BOROUGH OF CONSHOHOCKEN

Office of the Borough Manager

MAYOR
Yaniv Aronson

BOROUGH COUNCIL
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Borough Manager

OCTOBER 10, 2024 PLANNING COMMISSION MEETING PACKET

127 E Elm Street Land Development Application — Page 2
Group Home Ordinance Amendment — Page 238

BOROUGH OF CONSHOHOCKEN
MONTGOMERY COUNTY, PENNSYLVANIA

APPLICATION FOR SUBDIVISION/ LAND DEVELOPMENT

To be completed by the Borough:

Submission Information:

File Number: LD-2024-04 File Date: 8/2/24

Project Title: 127 E. Elm St. Date Complete: 8/5/24

Received By: B. Rogers 90 Day Date: Waived

REQUIRED MATERIALS FOR ALL LAND DEVELOPMENT/SUBDIVISION APPLICATIONS

1. This form MUST be completed and submitted with the Borough's Land Development/Subdivision application.
2. A Land Development/Subdivision Application MUST include all of the items listed in the application checklist to be considered complete.

   Incomplete applications will NOT be placed on a Planning Commission agenda. Incomplete applications will be returned to the applicant.
3. Complete applications must be received at least 38 DAYS (see schedule) prior to the Planning Commission meeting at which it will be heard.
4. **It is highly encouraged to submit applications in a digital format.**
   One (1) digital copy plus seven (7) paper copies of the complete application are required if submitting digitally, or fifteen (15) paper copies of the complete application are required.

Applicant Information:

Name: Christina Pieri / Cooper Winery LLC

Address: 1016 Maple St
Conshohocken PA 19428

Phone: 610-888-6039

Fax:

E-Mail*: christinampieri@gmail.com

Property Owner Information (if different):

Name: Brian Pieri / Pie-Mir LLC

Address: 1016 Maple St
Conshohocken PA 19428

Phone: 610-564-4601

Fax:

E-Mail*: brianpieri@gmail.com

Architect/Planner:

Address:

E-mail*: Phone/Fax:

Engineer/Surveyor: Schock Group LLC

Address: 1982 Butler Pike, Suite 5 Conshocken, PA 19428

E-mail*: tdavis@schockgroup.com Phone/Fax: 610-590-7373

Landscape Architect:

Address:

E-mail*: Phone/Fax:

Attorney: Mark Danek

Address:

E-mail*: mark.danek@obermayer.com Phone/Fax:

*All correspondence regarding this application from the Planning Commission and staff will be made via e-mail. All persons involved with this application should provide their e-mail addresses so that information including, but not limited to, meeting dates and plan reviews replaces revisions here, is distributed appropriately.

Application For: (See Section 22-305.A or the bottom of page 10 of the application packet for clarification)

X Minor Land Development
__ Preliminary Major Land Development
__ Final Major Land Development
__ Minor Subdivision
__ Preliminary Major Subdivision
__ Final Major Subdivision

Project Information:

Location (Street Address): 127 E Elm Street, Conshohocken PA 19428

Tax Assessment Parcel No. 050002108002 County Deed Book No. 5225 Page No. 00419

Description of Proposed Work:

The project proposes the construction of a new wine garden and recreational space including pickleball courts and a bocce ball court, along with associated improvements.

Total Tract Acreage: 25,097 S.F. Project Acreage 25,724 S.F.

Zoning District SP1 Existing Number of Lots: 1 Proposed Number of Lots: 1

Proposed Land Use: __ Single-Family Detached __ Single-Family Semi-Detached __ Multi-Family
__ Single-Family Attached X Commercial __ Office __ Industrial

Other (Describe):

Existing Sewer Flows: 0 Proposed Sewer Flows: 500 gal/day

Check List - Plans:

The applicant must provide all of the following plans for an application to be considered complete. Section 22, Part 3 of the SALDO outlines plan submission requirements and the criteria that must be met in order for submissions to be deemed complete. These requirements are listed on information sheets provided at the end of this application package. If the required plans listed below do not have sufficient information to allow for staff reviews, the application may be considered incomplete and returned, requesting additional information.

_____Record Plan
_____Existing Features Site Plan
_____Grading Plan
_____Erosion and Sediment Control Plan
_____Lighting Plan_Major
_____Circulation Plan_Major
_____Stormwater Calculations
_____ Landscape Plan (sealed by a Landscape Architect)
_____Demolition Plan
_____ Detail Sheets
_____ Traffic Study (if applicable)
_____ Post Construction Stormwater Management Plan
_____Utility Plan

Check List - Proof of ownership and zoning relief:

_____Proof of equitable ownership or interest in the property - copy of the deed to the subject property
_____Copy of adjudication of Zoning Hearing Board related to the application

Check List - Color Photographs of Site and Existing Conditions:

_____Streetscape in all directions, showing subject property in each
_____Façade and secondary elevations of existing building(s) on site
_____Sidewalk and curb conditions
_____Street trees
_____Alley conditions, if present

Check List - Building Elevations:

_____Architectural drawings and renderings of proposed building(s)

Check List - Setback of Proposed Building(s):

_____Established building line for the block on which the property is located (eg: scale off an aerial)
(In plan, show setbacks of all existing buildings on same side of the street as project for entire block.)

List of Requested Waivers:

Section/Requirement:	Relief Requested:
§19-303.3.A(3)	STORMWATER MANAGEMENT VOLUME CONTROL RELIEF REQUESTED BASED ON THE PHASE II FINDINGS OF ARSENIC AND BENZO[B]FLUORANTHENE IN THE SOILS BENEATH THE PROJECT AREA.

Have you met with the Zoning Officer regarding this plan?	X Yes	___ No
Are there known variances/any zoning relief necessary for this project?*	X Yes	___ No
If YES, have you submitted an application for the Zoning Hearing Board?	X Yes	___ No
Has this plan been reviewed by the Zoning Hearing Board?	___ Yes	X No

*Please be advised that if any variances are found to be necessary during the course of the review of this plan, you will be required to go to the Zoning Hearing Board prior to proceeding to the Planning Commission. In addition, you will be requested to grant the Borough a waiver to the 90-day action period or an immediate denial of this application will be made, and you will be required to resubmit the application.

The undersigned represents that to the best of his/her knowledge and belief, all the above statements are true, correct and complete.

Signature of Applicant

7/26/24
Date

Signature of Property Owner (if not the same as applicant)

7/26/24
Date

ALL MAJOR subdivision/land use applications require a pre-submission meeting to discuss the project prior to full application submittal.

MINOR subdivision/land use applications may request a pre-submission meeting; if one is desired.

Meetings are held the second and fourth Tuesday of each month beginning at 1:30pm at the Borough Administrative Offices.

Applicants assume responsibility of any fees associated with this meeting.

Applicant signature date

To schedule a pre-submission meeting, please contact the office of the Borough Manager
ph: 610.828.1092
e: landuse@conshohockenpa.gov

Borough Use Only:

✓ Filing Fee	Amount $	900.00	Check No.	1300
✓ Pre-Construction Professional Services Escrow	Amount $	6,600.00	Check No.	1301

Decision Information:

Approval _____ Denial _____ Decision Date:_____

Comments/Conditions:

BOROUGH OF CONSHOHOCKEN
MONTGOMERY COUNTY, PENNSYLVANIA

ESCROW AGREEMENT
FOR PROFESSIONAL REVIEW FEES

SUBDIVISION/LAND DEVELOPMENT APPLICATIONS

The undersigned hereby agrees to post an escrow to cover the costs of the review of subdivision and land development applications by the Borough Planner, Engineer, and Solicitor. The amount of said escrow shall be according to the attached "Schedule of Fees" and shall be posted at the time of initial submission of an application to the Borough. Said fees shall be placed in an escrow account and any balance remaining shall be returned to the applicant subsequent to the receipt of final approval.

The applicant is advised that the "Schedule of Fees" represents only an estimate of the costs associated with plan review. The completeness and quality of the submission, the complexity of the project, the number of revisions and other factors may cause costs to exceed the established escrow amounts. If during the course of a subdivision/land development review an escrow amount falls to 10% of the original escrow amount or $250, whichever is greater, the Borough may require the posting of additional escrow.

NOTE: NO FINAL APPROVALS, CONSTRUCTION, BUILDING OR OCCUPANCY PERMITS SHALL BE ISSUED UNTIL ALL OUTSTANDING PROFESSIONAL REVIEW FEES HAVE BEEN SATISFIED.

Signed _____ Date: 7/26/24
Applicant

BOROUGH OF CONSHOHOCKEN
MONTGOMERY COUNTY, PENNSYLVANIA

Planning Process Extension Agreement

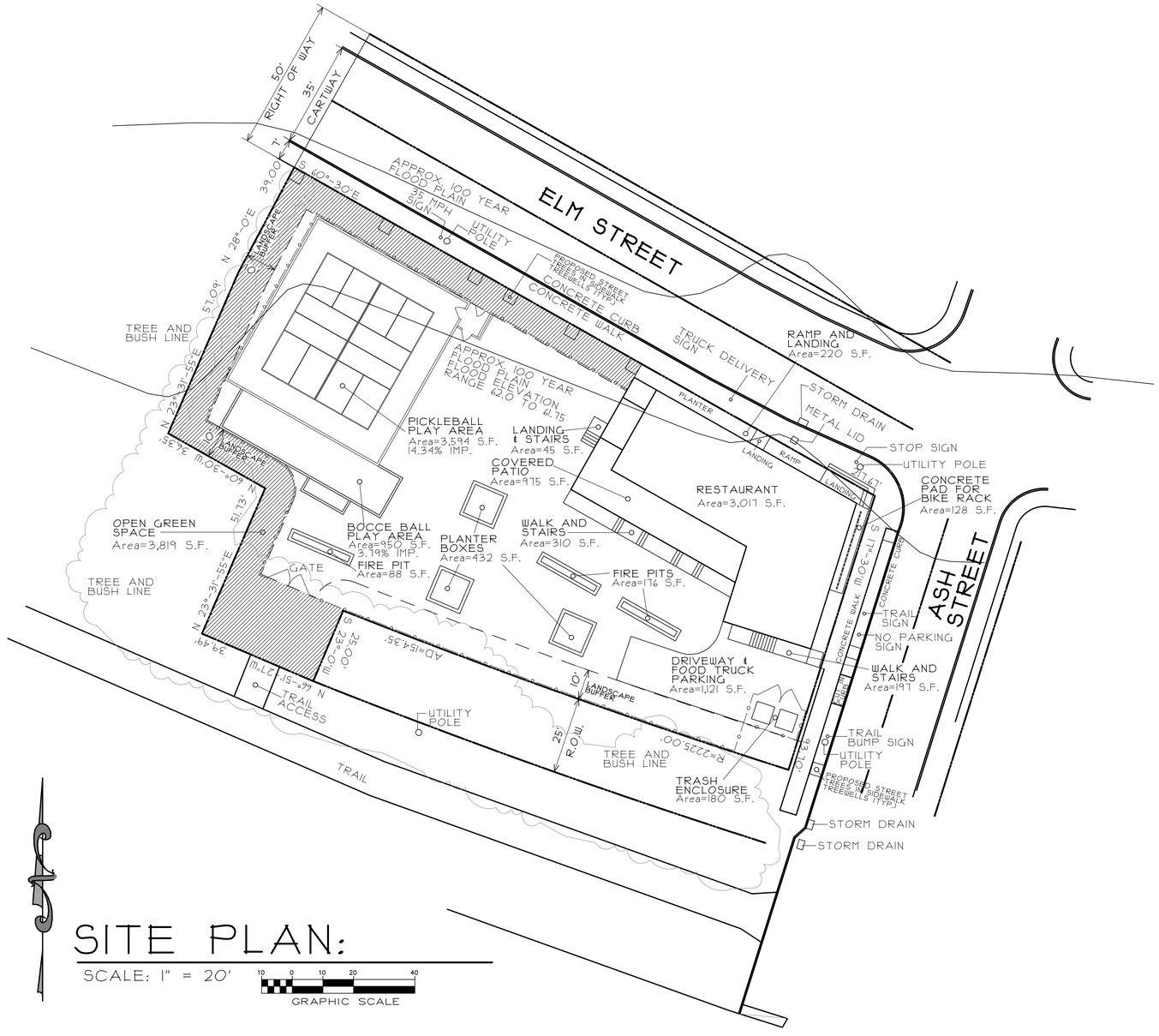
The Pennsylvania Municipality Planning Code (MPC) and the Conshohocken Borough Subdivision and Land Development Ordinance state that action must be taken by the Borough within ninety (90) days after a complete application is filed with the Borough. In the Borough, larger and complicated projects have historically required additional time in order to complete a thorough review before being considered for approval. As such, an applicant may voluntarily waive the timing requirement at any time, but is encouraged to submit this waiver with the completed application.

I, the applicant, hereby voluntarily waive the timing requirement as set forth in the MPC (Section 509) and the Conshohocken Borough Subdivision and Land Development Ordinance (Section 22-308).

Applicant signature — Date: 7/26/24

Received by (Borough): Brittany Rogers — Date: 8/2/24

UNLESS OTHERWISE EXPRESSLY PROVIDED, NO PROVISION OF THIS AGREEMENT IS INTENDED FOR, OR SHALL BE CONSTRUED TO CONFER UPON OR OTHERWISE GIVE TO ANY PERSON OR ENTITY, OTHER THAN THE SIGNATORIES TO THIS AGREEMENT, ANY RIGHTS, REMEDIES OR BENEFITS CREATED BY OR ARISING UNDER THIS AGREEMENT.
ALL DRAWINGS, RENDERINGS, SKETCHES, AND OTHER CONSTRUCTION DOCUMENTS AND WORK PRODUCT PROVIDED BY RHC DESIGN, LLC FOR THIS PROJECT ARE INTENDED SOLELY AND EXCLUSIVELY FOR THE USE AND BENEFIT OF _____ AND ITS SUBCONTRACTOR IN CONNECTION WITH SECURING THE NECESSARY PERMITS FOR CONSTRUCTION AND FOR GENERAL USE IN CONSTRUCTING THE IMPROVEMENTS SHOWN IN THESE MATERIALS.



SITE PLAN:

SCALE: 1" = 20'

GRAPHIC SCALE 10 0 10 20 40

SP-1 SPECIALLY PLANNED DISTRICT

	REQUIRED	PROPOSED
LOT AREA (Min.)	43,560 S.F.	25,061 S.F.
LOT WIDTH @ BLDG. LINE (Min.)	FT.	
BUILDING SETBACK (Min.)	15 FT.	
BUILDING AREA (Max.)	20%	3,992 S.F. 15.93%
IMPERVIOUS COVERAGE (Max.)	70%	11,123 S.F. 44.38%
OPEN SPACE (MIN.)	15%	3,819 S.F. 10.89%
BUILDING HEIGHT (Max.)	85 FT.	

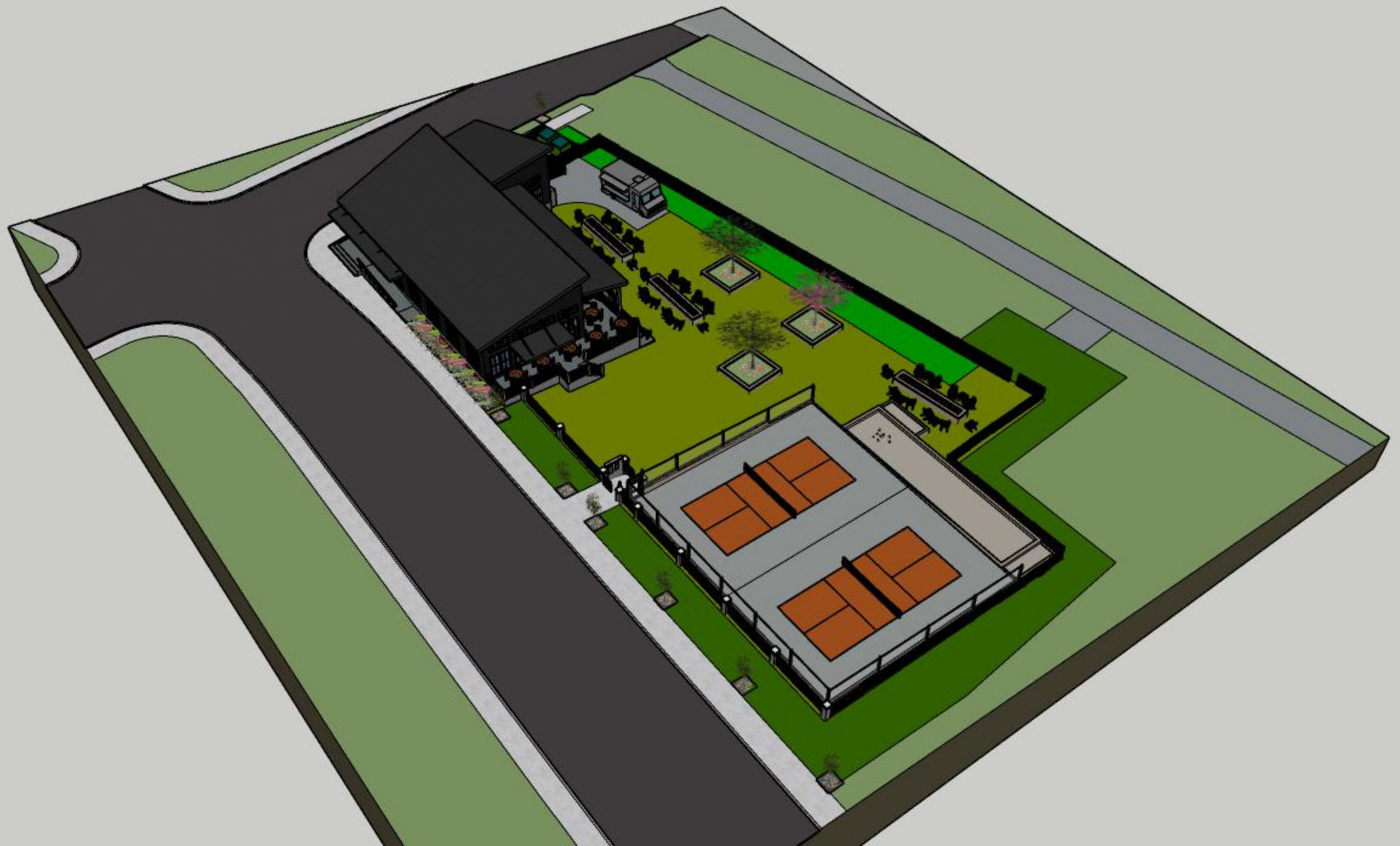
RHC DESIGN, LLC
55 PLANK AVE. PAOLI, PA 19301 484-716-3023
FAX 6108890663 - RICK@RHCDESIGN11.COM

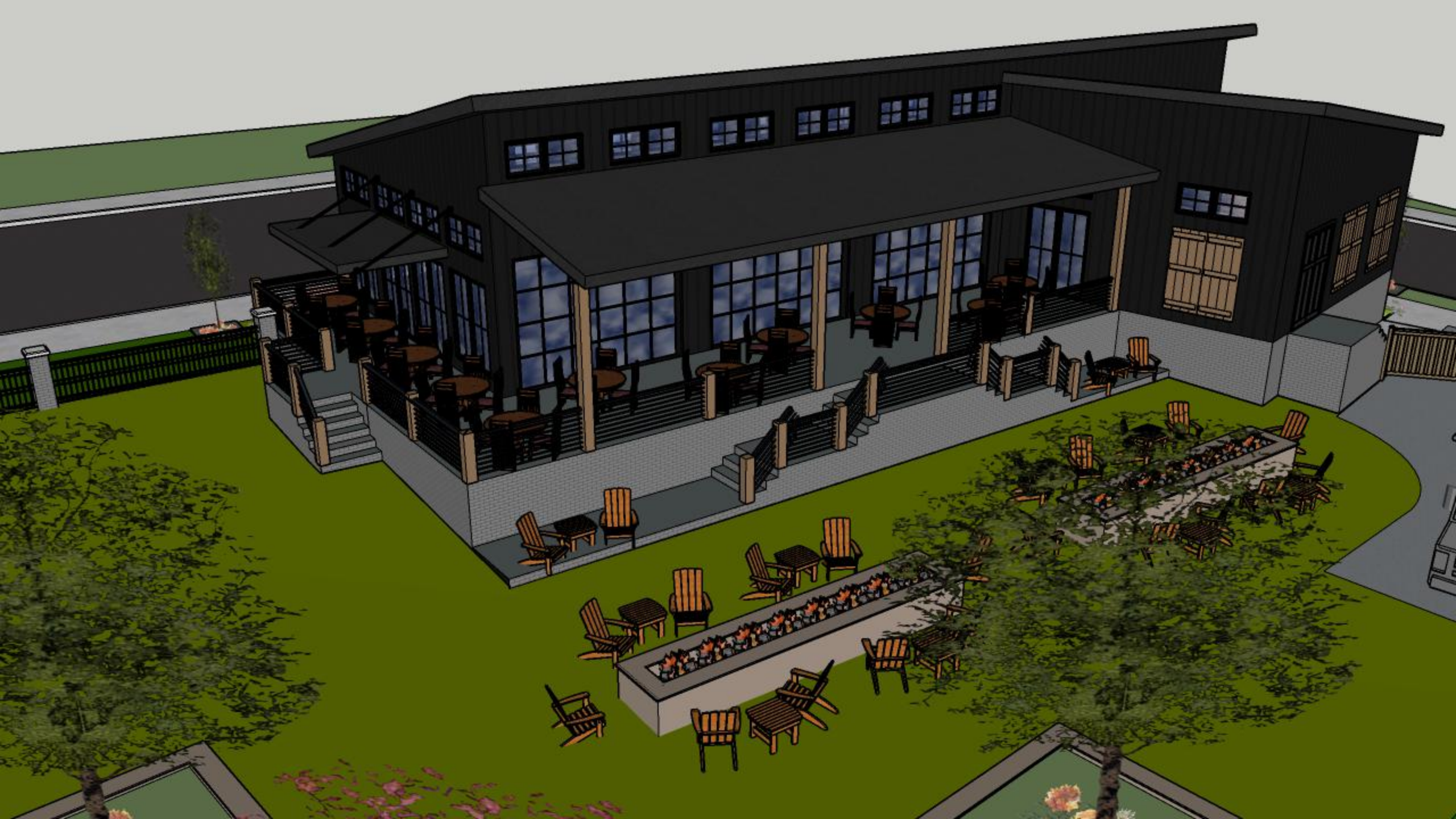
PROPOSED SITE PLAN FOR
PIERI WINE GARDEN
127 EAST ELM STREET, CONSHOHOCKEN BOROUGH - MONTGOMERY COUNTY - PENNSYLVANIA

CONTRACTOR SHALL VERIFY DIMENSIONS AT THE SITE AND REPORT ALL DISCREPANCIES IN DRAWINGS TO RHC DESIGN, INC. AND SHALL NOT PROCEED WITH ANY UNISSUED DRAWINGS ARE THE PROPERTY OF RHC DESIGN, INC. AND SHALL NOT BE USED ON OTHER WORK WITHOUT RHC DESIGN, INC. WRITTEN PERMISSION. DO NOT SCALE THIS DRAWING.

REVISIONS:

DATE: 06-14-24
FILE NO. 24082
SCALE: AS-NOTED
TITLE: WORKING DRAWINGS
SHEET S-1
OF - SHEETS





Borough of Conshohocken

Floodplain Development Permit Application

SECTION 1: GENERAL PROVISIONS AND REQUIREMENTS (Applicant to read and sign)**:**

1. The Applicant is to provide two (2) copies of this application
2. No work of any kind may start until a permit is issued.
3. The permit may be revoked at any time, if false statements are made herein; and if revoked, all work is to cease until a permit is re-issued.
4. Development may not be occupied until a Certificate of Flood Plain Compliance is issued. (This certificate is separate from the Certificate of Occupancy issued at construction completion.)
5. The Applicant is hereby informed that other permits may be required to fulfill other local state and federal requirements. The Applicant is to provide copies of all such permits to the Borough of Conshohocken.
6. The Applicant hereby gives consent to the Flood Plain Administrator or their representatives to make reasonable inspections to verify compliance.
7. This application is to be accompanied by a site plan including all information necessary to review the project in terms of floodplain requirements. In addition to project information, the plan should clearly show the limitation of the floodway and floodplain, the floodplain designation, the base flood elevation, the lowest adjacent elevation to any structures or paving; the highest adjacent elevation to any structure or paving, the lowest floor of a structure, the base floor elevation above the base flood elevation, the location of utilities and their elevation above the base flood elevation, and the source of flood plain information.
8. Upon completion of the project, submission of an appropriate FEMA Elevation Certificate, or Non-Residential Flood Proofing Certificate is required (See Section 6 of Application).
9. The Borough reserves the right to require hydrological and hydraulic studies and/or any other information to determine compliance with Zoning Ordinance Flood Plain Conservation District requirements.

THE APPLICANT CERTIFIES THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF HIS/HER KNOWLEDGE, TRUE AND ACCURATE.

Applicant's Name: **Christina Pieri** Date: **7/26/24**

Applicant's Signature:

SECTION 2: PROPOSED DEVELOPMENT INFORMATION (To be completed by the applicant)**:**

PROJECT LOCATION:

Address: 127 E Elm Street, Conshohocken PA 19428

Zoning District: SP1 Flood Plain Area: ZONE AE

Provide a brief description of the proposed project:

The project proposes the construction of a new wine garden and recreational space including pickleball courts and a bocce ball court, along with associated improvements.

DEVELOPER INFORMATION:

	Name	Address	Telephone #	E-Mail Address
Applicant	**Christina Pieri**	**1016 Maple St**	**610-888-6039**	**christinampieri@gmail.com**
Engineer	Schock Group LLC	1982 Butler Pike, Suite 5 Conshocken, PA 19428	610-590-7373	tdavis@schockgroup.com
Contractor				
Architect				

DESCRIPOTION OF WORK (Check all applicable):

A. STRUCTURE DEVLEOPMENT

ACTIVITY

__X__ New Structure

_____ Addition

_____ Alteration

STRUCTURE TYPE

_____ Residential (1 – 4 Family)

_____ Residential (More than 4 Family)

__X__ Non-Residential
(Flood proofing __X__ Openings ___)

_____ Relocation

_____ Demolition

_____ Mixed Use (Residential – Commercial)

_____ Manufactured Housing (Mobile Home in a Mobile Home Park)

ESTIMATED COST OF PROJECT $ _____

B. OTHER DEVELOPMENT ACTIVITIES (Check all applicable)

__X__ Clearing _____ Fill _____ Drilling __X__ Grading

_____ Excavation (Except for structural development checked above.)

_____ Watercourse Alteration (including dredging and channel modification)

__X__ Drainage improvements (Including culvert work)

_____ Road, street or bridge construction

_____ Subdivision (New or expansion)

_____ Individual water or sewer expansion

_____ Other (please specify) _____

ESTIMATED COST OF OTHER DEVELOPMENT ACTIVITIES: $ _____

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SECTION 3: FLOODPLAIN DETERMINATION

The proposed development is located on FIRM panel no. _____ Effective Date: _____

_____ Is not located in a Special Flood Hazard Area (SFHA) (Review complete; no floodplain development permit is required.).

_____ Is partially located in the SFHA, but the building/development is **not**.

_____ Is located in the SFHA.
FIRM Zone _____
Base Flood Elevation (BFE) is _____ft.
Source of BFE: _____

_____ Is located in the floodplain.

FIRM Panel # _____ Effective Date: _____

SIGNATURE: _____ DATE: _____

NAME/TITLE: _____

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SECTION 4: ADDITIONAL INFORMATION REQUIRED

The Applicant must submit the documentation checked below before the application can be processed.

_____ A site plan showing the location of all existing structures, water bodies, adjacent roads, lot dimensions, and proposed development.

_____ Development plans, drawn to scale, and specifications, including where applicable: details for anchoring structures, proposed elevation of lowest floor (including basement), types of water resistant materials used below the first floor, details of flood proofing of utilities located below the first floor, and details of enclosures below the first floor.

Also,

_____

_____

_____ Subdivision or other development plans. (If the subdivision or other development exceeds 50 lots or 5 acres, whichever is less, the applicant must provide "100-year" flood elevations if they are not otherwise available.

_____ Plans showing the extent of watercourse relocation and/or landform alterations.

_____ Change in water elevation (in feet)
Meets Ordinance limits on elevation increases: _____ yes _____ no.

_____ Top of new compacted fill elevation _____ ft. NGVD (MSL).

_____ Flood proofing protection level (non-residential only) _____ ft. NGVD (MSL). For flood proofed structures, applicant must attached a certification from a registered engineer or architect.

_____ Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the "100-year" flood. A copy of all data and hydraulic/hydrologic calculations supporting this finding must also be submitted.

_____ Other:

_____

_____

_____

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SECTION 5: PERMIT DETERMINATION

I have determined that the proposed activity: _____ Is _____ Is not in conformance with the provisions of the Conshohocken Zoning Ordinance, Flood Plain Conservation District. The permit is issued subject to the conditions attached to and made part of this permit.

Signature: _____ Date: _____

Name/Title: _____

If the activity is in compliance with the requirements of the Flood Plain Conservation District, the Flood Plain Administrator may issue a permit upon payment of the designated fee. If the activity is not in compliance with the Flood Plain Conservation District, the Flood Plain Administrator will provide a written summary of deficiencies. The Applicant may revise and resubmit an application, or may request a hearing from the Board of Appeals.

APPEALS: Appealed to the Zoning Hearing Board: _____ yes _____ no

Date of Zoning Hearing: _____

Zoning Board Decision: Approved: _____; Not approved:_____

If Approved: Conditions:

_____

_____

_____

_____

SECTION 6: FLOOD PLAIN ELEVATIONS (To be submitted by **APPLICANT** before a Certificate of Compliance is issued)

The following information must be provided for structures that are part of this application. This section must be completed by a registered professional engineer or a licensed land surveyor, or a certification by a registered engineer must be attached.

1. Actual "As Built" elevation of flood proofing protection is _____ ft. NGVD (MSL)

2. For residential projects, a final FEMA elevation certificate for all structures included in the project.

3. For non-residential projects, a FEMA flood proofing certificate for non-residential buildings.

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SECTION 7: COMPLIANCE ACTION

The Borough **Flood Plain Administrator or their representatives** will complete this section as applicable based on inspection of the project to ensure compliance with the Zoning Ordinance Flood Plain Conservation District.

INSPECTIONS:

DATE:_____ BY _____ DEFICIENCIES? ___ yes ___ no

DATE: _____ BY _____ DEFICIENCIES? ___ yes ___ no

DATE: _____ BY _____ DEFICIENCIES? ___ yes ___ no

SECTION 8: CERTIFICATE OF COMPLIANCE

Certificate of Compliance issued: DATE: _____ BY: _____

Applicant Request for County Review

This request should be filled out by the applicant and submitted to the municipality where the application is being filed along with digital copies of all plan sets/information. Municipal staff will electronically file the application with the county, and a notice for the prompt payment of any fees will be emailed to the Applicant's Representative.

MONTGOMERY COUNTY PLANNING COMMISSION
MCPC
P.O. Box 311, Norristown, PA 19404-0311
Phone: 610-278-3722
Business Hours: 8:30 A.M. to 4:15 P.M.
www.planning.montcopa.org

Date: August 5, 2024

Municipality: Conshohocken Borough

Proposal Name: Pieri Wine Garden | 127 E Elm Street

Applicant Name: Christina Pieri / Cooper Winery LLC

Address: 1016 Maple St

City/State/Zip: Conshohocken PA 19428

Phone: 610-888-6039

Email: christinampieri@gmail.com

Applicant's Representative: Schock Group LLC

Address: 1982 Butler Pike, Suite 5,

City/State/Zip: Conshohocken PA 19428

Business Phone (required): 610-590-7373

Business Email (required): tdavis@schockgroup.com

Type of Review Requested:

(Check All Appropriate Boxes)

- [x] Land Development Plan
- [ ] Subdivision Plan
- [ ] Residential Lot Line Change
- [ ] Nonresidential Lot Line Change
- [ ] Zoning Ordinance Amendment
- [ ] Zoning Map Amendment
- [ ] Subdivision Ordinance Amendment
- [ ] Curative Amendment
- [ ] Comprehensive / Other Plan
- [ ] Conditional Use
- [ ] Special Review*

**(Not included in any other category - includes parking lot or structures that are not associated with new building square footage)*

Type of Plan:

- [ ] Tentative (Sketch)
- [x] Preliminary / Final

Type of Submission:

- [x] New Proposal
- [ ] Resubmission*

** A proposal is NOT a resubmission if A) The proposed land use changes, or B) The amount of residential units or square footage proposed changes more than 40%, or C) The previous submission was over 5 years ago.*

Zoning:

SP-1

Existing District:

Special Exception Granted ○ Yes ○ No

Variance Granted ○ Yes ○ No For

Plan Information:

Tax Parcel Number(s) Parcel ID #: 050002108002

Location 127 E Elm Street, Conshohocken PA 19428

Nearest Cross Street Ash Street

Total Tract Area 25,097 SF

Total Tract Area Impacted By Development 25,097 SF

(If the development is a building expansion, or additional building on existing development, or only impacts a portion of the tract, please provide a rough estimate of the land impacted, including associated yards, drives, and facilities.)

Land Use(s)	Number of New Lots	Number of New Units	Senior Housing Yes	Senior Housing No	Open Space Acres*	Nonresidential New Square Feet
Single-Family			○	○		
Townhouses/Twins			○	○		
Apartments			○	○		
Commercial	X					11,033
Industrial						
Office						
Institutional						
Other						

**Only indicate Open Space if it will be on a separate lot or deed restricted with an easement shown on the plan.*

Additional Information:

RESET

Effective 5/1/18

SCHOCKGROUP
CIVIL ENGINEERING & LAND SURVEYING
1982 BUTLER PIKE STE 5, CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM

127 E ELM STREET

STREET CONDITIONS PHOTOGRAPHS

Figure 1: Elm Street Photo 1

Figure 2: Elm Street Photo 2

Figure 3: Elm Street & Ash Street Intersection

Figure 4: Ash Street Photo 1

Figure 5: Ash Street Photo 1

EXIT

SCHOCK GROUP LLC
SURVEYING & LAND DEVELOPMENT SERVICES

1982 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
610-590-7373

POST CONSTRUCTION STORMWATER MANAGEMENT REPORT

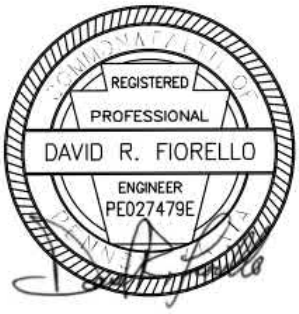
FOR THE CONSTRUCTION OF AN OUTDOOR WINE GARDEN & RECREATIONAL SPACE AS PART OF A LAND DEVELOPMENT PLAN SET ENTITLED

127 E. ELM STREET

CONSHOHOCKEN BOROUGH, MONTGOMERY COUNTY

PLAN SET DATED AUGUST 2, 2024

JOB #1819



BY

SCHOCK GROUP LLC

1958 BUTLER PIKE, SUITE 200
CONSHOHOCKEN, PA 19428

AUGUST 2, 2024

PROJECT NARRATIVE

The project involves the construction of a restaurant, outdoor wine garden, and outdoor recreational space including pickleball and bocce ball play area, on the currently undeveloped lot at 127 E Elm Street in Conshohocken Borough, Montgomery County. The site is a 25,061 sq. ft or 0.58-acre lot that is currently undeveloped open space. The lot is located in the Conshohocken Borough Specially Planned District 1 (SP-1) zoning district as well as within the Floodplain Conservation District and is being developed in accordance with Conshohocken Borough regulations along with applicable conservancies. The proposed impervious coverage for the site amounts to approximately 11,033 sq. ft in the storm calculations attached. The stormwater management system was developed in accordance with Conshohocken Borough regulations and is a part of the Schuylkill River Watershed. This report is included as part of the project permits submittal for the site. Stormwater management for the site is provided by an underground stormwater management system under the proposed paved asphalt area of the site. The system has been sized to control rates per the requirements of Conshohocken Borough. The PCSM BMP has been designed in accordance with the Pennsylvania Stormwater Best Practice Manual. The enclosed calculations have been provided to meet these regulations.

Due to the past industrial activities on site, particularly the manufacturing of electrical equipment between 1950 and 1967, the property has been classified as a brownfield site, and as such, a phase I and II investigation was conducted by Earth Engineering Inc. Following the full investigations and analysis of laboratory data, EEI concluded that:

- There is no evidence of Poly Chlorinated Biphenyls (PCBs) identified in the soil, and no evidence of solvents or fuels (VOC) having been released on the property.
- The soil results of the two western samples (0528-2 and 0528-3) exceed the PADEP Residential Statewide Health Standards. If residential use is intended for this property, a remediation of the site is warranted to reduce the potential liability associated with the arsenic and benzo[b]fluoranthene identified in the soil.
- The soil characterized by this assessment does not exceed the PADEP Non-Residential Statewide Health Standards. No additional liability is associated with the non-residential use of the property.

Because of the identification of arsenic and benzo[b]fluoranthene in the soils below the project site, a stormwater recharge system is not proposed in order to protect the groundwater from further pollutants as a result of the proposed development. Therefore, stormwater management for the site is provided by a dry extended basin, in the form of NDS StormChamber within a stone bed, lined with an impermeable liner to protect from infiltration from the system to the water table. A low-flow orifice of 2-inches in diameter is proposed at the bottom of the system to discharge to the existing storm inlet in Ash Street, southeast of the project site.

Preliminary system design was based on the volume required to reduce the storm runoff generated by the proposed impervious cover. Hydrographs were then calculated for both pre and post development conditions to determine the need for rate control. Times of concentration were established for the subbasin and each development condition and used to determine the peak rates of runoff (6 minutes has been used as a minimum where appropriate). The system was then further refined to provide control of the post development runoff rates. Development flows were routed through the system and the detention volume was adjusted along with outlet controls to limit the post development runoff to rates required by Borough ordinances.

The proposed system also protects the downstream surface waters from any potential thermal impacts. While thermal impacts are a potential with any increase of impervious surfaces, the proposed underground post construction BMP will mitigate any thermal impacts to surface waters by holding and geothermally cooling the water prior to the release to surface waters. The proposed low-flow orifice at the base of the BMP allows the discharge to leave the system at a rate much less than the pre-development overland flow currently allows, thus reducing the peak flow from the proposed development.

Detailed calculations and support data are included as part of this report. The attached calculations are included as part of this permit application.

SCHOCK GROUP LLC
SURVEYING & LAND DEVELOPMENT SERVICES

Schock Group LLC
1982 Butler Pike, Suite 5
Conshohocken, PA 19428
610-590-7373
SchockGroup.com

Project Name: 127 E Elm Street
Location: Conshohocken Bourough

Catchment Areas For: PRE CONSTRUCTION

Area Name	TOTAL AREA	IMPERV.	GRASS COVER SOIL TYPE B	MEADOW SOIL TYPE B	Tc (MIN)
CN	-	98	61	58	
PRE Onsite (A1)	25,724	0	0	25,724	13.0
Pre Construction	25,724	0	0	25,724	

Catchment Areas For: POST CONSTRUCTION

Area Name	TOTAL AREA	IMPERV.	FUTURE IMPERV.	GRASS COVER SOIL TYPE B	MEADOW SOIL TYPE B	Tc (MIN)
CN	-	98	98	61	58	
PCSM.1 Onsite (C1)	9,731	8,733	0	998	0	6.0
Uncontrolled (U1)	15,993	2,300		13,693	0	9.9
Onsite Total	25,724	11,033	0	14,691	0	

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TR 55 Worksheet 3: Time of Concentration (T_c) or Travel Time (T_t)

U.S. Department of Agriculture - FL-ENG-21B Natural Resources Conservation Service - Rev. 06/04

Project Name: 127 E Elm Street
Location: Conshohocken Bourough

Select One:	**Pre-Dev**	During	Developed
Select One:	**T_c**	T_t	Through Subarea

PRE CONSTRUCTION
ONSITE

Sheet Flow (Applicable to T_c only)		Segment ID	A				
1. Surface Description (Table 3-1)			GRASS				
2. Manning's Roughness Coeff., n (Table 3-1)			0.24				
3. Flow Length, L (total L < 150 ft)		ft	150				
4. Two-yr 24-hr Rainfall, P2		in	3.2				
5. Land Slope, s		ft/ft	0.057				
6. T_t = (0.007 (nL)0.8) / (P20.5 s0.4)	Compute T_t	hr	0.217			=	0.217 hr

Shallow Concentrated Flow		Segment ID					
7. Surface Description (Paved or Unpaved).							
8. Flow Length, L.		ft					
9. Watercourse Slope, s		ft/ft					
10. Average Velocity, V (Figure 3-1)		ft/sec					
11. T_t = L / 3600V	Compute T_t	hr				=	hr

Channel or Pipe Flow		Segment ID					
12. Cross Sectional Flow Area, A.		ft^2					
13. Wetted Perimeter, Pw.		ft					
14. Hydraulic Radius, R = A / Pw	Compute R	ft					
15. Channel Slope, s.		ft/ft					
16. Manning's Roughness Coeff., n..							
17. V = (1.486 x $R^{0.67}$ x $s^{0.5}$) / n	Compute V	ft/sec					
18. Flow Length, L		ft					
19. T_t = L / 3600V	Compute T_t	hr				=	0.000
20. Watershed or Subarea T_c or T_t (add T_t in steps 6, 11, and 19)							0.217 hr
21. Lag = 0.6 T_c					Compute Lag		0.130 hr
							13.0 min

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TR 55 Worksheet 3: Time of Concentration (T_c) or Travel Time (T_t)

U.S. Department of Agriculture - FL-ENG-21B Natural Resources Conservation Service - Rev. 06/04

Project Name: 127 E Elm Street
Location: Conshohocken Bourough

Select One:	Pre-Dev	During	**Developed**
Select One:	**T_c**	T_t	Through Subarea

POST CONSTRUCTION ONSITE:

Sheet Flow (Applicable to T_c only)		Segment ID	A					
1. Surface Description (Table 3-1)			GRASS					
2. Manning's Roughness Coeff., n (Table 3-1)			0.24					
3. Flow Length, L (total L < 150 ft)		ft	40					
4. Two-yr 24-hr Rainfall, P2		in	3.2					
5. Land Slope, s		ft/ft	0.038					
6. T_t = (0.007 (nL)0.8) / (P20.5 s0.4)	Compute T_t	hr	0.089			=	0.089	hr

Shallow Concentrated Flow		Segment ID						
7. Surface Description (Paved or Unpaved).								
8. Flow Length, L.		ft						
9. Watercourse Slope, s		ft/ft						
10. Average Velocity, V (Figure 3-1)		ft/sec						
11. T_t = L / 3600V	Compute T_t	hr				=		hr

Channel or Pipe Flow		Segment ID	C					
12. Cross Sectional Flow Area, A.		ft^2						
13. Wetted Perimeter, Pw.		ft						
14. Hydraulic Radius, R = A / Pw	Compute R	ft						
15. Channel Slope, s.		ft/ft						
16. Manning's Roughness Coeff., n..								
17. V = (1.486 x $R^{0.67}$ x $s^{0.5}$) / n	Compute V	ft/sec	5.00					
18. Flow Length, L		ft	5					
19. T_t = L / 3600V	Compute T_t	hr	0.000			=	0.000	
20. Watershed or Subarea T_c or T_t (add T_t in steps 6, 11, and 19)							0.089	hr
21. Lag = 0.6 T_c						Compute Lag	0.053	hr
							5.3	min

Minimum TC of 6 min

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TR 55 Worksheet 3: Time of Concentration (T_c) or Travel Time (T_t)

U.S. Department of Agriculture - FL-ENG-21B Natural Resources Conservation Service - Rev. 06/04

Project Name: 127 E Elm Street

Location: Conshohocken Bourough

Select One:	Pre-Dev	During	**Developed**
Select One:	**T_c**	T_t	Through Subarea

POST CONSTRUCTION
UNCONTROLLED

Sheet Flow (Applicable to T_c only)		Segment ID	A					
1. Surface Description (Table 3-1)			GRASS					
2. Manning's Roughness Coeff., n (Table 3-1)			0.24					
3. Flow Length, L (total L < 150 ft)		ft	112					
4. Two-yr 24-hr Rainfall, P2		in	3.2					
5. Land Slope, s		ft/ft	0.063					
6. T_t = (0.007 (nL)0.8) / (P20.5 s0.4)	Compute T_t	hr	0.165			=	0.165	hr

Shallow Concentrated Flow		Segment ID						
7. Surface Description (Paved or Unpaved).								
8. Flow Length, L.		ft						
9. Watercourse Slope, s		ft/ft						
10. Average Velocity, V (Figure 3-1)		ft/sec						
11. T_t = L / 3600V	Compute T_t	hr				=		hr

Channel or Pipe Flow		Segment ID						
12. Cross Sectional Flow Area, A.		ft^2						
13. Wetted Perimeter, Pw.		ft						
14. Hydraulic Radius, R = A / Pw	Compute R	ft						
15. Channel Slope, s.		ft/ft						
16. Manning's Roughness Coeff., n..								
17. V = (1.486 x $R^{0.67}$ x $s^{0.5}$) / n	Compute V	ft/sec						
18. Flow Length, L		ft						
19. T_t = L / 3600V	Compute T_t	hr				=	0.000	
20. Watershed or Subarea T_c or T_t (add T_t in steps 6, 11, and 19)							0.165	hr
21. Lag = 0.6 T_c						Compute Lag	0.099	hr
							9.9	min

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Project Name: 127 E Elm Street
Location: Conshohocken Bourough

Runoff Calcuations For: **Entire Watershed**

Rainfall Event: 2 YR Rainfall (P) = 2.85 IN

Formula Used $Q = \frac{(P - Ia)^2}{(P - Ia) + S}$

S = potential maximum retention (in) Q = runoff (in)
I_a = initial abstraction (in) P = Rainfall (in)

Pre-Development / Existing Conditions

Total Area: 25,724 sf Use CN: 58

Cover Type	Condition	Soil Type	Area (sf)	Area (ac)	CN	CN x Area	S	I_a (0.2*S)	Q Runoff (in)	Runoff Volume (ft^3)
Meadow	Fair	B	25,724	0.591	58	34.25	7.24	1.45	0.23	487
Impervious as Meadow	Fair	B	0	0.000	58	0	7.24	1.45	0.23	0
TOTAL :			**25,724**	**0.591**	**58**	**34.3**				**487**

Developed Conditions

Total Area: 25,724 sf Use CN: 77

Cover Type	Condition	Soil Type	Area (sf)	Area (ac)	CN	CN x Area	S	I_a (0.2*S)	Q Runoff (in)	Runoff Volume (ft^3)
Meadow	Fair	B	0	0.000	58	0	7.24	1.45	0.23	0
Lawn	Fair	B	14,691	0.337	61	20.57	6.39	1.28	0.31	380
Future Impervious			0	0.000	98	0	0.20	0.04	2.62	0
Impervious			11,033	0.253	98	24.82	0.20	0.04	2.62	2,408
TOTAL :			**25,724**	**0.591**	**76.87**	**45.4**				**2,787**

2 Year Volume Increase (Cu.Ft) :	**2,300**	**ft^3**

Volume Provided			Storage Volume (ft^3)
PCSM.1		2,307	ft^3
TOTAL		**2,307**	**ft^3**

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Project Name: 127 E Elm Street
Location: Conshohocken Bourough

Summary of Site Discharge Rate Control

Pre Development - Existing Conditions - DP001

	1-YR	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
Pre Development Onsite Allowable Storm Event	0.31 (1-YR)	0.38 (2yr)	0.46 (5yr)	0.52 (10-YR)	0.59 (25-YR)	0.64 (50-YR)	0.69 (100-YR)
Watershed Peak Allowable Discharge	**0.31**	**0.38**	**0.46**	**0.52**	**0.59**	**0.64**	**0.69**

Post Development Conditions - DP001

	1-YR	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
PCSM.1 Routed Area	0.07	0.08	0.10	0.11	0.12	0.12	0.13
Uncontrolled Area	0.24	0.29	0.36	0.4	0.46	0.50	0.54
Total Post Development Discharge	**0.31**	**0.37**	**0.45**	**0.51**	**0.57**	**0.62**	**0.66**
Total Allowable Discharge (from above)	0.31	0.38	0.46	0.52	0.59	0.64	0.69
Post Development Reduction from Allowable	0.00	0.01	0.01	0.01	0.02	0.02	0.03
Percent Reduction	0%	3%	2%	2%	3%	3%	4%

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Project Name: 127 E Elm Street
Location: Conshohocken Bourough

Pipe Capacities

Rainfall Intensity: 7.6 in/hr

Formula: $V = (k_n / n) R_h^{2/3} S^{1/2}$
$Q = A * V$

PCSM 1

Up Stream Inlet	Down Stream Inlet	Pipe Length (ft)	Pipe Size (in)	Min. Pipe Slope (S) (ft/ft)	Pipe Type	N	Total Drainage Area (SF)	Percent Imperviou s	C Runoff Coefficien t	Inlet Drainage Area Equiv. (AC)	Pipe Flow Q (CFS)	Pipe Flow Q combined (CFS)	Pipe Capacity Q (CFS)
Sumpbox 1	Inlet 1	92	8	2.00%	HDPE	0.012	5,500	100%	0.99	0.13	0.95	0.95	1.85
Inlet 1	PCSM 1	5	8	2.00%	HDPE	0.012	1,500	50%	0.69	0.02	0.18	1.13	1.85
Sumpbox 2	PCSM 1	18	8	2.00%	HDPE	0.012	3,100	100%	0.99	0.07	0.54	0.54	1.85

NOAA Atlas 14, Volume 2, Version 3
Location name: Conshohocken, Pennsylvania, USA*
Latitude: 40.072°, Longitude: -75.3052°
Elevation: 68 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.347** (0.318-0.378)	**0.412** (0.379-0.450)	**0.484** (0.444-0.528)	**0.535** (0.489-0.583)	**0.595** (0.542-0.649)	**0.637** (0.576-0.694)	**0.677** (0.610-0.740)	**0.713** (0.638-0.781)	**0.754** (0.669-0.829)	**0.784** (0.691-0.867)
10-min	**0.554** (0.509-0.603)	**0.660** (0.606-0.720)	**0.776** (0.710-0.845)	**0.856** (0.783-0.932)	**0.949** (0.863-1.03)	**1.01** (0.918-1.11)	**1.08** (0.970-1.18)	**1.13** (1.01-1.24)	**1.19** (1.06-1.31)	**1.24** (1.09-1.36)
15-min	**0.692** (0.636-0.754)	**0.829** (0.762-0.905)	**0.981** (0.899-1.07)	**1.08** (0.990-1.18)	**1.20** (1.09-1.31)	**1.28** (1.16-1.40)	**1.36** (1.23-1.49)	**1.42** (1.28-1.56)	**1.50** (1.33-1.65)	**1.55** (1.36-1.71)
30-min	**0.949** (0.872-1.03)	**1.14** (1.05-1.25)	**1.39** (1.28-1.52)	**1.57** (1.44-1.71)	**1.78** (1.62-1.94)	**1.93** (1.75-2.11)	**2.08** (1.88-2.28)	**2.22** (1.99-2.43)	**2.39** (2.12-2.63)	**2.51** (2.21-2.77)
60-min	**1.18** (1.09-1.29)	**1.44** (1.32-1.57)	**1.79** (1.64-1.95)	**2.04** (1.87-2.22)	**2.37** (2.16-2.58)	**2.62** (2.37-2.86)	**2.87** (2.59-3.13)	**3.11** (2.79-3.41)	**3.43** (3.04-3.77)	**3.66** (3.23-4.05)
2-hr	**1.42** (1.29-1.55)	**1.72** (1.57-1.89)	**2.15** (1.96-2.35)	**2.48** (2.25-2.71)	**2.91** (2.63-3.18)	**3.25** (2.92-3.55)	**3.59** (3.21-3.93)	**3.94** (3.49-4.32)	**4.40** (3.85-4.84)	**4.75** (4.12-5.26)
3-hr	**1.55** (1.42-1.70)	**1.88** (1.72-2.06)	**2.36** (2.15-2.58)	**2.72** (2.47-2.98)	**3.21** (2.89-3.51)	**3.59** (3.22-3.93)	**3.98** (3.55-4.37)	**4.38** (3.87-4.81)	**4.92** (4.28-5.43)	**5.33** (4.60-5.91)
6-hr	**1.94** (1.78-2.13)	**2.35** (2.15-2.58)	**2.92** (2.67-3.21)	**3.39** (3.09-3.72)	**4.05** (3.65-4.44)	**4.58** (4.10-5.02)	**5.14** (4.56-5.64)	**5.73** (5.03-6.29)	**6.56** (5.65-7.25)	**7.23** (6.14-8.02)
12-hr	**2.36** (2.16-2.61)	**2.85** (2.61-3.15)	**3.57** (3.26-3.94)	**4.18** (3.80-4.61)	**5.06** (4.55-5.56)	**5.80** (5.17-6.38)	**6.61** (5.81-7.27)	**7.48** (6.48-8.26)	**8.75** (7.42-9.71)	**9.82** (8.18-10.9)
24-hr	**2.73** (2.51-2.98)	**3.28** (3.02-3.59)	**4.12** (3.79-4.50)	**4.82** (4.41-5.26)	**5.83** (5.31-6.34)	**6.68** (6.05-7.26)	**7.60** (6.85-8.25)	**8.59** (7.68-9.32)	**10.0** (8.87-10.9)	**11.2** (9.84-12.2)
2-day	**3.15** (2.88-3.44)	**3.80** (3.48-4.15)	**4.78** (4.37-5.22)	**5.57** (5.09-6.08)	**6.70** (6.10-7.30)	**7.64** (6.92-8.32)	**8.64** (7.77-9.40)	**9.70** (8.68-10.6)	**11.2** (9.95-12.2)	**12.5** (11.0-13.6)
3-day	**3.32** (3.05-3.63)	**4.00** (3.68-4.37)	**5.02** (4.60-5.48)	**5.84** (5.34-6.37)	**7.01** (6.39-7.63)	**7.97** (7.24-8.68)	**9.00** (8.12-9.80)	**10.1** (9.05-11.0)	**11.6** (10.4-12.7)	**12.9** (11.4-14.1)
4-day	**3.49** (3.21-3.82)	**4.20** (3.87-4.60)	**5.25** (4.83-5.74)	**6.10** (5.60-6.66)	**7.31** (6.68-7.96)	**8.31** (7.56-9.04)	**9.36** (8.47-10.2)	**10.5** (9.43-11.4)	**12.1** (10.8-13.2)	**13.4** (11.8-14.6)
7-day	**4.08** (3.78-4.44)	**4.90** (4.54-5.33)	**6.05** (5.60-6.59)	**7.00** (6.46-7.62)	**8.36** (7.68-9.08)	**9.48** (8.67-10.3)	**10.7** (9.71-11.6)	**11.9** (10.8-12.9)	**13.7** (12.3-14.9)	**15.2** (13.5-16.5)
10-day	**4.65** (4.33-5.02)	**5.55** (5.17-6.00)	**6.77** (6.29-7.32)	**7.75** (7.19-8.37)	**9.11** (8.42-9.83)	**10.2** (9.40-11.0)	**11.3** (10.4-12.2)	**12.5** (11.4-13.5)	**14.2** (12.8-15.3)	**15.5** (14.0-16.8)
20-day	**6.29** (5.90-6.72)	**7.46** (7.00-7.97)	**8.90** (8.34-9.51)	**10.0** (9.39-10.7)	**11.6** (10.8-12.3)	**12.7** (11.9-13.6)	**13.9** (13.0-14.9)	**15.2** (14.0-16.2)	**16.8** (15.4-18.0)	**18.0** (16.5-19.3)
30-day	**7.84** (7.41-8.28)	**9.23** (8.73-9.76)	**10.8** (10.2-11.4)	**11.9** (11.3-12.6)	**13.5** (12.7-14.3)	**14.7** (13.8-15.5)	**15.8** (14.9-16.8)	**17.0** (15.9-18.0)	**18.5** (17.2-19.6)	**19.6** (18.2-20.8)
45-day	**9.96** (9.46-10.5)	**11.7** (11.1-12.3)	**13.5** (12.8-14.2)	**14.8** (14.0-15.5)	**16.4** (15.6-17.3)	**17.7** (16.7-18.6)	**18.8** (17.8-19.8)	**19.9** (18.8-21.0)	**21.3** (20.1-22.5)	**22.3** (20.9-23.6)
60-day	**11.9** (11.4-12.5)	**14.0** (13.3-14.7)	**16.0** (15.2-16.8)	**17.4** (16.6-18.3)	**19.3** (18.3-20.2)	**20.6** (19.6-21.6)	**21.8** (20.7-22.9)	**23.0** (21.8-24.2)	**24.4** (23.1-25.7)	**25.4** (24.0-26.8)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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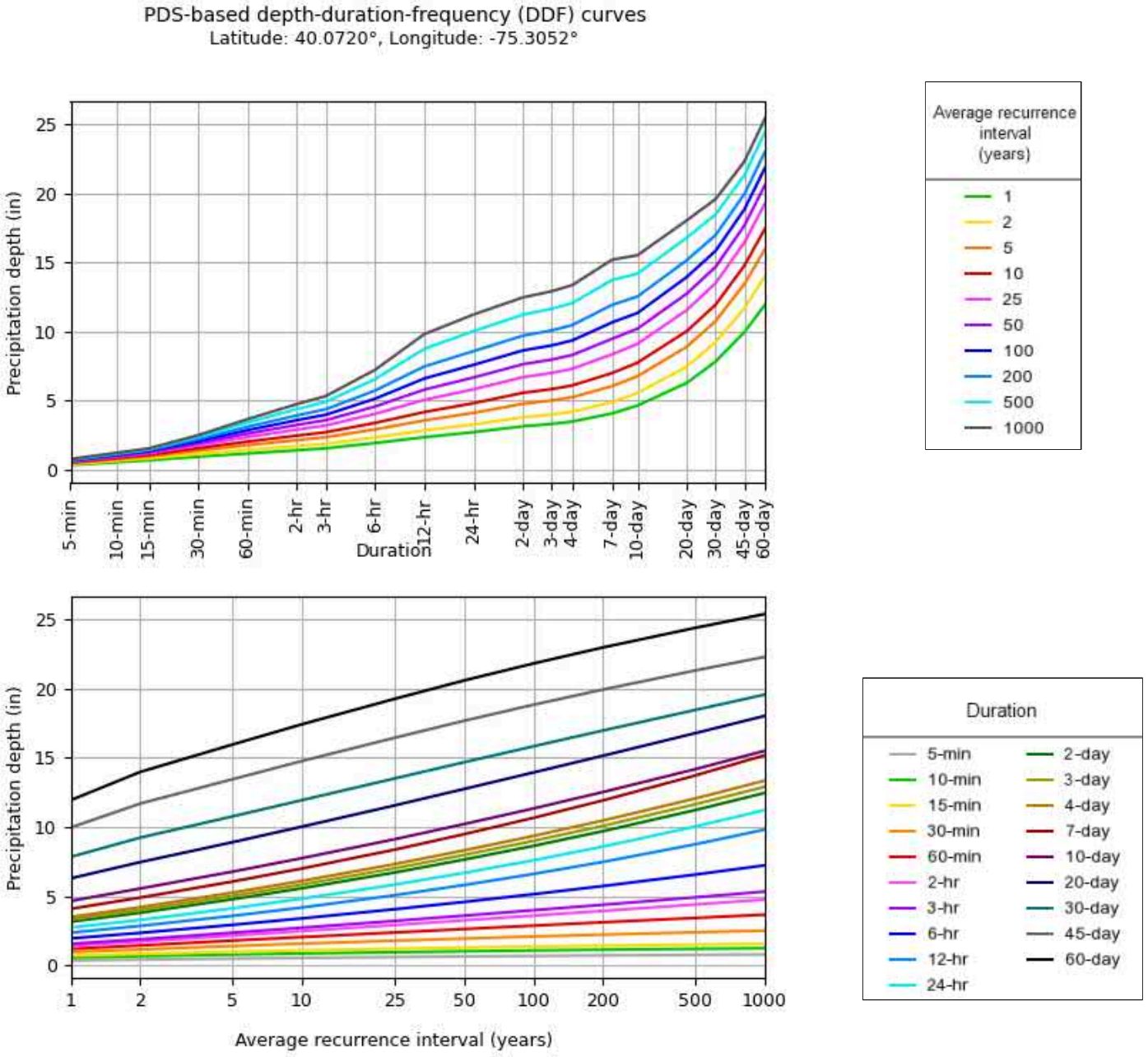
PF graphical



NOAA Atlas 14, Volume 2, Version 3

Created (GMT): Fri Aug 2 13:52:46 2024

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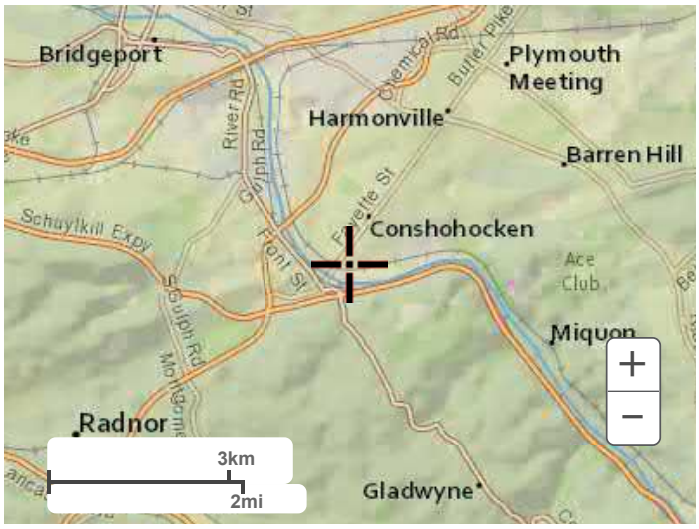
Maps & aerials

Small scale terrain



Large scale terrain

Large scale map

Large scale aerial

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National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

19 Attachment 1

Borough of Conshohocken

APPENDIX A
STORMWATER COEFFICIENTS
[Ord. No. 10-2022, 7/20/2022]

Table 1
Rational Runoff Coefficients By Hydrologic Soils Group and Overland Slope (%)

	A			B			C			D		
Land Use	**0-2%**	**2-6%**	**6%+**	**0-2%**	**2-6%**	**6%+**	**0-2%**	**2-6%**	**6%+**	**0-2%**	**2-6%**	**6%+**
Cultivated land	0.08[a]	0.13	0.16	0.11	0.15	0.21	0.14	0.19	0.26	0.18	0.23	0.31
	0.14[b]	0.18	0.22	0.16	0.21	0.28	0.20	0.25	0.34	0.24	0.29	0.41
Pasture	0.12	0.20	0.30	0.18	0.28	0.37	0.24	0.34	0.44	0.30	0.40	0.50
	0.15	0.25	0.37	0.23	0.34	0.45	0.30	0.42	0.52	0.37	0.50	0.62
Meadow	0.10	0.16	0.25	0.14	0.22	0.30	0.20	0.28	0.36	0.24	0.30	0.40
	0.14	0.22	0.30	0.30	0.38	0.37	0.26	0.35	0.44	0.30	0.40	0.50
Forest	0.05	0.08	0.11	0.08	0.11	0.14	0.10	0.13	0.16	0.12	0.16	0.20
	0.08	0.11	0.14	0.10	0.14	0.18	0.12	0.16	0.20	0.15	0.20	0.25
Residential:												
Lot size 1/8 acre	0.25	0.28	0.31	0.27	0.30	0.25	0.30	0.33	0.38	0.33	0.36	0.42
	0.33	0.37	0.40	0.35	0.39	0.44	0.38	0.42	0.49	0.41	0.45	0.54
Lot size 1/4 acre	0.22	0.26	0.29	0.24	0.29	0.33	0.27	0.31	0.36	0.30	0.34	0.40
	0.30	0.34	0.37	0.33	0.37	0.42	0.36	0.40	0.47	0.38	0.42	0.52
Lot size 1/3 acre	0.19	0.23	0.26	0.22	0.26	0.30	0.25	0.29	0.34	0.28	0.32	0.39
	0.28	0.32	0.35	0.30	0.35	0.39	0.33	0.38	0.45	0.36	0.40	0.50
Lot size 1/2 acre	0.16	0.20	0.24	0.19	0.23	0.28	0.22	0.27	0.32	0.26	0.30	0.37
	0.25	0.29	0.32	0.28	0.32	0.36	0.31	0.35	0.42	0.34	0.38	0.48
Lot size 1 acre	0.14	0.19	0.22	0.17	0.21	0.26	0.20	0.25	0.31	0.24	0.29	0.35
	0.22	0.26	0.29	0.24	0.28	0.34	0.28	0.32	0.40	0.31	0.35	0.46
Industrial	0.67	0.68	0.68	0.68	0.68	0.69	0.68	0.69	0.69	0.69	0.69	0.70
	0.85	0.85	0.86	0.85	0.86	0.86	0.86	0.86	0.87	0.86	0.86	0.88
Commercial	0.71	0.71	0.72	0.71	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
	0.88	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.90	0.89	0.89	0.90
Streets	0.70	0.71	0.71	0.71	0.72	0.74	0.72	0.73	0.76	0.73	0.75	0.78
	0.76	0.77	0.79	0.80	0.82	0.84	0.84	0.85	0.89	0.89	0.91	0.95
Open space	0.05	0.10	0.14	0.08	0.13	0.19	0.12	0.17	0.24	0.16	0.21	0.28
	0.11	0.16	0.20	0.14	0.19	0.26	0.18	0.23	0.32	0.22	0.27	0.39
Parking	0.85	0.86	0.87	0.85	0.86	0.87	0.85	0.86	0.87	0.85	0.86	0.87
	0.95	0.96	0.97	0.95	0.96	0.97	0.95	0.96	0.97	0.95	0.96	0.97

NOTES:

[a] Runoff coefficients for storm recurrence intervals less than 25 years.

[b] Runoff coefficients for stream recurrence intervals of 25 years or more.

Table 2
Roughness Coefficients (Manning's "n")

Surface Description	n
Dense growth	0.4 to 0.5
Pasture	0.3 to 0.4
Lawns	0.2 to 0.3
Bluegrass sod	0.2 to 0.5
Short grass prairie	0.1 to 0.2
Sparse vegetation	0.05 to 0.13
Bare clay-loam soil (eroded)	0.01 to 0.03
Concrete/asphalt	
Very shallow depths (less than 1/4 inch)	0.10 to 0.15
Small depths (1/4 inch to several inches)	0.05 to 0.10

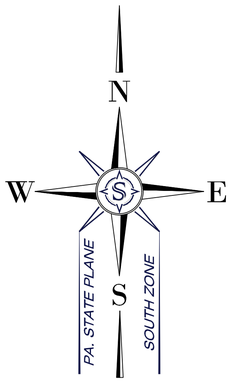
Reach Description	n
Natural stream, clean, straight, no rifts or pools	0.03
Natural stream, clean, winding, some pools or shoals	0.04
Natural stream, winding, pools, shoals, stony with some weeds	0.05
Natural stream, sluggish deep pools and weeds	0.07
Natural stream or swale, very weedy or with timber under-brush	0.10
Concrete pipe, culvert or channel	0.012
Corrugated metal pipe	0.012 to 0.027[(1)]
High density polyethylene (HDPE) pipe	
Corrugated	0.021 to 0.029[(2)]
Smooth lined	0.012 to 0.020[(2)]

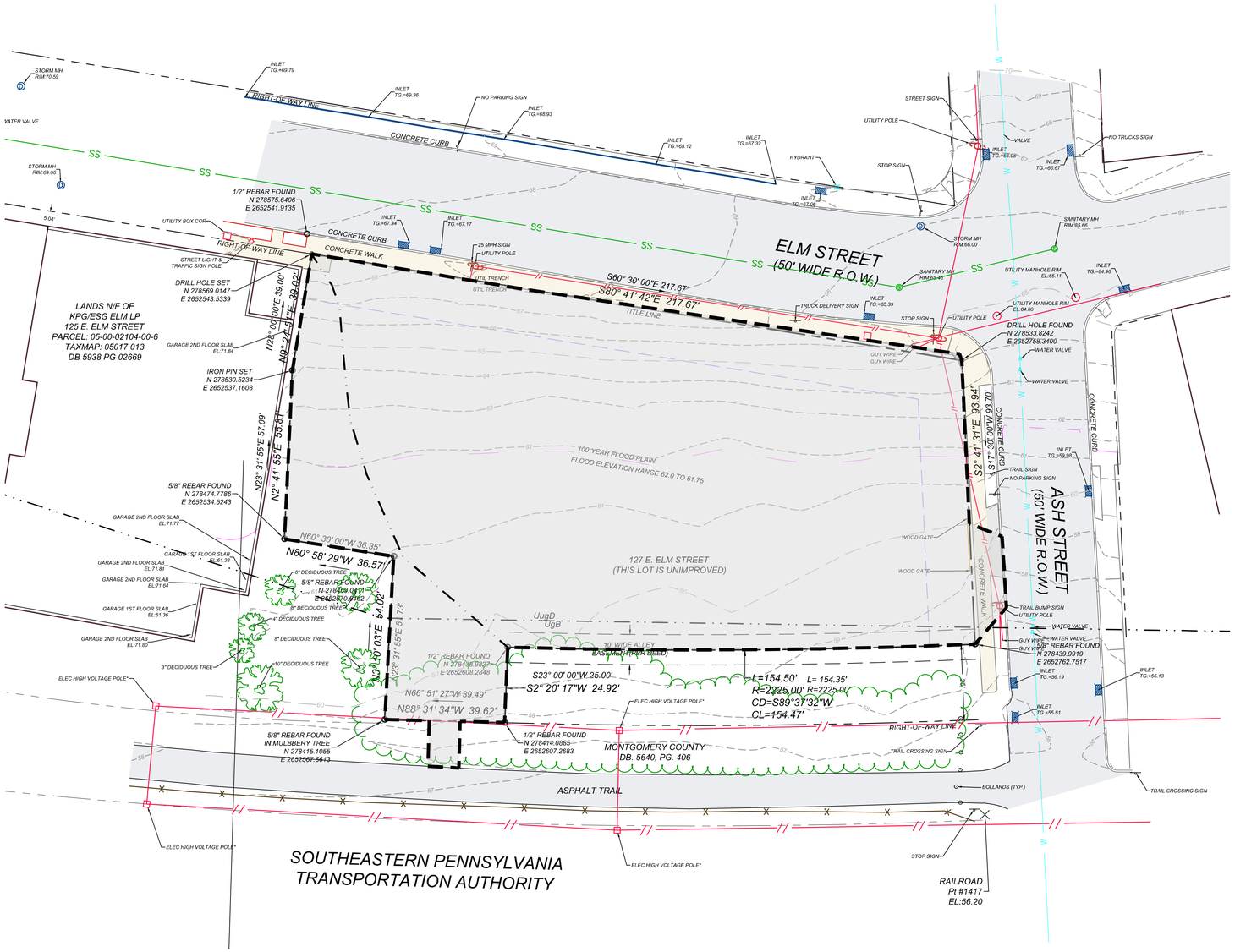
NOTES:

(1) Depending upon type, coating and diameter.

(2) Values recommended by the American Concrete Pipe Association, check Manufacturer's recommended value.

PRE–DEVELOPMENT
DRAINAGE AREA





LINETYPE LEGEND

- TIME OF CONCENTRATION
- OFFSITE (NON-LOD)
- ONSITE

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PRE-DEVELOPMENT DRAINAGE AREA MAP

PRELIMINARY LAND DEVELOPMENT

PROJECT IMAGE

PROJECT NAME

127 E. ELM STREET

CONSHOHOCKEN BOROUGH * MONTGOMERY COUNTY * PENNSYLVANIA

REV.	DATE	DESCRIPTION

CLIENT
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
ONE-CALL:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
FILE NO:	1819
SHEET NO:	1 OF 2

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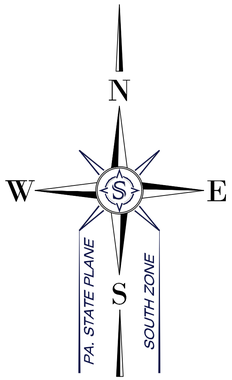
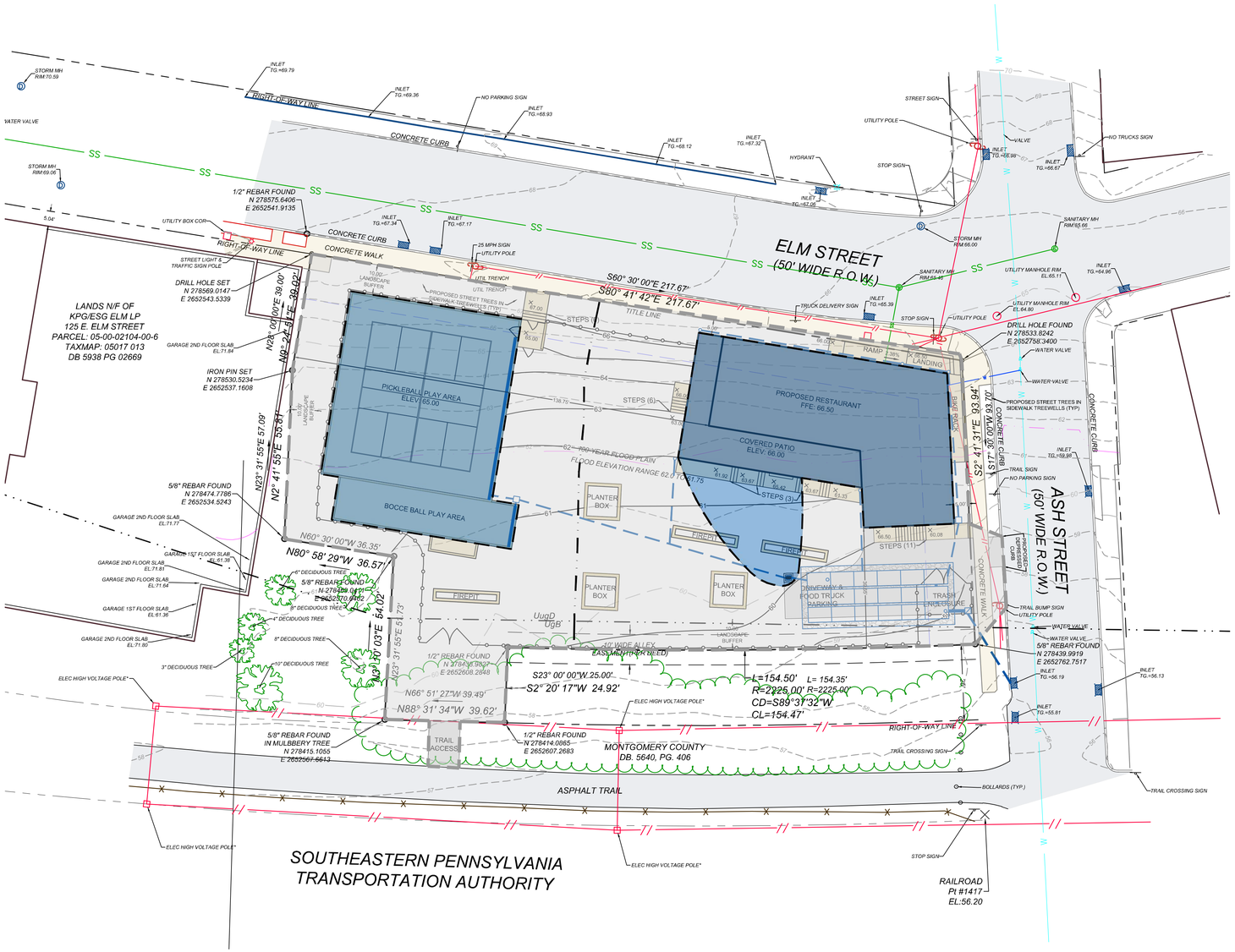
POST-DEVELOPMENT DRAINAGE AREAS





LINETYPE LEGEND

- TIME OF CONCENTRATION
- OFFSITE (NON-LOD) CONTROLLED DRAINAGE AREA
- CONTROLLED DRAINAGE AREA
- UNCONTROLLED DRAINAGE AREA

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POST-DEVELOPMENT DRAINAGE AREA MAP

PRELIMINARY LAND DEVELOPMENT

127 E. ELM STREET

CONSHOHOCKEN BOROUGH • MONTGOMERY COUNTY • PENNSYLVANIA

PROJECT IMAGE

PROJECT NUMB

REV.	DATE	DESCRIPTION

CLIENT
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
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ONE-CALL:	
SCALE:	1" = 20'
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FILE NO.	1819
SHEET NO.	2 OF 2

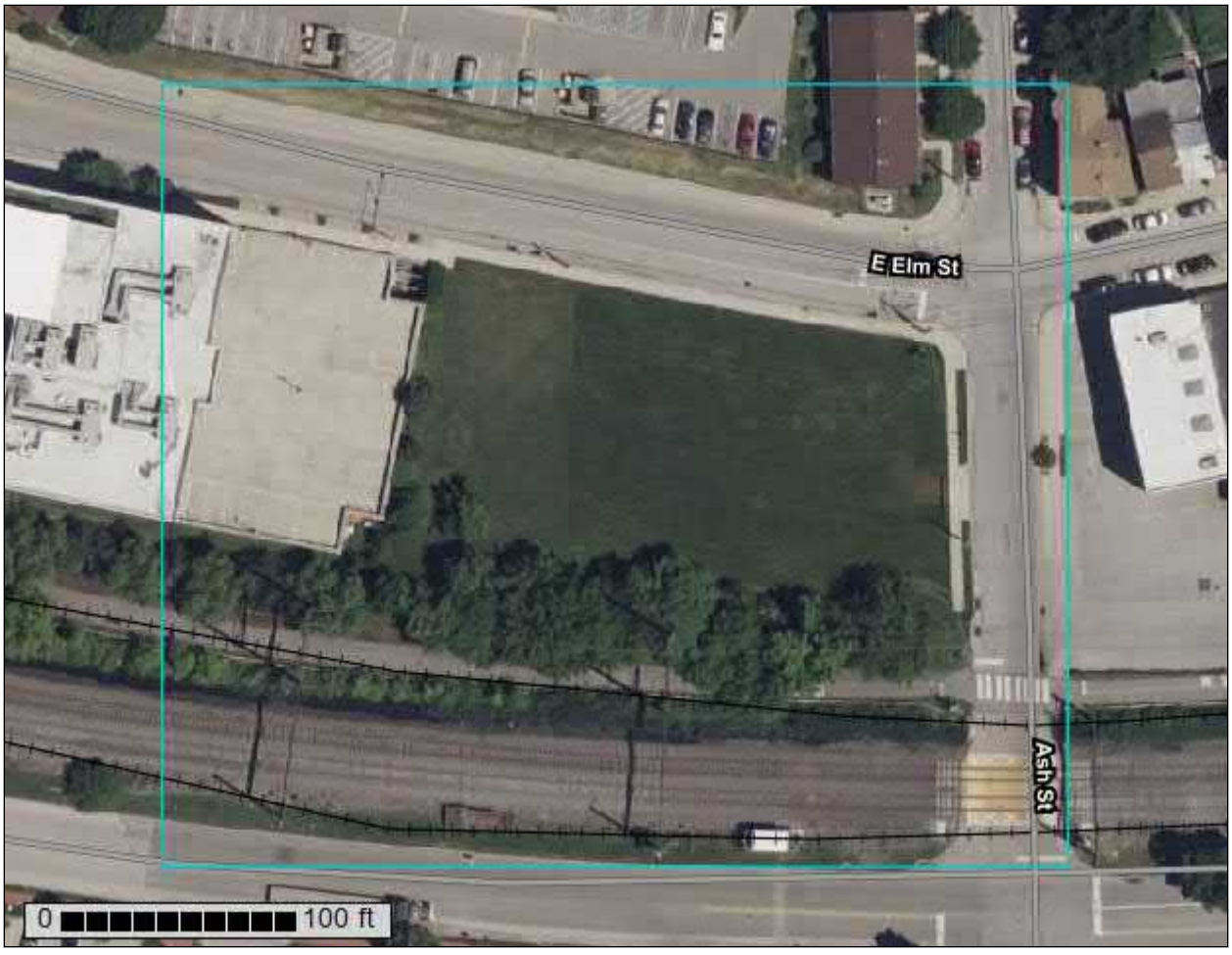
United States Department of Agriculture

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



May 10, 2024

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.

Map Scale: 1:854 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 40 80 160 240

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 18, Sep 8, 2023

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

Date(s) aerial images were photographed: Jun 3, 2022—Jul 20, 2022

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
UgB	Urban land, 0 to 8 percent slopes	1.2	42.4%
UugD	Urban land-Udorthents, schist and gneiss complex, 8 to 25 percent slopes	1.7	57.6%
Totals for Area of Interest		**2.9**	**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

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

UugD—Urban land-Udorthents, schist and gneiss complex, 8 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2dtz8
Elevation: 200 to 2,000 feet
Mean annual precipitation: 35 to 55 inches
Mean annual air temperature: 45 to 61 degrees F
Frost-free period: 110 to 235 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 80 percent

Udorthents, schist and gneiss, and similar soils: 15 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform: Hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Pavement, buildings and other artifically covered areas

Typical profile

C - 0 to 6 inches: variable

Properties and qualities

Slope: 8 to 25 percent
Depth to restrictive feature: 10 to 99 inches to lithic bedrock
Available water supply, 0 to 60 inches: 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 Udorthents, Schist And Gneiss

Setting

Landform: Hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Graded areas of schist and/or gneiss

Typical profile

Ap - 0 to 6 inches: loam
C - 6 to 40 inches: silty clay loam
R - 40 to 60 inches: bedrock

Properties and qualities

Slope: 8 to 25 percent
Depth to restrictive feature: 20 to 70 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 60 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Glenelg

Percent of map unit: 1 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Hydric soil rating: No

Baile

Percent of map unit: 1 percent
Landform: Depressions
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: Yes

Edgemont

Percent of map unit: 1 percent
Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Hydric soil rating: No

Gladstone

Percent of map unit: 1 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Nose slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Hydric soil rating: No

Glenville

Percent of map unit: 1 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Side slope, head slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: No

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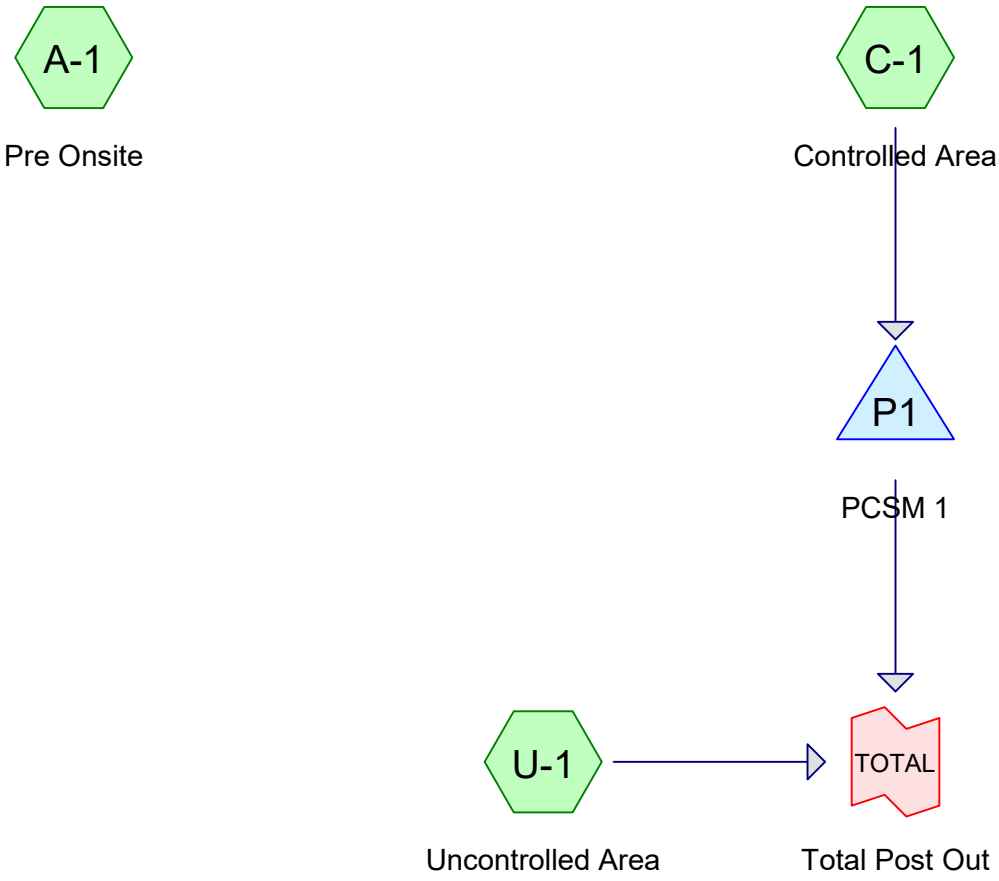
127 E ELM STREET



Subcat Reach Pond Link

Routing Diagram for C-1819
Prepared by Schock Group, LLC, Printed 8/1/2024
HydroCAD® 10.20-4a s/n 11408 © 2023 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	C	Description (subcatchment-numbers)
11,033	0.99	IMPERVIOUS (C-1, U-1)
998	0.25	LAWN (C-1)
25,568	0.28	Meadow (C 2-6%) (A-1)
13,693	0.24	OPEN SPACE (C 6%+) (U-1)
51,292	**0.42**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
0	HSG D	
51,292	Other	A-1, C-1, U-1
51,292		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Subc Num
0	0	0	0	11,033	11,033	IMPERVIOUS	
0	0	0	0	998	998	LAWN	
0	0	0	0	25,568	25,568	Meadow (C 2-6%)	
0	0	0	0	13,693	13,693	OPEN SPACE (C 6%+)	
0	**0**	**0**	**0**	**51,292**	**51,292**	**TOTAL AREA**	

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A-1: Pre Onsite Runoff Area=25,568 sf 0.00% Impervious Runoff Depth=0.27"
Tc=13.0 min C=0.28 Runoff=0.31 cfs 566 cf

Subcatchment C-1: Controlled Area Runoff Area=9,731 sf 89.74% Impervious Runoff Depth=0.87"
Tc=6.0 min C=0.91 Runoff=0.39 cfs 703 cf

Subcatchment U-1: Uncontrolled Area Runoff Area=15,993 sf 14.38% Impervious Runoff Depth=0.33"
Tc=9.9 min C=0.35 Runoff=0.24 cfs 440 cf

Pond P1: PCSM 1 Peak Elev=55.05' Storage=638 cf Inflow=0.39 cfs 703 cf
Outflow=0.07 cfs 497 cf

Link TOTAL: Total Post Out Inflow=0.31 cfs 937 cf
Primary=0.31 cfs 937 cf

Total Runoff Area = 51,292 sf Runoff Volume = 1,710 cf Average Runoff Depth = 0.40"
78.49% Pervious = 40,259 sf 21.51% Impervious = 11,033 sf

Summary for Subcatchment A-1: Pre Onsite

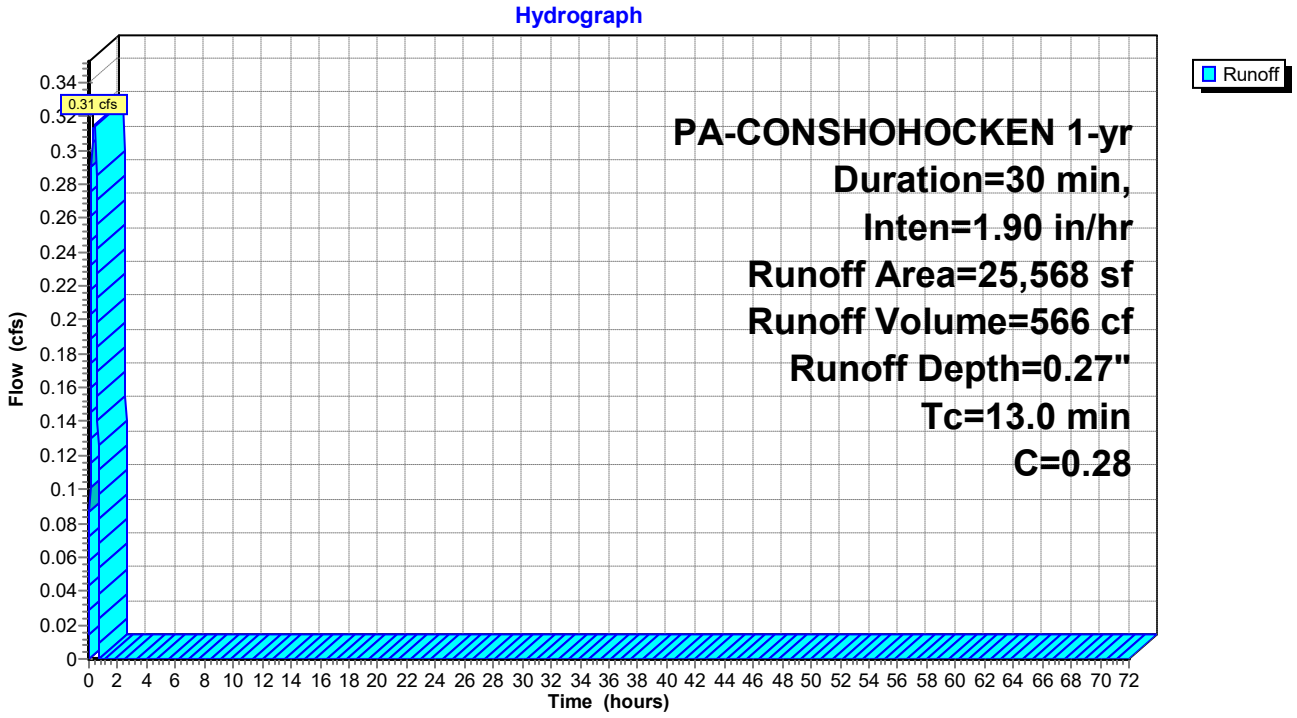
Runoff = 0.31 cfs @ 0.22 hrs, Volume= 566 cf, Depth= 0.27"
Routed to nonexistent node 1L

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 1-yr Duration=30 min, Inten=1.90 in/hr

Area (sf)	C	Description
25,568	0.28	Meadow (C 2-6%)
25,568		100.00% Pervious Area

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

Subcatchment A-1: Pre Onsite



Hydrograph for Subcatchment A-1: Pre Onsite

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.31**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment C-1: Controlled Area

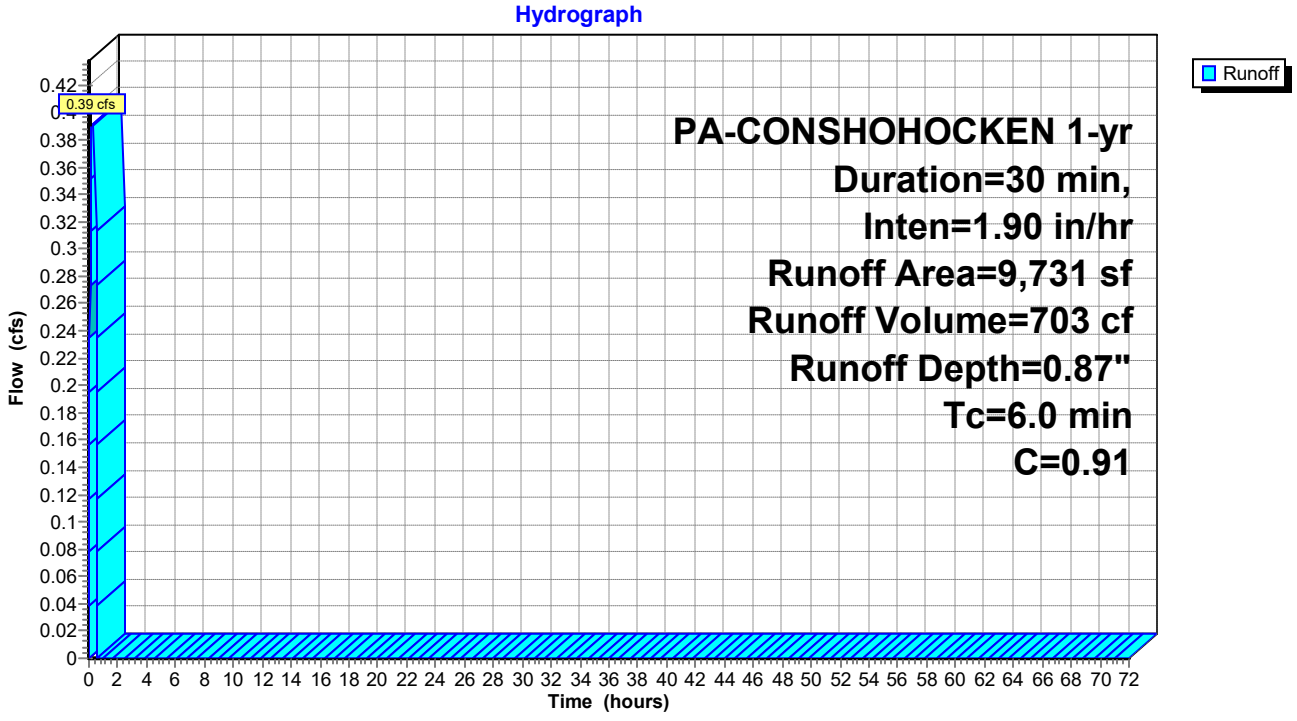
Runoff = 0.39 cfs @ 0.10 hrs, Volume= 703 cf, Depth= 0.87"
Routed to Pond P1 : PCSM 1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 1-yr Duration=30 min, Inten=1.90 in/hr

Area (sf)	C	Description
998	0.25	LAWN
8,733	0.99	IMPERVIOUS
9,731	0.91	Weighted Average
998		10.26% Pervious Area
8,733		89.74% Impervious Area

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

Subcatchment C-1: Controlled Area



Hydrograph for Subcatchment C-1: Controlled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.39**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment U-1: Uncontrolled Area

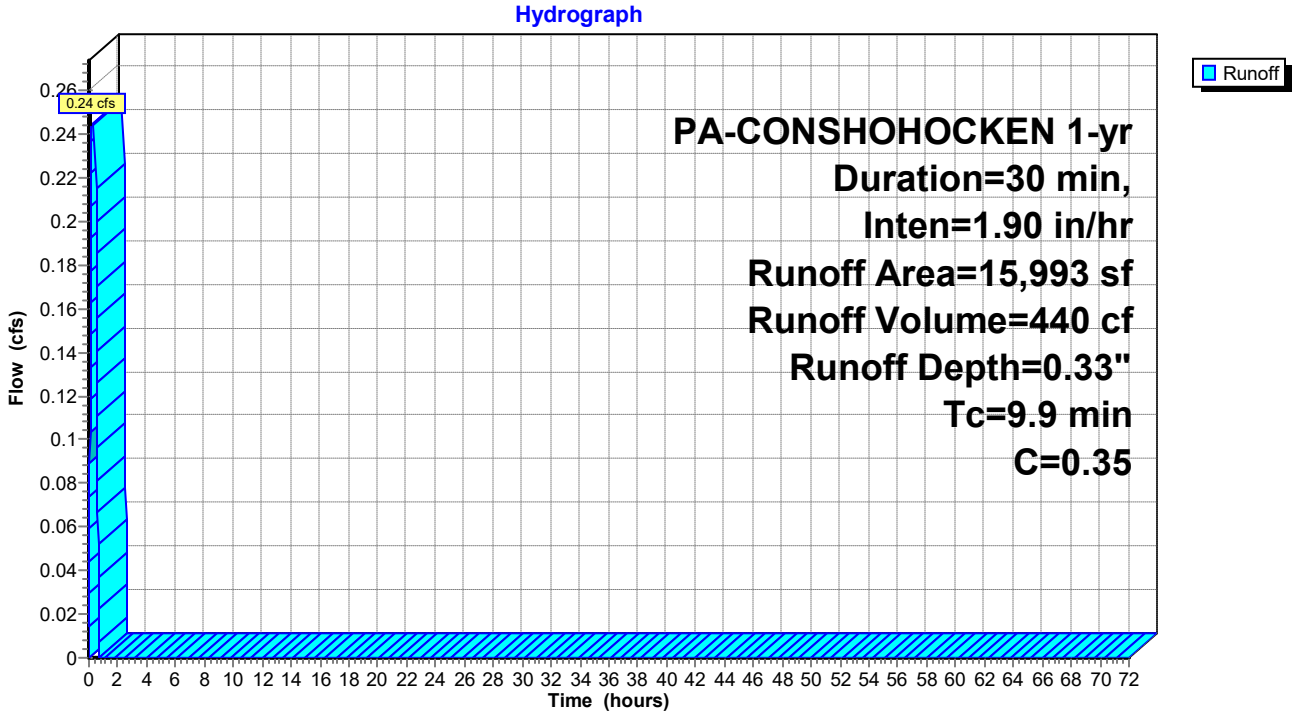
Runoff = 0.24 cfs @ 0.17 hrs, Volume= 440 cf, Depth= 0.33"
Routed to Link TOTAL : Total Post Out

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 1-yr Duration=30 min, Inten=1.90 in/hr

Area (sf)	C	Description
13,693	0.24	OPEN SPACE (C 6%+)
2,300	0.99	IMPERVIOUS
0	0.99	FUTURE IMPERVIOUS
15,993	0.35	Weighted Average
13,693		85.62% Pervious Area
2,300		14.38% Impervious Area

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

Subcatchment U-1: Uncontrolled Area



Hydrograph for Subcatchment U-1: Uncontrolled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.24**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Pond P1: PCSM 1

Inflow Area = 9,731 sf, 89.74% Impervious, Inflow Depth = 0.87" for 1-yr event
Inflow = 0.39 cfs @ 0.10 hrs, Volume= 703 cf
Outflow = 0.07 cfs @ 0.58 hrs, Volume= 497 cf, Atten= 82%, Lag= 28.9 min
Primary = 0.07 cfs @ 0.58 hrs, Volume= 497 cf
Routed to Link TOTAL : Total Post Out

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 55.05' @ 0.58 hrs Surf.Area= 1,034 sf Storage= 638 cf

Plug-Flow detention time= 104.3 min calculated for 497 cf (71% of inflow)
Center-of-Mass det. time= 100.1 min (118.1 - 18.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.00'	1,034 cf	**20.50'W x 50.42'L x 3.83'H Field A** 3,962 cf Overall - 1,378 cf Embedded = 2,584 cf x 40.0% Voids
#2A	54.50'	1,378 cf	**NDS StormChamber v2 SC-34** x 18 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap Row Length Adjustment= +0.92' x 9.89 sf x 3 rows
		2,411 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.50'	**8.0" Round OUTLET PIPE** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 54.50' / 54.00' S= 0.0185 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#2	Device 1	57.58'	**2.8' long RISER PLATE** 2 End Contraction(s)
#3	Device 1	54.50'	**2.0" Vert. O1** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.07 cfs @ 0.58 hrs HW=55.05' (Free Discharge)
└**1=OUTLET PIPE** (Passes 0.07 cfs of 0.79 cfs potential flow)
  ├**2=RISER PLATE** (Controls 0.00 cfs)
  └**3=O1** (Orifice Controls 0.07 cfs @ 3.30 fps)

Pond P1: PCSM 1 - Chamber Wizard Field A

Chamber Model = NDS StormChamber v2 SC-34 (NDS StormChamber v2)
Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf
Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap
Row Length Adjustment= +0.92' x 9.89 sf x 3 rows

60.0" Wide + 9.0" Spacing = 69.0" C-C Row Spacing

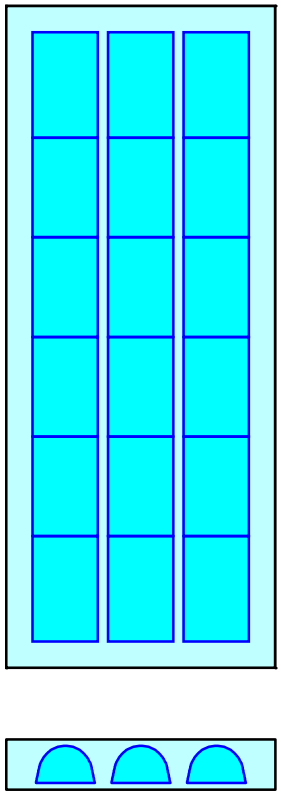
6 Chambers/Row x 7.58' Long +0.92' Row Adjustment = 46.42' Row Length +24.0" End Stone x 2 = 50.42' Base Length
3 Rows x 60.0" Wide + 9.0" Spacing x 2 + 24.0" Side Stone x 2 = 20.50' Base Width
6.0" Stone Base + 34.0" Chamber Height + 6.0" Stone Cover = 3.83' Field Height

18 Chambers x 75.0 cf +0.92' Row Adjustment x 9.89 sf x 3 Rows = 1,377.6 cf Chamber Storage

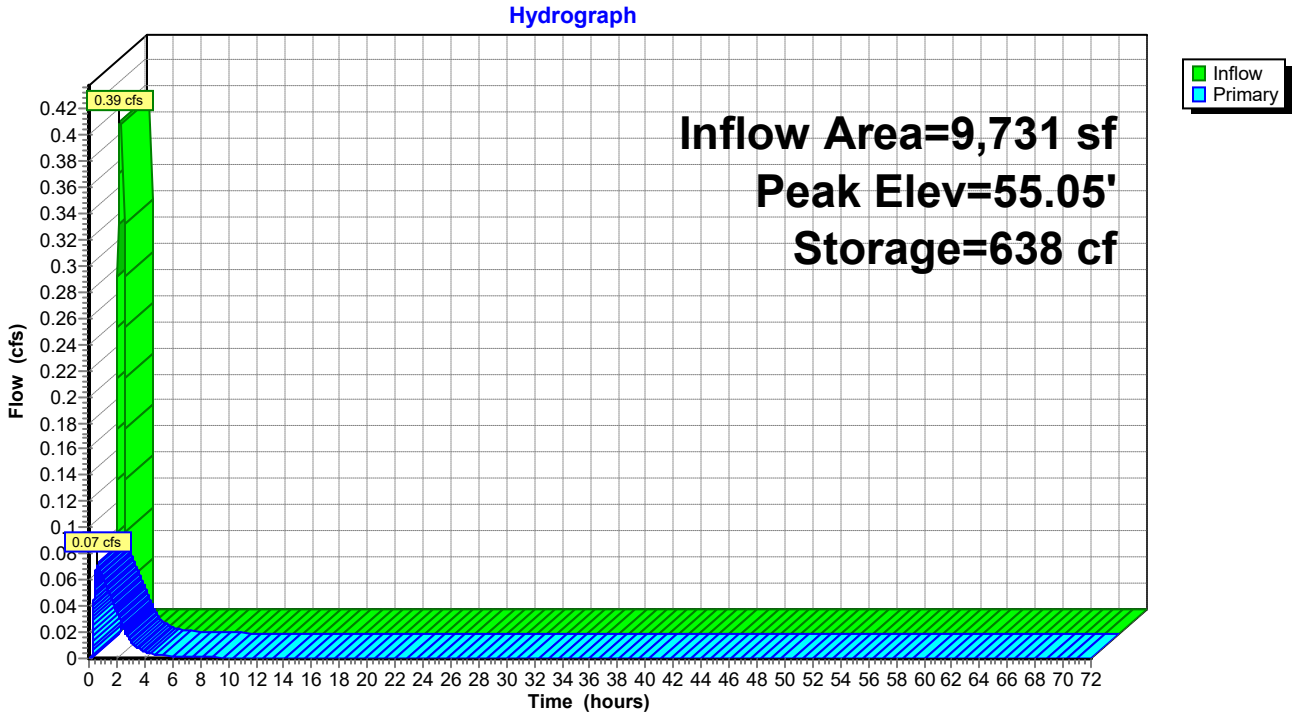
3,961.9 cf Field - 1,377.6 cf Chambers = 2,584.3 cf Stone x 40.0% Voids = 1,033.7 cf Stone Storage

Chamber Storage + Stone Storage = 2,411.3 cf = 0.055 af
Overall Storage Efficiency = 60.9%
Overall System Size = 50.42' x 20.50' x 3.83'

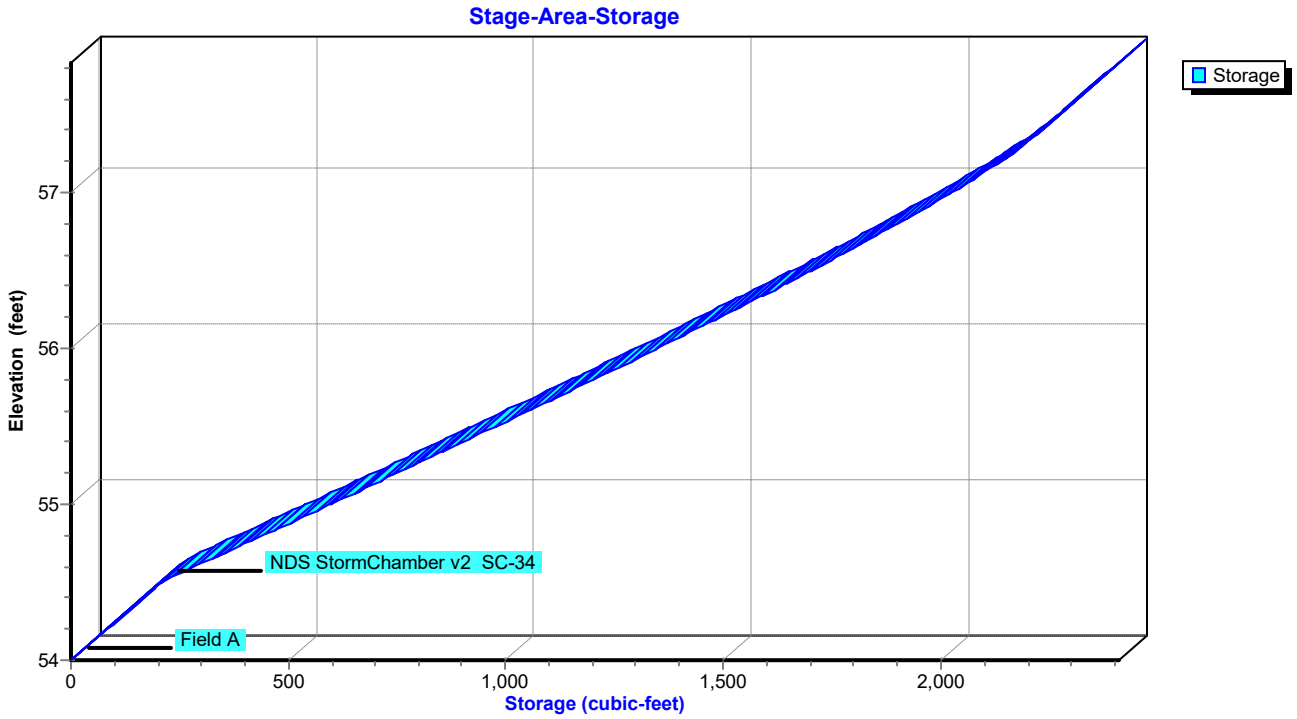
18 Chambers
146.7 cy Field
95.7 cy Stone



Pond P1: PCSM 1



Pond P1: PCSM 1



Hydrograph for Pond P1: PCSM 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0**	**54.00**	**0.00**
2.00	**0.00**	**364**	**54.70**	**0.04**
4.00	0.00	250	54.55	0.01
6.00	0.00	229	54.53	0.00
8.00	0.00	219	54.52	0.00
10.00	0.00	214	54.51	0.00
12.00	0.00	211	54.50	0.00
14.00	0.00	209	54.50	0.00
16.00	0.00	208	54.50	0.00
18.00	0.00	207	54.50	0.00
20.00	0.00	207	54.50	0.00
22.00	0.00	207	54.50	0.00
24.00	0.00	207	54.50	0.00
26.00	0.00	207	54.50	0.00
28.00	0.00	207	54.50	0.00
30.00	0.00	207	54.50	0.00
32.00	0.00	207	54.50	0.00
34.00	0.00	207	54.50	0.00
36.00	0.00	207	54.50	0.00
38.00	0.00	207	54.50	0.00
40.00	0.00	207	54.50	0.00
42.00	0.00	207	54.50	0.00
44.00	0.00	207	54.50	0.00
46.00	0.00	207	54.50	0.00
48.00	0.00	207	54.50	0.00
50.00	0.00	207	54.50	0.00
52.00	0.00	207	54.50	0.00
54.00	0.00	207	54.50	0.00
56.00	0.00	207	54.50	0.00
58.00	0.00	207	54.50	0.00
60.00	0.00	207	54.50	0.00
62.00	0.00	207	54.50	0.00
64.00	0.00	207	54.50	0.00
66.00	0.00	207	54.50	0.00
68.00	0.00	207	54.50	0.00
70.00	0.00	207	54.50	0.00
72.00	0.00	207	54.50	0.00

Stage-Discharge for Pond P1: PCSM 1

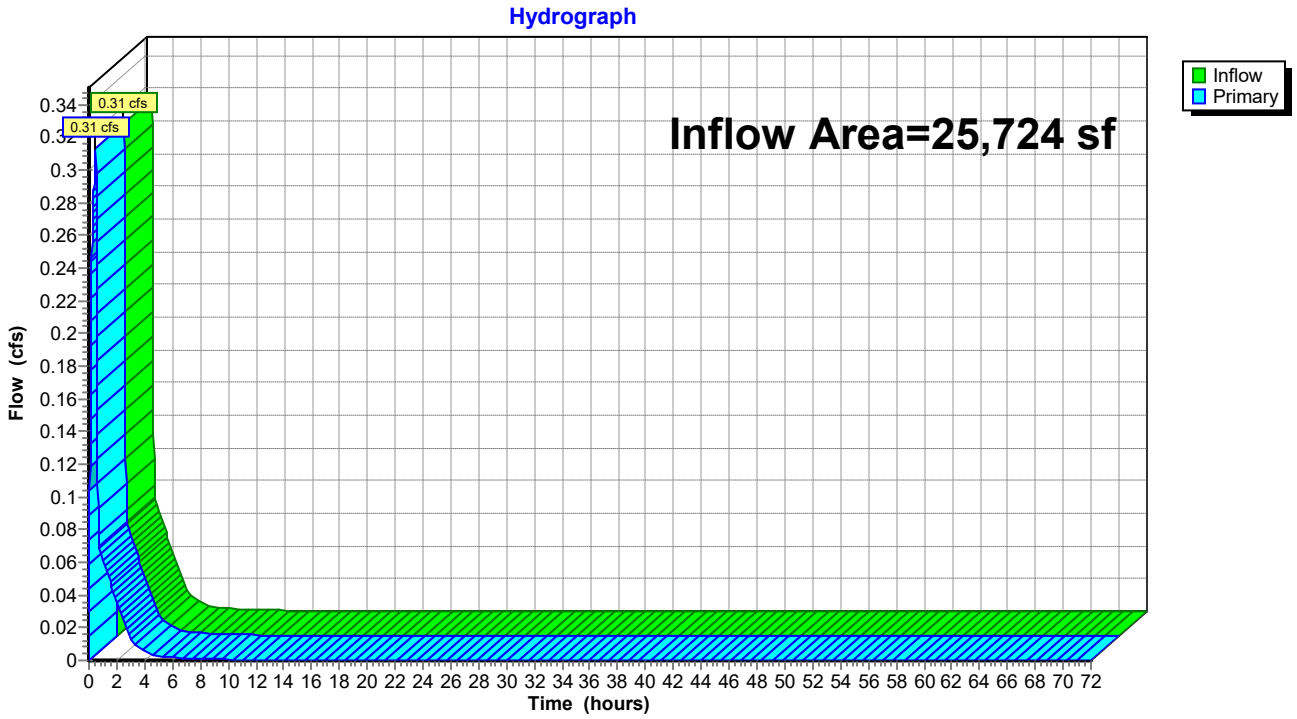
Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
54.00	0.00	55.04	0.07	56.08	0.13	57.12	0.17
54.02	0.00	55.06	0.07	56.10	0.13	57.14	0.17
54.04	0.00	55.08	0.07	56.12	0.13	57.16	0.17
54.06	0.00	55.10	0.08	56.14	0.13	57.18	0.17
54.08	0.00	55.12	0.08	56.16	0.13	57.20	0.17
54.10	0.00	55.14	0.08	56.18	0.13	57.22	0.17
54.12	0.00	55.16	0.08	56.20	0.13	57.24	0.17
54.14	0.00	55.18	0.08	56.22	0.13	57.26	0.17
54.16	0.00	55.20	0.08	56.24	0.14	57.28	0.17
54.18	0.00	55.22	0.08	56.26	0.14	57.30	0.17
54.20	0.00	55.24	0.09	56.28	0.14	57.32	0.17
54.22	0.00	55.26	0.09	56.30	0.14	57.34	0.17
54.24	0.00	55.28	0.09	56.32	0.14	57.36	0.18
54.26	0.00	55.30	0.09	56.34	0.14	57.38	0.18
54.28	0.00	55.32	0.09	56.36	0.14	57.40	0.18
54.30	0.00	55.34	0.09	56.38	0.14	57.42	0.18
54.32	0.00	55.36	0.09	56.40	0.14	57.44	0.18
54.34	0.00	55.38	0.09	56.42	0.14	57.46	0.18
54.36	0.00	55.40	0.09	56.44	0.14	57.48	0.18
54.38	0.00	55.42	0.10	56.46	0.14	57.50	0.18
54.40	0.00	55.44	0.10	56.48	0.14	57.52	0.18
54.42	0.00	55.46	0.10	56.50	0.15	57.54	0.18
54.44	0.00	55.48	0.10	56.52	0.15	57.56	0.18
54.46	0.00	55.50	0.10	56.54	0.15	57.58	0.18
54.48	0.00	55.52	0.10	56.56	0.15	57.60	0.21
54.50	0.00	55.54	0.10	56.58	0.15	57.62	0.26
54.52	0.00	55.56	0.10	56.60	0.15	57.64	0.32
54.54	0.00	55.58	0.10	56.62	0.15	57.66	0.39
54.56	0.01	55.60	0.11	56.64	0.15	57.68	0.47
54.58	0.01	55.62	0.11	56.66	0.15	57.70	0.56
54.60	0.01	55.64	0.11	56.68	0.15	57.72	0.66
54.62	0.02	55.66	0.11	56.70	0.15	57.74	0.77
54.64	0.02	55.68	0.11	56.72	0.15	57.76	0.88
54.66	0.03	55.70	0.11	56.74	0.15	57.78	1.00
54.68	0.03	55.72	0.11	56.76	0.15	57.80	1.12
54.70	0.04	55.74	0.11	56.78	0.16	57.82	**1.25**
54.72	0.04	55.76	0.11	56.80	0.16		
54.74	0.04	55.78	0.11	56.82	0.16		
54.76	0.04	55.80	0.12	56.84	0.16		
54.78	0.05	55.82	0.12	56.86	0.16		
54.80	0.05	55.84	0.12	56.88	0.16		
54.82	0.05	55.86	0.12	56.90	0.16		
54.84	0.05	55.88	0.12	56.92	0.16		
54.86	0.06	55.90	0.12	56.94	0.16		
54.88	0.06	55.92	0.12	56.96	0.16		
54.90	0.06	55.94	0.12	56.98	0.16		
54.92	0.06	55.96	0.12	57.00	0.16		
54.94	0.06	55.98	0.12	57.02	0.16		
54.96	0.06	56.00	0.13	57.04	0.16		
54.98	0.07	56.02	0.13	57.06	0.17		
55.00	0.07	56.04	0.13	57.08	0.17		
55.02	0.07	56.06	0.13	57.10	0.17		

Summary for Link TOTAL: Total Post Out

Inflow Area = 25,724 sf, 42.89% Impervious, Inflow Depth = 0.44" for 1-yr event
Inflow = 0.31 cfs @ 0.50 hrs, Volume= 937 cf
Primary = 0.31 cfs @ 0.50 hrs, Volume= 937 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link TOTAL: Total Post Out



Hydrograph for Link TOTAL: Total Post Out

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0.00**	**0.00**
1.00	**0.06**	0.00	**0.06**
2.00	0.04	0.00	0.04
3.00	0.01	0.00	0.01
4.00	0.01	0.00	0.01
5.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00
12.00	0.00	0.00	0.00
13.00	0.00	0.00	0.00
14.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00
16.00	0.00	0.00	0.00
17.00	0.00	0.00	0.00
18.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00
22.00	0.00	0.00	0.00
23.00	0.00	0.00	0.00
24.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00
27.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00
29.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00
31.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00
33.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00
37.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00
39.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00
41.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00
43.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00
47.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00
49.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00
51.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00
53.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00
57.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00
59.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00
61.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00
63.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00
67.00	0.00	0.00	0.00
68.00	0.00	0.00	0.00
69.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00
71.00	0.00	0.00	0.00
72.00	0.00	0.00	0.00

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A-1: Pre Onsite Runoff Area=25,568 sf 0.00% Impervious Runoff Depth=0.32"
Tc=13.0 min C=0.28 Runoff=0.38 cfs 680 cf

Subcatchment C-1: Controlled Area Runoff Area=9,731 sf 89.74% Impervious Runoff Depth=1.04"
Tc=6.0 min C=0.91 Runoff=0.47 cfs 845 cf

Subcatchment U-1: Uncontrolled Area Runoff Area=15,993 sf 14.38% Impervious Runoff Depth=0.40"
Tc=9.9 min C=0.35 Runoff=0.29 cfs 529 cf

Pond P1: PCSM 1 Peak Elev=55.22' Storage=762 cf Inflow=0.47 cfs 845 cf
Outflow=0.08 cfs 638 cf

Link TOTAL: Total Post Out Inflow=0.37 cfs 1,167 cf
Primary=0.37 cfs 1,167 cf

Total Runoff Area = 51,292 sf Runoff Volume = 2,054 cf Average Runoff Depth = 0.48"
78.49% Pervious = 40,259 sf 21.51% Impervious = 11,033 sf

Summary for Subcatchment A-1: Pre Onsite

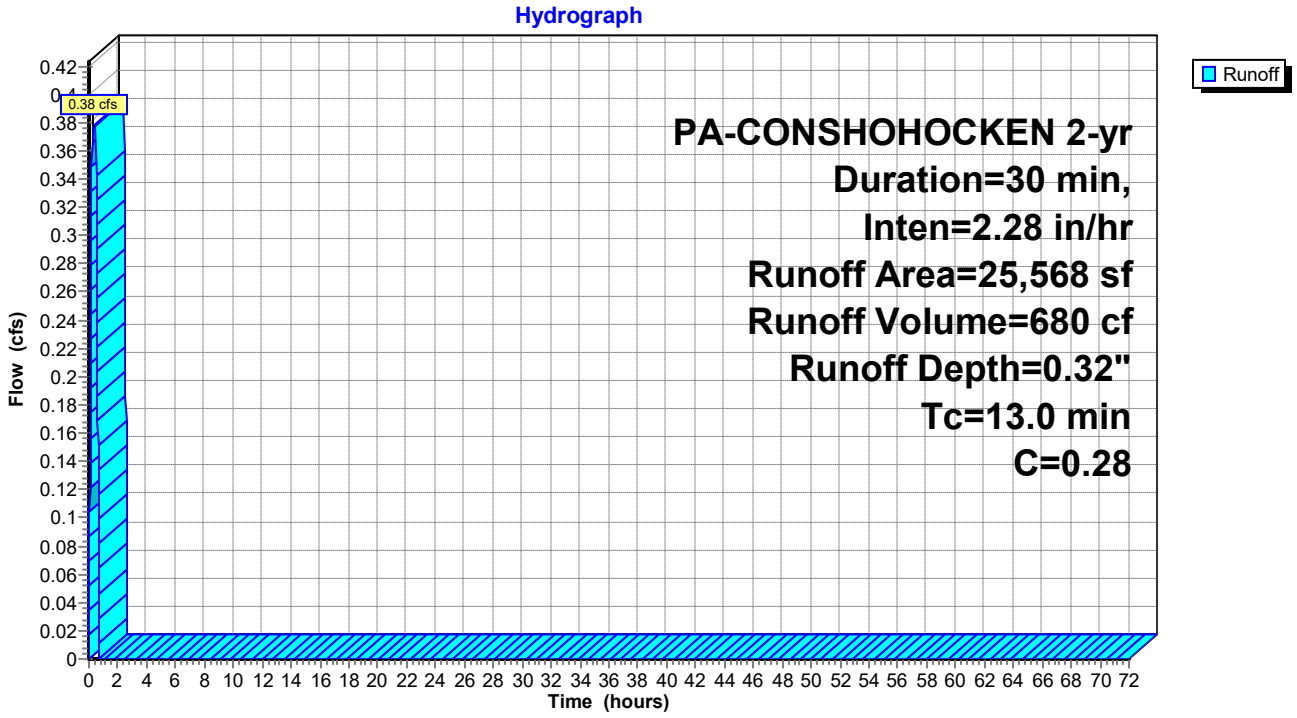
Runoff = 0.38 cfs @ 0.22 hrs, Volume= 680 cf, Depth= 0.32"
Routed to nonexistent node 1L

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 2-yr Duration=30 min, Inten=2.28 in/hr

Area (sf)	C	Description
25,568	0.28	Meadow (C 2-6%)
25,568		100.00% Pervious Area

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

Subcatchment A-1: Pre Onsite



Hydrograph for Subcatchment A-1: Pre Onsite

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.38**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment C-1: Controlled Area

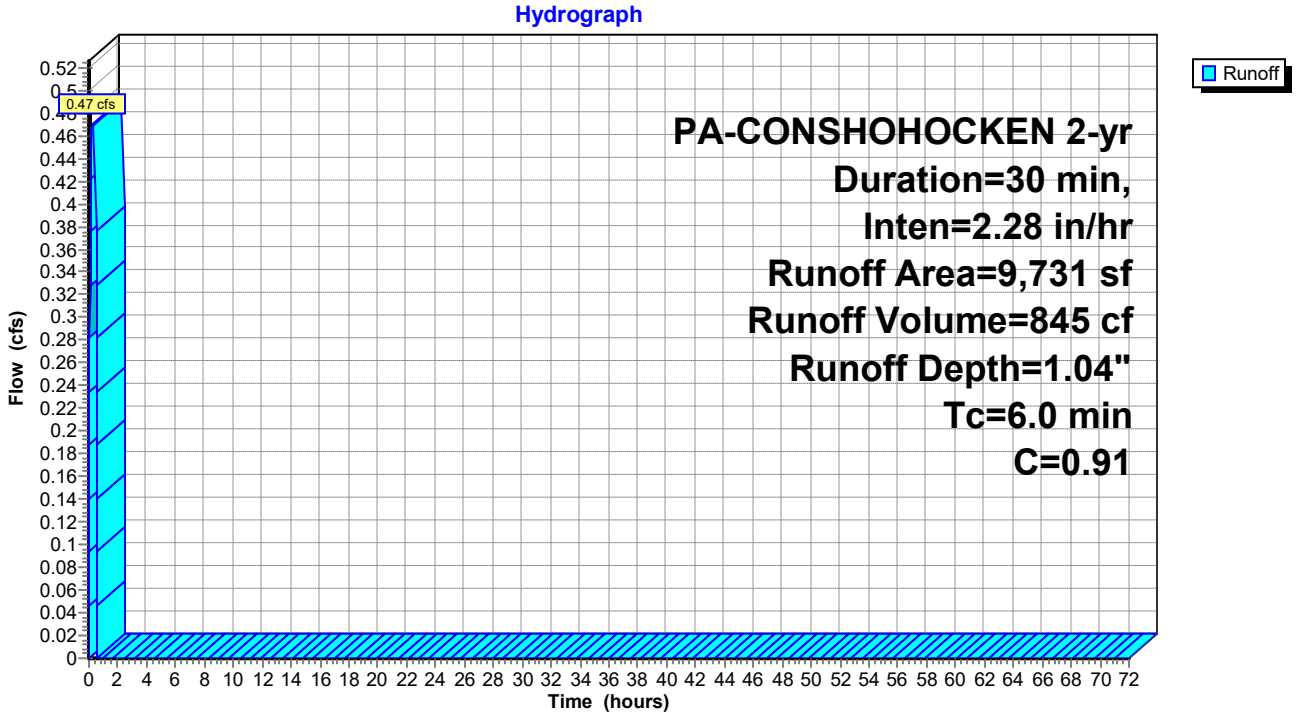
Runoff = 0.47 cfs @ 0.10 hrs, Volume= 845 cf, Depth= 1.04"
Routed to Pond P1 : PCSM 1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 2-yr Duration=30 min, Inten=2.28 in/hr

Area (sf)	C	Description
998	0.25	LAWN
8,733	0.99	IMPERVIOUS
9,731	0.91	Weighted Average
998		10.26% Pervious Area
8,733		89.74% Impervious Area

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

Subcatchment C-1: Controlled Area



Hydrograph for Subcatchment C-1: Controlled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.47**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment U-1: Uncontrolled Area

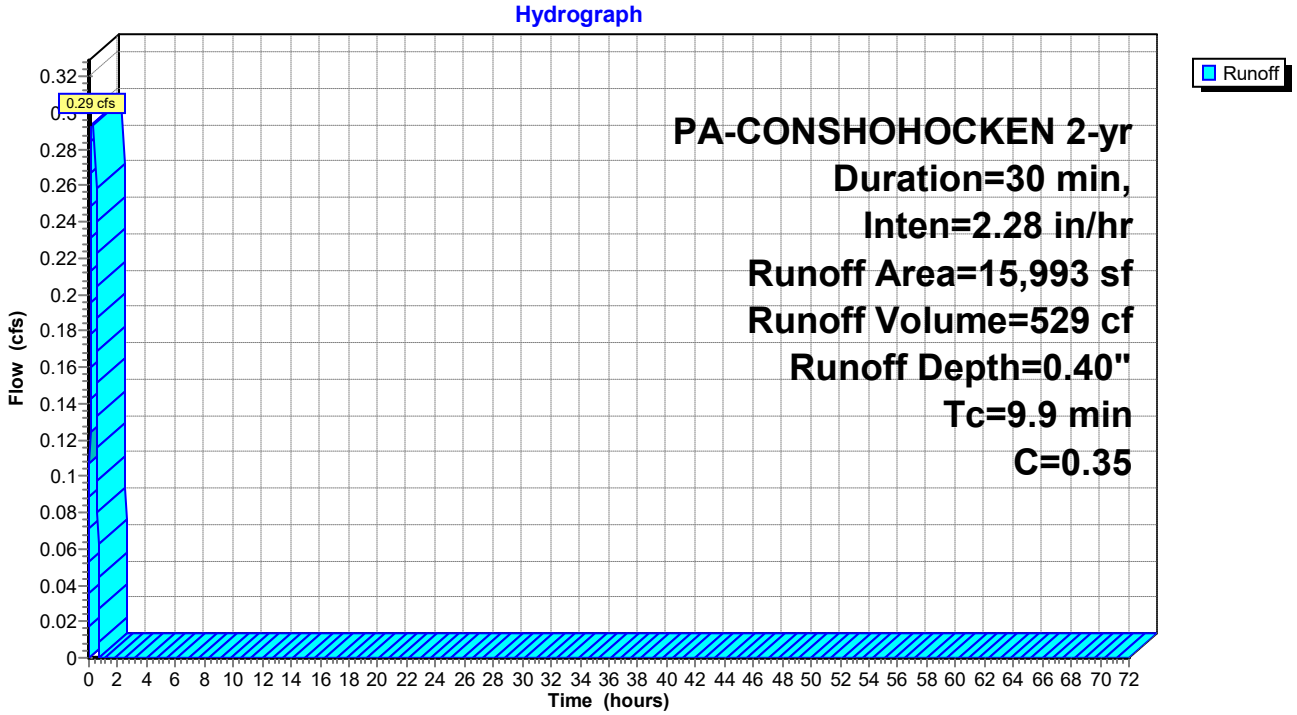
Runoff = 0.29 cfs @ 0.17 hrs, Volume= 529 cf, Depth= 0.40"
Routed to Link TOTAL : Total Post Out

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 2-yr Duration=30 min, Inten=2.28 in/hr

Area (sf)	C	Description
13,693	0.24	OPEN SPACE (C 6%+)
2,300	0.99	IMPERVIOUS
0	0.99	FUTURE IMPERVIOUS
15,993	0.35	Weighted Average
13,693		85.62% Pervious Area
2,300		14.38% Impervious Area

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

Subcatchment U-1: Uncontrolled Area



Hydrograph for Subcatchment U-1: Uncontrolled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.29**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Pond P1: PCSM 1

Inflow Area = 9,731 sf, 89.74% Impervious, Inflow Depth = 1.04" for 2-yr event
Inflow = 0.47 cfs @ 0.10 hrs, Volume= 845 cf
Outflow = 0.08 cfs @ 0.58 hrs, Volume= 638 cf, Atten= 82%, Lag= 28.9 min
Primary = 0.08 cfs @ 0.58 hrs, Volume= 638 cf
Routed to Link TOTAL : Total Post Out

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 55.22' @ 0.58 hrs Surf.Area= 1,034 sf Storage= 762 cf

Plug-Flow detention time= 105.5 min calculated for 638 cf (76% of inflow)
Center-of-Mass det. time= 102.0 min (120.0 - 18.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.00'	1,034 cf	**20.50'W x 50.42'L x 3.83'H Field A** 3,962 cf Overall - 1,378 cf Embedded = 2,584 cf x 40.0% Voids
#2A	54.50'	1,378 cf	**NDS StormChamber v2 SC-34** x 18 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap Row Length Adjustment= +0.92' x 9.89 sf x 3 rows
		2,411 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.50'	**8.0" Round OUTLET PIPE** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 54.50' / 54.00' S= 0.0185 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#2	Device 1	57.58'	**2.8' long RISER PLATE** 2 End Contraction(s)
#3	Device 1	54.50'	**2.0" Vert. O1** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.08 cfs @ 0.58 hrs HW=55.22' (Free Discharge)
└**1=OUTLET PIPE** (Passes 0.08 cfs of 1.04 cfs potential flow)
  ├**2=RISER PLATE** (Controls 0.00 cfs)
  └**3=O1** (Orifice Controls 0.08 cfs @ 3.83 fps)

Pond P1: PCSM 1 - Chamber Wizard Field A

Chamber Model = NDS StormChamber v2 SC-34 (NDS StormChamber v2)
Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf
Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap
Row Length Adjustment= +0.92' x 9.89 sf x 3 rows

60.0" Wide + 9.0" Spacing = 69.0" C-C Row Spacing

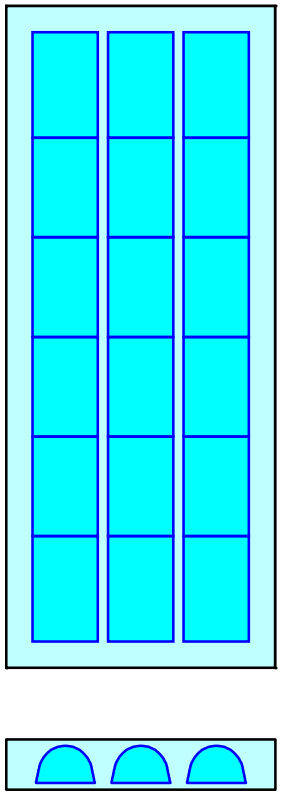
6 Chambers/Row x 7.58' Long +0.92' Row Adjustment = 46.42' Row Length +24.0" End Stone x 2 = 50.42' Base Length
3 Rows x 60.0" Wide + 9.0" Spacing x 2 + 24.0" Side Stone x 2 = 20.50' Base Width
6.0" Stone Base + 34.0" Chamber Height + 6.0" Stone Cover = 3.83' Field Height

18 Chambers x 75.0 cf +0.92' Row Adjustment x 9.89 sf x 3 Rows = 1,377.6 cf Chamber Storage

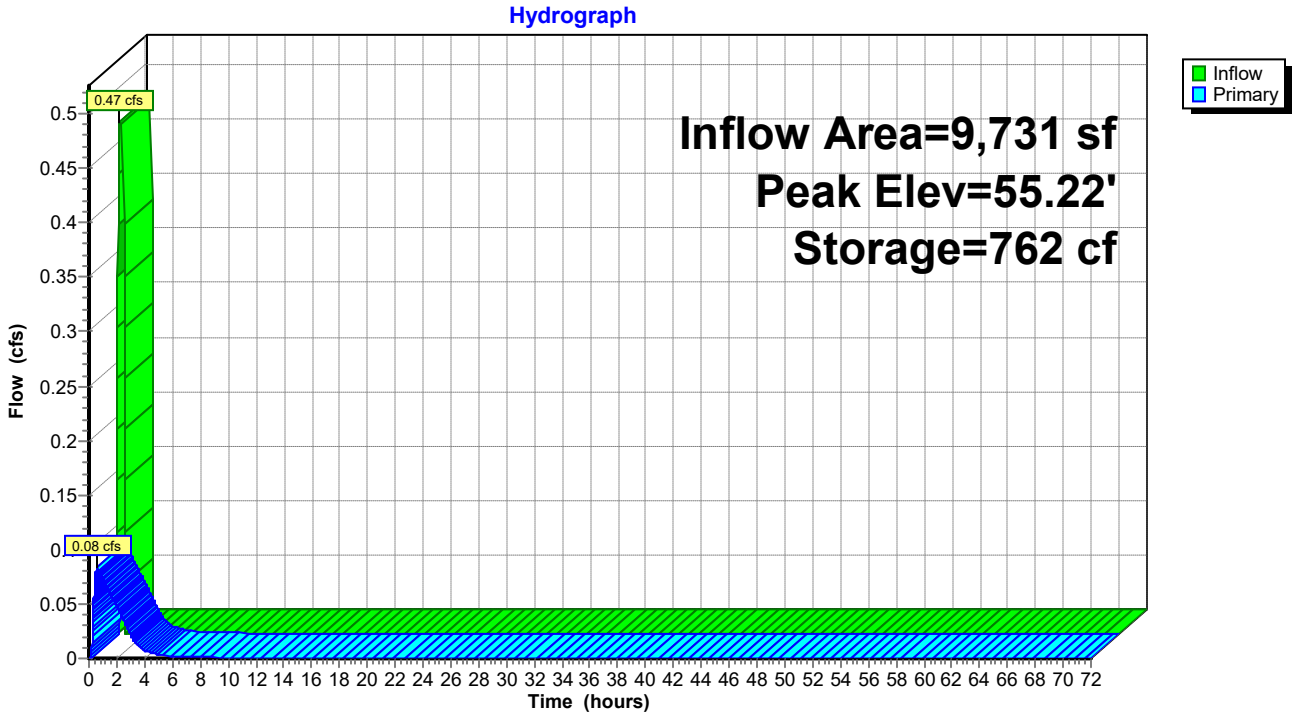
3,961.9 cf Field - 1,377.6 cf Chambers = 2,584.3 cf Stone x 40.0% Voids = 1,033.7 cf Stone Storage

Chamber Storage + Stone Storage = 2,411.3 cf = 0.055 af
Overall Storage Efficiency = 60.9%
Overall System Size = 50.42' x 20.50' x 3.83'

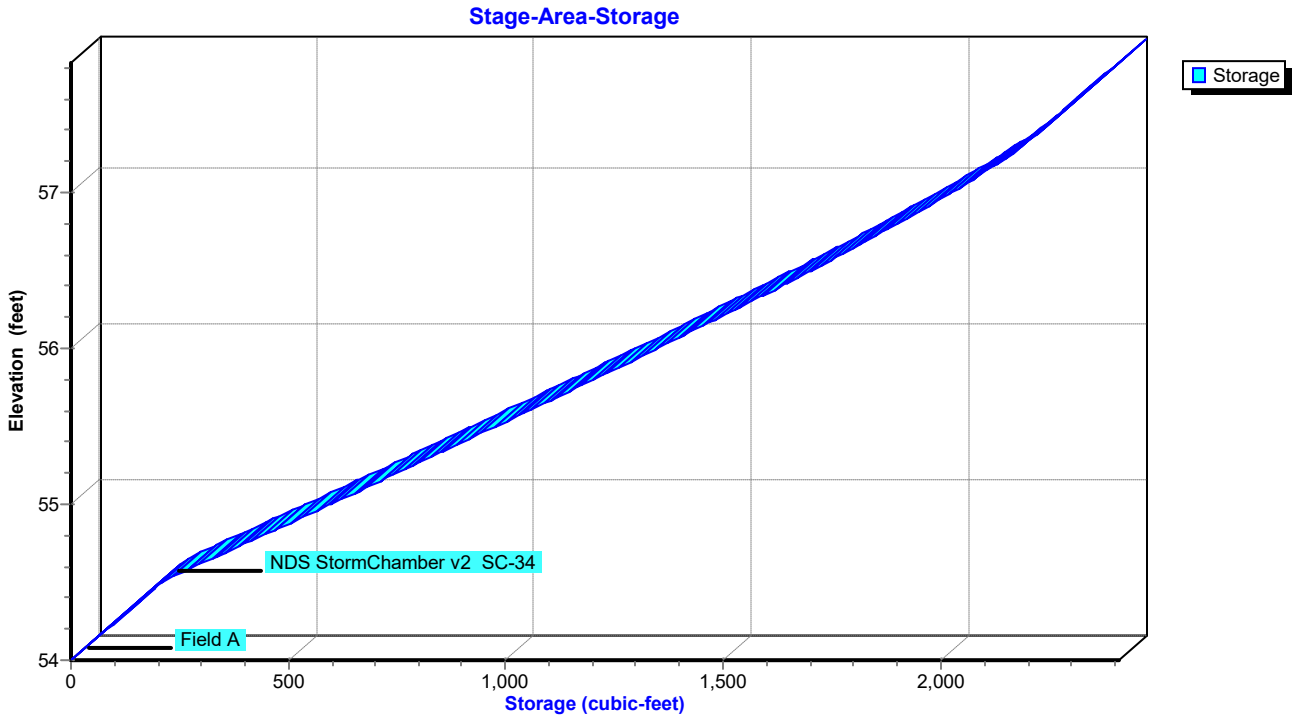
18 Chambers
146.7 cy Field
95.7 cy Stone



Pond P1: PCSM 1



Pond P1: PCSM 1



Hydrograph for Pond P1: PCSM 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0**	**54.00**	**0.00**
2.00	**0.00**	**431**	**54.79**	**0.05**
4.00	0.00	260	54.57	0.01
6.00	0.00	232	54.53	0.00
8.00	0.00	221	54.52	0.00
10.00	0.00	215	54.51	0.00
12.00	0.00	211	54.51	0.00
14.00	0.00	209	54.50	0.00
16.00	0.00	208	54.50	0.00
18.00	0.00	207	54.50	0.00
20.00	0.00	207	54.50	0.00
22.00	0.00	207	54.50	0.00
24.00	0.00	207	54.50	0.00
26.00	0.00	207	54.50	0.00
28.00	0.00	207	54.50	0.00
30.00	0.00	207	54.50	0.00
32.00	0.00	207	54.50	0.00
34.00	0.00	207	54.50	0.00
36.00	0.00	207	54.50	0.00
38.00	0.00	207	54.50	0.00
40.00	0.00	207	54.50	0.00
42.00	0.00	207	54.50	0.00
44.00	0.00	207	54.50	0.00
46.00	0.00	207	54.50	0.00
48.00	0.00	207	54.50	0.00
50.00	0.00	207	54.50	0.00
52.00	0.00	207	54.50	0.00
54.00	0.00	207	54.50	0.00
56.00	0.00	207	54.50	0.00
58.00	0.00	207	54.50	0.00
60.00	0.00	207	54.50	0.00
62.00	0.00	207	54.50	0.00
64.00	0.00	207	54.50	0.00
66.00	0.00	207	54.50	0.00
68.00	0.00	207	54.50	0.00
70.00	0.00	207	54.50	0.00
72.00	0.00	207	54.50	0.00

Stage-Discharge for Pond P1: PCSM 1

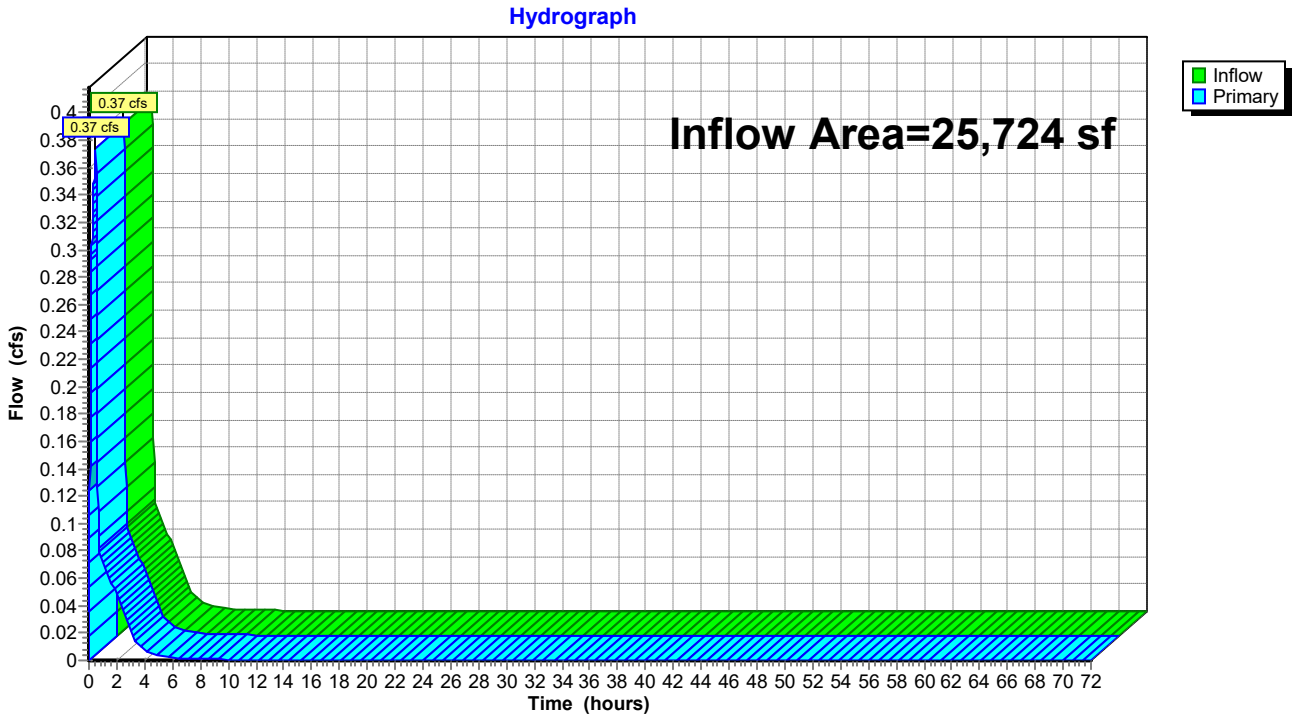
Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
54.00	0.00	55.04	0.07	56.08	0.13	57.12	0.17
54.02	0.00	55.06	0.07	56.10	0.13	57.14	0.17
54.04	0.00	55.08	0.07	56.12	0.13	57.16	0.17
54.06	0.00	55.10	0.08	56.14	0.13	57.18	0.17
54.08	0.00	55.12	0.08	56.16	0.13	57.20	0.17
54.10	0.00	55.14	0.08	56.18	0.13	57.22	0.17
54.12	0.00	55.16	0.08	56.20	0.13	57.24	0.17
54.14	0.00	55.18	0.08	56.22	0.13	57.26	0.17
54.16	0.00	55.20	0.08	56.24	0.14	57.28	0.17
54.18	0.00	55.22	0.08	56.26	0.14	57.30	0.17
54.20	0.00	55.24	0.09	56.28	0.14	57.32	0.17
54.22	0.00	55.26	0.09	56.30	0.14	57.34	0.17
54.24	0.00	55.28	0.09	56.32	0.14	57.36	0.18
54.26	0.00	55.30	0.09	56.34	0.14	57.38	0.18
54.28	0.00	55.32	0.09	56.36	0.14	57.40	0.18
54.30	0.00	55.34	0.09	56.38	0.14	57.42	0.18
54.32	0.00	55.36	0.09	56.40	0.14	57.44	0.18
54.34	0.00	55.38	0.09	56.42	0.14	57.46	0.18
54.36	0.00	55.40	0.09	56.44	0.14	57.48	0.18
54.38	0.00	55.42	0.10	56.46	0.14	57.50	0.18
54.40	0.00	55.44	0.10	56.48	0.14	57.52	0.18
54.42	0.00	55.46	0.10	56.50	0.15	57.54	0.18
54.44	0.00	55.48	0.10	56.52	0.15	57.56	0.18
54.46	0.00	55.50	0.10	56.54	0.15	57.58	0.18
54.48	0.00	55.52	0.10	56.56	0.15	57.60	0.21
54.50	0.00	55.54	0.10	56.58	0.15	57.62	0.26
54.52	0.00	55.56	0.10	56.60	0.15	57.64	0.32
54.54	0.00	55.58	0.10	56.62	0.15	57.66	0.39
54.56	0.01	55.60	0.11	56.64	0.15	57.68	0.47
54.58	0.01	55.62	0.11	56.66	0.15	57.70	0.56
54.60	0.01	55.64	0.11	56.68	0.15	57.72	0.66
54.62	0.02	55.66	0.11	56.70	0.15	57.74	0.77
54.64	0.02	55.68	0.11	56.72	0.15	57.76	0.88
54.66	0.03	55.70	0.11	56.74	0.15	57.78	1.00
54.68	0.03	55.72	0.11	56.76	0.15	57.80	1.12
54.70	0.04	55.74	0.11	56.78	0.16	57.82	**1.25**
54.72	0.04	55.76	0.11	56.80	0.16		
54.74	0.04	55.78	0.11	56.82	0.16		
54.76	0.04	55.80	0.12	56.84	0.16		
54.78	0.05	55.82	0.12	56.86	0.16		
54.80	0.05	55.84	0.12	56.88	0.16		
54.82	0.05	55.86	0.12	56.90	0.16		
54.84	0.05	55.88	0.12	56.92	0.16		
54.86	0.06	55.90	0.12	56.94	0.16		
54.88	0.06	55.92	0.12	56.96	0.16		
54.90	0.06	55.94	0.12	56.98	0.16		
54.92	0.06	55.96	0.12	57.00	0.16		
54.94	0.06	55.98	0.12	57.02	0.16		
54.96	0.06	56.00	0.13	57.04	0.16		
54.98	0.07	56.02	0.13	57.06	0.17		
55.00	0.07	56.04	0.13	57.08	0.17		
55.02	0.07	56.06	0.13	57.10	0.17		

Summary for Link TOTAL: Total Post Out

Inflow Area = 25,724 sf, 42.89% Impervious, Inflow Depth = 0.54" for 2-yr event
Inflow = 0.37 cfs @ 0.50 hrs, Volume= 1,167 cf
Primary = 0.37 cfs @ 0.50 hrs, Volume= 1,167 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link TOTAL: Total Post Out



Hydrograph for Link TOTAL: Total Post Out

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0.00**	**0.00**
1.00	**0.07**	0.00	**0.07**
2.00	0.05	0.00	0.05
3.00	0.02	0.00	0.02
4.00	0.01	0.00	0.01
5.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00
12.00	0.00	0.00	0.00
13.00	0.00	0.00	0.00
14.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00
16.00	0.00	0.00	0.00
17.00	0.00	0.00	0.00
18.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00
22.00	0.00	0.00	0.00
23.00	0.00	0.00	0.00
24.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00
27.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00
29.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00
31.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00
33.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00
37.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00
39.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00
41.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00
43.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00
47.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00
49.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00
51.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00
53.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00
57.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00
59.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00
61.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00
63.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00
67.00	0.00	0.00	0.00
68.00	0.00	0.00	0.00
69.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00
71.00	0.00	0.00	0.00
72.00	0.00	0.00	0.00

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A-1: Pre Onsite Runoff Area=25,568 sf 0.00% Impervious Runoff Depth=0.39"
Tc=13.0 min C=0.28 Runoff=0.46 cfs 829 cf

Subcatchment C-1: Controlled Area Runoff Area=9,731 sf 89.74% Impervious Runoff Depth=1.27"
Tc=6.0 min C=0.91 Runoff=0.57 cfs 1,030 cf

Subcatchment U-1: Uncontrolled Area Runoff Area=15,993 sf 14.38% Impervious Runoff Depth=0.48"
Tc=9.9 min C=0.35 Runoff=0.36 cfs 644 cf

Pond P1: PCSM 1 Peak Elev=55.43' Storage=928 cf Inflow=0.57 cfs 1,030 cf
Outflow=0.10 cfs 824 cf

Link TOTAL: Total Post Out Inflow=0.45 cfs 1,468 cf
Primary=0.45 cfs 1,468 cf

Total Runoff Area = 51,292 sf Runoff Volume = 2,504 cf Average Runoff Depth = 0.59"
78.49% Pervious = 40,259 sf 21.51% Impervious = 11,033 sf

Summary for Subcatchment A-1: Pre Onsite

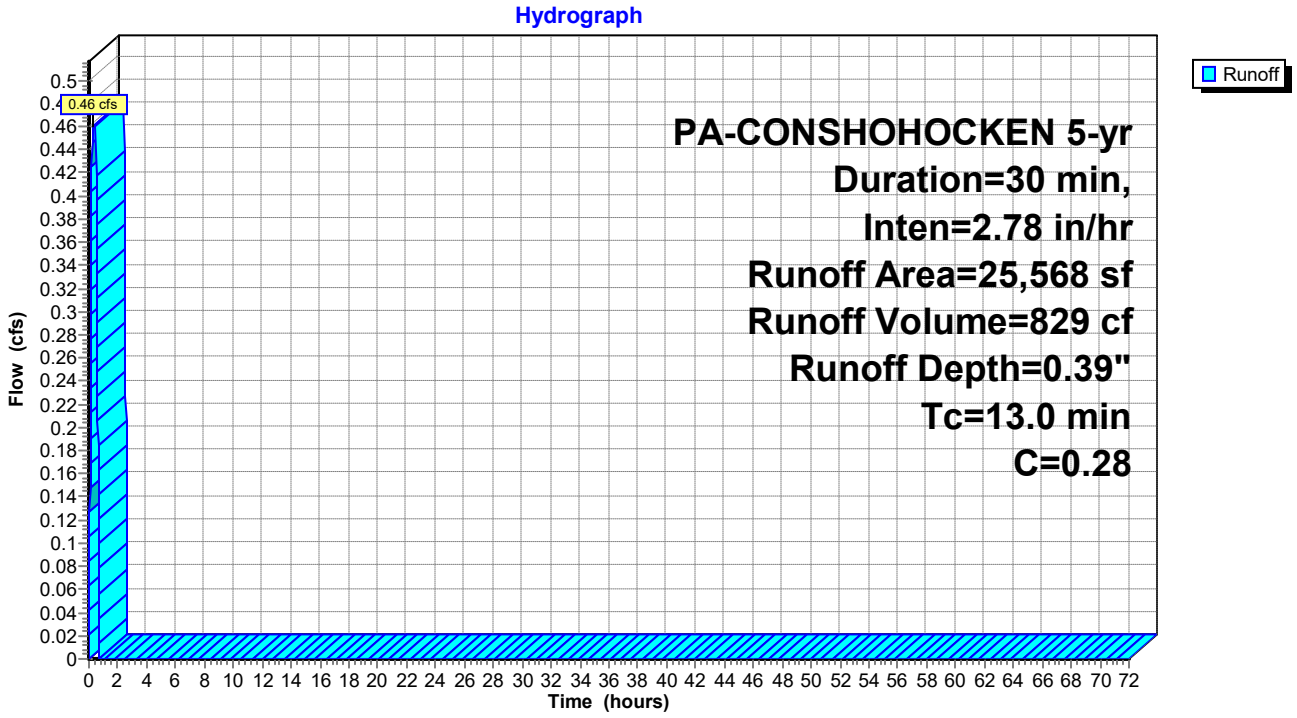
Runoff = 0.46 cfs @ 0.22 hrs, Volume= 829 cf, Depth= 0.39"
Routed to nonexistent node 1L

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 5-yr Duration=30 min, Inten=2.78 in/hr

Area (sf)	C	Description
25,568	0.28	Meadow (C 2-6%)
25,568		100.00% Pervious Area

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

Subcatchment A-1: Pre Onsite



Hydrograph for Subcatchment A-1: Pre Onsite

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.46**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment C-1: Controlled Area

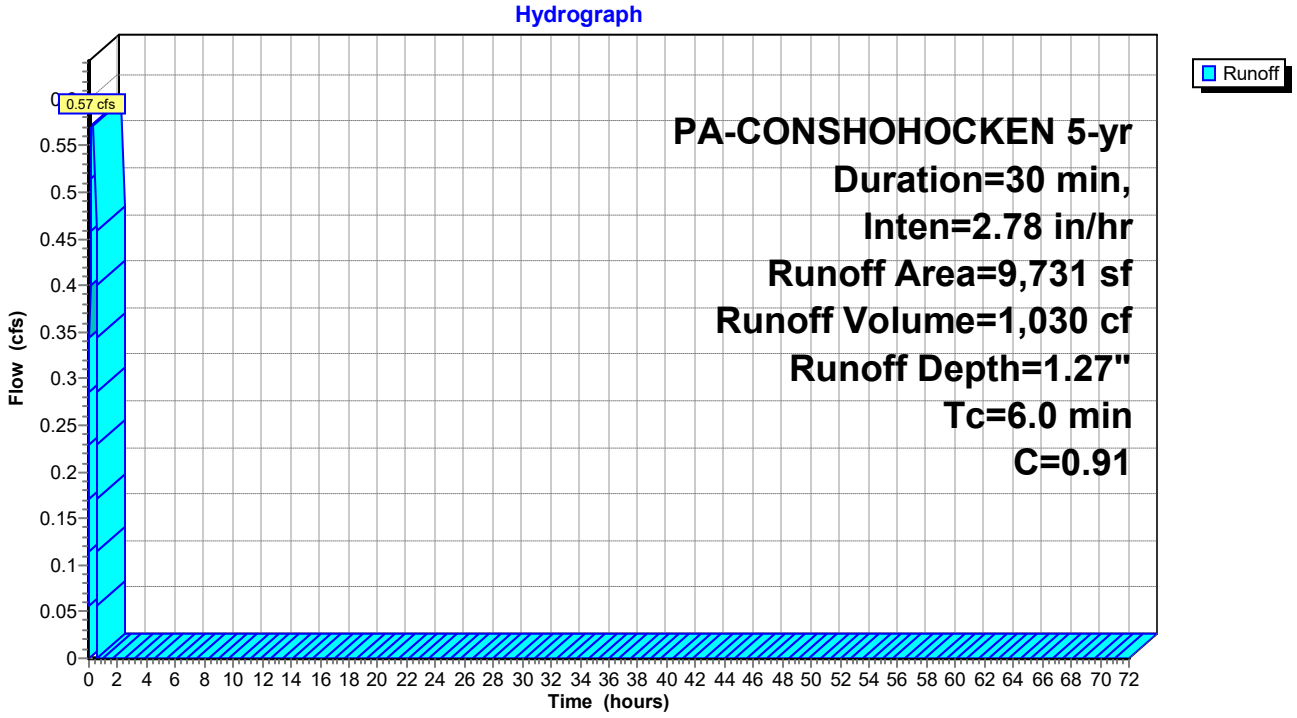
Runoff = 0.57 cfs @ 0.10 hrs, Volume= 1,030 cf, Depth= 1.27"
Routed to Pond P1 : PCSM 1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 5-yr Duration=30 min, Inten=2.78 in/hr

Area (sf)	C	Description
998	0.25	LAWN
8,733	0.99	IMPERVIOUS
9,731	0.91	Weighted Average
998		10.26% Pervious Area
8,733		89.74% Impervious Area

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

Subcatchment C-1: Controlled Area



Hydrograph for Subcatchment C-1: Controlled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.57**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment U-1: Uncontrolled Area

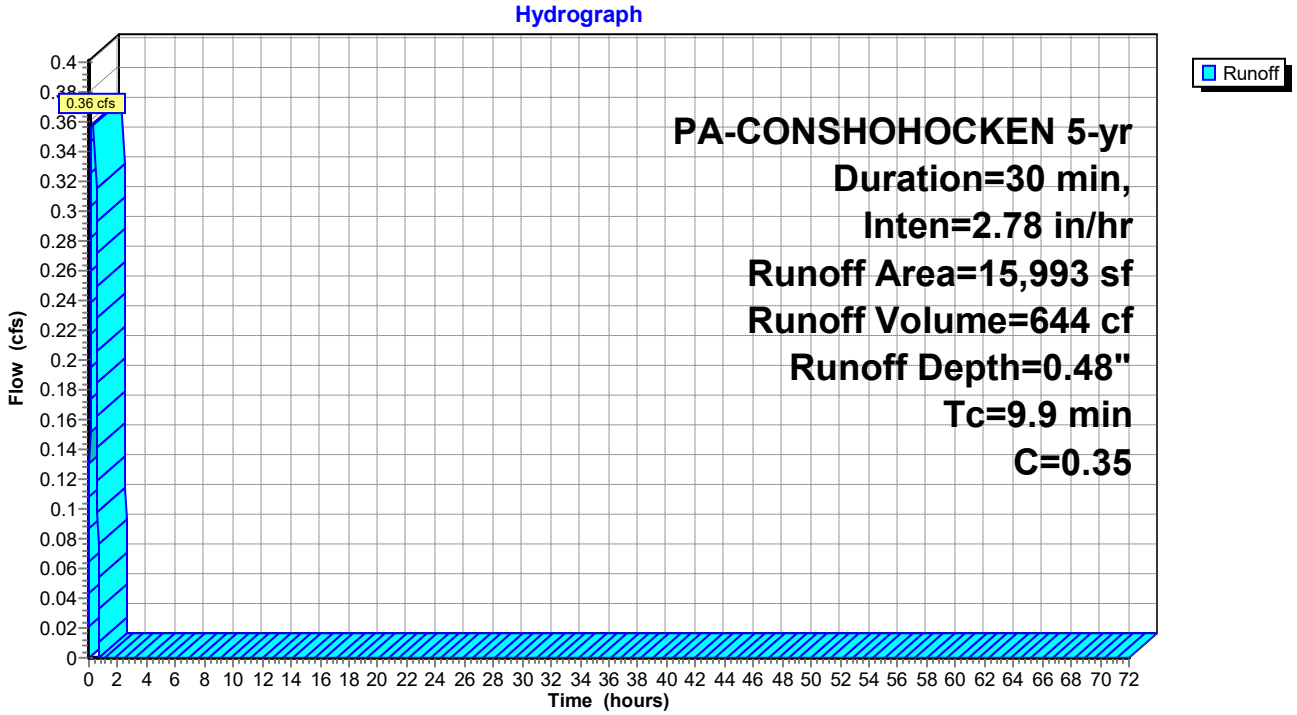
Runoff = 0.36 cfs @ 0.17 hrs, Volume= 644 cf, Depth= 0.48"
Routed to Link TOTAL : Total Post Out

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 5-yr Duration=30 min, Inten=2.78 in/hr

Area (sf)	C	Description
13,693	0.24	OPEN SPACE (C 6%+)
2,300	0.99	IMPERVIOUS
0	0.99	FUTURE IMPERVIOUS
15,993	0.35	Weighted Average
13,693		85.62% Pervious Area
2,300		14.38% Impervious Area

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

Subcatchment U-1: Uncontrolled Area



Hydrograph for Subcatchment U-1: Uncontrolled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.36**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Pond P1: PCSM 1

Inflow Area = 9,731 sf, 89.74% Impervious, Inflow Depth = 1.27" for 5-yr event
Inflow = 0.57 cfs @ 0.10 hrs, Volume= 1,030 cf
Outflow = 0.10 cfs @ 0.58 hrs, Volume= 824 cf, Atten= 83%, Lag= 29.0 min
Primary = 0.10 cfs @ 0.58 hrs, Volume= 824 cf
Routed to Link TOTAL : Total Post Out

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 55.43' @ 0.58 hrs Surf.Area= 1,034 sf Storage= 928 cf

Plug-Flow detention time= 109.2 min calculated for 824 cf (80% of inflow)
Center-of-Mass det. time= 106.4 min (124.4 - 18.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.00'	1,034 cf	**20.50'W x 50.42'L x 3.83'H Field A** 3,962 cf Overall - 1,378 cf Embedded = 2,584 cf x 40.0% Voids
#2A	54.50'	1,378 cf	**NDS StormChamber v2 SC-34** x 18 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap Row Length Adjustment= +0.92' x 9.89 sf x 3 rows
		2,411 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.50'	**8.0" Round OUTLET PIPE** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 54.50' / 54.00' S= 0.0185 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#2	Device 1	57.58'	**2.8' long RISER PLATE** 2 End Contraction(s)
#3	Device 1	54.50'	**2.0" Vert. O1** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 0.58 hrs HW=55.43' (Free Discharge)
└**1=OUTLET PIPE** (Passes 0.10 cfs of 1.30 cfs potential flow)
  ├**2=RISER PLATE** (Controls 0.00 cfs)
  └**3=O1** (Orifice Controls 0.10 cfs @ 4.44 fps)

Pond P1: PCSM 1 - Chamber Wizard Field A

Chamber Model = NDS StormChamber v2 SC-34 (NDS StormChamber v2)
Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf
Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap
Row Length Adjustment= +0.92' x 9.89 sf x 3 rows

60.0" Wide + 9.0" Spacing = 69.0" C-C Row Spacing

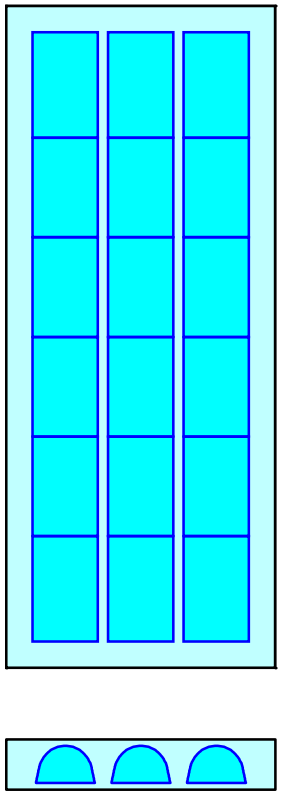
6 Chambers/Row x 7.58' Long +0.92' Row Adjustment = 46.42' Row Length +24.0" End Stone x 2 = 50.42' Base Length
3 Rows x 60.0" Wide + 9.0" Spacing x 2 + 24.0" Side Stone x 2 = 20.50' Base Width
6.0" Stone Base + 34.0" Chamber Height + 6.0" Stone Cover = 3.83' Field Height

18 Chambers x 75.0 cf +0.92' Row Adjustment x 9.89 sf x 3 Rows = 1,377.6 cf Chamber Storage

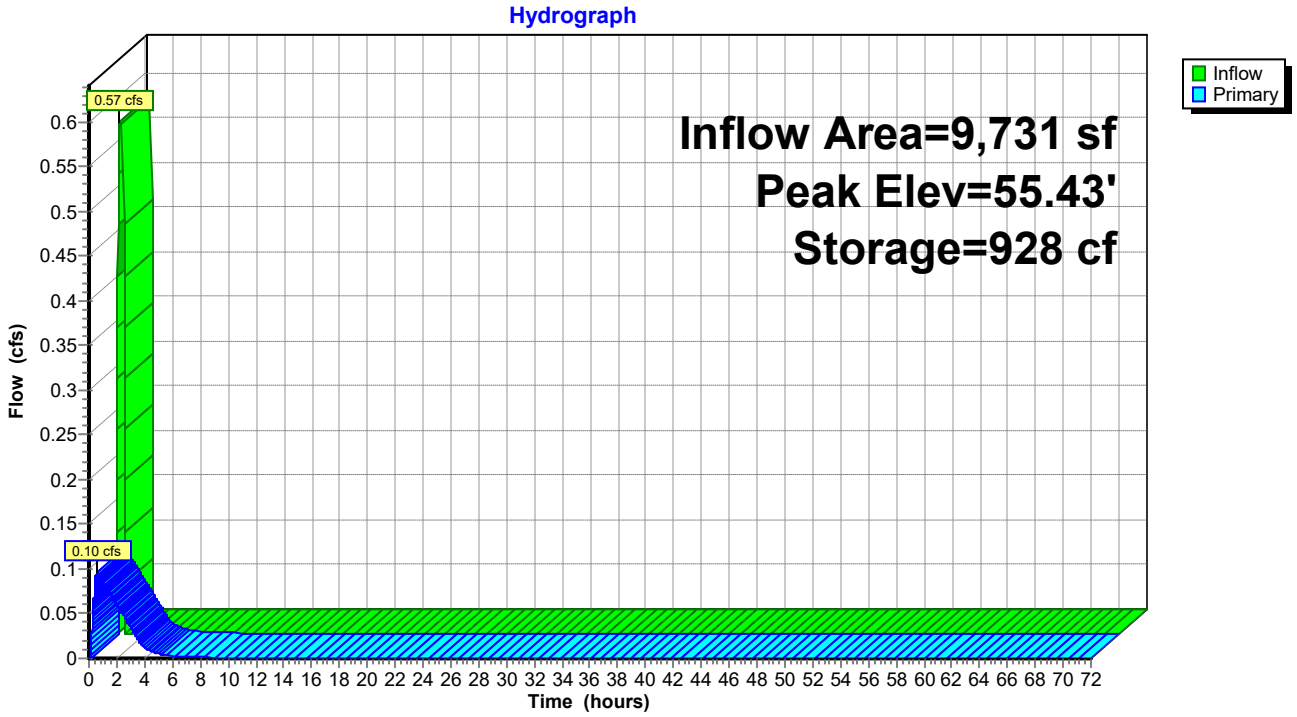
3,961.9 cf Field - 1,377.6 cf Chambers = 2,584.3 cf Stone x 40.0% Voids = 1,033.7 cf Stone Storage

Chamber Storage + Stone Storage = 2,411.3 cf = 0.055 af
Overall Storage Efficiency = 60.9%
Overall System Size = 50.42' x 20.50' x 3.83'

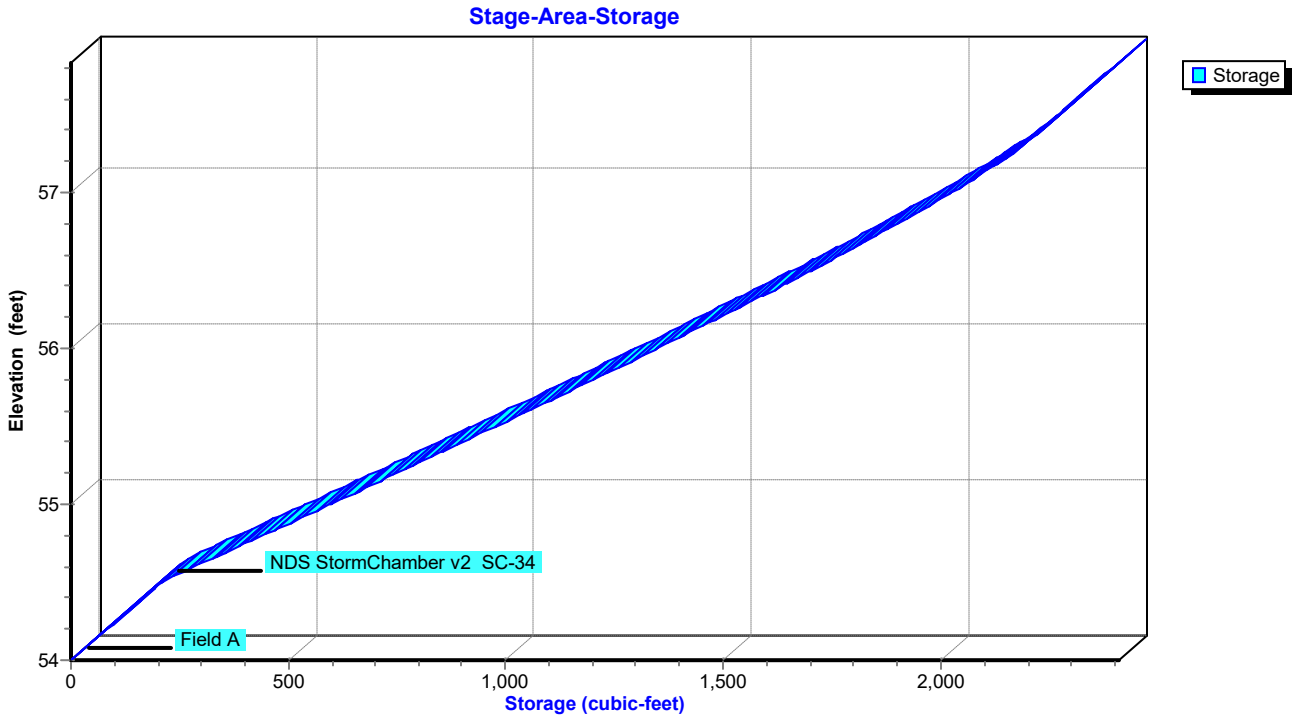
18 Chambers
146.7 cy Field
95.7 cy Stone



Pond P1: PCSM 1



Pond P1: PCSM 1



Hydrograph for Pond P1: PCSM 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0**	**54.00**	**0.00**
2.00	**0.00**	**530**	**54.91**	**0.06**
4.00	0.00	277	54.59	0.01
6.00	0.00	236	54.54	0.00
8.00	0.00	223	54.52	0.00
10.00	0.00	216	54.51	0.00
12.00	0.00	212	54.51	0.00
14.00	0.00	210	54.50	0.00
16.00	0.00	208	54.50	0.00
18.00	0.00	208	54.50	0.00
20.00	0.00	207	54.50	0.00
22.00	0.00	207	54.50	0.00
24.00	0.00	207	54.50	0.00
26.00	0.00	207	54.50	0.00
28.00	0.00	207	54.50	0.00
30.00	0.00	207	54.50	0.00
32.00	0.00	207	54.50	0.00
34.00	0.00	207	54.50	0.00
36.00	0.00	207	54.50	0.00
38.00	0.00	207	54.50	0.00
40.00	0.00	207	54.50	0.00
42.00	0.00	207	54.50	0.00
44.00	0.00	207	54.50	0.00
46.00	0.00	207	54.50	0.00
48.00	0.00	207	54.50	0.00
50.00	0.00	207	54.50	0.00
52.00	0.00	207	54.50	0.00
54.00	0.00	207	54.50	0.00
56.00	0.00	207	54.50	0.00
58.00	0.00	207	54.50	0.00
60.00	0.00	207	54.50	0.00
62.00	0.00	207	54.50	0.00
64.00	0.00	207	54.50	0.00
66.00	0.00	207	54.50	0.00
68.00	0.00	207	54.50	0.00
70.00	0.00	207	54.50	0.00
72.00	0.00	207	54.50	0.00

Stage-Discharge for Pond P1: PCSM 1

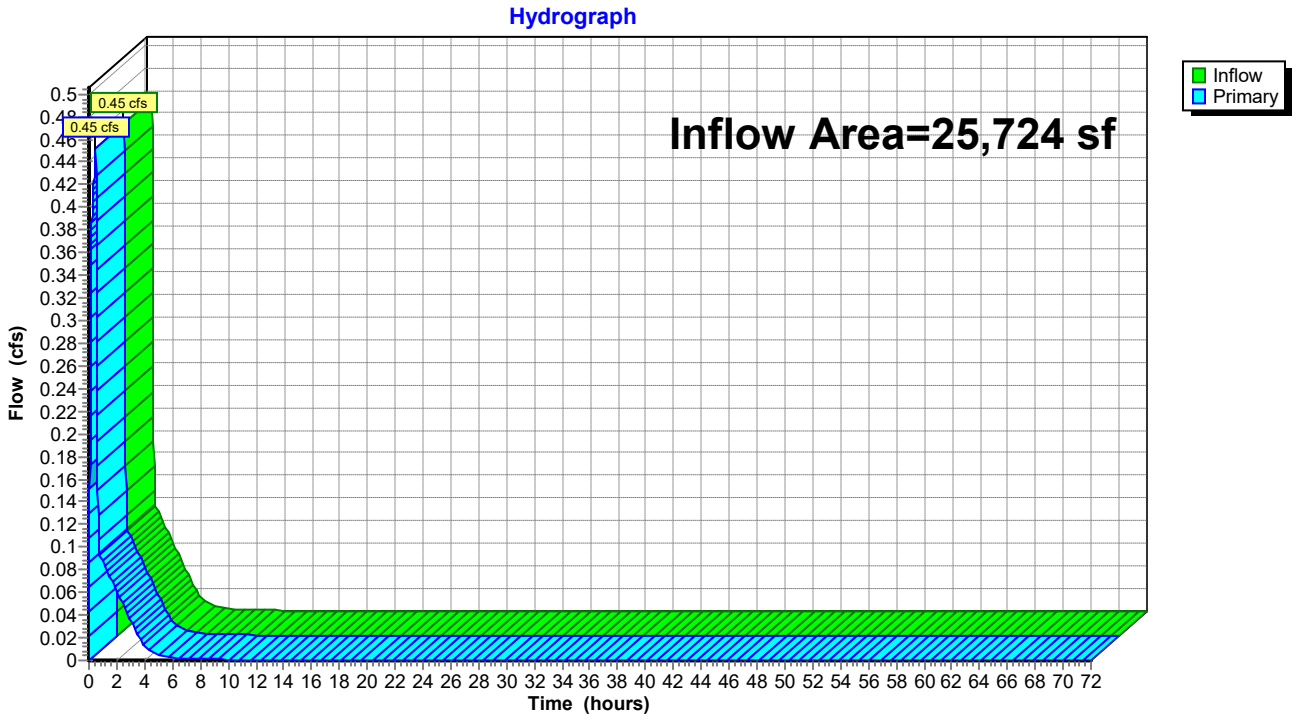
Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
54.00	0.00	55.04	0.07	56.08	0.13	57.12	0.17
54.02	0.00	55.06	0.07	56.10	0.13	57.14	0.17
54.04	0.00	55.08	0.07	56.12	0.13	57.16	0.17
54.06	0.00	55.10	0.08	56.14	0.13	57.18	0.17
54.08	0.00	55.12	0.08	56.16	0.13	57.20	0.17
54.10	0.00	55.14	0.08	56.18	0.13	57.22	0.17
54.12	0.00	55.16	0.08	56.20	0.13	57.24	0.17
54.14	0.00	55.18	0.08	56.22	0.13	57.26	0.17
54.16	0.00	55.20	0.08	56.24	0.14	57.28	0.17
54.18	0.00	55.22	0.08	56.26	0.14	57.30	0.17
54.20	0.00	55.24	0.09	56.28	0.14	57.32	0.17
54.22	0.00	55.26	0.09	56.30	0.14	57.34	0.17
54.24	0.00	55.28	0.09	56.32	0.14	57.36	0.18
54.26	0.00	55.30	0.09	56.34	0.14	57.38	0.18
54.28	0.00	55.32	0.09	56.36	0.14	57.40	0.18
54.30	0.00	55.34	0.09	56.38	0.14	57.42	0.18
54.32	0.00	55.36	0.09	56.40	0.14	57.44	0.18
54.34	0.00	55.38	0.09	56.42	0.14	57.46	0.18
54.36	0.00	55.40	0.09	56.44	0.14	57.48	0.18
54.38	0.00	55.42	0.10	56.46	0.14	57.50	0.18
54.40	0.00	55.44	0.10	56.48	0.14	57.52	0.18
54.42	0.00	55.46	0.10	56.50	0.15	57.54	0.18
54.44	0.00	55.48	0.10	56.52	0.15	57.56	0.18
54.46	0.00	55.50	0.10	56.54	0.15	57.58	0.18
54.48	0.00	55.52	0.10	56.56	0.15	57.60	0.21
54.50	0.00	55.54	0.10	56.58	0.15	57.62	0.26
54.52	0.00	55.56	0.10	56.60	0.15	57.64	0.32
54.54	0.00	55.58	0.10	56.62	0.15	57.66	0.39
54.56	0.01	55.60	0.11	56.64	0.15	57.68	0.47
54.58	0.01	55.62	0.11	56.66	0.15	57.70	0.56
54.60	0.01	55.64	0.11	56.68	0.15	57.72	0.66
54.62	0.02	55.66	0.11	56.70	0.15	57.74	0.77
54.64	0.02	55.68	0.11	56.72	0.15	57.76	0.88
54.66	0.03	55.70	0.11	56.74	0.15	57.78	1.00
54.68	0.03	55.72	0.11	56.76	0.15	57.80	1.12
54.70	0.04	55.74	0.11	56.78	0.16	57.82	**1.25**
54.72	0.04	55.76	0.11	56.80	0.16		
54.74	0.04	55.78	0.11	56.82	0.16		
54.76	0.04	55.80	0.12	56.84	0.16		
54.78	0.05	55.82	0.12	56.86	0.16		
54.80	0.05	55.84	0.12	56.88	0.16		
54.82	0.05	55.86	0.12	56.90	0.16		
54.84	0.05	55.88	0.12	56.92	0.16		
54.86	0.06	55.90	0.12	56.94	0.16		
54.88	0.06	55.92	0.12	56.96	0.16		
54.90	0.06	55.94	0.12	56.98	0.16		
54.92	0.06	55.96	0.12	57.00	0.16		
54.94	0.06	55.98	0.12	57.02	0.16		
54.96	0.06	56.00	0.13	57.04	0.16		
54.98	0.07	56.02	0.13	57.06	0.17		
55.00	0.07	56.04	0.13	57.08	0.17		
55.02	0.07	56.06	0.13	57.10	0.17		

Summary for Link TOTAL: Total Post Out

Inflow Area = 25,724 sf, 42.89% Impervious, Inflow Depth = 0.68" for 5-yr event
Inflow = 0.45 cfs @ 0.50 hrs, Volume= 1,468 cf
Primary = 0.45 cfs @ 0.50 hrs, Volume= 1,468 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link TOTAL: Total Post Out



Hydrograph for Link TOTAL: Total Post Out

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0.00**	**0.00**
1.00	**0.09**	0.00	**0.09**
2.00	0.06	0.00	0.06
3.00	0.03	0.00	0.03
4.00	0.01	0.00	0.01
5.00	0.01	0.00	0.01
6.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00
12.00	0.00	0.00	0.00
13.00	0.00	0.00	0.00
14.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00
16.00	0.00	0.00	0.00
17.00	0.00	0.00	0.00
18.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00
22.00	0.00	0.00	0.00
23.00	0.00	0.00	0.00
24.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00
27.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00
29.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00
31.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00
33.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00
37.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00
39.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00
41.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00
43.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00
47.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00
49.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00
51.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00
53.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00
57.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00
59.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00
61.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00
63.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00
67.00	0.00	0.00	0.00
68.00	0.00	0.00	0.00
69.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00
71.00	0.00	0.00	0.00
72.00	0.00	0.00	0.00

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A-1: Pre Onsite Runoff Area=25,568 sf 0.00% Impervious Runoff Depth=0.44"
Tc=13.0 min C=0.28 Runoff=0.52 cfs 937 cf

Subcatchment C-1: Controlled Area Runoff Area=9,731 sf 89.74% Impervious Runoff Depth=1.44"
Tc=6.0 min C=0.91 Runoff=0.65 cfs 1,164 cf

Subcatchment U-1: Uncontrolled Area Runoff Area=15,993 sf 14.38% Impervious Runoff Depth=0.55"
Tc=9.9 min C=0.35 Runoff=0.40 cfs 728 cf

Pond P1: PCSM 1 Peak Elev=55.59' Storage=1,048 cf Inflow=0.65 cfs 1,164 cf
Outflow=0.11 cfs 957 cf

Link TOTAL: Total Post Out Inflow=0.51 cfs 1,685 cf
Primary=0.51 cfs 1,685 cf

Total Runoff Area = 51,292 sf Runoff Volume = 2,828 cf Average Runoff Depth = 0.66"
78.49% Pervious = 40,259 sf 21.51% Impervious = 11,033 sf

Summary for Subcatchment A-1: Pre Onsite

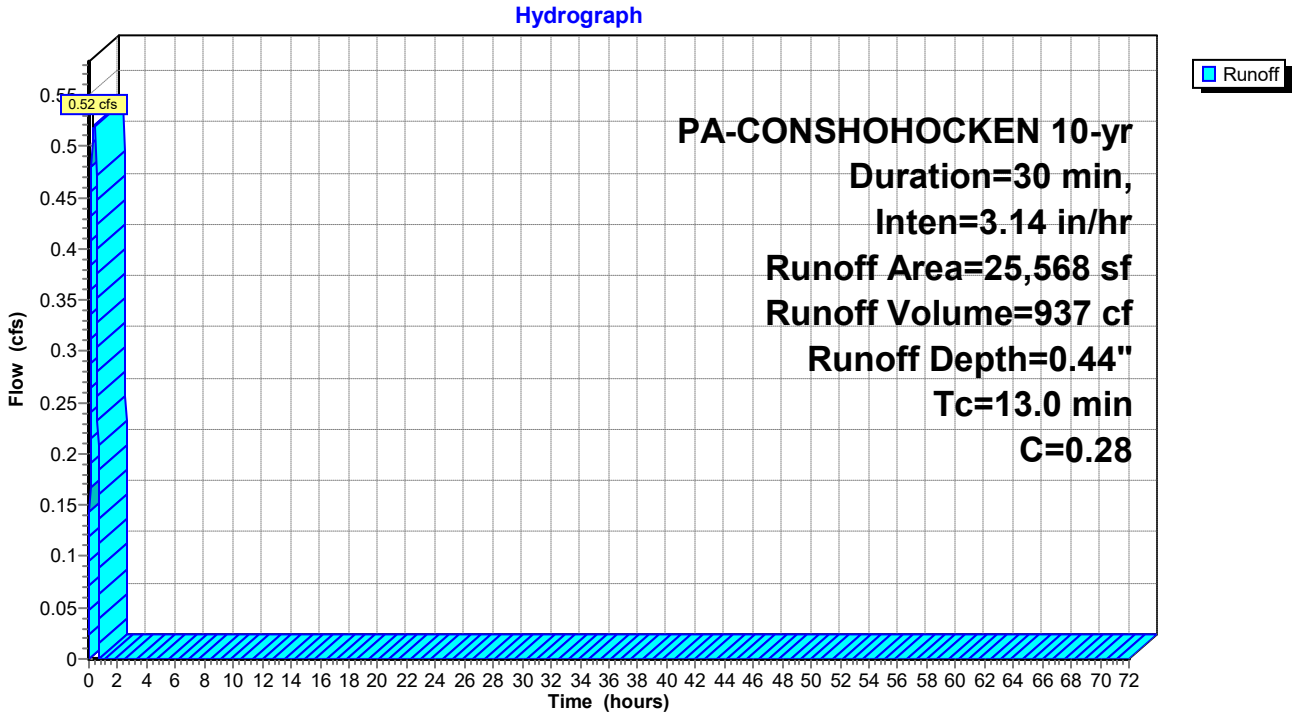
Runoff = 0.52 cfs @ 0.22 hrs, Volume= 937 cf, Depth= 0.44"
Routed to nonexistent node 1L

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 10-yr Duration=30 min, Inten=3.14 in/hr

Area (sf)	C	Description
25,568	0.28	Meadow (C 2-6%)
25,568		100.00% Pervious Area

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

Subcatchment A-1: Pre Onsite



Hydrograph for Subcatchment A-1: Pre Onsite

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.52**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment C-1: Controlled Area

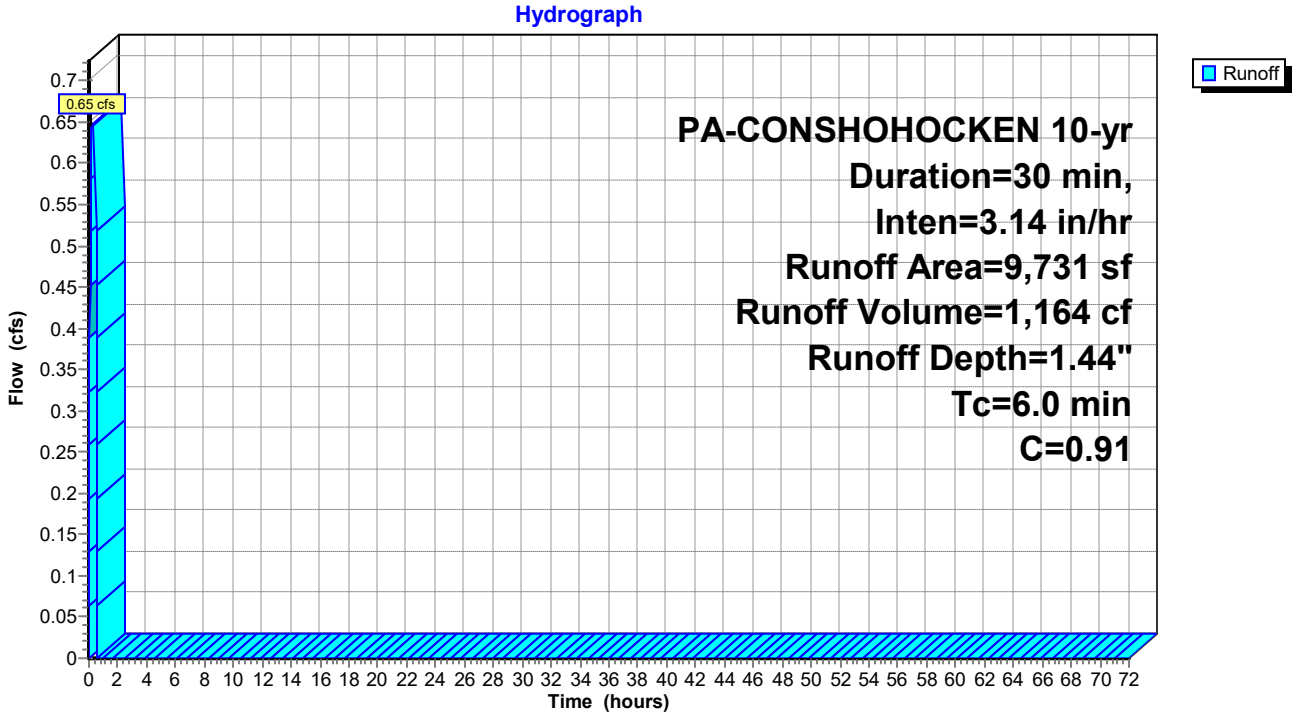
Runoff = 0.65 cfs @ 0.10 hrs, Volume= 1,164 cf, Depth= 1.44"
Routed to Pond P1 : PCSM 1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 10-yr Duration=30 min, Inten=3.14 in/hr

Area (sf)	C	Description
998	0.25	LAWN
8,733	0.99	IMPERVIOUS
9,731	0.91	Weighted Average
998		10.26% Pervious Area
8,733		89.74% Impervious Area

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

Subcatchment C-1: Controlled Area



Hydrograph for Subcatchment C-1: Controlled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.65**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment U-1: Uncontrolled Area

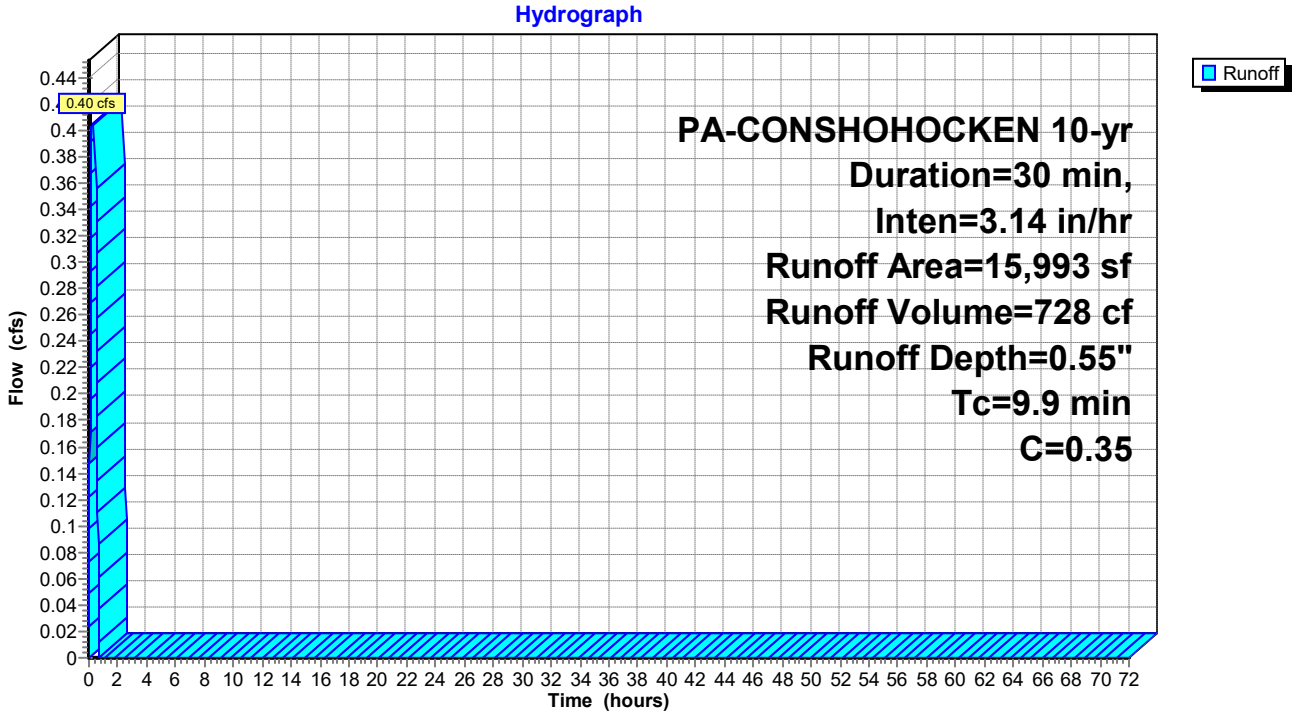
Runoff = 0.40 cfs @ 0.17 hrs, Volume= 728 cf, Depth= 0.55"
Routed to Link TOTAL : Total Post Out

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 10-yr Duration=30 min, Inten=3.14 in/hr

Area (sf)	C	Description
13,693	0.24	OPEN SPACE (C 6%+)
2,300	0.99	IMPERVIOUS
0	0.99	FUTURE IMPERVIOUS
15,993	0.35	Weighted Average
13,693		85.62% Pervious Area
2,300		14.38% Impervious Area

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

Subcatchment U-1: Uncontrolled Area



Hydrograph for Subcatchment U-1: Uncontrolled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.40**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Pond P1: PCSM 1

Inflow Area = 9,731 sf, 89.74% Impervious, Inflow Depth = 1.44" for 10-yr event
Inflow = 0.65 cfs @ 0.10 hrs, Volume= 1,164 cf
Outflow = 0.11 cfs @ 0.58 hrs, Volume= 957 cf, Atten= 84%, Lag= 29.0 min
Primary = 0.11 cfs @ 0.58 hrs, Volume= 957 cf
Routed to Link TOTAL : Total Post Out

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 55.59' @ 0.58 hrs Surf.Area= 1,034 sf Storage= 1,048 cf

Plug-Flow detention time= 112.9 min calculated for 957 cf (82% of inflow)
Center-of-Mass det. time= 110.0 min (128.0 - 18.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.00'	1,034 cf	**20.50'W x 50.42'L x 3.83'H Field A** 3,962 cf Overall - 1,378 cf Embedded = 2,584 cf x 40.0% Voids
#2A	54.50'	1,378 cf	**NDS StormChamber v2 SC-34** x 18 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap Row Length Adjustment= +0.92' x 9.89 sf x 3 rows
		2,411 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.50'	**8.0" Round OUTLET PIPE** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 54.50' / 54.00' S= 0.0185 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#2	Device 1	57.58'	**2.8' long RISER PLATE** 2 End Contraction(s)
#3	Device 1	54.50'	**2.0" Vert. O1** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.11 cfs @ 0.58 hrs HW=55.59' (Free Discharge)
└**1=OUTLET PIPE** (Passes 0.11 cfs of 1.47 cfs potential flow)
  ├**2=RISER PLATE** (Controls 0.00 cfs)
  └**3=O1** (Orifice Controls 0.11 cfs @ 4.84 fps)

Pond P1: PCSM 1 - Chamber Wizard Field A

Chamber Model = NDS StormChamber v2 SC-34 (NDS StormChamber v2)
Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf
Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap
Row Length Adjustment= +0.92' x 9.89 sf x 3 rows

60.0" Wide + 9.0" Spacing = 69.0" C-C Row Spacing

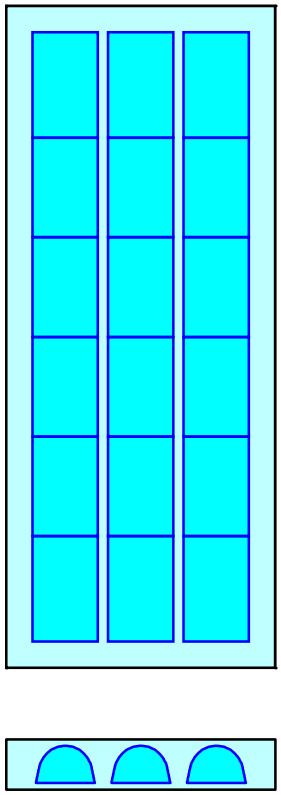
6 Chambers/Row x 7.58' Long +0.92' Row Adjustment = 46.42' Row Length +24.0" End Stone x 2 = 50.42' Base Length
3 Rows x 60.0" Wide + 9.0" Spacing x 2 + 24.0" Side Stone x 2 = 20.50' Base Width
6.0" Stone Base + 34.0" Chamber Height + 6.0" Stone Cover = 3.83' Field Height

18 Chambers x 75.0 cf +0.92' Row Adjustment x 9.89 sf x 3 Rows = 1,377.6 cf Chamber Storage

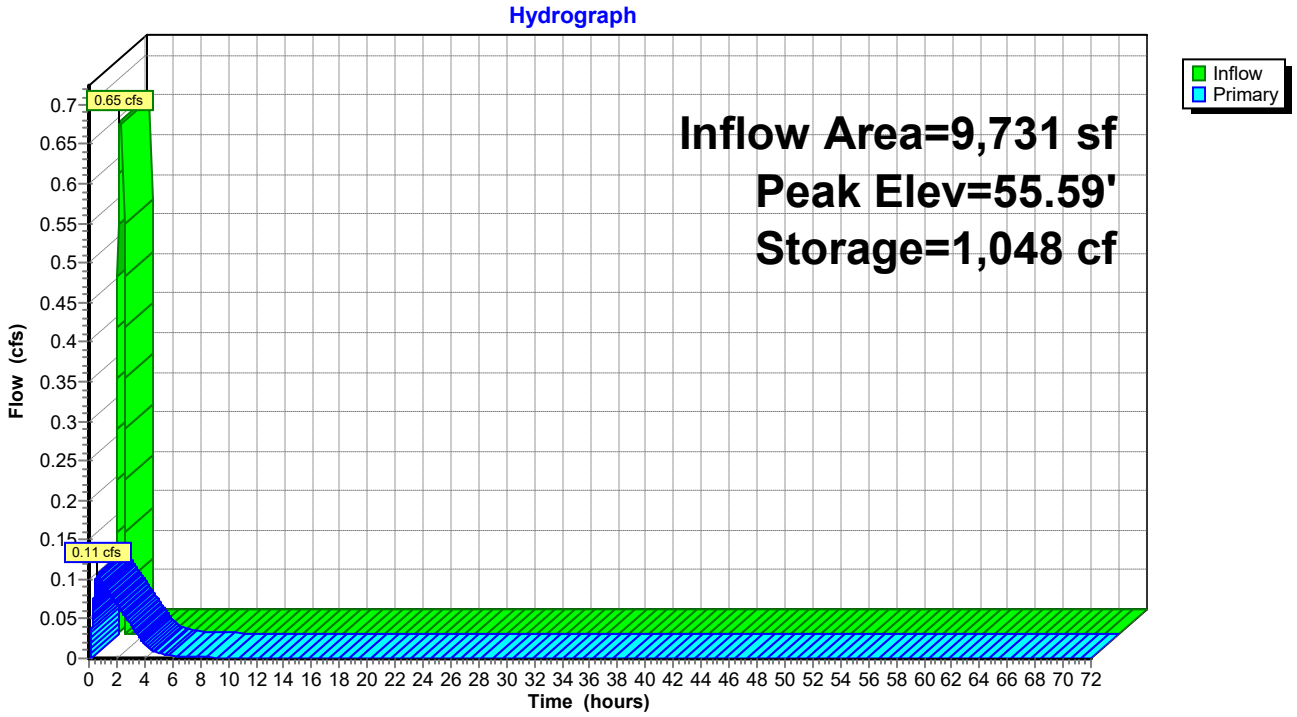
3,961.9 cf Field - 1,377.6 cf Chambers = 2,584.3 cf Stone x 40.0% Voids = 1,033.7 cf Stone Storage

Chamber Storage + Stone Storage = 2,411.3 cf = 0.055 af
Overall Storage Efficiency = 60.9%
Overall System Size = 50.42' x 20.50' x 3.83'

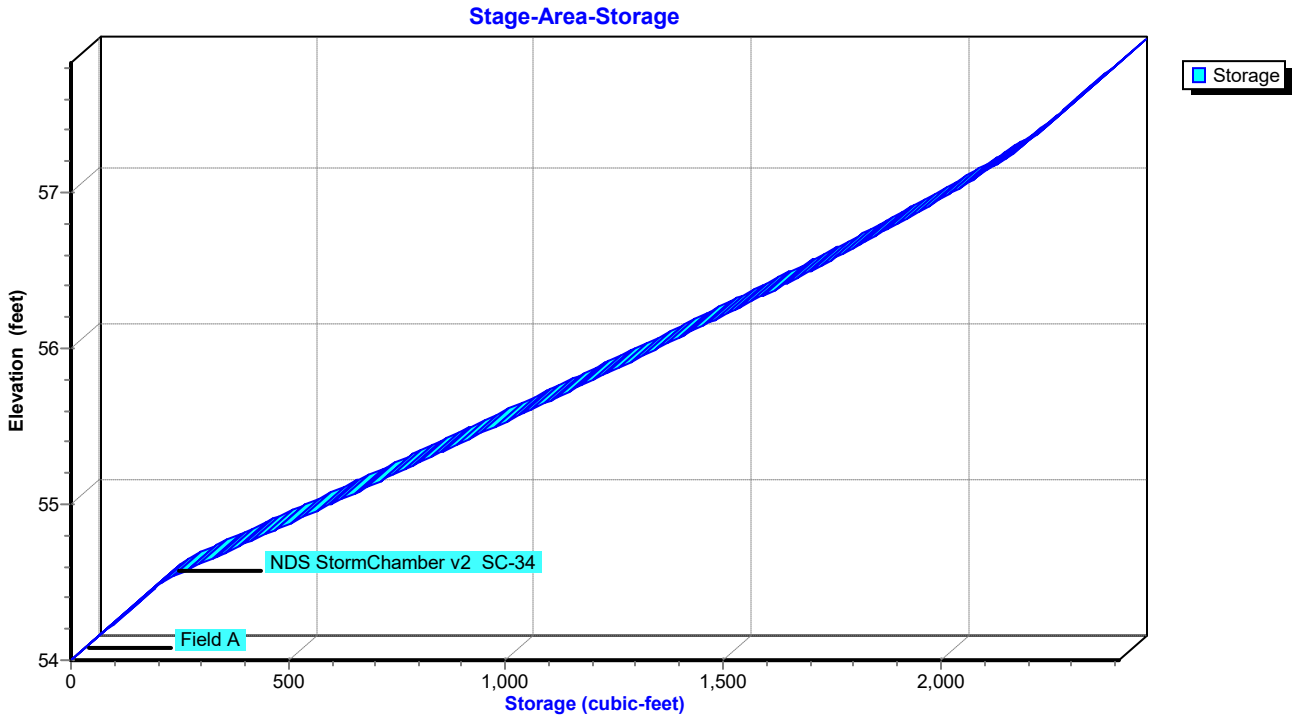
18 Chambers
146.7 cy Field
95.7 cy Stone



Pond P1: PCSM 1



Pond P1: PCSM 1



Hydrograph for Pond P1: PCSM 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0**	**54.00**	**0.00**
2.00	**0.00**	**607**	**55.01**	**0.07**
4.00	0.00	295	54.61	0.02
6.00	0.00	239	54.54	0.00
8.00	0.00	225	54.52	0.00
10.00	0.00	217	54.51	0.00
12.00	0.00	212	54.51	0.00
14.00	0.00	210	54.50	0.00
16.00	0.00	208	54.50	0.00
18.00	0.00	208	54.50	0.00
20.00	0.00	207	54.50	0.00
22.00	0.00	207	54.50	0.00
24.00	0.00	207	54.50	0.00
26.00	0.00	207	54.50	0.00
28.00	0.00	207	54.50	0.00
30.00	0.00	207	54.50	0.00
32.00	0.00	207	54.50	0.00
34.00	0.00	207	54.50	0.00
36.00	0.00	207	54.50	0.00
38.00	0.00	207	54.50	0.00
40.00	0.00	207	54.50	0.00
42.00	0.00	207	54.50	0.00
44.00	0.00	207	54.50	0.00
46.00	0.00	207	54.50	0.00
48.00	0.00	207	54.50	0.00
50.00	0.00	207	54.50	0.00
52.00	0.00	207	54.50	0.00
54.00	0.00	207	54.50	0.00
56.00	0.00	207	54.50	0.00
58.00	0.00	207	54.50	0.00
60.00	0.00	207	54.50	0.00
62.00	0.00	207	54.50	0.00
64.00	0.00	207	54.50	0.00
66.00	0.00	207	54.50	0.00
68.00	0.00	207	54.50	0.00
70.00	0.00	207	54.50	0.00
72.00	0.00	207	54.50	0.00

Stage-Discharge for Pond P1: PCSM 1

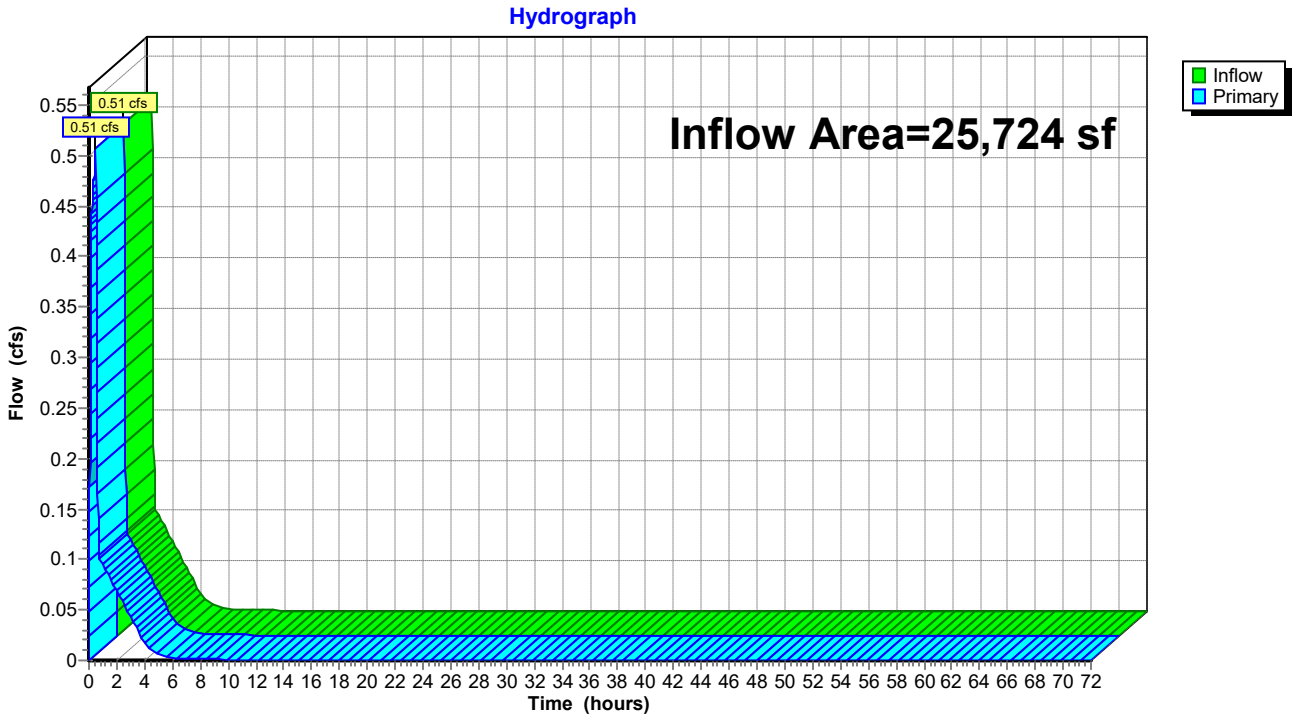
Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
54.00	0.00	55.04	0.07	56.08	0.13	57.12	0.17
54.02	0.00	55.06	0.07	56.10	0.13	57.14	0.17
54.04	0.00	55.08	0.07	56.12	0.13	57.16	0.17
54.06	0.00	55.10	0.08	56.14	0.13	57.18	0.17
54.08	0.00	55.12	0.08	56.16	0.13	57.20	0.17
54.10	0.00	55.14	0.08	56.18	0.13	57.22	0.17
54.12	0.00	55.16	0.08	56.20	0.13	57.24	0.17
54.14	0.00	55.18	0.08	56.22	0.13	57.26	0.17
54.16	0.00	55.20	0.08	56.24	0.14	57.28	0.17
54.18	0.00	55.22	0.08	56.26	0.14	57.30	0.17
54.20	0.00	55.24	0.09	56.28	0.14	57.32	0.17
54.22	0.00	55.26	0.09	56.30	0.14	57.34	0.17
54.24	0.00	55.28	0.09	56.32	0.14	57.36	0.18
54.26	0.00	55.30	0.09	56.34	0.14	57.38	0.18
54.28	0.00	55.32	0.09	56.36	0.14	57.40	0.18
54.30	0.00	55.34	0.09	56.38	0.14	57.42	0.18
54.32	0.00	55.36	0.09	56.40	0.14	57.44	0.18
54.34	0.00	55.38	0.09	56.42	0.14	57.46	0.18
54.36	0.00	55.40	0.09	56.44	0.14	57.48	0.18
54.38	0.00	55.42	0.10	56.46	0.14	57.50	0.18
54.40	0.00	55.44	0.10	56.48	0.14	57.52	0.18
54.42	0.00	55.46	0.10	56.50	0.15	57.54	0.18
54.44	0.00	55.48	0.10	56.52	0.15	57.56	0.18
54.46	0.00	55.50	0.10	56.54	0.15	57.58	0.18
54.48	0.00	55.52	0.10	56.56	0.15	57.60	0.21
54.50	0.00	55.54	0.10	56.58	0.15	57.62	0.26
54.52	0.00	55.56	0.10	56.60	0.15	57.64	0.32
54.54	0.00	55.58	0.10	56.62	0.15	57.66	0.39
54.56	0.01	55.60	0.11	56.64	0.15	57.68	0.47
54.58	0.01	55.62	0.11	56.66	0.15	57.70	0.56
54.60	0.01	55.64	0.11	56.68	0.15	57.72	0.66
54.62	0.02	55.66	0.11	56.70	0.15	57.74	0.77
54.64	0.02	55.68	0.11	56.72	0.15	57.76	0.88
54.66	0.03	55.70	0.11	56.74	0.15	57.78	1.00
54.68	0.03	55.72	0.11	56.76	0.15	57.80	1.12
54.70	0.04	55.74	0.11	56.78	0.16	57.82	**1.25**
54.72	0.04	55.76	0.11	56.80	0.16		
54.74	0.04	55.78	0.11	56.82	0.16		
54.76	0.04	55.80	0.12	56.84	0.16		
54.78	0.05	55.82	0.12	56.86	0.16		
54.80	0.05	55.84	0.12	56.88	0.16		
54.82	0.05	55.86	0.12	56.90	0.16		
54.84	0.05	55.88	0.12	56.92	0.16		
54.86	0.06	55.90	0.12	56.94	0.16		
54.88	0.06	55.92	0.12	56.96	0.16		
54.90	0.06	55.94	0.12	56.98	0.16		
54.92	0.06	55.96	0.12	57.00	0.16		
54.94	0.06	55.98	0.12	57.02	0.16		
54.96	0.06	56.00	0.13	57.04	0.16		
54.98	0.07	56.02	0.13	57.06	0.17		
55.00	0.07	56.04	0.13	57.08	0.17		
55.02	0.07	56.06	0.13	57.10	0.17		

Summary for Link TOTAL: Total Post Out

Inflow Area = 25,724 sf, 42.89% Impervious, Inflow Depth = 0.79" for 10-yr event
Inflow = 0.51 cfs @ 0.50 hrs, Volume= 1,685 cf
Primary = 0.51 cfs @ 0.50 hrs, Volume= 1,685 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link TOTAL: Total Post Out



Hydrograph for Link TOTAL: Total Post Out

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0.00**	**0.00**
1.00	**0.09**	0.00	**0.09**
2.00	0.07	0.00	0.07
3.00	0.04	0.00	0.04
4.00	0.02	0.00	0.02
5.00	0.01	0.00	0.01
6.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00
12.00	0.00	0.00	0.00
13.00	0.00	0.00	0.00
14.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00
16.00	0.00	0.00	0.00
17.00	0.00	0.00	0.00
18.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00
22.00	0.00	0.00	0.00
23.00	0.00	0.00	0.00
24.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00
27.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00
29.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00
31.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00
33.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00
37.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00
39.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00
41.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00
43.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00
47.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00
49.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00
51.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00
53.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00
57.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00
59.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00
61.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00
63.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00
67.00	0.00	0.00	0.00
68.00	0.00	0.00	0.00
69.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00
71.00	0.00	0.00	0.00
72.00	0.00	0.00	0.00

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A-1: Pre Onsite Runoff Area=25,568 sf 0.00% Impervious Runoff Depth=0.50"
Tc=13.0 min C=0.28 Runoff=0.59 cfs 1,062 cf

Subcatchment C-1: Controlled Area Runoff Area=9,731 sf 89.74% Impervious Runoff Depth=1.63"
Tc=6.0 min C=0.91 Runoff=0.73 cfs 1,319 cf

Subcatchment U-1: Uncontrolled Area Runoff Area=15,993 sf 14.38% Impervious Runoff Depth=0.62"
Tc=9.9 min C=0.35 Runoff=0.46 cfs 825 cf

Pond P1: PCSM 1 Peak Elev=55.78' Storage=1,190 cf Inflow=0.73 cfs 1,319 cf
Outflow=0.12 cfs 1,113 cf

Link TOTAL: Total Post Out Inflow=0.57 cfs 1,938 cf
Primary=0.57 cfs 1,938 cf

Total Runoff Area = 51,292 sf Runoff Volume = 3,207 cf Average Runoff Depth = 0.75"
78.49% Pervious = 40,259 sf 21.51% Impervious = 11,033 sf

Summary for Subcatchment A-1: Pre Onsite

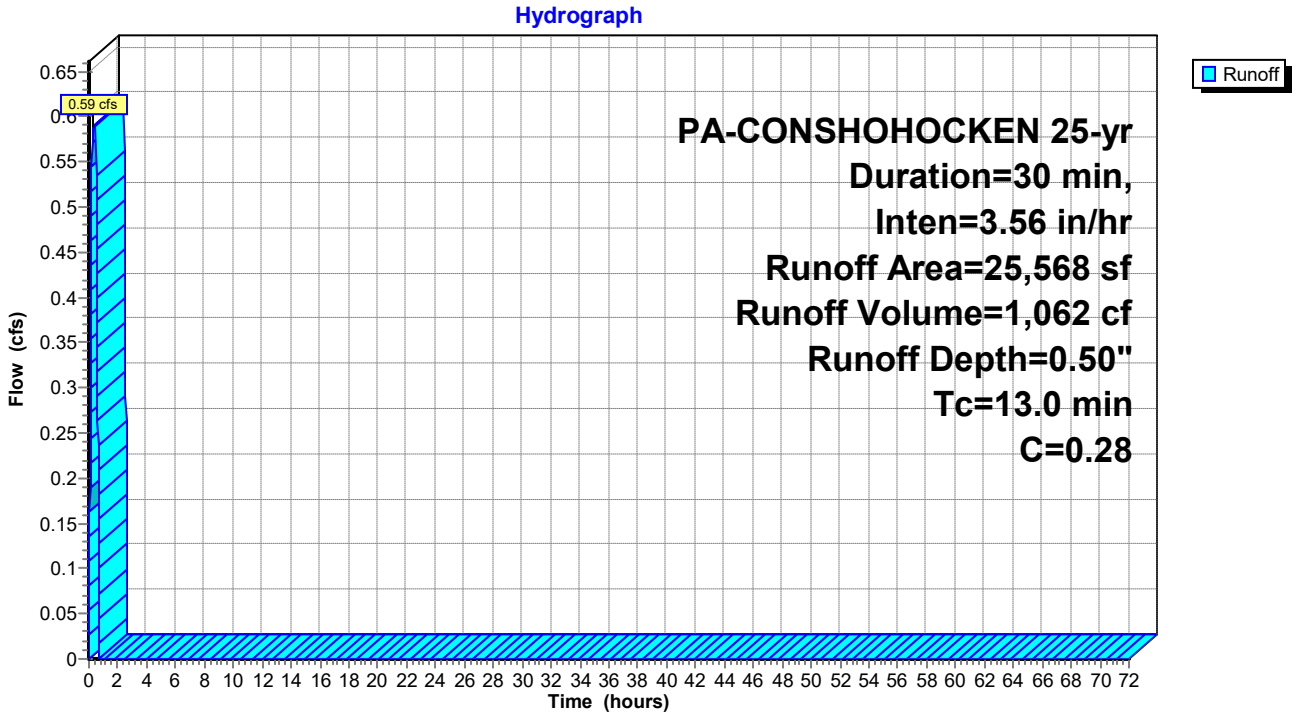
Runoff = 0.59 cfs @ 0.22 hrs, Volume= 1,062 cf, Depth= 0.50"
Routed to nonexistent node 1L

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 25-yr Duration=30 min, Inten=3.56 in/hr

Area (sf)	C	Description
25,568	0.28	Meadow (C 2-6%)
25,568		100.00% Pervious Area

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

Subcatchment A-1: Pre Onsite



Hydrograph for Subcatchment A-1: Pre Onsite

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.59**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment C-1: Controlled Area

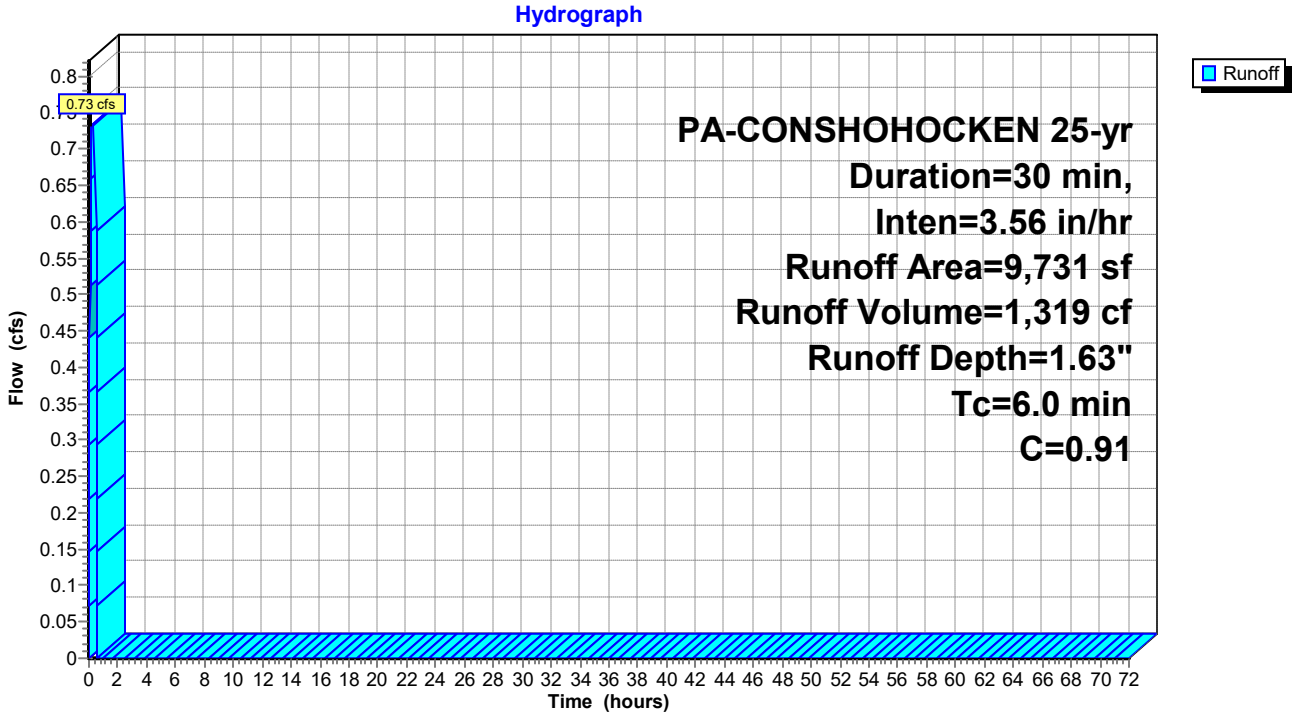
Runoff = 0.73 cfs @ 0.10 hrs, Volume= 1,319 cf, Depth= 1.63"
Routed to Pond P1 : PCSM 1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 25-yr Duration=30 min, Inten=3.56 in/hr

Area (sf)	C	Description
998	0.25	LAWN
8,733	0.99	IMPERVIOUS
9,731	0.91	Weighted Average
998		10.26% Pervious Area
8,733		89.74% Impervious Area

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

Subcatchment C-1: Controlled Area



Hydrograph for Subcatchment C-1: Controlled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.73**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment U-1: Uncontrolled Area

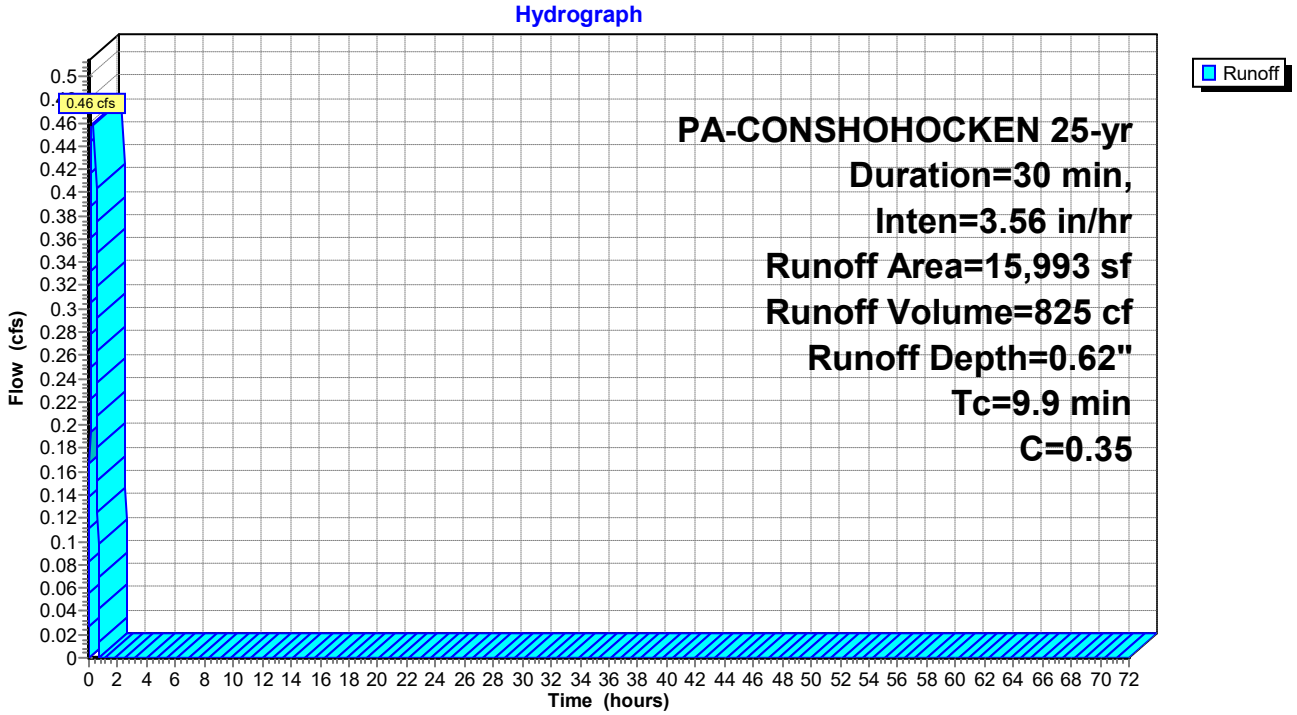
Runoff = 0.46 cfs @ 0.17 hrs, Volume= 825 cf, Depth= 0.62"
Routed to Link TOTAL : Total Post Out

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 25-yr Duration=30 min, Inten=3.56 in/hr

Area (sf)	C	Description
13,693	0.24	OPEN SPACE (C 6%+)
2,300	0.99	IMPERVIOUS
0	0.99	FUTURE IMPERVIOUS
15,993	0.35	Weighted Average
13,693		85.62% Pervious Area
2,300		14.38% Impervious Area

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

Subcatchment U-1: Uncontrolled Area



Hydrograph for Subcatchment U-1: Uncontrolled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.46**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Pond P1: PCSM 1

Inflow Area = 9,731 sf, 89.74% Impervious, Inflow Depth = 1.63" for 25-yr event
Inflow = 0.73 cfs @ 0.10 hrs, Volume= 1,319 cf
Outflow = 0.12 cfs @ 0.58 hrs, Volume= 1,113 cf, Atten= 84%, Lag= 29.1 min
Primary = 0.12 cfs @ 0.58 hrs, Volume= 1,113 cf
Routed to Link TOTAL : Total Post Out

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 55.78' @ 0.58 hrs Surf.Area= 1,034 sf Storage= 1,190 cf

Plug-Flow detention time= 116.6 min calculated for 1,113 cf (84% of inflow)
Center-of-Mass det. time= 114.4 min (132.4 - 18.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.00'	1,034 cf	**20.50'W x 50.42'L x 3.83'H Field A** 3,962 cf Overall - 1,378 cf Embedded = 2,584 cf x 40.0% Voids
#2A	54.50'	1,378 cf	**NDS StormChamber v2 SC-34** x 18 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap Row Length Adjustment= +0.92' x 9.89 sf x 3 rows
		2,411 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.50'	**8.0" Round OUTLET PIPE** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 54.50' / 54.00' S= 0.0185 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#2	Device 1	57.58'	**2.8' long RISER PLATE** 2 End Contraction(s)
#3	Device 1	54.50'	**2.0" Vert. O1** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.12 cfs @ 0.58 hrs HW=55.78' (Free Discharge)
└**1=OUTLET PIPE** (Passes 0.12 cfs of 1.64 cfs potential flow)
  ├**2=RISER PLATE** (Controls 0.00 cfs)
  └**3=O1** (Orifice Controls 0.12 cfs @ 5.28 fps)

Pond P1: PCSM 1 - Chamber Wizard Field A

Chamber Model = NDS StormChamber v2 SC-34 (NDS StormChamber v2)
Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf
Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap
Row Length Adjustment= +0.92' x 9.89 sf x 3 rows

60.0" Wide + 9.0" Spacing = 69.0" C-C Row Spacing

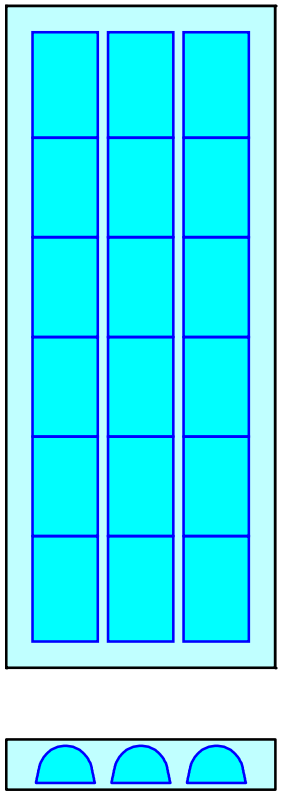
6 Chambers/Row x 7.58' Long +0.92' Row Adjustment = 46.42' Row Length +24.0" End Stone x 2 = 50.42' Base Length
3 Rows x 60.0" Wide + 9.0" Spacing x 2 + 24.0" Side Stone x 2 = 20.50' Base Width
6.0" Stone Base + 34.0" Chamber Height + 6.0" Stone Cover = 3.83' Field Height

18 Chambers x 75.0 cf +0.92' Row Adjustment x 9.89 sf x 3 Rows = 1,377.6 cf Chamber Storage

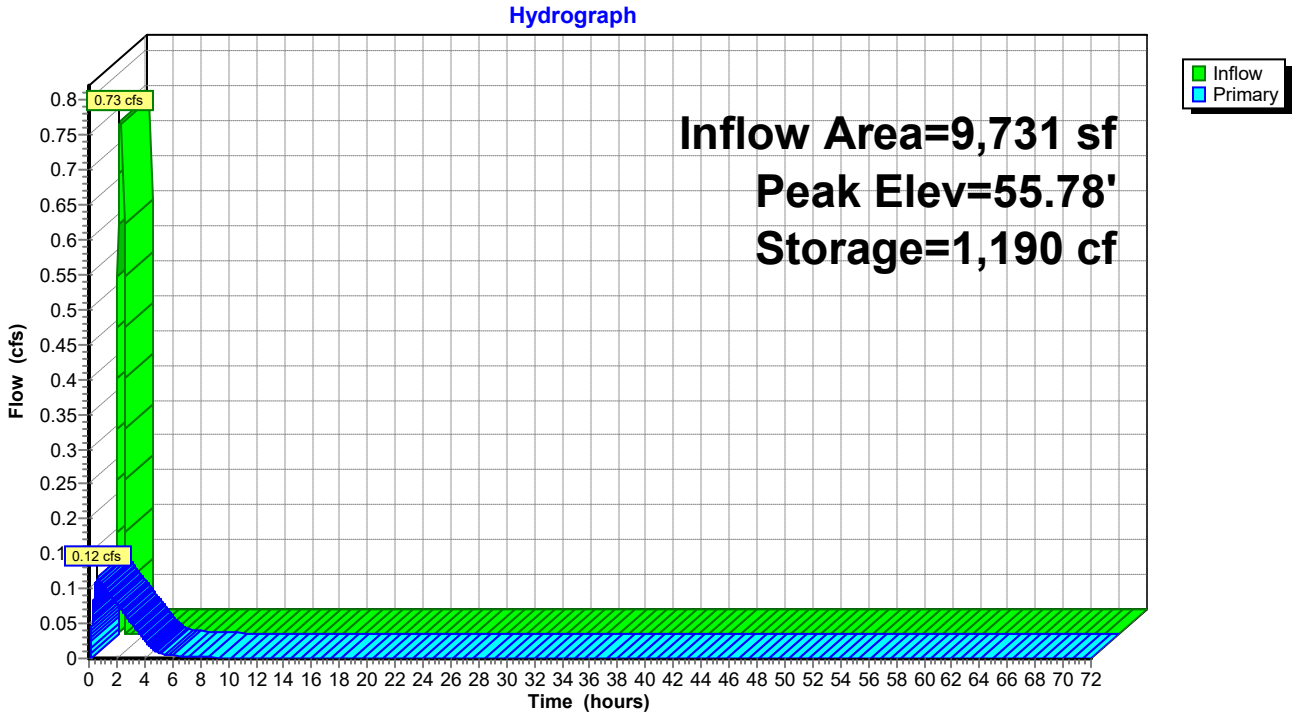
3,961.9 cf Field - 1,377.6 cf Chambers = 2,584.3 cf Stone x 40.0% Voids = 1,033.7 cf Stone Storage

Chamber Storage + Stone Storage = 2,411.3 cf = 0.055 af
Overall Storage Efficiency = 60.9%
Overall System Size = 50.42' x 20.50' x 3.83'

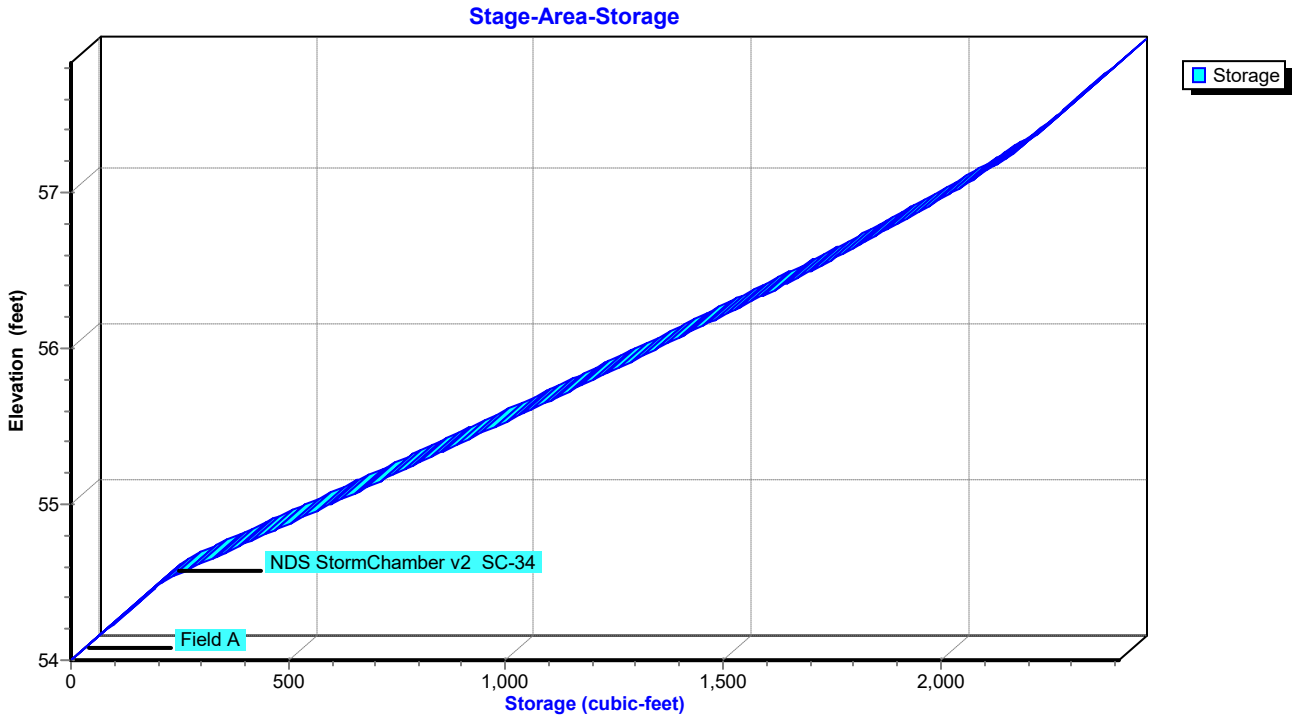
18 Chambers
146.7 cy Field
95.7 cy Stone



Pond P1: PCSM 1



Pond P1: PCSM 1



Hydrograph for Pond P1: PCSM 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0**	**54.00**	**0.00**
2.00	**0.00**	**701**	**55.14**	**0.08**
4.00	0.00	324	54.65	0.03
6.00	0.00	244	54.55	0.00
8.00	0.00	227	54.53	0.00
10.00	0.00	218	54.51	0.00
12.00	0.00	213	54.51	0.00
14.00	0.00	210	54.50	0.00
16.00	0.00	209	54.50	0.00
18.00	0.00	208	54.50	0.00
20.00	0.00	207	54.50	0.00
22.00	0.00	207	54.50	0.00
24.00	0.00	207	54.50	0.00
26.00	0.00	207	54.50	0.00
28.00	0.00	207	54.50	0.00
30.00	0.00	207	54.50	0.00
32.00	0.00	207	54.50	0.00
34.00	0.00	207	54.50	0.00
36.00	0.00	207	54.50	0.00
38.00	0.00	207	54.50	0.00
40.00	0.00	207	54.50	0.00
42.00	0.00	207	54.50	0.00
44.00	0.00	207	54.50	0.00
46.00	0.00	207	54.50	0.00
48.00	0.00	207	54.50	0.00
50.00	0.00	207	54.50	0.00
52.00	0.00	207	54.50	0.00
54.00	0.00	207	54.50	0.00
56.00	0.00	207	54.50	0.00
58.00	0.00	207	54.50	0.00
60.00	0.00	207	54.50	0.00
62.00	0.00	207	54.50	0.00
64.00	0.00	207	54.50	0.00
66.00	0.00	207	54.50	0.00
68.00	0.00	207	54.50	0.00
70.00	0.00	207	54.50	0.00
72.00	0.00	207	54.50	0.00

Stage-Discharge for Pond P1: PCSM 1

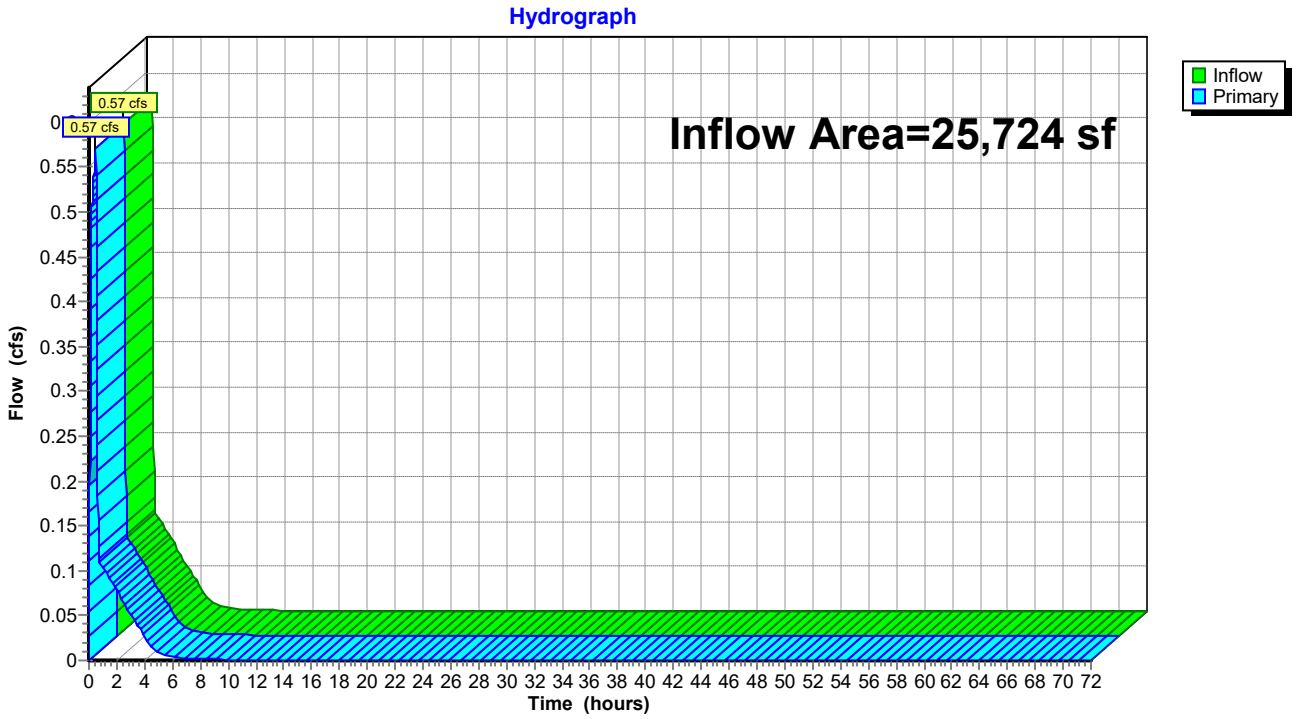
Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
54.00	0.00	55.04	0.07	56.08	0.13	57.12	0.17
54.02	0.00	55.06	0.07	56.10	0.13	57.14	0.17
54.04	0.00	55.08	0.07	56.12	0.13	57.16	0.17
54.06	0.00	55.10	0.08	56.14	0.13	57.18	0.17
54.08	0.00	55.12	0.08	56.16	0.13	57.20	0.17
54.10	0.00	55.14	0.08	56.18	0.13	57.22	0.17
54.12	0.00	55.16	0.08	56.20	0.13	57.24	0.17
54.14	0.00	55.18	0.08	56.22	0.13	57.26	0.17
54.16	0.00	55.20	0.08	56.24	0.14	57.28	0.17
54.18	0.00	55.22	0.08	56.26	0.14	57.30	0.17
54.20	0.00	55.24	0.09	56.28	0.14	57.32	0.17
54.22	0.00	55.26	0.09	56.30	0.14	57.34	0.17
54.24	0.00	55.28	0.09	56.32	0.14	57.36	0.18
54.26	0.00	55.30	0.09	56.34	0.14	57.38	0.18
54.28	0.00	55.32	0.09	56.36	0.14	57.40	0.18
54.30	0.00	55.34	0.09	56.38	0.14	57.42	0.18
54.32	0.00	55.36	0.09	56.40	0.14	57.44	0.18
54.34	0.00	55.38	0.09	56.42	0.14	57.46	0.18
54.36	0.00	55.40	0.09	56.44	0.14	57.48	0.18
54.38	0.00	55.42	0.10	56.46	0.14	57.50	0.18
54.40	0.00	55.44	0.10	56.48	0.14	57.52	0.18
54.42	0.00	55.46	0.10	56.50	0.15	57.54	0.18
54.44	0.00	55.48	0.10	56.52	0.15	57.56	0.18
54.46	0.00	55.50	0.10	56.54	0.15	57.58	0.18
54.48	0.00	55.52	0.10	56.56	0.15	57.60	0.21
54.50	0.00	55.54	0.10	56.58	0.15	57.62	0.26
54.52	0.00	55.56	0.10	56.60	0.15	57.64	0.32
54.54	0.00	55.58	0.10	56.62	0.15	57.66	0.39
54.56	0.01	55.60	0.11	56.64	0.15	57.68	0.47
54.58	0.01	55.62	0.11	56.66	0.15	57.70	0.56
54.60	0.01	55.64	0.11	56.68	0.15	57.72	0.66
54.62	0.02	55.66	0.11	56.70	0.15	57.74	0.77
54.64	0.02	55.68	0.11	56.72	0.15	57.76	0.88
54.66	0.03	55.70	0.11	56.74	0.15	57.78	1.00
54.68	0.03	55.72	0.11	56.76	0.15	57.80	1.12
54.70	0.04	55.74	0.11	56.78	0.16	57.82	**1.25**
54.72	0.04	55.76	0.11	56.80	0.16		
54.74	0.04	55.78	0.11	56.82	0.16		
54.76	0.04	55.80	0.12	56.84	0.16		
54.78	0.05	55.82	0.12	56.86	0.16		
54.80	0.05	55.84	0.12	56.88	0.16		
54.82	0.05	55.86	0.12	56.90	0.16		
54.84	0.05	55.88	0.12	56.92	0.16		
54.86	0.06	55.90	0.12	56.94	0.16		
54.88	0.06	55.92	0.12	56.96	0.16		
54.90	0.06	55.94	0.12	56.98	0.16		
54.92	0.06	55.96	0.12	57.00	0.16		
54.94	0.06	55.98	0.12	57.02	0.16		
54.96	0.06	56.00	0.13	57.04	0.16		
54.98	0.07	56.02	0.13	57.06	0.17		
55.00	0.07	56.04	0.13	57.08	0.17		
55.02	0.07	56.06	0.13	57.10	0.17		

Summary for Link TOTAL: Total Post Out

Inflow Area = 25,724 sf, 42.89% Impervious, Inflow Depth = 0.90" for 25-yr event
Inflow = 0.57 cfs @ 0.50 hrs, Volume= 1,938 cf
Primary = 0.57 cfs @ 0.50 hrs, Volume= 1,938 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link TOTAL: Total Post Out



Hydrograph for Link TOTAL: Total Post Out

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0.00**	**0.00**
1.00	**0.10**	0.00	**0.10**
2.00	0.08	0.00	0.08
3.00	0.05	0.00	0.05
4.00	0.03	0.00	0.03
5.00	0.01	0.00	0.01
6.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00
12.00	0.00	0.00	0.00
13.00	0.00	0.00	0.00
14.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00
16.00	0.00	0.00	0.00
17.00	0.00	0.00	0.00
18.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00
22.00	0.00	0.00	0.00
23.00	0.00	0.00	0.00
24.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00
27.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00
29.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00
31.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00
33.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00
37.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00
39.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00
41.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00
43.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00
47.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00
49.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00
51.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00
53.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00
57.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00
59.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00
61.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00
63.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00
67.00	0.00	0.00	0.00
68.00	0.00	0.00	0.00
69.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00
71.00	0.00	0.00	0.00
72.00	0.00	0.00	0.00

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A-1: Pre Onsite Runoff Area=25,568 sf 0.00% Impervious Runoff Depth=0.54"
Tc=13.0 min C=0.28 Runoff=0.64 cfs 1,151 cf

Subcatchment C-1: Controlled Area Runoff Area=9,731 sf 89.74% Impervious Runoff Depth=1.76"
Tc=6.0 min C=0.91 Runoff=0.79 cfs 1,431 cf

Subcatchment U-1: Uncontrolled Area Runoff Area=15,993 sf 14.38% Impervious Runoff Depth=0.67"
Tc=9.9 min C=0.35 Runoff=0.50 cfs 895 cf

Pond P1: PCSM 1 Peak Elev=55.92' Storage=1,292 cf Inflow=0.79 cfs 1,431 cf
Outflow=0.12 cfs 1,224 cf

Link TOTAL: Total Post Out Inflow=0.62 cfs 2,119 cf
Primary=0.62 cfs 2,119 cf

Total Runoff Area = 51,292 sf Runoff Volume = 3,477 cf Average Runoff Depth = 0.81"
78.49% Pervious = 40,259 sf 21.51% Impervious = 11,033 sf

Summary for Subcatchment A-1: Pre Onsite

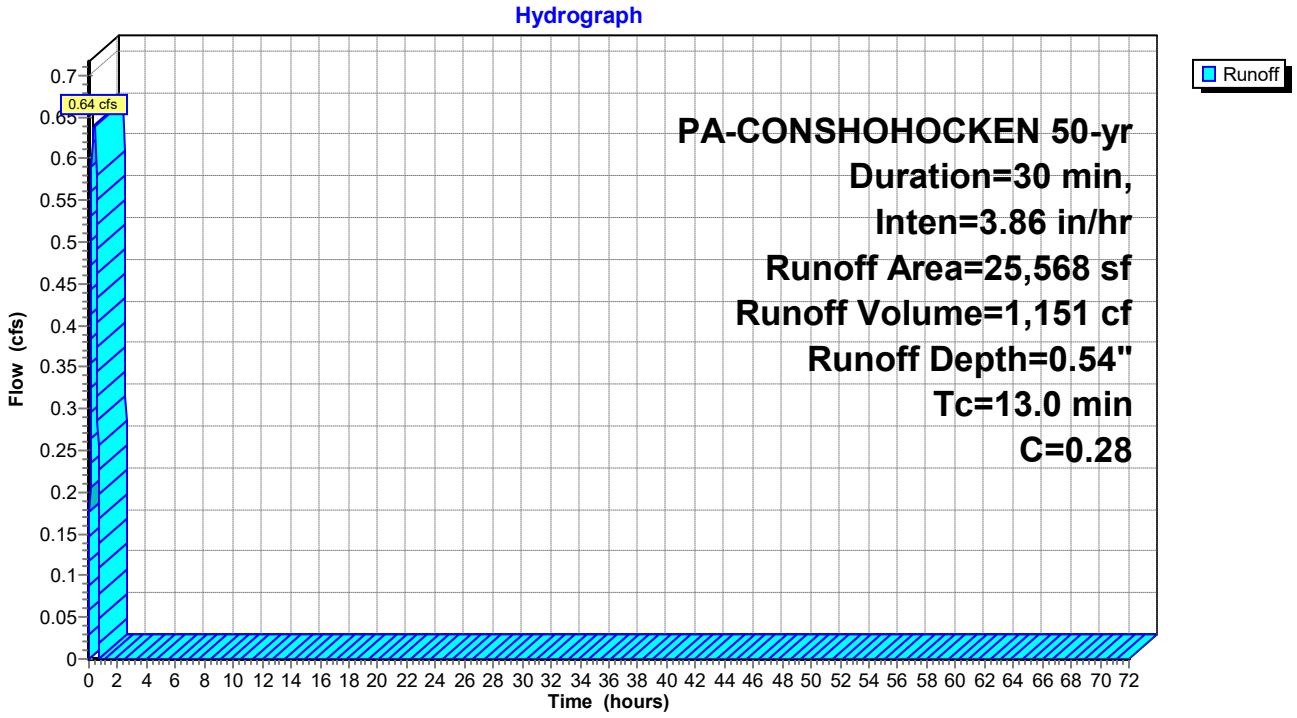
Runoff = 0.64 cfs @ 0.22 hrs, Volume= 1,151 cf, Depth= 0.54"
Routed to nonexistent node 1L

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 50-yr Duration=30 min, Inten=3.86 in/hr

Area (sf)	C	Description
25,568	0.28	Meadow (C 2-6%)
25,568		100.00% Pervious Area

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

Subcatchment A-1: Pre Onsite



Hydrograph for Subcatchment A-1: Pre Onsite

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.64**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment C-1: Controlled Area

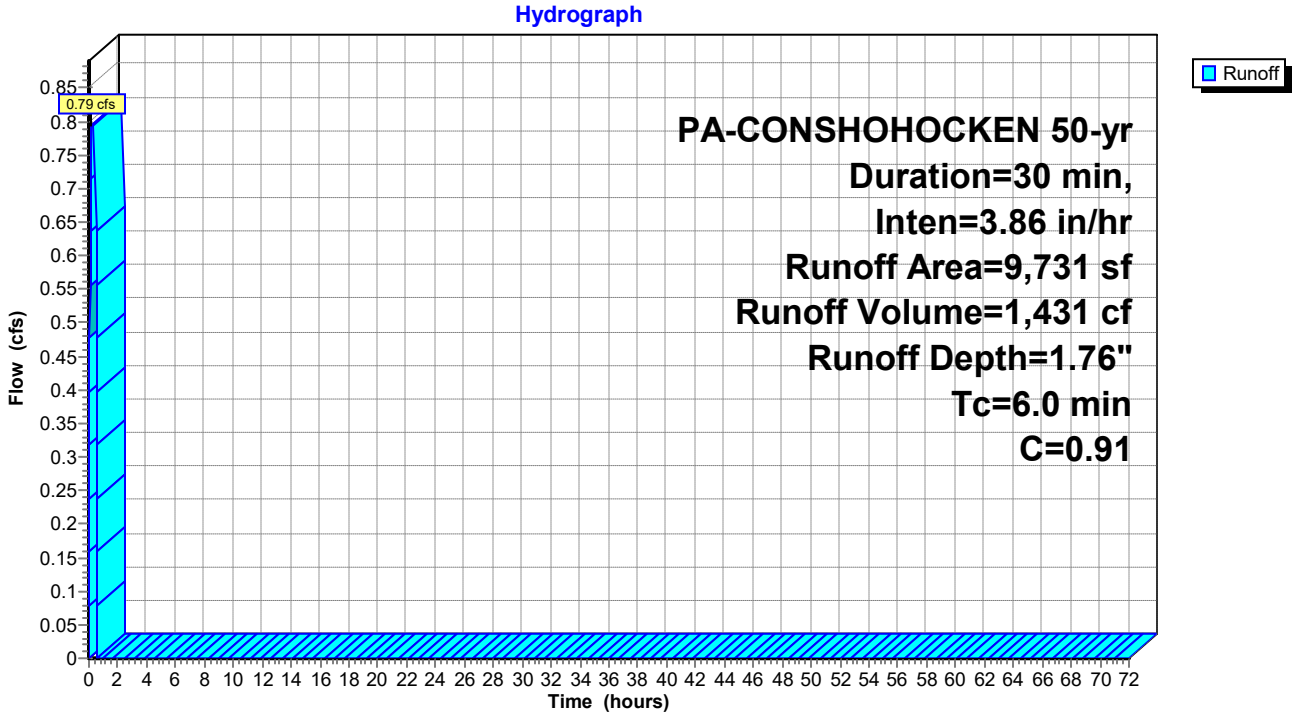
Runoff = 0.79 cfs @ 0.10 hrs, Volume= 1,431 cf, Depth= 1.76"
Routed to Pond P1 : PCSM 1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 50-yr Duration=30 min, Inten=3.86 in/hr

Area (sf)	C	Description
998	0.25	LAWN
8,733	0.99	IMPERVIOUS
9,731	0.91	Weighted Average
998		10.26% Pervious Area
8,733		89.74% Impervious Area

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

Subcatchment C-1: Controlled Area



Hydrograph for Subcatchment C-1: Controlled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.79**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment U-1: Uncontrolled Area

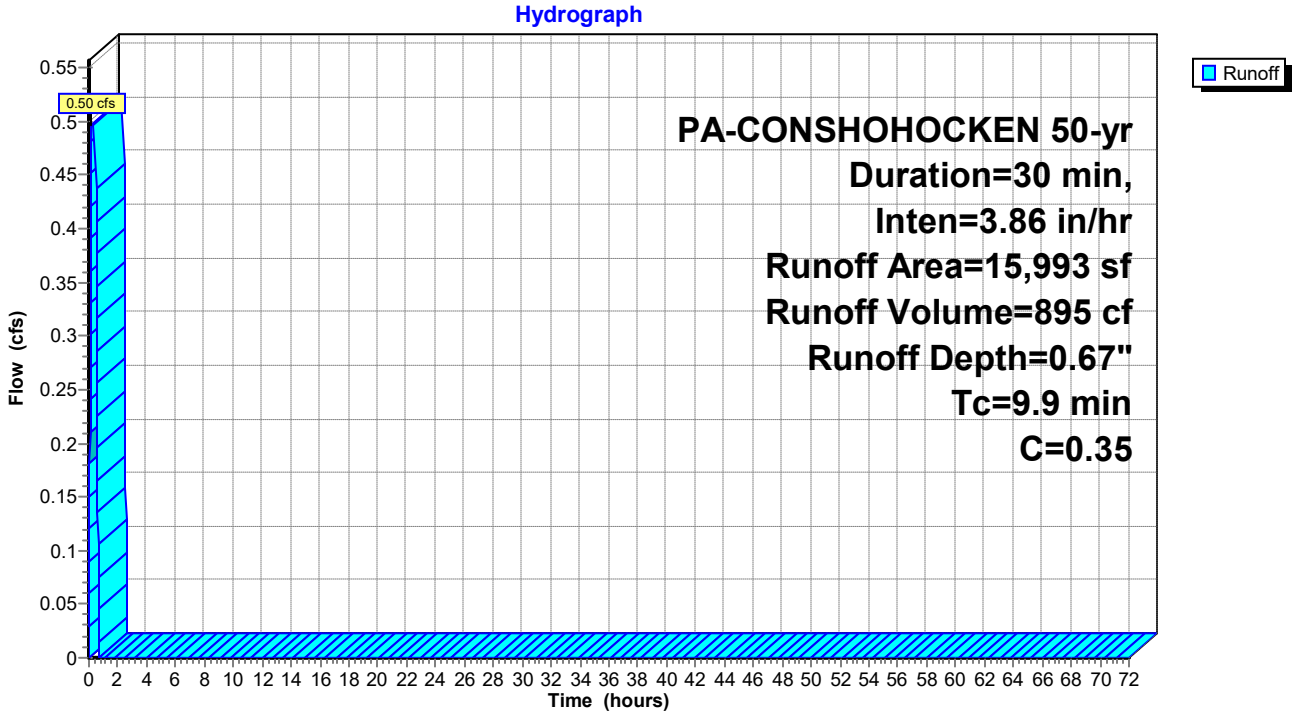
Runoff = 0.50 cfs @ 0.17 hrs, Volume= 895 cf, Depth= 0.67"
Routed to Link TOTAL : Total Post Out

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 50-yr Duration=30 min, Inten=3.86 in/hr

Area (sf)	C	Description
13,693	0.24	OPEN SPACE (C 6%+)
2,300	0.99	IMPERVIOUS
0	0.99	FUTURE IMPERVIOUS
15,993	0.35	Weighted Average
13,693		85.62% Pervious Area
2,300		14.38% Impervious Area

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

Subcatchment U-1: Uncontrolled Area



Hydrograph for Subcatchment U-1: Uncontrolled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.50**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Pond P1: PCSM 1

Inflow Area = 9,731 sf, 89.74% Impervious, Inflow Depth = 1.76" for 50-yr event
Inflow = 0.79 cfs @ 0.10 hrs, Volume= 1,431 cf
Outflow = 0.12 cfs @ 0.58 hrs, Volume= 1,224 cf, Atten= 85%, Lag= 29.1 min
Primary = 0.12 cfs @ 0.58 hrs, Volume= 1,224 cf
Routed to Link TOTAL : Total Post Out

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 55.92' @ 0.58 hrs Surf.Area= 1,034 sf Storage= 1,292 cf

Plug-Flow detention time= 119.6 min calculated for 1,224 cf (86% of inflow)
Center-of-Mass det. time= 117.6 min (135.6 - 18.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.00'	1,034 cf	**20.50'W x 50.42'L x 3.83'H Field A** 3,962 cf Overall - 1,378 cf Embedded = 2,584 cf x 40.0% Voids
#2A	54.50'	1,378 cf	**NDS StormChamber v2 SC-34** x 18 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap Row Length Adjustment= +0.92' x 9.89 sf x 3 rows
		2,411 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.50'	**8.0" Round OUTLET PIPE** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 54.50' / 54.00' S= 0.0185 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#2	Device 1	57.58'	**2.8' long RISER PLATE** 2 End Contraction(s)
#3	Device 1	54.50'	**2.0" Vert. O1** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.12 cfs @ 0.58 hrs HW=55.92' (Free Discharge)
└**1=OUTLET PIPE** (Passes 0.12 cfs of 1.75 cfs potential flow)
  ├**2=RISER PLATE** (Controls 0.00 cfs)
  └**3=O1** (Orifice Controls 0.12 cfs @ 5.57 fps)

Pond P1: PCSM 1 - Chamber Wizard Field A

Chamber Model = NDS StormChamber v2 SC-34 (NDS StormChamber v2)
Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf
Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap
Row Length Adjustment= +0.92' x 9.89 sf x 3 rows

60.0" Wide + 9.0" Spacing = 69.0" C-C Row Spacing

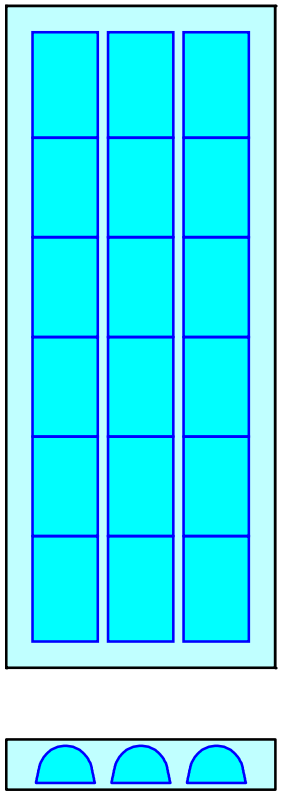
6 Chambers/Row x 7.58' Long +0.92' Row Adjustment = 46.42' Row Length +24.0" End Stone x 2 = 50.42' Base Length
3 Rows x 60.0" Wide + 9.0" Spacing x 2 + 24.0" Side Stone x 2 = 20.50' Base Width
6.0" Stone Base + 34.0" Chamber Height + 6.0" Stone Cover = 3.83' Field Height

18 Chambers x 75.0 cf +0.92' Row Adjustment x 9.89 sf x 3 Rows = 1,377.6 cf Chamber Storage

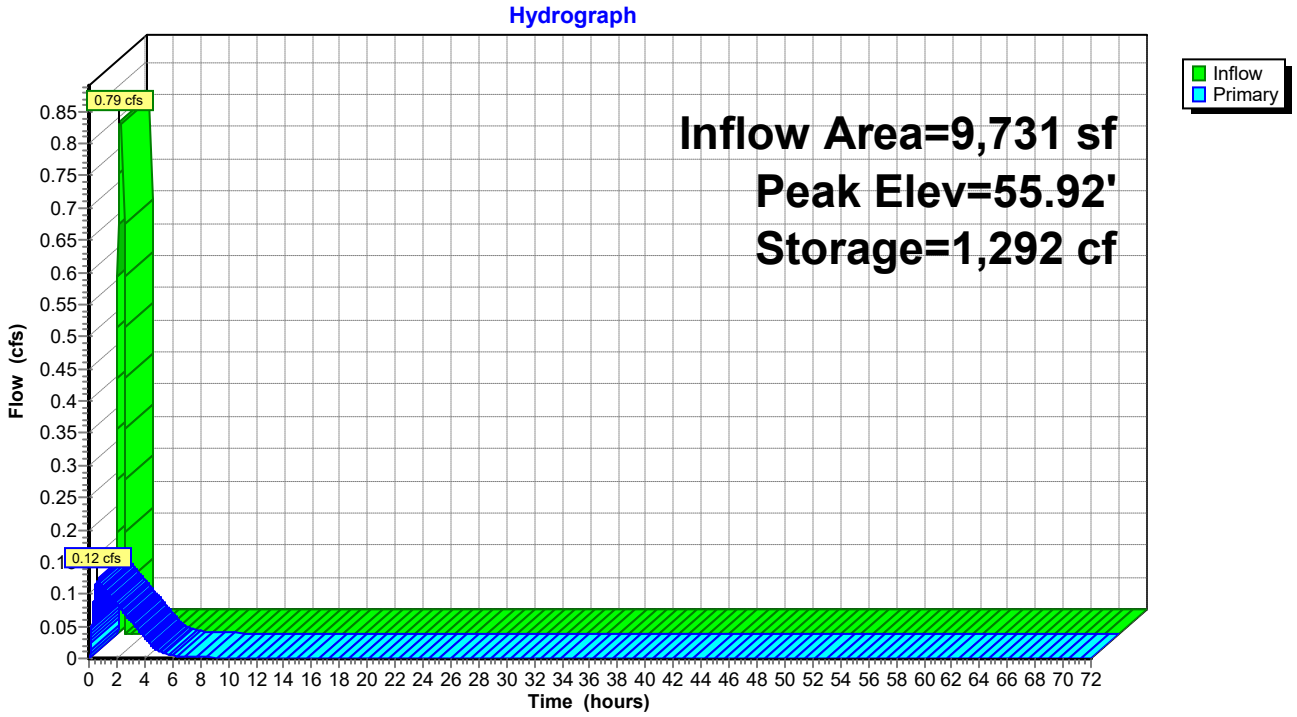
3,961.9 cf Field - 1,377.6 cf Chambers = 2,584.3 cf Stone x 40.0% Voids = 1,033.7 cf Stone Storage

Chamber Storage + Stone Storage = 2,411.3 cf = 0.055 af
Overall Storage Efficiency = 60.9%
Overall System Size = 50.42' x 20.50' x 3.83'

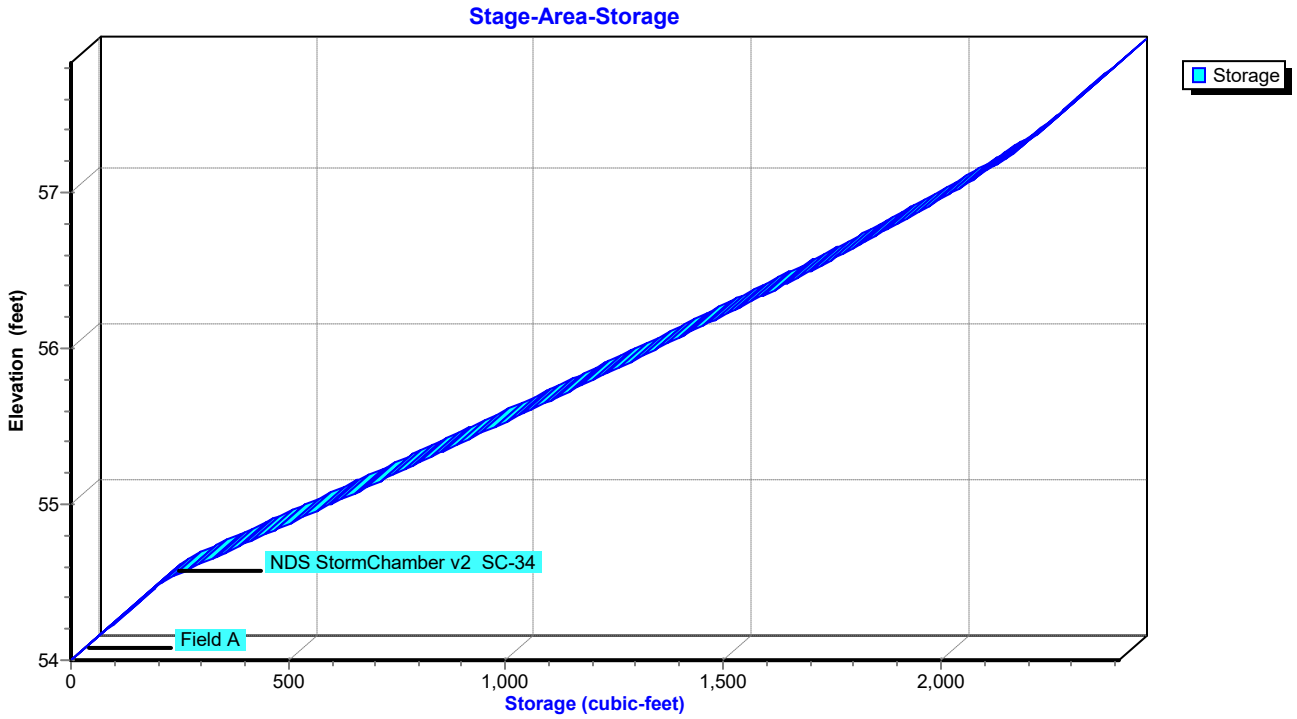
18 Chambers
146.7 cy Field
95.7 cy Stone



Pond P1: PCSM 1



Pond P1: PCSM 1



Hydrograph for Pond P1: PCSM 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0**	**54.00**	**0.00**
2.00	**0.00**	**771**	**55.23**	**0.08**
4.00	0.00	349	54.68	0.03
6.00	0.00	247	54.55	0.00
8.00	0.00	228	54.53	0.00
10.00	0.00	219	54.52	0.00
12.00	0.00	213	54.51	0.00
14.00	0.00	210	54.50	0.00
16.00	0.00	209	54.50	0.00
18.00	0.00	208	54.50	0.00
20.00	0.00	207	54.50	0.00
22.00	0.00	207	54.50	0.00
24.00	0.00	207	54.50	0.00
26.00	0.00	207	54.50	0.00
28.00	0.00	207	54.50	0.00
30.00	0.00	207	54.50	0.00
32.00	0.00	207	54.50	0.00
34.00	0.00	207	54.50	0.00
36.00	0.00	207	54.50	0.00
38.00	0.00	207	54.50	0.00
40.00	0.00	207	54.50	0.00
42.00	0.00	207	54.50	0.00
44.00	0.00	207	54.50	0.00
46.00	0.00	207	54.50	0.00
48.00	0.00	207	54.50	0.00
50.00	0.00	207	54.50	0.00
52.00	0.00	207	54.50	0.00
54.00	0.00	207	54.50	0.00
56.00	0.00	207	54.50	0.00
58.00	0.00	207	54.50	0.00
60.00	0.00	207	54.50	0.00
62.00	0.00	207	54.50	0.00
64.00	0.00	207	54.50	0.00
66.00	0.00	207	54.50	0.00
68.00	0.00	207	54.50	0.00
70.00	0.00	207	54.50	0.00
72.00	0.00	207	54.50	0.00

Stage-Discharge for Pond P1: PCSM 1

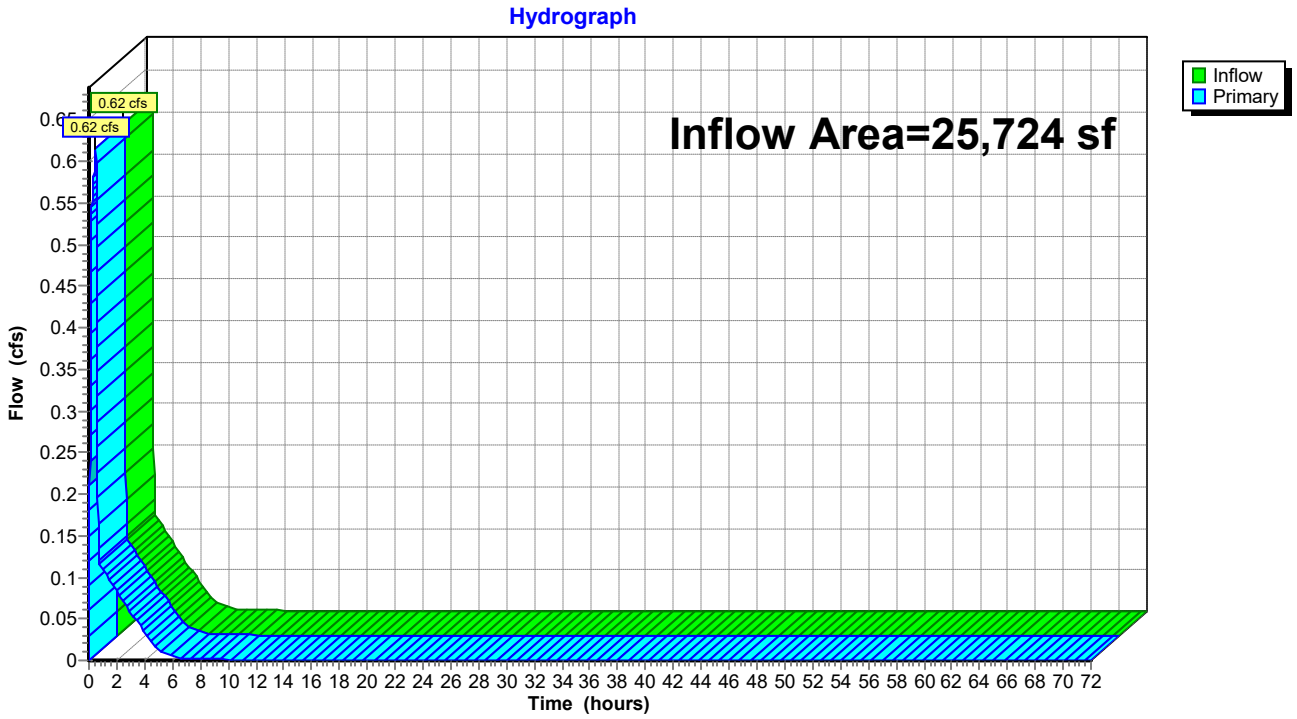
Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
54.00	0.00	55.04	0.07	56.08	0.13	57.12	0.17
54.02	0.00	55.06	0.07	56.10	0.13	57.14	0.17
54.04	0.00	55.08	0.07	56.12	0.13	57.16	0.17
54.06	0.00	55.10	0.08	56.14	0.13	57.18	0.17
54.08	0.00	55.12	0.08	56.16	0.13	57.20	0.17
54.10	0.00	55.14	0.08	56.18	0.13	57.22	0.17
54.12	0.00	55.16	0.08	56.20	0.13	57.24	0.17
54.14	0.00	55.18	0.08	56.22	0.13	57.26	0.17
54.16	0.00	55.20	0.08	56.24	0.14	57.28	0.17
54.18	0.00	55.22	0.08	56.26	0.14	57.30	0.17
54.20	0.00	55.24	0.09	56.28	0.14	57.32	0.17
54.22	0.00	55.26	0.09	56.30	0.14	57.34	0.17
54.24	0.00	55.28	0.09	56.32	0.14	57.36	0.18
54.26	0.00	55.30	0.09	56.34	0.14	57.38	0.18
54.28	0.00	55.32	0.09	56.36	0.14	57.40	0.18
54.30	0.00	55.34	0.09	56.38	0.14	57.42	0.18
54.32	0.00	55.36	0.09	56.40	0.14	57.44	0.18
54.34	0.00	55.38	0.09	56.42	0.14	57.46	0.18
54.36	0.00	55.40	0.09	56.44	0.14	57.48	0.18
54.38	0.00	55.42	0.10	56.46	0.14	57.50	0.18
54.40	0.00	55.44	0.10	56.48	0.14	57.52	0.18
54.42	0.00	55.46	0.10	56.50	0.15	57.54	0.18
54.44	0.00	55.48	0.10	56.52	0.15	57.56	0.18
54.46	0.00	55.50	0.10	56.54	0.15	57.58	0.18
54.48	0.00	55.52	0.10	56.56	0.15	57.60	0.21
54.50	0.00	55.54	0.10	56.58	0.15	57.62	0.26
54.52	0.00	55.56	0.10	56.60	0.15	57.64	0.32
54.54	0.00	55.58	0.10	56.62	0.15	57.66	0.39
54.56	0.01	55.60	0.11	56.64	0.15	57.68	0.47
54.58	0.01	55.62	0.11	56.66	0.15	57.70	0.56
54.60	0.01	55.64	0.11	56.68	0.15	57.72	0.66
54.62	0.02	55.66	0.11	56.70	0.15	57.74	0.77
54.64	0.02	55.68	0.11	56.72	0.15	57.76	0.88
54.66	0.03	55.70	0.11	56.74	0.15	57.78	1.00
54.68	0.03	55.72	0.11	56.76	0.15	57.80	1.12
54.70	0.04	55.74	0.11	56.78	0.16	57.82	**1.25**
54.72	0.04	55.76	0.11	56.80	0.16		
54.74	0.04	55.78	0.11	56.82	0.16		
54.76	0.04	55.80	0.12	56.84	0.16		
54.78	0.05	55.82	0.12	56.86	0.16		
54.80	0.05	55.84	0.12	56.88	0.16		
54.82	0.05	55.86	0.12	56.90	0.16		
54.84	0.05	55.88	0.12	56.92	0.16		
54.86	0.06	55.90	0.12	56.94	0.16		
54.88	0.06	55.92	0.12	56.96	0.16		
54.90	0.06	55.94	0.12	56.98	0.16		
54.92	0.06	55.96	0.12	57.00	0.16		
54.94	0.06	55.98	0.12	57.02	0.16		
54.96	0.06	56.00	0.13	57.04	0.16		
54.98	0.07	56.02	0.13	57.06	0.17		
55.00	0.07	56.04	0.13	57.08	0.17		
55.02	0.07	56.06	0.13	57.10	0.17		

Summary for Link TOTAL: Total Post Out

Inflow Area = 25,724 sf, 42.89% Impervious, Inflow Depth = 0.99" for 50-yr event
Inflow = 0.62 cfs @ 0.50 hrs, Volume= 2,119 cf
Primary = 0.62 cfs @ 0.50 hrs, Volume= 2,119 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link TOTAL: Total Post Out



Hydrograph for Link TOTAL: Total Post Out

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0.00**	**0.00**
1.00	**0.11**	0.00	**0.11**
2.00	0.08	0.00	0.08
3.00	0.06	0.00	0.06
4.00	0.03	0.00	0.03
5.00	0.01	0.00	0.01
6.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00
12.00	0.00	0.00	0.00
13.00	0.00	0.00	0.00
14.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00
16.00	0.00	0.00	0.00
17.00	0.00	0.00	0.00
18.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00
22.00	0.00	0.00	0.00
23.00	0.00	0.00	0.00
24.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00
27.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00
29.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00
31.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00
33.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00
37.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00
39.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00
41.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00
43.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00
47.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00
49.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00
51.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00
53.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00
57.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00
59.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00
61.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00
63.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00
67.00	0.00	0.00	0.00
68.00	0.00	0.00	0.00
69.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00
71.00	0.00	0.00	0.00
72.00	0.00	0.00	0.00

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A-1: Pre Onsite Runoff Area=25,568 sf 0.00% Impervious Runoff Depth=0.58"
Tc=13.0 min C=0.28 Runoff=0.69 cfs 1,241 cf

Subcatchment C-1: Controlled Area Runoff Area=9,731 sf 89.74% Impervious Runoff Depth=1.90"
Tc=6.0 min C=0.91 Runoff=0.86 cfs 1,542 cf

Subcatchment U-1: Uncontrolled Area Runoff Area=15,993 sf 14.38% Impervious Runoff Depth=0.72"
Tc=9.9 min C=0.35 Runoff=0.54 cfs 964 cf

Pond P1: PCSM 1 Peak Elev=56.06' Storage=1,394 cf Inflow=0.86 cfs 1,542 cf
Outflow=0.13 cfs 1,335 cf

Link TOTAL: Total Post Out Inflow=0.66 cfs 2,299 cf
Primary=0.66 cfs 2,299 cf

Total Runoff Area = 51,292 sf Runoff Volume = 3,747 cf Average Runoff Depth = 0.88"
78.49% Pervious = 40,259 sf 21.51% Impervious = 11,033 sf

Summary for Subcatchment A-1: Pre Onsite

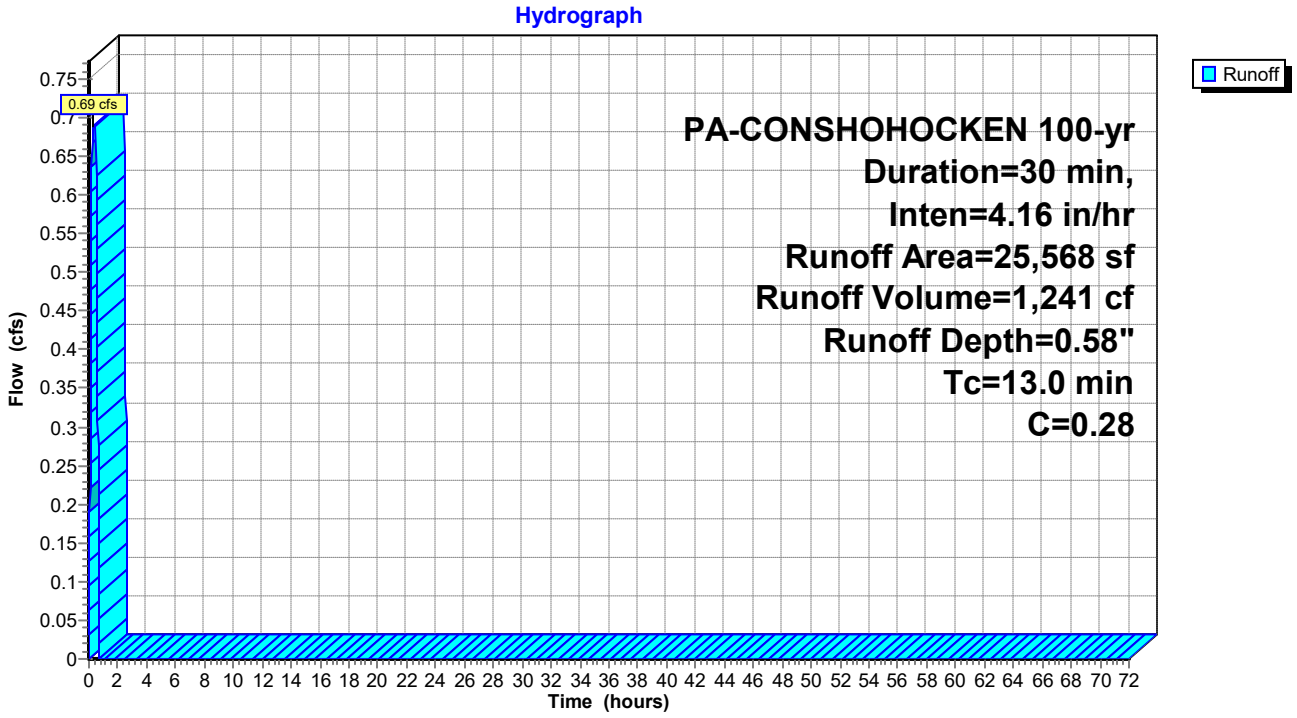
Runoff = 0.69 cfs @ 0.22 hrs, Volume= 1,241 cf, Depth= 0.58"
Routed to nonexistent node 1L

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 100-yr Duration=30 min, Inten=4.16 in/hr

Area (sf)	C	Description
25,568	0.28	Meadow (C 2-6%)
25,568		100.00% Pervious Area

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

Subcatchment A-1: Pre Onsite



Hydrograph for Subcatchment A-1: Pre Onsite

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.69**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment C-1: Controlled Area

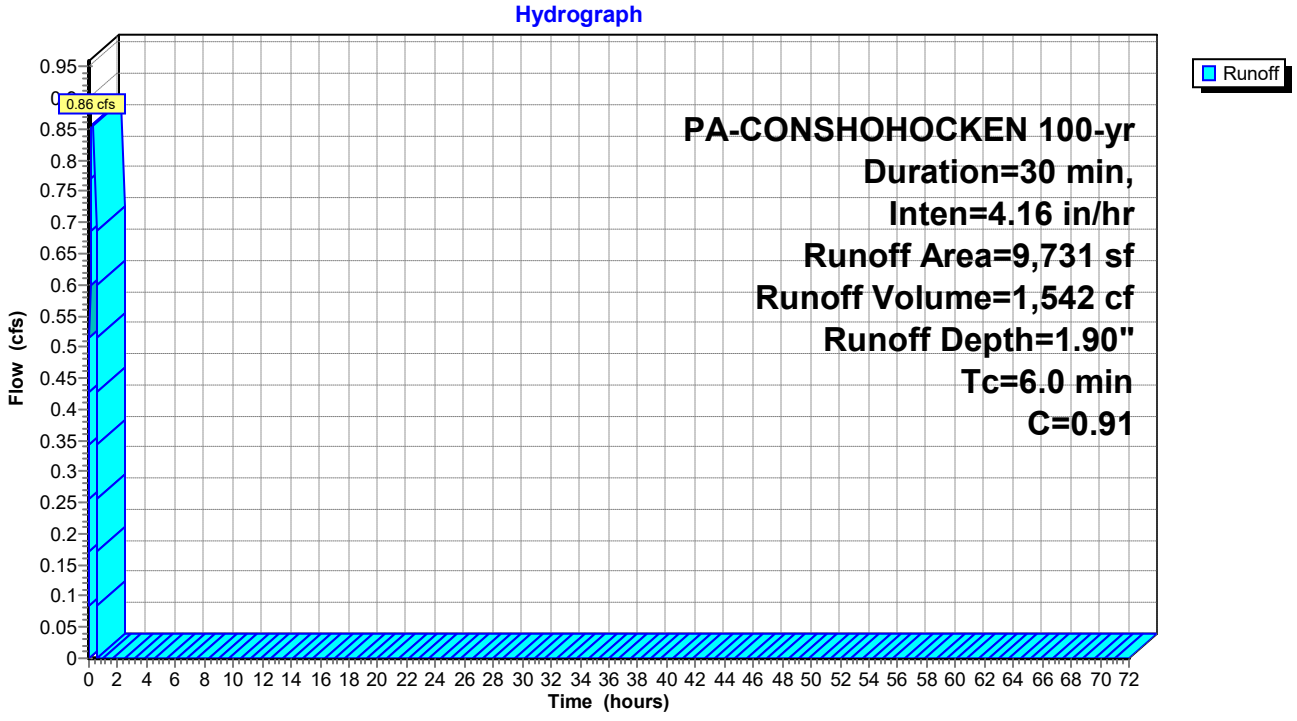
Runoff = 0.86 cfs @ 0.10 hrs, Volume= 1,542 cf, Depth= 1.90"
Routed to Pond P1 : PCSM 1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 100-yr Duration=30 min, Inten=4.16 in/hr

Area (sf)	C	Description
998	0.25	LAWN
8,733	0.99	IMPERVIOUS
9,731	0.91	Weighted Average
998		10.26% Pervious Area
8,733		89.74% Impervious Area

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

Subcatchment C-1: Controlled Area



Hydrograph for Subcatchment C-1: Controlled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.86**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Subcatchment U-1: Uncontrolled Area

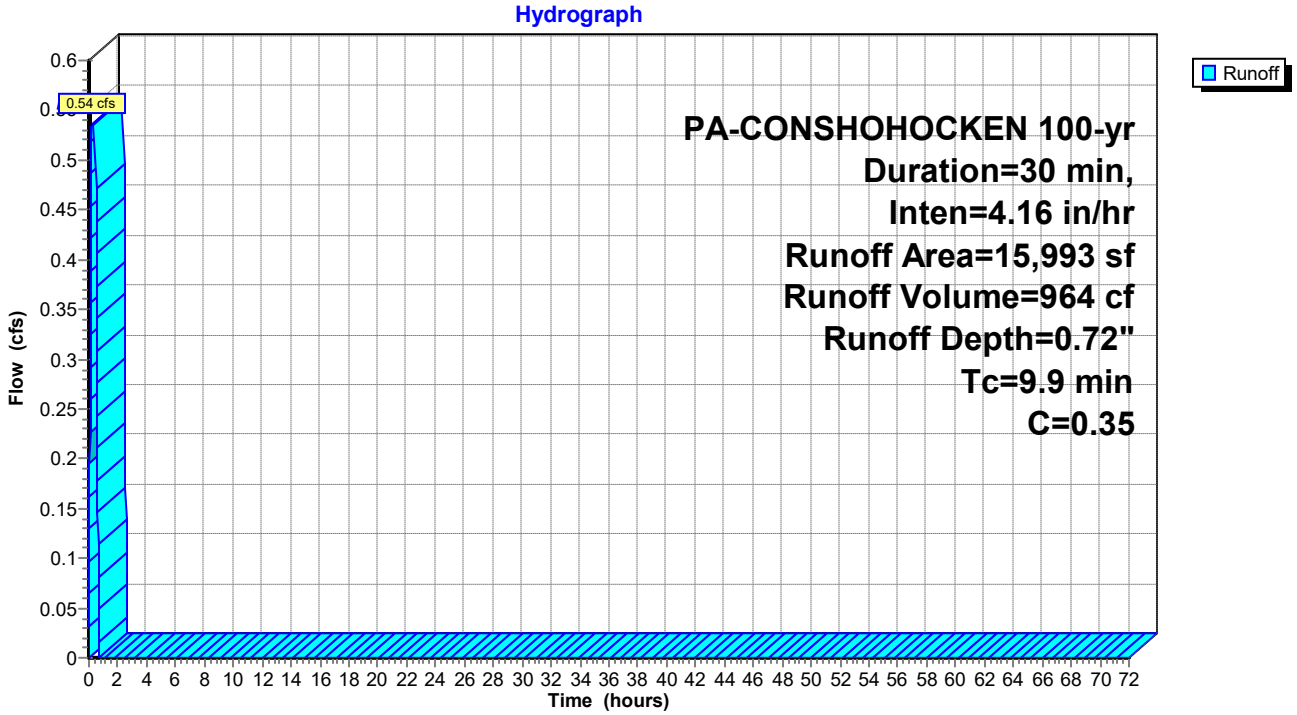
Runoff = 0.54 cfs @ 0.17 hrs, Volume= 964 cf, Depth= 0.72"
Routed to Link TOTAL : Total Post Out

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
PA-CONSHOHOCKEN 100-yr Duration=30 min, Inten=4.16 in/hr

Area (sf)	C	Description
13,693	0.24	OPEN SPACE (C 6%+)
2,300	0.99	IMPERVIOUS
0	0.99	FUTURE IMPERVIOUS
15,993	0.35	Weighted Average
13,693		85.62% Pervious Area
2,300		14.38% Impervious Area

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

Subcatchment U-1: Uncontrolled Area



Hydrograph for Subcatchment U-1: Uncontrolled Area

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	**0.00**	26.00	0.00	52.00	0.00
0.50	**0.54**	26.50	0.00	52.50	0.00
1.00	0.00	27.00	0.00	53.00	0.00
1.50	0.00	27.50	0.00	53.50	0.00
2.00	0.00	28.00	0.00	54.00	0.00
2.50	0.00	28.50	0.00	54.50	0.00
3.00	0.00	29.00	0.00	55.00	0.00
3.50	0.00	29.50	0.00	55.50	0.00
4.00	0.00	30.00	0.00	56.00	0.00
4.50	0.00	30.50	0.00	56.50	0.00
5.00	0.00	31.00	0.00	57.00	0.00
5.50	0.00	31.50	0.00	57.50	0.00
6.00	0.00	32.00	0.00	58.00	0.00
6.50	0.00	32.50	0.00	58.50	0.00
7.00	0.00	33.00	0.00	59.00	0.00
7.50	0.00	33.50	0.00	59.50	0.00
8.00	0.00	34.00	0.00	60.00	0.00
8.50	0.00	34.50	0.00	60.50	0.00
9.00	0.00	35.00	0.00	61.00	0.00
9.50	0.00	35.50	0.00	61.50	0.00
10.00	0.00	36.00	0.00	62.00	0.00
10.50	0.00	36.50	0.00	62.50	0.00
11.00	0.00	37.00	0.00	63.00	0.00
11.50	0.00	37.50	0.00	63.50	0.00
12.00	0.00	38.00	0.00	64.00	0.00
12.50	0.00	38.50	0.00	64.50	0.00
13.00	0.00	39.00	0.00	65.00	0.00
13.50	0.00	39.50	0.00	65.50	0.00
14.00	0.00	40.00	0.00	66.00	0.00
14.50	0.00	40.50	0.00	66.50	0.00
15.00	0.00	41.00	0.00	67.00	0.00
15.50	0.00	41.50	0.00	67.50	0.00
16.00	0.00	42.00	0.00	68.00	0.00
16.50	0.00	42.50	0.00	68.50	0.00
17.00	0.00	43.00	0.00	69.00	0.00
17.50	0.00	43.50	0.00	69.50	0.00
18.00	0.00	44.00	0.00	70.00	0.00
18.50	0.00	44.50	0.00	70.50	0.00
19.00	0.00	45.00	0.00	71.00	0.00
19.50	0.00	45.50	0.00	71.50	0.00
20.00	0.00	46.00	0.00	72.00	0.00
20.50	0.00	46.50	0.00		
21.00	0.00	47.00	0.00		
21.50	0.00	47.50	0.00		
22.00	0.00	48.00	0.00		
22.50	0.00	48.50	0.00		
23.00	0.00	49.00	0.00		
23.50	0.00	49.50	0.00		
24.00	0.00	50.00	0.00		
24.50	0.00	50.50	0.00		
25.00	0.00	51.00	0.00		
25.50	0.00	51.50	0.00		

Summary for Pond P1: PCSM 1

Inflow Area = 9,731 sf, 89.74% Impervious, Inflow Depth = 1.90" for 100-yr event
Inflow = 0.86 cfs @ 0.10 hrs, Volume= 1,542 cf
Outflow = 0.13 cfs @ 0.59 hrs, Volume= 1,335 cf, Atten= 85%, Lag= 29.1 min
Primary = 0.13 cfs @ 0.59 hrs, Volume= 1,335 cf
Routed to Link TOTAL : Total Post Out

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 56.06' @ 0.59 hrs Surf.Area= 1,034 sf Storage= 1,394 cf

Plug-Flow detention time= 123.1 min calculated for 1,335 cf (87% of inflow)
Center-of-Mass det. time= 120.8 min (138.8 - 18.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.00'	1,034 cf	**20.50'W x 50.42'L x 3.83'H Field A** 3,962 cf Overall - 1,378 cf Embedded = 2,584 cf x 40.0% Voids
#2A	54.50'	1,378 cf	**NDS StormChamber v2 SC-34** x 18 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap Row Length Adjustment= +0.92' x 9.89 sf x 3 rows
		2,411 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.50'	**8.0" Round OUTLET PIPE** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 54.50' / 54.00' S= 0.0185 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#2	Device 1	57.58'	**2.8' long RISER PLATE** 2 End Contraction(s)
#3	Device 1	54.50'	**2.0" Vert. O1** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.13 cfs @ 0.59 hrs HW=56.06' (Free Discharge)
└**1=OUTLET PIPE** (Passes 0.13 cfs of 1.86 cfs potential flow)
  ├**2=RISER PLATE** (Controls 0.00 cfs)
  └**3=O1** (Orifice Controls 0.13 cfs @ 5.85 fps)

Pond P1: PCSM 1 - Chamber Wizard Field A

Chamber Model = NDS StormChamber v2 SC-34 (NDS StormChamber v2)
Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf
Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap
Row Length Adjustment= +0.92' x 9.89 sf x 3 rows

60.0" Wide + 9.0" Spacing = 69.0" C-C Row Spacing

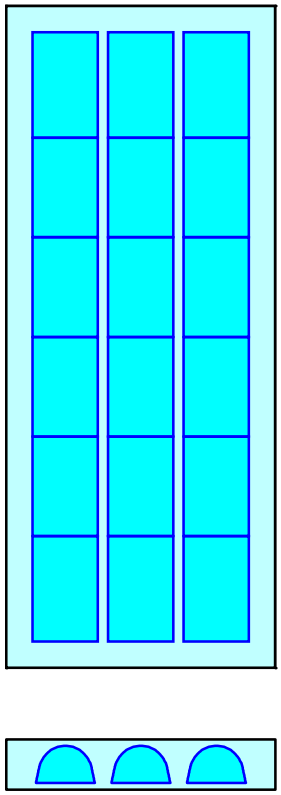
6 Chambers/Row x 7.58' Long +0.92' Row Adjustment = 46.42' Row Length +24.0" End Stone x 2 = 50.42' Base Length
3 Rows x 60.0" Wide + 9.0" Spacing x 2 + 24.0" Side Stone x 2 = 20.50' Base Width
6.0" Stone Base + 34.0" Chamber Height + 6.0" Stone Cover = 3.83' Field Height

18 Chambers x 75.0 cf +0.92' Row Adjustment x 9.89 sf x 3 Rows = 1,377.6 cf Chamber Storage

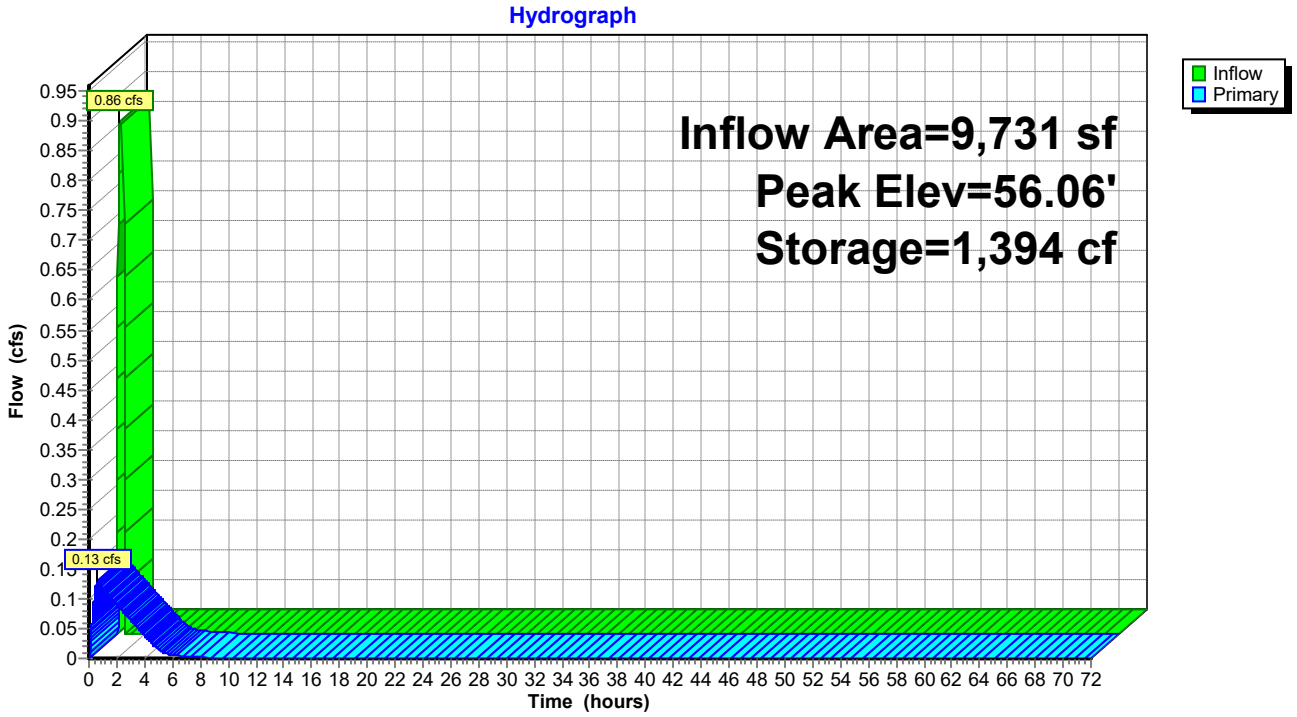
3,961.9 cf Field - 1,377.6 cf Chambers = 2,584.3 cf Stone x 40.0% Voids = 1,033.7 cf Stone Storage

Chamber Storage + Stone Storage = 2,411.3 cf = 0.055 af
Overall Storage Efficiency = 60.9%
Overall System Size = 50.42' x 20.50' x 3.83'

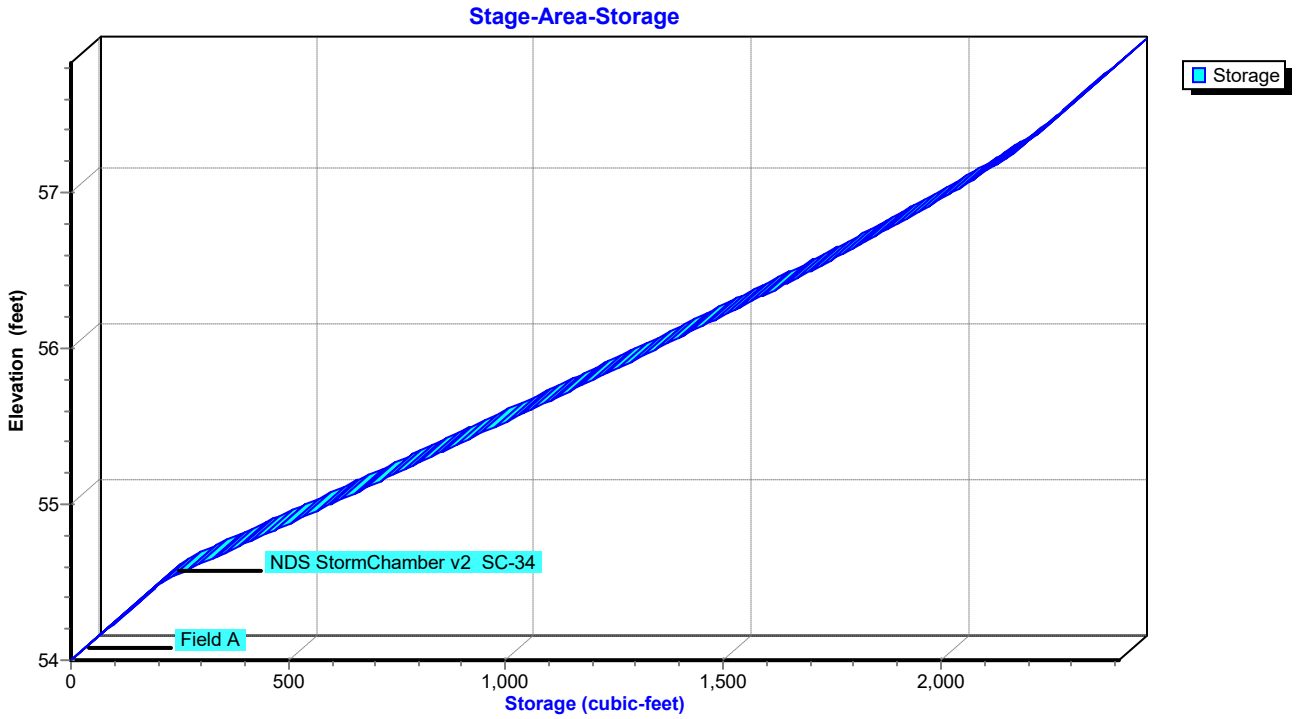
18 Chambers
146.7 cy Field
95.7 cy Stone



Pond P1: PCSM 1



Pond P1: PCSM 1



Hydrograph for Pond P1: PCSM 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0**	**54.00**	**0.00**
2.00	**0.00**	**842**	**55.32**	**0.09**
4.00	0.00	379	54.72	0.04
6.00	0.00	252	54.56	0.01
8.00	0.00	229	54.53	0.00
10.00	0.00	219	54.52	0.00
12.00	0.00	214	54.51	0.00
14.00	0.00	211	54.51	0.00
16.00	0.00	209	54.50	0.00
18.00	0.00	208	54.50	0.00
20.00	0.00	207	54.50	0.00
22.00	0.00	207	54.50	0.00
24.00	0.00	207	54.50	0.00
26.00	0.00	207	54.50	0.00
28.00	0.00	207	54.50	0.00
30.00	0.00	207	54.50	0.00
32.00	0.00	207	54.50	0.00
34.00	0.00	207	54.50	0.00
36.00	0.00	207	54.50	0.00
38.00	0.00	207	54.50	0.00
40.00	0.00	207	54.50	0.00
42.00	0.00	207	54.50	0.00
44.00	0.00	207	54.50	0.00
46.00	0.00	207	54.50	0.00
48.00	0.00	207	54.50	0.00
50.00	0.00	207	54.50	0.00
52.00	0.00	207	54.50	0.00
54.00	0.00	207	54.50	0.00
56.00	0.00	207	54.50	0.00
58.00	0.00	207	54.50	0.00
60.00	0.00	207	54.50	0.00
62.00	0.00	207	54.50	0.00
64.00	0.00	207	54.50	0.00
66.00	0.00	207	54.50	0.00
68.00	0.00	207	54.50	0.00
70.00	0.00	207	54.50	0.00
72.00	0.00	207	54.50	0.00

Stage-Discharge for Pond P1: PCSM 1

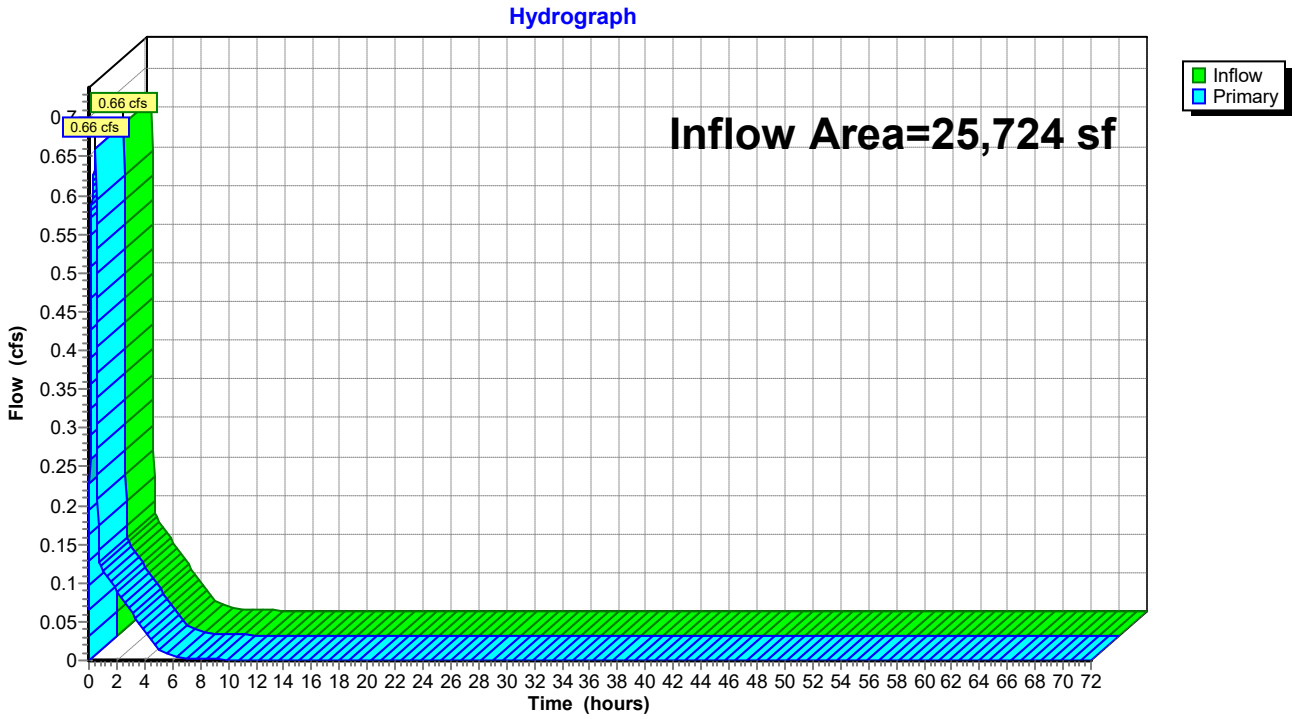
Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
54.00	0.00	55.04	0.07	56.08	0.13	57.12	0.17
54.02	0.00	55.06	0.07	56.10	0.13	57.14	0.17
54.04	0.00	55.08	0.07	56.12	0.13	57.16	0.17
54.06	0.00	55.10	0.08	56.14	0.13	57.18	0.17
54.08	0.00	55.12	0.08	56.16	0.13	57.20	0.17
54.10	0.00	55.14	0.08	56.18	0.13	57.22	0.17
54.12	0.00	55.16	0.08	56.20	0.13	57.24	0.17
54.14	0.00	55.18	0.08	56.22	0.13	57.26	0.17
54.16	0.00	55.20	0.08	56.24	0.14	57.28	0.17
54.18	0.00	55.22	0.08	56.26	0.14	57.30	0.17
54.20	0.00	55.24	0.09	56.28	0.14	57.32	0.17
54.22	0.00	55.26	0.09	56.30	0.14	57.34	0.17
54.24	0.00	55.28	0.09	56.32	0.14	57.36	0.18
54.26	0.00	55.30	0.09	56.34	0.14	57.38	0.18
54.28	0.00	55.32	0.09	56.36	0.14	57.40	0.18
54.30	0.00	55.34	0.09	56.38	0.14	57.42	0.18
54.32	0.00	55.36	0.09	56.40	0.14	57.44	0.18
54.34	0.00	55.38	0.09	56.42	0.14	57.46	0.18
54.36	0.00	55.40	0.09	56.44	0.14	57.48	0.18
54.38	0.00	55.42	0.10	56.46	0.14	57.50	0.18
54.40	0.00	55.44	0.10	56.48	0.14	57.52	0.18
54.42	0.00	55.46	0.10	56.50	0.15	57.54	0.18
54.44	0.00	55.48	0.10	56.52	0.15	57.56	0.18
54.46	0.00	55.50	0.10	56.54	0.15	57.58	0.18
54.48	0.00	55.52	0.10	56.56	0.15	57.60	0.21
54.50	0.00	55.54	0.10	56.58	0.15	57.62	0.26
54.52	0.00	55.56	0.10	56.60	0.15	57.64	0.32
54.54	0.00	55.58	0.10	56.62	0.15	57.66	0.39
54.56	0.01	55.60	0.11	56.64	0.15	57.68	0.47
54.58	0.01	55.62	0.11	56.66	0.15	57.70	0.56
54.60	0.01	55.64	0.11	56.68	0.15	57.72	0.66
54.62	0.02	55.66	0.11	56.70	0.15	57.74	0.77
54.64	0.02	55.68	0.11	56.72	0.15	57.76	0.88
54.66	0.03	55.70	0.11	56.74	0.15	57.78	1.00
54.68	0.03	55.72	0.11	56.76	0.15	57.80	1.12
54.70	0.04	55.74	0.11	56.78	0.16	57.82	**1.25**
54.72	0.04	55.76	0.11	56.80	0.16		
54.74	0.04	55.78	0.11	56.82	0.16		
54.76	0.04	55.80	0.12	56.84	0.16		
54.78	0.05	55.82	0.12	56.86	0.16		
54.80	0.05	55.84	0.12	56.88	0.16		
54.82	0.05	55.86	0.12	56.90	0.16		
54.84	0.05	55.88	0.12	56.92	0.16		
54.86	0.06	55.90	0.12	56.94	0.16		
54.88	0.06	55.92	0.12	56.96	0.16		
54.90	0.06	55.94	0.12	56.98	0.16		
54.92	0.06	55.96	0.12	57.00	0.16		
54.94	0.06	55.98	0.12	57.02	0.16		
54.96	0.06	56.00	0.13	57.04	0.16		
54.98	0.07	56.02	0.13	57.06	0.17		
55.00	0.07	56.04	0.13	57.08	0.17		
55.02	0.07	56.06	0.13	57.10	0.17		

Summary for Link TOTAL: Total Post Out

Inflow Area = 25,724 sf, 42.89% Impervious, Inflow Depth = 1.07" for 100-yr event
Inflow = 0.66 cfs @ 0.50 hrs, Volume= 2,299 cf
Primary = 0.66 cfs @ 0.50 hrs, Volume= 2,299 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link TOTAL: Total Post Out



Hydrograph for Link TOTAL: Total Post Out

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	**0.00**	**0.00**	**0.00**
1.00	**0.12**	0.00	**0.12**
2.00	0.09	0.00	0.09
3.00	0.06	0.00	0.06
4.00	0.04	0.00	0.04
5.00	0.01	0.00	0.01
6.00	0.01	0.00	0.01
7.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00
12.00	0.00	0.00	0.00
13.00	0.00	0.00	0.00
14.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00
16.00	0.00	0.00	0.00
17.00	0.00	0.00	0.00
18.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00
22.00	0.00	0.00	0.00
23.00	0.00	0.00	0.00
24.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00
27.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00
29.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00
31.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00
33.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00
37.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00
39.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00
41.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00
43.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00
47.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00
49.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00
51.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00
53.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00
57.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00
59.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00
61.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00
63.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00
67.00	0.00	0.00	0.00
68.00	0.00	0.00	0.00
69.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00
71.00	0.00	0.00	0.00
72.00	0.00	0.00	0.00

Events for Subcatchment A-1: Pre Onsite

Event	Rainfall (inches)	Runoff (cfs)	Volume (cubic-feet)	Depth (inches)
1-yr	0.95	0.31	566	0.27
2-yr	1.14	0.38	680	0.32
5-yr	1.39	0.46	829	0.39
10-yr	1.57	0.52	937	0.44
25-yr	1.78	0.59	1,062	0.50
50-yr	1.93	0.64	1,151	0.54
100-yr	**2.08**	**0.69**	**1,241**	**0.58**

Events for Subcatchment C-1: Controlled Area

Event	Rainfall (inches)	Runoff (cfs)	Volume (cubic-feet)	Depth (inches)
1-yr	0.95	0.39	703	0.87
2-yr	1.14	0.47	845	1.04
5-yr	1.39	0.57	1,030	1.27
10-yr	1.57	0.65	1,164	1.44
25-yr	1.78	0.73	1,319	1.63
50-yr	1.93	0.79	1,431	1.76
100-yr	**2.08**	**0.86**	**1,542**	**1.90**

Events for Subcatchment U-1: Uncontrolled Area

Event	Rainfall (inches)	Runoff (cfs)	Volume (cubic-feet)	Depth (inches)
1-yr	0.95	0.24	440	0.33
2-yr	1.14	0.29	529	0.40
5-yr	1.39	0.36	644	0.48
10-yr	1.57	0.40	728	0.55
25-yr	1.78	0.46	825	0.62
50-yr	1.93	0.50	895	0.67
100-yr	**2.08**	**0.54**	**964**	**0.72**

Events for Pond P1: PCSM 1

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	0.39	0.07	55.05	638
2-yr	0.47	0.08	55.22	762
5-yr	0.57	0.10	55.43	928
10-yr	0.65	0.11	55.59	1,048
25-yr	0.73	0.12	55.78	1,190
50-yr	0.79	0.12	55.92	1,292
100-yr	**0.86**	**0.13**	**56.06**	**1,394**

Events for Link TOTAL: Total Post Out

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-yr	0.31	0.31	**0.00**
2-yr	0.37	0.37	0.00
5-yr	0.45	0.45	0.00
10-yr	0.51	0.51	0.00
25-yr	0.57	0.57	0.00
50-yr	0.62	0.62	0.00
100-yr	**0.66**	**0.66**	0.00

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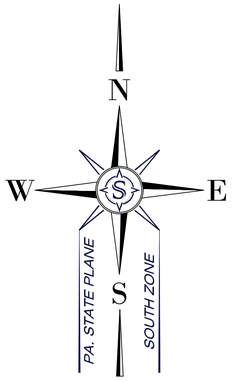
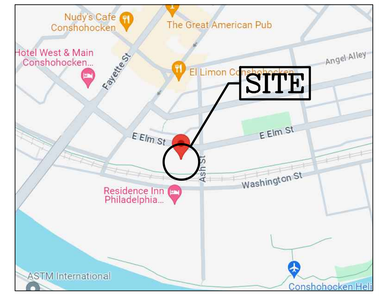
PIERI WINE GARDEN
127 E. ELM STREET

CONSHOHOCKEN BOROUGH | MONTGOMERY COUNTY | PENNSYLVANIA





SCALE: 1" = 500'

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SHEET 8:	LANDSCAPE PLAN
SHEET 9-10:	EROSION & SEDIMENTATION CONTROL NOTES & DETAILS
SHEET 11:	PCSM NOTES & DETAILS

SCHOCK GROUP
CIVIL ENGINEERING
LAND SURVEYING
1982 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM
610-940-7573

REGISTERED PROFESSIONAL
DAVID R. FIORELLO
ENGINEER
PE027479E

LOCATIONS OF EXISTING UTILITIES ON THIS PLAN HAVE BEEN DEVELOPED FROM FIELD LOCATIONS AS NOTED, ABOVE GROUND APPURTENANCES, AND/OR MAPS AND RECORDS FURNISHED BY THE UTILITY COMPANIES. ALL LOCATIONS SHOWN HEREON ARE APPROXIMATE AND NOT GUARANTEED AS TO ACCURACY OR THEIR LOCATIONS AND DEPTH OF ALL UNDERGROUND UTILITIES.

CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES BEFORE STARTING ANY WORK. BEFORE STARTING ANY WORK, THE CONTRACTOR SHALL NOTIFY ALL UTILITIES AND COMPANIES AFFECTED BY THIS WORK ONE CALL SYSTEM THREE DAYS PRIOR TO THE START OF WORK.

COVER SHEET
PRELIMINARY LAND DEVELOPMENT
127 E. ELM STREET
CONSHOHOCKEN BOROUGH * MONTGOMERY COUNTY * PENNSYLVANIA

PROJECT SCALE:
PROJECT NUMBER:

REV. | DESCRIPTION | DATE

CLIENT:
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
ONE CALL:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
FILE NO:	1819
SHEET NO:	1 OF 11

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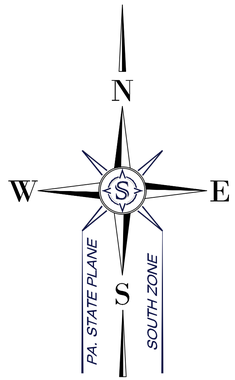


RECORDING ACKNOWLEDGEMENTS

OWNER OF RECORD

I _____, UNDERSIGNED HAVE LAID OUT UPON OUR LAND SITUATE IN THE BOROUGH OF CONSHOHOCKEN, MONTGOMERY COUNTY, PENNSYLVANIA, CERTAIN IMPROVEMENTS ACCORDING TO THE ACCOMPANYING PLAN, WHICH IS INTENDED TO BE RECORDED.

IN WITNESS WHERE OF,_____ A MEMBER OF _____ BEING AUTHORIZED TO DO SO, THIS___ DAY OF _____, 2024

_____

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF MONTGOMERY

ON THIS _____ DAY OF _____, 2024, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____ THE AUTHORIZED MEMBER OF _____, BEING AUTHORIZED TO DO SO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED BY SIGNING THE SAME.

_____(SEAL)
NOTARY PUBLIC

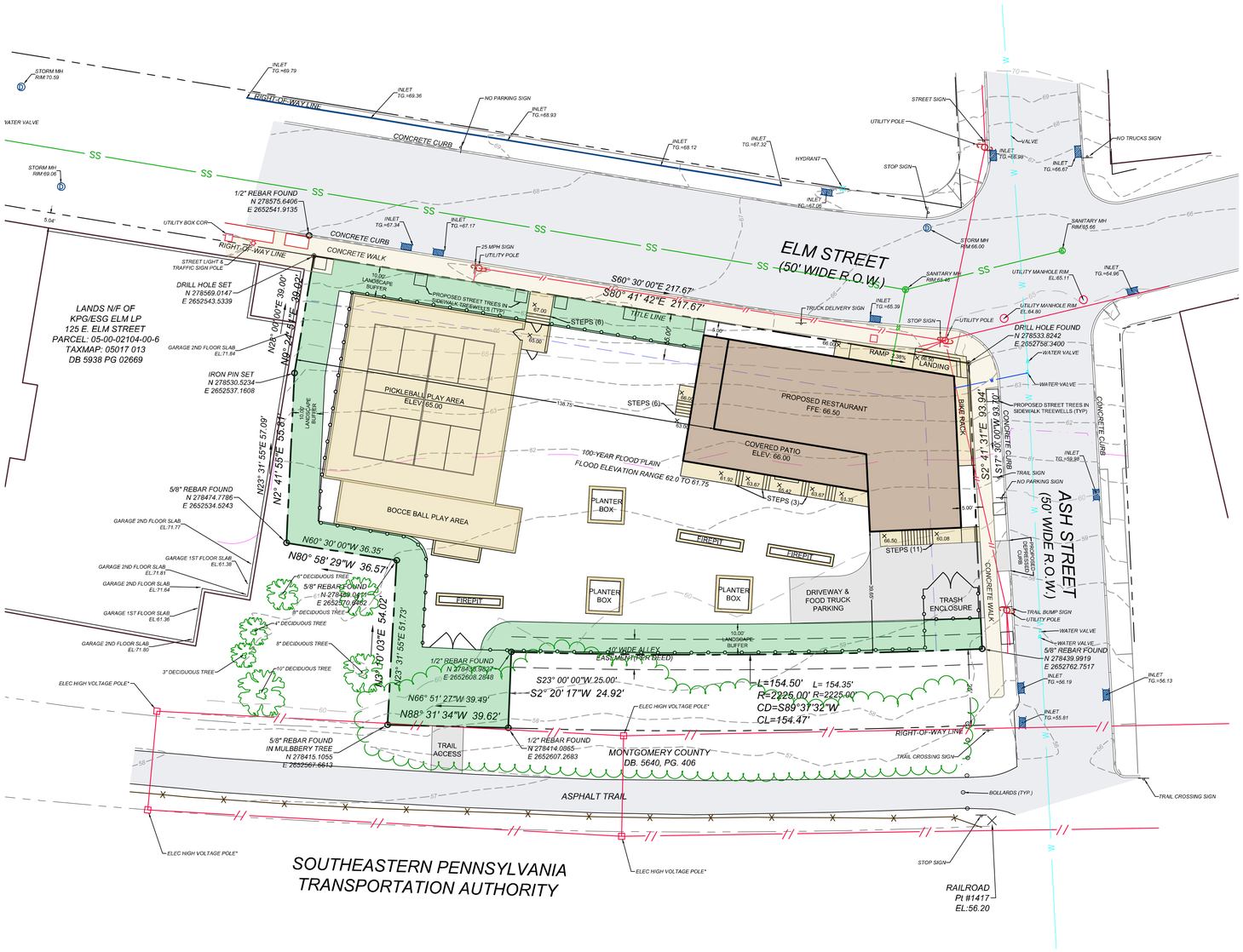
_____
COMMISSION EXPIRATION DATE

APPROVED BY THE BOROUGH COUNCIL OF CONSHOHOCKEN BOROUGH, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, ON THE _____ DAY OF _____, 20__

_____ _____
SECRETARY COUNCIL PRESIDENT

REVIEWED BY THE BOROUGH ENGINEER
ON THE _____ DAY OF _____, 20__

_____
DATE BOROUGH ENGINEER



OWNER OF RECORD PER MONTGOMERY COUNTY
RAYMOND L. WEINMANN
127 E. ELM STREET
CONSHOHOCKEN, PA 19428
PARCEL ID # 050002108002
DEED BOOK 5225, PAGE 00419

BOROUGH ZONING DISTRICT: SP1 - SPECIALLY PLANNED DISTRICTS

MIN LOT AREA	43,560 S.F.
MAX IMPERVIOUS COVERAGE	70%
MIN PRINCIPLE BUILDING SETBACKS:	
ULTIMATE RIGHT-OF-WAY	15 FEET
CURBLINE OF PRIVATE OR INTERNAL DRIVE	25 FEET

BUILDING SEPARATION
ON LOTS MEASURING BETWEEN ONE AND TWO ACRES IN AREA, BUILDINGS AND PARKINGS STRUCTURES SHOULD NOT BE LOCATED CLOSER THAN 40 FEET FROM AN ADJACENT BUILDING OR PARKING STRUCTURE LOCATED ON THE SAME LOT OF PARCEL. THE AREA BETWEEN BUILDINGS SHALL NOT BE COMPOSED ENTIRELY OF IMPERVIOUS SURFACES AND SHALL BE DESIGNED TO INCLUDE SIDEWALKS, PLANTED VERGE, LANDSCAPING AND OTHER GREEN SPACE.

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** ZONING INFORMATION OBTAINED FROM CONSHOHOCKEN BOROUGH CODE §27, LATEST EDITION ONLINE ECODE360.

LOT SIZE
GROSS LOT AREA: 25,097 S.F. OR 0.5761 ACRES

PROPOSED IMPERVIOUS COVERAGE

RESTAURANT	3,006	S.F.
COVERED PATIO	971	S.F.
CONCRETE WALKS & STEPS	1,078	S.F.
ASPHALT DRIVEWAY	1,308	S.F.
PICKLEBALL COURT	3,351	S.F.
BOCCE BALL COURT	804	S.F.
WALLS	515	S.F.
TOTAL	11,033	S.F. (43.96% OF LOT AREA)

** MAX LOT IMPERVIOUS COVERAGE IS 17,568 S.F. (70% OF LOT AREA).
6,535 S.F. OF AVAILABLE IMPERVIOUS COVERAGE.

OPEN SPACE CALCULATION AS PER §27-1504C
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1,021 S.F. (6.77%) OF IMPERVIOUS COVER IS PROPOSED WITHIN OPEN SPACE

SURVEY REFERENCE PLAN:
1. BOUNDARY AND TOPOGRAPHY FROM PLAN ENTITLED "EXISTING CONDITIONS PLAN, 127 E. ELM STREET" PREPARED BY "SCHOCK GROUP LLC.", DATED MAY 10, 2024.

SURVEY PLAN NOTES
1. THIS PLAN REPRESENTS AN ACTUAL FIELD SURVEY PERFORMED ON THE PREMISES ON MAY 7, 2024 AND SUPPLEMENTED ON JULY 10, 2024 AND DEPICTS CONDITIONS ON THAT DATE.
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3. THE HORIZONTAL BEARING DATUM SHOWN ON THIS PLAN IS PA STATE PLANE ZONE SOUTH HARN.
4. THE VERTICAL DATUM SHOWN ON THIS PLAN IS PER NAVD1988 OBTAINED VIA GPS NETWORK.
5. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A CLIENT PROVIDED TITLE REPORT & IS SUBJECT TO THOSE FINDINGS, IF ANY.
6. THIS PROPERTY IS LOCATED IN ZONE AE "WITH BFE OR DEPTH" IN ACCORDANCE TO FEMA MAP PANEL 42091C0358G, EFFECTIVE DATE 03/02/2016, APPROXIMATELY 652 FEET NORTH OF THE FLOODWAY AS SHOWN.
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CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE
STOP AND CALL
PENNSYLVANIA ONE-CALL SYSTEM INC.
1-800-242-1776

MCPC No. _____

PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

*Certified this date*_____

_____
For the Director
Montgomery County Planning Commission

I HEREBY CERTIFY THAT THIS PLAN HAD BEEN MADE UNDER MY IMMEDIATE SUPERVISION, THAT THE MONUMENTS SHOWN EXIST OR SHALL BE LOCATED AND THAT ALL GEODETIC AND DIMENSIONAL DETAILS ARE CORRECT AND THAT THIS MAP COMPLIES WITH THE PROVISIONS OF THE MAP FILING LAW, THE MUNICIPAL ORDINANCES AND REQUIREMENTS APPLICABLE THERETO.

_____
DATE PROF. LAND SURVEYOR/PROF. ENGINEER

PROJECT ZONING VARIANCES REQUESTED:
1. VARIANCE - ACTIVE OUTDOOR RECREATION - §27-1713(1)(B)
2. VARIANCE - WINE TASTING VENUE USE, PARKING LOT AND STORMWATER BASIN TO MANAGE STORMWATER - §27-1714(1)(A), (B), (D), (F), (H) AND (K)
3. DIMENSIONAL VARIANCE - FRONT YARD SETBACK - §27-1505(A)(2)
4. VARIANCE - OBSTRUCTION OF VISION AT INTERSECTION - §27-810
5. DIMENSIONAL VARIANCE - PICKLEBALL COURT FENCE HEIGHT - §27-809
6. VARIANCE - LOCATION OF REFUSE ENCLOSURE - §27-820(F)
7. OFF-SITE PARKING SPECIAL EXCEPTION - §27-2006 AND/OR VARIANCE IF MORE THAN 200'
8. THE BOARD'S STANDARD OF REVIEW - §27-1722(4) - VARIANCE

PROJECT WAIVER REQUESTS
1. §19-303.3.A(3) - STORMWATER MANAGEMENT VOLUME CONTROL REQUIREMENT
   1.1. REQUEST BASED ON THE PHASE II FINDINGS OF ARSENIC AND BENZO[B]FLUORANTHENE IN THE SOILS BENEATH THE PROJECT AREA, DUE TO THESE FINDINGS, GROUND INFILTRATION FOR VOLUME REDUCTION IS NOT RECOMMENDED.

LINETYPE LEGEND

	PROPERTY LINE
	ADJOINER PROPERTY LINE
	EASEMENT LINE
	RIGHT-OF-WAY LINE
	BUILDING SETBACK
	CONCRETE EDGE
	ASPHALT EDGE
	BUILDING WALL
	CURB
	100-YR FLOODPLAIN
	BUILDING
	ASPHALT
	ROOF OVERHANG
	CONCRETE
	FENCE LINE
	OVERHEAD ELECTRIC
E E	ELECTRIC LINE
G G	GAS LINE
T/C T/C	TELECOM LINE
W W	WATER LINE
SS SS	SANITARY LINE
ST ST	EXISTING STORM PIPES
377	EXISTING 1' CONTOUR
380	EXISTING 5' CONTOUR
	EVERGREEN TREE
	DECIDUOUS TREE
N60° 38' 00"W 90.00'	PLAN BEARING & DISTANCE
N60° 38' 00"W 90.00'	DEED BEARING & DISTANCE

SCALE: 1" = 20'
20 0 20 40 80

SCHOCK GROUP
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1180 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM
610-940-5373

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
DAVID R. FIORELLO
ENGINEER
PE027479E

RECORD PLAN (1 OF 1)
PRELIMINARY LAND DEVELOPMENT
127 E. ELM STREET
CONSHOHOCKEN BOROUGH * MONTGOMERY COUNTY * PENNSYLVANIA

PROJECT IMAGE
PROJECT NAME

REV. DATE DESCRIPTION

CLIENT
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
QA/QC:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
FILE NO.	1819
SHEET NO.	2 OF 11

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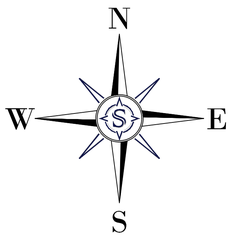
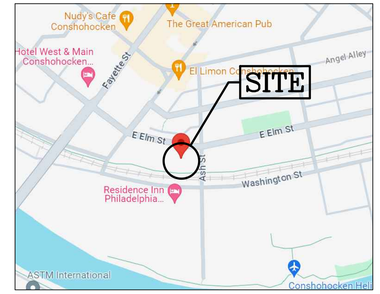
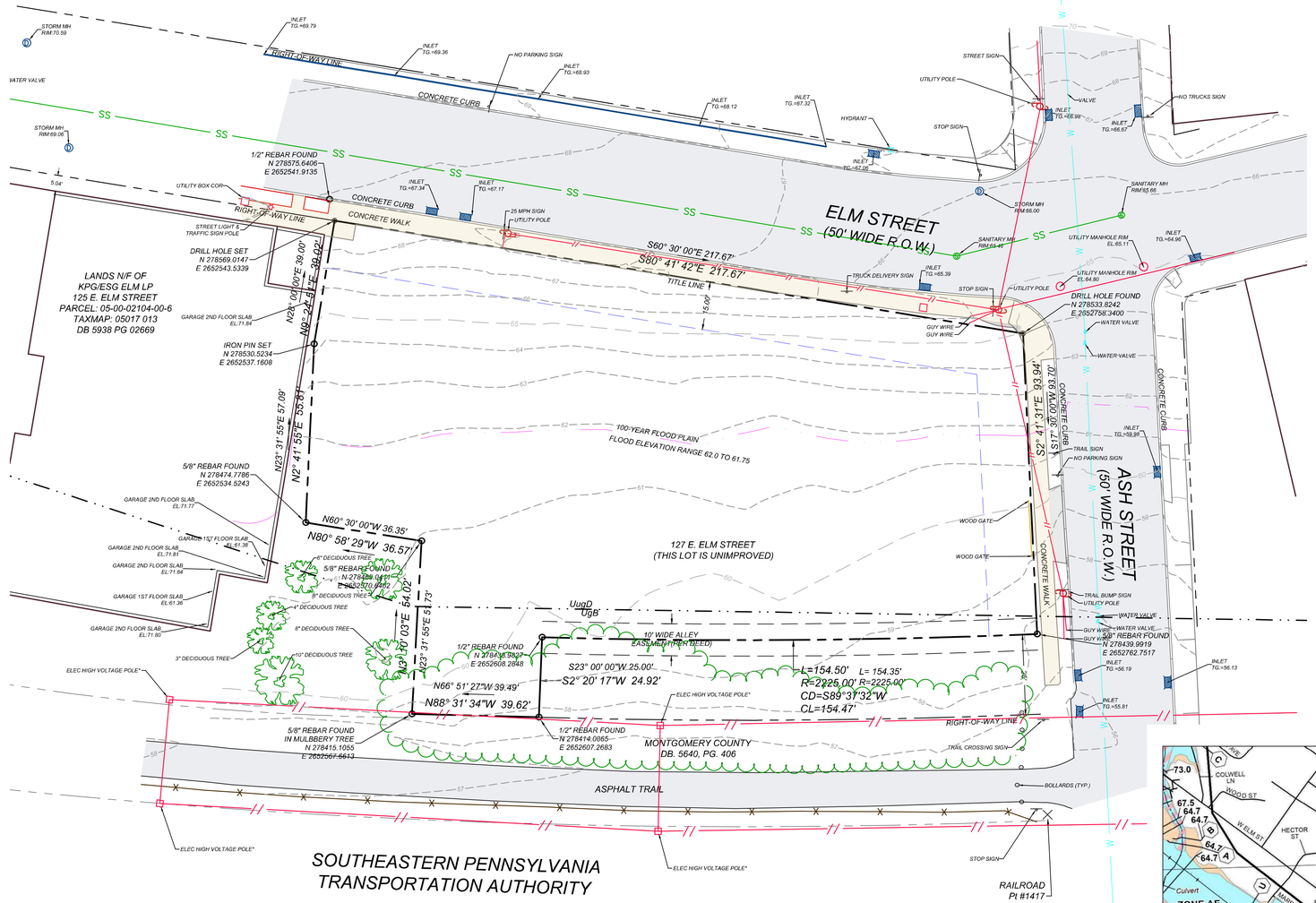
EXISTING CONDITIONS & DEMOLITION PLAN





SCALE: 1" = 500'



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20 0 20 40 80

LINETYPE LEGEND

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OWNER OF RECORD PER MONTGOMERY COUNTY
RAYMOND L. WEINMANN
127 E. ELM STREET
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PARCEL ID # 050002108002
DEED BOOK 5225, PAGE 00419

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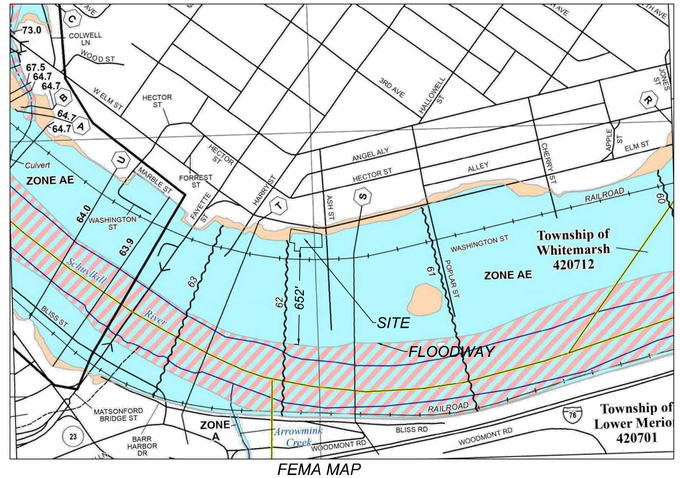

FEMA MAP
SCALE: 1"=500'

SCHOCK GROUP
CIVIL ENGINEERING
LAND SURVEYING
1982 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM
610-940-7272

COMMONWEALTH OF PENNSYLVANIA
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EXISTING CONDITIONS PLAN
PRELIMINARY LAND DEVELOPMENT
127 E. ELM STREET
CONSHOHOCKEN BOROUGH * MONTGOMERY COUNTY * PENNSYLVANIA

PROJECT MANAGER: DRF
PROJECT ENGINEER: DRF

NO.	DATE	DESCRIPTION

CLIENT:
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
ONE CALL:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
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SHEET NO.:	3 OF 11

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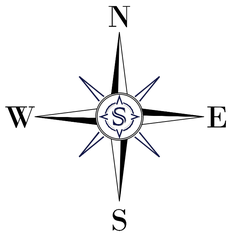
GRADING AND UTILITY SITE PLAN



PROPOSED LINETYPE LEGEND

- 60 — PROPOSED CONTOUR LINE
- PROPOSED FENCE LINE
- BUILDING
- ASPHALT
- WALKS
- WALL
- LANDSCAPED BUFFER AREA
- TRENCH DRAIN
- STORMWATER PIPE

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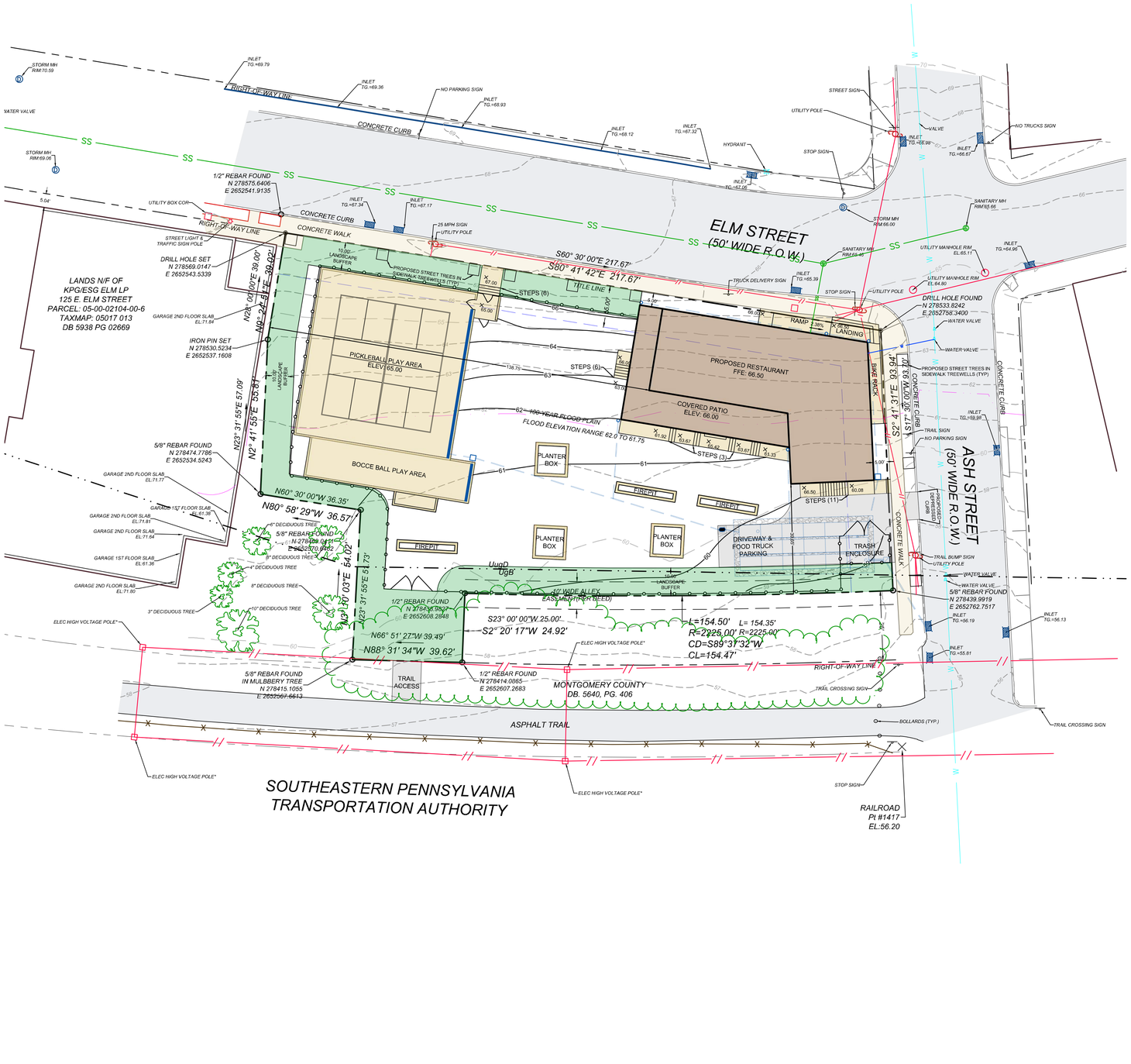

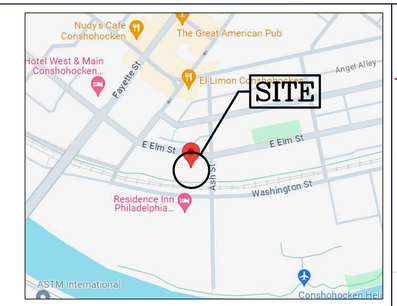

SCALE: 1" = 500'

OWNER OF RECORD PER MONTGOMERY COUNTY
RAYMOND L. WEINMANN
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RESTAURANT	3,006	S.F.
COVERED PATIO	971	S.F.
CONCRETE WALKS & STEPS	1,078	S.F.
ASPHALT DRIVEWAY	1,308	S.F.
PICKLEBALL COURT	3,351	S.F.
BOCCE BALL COURT	804	S.F.
WALLS	515	S.F.
TOTAL	11,033	S.F. (43.96% OF LOT AREA)

** MAX LOT IMPERVIOUS COVERAGE IS 17,568 S.F. (70% OF LOT AREA), 6,535 S.F. OF AVAILABLE IMPERVIOUS COVERAGE.

OPEN SPACE CALCULATION AS PER §27-1504C
PROPOSED OPEN SPACE 15,085 S.F. (60.11% OF LOT AREA)
1,021 S.F. (6.77%) OF IMPERVIOUS COVER IS PROPOSED WITHIN OPEN SPACE

SURVEY REFERENCE PLAN:
1. BOUNDARY AND TOPOGRAPHY FROM PLAN ENTITLED "EXISTING CONDITIONS PLAN, 127 E. ELM STREET" PREPARED BY "SCHOCK GROUP LLC.", DATED MAY 10, 2024.

SURVEY PLAN NOTES
1. THIS PLAN REPRESENTS AN ACTUAL FIELD SURVEY PERFORMED ON THE PREMISES ON MAY 7, 2024 AND SUPPLEMENTED ON JULY 10, 2024 AND DEPICTS CONDITIONS ON THAT DATE.
2. THE EXISTENCE AND/OR LOCATION OF ALL SUBSURFACE UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE FIELD VERIFIED BY ALL CONTRACTORS PRIOR TO CONSTRUCTION.
3. THE HORIZONTAL BEARING DATUM SHOWN ON THIS PLAN IS PA STATE PLANE ZONE SOUTH HARN.
4. THE VERTICAL DATUM SHOWN ON THIS PLAN IS PER NAVD1988 OBTAINED VIA GPS NETWORK.
5. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A CLIENT PROVIDED TITLE REPORT & IS SUBJECT TO THOSE FINDINGS, IF ANY.
6. THIS PROPERTY IS LOCATED IN ZONE AE "WITH BFE OR DEPTH" IN ACCORDANCE TO FEMA MAP PANEL 42091C0358G, EFFECTIVE DATE 03/02/2016, APPROXIMATELY 652 FEET NORTH OF THE FLOODWAY AS SHOWN.
7. SITE SOIL TYPES ARE "UugD" & "UgB" PER USDA WEB SOIL SURVEY.
8. AERIAL OVERLAY SHOULD NOT BE USED FOR DESIGN PURPOSES AND CONTAINS SOME SPATIAL INACCURACIES.

RECEIVING WATERS
1. SCHUYLKILL RIVER

STORMWATER CONVEYANCE NOTES:
1. ALL ROOF DOWNSPOUTS ON THE LOT ARE TO BE CONNECTED TO THE ON-LOT PCSM SYSTEM.
2. ALL DOWNSPOUTS MUST ENTER A SUMP BOX OR SUMPED INLET BEFORE ENTERING A BMP.

SOILS INFORMATION

SYMBOL	NAME	%SLOPE	HYDROLOGIC SOIL GROUP	DEPTH TO SH WATER	DEPTH TO BEDROCK	DRAINAGE CLASS	RUNOFF CLASS
UugD	URBAN LAND-UDORTHENTS, SCHIST & GNEISS COMPLEX	8 TO 25 PERCENT SLOPES	C	>60"	20-70"	WELL DRAINED	HIGH

SCALE: 1" = 20'
20 0 20 40 80

SCHOCK GROUP
CIVIL ENGINEERING
LAND SURVEYING
1982 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM
610-940-7373

REGISTERED PROFESSIONAL
DAVID R. FIORELLO
ENGINEER
PE027479E

LOCATIONS OF EXISTING UTILITIES ON THIS PLAN HAVE BEEN DEVELOPED FROM FIELD LOCATIONS AS VISIBLE ABOVE GROUND AND FROM PLANS AND MAPS OF RECORD FURNISHED BY THE UTILITY COMPANIES. ALL LOCATIONS SHOWN ARE APPROXIMATE AND NOT GUARANTEED AS TO ACCURACY OF THE LOCATIONS AND DEPTH OF ALL UNDERGROUND UTILITIES.
CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES BEFORE STARTING ANY WORK. ONE CALL SYSTEM THREE DAYS PRIOR TO THE START OF WORK.

GRADING & UTILITY SITE PLAN
PRELIMINARY LAND DEVELOPMENT
CONSHOHOCKEN BOROUGH • MONTGOMERY COUNTY • PENNSYLVANIA

127 E. ELM STREET

PROJECT IMAGE
PROJECT NAME

REV.	DATE	DESCRIPTION

CLIENT
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
QA/QC:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
FILE NO:	1819
SHEET NO:	4 OF 11

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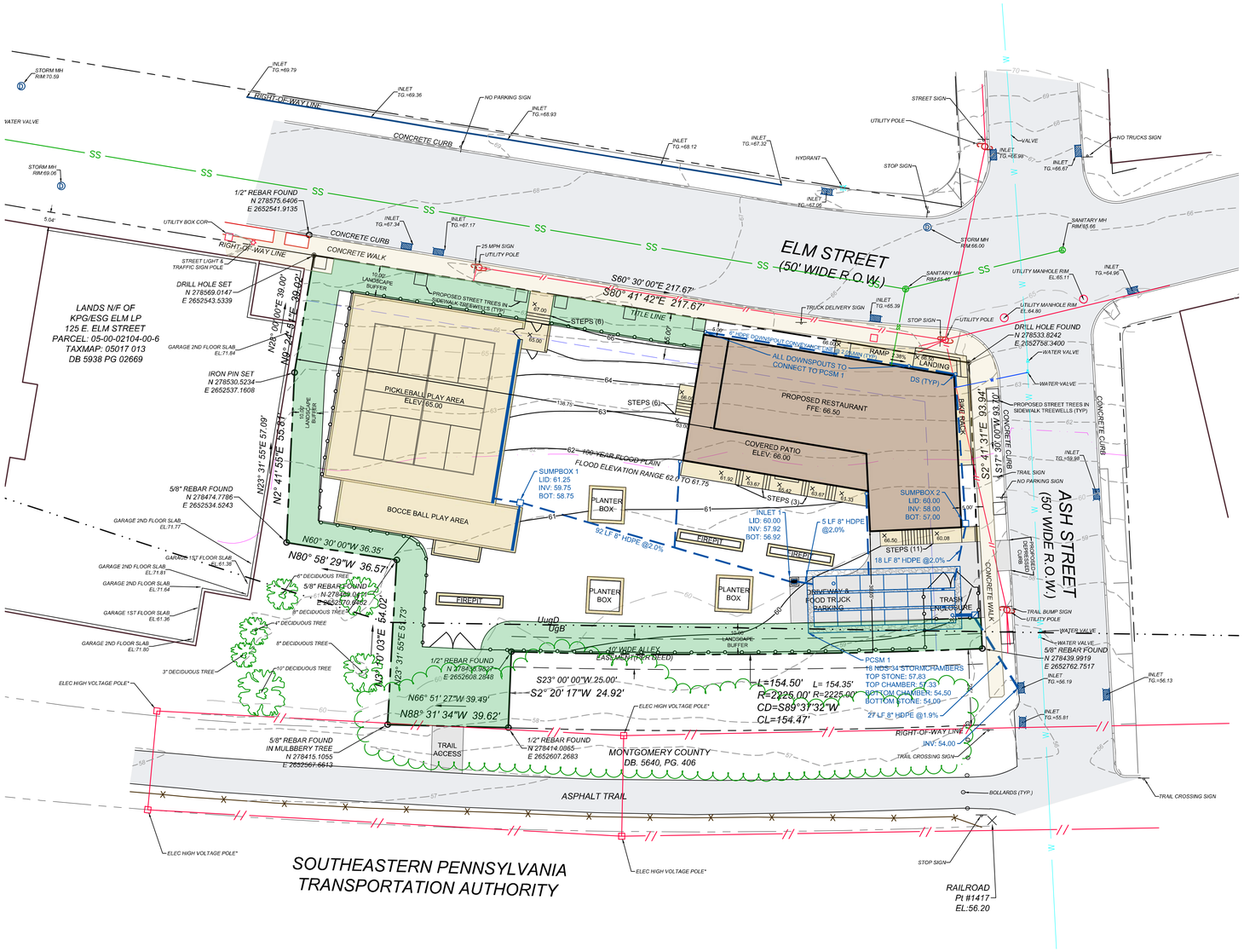
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN



PROPOSED LINETYPE LEGEND

- PROPOSED CONTOUR LINE
- PROPOSED FENCE LINE
- BUILDING
- ASPHALT
- WALKS
- WALL
- LANDSCAPED BUFFER AREA
- TRENCH DRAIN
- STORMWATER PIPE

LINETYPE LEGEND

- PROPERTY LINE
- ADJOINER PROPERTY LINE
- EASEMENT LINE
- RIGHT-OF-WAY LINE
- BUILDING SETBACK
- CONCRETE EDGE
- ASPHALT EDGE
- BUILDING WALL
- CURB
- 100-YR FLOODPLAIN
- BUILDING
- ASPHALT
- ROOF OVERHANG
- CONCRETE
- FENCE LINE
- OVERHEAD ELECTRIC
- ELECTRIC LINE
- GAS LINE
- TELECOM LINE
- WATER LINE
- SANITARY LINE
- EXISTING STORM PIPES
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- EVERGREEN TREE
- DECIDUOUS TREE
- N60° 38' 00"W 90.00' — PLAN BEARING & DISTANCE
- N60° 38' 00"W 90.00' — DEED BEARING & DISTANCE

SYMBOL LEGEND

TG	TOP OF GRATE ELEVATION		ELECTRIC BOX
INV	INVERT ELEVATION		FIRE HYDRANT
TW	TOP OF WALL ELEVATION		WATER SHUTOFF
BW	BOTTOM OF WALL ELEVATION		GAS VALVE
TBC	TOP BACK CURB ELEVATION		EVERGREEN TREE
BC	BOTTOM CURB ELEVATION		STORM INLET
DS	DOORSILL ELEVATION	T	TELEPHONE BOX
(TYP)	TYPICAL SYMBOL OR FEATURE	G	GAS METER
	IRON PIN	E	ELECTRIC MANHOLE
	CONCRETE MONUMENT		POSTED SIGN
S	SANITARY MANHOLE	22	PARKING SPACE COUNT
	WATER VALVE		HANDICAP PARKING
M	CLEANOUT (COLOR PER UTILITY)		LIGHT POLE
D	STORM MANHOLE	AC	AC UNIT

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE
STOP AND **CALL**
PENNSYLVANIA ONE CALL SYSTEM INC.
1-800-242-1776

PCSM OPERATION AND MAINTENANCE NOTES:

1. THE RESPONSIBILITY FOR THE CONTINUED MAINTENANCE AND OPERATION OF THE PCSM SYSTEM AND OTHER DRAINAGE FACILITIES SHALL BE THE OBLIGATION OF THE PROPERTY OWNER. THE PCSM FACILITIES INCLUDE BOTH SUBSURFACE STORM SYSTEMS AND TREES PLANTED WITH THIS PROJECT.

2. THE PROPERTY OWNER SHALL NOT ALTER OR REMOVE THE STORMWATER FACILITIES ON THE SITE.

3. GENERAL OBJECTIVES OF MAINTENANCE ARE TO PREVENT CLOGGING OF THE INLETS, OUTLETS, PREVENT STANDING WATER, AND PREVENT THE GROWTH OF WEEDS AND NOXIOUS PLANTS.

4. REGULAR INSPECTIONS SHOULD BE MADE OF STORMWATER FACILITIES ESPECIALLY DURING WET WEATHER TO ENSURE THAT THE FACILITY IS MAINTAINING DESIRABLE RETENTION TIMES.

5. AFTER ANY STORM RAINFALL EVENT OF A 2-YR (3 INCHES OF RAINFALL IN A 24-HOUR PERIOD) OR GREATER MAGNITUDE, THE PCSM SYSTEM AND ASSOCIATED OUTLET WORKS SHOULD BE INSPECTED. ANY DAMAGE OR BLOCKAGE TO THE OUTLET STRUCTURES SHOULD BE REPAIRED OR REMOVED IMMEDIATELY. THE ENTIRE SYSTEM MUST BE FLUSHED, AS NEEDED, BUT A MINIMUM OF 1 TIME EVERY 10 YEARS. ANY ERODED AREAS SHOULD BE TOPSOILED AND PERMANENTLY SEEDED AND MULCHED.

RECEIVING WATERS
1. SCHUYLKILL RIVER

STORMWATER CONVEYANCE NOTES:
1. ALL ROOF DOWNSPOUTS ON THE LOT ARE TO BE CONNECTED TO THE ON-LOT PCSM SYSTEM.
2. ALL DOWNSPOUTS MUST ENTER A SUMP BOX OR SUMPED INLET BEFORE ENTERING A BMP.

SOILS INFORMATION

SYMBOL	NAME	%SLOPE	HYDROLOGIC SOIL GROUP	DEPTH TO SH WATER	DEPTH TO BEDROCK	DRAINAGE CLASS	RUNOFF CLASS
UugD	URBAN LAND-UDORTHENTS, SCHIST & GNEISS COMPLEX	8 TO 25 PERCENT SLOPES	C	>60"	20-70"	WELL DRAINED	HIGH

I, _____, ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE MUNICIPALITY.

SIGNATURE _____ DATE _____

MAINTENANCE OF PERMANENT STORMWATER MANAGEMENT FACILITIES

Description of Stormwater Facilities

A. The responsibility for the installation and maintenance and operation during construction of the permanent stormwater management systems and other facilities shall be the obligation of the contractor.

B. The responsibility for the continued maintenance and operation of the permanent stormwater management systems and other facilities shall be the obligation of the property owner.

C. Effective stormwater management shall require maintenance and operation of drainage infrastructure for purposes of maintaining flow to prevent flooding or erosive conditions. All stormwater facility repairs shall be performed in a manner that does not exacerbate existing stormwater problems.

D. PCSM BMPs shall be replaced in the event of failure to ensure proper function and operation.

E. A written report documenting each inspection and all bmp repair and maintenance activities shall be provided.

F. No BMP or man-made conveyance may be used by the owner or others for any purpose other than its intended stormwater control function.

SUBSURFACE PCSM SYSTEMS

1. The PCSM systems must be inspected for routine maintenance a minimum of two times a year, once in the early spring and once in the fall after the majority of the leaves have fallen. Any accumulated debris or sediment shall be removed within 30 days and any structural failures shall be repaired within 90 days.

2. Once a year following a major storm event (> 1 inch of rainfall), the PCSM systems must be inspected to determine if it is draining to the proper standards. The stone bed shall be opened at least twenty-four hours following a storm and the level of water in the bed noted. The manhole over the outlet control riser-outs must be checked to ensure riser openings are clear. Adjustments to the inlets, cleanouts and/or roof gutter guards must be made if soil or other lawn debris is observed to be entering the system. If it is determined that the system is not operating properly, the system will need to be repaired or replaced, and the design engineer shall contacted. A corrective design shall be in place within 90 days. The BOROUGH shall be contacted for approval of any modification or replacement of the system.

3. Visual observation of the ground surface to detect ponding of water or ground settlements that would prevent runoff from entering inlets as designed must be made. the drainage areas designed for the respective systems must be maintained. If necessary, adjustments to the grading or inlets must be made to ensure that the systems are functioning as designed within 30 days.

4. The outlet pipe or connection of the outlet of the stormwater system must be checked to ensure that it is permitting free flow of water out of the basin. also, the conveyance pipe to the proposed outlet shall be inspected and repaired as required. If corrected measures are required, the repairs shall be complete within 30 days.

5. Trees shall not be planted or permitted to grow in the vicinity of the subsurface system or structures to ensure that tree roots do not puncture the filter fabric encapsulating the system or damage any stormwater collection/conveyance structure.

6. Roof gutter systems that are integral with the stormwater management systems must be functional. Repairs to gutters that become separated, sag, or otherwise do not function as designed must be made within 30 days.

7. Preventative maintenance shall be performed which would include removal of leaves from lawn areas as soon as possible to avoid contamination or clogging of the system. Locating landscape-mulched areas away from concentrated runoff areas or swales that could wash mulch into inlets is recommended.

8. Structural BMPs should be inspected for accumulation of sediment, damage to outlet structures, signs of contamination or spills, and berm stability.

9. The property owner shall maintain records of all inspections and maintenance activity.

10. Failure shall be defined as:
   a. Poor construction technique.
   b. Stormwater systems not completely dewatering within 72 hours of the storm event.
   c. A lack of site soil stabilization prior to the BMP receiving runoff, which greatly increases the potential for sediment clogging from contiguous land surfaces.
   d. Inadequate pretreatment, especially of sediment-laden runoff, which can cause a gradual volume reduction and clogging of the control riser.
   e. Lack of proper maintenance (erosion repair, re-vegetation, removal of detritus, catch basin cleaning, vacuuming of pervious pavement, etc.), which can reduce the longevity of stormwaterBMPs.
   f. Inadequate design.

8. Guidance for corrective measures: if it is determined that the PCSM system #1 will not control the rate and/or volume of stormwater runoff as designed, the system will need to be modified or replaced. The design engineer shall consider replacement in the same location or alternate locations or alternate BMPs. A corrective design shall be in place within 90 days. The Borough shall be contacted for approval of any modification or replacement of the system.

Stormwater Facility - Inlets

1. All sediment traps and inlets must be visually inspected for accumulated soil and debris a minimum of twice a year and after significant runoff events (> 1 inch of rainfall). Inlet grates must be kept free of leaves, sticks, mulch, and other lawn debris or trash that would prevent inflow of runoff. Sumps in sediment traps or inlet bottoms shall be cleared at the time of inspection and at any point when sediment has accumulated to the extent that debris is able to flow into the conveyance piping. Any weep holes in the bottom of the inlets or sediment trap shall be cleared to allow water to seep out within 60 days.

2. Unsound structures or structures showing signs of soil entering the inlet through cracks shall be repaired or replaced according to design standards within 60 days.

3. Any clean-out inlet, or sumbox that has been damaged by lawn equipment must be replaced or repaired within 60 days. Clean-outs shall be maintained at grade. The configuration must not allow soil or other debris to clog the collection pipe. All collection pipes must be checked annually to ensure they are flowing freely. If the collection pipes become clogged, jet cleaning must be performed at the clean-outs within 30 days. Additional protection must be made at the sediment trap during jet cleaning to ensure that debris is not transmitted to the stormwater system.

SUBSURFACE STONEBED BED BMP INSTALLATION AND NOTES:

1. ALTER AND REFINE THE GRADES AS NECESSARY TO BRING SUBGRADE TO REQUIRED GRADES AND SECTIONS AS SHOWN IN THE DRAWINGS.

2. ALL STONE FOR THE CONSTRUCTION OF THE OF THE BMP SHALL BE UNIFORMLY GRADED AND CLEAN, WASHED, AGGREGATE. THE STONE SHALL MEET PENNDOT/AASHTO #3 SPECIFICATIONS. STONE TO BE CHECKED BY THE DESIGN OR SITE ENGINEER PRIOR TO INSTALLATION.

3. AFTER INSTALLATION OF STONE COVER SYSTEM WITH REMAINING FABRIC, ALLOWING OPENINGS FOR ACCESS COVERS.

4. INFLOW AND OUTFLOW POINTS INTO THE INDIVIDUAL ON-LOT SYSTEMS SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES AND DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.

5. AFTER THE BED IS COMPLETELY INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED FROM THE STORMWATERBEDS TO ELIMINATE IMPACTS WHICH MAY COMPROMISE IT. IN THE EVENT ANY IMPACTS COMPROMISE THE FUNCTIONALITY OF THE BEDS, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO DESIGN SPECIFICATIONS.

CONSTRUCTION SPECIFICATIONS SUBSURFACE PCSM SYSTEM

1. ALTER AND REFINE THE GRADES AS NECESSARY TO BRING SUBGRADE TO REQUIRED GRADES AND SECTIONS AS SHOWN IN THE DRAWINGS.
2. ALL STONE USED SHALL BE CLEAN, WASHED, CRUSHED STONE AGGREGATE MEETING PENNDOT/AASHTO #3 SPECIFICATIONS. ONLY CLEAN AGGREGATE WITH DOCUMENTED POROSITY FREE OF FINES, SHALL BE ALLOWED.
3. STONE BASE COURSE SHALL BE LAID OVER A DRY SUBGRADE, TO A DEPTH SHOWN IN DRAWINGS. KEEP THE BASE COURSE CLEAN FROM DEBRIS, CLAY AND ERODING SOIL.
4. COVER STONE BED WITH REMAINING FABRIC.
5. AN AS-BUILT PLAN (SIGNED AND SEALED BY A QUALIFIED LICENSED PROFESSIONAL WHO OVERSAW THE CONSTRUCTION OF THE SYSTEM) IS REQUIRED.

PCSM ORDINANCE NOTES:
1. NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE OR ALTER ANY EXISTING STORMWATER BMP, UNLESS IT IS PART OF AN APPROVED MAINTENANCE PROGRAM, WITHOUT THE WRITTEN APPROVAL OF THE BOROUGH.
2. NO PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPING OR VEGETATION INTO A STORMWATER BMP OR WITHIN A DRAINAGE EASEMENT, WHICH WOULD LIMIT OR ALTER THE FUNCTIONING OF THE BMP, WITHOUT THE WRITTEN APPROVAL OF THE BOROUGH.

SCALE: 1" = 20'
20 0 20 40 80

SCHOCK GROUP
CIVIL ENGINEERING
LAND SURVEYING
1982 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM
610-940-7373

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
DAVID R. FIORELLO
ENGINEER
PE027479E

LOCATIONS OF EXISTING UTILITIES ON THIS PLAN HAVE BEEN DEVELOPED FROM FIELD LOCATIONS AS VISIBLE AND/OR FURNISHED BY THE UTILITY COMPANIES. ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE AND NOT NECESSARILY ACCURATE. OF THE LOCATIONS AND DEPTH OF ALL UNDERGROUND UTILITIES BEFORE STARTING ANY WORK.

CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES BEFORE STARTING ANY WORK. NOTIFY ONE CALL SYSTEM THREE DAYS PRIOR TO THE START OF WORK.

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
PRELIMINARY LAND DEVELOPMENT
127 E. ELM STREET
CONSHOHOCKEN BOROUGH • MONTGOMERY COUNTY • PENNSYLVANIA

PROJECT IMAGE
PROJECT NAME

REV. DATE DESCRIPTION

CLIENT
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
QA/QC CALL:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
FILE NO.:	1819
SHEET NO.:	5 OF 11

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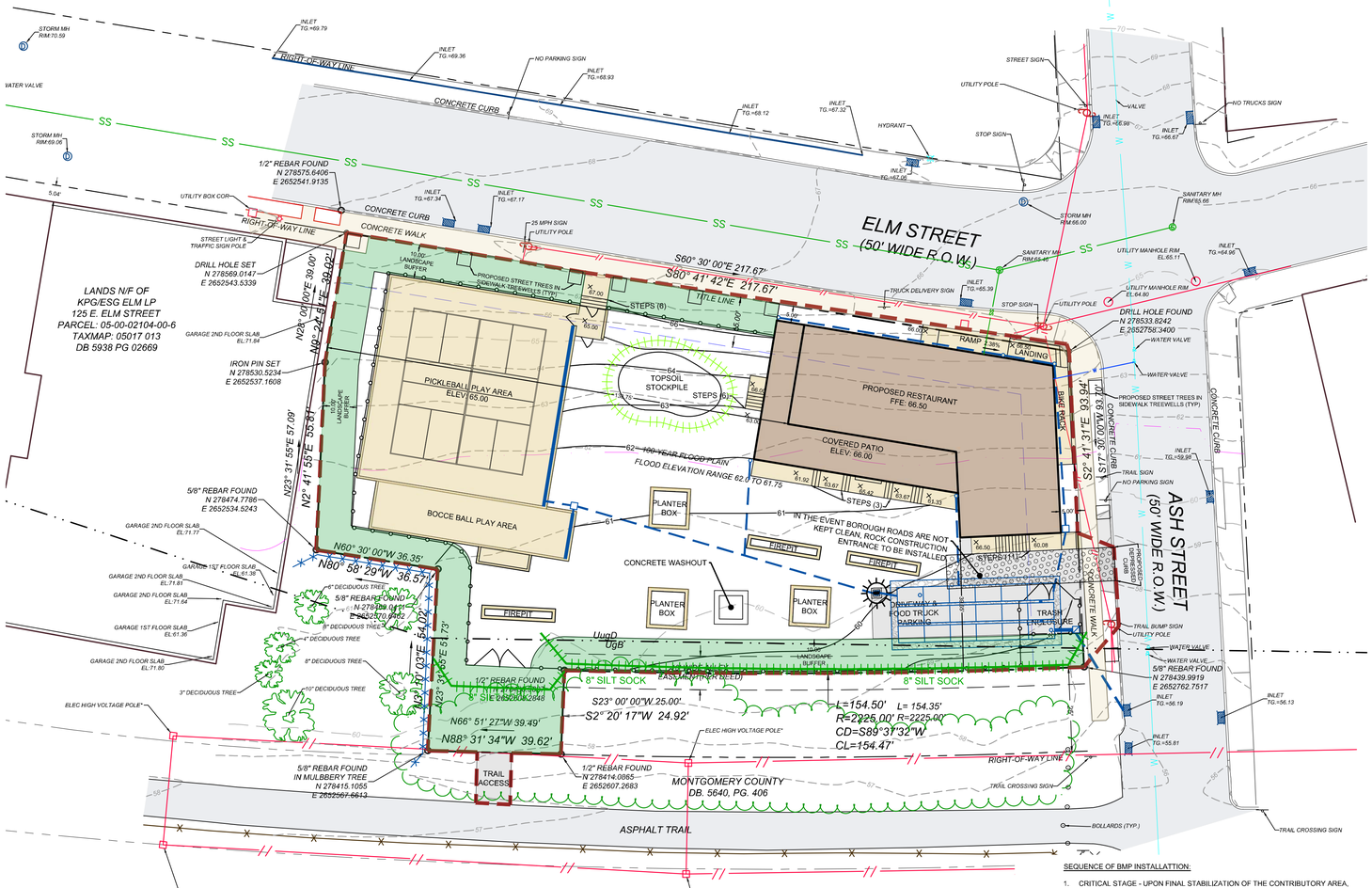
EROSION & SEDIMENT CONTROL PLAN

DISTURBANCE AREA: 25,724 S.F. OR 0.591 AC±



PROPOSED LINETYPE LEGEND

- 60 — PROPOSED CONTOUR LINE
- PROPOSED FENCE LINE
- BUILDING
- ASPHALT
- WALKS
- WALL
- LANDSCAPED BUFFER AREA
- TRENCH DRAIN
- STORMWATER PIPE
- SILT SOCK
- TREE PROTECTION FENCING
- LIMIT OF DISTURBANCE

LINETYPE LEGEND

- PROPERTY LINE
- ADJOINER PROPERTY LINE
- EASEMENT LINE
- RIGHT-OF-WAY LINE
- BUILDING SETBACK
- CONCRETE EDGE
- ASPHALT EDGE
- BUILDING WALL
- CURB
- 100-YR FLOODPLAIN
- BUILDING
- ASPHALT
- ROOF OVERHANG
- CONCRETE
- FENCE LINE
- OVERHEAD ELECTRIC
- ELECTRIC LINE
- GAS LINE
- TELECOM LINE
- WATER LINE
- SANITARY LINE
- EXISTING STORM PIPES
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- EVERGREEN TREE
- DECIDUOUS TREE
- *N60° 38' 00"W 90.00'* — PLAN BEARING & DISTANCE
- *N60° 38' 00"W 90.00'* — DEED BEARING & DISTANCE

SYMBOL LEGEND

- TG TOP OF GRATE ELEVATION
- INV INVERT ELEVATION
- TW TOP OF WALL ELEVATION
- BW BOTTOM OF WALL ELEVATION
- TBC TOP BACK CURB ELEVATION
- BC BOTTOM CURB ELEVATION
- DS DOORSILL ELEVATION
- (TYP) TYPICAL SYMBOL OR FEATURE
- IRON PIN
- CONCRETE MONUMENT
- SANITARY MANHOLE
- WATER VALVE
- CLEANOUT (COLOR PER UTILITY)
- STORM MANHOLE
- ELECTRIC BOX
- FIRE HYDRANT
- WATER SHUTOFF
- GAS VALVE
- EVERGREEN TREE
- STORM INLET
- TELEPHONE BOX
- GAS METER
- ELECTRIC MANHOLE
- POSTED SIGN
- PARKING SPACE COUNT
- HANDICAP PARKING
- LIGHT POLE
- AC UNIT

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE
STOP AND **CALL**
PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776

NOTES:

1) NEWLY GRADED SLOPES TWENTY FIVE PERCENT (25% OR GREATER) SHALL BE SODDED OR STABILIZED WITH EROSION CONTROL NETTING.

2) GEOTEXTILE FABRIC SHALL BE CLASS 1, GEOTEXTILE FABRIC IN ACCORDANCE WITH PENNDOT SPECIFICATION FROM 408. THE TYPE AND/OR THICKNESS SHALL BE DUPONT TYPAR #3401, AMOCO PROPEX #4545 OR APPROVED EQUAL OR AS OTHERWISE INDICATED ON THE PLAN.

3) TO ALL AREA WHICH REMAIN DISTURBED FOR MORE THAN 4 DAYS AND WILL BE SUBJECT TO THE ACTION OF EARTHMOVING AND OTHER EQUIPMENT, APPLY A MULCH (WOODCHIP-20 TONS PER ACRE; HAY OR STRAW-3 TONS PER ACRE). ALL OTHER DISTURBED AREAS REMAINING OPEN FOR MORE THAN 4 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED.

4) SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDIY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF/AND OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOODCHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

5) THE CONTRACTOR SHALL, BY SCHEDULING THE CONSTRUCTION, UTILIZE NEW PLANTINGS AND PROPERLY INSTALL EROSION CONTROL FENCING, HAY BALES AND OTHER EROSION CONTROL MEASURES TO MINIMIZE EROSION DAMAGE.

6) ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED FOR MORE THAN 4 DAYS MUST BE SEEDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR MAY BE SEEDED AND MULCHED WITH A QUICK GROWING TEMPORARY SEEDING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN ONE YEAR MUST BE SEEDED AND MULCHED WITH A PERMANENT SEED MIXTURE AND MULCH. DIVERSIONS, CHANNELS, SEDIMENTATION BASINS, SEDIMENT TRAPS, AND STOCKPILES MUST BE SEEDED AND MULCHED IMMEDIATELY.

7) A ROUTINE "END-OF-DAY-CHECK" SHALL BE MADE DURING CONSTRUCTION TO MAKE SURE THAT ALL CONTROL MEASURES ARE WORKING PROPERLY. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL DESIGN, IMPLEMENT, AND MAINTAIN CONTROL MEASURES WHICH PREVENT ACCELERATED EROSION AND SEDIMENTATION. THERE SHALL BE NO ADVERSE DISCHARGE OF THE SEDIMENT OR OTHER SOLID MATERIALS FROM THE SITE AS THE RESULT OF STORMWATER RUNOFF.

8) TEMPORARY EROSION CONTROL MEASURES MAY BE REMOVED ONLY AFTER THE CONSTRUCTION AREA AND CONTAINED SILT IS STABILIZED AND THE LAWN AREA ESTABLISHED.

9) IF THE PROPOSED EROSION AND SEDIMENTATION CONTROL MEASURES ARE INSTALLED AND MAINTAINED PROPERLY, NO UNFORESEEN SOIL LIMITATIONS OR PROBLEMS ARE LIKELY. NEVERTHELESS, IF A PROBLEM DOES DEVELOP, THE DEVELOPER MUST TEMPORARILY SEED AND MULCH THE DISTURBED AREA. SUITABLE TOPSOIL SHALL BE IMPORTED TO SITE IF INADEQUATE QUANTITIES OF SUITABLE TOPSOIL EXIST ON SITE. ADEQUACY OF SOIL TO BE DETERMINED BY SITE GEOTECHNICAL ENGINEER IN CONJUNCTION WITH THE LANDSCAPE ARCHITECT. SOIL AMENDMENTS SHALL BE ADDED AS REQUIRED. ALL UNSUITABLE MATERIAL SHALL BE DISPOSED OF PROPERLY. SITE GEOTECHNICAL ENGINEER SHALL ALSO BE CONSULTED DURING WINTER GRADING OPERATIONS.

CONSTRUCTION TIMING AND SEQUENCE GENERAL NOTES:

1. 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, AND A REPRESENTATIVE FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.

2. UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

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 BY THE MONTGOMERY COUNTY CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.

5. THE CONTRACTOR SHALL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE TO THE EXTENT FEASIBLE BY STAGING CONSTRUCTION ACTIVITIES, WHERE POSSIBLE, ONLY DISTURBING AREAS NEEDED FOR EACH STAGE AND IMMEDIATELY STABILIZING AREAS WHERE CONSTRUCTION HAS CEASED.

PERMANENT STABILIZATION NOTE:

AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. ROADWAYS AND PARKING AREAS SHOULD AT LEAST HAVE A CLEAN SUBBASE IN PLACE.

SEQUENCE OF BMP INSTALLATTION:

1. CRITICAL STAGE - UPON FINAL STABILIZATION OF THE CONTRIBUTORY AREA, EXCAVATE FOR AND INSTALL THE PERMANENT STORM WATER SYSTEM AND LEVEL SPREADER. THE STORMWATERSYSTEM SHALL REMAIN PROTECTED FROM DISTURBANCE UNTIL THE CONTRIBUTORY AREAS ARE COMPLETELY STABILIZED. PRIOR TO THE INSTALLATION OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM AND PRIOR TO THE SYSTEM BEING RENDERED OPERATIONAL, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER FOR FIELD REVIEW OF THE SITE GRADING, STORMWATER FACILITIES AND GENERAL PCSM PLAN COMPLIANCE IN ORDER TO FACILITATE FINAL CERTIFICATION THAT THE SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN.
2. EXCAVATE TO THE BOTTOM OF THE PERMANENT SYSTEM AS INDICATED ON THE PLANS. EXCAVATION SHALL BE DONE IN A MANNER THAT DOES NOT DISTURB THE SOIL STRUCTURE.
3. PLACE THE FILTER FABRIC IN THE EXCAVATION AND TACK IT UP TO THE SIDES. ALLOW SUFFICIENT FABRIC TO OVERLAP THE TOP OF THE BED. PROVIDE OPENING IN FABRIC FOR OUTFLOW PIPE.
4. PLACE 6" OF AASHTO NO. 57 AGGREGATE IN THE BOTTOM OF THE BED AND EVENLY DISTRIBUTE ON THE BOTTOM. CARE SHALL BE TAKEN TO ENSURE THAT THE FILTER FABRIC IN THE BED IS NOT TORN DURING INSTALLATION. INSTALL STONE TO THE NOTED UNIFORM DEPTH.
5. PLACE SECOND LAYER OF FILTER FABRIC OVER STONE BASE. ALLOW SUFFICIENT FABRIC TO OVERLAP THE TOP OF THE "STORM TANK" UNITS.
6. INSTALL "STORM TANK" UNITS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED PRACTICES. CONNECT INLETS TO "STORM TANK" UNITS. INSTALL SEEPAGE AND INFLOW PIPE. INSTALL PERMANENT LEVEL SPREADER AND CONNECT OVERFLOW PIPE TO THE SPREADER.
7. COMPLETELY WRAP "STORM TANK" UNITS WITH FILTER FABRIC.
8. BACKFILL AREA BETWEEN EXCAVATION AND "STORM TANK" UNITS WITH AASHTO NO. 57 AGGREGATE. PLACE AASHTO NO. 57 COARSE OVER TOP OF "STORM TANK" UNITS TO A MINIMUM DEPTH OF 12".
9. COMPLETELY COVER TOP OF AGGREGATE WITH FILTER FABRIC. OVERLAP JOINTS IN FABRIC A MINIMUM OF 12".
10. BACKFILL AND COMPACT REMAINDER OF EXCAVATION WITH EXCAVATED MATERIAL TO FINAL GRADE.

SOILS INFORMATION							
SYMBOL	NAME	%SLOPE	HYDROLOGIC SOIL GROUP	DEPTH TO SH WATER	DEPTH TO BEDROCK	DRAINAGE CLASS	RUNOFF CLASS
UugD	URBAN LAND-UDORTHENTS, SCHIST & GNEISS COMPLEX	8 TO 25 PERCENT SLOPES	C	>60"	20-70"	WELL DRAINED	HIGH

SCALE: 1" = 20'

20 0 20 40 80

HARLEYSVILLE PIKE LOT - CONSTRUCTION TIMING & SEQUENCING:

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING THE 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 COUNTY CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING.

1. CONSTRUCTION BEGINS SPRING 2025.
2. INSTALL TREE PROTECTION AS INDICATED ON THE APPROVED GRADING PLAN. TREE PROTECTION FENCING MUST BE IN PLACE AND APPROVED PRIOR TO ANY DISTURBANCE. ALL DISTURBANCE SHALL BE CONTAINED TO THE DELINEATED LIMIT OF CONSTRUCTION.
3. INSTALL SILT SOCKS AS INDICATED ON PLAN. SILT SOCKS SHALL BE INSTALLED UP-SLOPE OF CONSTRUCTION FENCING. NOTE: ADDITIONAL SEDIMENT BARRIERS SHALL BE INSTALLED DOWNGRADE OF ANY DISTURBANCE AREAS AS NEEDED THROUGHOUT THE ENTIRE PROJECT.
4. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE WITHIN THE LOCATION OF THE PROPOSED DRIVEWAY AS SHOWN ON THE PLANS. THIS ENTRANCE MUST BE UTILIZED BY ALL CONSTRUCTION VEHICLES ENTERING/EXITING THE SITE.
5. PRIOR TO EARTH DISTURBANCE, NOTIFY THE BOROUGH ENGINEER THAT CONSTRUCTION IS GOING TO BEGIN.
6. ONCE THE EROSION AND SEDIMENT CONTROLS ARE IN PLACE AND FUNCTIONING, STRIP TOPSOIL FROM AREAS OF CONSTRUCTION AND STOCKPILE SUITABLE MATERIAL. UNSUITABLE MATERIAL SHALL BE DISPOSED OF PROPERLY. SURROUND STOCKPILE WITH SILT SOCK. TEMPORARILY SEED ALL STOCKPILED TOPSOIL TO ESTABLISH TEMPORARY VEGETATIVE COVER.
7. EXCAVATE AS NECESSARY FOR THE NEW RESTAURANT BUILDING. ALL CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROVED MANNER.
8. POUR FOOTINGS AND CONSTRUCT FOUNDATIONS FOR NEW BUILDING. BACKFILL FOUNDATIONS UPON COMPLETION AND ROUGH GRADE AREA AROUND BUILDING. ANY GRADED OR DISTURBED AREA MUST BE TEMPORARILY SEEDED IF NO FURTHER EARTH MOVING IS ANTICIPATED IMMEDIATELY.
9. CONCURRENT WITH THE BUILDING CONSTRUCTION, GRADE THE SITE AND INSTALL UTILITIES.
10. INSPECT SEDIMENT BARRIERS FREQUENTLY, ESPECIALLY AFTER HEAVY STORMS. REPLACE AND REPAIR SEDIMENT BARRIERS AS NECESSARY.
11. INSTALL THE ROOF RAINWATER COLLECTION SYSTEM, INLET, AND CONVEYANCE PIPING. INSTALL INLET PROTECTION ON NEW INLET. CONCURRENTLY WITH UTILITY INSTALLATION, INSTALL CURBING AND SUB BASE FOR PAVED AREAS.
12. SPREAD STOCKPILED TOPSOIL AROUND BUILDING AND ALL DISTURBED AREAS. SEED ALL GRADED AREAS TO RE-ESTABLISH VEGETATION.
13. **CRITICAL STAGE** - UPON STABILIZATION OF THE CONTRIBUTORY AREA, EXCAVATE FOR AND INSTALL THE PERMANENT STORM WATER SYSTEM. THE BOROUGH ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO THE INSTALLATION OF THE SYSTEM. THE SYSTEM SHALL NOT RECEIVE RUNOFF UNTIL THE ENTIRE AREA CONTRIBUTORY TO THE BMP HAS ACHIEVED FINAL STABILIZATION. EXCAVATE TO THE BOTTOM OF THE PERMANENT SYSTEM, AS INDICATED ON THE PLANS. INSTALL IMPERMEABLE LINING, PIPE BEDDING AND PIPE SYSTEM AS INDICATED ON THE PLANS. INSTALLATION OF THE STONE SHALL BE CHECKED BY THE DESIGN OR SITE ENGINEER PRIOR TO INSTALLATION INTO THE BMPS TO ENSURE THAT IT IS CLEAN WASHED STONE. IN THE EVENT THAT SEDIMENT ENTERS OR CLOGS THE BMP APPROPRIATE MEASURES SHALL BE TAKEN (I.E. CLEANING THE SOIL/SEDIMENT FROM THE FABRIC, STONE, BED, ETC. AND OR REPLACEMENT OF THE FABRIC AND STONE). IF GROUNDWATER IS FOUND DURING THE EXCAVATION OF THE SYSTEM, THE ENGINEER SHALL BE CONSULTED TO DETERMINE THE NECESSARY MEASURES THAT SHOULD BE TAKEN. CONNECT SYSTEM TO STORM SEWER WHERE INDICATED. CONNECT THE SUMP BOX AND INLETS TO SYSTEM AS SHOWN ON THE PLANS.
    A. ALL BED BOTTOMS SHALL BE LEVEL AFTER GRADING.
    B. PRIOR TO BED GRADING AND PLACEMENT OF GEOTEXTILE, UP-GRADIENT AREAS SHALL BE SUFFICIENTLY STABILIZED TO PREVENT THE WASHING OF SEDIMENT INTO THE RECHARGE AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT THE DEPOSITION OF SEDIMENT OR SEDIMENT-LADEN WATERS INTO THE STRUCTURES AFTER FINAL GRADING.
    C. AGGREGATE SHALL BE CLEAN WITH A WASH LOSS OF NO MORE THAN 0.5 PERCENT. INSTALLATION OF THE STONE SHOULD BE CHECKED BY THE DESIGN OR SITE ENGINEER PRIOR TO INSTALLATION INTO THE BMP TO ENSURE THAT IT IS CLEAN WASHED STONE. AGGREGATE THAT DOES NOT MEET THIS CRITERION WILL BE REMOVED AT NO EXTRA COST TO THE OWNER AND THE BEDS RESTORED TO THE OWNER'S SATISFACTION.
    D. FOLLOWING PLACEMENT OF BED AGGREGATE, THE GEOTEXTILE SHALL BE FOLDED OVERTOP THE BED, WITH APPROPRIATE FABRIC OVERLAP, TO PROTECT FROM SEDIMENT WASHOUT ALONG BED EDGES. TOPSOIL (OR APPROPRIATE MATERIAL SPECIFIED BY PARTICULAR DESIGN) WILL BE USED TO FILL ABOVE THE BED TO THE SPECIFIED HEIGHT.
14. ONCE THE STORMWATER MANAGEMENT SYSTEM IS INSTALLED, INSTALL STONE BASE COURSE ON NEW DRIVEWAY AREAS AND COMPLETE CONSTRUCTION OF DRIVEWAY, TRASH ENCLOSURE, WALLS, AND SITE IMPROVEMENTS.
15. UNTIL THE SITE IS STABILIZED ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS 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.
16. FINAL GRADE DENUDED AREAS, SPREAD STOCKPILED TOPSOIL AND SEED GRADED AREAS TO REESTABLISH PERMANENT VEGETATION. STABILIZE SLOPES IN EXCESS OF 4:1 WITH SOD OR EROSION CONTROL NETTING AND MULCH.
17. REMOVE EXCAVATED MATERIALS (EXCESS SOIL / FILL) NOT REQUIRED FOR FINAL CONSTRUCTION FROM SITE AND DISPOSE OF THEM IN AN APPROVED MANNER. NOTE THAT NO TOPSOIL WILL BE REMOVED FROM SITE DURING OR AFTER CONSTRUCTION.
18. NOTIFY THE BOROUGH FOR THE REMOVAL OF THE SEDIMENT BARRIERS FOR INSPECTION AND APPROVAL. UPON THE RE-ESTABLISHMENT OF VEGETATION ON ALL DENUDED AREAS, REMOVE ALL SEDIMENT BARRIERS. THE SITE WILL BE CONSIDERED TO BE PERMANENTLY STABILIZED WHEN ALL PERMANENT CONTROL MEASURES/FACILITIES HAVE BEEN COMPLETED AND ARE OPERATIONAL, TEMPORARY CONTROL MEASURES/FACILITIES REMOVED, AND UNIFORM EROSION RESISTANT VEGETATION IS ESTABLISHED TO THE POINT WHERE THE SURFACE SOIL IS CAPABLE OF RESISTING EROSION DURING RUNOFF EVENTS. THE STANDARD FOR THIS VEGETATIVE COVER WILL BE UNIFORM COVERAGE OR DENSITY OF 70% ACROSS THE DISTURBED AREA.
19. PLANT REQUIRED TREES AND INSTALL FINAL LANDSCAPE FEATURES AND HARDSCAPE MATERIALS.
20. IMMEDIATELY STABILIZE AND SEED ANY AREAS DISTURBED BY THE REMOVAL OF SEDIMENT BARRIERS.
21. CONSTRUCTION FINISHED. COMPLETION DATE IS VARIABLE PER CONSTRUCTION SCHEDULE, ANTICIPATED FALL 2025.

SCHOCK GROUP
CIVIL ENGINEERING
LAND SURVEYING
1950 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM
610-940-7373

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
DAVID R. FIORELLO
ENGINEER
PE027479E

LOCATIONS OF EXISTING UTILITIES ON THIS PLAN HAVE BEEN DEVELOPED FROM FIELD LOCATIONS AT VISIBLE ABOVE GROUND UTILITIES AND FROM MAPS AND RECORDS FURNISHED BY THE UTILITY COMPANIES. ALL LOCATIONS ARE APPROXIMATE AND NOT GUARANTEED TO BE ACCURATE OR COMPLETE.

CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES BEFORE STARTING ANY WORK. CONTACT THE PENNSYLVANIA ONE CALL SYSTEM THREE DAYS PRIOR TO THE START OF WORK.

EROSION & SEDIEMNT CONTROL PLAN
PRELIMINARY LAND DEVELOPMENT
CONSHOHOCKEN BOROUGH * MONTGOMERY COUNTY * PENNSYLVANIA

127 E. ELM STREET

REV'S	DATE	DESCRIPTION

CLIENT: CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
QA/QC:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
FILE NO.	1819
SHEET NO.	6 OF 11

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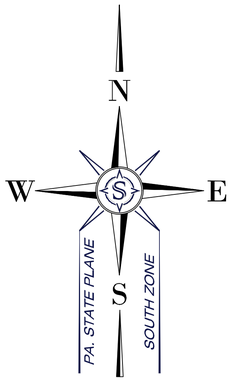

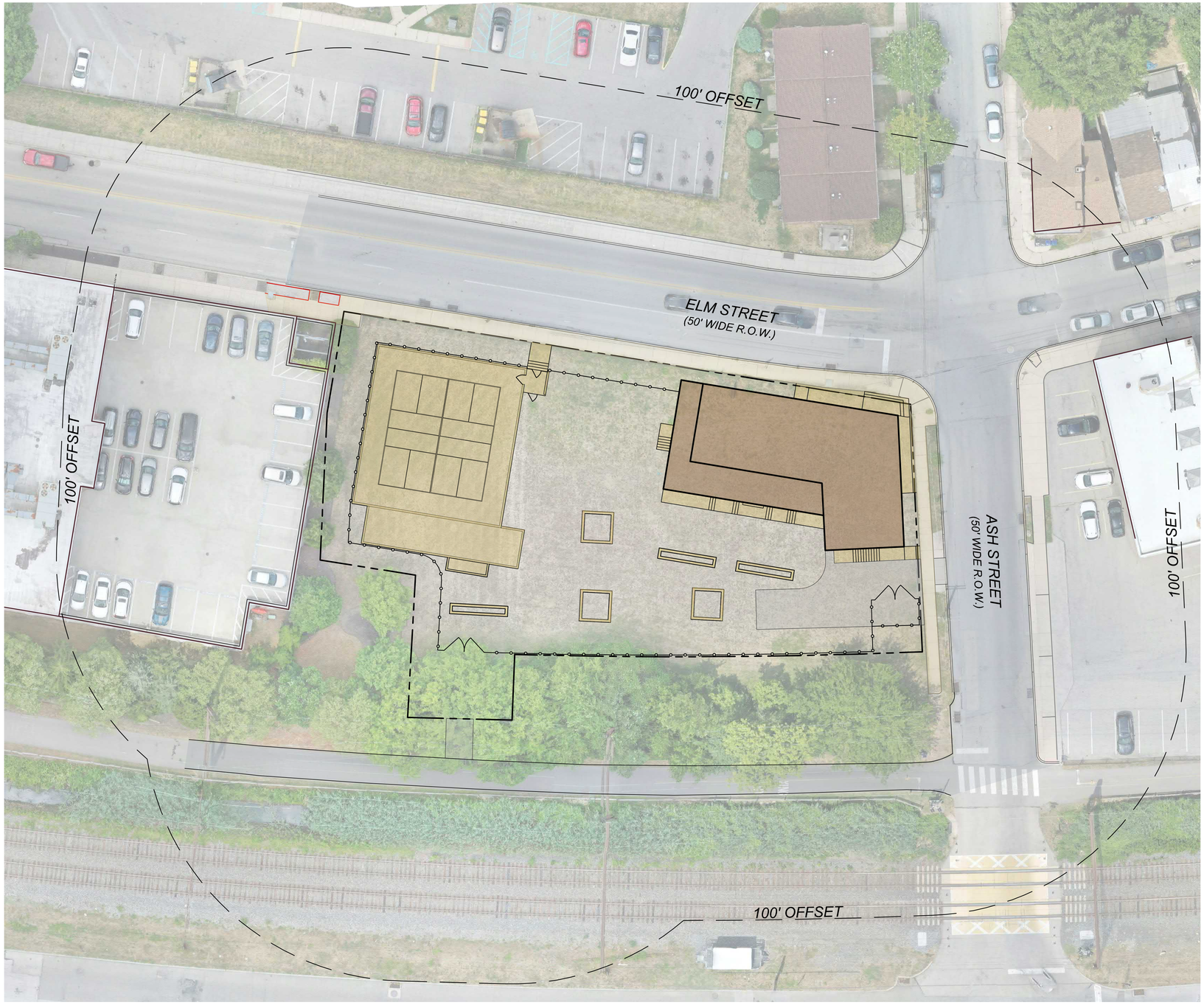

SCALE: 1" = 20'

20 0 20 40 80

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LAND SURVEYING
1982 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
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REGISTERED PROFESSIONAL
DAVID R. FIORELLO
ENGINEER
PE027479E

LOCATIONS OF EXISTING UTILITIES ON THIS PLAN HAVE BEEN DEVELOPED FROM FIELD LOCATIONS AS VISIBLE ABOVE GROUND ITEMS AND FROM UTILITY MARKINGS AS FURNISHED BY THE UTILITY COMPANIES. ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE AND NOT NECESSARILY ACCURATE. ANY OMISSION OF UTILITIES FROM THIS PLAN DOES NOT IMPLY THAT NONE EXIST.

CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES BEFORE STARTING ANY WORK. NOTIFY ALL UTILITIES 3 DAYS BEFORE YOU DIG. IT'S THE LAW. ONE CALL SYSTEM THREE DAYS PRIOR TO THE START OF WORK.

VICINITY PLAN

PRELIMINARY LAND DEVELOPMENT

127 E. ELM STREET

CONSHOHOCKEN BOROUGH • MONTGOMERY COUNTY • PENNSYLVANIA

PROJECT IMAGE

PROJECT NAME

REV: DATE: DESCRIPTION:

CLIENT:
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
ONE-CALL:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
FILE NO.:	1819
SHEET NO.:	7 OF 11

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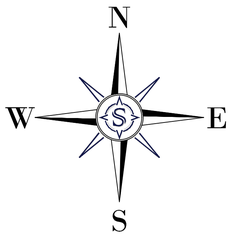
LANDSCAPE PLAN



PROPOSED LINETYPE LEGEND

- 60 — PROPOSED CONTOUR LINE
- PROPOSED FENCE LINE
- BUILDING
- ASPHALT
- WALKS
- WALL
- LANDSCAPED BUFFER AREA
- TRENCH DRAIN
- STORMWATER PIPE
- PROPOSED TREE PLANTING

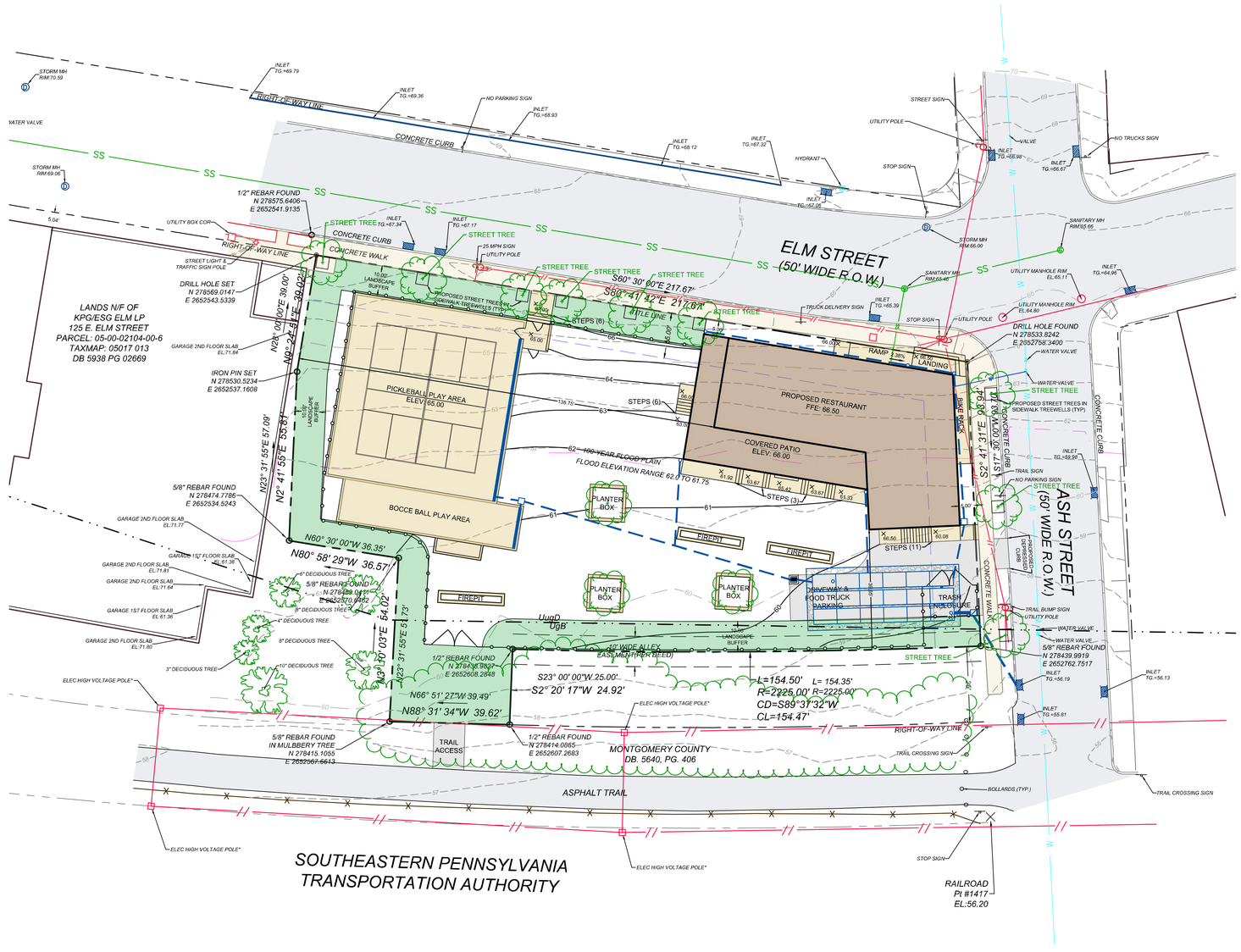
LINETYPE LEGEND

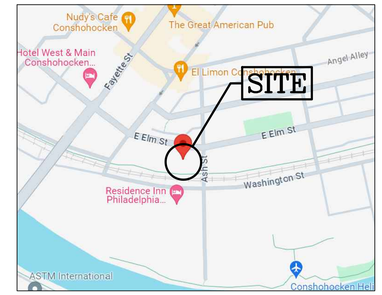
- PROPERTY LINE
- ADJOINER PROPERTY LINE
- EASEMENT LINE
- RIGHT-OF-WAY LINE
- BUILDING SETBACK
- CONCRETE EDGE
- ASPHALT EDGE
- BUILDING WALL
- CURB
- 100-YR FLOODPLAIN
- BUILDING
- ASPHALT
- ROOF OVERHANG
- CONCRETE
- FENCE LINE
- OVERHEAD ELECTRIC
- ELECTRIC LINE
- GAS LINE
- TELECOM LINE
- WATER LINE
- SANITARY LINE
- EXISTING STORM PIPES
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- EVERGREEN TREE
- DECIDUOUS TREE
- N60° 38' 00"W 90.00' — PLAN BEARING & DISTANCE
- N60° 38' 00"W 90.00' — DEED BEARING & DISTANCE

SYMBOL LEGEND

- TG TOP OF GRATE ELEVATION
- INV INVERT ELEVATION
- TW TOP OF WALL ELEVATION
- BW BOTTOM OF WALL ELEVATION
- TBC TOP BACK CURB ELEVATION
- BC BOTTOM CURB ELEVATION
- DS DOORSILL ELEVATION
- (TYP) TYPICAL SYMBOL OR FEATURE
- IRON PIN
- CONCRETE MONUMENT
- SANITARY MANHOLE
- WATER VALVE
- CLEANOUT (COLOR PER UTILITY)
- STORM MANHOLE
- ELECTRIC BOX
- FIRE HYDRANT
- WATER SHUTOFF
- GAS VALVE
- EVERGREEN TREE
- STORM INLET
- TELEPHONE BOX
- GAS METER
- ELECTRIC MANHOLE
- POSTED SIGN
- PARKING SPACE COUNT
- HANDICAP PARKING
- LIGHT POLE
- AC UNIT

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE
STOP AND CALL
PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776





SCALE: 1" = 500'

OWNER OF RECORD PER MONTGOMERY COUNTY
RAYMOND L. WEINMANN
127 E. ELM STREET
CONSHOHOCKEN, PA 19428
PARCEL ID # 050002108002
DEED BOOK 5225, PAGE 00419

BOROUGH ZONING DISTRICT: SP1 - SPECIALLY PLANNED DISTRICTS

MIN LOT AREA	43,560 S.F.
MAX IMPERVIOUS COVERAGE	70%
MIN PRINCIPLE BUILDING SETBACKS:	
ULTIMATE RIGHT-OF-WAY	15 FEET
CURBLINE OF PRIVATE OR INTERNAL DRIVE	25 FEET

BUILDING SEPARATION
ON LOTS MEASURING BETWEEN ONE AND TWO ACRES IN AREA, BUILDINGS AND PARKINGS STRUCTURES SHOULD NOT BE LOCATED CLOSER THAN 40 FEET FROM AN ADJACENT BUILDING OR PARKING STRUCTURE LOCATED ON THE SAME LOT OF PARCEL. THE AREA BETWEEN BUILDINGS SHALL NOT BE COMPOSED ENTIRELY OF IMPERVIOUS SURFACES AND SHALL BE DESIGNED TO INCLUDE SIDEWALKS, PLANTED VERGE, LANDSCAPING AND OTHER GREEN SPACE.

** NO BUILDING SETBACK IS REQUIRED FROM A RAILROAD RIGHT-OF-WAY OR FROM ANY ROADWAY RIGHT-OF-WAY WHERE IT IS ADJACENT TO SUCH RAILROAD.
** ZONING INFORMATION OBTAINED FROM CONSHOHOCKEN BOROUGH CODE §27, LATEST EDITION ONLINE ECODE360.

LOT SIZE
GROSS LOT AREA: 25,097 S.F, OR 0.5761 ACRES

PROPOSED IMPERVIOUS COVERAGE

RESTAURANT	3,006	S.F.
COVERED PATIO	971	S.F.
CONCRETE WALKS & STEPS	1,078	S.F.
ASPHALT DRIVEWAY	1,308	S.F.
PICKLEBALL COURT	3,351	S.F.
BOCCE BALL COURT	804	S.F.
WALLS	515	S.F.
TOTAL	11,033	S.F. (43.96% OF LOT AREA)

** MAX LOT IMPERVIOUS COVERAGE IS 17,568 S.F. (70% OF LOT AREA), 6,535 S.F. OF AVAILABLE IMPERVIOUS COVERAGE.

OPEN SPACE CALCULATION AS PER §27-1504C
PROPOSED OPEN SPACE 15,085 S.F. (60.11% OF LOT AREA)
1,021 S.F. (6.77%) OF IMPERVIOUS COVER IS PROPOSED WITHIN OPEN SPACE

SURVEY REFERENCE PLAN:
1. BOUNDARY AND TOPOGRAPHY FROM PLAN ENTITLED "EXISTING CONDITIONS PLAN, 127 E. ELM STREET" PREPARED BY "SCHOCK GROUP LLC.", DATED MAY 10, 2024.

SURVEY PLAN NOTES
1. THIS PLAN REPRESENTS AN ACTUAL FIELD SURVEY PERFORMED ON THE PREMISES ON MAY 7, 2024 AND SUPPLEMENTED ON JULY 10, 2024 AND DEPICTS CONDITIONS ON THAT DATE.
2. THE EXISTENCE AND/OR LOCATION OF ALL SUBSURFACE UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE FIELD VERIFIED BY ALL CONTRACTORS PRIOR TO CONSTRUCTION.
3. THE HORIZONTAL BEARING DATUM SHOWN ON THIS PLAN IS PA STATE PLANE ZONE SOUTH HARN.
4. THE VERTICAL DATUM SHOWN ON THIS PLAN IS PER NAVD1988 OBTAINED VIA GPS NETWORK.
5. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A CLIENT PROVIDED TITLE REPORT & IS SUBJECT TO THOSE FINDINGS, IF ANY.
6. THIS PROPERTY IS LOCATED IN ZONE AE "WITH BFE OR DEPTH" IN ACCORDANCE TO FEMA MAP PANEL 42091C0358G, EFFECTIVE DATE 03/02/2016, APPROXIMATELY 652 FEET NORTH OF THE FLOODWAY AS SHOWN.
7. SITE SOIL TYPES ARE "UugD" & "UgB" PER USDA WEB SOIL SURVEY.
8. AERIAL OVERLAY SHOULD NOT BE USED FOR DESIGN PURPOSES AND CONTAINS SOME SPATIAL INACCURACIES.

LANDSCAPE NOTES
1. ALL PLANTS SHALL MEET THE MINIMUM STANDARDS FOR HEALTH, FORM, AND ROOT CONDITION AS OUTLINED IN THE AMERICAN ASSOCIATION OF NURSEYMEN (AAN) STANDARDS.
2. ALL PLANT MATERIAL SHALL BE HARDY WITHIN THE USDA HARDINESS ZONE 6 APPLICABLE TO MONTGOMERY COUNTY, PENNSYLVANIA.
3. CANOPY TREES, ALSO CALLED "SHADE TREES", SHALL REACH A MINIMUM HEIGHT AND SPREAD OF 30 FEET AT MATURITY AS DETERMINED BY THE AAN STANDARDS AND SHALL BE DECIDUOUS. NEW TREES SHALL HAVE A MINIMUM CALIPER OF THREE (3") INCHES AT PLANTING.
4. ORNAMENTAL TREES OR LARGE SHRUBS SHALL REACH A TYPICAL MINIMUM HEIGHT OF 15 FEET AT MATURITY, BASED ON AAN STANDARDS. TREES AND SHRUBS MAY BE DECIDUOUS OR EVERGREEN AND SHALL HAVE A DISTINCTIVE ORNAMENTAL CHARACTER. NEW ORNAMENTAL TREES SHALL HAVE A MINIMUM HEIGHT OF SIX (6) FEET OR MINIMUM CALIPER OF ONE AND A HALF (1.5") INCHES. NEW LARGE SHRUBS SHALL HAVE A MINIMUM HEIGHT OF EIGHTEEN OF TWO AND A HALF (2.5') TO THREE FEET AT TIME OF PLANTING.
5. SMALL SHRUBS MAY BE EVERGREEN OR DECIDUOUS AND SHALL HAVE A MINIMUM HEIGHT AT MATURITY OF FOUR FEET BASED ON AAN STANDARDS. NEW SHRUBS SHALL HAVE A MINIMUM HEIGHT OF EIGHTEEN (18) INCHES AT TIME OF PLANTING.
6. EVERGREEN TREES SHALL REACH A TYPICAL MINIMUM HEIGHT OF TWENTY (20') FEET AT MATURITY BASED ON AAN STANDARDS FOR THAT SPECIES AND SHALL REMAIN EVERGREEN THROUGHOUT THE YEAR. NEW EVERGREENS SHALL HAVE A MINIMUM HEIGHT AT PLANTING OF SIX (6') FEET.
7. FOR SAFETY, ALL SIGHT TRIANGLES SHALL REMAIN CLEAR, AND ANY PLANT MATERIAL THAT COULD ENDANGER SAFETY SUCH AS UNSTABLE LIMBS SHALL BE REMOVED AND THE PLANT MATERIAL REPLACED IF NECESSARY. IT SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN ALL PLANTINGS AND ARCHITECTURAL ELEMENTS TO ENSURE A SAFE ENVIRONMENT.

SCALE: 1" = 20'
20 0 20 40 80

SCHOCK GROUP
CIVIL ENGINEERING
LAND SURVEYING
1982 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM
610-560-7373

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
DAVID R. FIORELLO
ENGINEER
PE027479E

LOCATIONS OF EXISTING UTILITIES ON THIS PLAN HAVE BEEN DEVELOPED FROM FIELD LOCATIONS AS VISIBLE ABOVE GROUND AND FROM UTILITY COMPANY MAPS AND RECORDS FURNISHED BY THE UTILITY COMPANIES. ALL LOCATIONS SHOWN ARE APPROXIMATE AND NOT GUARANTEED AS TO ACCURACY OR TO BE THE LOCATIONS FOUND DURING CONSTRUCTION. CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES BEFORE STARTING ANY WORK. BEFORE STARTING ANY WORK, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND MUNICIPALITIES INVOLVED OR ONE CALL SYSTEM THREE DAYS PRIOR TO THE START OF WORK.

LANDSCAPE PLAN
PRELIMINARY LAND DEVELOPMENT
CONSHOHOCKEN BOROUGH • MONTGOMERY COUNTY • PENNSYLVANIA

127 E. ELM STREET

PROJECT IMAGE
PROJECT NAME

REV.	DATE	DESCRIPTION

CLIENT
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
ONE-CALL:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
FILE NO.	1819
SHEET NO.	8 OF 11

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STANDARD E&S PLAN NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN, A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.

3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.

5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.

6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.

7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE 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 BY THE BMPS SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.

9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.

10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 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 NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM SITE ONTO ADJOINING ROADWAYS UNLESS WASHED OR EXITING THROUGH 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 CASHALL 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 – 6 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 CONSERVATION DISTRICT OR THE DEPARTMENT.

30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.

31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO 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, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.

33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES 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.

ADDITIONAL NOTES

1. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.

2. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.

3. SEDIMENT TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.

4. SEDIMENT TRAPS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.

5. ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.

6. UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

7. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

8. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE
STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 8" LAYERED LIFTS AT 95% DENSITY.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE BOROUGH ENGINEER. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORSEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

2. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64 ,EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.

3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE BOROUGH, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATION.

4. ALL PERSONS ENTERING ACTIVE TANKS, MANHOLES, INLETS, ETC. MUST COMPLY WITH OSHA REQUIREMENTS FOR ENTRY INTO CONFINED SPACES.

5. WHERE DRAINAGE SWALES ARE WITHIN 20' OF A BASEMENT, WATERPROOFING SHALL BE APPLIED TO THE BASEMENT.

6. GRADING EQUIPMENT SHALL NOT BE ALLOWED TO CROSS PERMANENT OR INTERMITTENT STREAMS PRIOR TO OBTAINING THE APPROPRIATE PERMITS, AND NO EXCAVATIONS OR FILLS THAT ENCROACH ON NATURAL WATERCOURSES, FLOOD HAZARD AREAS, CONSTRUCTED CHANNELS, OR WETLANDS SHALL OCCUR WITHOUT THE NECESSARY STATE AND/OR FEDERAL PERMITS. FORDING OF LIVE OR INTERMITTENT STREAMS OR TRAVEL IN THEIR BEDS BY MECHANIZED EQUIPMENT IS NOT PERMITTED.

7. POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES SHALL BE PROTECTED FROM SEDIMENT LADEN MATERIAL DURING CONSTRUCTION.

8. CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH. UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

9. TO PROTECT ADJACENT PROPERTIES, ALL AREAS REQUIRING INTERIM STABILIZATION MUST BE ADDRESSED IMMEDIATELY FOLLOWING COMPLETION OF DISTURBANCE.

10. ON-SITE TREES TO BE SAVED SHALL BE PREPARED FOR CONSTRUCTION BY APPROPRIATE FERTILIZATION AND PROTECTED BY APPROPRIATE FENCING.

11. ALL WOODY VEGETATION TO BE RETAINED WITHIN 25 FT OF A BUILDING SITE OR DISTURBED AREA SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING PLACED AT THE DRIPLINES. THE FINAL LOCATION MUST BE APPROVED BY THE BOROUGH ARBORIST PRIOR TO THE ISSUANCE OF PERMITS. THE LOCATION OF THE DRIPLINES AND FENCING SHALL BE FIELD ADJUSTED IN ORDER TO MINIMIZE IMPACT TO EXISTING TREES.

12. SHOULD ANY TREES NOT SCHEDULED OR PERMITTED TO BE REMOVED BE IRREPARABLE DAMAGED DURING CONSTRUCTION AND DIE WITHIN (18) MONTHS OF THE CONCLUSION OF CONSTRUCTION ACTIVITIES, THOSE TREES WILL BE REQUIRED TO BE REPLACED.

13. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF 3.0 TONS PER ACRE.

14. PERMANENT VEGETATION TO BE SEEDED ON ALL EXPOSED AREAS IMMEDIATELY AFTER FINAL GRADING. MULCH TO BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED, HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.

15. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR SUITABLE EQUIVALENT, AT A RATE OF 3.0 TONS PER ACRE. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.

16. A STABILIZED CONSTRUCTION ENTRANCE PAD OF 1.5" TO 2" SIZE CLEAN STONE WILL BE PLACED AT ALL CONSTRUCTION DRIVEWAYS BEFORE ANY EARTH DISTURBANCE. THE SITE DRIVEWAY SHALL BE LONGER THAN NOT LESS THAN 50 FT, EXCEPT ON SINGLE RESIDENCE LOT WHERE 30 FT, MINIMUM WOULD APPLY, WIDTH - 10 FT. MINIMUM , BUT NOT LESS THAN THE FULL WIDTH OF THE ENTRANCE OR EXIT DRIVES, DEPTH - NOT LESS THAN 6". FILTER CLOTH IS REQUIRED PRIOR TO STONE PLACEMENT EXCEPT ON SINGLE RESIDENCE LOTS.

17. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OF 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 SPECIFIC RATES. DISTURBED AREAS WHICH AREA NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1-YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH AREA AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1-YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

18. IN CONJUNCTION WITH EARTHMOVING ACTIVITY, INSTALL THE DESIGNED CONSERVATION MEASURES IN ACCORDANCE WITH SUBMITTED PLANS AND SPECIFICATIONS.
A) INSTALL SEDIMENT BARRIERS AS CLOSE TO CONTOURS AS POSSIBLE. BARRIERS WILL BE CHECKED PERIODICALLY. DAMAGED BARRIERS ARE TO BE REPLACED AND SEDIMENT WHICH IS COLLECTED BY THE BARRIER WILL BE REMOVED AND SPREAD AND STABILIZED WITH VEGETATION ELSEWHERE ON THE SITE.
B) SEDIMENT SHALL NOT BE ALLOWED TO ACCUMULATE HIGHER THAN ONE FOOT ABOVE EXISTING GRADE. SEE DETAILS FOR SEDIMENT BARRIER TYPE AND INSTALLATION PROCEDURES.
C) During CONSTRUCTION, ALL SEDIMENT TRAPPED AT BARRIERS SHALL BE CLEANED OUT AFTER EACH EROSION PRODUCING STORM.

19. ANY DAMAGE THAT OCCURS AS A RESULT OF THE SEDIMENT TRAP DISCHARGE WILL BE REPAIRED IN A PERMANENT MANNER THAT IS SATISFACTORY TO THE MUNICIPALITY, THE CONSERVATION DISTRICT, AND ANY DOWN SLOPE LAND OWNERS.

20. GEOTEXTILE FABRIC SHALL BE CLASS 1. GEOTEXTILE FABRIC IN ACCORDANCE WITH PENNDOT SPECIFICATION FROM 408. THE TYPE AND/OR THICKNESS SHALL BE DUPONT TYPAR #3401, AMOCO PROPEX #4545 OR APPROVED EQUAL OR AS OTHERWISE INDICATED ON THE PLAN.

21. THE MAXIMUM TIME OF EXPOSURE FOR BARE SOIL AREAS SHALL BE TWENTY (20) DAYS BEFORE STABILIZATION MEASURES ARE IMPLEMENTED.

22. NEWLY GRADED SLOPES OF OVER TWENTY-FIVE (25%) PERCENT MUST BE STABILIZED WITH SOD OR JUTE NETTING AND SEED.

RECYCLING OR DISPOSAL OF MATERIALS:

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.

CONSTRUCTION/DEMOLITION WASTE —SOLID WASTE RESULTING FROM THE CONSTRUCTION OR DEMOLITION OF BUILDINGS AND OTHER STRUCTURES, INCLUDING, BUT NOT LIMITED TO, WOOD, PLASTER, METALS, ASPHALTIC SUBSTANCES, BRICKS, BLOCK AND UNSEGREGATED CONCRETE. THE TERM DOES NOT INCLUDE THE FOLLOWING IF THEY ARE SEPARATE FROM OTHER WASTE AND ARE USED AS CLEAN FILL:

(I) UNCONTAMINATED SOIL, ROCK, STONE, GRAVEL, BRICK AND BLOCK, CONCRETE AND USED ASPHALT; AND

(II) WASTE FROM LAND CLEARING, GRUBBING AND EXCAVATION, INCLUDING TREES, BRUSH, STUMPS AND VEGETATIVE MATERIAL.

MANAGEMENT OF CONSTRUCTION AND DEMOLITION WASTE

SALVAGING - BY DEFINITION, MATERIALS SALVAGED FOR USE IN THEIR INTENDED FUNCTION ARE NOT WASTES. EXAMPLES INCLUDE: BATHROOM FIXTURES, CEILING PANELS, DOORS, FLOORING, LIGHTING FIXTURES, WINDOWS, ETC.

SOURCE SEPARATED RECYCLABLE MATERIALS ARE ALSO NOT WASTES. FOR CONSTRUCTION, RENOVATION AND DEMOLITION ACTIVITIES THIS INCLUDES: CARDBOARD, GLASS, METALS, PAPER AND PLASTICS.

ALL CONCRETE TRUCKS SHALL UTILIZE THE CONCRETE WASHOUT AREA AS INDICATED ON THE EROSION & SEDIMENT CONTROL PLAN FOR CLEANING OUT TRUCKS. ACCUMULATED MATERIAL SHALL BE DISPOSED OF PROPERLY IN ACCORDANCE WITH THE REGULATIONS NOTED ABOVE.

IN THE EVENT A POLLUTION INCIDENT OCCURS WHICH CAUSES OR THREATENS TO CAUSE SURFACE OR GROUNDWATER POLLUTION, THE OWNER SHALL:
(1) PROMPTLY NOTIFY THE DEPARTMENT BY TELEPHONE OF THE LOCATION AND NATURE OF THE DANGER,
(2) NOTIFY ALL KNOWN DOWNSTREAM USERS OF THE WATER,
(3) IMMEDIATELY TAKE ALL NECESSARY STEPS TO PREVENT INJURY TO PROPERTY AND DOWNSTREAM USERS, AND PROTECT WATERS FROM POLLUTION OR DANGER OF POLLUTION,
(4) REMOVE ANY CONTAMINATION FROM AFFECTED GROUND OR SURFACE WATER TO THE EXTENT REQUIRED BY THE DEPARTMENT.

ANY OFF-SITE WASTE AND BORROW AREA MUST HAVE AN EROSION AND SEDIMENT CONTROL PLAN REVIEWED AND APPROVED BY PADEP PRIOR TO BEING ACTIVATED.

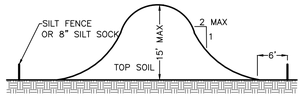
STABILIZATION NOTES:

1. THE PERMITTEE(S) SHALL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROLS AND RELATED ITEMS INCLUDED WITHIN ON THESE PLANS UNTIL THE SITE IS PERMANENTLY STABILIZED.

2. STORMWATER RUNOFF FROM UNSTABILIZED AREAS DURING THE CONSTRUCTION PROCESS IS TO BE RESTRICTED FROM ENTERING THE STORMWATERBED IN ACCORDANCE WITH MEASURES OUTLINED THROUGHOUT THE NOTES SHOWN ON THE PLANS.

CONSTRUCTION NOTES:

1. GEOTEXTILE FABRIC SHALL BE CLEAN NON-WOVEN GEOTEXTILE (PERMEABLE FILTER FABRIC) CLASS 1 AND SHALL BE IN ACCORDANCE WITH PADOT SPECIFICATION FROM 408. THE TYPE AND/OR THICKNESS SHALL BE DUPONT TYPAR #3401, AMOCO PROPEX #4545 OR APPROVED EQUAL OR AS OTHERWISE INDICATED ON THE PLAN.
2. ALL STONE USED FOR THE CONSTRUCTION OF THE BMP SHALL BE UNIFORMLY GRADED, CLEAN, AND WASHED CRUSHED STONE AGGREGATE MEETING PENNDOT/AASHTO #3 SPECIFICATIONS.
3. ALL PERSONS ENTERING ACTIVE TANKS, MANHOLES, INLETS, ETC. MUST COMPLY WITH OSHA REQUIREMENTS FOR ENTRY INTO CONFINED SPACES.
4. RAIN WATER CONDUCTORS ARE TO COLLECT ALL ROOF RUNOFF AND CONVEY IT TO THE APPROPRIATE STORMWATER MANAGEMENT FACILITY.
5. CLEANOUTS ARE REQUIRED AT ALL CHANGES IN DIRECTION OF THE ROOF DRAINS AND SANITARY SEWER LATERALS.
6. ALL SEEPAGE BEDS SHALL BE INSTALLED WITH A MINIMUM SEPARATION DISTANCE OF 10 FEET FROM ALL BASEMENT WALLS.
7. ALL CMP AND HCMP SHALL BE ALUMINUM OR ALUMINIZED STEEL.
8. ALL HDPE PIPE SHALL BE SMOOTH INTERIOR FLOW.
9. ALL PVC PIPE SHALL BE SCHEDULE 40.
10. THE RISER CONNECTIONS IN THE STORMWATER MANAGEMENT SYSTEM SHALL BE WATERTIGHT. REFER TO DETAILS.
11. PERFORATIONS FOR SHALL SATISFY AASHTO DESIGNATION M36/M 36M-90 FOR CLASS 2 PERFORATIONS. THE PERFORATIONS SHALL BE CIRCULAR HOLES WITH NOMINAL DIAMETERS OF 5/16 TO 3/8 INCH. THE PERFORATIONS SHALL BE UNIFORMLY SPACED AROUND THE FULL PERIPHERY OF THE PIPE. THE PERFORATIONS SHALL PROVIDE AN OPENING AREA OF NOT LESS THAN 3.3 SQ. IN. PER SQ. FT. OF PIPE SURFACE BASED ON NOMINAL DIAMETER AND LENGTH OF PIPE.
12. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
13. THE OWNER/CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR ANY/ALL CERTIFICATIONS, INSPECTIONS, ETC. REQUIRED BY ALL GOVERNING JURISDICTIONAL AGENCIES PRIOR TO AND AFTER CONSTRUCTION FOR SIGN-OFF AND CERTIFICATE OF OCCUPANCY ISSUANCE, INCLUDING BUT NOT LIMITED TO PROCUREMENT OF SERVICES, SCHEDULING OF FIELD OBSERVATIONS AND COORDINATION WITH REPRESENTATIVES OF THE APPROPRIATE PARTIES. CONTRACTOR IS RESPONSIBLE TO COORDINATE CERTIFICATIONS, SIGN-OFFS, ETC. NECESSARY FOR JOB CLOSEOUT AND ISSUANCE OF CERTIFICATE OF OCCUPANCY.
14. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
15. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO OUR OFFICE AT THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD-VERIFY EXISTING CONDITIONS AND NOTIFY OUR OFFICE IF ACTUAL SITE CONDITIONS DIFFER FROM THAT SHOWN ON THE PLAN, OR IF THE PROPOSED WORK WOULD BE INHIBITED BY ANY OTHER SITE FEATURES.
16. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD-VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
17. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN AC

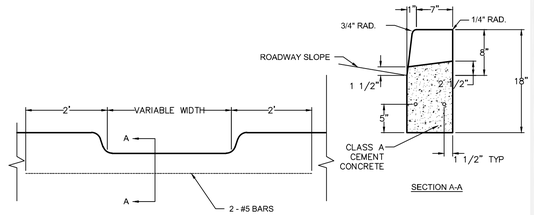


TYPICAL SOIL STOCKPILE CROSS SECTION

N.T.S.

NOTE: SILT FENCE MUST COMPLETELY ENCIRCLE STOCKPILES

NOTE: TOPSOIL SHALL NOT BE REMOVED FROM THE DEVELOPMENT SITE OR USED AS FILL. TOPSOIL SHALL BE REMOVED FROM THE AREAS OF CONSTRUCTION AND STORED SEPARATELY. THE TOPSOIL SHALL BE STABILIZED TO MINIMIZE EROSION DURING STORAGE. UPON COMPLETION OF CONSTRUCTION, THE TOPSOIL SHALL BE UNIFORMLY REDISTRIBUTED ON THE SITE.

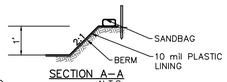


SECTION A-A

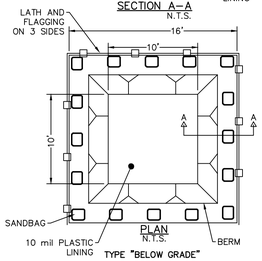
PLAN VIEW

DEPRESSED CURB FOR DRIVEWAYS

N.T.S.



SECTION A-A
N.T.S.



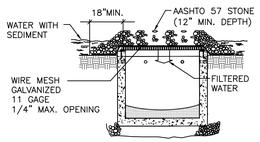
PLAN
N.T.S.

TYPE "BELOW GRADE"

10'X10' CONCRETE WASHOUT

N.T.S.

NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD



GRAVEL SEDIMENT FILTER FOR INLET

N.T.S.

HYDROSEEDING SPECIFICATIONS:

DEFINITION: STABILIZING SEDIMENT PRODUCING AND SEVERELY ERODED AREAS BY ESTABLISHING PERMANENT GRASS COVER.

PURPOSE: TO PROVIDE PERMANENT VEGETATIVE COVER TO CONTROL RAPID RUN-OFF AND EROSION.

PROCEDURE: SURFACE TO BE HYDRO-SEEDED SHALL BE CLEANED OF ALL DEBRIS AND OTHER MATTER HARMFUL TO UNIFORM GERMINATES. A WATER-SLURRY MIXTURE COMPOSED OF THE BELOW MENTIONED "MATERIALS" SHALL BE SPRAYED UNIFORMLY OVER THE AREAS TO BE HYDRO-SEEDED.

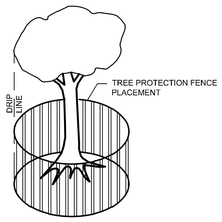
MATERIALS:

PERMANENT SEEDING

NAME	DESCRIPTION	APPLICATION RATE (PER ACRE)
1) SEED MIXTURE % BY WEIGHT	60% PENNSTAR KENTUCKY BLUEGRASS	130 LBS
	30% PENNLAWN RED RESCUE	
	10% PENNFINE PERRENIAL RYEGRASS	
2) COMMERCIAL FERTILIZER	10/20/2020	1,000 LBS
3) LIME	GROUND AGRICULTURAL LIMESTONE (MAY BE APPLIED SEPARATELY)	2 TONS
4) MULCH	HAY OR STRAW	3 TONS
5) SOIL STABILIZER	TERRA TACK OR EQUIVALENT	20 LBS

TEMPORARY SEEDING

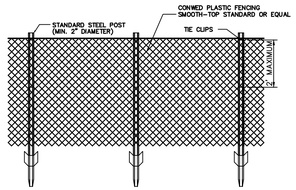
1) SEED	ANNUAL RYEGRASS (95% PURE)	40 LBS
2) COMMERCIAL FERTILIZER	5-5-5	1,000 LBS
3) LIME	GROUND AGRICULTURAL LIMESTONE (MAY BE APPLIED SEPARATELY)	1 TON
4) MULCH	HAY OR STRAW	3 TONS



TREE PROTECTION FENCE PLACEMENT

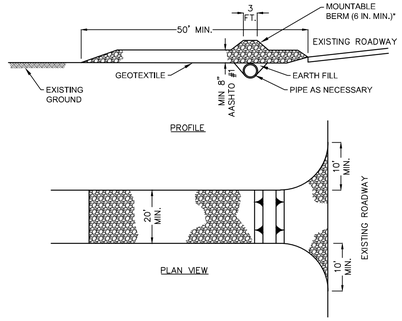
NTS

ALL WOODY VEGETATION TO BE RETAINED WITHIN 25 FEET OF A BUILDING SITE, PARKING AREA, DRIVEWAY OR OTHER PROPOSED IMPROVEMENT SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING OR OTHER EFFECTIVE BARRIERS APPROVED BY THE BOROUGH ENGINEER AND/OR ARBORIST. FENCING OR BARRIERS SHALL BE PLACED AS MUCH AS IS PRACTICAL AT THE DRIPLINE. LOCATION MAY BE ALTERED TO AVOID INTERFERENCE WITH PROPOSED GRADING AND IMPROVEMENTS AS SHOWN ON THE PLANS. BARRIER LOCATION SHALL BE SUBJECT TO APPROVAL BY THE BOROUGH ENGINEER AND/OR ARBORIST.



TEMPORARY CONSTRUCTION FENCING

N.T.S.



PROFILE

PLAN VIEW

* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

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

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

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

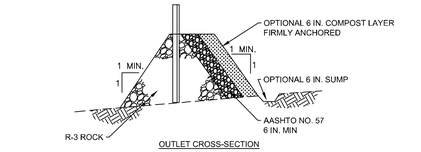
MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE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

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE

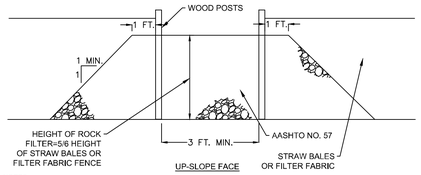
NOT TO SCALE

SOIL AMENDMENT	PERMANENT SEEDING APPLICATION RATE MIN.			NOTES
	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.	
AGRICULTURAL LIME	6 TONS	240 LB.	2,480 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
10-10-20 FERTILIZER	1,000 LB	25 LB.	210 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
	TEMPORARY SEEDING APPLICATION RATE MIN.			
AGRICULTURAL LIME	1 TON	40 LB.	410 LB.	TYPICALLY NOT REQUIRED FOR TOPSOIL
10-10-10 FERTILIZER	500 LB	12.5 LB	100 LB.	TYPICALLY NOT REQUIRED FOR TOPSOIL

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



OUTLET CROSS-SECTION



UP-SLOPE FACE

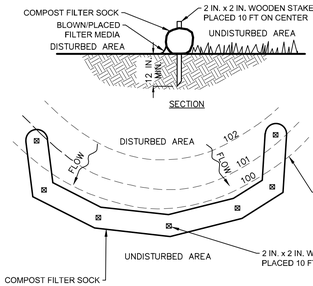
NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET

NOT TO SCALE



PLAN VIEW

NOTES:
1. 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.
2. 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.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
4. 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.
5. 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.
6. 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.
7. 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.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK

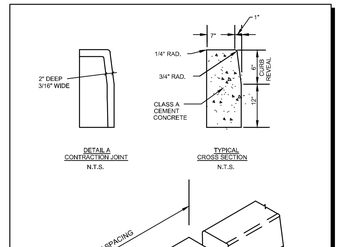
NOT TO SCALE

COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERSTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET				
	CONTINUOUSLY WOUND				
	FUSION-WELDING JUNCTURES				
	3/4"x3/4" MAX. APERTURE SIZE				
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)				
	3/16" MAX. APERTURE SIZE				
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.					

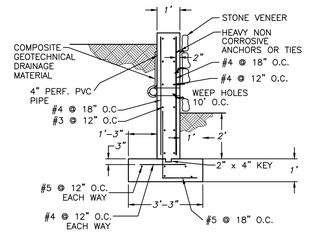
COMPOST STANDARDS

ORGANIC MATTER CONTENT	80% – 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 – 8.0
MOISTURE CONTENT	35% – 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM



PLAIN CEMENT CONCRETE CURB

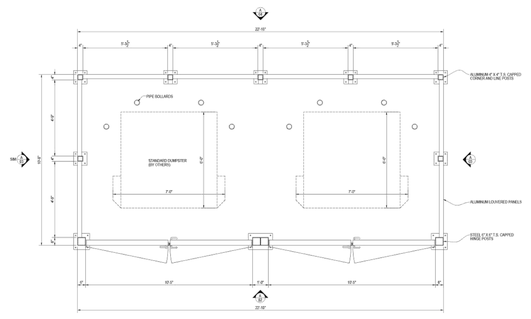
1. MATERIALS AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 AND 640 FOR PLAIN CEMENT CONCRETE CURB.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4" PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFROM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.



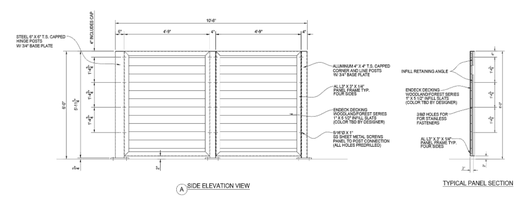
TYPICAL SITE RETAINING WALL OR EQUAL

N.T.S.

NOTES:
1. RETAINING WALLS TO BE A MAXIMUM OF 4' REVEAL.
2. RAILINGS SHALL BE INSTALLED IF REQUIRED.



PLAN VIEW



GENERAL DUMPSTER ENCLOSURE DETAIL

N.T.S.

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SCHOCK GROUP
CIVIL ENGINEERING
LAND SURVEYING
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CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM
610-940-7573

REGISTERED
PROFESSIONAL
DAVID R. FIORELLO
ENGINEER
PE027479E

LOCATIONS OF EXISTING UTILITIES ON THIS PLAN HAVE BEEN DEVELOPED FROM FIELD LOCATIONS AS VISIBLE ABOVE GROUND AND FROM UTILITY MAPS AND RECORDS FURNISHED BY THE UTILITY COMPANIES. ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE AND NOT NECESSARILY ACCURATE OF THE LOCATIONS AND DEPTH OF ALL UNDERGROUND UTILITIES.

CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES BEFORE STARTING ANY WORK. NOTIFY ALL UTILITIES BEFORE STARTING ANY WORK. DIAL 811 OR ONE CALL SYSTEM THREE DAYS PRIOR TO THE START OF WORK.

EROSION AND SEDIMENT CONTROL DETAILS

PRELIMINARY LAND DEVELOPMENT

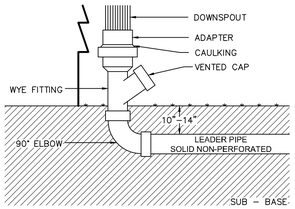
127 E. ELM STREET

CONSHOHOCKEN BOROUGH * MONTGOMERY COUNTY * PENNSYLVANIA

NO.	DESCRIPTION	DATE
1	PZ/SCC REVIEW	10/7/2024
2	PZ/SCC REVIEW	11/4/2024

CLIENT: CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DESIGNED BY: NWW
CHECKED BY: DRF
ENG. CALL:
SCALE: 1" = 20'
DATE: AUGUST 2, 2024
FILE NO.: 1819
SHEET NO.: 10 OF 11



DOWNSPOUT DETAIL

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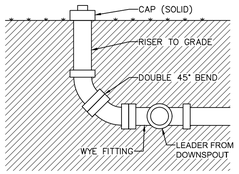
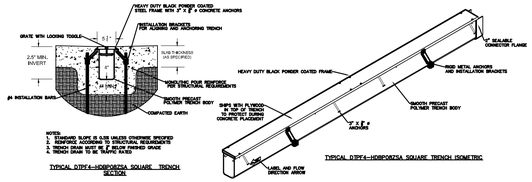


TERMINAL CLEANOUT (TYPICAL)

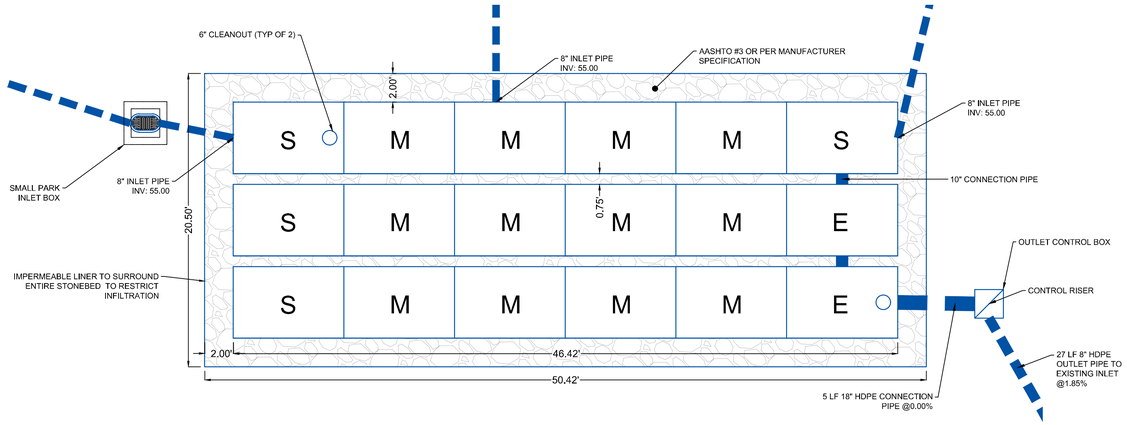
N.T.S.



TRENCH DRAIN DETAIL

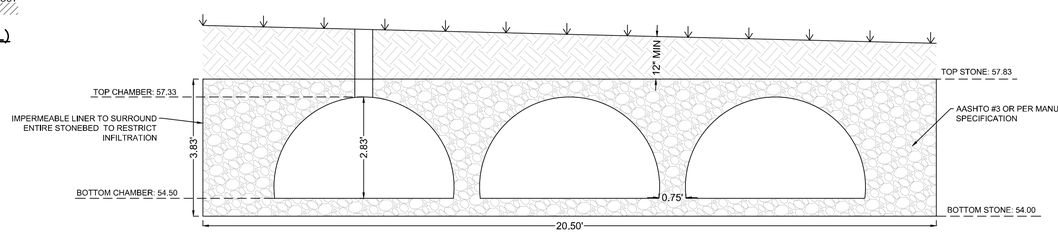
N.T.S

OR EQUIV. TRENCH DRAIN SYSTEM



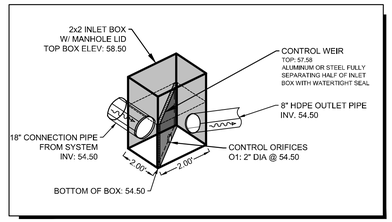
PCSM 1 DETAIL

18 NDS STORM CHAMBER SC-34
TOP STONE: 57.83
TOP CHAMBER: 57.33
BOTTOM CHAMBER: 54.50
BOTTOM STONE: 54.00



PCSM 1 PROFILE VIEW

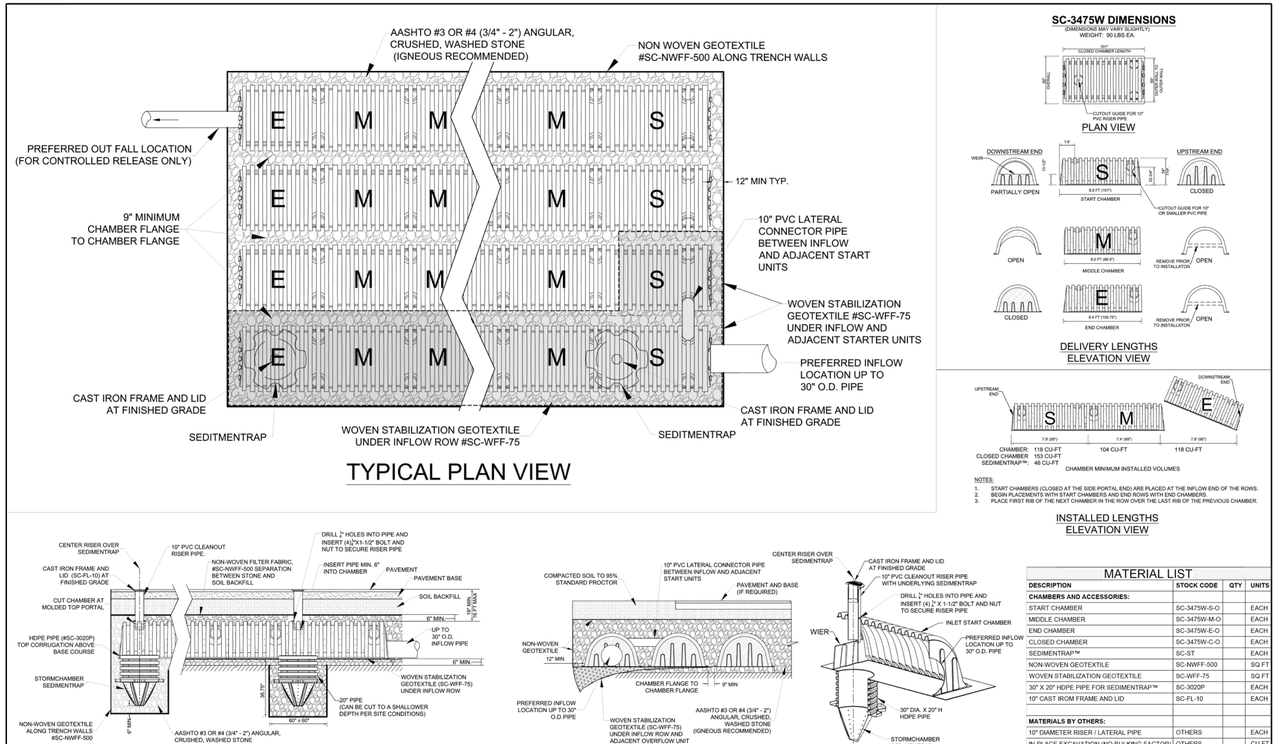
18 NDS STORM CHAMBER SC-34
TOP STONE: 57.83
TOP CHAMBER: 57.33
BOTTOM CHAMBER: 54.50
BOTTOM STONE: 54.00



2FTx2FT PCSM 1 WEIR OUTLET CONTROL BOX DETAIL

N.T.S.

ALL JOINTS ARE TO BE WATERTIGHT.



TYPICAL PLAN VIEW

SC-3475W DIMENSIONS

(DIMENSIONS MAY VARY SLIGHTLY)
WEIGHT: 90 LBS EA.

PLAN VIEW

DELIVERY LENGTHS ELEVATION VIEW

NOTES:
1. START CHAMBERS (CLOSED AT THE SIDE PORTAL END) ARE PLACED AT THE INFLOW END OF THE ROWS.
2. BEGIN PLACEMENTS WITH START CHAMBERS AND END ROWS WITH END CHAMBERS.
3. PLACE FIRST RIB OF THE NEXT CHAMBER IN THE ROW OVER THE LAST RIB OF THE PREVIOUS CHAMBER.

INSTALLED LENGTHS ELEVATION VIEW

TYPICAL SIDE VIEW

TYPICAL FRONT VIEW

START CHAMBER CUTAWAY

MATERIAL LIST

DESCRIPTION	STOCK CODE	QTY	UNITS
CHAMBERS AND ACCESSORIES:			
START CHAMBER	SC-3475W-S-O		EACH
MIDDLE CHAMBER	SC-3475W-M-O		EACH
END CHAMBER	SC-3475W-E-O		EACH
CLOSED CHAMBER	SC-3475W-C-O		EACH
SEDIMENTRAP™	SC-ST		EACH
NON-WOVEN GEOTEXTILE	SC-NWFF-500		SQ FT
WOVEN STABILIZATION GEOTEXTILE	SC-WFF-75		SQ FT
30" X 20" HDPE PIPE FOR SEDIMENTRAP™	SC-3020P		EACH
10" CAST IROM FRAME AND LID	SC-FL-10		EACH
MATERIALS BY OTHERS:			
10" DIAMETER RISER / LATERAL PIPE	OTHERS		EACH
IN-PLACE EXCAVATION (NO BULKING FACTOR)	OTHERS		CU FT
STONE BACKFILL	OTHERS		CU FT
1/4" X 1-1/2" NUT AND BOLT	OTHERS		EACH
3" SCREWS	OTHERS		EACH

PROJECT NAME / PROJECT LOCATION

PROJECT #

DATE: REVISION:

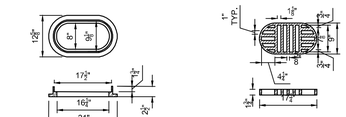
DRAWN BY:

STORMCHAMBER® NDS Design Worx

TYPICAL SC-3475W STORMCHAMBER LAYOUT

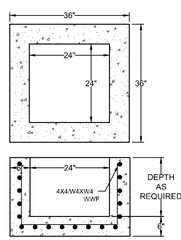
MEETS OR EXCEEDS ASTM F2922 & ASTM F2787

DRAWING# SATTEH-GT REV: C DATE: 11-03-2017

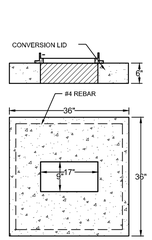


SMALL PARK FRAME DETAIL

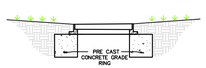
SMALL PARK GRATE DETAIL



24" x 24" INLET BOX DETAIL



CONVERSION LID DETAIL

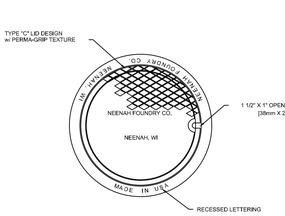


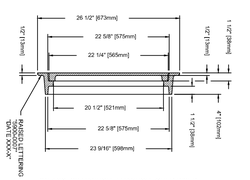
LAWN CONDITION PLACEMENT (TYP.)

SPECIFICATIONS
-GRAY IRON MEETS OR EXCEEDS ASTM A48 CLASS 30 B
-MINIMUM CONCRETE STRENGTH 2750 PSI @28 DAYS (PENNDOT CLASS AA)
-1 1/2" MINIMUM CONCRETE COVER (ALL REINFORCEMENT)
-STEEL REINFORCEMENT MEETS ASTM A615 (0.12 IN^2/FT EACH WAY)
-MATERIAL AND WORKSMANSHIP IN ACCORDANCE WITH PENNDOT PUB. 408
-LOCATION OF PIPE OPENINGS AS REQUIRED

SMALL PARK INLET DETAIL

N.T.S.





24" ACCESS MANHOLE / MANHOLE OVER RISER

R-5900-E
FRAME AND LID

MATERIAL: CAST GRAY IRON ASTM A48, CLASS 30B

FOR CORRUGATED METAL PIPE SIZED TO FIT SNUGLY INTO OPENING OF CORRUGATED PIPE.

ADDITIONAL ANCHORAGE TO METAL PIPE MAY BE ACCOMPLISHED BY DRILLING HOLES IN 7'-0" SLEEVE OR BARREL PORTION OF THE FRAME AND BOLTING THE FRAME IN PLACE. FRAMES CAN BE FURNISHED DRILLED FOR THIS PURPOSE ON SPECIAL ORDER.

STORMWATER MANHOLE DETAILS

N.T.S.

POST CONSTRUCTION STORMWATER MANAGEMENT NOTES & DETAILS

PRELIMINARY LAND DEVELOPMENT

127 E. ELM STREET

CONSHOHOCKEN BOROUGH * MONTGOMERY COUNTY * PENNSYLVANIA

PENDING TWAIN

PENDING TWAIN

REV.:	DATE:	DESCRIPTION

SCHOCK GROUP
CIVIL ENGINEERING
LAND SURVEYING
1190 BUTLER PIKE, SUITE 5
CONSHOHOCKEN, PA 19428
SCHOCKGROUP.COM
610-940-7272

REGISTERED PROFESSIONAL
DAVID R. FIORELLO
ENGINEER
PE027479E

LOCATIONS OF EXISTING UTILITIES ON THIS PLAN HAVE BEEN DEVELOPED FROM FIELD LOCATIONS AS VISIBLE ABOVE GROUND AND FROM UTILITY MAPS AND RECORDS FURNISHED BY THE UTILITY COMPANIES. ALL LOCATIONS SHOWN ARE APPROXIMATE AND NOT GUARANTEED AS TO ACCURACY OF THEIR LOCATIONS AND/OR DEPTH OF ALL UNDERGROUND UTILITIES.

CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES BEFORE STARTING ANY WORK. NOTIFY ALL UTILITIES 3 FULL WORKING DAYS PRIOR TO ANY EXCAVATION ONLY CALL SYSTEM THREE DAYS PRIOR TO THE START OF WORK!!

CLIENT:
CHRISTINA PIERI
1016 MAPLE STREET
CONSHOHOCKEN, PA 19428

DRAWN BY:	NWW
CHECKED BY:	DRF
ONE-CALL:	
SCALE:	1" = 20'
DATE:	AUGUST 2, 2024
FILE NO:	1819
SHEET NO:	11 OF 11

© SCHOCK GROUP LLC'S 2024/08/22,122326
C:\SHAREPOINT\SCHOCK GROUP\FILES - DOCUMENTS\PROJECTS\1819\DRAWINGS\SC-1819

SALE AND PURCHASE AGREEMENT

THIS AGREEMENT is entered into as of the 18th day of April 2024 ("Effective Date"), between **The Estate of Raymond L. Weinmann** hereinafter referred to as "Seller" and **Pie-Mir LLC** a Pennsylvania limited liability company, its permitted successors, or assigns, hereinafter referred to as "Purchaser".

WITNESSETH:

A. Seller is the owner of that certain real estate and improvements thereon located known as 127 East Elm Street, Conshohocken, Pa, Montgomery County more particularly described in that certain Deed dated April 24, 1998, between PVI Associates and Raymond L. Weinman recorded with the Montgomery County Recorder of Deeds Office (the "Property").

B. Seller wishes to sell, and Purchaser wishes to buy the Property, as hereinafter defined.

NOW THEREFORE, for and in consideration of the mutual promises, covenants, and undertakings contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. AGREEMENT. Seller hereby agrees to sell, and Purchaser agrees to purchase, subject to the provisions of this Agreement, the Property, including all appurtenant rights associated therewith.

2. PURCHASE PRICE AND METHOD OF PAYMENT. The purchase price of the Property is One Million Two Hundred and Twenty-Five Thousand Dollars ($1,225,000.00) (USD), subject to adjustments as hereinafter set forth ("Purchase Price"). The Purchase Price shall be paid as follows:

a. Within two (2) business days after the Effective Date, Purchaser shall pay the sum of Fifty Thousand Dollars ($50,000.00) (the "Deposit") to Philadelphia Suburban Abstract Company. 922 Ridge Pike, Conshohocken Pa. 19428 (the "Escrow Agent"). The Escrow Agent shall hold the Deposit in a federally insured interest-bearing account at a bank or other financial institution reasonably acceptable to Purchaser, and all interest accruing on the Deposit (if any) shall be deemed to be a part of the Deposit for all purposes hereunder.

(1) The Deposit shall be refundable during the Inspection Period (as hereinafter defined). Thereafter, if Purchaser proceeds with this transaction, the Deposit shall be non-refundable except in the event of a Seller default, condemnation, failure or inability to deliver title as required pursuant to the provisions of this Agreement, or as otherwise set forth in this Agreement.

(2) At Settlement, unless forfeited to Seller as liquidated damages or returned to Purchaser pursuant to the terms of this Agreement, the Deposit and all interest accrued thereon shall be credited to the Purchase Price.

b. Purchaser shall pay the balance of the Purchase Price by cash (USD) or federal wire transfer, with all funds available on or before 5:00 p.m. on the Settlement Date.

3. PROPERTY INSPECTION.

a. Within five (5) business days after the Effective Date, Seller shall deliver to Purchaser the following copies of documents relating to the Property which it has in its possession and which are readily available: service agreements/contracts, maintenance records, books, records and other financial documents and information with respect to the Property, land development records, environmental studies, plans, existing survey and title policy, correspondence and/or other documents by and between Seller and Montgomery County and/or the Commonwealth of Pennsylvania with respect to the Property and any other documents in Seller's possession or control relating to the Property (collectively, the "Property Information"). Purchaser agrees to return said copies to Seller promptly upon any termination of this Agreement.

b. Except for the representations and warranties of Seller contained in this Agreement or in any of the instruments of conveyance/assignment, the Property shall be conveyed in "as is, where is, and with all faults", condition. Except as set forth in this Agreement, Seller makes no representations or warranties concerning the Property, its physical condition, its economic prospects or any other matter except as contained in the instruments of conveyance/assignment. Commencing on the Effective Date and continuing until the Settlement Date, Purchaser and/or its agents shall have the right to enter into the Property to perform such reasonable and customary inspections that Purchaser deems necessary ("Property Inspection"); provided that the Property Inspection is conducted: (i) at reasonable times; (ii) in accordance with applicable laws, regulations and ordinances; (iii) by properly licensed, qualified and insured, contractors with insurance naming Seller as an additional insured; (iv) in a manner to cause no material adverse condition to the Property, including, but not limited to, pollution of, or the creation of hazardous waste on or in, the Property; and (v) in a manner to cause no breach or default pursuant to any agreement pertaining to the Property. In addition, Seller agrees to respond to all reasonable requests for information from Purchaser within a reasonable time. During any Property Inspection, Purchaser shall exercise commercially reasonable efforts to minimize any disruption to the business of Seller. Upon completion of the Property Inspection, the Property shall be restored to the substantially the same condition in which it existed immediately prior to the Property Inspection. Purchaser shall promptly pay all costs associated with the Property Inspection. Purchaser and its agents, contractors, and employees shall not incur or suffer any mechanics or other lien to be filed against the Property or Seller's interest therein. Purchaser shall provide Seller with copies of all reports and inspections it receives in connection with the Property Inspection promptly upon receipt. In the event, as a result of its Property Inspection, Purchaser discovers any Hazardous Materials (as hereinafter defined) that are reportable to the Pennsylvania Department of Environmental Protection ("DEP") or the Environmental Protection Agency ("EPA"), Purchaser shall refrain from taking any action until it consults with the Seller. Reporting of same shall be made in Seller's sole determination. If Purchaser proceeds to make such contact or makes any report to the DEP or EPA, this shall be considered a default by Purchaser and Seller shall have the right to retain the Deposit in anticipation of damages it may suffer.

c. Purchaser does hereby indemnify and hold Seller and its heirs, assigns, and/or successors, beneficiaries, employees and agents and their respective officers, directors, servants and employees ("Indemnified Parties"), harmless from any and all liability, loss, cost and expense (including reasonable attorney's fees at all levels of proceedings, collections and bankruptcy) arising from, or relating to, the Property Inspection or otherwise arising as a result of Purchaser exercising any of its rights pursuant to this Section, except where such liability, loss, cost and expense is due to

the gross negligence or willful misconduct of the Indemnified Parties. Notwithstanding the foregoing, in no event shall Purchaser be liable for (i) the discovery of any preexisting condition; or (ii) any claims of diminution in the value of the Property as a consequence of the results revealed by any such investigations or testing.

d. No later than 5:00 p.m. on the first business day which is forty (40) days after the Effective Date ("Inspection Period"), Purchaser shall deliver to Seller written notice indicating that it wishes to proceed with the purchase of the Property ("Inspection Contingency Notice to Proceed"). For purposes of clarification, the parties do hereby agree that, in the event that the Inspection Period ends on a Saturday, Sunday or a public holiday observed in the Commonwealth of Pennsylvania, then the Inspection Period shall be extended through 5:00 p.m. on the next business day immediately, automatically and without the need for any further writing or action by any party. If Purchaser fails to timely deliver the Inspection Contingency Notice to Proceed, then this Agreement shall automatically terminate and the Deposit shall be refunded in full to Purchaser within three (3) business days thereafter, without further notice or action by either party.

4. SELLER'S REPRESENTATIONS, WARRANITES AND COVENANTS.

a. Seller is an estate, selling by and through its executor. Accordingly, Seller's representations, warranties and covenants to Purchaser are limited as follows:

(1) Seller has the legal capacity to enter into this Agreement, to sell the Property to Purchaser and to otherwise perform its obligations hereunder without the consent of any other person or entity. This Agreement, and such other documents now or hereafter to be executed and delivered by Seller under this Agreement, when executed and delivered, will each constitute the legal, valid, and binding obligations of Seller enforceable against Seller in accordance with its terms.

(2) Seller is the owner of the fee simple title to the Property. Seller's title to the Property is, and on the Settlement, Date will be, marketable and good of record.

(3) No third party has any right or option to acquire all or any part of the Property.

(4) Neither the execution and delivery of this Agreement, nor compliance with the terms and conditions of this Agreement by Seller, nor the consummation of the sale, constitutes or will constitute a violation of or breach of any agreement or judicial order to which Seller is a party or the Property is subject, including without limitation the bylaws or other corporate documents of Seller.

b. Seller represents and warrants to Purchaser that, as of Effective Date, to the actual knowledge of Seller, without any independent investigation:

(1) Intentionally Omitted.

(2) Intentionally Omitted.

(3) Intentionally Omitted.

(4) There are no condemnation or eminent domain proceedings pending or contemplated against the Property or any part thereof, and Seller has received no written notice of the desire of any public authority or other entity to take or use the Property or any part thereof.

(5) The Property is subject to no written leases, subleases, or other rights of occupancy that will extend beyond the Settlement.

(6) There are no actions, suits, claims, arbitrations, proceedings, orders, judgments or investigations pending or threatened in writing against or affecting Seller, the Property or the operation thereof, or which questions the validity of this Agreement or any action taken or to be taken in, under or in connection with any of the provisions of this Agreement, at law or in equity, or before or by any federal, state, municipal or other governmental department, commission, board, bureau, agency or instrumentality.

(7) No labor has been performed or materials furnished at the request or direction of Seller that could result in a materialman's or mechanic's lien filed against the Property except as shall be fully paid by Seller or released prior to Settlement. All real estate taxes on the Property which have become due and which are required to be paid prior to Settlement have been or will be paid by Seller by Settlement. All federal and state income tax returns required to be filed for the Property during the past three (3) years have been timely filed.

(8) Intentionally Omitted.

(9) Intentionally Omitted.

For the purposes of this Agreement, "Hazardous Materials" means any of the following: asbestos-containing materials, polychlorinated biphenyls (PCBs), flammable materials, explosives, radioactive materials, petroleum products and any materials, wastes, substances, or chemicals that are deemed hazardous, toxic, a pollutant or a contaminant under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. Section 9601, et seq.), the Hazardous Materials Transportation Act as amended (49 U.S.C. Section 1801, et seq.), the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. Section 6901, et seq.), in the regulations adopted or publications promulgated pursuant thereto, or in any other applicable federal, state or local laws, ordinances, rules or regulations in effect on the Effective Date relating to the protection of public health, safety or the environment.

(10) Intentionally Omitted.

(11) To Seller's knowledge, the Property Information items are correct.

(12) The Property is served by public water and sewer, gas, and electric. Seller has no actual knowledge of, and has received no notice of, any present or threatened ban, moratorium or other limitation of any kind on new connections or additional flows to any such utilities serving the Property.

(13) No fees or assessments for any public improvements have been made against the Property which remain unpaid, no improvements to the Property or any roads or facilities abutting

the Property have been made or ordered for which a lien, assessment, or charge can be filed or made, and Seller has no knowledge of any plans with respect thereto.

(14) Intentionally Omitted.

(15) Intentionally Omitted.

(16) Seller shall comply with all notice and other requirements of all Pennsylvania bulk sales laws to the extent applicable. Seller shall and hereby agrees to indemnify Purchaser for any claim, costs, loss, or damage suffered by Purchaser as a result of Seller's failure to pay any tax attributable to periods ending on or before Settlement or to provide notice to any taxing authority of the transaction contemplated herein, including, without limitation, any claim, cost, loss, or damage relating to any tax liability of the Seller related to the ownership or operation of the Property prior to Settlement. This indemnification obligation shall survive the Settlement without limitation as to time.

(17) Intentionally Omitted.

(18) Seller has received no notice regarding any suspension or cancellation of any existing Certificates of Occupancy.

(19) Seller shall and hereby agrees to indemnify Purchaser for any claim, cost, loss, or damage suffered by Purchaser as a result of Seller's failure to pay any tax attributable to periods ending on or before Settlement or to provide notice to any taxing authority of the transaction contemplated herein. This indemnification obligation shall survive Settlement without limitation as to time.

(20) Seller is not named by, and is not acting, directly, or indirectly for or on behalf of any person, group entity, or nation named by, any Executive Order, including without limitation Executive Order 13224, or the United States Treasury Department as a terrorist, "Specially Designated National and Blocked Person" or other banned or blocked person, entity, nation or transaction pursuant to any law, order, rule, or regulation that is enacted, enforced, or administered by the Office of Foreign Assets Control ("OFAC").

c. Seller covenants and agrees that:

(1) Between the Effective Date and the Settlement Date, Seller shall, at Seller's expense, maintain all of the Property in a state of good order and repair, normal wear and tear and casualty excepted. Seller shall promptly notify Purchaser if Seller receives any notice from any party alleging that Seller is in default with respect to any permit, approval or agreement affecting the Property or any portion thereof.

(2) At Settlement, there shall be no contracts binding upon Purchaser entered into by Seller without Purchaser's knowledge that have not been disclosed by Seller to Purchaser. Seller shall not make any new commitments or representations to any applicable governmental authorities, any adjoining or surrounding property owners, any civic association, any utility or other person or entity that would in any manner be binding upon Purchaser or the Property, without Purchaser's prior written consent in each instance, which consent Purchaser may withhold in its sole discretion.

(3) Seller shall maintain in full force and effect all licenses, permits, authorizations, approvals, certificates of occupancy and all other approvals necessary for the current use and operation of the Property (the "Permits"), and will file in a timely manner all reports, statements, renewal applications and other filings, and will pay timely all fees and charges in connection therewith that are required to keep the Permits in full force and effect.

(4) Seller now carries liability and extended coverage insurance policies on the Property; and Seller agrees that, between the Effective Date and the Settlement Date, Seller will, at Seller's expense, continue to keep such insurance in full force and effect.

(5) In addition to Seller's other obligations in this Agreement, including, without limitation, timely delivery of the Property Information, Seller shall furnish to Purchaser in a reasonable time frame, all information concerning the Property that Purchaser may from time to time reasonably request, including specifically but without limitation, cooperating with Purchaser to satisfy its purchase money lender requirements related to the Property.

(6) Between the date of the full execution and delivery of this Agreement and the expiration of the Inspection Period (or earlier termination of this Agreement by Purchaser), Seller will not enter into any purchase and sales agreements, leases, or other agreements with the effect of transferring title or a possessory interest, with respect to the Property.

d. The representations and warranties of this Section 4 made by Seller to Purchaser shall survive the closing of title and the delivery of the deed hereunder for a period not to exceed three (3) months from the Settlement Date.

5. PURCHASER'S REPRESENTATIONS. Purchaser represents and warrants, which representations and warranties are correct as of the date hereof and will be true and correct as of the Settlement Date, that:

a. Purchaser has the full right and authority to execute and deliver this Agreement and to undertake all action and performance of all tasks required of it hereunder.

b. Purchaser's performance pursuant to this Agreement will not result in any breach of, or constitute any default under, or result in the imposition of, any lien or encumbrance upon the Property under any agreement or other instrument to which Purchaser is a party or by which Purchaser or the Property are bound.

c. This Agreement has been duly authorized and executed on behalf of Purchaser and constitutes a valid and binding agreement, enforceable in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency or similar laws affecting the enforcement of such rights generally and by principles of equity. Purchaser has obtained all consents, releases and permissions and given all required notifications related to the transactions herein contemplated and required under any covenant, agreement, encumbrance, law or regulation to which Purchaser is a party or by which Purchaser is bound.

6. EVIDENCE OF TITLE.

a. If readily available, Seller's most recent title insurance policy for the Property will be included in the Property Information delivered to Purchaser ("Existing Policy"). Seller shall satisfy all mortgages, liens, and security interests ("Monetary Liens") at Settlement, utilizing the Settlement proceeds. Except as provided to the contrary herein and except for any Monetary Liens and Defects to which Purchaser has objected, in the event that Purchaser proceeds after the Inspection Period, Purchaser has accepted title in the condition as represented thereon.

b. During the Inspection Period, Purchaser shall order a title commitment or report (the "Title Commitment") from Philadelphia Suburban Abstract Company ("Title Company"), which will agree to issue an Owner's Policy of Title Insurance (the "Title Policy") insuring Purchaser's title to the Property to be good and marketable in the amount of the Purchase Price. If the Title Commitment and/or Survey, if any, shows any title defect, lien, encroachment, or encumbrance that renders the Property unusable for its present purpose ("Defect"), then Purchaser, prior to the expiration of the Inspection Period, shall notify Seller in writing specifying the Defect, together with a complete copy of the Title Commitment. Seller shall, within ten (10) days after receiving such notice of Defects, provide a written response to Purchaser that Seller will or will not attempt to cure such Defects. If Seller fails to provide such written response, it shall be deemed that Seller shall not cure such Defects as set forth in Purchaser's written notice of Defects. If Seller elects not to cure the Defects or fails to notify Purchaser within the aforementioned time frame, Purchaser shall be entitled to terminate this Agreement and have the Deposit returned to it and be paid by Seller the title fees that Purchaser has incurred, not to exceed $1,500.00, at which time this Agreement shall become void and there shall be no further objection or liability on either party hereto. If Seller agrees to cure such Defects, this Agreement shall remain in effect, however Settlement may be extended to allow Seller the time to cure said Defect. Notwithstanding the foregoing, Seller shall be required to discharge of record at or prior to Settlement all Monetary Liens, regardless of whether Purchaser identifies any such Monetary Lien as a Defect in it written notice described above.

7. SURVEY. Included within the Property Information, provided the Seller has the same available, is a copy of Seller's most recent survey ("Existing Survey"). During the Inspection Period, Purchaser, at its sole cost and expense, may order a current survey of the Property (the "Survey") certified to Purchaser, its respective counsel, lender(s), and to the Title Company. All matters shown on the Survey which constitute a Defect and materially impede the ability to utilize the Property as it is currently utilized, shall be resolved as provided in Section 6 above.

8. SETTLEMENT DATE AND PLACE. This transaction shall be closed ("Settlement") and the instruments of conveyance shall be delivered on or before fifty (50) days after expiration of the Inspection Period ("Settlement Date"). The Settlement Date is subject to being extended or shortened by agreement of the parties or by any other provisions of this Agreement. The Settlement shall be in the offices of the Escrow Agent, or such other place as may be agreed by the parties or by overnight delivery. Formal tender of an executed deed and purchase money is hereby waived.

9. CONVEYANCE.

a. At Settlement, Seller shall deliver, duly executed and in form satisfactory to the Escrow Agent, the following:

(1) A Special Warranty Deed, in proper form for recording, conveying the Property to Purchaser in fee simple, free and clear of all liens, encumbrances, and other matters adversely affecting title and any other matters that have been expressly waived by Purchaser in writing, together with a Pennsylvania Realty Transfer Tax Statement of Value. Purchaser reserves the right to acquire title to the Property in the name of an affiliated entity as set forth in Section 25;

(2) Deliver possession of the Property to Purchaser, and free and clear of all tenancies or other rights of occupancy and free of all trash, debris, equipment, vehicles, waste and the like;

(3) Owner's title affidavit as to mechanics liens, possession, and other matters affecting title, in customary form acceptable to Purchaser and the Title Company;

(4) Pursuant to Section 1445 of the Tax Reform Act of 1984, a "Non-Foreign Person" Affidavit;

(5) A Settlement statement, in form and content prepared by the Title Company and acceptable to both the Seller and Purchaser;

(6) Intentionally Omitted.

(7) Intentionally Omitted.

(8) Original Waivers and Releases of the Right to File a Lien under the Commercial Real Estate Brokers Lien Act, duly executed by each Broker;

(9) A Closing Certificate confirming that all of the representations and warranties by Seller set forth in this Agreement are true and correct at and as of the Settlement in all material respects;

(10) Evidence of Seller's compliance with the notice provisions of all Pennsylvania bulk sales laws;

(11) If Pennsylvania tax clearances are not received prior to Settlement, a bulk sales release and indemnity if favor of Purchaser in form and substance reasonably satisfactory to Purchaser as is consistent with Section 4 (b) (16). In no event shall Seller be obligated to escrow any monies at Settlement for compliance with Pennsylvania bulk sales laws or tax clearance requirements;

(12) A duly executed and acknowledged assignment, in form and content reasonably satisfactory to Purchaser, assignment to Purchaser all of Seller's right, title, and interest in any service contracts, if any, permits, licenses, plans, and approvals relating to the ownership, operation or occupancy of the Property (nothing herein shall be deemed to require Purchaser to accept assignment of any contract); and

(13) Such other items and instruments as Purchaser, the Title Company and/or Escrow Agent may reasonably require.

b. At Settlement, Purchaser shall deliver:

(1) The Settlement proceeds;

(2) A Settlement statement; and

(3) Such other items as Seller and/or Escrow Agent may reasonably require.

10. PRORATIONS, ADJUSTMENTS AND CERTAIN SETTLEMENT COSTS.

a. Real estate taxes, all utilities, and other apportionable income and expenses paid or payable by Seller shall be apportioned as of the date of Settlement. Seller shall cause any and all public utilities servicing the Property to issue final bills to Seller on the basis of readings made as of Settlement, and all such bills shall be paid by Seller.

b. All assessments for public improvements which have been completed prior to the Settlement, shall be paid in full by Seller at or before the Settlement. All assessments issued following Settlement shall be Purchaser's responsibility, if Purchaser purchases the Property.

c. Seller shall pay the cost of preparation of the Deed, recording the Deed, and its own attorneys' fees. The parties shall divide equally, the Escrow Agent's closing fees, closing fees, and Pennsylvania and local real estate transfer taxes. Purchaser shall pay all other costs, including, without limitation, all costs associated with: (i) the title insurance coverage; and (ii) Property Inspection. All other expenses of conveyance shall be paid by the party incurring them or as otherwise set forth in this Agreement.

11. 1031 EXCHANGE. Seller and Purchaser may desire to complete a tax-free exchange (either regular or reverse) under Section 1031 of the Internal Revenue Code in connection with the sale or purchase of the Property, in which event Settlement shall be coordinated with a qualified delayed exchange intermediary as the exchange facilitator with full powers to complete the exchange. The exchange facilitator will instruct Seller or Purchaser as to the manner in which title to the Property shall be conveyed to the Purchaser. There will be no additional expenses to Seller, as the result of Purchaser completing a tax-free exchange, nor to Purchaser as a result of Seller completing a tax-free exchange. Seller and Purchaser agree to cooperate with one another and their respective exchange facilitator to allow the completion of the exchange. Seller shall indemnify and hold Purchaser harmless from any liability or expense as a result of Seller completing a tax-free exchange of the Property, and Purchaser shall indemnify and hold Seller harmless from any liability or expense as a result of Purchaser completing a tax-free exchange of the Property. In no event shall: (i) such tax-free exchange delay Settlement; or (ii) either party shall be required to take title to any third-party Property.

12. RISK OF LOSS/CONDEMNATION. All risk of loss or damage to the Property by any cause is assumed by Seller until Settlement. If, prior to Settlement, the Property or any portion thereof is taken by proceedings in condemnation, Seller shall promptly notify Purchaser in writing. Within ten (10) days of receipt of said notice, Purchaser shall have the option of terminating this Agreement, whereupon the Deposit plus any interest earned thereon shall be returned the Purchaser or proceeding hereunder. If Purchaser elects to proceed under this Agreement, there shall be a pro-rata reduction of the Purchase Price to reflect the portion of the Property taken in condemnation or Purchaser shall be entitled to such condemnation award, at Seller's option.

13. DEFAULT BY SELLER. In the event Seller is in default of any of the provisions of this Agreement, and fails to cure such default within ten (10) days after written notice from Purchaser of such default, provided such default can be cured within ten (10) days, and if the same cannot be cured within ten (10) days and Seller is diligently pursuing such a cure, then Seller shall not e held in default. Once the cure period has lapsed and Seller is still in default, then Purchaser shall have the right to: (i) terminate the Agreement, receive a return of the Deposit, and Seller shall promptly reimburse Purchaser for Purchaser's documented and actual out-of-pocket expenses incurred by Purchaser related to this Agreement (including, without limitation, attorneys' fees, and fees/costs associated with the survey, title or the inspection of the Property) not to exceed $2,500,000.00, in which event this Agreement shall be null and void and neither party shall have any further obligation to the other; or (ii) seek any remedies available at law or in equity (including, without limitation, specific performance).

14. DEFAULT BY PURCHASER. Should Purchaser fail to proceed to Settlement as required by the terms and conditions of this Agreement, Seller, as its sole and exclusive remedy, shall be entitled to terminate the Agreement and receive and retain the Deposit as liquidated damages. The parties acknowledge and agree that it would be difficult, if not impossible, to ascertain Seller's actual damages if this Agreement is terminated by Seller pursuant to this Section 14, and the Deposit represents a good faith, reasonable estimate of such damages.

15. LITIGATION. In the event that there is any litigation relating to this Agreement, each party shall pay its own costs and fees. This provision shall survive the termination of this Agreement or Settlement hereunder.

16. NOTICES. All notices necessary or proper herein shall be made by: (i) overnight delivery with a copy via e-mail; (ii) posting the same in the United States Mail, Certified Mail, Return Receipt Requested, postage prepaid with a copy via e-mail; or (iii) a reputable courier or delivery service with a copy by e-mail, addressed as follows:

Seller: The Estate of Raymond L. Weinmann
853 Hillsdale Rd. West Chester Pa.
Attn: Mark Weinmann
Email:

And to: Curtin & Heefner LLP
1040 Stony Hill Road, Suite 150
Yardley, PA 19057

(13) Such other items and instruments as Purchaser, the Title Company and/or Escrow Agent may reasonably require.

b. At Settlement, Purchaser shall deliver:

(1) The Settlement proceeds;

(2) A Settlement statement; and

(3) Such other items as Seller and/or Escrow Agent may reasonably require.

10. PRORATIONS, ADJUSTMENTS AND CERTAIN SETTLEMENT COSTS.

a. Real estate taxes, all utilities, and other apportionable income and expenses paid or payable by Seller shall be apportioned as of the date of Settlement. Seller shall cause any and all public utilities servicing the Property to issue final bills to Seller on the basis of readings made as of Settlement, and all such bills shall be paid by Seller.

b. All assessments for public improvements which have been completed prior to the Settlement, shall be paid in full by Seller at or before the Settlement. All assessments issued following Settlement shall be Purchaser's responsibility, if Purchaser purchases the Property.

c. Seller shall pay the cost of preparation of the Deed, recording the Deed, and its own attorneys' fees. The parties shall divide equally, the Escrow Agent's closing fees, closing fees, and Pennsylvania and local real estate transfer taxes. Purchaser shall pay all other costs, including, without limitation, all costs associated with: (i) the title insurance coverage; and (ii) Property Inspection. All other expenses of conveyance shall be paid by the party incurring them or as otherwise set forth in this Agreement.

11. 1031 EXCHANGE. Seller and Purchaser may desire to complete a tax-free exchange (either regular or reverse) under Section 1031 of the Internal Revenue Code in connection with the sale or purchase of the Property, in which event Settlement shall be coordinated with a qualified delayed exchange intermediary as the exchange facilitator with full powers to complete the exchange. The exchange facilitator will instruct Seller or Purchaser as to the manner in which title to the Property shall be conveyed to the Purchaser. There will be no additional expenses to Seller, as the result of Purchaser completing a tax-free exchange, nor to Purchaser as a result of Seller completing a tax-free exchange. Seller and Purchaser agree to cooperate with one another and their respective exchange facilitator to allow the completion of the exchange. Seller shall indemnify and hold Purchaser harmless from any liability or expense as a result of Seller completing a tax-free exchange of the Property, and Purchaser shall indemnify and hold Seller harmless from any liability or expense as a result of Purchaser completing a tax-free exchange of the Property. In no event shall: (i) such tax-free exchange delay Settlement; or (ii) either party shall be required to take title to any third-party Property.

Attn: Maureen B. Carlton, Esquire
Email: mbc@curtinheefner.com

Purchaser: Pie-Mir LLC
1016 Maple St Conshohocken Pa
Attn: Julian Miraglia
Email:

And to: Philadelphia Suburban Title Company
922 Ridge Pike
Conshohocken Pa. 19428

The addresses of the parties may be changed by giving notice thereof in writing in the manner set forth in this Section for the giving of notice. Any notice shall be deemed to have been given: three (3) days after its mail by certified mail; one (1) day after it is delivered to an overnight delivery service for delivery; or on the same day, if delivered via a courier or delivery service.

17. BROKERS. The parties mutually warrant and represent to each other that neither party has retained a broker(s) with whom they have dealt in connection with this transaction and neither has authorized any broker to act on its behalf in respect of the transaction contemplated. Each party shall indemnify the other against any requests for commissions or monies due as a result of this transaction. This shall survive Settlement.

18. INDEMNITY. Following Settlement, the parties agree to indemnify each other and hold harmless the other from and against any and all claims, actions, loss, damages, liabilities, costs and expenses (including reasonable attorneys' fees and court costs) asserted against or incurred by either party arising out of or relating to: (a) a breach of any representation or warranty of each party herein; or (b) the failure of either party to perform any obligation required by this Agreement. This provision shall survive the termination of this Agreement or Settlement hereunder.

19. TIME. Time is of the essence of this Agreement. If any date upon which some action, notice or response is required of any party hereunder occurs on a weekend or national holiday, such action, notice or response shall not be required until the next succeeding business day.

20. CONSTRUCTION. This Agreement shall be construed in accordance with the Laws of the Commonwealth of Pennsylvania. The venue of any action shall exclusively be in Montgomery County, Pennsylvania. Both parties waive trial by jury with respect to any matters arising out of this Agreement. This Agreement shall not be construed more or less favorably for or against either party on account of its drafting.

21. GENDER. Whenever the context hereof so permits, the use of the plural shall include the singular, the singular the plural, and the use of any gender will be deemed to include all genders.

22. CAPTIONS. The headings and subheadings used throughout this Agreement are for convenience only, have no significance in the interpretation of this Agreement and shall be disregarded in construing the provisions of this Agreement.

23. BINDING EFFECT. This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, successors, personal representatives, and assigns forever.

24. COUNTERPARTS/FACSIMILE. This Agreement, and any amendments hereto, may be executed in counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same agreement. This Agreement may be executed by a party's signature transmitted by facsimile ("fax") or email or by a party's electronic signature, and copies of this Agreement executed and delivered by means of faxed or emailed copies of signatures or originals of this Agreement executed by electronic signature shall have the same force and effect as copies hereof executed and delivered with original wet signatures. All parties hereto may rely upon faxed, emailed or electronic signatures as if such signatures were original wet signatures. Any party executing and delivering this Agreement by fax or email shall promptly thereafter deliver a counterpart signature page of this Agreement containing said party's original signature. All parties hereto agree that a faxed or emailed signature page or an electronic signature may be introduced into evidence in any proceeding arising out of or related to this Agreement as if it were an original wet signature page.

25. ASSIGNMENT. Purchaser shall have the absolute right to assign this Agreement without the prior written consent of Seller, provided such assignee shall be financially similar to Purchaser and such assignment shall not cause any delays under this Agreement, upon which assignment to and assumption by Purchaser's assignee, and Seller agrees to convey the Property at Settlement directly to Purchaser assignee. Notwithstanding the foregoing, Seller agrees, at Purchaser's request, to terminate this Agreement and simultaneously enter into a new Agreement of Sale, with the same terms and conditions hereof, with Purchaser's assignee or nominee. Any such new Agreement shall be in the nature of a novation. In the event that any such assignment results in the imposition of realty transfer tax by the Pennsylvania Department of Revenue, Purchaser shall be responsible for the payment of any such tax in its entirety, and shall defend and hold harmless Seller.

26. NO RECORDATION. Neither party shall record this Agreement nor a memorandum or other summary of this Agreement with the Recorder of Deeds Office in and for Montgomery County.

27. ENTIRE AGREEMENT. This Agreement, the exhibit attached hereto, and any related documents contain the entire agreement between the parties and neither this Agreement. Except with respect to the Assignment set forth in Section 25, this Agreement may not be altered, modified or amended unless executed by the parties with the same formalities as this instrument is executed.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have executed this Agreement the day and year hereinafter stated.

PURCHASER:

Pie- Mir LLC a Pa. limited.
liability company

By:_____ [SEAL]
Print Name: Brian Pieri
Title: Member
Date: 4/18/24

SELLER:

The Estate of Ray Weinmann

By: Mark O. Weinmann [SEAL]
Print Name: Mark Weinmann
Title: Executor
Date: 4/18/2024

BOROUGH OF CONSHOHOCKEN
400 Fayette Street, Suite 200, Conshohocken, PA 19428
Phone (610) 828-1092 Fax (610) 828-0920

Zoning Application

Application: _____
Date Submitted: _____
Date Received: _____

1. Application is hereby made for:

☐ Special Exception ☒ Variance

☐ Appeal of the decision of the zoning officer

☐ Conditional Use approval ☐ Interpretation of the Zoning Ordinance

☐ Other _____

2. Section of the Zoning Ordinance from which relief is requested:
See attached addendum

3. Address of the property, which is the subject of the application:
127 East Elm Street, Conshohocken

4. Applicant's Name: Cooper Winery, LLC c/o Christina Pieri
Address: 2135 Route 212, Coopersburg, PA 18036-9679
Phone Number (daytime): thru counsel 484-344-5429
E-mail Address: christinampieri@gmail.com

5. Applicant is (check one): Legal Owner ☐ Equitable Owner ☑; Tenant ☐

6. Property Owner: Raymond L. ~~Weilman~~ Weinmann Estate pending sale to Pie-Mir LLC
Address: 853 Hillsdale Road, West Chester, PA 19382-1973
Phone Number: 610-635-5628 (Mark) / 610-564-4601 (Brian)
E-mail Address: markweinmann44@gmail.com / brianpieri@gmail.com

7. Lot Dimensions: 150' x 218' approx. Zoning District: SP-1 and Floodplain Overlay

8. Has there been previous zoning relief requested in connection with this Property?

Yes ☐ No ☐ If yes, please describe.

Unknown.

9. Please describe the present use of the property including any existing improvements and the dimensions of any structures on the property.

Vacant Lot

10. Please describe the proposed use of the property.

See addendum.

11. Please describe proposal and improvements to the property in detail.

See addendum.

12. Please describe the reasons the Applicant believes that the requested relief should be granted.

See addendum

13. If a Variance is being requested, please describe the following:

a. The unique characteristics of the property: See addendum.

b. How the Zoning Ordinance unreasonably restricts development of the property:

c. How the proposal is consistent with the character of the surrounding neighborhood.

d. Why the requested relief is the minimum required to reasonably use the property; and why the proposal could not be less than what is proposed.

14. The following section should be completed if the applicant is contesting the determination of the zoning officer.

a. Please indicate the section of the zoning ordinance that is the subject of the zoning officer's decision (attach any written correspondence relating to the determination).

b. Please explain in detail the reasons why you disagree with the zoning officer's determination.

15. If the Applicant is requesting any other type of relief, please complete the following section.

a. Type of relief that is being requested by the applicant.

b. Please indicate the section of the Zoning Ordinance related to the relief being requested.

c. Please describe in detail the reasons why the requested relief should be granted.

16. If the applicant is being represented by an attorney, please provide the following information.

a. Attorney's Name: MarkS. Danek, Esq.

b. Address: 1001 Conshohocken St Rd, Ste 1-210, W Conshohocken, PA 19428

c. Phone Number: 484-344-5429

d. E-mail Address: mark.danek@obermayer.com

I/we hereby certify that to the best of my knowledge, all of the above statements contained in this Zoning Application and any papers or plans submitted with this application to the Borough of Conshohocken are true and correct.

Christina Pieri

Applicant

n/a

Legal Owner

6/14/24

Date

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF MONTGOMERY

As subscribed and sworn to before me this 14th day of June, 2024.

Elizabeth A Garrison

Notary Public

(Seal)

Commonwealth of Pennsylvania - Notary Seal
Elizabeth A. Garrison, Notary Public
Montgomery County
My commission expires May 6, 2025
Commission number 1056382
Member, Pennsylvania Association of Notaries

BOROUGH OF CONSHOHOCKEN
400 Fayette Street, Suite 200, Conshohocken, PA 19428
Phone (610) 828-1092 Fax (610) 828-0920

Decision

(For Borough Use Only)

Application Granted ☐ Application Denied ☐

MOTION:

CONDITIONS:

BY ORDER OF THE ZONING HEARING BOARD

	Yes	No
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐

DATE OF ORDER: _____

Mark S. Danek, Esquire
Direct Dial: 484-344-5429
E-mail: mark.danek@obermayer.com

1001 Conshohocken State Road
Suite 1-210
West Conshohocken, PA 19428

www.obermayer.com

P 610-234-4877
F 610-825-4549

June 14, 2024

Borough of Conshohocken
Zoning Hearing Board
400 Fayette Street, 2nd Floor
Conshohocken, PA 19428

RE: Parcel Id. 05-00-02108-00-2 – 127 East Elm Street
Vacant Lot (Approximately 26,150 sq. ft.)

Dear Zoning Hearing Board:

My office represents the Applicant, Cooper Winery, LLC.

The Subject Property is an undeveloped, vacant lot located in the SP-1 zoning district. It is a total of 25,061 sq. ft., or .58 acres.[1] It is also within the Floodplain Conservation District. Applicant proposes to utilize the existing vacant lot as an "Outdoor Wine Garden" with Outdoor Recreational Space.

The Applicant proposes to construct a 3,017 sq. ft. structure where there will be wine tastings and light refreshments will be served. The structure is expected to hold fifty (50) patrons max. The proposed hours of operation would be from 11:30 a.m. until – 11:00 p.m.

Additionally, Applicant proposes to build two pickleball courts, one bocce court and have some smaller recreational games also available (cornhole, outdoor checkers/chess tables, etc…). The outdoor space may draw up to one hundred (100) or one-hundred fifty (150) patrons.

For the courts, each pickleball game lasts approximately 15-25 minutes. For bocce, each game takes about an hour. The courts will be available for hourly reservation. Each game is allotted one-hour of playing time.

For entertainment, the Applicant plans to have live music (occasionally) and music played over speakers each day during the hours of operation. The outdoor music would end at 10:00 p.m. as required by the Borough's sound ordinance.

Applicant is providing 15% as public open space, and is providing street trees and a buffer area pursuant to Code §27-1506. Likewise, Applicant will use a combination of evergreen and

[1] Pursuant to §27-1504(e), the required minimum lot size in the SP-1 District is one acre. The Subject Property is an existing legal non-conforming lot.

deciduous trees and shrubs as foundation plantings along the facades to meet the requirements of §27-1506(A)(6).

To serve the proposed use, Applicant is providing 65 parking stalls off-site under lease.

The proposed uses are permitted by-right in the SP-1 District. However, due to the Floodplain Conservation Overlay District ("FP District"), Applicant files this appeal and seeks the following:

I. Variance – Active Outdoor Recreation - §27-1713(1)(B)

Code Section 27-1504(C) requires that all applicants provide Open Space for activity in the SP-1 District:

> C. Open Space in SP-1 District.
>
> (1) Purpose: the intent of the open space provision is to provide year-round opportunities for outdoor recreation within the district, provide visual relief within the built environment, and facilitate circulation for pedestrians to and throughout the district.
>
> (2) Area: a minimum of 15% of each lot within the district shall be provided and maintained as open space. Required setbacks from roadways and ultimate rights-of-way may be included as pa rt of the required open space if such setback areas are landscaped and designed to fulfill the intent of this Section. Open space shall be restricted from further subdivision and development by a restriction in a deed and/or by a conservation easement.

However, under the Floodplain Conservation District Code Section 27-1713(1)(B) allows for "primarily" passive recreation:

> 1. The following uses are permitted by right in the Floodplain Conservation District in compliance with the requirements of this Subpart:
>
> B. Open space uses that are primarily passive in character shall be permitted to extend into the floodplain, including:
>
> (1) Wildlife sanctuaries, nature preserves, fishing areas, passive areas of public and private parklands, and reforestation.

As stated above, Applicant seeks to install two outdoor pickleball courts and a bocce ball court. While these uses are ***encouraged and permitted*** in the SP-1 District, they are not permitted in the FP District.

Arguably, the foregoing recreational activities are not that active, like an organized football league or soccer team.[2] The proposed activities allow for a wide age range of players and skill sets. In fact, the vast majority of the space, is designed for passive recreation and socializing. Thus, only a small portion of the Subject Property is planned to be used for Active Recreation.

Moreover, Applicant's proposed use aligns with the Borough Comprehensive Plan which advocates for Open Space as part of the "Future Land Use Plan" for the Borough:

> OPEN SPACE
>
> Parks and open space areas are places set aside for both active recreation and passive recreation. They contribute to the Borough's character, preserve the natural ecosystems upon which we depend, and provide an attractive setting in which to live and work. Park and recreation facilities provide an avenue for residents to interact and recreate and help create a sense of community. Open space remains a considerable component of the future land use plan. While no additional parcels have been designated open space, the intent of the future land use plan is to allow and encourage open and green space to be provided in all districts and connected to an overall continuous and contiguous network.

See, Borough of Conshohocken Comprehensive Plan Update (Adopted June 20, 2018), P. 81.

Here, the Subject Property is along the Schuylkill River Trail and within walking distance of over 500 apartments. Moreover, the Subject Property is along the Conshohocken Cab Route. Thus, the Proposed Use adds to the Borough network of open space amenities.

The Applicant respectfully believes that the Subject Property is "primarily" used for passive recreation, and that no use variance is required. However, in an abundance of caution, Applicant seeks the variance relief from the Board.

Given the location of the Subject Property along a main thoroughfare, Applicant would not be able to develop the Subject Property for one of the other by-right uses (streambank stabilization, forestry operations, agricultural crossings, driveway serving a single family home (not permitted), elevated building on a brownfield site). Moreover, the Subject Property could not be developed in strict conformity with the Code since the Subject Property is not believed to be a brownfield site in a targeted redevelopment area for encouraging economic revitalization.[3]

Thus, an Exceptional Hardship exists to allow for the Board to grant the requested variance.

---

[2] Applicant was unable to find a definition for "passive" or "active" recreation in the Code.

[3] Code Section 27-1713(1)(G) allows – by-right – the development of elevated and floodproofed buildings on brownfield sites in redevelopment areas encouraging economic revitalization.

II. Variance – Wine Tasting Venue Use, Parking Lot and Stormwater Basin to Manage Stormwater - §27-1714(1)(A), (B), (D), (F), (H) and (K)

As discussed above, the Subject Property cannot be developed in strict conformity with the Code since it is not a brownfield targeted for economic revitalization. As a result, Applicant seeks a variance from Sections §27-1714(1)(A), (B), (D), (F), (H) and (K) to allow for the Proposed Use:

> Any use or activity not authorized within § 27-1713 shall be prohibited within the Floodplain Conservation District, and the following activities and facilities are specifically prohibited, except as part of a redevelopment project in compliance with § 27-1713, Subsection (1)(G):
>
> A. No new construction, alteration, or improvement of any buildings and any other type of permanent structure, including fences, shall be permitted in the floodway or the one-hundred-year floodplain.
>
> B. New construction of buildings or placement of fill within the one-hundred-year floodplain is prohibited.
>
> ….
>
> D. Clearing of all existing vegetation, except where such clearing is necessary to prepare land for a use permitted under § 27-1713, and where the effects of these actions are mitigated by re-establishment of vegetation.
>
> ….
>
> F. Roads or driveways, except where permitted as corridor crossings in compliance with § 27-1713.
>
> ….
>
> H. Parking lots.
>
> ….
>
> K. Stormwater basins, including necessary berms and outfall facilities.

Pursuant to §27-1713(G), if the Subject Property was brownfield, the Applicant would be able to develop the Subject Property by-right. Since that is not the case, Applicant seeks a variance to allow for (i) the construction of a 3,017 sq. ft. square foot structure to accommodate up to fifty (50) patrons, and (ii) a stormwater basin to allow for the proper management of stormwater runoff given the development of the vacant lot.

It is important to note that the Applicant is not seeking relief from impervious coverage. The stormwater basin is a typical requirement for any development and not as a result of an applicant that seeks to over-develop a piece of vacant land.

Here, the Exceptional Hardship stems from the fact that the Subject Property cannot be developed in strict conformity with the Code (streambank stabilization, forestry operations, agricultural crossings, driveway serving a single-family home (not permitted), etc…). The Subject Property is not part of a brownfield targeted for redevelopment. Thus, nothing can be developed on the Subject Property in strict conformance with the Code. The variance is needed to allow for the reasonable development of the Subject Property.

The Proposal provides for the least modification to the Code to allow for the reasonable development of the Subject Property.

III. Dimensional Variance – Front Yard Setback - §27-1505(A)(2)

Pursuant to §27-1505(A)(2), the minimum building setback must be 15 feet from the ultimate right of way. Here, Applicant proposes to construct the restaurant building five (5) feet from the right of way. The reason for this decision is that the majority of the Subject Property is in the 100-year Floodplain. However, the portion of the Subject Property closest to East Elm Street is NOT within the 100-year Floodplain. Further, there is a substantial slope from East Elm toward the rear of the Subject Property. If the building was located further into the Subject Property, it would be up on stilts well above the lawn area that is to be used for passive activities. Thus, the request for this variance is driven by the unique hardship of the land, and not the Code.

IV. Variance – Obstruction of Vision at Intersection - §27-810

Pursuant to Code Section 27-810, no physical improvement can be maintained in the setback that "shall cause" obstruction to driver vision. The proposed design is set five (5) feet off of the sidewalk line (right of way). Applicant proposes a Buffer Planting area in that five (5) foot area. Based upon the design, Applicant requests that the Board allow this variance as it the proposed structure does not cause obstruction to the drive vision from any abutting intersection.

V. Dimensional Variance - Pickleball Court Fence Height - §27-809

Pursuant to Code §27-809(1) Table (A)(2), the maximum allowed fence height between the front wall of the principal structure and rear lot line is six (6) feet. Applicant seeks a variance to allow for a fence up to ten (10) feet in height surrounding the pickleball courts.

VI. Variance – Location of Refuse Enclosure - §27-820(F)

Pursuant to Code Section 27-820(F), refuse facilities detached from buildings shall be subject to the setback of 10 feet from all property lines. While Applicant provides for a ten (10) foot landscape buffer to the rear of the Subject Property, Applicant proposes to locate the Refuse Area at the property line abutting Ash Street. Applicant is unable to locate the Refuse Facility within the building as it would be unsanitary. And, Applicant cannot locate the Refuse Facility

further into the Subject Property as it would be close in proximity to patron seating areas. The noxious smells may be problematic in the summertime.

VII. Off-Site Parking Special Exception - §27-2006 And/or Variance if more than 200'

The foregoing Code section allows an Applicant to satisfy its parking requirement by locating parking on a neighboring property.

> The nonresidential parking spaces required herein may be located elsewhere than on the same lot when authorized as a special exception by the Zoning Hearing Board in accordance with the provisions of Part 6 of this Chapter, subject to the following conditions:
>
> A. The owners of two or more establishments shall submit, with their application for special exception, a site plan showing joint use and location of a common off-street parking area.
>
> B. Some portion of the common off-street parking area lies within 200 feet of an entrance regularly used by patrons, into the buildings served thereby.

Applicant provides no parking on-site. Applicant will lease up to 65 stalls from neighboring prospering. As such, Applicant requests a Special Exception. Additionally, to the extent that the Applicant has leased spaces more than 200' away from the Subject Property, Applicant seeks a variance for any stalls that are more than 200' away from the Subject Property.

VIII. The Board's Standard of Review - §27-1722(4) – Variance

When reviewing this Application, the Board is guided by the following standards:

> In reviewing any request for a variance, the Zoning Hearing Board shall consider, at a minimum, the following:
>
> A. That there is good and sufficient cause, including:
>
> (1) That there are unique physical circumstances or conditions, including irregularity, narrowness, or shallowness of lot size or shape, or exceptional topographical or other physical conditions peculiar to the particular property, and that the unnecessary hardship is due to such conditions and not the circumstances or conditions generally created by the provisions of this chapter in the neighborhood or district in which the property is located.
>
> (2) That because of such physical circumstances or conditions, there is no possibility that the property can be developed in strict conformity with the provisions of this chapter and that the

authorization of a variance is therefore necessary to enable the reasonable use of the property.

(3) That such unnecessary hardship has not been created by the appellant.

(4) That the variance, if authorized, will not alter the essential character of the neighborhood or district in which the property is located, nor substantially or permanently impair the appropriate use or development of adjacent property, nor be detrimental to the public welfare.

B. That failure to grant the variance would result in exceptional hardship to the applicant.

C. That the granting of the variance will:

(1) Neither result in an unacceptable or prohibited increase in flood heights, additional threats to public safety, or extraordinary public expense; nor

(2) Create nuisances, cause fraud on, or victimize the public, or conflict with any other applicable state or local ordinances and regulations.

Based upon the evidence presented during the hearing, the Applicant respectfully believes that it easily meets the foregoing standards. If the Board is inclined to grant the requested variances, the Applicant will secure a Hydrology and Hydraulic Study (Floodplain Analysis) and work with the Borough to ensure that all requirements for development in the FP District are met as required by Code Section 27-1732.

* * *

Based upon the foregoing description and evidence and testimony to be presented at the hearing, Applicant respectfully requests that the Board grant the requested relief as it meets the standards for, *inter alia*, Code §27-1722 – Standards for the Board to consider when determining to grant a special exception or variance in the Floodplain Conservation District.

Please contact me with any questions.

Regards,

/s/ Mark S. Danek

MARK S. DANEK

cc: Cooper Winery, LLC (c/o Christina Pieri)

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

September 20, 2024

File No. 22-10013-01

Stephanie Cecco, Borough Manager
Borough of Conshohocken
400 Fayette Street, Suite 200
Conshohocken, PA 19428

Reference: 127 E. Elm Street – LD 2024-04
TMP #05-00-02108-00-2
Minor Land Development

Dear Ms. Cecco:

Pursuant to the Borough's request, Gilmore & Associates, Inc. has reviewed the Minor Land Development submission for the above-referenced project. Upon review we offer the following comments for consideration by the Conshohocken Borough Council:

I. Submission

A. Preliminary Land Development Plans, consisting of sheets 1 through 11 of 11, dated August 2, 2024, as prepared by Schock Group LLC for Pieri Wine Garden, 127 E. Elm Street

B. Post Construction Stormwater Management Report, dated August 2, 2024, as prepared by Schock Group LLC for 127 E. Elm Street

C. Architectural Renderings, untitled and undated

II. Project Description

The subject property, Tax Map Parcel number 05-00-02108-00-2, is situated in the SP-1 Specifically Planned District One at the southwest corner of East Elm Street (S.R. 3058) and Ash Street intersection. The plans indicate the site has a gross area of 25,097 square feet (0.5761 acres) and is currently vacant, containing lawn. A majority of the site is located within the 100-year floodplain.

The Applicant is proposing to construct a 3,006 square foot restaurant with an associated 971 square foot covered patio, concrete walkways, and driveway access to/from Ash Street. The driveway is proposed to provide food truck parking; no other parking is proposed on-site. Additional improvements include two (2) pickleball courts, one (1) bocce court, several fire pits and planter boxes, fencing, and landscaping. An underground basin is proposed to address stormwater management. The Applicant received several variances and special exceptions from the Zoning Hearing Board on August 19, 2024, including to permit primarily active recreational uses within the floodplain conservation overlay district; to permit new construction, filling, permanent structures, clearing, driveway, parking lots, and stormwater facilities within the floodplain conservation overlay district; to permit a 5 foot front yard building setback; to permit a 10 foot high fence surrounding the pickleball courts; to permit buffer plants within the 5 foot building setback area from the East Elm and Ash Street intersection; to permit a refuse facility adjacent to the property line; and to allow leasing of up to 65 off-street parking spaces that may be more than 200 feet from the building entrance.

III. Review Comments

A. Zoning Ordinance

We defer all comments with respect to the Conshohocken Borough Zoning Ordinance, including the Zoning Hearing Board Order, to the Borough's Zoning Officer.

B. Subdivision and Land Development Ordinance

We offer the following comments with respect to Borough of Conshohocken Subdivision and Land Development Ordinance:

1. §§22-304.B & 22-307 – We offer the following general plan comments:
   a. The Owner information for the subject property shall be updated to reference the current owner.
   b. The parcel number for the adjacent property to the south shall be added in plan views.
   c. A Zoning data table shall be added to the Record Plan, Sheet 2, showing the required, existing, and proposed conditions.
   d. The plans shall be revised to label Elm Street as East Elm Street (S.R. 3058).
   e. The building setback lines shall be labeled on the plan.
   f. Spot elevations for the existing curb and pipe information associated with the existing inlets shall be added to the plans.

2. §22-403.C – Copies of the property deeds and PennDOT right-of-way plans for East Elm Street shall be provided to confirm the property line and right-of-way information.

3. §22-403.C.(8) – No obstructions shall be located or permitted within the right-of-way. The plans show a ramp and landing extending into the East Elm Street right-of-way near Ash Street, which would require a waiver subject to approval from PennDOT.

4. §22-404.2.B – The width of the depressed curb and driveway apron along Ash Street shall be revised to match the width of the driveway. Information shall be provided to confirm that reasonable sight distance is provided at the driveway's intersection with Ash Street.

5. §§22-404.2.E & 404.3(F)(7) – The minimum drive aisle width for two-way traffic with 90 degree parking is 24 feet. A waiver would be required since a 14.5 foot wide drive aisle is proposed, conditioned upon turning movement diagrams being provided showing refuse collection vehicles, food trucks, and any off-street delivery trucks can safely enter, circulate and leave the site using the proposed access and driveway configurations.

6. §22-404.3.E – This section requires a minimum 0.5 footcandles be provided throughout the parking area. A lighting plan shall be provided to confirm this requirement has been met.

7. §22-404.3.F – The proposed food truck parking space(s) shall be identified on the plans. No parking area shall directly abut upon a public street, but instead shall be separated from the street by planting strips a minimum of 10 feet in depth from the edge of the sidewalk. The screening shall be a continuous evergreen hedging maintained at a height of 48 inches.

8. §22-404.3.H – Information shall be provided to clarify where loading and unloading is proposed. Any off-street loading shall be provided in accordance with the requirements of this section.

9. §22-405.1 – The proposed limits of curb and sidewalk replacement, with related grading, shall be added to the plans to address tripping hazards, proposed utility connections, and tie ins to proposed site improvements. The plans shall also be revised to include replacement of the curb ramp at the southwest corner of the East Elm and Ash Street intersection in accordance with the current PennDOT Publication 72 RC-67 design standards.

10. §2§2-405.1.B & 409.1.D – A pedestrian network of sidewalks shall be provided to support internal circulation between the buildings and common areas, including to the pickleball and bocce courts. Pedestrian pathways shall have a maximum grade of five percent (5%).

11. §22-405.1.D – Proposed grading shall be provided for the sidewalk, including detailed spot elevations confirming the sidewalk shall be continuous across the driveway.

12. §22-409 – Additional grading information shall be provided on the western side of the site and within the pickleball and bocce ball play areas. Proposed retaining walls, with top and bottom of wall elevations, shall be identified on the plans. Slopes in excess of 2:1 must be permanently stabilized with appropriate erosion control techniques and/or retaining walls; slopes greater than 3:1 shall be vegetated with low maintenance ground covers, shrubs, and other plant materials; and slopes of lawn areas intended to be mowed shall not have a grade steeper than 3:1. We may have additional comments once this information is provided.

13. §22-409.2 – A waiver would be required to permit grading within three (3) feet from property and right-of-way lines.

14. §22-411 – An easement shall be provided for the proposed trail access located on the adjacent property to the south, TMP 05-00-11832-00-7.

15. §22-412 – A note shall be added to the Record Plan, Sheet 2, indicating that all proposed utilities shall be installed underground.

16. §22-413 – Information shall be provided to confirm that adequate separation is provided between the roof drain and proposed sanitary sewer and water service connections.

17. §22-417 – We offer the following comments with respect to the Erosion & Sediment Control Plan, Sheet 6:

    a. Note 1 shall be revised to match the requirements of §22-409.1.

    b. The Construction Timing & Sequencing notes shall be retitled based on this project, revised to remove the curb and subbase for the paved areas from Note 11, and revised to include construction of the pickleball and bocce courts.

    c. Reference to a level spreader shall be removed from the Sequence of BMP Installation Note 1.

    d. Inlets surrounding the site shall be provided with inlet protection.

18. §22-421 – The Landscape Plan, Sheet 8, shall be prepared by a registered landscape architect and revised to include a table indicating the proposed species (common and botanical name), planting size, location, conditions, and all notes and construction details necessary to implement the landscape plan. We may have additional comments once this information is provided.

19. §22-421.3 - A note shall be added to the Landscape Notes on the Landscape Plan, Sheet 8, indicating that all plant material shall be guaranteed by the developer for a minimum of two (2) growing seasons.

20. §22-421.4 – Street shade trees are required along all frontages, planted no more than 30 feet apart and a minimum of five feet inside the lot lines. Based on the length of the property frontage, a total of 11 shade trees are required. Since only 9 shade trees are proposed, which are located closer than 5 feet from the property line along East Elm Street and within the Ash Street right-of-way, the plans shall be revised accordingly or a waiver would be required.

21. §22-421.5 – Each non-residential use shall be screened as a necessary safeguard to the character of the adjacent area. Such screening shall be a minimum of six feet in height at the time of planting and permanently maintained and replaced where necessary to present an attractive appearance. Screen planting requirements shall be applicable to parking lot facilities, along the area fronting streets and along the area adjacent to other properties.

22. §22-421.6 – Pedestrian lighting shall be provided along public streets and internal pedestrian circulation routes. Lighting fixtures shall be located and oriented so as not to affect adjoining residential area.

23. §22-422 – We recommend the Applicant consider extending the sidewalk within the west side of the Ash Street right-of-way to provide direct access to the Schuylkill River Trail.

24. §22-804 – A waiver would be required from the requirement to dedicate 10% of the total site area to the

Borough for park and recreational use. We recommend the Applicant coordinate with the Borough Solicitor regarding a fee in lieu of providing park and recreational facilities.

C. Stormwater Management Ordinance

We offer the following comments with respect to the Borough of Conshohocken Stormwater Management Ordinance and the Drainage requirements in the Subdivision and Land Development Ordinance:

1. §22-410.3.B – We offer the following general comments related to the proposed storm sewer/stormwater management design and calculations:
   a. Pre- and post-development mapping and calculations related to all drainage areas (for each point of interest, inlet/sumpbox, roof drain, trench drain, etc.) shall be provided.
   b. The drainage areas captured by Sumpboxes 1 and 2 shall be added to the Controlled Area drainage area in the Post Construction Stormwater Management Report.
   c. It shall be clarified whether the blue lines shown on the eastern side of the pickleball and bocce ball play areas are intended to identify trench drains or other features. Related grading, slopes, sizes, material, etc. information shall be provided.
   d. Pipe information shall be added for the pipe proposed between the underground basin and the outlet structure and existing and proposed inverts shall be added for the existing inlets along Ash Street.
   e. We recommend a permanent inlet water quality device be installed in the outlet structure to limit trash debris entering the storm sewer system.
2. §22-410.4.A.(2) – Information shall be provided to confirm the elevation of the hydraulic gradient in the storm sewer system is below the surface of the ground during the 100-year storm event.
3. §22-410.4.B.(2) – 8 inch storm pipe is proposed throughout the site; however, the minimum allowable size is 18 inches. The plans shall be revised or a waiver would be required.
4. §22-410.4.B.(4) – Storm sewer pipes shall have a minimum cover of 24 inches or greater where recommended by the pipe manufacturer. The design shall be revised to provide the required cover.
5. §22-410.4.C.(5) – An inlet or manhole shall be provided where the roof drain intersects the storm pipe between Sumpbox 1 and Inlet 1.
6. §22-410.5.A.(2) – Information shall be provided to confirm the underground basin provides a volume of storage no less than the total additional volume of runoff based on a 100-year 24-hour duration storm, plus an additional 218 CF allowance to compensate for sediment accumulation.
7. §22-410.5.A.(6) – Information shall be provided to confirm the proposed underground basin is located a minimum of 24 inches above any groundwater and/or seasonal high water table elevations.
8. §22-410.5.A.(8) – Information shall be provided to confirm the stormwater BMP will completely dewater the stored water volume within 72 hours from the end of the 100-year 24-hour design storm.
9. §19-303.3.A – The volume control calculations shall be updated based on a 3.59 inch 2-year rainfall and show that the calculated volume shall be addressed to mitigate runoff impacts.
10. §19-303.3.A.(3) – The Applicant is requesting a waiver from the volume control infiltration requirements based on the Environmental Site Assessment Phase II findings. We would support this waiver conditioned upon additional information, including the extent and depth of the historic fill material, soil profiles down to bedrock or limiting zones, sampling of soils below two (2) feet below the surface, depth to groundwater, and a leachate analysis of soils, being provided to support that the design shall not include infiltration based on subsurface conditions. If, once provided, the additional information does not support this conclusion, then infiltration testing shall be completed and the Borough's design criteria for infiltration BMPs shall be met.

11. §19-304.1 – The post-development discharge rates shall not exceed the predevelopment discharge rates for each point of interest. The analysis shall be revised to separately evaluate each point of interest, including at the existing inlet in Ash Street.

12. §19-304.2.B – The rainfall intensities used in the rate control calculations shall be revised to utilize the upper bound of the 90% confidence interval for a 24-hour rainfall duration (e.g. 2.98, 6.59, 4.50, 5.26, 6.34, 7.26, and 8.25 inches).

13. §19-304.2.B.(1) – The runoff coefficients for the existing and proposed conditions shall be revised based on storms recurrence intervals less than 25 years and storms recurrence intervals of 25 years or more and to match those provided in Appendix A Table 1.

14. §19-401.1.D – The signature blocks required by this section shall be added to the Post Construction Stormwater Management Plan, Sheet 5.

15. §19-702 – Information shall be provided to clarify whether a sump pump is proposed. Any sump pump shall extend under the sidewalk to the gutter and be provided with a solid lid cleanout between the contributing building and the right-of-way.

D. General Comments

We offer the following general comments:

1. The Applicant shall obtain all required approvals, permits, etc. (e.g. Floodplain, Fire Marshal, Conshohocken Borough Sewer Authority, MCPC, MCCD, PADEP, Aqua, etc.). Copies of these approvals and permits shall be submitted to the Borough of Conshohocken and our office.

2. Details for all proposed improvements, including sidewalk, driveway apron, paving, bike racks, fencing, trenching, etc. shall be added to the plans. The Plan Cement Concrete Curb detail provided on the Erosion and Sediment Control Details plan, Sheet 10, shall be revised in accordance with the Borough's Typical Details.

3. The plans shall be revised to include the Borough's Standard Notes, Erosion Control Detail notes, and a note stating that any existing features damaged during construction will be replaced by the Owner at no cost to the Borough.

4. We recommend the Applicant consider an aesthetic sound-deadening fence (e.g. Acoustifence) along East Elm Street to decrease the noise levels from the paddles and balls which would reach the residents across East Elm Street.

5. Per USA Pickleball, the minimum recommended playing area is 30 feet wide by 60 feet long and the preferred playing area is 34 feet wide by 64 feet long. We recommend the Applicant consider increasing the playing area to provide the preferred dimensions.

6. We recommend the Applicant consider providing supporting facilities, such as benches for waiting, changing shoes, etc.

If you have any questions regarding the above, please contact this office.

Sincerely,

Karen MacNair

Karen M. MacNair, P.E.
Borough Engineer
Gilmore & Associates, Inc.

KMM/ddr

cc: Brittany Rogers, Executive Assistant

Ray Sokolowski, Executive Director of Operations and Building Code Official
Michael E. Peters, Esq., Borough Solicitor

MAYOR
Yaniv Aronson

BOROUGH COUNCIL
Tina Sokolowski, President
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Stacy Ellam, Member
Ralph Frey, Member
Adrian Serna, Member

Stephanie Cecco
Borough Manager

BOROUGH OF CONSHOHOCKEN

Fire Marshal

Date: September 17, 2024

To: Stephanie Cecco, Borough Manager

From: Timothy Gunning, Fire Marshal
Matthew Traynor, Commercial Building Inspector

Re: Fire Marshal Review
127 East Elm Street
Prelim-Final Land Development Application

As requested, the following materials submitted for the above referenced amended preliminary/final land development application were reviewed:

- *"Pieri Wine Garden 127 E. Elm Street." (11 sheets) prepared by Schock Group, dated August 2, 2024.*

We offer the following comments:

FIRE PITS

1. Specify the type of fire pit to be used (ex. Combustible materials, propane, natural gas)
2. Fire pits must be UL listed
3. Show distance to building for fire pits

OCCUPANCY

1. If structure has 1 means of egress, occupancy limited to 49
2. More than 49 requires multiple means of egress

ACCESSIBLE ROUTES

1. An accessible route to the pickleball and bocce courts is required
2. Accessible routes slope max is 1:20, minimum width is 48 inches
3. Accessible ramps slope is 1:20 – 1:12, minimum width is 36 inches
4. Ramp landings must be as wide as the ramp, extend for 60 inches with a max slope of 1:48
5. A change of direction requires a 60-inch turning radius

MONTGOMERY COUNTY
BOARD OF COMMISSIONERS

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PLANNING COMMISSION

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SCOTT FRANCE, AICP
EXECUTIVE DIRECTOR

August 30, 2024

Stephanie Cecco, Borough Manager
Borough of Conshohocken
400 Fayette Street, Suite 200
Conshohocken, Pennsylvania 19428

Re: MCPC # 24-0174-001
Plan Name: 127 E. Elm Street
Situate- East Elm Street (south)/Ash Street (West)
1 lot/ 3,017 sq. ft. /0.58 acres (25,061 sq. ft.)
Conshohocken Borough

Dear Ms. Cecco:

We have reviewed the above-referenced subdivision and land development in accordance with Section 502 of Act 247, "The Pennsylvania Municipalities Planning Code," as you requested and received electronically in this office on August 5, 2024. We forward this letter as a report of our review.

BACKGROUND

The applicant, Cooper Winery, LLC is seeking preliminary plan approval to construct a restaurant, outdoor wine garden, and various outdoor recreational amenities on a vacant lot at 127 East Elm Street. The development site is a 25,061 sq. ft. or 0.58 acre lot that is currently undeveloped open space. The site is Tax Parcel 05-00021-080-02 and is situated in the borough's Specially Planned District I (SP-1) Zoning District, as well as the Floodplain Conservation District. The applicant's property is adjacent to and immediately north of the Schuylkill River Trail. According to the applicant's Post-Construction Stormwater Management Report prepared by Schock Group LLC, dated August 4, 2024, the property has a history of past industrial activity which resulted in it being classified a brownfield site. Following a Phase I and II investigation conducted by Earth Engineering there was no evidence of Poly Chlorinated biphenyels (PCBs) identified in the soil.

The soil results show that two western samples exceed the PA Department of Environmental Protection Residential State Health Standards. The documentation states further, "If residential use is intended for the site, then remediation is warranted to reduce potential liability associated with a associated arsenic and benzo fluoranthene identified in the soil." "The soil characterized by this

assessment does not exceed the PADEP Non-Residential Statewide Health Standards. No additional liability is with the non-residential use of the property."

The applicant requested a number of relief measures to develop the site as a restaurant and wine tasting venue, outdoor amenities and stormwater management facilities. The applicant's site is not considered a brownfield, and is subject to the Floodplain Conservation District regulations.

Special Exception- *Off-Site Parking Special Exception*- §27-2006 and or Variance if more than 200 ft. The applicant development plan proposes no on-site parking. The submitted documentation states that 65 spaces will be leased from a neighboring property. In addition to this relief, the applicant seeks a variance for spaces they have leased that lie beyond 200 ft. from the applicant's property.

Other measures of relief requested include:

Variance- Dimensional - Front Yard Setback- Section 27-1505 (A)(2)
Variance- Obstruction of vision at Intersection - §27-810
Variance- Dimensional- Pickleball Court Fence Height- §27-908
Variance- Location of the Refuse Enclosure- §27-820(F)
Variances for Sections 27-1714(1)(A),(B),(D),(F),(H), (K0)- to allow the proposed use. "Any use or activity not authorized within Section § 27-1713 shall be prohibited in the Floodplain Conservation District.

COMPREHENSIVE PLAN COMPLIANCE

Consistency with *Montco 2040*- A Shared Vision

Plans for the redevelopment of this site are consistent with the future land use vision and stated goals of *Montco 2040: A Shared Vison*, the comprehensive plan and future land use vision for the county. The Future Land Use Map of the plan designates the land use vision for the site as part of a larger 'Regional Mixed-Use Center' (RMUC) that extends from the Schuylkill Riverfront to East Elm Street. The 'RMUC' designation supports intensely developed areas including 'high-density, multi-family and accompanying gathering spaces that establish a 'sense-of-place' for the community.' https://www.montcopa.org/1579/Montco-2040-Comprehensive-Plan).

Consistency with Conshohocken Comprehensive Plan Update, June, 2018

The redevelopment of this property appears compatible with the borough's future land use vision for this area as stated in the 2018 Comprehensive Plan and in Chapter Five's Future Conditions, Land Use Map #7. The future land use designation according to the map shown below is for a 'Mixed-Use' area. The goal for 'Mixed-Use' area according to the plan is "to provide for the development and redevelopment of properties which incorporate a variety of land uses which are a complementary mix including residential, retail, commercial, employment, civic and entertainment uses in close proximity - sometimes in the same building."

RECOMMENDATION

The Montgomery County Planning Commission (MCPC) generally supports the applicant's proposal for the redevelopment of the site as a restaurant, wine garden, and accompanying outdoor recreational amenities. In the course of our review we have identified several issues that we recommend the borough consider in its assessment of this proposal. Our comments are as follow:

REVIEW COMMENTS

1. **Landscape Plan**
   a. *Street Tree Plantings*-
   The landscape plan shows the required street tree plantings along East Elm and Ash Street in only a generalized manner as a 'street tree', without specifying the species. The type of proposed species of each tree is required and necessary for assessment, and should be listed in a compliance chart showing the caliper and condition (B&B or container) of the proposed trees. We recommend the applicant include this information for the borough to ensure that proven urban-tolerant tree species are selected for the location. The tree species include: Princeton American elm (*Ulmus americana* 'Princeton'), Shademaster honeylocust (Gleditsia tricanthos var. inermis- 'Shademaster'), and the Princeton Sentry Ginkgo (*Ginkgo biloba* 'Princeton Sentry').

   b. *Required Landscape Screening*-
   The landscape plan doesn't provide adequate information regarding the plant species, planting arrangement and other details which are required to address the borough's Screen Planting Requirements- Section 22-421.65. The rear buffer area along the trail corridor that requires the screening improvement is +/- 165 ft. in length by 10ft. wide and should be well-designed. The applicant should provide the borough with a landscape plan detailing the type of tree and shrub species and its arrangement so that it can be properly evaluated.

2. **Lighting Plan**
   The submitted plan does not address the borough's requirements for pedestrian-scale lighting for the site's development. Section 22-421.6. Pedestrian Lighting requires that pedestrian lighting be provided for both the interior and exterior of the development site, as stipulated in the requirement's installation guidelines.

3. **Universal Accessibility & the Outdoor Surface Treatment of the Outdoor Area**-
   a. *Outdoor Area Surface*
   The type of surface treatment of the large outdoor area between the restaurant, pickleball courts and areas surrounding the planter boxes and firepits is not specified on the plan. The type of surface is an important factor that provides universal accessibility for the restaurant patrons. The applicant should provide details about the surface treatment and whether it is an impervious or pervious area. The surface material should be a firm, stable surface

designed to ensure that the outdoor spaces -- including the pickleball courts and fire pits -- are accessible to the widest range of abilities.

b. Outdoor Amenity Area & Accessibility

We recommend the applicant ensure that the site improvements include an accessible circulation route from the restaurant patio to the outdoor firepit area. It appears the only ramp is at the front of the restaurant. The patio overlooking the garden area has a number of steps and does not appear to include a ramp for accessibility. The applicant should ensure that an accessible route to the fire pit area is included in their development plan.

4. **Schuylkill River Trail Access-**

The site plan shows an improved connection between the applicant's property and the Montgomery County Schuylkill River Trail. The county's Assets and Infrastructure- Parks, Trails and Historic Sites is unaware of the proposed access shown on the applicant's land development plan. Proposed access will require review and approval by the Montgomery County Assets and Infrastructure Department prior to the improvement's construction.

We recommend the applicant contact Dave Clifford, Parks Administratorto coordinate the review and approval process. David.Clifford@montgomerycountypa.gov

5. **Ensuring Pedestrian Safety at East Elm and Ash Streets**-

A pedestrian crosswalk is needed for safe pedestrian crossing from the applicant's site to cross East Elm Street to the north-west corner of the intersection and for the street crossing at Ash Street from the applicant's property. We recommend the applicant provide crosswalk pavement markings from their property across East Elm Street and the crossing at Ash Street. This busy intersection is a four way stop and a primary connector to cross the SEPTA Regional Rail corridor to Washington Street. We recommend the borough consider to make the provision of crosswalks a condition of approval.

6. **Accessible Parking or Drop-off**

According to submitted documentation, the applicant has leased 65 off-street parking spaces at the adjacent SORA office building and garage at 124 East Elm Street. The building lies over 350 ft. from the restaurant's entrance, with a continuous sidewalk along each property's frontage. We have concerns regarding the distance in parking for those with limited mobility. The applicant should provide information to the borough regarding how its patrons with access issues and limited mobility will be accommodated at the restaurant. Ash Street and East Elm Streets along the parcel's frontage are busy roadways and have no off-street parking spaces. It may require some creativity, but accessible parking space(s) is needed. One possibility would be to designate the existing parking spaces immediately east of the intersection as ADA-handicap spaces. We suggest the borough work with the applicant to accommodate people with mobility issues with accessible parking space.

CONCLUSION

We wish to reiterate that MCPC generally supports the applicant's proposal but we believe that our suggested revisions will better achieve the borough's planning and design objectives for land developments along East Hector Street.

Please note that any 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 # 24-0174-001 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: Chrm., Borough Planning Commission
Karen MacNair, Borough Engineer
Michael Peters, Esq., Borough Engineer
Christina Pieri/Cooper Winery LLC, Applicant
Dave Clifford, Montgomery County Parks Administrator

Attachment A: Aerial Image of Site
Attachment B: Reduced Copy of Applicant's Proposed Site Plan

ATTACHMENTS A & B

127 East Elm Street
MCPC#240174001

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

0 50 100 200 Feet

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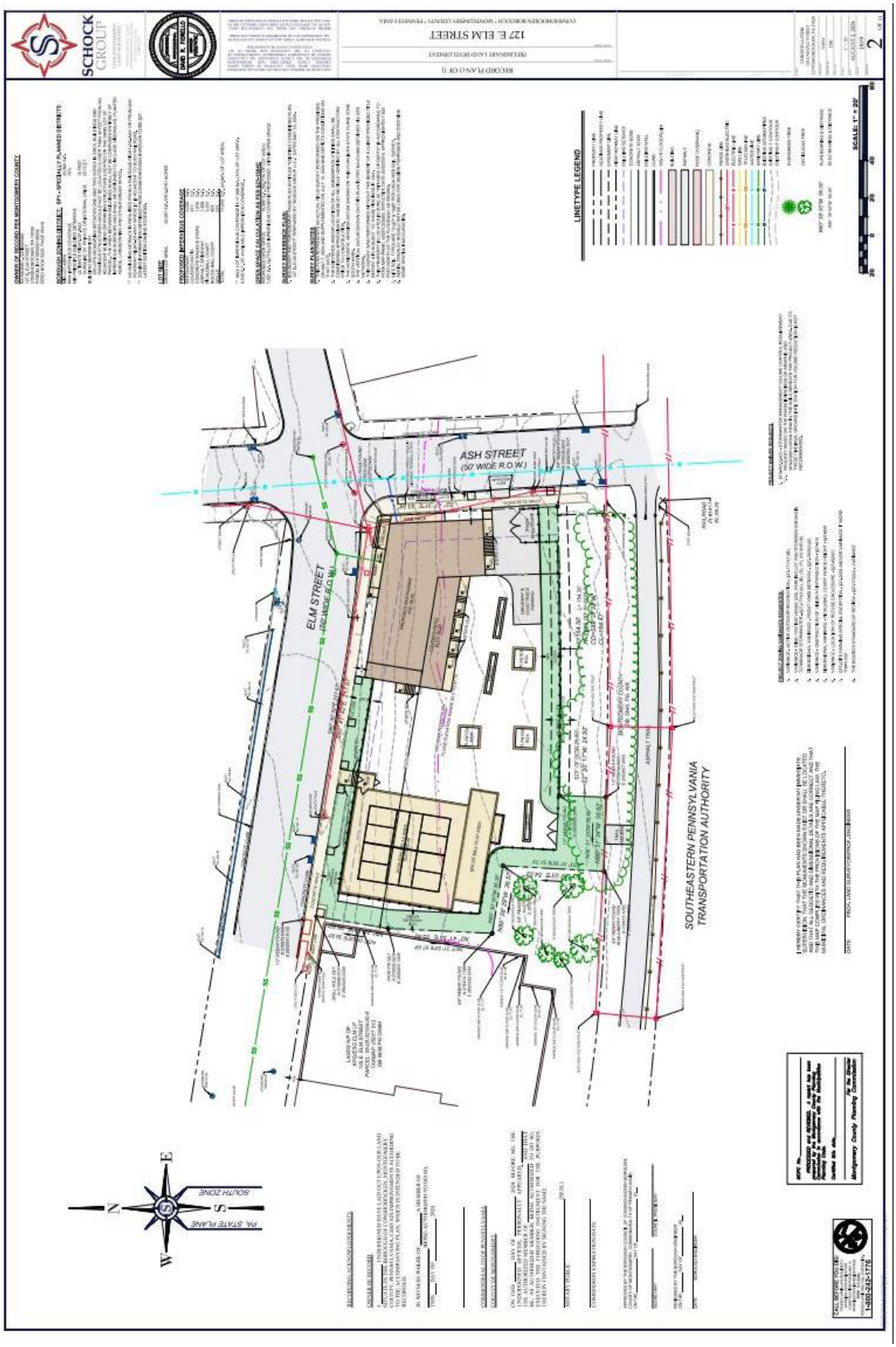

SCHOCK GROUP
127 E. ELM STREET
LINETYPE LEGEND
ASH STREET
(50' WIDE R.O.W.)
ELM STREET
(40' WIDE R.O.W.)
SOUTHEASTERN PENNSYLVANIA
TRANSPORTATION AUTHORITY
PA STATE PLANE
SOUTH ZONE

September 17, 2024

BCONS 24021

Stephanie Cecco, Borough Manager
Conshohocken Borough
400 Fayette Street, Suite 200
Conshohocken, PA 19428

RE: 127 E. Elm Street
Preliminary Land Development Application
Traffic Engineering Review

Dear Ms. Cecco:

We reviewed the following in association with the above referenced project:

- *"Circulation and Parking Assessment – Pieri Wine Garden,"* prepared by Dynamic Traffic, dated August 5, 2024, received September 6, 2024.
- Zoning Hearing Board Record, August 19, 2024.
- Preliminary Land Development Plans, Pieri Wine Garden, 127 E. Elm Street (11 sheets), prepared by Schock Group, dated August 2, 2024.

We offer the following comments and information for your consideration:

1. **§27-824 - Traffic Impact Study**

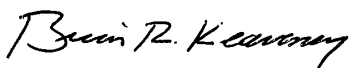
This section of the code requires a Traffic Impact Study (TIS) for developments that generate more than 300 trips per day. As noted in the 'Circulation and Parking Assessment' report, the gross daily trip generation anticipated for the development is 348 trips during the average weekday and 368 trips during the average Saturday/Sunday. The report also indicates that the 'majority of patrons will access the site via walking or transit' and anticipates at least 20% of the daily trips will be pedestrians, which results in a net vehicular trip generation estimate of 278 trips during the average weekday and 296 trips during the average Saturday/Sunday. Given this information, and the fact that the adjacent roadway and intersection network near the site is already controlled by either traffic signals or all-way Stop conditions, we concur that a full TIS is not required. However, due to the expectation of primarily pedestrian traffic to/from the site, along with the reliance on off-site parking, the 'Circulation and Parking Assessment' report should additionally investigate the following:

- Pedestrian connectivity along Ash Street to Washington Street.
- Modernization of crosswalks and ADA ramps at the intersection of E. Elm Street and Ash Street.
- Adequacy of sidewalk width along E. Elm Street and Ash Street.
- Signage to direct vehicles to available parking.

If you have any questions or concerns, please contact me.

Sincerely,

PENNONI ASSOCIATES INC.



Brian R. Keaveney, PE, PTOE
Transportation Division

cc: Ray Sokolowski, Executive Director of Operations
Brittany Rogers, Executive Assistant to the Borough Manager
Karen MacNair, PE, Borough Engineer
Michael E. Peters, Esq., Borough Solicitor
Allison A. Lee, PE, Zoning Officer

September 5, 2024

BCONS 24021

Stephanie Cecco, Borough Manager
Conshohocken Borough
400 Fayette Street, Suite 200
Conshohocken, PA 19428

RE: 127 E. Elm Street
LD-2024-04 - Preliminary Land Development
Zoning Review (1st Submission)

Dear Ms. Cecco:

As requested, we reviewed the following in connection with the referenced project:

- *"Pieri Wine Garden 127 E. Elm Street."* (11 sheets) prepared by Schock Group, dated August 2, 2024.

The Applicant, Christina Pieri on behalf of Cooper Winery LLC., is proposing the following:

- Construct a new restaurant/wine garden building with a covered patio area for a total area of 3,977 SF;
- A recreational court area including two (2) pickleball courts and one (1) bocce ball area for a total of 4,155 SF;
- Additional concrete walkways to access the new restaurant/wine garden building;
- An asphalt driveway for food truck parking off of Ash Street; and,
- Other associated site improvements such as fencing, landscaping, planter boxes, and fire pits.

The site is located within the SP-1 – Specially Planned District 1. The site is a corner property fronted by E. Elm Street to the north; Ash Street to the east; the Schuylkill River Trail to the south; and a commercial property to the west.

In accordance with the FEMA Flood Insurance Rate Map (FIRM) panel No. 42091C0358G, effective 3/2/2016, the majority of the southern portion of the parcel adjacent the Schuylkill River Trail is located within the 100-year floodplain Zone AE, which are special flood hazard areas with base flood elevations defined. The remaining northern portion of the site adjacent East Elm Street is located within Zone X - areas determined by the FEMA FIRM with a 0.2% annual chance flood hazard, or areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. Since the majority of the southern portion of the property is located within the AE District, the property must comply with the floodplain conservation overlay district regulations.

Variances Granted

The Applicant went before the Conshohocken Borough Zoning Hearing Board at the regularly scheduled hearing held on August 19, 2024, and was granted the following Special Exceptions and variances from the Conshohocken Borough Zoning Ordinance of 2001:

1. **Section §27-1713.1.B.(1)** – A Variance to permit primarily active recreational uses within the FP-Floodplain conservation overlay district, whereas only primarily passive recreational uses are permitted;

2. **Sections §27-1714.1.A, B, D, F, H, & K** – A Variance to permit new construction, filling, permanent structures, clearing, driveway, parking lots, and stormwater facilities within the FP-Floodplain conservation overlay district, whereas, such activities and facilities are specifically prohibited within the floodplain conservation overlay district;

3. **Section §27-1505.A.(2)** – A Variance to permit a five (5') feet front yard building setback from the right-of-way line, whereas a minimum fifteen (15') feet building setback is required;

4. **Section §27-809.1.Table A** – A Variance to permit a ten (10') ft high fence surrounding the pickleball courts, whereas the maximum fence height shall not exceed six (6) feet within the side and rear yard areas;

5. **Section §27-810** – A Variance to permit buffer plantings that will be maintained within the five (5') building setback area from the abutting the E. Elm Street and Ash Street intersection, whereas no physical improvements can be maintained in the setback that shall cause obstruction to driver vision;

6. **Section §27-820.F** – A Variance to permit refuse facilities detached from buildings to be setback adjacent the property line, whereas a ten (10') ft setback from all property lines is required; and,

7. **Section §27-2006** – A Special Exception and Variance to not provide the required forty-five (45) off-street parking on-site, and to allow the leasing of up to sixty (65) off-street parking spaces be provided off-site of the property that may be more than the required 200 feet distance from the building entrance.

The above Variances and Special Exception were granted with the following conditions:

1. Any objects that are outside and could be carried away in a flood, shall be secured or brought inside at the end of the evening to prevent them being carried away by floodwaters.
2. A lease shall be recorded against the subject property for the required number of off-street parking spaces.
3. Quiet paddles will be available for people using the pickleball courts.

We offer the following zoning comments:

1. **Per §27-808 –** A lot fronting on two or more streets at their junction is considered a corner lot. In the case of a corner lot, said lot shall be considered to have two front yard setbacks and one side yard setback and a rear yard setback.

   The required yard setback lines shall be provided on the plans.

2. **Per §27-820.B –** For refuse collection facilities, walls or fencing shall be designed to shield the refuse from direct view from adjacent properties to a height of at least six (6) feet.

   Fencing has been provided around the refuse collection facility; however, no fence height has been provided on the plan. The height of the fence shall be provided, and a detail of the proposed facility shall also be provided on the plan for review.

3. **Per §27-820.C –** Refuse collection facilities shall be designed in a manner that can accommodate large collection trucks.

   A turning template for a refuse collection vehicle shall be provided to ensure the refuse vehicle can safely maneuver within the site.

4. **Per §27-821 –** No lighting of private property shall be permitted that shall cause a hazard or a nuisance to abutting roads and properties

The Applicant shall provide a lighting plan for the site to ensure the compliance with the provisions under this Code Section.

5. **Per §27-1504.C.(3) – Open Space Use** - open space shall include walkways or sidewalks to provide safe and convenient pedestrian linkages between this area and the remainder of the Borough, and to and throughout the riverfront area.

   The Applicant shall provide a pedestrian walkway within the proposed open space area to connect to the proposed Schuylkill River trail access located to the rear of the property.

6. **Per §27-1504.E.(1) –** In the SP-1 District, the average lot area of all lots or subdivisions within the district shall be a minimum of three acres, and the minimum area of any one lot shall be one acre.

   Per the Montgomery County Property Records, the existing parcel has an area of 26,150 SF which is less than the minimum required 1 acre; therefore, the site is considered an existing non-conforming site with respect to lot area. The zoning data shown on the Record Plan (Sheet 2) shall be expanded to provide not only the required dimensional and bulk requirements, but also the existing and proposed conditions in the SP-1 Zoning District; and any existing non-conforming conditions shall be labeled on the Zoning Data Table.

7. **Per §27-1506.A.(1) –** Shade trees shall be provided along all streets where there are no existing shade trees, at a minimum distance of two feet beyond the right-of-way line. No less than one two-and-a-half-inch caliper trees shall be planted for each 40 feet of roadway length (excluding service roads through parking lots). However, it is recommended that shade trees be grouped where appropriate in accordance with site needs and objectives in addition to those along public streets and private internal drives.

   Based on our measurements, the site has a frontage of 311.5 LF which would require 8 street trees to be provided. The plans are showing 9 street trees proposed which is in compliance with this Code Section. A landscape schedule shall be provided to indicate the tree caliper (no less than 2.5 inches), species, name, size, planting height, etc.

8. **Per §27-1506.A.(6) –** All buildings, including parking garages, shall be landscaped with a combination of evergreen and deciduous trees and shrubs to be used as a foundation planting, i.e., plantings to be installed in proximity to the facades.

   The plans do not show foundation plantings for the proposed restaurant/wine garden building. Foundation plantings shall be provided as required per this Code Section.

9. **Per §27-1702.5 & §27-1732 – Floodplain Conservation District Applicability – Permits –** It shall be unlawful for any person, partnership, business or corporation to undertake, or case to be undertaken, any construction or development anywhere within the Borough of Conshohocken unless a permit has been obtained from the floodplain administrator.

   The Applicant has submitted a floodplain development application for this project; however, no H&H study was submitted with the floodplain development application. The Applicant shall provide the H&H study for the proposed site improvements for review and approval.

10. **Per §27-1722.3 – Increased Premium & Risks -** the applicant is informed that the variance granted from the terms of the Borough floodplain ordinance in connection with the subject development may result in increased premium rates for flood insurance and may increase risks to life and property.

    The Applicant shall acknowledge the possibility of increased premium rates for flood insurance due to

the variance being granted.

11. **Per §27-1723.B – Technical Requirements Upon Grant of Variance General Provisions -** The municipality shall require technical or scientific data to be submitted to FEMA for a letter of map revision (LOMR) within six months of the completion of any new construction, development, or other activity resulting in changes in the BFE. An LOMR or conditional letter of map revision (CLOMR) is required for:
    1) Any development that causes a rise in the base flood elevations within the floodway; or
    2) Any development occurring in Zones A1-30 and Zone AE without a designated floodway; or
    3) Alteration or relocation of a stream (including but not limited to installing culverts and bridges).

    The Applicant shall provide a copy of the H&H study for review. The Applicant will be required to submit to FEMA for a CLOMR prior to construction followed by a LOMR submission within six (6) months of the project completion.

12. **Per §27-1724.2 & 3 – Elevation & Floodproofing Requirements –** For nonresidential structures in Zone AE, any new construction or substantial improvement of a nonresidential structure shall have the lowest floor (including basement) elevated up to, or above, the regulatory flood elevation, or be designed and constructed so that the space enclosed below the regulatory flood elevation:
    1) Is floodproofed so that the structure is watertight with walls substantially impermeable to the passage of water; and
    2) Has structural components with the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

    The Applicant shall clarify if there will be any space below the first floor of the restaurant building and covered patio area, and provide the floor elevation beneath the first floor of the building and covered patio area on the plans to ensure the enclosed areas will be designed to comply with the US Army Corps of Engineers' floodproofing requirements as amended, the IBC design standards and specifications, and the above code sections. The Applicant shall also clarify and provide the elevations for the Bocce Court, planters, fire pit on the plans.

13. **Per §27-1726.1.F – Storage -** All materials that are buoyant, flammable, explosive, or in times of flooding could be injurious to human, animal or plant life, and not listed in § **27-1725**, Subsection **1**, Development Which May Endanger Human Life, shall be stored at or above the regulatory flood elevation and/or floodproofed to the maximum extent possible.

    The Applicant shall provide a note on the plans or provide a narrative on how the materials not anchored to the ground will be stored to prevent the risk of these materials from endangering human life and property during a flooding event.

14. **Per §27-1726.1.H – Anchoring -** All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, or lateral movement. All air ducts, large pipes, storage tanks, and other similar objects or components located below the regulatory flood elevation shall be securely anchored or affixed to prevent flotation.

    Details for the pickleball and bocce courts, fire pit, planters, and fencing shall be provided on the plans to ensure there is proper anchoring to prevent floatation, collapse, or lateral movement.

15. **Per §27-1726.1.I – Floors, Walls and Ceilings –** The Applicant shall ensure that the materials proposed at or below the regulatory flood elevation shall accommodate lateral expansion of flooring and inundation, and are of a marine or water-resistant material. A note shall be added to confirm that the floors, walls, and

ceiling materials at or below the regulatory flood elevation will comply with the provisions of this Code Section.

16. **Per §27-1726.1.J – Paints and Adhesives –** Paints, adhesives, and other finishes and components used at or below the regulatory flood elevation shall be of marine or water-resistant quality.

    A note shall be added to the plans to confirm paints adhesives, and other finishes and components used for the site shall be of marine or water-resistant quality.

17. **Per §27-1726.1.K – Electrical Components –** Electrical distribution panels shall be at least three feet above the base flood elevation. Separate electrical circuits shall serve lower levels and shall be dropped from above.

    A note shall be added to confirm compliance that the electrical components will comply with the code provisions of this Code Section.

18. **Per §27-1726.1.L – Equipment –** Water heaters, furnaces, air-conditioning and ventilation units, and other electrical, mechanical or utility equipment shall not be located below the regulatory flood elevation.

    The location of any proposed mechanical, electrical, and plumbing equipment shall be provided on the plan along with the floor elevation of the equipment. A note shall be added to the plans to confirm compliance that the electrical components will comply with the code provisions of this Code Section.

19. **Per §27-1726.1.M – Fuel Supply Systems –** All gas and oil supply systems shall be designed to prevent the infiltration of floodwaters into the system and discharges from the system into floodwaters. Additional provisions shall be made for the drainage of these systems in the event that floodwater infiltration occurs.

    The Applicant shall clarify how the proposed fire pits will be supplied to ensure that infiltration of floodwaters into the fire pits will be prevented.

20. **Per §27-1735 – Review by County Conservation District -** A copy of all applications for any proposed or development in any Floodplain Conservation District to be considered for approval may be submitted by the Floodplain Administrator to the County Conservation District for review and comment prior to the issuance of a permit. The recommendations of the Conservation District shall be considered by the Floodplain Administrator for possible incorporation into the proposed plan.

    Since this project will be located within the Floodplain Conservation District, the plan shall be submitted to the County Conservation District for review and approval. All correspondences with the County Conservation District shall be provided to the Borough.

General Zoning Comments

21. The Applicant shall provide a copy of the parking lease or agreement to be recorded for the off-site parking spaces for review to ensure that the required minimum off-street parking spaces have been provided for the proposed site improvements.

22. Based on the Grading and Utility Plan (Sheet 4), it appears that the northeastern corner of the proposed new restaurant building will conflict with the overhead utility line between the utility pole located at the southwestern corner of the E. Elm Street and Ash Street intersection and the connecting utility pole on Ash Street. The Applicant shall clarify and rectify any utility conflicts.

If you have any questions or concerns, please feel free to contact the undersigned.

Sincerely,

Allison A. Lee, PE
Zoning Officer
PENNONI ASSOCIATES INC.

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BOROUGH OF CONSHOHOCKEN
MONTGOMERY COUNTY, PENNSYLVANIA

ORDINANCE NO. _____

AN ORDINANCE OF THE BOROUGH OF CONSHOHOCKEN, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA, AMENDING THE CODE OF ORDINANCES OF THE BOROUGH OF CONSHOHOCKEN, CHAPTER 27 *ZONING*, PART 8 *GENERAL REGULATIONS*, BY AMENDING THE PROVISIONS OF SECTION 27-823 *GROUP HOMES* TO BE CONSISTENT WITH THE ZONING ORDINANCE'S OTHER PROVISIONS REGARDING GROUP HOMES; REPEALING PRIOR INCONSISTENT ORDINANCES OR PARTS OF ORDINANCES; PROVIDING A SAVINGS CLAUSE; AND SETTING AN EFFECTIVE DATE.

WHEREAS, the Borough Council of the Borough of Conshohocken is duly empowered by the Borough Code to enact certain regulations relating to the public health, safety and welfare of the citizens of the community of the Borough of Conshohocken; and

WHEREAS, the Borough Council of the Borough of Conshohocken has adopted a comprehensive Borough Zoning Ordinance, in accordance with the provisions of Article VI of the Pennsylvania Municipalities Planning Code; which same Ordinance is intended to provide for the orderly development and redevelopment of the Borough; and

WHEREAS, the Borough Council has determined that due to certain internal inconsistencies in the provisions of the Zoning Ordinance regarding group homes an amendment to the Zoning Ordinance is required, as set forth herein;

WHEREAS, more specifically, "Group Home" is defined under the Zoning Ordinance such that group homes for those entitled to protection under Title VIII of the Civil Rights Act of 1968, as amended by the Fair Housing Amendments Act of 1988, would be a permitted use;

WHEREAS, under a separate section of the Zoning Ordinance, Part 8 *General Regulations*, section 27-823 *Group Homes*, group homes generally are permitted by special exception, with no distinction for group homes for those entitled to protection under Title VIII of the Civil Rights Act of 1968, as amended by the Fair Housing Amendments Act of 1988; and

WHEREAS, the amendment herein resolves this inconsistency.

NOW THEREFORE, be it **RESOLVED** and it is hereby **RESOLVED** by the Council of the Borough of Conshohocken as follows:

SECTION 1.

The Borough of Conshohocken Zoning Ordinance, Part 8 *General Regulations* is hereby amended by repealing the provisions of section 27-823 *Group Homes* in their entirety, and replacing them with the following provisions:

§ 27-823 **Group Homes**

A. Group homes shall be permitted by special exception in the RO, BR-1, and BR-2 Zoning Districts, subject to the additional requirements below:

1. In place of the off-street parking requirements for residential units, all group home shall have one off-street parking space for each resident staff member. Also, one off-street parking space shall be provided for every five residents.

2. No off-street parking spaces shall be located in the area between the front wall of the principal structure and the curb of the street toward which that wall is oriented.

3. All group homes will conform to the type and outward appearance of the residences in the area in which they are located. This provision shall in no way restrict the installation of any ramp or other special features required to serve the residents.

4. Any medical or counseling services provided shall be done only for the residents of the group home.

B. Even if such use would otherwise constitute a group home under this Chapter, any number of handicapped persons, as defined in Title VIII of the Civil Rights Act of 1968, as amended by the Fair Housing Amendments Act of 1988, have the right to occupy a dwelling unit in the same manner and to the same extent as any family unit residing in a dwelling unit of that type, without the need to comply with, and obtain a special exception under, section 27-823.A.

SECTION 2. REPEALER

Any and all other Ordinances or parts of Ordinances in violation or in conflict with the terms, conditions and provisions of this Ordinance are hereby repealed to the extent of such irreconcilable conflict.

SECTION 3. SAVINGS CLAUSE

The terms, conditions and provisions of this Ordinance are hereby declared to be severable, and, should any portion, part or provision of this Ordinance be found by a court of competent jurisdiction to be invalid, non-enforceable or unconstitutional, the Council hereby declares its intent that the Ordinance shall have been enacted without regard to the invalid, non-enforceable, or unconstitutional portion, part or provision of this Ordinance.

SECTION 4. EFFECTIVE DATE

This Ordinance shall become effective as provided under the Borough Code, 8 Pa.C.S. § 101, et seq.

ORDAINED and **ENACTED** an ordinance of the Borough of Conshohocken this _____ day of _____, 2024.

BOROUGH OF CONSHOHOCKEN

_____

TINA SOKOLOWSKI, COUNCIL PRESIDENT

ATTEST:

_____

SECRETARY

Approved this _____ day of _____, 2024

_____

YANIV ARONSON, MAYOR