April 5, 2024

Justin S. Evans – Township Community Development Director/Zoning Officer
Mount Joy Township
8853 Elizabethtown Road
Elizabethtown, PA 17022

Subject: **Proposed Building for Jay Garman**
Minor Land Development Plan
Revised Waiver Requests
1267 Risser Mill Road, Mount Joy, PA 17552

Dear Justin,

On behalf of the applicant, we request the following revised waivers/modifications for consideration by the Board of Supervisors in conjunction with the above Land Development Plan.

We also hereby withdraw our previous requested waivers for Sections 119-31.C.3, 119-53.B.1 & 119-53.C.1, 119-56.D & E, and 113-31.32.A.2c.

Please note that we have submitted a copy of this letter directly to Ben Craddock, P.E. at Lancaster Civil Engineering Co. via email.

MODIFICATION REQUESTS

1. **SALDO Section 119-31.A.1 – Plan Scale**

   This section of the Township SALDO requires existing conditions plan shall be shown at a scale between 20 feet and 100 feet to the inch.

   We request a modification of this section to allow the existing features plan to be shown at a scale of 1"= 120' in order to show the entire tract on one plan sheet. Justification is that the required information is that due to the large tract size, we utilize this scale to legibly show the required information and surrounding features.

2. **SALDO Section 119-32.A – Water and sewer facilities feasibility report**

   This section of the Township SALDO requires a feasibility study on connection to existing public sewer and water systems.

   We request a modification of this section to allow an abbreviated report be provided. The existing on-lot well and septic system to be utilized for this project in the Agricultural Zone due to the rural location and minor nature of the proposed agri-business. A sewage permit application will be filed for the connection of the proposed building sewer to a commercial holding tank. The existing well on this 62 acre farm will be utilized and is functioning. Less than 400 GPD sewage flows is anticipated to be generated by the project.

3. **SALDO Section 119-52.J(3) - Improvements of existing streets**

   This section of the Township Subdivision and Land Development Ordinance requires when a land development abuts an existing Township street, the street shall be improved to the cartway width in Subsection J and additional right-of-way shall be provided, along with curbing and sidewalk and other street improvement shall be constructed.

   We request a modification of this section to allow that no improvements be required at this time along the road frontages of the applicant's 62 acre farm property located in the Agricultural Zone due to the rural location and minor nature of the proposed agri-business. The road along the property frontage is 19' wide and has no existing curb similar to many other rural roads in the Township. We do not believe road widening and curbing is appropriate in this location.

4. **SALDO Section 119-57.A, B, D & H - Showing and setting Survey Monuments/Markers**

   We request a modification of this section to allow that only markers are required along the western property line and along a portion of the right-of-way, rather than the entire tract. The justification is that this is a large farm property of 62 acre and due to the minor nature of this agri-business. The landowner is working with a Professional land Surveyor to verify the property boundary and set monumentation along the Risser Mill Road right-of-way and western property line.

We would appreciate your review at your earliest convenience. Should you have any questions, or require additional information, please contact our office.

Sincerely,

Cameron L. Renehan

Cameron L. Renehan, P.E.
Engineer - TeamAg Inc.

Enclosures

c: Ben Craddock, P.E. (via email)
Jay Garman

Abbreviated Water and Sewer Feasibility Report

Proposed Building

Prepared for:

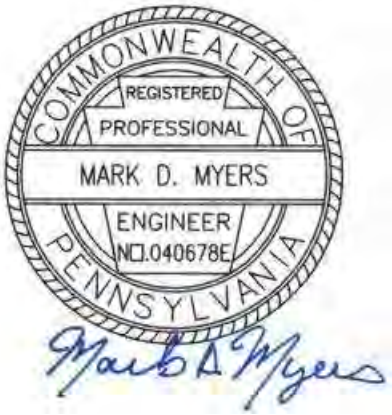
Jay Garman

Site Address

1267 Risser Mill Road, Mount Joy, PA 17552

Mount Joy Township

Lancaster County, PA



March 22, 2024

TeamAg Incorporated

120 Lake Street Ephrata, PA 17522

Telephone: (717)721-6795 Fax: (717)721-9275 Email: teamag@teamaginc.com

Table of Contents

Attachments

Excerpts from:

Summary of Groundwater-Recharge Estimates for Pennsylvania, Water Resource Report 70 - (PA Geological Survey, 2010)

*SBA – See Bound Attachments

*SA – See Attachments

Introduction

Jay Garman plans to construct a 9,600 s.f. building on a 62.53 acre tract of agricultural land located at 1267 Risser Mill Road in Mount Joy Township, Lancaster County, PA. The building will be used as a dual-purpose barn for storing equipment for the applicants' mobile feed grinding business. The project includes the construction of the building with gravel access drive, stormwater management facilities, and related appurtenances. The total earth disturbance for the project is 2.53 acres.

The owner proposes to capture roof water runoff from downspouts of the new building and convey it to two storage tanks/cisterns to be re-used for washwater to wash the owner's trucks in the business. An overflow pipe from the cisterns flows into the stormwater infiltration basin.

This desktop water and sewer feasibility report provides estimated sewage flows generated and water demand for the proposed business and existing farm dwelling along with estimated groundwater availability with consideration of the farm acreage and historical average groundwater recharge rates. The report was prepared by Mark D. Myers, P.E of TeamAg, Inc.

Existing and Past Conditions

The subject tract contains an existing farmstead with dwelling and various outbuildings and barns. The project site is currently in agricultural cropland and contains farm pond on the property. The project site slopes to the east with slopes ranging from 0-8% slopes. It is our understanding that the project site has been used for agricultural crop production for at least the past 50 years.

This farm currently has a single-family dwelling with on-lot well. Runoff from the site discharges to the east to a farm pond which drains into an existing 18" HDPE culvert under Risser Mill Road where it leaves the property and flows approximately 1400 feet via non-surface waters into an unnamed tributary to the Little Chiques Creek. This watercourse is designated as a Trout Stocking Fishery-Migratory Fishery (TSF-MF).

The farm consists of soils that are generally well drained to moderately well drained. The primary soil types identified at the project site are Hagerstown silt loam 0-3%, Hagerstown silt loam 3-8% slopes, and Bedington channery silt loam 8-15% (HaA, HaB, BdC).

A stormwater runoff analysis comparing pre-development and post-development conditions of the proposed barn facility was performed for the site at one point of interest near the east end of the property. The stormwater management infiltration basin is designed for the impervious area shown on the plan. The proposed infiltration BMP is designed to manage the entire stormwater runoff net change in runoff volume in the 2-yr/24-hr storm event per Township Stormwater Management Ordinance. The water quality requirement is satisfied and calculations are documented using the PADEP PCSM Spreadsheet for NPDES permit compliance (version 1.9).

Sewage flows

An existing on-lot septic system with drainfield currently serves the existing two-unit dwelling on the property. The proposed business is anticipated to have three employees with a bathroom planned within the new building. Anticipated additional sewage flows generated by the business for the three employes is 105 gpd (3 employees x 35 gpd/employee). The owner is currently working with the Township Sewage Enforcement Officer on an application to install a commercial holding tank to collect the flows from the proposed building.

Water Demand

An existing well on the subject property is planned for usage by the three proposed employees for the agri-business in the barn and continue to serve the existing dwelling on the property. This well is located 320 feet to the nearest dwelling on adjacent property owned by Jeremy A. & Karissa M. Clark and Benjamin C. & Melissa Hall located to the north.

The farm has a two-unit dwelling. The estimated water usage for the existing home is 800 gpd based on PA Chapter 73 information. The proposed water usage for the property is anticipated to be approximately 1,150 gpd per the below table.

Table 1 – Water Demand Summary

Type	*Existing*	***Proposed***
Existing two-unit dwelling	800 gpd	800 gpd
Truck washwater/recycle	-	200 gpd
3 proposed employees		105 gpd
Total Estimate	**800 gpd**	**1,105 gpd**

Water Availability

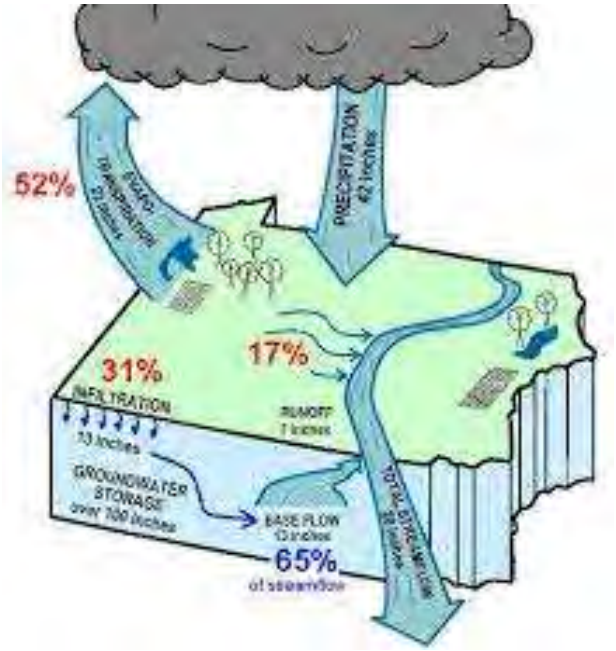


Figure 1: Average annual water budget for Pennsylvania. Numbers in red indicate percent of precipitation.[1]

According to information found in Water Resource Report 70 – Summary of Groundwater-Recharge Estimates for Pennsylvania (PA Geological Survey), the average mapped recharge rate for the general location of the site ranges from 12 to 14 inches per year. Using a conservative recharge rate of 12 inches per year, this equates to approximately 893 gpd per acre of recharge on average (12"/12" x 43,560 sq. ft. x 7.48 gal/cu. ft. / 365 days).

Jay Garman's farm is approximately 62 acres. If this area is reduced by existing and proposed impervious coverage of approximately 3%, the remaining acreage available for recharge is approximately 59.5 acres. At 893 gpd per acre, this area will provide an estimated normal year recharge rate of 53,132 gpd. Using a 60% drought recharge rate, this is reduced to 31,879 gpd.

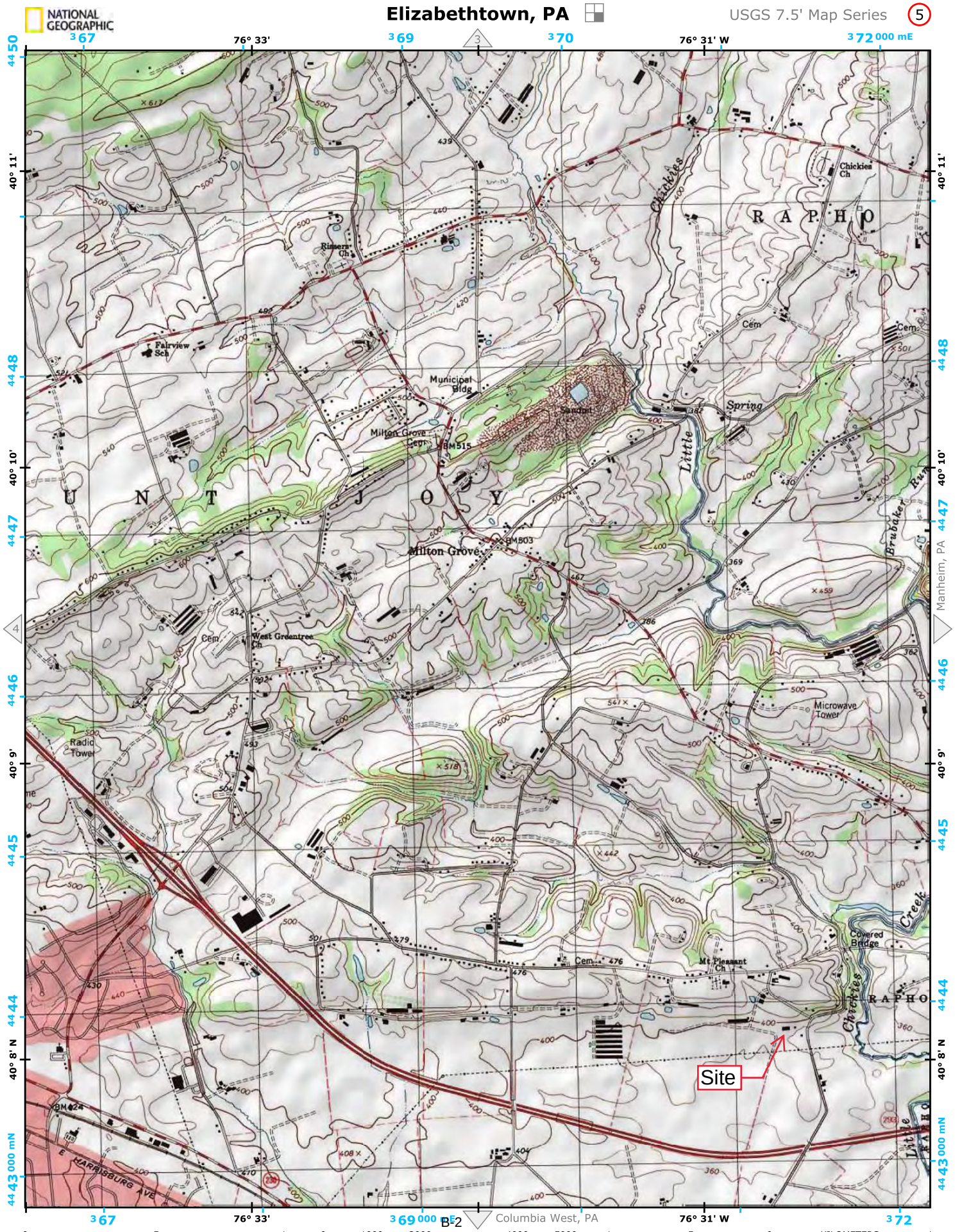
Conclusion

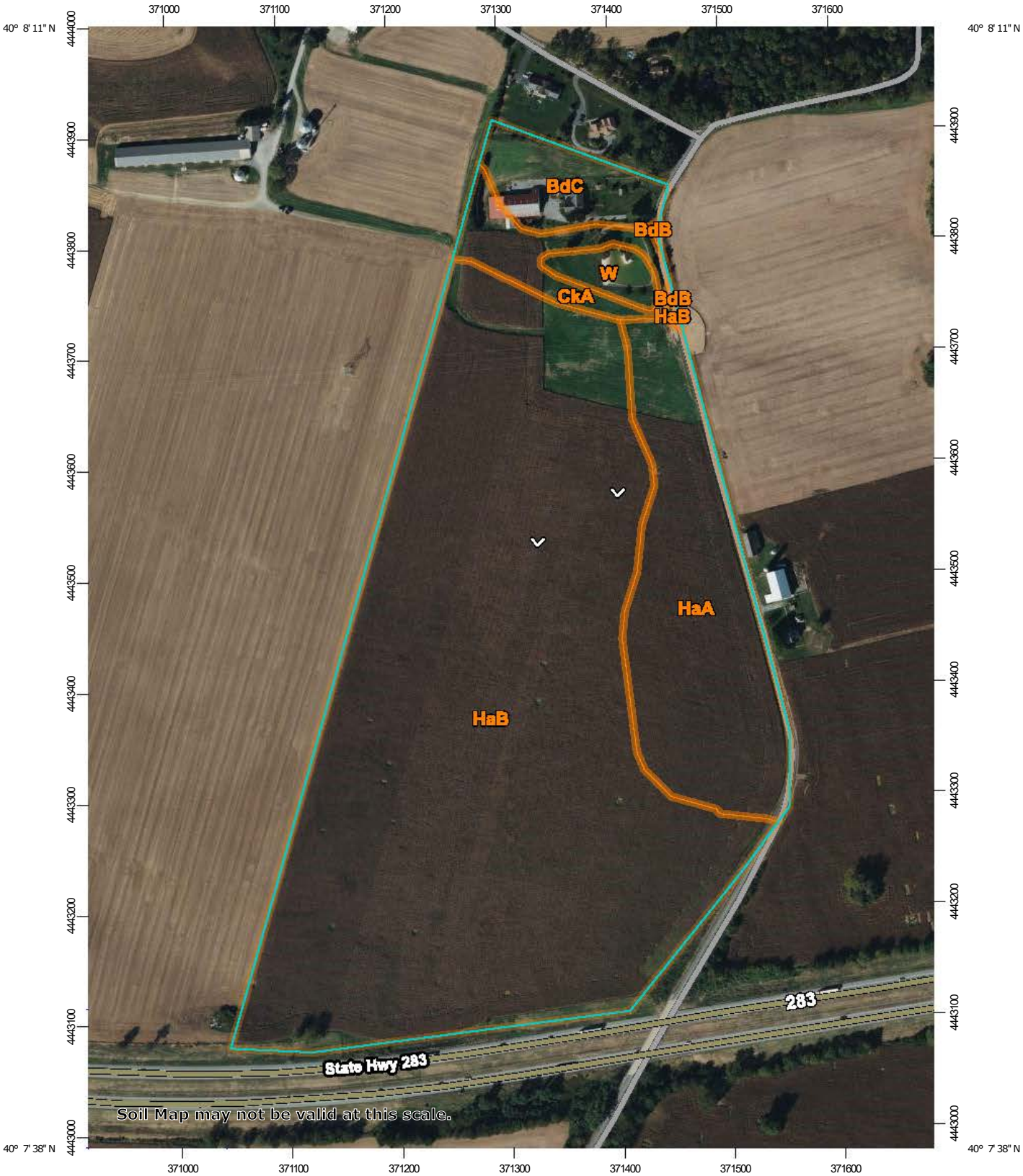
The anticipated water demand for the farm with proposed business is 1,105 gpd (800 gpd for the existing dwelling plus 105 gpd for the three proposed office employees based on PA Chapter 73 flows along with 200 gpd for washwater of the trucks.

The drought recharge rate for the farm property is estimated to be 31,879 gpd, which is approximately 28 times the anticipated demand of the proposed facility. Given the historical water usage at the property, the presence of surface water as an existing pond at the site and the

[1] Reese, Stuart O. and Dennis W. Risser, Water Resource Report 70 "Groundwater-Recharge Estimates for Pennsylvania" Pennsylvania Geological Survey, 2010.

estimated proposed demand compared to the drought recharge rate, it appears the water supply is adequate for the proposed project.





Map Scale: 1:4,930 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

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

Special Point Features

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

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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

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

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

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

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

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

Soil Survey Area: Lancaster County, Pennsylvania
Survey Area Data: Version 22, Sep 4, 2023

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

Date(s) aerial images were photographed: Jul 6, 2020—Nov 7, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BdB	Bedington silt loam, 3 to 8 percent slopes	0.1	0.1%
BdC	Bedington silt loam, 8 to 15 percent slopes	2.6	4.1%
CkA	Clarksburg silt loam, 0 to 5 percent slopes	2.3	3.6%
HaA	Hagerstown silt loam, 0 to 3 percent slopes	10.6	16.5%
HaB	Hagerstown silt loam, 3 to 8 percent slopes	47.7	74.2%
W	Water	0.9	1.5%
Totals for Area of Interest		**64.3**	**100.0%**

Lancaster County, Pennsylvania

HaB—Hagerstown silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w05y
Elevation: 300 to 460 feet
Mean annual precipitation: 36 to 50 inches
Mean annual air temperature: 46 to 57 degrees F
Frost-free period: 140 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Hagerstown and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hagerstown

Setting

Landform: Hills
Landform position (two-dimensional): Footslope, summit, backslope
Landform position (three-dimensional): Side slope, base slope, interfluve
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Parent material: Residuum weathered from limestone

Typical profile

Ap - 0 to 7 inches: silt loam
Bt1 - 7 to 21 inches: silty clay loam
Bt2 - 21 to 34 inches: silty clay
C - 34 to 60 inches: silty clay loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B

Ecological site: F148XY026PA - Moist, High Base-Saturation, Upland, Mixed Oak - Hickory - Conifer Forest
Hydric soil rating: No

Minor Components

Adamstown
Percent of map unit: 5 percent
Landform: Swales, drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Clarksburg
Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Data Source Information

Soil Survey Area: Lancaster County, Pennsylvania
Survey Area Data: Version 22, Sep 4, 2023

Lancaster County, Pennsylvania

CkA—Clarksburg silt loam, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: l6rm
Elevation: 200 to 1,500 feet
Mean annual precipitation: 32 to 48 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 120 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Clarksburg and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Clarksburg

Setting

Landform: Valley flats
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Parent material: Residuum weathered from limestone

Typical profile

Ap - 0 to 8 inches: silt loam
Bt - 8 to 27 inches: silt loam
Btx - 27 to 51 inches: silt loam
C - 51 to 84 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 36 inches to fragipan; 60 to 99 inches to
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C

Ecological site: F148XY026PA - Moist, High Base-Saturation, Upland, Mixed Oak - Hickory - Conifer Forest, F147XY006PA - Mixed Limestone Lower Slope
Hydric soil rating: No

Minor Components

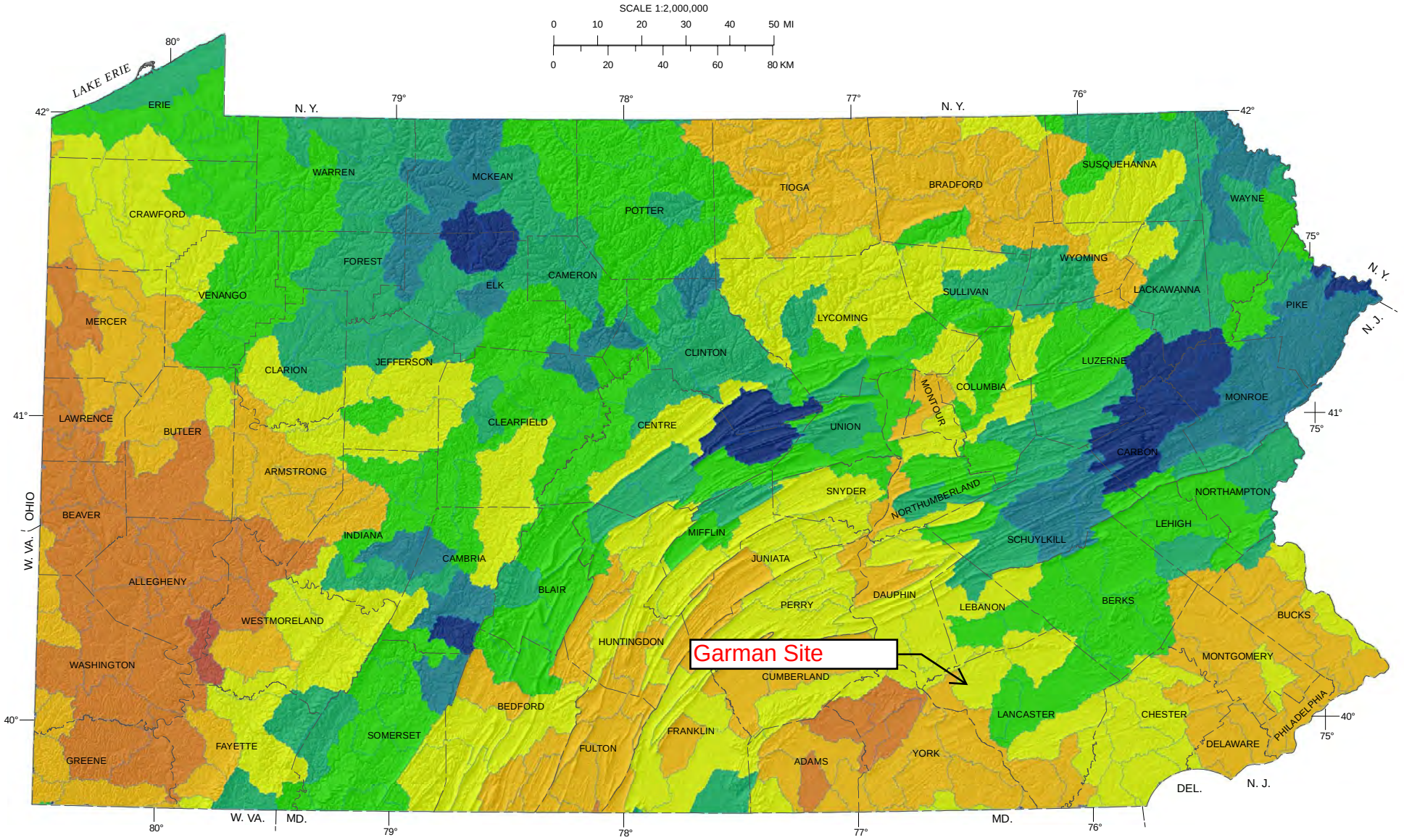
Thorndale
Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Lancaster County, Pennsylvania
Survey Area Data: Version 22, Sep 4, 2023

MEAN ANNUAL GROUNDWATER-RECHARGE ESTIMATES OF PENNSYLVANIA WATERSHEDS, 1971 – 2000

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF
CONSERVATION AND NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY
www.dcnr.state.pa.us/topogeo



MEAN ANNUAL RECHARGE (INCHES)

7.31 - 8	10.01 - 12	14.01 - 16	18.01 - 20
8.01 - 10	12.01 - 14	16.01 - 18	20.01 - 22.21

Groundwater recharge data based on revised calculations from regression equation published in Risser and others, 2008a, pubs.usgs.gov/sir/2008/5185 (accessed November 20, 2009).

Hydrologic unit boundary

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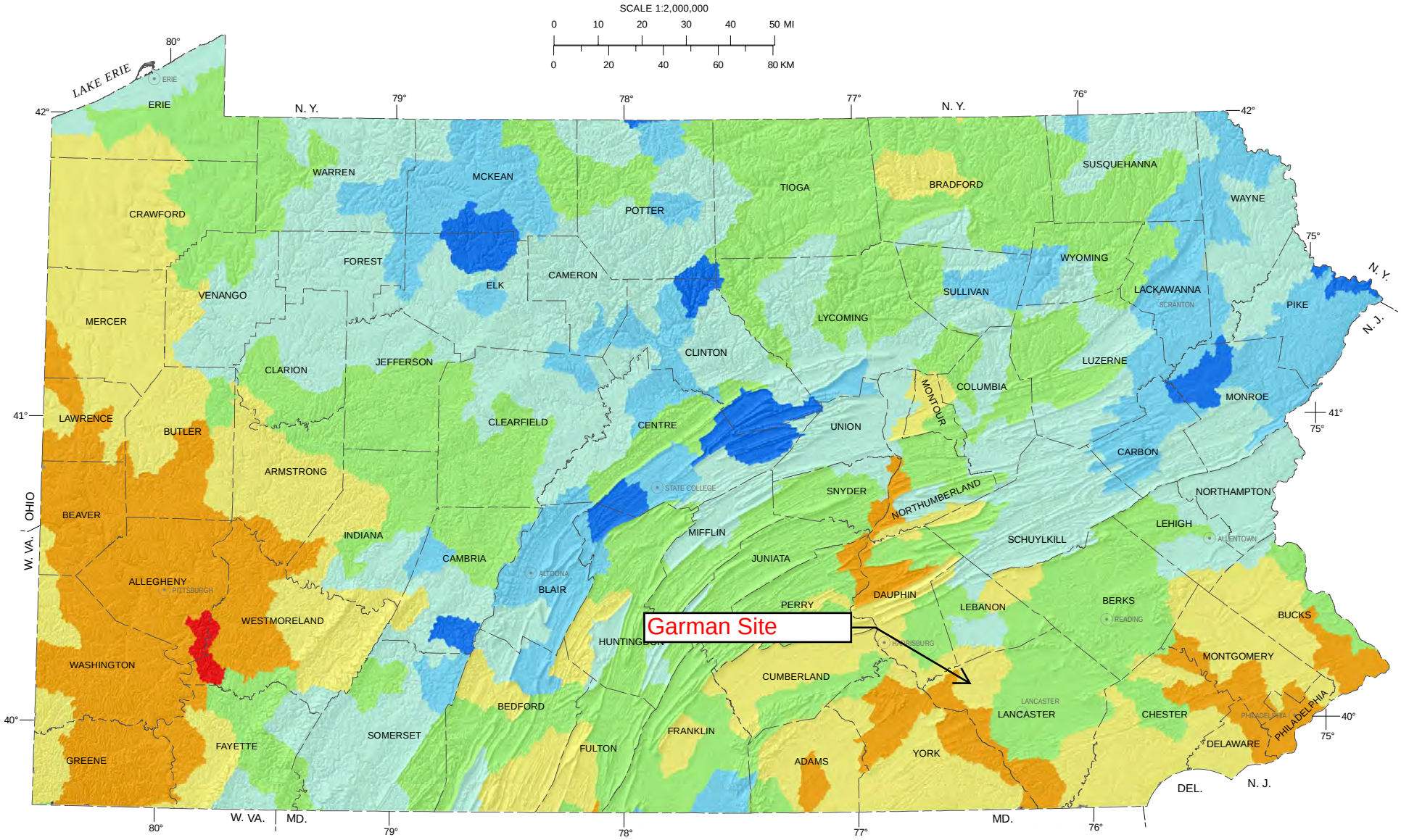
WATER RESOURCES REPORT 70
PLATE 5

MEAN ANNUAL RECHARGE AS A PERCENTAGE OF PRECIPITATION, 1971 – 2000

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF
CONSERVATION AND NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY
www.dcnr.state.pa.us/topogeo



MEAN ANNUAL RECHARGE AS A PERCENTAGE OF PRECIPITATION

19 - 20	25 - 30	35 - 40	45 - 49.2
20 - 25	30 - 35	40 - 45	

Recharge as a percentage of precipitation was determined using recharge and precipitation values calculated for HUC10 watersheds. For each watershed, recharge was divided by precipitation and multiplied by 100 to produce the percentage of average annual precipitation that is groundwater recharge (1971-2000).

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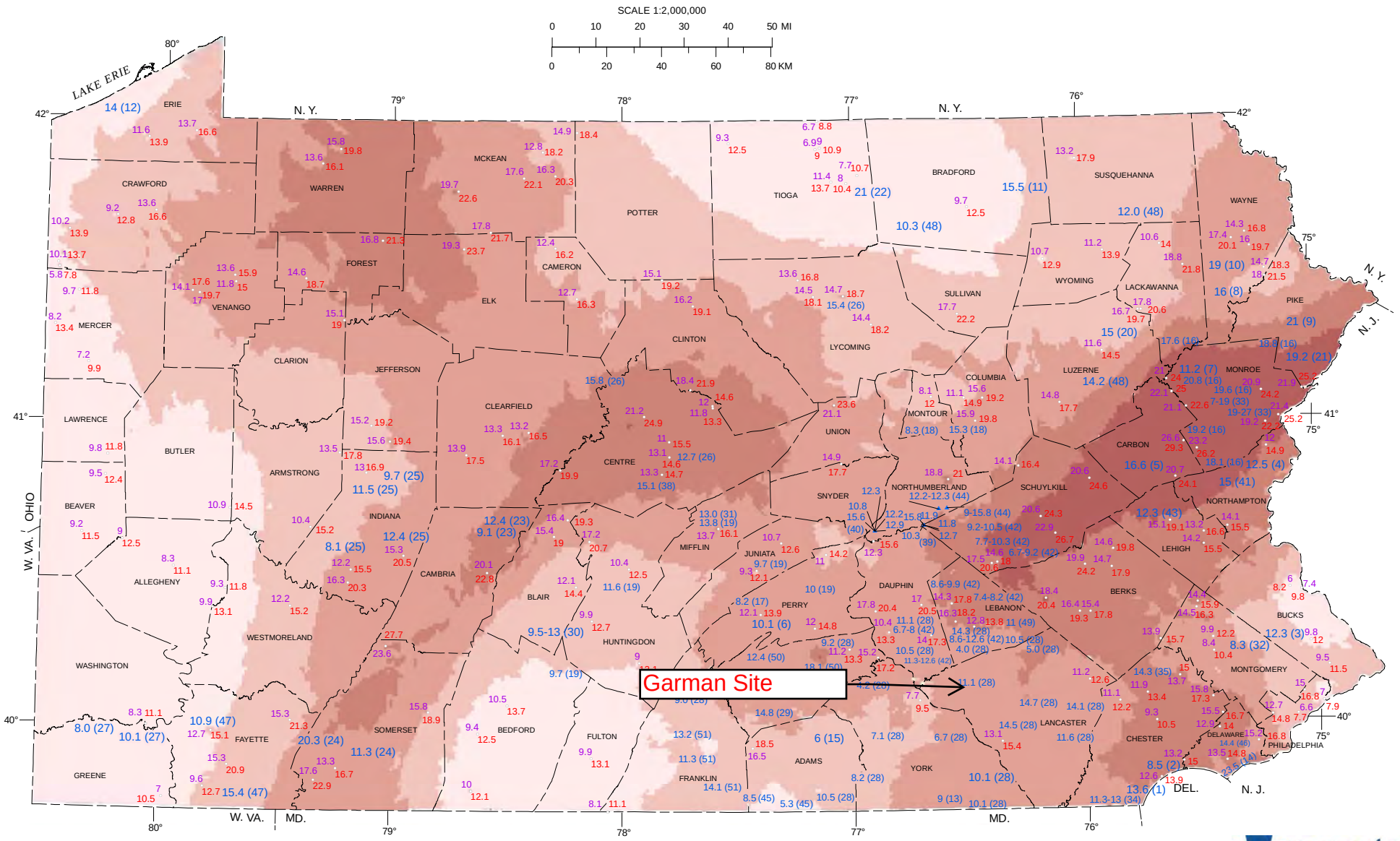
GROUNDWATER RECHARGE AND BASE-FLOW ESTIMATES FROM OTHER GROUNDWATER REPORTS



REPORTED GROUNDWATER RECHARGE OR BASE-FLOW VALUES (INCHES)

Groundwater-recharge estimates from Wolock (2003)

- 4.7 - 7.0
- 7.0 - 9.0
- 9.0 - 10.6
- 10.6 - 13.0
- 13.0 - 16.9

13.4 (12) — Report value (Table 2 reference number in parentheses)

10.7 / 12.4 — Stream gage value, PART (purple label) and RORA (red label)

Data are from reports listed in Table 2 of text, which provides summary information on study location and methods. Stream gage points show U.S. Geological Survey PART and RORA base flow and recharge calculations, respectively, for upstream watersheds (from Risser and others, 2005a). See Table 2, map key numbers 36 and 37.

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Plate 6 Key	Rate - inches per year	Location of Study	Years	Method	Term Used	Reference
25	8.1	Cherry Run basin, central Indiana County	1987	Hydrograph base-flow separation using fixed interval method (HYSEP)	Groundwater discharge	Williams and McElroy, 1997
	12.4	Little Yellow Creek, eastern Indiana County				
	9.7	Little Mahoning Creek, northern Indiana County				
	11.5	South Branch Plum Creek, northern Indiana County				
26	15.8	West Branch Susquehanna at Karthaus, Clearfield County	1961-1980	Hydrograph base-flow separation	Groundwater discharge	Taylor and others, 1983
	12.7	Spring Creek near Axemann, Centre County	1961-1980			
	15.4	Lycoming Creek near Trout Run, Lycoming County	1961-1980			
27	8.0	South Fork Tenmile Creek, Greene County	1942, 1948, 1981	Base-flow separation from streamflow (average of 3 separate water years)	base flow	Stoner et al., 1987
	10.1	Enlow Fork, Green County	1980-1981			
28	11.1	Unit 1. Western Great Valley and Eastern Great Valley shales with substantial graywacke	Model calcs; stream years not given for base flow estimate for sub-basins	Groundwater modeling estimates of recharge for hydrogeologic units; based on streamflow and base-flow estimations using hydrograph-separation techniques, groundwater and surface-water conditions, and defined hydrogeologic unit characteristics	Recharge assumed to equal average annual base flow	Gerhart and Lazorchick, 1988
	14.3	Unit 2. Eastern Lebanon Valley carbonate rocks				
	11.6	Unit 3. Eastern Piedmont metamorphic rocks				
	15.8	Unit 4. Cumberland Valley carbonate rocks				
	7.1	Unit 5. Western Triassic sedimentary rocks				
	10.5	Unit 6. Eastern Triassic sedimentary rocks				
	10.5	Unit 7. Conestoga Valley carbonate rocks				
	6.7	Unit 8. Conestoga Valley metamorphic rocks west of Susquehanna River				
	14.7	Unit 9. Northern Conestoga Valley carbonate rocks east of Susquehanna River				
	10.1	Unit 10. Central Piedmont metamorphic rocks				
	10.1	Unit 11. Southern Piedmont metamorphic rocks				
	9.0	Unit 12. Great Valley shales on flanks of South Mountain				
	4.2	Unit 13. Combination unit of 5 and 6, and diabase				
	8.2	Unit 14. Combination unit of 7 and 8				
	11.1	Unit 15. Northern Conestoga Valley shales				
	14.1	Unit 16. Combination unit of 9 and 17				
	14.5	Unit 17. Southern Conestoga Valley metamorphic rocks east of Susquehanna River				
	4.0	Unit 18. Triassic conglomerates				
	5.0	Unit 19. Combination unit of 18 and 5 and 6				
	10.5	Unit 20. Western Lebanon Valley carbonate rocks				
	9.2	Unit 21. Eastern Great Valley shales, no substantial graywacke				
29	14.8	Yellow Breeches Creek, near Shippensburg, Cumberland and Franklin Counties	1912-1916, 1955-1958, and 1968-2003	Hydrograph separation	Base flow as Recharge	Lindsey, 2005
	9.5	Conodoguinet Creek, near Shippensburg, Cumberland and Franklin Counties				
30	9.5-13	Martinsburg area, southern Blair County	NA	Selected groundwater model MODFLOW recharge values; based on local base-flow values and similar hydrogeology	Modeled Recharge	Lindsey and Koch, 2004
31	13.0	Kishacoquillas Creek, at Reedsville, Mifflin County	1941-1970	Hydrograph separation – fixed interval method	Base flow (groundwater discharge)	Becher, 1996
32	8.3	Lansdale area, Montgomery County	Aug 1996 flow condition	Calibrated groundwater model; estimated by adding base flow and volumes of groundwater pumped	Recharge	Senior and Goode, 1999
33	7-19	Northern portion, Pocono Creek watershed, Monroe County	October 2004	Calibrated numerical groundwater-flow model for subwatersheds	Recharge	Sloto, 2008
	19-27	Southern portion, Pocono Creek watershed, Monroe County				
34	11.3-13.0	Big Elk Creek basin, Chester County, and into Maryland	1998-1999	Water budgets equation and estimates	Recharge	Sloto, 2002
35	14.3	French Creek basin, northern Chester and southern Berks Counties	1969-2001	Water budgets equation and estimates	Recharge	Sloto, 2004
36	5.9-26.6 (statewide range)	Statewide – at specified stream gage locations; values are color coded on Map 8	Various	PART hydrograph-separation method	Base flow	Risser and others, 2005a
37	7.7-29.3 (statewide range)	Statewide – at specified stream gage locations; values are color coded on Map 8	Various	RORA recession-curve-displacement method	Recharge	Risser and others, 2005a

MINOR LAND DEVELOPMENT PLAN
PROPOSED BUILDING

SITE ADDRESS:

1267 RISSER MILL ROAD
MOUNT JOY, PA 17552

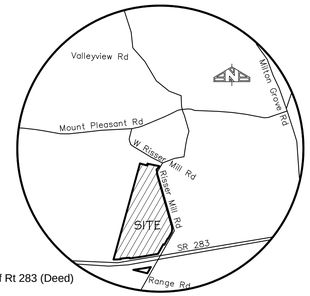
MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA

Owner/Developer:

JAY GARMAN

SHEET INDEX

*TO BE RECORDED



Site Location Map
Scale: 1" = 2000'

GENERAL NOTES

1. Existing Site Data
   - Total Area: 61.272 Acres North of PA Rt 283, 0.897 Ac. South of Rt 283 (Deed)
   - Source of Title: Deed Instrument #6744451; Parcel ID #461-10741-0-0000; S.P.B. #J-230-143
   - Owners: Jay Wendell Garman and Emily Rose Garman, 1267 Risser Mill Road, Mount Joy, PA 17552
   - Developer: Jay Garman
2. Property boundary Information for subject property on this plan was obtained from the recorded deed for the property (Instrument #: 6744451) and a recorded subdivision plan J-230-143, Document #5624021, Final Subdivision Plan for William Longenecker prepared by D.C. Gohn Associates, Inc., recorded June 1, 2007. A boundary survey was not completed by TeamAg, Inc. in conjunction with this plan. The property is subject to all requirements of the prior subdivision plan J-230-143.
3. Topographical information within the limits of disturbance for this plan was obtained from a GPS survey (Trimble RTK--Engineering Precision) conducted on July 17, 2023 by TeamAg. The horizontal datum is WGS-1984, PA South and the vertical datum is NAVD88. Topography shown outside the limits of disturbance is taken from PASDA LiDAR.
4. No changes shall be made to these plans without the written permission of the client, owner, Mount Joy Township, and TeamAg. TeamAg will not be responsible for unauthorized revisions to the plan.
5. The building will be serviced by on-lot water and sewer.
6. All accessible parking spaces, sidewalks, and ramps shall be in conformance with the most recent A.D.A. accessibility guidelines.
7. No FEMA floodplains are located on the subject property per FEMA Flood Insurance Rate Map Panel 42071C0119F, effective on 4/5/2016.
8. Property has a Deed of Agricultural Conservation Easement to the Commonwealth of Pennsylvania in perpetuity (Deed Reference #5685464).
9. No changes shall be made to these plans without the written permission of the client, owner, Mount Joy Township, and TeamAg. TeamAg will not be responsible for unauthorized revisions to the plan.
10. A Wetland Determination Report by Vortex Environmental, Inc. dated January 13, 2024 indicates that no wetlands exist on the subject project site.
11. Lancaster Geology has prepared a geology investigation of the project site dated January 16, 2024. The site is mapped by PA DCNR as being underlain with Hershey and Myerstown Formations which consists of Ordovician Argillaceous Limestoneand conglomerate of dolomite (Carbonate Geology). If any potential sink holes are encountered during construction, the owner/contractor shall contact the project geologist to assist in repair/remediation of any karst feature.
12. A well is exists on the property. The proposed building will utilize the existing septic facilities on the property. Sewage flows generated by the project are anticipated at less than 400 GPD.
13. Nothing shall be placed, planted, set or put within the area of an easement that would adversely affect the function of the easement or conflict with the easement agreement. This requirement shall be noted on the final plan and shall be included in all deeds for lots which contain an easement.
14. All federal, state, and local laws, rules and regulations covering the construction of this facility shall be strictly followed.
15. No structures, trees, landscaping walls, fences, grading or other visual obstructions may be constructed, installed or performed within the area of the clear sight triangle which would obscure the vision of motorists. Clear sight triangles shall be formed by the center lines of the of the intersecting street and driveway and the stopping sight distance as measured along the centerline of the driveway 15 feet from the white line/edge of paving and along the street centerline in both directions from the driveway centerline for the required safe stopping sight distance as indicated on the plans. Lot(s) which contain a clear sight triangle shall include the above restrictions within the lot's deed.
16. Act 187: It is the duty of the contractors to comply with the provisions of the 'PA One-Call' utility check before performing any excavation work. The toll-free number of the One-Call system is 1-800-242-1776.
17. The washwater in the washwater collection tank shown shall be either recycled or transported and disposed of by a licenced wastewater hauler in conformance to PA DEP regulations. Sewage in the holding tank shall be disposed f by a licenced wastewater hauler in conformance to PA DEP regulations and in accordance with the Township holding tank agreement requirements.

ZONING NOTES

1. Existing and Continued Use of Land : Residential/Agricultural
2. The proposed use of a Farm-Related Business the property is a Special Exception Use.
3. The Property is located within the A – Agricultural District and consists of approximately 62.53 acres. The purpose of this plan is to secure the required approvals for the applicant proposed construction an 80' x 120' barn, of which approximately 49% will be used as a shop for the farm-related business of Garman Ag, Inc. Garman Ag, Inc. conducts off-site mobile shelling at other farms where it grinds and processes such farms' hay, straw and corn fodder. The Applicant proposes to utilize a portion of the proposed structure to store equipment for Garman Ag, Inc. and the occasional service and repair of such equipment. The farm-related business will have three employees. A tractor trailer used for the business may be occasionally parked overnight on-site on weekends only. Applicant demonstrated compliance with the criteria in Section 135-227 of the Ordinance for farm-related businesses, as well as the general criteria for special exceptions.
4. A Special Exception pursuant to Section 135-83.G in accordance with Section 135-227 was granted by the Mount Joy Township Zoning Hearing Board on September 6, 2023 subject to the following conditions:
   - 4.1. The Applicant and/or the owner(s) of the Property shall comply with all other provisions contained in the Ordinance for which relief has not been requested or granted;
   - 4.2. The Applicant shall file and obtain approval of a land development plan, or waiver thereof, from the Mount Joy Township Planning Commission;
   - 4.3. The Applicant shall submit and gain approval of a stormwater management site plan through the Mount Joy Township Planning Commission or Township Engineer, as applicable.
   - 4.4. The Applicant and any representative of the Applicant shall comply with and adhere to the testimony and any evidence presented to the Board at the hearing held on September 6, 2023 except to the extent modified by conditions imposed by the Board herein.

STORMWATER NOTES

1. The stormwater management plan is designed for an increase in impervious area of 42,570 square feet.
2. No excavation, the placement of fill or structures, and any alterations that may adversely affect the flow of stormwater is prohibited within any portion of the drainage easements.
3. It is the responsibility of the contractor/developer to schedule a pre-construction meeting with the Township and design engineer prior to the start of construction. The scope of the inspections shall be determined at the pre-construction meeting. The Township shall be provideda minimum of 24 hours in advance of the required inspections.
4. A blanket drainage easement with a minimum width of 30 feet encompassing all proposed stormwater management facilities on the subject tract and extending to the right-of-way of Risser Mill Road is hereby established by this plan to allow Mount Joy Township officials, employees or agents to have the right of entry for the purposes of inspecting all stormwater conveyance, treatment, or storage facilities. Mount Joy Township officials and their agents or employees have the right of access and in cases of construction default, construction of the stormwater management facilities via the nearest public right-of-way. Also see General Note 13 above.
5. At the completion of the project, and as prerequisite for the release of financial security, the applicant shall submit an as-built plan certified by a licenced professional, and meeting all of the requirements of Section 113-58 of the Mount Joy Township Stormwater Management Ordinance.Following approval of the as-built plan by the Township Engineer, the applicant shall submit the stormwater site plan for recordation in the office of the recorder of deeds.
6. There are no prior recorded stormwater management agreements affecting the subject property.

PROJECT TIME SCHEDULE

Begin earthwork and construction - Spring 2024
Anticipated completion date - Spring 2025

REQUESTED MODIFICATIONS/WAIVERS

The following waivers/modifications have been requested:

Mount Joy Township SALD Ordinance:

	DATE	ACTION
1. Section 119-31.A.1 - Plan Scale		
2. Section 119-32.A - Water and Sewer Feasibility Report		
3. Section 119-52.J(3) - Improvements of existing streets		
4. Section 119-57.A, B,D &H Showing and setting monuments/markers		

ZONING TABLE - AGRICULTURAL (FARM-RELATED BUSINESS)

	Required	Existing	Proposed
Minimum lot size (Area)	10 ac	62.53	n/a
Minimum yard dimensions:			
Front yard, from ROW	50 ft	n/a	374 Ft
Side yard	20 ft	n/a	24 Ft
Rear yard	50 ft	n/a	179 Ft
Minimum lot width	100 ft	2600 ft	2600 ft
Minimum lot depth	150 ft	510 ft	510 ft
Maximum Height, Ag Use	n/a	n/a	30 Ft
Maximum Building Coverage	20%	0.6% (15,307 sf)	0.9% (24907 sf)
Maximum Impervious Coverage	25%	1.0% (28,324 SF)	2.6% (70,894 SF)
Units of Occupancy		1 unit	1 unit
Density		0.016 unit/acre	0.016 unit/acre

Required # off-street parking spaces:
(1 space per nonresident employee x 3 employees = 3
plus 2 spaces per 3 bedroom dwelling x 1 dwelling = 2
Total required parking = 3+2 = 5 spaces
Proposed 5 parking spaces (2 existing + 3 proposed)

1. Agricultural Nuisance Disclaimer - Land within the Agricultural District are located within area where land is used for agricultural production. Owners, residents, and other users of this property may be subjected to inconvenience, discomfort, and the possibility of injury to property and health arising from normal and accepted agricultural practices and operations including but not limited to noise, odors, dust, and the operation of machinery of any kind including aircraft, the storage and disposal of manure, the application of fertilizers and soil amendments. Owners, occupants, and users or this property should be prepared to accept such inconveniences, discomfort, and the possibility of injury from normal agricultural operations, and are hereby put on official notice that section 4 of the Pennsylvania act 133 of 1982, "the right to farm law" may bar them from obtaining a legal judgement against such normal agricultural operations used in a prudent manner.
2. Construction of improvements upon or disturbance of the replacement septic field location is prohibited. Said replacement location shall not be excavated, graded, filled, or otherwise disturbed In any manner which would prevent its use as a future on-lot sewage disposal system during development of the lot. No permanent or temporary improvements of any character other than the planting of trees, shrubs, or other plant matter shall be constructed upon the replacement location unless the person who desires to construct such improvements shall demonstrate to the satisfaction of the Sewage Enforcement Officer that an alternative replacement location which complies with all applicable township ordinances exists upon the lot. If such an alternate replacement location shall be identified, the alternate replacement location may be considered to be the replacement location, and the plans shall be accordingly revised and submitted to the planning commission. The newly designated replacement location shall thereafter be considered the replacement location for the purposes of this Chapter. (per section 119-34.c.4 of the subdivision/land development ordinance}.
3. Off-street parking will be provided at a minimum of two (2) spaces per lot.
4. A highway occupancy permit is required pursuant to section 420 of the act of June 1, 1945 {p.l 1242, no. 428), known as the "
5. State Highway Law, before access to a state highway is permitted. Access to the state highway shall be as authorized by a highway occupancy permit and the planning commission's approval of this plan !n no way implies that such a permit can be acquired.

NOTICE

According to County records, the subject property is subject to the Pennsylvania Farmland and Forest Land Assessment Act of 1974 (A.k.a. The Clean and Green Act), Act 319 of 1974, P.L. 973; 72 P.S. 5490.1, as amended, and as further amended by Act 156 of 1998, as amended. These Acts provide for preferential property tax assessment and treatment. It is the property owner's responsibility to be aware of the laws, rules and regulations applicable to his or her property, including the following provisions: (a) preferential property tax assessment and treatment will remain in effect continuously until the land owner changes the agricultural use from the approved category (b) If a transfer, split-off or separation of the subject land occurs, the property owner is responsible for submitting 30 days' notice to the County Assessor of a proposed change in use of the land, a change in ownership of any portion of the land, or any type of division or conveyance of the land. (c) the payment of roll-back tax, plus interest, for the period of enrollment, or a period not to exceed 7-years, whichever is less, may be required; (d) if the property owner fails to provide 30 days' notice to the County, the property owner may be subject to a $100.00 civil penalty; (e) if the property owner fails to pay the roll-back tax, a municipal lien could be placed on the property under existing delinquent tax law.

CARBONATE GEOLOGY CERTIFICATION

I, _____ hereby certify that the stormwater management facilities are underlain by carbonate geology.

_____, 20_____ _____
Date Sam Baughman, P.G.

STORM DRAINAGE PLAN CERTIFICATION

I hereby certify that, to the best of my knowledge, the stormwater management facilities shown and described hereon are designed in conformance with Chapter 119, Subdivision and Land Development, and Chapter 113, Stormwater Management.

_____, 20_____ _____
Mark D. Myers

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — MARK D. MYERS — ENGINEER No.040678E

STATEMENT OF ACCURACY (PLAN)

I hereby certify that, to the best of my knowledge, the survey and plan shown and described hereon is true and correct to the accuracy required by the Chapter 119, Subdivision and Land Development. I hereby certify that this plan identifies all applicable prior plans, including all notes or restrictions, and is complete and correct.

_____, 20_____ _____
Mark D. Myers

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — MARK D. MYERS — ENGINEER No.040678E

STATEMENT OF ACCURACY (SURVEY)

I hereby certify that, to the best of my knowledge, the property boundary survey shown and described hereon is true and correct to the accuracy required by the Chapter 119, Subdivision and Land Development.

_____,20_____ _____

STORMWATER FACILITY PERMANENCE STATEMENT

I, the undersigned, hereby represent that the SWM facilities to be permanent fixtures that cannot be altered or removed unless a revised plan is approved by the Township. The operation and maintenance agreement is part of the stormwater management site plan.

_____, 20_____ _____
Jay Wendell Garman

_____,20_____ _____
Emily Rose Garman

CERTIFICATION OF OWNERSHIP AND ACKNOWLEDGMENT OF PLAN

Commonwealth of Pennsylvania
County of Lancaster

On this, the _____ day of _____, 20 _____, before me, the undersigned, personally appeared Jay Wendell Garman and Emily Rose Garman, who being duly sworn according to law, depose and say that they are the owners of the property shown on this plan, that the plan thereof was made at their direction, that they acknowledge the same to be their act and plan, that they desire the same to be recorded, and that all streets and other property identified as proposed public property (excepting those areas labeled "Not for Dedication") are hereby dedicated to the public use.

_____ _____
Jay Wendell Garman Emily Rose Garman

_____
Notary Public

My commission expires _____, 20 _____

LANCASTER COUNTY PLANNING DEPARTMENT REVIEW CERTIFICATE

This plan, bearing LCPC File No. _____, was reviewed by the staff of the Lancaster County Planning Department on _____, 20 ____ as required by the Pennsylvania Municipalities Planning Code, Act 247, of 1968, as amended. This certificate does not represent nor guarantee that this plan complies with the various ordinances, rules, regulations, or laws of the local municipality, the Commonwealth, or the Federal Government.

_____
* Signature of the Chairperson or their designee

MOUNT JOY TOWNSHIP PLANNING COMMISSION REVIEW CERTIFICATE

At a meeting on _____, 20____ the Mount Joy Township Planning Commission approved this project including the complete set of plans which are filed in Mount Joy Township Planning Commission File No. _____, based upon its conformity with the standards of Chapter 119, Subdivision and Land Development and Chapter 113, Stormwater Management.

_____ _____

TeamAg INC

REVISION	DATE	BY
PER LCCD ADMIN. REVIEW LETTER DATED FEBRUARY 5, 2024	FEB. 9, 2024	MDM
PER TWP ENGR FEB 20, 2024 LTR & LCCD MAR 22, 2024 LTR	APR. 5, 2024	MDM

PROJECT MANAGER: CAMERON L. RENEHAN
DESIGN BY : MDM
DRAWN BY : MDM/JD
DATE : JANUARY 19, 2024
PROJECT NO.: 5947-23-01

SEAL

TeamAg INC
120 LAKE STREET
EPHRATA, PA 17522
PHONE: 717-721-6795 FAX: 717-721-9275
www.TeamAginc.com TeamAg@TeamAginc.com

SCALE: AS NOTED

PROJECT TITLE
PROPOSED BUILDING
LANCASTER COUNTY
MOUNT JOY TOWNSHIP

CLIENT
JAY GARMAN
1267 RISSER MILL ROAD
MOUNT JOY, PA 17552
717-363-3375

TITLE SHEET

DRAWING : TS-1 (1 OF 9)

Douglas J. & Sharilynn D. Wolgemuth
PID: 461-99995-0-0000

Darrel S. & Kelly AM Martin
DR: 5921369
PID: 461-27978-0-0000

Kenneth R. & Sarah S. Shearer
DR: 3744212
PID: 461-38647-0-0000

Jay Wendell & Emily Rose Garman
PID: 461-10741-0-0000
Deed: 674451
Plan: J-230-143

Caleb M. & Sara E. Reed
DR: 6709119
PID: 461-10264-0-0000

Jeremy A. & Karissa M. Clark
and Benjamin C. & Melissa Hall
DR: 6635265
PID: 461-34995-0-0000

Jonathon D. Pickell
DR: 6474172
PID: 461-88362-0-0000

Kenneth R. Shearer
& Virginia A. Pickell
DR: 5086634
PID: 461-12387-0-0000
Plan: 2012-0138-J

State Route 283

SR 283

Risser Mill Road

Ranck Rd

R = 5,629.65'
L = 198.10'
CB = S86° 49' 16"W
CL = 198.09'

S04° 11' 13"E 20.00'

R = 5,609.65'
L = 244.77'
CB = S84° 33' 47"W
CL = 244.75'

N06° 41' 13"W 20.00'

R = 5,629.65'
L = 342.25'
CB = S81° 34' 17"W
CL = 342.20'

N15° 04' 32"E 2,783.48'

R= 5889.65'
L= 299.14'
CB= N81° 17' 05"E
CL= 299.11'

N75° 55' 28"W 408.02'

S28° 51' 55"W 204.86'

N79° 49' 43"E 200.23'

S79° 49' 47"W 459.81'

S28° 51' 55"W 308.66'

N61° 08' 05"W 30.00'

S28° 51' 55"W 200.00'

N61° 08' 05"W 10.00'

S28° 51' 55"W 209.16'

R = 397.12'
L = 202.60'
CB = S01° 32' 52"E
CL = 200.41'

S16° 09' 47"E 1,441.30'

100' Wide Right-of-Way
PP&L Transmission Line

50' Setback

35' R.O.W.

16.5' R.O.W.

Existing
Cultivated Field

Existing
Barn

Existing
Dwelling

Ex. Septic

Ex. Pond

Ex. Shed

BM-1

BM-2

BM-3

S74° 46' 13"E 203.08'

N15° 15' 34"E
50.00'

S78° 27' 14"E
327.62'

R = 257.74'
L = 103.88'
CB = S04° 32' 28"E
R = 104.00'

15% Slopes
(Hatched Area)

S16° 33' 18"E 58.25'

S4° 32' 10"E
104.41'

S30° 32' 30"W 19.59'

HaA

HaB

BdB

BdC

BeD

CkA

BENCHMARK INFORMATION :
BM-1 : NAIL IN HUB; ELEV.= 378.58
BM-2 : MAGNAIL IN ROAD; ELEV.= 368.97
BM-3 : TOP OF WELL (A IN PA); ELEV.= 376.86

SOILS LEGEND
BdB - Bedington Silt Loam, 3-8% slopes
BdC - Bedington Silt Loam, 8-15% slopes
BeD - Bedington Channery Silt Loam, 15-25% slopes
CkA - Clarkesburg Silt Loam, 0-5% slopes
HaA - Hagerstown Silt Loam, 0-3% slopes
HaB - Hagerstown Silt Loam, 3-8% slopes

Existing Features Legend

- Contour
- Contour Index
- LIDAR / GIS Contour
- Building
- Concrete
- Edge of Pavement
- Edge of Gravel
- Centerline
- Fence
- Property Boundary
- Property Adjoiner
- Right-of-Way
- Stormwater Pipe
- Edge of Water
- Treeline
- Soil Boundary
- 15% or Greater Slopes

REVISION	BY	DATE
PER LCCD ADMIN. REVIEW LETTER DATED FEBRUARY 5, 2024	MDM	FEB. 6, 2024
PER TWP ENGR FEB.20, 2024 LTR & LCCD MAR 22, 2024 LTR	MDM	APR. 5, 2024

PROJECT MANAGER
CAMERON L. RENSHAW

DESIGN BY : MDM

DRAWN BY : MDM/JD

DATE : JANUARY 19, 2024

PROJECT NO.: 5947-23-01

SEAL

TeamAg INC
120 LAKE STREET
EPHRATA, PA 17522
PHONE: 717-721-6795 FAX: 717-721-9275
www.TeamAginc.com TeamAg@TeamAginc.com

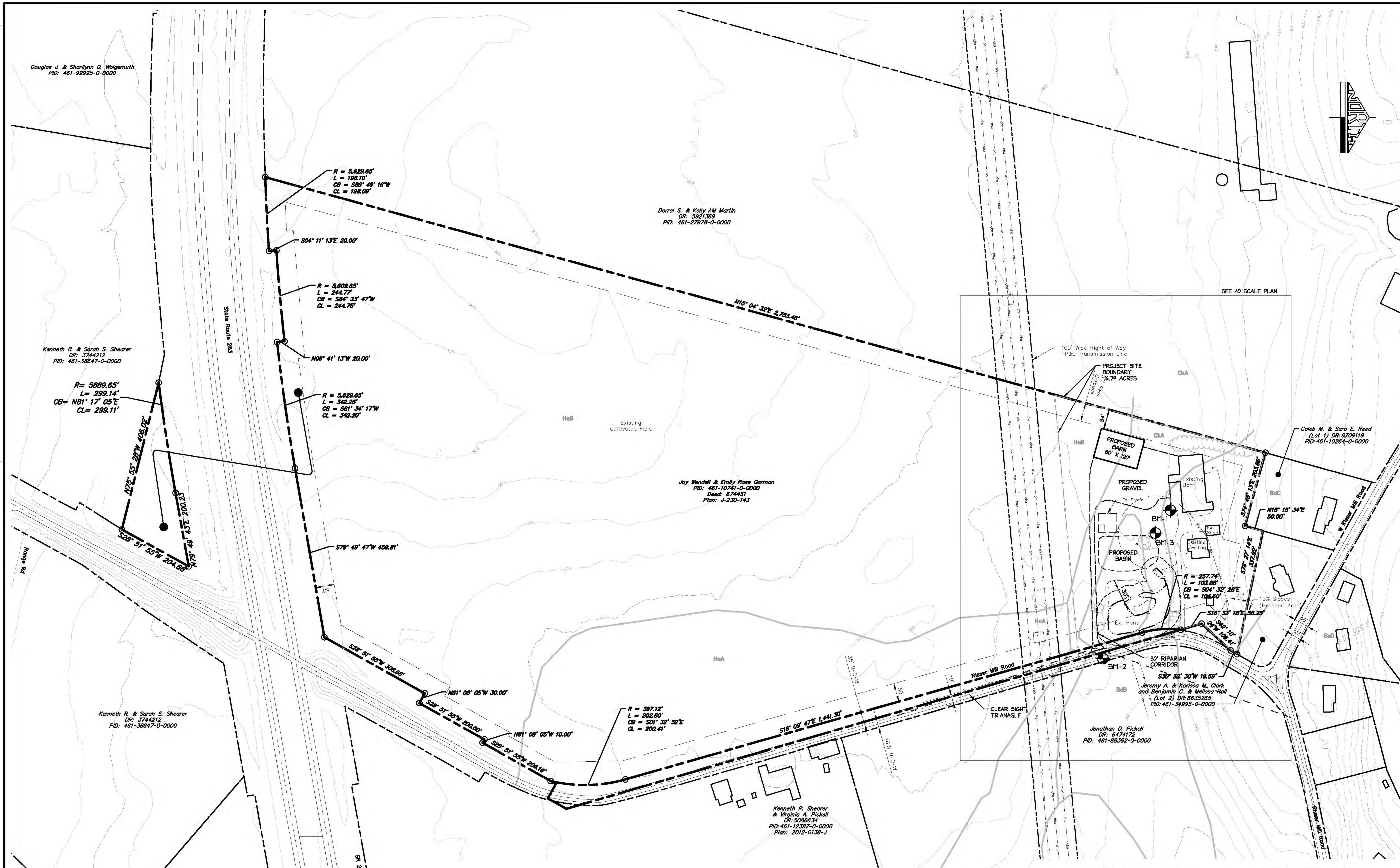
SCALE
1" = 120'
0' 120' 240' 360'

PROJECT TITLE
PROPOSED BUILDING
MOUNT JOY TOWNSHIP LANCASTER COUNTY

CLIENT
JAY GARMAN
1267 RISSER MILL ROAD
MOUNT JOY, PA 17552
717-363-3376

EXISTING CONDITIONS PLAN

DRAWING EX-1 (2 OF 9)



RIPARIAN CORRIDOR NOTES

The following performance standards shall apply to riparian corridors (as required by Zoning Ordinance 135-306.B). See sheet PC-1L.

1. Existing vegetated areas within the riparian corridor shall be preserved to the maximum extent possible.
2. The planting of additional native trees, shrubs and other plant material and the removal of invasive species as determined necessary in order to create a suitable riparian canopy and understory within the riparian corridor shall be permitted.
3. Septic drainfields and sewage disposal systems shall not be permited within the riparian corridor and shall maintain a minimum distance of 100 feet from the top of a stream bank.
4. Solid waste disposal facilities, mining operations and junkyards shall not be permitted within 300 feet of the top of a stream bank.
5. Above or underground petroleum storage facilities shall not be permitted within 150 feet of the top of a stream bank.
6. The application for biosolids shall not be permitted within 100 feet of the top of a stream bank.
7. Storage and handing of any hazardous wastes must have impermeable surfaces designed to contain materials stored/handled from which they shall be directed to a tion point, which shall not be located within a riparian corridor.
8. With the exception of the construction of pedestrian trails and associated observation decks or areas, waterway access, waterway restoration and enhancement, livestock crossings, and infrastructure and utility crossings, the filling, grading or excavating of riparian corridors, shall be prohibited.
9. The grazing, housing or other maintenance of livestock within the riparian corridor shall be prohibited.

BENCHMARK INFORMATION ⊕ :

BM-1 : NAIL IN HUB; ELEV.= 378.58
BM-2 : MAGNAIL IN ROAD; ELEV.= 368.97
BM-3 : TOP OF WELL (A IN PA); ELEV.= 376.86

SOILS LEGEND

BdB - Bedington Silt Loam, 3-8% slopes
BdC - Bedington Silt Loam, 8-15% slopes
BeD - Bedington Channery Silt Loam, 15-25% slopes
CkA - Clarksburg Silt Loam, 0-5% slopes
HaA - Hagerstown Silt Loam, 0-3% slopes
HaB - Hagerstown Silt Loam, 3-8% slopes

Existing Features Legend

Contour
Contour Index
LIDAR / GIS Contour
Building
Concrete
Edge of Pavement
Edge of Gravel
Centerline
Fence
Property Boundary
Property Adjoiner
Right-of-Way
Stormwater Pipe
Edge of Water
Treeline
Soil Boundary

PROPOSED FEATURES LEGEND

CONTOUR
CONTOUR INDEX
BUILDING
CONCRETE
EDGE OF PAVEMENT
EDGE OF GRAVEL
FENCE
EASEMENT
LIMITS OF DISTURBANCE
NPDES PERMIT BOUNDARY
SETBACK
INLET, STORMWATER PIPE, ENDWALL / HEADWALL
SUBSURFACE DRAIN
TOP OF BERM
MANURE TRANSFER PIPE

DATE	BY	REVISION
FEB. 8, 2024	MDM	PER LCCD ADMIN. REVIEW LETTER DATED FEBRUARY 5, 2024
APR. 5, 2024	MDM	PER TWP ENGR FEB.20, 2024 LTR & LCCD MAR 22, 2024 LTR

PROJECT MANAGER
CAMERON L. RENEHAN
DESIGN BY : MDM
DRAWN BY : MDM/JD
DATE : JANUARY 19, 2024
PROJECT NO.: 5947-23-01

SEAL

TeamAg INC
120 LAKE STREET
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PHONE: 717-721-6795 FAX: 717-721-9275
www.TeamAginc.com TeamAg@TeamAginc.com

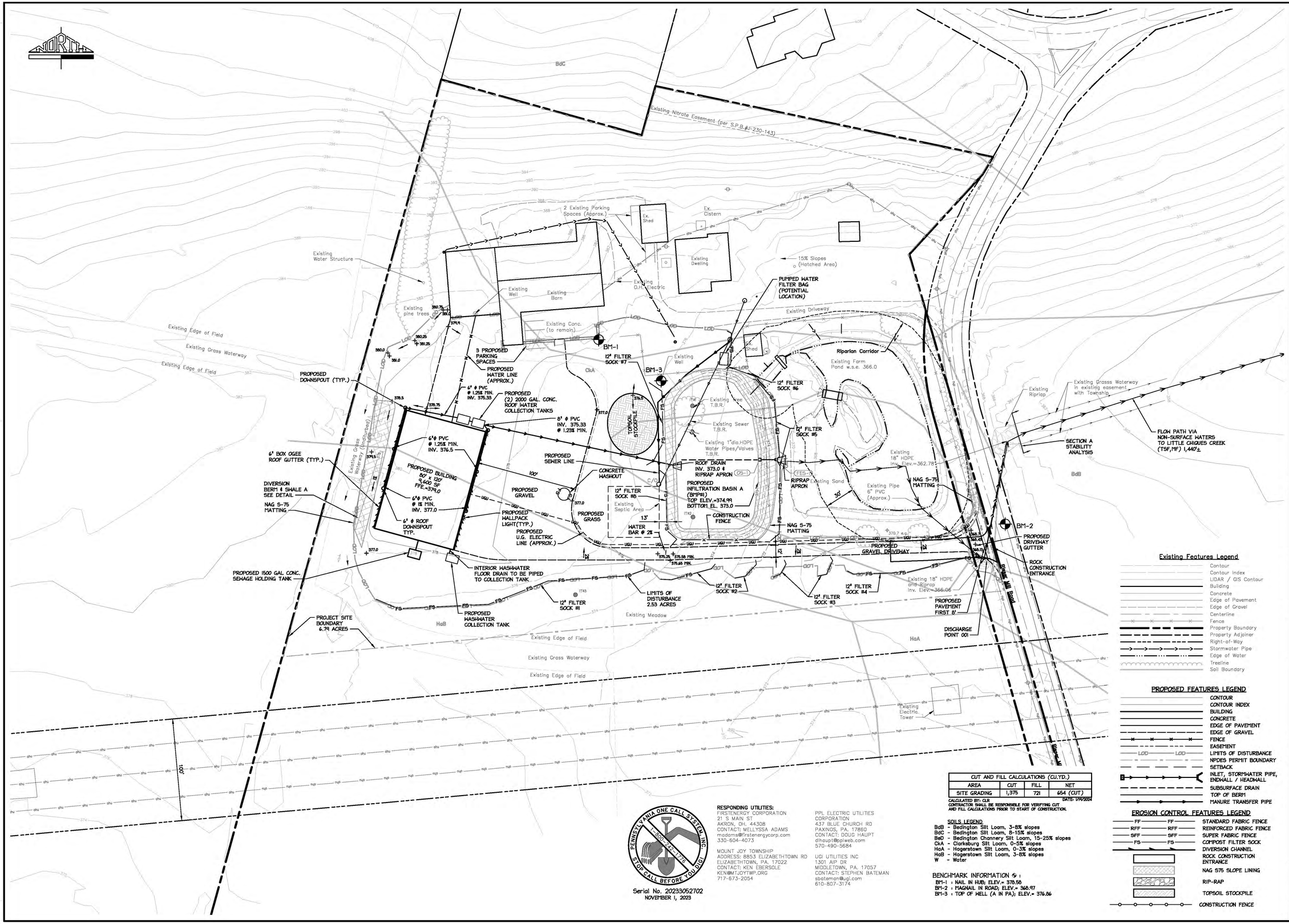
SCALE 1" = 120'

PROJECT TITLE
PROPOSED BUILDING
MOUNT JOY TOWNSHIP LANCASTER COUNTY

CLIENT
JAY GARMAN
1267 RISSER MILL ROAD
MOUNT JOY, PA 17552
717-363-3375

OVERALL SITE PLAN

DRAWING : SP-1 (3 OF 9)



CUT AND FILL CALCULATIONS (CU.YD.)			
AREA	CUT	FILL	NET
SITE GRADING	1,375	721	654 (CUT)

CALCULATED BY: CLR DATE: 1/9/2024
CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING CUT AND FILL CALCULATIONS PRIOR TO START OF CONSTRUCTION.

RESPONDING UTILITIES:

FIRSTENERGY CORPORATION
21 S MAIN ST
AKRON, OH. 44308
CONTACT: MELLYSSA ADAMS
madams@firstenergycorp.com
330-504-4073

MOUNT JOY TOWNSHIP
ADDRESS: 8853 ELIZABETHTOWN RD
ELIZABETHTOWN, PA. 17022
CONTACT: KEN EBERSOLE
KEN@MTJOYTWP.ORG
717-673-2054

PPL ELECTRIC UTILITIES CORPORATION
437 BLUE CHURCH RD
PAXINOS, PA. 17860
CONTACT: DOUG HAUPT
dlhaupt@ppiweb.com
570-490-5684

UGI UTILITIES INC
1301 AIP DR
MIDDLETOWN, PA. 17057
CONTACT: STEPHEN BATEMAN
sbateman@ugi.com
610-807-3174

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP CALL BEFORE YOU DIG!
Serial No. 20233052702
NOVEMBER 1, 2023

SOILS LEGEND

BdB - Bedington Silt Loam, 3-8% slopes
BdC - Bedington Silt Loam, 8-15% slopes
BeD - Bedington Channery Silt Loam, 15-25% slopes
CkA - Clarksburg Silt Loam, 0-5% slopes
HaA - Hagerstown Silt Loam, 0-3% slopes
HaB - Hagerstown Silt Loam, 3-8% slopes
W - Water

BENCHMARK INFORMATION :

BM-1 : NAIL IN HUB; ELEV.= 378.58
BM-2 : MAGNAIL IN ROAD; ELEV.= 368.97
BM-3 : TOP OF WELL (A IN PA); ELEV.= 376.86

Existing Features Legend

- Contour
- Contour Index
- LIDAR / GIS Contour
- Building
- Concrete
- Edge of Pavement
- Edge of Gravel
- Centerline
- Fence
- Property Boundary
- Property Adjoiner
- Right-of-Way
- Stormwater Pipe
- Edge of Water
- Treeline
- Soil Boundary

PROPOSED FEATURES LEGEND

- CONTOUR
- CONTOUR INDEX
- BUILDING
- CONCRETE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- FENCE
- EASEMENT
- LIMITS OF DISTURBANCE
- NPDES PERMIT BOUNDARY
- SETBACK
- INLET, STORMWATER PIPE, ENDWALL / HEADWALL
- SUBSURFACE DRAIN
- TOP OF BERM
- MANURE TRANSFER PIPE

EROSION CONTROL FEATURES LEGEND

- STANDARD FABRIC FENCE
- REINFORCED FABRIC FENCE
- SUPER FABRIC FENCE
- COMPOST FILTER SOCK
- DIVERSION CHANNEL
- ROCK CONSTRUCTION ENTRANCE
- NAG S75 SLOPE LINING
- RIP-RAP
- TOPSOIL STOCKPILE
- CONSTRUCTION FENCE

REVISION	BY	DATE
PER LCCD ADMIN. REVIEW LETTER DATED FEBRUARY 5, 2024	MDM	FEB. 6, 2024
PER TWP ENGR FEB.20, 2024 LTR & LCCD MAR 22, 2024 LTR	MDM	APR. 5, 2024

PROJECT MANAGER: CAMERON L. RENSHAW
DESIGN BY : MDM
DRAWN BY : MDM/JD
DATE : JANUARY 19, 2024
PROJECT NO.: 5947-23-01

SEAL

TeamAg INC
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SCALE 1" = 40' (120' / 80' / 40' / 0')

PROJECT TITLE
PROPOSED BUILDING
MOUNT JOY TOWNSHIP LANCASTER COUNTY

CLIENT
JAY GARMAN
1267 RISSER MILL ROAD
MOUNT JOY, PA 17552
717-363-3376

EROSION CONTROL PLAN

DRAWING ES-1 (4 OF 9)

GENERAL EROSION CONTROL NOTES:

1. All earth disturbances, including clearing and grubbing as well as cuts and fills shall be done in accordance with the approved E&S plan. A copy of the approved drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times. The reviewing agency shall be notified of any changes to the approved plan prior to implementation of those changes. The reviewing agency may require a written submittal of those changes for review and approval at its discretion.
2. At least 7 days prior to starting any earth disturbance activities, including clearing and grubbing, the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S plan preparer, the PCSM plan preparer, the licensed professional responsible for oversight of critical stages of implementation of the PCSM plan, and a representative from the local conservation district to an on-site preconstruction meeting.
3. At least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.
4. All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. Deviation from that sequence must be approved in writing from the local conservation district or by the Department prior to implementation.
5. Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots and other objectionable material.
6. Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E&S BMPs specified by the BMP sequence for that stage or phase have been installed and are functioning as described in this E&S plan.
7. At no time shall construction vehicles be allowed to enter areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operations begin.
8. Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan maps(s) in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Stockpile heights shall not exceed 35 feet. Stockpile slopes shall be 2H:1V or flatter.
9. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to minimize the potential for erosion and sediment pollution and notify the local conservation district and/or the regional office of the Department.
10. All building materials and wastes shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1, and 287.1 et. seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
11. All off-site waste and borrow areas must have an E&S plan approved by the local conservation district or the Department fully implemented prior to being activated.
12. The contractor is responsible for ensuring that any material brought on site is clean fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance but qualifying as clean fill due to analytical testing.
13. All pumping of water from any work area shall be done according to the procedure described in this plan, over undisturbed vegetated areas.
14. Until the site is stabilized, all erosion and sediment BMPs shall be maintained properly. Maintenance shall include inspections of all erosion and sediment BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, remulching and renetting must be performed immediately. If the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.
15. A log showing dates that E&S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
16. Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.
17. All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
18. Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches (6 to 12 inches on compacted soils) prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outslopes shall have a minimum of 2 inches of topsoil.
19. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc. shall be compacted in accordance with local requirements or codes.
20. All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
21. Fill materials shall be free of frozen particles, brush, roots, sod, or other foreign or objectionable materials that would interfere with or prevent construction of satisfactory fills.
22. Frozen materials or soft, mucky, or highly compressible materials shall not be incorporated into fills.
23. Fill shall not be placed on saturated or frozen surfaces.
24. Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
25. All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated. Seeded areas within 50 feet of a surface water, or as otherwise shown on the plan drawings, shall be blanketed according to the standards of this plan.
26. Immediately after earth disturbance activities cease in any area or subarea of the project, the operator shall stabilize all disturbed areas. During non-germinating months, mulch or protective blanketing shall be applied as described in the plan. Areas not at finished grade, which will be reactivated within 1 year, may be stabilized in accordance with the temporary stabilization specifications. Those areas which will not be reactivated within 1 year shall be stabilized in accordance with the permanent stabilization specifications.
27. Permanent stabilization is defined as a minimum uniform, perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
28. E&S BMPs shall remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the local conservation district or the Department.
29. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district for an inspection prior to removal/conversion of the E&S BMPs.
30. After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed or converted to permanent post construction stormwater management BMPs. Areas disturbed during removal or conversion of the BMPs shall be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal/conversions are to be done only during the germinating season.
31. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district to schedule a final inspection.
32. Failure to correctly install E&S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E&S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Department, as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to $10,000 per day in civil penalties, up to $10,000 in summary criminal penalties, and up to $25,000 in misdemeanor criminal penalties for each violation.

ADDITIONAL NOTES:

1. Concrete wash water shall be handled in the manner described on the plan drawings. In no case shall it be allowed to enter any surface waters or groundwater systems.
2. All channels shall be kept free of obstructions including but not limited to fill, rocks, leaves, woody debris, accumulated sediment, excess vegetation, and construction material/wastes.
3. Underground utilities cutting through any active channel shall be immediately backfilled and the channel restored to its original cross-section and protective lining. Any base flow within the channel shall be conveyed past the work area in the manner described in this plan until such restoration is complete.
4. Channels having riprap, Reno mattress, or gabion linings must be sufficiently over-excavated so that the design dimensions will be provided after placement of the protective lining.
5. Sediment basins and/or traps shall be kept free of all construction waste, wash water, and other debris having potential to clog the basin/trap outlet structures and/or pollute the surface waters.
6. Sediment basins shall be protected from unauthorized acts by third parties.
7. Any damage that occurs in whole or in part as a result of basin or trap discharge shall be immediately repaired by the permittee in a permanent manner satisfactory to the municipality, local conservation district, and the owner of the damaged property.
8. Upon request, the applicant or his contractor shall provide an as-built (record drawing) for any sediment basin or trap to the municipal inspector, local conservation district or the Department.
9. Erosion control blanketing shall be installed on all slopes 3H:1V or steeper within 50 feet of a surface water and on all other disturbed areas specified on the plan maps and/or detail sheets.
10. Fill material for embankments shall be free of roots, or other woody vegetation, organic material, large stones, and other objectionable materials. The embankment shall be compacted in maximum 6-12" layered lifts at 90% density.

SEQUENCE OF CONSTRUCTION:

All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed in compliance with Chapter 102 regulations before any following stage is initiated. Clearing and grubbing shall be limited only to those areas described in each stage. Before implementing any revisions to the approved erosion and sediment control plan or revisions to other plans which may affect the effectiveness of the approved E&S control plan, the operator must receive approval of the revisions from the County Conservation District.

At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the erosion and sedimentation control plan preparer, and a representative of the County Conservation District to schedule an on-site pre-construction meeting. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Inc. at 1-800-242-1776 for buried utilities location.

Construction Sequence

1. The contractor shall contact utility owners prior to beginning earth disturbance, including the underground cable and other utilities in the right-of way of Center Road to protect the utilities.
2. Field mark the limits of disturbance. All infiltration BMPs shall be protected from compaction.Install construction fence at basin.
3. Install rock construction entrance.
4. Install compost filter sock as shown on the drawings
5. Install gravel driveway entrance, noting cross slope directions of driveway.
6. Strip and stockpile topsoil and rough grade area for the proposed building. Place excess soil in stockpile as needed. Stockpile height shall not exceed 35 ft. Side slopes must be 2:1 or flatter. Verify compost filter sock is installed below topsoil and excess material stockpiles.
7. If groundwater or subsurface flow is encountered during construction, install tile drains and direct the flow to the nearest waterway.
8. Install roof drains from barn to basin starting with riprap apron and working upslope.
9. A crushed aggregate base course shall be immediately applied to the barn pad area to service the proposed site.
10. Begin construction of the building with utilities. Install concrete washouts as necessary before concrete pours. Begin to install proposed utilities.
11. Install diversion berm with matting.
12. Fine grade the laun areas and seed or sod immediately with a perennial grass cover. Launs shall be maintained on a regular basis and repaired, reseeded and mulched until stabilization is achieved.
13. Install infiltration basin after all tributary areas are uniformly stabilized. The conservation district and township shall approve the start of installation of infiltration basin to infiltration basin CRITICAL STAGE - See Plan sheet PC-3 for specifications. Contact TeamAg for inspection to be present for the excavation of the basin bottom and topsoil placement at the direction of the Project engineer or geologist. The basin should be excavated from the sides as much as practical to reduce compaction. Equipment that exerts a low ground pressure (less than 4 pounds per square inch) shall be used to construct the basin and all other infiltration BMPs to avoid compaction of the infiltration floor.
- 13.1. Remove any water trash and other debris from the basin.
- 13.2. Remove sediment that has accumulated in the basin.
- 13.3. Inspect and repair outlet structures if necessary.
- 13.4. Excavate infiltration basin to proposed invert depth and scarify existing soil surfaces.
- 13.5. Install outlet structure OS-1 to FES-1 starting with riprap apron and working upslope.
- 13.6. The infiltration basin floor shall be chisel plowed to a depth of 12-18 inches with suitable equipment.
- 13.7. Backfill basin with amended as shown on plans and specifications. Overfilling is recommended to account for settlement. Light hand tamping is acceptable if necessary. Seed with ERNST Mix 126 or equal.
- 13.8. Install underdrain.
14. After final grading, seeding will take place to establish a dense vegetative cover.
15. After permanent stabilization of site (i.e. a minimum uniform 70% perennial vegetative cover, with a density capable of resisting accelerated erosion and sedimentation) has been achieved, the temporary erosion and sedimentation controls must be removed. Areas disturbed during the removal of the controls shall be restabilized.
16. Upon completion of an earth disturbance activity or any stage or phase of an activity, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation. Erosion and sediment control BMPs shall be implemented and maintained until the permanent stabilization is completed. For an earth disturbance activity or any stage or phase of an activity to be considered permanently stabilized, the disturbed areas shall be covered with one of the following: (1) A minimum uniform 70% perennial vegetative cover, with a density capable of resisting accelerated erosion and sedimentation. (2) An acceptable BMP which permanently minimizes accelerated erosion and sedimentation.
17. Upon stabilization and authorization by the Conservation District, remove all temporary erosion and sediment control BMPs.
18. Within 30 days after the completion of earth disturbance activities authorized by this permit, including the permanent stabilization of the site and proper installation of PCSM BMPs in accordance with the approved PCSM Plan, or upon submission of the NOT if not sooner, the permittee shall file with the Department and the authorized Conservation District, a statement signed by a licensed professional and by the permittee certifying the work has been performed in accordance with the terms and conditions of this permit and the approved E&S and PCSM Plans. Completion certificates are needed to ensure that all work is performed in accordance with the terms and conditions of the permit and the approved E&S and PCSM Plans.

MAINTENANCE OF EROSION CONTROL FACILITIES:

1. The General Contractor, or in the absence of a General Contractor, the Operator/Owner, shall be responsible for implementing and maintaining all Soil Erosion Controls. The Contractor shall, at the end of each week as well as with each rainfall, inspect all drainage and erosion control facilities to determine if they still function. Silt fence shall be cleaned of silt when silt reaches halfway up fence. Additional stone ballast shall be placed, if necessary, to control the tracking of mud by construction vehicles onto the adjacent roads.
2. Check basin embankments, spillways, and outlets for erosion, piping and settlement. Make necessary repairs immediately. Replace displaced riprap within the outlet energy dissipater immediately after it is displaced and especially after major storm discharge events.
3. If additional silt fence or diversions are necessary, they shall be provided as required. The County Conservation District must review all changes. Sediment deposited behind silt barriers shall be removed and incorporated into the final grading operations.
4. Until the site is stabilized, all erosion and sedimentation controls must be maintained properly. Maintenance must include inspections of all erosion and sedimentation controls after each storm event and on a weekly basis. All site inspections will be documented in an inspection log kept for this purpose. The compliance actions and the date, time and name of the person conducting the inspection. The inspection log will be kept on site at all times and made available to the district on request.
5. All preventative and remedial maintenance work, including clean out, repair, replacement, regarding, reseeding, remulching and renetting must be performed immediately. If erosion and sedimentation BMPs fail to perform as expected, replace or modify installed BMPs. An extra supply of stone, seed, mulch and silt fence shall be kept on site for emergency purposes.
6. When the entire project has become stabilized (i.e. uniform vegetative cover), any temporary sediment and erosion controls shall be removed and the areas stabilized.
7. Sediment must be removed from basins when sediment has accumulated to the clean out elevation. Sediment basins must be protected from unauthorized acts of third parties.
8. Stockpile heights must not exceed 35'. Stockpile slopes must be 2:1 or flatter.
9. An area shall be considered to have achieved final stabilization when it has a minimum of 70% uniform perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding or other movements.
10. Mulch with mulch control netting or erosion control blankets must be installed on all slopes 3:1 and greater.

NPDES PERMIT NOTES:

1. The Permittee and the Co-permittee must ensure that visual site inspections of BMP's are conducted weekly as well as after each precipitation event. The inspector must be qualified and a written account of the inspections and the corrective action taken must be kept.
2. All Permittees and Co-permittees will comply with the terms and conditions of the NPDES permit. Any non-compliance may be grounds for enforcement action. The Permittees could be subject to criminal and/or civil penalties for violations of the terms of the permit.
3. The County Conservation District shall be contacted at least seven (7) days prior to the start of construction to schedule a pre-construction meeting.
4. All earth movers shall be added to the NPDES permit as Permittees or Co-permittees prior to earthmoving.
5. All monitoring records shall be kept for a period of 3 years from the date of termination of the NPDES permit.
6. Upon reduction, loss or failure of the BMPs, the permittee and co-permittee shall take immediate action to restore the BMPs or provide an alternative method of treatment. If an alternate BMP will be employed the permit-issuing agency must be contacted.
7. All reasonable steps will be taken to prevent or minimize any discharges, which have the reasonable likelihood of effecting human health or the environment in violation of the NPDES permit.
8. The owner or operator of this facility covered by the permit shall make the plans available to the public if requested. Erosion and sedimentation control plans must be available at the site at all times.
9. The staging of earthmoving and maintenance requirements contained in this plan must be followed unless amended and approved by the County Conservation District.
10. All building materials and waste must be removed from the site and disposed of or recycled in accordance with the solid waste management regulations. No material may be buried, dumped or discharged on site.
11. All borrow and spoil areas shall have an erosion control plan approved by the County Conservation District prior to their use.
12. Should there be additional phases to the project each phase shall have an erosion control plan approved by the County Conservation District prior to the start of construction of that phase.

FILL MATERIALS:

1. The General Contractor, or in the absence of a General Contractor, the Operator/Owner shall be responsible for performing Environmental Due Diligence to ensure that all fill material associated with the project qualifies as Clean Fill. All fill material must be used in accordance with the Department's policy "Management of Fill", document number 258-2182-773.
2. Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized. ("The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use.)
3. Environmental due diligence is defined as: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill".

PROTECTION OF INFILTRATION BMP'S:

1. Compaction of the BMP area shall be avoided and minimized during construction.
2. E&S BMPs shall be installed and maintained during and after construction of the infiltration BMP's to prevent sediment from clogging or filling the PCSM BMP or storage facility.
3. To the maximum extent practicable, PCSM BMPs should be constructed after permanent stabilization has been achieved on all contributing drainage areas.

THERMAL IMPACTS:

- During Construction, runoff from the site will be filtered through compost filter socks and sheet flow across vegetated areas to allow for cooling prior to reaching surface waters.

PROCEDURES FOR RECYCLING AND WASTE HANDLING & DISPOSAL:

The developer or its authorized representative shall to the greatest extent possible recycle and reuse construction materials when no longer needed on the site. Concrete forms will be reused in other construction projects. Excess materials will be used in other projects as much as is feasible, rather than disposal on the site. Construction waste anticipated for this project includes wood forms, excess concrete, cardboard and other typical construction wastes. All wastes shall be handled and disposed of properly in accordance with governing state and federal regulations. Manure shall be handled and disposed of according to PA Act 38 and other governing manure management plan requirements and applicable regulations.

GENERAL SEEDING NOTES

1. Any disturbed area on which activity has ceased and which will remain exposed must be seeded and mulched immediately. During non-germinating periods, mulch must be applied at the recommended rates. Disturbed areas which are not at finished grade and which will be redisturbed within 1 year may be seeded and mulched with a quick growing temporary seeding mixture and mulch. Disturbed areas which are at finished grade or will not be redisturbed within one year must be seeded and mulched with a permanent seed mixture and mulch.
2. Diversions, channels, sedimentation basins and stockpiles must be seeded and mulched immediately.
3. Hay or straw mulch must be applied at rates of at least 3.0 tons per acre. Mulch shall be anchored immediately after application. Mulch shall be held down by synthetic binders or mechanical means.

TEMPORARY SEEDING NOTES

Site preparation: Apply 1 ton/acre agricultural grade limestone and 10-10-10 fertilizer at a rate of 500 lbs./acre and work in where possible. Mulch seeded areas immediately after seeding.

PERMANENT SEEDING NOTES

Site preparation: Grade as necessary to bring the subgrade to a true, smooth slope parallel to and six inches below finished grade. Place topsoil over specified areas to a depth sufficiently greater than six inches so that after settlement and light rolling the complete work will conform to lines, grades, and elevations shown.

Apply 6 tons/acre agricultural grade limestone and 10-20-10 fertilizer at a rate of 1,000 lbs./acre or as per soil test. Limestone and fertilizer may not be required in agricultural fields.

Fertilizer and agricultural limestone shall be thoroughly incorporated into the soil by rototilling or other method to a minimum depth of four inches. The entire surface shall be done in two separate operations. The second seeding shall be done immediately after the first and at right angles to the first seeding and lightly raked into the soil. Mulch seeded areas immediately after seeding.

RECOMMENDED SEED MIXTURES

CONDITION	MIXTURE NUMBER	SPECIES	SEEDING RATES PURE LIVE SEED[1]
Temporary	1	Spring oats, or	64
		Annual ryegrass (spring or fall), or	10
		Winter wheat (fall), or	90
		Winter rye (fall)	56
Laun area flatter than 3 to 1 and permanent swales[2]	1	Temporary mixture, plus	
	2	Tall fescue, or	60
		Fine fescue, or	35
		Kentucky bluegrass, plus	25
		Redtop, or	3
		Perennial ryegrass	15
Laun area 3 to 1 and steeper	1	Temporary mixture, plus	
	3	Birdsfoot trefoil, plus	6
		Tall fescue	30

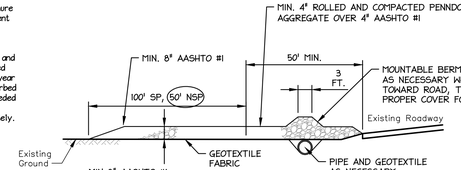
Adapted from PA DEP Erosion and Sediment Pollution Control Program Manual
[1] PLS is the product of the percentage of pure seed times percentage germination divided by 100.
[2] This mixture is suitable for freqent mowing. Do not cut shorter than 4 inches.

CONSTRUCTION TECHNIQUES AND SPECIAL CONSIDERATIONS TO ADDRESS SOIL LIMITATIONS

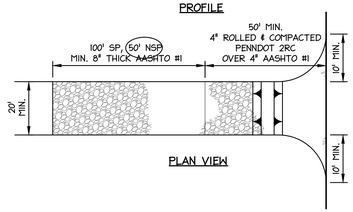
The limitations for both the Clarksburg and Hagerstown series include the following, along with the proposed resolutions considered in the design of this project:

- Cut banks cave - All trenching and temporary excavated cut slopes shall be performed according to OSHA guidelines.
- Corrosive to concrete - Concrete shall be placed and cured according to specifications in order to meet the useful like of the structure.
- Easily erodible - All of the erosion and sediment control measures outlined in the plans shall be followed to minimize erosion.
- Low strength - Design fill slopes shall be adequately compacted and stabilized.
- Slow percolation - Infiltration testing was performed in the areas of proposed stormwater facilities, and facilities and the soils were found to have adequate infiltration properties.
- Piping - adequate compaction of all fill slopes and berms, and inclusion of anti-seep collars on facility barrel outlets will limit piping.
- Poor source of topsoil - Only the soils suitable for topsoil shall be used as such. It is anticipated that the project will have extra topsoil but if there is not an adequate amount of material to be used as topsoil, additional clean topsoil shall be imported to the site.
- Frost Action - Fill material shall be free of frozen or partially frozen soils. Soil to be used as Fill shall not exceed the recommended moisture content. Whenever possible, excavation shall take place when temperatures are above freezing to order to prevent frost action.

In general, adequate compaction, stabilization, and subsurface drainage of the site in accordance with the drawings will maximize favorable conditions for construction and minimize erosion potential. The design engineer should be contacted if issues arise which have the potential to cause erosion or sediment discharge during excavation and construction.



PROFILE



PLAN VIEW

NOTES:

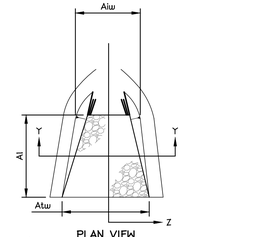
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

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

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

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

1 ALTERNATE ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE



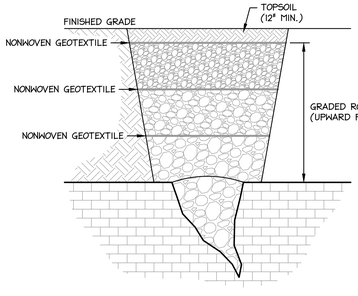
OUTLET NO.	PIPE DIA. Pd (IN)	RIPRAP SIZE	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Alw (FT)	APRON TERMINAL WIDTH Atw (FT)
FES-1	12	R-3	9	6.00	3.00	9.00
Roof Drain	8	R-3	9	6.00	2.00	8.00

NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

2 STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL
NOT TO SCALE

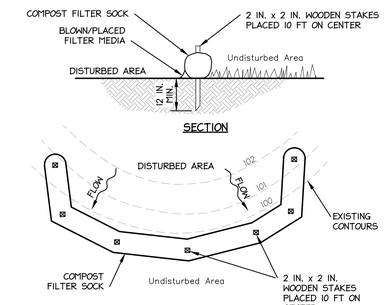


NOTES:

1. IF A SINKHOLE IS ENCOUNTERED A PROFESSIONAL GEOLOGIST OR GEOTECHNICAL ENGINEER MUST BE CONTACTED TO INSPECT AND OVERSEE SINK HOLE REMEDIATION.
2. GEOTEXTILE SHALL BE PLACED AS A SINGLE LAYER BETWEEN THE ROCK LAYERS, THE BOTTOM OF EXCAVATION, AND ABOVE THE TOP LAYER. THE SIDE WALLS OF EXCAVATION SHALL NOT BE COVERED BY GEOTEXTILE.
3. GEOTEXTILE SPECIFICATIONS: WEIGHT 200-400 G/M; THICKNESS 2-3 MM; PERMEABILITY 0.3-0.4 CM/SEC
4. AGGREGATE SPECIFICATIONS: TOP LAYER AASHTO #57 (2B'S); MIDDLE LAYER 3-6 INCH; BOTTOM LAYER 6-8 INCH

3 SINKHOLE REMEDIATION
REVERSE / INVERTED FILTER
NOT TO SCALE

TABLE 4.2 Compost Standards	
Organic Matter Content	25% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.5
Moisture Content	30% - 60%
Particle Size	30% - 50% pass through 3/8" screen
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum
Filtrexx	



PLAN VIEW

NOTES:

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

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

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

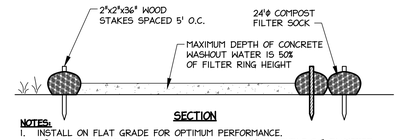
ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

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

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

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

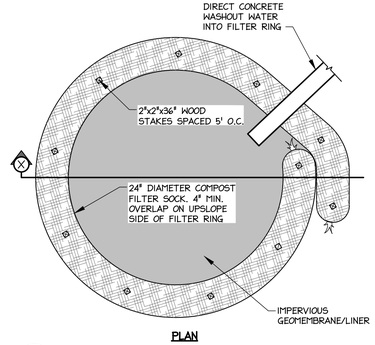
4 STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK
NOT TO SCALE



SECTION

NOTES:

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.



PLAN

5 TYPICAL COMPOST WASHOUT INSTALLATION
NOT TO SCALE

REVISION	DATE	BY
PER LCCD ADMIN. REVIEW LETTER DATED FEBRUARY 5, 2024	FEB. 9, 2024	MDM
PER TWP ENGR FEB.20, 2024 LTR & LCCD MAR 22, 2024 LTR	APR. 5, 2024	MDM

PROJECT MANAGER: CAMERON L. RENEHAN
DESIGN BY : MDM
DRAWN BY : MDM/JJD
DATE : JANUARY 19, 2024
PROJECT NO.: 5947-23-01

SEAL

TeamAg INC
120 LAKE STREET
EPHRATA, PA 17522
PHONE: 717-721-6795 FAX: 717-721-9275
www.TeamAginc.com TeamAg@TeamAginc.com

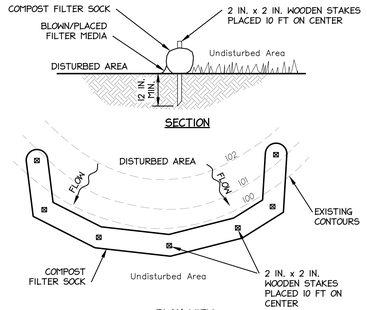
SCALE: AS NOTED

PROJECT TITLE
PROPOSED BUILDING
MOUNT JOY TOWNSHIP LANCASTER COUNTY

CLIENT
JAY GARMAN
1267 RISSER MILL ROAD
MOUNT JOY, PA 17552
717-363-3876

EROSION CONTROL DETAILS

DRAWING : ES-2 (5 OF 9)



NOTES:

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

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

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

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

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

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

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

1 STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK

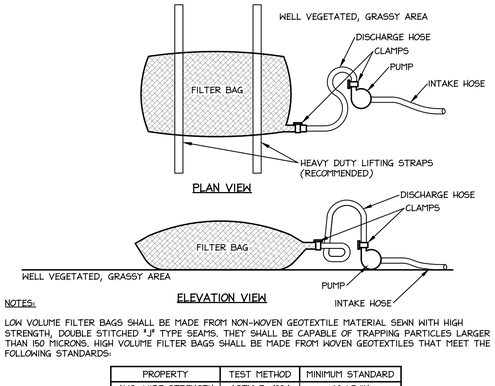
NOT TO SCALE

TABLE 4.1
Compost Sock Fabric Minimum Specifications

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		28 psi	28 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-156)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years
Two-ply systems					
Inner Containment Netting		HDPE biaxial net Continuously wound Fusion-welded junctures 3/4" X 3/4" Max. aperture size			
Outer Filtration Mesh		Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch) 3/16" Max. aperture size			
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.					
Filtrexx & JMD					

TABLE 4.2
Compost Standards

Organic Matter Content	25% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.5
Moisture Content	30% - 60%
Particle Size	30% - 50% pass through 3/8" screen
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum
Filtrexx	



NOTES:

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

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

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

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

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

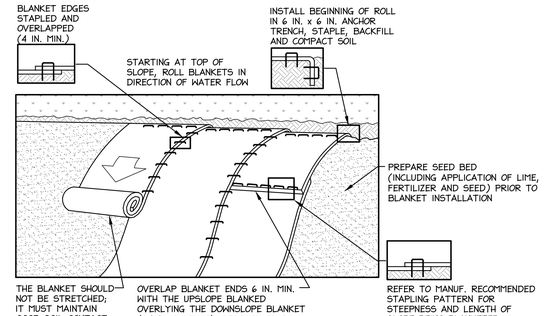
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

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

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

2 STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG

NOT TO SCALE



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

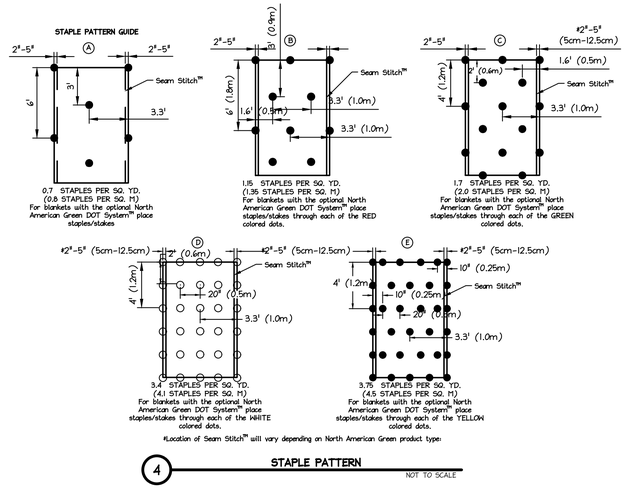
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

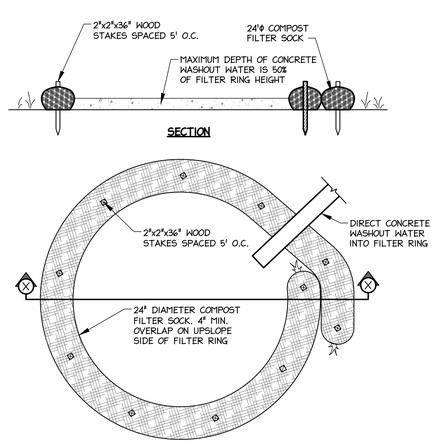
3 STANDARD CONSTRUCTION DETAIL #11-1 EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE



4 STAPLE PATTERN

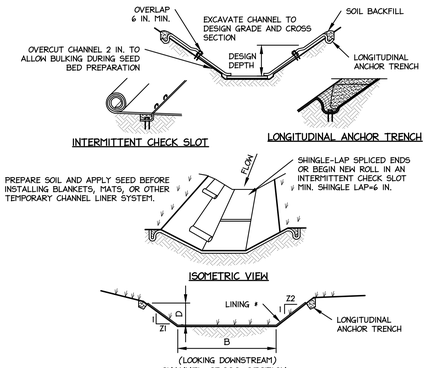
NOT TO SCALE



NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER 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.
4. ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
5. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.
6. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

5 TYPICAL COMPOST WASHOUT INSTALLATION

NOT TO SCALE



SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING #	STAPLE PATTERN
SWALE A	ALL	3	1.00	9	3	3	NAG S75	D

NOTES:
1. ONSITE TOPSOIL MAY BE USED AS PERMEABLE SOIL FOR SWALE CONSTRUCTION.
2. TOPSOIL AND STABILIZED ACCORDING TO THE SEEDING SPECIFICATIONS SHOWN.
3. SEED WITH A SEED MIX CONTAINING VIRGINIA WILD RYE AT 1/4 TO 1/2 LB PER 1,000 SQUARE FEET.

4 VEGETATED SWALE

NOT TO SCALE

REVISION

BY	DATE	REVISION
MDM	FEB. 9, 2024	PER LCCD ADMIN. REVIEW LETTER DATED FEBRUARY 5, 2024
MDM	APR. 5, 2024	PER TWP ENGR FEB.20, 2024 LTR & LCCD MAR 22, 2024 LTR

PROJECT MANAGER: CAMERON L. RENEHAN
DESIGN BY : MDM
DRAWN BY : MDM/JD
DATE : JANUARY 19, 2024
PROJECT NO.: 5947-23-01

SEAL

TeamAg INC
120 LAKE STREET
EPHRATA, PA 17522
PHONE: 717-721-6795 FAX: 717-721-9275
www.TeamAginc.com TeamAg@TeamAginc.com

SCALE: AS NOTED

PROJECT TITLE
PROPOSED BUILDING
MOUNT JOY TOWNSHIP LANCASTER COUNTY

CLIENT
JAY CARMAN
1267 RISSER MILL ROAD
MOUNT JOY, PA 17552
717-363-3375

EROSION CONTROL DETAILS

DRAWING : ES-3 (6 OF 9)

GEOLOGIST RECOMMENDATIONS

To minimize the susceptibility of sinkhole formation, the following tasks are recommended:

- Reduce the time between removal of topsoil and construction of the proposed storm water management facility.
- The area under the storm water management facility should not be impacted by construction vehicles so that storm water may infiltrate the soil as designed.
- Depth to bedrock varies in karst areas, pinnacles may be found during construction.

If during installation, throats, areas of soil piping, or other karst features are discovered, remediation of karst features can be accomplished as follows:

- Areas of soil piping should be excavated to determine the extent of piping. Remove all loose soil and rock to identify the throat in bedrock.
- Use of non-woven geo-fabric to line the bottom of the excavation, between rock layers and above the upper rock layer, the sidewalls do not require covering.
- Placement of reverse stone filter to permit drainage of water but not soils.
- This process should be overseen by a professional geologist or engineer experienced in sinkhole remediation.

CUT AND FILL CALCULATIONS (CU.YD.)			
AREA	CUT	FILL	NET
SITE GRADING	984	710	284

CALCULATED BY: MDM
CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING CUT AND FILL CALCULATIONS PRIOR TO START OF CONSTRUCTION.

BENCHMARK INFORMATION ✥ :
BM-1 : NAIL IN HUB; ELEV.= 378.58
BM-2 : MAGNAIL IN ROAD; ELEV.= 368.97
BM-3 : TOP OF WELL (A IN PA); ELEV.= 376.86

SOILS LEGEND
BdB - Bedington Silt Loam, 3-8% slopes
BdC - Bedington Silt Loam, 8-15% slopes
BeD - Bedington Channery Silt Loam, 15-25% slopes
CkA - Clarksburg Silt Loam, 0-5% slopes
HaA - Hagerstown Silt Loam, 0-3% slopes
HaB - Hagerstown Silt Loam, 3-8% slopes
W - Water

CRITICAL STAGES OF BMP INSTALLATION

Inspections shall be made by a qualified registered professional (e.g. TeamAg, Inc.) to certify that the PCSM plan is constructed in accordance with the design as required by the NPDES permit.

The contractor and/or owner shall notify TeamAg, Inc. to provide the following critical PCSM BMP construction oversite/site visits according to the following schedule:

Inspection #1: During installation of the permanent infiltration basin: to verify scarification of basin bottom, topsoil placement in basin bottom and installation of under-drain.
Inspection #2: Final inspection required to confirm stabilization of site, verify condition of vegetation and conduct as-built measurements. Provide as-built plans and documentation as required by the NPDES permit prior to filing the Notice of Termination.

Existing Features Legend
Contour
Contour Index
LIDAR / GIS Contour
Building
Concrete
Edge of Pavement
Edge of Gravel
Fence
Centerline
Property Boundary
Property Adjoiner
Right-of-Way
Stormwater Pipe
Edge of Water
Treeline
Soil Boundary

PROPOSED FEATURES LEGEND
CONTOUR
CONTOUR INDEX
BUILDING
CONCRETE
EDGE OF PAVEMENT
EDGE OF GRAVEL
FENCE
EASEMENT
LIMITS OF DISTURBANCE
NPDES PERMIT BOUNDARY
SETBACK
INLET, STORMWATER PIPE, ENDWALL / HEADWALL
SUBSURFACE DRAIN
TOP OF BERM
MANURE TRANSFER PIPE
BUILDING MOUNTED DUSK-TO-DAWN LIGHT

REVISION	DATE	BY
PER LCCD ADMIN. REVIEW LETTER DATED FEBRUARY 5, 2024	FEB. 8, 2024	MDM
PER TWP ENGR FEB 20, 2024 LTR & LCCD MAR 22, 2024 LTR	APR. 5, 2024	MDM

PROJECT MANAGER: CAMERON L. RENEHAN
DESIGN BY : MDM
DRAWN BY : MDM/JD
DATE : JANUARY 19, 2024
PROJECT NO.: 5947-23-01

SEAL: COMMONWEALTH OF PENNSYLVANIA, Registered PROFESSIONAL ENGINEER, MARK D. MYERS, No.040676E, 4/5/24

TeamAg INC
120 LAKE STREET
EPHRATA, PA 17522
PHONE: 717-721-6795 FAX: 717-721-9275
www.TeamAginc.com TeamAg@TeamAginc.com

SCALE 1" = 40' (0', 40', 80', 120')

PROJECT TITLE
PROPOSED BUILDING
MOUNT JOY TOWNSHIP LANCASTER COUNTY

CLIENT
JAY CARMAN
1267 RISSER MILL ROAD
MOUNT JOY, PA 17552
717-363-3375

PCSM PLAN

DRAWING : PC-1 (7 OF 9)

OPERATION AND MAINTENANCE PROCEDURES:

1) Responsible Party for PCSM Operation and Maintenance: Property Owner (Jay Garman).
2) The property owner shall be responsible for implementing and maintaining all PCSM facilities. property owner shall regularly inspect all facilities to determine if they still function. Repair clogged or damaged spillways immediately. Remove trash and other debris from the basin.
2) The property owner shall be responsible for implementing and maintaining all PCSM facilities. property owner shall regularly inspect all facilities to determine if they still function. Repair clogged or damaged spillways immediately. Remove trash and other debris from the basin.
3) BMPs should be inspected as stated for each BMP and after any major storm event. A major storm event is defined as greater than or equal to 2.99 inches of rainfall in a period of 24 hours (2-year, 24-hour storm). Detailed inspections by a qualified inspector shall occur at least annually to ensure that the facility is operating as designed and to schedule maintenance that the facility may require. If possible, inspections shall be made during wet weather to ensure that the facility is maintaining desirable retention times. In addition to regularly scheduled inspections, deficiencies should be noted during any visit by maintenance personnel. An important purpose of inspections is to ascertain the operational condition and safety of the facility.
4) Written reports shall be completed for each inspection documenting all BMP repair and maintenance activities.
5) Maintenance Requirements
   a) Regular inspections of the SWM Facilities. To assure proper implementation of BMPs, maintenance and care SWM BMPs should be inspected by a qualified person, which may include the landowner, or the owner's designee (including the Municipality for dedicated and owned facilities), according to the following minimum frequencies:
      i) Annually for the first 5 years.
      ii) Once every 3 years thereafter.
      iii) During or immediately after the cessation of a 2-year or greater storm event (rainfall per note 3 above).
      iv) As specified in the O&M Agreement.
   b) All pipes, swales and detention facilities shall be kept free of any debris or other obstruction and in original design condition.
   c) Removal of silt from all permanent structures which trap silt or sediment in order to keep the material from building up in grass waterways, pipes, detention or retention basins, infiltration structures, or BMPS, and thus reducing their capacity to convey or store water.
   d) Re-establishment of vegetation of scoured areas or areas where vegetation has not been successfully established. Selection of seed mixtures shall be subject to approval by the Municipality.
6) Mechanical components such as valves, sluice gates, fence gates, locks, and access hatches should be functional at all times.
7) Replace displaced riprap within the outlet energy dissipater immediately after it is displaced and especially after major storm discharge events.
8) Trash and debris should be removed on a regular basis.
9) Infiltration Basin
   a) Flared end sections (upgradient of infiltration basin) should be inspected and cleaned at least 2 times per year and after runoff events.
   b) The vegetation along the surface of the infiltration basin should be maintained in good condition, and any bare spots re-vegetated as soon as possible.
   c) Vehicles should not be parked or driven on a infiltration basin, and care should be taken to avoid excessive compaction by mowers.
   d) Inspect basin after runoff events and make sure that water in the basin drains within a maximum of 12 hours from the end of a 2-year 24 hour design storm event(rainfall per note 3 above). Also inspect for accumulation of sediment, damage to outlet control structures, erosion control measures, signs of water contamination/spills, and slope stability of the berms.
   e) Mowing Schedule: Basin bottom vegetation shall be established 1st year per Ernst Seed, https://www.ernstseed.com/contact-us/. After 1st year, vegetation may be mowed twice per year but not more frequently (or cut back every year). 3:1 embankment slopes should be mowed when grass reaches 6" in length.
   f) Remove accumulated sediment from the basin as required. Restore original cross section and infiltration rate. Properly dispose of sediment.
   g) The valve in the outlet structure of the basin shall be maintained in the closed position for normal basin operating conditions, except for emergency or for short term maintenance purposes. In the event of infiltration basin failure, the design engineer and Township shall be contacted to determine the cause of the failure and coordinate corrective action such as repair or replacement of the infiltration soil layer. Infiltration of the basin is defined as failure of the basin to dewater to a dry state within 12 hours after the end of the storm event. If the basin were to fail, an engineer shall oversee the repair, replacement to ensure proper function and operation of the BMP.

   A possible solution is as follows:
   - Remove topsoil and stockpile
   - Chisel plow basin bottom to a depth of 18 inches
   - Replace amended soils & topsoil taking care to prevent compaction of basin bottom
   - Seed and stabilize basin bottom. Plant a seed mix containing "Virginia Wild rye" such as "Retention Basin Floor Seeding Mix ERNMX-126" from Ernst Conservation Seeds at 1/2 to 1 pound per 1,000 square feet.

10) Riprap Aprons
   a) All riprap aprons shall be inspected after each runoff event. Displaced riprap within the apron shall be replaced immediately.
   b) If these facilities were to fail, an engineer shall oversee the repair, replacement to ensure proper function and operation of the BMP.

PCSM LONG TERM OPERATIONS AND MAINTENANCE REQUIREMENTS:

1. 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 BMPs on the project site and is responsible for violations occurring on the project site.
2. The permittee or co-permittee shall be responsible for long-term operation and maintenance of PCSM BMPs unless a different person is identified in the notice of termination and has agreed to long-term operation and maintenance of PCSM BMPs.
3. For any property containing a PCSM BMP, the permittee or co-permittee shall record an instrument with the recorder of deeds which 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 BMPs 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 subsequent grantees, and provide proof of filing with the notice of termination under §102.7(b.(5. (relating to permit termination
4. 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 BMPs or to perform long-term operation and maintenance and provide notice thereof to the Department.
5. 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 BMPs located on the property.

PROCEDURES FOR RECYCLING

Anticipated wastes for the project include typical commercial building waste, including recoverable waste materials generated during construction, packaging, new material scraps and old materials and debris all constitute potentially recoverable materials.

The developer or its authorized representative shall to the greatest extent possible recycle and reuse construction materials when no longer needed on the site. Concrete forms will be reused in other construction projects. Excess materials will be used in other projects as much as is feasible, rather than disposed on the site. Construction waste anticipated for this project includes wood forms, excess concrete, cardboard and other typical construction wastes. All wastes shall be handled and disposed of properly in accordance with governing state and federal regulations. Manure shall be handled and disposed of according to PA Act 38 and other governing manure management plan requirements and applicable regulations.

Materials associated with or from PCSM BMPs shall be recycled or disposed of in accordance with laws, regulations, and requirements. Anticipated materials from PCSM BMPs include excess pipe and erosion control matting. These materials, to the greatest extent possible, shall be recycled or reused on other construction projects.

Compost from compost silt socks may be incorporated into the amended soils for the infiltration basin and the soil amendment/restoration areas.

Accumulated sediment shall be collected and incorporated into site grading or adjacent cultivated fields.

Manure shall be handled and disposed of according to PA Act 38 and other governing manure management plan requirements and applicable regulations.

COMPLAINT OR SITE INSPECTION

Upon complaint or site inspection, the Department or conservation district may require that the PCSM Plan be submitted for review and approval to ensure compliance with PA Code Title 25, Environmental Protection, Ch.102

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 18 Pa.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 BMPs.

Upon permanent stabilization of the earth disturbance activity under §102.22(a)(2) (relating to permanent stabilization), and installation of BMPs 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:

(1) The facility name, address and location.

(2) The operator name and address.

(3) The permit number.

(4) The reason for permit termination.

(5) Identification of the persons who have agreed to and will be responsible for long-term operation and maintenance of the PCSM BMPs in accordance with §102.8(m) and proof of compliance with §102.8(m)(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

SEQUENCING OF PCSM BMP IMPLEMENTATION:

The owner should minimize land clearing, grading and impervious areas to that shown on the plans; minimize soil compaction; and protect existing drainage features and existing vegetation.

Implementation of this plan shall:

- Preserve the integrity of stream channels and maintain and protect the physical, biological and chemical qualities of the receiving stream
- Prevent any 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 BMPs that prevent or minimize changes in stormwater runoff

ALL PCSM BEST MANAGEMENT PRACTICES, INCLUDING INFILTRATION BASIN AND SWALES, SHALL BE INSTALLED PER THE SEQUENCE OF CONSTRUCTION SHOWN ON SHEET ES-2.

Infiltration Basin

1. Install Temporary sediment control BMPs as shown on the plans.
2. Complete site grading.
3. Stabilize grading within the drainage area to the infiltration basin.
4. The infiltration basin should not be installed until all tributary areas are uniformly stabilized. The conservation district and township shall approve the start of construction on the infiltration basin.
5. Excavate infiltration basin to proposed invert depth and scarify the existing soil surfaces. Do not compact in-situ soils. Any equipment that enters the infiltration area shall be limited to a ground pressure of 4 pounds per square inch.
6. Backfill infiltration basin with amended soil as shown on the plans. Overfilling is recommended to account for settling.
7. Presoak the planting soil prior to planting vegetation to aid in settlement.
8. Complete final grading to achieve proposed design elevations.
9. Seed and stabilize basin bottom. Plant a seed mix containing "Virginia Wild rye" such as "Retention Basin Floor Seeding Mix ERNMX-126" from Ernst Conservation Seeds at 1/2 to 1 pound per 1,000 square feet.

GENERAL SEEDING NOTES

1. Any disturbed area on which activity has ceased and which will remain exposed must be seeded and mulched immediately. During non-germinating periods, mulch must be applied at the recommended rates. Disturbed areas which are not at finished grade and which will be redisturbed within 1 year may be seeded and mulched with a quick growing temporary seeding mixture and mulch. Disturbed areas which are either at finished grade or will not be redisturbed within one year must be seeded and mulched with a permanent seed mixture and mulch.
2. Diversions, channels, sedimentation basins sediment traps and stockpiles must be seeded and mulched immediately.
3. Hay or straw mulch must be applied at rates of at least 3.0 tons per acre. Mulch shall be anchored immediately after application. Mulch shall be held down by synthetic binders or mechanical means.

TEMPORARY SEEDING NOTES

Site preparation: Apply 1 ton/acre agricultural grade limestone and 10-10-10 fertilizer at a rate of 500 lbs./acre and work in where possible. Mulch seeded areas immediately after seeding.

PERMANENT SEEDING NOTES

Site preparation: Grade as necessary to bring the subgrade to a true, smooth slope parallel to and six inches below finished grade. Place topsoil over specified areas to a depth sufficiently greater than six inches so that after settlement and light rolling the complete work will conform to lines, grades, and elevations shown.

Apply 6 tons/acre agricultural grade limestone and 10-20-10 fertilizer at a rate of 1,000 lbs./acre or as per soil test. Limestone and fertilizer may not be required in agricultural fields.

Fertilizer and agricultural limestone shall be thoroughly incorporated into the soil by rotatilling or other method to a minimum depth of four inches. The entire surface shall be done in two separate operations. The second seeding shall be done immediately after the first and at right angles to the first seeding and lightly raked into the soil. Mulch seeded areas immediately after seeding.

RECOMMENDED SEED MIXTURES

CONDITION	MIXTURE NUMBER	SPECIES	SEEDING RATES PURE LIVE SEED(1)	SEEDING RATES (LBS/ACRE)
Temporary	1	Spring oats, or Annual ryegrass (spring or fall), or Winter wheat (fall), or Winter rye (fall)	64 10 90 56	75.3 11.8 105.9 65.9
Lawn area flatter than 3 to 1 and permanent swales(2)	1	Temporary mixture, plus		
	2	Tall fescue, or Fine fescue, or Kentucky bluegrass, plus Redtop, or Perennial ryegrass	60 35 25 3 15	75 43.8 33.3 3.8 17.6
Lawn area 3 to 1 and steeper	1	Temporary mixture, plus		
	3	Birdsfoot trefoil, plus Tall fescue	6 30	7.5 37.5
BASIN Bottom	1	Temporary mixture, plus		
	ERNMX-126	Alkaligrass, Fults (20%) Deertongue, Tioga (19%) Creeping Bentgrass (18%) Virginia Wildrye, PA Ecotype (16%) Fowl Bluegrass (15%) Fox Sedge, PA Ecotype (5%) Soft Rush (3%) Blunt Broom Sedge, PA Ecotype (2%)	N/A	Plant seed mix at a rate of 20-40 lb/acre with an annual rye grass at a rate of 11.8 lb/acre. For establishment of seed mix. see www.ernstseed.com/

Adapted from PA DEP Erosion and Sediment Pollution Control Program Manual
(1) PLS is the product of the percentage of pure seed times percentage germination divided by 100.
(2) This mixture is suitable for frequent mowing. Do not cut shorter than 4 inches.

CONSTRUCTION TECHNIQUES AND SPECIAL CONSIDERATIONS TO ADDRESS SOIL LIMITATIONS

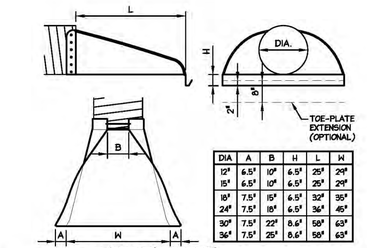
The limitations for both the Clarksburg and Hagerstown series include the following, along with the proposed resolutions considered in the design of this project:

- Cut banks cave – All trenching and temporary excavated cut slopes shall be performed according to OSHA guidelines.
- Corrosive to concrete – Concrete shall be placed and cured according to specifications in order to meet the useful like of the structure.
- Easily erodible – All of the erosion and sediment control measures outlined in the plans shall be followed to minimize erosion.
- Low strength – Design fill slopes shall be adequately compacted and stabilized.
- Slow percolation – Infiltration testing was performed in the areas of proposed stormwater facilities, and facilities and the soils were found to have adequate infiltration properties.
- Piping – adequate compaction of all fill slopes and berms, and inclusion of anti-seep collars on facility barrel outlets will limit piping.
- Poor source of topsoil – Only the soils suitable for topsoil shall be used as such. It is anticipated that the project will have extra topsoil but if there is not an adequate amount of material to be used as topsoil, additional clean topsoil shall be imported to the site.
- Frost Action – Fill material shall be free of frozen or partially frozen soils. Soil to be used as fill shall not exceed the recommended moisture content. Whenever possible, excavation shall take place when temperatures are above freezing to order to prevent frost action.

In general, adequate compaction, stabilization, and subsurface drainage of the site in accordance with the drawings will maximize favorable conditions for construction and minimize erosion potential. The design engineer should be contacted if issues arise which have the potential to cause erosion or sediment discharge during excavation and construction.

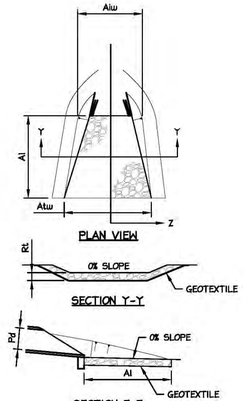
THERMAL IMPACTS:

- Thermal impacts are avoided with the use of the proposed infiltration basin and vegetated swales. Undetained areas flow through vegetated areas and sheet flow across vegetated areas prior to reaching surface waters.



DIA	A	B	H	L	W
12"	6.5'	10"	6.5'	25'	29'
15"	6.5'	10"	6.5'	25'	29'
18"	7.5'	15"	6.5'	32'	35'
24"	7.5'	18"	6.5'	36'	45'
30"	7.5'	22"	8.6'	58'	63'
36"	7.5'	25'	8.6'	58'	63'

1 FLARED END SECTION
NOT TO SCALE



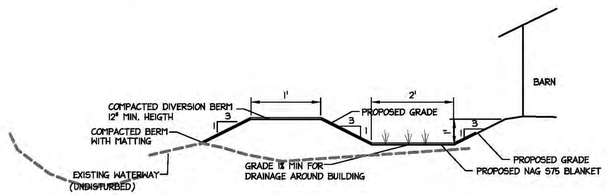
OUTLET NO.	PIPE DIA. Pd (IN)	RIPRAP SIZE	RIPRAP THICK. Rt (IN)	APRON LENGTH Ai (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
FES-1	12	R-3	9	6.00	3.00	9.00
6"Roof Drain	8	R-3	9	6.00	2.00	8.00

NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

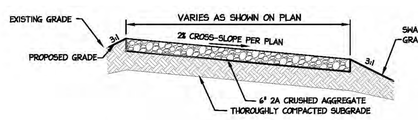
STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL
3 NOT TO SCALE



LINING INSTALLATION

1. CONSTRUCT INTERMEDIATE CHECK SLOT ANCHORAGE EVERY 25 FEET.
2. TUCK 2 OR 3 FOLDS OF MAT INTO A 6" DEEP SLOT DUG PERPENDICULAR TO THE FLOW DIRECTION.
3. PLACE A ROW OF STAPLES ON BOTH SIDES OF THE CHECK SLOT. LAY MATTING LOOSELY, DO NOT STRETCH.
4. ALSO REFER TO MANUFACTURES' LINING INSTALLATION DETAIL AND VEGETATIVE STABILIZATION SPECIFICATIONS FOR SOIL AMENDMENTS, SEED MIXTURES, AND MULCHING INFORMATION.
5. THE DIVERSION MUST BE SEEDED.

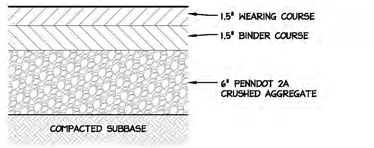
5 DIVERSION/SWALE A
NOT TO SCALE



2 PROPOSED DRIVEWAY SECTION
NOT TO SCALE

NOTE

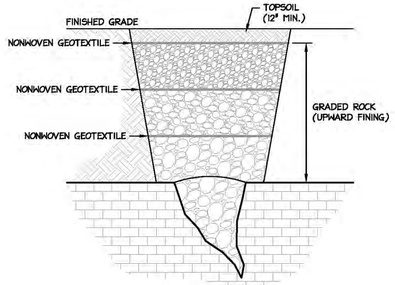
PAVEMENT SHALL EXTEND A MINIMUM OF 8' FROM THE EDGE OF STREET CARTWAY.



NOTES:

1. PAVEMENT MATERIAL SHALL BE EQUAL OR SUPERIOR TO PADOT SPECIFICATIONS FOR BITUMINOUS SURFACE COURSE ID-2 AND SHALL BE APPLIED IN ACCORDANCE WITH THE PADOT SPECIFICATIONS, FORM 408, AND ITS LATEST REVISION OR OTHER APPROVED EQUIVALENT.
2. AREAS NOT LABELED ON THE PLAN TO BE PAVED SHALL ONLY HAVE AN 8" LAYER OF PENNDOT 2A COURSE AGGREGATE.

4 PAVEMENT DETAIL
NOT TO SCALE



NOTES:

1. IF A SINKHOLE IS ENCOUNTERED A PROFESSIONAL GEOLOGIST OR GEOTECHNICAL ENGINEER MUST BE CONTACTED TO INSPECT AND OVERSEE SINK HOLE REMEDIATION.
2. GEOTEXTILE SHALL BE PLACED AS A SINGLE LAYER BETWEEN THE ROCK LAYERS, THE BOTTOM OF EXCAVATION, AND ABOVE THE TOP LAYER. THE SIDE WALLS OF EXCAVATION SHALL NOT BE COVERED BY GEOTEXTILE.
3. GEOTEXTILE SPECIFICATIONS: WEIGHT 200-400 G/M, THICKNESS 2-3 MM, PERMEABILITY 0.3-0.4 CM/SEC
4. AGGREGATE SPECIFICATIONS: TOP LAYER AASHTO #57 (2B'S), MIDDLE LAYER 3-6 INCH, BOTTOM LAYER 6-8 INCH

SINKHOLE REMEDIATION
REVERSE / INVERTED FILTER
6 NOT TO SCALE

REVISION	BY	DATE
PER LCCD ADMIN. REVIEW LETTER DATED FEBRUARY 5, 2024	MDM	FEB. 6, 2024
PER TWP ENGR FEB.20, 2024 LTR & LCCD MAR 22, 2024 LTR	MDM	APR. 5, 2024

PROJECT MANAGER: CAMERON L. RENSHAW
DESIGN BY : MDM
DRAWN BY : MDM/JD
DATE : JANUARY 19, 2024
PROJECT NO.: 5947-23-01

SEAL

TeamAg INC
120 LAKE STREET
EPHRATA, PA 17522
PHONE: 717-721-6795 FAX: 717-721-9275
www.TeamAginc.com TeamAg@TeamAginc.com

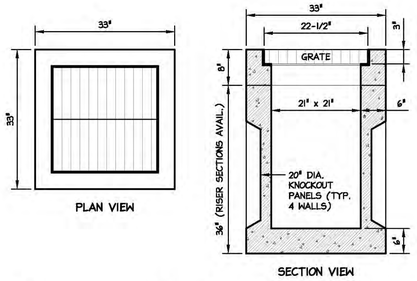
SCALE AS NOTED

PROJECT TITLE
PROPOSED BUILDING
MOUNT JOY TOWNSHIP LANCASTER COUNTY

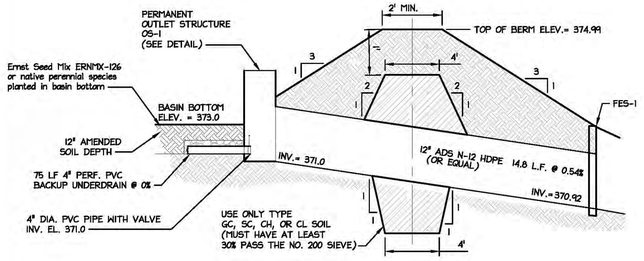
CLIENT
JAY GARMAN
1267 RISSER MILL ROAD
MOUNT JOY, PA 17552
717-363-3376

PCSM DETAILS

DRAWING :PC-2 (8 OF 9)



1 **24" x 24" CATCH BASIN**
NOT TO SCALE

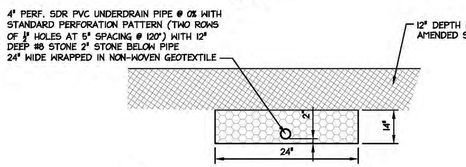


GENERAL NOTES
1. REMOVE ALL TOPSOIL OVER EMBANKMENT PRIOR TO PLACING FILL.
2. THE CORE TRENCH MATERIAL SHALL CONFORM TO THE UNIFIED SOIL CLASSIFICATION GS, SC, CH, OR CL AND MUST HAVE AT LEAST 30% PASSING THE NO. 200 SIEVE.
3. PLACE FILL IN 6"-9" LIFTS. THE MAXIMUM PARTICLE SIZE SHALL BE TWO-THIRDS OF THE LIFT THICKNESS.
4. EMBANKMENT SHALL BE COMPACTED BY SHEEPSFOOT OR PAD ROLLER.
5. THE EMBANKMENT, CORE AND KEY TRENCH SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. A MINIMUM OF FIVE PASSES OF THE COMPACTION EQUIPMENT OVER THE ENTIRE LIFT SURFACE IS REQUIRED.
6. ALL JOINTS SHALL BE WATERTIGHT.
7. ERNMIX-126 FROM ERNST CONSERVATION SEEDS (OR APPROVED EQUAL) IS TO BE PLACED ON BASIN BOTTOM ONLY, THE SIDE SLOPES SHALL BE SEEDED WITH A FORMULA C MIXTURE AS PRESCRIBED IN THE SEEDING NOTES.

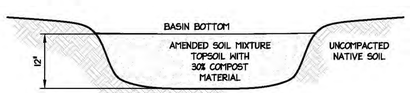
IMPERVIOUS CORE
1. THE DIMENSIONS OF THE CORE SHALL PROVIDE A MINIMUM TRENCH DEPTH OF TWO (2) FEET BELOW EXISTING GRADE, MINIMUM WIDTH OF FOUR (4) FEET AND SIDE SLOPE OF 1H:1V OR FLATTER.
2. THE CORE SHALL EXTEND FOUR (4) FEET BELOW ANY PIPE PENETRATIONS THROUGH THE IMPERVIOUS CORE. THE CORE SHALL BE INSTALLED ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT.

BASIN OUTLET PIPE INSTALLATION
1. THE BASIN OUTLET PIPE SHALL BE BACKFILLED WITH CLASS III MATERIALS, SUCH AS SC, ML OR CL, AS DEFINED IN ASTM D2321 AND ASTM D2487. BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY.
2. THE BASIN OUTLET PIPE SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.

4 **PERMANENT INFILTRATION BASIN**
NOT TO SCALE



7 **BACKUP UNDER-DRAIN DETAIL**
NOT TO SCALE



NOTES:
1. PROVIDE UNIFORM MIXTURE OF TOPSOIL AND COMPOST AND THOROUGHLY TILL IN 6" LAYERS. TOPSOIL SHOULD BE LOW IN CLAY AND HIGH IN ORGANIC MATTER.
2. SOIL MIXTURE SHALL BE PLACED WITH MINIMUM COMPACTION.
3. SEED WITH ERNMIX-126 OR EQUAL

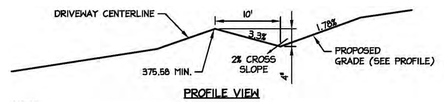
MAINTENANCE NOTES:
1. IF ANY SETTLEMENT OR COMPACTION OCCURS, CHISEL PLOW TO UNCOMPACT SOILS AND RE-ESTABLISH SEED BED. ADD ADDITIONAL AMENDED SOIL IN ANY SETTLED AREAS UP TO GRADE AS NECESSARY.

COMPOST STANDARDS (TABLE 4.2) FILTREXX

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

COMPOST MATERIAL MUST BE TESTED AND RESULTS PROVIDED TO THE COUNTY CONSERVATION DISTRICT PRIOR TO PLACEMENT IN THE FIELD.

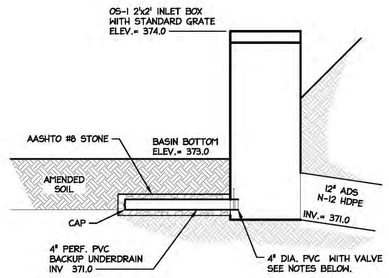
8 **AMENDED SOIL IN BASIN BOTTOM DETAIL**
NOT TO SCALE



PROFILE VIEW

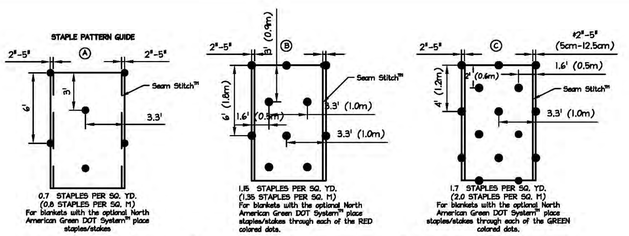
NOTES:
WATER BAR SHALL BE ORIENTED SO TO DISCHARGE TO THE LOW SIDE OF THE ROADWAY.

2 **DRIVEWAY WATER BAR DETAIL**
NOT TO SCALE

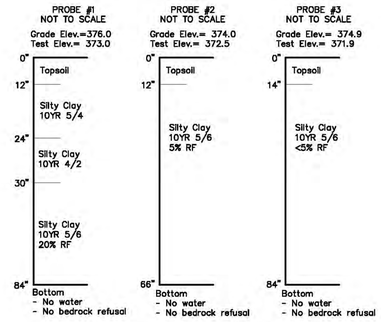


NOTES:
1. THE VALVE IN THE INFILTRATION BASIN UNDERDRAIN OUTLET STRUCTURE IS TO REMAIN CLOSED DURING NORMAL OPERATION EXCEPT IN EMERGENCY.
2. VALVE SHALL BE VALTERRA 6401 4" PVC GATE VALVE OR APPROVED EQUAL. VALTERRA PRODUCTS, LLC (918) 598-1671.
3. ALL JOINTS SHALL BE WATERTIGHT.

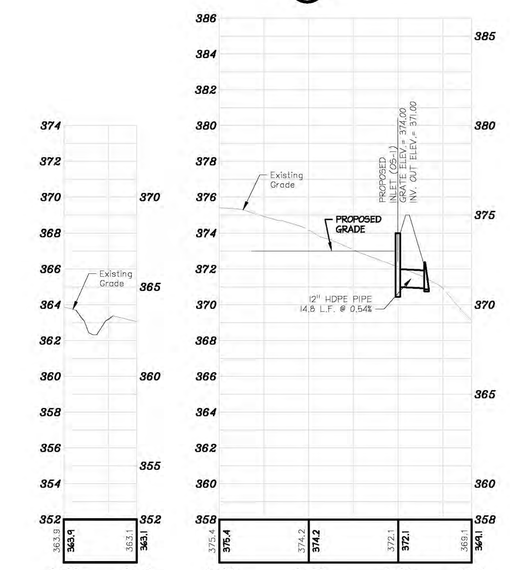
5 **PERMANENT OUTLET STRUCTURE OS-1 DETAIL**
NOT TO SCALE



3 **STAPLE PATTERN**
NOT TO SCALE

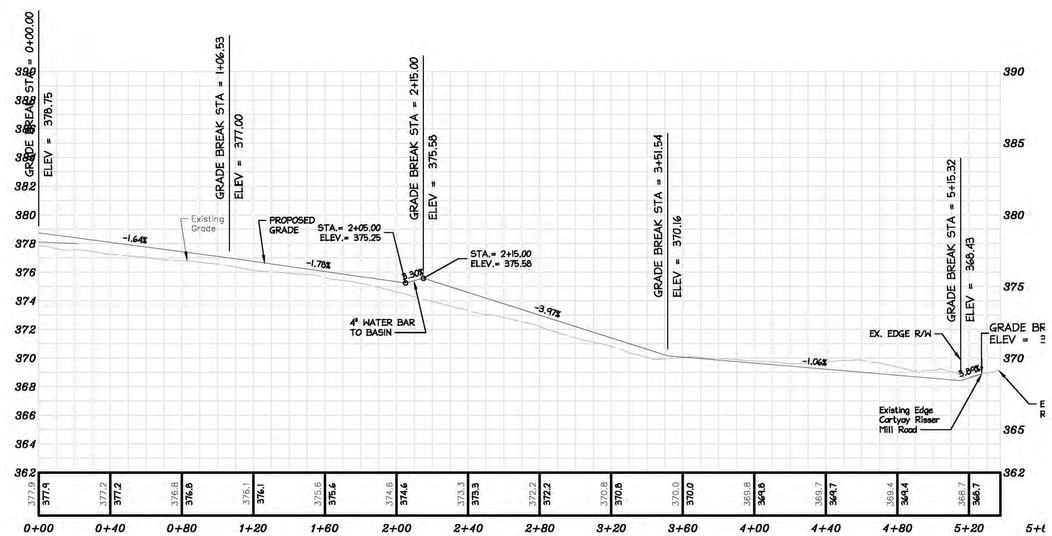


6 **SOIL PROBE DATA LOGS**



SECTION A
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

BASIN SECTION
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



DRIVEWAY
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 5'

REVISION	DATE	BY
PER LCCD ADMIN. REVIEW LETTER DATED FEBRUARY 5, 2024	FEB. 6, 2024	MDM
PER TWP ENGR FEB.20, 2024 LTR & LCCD MAR 22, 2024 LTR	APR. 5, 2024	MDM

PROJECT MANAGER: CAMERON L. RENSHAW
DESIGN BY : MDM
DRAWN BY : MDM/JD
DATE : JANUARY 19, 2024
PROJECT NO.: 5947-23-01

SEAL

TeamAg INC
120 LAKE STREET
EPHRATA, PA 17522
PHONE: 717-721-6795 FAX: 717-721-9275
www.TeamAginc.com TeamAg@TeamAginc.com

SCALE: AS NOTED

PROJECT TITLE
PROPOSED BUILDING
MOUNT JOY TOWNSHIP LANCASTER COUNTY

CLIENT
JAY GARMAN
1267 RISSER MILL ROAD
MOUNT JOY, PA 17552
717-363-3376

PCSM DETAILS

DRAWING : PC-3 (9 OF 9)

April 18, 2024

LANCASTER CIVIL
★ ★ engineering company ★ ★
p.o. box 8972, lancaster, pa 17604-8972
www.lancastercivil.com

Justin Evans
Township Community Development Director/Zoning Officer
Mount Joy Township
8853 Elizabethtown Road
Elizabethtown, PA 17022

Via email: Justin@mtjoytwp.org

Re: 1267 Risser Mill Road (Jay Garman)
Minor Land Development Plan
Township Permit No. 24-05-MLDP
LCEC Project No: 25-158

Dear Mr. Evans,

We have received a minor land development plan submission from TeamAg, Inc. for the above-referenced project. The submission consisted of the following documents:

- Comment response letter dated April 5, 2024
- Waiver request letter revised April 5, 2024
- Minor Land Development Plan revised April 5, 2024
- Post Construction Stormwater Management Narrative revised April 5, 2024
- Erosion and Sedimentation Control (E&S) Narrative revised April 4, 2024
- Abbreviated Water and Sewer Feasibility Report dated March 22, 2024
- DEP Sewage Planning Email Correspondence dated March 14, 2024
- Opinion of Probable Cost dated April 5, 2024
- PNDI dated January 18, 2024

Based upon my review of the submitted information, I offer the following comments for the Township to consider:

Zoning Ordinance

1. At a Zoning Hearing Board meeting on September 6, 2023, the Board granted a Special Exception per Section 135-83.G to allow a farm-related business in the Agricultural (A) District.
2. If exterior lighting is proposed, an exterior lighting plan shall be submitted (135-298.D & 119-31.D(13)).
3. A clear sight triangle shall be shown at the existing driveway (135-299.E(2) & 119-31.D(12)).

Subdivision and Land Development Ordinance

4. The existing conditions plan shall be shown at a scale between 20 feet and 100 feet to the inch (119-31.A(1)). The applicant has requested a waiver of this requirement.

Modification response: The existing conditions plan is shown at a scale of 120 feet to the inch due to the large tract size. The existing conditions plan is legible and clear. Based on these considerations, I have no objections to a waiver of this requirement.

5. The plans shall be signed and sealed by a registered engineer, surveyor or landscape architect (119-31.A(5)).
6. The distance to the existing public sewer and water system within 3,000 feet of the subject tract (or the distance to the nearest point of the existing public sewer and water system) shall be shown in the water and sewer feasibility report (119-32.A & 119-35.E(3)(b)). An abbreviated water and sewer feasibility report has been provided, therefore the requested waiver is not necessary.
7. A Stormwater Management Agreement and Declaration of Easement in a form acceptable to the Township Solicitor shall be executed and recorded (119-35.E(4)(c), 119-56.E & 113-62).
8. A land development agreement in a form acceptable to the Township Solicitor shall be executed (119-35.E(4)(f)).
9. All certificates shall be executed prior to final plan approval (119-37.D).
10. Financial security shall be provided (119-41 & 113-60). The Opinion of Probable Cost shall include costs for the amended soils, proposed gravel parking, ERNMX-126 seed mix/native perennial species, roadway widening (if required), and concrete monuments (if required). The quantities for lot markers may need to be revised to be consistent with the number of proposed markers shown on the future plan revisions.
11. The frontage along Risser Mill Road (a local street) shall be improved in accordance with 119-52.J or as indicated on the Township Official Map, whichever is greater (119-52.J(3)(a)). The required cartway width for a local street outside of the urban growth area is 24 feet. The applicant has requested a waiver of this requirement.

    Waiver response: The existing cartway width is 19 feet which does not meet local or State minimum roadway width standards for a rural road. Additionally, tractor trailer traffic is expected for the farm-related business. Therefore, I am not able to support a complete waiver of this requirement. However, in accordance with 119-52.J(3)(d), if the Township determines that the required improvements are not feasible at this time, the applicant could enter into an agreement that would defer road improvements to a time the Township would deem such improvements as feasible.
12. The location of all existing and proposed lot line markers shall be shown on the plan (119-57.A). Three monuments shall be spaced around the proposed project, with at least two of the monuments placed as consecutive corners along the street right-of-way (119-57.B). Lot line markers shall be set at all points where lot lines intersection curves, at all angles in property lines, at the intersection of all other property lines and at the street right-of-way (119-57.D). A note shall be provided on the plan indicating when the monuments and markers are to be set (119-57.H). The applicant has requested a modification of these requirements.
13. *Modification response*: The applicant is proposing to set markers along the western property line and a portion of the right-of-way along Risser Mill Road. Since the subject tract is greater than 10 acres, the boundary may be identified by deed-plotting; therefore, I have no objections to modifications to not show all existing lot markers and / or to not set markers at all property corners. However, I recommend that any existing markers found by the surveyor be shown on the plans, that any proposed markers be clearly

identified on the plans, that the required monuments be installed (if none currently exist), and that a note be provided on the plan indicating when the monuments and markers are to be set.

14. Evidence of approval of the NPDES Permit and Erosion and Sedimentation Control Plan by the Lancaster County Conservation District shall be provided (119-58.A, 113-31.D, 113-45.B & 113-45.C).

15. Any action taken on waiver requests, dates, and any conditions of approval shall be added to the cover sheet (119-91.C).

Stormwater Management Ordinance

16. The Ordinance requires the loading ratio for the total drainage area to infiltration area to be less than 5:1 and the impervious drainage area to infiltration area to be less than 3:1 (113-32.A.(2)(c). A total loading ratio of 5.7:1 and an impervious loading ratio of 3.2:1 are provided; a modification is being requested, however per Ordinance 312-2017 the Township Engineer can approve higher loading ratios.

    Approval response: The loading ratio guideline is a recommendation intended to prevent infiltration of a substantial volume of water in a very small area, to limit excessive depth of water in infiltration facilities, and to avoid lengthy dewatering/drawdown times. The proposed Rain Garden has been designed to capture a depth of 0.91 feet for the 2 year storm with a dewatering time of 4.4 hours, which will mitigate each of the risk factors described above. Given these considerations, I have no objection to the higher ratios.

17. Swale A shall be evaluated for stability based upon an “n” value equal to 0.03 (113-37.C.(5)(c)[1][a]).

18. The landowner shall execute the final documents prior to final plan approval (113-41.B).

If you should have any questions or need additional information, please do not hesitate to contact me at bencraddock@lancastercivil.com or via telephone at 717-799-8599.

Sincerely,

Benjamin S. Craddock, PE, President
LANCASTER CIVIL

cc: Patricia Bailey, Township Secretary (via email)
Josele Cleary, Esquire, Township Solicitor (via email)
Len Spencer, Township SEO (via email)
Renee Addleman, Planner, LCPC (via email)
Cameron L. Renehan, PE, TeamAg, Inc. (via email)

PROPOSED MOTION FOR THE MINOR LAND DEVELOPMENT PLAN

FOR PROPOSED BUILDING – JAY GARMAN
M.J.T.P.C. File # 24-05-MLDP

I move that the Township Planning Commission grant waivers of Chapter 119 of the Code of Ordinances of the Township of Mount Joy, i.e. the Mount Joy Township Subdivision and Land Development Ordinance as follows:

(1) §119-31.A(1) – Plan scale

(2) §119-32.A – Water and sewer facilities feasibility report (abbreviated report requested)

(3) §119-52.J(3) – Improvement of existing streets

(4) §119-57.A, .B, .D, & .H – Survey monuments/markers

And having granted such waivers, grant approval of the Minor Land Development Plan for Proposed Building – Jay Garman (the "Plan") prepared by TeamAg, Inc., Drawing No. 5947-23-01, dated January 19, 2024, subject to the following conditions:

1. To the extent not otherwise provided in these conditions, Applicant shall address the comments of the Township Engineer's review letter dated April 18, 2024.
2. To the extent not otherwise provided in these conditions, Applicant shall address the comments of the Township Solicitor's review letter dated February 3, 2024.
3. Applicant shall address and comply with all conditions contained in the Mount Joy Township Zoning Hearing Board (MJTZHB) decision dated September 14, 2024.
4. Applicant shall submit a fully executed Storm Water Management Agreement and Declaration of Easement, which shall be acceptable to the Township Solicitor and in recordable form. The Agreement, fully executed, shall be submitted and approved prior to the release of the final plan for recording.
5. Applicant shall submit a fully executed Deferred Road Improvement Agreement, which shall be acceptable to the Township Solicitor and in recordable form. The Agreement shall include, but not necessarily limited to, provisions for widening of the property's frontage along Rissermill Road. The Agreement, fully executed, shall be submitted and approved prior to the release of the final plan for recording.
6. Applicant shall submit a fully executed Land Development Agreement, which shall be acceptable to the Township Solicitor. Said Agreement shall be submitted and approved prior to the release of the final plan for recording.
7. Applicant shall submit financial security to guarantee the proper installation of all improvements associated with this land development project prior to the release of the final plan for recording and shall be in a form acceptable to the Township Solicitor. The amount of said financial security shall be in the amount consistent with the construction cost opinion approved by the Township Engineer.
8. Applicant shall apply for and obtain all necessary permits prior to commencing any construction activities.

9. Applicant shall reimburse the Township for all reasonable engineering and legal fees incurred in the review of plans under the Subdivision and Land Development Ordinance, Storm Water Management Ordinance, and other governing ordinances; review or preparation of documentation required in connection with the development; review and approval of financial security and other documentation; inspection of improvements; and for other costs as set forth in these Conditions within 30 days after receipt of an invoice for such fees. If Applicant fails to pay such costs within 30 days after the date of a written invoice for such costs, Applicant shall be in violation of this Condition.

ACCEPTANCE OF CONDITIONS UPON APPROVAL OF A MINOR LAND DEVELOPMENT PLAN IMPOSED BY THE PLANNING COMMISSION OF MOUNT JOY TOWNSHIP FOR

PROPOSED BUILDING – JAY GARMAN
M.J.T.P.C. File # 24-05-MLDP

I have reviewed the conditions imposed by the Planning Commission of Mount Joy Township, Lancaster County, Pennsylvania, at the meeting on April 22, 2024, upon the approval of the Minor Land Development Plan for Proposed Building – Jay Garman (the "Plan") prepared by TeamAg, Inc., Drawing No. 5947-23-01, dated January 19, 2024. In my capacity as developer/developer's agent and being authorized to do so, and intending to be legally bound, I hereby accept the imposition of the conditions attached hereto as part of the approval of the above-described subdivision and/or land development project. I expressly waive any requirements of the Pennsylvania Municipalities Planning Code that the Township provide a section number of a governing ordinance, statute or regulation upon which such conditions are based and a description of the requirements which have not been met. To the extent that any condition is not based upon a specific requirement of a governing ordinance, statute or regulation, I expressly waive any right which I may have to challenge the imposition of such condition. If signing as developer's agent, I expressly state that I have been authorized by developer to agree to the conditions imposed upon the approval of the above-described subdivision and/or land development application.

Date: _____

_____
Signature

_____
Printed Name

_____
Title