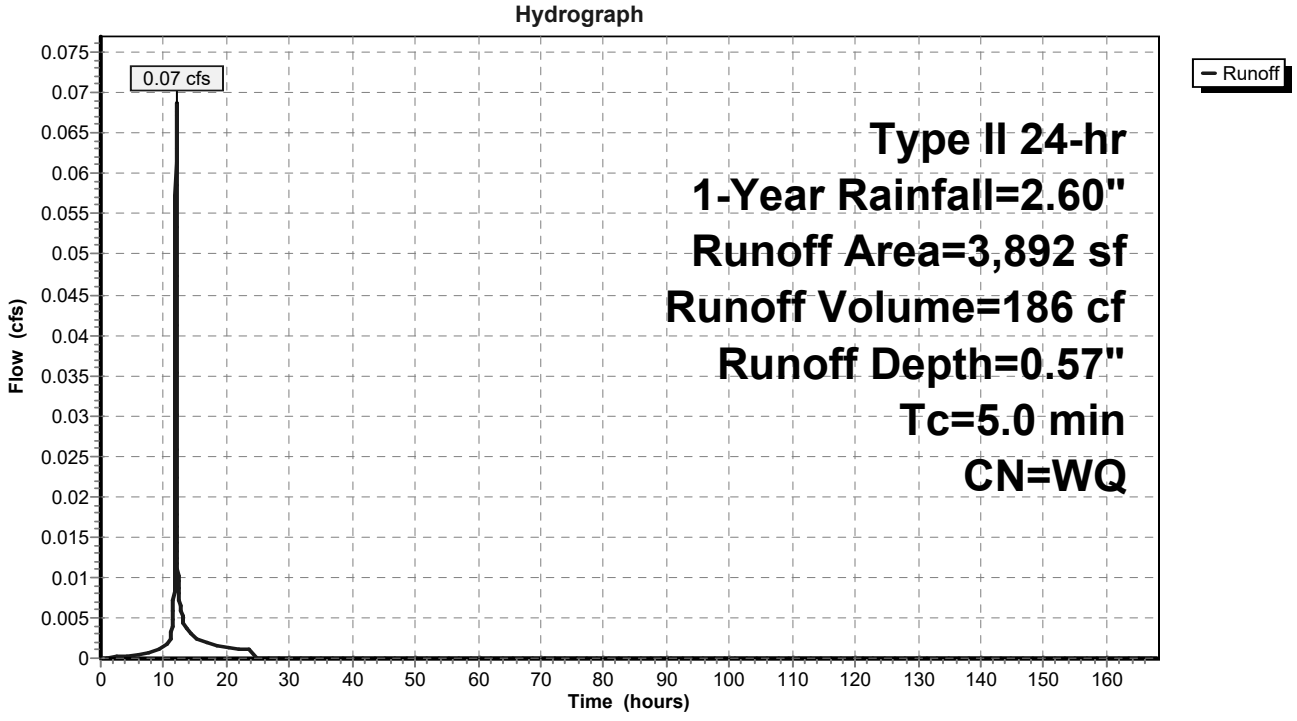
Runoff = 0.07 cfs @ 11.97 hrs, Volume= 186 cf, Depth= 0.57"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.60"

Area (sf)	CN	Description
3,260	61	>75% Grass cover, Good, HSG B
632	98	Paved parking, HSG B
3,892		Weighted Average
3,260		83.76% Pervious Area
632		16.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

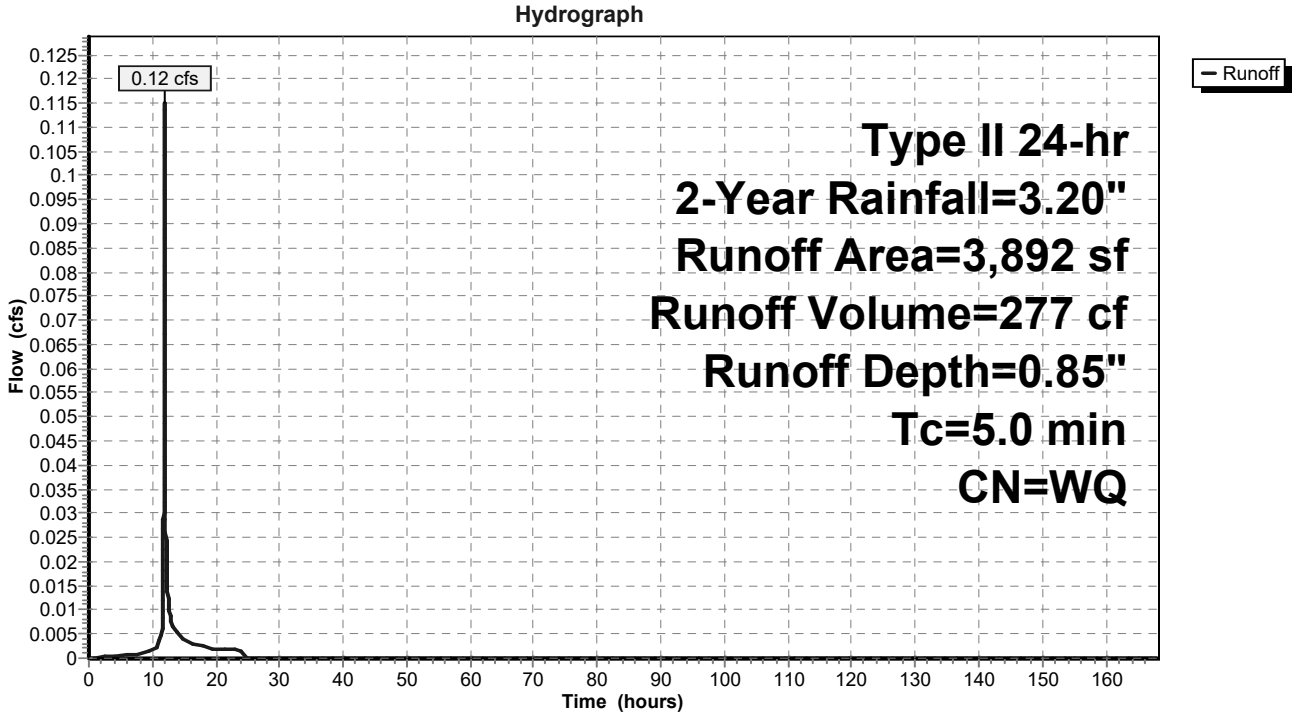
Runoff = 0.12 cfs @ 11.97 hrs, Volume= 277 cf, Depth= 0.85"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=3.20"

Area (sf)	CN	Description
3,260	61	>75% Grass cover, Good, HSG B
632	98	Paved parking, HSG B
3,892		Weighted Average
3,260		83.76% Pervious Area
632		16.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

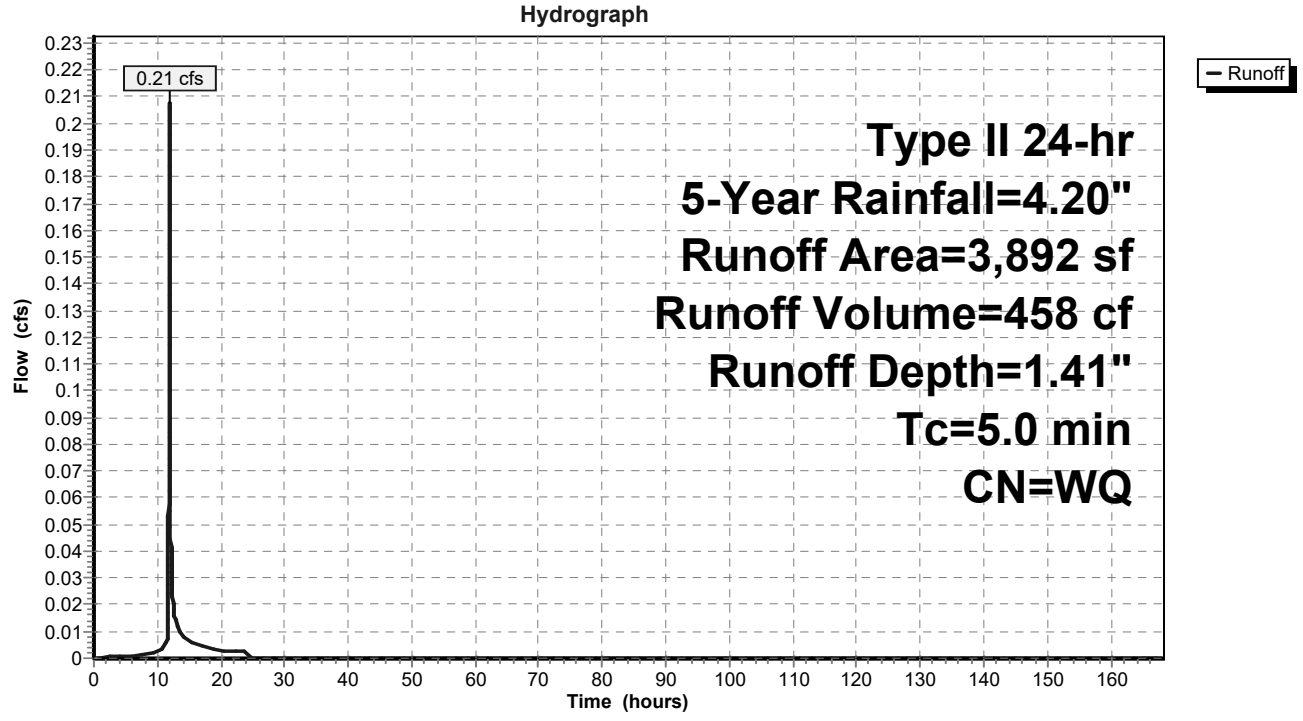
Runoff = 0.21 cfs @ 11.97 hrs, Volume= 458 cf, Depth= 1.41"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=4.20"

Area (sf)	CN	Description
3,260	61	>75% Grass cover, Good, HSG B
632	98	Paved parking, HSG B
3,892		Weighted Average
3,260		83.76% Pervious Area
632		16.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

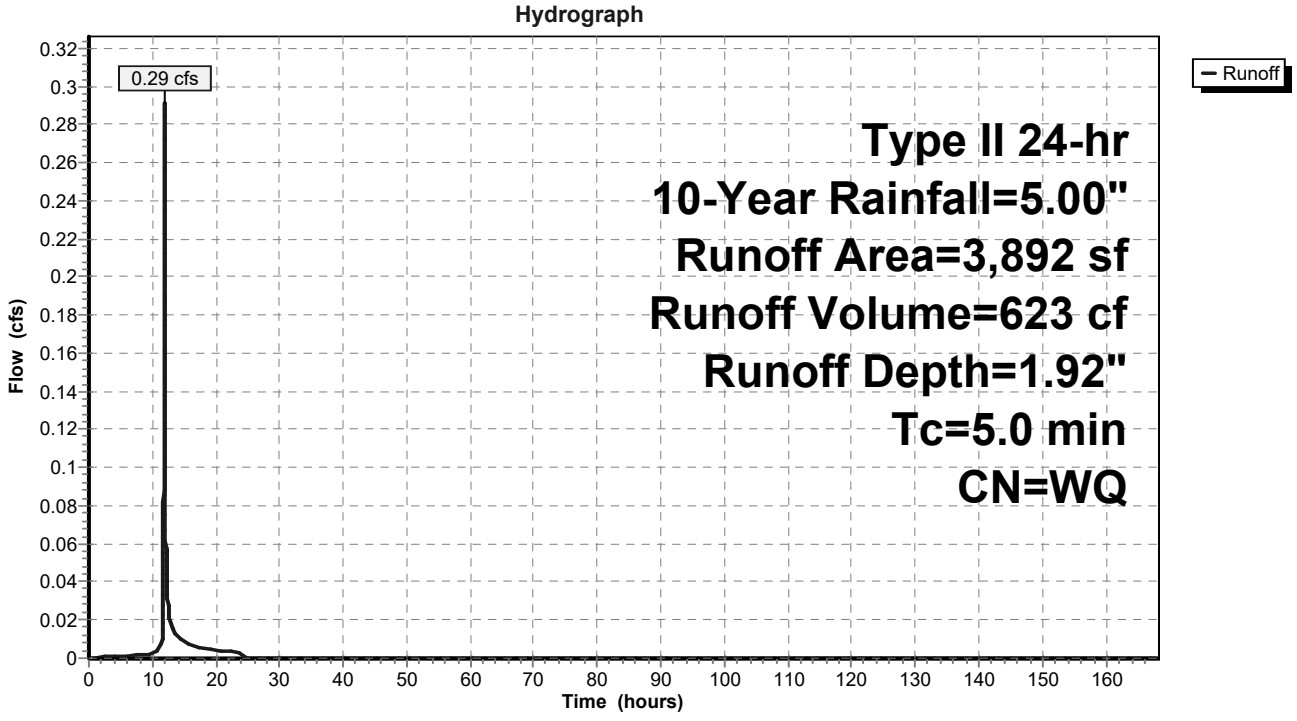
Runoff = 0.29 cfs @ 11.97 hrs, Volume= 623 cf, Depth= 1.92"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,260	61	>75% Grass cover, Good, HSG B
632	98	Paved parking, HSG B
3,892		Weighted Average
3,260		83.76% Pervious Area
632		16.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

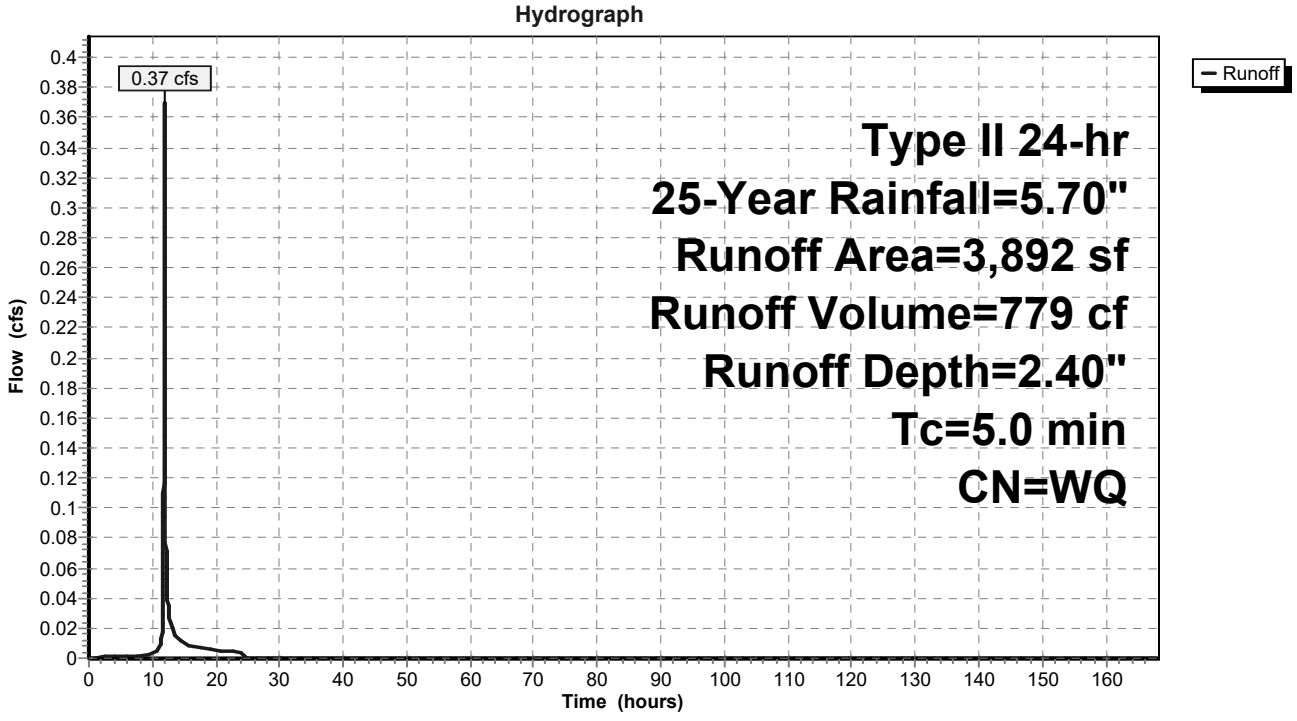
Runoff = 0.37 cfs @ 11.96 hrs, Volume= 779 cf, Depth= 2.40"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=5.70"

Area (sf)	CN	Description
3,260	61	>75% Grass cover, Good, HSG B
632	98	Paved parking, HSG B
3,892		Weighted Average
3,260		83.76% Pervious Area
632		16.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

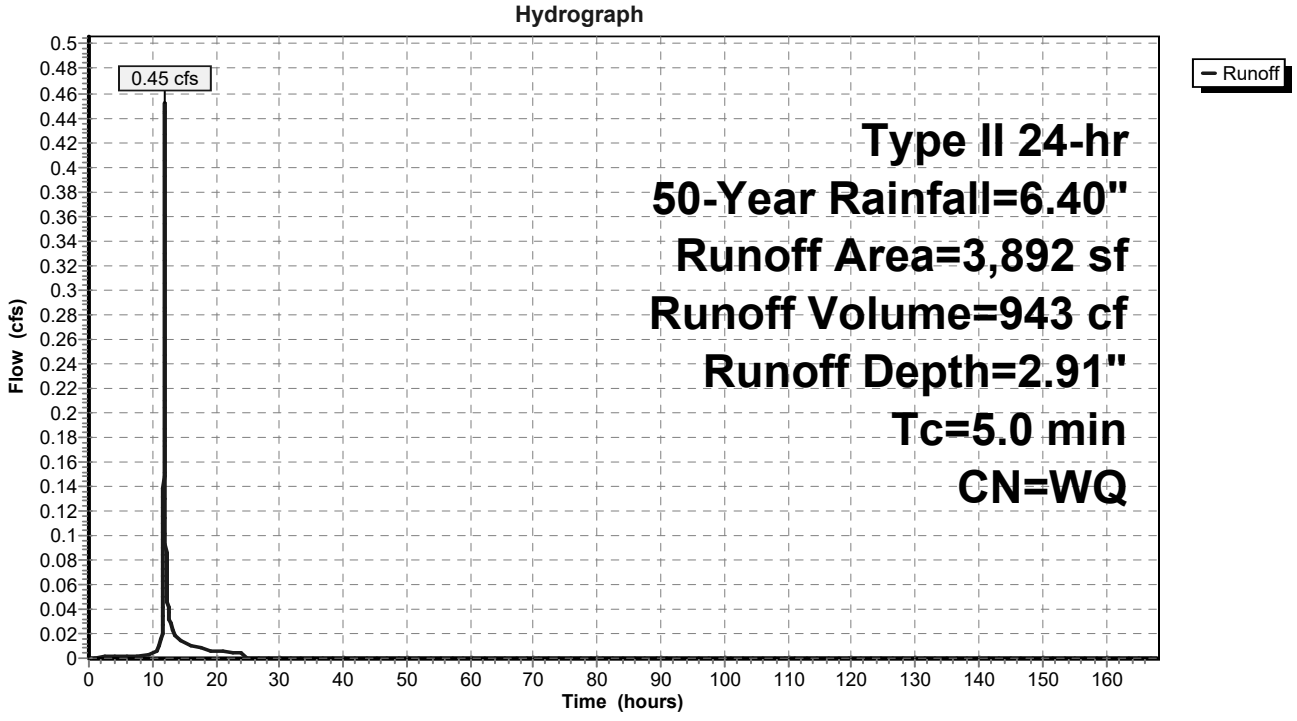
Runoff = 0.45 cfs @ 11.96 hrs, Volume= 943 cf, Depth= 2.91"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=6.40"

Area (sf)	CN	Description
3,260	61	>75% Grass cover, Good, HSG B
632	98	Paved parking, HSG B
3,892		Weighted Average
3,260		83.76% Pervious Area
632		16.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

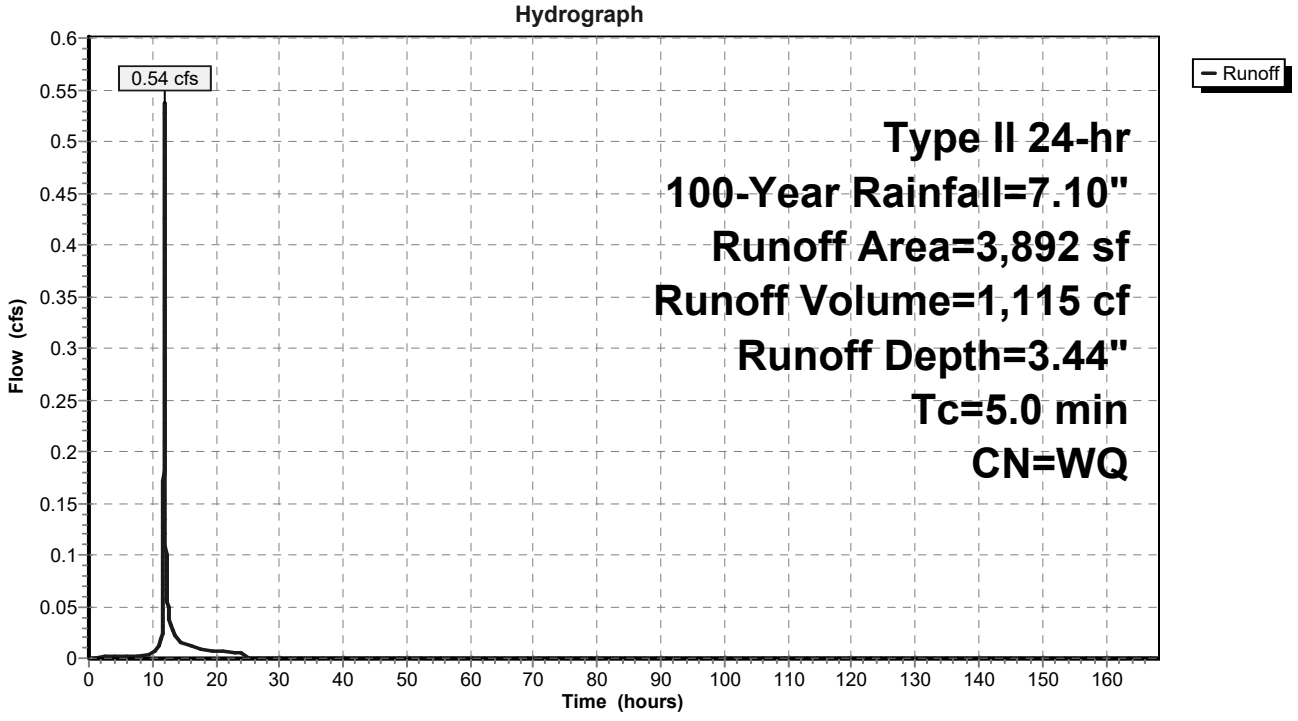
Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,115 cf, Depth= 3.44"
Routed to Link 10L : Post-Development POI-1

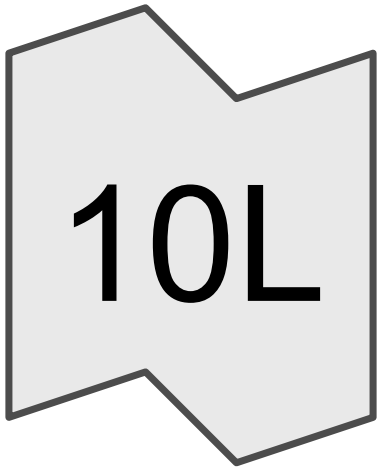
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=7.10"

Area (sf)	CN	Description
3,260	61	>75% Grass cover, Good, HSG B
632	98	Paved parking, HSG B
3,892		Weighted Average
3,260		83.76% Pervious Area
632		16.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured





Post-Development POI-1

Subcat Reach Pond Link

Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc., Printed 1/27/2022
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Area Listing (selected nodes)

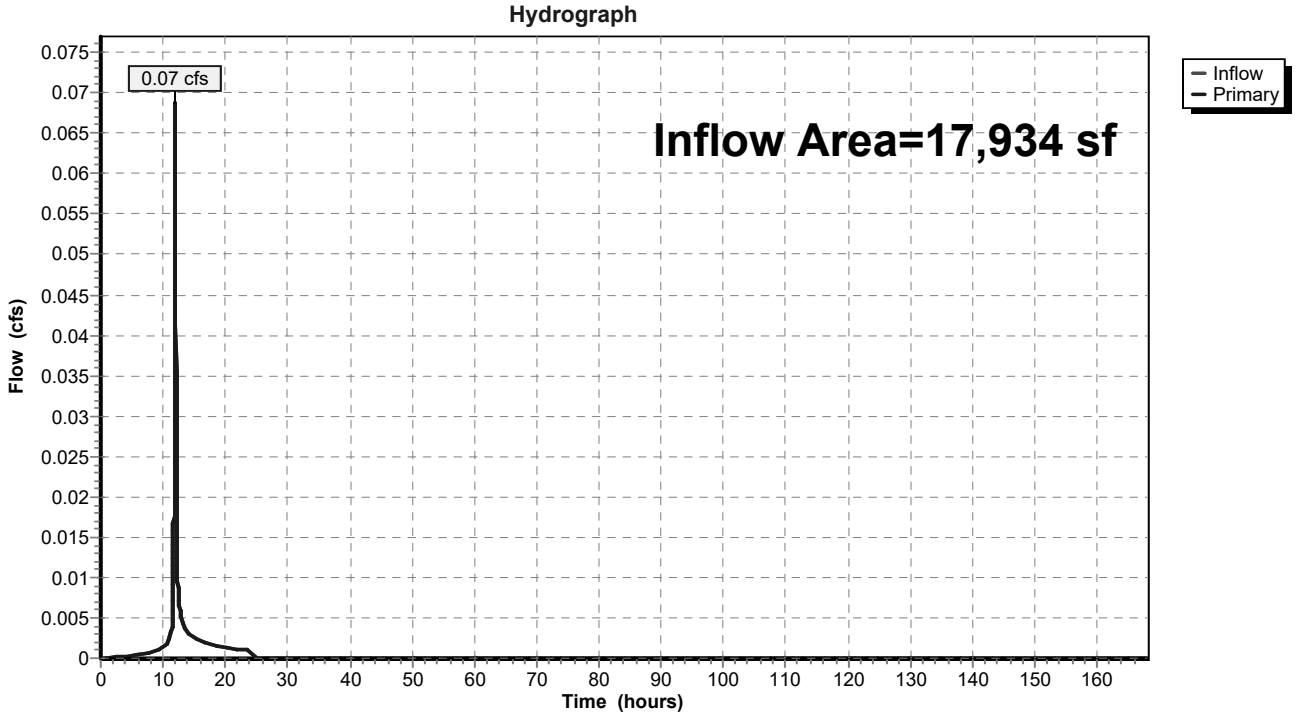
Area (sq-ft)	CN	Description (subcatchment-numbers)
0	**0**	**TOTAL AREA**

Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 64.39% Impervious, Inflow Depth = 0.12" for 1-Year event
Inflow = 0.07 cfs @ 11.97 hrs, Volume= 186 cf
Primary = 0.07 cfs @ 11.97 hrs, Volume= 186 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

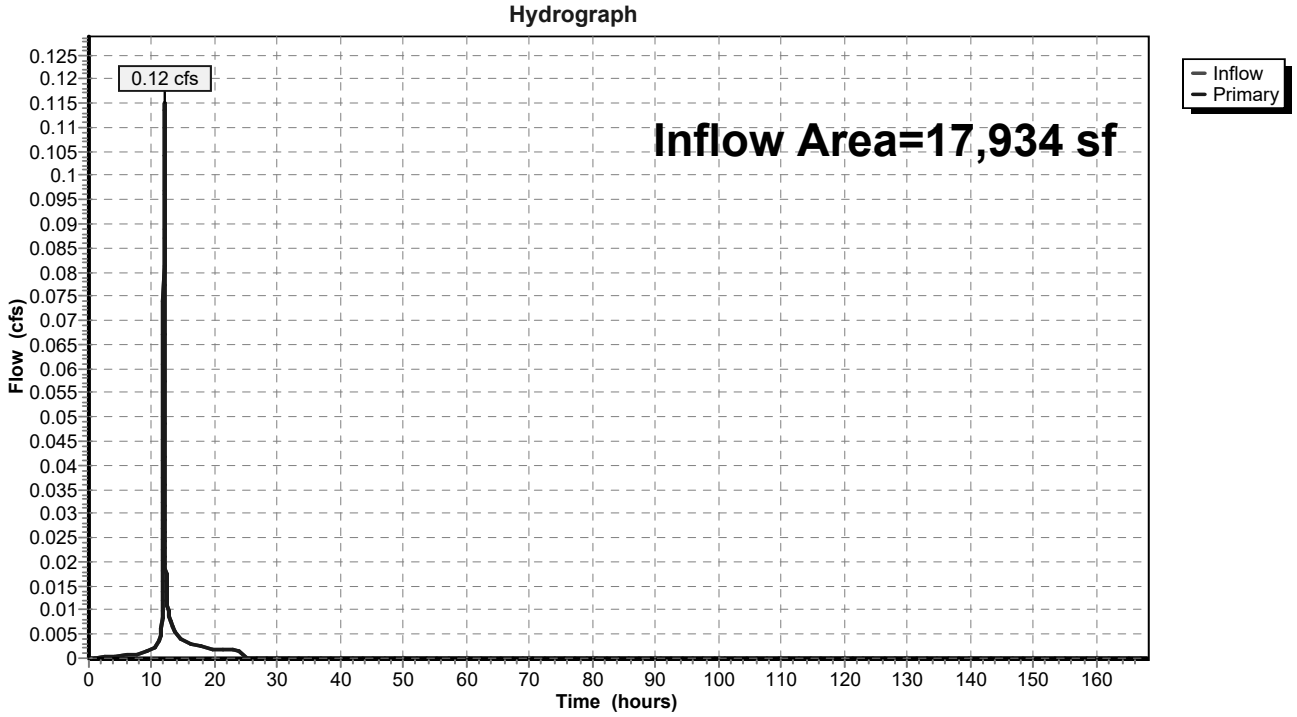


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 64.39% Impervious, Inflow Depth = 0.19" for 2-Year event
Inflow = 0.12 cfs @ 11.97 hrs, Volume= 277 cf
Primary = 0.12 cfs @ 11.97 hrs, Volume= 277 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

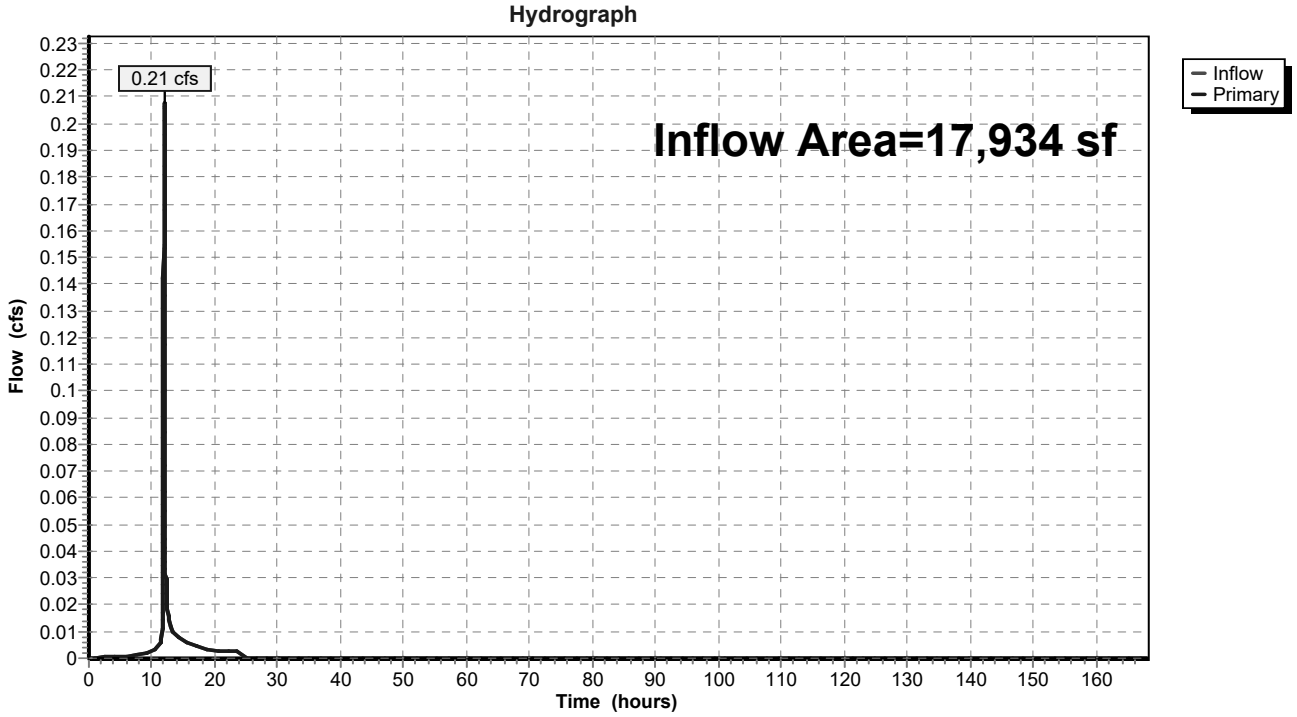


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 64.39% Impervious, Inflow Depth = 0.31" for 5-Year event
Inflow = 0.21 cfs @ 11.97 hrs, Volume= 458 cf
Primary = 0.21 cfs @ 11.97 hrs, Volume= 458 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

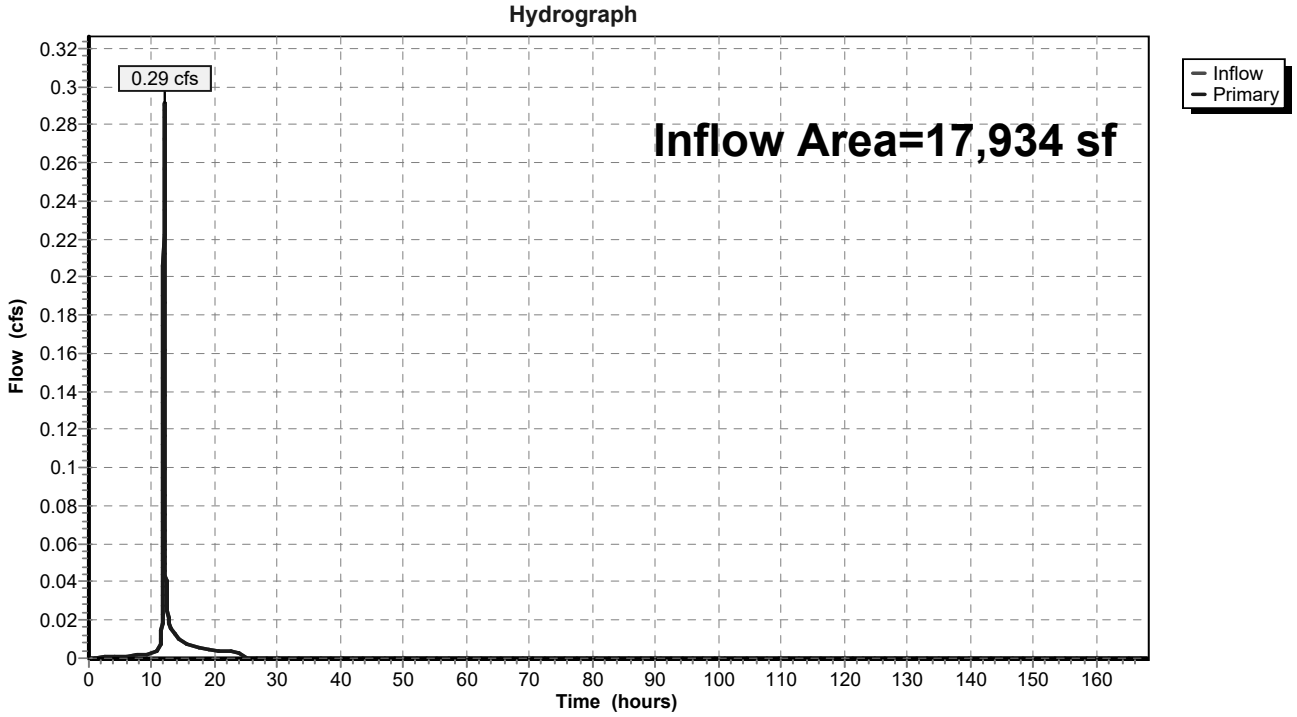


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 64.39% Impervious, Inflow Depth = 0.42" for 10-Year event
Inflow = 0.29 cfs @ 11.97 hrs, Volume= 623 cf
Primary = 0.29 cfs @ 11.97 hrs, Volume= 623 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

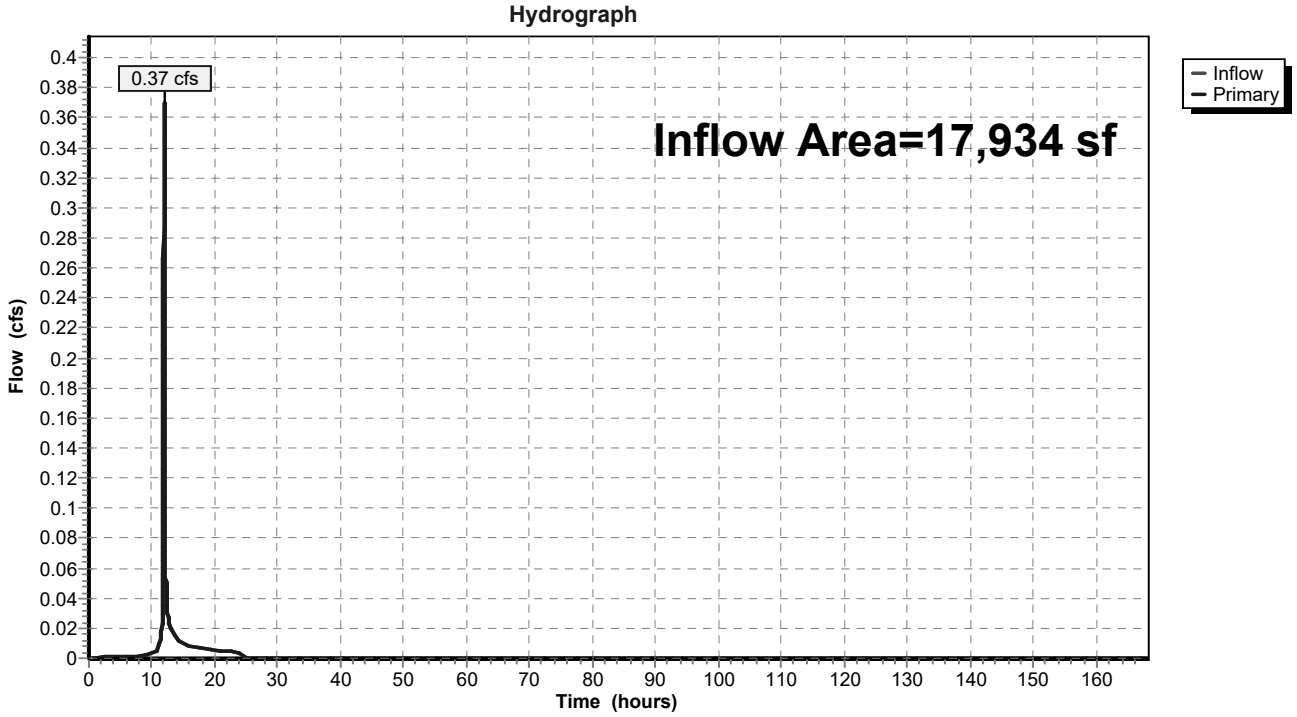


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 64.39% Impervious, Inflow Depth = 0.52" for 25-Year event
Inflow = 0.37 cfs @ 11.96 hrs, Volume= 779 cf
Primary = 0.37 cfs @ 11.96 hrs, Volume= 779 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

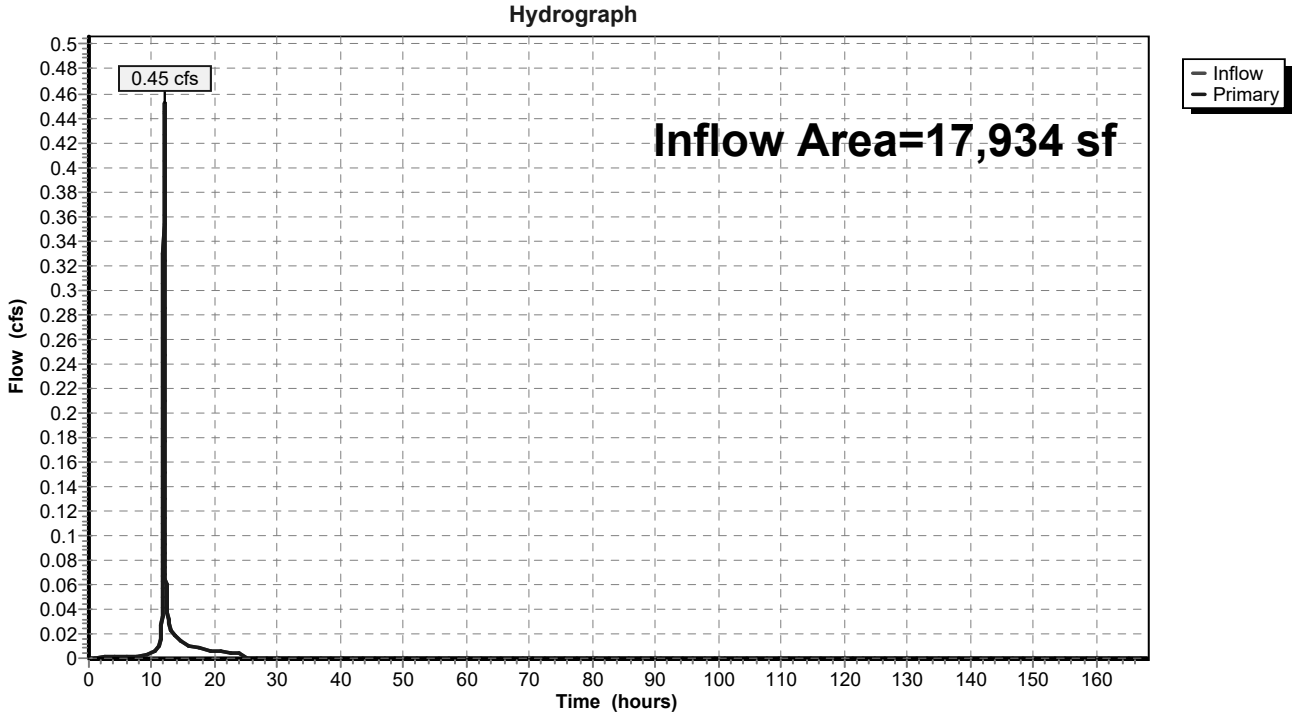


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 64.39% Impervious, Inflow Depth = 0.63" for 50-Year event
Inflow = 0.45 cfs @ 11.96 hrs, Volume= 943 cf
Primary = 0.45 cfs @ 11.96 hrs, Volume= 943 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

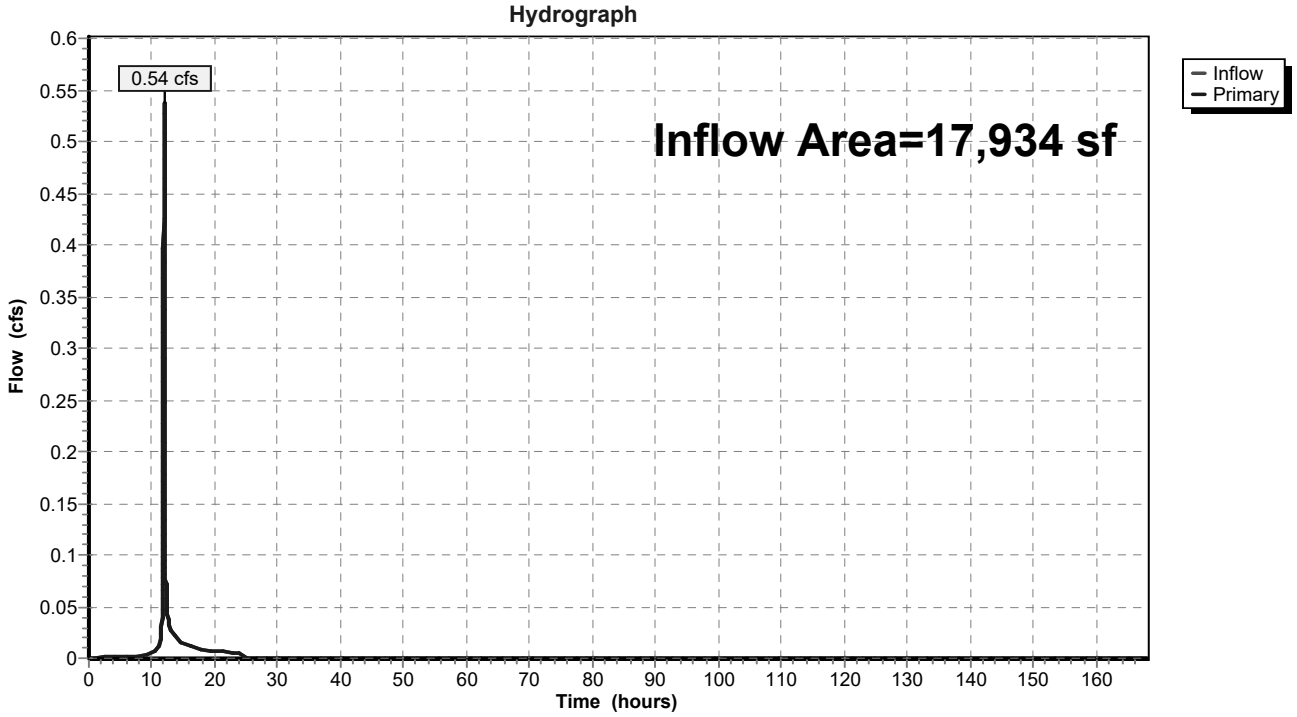


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 64.39% Impervious, Inflow Depth = 0.75" for 100-Year event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,115 cf
Primary = 0.54 cfs @ 11.96 hrs, Volume= 1,115 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1



IV.

Volume Summary – Ashford Wealth Advisiors

This project is designed to meet the following criteria:

1. *Pennsylvania DEP Volume Control Guideline 1 –*
   A. *Do not increase the post-development total runoff volume for all storms equal to or less than the 2-year/24-hour event.*
   B. *Existing (pre-development) non-forested pervious areas must be considered meadow (good condition) or its equivalent.*
   C. *Twenty (20) percent of existing impervious area, when present, shall be considered meadow (good condition) in the model for existing conditions for redevelopment.*

   The overall net two year volume is as follows:

   Total LOD - 0.41 Acres (17,934)

2. *Whitemarsh Township Water Quality Volume (WQv) per Resoluton 2004-8*
   WQv = [(0.17)(Rv)(A)] where
   A = 0.41 Acres
   *Rv = 0.05+0.009*I or 0.05+0.009*[(0.27/0.41)*100] = 0.643*
   WQv = (0.17)(0.643)(0.41)) = 0.0448 acre-feet or 1951.49 CF

3. *Whitemarsh Township Infiltration Recharge Volume (Rev) per Resoluton 2004-8*
   Rev = [(S)(Rv)(A)/12] where
   S= 0.25
   *Rv = 0.05+0.009*I or 0.05+0.009*[(0.27/0.41)*100] = 0.643*
   A = 0.41 Acres
   Rev = [(0.25)(0.643)(0.41)/12] = 0.0055 acre-feet or 239.58 CF

Total Volume Reduction Credits for this project: 6,964 CF

WORKSHEET 4. CHANGE IN RUNOFF VOLUME FOR 2-YR STORM EVENT

PROJECT: Ashford Wealth
Drainage Area: POI 1
2-Year Rainfall: 3.20 **inches**

Total Site Area: 0.510 **acres**
Protected Site Area: 0.510 **acres**
Managed Area: 0.410 **acres**

Existing Conditions:

Cover Type/Condition	Soil Type	Area (sf)	Area (ac)	CN	S	I_a (0.2 x S)	Q Runoff[1] (in)	Runoff Volume[2] (ft^3)
Woodland	B		0.000	55	8.18	1.64	0.25	0
Woodland	C		0.000	70	4.29	0.86	0.83	0
Woodland	D		0.000	77	2.99	0.60	1.21	0
Meadow	B	10388	0.238	58	7.24	1.45	0.34	295
Meadow	C		0.000	71	4.08	0.82	0.88	0
Meadow	D		0.000	78	2.82	0.56	1.27	0
Meadow (20% from Imperv.)	B	1525	0.035	58	7.24	1.45	0.34	43
Meadow (20% from Imperv.)	C		0.000	71	4.08	0.82	0.88	0
Meadow (20% from Imperv.)	D		0.000	78	2.82	0.56	1.27	0
Impervious	B	6021	0.138	98	0.20	0.04	2.97	1489
Impervious	C		0.000	98	0.20	0.04	2.97	0
Impervious	D		0.000	98	0.20	0.04	2.97	0
TOTAL:		17934	0.412					1828

Developed Conditions:

Cover Type/Condition	Soil Type	Area (sf)	Area (ac)	CN	S	I_a (0.2 x S)	Q Runoff[1] (in)	Runoff Volume[2] (ft^3)
Woodland	B		0.000	55	8.18	1.64	0.25	0
Woodland	C		0.000	70	4.29	0.86	0.83	0
Woodland	D		0.000	77	2.99	0.60	1.21	0
Meadow	B		0.000	58	7.24	1.45	0.34	0
Meadow	C		0.000	71	4.08	0.82	0.88	0
Meadow	D		0.000	78	2.82	0.56	1.27	0
Lawn	B	6328	0.145	61	6.39	1.28	0.44	234
Lawn	C		0.000	74	3.51	0.70	1.04	0
Lawn	D		0.000	80	2.50	0.50	1.40	0
Impervious	B	11606	0.266	98	0.20	0.04	2.97	2870
Impervious	C		0.000	98	0.20	0.04	2.97	0
Impervious	D		0.000	98	0.20	0.04	2.97	0
TOTAL:		17934	0.412					3104

2-Year Volume Increase (ft^3)	1276 ft^3

2-Year Volume Increase = Developed Conditions Runoff Volume - Existing Conditions Runoff Volume

1. Runoff (in) = $Q = (P - 0.2S)^2 / (P + 0.8S) = (P-I_a)^2 / ((P-I_a) + S)$
   P = 2-Year Rainfall (in)
   S = (1000 / CN) - 10
2. Runoff Volume (CF) = Q x Area x 1/12
   Q = Runoff (in)
   Area = Land use area (sq. ft)

Note: Runoff Volume must be calculated for EACH land use type/condition and HSGI. The use of a weighted CN value for volume calculations is not acceptable.

Hydrograph for Pond 9P: INF-1 (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
130.00	0.00	9	174.17	0.01
130.50	0.00	0	174.17	0.00
131.00	0.00	0	174.17	0.00
131.50	0.00	0	174.17	0.00
132.00	0.00	0	174.17	0.00
132.50	0.00	0	174.17	0.00
133.00	0.00	0	174.17	0.00
133.50	0.00	0	174.17	0.00
134.00	0.00	0	174.17	0.00
134.50	0.00	0	174.17	0.00
135.00	0.00	0	174.17	0.00
135.50	0.00	0	174.17	0.00
136.00	0.00	0	174.17	0.00
136.50	0.00	0	174.17	0.00
137.00	0.00	0	174.17	0.00
137.50	0.00	0	174.17	0.00
138.00	0.00	0	174.17	0.00
138.50	0.00	0	174.17	0.00
139.00	0.00	0	174.17	0.00
139.50	0.00	0	174.17	0.00
140.00	0.00	0	174.17	0.00
140.50	0.00	0	174.17	0.00
141.00	0.00	0	174.17	0.00
141.50	0.00	0	174.17	0.00
142.00	0.00	0	174.17	0.00
142.50	0.00	0	174.17	0.00
143.00	0.00	0	174.17	0.00
143.50	0.00	0	174.17	0.00
144.00	0.00	0	174.17	0.00
144.50	0.00	0	174.17	0.00
145.00	0.00	0	174.17	0.00
145.50	0.00	0	174.17	0.00
146.00	0.00	0	174.17	0.00
146.50	0.00	0	174.17	0.00
147.00	0.00	0	174.17	0.00
147.50	0.00	0	174.17	0.00
148.00	0.00	0	174.17	0.00
148.50	0.00	0	174.17	0.00
149.00	0.00	0	174.17	0.00
149.50	0.00	0	174.17	0.00
150.00	0.00	0	174.17	0.00
150.50	0.00	0	174.17	0.00
151.00	0.00	0	174.17	0.00
151.50	0.00	0	174.17	0.00
152.00	0.00	0	174.17	0.00
152.50	0.00	0	174.17	0.00
153.00	0.00	0	174.17	0.00
153.50	0.00	0	174.17	0.00
154.00	0.00	0	174.17	0.00
154.50	0.00	0	174.17	0.00
155.00	0.00	0	174.17	0.00
155.50	0.00	0	174.17	0.00

Dewatering Time = 130.50 to Dewater 100-year storm

V.

Inlet Drainage Areas

Inlet	A total	A total	Lawn	Impervious	C wt	25 yr Q	100 yr Q
	SF	Acres	SF	SF		cfs	cfs
I-1	7492	0.172	3126	4366	0.76	**0.94**	**1.07**
I-2	3964	0.091	1852	2112	0.74	**0.48**	**0.55**
I-3	1036	0.024	180	856	0.90	**0.15**	**0.17**

Q= (C wt) x I x (A total acres)

Q= (C wt) x I x (A total acres)

$$C\ wt = \frac{\text{vious)] + [0.99 x (Lawn - B)]}}{\text{A total}}$$

I 25 =	7.15	in/hr; per PennDOT Road Design Manual, Vol III
I 50	7.66	Fig. 2.10.4.2(E), Region 3 I.D.F., 5 min. duration
I 100 =	8.15	
C =	0.45	Lawn
C =	0.99	Impervious

FlexTable: Conduit Table

ID	Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Velocity (ft/s)	Flow (ft^3/s)	Capacity (Full Flow) (ft^3/s)	Flow / Capacity (Design) (%)
204	CO-43	I-1	INF-1	174.68	174.67	2.0	0.005	12.0	0.012	3.16	0.95	2.73	34.7
205	CO-44	I-2	INF-1	174.70	174.67	6.0	0.005	12.0	0.012	2.62	0.49	2.73	17.9
206	CO-45	I-3	INF-1	174.70	174.67	5.0	0.006	12.0	0.012	2.00	0.15	2.99	5.2

FlexTable: Conduit Table

ID	Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Velocity (ft/s)	Flow (ft^3/s)	Capacity (Full Flow) (ft^3/s)	Flow / Capacity (Design) (%)
204	CO-43	I-1	INF-1	174.68	174.67	2.0	0.005	12.0	0.012	3.27	1.07	2.73	39.3
205	CO-44	I-2	INF-1	174.70	174.67	6.0	0.005	12.0	0.012	2.72	0.55	2.73	20.3
206	CO-45	I-3	INF-1	174.70	174.67	5.0	0.006	12.0	0.012	2.08	0.18	2.99	5.9

VI.

Ingram Engineering Services, Inc.
"Providing Economic Solutions in Real Time"
16 Hagerty Blvd. Suite 400, West Chester PA 19382
Office 484-947-5549
www.ingram-engineering.com

CLIENT:	Ashford Wealth Advisors	
PROJECT:	15 E Germantown Pike	
REQUIREMENT:	PROFESSIONAL ENGINEERING SERVICES: Geotechnical/SWM	
LOCATION:	Whitemarsh Township, Montgomery County, PA	
DATE:	November 24th, 2021	
ATTENTION:	Rosie Soto, JD	via email

PURPOSE

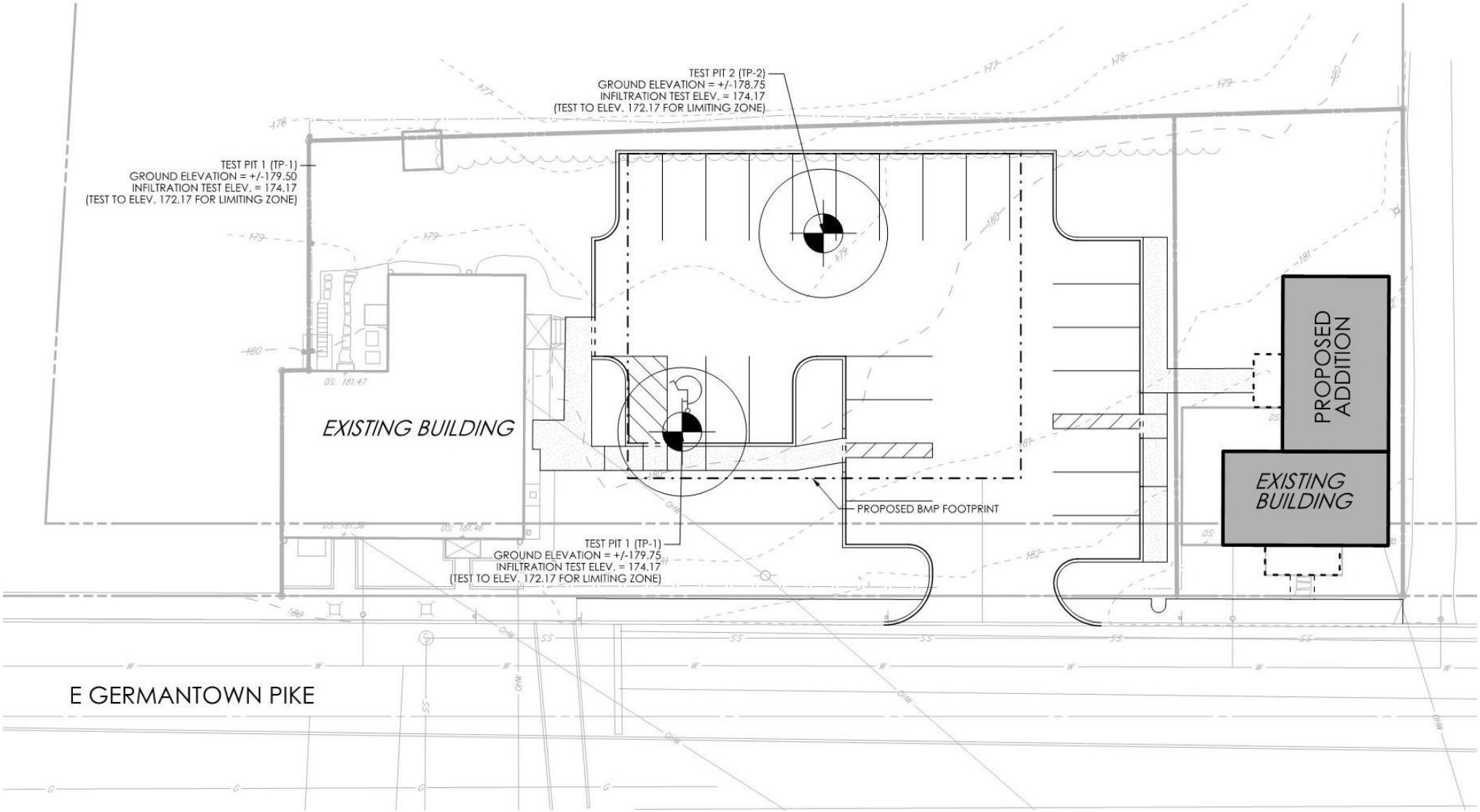
The Purpose of this report is to present the Findings, Conclusions and Recommendations relative to the physical investigation performed at the above captioned project location.

INVESTIGATION

Steve Joran, P.E. of Ingram Engineering Services, Inc. (IES) was on site on November 24th, 2021 to conduct a series of test pit and double ring infiltrometer investigations within the proposed locations provided by the client. The purpose of the testing was to determine if subsurface infiltration was feasible for the design of stormwater management facilities and provide the necessary infiltration data to design those systems.

IES performed two (2) investigative test pit investigations and ran two (2) double ring infiltrometer tests. All testing was performed in accordance with the PA Stormwater BMP Manual, Appendix C: Site Evaluation and Soil Testing. Test pit locations and elevations were provided to IES by the Client in the plan entitled "Infiltration Testing Plan - Proposed" (Project No. 2018-080), dated 10/19/21. IES utilized this plan and a Google Earth overlay to field locate the approximate test pit locations. Surface elevations were approximated utilizing the provided plan. Approximate test pit locations can be seen on the following page:

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FINDINGS

Soils Investigation:

TP #1

Test @ 67'' BGS (Elev. 174.17)

Depth BGS	Elevation	Soil Description
0" to 5"	179.75 to 179.33	Dk brn TOPSOIL
5" to 40"	179.33 to 176.42	Brn/lt. brn clayey SILT, sl. plastic, med stiff
40" to 72"	176.42 to 173.75	Lt. brn f sandy SILT, stiff
72" to 98"	173.75 to 171.58	Reddish brn f sandy SILT, stiff

No GW or LZ Encountered



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TP #2

Test @ 55'' BGS (Elev. 174.17)

Depth BGS	Elevation	Soil Description
0" to 2"	178.75 to 178.58	Dk brn TOPSOIL w/ little root mat
2" to 44"	178.58 to 175.08	FILL- urban debris (brick, concrete, ashpalt, terracota, some trash, some organics, etc.)
44" to 84"	175.08 to 171.75	Lt. brn f sandy SILT w/ tr clay, med stiff to stiff

No GW or LZ Encountered



Infiltration Testing:

TP No. 1: ⅛", ⅛", ⅛", ⅛" → ⅛" Final Stabilized Reading w/ 30 min. intervals
INFILTRATION RATE: 0.25 INCHES/HOUR @ 67" BGS (Elev. 174.17)

TP No. 2: ⅛", 1/16", 1/16", 1/16" → 1/16" Final Stabilized Reading w/ 30 min. intervals
INFILTRATION RATE: 0.125 INCHES/HOUR @ 55" BGS (Elev. 174.17)

CONCLUSIONS/RECOMMENDATIONS

1. According to the *Natural Resources Conservation Service Web Soil Survey* the onsite soils consist of Urban land- Duffield complex. These soils are rated as Hydric (2%) as indicated by the Hydric Unit Map, See **Appendix A**.

2. The Design Engineer is recommended to use the above information for sizing of the Proposed Stormwater Management Facilities. IES recommends the Design Engineer utilize the following unfactored rates with a slight rate reduction to ensure the longevity of the system given the presence of fine-grained soils and cohesive soil content based on the average infiltration testing results obtained at testing locations and corresponding depths within the vicinity of the proposed SWM facilities:
    a. (Test Pits 1 & 2)- 0.1875 inches/hour @ Elev. 174.17

3. The BMP Manual states a factor of safety between 1 and 10 be used for design with a factor of safety of 2 being the recommended value, as well as a design infiltration rate between 0.1 to 10 inches per hour with a minimum 24-inch vertical separation between the facility bottom and any limiting layer.

4. Subgrade under the proposed infiltration facilities shall NOT be compacted or subject to excessive equipment traffic. Areas that where soils have been subjected to construction traffic shall be scarified to a minimum depth of 12-inches.

5. In the event an accumulation of fine-grained material and/or surface ponding is encountered within the subbase of the facility, material within that area shall be removed and replaced with acceptable material.

6. IES recommends that a non-woven geofabric (permeability should be a minimum of 2 in/hr) be utilized to prevent the migration of fines into any stone. The geotextile fabric is recommended to not be utilized at the bottom of any infiltration facility as the liner is serving too often as a hydraulically restrictive material and creating a 'bathtub' effect, ergo – only utilize the geotextile on the sides and top of the facility.

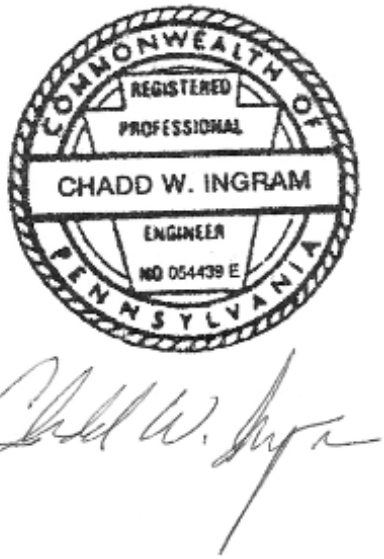
7. It is recommended that a Soils Engineer or representative thereof is present on-site during the construction of the stormwater management system in order to ensure the system was constructed as designed and to oversee the excavation of the fine grained

soils. Given the localized investigation, it is paramount that the entire bed bottom is verified to be situated within the correct infiltration stratum.

QUALIFICATIONS

Conclusions and Recommendations are based on the above Investigation and Findings. No other conclusions are to be drawn other than those specifically stated.

Very Truly Yours,



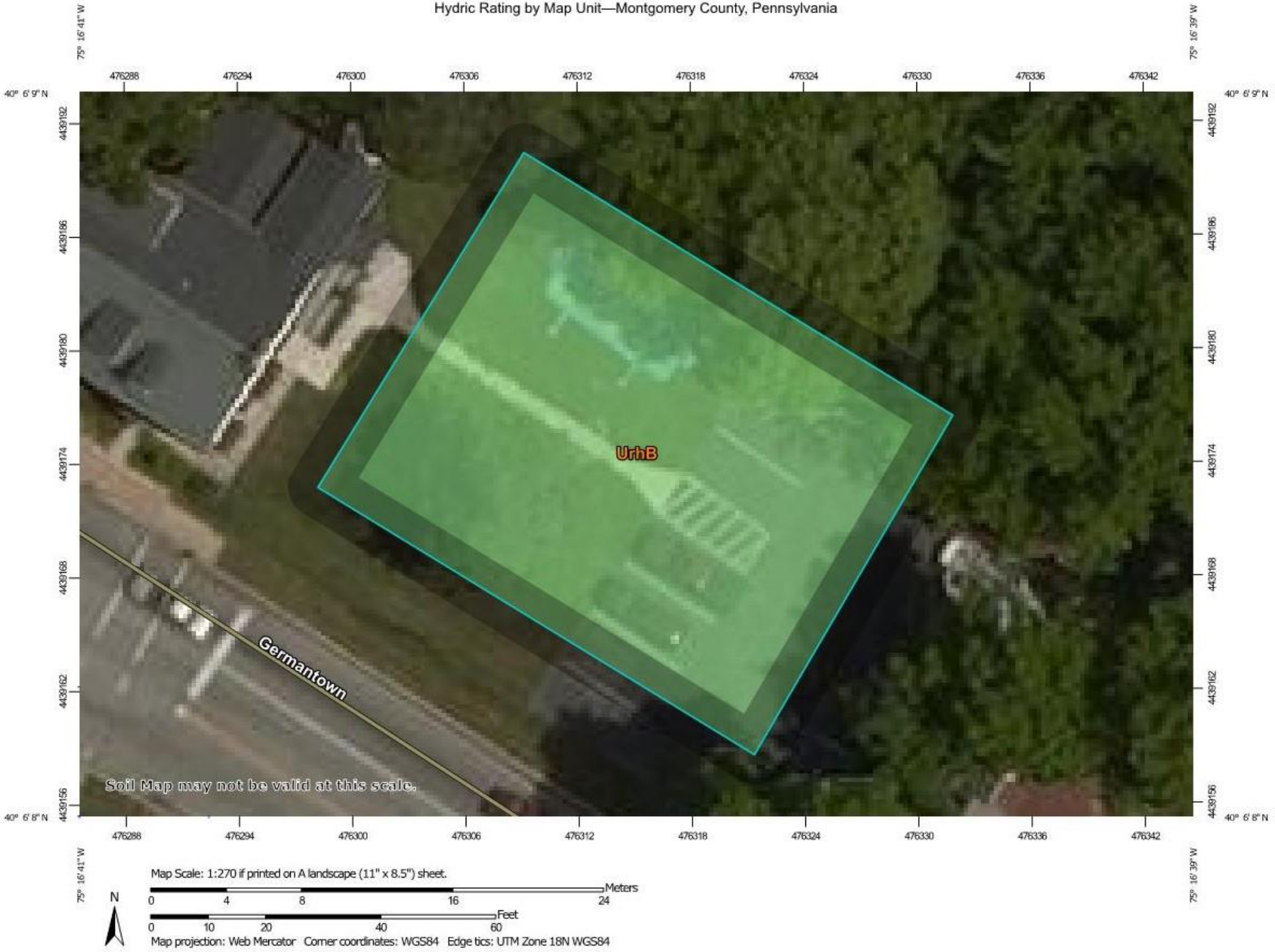
Chadd W. Ingram, P.E.
(DE, MD, NJ, PA)
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Steve Joran, P.E. (PA)
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Appendix A:

Hydric Soils Map



Map Scale: 1:270 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 4 8 16 24

Feet
0 10 20 40 60

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Pennsylvania
Survey Area Data: Version 16, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 17, 2014—Aug 14, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
UrhB	Urban land-Duffield complex, 0 to 8 percent slopes	2	0.1	100.0%
Totals for Area of Interest			**0.1**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

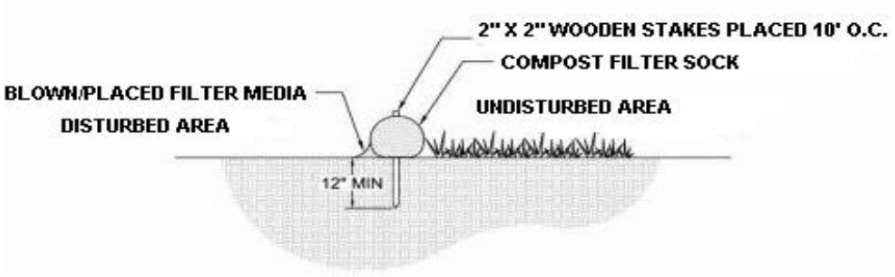
Component Percent Cutoff: None Specified

Tie-break Rule: Lower

VII.

STANDARD E&S WORKSHEET #1
Compost Filter Socks

PROJECT NAME: **ASHFORD WEALTH ADVISORS (NN PROJECT #2018-080.00)**
LOCATION: **WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA**
PREPARED BY: CW **DATE:** 12/8/2021
CHECKED BY: JPB **DATE:** 12/8/2021

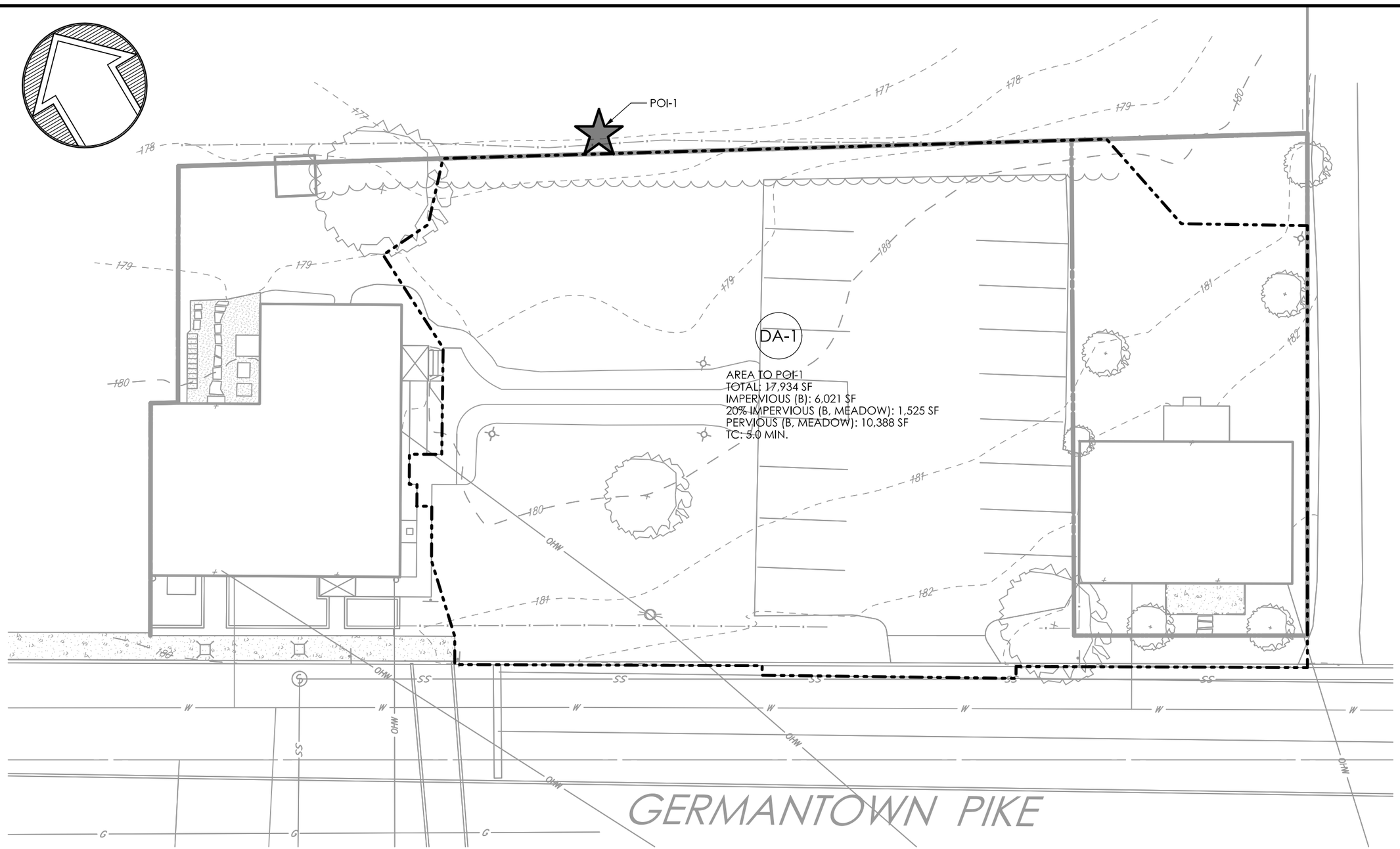


COMPOST SOCK SIZING TABLE						
Sock No.	**Dia. (IN)**	**Sock Length (LF)**	**Location**	**Slope Height Above Barrier (FT)**	**Slope Length Above Barrier (FT)**	**Slope (%)**
1	12	67	SEE E&S PLAN	4.5	105	4.3
2	12	46	SEE E&S PLAN	4.5	116.5	3.9
3	12	36	SEE E&S PLAN	4.0	106.1	3.8
4	12	38	SEE E&S PLAN	3.5	92.9	3.8
5	12	71	SEE E&S PLAN	2.0	26	7.7
6						
7						
8						
9						
10						
11						
12						
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16						
17						
18						
19						
20						

Nave Newell
Where Ideas Get Down to Earth
900 West Valley Road
Suite 1100
Wayne, PA
(610) 265-8323

PROJECT NAME: BRYN COED FARMS
JOB #: 2016-061.11 **BY:** CW
DATE: 12/8/2021 **CHK'D:** JPB

Appendix



Nave Newell
900 West Valley Road - Suite 1100
Wayne, PA 19087-1830
p: 610.293.3113 f: 610.293.4599
www.navenewell.com

no.	description	date	chkd by
	REVISIONS		

DRAWING NAME: PRE-DEVELOPMENT DRAINAGE AREA PLAN

Ashford Wealth Advisors

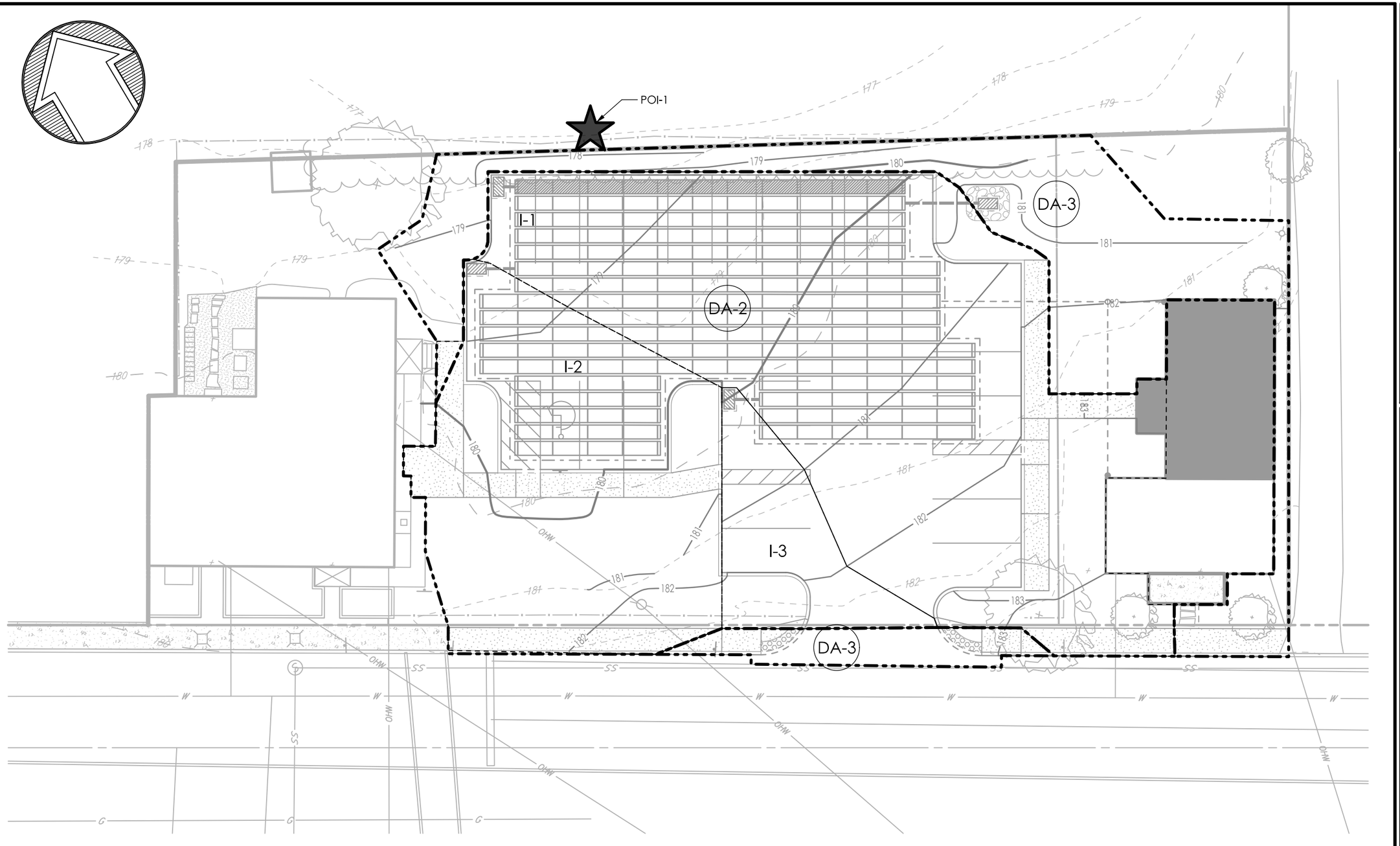
5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MOPNTGOMERY COUNTY, PA

project no. 2018-080.00	drawn by: CW
date: 1/24/22	chk'd by: JPB
scale: 1" = 20'	approv. by: JPB
sheet no. 1 of 2	

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www.navenewell.com

no.	description	date	check by
	revisions		

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

DRAWING NAME: POST-DEVELOPMENT/INLET DRAINAGE AREA PLAN

LOCATION: WHITEMARSH TOWNSHIP, MOPNTGOMERY COUNTY, PA

project no.: 2018-080.00	drawn by: CW
date: 1/24/22	chk'd by: JPB
scale: 1" = 20'	approv. by: JPB
sheet no.	2 of 2

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1/25/2022 2:33:01 PM
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UPDATES

WHITEMARSH TOWNSHIP

To: Charlie L. Guttenplan, Director of Planning & Zoning/Zoning Officer

From: NICHOLAS W. WEAVER, FIRE MARSHAL

Subject: **SLD #04-22 Ashford Consulting & Ashford Wealth LLC**
5 & 15 Germantown Pike

Date: February 1, 2022

cc:

This application cannot be approved at this time for the following outstanding items:

1. Fire Apparatus Access and turning plan not provided. This plan shall meet the requirements as set forth in Chapter 5 of the International Fire Code 2015 edition, Appendix D of the International Fire Code 2015 Edition, and Whitemarsh Township Ordinance #1003.
    a. Fire Apparatus Access Roads shall be 24' wide with 14' vertical clearance and no closer than 5' to a structure.
    b. Highest roof surface height shall be provided. This height shall be measured to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls. If this height exceeds 30ft, the Fire Apparatus Access Road shall be 26' wide.

2. All buildings must have a fire hydrant within 400' of the structure by approved route. The applicant must provide a plan showing the distances to the nearest fire hydrants.
    a. If the building is sprinklered, then the distance is increased to 600'.

Nicholas W. Weaver
Fire Marshal
616 Germantown Pike
Lafayette Hill, PA 19444
Phone: 610-825-3535 ext. 2614
Email: nweaver@whitemarshtwp.org

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NORRISTOWN, PA 19404-0311
610-278-3722
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WWW.MONTCOPA.ORG

SCOTT FRANCE, AICP
EXECUTIVE DIRECTOR

February 23, 2022

Mr. Charles L. Guttenplan, AICP
Director of Planning & Zoning Officer
Whitemarsh Township
616 Germantown Pike
Lafayette Hill, Pennsylvania 19444

Re: MCPC #22-0022-001
Plan Name: Ashford Wealth Advisors
(2 lots/ 2,011 sq. ft. addition/comprising 0.514 acres (22,410 sq.ft. lot)
Situate: Germantown Pike (north)/ East of Butler Pike
Whitemarsh Township

Dear Mr. Guttenplan:

We have reviewed the above-referenced subdivision and land development plan in accordance with Section 502 of Act 247, "The Pennsylvania Municipalities Planning Code," as you requested on January 28, 2022. We forward this letter as a report of our review.

BACKGROUND

The applicant, Ashford Consulting LLC & Ashford Wealth Advisors, LLC has submitted a preliminary land development plan that proposes the redevelopment of an existing property and the renovation of an existing parking lot on an adjacent lot. The two existing lots at 5 East Germantown Pike, (Lot #1) and 15 Germantown Pike (Lot #2) are located in the Plymouth Meeting National Historic District and the structures on both lots are identified as contributing resources to the historic district. Lot #1- is a 14,901 sq. ft. lot and is Tax Parcel # 65-00-04492-00-6 and Lot #2 is a 4,022 sq. ft. lot and is Tax Parcel # 65-00-04489-00-6. Both lots are located in the Village-Commercial, VC-2 District.
The plan proposes the construction of a 2,011 sq. ft. building addition to the residential structure on Lot #1, and a partial demolition of its brick addition. The new addition is proposed in the rear of the two-story, stone historic structure, c. 1830s. The proposed use for the new addition and renovated structure is for a business office. The adjacent parking lot development at 5 Germantown Ave. will be reconstructed and provide the required off-street parking: 24 parking spaces for both 5 and 15 Germantown Pike. The parking lot will use a subsurface infiltration bed to comply with stormwater management regulations.

The applicant received several variances from the Whitemarsh Township Zoning Hearing Board in a decision of 2019 that was reinstated in Oct. 2021. These variances include maximum building

coverage, minimum parking lot setbacks and maximum impervious coverage. The variance for the maximum impervious coverage allows Lot #1 to increase from the permitted maximum 60% impervious coverage for shared use parking lots to 66.8% impervious coverage for the lot.

CONSISTENCY WITH THE COUNTY COMPREHENSIVE AND MUNCIPAL PLANS

The development proposal is consistent with both the MONTCO 2040: A Shared Vison, the Montgomery County Comprehensive Plan and the Whitemarsh Township Selective Comprehensive Plan Update, November 2020. The county's plan promotes reinvestment in the existing suburban areas and mixed use corridors where infrastructure already exists. The township's Selective Comprehensive Plan Update identifies this area as a 'Mixed-Use Corridor' character area. The plan recommends this character area should focus on small-scale, mixed use developments with an emphasis on "High-density, walkable development" and an "emphasis on connectivity, mobility, and compact, traditional buildings" (p.34).

RECOMMENDATION

We support the proposed adaptive reuse of a historic structure and the redevelopment of the site for a new business office use with a shared parking lot on the adjacent property. We applaud the effort made by the applicant and township to re-purpose the historic resource in an effort to ensure its lasting contribution to the Plymouth Meeting National Register Historic District. In the course of our review we have identified several issues that we recommend the township address in its assessment of the project. These issues include: the need to ensure to the greatest extent feasible that the land development and its improvements are compatible and enhance the historic resources of the Plymouth Meeting National Historic District. These and several other issues are discussed below.

COMMENTS

1. **Landscape Impacts**
   We believe that key elements that should be considered when evaluating this development plan is its compatibility with the surrounding landscape and ensuring that it complements and preserves the integrity of the Hovendon House, Barn and Abolition Hall which all share adjacency with the this site's redevelopment. The infiltration bed and a need for a complementary landscape buffer are discussed in the following.

   a. *Sub-surface infiltration bed on the trees near the property boundary of Abolition Hall and Barn.*
   The plan proposes an extensive renovation of the parking lot resulting in an increased impervious coverage of the lot, along with the development of a sub-surface infiltration bed under a large area of the expanded parking lot surface. We have concerns that the disturbance and grading required to develop the infiltration bed within 3.8 - +/- 5 feet of the property boundary and its depth is 4-5 ft. deep over an extensive area may adversely impact the hedgerow and other vegetation on the adjacent properties. It appears that several large trees lie immediately outside the applicant's lot -- shown below from the aerial imagery and recent photographs of the site – but in close proximity to

the delineated area for the infiltration bed. We recommend the township consider if any mitigation is needed to address tree impacts.



Vegetation Hedgerow along rear property boundary

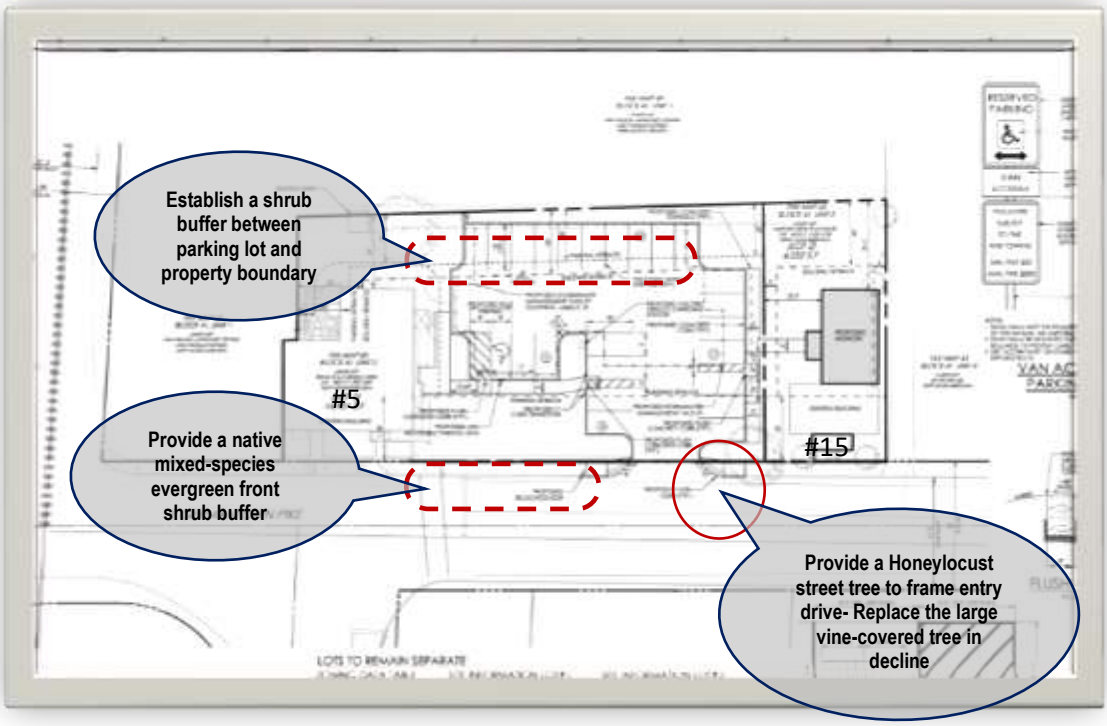
b. Americans with Disabilities Act ("ADA") parking space.
The applicant's parking lot arrangement provided for users of the ADA space it is located adjacent to the entryway of the existing office building at 5 Germantown Avenue, and does not appear to adequately serve the new office use at 15 Germantown Avenue. The proposed ADA space is approximately 110 ft. from this entry. The township should assess this arrangement and ensure that the ADA requirements as set forth in the latest edition of the International Building Code and associated township regulations are addressed.

c. Electric Vehicle Charging Stations Requirements.
In addition to the required parking spaces, the applicant is required to provide 2- electrical vehicle (EV) charging stations in this development, as required by Section 116-188.3 Electric Vehicle Charging Stations. The plan provides for one EV station in the off-street parking area. The township should ensure that the plan fully addresses all EV charging station requirements, including the minimum number, the location, and the EV charging station signage.

2. **Landscape Plan**

A. *Buffer area between parking lot and Germantown Pike.*
The landscape plan proposes several introduced Asian evergreen shrub species in the buffer area between the parking lot and the Germantown Pike. We recommend the applicant consider substituting the non-native shrubs with native evergreen shrubs in combination with the proposed flowering trees.

We suggest that consideration be given to native evergreen shrubs, which are somewhat taller than the selected species. Recommended shrubs include: the Northern bayberry (*Myrica pensylvanica*) and Inkberry holly (*Ilex glabra*).



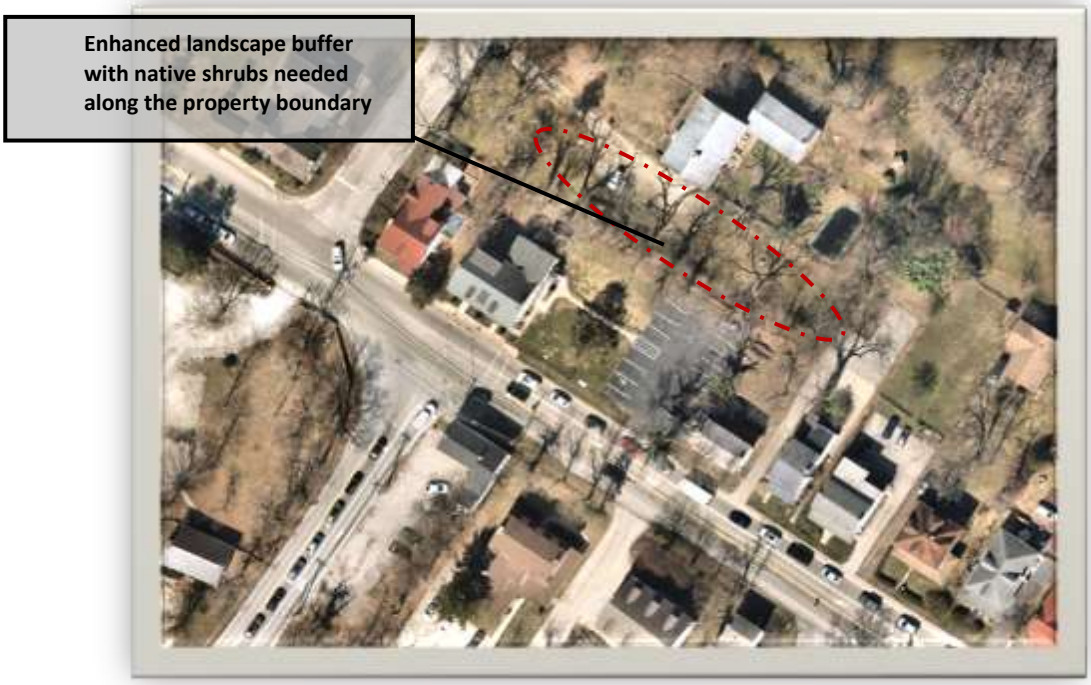
Annotated site plan with landscape comments

a. Street tree at 15 Germantown Pike.

We recommend that the applicant's landscape plan include a replacement for the large, vine-covered street tree at 15 Germantown which appears in Google-StreetView to be unhealthy and possibly dying. This tree is shown to remain on the plan and the applicant should consider removing this tree, given its condition. The grading and earth disturbance proposed around this tree will likely tip it over the edge and result in its death. We recommend the landscape plan include a Honeylocust (*Gleditsia triacanthos*) for this location that can frame the driveway when paired with Honeylocust located opposite it.

b. Landscape buffer needed along the rear property boundary area.

The landscape plan proposes that the property boundary buffer area will be served by an area that is identified on the plan as an "existing hedgerow" that will remain. The grading proposed in this area is extensive and will probably diminish the hedgerow's ability to serve as a buffer. We recommend the landscape plan include an enhanced native shrub buffer that will complement the surrounding historic setting.



3. **Stormwater Management (SWM)**
   The proposed SWM facility- (Stormtech SC- 310) design does not appear to have an outfall, and the overflow area behind 15 Germantown Pike is the only outlet. The township engineer should be satisfied with the applicant's stormwater management design and the infiltration bed.

4. **PennDOT Roadway**
   The applicant should be aware that this area of Germantown Pike is a PennDOT-owned roadway. We advise the applicant to reach out to Francis Hanney, Traffic Services Manager at PENNDOT District 6 (fhanney@pa.gov), if they have not already done so, to discuss whether a Highway Occupancy Permit will be needed, as well as any other potential related improvements to the roadways.

5. **Shared-Use/Access Easement**
   The applicant's final plan documentation presented to the Montgomery County Recorder of Deeds should include a shared-use/access easement for 15 Germantown Pike to establish access rights and shared use of parking lot at 5 Germantown Pike for in perpetuity.

CONCLUSION

We generally support the proposed recommend the township address the above mentioned review comments to your satisfaction. Please note that the review comment and recommendation contained in this report are advisory to the municipality and final disposition for the approval of any proposal will be made by the municipality.

Please be aware that the MCPC #22-0022-001 has been set aside for the applicant' plan. If any subsequent plans are submitted for final recording, this MCPC number should appear on the applicant sheets within the plans in the box reserved for the seal of this agency.

Should the governing body approve a final plat of this proposal, the applicant must present the plan to our office for seal and signature prior to recording with the Recorder of Deeds office. A paper copy bearing the municipal seal and signature of approval must be supplied for our files.

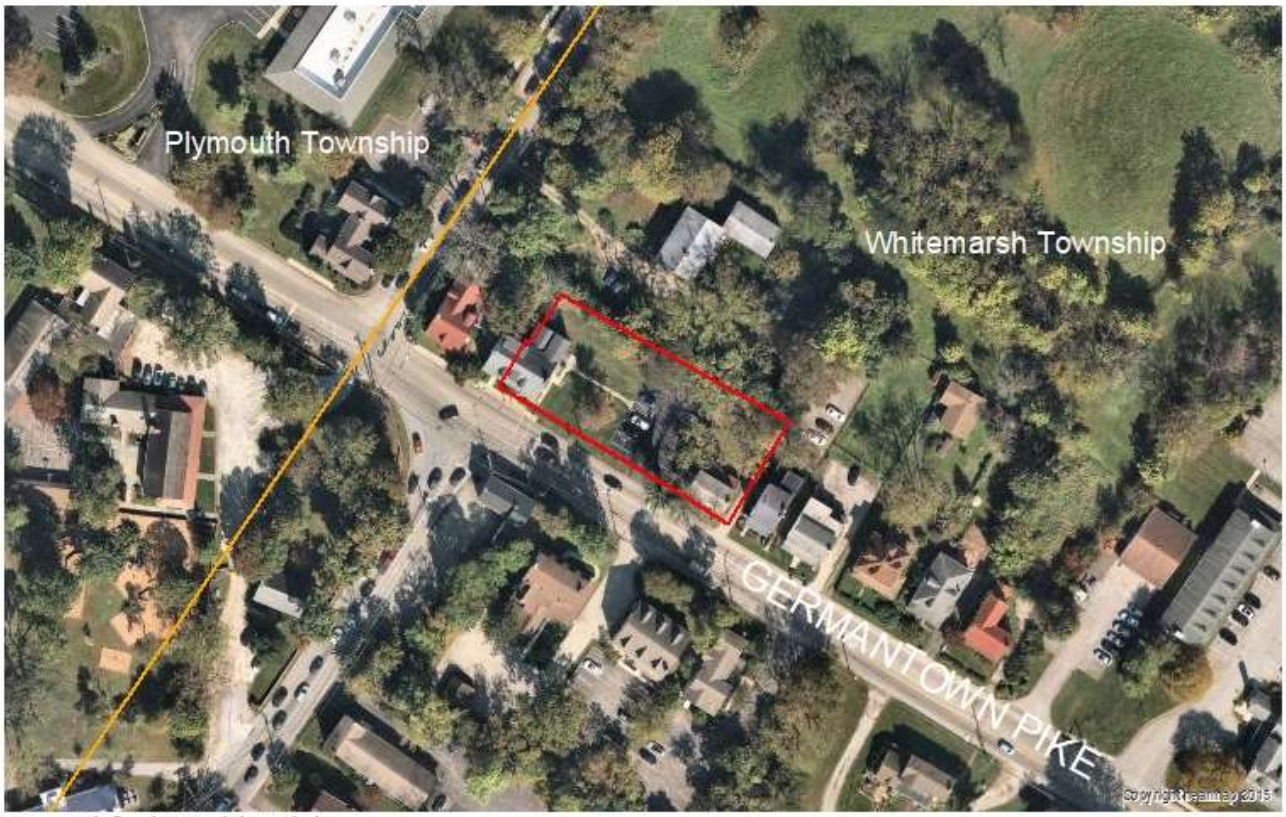
Sincerely,

Barry W. Jeffries

Barry W Jeffries, ASLA, Senior Design Planner
bjeffrie@montcopa.org - 610-278-3444

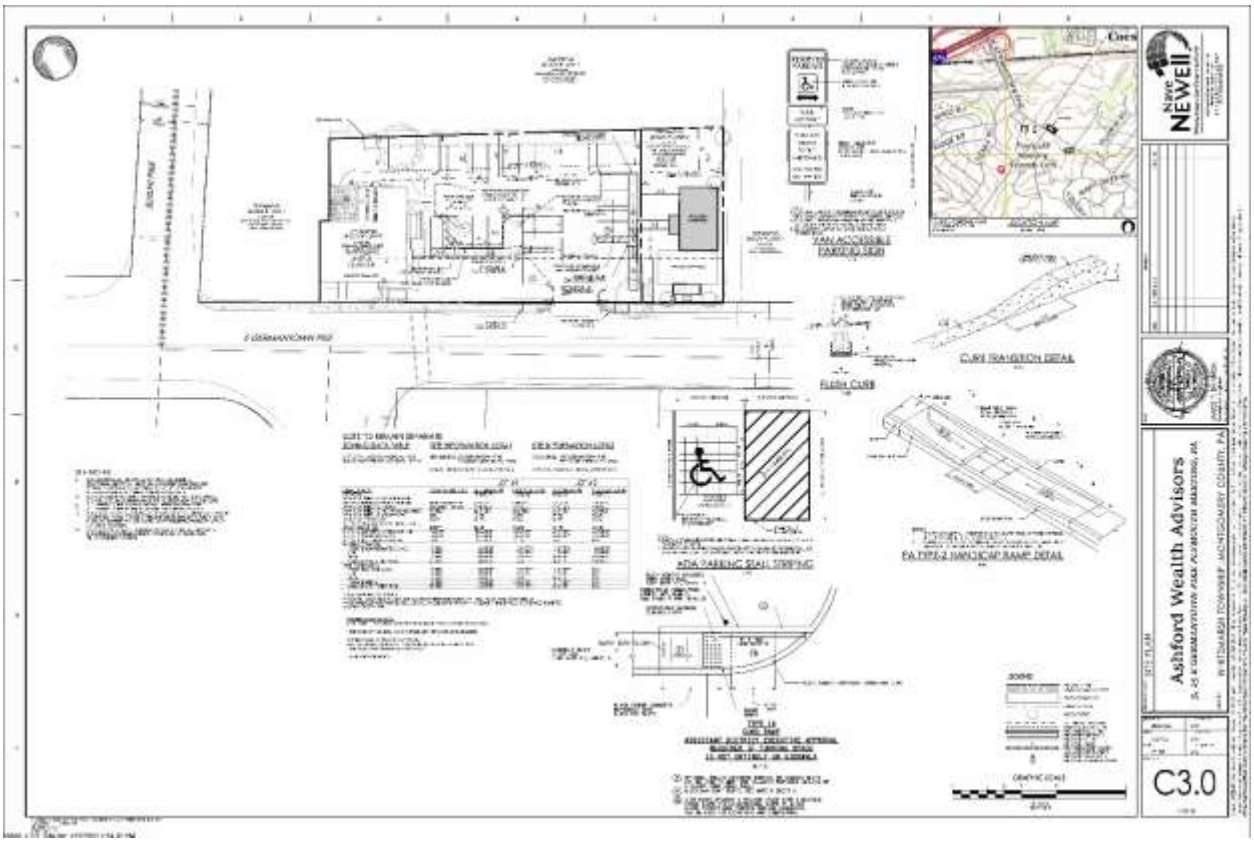
c: Aaron Kostyk, Chairman, Township Planning Commission
Krista Heinrich, Township Engineer
David Sander, Esq., Township Solicitor

Attachments:
Aerial & Site Plan



Ashford Wealth Advisors
MCPC #220022001

Montgomery County Planning Commission
Montgomery County Courthouse • Planning Commission
PO Box 311 • Norristown PA 19404-0311
(p) 610.278.3722 • (f) 610.278.3941
www.montcopa.org/plancom
Aerial photography provided by Nearmap.


Ashford Wealth Advisors
C3.0

Whitemarsh TOWNSHIP
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TEL: 610-825-3535 FAX: 610-825-9416
www.whitemarshtwp.org

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Richard L. Mellor, Jr.
Township Manager

March 2, 2022

Ari Frazer
Ashford Consulting LLC and Ashford Wealth Advisors LLC
5 E. Germantown Pike
Plymouth Meeting PA 19462

RE: SLD#04-22 Ashford Consulting LLC and Ashford Wealth Advisors LLC
Minor Land Development; Proposed Building & Site Modifications; 5, 15 E. Germantown Pike
Zoning Ordinance Compliance Review Letter

Dear Mr. Frazer:

Please accept this as a review of the Zoning Ordinance Compliance issues for your above referenced 13-sheet Land Development Plan submission, prepared by Nave Newell, Inc., dated January 27, 2022 (with no revisions).

Please note that the site for this development is zoned Village Commercial, Sub-district 2 (VC-2), and is in the Township's Plymouth Meeting Historic District.

Several variances and a special exception were granted by the Zoning Hearing Board (ZHB#2019-39) on December 11, 2019. The relief was reaffirmed on by the Zoning Hearing Board (ZHB#2021-39) on October 1, 2021, with certain conditions. The relief includes:

A. A variance from Section 116-24.D.(3) permitting 41.5% of the area of the rear yard to be covered with accessory uses and structures for the proposed parking area , rather than 30%.
B. A variance from Section 116-184.D.(5) permitting 24 parking spaces rather than 28.
C. A variance from Section 116-291.A.(7).(a)[4], permitting less than 50% of the required parking to be located between the rear lot line and the rear principle building plane.
D. A variance from Section 116-291.C, eliminating the buffer equal to the width of the required setback.
E. Variances from Section 116-294 #6, #8, #9, so as to permit a maximum of 66.8% impervious coverage and 33.2% vegetated open space on Lot 1 (5 E Germantown Pike). A variance permitting 34.4% building coverage on Lot 2 (15 E. Germantown Pike).
F. A variance from section 116-296.B permitting a parking setback to a residential lot of 3.8 feet rather than 20 feet.
G. A special exception was granted under Section 116-185 to permit parking on an adjacent lot (meeting requirements for Lot 2).

Zoning compliance issues for the current submission include:

1. §116-11. Section 105-29.C. of the Subdivision and Land Development Ordinance classifies Germantown Pike (S.R.,3053) as an arterial. The current plans show a 50-foot wide legal right-of-way with 25 foot offset lines from the road centerline. A right-of-way line offset 40 feet from the road centerline, indicating an 80-foot wide ultimate right-of-way must be shown in the plan. This is consistent with other recent development plans along this roadway. Setbacks should be calculated from this line.

2. §116-22 The plans must be revised to include a note which states that the permanent removal of topsoil from land within the Township is prohibited.

3.	§116-28.	The applicant shall furnish a letter from the appropriate authority indicating the availability and supply of water for the proposed additional office use.
4.	§116-29.	The applicant shall furnish a letter from the Whitemarsh Township Authority indicating approval regarding additional sanitary sewer lateral(s) and service to the proposed additional office use.
5.	§116-33.D.	The proposed refurbished porch on the building at 15 E. Germantown Pike, would encroach into the ultimate right-of-way. In addition, a small portion of the building on 5. E Germantown Pike, a substantial portion of the building at 15 E. Germantown Pike, and a portion of the proposed and existing parking exists in the ultimate right-of-way. This section prohibits any structure within the ultimate right-of-way unless a Hold Harmless Agreement is approved by the Board of Supervisors and recorded. Since none is on file for these lots, one must be approved at this time. (Note: since front yard setback is measured from the ultimate right-of-way, not the legal right-of-way, the depiction of a front yard setback for the porch of 4.3', is incorrect.)
6.	§116-184.G.	All parking shall conform to the requirements of the Whitemarsh Township Fire Prevention Code as acted and amended. The applicant must obtain approval from the Whitemarsh Township Fire Marshal. Please see enclosed memo of February 1, 2022 from the Fire Marshal.
7.	§116-188.3	The applicant is required to provide two electric vehicle (EV) charging stations as specified for a lot with between 20 to 50 parking spaces. In the current site plan only one station is illustrated, and it is included as part of the 24 required spaces. The two EV spaces are required to be in addition to the otherwise required number of spaces.
8.	§116-194.A.	The addition to the building on Lot 2 uses the same nonconforming side yard setback as on the existing building. This section of the ordinance permits this since the nonconformity is not being increased.
9.	§116-291.A.(4)	Since the two lots will remain separate with all of the parking on Lot 1, an easement or other legal instrument must be recorded guaranteeing the availability of parking for Lot 2 in perpetuity; said instrument must be approved by the Township Solicitor.
10.	§116-291.B.	Any renovations and additions to the building on Lot 2 must meet all of the building design requirements of this section. The materials and characteristics of the addition as well as any changes in the material of the original building must be shown in sufficient detail in architectural documents to demonstrate compliance with this section.
11.	§116-291.B.(7)(a)	All ground-mounted exposed HVAC units or other utility equipment shall be screened from view. This shall be done through the use of masonry walls and landscaping. If ground mounted HVAC units will be part of the project, this must be illustrated in the plan.
12.	§116-291.B.(7)(b)	Trash enclosures should be located in convenient and accessible areas, and should be screened from view by masonry walls, landscaping or similar measures approved by the Board of Supervisors. These enclosures must be shown in the plan and shall be no closer to a rear or side property line than the prescribed building setback in §116-295 from a residential use or district.
13.	§116-291.C.	The landscape plan must be reviewed and approved by the Shade Tree Commission prior to the consideration of the plan by the Board of Supervisors.

14. §116-291.D. We defer the technical review of the site lighting to the Township Engineer. However, the design of the lighting should be consistent with the Historic District design guidelines (see additional comment below).

Additional Comment
The proposed development is in the Plymouth Meeting Historic District of Plymouth and Whitemarsh Townships. Before a building permit can be issued, a Certification of Appropriateness must be issued by the Board of Supervisors pursuant to a recommendation from the Historical Architectural Review Board (HARB). While the applicant has been before the HARB in the past to discuss this project before it was formalized, we recommend scheduling another informal discussion with them prior to land development approval for any comments that may impact the final plan.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,

Charles L. Guttenplan, AICP
Director of Planning and Zoning/Zoning Officer

Encls.: February 1, 2022 Memo from Fire Marshal

cc: Richard L. Mellor, Jr., Township Manager
Sean Halbom, Township Assistant Manager
Robert A. Sztubinski, B.C.O., Director of Building and Codes
Nick Weaver, Fire Marshal
Sean P. Kilkenny, Esq., Township Solicitor
Krista Heinrich, P.E., Township Engineer
Rosie Soto, Ashford Consulting LLC and Ashford Wealth Advisors LLC
James P. Bannon, P.E., Nave Newell, Inc., Applicant's Engineer

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

March 31, 2022

File No. 2022-03053

Mr. Richard L. Mellor, Jr., Township Manager
Whitemarsh Township Municipal Building
616 Germantown Pike
Lafayette Hill, PA 19444

Reference: Preliminary/Final Plan Review
5 & 15 Germantown Pike
Whitemarsh Township, Montgomery County, Pennsylvania
SLD #04-22

Dear Mr. Mellor:

As requested, we have reviewed plans for the above referenced 12-Sheet Land Development Plan submission, prepared by Nave Newell, dated January 27, 2022, with no noted revisions. The following comments are offered for your consideration:

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

	Section	Description
1.	105-21(B)(1)(d)	The plans must be revised to show zoning district boundaries in compliance with the Township Zoning Map.
2.	105-21(B)(1)(d)	The Record Plan must be revised to indicate that zoning relief was granted by the Zoning Hearing Board (ZHB# 2019-39) on December 11, 2019 and reaffirmed by the Zoning Hearing Board (ZHB#2021-39) on October 1, 2021. Additionally, Note 5 of the Zoning Hearing Board Summary on Sheet C1.0 must be revised to indicate that a special exception was granted from Section 116-185 to permit parking on an adjacent lot.
3.	105-21(B)(1)(k), 105-21(B)(1)(o)[10]	The plans must be revised to include the locations of all existing monumentation, if any. Proposed monumentation must be shown on the plans, in accordance with section 105-72(A).
4.	105-21(B)(1)(l)	The plans must be revised to include a label indicating the owner, parcel number and address for 5 E. Germantown Pike.

	Section	Description
5.	105-21(B)(1)(n)	This section of the ordinance requires the plans to show existing principal buildings (and their respective uses), and driveways on the adjacent peripheral strip: sewers lines, storm drains, culverts, bridges, utility easements, quarries, railroads, and other significant man-made features within 500 feet of and within the site, including properties across streets.
6.	105-21(B)(6)	The plans must be revised to show the location of any existing sanitary sewer laterals.
7.	105-21.1(K)(2)	Within the South Transportation Service area an impact fee in the amount of Two Thousand Five Hundred and Twenty-Nine Dollars ($2,529.00) per anticipated peak hour trip must be provided by the applicant. The plans must be revised to indicate the total number of employees and/or to clarify the total square footage in order to facilitate a calculation of the traffic impact fee. The square footage listed on the zoning data table appears to be inconsistent with the gross square footage in the 'Parking Classification' table.
8.	105-21(B)(13)	An Existing Resources and Site Analysis Plan (ERSAP) shall be prepared and shall provide a comprehensive analysis of existing conditions, both on the proposed development tract and within 500 feet of the tract boundaries. Conditions beyond the tract boundaries may be described on the basis of existing published data available from governmental agencies and from aerial photographs.
9.	105-21(B)(15)(b)(6)	The plans must include a description of any historic buildings or resources on the site and proposed efforts to preserve them.
10.	105-26(E)	Land subject to subsidence and land deemed to be topographically unsuitable, may not be platted for residential use or for such other uses as may increase danger to health, life or property until all such hazards have been eliminated or unless adequate safeguards against such hazards are provided. The plans must be revised to include details for sinkhole remediation.
11.	105-28(I)	This section of the ordinance requires the applicant to obtain a Highway Occupancy Permit from the Pennsylvania Department of Transportation for the proposed work within the right of way of Germantown Pike (SR 3053). The Highway Occupancy Permit Application Plans must be submitted to the Township for review prior to submission to PennDOT. In addition, the Township Engineer should be notified of all meetings with PennDOT and must be copied on all correspondence.
12.	105-28(K)	Structures shall not be permitted in the ultimate right-of-way, except where a property owner executes, and the Board of Supervisors approves, a hold-harmless agreement and it is recorded against the property.

Section	Description

13. 105-30 The following chart indicates the required dimensional standards for the various classifications of streets as defined by Section 105-5 and 105-29(C):

Street Name	Classification	Required Ultimate R.O.W.	Required Cartway Width	Curbs	Sidewalks	Tree Zone**
Germantown Pike	Arterial	80 feet	*	Required	Required	Required

*As recommended by PennDOT
** Per § 105-48E of this chapter.

The plans must be revised to show the 80-foot wide ultimate right of way. A waiver must be obtained to not require street trees to be planted within a tree planting zone of lawn area or other material approved by the Shade Tree Commission, situated between the sidewalk and curb and measuring a minimum of five feet in width from the planting edge of the curb to the planting edge of the sidewalk. The tree zone is provided, but is proposed to be located on the property side of the sidewalk in order to allow the sidewalk to be fully located within the Right-of-way and connected to the curb.

14. 105-37 The plans must be revised to demonstrate compliance with the sight distance requirements of this section of the ordinance and/or the required sight distances contained in the most current revision of Pennsylvania Code Title 67 Chapter 441, whichever is more restrictive. The plans must be revised to indicate the available sight distance at the driveway opening.

15. 105-38(C) This section of the ordinance requires curves/turns in entrance and exit drives and all internal parking lot aisles necessary for providing access for fire protection equipment to have a minimum inside turning radius of 25 feet and a minimum outside turning radius of 50 feet. The applicant must obtain a letter of approval from the Township Fire Marshal.

16. 105-38(H) All parking areas shall be set back from the right-of-way line and all property lines at least 15 feet. A waiver would be required to permit 10 proposed parking spaces to be located between 3.8 feet to 5± feet from the rear property line and 5 parking spaces to be located within 15 feet of the ultimate right-of-way line.

17. 105-38(K) This section of the ordinance requires that parking lots with less than 30 spaces not have a grade exceeding 5%. The plans appear to show that the parking space nearest Germantown Pike is in excess of 5%, which must be revised or a waiver must be obtained.

18. 105-38(P) Tire bumpers or curbing must be provided so as to prevent vehicle overhang on any landscape or lawn area.

19. 105-38(V) All artificial lighting used to illuminate any parking space or spaces shall be so arranged that no direct rays from such lighting shall fall upon any neighboring property or streets, nor shall any high brightness surface of the luminaries be visible from neighboring residential property or from a public street. The incident light spill-off at the development boundaries shall not exceed 0.10 footcandle at any point along off-street areas and 0.30 footcandle along public roadways. In addition, the illumination level shall be no more than 0.30 footcandle measured at any point at a height of five feet above grade. The Lighting Plan must be revised to demonstrate compliance with the requirements of this section of the ordinance.

	Section	Description
20.	105-40(A)	Required off street loading facilities, if necessary, must be designed so that each space shall be no less than 14 feet wide, 50 feet long, and 17 feet high, exclusive of drives and maneuvering space and located entirely on the lot being served. The plans must be revised to demonstrate compliance with the requirements of this section of the ordinance.
21.	105-45, 105-56.1(C)	Access easements and maintenance agreements or other suitable legal mechanisms must be provided to allow for access to the shared driveway and parking on 5 E. Germantown Pike by 15 E. Germantown Pike.
22.	105-47	Section 1106.7 of the International Building Code (IBC) requires that accessible parking spaces must be located on the shortest accessible route to an accessible entrance. The plans must be revised to provide an accessible space adjacent the building entrance to 15 E. Germantown Pike.
23.	105-47, 105-53.1(H)(3)	The plans should be revised to provide a sidewalk connection between the internal walks and the sidewalk along Germantown Pike.
24.	105-47(D) 105-56.1(H)	The plans must be revised to provide ADA accessible ramps along the pedestrian access routes within the parking lot.
25.	105-48	This section of the ordinance requires the installation of street trees along all streets where suitable trees do not exist. Large street trees shall be planted at intervals of not more than 45 feet, and/or small street trees at intervals of not more than 30 feet along any existing street. The minimum trunk diameter for street trees, measured at a height of six inches above the finished grade level, shall be 3 inches. The species of proposed street trees shall be subject to the prior review and approval of the Shade Tree Commission. The plans must be revised in order to demonstrate compliance with the requirements of this section of the ordinance or a waiver must be obtained to allow 1 existing street tree or 4 flowering trees where 5 shade trees or 8 flowering trees are required.
26.	105-49	The plans must be revised to provide crosswalks having a width of not less than four feet.
27.	105-51(H), 105-56.1(B)(3)	Outdoor collection stations shall be provided for garbage and trash removal when indoor collection is not provided. Collection stations shall be screened from view and landscaped.
28.	105-52	Buffer yards are required between land development and along existing streets to soften visual impact, to screen glare, and to create a visual barrier between conflicting land uses. All landscaping plans are subject to review and approval of the Shade Tree Commission.
29.	105-52(B)(2)	This section of the ordinance requires that all buffers shall have a minimum width of 50 feet. The Board of Supervisors may permit an alternative planting option which shall have a screening capability equal to or greater than any of the available options. The applicant should provide evidence in sufficient detail to the Board of Supervisors in order to demonstrate that sufficient screening will be provided.

	Section	Description
30.	105-53(D)	This section of the ordinance requires the dedication of land in the amount of 10% of the total Site Area for Park and/or Recreational use. The applicant has the option of offering a fee in lieu of dedicating actual land area and can also provide a combination of a fee in lieu and dedication of land. All offers of land and/or fees in lieu of dedication must meet the requirements of this section of the ordinance
31.	105-56.1(B)(A)	The applicant shall submit architectural drawings for evaluation of the proposed principal building expansion, including building elevation and colored renderings.
32.	105-56.1(E)(2)(a)	A waiver from the requirements of this section of the ordinance must be obtained to allow the surface parking lot to occupy more than 1/4 of the parcel's frontage along a pedestrian-oriented street or street segment.
33.	105-56.1(G)(1)	The plans must be revised in order to demonstrate compliance with the requirements of this section of the ordinance, which requires that sidewalks shall be provided along all street lines and primary accessways and shall be six feet in width and of material compatible with surrounding area. Materials other than concrete are encouraged (i.e., unit pavers, etc.), provided all such materials are ADA compliant.
34.	105-56.1(G)(2)	The plans must be revised in order to demonstrate compliance with the requirements of this section of the ordinance, which requires that all driveways shall have concrete aprons to continue the sidewalks across the driveway or nondedicated street onto a property.
35.	105-56.1(I)	The plans must be revised in order to demonstrate compliance with the requirements of this section of the ordinance, which requires that all VC subdistricts shall contain street lighting poles and fixtures as approved by the Board of Supervisors.
36.	105-56.1(J)(1)	Existing trees with a caliper of 16 inches or more shall not be removed unless they are each replaced by at least five trees, each with a caliper of at least four inches. The Landscape Requirements table must be revised to provide for the replacement of an existing 17” caliper tree which is proposed to be removed.
37.	105-56.1(J)(2)	When any proposed mixed use or nonresidential development abuts a residential use, a screen buffer, as required in the Subdivision and Land Development Code, § 105-52, shall be provided. In addition, there shall be a solid six-foot-tall fence with a mixture of evergreen landscaping outside the fence to create a solid visual barrier that will grow to 12 feet high within three years.
38.	105-56.1(J)(5)	A planting strip that is four feet wide shall be placed between the edge of the cartway and edge of sidewalk. The plans must be revised or a waiver must be obtained.
39.	105-76(B)	Appropriately spaced fire hydrants for fire-fighting purposes must be provided pursuant to the specifications of the Middle Department Association of Fire Underwriters Review, and approval by the Township Engineer and the Township Fire Marshal is required in order to ensure that adequate fire protection is provided. The applicant must obtain a letter of approval from the Township Fire Marshal.
40.	105-81	All electric, telephone and communication service facilities, both main and service lines, shall be provided by underground cables, installed in accordance with the prevailing standards and practices of the utility and other companies providing such service.

	Section	Description
41.	105-83(E)	No removal of a tree or trees shall be permitted unless the applicant obtains a recommendation from the Shade Tree Commission based on a tree survey and removal plan submitted as part of a landscape plan in accordance with the Whitemarsh Township Code, Chapter 55, § 55-4, Tree protection and preservation.
42.	105-89	The developer shall enter into a written agreement with the Township in the manner and form approved by the Solicitor wherein the developer shall agree, to construct or cause to be constructed at his own expense all proposed improvements shown on the approved land development plan, all in strict accordance with the standards and specifications of the Township and within the time specified in said agreement, and to deposit with the Township financial security in an amount sufficient to cover the cost of all subdivision or land development improvements, including both public and private improvements.

CHAPTER 55 - TREE PROTECTION STANDARDS

	Section	Description
43.	55-4(A)	The tree survey plan shall be reviewed by the Shade Tree Commission in a public meeting.
44.	55-4(A)(6)	Any tree lost or destroyed within the past five years must be shown on the Tree Survey Plan as a “Removed Tree” and must be replaced as part of the proposed project.
45.	55-4(B)(1)	The plans must be revised to include provisions for tree protection to preserve healthy trees and shrubs on site in accordance with this section of the ordinance. A note must be added to the plans requiring protective fencing to be placed around trees on the property prior to construction. Protective fencing must be shown on the plans in the areas where it will be required, and a tree protection fence detail must be provided.
46.	55-4(B)(2)	A note must be added to the plans requiring a pre-construction conference with the Township Shade Tree Commission prior to the start of construction.
47.	55-4(B)(6)(a)	This section of the ordinance requires that every tree determined to be living and healthy, with a DBH of 6 inches or greater and which is designated to be removed or which is destroyed, shall be replaced with one or more new shade trees of a type approved by the Township with a trunk diameter of not less than 3 inches in caliper. The total caliper of replacement trees, measured at 6 inches above the ground line, shall equal or exceed the DBH of the tree removed. The plans appear to show at least 3 trees with a total of 40 caliper inches as proposed to be removed.
48.	55-4(B)(6)(c)	Replacement trees shall be planted in addition to the trees required by planting requirements otherwise set forth in the Subdivision and Land Development Code. The planting schedule must be revised accordingly.

GRADING, EROSION CONTROL, STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES ORDINANCE:

	Section	Description
49.	58-4(B)(2)(k)	The grading plan appears to show two contour lines representing an elevation of 183 adjacent the access drive, which must be revised.
50.	58-8(B)	Stormwater facilities shall be accessible to permit periodic maintenance and an access easement shall be provided to permit such access. The following blanket stormwater easement note, must be added to the Record Plan: *'Stormwater facilities shall be owned and maintained by the property owner in perpetuity. The property owner shall provide a blanket stormwater access easement to the Township for the purpose of access to the stormwater facilities. If, in the judgment of the Township Engineer, the owner has failed to maintain the stormwater facilities in such a manner as to ensure their proper functioning, the Township after providing a written notice, shall have the right to enter upon the lands of the owner and to make any repairs as may be necessary to the stormwater facilities to ensure that such facilities function and perform in accordance with the design specifications. Any and all costs incurred by the Township for such repairs and/or maintenance shall be paid in full by the owner. A lien or liens may be placed against the property if the owner fails to remit payment within sixty (60) days.'*
51.	58-11(G)(3)	An as-built survey of all stormwater BMPs must be submitted to the Township in paper and digital (dwg) formats. A note must be added to the plans stating an as-built survey will be completed and submitted in both formats to the Township.
52.	58-11(H)(1)	The property owner shall sign an operations and maintenance agreement with the Township addressing stormwater BMPs that are to be privately owned.

RESOLUTION 2004-8:

	Section	Description
53.	II(C)(1)	All earth disturbance activities shall limit the rate of stormwater runoff so that no greater runoff is permitted from any point on the site than that of the site at its maximum development potential in its natural condition of the same frequency storm, except where deemed necessary by the Township Engineer. Where farm, field, or disturbed earth is the existing condition, meadow shall be used as the starting basis for such calculations, regardless of the actual conditions.
54.	II(C)(8)(a), II(F)(3)(d)(4)[d]	Whenever an infiltration BMP or a stormwater basin is suspected of being located in an area underlain by limestone, a geological evaluation of the proposed location shall be conducted by a Registered Professional Engineer experienced in geotechnical and soil engineering to determine susceptibility to sinkhole formations.
55.	II(C)(8)(d)	The following note shall be attached to all drainage plans and signed and sealed by the applicant's Registered Professional Engineer experienced in geotechnical and soil engineering: *"I certify that the proposed facility is/is not underlain by limestone."*

	Section	Description
56.	II(D)(8)	The proposed emergency overflow outlet is set higher than all other inlets in the system and must be revised to be set lower than elevation 178.00 in order to prevent ponding in the parking area, and to allow for emergency overflow.
57.	II(F)(3)(d)(4)[e][7]	The applicant should request relief from the requirements of this section of the ordinance, which states that Infiltration rates shall not be used in computing the storage volume of the infiltration system. Any relief granted should be conditioned that the applicant's engineer provide evidence in sufficient detail to demonstrate the proposed underground basin's ability to handle back to back storms.
58.	II(F)(3)(d)(4)[g]	Any infiltration BMP shall be capable of completely infiltrating the impounded water within 96 hours. The applicant should verify the required infiltration is provided by the use of on site perc tests at the proposed seepage pit locations.

ADDITIONAL COMMENTS:

59. The plans show features (shed and fencing) which appear to be located outside of the boundary lines of the subject property. The plans cannot be approved until all structures and/or uses for the lot(s) are located entirely within the property boundaries or easements or some other agreement is established to permit the encroachments.

Any future submission of the design plans for this project must be accompanied by a letter, prepared by the applicant's engineer, which addresses each of the comments contained in this report. Should you have any questions regarding this matter, please do not hesitate to contact me at this office.

Sincerely,

Krista Heinrich, P.E.
Township Engineer
Gilmore & Associates, Inc.

KH/sl

cc: Mr. Charles L. Guttenplan, AICP – Director of Planning and Zoning
Mr. Sean Kilkenny, Esq.; The Law Offices of Sean Kilkenny, LLC – Township Solicitor *(via email)*
Mr. Sean Halbom – Assistant Township Manager
Mr. Robert A. Sztubinski, B.C.O. – Director of Building & Codes
Mr. Nick Weaver – Fire Marshal
Mr. Ari Frazer, Ashford Wealth Advisors – Owner/Applicant
Ms. Rosie Soto, Ashford Wealth Advisors – Owner/Applicant
Mr. James P. Bannon, PE, Nave Newell, Inc.– Applicant's Engineer

Ashford Wealth Advisors
Preliminary/Final Land Development Waiver Request List
Revised April 7, 2022

Submission

1. Ch. 105 12(D) of SALDO to allow the plans to be reviewed and approved simultaneously as both preliminary and final plans, rather than requiring separate preliminary and final plan submissions.

Street Standards

2. 105-30 / 105-56.1(J)(5): We request a waiver from having a 4'-wide planting strip between the edge of cartway and the sidewalk. The proposed sidewalk matches the existing sidewalk, which does not have an existing planting strip. The proposed street trees will be planted on the property side of the sidewalk.

Off-Street Parking Facilities

3. 105-38 (C) – Curves/turns in entrance and exit drives and internal parking lot aisles shall have a minimum inside turning radius of 25' and outside turning radius of 50': We request a waiver from this requirement due to the size and configuration of the lot. The proposed driveway will have a similar layout and location to the existing driveway. The drive aisles have been designed to the required width but these minimum turning radii are infeasible. We will coordinate with the Township Fire Marshal to ensure the parking layout is satisfactory.

4. 105-38 (H) - all parking areas shall be set back from the right-of-way line and all property lines at least 15 feet: We request a waiver from this requirement due to the size and configuration of the lot. The proposed parking spaces are located further from Germantown Pike than the existing and zoning relief has already been granted to have the rear parking +/- 3.8 feet from the property line, which matches the existing.

5. 105-38(V) - lighting used to illuminate parking space shall not direct rays upon any neighboring property or streets: We request a waiver from this requirement due to the size and configuration of the lot. We are minimizing light trespass to the extent practical but, in order to adequately light the parking configuration that has already received the necessary zoning relief, some light trespass in unavoidable.

Street Trees

6. 105-48: We request a waiver from this section to allow the number and location of street trees as shown on the Landscape Plan due to the two existing buildings which limit the viable area for street trees. The proposed street tree plantings are subject to Shade Tree Commission approval.

Buffer Yards

7. 105-52 (B)(2) – buffers shall have a minimum width of 50 feet: We request a waiver from this requirement due to the size and configuration of the lot. The existing buildings prevent buffers along the side yards and zoning relief has already been granted to have the rear parking +/- 3.8 feet from the property line. The existing hedgerow buffer along the rear property line will remain.

Additional Design Standards for VC-1 and VC-2 Village Commercial District

8. 105-56.1(E)(2)(a) - surface parking lots shall not occupy more than 1/4 of the parcel's frontage: We request a waiver to allow parking to occupy approximately 50% of the frontage due to the existing lot configuration and shallowness of the property.

9. 105-56.1(I) – VC subdistricts shall have street lighting: We request a waiver from this requirement. The location of the existing buildings limit the ability to install street lighting. There are no other street lights in this area and the nearest sidewalk to the east is over 300' away, so street lighting would serve no purpose along this frontage.

10. 105-56.1 (J)(2) – solid six foot tall fence and evergreens in buffers: We request a waiver from this requirement due to the size and configuration of the lot. Zoning relief has already been granted to have the rear parking +/- 3.8 feet from the property line which allows no room for the installation of a fence and evergreens in this area. The existing fence and hedgerow buffer along the rear property line will remain.

Resolution 2004-8: Grading, Erosion Control, Stormwater Management, and Best Management Practices

11. II(D)(2) – the top of any slope shall be located a minimum of five (5) feet from property line: We request a waiver from this requirement because we received zoning relief that permits parking less than five feet away from the property line. The existing building on the east of the property is also less than five feet away from the property line.

12. II(E)(2)(g)(iv) - storm drainage pipes shall be at least 18 inches and RCP: We request a waiver from this requirement to use a twelve inch HDPE pipe The largest pipe size the proposed stormwater system can accommodate is a twelve inch pipe.

13. II(F)(3)(d)[4][e][7] Infiltration rates shall not be used in computing the storage volume of the infiltration system: We request a waiver from this requirement to include infiltration in our design. Since we are proposing a no-release system, the BMP is designed to hold the 100-year storm. The size of the system provides additional volume and modeling infiltration will help minimize the size of the BMP, which is already designed to hold the 100-year storm.

14. II(F)(3)(d)[4][g] - infiltration BMPs shall be capable of completely infiltrating the impounded water within 96 hours: We request a waiver from this requirement because we are using a subsurface system that is designed to hold up to and including the 100-year storm. This subsurface system does not present the same concerns that still water does in above ground BMP facilities. The subsurface system will dewater in 7 days, which is within DEP standards. The design will utilize an emergency overflow inlet in the case of back to storm events.

15. II(F)(3)(d)(4)[e][7] Infiltration Rates shall not be used in computing the storage volume of the infiltration system: We request a waiver from this because we will be utilizing a no-release system. The rates were modeled in the routing of the system to cut down on the size of the proposed system.

SHADE TREE COMMISSION REPORT - JULY 2022

From: Sean Halbom
Sent: Friday, July 29, 2022 9:27 AM
To: Charlie Guttenplan
Cc: Krista Heinrich
Subject: 5/15 Germantown

5/15 Germantown Pike (SLD# 04-22) – Renovation of an Existing Parking Lot and an Addition to the Existing Building. This project is returning to Shade Tree Commission to discuss changes that were discovered regarding the existing landscape.

Brian Kelly presented on behalf of the applicant and shared the project plans on his screen. Brian summarized the return from the June meeting by stating that a 40" tree shown on the plans in June was actually removed about three years ago. The plans shared this evening compensate for that tree and also show updates to the tree protection fencing.

Mr. Kelly summarized the new landscape plan. He called attention to 19 total trees that were added, mainly toward the rear buffer of the property. Mr. Kelly called attention to minor modifications to the plantings around the hairpin fence, so as not to disturb the fence. Mr. Halbom asked Mr. Kelly to summarize the total caliper inches added to the plans proposed to replace the 40" tree.

Mr. Kelly responded that eleven trees would compensate for the tree, but they are offering 19 replacements. He added the tree was in poor condition when it was removed three years ago. Chair Ziegler asked for an inch-for-inch count of the trees. Mr. Halbom asked how many of the 19 trees were canopy trees versus understory. Mr. Kelly replied that two of the 19 trees were canopy species, Tulip Poplar. Mr. Halbom replied that the use of understory trees would reduce that replacement could to eleven tree alternatives, which is two canopy trees short of the 40" replacement.

Vice Chair Fassbender commented that there did not appear to be a lot of space remaining, despite being two trees short. Mr. Hosbach replied that some of the trees replaced were in poor condition, and that the site was at capacity now, in terms of replacement space. Chair Ziegler asked the applicant to clarify if there was a waiver request. Mr. Halbom replied that yes, there was a waiver request, but that the 40" tree was a unique case given the undocumented health issues with the tree. Chair Ziegler asked to clarify that the applicant has fulfilled their instructions from the June meeting. Mr. Halbom reiterated the 40" tree issue was brought up after, but the applicant has acted in good faith to plant out the site as best possible. Vice Chair Fassbender expressed agreement with the applicant's good faith efforts.

Chair Ziegler asked if there was a motion to accept the plans, as-presented.

Sydelle Zove offered public comment and asked the applicant to review the fate of the hairpin fencing. Mr. Kelly responded that the fence line was not in conflict with the landscaping and that the landscaping to the rear by the fence has been adjusted so as not to interfere with the fence. He confirmed the fence is not moving location. Ms. Zove shared the hairpin fence was an important historical element discussed at the latest HARB meeting. Chair Ziegler responded that fencing was not a Shade Tree Commission focus point.
Tam Paulits offered public comment. She asked if there was documentation proving the 40" tree was in decline. Mr. Halbom replied that he did not receive any documentation, but the tree was removed three or four years ago, so documentation was not available.

Chair Ziegler motioned to accept the updated plans, as presented. Christian Fassbender seconded the motion. Natalie Borkowski voted in favor, and the motion passed 3-0.

Sean Halbom, MPA
Assistant Township Manager
Whitemarsh Township, Pennsylvania
Office (Direct): (484) 594-2604
www.whitemarshtwp.org

August 8, 2022

VIA FEDEX NEXT PM

Charles L. Guttenplan, AICP
Director of Planning & Zoning
Whitemarsh Township
616 Germantown Pike
Lafayette Hill, PA 19444-1821

Reference: ***Ashford Consulting, LLC and Ashford Wealth Advisors, LLC***
Preliminary/Final Plan Submission
Whitemarsh Township, Montgomery County, PA
Nave Newell No. 2018-080.00

Dear Mr. Guttenplan:

On behalf of our client, Ashford Consulting, LLC and Ashford Wealth Advisors, LLC, please find enclosed the following items for a Preliminary/Final Plan submission for the above-referenced project located in Whitemarsh Township, Montgomery County, PA:

1. Preliminary/Final Land Development Plans, dated January 27, 2022, last revised August 8, 2022 (2 copies);
2. Post Construction Stormwater Management Report and Site Drainage Calculations, dated January 27, 2022, last revised August 3, 2022 (2 copies);
3. Historical Architectural Review Board presentation, prepared by KSM Architects (2 copies); and
4. Thumb drive containing PDF copies of submission items (1).

We are in receipt of your review letter. dated March 2, 2022 and we offer the following responses to your comments in corresponding order:

Zoning compliance issues for the current submission include:

1. §116-11 Section 105-29.C. of the Subdivision and Land Development Ordinance classifies Germantown Pike (S.R. 3053) as an arterial. The current plans show a 50-foot wide legal right-of-way with 25 foot offset lines from the road centerline. A right-of-way line offset 40 feet from the road centerline, indicating an 80-foot wide ultimate right- of-way must be shown in the plan. This is consistent with other recent development plans along this roadway. Setbacks should be calculated from this line.
   Response: We have revised our plans to show the 80 foot wide ultimate right-of-way on the Site Plan (Sheet C3.0).

2. §116-22 The plans must be revised to include a note which states that the permanent removal of topsoil from land within the Township is prohibited.

Response: We have added this note under the Construction Notes (Note 26) on the Grading Plan (Sheet C4.0).

3. §116-28. The applicant shall furnish a letter from the appropriate authority indicating the availability and supply of water for the proposed additional office use.
   Response: The building addition will be serviced by the existing building's water connection. A Will Serve letter will be forwarded to the Township when it is received.

4. §I 16-29. The applicant shall furnish a letter from the Whitemarsh Township Authority indicating approval regarding additional sanitary sewer lateral(s) and service to the proposed additional office use.
   Response: The additional sanitary connection to the proposed building will be internal and will not require an additional connection to the street.

5. §116-33.D. The proposed refurbished porch on the building at 15 E. Germantown Pike, would encroach into the ultimate right-of-way. In addition, a small portion of the building on 5. E Germantown Pike, a substantial portion of the building at 15 E. Germantown Pike, and a portion of the proposed and existing parking exists in the ultimate right- of-way. This section prohibits any structure within the ultimate right-of-way unless a Hold Harmless Agreement is approved by the Board of Supervisors and recorded. Since none is on file for these lots, one must be approved at this time. (Note: since front yard setback is measured from the ultimate right-of-way, not the legal right- of-way, the depiction of a front yard setback for the porch of 4.3', is incorrect.)
   Response: The applicant is willing to enter into a Hold Harmless Agreement with the Township and will sign the Agreement once it is prepared by the Township Solicitor.
   We have revised the setback lines on the Site Plan (Sheet C3.0).

6. §I16-184.G All parking shall conform to the requirements of the Whitemarsh Township Fire Prevention Code as acted and amended. The applicant must obtain approval from the Whitemarsh Township Fire Marshal. Please see enclosed memo of February 1, 2022 from the Fire Marshal
   Response: We have coordinated with Whitemarsh Township's Fire Marshal, Nick Weaver, and he has verbally approved the site layout. We have revised the Site Plan (Sheet C3.0) to show compliance with the IFC requirements that all parts of the proposed building are within 150' of a fire access road and within 400' of a fire hydrant.

7. §I 16-188.3 The applicant is required to provide two electric vehicle (EV) charging stations as specified for a lot with between 20 to 50 parking spaces. In the current site plan only one station is illustrated, and it is included as part of the 24 required spaces. The two EV spaces are required to be in addition to the otherwise required number of spaces.
   Response: We are proposing two electric vehicle charging stations. The proposed "dual charging station" allows for the charging of two vehicles at the same time. The two electric vehicle parking spaces are included in the total count of 24 spaces because there is no

room for additional spaces on the site. The Zoning Hearing Board Decision (No. 2019-39) granted a variance to permit 24 total parking spaces.

8. §116—194.A. The addition to the building on Lot 2 uses the same nonconforming side yard setback as on the existing building. This section of the ordinance permits this since the nonconformity is not being increased.
   Response: No response necessary.

9. §116-291.A.(4) Since the two lots will remain separate with all of the parking on Lot 1, an easement or other legal instrument must be recorded guaranteeing the availability of parking for Lot 2 in perpetuity; said instrument must be approved by the Township Solicitor.
   Response: The applicant's attorney is preparing the required easement. We will forward it to the Township for review when it is completed.

10. §1I6-291.B. Any renovations and additions to the building on Lot 2 must meet all of the building design requirements of this section. The materials and characteristics of the addition as well as any changes in the material of the original building must be shown in sufficient detail in architectural documents to demonstrate compliance with this section.
    Response: The architect has designed the proposed building renovation and addition to meet this section of the code. The Historical Architectural Review Board approved the proposed improvements at their June 8, 2022 meeting. We have included the architect's HARB presentation which shows the proposed building elevations and materials with this submission.

11. §I I 6-291.B.(7)(a) All ground-mounted exposed HVAC units or other utility equipment shall be screened from view. This shall be done through the use of masonry walls and landscaping. If ground mounted HVAC units will be part of the project, this must be illustrated in the plan.
    Response: The HVAC equipment will be located to the rear of the proposed building addition. We have added the required screening to the Landscape Plan (Sheet C6.0).

12. §116-291.B.(7)(b) Trash enclosures should be located in convenient and accessible areas, and should be screened from view by masonry walls, landscaping or similar measures approved by the Board of Supervisors. These enclosures must be shown in the plan and shall be no closer to a rear or side property line than the prescribed building setback in §116-293 from a residential use or district.
    Response: A trash enclosure will not be utilized on this site.

13. §116-291.C. The landscape plan must be reviewed and approved by the Shade Tree Commission prior to the consideration of the plan by the Board of Supervisors.
    Response: The Shade Tree Commission approved the proposed landscaping at their July 5, 2022 meeting.

14. §1 I 6-291.D. We defer the technical review of the site lighting to the Township Engineer. However, the design of the lighting should be consistent with the Historic District design guidelines (see additional comment below).
Response: No response necessary.

We are also in receipt of the review letter from Gilmore & Associates, Inc. dated March 31, 2022 and we offer the following responses to the comments in corresponding order:

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

1. 105-21(B)(1)(d) The plans must be revised to show zoning district boundaries in compliance with the Township Zoning Map.
Response: We have added the zoning district boundary on the Existing Features/Demolition Plan (Sheet C2.0) and the Site Plan (Sheet C3.0).

2. 105-21(B)(1)(d) The Record Plan must be revised to indicate that zoning relief was granted by the Zoning Hearing Board (ZHB# 2019-39) on December 11, 2019 and reaffirmed by the Zoning Hearing Board (ZHB#2021-39) on October 1, 2021. Additionally, Note 5 of the Zoning Hearing Board Summary on Sheet C1.0 must be revised to indicate that a special exception was granted from Section 116-185 to permit parking on an adjacent lot.
Response: We have added the note to the Zoning Hearing Board Summary on the Title Sheet (Sheet C1.0).

3. 105-21(B)(1)(k), 105-21(B)(1)(o)[10] The plans must be revised to include the locations of all existing monumentation, if any. Proposed monumentation must be shown on the plans, in accordance with section 105-72(A).
Response: No existing monumentation was located as part of the existing features survey. No revisions to the existing lots are proposed, so no new monumentation is proposed.

4. 105-21(B)(1)(l) The plans must be revised to include a label indicating the owner, parcel number and address for 5 E. Germantown Pike
Response: We have added the parcel number and address to the Site Plan (Sheet C3.0).

5. 105-21(B)(1)(n) This section of the ordinance requires the plans to show existing principal buildings (and their respective uses), and driveways on the adjacent peripheral strip: sewers lines, storm drains, culverts, bridges, utility easements, quarries, railroads, and other significant man-made features within 500 feet of and within the site, including properties across streets.
Response: We have added the Existing Resource and Site Analysis Plan (ERSAP) (Sheet C11.0) which shows the existing features within 500' of the project site.

6. 105-21(B)(6) The plans must be revised to show the location of any existing sanitary sewer laterals.

Response: We have shown the location of the existing sanitary sewer laterals on the Utility Plan (Sheet C5.0). The proposed building addition will be services by the existing sanitary lateral.

7. 105-21.1(K)(2) Within the South Transportation Service area an impact fee in the amount of Two Thousand Five Hundred and Twenty-Nine Dollars ($2,529.00) per anticipated peak hour trip must be provided by the applicant. The plans must be revised to indicate the total number of employees and/or to clarify the total square footage in order to facilitate a calculation of the traffic impact fee. The square footage listed on the zoning data table appears to be inconsistent with the gross square footage in the 'Parking Classification' table.
   Response: We have added a table listing the number of existing and proposed employees to the Site Plan (Sheet C3.0). The square footage of office space listed in the "Parking Classification" is based on the increased, new office space, as agreed upon during the Zoning Hearing Board's approval.

8. 105-21(B)(13) An Existing Resources and Site Analysis Plan (ERSAP) shall be prepared and shall provide a comprehensive analysis of existing conditions, both on the proposed development tract and within 500 feet of the tract boundaries. Conditions beyond the tract boundaries may be described on the basis of existing published data available from governmental agencies and from aerial photographs.
   Response: We have added an ERSAP Plan (Sheet C11.0).

9. 105-21(B)(15)(b)(6) The plans must include a description of any historic buildings or resources on the site and proposed efforts to preserve them.
   Response: We have added Demolition Note #18 to the Existing Features/Demolition Plan stating that the existing iron fence along the property frontage, historic buildings, and resources are to be preserved to greatest degree practical and in accordance with the HARB approval.

10. 105-26(E) Land subject to subsidence and land deemed to be topographically unsuitable, may not be platted for residential use or for such other uses as may increase danger to health, life or property until all such hazards have been eliminated or unless adequate safeguards against such hazards are provided. The plans must be revised to include details for sinkhole remediation.
    Response: We have added Karst Geology Construction Notes on the Grading Plan (Sheet C4.0) and the PCSM Plan (Sheet C9.0). We have added a sinkhole detail to the PCSM Detail Sheet (Sheet C9.1).

11. 105-28(I) This section of the ordinance requires the applicant to obtain a Highway Occupancy
    Response: Will comply.

12. Permit from the Pennsylvania Department of Transportation for the proposed work within the right of way of Germantown Pike (SR 3053). The Highway Occupancy Permit Application Plans must be submitted to the Township for review prior to submission to PennDOT. In addition, the Township Engineer should be notified of all meetings with PennDOT and must be copied on all correspondence.
Response: Will comply.

13. 105-28(K) Structures shall not be permitted in the ultimate right-of-way, except where a property owner executes, and the Board of Supervisors approves, a hold-harmless agreement and it is recorded against the property.

    105-30 The following chart indicates the required dimensional standards for the various classifications of streets as defined by Section 105-5 and 105-29(C):

Street Name	Classification	Required Ultimate R.O.W.	Required Cartway Width	Curbs	Sidewalks	Tree Zone**
Germantown Pike	Arterial	80 feet	*	Required	Required	Required

*As recommended by PennDOT
** Per § 105-48E of this chapter.

    The plans must be revised to show the 80-foot wide ultimate right of way. A waiver must be obtained to not require street trees to be planted within a tree planting zone of lawn area or other material approved by the Shade Tree Commission, situated between the sidewalk and curb and measuring a minimum of five feet in width from the planting edge of the curb to the planting edge of the sidewalk. The tree zone is provided, but is proposed to be located on the property side of the sidewalk in order to allow the sidewalk to be fully located within the Right-of-way and connected to the curb.
    Response: We have revised the plans to show an 80-foot ultimate right-of-way (See the Site Plan (C3.0)).
    We request a waiver from having a 4-foot wide planting strip between the edge of cartway and the sidewalk. The proposed sidewalk matches the existing sidewalk, which does not have an existing planting strip. The proposed street trees will be planted on the property side of the sidewalk.

14. 105-37 The plans must be revised to demonstrate compliance with the sight distance requirements of this section of the ordinance and/or the required sight distances contained in the most current revision of Pennsylvania Code Title 67 Chapter 441, whichever is more restrictive. The plans must be revised to indicate the available sight distance at the driveway opening.
    Response: We have measured the sight distance from the proposed driveway on site and verified that it does meet the requirements per the ordinance. We have added this to the Site Plan (Sheet C3.0).

15. 105-38(C) This section of the ordinance requires curves/turns in entrance and exit drives and all internal parking lot aisles necessary for providing access for fire protection equipment to have a minimum inside turning radius of 25 feet and a minimum outside turning radius of 50 feet. The applicant must obtain a letter of approval from the Township Fire Marshal.
    Response: We request a waiver from this requirement due to the size and configuration of the lot. The proposed driveway will have a similar layout and location to the existing driveway. The drive aisles have been designed to the required width, but these minimum turning radii are infeasible. We will coordinate with the Township Fire Marshal to ensure the parking layout is satisfactory.

16. 105-38(H) All parking areas shall be set back from the right-of-way line and all property lines at least 15 feet. A waiver would be required to permit 10 proposed parking spaces to be located between 3.8 feet to 5± feet from the rear property line and 5 parking spaces to be located within 15 feet of the ultimate right-of-way line.
    Response: We request a waiver from this requirement due to the size and configuration of the lot. The proposed parking spaces are located further from Germantown Pike than the existing and zoning relief has already been granted to have the rear parking +/- 3.8 feet from the property line, which matches the existing.

17. 105-38(K) This section of the ordinance requires that parking lots with less than 30 spaces not have a grade exceeding 5%. The plans appear to show that the parking space nearest Germantown Pike is in excess of 5%, which must be revised or a waiver must be obtained.
    Response: We have revised the grading to have a slope of less than 5%. See the Grading Plan (Sheet C4.0).

18. 105-38(P) Tire bumpers or curbing must be provided so as to prevent vehicle overhang on any landscape or lawn area.
    Response: We are proposing curb throughout the entire parking lot. See the Site Plan (Sheet C3.0).

19. 105-38(V) All artificial lighting used to illuminate any parking space or spaces shall be so arranged that no direct rays from such lighting shall fall upon any neighboring property or streets, nor shall any high brightness surface of the luminaries be visible from neighboring residential property or from a public street. The incident light spill-off at the development boundaries shall not exceed 0.10 footcandle at any point along off-street areas and 0.30 footcandle along public roadways. In addition, the illumination level shall be no more than 0.30 footcandle measured at any point at a height of five feet above grade. The Lighting Plan must be revised to demonstrate compliance with the requirements of this section of the ordinance.

Response: We request a waiver from this requirement due to the size and configuration of the lot. We are minimizing light trespass to the extent practical but, in order to adequately light the parking configuration that has already received the necessary zoning relief, some light trespass in unavoidable.

20. 105-40(A) Required off street loading facilities, if necessary, must be designed so that each space shall be no less than 14 feet wide, 50 feet long, and 17 feet high, exclusive of drives and maneuvering space and located entirely on the lot being served. The plans must be revised to demonstrate compliance with the requirements of this section of the ordinance.
Response: No off-street loading requirements are required or proposed for this development.

21. 105-45, 105-56.1(C) Access easements and maintenance agreements or other suitable legal mechanisms must be provided to allow for access to the shared driveway and parking on 5 E. Germantown Pike by 15 E. Germantown Pike.
Response: Will comply.

22. 105-47 Section 1106.7 of the International Building Code (IBC) requires that accessible parking spaces must be located on the shortest accessible route to an accessible entrance. The plans must be revised to provide an accessible space adjacent the building entrance to 15 E. Germantown Pike.
Response: We have provided accessible parking located west side of the property, which is the main building. We have provided an ADA accessible route from the ADA accessible parking spaces to the building entrance to the existing building and the new building addition. This information is provided with detailed grading on the Grading Plan (Sheet C4.0).

23. 105-47, 105-53.1(H)(3) The plans should be revised to provide a sidewalk connection between the internal walks and the sidewalk along Germantown Pike.
Response: An existing sidewalk to the existing building provides pedestrian access to East Germantown Pike.

24. 105-47(D) 105-56.1(H) The plans must be revised to provide ADA accessible ramps along the pedestrian access routes within the parking lot.
Response: The proposed ADA ramps are shown on the Grading Plan (Sheet C4.0).

25. 105-48 This section of the ordinance requires the installation of street trees along all streets where suitable trees do not exist. Large street trees shall be planted at intervals of not more than 45 feet, and/or small street trees at intervals of not more than 30 feet along any existing street. The minimum trunk diameter for street trees, measured at a height of six inches above the finished grade level, shall be 3 inches. The species of proposed street trees shall be subject to the prior review and approval of the Shade Tree Commission. The plans must be revised in order to demonstrate compliance with the requirements of this

section of the ordinance or a waiver must be obtained to allow 1 existing street tree or 4 flowering trees where 5 shade trees or 8 flowering trees are required.
Response: We request a waiver from this section to allow the number and location of street trees as shown on the Landscape Plan due to the two existing buildings which limit the viable area for street trees. The proposed street tree plantings were approved by the Shade Tree Commission at their July 5, 2022 meeting.

26. 105-49 The plans must be revised to provide crosswalks having a width of not less than four feet.
Response: All proposed sidewalks are 5' in width. See the Site Plan (C3.0).

27. 105-51(H), 105-56.1(B)(3) Outdoor collection stations shall be provided for garbage and trash removal when indoor collection is not provided. Collection stations shall be screened from view and landscaped.
Response: A trash enclosure will not be utilized on this site.

28. 105-52 Buffer yards are required between land development and along existing streets to soften visual impact, to screen glare, and to create a visual barrier between conflicting land uses. All landscaping plans are subject to review and approval of the Shade Tree Commission.
Response: We request a waiver from this requirement due to the size and configuration of the lot. The proposed Landscape Plan was approved by the Shade Tree Commission at their July 5, 2022 meeting.

29. 105-52(B)(2) This section of the ordinance requires that all buffers shall have a minimum width of 50 feet. The Board of Supervisors may permit an alternative planting option which shall have a screening capability equal to or greater than any of the available options. The applicant should provide evidence in sufficient detail to the Board of Supervisors in order to demonstrate that sufficient screening will be provided
Response: We request a waiver from this requirement due to the size and configuration of the lot. The existing buildings prevent buffers along the side yards and zoning relief has already been granted to have the rear parking +/- 3.8 feet from the property line. The existing hedgerow buffer along the rear property line will remain.

30. 105-53(D) This section of the ordinance requires the dedication of land in the amount of 10% of the total Site Area for Park and/or Recreational use. The applicant has the option of offering a fee in lieu of dedicating actual land area and can also provide a combination of a fee in lieu and dedication of land. All offers of land and/or fees in lieu of dedication must meet the requirements of this section of the ordinance
Response: The applicant agrees to pay the fee in lieu of dedicating site area for recreational use.

31. 105-56.1(B)(A) The applicant shall submit architectural drawings for evaluation of the proposed principal building expansion, including building elevation and colored renderings.
Response: We have included the architect's HARB presentation which shows the proposed building elevations and materials with this submission.

32. 105-56.1(E)(2)(a) A waiver from the requirements of this section of the ordinance must be obtained to allow the surface parking lot to occupy more than 1/4 of the parcel's frontage along a pedestrian-oriented street or street segment.
Response: We request a waiver to allow parking to occupy approximately 50% of the frontage due to the existing lot configuration and shallowness of the property.

33. 105-56.1(G)(1) The plans must be revised in order to demonstrate compliance with the requirements of this section of the ordinance, which requires that sidewalks shall be provided along all street lines and primary accessways and shall be six feet in width and of material compatible with surrounding area. Materials other than concrete are encouraged (i.e., unit pavers, etc.), provided all such materials are ADA compliant.
Response: We have widened the proposed sidewalk to be 6 feet along E. Germantown Pike.

34. 105-56.1(G)(2) The plans must be revised in order to demonstrate compliance with the requirements of this section of the ordinance, which requires that all driveways shall have concrete aprons to continue the sidewalks across the driveway or nondedicated street onto a property.
Response: We have revised the driveway apron to show a concrete apron continuing the proposed sidewalk.

35. 105-56.1(I) The plans must be revised in order to demonstrate compliance with the requirements of this section of the ordinance, which requires that all VC subdistricts shall contain street lighting poles and fixtures as approved by the Board of Supervisors.
Response: We request a waiver from this requirement. The location of the existing buildings limit the ability to install street lighting. There are no other street lights in this area and the nearest sidewalk to the east is over 300 feet away, so street lighting would serve no purpose along this frontage.

36. 105-56.1(J)(1) Existing trees with a caliper of 16 inches or more shall not be removed unless they are each replaced by at least five trees, each with a caliper of at least four inches. The Landscape Requirements table must be revised to provide for the replacement of an existing 17" caliper tree which is proposed to be removed.
Response: We have revised the Tree Replacement Calculations and Landscape Schedule on the Landscape Plan (Sheet C6.0). The proposed tree replacement calculations and Landscape Plan were approved by the Shade Tree Commission at their July 5, 2022 meeting.

37. 105-56.1(J)(2) When any proposed mixed use or nonresidential development abuts a residential use, a screen buffer, as required in the Subdivision and Land Development Code, § 105-52, shall be provided. In addition, there shall be a solid six-foot-tall fence with a mixture of evergreen landscaping outside the fence to create a solid visual barrier that will grow to 12 feet high within three years.
Response: We request a waiver from this requirement due to the size and configuration of the lot. Zoning relief has already been granted to have the rear parking +/- 3.8 feet from the property line which allows no room for the installation of a fence and evergreens in this area. The existing fence and hedgerow buffer along the rear property line will remain.

38. 105-56.1(J)(5) A planting strip that is four feet wide shall be placed between the edge of the cartway and edge of sidewalk. The plans must be revised or a waiver must be obtained.
Response: We request a waiver from having a 4 foot-wide planting strip between the edge of cartway and the sidewalk. The proposed sidewalk matches the existing sidewalk, which does not have an existing planting strip. The proposed street trees will be planted on the property side of the sidewalk.

39. 105-76(B) Appropriately spaced fire hydrants for fire-fighting purposes must be provided pursuant to the specifications of the Middle Department Association of Fire Underwriters Review, and approval by the Township Engineer and the Township Fire Marshal is required in order to ensure that adequate fire protection is provided. The applicant must obtain a letter of approval from the Township Fire Marshal.
Response: Will comply.

40. 105-81 All electric, telephone and communication service facilities, both main and service lines, shall be provided by underground cables, installed in accordance with the prevailing standards and practices of the utility and other companies providing such service
Response: We are showing the approximate location of the sanitary lateral. Please, refer to the utility sheet (C4.0) to see a call out of approximate location.

41. 105-83(E) No removal of a tree or trees shall be permitted unless the applicant obtains a recommendation from the Shade Tree Commission based on a tree survey and removal plan submitted as part of a landscape plan in accordance with the Whitemarsh Township Code, Chapter 55, § 55-4, Tree protection and preservation.
Response: The proposed trees to be removed, tree replacement calculations, and Landscape Plan were approved by the Shade Tree Commission at their July 5, 2022 meeting.

42. 105-89 The developer shall enter into a written agreement with the Township in the manner and form approved by the Solicitor wherein the developer shall agree, to construct or cause to be constructed at his own expense all proposed improvements shown on the

approved land development plan, all in strict accordance with the standards and specifications of the Township and within the time specified in said agreement, and to deposit with the Township financial security in an amount sufficient to cover the cost of all subdivision or land development improvements, including both public and private improvements.
Response: Will comply.

CHAPTER 55 - TREE PROTECTION STANDARDS

43. 55-4(A) The tree survey plan shall be reviewed by the Shade Tree Commission in a public meeting.
Response: The proposed Landscape Plan were approved by the Shade Tree Commission at their July 5, 2022 meeting.

44. 55-4(A)(6) Any tree lost or destroyed within the past five years must be shown on the Tree Survey Plan as a "Removed Tree" and must be replaced as part of the proposed project.
Response: We have labeled the existing trees on the Existing Features/Demolition Plan (Sheet C2.0).

45. 55-4(B)(1) The plans must be revised to include provisions for tree protection to preserve healthy trees and shrubs on site in accordance with this section of the ordinance. A note must be added to the plans requiring protective fencing to be placed around trees on the property prior to construction. Protective fencing must be shown on the plans in the areas where it will be required, and a tree protection fence detail must be provided.
Response: We have added the note to provide tree protection fencing prior to construction under the Demolition Notes (Note 16) on the Existing Features/Demolition Plan (Sheet C2.0).

46. 55-4(B)(2) A note must be added to the plans requiring a pre-construction conference with the Township Shade Tree Commission prior to the start of construction.
Response: We have added the note to provide tree protection fencing prior to construction under the Demolition Notes (Note 17) on the Existing Features/Demolition Plan (Sheet C2.0).

47. 55-4(B)(6)(a) This section of the ordinance requires that every tree determined to be living and healthy, with a DBH of 6 inches or greater and which is designated to be removed or which is destroyed, shall be replaced with one or more new shade trees of a type approved by the Township with a trunk diameter of not less than 3 inches in caliper. The total caliper of replacement trees, measured at 6 inches above the ground line, shall equal or exceed the DBH of the tree removed. The plans appear to show at least 3 trees with a total of 40 caliper inches as proposed to be removed.
Response: The proposed tree replacement calculations and Landscape Plan were approved by the Shade Tree Commission at their July 5, 2022 meeting.

48. 55-4(B)(6)(c) Replacement trees shall be planted in addition to the trees required by planting requirements otherwise set forth in the Subdivision and Land Development Code. The planting schedule must be revised accordingly.
Response: The proposed tree replacement calculations and Landscape Plan were approved by the Shade Tree Commission at their July 5, 2022 meeting.

GRADING, EROSION CONTROL, STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES ORDINANCE:

49. 58-4(B)(2)(k) The grading plan appears to show two contour lines representing an elevation of 183 adjacent the access drive, which must be revised.
Response: We have revised the grading for the 183 contour on the Grading Plan (Sheet C4.0).

50. 58-8(B) Stormwater facilities shall be accessible to permit periodic maintenance and an access easement shall be provided to permit such access. The following blanket stormwater easement note, must be added to the Record Plan:

    'Stormwater facilities shall be owned and maintained by the property owner in perpetuity. The property owner shall provide a blanket stormwater access easement to the Township for the purpose of access to the stormwater facilities. If, in the judgment of the Township Engineer, the owner has failed to maintain the stormwater facilities in such a manner as to ensure their proper functioning, the Township after providing a written notice, shall have the right to enter upon the lands of the owner and to make any repairs as may be necessary to the stormwater facilities to ensure that such facilities function and perform in accordance with the design specifications. Any and all costs incurred by the Township for such repairs and/or maintenance shall be paid in full by the owner. A lien or liens may be placed against the property if the owner fails to remit payment within sixty (60) days.'
Response: We have added the note to the PCSM Plan (Sheet C9.0).

51. 58-11(G)(3) An as-built survey of all stormwater BMPs must be submitted to the Township in paper and digital (dwg) formats. A note must be added to the plans stating an as-built survey will be completed and submitted in both formats to the Township.
Response: We have added the note on the PCSM Plan (Sheet C9.0).

52. 58-11(H)(1) The property owner shall sign an operations and maintenance agreement with the Township addressing stormwater BMPs that are to be privately owned.
Response: Will comply.

RESOLUTION 2004-8:

53. II(C)(1) All earth disturbance activities shall limit the rate of stormwater runoff so that no greater runoff is permitted from any point on the site than that of the site at its maximum

development potential in its natural condition of the same frequency storm, except where deemed necessary by the Township Engineer. Where farm, field, or disturbed earth is the existing condition, meadow shall be used as the starting basis for such calculations, regardless of the actual conditions.
Response: We have revised the calculations to have meadow cover conditions in the in the pre-development. See the Section 3 of the PCSM Report.

54. II(C)(8)(a), II(F)(3)(d)(4)[d] Whenever an infiltration BMP or a stormwater basin is suspected of being located in an area underlain by limestone, a geological evaluation of the proposed location shall be conducted by a Registered Professional Engineer experienced in geotechnical and soil engineering to determine susceptibility to sinkhole formations.
Response: We have added Karst Soil Notes to the Site Plan (Sheet C4.0) and the Construction Improvements Plan (Sheet C9.0). We have added a Sinkhole detail to the PCSM Detail Sheet (Sheet C9.1).

55. II(C)(8)(d) The following note shall be attached to all drainage plans and signed and sealed by the applicant's Registered Professional Engineer experienced in geotechnical and soil engineering: "I certify that the proposed facility is/is not underlain by limestone."
Response: We have added Karst Soil Notes to the Site Plan (Sheet C4.0) and the Construction Improvements Plan (Sheet C9.0).

56. II(D)(8) The proposed emergency overflow outlet is set higher than all other inlets in the system and must be revised to be set lower than elevation 178.00 in order to prevent ponding in the parking area, and to allow for emergency overflow.
Response: We have revised the elevation of the emergency overflow outlet to be less than 178.00. See the Utility Plan (Sheet C5.0).

57. II(F)(3)(d)(4)[e][7] The applicant should request relief from the requirements of this section of the ordinance, which states that Infiltration rates shall not be used in computing the storage volume of the infiltration system. Any relief granted should be conditioned that the applicant's engineer provide evidence in sufficient detail to demonstrate the proposed underground basin's ability to handle back to back storms.
Response: We request a waiver from this requirement to include infiltration in our design. Since we are proposing a no-release system, the BMP is designed to hold the 100-year storm. The size of the system provides additional volume and modeling infiltration will help minimize the size of the BMP, which is already designed to hold the 100-year storm.

58. II(F)(3)(d)(4)[g] Any infiltration BMP shall be capable of completely infiltrating the impounded water within 96 hours. The applicant should verify the required infiltration is provided by the use of onsite perc tests at the proposed seepage pit locations.
Response: We request a waiver from this requirement because we are using a subsurface system that is designed to hold up to and including the 100-year storm. This subsurface system does not present the same concerns that still water does in above ground BMP

facilities. The subsurface system will dewater in 7 days, which is within DEP standards. The design will utilize an emergency overflow inlet in the case of back to storm events.

ADDITIONAL COMMENTS:

59. The plans show features (shed and fencing) which appear to be located outside of the boundary lines of the subject property. The plans cannot be approved until all structures and/or uses for the lot(s) are located entirely within the property boundaries or easements or some other agreement is established to permit the encroachments
Response: The property owner will remove or relocate the fence and the shed during construction.

If you have any questions or need additional information, please contact me at (610) 265-8323 or via email at jbannon@navenewell.net.

Respectfully submitted,

James P. Bannon, Jr., PE
Civil Department Manager

JPB/jih

Enclosures

cc via email: Rosemarie Soto | Ashford Wealth Advisors

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PRELIMINARY / FINAL
LAND DEVELOPMENT PLANS
FOR

Ashford Wealth Advisors

SITUATED IN
WHITEMARSH TOWNSHIP,
MONTGOMERY COUNTY, PENNSYLVANIA

APPLICANT
ASHFORD CONSULTING, LLC AND ASHFORD WEALTH ADVISORS, LLC
5 E. GERMANTOWN PIKE
PLYMOUTH MEETING, PA 19462
ATTN: ARI FRAZER OR ROSIE SOTO
610-943-3113

ENGINEER / SURVEYOR / LANDSCAPE ARCHITECT
NAVE NEWELL, INC.
900 WEST VALLEY ROAD
SUITE 1100
WAYNE, PENNSYLVANIA 19087
ATTN: JAMES P. BANNON, PE (LICENSE NO. PE082137)
610-265-8323

WHITEMARSH BOARD OF SUPERVISORS:

THIS PLAN WAS APPROVED BY THE BOARD OF SUPERVISORS OF WHITEMARSH TOWNSHIP AT A MEETING HELD ON THE_____DAY OF_____, 20___.

_____ _____
(CHAIRMAN) *(SECRETARY)*

WHITEMARSH TOWNSHIP ENGINEER:

_____
(ENGINEER) *(DATE)*

MONTGOMERY COUNTY PLANNING COMMISSION CERTIFICATION:

THIS PLAN WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON _____ _____, MCPC FILE NUMBER_____.

_____
(DIRECTOR)

CERTIFICATE OF OWNERSHIP AND ACKNOWLEDGEMENT OF PLAN

ON THIS, THE_____DAY OF _____, 20___, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____

_____,
(NAME OF OWNER)
WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE IS THE _____ OF_____, THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN, AND THAT HE ACKNOWLEDGES THE SAME TO BE HIS ACT AND PLAN AND DESIRES THE SAME BE RECORDED AS SUCH ACCORDING TO LAW.

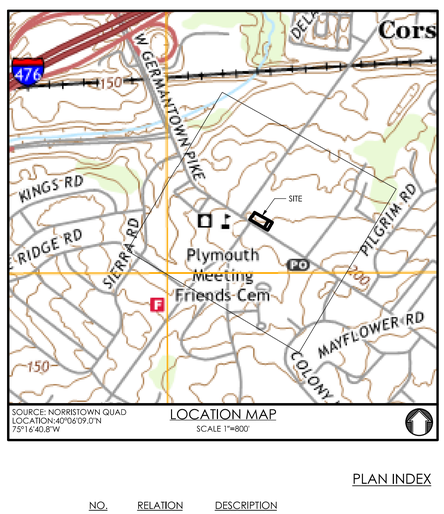
WITNESS MY HAND AND SEAL THE DAY AND DATE ABOVE WRITTEN.

MY COMMISSION EXPIRES:

_____ _____
(NOTARY PUBLIC OR OTHER OFFICER)

I,_____,CERTIFY THAT I AM THE _____ OF_____, THE OWNER OF THE LAND HEREIN SUBDIVIDED (OR DEVELOPED), AND THAT I DO HEREBY ADOPT THIS PLAN AND DESIRE THE SAME TO BE RECORDED.

_____
(OWNER)



SOURCE: NORRISTOWN QUAD
LOCATION:40°06'09.0"N
75°16'40.8"W

LOCATION MAP
SCALE 1"=800'



AERIAL MAP
SCALE 1"=500'

PLAN INDEX

NO.	RELATION	DESCRIPTION	START DATE	REVISION DATE
C1.0	1 OF 13	TITLE SHEET	JANUARY 27, 2022	AUGUST 8, 2022
C2.0	2 OF 13	EXISTING FEATURES/DEMOLITION PLAN	JANUARY 27, 2022	AUGUST 8, 2022
C3.0	3 OF 13	SITE PLAN	JANUARY 27, 2022	AUGUST 8, 2022
C4.0	4 OF 13	GRADING PLAN	JANUARY 27, 2022	AUGUST 8, 2022
C5.0	5 OF 13	UTILITY PLAN	JANUARY 27, 2022	AUGUST 8, 2022
C6.0	6 OF 13	LANDSCAPE PLAN	JANUARY 27, 2022	AUGUST 8, 2022
C7.0	7 OF 13	LIGHTING PLAN	JANUARY 27, 2022	AUGUST 8, 2022
C8.0	8 OF 13	EROSION & SEDIMENTATION CONTROL PLAN	JANUARY 27, 2022	AUGUST 8, 2022
C8.1	9 OF 13	EROSION & SEDIMENTATION DETAIL SHEET	JANUARY 27, 2022	AUGUST 8, 2022
C9.0	10 OF 13	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	JANUARY 27, 2022	AUGUST 8, 2022
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C10.0	12 OF 13	CONSTRUCTION DETAIL SHEET	JANUARY 27, 2022	AUGUST 8, 2022
C11.0	13 OF 13	EXISTING RESOURCES & SITE ANALYSIS PLAN (ERSAP)	AUGUST 8, 2022	--

WAIVER REQUESTS:

WAIVERS BEING REQUESTED FOR APPROVAL BY THE BOARD OF SUPERVISORS

SUBMISSION
1. CH. 105.12(D) OF SALDO TO ALLOW THE PLANS TO BE REVIEWED AND APPROVED SIMULTANEOUSLY AS BOTH PRELIMINARY AND FINAL PLANS, RATHER THAN REQUIRING SEPARATE PRELIMINARY AND FINAL PLAN SUBMISSIONS.

STREET STANDARDS
2. 105-30 / 105-56.1(J)(5): WE REQUEST A WAIVER FROM HAVING A 4'-WIDE PLANTING STRIP BETWEEN THE EDGE OF CARTWAY AND THE SIDEWALK. THE PROPOSED SIDEWALK MATCHES THE EXISTING SIDEWALK, WHICH DOES NOT HAVE AN EXISTING PLANTING STRIP. THE PROPOSED STREET TREES WILL BE PLANTED ON THE PROPERTY SIDE OF THE SIDEWALK.

OFF-STREET PARKING FACILITIES
3. 105-38 (C): CURVES/TURNS IN ENTRANCE AND EXIT DRIVES AND INTERNAL PARKING LOT AISLES SHALL HAVE A MINIMUM INSIDE TURNING RADIUS OF 25' AND OUTSIDE TURNING RADIUS OF 50'. WE REQUEST A WAIVER FROM THIS REQUIREMENT DUE TO THE SIZE AND CONFIGURATION OF THE LOT. THE PROPOSED DRIVEWAY WILL HAVE A SIMILAR LAYOUT AND LOCATION TO THE EXISTING DRIVEWAY. THE DRIVE AISLES HAVE BEEN DESIGNED TO THE REQUIRED WIDTH BUT THESE MINIMUM TURNING RADII ARE INFEASIBLE. WE WILL COORDINATE WITH THE TOWNSHIP FIRE MARSHAL TO ENSURE THE PARKING LAYOUT IS SATISFACTORY.

4. 105-38 (H) - ALL PARKING AREAS SHALL BE SET BACK FROM THE RIGHT-OF-WAY LINE AND ALL PROPERTY LINES AT LEAST 15 FEET: WE REQUEST A WAIVER FROM THIS REQUIREMENT DUE TO THE SIZE AND CONFIGURATION OF THE LOT. THE PROPOSED PARKING SPACES ARE LOCATED FURTHER FROM GERMANTOWN PIKE THAN THE EXISTING AND ZONING RELIEF HAS ALREADY BEEN GRANTED TO HAVE THE REAR PARKING +/- 3.8 FEET FROM THE PROPERTY LINE, WHICH MATCHES THE EXISTING.

5. 105-38(V) - LIGHTING USED TO ILLUMINATE PARKING SPACE SHALL NOT DIRECT RAYS UPON ANY NEIGHBORING PROPERTY OR STREETS: WE REQUEST A WAIVER FROM THIS REQUIREMENT DUE TO THE SIZE AND CONFIGURATION OF THE LOT. WE ARE MINIMIZING LIGHT TRESPASS TO THE EXTENT PRACTICAL BUT, IN ORDER TO ADEQUATELY LIGHT THE PARKING CONFIGURATION THAT HAS ALREADY RECEIVED THE NECESSARY ZONING RELIEF, SOME LIGHT TRESPASS IN UNAVOIDABLE.

STREET TREES
6. 105-48: WE REQUEST A WAIVER FROM THIS SECTION TO ALLOW THE NUMBER AND LOCATION OF STREET TREES AS SHOWN ON THE LANDSCAPE PLAN DUE TO THE TWO EXISTING BUILDINGS WHICH LIMIT THE VIABLE AREA FOR STREET TREES. THE PROPOSED STREET TREE PLANTINGS ARE SUBJECT TO SHADE TREE COMMISSION APPROVAL.

BUFFER YARDS
7. 105-52.1(B)(2) BUFFERS SHALL HAVE A MINIMUM WIDTH OF 50 FEET: WE REQUEST A WAIVER FROM THIS REQUIREMENT DUE TO THE SIZE AND CONFIGURATION OF THE LOT. THE EXISTING BUILDINGS PREVENT BUFFERS ALONG THE SIDE YARDS AND ZONING RELIEF HAS ALREADY BEEN GRANTED TO HAVE THE REAR PARKING +/- 3.8 FEET FROM THE PROPERTY LINE. THE EXISTING HEDGEROW BUFFER ALONG THE REAR PROPERTY LINE WILL REMAIN.

ADDITIONAL DESIGN STANDARDS FOR VC-1 AND VC-2 VILLAGE COMMERCIAL DISTRICT
8. 105-56.1(E)(2)(A) - SURFACE PARKING LOTS SHALL NOT OCCUPY MORE THAN 1/4 OF THE PARCEL'S FRONTAGE: WE REQUEST A WAIVER TO ALLOW PARKING TO OCCUPY APPROXIMATELY 50% OF THE FRONTAGE DUE TO THE EXISTING LOT CONFIGURATION AND SHALLOWNESS OF THE PROPERTY.

9. 105-56.1(I) VC SUBDISTRICTS SHALL HAVE STREET LIGHTING: WE REQUEST A WAIVER FROM THIS REQUIREMENT, THE LOCATION OF THE EXISTING BUILDINGS LIMIT THE ABILITY TO INSTALL STREET LIGHTING. THERE ARE NO OTHER STREET LIGHTS IN THIS AREA AND THE NEAREST SIDEWALK TO THE EAST IS OVER 300' AWAY, SO STREET LIGHTING WOULD SERVE NO PURPOSE ALONG THIS FRONTAGE.

10. 105-56.1 (J)(2) SOLID SIX FOOT TALL FENCE AND EVERGREENS IN BUFFERS: WE REQUEST A WAIVER FROM THIS REQUIREMENT DUE TO THE SIZE AND CONFIGURATION OF THE LOT. ZONING RELIEF HAS ALREADY BEEN GRANTED TO HAVE THE REAR PARKING +/- 3.8 FEET FROM THE PROPERTY LINE WHICH ALLOWS NO ROOM FOR THE INSTALLATION OF A FENCE AND EVERGREENS IN THIS AREA. THE EXISTING FENCE AND HEDGEROW BUFFER ALONG THE REAR PROPERTY LINE WILL REMAIN.

RESOLUTION 2004-8: GRADING, EROSION CONTROL, STORMWATER MANAGEMENT, AND BEST MANAGEMENT PRACTICES
11. II(D)(2) THE TOP OF ANY SLOPE SHALL BE LOCATED A MINIMUM OF FIVE (5) FEET FROM PROPERTY LINE: WE REQUEST A WAIVER FROM THIS REQUIREMENT BECAUSE WE RECEIVED ZONING RELIEF THAT PERMITS PARKING LESS THAN FIVE FEET AWAY FROM THE PROPERTY LINE. THE EXISTING BUILDING ON THE EAST OF THE PROPERTY IS ALSO LESS THAN FIVE FEET AWAY FROM THE PROPERTY LINE.

12. II(E)(2)(G)(IV) - STORM DRAINAGE PIPES SHALL BE AT LEAST 18 INCHES AND RCP: WE REQUEST A WAIVER FROM THIS REQUIREMENT TO USE A TWELVE INCH HDPE PIPE THE LARGEST PIPE SIZE THE PROPOSED STORMWATER SYSTEM CAN ACCOMMODATE IS A TWELVE INCH PIPE.

13. II(F)(3)(D)(4)[E][7] INFILTRATION RATES SHALL NOT BE USED IN COMPUTING THE STORAGE VOLUME OF THE INFILTRATION SYSTEM: WE REQUEST A WAIVER FROM THIS REQUIREMENT TO INCLUDE INFILTRATION IN OUR DESIGN. SINCE WE ARE PROPOSING A NO-RELEASE SYSTEM, THE BMP IS DESIGNED TO HOLD THE 100-YEAR STORM, THE SIZE OF THE SYSTEM PROVIDES ADDITIONAL VOLUME AND MODELING INFILTRATION WILL HELP MINIMIZE THE SIZE OF THE BMP, WHICH IS ALREADY DESIGNED TO HOLD THE 100-YEAR STORM.

14. II(F)(3)(D)(4)[G] - INFILTRATION BMPS SHALL BE CAPABLE OF COMPLETELY INFILTRATING THE IMPOUNDED WATER WITHIN 96 HOURS: WE REQUEST A WAIVER FROM THIS REQUIREMENT BECAUSE WE ARE USING A SUBSURFACE SYSTEM THAT IS DESIGNED TO HOLD UP TO AND INCLUDING THE 100-YEAR STORM. THIS SUBSURFACE SYSTEM DOES NOT PRESENT THE SAME CONCERNS THAT STILL WATER DOES IN ABOVE GROUND BMP FACILITIES. THE SUBSURFACE SYSTEM WILL DEWATER IN 7 DAYS, WHICH IS WITHIN DEP STANDARDS. THE DESIGN WILL UTILIZE AN EMERGENCY OVERFLOW INLET IN THE CASE OF BACK TO STORM EVENTS.

15. II(F)(3)(D)(4)[E][7] INFILTRATION RATES SHALL NOT BE USED IN COMPUTING THE STORAGE VOLUME OF THE INFILTRATION SYSTEM: WE REQUEST A WAIVER FROM THIS BECAUSE WE WILL BE UTILIZING A NO-RELEASE SYSTEM. THE RATES WERE MODELED IN THE ROUTING OF THE SYSTEM TO CUT DOWN ON THE SIZE OF THE PROPOSED SYSTEM.

ZONING HEARING BOARD DECISION NO. 2019-39, ISSUED JANUARY 13, 2020

AS PART OF THE PROPOSED PROJECT, APPLICANT HAS RECEIVED RELIEF:

1. SECTION 116-24.D.(3): A VARIANCE TO ALLOW MORE THAN 30% OF THE AREA OF THE REQUIRED REAR YARD BE COVERED WITH ACCESSORY USES AND STRUCTURES (41.5% OF AREA BETWEEN REAR LOT LINE AND BUILDING USED FOR PROPOSED PARKING AREA).
2. SECTION 116-184.D.(5): A VARIANCE TO ALLOW 24 PARKING SPACES IN PLACE OF THE REQUIRED 28.
3. SECTION 116-291.A.(7)(a)(4): A VARIANCE TO ALLOW LESS THAN 50% OF THE REQUIRED PARKING TO BE LOCATED BETWEEN THE REAR LOT LINE AND REAR PRINCIPAL BUILDING PLANE.
4. SECTION 116-291.C: A VARIANCE TO ELIMINATE THE BUFFER EQUAL TO THE WIDTH OF THE REQUIRED SETBACKS.
5. SECTION 116-294., #6.B.&9: A VARIANCE TO ALLOW A MAXIMUM OF 66.8% IMPERVIOUS COVERAGE ON LOT 1 AND A MIMIMUM OF 33.2% VEGETATED OPEN SPACE ON LOT 1. ALSO, THE APPLICANT REQUESTS A VARIANCE TO ALLOW 34.4% BUILDING COVERAGE ON LOT 2. A SPECIAL EXEMPTION WAS GRANTED FROM SECTION 116-185 TO PERMIT PARKING ON AN ADJACENT LOT.
6. SECTION 116-296.B: A VARIANCE TO ALLOW PARKING BE SETBACK 3.8 FEET ADJACENT TO RESIDENTIAL LOT.
7. SECTION 116-184.D.: IN THE ALTERNATE, IF THE SPECIAL EXCEPTION IS NOT GRANTED PER SECTION 116-185, THE APPLICANT REQUESTS A VARIANCE TO ALLOW PARKING TO BE LOCATED ON THE ADJACENT LOT.

THE DECISION IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. ALL USE AND DEVELOPMENT PERMITTED BY THIS DECISION SHALL SUBSTANTIALLY CONFORM TO THE EXHIBITS AND TESTIMONY PRESENTED BY THE APPLICANTS, UNLESS INCONSISTENT WITH ANY SPECIFIC CONDITIONS IMPOSED BY THIS BOARD, IN WHICH CASE THESE SPECIFIC CONSITIONS SHALL TAKE PRECEDENCE.
2. THE APPLICANT SHALL APPLY FOR AND OBTAIN ALL PERMITS REQUIRED BY THE TOWNSHIP CODES IN A TIMELY MANNER.
3. THE APPLICANTS SHALL COMPLY WITH ALL REQUIREMENTS OF THE TOWNSHIP UNDER THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AS WELL AS THE GRADING, EROSION CONTROL, STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES ORDINANCE, UNLESS WAIVED BY THE BOARD OF SUPERVISIORS.
4. THE APPLICANTS SHALL COMPLY WITH THE REQUIREMENTS OF THE TOWNSHIP WITH RESPECT TO RECORDING A WRITTEN AGREEMENT MEMORIALIZING THE SHARED PARKING AGREEMENT.
5. THE APPLICANTS SHALL PROVIDE A SCREENING BUFFER ALONG THE REAR PROPERTY LINE, TO THE SATISFACTION OF THE TOWNSHIP.
6. THE APPLICANTS SHALL COMPLY WITH ALL REQUIREMENTS OF THE BOARD OF SUPERVISORS WITH RESPECT TO ISSUANCE OF CERTIFICATE OF APPROPRIATENESS UPON THE RECOMMENDATION OF THE HISTORICAL ARCHITECTURAL REVIEW BOARD.

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REVISIONS

date:	no.	description	ck'd	by
6/8/22	1	REVISED PER TOWNSHIP COMMENTS DATED 3/31/22	JPB	CW

SEAL:

COMMONWEALTH OF PENNSYLVANIA
JAMES P. BANNON
ENGINEER
No. PE082137
PROFESSIONAL

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: TITLE SHEET

Ashford Wealth Advisors
5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
AS NOTED	JPB

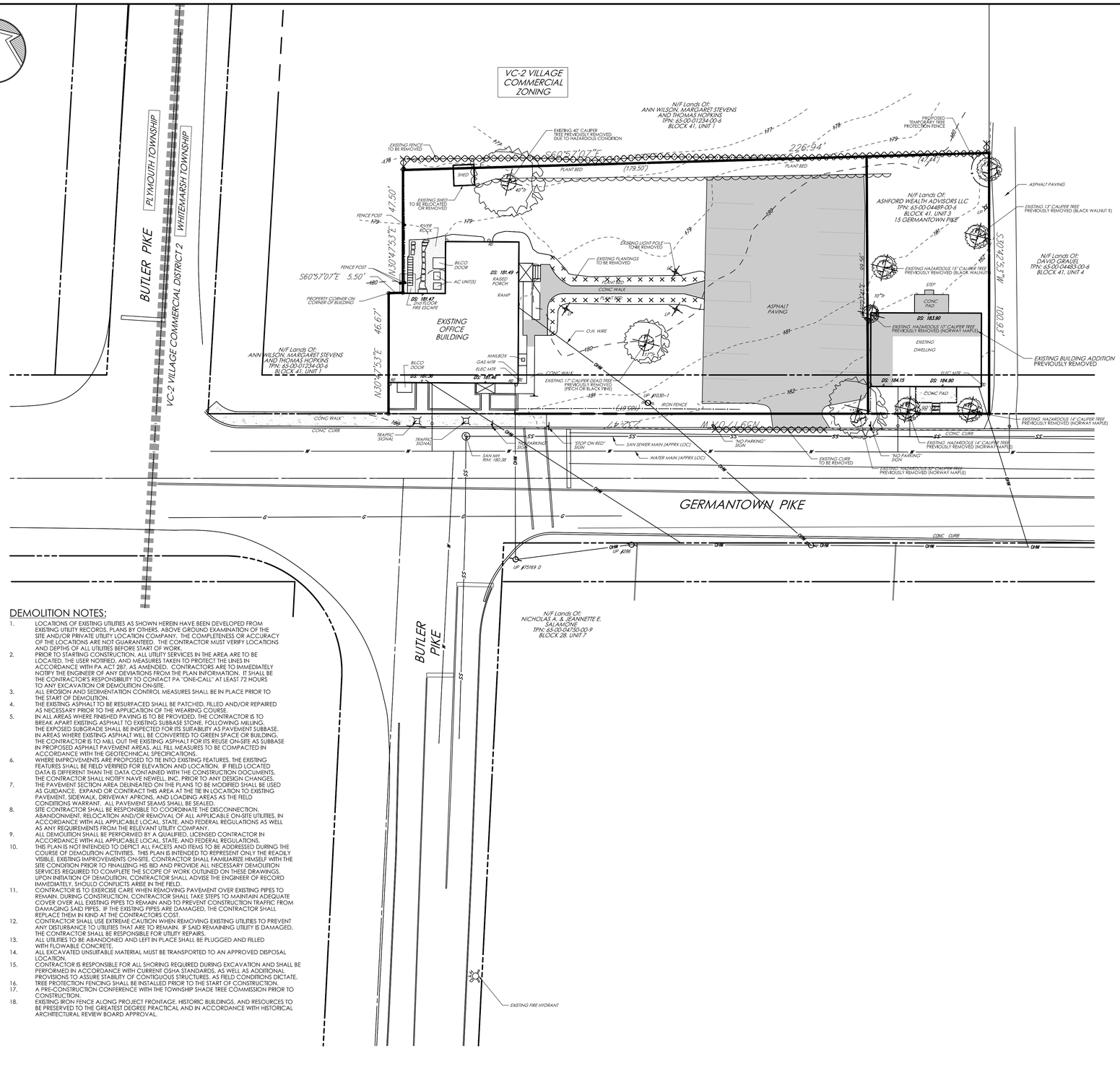
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DEMOLITION NOTES:

1. LOCATIONS OF EXISTING UTILITIES AS SHOWN HEREIN HAVE BEEN DEVELOPED FROM EXISTING UTILITY RECORDS, PLANS BY OTHERS, ABOVE GROUND EXAMINATION OF THE SITE AND/OR PRIVATE UTILITY LOCATION COMPANY. THE COMPLETENESS OR ACCURACY OF THE LOCATIONS ARE NOT GUARANTEED. THE CONTRACTOR MUST VERIFY LOCATIONS AND DEPTHS OF ALL UTILITIES BEFORE START OF WORK.
2. PRIOR TO STARTING CONSTRUCTION, ALL UTILITY SERVICES IN THE AREA ARE TO BE LOCATED, THE USER NOTIFIED, AND MEASURES TAKEN TO PROTECT THE LINES IN ACCORDANCE WITH PA ACT 287, AS AMENDED. CONTRACTORS ARE TO IMMEDIATELY NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE PLAN INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT PA "ONE-CALL" AT LEAST 72 HOURS TO ANY EXCAVATION OR DEMOLITION ON-SITE.
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE START OF DEMOLITION.
4. THE EXISTING ASPHALT TO BE RESURFACED SHALL BE PATCHED, FILLED AND/OR REPAIRED AS NECESSARY PRIOR TO THE APPLICATION OF THE WEARING COURSE.
5. IN ALL AREAS WHERE FINISHED PAVING IS TO BE PROVIDED, THE CONTRACTOR IS TO BREAK APART EXISTING ASPHALT TO EXISTING SUBBASE STONE. FOLLOWING MILLING, THE EXPOSED SUBGRADE SHALL BE INSPECTED FOR ITS SUITABILITY AS PAVEMENT SUBBASE. IN AREAS WHERE EXISTING ASPHALT WILL BE CONVERTED TO GREEN SPACE OR BUILDING, THE CONTRACTOR IS TO MILL OUT THE EXISTING ASPHALT FOR ITS REUSE ON-SITE AS SUBBASE IN PROPOSED ASPHALT PAVEMENT AREAS. ALL FILL MEASURES TO BE COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL SPECIFICATIONS.
6. WHERE IMPROVEMENTS ARE PROPOSED TO TIE INTO EXISTING FEATURES, THE EXISTING FEATURES SHALL BE FIELD VERIFIED FOR ELEVATION AND LOCATION. IF FIELD LOCATED DATA IS DIFFERENT THAN THE DATA CONTAINED WITH THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL NOTIFY NAVE NEWELL, INC. PRIOR TO ANY DESIGN CHANGES.
7. THE PAVEMENT SECTION AREA DELINEATED ON THE PLANS TO BE MODIFIED SHALL BE USED AS GUIDANCE. EXPAND OR CONTRACT THIS AREA AT THE TIE IN LOCATION TO EXISTING PAVEMENT, SIDEWALK, DRIVEWAY APRONS, AND LOADING AREAS AS THE FIELD CONDITIONS WARRANT. ALL PAVEMENT SEAMS SHALL BE SEALED.
8. SITE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE DISCONNECTION, ABANDONMENT, RELOCATION AND/OR REMOVAL OF ALL APPLICABLE ON-SITE UTILITIES, IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AS WELL AS ANY REQUIREMENTS FROM THE RELEVANT UTILITY COMPANY.
9. ALL DEMOLITION SHALL BE PERFORMED BY A QUALIFIED, LICENSED CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
10. THIS PLAN IS NOT INTENDED TO DEPICT ALL FACETS AND ITEMS TO BE ADDRESSED DURING THE COURSE OF DEMOLITION ACTIVITIES. THIS PLAN IS INTENDED TO REPRESENT ONLY THE READILY VISIBLE, EXISTING IMPROVEMENTS ON-SITE. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE CONDITION PRIOR TO FINALIZING HIS BID AND PROVIDE ALL NECESSARY DEMOLITION SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK OUTLINED ON THESE DRAWINGS. UPON INITIATION OF DEMOLITION, CONTRACTOR SHALL ADVISE THE ENGINEER OF RECORD IMMEDIATELY, SHOULD CONFLICTS ARISE IN THE FIELD.
11. CONTRACTOR IS TO EXERCISE CARE WHEN REMOVING PAVEMENT OVER EXISTING PIPES TO REMAIN. DURING CONSTRUCTION, CONTRACTOR SHALL TAKE STEPS TO MAINTAIN ADEQUATE COVER OVER ALL EXISTING PIPES TO REMAIN AND TO PREVENT CONSTRUCTION TRAFFIC FROM DAMAGING SAID PIPES. IF THE EXISTING PIPES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM IN KIND AT THE CONTRACTORS COST.
12. CONTRACTOR SHALL USE EXTREME CAUTION WHEN REMOVING EXISTING UTILITIES TO PREVENT ANY DISTURBANCE TO UTILITIES THAT ARE TO REMAIN. IF SAID REMAINING UTILITY IS DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITY REPAIRS.
13. ALL UTILITIES TO BE ABANDONED AND LEFT IN PLACE SHALL BE PLUGGED AND FILLED WITH FLOWABLE CONCRETE.
14. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
15. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
16. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.
17. A PRE-CONSTRUCTION CONFERENCE WITH THE TOWNSHIP SHADE TREE COMMISSION PRIOR TO CONSTRUCTION.
18. EXISTING IRON FENCE ALONG PROJECT FRONTAGE, HISTORIC BUILDINGS, AND RESOURCES TO BE PRESERVED TO THE GREATEST DEGREE PRACTICAL AND IN ACCORDANCE WITH HISTORICAL ARCHITECTURAL REVIEW BOARD APPROVAL.

TREE REPLACEMENT CALCULATIONS

CALIPER REMOVED	NOTES	REQUIRED REPLACEMENT TREES @ 3" CALIPER
17"	DEEMED DEAD BY CONTRACTORS*	*
32"	DEEMED HAZARDOUS	N/A
14"	DEEMED HAZARDOUS	N/A
14"	DEEMED HAZARDOUS	N/A
10"	DEEMED HAZARDOUS	N/A
15"	DEEMED HAZARDOUS	N/A
13"	TO BE REPLACED	5
40"	DEEMED DEAD BY CONTRACTORS**	N/A

* PINE TREE DEEMED DEAD (SEE PHOTOS FOR CLARIFICATION)
** TREE DEEMED DEAD AND HAZARDOUS FROM STORM DAMAGE

LEGEND

PROPERTY LINE
EXISTING RIGHT-OF-WAY
TOWNSHIP LINE
ZONING LINE
EXISTING CURB
EXISTING BUILDING
EXISTING LIGHT POLE
EXISTING FENCE
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
EXISTING SANITARY SEWER WITH MANHOLE
EXISTING WATER SERVICE WITH VALVE
EXISTING GAS SERVICE WITH VALVE
EXISTING OVERHEAD ELECTRIC WIRE
EXISTING TREE
EXISTING IMPERVIOUS SURFACES TO BE REMOVED
EXISTING FEATURE TO BE REMOVED
EXISTING CURB/FENCE TO BE REMOVED

GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft

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date:	no.	description	ck'd	by
		REVISIONS		
6/15/22	1	REVISED PER SHADE TREE COMMISSION (6/8/2022)	JPB	GTW
8/8/22	2	REVISED TOWNSHIP COMMENTS DATED 3/31/22	JPB	

SEAL:
COMMONWEALTH OF PENNSYLVANIA
JAMES P. BANNON, JR.
REGISTERED PROFESSIONAL ENGINEER
No. PE082137

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: EXISTING FEATURES/DEMOLITION PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
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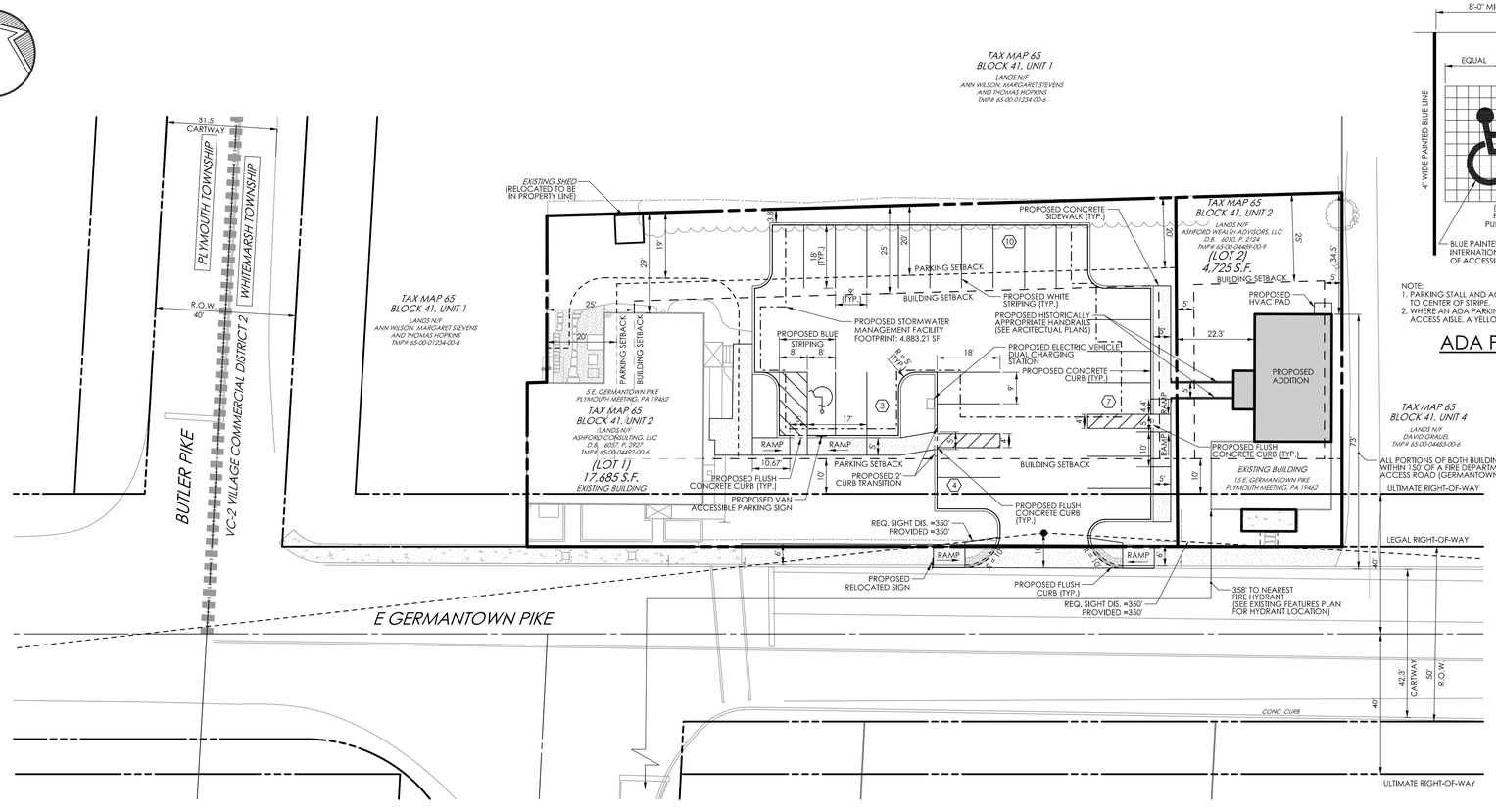
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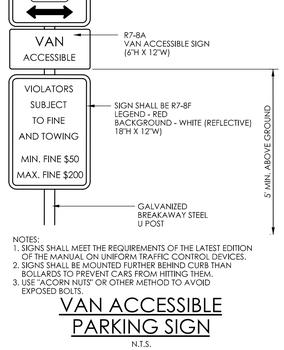
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SITE NOTES:

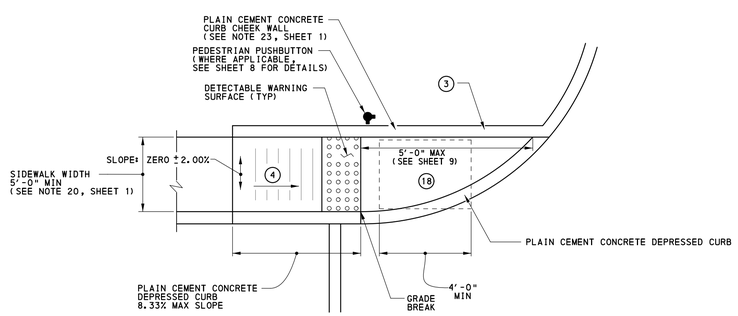
1. SEE ARCHITECTURAL DRAWINGS FOR DETAILED BUILDING, STRUCTURAL, ELECTRICAL, LIGHTING, ELEVATORS, STAIRWELLS AND SIDEWALK INFORMATION AND DETAILS, INCLUDING PAVEMENT FINISHES SHOWN AS ANYTHING OTHER THAN ASPHALT.
2. CONTRACTOR IS TO ENSURE THAT ALL ACCESSIBLE FACILITIES SHALL BE CONSTRUCTED IN CONFORMANCE WITH CURRENT ADA REQUIREMENTS.
3. ALL INTERNAL CURB IS TO BE 6" REVEAL. REFER TO DETAIL SHEET.
4. ALL INTERNAL CURB RADII IS TO BE 5' UNLESS OTHERWISE NOTED.
5. REFER TO THE CONSTRUCTION NOTES PROVIDED ON THE GRADING PLAN FOR ADDITIONAL NOTES. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERSEDE IN ALL CASES. NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IN WRITING.
6. CONTRACTOR TO MATCH EXISTING PAVEMENT, CURB, AND SIDEWALK ELEVATIONS/LOCATIONS WHERE THE PROPOSED IMPROVEMENTS TIE INTO EXISTING FEATURES.
7. ALL PORTIONS OF BOTH BUILDINGS ARE WITHIN 150' OF A FIRE DEPARTMENT ACCESS ROAD (GERMANTOWN PIKE).
8. FIRE HYDRANT LOCATION ON BUTLER PIKE 210' FROM 5 E. GERMANTOWN PIKE AND 358' FROM 15 E. GERMANTOWN PIKE.



NOTES:
1. SIGNS SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. SIGNS SHALL BE MOUNTED FURTHER BEHIND CURB THAN BOLLARDS TO PREVENT CARS FROM HITTING THEM.
3. USE "ACORN NUTS" OR OTHER METHOD TO AVOID EXPOSED BOLTS.

VAN ACCESSIBLE PARKING SIGN

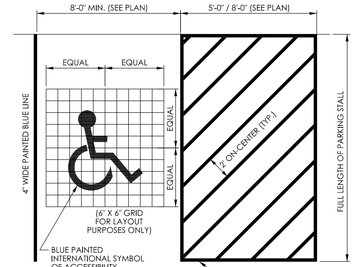
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TYPE 1A
CURB RAMP
ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF TURNING SPACE
IS NOT ENTIRELY ON SIDEWALK

N. T. S

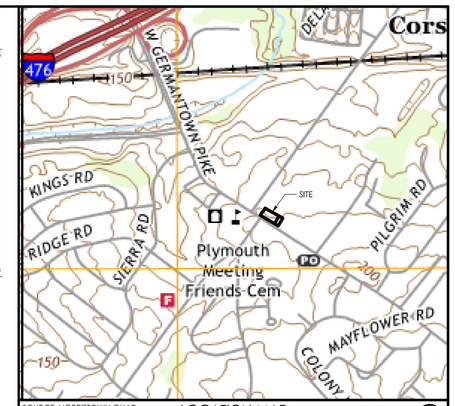
(3) OPTIONAL ROLLED CONCRETE SURFACE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF A RETURN CURB CHEEK WALL.
(4) 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.
(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.



NOTE:
1. PARKING STALL AND ACCESS AISLE WIDTHS SHALL BE MEASURED CENTER OF STRIPE TO CENTER OF STRIPE.
2. WHERE AN ADA PARKING STALL IS ADJACENT TO A STANDARD PARKING STALL OR ACCESS AISLE, A YELLOW STRIPE SHALL BE PAINTED NEXT TO THE BLUE STRIPE.

ADA PARKING STALL STRIPING

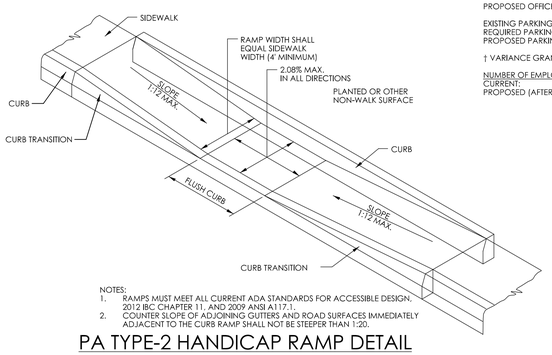
N.T.S.



SOURCE: NORRISTOWN QUAD
LOCATION: 40°06'09.0"N
75°16'40.8"W

LOCATION MAP

SCALE 1"=800'



NOTES:
1. RAMPS MUST MEET ALL CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN, 2012 IBC CHAPTER 11, AND 2009 ANSI A117.1.
2. COUNTER SLOPE OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20.

PA TYPE-2 HANDICAP RAMP DETAIL

N.T.S.

LOTS TO REMAIN SEPARATE

ZONING DATA TABLE

DISTRICT: VILLAGE COMMERCIAL - VC-2
USE: ASHFORD WEALTH ADVISORS - OFFICE

SITE INFORMATION LOT#1

SITE ADDRESS: 5 E GERMANTOWN PIKE
PLYMOUTH MEETING, PA. 19462

PARCEL INFORMATION: NO: 65-00-04492-00-6

SITE INFORMATION LOT#2

SITE ADDRESS: 15 E GERMANTOWN PIKE
PLYMOUTH MEETING, PA. 19462

PARCEL INFORMATION: NO: 65-00-04489-00-6

CLASSIFICATION	PERMITTED USE REQ'S	LOT #1 EXISTING LOT #1	LOT #1 PROPOSED LOT #1	LOT #2 EXISTING LOT #2	LOT #2 PROPOSED LOT #2
LOT AREA:		17,685 S.F.	17,685 S.F.	4,725 S.F.	4,725 S.F.
MAXIMUM BUILDING FOOTPRINT FOR PRE-1940 BUILDINGS WITH ADDITIONS:	8,000 SQUARE FEET	2,467 S.F.	2,467 S.F.	1,415 S.F.	1,626 S.F.
MAXIMUM BUILDING HEIGHT:	3 STORIES = 42 FEET	< 42 FEET	< 42 FEET	< 42 FEET	< 42 FEET
MAXIMUM BUILDING FRONT FACADE WIDTH:	75 FEET	50.2 FEET	50.2 FEET	42.7 FEET	42.7 FEET
MAXIMUM BUILDING COVERAGE:	30%	14.0%	14.0%	29.9%	34.4%†
MAXIMUM IMPERVIOUS:	60%**	50.0%	66.8%†	30.9%	36.6%
MINIMUM VEGETATED OPEN SPACE, TREES OR LANDSCAPING:	50%***	50.0%	33.2%†	69.1%	63.4%
MINIMUM LOT WIDTH AT SETBACK LINE:	100 FEET	185.4 FEET	185.4 FEET	46.9 FEET*	46.9 FEET*
MINIMUM STREET FRONTAGE:	50 FEET	185.4 FEET	185.4 FEET	46.9 FEET*	46.9 FEET*
MINIMUM BUILDING SEPARATION:	15 FEET	21.5 FEET	21.5 FEET	N/A	N/A
BUILDING SETBACKS:					
FRONT (FROM ULTIMATE R.O.W.):	10 FEET	0.0 FEET*	0.0 FEET*	0.0 FEET*	0.0 FEET*
SIDE:	5 FEET	0.0 FEET*	0.0 FEET*	1.0 FEET*	2.9 FEET*
REAR:	5 FEET	0.0 FEET*	0.0 FEET*	53.9 FEET	33.9 FEET
ADJACENT TO RESIDENTIAL:	25 FEET	0.0 FEET*	0.0 FEET*	53.9 FEET	33.9 FEET
PARKING SETBACKS:					
FRONT (FROM ULTIMATE R.O.W.):	10 FEET	0.0 FEET*	0.0 FEET*	0.0 FEET*	N/A
SIDE:	0 FEET	0.0 FEET	6.6 FEET	0.0 FEET	N/A
REAR:	0 FEET	3.8 FEET	3.8 FEET	62.6 FEET	N/A
FROM BUILDING:	10 FEET	1.0 FEET*	13.8 FEET	0.1 FEET*	N/A
ADJACENT TO RESIDENTIAL:	20 FEET	6.1 FEET*	3.8 FEET†	62.6 FEET	N/A

* EXISTING NON-CONFORMITY
** SECTION 116-294(#8) ALLOWS FOR A 60% MAXIMUM IMPERVIOUS WHEN SHARED PARKING IS UTILIZED.
*** SAID PERCENTAGES MAY BE REDUCED COMMENSURATE WITH ANY INCREASE IN IMPERVIOUS COVERAGE PERMITTED.
† VARIANCE GRANTED

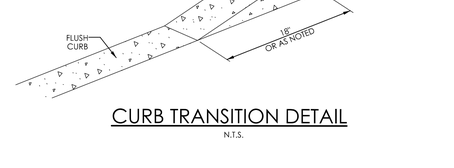
PARKING CLASSIFICATION
OFFICE USE: 1 PARKING SPACE PER 250 SQUARE FEET OF GROSS FLOOR AREA

PROPOSED OFFICE AREA: 2,011 NET SQUARE FEET = 8 SPACES REQUIRED

EXISTING PARKING SPACES = 17 SPACES
REQUIRED PARKING SPACES = 25 SPACES (17 EXISTING + 8 REQUIRED)
PROPOSED PARKING SPACES = 24 SPACES†

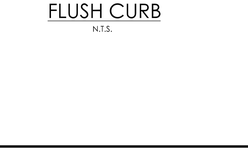
† VARIANCE GRANTED

NUMBER OF EMPLOYEES
CURRENT: 12
PROPOSED (AFTER BUILDING RENOVATION/ADDITION): 16



CURB TRANSITION DETAIL

N.T.S.



FLUSH CURB

N.T.S.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- TOWNSHIP LINE
- ZONING LINE
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING TREE
- BUILDING SETBACK LINE
- PARKING SETBACK LINE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED STORMWATER MANAGEMENT FACILITY
- PROPOSED LIGHT POLE
- PROPOSED PARKING COUNT

GRAPHIC SCALE

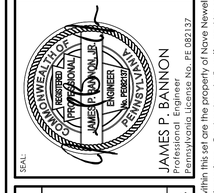
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(IN FEET)
1 inch = 20 ft

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date:	no.	description	chk'd	by
6/8/22	1	REVISED PER TOWNSHIP COMMENTS DATED 3/31/22	JPB	CW

SEAL:



JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: SITE PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	JPB

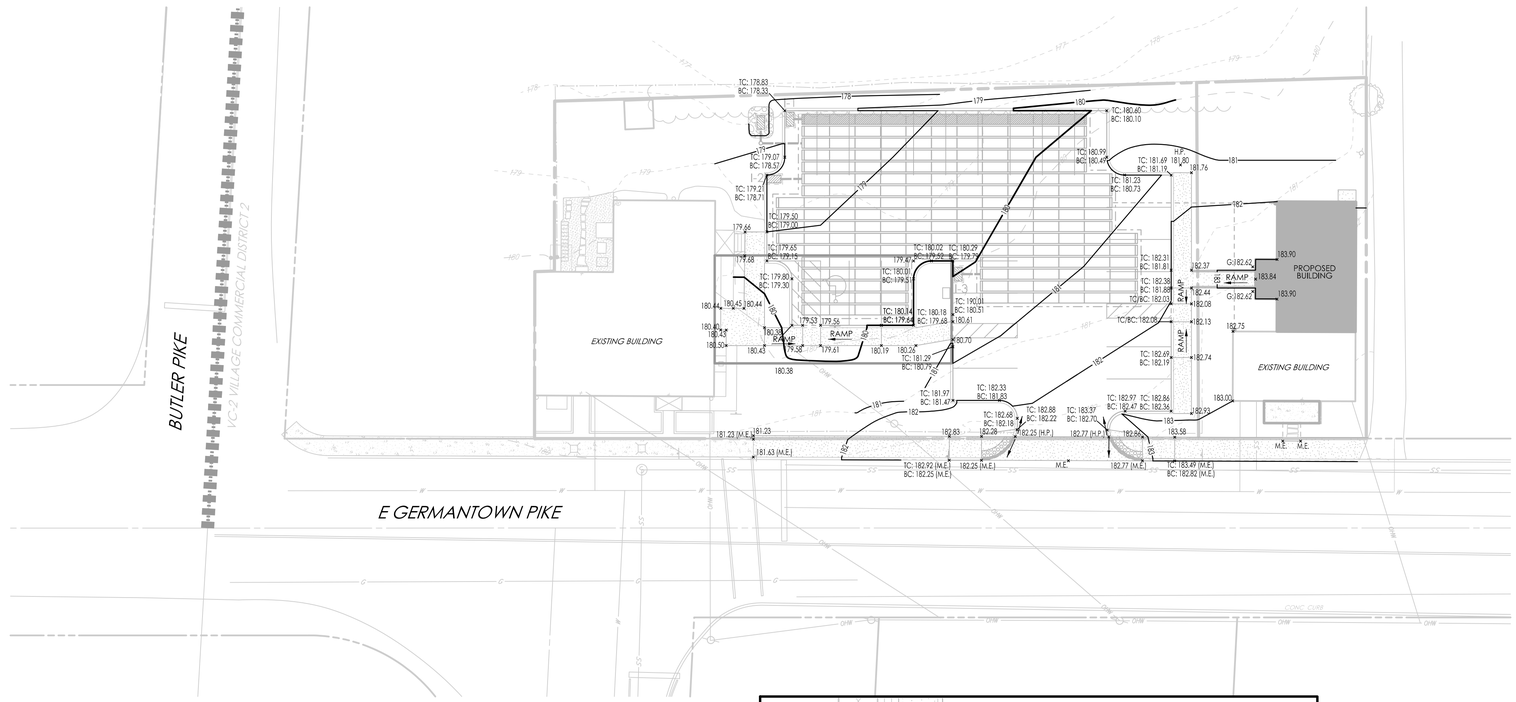
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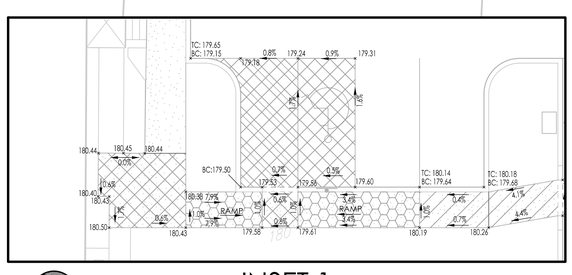
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3 of 13

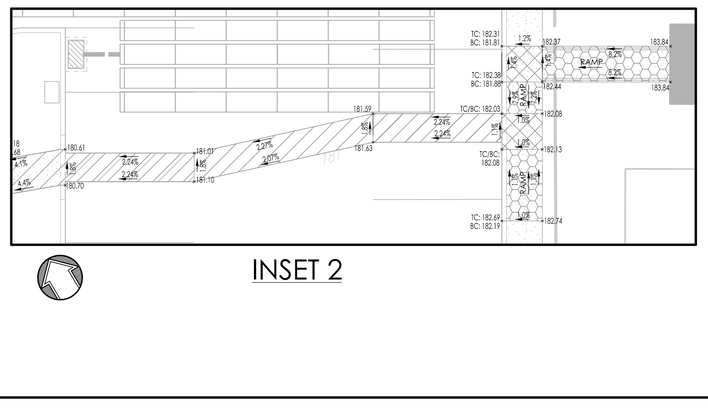
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INSET 1



INSET 2

CONSTRUCTION NOTES:

1. INSTALLATION OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE ENGINEERING STANDARDS AND SPECIFICATIONS OF WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, OR OTHER PUBLIC UTILITY CONCERNS.
2. ALL BUILDINGS AND ASSOCIATED UTILITY CONNECTIONS, AS SHOWN, HAVE BEEN PLACED CONCEPTUALLY. CONTRACTOR SHALL REFER TO ARCHITECTS FINAL PLANS FOR EXACT BUILDING DIMENSIONS, UTILITY CONNECTION LOCATIONS AND UTILITY SERVICE SIZING AND MATERIAL.
3. SITE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE DISCONNECTION, ABANDONMENT, RELOCATION AND/OR REMOVAL OF ALL APPLICABLE ON-SITE UTILITIES, IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AS WELL AS ANY REQUIREMENTS FROM THE RELEVANT UTILITY COMPANY.
4. ALL UTILITIES AND STRUCTURES WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS SHALL REMAIN, UNLESS OTHERWISE NOTED.
5. ANY UTILITIES, TO REMAIN, THAT ARE DAMAGED DURING DEMOLITION AND/OR CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED IN KIND BY THE CONTRACTOR AT THEIR OWN EXPENSE.
6. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS, PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. ANY DISCREPANCIES THAT MAY AFFECT PUBLIC SAFETY AND/OR PROJECT COST MUST BE IDENTIFIED IMMEDIATELY TO THE ENGINEER OF RECORD IN WRITING. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE AT THE CONTRACTOR'S OWN RISK.
7. CONSTRUCTION OF PROPOSED UTILITIES SHALL COMMENCE AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. CLEANOUTS AND CURB BOXES WITHIN PAVED AREAS MUST HAVE TRAFFIC LOADING FRAMES AND COVERS.
9. EXISTING STORM STRUCTURES AND PIPES TO BE INSPECTED BY CONTRACTOR PRIOR TO CONSTRUCTION AND ANY DEFICIENCIES FOUND SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
10. ALL UTILITY CONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.
11. ALL WET UTILITIES SHALL HAVE WATERPROOF JOINTS.
12. ANY STRUCTURE, INFRASTRUCTURE, UTILITIES, SEWAGE DISPOSAL SYSTEMS, OR OTHER PROPOSED LAND DISTURBANCE INDICATED ON THE APPROVED FINAL PLAN SHALL ONLY OCCUR AT THE LOCATIONS SHOWN ON THE PLAN. CHANGES TO SUCH LOCATIONS SHALL BE SUBJECT TO ADDITIONAL REVIEW AND REAPPROVAL IN ACCORDANCE WITH THE PROVISIONS OF WHITEMARSH TOWNSHIP.
13. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT THE TIME OF PLACEMENT SHALL BE NO MORE THAN 2% ABOVE OR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT, PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
14. SUBBASE MATERIAL FOR SIDEWALKS, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL AND COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
15. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION AND/OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES
16. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
17. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
18. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
19. CROSS SLOPES OF ALL PEDESTRIAN ROUTES SHALL NOT EXCEED 2.08%. THIS INCLUDES CURB RAMPS, SIDEWALKS, ASSOCIATED GUTTERS, AND CROSSWALKS
20. LONGITUDINAL SLOPES ALONG PEDESTRIAN ROUTES SHALL NOT EXCEED 5.00% (EXCEPT ON CURB RAMPS AND RAMPS, SEE BELOW),
21. LONGITUDINAL SLOPES OF CURB RAMPS AND RAMPS SHALL NOT EXCEED 8.33%.
22. GAPS OR OPENINGS ALONG AN PEDESTRIAN ROUTE MUST BE NO MORE THAN 1/2 INCH WIDE.
23. CONTRACTOR TO MATCH EXISTING PAVEMENT, CURB, AND SIDEWALK ELEVATIONS/LOCATIONS WHERE THE PROPOSED IMPROVEMENTS TIE INTO EXISTING FEATURES.
24. ALL GRADING SHALL BE A MAXIMUM OF 3 : 1 SLOPE.
25. SEE SHEET C4.0 FOR DETAILED ADA IMPROVEMENT CONSTRUCTION INFORMATION. CONTRACTOR TO ENSURE COMPLIANCE WITH ADA REGULATIONS.
26. PERMANENT REMOVAL OF TOPSOIL FROM LAND WITHIN THE TOWNSHIP IS PROHIBITED.

GRADING NOTES:

1. REFER TO UTILITY PLAN FOR ADDITIONAL NOTES.
2. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE UTILITY PLAN WILL SUPERSEDE IN ALL CASES. NOTIFY ENGINEER OF RECORD OF ANY CONFLICT.
3. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS. ANY METHODS USED TO STRENGTHEN SOIL MUST BE PERFORMED UNDER THE GUIDANCE OF A LICENSED GEOTECHNICAL ENGINEER. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557 AND PLACED IN LAYERS NOT EXCEEDING 8 INCHES THICK OR AS PRESCRIBED BY PROJECT GEOTECHNICAL ENGINEER. MOISTURE CONTENT AT THE TIME OF PLACEMENT SHALL BE NO MORE THAN 2% ABOVE OR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT, PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
4. SUBBASE MATERIAL FOR SIDEWALKS, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL AND COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
5. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION AND/OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
6. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
7. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
8. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
9. CONTRACTOR SHALL ADHERE TO ALL SAFETY REGULATIONS AS REQUIRED BY OSHA, THE PROPERTY OWNER, OR ANY LOCAL, STATE, OR FEDERAL AUTHORITY.
10. DETAILED PLANS AND CALCULATIONS FOR PROPOSED RETAINING WALLS THAT ARE PREPARED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA MUST BE SUBMITTED TO THE TOWNSHIP FOR REVIEW PRIOR TO CONSTRUCTION.
11. CONTRACTOR TO ENSURE COMPLIANCE WITH ADA REGULATIONS.
12. NON-ACCESSIBLE BUILDING ENTRANCES MUST HAVE DIRECTIONAL SIGNAGE DIRECTING PEOPLE TO THE CLOSEST ACCESSIBLE ENTRANCE. DIRECTIONAL SIGNAGE MUST HAVE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
13. THRESHOLDS, TRANSITIONS AND LEVEL CHANGES MUST NOT EXCEED 1/2 INCH IN HEIGHT WITH A BEVEL OF NO MORE THAN 1:2. UNBEVELED LEVEL CHANGES MUST NOT EXCEED 1/4 INCH IN HEIGHT.
14. OBJECTS MAY NOT PROTRUDE MORE THAN 4 INCHES INTO THE CIRCULATION PATH.
15. CROSS SLOPES OF ALL ACCESSIBLE ROUTES SHALL NOT EXCEED 2.08%. THIS INCLUDES CURB RAMPS, SIDEWALKS, ASSOCIATED GUTTERS, AND CROSSWALKS.
16. LONGITUDINAL SLOPES ALONG ACCESSIBLE ROUTES SHALL NOT EXCEED 5.00% (EXCEPT RAMPS AND CURB RAMPS, SEE BELOW).
17. LONGITUDINAL SLOPES OF RAMPS AND CURB RAMPS SHALL NOT EXCEED 8.33%. HANDRAILS ARE REQUIRED AT RAMPS THAT RISE MORE THAN 6" (CURB RAMPS EXCEPTED). THE MAXIMUM RISE OF ANY RAMP IS 30".
18. THE GROUND SURFACE AT THE MANEUVERING CLEARANCE OF DOORS THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL NOT EXCEED 2.08% IN ANY DIRECTION.
19. GAPS OR OPENINGS ALONG AN ACCESSIBLE ROUTE MUST BE NO MORE THAN 1/2 INCH WIDE.
20. ALL ELEVATIONS ARE BASED ON THE NAVD 1988 DATUM.

KARST GEOLOGY CONSTRUCTION NOTES:

CONSTRUCTION PRACTICES FOR MINIMIZING SINKHOLE DEVELOPMENT

AREAS UNDERLAIN BY CARBONATE ROCK FORMATIONS ARE SUBJECT TO SOLUTION ACTIVITY AND THE DEVELOPMENT OF SINKHOLES. ANY DISTURBANCE OF NATURAL CONDITIONS AT A GIVEN SITE TENDS TO INCREASE THE POTENTIAL FOR SINKHOLE DEVELOPMENT. BY INCORPORATING MEASURES DURING BOTH THE DESIGN AND CONSTRUCTION PHASES OF A PROJECT, THIS POTENTIAL MAY BE REDUCED. ADDITIONALLY, IT IS RECOMMENDED THAT THE CONSTRUCTION SCHEDULE BE SUCH THAT SITE EXPOSURE IN THE HIGH SINKHOLE POTENTIAL AREAS IS LIMITED IN DURATION. FURTHERMORE, A GRADING DESIGN WHICH INCORPORATES THE PLACEMENT OF STRUCTURAL FILL WHILE KEEPING EXCAVATIONS TO A MINIMUM WILL SIGNIFICANTLY REDUCE THE RISK OF SINKHOLE DEVELOPMENT. ALL TRENCH EXCAVATIONS, WHETHER FOR FOUNDATIONS OR UTILITIES, SHOULD BE POURED OR BACKFILLED, RESPECTIVELY, ON A DAILY BASIS TO PREVENT WATER FROM COLLECTING INTO THESE AREAS. THE FOLLOWING LIST INCLUDES EXAMPLE PROCEDURES WHICH HAVE BEEN SHOWN TO REDUCE THE FREQUENCY AND SEVERITY OF SINKHOLES RESULTING FROM CONSTRUCTION ACTIVITY:

THE BELOW NOTES ARE STANDARD BEST MANAGEMENT PRACTICES FOR PROJECTS IN SINKHOLE-PRONE AREAS. A GEOTECHNICAL ENGINEER MUST BE ENGAGED PRIOR TO BEGINNING CONSTRUCTION. THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS SHALL TAKE PRECEDENCE OVER THE BELOW NOTES AND MUST BE FOLLOWED.

1. CARE MUST BE TAKEN TO PREVENT COLLECTION AND DRAINAGE OF SURFACE WATER INTO EXCAVATED OR LOW-LYING AREAS OF THE SITE DURING THE EXCAVATION AND CONSTRUCTION OF ROADWAYS, RAMPS, OR STRUCTURES. THIS MAY BE DONE BY CONSTRUCTING EARTH BERMS, DIKES, OR DIVERSION DITCHES AROUND OPEN EXCAVATIONS OR OTHERWISE PREVENTING THE COLLECTION AND PONDING OF WATER IN LOW-LYING AREAS.
2. TYPICALLY, EXCAVATIONS SHOULD NOT BE MADE DURING PREDICTED PERIODS OF PRECIPITATION. EXCAVATIONS SHOULD BE FILLED AS SOON AS PRACTICAL, ESPECIALLY OVER WEEKENDS OR PERIODS OF INACTIVITY. EARTHWORK SHOULD BE SEQUENCED TO LIMIT THE PONDING OF SURFACE WATER IN UNCONTROLLED LOCATIONS. PONDING SHOULD BE REMOVED FROM EXPOSED SUBGRADES IMMEDIATELY.
3. THE SOIL SITUATED ABOVE A ZONE OF SOLUTION ACTIVITY IS OFTEN SOFT AND WET. THEREFORE, IT IS IMPORTANT TO LOCATE AREAS EXHIBITING THESE CONDITIONS WHEREVER THEY MAY EXIST OR BE ENCOUNTERED. A VISUAL INSPECTION OF THE EXCAVATED SURFACE, AS WELL AS, PROBES OF THE SOIL AT REGULAR INTERVALS, IS RECOMMENDED. SWALES, DRAINAGE DITCHES, AND/OR BASINS ARE PARTICULARLY VULNERABLE TO SINKHOLE DEVELOPMENT DURING PERIODS OF HEAVY RAINFALL. THE SAME IS TRUE OF OUTLET LOCATIONS FOR DRAINAGE PIPES. IF SINKHOLES ARE ENCOUNTERED, ANY SOFT/LOOSE OR UNUSUALLY MOIST SOIL SHOULD BE DRIED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER. REMEDIAL MEASURES SHOULD THEN BE UNDERTAKEN AS DEEMED NECESSARY BY THE GEOTECHNICAL ENGINEER.
4. EXCAVATION SHOULD BE KEPT TO A PRACTICAL MINIMUM IN AREAS OF KNOWN OR SUSPECTED SINKHOLE OR SOLUTION ACTIVITY. **IN GENERAL, THE CLOSER EXCAVATIONS GET TO THE ROCK SURFACE, THE GREATER THE POTENTIAL IS FOR SINKHOLE DEVELOPMENT.**
5. SINKHOLE REPAIR IS DEPENDENT ON THE LOCATION AND TYPE OF SINKHOLE. THE PROPER STABILIZATION AND REPAIR OF SINKHOLES OR OTHER AREAS EXHIBITING SOLUTION ACTIVITY IS CRITICAL AND SHOULD BE PERFORMED UNDER THE DIRECTION OF AN EXPERIENCED GEOTECHNICAL ENGINEER.
6. WATERTIGHT JOINTS AND SEALS MUST BE PROVIDED AT ALL WATER BEARING UTILITY LINE CONNECTIONS.
7. CONTRACTOR SHALL ENSURE THAT ALL IMPERMEABLE GEOTECHNICAL FABRICS INSTALLED AROUND AND UNDER STORMWATER BMPS IS INSTALLED FREE OF TEARS AND THE OVERLAP JOINTS ARE SEALED TO ENSURE A WATERTIGHT CONDITION.
8. ALL ROOF DRAINS SHOULD BE WATERTIGHT AND SHOULD CONNECT DIRECTLY TO THE ON-SITE STORMWATER CONVEYANCE SYSTEM.
9. JOINTS BETWEEN ASPHALT PAVING AND CONCRETE CURBING SHOULD BE SEALED TO PREVENT WATER INFILTRATION IN THESE AREAS.
10. DURING AND AFTER CONSTRUCTION, BMPS NEED TO BE REGULARLY INSPECTED, CLEANED, MAINTAINED, AND REPAIRED AS NEEDED. IN GENERAL CONFORMANCE WITH THE SITE SPECIFIC OPERATION AND MAINTENANCE AGREEMENT. SINKHOLES MUST BE PROMPTLY AND PROPERLY REPAIRED IN ACCORDANCE WITH THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER.

IF STORM CONVEYANCE LAYOUT IN A KARST AREA MUST BE DESIGNED SO THAT PIPES DISCHARGING TO A BASIN ARE UTILIZED FOR TEMPORARY STORMWATER STORAGE, INCLUDE THIS NOTE:

- ALL UNDERGROUND UTILITY LINES AND/OR PIPELINES DISCHARGING TO A BASIN UTILIZED FOR TEMPORARY STORAGE SHALL HAVE A DIKE OF CLAY, TRENCH PLUG, OR OTHER SUITABLE MATERIAL CONSTRUCTED ACROSS THE WIDTH OF THE TRENCH AT INTERVALS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

ADA LEGEND

TURNING AREA/LEVEL LANDING/ADA PARKING SPACE/ADA ACCESS AISLE:
SLOPE IN THIS AREA SHALL NOT EXCEED 2.08% IN ANY DIRECTION

ACCESSIBLE ROUTE / PATH OF TRAVEL:
LONGITUDINAL SLOPE SHALL NOT EXCEED 5.00% AND CROSS SLOPE SHALL NOT EXCEED 2.08%

RAMP:
LONGITUDINAL SLOPE SHALL NOT EXCEED 8.33% AND CROSS SLOPE SHALL NOT EXCEED 2.08%

NOTES

1. ALL ACCESSIBLE ELEMENTS SHALL MEET ALL CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN, 2012 IBC CHAPTER 11, AND 2009 ANSI A117.1.
2. THERE MUST BE MINIMUM 36" CLEARANCE BETWEEN BOLLARDS IN FRONT OF AN ADA ACCESS AISLE.
3. ALL PROPOSED STRIPING SHALL BE 4" YELLOW EXCEPT AS NOTED IN ADA PARKING SPACES AND ACCESS AISLES.
4. ALL SIDEWALK GAPS GREATER THAN 1/2" SHALL BE CAULKED WITH FUEL-RESISTANT CAULK (SIKAFLEX 1CSL) OR EQUIVALENT.
5. ALL ACCESS AISLE STRIPING SHALL BE 2 FEET CENTER TO CENTER.
6. ALL BOLLARDS TO HAVE WHITE SLEEVES.
7. CONTRACTOR SHALL ENSURE THAT ADA ACCESS AISLES AND PARKING SPACES HAVE NO SLOPES GREATER THAN 1:48 (2.08%) IN ANY DIRECTION.
8. CONTRACTOR SHALL ENSURE A MAXIMUM CROSS SLOPE OF 1:48 (2.08%) ON ALL SIDEWALKS.
9. CONTRACTOR SHALL ENSURE ACCESSIBLE ROUTES BETWEEN ACCESS AISLES AND DOORS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPES OF 1:20 (5.00%) AND A MAXIMUM CROSS SLOPE OF 1:48 (2.08%). AT LANDING AREAS AND WHERE TURNING MANEUVERS ARE REQUIRED ENSURE MAXIMUM SLOPE IN ALL DIRECTIONS DOES NOT EXCEED 1:48 (2.08%). CROSSHATCH PATTERNING SHOWN IN AREA OF ACCESSIBLE ROUTE FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE STRIPED IN FIELD.
10. IF RE-GRADING OF ANY PAVED AREA INVOLVES MILLING OR REMOVING MATERIAL, CONTRACTOR TO ENSURE MINIMUM PAVING SECTION AND SUBBASE ARE MAINTAINED. SEE PAVING SECTION DETAILS.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- TOWNSHIP LINE
- ZONING LINE
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED SPOT GRADE
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

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date:	no.	description	ck'd	by
6/8/22	1	REVISED PER TOWNSHIP COMMENTS DATED 3/31/22	JPB	CW

SEAL:

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: GRADING PLAN

Ashford Wealth Advisors

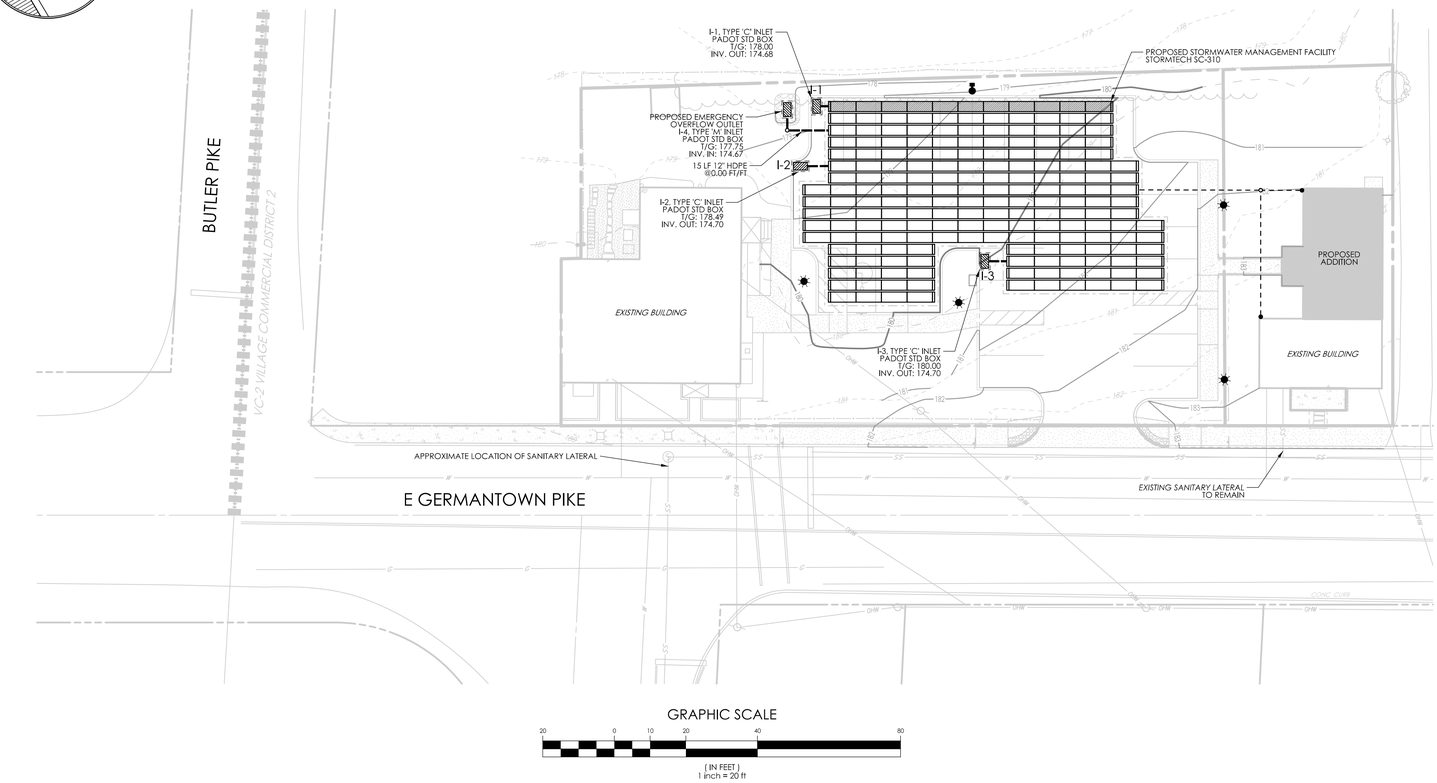
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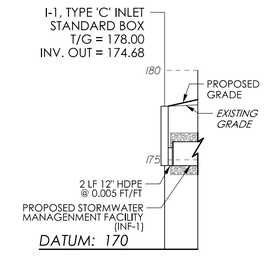
LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	ck'd by:
1/27/22	JPB
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1" = 20'	JPB
sheet no.	
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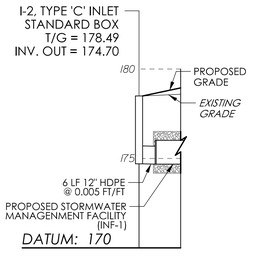
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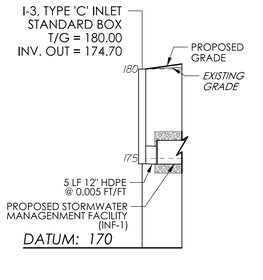
STORM PROFILE: I-1 TO INF-1

SCALE: HORIZONTAL 1" = 40'
VERTICAL 1" = 4'



STORM PROFILE: I-2 TO INF-1

SCALE: HORIZONTAL 1" = 40'
VERTICAL 1" = 4'



STORM PROFILE: I-3 TO INF-1

SCALE: HORIZONTAL 1" = 40'
VERTICAL 1" = 4'

LEGEND

PROPERTY LINE
EXISTING RIGHT-OF-WAY
EXISTING CURB
EXISTING BUILDING
EXISTING FENCE
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
EXISTING SANITARY SEWER WITH MANHOLE
EXISTING WATER SERVICE WITH VALVE
EXISTING GAS SERVICE WITH VALVE
EXISTING OVERHEAD ELECTRIC WIRE
EXISTING LIGHT POLE
EXISTING TREE
PROPOSED BUILDING
PROPOSED SIDEWALK
PROPOSED CURB
PROPOSED SIGN
PROPOSED MAJOR CONTOUR
PROPOSED MINOR CONTOUR
PROPOSED STORM SEWER
PROPOSED STORM INLET/CLEANOUT
PROPOSED ROOF DRAIN WITH DOWNSPOUT
PROPOSED LIGHT POLE
PROPOSED RIP-RAP

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date:	no.	description	chk'd	by
6/8/22	1	REVISED PER TOWNSHIP COMMENTS DATED 3/31/22	JPB	CW

SEAL:

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: UTILITIES PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	JPB

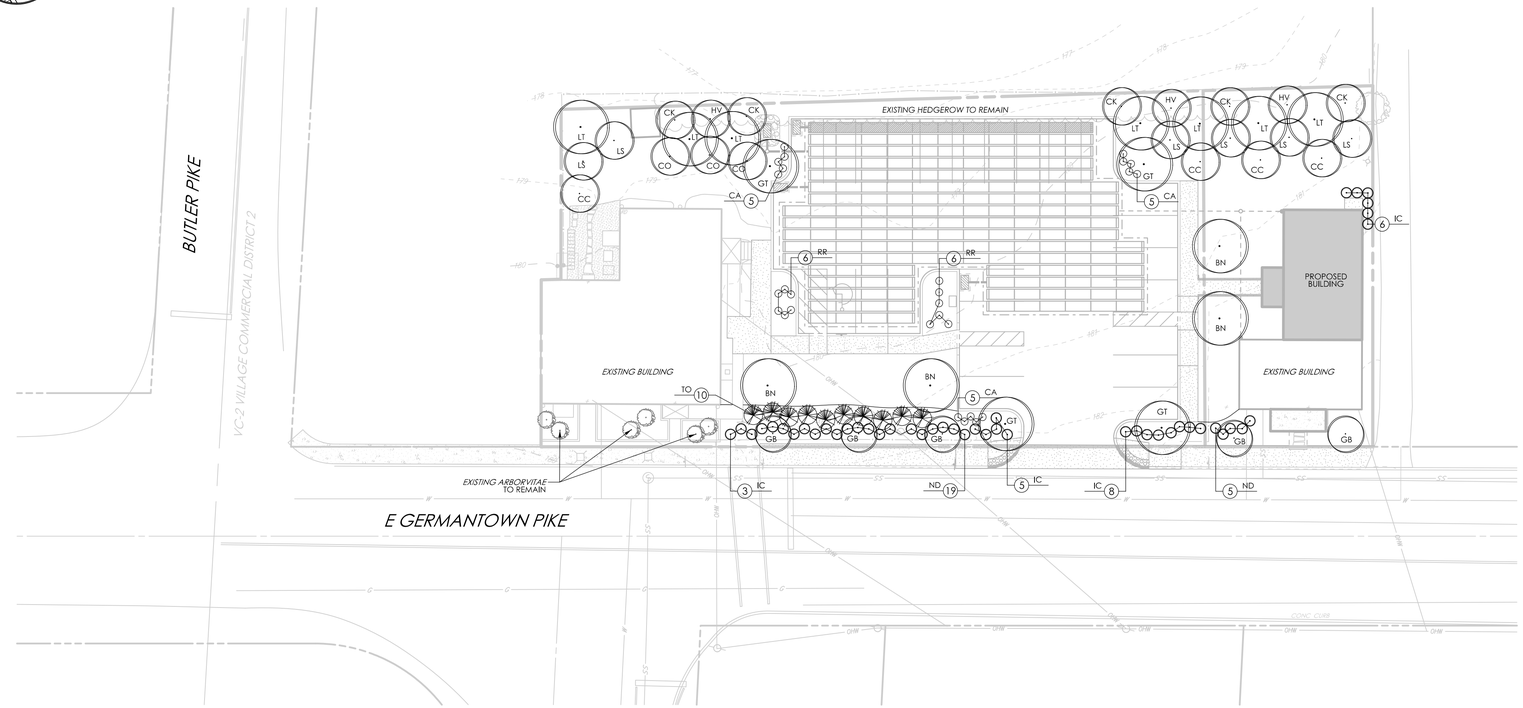
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5 of 13

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LANDSCAPE SCHEDULE

QTY.	SYM.		SIZE	ROOT TYPE	NOTES
SHADE TREES					
4	BN	BETULA NIGRA (RIVER BIRCH)	3" CALIPER	B & B	
4	CC	CERCIS CANADENSIS (EASTERN REDBUD)	3" CALIPER	B & B	
5	CK	CLADASTRIS KENTUKEA (YELLOWWOOD)	3" CALIPER	B & B	
3	CO	CORNUS KOUSA (KOUSA DOGWOOD)	3" CALIPER	B & B	
5	GB	GINKGO BILOBA 'GOLDSPIRE' (THORNLESS HONEYLOCUST)	3" CALIPER	B & B	
4	GT	GLEDITSIA TRIACANTHOS INERMIS (THORNLESS HONEYLOCUST)	3" CALIPER	B & B	
3	HV	HAMAMELIS VIRGINIANA (WITCHHAZEL)	3" CALIPER	B & B	
6	LS	LIQUIDAMBAR STYRACIFLUA (SWEETGUM)	3" CALIPER	B & B	
7	LT	LIRIODENDRON TULIPIFERA (TULIP POPLAR)	3" CALIPER	B & B	
DECIDUOUS SHRUBS					
15	CA	CLETHRA ALNIFOLIA 'HUMMINGBIRD' (SUMMERSWEET)	24" - 36"	# 5 CONT.	
12	RR	ROSA RADRAZZ (KNOCKOUT ROSE)	24" - 36"	# 5 CONT.	
EVERGREEN TREES					
10	TO	THUJA OCCIDENTALIS 'SMARAGD' (EMERALD GREEN ARBORVITAE)	MIN. 6'	B & B	
EVERGREEN SHRUBS					
22	IC	ILEX CORNUTA 'ROTUNDA' (DWARF CHINESE HOLLY 'ROTUNDA')	24" - 36"	# 5 CONT.	
24	ND	NADINA DOMESTICA 'GULF STREAM' (GULF STREAM HEAVENLY BAMBOO)	24" - 36"	# 5 CONT.	

LANDSCAPE REQUIREMENTS

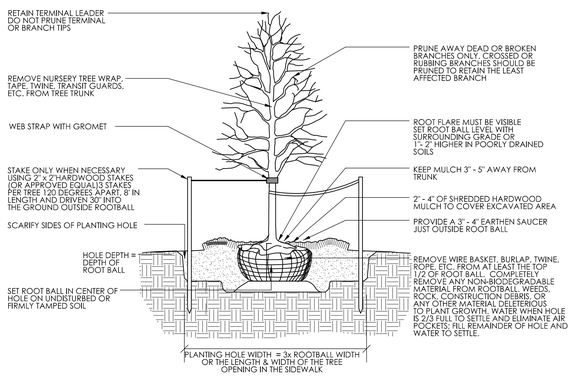
REQUIREMENTS	REQUIRED	PROPOSED
PARKING LOT LANDSCAPING SECTION 105-39.A ALL PARKING SHALL HAVE AT LEAST ONE, THREE-INCH-CALIPER TREE FOR EVERY TWO PARKING SPACES PROVIDED PROPOSED PARKING= 24 SPACES	12 CANOPY TREES	12 CANOPY TREES
SECTION 105-39.C A MINIMUM OF 10% OF ANY PARKING LOT OVER 2,000 SQ FT IN GROSS AREA SHALL BE DEVOTED TO LANDSCAPING 7850 SQ FT X .01= 785 SQ FT	785 SQ FT	2,573 SQ FT 27 SHRUBS
STREET TREES SECTION 105-48. B SHADE TREES SHALL BE PLANED AT INTERVALS OF NOT MORE THAN 45 FEET, OR FLOWERING STREET TREES AT INTERVALS OF NOT MORE THAN 30 FEET.	5 SHADE TREES OR 8 FLOWERING TREES	5 SHADE TREES 0 FLOWERING TREES
BUFFER SCREENING SECTION 105-56.1.E(2)(b) PARKING AREAS SHALL BE BUFFERED FROM ANY ADJACENT ACCESSWAY BY STREET TREES AND BY A FOUR-FOOT-WIDE LANDSCAPED AREA WITH A CONTINUOUS ROW OF TWO- TO THREE-FOOT HIGH SHRUBS.	HEDGE ROW	46 SHRUBS 10 EVERGREEN TREES
SECTION 55-4.B.(6) EXISTING TREES WITH A CALIPER OF 6 INCHES OR MORE SHALL NOT BE REMOVED UNLESS THAT ARE EACH REPLACED ON AN INCH PER INCH BASIS. MINIMUM SIZE OF REPLACEMENT TREE = 3" CALIPER 13" CALIPER REMOVED	5 TREES **	5 TREES ** 19 TREES ***
TOTAL LANDSCAPING	22 CANOPY TREES # OF SHRUBS (SEE ABOVE)	41 CANOPY TREES 10 EVERGREEN TREES 73 SHRUBS

** SEE CALCULATIONS BELOW AND DEMOLITION PLAN FOR ADDITIONAL REFERENCES.
*** 11 UNDERSTORY TREES RECOMMENDED BY SHADE TREE COMMISSION (6/8/2022)

TREE REPLACEMENT CALCULATIONS

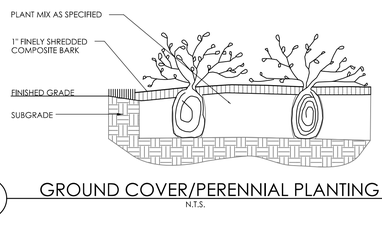
CALIPER REMOVED	NOTES	REQUIRED REPLACEMENT TREES @ 3" CALIPER
17"	DEEMED DEAD BY CONTRACTORS*	*
32"	DEEMED HAZARDOUS	N/A
14"	DEEMED HAZARDOUS	N/A
14"	DEEMED HAZARDOUS	N/A
10"	DEEMED HAZARDOUS	N/A
15"	DEEMED HAZARDOUS	N/A
13"	TO BE REPLACED	5
40"	DEEMED DEAD BY CONTRACTORS**	N/A

* PINE TREE DEEMED DEAD (SEE PHOTOS FOR CLARIFICATION)
** TREE DEEMED DEAD AND HAZARDOUS FROM STORM DAMAGE

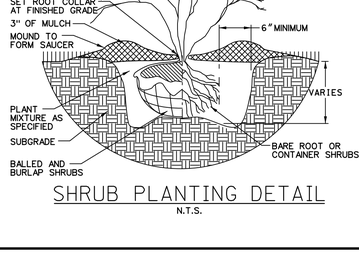


1 DECIDUOUS TREE PLANTINGS
N.T.S.

NOTES:
FASTEN STAKES TO TREE USING 3/4" - 2" WIDE, FLAT, WOVEN POLYPROPYLENE MATERIAL SUCH AS ARBOR TIE (TM) OR USE 3" WIDE WEBBING STRAPS SECURED TO STAKES WITH HEAVY GAUGE WIRE. DO NOT USE WIRE RUN THROUGH HOSE. ATTACH TREE LOOSELY TO ALLOW FLEXING. REMOVE STAKING MATERIAL AFTER ONE YEAR.



2 GROUND COVER/PERENNIAL PLANTING DETAIL
N.T.S.



SHRUB PLANTING DETAIL
N.T.S.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
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- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT
- PROPOSED LANDSCAPING

GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft

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date:	no.	description	chk'd	by
6/15/22	1	REVISED PER SHADE TREE COMMISSION (6/8/2022)	JPB	BTK
8/8/22	2	REVISED PER TOWNSHIP COMMENTS DATED 3/31/22	JPB	BTK

REVISIONS

SEAL:

PAUL E. LEPARD, JR.
Registered Landscape Architect
Pennsylvania License No. LA001327-A

DRAWING NAME: LANDSCAPE PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	BTK
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	PEL

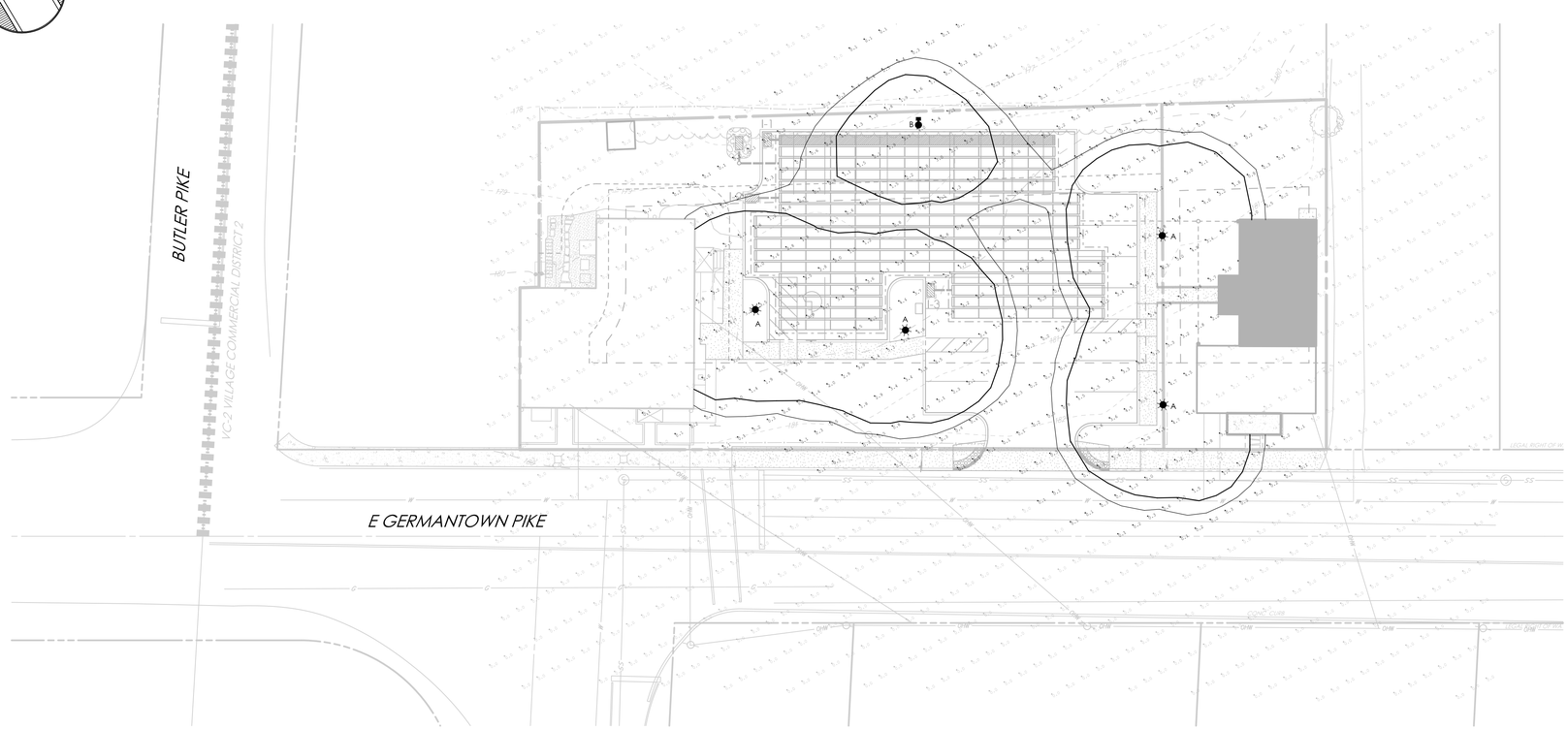
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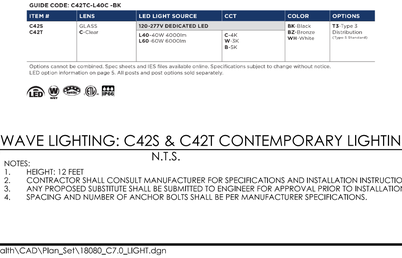


LIGHTING SCHEDULE

QTY.	SYM.	CATALOG NUMBER	IES NUMBER	DESCRIPTION	LOCATION	MOUNTING HEIGHT
4	A	C42TC-L60C-BK	C42TC-L60C-BK.IES	WAVE LIGHTING POST TOP- C42TC BLACK FORMED ALUMINUM HOUSING CLEAR OPTICS/GLASS, LED	SURFACE PARKING	12'
1	B	C42SC-L80C-BK	C42SC-L60C-BK.IES	WAVE LIGHTING POST TOP- C41TC BLACK FORMED ALUMINUM HOUSING CLEAR OPTICS/GLASS, LED	SURFACE PARKING	12'

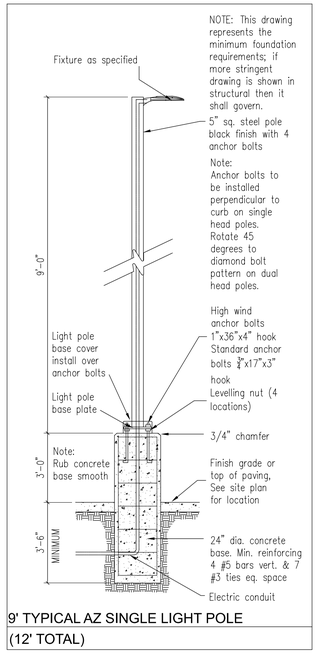
LIGHTING STATISTICS

DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	AVG/MIN
PARKING AREA	1.77 fc	5.1 fc	0.2 fc	8.85:1



4 WAVE LIGHTING: C42S & C42T CONTEMPORARY LIGHTING
N.T.S.

NOTES:
1. HEIGHT: 12 FEET
2. CONTRACTOR SHALL CONSULT MANUFACTURER FOR SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
3. ANY PROPOSED SUBSTITUTE SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
4. SPACING AND NUMBER OF ANCHOR BOLTS SHALL BE PER MANUFACTURER SPECIFICATIONS.



9' TYPICAL AZ SINGLE LIGHT POLE
(12' TOTAL)

5 WAVE LIGHTING: TYPICAL POLE SPECIFICATION
N.T.S.

NOTES:
1. SEE ARCHITECTURALS FOR MORE DETAILS

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT
- PROPOSED FOOTCANDLE
- PROPOSED ISOLINES
- PROPOSED LIGHT POLE

GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft

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date:	no.	description	chk'd	by
		REVISIONS		
6/8/22	1	REVISED PER TOWNSHIP COMMENTS DATED 3/31/22	JPB	BTK

SEAL:

PAUL E. LEPARD, JR.
Registered Landscape Architect
Pennsylvania License No. LA001327-A

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DRAWING NAME: LIGHTING PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

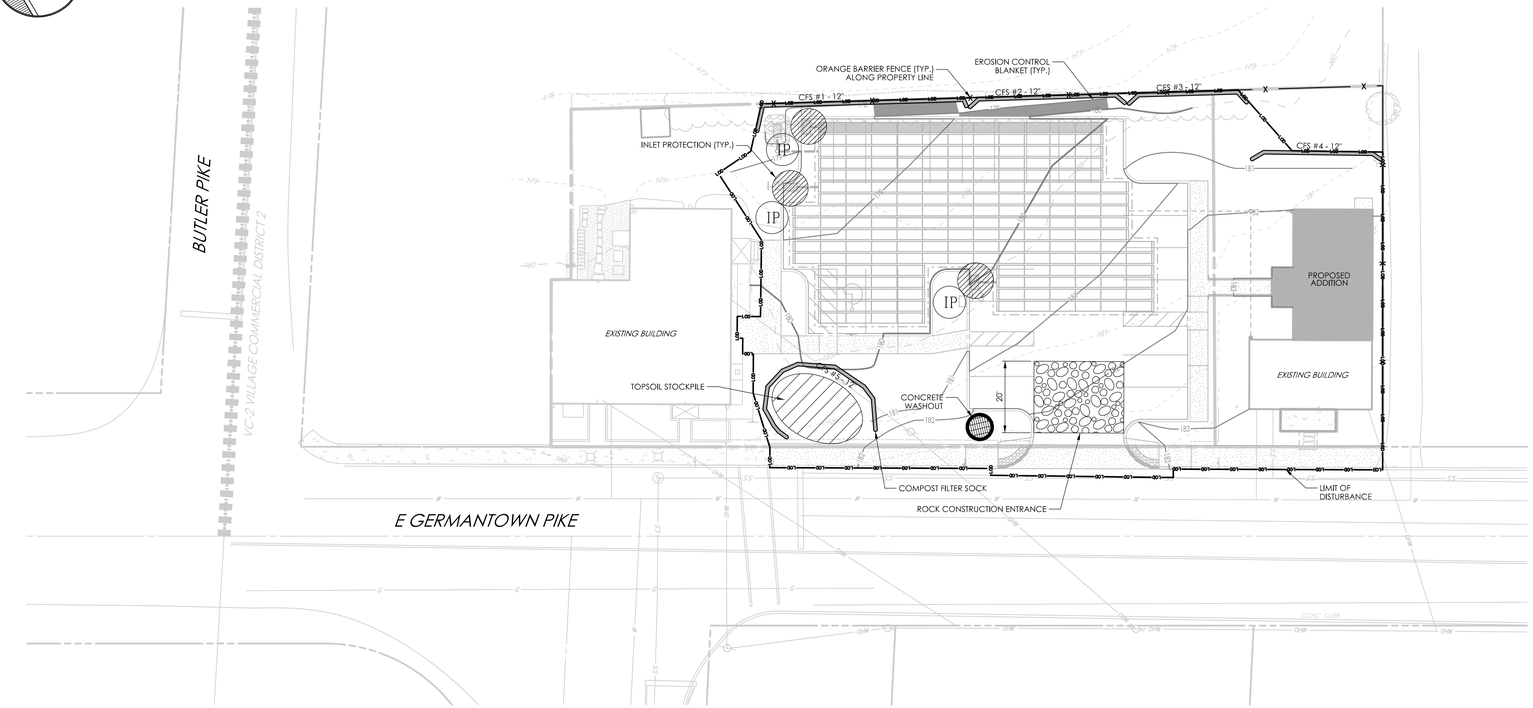
LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	BTK
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	PEL

sheet no.

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SOILS LEGEND:

SOILS INFORMATION OBTAINED FROM THE USDA-NRCS WEB SOIL SURVEY, VERSION 10, SURVEY PERFORMED ON FEBRUARY 5, 2019.

UrhB URBAN LAND-DUFFIELD COMPLEX, 0 TO 8 PERCENT SLOPES HSG 'B'

SOIL LIMITATIONS AND RESOLUTIONS

APPLICABILITY TO PROJECT	SOIL LIMITATION	RESOLUTION(S)
YES	CUTBANKS CAVE	PROVIDE APPROPRIATE BENCHING AND/OR SHORING IN AREAS OF EXCAVATION.
YES	CORROSIVE TO CONCRETE / STEEL	INSTALL REBAR TO MINIMUM COVER REQUIREMENTS AND USE EPOXY COATED REBAR. APPLY MOISTURE BARRIER TO SURFACE OF EXPOSED CONCRETE.
NO	DROUGHTY	SOIL SHOULD BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO USE ON SITE. ANY RECOMMENDATIONS PRESCRIBED BY THE GEOTECHNICAL ENGINEER SHALL BE FOLLOWED PRIOR TO USE ON SITE.
YES	EASILY ERODIBLE	SOILS SHALL BE STABILIZED WITH EITHER TEMPORARY OR FINAL STABILIZATION IN AREAS WHERE EARTHWORK IS DELAYED OR STOPPED FOR FOUR CONSECUTIVE DAYS.
NO	FLOODING	AVOID DEVELOPMENT IN FLOOD PRONE AREAS.
NO	DEPTH TO SATURATED ZONE / SEASONAL HIGH WATER TABLE	SOILS SHOULD BE EVALUATED FOR WETNESS PRIOR TO USE IN SITE WORK. IF GEOTECHNICAL ENGINEER DEEMS SOILS TOO WET FOR SITE WORK, THEN SOILS SHALL BE AMENDED OR DRIED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
YES	HYDRIC / HYDRIC INCLUSIONS	SOILS TO BE EVALUATED BY GEOTECHNICAL SPECIALIST. WATER TABLE EVALUATION WILL BE REQUIRED. POSSIBLY IN AREA OF WETLANDS.
YES	LOW STRENGTH / LANDSLIDE PRONE	SOILS SHOULD NOT BE USED FOR STRUCTURAL FILL UNLESS THEY HAVE BEEN EVALUATED BY A GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL ENGINEER DEEMS THEM SUITABLE AS FILL OR PROVIDES RECOMMENDATIONS TO AMEND SOILS MAKING THEM SUITABLE AS FILL.
YES	SLOW PERCOLATION	SOIL TO BE EVALUATED FOR SUITABILITY FOR INFILTRATION PRACTICES.
YES	PIPING	AREAS OF EMBANKMENTS WITH PIPES PASSING THROUGH THEM SHALL HAVE ANTI-SEEP COLLARS INSTALLED PER THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (PA DEP) EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM.
YES	POOR SOURCE OF TOPSOIL	SOIL SHOULD BE AMENDED AS RECOMMENDED TO PROVIDE ADEQUATE MATERIALS NECESSARY FOR REQUIRED PLANT GROWTH.
NO	FROST ACTION	SOILS SHOULD BE FREE OF FROZEN OR MUCKY MATERIALS. FILL SHOULD NOT BE PLACED ON SATURATED OR FROZEN SURFACES. EARTHWORK INVOLVING THESE SOILS SHOULD BE LIMITED TO THE WARMER MONTHS WHEN PRACTICAL.
YES	SHRINK - SWELL	SOILS SHOULD NOT BE USED FOR STRUCTURAL FILL UNLESS THEY HAVE BEEN EVALUATED BY A GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL ENGINEER DEEMS THEM SUITABLE AS FILL OR PROVIDES RECOMMENDATIONS TO AMEND SOILS MAKING THEM SUITABLE AS FILL.
YES	POTENTIAL SINKHOLE	SOILS SHOULD BE EVALUATED FOR SINKHOLE ACTIVITY. INFILTRATION PRACTICES SHOULD BE AVOIDED IN THESE AREAS OR APPLIED WITH CONSIDERATION TO MINIMIZING INFILTRATION RATE. APPLY RECOMMENDATIONS FROM GEOTECHNICAL SPECIALIST. AVOID PLACING INFILTRATION PRACTICES, IF NEEDED, CLOSE TO BUILDINGS OR PRINCIPAL STRUCTURES. ENSURE ALL DRAINAGE SYSTEMS ARE WATERTIGHT.
NO	PONDING	ANY PONDING WATER SHALL BE PUMPED TO A LOCATION OF NO PONDING. ANY SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE PUMPED THROUGH A SEDIMENT CONTROL BMP SUCH AS PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
YES	WETNESS	SOILS SHOULD BE EVALUATED FOR WETNESS PRIOR TO USE IN SITE WORK. IF GEOTECHNICAL ENGINEER DEEMS SOILS TOO WET FOR SITE WORK, THEN SOILS SHALL BE AMENDED OR DRIED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- TOWNSHIP LINE
- ZONING LINE
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT
- PROPOSED RIP-RAP
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED INLET PROTECTION
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED 12" COMPOST FILTER SOCK
- PROPOSED SOIL STOCKPILE
- EROSION CONTROL BLANKET OR MATTING

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

LIMIT OF DISTURBANCE: 17,934 SF (0.41 ACRES) THIS PLAN IS FOR EROSION AND SEDIMENTATION CONTROL PURPOSES ONLY.

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REVISIONS				
date:	no.	description	chk'd	by
6/8/22	1	REVISED PER TOWNSHIP COMMENTS DATED 3/31/22	JPB	CW

SEAL:

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: EROSION & SEDIMENT CONTROL PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	JPB

sheet no.

C8.0

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SEQUENCE OF CONSTRUCTION:

1. AT LEAST 7 DAYS BEFORE ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, WHITEMARSH TOWNSHIP SHADE TREE COMMISSION, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER TO AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL MUNICIPALITY PRIOR TO IMPLEMENTATION.
2. STABILIZATION NOTE - UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE. HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES.
3. LIMITS OF DISTURBANCE AND LOCATIONS OF PROPOSED ON-SITE BMPS MUST BE DELINEATED WITH ORANGE CONSTRUCTION FENCE, OR APPROVED EQUAL, PRIOR TO EARTH MOVING ACTIVITIES.
4. PLACE COMPOST FILTER SOCKS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
5. INSTALL STABILIZED CONSTRUCTION ENTRANCE. CONTRACTOR MAY ADJUST LOCATION OF THE CONSTRUCTION ENTRANCES AS REQUIRED DURING CONSTRUCTION. CONTRACTOR TO UTILIZE ACCEPTABLE STANDARDS AND PRACTICES TO ENSURE SEDIMENT IS NOT TRACKED OFF THE PROPERTY AND ONTO PUBLIC RIGHTS-OF-WAY. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY, AS APPROPRIATE.
6. PLACE PERIMETER EROSION AND SEDIMENT CONTROLS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN THAT INCLUDES TEMPORARY INLET PROTECTION, COMPOST FILTER SOCK, CONCRETE WASHOUT, AND LOCATIONS FOR TEMPORARY TOPSOIL STOCKPILE AREAS. STABILIZE ANY RESULTANT DISTURBANCE IMMEDIATELY, AS APPROPRIATE.
7. CLEAR AND GRUB TREES AND VEGETATION AS NEEDED THROUGHOUT THE DISTURBANCE AREA.
8. REMOVE AND DISPOSE OF AND/OR RECYCLE PORTION OF EXISTING BUILDING, EXISTING ASPHALT, CONCRETE, GRAVEL, AND CURB.
9. INSTALL THE UNDERGROUND INFILTRATION BED.
10. INSTALL STORM STRUCTURES AND DRAINS (NOTE THAT INLET PROTECTION SHALL BE PROVIDED UNTIL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED) AND SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED.
11. EXCAVATE AND CONSTRUCT THE BUILDING FOUNDATION.
12. CONSTRUCT BUILDING.
13. INSTALL SUBBASE FOR PAVEMENT, SIDEWALKS, CONCRETE CURBING, AND INTERNAL SIDEWALK. PROVIDE STABILIZATION OF ALL CONSTRUCTED PARKING AREAS AND DRIVEWAY TO MINIMUM OF STONE SUBBASE AND COMPLETION OF ALL GRADING AND UTILITY INSTALLATION OF PARKING LOT, CURBS, AND SIDEWALKS. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY.
14. INSTALL LANDSCAPING AND PERFORM FINAL STABILIZATION OF DISTURBED AREAS.
15. UPON STABILIZATION OF SITE, VACUUM STORM DRAIN NETWORK.
16. AFTER AN ON-SITE INSPECTION AND APPROVAL BY A REPRESENTATIVE OF THE LOCAL MUNICIPALITY, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
17. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATE. DISTURBED AREAS WHICH ARE NOT YET AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

INFILTRATION/DETENTION BASIN INSTALLATION SEQUENCE-CRITICAL STAGE

ALL CONSTRUCTION SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING GUIDELINES.
EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS STARTED.

1. DELINEATE AREA OF PROPOSED INFILTRATION/DETENTION BASIN SYSTEM PRIOR TO START OF CONSTRUCTION. SITE CONTRACTOR SHALL TAKE GREAT CARE TO AVOID SOIL DISTURBANCE AND COMPACTION DURING CONSTRUCTION.
2. EXCAVATE AREA OF BED TO SUBGRADE ELEVATION. * CONTRACTOR SHALL TAKE GREAT CARE TO AVOID COMPACTION AND DISTURBANCE OF BED SUBGRADE DURING CONSTRUCTION. DO NOT COMPACT IN-SITU SOILS. HEAVY EQUIPMENT SHALL NOT BE USED WITHIN THE AREA OF THE INFILTRATION/DETENTION BASIN. ALL EQUIPMENT SHALL BE KEPT OUT OF THE EXCAVATED AREA TO THE MAXIMUM EXTENT POSSIBLE.
3. MANUALLY SCARIFY THE EXISTING SOIL SURFACES. PLACE ONE FOOT OF AMENDED SOIL ON TOP OF BED SUBGRADE.
4. UPON COMPLETION OF THE SUB-GRADE WORK, THE ENGINEER SHALL BE NOTIFIED AND INSPECT THE INFILTRATION BED CONFIGURATION.
5. INSTALL OUTLET STRUCTURES AND OUTFALL.
6. GRADE INFILTRATION/DETENTION BASIN AND APPLY PERMANENT STABILIZATION.
7. ENSURE INLETS TO SYSTEM ARE SEALED DURING CONSTRUCTION UNTIL SUCH TIME AS THE CONTRIBUTORY AREA HAS ACHIEVED FULL STABILIZATION.
8. WHEN THE SITE IS FULLY VEGETATED AND THE SOIL MANTLE IS STABILIZED, THE PLAN DESIGNER SHALL BE NOTIFIED AND SHALL INSPECT THE INFILTRATION/DETENTION BASIN DRAINAGE AREA AT HIS/HER DISCRETION BEFORE THE AREA IS BROUGHT ONLINE AND SEDIMENT CONTROL DEVICES ARE REMOVED.

GENERAL NOTES FOR UTILITY CONSTRUCTION

1. EXCAVATED MATERIAL SHOULD BE STAGED ON THE UPSTREAM SIDE OF A TRENCH.
2. THE DAILY EXTENT OF TRENCHING SHOULD NOT EXCEED WHAT CAN BE BACKFILLED AND STABILIZED IN ONE WORKING DAY.
3. EROSION CONTROL BLANKET SHOULD BE PLACED OVER DISTURBED AREAS (NOT INCLUDING AREAS OF PROPOSED ROADWAYS; DURING CONSTRUCTION ACTIVITIES).

MAINTENANCE PROGRAM FOR TEMPORARY SEDIMENTATION CONTROLS STRUCTURES

MAINTENANCE OF ALL TEMPORARY SEDIMENTATION CONTROL STRUCTURES SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND AS STATED BELOW:

1. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ONE-HALF THE ABOVE-GROUND HEIGHT OF SILT FENCING.
2. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS WHEN THE SEDIMENT REACHES THE DESIGNATED CLEANOUT ELEVATION.
3. SEDIMENT MUST BE REMOVED FROM ROCK FILTERS WHEN COLLECTED SEDIMENT BEGINS TO AFFECT THE FILTER'S FUNCTION.
4. SEDIMENT REMOVED FROM THE FACILITIES MAY BE REINCORPORATED INTO THE SITE'S EARTHWORK AS FILL OR TAKEN TO A SAFE, APPROVED LOCATION. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY.

SEEDING & MULCHING SPECIFICATIONS

TEMPORARY: SEEDING SHALL BE COMMON RYE GRASS APPLIED AT 45 LBS. PER ACRE. LIMING TO BE APPLIED AT 1 TON/ACRE. 50-50-50 FERTILIZER TO BE APPLIED AT 1000 LBS/ACRE. HAY OR STRAW MULCH TO BE APPLIED AT 3 TONS/ACRE

PERMANENT: SEEDING SHALL BE 15% KENTUCKY BLUEGRASS, 35% KENTUCKY 31 FESCUE, 25% CHEWINGS FESCUE, 15% PERENNIAL RYE GRASS, AND 10% RECLEANED REDTOP AT A RATE OF 60 LBS. PER ACRE. LIMING TO BE APPLIED AT 3 TONS/ACRE. 10-20-30 FERTILIZER TO BE APPLIED AT 1000 LBS/ACRE. HAY OR STRAW MULCH TO BE APPLIED AT 3 TONS/ACRE.

THE NON-GERMINATING PERIODS ARE BETWEEN 6/15 THROUGH 8/15 AND 9/30 THROUGH 4/15. AREAS DISTURBED DURING THESE PERIODS MUST BE LIMED, FERTILIZED, SEEDED AND MULCHED IMMEDIATELY FOLLOWING THE END OF THOSE PERIODS. TOPSOIL TAKEN FROM CONSTRUCTION AREAS SHALL BE SEEDED WITH VEGETATIVE COVER AND STOCKPILES FOR RE-USE IN FINISH GRADING. THERE IS TO BE NO EARTH DISTURBANCE OR VEGETATIVE CLEARING IN AREAS OUTSIDE OF THE DELINEATED AREAS TO BE DISTURBED.

MAINTENANCE OF TEMPORARY SEDIMENTATION CONTROL STRUCTURES

MAINTENANCE OF ALL TEMPORARY SEDIMENTATION CONTROL STRUCTURES SHALL BE IN ACCORDANCE WITH THESE PLANS AND THE "EROSION AND CONTROL CONTROL NARRATIVE." INSPECTION AND MAINTENANCE OF ALL FACILITIES SHALL BE MADE AFTER EACH RAIN STORM EVENT AND ON A WEEKLY BASIS.

SEDIMENT DISPOSAL:

SILT REMOVED FROM TEMPORARY SEDIMENT CONTROL STRUCTURES SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS LOCATED OUTSIDE OF FLOOD PLAINS, WETLANDS, STEEP SLOPES, AND DRAINAGE SWALES. AREAS OF SEDIMENT DISPOSAL SHALL BE CONSIDERED C.V.A.

DUST CONTROL:

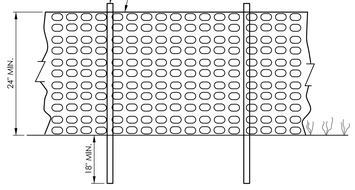
DUST AND OTHER PARTICULATES SHALL BE KEPT WITHIN TOLERABLE LIMITS BY USING WATER. APPLICATION SHALL BE AS NEEDED OR AS DIRECTED BY THE TOWNSHIP ENGINEER OR THE CONSERVATION DISTRICT.

CRITICAL VEGETATION AREAS (C.V.A.):

CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEEDED AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. IN GENERAL, CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1 AND IN ALL DRAINAGE SWALES.

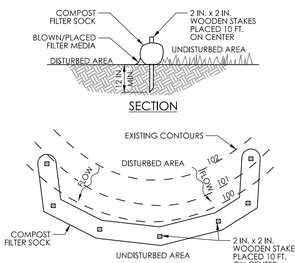
SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE TOWNSHIP 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 TOWNSHIP PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
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, OVER UNDISTURBED VEGETATED AREAS.
14. VEHICLES AND EQUIPMENT MAY ENTER FROM A PAVED SURFACE.
15. 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.
16. 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.
17. 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.
18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 4 TO 12 INCHES ON COMPACTED SOILS – PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20. 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.
21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
22. 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.
23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
26. 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.
27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING 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.
28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL MUNICIPALITY OR THE DEPARTMENT.
30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SLCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES 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.



BARRIER FENCE DETAIL

NOT TO SCALE



SECTION

PLAN VIEW

TABLE 4.2 - COMPOST STANDARDS	
ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 – 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM

COMPOST FILTER SOCK MIX SPECIFICATIONS

NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

WHERE SOCKS ARE PLACED ON PAVED SURFACES, CONCRETE BLOCKS SHOULD BE USED IMMEDIATELY DOWNSLOPE OF THE SOCKS (AT THE SAME INTERVALS RECOMMENDED FOR THE STAKES) TO HELP HOLD THE SOCK IN PLACE.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK

NOT TO SCALE

PLAN VIEW

ELEVATION VIEW

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 STRAPS 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.

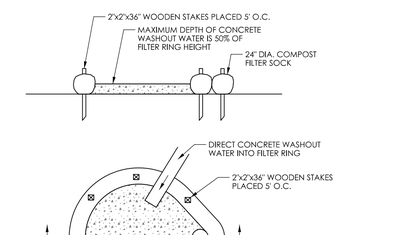
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

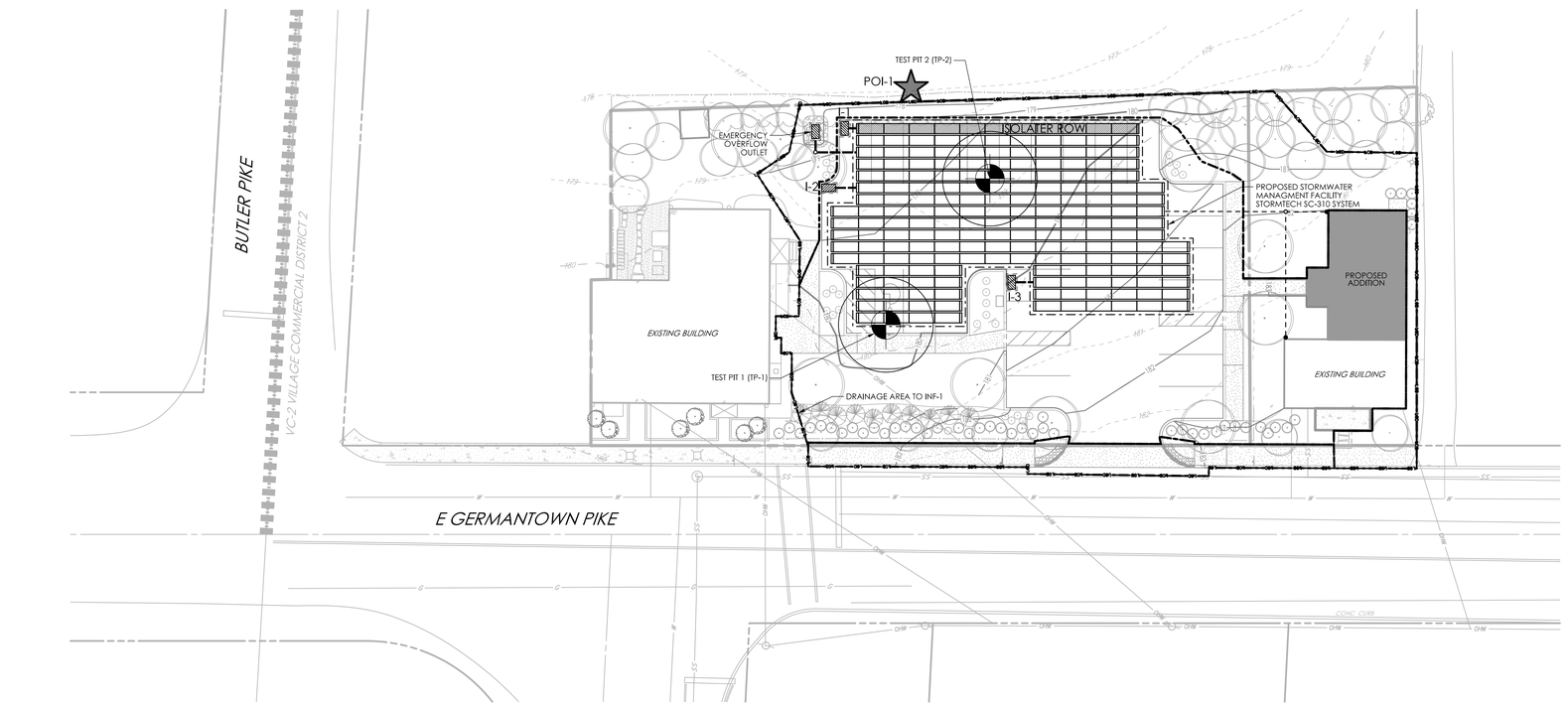
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

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


2"x2"x36" WOODEN STAKES PLACED 5' O.C.
MAXIMUM DEPTH OF CONCRETE WASHOUT WATER IS 50% OF FILTER RING HEIGHT
24" DIA. COMPOST FILTER SOCK
DIRECT CONCRETE WASHOUT WATER INTO FILTER RING
2"x2"x36" WOODEN STAKES PLACED



STRUCTURAL BMP MAINTENANCE SCHEDULE

BMP	PROCEDURE	FAILURE / CORRECTIVE ACTION	RESPONSIBLE PARTY*
1. BMP 6.4.3 - SUBSURFACE INFILTRATION BED	INSPECT AND CLEAN UPSTREAM CONVEYANCE SYSTEM BIANNUALLY TO LIMIT SEDIMENT AND DEBRIS FROM BEING CONVEYED TO BASIN. MONITOR BASIN FOLLOWING RAIN EVENTS TO ENSURE DEWATERING OCCURS WITHIN 72 HOURS. INSPECT OUTLET STRUCTURE AND MAINTAIN IN GOOD WORKING ORDER.	FAILURE: OUTLET STRUCTURE CLOGGED OR MODULE SYSTEM BROKEN. CORRECTIVE ACTION: CLEAN OUTLET STRUCTURE TO REMOVE CLOG. REPLACE MODULE(S) AS NEEDED TO CORRECT FAILURE.	OWNER

SOIL TEST DATA

TEST ID	EXISTING GROUND ELEV.	TEST DEPTH (FT)	LIMITING ZONE DEPTH	INFILTRATION RATE (IN/HR)
TP - 1	179.75	5.58	N/A	0.25
TP - 2	178.74	4.58	N/A	0.125
TEST PERFORMED ON NOVEMBER 24, 2021.				

STORMWATER EASEMENT NOTE

STORMWATER FACILITIES SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER IN PERPETUITY. THE PROPERTY OWNER SHALL PROVIDE A BLANKET STORMWATER ACCESS EASEMENT TO THE TOWNSHIP FOR THE PURPOSE OF ACCESS TO THE STORMWATER FACILITIES. IF, IN THE JUDGEMENT OF THE TOWNSHIP ENGINEER, THE OWNER HAS FAILED TO MAINTAIN THE STORMWATER FACILITIES IN SUCH A MANNER AS TO ENSURE THEIR PROPER FUNCTIONING, THE TOWNSHIP AFTER PROVIDING A WRITTEN NOTICE, SHALL HAVE THE RIGHT TO ENTER UPON THE LANDS OF THE OWNER AND TO MAKE ANY REPAIRS AS MAY BE NECESSARY TO THE STORMWATER FACILITIES TO ENSURE THAT SUCH FACILITIES FUNCTION AND PERFORM IN ACCORDANCE WITH THE DESIGN SPECIFICATIONS ANY AND ALL COSTS INCURRED BY THE TOWNSHIP FOR SUCH REPAIRS AND/OR MAINTENANCE SHALL BE PAID IN FULL BY THE OWNER. A LIEN OR LIENS MAY BE PLACED AGAINST THE PROPERTY IF THE OWNER FAILS TO REMIT PAYMENT WITHIN SIXTY (60) DAYS.

AS-BUILT STORMWATER BMP SURVEY NOTE

AN AS-BUILT SURVEY WILL BE COMPLETED AND SUBMITTED IN BOTH A PAPER AND DIGITAL FORMAT TO WHITEMARSH TOWNSHIP

KARST GEOLOGY CONSTRUCTION NOTES:

CONSTRUCTION PRACTICES FOR MINIMIZING SINKHOLE DEVELOPMENT

AREAS UNDERLAIN BY CARBONATE ROCK FORMATIONS ARE SUBJECT TO SOLUTION ACTIVITY AND THE DEVELOPMENT OF SINKHOLES. ANY DISTURBANCE OF NATURAL CONDITIONS AT A GIVEN SITE TENDS TO INCREASE THE POTENTIAL FOR SINKHOLE DEVELOPMENT. BY INCORPORATING MEASURES DURING BOTH THE DESIGN AND CONSTRUCTION PHASES OF A PROJECT, THIS POTENTIAL MAY BE REDUCED. ADDITIONALLY, IT IS RECOMMENDED THAT THE CONSTRUCTION SCHEDULE BE SUCH THAT SITE EXPOSURE IN THE HIGH SINKHOLE POTENTIAL AREAS IS LIMITED IN DURATION. FURTHERMORE, A GRADING DESIGN WHICH INCORPORATES THE PLACEMENT OF STRUCTURAL FILL WHILE KEEPING EXCAVATIONS TO A MINIMUM WILL SIGNIFICANTLY REDUCE THE RISK OF SINKHOLE DEVELOPMENT. ALL TRENCH EXCAVATIONS, WHETHER FOR FOUNDATIONS OR UTILITIES, SHOULD BE POURED OR BACKFILLED, RESPECTIVELY, ON A DAILY BASIS TO PREVENT WATER FROM COLLECTING INTO THESE AREAS. THE FOLLOWING LIST INCLUDES EXAMPLE PROCEDURES WHICH HAVE BEEN SHOWN TO REDUCE THE FREQUENCY AND SEVERITY OF SINKHOLES RESULTING FROM CONSTRUCTION ACTIVITY:

THE BELOW NOTES ARE STANDARD BEST MANAGEMENT PRACTICES FOR PROJECTS IN SINKHOLE-PRONE AREAS. A GEOTECHNICAL ENGINEER MUST BE ENGAGED PRIOR TO BEGINNING CONSTRUCTION. THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS SHALL TAKE PRECEDENCE OVER THE BELOW NOTES AND MUST BE FOLLOWED.

1. CARE MUST BE TAKEN TO PREVENT COLLECTION AND DRAINAGE OF SURFACE WATER INTO EXCAVATED OR LOW-LYING AREAS OF THE SITE DURING THE EXCAVATION AND CONSTRUCTION OF ROADWAYS, RAMPS, OR STRUCTURES. THIS MAY BE DONE BY CONSTRUCTING EARTH BERMS, DIKES, OR DIVERSION DITCHES AROUND OPEN EXCAVATIONS OR OTHERWISE PREVENTING THE COLLECTION AND PONDING OF WATER IN LOW-LYING AREAS.
2. TYPICALLY, EXCAVATIONS SHOULD NOT BE MADE DURING PREDICTED PERIODS OF PRECIPITATION. EXCAVATIONS SHOULD BE FILLED AS SOON AS PRACTICAL, ESPECIALLY OVER WEEKENDS OR PERIODS OF INACTIVITY. EARTHWORK SHOULD BE SEQUENCED TO LIMIT THE PONDING OF SURFACE WATER IN UNCONTROLLED LOCATIONS. PONDING SHOULD BE REMOVED FROM EXPOSED SUBGRADES IMMEDIATELY.
3. THE SOIL SITUATED ABOVE A ZONE OF SOLUTION ACTIVITY IS OFTEN SOFT AND WET. THEREFORE, IT IS IMPORTANT TO LOCATE AREAS EXHIBITING THESE CONDITIONS WHEREVER THEY MAY EXIST OR BE ENCOUNTERED. A VISUAL INSPECTION OF THE EXCAVATED SURFACE, AS WELL AS PROBES OF THE SOIL AT REGULAR INTERVALS, IS RECOMMENDED. SWALES, DRAINAGE DITCHES, AND/OR BASINS ARE PARTICULARLY VULNERABLE TO SINKHOLE DEVELOPMENT DURING PERIODS OF HEAVY RAINFALL. THE SAME IS TRUE OF OUTLET LOCATIONS FOR DRAINAGE PIPES. IF SINKHOLES ARE ENCOUNTERED, ANY SOFT/LOOSE OR UNUSUALLY MOIST SOIL SHOULD BE DRIED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER. REMEDIAL MEASURES SHOULD THEN BE UNDERTAKEN AS DEEMED NECESSARY BY THE GEOTECHNICAL ENGINEER.
4. EXCAVATION SHOULD BE KEPT TO A PRACTICAL MINIMUM IN AREAS OF KNOWN OR SUSPECTED SINKHOLE OR SOLUTION ACTIVITY. **IN GENERAL, THE CLOSER EXCAVATIONS GET TO THE ROCK SURFACE, THE GREATER THE POTENTIAL FOR SINKHOLE DEVELOPMENT.**
5. SINKHOLE REPAIR IS DEPENDENT ON THE LOCATION AND TYPE OF SINKHOLE. THE PROPER STABILIZATION AND REPAIR OF SINKHOLES OR OTHER AREAS EXHIBITING SOLUTION ACTIVITY IS CRITICAL AND SHOULD BE PERFORMED UNDER THE DIRECTION OF AN EXPERIENCED GEOTECHNICAL ENGINEER.
6. WATERTIGHT JOINTS AND SEALS MUST BE PROVIDED AT ALL WATER BEARING UTILITY LINE CONNECTIONS.
7. CONTRACTOR SHALL ENSURE THAT ALL IMPERMEABLE GEOTECHNICAL FABRICS INSTALLED AROUND AND UNDER STORMWATER BMPS IS INSTALLED FREE OF TEARS AND THE OVERLAP JOINTS ARE SEALED TO ENSURE A WATERTIGHT CONSTRUCTION.
8. ALL ROOF DRAINS SHOULD BE WATERTIGHT AND SHOULD CONNECT DIRECTLY TO THE ON-SITE STORMWATER CONVEYANCE SYSTEM.
9. JOINTS BETWEEN ASPHALT PAVING AND CONCRETE CURBING SHOULD BE SEALED TO PREVENT WATER INFILTRATION IN THESE AREAS.
10. DURING AND AFTER CONSTRUCTION, BMPS NEED TO BE REGULARLY INSPECTED, CLEANED, MAINTAINED, AND REPAIRED AS NEEDED. IN GENERAL CONFORMANCE WITH THE SITE SPECIFIC OPERATION AND MAINTENANCE AGREEMENT. SINKHOLES MUST BE PROMPTLY AND PROPERLY REPAIRED IN ACCORDANCE WITH THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER.

IF STORM CONVEYANCE LAYOUT IN A KARST AREA MUST BE DESIGNED SO THAT PIPES DISCHARGING TO A BASIN ARE UTILIZED FOR TEMPORARY STORMWATER STORAGE. INCLUDE THIS NOTE:

- ALL UNDERGROUND UTILITY LINES AND/OR PIPELINES DISCHARGING TO A BASIN UTILIZED FOR TEMPORARY STORAGE SHALL HAVE A DIKE OF CLAY, TRENCH PLUG, OR OTHER SUITABLE MATERIAL CONSTRUCTED ACROSS THE WIDTH OF THE TRENCH AT INTERVALS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- TOWNSHIP LINE
- ZONING LINE
- EXISTING CURB
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING WATER SERVICE WITH VALVE
- EXISTING GAS SERVICE WITH VALVE
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING LIGHT POLE
- EXISTING TREE
- PROPOSED BUILDING
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM INLET/CLEANOUT
- PROPOSED ROOF DRAIN WITH DOWNSPOUT
- PROPOSED RIP-RAP
- PROPOSED LANDSCAPING
- LOD — PROPOSED LIMIT OF DISTURBANCE
- DRAINAGE AREA
- TEST PIT
- POINT OF INTEREST

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

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date:	no.	description	chk'd	by
6/8/22	1	REVISED PER TOWNSHIP COMMENTS DATED 3/31/22	JPB	CW

SEAL:

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1"=20'	JPB

sheet no.

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10 of 13

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SEQUENCE OF CONSTRUCTION:

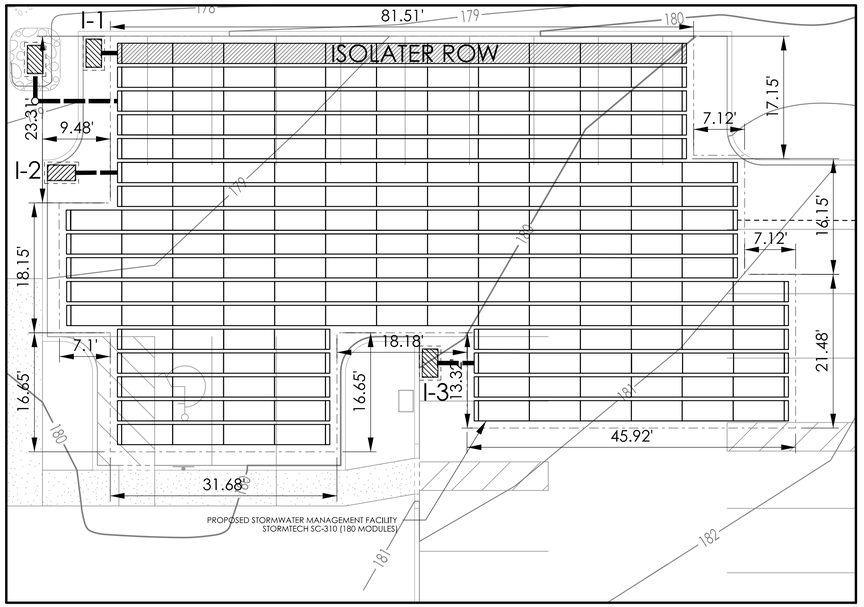
1. AT LEAST 7 DAYS BEFORE ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, WHITEMARSH TOWNSHIP SHADE TREE COMMISSION, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER TO AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL MUNICIPALITY PRIOR TO IMPLEMENTATION.
2. STABILIZATION NOTE - UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE. HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES.
3. LIMITS OF DISTURBANCE AND LOCATIONS OF PROPOSED ON-SITE BMPS MUST BE DELINEATED WITH ORANGE CONSTRUCTION FENCE, OR APPROVED EQUAL, PRIOR TO EARTH MOVING ACTIVITIES.
4. PLACE COMPOST FILTER SOCKS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
5. INSTALL STABILIZED CONSTRUCTION ENTRANCE. CONTRACTOR MAY MODIFY LOCATION OF THE CONSTRUCTION ENTRANCES AS REQUIRED DURING CONSTRUCTION. CONTRACTOR TO UTILIZE ACCEPTABLE STANDARDS AND PRACTICES TO ENSURE SEDIMENT IS NOT TRACKED OFF THE PROPERTY AND ONTO PUBLIC RIGHTS-OF-WAY. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY, AS APPROPRIATE.
6. PLACE PERIMETER EROSION AND SEDIMENT CONTROLS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN THAT INCLUDES TEMPORARY INLET PROTECTION, COMPOST FILTER SOCK, CONCRETE WASHOUT, AND LOCATIONS FOR TEMPORARY TOPSOIL STOCKPILE AREAS. STABILIZE ANY RESULTANT DISTURBANCE IMMEDIATELY, AS APPROPRIATE.
7. CLEAR AND GRUB TREES AND VEGETATION AS NEEDED THROUGHOUT THE DISTURBANCE AREA.
8. REMOVE AND DISPOSE OF AND/OR RECYCLE PORTION OF EXISTING BUILDING, EXISTING ASPHALT, CONCRETE, GRAVEL, AND CURB.
9. INSTALL THE UNDERGROUND INFILTRATION BED.
10. INSTALL STORM STRUCTURES AND DRAINS (NOTE THAT INLET PROTECTION SHALL BE PROVIDED UNTIL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED) AND SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED.
11. EXCAVATE AND CONSTRUCT THE BUILDING FOUNDATION.
12. CONSTRUCT BUILDING.
13. INSTALL SUBBASE FOR PAVEMENT, SIDEWALKS, CONCRETE CURBING, AND INTERNAL SIDEWALK. PROVIDE STABILIZATION OF ALL CONSTRUCTED PARKING AREAS AND DRIVEWAY TO MINIMUM OF STONE SUBBASE AND COMPLETION OF ALL GRADING AND UTILITY INSTALLATION OF PARKING LOT, CURBS, AND SIDEWALKS. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY.
14. INSTALL LANDSCAPING AND PERFORM FINAL STABILIZATION OF DISTURBED AREAS.
15. UPON STABILIZATION OF SITE, VACUUM STORM DRAIN NETWORK.
16. AFTER AN ON-SITE INSPECTION AND APPROVAL BY A REPRESENTATIVE OF THE LOCAL MUNICIPALITY, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. STABILIZE ANY RESULTING DISTURBANCE IMMEDIATELY. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
17. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT YET AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

INFILTRATION/DETENTION BASIN INSTALLATION SEQUENCE-CRITICAL STAGE
ALL CONSTRUCTION SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING GUIDELINES.
EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS STARTED.

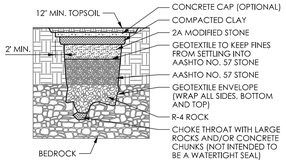
1. DELINEATE AREA OF PROPOSED INFILTRATION/DETENTION BASIN SYSTEM PRIOR TO START OF CONSTRUCTION. SITE CONTRACTOR SHALL TAKE GREAT CARE TO AVOID SOIL DISTURBANCE AND COMPACTION DURING CONSTRUCTION.
2. EXCAVATE AREA OF BED TO SUBGRADE ELEVATION. * CONTRACTOR SHALL TAKE GREAT CARE TO AVOID COMPACTION AND DISTURBANCE OF BED SUBGRADE DURING CONSTRUCTION. DO NOT COMPACT IN-SITU SOILS. HEAVY EQUIPMENT SHALL NOT BE USED WITHIN THE AREA OF THE INFILTRATION/DETENTION BASIN. ALL EQUIPMENT SHALL BE KEPT OUT OF THE EXCAVATED AREA TO THE MAXIMUM EXTENT POSSIBLE.
3. MANUALLY SCARIFY THE EXISTING SOIL SURFACES. PLACE ONE FOOT OF AMENDED SOIL ON TOP OF BED SUBGRADE.
4. UPON COMPLETION OF THE SUB-GRADE WORK, THE ENGINEER SHALL BE NOTIFIED AND INSPECT THE INFILTRATION BED CONFIGURATION.
5. INSTALL OUTLET STRUCTURES AND OUTFALL.
6. GRADE INFILTRATION/DETENTION BASIN AND APPLY PERMANENT STABILIZATION.
7. ENSURE INLETS TO SYSTEM ARE SEALED DURING CONSTRUCTION UNTIL SUCH TIME AS THE CONTRIBUTORY AREA HAS ACHIEVED FULL STABILIZATION.
8. WHEN THE SITE IS FULLY VEGETATED AND THE SOIL MANTLE IS STABILIZED, THE PLAN DESIGNER SHALL BE NOTIFIED AND SHALL INSPECT THE INFILTRATION/DETENTION BASIN DRAINAGE AREA AT HIS/HER DISCRETION BEFORE THE AREA IS BROUGHT ONLINE AND SEDIMENT CONTROL DEVICES ARE REMOVED.

POST-CONSTRUCTION STORMWATER MANAGEMENT NOTES:

1. PRESERVATION OF EXISTING STREAM CHANNELS, AS WELL AS THE PROTECTION OF THE PHYSICAL, BIOLOGICAL, AND CHEMICAL QUALITIES OF THE RECEIVING STREAM, WILL BE ACHIEVED THROUGH THE IMPLEMENTATION OF APPROVED STORMWATER BMPS THAT WILL REDUCE THE RATE AND RUNOFF VOLUME IN THE POST-DEVELOPMENT CONDITION. WATER QUALITY BMPS ARE ALSO PROPOSED TO MITIGATE POLLUTION IMPACTS.
2. POST-CONSTRUCTION RUNOFF RATES WILL BE REDUCED TO LESS THAN PRE-CONSTRUCTION RUNOFF RATES FOR THE OVERALL SITE THROUGH THE USE OF A SUBSURFACE INFILTRATION BED.
3. THE POST-DEVELOPMENT RUNOFF VOLUME WILL BE REDUCED TO LESS THAN THE PRE-DEVELOPMENT RUNOFF VOLUME THROUGH THE USE OF SOIL AMENDMENTS AND LANDSCAPING.
4. PRE-DEVELOPMENT DRAINAGE PATTERNS WERE MAINTAINED IN THE POST-DEVELOPMENT CONDITION, TO THE EXTENT PRACTICAL. ALL OF THE SITE DISCHARGE DRAINS TO PLYMOUTH CREEK, WHICH HAS A CHAPTER 93 CLASSIFICATION OF WWF- WARM WATER FISHES.
5. THE INTRODUCTION OF ADDITIONAL IMPERVIOUS SURFACES WAS MINIMIZED TO THE EXTENT PRACTICAL.
6. THE LIMIT OF EARTH DISTURBANCE (INCLUDING GRADING AND LAND CLEARING) IS MINIMIZED AND THE PRESERVATION OF EXISTING VEGETATION IS MAXIMIZED TO THE EXTENT PRACTICAL.
7. NO ADDITIONAL DISCHARGES TO THE WATERCOURSES ARE PROPOSED AS PART OF THIS PROJECT. THE BMPS PROPOSED TO DP001 WILL DISCHARGE TO THE WATERCOURSES VIA EXISTING DRAINAGE FEATURES.
8. SOIL COMPACTION SHALL BE MINIMIZED TO THE EXTENT PRACTICAL, PARTICULARLY IN THE AREAS TO BE PERVIOUS IN THE POST-DEVELOPMENT CONDITION.
9. CHANGES TO THE SITE'S RUNOFF WILL BE MINIMIZED THROUGH THE USE OF A SUBSURFACE INFILTRATION BED
10. THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMPS. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
11. AS-BUILT PLANS OF THE STORMWATER BMPS SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF THE BMP CONSTRUCTION. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER.
13. NO UNTREATED RUNOFF SHALL ENTER ANY BMPS UNTIL FINAL SITE STABILIZATION IS ACHIEVED IN THE TRIBUTARY DRAINAGE AREA. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
14. 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 SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
15. THE PROJECT AREA IS NOT LOCATED IN AN HQ - HIGH QUALITY OR EV - EXCEPTIONAL VALUE WATERSHED.
16. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES MUST BE PROVIDED AS PART OF THE LONG-TERM OPERATION AND MAINTENANCE PROGRAM.
17. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE KEPT ON SITE AND AVAILABLE FOR REVIEW AND INSPECTION BY THE TOWNSHIP.
18. THE POTENTIAL FOR THERMAL IMPACTS IS MINIMIZED THROUGH THE USE OF A SUBSURFACE INFILTRATION BED . WHICH WILL PROVIDE TIME FOR RUNOFF TO COOL.



GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft

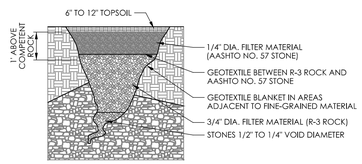


NOTES:
1. LOOSE MATERIAL SHALL BE EXCAVATED FROM THE SINKHOLE AND EXPOSE SOLUTION VOID(S) IF POSSIBLE. ENLARGE SINKHOLE IF NECESSARY TO ALLOW FOR INSTALLATION OF FILTER MATERIALS OSHA REGULATIONS MUST BE FOLLOWED AT ALL TIMES DURING EXCAVATION.
2. GEOTEXTILE SHALL BE NON-WOVEN WITH A BURST STRENGTH BETWEEN 100 AND 200 PSI.
3. SELECT FIELD STONE(S) ABOUT 1.5 TIMES LARGER THAN SOLUTION VOID(S) TO FORM "BRIDGE". PLACE ROCK(S) SO NO LARGE OPENINGS EXIST ALONG SIDES. STONES USED FOR "BRIDGE" AND FILTERS SHALL HAVE A MODERATELY HARD ROCK STRENGTH AND BE RESISTANT TO ABRASION AND DEGRADATION. SHALE AND SIMILAR SOFT AND/OR NON-DURABLE ROCK ARE NOT ACCEPTABLE.
4. MINIMUM THICKNESS OF R-4 ROCK IS 18". AASHTO NO. 57 STONE THICKNESS SHALL BE ½ TO ½ THAT OF THE R-4 ROCK. MINIMUM THICKNESS OF 2A MODIFIED CRUSHED STONE SHALL BE 9". AASHTO NO. 57 STONE AND 2A MODIFIED CRUSHED STONE SHALL BE COMPACTED AFTER EACH PLACEMENT.
5. COMPACTED CLAY SEAL SHALL BE MINIMUM OF 12" THICK. CLAY SHALL BE PLACED IN 6" TO 9" LIFTS AND THOROUGHLY COMPACTED.
6. CONCRETE CAP, WHICH IS OPTIONAL, SHALL BE MINIMUM OF 8" THICK. USE 4,000 PSI CONCRETE WITH 6" X 6" - 6 GAUGE WELDED WIRE FABRIC, OR #3 REBAR ON 18" O.C. BOTH WAYS.
7. TOPSOIL SHALL BE MINIMUM OF 12" THICK. GRADE FOR POSITIVE DRAINAGE AWAY FROM SINKHOLE AREA.

SINKHOLE REPAIR WITH AN IMPERVIOUS COVER

NOT TO SCALE

NOTE:
SINKHOLE REPAIR DETAILS ARE STRICTLY FOR INFORMATIONAL PURPOSES. IN THE EVENT OF A SINKHOLE ON-SITE, A GEOTECHNICAL ENGINEER SHALL BE CONTACTED TO OVERSEE THE REPAIR.

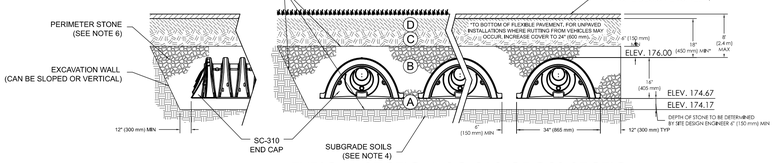


NOTES:
1. LOOSE MATERIAL SHALL BE EXCAVATED FROM THE SINKHOLE AND EXPOSE SOLUTION VOID(S) IF POSSIBLE. ENLARGE SINKHOLE IF NECESSARY TO ALLOW FOR INSTALLATION OF FILTER MATERIALS OSHA REGULATIONS MUST BE FOLLOWED AT ALL TIMES DURING EXCAVATION.
2. STONES USED FOR "BRIDGE" AND FILTERS SHALL HAVE A MODERATELY HARD ROCK STRENGTH AND BE RESISTANT TO ABRASION AND DEGRADATION. SHALE AND SIMILAR SOFT AND/OR NON-DURABLE ROCK ARE NOT ACCEPTABLE.

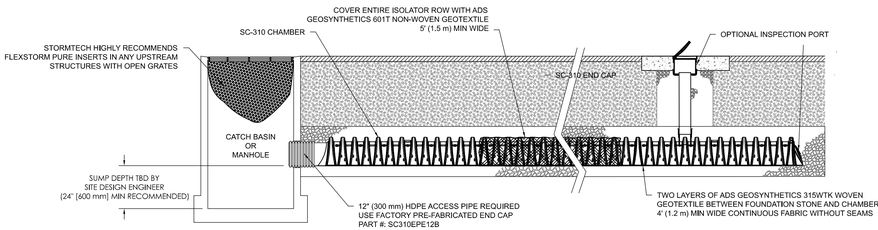
SINKHOLE REPAIR WITH A PERVIOUS COVER

NOT TO SCALE

NOTE:
SINKHOLE REPAIR DETAILS ARE STRICTLY FOR INFORMATIONAL PURPOSES. IN THE EVENT OF A SINKHOLE ON-SITE, A GEOTECHNICAL ENGINEER SHALL BE CONTACTED TO OVERSEE THE REPAIR.

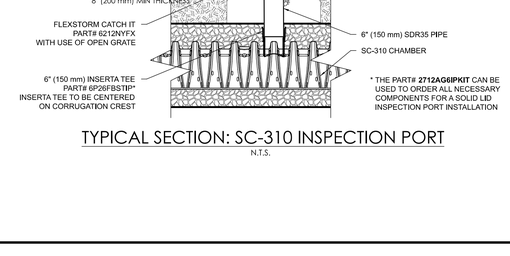


TYPICAL SECTION: SC-310 CROSS SECTION



TYPICAL SECTION: SC-310 ISOLATOR ROW

N.T.S.



TYPICAL SECTION: SC-310 INSPECTION PORT

N.T.S.

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date:	no.	description	chk'd	by
6/8/22	1	REVISED PER TOWNSHIP COMMENTS DATED 3/31/22	JPB	CW

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JAMES P. BANNON ENGINEER No. PE082137

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: POST CONSTRUCTION STORMWATER MANAGEMENT DETAIL SHEET

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CW
date:	chk'd by:
1/27/22	JPB
scale:	approv. by:
1" = 10'	JPB

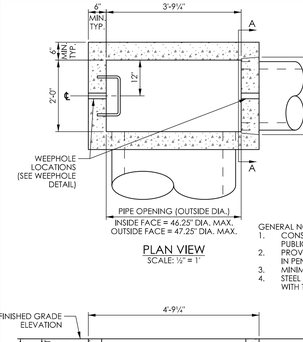
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C9.1

11 of 13

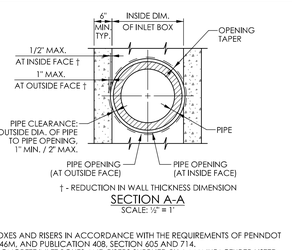
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K:\18proj\18080-Ashford_Wealth\CAD\Plan_Set\18080_C9.1_PCSMDET.dgn
8/9/2022
10.0000 sf / in.
USER: Cwhitty



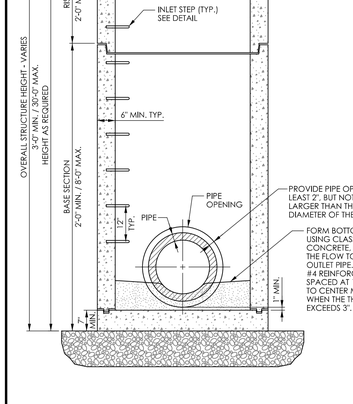
PLAN VIEW
SCALE: ½" = 1'

GENERAL NOTES:
1. CONSTRUCT INLET BOXES AND RISERS IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC46M, AND PUBLICATION 408, SECTION 605 AND 714.
2. PROVIDE PRECAST CONCRETE INLET BOXES AND RISERS SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
3. MINIMUM CONCRETE STRENGTH 4000 PSI @ 28 DAYS (PENNDOT CLASS AA).
4. STEEL REINFORCEMENT OR WELDED WIRE FABRIC (WWF) SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC46M.

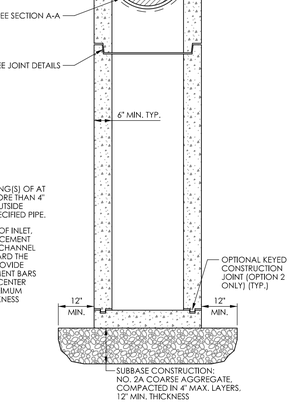


† - REDUCTION IN WALL THICKNESS DIMENSION

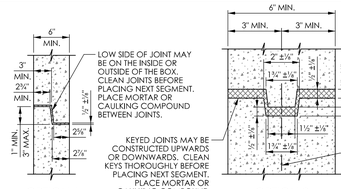
SECTION A-A
SCALE: ½" = 1'



TYP. INLET STRUCTURE ASSEMBLY
SCALE: ½" = 1'



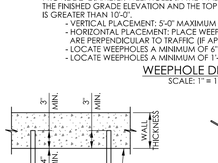
TYP. INLET STRUCTURE ASSEMBLY
SCALE: ½" = 1'



OPTION 1 (SHIPLAP JOINT)
SCALE: 1" = 1'

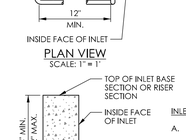
OPTION 2 (KEYED JOINT)
SCALE: 3" = 1'

(PRECAST) JOINT DETAILS
SCALE: AS NOTED



NOTE:
PROVIDE 2" DIAMETER WEEPHOLES IN THE WALLS WHEN THE DEPTH BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF BOTTOM SLAB ELEVATION IS GREATER THAN 10'-0":
- VERTICAL PLACEMENT: 5'-0" MAXIMUM SPACING
- HORIZONTAL PLACEMENT: PLACE WEEPHOLES IN THE SIDE WALLS THAT ARE PERPENDICULAR TO TRAFFIC (IF APPLICABLE).
- LOCATE WEEPHOLES A MINIMUM OF 6" FROM PIPE OPENINGS OR JOINTS.
- LOCATE WEEPHOLES A MINIMUM OF 1'-0" ABOVE OUTLET PIPE INVERT.

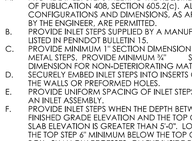
WEEPHOLE DETAIL
SCALE: 1" = 1'



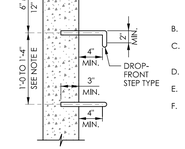
PLAN VIEW
SCALE: 1" = 1'



STEP
(SEE NOTE D) N.T.S.



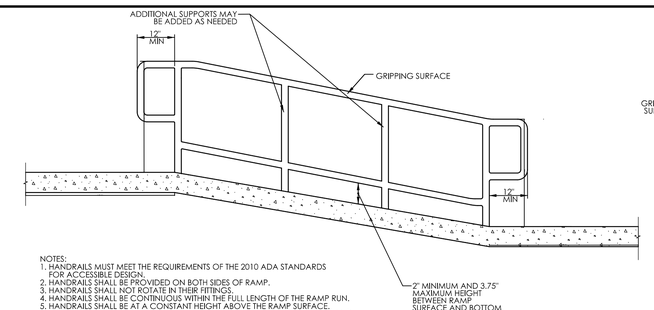
STEP - DROP FRONT
N.T.S.



SIDE VIEW
SCALE: 1" = 1'

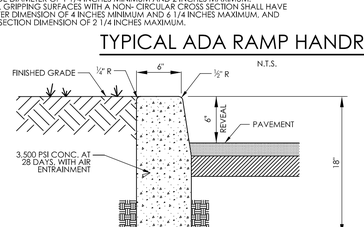
INLET STEPS NOTES:
- A. PROVIDE INLET STEPS MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 605.2(c). ALTERNATE CONFIGURATIONS AND DIMENSIONS, AS APPROVED BY THE ENGINEER, ARE PERMITTED.
- B. PROVIDE INLET STEPS SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
- C. PROVIDE MINIMUM 1" SECTION DIMENSION FOR METAL STEPS. PROVIDE MINIMUM ½" SECTION DIMENSION FOR NON-DETERIORATING MATERIAL STEPS. SECURELY EMBED INLET STEPS INTO INSERTS CAST INTO THE WALLS OR PREFORMED HOLES.
- D. PROVIDE UNIFORM SPACING OF INLET STEPS WITHIN AN INLET ASSEMBLY.
- E. PROVIDE INLET STEPS WHEN THE DEPTH BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF BOTTOM SLAB ELEVATION IS GREATER THAN 5'-0". LOCATE THE THE TOP STEP 6" MINIMUM BELOW THE TOP OF THE INLET BOX. SHALLOW RECESSES, ON THE INSIDE FACE OF THE INLET, NOT GREATER THAN ½" IN DEPTH, FORMED BY MAGNETIC STEP FORMERS ARE ACCEPTABLE AND DO NOT REQUIRE PATCHING. FOR FURTHER DETAILS, REFER TO PENNDOT PUBLICATION 72, RC-39M.

TYP. STEP CONFIGURATION - INLET STEPS

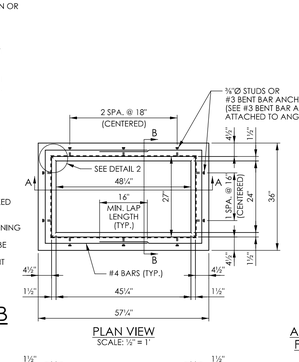


NOTES:
1. HANDRAILS MUST MEET THE REQUIREMENTS OF THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
2. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF RAMP.
3. HANDRAILS SHALL NOT ROTATE IN THEIR FITTINGS.
4. HANDRAILS SHALL BE CONTINUOUS WITHIN THE FULL LENGTH OF THE RAMP RUN.
5. HANDRAILS SHALL BE AT A CONSTANT HEIGHT ABOVE THE RAMP SURFACE.
6. TOP OF GRIPPING SURFACES OF HANDRAILS SHALL BE 34 INCHES MINIMUM AND 38 INCHES MAXIMUM VERTICALLY ABOVE THE RAMP SURFACE.
7. HANDRAIL GRIPPING SURFACES SHALL BE CONTINUOUS ALONG THEIR LENGTH AND SHALL NOT BE OBSTRUCTED ALONG THEIR TOPS OR SIDES. THE BOTTOM OF HANDRAIL GRIPPING SURFACE SHALL NOT BE OBSTRUCTED FOR MORE THAN 20 PERCENT OF THEIR LENGTH
8. CLEARANCE BETWEEN HANDRAIL GRIPPING SURFACE AND ADJACENT SURFACES SHALL BE 1 1/2 INCHES MINIMUM.
9. HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4 INCHES MINIMUM AND 2 INCHES MAXIMUM. HANDRAIL GRIPPING SURFACES WITH A NON- CIRCULAR CROSS SECTION SHALL HAVE A PERIMETER DIMENSION OF 4 INCHES MINIMUM AND 6 1/4 INCHES MAXIMUM, AND A CROSS-SECTION DIMENSION OF 2 1/4 INCHES MAXIMUM.

TYPICAL ADA RAMP HANDRAIL DETAIL
N.T.S.

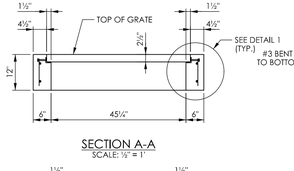


NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH ¾" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. EXPANSION JOINTS SHALL BE PROVIDED AT EQUAL DISTANCES OF NOT MORE THAN 20' AND AT ALL STORM SEWER INLETS. JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, ½" THICK, CONFORMING TO PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. CONTRACTION JOINTS SHALL BE PROVIDED EVERY 10'. THE JOINT SHALL BE RECESSED ¼" FROM THE TOP AND FRONT OF THE CONCRETE CURB.
3. CURB SHALL BE TEMPORARILY BACKFILLED TO FINISHED GRADE WITH SOIL BEHIND AND STONE ON THE ROAD SIDE AS SOON AS IT HAS ATTAINED SUFFICIENT SUPPORTING STRENGTH OR WITHIN 24 HOURS OF POURING (WHICHEVER IS LESS).
4. WHEN NEW CURB IS INSTALLED ALONG AN EXISTING PAVED AREA, THE EXISTING PAVEMENT SHALL BE CUT 2 FEET IN FRONT OF THE NEW CURB FACE IN A STRAIGHT LINE AT A 45 DEGREE ANGLE WITH A CUTTING WHEEL OR PNEUMATIC HAMMER. THE NEW PAVEMENT SHALL BE TACKED AND BUTTED TO THE EXISTING PAVEMENT.
5. THE GENERAL CONTRACTOR OR OWNER IS RESPONSIBLE FOR MAINTAINING ALL CURB UNTIL FORMALLY ACCEPTED BY THE TOWNSHIP. ALL CURB THAT IS BROKEN, CRACKED, OR OUT OF ALIGNMENT SHALL BE REPLACED PRIOR TO FINAL PAVING AND/OR ACCEPTANCE. CURB REPLACEMENT SHALL BE FROM EXPANSION JOINT TO EXPANSION JOINT ONLY.

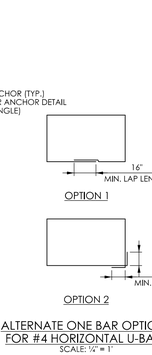


PLAN VIEW
SCALE: ½" = 1'

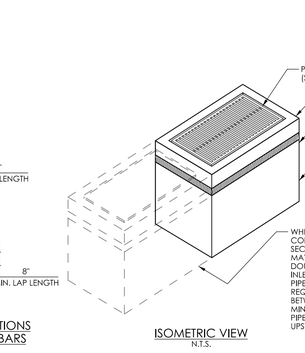
SECTION A-A
SCALE: ½" = 1'



SECTION B-B
SCALE: ½" = 1'



ALTERNATE ONE BAR OPTIONS FOR #4 HORIZONTAL U-BARS
SCALE: ½" = 1'



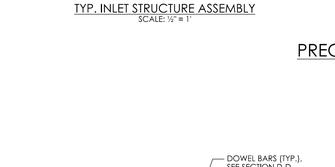
ISOMETRIC VIEW
N.T.S.

CONCRETE SIDEWALK DETAIL
N.T.S.

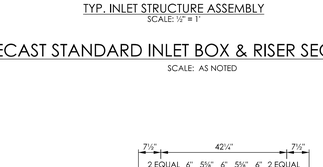
NOTES:
1. THE CONCRETE SHALL CONFORM TO PENNSYLVANIA DEPARTMENT OF HIGHWAYS SPECIFICATIONS FOR CLASS A CEMENT CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE TWENTY-EIGHT-DAY COMPRESSIVE STRENGTH OF THREE THOUSAND FIVE HUNDRED (3,500) POUNDS PER SQUARE INCH.
2. CONCRETE SIDEWALKS SHALL BE CONSTRUCTED TO LINE AND GRADE AS APPROVED OR AS ESTABLISHED BY THE TOWNSHIP ENGINEER.
3. THE BED FOR THE CEMENT CONCRETE SIDEWALKS SHALL BE THOROUGHLY COMPACTED, SHALL BE UNIFORMLY FOUR (4) INCHES BELOW THE FINISHED SURFACE. ON THIS FOUNDATION SHALL BE CONSTRUCTED A FOUR-INCH, ONE COURSE CEMENT CONCRETE PAVEMENT. JOINTS SHALL BE MADE EVERY FIVE (5) FEET AND A SPACE OF ONE-FOURTH (1/4) INCH TO ONE-HALF (1/2) INCH LEFT BETWEEN THE BLOCKS AT EVERY TENTH JOINT AND FILLED WITH PREPARED JOINT FILLER. JOINT FILLER SHALL CONSIST OF FIBER MATRIX AND BITUMEN CONTAINING NOT MORE THAN TWENTY-FIVE PERCENT (25%) OF INERT MATERIAL, HAVING A THICKNESS OF ONE-HALF (1/2) INCH. ALL JOINTS SHALL BE AT RIGHT ANGLES TO THE LINES OF THE WALK AND PERPENDICULAR TO THE SURFACE OF THE WALK. IN ALL OTHER RESPECTS THE SPECIFICATIONS FOR CONCRETE CURB SHALL GOVERN.
4. THE FINISHED WORK SHALL BE CURED BY THE USE OF AN APPROVED WHITE PIGMENTED CURING COMPOUND.



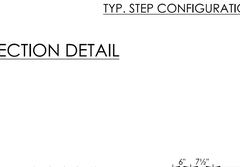
TYPICAL ON-SITE PAVING SECTION
N.T.S.



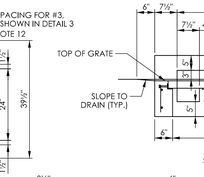
ISOMETRIC VIEW
N.T.S.



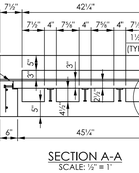
PLAN VIEW
SCALE: ½" = 1'



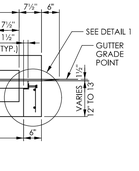
SECTION A-A
SCALE: ½" = 1'



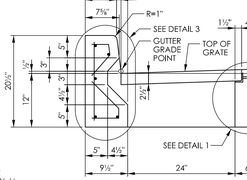
SECTION D-D
SCALE: ½" = 1'



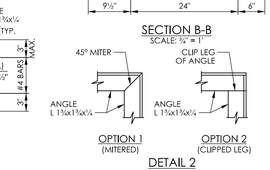
FRONT ELEVATION
SCALE: ½" = 1'



DETAIL 1
SCALE: 1" = 1'



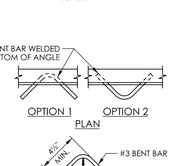
SECTION B-B
SCALE: ½" = 1'



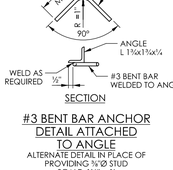
OPTION 1 (MITERED)
OPTION 2 (CLIPPED LEG)

DETAIL 2
SCALE: 1½" = 1'

SECTION B-B
SCALE: ½" = 1'

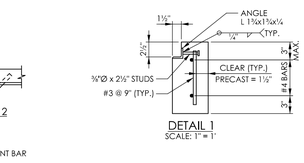


PLAN

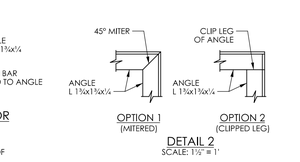


SECTION

#3 BENT BAR ANCHOR DETAIL ATTACHED TO ANGLE
ALTERNATE DETAIL IN PLACE OF PROVIDING ⅜"Ø STUD
SCALE: 1½" = 1'



DETAIL 1
SCALE: 1" = 1'

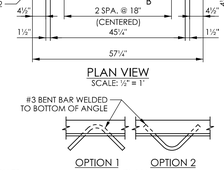


OPTION 1 (MITERED)
OPTION 2 (CLIPPED LEG)

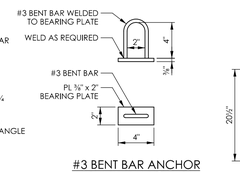
DETAIL 2
SCALE: 1½" = 1'

PRECAST STANDARD INLET BOX & RISER SECTION DETAIL
SCALE: AS NOTED

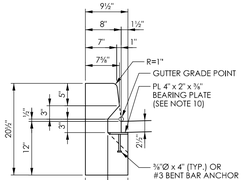
TYPE 'C' INLET / CONCRETE TOP UNIT GENERAL NOTES:
1. CONSTRUCT CONCRETE TOP UNITS IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC45M, AND PUBLICATION 408, SECTION 605 AND 714.
2. PROVIDE PRECAST CONCRETE TOP UNITS SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
3. PROVIDE WELDED INLET ANGLE ASSEMBLIES SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
4. PROVIDE A TOP SLAB TO SUPPORT THE INLET TOP UNITS IF A STANDARD INLET BOX IS NOT SPECIFIED.
5. MINIMUM CONCRETE STRENGTH 4000 PSI @ 28 DAYS (PENNDOT CLASS AA).
6. STEEL REINFORCEMENT OR WELDED WIRE FABRIC (WWF) SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC45M.
7. PLACEMENT OF TYPE C CONCRETE TOP UNIT:
   DOWEL THE TOP UNIT INTO THE ADJACENT CURB SECTIONS WITH 2-#18 x 1'-0" DOWEL BARS. PLACE ½" WIDE PRE-MOLDED EXPANSION JOINT FILLER BETWEEN THE TOP UNIT AND ADJACENT CURB.
8. SET THE PRECAST CONCRETE TOP UNIT ON A NON-SHRINK GROUT PAD TO PROVIDE FULL BEARING ON THE SUPPORTING SURFACE. NON-SHRINK GROUT IS ALSO PERMITTED FOR CROSS SLOPE AND LONGITUDINAL GRADE ADJUSTMENTS.
   - PROVIDE NON-SHRINK GROUT IN ACCORDANCE WITH PUBLICATION 408, SECTION 1001.2(d).
   - MINIMUM GROUT DEPTH = ½"
   - MAXIMUM GROUT DEPTH = 1"
9. PROVIDE A PRECAST CONCRETE GRADE ADJUSTMENT RING/RISER AS NECESSARY. BRICK OR BRICK AND MORTAR ARE NOT ALLOWED FOR GRADE ADJUSTMENTS FOR NEW OR REHABILITATION PROJECTS.
10. A MAXIMUM OF TWO HOLES ARE PERMITTED IN THE PLATE TO POSITION AND HOLD THE PLATE IN PLACE DURING FABRICATION. HOLES ARE NOT PERMITTED TO BE GREATER THAN ¼" DIAMETER.
11. FABRICATOR TO DETERMINE NUMBER OF BARS REQUIRED TO MATCH SHAPE INDICATED. PROVIDE ONE, TWO, OR THREE BARS AS REQUIRED.
12. BEND OUTSIDE STIRRUP TO ACCOMMODATE DOWEL BARS AND STILL MAINTAIN CLEARANCE REQUIREMENTS.



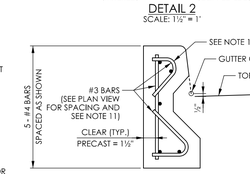
#3 BENT BAR ANCHOR DETAIL ATTACHED TO ANGLE
ALTERNATE DETAIL IN PLACE OF PROVIDING ⅜"Ø STUD
SCALE: 1½" = 1'



#3 BENT BAR ANCHOR DETAIL ATTACHED TO BEARING PLATE
ALTERNATE DETAIL IN PLACE OF PROVIDING ⅜"Ø STUD
SCALE: 1½" = 1'



SECTION C-C
SCALE: ½" = 1'



DETAIL 3
SCALE: 1" = 1'

TYPE 'M' INLET / CONCRETE TOP UNIT GENERAL NOTES:
1. CONSTRUCT CONCRETE TOP UNITS IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC45M, AND PUBLICATION 408, SECTION 605 AND 714, AND AASHTO / AWS BRIDGE WELDING CODE.
2. PROVIDE PRECAST CONCRETE TOP UNITS SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
3. PROVIDE WELDED INLET ANGLE ASSEMBLIES SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT BULLETIN 15.
4. PROVIDE A TOP SLAB TO SUPPORT THE INLET TOP UNITS IF A STANDARD INLET BOX IS NOT SPECIFIED.
5. MINIMUM CONCRETE STRENGTH 4000 PSI @ 28 DAYS (PENNDOT CLASS AA).
6. STEEL REINFORCEMENT OR WELDED WIRE FABRIC (WWF) SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 72, RC45M.
7. PLACEMENT OF TYPE M CONCRETE TOP UNIT:
   PLACE THE TOP UNIT ADJACENT TO THE BACK EDGE OF THE CURB, FLUSH WITH PAVEMENT SURFACE, WHEN REQUIRED WITHIN A CONCRETE MOUNTABLE CURB SECTION.
8. SET THE PRECAST CONCRETE TOP UNIT ON A NON-SHRINK GROUT PAD TO PROVIDE FULL BEARING ON THE SUPPORTING SURFACE. NON-SHRINK GROUT IS ALSO PERMITTED FOR CROSS SLOPE AND LONGITUDINAL GRADE ADJUSTMENTS.
   - PROVIDE NON-SHRINK GROUT IN ACCORDANCE WITH PUBLICATION 408, SECTION 1001.2(d).
   - MINIMUM GROUT DEPTH = ½"
   - MAXIMUM GROUT DEPTH = 1"
9. PROVIDE A PRECAST CONCRETE GRADE ADJUSTMENT RING/RISER AS NECESSARY. BRICK OR BRICK AND MORTAR ARE NOT ALLOWED FOR GRADE ADJUSTMENTS FOR NEW OR REHABILITATION PROJECTS.
10. A MAXIMUM OF TWO HOLES ARE PERMITTED IN THE PLATE TO POSITION AND HOLD THE PLATE IN PLACE DURING FABRICATION. HOLES ARE NOT PERMITTED TO BE GREATER THAN ¼" DIAMETER.
11. FABRICATOR TO DETERMINE NUMBER OF BARS REQUIRED TO MATCH SHAPE INDICATED. PROVIDE ONE, TWO, OR THREE BARS AS REQUIRED.
12. BEND OUTSIDE STIRRUP TO ACCOMMODATE DOWEL BARS AND STILL MAINTAIN CLEARANCE REQUIREMENTS.

TYPE 'C' INLET / CONCRETE TOP UNIT
(PER PENNDOT PUBLICATION 72, RC-45M)
SCALE: AS NOTED

TYPE 'M' INLET / CONCRETE TOP UNIT
(PER PENNDOT PUBLICATION 72, RC-45M)
SCALE: AS NOTED

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www.navenewell.com

no.	description	date
1	REVIED PER TOWNSHIP COMMENTS DATED 3/31/22	6/8/22

REVISIONS

drawn by:	CW
chk'd by	JPB

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

SEAL:

DRAWING NAME: CONSTRUCTION DETAIL SHEET

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	2018-080
drawn by:	CW
date:	1/27/22
chk'd by:	JPB
scale:	AS NOTED
approv. by:	JPB

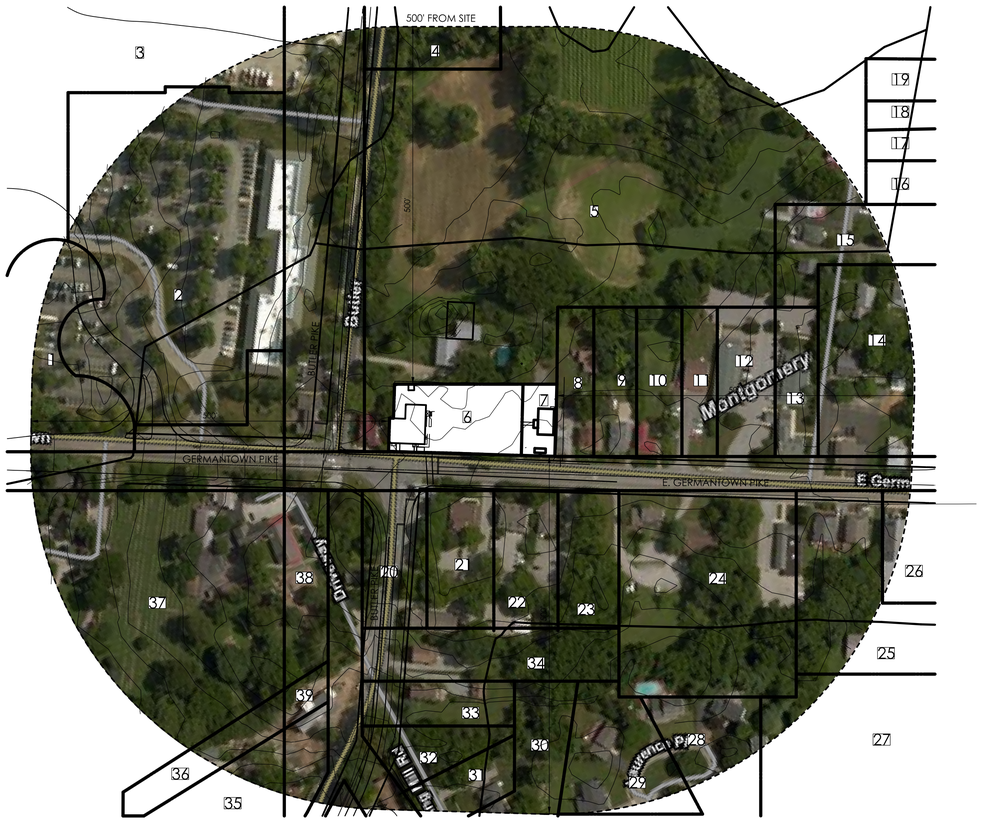
sheet no.

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1.0000 sf / in.
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#	TAX MAP - BLOCK # - UNIT #	TMP #	OWNER	DB / PG
1	49 - 37 - 42	49-00-0417-90-02	PFI VPN PORTFOLIO FEE OWNER LLC	6061 - 1619
2	49 - 37 - 7	49-00-0129-70-04	PFI VPN PORTFOLIO FEE OWNER LLC	6061 - 1606
3	49 - 37 - 45	49-00-0129-50-06	PFI VPN PORTFOLIO FEE OWNER LLC	6061 - 1606
4	65 - 41 - 47	65-00-0124-30-06	SKIBA PATRICIA A	-
5	65 - 41 - 1	65-00-0123-40-06	WILSON ANN & STEVENS MARGARET &	5946 - 830
6	65 - 41 - 2	65-00-0449-20-06	ASHFORD CONSULTING LLC	6057 - 2927
7	65 - 41 - 3	65-00-0448-90-09	ASHFORD WEALTH ADVISORS LLC	6010 - 2124
8	65 - 41 - 4	65-00-0448-30-06	LRF JR PROPERTIES LLC	6085 - 38
9	65 - 41 - 5	65-00-0448-60-03	GRAHAM JOHN J JR & HONICKER MARA E	6048 -1692
10	65 - 41 - 6	65-00-0448-00-09	SCHERER AUSTIN O JR & HELEN G	-
11	65 - 41 - 48	65-00-0447-75-07	TELEGADIS WILLIAM	5924 - 2644
12	65 - 41 - 7	65-00-0123-40-15	ROBBINS GULPH HOLDINGS LLC	6204 - 2578
13	65 - 41 - 8	65-00-0447-40-06	LARE GEORGE G	5810 - 1662
14	65 - 41 - 9	65-00-0447-10-09	HARC GROUP III PA LP	5239 - 1444
15	65 - 41 - 10	-	-	-
16	65 - 41 - 11	65-00-0756-10-06	TRZASKA KAZIMIERZ & JOLANTA	6017 - 2739
17	65 - 41 - 42	65-00-0756-40-03	OTTINGER JEANNE MARIE	5282 - 458
18	65 - 41 -12	65-00-0756-70-09	EY JEROME J JR & ANNA L	5912 - 855
19	65 - 41 -13	65-00-0757-00-06	EY JEROME J JR & ANNA L	5915 - 746
20	65 - 28 - 7	65-00-0475-00-09	SALAMONE NICHOLAS A & JEANNETTE E	-
21	65 - 28 - 41	65-00-0474-70-12	4 E GERMANTOWN LLC	6164 -1485
22	65 - 28 - 8	65-00-0474-70-03	SIX EAST GERMANTOWN PIKE ASSOCS	5300 -1084
23	65 - 28 - 9	65-00-0474-40-06	DIAMOND KENNETH J & LISA M	5402 - 1043
24	65 - 28 - 10	65-00-0474-10-09	14 EAST GERMANTOWN LLC	5845 - 1219
25	65 - 28 - 17	65-00-0473-50-06	14 EAST GERMANTOWN LLC	5845 - 1219
26	65 - 28 - 18	65-00-0473-80-03	GROVE STREET EQUITIES LLC	6271 - 70
27	65 - 28 - 24	65-00-0718-00-09	DICKMAN ADAM T & KATHLEEN M	6133 - 2412
28	65 - 28 - 23	65-00-0717-70-03	SITKO MATTHEW J & ELIZABETH ROSTO	5820 - 393
29	65 - 28 - 22	65-00-0717-40-06	STALLMAN ANNE DOUGHERTY & S VINCENT	5721 - 2218
30	65 - 28 - 3	65-00-1090-60-09	GUIE EDWIN & DEBORAH	5448 - 275
31	65 - 28 - 44	65-00-1090-60-18	KOLB ANDREW & MARLENE	6057 - 2942
32	65 - 28 - 4	65-00-1090-90-06	MARBERGER DIANE M	6043 - 1358
33	65 - 28 - 5	65-00-0122-80-03	LESSE RACHELLE A	5864 - 67
34	65 - 28 - 6	65-00-0123-10-09	3138 BUTLER PIKE ASSOCIATES LP	5858 - 1912
35	49 - 38 - 2	49-00-0130-30-07	PLYMOUTH MONTHLY MEETING &	4835 - 2490
36	49 - 38 - 36	49-00-0130-30-16	CHESTNUT HILL MONTHLY MEETING OF FRIENDS	-
37	49 - 38 - 1	49-00-0130-00-01	PLYMOUTH MNTHLY MTG/SOCY OF FRIENDS	-
38	65 - 28 - 42	-	-	-
39	65 - 28 - 43	-	-	-



NOTES:
1. SEE EXISTING TREE INFORMATION ONTHE EXISTING FEATURE/DEMOLITION PLAN (SHEET C2.0).
2. ALL PROPERTY AREA AND 500' PERIMETER IS IN THE SCHUYKILL RIVER WATERSHED.

SOILS LEGEND:

SOILS INFORMATION OBTAINED FROM THE USDA-NRCS WEB SOIL SURVEY, VERSION 10. SURVEY PERFORMED ON APRIL 12, 2022.

ChA	CHALFONT SILT LOAM, 0 TO 3 PERCENT SLOPES	HSG 'D'
Ch	CODORUS SILT LOAM	HSG 'C'
DuB	DUFFIELD SILT LOAM, 3 TO 8 PERCENT SLOPES	HSG 'B'
EcB	EDGEMONT CHANNERY LOAM, 3 TO 8 PERCENT SLOPES	HSG 'A'
LeB	LAWRENCEVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	HSG 'C'
UgB	URBAN LAND, 0 TO 8 PERCENT SLOPES	
UrhB	URBAN LAND-DUFFIELD COMPLEX, 0 TO 8 PERCENT SLOPES	HSG 'B'

SOIL LIMITATIONS AND RESOLUTIONS

APPLICABILITY TO PROJECT	SOIL LIMITATION	RESOLUTION(S)
YES	CUTBANKS CAVE	PROVIDE APPROPRIATE BENCHING AND/OR SHORING IN AREAS OF EXCAVATION.
YES	CORROSIVE TO CONCRETE / STEEL	INSTALL REBAR TO MINIMUM COVER REQUIREMENTS AND USE EPOXY COATED REBAR. APPLY MOISTURE BARRIER TO SURFACE OF EXPOSED CONCRETE.
YES	DROUGHTY	SOIL SHOULD BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO USE ON SITE. ANY RECOMMENDATIONS PRESCRIBED BY THE GEOTECHNICAL ENGINEER SHALL BE FOLLOWED PRIOR TO USE ON SITE.
YES	EASILY ERODIBLE	SOILS SHALL BE STABILIZED WITH EITHER TEMPORARY OR FINAL STABILIZATION IN AREAS WHERE EARTHWORK IS DELAYED OR STOPPED FOR FOUR CONSECUTIVE DAYS.
YES	FLOODING	AVOID DEVELOPMENT IN FLOOD PRONE AREAS.
YES	DEPTH TO SATURATED ZONE / SEASONAL HIGH WATER TABLE	SOILS SHOULD BE EVALUATED FOR WETNESS PRIOR TO USE IN SITE WORK. IF GEOTECHNICAL ENGINEER DEEMS SOILS TOO WET FOR SITE WORK, THEN SOILS SHALL BE AMENDED OR DRIED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
YES	HYDRIC / HYDRIC INCLUSIONS	SOILS TO BE EVALUATED BY GEOTECHNICAL SPECIALIST. WATER TABLE EVALUATION WILL BE REQUIRED. POSSIBLY IN AREA OF WETLANDS.
YES	LOW STRENGTH / LANDSLIDE PRONE	SOILS SHOULD NOT BE USED FOR STRUCTURAL FILL UNLESS THEY HAVE BEEN EVALUATED BY A GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL ENGINEER DEEMS THEM SUITABLE AS FILL OR PROVIDES RECOMMENDATIONS TO AMEND SOILS MAKING THEM SUITABLE AS FILL.
YES	SLOW PERCOLATION	SOIL TO BE EVALUATED FOR SUITABILITY FOR INFILTRATION PRACTICES.
YES	PIPING	AREAS OF EMBANKMENTS WITH PIPES PASSING THROUGH THEM SHALL HAVE ANTI-SEEP COLLARS INSTALLED PER THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTIONS (PA DEP) EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM.
YES	POOR SOURCE OF TOPSOIL	SOIL SHOULD BE AMENDED AS RECOMMENDED TO PROVIDE ADEQUATE MATERIALS NECESSARY FOR REQUIRED PLANT GROWTH.
YES	FROST ACTION	SOILS SHOULD BE FREE OF FROZEN OR MUCKY MATERIALS. FILL SHOULD NOT BE PLACED ON SATURATED OR FROZEN SURFACES. EARTHWORK INVOLVING THESE SOILS SHOULD BE LIMITED TO THE WARMER MONTHS WHEN PRACTICAL.
YES	SHRINK - SWELL	SOILS SHOULD NOT BE USED FOR STRUCTURAL FILL UNLESS THEY HAVE BEEN EVALUATED BY A GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL ENGINEER DEEMS THEM SUITABLE AS FILL OR PROVIDES RECOMMENDATIONS TO AMEND SOILS MAKING THEM SUITABLE AS FILL.
YES	POTENTIAL SINKHOLE	SOILS SHOULD BE EVALUATED FOR SINKHOLE ACTIVITY. INFILTRATION PRACTICES SHOULD BE AVOIDED IN THESE AREAS OR APPLIED WITH CONSIDERATION TO MINIMIZING INFILTRATION RATE. APPLY RECOMMENDATIONS FROM GEOTECHNICAL SPECIALIST. AVOID PLACING INFILTRATION PRACTICES, IF NEEDED, CLOSE TO BUILDINGS OR PRINCIPAL STRUCTURES. ENSURE ALL DRAINAGE SYSTEMS ARE WATERTIGHT.
NO	PONDING	ANY PONDING WATER SHALL BE PUMPED TO A LOCATION OF NO PONDING. ANY SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE PUMPED THROUGH A SEDIMENT CONTROL BMP SUCH AS PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
YES	WETNESS	SOILS SHOULD BE EVALUATED FOR WETNESS PRIOR TO USE IN SITE WORK. IF GEOTECHNICAL ENGINEER DEEMS SOILS TOO WET FOR SITE WORK, THEN SOILS SHALL BE AMENDED OR DRIED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft

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date:	no.	description	chk'd	by

REVISIONS

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JAMES P. BANNON JR. No. PE082137

JAMES P. BANNON
Professional Engineer
Pennsylvania License No. PE 082137

DRAWING NAME: EXISTING RESOURCES & SITE ANALYSIS PLAN (ERSAP)

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

project no.	drawn by:
2018-080	CC
date:	chk'd by:
	JPB
scale:	approv. by:
1"-100'	JPB

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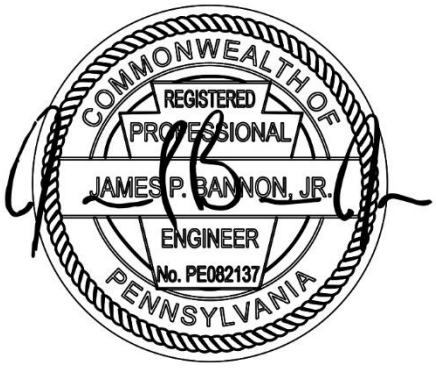
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POST CONSTRUCTION STORMWATER MANAGEMENT REPORT AND SITE DRAINAGE/EROSION &SEDIMENTATION CALCULATIONS

5 & 15 E. GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

ASHFORD WEALTH ADVISORS



Revised: August 3, 2022
Issued: January 27, 2022
Nave Newell No.: 2018-080.00

Engineers • Planners • Surveyors • Landscape Architects
900 West Valley Road, Suite 1100, Wayne, PA 19087 • 610.265.8323 • fax 610.265.4299 • www.navenewell.com

POST CONSTRUCTION STORMWATER MANAGEMENT REPORT AND SITE DRAINAGE/EROSION AND SEDIMENTATION CALCULATIONS
SUMMARY OF CONTENTS

ASHFORD WEALTH ADVISORS
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

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I.

Post-Construction Stormwater Management (PCSM) Narrative

Introduction

This Post-Construction Stormwater Management Narrative was developed to comply with the requirements of Chapter 102, Title 25 of the Administrative Code, created under the Clean Streams Law, and the Whitemarsh Township Stormwater Management Ordinance and Resolution 2004-8. The Pennsylvania Department of Environmental Protection (PADEP) Pennsylvania Stormwater Best Management Practices Manual was used as a reference in facilities design.

Project Description

This site is located in Whitemarsh Township. The project includes the renovation of an existing parking lot and an addition to an existing building. A no-release subsurface infiltration bed will be utilized to comply with the Township's stormwater peak rate control, volume and water quality requirements.

Existing Conditions
The site is located at 5 and 15 E. Germantown Pike, Montgomery County, PA.

Site topography description: The majority of the site generally drains to the north of the site, away from Germantown Pike.

Existing and Historic land use: The parcels are currently developed. The sites currently have existing buildings and parking lot. There is no evidence of sinkhole activity present.

Watershed Information: The entire area lies within the Schuylkill River Watershed and the site is tributary to Plymouth Creek. Plymouth Creek is currently classified as WWF, MF– Warm Water Fishes, Migratory Fishes by the Pennsylvania Chapter 93 classifications.

Site soils are mapped in the NRCS Soil Survey as follows:

UrhB – Urban land-Duffield complex, 0 to 8 percent slopes, HSG 'B'

Proposed Conditions
The project site is 22,409 SF (0.5144 acres), which is currently occupied by two existing buildings and parking lot. The site will propose renovations to the existing parking lot, in addition to a building addition to the existing building located on the east side of the property. The flow to the neighboring properties will be minimized in the post-development conditions. The project will utilize a no-release subsurface bed with an emergency overflow outlet to meet the township's volume, peak rate, and water quality requirements.

PCSM PLAN STORMWATER ANALYSIS §102.8(g):

Stormwater Management
The stormwater management system for this project is designed to meet the provisions of Resolution 2004-8 and the Whitemarsh Township Grading, Erosion Control, Stormwater Management and Best Management Practices Ordinance (chapter 58 of the Whitemarsh Township Code).

As previously noted, the project site is tributary to the Plymouth Creek and is in the Schuylkill Watershed. Note that the "studied area" includes the entire area within the limit of disturbance. This is depicted on the enclosed drainage area plans.

The following discharge points were established in order to perform the analysis:

Discharge Point Name:	**001**
Location of POI 1:	Located at the north property line
Drainage Area within the LOD:	0.41 AC
Description:	The majority of the study area currently flows overland, to the northern property line. In the proposed conditions, in the studied area a portion will drain to proposed no-release stormwater management facility.

(1) Predevelopment site characterization and assessment of soil and geology including appropriate infiltration and geotechnical studies that identify location and depths of test sites and methods used.

These supplementary reports are provided in Section VI.

VOLUME CONTROL AND WATER QUALITY §102.8(g)(2)

The project is subject to the provisions of the Township of Whitemarsh Stormwater Management Ordinance Resolution 2004-8.

Township Requirement
Per the Township Stormwater Management Ordinance, the post-construction total runoff volume shall not exceed the pre-development total runoff condition for all storms equal to or less than the 2-year, 24-hour duration precipitation (design storm).

Volume Control
The post development total run-off volume shall not exceed the pre-development total run-off volume for all storms equal or less than the 2-year, twenty-four (24) hour duration precipitation design storm per the PA BMP Manual criteria. The two-year runoff volume was evaluated for the disturbed areas associated with the project. In the pre-development study area, all non-

impervious areas and 20% of the existing impervious areas are modeled as "meadow – in good condition". The remaining impervious coverage is modeled as "impervious". Post-development coverages are broken out into lawn and impervious conditions.

Infiltration modeling will be utilized to minimize the size of the system. The 100-year storm will be infiltrated because the proposed BMP will be a no-release system and exceeds the volume requirement.

All volume calculations are based on the SCS Curve Number Method and a 2-year 24-hour rainfall depth of 3.20 inches values from NOAA Atlas 14, Volume 2, Version 3.

Two-year runoff volumes were evaluated for each discharge point. The following BMP's are proposed for this project:

- BMP 6.4.3 Subsurface Infiltration Bed – One subsurface infiltration bed is proposed to be constructed to regulate volume, peak rate, and water quality.

Groundwater Recharge/Infiltration
The Township requires the net two-year volume to be to be infiltrated. Refer to Section V of this report for volume credit calculations.

Stormwater Collection and Conveyance System
The stormwater conveyance network was designed to convey the flows from the 100-year storm event. The Rational Method was used to design the stormwater conveyance system. Runoff intensities were based on the PennDOT Region 5 Intensity Duration Frequency curves. The following Rational runoff coefficients were used:

- Impervious surfaces: C = 0.99
- Pervious surfaces: C = 0.45

Bentley Systems' "StormCAD V8i" software was used to perform all design calculations and hydraulic grade analyses for the proposed conveyance pipes. Associated design calculations are included elsewhere in this report.

Water Quality
The following BMPs are used to meet the water quality requirements of the Township:

- BMP 6.4.3 Subsurface Infiltration Bed

A detailed sequence of construction and operations is included on the E&S Plan and maintenance schedule is included on the PCSM Plan.

RATE CONTROL §102.8(g)(3)

Township Requirement
The site, which falls within the Schuylkill Creek Watershed was analyzed for the design frequency storms as indicated in the Township of Whitemarsh Stormwater Ordinance Resolution 2004-8 for Peak Rate Control Standards.

- 2-year post development to 2-year pre-development
- 5-year post development to 5-year pre-development
- 10 year post development to 10-year pre-development

- 25-year post development to 25-year pre-development
- 50-year post development to 50year pre-development
- 100-year post development to 100-year pre-development

Design Storm	Pre-development Flow (24-Hour)	Allowable Flow	Post-development Flow (24-Hour)
2-year	0.75 cfs	0.75 cfs	0.12 cfs
5-year	1.18 cfs	1.18 cfs	0.21 cfs
10-year	1.57 cfs	1.57 cfs	0.29 cfs
25-year	1.93 cfs	1.93 cfs	0.37 cfs
50-year	2.31 cfs	2.31 cfs	0.45 cfs
100-year	2.69 cfs	2.69 cfs	0.54 cfs

METHODOLGY §102.8(g)(4)

Volume and Rate Control Methodology - The Soil Cover Complex Method was utilized to calculate the pre-development and post-development volumes. The rainfall values from NOAA Atlas 14, Volume 2, Version 3 used for the stormwater calculations. The following rainfall values were used:

Average recurrence interval (years)	Rainfall (inches)
1 year	2.60
2 year	3.20
5 year	4.20
10 year	5.00
25 year	5.70
50 year	6.40
100 year	7.10

Stormwater rate calculations are based on the SCS TR-20 method and were calculated using HydroCAD, Version 10.

SPECIAL CONSIDERATION TO ADDRESS SOIL §102.8(g)(5)

Soil Summary:
The following soils are mapped for the project area per the NRCS Web Soil Survey, dated February 5, 2019.

UrhB– Urban land-Duffield, 0 to 8 percent slopes, HSG 'B'

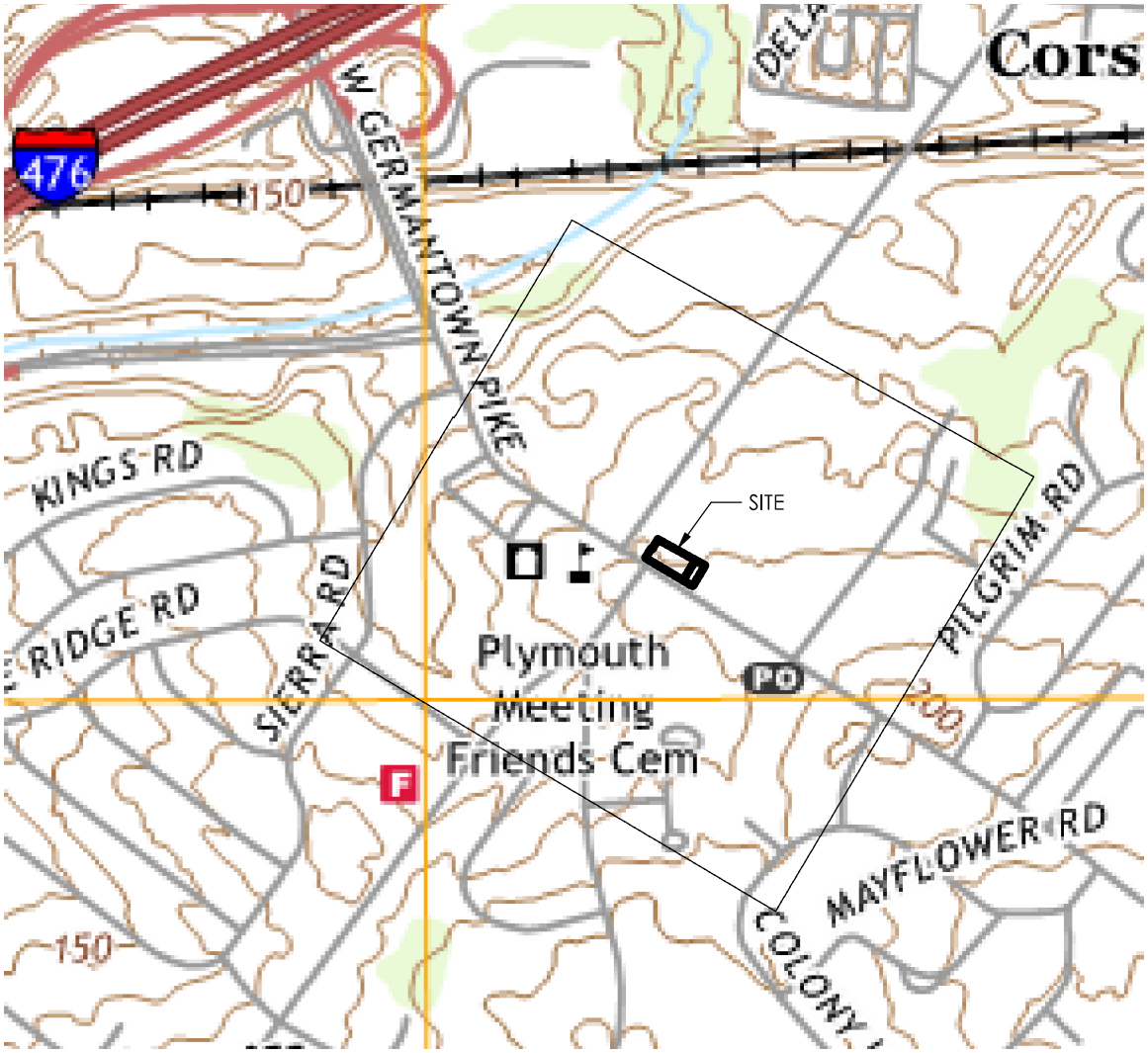
Conclusion
The site will propose renovations to the existing parking lot and an addition to an existing building located on the east side of the property. The stormwater management facility proposed on the project site allow the project to adequately meet the Township and State's stormwater management requirements.

PCSM PLAN PREPARER REQUIREMENTS (§102.8(e))
The plan was prepared under the direction of the following professional:

James P. Bannon, PE
Nave Newell, Inc.
900 West Valley Road, Suite 1100
Wayne, PA 19087
(610) 265-8323

Jim Bannon, PE has over 20 years of experience preparing land development and E&S control plans.

II.



SOURCE: NORRISTOWN QUAD
LOCATION:40°06'09.0"N
75°16'40.8"W

LOCATION MAP

SCALE 1"=800'

Nave Newell

900 West Valley Road • Suite 1100
Wayne, PA 19087-1830
p: 610.265.8323 f: 610.265.4299
www.navenewell.com

DRAWING NAME: LOCATION MAP

PROJECT NAME: ASHFORD WEALTH ADVISORS

SCALE:	DRAWN BY:	PROJECT NUMBER:	SHEET
1" = 800'	EJK	2018-080	1 OF 1
CHK'D BY:	APPROV. BY:	DATE:	
JPB	JPB	1/5/22	

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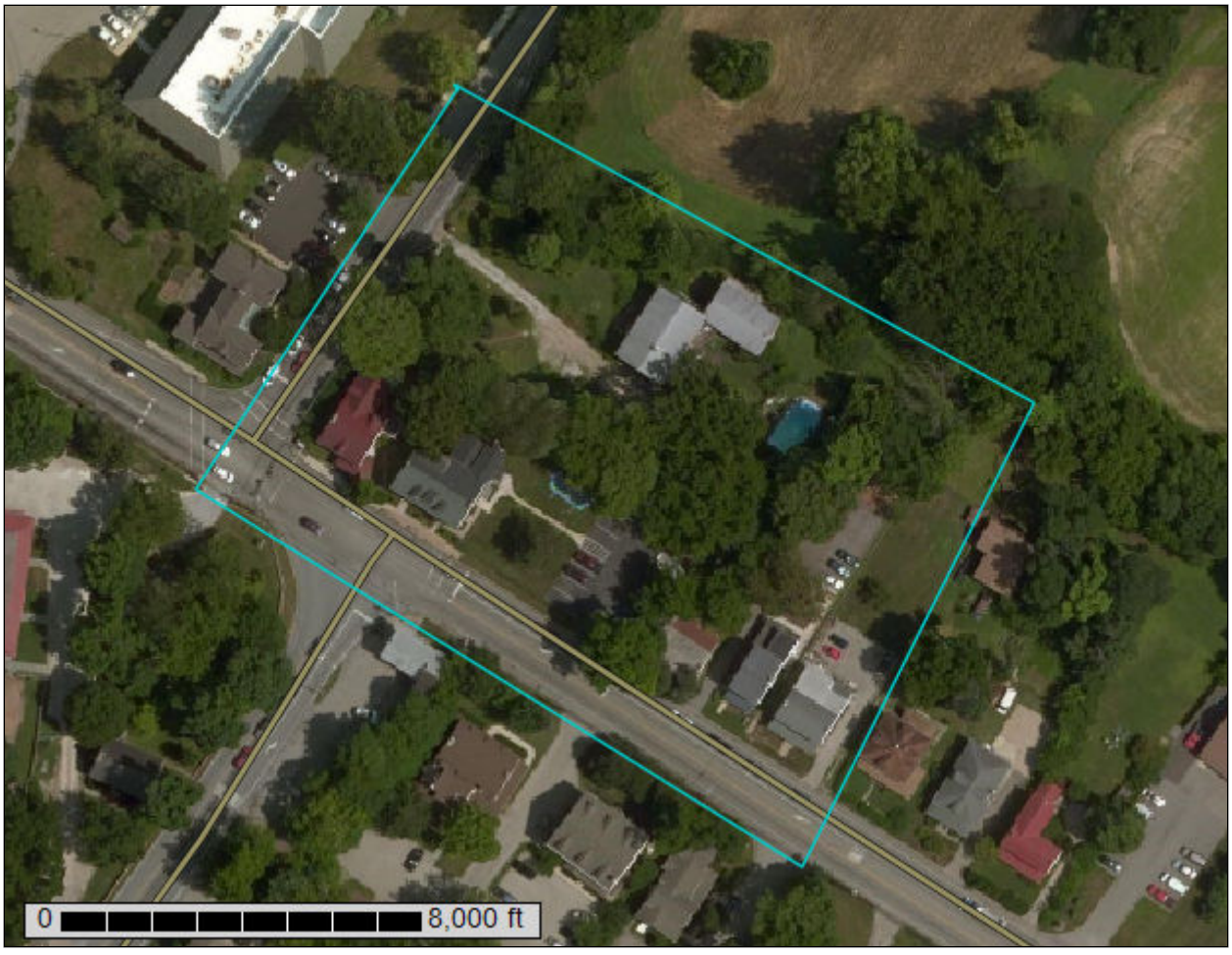
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Montgomery County, Pennsylvania



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,280 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Pennsylvania
Survey Area Data: Version 13, Sep 19, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 17, 2014—Aug 14, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LeB	Lawrenceville silt loam, 3 to 8 percent slopes	0.0	0.1%
UgB	Urban land, 0 to 8 percent slopes	0.0	0.0%
UrhB	Urban land-Duffield complex, 0 to 8 percent slopes	3.2	99.9%
Totals for Area of Interest		**3.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Montgomery County, Pennsylvania

LeB—Lawrenceville silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2fhm6
Elevation: 200 to 1,600 feet
Mean annual precipitation: 38 to 48 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 140 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Lawrenceville and similar soils: 83 percent
Minor components: 17 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lawrenceville

Setting

Landform: Upland slopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Parent material: Loess over residuum weathered from shale and siltstone

Typical profile

Ap - 0 to 12 inches: silt loam
Bt - 12 to 26 inches: silt loam
Btx - 26 to 47 inches: silt loam
C - 47 to 75 inches: silt loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 24 to 38 inches to fragipan; 48 to 99 inches to lithic bedrock
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Lansdale

Percent of map unit: 12 percent

Landform: Hillsides
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Doylestown

Percent of map unit: 3 percent
Landform: Drainageways
Landform position (two-dimensional): Toeslope, footslope, backslope
Landform position (three-dimensional): Head slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: Yes

Chalfont

Percent of map unit: 2 percent
Landform: Upland slopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: No

UgB—Urban land, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2dtyq
Elevation: 800 to 1,500 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 130 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Parent material: Pavement, buildings and other artifically covered areas human transported material

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Udorthents, unstable fill
Percent of map unit: 10 percent
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

UrhB—Urban land-Duffield complex, 0 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2dtyv
Elevation: 200 to 1,500 feet
Mean annual precipitation: 32 to 50 inches
Mean annual air temperature: 44 to 57 degrees F
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition
Urban land: 65 percent
Duffield and similar soils: 25 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Pavement, buildings and other artifically covered areas

Typical profile
C - 0 to 6 inches: variable

Properties and qualities
Slope: 0 to 8 percent
Depth to restrictive feature: 10 to 100 inches to lithic bedrock
Available water storage in profile: Very low (about 0.0 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Description of Duffield

Setting
Landform: Valleys
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

Ap - 0 to 10 inches: silt loam
Bt - 10 to 53 inches: silty clay loam
C - 53 to 72 inches: silt loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 48 to 120 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Clarksburg

Percent of map unit: 4 percent
Landform: Valley flats
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: No

Penlaw

Percent of map unit: 4 percent
Landform: Swales
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

Thorndale

Percent of map unit: 2 percent
Landform: Depressions
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear, concave
Hydric soil rating: Yes

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III.

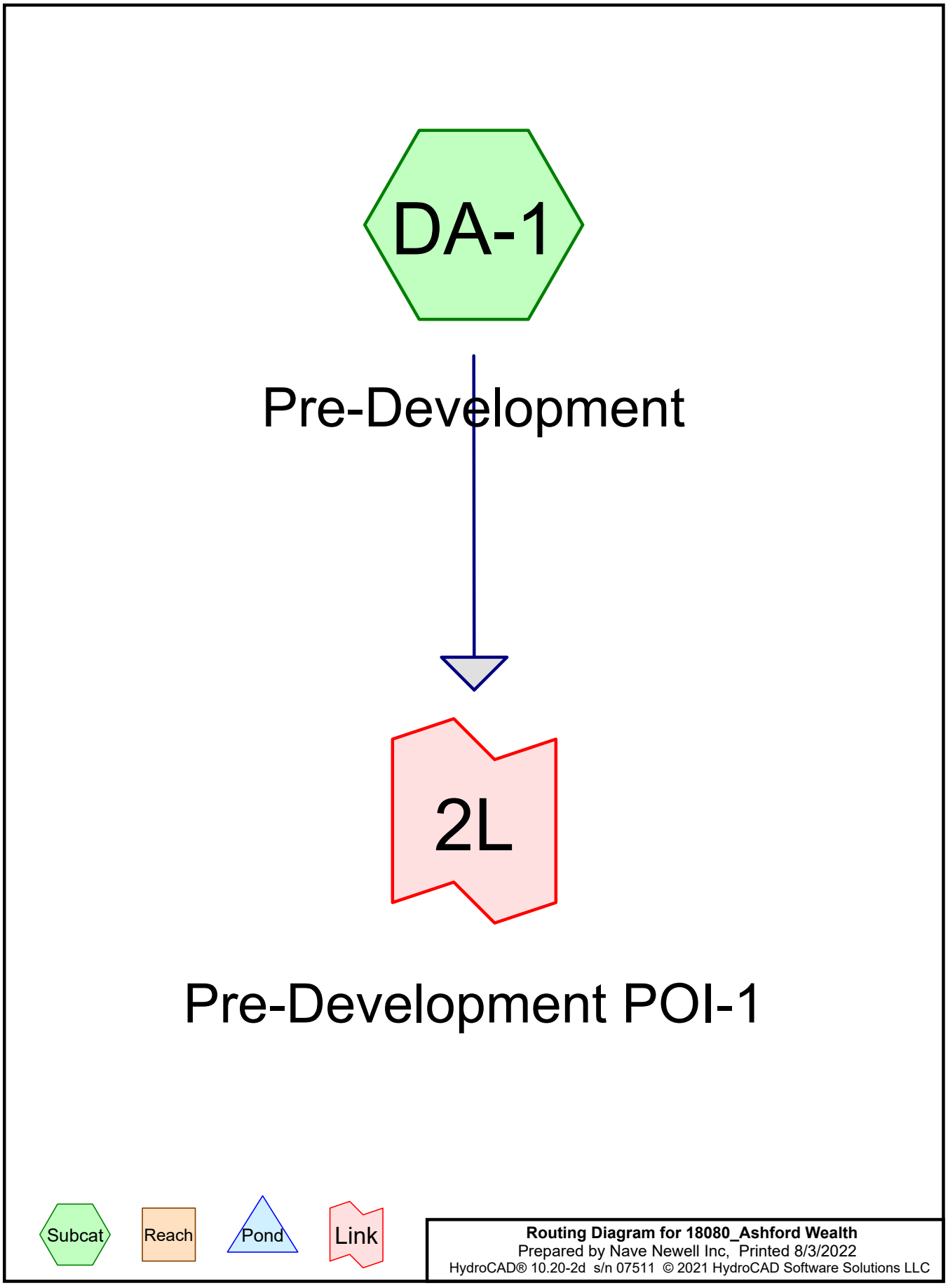
SUMMARY OF FLOWS
Pre-Development/Post Development POI-1

Storm	Pre-Development Flow (CFS)	Allowable Flow* (CFS)	Post-Development Flow (CFS)	Net Change in Runoff (CFS)
1	0.04			
2	0.18	0.18	0.18	0.00
5	0.52	0.52	0.30	-0.22
10	0.85	0.85	0.40	-0.45
25	1.18	1.18	0.49	-0.69
50	1.53	1.53	0.59	-0.94
100	1.89	1.89	0.69	-1.20

* Per requirements of Whitemarsh Township Resolution 2004-8

Nave Newell
Where Ideas Get Down to Earth
900 West Valley Road
Suite 1100
Wayne, PA
(610) 265-8323

PROJECT NAME: Ashford Wealth Advisors
JOB #: 20180-080.00 **BY:** CW
DATE: 8/3/2022 **CHK'D:** JPB



Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc, Printed 8/3/2022
HydroCAD® 10.20-2d s/n 07511 © 2021 HydroCAD Software Solutions LLC

Summary for Subcatchment DA-1: Pre-Development

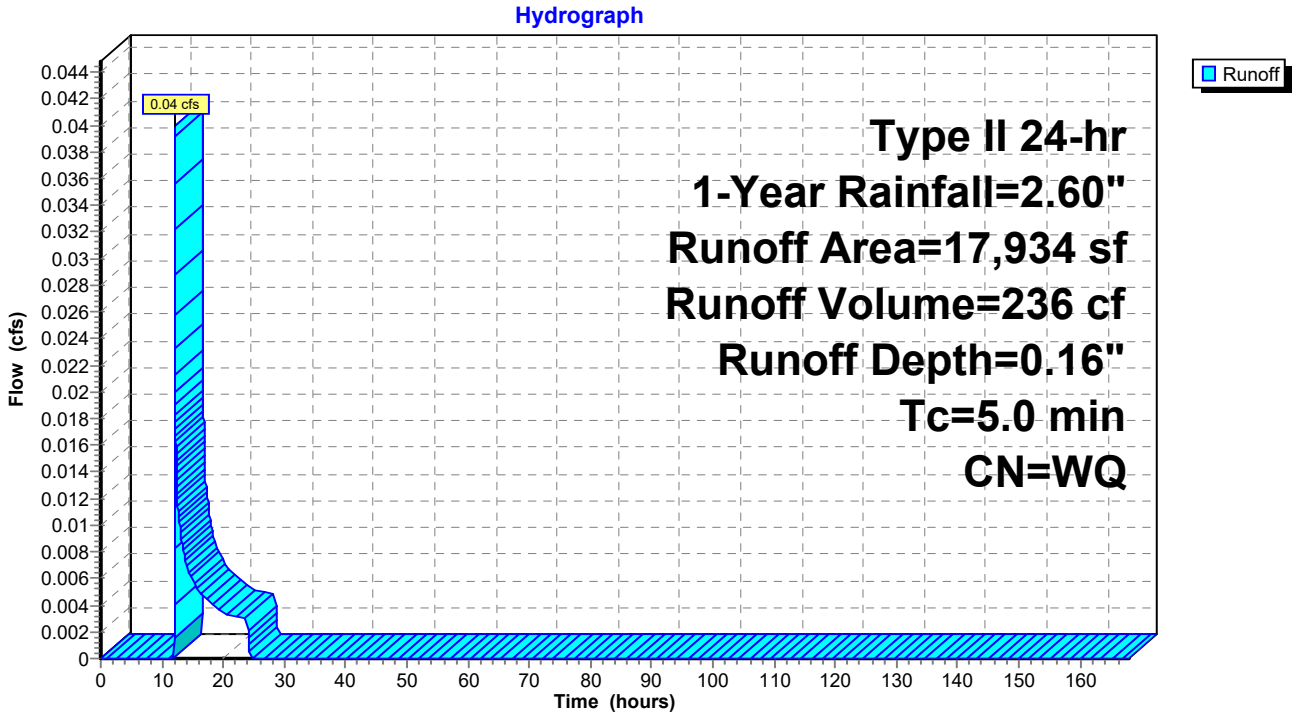
Runoff = 0.04 cfs @ 12.02 hrs, Volume= 236 cf, Depth= 0.16"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.60"

Area (sf)	CN	Description
11,913	58	Meadow, non-grazed, HSG B
6,021	58	Meadow, non-grazed, HSG B
17,934		Weighted Average
17,934		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

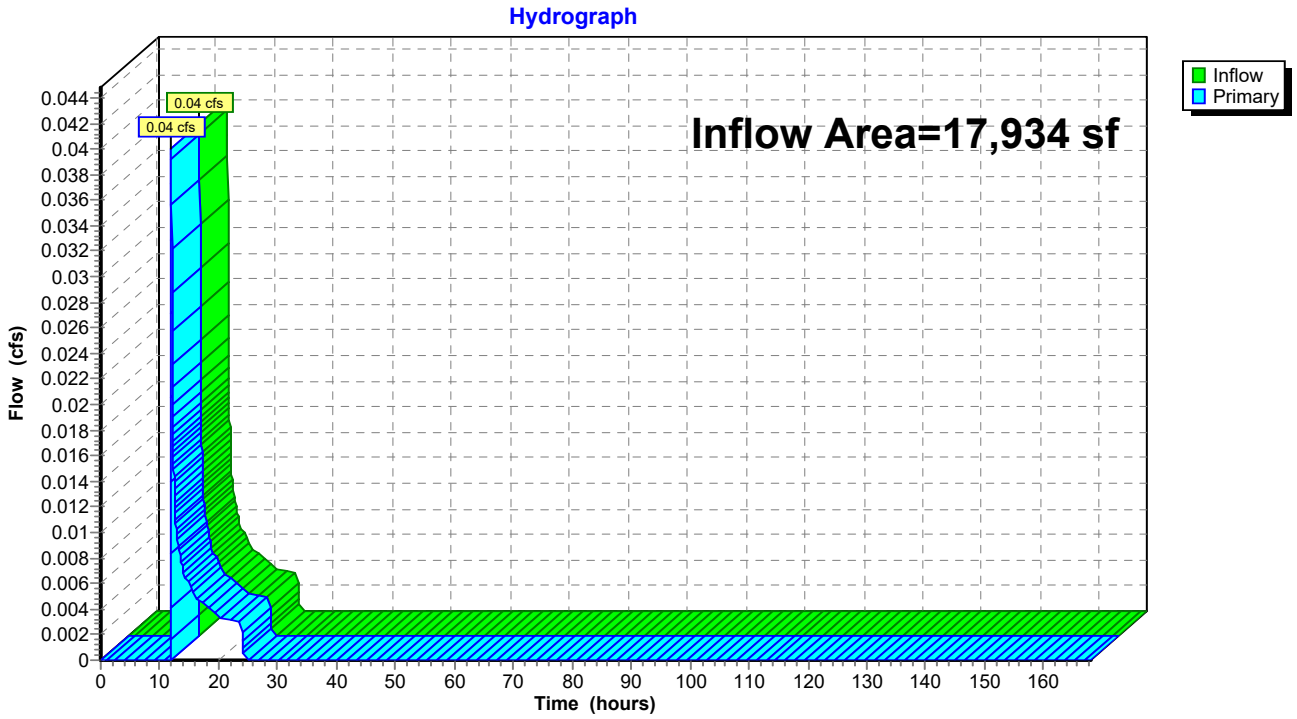


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 0.00% Impervious, Inflow Depth = 0.16" for 1-Year event
Inflow = 0.04 cfs @ 12.02 hrs, Volume= 236 cf
Primary = 0.04 cfs @ 12.02 hrs, Volume= 236 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

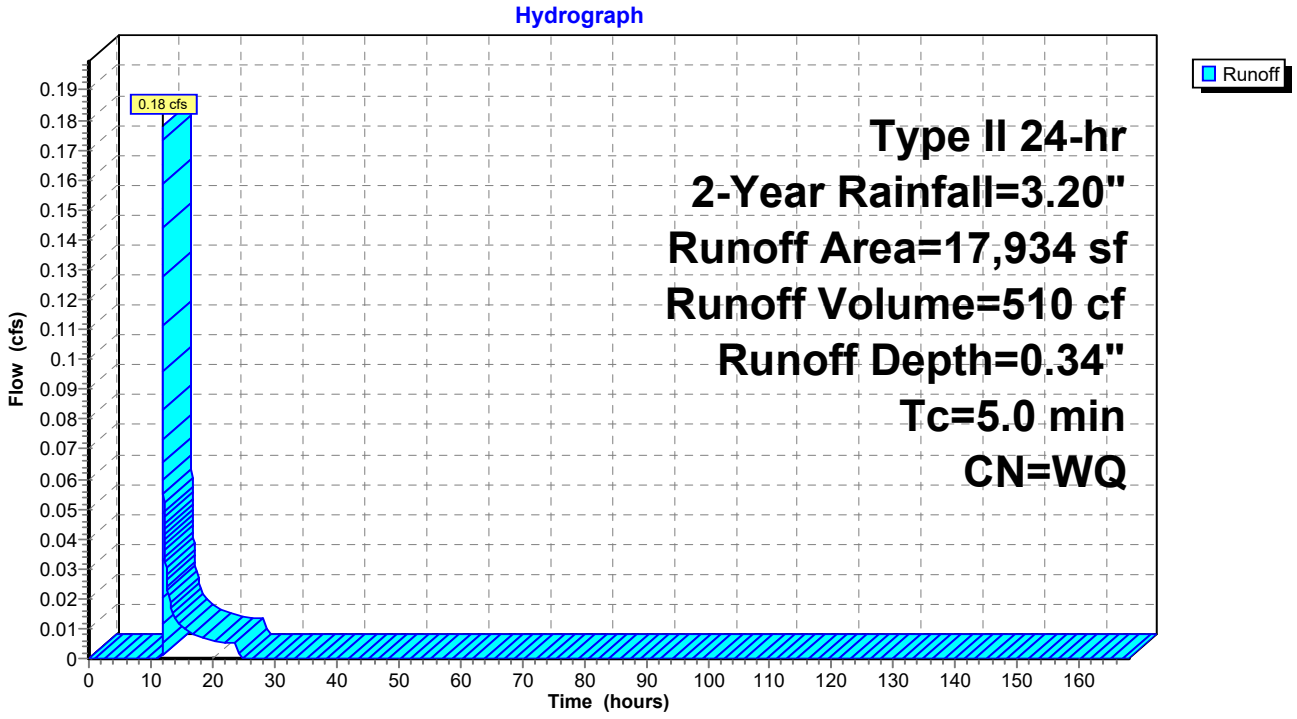
Runoff = 0.18 cfs @ 11.99 hrs, Volume= 510 cf, Depth= 0.34"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=3.20"

Area (sf)	CN	Description
11,913	58	Meadow, non-grazed, HSG B
6,021	58	Meadow, non-grazed, HSG B
17,934		Weighted Average
17,934		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

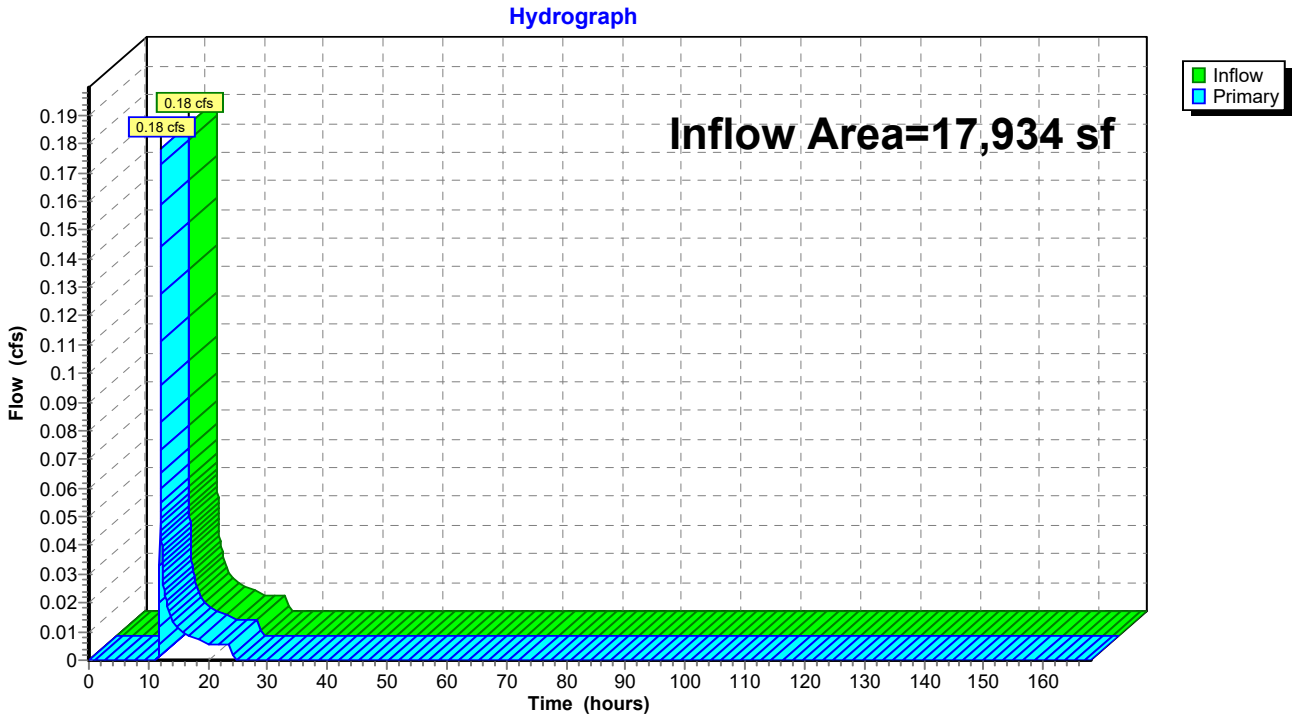


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 0.00% Impervious, Inflow Depth = 0.34" for 2-Year event
Inflow = 0.18 cfs @ 11.99 hrs, Volume= 510 cf
Primary = 0.18 cfs @ 11.99 hrs, Volume= 510 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

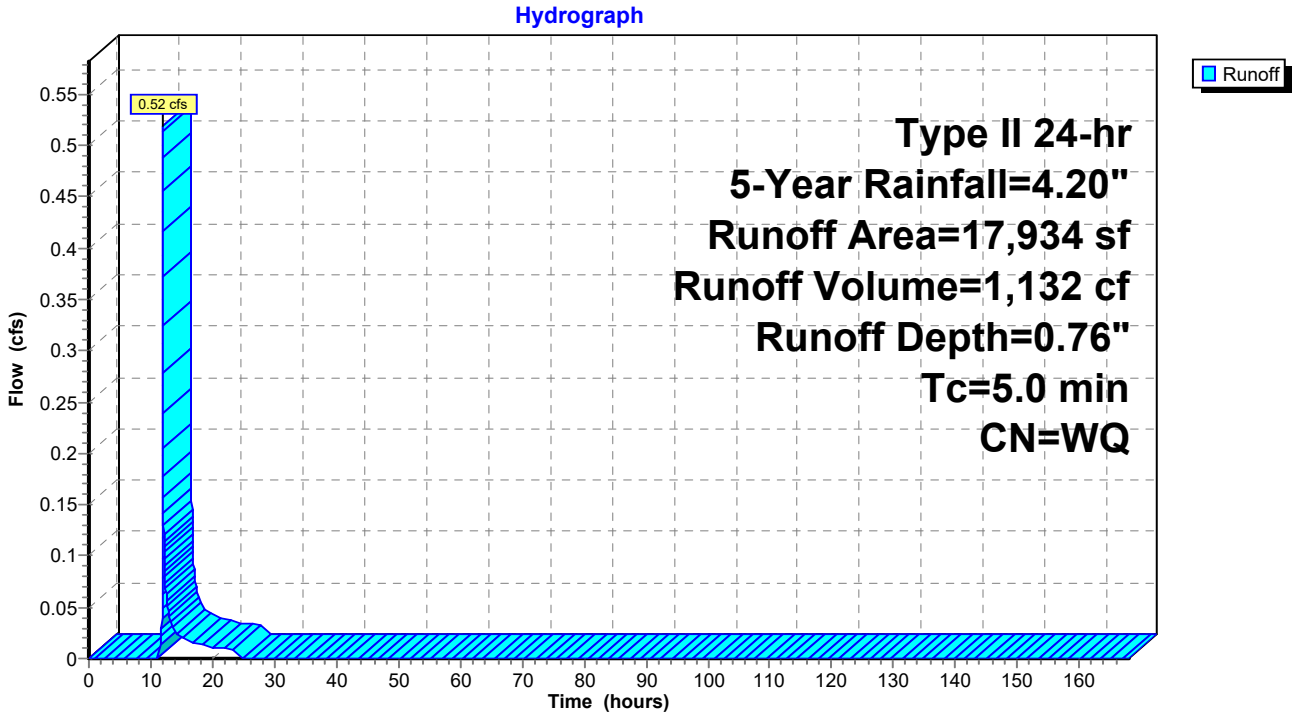
Runoff = 0.52 cfs @ 11.98 hrs, Volume= 1,132 cf, Depth= 0.76"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=4.20"

Area (sf)	CN	Description
11,913	58	Meadow, non-grazed, HSG B
6,021	58	Meadow, non-grazed, HSG B
17,934		Weighted Average
17,934		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

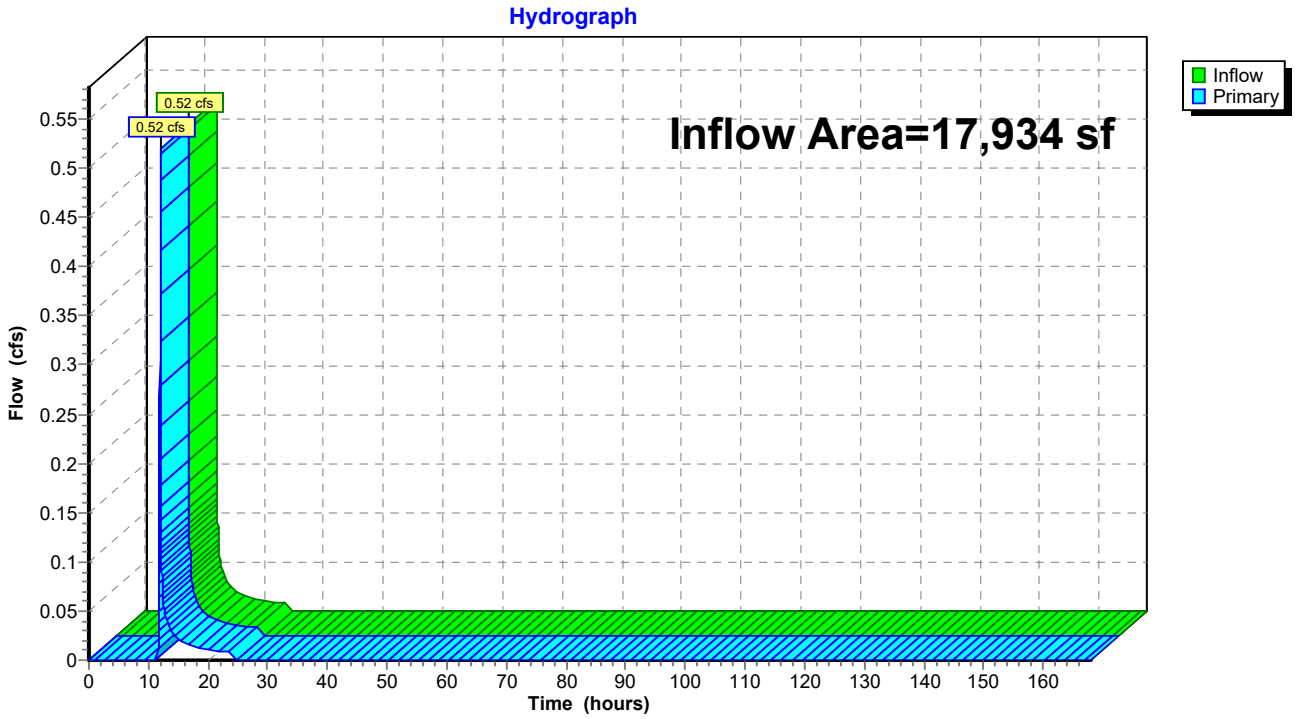


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 0.00% Impervious, Inflow Depth = 0.76" for 5-Year event
Inflow = 0.52 cfs @ 11.98 hrs, Volume= 1,132 cf
Primary = 0.52 cfs @ 11.98 hrs, Volume= 1,132 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

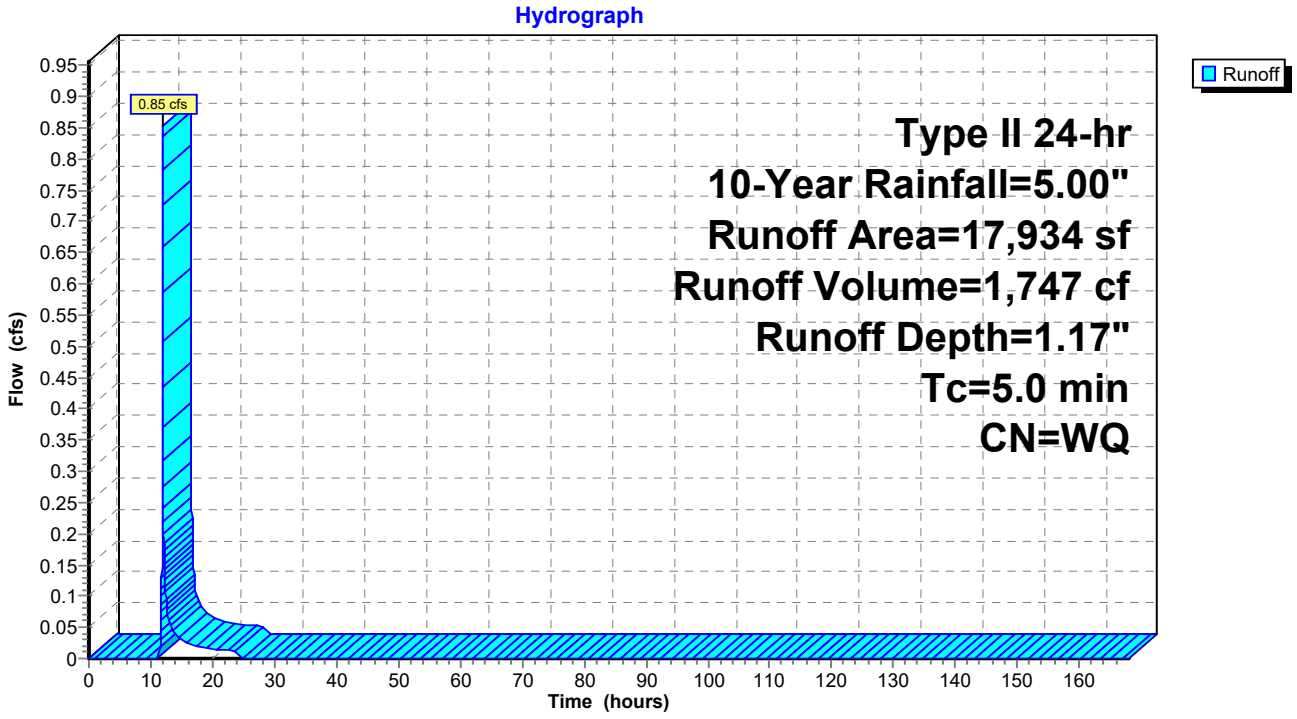
Runoff = 0.85 cfs @ 11.97 hrs, Volume= 1,747 cf, Depth= 1.17"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
11,913	58	Meadow, non-grazed, HSG B
6,021	58	Meadow, non-grazed, HSG B
17,934		Weighted Average
17,934		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

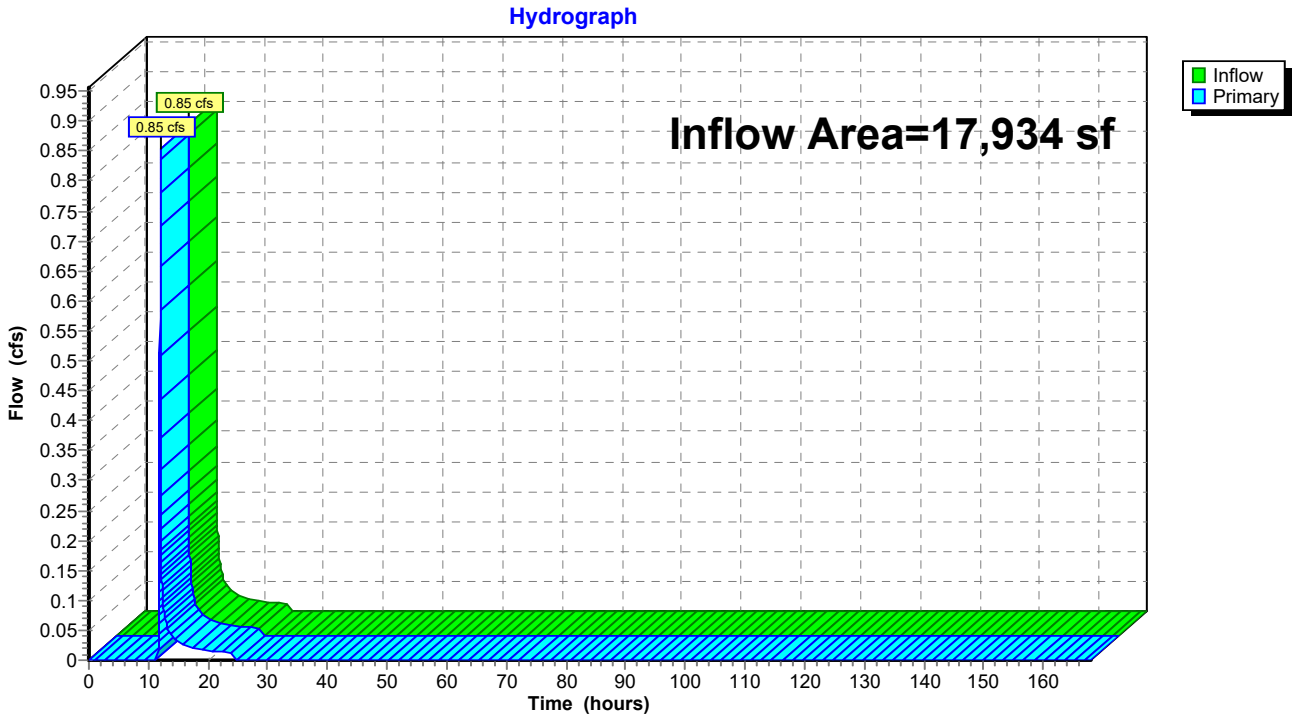


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 0.00% Impervious, Inflow Depth = 1.17" for 10-Year event
Inflow = 0.85 cfs @ 11.97 hrs, Volume= 1,747 cf
Primary = 0.85 cfs @ 11.97 hrs, Volume= 1,747 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

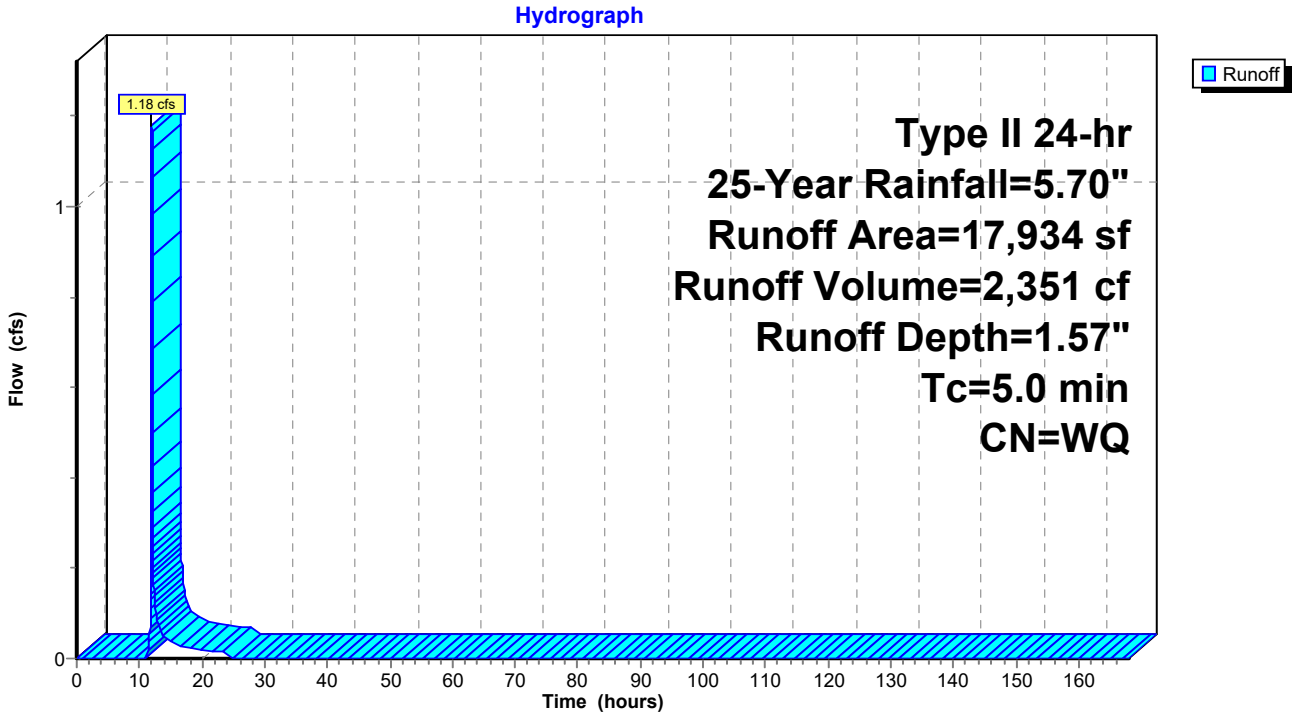
Runoff = 1.18 cfs @ 11.97 hrs, Volume= 2,351 cf, Depth= 1.57"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=5.70"

Area (sf)	CN	Description
11,913	58	Meadow, non-grazed, HSG B
6,021	58	Meadow, non-grazed, HSG B
17,934		Weighted Average
17,934		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

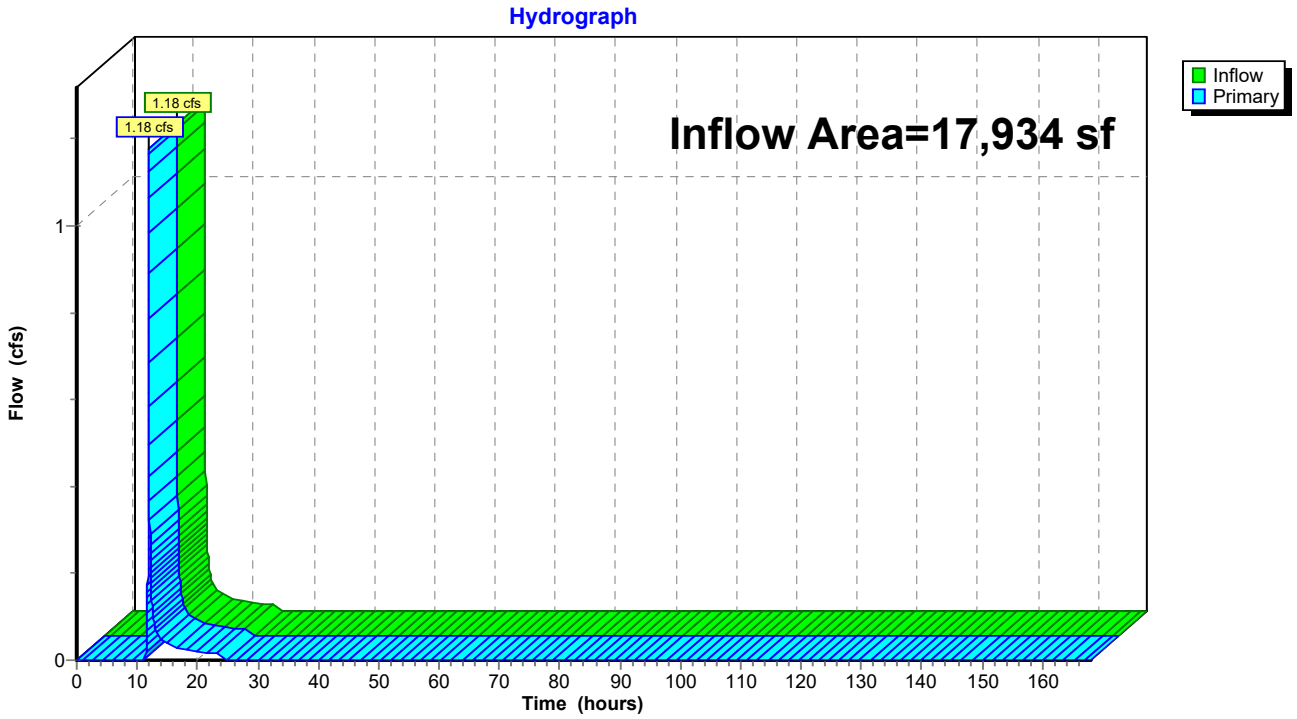


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 0.00% Impervious, Inflow Depth = 1.57" for 25-Year event
Inflow = 1.18 cfs @ 11.97 hrs, Volume= 2,351 cf
Primary = 1.18 cfs @ 11.97 hrs, Volume= 2,351 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

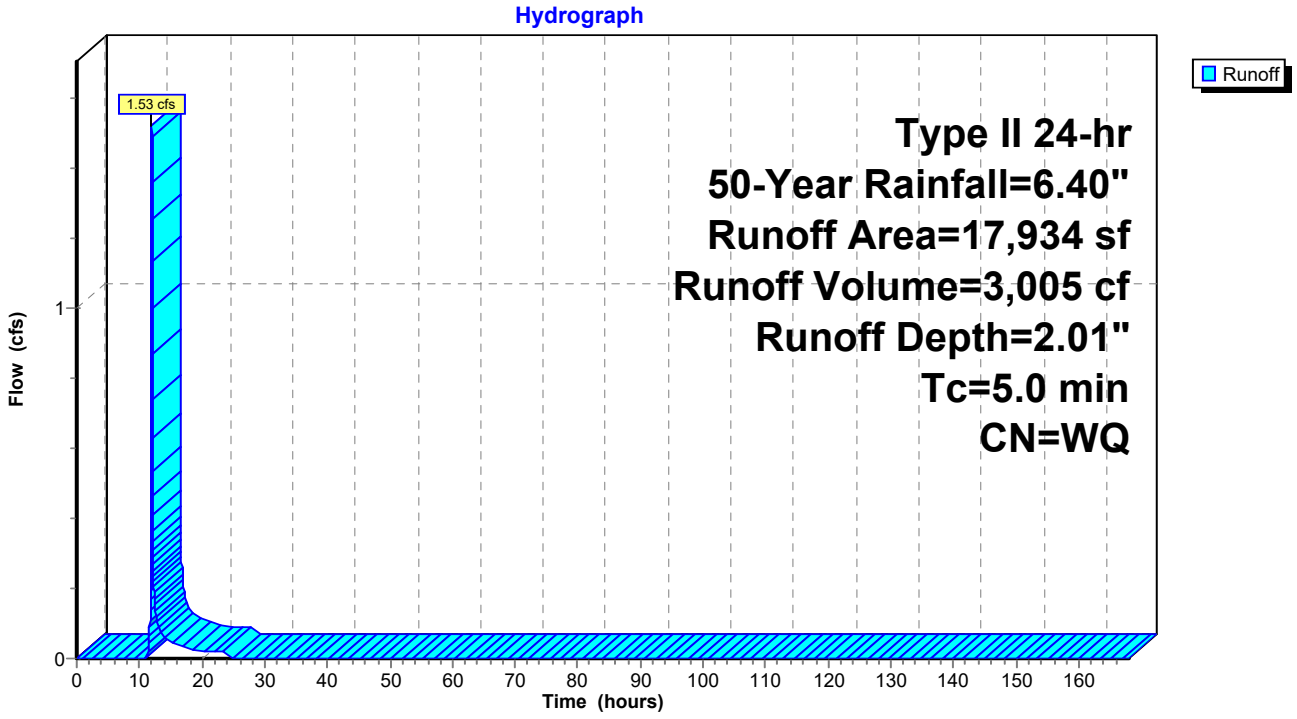
Runoff = 1.53 cfs @ 11.97 hrs, Volume= 3,005 cf, Depth= 2.01"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=6.40"

Area (sf)	CN	Description
11,913	58	Meadow, non-grazed, HSG B
6,021	58	Meadow, non-grazed, HSG B
17,934		Weighted Average
17,934		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

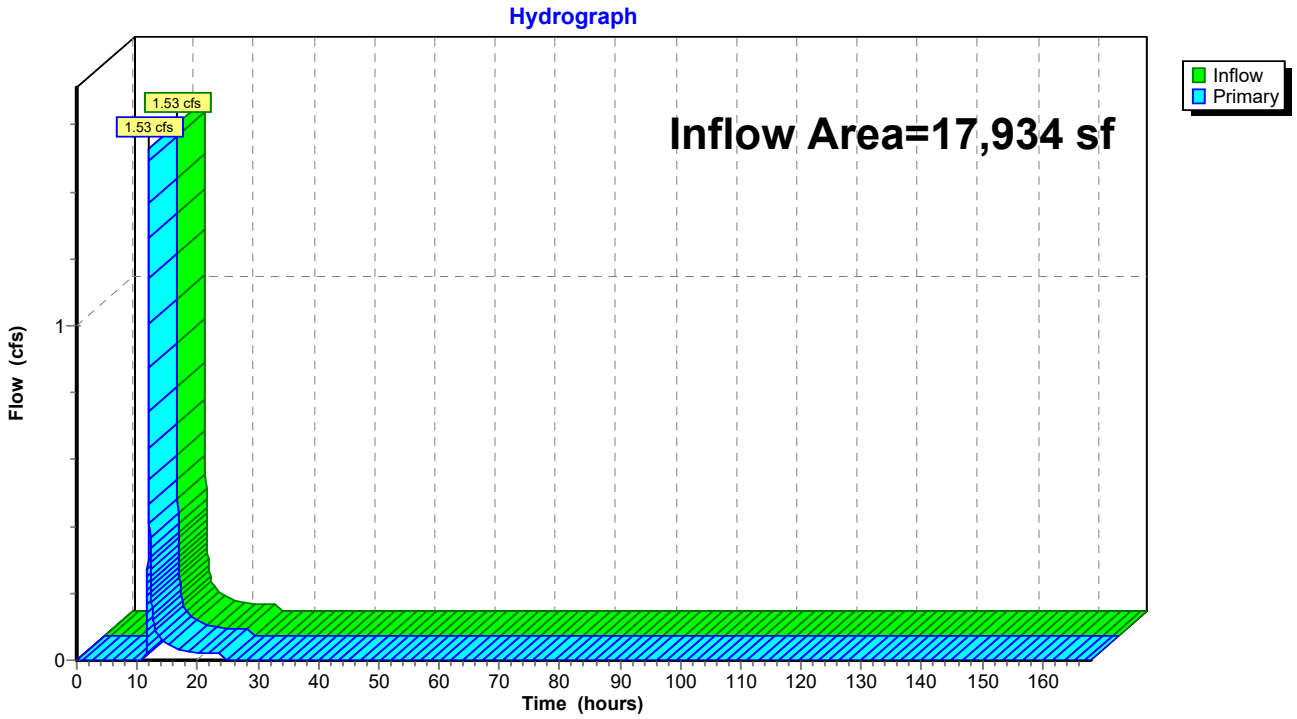


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 0.00% Impervious, Inflow Depth = 2.01" for 50-Year event
Inflow = 1.53 cfs @ 11.97 hrs, Volume= 3,005 cf
Primary = 1.53 cfs @ 11.97 hrs, Volume= 3,005 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1



Summary for Subcatchment DA-1: Pre-Development

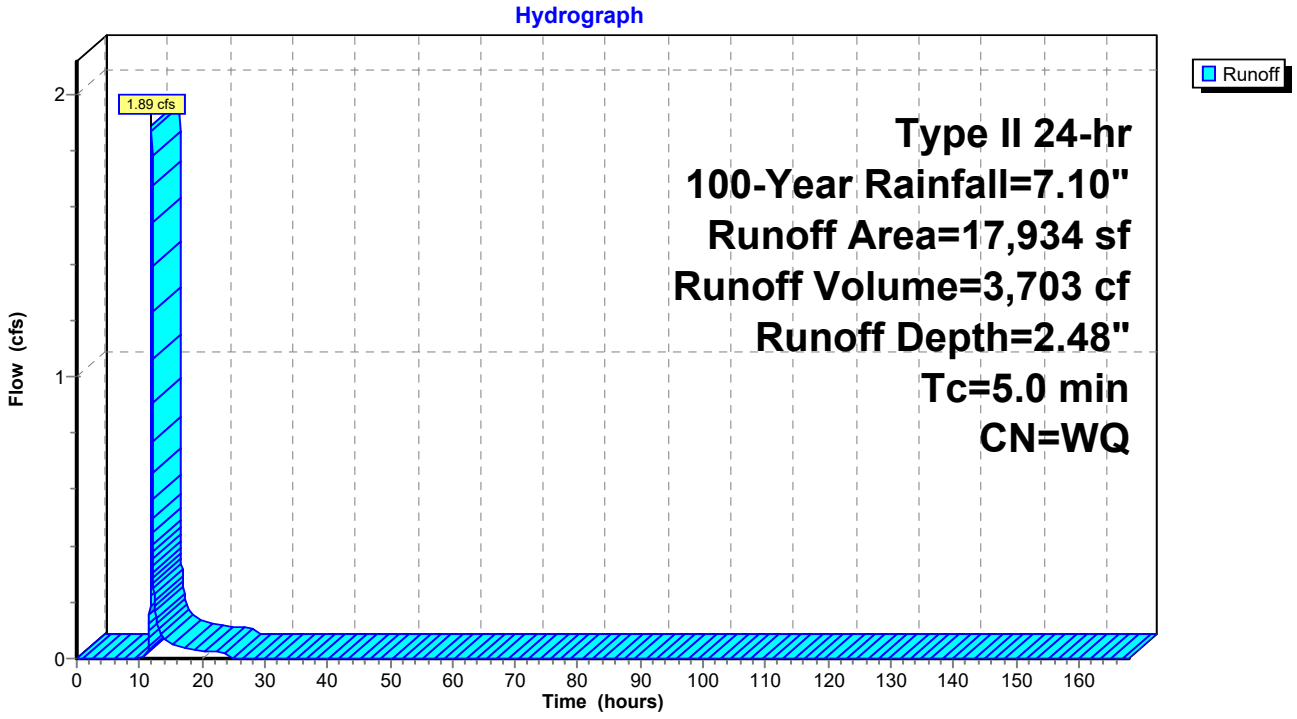
Runoff = 1.89 cfs @ 11.97 hrs, Volume= 3,703 cf, Depth= 2.48"
Routed to Link 2L : Pre-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=7.10"

Area (sf)	CN	Description
11,913	58	Meadow, non-grazed, HSG B
6,021	58	Meadow, non-grazed, HSG B
17,934		Weighted Average
17,934		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-1: Pre-Development

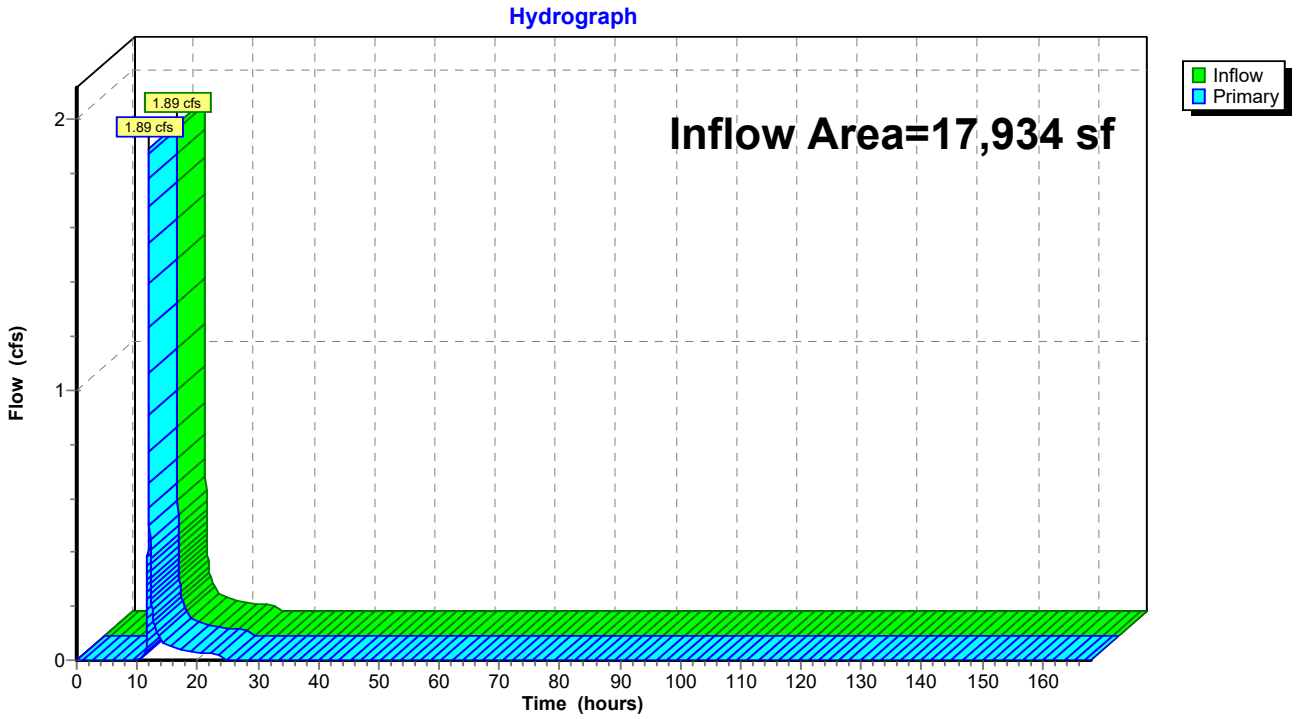


Summary for Link 2L: Pre-Development POI-1

Inflow Area = 17,934 sf, 0.00% Impervious, Inflow Depth = 2.48" for 100-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 3,703 cf
Primary = 1.89 cfs @ 11.97 hrs, Volume= 3,703 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 2L: Pre-Development POI-1

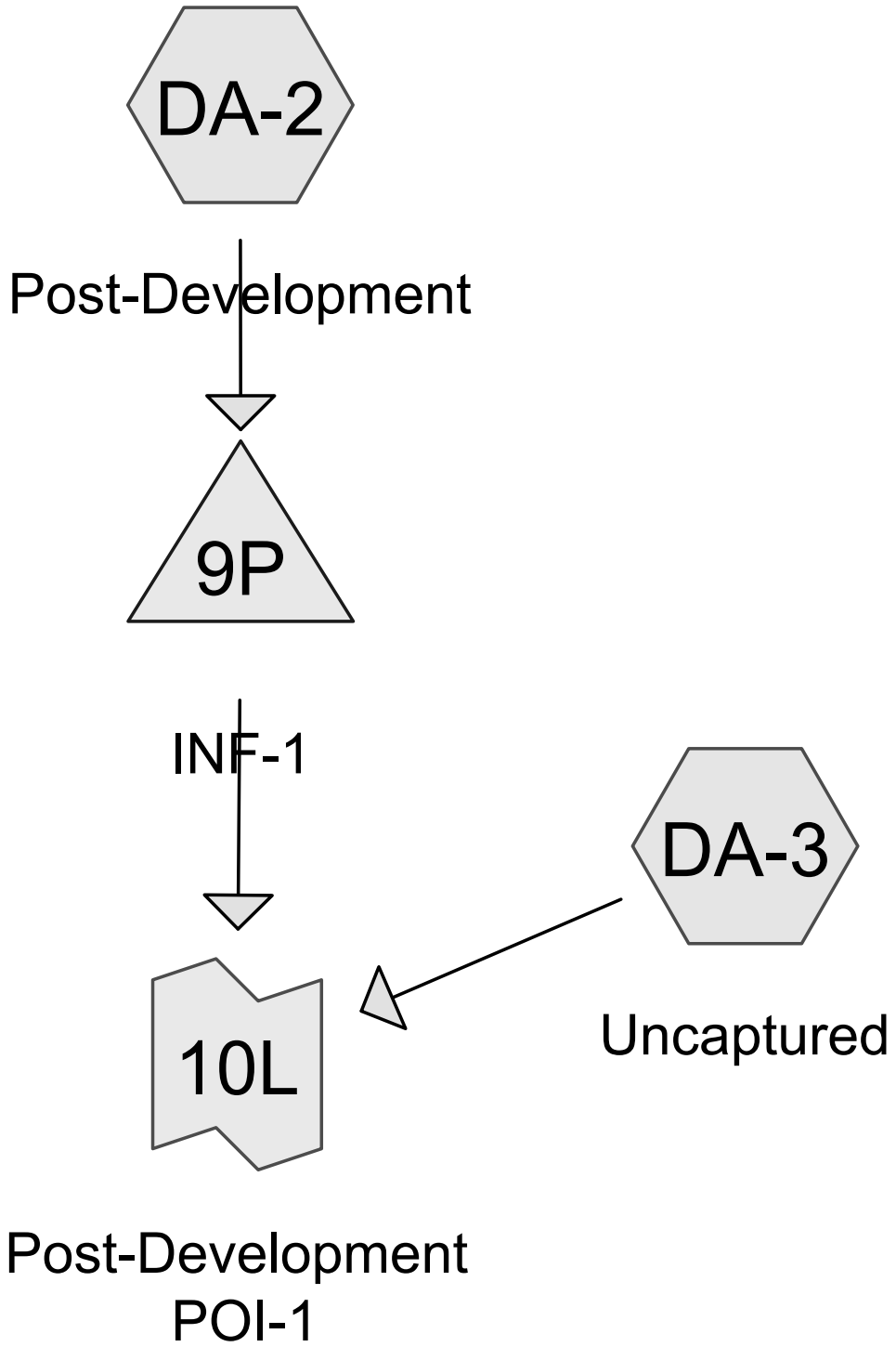


Events for Subcatchment DA-1: Pre-Development

Event	Rainfall (inches)	Runoff (cfs)	Volume (cubic-feet)	Depth (inches)
1-Year	2.60	0.04	236	0.16
2-Year	3.20	0.18	510	0.34
5-Year	4.20	0.52	1,132	0.76
10-Year	5.00	0.85	1,747	1.17
25-Year	5.70	1.18	2,351	1.57
50-Year	6.40	1.53	3,005	2.01
100-Year	**7.10**	**1.89**	**3,703**	**2.48**

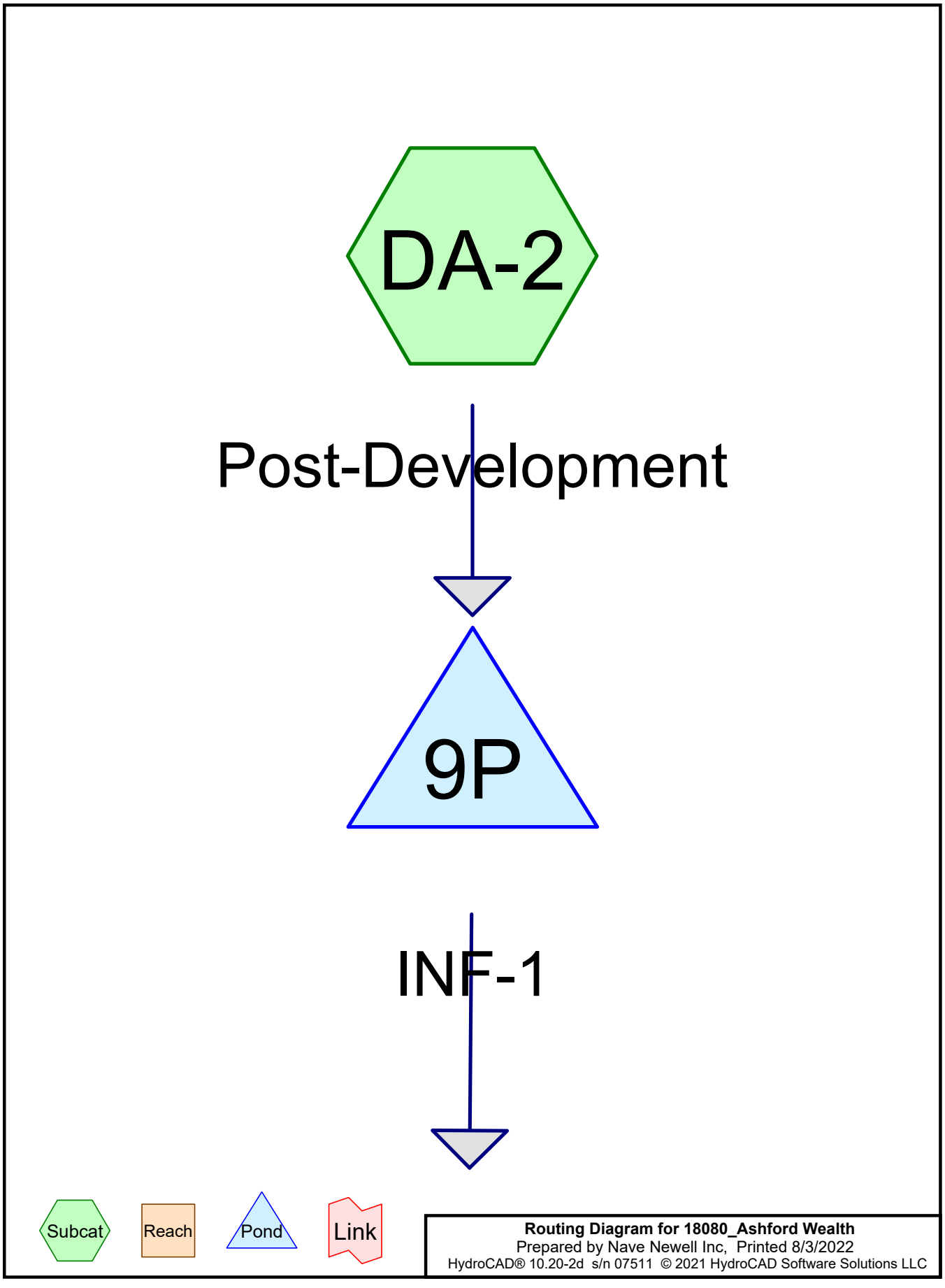
Events for Link 2L: Pre-Development POI-1

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-Year	0.04	0.04	**0.00**
2-Year	0.18	0.18	0.00
5-Year	0.52	0.52	0.00
10-Year	0.85	0.85	0.00
25-Year	1.18	1.18	0.00
50-Year	1.53	1.53	0.00
100-Year	**1.89**	**1.89**	0.00



Subcat Reach Pond Link

Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc., Printed 1/25/2022
HydroCAD® 10.10-6a s/n 07511 © 2020 HydroCAD Software Solutions LLC


DA-2
Post-Development
9P
INF-1
Subcat
Reach
Pond
Link
Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc, Printed 8/3/2022
HydroCAD® 10.20-2d s/n 07511 © 2021 HydroCAD Software Solutions LLC

Summary for Subcatchment DA-2: Post-Development

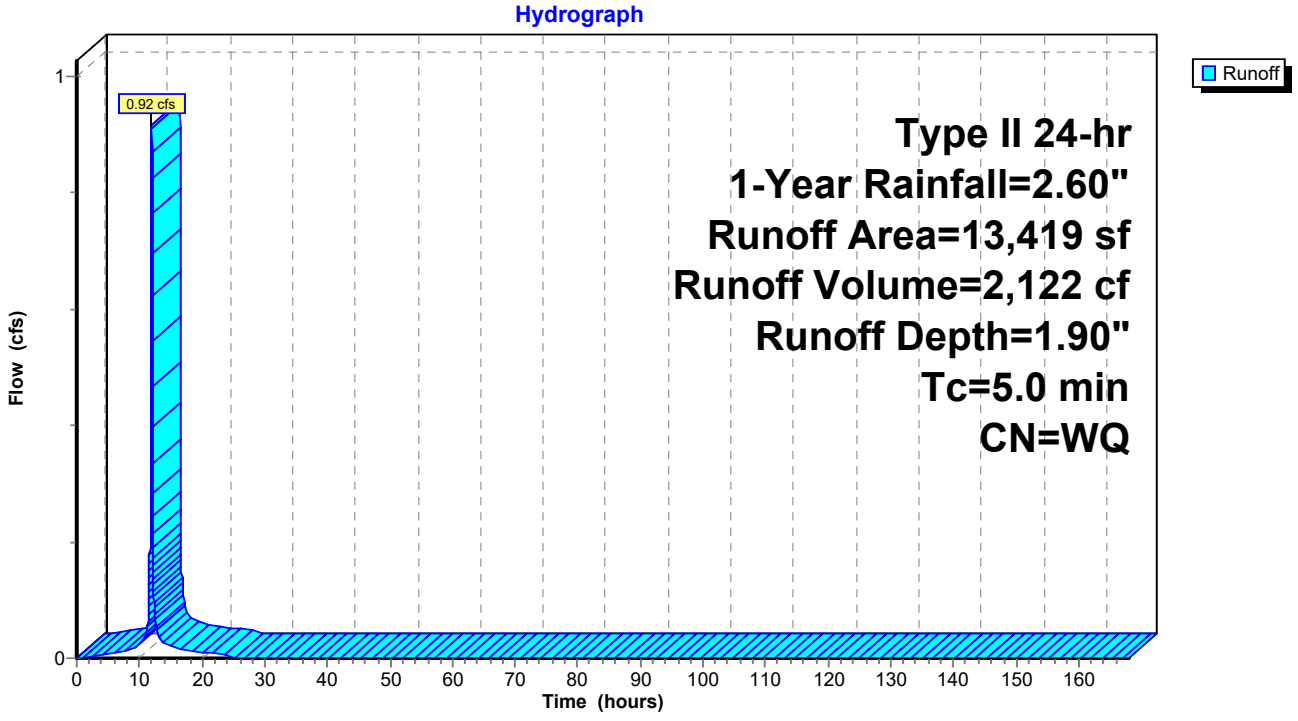
Runoff = 0.92 cfs @ 11.96 hrs, Volume= 2,122 cf, Depth= 1.90"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.60"

Area (sf)	CN	Description
2,958	61	>75% Grass cover, Good, HSG B
10,461	98	Paved parking, HSG B
13,419		Weighted Average
2,958		22.04% Pervious Area
10,461		77.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 13,419 sf, 77.96% Impervious, Inflow Depth = 1.90" for 1-Year event
Inflow = 0.92 cfs @ 11.96 hrs, Volume= 2,122 cf
Outflow = 0.01 cfs @ 17.50 hrs, Volume= 2,122 cf, Atten= 99%, Lag= 332.9 min
Discarded = 0.01 cfs @ 17.50 hrs, Volume= 2,122 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 174.79' @ 17.50 hrs Surf.Area= 4,586 sf Storage= 1,368 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 990.1 min (1,751.4 - 761.3)

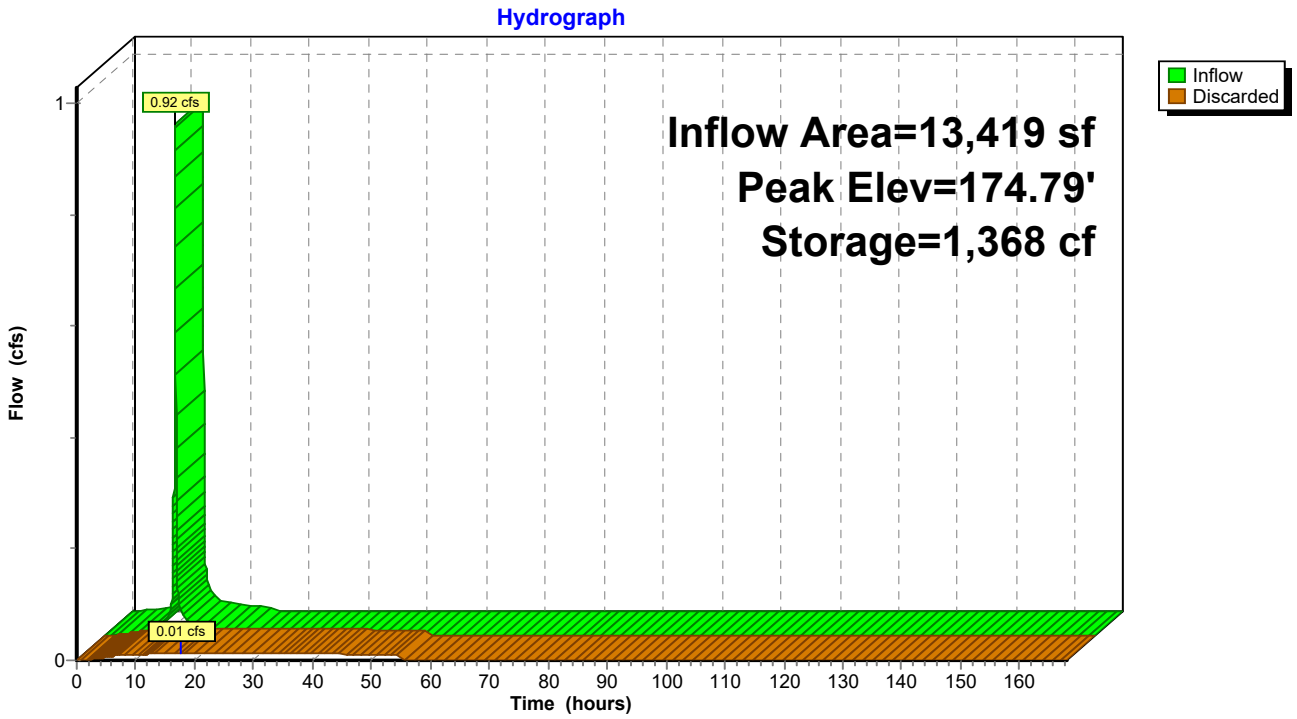
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.01 cfs @ 17.50 hrs HW=174.79' (Free Discharge)
↑**1=Exfiltration** (Controls 0.01 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
Inflow Area=13,419 sf
Peak Elev=174.79'
Storage=1,368 cf
0.92 cfs
0.01 cfs
Flow (cfs)
Time (hours)
0
1
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Summary for Subcatchment DA-2: Post-Development

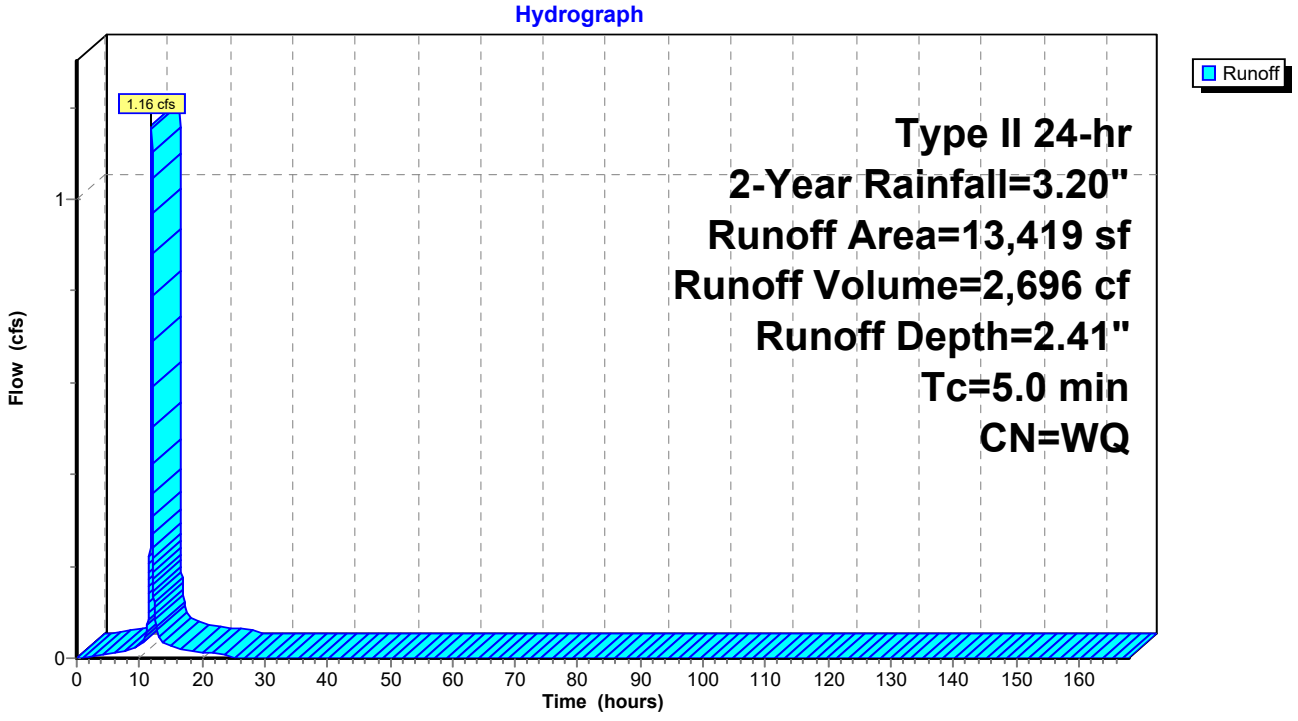
Runoff = 1.16 cfs @ 11.96 hrs, Volume= 2,696 cf, Depth= 2.41"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=3.20"

Area (sf)	CN	Description
2,958	61	>75% Grass cover, Good, HSG B
10,461	98	Paved parking, HSG B
13,419		Weighted Average
2,958		22.04% Pervious Area
10,461		77.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 13,419 sf, 77.96% Impervious, Inflow Depth = 2.41" for 2-Year event
Inflow = 1.16 cfs @ 11.96 hrs, Volume= 2,696 cf
Outflow = 0.01 cfs @ 18.84 hrs, Volume= 2,696 cf, Atten= 99%, Lag= 413.2 min
Discarded = 0.01 cfs @ 18.84 hrs, Volume= 2,696 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 174.92' @ 18.84 hrs Surf.Area= 4,586 sf Storage= 1,843 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 1,270.8 min (2,028.9 - 758.1)

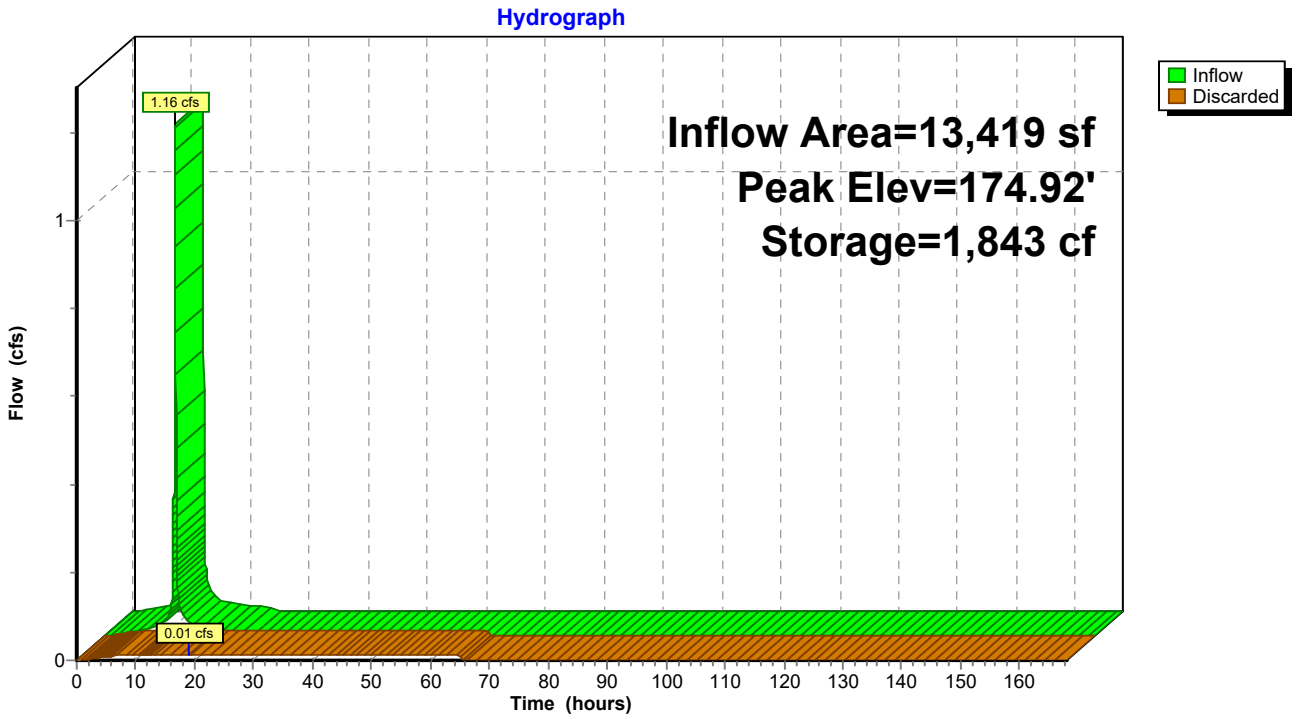
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.01 cfs @ 18.84 hrs HW=174.92' (Free Discharge)
↑**1=Exfiltration** (Controls 0.01 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
1.16 cfs
0.01 cfs
Inflow Area=13,419 sf
Peak Elev=174.92'
Storage=1,843 cf
Flow (cfs)
0
1
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160
Time (hours)

Summary for Subcatchment DA-2: Post-Development

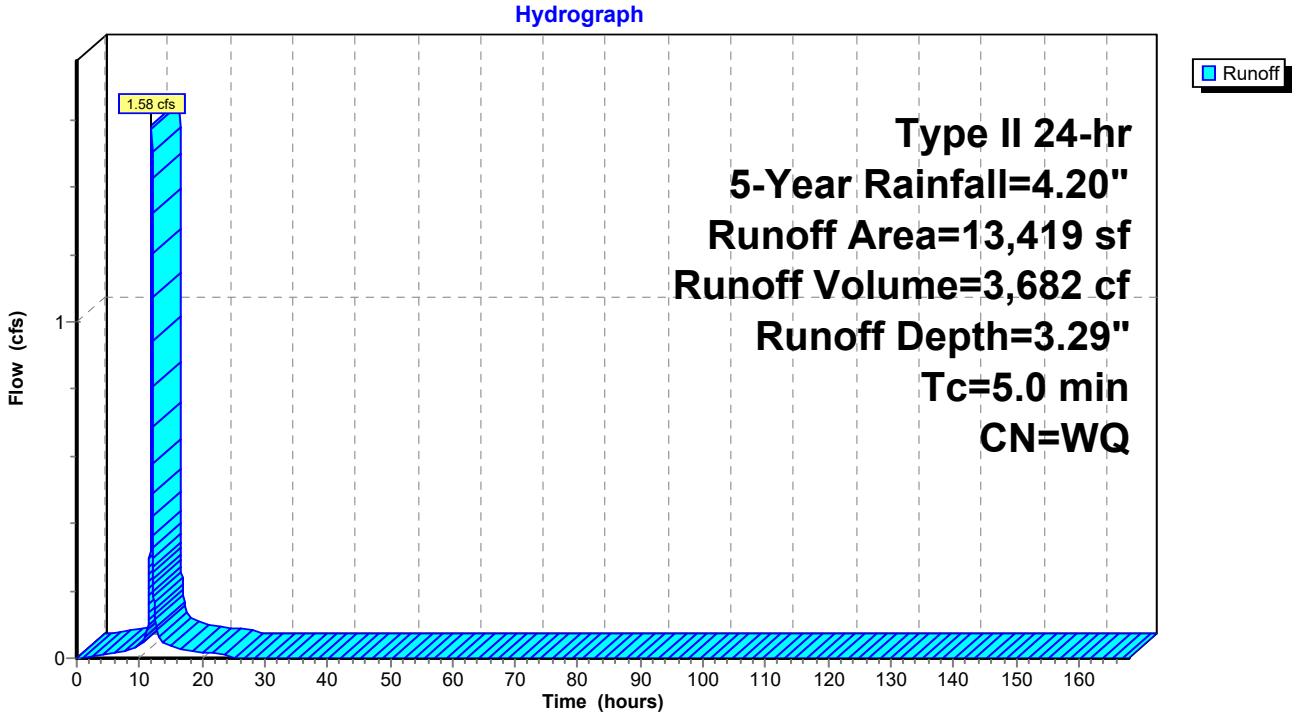
Runoff = 1.58 cfs @ 11.96 hrs, Volume= 3,682 cf, Depth= 3.29"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=4.20"

Area (sf)	CN	Description
2,958	61	>75% Grass cover, Good, HSG B
10,461	98	Paved parking, HSG B
13,419		Weighted Average
2,958		22.04% Pervious Area
10,461		77.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 13,419 sf, 77.96% Impervious, Inflow Depth = 3.29" for 5-Year event
Inflow = 1.58 cfs @ 11.96 hrs, Volume= 3,682 cf
Outflow = 0.01 cfs @ 20.30 hrs, Volume= 3,682 cf, Atten= 99%, Lag= 500.6 min
Discarded = 0.01 cfs @ 20.30 hrs, Volume= 3,682 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 175.17' @ 20.30 hrs Surf.Area= 4,586 sf Storage= 2,695 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 1,729.0 min (2,483.5 - 754.5)

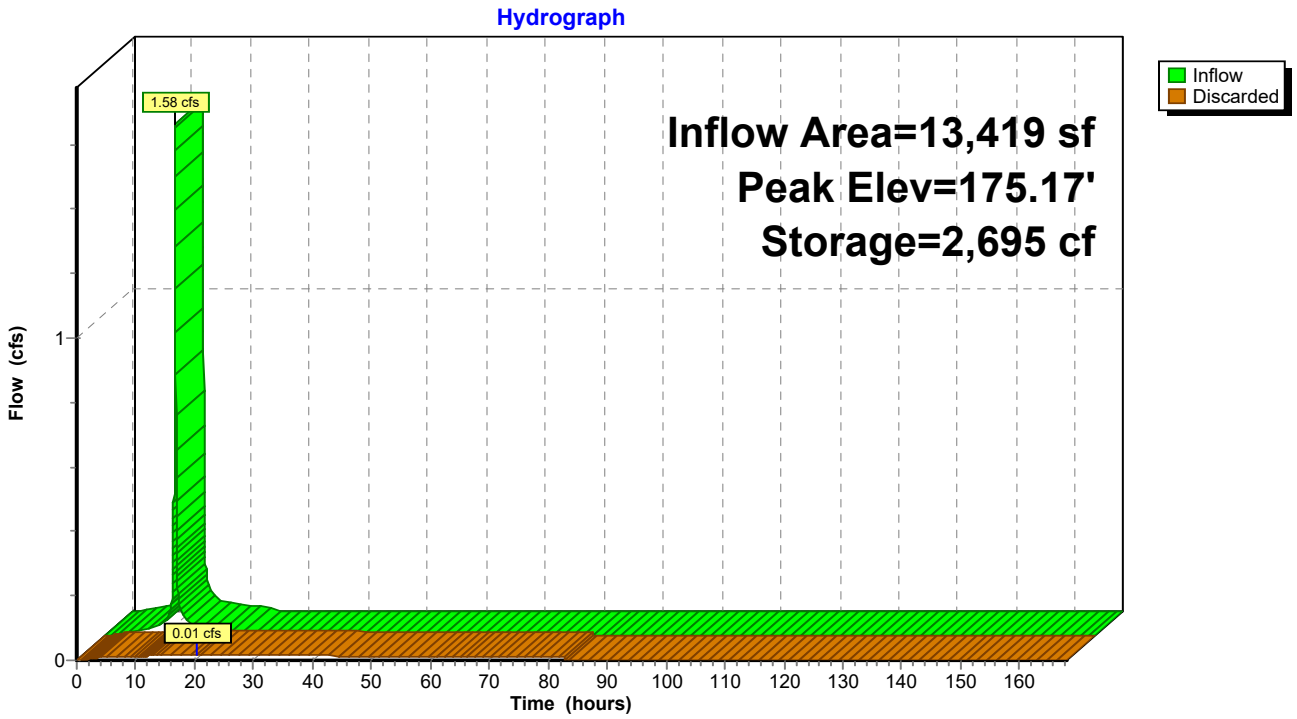
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.01 cfs @ 20.30 hrs HW=175.17' (Free Discharge)
↑**1=Exfiltration** (Controls 0.01 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
Inflow Area=13,419 sf
Peak Elev=175.17'
Storage=2,695 cf
1.58 cfs
0.01 cfs
Flow (cfs)
0
1
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160
Time (hours)

Summary for Subcatchment DA-2: Post-Development

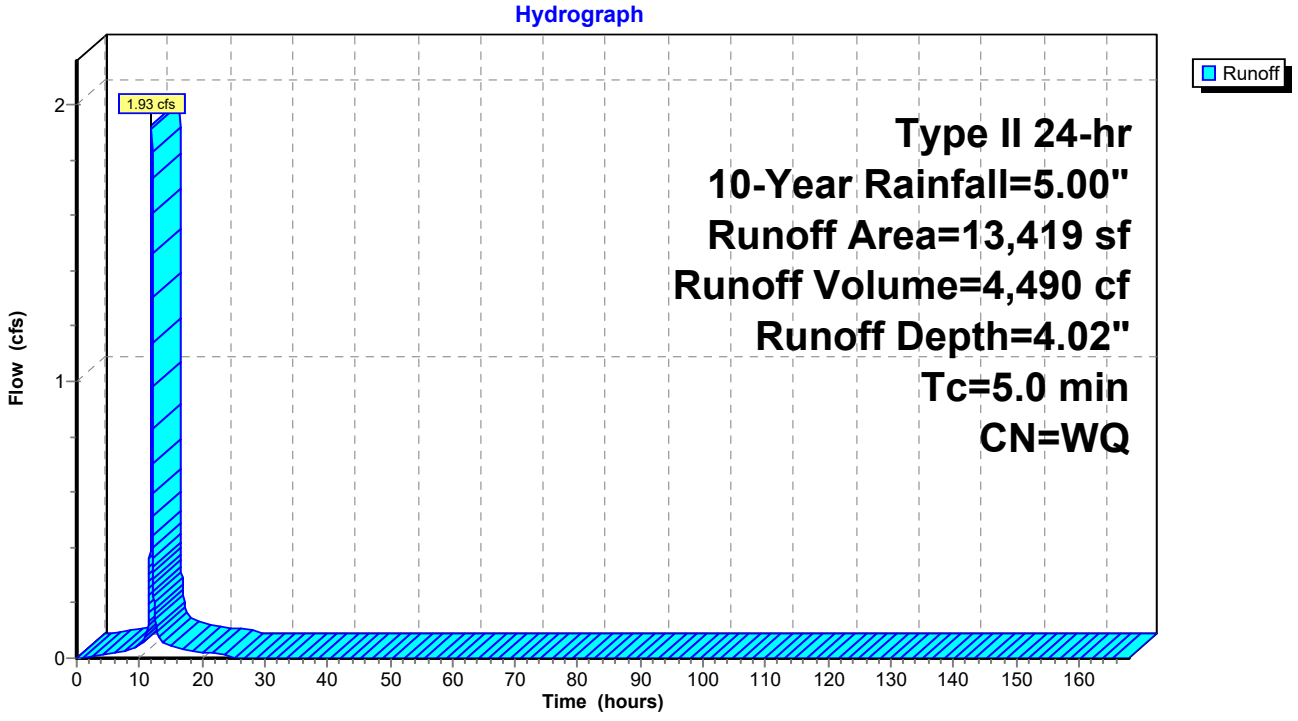
Runoff = 1.93 cfs @ 11.96 hrs, Volume= 4,490 cf, Depth= 4.02"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,958	61	>75% Grass cover, Good, HSG B
10,461	98	Paved parking, HSG B
13,419		Weighted Average
2,958		22.04% Pervious Area
10,461		77.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 13,419 sf, 77.96% Impervious, Inflow Depth = 4.02" for 10-Year event
Inflow = 1.93 cfs @ 11.96 hrs, Volume= 4,490 cf
Outflow = 0.02 cfs @ 23.33 hrs, Volume= 4,490 cf, Atten= 99%, Lag= 682.5 min
Discarded = 0.02 cfs @ 23.33 hrs, Volume= 4,490 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 175.39' @ 23.33 hrs Surf.Area= 4,586 sf Storage= 3,420 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2,073.4 min (2,825.8 - 752.4)

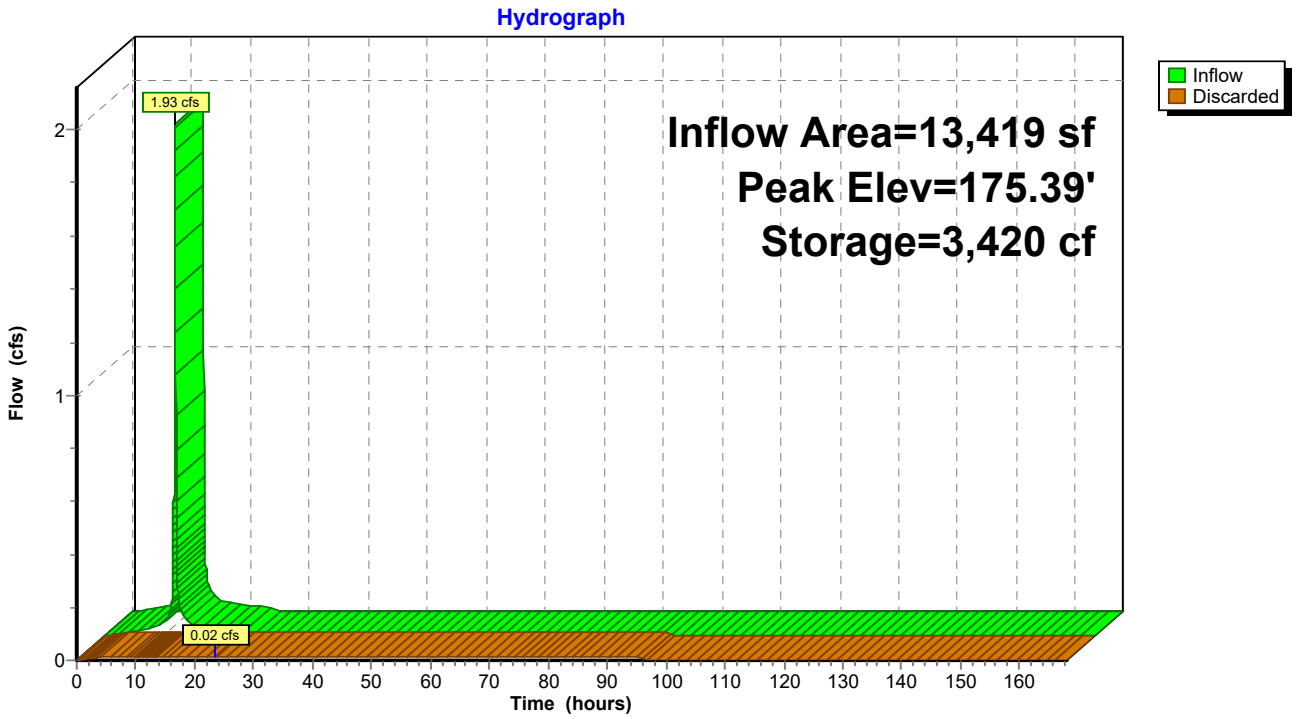
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.02 cfs @ 23.33 hrs HW=175.39' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
1.93 cfs
0.02 cfs
Inflow Area=13,419 sf
Peak Elev=175.39'
Storage=3,420 cf
Flow (cfs)
Time (hours)
0
1
2
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Summary for Subcatchment DA-2: Post-Development

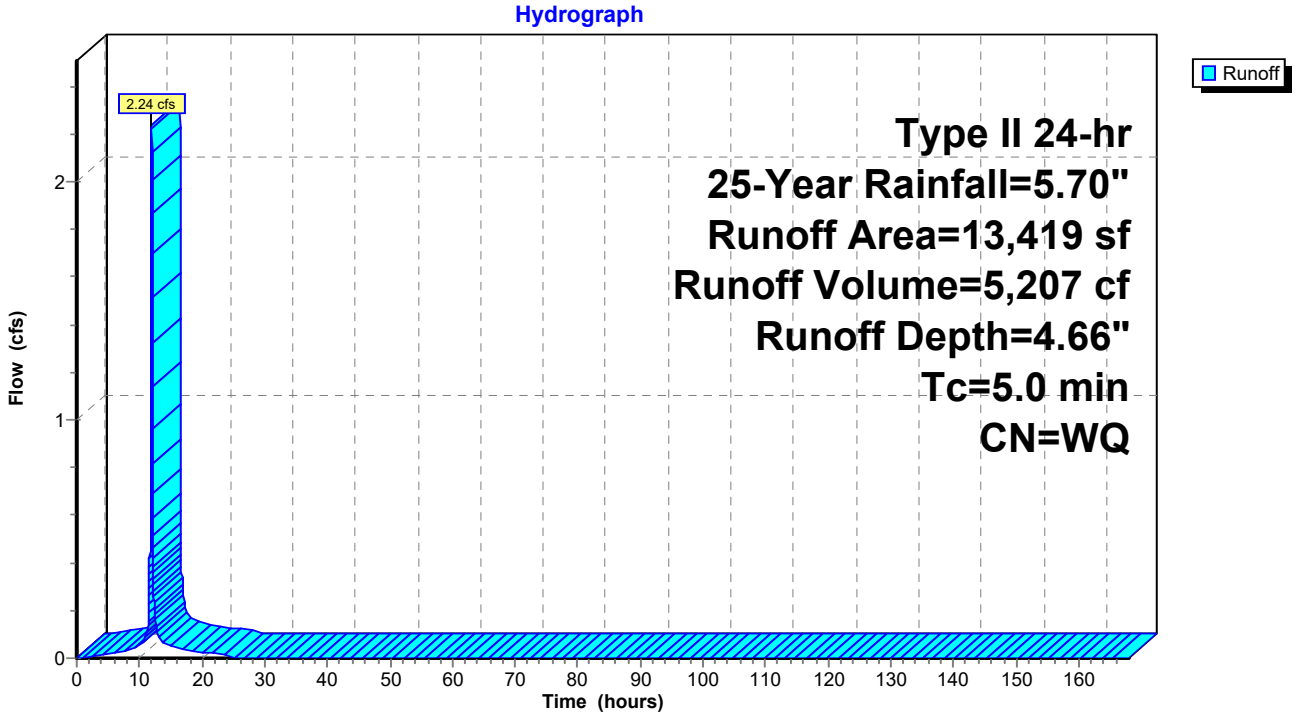
Runoff = 2.24 cfs @ 11.96 hrs, Volume= 5,207 cf, Depth= 4.66"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=5.70"

Area (sf)	CN	Description
2,958	61	>75% Grass cover, Good, HSG B
10,461	98	Paved parking, HSG B
13,419		Weighted Average
2,958		22.04% Pervious Area
10,461		77.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 13,419 sf, 77.96% Impervious, Inflow Depth = 4.66" for 25-Year event
Inflow = 2.24 cfs @ 11.96 hrs, Volume= 5,207 cf
Outflow = 0.02 cfs @ 24.03 hrs, Volume= 5,207 cf, Atten= 99%, Lag= 724.3 min
Discarded = 0.02 cfs @ 24.03 hrs, Volume= 5,207 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 175.61' @ 24.03 hrs Surf.Area= 4,586 sf Storage= 4,077 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2,352.9 min (3,103.9 - 751.0)

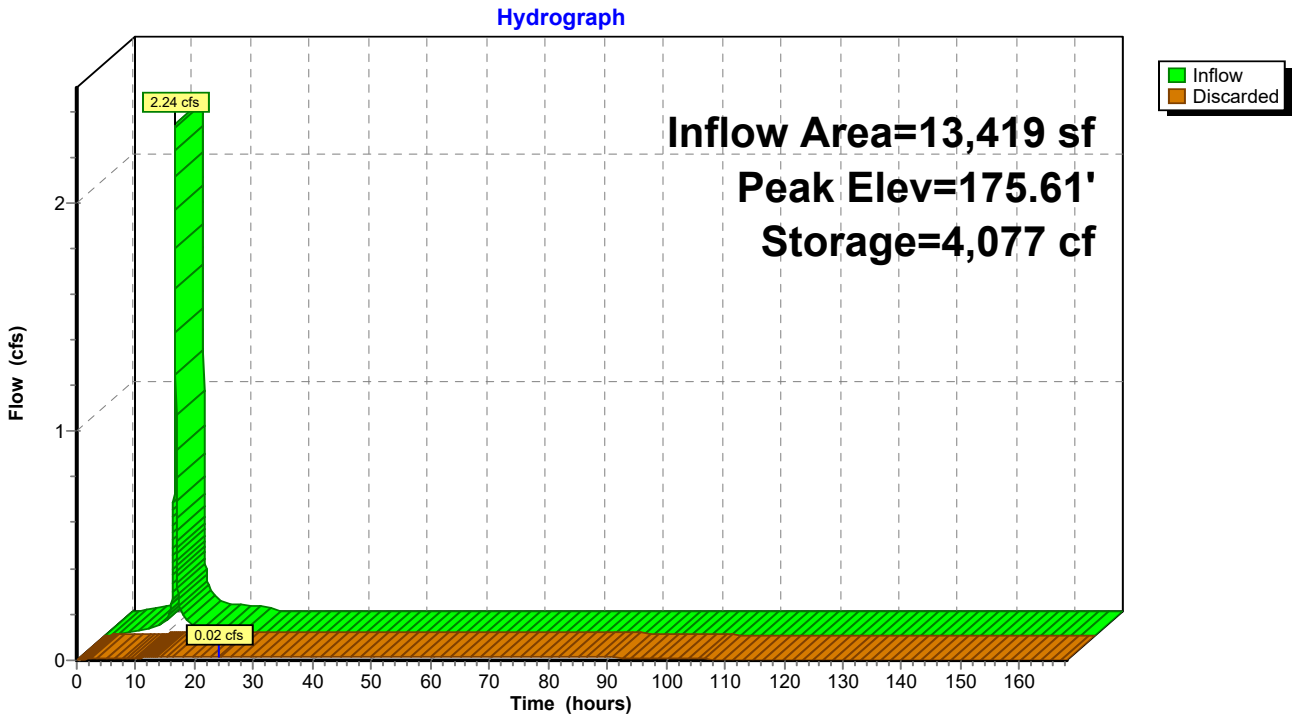
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.02 cfs @ 24.03 hrs HW=175.61' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
Inflow Area=13,419 sf
Peak Elev=175.61'
Storage=4,077 cf
2.24 cfs
0.02 cfs
Flow (cfs)
Time (hours)
0
1
2
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Summary for Subcatchment DA-2: Post-Development

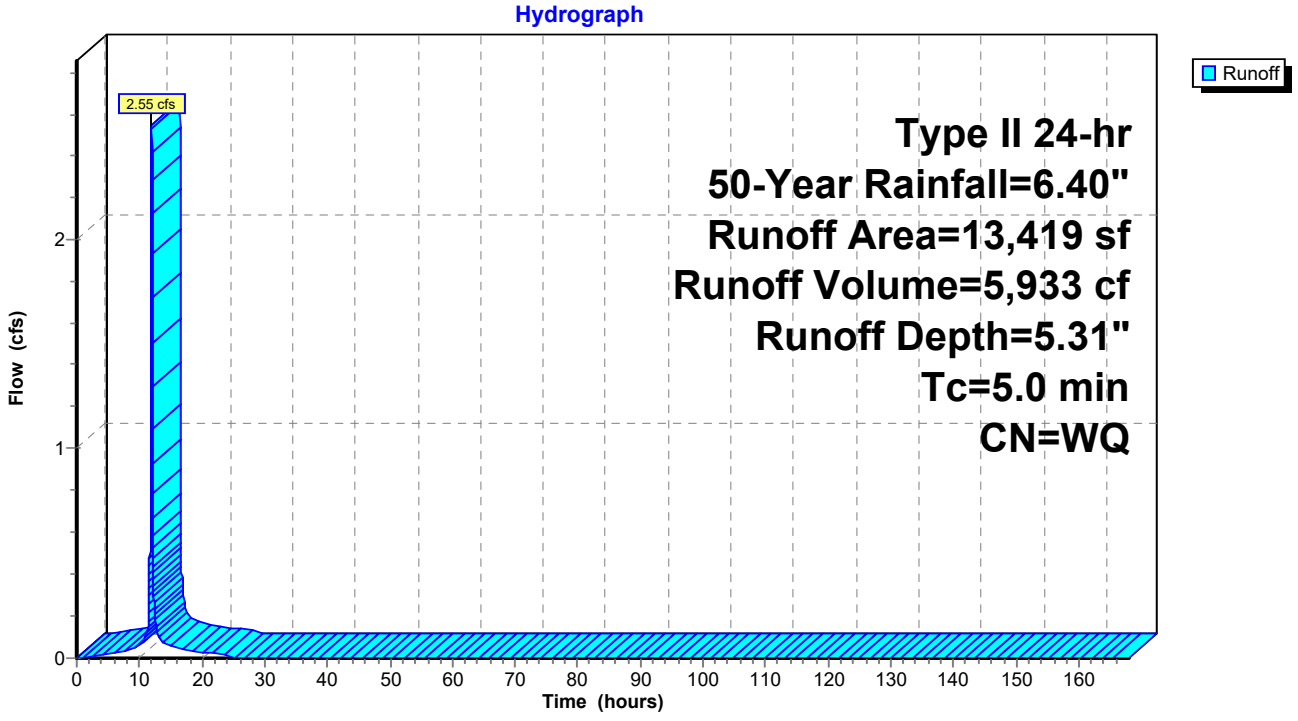
Runoff = 2.55 cfs @ 11.96 hrs, Volume= 5,933 cf, Depth= 5.31"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=6.40"

Area (sf)	CN	Description
2,958	61	>75% Grass cover, Good, HSG B
10,461	98	Paved parking, HSG B
13,419		Weighted Average
2,958		22.04% Pervious Area
10,461		77.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 13,419 sf, 77.96% Impervious, Inflow Depth = 5.31" for 50-Year event
Inflow = 2.55 cfs @ 11.96 hrs, Volume= 5,933 cf
Outflow = 0.02 cfs @ 24.04 hrs, Volume= 5,933 cf, Atten= 99%, Lag= 724.7 min
Discarded = 0.02 cfs @ 24.04 hrs, Volume= 5,933 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 175.89' @ 24.04 hrs Surf.Area= 4,586 sf Storage= 4,737 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2,604.0 min (3,353.8 - 749.8)

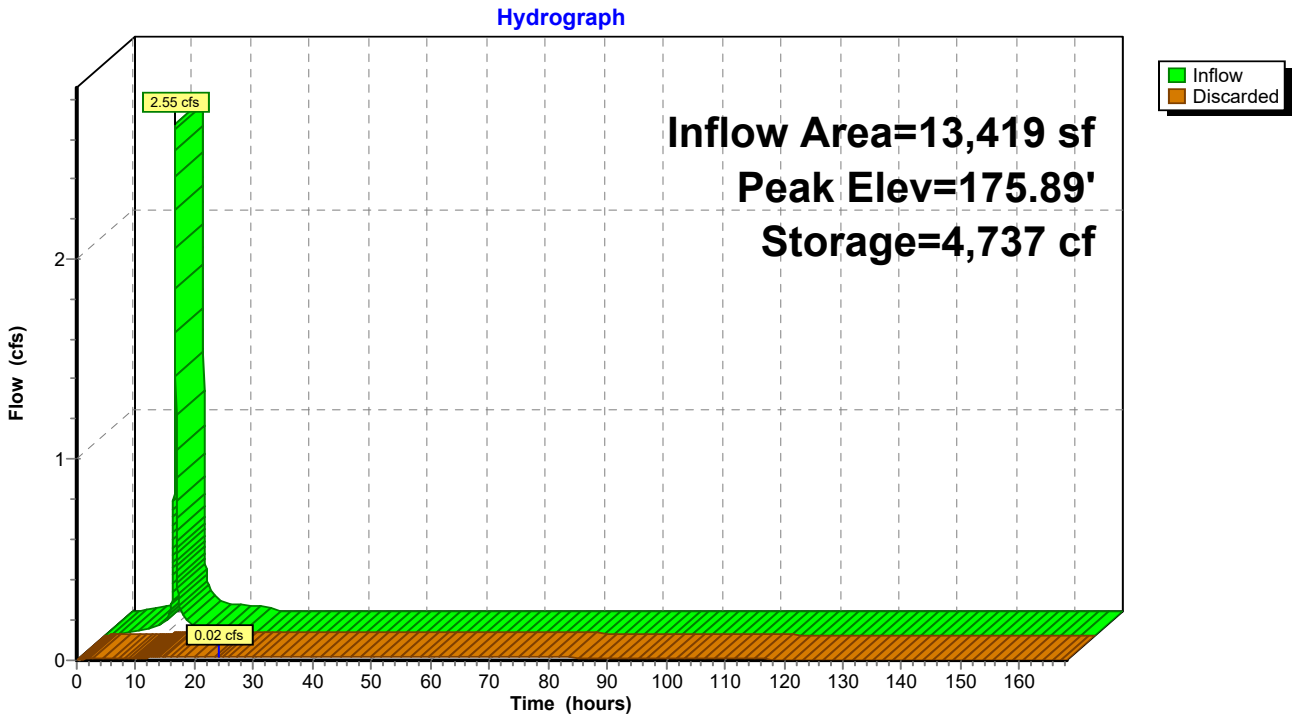
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.02 cfs @ 24.04 hrs HW=175.89' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Pond 9P: INF-1


Hydrograph
Inflow
Discarded
Inflow Area=13,419 sf
Peak Elev=175.89'
Storage=4,737 cf
2.55 cfs
0.02 cfs
Flow (cfs)
Time (hours)
0
1
2
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Summary for Subcatchment DA-2: Post-Development

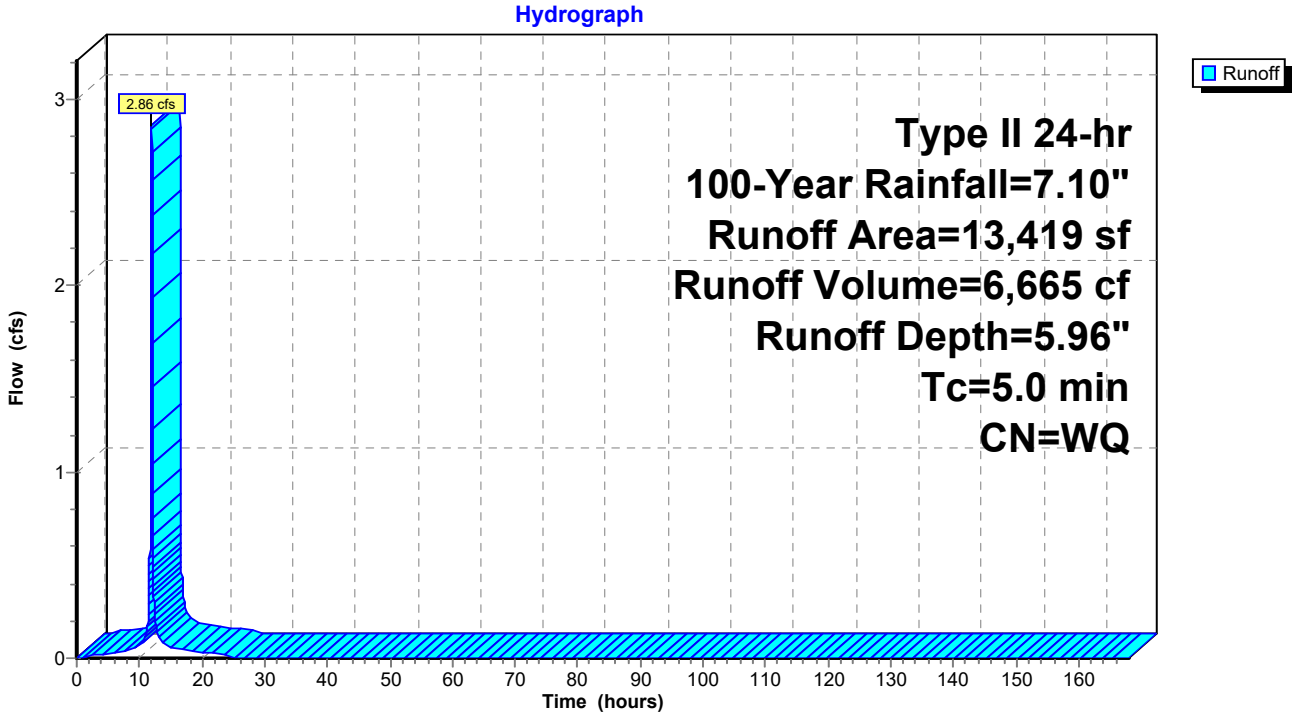
Runoff = 2.86 cfs @ 11.96 hrs, Volume= 6,665 cf, Depth= 5.96"
Routed to Pond 9P : INF-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=7.10"

Area (sf)	CN	Description
2,958	61	>75% Grass cover, Good, HSG B
10,461	98	Paved parking, HSG B
13,419		Weighted Average
2,958		22.04% Pervious Area
10,461		77.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment DA-2: Post-Development



Summary for Pond 9P: INF-1

Inflow Area = 13,419 sf, 77.96% Impervious, Inflow Depth = 5.96" for 100-Year event
Inflow = 2.86 cfs @ 11.96 hrs, Volume= 6,665 cf
Outflow = 0.02 cfs @ 24.04 hrs, Volume= 6,665 cf, Atten= 99%, Lag= 724.9 min
Discarded = 0.02 cfs @ 24.04 hrs, Volume= 6,665 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 176.24' @ 24.04 hrs Surf.Area= 4,586 sf Storage= 5,392 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2,816.7 min (3,565.5 - 748.8)

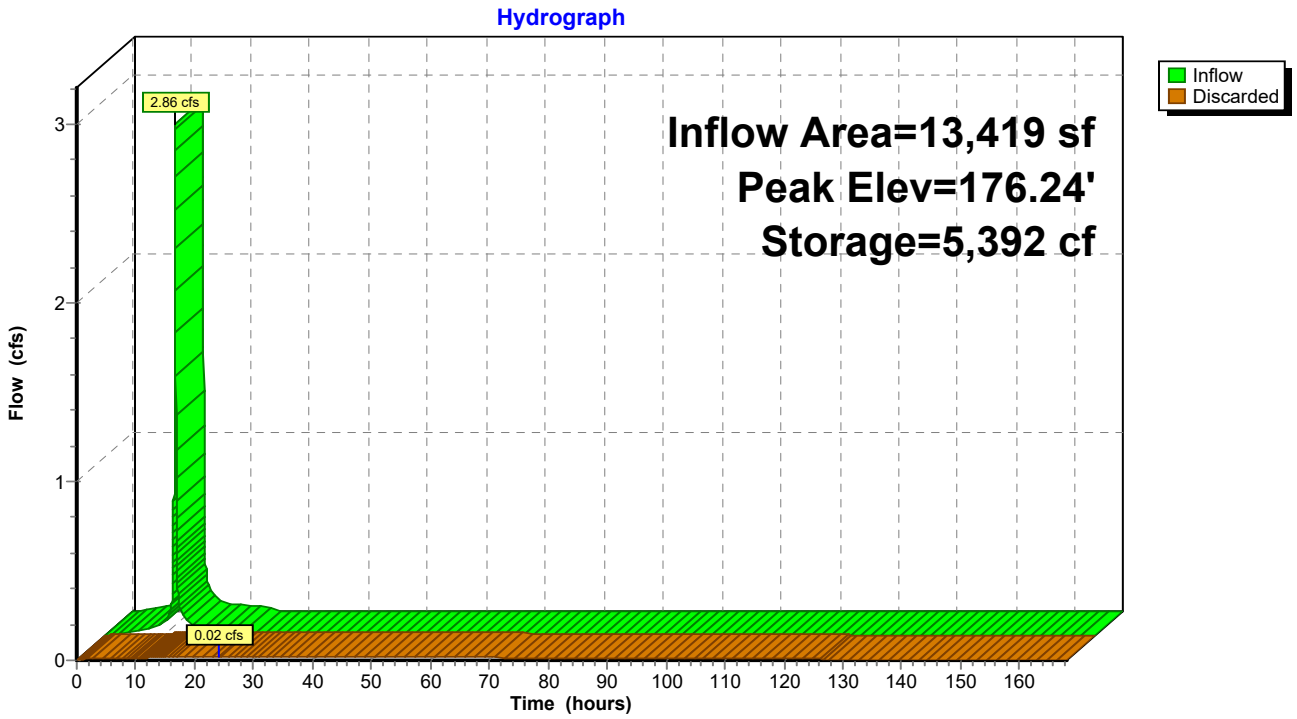
Volume	Invert	Avail.Storage	Storage Description
#1A	174.17'	3,219 cf	**68.17'W x 67.28'L x 2.33'H Field A** 10,701 cf Overall - 2,654 cf Embedded = 8,048 cf x 40.0% Voids
#2A	174.67'	2,654 cf	**ADS_StormTech SC-310 +Cap** x 180 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap 180 Chambers in 20 Rows
		5,873 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	174.17'	**0.094 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 172.17'

Discarded OutFlow Max=0.02 cfs @ 24.04 hrs HW=176.24' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Pond 9P: INF-1

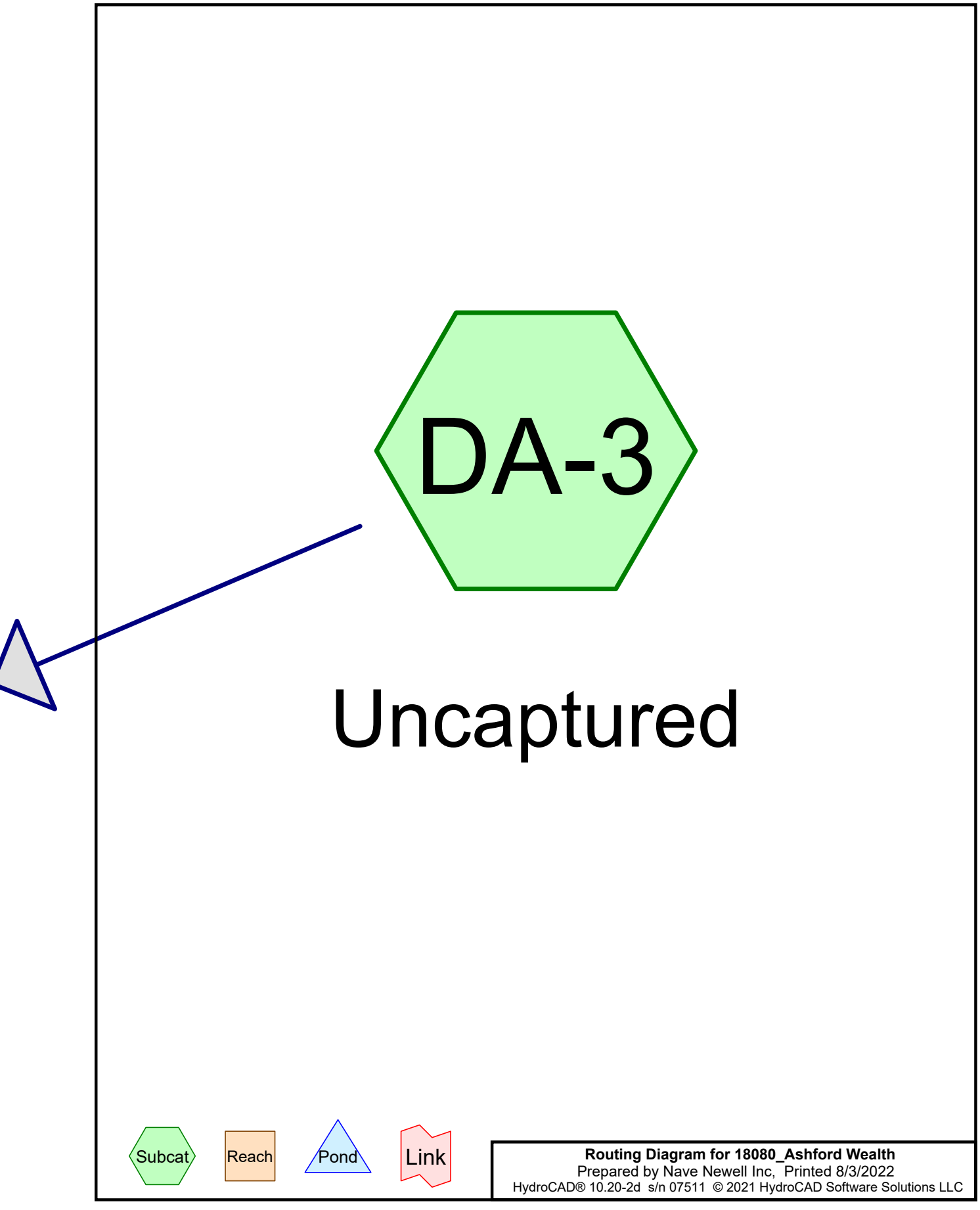

Hydrograph
Inflow
Discarded
Inflow Area=13,419 sf
Peak Elev=176.24'
Storage=5,392 cf
2.86 cfs
0.02 cfs
Flow (cfs)
Time (hours)
0
1
2
3
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160

Events for Subcatchment DA-2: Post-Development

Event	Rainfall (inches)	Runoff (cfs)	Volume (cubic-feet)	Depth (inches)
1-Year	2.60	0.92	2,122	1.90
2-Year	3.20	1.16	2,696	2.41
5-Year	4.20	1.58	3,682	3.29
10-Year	5.00	1.93	4,490	4.02
25-Year	5.70	2.24	5,207	4.66
50-Year	6.40	2.55	5,933	5.31
100-Year	**7.10**	**2.86**	**6,665**	**5.96**

Events for Pond 9P: INF-1

Event	Inflow (cfs)	Discarded (cfs)	Elevation (feet)	Storage (cubic-feet)
1-Year	0.92	0.01	174.79	1,368
2-Year	1.16	0.01	174.92	1,843
5-Year	1.58	0.01	175.17	2,695
10-Year	1.93	0.02	175.39	3,420
25-Year	2.24	0.02	175.61	4,077
50-Year	2.55	0.02	175.89	4,737
100-Year	**2.86**	**0.02**	**176.24**	**5,392**



Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc, Printed 8/3/2022
HydroCAD® 10.20-2d s/n 07511 © 2021 HydroCAD Software Solutions LLC

Summary for Subcatchment DA-3: Uncaptured

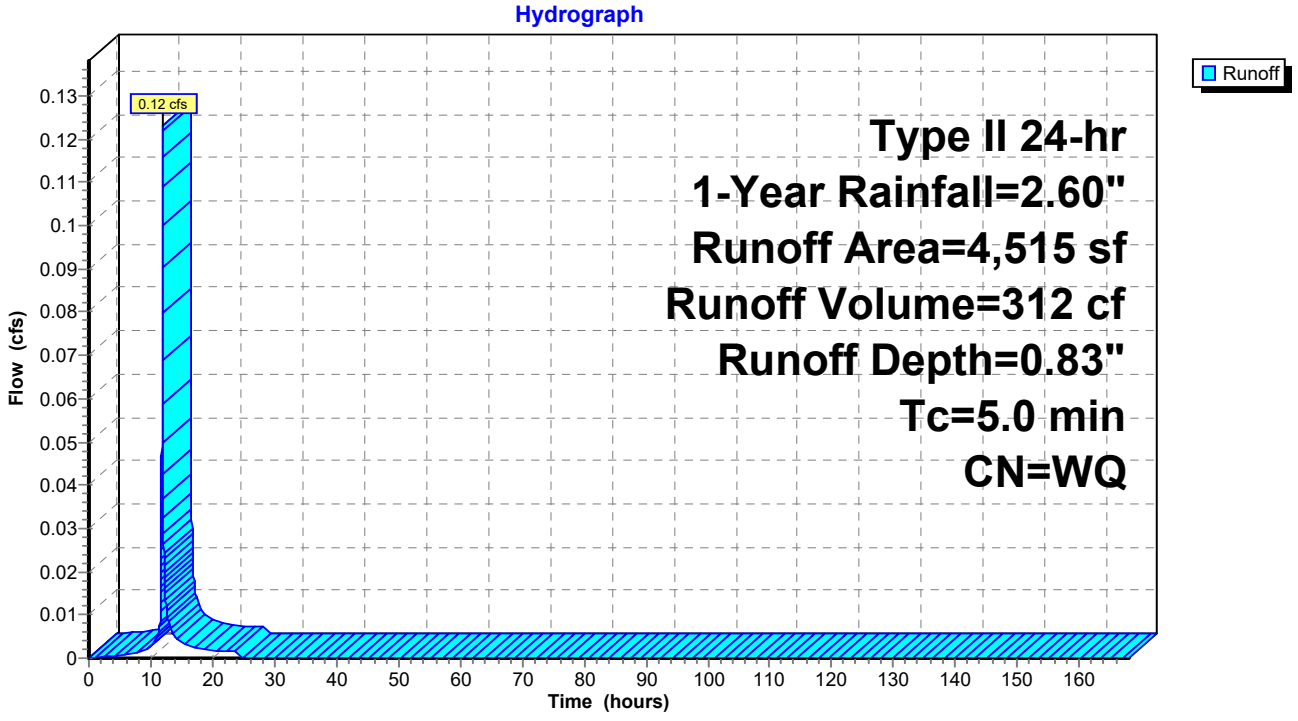
Runoff = 0.12 cfs @ 11.97 hrs, Volume= 312 cf, Depth= 0.83"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.60"

Area (sf)	CN	Description
3,243	61	>75% Grass cover, Good, HSG B
1,272	98	Paved parking, HSG B
4,515		Weighted Average
3,243		71.83% Pervious Area
1,272		28.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

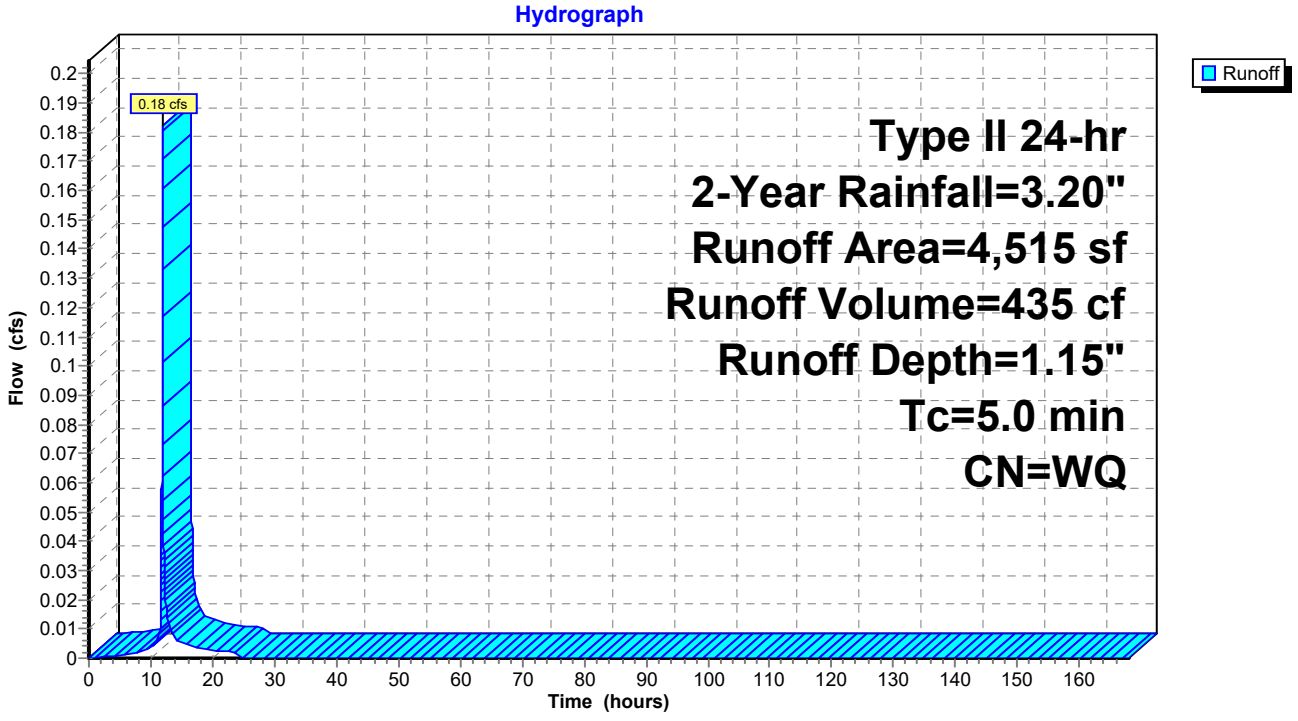
Runoff = 0.18 cfs @ 11.97 hrs, Volume= 435 cf, Depth= 1.15"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=3.20"

Area (sf)	CN	Description
3,243	61	>75% Grass cover, Good, HSG B
1,272	98	Paved parking, HSG B
4,515		Weighted Average
3,243		71.83% Pervious Area
1,272		28.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

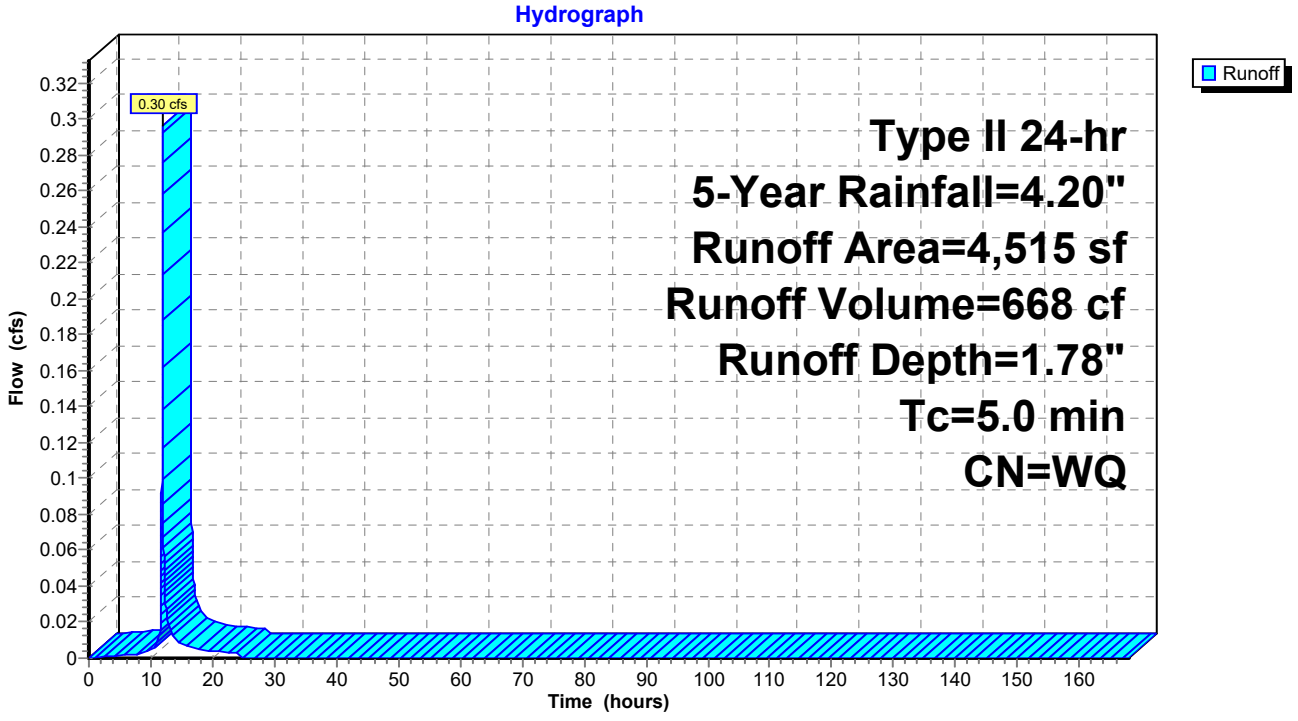
Runoff = 0.30 cfs @ 11.96 hrs, Volume= 668 cf, Depth= 1.78"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=4.20"

Area (sf)	CN	Description
3,243	61	>75% Grass cover, Good, HSG B
1,272	98	Paved parking, HSG B
4,515		Weighted Average
3,243		71.83% Pervious Area
1,272		28.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

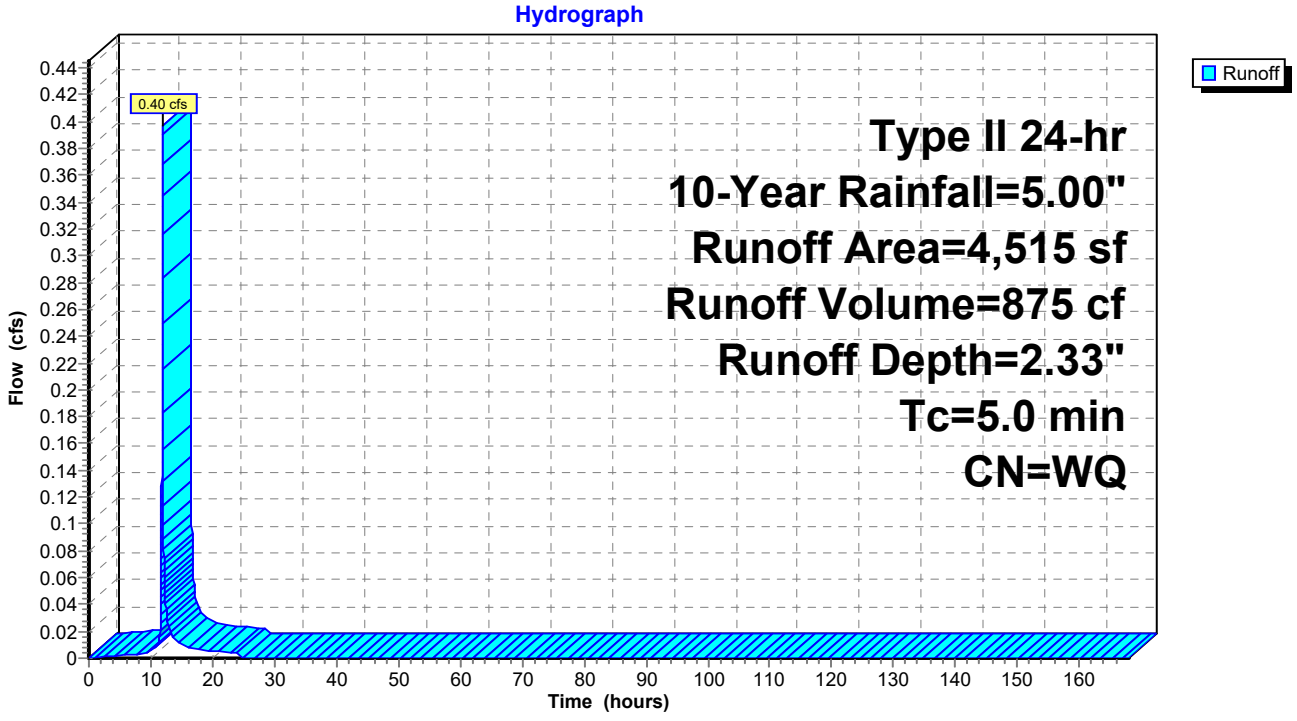
Runoff = 0.40 cfs @ 11.96 hrs, Volume= 875 cf, Depth= 2.33"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,243	61	>75% Grass cover, Good, HSG B
1,272	98	Paved parking, HSG B
4,515		Weighted Average
3,243		71.83% Pervious Area
1,272		28.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

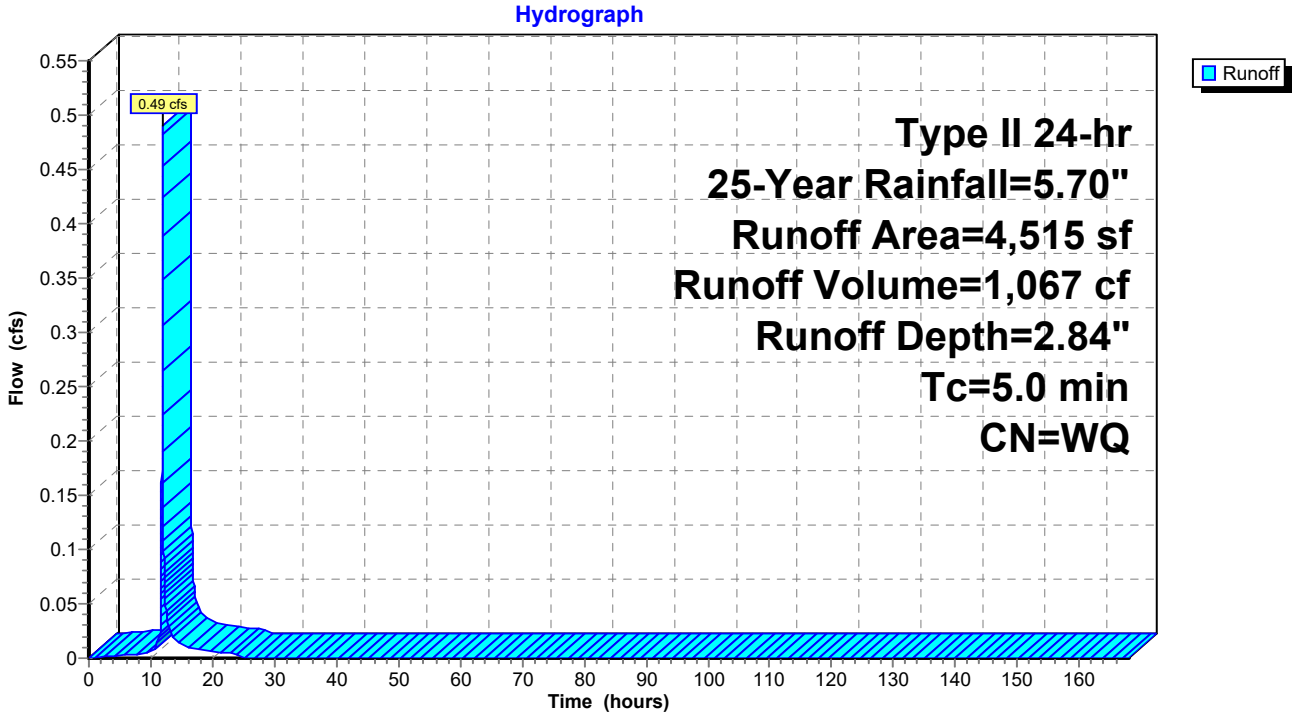
Runoff = 0.49 cfs @ 11.96 hrs, Volume= 1,067 cf, Depth= 2.84"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=5.70"

Area (sf)	CN	Description
3,243	61	>75% Grass cover, Good, HSG B
1,272	98	Paved parking, HSG B
4,515		Weighted Average
3,243		71.83% Pervious Area
1,272		28.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

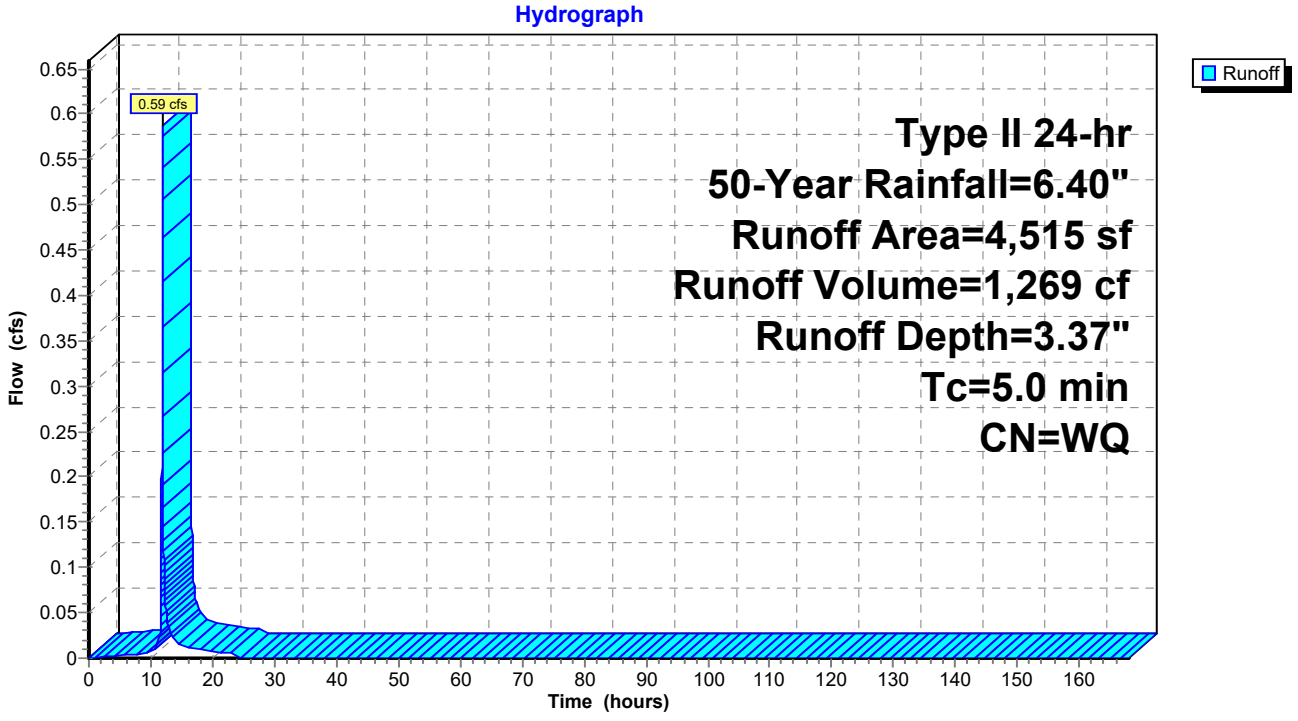
Runoff = 0.59 cfs @ 11.96 hrs, Volume= 1,269 cf, Depth= 3.37"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=6.40"

Area (sf)	CN	Description
3,243	61	>75% Grass cover, Good, HSG B
1,272	98	Paved parking, HSG B
4,515		Weighted Average
3,243		71.83% Pervious Area
1,272		28.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Summary for Subcatchment DA-3: Uncaptured

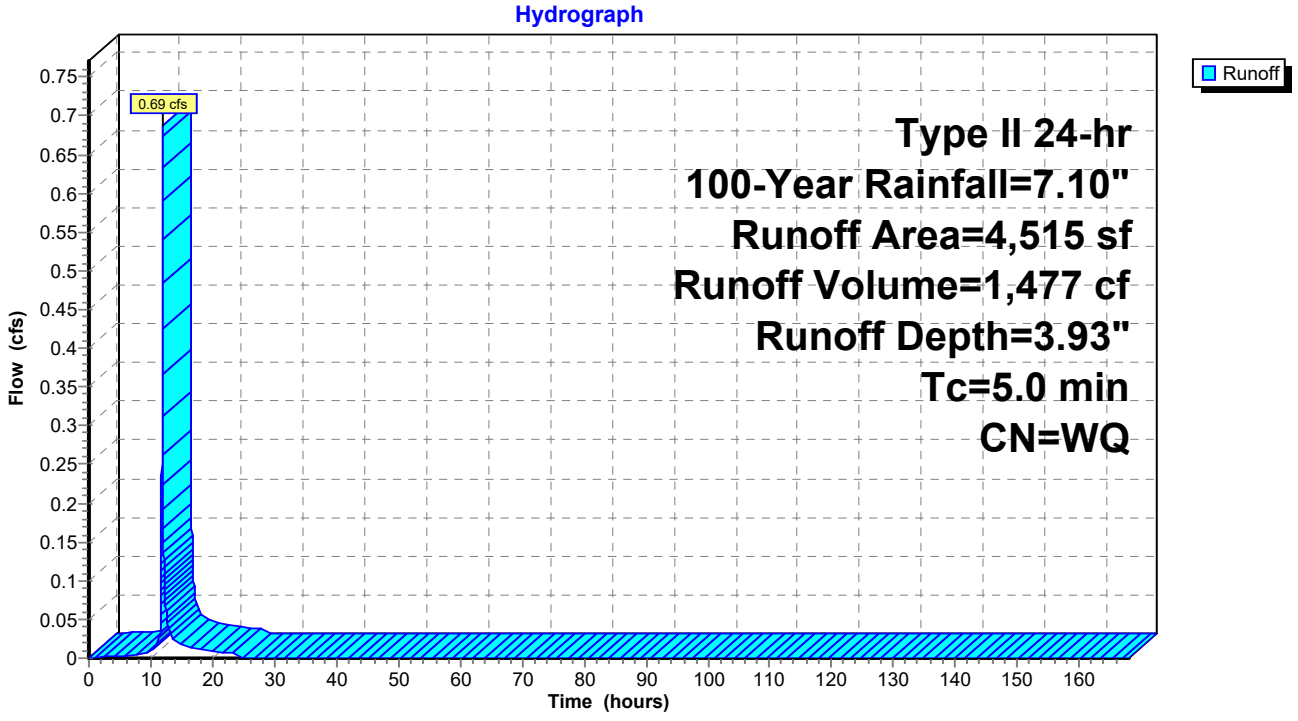
Runoff = 0.69 cfs @ 11.96 hrs, Volume= 1,477 cf, Depth= 3.93"
Routed to Link 10L : Post-Development POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=7.10"

Area (sf)	CN	Description
3,243	61	>75% Grass cover, Good, HSG B
1,272	98	Paved parking, HSG B
4,515		Weighted Average
3,243		71.83% Pervious Area
1,272		28.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc**

Subcatchment DA-3: Uncaptured



Events for Subcatchment DA-3: Uncaptured

Event	Rainfall (inches)	Runoff (cfs)	Volume (cubic-feet)	Depth (inches)
1-Year	2.60	0.12	312	0.83
2-Year	3.20	0.18	435	1.15
5-Year	4.20	0.30	668	1.78
10-Year	5.00	0.40	875	2.33
25-Year	5.70	0.49	1,067	2.84
50-Year	6.40	0.59	1,269	3.37
100-Year	**7.10**	**0.69**	**1,477**	**3.93**



Post-Development POI-1

Subcat Reach Pond Link

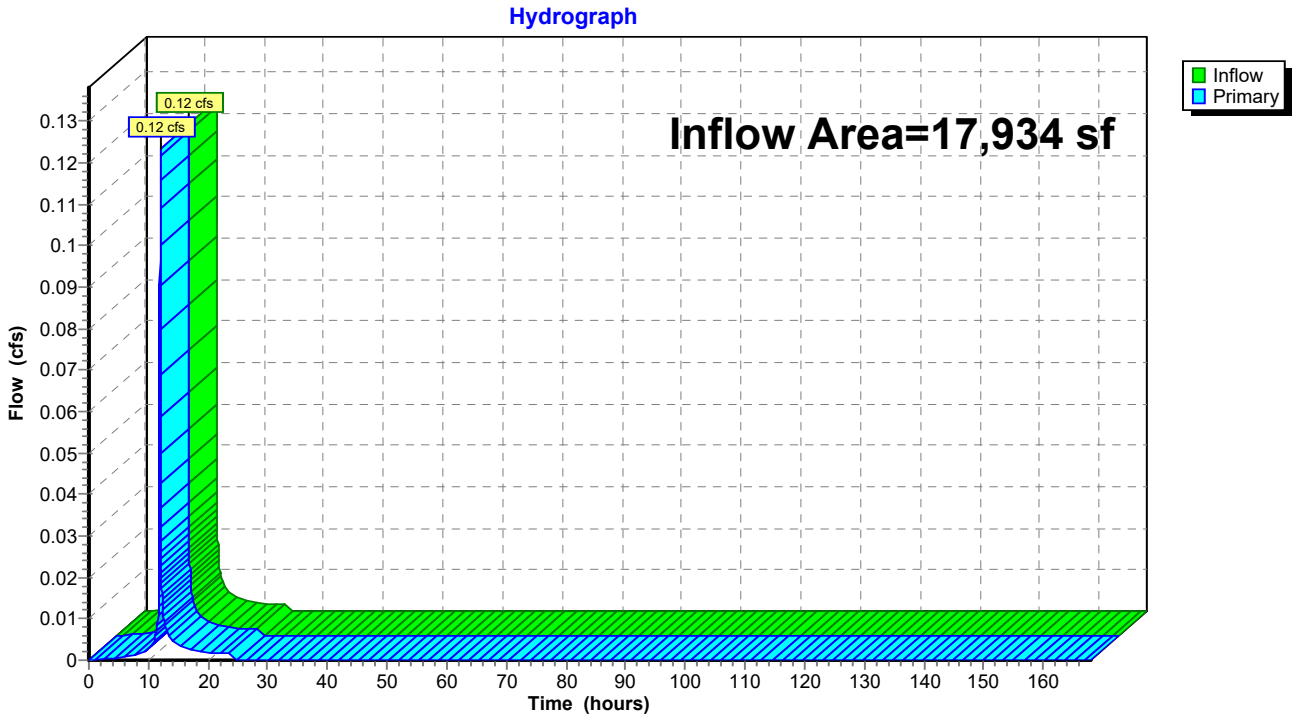
Routing Diagram for 18080_Ashford Wealth
Prepared by Nave Newell Inc, Printed 8/3/2022
HydroCAD® 10.20-2d s/n 07511 © 2021 HydroCAD Software Solutions LLC

Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 65.42% Impervious, Inflow Depth = 0.21" for 1-Year event
Inflow = 0.12 cfs @ 11.97 hrs, Volume= 312 cf
Primary = 0.12 cfs @ 11.97 hrs, Volume= 312 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

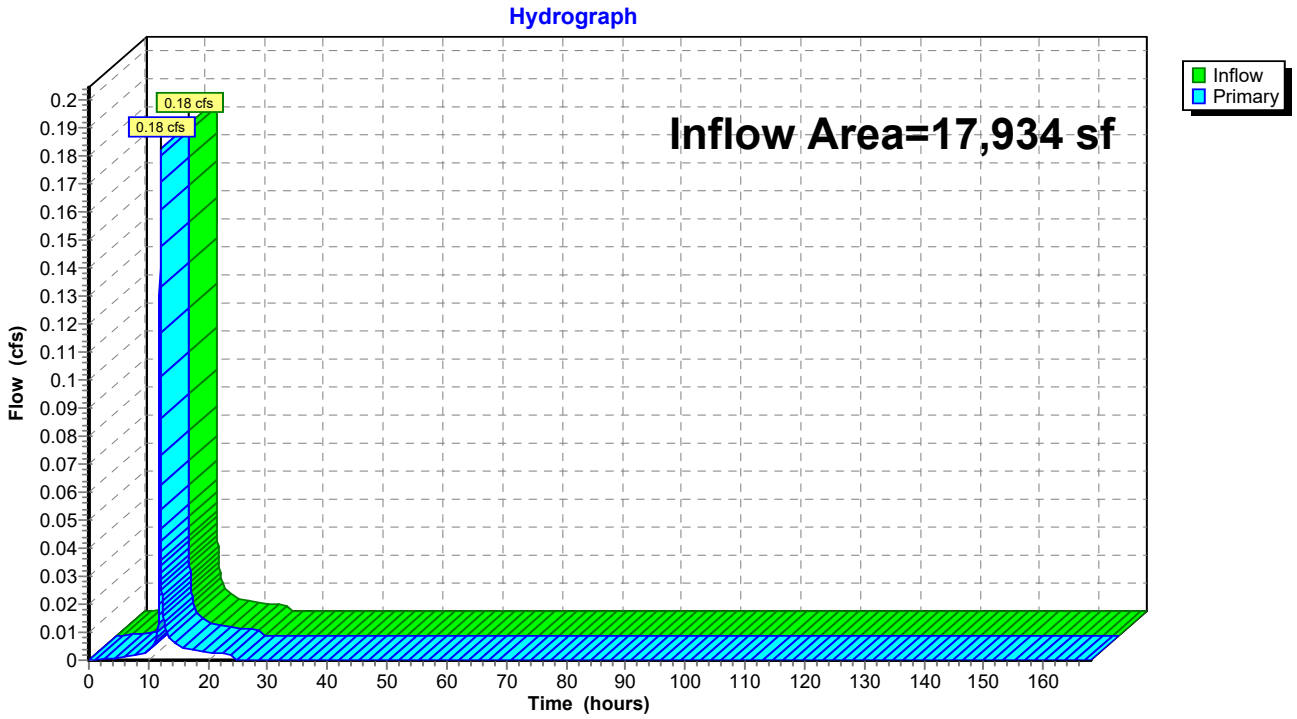


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 65.42% Impervious, Inflow Depth = 0.29" for 2-Year event
Inflow = 0.18 cfs @ 11.97 hrs, Volume= 435 cf
Primary = 0.18 cfs @ 11.97 hrs, Volume= 435 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

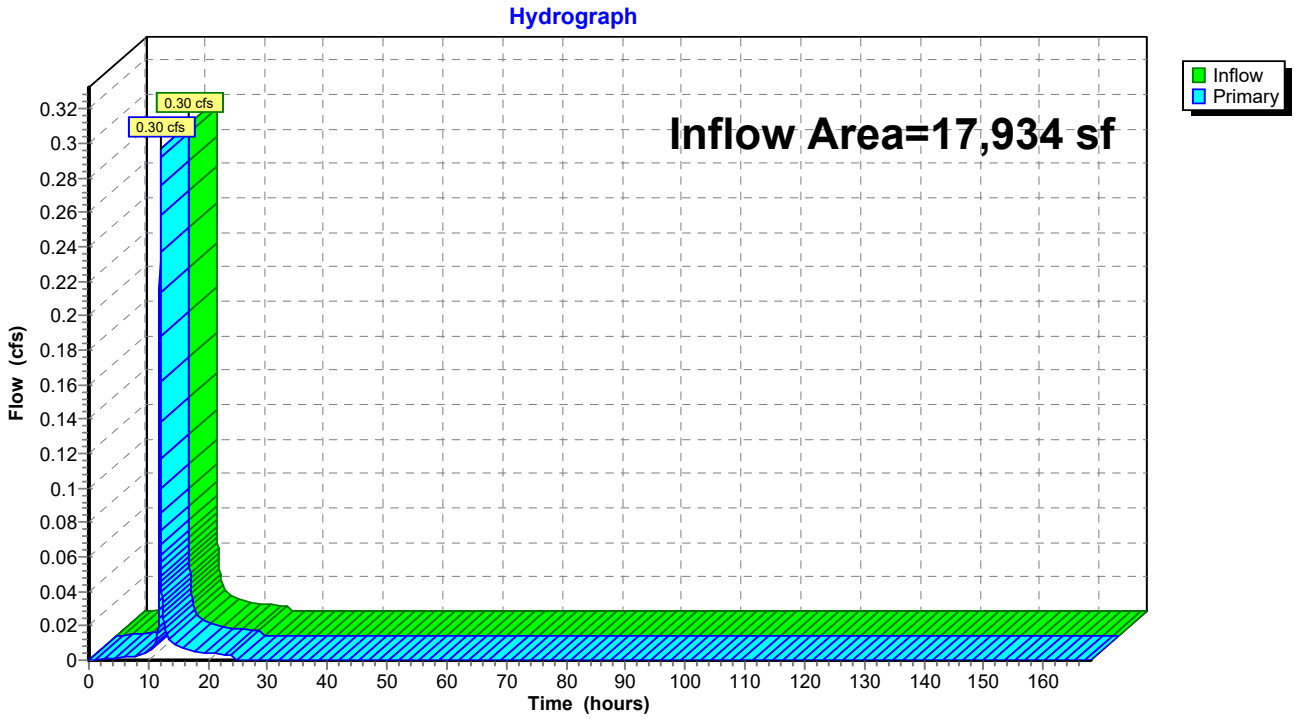


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 65.42% Impervious, Inflow Depth = 0.45" for 5-Year event
Inflow = 0.30 cfs @ 11.96 hrs, Volume= 668 cf
Primary = 0.30 cfs @ 11.96 hrs, Volume= 668 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

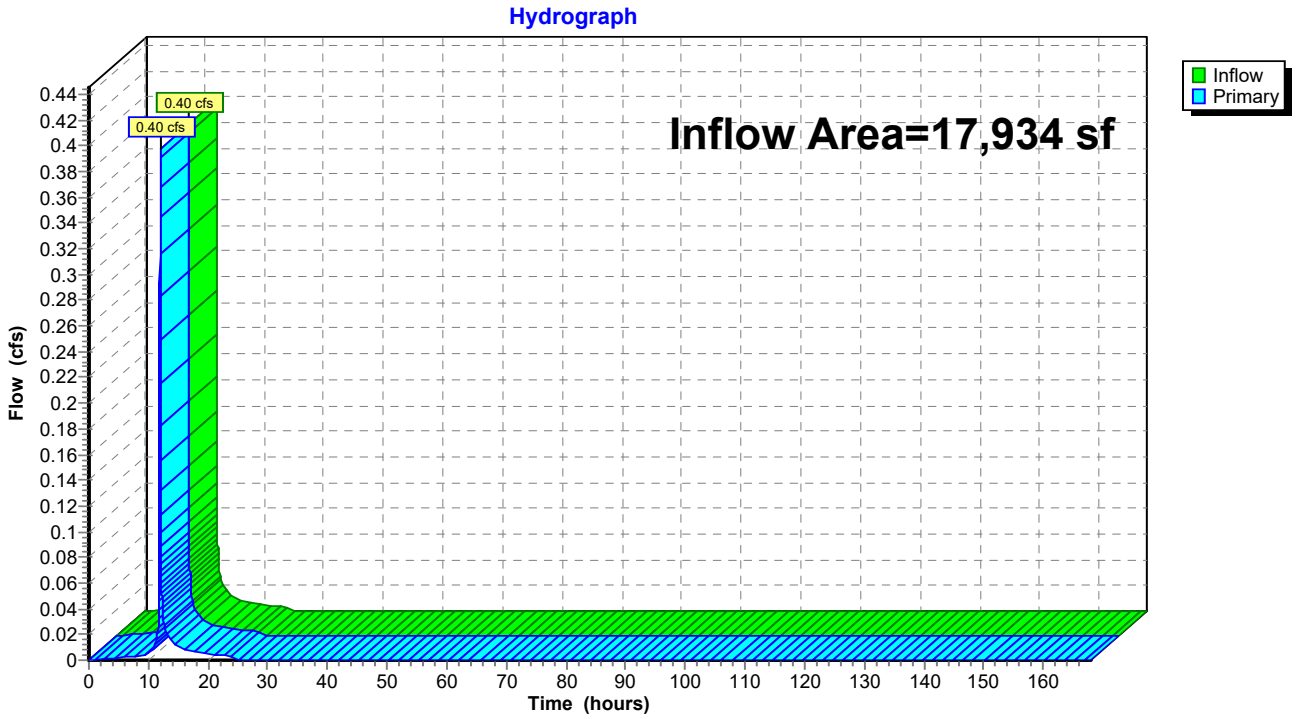


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 65.42% Impervious, Inflow Depth = 0.59" for 10-Year event
Inflow = 0.40 cfs @ 11.96 hrs, Volume= 875 cf
Primary = 0.40 cfs @ 11.96 hrs, Volume= 875 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

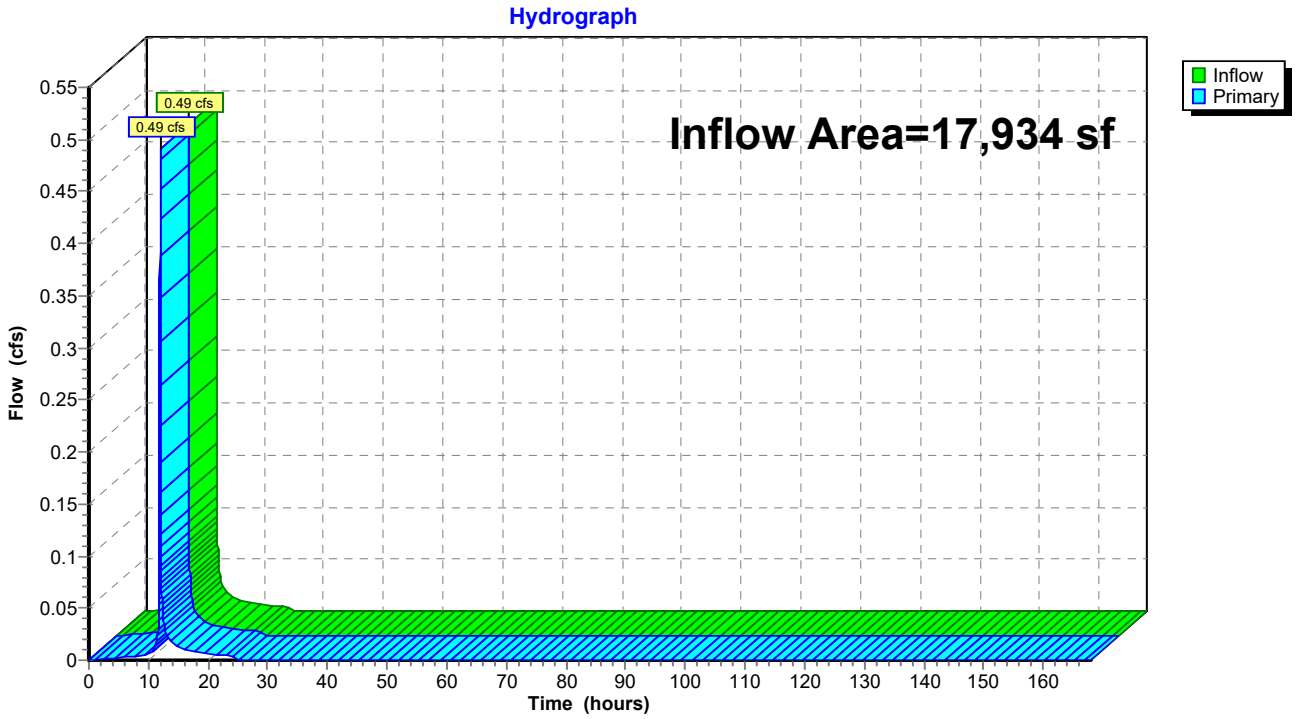


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 65.42% Impervious, Inflow Depth = 0.71" for 25-Year event
Inflow = 0.49 cfs @ 11.96 hrs, Volume= 1,067 cf
Primary = 0.49 cfs @ 11.96 hrs, Volume= 1,067 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

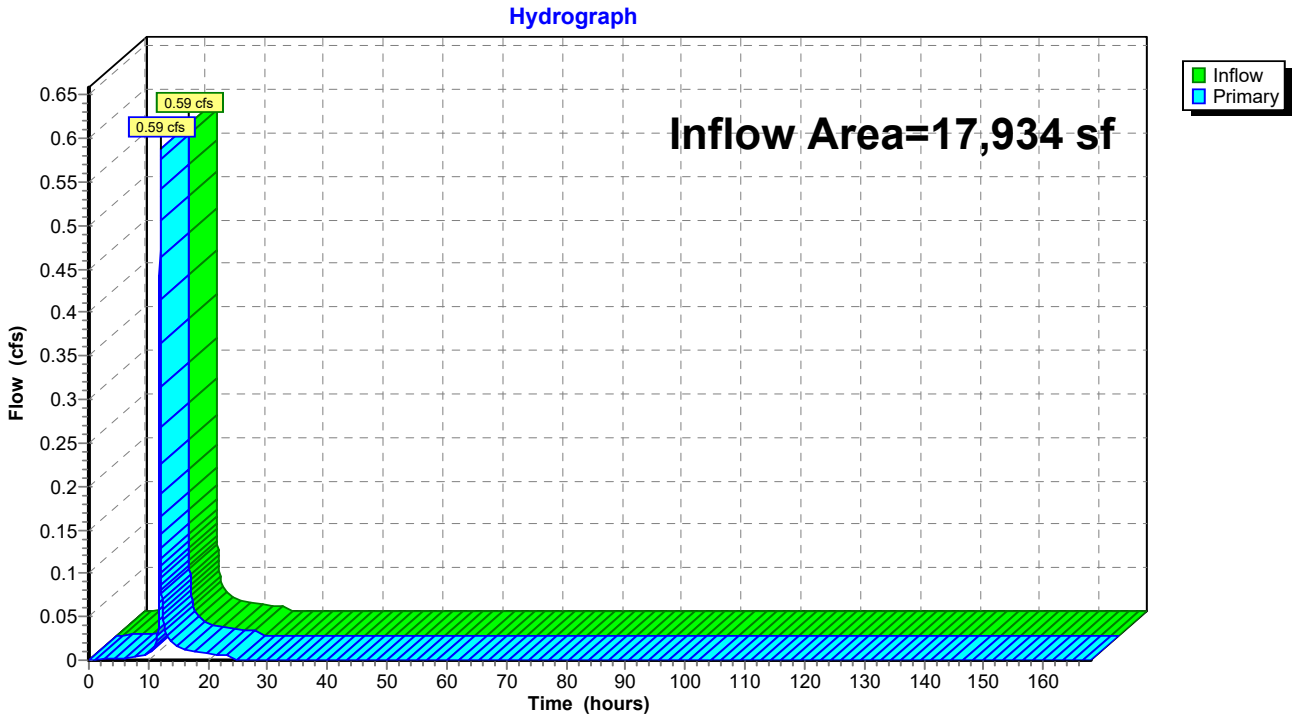


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 65.42% Impervious, Inflow Depth = 0.85" for 50-Year event
Inflow = 0.59 cfs @ 11.96 hrs, Volume= 1,269 cf
Primary = 0.59 cfs @ 11.96 hrs, Volume= 1,269 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1

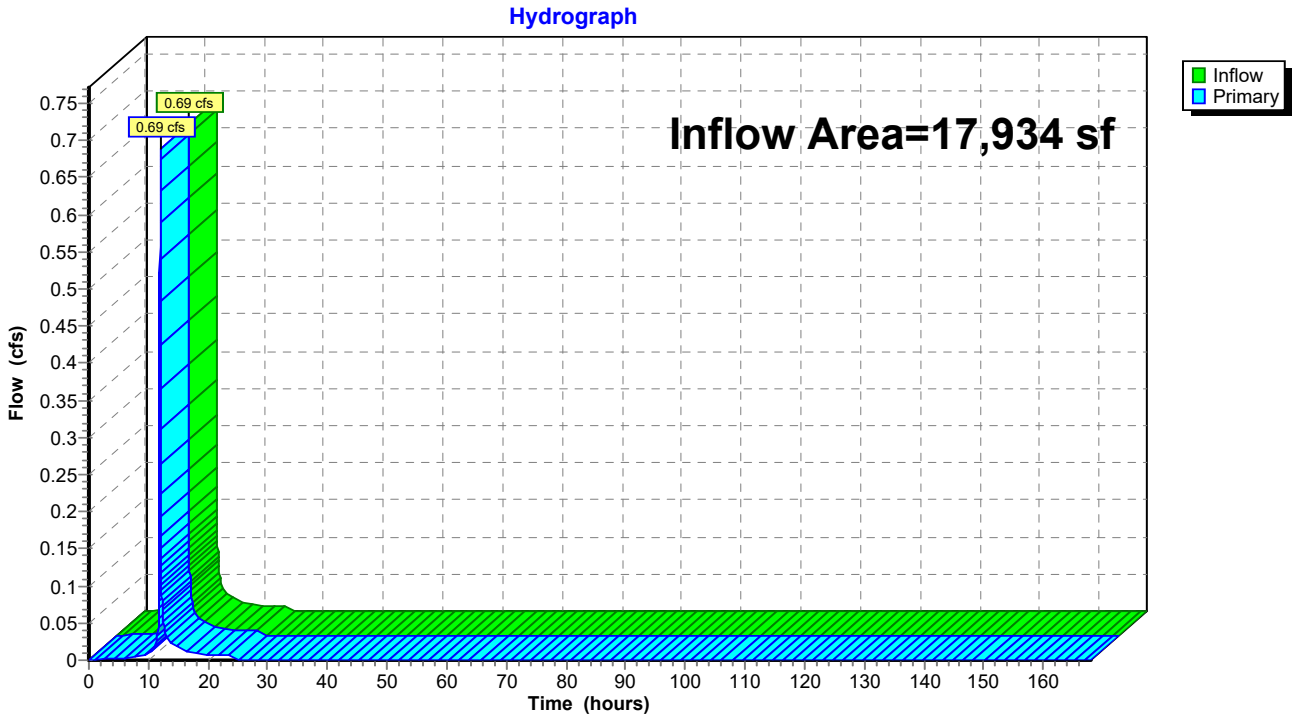


Summary for Link 10L: Post-Development POI-1

Inflow Area = 17,934 sf, 65.42% Impervious, Inflow Depth = 0.99" for 100-Year event
Inflow = 0.69 cfs @ 11.96 hrs, Volume= 1,477 cf
Primary = 0.69 cfs @ 11.96 hrs, Volume= 1,477 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 10L: Post-Development POI-1



Events for Link 10L: Post-Development POI-1

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-Year	0.12	0.12	**0.00**
2-Year	0.18	0.18	0.00
5-Year	0.30	0.30	0.00
10-Year	0.40	0.40	0.00
25-Year	0.49	0.49	0.00
50-Year	0.59	0.59	0.00
100-Year	**0.69**	**0.69**	0.00

IV.

Volume Summary – Ashford Wealth Advisiors

This project is designed to meet the following criteria:

1. *Pennsylvania DEP Volume Control Guideline 1 –*
   A. *Do not increase the post-development total runoff volume for all storms equal to or less than the 2-year/24-hour event.*
   B. *Existing (pre-development) non-forested pervious areas must be considered meadow (good condition) or its equivalent.*
   C. *Twenty (20) percent of existing impervious area, when present, shall be considered meadow (good condition) in the model for existing conditions for redevelopment.*

   The overall net two year volume is as follows:

   Total LOD - 0.41 Acres (17,934)

2. *Whitemarsh Township Water Quality Volume (WQv) per Resoluton 2004-8*
   WQv = [(0.17)(Rv)(A)] where
   A = 0.41 Acres
   *Rv = 0.05+0.009*I or 0.05+0.009*[(0.27/0.41)*100] = 0.643*
   WQv = (0.17)(0.643)(0.41)) = 0.0448 acre-feet or 1951.49 CF

3. *Whitemarsh Township Infiltration Recharge Volume (Rev) per Resoluton 2004-8*
   Rev = [(S)(Rv)(A)/12] where
   S= 0.25
   *Rv = 0.05+0.009*I or 0.05+0.009*[(0.27/0.41)*100] = 0.643*
   A = 0.41 Acres
   Rev = [(0.25)(0.643)(0.41)/12] = 0.0055 acre-feet or 239.58 CF

Total Volume Reduction Credits for this project: 6,964 CF

WORKSHEET 4. CHANGE IN RUNOFF VOLUME FOR 2-YR STORM EVENT

PROJECT: Ashford Wealth
Drainage Area: POI 1
2-Year Rainfall: 3.20 **inches**

Total Site Area: 0.510 **acres**
Protected Site Area: 0.510 **acres**
Managed Area: 0.410 **acres**

Existing Conditions:

Cover Type/Condition	Soil Type	Area (sf)	Area (ac)	CN	S	I_a (0.2 x S)	Q Runoff[1] (in)	Runoff Volume[2] (ft^3)
Woodland	B		0.000	55	8.18	1.64	0.25	0
Woodland	C		0.000	70	4.29	0.86	0.83	0
Woodland	D		0.000	77	2.99	0.60	1.21	0
Meadow	B	17934	0.412	58	7.24	1.45	0.34	510
Meadow	C		0.000	71	4.08	0.82	0.88	0
Meadow	D		0.000	78	2.82	0.56	1.27	0
Meadow (20% from Imperv.)	B		0.000	58	7.24	1.45	0.34	0
Meadow (20% from Imperv.)	C		0.000	71	4.08	0.82	0.88	0
Meadow (20% from Imperv.)	D		0.000	78	2.82	0.56	1.27	0
Impervious	B		0.000	98	0.20	0.04	2.97	0
Impervious	C		0.000	98	0.20	0.04	2.97	0
Impervious	D		0.000	98	0.20	0.04	2.97	0
TOTAL:		17934	0.412					510

Developed Conditions:

Cover Type/Condition	Soil Type	Area (sf)	Area (ac)	CN	S	I_a (0.2 x S)	Q Runoff[1] (in)	Runoff Volume[2] (ft^3)
Woodland	B		0.000	55	8.18	1.64	0.25	0
Woodland	C		0.000	70	4.29	0.86	0.83	0
Woodland	D		0.000	77	2.99	0.60	1.21	0
Meadow	B		0.000	58	7.24	1.45	0.34	0
Meadow	C		0.000	71	4.08	0.82	0.88	0
Meadow	D		0.000	78	2.82	0.56	1.27	0
Lawn	B	6201	0.142	61	6.39	1.28	0.44	229
Lawn	C		0.000	74	3.51	0.70	1.04	0
Lawn	D		0.000	80	2.50	0.50	1.40	0
Impervious	B	11733	0.269	98	0.20	0.04	2.97	2901
Impervious	C		0.000	98	0.20	0.04	2.97	0
Impervious	D		0.000	98	0.20	0.04	2.97	0
TOTAL:		17934	0.412					3131

2-Year Volume Increase (ft^3)	2621 ft^3

2-Year Volume Increase = Developed Conditions Runoff Volume - Existing Conditions Runoff Volume

1. Runoff (in) = $Q = (P - 0.2S)^2 / (P + 0.8S) = (P-I_a)^2 / ((P-I_a) + S)$
   P = 2-Year Rainfall (in)
   S = (1000 / CN) - 10
2. Runoff Volume (CF) = Q x Area x 1/12
   Q = Runoff (in)
   Area = Land use area (sq. ft)

Hydrograph for Pond 9P: INF-1 (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
130.00	0.00	9	174.17	0.01
130.50	0.00	0	174.17	0.00
131.00	0.00	0	174.17	0.00
131.50	0.00	0	174.17	0.00
132.00	0.00	0	174.17	0.00
132.50	0.00	0	174.17	0.00
133.00	0.00	0	174.17	0.00
133.50	0.00	0	174.17	0.00
134.00	0.00	0	174.17	0.00
134.50	0.00	0	174.17	0.00
135.00	0.00	0	174.17	0.00
135.50	0.00	0	174.17	0.00
136.00	0.00	0	174.17	0.00
136.50	0.00	0	174.17	0.00
137.00	0.00	0	174.17	0.00
137.50	0.00	0	174.17	0.00
138.00	0.00	0	174.17	0.00
138.50	0.00	0	174.17	0.00
139.00	0.00	0	174.17	0.00
139.50	0.00	0	174.17	0.00
140.00	0.00	0	174.17	0.00
140.50	0.00	0	174.17	0.00
141.00	0.00	0	174.17	0.00
141.50	0.00	0	174.17	0.00
142.00	0.00	0	174.17	0.00
142.50	0.00	0	174.17	0.00
143.00	0.00	0	174.17	0.00
143.50	0.00	0	174.17	0.00
144.00	0.00	0	174.17	0.00
144.50	0.00	0	174.17	0.00
145.00	0.00	0	174.17	0.00
145.50	0.00	0	174.17	0.00
146.00	0.00	0	174.17	0.00
146.50	0.00	0	174.17	0.00
147.00	0.00	0	174.17	0.00
147.50	0.00	0	174.17	0.00
148.00	0.00	0	174.17	0.00
148.50	0.00	0	174.17	0.00
149.00	0.00	0	174.17	0.00
149.50	0.00	0	174.17	0.00
150.00	0.00	0	174.17	0.00
150.50	0.00	0	174.17	0.00
151.00	0.00	0	174.17	0.00
151.50	0.00	0	174.17	0.00
152.00	0.00	0	174.17	0.00
152.50	0.00	0	174.17	0.00
153.00	0.00	0	174.17	0.00
153.50	0.00	0	174.17	0.00
154.00	0.00	0	174.17	0.00
154.50	0.00	0	174.17	0.00
155.00	0.00	0	174.17	0.00
155.50	0.00	0	174.17	0.00

Dewatering Time = 130.50 to Dewater 100-year storm

V.

Inlet Drainage Areas

Inlet	A total	A total	Lawn	Impervious	C wt	25 yr Q	100 yr Q
	SF	Acres	SF	SF		cfs	cfs
I-1	7492	0.172	3126	4366	0.76	**0.94**	**1.07**
I-2	3964	0.091	1852	2112	0.74	**0.48**	**0.55**
I-3	1036	0.024	180	856	0.90	**0.15**	**0.17**

Q= (C wt) x I x (A total acres)

Q= (C wt) x I x (A total acres)

C wt = $\frac{\text{vious)] + [0.99 x (Lawn - B)]}}{\text{A total}}$

I 25 =	7.15	in/hr; per PennDOT Road Design Manual, Vol III
I 50	7.66	Fig. 2.10.4.2(E), Region 3 I.D.F., 5 min. duration
I 100 =	8.15	
C =	0.45	Lawn
C =	0.99	Impervious

FlexTable: Conduit Table

ID	Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Velocity (ft/s)	Flow (ft^3/s)	Capacity (Full Flow) (ft^3/s)	Flow / Capacity (Design) (%)
204	CO-43	I-1	INF-1	174.68	174.67	2.0	0.005	12.0	0.012	3.16	0.95	2.73	34.7
205	CO-44	I-2	INF-1	174.70	174.67	6.0	0.005	12.0	0.012	2.62	0.49	2.73	17.9
206	CO-45	I-3	INF-1	174.70	174.67	5.0	0.006	12.0	0.012	2.00	0.15	2.99	5.2

FlexTable: Conduit Table

ID	Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (User Defined) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Velocity (ft/s)	Flow (ft^3/s)	Capacity (Full Flow) (ft^3/s)	Flow / Capacity (Design) (%)
204	CO-43	I-1	INF-1	174.68	174.67	2.0	0.005	12.0	0.012	3.27	1.07	2.73	39.3
205	CO-44	I-2	INF-1	174.70	174.67	6.0	0.005	12.0	0.012	2.72	0.55	2.73	20.3
206	CO-45	I-3	INF-1	174.70	174.67	5.0	0.006	12.0	0.012	2.08	0.18	2.99	5.9

VI.

Ingram Engineering Services, Inc.
"Providing Economic Solutions in Real Time"
16 Hagerty Blvd. Suite 400, West Chester PA 19382
Office 484-947-5549
www.ingram-engineering.com

CLIENT:	Ashford Wealth Advisors	
PROJECT:	15 E Germantown Pike	
REQUIREMENT:	PROFESSIONAL ENGINEERING SERVICES: Geotechnical/SWM	
LOCATION:	Whitemarsh Township, Montgomery County, PA	
DATE:	November 24th, 2021	
ATTENTION:	Rosie Soto, JD	via email

PURPOSE

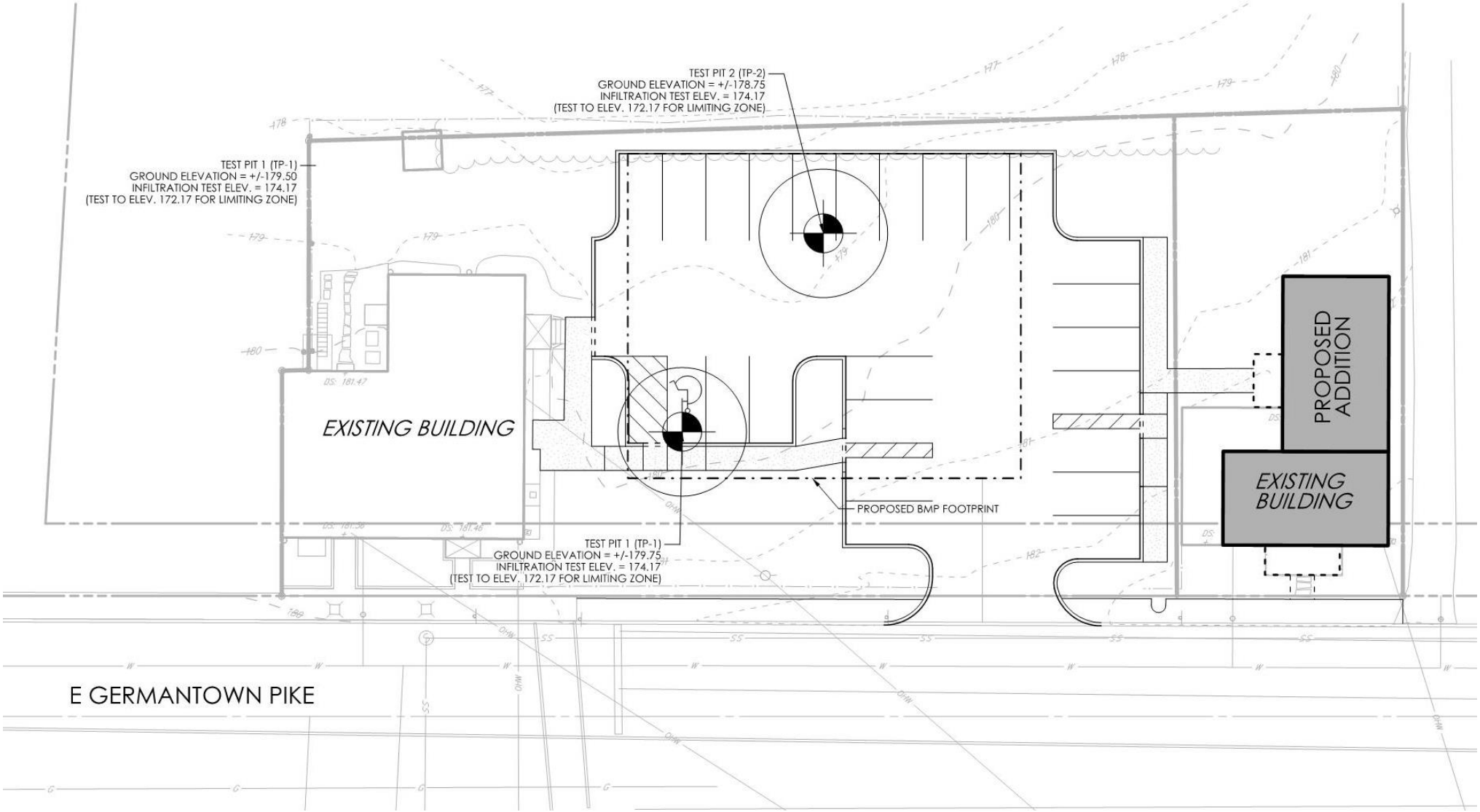
The Purpose of this report is to present the Findings, Conclusions and Recommendations relative to the physical investigation performed at the above captioned project location.

INVESTIGATION

Steve Joran, P.E. of Ingram Engineering Services, Inc. (IES) was on site on November 24th, 2021 to conduct a series of test pit and double ring infiltrometer investigations within the proposed locations provided by the client. The purpose of the testing was to determine if subsurface infiltration was feasible for the design of stormwater management facilities and provide the necessary infiltration data to design those systems.

IES performed two (2) investigative test pit investigations and ran two (2) double ring infiltrometer tests. All testing was performed in accordance with the PA Stormwater BMP Manual, Appendix C: Site Evaluation and Soil Testing. Test pit locations and elevations were provided to IES by the Client in the plan entitled "Infiltration Testing Plan - Proposed" (Project No. 2018-080), dated 10/19/21. IES utilized this plan and a Google Earth overlay to field locate the approximate test pit locations. Surface elevations were approximated utilizing the provided plan. Approximate test pit locations can be seen on the following page:

Ingram Engineering Services, Inc.
"Providing Economic Solutions in Real Time"
16 Hagerty Blvd. Suite 400, West Chester PA 19382
Office 484-947-5549
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FINDINGS

Soils Investigation:

TP #1

Test @ 67'' BGS (Elev. 174.17)

Depth BGS	Elevation	Soil Description
0" to 5"	179.75 to 179.33	Dk brn TOPSOIL
5" to 40"	179.33 to 176.42	Brn/lt. brn clayey SILT, sl. plastic, med stiff
40" to 72"	176.42 to 173.75	Lt. brn f sandy SILT, stiff
72" to 98"	173.75 to 171.58	Reddish brn f sandy SILT, stiff

No GW or LZ Encountered



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TP #2

Test @ 55'' BGS (Elev. 174.17)

Depth BGS	Elevation	Soil Description
0" to 2"	178.75 to 178.58	Dk brn TOPSOIL w/ little root mat
2" to 44"	178.58 to 175.08	FILL- urban debris (brick, concrete, ashpalt, terracota, some trash, some organics, etc.)
44" to 84"	175.08 to 171.75	Lt. brn f sandy SILT w/ tr clay, med stiff to stiff

No GW or LZ Encountered



Infiltration Testing:

TP No. 1: ⅛", ⅛", ⅛", ⅛" → ⅛" Final Stabilized Reading w/ 30 min. intervals
INFILTRATION RATE: 0.25 INCHES/HOUR @ 67" BGS (Elev. 174.17)

TP No. 2: ⅛", 1/16", 1/16", 1/16" → 1/16" Final Stabilized Reading w/ 30 min. intervals
INFILTRATION RATE: 0.125 INCHES/HOUR @ 55" BGS (Elev. 174.17)

CONCLUSIONS/RECOMMENDATIONS

1. According to the *Natural Resources Conservation Service Web Soil Survey* the onsite soils consist of Urban land- Duffield complex. These soils are rated as Hydric (2%) as indicated by the Hydric Unit Map, See **Appendix A**.

2. The Design Engineer is recommended to use the above information for sizing of the Proposed Stormwater Management Facilities. IES recommends the Design Engineer utilize the following unfactored rates with a slight rate reduction to ensure the longevity of the system given the presence of fine-grained soils and cohesive soil content based on the average infiltration testing results obtained at testing locations and corresponding depths within the vicinity of the proposed SWM facilities:
    a. (Test Pits 1 & 2)- 0.1875 inches/hour @ Elev. 174.17

3. The BMP Manual states a factor of safety between 1 and 10 be used for design with a factor of safety of 2 being the recommended value, as well as a design infiltration rate between 0.1 to 10 inches per hour with a minimum 24-inch vertical separation between the facility bottom and any limiting layer.

4. Subgrade under the proposed infiltration facilities shall NOT be compacted or subject to excessive equipment traffic. Areas that where soils have been subjected to construction traffic shall be scarified to a minimum depth of 12-inches.

5. In the event an accumulation of fine-grained material and/or surface ponding is encountered within the subbase of the facility, material within that area shall be removed and replaced with acceptable material.

6. IES recommends that a non-woven geofabric (permeability should be a minimum of 2 in/hr) be utilized to prevent the migration of fines into any stone. The geotextile fabric is recommended to not be utilized at the bottom of any infiltration facility as the liner is serving too often as a hydraulically restrictive material and creating a 'bathtub' effect, ergo – only utilize the geotextile on the sides and top of the facility.

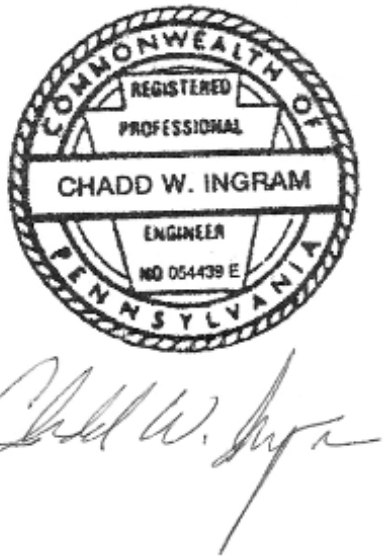
7. It is recommended that a Soils Engineer or representative thereof is present on-site during the construction of the stormwater management system in order to ensure the system was constructed as designed and to oversee the excavation of the fine grained

soils. Given the localized investigation, it is paramount that the entire bed bottom is verified to be situated within the correct infiltration stratum.

QUALIFICATIONS

Conclusions and Recommendations are based on the above Investigation and Findings. No other conclusions are to be drawn other than those specifically stated.

Very Truly Yours,



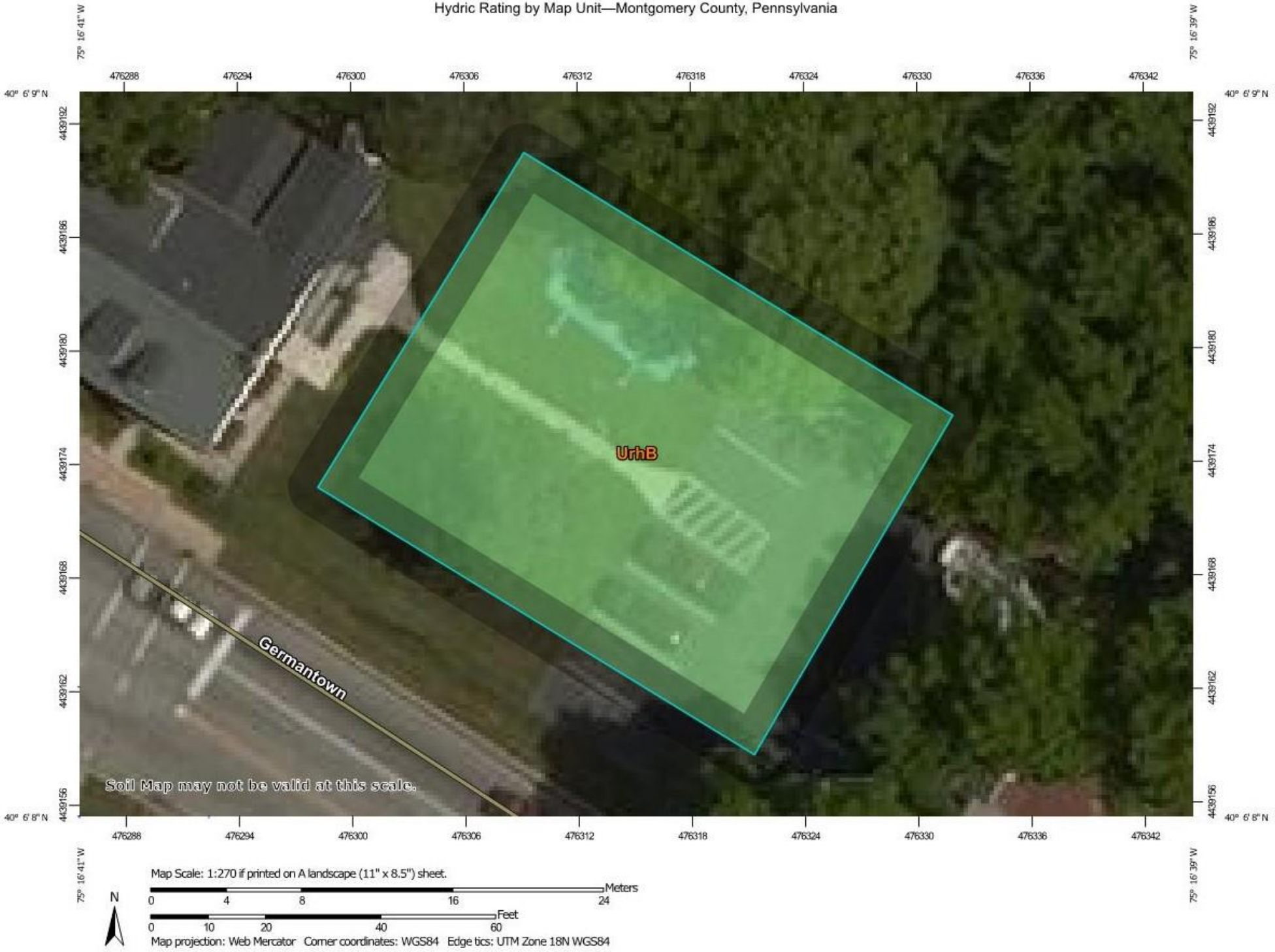
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Appendix A:

Hydric Soils Map



Map Scale: 1:270 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 4 8 16 24

Feet
0 10 20 40 60

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Pennsylvania
Survey Area Data: Version 16, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 17, 2014—Aug 14, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
UrhB	Urban land-Duffield complex, 0 to 8 percent slopes	2	0.1	100.0%
Totals for Area of Interest			**0.1**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

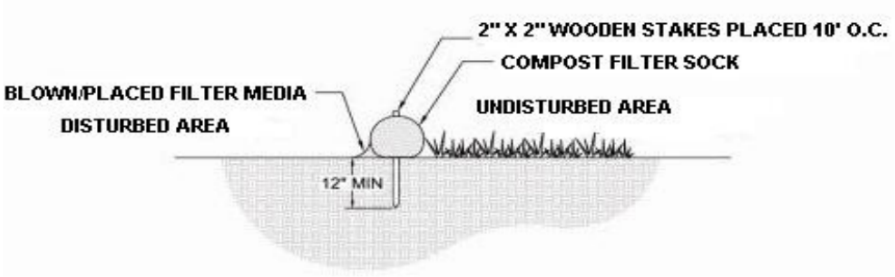
Component Percent Cutoff: None Specified

Tie-break Rule: Lower

VII.

STANDARD E&S WORKSHEET #1
Compost Filter Socks

PROJECT NAME: **ASHFORD WEALTH ADVISORS (NN PROJECT #2018-080.00)**
LOCATION: **WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA**
PREPARED BY: CW **DATE:** 12/8/2021
CHECKED BY: JPB **DATE:** 12/8/2021

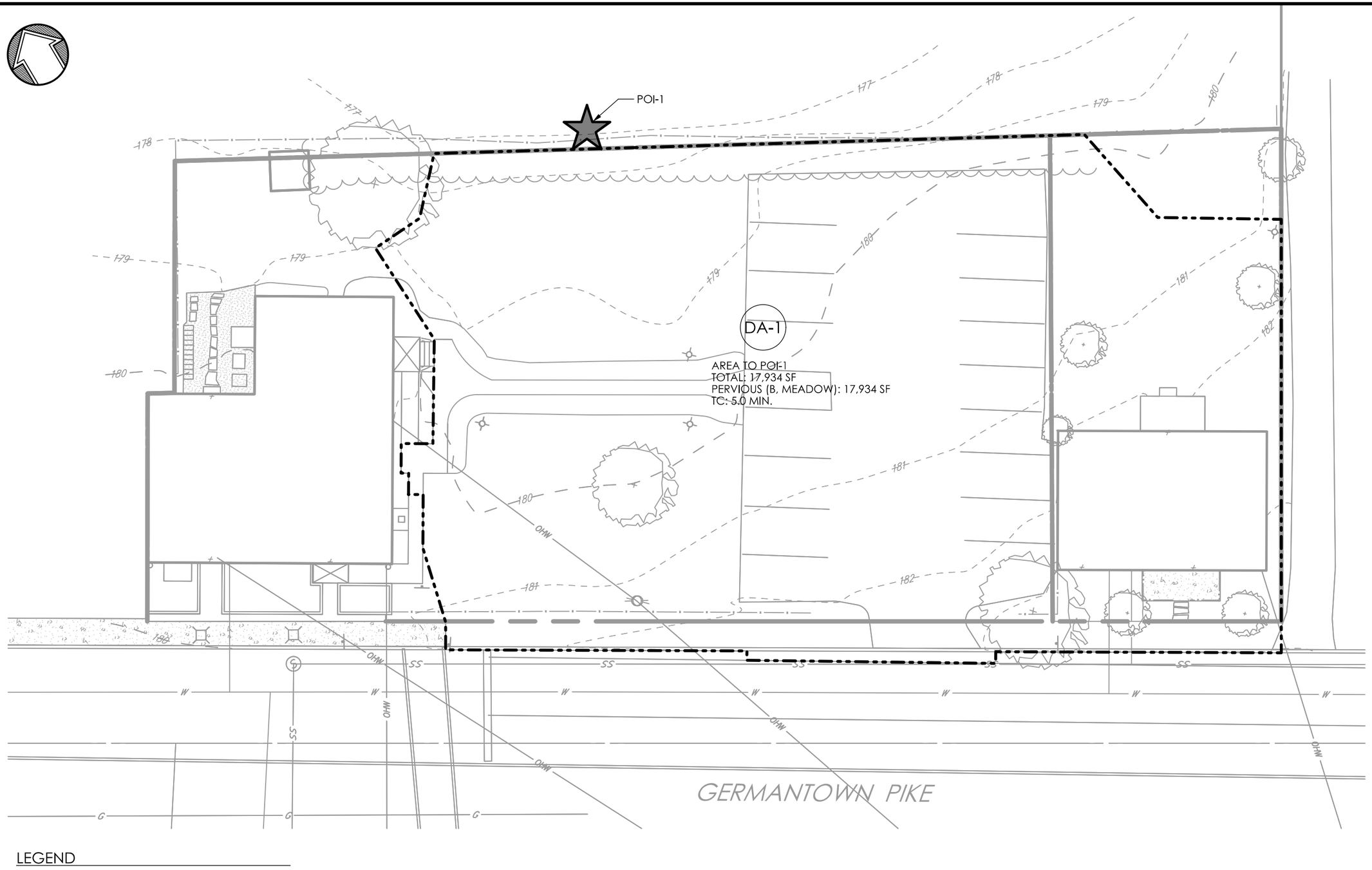


COMPOST SOCK SIZING TABLE						
Sock No.	**Dia. (IN)**	**Sock Length (LF)**	**Location**	**Slope Height Above Barrier (FT)**	**Slope Length Above Barrier (FT)**	**Slope (%)**
1	12	67	SEE E&S PLAN	4.5	105	4.3
2	12	46	SEE E&S PLAN	4.5	116.5	3.9
3	12	36	SEE E&S PLAN	4.0	106.1	3.8
4	12	38	SEE E&S PLAN	3.5	92.9	3.8
5	12	71	SEE E&S PLAN	2.0	26	7.7
6						
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17						
18						
19						
20						

Nave Newell
Where Ideas Get Down to Earth
900 West Valley Road
Suite 1100
Wayne, PA
(610) 265-8323

PROJECT NAME: BRYN COED FARMS
JOB #: 2016-061.11 **BY:** CW
DATE: 12/8/2021 **CHK'D:** JPB

Appendix



LEGEND

DRAINAGE AREA

POINT OF INTEREST

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

Nave Newell
900 West Valley Road • Suite 1100
Wayne, PA 19087-1830
p: 610.293.3700 f: 610.293.4299
www.navenewell.com

no.	description	date	chkd by
	REVISIONS		

DRAWING NAME: PRE-DEVELOPMENT DRAINAGE AREA PLAN

Ashford Wealth Advisors

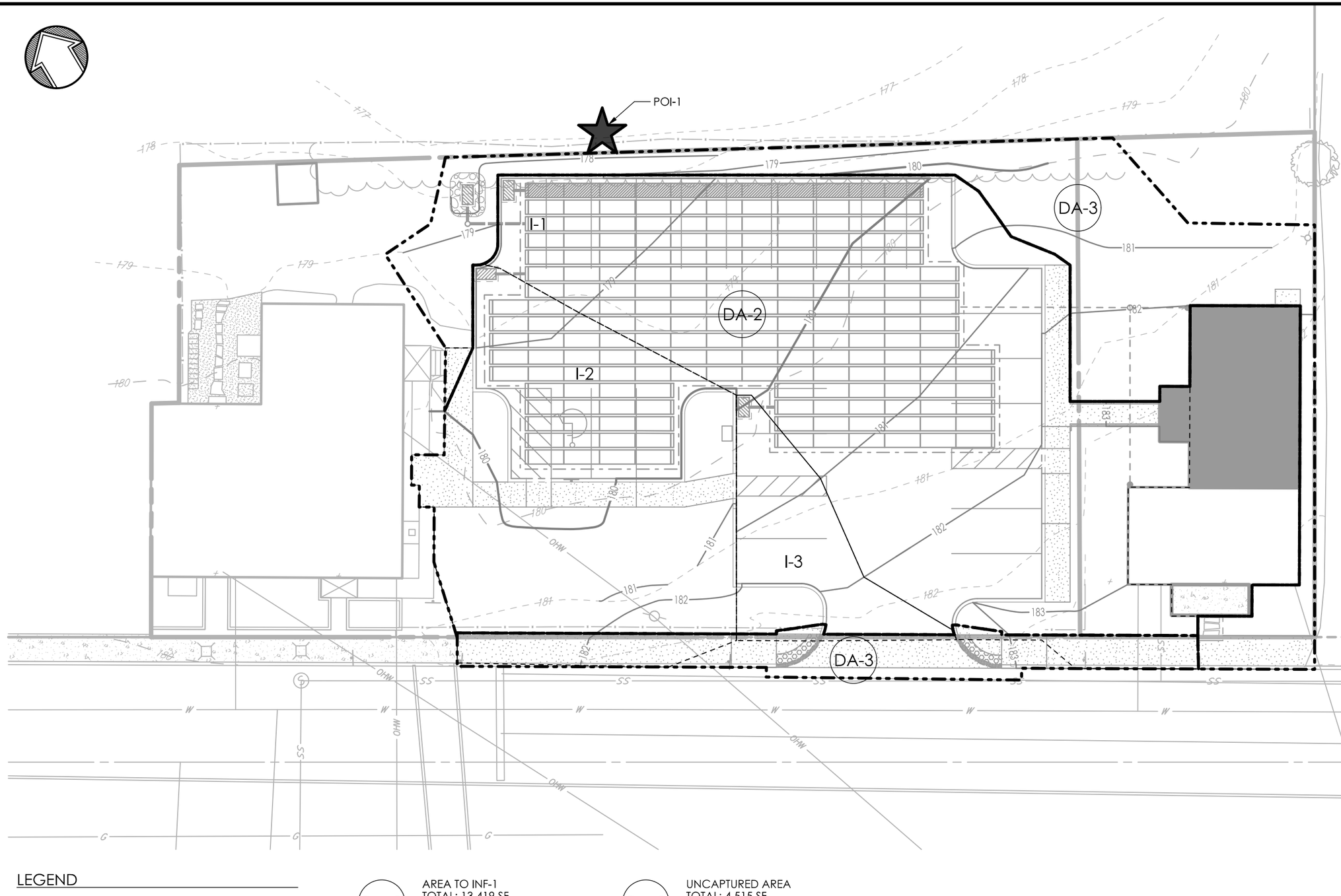
5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

LOCATION: WHITEMARSH TOWNSHIP, MOPNTGOMERY COUNTY, PA

project no.: 2018-080.00	drawn by: CW
date: 1/24/22	chk'd by: JPB
scale: 1" = 20'	approv. by: JPB
sheet no.	1 of 2

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LEGEND

- DRAINAGE AREA TO BMP
- DRAINAGE AREA TO INLET
- POINT OF INTEREST

DA-2
AREA TO INF-1
TOTAL: 13,419 SF
IMPERVIOUS (B): 10,461 SF
PERVIOUS (B, LAWN): 2,958 SF
TC: 5.0 MIN.

DA-3
UNCAPTURED AREA
TOTAL: 4,515 SF
IMPERVIOUS (B): 1,272 SF
PERVIOUS (B, LAWN): 3,243 SF
TC: 5.0 MIN.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft

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www.navenewell.com

no.	description	date	chkd by

Ashford Wealth Advisors

5, 15 E GERMANTOWN PIKE PLYMOUTH MEETING, PA

DRAWING NAME: POST-DEVELOPMENT/INLET DRAINAGE AREA PLAN

LOCATION: WHITEMARSH TOWNSHIP, MOPNTGOMERY COUNTY, PA

project no.: 2018-080.00	drawn by: CW
date: 1/24/22	chk'd by: JPB
scale: 1" = 20'	approv. by: JPB
sheet no.	2 of 2

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ASHFORD WEALTH

15 E GERMANTOWN PIKE

KSM architects



4 E GERMANTOWN PIKE



EXISTING WINDOW

WINDOW PRECEDENTS



1 E GERMANTOWN PIKE





EXISTING FACADE

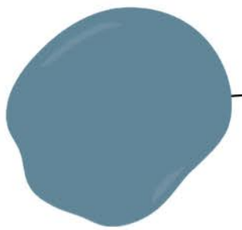
PORCH PRECEDENTS



CERTAINTEED
LANDMARK - PEWTER

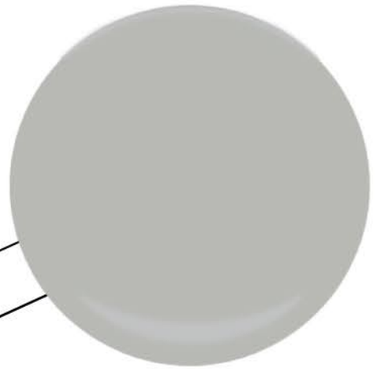


GUTTER/ DOWNSPOUT:
SIMILAR TO
BENJAMIN MOORE
HISTORICAL COLLECTION
BLACK HC-190

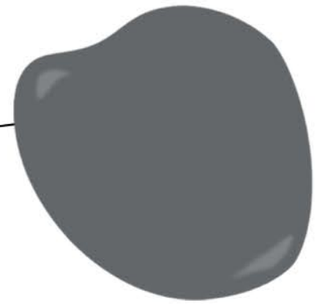


SHUTTER COLOR
BENJAMIN MOORE
HISTORICAL COLLECTION
BUCKLAND BLUE HC-151





BODY COLOR & MAJOR TRIM:
BENJAMIN MOORE
HISTORICAL COLLECTION
CONVENTRY GRAY HC-169

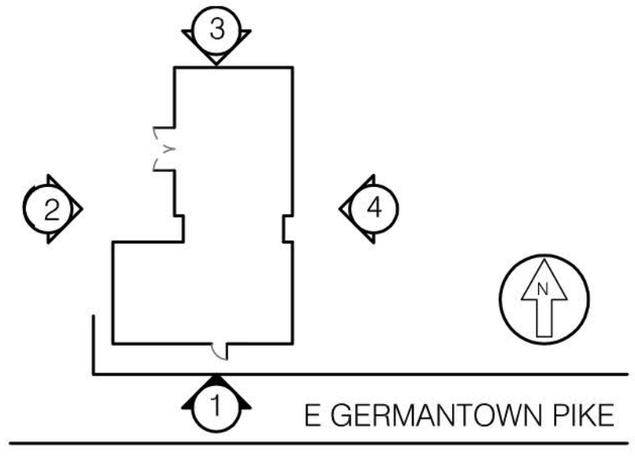


MINOR TRIM:
BENJAMIN MOORE
HISTORICAL COLLECTION
CHARCOAL GRAY HC-178

ASHFORD WEALTH ADVISORS
FINISH BOARD

KSM architects





ASHFORD WEALTH ADVISORS
1 SOUTH ELEVATION

SCALE: 3/16" = 1'-0"

KSM architects



ASHFORD WEALTH ADVISORS
2 WEST ELEVATION

SCALE: 3/16" = 1'-0"

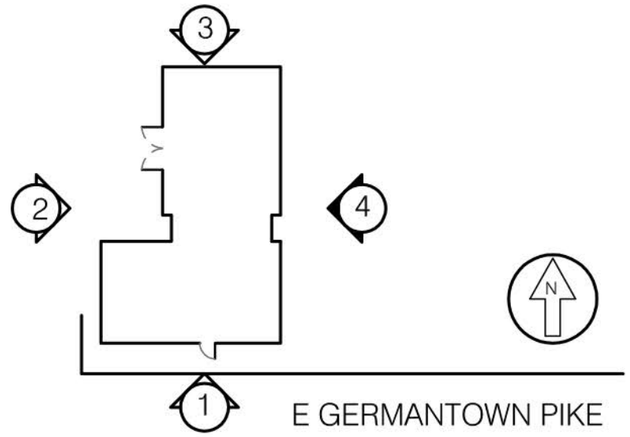
KSM architects



ASHFORD WEALTH ADVISORS
3 NORTH ELEVATION

SCALE: 3/16" - 1'-0"

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ASHFORD WEALTH ADVISORS
4 EAST ELEVATION

SCALE: 3/16" = 1'-0"

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ASHFORD WEALTH

Perspective Render View 1

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ASHFORD WEALTH

Perspective Render View 2

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ASHFORD WEALTH

Perspective Render View 3

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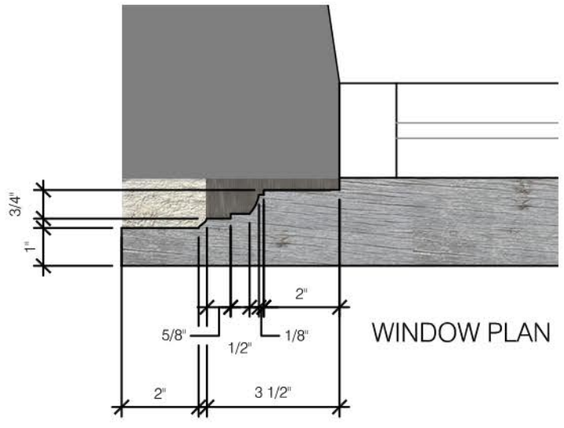
EXISTING WINDOW HEAD & TRIM



EXISTING WINDOW SILL & TRIM



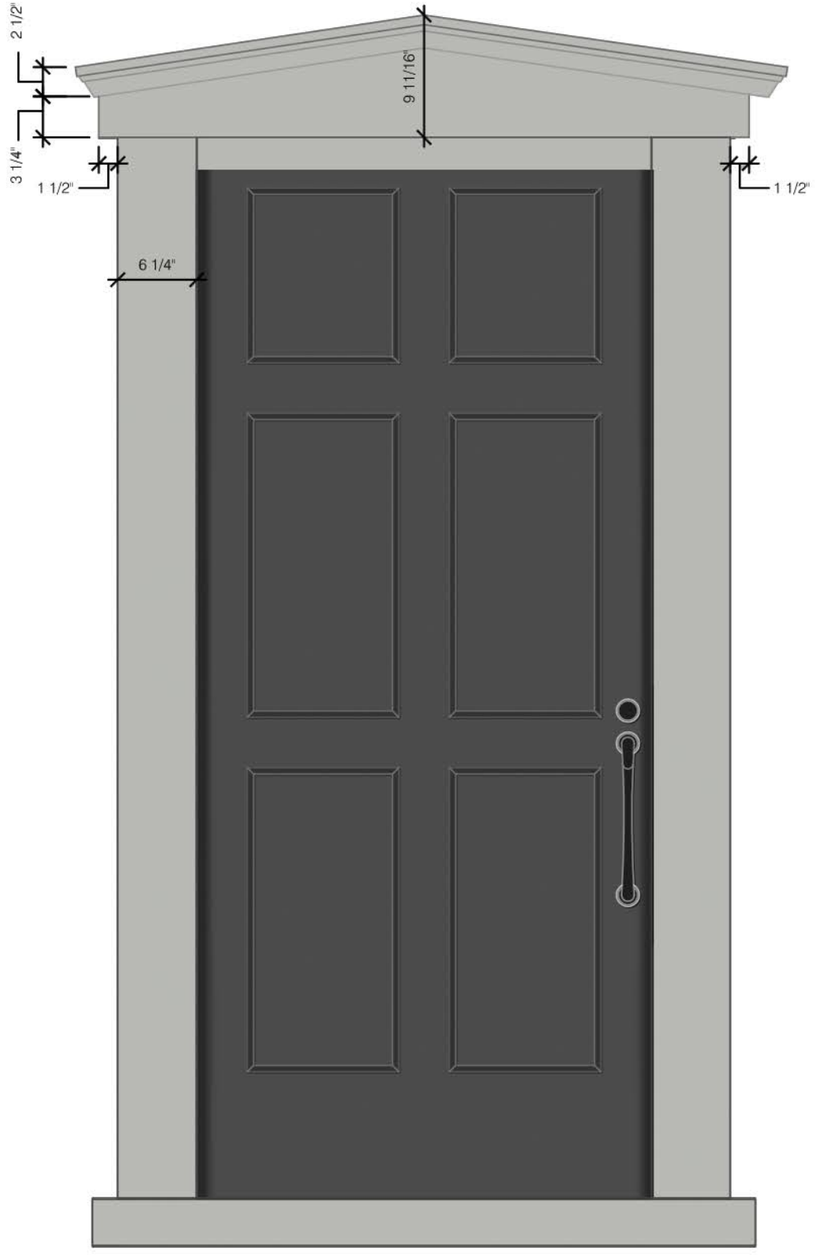
WINDOW ELEVATION



WINDOW PLAN



EXISTING PEDIMENT PROFILE



DOOR ELEVATION

EXISTING WINDOW & DOOR TRIM PROFILES

KSM architects



10” STRAP HINGE
STAINLESS STEEL
MATTE BLACK
POWDER COAT FINISH

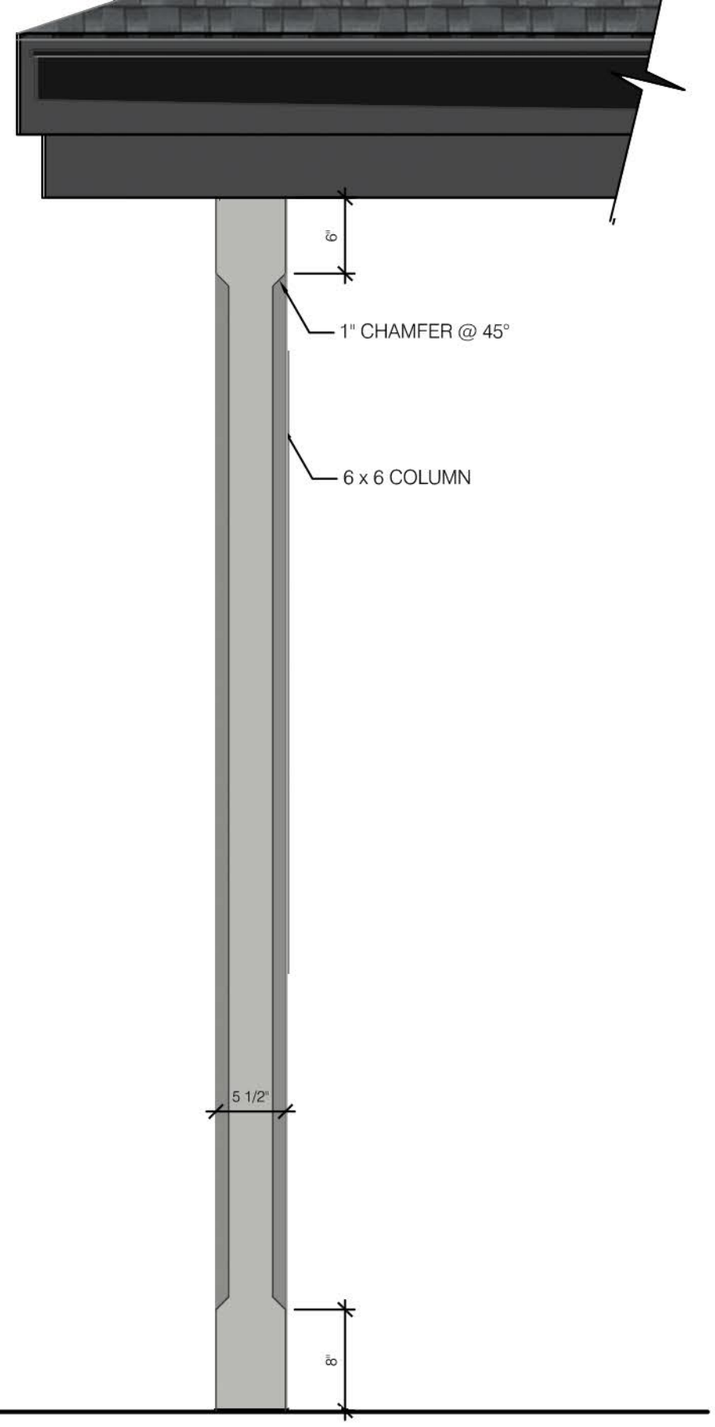


JAMB PINTEL
STANLESS STEEL
MATTE BLACK
POWDER COAT FINISH



S HOOK
STAINLESS STEEL
MATTEE BLACK
POWDER COAT FINISH





ASHFORD WEALTH ADVISORS
WINDOW & COLUMN DETAILS

SCALE: 1" = 1'-0"

KSM architects

Plymouth & Whitemarsh Townships
Historical Architectural Review Board
Meeting Minutes – June 8, 2022

The following HARB members were present: Dave Conroy, Plymouth Township Zoning Officer, Karen Coyne, Tom Higgins, Ken Parsons, John Von Essen, Robert Sztubinski, Whitemarsh Township Director of Building & Codes. Also in attendance was Charlie Guttenplan, Whitemarsh Township Director of Planning and Zoning and Will Gleckner, Whitemarsh Township Assistant Planner.

1. CALL TO ORDER: The meeting was called to order at 8:33 AM by Vice Chair Parsons

2. ANNOUNCEMENTS & CORRESPONDENCE:
   Mr. Parsons noted that there was email correspondence from Sydelle Zove (Harts Ridge Road, WT) and suggested it be addressed later as it pertains to new business. The Board agreed.

3. APPROVAL OF MINUTES: Meeting minutes from May 8, 2022 – approved.

4. OLD BUSINESS: None.

5. NEW BUSINESS:

<u>139 W Germantown Pike (PT) – Rehab of building exterior</u>.

Mark Jones introduced the project. The exterior of an historic late 1800's house and 1950's rear addition is in disrepair and will be restored. The restoration of stone on the original structure will include painting. On the rear addition, stucco was put over wood siding and is in poor condition. This will be removed and replaced with wood grained fiber cement siding. The two sections of the structure will be painted Monterey White and White Dove, respectively. There was discussion of the rational for using multiple shades of white; distinguishes the old and newer sections.

Architect Joe Lombardi showed the Board pictures of the current siding as well as roof samples and a window. There was discussion of the color of the metal standing seam roofing that will be used on porch roofs. Several samples were shown and it was determined that all were a close match to accepted historic colors, so any was acceptable. For the main roof 'weathered wood' colored asphalt shingles were selected.

A damaged chimney on the rear addition will be repaired and re-covered with stucco. Non-original vinyl windows will be replaced. A sample small six pained window with exterior grids was shown. Gutters will be replaced with half round white gutters.

A public comment from Sydelle Zove (Harts Ridge Road, WT) included a question on why standing seam roofs were selected for the porch roofs rather than asphalt shingles. Mr. Jones stated that it was to be in accordance with historic character despite significant additional cost.

A motion to recommend the Township Council approve a Certificate of Appropriateness was approved unanimously.

37 Germantown Pike (WT) – Roof Replacement.

Lee Berman introduced the project which includes the replacement of current asphalt shingle roofs on three buildings on the property. Mr. Berman indicated that color will be similar, although inherently less faded. Mr. Berman showed a sample of the new shingles to the Board.

Mr. Von Essen inquired about whether gutters will be replaced. Currently gutters vary between buildings. Mr. Berman stated that the contractor intended to replace existing varying gutter styles with 6 k-gutters. Mr. Parsons suggested half round gutters as more historically appropriate. Mr. Berman agreed and will communicate with the contractor.

A motion to recommend the Board of Supervisors approve a Certificate of Appropriateness was made with the condition that half round gutters are used. The motion was approved unanimously.

3024 Tara Court – Exterior door modification and deck removal.

Barry Ruder, the owner, presented the project. It involved removing a deck, closing off one door in the rear of this 1980's home and installing a patio slider in another location. There was talk of future projects on the property, but it was clarified that this meeting is only concerned with the deck removal and door changes.

A motion to recommend the Board of Supervisors approve a Certificate of Appropriateness for the project as presented was approved unanimously.

15 E Germantown Pike – Applicant returning to address modifications to plan suggested at last meeting

John MacDonald from KSM architects presented the project. He gave a brief overview of the planned renovation and rear addition on the 1830's building. Mr. MacDonald stated that the intention of the applicant is to be as historically accurate as possible. He also stated that variation in style between buildings is a historically accurate characteristic of older neighborhoods.

Mr. MacDonald went on to explain that when examining the existing structure, original 2/2 windows were discovered. Following a couple of discussions about the windows, it was subsequently determined to have 2/2 windows on the historic structure and 6/6 and 6/9 windows on the rear addition. This is historically consistent with the practice at the time of demonstrating wealth by having more expensive features (at the time larger panes of glass were more expensive) on the front facade and less expensive features in the rear; the different configurations also distinguish the original construction from newer additions. Mr. MacDonald then went on to explain details regarding the roof over the original front porch. Markings in the original stucco suggest a hip roof covering the two entry doors (one of which no longer exists). Thus, the plans were modified to include a hip roof. The roof on the connection between the original structure and the addition was then addressed. The flat roof shown in the original plan was modified to a gabled roof. Additional architectural perspectives were shown to illustrate that the perceived proportions of the addition are not out of scale. It was also noted that any salvageable frame features of the original building, notably front door framing and window framing, will be preserved. Federalist style wood columns with fluting will be used on the front porch.

In the public comments period Ms. Zove had comments, questions, and concerns about the following items. Ms. Zove appreciated the modifications to the porch roof and columns, and the gabled roof connecting the two buildings. There was additional clarification on the rationale for 2/2 windows on the original building and 6/6 and 6/9 in the rear addition. There was concern with the height of the rear building being over 2 feet higher than the original building. The architect explained that that was largely a product of the need for contemporary ceiling heights in the building. There was also concern with the detail in the door to the rear addition. Finally, there was concern with the removal of the hairpin iron fencing that runs parallel to the street. Ms. Zove suggested it be retained. Ms. Rosie Soto, on behalf of the owner, stated that it was their intention to preserve the fencing, but that it had become entangled in a tree that had to be removed. Ms. Zove then suggested that the section not mangled by the now-removed tree be attached to the other longer run of iron fencing, on the opposite side of the curb cut standing parallel to Germantown Pike. The architect stated that they were amenable to the idea to preserve the fence but they had been more focused on the structure itself for this presentation.

Mr. Guttenplan asked about the dimensions of the connector between the buildings. Mr. Macdonald stated that it is about five feet long, nearly as wide as the existing room in the addition and uses existing historic window cuts for the doorway connections between the two structures.

A motion was made to approve the plans as modified and presented was passed unanimously.

6. PUBLIC COMMENTS (NON-AGENDA ITEMS ONLY):

Ms. Zove stated that she eagerly awaits news of the acquisition of the Corson Homestead. Mr. Guttenplan stated that there are no updates from the Township on the matter.

7. HARB MEMBER COMMENTS:

The Board addressed the correspondence noted at the beginning of the meeting (e-mail and attachment from S.Zove). It was determined that the correspondence was addressed in the discussion of 15 E Germantown Pike.

8. ADJOURNMENT: The meeting was adjourned at 9:57 AM.

Respectfully submitted,

Charles L. Guttenplan
Director of Planning & Zoning/Zoning Officer
Whitemarsh Township

WHITEMARSH TOWNSHIP

To: Charlie L. Guttenplan, Director of Planning & Zoning/Zoning Officer

From: NICHOLAS W. WEAVER, FIRE MARSHAL

Subject: **SLD #04-22 Ashford Consulting & Ashford Wealth LLC**
5 & 15 Germantown Pike

Date: August 16, 2022

cc:

This application is approved with the submission of additional items.

Nicholas W. Weaver
Fire Marshal
616 Germantown Pike
Lafayette Hill, PA 19444
Phone: 610-825-3535 ext. 2614
Email: nweaver@whitemarshtwp.org

Whitemarsh TOWNSHIP
616 GERMANTOWN PIKE - LAFAYETTE HILL, PA 19444-1821
TEL: 610-825-3535 FAX: 610-825-9416
www.whitemarshtwp.org

BOARD of SUPERVISORS
Laura Boyle Nester – Chair
Fran McCusker – Vice Chair
Vincent Manuele
Jacy Toll
Patrice Turenne

Richard L. Mellor, Jr.
Township Manager

August 22, 2022

Ari Frazer
Ashford Consulting LLC and Ashford Wealth Advisors LLC
5 E. Germantown Pike
Plymouth Meeting PA 19462

RE: SLD#04-22 Ashford Consulting LLC and Ashford Wealth Advisors LLC
Minor Land Development; Proposed Building & Site Modifications; 5, 15 E. Germantown Pike
Final Zoning Ordinance Compliance Review Letter

Dear Mr. Frazer:

Please accept this as a review of the Zoning Ordinance Compliance issues for your above referenced 13-sheet Land Development Plan submission, prepared by Nave Newell, Inc., dated January 27, 2022 revised August 8, 2022.

Please note that the site for this development is zoned Village Commercial, Sub-district 2 (VC-2), and is in the Township's Plymouth Meeting Historic District.

Several variances and a special exception were granted by the Zoning Hearing Board (ZHB#2019-39) on December 11, 2019. The relief was reaffirmed by the Zoning Hearing Board (ZHB#2021-39) on October 1, 2021, with certain conditions. The relief includes:

A. A variance from Section 116-24.D.(3) permitting 41.5% of the area of the rear yard to be covered with accessory uses and structures for the proposed parking area , rather than 30%.
B. A variance from Section 116-184.D.(5) permitting 24 parking spaces rather than 28.
C. A variance from Section 116-291.A.(7).(a)[4], permitting less than 50% of the required parking to be located between the rear lot line and the rear principal building plane.
D. A variance from Section 116-291.C, eliminating the buffer equal to the width of the required setback.
E. Variances from Section 116-294 #6, #8, #9, so as to permit a maximum of 66.8% impervious coverage and 33.2% vegetated open space on Lot 1 (5 E Germantown Pike). A variance permitting 34.4% building coverage on Lot 2 (15 E. Germantown Pike).
F. A variance from section 116-296.B permitting a parking setback to a residential lot of 3.8 feet rather than 20 feet.
G. A special exception was granted under Section 116-185 to permit parking on an adjacent lot (allowing parking on Lot 1, 5 E Germantown, to contain parking for Lot 2, 15 E Germantown).

The comment numbers below are taken from the original zoning compliance review issued March 2, 2022. The applicant's responses to these comments are from a response letter issued by Nave Newell, Inc. dated August 8, 2022.

Any outstanding issues are described in our replies below:

1. §116-11. **Original Comment:** Section 105-29.C. of the Subdivision and Land Development Ordinance classifies Germantown Pike (S.R. 3053) as an arterial. The current plans

show a 50-foot wide legal right-of-way with 25 foot offset lines from the road centerline. A right-of-way line offset 40 feet from the road centerline, indicating an 80-foot wide ultimate right-of-way must be shown in the plan. This is consistent with other recent development plans along this roadway. Setbacks should be calculated from this line.

Applicant Response: We have revised our plans to show the ultimate right of way on the Site Plan (Sheet C3.0).

Reply: The plans now comply with section 116-11.

2. §116-22

Original Comment: The plans must be revised to include a note which states that the permanent removal of topsoil from land within the Township is prohibited.

Applicant Response: We have added this note under the Construction Notes (Note 26) on the Grading Plan (Sheet C4.0).

Reply: The plans now comply with section 116-22.

3. §116-28.

Original Comment: The applicant shall furnish a letter from the appropriate authority indicating the availability and supply of water for the proposed additional office use.

Applicant Response: The building addition will be serviced by the existing building's water connection. A Will Serve letter will be forwarded to the Township when it is received.

Reply: Noted.

4. §116-29.

Original Comment: The applicant shall furnish a letter from the Whitemarsh Township Authority indicating approval regarding additional sanitary sewer lateral(s) and service to the proposed additional office use.

Applicant Response: The additional sanitary connection to the proposed building will be internal and will not require an additional connection to the street.

Reply: The ability to provide additional treatment capacity must be provided.

5. §116-33.D.

Original Comment: The proposed refurbished porch on the building at 15 E. Germantown Pike, would encroach into the ultimate right-of-way. In addition, a small portion of the building on 5. E Germantown Pike, a substantial portion of the building at 15 E. Germantown Pike, and a portion of the proposed and existing parking exists in the ultimate right-of-way. This section prohibits any structure within the ultimate right-of-way unless a Hold Harmless Agreement is approved by the Board of Supervisors and recorded. Since none is on file for these lots, one must be approved at this time. (Note: since front yard setback is measured from the ultimate right-of-way, not the legal right-of-way, the depiction of a front yard setback for the porch of 4.3', is incorrect.)

Applicant Response: The applicant is willing to enter into a Hold Harmless Agreement with the Township and will sign the Agreement once it is prepared by the Township Solicitor. We have revised the setback lines on the Site Plan (Sheet C3.0).

Reply: A Hold Harmless Agreement has been prepared and been signed by the applicant; it must be approved by the Board of Supervisors. The current plans correctly depict the front yard setback.

6. §116-184.G. **Original Comment:** All parking shall conform to the requirements of the Whitemarsh Township Fire Prevention Code as acted and amended. The applicant must obtain approval from the Whitemarsh Township Fire Marshal. Please see enclosed memo of February 1, 2022 from the Fire Marshal.

Applicant Response: We have coordinated with Whitemarsh Township's Fire Marshal, Nick Weaver, and he has verbally approved the site layout. We have revised the Site Plan (Sheet C3.0) to show compliance with the IFC requirements that all parts of the proposed building are within 150' of a fire access road and within 400' of a fire hydrant.

Reply: Noted; Mr. Weaver has issued a revised review for the current submittal, approving the plan; see enclosed memo dated August 16, 2022.

7. §116-188.3 **Original Comment:** The applicant is required to provide two electric vehicle (EV) charging stations as specified for a lot with between 20 to 50 parking spaces. In the current site plan only one station is illustrated, and it is included as part of the 24 required spaces. The two EV spaces are required to be in addition to the otherwise required number of spaces.

Applicant Response: We are proposing two electric vehicle charging stations. The proposed "dual charging station" allows for the charging of two vehicles at the same time. The two electric vehicle parking spaces are included in the total count of 24 spaces because there is no room for additional spaces on the site. The Zoning Hearing Board Decision (No. 2019-39) granted a variance to permit 24 total parking spaces.

Reply: The current plans clarify the two proposed spaces and demonstrate compliance with section 116-188.3., as modified by the variance noted.

8. §116-194.A. **Original Comment:** The addition to the building on Lot 2 uses the same nonconforming side yard setback as on the existing building. This section of the ordinance permits this since the nonconformity is not being increased.
Applicant

Applicant Response: No response necessary.

9. §116-291.A.(4) **Original Comment:** Since the two lots will remain separate with all of the parking on Lot 1, an easement or other legal instrument must be recorded guaranteeing the availability of parking for Lot 2 in perpetuity; said instrument must be approved by the Township Solicitor.

Applicant Response: The applicant's attorney is preparing the required easement. We will forward it to the Township for review when it is completed.

Reply: Noted

10. §116-291.B. **Original Comment**: Any renovations and additions to the building on Lot 2 must meet all of the building design requirements of this section. The materials and characteristics of the addition as well as any changes in the material of the original

building must be shown in sufficient detail in architectural documents to demonstrate compliance with this section.

Applicant Response: The architect has designed the proposed building renovation and addition to meet this section of the code. The Historical Architectural Review Board approved the proposed improvements at their June 8, 2022 meeting. We have included the architect's HARB presentation which shows the proposed building elevations and materials with this submission.

Reply: The architectural elevations were reviewed and demonstrate compliance with section 116-291.B. (See summary of HARB comments under 'Additional Comments' at the end of this letter.)

11. §116-291.B.(7)(a) **Original Comment:** All ground-mounted exposed HVAC units or other utility equipment shall be screened from view. This shall be done through the use of masonry walls and landscaping. If ground mounted HVAC units will be part of the project, this must be illustrated in the plan.

Applicant Response: The HVAC equipment will be located to the rear of the proposed building addition. We have added the required screening to the Landscape Plan (Sheet C6.0).

Reply: This section requires the construction of a masonry screening wall in addition to vegetation screening. The plans should be updated to show this.

12. §116-291.B.(7)(b) **Original Comment:** Trash enclosures should be located in convenient and accessible areas, and should be screened from view by masonry walls, landscaping or similar measures approved by the Board of Supervisors. These enclosures must be shown in the plan and shall be no closer to a rear or side property line than the prescribed building setback in §116-295 from a residential use or district.

Applicant Response: A trash enclosure will not be utilized on this site.

Reply: Noted.

13. §116-291.C. **Original Comment:** The landscape plan must be reviewed and approved by the Shade Tree Commission prior to the consideration of the plan by the Board of Supervisors.

Applicant Response: The Shade Tree Commission approved the proposed landscaping at their July 5, 2022 meeting.

Reply: Noted. (See summary of the Shade Tree Commission comments under 'Additional Comments' at the end of this letter.)

14. §116-291.D. **Original Comment:** We defer the technical review of the site lighting to the Township Engineer. However, the design of the lighting should be consistent with the Historic District design guidelines (see additional comment below).

Applicant Response: No response necessary.

Reply: Noted.

Additional Comments

When the applicant appeared at the Planning Commission on April 12, 2022, the Commission requested that they get concurrence on their architectural design by HARB and receive Shade Tree Commission input on their landscape plan before returning for a further review by the Commission.

The proposed development, being in the Plymouth Meeting Historic District of Plymouth and Whitemarsh Townships, will require a Certification of Appropriateness from the Board of Supervisors, pursuant to a recommendation from the Historical Architectural Review Board (HARB), before a building permit can be issued. The applicant has been before the HARB multiple times in the past to discuss this project. Revisions to the architectural renovation of 15 Germantown Pike and the addition attached in the rear were made to accommodate public input and Board member comments. While HARB has informally expressed approval of the most recent plan, a meeting to recommend a Certificate of Appropriateness must be scheduled after building permit applications are filed, following land development approval. (The applicant most recently appeared at the June 8, 2022 meeting of HARB; the highlighted minutes of that meeting are enclosed for reference.)

The Shade Tree Commission also provided input on the landscaping features of the project, voting to approve the landscape plans in the July 2022 meeting. There was discussion about the required replacement trees meant to replace a large shade tree removed three years ago. There are 19 trees planned for the project; two of these trees are shade trees. While this does not fully meet the replacement requirement, the Commission agreed that the applicant made a good faith effort with providing as many trees as the site permitted. (See enclosed Shade Tree Commission Report from Sean Halbom, Assistant Township Manager/liaison to the Shade Tree Commission, dated July 29, 2022.)

Should you have any questions, please do not hesitate to contact me.

Very truly yours,

Charles L. Guttenplan, AICP
Director of Planning and Zoning/Zoning Officer

Encls.: Fire Marshal Memo dated August 16, 2022.
Highlighted HARB Minutes of June 8, 2022 meeting.
Shade Tree Commission Report dated July 29, 2022.

cc: Richard L. Mellor, Jr., Township Manager
Sean Halbom, Township Assistant Manager
Robert A. Sztubinski, B.C.O., Director of Building and Codes
Nick Weaver, Fire Marshal
Sean P. Kilkenny, Esq., Township Solicitor
Krista Heinrich, P.E., Township Engineer
Rosie Soto, Ashford Consulting LLC and Ashford Wealth Advisors LLC
James P. Bannon, P.E., Nave Newell, Inc., Applicant's Engineer

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

September 13, 2022

File No. 2022-03053

Mr. Richard L. Mellor, Jr., Township Manager
Whitemarsh Township Municipal Building
616 Germantown Pike
Lafayette Hill, PA 19444

Reference: Preliminary/Final Plan Review
5 & 15 Germantown Pike
Whitemarsh Township, Montgomery County, Pennsylvania
SLD #04-22

Dear Mr. Mellor:

As requested, we have reviewed plans for the above referenced 13-Sheet Land Development Plan submission, prepared by Nave Newell, dated January 27, 2022, and last revised August 8, 2022. The following comments are offered for your consideration:

REQUESTED WAIVERS

	Section	Description
1.	105-12(D)	The applicant is requesting a waiver from the requirements of this section of the ordinance in order to not require separate Preliminary and Final plan submissions, and to allow the submissions to be considered simultaneously.
2.	105-30, 105-56.1(J)(5)	The applicant is requesting a waiver from the requirements of this section of the ordinance to not require street trees to be planted within a tree planting zone of lawn area or other material approved by the Shade Tree Commission, situated between the sidewalk and curb and measuring a minimum of five feet in width from the planting edge of the curb to the planting edge of the sidewalk. The tree zone is provided but is proposed to be located on the property side of a proposed 6-foot-wide sidewalk in order to allow the sidewalk to be fully located within the Right-of-way and connected to the curb. We have no objection to the granting of this waiver.
3.	105-38(C)	The applicant is requesting a waiver from the requirements of this section of the ordinance, which requires curves/turns in entrance and exit drives and all internal parking lot aisles necessary for providing access for fire protection equipment to have a minimum inside turning radius of 25 feet and a minimum outside turning radius of 50 feet. We have no objection to the granting of this waiver, provided the applicant obtains a letter of approval from the Township Fire Marshal to ensure adequate access is provided for fire protection equipment.

	Section	Description
4.	105-38(H)	The applicant is requesting a waiver from the requirements of this section of the ordinance, which states that all parking areas shall be set back from the right-of-way line and all property lines at least 15 feet, in order to permit 10 proposed parking spaces to be located between 3.8 feet to 5± feet from the rear property line and 5 parking spaces to be located within 15 feet of the ultimate right-of-way line. Please note, the applicant has obtained a zoning variance in order to permit parking spaces to be located 3.8 feet from the rear property line and the applicant has executed a hold-harmless agreement recorded against the property with regard to parking spaces within the ultimate right-of-way line.
5.	105-38(V)	The applicant is requesting a waiver from the requirements of this section of the ordinance, which states that all artificial lighting used to illuminate any parking space or spaces shall be so arranged that no direct rays from such lighting shall fall upon any neighboring property or streets, nor shall any high brightness surface of the luminaries be visible from neighboring residential property or from a public street. The incident light spill-off at the development boundaries shall not exceed 0.10 footcandle at any point along off-street areas and 0.30 footcandle along public roadways. In addition, the illumination level shall be no more than 0.30 footcandle measured at any point at a height of five feet above grade. The plans show incident light-spill onto the adjacent residential property to the rear, and onto Germantown Pike, in excess of the required levels. We have no objection to the proposed lighting along Germantown Pike. The granting of any waiver should be conditioned that the applicant obtain the approval of the affected neighboring residential landowner to the rear.
6.	105-48	The applicant is requesting a waiver from the requirements of this section of the ordinance, which requires the installation of street trees along all streets where suitable trees do not exist to allow the street trees to be planted in the configuration shown, which has been approved by the Shade Tree Commission.
7.	105-52(B)(2)	The applicant is requesting a waiver from the requirements of this section of the ordinance, which requires that all buffers shall have a minimum width of 50 feet.
8.	105-56.1(E)(2)(a)	The applicant is requesting a waiver from the requirements of this section of the ordinance, to allow the surface parking lot to occupy more than 1/4 of the parcel's frontage along a pedestrian-oriented street.
9.	105-56.1(I)	The applicant is requesting a waiver from the requirements of this section of the ordinance, which requires that all VC subdistricts shall contain street lighting poles and fixtures as approved by the Board of Supervisors.
10.	105-56.1(J)(2)	The applicant is requesting a waiver from the requirements of this section of the ordinance, which requires that, when any proposed mixed use or nonresidential development abuts a residential use, there shall be a solid six-foot-tall fence with a mixture of evergreen landscaping outside the fence to create a solid visual barrier that will grow to 12 feet high within three years. The waiver is requested to not require fencing, and to allow an existing hedgerow to remain as a buffer.
11.	105-81	The applicant should request a waiver in order to allow the existing overhead electric, telephone and/or communication service facilities to remain, where this section of the ordinance requires these services to be provided by underground cables.

	Section	Description
12.	II(D)(2), I(B)(4)(k)	The applicant is requesting relief from the requirements of this section of the ordinance, to allow edges of slopes to be less than five feet from property lines or right of way lines. Please note, the applicant has obtained a zoning variance in order to permit parking spaces to be located 3.8 feet from the rear property line and the applicant has executed a hold-harmless agreement recorded against the property with regard to parking spaces within the ultimate right-of-way line. Please note, the relief should be requested from Section I(B)(4)(k), instead of Section II(D)(2).
13.	II(E)(2)(g)(iv)	The applicant is requesting relief from the requirements of this section of the ordinance, which requires the minimum diameter of storm drainage to be eighteen inches or equivalent thereto, and constructed of reinforced concrete, to allow the use of 12" High Density Polyethylene Pipe (HDPE) pipe. We have no objection to the granting of this relief.
14.	II(F)(3)(d) (4)[e][7]	The applicant is requesting relief from the requirements of this section of the ordinance, which states that Infiltration rates shall not be used in computing the storage volume of the infiltration system. Any relief granted should be conditioned that the applicant's engineer provide evidence in sufficient detail to demonstrate the underlying soils are suitable to infiltration with respect to karst geology.
15.	II(F)(3)(d) (4)[g]	The applicant is requesting relief from the requirements of this section of the ordinance, which states that any infiltration BMP shall be capable of completely infiltrating the impounded water within 96 hours. We have no objection to the granting of this relief since the impounded water would be entirely contained within subsurface chambers.

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

	Section	Description
16.	105-21(B)(1)(d)	The plans must be revised to show zoning district boundaries in compliance with the Township Zoning Map, including the A-Residential District Boundary along the centerlines of Germantown and Butler Pikes.
17.	105-21(B)(1)(d)	The Record Plan must be revised to indicate that zoning relief was granted by the Zoning Hearing Board (ZHB# 2019-39) on December 11, 2019 and reaffirmed by the Zoning Hearing Board (ZHB#2021-39) on October 1, 2021. Additionally, Note 7 of the Zoning Hearing Board Summary on Sheet C1.0 must be revised to indicate that a special exception was granted from Section 116-185 to permit parking on an adjacent lot.
18.	105-21.1(K)(2)	Within the South Transportation Service area an impact fee in the amount of Two Thousand Five Hundred and Twenty-Nine Dollars ($2,529.00) per anticipated peak hour trip must be provided by the applicant. Based on data documented within the latest edition of the ITE Trip Generation Manual, the proposed development will generate 1 PM peak hour trip. Therefore, the traffic impact fee totals $2,529.00 ($2,529.00 x 1 peak hour trip).

	Section	Description
19.	105-28(I)	This section of the ordinance requires the applicant to obtain a Highway Occupancy Permit from the Pennsylvania Department of Transportation for the proposed work within the right of way of Germantown Pike (SR 3053). The Highway Occupancy Permit Application Plans must be submitted to the Township for review prior to submission to PennDOT. In addition, the Township Engineer should be notified of all meetings with PennDOT and must be copied on all correspondence.
20.	105-45, 105-56.1(C)	Access easements and maintenance agreements or other suitable legal mechanisms must be provided to allow for access to the shared driveway and parking on 5 E. Germantown Pike by 15 E. Germantown Pike.
21.	105-47(D) 105-56.1(H)	The plans must be revised to provide ADA accessible ramps along the pedestrian access routes within the parking lot. The following must be addressed: • The PA Type-2 Handicap Ramp Detail on Sheet 3.0 must be revised to call for detectable warning surfaces (DWS) across the bottom of the curb ramp. • DWS must be called for at the bottom of the ramp access through the area with 4 parking spaces.
22.	105-51(H), 105-56.1(B)(3)	The applicant must provide testimony with regard to the proposed method of trash collection.
23.	105-53(D)	This section of the ordinance requires the dedication of land in the amount of 10% of the total Site Area for Park and/or Recreational use. The applicant has the option of offering a fee in lieu of dedicating actual land area and can also provide a combination of a fee in lieu and dedication of land. All offers of land and/or fees in lieu of dedication must meet the requirements of this section of the ordinance.
24.	105-56.1	It is our understanding that the proposed development, being in the Plymouth Meeting Historic District, will require a Certification of Appropriateness from the Board of Supervisors, pursuant to a recommendation from the Historical Architectural Review Board (HARB) before a building permit can be issued. A meeting to recommend a Certificate of Appropriateness must be scheduled after building permits are filed, following land development approval. The applicant is encouraged to consider proposed light poles and fixtures with future HARB review in mind.
25.	105-76(B)	Appropriately spaced fire hydrants for fire-fighting purposes must be provided pursuant to the specifications of the Middle Department Association of Fire Underwriters Review, and approval by the Township Engineer and the Township Fire Marshal is required in order to ensure that adequate fire protection is provided. The applicant must obtain a letter of approval from the Township Fire Marshal.
26.	105-89	The developer shall enter into a written agreement with the Township in the manner and form approved by the Solicitor wherein the developer shall agree, to construct or cause to be constructed at his own expense all proposed improvements shown on the approved land development plan, all in strict accordance with the standards and specifications of the Township and within the time specified in said agreement, and to deposit with the Township financial security in an amount sufficient to cover the cost of all subdivision or land development improvements, including both public and private improvements.

GRADING, EROSION CONTROL, STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES ORDINANCE:

	Section	Description
27.	58-11(H)(1)	The property owner shall sign an operations and maintenance agreement with the Township addressing stormwater BMPs that are to be privately owned.

RESOLUTION 2004-8:

	Section	Description
28.	II(C)(1)	The Rate Control Table on Page 5 of the Stormwater Management Report does not appear to match the table on Page 29. This discrepancy must be resolved.
29.	II(C)(8)(a), II(F)(3)(d)(4)[d], 105-26(E)	Whenever an infiltration BMP or a stormwater basin is suspected of being located in an area underlain by limestone, a geological evaluation of the proposed location shall be conducted by a Registered Professional Engineer experienced in geotechnical and soil engineering to determine susceptibility to sinkhole formations.
30.	II(C)(8)(d), 105-26(E)	The following note shall be attached to all drainage plans and signed and sealed by the applicant's Registered Professional Engineer experienced in geotechnical and soil engineering: *"I certify that the proposed facility is/is not underlain by limestone."*

Any future submission of the design plans for this project must be accompanied by a letter, prepared by the applicant's engineer, which addresses each of the comments contained in this report. Should you have any questions regarding this matter, please do not hesitate to contact me at this office.

Sincerely,

Krista Heinrich, P.E.
Township Engineer
Gilmore & Associates, Inc.

KH/sl

cc: Mr. Charles L. Guttenplan, AICP – Director of Planning and Zoning
Mr. Sean Kilkenny, Esq.; The Law Offices of Sean Kilkenny, LLC – Township Solicitor *(via email)*
Mr. Sean Halbom – Assistant Township Manager
Mr. Robert A. Sztubinski, B.C.O. – Director of Building & Codes
Mr. Nick Weaver – Fire Marshal
Mr. Ari Frazer, Ashford Wealth Advisors – Owner/Applicant
Ms. Rosie Soto, Ashford Wealth Advisors – Owner/Applicant
Mr. James P. Bannon, PE, Nave Newell, Inc.– Applicant's Engineer

Prepared By:
David J. Sander, Esquire
Kilkenny Law, LLC
519 Swede Road
Norristown, PA 19401

Please Record and Return to:
David J. Sander, Esquire
Kilkenny Law, LLC
519 Swede Road
Norristown, PA 19401

Tax Parcel No. 65-00-04492-00-6 & 65-00-04489-00-9

WHITEMARSH TOWNSHIP
HOLD HARMLESS AGREEMENT

THIS AGREEMENT is made this 10th day of AUGUST, 2022, between **WHITEMARSH TOWNSHIP**, with offices located at 616 Germantown Pike, Lafayette Hill, PA 19444 ("Township"), and **ASHFORD CONSULTING, LLC** with an address at 5 E. Germantown Pike, Plymouth Meeting, Whitemarsh Township, Pennsylvania 19462, and **ASHFORD WEALTH ADVISORS, LLC** with an address at 15 E. Germantown Pike, Plymouth Meeting, Whitemarsh Township, Pennsylvania 19462 including their heirs, personal representatives, successors and assigns (collectively the "Owners").

WITNESSETH:

1. Owners own real property located within the Township at 5 E. Germantown Pike, Plymouth Meeting, Whitemarsh Township, Pennsylvania, 19462 identified as Montgomery County Tax Parcel No. 65-00-04492-006 and 15 E. Germantown Pike, Plymouth Meeting, Whitemarsh Township, Pennsylvania, 19462 identified as Montgomery County Tax Parcel No. 65-00-04489-00-9 (the "Properties").

2. Owners desire to improve the Property by refurbishing the porch on the building at 15 E. Germantown Pike and maintaining a small portion of the building on 5 E. Germantown Pike, and a substantial portion of the building at 15 E. Germantown Pike, and a portion of the proposed and existing parking and associated fencing ("Improvements") which currently encroach in, on or above the Ultimate Right-of-Way of Germantown Pike, and in the case of the porch at 15 E. Germantown Pike and the parking and fencing, further encroach in, on or above said ultimate right-of-way.

NOW, THEREFORE, for and in consideration of the covenants contained herein, and intending to be legally bound, the parties hereto agree as follows:

1. Upon the filing of the appropriate permit application with the Township and the receipt of such permit by the Owners, the approval and issuance of which may be withheld by the Township for any reason or no reason at all, Owners may erect or construct Improvements within the Ultimate Right-of-Way pursuant to the permit. Owners shall maintain the Improvements in good, safe condition, and the Township shall not be responsible for the maintenance of any Improvements at any time.

2. Owners warrant that the location of the Improvements will not interfere with the use, operation, maintenance, repair or replacement of any Township facilities.

3. In exchange for the Township allowing the Improvements to encroach within the Ultimate Right-of-Way, the Township shall have the unrestricted right to demolish and remove all or any portion of the Improvements from the Ultimate Right-of-Way should the Township desire or need, in its sole discretion, to gain access to or use the Ultimate Right-of-Way for any reason whatsoever.

4. Upon demolition or removal of Improvements from the Ultimate Right-of-Way, Township shall not be responsible to repair, replace, re-install, remove, clear or take any corrective action whatsoever with regard to the Improvements, with the sole exception of stabilizing any disturbed area within the Ultimate Right-of-Way and laying seed and mulch, if applicable.

5. Owners hereby waive any and all claims that Owners may have arising from any alleged damages resulting from or arising out of any Improvements located in, on or above the Ultimate Right-of-Way, Owners' use of the Ultimate Right-of-Way, or the demolition or removal of Improvements from the Ultimate Right-of-Way by the Township, as Owners may have against the Township and the Township's officers, officials, agents, consultants, contractors, and employees.

6. Owners hereby agree to release, defend, indemnify and hold harmless the Township and Township's officers, officials, agents, consultants, contractors, and employees from any and all liability, claims, demands, suits, causes of action, legal expenses or judgments from any alleged damages, including personal injury, arising out of any Improvements located in, on or above the Ultimate Right-of-Way, Owners' use of the Ultimate Right-of-Way, or the removal of Improvements from the Ultimate Right-of-Way by the Township, regardless of any alleged fault, negligence or joint enterprise by the Township and the Township's officers, officials, agents, consultants, contractors, and employees.

7. This Agreement shall be binding upon the Owners, and the Owners' heirs, personal representatives, successors, and assigns.

8. This Agreement shall be construed under the laws of the Commonwealth of Pennsylvania. Venue and jurisdiction for any disputes arising from this Agreement shall lie in the Court of Common Pleas of Montgomery County, Pennsylvania.

9. This Agreement may only be amended in writing signed by all parties hereto.

10. This Agreement contains the entire understanding between the parties, and no verbal, oral or other representations other than those contained within the four corners of this Agreement are enforceable.

11. The provisions of this Agreement are declared to be severable. If any provision of this Agreement is declared by a court of competent jurisdiction to be invalid or unconstitutional, such determination shall have no effect on the remaining provisions of this Agreement.

12. There are no third-party beneficiaries created or intended to be created by this Agreement.

IN WITNESS WHEREOF, the parties hereto, intending to be legally bound, have hereunto set their hands and seals the day and year first above written.

OWNER, 5 E. GERMANTOWN PIKE:

NAME, TITLE

OWNER, 15 E. GERMANTOWN PIKE:

NAME, TITLE

ATTEST:

RICHARD L. MELLOR, JR., SECRETARY

BOARD OF SUPERVISORS OF WHITEMARSH TOWNSHIP

By: LAURA BOYLE NESTER, CHAIR

ACKNOWLEDGMENT

COMMONWEALTH OF PENNSYLVANIA

:ss

COUNTY OF

On this 10th day of August, 2022, before me, a notary public in and for the Commonwealth of Pennsylvania, the undersigned officer, personally appeared ARI M FRAZER, who acknowledged him/herself to be the **OWNER** of **5. E. GERMANTOWN PIKE**, and that (s)he, as such **OWNER**, being authorized to do so, executed the foregoing instrument for the purposes therein contained.

WITNESS my hand and official seal the day and year aforesaid.

Commonwealth of Pennsylvania - Notary Seal
Leslie V. Callahan, Notary Public
Montgomery County
My commission expires July 17, 2026
Commission number 1284583
Member, Pennsylvania Association of Notaries

Notary Public

ACKNOWLEDGMENT

COMMONWEALTH OF PENNSYLVANIA

:ss

COUNTY OF

On this 10th day of August, 2022, before me, a notary public in and for the Commonwealth of Pennsylvania, the undersigned officer, personally appeared ARI M FRAZER, who acknowledged him/herself to be the **OWNER** of 15. **E. GERMANTOWN PIKE**, and that (s)he, as such **OWNER**, being authorized to do so, executed the foregoing instrument for the purposes therein contained.

WITNESS my hand and official seal the day and year aforesaid.

Commonwealth of Pennsylvania - Notary Seal
Leslie V. Callahan, Notary Public
Montgomery County
My commission expires July 17, 2026
Commission number 1284583
Member, Pennsylvania Association of Notaries

Notary Public

COMMONWEALTH OF PENNSYLVANIA

: ss

COUNTY OF MONTGOMERY

On the 9th day of SEPTEMBER, 2022, before me, a notary public residing in Montgomery County, PA, personally appeared **Laura Boyle Nester**, who acknowledged herself to be the Chair of the Whitemarsh Township Board of Supervisors, and that she as such Chair, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of Whitemarsh Township by herself as Chair.

NOTARY PUBLIC

Commonwealth of Pennsylvania - Notary Seal
Susan E. McCloskey, Notary Public
Montgomery County
My commission expires July 3, 2023
Commission number 1234783
Member, Pennsylvania Association of Notaries

Ashford Wealth Advisors
Preliminary/Final Land Development Waiver Request List
Revised September 21, 2022

Submission

1. Ch. 105 12(D) of SALDO to allow the plans to be reviewed and approved simultaneously as both preliminary and final plans, rather than requiring separate preliminary and final plan submissions.

Street Standards

2. 105-30 / 105-56.1(J)(5): We request a waiver from having a 4'-wide planting strip between the edge of cartway and the sidewalk. The proposed sidewalk matches the existing sidewalk, which does not have an existing planting strip. The proposed street trees will be planted on the property side of the sidewalk.

Off-Street Parking Facilities

3. 105-38 (C) – Curves/turns in entrance and exit drives and internal parking lot aisles shall have a minimum inside turning radius of 25' and outside turning radius of 50': We request a waiver from this requirement due to the size and configuration of the lot. The proposed driveway will have a similar layout and location to the existing driveway. The drive aisles have been designed to the required width but these minimum turning radii are infeasible. We will coordinate with the Township Fire Marshal to ensure the parking layout is satisfactory.

4. 105-38 (H) - all parking areas shall be set back from the right-of-way line and all property lines at least 15 feet: We request a waiver from this requirement due to the size and configuration of the lot. The proposed parking spaces are located further from Germantown Pike than the existing and zoning relief has already been granted to have the rear parking +/- 3.8 feet from the property line, which matches the existing.

5. 105-38(V) - lighting used to illuminate parking space shall not direct rays upon any neighboring property or streets: We request a waiver from this requirement due to the size and configuration of the lot. We are minimizing light trespass to the extent practical but, in order to adequately light the parking configuration that has already received the necessary zoning relief, some light trespass in unavoidable.

Street Trees

6. 105-48: We request a waiver from this section to allow the number and location of street trees as shown on the Landscape Plan due to the two existing buildings which limit the viable area for street trees. The proposed street tree plantings are subject to Shade Tree Commission approval.

Buffer Yards

7. 105-52 – Buffer yards are required between land development and along existing streets to soften visual impact, to screen glare, and to create a visual barrier between conflicting land uses. We are requesting a waiver from this due to the size and the configuration of the lot.

8. 105-52 (B)(2) – buffers shall have a minimum width of 50 feet: We request a waiver from this requirement due to the size and configuration of the lot. The existing buildings prevent buffers along the side yards and zoning relief has already been granted to have the rear parking +/- 3.8 feet from the property line. The existing hedgerow buffer along the rear property line will remain.

Additional Design Standards for VC-1 and VC-2 Village Commercial District

9. 105-56.1(E)(2)(a) - surface parking lots shall not occupy more than 1/4 of the parcel's frontage: We request a waiver to allow parking to occupy approximately 50% of the frontage due to the existing lot configuration and shallowness of the property.

10. 105-56.1(I) – VC subdistricts shall have street lighting: We request a waiver from this requirement. The location of the existing buildings limit the ability to install street lighting. There are no other street lights in this area and the nearest sidewalk to the east is over 300' away, so street lighting would serve no purpose along this frontage.

11. 105-56.1 (J)(2) – solid six foot tall fence and evergreens in buffers: We request a waiver from this requirement due to the size and configuration of the lot. Zoning relief has already been granted to have the rear parking +/- 3.8 feet from the property line which allows no room for the installation of a fence and evergreens in this area. The existing fence and hedgerow buffer along the rear property line will remain.

12. 105-81 – all electric, telephone and communication service facilities, both main and service lines, shall be provided by underground cables, installed in accordance with the prevailing standards and practices of the utility and other companies providing such services. We are requesting a waiver from this requirement to allow the existing overhead electric, communication service facilities to remain.

Resolution 2004-8: Grading, Erosion Control, Stormwater Management, and Best Management Practices

13. I(B)(4)(k)– the top of any slope shall be located a minimum of five (5) feet from property line: We request a waiver from this requirement because we received zoning relief that permits parking less than five feet away from the property line. The existing building on the east of the property is also less than five feet away from the property line.

14. II(E)(2)(g)(iv) - storm drainage pipes shall be at least 18 inches and RCP: We request a waiver from this requirement to use a twelve inch HDPE pipe The largest pipe size the proposed stormwater system can accommodate is a twelve inch pipe.

15. II(F)(3)(d)[4][e][7] Infiltration rates shall not be used in computing the storage volume of the infiltration system: We request a waiver from this requirement to include infiltration in our design. Since we are proposing a no-release system, the BMP is designed to hold the 100-year storm. The size of the system provides additional volume and modeling infiltration will help minimize the size of the BMP, which is already designed to hold the 100-year storm.

16. II(F)(3)(d)[4][g] - infiltration BMPs shall be capable of completely infiltrating the impounded water within 96 hours: We request a waiver from this requirement because we are using a subsurface system that is designed to hold up to and including the 100-year storm. This subsurface system does not present the same concerns that still water does in above ground BMP facilities. The subsurface system will dewater in 7 days, which is within DEP standards. The design will utilize an emergency overflow inlet in the case of back to storm events.

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