

**EAST GOSHEN TOWNSHIP
PLANNING COMMISSION
Meeting Agenda
Tuesday, April 25, 2023
7:00 PM**

- A. Call to Order / Pledge of Allegiance and Moment of Silence
- B. Chairman will ask if anyone is going to record the meeting.
- C. Review of Tracking Log / Determine need for Workshop Meeting
- D. Public Comment on Non-Agenda Items
- E. Approval of Minutes
 - 1. March 28, 2023**
- F. Subdivision and Land Development Applications
 - 1. 301 Reservoir Road Residential Subdivision- No Action Required.
 - 2. 14 Reservoir Road Residential Subdivision – No Action Required.
 - 3. Miller Property Residential Subdivision – No Action Required.
- G. Conditional Uses and Variances
 - 1. 905 Airport Road – (No Action – Waiting for UC Decision)**
- H. Zoning Hearing Board Variances
 - 1. 901 Sorrell Hill drive – (No Action – ZHB Variance Granted – ZHB Variance Closed)**
- I. Ordinance Amendments
 - 1. Applebrook Golf Club Turf Maintenance Area – (Copy in packet - Closed)**
- J. Old Business
 - 1. The Malvern Institute – Update – No Action Required**
 - 2. Applebrook Golf Club Turf Maintenance Area – Preliminary/Final Land Development Presentation.**
- K. New Business
 - 1. Willistown Township is in the process of updating its Comprehensive Plan. They made a draft copy available for review and commenting.
- L. Liaison Reports
- M. Correspondence
- N. Announcements
- O. Next Meeting – **May 23, 2023, at 7pm.**

Bold Items indicate new information to review or discuss.

[illegible]

DRAFT
EAST GOSHEN TOWNSHIP
PLANNING COMMISSION MEETING
March 28, 2023

The East Goshen Township Planning Commission held their regular monthly meeting on Tuesday, March 28, 2023 in the Township Building.

Members present are highlighted:

Chair – Ernest Harkness

Vice Chair – John Stipe

Dan Daley

Edward Decker

Michael Koza

Mark Levy

Michael Pagnanelli

Also present was:

Duane Brady, Zoning Officer

Derek Davis, Township Manager

Nathan Cline, Township Engineer

David Shuey, Township Supervisor

Michael Lynch, Township Supervisor

COMMON ACRONYMS:

BOS – Board of Supervisors

BC – Brandywine Conservancy

CB – Conservancy Board

CCPC – Chester Co Planning Commission

CPTF – Comprehensive Plan Task Force

CVS – Community Visioning Session

SWM – Storm Water Management

ZHB – Zoning Hearing Board

FORMAL MEETING – 7 p.m.

1. Ernest called the meeting to order at 7:00 pm. He led the Pledge of Allegiance and asked for a moment of silence to remember our first responders, and military.
2. Ernest asked if anyone would be recording the meeting and if there were any public comments about non-agenda items. There was no response.
3. The tracking log was checked and no need for a workshop meeting.
4. The minutes of the February 28, 2023 meeting were approved.

CHAIRMAN'S REPORT

None

SUBDIVISION AND LAND DEVELOPMENT APPLICATIONS

1. 301 Reservoir Road, Residential Subdivision (Presentation) – No action needed this month.
2. 14 Reservoir Road, Residential Subdivision – No action needed this month.

CONDITIONAL USES AND VARIANCES

1. Miller Property Residential Subdivision for 1010 Hershey Mill Road – (UC was granted. CU review closed.)
2. 905 Airport Road – No action. Waiting for UC Decision.

1 **ZONING HEARING BOARD VARIANCES**

2 **1. 1722 Towne Drive – No action. ZHB Variance Granted. ZHB Variance closed.**

3
4 **2. 901 Sorrell Hill Drive – New application. ZHB Variance for an Inground Pool. Property owner Frank**
5 **Petruzielo and contractor, Michael Ciaccio were present. They need a variance of the 25 foot setback**
6 **from the property line. Mr. Petruzielo got a copy of the original plans for this house which showed a**
7 **pool. Mr. Ciaccio described the pool with decking around it. A permanent stormwater system will be**
8 **installed. Access is through the open space for construction. Duane explained there is no setback with**
9 **this development. They are asking that the setback from the pool water edge to any property line be**
10 **changed to 7.36 feet. The pool will be 16 ft by 38 ft which equals 608 sq.ft. for the pool with 865 sq.ft.**
11 **for the decking. They received a letter from the HOA giving approval for the project.**
12 **John moved that we recommend to the Board of Supervisors in favor of the dimensional variance for**
13 **Frank Petruzielo for an inground pool with a 7.36 ft. setback from the property line. Mike seconded the**
14 **motion. The motion passed unanimously.**

15
16 **ORDINANCE AMENDMENTS**

17 **1. Applebrook Golf Club turf Maintenance Area -** Was approved. Waiting for a copy.

18
19 **OLD BUSINESS**

20 **1. The Malvern Institute – No action required.**

21 **2. Applebrook Golf Club Turf Maintenance Area – No Action Required.**

22
23 **NEW BUSINESS - None**

24
25 **LIAISON REPORTS - None**

26
27 **ANY OTHER MATTER – None**

28
29 **CORRESPONDENCE - None**

30
31
32 **ADJOURNMENT**

33 There being no further business, John made a motion to adjourn the meeting. Mark seconded the motion.
34 The meeting was adjourned at 7:35 pm. The next regular meeting will be held on Tuesday, April 25,
35 2023 at 7:00 pm.

36
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38 Respectfully submitted,

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43

Ruth Kiefer, Recording Secretary

**BOARD OF SUPERVISORS
EAST GOSHEN TOWNSHIP
CHESTER COUNTY
1580 PAOLI PIKE, WEST CHESTER, PA 19380
(610) 692-7171
codes@eastgoshen.org**

Date: 4-20-2023
To: Planning Commission
From: Duane J. Brady Sr., Township Zoning Officer
Re: Applebrook Golf Club Turf Maintenance Area
Preliminary/Final Land Development
Pennoni 3rd Submission Letter – Zoning Officer Comments

Dear Planning Commission,

In his third submission letter Township Engineer Nathan M. Cline requested the Township Zoning Officer Duane J. Brady Sr. and Township Solicitor Mark Thompson to review the following comments:

1. Zoning number 1. Resolved, the buildings are considered accessory uses to the golf course.
2. Zoning number 2. Resolved, the building setbacks do not apply as the buildings are accessory uses to the golf course.
3. Zoning number 3. Resolved, the building setbacks do not apply as the buildings are accessory uses to the golf course.
4. Zoning number 6. Resolved, the buffer yard requirement does not apply as the buildings are accessory uses to the golf course.
5. Zoning number 10. Resolved, reviewed, and approved by the Township Solicitor.
6. Subdivision number 13. Resolved, an additional signature block is not required by the Township Solicitor.
7. Subdivision number 17. Resolved, reviewed by Township Solicitor and is covered by other documents.

Respectfully,


Duane J. Brady Sr.

East Goshen Township
Director of Codes and Zoning
Deputy Fire Marshal



EAST GOSHEN CONSERVANCY

March 2, 2023

To: Planning Commission
From: Sandy Snyder, Conservancy Board Chair
Re: Approval of Applebrook Turf Maintenance Plan

The Conservancy Board met on February 8, 2023. Bret McKay from Chester Valley Engineers attending the meeting and reviewed the Applebrook Turf Maintenance plan. The Conservancy Board approved the landscape development plan associated with the redevelopment by unanimous vote.

A handwritten signature in cursive script, reading "Sandy Snyder /AN", is written over a horizontal line. The signature is in dark ink and includes a large "X" at the beginning.

Sandy Snyder
Conservancy Board Chair



CHESTER COUNTY
CONSERVATION DISTRICT

Conserving Natural Resources for Our Future

March 27, 2023

****VIA ELECTRONIC TRANSMISSION****

Applebrook Golf Club
Attn: Jared Viarengo (jviarengo@applebrookgolfclub.com)
100 Line Road
Malvern, PA 19355

Re: *Completeness Notification Letter*
 NPDES Permit Application No.: PAD150299
 Project Name: Applebrook Golf Club - Turf Maintenance Area
 Municipality: East Goshen Township, Chester County

Dear Mr. Viarengo:

The Chester County Conservation District has reviewed the above-referenced application for completeness and has determined that the application is complete. The District will now proceed with the technical review of the application. During the technical review, the adequacy of the application and its components will be evaluated to determine if sufficient information exists to render a decision on the technical merits of your application.

If you have questions about your application, please contact Shannon Healey, Urban Team Leader, by e-mail at shealey@chesco.org or by telephone at 610-455-1377.

Sincerely,

Christian E. Strohmaier, Director

cc: SERO DEP
 Neal Camens (ncamens@chesterv.com)
 Brett MacKay (bmackay@chesterv.com)
 East Goshen Township





**Chester County
Parks + Preservation**
EXPLORE NATURE, HERITAGE, COMMUNITY

David T. Stauffer
Director

February 6, 2023

Mr. Brian L. Nagle
MacElree Harvey, Ltd
17 West Miner Street
West Chester, PA 19382

Dear Mr. Nagle,

Please let this correspondence confirm receipt of the proposed Applebrook Golf Club Turf Maintenance Area Easement Plan dated November 7, 2022, detailing a revised easement area with last revision date of January 12, 2023 (hereinafter "Plan").

After review of the Plan with the County Solicitor, it has been determined that the proposed easement exchange detailed in the Plan does not infringe on the boundaries of the covenants set forth in the Chester County Park Land and Open Space Acquisition Grant dated October 7, 2003, nor does it constitute an additional and/or future restriction upon the land (hereinafter "Conservation Declaration").

Review of other relevant material provided by you indicates approval of this Plan by East Goshen Township as well as the corresponding proposed land development plan will result in additional environmental benefits to the County.

In consideration of the foregoing, Chester County has no objection to the Plan with the understanding that details regarding the Plan which relate to the easement area will be incorporated into any corresponding land development plan and recorded accordingly as they relate to the Conservation Declaration.

Thank you for your attention and please keep me updated regarding further developments in this matter.

Sincerely,

David T. Stauffer, RLA, ASLA
Director, Chester County Parks + Preservation

CC: Colleen Frens, Chester County Solicitor



Commissioners
Marian D. Moskowitz
Josh Maxwell
Michelle Kichline

**Government
Services Center**
601 Westtown Road, Suite 390
West Chester, PA 19380-0990

Contact Us
610-344-5656
chescoparkspres.org
parkspres@chesco.org

**EAST GOSHEN TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA**

Ordinance No. 129-A-2023

**AN ORDINANCE OF THE TOWNSHIP OF EAST
GOSHEN, CHESTER COUNTY, PENNSYLVANIA,
AMENDING THE ZONING ORDINANCE, CHAPTER
240, TO REVISE THE REQUIREMENTS FOR
ACCESSORY BUILDINGS IN A PLANNED GOLF
COURSE DEVELOPMENT.**

BE IT ENACTED AND ORDAINED by the Board of Supervisors of East Goshen Township that the East Goshen Township Code of Ordinances, as amended, is hereby further amended as follows:

SECTION 1. Section 240-30.1.C(1)(g) of the Code of Ordinances, titled "Planned Golf Course Development", is hereby amended to read as follows:

(g) Accessory buildings. Maintenance buildings for storage and maintenance of equipment directly related to the golf course use may be located off site on property contiguous to the golf course, provided that there is direct access to and from the accessory buildings to the golf course over a private street or driveway serving the golf course and a subdivision plan of the off-site property is approved by the Board of Supervisors. In such case:

[1] Accessory buildings may be located on a "footprint lot" which, for purposes of this provision, is defined to mean the perimeter of the existing or proposed building coincident with the building's foundation and outer walls; provided, where a part of an existing building that is located on a footprint lot is proposed to be demolished and reconstructed, in whole or in part, and expanded beyond the boundary of the footprint lot, the area of any such existing building expansion may be located within any contiguous permanent easement area that has been deeded in perpetuity to the owner of the footprint lot and constitutes a permanent part of the golf course maintenance facility. In either case, the provision of Subsection C(1)(g)[2] shall apply.

[2] Footprint lots. When the maintenance building is proposed to be located on a footprint lot, or within any portion of a contiguous permanent easement area deeded in perpetuity to the owner of the footprint lot, the subdivision or land development plan depicting the building or buildings, as reconstructed or expanded, shall demonstrate that there is sufficient area on the parent lot from which the footprint lot is being subdivided, or has previously been subdivided, without violation of any setback encroachments from the boundaries of the parent lot, to contain the required parking, shared access to the footprint lot and permanent easement, storm water management, if any, and utilities within a shared easement area of not less than 24,000 square feet per building; the footprint lot and the expanded building shall comply with the front, rear and side yard requirements for the

parent lot set forth in § 240-20F(3), except the building(s) shall be limited to one story and shall not exceed 20 feet in height; the owner of the parent lot shall retain the right to use the parent lot for all purposes not inconsistent with the shared easement; unless already in effect, the subdivision and/or land development application shall be accompanied by a declaration of covenants, easements and restrictions which provides for and defines the shared access, parking and utility usage in common with the owner of the parent lot and the rights and obligations of the parties with respect thereto, in form and content acceptable to the Township Solicitor, which shall be recorded with the approved final land development or subdivision plan.

SECTION 2. If any sentence, clause, section or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts hereof. It is hereby declared as the intent of the Board of Supervisors that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included therein.

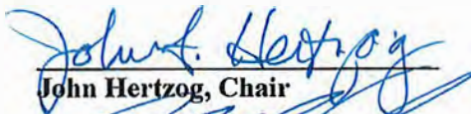
SECTION 3. General Code is hereby authorized to make any necessary formatting and numbering changes needed in order for this Ordinance to be made consistent with the formatting and numbering standards applicable to the East Goshen Township Code of Ordinances as published by General Code.

SECTION 4. All Ordinances or parts of Ordinances conflicting with any provision of this Ordinance are hereby repealed insofar as the same affects this Ordinance.

SECTION 5. This Ordinance shall become effective five days after enactment.

ENACTED and ORDAINED this 7th day of March, 2023.

**BOARD OF SUPERVISORS
EAST GOSHEN TOWNSHIP**



John Hertzog, Chair



Michael Lynch, Vice Chair



Cody Bright, Member



David E. Shuey, Member



Michele Truitt, Member

ATTEST:



Derek J. Davis, Secretary



TURF CARE CENTER

VIEW FROM YARD

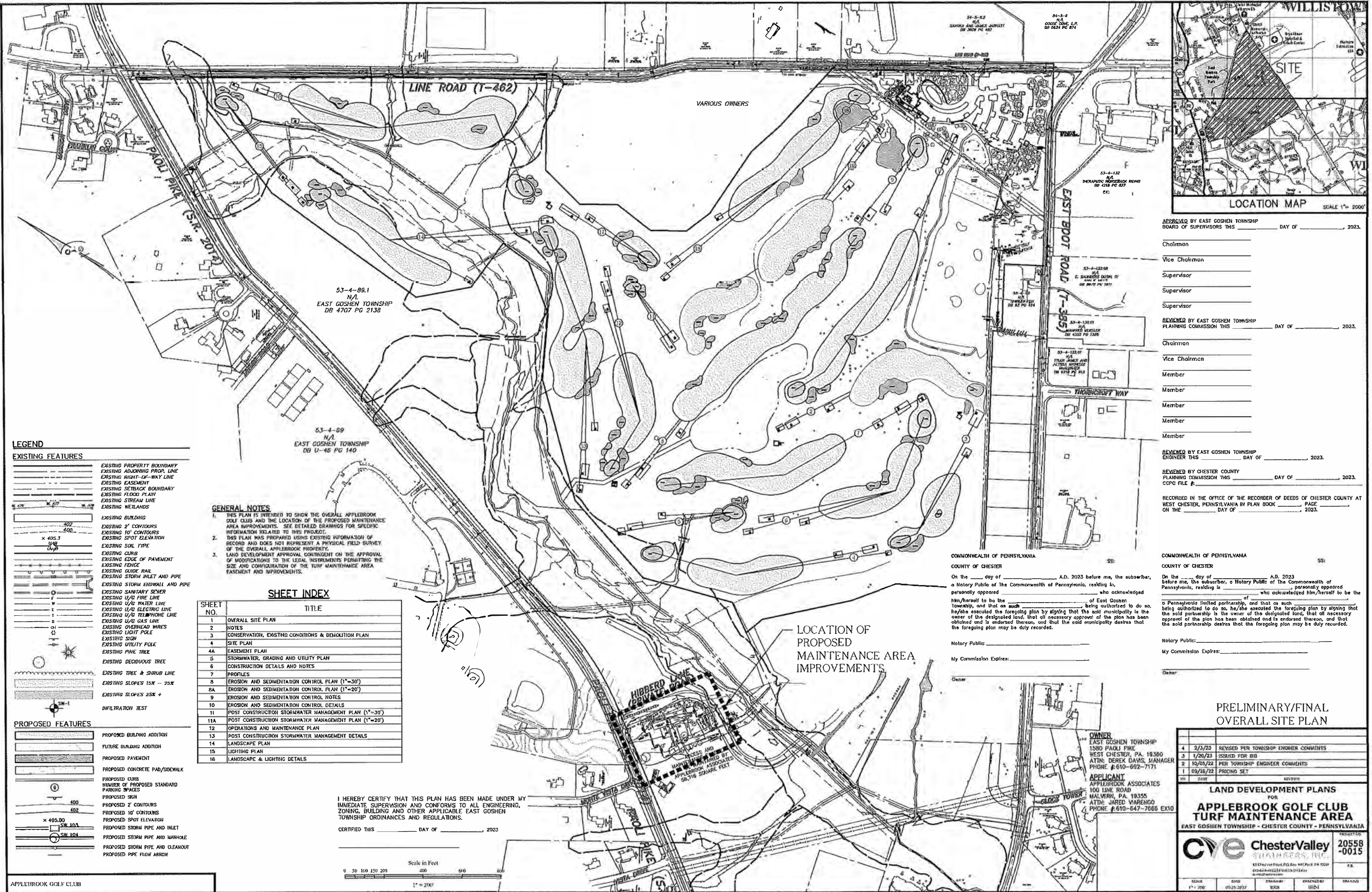


APPLEBROOK GOLF CLUB

TURF CARE CENTER

VIEW FROM PAOLI PIKE





LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +
- INFILTRATION TEST

PROPOSED FEATURES

- PROPOSED BUILDING ADDITION
- FUTURE BUILDING ADDITION
- PROPOSED PAVEMENT
- PROPOSED CONCRETE PAD/SIDEWALK
- PROPOSED CURB
- NUMBER OF PROPOSED STANDARD PARKING SPACES
- PROPOSED SIGN
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW

GENERAL NOTES

1. THIS PLAN IS INTENDED TO SHOW THE OVERALL APPLEBROOK GOLF CLUB AND THE LOCATION OF THE PROPOSED MAINTENANCE AREA IMPROVEMENTS. SEE DETAILED DRAWINGS FOR SPECIFIC INFORMATION RELATED TO THIS PROJECT.

2. THIS PLAN WAS PREPARED USING EXISTING INFORMATION OF RECORD AND DOES NOT REPRESENT A PHYSICAL FIELD SURVEY OF THE OVERALL APPLEBROOK PROPERTY.

3. LAND DEVELOPMENT APPROVAL CONTINGENT ON THE APPROVAL OF MODIFICATIONS TO THE LEGAL INSTRUMENTS PERMITTING THE SIZE AND CONFIGURATION OF THE TURF MAINTENANCE AREA EASEMENT AND IMPROVEMENTS.

SHEET NO.	TITLE
1	OVERALL SITE PLAN
2	NOTES
3	CONSERVATION, EXISTING CONDITIONS & DEMOLITION PLAN
4	SITE PLAN
4A	EASEMENT PLAN
5	STORMWATER, GRADING AND UTILITY PLAN
6	CONSTRUCTION DETAILS AND NOTES
7	PROFILES
8	EROSION AND SEDIMENTATION CONTROL PLAN (1"=30')
8A	EROSION AND SEDIMENTATION CONTROL PLAN (1"=20')
9	EROSION AND SEDIMENTATION CONTROL NOTES
10	EROSION AND SEDIMENTATION CONTROL DETAILS
11	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (1"=30')
11A	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (1"=20')
12	OPERATIONS AND MAINTENANCE PLAN
13	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
14	LANDSCAPE PLAN
15	LIGHTING PLAN
16	LANDSCAPE & LIGHTING DETAILS

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN MADE UNDER MY IMMEDIATE SUPERVISION AND CONFORMS TO ALL ENGINEERING, ZONING, BUILDING AND OTHER APPLICABLE EAST GOSHEN TOWNSHIP ORDINANCES AND REGULATIONS.

CERTIFIED THIS _____ DAY OF _____, 2023



LOCATION OF PROPOSED MAINTENANCE AREA IMPROVEMENTS

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF CHESTER

On the _____ day of _____, A.D. 2023 before me, the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in _____, personally appeared _____ who acknowledged _____ of East Goshen Township, and that as such _____ being authorized to do so, he/she executed the foregoing plan by signing that the said municipality is the owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon, and that the said municipality desires that the foregoing plan may be duly recorded.

Notary Public: _____
My Commission Expires: _____

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF CHESTER

On the _____ day of _____, A.D. 2023 before me, the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in _____, personally appeared _____ who acknowledged _____ of _____, a Pennsylvania limited partnership, and that as such _____ being authorized to do so, he/she executed the foregoing plan by signing that the said partnership is the owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon, and that the said partnership desires that the foregoing plan may be duly recorded.

Notary Public: _____
My Commission Expires: _____
Declarer: _____

PRELIMINARY/FINAL
OVERALL SITE PLAN

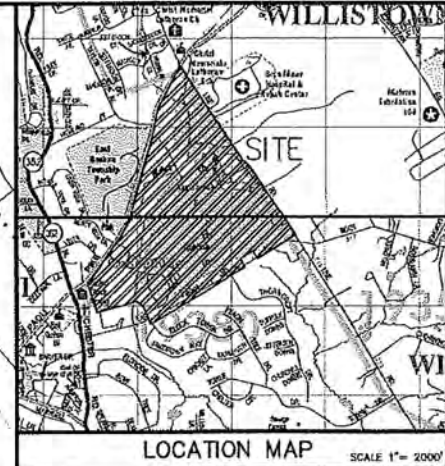
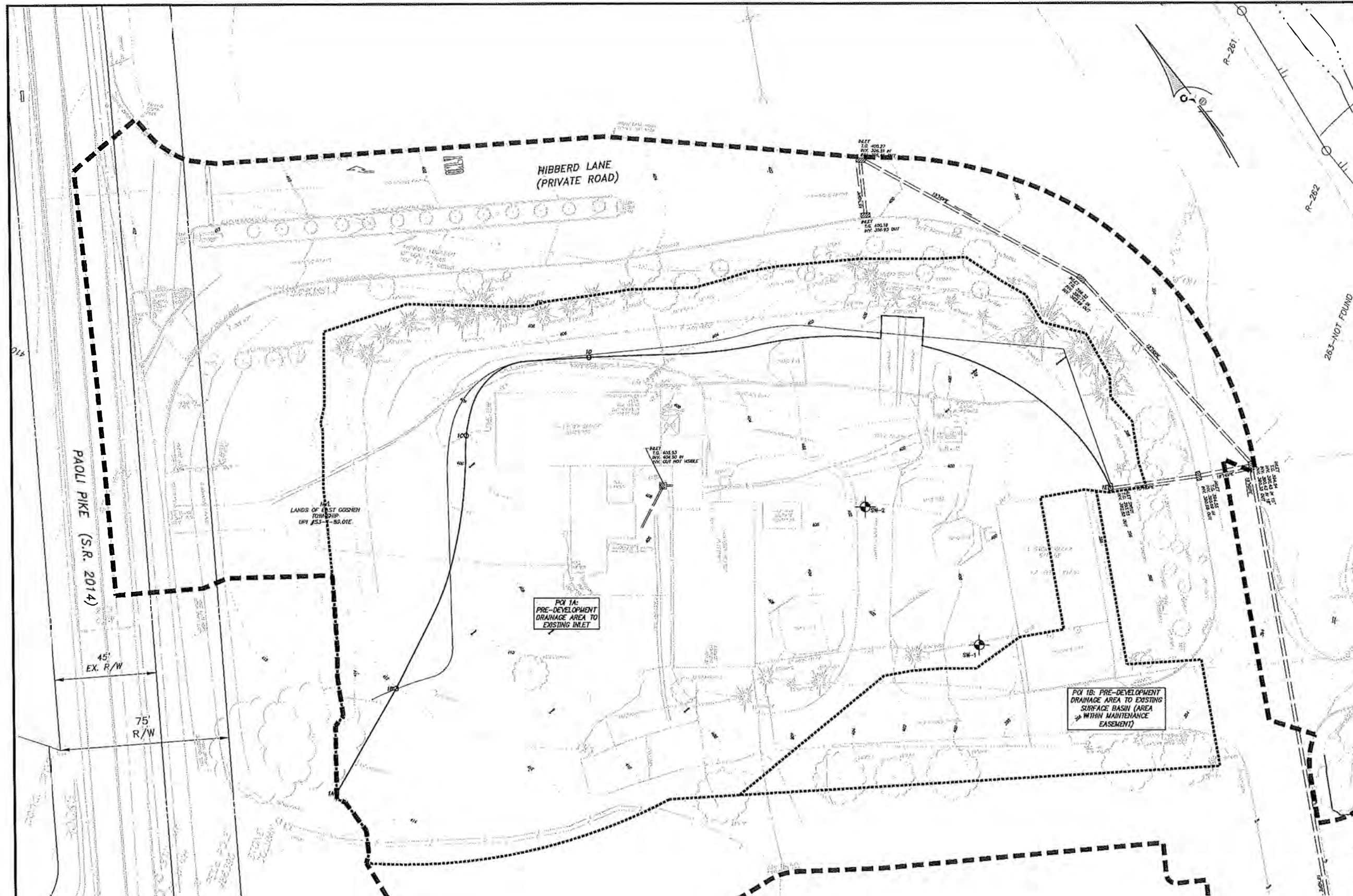
4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BID
2	10/25/22	PER TOWNSHIP ENGINEER COMMENTS
1	09/16/22	PRICING SET
000	DATE	REVISION

LAND DEVELOPMENT PLANS
FOR
APPLEBROOK GOLF CLUB
TURF MAINTENANCE AREA
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley
SUNSHINE, INC.
83 Chester Pike, P.O. Box 442, P.O. Box 1004
Chester, PA 19380
Phone: 610-647-7666
www.chestervalley.com

PROJECT NO. **20558-0015**

SCALE: 1" = 200' DATE: 07/25/2023 DRAWN BY: BDR ENKED BY: JH4 DRAFTER: BDR



LEGEND	
EXISTING FEATURES	
[Symbol]	EXISTING PROPERTY BOUNDARY
[Symbol]	EXISTING ADJOINING PROP. LINE
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[Symbol]	EXISTING EASEMENT
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[Symbol]	EXISTING STREAM LINE
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[Symbol]	EXISTING SLOPES 25% +
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[Symbol]	PROPOSED STORM PIPE AND INLET
[Symbol]	PROPOSED STORM PIPE AND MANHOLE
[Symbol]	PROPOSED STORM PIPE AND CLEANOUT
[Symbol]	PROPOSED PIPE FLOW ARROW
DRAINAGE FEATURES	
[Symbol]	PRE-DEVELOPMENT DRAINAGE AREA
[Symbol]	PRE-DEVELOPMENT TC PATH

PRE-DEVELOPMENT
DRAINAGE AREA PLAN

REVISIONS	
4	2/3/23 REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23 ISSUED FOR BID
2	10/05/22 PER TOWNSHIP ENGINEER COMMENTS
1	09/26/22 PRELIMINARY SET
LAND DEVELOPMENT PLANS FOR APPLEBROOK GOLF CLUB TURF MAINTENANCE AREA EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA	
PROJECT NO. 20558-0015	
SCALE: 1" = 20'	
DATE: 07-26-2022	
DRAWN BY: RBR	
CHECKED BY: BULL	
DATE: 07-26-2022	

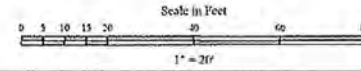
COPYRIGHT:
CHESTER VALLEY ENGINEERS, INC. CHESTER VALLEY ENGINEERS, INC. IS THE SOLE OWNER OF THE COPYRIGHT IN THIS PLAN. NO PART OF THIS PLAN MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CHESTER VALLEY ENGINEERS, INC.

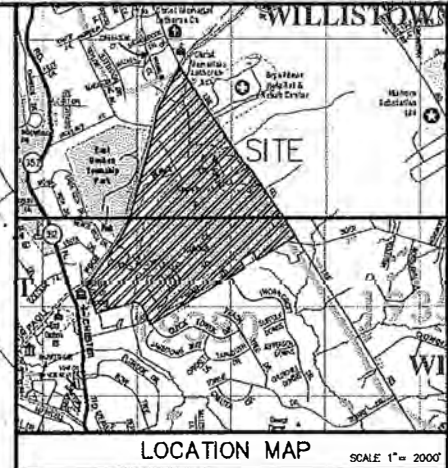
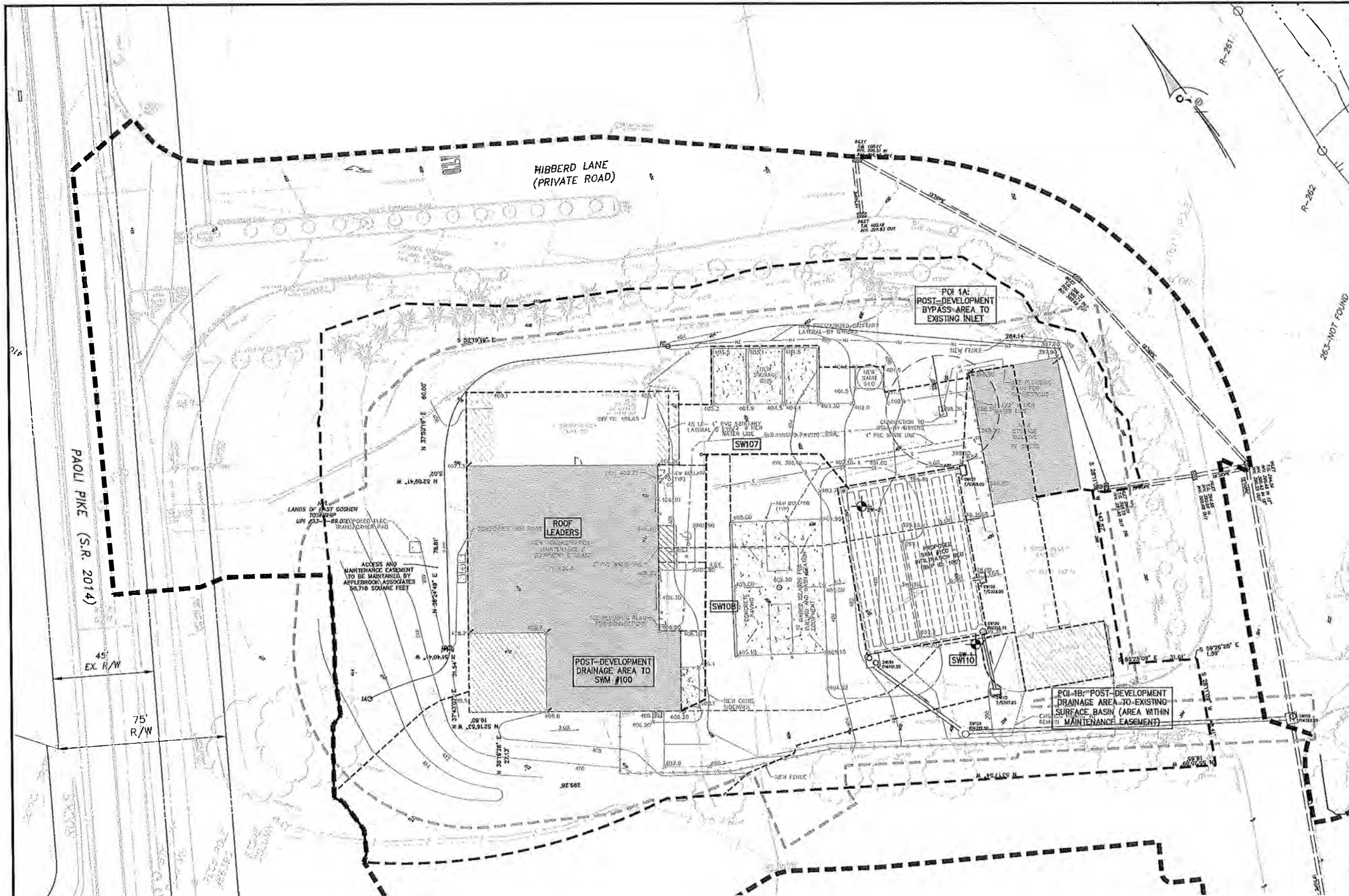
NOTES TO USER OF THESE PLANS:
1. THE INFORMATION CONTAINED ON THIS PLAN WAS PREPARED BY CHESTER VALLEY ENGINEERS, INC. FOR THE USE OF THE CLIENT. IT IS THE CLIENT'S RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. CHESTER VALLEY ENGINEERS, INC. DOES NOT WARRANT THE ACCURACY OF THE INFORMATION CONTAINED ON THIS PLAN.

PENNSYLVANIA ACT 167, REGISTERED PROFESSIONAL ENGINEER:
CHESTER VALLEY ENGINEERS, INC. IS A REGISTERED PROFESSIONAL ENGINEERING FIRM IN THE STATE OF PENNSYLVANIA. THE ENGINEER'S SIGNATURE AND SEAL ARE REQUIRED FOR THE PLAN TO BE VALID.

SEE SHEET FOR FACILITY OWNERS DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG. 1-800-242-1776. POC'S SERIAL NUMBER: _____





LEGEND	
EXISTING FEATURES	
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[Symbol]	EXISTING SLOPES 25% +
[Symbol]	INFILTRATION TEST
PROPOSED FEATURES	
[Symbol]	PROPOSED BUILDING ADDITION
[Symbol]	FUTURE BUILDING ADDITION
[Symbol]	PROPOSED PAVEMENT
[Symbol]	PROPOSED CONCRETE PAD/SIDEWALK
[Symbol]	PROPOSED CURB
[Symbol]	NUMBER OF PROPOSED STANDARD PARKING SPACES
[Symbol]	PROPOSED SIGN
[Symbol]	PROPOSED 2' CONTOURS
[Symbol]	PROPOSED 10' CONTOURS
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	PROPOSED STORM PIPE AND INLET
[Symbol]	PROPOSED STORM PIPE AND MANHOLE
[Symbol]	PROPOSED STORM PIPE AND CLEAFOUT
[Symbol]	PROPOSED PIPE FLOW ARROW
DRAINAGE FEATURES	
[Symbol]	POST-DEVELOPMENT DRAINAGE AREA
[Symbol]	POST-DEVELOPMENT INLET
[Symbol]	POST-DEVELOPMENT TO PATH

POST-DEVELOPMENT
DRAINAGE AREA PLAN

NO.	DATE	REVISION
4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BID
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS
1	09/26/22	PRICING SET

LAND DEVELOPMENT PLANS
FOR
**APPLEBROOK GOLF CLUB
TURF MAINTENANCE AREA**
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley
ENGINEERS, INC.
82 CHESTERVILLE RD. #100 CHESTER, PA 19381
TEL: 610-336-1000 FAX: 610-336-1001
WWW.CHESTERVALLEYENGINEERS.COM

20558
-0015

SCALE: 1" = 20'
DATE: 02.26.2023
DRAWN BY: [Name]
CHECKED BY: [Name]
DATE: [Date]

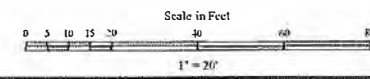
CONTINGENT:
CHESTER VALLEY ENGINEERS, INC. HAS COMPLETED A SURVEY OF THE PROPERTY AND HAS PREPARED THIS PLAN. ALL DIMENSIONS, LOCATIONS, AND ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON THE SURVEY DATA PROVIDED BY THE CLIENT. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED. CHESTER VALLEY ENGINEERS, INC. DOES NOT WARRANT THE ACCURACY OF THE DATA PROVIDED OR THE RESULTS OF THE SURVEY. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED AND THE RESULTS OF THE SURVEY. CHESTER VALLEY ENGINEERS, INC. DOES NOT WARRANT THE ACCURACY OF THE DATA PROVIDED OR THE RESULTS OF THE SURVEY. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED AND THE RESULTS OF THE SURVEY.

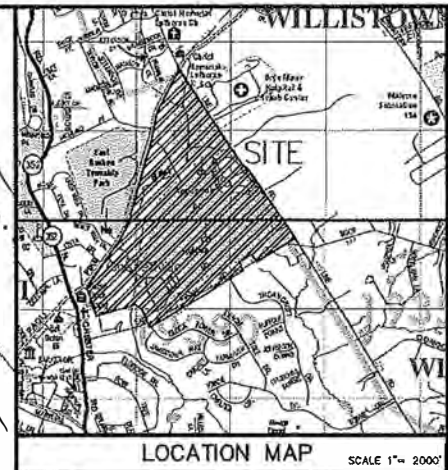
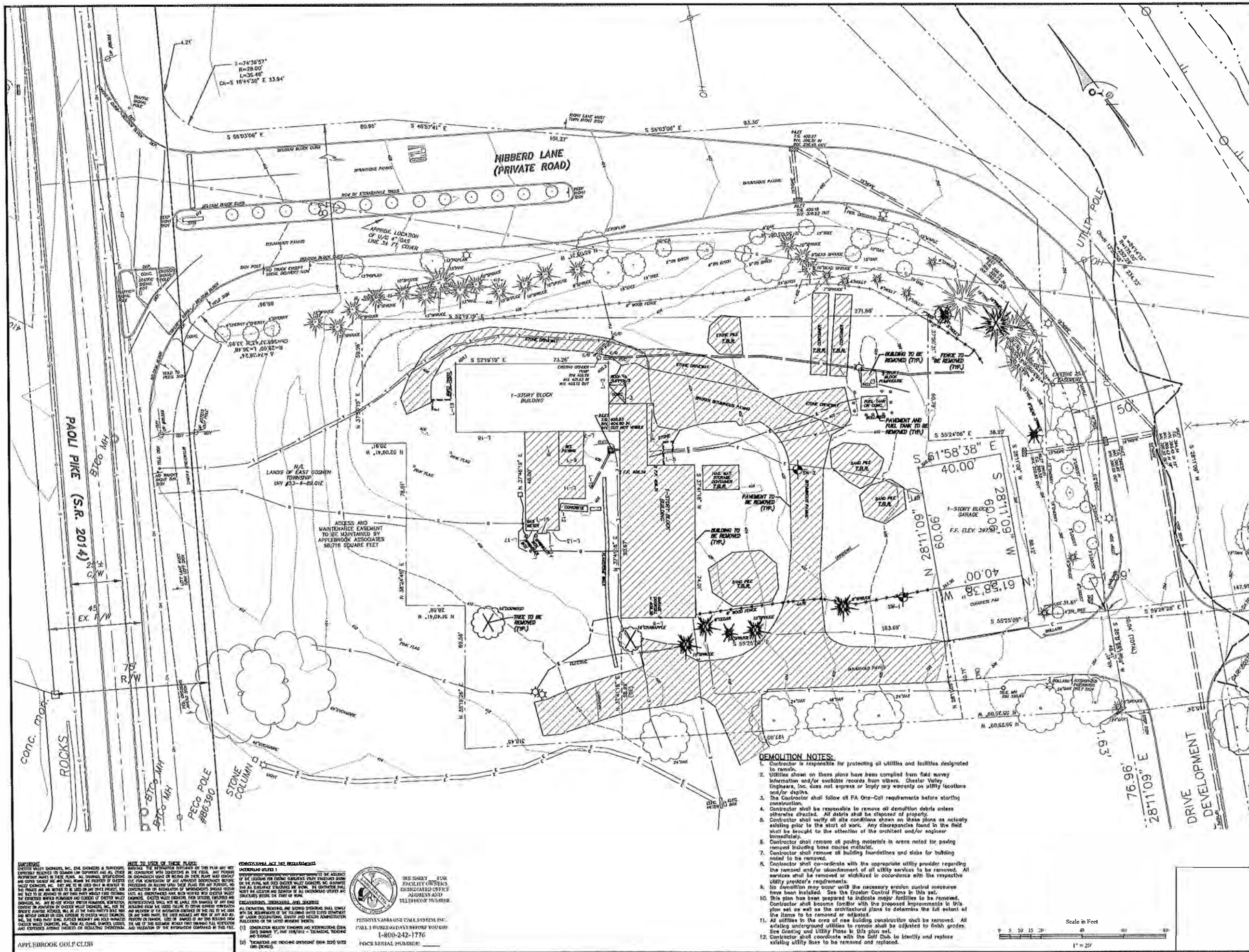
NOTES TO USER OF THIS PLAN:
1. THE INFORMATION CONTAINED ON THIS PLAN WAS PREPARED BY CHESTER VALLEY ENGINEERS, INC. FOR THE CLIENT. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED AND THE RESULTS OF THE SURVEY. CHESTER VALLEY ENGINEERS, INC. DOES NOT WARRANT THE ACCURACY OF THE DATA PROVIDED OR THE RESULTS OF THE SURVEY. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED AND THE RESULTS OF THE SURVEY.

FORWARD YAMAHA ACT 101 REGULATIONS:
YAMAHA ACT 101 REGULATIONS REQUIRE THAT ALL DEVELOPERS OF A PROJECT SUBMIT A PLAN TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL. THE PLAN MUST SHOW THE LOCATION OF ALL BUILDINGS, DRIVEWAYS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL UTILITIES, INCLUDING WATER, SEWER, AND GAS. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL EASEMENTS, INCLUDING EASEMENTS FOR UTILITIES AND EASEMENTS FOR ACCESS. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL FLOOD PLAINS, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL STREAMS, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL WETLANDS, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL PAVEMENT, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL CURBS, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL SIGNS, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL FENCES, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL LIGHTS, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL UTILITY POLES, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL PINE TREES, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL DECIDUOUS TREES, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL TREE & SHRUB LINE, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL SLOPES 15% - 25%, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL SLOPES 25% +, EASEMENTS, AND OTHER FEATURES. THE PLAN MUST ALSO SHOW THE LOCATION OF ALL INFILTRATION TEST, EASEMENTS, AND OTHER FEATURES.

PERMITS AND WORKING DATES:
PERMITS: 1-800-242-1776
WORKING DATES: 1-800-242-1776

FOR SERIAL NUMBER:
1-800-242-1776

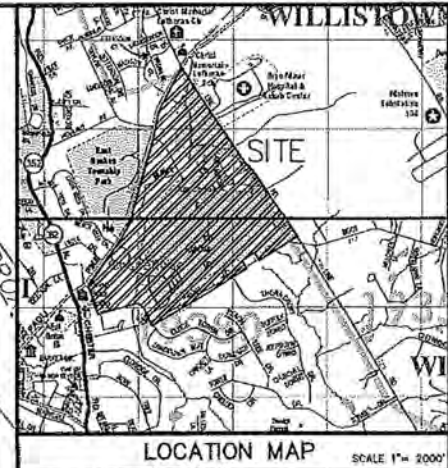
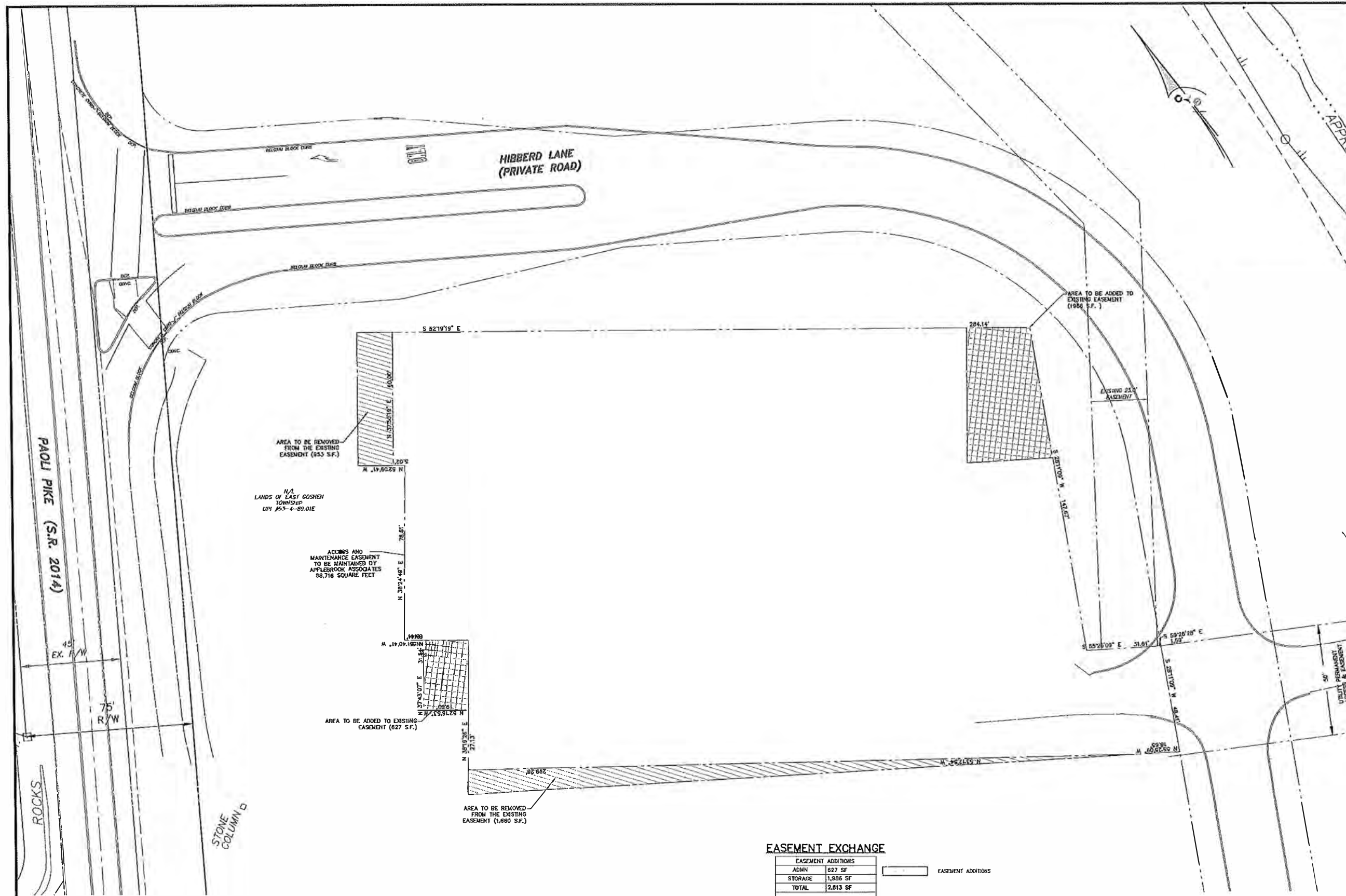




LEGEND	
EXISTING FEATURES	
[Symbol]	EXISTING PROPERTY BOUNDARY
[Symbol]	EXISTING ADJOINING PROP. LINE
[Symbol]	EXISTING RIGHT-OF-WAY LINE
[Symbol]	EXISTING EASEMENT
[Symbol]	EXISTING SETBACK BOUNDARY
[Symbol]	EXISTING FLOOD PLAIN
[Symbol]	EXISTING STREAM LINE
[Symbol]	EXISTING RETAINING
[Symbol]	EXISTING BUILDING
[Symbol]	EXISTING 2' CONTOURS
[Symbol]	EXISTING 10' CONTOURS
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	EXISTING SOIL TYPE
[Symbol]	EXISTING CURB
[Symbol]	EXISTING EDGE OF PAVEMENT
[Symbol]	EXISTING FENCE
[Symbol]	EXISTING GUIDE RAIL
[Symbol]	EXISTING STORM INLET AND PIPE
[Symbol]	EXISTING STORM ENDWALL AND PIPE
[Symbol]	EXISTING SANITARY SEWER
[Symbol]	EXISTING U/G FIRE LINE
[Symbol]	EXISTING U/G WATER LINE
[Symbol]	EXISTING U/G TELEPHONE LINE
[Symbol]	EXISTING U/G GAS LINE
[Symbol]	EXISTING OVERHEAD WIRES
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING PINE TREE
[Symbol]	EXISTING DECIDUOUS TREE
[Symbol]	EXISTING TREE & SHRUB LINE
[Symbol]	EXISTING SLOPES 15% - 25%
[Symbol]	EXISTING SLOPES 25% +
DEMOLITION FEATURES	
[Symbol]	INFILTRATION TEST
[Symbol]	TO BE REMOVED
[Symbol]	EXISTING FEATURE TO BE REMOVED
[Symbol]	EXISTING PAVEMENT / CONCRETE / STRUCTURE TO BE REMOVED

PRELIMINARY/FINAL
CONSERVATION,
EXISTING CONDITIONS
& DEMOLITION PLAN

REVISION	
4	3/3/23 REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/25/23 ISSUED FOR BID
2	10/25/22 PER TOWNSHIP ENGINEER COMMENTS
1	09/26/22 PRICING SET
LAND DEVELOPMENT PLANS FOR APPLEBROOK GOLF CLUB TURF MAINTENANCE AREA EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA	
20558-0015	
SCALE 1" = 20'	DATE 07/26/2022
DESIGNED BY RJB	CHECKED BY RJB
DRAWN BY RJB	DATE 07/26/2022



LEGEND	
EXISTING FEATURES	
	EXISTING PROPERTY BOUNDARY
	EXISTING ADJOINING PROP. LINE
	EXISTING RIGHT-OF-WAY LINE
	EXISTING EASEMENT
	EXISTING SETBACK BOUNDARY
	EXISTING FLOOD PLAIN
	EXISTING STREAM LINE
	EXISTING WETLANDS
	EXISTING BUILDING
	EXISTING 2' CONTOURS
	EXISTING 10' CONTOURS
	EXISTING SPOT ELEVATION
	EXISTING SOIL TYPE
	EXISTING CURB
	EXISTING EDGE OF PAVEMENT
	EXISTING FENCE
	EXISTING GUIDE RAIL
	EXISTING STORM INLET AND PIPE
	EXISTING STORM ENDWALL AND PIPE
	EXISTING SANITARY SEWER
	EXISTING U/G FIRE LINE
	EXISTING U/G WATER LINE
	EXISTING U/G ELECTRIC LINE
	EXISTING U/G TELEPHONE LINE
	EXISTING U/G GAS LINE
	EXISTING OVERHEAD MINES
	EXISTING LIGHT POLE
	EXISTING SIGN
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	EXISTING DECIDUOUS TREE
	EXISTING TREE & SHRUB LINE
	EXISTING SLOPES 15% - 25%
	EXISTING SLOPES 25% +
	INFILTRATION TEST

PROPOSED FEATURES	
	PROPOSED BUILDING ADDITION
	FUTURE BUILDING ADDITION
	PROPOSED PAVEMENT
	PROPOSED CONCRETE PAD/GREENWALK
	PROPOSED CURB
	NUMBER OF PROPOSED STANDARD PARKING SPACES
	PROPOSED SIGN
	PROPOSED 2' CONTOURS
	PROPOSED 10' CONTOURS
	PROPOSED SPOT ELEVATION
	PROPOSED STORM PIPE AND INLET
	PROPOSED STORM PIPE AND MANHOLE
	PROPOSED STORM PIPE AND CLEANOUT
	PROPOSED PIPE FLOW ARROW

PRELIMINARY/FINAL
EASEMENT PLAN

NO.	DATE	REVISION
4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BID
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS
1	09/26/22	REVISED EASEMENT AREA
FOR		
LAND DEVELOPMENT PLANS		
FOR		
APPLEBROOK GOLF CLUB		
TURF MAINTENANCE AREA		
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA		
		PROJECT NO. 20558-0015
SCALE: 1" = 20'		DATE: 07-26-2022
DRAWN BY: RDB		CHECKED BY: RDB
DATE: 07-26-2022		DATE: 07-26-2022

EASEMENT EXCHANGE

EASEMENT ADDITIONS	
ADJN	627 SF
STORAGE	1,886 SF
TOTAL	2,513 SF
EXCHANGE AREAS	
AREA A	1,880 SF
AREA B	953 SF
TOTAL	2,833 SF

EASEMENT ADDITIONS

EXCHANGE AREAS



NOTES:

1. THE INFORMATION CONTAINED ON THIS PLAN WAS PREPARED BY CHESTER VALLEY ENGINEERING, INC. (C.V.E.) AND IS FOR THE USE OF THE CLIENT ONLY. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE.

2. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

3. THE CLIENT IS RESPONSIBLE FOR MAINTAINING THE ACCURACY OF THE INFORMATION CONTAINED ON THIS PLAN.

4. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

5. THE CLIENT IS RESPONSIBLE FOR MAINTAINING THE ACCURACY OF THE INFORMATION CONTAINED ON THIS PLAN.

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NOTES:

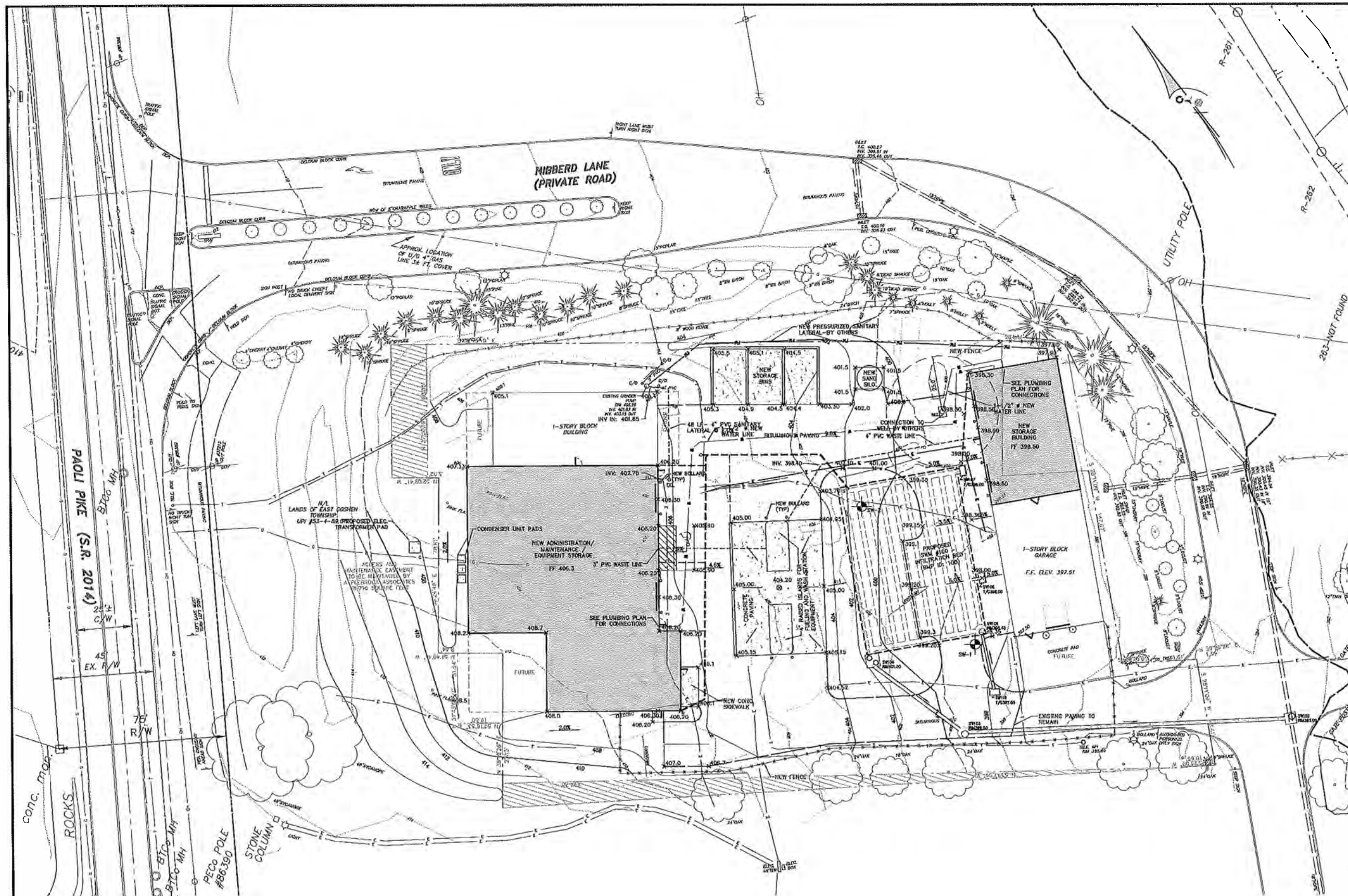
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LEGEND	
EXISTING FEATURES	
[Symbol]	EXISTING PROPERTY BOUNDARY
[Symbol]	EXISTING ADJOINING PROP. LINE
[Symbol]	EXISTING RIGHT-OF-WAY LINE
[Symbol]	EXISTING EASEMENT
[Symbol]	EXISTING SETBACK BOUNDARY
[Symbol]	EXISTING FLOOD PLAIN
[Symbol]	EXISTING STREAM LINE
[Symbol]	EXISTING WETLANDS
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[Symbol]	EXISTING 2' CONTOURS
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[Symbol]	EXISTING STORM INLET AND PIPE
[Symbol]	EXISTING STORM ENDWALL AND PIPE
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[Symbol]	INFILTRATION TEST
PROPOSED FEATURES	
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[Symbol]	PROPOSED STORM PIPE AND INLET
[Symbol]	PROPOSED STORM PIPE AND MANHOLE
[Symbol]	PROPOSED STORM PIPE AND CLEANOUT
[Symbol]	PROPOSED PIPE FLOW ARROW

PRELIMINARY/FINAL
STORMWATER, GRADING
AND UTILITY PLAN

NO.	DATE	REVISION
4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BID
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS
1	09/16/22	PRICING SET

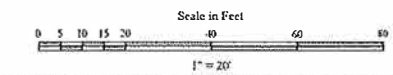
LAND DEVELOPMENT PLANS
FOR
**APPLEBROOK GOLF CLUB
TURF MAINTENANCE AREA**
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
20558-0015
F.B.
16000 Rte. 202, P.O. Box 100, East Goshen, PA 19345
(610) 439-1100 FAX (610) 439-1101
www.chestervalley.com

SCALE	DATE	DRAWN BY	CHECKED BY	DATE
1" = 20'	07/26/2022	BLM	DMT	

- REVISIONS AND NOTES**
1. CONCRETE PAVING TO BE HEAVY DUTY CONCRETE PAVING AS DETAIL ON THESE PLANS.
 2. SEE PLANS BY OTHERS FOR EQUIPMENT PLACEMENT, PENETRATION SIZES AND LOCATIONS ON ISLAND. PROVIDE UTILITY CONNECTIONS AS SHOWN ON PLUMBING AND ELECTRICAL PLANS (BY OTHERS).

SEE SHEET 2 FOR
UTILITY NOTES



CONFIDENTIAL
CHESTER VALLEY ENGINEERS, INC. HAS DEVELOPED AND PREPARED THIS PLAN AND SPECIFICATIONS FOR THE USE OF THE CLIENT AND FOR THE PURPOSES OF THE PROJECT ONLY. IT IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF CHESTER VALLEY ENGINEERS, INC. THE CLIENT ASSUMES ALL LIABILITY FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION CONTAINED IN THIS PLAN AND SPECIFICATIONS. CHESTER VALLEY ENGINEERS, INC. DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED IN THIS PLAN AND SPECIFICATIONS. THE CLIENT ASSUMES ALL LIABILITY FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION CONTAINED IN THIS PLAN AND SPECIFICATIONS. CHESTER VALLEY ENGINEERS, INC. DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED IN THIS PLAN AND SPECIFICATIONS. THE CLIENT ASSUMES ALL LIABILITY FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION CONTAINED IN THIS PLAN AND SPECIFICATIONS.

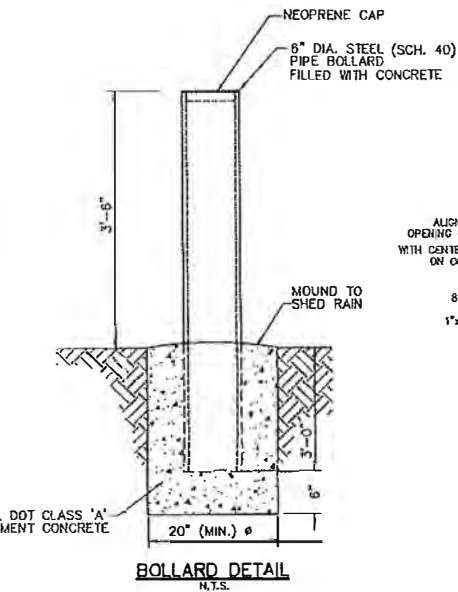
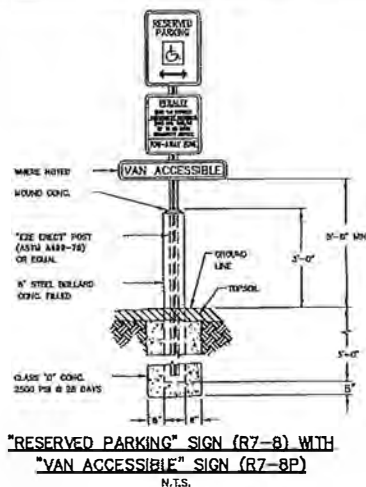
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DISCLAIMER:
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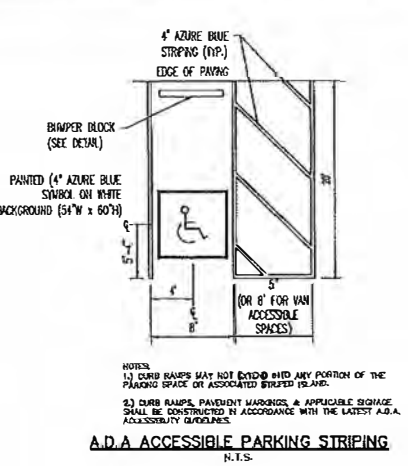
SEE SHEET FOR FACILITY OWNER'S DEMONSTRATED FORCE AGREEMENT AND TELEPHONE NUMBER.

PENNSYLVANIA CALL AUSTIN R.C. PAUL & WILKINS ENGINEERS, P.C. 1-800-242-1776

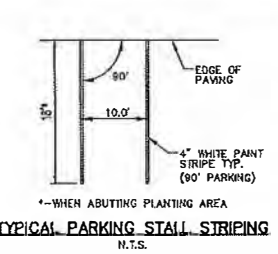
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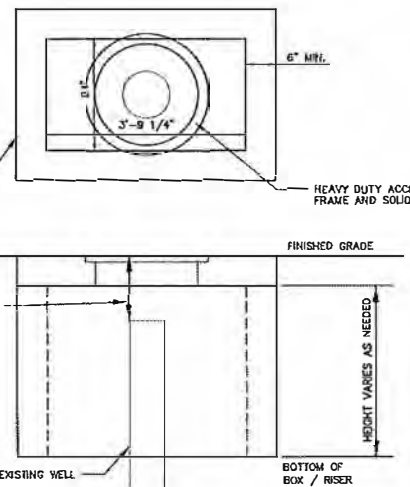
BOLLARD DETAIL
N.T.S.



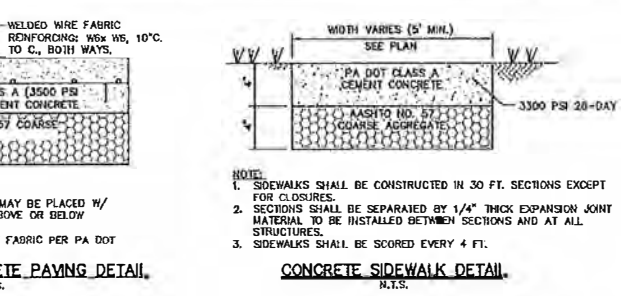
A.D.A. ACCESSIBLE PARKING STRIPING
N.T.S.



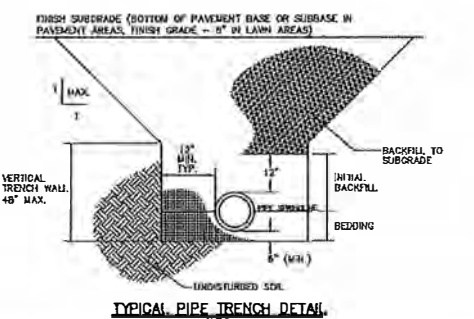
TYPICAL PARKING STALL STRIPING
N.T.S.



WELL ENCLOSURE
N.T.S.



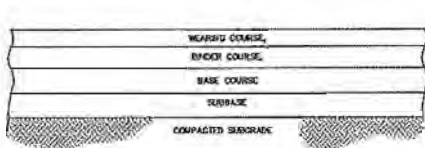
HEAVY DUTY CONCRETE PAVING DETAIL
N.T.S.



TYPICAL PIPE TRENCH DETAIL
N.T.S.

TRENCH REQUIREMENTS (SEE NOTES)				
PIPE TYPE	BEDDING	INITIAL BACKFILL	BACKFILL TO SUBGRADE	BENEATH OTHER AREA
ANY PIPE WITH PUBLIC ROW	ASHTO #5 COARSE AGGREGATE	PA DOT NO. 2A COARSE AGG.	PA DOT NO. 2A COARSE AGG.	PA DOT NO. 2A COARSE AGG.
STORM (METAL)	ASHTO #5 COARSE AGGREGATE	SUITABLE MATERIAL	SUITABLE MATERIAL	SUITABLE MATERIAL
STORM (RCP)	ASHTO #5 COARSE AGGREGATE	PA DOT NO. 2A COARSE AGG.	SUITABLE MATERIAL	SUITABLE MATERIAL
STORM (OTHER)	PA DOT NO. 2A COARSE AGG.	PA DOT NO. 2A COARSE AGG.	SUITABLE MATERIAL	SUITABLE MATERIAL
SANITARY	ASHTO #5 COARSE AGGREGATE	PA DOT NO. 2A COARSE AGG.	SUITABLE MATERIAL	SUITABLE MATERIAL
WATER (DIP)	NONE REQUIRED	PA DOT NO. 2A COARSE AGG.	SUITABLE MATERIAL	SUITABLE MATERIAL
WATER (TUBING)	CEMENT CONCRETE SAND, TYPE A, PA DOT, PUB. 408, § 703.1	CEMENT CONCRETE SAND, TYPE A, PA DOT, PUB. 408, § 703.1	SUITABLE MATERIAL	SUITABLE MATERIAL
OTHER PIPE, CONDUIT	ASHTO #5 COARSE AGGREGATE	PA DOT NO. 2A COARSE AGG.	SUITABLE MATERIAL	SUITABLE MATERIAL

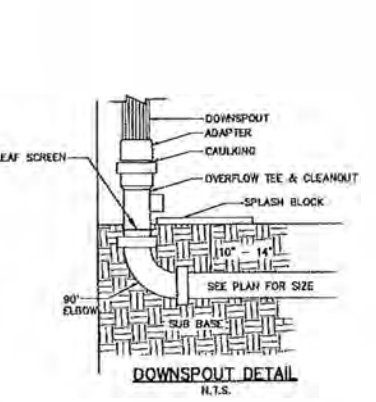
NOTE:
1. ALTERNATIVELY, SHORE TRENCH WALLS PER OSHA OR OTHER APPLICABLE AGENCIES WITH JURISDICTION.
2. SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS FOR "SUITABLE MATERIAL". PA DOT #2 COARSE AGGREGATE MAY BE USED IN LIEU OF "SUITABLE MATERIAL" AT NO ADDITIONAL COST TO OWNER.
3. FOR PIPE TRENCHES WITHIN EX. BITUMINOUS PAVEMENT TO REMAIN, USE PA DOT NO. 2A COARSE AGGREGATE TO BACKFILL TO SUBGRADE.



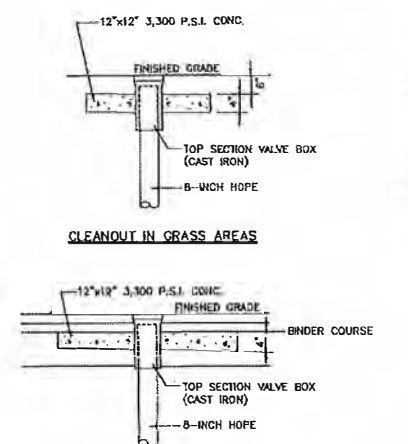
BITUMINOUS PAVEMENT SECTION
N.T.S.

LOCATION		MEDIUM DUTY ON-SITE PARKING AREAS & DRIVEWAYS	
DEPTH			
WEARING: SUPERPAVE ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, PG 64-22, <0.3 MILLION ESALS, 9.5 MM MIX, SRL-L	1 1/2"		
BINDER: SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BINDER COURSE, PG 64-22, <0.3 MILLION ESALS, 9.5 MM MIX, SRL-L	3"		
BASE: BITUMINOUS CONCRETE	NONE		
SUBBASE: Penn DOT 2A STONE BASE	10"		

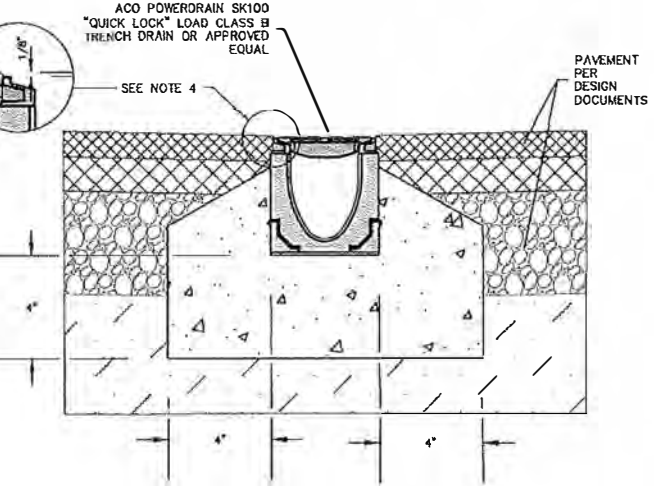
NOTE:
1. PAVEMENT SHOULD BE INSTALLED LATE IN CONSTRUCTION WHEN MOST HEAVY CONSTRUCTION TRAFFIC WILL NO LONGER COME ON-SITE. PRIOR TO PAVING, THE SITE SHOULD BE PROCTORED AGAIN, NEW SOFT AREAS TREATED IN ACCORDANCE WITH SOIL REMEDIATION NOTES ON SHEET 1, THE BASE LEVELED AND THICKENED AS REQUIRED, AND THE SITE PAVED AT THE END OF CONSTRUCTION.
2. FOR PAVEMENT WHERE UNCURBED, EXTEND SUBBASE AND/OR BASE COURSE EIGHT INCHES BEYOND EACH REQUIRED EDGE OF THE BINDER AND SURFACE COURSES.
3. FLEXIBLE (AGGREGATE) BASE SHOULD BE COMPACTED TO 100% OF THE MATERIAL'S MAXIMUM DRY DENSITY AS PER MODIFIED PROCTOR (ASTM D-1557).
4. PAVEMENT MUST BE PLACED OVER WELL PREPARED SUBGRADE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR (ASTM D-698) MAXIMUM DRY DENSITY ELSEWHERE.
5. SEALING MATERIAL FOR FILLING PAVEMENT JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3465 OR D1910. ALTERNATIVELY, LOW MODULUS MATERIALS SUCH AS SILICONE, HOT OR COLD-POURED RUBBERIZED ASPHALT OR NITRILE RUBBER MEETING THE MANUFACTURER'S SPECIFICATIONS MAY BE USED.
6. CAR TRAFFIC SHOULD NOT BE ALLOWED ON THE NEW PAVEMENT FOR AT LEAST 3-DAYS; SIMILARLY NO TRUCK TRAFFIC FOR 7-DAYS.
7. WHERE THE EDGE OF THE TRAIL IS ABOVE THE SURROUNDING GRADE, BITUMINOUS PAVEMENT SHALL BE FEATHERED.



DOWNSPOUT DETAIL
N.T.S.

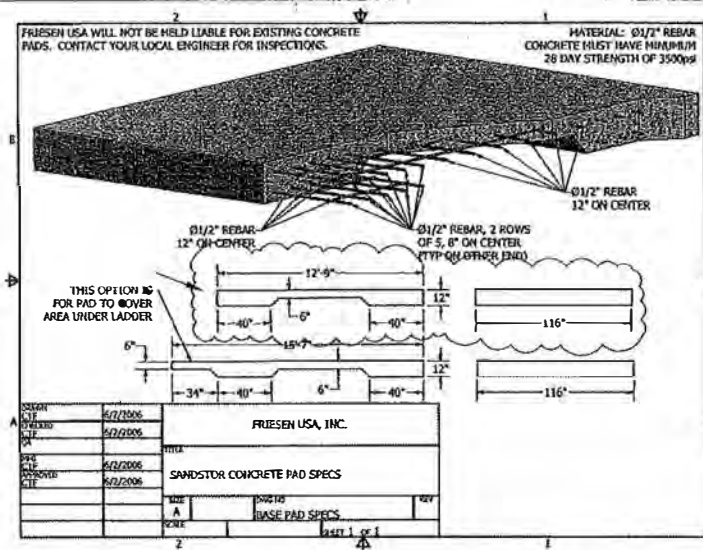


TYPICAL CLEANOUT DETAIL
N.T.S.



NOTE:
1. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND.
2. MINIMUM CONCRETE STRENGTH - 4,000 PSI. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND.
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

TRENCH DRAIN DETAIL
N.T.S.

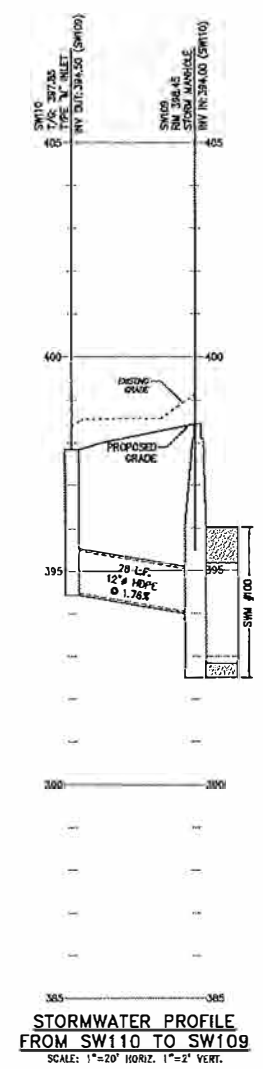


CONCRETE PAD DETAIL
N.T.S.

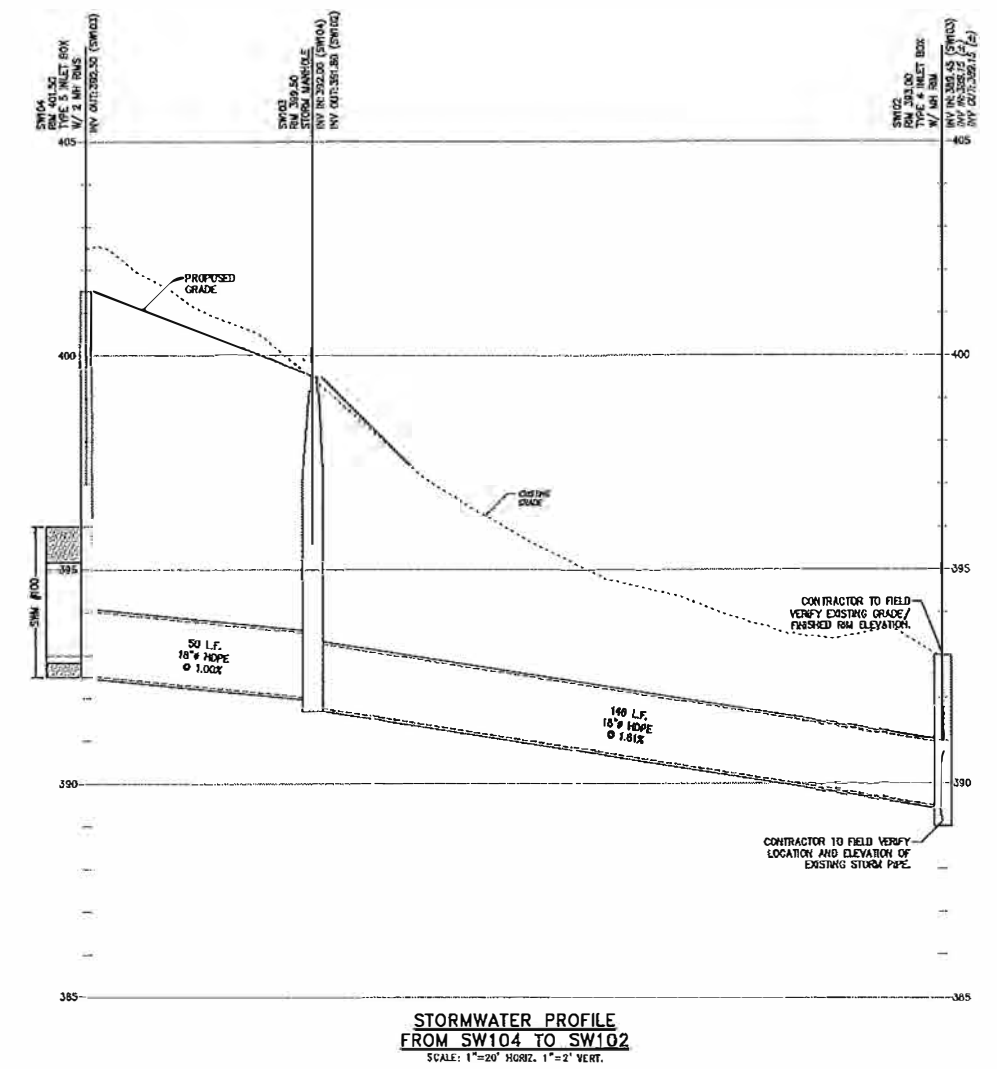
PRELIMINARY/FINAL CONSTRUCTION DETAILS AND NOTES

NO.	DATE	DESCRIPTION
4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BID
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS
1	09/26/22	PRICING SET

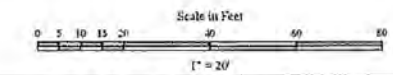
LAND DEVELOPMENT PLANS FOR	
APPLEBROOK GOLF CLUB	
TURF MAINTENANCE AREA	
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA	
CVE ChesterValley	20558-0015
18 Chester Valley Road, P.O. Box 442, York, PA 17404	
717.334.1133 FAX 717.334.1134	
www.cvepa.com	
SCALE ASSNOTED	DATE 07/26/2022
DRAWN BY BMB	CHECKED BY BMB
DATE	DATE



**STORMWATER PROFILE
FROM SW110 TO SW109**
SCALE: 1"=20' HORIZ. 1"=2' VERT.



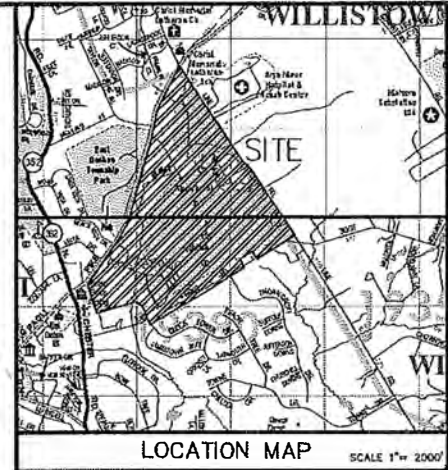
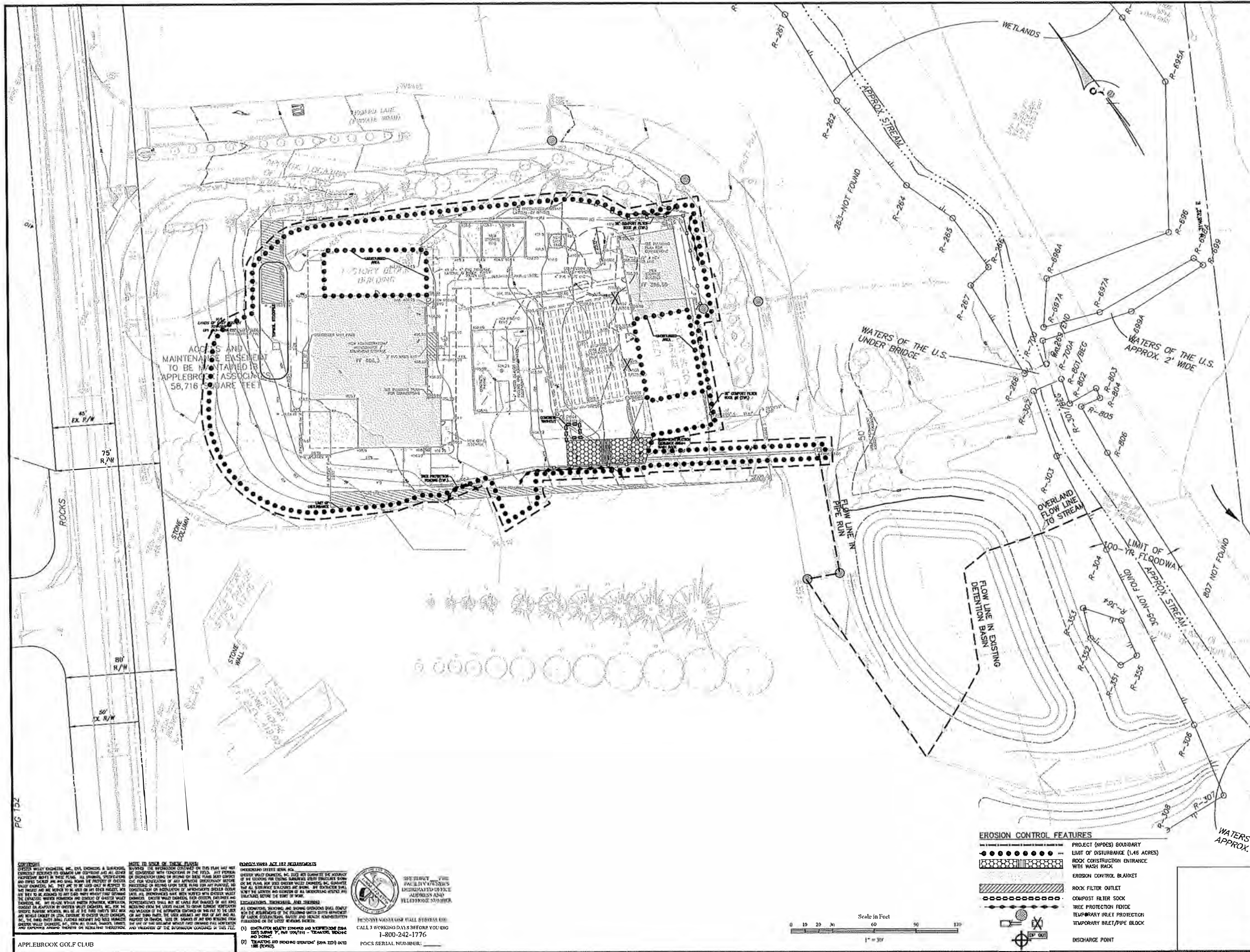
**STORMWATER PROFILE
FROM SW104 TO SW102**
SCALE: 1"=20' HORIZ. 1"=2' VERT.



PRELIMINARY/FINAL
PROFILES

4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS		
3	1/20/23	ISSUED FOR BID		
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS		
1	05/26/22	PRICING SET		
NO.	DATE		REVISION	

LAND DEVELOPMENT PLANS FOR APPLEBROOK GOLF CLUB TURF MAINTENANCE AREA EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA				
 ChesterValley ENGINEERS, INC. 83 Chesnut Road P.O. Box 497, Pott PA 19201 610-415-1423 610-415-2113 Fax www.cveinc.com	PROJECT NO. 20558-0015 F.B.			
SCALE AS NOTED	DATE 01/26/2022	DRAWN BY RRB	CHECKED BY RRB	DESIGNED BY RRB



- LEGEND**
- EXISTING FEATURES**
- EXISTING PROPERTY BOUNDARY
 - EXISTING ADJOINING PROP. LINE
 - EXISTING RIGHT-OF-WAY LINE
 - EXISTING EASEMENT
 - EXISTING SEBACK BOUNDARY
 - EXISTING FLOOD PLAIN
 - EXISTING STREAM LINE
 - EXISTING WETLANDS
 - EXISTING BUILDING
 - EXISTING 2' CONTOURS
 - EXISTING 10' CONTOURS
 - EXISTING SPOT ELEVATION
 - EXISTING SOIL TYPE
 - EXISTING CURB
 - EXISTING EDGE OF PAVEMENT
 - EXISTING FENCE
 - EXISTING GUIDE RAIL
 - EXISTING STORM INLET AND PIPE
 - EXISTING STORM ENDWALL AND PIPE
 - EXISTING SANITARY SEWER
 - EXISTING U/G FIRE LINE
 - EXISTING U/G WATER LINE
 - EXISTING U/G ELECTRIC LINE
 - EXISTING U/G TELEPHONE LINE
 - EXISTING U/G GAS LINE
 - EXISTING OVERHEAD WIRES
 - EXISTING LIGHT POLE
 - EXISTING SIGN
 - EXISTING UTILITY POLE
 - EXISTING PINE TREE
 - EXISTING DECIDUOUS TREE
 - EXISTING TREE & SHRUB LINE
 - EXISTING SLOPES 15% - 25%
 - EXISTING SLOPES 25% +
 - INFILTRATION TEST
- PROPOSED FEATURES**
- PROPOSED BUILDING ADDITION
 - FUTURE BUILDING ADDITION
 - PROPOSED PAVEMENT
 - PROPOSED CONCRETE PAD/SIDEWALK
 - PROPOSED DIRT
 - NUMBER OF PROPOSED STANDARD PARKING SPACES
 - PROPOSED SIGN
 - PROPOSED 2' CONTOURS
 - PROPOSED 10' CONTOURS
 - PROPOSED SPOT ELEVATION
 - PROPOSED STORM PIPE AND INLET
 - PROPOSED STORM PIPE AND MANHOLE
 - PROPOSED STORM PIPE AND CLEANOUT
 - PROPOSED PIPE FLOW ARROW

PRELIMINARY/FINAL
EROSION AND SEDIMENTATION
CONTROL PLAN

4	3/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BID
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS
1	05/26/22	PRICING SET

LAND DEVELOPMENT PLANS
FOR
APPLEBROOK GOLF CLUB
TURF MAINTENANCE AREA
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley
ENGINEERS, INC.
20558-0015

SCALE: 1" = 20'
DATE: 07-26-2022
DRAWN BY: JLD
CHECKED BY: TLD
APPROVED BY: JLD

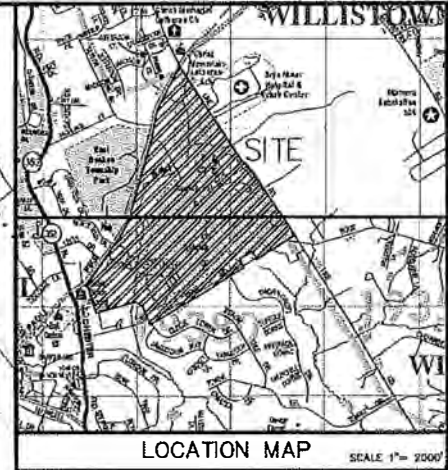
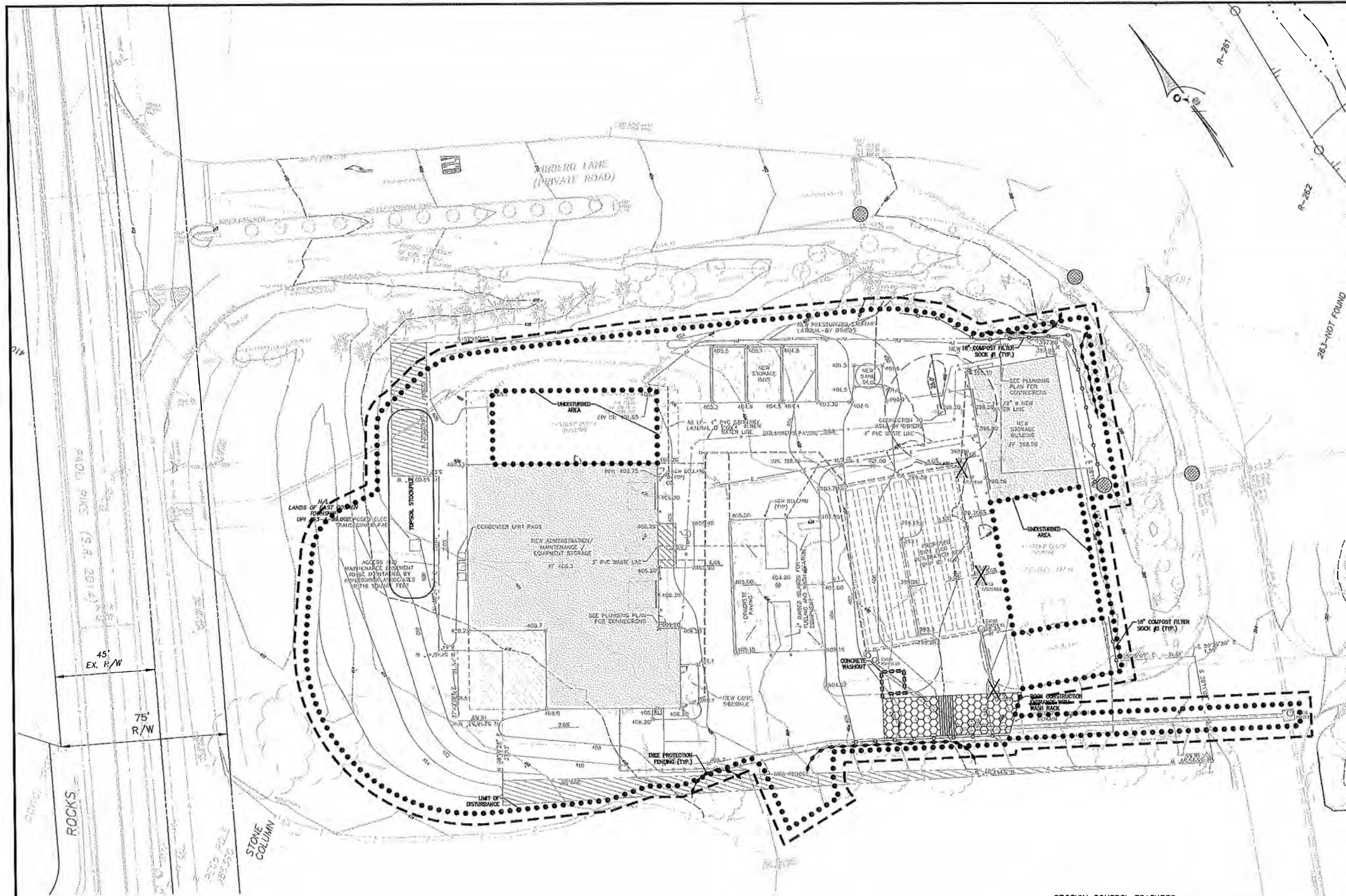
CONTRACTOR
APPLEBROOK GOLF CLUB, INC. HAS AWARDED A CONTRACT TO THE UNDERSIGNED FOR THE PREPARED EROSION AND SEDIMENTATION CONTROL PLAN FOR THE TURF MAINTENANCE AREA. THE UNDERSIGNED HAS REVIEWED THE PLAN AND HAS DETERMINED THAT IT IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PDE) AND THE TOWNSHIP ENGINEER. THE UNDERSIGNED HAS ALSO REVIEWED THE PLAN FOR ACCURACY AND HAS DETERMINED THAT IT IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PDE) AND THE TOWNSHIP ENGINEER. THE UNDERSIGNED HAS ALSO REVIEWED THE PLAN FOR ACCURACY AND HAS DETERMINED THAT IT IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PDE) AND THE TOWNSHIP ENGINEER.

NOTES TO USER OF THIS PLAN:
1. THE INFORMATION CONTAINED ON THIS PLAN WAS PREPARED BY THE UNDERSIGNED FOR THE PURPOSES OF THE PROJECT DESCRIBED HEREIN. IT IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF THE UNDERSIGNED. THE UNDERSIGNED HAS REVIEWED THE PLAN AND HAS DETERMINED THAT IT IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PDE) AND THE TOWNSHIP ENGINEER. THE UNDERSIGNED HAS ALSO REVIEWED THE PLAN FOR ACCURACY AND HAS DETERMINED THAT IT IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PDE) AND THE TOWNSHIP ENGINEER.

PROPOSED VARIATION ACT 187 REQUIREMENTS:
1. THE UNDERSIGNED HAS REVIEWED THE PLAN AND HAS DETERMINED THAT IT IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PDE) AND THE TOWNSHIP ENGINEER. THE UNDERSIGNED HAS ALSO REVIEWED THE PLAN FOR ACCURACY AND HAS DETERMINED THAT IT IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PDE) AND THE TOWNSHIP ENGINEER.

SCALE SHEET
SCALE: 1" = 20'
DATE: 07-26-2022
DRAWN BY: JLD
CHECKED BY: TLD
APPROVED BY: JLD

PG 152



- LEGEND**
- EXISTING FEATURES**
- EXISTING PROPERTY BOUNDARY
 - EXISTING ADJOINING PROP. LINE
 - EXISTING RIGHT-OF-WAY LINE
 - EXISTING EASEMENT
 - EXISTING SEBACK BOUNDARY
 - EXISTING FLOOD PLAIN
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 - EXISTING EDGE OF PAVEMENT
 - EXISTING FENCE
 - EXISTING GUARD RAIL
 - EXISTING STORM INLET AND PIPE
 - EXISTING STORM ENDWALL AND PIPE
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 - EXISTING SLOPES 15% - 25%
 - EXISTING SLOPES 25% +
 - INFILTRATION TEST
- PROPOSED FEATURES**
- PROPOSED BUILDING ADDITION
 - FUTURE BUILDING ADDITION
 - PROPOSED PAVEMENT
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 - PROPOSED STORM PIPE AND INLET
 - PROPOSED STORM PIPE AND MANHOLE
 - PROPOSED STORM PIPE AND CLEANOUT
 - PROPOSED PIPE FLOW ARROW

PRELIMINARY/FINAL
EROSION AND SEDIMENTATION
CONTROL PLAN

NO.	DATE	DESCRIPTION
4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BLD
2	1/10/23	PER TOWNSHIP ENGINEER COMMENTS
1	05/26/22	PRICING SET

LAND DEVELOPMENT PLANS
FOR
**APPLEBROOK GOLF CLUB
TURF MAINTENANCE AREA**
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
20558-0015

SCALE: 1" = 20'
DATE: 05-26-2022
DRAWN BY: RRB
CHECKED BY: TDC
DATE: 05-26-2022

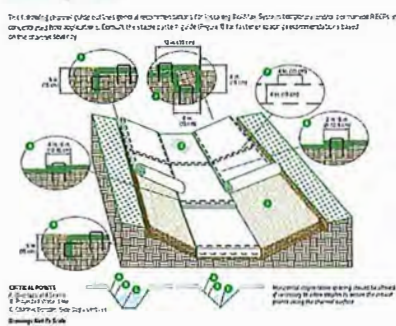
EROSION CONTROL FEATURES

- PROJECT (NPDES) BOUNDARY
- LIMIT OF DISTURBANCE (1.46 ACRES)
- ROCK CONSTRUCTION ENTRANCE WITH WASH RACK
- EROSION CONTROL BLANKET
- ROCK FILTER OUTLET
- COMPOST FILTER SOCK
- TREE PROTECTION FENCE
- TEMPORARY INLET PROTECTION
- TEMPORARY INLET/PIPE BLOCK
- DISCHARGE POINT

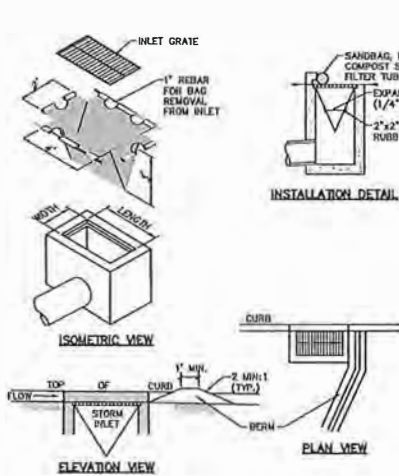
Scale in Feet
1" = 20'

APPENDIX A: EROSION CONTROL MEASURES
1. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
2. EROSION CONTROL MEASURES SHALL BE DESIGNED TO PREVENT EROSION AND SEDIMENTATION FROM THE CONSTRUCTION SITE.
3. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

Channel Installation



- Channel Installation Steps:**
1. Excavate the channel to the required depth and width. The channel should be 12" deep and 18" wide. The channel should be 12" deep and 18" wide. The channel should be 12" deep and 18" wide.
 2. Place the filter bag in the channel. The filter bag should be 12" deep and 18" wide. The filter bag should be 12" deep and 18" wide. The filter bag should be 12" deep and 18" wide.
 3. Place the pump in the channel. The pump should be 12" deep and 18" wide. The pump should be 12" deep and 18" wide. The pump should be 12" deep and 18" wide.
 4. Connect the pump to the discharge. The discharge should be 12" deep and 18" wide. The discharge should be 12" deep and 18" wide. The discharge should be 12" deep and 18" wide.
 5. Turn on the pump. The pump should be 12" deep and 18" wide. The pump should be 12" deep and 18" wide. The pump should be 12" deep and 18" wide.
 6. Monitor the pump. The pump should be 12" deep and 18" wide. The pump should be 12" deep and 18" wide. The pump should be 12" deep and 18" wide.
 7. Turn off the pump. The pump should be 12" deep and 18" wide. The pump should be 12" deep and 18" wide. The pump should be 12" deep and 18" wide.
 8. Remove the filter bag. The filter bag should be 12" deep and 18" wide. The filter bag should be 12" deep and 18" wide. The filter bag should be 12" deep and 18" wide.
 9. Backfill the channel. The channel should be 12" deep and 18" wide. The channel should be 12" deep and 18" wide. The channel should be 12" deep and 18" wide.
 10. Compact the backfill. The backfill should be 12" deep and 18" wide. The backfill should be 12" deep and 18" wide. The backfill should be 12" deep and 18" wide.

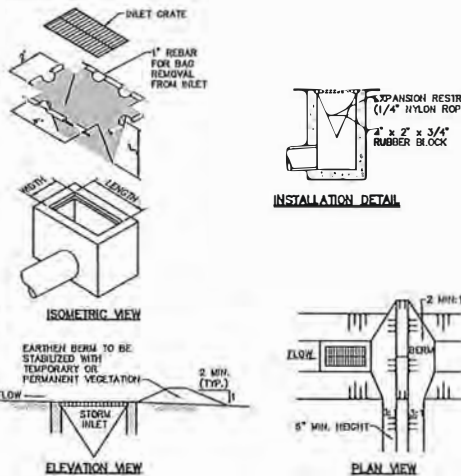


FILTER BAG INLET PROTECTION - TYPE C INLET DETAIL
N.T.S.

NOTES:

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERM SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EXAMINED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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

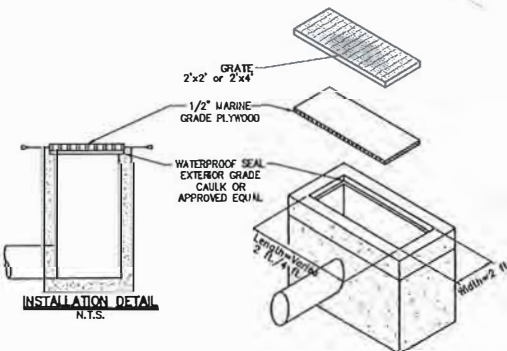


FILTER BAG INLET PROTECTION - TYPE M INLET DETAIL
N.T.S.

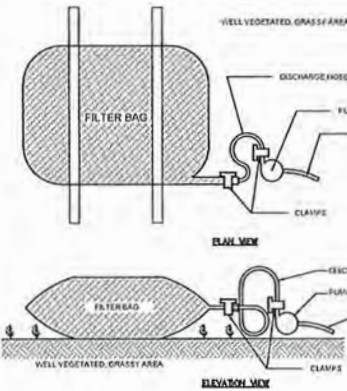
NOTES:

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERM SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EXAMINED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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



INLET TEMPORARY SEAL DETAIL
N.T.S.



PUMPED WATER FILTER BAG DETAIL
N.T.S.

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

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. MADE WIDTH STRENGTH	ASTM D-4564	60 LB/IN
GRAB TENSILE	ASTM D-1632	205 LB
PUNCTURE	ASTM D-1633	110 LB
BALLOON BURST	ASTM D-3768	350 PSI
UV RESISTANCE	ASTM D-4355	70%
ADD % RETAINED	ASTM D-4751	80 SIEVE

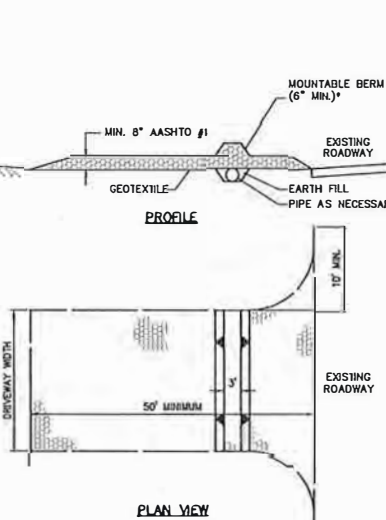
2. A SUITABLE MEANS OF ADDRESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME A FULL OF SEDIMENT. GRAVE BAGS SHALL BE REPLACED FOR REPLACEMENT OF THESE BAGS HAVE FAILED OR ARE FAULTY. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL, UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT AVAILABLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILLER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 4% OR SLOPES EXCEEDING 50% CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

4. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BEHIND BAGS LOCATED IN HO OR BY WATERSHEDS, WITHIN 50 FEET OF ANY RESIDUAL SURFACE WATER OR MUD GRASSY AREA IS NOT AVAILABLE.

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

6. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2" MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
7. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



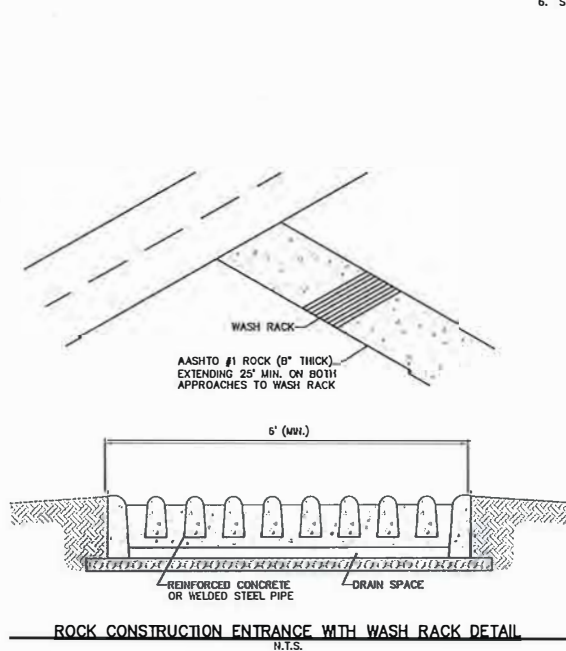
NOTES:

1. MOUNTABLE BERM USED TO PROVIDE COVER FOR PIPE.
1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
2. RUNOFF SHALL BE OVERTURNED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
3. 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 OF ROCK 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.

ROCK CONSTRUCTION ENTRANCE DETAIL

N.T.S.


ROCK CONSTRUCTION ENTRANCE WITH WASH RACK DETAIL
N.T.S.

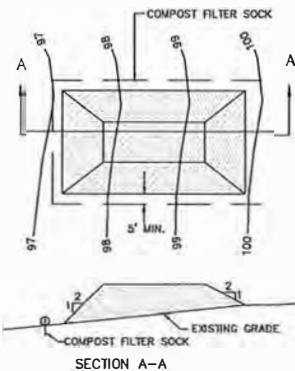
NOTES:

1. WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.
2. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.
3. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE:

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

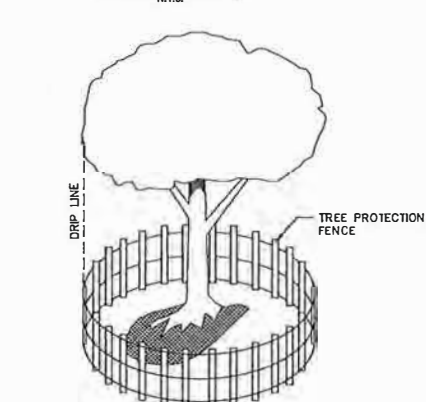
ROCK CONSTRUCTION ENTRANCE DETAIL

N.T.S.


SECTION A-A

- NOTES:**
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
 2. ALL SIDE SLOPES SHALL BE 2:1 OR FLATTER.
 3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQUIREMENTS.
 4. COMPOST FILTER SOCK SHALL BE INSTALLED AS DETAIL HEREON.
 5. LOCATION OF PROPOSED STOCKPILE WHICH AFFECT EROSION CONTROLS ARE SHOWN SCHEMATICALLY ONLY. ACTUAL STOCKPILE LOCATION MAY CHANGE DURING CONSTRUCTION.
 6. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET.

STOCKPILE DETAIL

N.T.S.


TREE PROTECTION FENCE DETAIL
N.T.S.

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 TOWNSHIP ENGINEER / LANDSCAPE ARCHITECT. FENCING OR BARRIERS SHALL BE PLACED AS NOTED BELOW, UNLESS PRIOR DETERMINATION HAS BEEN MADE BY THE TOWNSHIP ENGINEER / LANDSCAPE ARCHITECT REGARDING A MORE APPROPRIATE LOCATION.

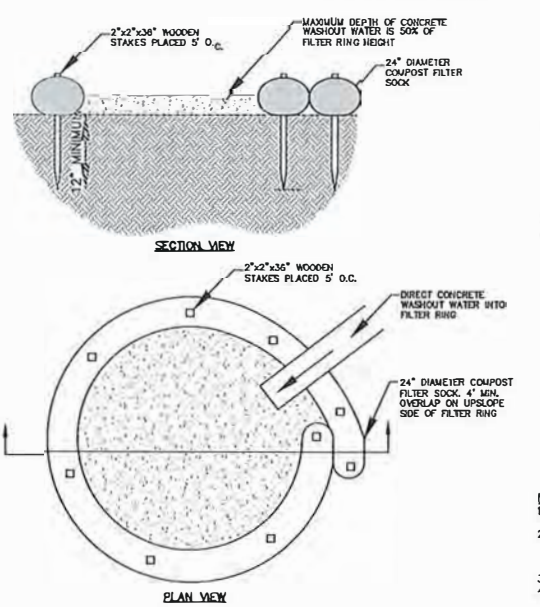
DESCRIPTION: TREES ARE OFTEN DAMAGED BY MOVING CONSTRUCTION EQUIPMENT OR BY SEDIMENT BUILDUP AROUND THE ROOTS. TREE PROTECTION FENCING, WHEN PLACED ALONG OR AROUND TREES, SERVES AS A BOUNDARY MARKER TO INDICATE THAT CLEARING AND STOCKPILING ARE NOT PERMITTED BEYOND THAT POINT.

WHEN USED: TREE PROTECTION FENCE MAY BE USED WHENEVER THERE ARE SPECIFIC TREES OR WOODED AREAS THAT MUST BE PROTECTED.

REQUIREMENTS FOR INSTALLATION: THE TREE PROTECTION FENCE IS INSTALLED BY HAMMERING WOOD OR METAL STAKES INTO THE GROUND AND CONNECTING THE FENCING MATERIAL SECURELY TO THE POSTS PER THE MANUFACTURER'S INSTRUCTIONS.

PLACE THE TREE PROTECTION FENCE ALONG THE DRIPLINES OF TREES OR 1 FOOT FROM THE TREE TRUNK FOR EVERY INCH OF TRUNK DIAMETER, WHICHEVER IS GREATER. A DRIPLINE IS AN IMAGINARY LINE EXTENDING DOWN FROM THE OUTERMOST BRANCHES OF A TREE TO THE GROUND. THIS IS GENERALLY THE OUTER BOUNDARY FOR TREE ROOTS. IF THE TREE PROTECTION FENCE IS PLACED ANY CLOSER TO A TREE, ITS PURPOSE MAY BE DEFEATED.

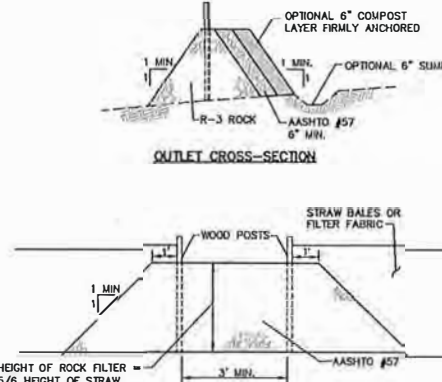
MAINTENANCE: INSPECT THE TREE PROTECTION FENCING PERIODICALLY DURING CONSTRUCTION TO MAKE SURE THAT IT IS POSITIONED SECURELY.



COMPOST FILTER SOCK CONCRETE WASHOUT DETAIL
N.T.S.

NOTES:

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER SILT SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SILT SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.



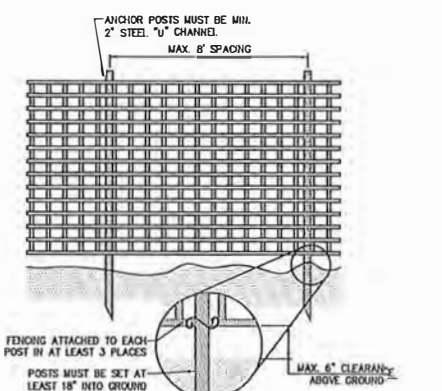
UP SLOPE FACE

ROCK FILTER OUTLET DETAIL

N.T.S.

NOTES:

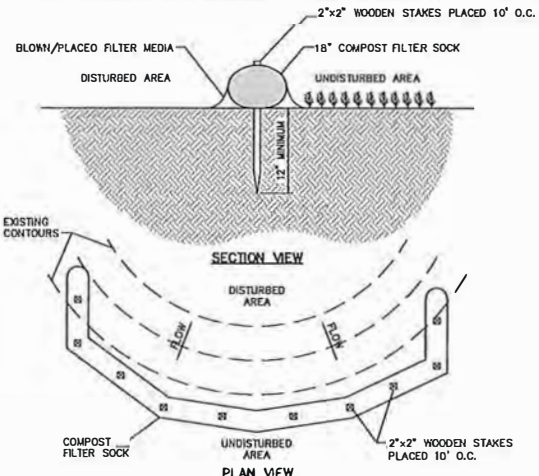
1. A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.
2. IF INSTALLED, INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED WHEN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



NOTES:

1. PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY WEAR MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND/OR SNOW-FENCE MAY BE USED).
2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.

TREE PROTECTION BARRIER FENCE DETAIL

N.T.S.


NOTES:

1. SOCK FABRIC SHALL MEET THE STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF TECH SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
5. 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 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.
8. REFER TO EAS PLAN FOR COMPOST SOCK LOCATIONS, SIZE, IDENTIFICATIONS AND CONSTRUCTION SPECIFICATIONS.

COMPOST FILTER SOCK DETAIL

N.T.S.

TABLE 4.1 - COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HEPE	5 MIL HEPE	5 MIL HEPE	MULTI-FLAMMABLE POLYPROPYLENE (MPP)	HEAVY DUTY POLYPROPYLENE (HPP)
MATERIAL	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12"	18"	18"	18"	18"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
NEEDLE STRENGTH	25 PSI	25 PSI	25 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY & ORIGINAL STRENGTH (ASTM D-155)	23% AT 1000 HR.	23% AT 1000 HR.	23% AT 1000 HR.	100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	6 MONTHS	6 MONTHS	1 YEAR	2 YEARS

TWO-PLY SYSTEMS

INNER CONTAMINANT NETTING	NOPE BLAZAL NET
	CONTINUOUSLY ROLLED
	FUSION-WELDING JUNCTURES
	3/4" x 3/4" MAX. APERTURE SIZE
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FIBERS (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
	3/16" MAX. APERTURE SIZE

TABLE 4.2 - COMPOST STANDARDS

ORGANIC MATTER CONTENT	BOX - 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

PRELIMINARY/FINAL EROSION AND SEDIMENTATION CONTROL DETAILS

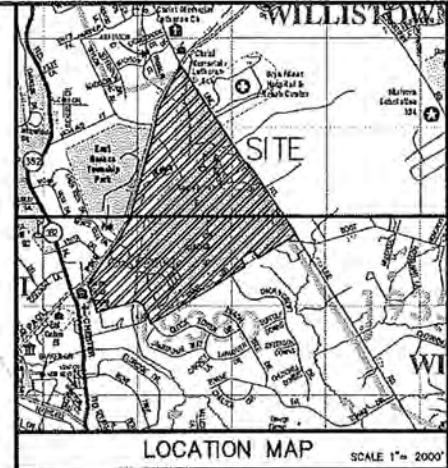
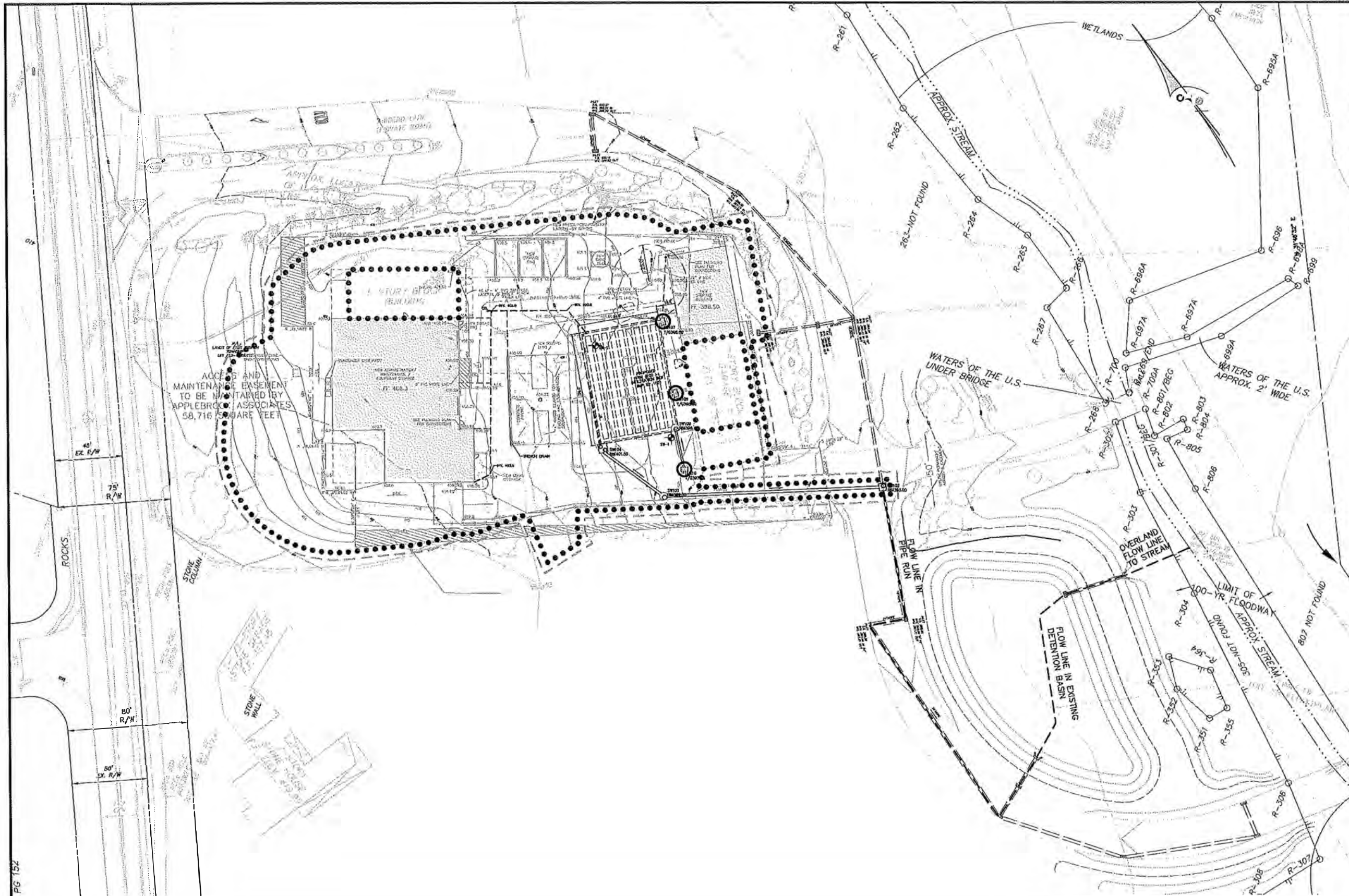
4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS		
3	1/20/23	ISSUED FOR BID		
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS		
1	09/28/22	PRICING SET		
NO.	DATE	REVISION		
LAND DEVELOPMENT PLANS				
FOR				
APPLEBROOK GOLF CLUB				
TURF MAINTENANCE AREA				
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA				
		ChesterValley ENGINEERS, INC.		20558- 0015
		815 Chestnut Road, P.O. Box 417, Pottsville PA 17855 610-664-4623 FAX 610-313-1176 www.cvee.com		F&B
SCALE AS NOTED	DATE 07/26/2022	DRAWN BY RRB	CHECKED BY BBJ	DRAWING

LAND DEVELOPMENT PLANS

FOR APPLEBROOK GOLF CLUB TURF MAINTENANCE AREA

EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA





LEGEND	
EXISTING FEATURES	
	EXISTING PROPERTY BOUNDARY
	EXISTING ADJOINING PROP. LINE
	EXISTING RIGHT-OF-WAY LINE
	EXISTING EASEMENT
	EXISTING SETBACK BOUNDARY
	EXISTING FLOOD PLAIN
	EXISTING STREAM LINE
	EXISTING WETLANDS
	EXISTING BUILDING
	EXISTING 2' CONTOURS
	EXISTING 10' CONTOURS
	EXISTING SPOT ELEVATION
	EXISTING SOIL TYPE
	EXISTING CURB
	EXISTING EDGE OF PAVEMENT
	EXISTING FENCE
	EXISTING GUIDE RAIL
	EXISTING STORM INLET AND PIPE
	EXISTING STORM ENDWALL AND PIPE
	EXISTING SANITARY SEWER
	EXISTING U/G FIRE LINE
	EXISTING U/G WATER LINE
	EXISTING U/G ELECTRIC LINE
	EXISTING U/G TELEPHONE LINE
	EXISTING U/G GAS LINE
	EXISTING OVERHEAD WIRES
	EXISTING LIGHT POLE
	EXISTING SIGN
	EXISTING UTILITY POLE
	EXISTING PINE TREE
	EXISTING DECIDUOUS TREE
	EXISTING TREE & SHRUB LINE
	EXISTING SLOPES 15% - 25%
	EXISTING SLOPES 25% +
	INFILTRATION TEST
PROPOSED FEATURES	
	PROPOSED BUILDING ADDITION
	FUTURE BUILDING ADDITION
	PROPOSED PAVEMENT
	PROPOSED CONCRETE PAD/SIDEWALK
	PROPOSED CURB
	NUMBER OF PROPOSED STANDARD PARKING SPACES
	PROPOSED SIGN
	PROPOSED 2' CONTOURS
	PROPOSED 10' CONTOURS
	PROPOSED SPOT ELEVATION
	PROPOSED STORM PIPE AND INLET
	PROPOSED STORM PIPE AND MANHOLE
	PROPOSED STORM PIPE AND CLEANOUT
	PROPOSED PIPE FLOW ARROW

PRELIMINARY/FINAL
POST-CONSTRUCTION
STORMWATER
MANAGEMENT PLAN

LAND DEVELOPMENT PLANS	
FOR	
APPLEBROOK GOLF CLUB TURF MAINTENANCE AREA	
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA	
4	2/3/23 REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23 ISSUED FOR BID
2	10/05/22 PER TOWNSHIP ENGINEER COMMENTS
1	09/26/22 PRICING SET
NO	DATE
NO	REVISION
PROJECT NO.	
20558-0015	
ChesterValley ENGINEERS, INC.	
81 CHESTNUT STREET, SUITE 200, CHESTER, PA 19381	
610-414-4623 FAX 610-423-9114	
SCALE	DATE
1" = 20'	07-26-2022
DRAWN BY	CHECKED BY
JBW	JBW
DATE	DATE
07-26-2022	07-26-2022

LEAF GUARDS TO BE INSTALLED ON ALL ROOF DOWNSPOUTS CONNECTED TO THE PROPOSED UNDERGROUND STORMWATER CONTROL STRUCTURE.

PCSM FEATURES	
	PROJECT (NPDES) BOUNDARY
	LIMIT OF DISTURBANCE
	DRAINAGE AREA TO SWM #100
	DISCHARGE POINT
	WATER QUALITY INSERT
Scale in Feet	
1" = 30'	

REVISIONS TO THE APPROVED SWM SITE PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE MUNICIPALITY AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN SHALL BE SUBMITTED TO, AND APPROVED BY, THE CONSERVATION DISTRICT OR MUNICIPALITY (AS APPLICABLE) FOR A DETERMINATION OF ADEQUACY PRIOR TO CONSTRUCTION OF THE REVISED FEATURES.

I, NEAL J. CAMENS, P.E., ON THIS DATE 07/26/2023, HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE EAST GOSHEN TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

OWNER _____ DATE _____ NEAL J. CAMENS

PG 152

NOTE TO USER OF THESE PLANS:

CHESTER VALLEY ENGINEERS, INC. (C.V.E.) ENGINEERS, INC. HAS PREPARED THESE PLANS FOR THE PROJECT DESCRIBED HEREIN. THE USER OF THESE PLANS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND FOR OBTAINING ALL NECESSARY INFORMATION FROM THE PROJECT OWNER AND FOR OBTAINING ALL NECESSARY INFORMATION FROM THE PROJECT OWNER AND FOR OBTAINING ALL NECESSARY INFORMATION FROM THE PROJECT OWNER.

DESIGNER: NEAL J. CAMENS, P.E.

PROJECT NO.: 20558-0015

DATE: 07-26-2022

SCALE: 1" = 20'

1-800-242-1776

POCS SERIAL NUMBER: _____

GENERAL NOTES:

- STORMWATER MANAGEMENT DESIGN:
REFER TO THE "POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT", PREPARED BY CHESTER VALLEY ENGINEERS.
- MAINTENANCE NOTES:
 - THE BMP'S LISTED BELOW WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
 - INFILTRATION BED
 - WATER QUALITY FILTER(S)
 - STORM SEWER AND ASSOCIATED STRUCTURES
- DESIGN CONSIDERATIONS:
SUBSURFACE BED DESIGNED TO STORE AND MITIGATE POST-DEVELOPMENT RUNOFF TO RATES LESS THAN THOSE REQUIRED BY TOWNSHIP CODE. SUBSURFACE BED DESIGNED TO MITIGATE THE POST-DEVELOPMENT VOLUME INCREASE DUE TO DEVELOPMENT. WATER QUALITY FILTERS DESIGNED TO FILTER ALL SURFACE RUNOFF.
- THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED TO MEET THE FOLLOWING GOALS AND GUIDELINES:
 - PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF RECEIVING STREAMS.
 - PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF.
 - MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME.
 - MINIMIZE IMPERVIOUS AREAS.
 - MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION.
 - MINIMIZE LAND CLEARING AND GRADING.
 - MINIMIZE SOIL COMPACTION.
 - UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMP'S THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF.
- THE RECEIVING WATER FOR THIS PROJECT IS ROLEY CREEK. THE CHAPTER 93 CLASSIFICATION FOR THIS WATERSHED IS HIGH QUALITY-TROUT STOCKING FISHES (HQ-TSF).
- 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 2601 ET SEQ., 2711 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 WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMP'S. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMP'S, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
- AS-BUILT PLANS OF THE STORMWATER BMP'S SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.
- A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMP'S.
- PCSM REPORTING AND RECORDKEEPING. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.
- FINAL CERTIFICATION. THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 15 P.A.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

- "I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 15 P.A.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."
- (1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
- (2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP'S.
12. UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMP'S IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

- THE NOTICE OF TERMINATION MUST INCLUDE:
- THE FACILITY NAME, ADDRESS AND LOCATION.
 - THE OPERATOR NAME AND ADDRESS.
 - THE PERMIT NUMBER.
 - THE REASON FOR PERMIT TERMINATION.
 - IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP'S IN ACCORDANCE WITH §102.8(4) AND PROOF OF COMPLIANCE WITH § 102.8(4)(2).
- PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM: THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE DEVELOPMENT. THE PROGRAM REQUIRES RETENTION OF ALL SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF DEVELOPMENT ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY ERODIBLE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE APPRAISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA: ALL DISTURBED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY, IMMEDIATELY DURING NON-GERMINATION PERIODS. MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. CRUSHED STONE OR PAVEMENT SUBGRADE IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONES AND VEGETATED REGIONS SHALL BE STABILIZED, PREFERABLY WITH A PERMANENT TREATMENT.

CRITICAL VEGETATION AREAS (CVA)

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

DISPOSAL AND RECYCLING

CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED OR UNUSED CONSTRUCTION MATERIALS. GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED DISPOSAL OR RECYCLING COMPANY, CONTRACTOR SHALL NOT INCORPORATE EXCESS MATERIALS.

- LIKELY WASTE TO BE GENERATED AT THIS SITE:
- UNUSED CONCRETE TO BE PLACED IN CONCRETE WASH-OUT AREAS;
 - EXCESS SILT SOCK AND FENCING MATERIALS;
 - GENERAL RUBBISH AND DEBRIS

THERMAL IMPACT

STORMWATER RUNOFF FROM THE DRIVEWAY AND PARKING AREAS DRAIN TO A SUBSURFACE INFILTRATION BED AND UNDERGROUND STORM DRAIN PIPES. THEREFORE, THE INITIAL RUNOFF THAT IS MOST LIKELY TO BE WARMER IS SENT UNDERGROUND AND NOT DISCHARGED TO THE WATER-COURSE. FURTHER, THE REDUCTION OF IMPERVIOUS SURFACES LESSENS THE POTENTIAL OF THERMAL IMPACTS. WATER HAS TIME TO COOL PRIOR TO LEAVING THE SITE AND DRAINING TO THE WATER COURSE.

SPECIAL GEOLOGIC AND SOIL CONDITIONS

NO SPECIAL SOIL OR GEOLOGICAL ISSUES ARE KNOWN.

POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) LONG-TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

- UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMP'S ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.
- THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMP'S UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMP'S.
- FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHEN WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMP'S AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY THE SUBSEQUENT GRANTEE, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER § 102.7(h)(5) (RELATING TO PERMIT TERMINATION).
- THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMP'S OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP'S LOCATED ON THE PROPERTY.
- IN THE EVENT THAT THE BMP IS NOT FUNCTIONING PROPERLY, THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE SHALL BE REQUIRED TO REPAIR OR REPLACE THE BMP TO ENSURE FUNCTION AND OPERATION.
- THE PERMITTEE SHALL BE REQUIRED TO SUBMIT A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES TO THE TOWNSHIP, CONSERVATION DISTRICT, AND THE DEPARTMENT UPON REQUEST.

BMP FAILURE NOTES (PER PROTOCOL 2 OF THE BMP MANUAL)

THE TERM "FAILURE" FOR THE PROPOSED SUBSURFACE BED SHALL BE DEFINED AS:

- THE LOSS OF FUNCTIONALITY OF THE PROPOSED OUTLET STRUCTURE OR DISCHARGE PIPE.
- THE LOSS OF STRUCTURAL INTEGRITY OF THE STONE AND PIPES
- THE ACCUMULATION OF SEDIMENT, TRASH OR DEBRIS IN PERIMETER DRAINAGE STRUCTURES.
- STANDING WATER IS OBSERVED IN THE BASIN AFTER 72 HOURS

THE PERMITTEE SHALL MAKE THE NECESSARY REPAIRS TO THE OUTLET STRUCTURE, DISCHARGE PIPING, STONE, AND PERFORATED PIPE AS NEEDED. IF STANDING WATER IS OBSERVED AFTER 72 HOURS, CONSULT ENGINEER FOR REMEDIATION OF THE UNDERGROUND BED.

THE TERM "FAILURE" FOR THE PROPOSED WATER QUALITY INLETS (FILTER INSERTS) SHALL BE DEFINED AS:

- DISCOVERY EVIDENCE OF DAMAGED FILTER MEDIA
- DISCOVERY EVIDENCE OF THE FILTER MEDIA'S INABILITY TO SUPPORT ACCUMULATED SEDIMENT OR DEBRIS.

THE PERMITTEE SHALL REPAIR BMP FAILURE BY REPLACING THE FILTER MEDIA IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

POST CONSTRUCTION STORMWATER MANAGEMENT REPORTING AND RECORD KEEPING

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES MUST BE PROVIDED AS PART OF THE LONG-TERM OPERATION AND MAINTENANCE PROGRAM.

THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, INSPECTION REPORTS, AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

WATER QUALITY INLETS (FILTER INSERTS)

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN ALL WATER QUALITY INLETS ON SITE.

INSPECTION REQUIREMENTS

- WATER QUALITY INLET INSERTS SHOULD BE INSPECTED THREE TIMES PER YEAR.
 - DURING THE THREE ROUTINE INSPECTIONS, THE FILTER MEDIA SHALL BE CLEANED.
 - ONE REGULAR CHANGE AND DISPOSAL OF THE FILTER MEDIA SHALL OCCUR DURING THE CALENDAR YEAR AS WELL.

BMP FAILURE

- BMP FAILURE IS DEFINED AS DISCOVERING EVIDENCE OF TORN FILTER FABRIC OR FILTER MEDIA INABILITY TO SUPPORT ACCUMULATED SEDIMENT OR DEBRIS.
- REPAIR BMP FAILURE BY REPLACING THE FILTER MEDIA IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

GENERAL MAINTENANCE NOTES

- WATER QUALITY INLET INSERTS SHALL BE CHECKED TO ENSURE THEY ARE SECURELY FASTENED DURING EACH INSPECTION.
- RECOMMENDED MAINTENANCE IS PERFORMED INCLUDING REMOVAL AND DISPOSAL OF THE FILTER MEDIA OR EXCESS MATERIAL BY PERSONNEL.

DISPOSAL

- DISPOSAL OF REMOVED MATERIAL WILL DEPEND ON THE NATURE OF THE DRAINAGE AREA AND THE INTENT AND FUNCTION OF THE WATER QUALITY INSERT.
- MATERIAL REMOVED FROM WATER QUALITY INSERTS THAT SERVE "HOT SPOTS" SUCH AS FUELING STATIONS THAT RECEIVE A LARGE AMOUNT OF DEBRIS SHOULD BE HANDLING ACCORDING TO DEP REGULATIONS FOR THAT TYPE OF SOLID WASTE, SUCH AS A LANDFILL THAT IS APPROVED BY DEP TO ACCEPT SOLID WASTE. WATER QUALITY INSERTS THAT PRIMARILY CATCH SEDIMENT AND DETRITUS FROM AREAS SUCH AS LAWNS MAY REUSE THE WASTE ON SITE.

CONSTRUCTION SEQUENCE

- REMOVE THE GRATE OF THE INSTALLED INLET AND SET IT TO THE SIDE.
- REMOVE DEBRIS AND LITTER FROM THE INLET.
- CLEAN OFF THE GRATE BEARING LEDGE.
- LOWER THE FILTER ASSEMBLY INTO THE INLET UNTIL THE ASSEMBLY'S SUPPORT FLANGE RESTS ON THE GRATE BEARING LEDGE.
- ENSURE THAT THE FOUR FILTER MEDIUM CARTRIDGES ARE ATTACHED TO THE D-RINGS IN THE BOTTOM CORNERS OF THE FILTER ASSEMBLY.
- CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER TO VERIFY INSTALLATION OF WATER QUALITY INSERTS.
- REPLACE THE INLET GRATE.

SUBSURFACE INFILTRATION BED (SWM #100)

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM(S).

SPECIFICATIONS

- AGGREGATE: AGGREGATE FOR BEDS SHALL BE 3/8 INCH TO 3/4 INCH UNIFORMLY GRADED COARSE AGGREGATE, AASHTO NUMBER 57 PER TABLE 4. AASHTO SPECIFICATIONS, PART 1, 13TH ED., 1998 (P. 47).
- NON-WOVEN GEOTEXTILE: SHALL CONSIST OF NEEDLED NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:
 - STANDARD DENSITY STRENGTH (ASTM-D4632): 120 LBS.
 - MULLEN BURST STRENGTH (ASTM-D3786): 225 PSI
 - FLOW RATE (ASTM-D4491): 95 GPM/FT²
 - UV RESISTANCE AFTER 500 HOURS (ASTM-D4355X): 70X
 - HEAT-SET OR HEAT-CALCARED FABRICS ARE NOT PERMITTED. ACCEPTABLE TYPES INCLUDE MIRAFIX 140N, AMOCO 4547, AND GEOTEX 451.
- STORAGE PIPE: SHALL BE CONTINUOUSLY PERFORATED, SMOOTH INTERIOR, HIGH-DENSITY POLYETHYLENE (HDPE) PIPE SHALL MEET AASHTO M252, TYPE S OR AASHTO M294, TYPE S.

INSPECTION REQUIREMENTS

- ALL STORMWATER MANAGEMENT SYSTEMS SHALL BE INSPECTED ANNUALLY, OR AFTER EACH RAINFALL EVENT IN EXCESS OF TWO (2") INCHES (MAJOR STORM EVENT), FOR TRASH AND DEBRIS; ANY DISCOVERED TRASH OR DEBRIS SHALL BE REMOVED IMMEDIATELY.

GENERAL MAINTENANCE NOTES

- ACCESS FOR VIEWING OR VACUUMING IS PROVIDED THROUGH OBSERVATION PORTS AND STORM MANHOLES.
- REMOVE SEDIMENT/TRASH/DEBRIS FROM PERIMETER DRAINAGE STRUCTURES AND OUTLET STRUCTURE.
- THE OVERLYING VEGETATION OF SUBSURFACE INFILTRATION FEATURES SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE.
- VEHICULAR ACCESS ON SUBSURFACE INFILTRATION AREAS SHOULD BE PROHIBITED IN UNPAVED AREAS, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. IF CONTINUAL ACCESS IS NEEDED, USE OF PERMEABLE, TURF REINFORCEMENT SHOULD BE CONSIDERED.
- CONTACT QUALIFIED ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.

CONSTRUCTION SEQUENCE

- INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- INSTALL CONSTRUCTION FENCING AROUND PERIMETER OF INFILTRATION AREA TO PREVENT CONSTRUCTION TRAFFIC FROM COMPACTING EXISTING SUBGRADE AREAS.
- INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, STORAGE PIPE, AND ALL OTHER NECESSARY STORMWATER STRUCTURES.
- CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER PRIOR TO PLACEMENT OF GEOTEXTILE, GEOTEXTILE STORAGE PIPES, AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUB GRADE PREPARATION AND INSTALLATION OF STRUCTURES. GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS.
- CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 6-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM.
- APPROVED SOIL MEDIA OR PAVEMENT BASE COURSES SHOULD BE PLACED OVER DETENTION BED IN MAXIMUM 6-INCH LIFTS. SEED AND STABILIZE AREA IF APPLICABLE.
- DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

STORM SEWER

INSPECTION REQUIREMENTS

- ALL STORM COLLECTION STRUCTURES SHALL BE INSPECTED ANNUALLY, OR AFTER EACH RAINFALL EVENT IN EXCESS OF TWO (2") INCHES (MAJOR STORM EVENT), FOR TRASH, DEBRIS OR EVIDENCE OF PIPE LEAKAGE OR SAGGING; REMOVE TRASH OR DEBRIS IMMEDIATELY; IMMEDIATELY REPAIR OR REPLACE LEAKING/SAGGING DRAINAGE FEATURES.

GENERAL MAINTENANCE NOTES:


- ACCESS CAN BE GAINED TO EACH COLLECTION STRUCTURE, THROUGH THE REMOVABLE INLET GRATE OR MANHOLE LID. STEEL OR OTHER APPROVED RUNGS HAVE BEEN INSTALLED ON THE INSIDE OF EACH STRUCTURE OVER FOUR FEET DEEP FOR ANY NECESSARY ENTRY. GRATES AND LIDS SHALL BE REPLACED SECURELY IMMEDIATELY AFTER MAINTENANCE.
- CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED. IF SEDIMENT/TRASH/DEBRIS IS FOUND IN THE CONVEYANCE SYSTEM, THE SYSTEM SHALL BE JETTED AND VACUUMED TO REMOVE ALL SEDIMENT/TRASH/DEBRIS AND DISPOSAL OF APPROPRIATELY.
- REFER TO WATER QUALITY INLET MAINTENANCE GUIDELINES FOR ADDITIONAL DETAIL IN CLEANING OF THOSE STRUCTURES WITH WATER QUALITY APPARATUS INSTALLED.

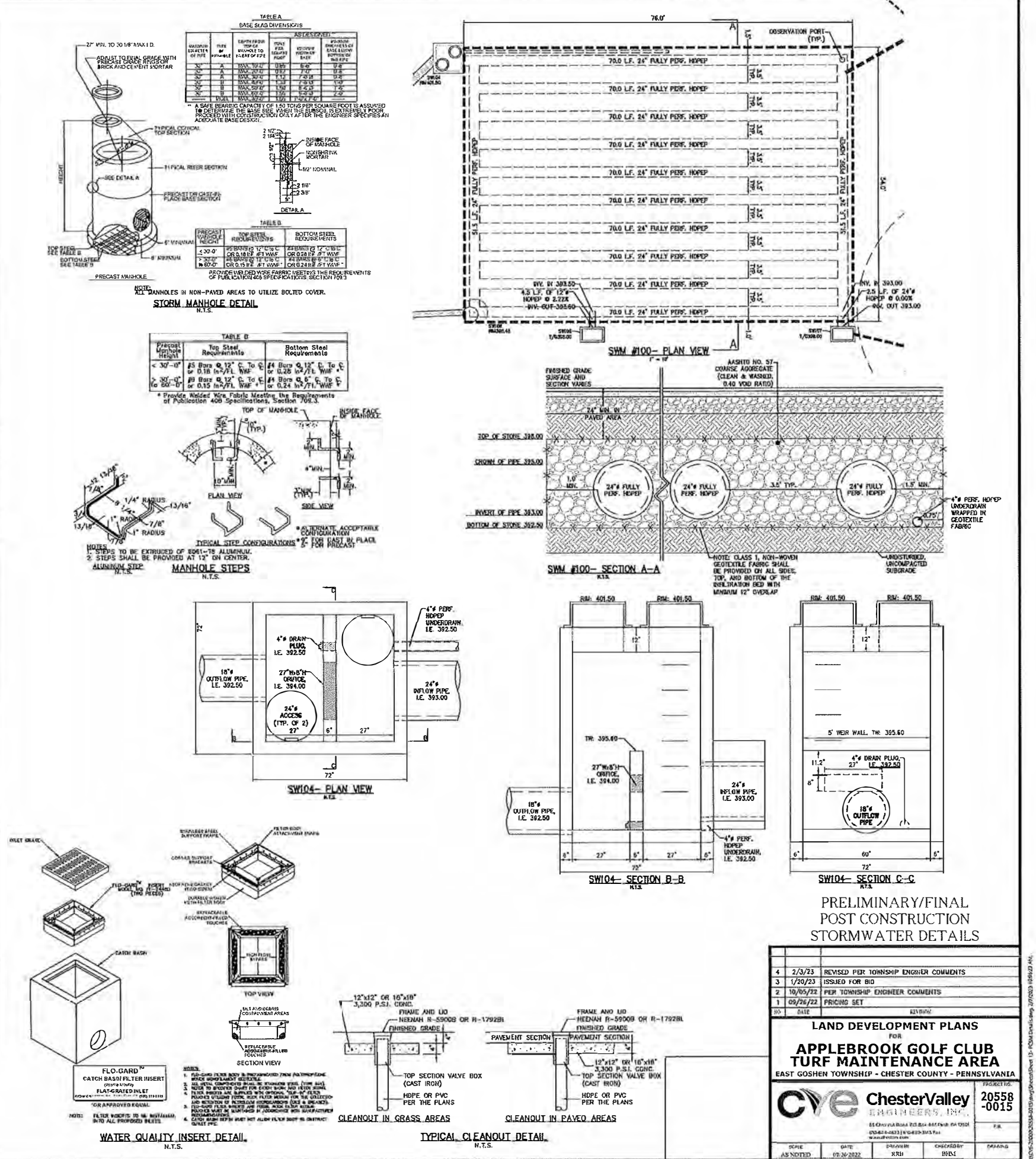
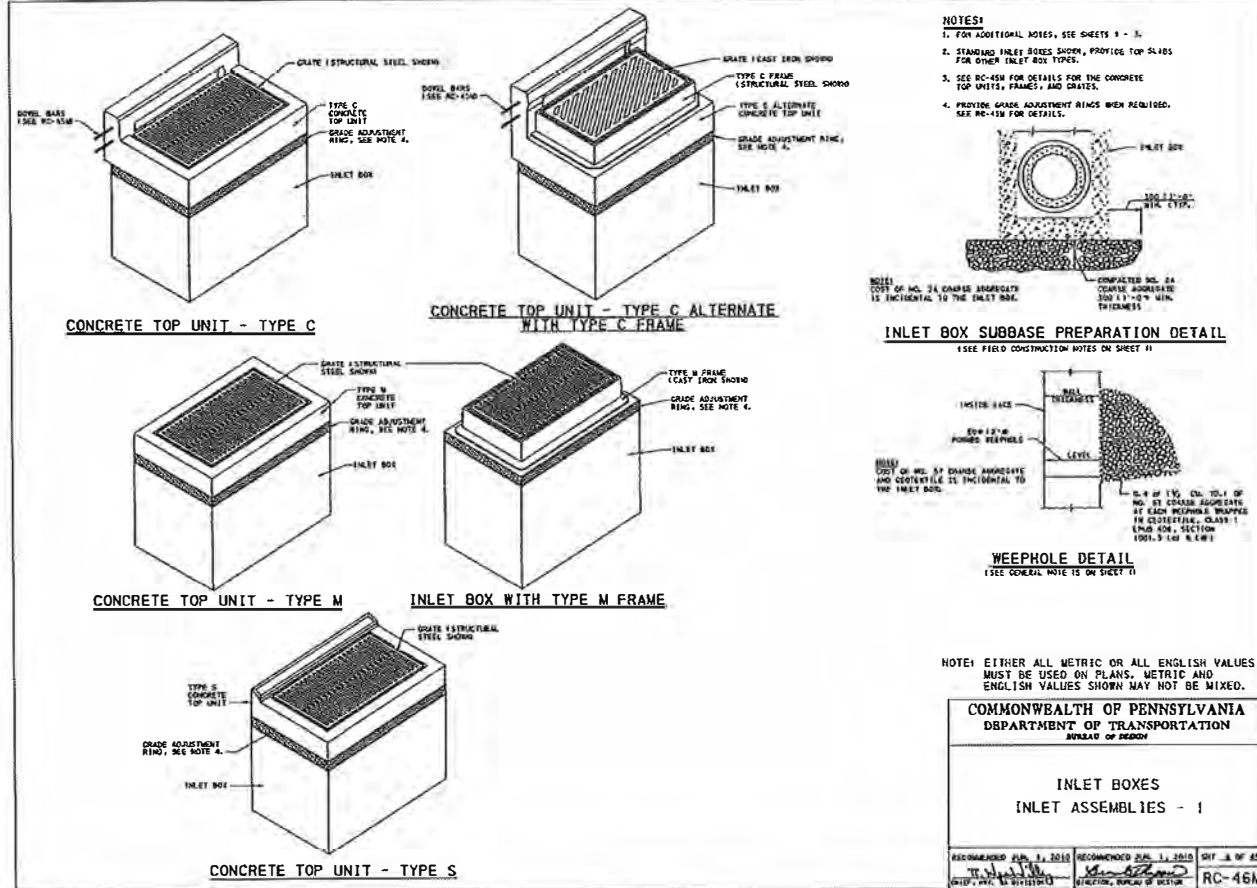
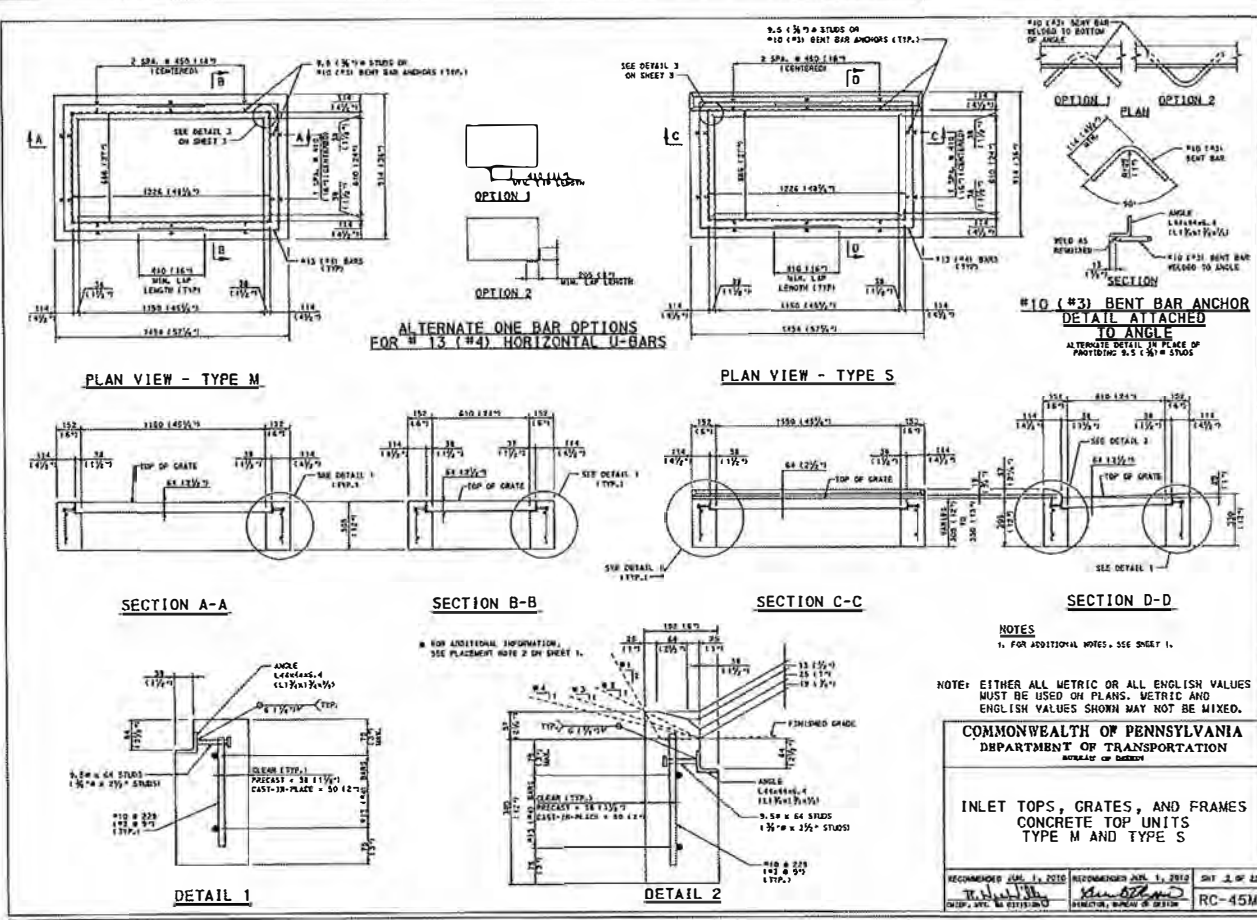
CRITICAL STAGES OF CONSTRUCTION

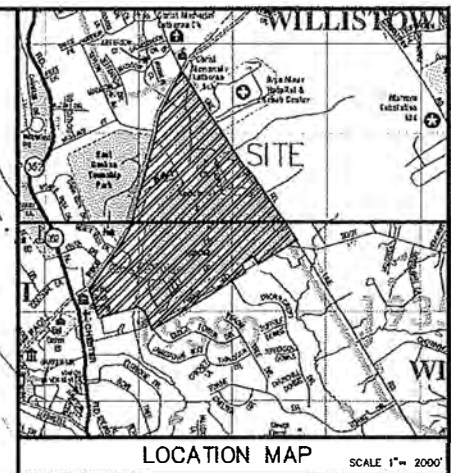
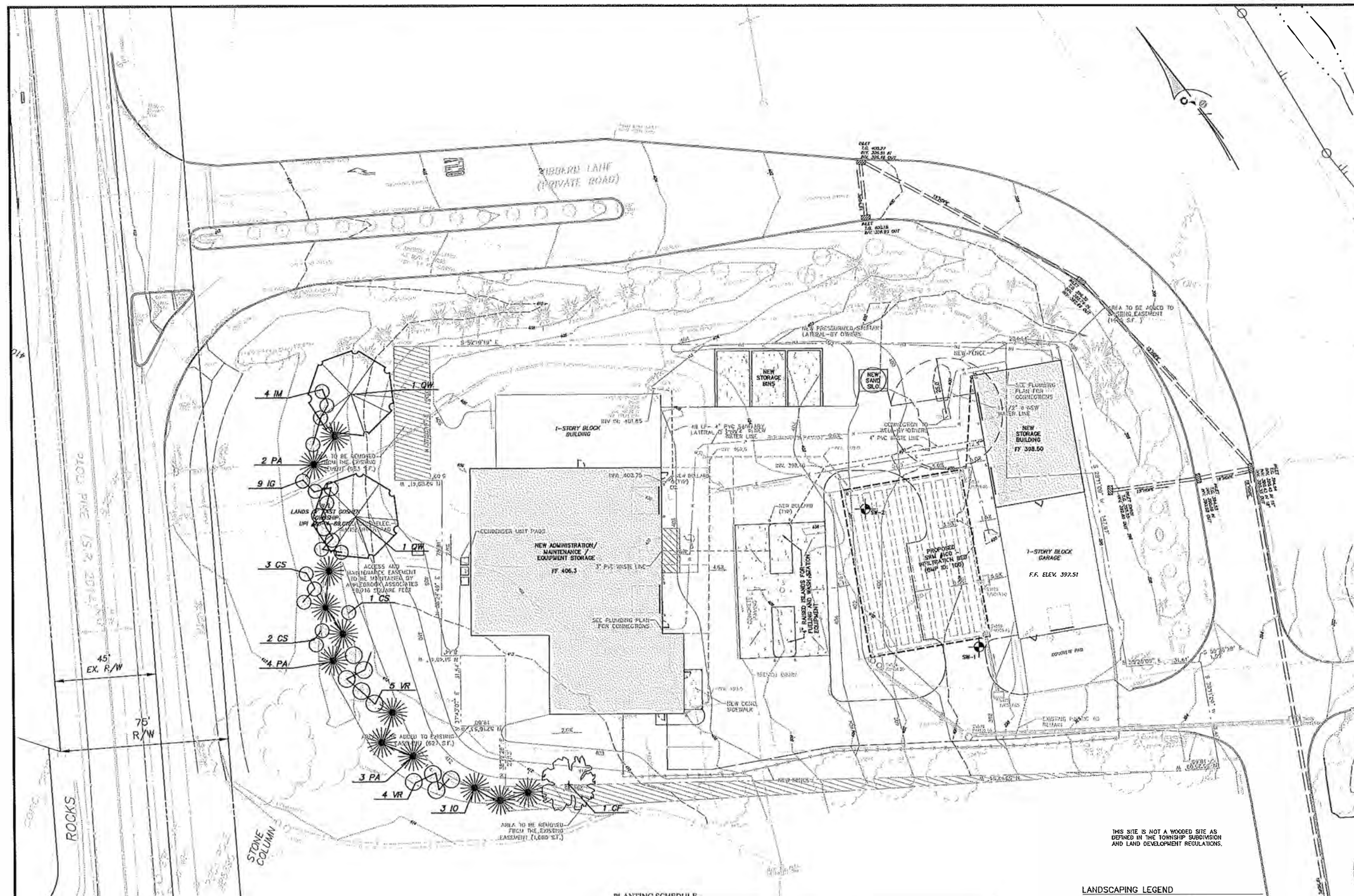
A LICENSED ENGINEER OR HIS DESIGNEE SHALL BE PRESENT TO OBSERVE AND VERIFY INSTALLATION AND CONSTRUCTION OF THE PCSM PLAN AT THE FOLLOWING CRITICAL STAGES:

- EXCAVATION AND FINAL GRADING OF SWM #100.
- PLACEMENT OF GEOTEXTILE FABRIC, STONE AND DISTRIBUTION PIPE INSIDE SWM #100.
- INSTALLATION OF WATER QUALITY INLET FILTERS.
- FOLLOWING CONSTRUCTION, ENGINEER TO VERIFY THAT ALL PCSM BMP'S ARE INSTALLED, FUNCTIONING, AND HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES.

PRELIMINARY/FINAL OPERATIONS AND MAINTENANCE PLAN

4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS	
3	1/20/23	ISSUED FOR BID	
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS	
1	09/26/22	PRICING SET	
20	DATE	REVISION	
LAND DEVELOPMENT PLANS FOR APPLEBROOK GOLF CLUB TURF MAINTENANCE AREA EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA			
		20558 -0015	
SCALE		DATE	DRAWN BY
AS NOTED	07/26/2022	RMB	CHECKED BY
			DATE





LEGEND

EXISTING FEATURES

-
1. EXISTING PROPERTY BOUNDARY
 2. EXISTING ADJOINING PROP. LINE
 3. EXISTING RIGHT-OF-WAY LINE
 4. EXISTING EASEMENT
 5. EXISTING SETBACK BOUNDARY
 6. EXISTING FLOOD PLAIN
 7. EXISTING STREAM LINE
 8. EXISTING WETLANDS
 9. EXISTING BUILDING
 10. EXISTING 2" CONTOURS
 11. EXISTING 10' CONTOURS
 12. EXISTING SPOT ELEVATION
 13. EXISTING SOIL TYPE
 14. EXISTING CURB
 15. EXISTING EDGE OF PAVEMENT
 16. EXISTING FENCE
 17. EXISTING GUIDE RAIL
 18. EXISTING STORM INLET AND PIPE
 19. EXISTING STORM ENDWALL AND PIPE
 20. EXISTING SANITARY SEWER
 21. EXISTING U/G FIRE LINE
 22. EXISTING U/G WATER LINE
 23. EXISTING U/G ELECTRIC LINE
 24. EXISTING U/G TELEPHONE LINE
 25. EXISTING U/G GAS LINE
 26. EXISTING OVERHEAD WIRES
 27. EXISTING LIGHT POLE
 28. EXISTING SIGN
 29. EXISTING UTILITY POLE
 30. EXISTING PINE TREE
 31. EXISTING DECIDUOUS TREE
 32. EXISTING TREE & SHRUB LINE
 33. EXISTING SLOPES 15% - 25%
 34. EXISTING SLOPES 25% +
 35. INFILTRATION TEST

PROPOSED FEATURES

-
- PLAN
- PROPOSED BUILDING ADDITION
- FUTURE BUILDING ADDITION
- PROPOSED PAVEMENT
- PROPOSED CONCRETE PAD/SIDEWALK
- PROPOSED CURB
- NUMBER OF PROPOSED STANDARD PARKING SPACES
- PROPOSED SIGN
- PROPOSED 2" CONTOURS
- PROPOSED 10" CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW

PRELIMINARY/FINAL
LANDSCAPE PLAN

4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BID
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS
1	03/26/22	PRICING SET

LAND DEVELOPMENT PLANS

FOR

APPLEBROOK GOLF CLUB TURF MAINTENANCE AREA

EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA



20558
-0015

85 Chesnut Road, P.O. Box 447, Pease, ME 05461 603-621-4625 / 603-620-3113 Fax www.mhfi.com				10
SCALE 1" = 20'	DATE 07-26-2022	DRAWN BY RRB	CHECKED BY BHM	(4/20/20)

SHEET 14 OF 19

PLANTING SCHEDULE

<u>SYMBOL</u>	<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>QUANT</u>	<u>SIZE</u>	<u>ROOT</u>	<u>NOTES</u>
CANOPY TREES						
WV	<i>Quercus grisea</i>	Widow Oak	2	2" - 3" Cal.	B & B	
FLOWERING TREES						
CF	<i>Cornus florida</i>	Flowering Dogwood	1	8'	B & B	
EVERGREEN TREES						
PA	<i>Picea abies</i>	Norway Spruce	9	8'	B & B	
IO	<i>Ilex opaca</i>	American Holly	3	8'	B & B	
SHRUBS						
CS	<i>Cornus alternifolia</i>	Red Twig Dogwood	6	36"	Can	
IC	<i>Ilex glabra</i>	Hamamelis Holly	1	36"	Can	
IM	<i>Ilex max. Blue Prince/Princess</i>	Blue Prince/Princess Holly	4	36"	Can	
VR	<i>Viburnum thyrsifolium</i>	Lespedeza Viburnum	9	36"	Can	

LANDSCAPING LEGEND



PROPOSED CANOPY TREE

PROPOSED EVERGREEN TREE

PROPOSED SURVIV

Scale in Feet

6

DISPOSABLE
DIXTER WILLY DISPOSAL, INC., ONE DIXON RD. & GUYARD, FORTSMITH, ARKANSAS 72901, HAS OBTAINED A LICENSE FROM THE ARKANSAS DEPARTMENT OF REVENUE AND TAXES TO OPERATE AS A WASTE DISPOSAL AND REUSE FACILITY. THE FACILITY IS LOCATED ON THE WEST SIDE OF THE ARKANSAS RIVER, ABOUT 10 MILES FROM THE CITY OF FORTSMITH. THE FACILITY WILL BE USED TO ACCEPT AND PROCESS ALL TYPES OF SOLID WASTE, INCLUDING HOUSEHOLD WASTE, BUSINESS WASTE, INDUSTRIAL WASTE, AND OTHER TYPES OF WASTE. THE FACILITY WILL BE USED TO PROCESS AND REUSE WASTE MATERIALS, INCLUDING SOIL, SAND, GRAVEL, AND OTHER TYPES OF WASTE MATERIALS. THE FACILITY WILL BE USED TO PROCESS AND REUSE WASTE MATERIALS, INCLUDING SOIL, SAND, GRAVEL, AND OTHER TYPES OF WASTE MATERIALS. THE FACILITY WILL BE USED TO PROCESS AND REUSE WASTE MATERIALS, INCLUDING SOIL, SAND, GRAVEL, AND OTHER TYPES OF WASTE MATERIALS.

[illegible]

KEY	Quercus (Pino)
FLOWERING TREES	
CF	Cornus florida
EVERGREEN TREES	
PA	Pinus strobus
IO	Ilex opaca
SHRUBS	
CS	Cornus sibirica
IG	Ilex glabra Shamelk
US	Ulmus americana

Willow Oak	2	2 5' - 3' Cal.	B & B
Flowering Dogwood	1	8'	B & B
Pinney Spruce	9	8'	B & B
American Holly	9	8'	B & B
Red Twig Dogwood	6	38'	Can
Inkberry Holly	9	38'	Can

PROPOSED EVERAGE

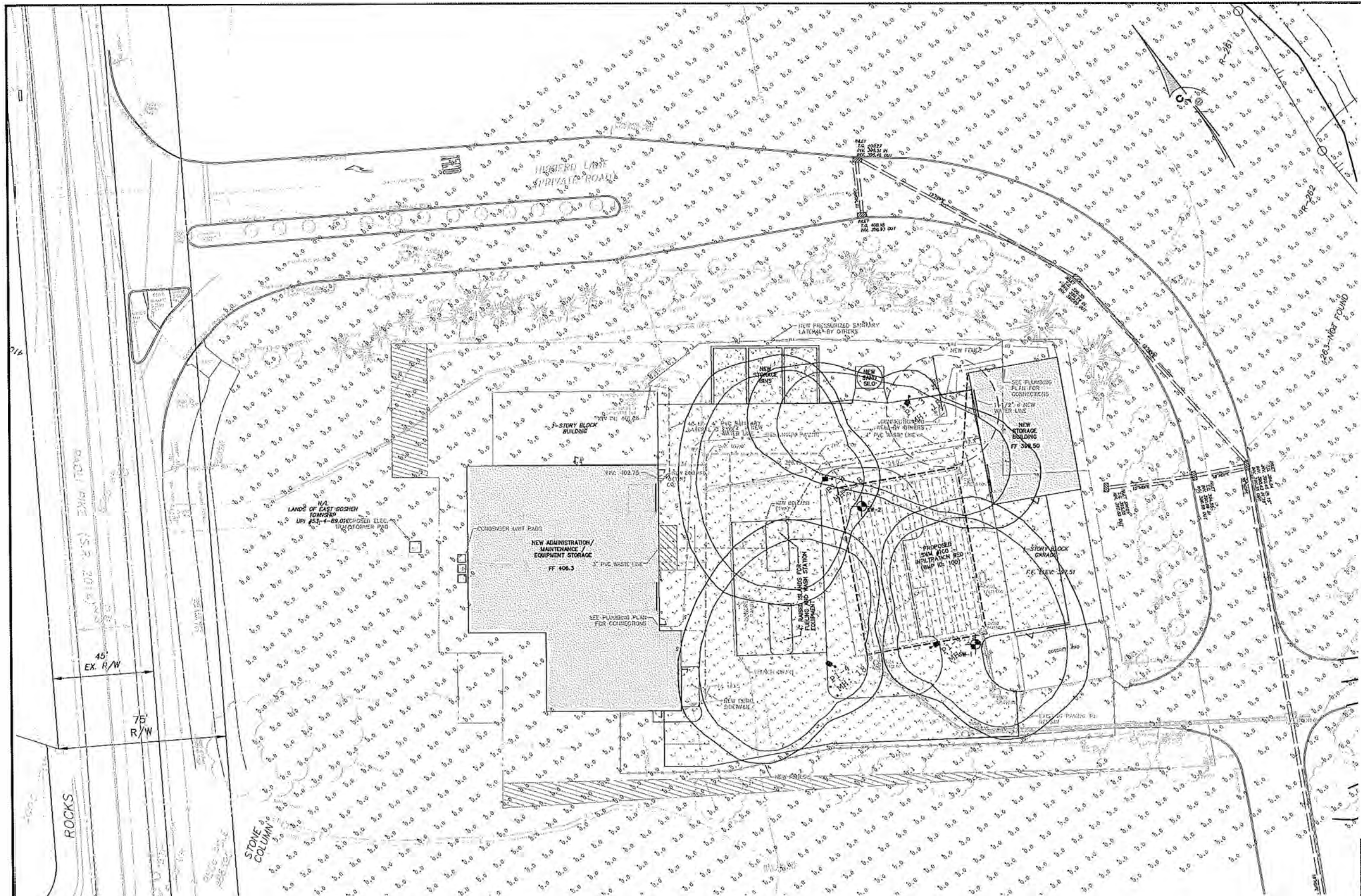
PROPOSED SHRUB

PROPOSED GROUND

Scale in Feet

0 10

ROOK GOLF CLUB INTENANCE AREA HIP - CHESTER COUNTY - PENNSYLVANIA	
ChesterValley ENGINEERS, INC. 85 Chestnut Road, P.O. Box 447, Pottsville, PA 17855	PROJECT # 20558 0015 10



LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING METLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GROUND RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +
- INFILTRATION TEST

PROPOSED FEATURES

- PROPOSED BUILDING ADDITION
- FUTURE BUILDING ADDITION
- PROPOSED PAVEMENT
- PROPOSED CONCRETE PAD/SIDEWALK
- PROPOSED CURB
- NUMBER OF PROPOSED STANDARD PARKING SPACES
- PROPOSED SIGN
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW

PRELIMINARY/FINAL
LIGHTING PLAN

NO.	DATE	REVISION
4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BID
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS
1	09/26/22	PRICING SET

LAND DEVELOPMENT PLANS
FOR
**APPLEBROOK GOLF CLUB
TURF MAINTENANCE AREA**
EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
20558-0015
43 CHESTER VALLEY RD. BOX 442, PA 19380
610-666-1110 FAX 610-666-1111
WWW.CHESTERVALLEY.COM

CONTRACTOR:
CHESTER VALLEY ENGINEERS, INC. 43 CHESTER VALLEY RD. BOX 442, PA 19380
610-666-1110 FAX 610-666-1111
WWW.CHESTERVALLEY.COM

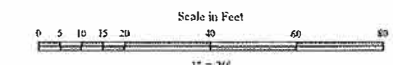
NOTES TO USER OF THESE PLANS:
1. THE INFORMATION CONTAINED ON THIS PLAN WAS PREPARED BY THE ENGINEER FOR THE USE OF THE CLIENT. IT IS THE CLIENT'S RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION CONTAINED ON THIS PLAN FOR ANY OTHER PURPOSES. THE CLIENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION CONTAINED ON THIS PLAN FOR ANY OTHER PURPOSES.

PENNSYLVANIA ACT 181 REQUIREMENTS:
1. THE INFORMATION CONTAINED ON THIS PLAN WAS PREPARED BY THE ENGINEER FOR THE USE OF THE CLIENT. IT IS THE CLIENT'S RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION CONTAINED ON THIS PLAN FOR ANY OTHER PURPOSES. THE CLIENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION CONTAINED ON THIS PLAN FOR ANY OTHER PURPOSES.



Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	Lum. Lumens	BUG Rating
●	3	P1-4	SINGLE	0.900	Gardco ECF-S-48L-1.2A-WW-G2-XX-4-UNIV	182.71	22020	B3-U0-G4
●	1	P1-3	SINGLE	0.900	Gardco ECF-S-48L-1.2A-WW-G2-XX-3-UNIV	182.71	16768	B1-U0-G3

SEE SHEET 16 FOR LIGHTING NOTES
AND DETAILS.





The Gardco EcoForm Gen-2 luminaire features narrow spectrum amber LEDs combined with special shielding, making it a wildlife friendly lighting solution. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings

Project: _____
Location: _____
Est. No.: _____
Type: _____
Qty: _____
Notes: _____

Ordering guide example: ECF-S-64L-600-AM-G2-AR-S-120-FWC-HGV

Model	Number of LEDs	Power	LED Class / Description	Mounting	Options	Notes
ECF-S	32 LEDs (2 modules) 64 LEDs (4 modules)	400 600	400mA 600mA	AM-G2 Direct Amber, narrow spectrum LED Generation 2	AR- Are Mount (standing) 120 240 277 347VAC	The following mounting kits must be ordered separately (see accessories)

Options	Notes	Photo	Photo	Photo	Photo	Photo
0-12V External dimming (for control by others)	ECF-S* Integrated with 0-12V dimming	ECF-S* Integrated with 0-12V dimming	ECF-S* Integrated with 0-12V dimming	ECF-S* Integrated with 0-12V dimming	ECF-S* Integrated with 0-12V dimming	ECF-S* Integrated with 0-12V dimming

- ECF-S* Integrated with 0-12V dimming (for control by others)
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- ECF-S* Integrated with 0-12V dimming (for control by others)
- ECF-S* Integrated with 0-12V dimming (for control by others)

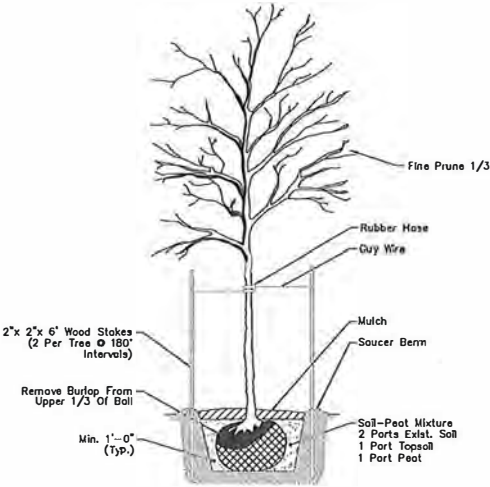
ECF-S EcoForm FWC 08/21 page 1 of 5

AREA LIGHTING CONTROLS

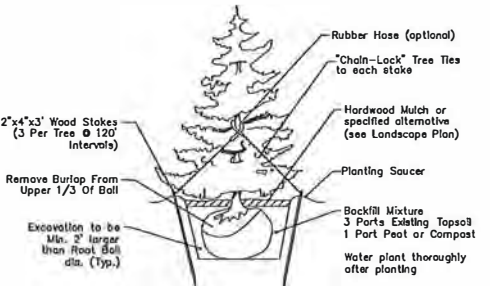
- AREA LIGHTING FIXTURES TO BE CONTROLLED BY ELECTRONIC TIMERS.
- HOURS OF OPERATION: SUNDOWN UNTIL DAWN. LIGHTS TO BE DIMMED TO 25% AT 9:00 PM FOR SECURITY PURPOSES.

PLANTING NOTES

- This Landscape Plan is intended to be used for landscaping purposes only.
- Landscape contractor shall inspect the site and become familiar with the planting area prior to the installation of any plant material.
- Plant material quantities listed for the convenience of the Contractor. Actual numbers of symbols shall take precedence over quantities listed in cases of conflict.
- The Landscape Contractor is responsible for supplying all materials, supplies, equipment and labor required to install the landscaping shown on these plans.
- All plant material subject to approval by the Owner or Owners representative prior to installation. Plant material shall be nursery grown locally, freshly dug, shall be free of disease and pests, and shall be full and well shaped. Any material found to be unacceptable shall be replaced with acceptable material at no cost to the owner.
- The Contractor shall advise the Landscape Architect and/or Owner in writing of any proposed substitutions for the plant material specified and these substitutions shall be subject to the approval by the Landscape Architect and/or Owner prior to installation.
- Plant material and installation shall be in accordance with the American Standard for Nursery Stock of the American Association of Nurserymen (as last revised) and with the general planting specifications of the municipality.
- All plant material shall be of the minimum size noted on the plans. Plant material shall be measured in accordance with the American Standard for Nursery Stock as last revised.
- All areas to be landscaped, especially next to building areas, shall be excavated of all building material, debris and poor soils to a minimum depth of 12"-18" and backfilled with a good, medium textured planting soil. All lawn areas shall have a minimum of 4"-6" of topsoil spread prior to seeding or sodding as may be specified. Areas adjacent to curbs and walks shall be crowned a minimum of 4" higher than the top of curb or walk to allow for settling, however finished grade immediately adjacent to the curb or walk shall be sufficiently depressed to allow for the surface of any mulching or sod to be even with the top of curb or walk.
- All borders between lawn areas and planting beds shall not have edging unless otherwise noted on the plans.
- Compacted existing soils shall be remediated with soil additives or soil replacement prior to planting.
- See Tree Planting Details for tree planting, staking and guying directions. See Shrub Planting Details for shrub planting directions. Tree shall be staked immediately after planting.
- Remove all twine and wire from tree and shrub root balls. Remove all non-rot burlap and twine from all plant material prior to planting. Untie all twine and/or burlap from the trunk of the plant material and drape down the root ball or remove from plant. Remove all plant containers prior to planting.
- Prune all plant material after planting in accordance with the American Association of Nurserymen standards. Fine prune all plants to shape, but do not disfigure plant material. Prune all dead branches from plant material.
- Limb deciduous, high canopy (shade) trees to 6' above grade.
- All plantings shall be installed in the locations shown on the Landscape Plans. Minor adjustments for field conditions may be required. Significant adjustments needs to be approved by the Owner prior to planting.
- Canopy trees to be placed a minimum of 30' from paved areas and walkways unless otherwise directed.
- Contractor shall final grade all planting areas and berms as necessary prior to the installation of the plant material unless final grading is to be performed by others. Regardless, planting areas shall be fine raked smooth and even after the installation of the plant material and prior to mulching. No plant material shall be installed and no raking shall occur if the soils are saturated or muddy.
- Trees and shrubs to be planted slightly higher (2" max.) than the grade that the plants were grown at the nursery (roughly the top of the root ball). Contractor is responsible for plant installation to the proper height.
- Trees and shrubs shall not be planted over any underground utility, nor within any underground utility easement (minimum of 10' from the center of the pipe). Contractor shall verify location of all underground utilities prior to starting work.
- Trees planted in lawn areas to be mulched with a ring of a minimum of 2' wide with a minimum of 3" of mulch unless otherwise noted or required for tree protection. Shrub beds to be mulched to a minimum depth of 3".
- Shrub groupings shown on the Landscape plans shall be planted as a single bed.
- Mulch to be shredded hardwood bark. Prior to installation of the mulch, spread a pre-emergent herbicide.
- Plant material shall be installed the same day as it is delivered to the site to the extent practical. Any plant material that is not planted the same day it arrives shall be protected from drying out by the Contractor until it can be planted.
- Contractor shall thoroughly water all material planted at the end of each day.
- Contractor shall apply anti-desiccant to plant material for late summer and fall plantings.
- Upon completion of planting and mulching and at the end of each day, Contractor shall remove all extraneous material and debris, broom sweep and wash the area clean.
- Contractor shall guarantee all plant material for a period of 2 years from the date of acceptance by the Owner. All plant material that does not survive the guarantee period shall be replaced by the Contractor. Dead plants shall be replaced no later than the next planting season.
- Contractor shall notify the Owner upon the completion of the guarantee period and schedule a final inspection of the plant material and lawn areas. At or before the final inspection, Contractor shall remove any remaining tree stakes and pruned plant material as needed unless otherwise directed by the Owner.
- All areas disturbed by construction activities that are not shown to be planting beds on the Landscape Plans, shall be seeded as lawn areas per the seeding specifications on these plans.
- Contractor shall provide all topsoil, fertilizers and other additives as required unless otherwise directed by the Owner. All materials used shall be as specified or better.
- Contractor shall be responsible for the maintenance of the plant material until such time as the project is accepted by the Owner. Maintenance shall include, but is not limited to, watering, fertilizing, pruning, mowing and weeding.
- Contractor shall provide the Owner with written instructions regarding the care of the plant material and any special circumstances.



TYPICAL DECIDUOUS TREE PLANTING N.T.S.



TYPICAL EVERGREEN TREE PLANTING N.T.S.



TYPICAL SHRUB PLANTING N.T.S.

PRELIMINARY/FINAL LANDSCAPE & LIGHTING DETAILS

4	2/3/23	REVISED PER TOWNSHIP ENGINEER COMMENTS
3	1/20/23	ISSUED FOR BLD
2	10/05/22	PER TOWNSHIP ENGINEER COMMENTS
1	09/26/22	PRICING SET
NO.	DATE	REVISION
LAND DEVELOPMENT PLANS FOR APPLEBROOK GOLF CLUB TURF MAINTENANCE AREA EAST GOSHEN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA		
ChesterValley ENGINEERS, INC.		PROJECT NO. 20558-0015
81 Chester Road, PO Box 447, P.O. Box 447, PA 19380		FILE
SCALE	DATE	DESIGNED BY
AS SHOWN	08/26/2022	KRI 1