LOWER PROVIDENCE TOWNSHIP BOARD OF SUPERVISORS BUSINESS MEETING March 16, 2023

Call to Order: Chair Coless called the hybrid live/virtual meeting to order at 7:03 p.m.

Pledge of Allegiance

Protocol for Hybrid Meetings: Chair Coless provided an overview of the protocols for public participation for members of the public attending the meeting virtually over Zoom.

Roll Call:

- a. The following members were in attendance: Chair Coless, Vice Chair Darby (via Zoom), and Supervisors MacFarland, Neights (via Zoom), and Sorgini.
- b. Also in attendance were: E.J. Mentry (via Zoom), Township Manager; Mike Mrozinski, Community Development Director; Michael Jackson, Chief of Police; Michael Clarke, Township Solicitor; and Ted Locker, Township Engineer.

Chairman's Comments

Chair Coless announced that there was an Executive Session held prior to the meeting to discuss legal matters.

1) Presentations

- A. Moyer's Landfill presentation Caleb Melvin and Katie Page, Environmental Protection Agency (EPA), and Christine McCarthy, Bonnie McClennen, Rob Fogel, and Ragesh Patel, PA Department of Environmental Protection (PA DEP). Mr. Melvin and Ms. Page presented an overview of the site, contamination remedy, and current status.
 - a. The Moyers Landfill Superfund Site was an active landfill from 1940 to 1981, accepting municipal waste, sewage sludge, industrial wastewater treatment sludges and general industrial wastes. In 1983, metals and volatile organic compounds were identified as contaminants of concern, with on and offsite groundwater, leachate, soil and surface water contamination. Deeper groundwater was not contaminated. In 1985, per the Record of Decision, the remedy included: An impermeable landfill cap; gas venting and monitoring; collection of surface water and discharge to Skippack Creek; leachate collection and on-site treatment. In 2000, leachate treatment was changed to off-site at the Oaks Wastewater Treatment Plant.
 - b. The landfill cap was completed in 1994 and operation and maintenance was transferred to the PA DEP in 1998. The site was removed from the National Priorities List in 2014 and after years of data showing no impact, groundwater sampling and ambient air sampling was discontinued in 2017.
 - c. PA DEP's ongoing operation and maintenance includes site inspections monthly and after storms and monthly monitoring of the leachate collection system to make sure the originally prescribed remedy remains protective.
 - d. In 2022, there were three PFAS leachate sampling events at the site's collection system. PFAS (per- and polyfluorinated substances) are a group of chemicals used to make coatings and products that resist heat, oil, stains, grease, and water. PFOS and PFOA are two of the most extensively produced PFAS. The sampling indicated PFOS and PFOA

values above the state's drinking water standards. Federal drinking water standards are in the process of being established.

- i. The highest value found for PFOA was 1400 parts per trillion (PA maximum level is 14 parts per trillion).
- ii. The highest value found for PFOS was 69 parts per trillion (PA maximum is 18 parts per trillion).
- e. EPA notified homes on private drinking water around the landfill of the findings and is scheduling sampling for May-June. If PFOS and PFOA are found in private drinking water, bottled water will be provided by EPA/PA DEP. Property-specific remediation could include carbon filtration systems or a move to public water.
- f. Concerns were raised by the supervisors about:
 - i. Impacts on Evansburg State Park and Skippack Creek
 - ii. Possible adverse effects on soil
 - iii. Safety of the wells utilized by companies that provide public water
 - 1. Audubon Water Company was notified to conduct its own testing because its previous results were now above the new standards.
 - iv. Potential public health impacts
 - Residents can report issues to Ms. Page of the EPA or the Agency for Toxic Substances and Disease Registry
 - v. Notification of well water test results
- g. Residents were encouraged to visit EPA's Moyers website: epa.gov./Superfund/Moyers
- h. Julia Nekhleh, Valley High Estates, expressed concern about effects on vegetable gardens, and asked about drinking water versus water used to shower, and availability of test results.
- i. Laura Winslow expressed concern regarding overflow from a manhole at the site and effects on Skippack Creek and soil, and who is being sampled.
- j. Erin McCool, Coldspring Crossing, expressed concern about effects to Hoy Park, wildlife, and the nearby day camp; testing by Audubon Water Company; and climate change consequences.
- k. Fred Walker, Coldspring Crossing, asked about regulations for wastewater treatment plants.
- 1. State Sen. Katie Muth expressed concern about the migration of contamination and the need to expedite the resident well testing.
- m. Terry Hoffman, Sunnyside Avenue, asked about the percentage of various diseases found in those living around the landfill.

2) Consent Agenda

- A. **MOTION:** Supervisor MacFarland made a motion to approve the consent agenda items 2(a), 2(b) and 2(c) including moving the meeting minutes of the March 2, 2023 Board of Supervisors meeting into the record and authorizing payment of bills in the amount of \$385,972.74 and escrow release #4 for Woodland Avenue Tracts in the amount of \$75,274.60. Supervisor Neights seconded the motion.
 - a. There was no public comment.
 - b. The motion *passed* 5-0.

3) Old Business

A. Approval of proposal for municipal campus master plan study

- a. Mr. Mentry stated that three proposals had been received for the study which would include looking at the entire campus and buildings to determine the best course for expansion renovation, renovation with expansion or new construction.
- b. There was discussion regarding the difference in costs and an "apples to apples" comparison of the proposals.
- c. Supervisors Darby requested an additional proposal from a minority-owned firm.
- d. **MOTION**: Supervisor MacFarland made a motion to table the item to a future date uncertain, seconded by Supervisor Sorgini.
- e. There was no public comment.
- f. The motion *passed* 5-0.

4) New Business

- A. Request for waiver of fence standards, 2860 Eagleville Road
 - a. Mr. Mrozinski said that the waiver would permit the installation of a solid-style fence on frontage of the corner property. It would be replacing an existing six-foot wood fence installed when different standards were in place. There are no sight issues created by the new fence.
 - b. **MOTION**: Supervisor Sorgini made a motion to grant the waiver of fence standards at 2860 Eagleville Road. Supervisor MacFarland seconded the motion.
 - c. There was no public comment.
 - d. The motion *passed* 5-0.
- B. Request for waiver of fence standards, 309 Evansburg Road
 - a. Mr. Mrozinski said the waiver would permit the installation of a solid-style six-foot fence on frontage at the property. Chief Jackson said the fence would create sight distance issues for motorists and those exiting the driveway.
 - b. **MOTION**: Supervisor Neights made a motion to deny the waiver of fence standards at 309 Evansburg Road. Supervisor MacFarland seconded the motion.
 - c. There was no public comment.
 - d. The motion *passed* 5-0.
- C. <u>Request for waiver of special event permit fee, Lower Providence Baptist Church, 3430 Ridge</u> <u>Pike</u>
 - a. Mr. Mentry said the church will be hosting a free concert and requests waiver of the \$150 special event permit fee. The event has been held previously.
 - b. **MOTION:** Supervisor MacFarland made a motion to waive the special event permit fee for Lower Providence Baptist Church. Supervisor Sorgini seconded the motion.
 - c. There was no public comment.
 - d. The motion *passed* 5-0.

5) Announcements/Meetings

- Chief Jackson announced the hiring of Nikki Urbanski as the department's Social Services Liaison. In this newly-created position, she will provide connections, resources and support for community members in need including mental health, addiction, substance use, trauma, food insecurity, homelessness, aging and adult services.
- Environmental Advisory Council March 20 at 7:00 p.m.
- Library Board March 20 at 7:00 p.m.
- Parks and Recreation Board March 21 at 7:00 p.m.
- Planning Commission March 22 at 7:00 p.m. Cancelled

• Zoning Hearing Board – March 23 at 7:00 p.m.

6) Comments and Other Business

- a. Supervisor Sorgini provided a Sewer Authority update, noting that the Authority is a locally-operated public utility. Fees are put back into the system and to ongoing improvement projects.
- b. Supervisor MacFarland said the Township's annual Easter Egg Hunt is scheduled for March 25. He said the Business Development Committee will be welcoming a new business, Grazefully Delicious, to the Colonial Shopping Center. The "Wall That Heals," the traveling replica of the Vietnam Veterans Memorial, will be in Upper Providence in October.
- c. Chair Coless said the Business Development Committee also will be holding an open house for businesses in the Park Pointe Business Park.

7) Courtesy of the Floor

A. No public comment

8) Adjournment

A. **MOTION:** Supervisor MacFarland made a motion to adjourn. Supervisor Sorgini seconded the motion. The motion *passed 5-0*. The meeting adjourned at 9:30 p.m.

Next Business Meetings: Wednesday April 5, 2023 April 20, 2023





100 Parklane Drive • Eagleville, PA 19403 • www.lowerprovidence.org

Administration: 610 539-8020 • Fax: 610 539-6347

Police: 610-539-5900 • Fax: 610-630-2219

LOWER PROVIDENCE TOWNSHIP INTER-OFFICE MEMORANDUM

TO: Members of the Board of Supervisors; E.J. Mentry, Township Manager

FROM: Mike Mrozinski, Director of Community Development

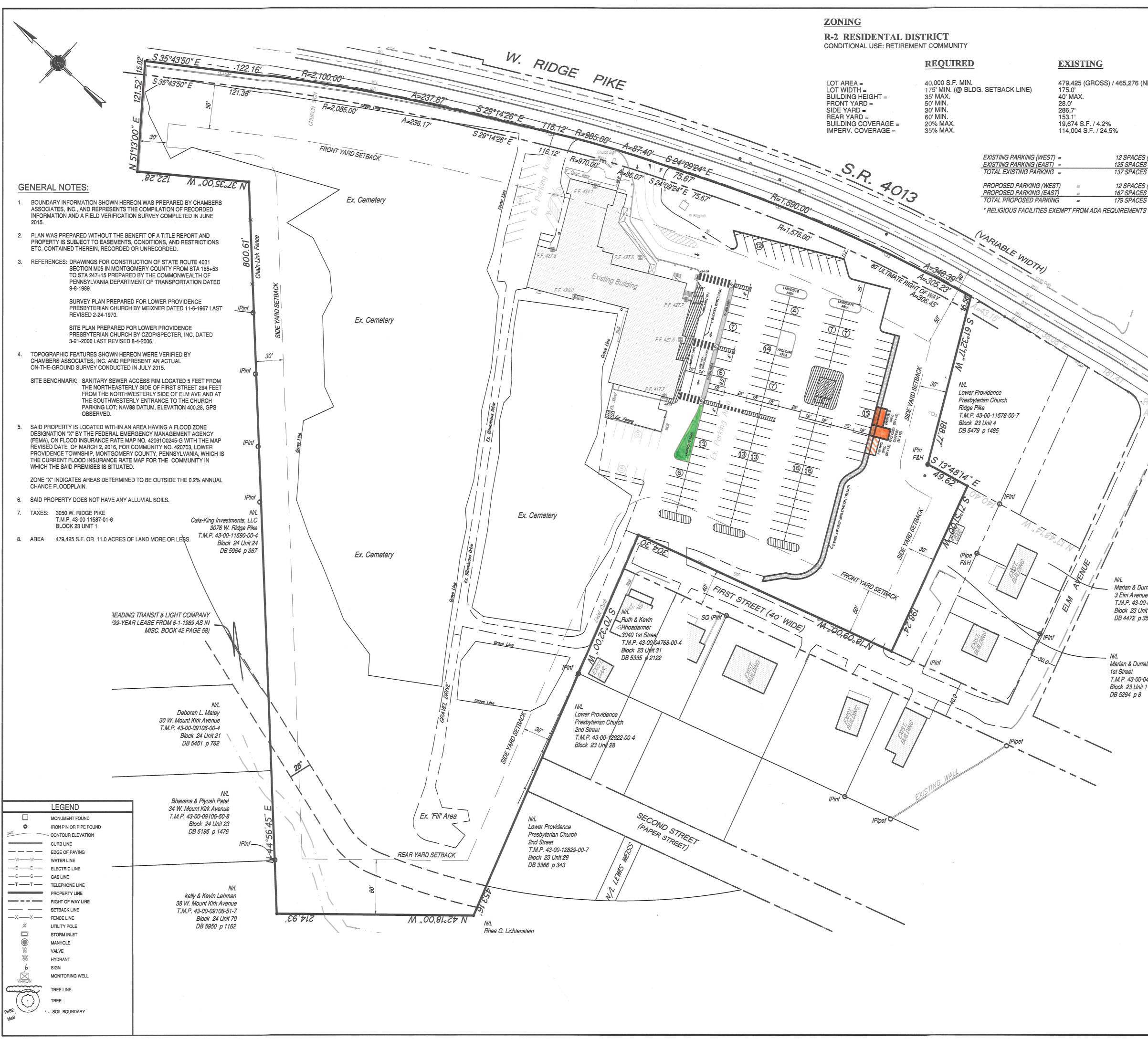
DATE: March 28, 2023

RE: LD-23-02 LP Presbyterian 3050 Ridge - waiver of land development request

For your consideration is a request from Chris Drummond Committee Chairman of Boy Scout Troop 267 who regularly meet at Lower Providence Presbyterian Church 3050 Ridge Pike. A plan was prepared by Joe Hanna of Chambers Associates and is dated February 23, 2023.

The proposal is to add a storage shed and carport in the parking area to the east of the primary church building. The proposed shed is to be 20' x 12' and the proposed carport for the Scout Troop trailer 21' x 12'. The plan adds a lawn area instead of pavers. With this, there is no increase in impervious surface. The sheds are supported above grade so the runoff from the parking area still drains to the stone seepage bed.

Staff has reviewed and recommends the waiver, conditioned on the applicant getting the required permits. Letters to neighbors have been sent.



479,425 (GROSS) / 465,276 (NET.)

19,674 S.F. / 4.2% 114,004 S.F. / 24.5%

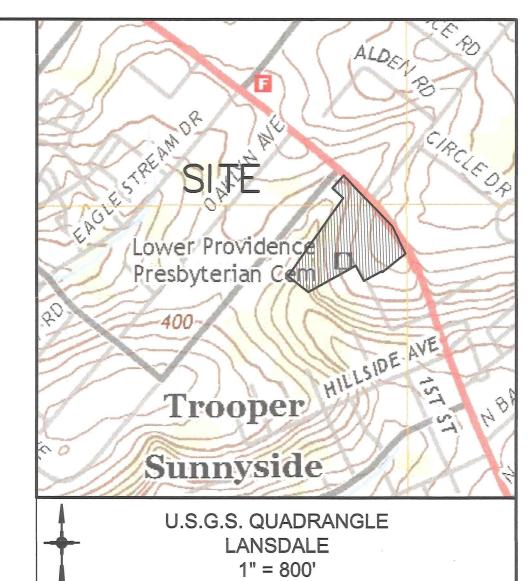
PROPOSED

479,425 (GROSS) / 465,276 (NET.) 175.0' 40' MAX. 28.0' 286.7' 153.1'

20,406 S.F. / 4.4% 113,994 S.F. / 24.5%



12 SPACES (INCLUDING 2 HC) 167 SPACES 179 SPACES



Marian & Durrell Rebuck 3 Elm Avenue T.M.P. 43-00-03844-00-1 Block 23 Unit 7 DB 4472 p 358

N/L Marian & Durrell Rebuck 1st Street T.M.P. 43-00-04813-00-4 Block 23 Unit 11 DB 5294 p 8

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| OWNER/APPLICANT: | | SITE PLAN | I – SHE | D LOCATIO | DN |
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| | SCALE | DATE | JOB | DRAWING | |
| | 1"= 50' MANAG | 2-23-23 ER: JPH | 984-001.04 | SHEET DRAWN BY: | 1 of 1 JAS |



Community Development Department

100 Parklane Drive • Eagleville, PA 19403 Phone: (610) 635-3514 • Fax: (610) 539-6347 www.lowerprovidence.org

APPLICATION FOR SUBDIVISION AND LAND DEVELOPMENT

Please complete all of the following sections below. All sections must be complete with the required information. If the required information is not provided, the application will not be processed. Please attach any addendums or supportive documents to this application. Twenty (20) complete sets (ten may be 11" x 17") of the site plans must be submitted to Lower Providence Township not less than thirty (30) days prior to the scheduled planning commission meeting date. Please note that any false statement or misrepresentation of fact contained within this application is a criminal offense and subject to severe penalties of the PA Criminal Codes.

Please check one only:

🗆 Sketch Plan 🗆 Preliminary Plan 📄 Preliminary/Final Plan 🔤 Final Plan 💢 De Mimimis Plan

Please check one only:

🗆 Minor Subdivision 🛛 Major Subdivision 💢 Minor Land Development 🔅 🗆 Major Land Development

1. Applicant information:

| Name: LOWER PROVIDENCE PRESBYTERIAN CHURCH | Address: 3050 RIDGE PIKE EAGLEVILLE, PA 19403 |
|---|---|
| Phone: 610-539-6635 | Fax: 610-630-0656 |
| E-Mail: | |

(**)

2. Name of Subdivision or Development:

LOWER PROVIDENCE PRESBYTERIAN CHURCH - SHED

3. Main Contact Person¹:

| Name: CHRIS BRUMMOND | Address: |
|----------------------|----------|
| Phone: E-Mail: | Fax: |

¹Contact person should be permitted to make decisions pertaining to processing of application

4. Agent or Attorney (if any):

| Name: | Address: |
|---------|----------|
| | |
| Phone: | Fax: |
| E-Mail: | |

| 5. | Registered | Engineer or | Surveyor: |
|----|------------|-------------|-----------|
|----|------------|-------------|-----------|

| Name JOSEPH P. HANNA, P.E. CHAMBERS ASSOCIATES, INC. | Address: P.O. BOX 0678 WORCESTER, PA 19490 |
|---|--|
| Phone: 610-633-6604 | Fax: 484-991-8371 |
| E-Mail: J. HANNA & LHAMBERSASSOC. C | ma |

¹Contact person should be permitted to make decisions pertaining to processing of application

6. Owner of Record of Land:

| Name: SAME AS APPLICANT | Address: |
|----------------------------|----------|
| Phone: | Fax: |

7. Location of the property to be subdivided or developed:

3050 RIDGE PIKE EAGLEVILLE, PA 19403

8. Tax Parcel Number of the parent parcel: 43-00-11587-01-6

| 9. 1 | Parent ParcelDeed Book & Page #: | PLAN BK | 0044 | PG | 00075 |
|------|----------------------------------|---------|------|----|-------|
| | | | | | |

10. Total Proposed No. of Lots or Dwelling Units:

11. Total area to be developed or subdivided:

| Gross: /1.00 AC | Net: /0.68Ac |
|---|--|
| Acres to be disturbed: 800 S.F. | (area calculated to the legal right-of-way - net areas |
| Sq ft of building floor area: 732.s.F | are to be used for density and land area requirements) |
| (area calculated to center of street) | |
| Project located within a stream or flood pl | ain (if any): Yes No <u>X</u> |
| PADEP Permits required? Yes No | |

12. Density (dwelling units per acre): N/A

| 3. Zoning classification of subject land: | R-2 | CONDITIONAL | USE: | RETIREMENT | COMMUNITY |
|---|-----|-------------|------|------------|-----------|
|---|-----|-------------|------|------------|-----------|

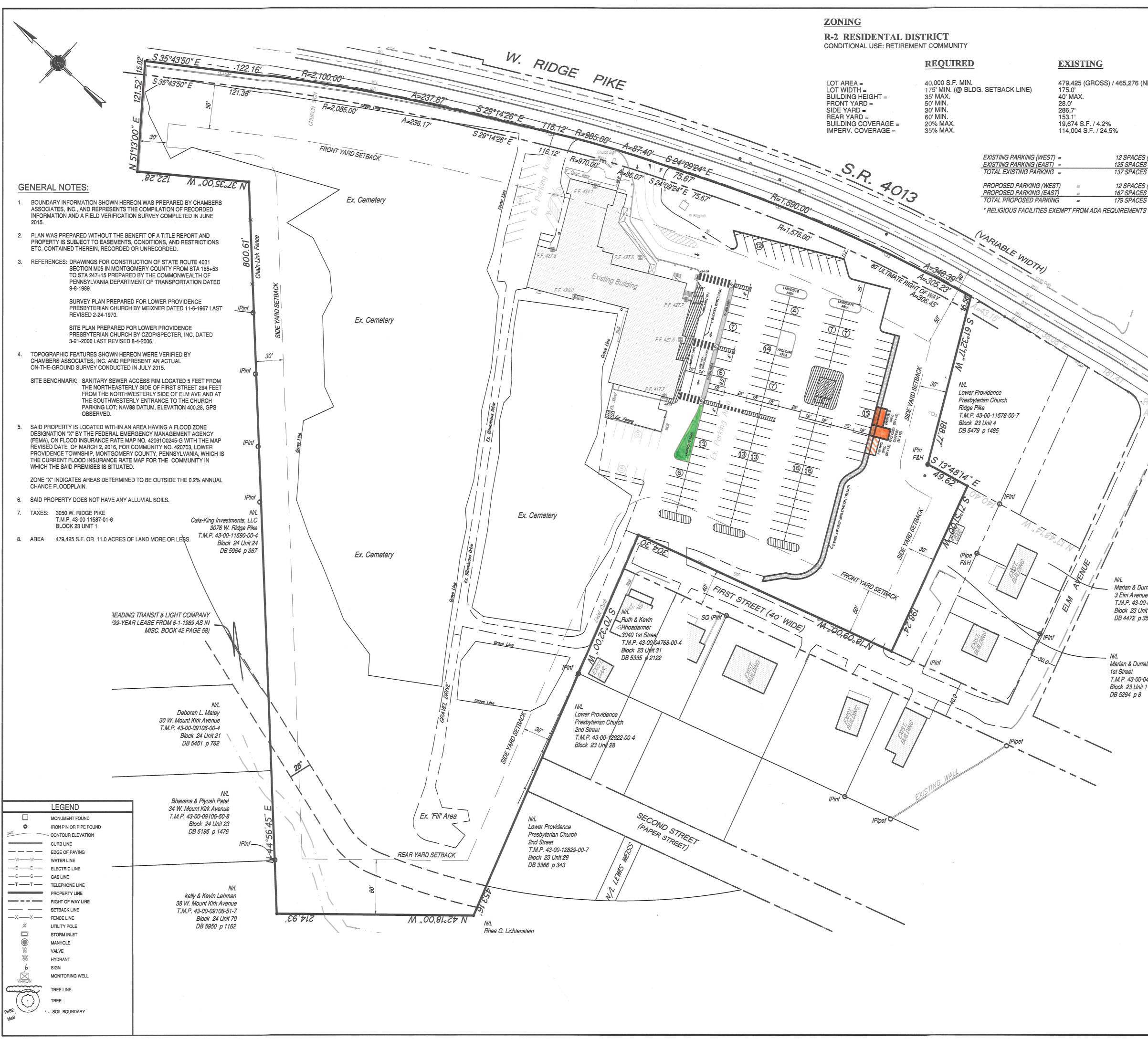
14. Water Supply: Public system? 165. Who is the supplier well?

15. Sewage System: Public system? _____ EDU's required: ______

16. Please attach to this application all encumbrances and deeds involving the property.

17. Lineal Feet of New Street to be dedicated to the township:

18. Are waivers or modifications requested at this time from the Subdivision and Land Development Ordinance? ______ if yes, please attach a letter to this application stating all waivers or modifications being requested.



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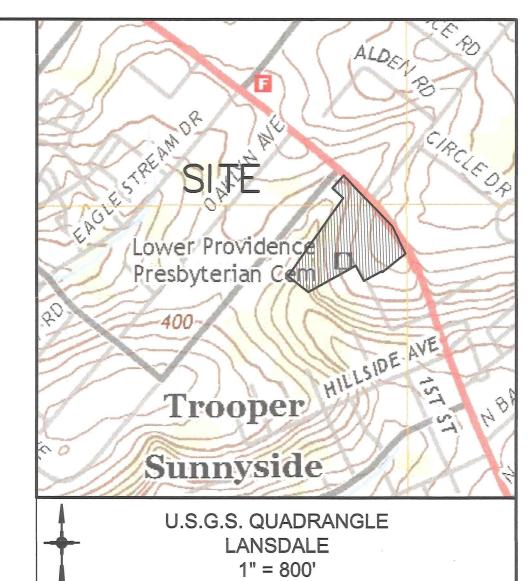
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N/L Marian & Durrell Rebuck 1st Street T.M.P. 43-00-04813-00-4 Block 23 Unit 11 DB 5294 p 8

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LOWER PROVIDENCE TOWNSHIP INTER-OFFICE MEMORANDUM

| т0: | Members of the Board of Supervisors; E.J. Mentry, Township Manager |
|-------|--|
| FROM: | Mike Mrozinski, Director of Community Development Nan |
| DATE: | March 28, 2023 |
| RE: | LD-23-03 -Evansburg Vineyards -waiver of land development request |

For your consideration is a request from Yuval Blat of Evansburg Vineyards to construct 31 additional parking spaces. This will be on stone instead of asphalt. The construction will require some stormwater facilities to be relocated. Some evergreen plantings will be added.

Staff has reviewed and recommends the waiver conditioned on obtaining standard grading and stormwater plans and permitting. Impacts on neighbors have been considered. A letter from Township Engineer Woodrow dated March 8, 2023, is attached. Letters have been sent to neighbors.



March 8, 2023

Michael Mrozinski, Director of Community Development Lower Providence Township 100 Parklane Drive Eagleville, PA 19403

Reference: Evansburg Winery – Parking Lot Expansion

Dear Mike:

My office is in receipt of a request for a land development waiver for certain improvements proposed at the Evansburg Winery facility. The request is supplemented by a two-sheet set of documents dated February 28, 2023, with no revision date. The plans describe the proposed construction of a 31-car event parking facility. The proposal calls for a stone parking lot versus an asphalt pavement. Please recall our site meeting where we met the owner and his engineer as well as his contractor to discuss the goals of the project and potential adverse neighborhood impacts. Key points of discussion are as follows:

- 1. The proposed parking lot will disrupt the existing stormwater management facility constructed in conjunction with the original project.
- 2. The plan submission indicates a potential location for a relocated and improved stormwater facility and controlling not only the existing obligations, but those additive needs caused by the proposed parking lot expansion.
- 3. The proposed stone parking lot will be considered "impervious" for stormwater design calculations, as parking facilities become compacted and essentially stormwater permeability bulletproof over time.
- 4. The point of discharge of the revised basin will need to be designed to return outflow to a "sheet flow" condition versus any form of point source discharge.
- 5. Any consideration made by the Board of Supervisors must be conditioned upon a full design of stormwater management facilities, grading plans, erosion control plans, lighting plans and enhanced landscape screen buffering.
- 6. We bring to the applicant's attention recent sustainability goals of the community. The applicant should seek to implement green technologies that could include solar power with facility, electric vehicle charging stations, geothermal heating and air conditioning, additional shade tree plantings, and green roof technologies.

- 7. During the land development process, pedestrian improvements along the Germantown Pike frontage were made. At this time, the board and planning commission should consider whether additional pedestrian connections from Germantown Pike to the facility may be warranted, given the success of the facility.
- Neighbor Notification Given the size and dimension of the proposed parking expansion, it would be incumbent upon the applicant to notify neighbors of the proposed development. Neighbor comments regarding the expansion should be considered by the Township prior to plan approval recommendations.
- 9. As an alternative to a waiver of land development, perhaps the application could merely be considered a revised final plan. The revised final plan will memorialize the new construction relative to the earlier approvals more consistently.

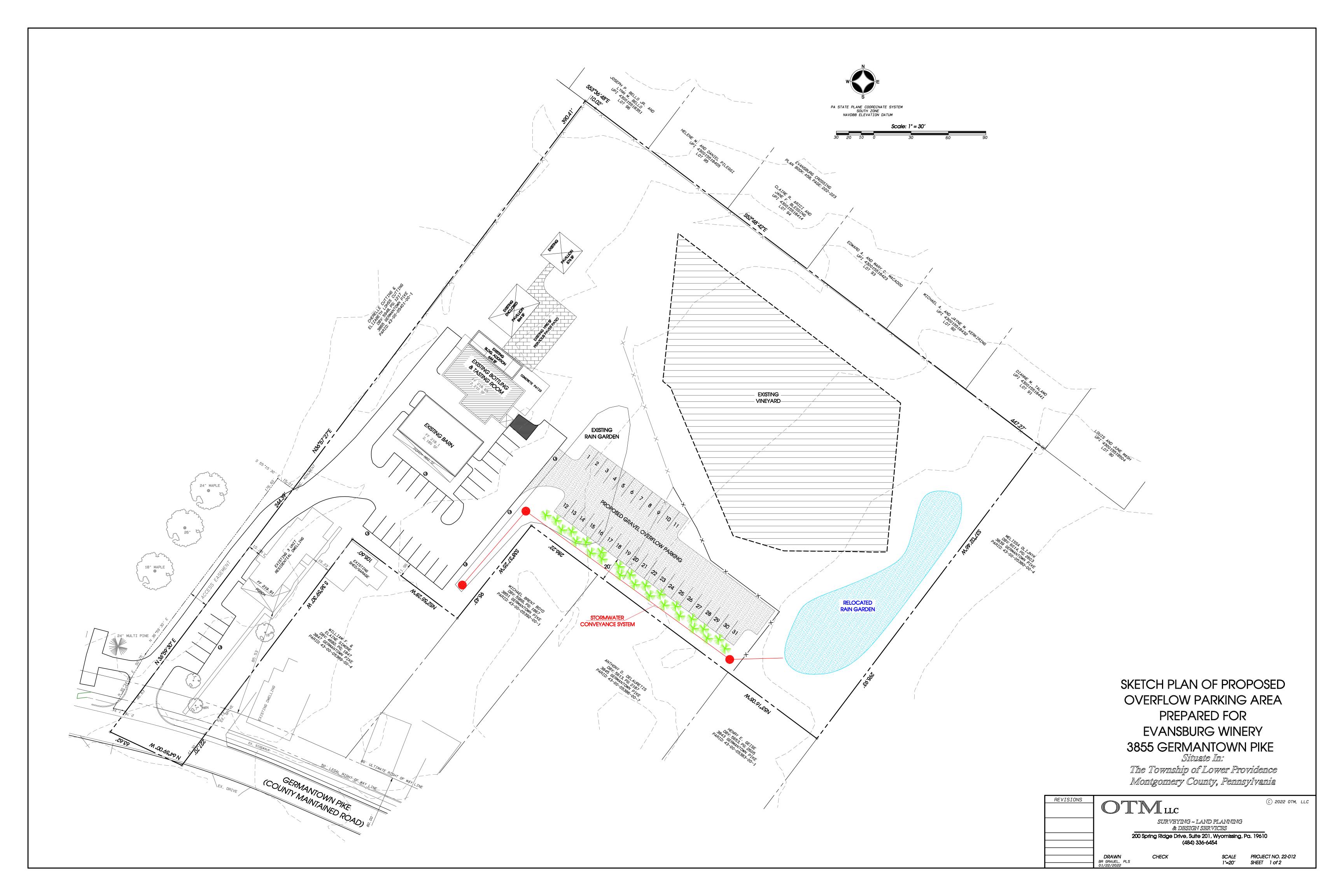
Please feel free to contact me with any questions you have regarding this matter.

Sincerel

Kinothy P. Woodrow, P.E. Township Engineer Woodrow & Associates, Inc.

TPW/del

 cc: EJ Mentry, Township Manager – Lower Providence Township Bradford R. Grauel, P.L.S. – OTM LLC Yuval Blat Ray Carbone Michael Clarke, Esq., Township Solicitor – Rudolph Clarke, LLC Lauren Gallagher, Esq. – Rudolph Clarke, LLC



OTM, *LLC* Surveying, Land Planning & Design Services

200 Spring Ridge Drive, Suite 201, Wyomissing, Pa. 19610 (484) 336-6454; www.otm-surveying.com

Wednesday, March 1, 2023

Lower Providence Township Planning Commission Board of Supervisors 100 Parklane Drive Eagleville, Pa. 19403

Re: Request for waiver of Land Development process Evansburg Winery overflow parking area project.

Dear Township Officials,

Mr. and Mrs. Blat, the owners of Evansburg Winery are seeking to install a gravel event overflow parking area on the property along with a minor 644 sq. ft. building addition intended for expansion of restroom facilities to serve their customers.

This site had previously been reviewed and approved in 2019 as a Land Development Plan entitled "Backyard Winery" and I note that all of the improvements, including road frontage improvements had been previously installed as part of the original land development.

Due to the minor nature of these latest proposed site improvements, we respectfully request on behalf of Mr. and Mrs. Blat, that the Township not require the full land development process and to permit the plan to be submitted, reviewed and approved as merely a site grading, stormwater management and improvements plan.

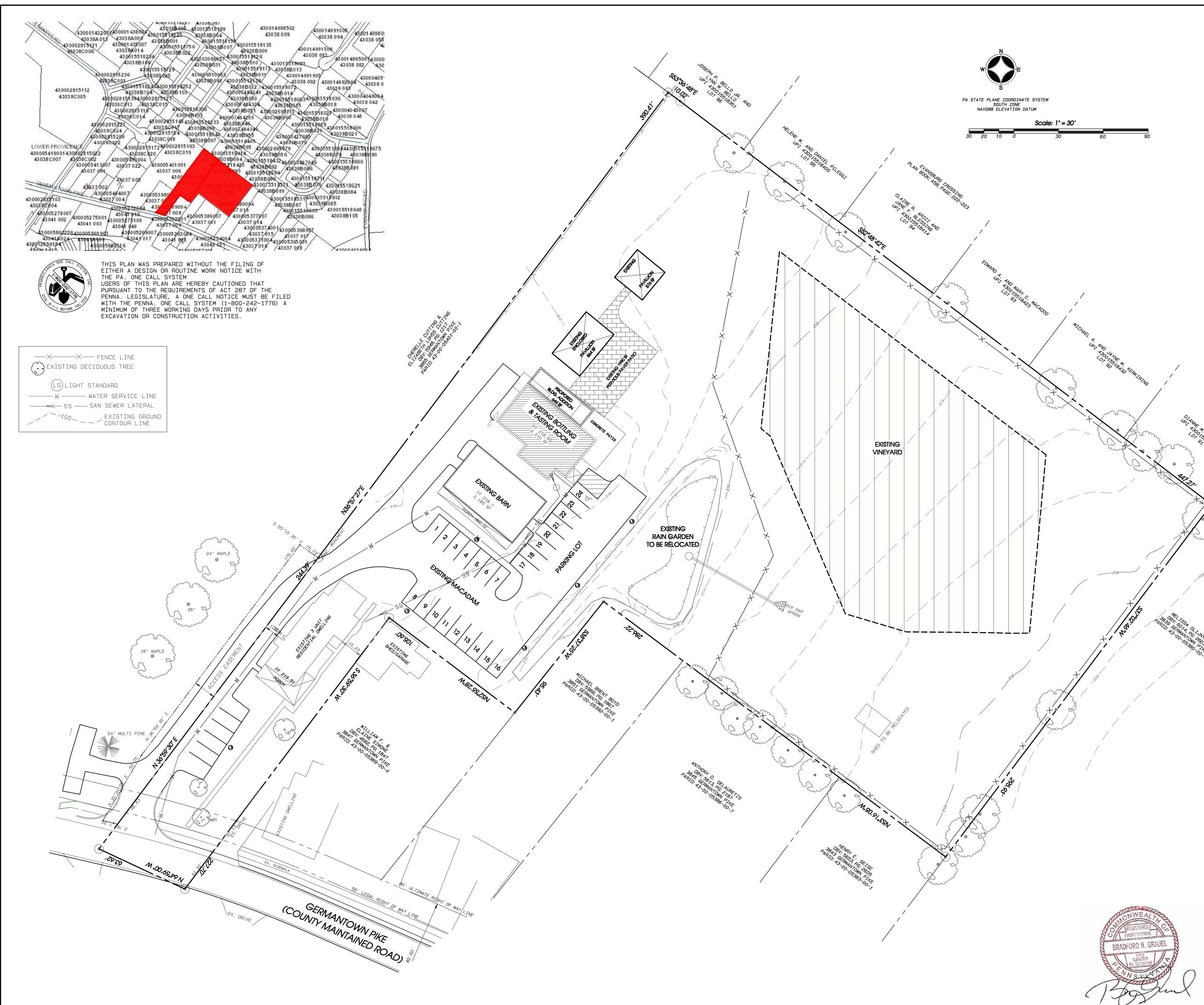
On behalf of Mr. and Mrs. Blat, thank you for your kind consideration of this request. Should you have any questions or need any further information, please do not hesitate to contact me directly at (484) 638-0206 or via email at <u>bradgr.otm@gmail.com</u>.

Sincerely,

Bradford R. Grauel, PLS

Owner/President OTM, LLC

Cc: Mr. and Mrs. Yuval Blat Mr. Timothy Woodrow, PE, Woodrow Assoc. Mr. Michael Mrozinski, Lower Providence Township



RECORD OWNER AND APPLICANT BLAT PROPERTIES, LLC MR. YUVAL BLAT, OWNER 4317 GYPSY LANE COLLEGEVILLE, PA. 19426 (610) 348-8760

SITE ADDRESS: 3855 GERMANTOWN PIKE SOURCE OF TITLE: GRANTORS: LOUIS A. DAMIANI AND BEVERLY A. DAMIANI GRANTEE: BLAT PROPERTIES, LLC DEED DATED: MAY 8, 2018 DEED BOOK 6090, PAGE 588 MONTGOMERY CO. RECORDS PARCEL ID NO. 43-00-05395-00-7

TRACT AREA: 3.827 ACRES GROSS, 3.752 ACRES NET CURRENT TRACT USE: RESIDENTIAL APARTMENT BUILDING AND COMMERCIAL VINEYARD AND WINERY

CURRENT ZONING: (EVC) EVANSBURG VILLAGE COMMERCIAL DISTRICT (CLASS 1 AND 2 USES) MAXIMUM BUILDING HEIGHT PERMITTED: 35 FT.

EXISTING: 35 FT. OR LESS MAXIMUM BUILDING WIDTH FACING STREET PERMITTED: 40 FT.

EXISTING APARTMENT BUILDING: 24 FT. MAXIMUM PERMITTED BUILDING COVERAGE: 10%

EXISTING: 8241 SF (5%) PROPOSED: 8885 SF (5.4%) MAXIMUM PERMITTED IMPERVIOUS COVERAGE: 30%

EXISTING: 25, 227 SF (15.4%) PROPOSED: 35, 952 SF (15%)

MINIMUM REQUIRED VEGETATION/TREES/LANDSCAPING: 22% PROPOSED: 50% OR GREATER

MINIMUM REQUIRED LOT SIZE: 20,000 SF

EXISTING: 163,437 SF MINIMUM LOT WIDTH AT BUILDING SETBACK LINE REQUIRED: 100 FT. EXISTING: 67 FT (EXISTING NON-CONFORMITY) FRONT YARD SETBACK EXISTING: 85.5 FT.

MINIMUM REAR YARD REQUIRED: 30 FT.

EXISTING: 212 FT. MINIMUM REQUIRED SETBACK TO A RESIDENTIAL DISTRICT: 80 FT.

EXISTING: 212 FT.

MINIMUM DISTANCE BETWEEN BUILDINGS REQUIRED: 15 FT. EXISTING: 20 FT.

MAXIMUM PERMITTED DISTANCE BETWEEN BUILDINGS: 85 FT. EXISTING 20 FT.

OFF STREET PARKING REQUIREMENTS: RESIDENTIAL APARTMENT UNIT: REQUIRED 2 SPACES PER UNIT.

EXISTING UNITS = 3 X 2 SPACES = 6 REQUIRED, 6 EXISTING WINE TASTING ROOM (RESTAURANT/BANQUET HALL):

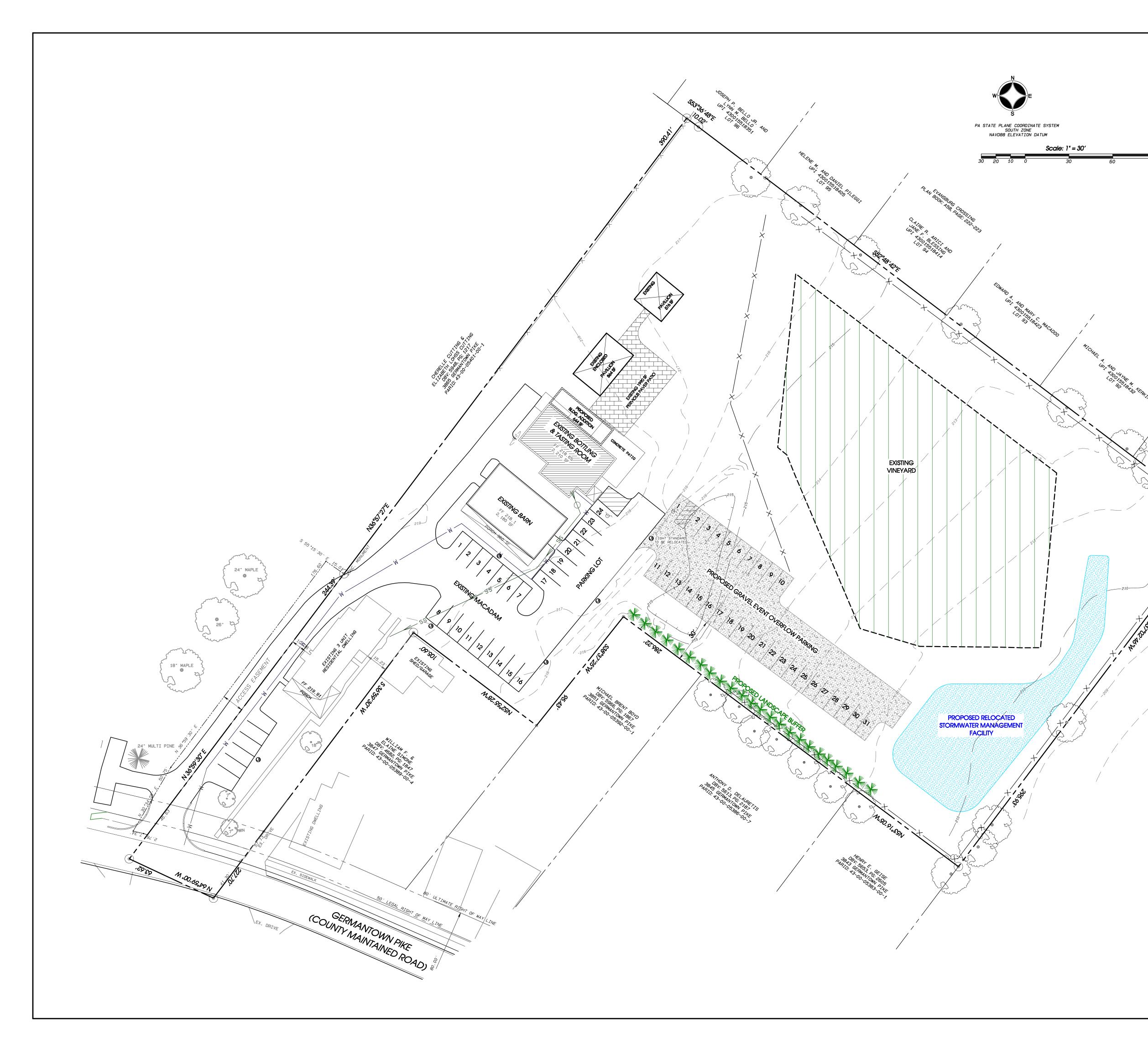
REQUIRED 1 SPACE PER 100 SF OF FLOOR AREA EXISTING FLOOR SPACE: 2125 SF / 100 = 21 SPACES REQUIRED EXISTING NUMBER OF SPACES = 24 PROPOSED OVERFLOW/EVENT SPACES = 31

FORMER LAND DEVELOPMENT PLAN REFERENCE: LAND DEVELOPMENT PLAN PREPARED FOR BACKYARD WINERY PROJECT PREPARED BY OTM, LLC, PROJECT NO. 18-048, LAST REVISED 08/15/2019 AND RECORDED AS PLAN BOOK 51, PAGE 259 IN THE OFFICE OF THE RECORDER OF DEEDS FOR MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING SITE PLAN ADDENDUM TO LAND DEVELOPMENT PLAN PREPARED FOR EVANSBURG WINERY 3855 GERMANTOWN PIKE Situate In:

The Township of Lower Providence Montgomery County, Pennsylvania

| REVISIONS | OTI | | | С 2022 ОТМ, LL |
|-----------|---------------------------------------|-------|--|------------------------------------|
| | l | | 6 ~ LAND PLANNING IGN SER VICES | |
| | 200 \$ | | Suite 201, Wyomissing, F 34) 336-6454 | Pa. 19610 |
| | DRAWN BR GRAUEL, PLS 02/28/2023 | CHECK | SCALE 1"=20' | PROJECT NO. 22-012 SHEET 1 of 2 |





The Township of Lower Providence Montgomery County, Pennsylvania





March 29, 2023

BOARD OF SUPERVISORS EXECUTIVE SUMMARY

Preliminary/Final Plan Major Land Development: LD-22-04 – PJ Land Development-2619 Ridge Pike Car Wash

<u>Requested Action</u>: Consider and recommend waiver requests and preliminary/final plan approval.

<u>Plan Summary</u>: For your consideration is a proposal from PJ Land Development to construct a 3,386 SF automated car wash at 2619 Ridge Pike.

Requested Waivers:

§123-18 requiring separate preliminary and final plan approval. The applicant requests combined preliminary final plan approval and will address all outstanding issues with staff and consultants prior to submitting record plans for execution.

§123.31.B requiring that Ridge Pike as a Urban Semi controlled Access road to be widen to a minimum cartway of 52 feet. No cartway widening is proposed from the existing cartway width of 40 feet. Property up to the ultimate right of way has been previously offered for dedication as part of an earlier land development project.

§123-50.B.2 and 123-50.C requiring that trees or shrubs be planted along the easterly and westerly property lines. Alternately, the applicant will add plantings to the area of parkland between the applicant's fence and the park fence, to the satisfaction of Township staff and consultants.

§123-110.M.3 requiring that the refuse area be located either within the building or outside with a minimum setback of 50 feet from any residential property. The applicant proposes to install a gated masonry trash enclosure in the existing shared parking area approximately 8.8 feet from the rear property line. This area will be buffered from the adjacent township park property area by fence and landscape buffering.

There are also waiver requests for Chapter 129 Stormwater Management design standards.

Current review letters:

- Bohler Engineering, August 19, 2022
- Woodrow and Associates, March 7, 2023
- McMahon Associates, February 13, 2023
- Thomas Comitta Associates, February 7, 2023
- LPTPD Chief, January 17, 2023
- LP Fire Marshal, September 12, 2022
- MCPC, October 7, 2022
- MCCD, January 5, 2023
- Conditional Use Decision, June 16, 2022
- ZHB Decision, June 23, 2022

Review Comment Summary

- 1. Traffic circulation is a primary concern with this project. Discussions with PennDOT have been on-going.
- This plan has received approval from the Board of Supervisors for the use of a stand-alone car wash in the RPB – Ridge Pike Business zoning district and approval from the Zoning Hearing Board for reduced rear yard setback and to clarify signage.
- 3. Based on the relief conditionally granted by the ZHB for reduced setback along the rear property line adjoining the Township Park, the applicant and Township developed an enhanced buffering design, including soldi fencing and increased plantings.
- 4. The Township Engineer and the Applicants Engineer are working to improve the stormwater management on the site due to large amount of existing impervious coverage.
- The Township Engineer points out that there are design standards in the RPB

 Ridge Pike Business zoning district that the applicant must show compliance with.

Traffic Impact fee: 40 new trips @\$1,822 = \$72,880 Park and Rec fee: 3386 Sf @\$1.10 = \$3724.60

BOHLER//

August 19, 2022 Via: FedEx Priority

Lower Providence Township 100 Parklane Drive Eagleville, PA 19403 Phone: (610) 635-3514

> Preliminary/Final Land Development Submission Re: Proposed Tidal Car Wash 2619 Ridge Pike Lower Providence, PA 19426 Bohler Project No. PP2132641

To Whom It May Concern:

On behalf of the Applicant, Bohler Engineering hereby requests the following waivers in regards to the above referenced project:

1. From Subdivision and Development of Land Section §123-18 of the Township Ordinance to submit plans as preliminary/final land development plans.

Due to the development schedule going through preliminary/final would have significant impacts to the project

Upon review, should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,

BOHLER ENGINEERING PA, LLC

19 60 Matthew Kearse, PE, Project Manager

JW/ag/as

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www.BohlerEngineering.com



MEMORANDUM

| To: | Mike Mrozinski, Director of Community Development - Lower Providence Twp. |
|------------|---|
| From: | Timothy P. Woodrow, P.E. – Township Engineer |
| Cc: | EJ Mentry, Township Manager – Lower Providence Township Matthew Kearse, P.E. – Bohler Engineering PA, LLC Michael Clarke, Esq., Township Solicitor – Rudolph Clarke, LLC Lauren Gallagher, Esq. – Rudolph Clarke, LLC Robert Jordan, Woodrow & Associates, Inc. |
| Date: | March 7, 2023 |
| Reference: | Tidal Wave Carwash – Technical Stormwater Plan Review Land Development Application 2619 Ridge Pike |

Pursuant to my review letter dated February 13, 2023, below are our stormwater details and general plan set comments:

Stormwater Management Review:

- 1. Section 129-13.Q Any stormwater management facilities regulated by this chapter that would be located on state highway rights-of-way, or discharge stormwater to facilities located within a state highway right-of-way, shall be subject to approval by the Pennsylvania Department of Transportation (PennDOT).
- Section 129-13.T All storm sewer inlets must be identified with a storm drain marker. Storm drain markers shall be stainless steel, affixed to the inlet hood with adhesive, rivets, or bolts. (Marker may be bolted to the grate in off-road locations). Marker shall have a minimum diameter of 3 ½ inches and include, "No Dumping - Drains to Waterway" and a fish symbol. Provide a detail to be affixed to all stormwater inlets.
- 3. Section 129-17 Water Quality calculations must be provided in accordance with this section and sub-sections listed within. Calculations must be submitted utilizing the equation located in Section 129-17.1.
- 4. Section 129-19.C.(2) Pipe Materials. All storm sewer piping shall be Class III reinforced concrete pipe, except when pipe class and strength is required to be increased in accordance with PennDOT specification. A note shall be added to the plans.

- 5. Section 129-19.C.(4) Inlet and Manhole Construction. Inlet and manhole castings and concrete construction shall be equivalent to PennDOT Design Standards. Manhole castings and covers shall have the word "STORM" cast in two-inch-high letters on the top of the cover. All inlet grates shall be bicycle-safe, heavy duty structural steel. All storm sewer inlets must be identified with a storm drain marker (environmental type). Storm drain markers shall be stainless steel affixed to the inlet hood with adhesive, rivets, or bolts. A note shall be added to the plans and detail sheets.
- 6. Section 129-19.C.(12) Stormwater pipes shall have a minimum depth of cover of 18 inches (including over the bell) or as designated by the American Concrete Pipe Association (whichever is greater), and in no case shall any part of the pipe project into the road subbase or curb. We note that based upon the profiles and calculations provided, the pipe run from Inlet 01 to Inlet 02 does not have sufficient cover.
- 7. Section 129-19.G.(6) The top or bottom edge of slopes shall be a minimum of five feet from property or right-of-way lines of streets or alleys in order to permit the normal rounding of the edge without encroaching on the abutting property. A waiver from this section will be required for this application for the proposed grading on the northeastern side of the property.
- 8. Section 129-19.H.(2) Add a note to the plans stating, "During construction, duly authorized representatives of Lower Providence Township may enter at any reasonable time upon any property within the Township to investigate whether construction activity is in compliance with the Lower Providence Township Stormwater Ordinance."
- 9. Section 129-21.E Add a note to the plans stating, "A copy of the Erosion and Sediment Control Plan and any required permit, as required by PADEP or Montgomery County Conservation District regulations, shall be available at the project site at all times."
- 10. Section 129-23.E.(1) The following note shall be attached to all stormwater management site plans and signed and sealed by the applicant's professional engineer: "I, _____, certify that the proposed stormwater management facility (circle one) is/is not underlain by limestone." This note should be added to the Post Construction Stormwater Management Plan.
- 11. Section 129-23.G.(23) A statement, signed by the landowner, acknowledging the stormwater management system to be a permanent fixture that can only be altered or removed only after approval of a revised plan by the Township, which shall be recorded with the record plan and which shall be applicable to all future landowners. This note should be added to the Post Construction Stormwater Management Plan.
- 12. Section 129-23.G.(25) The following signature block for the design engineer, "(Design engineer), on this date (date of signature), has reviewed and hereby certifies that the Stormwater Management Site Plan meets all design standards and criteria of the Lower Providence Township Stormwater Management Ordinance No. 129." This note should be added to the Post Construction Stormwater Management Plan.

- 13. Section 129-23.I.(4) All stormwater management/BMP facility easements required by this chapter must be shown on the stormwater management site plan, including the bearing and distance of each segment of the easement(s) boundary. We recommend the applicant consider a blanket easement in favor of the Township.
- 14. Section 129-29 The applicant for any regulated activity requiring a stormwater management site plan and stormwater management permit shall be responsible for completing an as-built survey, sealed by a professional engineer licensed in the Commonwealth of Pennsylvania or a registered surveyor licensed in the Commonwealth of all stormwater management facilities/improvements included in the approved plan. Add a note to the Post Construction Stormwater Management Plan.
- 15. Section 129-30 A note should be added to the plans stating, "A set of plans approved by the Township shall be on file at the site throughout the duration of the development activity. Periodic inspections may be made by the Township or designee during development activities."
- 16. Section 129-31 Add a note to the plans, "It shall be unlawful for any person to undertake any regulated activity on any property except as provided for in the approved plan and pursuant to the requirements of this chapter. It shall be unlawful to alter or remove any stormwater management facility or BMP required by the plan pursuant to this chapter or to allow the property to remain in a condition which does not conform to the approved plan."
- 17. Section 129-34.A A note shall be added to the plans stating, "The Township Engineer shall inspect all phases of the installation of the permanent stormwater management facilities required pursuant to a stormwater management site plan and simplified stormwater management site plan and shall provide an inspection report to the Township."
- 18. 129-39.H A note shall be added to the plans stating "In the event a property owner or other entity responsible for maintenance fails to honor their maintenance responsibilities set forth in the O&M plan, in any manner, Lower Providence Township shall have the right of entry upon and within the area of the easement to undertake any required corrective or maintenance effort. The total cost of such, including administrative, engineering, and legal costs for enforcement, may be imposed upon the responsible party as determined by the O&M agreement. Failure to pay all costs described above may be subject of the imposition of a lien by the Township against the property in question, in the same manner as the Township might otherwise be empowered by law to assess or impose a lien against a property for municipal improvements."

General Comments:

Sheet C-608:

1. The Storm Tech Chamber Cross Section Detail should be revised to reflect elevations for the following:

Memorandum Page 4 March 7, 2023 Tidal Wave Carwash – Technical Stormwater Plan Review

- Invert of stone on prepared subgrade
- Invert of chamber system
- Top of chamber system
- Top of stone elevation
- Finish grading elevations atop the system.
- 2. It is also recommended that a detailed system layout be provided showing the following:
- Length and width of system as shown on Sheet C-607/.
- Length and width of Overall Basin Area as shown on Sheet C-607.
- Pipe tie ins and inverts.
- All Structures and invert information as shown on Sheet C-605.

Sheet C-801:

- 1. The Storm Profile for MH-01 to IN06 should be revised to reflect the electric and water lines crossing.
- 2. The Storm Profile for OS01 to MH02 should be revised to reflect the Outlet Structure and Basin System.

Sheet C-901:

1. All concrete details should be revised to reflect a minimum 4,000 psi in lieu of the 3,500 psi shown.

General PCSM Report Comments:

1. The Grate/Rim elevation for OS-01 is incorrect in the storm cad calculations and should be revised. In addition, add a profile for the pipe run from OS-01 to MH-02.



February 13, 2023

Mr. Michael Mrozinski Director of Community Development Lower Providence Township 100 Parklane Drive Eagleville, PA 19403

RE: Traffic Review #3 – Transportation Impact Assessment and Preliminary/Final Land Development Plans

Proposed Car Wash – 2619 Ridge Pike (S.R. 0363) Lower Providence Township, Montgomery County, PA McMahon Project No. 821B12.11

Dear Mike:

Per the Township's request, McMahon, a Bowman company (McMahon) has completed our third (3rd) review of the proposed development to be located at 2619 Ridge Pike (S.R. 0363) in Lower Providence Township, Montgomery County, PA. According to the submitted materials, the proposed development will consist of a 3,386 square-foot automated car wash. Access to the proposed development is proposed to be provided via a full-movement driveway to Ridge Pike (S.R. 0363), as well as via the access points for the adjacent site (Lidl Supermarket) to the south of the proposed development parcel via an internal connection between the two sites.

The following documents were received and reviewed in preparation of our comments:

- Transportation Impact Assessment Tidal Car Wash (Trooper Development), prepared by Traffic Planning and Design, Inc., last revised February 1, 2023.
- <u>Response to Comments Letter Tidal Car Wash</u>, prepared by Traffic Planning and Design, Inc., dated February 1, 2023.
- <u>Response to PennDOT Comments Letter Tidal Car Wash</u>, prepared by Traffic Planning and Design, Inc., dated February 1, 2023.
- Preliminary/Final Land Development Plans Tidal Wave Car Wash, prepared by Bohler Engineering, last revised January 27, 2023.

Based on our review of the documents listed above, and participation in the technical meeting with the applicant's traffic engineer, PennDOT, and Township staff on December 16, 2022, McMahon offers the following comments for consideration by the Township and action by the applicant.

General

1. According to the Township's Roadway Sufficiency Analysis, the proposed development is in Transportation Service Area One, which has a corresponding impact fee of \$1,822 per "new" weekday afternoon peak hour trip and the applicant will be required to pay a Transportation Impact Fee in accordance with the Township's Transportation Impact Fee Ordinance. Based upon information on studies conducted at canwash sites that is provided in Table 6 of the Transportation Impact Analysis study (TIA), the proposed development is expected to generate approximately 40 "new" trips (net of pass-by trips) during the weekday afternoon peak hour, resulting in a transportation impact fee of \$72,880.



- A PennDOT Highway Occupancy Permit (HOP) is required for this project since Ridge Pike (S.R. 0363) is a State Roadway for any work that may be completed within the legal right of way on Ridge Pike (S.R. 0363). The Township and our office must be copied on all TIA and HOP submissions, as well as correspondence between the applicant and PennDOT, and invited to any and all meetings among these parties.
- 3. A response letter must be provided with the resubmission detailing how each comment herein has been addressed, and where each can be found in the resubmission materials (i.e., page number(s)) to assist in the re-review process. Additional comments may follow upon review of any resubmitted materials.

Transportation Impact Assessment

- 4. From our January 18, 2023 Review Letter: The applicant's traffic engineer conducted queue demand analysis for the site based on data collected at three similar area facilities. Based on this data, the longest observed queue at the three facilities was 175 feet, equating to 7 vehicles assuming a vehicle length of 25 feet. Therefore, based on the queue demand analysis, it is expected that the proposed car wash stacking lane (400 feet from the pay kiosk) will be able to accommodate the maximum expected queue (175 feet) for the proposed car wash. We continue to recommend, however, that the Board of Supervisors place a condition on any approval of the project that if car wash queuing issues and conflicts arise, that the property owner will be responsible to remedy any issue immediately, by resolving the traffic circulation and queuing operational problems that impact traffic safety and efficiency, especially impacting access to/from Ridge Pilce (S.R. 0363).
- 5. The signal timing offsets using used in the analysis during both peak hours at the intersection of Ridge Pike (S.R. 0363)/Main Street (S.R. 3009) and Trooper Road (S.R. 0363/S.R. 3002) are currently referenced to the Start of Green; however, based on review of the traffic signal system plan included in the study, the offsets should be referenced to the beginning of NEMA TS2 first green. In addition, the recall mode for the westbound through/right-turn movement should be set to CMAX during both peak hours. Please update accordingly so the document to be left on file has the proper analyses for this intersection.

Preliminary/Final Land Development Plans

- 6. A portion (access, parking spaces, and drive aisles) of the adjacent site to the north (TD Bank) are located on the car wash property. Documentation of this condition (i.e., an easement provision for parking to continue for the adjacent property or subdivision/lot line revision, etc.), between the applicant and the owner of the adjacent property to the north, must be provided in subsequent submissions.
- 7. According to the Township Street Map, Ridge Pike (S.R. 0363) is classified as a semi-controlled access urban road and should have a minimum 52-foot, cartway width as required in Section 123-31.B of the Subdivision and Land Development Ordinance. The plans currently show an approximate 40-foot cartway width along the site frontage of Ridge Pike (S.R. 0363), thereby not satisfying the ordinance requirement. A waiver will need to be requested from this requirement, or otherwise the plans should be revised to show a minimum 52-foot cartway width (26 feet from the centerline) along the site frontage of Ridge Pike (S.R. 0363).
- 8. A mote must be added to the plans stating the area between the existing right-of-way line and the ultimate right-of-way line must be dedicated to the authority having jurisdiction over any public streets



for future taking, when or as necessary, as required by Section 123-31.K of the Subdivision and Land Development Ordinance.

- 9. If the area between the legal and ultimate right-of-way is utilized for the widening of Ridge Pike (S.R. 0363) in the future for additional lanes, the applicant's engineer should confirm that the proposed access design and frontage design is being planned so that they can be modified and still function satisfactorily, as well as the sidewalk be capable of being relocated and maintained along Ridge Pike (S.R. 0363).
- The existing legal right-of-way line is not clearly labeled on the plans on the site side of Ridge Pike (S.R. 0363). The plans should be modified accordingly.
- 11. Sight distance measurements must be shown on the plans at the proposed driveway along Ridge Pike (S.R. 0363) and must satisfy requirements in **Section 123-36.A** of the **Subdivision and Land Development Ordinance**, as well as PennDOT safe stopping sight distance requirements contained in Chapter 441 of **PennDOT Publication 282**. Specifically, vehicular egress sight distances looking in both directions must be provided for the proposed driveway to Ridge Pike (S.R. 0363) at ten (10) feet back of the closest travel lane edge at an eye height of 3.5 feet looking at an approaching vehicle of 3.5 feet, as well as for the ingressing left-turn vehicle sight distance (at a position 35 feet prior to each driveway centerline) looking to the front (3.5 feet eye height to 3.5 feet eye height) and rear (2 feet taillight height to 3.5 feet approaching driver eye height). At least the minimum safe stopping sight distances must be achievable at the proposed driveway and must be sufficient for the speed and conditions of this section of the roadway in order to allow for all ingress and egress movements at the driveway location as shown on the plans.
- 12. The dimensions of the curb radii should be shown on the plans on both sides of the proposed driveway at its intersection with Ridge Pike (S.R. 0363) and meet requirements in **Section 123-36.F** of the **Subdivision and Land Development Ordinance.** If they do not meet requirements of the Township ordinance and/or PennDOT, then written justification must be made by the applicant that the engineering design for the radii is satisfactory and able to accommodate the safe and efficient ingress/egress of vehicles that will utilize this driveway. A waiver will also need to be requested if the ordinance is not met.
- 13. A clear sight triangle should be shown on the plans at the proposed driveway along Ridge Pike (S.R. 0363) as required in Section 123-36.H of the Subdivision and Land Development Ordinance.
- 14. There are currently no parking requirements in Section 143-71.G of the Zoning Ordinance for a car wash use. The applicant and their team should conduct a parking demand evaluation to confirm that the proposed number of parking spaces on site, and those reserved for vacuuming, are able to accommodate the peak parking demand for the proposed car wash. In addition, the plans should provide information on where employees will park on site. If available, the applicant may use any historical parking demand data for similar Tidal Car Wash facilities.
- 15. Upon receipt of the information in the prior comment, our office can confirm that the number of proposed ADA parking spaces meets requirements in Section 123-37.Q(1) of the Subdivision and Land Development Ordinance.
- 16. The plans currently use a compact size car for the vehicle turning template. The plans should be revised to also demonstrate the ability of an SUV/pick-up truck to maneuver through the car wash lane and the



car wash bypass lane, as well as enter and exit the site access safely and efficiently without routinely crossing the centerline dividing ingress and egress lanes on the access.

- 17. Turning templates should also be provided demonstrating the ability of the largest expected delivery vehicle to maneuver into and out the site driveway, given that the connection to the Lidl will still exist and be more accessible with the proposed site design.
- 18. The Township Fire Marshal should review the emergency vehicle turning templates for accessibility and the circulation needs of Township emergency apparatus. Ensure that any correspondence, including any review comments and/or approvals, is included in subsequent submissions.
- 19. We recommend that the that the Township limit trash collection and delivery vehicles using this driveway to outside normal operating hours for the carwash to minimize turning conflicts in or out of the Ridge Pike (S.R. 0363) access.
- 20. All proposed signs must be clearly identified as to type, size, et and labeled on the plans. The following signs appear that they may be part of the plans, however, they are not clearly identified, and a separate pavement marking and signing sheet is recommended to be provided unless they can be clearly shown on the plans otherwise:
 - A "Stop" sign on the site driveway approach to Ridge Pike (S.R. 0363).
 - A "Stop" sign on the car wash bypass lane approach to the parking area to the south of the proposed car wash.
 - A "Stop" sign on the parking area approach to the driveway leading to/from Ridge Pike (S.R. 0363)/Lidl.
 - A "Stop" sign on the car wash egress lane approach to the parking area to the south of the proposed car wash.
- 21. The following signs should be added to the plans, and a separate pavement marking and signing sheet is recommended to be provided unless they can be clearly shown on the plans otherwise:
 - "Do Not Enter" signs should be shown on both sides of the car wash egress lane at its intersection
 with the parking area to the south of the proposed car wash facing the parking area.
 - "Do Not Enter" signs should be shown on both sides of the car wash bypass lane at its intersection
 with the parking area to the south of the proposed car wash facing the parking area.
 - "Exit Only" or "Do Not Enter" signs should be shown at the parking lot/vacuum area egress facing traffic entering the car wash drive-thru lane so as not to enter the wrong way.
 - Double sided, "One-Way" signs should be provided on the south side or both sides of the entrance to the car wash drive-thru lane where the counterclockwise, one-way circulation begins.
 - A "No Left-Turn, 4 PM to 6 PM Weekdays" sign must be shown under the proposed "Stop" sign on the site driveway approach to Rídge Pike (S.R. 0363).
 - A "Yield to Pedestrian" sign should be shown at the proposed crosswalk along the car wash egress lane.
- 22. Painted pavement marking arrows and legends like "STOP" and "ONE-WAY" (or otherwise flow arrows for review purposes) are shown on several of the plan sheets for the access along Ridge Pike (S.R. 0363) and some internal flow. The plans indicate on Sheet 4 of 25 where arrows and legends are proposed to be painted. The arrows on the driveway egress indicate a vehicle can make a left-turn/through/right-turn from that lane. There is a driveway/access directly across from this access. We recommend that this arrow and the painted word "STOP" be removed at this location.



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- 23. The proposed pavement section detail provided on Sheet 23 must include the proposed pavement sections and depths, and be in accordance with Section 120-19.A of the Subdivision and Land Development Ordinance.
- 24. Sheet 23 indicates details for both concrete pavement and reinforced concrete pavement; however, it is unclear based on the plans and legend on Sheet 4 where the different pavement sections are located.
- 25. No details appear to be shown on the plans for the vacuum features in the parking area. We recommend this information be added to the plans.
- 26. All curb ramps and pedestrian routes (i.e., sidewalks, crosswalks, etc.) are to be constructed in accordance with the current Federal and PennDOT ADA standards. McMahon has not reviewed any ramps internal to the site, as the applicant's engineer will be responsible for their design satisfying the required ADA standards.

We trust that this review letter responds to the Township's request and addresses our review of the materials for traffic operations and issues related to the proposed development apparent to us at this time. Please contact me, or Michelle Eve, P.E., should you have any questions.

Sincerely,

Congl. More

Casey A. Moore, P.E. Executive Vice President – Corporate Operations

CAM/BMJ

E.J. Mentry, Township Manager
 Lauren A. Gallagher, Esquire, Rudolph Clarke, LLC, Township Solicitor
 Timothy Woodrow, P.E., Woodrow Engineers, Township Engineer
 John Miklos, Montgomery County Planning Commission
 Fran Hanney, PennDOT
 Scott Burton, PennDOT
 Eric Ostimchuk, P.E., PTOE, Traffic Planning and Design, Inc., Applicant's Traffic Engineer
 Matthew Kearse, P.E., Bohler, Applicant's Engineer

I:\eng\LOWERPR01\821812_Tidal Wave Car Wash\Project Management\Submissions\2023-02-02 TIS_LD Plans\Review\2023-02-f3 Review Letter #3_Tidal Wave Car Wash TIA_LD Plans (finalized).docx



THOMAS COMITTA ASSOCIATES, INC. Town Planners & Landscape Architects

MEMORANDUM

- TO: Lower Providence Township Officials, Staff, and Consultants Tidal Wave Car Wash Team
- FROM: Thomas J. Comitta, AICP, CNU-A, RLA Erin L, Gross, AICP, RLA
- DATE: September 15, 2022; Updated: February 7, 2023

SUBJECT: REVIEW COMMENTS - TIDAL WAVE CAR WASH (2619 RIDGE PIKE) PRELIMINARY/FINAL LAND DEVELOPMENT PLANS, DATED REVISED 1-27-2023

The enclosed Review Comments pertain to the following documents that we received on February 2, 2023, and previously, and to a Site Visit on September 14, 2022, including:

 Preliminary / Final Land Development Plan: Tidal Wave Car Wash – 2619 Ridge Pike (25 sheets), prepared by Bohler, dated revised 1-27-2023.

Please call or email if there are any questions.

www.comitta.com



Town Planners & Landscape Architects

REVIEW COMMENTS - TIDAL WAVE CAR WASH (2619 RIDGE PIKE) PRELIMINARY/FINAL LAND DEVELOPMENT PLANS, DATED REVISED 1-27-2023

September 15, 2022; Updated: February 7, 2023

The following Review Comments pertain to the documents listed in the Cover Memorandum. New comments are in bold type.

1. Overview, Existing Conditions, and RPB District Uses

- 1.1. The Applicant is still proposing to remove the existing asphalt parking lots, and to build a +/- 3,386 square foot Car Wash Tunnel Building on the 1.27 acre property located in the RPB (Ridge Pike Business) District.
- 1.2. A gasoline service station with a car wash is a listed permitted use in the RPB District, per Section 143-259.O. of the Zoning Ordinance (ZO). However, the proposed Car Wash Use is not listed as a permitted stand alone use. Please still clarify.

2. Setbacks, Buffering & Screening, and Fencing

2.1. Section 143-262.B. front, side, and rear yard setbacks shall be no less than 10 feet, unless adjacent to an existing residential zoning district, in which the minimum side and rear yard setbacks shall be 30 feet. The proposed drive thru lane on the east side of the property (to the rear), is proposed to be 2.7' from the property line.

We still recommend that the drive thru lane be at least 10 feet from the property line, especially since Section 143-57.D.(ZO) speaks to using landscaping to establish community identity.

2.2. A 5 foot high wood fence is proposed on the eastern property line which abuts R-2 residential. A detail of the fence has been provided on Sheet C-901. Please clarify if the proposed pressure treated lumber will be stained

The detail has been revised to include a note that indicates all wood to be pressure treated lumber. Therefore, this item is resolved.

3. Landscaping

- 3.1. Per Section 143-262.E.(3)(ZO), "a minimum of one three-inch caliper street tree...having a minimum of six foot height ... is required for every 25 feet of property lot frontage width". The Compliance Chart of the Landscape Plan correctly outlines this requirement. However, the Plant Schedule includes the Canopy Trees at 2.5" Caliper. Therefore, please still revise the Plant Schedule to indicate size to be 3" caliper and also indicate a 6 foot minimum planting height.
- 3.2. Section 123-50.B.(2) requires perimeter plantings along property lines. The Compliance Chart indicates that the northwest property line is an existing non-conformity and, therefore, there are no proposed perimeter plantings. However, we still believe that plantings should be provided both



THOMAS COMITTA ASSOCIATES, INC. Town Planners & Landscape Architects

REVIEW COMMENTS - TIDAL WAVE CAR WASH (2619 RIDGE PIKE) PRELIMINARY/FINAL LAND DEVELOPMENT PLANS, DATED REVISED 1-27-2023

September 15, 2022; Updated: February 7, 2023

along the existing commercial property line (because a new long building is proposed), and along the eastern property line (as this is a new land development that abuts the R-2 residential zoning district). Therefore, please still add additional plantings.

- 3.3. Ten (10) of the existing Spruce Trees along the southern property line are dead, and need to be replaced. Therefore, 10 additional new Spruce Trees are still needed in the area marked on the Landscape Plan as "Landscape To Remain".
- 3.4. The Landscape Specifications Note 12 indicates that plants shall be guaranteed for a period of one (1) year. However, Section 123-50.D. (SALDO) indicates that plants shall be guaranteed for 18 months. Therefore, this note should still be revised to indicate 18 months.

4. Tree Protection and Tree Removal

- 4.1. There are over 15 mature trees located in the rear of the property along the eastern property line. However, these trees do not appear on the Existing Conditions/Demolition Plan. Please still add these trees to the Existing Conditions/Demolition Plan, and still provide replacement trees.
- 4.2. Please still expand the Landscape Compliance Chart on the Landscape Plan in order to indicate the number of trees to be removed, and the proposed required replacement trees per §123-114.B.(6)(a) (SALDO).
- 4.3. Please illustrate the location for the Tree Protection Fencing on the Erosion & Sediment Pollution Control Plan.

Tree Protection Fencing (TPF) is depicted on the Erosion & Sediment Pollution Control Plan. However, TPF is still missing around the existing trees along the eastern property line. Also, TPF should be added in the area where existing trees are located, but no yet shown on the Plans.

5. Design Standards for the Ridge Pike Business District

5.1. Section 123-110.E. (SALDO) indicates that architectural elevations or sketches of the buildings shall be provided in order to determine if the proposed buildings (Tunnel Building and Vacuum Building) comply with the Design Standards in Section 123-110.B., C., and D.

Therefore, please still provide architectural elevations in order to demonstrate compliance.

Please call or email if there are any questions.

LOWER PROVIDENCE TOWNSHIP POLICE DEPARTMENT

Inter Office Communications Memo

| DATE: | January 17, 2023 |
|----------|--|
| То: | Mike Mrozinski |
| From: | Chief Jackson |
| SUBJECT: | LD-22-04 PJ Land Development - 2619 Ridge Pike |

I have reviewed the land development plan for 2619 Ridge Pike and have no questions or recommendations at this time.



LOWER PROVIDENCE TOWNSHIP

100 Parklane Drive • Eagleville, PA 19403 • www.lowerprovidence.org Administration: 610 539-8020 • Fax: 610 539-6347 Police: 610-539-5900 • Fax: 610-630-2219



| DATE: | September 12, 2022 |
|-------------|--|
| <i>To</i> : | Michael Mrozinski Director of Community Development |
| From: | Michael Rohlfing Fire Marshal |
| SUBJECT: | Plan Review for 2619 Ridge Pike Tidal Wave |

After reviewing the plans provided and the updated truck turning plan (attached for reference), there are no requirements at this time.

Please contact me should you have any questions.

MONTGOMERY COUNTY BOARD OF COMMISSIONERS

VALERIE A. ARKOOSH, MD, MPH, CHAIR KENNETH E. LAWRENCE, JR., VICE CHAIR JOSEPH C. GALE, COMMISSIONER



MONTGOMERY COUNTY PLANNING COMMISSION

MONTGOMERY COUNTY COURTHOUSE • PO BOX 311 NORRISTOWN, PA 19404-0311 610-278-3722 • FAX: 610-278-3941 <u>WWW.M</u>ONTCOPA.ORG

> SCOTT FRANCE, AICP EXECUTIVE DIRECTOR

October 7, 2022

Michael Mrozinski, Director of Community Development Lower Providence Township 100 Parklane Drive Eagleville, PA 19403

Re: MCPC #22-0238-001 Plan Name: Tidal Wave Auto Spa #004 (1 lot comprising 1.12 acres) Situate: Ridge Pike (S) and Trooper Road (E) Lower Providence Township

Dear Mr. Mrozinski:

We have reviewed the above-referenced land development in accordance with Section 502 of Act 247, "The Pennsylvania Municipalities Planning Code," as you requested on September 12, 2022. We forward this letter as a report of our review.

BACKGROUND

The applicant, PJ Land Development LLC, has submitted land development plans for a drive-through car wash on a 1.12 acre lot on the north side of Ridge Pike, west of Trooper Road. This site is located in the RPB Ridge Pike Business zoning district and has public water and sewer service. The site is currently occupied by a parking lot that is connected via driveways to the neighboring properties that front on Ridge Pike. The proposed development would entail the demolition of the existing parking lot and would eliminate vehicular access to the adjacent bank property.

RECOMMENDATION

The Montgomery County Planning Commission (MCPC) generally supports the applicant's proposal, however, in the course of our review we have identified the following issues that the applicant and township may wish to consider prior to final plan approval. Our comments are as follows:



12

REVIEW COMMENTS

ZONING

- A. <u>Permitted Uses</u> The use that is proposed in this land development plan- a standalone car wash is not specifically named as a permitted use in the Ridge Pike Business zoning district but is of the same general character as "gasoline service station containing a car wash" (§145-259.0)., The standards established for the "gasoline service station containing a car wash" use may be applicable to the proposed development, where the two uses are comparable.
- B. <u>Vehicle Service Activities</u> We defer to the determination of the township's zoning administrator as to whether the requirement of §143-259.O(2) "All activities except those performed at fuel or air pumps shall be performed within an enclosed building." should apply to the vacuuming stations featured in the proposed development.
- C. <u>Legislative Intent</u> The intent of the Ridge Pike Business zoning district includes "increase the number of pedestrian and vehicular connections between adjacent properties to provide complementary and coordinated development of adjacent properties." (§143-257.B) and also to "minimize the potential for increased traffic congestion" (§143-257.A) and lists shared access points, cross-access easements, and shared parking areas as features of development that contribute to this goal. We encourage the applicant and township to consider whether this development plan could be reconfigured to continue to provide cross-access and create a shared access point with the adjacent bank property.

SUBDIVISION AND LAND DEVELOPMENT

- A. Lot Lines The existing lot line separating this proposed land development and the adjacent bank property do not align with the placement of existing or proposed structures. The parcel boundary cuts across the parking lot and vehicle circulation areas that serve the neighboring bank. We recommend that the owners of the two properties work with the township to consider options for adjusting lot lines to better match the layout and uses of these two parcels.
- B. <u>Easements</u> As noted above, the existing lot lines of this proposal enclose a portion of the driveways and parking area that serve the adjacent bank. If there is an access easement, or any other easement, which applies to this parcel, the development plans should include the location and details of the easement or easements. If no such easements exist, the applicant should provide for easements for access to the parking area and other functions of the neighboring property which are located on the development parcel.

TOWNSHIP PLANS

A. <u>Ridge Pike Sidewalk Connection</u> – The Parks, Recreation, and Open Space Plan the township adopted in 2021 identifies the creation of a sidewalk connection between Dell Angelo Park and Ridge Pike as a recommended improvement for the neighborhood park. The plan depicts a potential route for this pedestrian access way that crosses the site of this proposed development (*see attachment*). The submitted development plans include walkways that connect to the existing sidewalk along Ridge Pike

and extend the majority of the lot's depth, towards the park. We recommend the township and applicant consider how this development plan could be adjusted to provide this pedestrian connection.

CONCLUSION

We wish to reiterate that MCPC generally supports the applicant's proposal but we believe that our suggested revisions will better achieve the township's planning objectives for commercial development.

Please note that the review comments and recommendations contained in this report are advisory to the municipality and final disposition for the approval of any proposal will be made by the municipality.

Should the governing body approve a final plat of this proposal, the applicant must present the plan to our office for seal and signature prior to recording with the Recorder of Deeds office. Please print the assigned MCPC number (22-0238-001) on any plans submitted for final recording. A paper copy bearing the municipal seal and signature of approval must be supplied for our files.

Sincerely,

26 Mill

John Miklos, Community Planner II imiklos@montcopa.org – (610) 278-3554

c: Matthew Kearse PE, Applicant's Representative E.J. Mentry, Township Manager Mark Kuberski, Chair, Township Planning Commission Timothy Woodrow, PE, Township Engineer Casey Moore, PE, Township Traffic Engineer

Attachments: 1. Aerial View

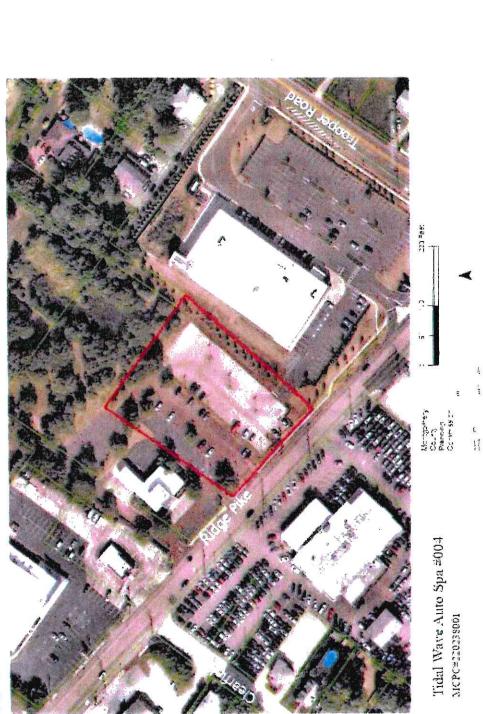
- 2. Site View
- 3. Recommended Park Improvements

Mrt. Michael Mrozinski

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ATTACHMENTS

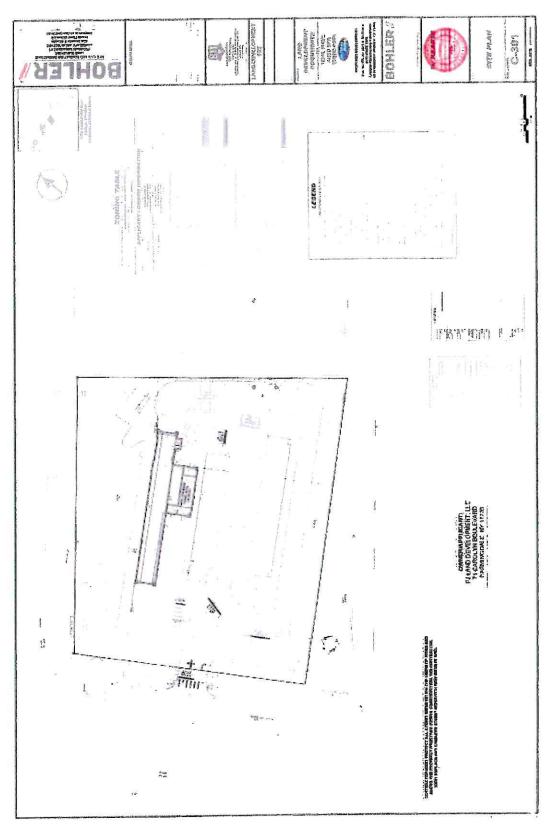
Aérial View







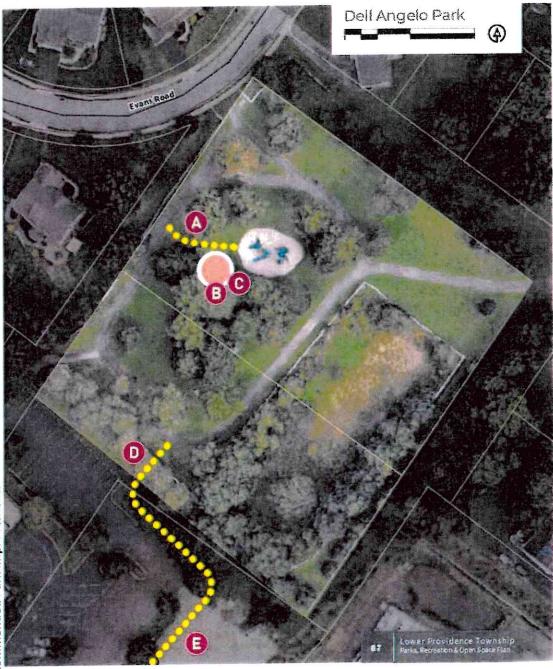
Site Plan



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Annendix 3







MONTGOMERY COUNTY CONSERVATION DISTRICT

143 Lovel Road + Collegeville, PA 19426-3313 = 610-489-4506 = Fax: 610-489-9795 www.montgomecyconservation.org

January 5, 2023

PJ Land Development LLC Michael McGrath 71 Carolyn Boulevard Farmingdale, NY 11735-1527

Re: Incompleteness Review Letter Tidal Wave Auto Spa Store #004 NPDES Permit Application No. PAC460758 Lower Providence Township, Montgomery County Project Acres: 1.12 Cumulative Disturbed Acres: 1.12

Dear Mr. McGrath:

The Montgomery County Conservation District has reviewed the above NOI for PAG-02 NPDES General Permit Coverage and has determined that it is incomplete. The list below specifies the items that must be included in the resubmittal of your NOI and/or the submission of additional information. The *Pennsylvania Erosion and Sediment Pollution Control Program Manual* (E&S Manual) and the *Pennsylvania Stormwater Best Management Practices Manual* (BMP Manual) include information that may aid you in responding to some of the items listed below. The items are based on applicable laws and regulations, and the guidance sets forth the DEP's preferred means of satisfying the applicable regulatory requirements.

Please note that pursuant to 25 Pa. Code §102.6(c), this information must be received within 60 calendar days by **January 9**, 2023, or Montgomery County Conservation District may consider the NOI withdrawn.

Items for Resubmittal or Submission of Additional Information

A. NOI Information

The Completeness Review Item comments below taken from the NPDES PAG-02 General Permit Fact Sheet from Attachment B of the Standard Operating Procedure (SOP); Review of PAG-02 General NPDES Permit NOIs. The SOP can be found at the following link: http://iles.dep.shte.paus/Water Wasterwater/20Management/EDMRPortalFiles/SOP PROPERSY NPDES_SOP_PAG-02.pdf

- 6. §102.6(a)(1) PCSM Module 2 (3800-PM-BCW0406b)
 - a. <u>Stormwater Analysis Peak Rate Questions #4 and #5</u>: Alternate Rate Calculations. Please verify the answer to Question #5 as it appears alternate rate calculations were provided. Please note that when alternate rate calculations are provided, the remainder of this section (Questions #6-#9) must be completed.

B. §102.8 – PCSM Requirements

• The PCSM Plan must be the final plan for construction. §102.8(d).

C. Miscellaneous

1. Please take note that MCCD will not accept "piecemeal" plan revisions and all revisions must be submitted as part of a complete application package. In the event that it is agreed upon and allowed by the reviewer for individual sheets or pages to be "swapped out," a meeting must be arranged with District staff to make the original submission available. Please submit 2 copies (1 paper, 1 electronic) of the revised information to the District at 143 Level Road, Collegeville, PA 19426.

As stipulated in 25 Pa. Code § 102.6(c)(2) of DEP's Chapter 102 rules and regulations (regarding complete applications), information requested by this office must be received within sixty (60) calendar days from the date of this letter, or the Montgomery County Conservation District may consider the NOI to be withdrawn by the applicant and no further action will be taken. Fees are not refunded when an NOI

Please submit 2 copies (1 paper, 1 electronic) of the revised information to the District at: 143 Level Road, Collegeville, PA 19426.

If you have questions about the information contained in this letter, please contact Eric Konzelmann by e-mail at ekonzelmanner montgomery conservation.org or by telephone at (610) 489-4506, ext. 21, for gkulpta montgomeryconeservation.org or at ext. 18, for post construction stormwater management questions at questions, and refer to PAC460758 - Tidal Wave Auto Spa Store #004.

Sinscrely.

ussia Buck Jessica Buck

District Manager Montgomery County Conservation District

Matthew Kearse, Bohler Engineering PA, LLC CC: Lower Providence Township **DEP** Permits Section Chief File

LOWER PROVIDENCE TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA RESOLUTION No. 22 – 19

WHEREAS, PJ Land Development LLC (hereinafter referred to as "Applicant") has submitted a request for conditional use approval related to property located at 2619 Ridge Pike, Lower Providence Township, Montgomery County, Pennsylvania, further identified as Tax Map Parcel Number 43-00-11875-00-7 (the "Property"); and

WHEREAS, the Property is located in the RPBD - Ridge Pike Business District; and

WHEREAS, the Lower Providence Zoning Ordinance ("Ordinance") permits various uses by conditional use; and

WHEREAS, Applicant has submitted a request for conditional use approval for (2) separate requests for relief:

- (1) to use the Property as a car wash, pursuant to §143-259(V) of the Ordinance, which allows uses of the same general character to the principal permitted uses, if approved by conditional use; and
- (2) to use the Property as a car wash, pursuant to §143-260(I) of the Ordinance, which allows uses of the same general character to the principal permitted uses, if approved by conditional use.

WHEREAS, Township staff and the Township Engineer have reviewed the Application; and

WHEREAS, the Board of Supervisors of Lower Providence Township (hereinafter referred to as "Board") is prepared to GRANT approval of Applicant's request for conditional use approval, subject to certain conditions; and

WHEREAS, the Board is prepared to authorize the Township Manager to execute the written decision of the Township, pursuant to Section 913.2(b)(1) of the Pennsylvania Municipalities Planning Code.

NOW, THEREFORE, BE IT HEREBY RESOLVED, by the Board of Supervisors of Lower Providence Township this 16th day of June, 2022, that said request for conditional use approval is GRANTED, subject to the following conditions:

- Plans: Applicant shall submit any and all plans reasonably required by the Township to review the Project and issue all required permits.
- 2. <u>Conditions of Conditional Use Approval</u>. Applicant shall comply with any and all conditions of approval as documented in the written decision of the Township, which are as follows:

a. Applicant shall comply with all objective criteria set forth in the Ordinance at §§143-80.E(2)(b) and 143-79(F) and shall demonstrate such compliance to the satisfaction of the Township prior to issuance of any Certificate of Occupancy.

b. Applicant will comply with any requirements of the Township regarding chemical storage and provide a list of chemicals to the Fire Marshal to the satisfaction of the Fire Marshal.

c. The Applicant will provide streetscape improvements as requested by the Township to the satisfaction of the Township.

d. Applicant will comply with any requirements of the sewer authority for any sanitary sewer flow.

e. Applicant will prepare traffic studies as part of the land development process, including PennDOT traffic studies for the access points and implement any

requirements of same to the satisfaction of the Township Engineer.

f. Applicant shall install a fence along the property line to restrict access from the park to the satisfaction of the Township.

g. Hours of operation on the Property shall not exceed 8:00 am to 8:00 pm at any time, for any reason.

h. Applicant shall provide a phone number and email address for a primary local contact who shall be authorized to act on behalf of Applicant. The primary contact information shall be updated on a regular basis.

i. Compliance with all conditions of approval shall be at Applicant's sole cost and expense, with no cost or expense borne by the Township.

- 3. Applicant shall comply with all applicable statutes, codes or ordinances during the permitting and construction of the Project.
- The Township Manager is authorized to sign the aforementioned written decision on behalf of the Board of Supervisors.
- 5. This approval shall expire six (6) months from the date of this Decision.

RESOLVED and **APPROVED** this 16th day of June, 2022.



BOARD OF SUPERVISORS OF LOWER PROVIDENCE TOWNSHIP

ATTEST:

E.J. Mentry, Secretary

A Might Chairm

(lerty Neights, Chairman

{01444052;V1}3



Exhibit

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ZONING HEARING BOARD OF LOWER PROVIDENCE TOWNSHIP

| APPLICATION NO. Z-22-08 | : HEARING DATE: | June 23, 2022; July 28, 2022 |
|-----------------------------|-----------------|------------------------------|
| | 4 4 1 | |
| APPLICATION OF: | • | |
| PJ Land Development, LLC | : | |
| 71 Carolyn Blvd. | 4 • | |
| Farmingdale, NY 11735 | • | |
| - | | |
| PROPERTY: | : | |
| 2619 Ridge Pike | | |
| Lower Providence Township | * | |
| Parcel No. 43-00-11875-00-7 | : | |

OPINION, DECISION AND ORDER OF THE LOWER PROVIDENCE TOWNSHIP ZONING HEARING BOARD

Public hearings on the application ("Application") concerning the above captioned premises (the "Property" or "Subject Property") were held on June 23, 2022 and July 28, 2022, before the Zoning Hearing Board of Lower Providence Township (the "Board") in the Township Administration Building, 100 Parklane Drive, Eagleville, PA, (the "hearing") pursuant to notice as required by the Lower Providence Township Zoning Ordinance (the "Ordinance") and the Pennsylvania Municipalities Planning Code (the "MPC"). After consideration of the Application and the testimony, exhibits, argument and briefs presented, the Zoning Hearing Board hereby renders its decision on the Application.

Procedural Matters

1. Application before Zoning Hearing Board

On April 6, 2022, applicant PJ Land Development LLC ("Applicant") equitable owner of 2619 Ridge Pike, Lower Providence Township filed an application seeking the following relief: (1) a variance from Section 143-262.B of the Ordinance to allow for a rear yard setback of 0 feet where a minimum of 10 feet is required; (2) a variance from Section 143-141.3(J)(1) of the The requested relief represents the minimum that will afford relief and represents the least modification possible of the regulation at issue.

DECISION

On June 23, 2022, The Lower Providence Township Zoning Hearing Board, by a 4-0 vote Granted the following variances from the Lower Providence Township Zoning Ordinance requested in the Application of PJ Land Development LLC to permit the construction of a car wash in the Ridge Pike Business District:

- A variance from Section 143-141.3(J)(1) of the Ordinance to permit the installation of eight (8) freestanding signs where a total of one (1) per street frontage and a maximum of two is permitted subject to the condition that:
 - a. Placement of the signs shall be as per the plans introduced into evidence at the hearing in this case.
- A variance from Section 142-141.3(J)(2) of the Ordinance to permit the installation of a total of 135.2 square feet of freestanding signage where a maximum total of 100 square feet of signage is permitted subject to the condition that:
 - Placement of the signs shall be as per the plans introduced into evidence at the hearing in this case.

On July 28, 2022, the Lower Providence Township Zoning Hearing Board, by a 3-0 vote Granted the Applicant, PJ Land Development LLC a variance from Section 143-262.B. of the Ordinance to permit a rear yard setback of 5.6 feet where 10 feet is required in the Ridge Pike Business District.

Dated: August 30, 2022

ORDER

The foregoing Findings, Discussion and Decision are hereby approved and ordered.

As to the Motions on June 23, 2022:

LOWER PROVIDENCE TOWNSHIP ZONING HEARING BOARD

George Ozorowski

Joseph Pucci

Kathie A Eskie

Kathie Eskie

Gail Hager

Judos

Christopher Gerdes

Terrance Barnes, Alternate

Randy Klein, Alternate

As to the Motions on July 28, 2022:

LOWER PROVIDENCE TOWNSHIP ZONING HEARING BOARD

3-219 gave

George Ozorowski

Joseph Pucci

PRELIMINARY | FINAL LAND **DEVELOPMENT PLANS**



USGS MAP SCALE: 1" = 1,000' SOURCE: USGS.GOV

LIST OF WAIVERS REQUESTED:

a. FROM S.A.L.D.O. §123-18.A TO SUBMIT PLANS AS PRELIMINARY/FINAL LAND DEVELOPMENT PLANS.

MONTGOMERY COUNTY PLANNING COMMISSION

| MCPC No. PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code. Certified this date |
|---|
| Montgomery County Planning Commission |

APPROVAL OF TOWNSHIP

APPROVED BY THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF LOWER PROVIDENCE, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, ON THE ___ DAY OF

PRESIDENT

SECRETARY

REVIEW OF TOWNSHIP ENGINEER

TOWNSHIP ENGINEER

APPLICANT STORMWATER MANAGEMENT CERTIFICATION

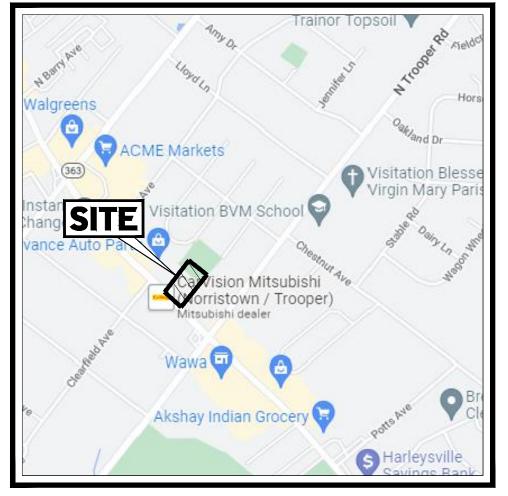
I/WE, PJ LAND DEVELOPMENT, LLC, ON THIS DATE ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED STORMWATER MANAGEMENT PLAN MUST BE APPROVED BY THE TOWNSHIP AND THAT A REVISED E&S PLAN MUST BE SUBMITTED TO THE CONSERVATION DISTRICT PRIOR TO IMPLEMENTATION.

MICHAEL MCGRATH, VICE PRESIDENT OF DEVELOPMENT PJ LAND DEVELOPMENT, LLC 71 CAROLYN BOULEVARD, FARMINGDALE, NY 11735



CAR WASH

LOCATION OF SITE: 2619 RIDGE PIKE LOWER PROVIDENCE TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA 19403



LOCATION MAP SCALE: 1" = 1,000' SOURCE: GOOGLE MAPS



ZONING MAP SCALE: 1" = 1,000' SOURCE: LOWERPROVIDENCE.ORG

OFFER OF DEDICATION

I HEREBY OFFER FOR DEDICATION ANY RIGHTS-OF-WAY, WIDENING, OPEN SPACE, FLOODPLAIN AREAS OR EASEMENTS TO THE AGENCY HAVING JURISDICTION AT TIME OF RECORDING OF THE PLAN.

SURVEYOR'S CERTIFICATION, BOUNDARY

. HEREBY

THIS IS TO CERTIFY THAT THIS PLAN REPRESENTS A FIELD SURVEY MADE BY ME OR UNDER MY SUPERVISION, THAT ALL PROPERTY CORNERS ARE SET AS SHOWN HEREON, THAT ALL GEOMETRIC DETAILS AS SHOWN ARE CORRECT, AND THAT ALL LOTS OR TRACTS HAVE A

DATE

JAMES C. WEED, PLS PLS NO. SU075250

DESIGN ENGINEER'S CERTIFICATION

BOUNDARY CLOSURE ERROR OF 1:10,000 OR BETTER.

I, MATTHEW KEARSE, ON THIS DATE HEREBY CERTIFY THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF LOWER PROVIDENCE TOWNSHIP.

MATTHEW KEARSE, PE LICENSE NO. PE092988

OWNER CERTIFICATION AND CORPORATE ACKNOWLEDGEMENT OF PLAN

COMMONWEALTH/STATE OF PENNSYLVANIA COUNTY OF MONTGOMERY

ON THIS DAY OF , 2022 , BEFORE ME THE SUBSCRIBER, A NOTARY PUBLIC FOR THE COMMONWEALTH/STATE OF PENNSYLVANIA, PERSONALLY APPEARED MICHAEL MCGRATH, VICE PRESIDENT OF DEVELOPMENT, WHO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATED IN LOWER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.

NOTARY PUBLIC

MY COMMISSION EXPIRES

I/WE, PJ LAND DEVELOPMENT, LLC, HAVE LAID UPON MY/OUR LANDS IN LOWER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, LOTS AND STREETS ACCORDING TO THE ACCOMPANIED PLAN WHICH IS INTENDED TO BE RECORDED. WITNESS MY/OUR HAND AND SEAL THIS____ DAY OF ___ , 20

BY: PJ LAND DEVELOPMENT, LLC

NAME: MICHAEL MCGRATH TITLE: VICE PRESIDENT OF DEVELOPMENT 71 CAROLYN BOULEVARD, FARMINGDALE, NY 11735

| REAL BARN AN ACTION STATE OF THE FORMATION. DESIGNATION OF THE FORMET OF | | | | |
|---|--|--|--|--|
| REVISIONS REV DATE COMMENT DRAWN BY CHECKED BY 1 11/21/2022 PER COMPLETENESS RG 2 01/05/2023 PER COMPLETENESS RG 3 01/27/2023 PER PENNDOT RG | | | | |
| Know what's below. Know what's below. Call before you dig. DENNSY LVANIA TO MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND. 1800-242-1776 WWW.patcall.org | | | | |
| PROJECT No.: PP213264 DRAWN BY: RG CHECKED BY: SU DATE: 08/29/2022 CAD I.D.: PP213264-X-TTLB-LDVP PROJECT: PROJECT: PRELIMINARYIFINAL LAND DEVELOPMENT DOCUMENTS FOR TIDAL WAVE | | | | |
| AUTO SPA STORE #:004 WITH STORE #:004 WITH STORE WITH STORE STORE #:004 PROPOSED DEVELOPMENT PROPOSED PROVIDER PIKE DOVER PROVIDENCE TOWNSHIP MONTGOMERY COUNTY, PA 19403 | | | | |
| 1515 MARKET STREET, SUITE 920 PHILADELPHIA, PA 19102 Phone: (267) 402-3400 Fax: (267) 402-3401 www.BohlerEngineering.com | | | | |
| PROFESSIONAL PROFESSIONAL MARTINEW JOHN KEARSE CONCOLUSIONAL ENGINEER INCOLUSIONAL INCOLUSIONAL INCOLUSION | | | | |
| COVER SHEET SHEET NUMBER: | | | | |

DRAWING SHEET INDEX

| SHEET TITLE | SHEET NUMBER |
|--|---------------------|
| COVER SHEET | C-101 |
| NOTES SHEET | C-102 |
| EXISTING CONDITIONS/DEMOLITION PLAN | C-201 |
| SITE PLAN | C-301 |
| GRADING PLAN | C-401 |
| UTILITY PLAN | C-501 |
| SOIL EROSION AND SEDIMENT POLLUTION CONTROL PLAN | C-601 |
| SOIL EROSION AND SEDIMENT POLLUTION CONTROL NOTES & DETAILS | C-602, C-603, C-604 |
| POST CONSTRUCTION STORMWATER MANAGEMENT PLAN | C-605 |
| POST CONSTRUCTION STORMWATER MANAGEMENT NOTES | C-606 |
| POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS | C-607, C-608 |
| PRE DEVELOPMENT DRAINAGE AREA PLAN | C-609 |
| POST DEVELOPMENT DRAINAGE AREA PLAN | C-610 |
| INLET DRAINAGE AREA PLAN | C-611 |
| LIGHTING PLAN | C-701 |
| LANDSCAPE PLAN | C-702 |
| LANDSCAPE DETAILS | C-703 |
| STORM & SANITARY PIPE PROFILES | C-801 |
| VEHICLE CIRCULATION PLAN | C-802 |
| DETAILS SHEET | C-901, C-902, C-903 |



REVISION 3 - 01/27/2023

C-101

GENERAL NOTES

- THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING (HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH THE ENGINEER OF RECORD AND BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER. IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
- THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS. THESE NOTES. AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS, ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST CONFIRM WITH THE ENGINEER OF RECORD AND BOHLER THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION IS TO BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES
- THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL. AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT, AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL ELECTRICAL PLUMBING AND FIRE SUPPRESSION PLANS WHERE APPLICABLE) THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER ARCHITECT AND FNGINEER OF RECORD AND BOHLER. IN WRITING. OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.
- CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
- THE CONTRACTOR MUST FIELD VERIEVALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY ENGINEER OF RECORD AND BOHLER, IN WRITING, IF ANY CONFLICTS. DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING ENGINEER OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B ENGINEER OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
- THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.
-). THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY
- WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS THE GEOTECHNICAL REPORT SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND. IN CASE OF CONFLICT. DISCREPANCY OR AMBIGUITY. THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN: (A) THE PLANS; AND (B) THE GEOTECHNICAL REPORT AND ECOMMENDATIONS, MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD AND BOHLER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK IF A GEOTECHNICAL REPORT WAS NOT CREATED. THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT
- 2. ENGINEER OF RECORD AND BOHLER ARE NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST AND EXPENSE.
- THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT. STRUCTURES, ETC WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT. UTILITIES. BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT
- 5. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES. UNSUITABLE EXCAVATED MATERIAL. EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE. AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR. 16. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES,
- TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
- THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION. INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC, AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUN ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION FOUNDALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY, IN WRITING, THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION
- 8 THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION OR ANYTHING RELATED TO SAME. THE ENGINEER OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY. SAME BEING WHOLLY OUTSIDE OF ENGINEER OF RECORD'S AND BOHLER SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME
- 19 THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING TO THE ENGINEER OF RECORD AND BOHLER ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST, IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE, IT WILL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS.
- 0. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE. IF THE CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS. RULES, STATUTES, CODES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT ENGINEER AND BOHLER SUFFER AND ANY AND ALL COSTS THAT ENGINEER AND BOHLER INCUR AS RELATED TO SAME.
- ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO ALL UMBRELLA COVERAGES. ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER, AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES AFEILIATES SUBSIDIARIES AND RELATED ENTITIES AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSUBEDS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE (DEFEND, IF APPLICABLE) AND HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTEF ALL PERMITS ARE ISSUED, WHICHEVER DATE IS LATER. IN ADDITION, ALL CONTRACTORS AGREE THAT THEY WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW INDEMNIEY DEFEND AND HOLD HARMLESS BOHLER AND ITS PAST PRESENT AND EUTURE OWNERS. OFFICERS DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
- 2. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS IN SCOPE AND REVISIONS THAT RESULT FROM SAME. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- . NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER, NOR THE PRESENCE OF BOHLER AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE (HEREIN "BOHLER PARTIES"), RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING OVERSEFING SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ALL HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY, BOHLER PARTIES HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR OR ITS EMPLOYEES RELATING TO THEIR WORK AND ANY AND ALL HEALTH AND SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS BOHLER PARTIES FOR AND FROM ANY LIABILITY TO BOHLER PARTIES RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR VIOLATIONS OF THIS NOTE, THESE NOTES OR ANY NOTES IN THE PLAN SET AND, FURTHER, THE CONTRACTOR MUST NAME BOHLER AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE
- WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER, BOHLER WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT. BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES. COORDINATION OF THE WORK WITH OTHER TRADES. AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER WILL PERFORM ITS SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE. MUST NOT INDICATE THAT BOHLER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT, BOHLER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLER'S ATTENTION, BOHLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
- . IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER OF RECORD AND BOHLER FOR ALL DEVIATIONS WITHIN ENGINEER'S SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND, INDEMNIFY, PROTECT, AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME
- 26. THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND FLEMENTS IN ACCORDANCE WITH FEDERAL STATE AND LOCAL REQUIREMENTS FOR ALL WORK THAT AFFECTS PUBLIC TRAVELEITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY
- OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN; AND, FURTHER, THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT ENGINEER OF RECORD AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL STATE AND LOCAL RULES AND REGULATIONS LAWS ORDINANCES AND CODES AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS

- RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.
- 30 THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH INCURS AS A RESULT OF SAID FAILURE.
- THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO.
- NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.
- SUBMITTALS.

DEMOLITION NOTES

(Rev. 2/2021)

- SPECIFIC NOTES.
- APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY
- UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS
- 4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.
- A. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS. CONTRACTOR AND THE PUBLIC
- BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE
- THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF
- REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
- STATUTES, LAWS, ORDINANCES AND CODES.
- 10 PRIOR TO COMMENCING ANY DEMOLITION THE CONTRACTOR MUST
- HOURS PRIOR TO THE COMMENCEMENT OF WORK.
- UNTIL SITE IS STABILIZED IN ADVANCE OF ANY EXCAVATION.
- ACTIVITIES.
- IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
- PERFORMED "OFF-PEAK" IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. AND SPECIFICATIONS OR THE CONTRACT WITH THE OWNER/DEVELOPER. THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK IN THE AREA OF DISCOVERY, AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER AND ENGINEER OF RECORD AND BOHLER, THE DISCOVERY
- AND SPECIFICATIONS, OR PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
- WRITTEN PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
- SUCH REPORTS AND RESULTS TO THE ENGINEER OF RECORD AND THE OWNER.
- 14. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE, NECESSARY AND REQUIRED TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE.
- 15. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE
- 16. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF **RIGHT-OF-WA**
- CONTRACTOR'S SOLE COST.
- EMPTYING, CLEANING AND REMOVAL ARE AT THE CONTRACTOR'S SOLE COST.

SITE LAYOUT NOTES

- SPECIFIC NOTES
- WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY
- AND THE LIKE.
- THE ENTITY WITH JURISDICTION OVER THE PROJECT.
- UNLESS NOTED CLEARLY OTHERWISE.

29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS. AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. ENGINEER OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS

MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD ENGINEER OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER

31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF ALL SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE AND FURTHER,

. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE ENGINEER OF RECORD AND BOHLER, THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE ENGINEER OF RECORD'S AND BOHLER KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY

33. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE SUBMITTALS PREPARED FOR ANY CONSTRUCTION DETAILED ITEMS AND TO COORDINATE THE SUBMITTALS WITH THE RESPECTIVE GOVERNING AGENCIES OR SERVICE PROVIDERS, WHO SHALL HAVE THE FINAL AUTHORITY IN APPROVING THE

(Rev. 2/2021)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS'

THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS. STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE

WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON

THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE

THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION. OR

ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, COMPLYING WITH ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME.

BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.

PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS, ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT. ANY SUCH CONCERNS MUST BE CONVEYED TO THE ENGINEER OF RECORD AND BOHLER , IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO, BY THE ENGINEER OF RECORD AND BY BOHLER, IN WRITING. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES,

9. THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AND/OR DISCONNECTION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED, REMOVED AND/OR ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS. RULES.

A. OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND ALL PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT. SITE WORK, AND DEMOLITION WORK. B. NOTIFY, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION JURISDICTION, AT LEAST 72 BUSINESS C. INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT, E. LOCATE AND PROTECT ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS. WATER. ELECTRIC. SANITARY AND STORM SEWER. TELEPHONE CABLE. FIBER OPTIC CABLE. ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES F. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION G. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE ENGINEER OF RECORD'S RESPONSIBILITY. IN THE EVENT OF ABANDONMENT. THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF, AND TO THE AFFECTED PARTIES. WORK REQUIRED TO BE I IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL. THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS

OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME. 11 THE CONTRACTOR MUST NOT PERFORM ANY FARTH MOVEMENT ACTIVITIES DEMOLITION OR REMOVAL OF FOUNDATION WALLS FOOTINGS OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE. UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS

12. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT SPECIFIC 13. THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES, BACKFILL MUST BE

ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT ALL NEW IMPROVEMENTS AND MUST BE PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEOTECHNICAL REPORT. BACKEILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT

GOVERNMENTAL AUTHORITIES. PRIOR TO COMMENCING ANY EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION ACTIVITIES, THE CONTRACTOR MUST ENSURE AND OVERSEE THE INSTALLATION OF ALL OF THE REQUIRED PERMIT AND EXPLOSIVE CONTROL MEASURES THAT THE FEDERAL, STATE, AND LOCAL GOVERNMENTS REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PERFORM ALL INSPECTION AND SEISMIC VIBRATION

DUST AND DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS COMPLETE, THE CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLITION OPERATIONS CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION AT CONTRACTOR'S SOLE COST.

EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC

17. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED. ABANDONED IN PLACE OR RELOCATED DUE TO DEMOLITION ACTIVITIES THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE

18. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONSTRUCTION IN THE AREA AROUND THE TANK WHICH

(Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS, THE GENERAL NOTES ARE REFERENCED HEREIN AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND ANY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS 4. THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH 5 ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB EDGE OF PAVEMENT OR EDGE OF BUILDING EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE. STAKE OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS.

DRAINAGE AND UTILITY NOTES

GENERAL

I. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS SPECIFIC NOTES

LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE, AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR MUST INDEPENDENTLY VERIEV AND CONFIRM ALL SANITARY CONNECTION POINTS AND ALL OTHER UTILITY SERVICE CONNECTION POINTS IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND OMISSIONS IN WRITING, TO THE ENGINEER OF RECORD.

THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE WHICHEVER IS GREATER THE CONTRACTOR MUST USE REFER TO AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO AN EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION, AT NO COST TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION.

- THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO CONFIRM EXACT DEPTH. PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 5. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS: GREASE TRAP REQUIREMENTS: AND DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITY SERVICES WITH THE INDIVIDUAL COMPANIES TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE DOCUMENTS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD. IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME
- ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS. ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR DESIGN OF TRENCH BACKFILL OR FOR COMPACTION REQUIREMENTS
- DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE IN ANY RESPECT. FROM THE INFORMATION CONTAINED IN THESE PLANS. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE APPROPRIATE PLAN(S), WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK.
- 9. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY, WATER AND STORM SYSTEMS, ARE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND OR STATE DOT DETAILS AS APPLICABLE. THE CONTRACTOR
- MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME. 10. FINAL LOCATIONS OF PROPOSED UTILITY POLES, AND/ OR POLES TO BE RELOCATED ARE AT THE SOLE DISCRETION OF THE RESPECTIVE UTILITY COMPANY, REGARDLESS OF WHAT THIS PLAN DEPICTS.
- WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. THE CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION. 2. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED
- FINISHED GRADES WITH NO TRIPPING OR SAFETY HAZARD IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS ORDINANCES AND CODES SITE-SPECIFIC
- . THESE PLANS INVOLVE BUILDINGS THAT MAY BE BUILT AT A LATER DATE. THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING, BUT NOT LIMITED TO STORM, SANITARY, TELECOM, GAS, AND ELECTRIC, AND IRRIGATION LINES TO A POINT AT LEAST FIVE FEET (5') BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE. MARK LOCATIONS WITH A STAKE, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF A PLAN, WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF WORK.
- 14. STORM AND SANITARY PIPE LENGTHS INDICATED IN THE PLANS ARE NOMINAL AND ARE MEASURED FROM THE CENTERS OF INLETS AND MANHOLES. 15. UNLESS OTHERWISE NOTED, ALL NEW UTILITIES/SERVICES, INCLUDING BUT NOT LIMITED TO ELECTRIC, TELEPHONE, TELECOM, GAS, ETC, MUST BE INSTALLED UNDERGROUND. ALL NEW UTILITY SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY SERVICE PROVIDERS' INSTALLATION SPECIFICATIONS AND STANDARDS.
- 16. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS, MUST BE REPAIRED IN ACCORDANCE WITH THE REFERENCED MUNICIPAL, COUNTY, AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY(IES) HAVING JURISDICTION.
- . VARIOUS ASPECTS OF THE UTILITY DESIGNS DEPICTED ON THE PLANS ARE SCHEMATIC IN ORDER TO PROVIDE PLAN CLARITY OR TO CONVEY A DESIGN INTENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY CONFIGURE ALL STRUCTURES IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL, SERVICE PROVIDER, OR MANUFACTURER REQUIREMENTS IN ORDER TO ACHIEVE PROPER SITING, OPERATION, CONNECTIONS SEPARATIONS AND ACCESSES THE CONTRACTOR SHALL REVIEW THE PLAN SPECIFICATIONS AND PREPARE STRUCTURE DESIGNS THAT INCORPORATE ANY AND ALL INTEGRAL COMPONENTS. SUCH AS TRASH RACKS. GATES, VALVES, INTERNAL OR EXTERNAL LININGS, WATER QUALITY DEVICES, SUMPS, RESTRAINTS, STEPS, FRAMES AND GRATES, PIPE/CONDUIT CONNECTIONS, MATERIALS, ETC. SHOULD DISCREPANCIES OR CONFLICTS ARISE UPON THE DESIGN OF THESE STRUCTURES OR INCORPORATION OF THE VARIOUS ELEMENTS, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD OR BOHLER IN WRITING.
- SANITARY SEWER SERVICE SHALL BE PROVIDED BY THE LOWER PROVIDENCE SEWER AUTHORITY AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LOWER PROVIDENCE SEWER AUTHORITY STANDARD SPECIFICATIONS.
- 9. THE CONTRACTOR MUST NOTIFY. IN WRITING. THE LOWER PROVIDENCE SEWER AUTHORITY AT LEAST THREE (3) BUSINESS DAYS PRIOR TO INSTALLATION OF THE SANITARY COMPONENTS FAILURE TO HAVE SANITARY INSTALLATION AND TESTING OBSERVED BY THE LOWER PROVIDENCE SEWER AUTHORITY MAY REQUIRE RE-EXCAVATION OF THE SANITARY LINE(S), AND RE-TESTING, WHICH WILL BE DONE AT THE SOLE EXPENSE OF THE CONTRACTOR
- 20. SANITARY SEWERS CROSSING STREAMS SHALL BE CONFIGURED TO BE NEARLY PERPENDICULAR TO THE STREAM AND SHALL BE PROVIDED WITH A ENCASEMENT. IN OTHER WET AREAS, SUCH AS WETLANDS, FLOODPLAINS, OR ALLUVIAL AREAS, ADDITIONAL MEASURES MAY BE REQUIRED, SUCH AS CONCRETE ENCASEMENTS OR ANTI-SEEP COLLARS, AS SPECIFIED ON THE PLANS OR AS REQUIRED BY THE LOWER PROVIDENCE SEWER AUTHORITY
- 21. UNLESS OTHERWISE NOTED, SANITARY MAIN SHALL BE SDR 35 PVC FOR NORMAL DEPTHS AND DUCTILE IRON PIPE (DIP) WHERE ANY PORTION OF A SEWER SEGMENT IS 16' IN DEPTH OR GREATER. SANITARY LATERALS SHALL BE SDR 35 PVC UNLESS INDICATED IN WRITING OTHERWISE.
- 22. ALL SEWER MAINS AND LATERALS SHALL HAVE A MINIMUM COVER OF FOUR FEET (4'), AS MEASURED FROM THE TOP OF THE PIPE TO THE PROPOSED SURFACE ELEVATION 3. CLEANOUTS SHALL BE PROVIDED FOR ALL LATERALS LONGER THAN 75' AND REGARDLESS OF LENGTH, SHALL BE PROVIDED AT ALL CHANGES OF
- DIRECTION. CLEANOUTS SHALL BE THE SAME SIZE AS THE PIPING SERVED BY CLEANOUT, EXCEPT THAT CLEANOUTS FOR PIPING LARGER THAN FOUR INCHES (4") SHALL NOT NEED TO BE LARGER THAN FOUR INCHES (4"). 24. SEWERS CONVEYING SANITARY FLOW, COMBINED SANITARY AND STORMWATER FLOW, OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER
- MAINS BY A DISTANCE OF AT LEAST TEN FEET (10') HORIZONTALLY. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE PIPES MUST BE IN SEPARATE TRENCHES WITH AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THI GOVERNING AGENCY WITH JURISDICTION OVER SAME. WHERE APPROPRIATE SEPARATION IS NOT POSSIBLE. THE SEWER MUST BE ENCASED IN CONCRETE OR CONSTRUCTED OF DIPUSING MECHANICAL OR SUP-ON JOINTS FOR A DISTANCE OF AT LEAST TEN FEET (10') ON FITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER MUST BE PROVIDED.
- 25. NO PLANTINGS SHALL BE LOCATED WITHIN TEN FEET (10') OF SANITARY SEWER MAINS OR LATERALS.
- , UNLESS INDICATED OTHERWISE, STORM MAINS MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SOIL TIGHT JOINTS. WHEN HIGH DENSITY POLYETHYLENE PIPE (HDPE) IS SPECIFIED, IT MUST CONFORM TO AASHTO M252 FOR PIPES 4" TO 10" AND TO AASHTO M294 FOR PIPES 12" TO 60" AND BE TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SOIL TIGHT JOINTS. PIPE FOR ROOF DRAINS SHAL BE HDPE, SDR 35 PVC, OR PVC SCHEDULE 40 UNLESS INDICATED OTHERWISE. HDPE PIPE JOINT GASKETS SHALL BE PROVIDED AND CONFORM TO ASTM F477
- 27. A MINIMUM OF FOUR FEET (4') OF HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN STORM STRUCTURES AND OTHER UTILITIES. A MINIMUM OF 18" OF VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN WATER MAIN AND STORM SEWER
- 28. UNLESS SPECIFIC MUNICIPAL DETAILS DICTATE OTHERWISE, ALL STORM STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT REVISION OF PENNDOT PUBLICATION 408 - "SPECIFICATIONS", PUBLICATION 72M - "STANDARDS FOR ROADWAY CONSTRUCTION". 29. ALL INLETS SHALL BE PROVIDED WITH BICYCLE SAFE GRATES.
- 30. ALL STORM PIPE CONNECTIONS TO STRUCTURES SHALL BE MADE WATER TIGHT
- . WATER SERVICE SHALL BE PROVIDE THE AUDUBON WATER COMPANY AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH AUDUBON WATER COMPANY STANDARD SPECIFICATIONS.
- 32. THE WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER AUTHORITY ABSENT SPECIFIC REQUIREMENTS, WATER MAIN PIPING SHALL BE CEMENT LINED DUCTILE IRON PIPE (DIP) WITH A MINIMUM THICKNESS CLASS 52. ALL PIPE AND APPURTENANCES SHALL COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION. 33. ALL WATER MAINS AND SERVICE LINES SHALL HAVE A MINIMUM COVER OF FOUR FEET (4'), AS MEASURED FROM THE TOP OF THE PIPE TO THE
- 34. WATER MAINS AND LATERALS SHALL BE HORIZONTALLY SEPARATED FROM STORM STRUCTURES BY A MINIMUM OF FOUR FEET (4'). A MINIMUM OF
- 18" OF VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN WATER MAIN AND STORM SEWER. 35. WATER JOINTS SHALL BE MECHANICAL JOINTS WITH THRUST BLOCKING AT ALL CHANGES IN DIRECTION, AND/OR AS DEFINED IN THE

SITE SPECIFIC NOTES

SPECIFICATIONS/DETAILS

- SITE DATA TOTAL SITE AREA: 55,380 SF OR 1.27 AC 1.1. PROPERTY OWNER:
- PJ LAND DEVELOPMENT, LLC 71 CAROLYN BOULEVARD.
- FARMINGDALE, NY 11735 1.2. EXISTING PROPERTY INFORMATION: TPN 430011875007
- 2619 RIDGE PIKE, UNIT 6 BLOCK 6 LOWER PROVIDENCE TOWNSHIP, PA 19426 ZONED RPB (RIDGE PIKE BUSINESS DISTRICT)
- APPLICANT/EQUITABLE OWNER PJ LAND DEVELOPMENT, LLC
- 71 CAROLYN BOULEVARD FARMINGDALE, NY 11735
- 3. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE SOUTH COORDINATES, NAD 83, VERTICAL DATUM IS NAVD 1988. 3.1. BENCHMARK: TBM-A: 277.21' & TBM-B: 285.77'.
- 4. BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 42091C0245G, EFFECTIVE DATE: MARCH 2, 2016
- 5. ALL CURB AND PAVEMENT RADII ARE 5'. UNLESS OTHERWISE NOTED
- 6. ALL PROPOSED PINS AND MONUMENTS SHALL BE PLACED AND CERTIFIED BY A LICENSED PENNSYLVANIA PROFESSIONAL SURVEYOR.
- 7. BOHLER ENGINEERING BUSINESS PRIVILEGE NUMBER IS 650139

GRADING NOTES

(Rev. 2/2021)

(Rev. 2/2021)

- GENERAL 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN. AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS SPECIFIC NOTES
- SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AS REFERENCED IN THIS PLAN SET. IF NO GEOTECHNICAL REPORT HAS BEEN REFERENCED, THE CONTRACTOR MUST HAVE A GEOTECHNICAL ENGINEER PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE JURISDICTION OVER THIS PROJECT.
- THE CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO THE CONTRACTOR COMMENCING ANY WORK
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. SHOULD DISCREPANCIES BETWEEN THE PLANS AND INFORMATION OBTAINED THROUGH FIELD VERIFICATION BE IDENTIFIED OR EXIST, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING.
- 5 THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL LINSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THI GEOTECHNICAL REPORT. THE CONTRACTOR MUST COMPACT ALL EXCAVATED OR FILLED AREAS IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT'S GUIDANCE. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED. THIS REPORT MUST VERIFY THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS. RULES STATUTES, LAWS, ORDINANCES AND CODES WHICH ARE IN EFFECT AND WHICH ARE APPLICABLE TO THE PROJECT, SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS, SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE MUST BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL, COMPACTED AS THE GEOTECHNICAL REPORT DIRECTS. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
- 6. IN THE EVENT OF A DISCREPANCY(IES) AND/OR A CONFLICT(S) BETWEEN PLANS, OR RELATIVE TO OTHER PLANS, THE GRADING PLAN TAKES PRECEDENCE AND CONTROLS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCY(IES AND/OR CONFLICT(S)
- THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO CONFORM TO THE PROPOSED GRADING, AND TO BACKFILL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS. SITE SPECIFIC
- 8. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.
- THE CONTRACTOR MUST ENSURE THAT POSITIVE DRAINAGE IS PROVIDED IN BOTH PAVED AND LAWN AREAS AFTER CONSTRUCTION. THE MINIM SI OPES FOR IMPROVEMENTS ARE 1% ON ALL CONCRETE SURFACES. 1.5% MINIMUM IN ASPHALT (EXCEPT WHERE ADA LIMITS SLOPE), AND 2% LAWN AREAS ANY LOCALIZED DEPRESSIONS MUST BE FLIMINATED
- 10. THE CONTRACTOR MUST ENSURE POSITIVE DRAINAGE AWAY FROM STRUCTURES. WHERE THE GRADING ALONG AND ADJACENT TO A BUILDING SCHEMATIC DUE TO A GENERIC BUILDING FOOTPRINT, THE GRADES MUST BE ADJUSTED BASED ON FINAL ARCHITECTURAL PLANS TO PROVIDE MINIMUM REVEAL AS REQUIRED BY THE ARCHITECT AND TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING. ALL GRADING AND MINIM SLOPES AND SEPARATIONS MUST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODES AND ALL OTHER APPLICABLE REQUIREMEN RULES, STATUTES, LAWS, ORDINANCES, AND CODES.
- . WHERE SUBGRADE BUILDING AREAS ARE PROVIDED, THE CONTRACTOR MUST DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF PROPOSED SUBGRADE BUILDING AREA. WHERE GROUNDWATER IS ENCOUNTERED AT THE ELEVATION OF THE SUBGRADE BUILDING AR APPROPRIATE CONSTRUCTION METHODS SHALL BE EMPLOYED TO PREVENT GROUNDWATER FROM ENTERING THE STRUCTURE(S). IF AND WHE SUMP PUMPS ARE PROVIDED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM SEWER OR OTHERWISE PROTECTED FROM CAUSING SURFA RUNOFF FROSION
- 12. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A GEOTECHNICAL ENGINEER AND IMPLEMENT RECOMMENDED STABILIZATION MEASURES FI ANY CUT SLOPES IN EXCESS OF 2:1 AND/OR FILL SLOPES IN EXCESS OF 3:1.

13. ALL SLOPES 3:1 OR GREATER SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS OR GEOTECHNICAL SPECIFICATIONS.

- 14. THE TOP AND BOTTOM OF WALL ELEVATIONS (TW & BW) REPRESENT THE PROPOSED FINISHED GRADE AT THE FACE OF THE WALL AND DO N REPRESENT THE ELEVATION OF THE PROPOSED WALL, WHICH MAY INCLUDE CAP UNITS AND FOOTINGS. WALL FOOTINGS/FOUNDATION ELEVATIO ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURE DESIGN SHOP DRAWIN PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE CONTRACTOR MUST ENSU THAT THE WALLS SHOWN HEREON MUST BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER AND THAT SIGNED AND SEALED SHOP DRAWIN ARE APPROVED BY THE MUNICIPALITY PRIOR TO THEIR CONSTRUCTION. ADDITIONALLY, THE CONTRACTOR SHALL ENSURE THAT FENCIN GUIDERAIL, UTILITIES, AND OTHER SITE FEATURES IN THE VICINITY OF THE WALL(S), SHALL BE CONSIDERED AND INCORPORATED INTO
- 15 ALL DISTURBED TOPSOIL ON THE SITE IS TO BE REDISTRIBUTED ON SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. REMOVAL OF TOPS IS NOT ALLOWED. UNLESS OTHERWISE SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITABILITY FOR PLACEMENT.

ACCESSIBILITY DESIGN GUIDELINES

RETAINING WALL DESIGNS (BY OTHERS).

ALL ACCESSIBLE (A.K.A. ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET. AT A MINIMUM. THE MORE STRINGENT (A) THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 ET SEQ. AND 42 U.S.C. § 4151 ET SEQ.); AND (ANY APPLICABLE LOCAL AND STATE GUIDELINES, AND ANY AND ALL AMENDMENTS TO BOTH, WHICH ARE IN EFFECT WHEN THESE PLANS WE COMPLETED.

(Rev. 1/2020)

- 2. THE CONTRACTOR MUST REVIEW ALL DOCUMENTS REFERENCED IN THESE NOTES FOR ACCURACY, COMPLIANCE AND CONSISTENCY W INDUSTRY GUIDELINES. THE CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ACCESSIBLE (ADA) COMPONENTS AND ACCESSIB ROUTES FOR THE SITE. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACES, PUBLIC TRANSPORTATI
- PEDESTRIAN ACCESS, AND INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THE ACCESSIB GUIDELINES AND REQUIREMENTS WHICH INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: A. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SLOPES MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
- B. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A 36-INCHES MINIMUM WIDTH (48-INCHES PREFERRED), OR AS SPECIFIED BY GOVERNING AGENCY, UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS) MUST NOT REDUCE THIS MINIMUM WIDTH SLOPE MUST NOT EXCEED 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:50 (2.0%) IN CROSS SLOPE. WHERE ACCESSIE PATH OF TRAVEL IS GREATER THAN 1:20 (5.0%). AN ACCESSIBLE RAMP MUST BE PROVIDED, ALONG THE ACCESSIBLE PATH OF TRAV OPENINGS MUST NOT EXCEED 1/2-INCH IN WIDTH. VERTICAL CHANGES OF UP TO 1/2-INCH ARE PERMITTED ONLY IF THEY INCLUDES A 1/4-IN BEVEL AT A SLOPE NOT STEEPER THAN 1:2. NO VERTICAL CHANGES OVER 1/4-INCH ARE PERMITTED.
- ACCESSIBLE RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%) AND A RISE OF 30-INCHES. LEVEL LANDINGS MUST BE PROVIDED AT EACH E OF ACCESSIBLE RAMPS LANDING MUST PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES, AND MUST NOT EXCEED 1:50 (2.0%) SI OPI ANY DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS MUST HAVE A CLEAR LANDING OF A MINIMUM OF 60-INCHES 60-INCHES. HAND RAILS ON BOTH SIDES OF THE RAMP MUST BE PROVIDED ON AN ACCESSIBLE RAMP WITH A RISE GREATER THAN 6-INCHES.
- D. ACCESSIBLE CURB RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%). WHERE FLARED SIDES ARE PROVIDED, THEY MUST NOT EXCEED (10%) SLOPE, LEVEL LANDING MUST BE PROVIDED AT RAMPS TOP AT A MINIMUM OF 36-INCHES LONG (48-INCHES PREFERRED), IN ALTERATION WHEN THERE IS NO LANDING AT THE TOP, FLARE SIDES SLOPES MUST NOT EXCEED A SLOPE OF 1:12 (8.3%).
- DOORWAY LANDINGS AREAS MUST BE PROVIDED ON THE EXTERIOR SIDE OF ANY DOOR LEADING TO AN ACCESSIBLE PATH OF TRAVEL, T LANDING MUST BE SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE FEWER THAN 60-INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE CLEARLY PERMITTED BY ACCESSIBLE STANDARDS FOR ALTERNAT DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2009 AND OTHER REFERENCES INCORPORATED BY CODE).
- F. WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ACCESSIE COMPONENTS FROM EXISTING DOORWAYS OR SURFACES. THE CONTRACTOR MUST VERIFY ALL EXISTING ELEVATIONS SHOWN ON THE PL NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPI IN RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD. IN WRITING, OF ANY DISCREPANC AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR IN ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS BEFORE COMMENCING WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FF REGULATIONS AND THE ACCESSIBLE GUIDELINES.
- G. THE CONTRACTOR MUST VERIFY ALL OF THE SLOPES OF THE CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF NON-CONFORMANCE EXISTS OR IS OBSERVED OR DISCOVERED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, WRITING, PRIOR TO POURING CONCRETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND/OR REPLA NON-CONFORMING CONCRETE AND/OR PAVEMENT SURFACES.

IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION TO ENSURE SAME IS CONSISTENT WITH LOCAL BUILDING CODE PRIOR TO COMMENCING CONSTRUCTION.

REFERENCES AND CONTACT INFORMATION

SURVEY PLANS BY CONTROL POINT ASSOCIATES, INC. 1600 MANOR DRIVE, SUITE 100, CHALFONT, PA 18914 ENTITLED: "BOUNDARY & TOPOGRAPHIC SURVEY" FILE NO: 02-160432-01 DATED: 02/02/2022, LAST REVISED 05/05/2022

(Rev. 1/2020)

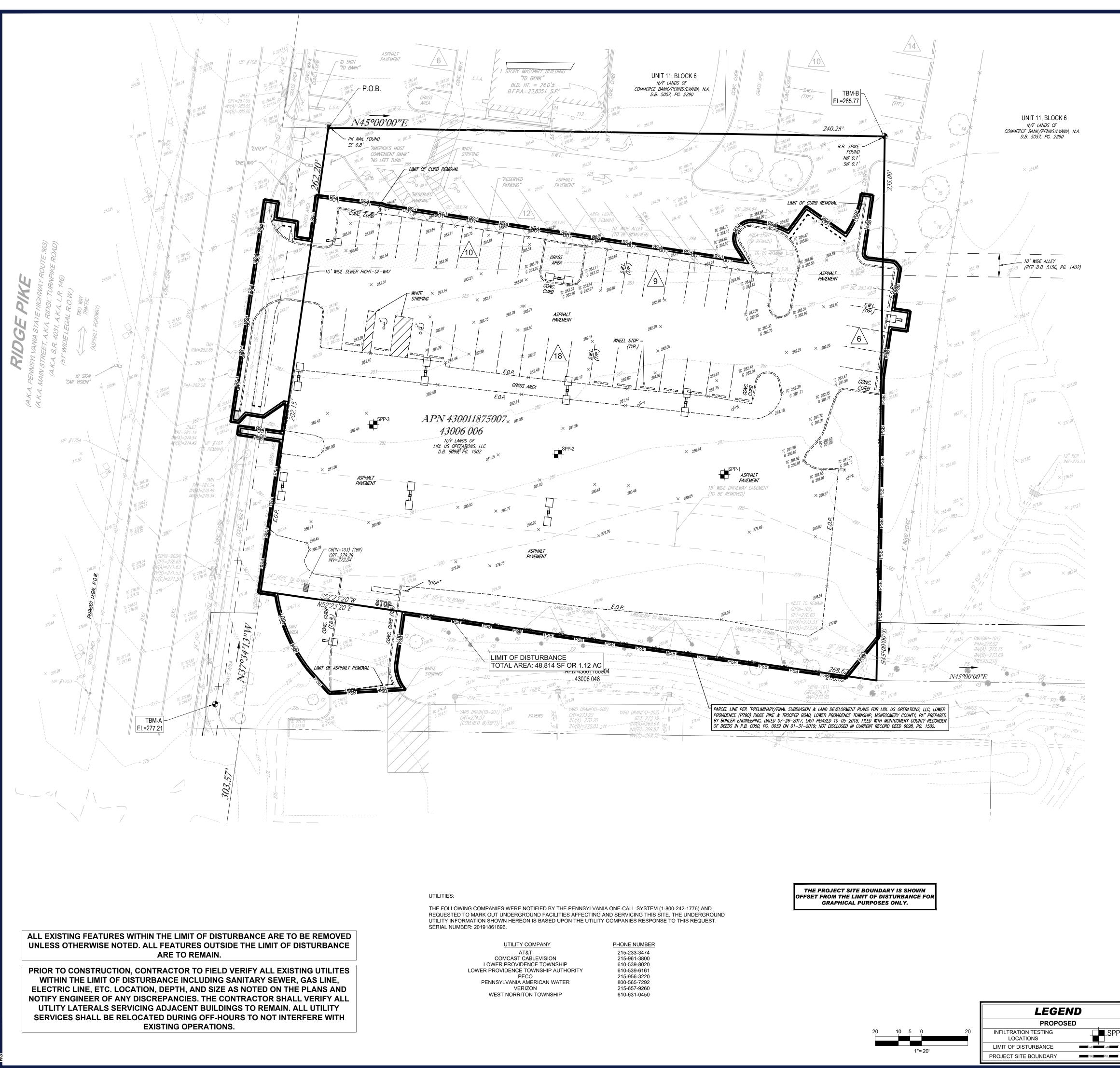
- GEOTECHNICAL REPORT: A REPORT BY WHITESTONE ASSOCIATES, INC. 30 INDEPENDENCE BLVD. SUITE 250, WARREN, NJ 07059 ENTITLED: "REPORT OF GEOTECHNICAL INVESTIGATION PROJECT: "PROPOSED TIDAL WAVE AUTO SPA SITE" DATED 05/26/2022, NO REVISION
- INFILTRATION REPORT: A REPORT BY WHITESTONE ASSOCIATES, INC. 30 INDEPENDENCE BLVD, SUITE 250, WARREN, NJ 07059 ENTITLED: "STORMWATER MANAGEMENT AREA EVALUATION" PROJECT: "PROPOSED TIDAL WAVE AUTO SPA SITE" DATED 07/27/2022
- 4 SWM REPORT. A REPORT BY BOHLER ENGINEERING 1515 MARKET STREET, SUITE 920, PHILADELPHIA, PA 19102 ENTITLED: "GENERAL PROJECT DESCRIPTION AND STORMWATER MANAGEMENT CALCULATIONS" PROJECT: PP213264 DATED 8/19/2022
- PCSM REPORT A REPORT BY BOHLER ENGINEERING 1515 MARKET STREET, SUITE 920, PHILADELPHIA, PA 19102 ENTITLED: "POST CONSTRUCTION STORMWATER MANAGEMENT REPORT PROJECT: PP213264 DATED 8/19/2022

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS

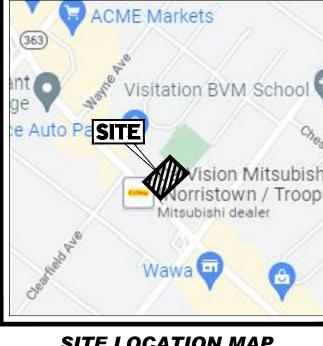


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| L | PROPO PROPO P.B. 50, PC 26 OWER PF | AUTO SPA FORE #:004 | K 6 SHIP 9403 | | |
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| L | PROPO PROPO P.B. 50, PO 26 OWER PF IONTGOM BOI 515 MARK PHILA | AUTO SPA TORE #:004 SED DEVELOPMENT G. 39; UNIT 6, BLOC STIP RIDGE PIKE ROVIDENCE TOWNS ERY COUNTY, PA 1 HLER KET STREET, SUITE DELPHIA, PA 19102 | K 6 SHIP 9403 | | |
| L | PROPO PROPO P.B. 50, PO 26 OWER PF IONTGOM BOI 515 MARK PHILA | AUTO SPA FORE #:004 | K 6 SHIP 9403 | | |
| L M | PROPO PROPO P.B. 50, PO 26 OWER PF IONTGOM BOO 515 MARK PHILA Phon Fax: | AUTO SPA ORE #:004 SED DEVELOPMENT G. 39; UNIT 6, BLOC STORE PIKE ROVIDENCE TOWNS ERY COUNTY, PA 1 HLER KET STREET, SUITE DELPHIA, PA 19102 NE: (267) 402-3400 | K 6 SHIP 9403 | | |
| L M | PROPO PROPO P.B. 50, PO 26 OWER PF IONTGOM BOO 515 MARK PHILA Phon Fax: | AUTO SPA ORE #:004 SED DEVELOPMENT G. 39; UNIT 6, BLOC 19 RIDGE PIKE ROVIDENCE TOWNS ERY COUNTY, PA 12 HLER KET STREET, SUITE DELPHIA, PA 19102 NET (267) 402-3400 (267) 402-3401 | K 6 SHIP 9403 | | |
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REVISION 3 - 01/27/2023







SITE LOCATION MAP SCALE: 1"=1000' SOURCE: GOOGLE MAPS

LEGEND

EXISTING

PROPERTY LINE

R.O.W. LINE

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CONCRETE CURB FLUSH CURB FENCE

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| | Know what's below. Call before you dig. PENNSYLVANIA VOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND. 1-800-242-1776 WWW.pa1call.org |
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| | PROJECT No.: PP213264 DRAWN BY: RG CHECKED BY: SU DATE: 08/29/2022 CAD I.D.: PP213264-X-TTLB-LDVP |
| | PROJECT: PRELIMINARY/FINAL LAND DEVELOPMENT DOCUMENTS FOR |
| ND NG | TIDAL WAVE AUTO SPA STORE #:004 WITH STORE #:004 PROPOSED DEVELOPMENT P.B. 50, PG. 39; UNIT 6, BLOCK 6 2619 RIDGE PIKE LOWER PROVIDENCE TOWNSHIP |
| | MONTGOMERY COUNTY, PA 19403 |
| | BOHLER // 1515 MARKET STREET, SUITE 920 PHILADELPHIA, PA 19102 |
| <u> </u> | Phone: (267) 402-3400 Fax: (267) 402-3401 www.BohlerEngineering.com |
| | PROFESSIONAL MATTIFIEW JOHIN KEATSE TO ESDIONAL HING REMARKE HUNG HANNAL EN CINETE HUNG HANNAL REMARKE HUNG HANNAL REMARKE |
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| | STORM/SANITARY MANHOLE |
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| FLUSH CURB ======= | ROOF DRAIN/CLEANOUT |
| | FIRE HYDRANT |
| SIGN V | UTILITY POLE W/ LIGHT |
| <u> </u> | UTILITY POLE |
| PARKING COUNT | OVERHEAD UTILITY WIRES |
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| TREE | WATER LINE |
| | SANITARY SEWER |
| ROOF DRAIN/CLEANOUT o RD o ^{CO} | STORM PIPE |

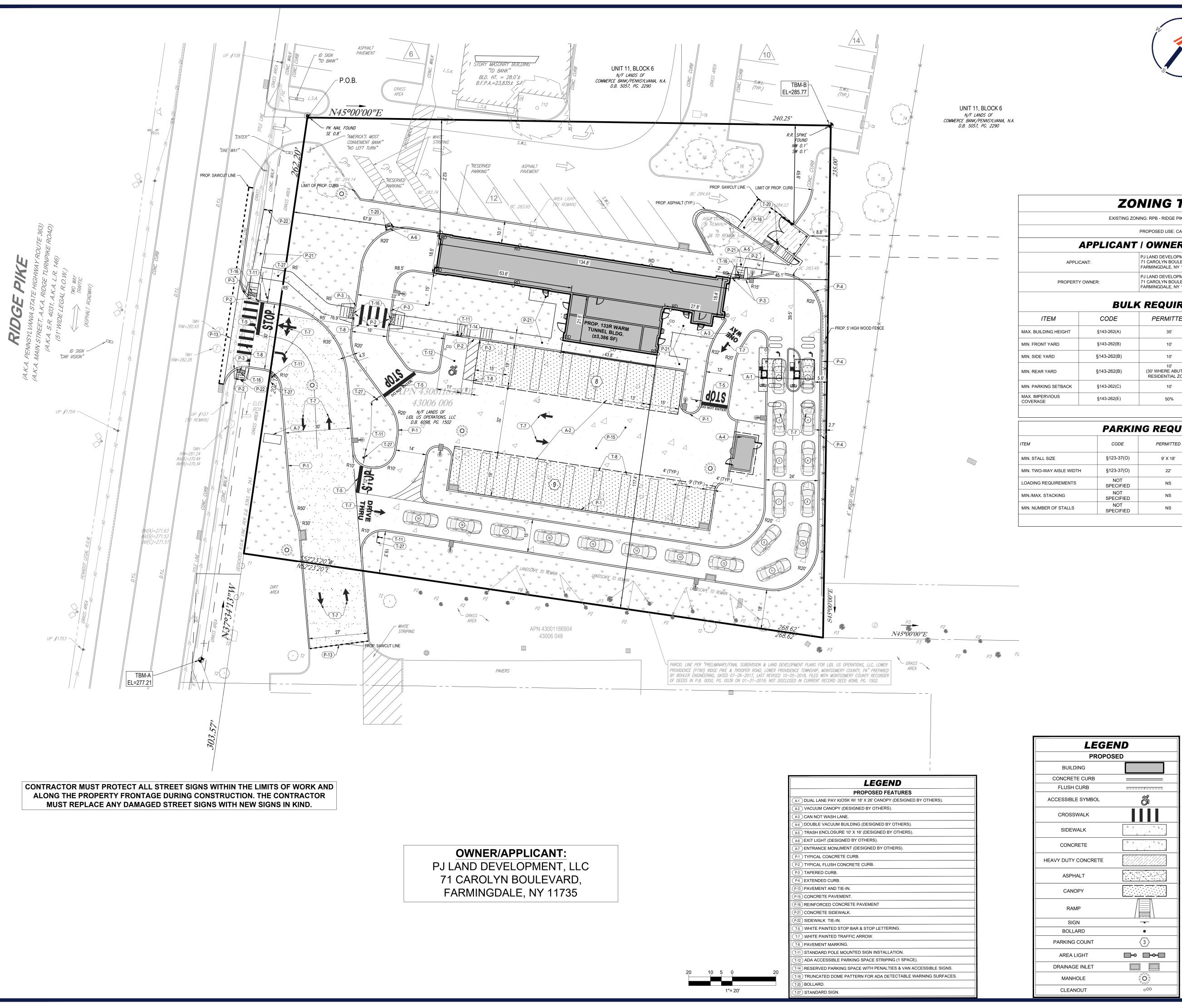


REVISION 3 - 01/27/2023

PLAN

C-201

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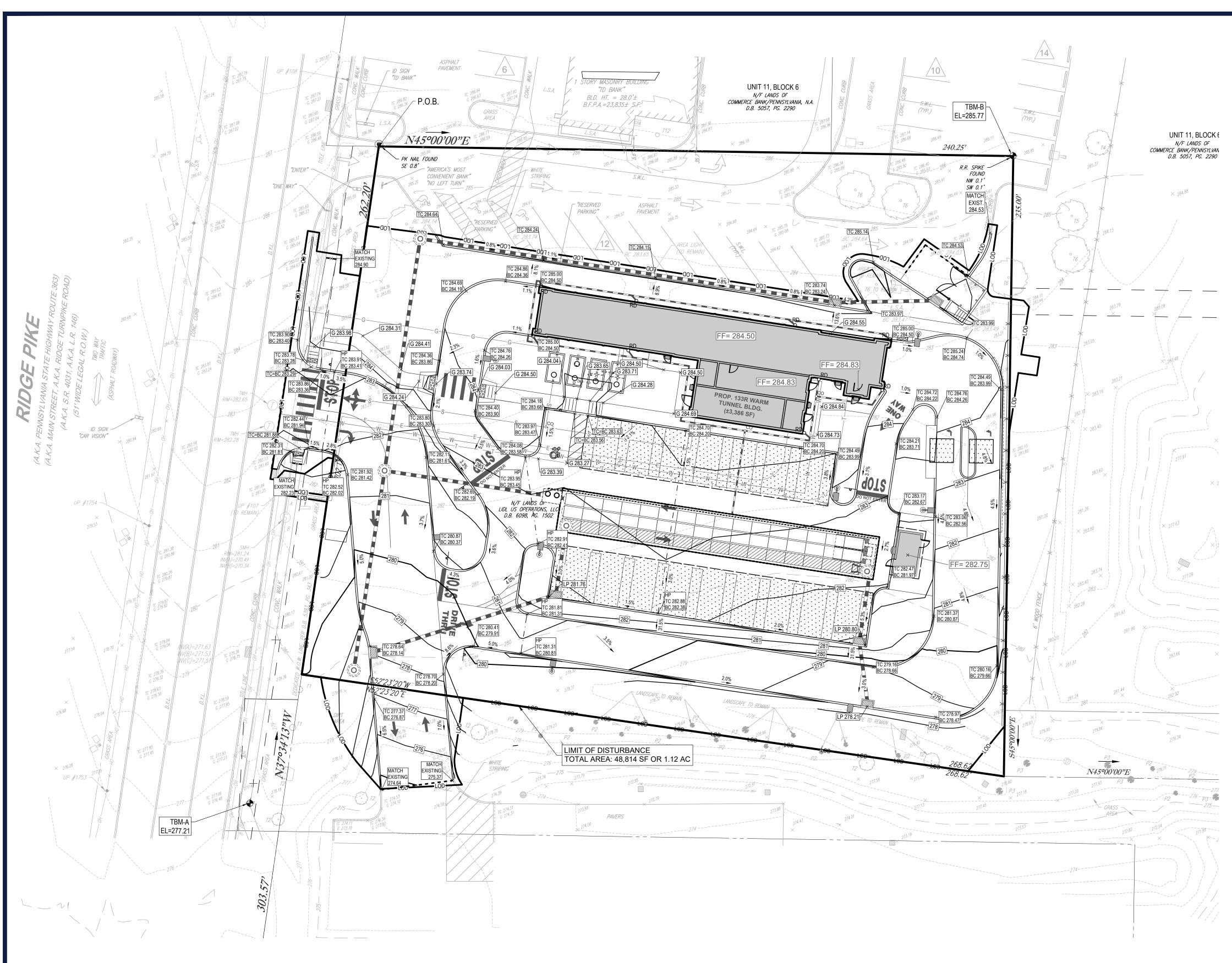


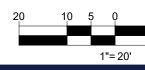
| | | | | | BVM School | | SITE CIVIL AND CONSILI TING ENGINEERING | LA NDSC SUST PERN | I KANSPOKI A LION SEKVICES THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER, ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES © BOHLER |
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| | | PROPOSED USE: CAR WASH | | V | - | | | | DRAWN BY |
| APPLIC | ANT: | PJ LAND DEVELOPMENT, LLC 71 CAROLYN BOULEVARD, FARMINGDALE, NY 11735 PJ LAND DEVELOPMENT, LLC 71 CAROLYN BOULEVARD, | | • | - | 1 11/ 2 01/ | 21/2022 REV 05/2023 PER REV | COMPLETENESS | CHECKED BY RG SU RG SU SU RG |
| | | FARMINGDALE, NY 11735 | ENTS | | _ | 3 01/ | | IMENTS | SU |
| ITEM | CODE | PERMITTED | EXISTING | PROPOSED | - | | | | |
| UILDING HEIGHT | §143-262(A) | 35' | N/A | < 35' | - | | | | |
| RONT YARD | §143-262(B) | 10' | N/A | 67.9' | - | | | | |
| DE YARD | §143-262(B) | 10' | N/A | 45.6' | - | | | | |
| EAR YARD | §143-262(B) | 10' (30' WHERE ABUTTING RESIDENTIAL ZONE) | N/A | 5.6' | | | | | |
| ARKING SETBACK | §143-262(C) | 10' | 0' | 71.9' | | | | m | |
| MPERVIOUS RAGE | §143-262(E) | 50% | 79.8% | 63.1% | | | | | |
| | | | EXISTING NON-CONFORMITY | VARIANCE REQUIRED | | | Know wha | rs below. | |
| | PARKI | NG REQUIRE | MENTS | | | | PENN MUST CALL 811 | before you dig. Sylvania BEFORE ANY EXCAVATI | |
| | CODE | PERMITTED | EXISTING | PROPOSED | | WH | 1-800 | RIVATE OR PUBLIC LAN)-242-1776 pa1call.org | D. |
| TALL SIZE | §123-37(O) | 9' X 18' | 9' X 18' | 9' X 19' | - | | | | |
| VO-WAY AISLE WIDTH | §123-37(O) | 22' | 23' | 26.9' | | | | | |
| IG REQUIREMENTS | NOT SPECIFIED | NS | 0 | 0 | 1 | | | | |
| AX. STACKING | NOT SPECIFIED | NS | N/A | 19 | 1 | | | | |
| JMBER OF STALLS | NOT SPECIFIED | NS | 43 | 17 | | PROJEC | | P | P213264 |
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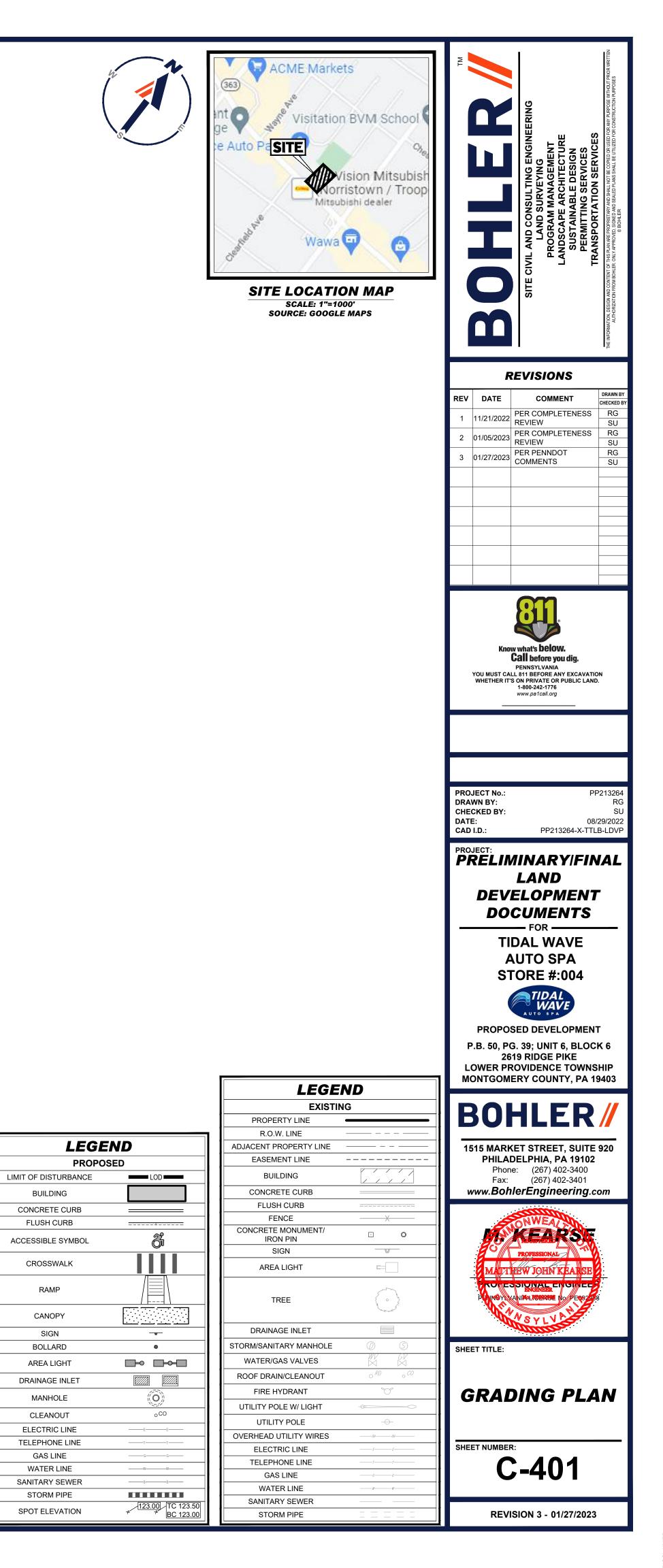
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| BUILDING | | | | | |
| CONCRETE CURB | | | | | |
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| ACCESSIBLE SYMBOL | É. | | | | |
| CONCRETE MONUMENT/ IRON PIN | | | | | |
| SIGN | | | | | |
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| STORM/SANITARY MANHOLE | D S | | | | |
| WATER/GAS VALVES | $\overset{WV}{\bowtie} \qquad \overset{GV}{\bowtie}$ | | | | |
| ROOF DRAIN/CLEANOUT | 0 RD 0 ^{CO} | | | | |
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| UTILITY POLE | | | | | |

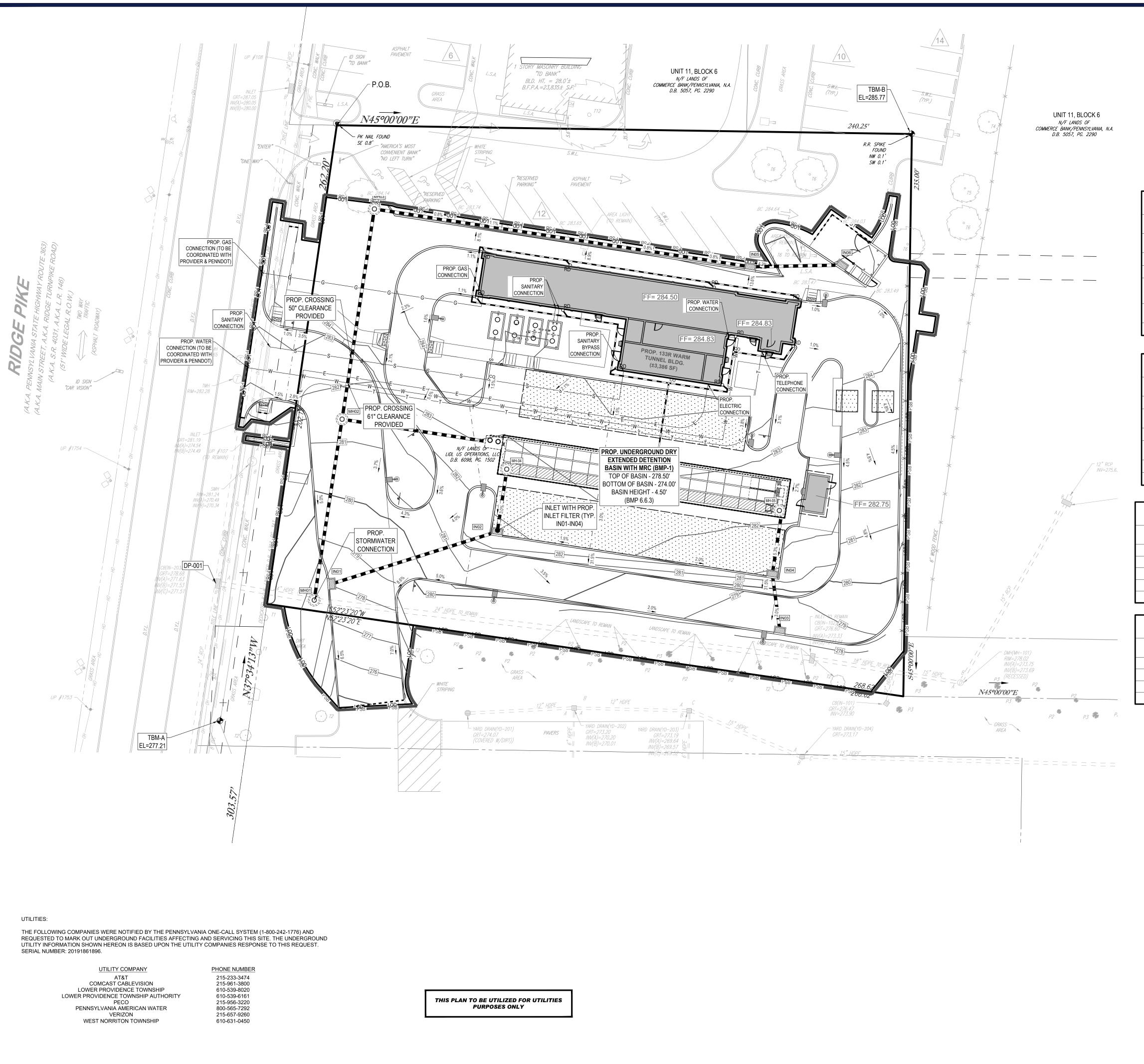


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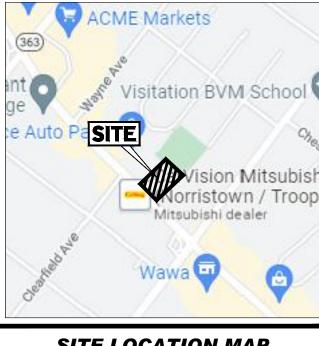






1"= 20'





SITE LOCATION MAP SCALE: 1"=1000' SOURCE: GOOGLE MAPS

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| NAME | TYPE | GRT/RIM ELEV. (FT.) | INVERTS |
|------|------------------|------------------------|---|
| IN05 | STANDARD BOX | 283.32' | INV IN = 279.69' (15" RCP) INV OUT = 279.50' (15" RCP) |
| IN06 | STANDARD BOX | 283.93' | INV OUT = 280.49' (15" RCP) |
| MH01 | TYPE 4 | 278.72' | INV IN = 272.04' (15" RCP) |
| MH02 | TYPE 4 | 281.47' | INV IN = 272.98' (15" RCP) INV IN = 274.39' (15" RCP) INV OUT = 272.80' (15" RCP) |
| MH03 | TYPE 4 | 284.51' | INV IN = 277.91' (15" RCP) INV OUT = 273.87' (15" RCP) |
| OS01 | OUTLET STRUCTURE | 276.50' | INV OUT = 275.00' (15" RCP) |

STORM STRUCTURE SCHEDULE

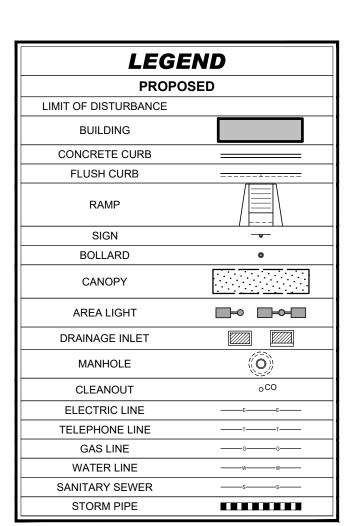
| NAME | TYPE | GRT/RIM ELEV. (FT.) | INVERTS |
|------|---------------------|------------------------|---|
| IN01 | STANDARD BOX | 278.34' | INV OUT = 275.89' (15" RCP) |
| IN02 | STANDARD BOX | 281.83' | INV IN = 275.46' (15" RCP) INV OUT = 275.29' (15" RCP) |
| IN03 | STANDARD BOX | 278.24' | INV OUT = 275.82' (15" RCP) |
| IN04 | STANDARD BOX | 280.90' | INV IN = 275.58' (15" RCP) INV OUT = 275.41' (15" RCP) |
| UGB | CONNECTION TO BASIN | 276.93' | INV IN = 275.17' (15" RCP) |
| UGB | CONNECTION TO BASIN | 276.93' | INV IN = 275.17' (15" RCP) |

STORM SEWER PIPE SCHEDULE

| FROM | то | SIZE (IN.) | TYPE | LENGTH (FT.) | SLOPE(%) |
|------|------|---------------|------|-----------------|----------|
| IN05 | MH03 | 15" | RCP | 159 | 1.00% |
| IN06 | IN05 | 15" | RCP | 38 | 2.09% |
| MH02 | MH01 | 15" | RCP | 76 | 1.00% |
| MH03 | MH02 | 15" | RCP | 89 | 1.00% |
| OS01 | MH02 | 15" | RCP | 61 | 1.00% |

| S 7 | ORM | SEW | ER PI | PE SCHE | DULE |
|------------|------|---------------|-------|-----------------|----------|
| FROM | то | SIZE (IN.) | TYPE | LENGTH (FT.) | SLOPE(%) |
| IN01 | IN02 | 15" | RCP | 72 | 0.59% |
| IN02 | UGB | 15" | RCP | 24 | 0.50% |
| IN03 | IN04 | 15" | RCP | 24 | 1.01% |
| IN04 | UGB | 15" | RCP | 24 | 1.01% |

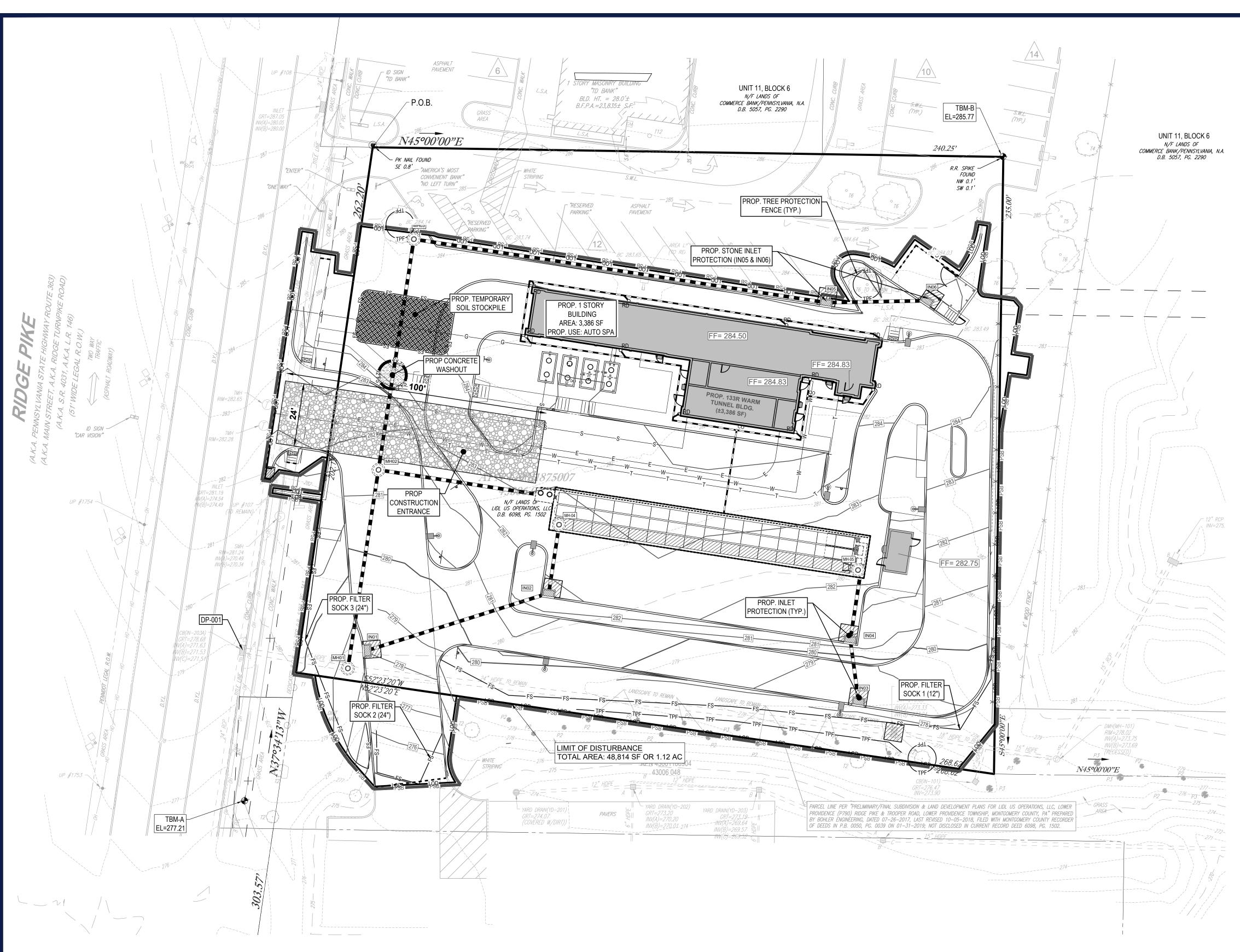
| LEGEI | ND |
|--------------------------------|---------------------------------|
| EXISTIN | G |
| PROPERTY LINE | - |
| R.O.W. LINE | |
| ADJACENT PROPERTY LINE | |
| EASEMENT LINE | |
| BUILDING | |
| CONCRETE CURB | |
| FLUSH CURB | |
| FENCE | X |
| CONCRETE MONUMENT/ IRON PIN | · 0 |
| SIGN | |
| AREA LIGHT | |
| TREE | |
| DRAINAGE INLET | |
| STORM/SANITARY MANHOLE | D S |
| WATER/GAS VALVES | |
| ROOF DRAIN/CLEANOUT | 0 RD 0 ^{CO} |
| FIRE HYDRANT | V |
| UTILITY POLE W/ LIGHT |) |
| UTILITY POLE | |
| OVERHEAD UTILITY WIRES | |
| ELECTRIC LINE | £ |
| TELEPHONE LINE | ŢŢ |
| GAS LINE | G |
| WATER LINE | |
| SANITARY SEWER | |



| инноягалтом, ревізач а |
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| REVISIONS |
| REVDATECOMMENTDRAWN BY CHECKED BY111/21/2022PER COMPLETENESS REVIEWRG SU201/05/2023PER COMPLETENESS REVIEWRG SU301/27/2023PER PENNDOT COMMENTSRG SU |
| |
| Know what's below. Call before you dig. PENNSYLVANIA YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND. 1-800-242-1776 WWW.pa1call.org |
| |
| PROJECT No.: PP213264 DRAWN BY: RG CHECKED BY: SU DATE: 08/29/2022 CAD I.D.: PP213264-X-TTLB-LDVP |
| PRELIMINARY/FINAL LAND DEVELOPMENT DOCUMENTS FOR TIDAL WAVE AUTO SPA STORE #:004 WERPOSED DEVELOPMENT P.B. 50, PG. 39; UNIT 6, BLOCK 6 2619 RIDGE PIKE LOWER PROVIDENCE TOWNSHIP MONTGOMERY COUNTY, PA 19403 |
| BOHLER// 1515 MARKET STREET, SUITE 920 PHILADELPHIA, PA 19102 Phone: (267) 402-3400 Fax: (267) 402-3401 www.BohlerEngineering.com |
| PROFESSIONAL MAINTIPEW JOHN KEATSE TOTESSIONAL ENGINEER PUMBY AND REPROSE NO FEODORS |
| SHEET TITLE: |
| SHEET NUMBER: |

C-501

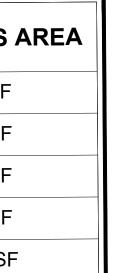
REVISION 3 - 01/27/2023



INLET DRAINAGE AREAS

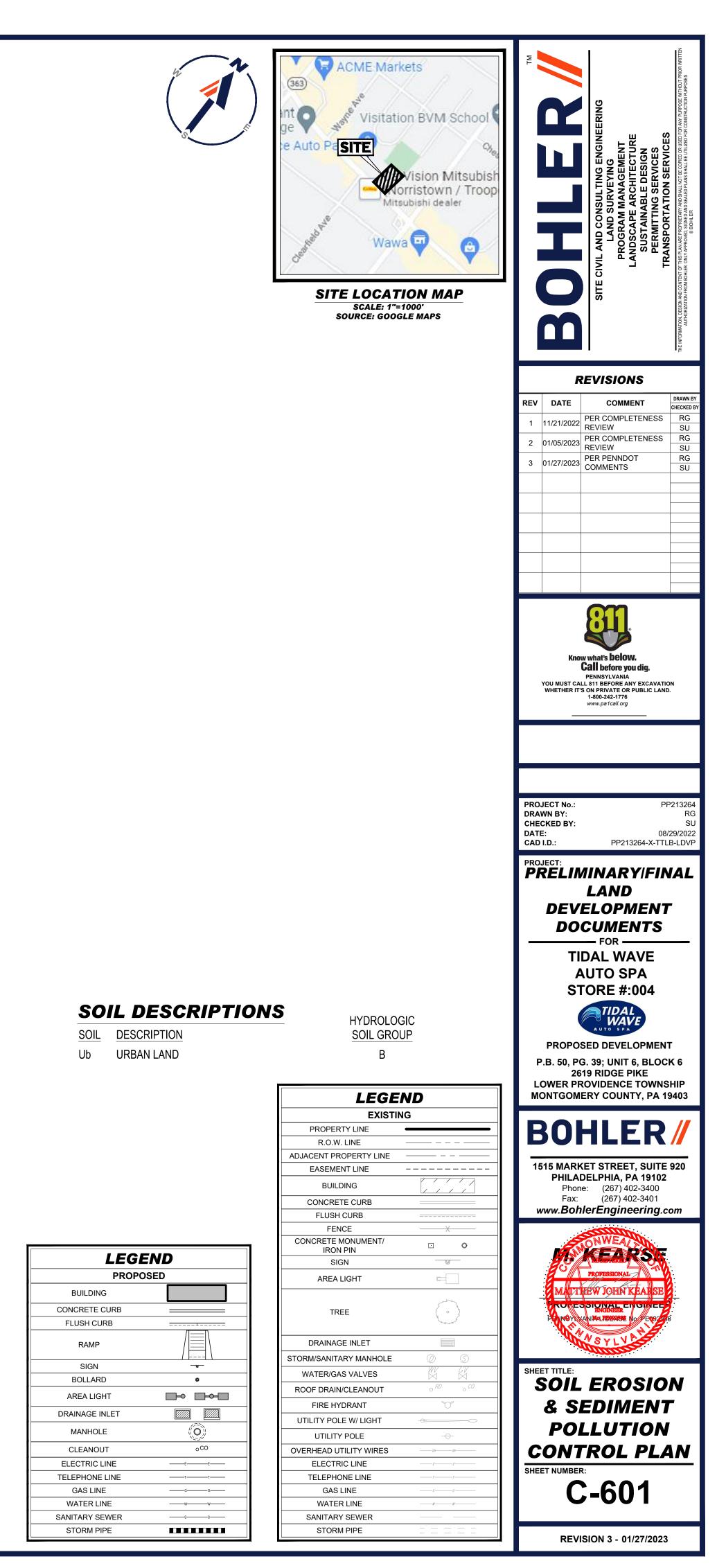
| INLET | TOTAL AREA | PERVIOUS AREA | IMPERVIOUS AF |
|----------|---------------|------------------|---------------|
| INLET 01 | 10,801 SF | 3,782 SF | 7,019 SF |
| INLET 02 | 6,150 SF | 1,868 SF | 4,282 SF |
| INLET 03 | 9,065 SF | 1,921 SF | 7,144 SF |
| INLET 04 | 6,866 SF | 395 SF | 6,471 SF |
| INLET 05 | 32,563 SF* | 5,012 SF | 27,551 SF |
| INLET 06 | 12,536 SF* | 2,707 SF | 9,829 SF |

*AREA INCLUDES OFF-SITE DRAINAGE FROM NEIGHBORING PROPERTY



| THIS PLAN TO BE UTILIZED FOR E&S PURPOSES | LEGEND |
|--|-------------------------------|
| ONLY | PROPOSED |
| | |
| THE PROJECT SITE BOUNDARY IS SHOWN | PROJECT SITE BOUNDARY |
| OFFSET FROM THE LIMIT OF DISTURBANCE FOR GRAPHICAL PURPOSES ONLY. | |
| GRAFHICAL FORFOSES ONE I. | TREE PROTECTION FENCE |
| INLET AREAS SHOWN TO IDENTIFY WHAT AREAS NEED STONE INLET FILTERS | CONCRETE WASHOUT |
| | TEMPORARY STOCKPILE |
| 20 10 5 0 20 | ROCK CONSTRUCTION ENTRANCE |

1"= 20'





USGS MAP SCALE: 1" = 1,000' SOURCE: USGS.GOV

DISCHARGE PATH



SOIL MAP SCALE: NTS SOURCE: WEBSOILSURVEY.GOV

TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS §102.4(b)(5)(ii)

| SOIL DE | SCRIPTIONS | |
|---------|-------------------------------------|------------|
| SOIL | DESCRIPTION | SOIL GROUP |
| UgB | - URBAN LAND, 0 TO 8 PERCENT SLOPES | В |

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

CONTRACTOR SHALL CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE SOIL LIMITATIONS AND RESOLUTIONS SPECIFIC TO THIS PROJECT. 1. SOIL TYPES POORLY SUITED AS SOURCES OF TOPSOIL RESTRICT OR PLACE CONDITIONS ON PLANNING VEGETATIVE STABILIZATION. ACIDIC, LOW FERTILITY, EXCESSIVE DRYNESS AND EXCESSIVE WETNESS LIMIT PLANT GROWTH.

RESOLUTIONS: IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER THE SOIL TYPES POORLY, SUITED AS TOPSOIL 2. ACIDIC SOIL TYPES EXHIBITING PH REACTION VALUES LOWER THAN ABOUT 5.5, LIMIT VEGETATIVE STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC PH REACTION.

RESOLUTIONS: APPLYING LIME CONSISTENT WITH RATES DETERMINED BY SOIL TESTING: SELECTING VEGETATIVE SPECIES TOLERANT TO ACIDIC SOIL CONDITIONS; AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NON-CROPLAND PUBLISHED BY PENN STATE.

3. LOW FERTILITY SOIL TYPES LACKING IN SUFFICIENT AMOUNTS OF ESSENTIAL PLANT NUTRIENTS SUCH AS: NITROGEN, PHOSPHOROUS, POTASSIUM, SULFUR, MAGNESIUM, CALCIUM, IRON, MANGANESE, BORON, CHLORINE, ZINC, COPPER AND MOLYBDENUM, LIMIT VEGETATION STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC SOIL FERTILITY.

LOW FERTILITY SOIL CONDITIONS, AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NON-CROPLAND PUBLISHED BY PENN STATE.

4. ERODIBLE SOIL TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10, LIMIT VEGETATIVE STABILIZATION OF CHANNELS. RESOLUTIONS: TEMPORARY CHANNEL LINING, PROVIDING PERMANENT CHANNEL LINING, DECREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTING VEGETATIVE WITH GREATER RETARDANCE, SELECTING PERMANENT LININGS OTHER THAN GRASSES, AND IMPLEMENTING COMBINATION OF

THESE AND/OR METHODS. VEGETATIVE RETARDANCE INFORMATION IS PROVIDED IN TABLES 6 AND 7 OF THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL PUBLISHED BY PADEP.

5. WET SOIL TYPES HAVE EXCESSIVE ROOT ZONE AND SOIL MOISTURES. SOME SOIL SURVEYS INDICATE WETNESS, HIGH WATER TABLE AND FLOODING. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO WET CONDITIONS, TILING VEGETATIVE AREAS, AND IMPLEMENTING COMBINATIONS OF

THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NON-CROPLAND PUBLISHED BY THE PENN STATE.

6. DRY SOIL TYPES LACK SUFFICIENT ROOT ZONE SOIL MOISTURES. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE. RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO DRY CONDITIONS. IRRIGATING VEGETATED AREAS AND IMPLEMENTING COMBINATION OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NON-CROPLAND PUBLISHED BY PENN STATE.

7. SOIL TYPES SUSCEPTIBLE TO SINKHOLE AND SOLUTION CHANNEL/CHAMBER FORMATION POSE LIMITATIONS ON LOCATING RESERVOIR AREAS OF

SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS, AND STORMWATER DETENTION BASINS RESOLUTIONS: LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LINING RESERVOIR AREAS WITH IMPERMEABLE LININGS, LIMITING STANDING WATER DEPTHS, LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. 8. SOIL TYPES THAT EXHIBIT INSTABILITY IN POND EMBANKMENTS OR SUSCEPTIBILITY TO PIPING AND SEEPING POSE LIMITATIONS ON PLANNING

EMBANKMENTS OF SEDIMENT BASINS. SEDIMENT TRAPS. STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS. RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LIMITING EMBANKMENT SLOPE STEEPNESS AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. 9. SOIL THAT ARE DIFFICULT TO COMPACT, UNSUITABLE FOR WINTER GRADING, OR SUSCEPTIBLE TO FROST ACTION POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES. LOCATING THOSE FACILITIES ON OTHER SOIL TYPES. NOT CONSTRUCTING EMBANKMENTS DURING PERIODS PRONE TO FROST AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS

10. SUSCEPTIBILITY FOR THE DEVELOPMENT OF SINKHOLE WITHIN IDENTIFIED SOILS.

RESOLUTIONS: IN THE EVENT THAT PRESENCE OF A SINKHOLE IS DETECTED DURING THE COURSE OF WORK, CORRECTIVE MEASURES SHALL BE PERFORMED UNDER THE OBSERVATION AND GUIDANCE OF THE OWNER'S GEOTECHNICAL CONSULTANT. EXCAVATE THE LOOSE, WET SOILS SURROUNDING THE SINKHOLE TO EXPOSE THE SINKHOLE "THROAT" (THE OPENING IN THE ROCK) AND THE ADJACENT STABLE SOILS/ROCK WHERE POSSIBLE, THE EXCAVATION SHALL EXTEND A MINIMUM OF TWO FEET (2') BEYOND THE STABLE SOILS OR TO THE ROCK SURFACE WHICHEVER IS ENCOUNTERED FIRST FILL THE EXPOSED SINKHOLE "THROAT" WITH LEAN CONCRETE TO BLOCK THE MIGRATION OF THE UPPER LAYERS OF SOIL THROUGH THE ROCK OPENING.

AFTER CONCRETE HAS CURED OVERNIGHT BACKFILL THE REMAINDER OF THE EXCAVATION WITH CLAYEY SOILS TO PROVIDE A LOW PERMEABILITY BARRIER. THE CLAYEY SOILS SHALL BE PLACED IN 8" LIFTS AND EACH LIFT COMPACTED BY REPEATED PASSES OF THE COMPACTION EQUIPMENT UNTIL STABLE. CARE SHALL BE TAKEN TO ASSURE THAT THE SOIL AT THE EDGES OF THE EXCAVATION ARE WELL COMPACTED.

E&S PLAN DESIGNED AND IMPLEMENTED TO BE CONSISTENT WITH PCSM PLAN §102.4(b)(5)(xiv) THE E&S PLAN SHALL BE PLANNED, DESIGNED AND IMPLEMENTED...UNLESS OTHERWISE APPROVED BY

THE DEPARTMENT, THE E&S PLAN MUST BE SEPARATE FROM THE PCSM PLAN AND LABELED "E&S" OR "EROSION AND SEDIMENT CONTROL PLAN" AND BE THE FINAL PLAN FOR CONSTRUCTION.

REGARDING THE LOCATIONS OF EXISTING RIPARIAN BUFFERS RELATIVE TO THE LIMIT OF DISTURBANCE AND WHETHER PROPOSED INFILTRATION FACILITIES ARE OUTSIDE OF PROPOSED GRADING AREAS, NOTE THE FOLLOWING:

• THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS. • THERE ARE NO PROPOSED INFILTRATION BMPs OUTSIDE OF PROPOSED GRADING AREAS.

EXISTING/PROPOSED RIPARIAN FOREST BUFFERS §102.4(b)(5)(xv)

REGARDING EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS NOTE THE FOLLOWING: • THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS LOCATED WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE FOR THIS PROJECT.

LOCATION OF ALL SURFACE WATERS AND THEIR **CLASSIFICATION UNDER CHAPTER 93**

§102.4(b)(5)(v)

THE SUBJECT SITE IS LOCATED WITHIN STONY CREEK/SAWMILL RUN WATERSHED. WHICH HAS A TSF (TROUT STOCKING FISHES) & MF (MIGRATORY FISHES) CHAPTER 93 CLASSIFICATION.

RECYCLING OR DISPOSAL OF MATERIALS

§102.4(b)(5)(xi)

THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE: - CONCRETE CURB AND SIDEWALK

- ASPHALT - F&S BMP - COMPOST FILTER SOCKS

- E&S BMP - TEMPORARY RISER

- E&S BMP - EROSION CONTROL MATTING - E&S BMP - STONE INLET PROTECTION

- E&S BMP - STONE & CONCRETE BLOCK INLET PROTECTION - E&S BMP - REGULATED FILL MATERIALS

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. BELOW IS A LIST OF METHODS FOR THE PROPER RECYCLING/DISPOSAL OF VARIOUS MATERIALS:

1) DUST CONTROL - CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED. CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE RIED OFF-SITE BY CONSTRUCTION TRAFFIC. WATER TRUCKS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE LOCAL CONSERVATION DISTRICT AFTER CONSTRUCTION, THE SITE WILL BE STABILIZED, WHICH WILL REDUCE THE POTENTIAL FOR DUST GENERATION

2.) SOLID WASTE DISPOSAL - NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES. MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE.

3.) SANITARY FACILITIES - ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A LICENSED COMMERCIAL OPFRATOR

4.) WATER SOURCE - NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.

5.) CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS - DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASH WATER AND STORMWATER THAT WILL BE DISCHARGED FROM THE SITE

GEOLOGIC FORMATIONS/SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION §102.4(b)(5)(xii)

THERE ARE NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT COULD CAUSE CONTAMINANT POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.

RESOLUTIONS: INCORPORATING SOIL NUTRIENTS CONSISTENT WITH RATES DETERMINED BY SOIL TESTING: SELECTIVE VEGETATIVE SPECIES TOLERANT TO

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. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS IMMEDIATELY FOR HQ/EV WATERSHEDS). OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO: THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (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. BEFORE INITIATING ANY REVISION TO THE APPROVED FROSION 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 MONTGOMERY COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLILITION. THE

OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION

AND/OR SEDIMENT POLLUTION.

FOR EACH OF THE CRITICAL STAGES IDENTIFIED IN THE SEQUENCE BELOW, THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT. A LICENSED

PROFESSIONAL OR DESIGNEE KNOWLEDGABLE IN THE DESIGN AND CONSTRUCTION OF SAID BMP, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE

OVERSIGHT.

- 1. INSTALL CONSTRUCTION ENTRANCE AS DESIGNATED ON THE PLANS. 2. INSTALL ALL PERIMETER SILT SOCK WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS
- PERMITTED. INSTALL INLET PROTECTION ON EXISTING INLETS AS SHOWN ON THE E&S PLAN

- 3. STRIP AND STOCKPILE TOPSOIL WITHIN AREAS TO BE DISTURBED ON PLAN. STOCKPILE SIDE SLOPES SHALL BE 2H:1V OR FLATTER -

- PLACE 12" FILTER SOCK AROUND BASE OF TOPSOIL STOCKPILE.

- 4. BEGIN BULK EARTHWORK ACTIVITY FOR THE SITE. PERFORM CUTS/FILLS REQUIRED TO ESTABLISH BUILDING PADS PER PHASE 2
- E&S PLAN DRAWING.
- 5. PERFORM REMAINING EARTHWORK AS REQUIRED TO ESTABLISH THE REMAINING BUILDING PAD AS SHOWN ON THIS PLAN.
- 6. CRITICAL STAGE #1: BEGIN INSTALLATION OF SUBSURFACE DETENTION BASIN WITH MANAGED RELEASE CONCEPT (BMP-1).
- a. EXCAVATE SUBSURFACE BASIN AREAS TO PROPOSED INVERT DEPTH. b. INSTALL GEOTEXTILE, PVC LINER AND STONE AS INDICATED ON THE PLANS AND DETAILS. IF SEDIMENT ENTERS THE STONE.
- THE CONTRACTOR WILL BE REQUIRED TO REMOVE THE STONE AND SEDIMENT AND REPLACE WITH CLEAN WASHED STONE.
- c. INSTALL OUTFALL PIPE AND ENDWALL TO THE OUTLET STRUCTURE WORKING UPSTREAM d. INSTALL BASIN CHAMBERS AND INSTALLED INLETS THAT DISCHARGE TO THE UNDERGROUND BASIN WITH EXTERIOR GRAD
- PLYWOOD AND CINDERBLOCKS. UPON COMPLETION OF THE PIPE INSTALLATION DURING EACH WORKING DAY, PLYWOOD MUST BE INSTALLED OVER THE PIPE TO PREVENT SEDIMENT FROM ENTERING THE BASIN.
- e. UPON COMPLETION OF THIS STAGE OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES, DISTURBED AREAS SHALL BE IMMEDIATELY STABILIZED AS INDICATED IN THE PLANTING SPECIFICATIONS LOCATED ON THE PLANS.
- f. REFER TO THE PCSM NOTES AND DETAILS FOR THE SPECIFIC BMP INSTALLATION NOTES RELATED TO THE UGB. 5. AS AREAS ARE BROUGHT TO PROPOSED SUBGRADE ELEVATION. CONTINUE CONSTRUCTION OF REMAINING UTILITIES. INCLUDING BUT NOT LIMITED TO SANITARY, STORM, WATER AND FIRE HYDRANTS, ELECTRIC, TELECOMMUNICATIONS, AND GAS. PRIOR TO INSTALLATION OF ANY UPSTREAM STORMWATER SEWER STRUCTURES. CONTRACTOR MUST CONNECT THE EXISTING TIE-IN POINTS, AS INDICATED ON THE PLANS. TRENCH EXCAVATION SHALL BE LIMITED TO THE LENGTH OF PIPE THAT CAN BE INSTALLED IN ONE (1) DAY. IF INSPECTION INDICATES THAT SOIL SEDIMENT HAS ENTERED ANY OF THE BASINS AND/OR STORM SEWERS,
- CLEANOUT AND/OR FLUSH THE INSTALLED SYSTEMS OF SEDIMENT.
- 6. BEGIN VERTICAL CONSTRUCTION OF THE PROPOSED BUILDING 7. INSTALL PROPOSED CURBING, STONE BASE COURSE AND BINDER COURSE FOR PARKING FIELDS AND UTILIZE PROPOSED STAGING
- AREAS FOR STORAGE OF BUILDING MATERIALS, AS INDICATED ON THE PLANS. 8. INSTALL SITE LIGHTING FOUNDATIONS AND LIGHT STANDARDS.
- 9. INLET PROTECTION, FILTER SOCK, AND SILT SOCK SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE ADEQUATELY STABILIZED.
- 10. FINAL GRADE LANDSCAPING AREAS, PLANT TREES AND SHRUBS (RE-VEGETATE/REFOREST DISTURBED AREAS) AS SHOWN ON THE LANDSCAPE PLANS
- 11. UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE MCCD, REMOVE EROSION AND SEDIMENT CONTROL MEASURES INCLUDING SUPER SILT FENCE, FILTER SOCK AND INLET PROTECTION. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE STABILIZED IMMEDIATELY
- 12. PRIOR TO WEARING COURSE PAVING, ALL OTHER CONSTRUCTION MUST BE COMPLETED INCLUDING BUILDINGS, DRIVEWAYS, LANDSCAPING, GRADING, TRASH ENCLOSURES, CONCRETE WORK, AND BASIN WORK AS INDICATED ON THE PLANS. UPON COMPLETION INSTALL WEARING COURSE, SIGNAGE AND STRIPING.
- 13. CLEAR SITE DEBRIS AND ALL UNWANTED MATERIALS. DISPOSAL SHALL BE IN A SAFE AND LAWFUL MANNER
- 14 DEMOBILIZE 15. A NOTICE OF TERMINATION SHOULD BE SUBMITTED TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT UPON STABILIZATION AND FINAL COMPLETION OF THIS PROJECT

MAINTENANCE PROGRAM

THE FOLLOWING MAINTENANCE PROGRAM HAS BEEN DEVELOPED TO PROVIDE FOR THE INSPECTION OF BMPs ON A WEEKLY BASIS AND AFTER EACH MEASURABLE RUNOFF EVENT, AND TO INCLUDE THE REPAIR OF THE BMPs TO ENSURE THEIR EFFECTIVE AND **FFFICIENT OPERATION**

UNTIL THE SITE IS STABILIZED AND DURING CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY THE CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL 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 AND IN ACCORDANCE WITH THESE PROCEDURES. PLANS AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST

• COMPOST FILTER SOCK - INSPECTIONS SHALL BE CONDUCTED ON A WEEKLY BASIS AND/OR AFTER EACH RUNOFF EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND SOCK THE SEDIMENT SHALL BE DISPOSED OF ON SITE AND/OR IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER SIX (6) MONTHS; PHOTODEGRADABLE SOCKS AFTER ONE (1) YEAR. UPON STABILIZATION OF THE 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

• INLET PROTECTION (FILTER BAGS) - INSPECTIONS SHALL BE CONDUCTED ON A WEEKLY BASIS AND/OR AFTER EACH RUNOFF EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. FILTER BAGS SHOULD BE CLEANED AND/OR REPLACED AFTER EACH RUNOFF EVENT. THE SEDIMENT SHALL BE DISPOSED OF ON SITE AND/OR IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS. DAMAGED FILTER BAGS SHOULD BE REPLACED.

• CONSTRUCTION ENTRANCES - LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING A STABILIZED CONSTRUCTION EXIT SHALL BE CONSTRUCTED WHERE VEHICLES ENTER AND EXIT EXITS SHALL BE MAINTAINED OR SUPPLEMENTED AS NECESSARY TO PREVENT THE RELEASE OF SEDIMENT FROM VEHICLES LEAVING THE SITE. ANY SEDIMENT DEPOSITED ON THE ROADWAY SHALL BE SWEPT AS NECESSARY THROUGHOUT THE DAY OR AT THE END OF EVERY DAY AND DISPOSED OF IN AN APPROPRIATE MANNER. SEDIMENT SHALL NOT BE WASHED INTO STORM SEWER SYSTEMS SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END. OF EACH WORKDAY AND DISPOSED AS A MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED OR SWEPT INTO ANY ROAD SIDE DITCH, STORM SEWER OR SURFACE WATER.

 SEDIMENT BARRIERS AND BASINS/TRAPS MUST BE INSPECTED AND THEY MUST BE CLEANED OUT AT SUCH TIME AS THEIR ORIGINAL CAPACITY HAS BEEN REDUCED BY 50 PERCENT. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS OR IN BASINS AND TRAPS SHALL BE INCORPORATED INTO ON-SITE SOILS OR SPREAD OUT ON AN UPLAND PORTION OF THE SITE AND STABILIZED. ADDITIONAL SEDIMENT BARRIERS MUST BE CONSTRUCTED AS NEEDED.

 INSPECTIONS SHALL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM OR DISCHARGING FROM THE SITE. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED WITH HYDRO-STRAW IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED IF NEEDED IN ORDER TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS

• GRASSED AREAS SHALL BE INSPECTED TO CONFIRM THAT A HEALTHY STAND OF GRASS IS MAINTAINED. THE SITE HAS ACHIEVED FINAL STABILIZATION ONCE ALL AREAS ARE COVERED WITH BUILDING FOUNDATION OR PAVEMENT, OR HAVE A STAND OF GRASS WITH AT LEAST 70 PERCENT DENSITY OR GREATER IN ACCORDANCE WITH PERMIT REQUIREMENTS. THE VEGETATIVE DENSITY MUST BE MAINTAINED TO BE CONSIDERED STABILIZED. AREAS MUST BE WATERED. FERTILIZED. AND RESEEDED AS NEEDED TO ACHIEVE THIS REQUIREMENT

• ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING DISCHARGE OF SEDIMENT FROM THE SITE OR IMPACTS TO RECEIVING WATERS.

E+S - MONITORING, INSPECTION AND REPORTING REQUIREMENTS

VISUAL INSPECTION THE PERMITTEE AND CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RAINFALL EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT. AND CONDUCTED BY QUALIFIED PERSONNEL. TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL. TO ASCERTAIN THAT E&S BMPs AND PCSM BMPs ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THIS COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM

(1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS: AND

(2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING WHERE E&S. PCSM OR PPC BMPs ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION. OR ANY OTHER TIME, THE PERMITTEE AND CO PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN 5 DAYS OF THE INITIAL CONTACT. NONCOMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

(1) ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR THREATEN POLLUTION;

(2) THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;

(3) STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NONCOMPLIANCE; AND

(4) THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

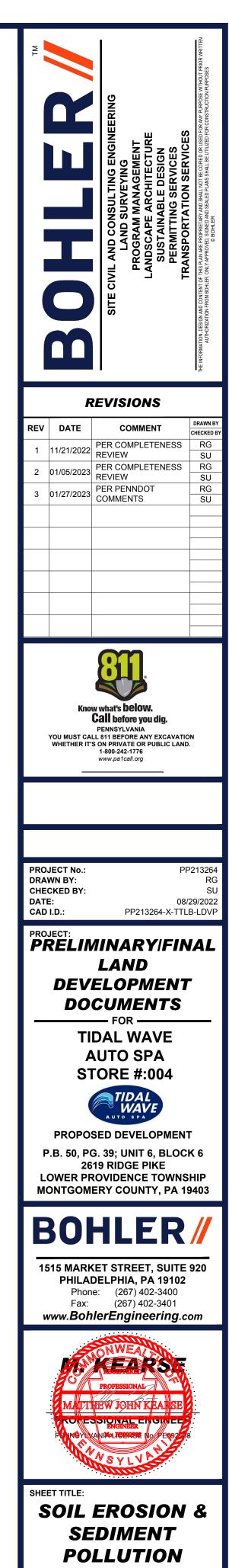
REDUCTION, LOSS, OR FAILURE OF THE BMPs UPON REDUCTION, LOSS, OR FAILURE OF THE BMPs, THE PERMITTEE AND CO-PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMPs OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMPs OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMPs.

TERMINATION OF COVERAGE

NOT: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPs IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO PERMITTEE OF THE FACILITY MUST SUBMIT A NOT FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE NOT MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE NOT, THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPs AND PCSM BMPs ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

COMPLETION CERTIFICATE AND FINAL PLANS

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 SOONER. THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.



REVISION 3 - 01/27/2023

CONTROL NOTES

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MONTGOMERY COUNTY SOIL CONSERVATION DISTRICT STANDARD E&S NOTES

- 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.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL
- 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
- 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.
- 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 seg 271.1, AND 287.1 ET, SEQ, NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- 11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- 13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
- 14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM THE PROPERTY ONTO RIDGE PIKE
- 15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- 16. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION
- 17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- 18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- 19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES- 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL, AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- 20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- 21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- 22 FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES BRUSH ROOTS SOD OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS
- 23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- 24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. 25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND
- SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD. 26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN
- ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN. 27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- 28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING. SLIDING. OR OTHER MOVEMENTS.
- 29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
- 30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS. THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE
- 31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SFASON
- 32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
- 33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
- THE FOLLOWING NOTES SHOULD BE ADDED TO PLAN DRAWINGS AS APPLICABLE. 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.
- 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.
- 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.
- 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.
- 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.
- SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.
- 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 _____LAYERED LIFTS AT % DENSITY.

ANNUAL RYE (40 POUNDS / ACRE PLS) OR SPRING OATS (96 POUNDS / ACRE PLS) OR WINTER RYE (168 POUNDS / ACRE PLS) NONCROPLAND", TABLE 5 B. PERMANENT SEEDING SHALL CONSIST OF A NURSE CROP PLUS A PERMANENT SEED MIXTURE, AS FOLLOWS: I. NURSE CROP (SELECT ONE): ANNUAL RYE (10 POUNDS / ACRE PLS) OR SPRING OATS (64 POUNDS / ACRE PLS OR WINTER RYE (56 POUNDS / ACRE PLS) TABLE 11.4. SEED MIX #1) II. PERMANENT SEED MIX: TALL FESCUES (60 POUNDS / ACRE PLS) OR FINE FESCUE (35 POUNDS / ACRE PLS) OR PERENNIAL RYEGRASS (15 POUNDS / ACRE PLS) TABLE 11.4. SEED MIX #2) ADJUSTED BASED ON THE PLS RATING OF THE SEED. A. SEED USED FOR THE PURPOSE OF PERMANENT STABILIZATION SHALL BE LABELED WITH BE USED MORE THAN ONE (1) YEAR BEYOND THE LABEL DATE. BY 100 ((%PURE X %GERMINATION) / 100) C. DETERMINING THE ACTUAL SEED RATE: SIMPLY DIVIDE THE PERCENT PLS RATING OF THE SEED DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION (MOST RECENT EDITION) A. SEEDING SHALL TAKE PLACE BETWEEN MARCH 15 - OCTOBER 15. B. SEED SHALL BE APPLIED IN A NON-COMPACTED, ROUGHENED TOPSOIL. I. DRILL SEEDING II. BROADCAST SEEDING (TWO DIRECTIONS) III. HYDROSEEDING (TWO DIRECTIONS) ACHIEVED I. TEMPORARY STABILIZATION WITH STRAW: SPECIFIED): SHALL BE INSTALLED AND STAPLED ON TOP OF THE SEEDING IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

SEEDING DATES

LATER THAN OCTOBER 15TH

SEED MIXTURE AS FOLLOWS:

INSTALLATION. CONDITION. AVOIDED

E&S - GENERAL NOTES:

1. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL STRUCTURES, ADDITIONAL FACILITIES OR MEASURES SHALL BE INSTALLED WHERE NECESSARY OR WHERE DIRECTED BY EITHER THE TOWNSHIP OR THE COUNTY CONSERVATION DISTRICT AS CONSTRUCTION PROGRESSES.

2. THE OWNER/CONSTRUCTION MANAGER IS RESPONSIBLE FOR ALL TEMPORARY AND PERMANENT EROSION AND

3. PROTECTION TO THE EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE

4. ANY DRY FILL HAULED OFFSITE MUST BE TAKEN TO A LOCATION WITH AN EROSION AND SEDIMENTATION CONTROL

UNNECESSARY DAMAGE

DISTURBANCE WITHIN TRIBUTARY AREAS OF THOSE CONTROLS.

6. STOCKPILES MUST BE STABILIZED IMMEDIATELY.

7. NO CHANGES SHALL BE MADE IN THE CONTOUR OF THE LAND. NO GRADING, EXCAVATING, REMOVAL OR DESTRUCTION OF THE TOPSOIL, TREES OR OTHER VEGETATIVE COVER OF THE LAND SHALL BE COMMENCED WITHIN A PROPOSED SUBDIVISION OR LAND DEVELOPMENT TRACT UNTIL SUCH TIME THAT A PLAN FOR SEDIMENTATION CONTROL AND MINIMIZING EROSION HAS BEEN REVIEWED AND FOUND SATISFACTORY BY THE COUNTY CONSERVATION DISTRICT AND REVIEWED AND APPROVED BY THE TOWNSHIP, OR THERE HAS BEEN A DETERMINATION BY THE TOWNSHIP. UPON RECOMMENDATION BY THE COUNTY CONSERVATION DISTRICT. THAT SUCH PLANS ARE NOT NECESSARY

8. BEFORE INITIATING 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.

OPTIONAL NOTES

SEEDING SPECIFICATIONS

SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL CONSERVATION DISTRICT AND ALL APPROPRIATE AGENCIES TO DETERMINE AN ACCEPTABLE MEANS IN WHICH TO STABILIZE THE SITE

A. SEEDING SHALL OCCUR BETWEEN MARCH 1ST AND MAY 15TH OR BETWEEN AUGUST 15TH AND NO B. IF SEEDING CANNOT BE CONDUCTED DURING THE TIMEFRAMES NOTED ABOVE, THE CONTRACTOR

THROUGH THE NEXT GROWING SEASON. 2. SEED MIXTURES: SEED MIXTURE TO BE USED ON THIS SITE SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE NOTED ON THE PLANS. RATES ARE IN THE FORM OF POUNDS PER ACRE (LB/A) PER PURE LIVE SEED (POUNDS / ACRE PLS). CONTRACTOR WILL NEED TO ADJUST ACCORDINGLY BASED ON THE SEED GERMINATION AND PURITY RATING (SEE ITEM #3 BELOW). A. TEMPORARY SEED MIXTURES: DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE DISTURBED AGAIN WITHIN TWELVE (12) MONTHS MUST BE SEEDED WITH A TEMPORARY

REFERENCE: PENN STATE "EROSION CONTROL & CONSERVATION PLANTINGS ON

(REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION,

OR KENTUCKY BLUEGRASS (25 POUNDS / ACRE PLS) PLUS REDTOP (3 POUNDS / ACRE PLS) (REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION. PURE LIVE SEED: MINIMUM PLS RATING ACCEPTED SHALL BE 85% PLS. SEED RATE MAY NEED TO BE

GERMINATION AND PURITY PERCENTAGES. UNLABELED SEED WILL BE REJECTED. SEED SHALL NOT B. DETERMINING THE PERCENT PURE LIVE SEED (PERCENT PLS) OF A LABELED SEED: MULTIPLY BY THE PERCENTAGE OF PURE SEED BY THE PERCENTAGE OF GERMINATION AND DIVIDE THE RESULT

INTO THE PLS REQUIRED, AS NOTED ABOVE. THE RESULT IS THE POUNDS OF SEED REQUIRED. FOR EXAMPLE: IF THE REQUIRED RATE IS 64 POUNDS PLS. AND THE SEED IS RATED AT 35% PLS. DIVIDE 64 BY 0.35 TO GET 182.9 POUNDS, WHICH IS THE AMOUNT OF THAT SEED REQUIRED PER ACRE. APPLICATION OF SEED: SEEDING SHALL BE APPLIED AND ESTABLISHED IN ACCORDANCE WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" AS PUBLISHED BY THE

C. SEED MAY BE APPLIED THROUGH ANY OF THE FOLLOWING MEANS AND METHODS, OR OTHER ACCEPTED INDUSTRY PRACTICES, UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS:

D. ALL SEED SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED UNTIL A 70% PERENNIAL COVER IS

1. STRAW MULCH SHALL BE APPLIED ON TOP OF THE FRESHLY SEEDED AREAS AT A RATE OF 3 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1ST AND MARCH 1ST). 2. STRAW SHALL BE STABILIZED WITH A WOOD OR PAPER FIBER MULCH AND TACKIFIER SOLUTION IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS. II. TEMPORARY/PERMANENT STABILIZATION WITH EROSION CONTROL MATTING/BLANKETS (WHERE 1. MATTING/BLANKETS SHALL BE INSTALLED IN AREAS AS NOTED ON THE EROSION & SEDIMENT CONTROL PLAN OR WITHIN 50 FEET OF PONDS STREAMS OR WETLANDS. THE PRODUCT

2. AREAS WITH MATTING/BLANKETS SHALL NOT BE TRACKED (CATWALKED) AFTER 3. MATTING/BLANKETS SHALL BE VISUALLY INSPECTED DAILY TO ENSURE THAT THE PRODUCT IS FUNCTIONING PROPERLY, IS HELD FAST TO THE SOIL SURFACE AND IS IN GOOD

E. ONCE SEED HAS BEEN SET, VEHICULAR TRAFFIC OR OTHER SOURCES OF COMPACTION SHALL BE 5. IRRIGATION: NEW SEED APPLICATIONS SHOULD BE SUPPLIED WITH ADEQUATE WATER, A MINIMUM OF 1/4" TWICE A DAY, UNTIL VEGETATION IS WELL ESTABLISHED (A MINIMUM OF 75% COVER).

SEDIMENT CONTROLS AND SITE STABILIZATION. THE OWNER SHALL ASSIGN ONE INDIVIDUAL TO BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL FACILITIES AND MEASURES.

PLAN WHICH HAS BEEN REVIEWED BY THE COUNTY CONSERVATION DISTRICT FOR ADEQUACY.

5. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE

9. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.

10. CONTRACTOR SHALL USE TREADED MACHINERY AND MINIMIZE SOIL COMPACTION WHEREVER POSSIBLE.

DEFINITION OF CLEAN FILL AND IMPORT/EXPORT MATERIAL NOTES

IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE APPLICANT.

1.) 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 RF-USE)

2.) CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

3.) ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

4.) ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. 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"

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT. WHICHEVER IS APPLICABLE. THE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PACODE.COM

GENERAL CONSERVATION NOTES AND SPECIFICATIONS I. GENERAL INFORMATION

- A. THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE AVAILABLE AT THE SITE. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE
- WITHOUT FIRST BEING PROPERLY FILTERED. ANY SEDIMENT THAT IS TRACKED ONTO THE ROAD MUST BE CLEANED OFF BEFORE THE END OF THE DAY
- DISTURBED AREAS ON WHICH EARTHMOVING ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED IMMEDIATELY, EITHER TEMPORARILY OR PERMANENTLY, INCLUDING THE RESTORATION OF DRIVEWAYS, STOCKPILES, OFF-SITE UNDERGROUND UTILITY LINES AND GRADED PERIMETER AREAS. DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT RECOMMENDED RATES.
- CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. AREAS THAT FAIL TO GERMINATE MUST BE RE-SEEDED OR MULCHED. WHERE DISTURBED AREAS ARE DIFFICULT TO STABILIZE, NETTING SHOULD BE USED TO
- HOLD SEED AND MULCH IN PLACE; THIS IS ESPECIALLY IMPORTANT AROUND WATERCOURSES, IN SWALES AND AREAS OF CONCENTRATED FLOWS, STEEP SLOPES. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY IF AT ANY TIME PRIOR TO SITE STABILIZATION ANY E&SP PROBLEMS. OCCUR WHICH REQUIRE ADDITIONAL CONTROLS, IMMEDIATE ACTION MUST BE TAKEN TO
- CORRECT THE PROBLEMS H. THE CONTRACTOR MUST DEVELOP AND COORDINATE WITH OWNER AND HAVE APPROVED BY THE COUNTY CONSERVATION DISTRICT A SEPARATE FROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR EACH SPOIL, BORROW OR OTHER WORK AREA NOT DETAILED ON THE PERMITTED PLANS, WHETHER LOCATED WITHIN OR OUTSIDE OF THE LIMITS OF CONSTRUCTION
- CONTRACTOR SHALL NOTIFY THE COUNTY CONSERVATION DISTRICT OF DISPOSAL METHOD AND LOCATION OF MATERIALS (IF ANY) TO BE REMOVED FROM SITE ALL MATERIALS TO BE RECYCLED OR DISPOSED OF MUST DO SO IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS. STOCKPILES TO BE HAULED OFF SITE
- MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AT THE DESTINATION I OCATION K. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SOIL STABILIZATION THROUGHOUT ONSTRUCTION ADDITIONAL MEASURES REQUIRED TO ENSURE ON-SITE AND OFE-SIT STABILIZATION IN AND ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO COST TO THE OWNER.
- IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE OWNER AND ENGINEER SHOULD ADDITION STABILIZATION MEASURES BE NECESSARY; IN ACCORDANCE WITH THE NPDES AND/OR SWPPP REQUIREMENTS FOR THE PROJECT.

II. STANDARD FOR LAND GRADING

- A. DEFINITION: RESHAPING THE GROUND SURFACE BY GRADING TO PLAN GRADES, WHICH ARE DETERMINED BY TOPOGRAPHIC SURVEY AND LAYOUT. A.1. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFE FROM
- DAMAGING CUT FACES AND FULL SLOPES. A.2. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS
- INSTALLATION REQUIREMENTS B.1. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETABLE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE
- WITH STANDARD FOR DISPOSAL OF MATERIALS. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE B.2. MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
- B.3. ALL FILLS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESS SATURATION. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION.
- B.5. (SEE I. D.)

III. STANDARD FOR UTILITY TRENCH EXCAVATION

- A. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY. B. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR A MAX. OF SIX DAYS FOR CERTAIN
- CASES REQUIRING TESTING OF THE INSTALLED PIPE. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING TO A FACILITY FOR REMOVAL OF SEDIMENT (SEDIMENT FILTER BAG, SEE
- DETAIL) BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING. THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES / FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE IMMEDIATELY.
- WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FORM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS. F. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

IV. STANDARD FOR TEMPORARY STABILIZATION

- A. STANDARD FOR TEMPORARY STABILIZATION WITH FIBERMULCH A.1. MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REWORKING IN ADDITION, STABILIZATION WITH FIBER MULCH
- SHALL BE USED DURING NON-GERMINATION PERIODS. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE. A.3. GRADE AS NEED AND FEASIBLE. SEE STANDARD FOR LAND GRADING.
- A.4. PROTECTIVE MATERIALS TO BE USED: A.4.a. UNROTTED SMALL-GRAIN UN-CHOPPED STRAW OR HAY AT 3.0 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORMLY AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
- A.4.b. HYDROMULCHER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. LIQUID MULCH BINDERS: APPLY IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. PRODUCTS TO BE INSTALLED AT A RATE OF 1 TON PER ACRE (MINIMUM) OR PER MANUFACTURER'S SPECIFICATIONS.
- B. STANDARD FOR TEMPORARY STABILIZATION WITH SEED

B.1. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE

REDISTURBED WITHIN TWELVE (12) MONTHS MUST BE SEEDED AND MULCHED IMMEDIATELY WITH A TEMPORARY COVER. B.2. ALL AREAS TO BE PERMANENTLY SEEDED SHALL ALSO RECEIVE TEMPORARY SEEDING CONCURRENTLY. B.3. SEEDBED PREPARATION FOR TEMPORARY SEEDING

B.3.A. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE. B.3.B. APPLY AGRICULTURAL LIME AT A RATE OF 1 TONE PER ACRE B.3.C. APPLY 10-10-10 FERTILIZER A RATE OF 500 POUNDS PER ACRE B.3.D. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH

OF FOUR (4) INCHES C. SEEDING: SEE SEEDING SPECIFICATIONS

V. STANDARD FOR PERMANENT STABILIZATION

PREPARED.

ACCEPTABLE

A. SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER A.1. SITE PREPARATION A.1.a. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND

ANCHORING, AND MAINTENANCE A.1.b. SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO BETWEEN 5.5 AND 7 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES A.1.C. IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION. THE SURFACE SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5 INCHES TO PROVIDE A GOOD BOND WITH THE TOPSOIL.

A.2. APPLYING TOPSOIL A.2.a. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE. A.2.b. ALL DISTURBED TOPSOIL ON-SITE IS TO BE REDISTRIBUTED ON-SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. NO REMOVAL OF TOPSOIL IS ALLOWED UNI ESS APPROVED BY THE MONTGOMERY COUNTY CONSERVATION DISTRICT

UNIFORM APPLICATION TO A DEPTH OF 6-8 INCHES (UNSETTLED) IS RECOMMENDED SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE. A 3 SEEDBED PREPARATION A.3.a. A SOIL TEST SHALL BE CONDUCTED TO ACCURATELY DETERMINE NECESSARY SOIL

AMENDMENIS A.3.b. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE. A 3 c SOIL MODIFICATIONS

A.3.c.1. APPLY 10-20-20 RATED FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST. A.3.c.2. APPLY AGRICULTURAL LIME AT A RATE OF 6 TONS PER ACRE OR 240 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST A 3 d WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDBED IS

A.3.e. REMOVE FROM THE SURFACE ALL STONES ONE INCH (1") OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS. SUCH AS WIRE, CABLE, TREE ROOTS. PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL. A.3.f. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE. A.4. SEEDING: SEE SEEDING SPECIFICATIONS

A.5. SEED BED AREAS SHALL ALSO BE STABILIZED USING AN APPROVED METHOD (EG: HYDROMULCHING) AS OUTLINED IN ITEM IV.A. HEREIN. B. STANDARD FOR PERMANENT STABILIZATION WITH SOD

B 1 METHODS AND MATERIALS B.1.a. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.

B.1.b. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES. B.1.c. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH). B.1.d. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 0% OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE

B.1.e. A SOD OF KENTUCKY 31 TALL FESCUE WITH BLUEGRASS, OR A FESCUE BLEND IS PREFERRED. B.1.f. ONLY MOIST, FRESH UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS. B.2. SITE PREPARATIONS: SEE SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER (ITEM V.A. ABOVE)

B.3. SOD PLACEMENT B.3.a. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD. B.3.b. PLACE SOD STRIPS WITH SNUG EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES

INVITE EROSION B.3.c. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE DRYING OF THE ROOTS.

B.3.d. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS. WIRE STAPLES OR A BIODEGRADABLE FASTENER. B.3.e. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL

B.3.f. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS. B.4. FOLLOW-UP INSPECTION: AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL FERTILIZATION OR LIMING IS NEEDED.

REVISIONS COMMENT REV DATE 1 11/21/2022 REVIEW PER COMPLETENESS 2 01/05/2023 PER COMPLETENESS REVIEW PER PENNDOT 3 01/27/2023 COMMENTS Know what's **below**. Call before you dig PENNSYLVANIA YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND. 1-800-242-1776 www.pa1call.org PROJECT No.: PP21326 DRAWN BY: CHECKED BY: DATE: 08/29/20 CAD I.D.: PP213264-X-TTLB-LDV PRELIMINARY/FINAL LAND DEVELOPMENT DOCUMENTS - FOR TIDAL WAVE AUTO SPA STORE #:004 WAV PROPOSED DEVELOPMENT P.B. 50, PG. 39; UNIT 6, BLOCK 6 2619 RIDGE PIKE LOWER PROVIDENCE TOWNSHIP **MONTGOMERY COUNTY, PA 19403 BOHLER** 1515 MARKET STREET, SUITE 920 PHILADELPHIA, PA 19102 Phone: (267) 402-3400 Fax: (267) 402-3401 www.BohlerEngineering.com



POLLUTION

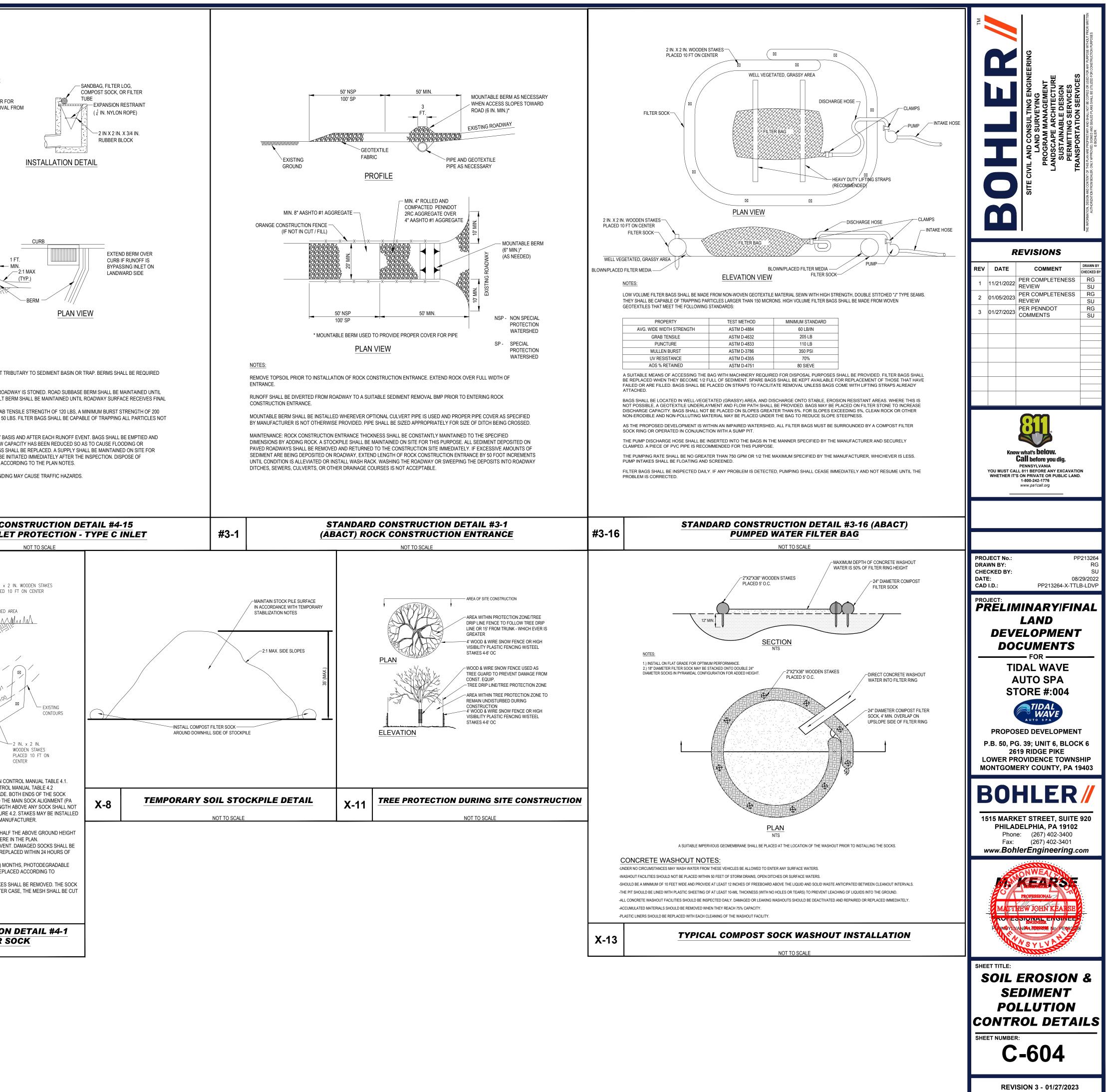
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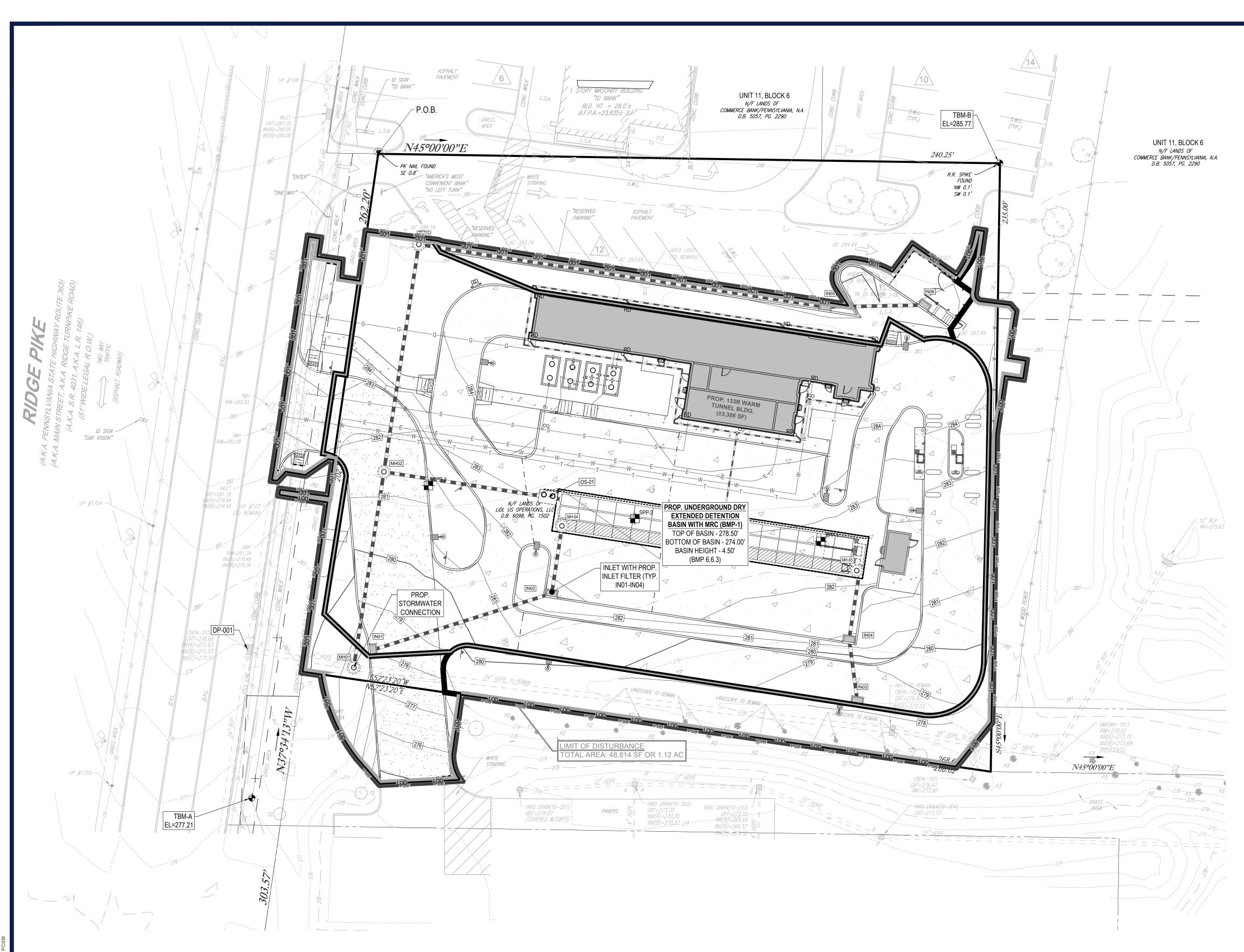
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REVISION 3 - 01/27/2023

SHEET NUMBER

| | | | STANDARD CONSTRUCTION |
|-------|---|---|--|
| | | COMPC COMPC SHALL DEP ER EXCEEL IMMEDI TRAFFI ACCUM OF THE SOCKS REPAIR INSPEC BIODEC SOCKS MANUF UPON S MAY BE | COMPOST FILTER SOCK BLOWN/PLACED FILTER MEDIA UNDISTURBED AREA UNDISTURBED AREA UNDISTURBED AREA SECTION SECTION SECTION UNDISTURBED AREA UNDISTURBED AREA UNDISTUR |
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| | TOP OF CURB INLET CURB MILE CURB INLET MIRE MESH GALVANZED CONCRETE IGA, ORP HASTIC MESH CONCRETE I/A IN MAX. DEVINING ASHTO NO. 57 STONE ERONT VIEW SIN. | | IN REBAR POO BAG REMOVAL IN IN REBAR POO BAG REMOVAL IN IN THE ANALYSIS IN IN IN THE ANALYSIS IN IN IN THE ANALYSIS IN |





PCSM - GENERAL BMP NOTES

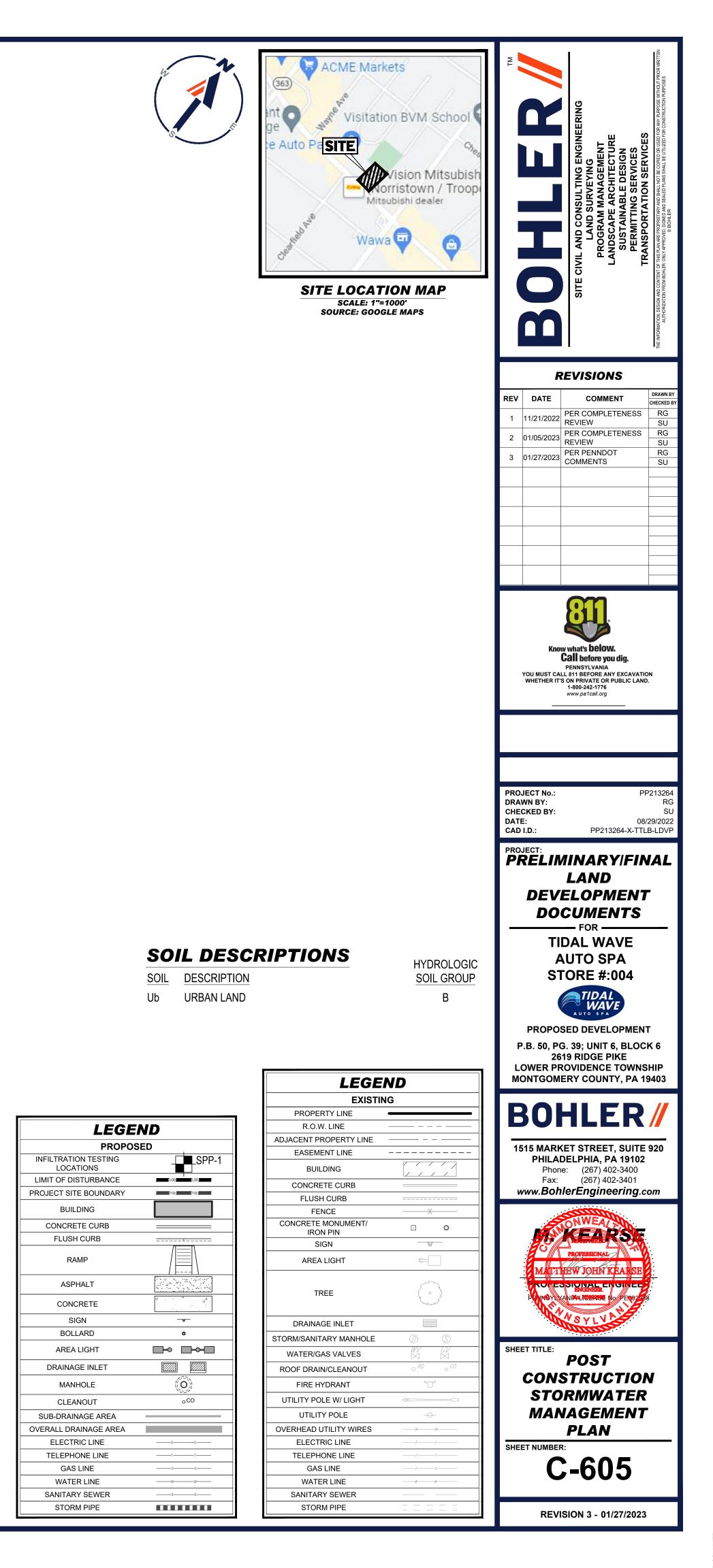
PRIOR TO THE REMOVAL OR CONVERSION OF SEDIMENT BASINS AND TRAPS. 2. BOHLER ENGINEERING SHALL BE NOTIFIED OF PRE-CONSTRUCTION MEETING DATE AND BMP CONSTRUCTION SCHEDULE. 3. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO LIMIT THE COMPACTION IN THE PROPOSED BMP BOTTOMS. 4. REFER TO THE BMP CONSTRUCTION DETAILS FOR THE CONSTRUCTION OF ALL PROPOSED STORMWATER MANAGEMENT BMPs. 5. REFER TO THE PCSWM PLAN AND DETAILS FOR SPECIFIC BMP CONSTRUCTION GUIDELINES. 6. AS-BUILT PLANS OF THE STORMWATER BMPs FOR EACH PROJECT PHASE SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL SURVEYOR.

7. A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMPs.

1. A SITE INSPECTION AND APPROVAL BY THE COUNTY CONSERVATION DISTRICT IS REQUIRED

THE PROJECT SITE BOUNDARY IS SHOWN FFSET FROM THE LIMIT OF DISTURBANCE FOR GRAPHICAL PURPOSES ONLY.

1"= 20'



OVERALL SITE CONSTRUCTION SEQUENCE

\$102.8(f)(7

A. 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. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

B. REFERENCES TO 'CONSERVATION DISTRICT' USED THROUGHOUT THIS SEQUENCE ARE MEANT TO REFER TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT

C. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO: THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF THE CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (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.

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

E. THE TERM 'PERMANENT STABILIZATION' USED THROUGHOUT THIS SEQUENCE IS MEANT TO DESCRIBE THE PROPER PLACING, GRADING CONSTRUCTING, REINFORCING, LINING, AND COVERING OF SOIL, ROCK OR EARTH TO ENSURE THEIR PERMANENT RESISTANCE TO EROSION, SLIDING OR OTHER MOVEMENT. FOR AN EARTH DISTURBANCE TO BE PERMANENTLY STABILIZED, THE DISTURBED AREA SHALL BE COVERED WITH ONE OF THE FOLLOWING: A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION; OR AN ACCEPTABLE BMP THAT PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION

F. FOR EACH OF THE 'CRITICAL STAGES' SPECIFIED BELOW, THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SAID BMP, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT

G. SEDIMENT CONTROL FACILITIES, SUCH AS BASINS AND TRAPS, MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES. REFER ALSO TO THE MONITORING, INSPECTION AND REPORTING REQUIREMENTS PROVIDED HEREIN FOR ADDITIONAL REQUIREMENTS DURING CONSTRUCTION

H. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (LE ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER) IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.

FOR EACH OF THE CRITICAL STAGES IDENTIFIED IN THE SEQUENCE BELOW, THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGABLE IN THE DESIGN AND CONSTRUCTION OF SAID BMP, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT. INSTALL CONSTRUCTION ENTRANCE AS DESIGNATED ON THE PLANS.

- 2. INSTALL ALL PERIMETER SILT SOCK WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS PERMITTED. INSTALL INLET PROTECTION ON EXISTING INLETS AS SHOWN ON THE E&S PLAN.
- 3. STRIP AND STOCKPILE TOPSOIL WITHIN AREAS TO BE DISTURBED ON PLAN. STOCKPILE SIDE SLOPES SHALL BE 2H:1V OR FLATTER -PLACE 12" FILTER SOCK AROUND BASE OF TOPSOIL STOCKPILE.
- 4. BEGIN BULK EARTHWORK ACTIVITY FOR THE SITE. PERFORM CUTS/FILLS REQUIRED TO ESTABLISH BUILDING PADS PER PHASE 2 E&S PLAN DRAWING

5. PERFORM REMAINING EARTHWORK AS REQUIRED TO ESTABLISH THE REMAINING BUILDING PAD AS SHOWN ON THIS PLAN. 6. CRITICAL STAGE #1: BEGIN INSTALLATION OF SUBSURFACE DETENTION BASIN WITH MANAGED RELEASE CONCEPT (BMP-1).

- a. EXCAVATE SUBSURFACE BASIN AREAS TO PROPOSED INVERT DEPTH.
- b. INSTALL GEOTEXTILE, PVC LINER AND STONE AS INDICATED ON THE PLANS AND DETAILS. IF SEDIMENT ENTERS THE STONE, THE CONTRACTOR WILL BE REQUIRED TO REMOVE THE STONE AND SEDIMENT AND REPLACE WITH CLEAN WASHED STONE. c. INSTALL OUTFALL PIPE AND ENDWALL TO THE OUTLET STRUCTURE WORKING UPSTREAM.
- d. INSTALL BASIN CHAMBERS AND INSTALLED INLETS THAT DISCHARGE TO THE UNDERGROUND BASIN WITH EXTERIOR GRAD
- PLYWOOD AND CINDERBLOCKS. UPON COMPLETION OF THE PIPE INSTALLATION DURING EACH WORKING DAY, PLYWOOD MUST BE INSTALLED OVER THE PIPE TO PREVENT SEDIMENT FROM ENTERING THE BASIN. e. UPON COMPLETION OF THIS STAGE OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES, DISTURBED AREAS SHALL
- BE IMMEDIATELY STABILIZED AS INDICATED IN THE PLANTING SPECIFICATIONS LOCATED ON THE PLANS. f. REFER TO THE PCSM NOTES AND DETAILS FOR THE SPECIFIC BMP INSTALLATION NOTES RELATED TO THE UGB.
- 5. AS AREAS ARE BROUGHT TO PROPOSED SUBGRADE ELEVATION, CONTINUE CONSTRUCTION OF REMAINING UTILITIES, INCLUDING BUT NOT LIMITED TO SANITARY, STORM, WATER AND FIRE HYDRANTS, ELECTRIC, TELECOMMUNICATIONS, AND GAS. PRIOR TO INSTALLATION OF ANY UPSTREAM STORMWATER SEWER STRUCTURES, CONTRACTOR MUST CONNECT THE EXISTING TIE-IN POINTS, AS INDICATED ON THE PLANS, TRENCH EXCAVATION SHALL BE LIMITED TO THE LENGTH OF PIPE THAT CAN BE INSTALLED IN ONE (1) DAY. IF INSPECTION INDICATES THAT SOIL SEDIMENT HAS ENTERED ANY OF THE BASINS AND/OR STORM SEWERS, CLEANOUT AND/OR FLUSH THE INSTALLED SYSTEMS OF SEDIMENT.
- 6. BEGIN VERTICAL CONSTRUCTION OF THE PROPOSED BUILDING
- . INSTALL PROPOSED CURBING, STONE BASE COURSE AND BINDER COURSE FOR PARKING FIELDS AND UTILIZE PROPOSED STAGING AREAS FOR STORAGE OF BUILDING MATERIALS, AS INDICATED ON THE PLANS.
- 8. INSTALL SITE LIGHTING FOUNDATIONS AND LIGHT STANDARDS.
- 9. INLET PROTECTION, FILTER SOCK, AND SILT SOCK SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE ADEQUATELY STABILIZED. 10 FINAL GRADE LANDSCAPING AREAS, PLANT TREES AND SHRUBS (RE-VEGETATE/REFOREST DISTURBED AREAS) AS SHOWN ON THE LANDSCAPE PLANS.
- 11.UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE MCCD. REMOVE EROSION AND SEDIMENT CONTROL MEASURES INCLUDING SUPER SILT FENCE. FILTER SOCK AND INLET PROTECTION. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE STABILIZED IMMEDIATELY.
- 12.PRIOR TO WEARING COURSE PAVING. ALL OTHER CONSTRUCTION MUST BE COMPLETED INCLUDING BUILDINGS. DRIVEWAYS. LANDSCAPING, GRADING, TRASH ENCLOSURES, CONCRETE WORK, AND BASIN WORK AS INDICATED ON THE PLANS. UPON COMPLETION INSTALL WEARING COURSE, SIGNAGE AND STRIPING
- 13. CLEAR SITE DEBRIS AND ALL UNWANTED MATERIALS. DISPOSAL SHALL BE IN A SAFE AND LAWFUL MANNER.
- 14. DEMOBILIZE
- 15. A NOTICE OF TERMINATION SHOULD BE SUBMITTED TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT UPON STABILIZATION AND FINAL COMPLETION OF THIS PROJECT.

INFILTRATION TESTING SUMMARY TABLE §102.8(f)(2)

| | EXISTING | INFIL | TRATION TES | TIN ^t G | | DESIGN |
|--------------------|--------------------------|---------------|-------------------|--------------------|---------------------|-----------------|
| TEST PIT NUMBER | GROUND ELEVATION (FT) | DEPTH (FT) | ELEVATION (FT) | RATE (IN/HR) | FACTOR OF SAFETY | RATE (IN/HR) |
| I-1 @ SPP-1 | 280.5 | 9.00 | 271.5 | 0.00 | 3.00 | 0.00 |
| I-2 @ SPP-2 | 281.5 | 9.00 | 272.5 | 0.00 | 3.00 | 0.00 |
| I-3 @ SPP-3 | 282.0 | 8.00 | 274.0 | 0.00 | 3.00 | 0.00 |

NOTES:

TESTING WAS PERFORMED BY WHITESTONE ASSOCIATE, INC. ON 07/20/2022. THE MINIMUM FACTOR OF SAFETY RECOMMENDED BY THE PA BMP MANUAL IS 3.0.

BMP NO. DESCRIPTION SCHEDULE INSPECTION TASK MAINTENANCE FAILURE I CLEAR SEDIMENT AND DEBRIS FROM ALL ON-SITE INLETS, EXCESSIVE STORM INLETS, MANHOLES, AND EVERY 3 MONTHS INSPECT INLETS, MANHOLES, AND MANHOLES, AND STORMWATER PIPING. DRAINAGE STORMWATER PIPING. STORMWATER PIPING THERE MA SYSTEM BMP 6.6.3 ACCUMULATED DEBRIS AND SEDIMENT IN INLETS OR IF ANY I BA AN UNDERGROUND DETENTION AFTER EACH INSPECT WATER DRAWDOWN TIME TO BE DRY EXTENDED BASIN IS A UNDERGROUND STORM >3" WITHIN 168 HOURS (7 DAYS) YARD DRAINS SHOULD BE REMOVED AND DISPOSED OF IN ALLOWABI ENGINEEF BASIN WITH FACILITY THAT STORES RUNOFF ACCORDANCE WITH APPLICABLE LOCAL, STATE AND 4 TIMES PER YEAR • INSPECT FOR ANY PONDING WATER WITH THE ADDITION OF MANAGED FEDERAL REGULATIONS. DEFICIENC 2 TIMES PER YEAR • INSPECT STRUCTURES RELEASE CONCEPT (MRC) THE INSPECT FOR SEDIMENT ACCUMULATION RUNOFF IS ALLOWED TO SLOWLY DISCHARGE OVER AN EXTENDED PERIOD OF TIME MAKE SURE NO ORGANICS OR DEBRIS HAVE
 ACCUMULATED DEBRIS AND SEDIMENT IN INLETS SHOULD
 STANDING WATER IN THE FILTER INDICATES IT IS NOT WORKING BMP 6.4.7 A CONSTRUCTED FILTER IS INSPECT FILTER NATURAL OR UNNATURAL BARRIER FOUR (4) TIMES A BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH PROPERLY AND WILL NEED TO BE REPLACED. REPLACE FILTER IF CONSTRUCTED CLOGGED THE FILTER SURFACE REMOVING THE ACCUMULATED DEBRIS HAS REDUCED DEPTH OF FILTER FII TFR THAT REDUCES POLLUTANT YFAR APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. LEVELS IN STORMWATER RUNOFF. MEDIA

RECEIVING SURFACE WATERS

CLASSIFICATION.

§102.8(f)(14)

§102.8(f)(5) 1. THE SUBJECT SITE DRAINS TO A TRIBUTARY OF STONY CREEK/SAW MILL RUN, WHICH HAS A TSF (TROUT STOCKING FISHES) & MF (MIGRATORY FISHES) CHAPTER 93

2. THE DEVELOPMENT IS IN NEITHER AN HQ NOR AN EV WATERSHED AND THEREFORE, NO BOUNDARIES ARE SHOWN.

RIPARIAN FOREST BUFFER MANAGEMENT PLAN

REGARDING EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS, NOTE THE FOLLOWING: • THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS LOCATED WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE FOR THIS PROJECT.

LONG-TERM OPERATION AND MAINTENANCE SCHEDULE §102.8(f)(10)

- 1. UNTIL THE SITE IS STABILIZED AND DURING THE CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPs AS SPECIFIED ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY AND IN ACCORDANCE WITH THESE PROCEDURES, PLANS, AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
- 2. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
- 3. SHOULD ON-SITE EROSION OCCUR FROM THE LANDSCAPED AREAS, THE SOURCE OF EROSION SHALL BE IMMEDIATELY STABILIZED AND THE INLETS AND STORMWATER PIPING SHALL BE CHECKED FOR ACCUMULATION AND CLEARED IF ACCUMULATION OF SEDIMENT EXISTS.
- 4. HEAVY CONSTRUCTION VEHICLES SHALL NOT BE PARKED ON OR DRIVEN OVER BMP FACILITIES AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY EQUIPMENT, INCLUDING MOWERS.
- 5. REMOVE ACCUMULATED SEDIMENT FROM THE FACILITIES AS REQUIRED. RESTORE ORIGINAL CROSS-SECTION IF NECESSARY. PROPERLY DISPOSE OF SEDIMENT AS SPECIFIED. FOR ABOVE-GROUND INFILTRATION FACILITIES, REMOVE AND REPLACE SAND/STONE LAYER AS NECESSARY IF FACILITY DEWATERING TIME EXCEEDS 72 HOURS.
- PJ LAND DEVELOPMENT, LLC IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT BMPs AS DESCRIBED HEREIN.

RECYCLING OR DISPOSAL OF MATERIALS §102.8(f)(11)

- THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE: -TRASH (CANS, BOTTLES, ETC.) -YARD WASTE (LEAVES, GRASS CLIPPINGS, ETC.) - ANTI-ICING MATERIALS
- -DEBRIS COLLECTED IN INLETS -SEDIMENT CAPTURED IN WATER QUALITY INLETS

1.) SOLID WASTE DISPOSAL - NO SOLID MATERIALS ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER, ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE. 2.) COMPOSTING - MATERIALS SUCH AS YARD WASTE THAT ARE BIO-DEGRADABLE CAN BE

COMPOSED AND USED ON SITE TO RESTORE SOIL NUTRIENTS FOR THE VEGETATION.

GEOLOGIC FORMATIONS OR SOIL CONDITIONS §102.8(f)(12)

THERE ARE NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT COULD CAUSE CONTAMINANT POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.

CREEK - RECEIVING STREAM

USGS MAP SCALE: 1" = 1.000' SOURCE: USGS.GOV

| TYPES, DEPTH, SLO |
|-------------------|
| FORMATIONS |
| §102.8(f)(2) |
| |

SOIL DESCRIPTIONS SOIL DESCRIPTION - URBAN LAND, 0 TO 8 PERCENT SLOPES

RESOLUTIONS: IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER THE SOIL TYPES POORLY, SUITED AS TOPSOIL. 2. ACIDIC SOIL TYPES EXHIBITING PH REACTION VALUES LOWER THAN ABOUT 5.5, LIMIT VEGETATIVE STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC PH REACTION.

RESOLUTIONS: APPLYING LIME CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTING VEGETATIVE SPECIES TOLERANT TO ACIDIC SOIL CONDITIONS; AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NON-CROPLAND PUBLISHED BY PENN STATE.

3. LOW FERTILITY SOIL TYPES LACKING IN SUFFICIENT AMOUNTS OF ESSENTIAL PLANT NUTRIENTS SUCH AS: NITROGEN, PHOSPHOROUS, POTASSIUM, SULFUR, MAGNESIUM, CALCIUM, IRON, MANGANESE, BORON, CHLORINE, ZINC, COPPER AND MOLYBDENUM, LIMIT VEGETATION STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC SOIL FERTILITY.

RESOLUTIONS: INCORPORATING SOIL NUTRIENTS CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTIVE VEGETATIVE SPECIES TOLERANT TO LOW FERTILITY SOIL CONDITIONS. AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NON-CROPLAND PUBLISHED BY PENN STATE. 4. ERODIBLE SOIL TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10, LIMIT VEGETATIVE STABILIZATION OF

CHANNELS

CONTROL MANUAL PUBLISHED BY PADEP.

RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO WET CONDITIONS. TILING VEGETATIVE AREAS, AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NON-CROPLAND PUBLISHED BY THE PENN STATE.

ON NON-CROPLAND PUBLISHED BY PENN STATE.

7. SOIL TYPES SUSCEPTIBLE TO SINKHOLE AND SOLUTION CHANNEL/CHAMBER FORMATION POSE LIMITATIONS ON LOCATING RESERVOIR AREAS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS, AND STORMWATER DETENTION BASINS. RESOLUTIONS: LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LINING RESERVOIR AREAS WITH IMPERMEABLE LININGS, LIMITING STANDING WATER DEPTHS. LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

8. SOIL TYPES THAT EXHIBIT INSTABILITY IN POND EMBANKMENTS OR SUSCEPTIBILITY TO PIPING AND SEEPING POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

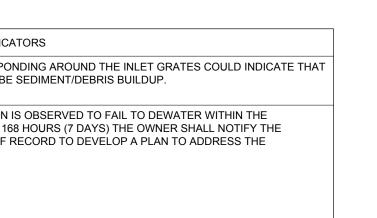
RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LIMITING EMBANKMENT SLOPE STEEPNESS AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. 9. SOIL THAT ARE DIFFICULT TO COMPACT. UNSUITABLE FOR WINTER GRADING, OR SUSCEPTIBLE TO FROST ACTION POSE LIMITATIONS ON PLANNING

EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, NOT CONSTRUCTING EMBANKMENTS DURING PERIODS PRONE TO FROST AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS

RESOLUTIONS: IN THE EVENT THAT PRESENCE OF A SINKHOLE IS DETECTED DURING THE COURSE OF WORK, CORRECTIVE MEASURES SHALL BE PERFORMED UNDER THE OBSERVATION AND GUIDANCE OF THE OWNER'S GEOTECHNICAL CONSULTANT. EXCAVATE THE LOOSE, WET SOILS SURROUNDING THE SINKHOLE TO EXPOSE THE SINKHOLE "THROAT" (THE OPENING IN THE ROCK) AND THE ADJACENT STABLE SOILS/ROCK WHERE POSSIBLE, THE EXCAVATION SHALL EXTEND A MINIMUM OF TWO FEET (2') BEYOND THE STABLE SOILS OR TO THE ROCK SURFACE, WHICHEVER IS ENCOUNTERED FIRST. FILL THE EXPOSED SINKHOLE "THROAT" WITH LEAN CONCRETE TO BLOCK THE MIGRATION OF THE UPPER LAYERS OF SOIL THROUGH THE ROCK OPENING. AFTER CONCRETE HAS CURED OVERNIGHT BACKFILL THE REMAINDER OF THE EXCAVATION WITH CLAYEY SOILS TO PROVIDE A LOW PERMEABILITY BARRIER. THE CLAYEY SOILS SHALL BE PLACED IN 8" LIFTS AND EACH LIFT COMPACTED BY REPEATED PASSES OF THE COMPACTION EQUIPMENT UNTIL STABLE. CARE SHALL BE TAKEN TO ASSURE THAT THE SOIL AT THE EDGES OF THE EXCAVATION ARE WELL COMPACTED.

| INDICATORS |
|---|
| VE PONDING AROUND THE INLET GRATES COULD INDICATE THAT IAY BE SEDIMENT/DEBRIS BUILDUP. |
| BASIN IS OBSERVED TO FAIL TO DEWATER WITHIN THE BLE 168 HOURS (7 DAYS) THE OWNER SHALL NOTIFY THE ER OF RECORD TO DEVELOP A PLAN TO ADDRESS THE NCY. |





DISCHARGE PATH



SCALE: NTS SOURCE: WEBSOILSURVEY.GOV

PPE, LOCATIONS AND LIMITATIONS OF THE SOILS AND GEOLOGIC

SOIL GROUP

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

CONTRACTOR SHALL CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE SOIL LIMITATIONS AND RESOLUTIONS SPECIFIC TO THIS PROJECT.

1. SOIL TYPES POORLY SUITED AS SOURCES OF TOPSOIL RESTRICT OR PLACE CONDITIONS ON PLANNING VEGETATIVE STABILIZATION. ACIDIC, LOW FERTILITY, EXCESSIVE DRYNESS AND EXCESSIVE WETNESS LIMIT PLANT GROWTH.

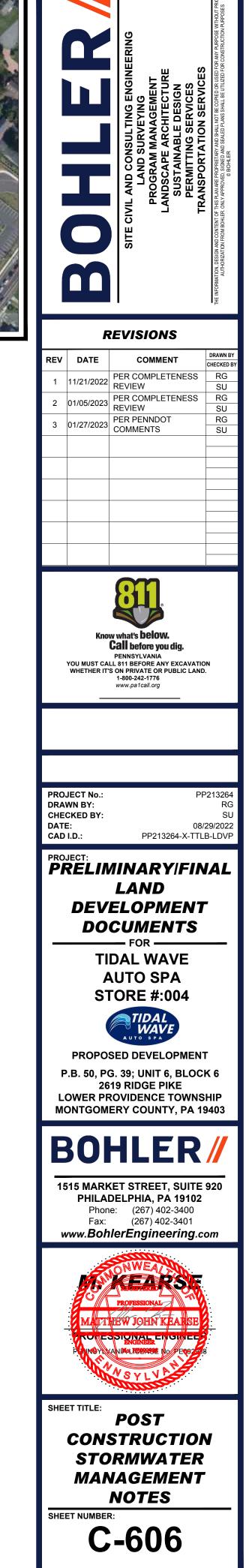
RESOLUTIONS: TEMPORARY CHANNEL LINING, PROVIDING PERMANENT CHANNEL LINING, DECREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTING VEGETATIVE WITH GREATER RETARDANCE, SELECTING PERMANENT LININGS OTHER THAN GRASSES, AND IMPLEMENTING COMBINATION OF THESE AND/OR METHODS. VEGETATIVE RETARDANCE INFORMATION IS PROVIDED IN TABLES 6 AND 7 OF THE EROSION AND SEDIMENT POLLUTION

5. WET SOIL TYPES HAVE EXCESSIVE ROOT ZONE AND SOIL MOISTURES. SOME SOIL SURVEYS INDICATE WETNESS, HIGH WATER TABLE AND FLOODING. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE

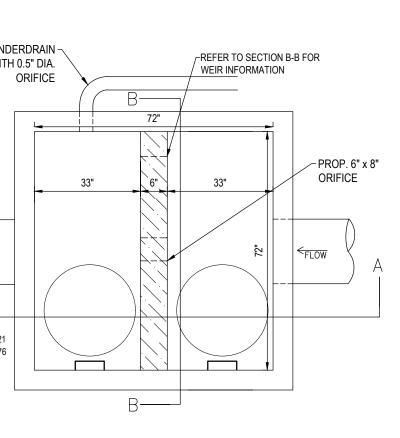
6. DRY SOIL TYPES LACK SUFFICIENT ROOT ZONE SOIL MOISTURES. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.

RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO DRY CONDITIONS, IRRIGATING VEGETATED AREAS AND IMPLEMENTING COMBINATION OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS

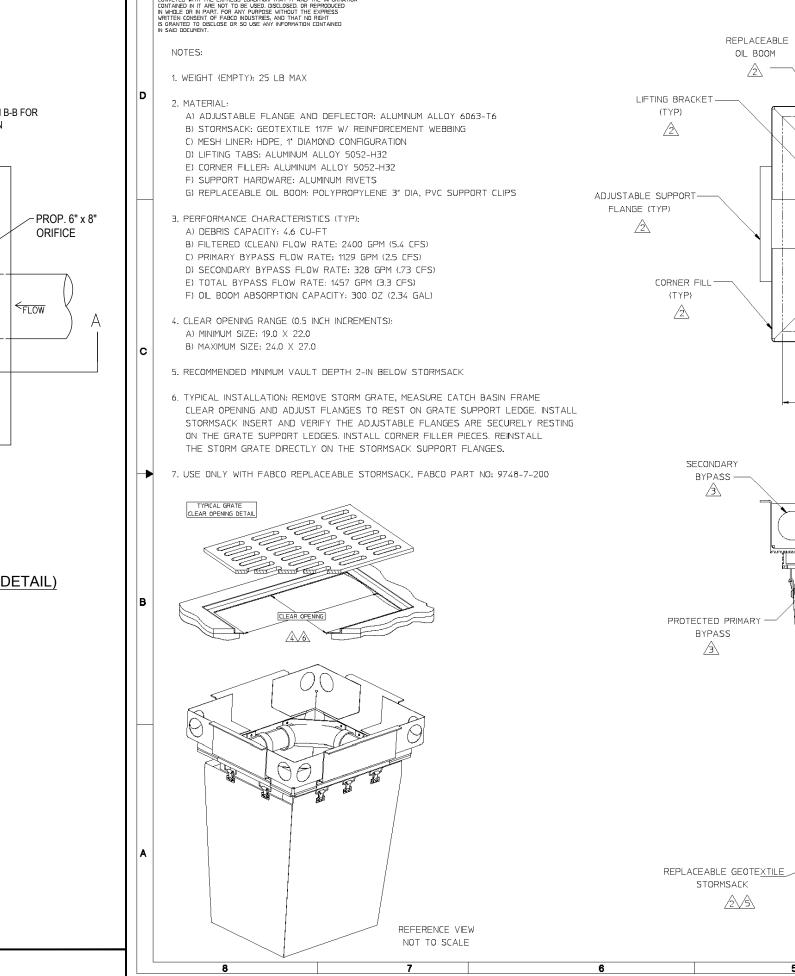
10. SUSCEPTIBILITY FOR THE DEVELOPMENT OF SINKHOLE WITHIN IDENTIFIED SOILS.



| (NON-VENTED AND BICYCLE GRATE COVERS) | 4" UNDERDRAIN ∽ WITH 0.5" DIA. ORIFICE |
|--|---|
| THISHED GRADE = 282.5 FINISHED GRADE = 282.5 32 42 44 44 44 44 44 44 44 44 4 | 48" 15" RCP 2YR WATER SURFACE ELEV. 277.21 2HR WATER SURFACE ELEV. 276.76 SECTION B-B NNDOT TYPE 6 INLET BOX DETAIL) |
| SECTIONS AND PRECAST COVER ADJUST | RE TO BE WATERTIGHT. C, PROVIDE CONSTRUCTION JOINTS OR KEYS FOR RISER /IENT SLABS. ING SHALL BE REQUIRED IN THE COVER ADJUSTMENT SLAB. |
| OS-1 | RUCTURE (OSO1) DETAILS NOT TO SCALE |
| | |
| PROJECT INFORMATION ENGINEERED PRODUCT MANAGER ADS SALES REP PROJECT NO. | anced Drainage Systems, Inc. |



OP VIEW (PENNDOT TYPE 6 INLET BOX DETAIL)



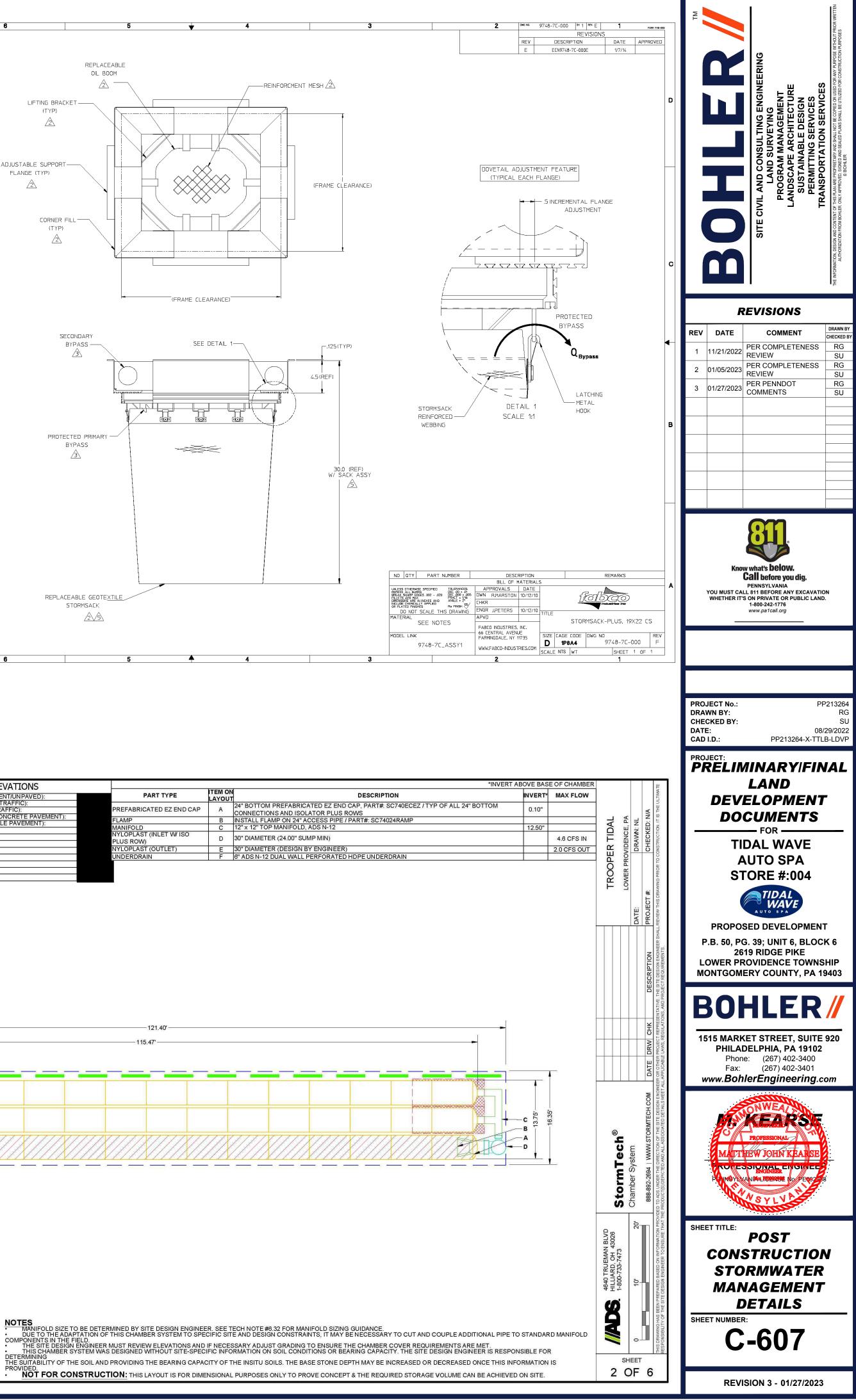
| | 1 | PROPOSED LAYOUT | CONCEPTUAL EL | EVATIONS | |
|---|-------|--------------------------------------|--|--|---|
| | 6 | STORMTECH SC-740 END CAPS | MAXIMUM ALLOWABLE GRADE (TOP OF PAVEN MINIMUM ALLOWABLE GRADE (UNPAVED WITH | I TRAFFIC): | |
| | | STONE ABOVE (in) STONE BELOW (in) | MINIMUM ALLOWABLE GRADE (UNPAVED NO T MINIMUM ALLOWABLE GRADE (TOP OF RIGID C | RAFFIC): CONCRETE PAVEMENT): | PREFABRICATED EZ END CAP |
| | 40 \$ | STONE VOID | MINIMUM ALLOWABLE GRADE (BASE OF FLEXII | BLE PAVEMENT): | FLAMP MANIFOLD |
| SiteAssist | 7 | | TOP OF STONE: TOP OF SC-740 CHAMBER: | | NYLOPLAST (INLET W/ ISO |
| FOR STORMTECH | 4102 | COVER STONE INCLUDED) | 12" x 12" TOP MANIFOLD INVERT: | | PLUS ROW) |
| | | | 12" BOTTOM CONNECTION INVERT: 24" ISOLATOR ROW PLUS INVERT: | | NYLOPLAST (OUTLET) UNDERDRAIN |
| VISIT OUR APP | | SYSTEM PERIMETER (ft) | BOTTOM OF SC-740 CHAMBER: | | |
| | | | UNDERDRAIN INVERT: BOTTOM OF STONE: | | |
| | | | BOTTOM OF STONE. | | _ |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| ALLATION OF THE SC-740 SYSTEM | | | | | |
| | | | | | |
| IE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A | | | | | |
| | | | | | |
| ICE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE". | | | | | |
| AVATOR SITUATED OVER THE CHAMBERS. | | | | | |
| | | | | | |
| FOUNDATION STONE OR SUBGRADE. | | | | | |
| OM HOE OR EXCAVATOR. | | - | | | 121.40' |
| OR TO PLACING CHAMBERS. | | | | | |
| Sicho Peronico on minibelico. | | | | | 115.47 |
| TO PLACING STONE. | | | | | |
| ROWS. | | | | | |
| | | | | | |
| CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm). | | | | | |
| BER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN | | E | | | |
| | | F I | | | |
| URING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE | | | | | |
| RUNOFF. | | | | | |
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| | | | | | <u> </u> |
| NCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE". | | | | | |
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| IS LIMITED: | | | | | |
| S ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE | | | | | |
| N GUIDE". ND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE". | | | | | |
| | | | | | |
| AMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING. | | | | | |
| CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN | | | | | |
| UMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH | | | | | |
| | | | | | |
| LLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT. | | | | | |
| | | | | | |
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| | | | | | |
| | | SOLATOR ROW PLUS | | | |
| | | (SEE DETAIL) | | | |
| | KX XX | | | NOTES | |
| | | | US125 WOVEN GEOTEXTILE OVER BEDDING IBER FEET FOR SCOUR PROTECTION AT ALL | MANIFOLD SIZE TO BE DETER DUE TO THE ADAPTATION OF COMPONENTS IN THE FIELD | RMINED BY SITE DESIGN ENGINEER THIS CHAMBER SYSTEM TO SPEC |
| | | × | | ETRADUMENTS IN THE FIELD | |

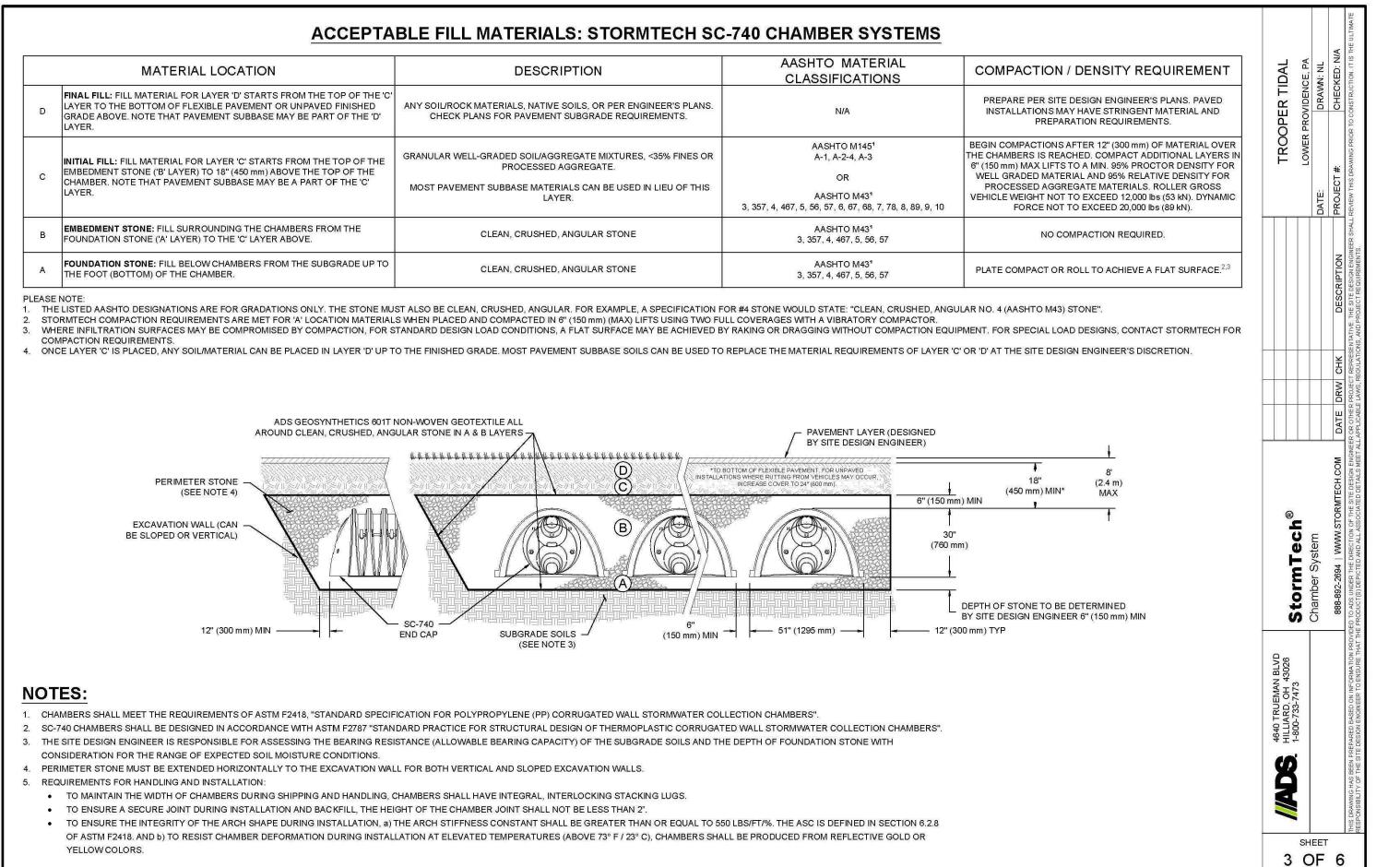
PROPOSED LAYOUT

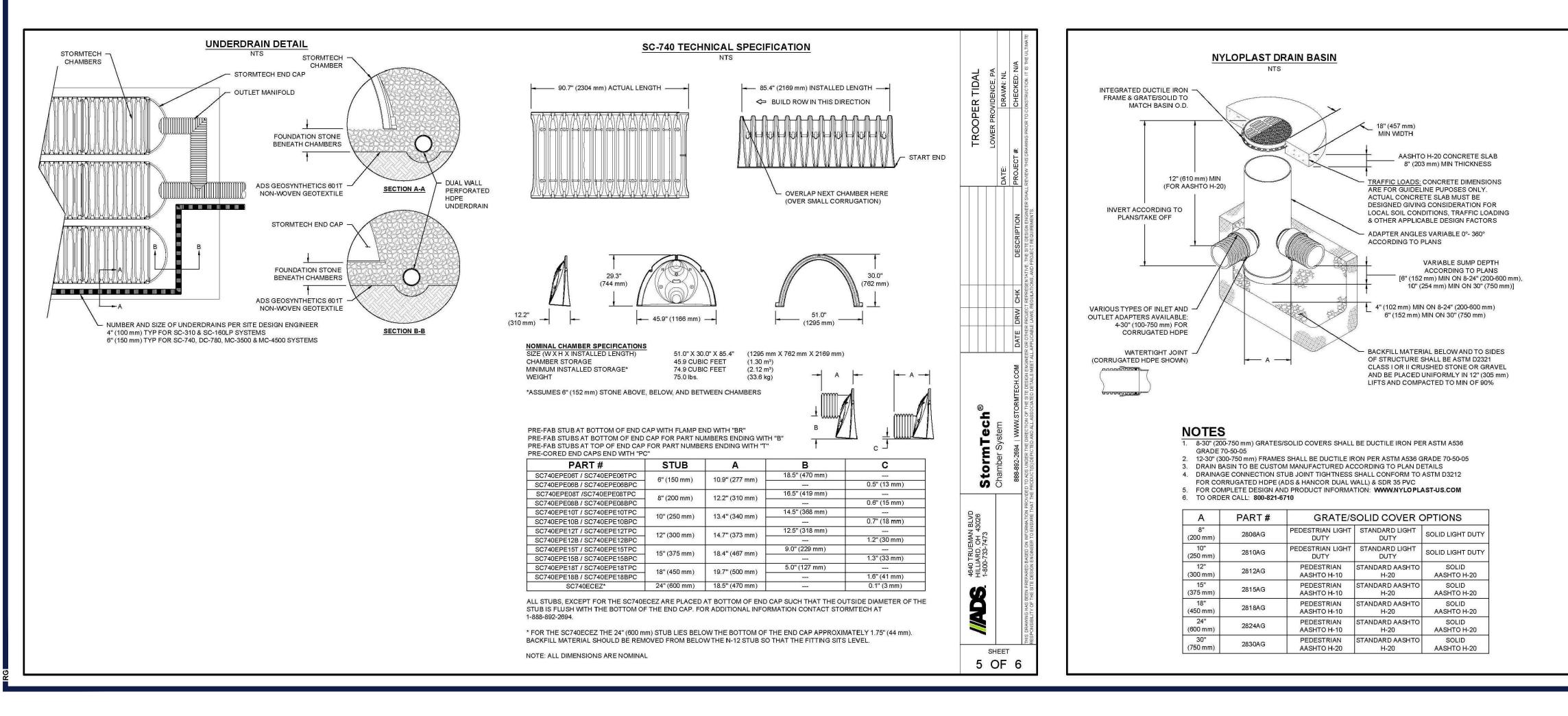
CONCEPTUAL ELEVATIONS

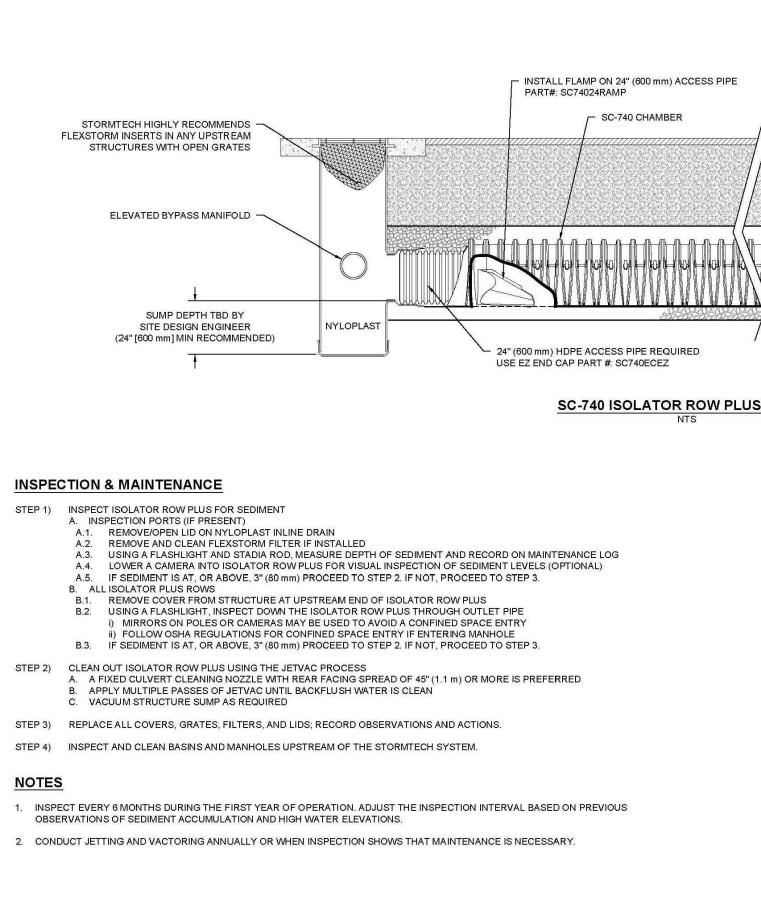
STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

— — BED LIMITS

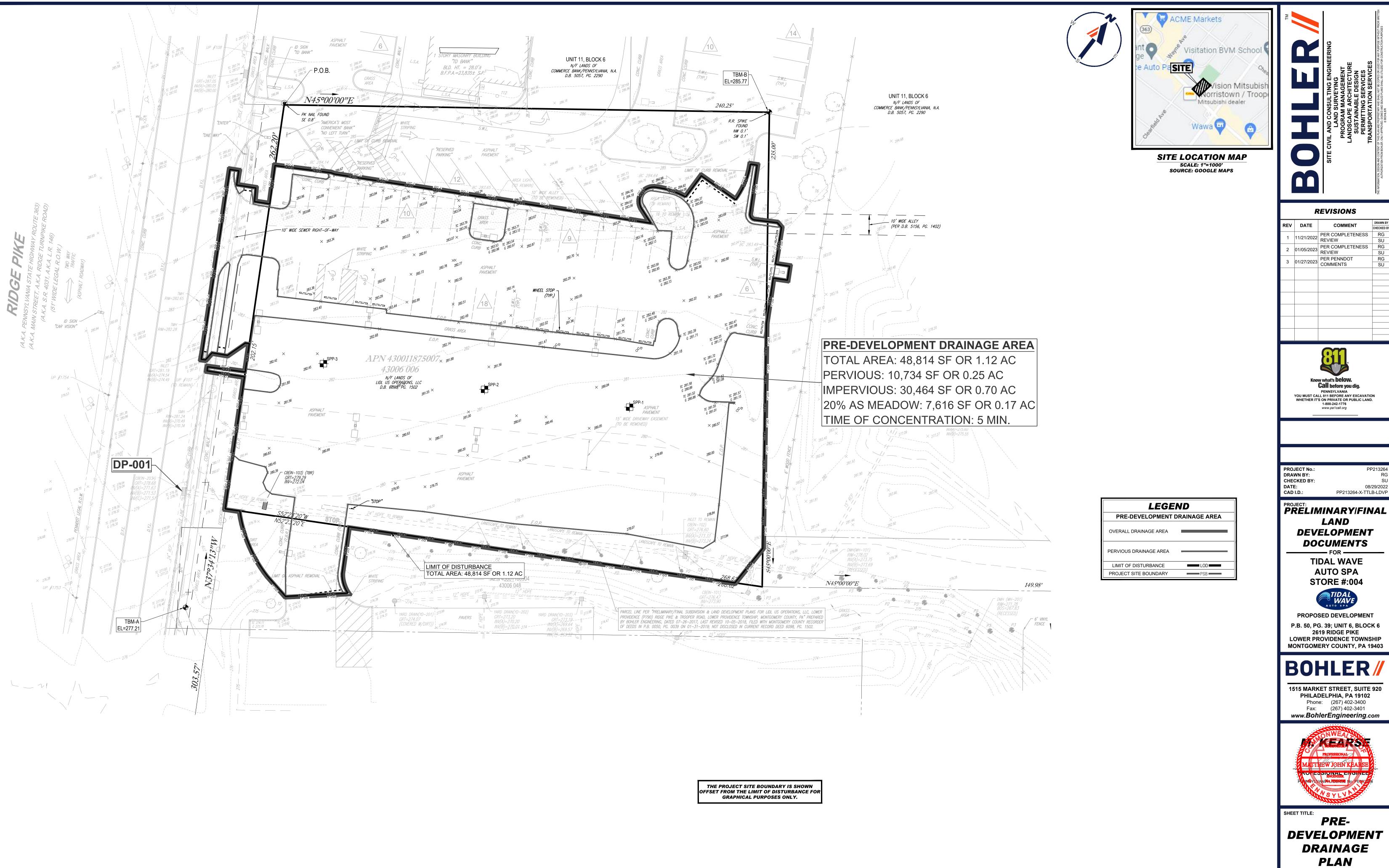








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| | TROOPER TIDAL DATE: LOWER PROVIDENCE, PA DATE: DRAWN: NL N PROJECT #: ON PROJECT #: NIGNEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE ENTRY | PROJECT NO::PP213264DRAWN BY:RGDATE:08/29/202CAD I.D:PP213264-X-TTLB-LDVPPROJECT:PP213264-X-TTLB-LDVPPROJECT:PROJECT:PARELIMINARAYIFINAL LAND DOCUMENTSFORNIDAL WAVE AUTO SPA STORE #:004PORDATA WAVE AUTO SPA STORE #:004POROSED DEVELOPMENTPROPOSED DEVELOPMENTP.B. 50, PG. 39; UNIT 6, BLOCK 6 2619 RIDGE PIKE |
| | Nyloplast® Description 770-932-2443 WW/NYLOPLAST-US.COM DATE DRW CHK DESCRIPTION The products) Depicted and ALL ASSOCIATED DETALS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENT DESCRIPTION | |
| | 9 9 40 9 1-20-733-7473 Tris DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVINED TO TRIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO RESPONSIBILITY OF THE SITE DESISIN ENGINEER TO ENSURE THAT THE PROD | SHEET TITLE: POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS SHEET NUMBER: C-608 |

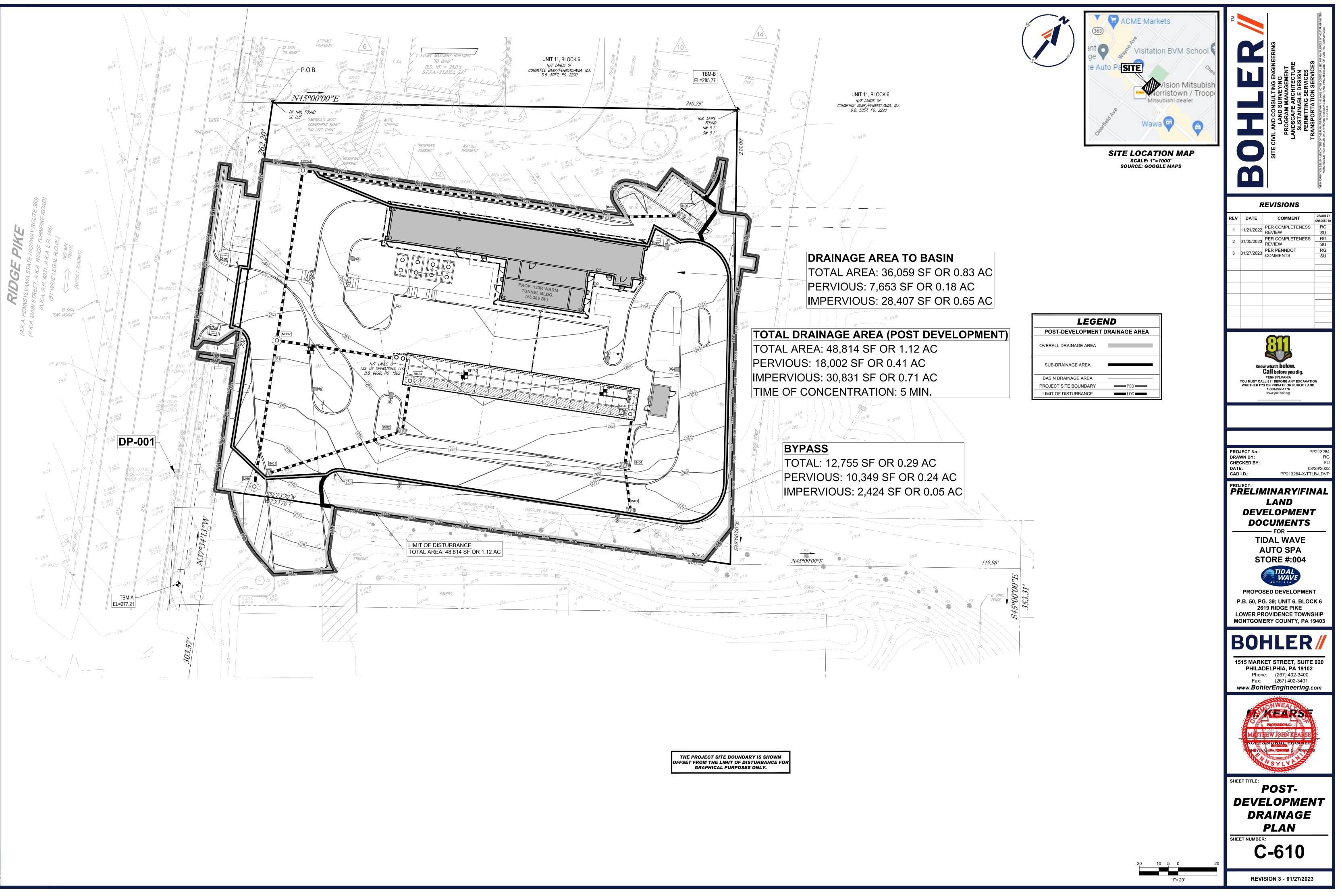


REVISION 3 - 01/27/2023

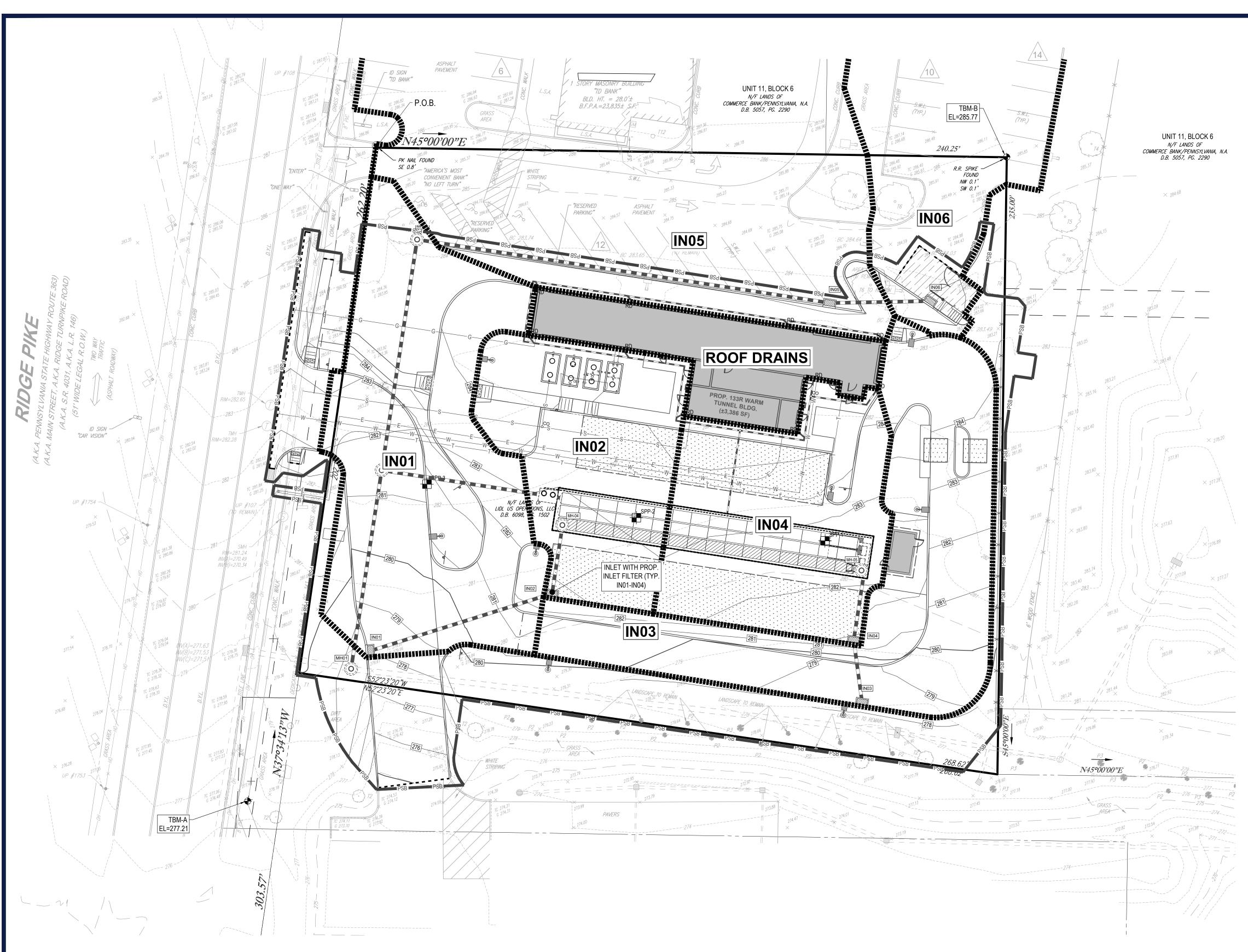
C-609

SHEET NUMBER:

1"= 20'



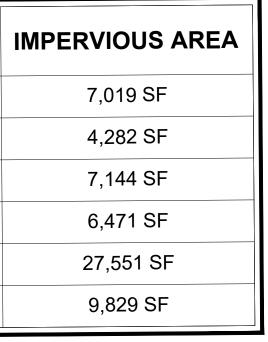




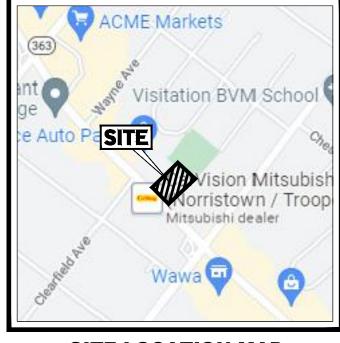
INLET DRAINAGE AREAS

| INLET | TOTAL AREA | PERVIOUS AREA |
|----------|---------------|------------------|
| INLET 01 | 10,801 SF | 3,782 SF |
| INLET 02 | 6,150 SF | 1,868 SF |
| INLET 03 | 9,065 SF | 1,921 SF |
| INLET 04 | 6,866 SF | 395 SF |
| INLET 05 | 32,563 SF* | 5,012 SF |
| INLET 06 | 12,536 SF* | 2,707 SF |

*AREA INCLUDES OFF-SITE DRAINAGE FROM NEIGHBORING PROPERTY







SITE LOCATION MAP SCALE: 1"=1000' SOURCE: GOOGLE MAPS



SHEET NUMBER:

1"= 20'

C-611

REVISION 3 - 01/27/2023

LEGEND INLET DRAINAGE AREA

DRAINAGE AREA TO INLET

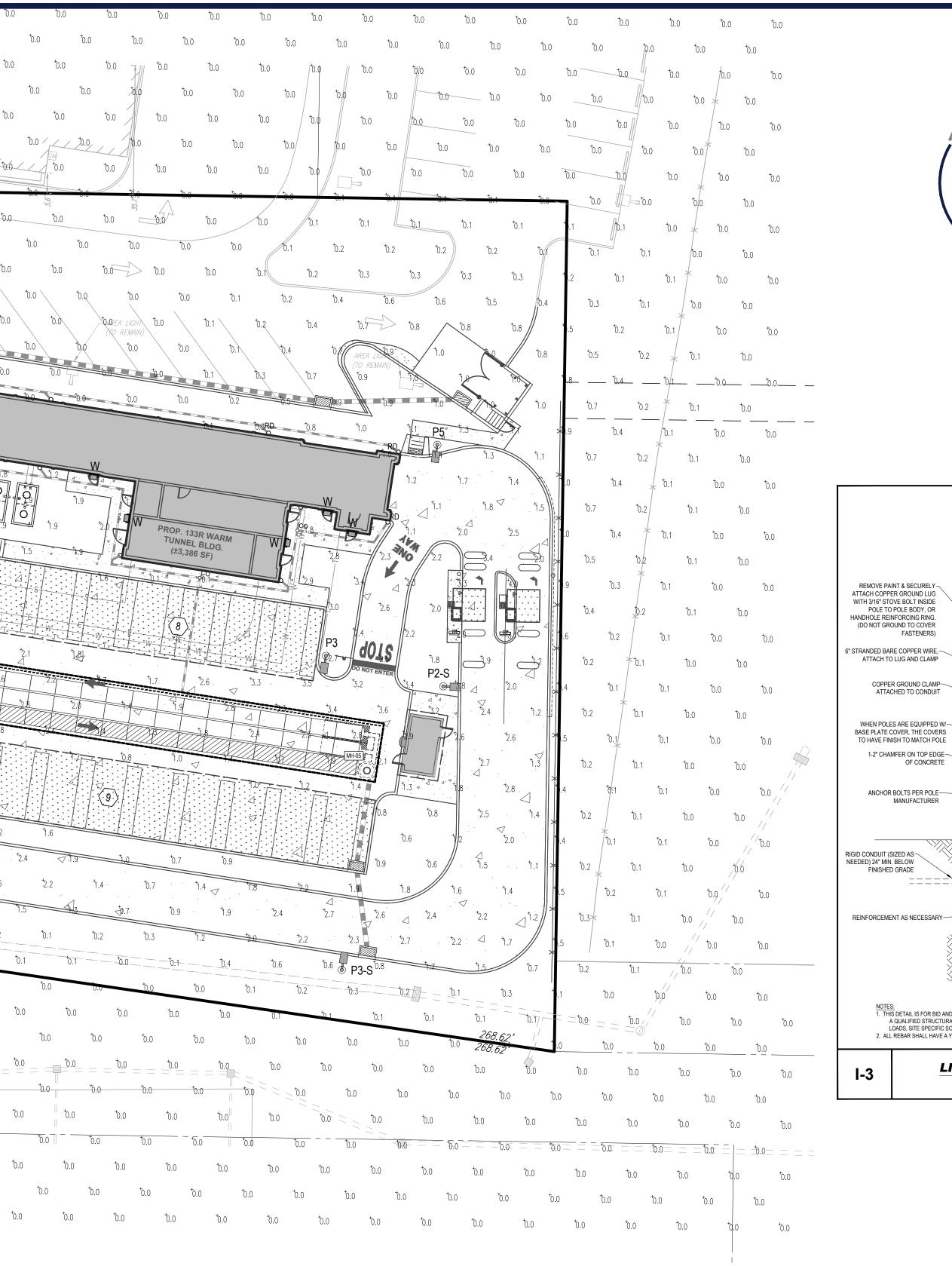
| | | | | | | | | | | | | | | 0.0 | | 0,0 | 0.0 | | 0.0 | | 0.0 | | 0.0 | 0.0 |) | 0.0 | ⁺0.0 |
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| | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | | ⁺0.0 | +0 | .0 | ⁺ 0.0 | | [†] 0.0 | | [†] 0.0 | , in | Ō.O | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | | 0.0 | [†] 0.0 | l , | ⁺o.p | ⁺ 0.0 |
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| | | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | ⁺ 0. | .0 | +0.0 | <u></u> | ⁺ 0.0 | | ⁺ 0.0 | | ⁺0.0 | to.(|) | ^†0.0_ | P. | O.B. ⁺0.0 | | 0.0 | +0. | .0 | ⁺ 0.0 | | ±0.0 |
| | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | - | 0.0 | ⁺ 0. | .¢ | ⁺0.0 | | ⁺ 0.0 | | ⁺ 0.0 | + | 0.0 | • | | ⁺ 0.0 | | ⁺ 0.0 | |).0 | [†] 0.0 | L | t0.0 | |
| ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | | ⁺0.0 | +0. | 0 / | <\$ [™] 0.0 | | ⁺0.0 | | ⁺ 0.0 | | tà b | | | | | +0.0 | | +0.0 | +0 | | tob | | to 0 |
| | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | 4 | Ō.O | wat Bi | Q // | ⁺ 0.0 | | ⁺ 0.0 | | [†] 0.0 / | | 0.0 4 | 0.0 | | ⁺ 0.1 | | ⁺ 0.1 | | | [†] 0.0 | | [‡] 0.0 | |
| ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | +0.0 | 0 | ³⁴ 0.0 | | ⁺ 0.0 | | †0.0 | | | T 0.0 | | °0.1 | | ⁺ 0.1 | | ⁺ 0.1 | T ₀ | | | | 0.1 |
| | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | + | 0.0 | +0.0 | o / / | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 / / | to | Ģ | ⁺ 0.1 | | to.7 | | ⁺ 0.2 | k | \sim | [†] 0.1 | 0.15 | ⁺ 0.1 | ⁺ 0.0 |
| ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | | 0 .0 | ŧ0.(| 2 | ð 10.0 | | t 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | †0.1 | | ⁺ 0.2 | | [†] 0.3 | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | ⁺ 0.2 | | 0.0 0.2 |
| | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | + |).0 | *0.0 | | ⁺ 0.0 | | [†] 0.0 | 4 | [†] 0.0 | | .1 | ⁺ 0.2 | | †űÔ | | ±15 | 5,5 to | 5 | | 0.2 | [†] 0.3 | 5.2 to.0 |
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| | ⁺ 0.0 | | ⁺0.0 | | ⁺ 0.0 | +(| 0.0 | | | ⁺ 0.0 | | ⁺0.0 | + | | • · · · / to. | .1 | ⁺ 0.3 | | t 0/7 | 0.0 | ⁺ 0.9 | 0.0 | 0 | , | | +0.0 | to 0 |
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|) | ⁺ 0.0 | PIKE / | ⁺0.0 | | ⁺ 0.0 | +C | .0 | | | ⁺ 0.0 | | +0.0 | ة _ا الأ س ر | | | | ⁺ 0.5 | 0.0 | to 9 | 0.5 | | 1.U +, , | | | | | |
| ⁺ 0.0 | | t +0.9 | . 146, | [†] 0.0 | + |).0 | +0.0 | | ⁺ 0.0 | | ⁺ 0.0 | / . | to.1 / // | 3 | | G to A | | G ⁺0.8 | 0.5 | - <u>1.6</u> - | /1.0 : 14 | . |) | 1.0 | | | |
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| 8 | BISN | V STA 4.K.A. | <i>12)</i> †0.0 | | | • • 0. | 9 | ⁺ 0.0 | | ⁺ 0.0 | | | | -w | 4 | · · · · · · · · · · · · · · · · · · · | ·: | · | t. | 13_S- | + | .1 | *1.1 | -S | | | <u>a </u> 1:]: : : : : |
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| | 1.K.A | | ⁺ 0.0 | | ⁺ 0.0 | +0. | 0.0 | ⁺ 0.0 | 0.0 | ⁺ 0.0 | | 0.1 | | | 0.5*••. | 1.5 | ··· ·· · · · · · · · · · · · · · · · · | 1·/2.5 | ··· · · · · · · · · · · · · · · · · · | 2.0 | | .6W | 1.8 | | <u>₩.8</u> -8 | | |
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| | ⁺ 0.0 | | ⁺ 0.0 | | .0 D.0 📿 | i + | | + <u></u> | 10.0 | |).0 | | PI | 0 | .4 | | | • 3.1 | | - [*] 2 P3 | *2 | .9 | 1 ⁺ 3.2 | √. | ⁺ 3.0 | | |
| ⁺ 0.0 | 0.0 | ⁺ 0.0 | 0.0 | | (J=0 | 'p.0 ♀_ | | [†] 0.0 | // _ | [†] 0.0 | 1 | .0 | / [†] 0. | 1 | <u></u> | _/ | 2.1 | | ⁺2.9 ∙. | | 2.1 | *2,6 | - | ⁺ 2.1 | - | * <u>*</u> * | ⁺ 2.8 |
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| | ⁺ 0.0 | [†] 0.0 | to o | ⁺ 0.0 | 0.1 | | ⁺ 0.0 | | ⁺ 0.0 | Ť0 | .0 | to define | 1 | , PC. J | 3 | ¹. 4 `. | | *2.7 | • • • | [†] 2.7 [†] | 5 [†] 1. | 5 | 15 | | 1.6 | | |
| | | | ⁺ 0.0 | | 0.0 | | | ⁺ 0.0 | | [†] 0.0 | fo. | 0 | | B. 539. | ⁺ 0.6 | X | .*1.7· | · · · | - ⁺ 3.1 | | 13 0 | +2.2 | | 2.0 | | +2.2 | ⁺ 2.2 |
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| 0.0 | | 0.0 | | 0.0 | <u> </u> <u> </u> <u>0</u> .0 | j | [†] 0.0 | | [†] 0.0 | 1 | 0 | ⁺ 6. | 0 | to. | 1 | (\mathbf{O}) | | 1.0 | | [†] 0.7 ─· | [†] 0 | 3 | ⁺0.3 | | ⁺0.5 ₫ | P3-\$).7 | ** 1.! |
| ⁺ 0.0 | ō.o - | | [†] 0.0 | | .0 | 0.0 | // | [†] 0.0 | // | [†] 0.0 | | | DECONTE | 1 | ⁺ 0.2 | | N92°2. | 2 <u>3'20"</u> 3'20"E | | | .2 | ⁺ 0.1 | | ⁺ 0.2 | | 0.3 | ⁺ 0.2 |
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| |).0 | |).0 | | 0 | ⁺ 0.0 | | [†] 0.0 | + | ō.0 | † ∮ .0 |) | / ⁺ 0.0 | | ⁺ 0.0 | | ⁺0.0 | +(| Ò.O | ⁺ 0. | 0 | [†] 0.0 | 7 | 0.0 ⁺ | + |).0 | ±0.0 |
| ⁺ 0.0 | |).0 | | ō.d / | *0.0 | | ⁺0.0 | | ⁺ 0.0 | '±+0.0 | X | ⁺0.0 | | ⁺ 0.0 | | ⁺ 0.0 | + | Ō.0 | + | D.O | [†] 0.0 | | ⁺ 0.0 | - | ⁺0.0 | ⁺ 0.0 | ⁺ 0.0 |
| | 0.0 | |).0 | / / †0.0 | | ⁺ 0.0 | | ⁺ 0.0 | , (| p. 0 | \/ [‡] 0.0 | · | ⁺ 0.0 | | ⁺ 0.ρ | | ⁺ 0.0 | +(|).0 | +0. | 0 | +0.0 | | ⁺ 0.0 | + |).0 | ⁺ 0.0 |
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| ⁺0.0 | +0 | 0.0 | † |).0 | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | | ⁺ 0.0 | ť |).0 | +C |).0 | ⁺ 0.0 | | ⁺ 0.0 | + (| D.0 | ⁺ 0.0 | |
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LUMINAIRE SCHEDULE

| LABEL | QTY | MOUNTING HEIGHT | ARRANGEMENT | LUM. LUMENS | LLF | DESCRIPTION |
|-------|-----|-----------------|-------------|-------------|-------|---|
| P2-S | 1 | 20'-0" AFG | SINGLE | 5502 | 0.900 | CURRENT LIGHTING, RATIO SERIES LED AREA/SITE LIGHTER, TYPE 2 WITH BACKLIGHT SHIELD, ZERO UP-LIGHT (RAR1-160L-70-5K7-2-x-ASQ-BLT-BC) |
| P3 | 3 | 20'-0" AFG | SINGLE | 9559 | 0.900 | CURRENT LIGHTING, RATIO SERIES LED AREA/SITE LIGHTER, TYPE 3, ZERO UP-LIGHT (RAR1-160L-70-5K7-3-x-ASQ-BLT) |
| P3-S | 2 | 20'-0" AFG | SINGLE | 6598 | 0.900 | CURRENT LIGHTING, RATIO SERIES LED AREA/SITE LIGHTER, TYPE 3 WITH BACKLIGHT SHIELD, ZERO UP-LIGHT (RAR1-160L-70-5K7-3-x-ASQ-BLT-BC) |
| P5 | 2 | 20'-0" AFG | SINGLE | 9610 | 0.900 | CURRENT LIGHTING, RATIO SERIES LED AREA/SITE LIGHTER, TYPE 5QW, ZERO UP-LIGHT (RAR1-160L-70-5K7-5QW-x-x-ASQ-BLT) |
| W4 | 5 | 15'-0" AFF | SINGLE | 3679 | 0.900 | CURRENT LIGHTING, RATIO SERIES LED WALLPACK, TYPE 4W, ZERO UP-LIGHT (RWL1-48L-25-5K7-4W-x-BLT-PC) |

CALCULATION SUMMARY

| LABEL | CALCTYPE | Units | AVG | MAX | Min | AVG/MIN | MAX/MIN |
|------------|-------------|-------|------|-----|-----|---------|---------|
| ALL POINTS | ILLUMINANCE | Fc | 0.40 | 4.0 | 0.0 | N.A. | N.A. |
| DRIVE THRU | ILLUMINANCE | Fc | 1.88 | 4.0 | 0.5 | 3.76 | 8.00 |
| PARKING | ILLUMINANCE | Fc | 2.22 | 3.6 | 0.8 | 2.78 | 4.50 |



POLE

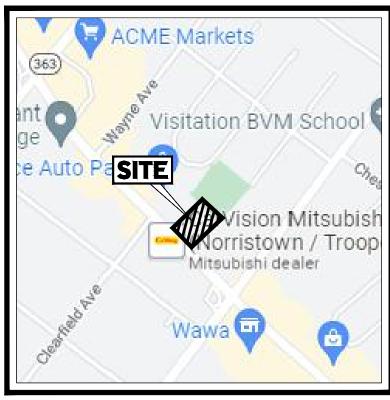
CURRENT LIGHTING, STRAIGHT SQUARE STEEL POLE, 17'-6" LENGTH (SSS-B-17.5-40-A-1-B3-BLT)

CURRENT LIGHTING, STRAIGHT SQUARE STEEL POLE, 17'-6" LENGTH (SSS-B-17.5-40-A-1-B3-BLT)

CURRENT LIGHTING, STRAIGHT SQUARE STEEL POLE, 17'-6" LENGTH (SSS-B-17.5-40-A-1-B3-BLT)

CURRENT LIGHTING, STRAIGHT SQUARE STEEL POLE, 17'-6" LENGTH (SSS-B-17.5-40-A-1-B3-BLT)





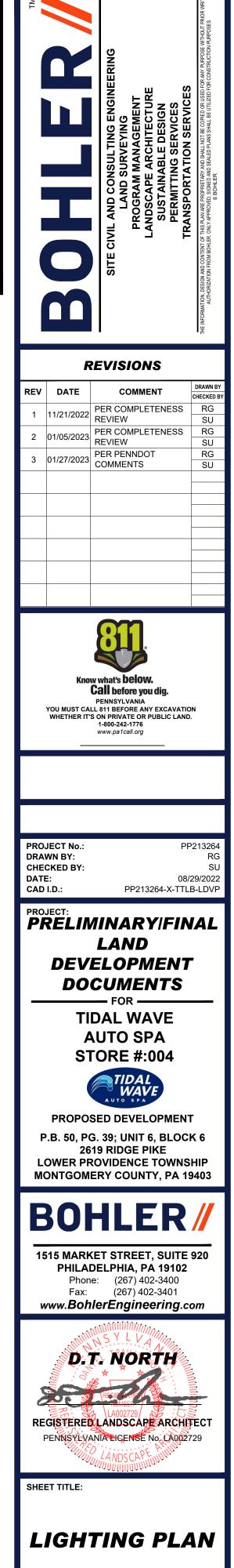
SITE LOCATION MAP SCALE: 1"=1000' SOURCE: GOOGLE MAPS

LIGHT POLE FOUNDATION DETAIL

NOT TO SCALE

GENERAL LIGHTING NOTES

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE ELECTRICAL CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE ELECTRICAL CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
- 2. THE ELECTRICAL CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
- 3. THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER. ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
- 4. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
- 5. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-LAMPING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNER'S.
- 5. THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES. POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEER'S AND/OR ELECTRICAL CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
- 7. THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURE(S) TO THE ENGINEER OF RECORD'S ATTENTION, PRIOR TO THE START OF CONSTRUCTION.
- 8. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.
- 9. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
- 10. THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-08 TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
- 11. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER (BOHLER) FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE LUMINAIRE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.

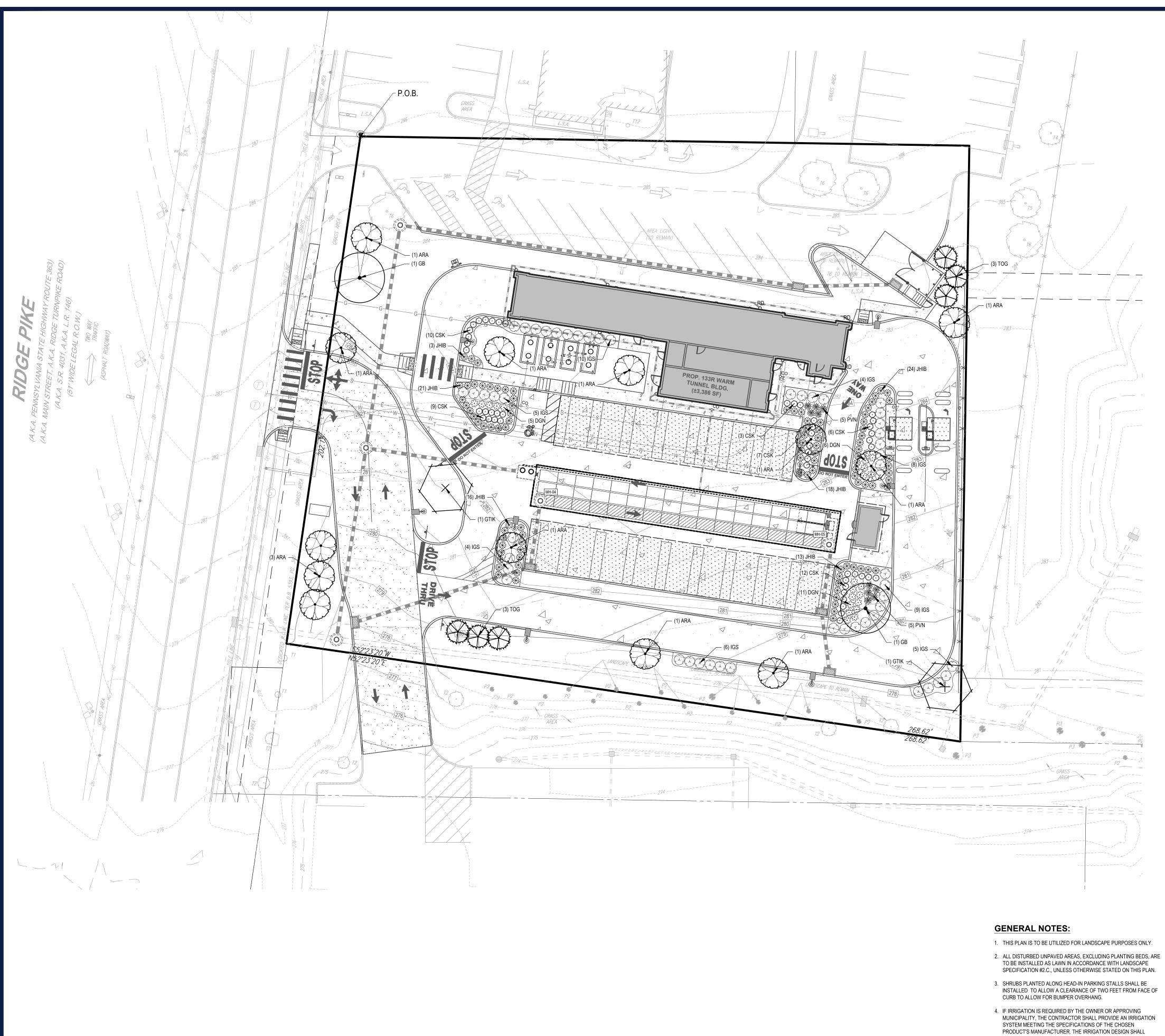


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SHEET NUMBER:

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REVISION 3 - 01/27/2023



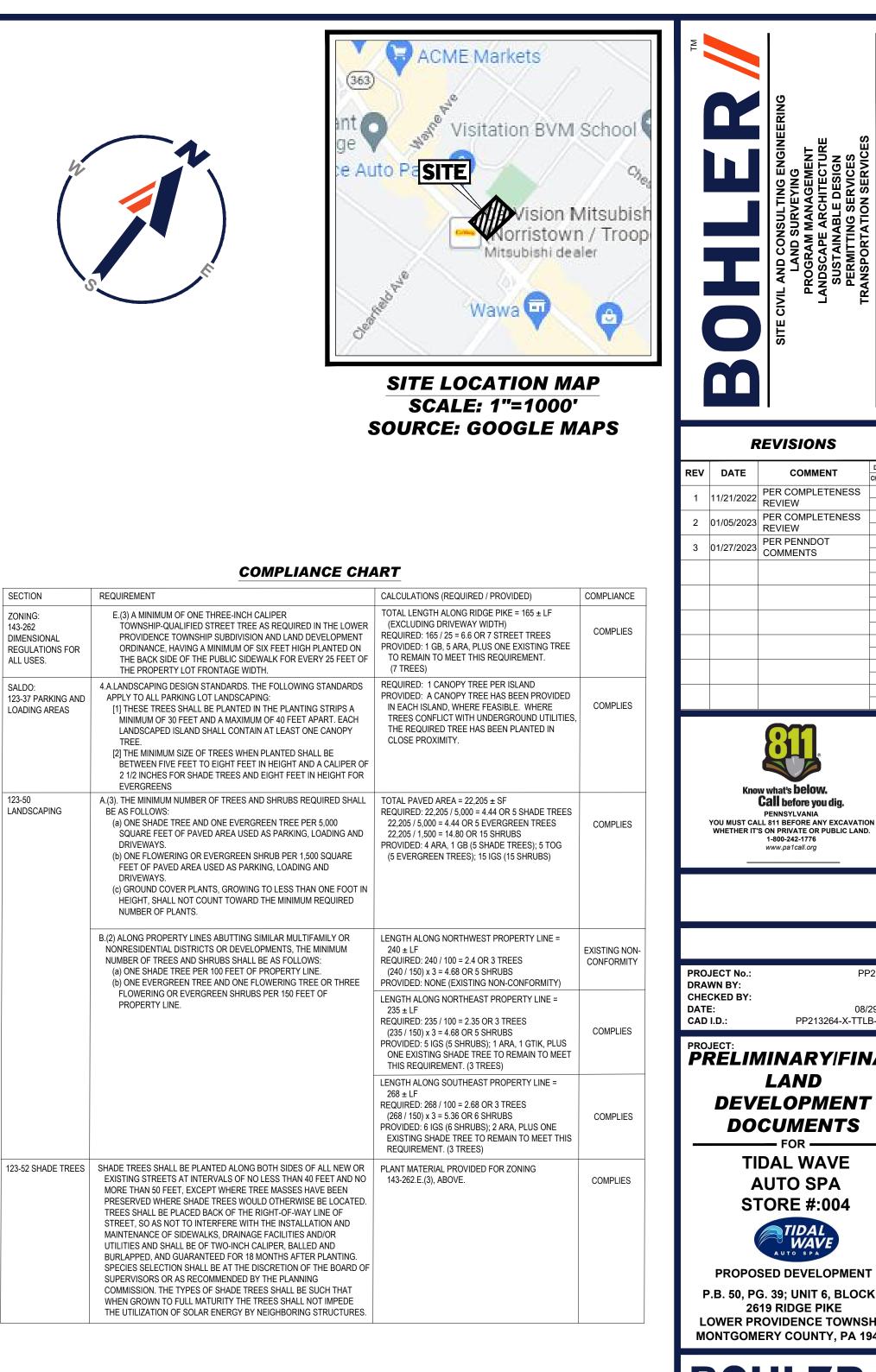
- ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.
- 5. PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER ENGINEERING AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT ARE TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.
- 6. WITHOUT EXCEPTION, WEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY BMP FACILITY. BMP FACILITIES INCLUDE RAINGARDENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.

ZONING:

143-262

SALDO:

123-50

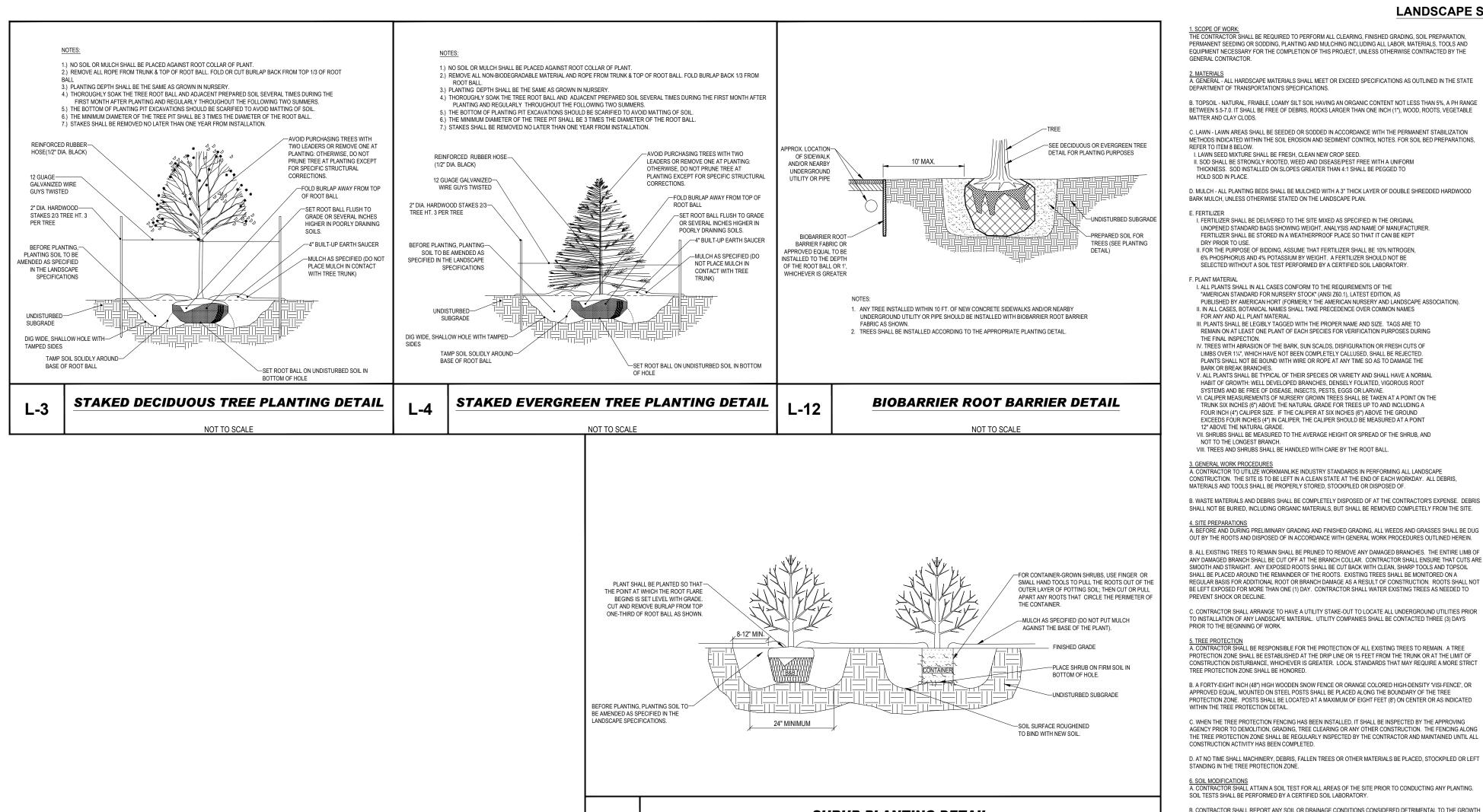


| CANOPY TREES | QTY | BOTANICAL NAME | COMMON NAME | SIZE | CONTAINER |
|-----------------|-----|--|--------------------------------|-------------|-----------|
| ARA | 13 | ACER RUBRUM `ARMSTRONG` | ARMSTRONG RED MAPLE | 2.5" CAL. | B&B |
| GB | 2 | GINKGO BILOBA 'PRINCETON SENTRY' (MALE ONLY) | PRINCETON SENTRY GINKGO TREE | 2.5" CAL. | B&B |
| GTIK | 2 | GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE' | SKYLINE THORNLESS HONEY LOCUST | 2.5" CAL. | B&B |
| | | | | | |
| EVERGREEN TREES | QTY | BOTANICAL NAME | COMMON NAME | SIZE | CONTAINER |
| TOG | 6 | THUJA OCCIDENTALIS 'GREEN GIANT' | GREEN GIANT ARBORVITAE | 6-8` | B&B |
| | | | | | |
| SHRUBS | QTY | BOTANICAL NAME | COMMON NAME | SIZE | CONTAINER |
| CSK | 47 | CORNUS SERICEA `KELSEYI` | KELSEYI DOGWOOD | 15-18" | CONTAINER |
| DGN | 22 | DEUTZIA GRACILIS `NIKKO` | SLENDER DEUTZIA | 18-24" | CONTAINER |
| IGS | 51 | ILEX GLABRA `SHAMROCK` | SHAMROCK INKBERRY | 30" MIN. | CONTAINER |
| JHIB | 95 | JUNIPERUS HORIZONTALIS `MONBER` | ICEE BLUE JUNIPER | 15-18" SPRD | CONTAINER |
| | | | | | |
| GRASSES | QTY | BOTANICAL NAME | COMMON NAME | SIZE | CONTAINER |
| PVN | 10 | PANICUM VIRGATUM `NORTH WIND` | NORTHWIND SWITCH GRASS | 1 GAL. | CONTAINER |



REVISION 3 - 01/27/2023

1"= 20



L-5

SHRUB PLANTING DETAIL

NOT TO SCALE

LANDSCAPE SPECIFICATIONS:

<u>SUDPE OF WORK.</u> THE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE

2. MATERIALS A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE

BETWEEN 5.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.

THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO

FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER ERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT IL FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN.

I. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE

PUBLISHED BY AMERICAN HORT (FORMERLY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION) II. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES

THE FINAL INSPECTION. IV. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 11/4", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE

V. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT

TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT

VIII. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.

SHALL NOT BE BURIED. INCLUDING ORGANIC MATERIALS. BUT SHALL BE REMOVED COMPLETELY FROM THE SITE. 4. SITE PREPARATIONS A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.

B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO

C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

3. TREE PROTECTION A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT

B, A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR

C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED. IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG

D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT

6. SOIL MODIFICATIONS A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING.

OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE CONTRACTOR DEPENDING ON SITE CONDITIONS. C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY. I. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. THOROUGHLY TILL DRGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS, ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5. II. TO INCREASE DRAINAGE. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY

ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO

INCREASE DRAINAGE.

SECTION ABOVE.

III. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX. 7. FINISHED GRADING A. UNLESS OTHERWISE CONTRACTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE. B. CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±). C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT

D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. IOPSULING A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AND LAWN AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS. B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY

BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED. STORED AND PROTECTED PRIOR TO CONSTRUCTION. C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS

). ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6.A.]): 20 POLINDS 'GRO-POWER' OR APPROVED FOLIAL SOIL CONDITIONER/FERTILIZED II. 20 POUNDS 'NITRO-FORM' (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE

PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO ELP PRESERVE ROOT MOISTURE

B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION. C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.

D. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING. E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL

OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING PLANTS: MARCH 15TH TO DECEMBER 15TH II. LAWN AND SEED MIXES: MARCH 1ST TO MAY 15TH OR BETWEEN AUGUST 15TH AND OCTOBER 15TH

PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.

G. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON: ACER RUBRUM PLATANUS X ACERIFOLIA BETULA VARIETIES POPULUS VARIETIES CARPINUS VARIETIES PRUNUS VARIETIE

CRATAEGUS VARIETIES PYRUS VARIETIES KOELREUTERIA QUERCUS VARIETIES LIQUIDAMBAR STYRACIFLUA TILIA TOMENTOS LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES

H. PLANTING PITS SHALL BE DUG WITH LEVEL OR CONVEX BOTTOMS, WITH THE WIDTH THREE TIMES THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY: I. 1 PART PEAT MOSS II. 1 PART COMPOSTED COW MANURE BY VOLUME

III. 3 PARTS TOPSOIL BY VOLUME III. 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS: A) 2 TABLETS PER 1 GALLON PLANT B) 3 TABLETS PER 5 GALLON PLANT

C) 4 TABLETS PER 15 GALLON PLANT D) LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK

I. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND J. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL. THE POINT AT WHICH THE ROOT FLARE

BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BAI K. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED D A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE. NO PRUNING SHALL BE CONDUCTED WITHIN THE FIRST YEAR OF PLANTING.

. GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT HEMICAL AS PER MANUFACTURER'S RECOMMENDATION.

M. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM XISTING STRUCTURES AND SIDEWALKS N. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB. O. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE ATERING SPECIFICATIONS AS LISTED HEREIN.

RANSPLANTING (WHEN REQUIRED) LL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT. (SEE SPECIFICATION 2.F. ABOVE)

B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT. SUN AND WIND C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10TH AND JUNE 30TH.

D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN. F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE

MUNICIPALITY'S TREE REPLACEMENT GUIDELINES. 11. WATEKING A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING.

WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED. B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE

ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES. C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

A. THE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE. B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD.

REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION. A PLANT SHALL BE CONSIDERED "DEAD OR DYING" IF MORE THAN 30% OF ITS BRANCHES ARE DEAD. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND UNTIL TURNOVER

C. THEES AND SHRUBS SHRUBS SHRUBS AT HE CONTRACTOR DURING CONSTRUCTION AND UNTIL TONIOVE TO THE OWNERVOPERATOR. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE. LAWNS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND UNTIL TURNOVER TO THE OWNER/OPERATOR THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS JCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED. B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER

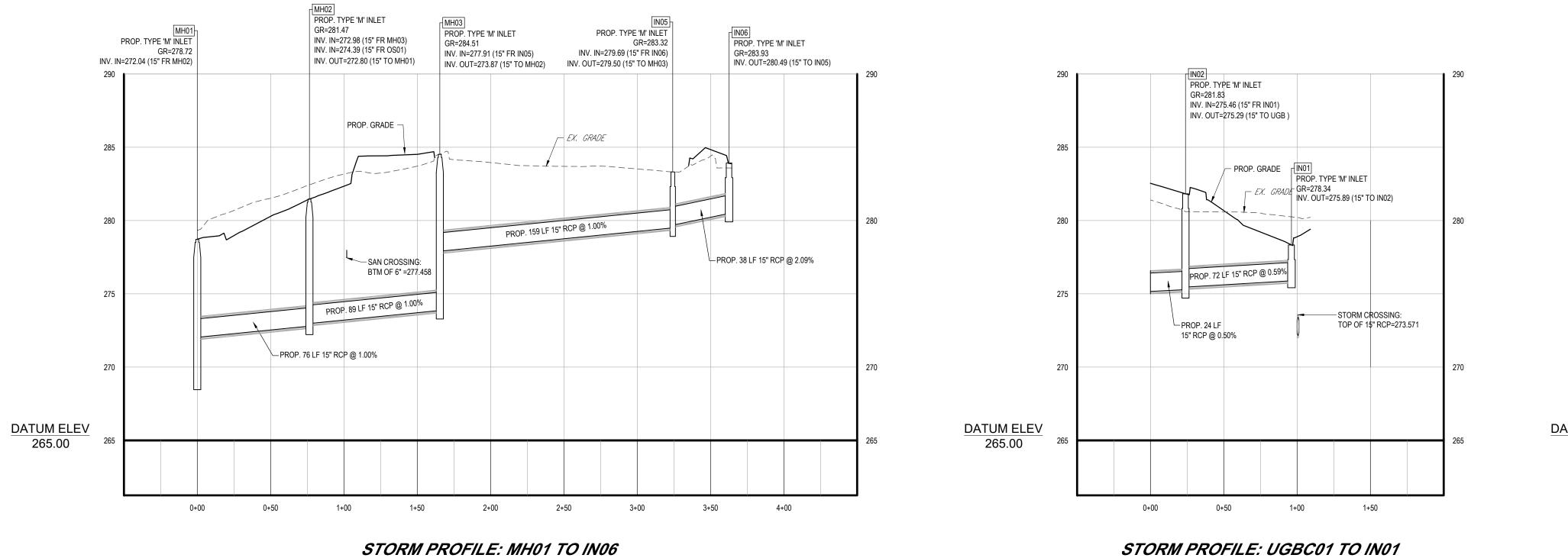
R AUTHORIZED REPRESENTATIV

REVISIONS REV DATE COMMENT 1 11/21/2022 REVIEW PER COMPLETENESS 2 01/05/2023 PER COMPLETENESS REVIEW PER PENNDOT 01/27/2023 COMMENTS Know what's **below. Call** before you dig. PENNSYLVANIA YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND. 1-800-242-1776 www.pa1call.org PROJECT No.: PP21326 DRAWN BY: CHECKED BY: DATE: 08/29/20 CAD I.D.: PP213264-X-TTLB-LDV PRELIMINARY/FINAL LAND DEVELOPMENT DOCUMENTS TIDAL WAVE AUTO SPA **STORE #:004** TIDAL WAVE PROPOSED DEVELOPMENT P.B. 50, PG. 39; UNIT 6, BLOCK 6 2619 RIDGE PIKE LOWER PROVIDENCE TOWNSHIP **MONTGOMERY COUNTY, PA 19403 BOHLER** 1515 MARKET STREET, SUITE 920 PHILADELPHIA, PA 19102 Phone: (267) 402-3400 Fax: (267) 402-3401 www.BohlerEngineering.com D.T. NORTH REGISTERED LANDSCAPE ARCHITECT PENNSYLVANIA LICENSE No. LA002729 SHEET TITLE:

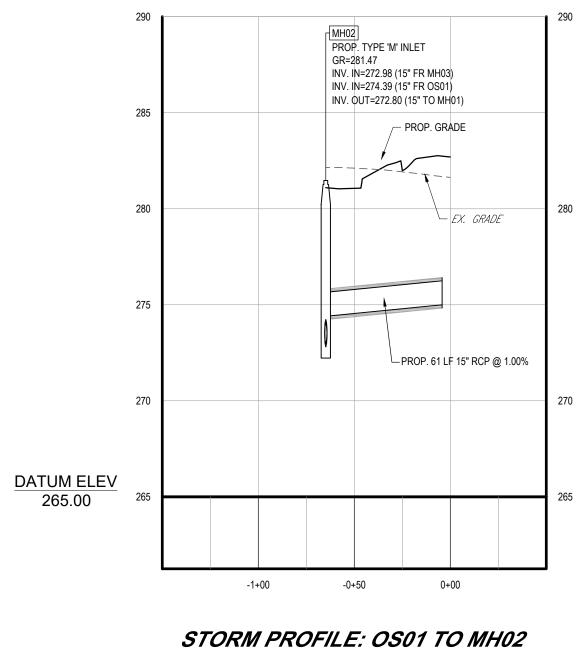


SHEET NUMBER: **C-703**

REVISION 3 - 01/27/2023

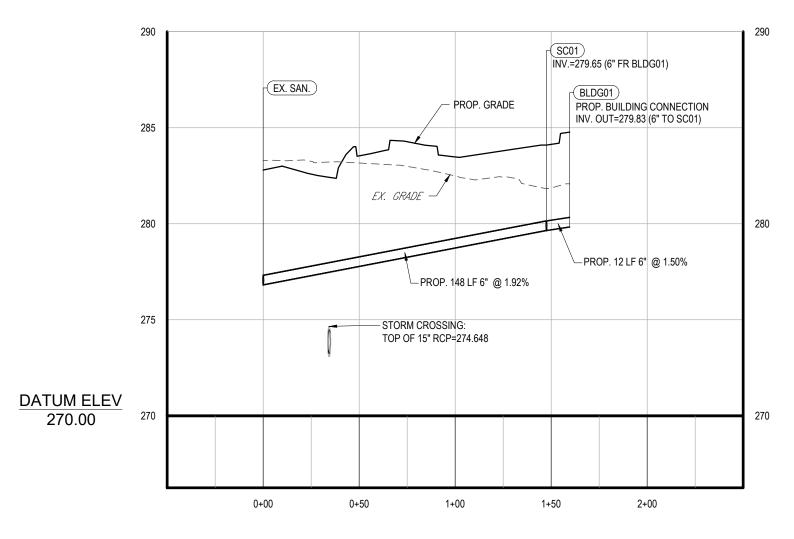


SCALE: 1"= 50 ' HORIZONTAL 1"= 5 ' VERTICAL

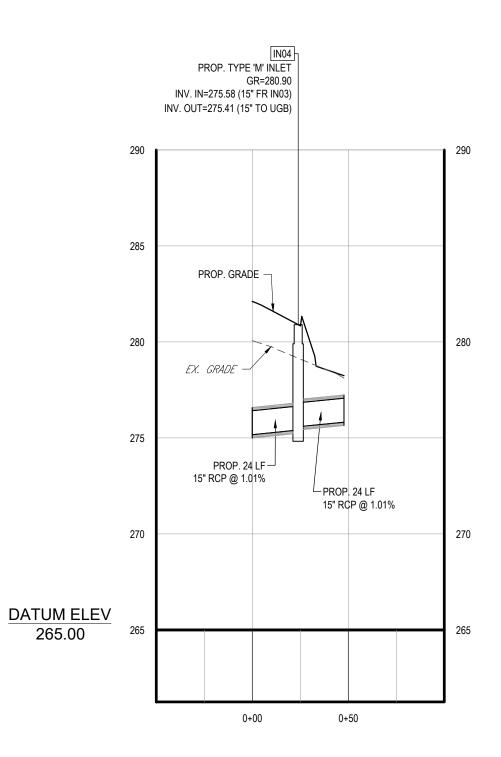


SCALE: 1"= 50 ' HORIZONTAL 1"= 5 ' VERTICAL

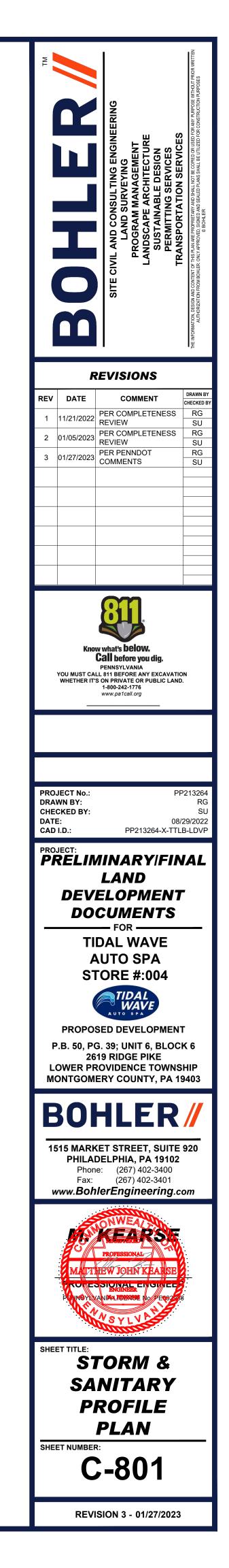
SCALE: 1"= 50 ' HORIZONTAL 1"= 5 ' VERTICAL

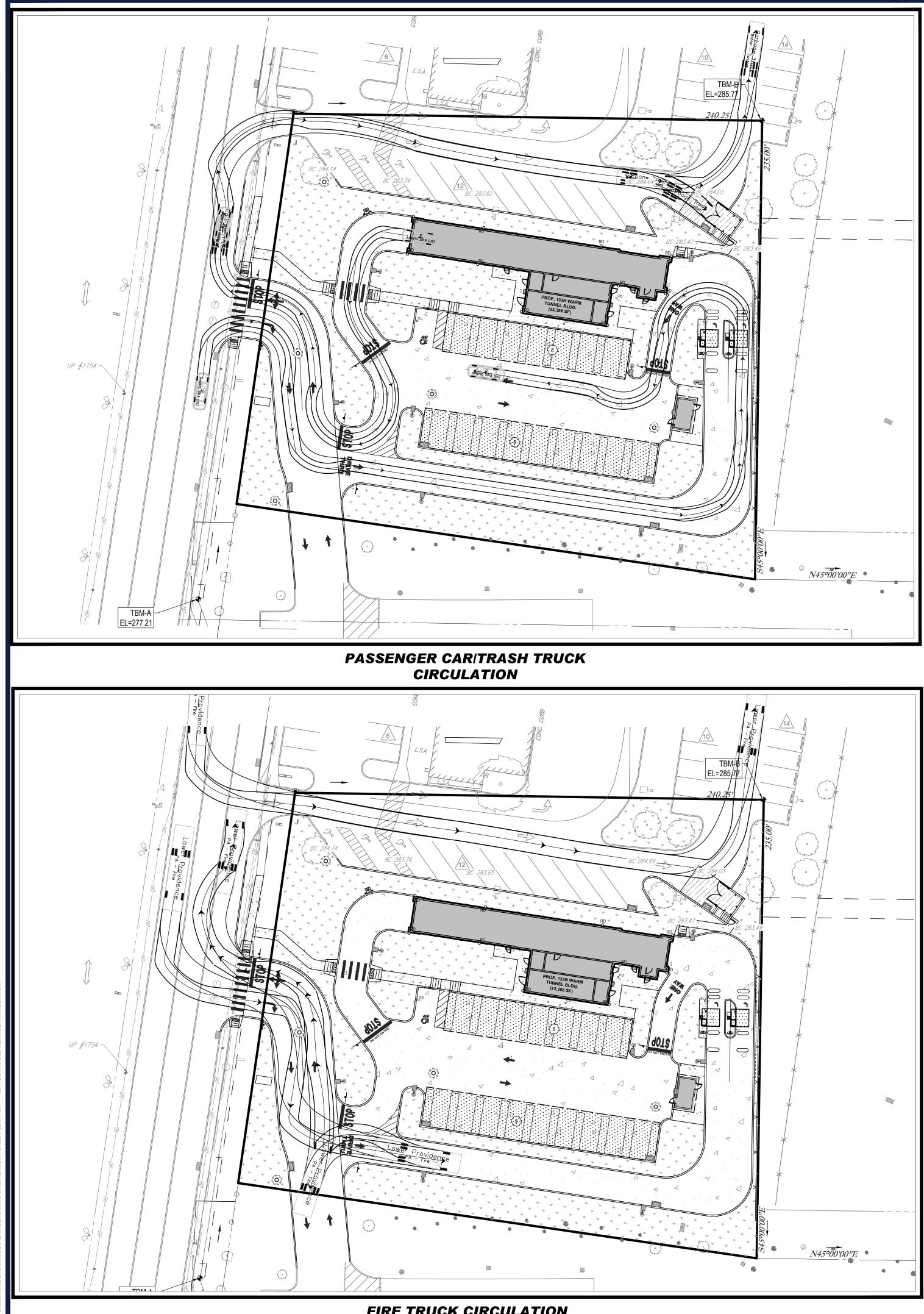


SANITARY PROFILE: BUILDING TO EX. SANITARY SCALE: 1"= 50 ' HORIZONTAL 1"= 5 ' VERTICAL

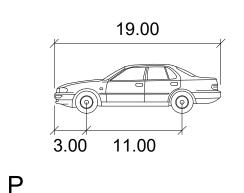


STORM PROFILE: UGBC02 TO IN03 SCALE: 1"= 50 ' HORIZONTAL 1"= 5 ' VERTICAL

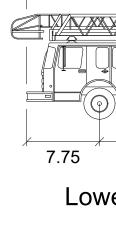




FIRE TRUCK CIRCULATION

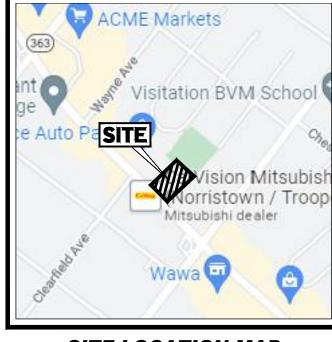


| | feet |
|-------------------|--------|
| Width | : 7.00 |
| Track | : 6.00 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 31.6 |
| | |



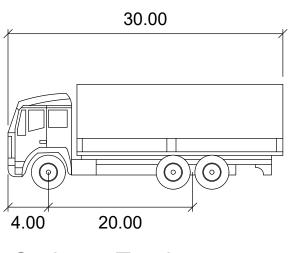
Wi Tra Loc Stee





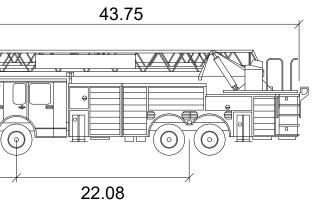
SITE LOCATION MAP SCALE: 1"=1000' SOURCE: GOOGLE MAPS





Garbage Truck

| | feet |
|-------------------|--------|
| Width | : 8.00 |
| Track | : 8.00 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 31.6 |
| | |

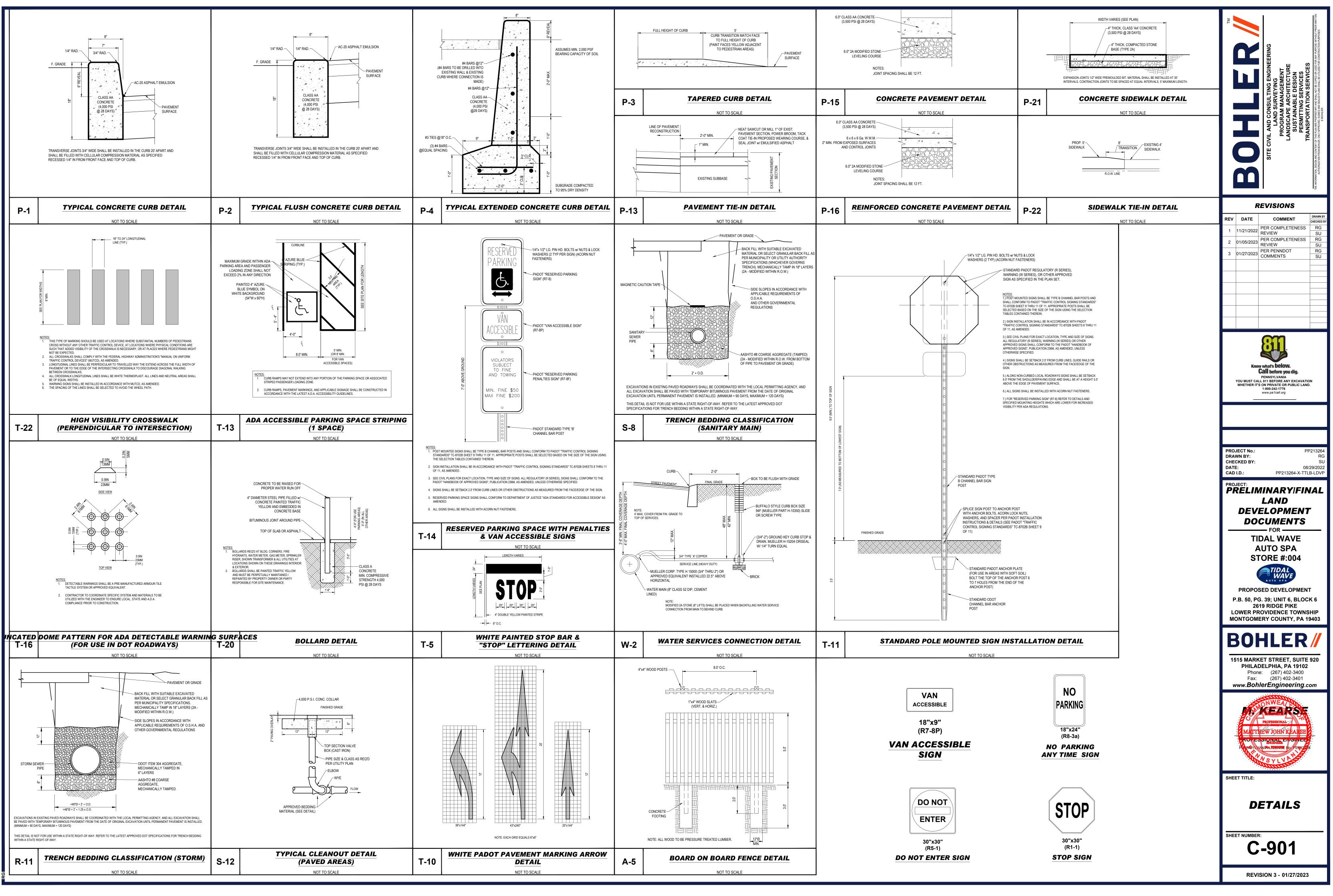


Lower Providence

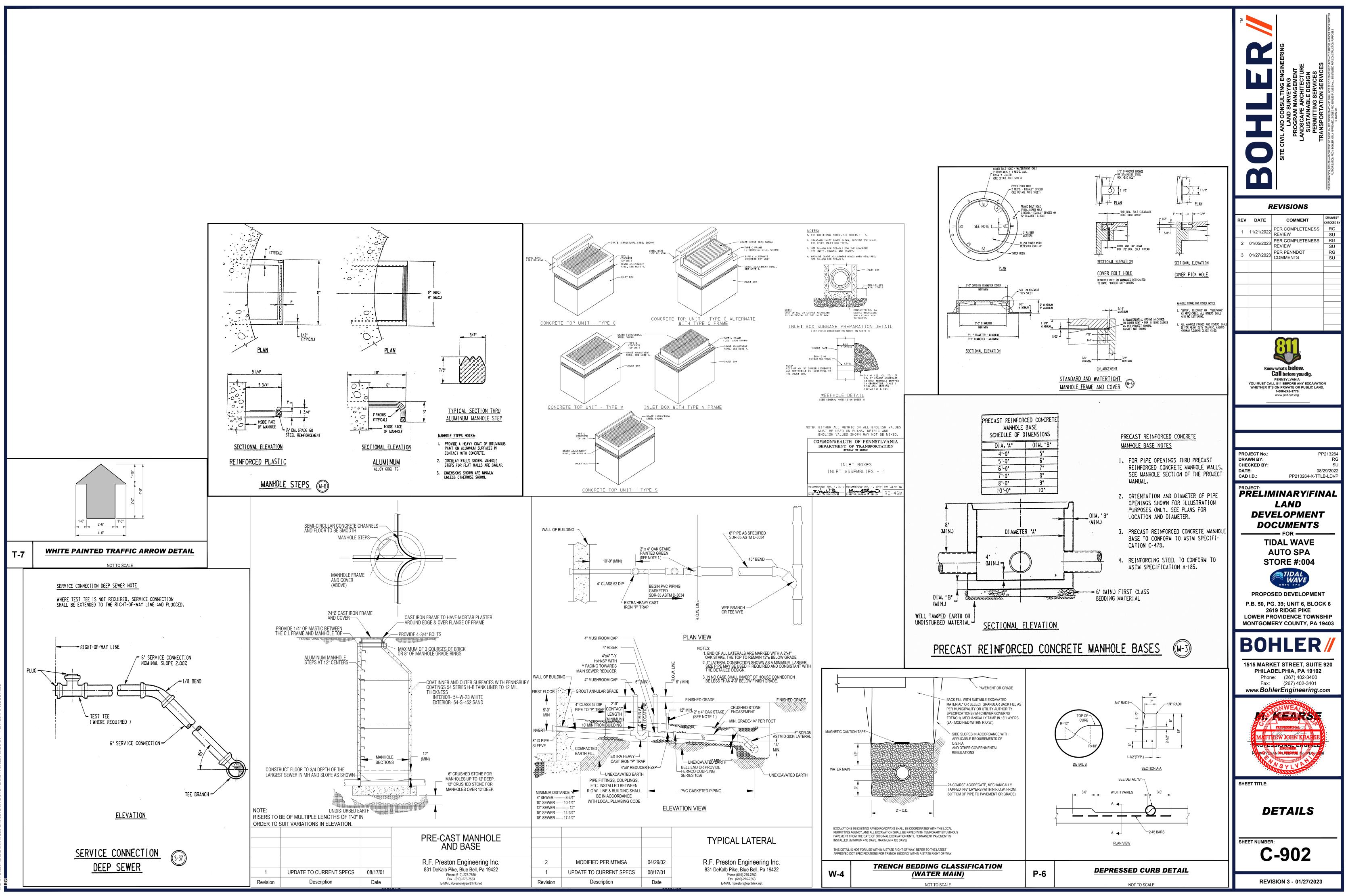
| | feet |
|------------------|------------------|
| idth ack | : 9.83 : 9.83 |
| ock to Lock Time | : 6.0 |
| eering Angle | : 40.0 |

REVISIONS REV DATE COMMENT 1 11/21/2022 PER COMPLETENESS REVIEW 2 01/05/2023 PER COMPLETENESS REVIEW 3 01/27/2023 PER PENNDOT COMMENTS Know what's **below. Call** before you dig. PENNSYLVANIA YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND. 1-800-242-1776 www.pa1call.org PROJECT No.: DRAWN BY: CHECKED BY: PP213264 DATE: CAD I.D.: 08/29/2022 PP213264-X-TTLB-LDVP PROJECT: PRELIMINARY/FINAL LAND DEVELOPMENT DOCUMENTS - FOR -TIDAL WAVE AUTO SPA STORE #:004 TIDAL WAVE PROPOSED DEVELOPMENT P.B. 50, PG. 39; UNIT 6, BLOCK 6 2619 RIDGE PIKE LOWER PROVIDENCE TOWNSHIP MONTGOMERY COUNTY, PA 19403 BOHLER 1515 MARKET STREET, SUITE 920 PHILADELPHIA, PA 19102 Phone: (267) 402-3400 Fax: (267) 402-3401 www.BohlerEngineering.com **NYEARS** SHEET TITLE: VEHICLE CIRCULATION PLAN SHEET NUMBER: **C-802**

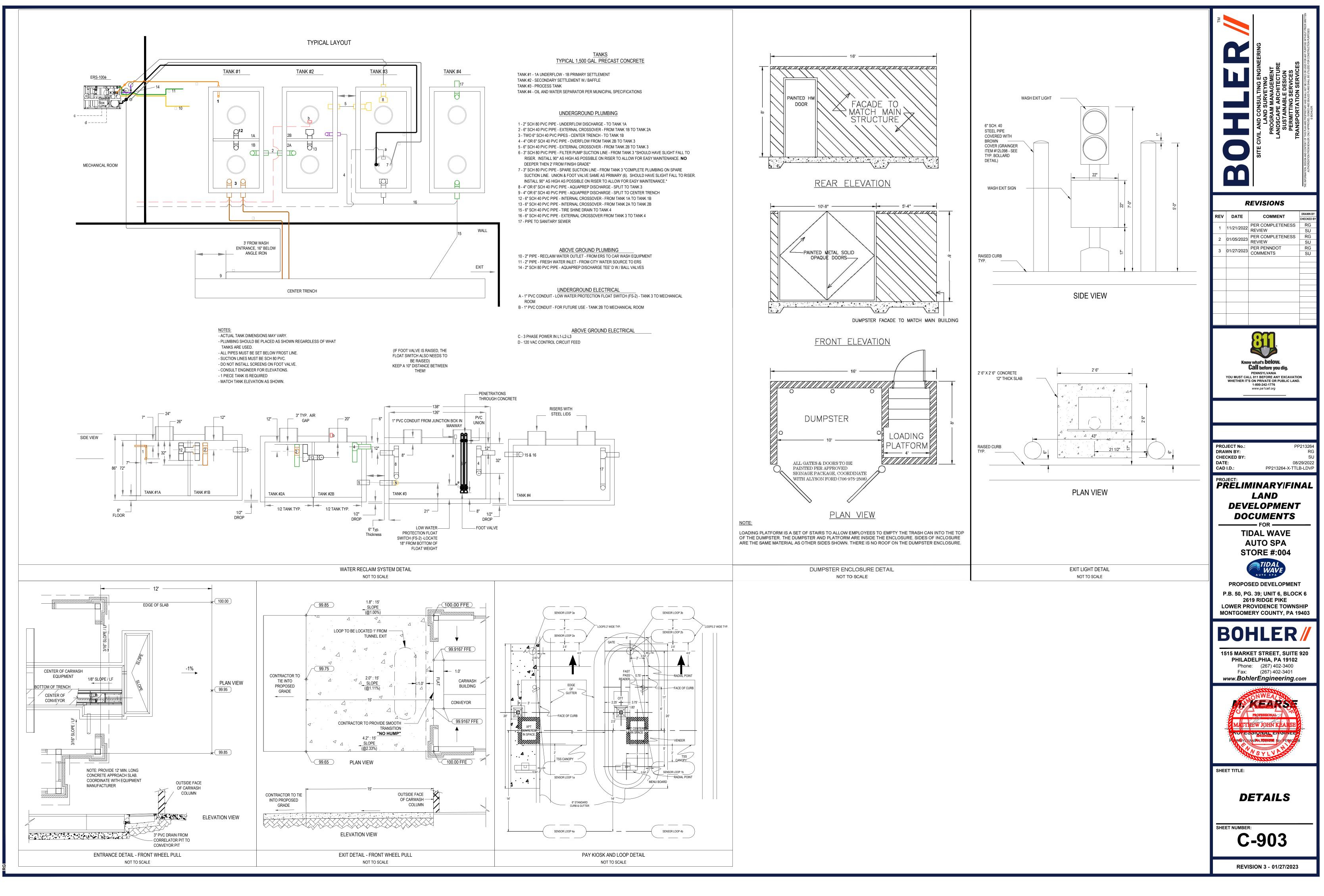
REVISION 3 - 01/27/2023



2213264/CAD/DRAWINGS/PLAN SETS/CIVIL SITE PLANS/PP213264-CNDS-3A----->LAYOUT: C-901 DE



213264\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\PP213264-CNDS-3A----->LAYOUT: C-902 DETAIL



21/PP213264/CAD/DRAWINGS/PLAN SETS/CIVIL SITE PLANS/PP213264-CNDS-3A----->LAYOUT: C-903 DETAIL



March 30, 2023

E.J. Mentry, Manager Lower Providence Township 100 Parklane Drive Eagleville, PA 19408

Subject: 2023 Lower Providence Road Improvements Project

Dear E.J.:

We have been working in cooperation with the public works staff in the preparation and review of bid documents that will provide for the repaying of certain roads in our community. I am happy to report that the Township received three bids and this year the lowest bidder is Glasgow, Inc. with the total value of the contract being six hundred seventy-eight thousand, six hundred seventy-one dollars and 40/cents (\$678,671.40.) Their bid included all the required documentation and bonds for consideration.

I have attached a spreadsheet which memorializes the bid results. If there are no questions, I recommend that the Board of Supervisors award this year's contract to Glasgow, Inc.

| 2023 | Lower Prov | idence Road Im | provem | ents Project - Bi | id Summary | | | |
|---------------|------------|----------------|--------|-------------------|------------|------------|--|--|
| | | Glasgow | | <u>H&K</u> | | Innovative | | |
| Base Bid "A" | \$ | 420,082.00 | \$ | 447,859.75 | \$ | 416,510.50 | | |
| Alternate "A" | \$ | 149,779.10 | \$ | 145,575.35 | \$ | 229,359.30 | | |
| Alternate "B" | \$ | 108,810.30 | \$ | 117,746.45 | \$ | 113,014.50 | | |
| A Total Bid | \$ | 678,671.40 | \$ | 711,181.55 | \$ | 758,884.30 | | |

Sincere othy P. Woodrow, P.E. whiship Engineer

TPW/del

Cc: Joe Chillano, Public Works Foreman – Lower Providence Township



Lower Providence Township Budget Increase Request

2023-01

Instructions: Department Supervisors must submit this form, in a timely manner, to the Finance Director when a *budget increase* is requested for an account number within that departmental budget.

| Account Number to Increase | Amount of Increase | Where funds are coming from | Reason for increase |
|---|--------------------|--|---|
| 35-399-101 (Use of Fund Balance) | \$37,243.00 | Fund balance & additional Liquid Fuels State Aid | The 2022 Road Program came in under budget & 20 State Liquid Fuels allocatio came in above budget. Thi |
| 35-355-050 (State Liquid Fuels) | \$14,604.00 | above what was | allowed the Township to request bids for a larger 20 |
| <u>(State Elquid Fuers)</u> 35-439-100 | \$14,004.00 | budgeted in 2023 | Road Program than what w |
| (Road Project) | \$51,847.00 | | orginally budgeted in 202 |
| | | | |
| | | | |
| | | | |
| Department Head | | Township Manager | |
| Date | | Date | |
| Finance Director | | Board Approval | |
| Date | | Date | |
| | | - | |
| | | | |
| | | | |

REIMBURSEMENT AND INDEMNITY AGREEMENT

This Reimbursement and Indemnity Agreement (hereinafter "Reimbursement Agreement") is made and entered into this ______ day of ______, 2023, by and between LOWER PROVIDENCE TOWNSHIP, a township of the second class, organized and existing in accordance with the laws of the Commonwealth of Pennsylvania (hereinafter the "Township") and AUDUBON WATER COMPANY, a private utility organized and existing in accordance with the laws of the Commonwealth of Pennsylvania (hereinafter the "Township").

WITNESSETH

WHEREAS, the Township plans to undertake a project known as SR 4004, Sec. MTF-Park Ave, Eagleville Road and Crawford Road Intersection Improvement Project in Lower Providence Township, Montgomery County (hereinafter the "Project"), requiring the relocation of facilities owned by the Utility (hereinafter the "Water Facilities"), said Water Facilities being temporary and permanent service connections (hereinafter the Water Service Connections") to certain privately owned properties within the Project limits; and,

WHEREAS, the Utility has requested and the Township has agreed to coordinate the adjustment of said Water Facilities with the Project; and

WHEREAS, the Project is subject to the competitive bidding requirements of the Pennsylvania Second Class Township Code, and the Township is prohibited from incurring expenses in excess of the lowest cost for the Water Service Connections proposed by a responsible and qualified contractor; and

WHEREAS, the Township is willing to reimburse the Utility for the cost of the Water Service Connections in accordance with the terms and conditions set forth in this Reimbursement Agreement and subject to applicable competitive bidding requirements and applicable laws and regulations.

NOW THEREFORE, In consideration of the foregoing premises and the mutual covenants hereinafter set forth, and with the intent to be legally bound hereby, the Parties agree as follows:

- 1. The associated Water Service Connections are identified on a plan set for the Project. A listing of listing of work to be performed by the Utility and reimbursed by the Township, along with corresponding cost estimates provided by the Utility, dated December 28, 2022, are attached hereto and collectively identified as Exhibit A... However, the estimate provided by the Utility having been derived from a one-time proposal from a private plumbing contractor, the terms and conditions of this Agreement are subject to the Utility's obtaining formal proposals for the work from qualified contractors in order to ensure compliance with applicable competitive bidding requirements for a Second Class Township, and shall be further subject to the Selection of the contractor who will perform the work. Such procedures are a prerequisite to the obligation of the Township to reimburse the Utility for the cost of the Water Service Connections.
- 2. The Township shall reimburse the Utility for the costs incurred by the Utility for the Water Service Connections, in an amount not to exceed One Hundred Eighty-One Thousand Five Hundred Dollars (\$181,500.00), but in no event shall the Township be responsible for payment in excess of the actual cost of the work, as that amount may be adjusted in accordance with paragraph 3 hereof.
- 3. In the event the actual number of Water Service Connections required to be completed during the Project changes from the number estimated in Exhibit A, the Township agrees to reimburse the Utility for the actual number of Water

Service Connections made based on the unit costs as set forth in the accepted bid or proposal for the project as set forth in Paragraph 1 hereof. The actual quantity of adjustments made to the number of Water Service Connections during construction of the Project shall be determined by the Township through its designated representative, who shall have unrestricted access for the purpose of inspection of the work on the Water Service Connections. The Township and the Utility shall coordinate efforts to approve any necessary change order to effectuate the provisions of this Paragraph.

- 4. Upon completion of the Water Service Connections to the satisfaction of the Utility and Township, the Utility shall invoice the Township for the cost of installation of the Water Service Connections. The Township agrees to pay the Utility within sixty (60) days of receipt of an invoice from the Utility.
- 5. All work performed pursuant to this Agreement must comply with all applicable state and Federal laws and regulations, including but not limited to the Buy America provisions in 23 U.S.C. §313 and 23 CFR §635.410; the Steel Products Procurement Act, 73 P.S. §1881 et seq.; the Pennsylvania Prevailing Wage Act of 1961, P.L. 987, No. 442; and in particular all applicable regulations promulgated by the Pennsylvania Department of Transportation.
- 6. The Utility agrees to indemnify, defend, and hold harmless the Township, along with its officials, officers, employees, agents and permitted assigns, from and against any and all claims, losses, liabilities, damages, expenses and costs, including reasonable attorneys' fees and court costs, of any character relating to personal injury or property damage, loss liability, or expense received, sustained, or incurred by the Township arising out of the installation of the Water Service Connections or from the performance of said work. The Utility shall provide the Township with prompt written notice of any claim and give complete control of the defense and settlement to the Township, and shall reasonably cooperate with the Township, its insurance company and its legal counsel in its defense of such claim(s), at the Utility's sole cost and expense. The Utility shall not settle any potential suit or litigation hereunder without the Township's prior written approval.
- 7. All disputes arising from or concerning this Reimbursement Agreement shall be brought in the Court of Common Pleas of Montgomery County, Pennsylvania.
- 8. Any notice required by or contemplated by this Reimbursement Agreement shall be sent by overnight mail or courier, addressed as follows:

If to Utility:

Audubon Water Company c/o: JH Russell 2650 Eisenhower Ave, #103A Eagleville, PA 19403

If to Township:

E.J. Mentry, Manager Lower Providence Township 100 Parkland Drive Eagleville, PA 19403

8. This Reimbursement Agreement constitutes the entire agreement between the Utility and the Township. No prior written or prior, contemporaneous or subsequent oral promises or representations shall be binding. This Reimbursement Agreement shall not be amended or changed except by written instrument signed by authorized representatives of the parties hereto. The provisions of this Reimbursement Agreement Agreement shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors and assigns of the parties.

- 9. This Reimbursement Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute but one instrument.
- 10. No failure or delay of the parties hereto to exercise their rights hereunder or to insist upon the strict compliance with any obligation imposed hereunder, and no course of dealing or custom or practice of either party hereto at variance with any term hereof, shall constitute a waiver or a modification of the terms hereof or the right to demand strict compliance with the terms hereof.
- 11. If any term, covenant, condition or provision of this Reimbursement Agreement or application thereof shall, to any extent, be invalid or unenforceable, the remainder of this Reimbursement Agreement shall not be affected thereby, and shall be valid and enforceable to the fullest extent permitted by law.
- 12. The effective date of this Reimbursement Agreement shall be the date last signed by either the Utility or the Township.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed, sealed and attested by their proper officials, pursuant to due and legal action authorizing the same to be done, the day and year first above written.

Audubon Water Company

Lower Providence Township

| by | | by | |
|-----------|------|-----------|------|
| Signature | Date | Signature | Date |
| Title | | Title | |
| ATTEST: | | ATTEST: | |
| | | | |

| G | ENERAL NOTES | | |
|---|---|--|---|
| • | AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FI WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEG OTHER PERMANENT NON-VEGETATIVE COVER WITH A DE RESIST ACCELERATED EROSION. CUT AND FILL SLOPES OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR | ETATIVE ENSITY S SHALL | COVER OR SUFFICIENT TO BE CAPABLE |
| • | THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCT THE PROPOSED VEGETATED SWALES, MANAGE RELEASE AND RAIN GARDEN. A LICENSED PROFESSIONAL ENGINE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BI THE OVERSIGHT. | CONCEP EER KNC | YT BASINS, WLEDGEABLE |
| • | CONTACT THE DESIGN ENGINEER AND THE LOCAL COUN DISTRICT IF GROUNDWATER OR BEDROCK ARE ENCOUNT INSTALLATION OF THE PROPOSED VEGETATED SWALES, I CONCEPT BASINS, AND RAIN GARDEN. | ERED DL | JRING THE |
| • | UPON FINAL STABILIZATION OF THE EARTH DISTURBANC PA CODE 102.22(A)(2) (RELATING TO PERMANENT STAE INSTALLATION OF BMPs IN ACCORDANCE WITH AN APPR PREPARED AND IMPLEMENTED IN ACCORDANCE WITH PA 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITT NOTICE OF TERMINATION TO THE DEPARTMENT OR CONS | BILIZATIO ROVED P CODE REQUIRE EE SHAL | N), AND LAN 102.4 AND EMENTS; AND LL SUBMIT A |
| | THE NOTICE OF TERMINATION MUST INCLUDE: a. THE FACILITY NAME, ADDRESS, AND LOCATION. b. THE OPERATOR NAME AND ADDRESS. c. THE PERMIT NUMBER. d. THE REASON FOR THE PERMIT TERMINATION. e. IDENTIFICATION OF THE PERSONS RESPONSIBLE OPERATION AND MAINTENANCE OF THE PCSM BINTH PA CODE 102.8(M) AND PROOF OF COMPL 102.8(M)(2). | MPs IN | ACCORDANCE |
| | PRIOR TO ACCEPTING THE NOTICE OF TERMINATION, THE AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM AND APPROVE OR DENY THE NOTICE OF TERMINATION. | | |
| • | THE RESPONSIBLE PARTY FOR OPERATIONS AND MAINTER REMOVE FROM THIS SITE, RECYCLE, OR DISPOSE OF ALL MATERIALS AND WASTE IN ACCORDANCE WITH THE DEP WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 26 ET SEQ. THE RESPONSIBLE PARTY SHALL NOT ILLEGALL DISCHARGE ANY BUILDING MATERIAL OR WASTES AT TH MATERIALS AND WASTE MAY INCLUDE ASPHALT, CONCR DEBRIS FROM STORMWATER BMPs SUCH AS TRASH, PLA MATERIAL (i.e. TWIGS AND LEAVES). | L BUILDI ARTMEN 50.1 ET Y BURY IS SITE. ETE, AN | NG T'S SOLID SEQ., 271.1 , DUMP, OR BUILDING D SOIL, AND |
| ٠ | NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS HAVING CAUSE POLLUTION HAVE BEEN OBSERVED. | G THE P | OTENTIAL TO |
| • | THE PROJECT'S RECEIVING WATERCOURSES ARE MINE RU TRIBUTARY TO MINE RUN, WHICH HAVE A CHAPTER 93 TSF-MF. | | |
| | | <u>SY</u> | MBOL LEGEND |
| | —TU— EXISTING TELEPHONE CONDUIT —G— EXISTING GAS LINE —S— EXISTING SANITARY SEWER LINE —W— EXISTING WATER LINE —EU— EX. UNDERGROUND ELECTRIC LINE | WV GV IP MB MH | EXISTING WATER VALVE EXISTING GAS VALVE EXISTING IRON PIN FOUND EXISTING MAILBOX EXISTING MANHOLE |
| | | 0 <i>MH</i> 0 MH | EXISTING MANHOLE TO BE RESET PROPOSED MANHOLE EXISTING FIRE HYDRANT |
| | | -\$- | EXISTING TRAFFIC SIGNAL EXISTING GUY WIRE |
| | EXISTING STORMWATER PIPE PROPOSED STORMWATER PIPE EXISTING EDGE OF PAVEMENT | - - | EXISTING UTILITY POLE PROPOSED OR RELOCATED UTILITY POLE |

----- PROPOSED EDGE OF PAVEMENT

----- PROPOSED CONSTRUCTION BASELINE

---- EXISTING RIGHT-OF-WAY

• • • • • • • • -----120 _____ -----126 -----

EXISTING STORM INLET

PROPOSED STORM INLET

- SWALE/PIPE FLOW ARROW

TREE REMOVAL

----- DRAINAGE AREA

-→→→→ PROPOSED FENCE

 \equiv proposed ditch line

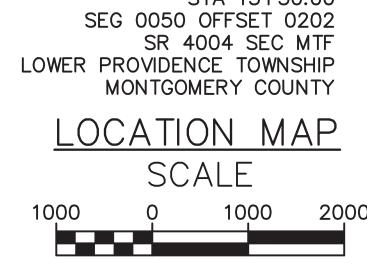
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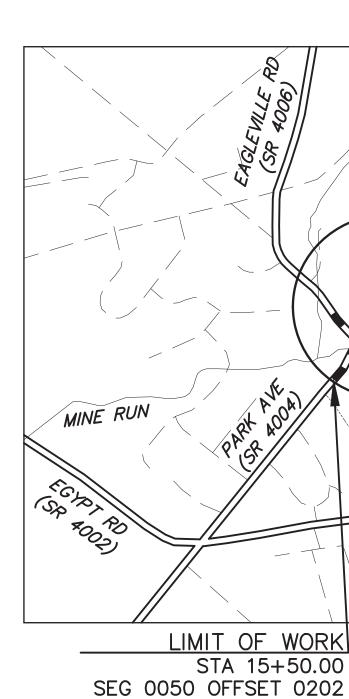
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| · · · · · · · · · · · · · · · · · · · | ROADWAY MAINTENANCE ACTIVITIES |
|---------------------------------------|--|
| | ROCK, CLASS AS INDICATED |
| | PERMANENT ROLLED EROSION CONTROL PRODUCT, TYPE 5A |
| | WATERS OF THE US |
| | CHAPTER 105 PERMIT LIMITS |
| <u> 1260 </u> | FINAL 5 FOOT CONTOUR |
| | FINAL 1 FOOT CONTOUR |
| 1260 | EXISTING 5 FOOT CONTOUR |
| | EXISTING 1 FOOT CONTOUR |
| | SOIL DELINEATION LINE |
| | LIMIT OF DISTURBANCE |
| NPDES | NPDES BOUNDARY/ WORK AREA |
| | 100 YEAR FLOODPLAIN |
| ▲TP-RG# | INFILTRATION TEST LOCATION |

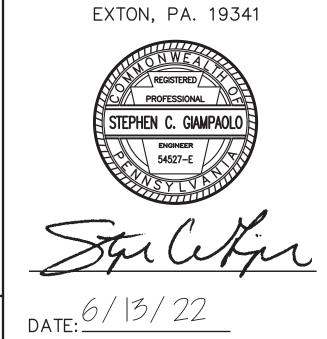
EXISTING HEAVY VEGETATION

AMENDED SOILS





| | P | | - · · | | I . |
|---------------------------|--|---|-----------------------|----------------|------------------|
| | DISTRICT 6-0 | COUNTY | ROUTE SR 4004 | SECTION MTF | SHEET 1 OF 18 |
| | REVISION | LOWER PROVI | | Í | · |
| | REVISION NUMBER | REVIS | SIONS | | DATE BY |
| | | | | | |
| | | SHEET INDEX | | | |
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| GENERAL NOT | | NOTES | | | 1 2-3 |
| SEEDING & M OPERATIONS | | NOTES NTENANCE NOTES | | | 4 |
| BMP AND CO PLAN SHEETS | | ON SEQUENCE | | | 5—6 /—11 |
| BMP DETAILS | | | | | 2-18 |
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| 0 | STA ⁻ LOC/ | JECT TE HIGHWAY AL ROAD EK/RIVER | | | |
| | | М | CMAHON A 840 SPRII | | RIVE |



ATER MANAGEMENT PLAN

| | | 11M | NIMUM % | | |
|--|----------------|-----------|----------------|--------------------|--------------|
| FORMULA AND SPECIES | % BY WEIGHT | PURITY | GERMINATION | MAX % WEED SEED | SEEDING RATE |
| ORMULA B (MIX) | | | | | 44.0 TOTAL |
| PERENNIAL RYEGRASS MIXTURE (LOLIUM PERENNE). A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH | 20 | 97 | 90 | 0.10 | 8.5 |
| NO ONE VARIETY EXCEEDING 50% OF THE TOTAL RYEGRASS COMPONENT. | | | | | |
| CREEPING RED FESCUE OR CHEWINGS FESCUE | 30 | 97 | 85 | 0.10 | 12.5 |
| (FESTUCA RUBRA OR SSP COMMUTATE) (IMPROVED AND CERTIFIED) | | | | | |
| KENTUCKY BLUEGRASS MIXTURE (POA PRATENSIS). A | 45 | 97 | 80 | 0.15 | 21.0 |
| COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL BLUEGRASS COMPONENT. | | | | | |
| ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) | 5 | 95 | 90 | 0.10 | 2.0 |
| FORMULA N (CONSERVATION MIX) | | | | | 30.0 TOTAL |
| HARD FESCUE MIXTURE (FESTUCA LONGIFOLIA). A COMBINATION OF IMPROVED CERTIFIED VARIETIES | 30 | 97 | 85 | 0.10 | 9.0 |
| WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL HARD FESCUE COMPONENT. | | | | | |
| CREEPING RED FESCUE (FESTUCA RUBRA) | 30 | 97 | 85 | 0.10 | 9.0 |
| (IMPROVED AND CERTIFIED) | | | | | |
| LITTLE BLUESTEM (ANDROPOGON SCOPARIUS) | 4 | 80 | 70 | 0.20 | 1.2 |
| CANADA WILD RYE (ELYMUS CANADEIS) | 6 | 85 | 70 | 0.20 | 1.8 |
| VIRGINIA WILD RYE (ELYMUS VIRGINICUS) | 4 | 85 | 70 | 0.20 | 1.2 |
| INDIANGRASS (SORGHASTRUM NUTANS) | 3 | 85 | 70 | 0.20 | 0.9 |
| ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) | 10 | 95 | 90 | 0.10 | 3.0 |
| BLACK EYED SUSAN (RUDBECKIA HIRTA) | 5 | 80 | 60 | 0.20 | 1.5 |
| NEW ENGLAND ASTER (SYMPHYOTRICHUM NOVAE—ANGLIE) | 3 | 80 | 50 | 0.20 | 0.9 |
| OX-EYE SUNFLOWER (HELIOPSIS HELIANTHOIDES) | 5 | 80 | 60 | 0.20 | 1.5 |
| | | | | | |
| | | | | | |
| TES: | | | | | |
| INSTALL SEEDING AND SOIL SUPPLEMENTS - FORMULA | | | | | |
| INSTALL SEEDING AND SOIL SUPPLEMENTS - FORMULA | N ON BOTT | OMS OF | ALL RAIN GARE | DENS. | |
| 4.3 CONSTRUCTION | | | | | |
| GENERAL. SPREAD SEEDS WHERE INDICATED AND AT TH | | | | | 1SE |
| INDICATED. SPREAD SEEDS WITHIN THE FOLLOWING DATE FORMULA B MARCH 15 TO JUNE 1 | S, UR AS | UTHERWIS | E INDICATED O | R DIRECTED. | |
| AUGUST 1 TO OCTOBER | 15 | | | | |
| • FORMULA E MARCH 15 TO OCTOBER • FORMULA N MARCH 15 TO OCTOBER | | | | | |
| EXTEND SEEDING DATES WHERE PROJECT CONDITIONS W THE PERMANENT SEEDING AND SOIL SUPPLEMENTS AND | | | | | |
| DATES, AS DIRECTED IN WRITING. USE TILLAGE AND SO TOPSOILED AREAS, WHERE TEMPORARY SEEDING OR MU | OIL SUPPLEN | MENTS BE | FORE PERMANE | ENT SEEDING (| NC |
| PERMANENT SEED AND/OR SOIL SUPPLEMENTS WITHOUT SEEDING OR MULCHING HAS BEEN APPLIED. | | | | | |
| TILLAGE. ON TOPSOILED AREAS, 3:1 AND FLATTER, LOO | | | | | |
| DISKING, HARROWING, OR OTHER ACCEPTABLE METHODS AREAS, 3:1 AND FLATTER, TILL ONLY AS DIRECTED. ALS | SO, TILL OR | SCARIFY | AREAS IF THE | E SURFACE IS | GLAZED OR |
| CRUSTED. CORRECT SURFACE IRREGULARITIES BY FILLI REMOVE METAL OBJECTS, STONES LARGER THAN 2 INCH DEEMED DETRIMENTAL TO MAINTENANCE OPERATIONS. | | | | | |
| SOIL SUPPLEMENTS. PREPARE AREAS FOR SEEDING BY | UNIFORMLY | APPLYIN | G SUPPLEMENTS | S, EXCEPT IN | AREAS |
| THAT WILL RECEIVE FORMULA E SEED. DOCUMENT BULK INITIAL SOIL SUPPLEMENTS INTO THE SOIL AT LEAST 2 | DELIVERY | AS SPECII | FIED IN SECTIO | N 804.2(A)2. | BLEND THE |
| HARROWING, OR OTHER ACCEPTABLE METHODS. BLEND OPERATIONS. APPLY SLOW-RELEASE NITROGEN FERTILI | THE SUPPLE | EMENTS IN | NTO THE SOIL [| DURING TILLAC | ξE |

SEEDED AREAS BEFORE PROJECT COMPLETION. DO NOT APPLY SLOW-RELEASE NITROGEN FERTILIZER SUPPLEMENT TO FORMULA C SEEDED AREAS. APPLY SOIL SUPPLEMENTS AS FOLLOWS, UNLESS OTHERWISE INDICATED:

| DISTRICT | COUNTY | ROUTE | SECTION | S | HEET |
|---------------------------|------------|-----------|---------|---|-------|
| 6-0 | MONTGOMERY | SR 4004 | MTF | 2 | OF 18 |
| LOWER PROVIDENCE TOWNSHIP | | | | | |
| REVISION NUMBER | REVIS | REVISIONS | | | |
| | | | | | |
| | | | | | |

ANCE. MAINTAIN GRASS AND LEGUME GROUND COVER AREAS, WITHIN THE GRADING JNTIL THE ENTIRE PROJECT HAS BEEN COMPLETED. MOW AS SPECIFIED IN SECTION CONTROL ANY NOXIOUS WEED GROWTH FOUND WITHIN THE RIGHT OF WAY, BY E SPRAYING AND CUTTING. THESE PLANTS ARE DEFINED BY THE PENNSYLVANIA NTROL ACT OF 1982, P.L. 228, NO. 74 AND AS AMENDED BY FURTHER TION. SUBMIT FOR APPROVAL, A SCHEDULE OF WORK AND LIST OF HERBICIDE . TO BE USED BEFORE STARTING THIS OPERATION. IF A SLOPE FAILURE OCCURS OPE PREVIOUSLY COMPLETED, AND REQUIRES FURTHER EXCAVATION AND SING TO REESTABLISH THE SLOPE, REAPPLY THE SEEDING AND SOIL SUPPLEMENT SPECIFIED FOR THE ORIGINAL SLOPE.

MAINTAIN TURF GRASS AREAS WITHIN THE GRADING LIMITS, BY MOWING WITH ED EQUIPMENT UNTIL THE ENTIRE PROJECT HAS BEEN COMPLETED. SUBMIT A ED SCHEDULE OF MOWING OPERATIONS THAT COVERS THE LENGTH OF THE JCTION PROJECT FOR APPROVAL.

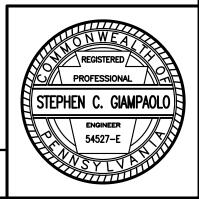
SIDE TURF AREAS. TURF GRASS AREAS ESTABLISHED WITH FORMULA D REQUIRES FFERENT DEGREE OF MOWING MAINTENANCE THAN AREAS ESTABLISHED WITH MULAS B AND L. THREE MOWING CYCLES PER YEAR, SCHEDULED BETWEEN APRIL OCTOBER, ARE ANTICIPATED FOR MOWING AREAS SEEDED WITH FORMULA D. THE BER OF CYCLES MAY BE ADJUSTED BASED ON THE DEGREE OF TURF BLISHMENT, PROJECT LENGTH, WEATHER CONDITIONS, OR OTHER FACTORS. SULT THE DISTRICT ROADSIDE MANAGER FOR SCHEDULE, SAFETY REQUIREMENTS, MOWING EQUIPMENT APPROVALS. SCHEDULE THE FIRST MOWING CYCLE EARLY IN GROWTH FLUSH PERIOD BEFORE ALL SEED HEADS HAVE EMERGED. SCHEDULE THE ND MOWING APPROXIMATELY 3 TO 4 WEEKS AFTER THE FIRST CUT TO REMOVE REMAINING SEED HEADS. SCHEDULE THE LAST MOWING CYCLE IN THE FALL, AS CTED. DO NOT MOW GRASS SHORTER THAN 4 INCHES TO ALLOW A LOW GROWING, PETITIVE GROUND COVER. DO NOT MOW UNDER THE FOLLOWING CONDITIONS:

SOIL AND GRASS BLADES ARE WET.

DROUGHT CONDITIONS, OR DURING SUMMER MONTHS WHEN THE TEMPERATURES CONSISTENTLY OVER 90F, AND WHEN THE GRASS EXHIBITS DORMANCY.

7 DAYS OF ANY SCHEDULED HERBICIDE APPLICATION OR 7 DAYS AFTER A CIDE TREATMENT.

TURF AREAS. MAINTAIN FORMULAS B AND L TURF GRASS AREAS AT A DESIRED CHT OF 2 INCHES. INITIATE MOWING OPERATIONS WHEN GRASS SEEDLINGS REACH A SHT OF 3 INCHES. CONTINUE MOWING OPERATIONS DURING THE ACTIVE GROWING SON THROUGHOUT THE LENGTH OF THE PROJECT. FOLLOW THE NON-MOW JIREMENTS INDICATED FOR FORMULA D GRASS. MOW AT A NORMAL FREQUENCY THE GRASS REACHES THE 3-INCH HEIGHT, UNLESS DIRECTED OTHERWISE.



SECTION 805 - MULCHING

805.3 CONSTRUCTION

- A. MULCHING SEEDED AREAS. PLACE MULCH, OF THE TYPE INDICATED, IMMEDIATELY AFTER SEEDING OR WITHIN 48 HOURS AFTER SEEDING IS COMPLETED. UNLESS OTHERWISE INDICATED. PLACE ONLY STRAW OR WOOD FIBER OVER TOPSOILED AREAS. USE HAY, STRAW, OR WOOD FIBER IN OTHER AREAS, AS INDICATED OR SPECIFIED. PLACE HAY OR STRAW UNIFORMLY, IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 1,200 POUNDS PER 1,000 SQUARE YARDS OR AS OTHERWISE INDICATED. IF DIRECTED, INCREASE THE RATE OF APPLICATION. DEPENDING UPON THE MATERIAL USED. SEASON, SOIL CONDITIONS, OR METHOD OF APPLICATION. AN ACCEPTABLE MECHANICAL BLOWER MAY BE USED TO APPLY MULCH. DO NOT USE MACHINES THAT CUT MULCH INTO SHORT PIECES. ANCHOR MULCH WITH SPECIFIED MULCH BINDERS APPLIED AT THE FOLLOWING RATES:
 - RECYCLED CELLULOSE FIBER--160 POUNDS PER 1,000 SQUARE YARDS
 - WOOD FIBER--160 POUNDS PER 1.000 SQUARE YARDS
 - NONASPHALTIC EMULSION——AT MANUFACTURER'S RECOMMENDED RATE
- POLYVINYL ACETATE——AT MANUFACTURER'S RECOMMENDED RATE
- RECYCLED CELLULOSE FIBER/WOOD FIBER MIXTURE--160 POUNDS PER 1,000 SQUARE YARDS

THE MULCH BINDER APPLICATION IS INCIDENTAL TO THE APPLICATION OF STRAW AND HAY MULCH. APPLY WOOD FIBER MULCH HYDRAULICALLY ACCORDING TO THE MANUFACTURER'S TANK-MIXING INSTRUCTIONS. IT MAY BE INCORPORATED AS AN INTEGRAL PART OF THE SLURRY AFTER THE SEED AND SOIL SUPPLEMENTS HAVE BEEN THOROUGHLY MIXED. APPLY UNIFORMLY AT THE RATE OF 320 POUNDS PER 1,000 SQUARE YARDS UNLESS OTHERWISE INDICATED. MULCH TEMPORARY SEEDED AREAS WITH HAY.

- 1. MEDIAN AREAS. ON SLOPES 6:1 OR FLATTER, PLACE PELLET MULCH BY HAND OR USING A MECHANICAL SPREADER IMMEDIATELY AFTER SEEDING. APPLY UNIFORMLY AT APPLICATION RATE OF 540 POUNDS PER 1,000 SQUARE YARDS. THOROUGHLY WET PELLET MULCH WITH WATER WITHOUT DISLODGING MULCH.
- B. MULCH CONTROL NETTING.
- 1. PLASTIC. INSTALL NETTING OVER DESIGNATED MULCH SURFACE. STAPLE UPSLOPE ENDS, EDGES, BOTTOM, AND OVERLAPS AT 24-INCH INTERVALS. OVERLAP ADJACENT FABRIC TO OUTSIDE EDGES. SECURE REMAINING FABRIC AREAS BY PUTTING IN APPROXIMATELY 1 STAPLE PER 1 SQUARE YARD OF AREA.
- 2. COCONUT COIR. INSTALL NETTING OVER DESIGNATED MULCH SURFACE. STRETCH FABRIC TIGHTLY AND ANCHOR WITH WOOD STAKES ALONG ALL EDGES AT 7-FOOT MAXIMUM INTERVAL. OVERLAP ADJACENT FABRIC WIDTHS BY NOT LESS THAN 8 INCHES.
- C. MULCHING PLANTED AREAS.
- 1. INDIVIDUAL PLANT PITS. UNIFORMLY APPLY A DESIGNATED MULCH SPECIFIED IN SECTION 805.2(A)2 TO THE ENTIRE PLANT PIT TO A LOOSE DEPTH OF 3 INCHES AND AS SHOWN ON THE STANDARD DRAWING. APPLY MULCH WITHIN 48 HOURS AFTER COMPLETION OF THE PLANTING OPERATION.
- 2. PLANTING BEDS. COVER DESIGNATED SHRUB BEDS WITH MULCH OR MULCH AND WEED BARRIER MAT OR MULCH AND WEED CONTROL MAT AS INDICATED. CUT MAT AROUND THE PLANT STEM TO ENSURE MAT WILL NOT EXTEND ABOVE THE MULCH. SECURE MAT TO THE SOIL SURFACE WITH STAPLES OR OTHER APPROVED ANCHORING DEVICES AT A MAXIMUM INTERVAL SPACING OF 3 FEET AND ALONG ALL EDGES AND OVERLAPS. OVERLAP MAT EDGE WITH 2-INCH MINIMUM. UNIFORMLY APPLY A DESIGNATED MULCH SPECIFIED IN SECTION 805.2(A)2 OVER THE ENTIRE BED AREA TO A LOOSE DEPTH OF 3 INCHES. REDISTRIBUTE EXCESSIVE MULCH DEPTH. TAPER MULCH DEPTH AT PLANT PIT AS SHOWN ON THE STANDARD DRAWING. APPLY MAT AND MULCH WITHIN 48 HOURS AFTER COMPLETION OF THE PLANTING OPERATION.
- MAINTENANCE. PROPERLY MAINTAIN MULCHED AREAS UNTIL THE ENTIRE PROJECT HAS BEEN COMPLETED. PROMPTLY REAPPLY MULCH MATERIALS. WHICH BECOME DISLODGED OR LOST DUE TO WIND. RAIN. OR OTHER CAUSES. AT INITIAL OR MODIFIED RATES, AS DIRECTED. AFTER MULCHING WORK ON A SLOPE HAS BEEN SATISFACTORILY COMPLETED, IF A SLOPE FAILURE OCCURS. ONE THAT REQUIRES REDRESSING. EXCAVATION. OR THE ESTABLISHMENT OF A NEW SLOPE. REPLACE THE MULCH. AS DIRECTED.
- E. BONDED FIBER MATRIX.
- 1. GENERAL. PREPARE SURFACES AS SPECIFIED IN SECTION 804.3(B). SCARIFY ALL SLOPES GREATER THAN 3:1 TO ENSURE A ROUGH TEXTURE FOR LODGING OF SEED AND BFM. APPLY SEED AT TWICE THE RATE SPECIFIED IN SECTION 804.2(B)2 TABLE A. APPLY SOIL SUPPLEMENTS AS SPECIFIED IN SECTION 804.3(C).
- 2. APPLICATION. APPLY BONDED FIBER MATRIX COMPONENTS HYDRAULICALLY WITH HYDROMULCHING (HYDROSEED) EQUIPMENT MANUFACTURED FOR THIS PURPOSE. FOLLOW MANUFACTURER'S MIXING AND APPLICATION INSTRUCTIONS. THE BONDED FIBER MATRIX COMPONENTS MAY BE INCORPORATED AS AN INTEGRAL PART OF THE SEEDING AND SOIL SUPPLEMENT APPLICATION IF SEEDING AND SOIL SUPPLEMENTS ARE APPLIED HYDRAULICALLY. APPLY POLYMER BINDER OR HYDROCOLLOID BINDER MATRIXES AT AN APPLICATION RATE OF 3,000 POUNDS PER ACRE OR AS INDICATED TO PROVIDE A UNIFORM SOIL SURFACE COVERAGE THICKNESS OF 0.16 INCH MAXIMUM AFTER DRYING. TEST APPLICATION PROCEDURES TO ENSURE A UNIFORM APPLICATION RATE. DO NOT APPLY WITHIN 24 HOURS OF ANTICIPATED RAINFALL. MIX GYPSUM BINDER MATRIX COMPONENTS IN A HOMOGENOUS SLURRY IN THE FOLLOWING PROPORTIONS FOR EACH 100 GALLONS OF WATER: GYPSUM BINDER--150 POUNDS: WOOD FIBER--40 POUNDS: AND SYNTHETIC FIBER--0.6 POUNDS. APPLY GYPSUM BINDER MATRIX AT AN APPLICATION RATE OF 6,000 POUNDS PER ACRE OR AS INDICATED SO THAT THE SOIL SURFACE IS COVERED UNIFORMLY. DO NOT APPLY WITHIN 12 HOURS OF ANTICIPATED RAINFALL. PLACE BFM MATERIAL AT LEAST 18 INCHES BEYOND THE TOE AND TOP OF ALL SLOPES. APPLY MATERIAL IN AT LEAST TWO DIFFERENT DIRECTIONS TO PROVIDE AS MUCH UNIFORM COVERAGE WITH NO GAPS OR SPACES GREATER THAN 0.04 INCH.

SECTION 802 - TOPSOIL FURNISHED AND PLACED

802.2 MATERIAL

SECTION 801.2 AND CONTAINING NOT LESS THAN 2.0% NOR MORE THAN 10.0% ORGANIC MATTER, AS DETERMINED ACCORDING TO AASHTO T 194. CERTIFY AS SPECIFIED IN SECTION 106.03(B)3. PROVIDE TOPSOIL MEETING THE FOLLOWING GRADING ANALYSIS:

| <u>SIE'</u> | <u>VE</u> |
|-------------|-----------|
| 2 INC | CHES |
| NO. | 4 |
| NO. | 10 |

60 SAND, SILT AND CLAY MATERIAL PASSING THE 2MM (NO. 10) SIEVE, AS DEFINED BY AASHTO T 88 AND WITHIN THE FOLLOWING RANGES:

MINIMUM PERCENT PASSING

100 75

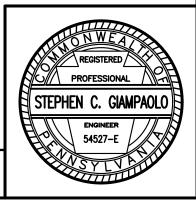
| | MINIMUM PERCENT | MAXIMUM PERCENT |
|------|-----------------|-----------------|
| SAND | 5 | 70 |
| SILT | 10 | 70 |
| CLAY | 5 | 36 |

PROVIDE INDEPENDENT TESTING TO CONFIRM THAT THE TOPSOIL MEETS THE ABOVE REQUIREMENTS. INDEPENDENT TESTING MUST BE LESS THAN 12 MONTHS OLD AT THE TIME TOPSOIL IS FURNISHED TO THE PROJECT. SUBMIT FOR PROJECT-SPECIFIC, LOCAL APPROVAL BY THE REPRESENTATIVE (I.E. AT THE DISTRICT OR PROJECT LEVEL) AS SPECIFIED IN SECTION 106.02(A)2.C. OBTAIN TOPSOIL FROM OUTSIDE THE RIGHT OF WAY, WHERE THE SOIL QUALITY HAS PROVEN THE ABILITY TO GROW VEGETATION. BEFORE TOPSOIL REMOVAL. OBTAIN ACCEPTANCE FOR THE QUALITY OF THE SOURCE. FOR THE DEPTH OF THE TOPSOIL TO BE REMOVED, AND FOR THE METHOD OF REMOVAL. RECONDITION AREAS FROM WHICH TOPSOIL WAS OBTAINED. AS SPECIFIED IN SECTION 105.14

802.3 CONSTRUCTION

- A. PREPARATION OF AREAS TO BE TOPSOILED. GRADE THE AREAS TO BE COVERED BY TOPSOIL. USING ACCEPTABLE METHODS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE PLACING TOPSOIL. REMOVE STONES AND OTHER FOREIGN MATERIAL 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE AND SATISFACTORILY DISPOSE OF UNSUITABLE AND SURPLUS MATERIAL.
- B. PLACING AND SPREADING TOPSOIL. PLACE TOPSOIL ON THE PREPARED AREAS AND, UNLESS OTHERWISE INDICATED, SPREAD AND COMPACT TO A 4-INCH UNIFORM DEPTH $\pm 1 \ 1/2$ INCHES. COMPACT WITH A ROLLER HAVING A WEIGHT NOT OVER 120 POUNDS PER FOOT WIDTH OF ROLLER OR BY OTHER ACCEPTABLE METHODS, AS DIRECTED. REMOVE OVERDEPTH TOPSOIL, UNLESS OTHERWISE AGREED UPON IN WRITING. DO NOT PLACE TOPSOIL IN A WET OR FROZEN CONDITION.

| DISTRICT | COUNTY | ROUTE | SECTION | S | HEET | | |
|--------------------|--------------------------------|-------|---------|------|------|--|--|
| 6-0 | MONTGOMERY SR 4004 MTF 3 OF 18 | | | | | | |
| | LOWER PROVIDENCE TOWNSHIP | | | | | | |
| REVISION NUMBER | REVIS | IONS | | DATE | BY | | |
| | | | | | | | |
| | | | | | | | |



| OWNERSHIP, OPERATIONS AND MAINTENANCE PROCEDUR | RES |
|--|--|
| THE OPERATIONS AND MAINTENANCE RESPONSIBILITIES WILL BE SHARED BETWEEN THE FOLLOWING ENTITIES: (DISTRICT) THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION DISTRICT 6-0, LOCATED AT 7000 GEERDES BLVD, KING OF PRUSSIA, PA 19406 | |
| 2. (TOWNSHIP) LOWER PROVIDENCE TOWNSHIP, LOCATED AT 100 PARKLANE DRIVE, EAGLEVILLE, PA 19403. | RAIN GARDEN |
| PERFORM MAINTENANCE ACTIVITIES FOR THE STORMWATER CONTROL MEASURES (SCMs) IN ACCORDANCE WITH PENNDOT PUBLICATION 888 STORMWATER CONTROL MEASURE MAINTENANCE MANUAL. | (TOWNSHIP) WHILE VEGETATIC SEEDED/PLANTED AREAS TWI PLANTING. WATERING MAY E OCCURRED WITHIN 24 HOURS WEEDING MAY ALSO BE REQU |
| RIP RAP APRONS (TOWNSHIP): | MAINTENANCE ACTIVITIES TO BE |
| MAINTENANCE OF THE RIP RAP APRONS SHOULD BE PERFORMED ANNUALLY. | MOW EMBANKMENT AND SUR INCHES. MOW ONLY WHEN G |
| • THE RIP RAP AND DOWNSTREAM RECEIVING AREA SHOULD BE INSPECTED FOR DAMAGE DUE TO FLOODS AND/OR VEHICULAR TRAFFIC, SEDIMENT BUILD UP, AND ACCUMULATION OF DEBRIS OR TRASH. REPLACE ANY DISPLACED OR MISSING STONES. REPAIR ANY EROSION WITHIN THE DOWNSTREAM RECEIVING AREA. | THE VEGETATION OF THE RAI CONDITION AND ANY BARE S POSSIBLE. REPLACE DISEASI MORTALITY IS REOCCURING, A APPROPRIATE ALTERNATE SP |
| SUMPED INLETS: | REMOVE WOODY VEGETATION, |
| MAINTENANCE TO BE PERFORMED TWO TIMES PER YEAR BY TOWNSHIP: | UNCONTROLLED GROWTH. |
| REMOVE TRASH, DEBRIS, AND/OR SEDIMENT FROM THE SURFACE REMOVE SEDIMENT, TRASH, AND DEBRIS BUILDUP FROM THE SUMP AREA | DURING PERIODS OF EXTENDE REQUIRE WATERING. |
| USING A VACUUM TRUCK OR OTHER APPROPRIATE METHOD. REMOVE SEDIMENT COLLECTED IN WEEP HOLES. REMOVE VEGETATION IMPEDING FLOW INTO THE INLET GRATE. | MAINTENANCE ACTIVITIES TO BE |
| REMOVE VEGETATION INFEDING FLOW INTO THE INLET GRATE. REMOVE ANIMAL CARCASSES FROM VICINITY OF INLET AND WITHIN INLET BOXES. MAINTENANCE TO BE PERFORMED EVERY THREE (3) YEARS BY DISTRICT | MOW AND TRIM VEGETATION IS DRY TO AVOID RUTTING. EXCESSIVE COMPACTION BY I PREFERRED. INSPECT FOR L |
| (STARTING IN YEAR 4 AFTER CONSTRUCTION): | PERENNIAL PLANTINGS MAY I |
| PERFORM VISUAL SCREENING INSPECTION TO DETERMINE INLET IS FUNCTIONING PROPERLY. INSPECT FOR DEBRIS AND TRASH, EROSION, PONDING, DAMAGE AND/OR DETERIORATION OF STRUCTURE. ADDRESS PROBLEMS AFFECTING THE FUNCTION OF THE INLET IN ACCORDANCE WITH | SEASON. MAINTENANCE TO BE PERFORMED (STARTING IN YEAR 4 AFTER CO |
| PENNDOT PUBLICATION 888. MAINTENANCE TO BE PERFORMED AFTER FIRST YEAR AND YEAR 10 AFTER CONSTRUCTION BY DISTRICT (CONTINUING ON 10 YEAR CYCLE): | PERFORM VISUAL SCREENING FUNCTIONING PROPERLY. INS PONDING, DAMAGE AND/OR I AFFECTING THE FUNCTION OF |
| • PERFORM CONDITION ASSESSMENT INSPECTION TO DETERMINE INLET IS FUNCTIONING PROPERLY. INSPECT FOR DEBRIS AND TRASH, EROSION, PONDING, DAMAGE AND/OR DETERIORATION OF STRUCTURE AND RESTORE TO ORIGINAL CONDITION. IN ADDITION, A THOROUGH INVESTIGATION OF | PUBLICATION 888. MAINTENANCE TO BE PERFORMED CONSTRUCTION BY DISTRICT (COI |
| THE SCM IS TO BE PERFORMED INCLUDING INSPECTION OF THE INFLOW AND OUTFLOW OF THE STRUCTURE. ADDRESS ALL DEFICIENCIES IN ACCORDANCE WITH PENNDOT PUBLICATION 888. AMENDED SOILS: | PERFORM CONDITION ASSESS FUNCTIONING PROPERLY. IN PONDING, DAMAGE AND/OR I TO ORIGINAL CONDITION. IN |
| (TOWNSHIP) THE SOIL AMENDMENT PROCESS MAY NEED TO BE REPEATED OVER TIME DUE TO COMPACTION BY AND/OR SETTLING. | THE SCM IS TO BE PERFORM AND OUTFLOW OF THE STRUCE EMBANKMENTS. ADDRESS AN PENNDOT PUBLICATION 888. |
| | ENSURE RUNOFF DRAINS DOWN THE FILTERING CAPACITY OF SUBSTANTIALLY (E.G. WHEN THAN 72 HOURS), THE TOP BE REMOVED AND SHALL BE REMOVED SEDIMENTS SHOULD SILT/SEDIMENT SHOULD BE F ACCUMULATION EXCEEDS ONE |
| | MAINTENANCE ACTIVITIES TO BE |
| | REMOVE ACCUMULATED SEDIN THROUGH THE SOIL MEDIA AI FUNCTIONALITY. RESTORE OR OF SEDIMENT. |
| | |

ON IS BEING ESTABLISHED, WATER ALL ICE WEEKLY FOR 6 WEEKS FOLLOWING BE SKIPPED IF 1/4" OF RAINFALL HAS OF SCHEDULED WATERING. PRUNING AND JIRED.

DONE TWICE A YEAR BY TOWNSHIP:

- ROUNDING AREAS TO A HEIGHT OF 5 TO 8 GROUND IS DRY.
- IN GARDEN SHOULD BE MAINTAINED IN GOOD SPOTS BE RE-VEGETATED AS SOON AS ED OR DEAD PLANTS. IF SPECIFIC SPECIES ASSESS CAUSE AND REPLACE WITH PECIES.
- INVASIVE/UNDESIRABLE SPECIES, AND
- ED DROUGHT, BIORETENTION AREAS MAY
- DONE ANNUALLY BY TOWNSHIP:
- ON THE BED BOTTOM. MOW ONLY WHEN BED CARE SHOULD BE TAKEN TO AVOID MOWERS. HAND OPERATED EQUIPMENT IS LITTER AND REMOVE PRIOR TO MOWING.
- BE CUT DOWN AT THE END OF THE GROWING
- D EVERY THREE (3) YEARS BY **DISTRICT** NSTRUCTION):
- INSPECTION TO DETERMINE IF SCM IS SPECT FOR DEBRIS AND TRASH, EROSION, DETERIORATION OF SCM. ADDRESS PROBLEMS THE SCM IN ACCORDANCE WITH PENNDOT
- D AFTER FIRST YEAR AND YEAR 10 AFTER NTINUING ON 10 YEAR CYCLE):
- MENT INSPECTION TO DETERMINE SCM IS SPECT FOR DEBRIS AND TRASH. EROSION. DETERIORATION OF STRUCTURES AND RESTORE ADDITION, A THOROUGH INVESTIGATION OF IED INCLUDING INSPECTION OF THE INFLOW CTURE. CONTRIBUTING DRAINAGE AREA. AND LL DEFICIENCIES IN ACCORDANCE WITH
- WN WITHIN THE DESIGN PARAMETERS. WHEN THE RAIN GARDEN DIMINISHES WATER PONDS ON THE SURFACE FOR MORE FEW INCHES OF DISCOLORED MATERIAL SHALL REPLACED WITH FRESH MATERIAL. THE D BE DISPOSED IN AN ACCEPTABLE MANNER. REMOVED FROM THE BED WHEN THE E INCH.
- DONE AS NEEDED BY TOWNSHIP:
- MENT AS REQUIRED TO MAINTAIN INFILTRATION ND TO MAINTAIN WATER QUALITY IGINAL CROSS SECTION. PROPERLY DISPOSE

MANAGE RELEASE CONCEPT BASIN:

• (TOWNSHIP) WHILE VEGETATION IS BEING ESTABLISHED, WATER ALL SEEDED/PLANTED AREAS TWICE WEEKLY FOR 6 WEEKS FOLLOWING PLANTING. WATERING MAY BE SKIPPED IF 1/4" OF RAINFALL HAS OCCURRED WITHIN 24 HOURS OF SCHEDULED WATERING. PRUNING AND WEEDING MAY ALSO BE REQUIRED.

MAINTENANCE ACTIVITIES TO BE DONE TWICE A YEAR BY TOWNSHIP:

- MOW EMBANKMENT AND SURROUNDING AREAS TO A HEIGHT OF 5 TO 8 INCHES. MOW ONLY WHEN GROUND IS DRY.
- THE VEGETATION OF THE RAIN GARDEN SHOULD BE MAINTAINED IN GOOD CONDITION AND ANY BARE SPOTS BE RE-VEGETATED AS SOON AS POSSIBLE.
- REMOVE WOODY VEGETATION, INVASIVE/UNDESIRABLE SPECIES, AND UNCONTROLLED GROWTH.
- DURING PERIODS OF EXTENDED DROUGHT, BIORETENTION AREAS MAY REQUIRE WATERING.
- REMOVE DEBRIS AND TRASH.

MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY BY TOWNSHIP:

- MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION. OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION. DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY. MOW ONLY WHEN BED IS DRY TO AVOID RUTTING. CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. INSPECT FOR LITTER AND REMOVE PRIOR TO MOWING.
- REMOVE LEAF LITTER.
- PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON.

MAINTENANCE TO BE PERFORMED EVERY THREE (3) YEARS BY DISTRICT (STARTING IN YEAR 4 AFTER CONSTRUCTION):

• PERFORM VISUAL SCREENING INSPECTION TO DETERMINE IF SCM IS FUNCTIONING PROPERLY. INSPECT FOR DEBRIS AND TRASH, EROSION, PONDING, DAMAGE AND/OR DETERIORATION OF SCM. ADDRESS PROBLEMS AFFECTING THE FUNCTION OF THE SCM IN ACCORDANCE WITH PENNDOT PUBLICATION 888.

MAINTENANCE TO BE PERFORMED AFTER FIRST YEAR AND YEAR 10 AFTER CONSTRUCTION BY **DISTRICT** (CONTINUING ON 10 YEAR CYCLE):

- PERFORM CONDITION ASSESSMENT INSPECTION TO DETERMINE SCM IS FUNCTIONING PROPERLY. INSPECT FOR DEBRIS AND TRASH, EROSION, PONDING, DAMAGE AND/OR DETERIORATION OF STRUCTURES AND RESTORE TO ORIGINAL CONDITION. IN ADDITION, A THOROUGH INVESTIGATION OF THE SCM IS TO BE PERFORMED INCLUDING INSPECTION OF THE INFLOW AND OUTFLOW OF THE STRUCTURE, CONTRIBUTING DRAINAGE AREA, AND EMBANKMENTS. ADDRESS ALL DEFICIENCIES IN ACCORDANCE WITH PENNDOT PUBLICATION 888.
- ENSURE RUNOFF DRAINS DOWN WITHIN THE DESIGN PARAMETERS. WHEN THE FILTERING CAPACITY OF THE RAIN GARDEN DIMINISHES SUBSTANTIALLY (E.G. WHEN WATER PONDS ON THE SURFACE FOR MORE THAN 72 HOURS), THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH MATERIAL. THE REMOVED SEDIMENTS SHOULD BE DISPOSED IN AN ACCEPTABLE MANNER. SILT/SEDIMENT SHOULD BE REMOVED FROM THE BED WHEN THE ACCUMULATION EXCEEDS ONE INCH.

MAINTENANCE ACTIVITIES TO BE DONE AS NEEDED BY TOWNSHIP:

• IF ROADSIDE OR PARKING LOT RUNOFF IS DIRECTED TO THE SWALE, REMOVE ACCUMULATED SEDIMENT AS REQUIRED TO MAINTAIN INFILTRATION MULCHING AND/OR SOIL AERATION/MANIPULATION MAY BE REQUIRED IN THROUGH THE SOIL MEDIA AND TO MAINTAIN WATER QUALITY THE SPRING TO RESTORE SOIL STRUCTURE AND MOISTURE CAPACITY AND FUNCTIONALITY. RESTORE ORIGINAL CROSS SECTION. PROPERLY DISPOSE TO REDUCE THE IMPACTS OF DEICING AGENTS. OF SEDIMENT.

| DISTRICT | COUNTY | ROUTE | SECTION | 5 | HEET |
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VEGETATED SWALE:

MAINTENANCE ACTIVITIES TO BE DONE TWICE A YEAR BY TOWNSHIP:

- MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION. DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY. MOW ONLY WHEN SWALE IS DRY TO AVOID RUTTING.
- REMOVE LITTER PRIOR TO MOWING.
- MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY BY TOWNSHIP:
- REMOVE WOODY VEGETATION, INVASIVE/UNDESIRABLE SPECIES, AND UNCONTROLLED GROWTH.
- REMOVE LITTER, DEBRIS, AND TRASH.

MAINTENANCE TO BE PERFORMED EVERY THREE (3) YEARS (STARTING IN YEAR 4 AFTER CONSTRUCTION) (INSPECTION PERFORMED BY TOWNSHIP FOR SWALES 5 & 6, AND BY DISTRICT FOR SWALES 1, 2, 3, 4, & 7):

• PERFORM VISUAL SCREENING INSPECTION TO DETERMINE IF SCM IS FUNCTIONING PROPERLY. INSPECT FOR DEBRIS AND TRASH, EROSION, PONDING. DAMAGE AND/OR DETERIORATION OF SCM. ADDRESS PROBLEMS AFFECTING THE FUNCTION OF THE SCM IN ACCORDANCE WITH PENNDOT PUBLICATION 888.

MAINTENANCE TO BE PERFORMED AFTER FIRST YEAR AND YEAR 10 AFTER CONSTRUCTION (CONTINUING ON 10 YEAR CYCLE) (INSPECTION PERFORMED BY TOWNSHIP FOR SWALES 5 & 6, AND BY DISTRICT FOR SWALES 1, 2, 3, 4, & 7):

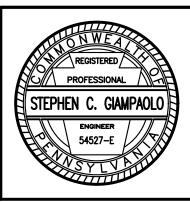
- PERFORM CONDITION ASSESSMENT INSPECTION TO DETERMINE SCM IS FUNCTIONING PROPERLY. INSPECT FOR DEBRIS AND TRASH, EROSION, PONDING, DAMAGE AND/OR DETERIORATION OF STRUCTURES AND RESTORE TO ORIGINAL CONDITION. IN ADDITION, A THOROUGH INVESTIGATION OF THE SCM IS TO BE PERFORMED INCLUDING INSPECTION OF THE INFLOW AND OUTFLOW OF THE STRUCTURE, CONTRIBUTING DRAINAGE AREA, AND EMBANKMENTS. INSPECT FOR UNIFORMITY IN CROSS SECTION AND LONGITUDINAL SLOPE. ADDRESS ALL DEFICIENCIES IN ACCORDANCE WITH PENNDOT PUBLICATION 888.
- ENSURE RUNOFF DRAINS DOWN WITHIN THE DESIGN PARAMETERS. WHEN THE FILTERING CAPACITY OF THE RAIN GARDEN DIMINISHES SUBSTANTIALLY (E.G. WHEN WATER PONDS ON THE SURFACE FOR MORE THAN 72 HOURS), THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH MATERIAL. THE REMOVED SEDIMENTS SHOULD BE DISPOSED IN AN ACCEPTABLE MANNER. SILT/SEDIMENT SHOULD BE REMOVED FROM THE BED WHEN THE ACCUMULATION EXCEEDS ONE INCH.

MAINTENANCE ACTIVITIES TO BE PERFORMED AS NEEDED BY TOWNSHIP:

- PLANT ALTERNATIVE GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT.
- RESEED BARE AREAS AND INSTALL APPROPRIATE EROSION CONTROL MEASURES WHEN NATIVE SOIL IS EXPOSED OR EROSION CHANNELS ARE FORMING.
- WATER DURING DRY PERIODS, FERTILIZE, AND APPLY PESTICIDE ONLY WHEN ABSOLUTELY NECESSARY.

ADDITIONAL MAINTENANCE FOR WINTER CONDITIONS (TOWNSHIP):

- INSPECT SWALE IMMEDIATELY AFTER THE SPRING MELT. REMOVE RESIDUALS (E.G. SAND) AND REPLACE DAMAGED VEGETATION WITHOUT DISTURBING REMAINING VEGETATION.
- USE SALT-TOLERANT VEGETATION IN SWALES.



SEQUENCE OF CONSTRUCTION

GENERAL NOTES:

- ALL EARTH DISTURBANCE ACTIVITIES ARE TO PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. LIMIT CLEARING AND GRUBBING TO THOSE AREAS DESCRIBED IN EACH STAGE. DEVIATION FROM THAT SEQUENCE REQUIRES WRITTEN APPROVAL FROM THE LOCAL COUNTY CONSERVATION DISTRICT PRIOR TO IMPLEMENTATION.
- A BMP SEQUENCE CAN BE CHANGED BY NOTIFYING LOCAL COUNTY CONSERVATION DISTRICT. METHODS OF COMMUNICATING CHANGES INCLUDE THE FOLLOWING: A. GET VERBAL APPROVAL.
 - B. MODIFY THE E&S PLAN (RED-LINE DRAWING) AND GET A SIGNATURE OR INITIALS WHEN AN INSPECTOR ARRIVES AT THE SITE. C. FAX/EMAIL THE MODIFIED SEQUENCE TO CONSERVATION DISTRICT.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING). INVITE ALL CONTRACTORS. A TOWNSHIP REPRESENTATIVE. THE MONTGOMERY COUNTY CONSERVATION DISTRICT. AND A REPRESENTATIVE FROM THE PA DEP SOUTHEASTERN REGION TO AN ON-SITE PRE-CONSTRUCTION MEETING.
- PERFORM PRE-PROJECT SITE EVALUATION AND DETERMINE IF THERE ARE ANY AREAS WITHIN THE LIMIT OF DISTURBANCE THAT SHOULD NOT BE DISTURBED DURING THE LIFE OF THE PROJECT.
- INSTALL APPROPRIATE INLET PROTECTION ON ALL NEW INLETS ONCE THE INLET INSTALLATION IS COMPLETE.
- 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.
- ACTIVITIES LABELED AS "CRITICAL ACTIVITY" HAVE SPECIFIC TASKS WHICH REQUIRE THE OVERSIGHT OF A LICENSED PROFESSIONAL.
- MARK E&S LIMITS OF DISTURBANCE PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POST & ROPE, CONSTRUCTION FENCE, ETC.)
- CONSTRUCT ALL DRAINAGE FACILITIES FROM DOWNSTREAM TO UPSTREAM UNLESS OTHERWISE NOTED.
- ANY VEGETATED AREA WHICH HAS REACHED FINAL GRADE AND EXCEEDS 15,000 SQUARE FEET MUST BE IMMEDIATELY STABILIZED.
- CESSATION OF ACTIVITY FOR 4 DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION.
- TEMPORARY EXTENDED-TERM ROLLED EROSION CONTROL PRODUCT, TYPE 3B = TRECP-3B
- PERMANENT ROLLED EROSION CONTROL PRODUCT, TYPE 5A = PRECP-5A
- THE FOLLOWING IS A BREAKDOWN OF THE WORK TO BE COMPLETED DURING EACH STAGE:

PREPARATION WORK FOR UTILITIES

- 1) CONTACT THE MONTGOMERY COUNTY CONSERVATION DISTRICT 72 HOURS PRIOR TO START OF ANY ACTIVITY.
- 2) INSTALL STAGE 1A EROSION AND SEDIMENT CONTROL MEASURES REQUIRED FOR UTILITY WORK, INCLUDING COMPOST FILTER SOCK AND INLET PROTECTION. 3) CLEAR AND GRUB FOR UTILITY POLE RELOCATION AND INSTALLATION OF SEWER
- MAIN AND WATER MAIN. PLACE COMPACTED BERMS WHERE INDICATED TO SET PROPOSED UTILITY POLES AT FINAL GRADE. PLACE FORMULA E SEEDING. 4) PERFORM INCORPORATED UTILITY WORK TO INSTALL SANITARY SEWER MAIN UNDER
- SR 4004 AND TO RELOCATE SEWER UNDER CRAWFORD ROAD. ABANDON OLD SEWER MAIN AND REMOVE MANHOLES. REFER TO UTILITY LIINE STREAM CROSSING DETAIL FOR MINE RUN CROSSING. IMMEDIATELY STABILIZE ANY GRASS DISTURBED AREAS WITH FORMULA E SEEDING. RESTORE ANY DISTURBED AREAS WITH TEMPORARY PAVEMENT.
- 5) INSTALL PORTION OF PROPOSED WATER MAIN ON T-324 ALONG OLD ROADWAY AND ON SR 4004 SOUTH OF THE T-324 INTERSECTION.

STAGE 1A

- 1) CONTACT THE MONTGOMERY COUNTY CONSERVATION DISTRICT 72 HOURS PRIOR TO START OF ANY ACTIVITY.
- 2) INSTALL TRAFFIC CONTROL INCLUDING CLOSURE OF CRAWFORD ROAD IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
- 3) DELINEATE ALL LIMITS OF DISTURBED AREA IN THE FIELD. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING INLET PROTECTION, COMPOST FILTER SOCKS, AND ROCK CONSTRUCTION ENTRANCES 1 AND 2 (WITH COMPOST SOCK SEDIMENT TRAP 1). INSTALL STREAM DIVERSION SYSTEM AND DEWATER WITH PUMPED WATER FILTER BAG.
- 4) CLEAR AND GRUB AREA WITHIN STAGE 1A WORK ZONE INCLUDING AREA FOR SEDIMENT TRAP IN STAGE 3. 5) EXCAVATE FOR TEMPORARY DIVERSION CHANNEL. MAINTAIN STABILITY OF CREEK
- BANK AT ALL TIMES. LINE CHANNEL WITH FORMULA E SEEDING AND PRECP-5A. 6) EXCAVATE WITHIN STAGE 1A LIMITS AND REMOVE EXISTING STONE WALL FROM STA.
- 55+50 RT TO 56+06 RT. REMOVE ABANDONED SEWER MAIN AS NEEDED. 7) INSTALL FILL TO RAISE ROADWAY AND PREPARE SUBGRADE AND EMBANKMENT
- FROM 54+50 TO 56+75. INSTALL DRAINAGE SYSTEM FROM I-14 TO EW-6. 8) CONSTRUCT TEMPORARY RAMBO PROPERTY DRIVEWAY. REMOVE ROCK CONSTRUCTION ENTRANCE 2 AND COMPOST SOCK SEDIMENT TRAP 1. MAINTAIN ACCESS TO EXISTING RAMBO DRIVEWAY UNTIL TEMPORARY DRIVEWAY IS COMPLETE. IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL. MULCH, SEEDING, AND TRECP-3B WHERE INDICATED. IMMEDIATELY STABILIZE TEMPORARY EMBANKMENT ON CRAWFORD ROAD AT STA. 56+75 WITH FORMULA E SEEDING AND TRECP-3B.

STAGE 1B

- 1) INSTALL TRAFFIC CONTROL IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN. MAINTAIN CRAWFORD ROAD CLOSURE.
- 2) INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING INLET PROTECTION, COMPOST FILTER SOCKS, AND ROCK CONSTRUCTION ENTRANCE 3. MAINTAIN ROCK CONSTRUCTION ENTRANCE 1
- 3) RECONFIGURE STREAM DIVERSION SYSTEM TO DIVERT FLOW INTO TEMPORARY DIVERSION CHANNEL. DEWATER AS NEEDED WITH PUMPED WATER FILTER BAG. 4) CLEAR AND GRUB, INSTALL TEMPORARY EXCAVATION SUPPORT SYSTEM AND EXCAVATE WITHIN STAGE 1B WORK AREA.

- ROADWAY AND PREPARE SUBGRADE AND EMBANKMENT.
- TRECP-3B.

STAGE 1C

- MAINTAIN CRAWFORD ROAD CLOSURE.
- CHANNEL WITH SUITABLE MATERIAL AND COMPACT. 4) INSTALL FILL TO RAISE THE INTERSECTION APPROACH AND PREPARE THE
- STREAM DIVERSION.
- SOCK WHERE INDICATED ALONG THE TEMPORARY SLOPE.
- E SEEDING AND TRECP-3B.

STAGE 2

- (WITH COMPOST SOCK SEDIMENT TRAP 2).
- WALL ALONG SOUTH SIDE OF EAGLEVILLE ROAD.
- WORK WITHIN MINE RUN. PLACE COMPOST SOCK SEDIMENT TRAP 3
- 4004 WITH FORMULA E SEEDING AND TRECP-3B.

STAGE 3

- (CONSTRUCT STAGES 3, 4A, 4D, & 5A CONCURRENTLY.)
- CLOSURES. PROTECTION AND COMPOST FILTER SOCKS.
- DRIVEWAY.
- 5) CLEAR, GRUB, AND EXCAVATE WITHIN STAGE 3 LIMITS.
- AND LINE WITH R-5 ROCK.
- SEEDING.
- BEDDING). PREVENT RUNOFF FROM ENTERING THE CLEANOUTS. PLACE UNIFORMLY
- SOIL MEDIA.

5) INSTALL CRAWFORD ROAD BOX CULVERT AND RETAINING WALL. BACKFILL, GRADE RELOCATED MINE RUN CHANNEL, AND PLACE ROCK LINING AND TRECP-3A AS INDICATED. REMOVE TEMPORARY EXCAVATION SUPPORT. BACKFILL TO RAISE

6) INSTALL WATER MAIN ON CRAWFORD ROAD FROM STA 54+50 TO 57+15. 7) CONSTRUCT CURB AND PAVEMENT UP TO AND INCLUDING BINDER FROM STA. 56+75 TO STA. 57+15 INCLUDING CURB AND FINAL RAMBO PROPERTY DRIVEWAY ADJUSTMENT. REMOVE TEMPORARY RAMBO PROPERTY DRIVEWAY. PERFORM FINAL GRADING AND IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B WHERE INDICATED. (CRITICAL ACTIVITY) INSTALL VEGETATED SWALE 5 AND LINE WITH FORMULA N SEEDING AND PERCP-5A. PLACE ROCK FILTER 1 AND OUTLET PROTECTION FOR EW-6. REMOVE ROCK FILTER 1 ONCE CHANNEL LINING IS INSTALLED. IMMEDIATELY STABILIZE TEMPORARY EMBANKMENT NEAR STA. 57+15 WITH FORMULA E SEEDING AND

1) INSTALL TRAFFIC CONTROL IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.

2) INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING COMPOST FILTER SOCKS. MAINTAIN CONSTRUCTION ENTRANCES 1 AND 3. 3) RECONFIGURE STREAM DIVERSION SYSTEM AND BACKFILL TEMPORARY DIVERSION

SUBGRADE AND EMBANKMENT. INSTALL DRAINAGE SYSTEM FROM COS-2 TO EW-5 INCLUDING ANTI-SEEP COLLARS AND OUTLET PROTECTION. REMOVE TEMPORARY

5) INSTALL WATER MAIN ON CRAWFORD ROAD FROM STA 57+15 TO 59+10. 6) INSTALL PORTION OF MRC BASIN 2 INCLUDING CLAY CORE. DO NOT INSTALL UNDERDRAIN UNTIL STAGE 5. REMOVE ROCK CONSTRUCTION ENTRANCES 1 AND 3 WHEN NEEDED. STABILIZE DISTURBED AREA OF ROCK CONSTRUCTION ENTRANCE 3 WITH TOPSOIL, MULCH, SEEDING AND TRECP-3B, AND INSTALL COMPOST FILTER

7) CONSTRUCT PAVEMENT UP TO AND INCLUDING BINDER FROM STA. 57+15 TO STA. 59+10 AND PORTION OF FINAL MYCEK PROPERTY DRIVEWAY. PERFORM FINAL GRADING AND PLACE REMAINING STREAM CHANNEL ROCK LINING. IMMEDIATELY

STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B WHERE INDICATED. (CRITICAL ACTIVITY) INSTALL

VEGETATED SWALE 4 AND LINE WITH FORMULA N SEEDING AND PRECP-5A. PLACE ROCK FILTER 2. REMOVE ROCK FILTER 2 ONCE CHANNEL LINING IS INSTALLED. IMMEDIATELY STABILIZE TEMPORARY EMBANKMENT ALONG SR 4004 WITH FORMULA

1) INSTALL TRAFFIC CONTROL INCLUDING EAGLEVILLE ROAD CLOSURE IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN. MAINTAIN CRAWFORD ROAD CLOSURE. 2) INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING INLET PROTECTION, COMPOST FILTER SOCKS AND ROCK CONSTRUCTION ENTRANCE 4

3) CLEAR, GRUB, AND EXCAVATE WITHIN STAGE 2 LIMITS. REMOVE EXISTING STONE

4) INSTALL FILL TO RAISE THE INTERSECTION APPROACH AND PREPARE SUBGRADE AND EMBANKMENT. INSTALL DRAINAGE SYSTEM FROM I-8 TO EW-4 INCLUDING I-6, I-7 AND OUTLET PROTECTION. UTILIZE TEMPORARY COFFERDAM TO PERFORM

5) INSTALL WATER MAIN ON SR 4006 FROM 60+65 TO 63+00.

6) CONSTRUCT PAVEMENT UP TO AND INCLUDING BINDER FROM STA. 60+65 TO STA. 63+00 INCLUDING INSTALLATION OF SINGLE FACE BARRIER. CURB. AND DRIVEWAY ADJUSTMENTS. CONSTRUCT TEMPORARY DRIVEWAY FOR PARK 901 LLC PROPERTY. REMOVE ROCK CONSTRUCTION ENTRANCE 4 AND COMPOST SOCK SEDIMENT TRAPS 2 AND 3. PERFORM FINAL GRADING AND IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B WHERE INDICATED. IMMEDIATELY STABILIZE TEMPORARY EMBANKMENT ALONG SR

1) INSTALL TRAFFIC CONTROL INCLUDING SR 4004 CLOSURE IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN. MAINTAIN EAGLEVILLE ROAD AND CRAWFORD ROAD

2) INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING INLET

3) INSTALL REMAINDER OF FINAL MYCEK PROPERTY DRIVEWAY AND REMOVE EXISTING

4) INSTALL REMAINDER OF TEMPORARY MRC BASIN 2 CONFIGURATION AS SEDIMENT TRAP 1 INCLUDING SKIMMER CONFIGURATION, SILT FENCE, AND CLAY CORE.

6) REMOVE SECTION OF EXISTING PAVEMENT AND CONSTRUCT TEMPORARY SWALE 1

7) INSTALL VEGETATED SWALE 6 AS GRASS SWALE AND LINE WITH FORMULA E SEEDING AND PERCP-5A. PERFORM TEMPORARY GRADING ALONG SR 4004 TO ALLOW FLOW INTO VEGETATED SWALE 6 FROM ROADWAY AND PLACE FORMULA E

8) INSTALL FILL TO RAISE THE INTERSECTION AND PREPARE SUBGRADE AND EMBANKMENT. INSTALL DRAINAGE CONNECTION FROM I-9 TO I-8. 9) INSTALL WATER MAIN WITHIN THE INTERSECTION OF SR 4004/SR 4006/T-324 10) (CRITICAL ACTIVITY) EXCAVATE TO BOTTOM OF MRC BASIN 1 AND SCARIFY BOTTOM. DO NOT COMPACT THE SUBGRADE. INSTALL DRAINAGE FACILITIES FOR MRC BASIN 1 INCLUDING CLEANOUT STRUCTURES, PERFORATED PIPES, AND AGGREGATE (PIPE

GRADED AGGREGATE IN MAXIMUM 8" LIFTS AND LIGHTLY COMPACT. 11) AFTER AGGREGATE IS COMPLETELY INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT IS PROHIBITED FROM THE MRC BASIN 1 AREA TO ELIMINATE IMPACTS

AND/OR COMPACTION. IN THE EVENT THAT ANY IMPACT COMPROMISE THE FUNCTIONALITY OF THE AGGREGATE, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO THE PROJECT SPECIFICATIONS. (CRITICAL ACTIVITY) PLACE SOIL MEDIA GENTLY. DO NOT COMPACT SOIL MEDIA OR DRIVE HEAVY EQUIPMENT OVER

12) PLACE APPROPRIATE SEEDING AND TRECP-3B IN MRC BASIN 1, AND INSTALL COMPOST FILTER SOCK ALONG BASIN SLOPES TO PREVENT SEDIMENT FROM ENTERING THE BASIN. SURROUND BASIN WITH TEMPORARY PROTECTIVE FENCE. 13) CONSTRUCT PAVEMENT UP TO AND INCLUDING BINDER WITHIN INTERSECTION ON SR 4004 FROM STA. 24+55 TO STA. 25+90 AND REMAINING SECTIONS ON EAGLEVILLE ROAD AND CRAWFORD ROAD FROM STA. 59+10 TO STA. 60+65 INCLUDING FINAL DRIVEWAY FOR PARK 901 LLC PROPERTY. INSTALL SIGNAL CONDUIT AND SIGNAL FOUNDATIONS. REMOVE TEMPORARY DRIVEWAY FOR PARK 901 LLC PROPERTY. PERFORM FINAL GRADING AND IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B WHERE INDICATED. IMMEDIATELY STABILIZE TEMPORARY EMBANKMENT ALONG NORTH AND SOUTH

APPROACHES OF SR 4004 WITH FORMULA E SEEDING AND TRECP-3B. 14) REOPEN EAGLEVILLE ROAD AND CRAWFORD ROAD TO TRAFFIC

STAGE 4A

1) INSTALL TRAFFIC CONTROL IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN. MAINTAIN SR 4004 CLOSURE.

- 2) INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING COMPOST FILTER SOCKS.
- 1) MAINTAIN SR 4004 CLOSURE AND OPEN LEFT SIDE TO LOCAL TRAFFIC. 3) INSTALL STREAM DIVERSION SYSTEM AND REMOVE EXISTING SUPERSTRUCTURE AND 2) MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES FROM STAGE 5A, INCLUDING SOUTH ABUTMENT. COMPOST FILTER SOCKS AND ROCK CONSTRUCTION ENTRANCE 6. 3) CLEAR, GRUB, AND EXCAVATE ALONG THE RIGHT SIDE OF SR 4004 FROM STA.

STAGE 4B

- 1) MAINTAIN SR 4004 CLOSURE.
- 2) INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING COMPOST FILTER SOCKS. MAINTAIN TEMPORARY COFFERDAM SYSTEM FROM STAGE 4A.
- 3) INSTALL STREAM DIVERSION SYSTEM AND REMOVE EXISTING NORTH ABUTMENT

STAGE 4C

- 1) MAINTAIN SR 4004 CLOSURE.
- 2) MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES.
- 3) INSTALL TEMPORARY STREAM BYPASS SYSTEM AND REMOVE STREAM DIVERSION SYSTEMS FROM STAGES 4A AND 4B. INSTALL SR 4004 CULVERT AND BACKFILL REMOVE PORTION OF EXISTING PAVEMENT AND INSTALL TEMPORARY SWALE 2 AND LINE WITH R-5 ROCK. GRADE AND LINE CHANNEL BANKS AND REMOVE TEMPORARY STREAM BYPASS SYSTEM.

STAGE 4D

1) MAINTAIN SR 4004 CLOSURE

- 2) INSTALL EROSION AND SEDIMENT CONTROL MEASURES ALONG SR 4004 FROM STA 16+00 TO STA. 24+00, INCLUDING COMPOST FILTER SOCKS AND ROCK CONSTRUCTION ENTRANCE 5 (WITH COMPOST SOCK SEDIMENT TRAP 4).
- 3) CLEAR, GRUB, AND EXCAVATE ALONG SR 4004 FROM STA 20+50 TO 23+50. 4) INSTALL FILL TO RAISE ROADWAY AND PREPARE SUBGRADE AND EMBANKMENT. INSTALL CROSS PIPE AT STA 22+10 INCLUDING OUTLET PROTECTION UTILIZING
- TEMPORARY STREAM BYPASS SYSTEM. INSTALL DRAINAGE SYSTEM FROM I-3A TO AND FORMULA N SEEDING. EW-1 INCLUDING OUTLET PROTECTION. RESET SEWER MANHOLES TO FINAL GRADE. 5) (CRITICAL ACTIVITY) DEWATER, CLEAN, AND RESTABILIZE SEDIMENT TRAP 1 PRIOR 5) CONSTRUCT PAVEMENT UP TO AND INCLUDING BINDER FROM STA. 20+50 TO STA. TO CONVERTING TO MRC BASIN 2. 24+55 INCLUDING GRAVEL ACCESS DRIVEWAY. (CRITICAL ACTIVITY) INSTALL
- AMENDED SOILS ADJACENT TO ACCESS DRIVEWAY. REMOVE TEMPORARY SWALE 2. IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B WHERE INDICATED.

STAGE 4E

- 1) MAINTAIN SR 4004 CLOSURE AND OPEN LEFT SIDE TO LOCAL TRAFFIC. 2) MAINTAIN STAGE 4D EROSION AND SEDIMENT CONTROL MEASURES ALONG SR 4004 FROM STA 16+00 TO STA. 24+00, INCLUDING COMPOST FILTER SOCKS AND ROCK
- CONSTRUCTION ENTRANCE 5 (WITH COMPOST SOCK SEDIMENT TRAP 4). 3) CLEAR, GRUB, AND EXCAVATE ALONG RIGHT SIDE OF SR 4004 FROM STA 16+00 TO 20+50.
- 4) INSTALL DRAINAGE SYSTEM FROM I-1 TO I-3A.
- 5) CONSTRUCT PAVEMENT UP TO AND INCLUDING BINDER FROM STA. 16+11 TO STA. 20+50 RT INCLUDING T-546 RECONSTRUCTION AND DRIVEWAY ADJUSTMENTS.
- 6) PERFORM FINAL GRADING AND IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B WHERE INDICATED.
- 7) (CRITICAL ACTIVITY) INSTALL VEGETATED SWALE 2 AND LINE WITH FORMULA N SEEDING AND PRECP-5A. PLACE ROCK FILTER 4. REMOVE ROCK FILTER ONCE CHANNEL LINING IS INSTALLED.
- 8) (CRITICAL ACTIVITY) INSTALL RAIN GARDEN 1 INCLUDING OUTLET STRUCTURE, PIPE AND OUTLET PROTECTION. SURROUND RAIN GARDEN WITH TEMPORARY PROTECTIVE FENCE. DO NOT CONSTRUCT VEGETATED SWALE 1 UNTIL RAIN GARDEN SEEDING IS ESTABLISHED.
- 9) (CRITICAL ACTIVITY) INSTALL VEGETATED SWALE 1 AND LINE WITH FORMULA N SEEDING AND PRECP-5A. PLACE ROCK FILTER 3. REMOVE ROCK FILTER ONCE CHANNEL LINING HAS BEEN INSTALLED.

STAGE 4F

- 1) MAINTAIN SR 4004 CLOSURE AND SHIFT LOCAL TRAFFIC TO RIGHT SIDE OF SR 4004.
- 2) MAINTAIN STAGE 4D EROSION AND SEDIMENT CONTROL MEASURES ALONG SR 4004 FROM STA 16+00 TO STA. 24+00, INCLUDING COMPOST FILTER SOCKS AND ROCK CONSTRUCTION ENTRANCE 5 (WITH COMPOST SOCK SEDIMENT TRAP 4).
- 3) CLEAR, GRUB, AND EXCAVATE ALONG LEFT SIDE OF SR 4004 FROM STA 20+50 TO 23 + 50.
- 4) INSTALL DRIVEWAY PIPE CROSSING AT STA. 19+00 LT. MAINTAIN DRIVEWAY ACCESS.
- 5) CONSTRUCT PAVEMENT UP TO AND INCLUDING BINDER FROM STA. 16+11 TO STA. 20+50 LT INCLUDING DRIVEWAY ADJUSTMENTS. REMOVE ROCK CONSTRUCTION ENTRANCE 5 AND COMPOST SOCK SEDIMENT TRAP 4.
- 6) PERFORM FINAL GRADING AND IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B WHERE INDICATED.
- 7) (CRITICAL ACTIVITY) INSTALL VEGETATED SWALE 3 AND LINE WITH FORMULA N SEEDING AND PRECP-5A. PLACE ROCK FILTER 5. REMOVE ROCK FILTER ONCE
- CHANNEL LINING HAS BEEN INSTALLED. 8) INSTALL FINAL SIGNAL FOUNDATIONS AND EQUIPMENT.

STAGE 5A

- 1) MAINTAIN SR 4004 CLOSURE
- 2) INSTALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING COMPOST FILTER SOCKS AND ROCK CONSTRUCTION ENTRANCE 6.
- 3) CLEAR, GRUB, AND EXCAVATE FROM STA. 25+75 TO 26+82.
- 4) INSTALL FILL TO RAISE THE INTERSECTION APPROACH AND PREPARE SUBGRADE. REMOVE TEMPORARY SWALE 1. INSTALL DRAINAGE SYSTEM FROM I-10 TO I-9 AND DIRECT SHOULDER RUNOFF TO I-10.
- 5) INSTALL WATER MAIN FROM STA. 25+85 TO 31+70
- 6) CONSTRUCT PAVEMENT UP TO AND INCLUDING BINDER FROM STA. 25+75 TO STA. 26+82. PERFORM FINAL GRADING AND IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B WHERE INDICATED.

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| 6-0 | MONTGOMERY | ONTGOMERY SR 4004 MTF | | 5 | OF 18 | |
| | LOWER PROVIDENCE TOWNSHIP | | | | | |
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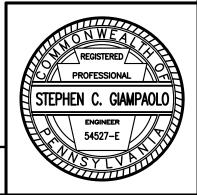
STAGE 5B

- 26+82 TO 31+70. 4) INSTALL GEOSYNTHETIC REINFORCED SLOPE FROM STA. 29+57 RT TO STA. 30+92
- RT. 5) CONSTRUCT PAVEMENT UP TO AND INCLUDING BINDER FROM STA. 26+82 RT TO STA. 31+70 RT. PERFORM FINAL GRADING AND IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B

STAGE 5C

WHERE INDICATED.

- 1) MAINTAIN SR 4004 CLOSURE AND OPEN RIGHT SIDE TO LOCAL TRAFFIC.
- 2) MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES FROM STAGE 5A, INCLUDING COMPOST FILTER SOCKS AND ROCK CONSTRUCTION ENTRANCE 6. 3) CLEAR, GRUB, AND EXCAVATE ALONG THE LEFT SIDE OF SR 4004 FROM STA.
- 26+82 TO 31+70.
- 4) INSTALL DRAINAGE FROM I-12 TO I-10 AND CONNECT TO I-9 SYSTEM. 5) CONSTRUCT PAVEMENT UP TO AND INCLUDING BINDER FROM STA. 26+82 LT TO STA. 31+70 RT INCLUDING DRIVEWAY ADJUSTMENTS. PERFORM FINAL GRADING AND IMMEDIATELY STABILIZE DISTURBED AREAS AT FINAL GRADE WITH FINAL TOPSOIL, MULCH, SEEDING, AND TRECP-3B WHERE INDICATED.
- 6) (CRITICAL ACTIVITY) PRIOR TO CONVERSION OF SEDIMENT TRAP, EXCAVATE SWALE BOTTOM OF VEGATATED SWALE 6 AND SCARIFY BOTTOM AND SIDES. PLACE AMENDED SOILS AS DIRECTED ON PCSM PLAN. DO NOT COMPACT AMENDED SOILS. RE-LINE CHANNEL WITH PERMANENT ROLLED EROSION CONTROL PRODUCT, TYPE 5A
- 6) EXCAVATE TO BOTTOM OF MRC BASIN 2. DO NOT COMPACT THE SUBGRADE. (CRITICAL ACTIVITY) INSTALL DRAINAGE FACILITIES FOR MRC BASIN 1 INCLUDING CLEANOUT STRUCTURES, PERFORATED PIPES, AND AGGREGATE (PIPE BEDDING). PREVENT RUNOFF FROM ENTERING THE CLEANOUTS. PLACE UNIFORMLY GRADED AGGREGATE IN MAXIMUM 8" LIFTS AND LIGHTLY COMPACT.
- 7) AFTER AGGREGATE IS COMPLETELY INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT IS PROHIBITED FROM THE MRC BASIN 2 AREA TO ELIMINATE IMPACTS AND/OR COMPACTION. IN THE EVENT THAT ANY IMPACT COMPROMISE THE FUNCTIONALITY OF THE AGGREGATE, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO THE PROJECT SPECIFICATIONS. (CRITICAL ACTIVITY) PLACE SOIL MEDIA GENTLY FROM OUTSIDE THE BMP FOOTPRINT TO AVOID COMPACTION. DO NOT COMPACT SOIL MEDIA OR DRIVE EQUIPMENT OVER SOIL MEDIA.
- 8) PLACE APPROPRIATE SEEDING AND TRECP-3B IN MRC BASIN 2, AND INSTALL COMPOST FILTER SOCK ALONG BASIN SLOPES TO PREVENT SEDIMENT FROM ENTERING THE BASIN. SURROUND BASIN WITH TEMPORARY PROTECTIVE FENCE.
- 9) ONCE STAGES 4F AND THE PAVING OF 5C ARE COMPLETE, INSTALL FINAL WEARING COURSE, FINAL PAVEMENT MARKINGS, AND SIGNS. 10) (CRITICAL ACTIVITY) ONCE VEGETATION HAS REACHED 70% ESTABLISHMENT,
- CONTACT THE MONTGOMERY COUNTY CONSERVATION DISTRICT. THE LICENSED PROFESSIONAL MUST PERFORM A FINAL CHECK OF ALL PCSM AND REMOVAL OF E&S BMPs. UPON COMPLETION. SUBMIT THE NOTICE OF TERMINATION.



| | <u>P(</u> | CSM BMP SEQUENCING | | | |
|-----------|--------------------------|---|-----|--|---|
| | RES API INS STF | LICENSED PROFESSIONAL OR DESIGNER MUST BE PRESENT ON SITE AND BE SPONSIBLE DURING CRITICAL ACTIVITIES OF IMPLEMENTATION OF THE PROVED PCSM PLAN. THE CRITICAL ACTIVITIES MAY INCLUDE THE TALLATION OF UNDERGROUND TREATMENT OR STORAGE BMPS, RUCTURALLY ENGINEERED BMPS, OR OTHER BMPS AS DEEMED APPROPRIATE THE TOWNSHIP OR THE CONSERVATION DISTRICT. | | | |
| | | RAP APRON: | INS | NAGED RELEAS | IN 1 IN STAG |
| | | TALL IN STAGES 1B, 1C, 2, & 4D. (REFER TO E&S PLAN) DIRECTED IN PENNDOT PUBLICATION 408: | E& | TALL MRC BAS S PLAN). BASIN | N WILL BE CO |
| | | PREPARE THE AREA REQUIRED FOR PLACING THE GEOTEXTILE AND ROCK. THIS PREPARATION MAY INCLUDE, BUT NOT BE LIMITED TO EXCAVATING, REMOVING UNSUITABLE MATERIAL, BACKFILLING, PLACING EMBANKMENT, | | NCEPT BASIN U CLEAR EXCAV BOULDERS, AN CONSTRUCTION | ATION AREA (ID UNSUITABL |
| | | AND CLEARING AND GRUBBING, AS SPECIFIED IN SECTION 201.3. PLACE THE GEOTEXTILES, AS SPECIFIED IN SECTION 212.3(D)2. | 2. | EXCAVATE BO OVER-COMPAC | |
| | 2. | CAREFULLY PLACE THE ROCK ON THE GEOTEXTILES TO PRODUCE AN EVEN DISTRIBUTION OF PIECES, WITH A MINIMUM OF VOIDS AND WITHOUT TEARING THE GEOTEXTILE. PLACE THE FULL COURSE THICKNESS IN ONE OPERAION IN A MANNER TO PREVENT SEGREGATION AND TO AVOID | 3. | INSTALL SURR STRUCTURE, R SEDIMENT TRA | EINFORCED S |
| | | DISPLACEMENT OF THE UNDERLYING MATERIAL. DO NOT PLACE ROCK LAYERS BY DUMPING INTO CHUTES OR BY SIMILAR METHODS LIKELY TO CAUSE SEGREGATION OR GEOTEXTILE DAMAGE. REARRANGE INDIVIDUAL ROCKS, IF NECESSARY, TO ENSURE UNIFORM DISTRIBUTION. | 4. | (CRITICAL ACT TO PREVENT O AREAS AND A | OVER-COMPA |
| | SUI | MPED INLETS: | 5. | APPLY AND G | RADE TOPSOI |
| | INS | TALL IN STAGES 1B, 1C, 2, 3, 4D, & 5. (REFER TO E&S PLAN) STABILIZE ALL CONTRIBUTING AREAS BEFORE INSTALLING AND CONNECTING | 6. | SEED WITH TE MULCH BLANK THE BASIN IS | ET. REMOVE |
| | 2. | PIPES TO THESE INLETS. DRILL FOUR (4) 3/4" WEEP HOLES IN THE BOTTOM OF THE BOX TO PREVENT STANDING WATER FOR LONG PERIODS OF TIME. | 7. | (CRITICAL ACT PRIOR TO CON | |
| | INS | <mark>GETATED SWALE:</mark> TALL VEGETATED SWALES 1, 2, 3 & 7 IN STAGE 4D. TALL VEGETATED SWALE 4 IN STAGE 1C. | | <u>SOIL LIMI</u> | <u>TATIONS</u> |
| | INS | TALL VEGETATED SWALE 4 IN STAGE 10. TALL VEGETATED SWALE 5 IN STAGE 1B. TALL VEGETATED SWALE 6 IN STAGE 3. | | SOIL TYPE | SOIL |
| | | PREVENT RUNOFF FROM ENTERING THE SWALE UNTIL ALL TRIBUTARY | | Во | CUTBAN |
| | | AREAS ARE STABILIZED. | | | CORROS DROUGH FLOODIN |
| | 2. | (CRITICAL ACTIVITY) ROUGH GRADE THE VEGETATED SWALE. AVOID OVER-COMPACTION OF SUBGRADE. | | | PEOODIN DEPTH 1 SEASON |
| | 3. | FINE GRADE THE VEGETATED SWALE AND PLACE AMENDED SOILS, IF INDICATED. | | | HYDRIC |
| | 4. | SEED WITH VEGETATED SWALE SEEDING AND STABILIZE WITH PERMANENT ROLLED EROSION CONTROL PRODUCT. | | | LOW STF SLOW PF |
| | | <u>N GARDEN</u> TALL RAIN GARDEN 1 IN STAGE 4D. | | | PIPING POOR SO FROST A |
| | 1. | PREVENT RUNOFF FROM ENTERING RAIN GARDEN UNTIL ALL TRIBUTARY AREAS ARE STABILIZED. | | | WETNESS CUTBANI |
| | 2. | (CRITICAL ACTIVITY) EXCAVATE TO SPECIFIED DEPTH BELOW PROPOSED PONDING ELEVATION. AVOID OVER-COMPACTION OF RAIN GARDEN SUBGRADE. | | PIC | CORROS DROUGH HYDRIC |
| | 3. | (CRITICAL ACTIVITY) SCARIFY BOTTOM AND SIDES OF EXCAVATION. | | | LOW STF |
| | 4. | CONSTRUCT SIDE SLOPES AND SPILLWAY (WHERE INDICATED) WITH | | | PIPING |
| | 5 | SPECIFIED LINING. (CRITICAL ACTIVITY) INSTALL GEOTEXTILE AND PLACE BIORETENTION SOIL | | | POOR S FROST A |
| | 5. | MIXTURE TO SPECIFIED DEPTH. | | ReB & ReC | CUTBAN CORROS |
| | 6. | INSTALL FORMULA N SEEDING AND SOIL SUPPLEMENTS ON BOTTOM OF RAIN GARDEN AND FORMULA B SEEDING AND SOIL SUPPLEMENTS ON SIDE | | | EASILY I DEPTH T SEASON |
| | | SLOPES. INSTALL EROSION CONTROL MULCH BLANKET ALONG SIDE SLOPES. | | | HYDRIC |
| | <u>AM</u> | ENDED SOILS: | | | LOW STF |
| | 1. | (CRITICAL ACTIVITY) PREPARE AREAS INDICATED ON THE PLAN TO BE PLACED WITH AMENDED SOILS. REMOVE TEN (10) INCHES BELOW FINISHED | | | SLOW PEPIPING |
| 6-13-2022 | | GRADE. WHILE SOIL IS DRY, LOOSEN AN ADDITIONAL TEN (10) INCHES BELOW BOTTOM OF EXCAVATED AREA THROUGH A SUBSOILING PROCESS SUCH AS RIPPING OR TILLING. A SOLID-SHANK RIPPER OR ROTOTILL SHOULD BE USED. REMOVE STONES AND OTHER FOREIGN MATERIAL TWO INCHES OR LARGER. REMOVE AND SATISFACTORILY DISPOSE OF UNSUITABLE AND SURPLUS MATERIAL. | | | POOR S(FROST A WETNESS |
| AMENDMENT | 2. | SPREAD THREE (3) INCHES OF COMPOST ON TWO (2) INCHES OF TOPSOIL. TILL WITH ROTARY TILLER SET AT A DEPTH OF FIVE (5) INCHES UNTIL COMPOST IS INCORPORATED INTO SOIL. ON THE TILLED SOIL/COMPOST MIXTURE, SPREAD A SECOND LIFT OF THREE (3) INCHES OF COMPOST ON TWO (2) INCHES OF TOPSOIL AND TILL TO A DEPTH OF FIVE (5) INCHES. PLACE ADDITIONAL TOPSOIL IF NEEDED TO MEET THE FINAL GRADE. | | | |
| DES MINOR | 3. | DO NOT COMPACT AMENDED SOILS DURING INSTALLATION OR WHEN PLACING SEEDING. | | | |

<u>CEPT (MRC) BASIN:</u>

STAGE 3

AS A SEDIMENT TRAP DURING STAGE 3 (REFER TO BE CONVERTED TO A PERMANENT MANAGED RELEASE STABILIZATION OF TRIBUTARY AREA. AREA OF ALL VEGETATION, TREE ROOTS, ROCKS, AND SUITABLE MATERIAL AS NECESSARY FOR

OF BASIN TO DESIRED ELEVATION. AVOID OF THE BASIN BOTTOM.

- NG EMBANKMENTS, END SECTIONS, OUTLET CONTROL RCED SPILLWAY AND TEMPORARY E&SC MEASURES FOR
- GRADE SUBSOIL IN BOTTOM OF BASIN, TAKING CARE COMPACTION. COMPACT SURROUNDING EMBANKMENT INLET AND OUTLET STRUCTURE.

TOPSOIL.

- ARY SEEDING AND STABILIZE WITH EROSION CONTROL MOVE TEMPORARY EROSION CONTROL MEASURES ONCE STABLIZED AS A SEDIMENT TRAP.
- DEWATER, CLEAN AND RE-STABLIZED THE BASIN NG TO THE MANAGED RELEASE CONCEPT BASIN.

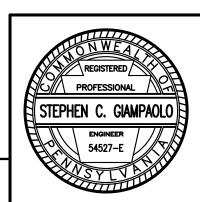
CONVERT TO MANAGED RELEASE CONCEPT BASIN DURING STAGE 5 (REFER TO E&S PLAN)

- 1. EXCAVATE BOTTOM OF BASIN TO DESIRED ELEVATION FOR MANAGED RELEASE SYSTEM, OR TO AN UN-COMPACTED SUBGRADE FREE OF ROCKS AND DEBRIS. DO NOT COMPACT THE SUBGRADE.
- 2. (CRITICAL ACTIVITY) INSTALL DRAINAGE FACILITIES, INCLUDING CLEANOUT STRUCTURES, PERFORATED PIPE, AND AGGREGATE (PIPE BEDDING). PREVENT RUNOFF FROM ENTERING THE CLEANOUTS AND TRENCH AREA UNTIL THE UPSTREAM AREA IS FULLY STABILIZED. UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN MAXIMUM 8" LIFTS AND LIGHTLY COMPACTED. (REFER TO BASIN DETAIL).
- 3. AFTER AGGREGATE IS COMPLETELY INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT IS PROHIBITED FROM THE BASIN AREA TO ELIMINATE IMPACTS AND/OR COMPACTION. IN THE EVENT THAT ANY IMPACTS COMPROMISE THE FUNCTIONALITY OF THE AGGREGATE, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO THE PROJECT SPECIFICATIONS.
- 4. PLACE SOIL MEDIA GENTLY. DO NOT COMPACT SOIL MEDIA. THE PLACEMENT OF SOIL MEDIA SHOULD BE DONE FROM OUTSIDE THE BMP FOOTPRINT TO AVOID COMPACTION BY CONSTRUCTION EQUIPMENT. EQUIPMENT SHOULD NEVER DRIVE OVER PLACED SOIL MEDIA.
- 5. SEED AND STABILIZE DISTURBED AREA. VEGETATE WITH NATIVE PLANTINGS.
- 6. MAINTAIN INLET PROTECTION AND OTHER E&S BMPS UNTIL THE SITE IS FULLY STABILIZED.

| SOIL LIMITATIONS* | SPECIAL CONSIDERATIONS |
|---|---|
| CUTBANKS CAVE | TRENCHING AND EXCAVATION ACTIVITIES MUST ADHERE TO PENNDOT PUB 408 AND ALL OSHA STANDAF |
| CORROSIVE TO CONCRETE/STEEL | PIPES ARE TO BE PLACED WITHIN STONE TRENCH WHERE POSSIBLE |
| DROUGHTY | ADDITIONAL WATERING MAY BE REQUIRED FOR SEEDING |
| FLOODING | WATER ENCOUNTERED DURING CONSTRUCTION IS TO BE PUMPED THROUGH A "PUMPED WATER FILTER B |
| DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE | WATER ENCOUNTERED DURING CONSTRUCTION IS TO BE PUMPED THROUGH A "PUMPED WATER FILTER B |
| HYDRIC INCLUSIONS | WATER ENCOUNTERED DURING CONSTRUCTION IS TO BE PUMPED THROUGH A "PUMPED WATER FILTER B SUBBASE OVEREXCAVATION MAY BE REQUIRED TO PROVIDE PROPER COMPACTION |
| LOW STRENGTH/LANDSLIDE PRONE | TRENCHING AND EXCAVATION ACTIVITIES MUST ADHERE TO PENNDOT PUB 408 AND ALL OSHA STANDAF PIPES ARE TO BE PLACED WITHIN STONE TRENCH WHERE POSSIBLE |
| SLOW PERCOLATION | SOIL INFILTRATION IS NOT PROPOSED ON THIS PROJECT |
| PIPING | PIPES ARE TO BE PLACED WITHIN STONE TRENCH WHERE POSSIBLE, ANTI-SEEP COLLARS ARE TO BE IN |
| POOR SOURCE OF TOPSOIL | EXCAVATED MATERIAL OF THIS SOIL TYPE IS NOT TO BE USED AS TOPSOIL. IT MAY BE USED AS FILL M |
| FROST ACTION | FROST HEAVE IS ACCOUNTED FOR IN PAVEMENT DESIGN |
| WETNESS | WATER ENCOUNTERED DURING CONSTRUCTION IS TO BE PUMPED THROUGH A "PUMPED WATER FILTER B SUBBASE OVEREXCAVATION MAY BE REQUIRED TO PROVIDE PROPER COMPACTION |
| CUTBANKS CAVE | TRENCHING AND EXCAVATION ACTIVITIES MUST ADHERE TO PENNDOT PUB 408 AND ALL OSHA STANDAF |
| CORROSIVE TO CONCRETE | PIPES ARE TO BE PLACED WITHIN STONE TRENCH WHERE POSSIBLE |
| DROUGHTY | ADDITIONAL WATERING MAY BE REQUIRED FOR SEEDING |
| HYDRIC INCLUSIONS | WATER ENCOUNTERED DURING CONSTRUCTION IS TO BE PUMPED THROUGH A "PUMPED WATER FILTER B SUBBASE OVEREXCAVATION MAY BE REQUIRED TO PROVIDE PROPER COMPACTION |
| LOW STRENGTH/LANDSLIDE PRONE | TRENCHING AND EXCAVATION ACTIVITIES MUST ADHERE TO PENNDOT PUB 408 AND ALL OSHA STANDAF PIPES ARE TO BE PLACED WITHIN STONE TRENCH WHERE POSSIBLE |
| PIPING | PIPES ARE TO BE PLACED WITHIN STONE TRENCH WHERE POSSIBLE, ANTI-SEEP COLLARS ARE TO BE IN |
| POOR SOURCE OF TOPSOIL | EXCAVATED MATERIAL OF THIS SOIL TYPE IS NOT TO BE USED AS TOPSOIL. IT MAY BE USED AS FILL N |
| FROST ACTION | FROST HEAVE IS ACCOUNTED FOR IN PAVEMENT DESIGN |
| CUTBANKS CAVE | TRENCHING AND EXCAVATION ACTIVITIES MUST ADHERE TO PENNDOT PUB 408 AND ALL OSHA STANDAF |
| CORROSIVE TO CONCRETE/STEEL | PIPES ARE TO BE PLACED WITHIN STONE TRENCH WHERE POSSIBLE |
| EASILY ERODIBLE | TOPSOIL, SEED, AND MULCH IMMEDIATELY AFTER FINISHED GRADE IS ESTABLISHED. PLACE EROSION CON |
| DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE | WATER ENCOUNTERED DURING CONSTRUCTION IS TO BE PUMPED THROUGH A "PUMPED WATER FILTER B |
| HYDRIC INCLUSIONS | WATER ENCOUNTERED DURING CONSTRUCTION IS TO BE PUMPED THROUGH A "PUMPED WATER FILTER B SUBBASE OVEREXCAVATION MAY BE REQUIRED TO PROVIDE PROPER COMPACTION |
| LOW STRENGTH/LANDSLIDE PRONE | TRENCHING AND EXCAVATION ACTIVITIES MUST ADHERE TO PENNDOT PUB 408 AND ALL OSHA STANDAF PIPES ARE TO BE PLACED WITHIN STONE TRENCH WHERE POSSIBLE |
| SLOW PERCOLATION | SOIL INFILTRATION IS NOT PROPOSED ON THIS PROJECT |
| PIPING | PIPES ARE TO BE PLACED WITHIN STONE TRENCH WHERE POSSIBLE, ANTI-SEEP COLLARS ARE TO BE IN |
| POOR SOURCE OF TOPSOIL | EXCAVATED MATERIAL OF THIS SOIL TYPE IS NOT TO BE USED AS TOPSOIL. IT MAY BE USED AS FILL N |
| FROST ACTION | FROST HEAVE IS ACCOUNTED FOR IN PAVEMENT DESIGN |
| WETNESS | WATER ENCOUNTERED DURING CONSTRUCTION IS TO BE PUMPED THROUGH A "PUMPED WATER FILTER B SUBBASE OVEREXCAVATION MAY BE REQUIRED TO PROVIDE PROPER COMPACTION |
| | |

* – SOIL LIMITATIONS ARE PER TABLE E.1 OF THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL". NOTE: NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS HAVING THE POTENTIAL TO CAUSE POLLUTION HAVE BEEN OBSERVED. SOIL TYPES NOT LISTED ARE NOT DISTURBED DURING CONSTRUCTION.

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN



BAG" AS NEEDED,

INSTALLED ON BASIN OUTLET PIPE MATERIAL

ARDS AND REGULATIONS

BAG" AS NEEDED

ONTROL MULCH BLANKET ON ALL SLOPES 3:1 OR STEEPER BAG" AS NEEDED.

ARDS AND REGULATIONS

MATERIAL

INSTALLED ON BASIN OUTLET PIPE

ARDS AND REGULATIONS

BAG" AS NEEDED

ARDS AND REGULATIONS

BAG" AS NEEDED.

INSTALLED ON BASIN OUTLET PIPE MATERIAL

ARDS AND REGULATIONS

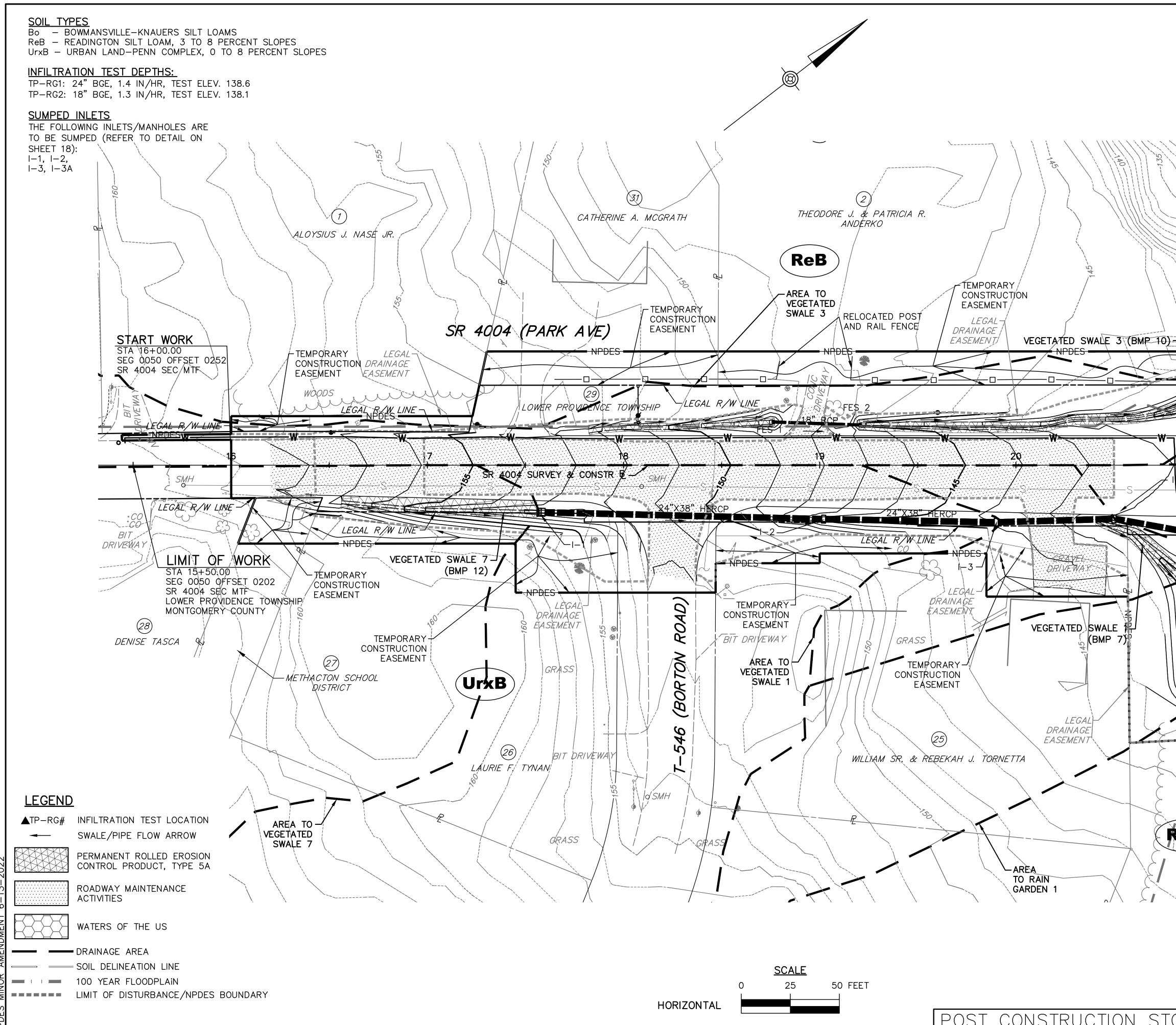
BAG" AS NEEDED

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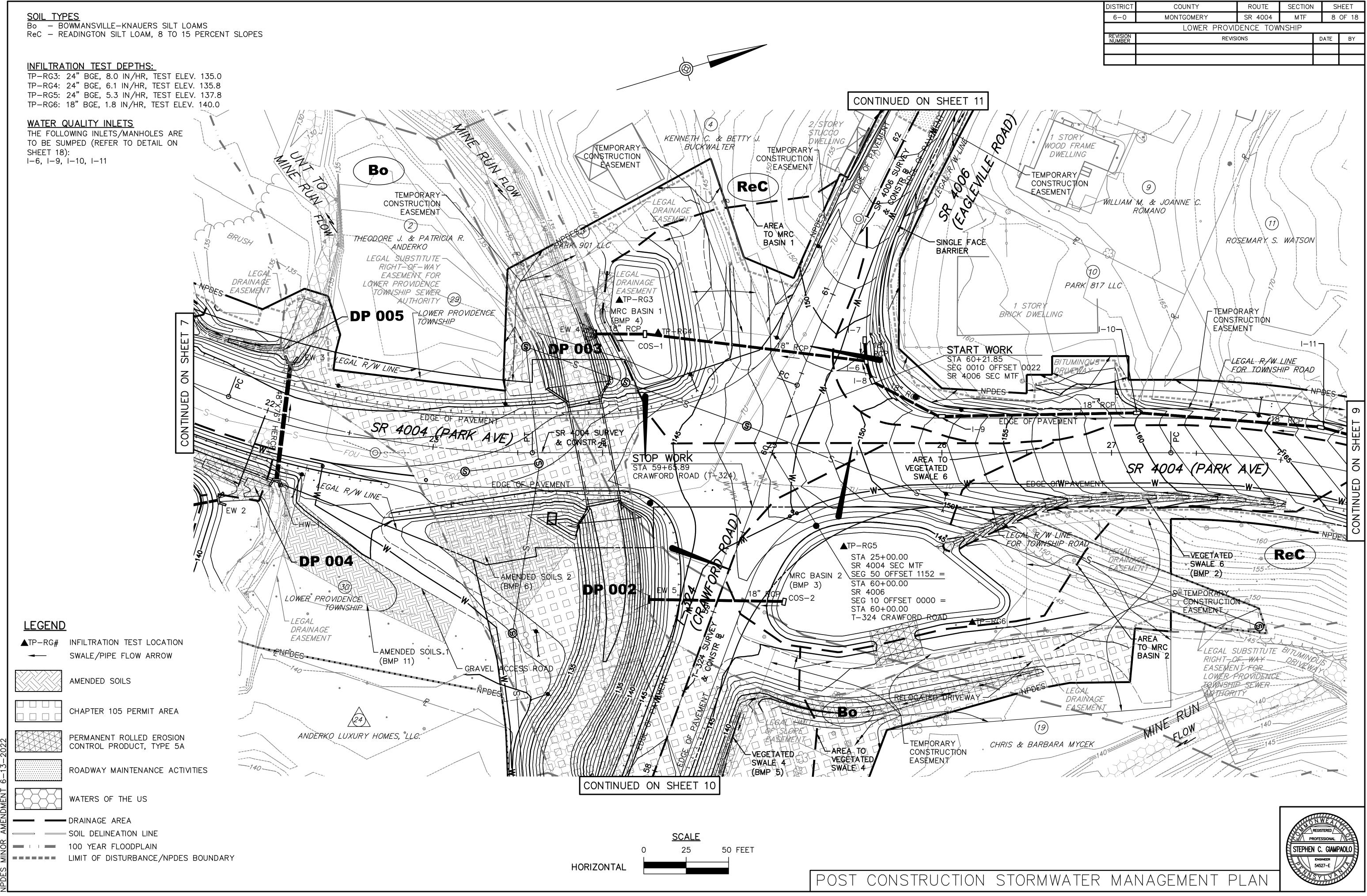
BAG" AS NEEDED

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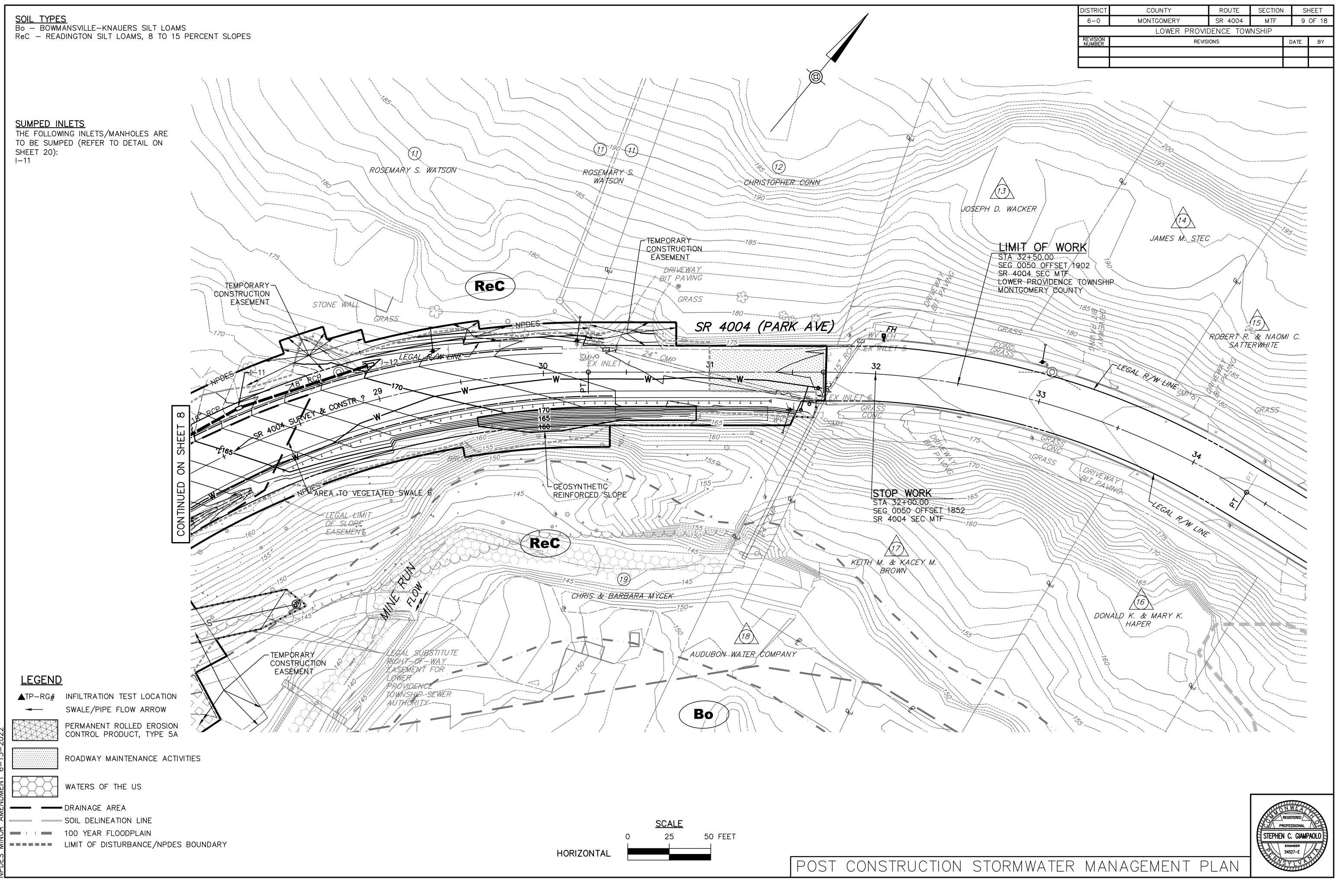
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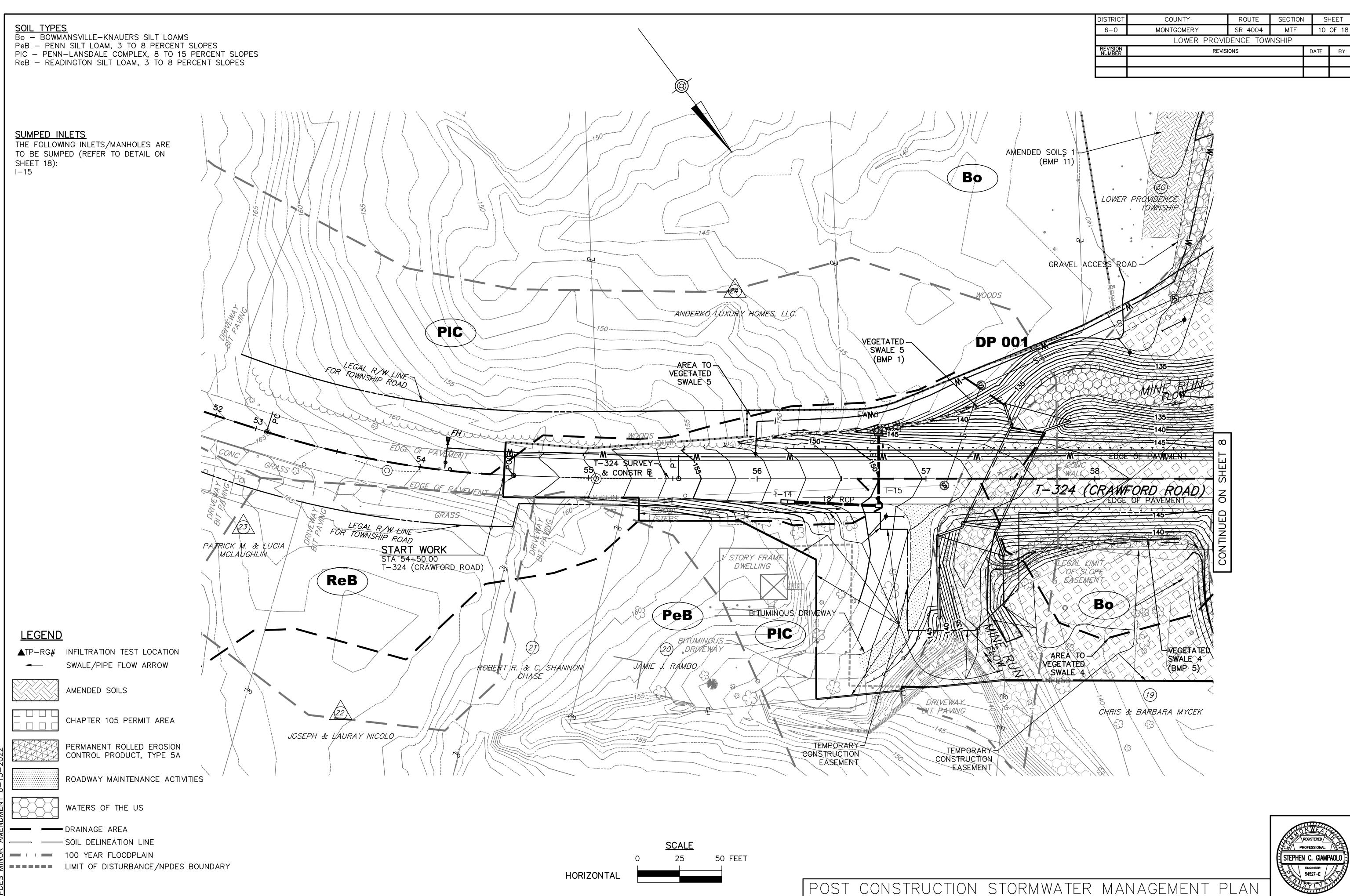


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| DF SLOPE EASEMENT RAIN GAR | ▲TP-R N DEN 1 P 8) | TP-RG2 | | | | |
| ANDERKO | BO | LEGAL DRAINAGE EASEMENT | | | | |
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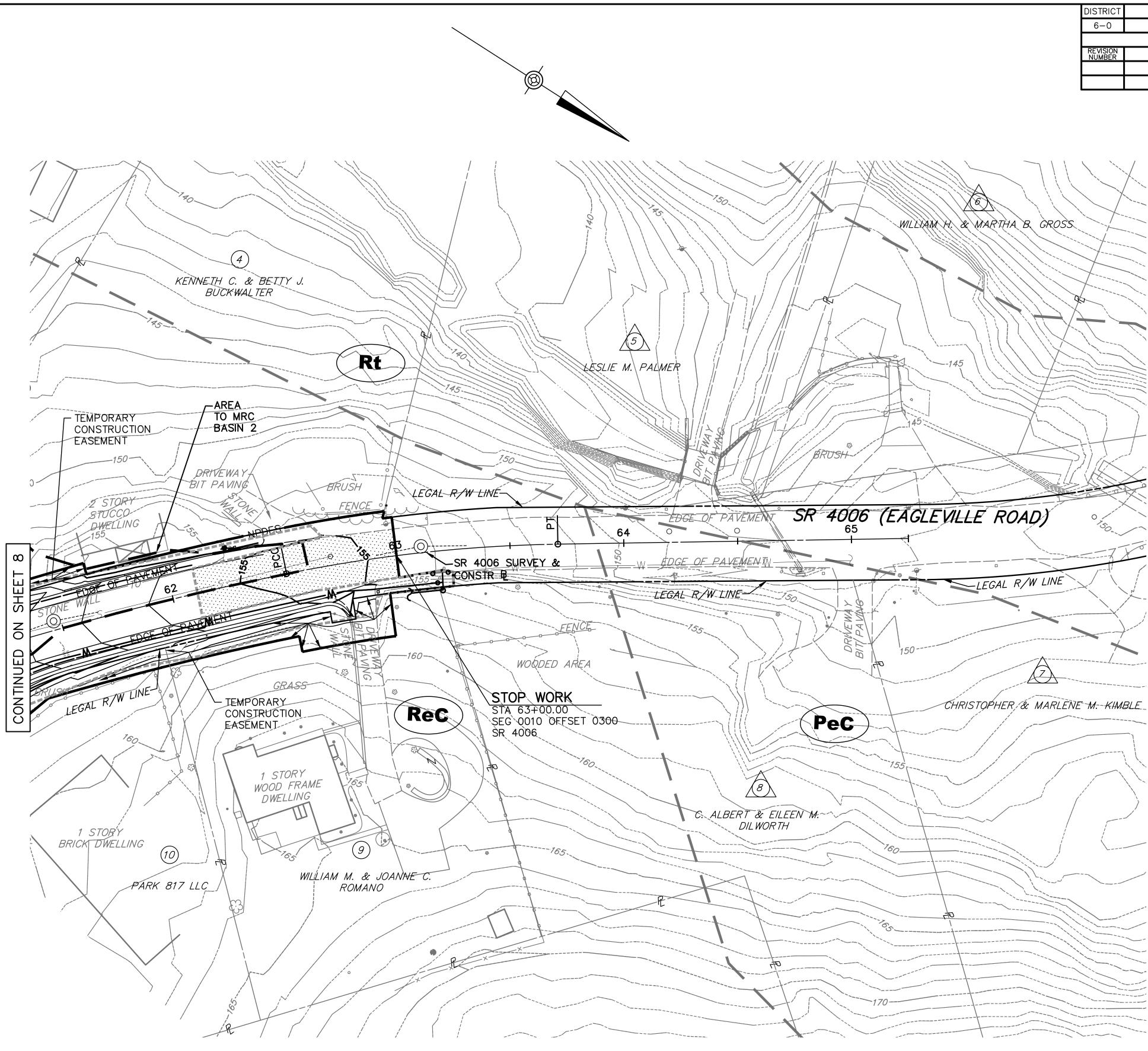
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SOIL TYPES PeC - PENN SILT LOAM, 8 TO 15 PERCENT SLOPES ReC - READINGTON SILT LOAMS, 8 TO 15 PERCENT SLOPES Rt - ROWLAND SILT LOAM, TERRACE



<u>LEGEND</u>

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▲TP-RG# INFILTRATION TEST LOCATION SWALE/PIPE FLOW ARROW

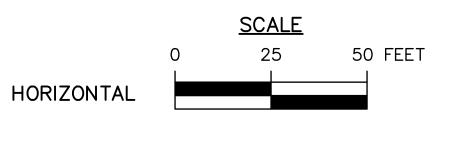
PERMANENT ROLLED EROSION CONTROL PRODUCT, TYPE 5A

ROADWAY MAINTENANCE ACTIVITIES

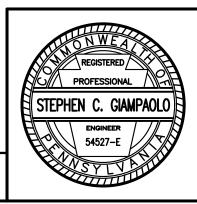
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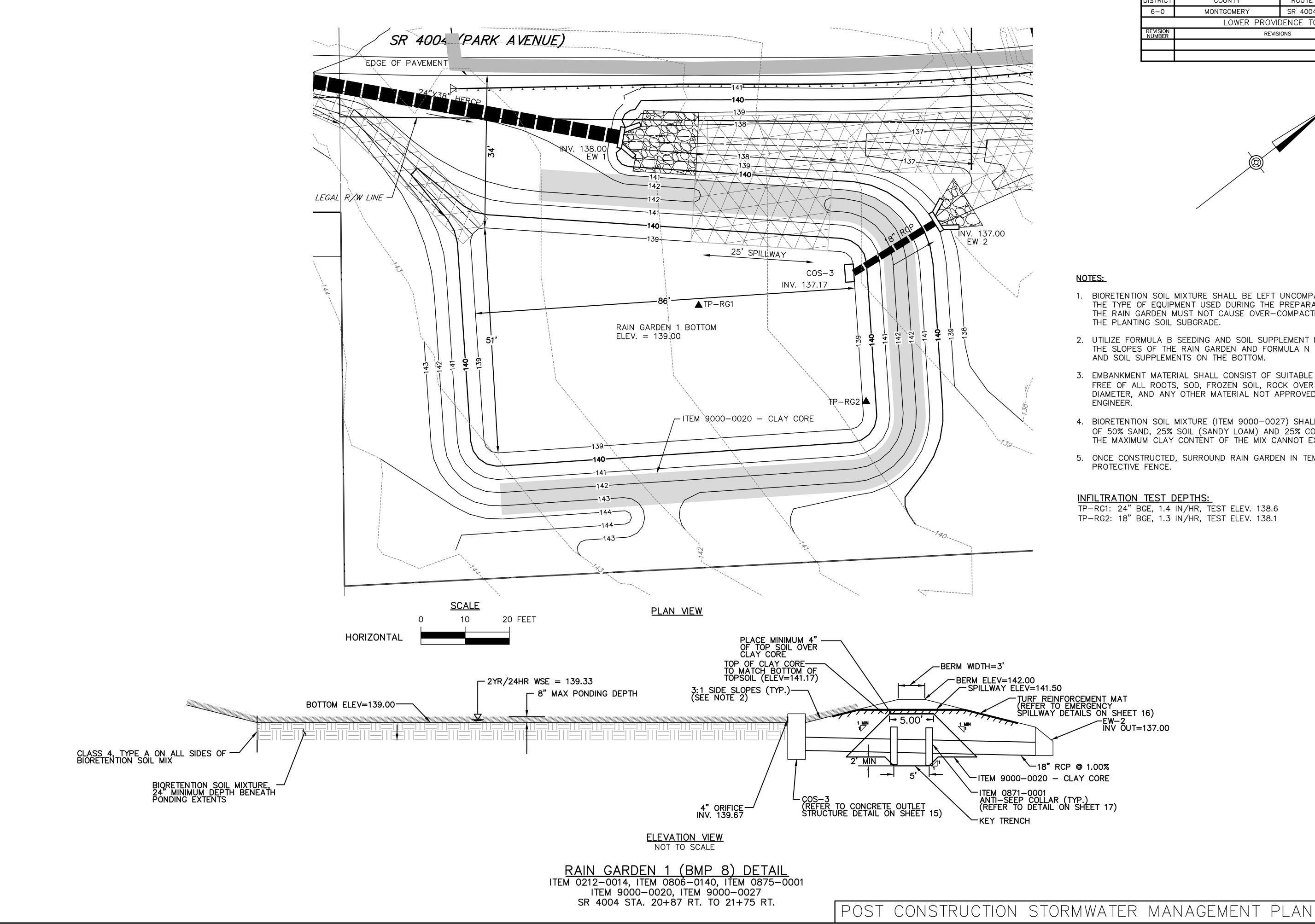
DRAINAGE AREA

- ------ SOIL DELINEATION LINE
- 100 YEAR FLOODPLAIN
- LIMIT OF DISTURBANCE/NPDES BOUNDARY

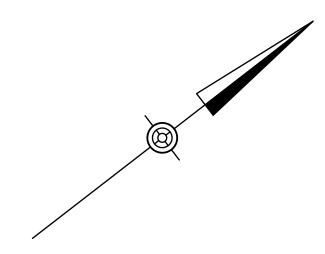


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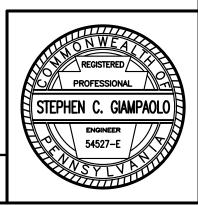
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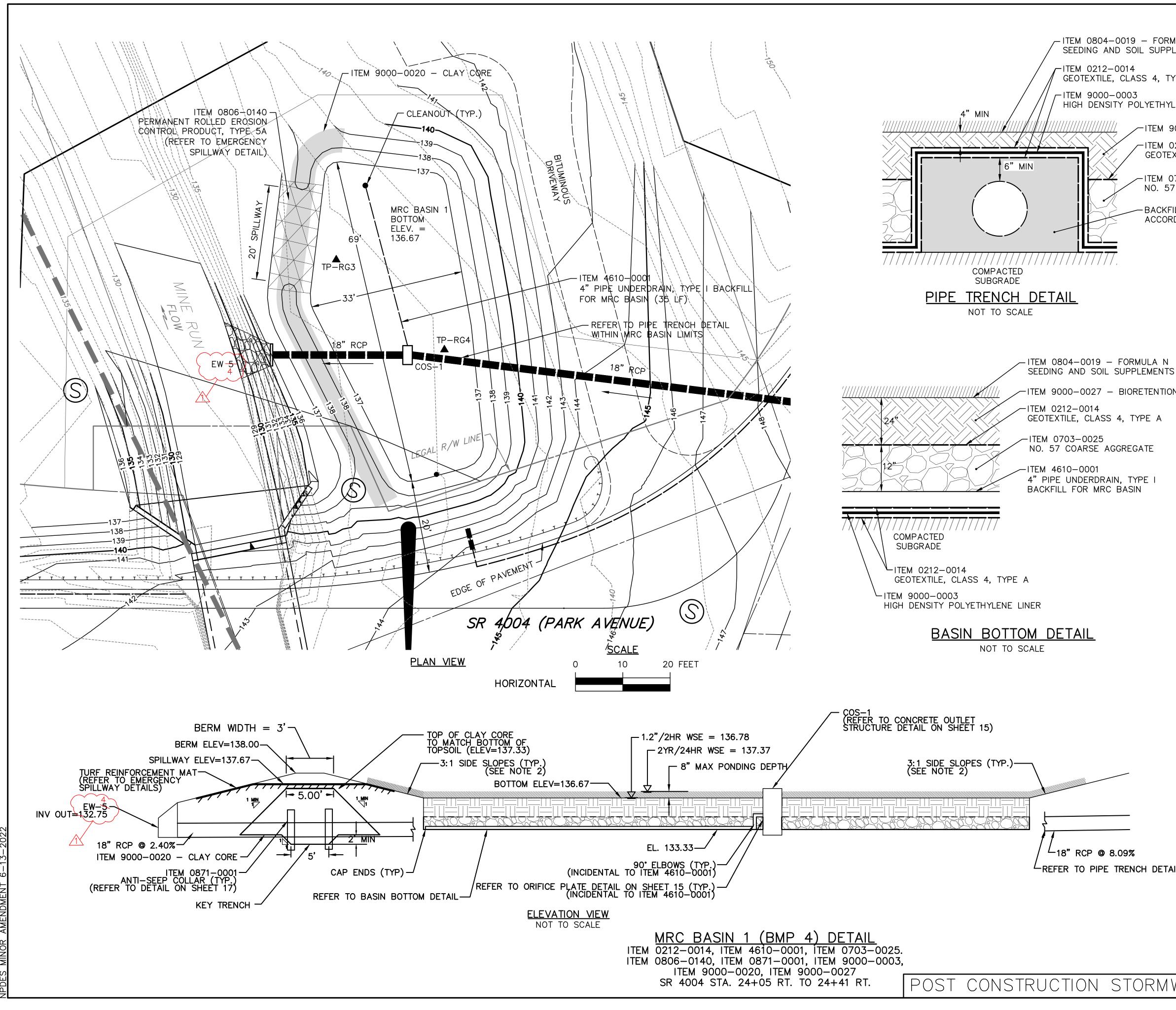


- 1. BIORETENTION SOIL MIXTURE SHALL BE LEFT UNCOMPACTED. THE TYPE OF EQUIPMENT USED DURING THE PREPARATION OF THE RAIN GARDEN MUST NOT CAUSE OVER-COMPACTION OF THE PLANTING SOIL SUBGRADE.
- 2. UTILIZE FORMULA B SEEDING AND SOIL SUPPLEMENT MIX ON THE SLOPES OF THE RAIN GARDEN AND FORMULA N SEEDING AND SOIL SUPPLEMENTS ON THE BOTTOM.
- 3. EMBANKMENT MATERIAL SHALL CONSIST OF SUITABLE MATERIAL FREE OF ALL ROOTS, SOD, FROZEN SOIL, ROCK OVER 4" IN DIAMETER, AND ANY OTHER MATERIAL NOT APPROVED BY THE
- 4. BIORETENTION SOIL MIXTURE (ITEM 9000-0027) SHALL CONSIST OF 50% SAND, 25% SOIL (SANDY LOAM) AND 25% COMPOST. THE MAXIMUM CLAY CONTENT OF THE MIX CANNOT EXCEED 5%.
- 5. ONCE CONSTRUCTED, SURROUND RAIN GARDEN IN TEMPORARY

INFILTRATION TEST DEPTHS:

TP-RG1: 24" BGE, 1.4 IN/HR, TEST ELEV. 138.6 TP-RG2: 18" BGE, 1.3 IN/HR, TEST ELEV. 138.1



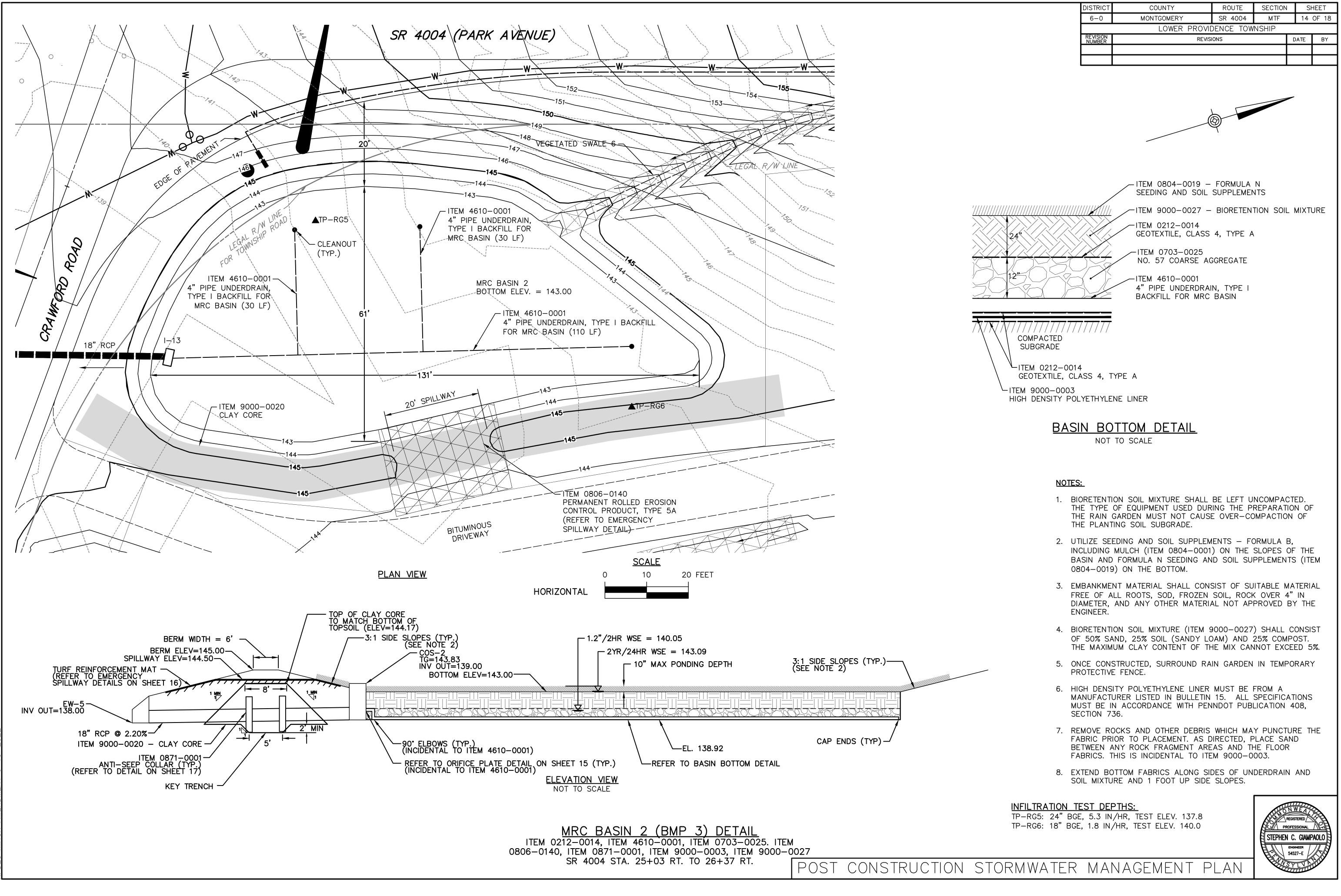


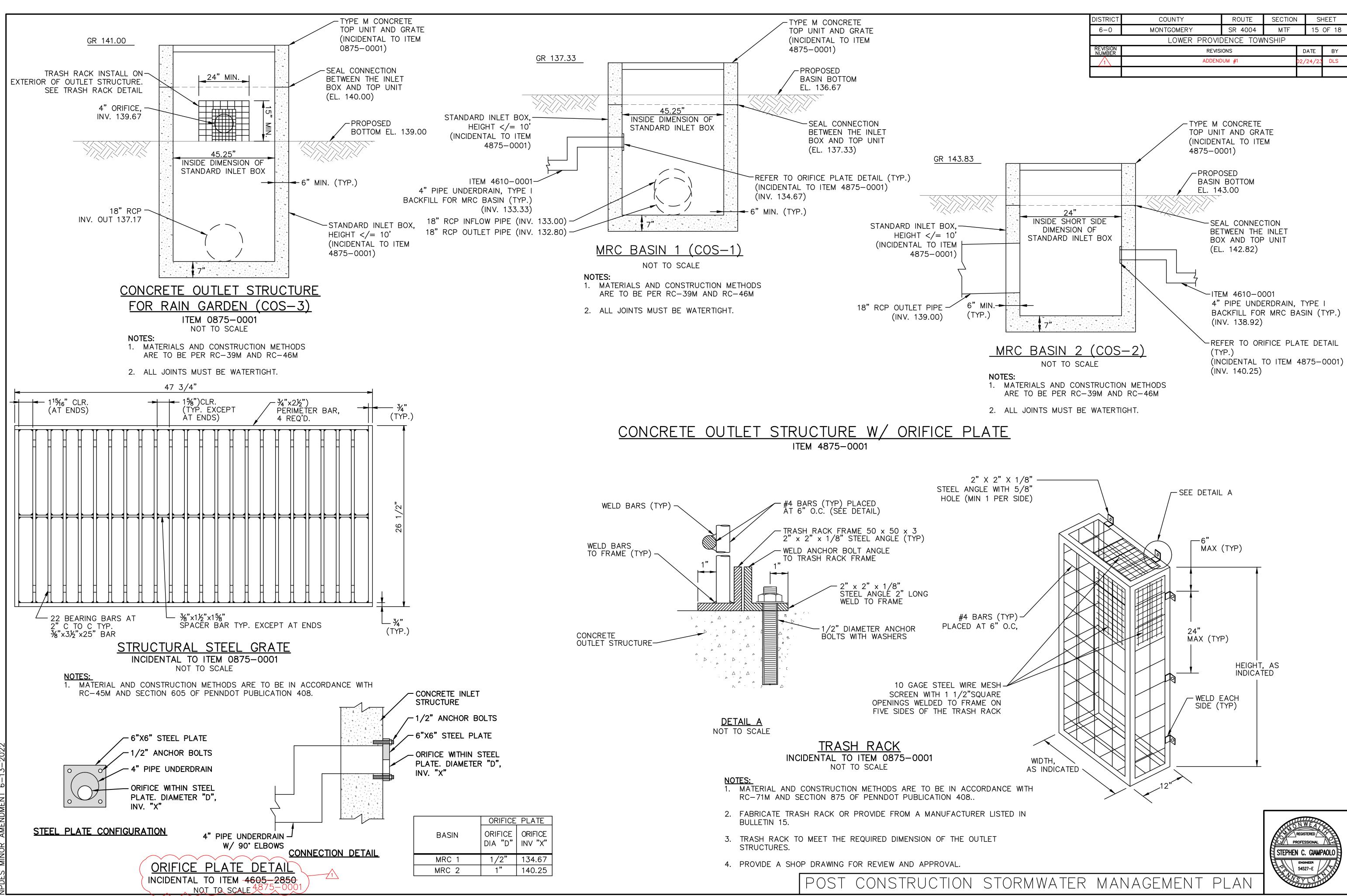
| | DISTRICT | COUNTY | ROUTE | SECTION | N S⊦ | IEET |
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| | 6-0 | MONTGOMERY | SR 4004 | MTF | 13 (| OF 18 |
| | | LOWER PROVI | DENCE TOW | /NSHIP | | |
| -0019 – FORMULA N ND SOIL SUPPLEMENTS | REVISION NUMBER | REVIS | IONS | | DATE | BY |
| ND SOLE SOLT LEMENTS | 1 | ADDENI | DUM #1 | | 02/24/23 | DLS |
| -0014 | | | | | | |
| , CLASS 4, TYPE A | | | | | | |
| -0003 | | | | | | |
| ITY POLYETHYLENE LINER | | | | | | |
| | | | | | | |
| | - BIORE II | ENTION SOIL MIXTURE | | | | |
| / ITEM 0212-0014 | | | | | | - |
| GEOTEXTILE, CLASS | 4, IYPE | A | ١ | | | |
| | | | | | | |
| ITEM 0703-0025 NO. 57 COARSE AC | GREGATE | | - P | | | |
| | | | | | | |
| BACKFILL MATERIAL | | | | | | |
| ACCORDANCE WITH | RC-30M | | | | | |
| | | | | | | |
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| 7, | | | | | | |
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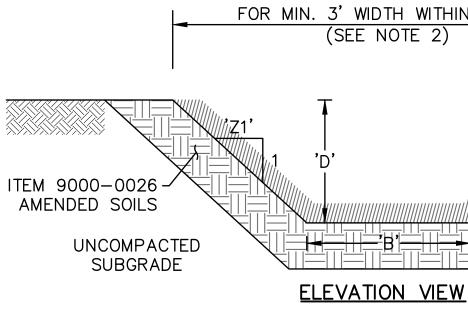
- -ITEM 9000-0027 BIORETENTION SOIL MIXTURE

| | <u>N0</u> | TES: |
|-----------------------------|-----------|---|
| | 1. | BIORETENTION SOIL MIXTURE SHALL BE LEFT UNCOMPACTED. THE TYPE OF EQUIPMENT USED DURING THE PREPARATION OF THE BASIN MUST NOT CAUSE OVER-COMPACTION OF THE PLANTING SOIL SUBGRADE. |
| | 2. | UTILIZE SEEDING AND SOIL SUPPLEMENTS - FORMULA B, INCLUDING MULCH (ITEM 0804-0001) ON THE SLOPES OF THE BASIN AND FORMULA N SEEDING AND SOIL SUPPLEMENTS (ITEM 0804-0019) ON THE BOTTOM. |
| | 3. | EMBANKMENT MATERIAL SHALL CONSIST OF SUITABLE MATERIAL FREE OF ALL ROOTS, SOD, FROZEN SOIL, ROCK OVER 4" IN DIAMETER, AND ANY OTHER MATERIAL NOT APPROVED BY THE ENGINEER. |
| | 4. | BIORETENTION SOIL MIXTURE (ITEM 9000-0027) SHALL CONSIST OF 50% SAND, 25% SOIL (SANDY LOAM) AND 25% COMPOST. THE MAXIMUM CLAY CONTENT OF THE MIX CANNOT EXCEED 5%. |
| | 5. | ONCE CONSTRUCTED, SURROUND BASIN IN TEMPORARY PROTECTIVE FENCE. |
| | 6. | HIGH DENSITY POLYETHYLENE LINER MUST BE FROM A MANUFACTURER LISTED IN BULLETIN 15. ALL SPECIFICATIONS MUST BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 736. |
| | 7. | REMOVE ROCKS AND OTHER DEBRIS WHICH MAY PUNCTURE THE FABRIC PRIOR TO PLACEMENT. AS DIRECTED, PLACE SAND BETWEEN ANY ROCK FRAGMENT AREAS AND THE FLOOR FABRICS. THIS IS INCIDENTAL TO ITEM 9000-0003. |
| @ 8.09% PE TRENCH DETAIL | 8. | EXTEND BOTTOM FABRICS ALONG SIDES OF UNDERDRAIN AND SOIL MIXTURE AND 1 FOOT UP SIDE SLOPES. |
| | TP-F | <u>TRATION TEST DEPTHS:</u> RG3: 24" BGE, 8.0 IN/HR, TEST ELEV. 135.0 RG4: 24" BGE, 6.1 IN/HR, TEST ELEV. 135.8 |









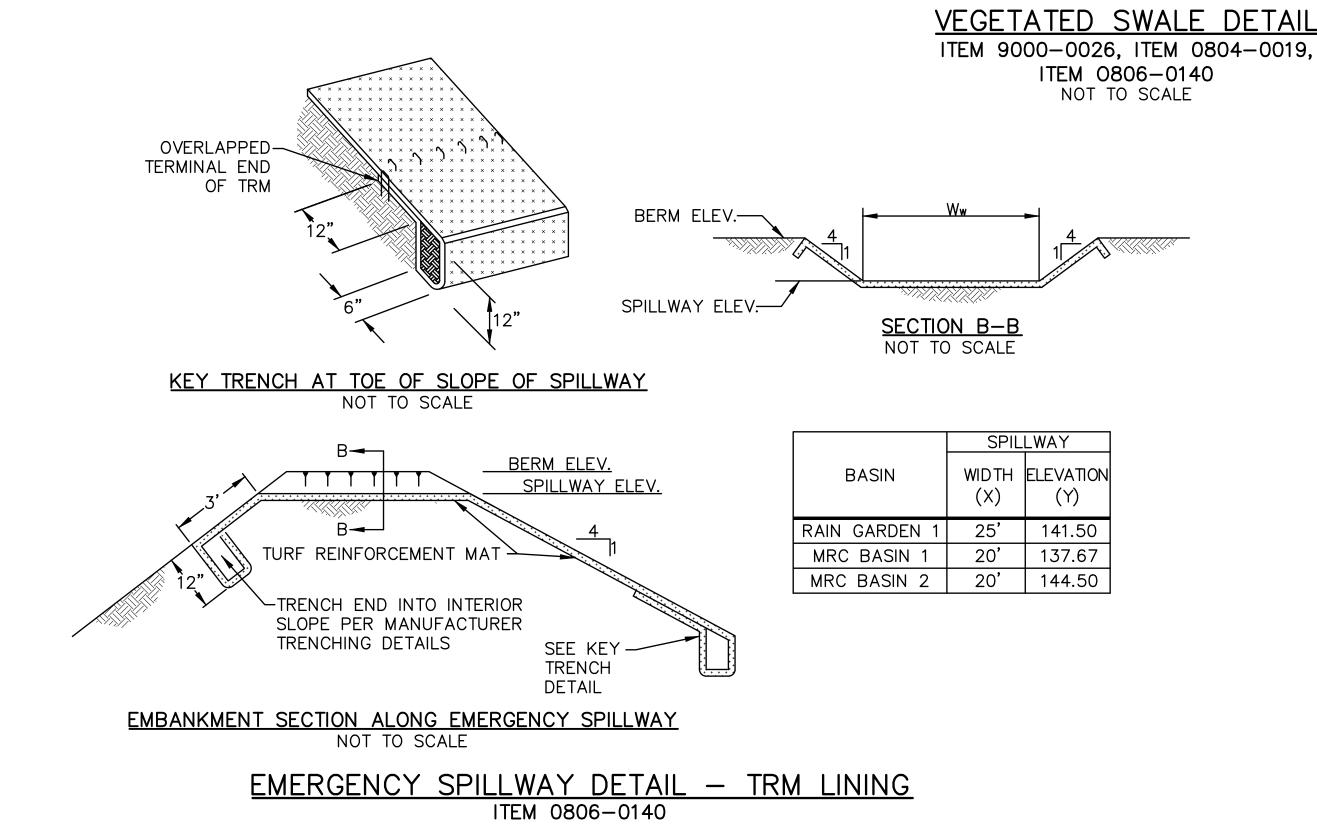
NOTES:

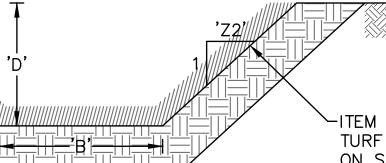
1. MULCH AND PLANTING SOIL SHALL BE LEFT UNCOMPACTED. THE TYPE OF EQUIPMENT USED DURING THE PREPARATION OF THE VEGETATED SWALE MUST NOT CAUSE OVER-COMPACTION OF THE PLANTING SOIL SUBGRADE.

2. UTILIZE FORMULA N SEEDING MIX (ITEM 0804-0019) WITHIN THE BOTTOM AND SLOPES OF THE VEGETATED SWALE.

3. EMBANKMENT MATERIAL SHALL CONSIST OF SUITABLE MATERIAL FREE OF ALL ROOTS, SOD, FROZEN SOIL, ROCK OVER 4" IN DIAMETER, AND ANY OTHER MATERIAL NOT APPROVED BY THE ENGINEER.

| CHANNEL | CHANNEL ID | LOCATION | BOTTOM WIDTH 'B' | MIN DEPTH* 'D' | SIDE SLOPE 'Z1' | SIDE SLOPE 'Z2' | LINING |
|-------------------------------|---------------|---|------------------------|----------------------|-----------------------|-----------------------|----------------------------|
| | | | FT | FT | | | |
| VEGETATED SWALE 1 (BMP 7) | VEG-1 | STA. 20+41 TO STA. 20+87 | 2.00 | 1.00 | 2 | 2 | PERMANENT RECP, TYPE 5A |
| VEGETATED SWALE 2 (BMP 9) | VEG-2 | STA. 21+21 TO STA. 22+16 | 5.00 | 4.00 | 2 | 2 | PERMANENT RECP, TYPE 5A |
| VEGETATED SWALE 3 (BMP 10) | VEG-3 | STA. 17+99 TO STA. 21+98 | 2.00 | 1.00 | 2 | 2 | PERMANENT RECP, TYPE 5A |
| VEGETATED SWALE 4 (BMP 5) | VEG-4 | CRAWFORD RD STA. 57+56 TO STA. 58+55 | 0.00 | 1.00 | 2 | 2 | PERMANENT RECP, TYPE 5A |
| VEGETATED SWALE 5 (BMP 1) | VEG-5 | CRAWFORD RD STA. 55+79 TO STA. 57+47 | 0.00 | 1.50 | 2 | 2 | PERMANENT RECP, TYPE 5A |
| VEGETATED SWALE 6 (BMP 2) | VEG-6 | STA. 26+00 TO STA. 28+00 | 2.00 | 1.50 | 2 | 2 | PERMANENT RECP, TYPE 5A |
| VEGETATED SWALE 7 (BMP 12) | VEG-7 | STA 16+56 TO STA 17+55 | 2.00 | 1.50 | 2 | 2 | PERMANENT RECP, TYPE 5A |





-ITEM 0806-0140 TURF REINFORCEMENT MAT ON SWALE BOTTOM AND SIDE SLOPES

VEGETATED SWALE DETAIL

ITEM 0806-0140 NOT TO SCALE

AMENDED SOILS

DESCRIPTION - THIS WORK IS THE FURNISHING AND PLACING AMENDED SOILS FOR POST CONSTRUCTION STORM WATER MANAGEMENT PURPOSES AS INDICATED.

MATERIAL -1. TOPSOIL - SECTION 802.2

2. COMPOST IN ACCORDANCE SECTION 808.2(f).4 AND AS FOLLOWS:

COMPOST SHOULD BE AVOIDED.

| SOIL TEXTURE | IDEAL BULK DENSITIES | BULK DENSITIES THAT MAY AFFECT ROOT GROWTH | BULK DENSITIES THAT RESTRICT ROOT GROWTH |
|--|-------------------------|---|--|
| | g/cm3 | g/cm3 | g/cm3 |
| SANDS, LOAMY SANDS | < 1.60 | 1.69 | 1.8 |
| SANDY LOAMS, LOAMS | < 1.40 | 1.63 | 1.8 |
| SANDY CLAY LOAMS, LOAMS, CLAY LOAMS | < 1.40 | 1.6 | 1.75 |
| SILT, SILT LOAMS | < 1.30 | 1.6 | 1.75 |
| SILT LOAMS, SILTY CLAY LOAMS | <1.10 | 1.55 | 1.65 |
| SANDY CLAYS, SILTY CLAYS, SOME CLAY LOAMS (35-45% CLAY) | < 1.10 | 1.49 | 1.58 |
| CLAYS (> 45% CLAY) | < 1.10 | 1.39 | 1.47 |

| ORGANIC MATTER CONTENT | 25%-100% (DRY WEIGHT BASIS) |
|----------------------------|-----------------------------|
| ORGANIC PORTION | FIBROUS AND ELONGATED |
| pН | 5.5-8.0 |
| MOISTURE CONTENT | 35%-55% |
| PARTICLE SIZE | PASS 1-INCH STANDARD SCREEN |
| SOLUBLE SALT CONCENTRATION | 3.0 dS MAXIMUM |

CONSTRUCTION -

- 1. PREPARE AREAS INDICATED ON THE PLAN TO BE PLACED WITH AMENDED SOILS. SURPLUS MATERIAL.
- ROTARY TILLER SET AT A DEPTH OF FIVE (5) INCHES UNTIL COMPOST IS TO MEET THE FINAL GRADE.

MEASUREMENT AND PAYMENT - CUBIC YARD. INCLUDES ALL LABOR, MATERIALS, AND EQUIPMENT FOR SOIL REMOVAL AND DISPOSAL, SUBSOILING, PLACEMENT, AND TILLING.

> AMENDED SOILS ITEM 9000-0026

| DISTRICT | COUNTY | ROUTE | SECTION | SI | HEET |
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| 6-0 | MONTGOMERY | SR 4004 | MTF | 16 | OF 18 |
| | LOWER PROVID | DENCE TOW | NSHIP | | |
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REFER TO TABLE BELOW FOR RECOMMENDED BULK DENSITY. VERY COARSE

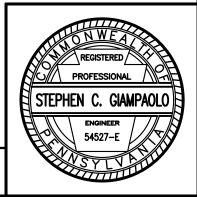
RECOMMENDED BULK DENSITIES FOR COMPOST

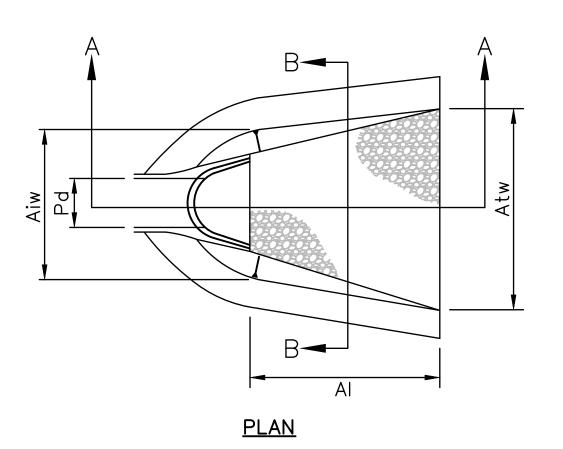
COMPOST STANDARDS

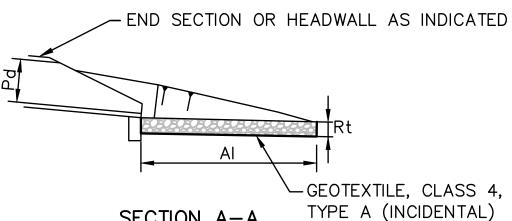
REMOVE TEN (10) INCHES BELOW FINISHED GRADE. WHILE SOIL IS DRY, LOOSEN AN ADDITIONAL TEN (10) INCHES BELOW BOTTOM OF EXCAVATED AREA THROUGH A SUBSOILING PROCESS SUCH AS RIPPING OR TILLING. A SOLID-SHANK RIPPER OR ROTOTILL SHOULD BE USED. REMOVE STONES AND OTHER FOREIGN MATERIAL TWO INCHES OR LARGER. REMOVE AND SATISFACTORILY DISPOSE OF UNSUITABLE AND

2. SPREAD THREE (3) INCHES OF COMPOST ON TWO (2) INCHES OF TOPSOIL. TILL WITH INCORPORATED INTO SOIL. ON THE TILLED SOIL/COMPOST MIXTURE, SPREAD A SECOND LIFT OF THREE (3) INCHES OF COMPOST ON TWO (2) INCHES OF TOPSOIL AND TILL TO A DEPTH OF FIVE (5) INCHES. PLACE ADDITIONAL TOPSOIL IF NEEDED

3. DO NOT COMPACT AMENDED SOILS DURING INSTALLATION OR WHEN PLACING SODDING.

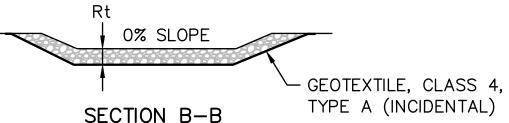






SECTION A-A

Rt = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6 INCHES.



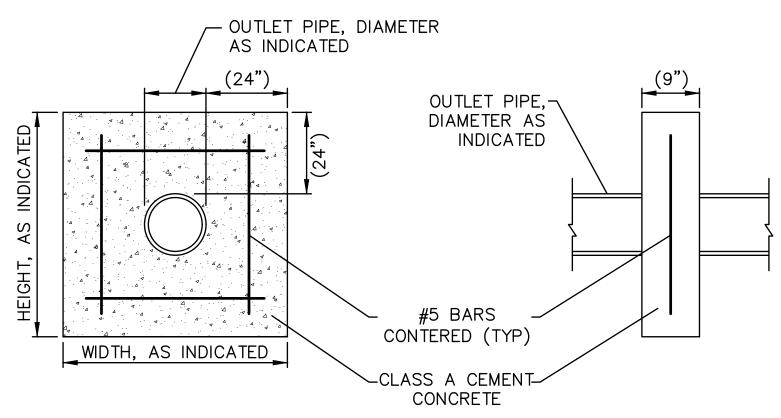
SECTION B-B

| OUTLET | SR | STATION | SIDE | PIPE DIAMETER Do (IN) | TAILWATER CONDITION (MAX OR MIN) | Q (CFS) | V (FPS) | RIPRAP SIZE Size (R-) | LENGTH AI (FT) | WIDTH AT OUTLET AiW (FT) | TERMINUS WIDTH AtW (FT) | DEPTH Rt (IN) | MANNING "n" VALUE | PIPE SLOPE (FT/FT) |
|--------|-------|---------|------|--------------------------------|--|------------|------------|--------------------------------|----------------------|-----------------------------------|----------------------------------|---------------------|----------------------|--------------------------|
| EW-2 | 4004 | 21+90 | RT | 18 | MIN | 0.31 | 2.54 | R-4 | 8 | 4.5 | 12.5 | 18 | 0.012 | 0.008 |
| EW-4 | 4004 | 23+95 | LT | 18 | MIN | 9.37 | 9.00 | R-5 | 8 | 4.5 | 12.5 | 24 | 0.012 | 0.036 |
| EW-5 | T-324 | 58+94 | LT | 18 | MIN | 0.06 | 1.85 | R-6 | 8 | 4.5 | 12.5 | 30 | 0.012 | 0.022 |
| EW-6 | T-324 | 56+72 | LT | 18 | MIN | 5.00 | 5.31 | R-4 | 8 | 4.5 | 12.5 | 18 | 0.012 | 0.009 |

NOTES:

- 1. PROVIDE GEOTEXTILE MATERIAL ALONG ALL INTERFACE AREAS WITH GROUND CONTACT.
- 2. SLOPE SHOULD BE LEVEL OR AS CLOSE TO LEVEL AS REASONABLY POSSIBLE BASED ON SITE CONDITIONS.
- 3. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
- 4. ALL APRONS SHALL BE INSPECTED AT LEAST TWICE PER YEAR. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

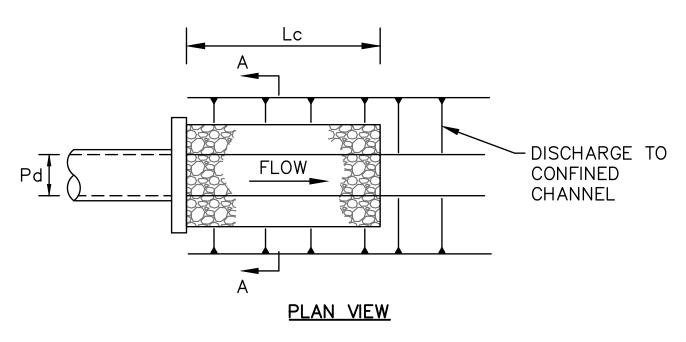
ROCK APRON DETAIL NOT TO SCALE



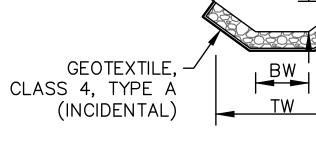
NOTES:

- 1. ANTI-SEEP COLLARS AND PIPE CONNECTIONS MUST BE WATERTIGHT.
- 2. PIPE JOINTS MUST BE A MINIMUM 2 FEET FROM ANTI-SEEP COLLARS.

CONCRETE ANTI-SEEP COLLAR ITEM 0871-0001 NOT TO SCALE



RIPRAP TO EXTEND TO ANTICIPATED MAX. FLOW -DEPTH BASED ON DESIGN Q FOR PIPE DISCHARGE



SECTION A-A

| | | | | PIPE | RIPRAP | | | | APF | RON | | |
|---------------|------|---------|------|--------------------|--------|-------------------------|----------------------|--------------------------|-------------------|--------------------------|-------------------|------------------------|
| OUTLET NO. | SR | STATION | SIDE | SIZE Pd (IN) | SIZE | THICKNESS Rt (IN) | LENGTH Lc (FT) | BW AT ENDWALL (FT) | END BW (FT) | TW AT ENDWALL (FT) | END TW (FT) | SIDE SLOPES H: V |
| EW-1 | 4004 | 21+21 | RT | 24X38 | R-5 | 24 | 16 | 5 | 5 | 14 | 14 | 2:1 |
| EW-3 | 4004 | 22+04 | LT | 48X76 | R-7 | 36 | 37 | 6.3 | 6.3 | 12.5 | 12.5 | 2:1 TO 5:1 |

NOTES:

1. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS. 2. ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED

IMMEDIATELY.

* - GROUTED ENERGY DISSIPATOR. REFER TO PENNDOT PUB 408, SECTION 851. ROCK APRON AT PIPE OUTLET TO EXISTING CHANNEL DETAIL

NOT TO SCALE

| ROC | K | AF | <u>PRON</u> |
|------|----|------|-------------|
| ITEM | 80 | 851– | 0003 |

TURF REINFORCEMENT MAT SPECIFICATIONS:

PERMANENT ROLLED EROSION CONTROL PRODUCT, TYPE 5A: INSTALL WITHIN SWALES AND ON BASIN SPILLWAYS AS INDICATED.

SECTION 806.2(B) - TURF REINFORCEMENT MAT:

COMPOSED OF NON-DEGRADABLE SYNTHETIC FIBERS, FILAMENTS, NETS, WIRE MESH AND/OR OTHER MATERIALS PROCESSED INTO A THREE-DIMENSIONAL MATRIX. ADHERE TO FOLLOWING REQUIREMENTS (ALL VALUES ARE FOR VEGETATED CONDITION UNLESS NOTED): • MAXIMUM SLOPE (H: V): 1:1

125

200%

50

- MAXIMUM SHEAR STRESS (LB/FT²):
- MINIMUM TENSILE STRENGTH (LB/FT):
- MINIMUM SEED GERMINATION ENHANCEMENT:
- MINIMUM WEIGHT PER UNIT AREA (OZ/YD^2) :

8 (ALL MATERIALS MUST BE FROM A BULLETIN 15 APPROVED MANUFACTURER.)

CLASS 4 GEOTEXTILE SPECIFICATIONS:

PERMANENT ROLLED EROSION CONTROL PRODUCT, TYPE 5A: INSTALL WITHIN SWALES AND ON BASIN SPILLWAYS AS INDICATED.

SECTION 735.1(d):

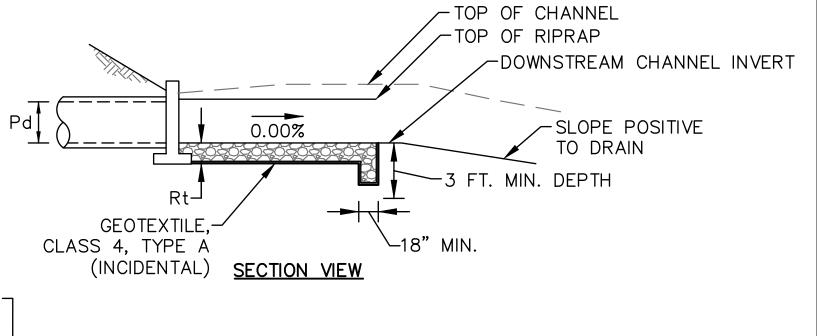
COMPOSED OF NON-WOVEN NEEDLE PUNCHED FABRIC STRUCTURE. ADHERE TO FOLLOWING REQUIREMENTS: • MINIMUM WEIGHT (OZ/SY): 12.0

- MINIMUM GRAB TENSILE STRENGTH (LBS):
- MINIMUM GRAB TENSILE ELONGATION (%):
- MINIMUM PUNCTURE (LBS): • MINIMUM TRAPEZOID TEAR STRENGTH (LBS):
- MAXIMUM APPARENT OPENING SIZE (MM):
- MINIMUM PERMITTIVITY (SEC⁻¹):

• MINIMUM ULTRAVIOLET RESISTANCE STRENGTH RETENTION (%): 70 @ 500 HOURS (ALL MATERIALS MUST BE FROM A BULLETIN 15 APPROVED MANUFACTURER.)

| | COL | LAR |
|---------------|--------------|---------------|
| BASIN | WIDTH (X) | HEIGHT (Y) |
| RAIN GARDEN 1 | 3'-5" | 3'-5" |
| MRC BASIN 1 | 3'-6" | 3'-6" |
| MRC BASIN 2 | 3'-7" | 3'-7" |

| DISTRICT | COUNTY | ROUTE | SECTION | S | HEET | | |
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| 6-0 | MONTGOMERY | SR 4004 | MTF | 17 | OF 18 | | |
| | LOWER PROVIDENCE TOWNSHIP | | | | | | |
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-SIDE SLOPES TO VARY FROM 2:1 AT PIPE OUTLETS TO

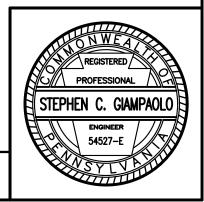
SLOPES AT END OF APRON

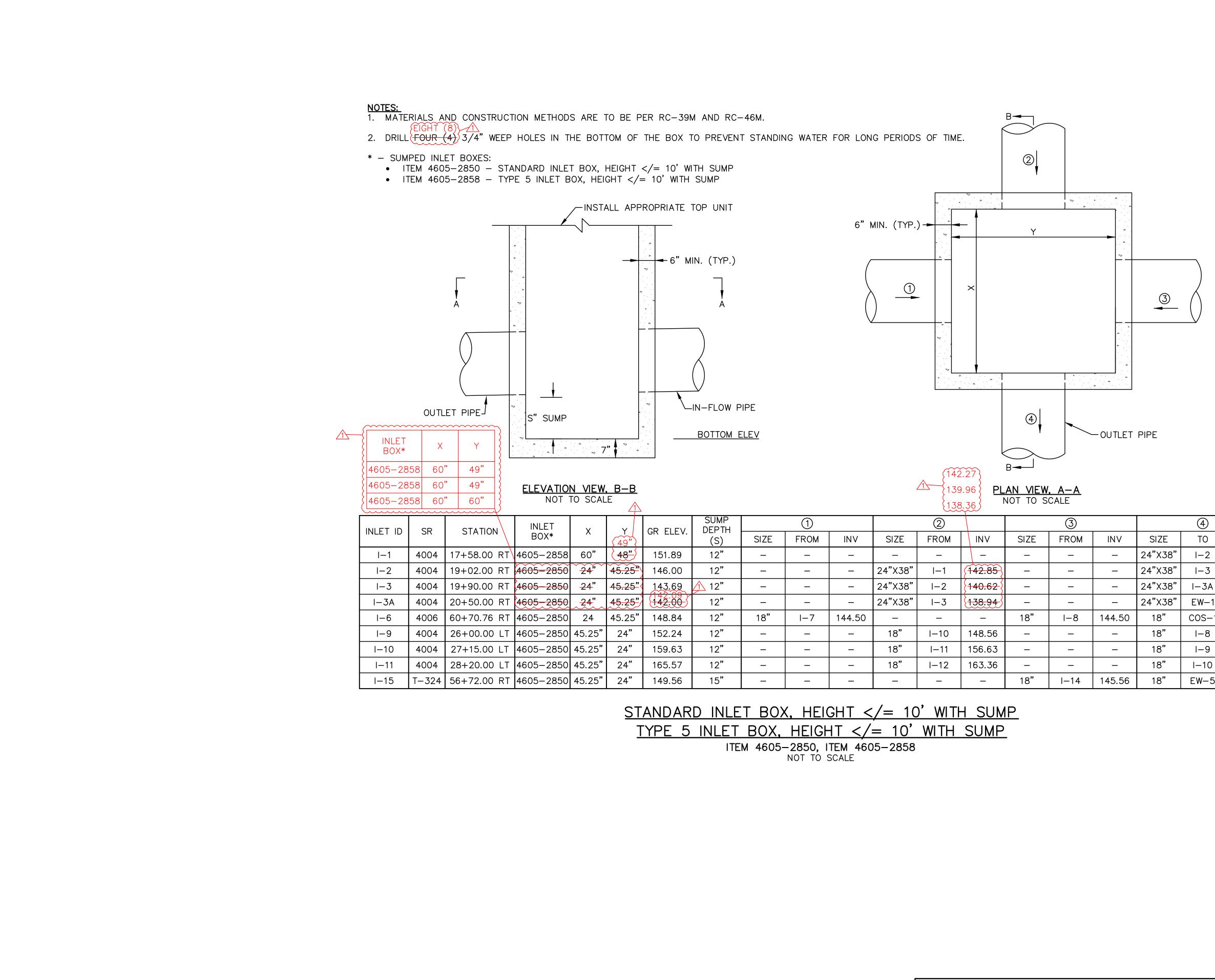
EXISTING CHANNEL SIDE

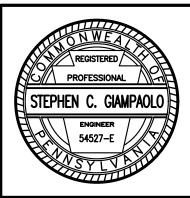
6 (4 UNVEGETATED)

305 MIN (MACHINE DIRECTION AND CROSS MACHINE DIRECTION) 830









| STORMWATER | MANAGEMENT | PI AN |
|------------|------------|-------|

| SIZE | ТО | INV | |
|---------|-------|---------------------|----------|
| 24"X38" | I-2 | 145.01 | |
| 24"X38" | I-3 | (142.65 | 142.07 |
| 24"X38" | I-3A | { 140.42 | 139.76 { |
| 24"X38" | EW-1 | 138.74 | 138.36 |
| 18" | COS-1 | 144.30 | |
| 18" | I-8 | 148.36 | |
| 18" | I-9 | 156.43 | |
| 18" | I—10 | 163.16 | |
| 18" | EW-5 | 145.36 | |
| | | | - |

| DISTRICT | COUNTY | ROUTE | SECTION | Sł | SHEET | | |
|--------------------|---------------------------|---------|---------|----|----------|--|--|
| 6-0 | MONTGOMERY | SR 4004 | MTF | 18 | 18 OF 18 | | |
| | LOWER PROVIDENCE TOWNSHIP | | | | | | |
| REVISION NUMBER | | | | | BY | | |
| | ADDENDUM 1 | | | | | | |
| | | | | | | | |

Prepared By:

Lauren A. Gallagher, Esq. Rudolph Clarke, LLC Seven Neshaminy Interplex Suite 200 Trevose, PA 19053

Return To:

Lauren A. Gallagher, Esq. Rudolph Clarke, LLC Seven Neshaminy Interplex Suite 200 Trevose, PA 19053

DECLARATION OF POST CONSTRUCTION STORMWATER MANAGEMENT BMP OPERATION AND MAINTENANCE RESPONSIBILITY

This Declaration of Post Construction Stormwater Management BMP Operation and Maintenance Responsibility (this "Declaration") is made as of this _____ day of _____, 20____, by **THE TOWNSHIP OF LOWER PROVIDENCE**, a second-class township of the Commonwealth of Pennsylvania (the "Declarant") having an address at 100 Parklane Drive, Eagleville, PA 19403.

WITNESSETH:

WHEREAS, pursuant to the plans entitled "Lower Providence Township Drawings Authorizing Acquisition of Right of Way" prepared by McMahon Associates, Inc. for the Declarant, dated June 30, 2020 (the "Right of Way Plans"), the Declarant will undergo a project to reconstruct and realign portions of certain rights of way known as "Park Avenue," "Eagleville Road," and "Crawford Road" also identified as State Routes 4004, 4006 and Township Road T-324, respectively (the "Project"); and

WHEREAS, the Project included the design and implementation of certain post construction stormwater management best management practices located within the right of way of Park Road ("PCSM BMPs"); and

WHEREAS, upon completion of the Project, the Declarant is responsible for the ongoing operation and maintenance of the PCSM BMPs in accordance with the plans entitled "Post Construction Stormwater Management Plan" prepared by McMahon Associates, Inc. for the Declarant, dated June 13, 2022, amended February 23, 2023 (the "PCSM Plans"), such plans attached hereto as Exhibit "A"; and

WHEREAS, in connection with the Project, the Declarant was issued an Individual National Pollution Discharge Elimination System (NPDES) Permit for Discharges of Stormwater Associated with Construction Activities, Permit No. PAD150076 (the "NPDES Permit") by the Pennsylvania Department of Environmental Protection (the "PaDEP"); and

WHEREAS, prior to allowing the Declarant to terminate the NPDES Permit by filing the requisite Notice of Termination, the PaDEP requires that the Declarant record this Declaration providing for the operation and maintenance of the PCSM BMPs by the Declarant.

NOW THEREFORE, in consideration of the above and the mutual covenants, terms, conditions, and restrictions hereinafter set forth in this Declaration, and other good and valuable consideration, receipt of which is hereby acknowledged, the Declarant provides and files this Declaration:

1. <u>Purpose</u>. The purpose of this Declaration is to provide notice and to ensure the operation and maintenance, and necessary access for operation and maintenance of the PCSM BMPs as reflected on the PCSM Plans by the Declarant, its successors and assigns, and to prevent the use or development of Park Avenue, Crawford Road or Eagleville Road in any manner that may impair or conflict with the operation and maintenance of the PCSM BMPs. Per 25 Pa. Code §102.8(m)(2), this Declaration identifies the PCSM BMPs, provides for the necessary access related to long-term operation and maintenance of the PCSM BMPs and provides notice that the responsibility for long-term operation and maintenance of the PCSM BMPs is a covenant that runs with the land that is binding upon and enforceable by subsequent grantees.

2. <u>Declaration of Restrictions and Covenants.</u> Declarant hereby declares that the portion(s) of Park Avenue, Crawford Road and Eagleville Road on which the PCSM BMPs are constructed shall be held, transferred, conveyed, leased, occupied or otherwise disposed of and used subject to this Declaration which shall run with the land and be binding on all heirs, successors, assigns, occupiers, and lessees.

3. <u>Perpetual Duration</u>. The provisions of this Declaration shall remain in effect in perpetuity, shall be deemed covenants running with the land regardless of ownership or use,

and be binding upon all subsequent property owners; and the personal representatives, heirs, successors, or assigns of the Declarant.

4. <u>Reserved Rights.</u> Declarant reserves and accepts unto itself and the successors or assigns of the Declarant, all rights accruing from ownership of the portion(s) of Park Avenue, Crawford Road and Eagleville Road on which the PCSM BMPs are constructed, including the right to engage in or permit or invite others to engage in all uses of the portion(s) of Park Avenue, Crawford Road and Eagleville Road on which the PCSM BMPs are constructed that are not inconsistent with the purpose of this Declaration.

5 <u>Subsequent Transfers.</u> The terms of this Instrument shall be incorporated by reference into any deed or other legal instrument by which Declarant divests itself by dedication, sale, or exchange of the portion(s) of Park Avenue, Crawford Road and Eagleville Road on which the PCSM BMPs are constructed. Failure of Declarant to perform any act required by this Declaration shall not impair the validity of this Declaration or limit its enforceability in any way. Upon valid sale or transfer of Declarant's ownership interest to a successor or assign and notice as required by this paragraph, Declarant shall be released from any responsibility for any violation of the terms of this Declaration caused by Declarant's successors or assigns or any third party which occurs subsequent to such sale or transfer.

6. <u>Recordation.</u> Declarant shall record this Declaration in the Office of the Recorder of Deeds for Montgomery County.

7. <u>Miscellaneous Provisions.</u>

(a) <u>Severability.</u> If any provision of this Declaration or the application of it to any person or circumstance is found to be invalid, the remainder of the provisions of this Declaration and the application of the provisions to persons or circumstances other than those as to which it is found to be invalid, shall not be affected by the invalid provision.

(b) <u>Amendment.</u> This Declaration shall not be amended, terminated or in any way modified by the Declarant without the express prior written approval of the PaDEP. After receiving approval from the PaDEP, the Declarant shall record any such amendment, termination or modification of this Declaration as described in Paragraph 6, above.

(c) <u>Controlling Law.</u> The interpretation and performance of this Declaration shall be governed by the laws of the Commonwealth of Pennsylvania.

(d) <u>Captions.</u> The captions in this Declaration have been inserted solely for convenience of reference and are not a part of this Declaration and shall have no effect upon construction or interpretation.

(e) <u>Rights of the PaDEP.</u> The rights of the PaDEP shall be preserved under the laws of the Commonwealth of Pennsylvania, and include, but not be limited to, the following:

- (i) To identify, to preserve and to protect in perpetuity the PCSM BMPs in a manner consistent with the PCSM Plan.
- (ii) To enter upon the portion(s) Park Avenue, Crawford Road and Eagleville Road on which the PCSM BMPs are constructed in a reasonable manner and at reasonable intervals and times for the purpose of monitoring compliance with this Declaration.
- (iii) To proceed at law or in equity to enforce the provisions of this Declaration, and to prevent the occurrence of any of the prohibited activities hereinafter set forth.
- (iv) To approve or disapprove a request for an amendment submitted under Paragraph 8(b), above.

IN WITNESS WHEREOF, the undersigned Declarant has hereunto executed this Declaration on the day and year first above written.

ATTEST:

DECLARANT

LOWER PROVIDENCE TOWNSHIP

WITNESS: ______ E.J. Mentry, Secretary BY: _____ Cara Coless, Chair

COMMONWEALTH OF PENNSYLVANIA : : ss COUNTY OF MONTGOMERY :

On this, the _____ day of ______, 2023, before me, a Notary Public for the Commonwealth of Pennsylvania, residing in the County of Montgomery, the undersigned officer, personally appeared **CARA COLESS**, Chair of the Board of Supervisors of Lower Providence Township, known to me or satisfactorily proven to be, the person who executed the foregoing instrument for the purposes therein contained by signing his name.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

NOTARY PUBLIC

{01607551;v2}

EXHIBIT "A"

PCSM PLAN



MONTGOMERY COUNTY CONSERVATION DISTRICT

143 Level Road • Collegeville, PA 19426-3313 • 610-489-4506 • Fax: 610-489-9795 www.montgomeryconservation.org

November 24, 2020

Lower Providence Township Attn: Donald Delamater 100 Parklane Drive Eagleville, PA 19403-1199

Re: PAG-02 NPDES General Permit Coverage Approval SR 4004 Section MTF NPDES Permit No. PAC460503 Lower Providence Township, Montgomery County, PA

Dear Mr. Delamater:

Under the authority of the federal Clean Water Act and Pennsylvania's Clean Streams Law, the Montgomery County Conservation District has approved your request for new coverage under the PAG-02 NPDES General Permit for Discharges of Stormwater Associated with Construction Activities ("PAG-02 General Permit"). The latest versions of the Notice of Intent (NOI) and all supporting documents, including the Erosion and Sediment Control (E&S) Plan and Post-Construction Stormwater Management (PCSM) Plan, are incorporated into this approval, including the following plan drawings:

- The E&S Plan drawings, for SR 4004 Section MTF, dated 11/21/2020 and last revised 11/21/2020.
- The PCSM Plan drawings for SR 4004 Section MTF, dated 11/21/2020, and last revised 11/21/2020.

Your coverage under the PAG-02 General Permit, which has been assigned NPDES Permit No.PAC460479, is effective on **November 24, 2020** and will expire on **December 7, 2024**. If stormwater discharges associated with construction activities are expected to continue beyond the expiration date of PAG-02 General Permit coverage, you must apply to renew your coverage at least 180 days prior to the expiration date, unless otherwise approved by the Department of Environmental Protection (DEP) or the District.

Please review the PAG-02 General Permit and the enclosed attachments carefully and contact this office if you have any questions. Please pay particular attention to the following requirements of the General Permit:

• In accordance with 25 Pa. Code § 102.5(h), operators who are not the permittee shall be copermittees. An operator is a person who either has oversight responsibility of an earth disturbance activity on a project site who has the ability to make modifications to the E&S Plan, PCSM Plan or site specifications, or has day to day operational control over an earth disturbance activity on a project site. Please be advised that after an operator (contractor) has been selected for the project, the operator must be made a co-permittee and enter into an agreement with the permittee. Please use the enclosed Co-Permittee Acknowledgement Form for Chapter 102 Permits form (3800-FM-BCW0271a) to add a co-permittee.

- A pre-construction meeting is required as specified in 25 Pa. Code § 102.5(e), unless otherwise notified in writing by this office. The purpose of this meeting is to review all aspects of the permit with the permittee, co-permittees, operators, consultants, inspectors and licensed professionals or their designees who will be responsible for the implementation of the critical stages of the approved PCSM Plan. You must provide at least seven days notice of the pre-construction meeting to all invited attendees.
- You must conduct inspections of all best management practices (BMPs) on a weekly basis and after each measurable stormwater event (i.e., precipitation in an amount of 0.25 inch or greater over a 24-hour period) to ensure effective and efficient operation. The Visual Site Inspection Report Form (3800-FM-BCW0271d) is enclosed along with instructions. This form (or an equivalent electronic form providing the same information) must be used to document the required site inspections.
- For any property containing a PCSM BMP, the permittee or co-permittee must 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 (O&M) for PCSM BMPs, and provide notice that the responsibility for long-term O&M of the PCSM BMP is a covenant that runs with the land that is binding upon and enforceable by subsequent grantees. You must record an instrument with the Recorder of Deeds within 45 days and provide proof of the recording at the time an application to transfer permit coverage is submitted, if applicable, and at the time a Notice of Termination (NOT) is submitted to this office.
- If there are any changes to the PCSM BMPs or long-term operation and maintenance plan after the initial instrument recording and prior to permit termination, the permittee(s) will need to amend the initial recorded instrument at the recorder of deeds office prior to permit termination. Please note, most Recorder of Deeds Offices require that the land owner (at the time of actual recording) signs the instrument to be recorded. If the land owner changes and an amended instrument needs to be recorded, the Recorder of Deeds office will likely require the new land owner's signature on the amended instrument. It is recommended that for any sale or transfer of property to a new owner before this permit is terminated that the permittee seek legal counsel on how to structure the sale or transfer to allow the recorded instrument to be amended.
- The NOT form (3800-PM-BCW0229b) is also enclosed and must be completed and filed when construction activities have ceased and final stabilization has been achieved. The NOT must identify the responsible person(s) for the long-term O&M of the PCSM BMPs. Please

be advised that the permittee and any co-permittees remain responsible for all operational maintenance for this project site until the NOT has been filed and acknowledged. It is important that you fulfill your obligations under the General Permit and submit a complete NOT to this office upon final stabilization of the site.

Persons aggrieved by an action of a conservation district under 25 Pa. Code Chapter 102 may request an informal hearing with DEP within 30 days of publication of this notice in the *Pennsylvania Bulletin*, pursuant to 25 Pa. Code § 102.32(c). DEP will schedule this informal hearing within 30 days of the request. After this informal hearing, any final determination by DEP may be appealed to the Environmental Hearing Board as provided below.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board Rachel Carson State Office Building, Second Floor 400 Market Street P.O. Box 8457 Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <u>http://ehb.courtapps.com</u> or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

If you have questions, please contact Cody Schmoyer by e-mail at cschmoyer@montgomeryconservation.org or by telephone at 610-489-4506 ext. 19 and refer to Permit No. PAC460479.

Sincerely,

essive Buck

Jessica Buck District Manager Montgomery County Conservation District

- cc: Stephen C. Giampaolo, P.E., McMahon Associates, Inc. (approval letter and page 1 of General Permit only)
 DEP Permits Section Chief (approved NOI, approval letter, and page 1 of General Permit only)
 Lower Providence Township (approval letter and page 1 of General Permit only)
- Enclosures: PAG-02 General Permit Visual Site Inspection Report Form and Instructions Co-Permittee Acknowledgement Form for Chapter 102 Permits and Instructions Notice of Termination Form
- bcc: File

DEP Bureau of Clean Water (approved NOI, approval letter and page 1 of General Permit)