

Planning & Zoning Staff Report to the Allentown City Planning Commission August 9, 2022

ALL COMMENTS IN THIS REPORT ARE ADVISORY

Proposed Self Storage Facility

Project Title (Number): North Bradford Commercial Development (LMA-2022-00014)

Project Location: 1051 American Parkway NE **Development-Type / Type of Submission**:

Major land development / Final Plan

Owners: Tiger Den Partners II, LLC

Applicant: JG Petrucci Co. (c/o Joseph Correia) **Engineer**: Pany & Lentz Eng'g (Martin Smith)

Project Highlights: (Please refer to the application for details)

1. (Land preparation /grading)

2. Construction of three buildings:

a. 27,125 sq-ft; 3 stories

b. 10,400 sq-ft

c. 10,400 sq-ft

3. Installation of one exterior access drive on N. Bradford St.

4. Parking for customers /employees = 42 spaces; 2 of which are ADAs

5. Install landscaping and lighting.

Background and Comments

- At the CPC meeting of March 2022, the Commission considered a sketch plan for a proposed self-storage facility on this site. The CPC seemed amenable to the sketch plan and encouraged the proponent to submit a final plan based on comments from city review units and the CPC.
- 2. Moreover, it is recalled that Planning Staff report on the sketch plan (dated March 8, 2022) cited the favorable features of the project, deemed supportive of the current comprehensive plan. The Planning Staff Report also offered suggestions aimed at improving the plan.
- 3. This Final Site Plan (Page 2 of submission package; or Fig-1 next page) essentially mirrors the sketch plan.
- 4. This report from the Planning Staff will focus only on the items raised in the planning staff report dated Mar 8, 2022 -- and how the Planning Staff reacted to the response by the applicant:

Items Raised by Planning Staff	Response from Applicant	Reaction of Staff
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а	Provide color renderings of the envisioned buildings as may be seen from the roadways.	No rendering was submitted.	CPC may wish to request for the rendering particularly for the 3-story bldg.		
			Notwithstanding its use as a warehouse, Staff looks forward to an appealing visual presence in setting the tone for future developments in this area of Allentown.		
b	Show truck turning radius on N. Bradford.	The final plan has illustrations showing this capability.	Staff defers to Public Works staff to comment on this.		
С	Conduct and submit for review a traffic impact study on the proposed use.	The final submission includes a Traffic Impact Study.	Staff defers to Public Works staff to comment on this.		

Conclusion

5. Staff has no further comment. We recommend approval.

Bureau of Planning & Zoning Jesus Sadiua, Sr. Planner



Fig-1. Project location and <u>Final</u> Site Plan showing abutting land uses and major roadways.



Robert Gates, Acting Director of Planning Bureau of Planning & Zoning

435 Hamilton Street Allentown, PA 18101-1699 Office 610-437-7611 Fax 610-437-8781 Robert.Gates@allentownpa.gov

August 5, 2022

Tiger Den Partners II, LLC 171 Route 173 Suite 201 Asbury, NJ 08802-1365

> RE: 1051 American Parkway NE LMA-2022-00014

Dear Mr. Correia,

The above-referenced major land development plan has been reviewed by the appropriate City offices. We offer the following comments: (If you have any questions, please call the listed phone number.)

Engineering 610-437-7589:

- 1. All resubmissions must be accompanied with a written response to each Engineering and Traffic comment and reference appropriate plan revision locations in the plan set. Attach a copy of the most recent City review letter to your written response.
- 2. Provide copies of the deeds for the development tract including any easements that may exist and the deeds for the adjoining tracts.
- 3. In accordance with SALDO Section § 350-22B(1), the title block in subsequent submissions shall contain the following information so that it appears on each sheet:
 - a. The notation "Final Plan", remove "preliminary" references
 - b. The name and address of the record owner of the tract
 - c. The ward.
- 4. All signature blocks and certifications should be provided on each sheet to be recorded. All PCSM sheets must be recorded.
- 5. A sanitary sewer planning module will need to be proposed, routed through LCA and the City, and submitted to DEP for their review and approval.

- 6. Provide approved NPDES permit and E&S control plan approval from the LCCD
- 7. Provide LCA approval for the proposed watermain extension and water and sewer connection
- 8. Provide LVPC review letter.
- 9. The zoning ordinance percentage of allowed steep slope disturbance is exceeded. The applicant indicates they intend to seek a zoning variance.
- 10. The Land Development Control Ordinance, § 355-11B indicates that "The horizontal distance from either the toe or top of an excavation or fill slope line shall be five (5) feet or one-half the height of the fill or excavation from any adjoining property or easement line, whichever is greater. This condition is not met along the eastern property line. Revise the design, acquire easements, or request waivers of the requirement from the Planning Commission. At locations where waivers are granted, if any, construction fencing must be placed on the property line to ensure no grading across the line occurs.
- 11. Waivers and variances sought by the applicant and granted by the City of Allentown should be listed on the plan along with the dated granted.
- 12. Label and dimension the cartways and right-of-way widths for the adjoining roadways.
- 13. Existing easements or right-of-way lines should not be labeled required.
- 14. The project proposes a water line through the subject property. The proposed main may be public main from the point of connection to the proposed public main on the 1024 Bradford property up to the Bradford St right of way line on the subject property frontage. The main shall be noted as private for the length proposed on the property.
- 15. Identify locations for any proposed electric, gas, and communication utility services as applicable.
- 16. Clarify what the watermain extension along the American Parkway frontage of the property of for.
- 17. The proposed force main will need a license for the crossing of the N Bradford St rightof-way and an easement across the 1024 N Bradford property.
- 18. Provide a chart on the PCSM plan indicating pervious and impervious coverage for the predevelopment condition that existed prior to April 19, 2007 and the proposed post development condition.
- 19. Provide a site investigation (geotechnical report, infiltration report, etc.) in accordance with the stormwater management ordinance.

- 20. It appears that there are four points of interest that pre and post development analysis of stormwater runoff impacts should be provided. Provide calculations for REv and WQv and provide the 2-yr water quality volume proposed to be treated on the PCSM plan. The WQv shall be calculated for each post development drainage direction on the site. If the entire WQv is not proposed to be infiltrated, it shall be treated by two BMPs in series. The 30% 2-yr release rate must also be met unless the storm water BMP design is shown to result in no increase to either the rate or volume of runoff discharged in each drainage direction. An analysis of downstream capacity shall be provided for any proposed increases in stormwater runoff to a point of interest.
- 21. The 2-yr post development runoff volume shall be 80% or more of the predevelopment 2-yr runoff volume.
- 22. Infiltration areas must meet the buffer requirements noted in Ordinance § 538-15I or the applicant is to provide the ordinance indicated documentation to be granted relief from the buffer requirements.
- 23. Add a BMP tabulation (listing all the BMP devices to be employed on the site) on the PCSM plan.
- 24. The infiltration basin shall be fenced.
- 25. Provide an E&S control plan narrative.
- 26. Prior to final plan signatures for recording, the owner shall sign an operation and maintenance agreement for stormwater BMP's and a Stormwater License agreement for connection to the City stormwater system. The agreement template(s) must be requested from the City Engineering Department (Please contact Mike Lichty at Michael.Lichty@allentownpa.gov). The Owner will sign and notarize, and return to the City Engineering Department, The City will have the agreement signed by the Mayor and notarized. The City will return to the Owner, the Owner shall record the agreement at the office of the Lehigh County Recorder of Deeds, and then the Owner will supply a copy of the recorded documents to the City Engineering Department. (Stormwater Management Ordinance § 538-Appendix E). Due to the lengthy nature of this process, we encourage the applicant to start the process as soon as the stormwater BMP Plans are approved.
- 27. Per § 545-13A of the Streets and Sidewalk Code, "It shall be the duty of owners of property having frontage on a dedicated and opened public street or alley to construct sidewalks, curbs, handicap ramps and cross-overs (driveways) where any of the following apply: "Construction of new residential or non-residential structure". Sidewalk must be proposed on the Bradford St and American Parkway frontages of the property. ADA compliant curb ramps must be proposed at the corner Bradford and American Parkway. The proposed driveway must be provided as City standard industrial crossover.

- 28. The applicant may seek a postponement from installing sidewalks per § 545-16, Variances, A. Sidewalks The Allentown Planning Commission will hear requests from property owners for variances from the duties to construct a sidewalk imposed by this article. The Commission may grant variances either modifying or postponing the obligation imposed by this article up to a period of ten (10) years where: the character of the neighborhood is such that the installation of sidewalks would not serve any public purpose; or where unique physical conditions make the installation of sidewalks an undue hardship, and the absence of this installation would not materially affect the public safety and conveniences.
- 29. We recommend providing a pedestrian sidewalk from the building to the public right-of-way.
- 30. Provide details of the City standard crossover, sidewalk, curbing, depressed curb, and handicap ramp for the proposed improvements.
- 31. Provisions for a separate emergency or a second access to the site should be provided.
- 32. Provide a note for the clear sight triangles that "No vision obstructing object shall be permitted which exceeds a height of 30 inches above the elevation of the intersecting driveway and street."
- 33. Provide a protective device such as fence or handrail at least 42" high at the top of any retaining walls higher than 30".
- 34. Provide top and bottom of wall elevations for the proposed retaining walls.
- 35. Proof of plan approval or payment of any accepted fee-in-lieu of planting to the Shade Tree Commission must be provided prior to mylar signature.
- 36. An engineering improvements cost estimate for all public improvements must be prepared and should also include items for E&S controls and maintenance, stormwater BMPs and appurtenant storm sewer. A colored plan shall be provided indicating the proposed improvements that security will be provided for. The engineering security cost estimate shall be titled, dated and signed by a Professional Engineer. The engineering improvements cost estimate for land development escrow must also provide at a minimum a 10% contingency cost, a 5% inspection fee, and a 2% as-built Plans and Profiles in AutoCAD format fee. Also, provide a colored plan depicting the various public improvement items corresponding to the engineering improvements cost estimate.
- 37. Upon completion of addressing all outstanding comments and at the time of record plan mylar signature by the City Engineer, provide three complete sets of signed and sealed land development plans stamped "FOR CONSTRUCTION" for the Engineering Department's use.

38. Sheet 4 (Utility Plan), Sheet 9, Sheet 10, and Sheet 11 should be provided to the City of Allentown on mylar after Final Approval.

Based on the number and content of these comments and Sketch nature of the plan, we reserve the right to add additional comments in future submissions.

Traffic 610-437-7735:

- 1. As stated previously, Show the existing geometry of the American Parkway and Bradford St. intersection which shows the traffic signals, mast arms, signs, pavement markings on North Bradford Street.
- 2. As stated previously, Conduct a minor Traffic Impact Study (TIS) for morning, afternoon, and mid-day peak hours. Also do the analysis for all the peak hours to show the queue for American Parkway 'left-turning, and the left turning vehicle' to the proposed access driveway. Study should include the 1024 N. Bradford St. land development projected volume for your analysis.
- 3. As stated previously, provide pavement marking and signage plan for N. Bradford Street which show a center lane "left/right arrow" for pattern from American parkway to Dauphin Street. Add a note stating, "all the pavement markings and legends must be thermoplastic".
- 4. As stated previously, the applicant may be required to upgrade the traffic signal at American Parkway and Bradford Street to current city standards which include: GPS pre-emption, hand/man countdown pedestrian signal indication (for crossing N. Bradford St.), and reflective back plates for all overhead traffic signal indications.
- 5. As stated previously, Traffic signal permit plans need to be revised to show all the upgrades and obtain a Permit approval from PennDOT.
- 6. As stated previously, Show additional access for Emergency vehicles either from American Parkway or Bradford St.
- 7. As stated previously, Show parking at all buildings, along with travel path of vehicles around buildings and to and from driveway. Show the area where the vehicle is going to park for loading and unloading to/from the 10,400 sq. ft. building and the 10,400 sq. ft. building. Provide 7' parking isle and 24' travel area for 2-way traffic.
- 8. As stated previously, provide stop bar, stop sign and minimum of 50' double yellow marking at the proposed access.

- As stated previously, provide concrete parking blocks along the parking spots facing sidewalks at the building to avoid vehicles blocking the pathway; show dimension of both sidewalks at the building.
- 10. As stated previously, Provide new sidewalk on N. Bradford Street and American Parkway along property line.
- 11. As stated previously, Provide new handicap ramps in sidewalk on Bradford Street, and on mountable curbs at intersection.
- 12. As stated previously, Show depressed curb, handicap ramp and sidewalk details on plans.
- 13. As stated previously, provide site lighting with photometric plan must show the minimum of 1 fc lighting distribution on the entire site. Provide LED Cobrahead streetlight along Bradford St. from American Parkway to Dauphin St. Lights should be placed 100' apart. Use the City's standard streetlight with telecell photocell and 30' pole, with an 8' davit arm.

Additional comments may follow upon full land development plan submission(s). If you have any questions concerning the Traffic or lighting comments, please contact Mr. Varughese at Nelson.Varughese@allentownpa.gov

Zoning 610-437-7630:

- 1. Plans unsatisfactory as submitted. Insufficient information to complete Zoning review.
- 2. Exceeding Maximum Allowable Slope Disturbance (Variance)
 - a. Exceeding maximum slope disturbance: in areas with 25%-35% slope (25% permitted; 74.5% proposed); in areas of 35% slope or greater (0% permitted; 70.2% proposed).
 - b. § 660-63 Development standards for steep slopes. E. Standards and criteria for applications. The following shall apply whenever areas of steep slopes are proposed for development or disturbance. (1) In areas with 25% to 35% slope, no more than 25% of the total of such areas shall be altered, regraded, cleared, built upon or otherwise altered. (2) In areas of 35% slope or greater, no area shall be altered, regraded, cleared, built upon or otherwise altered.
- 3. Insufficient Off-Street Parking (Variance)
 - a. Insufficient off-street parking. Number of employees not provided. (32 spaces required for 960 storage units, plus one space for each employee; 31 spaces proposed).

b. § 660-74 Number of required off-street parking spaces.

Use	Number of Off-Street	Plus 1 Off-Street Parking
	Parking Spaces Required	Space For Each
Self-storage development	1 per 30 storage units	Employee

- 4. Insufficient Off-Street Loading & Unloading Spaces (Variance)
 - a. § 660-75 Off-street loading and unloading space. A. Every building or structure having over 4,000 square feet of building area used for business, trade or industry and other uses involved in large volume receipt and distribution by vehicles of materials and merchandise shall provide space as herein indicated below for the loading and unloading of vehicles off the street or public alley. Such space shall be located to minimize conflicts with traffic along public streets and with dwellings.
 - b. C. The following numbers and sizes of off-street loading and unloading spaces shall be provided at a minimum. (1) Retail business and service establishments: (a) Each required off-street loading and unloading space shall be at least 12 feet wide by 35 feet deep.

Building Area (square feet)	Number of Spaces Required
Over 100,000	5 spaces plus 1 for every 40,000 square
	feet or fraction thereof in excess of
	100,000 square feet

- 5. Insufficient Lighting of Passageways & Driveways
 - a. § 660-73 General parking regulations. J. Lighting. All parking areas and related passageways and driveways serving nonresidential uses or 20 or more spaces for residential uses shall be illuminated adequately during the hours of use. Adequate shielding shall be provided to protect adjacent residential districts from glare and vehicle headlights. See Article X.
- 6. Insufficient Information for Parking Lot Landscaping
 - a. Provide percentage of landscaped area.
 - b. § 660-77 Parking lot, outdoor storage, and loading area landscaping. A. Parking area landscaping. The following provisions shall apply to off-street parking areas which provide for a total of 20 or more motor vehicles. (1) Such areas shall include a landscaped area equal to 10% of the total area of paved and stone surfaces on the lot. Such landscaped area shall: (a) Be located within the parking area and/or immediately adjacent areas. (b) Be in addition to any stormwater detention basins. (c) Include a suitable vegetative ground cover and shrubs that discourage the growth of weeds.
 - c. § 660-80 Purpose and procedure. B. Site plan review. (3) (h) A landscaping plan including locations of proposed planting and seeding and screening.
- 7. Proposed Location of Waste Dumpsters with Screening Not Provided

- a. Provide location of waste dumpsters with screening.
- b. § 660-77 Parking lot, outdoor storage, and loading area landscaping. D. Dumpster screening. Any new location for a solid waste dumpster shall be screened on at least three of four sides as necessary to screen views from public streets and existing dwellings on adjacent lots. Such screening shall consist of decorative masonry walls, mostly solid weather-resistant fencing of wood or material with a similar appearance, or primarily evergreen plantings.
- c. § 660-80 Purpose and procedure. B. Site plan review. (3) (k) Location of any proposed waste dumpster.
- 8. Pedestrian Walks Not Provided
 - a. Provide location and layout of pedestrian walks.
 - b. § 660-80 Purpose and procedure. B. Site plan review. (3) (e) The location and layout of parking areas, pedestrian walks, parking spaces and driveways.
- 9. Proposed Location of Signs Not Provided
 - a. Future signage will require a Zoning application and plans.
 - b. § 660-80 Purpose and procedure. B. Site plan review. (3) (i) Proposed location of fences and signs.
- 10. Height of Retaining Walls Not Provided
 - a. Provide height of retaining walls.
 - b. § 660-63 Development standards for steep slopes. E. (13) When terraces or retaining walls are utilized to cope with steep slopes, the maximum vertical drop per terrace shall be five feet.

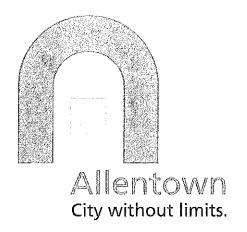
Shade Tree Commission 610-821-4252:

1. Comments will be forthcoming at a later date.

These comments will be reviewed by the Allentown City Planning Commission at their meeting scheduled for Tuesday, August 9, 2022. Following the meeting when all the comments have been addressed, please submit seven (7) sets of revised plans for further review.

Very truly yours,

Robert Gates



Shade Tree Commission
Department of Public Works
641 South 10th Street
Allentown, PA 18103
610-437-7583
Chair: Christian Brown
Mary Joachim
Stephen Dahl
Randy Fey
Staff: Kyle Sergent

August 8, 2022

Robert Gates
Planning Department
City of Allentown
435 Hamilton Street
Allentown, PA 18101

Subject:

Allentown Shade Tree Commission 1st Review

1051 American Parkway NE

LMA-2022-00014

Dear Mr. Gates

The Alientown Shade Tree Commission (ASTC) has performed a review of the above referenced project. We are in receipt of a set of plans dated July 5, 2022 prepared by Pany and Lentz Engineering Company., and offer the following comments:

- 1. The Shade Tree Commission appreciates the applicants efforts to produce a quality Street Tree layout but requests the distribution of tree species to be consolidated as follows:
 - a. London Plane Tree on American Parkway (no change)
 - b. Red Maple Bradford from American Parkway to first driveway entrance and from second driveway entrance to Dauphin Street.
 - Red Oak Bradford between two driveway entrances into development and on Dauphin Street.
- 2. The Plant Schedule shall be edited as follows:
 - a. Acer rubrum 'October Glory' (include variety)
 - b. Quercus macrocarpa 'Bur Oak' (better oak for alkaline soils)
 - c. Platanus x acerifolia 'Bloodgood' (include variety)
- A Street Tree Summary shall be added to Sheet 3.

Thank you on behalf of the Allentown Shade Tree Commission for this opportunity to provide this review. Please feel free to contact me should you have any questions.

Respectfully yours,

Christian J. Brown, Allentown Shade Tree Commission



LEHIGH COUNTY AUTHORITY

1053 SPRUCE ROAD * P.O. BOX 3348 * ALLENTOWN, PA 18106-0348
610-398-2503 * FAX 610-398-8413 * www.lehighcountyauthority.org
email: service@lehighcountyauthority.org

July 28, 2022

Mr. Robert Gates Planning Director City of Allentown 435 Hamilton Street Allentown, PA 18101

SUBJECT: Proposed Water/Sewer Service Connections to a new industrial self-

storage building and Public Water Extension - North Bradford

Commercial – 1051 American Parkway

LCA Review #1

Dear Mr. Gates:

LCA (Lehigh County Authority) has reviewed plans titled "Preliminary/Final Land Development for North Bradford Commercial" located at 1051 American Parkway, City of Allentown, Lehigh County, Pennsylvania. The project consists of a proposed industrial self-storage facility. The following comments are offered on the proposed public water main extension along with water and service connections for the property, as shown on the plan prepared by Pany & Lentz Engineering Company Project # 2021340, dated July 5, 2022:

LCA offers the following comments:

- On sheet LD-4, label the new 8" water main extension as public. This extension will loop from N Dauphin Street to near the Business Park Lane/American Parkway Intersection.
- 2. On sheet LD-4, label the 2" water lateral that comes off the 8x2 tee as private.
- 3. Confirm a 2" private lateral is what this building will need. Limited water usage was previously mentioned and a minimum 1.5" meter would be needed for a 2" lateral. This would be excessive for the previously mentioned estimated 35 GPD proposed water usage.

- 4. On sheet LD-4, a plug is noted at the end of the new 8" main. This should be shown continuing to loop towards the Business Park Lane/American Parkway Intersection.
- 5. On sheet LD-4, label the tap size (12x8") and location of the water tap that will be requested from LCA. This will take place near the Business Park Lane/American Parkway Interception to complete the water main extension loop. LCA will complete the tap up to the valve in the street. All construction after that point is to be done by the contractor. The contractor must dig a trench in the street to prepare the site for LCA's tap crew. See attached for the trench spec. Additional details will be provided in the LCA construction permit.
- 6. On sheet LD-4, label any new fire hydrants that come off this new main extension as *public*.
- 7. The City of Allentown fire chief must approve the locations of any public fire hydrant.
- 8. A Developer's Water System Agreement (DWSA) will be needed with LCA for construction of the portion of new public water section loop. The DWSA will cover the public water main extension portion of this project. LCA will need a list of materials and costs covering everything in the PUBLIC section of the new water main extension in order to generate the DWSA. Please advise if the security deposit will be submitted in the form of a check or letter of credit. A draft of the DWSA will be supplied after plans are officially approved and all material/cost information is provided to LCA to create this document. An executed DWSA, water material submittals, cut sheets and pre-con meeting with a LCA inspector is required prior to construction starting. This DWSA will cover both the Allentown Flex Center and North Bradford Commercial projects that are being done by the same owner.
- 9. A construction permit will be needed with LCA to complete the 12x8 water tap on near the Business Park Lane/American Parkway Intersection and for connection to the nearest public sanitary sewer manhole. Developer must comply with the applicable terms therein prior to starting the system construction.
- 10. LCA will need easements for the new 8" water main extension loop.
- 11. On sheet LD-4, label the sewer lateral and any new manholes to be installed for this project as *private*. All sewer construction for this project will be private to LCA.

- 12. On sheet LD-4, label the nearest unknown manhole to be connected to as *public*. *This is pending the City of Allentown's decision on if the three unknown manholes will be public or private. See the following comment.
- 13. See attached MAP Connection to B2_2_3. The City of Allentown and LCA are looking into the three previously unknown manholes that are noted. LCA does not have them in our GIS system and the City of Allentown previously did not recognize these as public. The City of Allentown will need to decide if this section of three manholes will be added as public, which would make them LCA responsibility. This decision is pending. If they are made public, LCA is unaware of the conditions so some inspections and maintenance work will need to occur before any connections can be authorized. If this three-manhole section would be made public, the new manhole installed after that point would be private and the laterals running in opposite directions to each of the buildings for the Allentown Flex Center and North Bradford Commercial projects would be private. *The City of Allentown appears to be in agreement with making this three-manhole section public and has mentioned to LCA that information will be provided to LCA mid-August sometime to add this new sewer information to our GIS system.
- 14. On sheet LD-14, specs should follow the City of Allentown specs sheets. See attached.
- 15. On sheet LD-15, a plug is noted instead of showing the water main continue to loop as previously mentioned. Please advise LCA on how this water main loop will be constructed and confirm that is will loop and not just come to a dead end. Show the connection point to complete the loop at the Business Park Lane/American Parkway Intersection.
- 16. On sheet LD-16, specs should follow City of Allentown spec sheets. See attached.
- 17. Attached are some additional spec sheets to add to the plans.
- 18. Add the attached site plan notes to the plan.
- 19. Please submit a revised copy (pdf and hard copy) of the updated sheets of the plan after the changes have been made.

GENERAL COMMENTS:

- 1 LCA is willing to provide public water and sewer service to the property.
- 2 The developer shall initiate a sewage facilities planning module with The City and PA DEP. If an exemption is granted by DEP, provide evidence of the exemption to LCA.
- 3 It is the responsibility of the contractor to field verify all existing utilities.
- 4 The property owner is responsible for obtaining all necessary City or any other applicable permits including, but not limited to, plumbing, road opening, utility crossing, stream crossing, etc.
- 5 The City of Allentown Fire Marshall must be contacted for approval of fire hydrant locations and/or fire protection. Provide LCA documentation of this approval. Allentown thread should be compatible with all hydrants. Contact LCA's customer service at 610-437-7515 to report how many private hydrants have been installed once construction is complete.
- 6 The contractor will need to provide LCA with a Certificate of Insurance that matches the limits in the attached document.
- 7 Approved backflow devices will need to be installed on the domestic and fire lines. Backflow prevention assemblies proposed for use in the LCA service area must have received a current Certificate of Approval from the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research.
- 8 The type of backflow prevention assembly installed and maintained must be adequate for the degree of hazard present. All backflow prevention assemblies shall be approved by LCA prior to installation.
- 9 LCA does not take responsibility for the workability or the design of the private water lines, sewer lines or private fire protection system.
- 10 Water and sewer system construction is subject to inspection by LCA. Contact LCA at 610-398-2503 to schedule an inspection a minimum of three (3) business days prior to the start of work. Only LCA personnel shall operate valves in the water system.
- 11 The LCA Customer Service Department shall be notified to schedule an inspection of the meter setting prior to initiation of water service. When you are ready for a meter please call our Allentown Division Customer Service Department at 610-437-7515 and they will be able to assist you with purchasing a meter.
- 12 The Lehigh County Authority Allentown Division (610-437-7515) shall be notified to schedule an inspection of the meter setting prior to initiation of water service.
- 13 All abandoned water lines must be abandoned at the main. If the corporations do not shut off correctly and are leaking or deemed necessary by the

- inspector, the contactor is fully responsible to install and purchase an approved capsulation device.
- 14 All abandoned sewer lines must be abandoned at the main by an approved trenchless sewer repair contractor. Approved contractors for the trenchless spot repair abandonment can be provided on request.

See below for the 2022 fees/deposits required for this project:

- Developers Water System Agreement: **PENDING**
 - Security Deposit \$? Pending (Submitted in the form of a check or letter of credit)
 - Inspection Deposit \$? Pending (This must be paid by separate check)
 - Record Drawing Deposit \$? Pending (This must be paid by separate check)
- Construction Permit Deposit \$1,000
- Connection Fee (Physical Tap 12x8) \$5,842
- Water/Sewer Capacity Tapping Fee \$? **Pending** (need usage information to confirm fee should be based on 35 GPD.
- Domestic Water Meter Fee

 To be determined. Based on size of meter requested.
- Fire Line Bypass Water Meter Fee (5/8") \$325. If building will have fire protection.

Note: Water Meters must be purchased from LCA and paid for at the time the meter is purchased from our Allentown Division Customer Service Department (610-437-7515). Please provide our Customer Service Department one week advanced notice for all meter requests.

Please provide the applicable above mentioned items at your earliest convenience. If you have any further questions, feel free to contact me at 610-398-2503, x158, or via e-mail at JacobHunsicker@lehighcountyauthority.org.

Sincerely,

Jacob Hunsicker Capital Works Project Specialist

gaeol Hunsicher

cc: Martin Smith – Pany & Lentz Engineering Company Brian Weidaw – Pany & Lentz Engineering Company Joseph Correia – Tiger Den Partners II LLC

	,Sketch
X	Preliminary
X	Final

City of Allentown, PA Permits & Inspe... - LMA-2022-00014 - 2022 1005857-0003 Tabitha ... 07/21/2022 04:19PM

Payment Amount:

16,545.00

SUBDIVISION AND LAND DEVELOPMENT APPLICATION

CITY OF ALLENTOWN

ALLENIO	WN CITY PLANNING COMMISSION
DATE:7-5-2022	
NAME OF SUBDIVISION:	North Bradford Commercial Development
ADDRESS OF SUBDIVISION:	1051 American Parkway NE
PROPERTY OWNER:	Tiger Den Partners II, LLC
ADDRESS:	171 Route 173, Suite 201
CITY, STATE, ZIP	Asbury, NJ 08802-1365
E-MAIL ADDRESS:	jcorreia@jgpetrucci.com
PHONE #: _908-730-6909	FAX#:
APPLICANT (If other than owner):	
ADDRESS:	*
CITY, STATE, ZIP	*
E-MAIL ADDRESS:	
	FAX#:
	Pany & Lentz Engineering Co. c/o Martin Smith
ADDRESS:	609 Hamilton Street
CITY, STATE, ZIP	Allentown DA 19101
E-MAIL ADDRESS:	mfcmith@nlec us
PHONE #: 610-433-1634	FAX #:610-433-1636
	nor Major Deed Consolidation
	nor Major X
NUMBER OF LOTS:1 ACF	REAGE: 8.15 AC
SQ. FT OF FLOOR AREA: Office:	Retail: Warehouse: Other: 102,175
PROPOSED DEVELOPMENT: constr	uction of a 102,175 SF self storage facility with multiple buildings on vacant lot
ARE MUNICIPAL UTILITIES AVAILABLE?	YES_XNO
FEE: (Please complete page 2 and enter the	ne fee here): \$_250
(The fee must accompany submission)	
Note:	
	d other documentation submitted on behalf of an application become dvania Right to Know Law, 65 p.s. § 66.1 et. Seq.
	Ill subdivisions must be accompanied by an electronic
	te plan (8.5" x 11"), location map, project description,
- -	documentation of Lehigh Valley Planning Commission
and Lehigh County Authority sun3. All new submissions require 10 sets of	
SIGNATURE OF, OWNER, APPLICANT OF	AUTHORIZED REPRESENTATIVE:
Signature	Title
Effective January 2019	(Turn over for fee schedule.)

OWNER OF RECORD

DEVELOPER

J. G. PETRUCCI CO., NC. 171 ROUTE 173 - SUITE 201 ASBURY, NEW JERSEY 08802-1365 PRINCIPAL OFFICER/OWNER:

INTENDED USE

ZONING DATA

ZONING DISTRICT B/L1 (BUSINESS/JUGHT INDUSTRIAL)
MINIMUM YARD REQUIREMENTS:
FRONT YARD - 20'
SIDE YARD - 8' (ABUTTING STREET - 50')
REAR YARD - 10'

MAXIMUM IMPERVIOUS COVERAGE: 70%
NET BUILDABLE SITE AREA OF 8,154 ACRES
** PERCENTAGE CALCULATED BASED ON NET BUILDABLE SITE AREA
** TOTAL BUILDING AREA: 102,175 SF

UTILITIES

SEWER LCA WATER LCA ELECTRIC PPL TELEPHONE VERIZON, PA GAS UGI UTILITIES, INC.

- THE OTTO OF ALLIDORION STRANGAMES AND SPECIFICATIONS.

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- DIONERS.

 BONDERS.

 HE DYELOPER SHALL COMPLY WITH THE STPULATIONS OF THE CITY OF ALLINTONN COOPER DISDINANCE NO. 14476 (ACT 167).

 ALLINTONN COOPER DISDINANCE NO. 14476 (ACT 167).

 HOW THE PRINCE AS ANTIANY SEEME, PROPER STORMAN AREA WITHIN THE PUBLIC RIGHT-OF-WAY OR ONTO ADJOINING PROPERTIES.

 ALL LATERIAL SHATHATY SEEME PHYOL IS TO BE SHAT OF OR SIDN-26 PVC
- IQ.

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- CONSTRUCTION, THE PUBLIS STOMS STREET MUST BE GREATED PROOF TO SOME CONTROLLING. ALL STOMS STREET OF BE FINAL TO SOME STREET OF BEING STREET, ALL STOMS STREET OF BEING STREET, ALL STOMS STREET, AND SOME AND THE PROPOSED SET STRING STALL SECOND STALL BE SERVED TO AT THE THE OF BEINGER MAD STREET, AND STREE

VARIANCE NOTES

THE FOLLOWING VARIANCES FROM SECTIONS OF THE ZONING ORDINANCE ARE REQUESTED FOR THIS APPLICATION:

SECTION 1317.04.E.1 — TO ALLOW FOR MORE THAN 25% DISTURBANCE IN AREAS OF SLOPES AT 25%—35%.
 SECTION 1317.04.E.2 — TO ALLOW FOR DISTURBANCE IN AREAS OF SLOPES AT 35% OF GREATER.

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

NORTH BRADFORD COMMERCIAL DEVELOPMENT

SITUATED IN:

1051 AMERICAN PARKWAY WARD 15 ALLENTOWN, PA 18109 CITY OF ALLENTOWN LEHIGH COUNTY, PENNSYLVANIA

DEVELOPED FOR: J.G. PETRUCCI CO., INC. 171 ROUTE 173 SUITE 201 ASBURY, NEW JERSEY 08802





SHEET NOEX



PA ACT 287, AS AMENDED

THE CONTRACTOR SHALL COMPLY WITH PA ACT 287, AS AMENDED REQUIREMENTS AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK.



ENGINEER'S STATEMENT

All written dimensions shall take priority over scaled dimensions. The contractor shall be responsible for verifying all locations, elevations, dimensions and conditions prior to construction. The contractor shall notify Pany & Lentz Engineering Company of any discrepancies with the Information shown on the drawings.

CERTIFICATION OF OWNER OF RECORD

I, (ME), THE UNDERSIGNED, BEING THE OWNER(S) IN PEACEFUL POSSESSION OF THE LAND HEREIN PLATED AND BEING THAT THERE ARE NO SUITS PENDING AFFECTING THE TITLE OF THE SAME, DO HEREBY ADOPT THIS PLAN OF PROPERTY SITUATED IN THE CITY OF ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA.

THE FORECONE ADOPTION IS MADE BY ME (US) WITH THE FULL UNDERSTANDING AN ADREMENT THAT THE APPROVAL BY THE ALLENTOWN CITY PLANNING COMMISSION, IN ATTACHED HEREOTO, WILL BECOME NULL AIN VOID UNLESS THIS FLAN IS RECORDED THE RECORDER OF DEEDS OFFICE OF LIDHOR COUNTY, PENNSYLVANIA WITHIN NINETY (90) DAYS OF THE DATE OF SAID APPROVAL.

OWNERS' SIGNATURES

NOTARIZATION SWORN AND SUBSCRIBED BEFORE ME THIS_

NOTARY PUBLIC SIGNATURE MY COMMISSION EXPIRES

PLANNING COMMISSION APPROVAL

THE WITHIN PLOT OR PLAN OF LAND LOCATED IN ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA, WAS APPROVED BY THE ALLENTOWN CITY PLANNING COMMISSION

DATE SECRETARY

APPROVED: CITY ENGINEER

LEHIGH VALLEY PLANNING COMMISSION REVIEW REVIEWED BY THE LEHIGH VALLEY PLANNING COMMISSION.

PROOF OF RECORDING

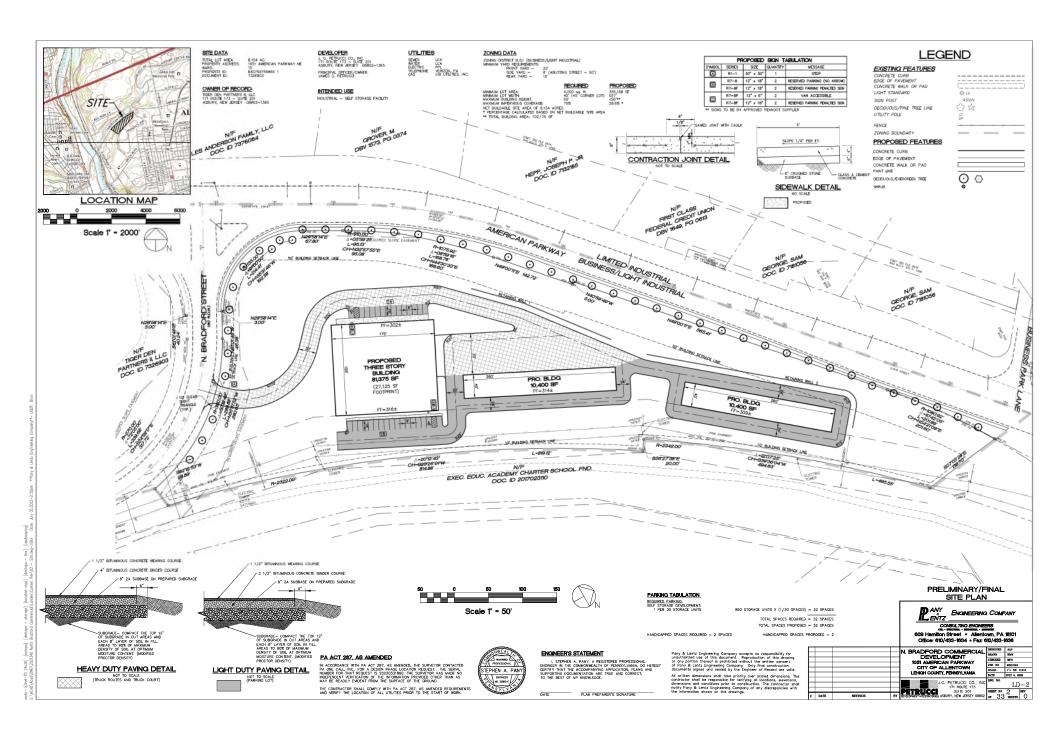
WITNESS MY HAND AND SEAL OF OFFICE THIS ___ DAY OF ___

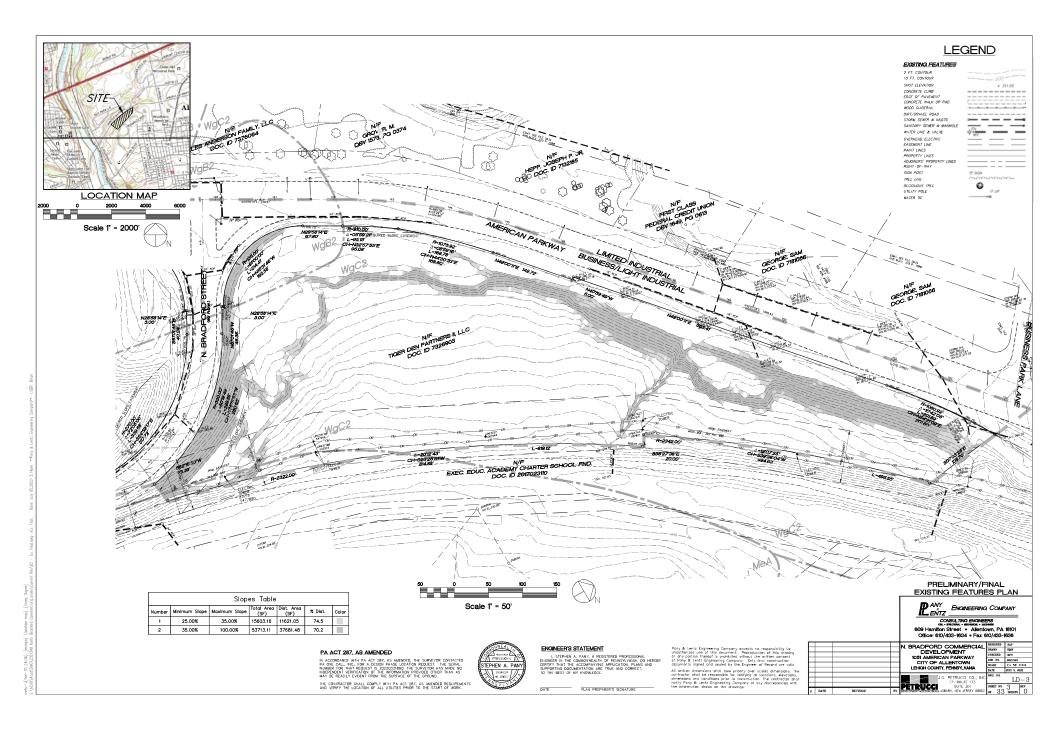
WITNESS: RECORDER OF DEEDS

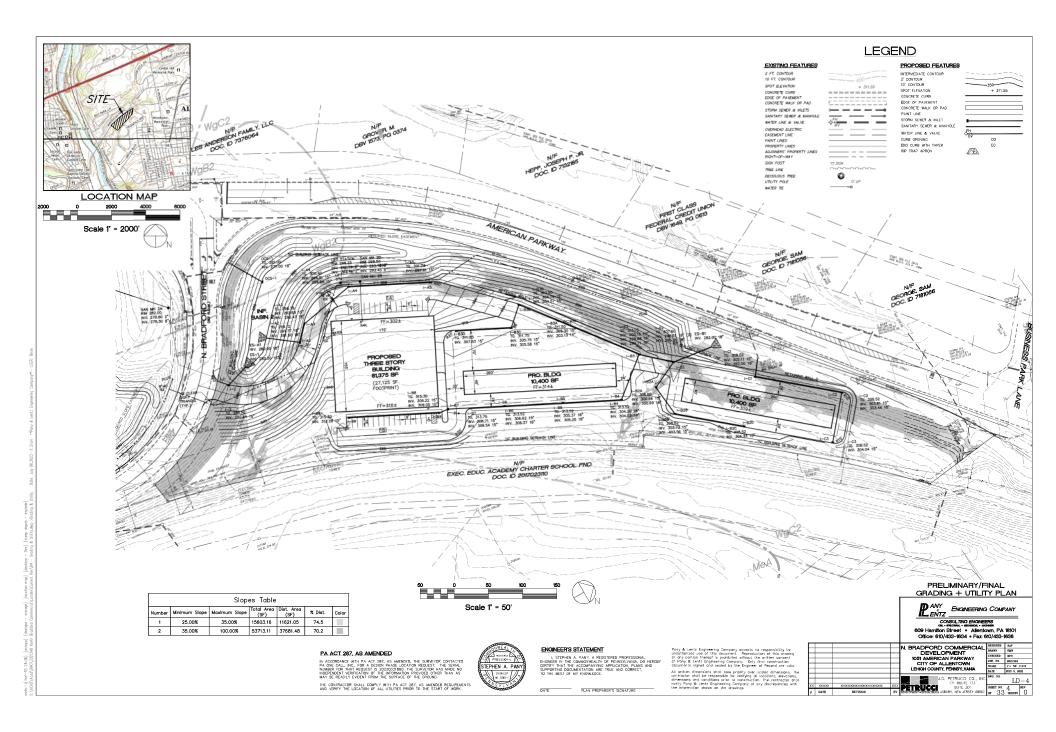
PRELIMINARY/FINAL COVER SHEET

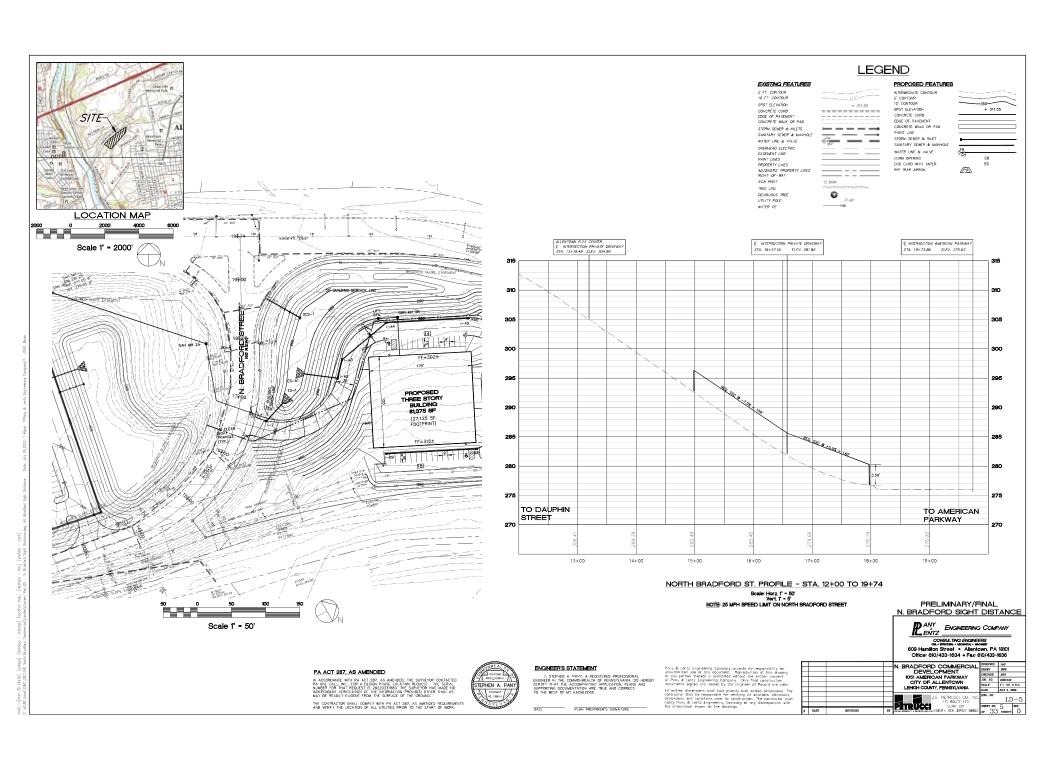
PANY ENGINEERING COMPANY CONSULTING ENGINEERS

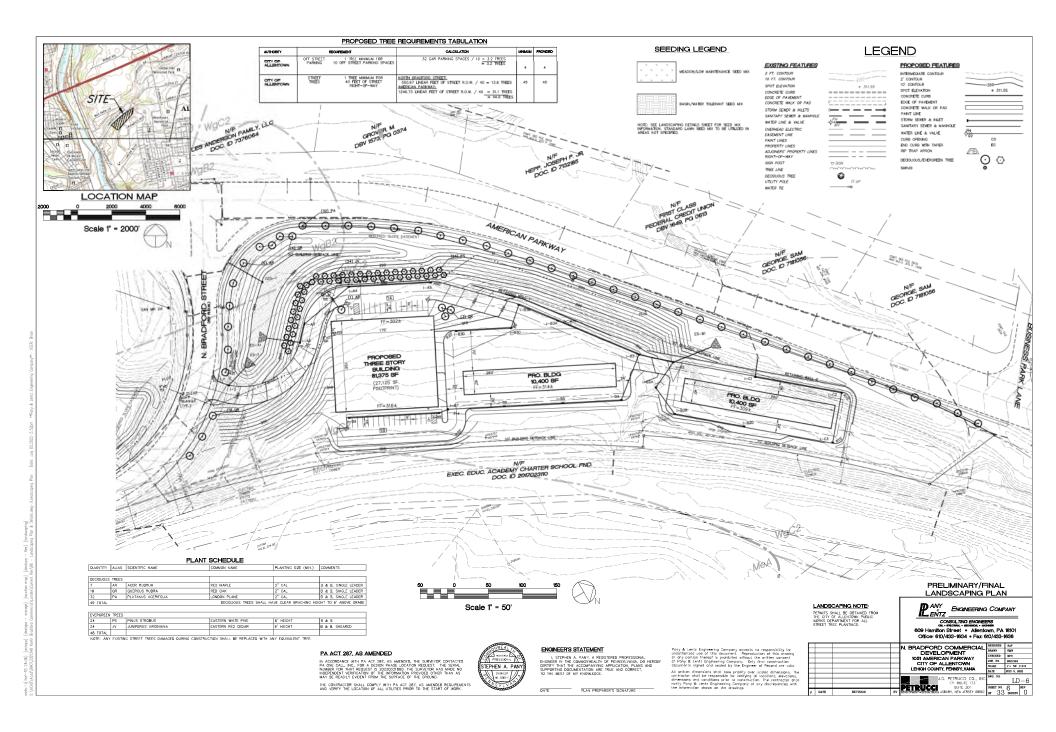
N. BRADFORD COMMERCIAL MINISTER N.











- SEE BASIN SEED MIXTURES (SHEET 3) -

SEEDING NOTES:

- PURE LIVE SEED (P.L.S.) IS THE PRODUCT OF THE PERCENTAGE OF PURE LIVE SEED TIMES PERCENTAGE GERMINATION DINIBED BY 100. TO CALCULATE THE AMOUNT OF SEED REQUIRED TO PILANT ONE (1) ACRE, DIVIDE THE SEEDING RATE IN THE LISS. P.L.S./ACRE BY THE P.L.S. COLITIST OF THE SEEDLOT TO BE USED.
- WHERE IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE AN AREA IMMEDIATELY AFTER FINAL EARTHMOVING HAS BEEN COMPLETED, OR WHERE THE ACTIVITY CEASES, INTERIM STABILIZATION MEASURES SHALL BE IMMEDIATELY IMPLEMENTED (TEMPORANCY SEEDE) AND/OR MILLICHED.
- SOW SEEDS UNIFORMLY ON THE PREPARED AREAS BY HYDRAULIC APPLICATION, BROADCASTING, OR HANDSEEDING METHODS. INSPECT SEEDING EQUIPMENT AND ADJUST THE EQUIPMENT IF REQUIRED TO ASSURE THE SPECIFIED APPLICATION RATES. PERIODICALLY CHECK ON THE RATE AND UNIFORMITY OF APPLICATION.
- I. DIVERSIONS, CHANNELS, SEDIMENTATION BASINS, SEDIMENT TRAPS, AND STOCKPILES MUST BE SEEDED AND MULCHED IMMEDIATELY.
- HAY OR STRAW MULCH MUST BE APPLIED AT RATES OF AT LEAST 3.0 TONS PER ACRE, IN LONG STRANDS, NOT CHOPPED OR RINELY BROKEN.

- EMPORARY SEEDING:
 A) APPLY ONE (1) TON AGRICULTURAL GRADE LIMESTONE PER ACRE.
 B) APPLY 5-5-5 FERRILIZER AT 1,000 POUNDS PER ACRE.
 C) AFTER SOWNOT TEMPORARY SEEDING, APPLY THREE (3) TONS HAY OR STRAW MULCH PER ACRE.

- C.) AT IS NOWNU IN-CONTROL SECURION.

 THE STANDARY SETTING TO DETERMINE COLUMNED MANIFORMENTS OR

 A) APPLY TO-20-20 TUBE THRE TERTILIZER AT A PAIR OF 500 LBS PER AGR.
 B) APPLY TO-20-20 TUBE THRE TERTILIZER AT A PAIR OF 500 LBS PER AGR.
 C. MUCCH WITH HAY CAM. 3 TONS, ACIES, TO RECRET THE SEED FROM DEFINESS AND EROSION.
 ALL ARREST HAY FAR TO CORMANTE WIST BE RESERVED.

HYDRO-SEEDING REQUIREMENTS

- THE THREE-SELECTION OF SECURITY AND SEED AS HER OF SECURITY SECURI

- 5, HYDRO-SEEDING DATES: MAY 1 TO NOVEMBER 15.

 6, APPLY HAY OR STRAW MULCH BINDER FOR ALL HYDRO-SEED STABILIZED AREAS

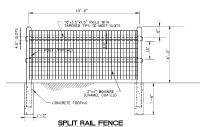
BASIN/WATER TOLERANT SEED MIXTURES

BOTANICAL NAME	ROOT	NOTES
UNIFORM COVER (MECHANIC	AL BROADCAST)
andropogon virginious	seed	24/1000 SF
andropagen elliotti	seed	1#/1000 SF
panicum virgatum	seed	0.5#/1000 SF
dichanthelium scoparium	seed	0.25#/1000 SF
carex tribuloides	seed	0.254/1000 SF
lotium multiflorum	seed	0.5#/1000 SF
festuca rubra commutata	seed	2#/1000 SF
festuca ovina glauca	seed	2#/1000 SF
SWATH/GROUP COVER (HAN	D SPREAD)	
aster novae-analice	seed	1#/1000 SF
eupatorium perpurea	seed	0.25#/1000 SF
iris versicolor	seed	0.25#/1000 SF
lobella cardinalis	seed	0.25#/1000 SF

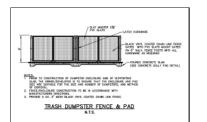
MEADOW/LOW MAINTENANCE SEED MIXTURE SEEDING RATE: 20#/ACRE

% OF MIX	COMMON NAME	BOTANICAL NAME
35%	BIG BLUESTEM, 'PRARIE VIEW'	ANDROPOGON GERARDIL 'PRAIRIE MEW'-IN ECOTYPE
21%	VIRGINIA WILDRYE,	ELYMUS VIRGINICUS, PA ECOTYPE
18%	SWITCHCRASS, 'SHAWNEE'	PANICUM VIRCATUM, "SHAWNEE"
10%	COASTAL PANICORASS, 'ATLANTIC'	PANICUN AMARUM, 'ATLANTIC'-VA ECOTYPE
5%	PARTRIDGE PEA	CHAMAECRISTA FASCICULATA (CASSIA F.), PA ECOTY
3%	BLACKEYED SUSAN	RUDBECKIA HIRTA, COASTAL PLAIN NC ECOTYPE
3%	INDIANGRASS	SORCHASTRUM NUTANS, PA ECOTYPE
2%	DXEYE SUNFLOWER	HELIOPSIS HELIANTHODES, PA ECOTYPE
1.5%	SHOWY TICKTREFOIL	DESMODIUM CANADENSE, PA ECOTYPE)
1%	PLAINS COREOPSIS	COREOPSIS TINCTORIA
0.4%	PANICLEDLEAF TICKTREFOIL	DESMODIUM PANICULATUM, PA ECOTYPE
0.1%	COWMON WILKWEED	ASCLEPIAS SYRIACA, PA ECOTYPE
NOTE: SEED MIX	IS THE "NATIVE LIPLAND WILDLIE	FORAGE & COVER MEADOW, MIX BA

NOTE: SEED MIX IS THE "NATIVE UPLAND WILDLIFE FORAGE & COVER MEADOW" MIX BY ERNST CONSERVATION SEEDS (WWW.ERNSTSEEDS.COM). SUBSTITUTE EQUIVALENT MAY BE PROVIDED, UPON REVIEW AND APPROVAL DE MIX BY DESIGN ENGINEER OR LANDSCAPE



NOTES: 1. ALL WOOD FOR SPLIT RAIL FENCE TO BE PRESSURE TREATED. 2. END POST SHALL BE TERMINAL POST.



2x2 HARDWOOD STAKES -2 PER TREE KEEP MULCH 1" AWAY FROM ROOT COLLAR. - REMOVE EXCESS SOIL FROM TOP OF ROOT BALL CUT AND REMOVE BURSLAP FROM LEPPET (1/3 OF BOOT DOWN WIRE BAREET, REMOVE ALK, TES, CLIPS UNDESTRUCTED, TES, CLIPS UNDESTR

OFF-STREET TREE PLANTING DETAIL WITH OPTIONAL STAKING

GENERAL PLANTING NOTES:

- andsoos lokes

 In the contractor must verify bootion of all underground utilities prior to digging, per Act
 Per scheduler that description and the property of the property of the property of the contraction stable to replace all the scheduler of the contraction of the property of the scheduler of the contraction feeding or all frence other design the tree causey dip line or a minimum of ten (III) tention or all frence other design the tree causey dip line or a minimum of ten (III) tention or all frence other design the tree causey dip line or a minimum of ten (III) tention or all frence other design that the property dip line or a minimum of ten (III) tention or all frence other design that the property dip line of the contraction of the contra

- line.

 No plant substitutions will be allowed without written approval of the Owner, and Municipality and LVIP.

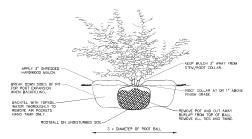
 All urbuilt and unpayed areas disturbed during construction shall be seeded for turner.

- Municipality and LIPP.

 All rebuilt of imposed areas disturbed ouring construction shall be seeded for turt, or
 Port stakes and guy were. If used, shall be removed by the Ower within our year at
 installation, and include a control of the Control of the Control
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Furth Seed Specifications (1) and the specification of the premoted Formula (1) (see Pun-ABB for additional specifications) for general unit or executions (1) and the specific and the specific as component, (16% s) missipher of the specific as the specif

within the following detects. Worth 15 to June 15, August 1 to October 15. PerinODT Formula 12 (see Put-A88 of coditional specifications) for temporary seating. For a seating seat of Codition 15 to Cottober 15. PerinODT seat 16 to Codition 15 to October 15. Perspect full cross per the requirements of Sections SEM (Seeding and Self Supplemental) and 805 (Muchina) of PerinDOT Specifications publication 4088 in the lottest revision.



SHRUB PLANTING DETAIL

PRELIMINARY/FINAL LANDSCAPING DETAILS

Pany Engineering Company

COMSULTING ENGINEERS
00. * BROKENS - MCORENT
609 Hamilton Street * Allentown, PA 18101
Office: 610/433-1634 * Fax: 610/433-1636

BRADFORD COMMERCIAL DEVELOPMENT 1051 AMERICAN PARKWAY CITY OF ALLENTOWN LEHOH COUNTY, PENNSYLVANIA J.G. PETRUCCI CO., INC. 171 ROUTE 173 SUITE 201 SUITE 20

PA ACT 287, AS AMENDED

IN ACCORDANCE WITH PA ACT 287, AS AMENDED, THE SURVEYOR CONTACTED PA ONE CALL, INC., FOR A DESIGN PHASE LOCATION REQUEST. THE SERIAL NUMBER FOR THAT REQUEST IS 2020331880. THE SURVEYOR THAS MADE NO INCREMISENT VERTICATION OF THE INFORMATION PROVIDED OTHER THAN AS MAY BE READLY EVIDENT FROM THE SURFACE OF THE GROUND.

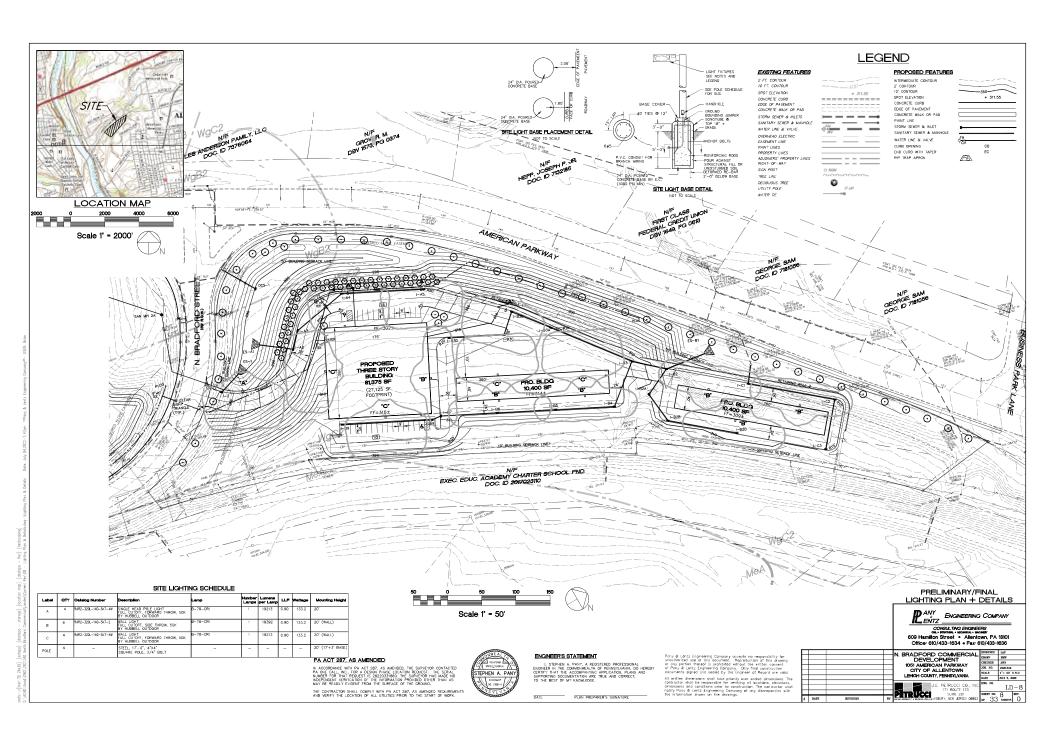
THE CONTRACTOR SHALL COMPLY WITH PA ACT 287, AS AMENDED REQUIREMENTS AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK.

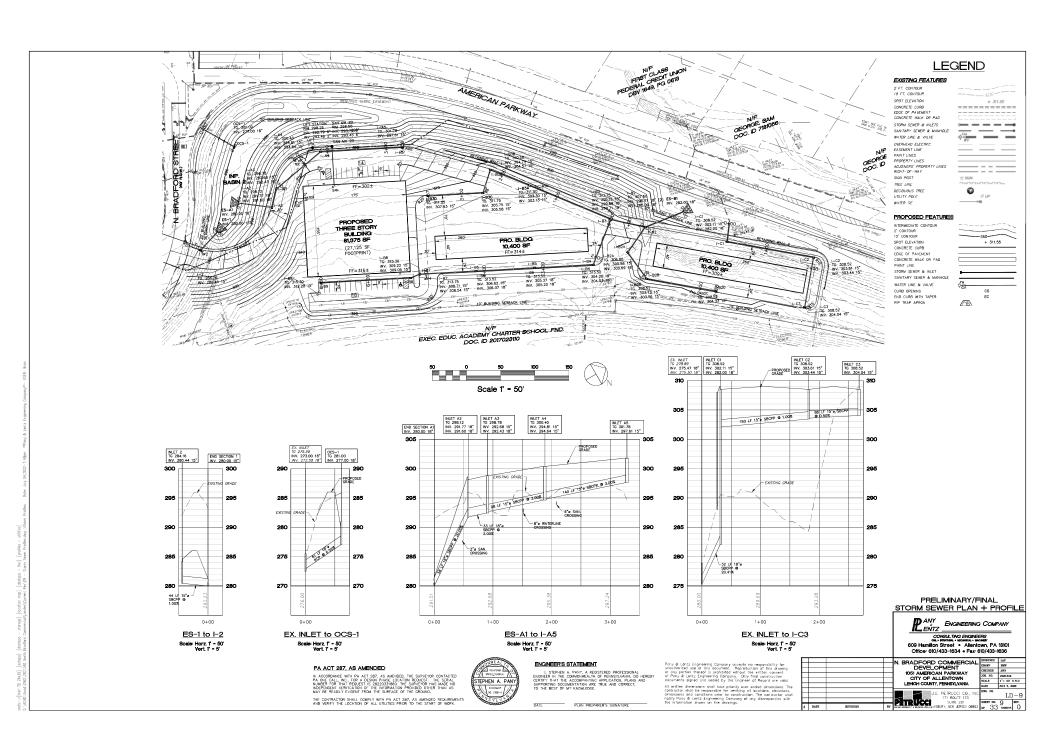


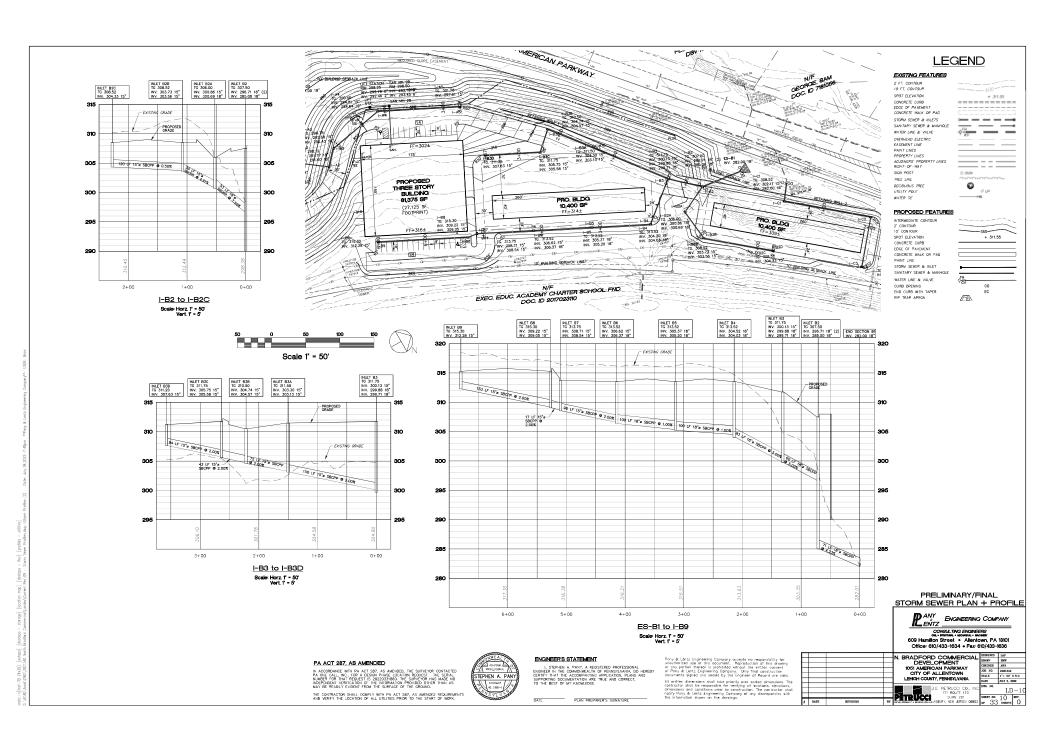
ENGINEER'S STATEMENT

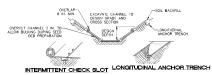
I. STEPHEN A. PANY, A REGISTERED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CRITEY THAT THE ACCOMPANIMO APPLICATION, PLANS AND SUPPORTING DOCUMENTATION ARE TRUE AND CORRECT, TO THE BEST OF WY KNOWLED

All written dimensions shall take priority over scaled dimensions. The controctor shall be responsible for verifying all locations, elevations, devations, denoting and conditions prior to construction. The controctor shall natily Plany & Lentz Engineering Company of any discrepancies with the information shaum on the drawings.













(LOOKING DOWNSTREAM) CHANNEL CROSS-SECTION

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

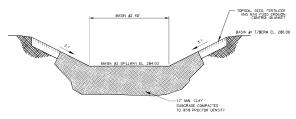
CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
SPILL 1	FULL LENGTH	40	1.50	49	3	3	P300

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANDHOR TRENCHES.

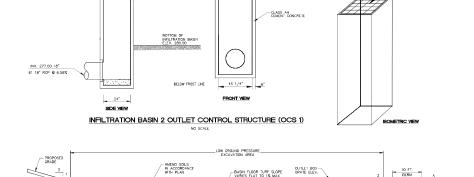
CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEARED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPCHS SHALL BE REDUCED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOL CONDITIONS PERMY ACCESS TO CHANNEL WHICH FURTHER DAMAGE, CAMAGED LINNO SHALL BE REPAIRED OR REPLACED WITHIN 44 HOURS OF DISCOVERY.

STANDARD CONSTRUCTION DETAIL #6-1 VEGETATED CHANNEL

NOT TO SCALE



EMERGENCY SPILLWAY DETAIL - INFILTRATION BASIN 2



INFILTRATION BASIN SECTION

	BOTTOM	GRATE	ORIFICE	STORAGE	BERM	SPILLWAY	SPILLWAY
BASIN	ELEV.	ELEV.	ELEV.	DEPTH	ELEV.	ELEV.	WIDTH
	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)
1	280.00	281.00	N/A	1.00	286.00	284.5D	40.00

OCS 1 TOP OF GRATE EL. 281.00

SUITABLE FILL COMPACTED TO 90% PROCTOR DENSITY AMERICMENT NOTES SOL AMERICMENT MEDIA USUALLY CONSISTS OF COMPOST, BUT CAN ANDLE MULCH, MANURES, SAND, AND MANUFACTURED MICROBIAL SOLUTIONS.

- HADIS MUCH, WANDERS, SAND, AND WAND FOURD INCREMA.

 COMMORTS SHOULD BE ARRED AT A FART OF 21 (SOIL COMPOST). IF A
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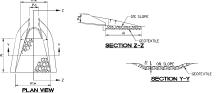
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RIPRAP APRON TABLE

OUTLET					RIPI	RAP		APRON	
OUTLET NO.	PIPE DIA Pd (IN)	TAILWATER CONDITION (Max or Min)	(CFS)	(FPS)	SIZE (R)	THICK. Rt (IN)	LENGTH AI (FT)	INITIAL WIDTH Alw (FT)	TERMINAL WIDTH Atw (FT)
ES-1	15	MIN.	0.37	1.39	3	9	8	3.75	11,75
ES-A1	18	MIN.	1.74	2.41	3	9	8	4.50	12.50
ES-B1	15	MIN.	10.53	6.46	3	9	8	4.50	12.50

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

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

STANDARD CONSTRUCTION DETAIL #9-1 RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL

ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT. COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

STANDARD CONSTRUCTION DETAIL #7-16 CONCRETE ANTI-SEEP COLLAR FOR

PERMANENT BASINS OR TRAPS

PRELIMINARY/FINAL STORM SEWER DETAILS



PA ACT 287, AS AMENDED

IN ACCORDANCE WITH PA ACT 287, AS AMENDED, THE SURVEYOR CONTACTED PA ONE CALL, INC., FOR A DESIGN PHASE LOCATION REQUEST. THE SERIAL NUMBER FOR THAT REQUEST IS 20202331860. THE SURVEYOR HAS MADE NO INDEPRINENT MEDITACION OF THE MINOMATION PROVIDED OTHER THAN AS MAY BE READLY EVIDENT FROM THE SURFACE OF THE GROUND.

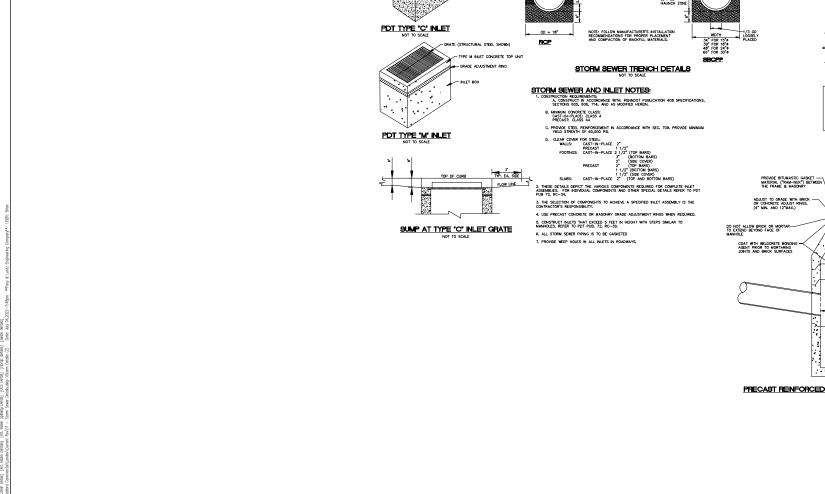
THE CONTRACTOR SHALL COMPLY WITH PA ACT 287, AS AMENDED REQUIREMENTS AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK.



ENGINEER'S STATEMENT

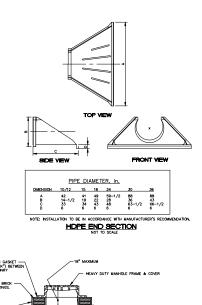
All written dimensions shall take priority over scaled dimensions. The controctor shall be responsible for verifying all locations, elevations, dimensions and conditions prior to construction. The controctor shall notify Pony & Lentz Engineering Company of any discrepancies with the information shown on the drawings.

				Office: 610/433-1634 • Fax: 6	10/433-1	
				N. BRADFORD COMMERCIAL	DESIGNED	SAP
				DEVELOPMENT	DRAWN	IOLA
				1051 AMERICAN PARKWAY	CHECKED	MP8
				CITY OF ALL ENTOWN	J08. NO.	2021340
					SCALE	1"= 50" U.N.O
				LEHIGH COUNTY, PENNSYLVANIA	DATE	JULY 5, 2022
				J.G. PETRUCCI CO., INC.	DWG. NO.	LD-11
_	_		_	PETPUCCI SUITE 201	SCIEET NO.	1 1 REV.
1	DATE	REVISION	BY	DEVELOPMENT - DESIGN/BUILS ASBURY, NEW JERSEY 08802	or 33	зиятя О
				•		



PA ACT 287, AS AMENDED

THE CONTRACTOR SHALL COMPLY WITH PA ACT 287, AS AMENDED REQUIREMENTS AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK.



PRECAST REINFORCED CONCRETE STORM SEWER MANHOLE

PRELIMINARY/FINAL STORM SEWER DETAILS

- COAT PORTION OF RUNGS TO BE EMBEDDED IN CONCRETE PLUS 1" WITH ASPHALTIC VARNISH.

- CONSTRUCTION JOINT (TYP)

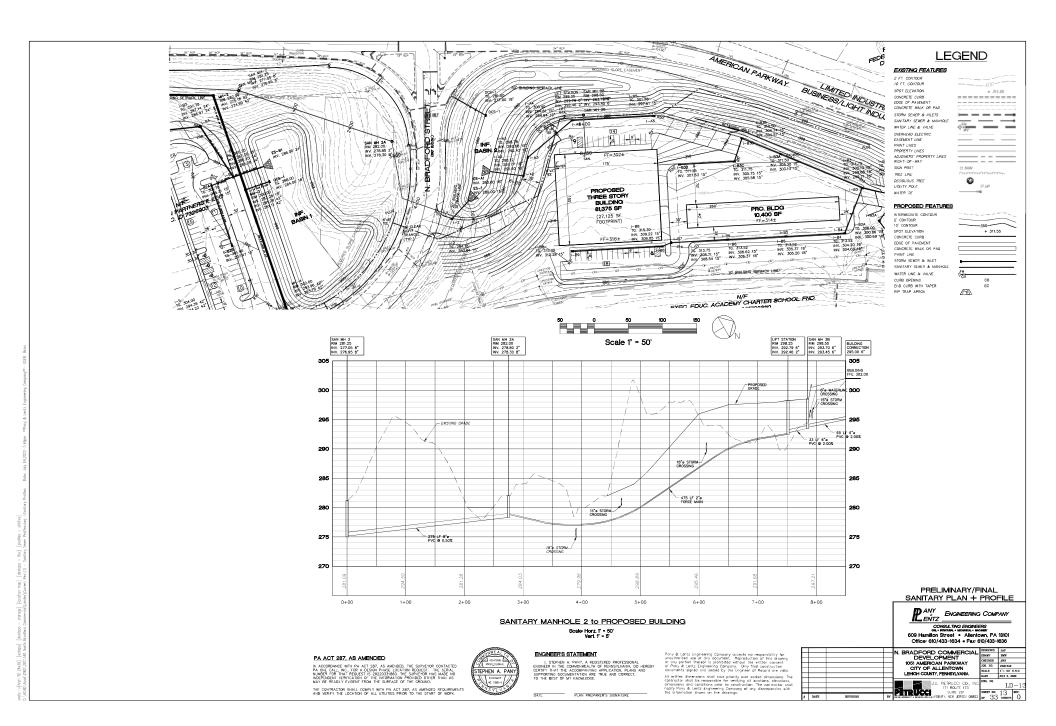
PANY ENGINEERING COMPANY

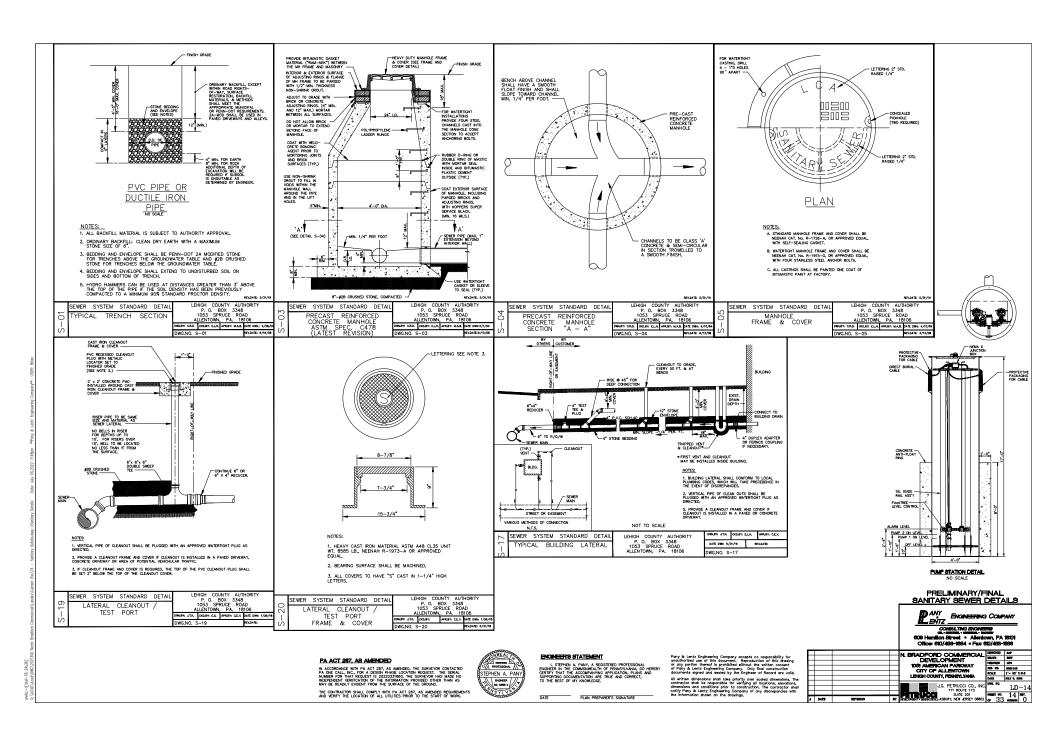
N. BRADFORD COMMERCIAL DEVELOPMENT 1081 AMERICAN PARKWAY OTTY OF ALLENTOWN LENDH COUNTY, PENNITLYANA

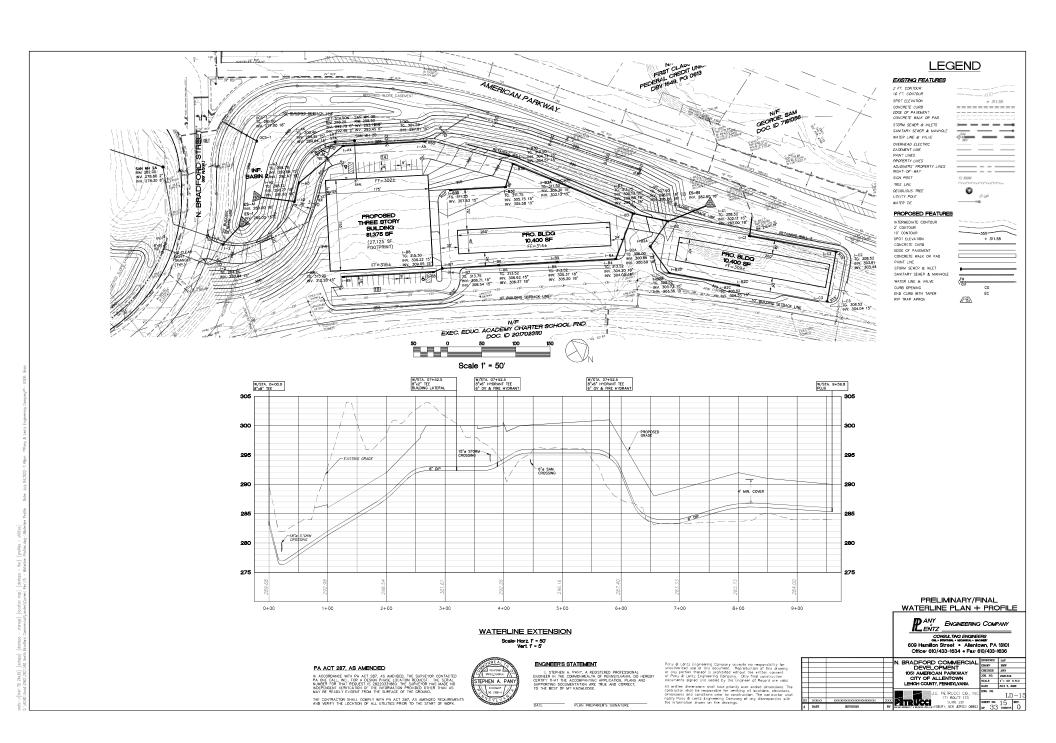
TEPHEN A. PAN

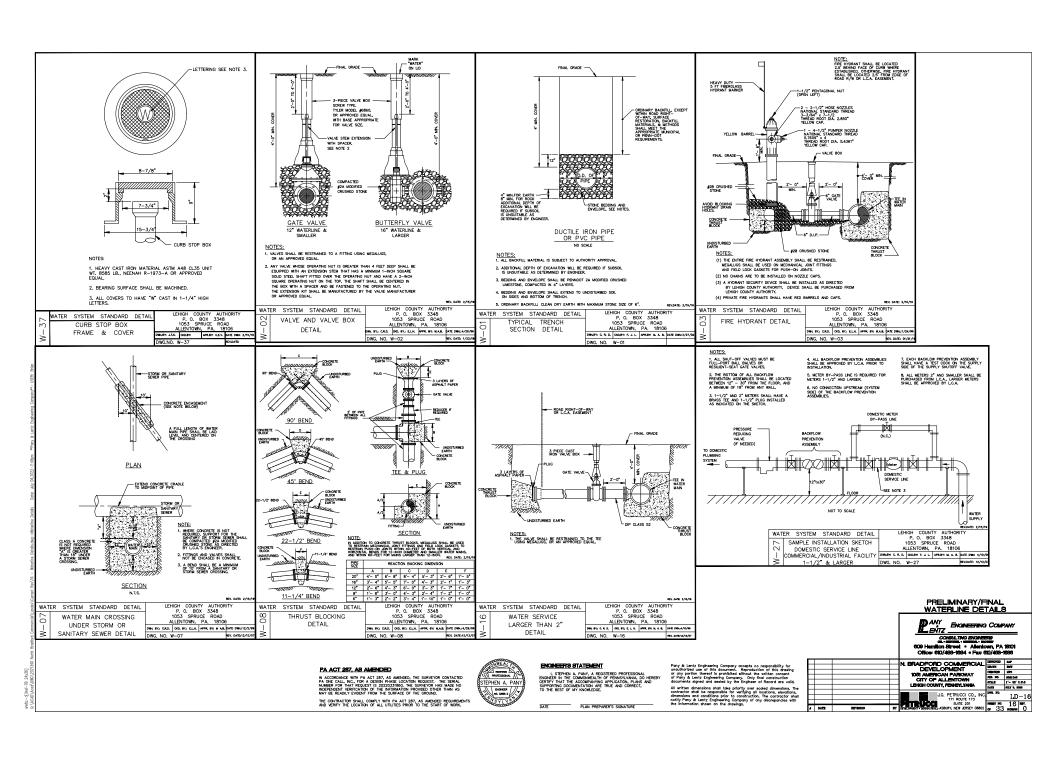
ENCANEERYS STATEMENT

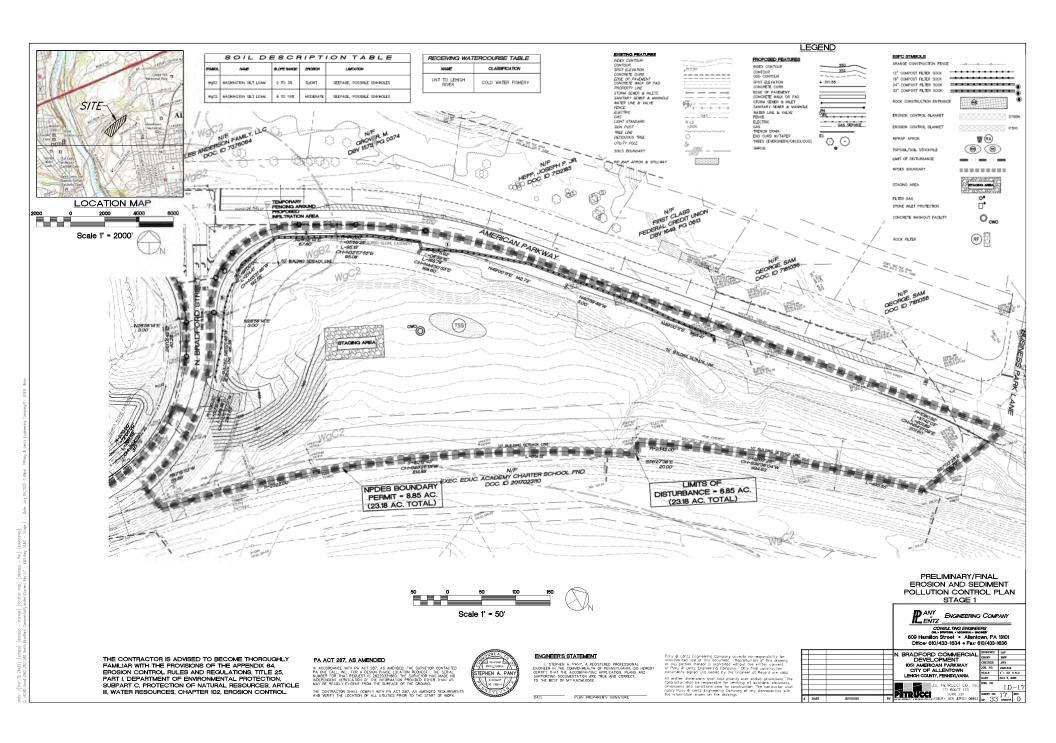
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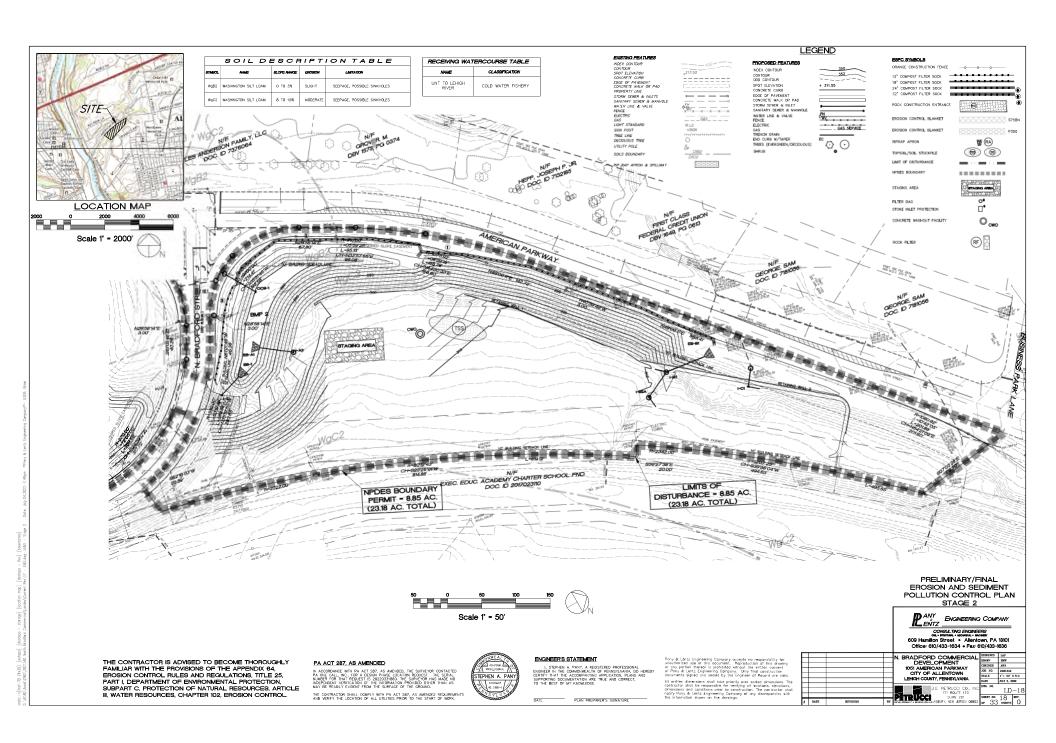


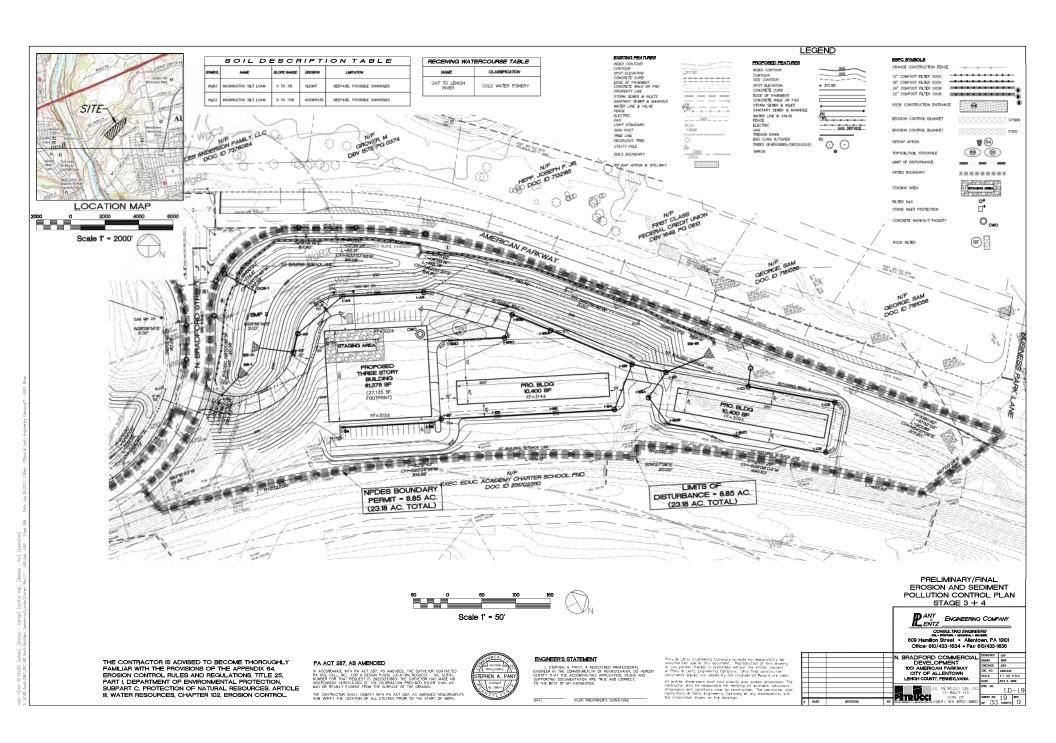












DEFINITION OF CLEAN FILL

CHAP FILL SEPTING AS UNCONTAINED NON-WATER SQUIBLE CLEAN FILL IS SEPTING AS UNCONTAINED NON-WATER SQUIBLE SQUIBLE CLEAN FILL SEPTING SEPTING SOLD STATE AND SERVICE STOKE OF SECRET AND SERVICE STOKE OF SECRET SEPTING SERVICE SERVIC

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELASE, OF A REQUILATED SUBSTANCE MUST USE FORM IP-DOI 10 CERTIFIED HERORION OF THE FILL MATERIAL, AND THE RESULTS OF THE ANALYTICAL PROPERTY AND THE STATE OF THE FILL A COPY OF PORM IP-DOI 10 CAN BE FOUND AT THE END OF THE FILL. A COPY OF PORM IP-DOI 10 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS

EROSION AND SEDIMENT CONTROL PLAN NOTES: 1. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND

- TO CHARGO SHALL SHARL WITH A SHARLOON AND SH

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STACHMA OF EARTH MOVING ACTIVITIES

NOTE: ALLEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE

OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER,

ALL APPROPRIATE MORIFOLD CEPTICAS, THE EROSION AND SCOMENT CONTROL ELAN

PREPARER, AND THE NORTHAMPTON COUNTY CONSERVATION DISTRICT TO AN ON-SITE MEETING. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS

STAGING OF EARTH MOVING ACTIVITIES

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT SOLD WASTE REGULATIONS AT 25 PA. CODE 280.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.

- TOTAL LOCAL STATES AND ATTO THE SEC, AND 2871 ET SEC, THE CONTRACTOR SHALL STATES AND THE STATES

- CHRISTOR ENTRANCE.

 CONTRACTOR SHALL COORDINATE WITH LICENSED PROFESSIONAL OR DESIGNEE FOR RECESSIVEY DISSERVATION OF CRITICAL STAGES OF PCSM BMP IMPLEMENTATION AS NOTED IN STAGES.

NOTE:

DISTURBANCE - 8.95 AC.

HE STATE OF THE SECOND

VEGETATED AREAS

BUILDING ROOF AREA

COVER TYPE LEGEND - PROPOSED

SEE POST CONSTRUCTION STORM WATER MANAGEMENT PLAN FOR CONSTRUCTION NOTES AND DETAILS FOR PCSM BMPS REFERENCED ON THIS PLAN

- MARKING OF LIMITS OF DISTURBANCE FOR INFEITRATION AREA AND OVERALL LIMITS.
 ESTABLISHMENT OF SUBGRADE IN INFEITRATION BASIN.
 INSTALLATION OF INFEITRATION BASIN CUTLET CONTROL STRUCTURE.
 FINAL GRADME IN INFEITRATION BASIN.

NEW PAVEMENT/SIDEWALK

EXISTING PAVEMENT/SIDEWALK

SEE STAGING OF EARTH MOVING ACTIVITIES

STAGING OF EARTH MOVING ACTIVITIES

- SHORM, THIS IS A CRITICAL TRACE FOR THE TOTAL

 PEPPORAD HOSTING WAS GRADING TO ADMITE STEE DITRINGT. LOOK COMPILETION OF RICHING,
 MANDIATELY SPREAD TOPPOL, SEED, FERTILEZE AND RISTALL ERGORIC COVIRED, RAMKETS,
 SMALTAMOSILES, MASTALL TROMPORAT FORCE CONSTRUCTION DETRINANCE ON STRUCKEN, ADMICTATION OF THE TOTAL TO ADMITT TO MERTINA

 ENTIRACE, AS RECESSARY, PLACE ANY TOPSOL REMOVED IN STODOPIE AND STABILIZE IN ACCORDANCE
 WITH DETAILS STABILIZE DITRINGT.
- INSTALL INLET PROTECTION DEVICES AROUND EXISTING INLETS IN NORTH BRADFORD STREET AND AMERICAN PARKWAY AS SHOWN ON PLANS.
- PARKMAY AS SHOWN ON PLANS.

 INSTALL CAMPOST FILTER SOCKS #1, #2, AND #3 AT LOCATIONS SHOWN ON PLANS.

 I. INSTALL AND STABILUZE ROCK STABING AREAS AT LOCATION SHOWN ON PLAN. PLACE ANY TOPSOL REMOVED IN STOKPHE AND STABILUZE.

 ESTABLISH AND UTILIZE CONCRETE WASHOUT FACILITIES AS NEEDED DURING BUILDING AND SITE CONSTRUCTION.
- h. PERFORM CLEARING AND GRUBBING IN AREAS OF TREE REMOVAL

STAGE 2 - SITE IMPROVEMENTS BEGIN ONSITE MASS GRADING, UPON COMPLETION OF GRADING, IMMEDIATELY SPREAD TOPSOIL, SEED, FERTILIZER AND INSTALL EROSION CONTROL BLANKETS.

- SCHOOL WASSE MANDAUL LIFONE COMPLICION OF GRANNO, MINICIPATELY SPECIAL TOPSOL, SEED, FERTILIZER AND INSTALL RESOURCE CONTINUE, BLANCES. IN 1992, STIBL OFF FROM 1-AZ FOR FUTURE CONCICIONE, NESTALL PREFERENCE PROFILE PROFIL

- FETTAL PRINCIPATION OF THE ACTION AND THAT SEPARATE OF THE PRINCIPATION OF THE MASS ORDER OF THE PRINCIPATION OF THE MASS ORDER OF THE THAT SEPARATE ORDER OF THE PRINCIPATION OF THE PRIN

STANDARD EROSION AND SEDIMENT CONTROL PLAN NOTES:

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND ORIGINAD AS SETL AS CUTS AND FILES SHALL BE DONE IN ACCORDANCE WITH THE APPROVIDE DES PLANA. A COPY OF THE APPROVED DERWINGS (STAMPED, SURCE) AND OATED ST THE REVENUES ACCOUNT, UNITS DE AVAILABLE TO THE REVENUES ACCOUNT, UNITS DE AVAILABLE TO THE REVENUES ACCOUNT, UNITS DE AVAILABLE TO THE REVENUES ACCOUNT. ON ASSET TO THE REVENUES ACCOUNT. OF THE REVENUE ACCOUNT. OF THE REVENUE ACCOUNT. OF THE REVENUE ACCOUNT. ON A WITCH TO SENTIT OF THE ORIGINATION OF THE REVENUES ACCOUNT. ON A WITCH TO SENTIT OF THE ORIGINATION OF THE REVENUE ACCOUNT. ON A WITCH TO SENTIT OF THE ORIGINATION OF THE REVENUE ACCOUNT.

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- PLM.
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 OFFICE THE LONG THE RESEARCH OF THE LUMB AND USE OF THE LUCK OF THE LUCK

- SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERAL/MASTES 3:11 V OR STEEPER WITHIN SO FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

STANDARD INSPECTION AND MAINTENANCE NOTES:

- STANDARD INSPECTION AND MAINTENANCE INDIES

 PERFORM MARTINECT OF DETTING DOOR AND STOMMET OFFICE ACCOUNTS.

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CALL BEFORE YOU DIG! PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR ONSTRUCTION PHASE AND 10 WORKI DAYS IN DESIGN STAGE-STOP CALL

PA1 20220331860

PRELIMINARY/FINAL EROSION AND SEDIMENT POLLUTION CONTROL NOTES

PANY ENGINEERING COMPANY CONSULTING ENGINEERS
OIL - STROTAL - MICHIGAN
609 Hamilton Street - Allentown, PA 18101
Office: 610/433-1634 - Fax: 610/433-1636

PA ACT 287, AS AMENDED

IN ACCORDANCE WITH PA ACT 287, AS AMENDED, THE SURVEYOR CONTACTED PA ONE CALL, INC., FOR A DESIGN PHASE LOCATION REQUEST. THE SERIAL NUMBER FOR THAT REQUEST IS 20220331880, THE SURVEYOR THAS MADE NO INDEPENDENT WERRICATION OF THE INFORMATION PROVIDED DITHER THAN AS MAY BE READLY EVIDENT FROM THE SURVEYOR OF THE GROUND.

THE CONTRACTOR SHALL COMPLY WITH PA ACT 287, AS AMENDED REQUIREMENTS AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK.



ENGINEER'S STATEMENT

I, STEPHEN A. PANY, A REGISTERED PROFESSIONAL EMORRER IN THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTEY THAT THE ACCOMPANING APPLICATION, PLANS AND SUPPORTING DOCUMENTATION ARE TRUE AND CORRECT, TO THE REST OF MY KNOWLEDGE.

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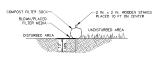
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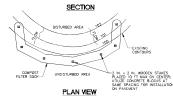
LD-20 # DATE

THUH!



PAVEMENT SECTION

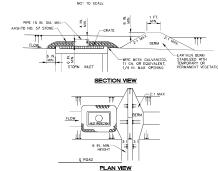




NOTES.
1. SOCK PARIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL. 2. COMPOST FILTER SOOT SHALL EX PAIND AT DESTRICTING EASILE SHAPE SHIP INDEX OF THE BARRER SHALL RE-SCHOOLSON'T INSIST SHIELD RESOON AND ADDRESS OF THE MAN BARRER ADMINITED WASHING, SOOTE LONGING ABONE ANY BARRER SHALL NOT DICEED THAT SPECFED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS

- ACCUMULATED SEDMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- S. COMPOST FILES DOUGS SHALL BE INSECTED MEDICY HAD AFTER EACH RUNOT FURIT DAMAGED SOCKS SHALL BE INFORMED ACCORDING TO MANAGED SOCKS SHALL BE REPURSED ACCORDING TO MANAGED WHITE A LAGRED OF INSECTION SHALL BE REPURSED WHITE A LAGRED OF INSECTION SHALL BE REPURSED AFTER 6 MOTHER PHOTOGERABLE SOCKS AFTER 1 YEAR. POLYPOPPLIES SOCKS SHALL BE REPURSED ACCORDING TO MANAGEATURESS RECOMMENDATIONS.
- 6. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE OUT OPEN AND THE MULCH SPREAD AS A SOLE SUPPLEMENT.

STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK



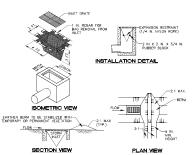
NOTES:

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT A LOW POINT.

STORL NACT PROTECTION AND SERVICE AT THE WINNER CAN BE USED AN ONE AFTER MANNAM AND ARREST ARREST AND ARREST ARR

SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE, DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY. FOR SYSTEMS DISCHARGING TO HO OR EV SURFACE WATER, A 6 IN. THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON DUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL

STANDARD CONSTRUCTION DETAIL #4-20 STONE INLET PROTECTION AND BERM - TYPE M INLET NOT TO SCALE



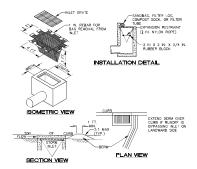
NOTES:

MAXINUM DRAINAGE AREA = 1/2 ACRE

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP, BERNS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

HILET FILTER BASS SHALL BE INSPECTED ON A WEBLY BASS AND AFTER BASS RANGE FOR THE SHAT SHALL BE DIFFED AND WHICH OR BETTLESS WHIN HAIF FULL OF WHICH FOR MAND OR COLORD BASS SHALL BE REPLACED. A SUPPLY SHALL BE WARRED ON STEEL FOR REPLACED A SUPPLY SHALL BE WARRED ON STEEL BETTLESS AND A SHALL BE WITH A SHALL BE SHALL BE WEBLIEVE AND A SHALL

STANDARD CONSTRUCTION DETAIL #4-16 FILTER BAG INLET PROTECTION - TYPE M INLET



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERWS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLD EARTHEN BERM SHALL BE MANTANED LIMIT, ROLDWAY IS STONED, ROAD SUBBASE BERM SHALL BE MANTANED LIMIT, ROLDWAY IS STONED, ROAD SUBBASE BERM SHALL BE MANTANED LIMIT, ROLDWAY IS RAVED, SN NON-MANIAM HIGHT ASPHALT AT A MANDAU, MAY FER FABRE SHALL HARM A MANDAU, MORA TERSEL STRENGTH OF 20 US A MANDAU BUST STRENGTH OF 200 DES, AND A MANDAU BAPTICKOD, THAN STRENGTH OF 300 US A MANDAU BUST STRENGTH OF 200 DES, AND A MANDAU BAPTICKOD, THAN STRENGTH OF 300 US A MANDAU BUST STRENGTH OF 200 DES, AND A MANDAU BAPTICKOD, THAN STRENGTH OF 300 US AND A MANDAU BUST STRENGTH OF 200 DES, AND A MANDAU BAPTICKOD, THAN STRENGTH OF 300 US AND A MANDAU BAPTICKOD, TH

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

STANDARD CONSTRUCTION DETAIL #4-15 FILTER BAG INLET PROTECTION - TYPE C INLET



TABLE 4.1 Compost Sock Fabric Minimum S Material Type 3 mil HDPE 5 mil HDPE 5 mil HDPE Multi-Filam degradable degradabi degradable degradable Diameters 32" 32" Mesh Opening 3/8" 3/8" 3/8" Strength Ultraviolet Stability % 26 psi 44 psi 202 psi 23% at 1000 hr. Original Strength (ASTM G-155) 1000 hr 1000 hr. 1000 hr. Functional 6 months 9 months 6 months 1 year 2 years HDPE biaxial net Outer Filtration Mesh (Woven Isyer and non-woven fleece mechanically fused via needle punch) 3/16* Max. aperture size k fabrics composed of burlap may be used on projects lasting 6 months or less.

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

CONTROL OF A MILL DISCONDED. MED. FIRE GRANK WITTER DEFINED THAN ADDRESS. THE FOOD STAND-CHMINE, AND VARIO WOOD WARK GRANK WATER SOURCES. THE CHARGES SHOULD BE ARRESTED. THE COMPOSTED THE COMPOST SHOULD POSSESS TO GREET FROM ALL DODGS AND SHOULD BE READ-CHARGE AND ADDRESS. THE PROPERTY FIRE ("FIRE" THAN ADDRESS. THE READ-CHARGE AND ADDRESS. THE PROPERTY FIRE ("FIRE" THAN ADDRESS. THE PROPERTY FIRE ("FIRE" THAN ADDRESS. THE PROPERTY OF PROPERTY FOR THE PROPERTY OF PROPERTY FOR THE PROPERTY OF THE PROPERTY FOR T

STANDARD E&S WORKSHEET # 21 Temporary and Permanent Vegetative Stabilization Specifications

LOCATION: CITY OF ALLENTOWN, LEHIGH COUNTY	
PREPARED BY: BMW	DATE: 06/27/22
CHECKED BY: MFS	DATE: 06/27/22
SPECIFICATIONS: The Department recommends the use	e of the Penn State publication, "Erosion
Control and Conservation Plantings on Noncropland," as to	
species, seed specifications, mixtures, liming and fertilizing	g, time of seeding, and seeding methods.
Specifications for these items may also be obtained from F	
by contacting the applicable county conservation district.	
should be used to provide all specifications for seeding, m	ulching, and soil amendments. The following
specification will be used for this project.	

10-10-10 (X-X-X)
500 LB./ACRE
ONE T./ACRE
STRAW
THREE T./ACRE
6-8 IN.
81/76/64 %
15/35/25 LB./ACRE
10-20-20 (X-X-X)
1000 LB./ACRE
6 T./ACRE
STRAW
3 T./ACRE
CRIMPING BY TRACTOR IMPLEMENT
LB./ACRE
MARCH 1 TO AUGUST 15
LB./ACRE
T./ACRE
T./ACRE
LB./ACRE
on rate for each species.
in drawings.

363-2134-008 / March 31, 2012 / Page 392

COMPOST SPECIFICATIONS

NOT TO SCALE

SEEDING NOTES:

- PURE LIVE SEED (P.L.S.) IS THE PRODUCT OF THE PERCENTAGE OF PURE LIVE SEED THE'S PERCENTAGE GERMINATION DIVIDED BY 100. TO CALCULATE THE AMOUNT OF SEED REQUISED TO PLANT ONE (1) ACRE, DIVIDE THE SEEDING RATE IN THE LBS. P.L.S./ACRE BY THE P.L.S. CONTENT OF THE SEEDLOT TO FRE LISTO.
- ED. COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE TY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY
- ACTIONARY ANY TABLE INSERVE THE PROCED SILE SHALL BE MINEUALLY AND ACTIONARY ANY TABLE INSERVED AND ACTIONARY AND ACTIONARY AND ACTIONARY OF THE PROPERTY AND ACTIONARY AND ACTIONARY OF THE PROPERTY AND ACTIONARY AND ACTIONARY OF THE PROPERTY AND ACTIONARY AND ACTIONARY OF APPLICATION ACTION ACTION ACTION ACTION ACTIONARY AND ACTIONARY BATES PREDDICALLY CIEDO ON THE RATE AND UNIFORMER AN APPLICATION OF THE PROPERTY OF THE PROPER

HYDRO-SEEDING REQUIREMENTS

- I NYSIO, SEEDING IS A METHOD OF SETTING IN MINCH LIME, FERNIZER AND SEED ARE MODED WITH WITER AND MAYELIN AS A SULPRY AT A RATE OF 1,000 CALLOIS PER ADRE. THE SURBRY MIX SHALL CONISTS OF 1,000 FOUNDS OF MINCOLD FOR ADDRESS CHARGE CARDEL CLARGE PER ADRE. 2) SO POUNDS OF MINCOLD FOR ADDRESS OF MINCOLD FOR ADRE. 2015 OF SECTION OF A SECURITY OF A CARE.

 2) SEED AS REQUIRED PER ACRE.

 2) APPLY A SECOND APPLICATION OF LIME AND FERRIZERS TO GAYS ATTER INITIAL.
- 2. AMPLY A SECOND APPLICATION OF LINE AND FERTILLERS 3D DAYS AFTER HITELE, 30 AMPL HYDRO-SECONDAL (SEMESTA SEE PERTILLERS TOCKINES, ADD THE LEGENAL NORMALL, TO SHICKINES, TO HOT ALLOW THE SEED AND INDOCAMAL TO SHICKINES, AND THE LEGENAL TO HE SEED AND INDOCAMAL TO SHICKINES, THE SHIP AND THE SEED THE AND THE SHIP AND THE SHIP

TOPSOIL PLACEMENT NOTES:

- PLACE TOPSOIL PRIOR TO PERMANENT SEEDING PLACEMENT.

 GRADED AREAS SHOULD BE SCARIED OR OHERWISE LOSSEND.

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 IN STANICA SPECIALIST SHOULD BE PERFORMED IN SUICH A MANINE THAT STEEDING CAN PROCED INMEDIALITY AFFIRE TOPSOIL PLACED TOPSOIL SHOULD NOT BE PLACED WHILE TOPSOIL OR SUBSOIL IS IN A FROZEN, MIDDY OR WET CONDITION.

	Penn	lication Rate		
Soil Amendment	Per Acre	Per 1,000 sq. ft.	Per 1,000 sq. yd.	Notes
Agricultural lime	6 tons	240 lb.	2,480 b.	Or as per soll test; may not b required in agricultural field
10-29-20 fortilizer	1,000 lb.	25 lb.	210 lb.	Or as per soil test; may not b required in agricultural field
	Temp	orary Seeding App	lication Rate	
Agricultural lime	1 ton	40 b.	410 lb.	Typically not required for topsoil stockpile
10-10-10 fertilizer	500 b.	12.5 lb.	100 lb.	Typically not required for topsoil stockook

TOPSOIL, FERTILIZER, TEMPORARY SEED AND MULCH MINIMUM THICKNESS = 6" AASHTO / 3 STONE CLASS 2, TYPE A GEOTEXTILE

STAGING AREA SECTION

PRELIMINARY/FINAL **EROSION AND SEDIMENT** POLLUTION CONTROL DETAILS

RANY ENGINEERING COMPANY CONSULTING ENGINEERS
0x - STRUCTURY - MICHAELS
009 Hamilton Street • Allentown, PA 18101
Office: 610/433-1634 • Fax: 610/433-1636

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			Т	N. BRADFORD COMMERCIAL	DESIGNED	SAP
				DEVELOPMENT	DRAKN	DAR
				1051 AMERICAN PARKWAY	CHECKED	MP8
				CITY OF ALLENTOWN	JOB. NO.	2021340
				LEHIGH COUNTY, PENNSYLVANIA	SCALE	1"= 59' U.N.O
			_	LEMAN COOKIT, FERNSILYANA	DATE	JULY 5, 2022
				J.G. PETRUCCI CO., INC. 171 RQUTE 173	DWG. NO.	LD-21
XX	XOXO:	20X00:00X0X0X0X0X0X0X0X	XXX		SHEET NO.	21 REV.
,	DATE	REVISION	BY	OCHELOPMENT - OCSON/BURL ASBURY, NEW JERSEY 08802	or 33	SHEETS O

ENGINEER'S STATEMENT

I, STEPHEN A. PANY, A REGISTERED PROFESSIONAL NEER IN THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY INFY THAT THE ACCOMPANING APPLICATION, PLANS AND PORTING DOCUMENTATION ARE TRUE AND CORRECT, THE BEST OF WINKINGMEDOR

PLAN PREPARER'S SIGNATURE

CHANNEL CROSS-SECTION * SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMPHINDIPMS, SEED MIXTURES AND MILICHING INFORMATION

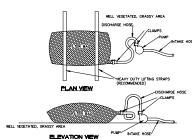
CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINNG •
SPILL 1	FULL LENGTH	40	1.50	49	3	3	P300

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING, GRASS HEIGHT SHALL BE MANTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED, EXCESS VEGETATION SHALL BE REMOVED BORN PERMANENT CHANNES TO DESIDES SITEMEDIFICATION MANY CAPACITY.

STANDARD CONSTRUCTION DETAIL #6-1 VEGETATED CHANNEL

NOT TO SCALE



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STERIORIT, DOUBLE STITCHED "" TYPE SEAMS, THEY SHALL BE CAPABLE OF TRAPPINE PARTICLES LARGER THAN 150 MIGRORS, MICH VOLUME FILTER BAGS SHALL BE MORE FROW WOVEN GEOTEXTILES THAT MEET THE

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

A SITABLE MEMS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED, FLIETS BAGS SHALL BE REPLACED WITH HAT BECOME 1/2 FULL OF SECRIFICATION, SPANE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FALLED OF ME FILLED, BAGS SHALL BE PLACED ON STRAPS 10 FACILITATE REMOVAL INLESS BAGS COME WITH LETTER STRAPS JURICALY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VECETATED (GRASSY) AREA, AND DISCHARGE CHITO STABLE, EROSION RESISTIANT AREAS, WHERE THIS IS NOT POSSBEE, A CECTEXTIEL UNDERLAMMENT AND FLOW FARTH SHALL REPOYUBE BAGS WAY BE PLACED ON PILIES STONE OF LONGEAS DISCHARGE CAMACHY, BAGS SHALL NO PLACED ON SLOPE'S GREATER THAN SX, FOR SLOPE'S EXCEEDING SX, CLEAN ROCK OR OTHER NON-PRODI AND NON-POLLUTION GARBERIA MAY BE PLACED MORE THE BAGS TO REDUCE SLOPE STEPHING.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS, COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN 140 REV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS, PUMP INTAKES SHALL BE FLOATING AND SCREENED.

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

STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG



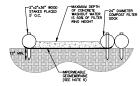
- MEN USING CILI-0-322D OF DOT SEED PREFAMED WITH, CILI-0-322D BINST BE RESIDENCE WITH PREFAME DESCRIPTION OF BEING AT SEC TO DO TO THE CHARGE AT SEC TO THE CHARGE AT SEC TO THE SEC TO THE CHARGE AT SEC TO THE S
- OFFICE METHODALIST, IZ (SOOM) APPELLANCES IN MEDITOR IN BUILDING TO CHAMPEL.

 RELL CONTRO BLAMPET IN DIRECTION OF WAITER FLOW IN BOTTOM OF CHAMPEL. BURNETS WILL LIMITEL WITH APPROXIMATE SIDE
 ARMSOTT THE SOC SUMMER. ALL BLAMPETS MUST BE SECURELY RASTINED TO SOL SUMMER BY FLACING STAFFLISTED
 ARMSOTT THE CONTROL OF SOOM IN THE SECURE PARTIES COLD. WHICH USED OFFICIAL DOS STAFFLISTED, STAMPES, STAMPES
 ARMSOTT AND ARMSOTT CONTROL OF SOOM IN THE SECURE PARTIES COLD.

 RELL WITH SECURITY OF SOME STAMPES ARMSOTT CONTROL OF SOME ARMSOTT CONTROL OF STAMPES, STAMPES,
- PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STILE) WITH A 4"-6" (floom-15cm) OVERLAP, USE A DOUBLE ROW OF STAPLES STAGGRED 4" (floom) APART AND 4" (floom) ON CENTER TO SECURE BLANKETS.
- LPULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATEL
 12" (Scorn) APART IN A 6" (15cm) DEEP X 6" (15cm) WICE TISNOY, BACFEL AND COMPACT THE TRINCH AFER STAPLING. HORIONTAL SEAR INSTALLATION (6A) — PLACE CONSECUTIVE SLAWETS SHE OVER SHE MITH A 4" — 6" (10cm—15cm) OVERLAP. SEARS ARROSS THE TABLE OF THE SLOPE BY PLACING THE SEAR STITCHES OF OVERLAPPING BLAVETS ON TOP OF SEAR STAPLE THROUGH BOTH SLAWETS OF THE OVERLAPPING ARRAPMONIALITY (15cm) APART.
- ADJACENT BLANKETS MIST SE OVERLAPPED APPROXIMATELY $2^{n}-5^{n}$ (5 mm-12.5 cm) (DEPENDING ON BLANKET THYE) AND STAPLED. TO DESIRE PROPER SEAM AUGMAINT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVIN MIDT DUE OF ORDER SEAM STEPLY ON THE WARTER SEASON OF DEPENDING. . IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (Bm-12m) INTERVALS. US A DOUBLE ROW OF STAPLES STADGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTRE MIDTH OF THE CHANNEL.
- THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30m) APART IN A 6" (15mm) CEEP X 6" (15cm) WEET INCOME BLANCHLE AND COMPACT THE TRENCH AFTER STAPLING.



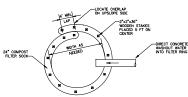
CHANNEL INSTALLATION



SECTION VIEW

NOTES:

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



PLAN VIEW

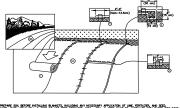
- SOCK PARIC SHALL MEET STANDARDS OF TABLE 4:) OF the PAPE SHARD NATIONAL CONTROL OF THE
- PLACED AT THE LOCATION OF THE

COMPOST FILTER SOCK CONCRETE WASH OUT DETAIL



ENGINEER'S STATEMENT

PLAN PREPARER'S SIGNATURE



, prepare soil before installing blankets, incliding any incressary application of line, fertilizer, and seed, note: when using cell-0-seed do not seed prepared area, cell-0-seed must be installed with paper see do SEEN IT THE TO OTHE SOUTH PROCESSION ARE ARREST IN A 1 (1560) THE X 25 (1669) MIG. THESE WHI APPROXIMENT OF THE PROPERTY OF THE PROPERTY OF THE SOUTH OF THE PROPERTY OF THE THEORY, WHOM THE RANGEL WIN A KNOW OF STATE PROPERTY OF THE STATE OF THE THE THE PROPERTY OF THE THEORY OF

ROLL THE REMOTE (A) DONE OR (G) HOROZONIANY ARRIVO DE MUNICIPAL REMOTE DE MANGE DE M THE EDGS OF PARALLE BLANKETS HIST BE STAPLED WITH APPROXIMATELY 2"-5" (Som-12,50m) OVERLAP DEPENDING ON BLANKET THEY, TO DESIRE PROPER SEAN ALXIMINT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON 10 DP) EVEN WITH THE COLOR SEAN STALLED ON THE PROVINCES THE BRANCE (BLANKET BEING INSTALLED ON 10 DP) EVEN WITH THE COLOR SEAN STALLED ON THE PROVINCES THE BRANCE IN THE BRA

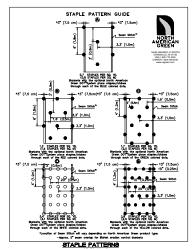
CONSCOUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STILE) WITH AN APPR 2 (7.5cm) OWERLAP, STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (300m) APART ACROSS ENTIRE

NOTE:
"IN LODGE SOL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO
PROPERTY SCORE THE BLANKETS.

14649 HIGHWAY 41 NORTH, EVANSVILE, NDIANA 47725 USA 1-800-772-2040 CANADA 1-800-448-2040

SLOPE INSTALLATION

EROSION CONTROL BLANKET DETAILS



EROSION CONTROL BLANKET INSTALLATION TABLE

LOCATION	TYPE	STAPLE PATTERN		
3:1 SLOPES	NAG S75BN	С		
4:1 SLOPES	NAG S75BN	С		
SPILLWAY 1	P300	E		

PRELIMINARY/FINAL EROSION AND SEDIMENT POLLUTION CONTROL DETAILS

PANY ENGINEERING COMPANY CONSULTING ENGINEERS 809 Hemilton Street • Allentown, PA 1810 Office: 610/433-1634 • Fax: 610/433-1636

N. BRADFORD COMMERCIAL DEVELOPMENT 1081 AMERICAN PARKWAY OITY OF ALLENTOWN

WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE

STANDARD CONSTRUCTION DETAIL #3-2 ROCK CONSTRUCTION ACCESS WITH WASH RACK

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE. RUNCFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MANTINUNCE ROSS CONCRITECTION DIFFRANCE RESOURCES SHALL BE CONSTANT Y MANTINUMED TO THE SPECTION MINISTENS BY MOMENTINE THE MOMENT OF THE PERFORMED SHALL BE MEMBEROUS ALL SERVING PROSTED OR PAYED RODIGWAYS SHALL BE REDICTED AND A REPORT OF THE PAYED RODIGWAYS SHALL BE REDICTED AND A REPORT OF THE PAYED RODIGWAYS SHALL BE REDICTED AND A REPORT OF THE PAYED RODIGWAYS OF THE LIGHT OF ROST CONSTRUCTION DIVIDANCE BY OF THE PAYED RODIGWAYS OF THE LIGHT OF ROSTALL MANY RACK MASSING FEEDER DAVID ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED RODIGWAYS SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES SHALL BY CONTINUED AND A REPORT OF THE PAYED ROUGHES AND A R

STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE

PROFILE

PLAN VIEW

. MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

All written dimensions shall take priority over scaled dimensis contractor shall be responsible for verifying all locations, ele-dimensions and conditions prior to construction. The contract notify Pany & Lentz Engineering Company of any discrepand the Information shown on the drawings.

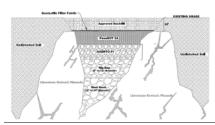
CASE 1 SMALL SINKHOLE IN SOIL

- EXCAVATE DOWN TO ROCK TO SINKHOLE THROAT OR TO A DEPTH OF 15 FEET BELOW GRADE, WHICHEVER OCCURS FIRST.
- WIDE-EM OCCURS INST.

 IF NO ROOK IS ROCKWITEED, PLUG SOL, BROOK INTO A WITH ORDOUT OR COLORER: IF A CLEARLY DOWNED THROUGH THE OWNED THROUGH T
- AFTER CONCRETE HAS SET OVERNIGHT, BACKFILL HOLE WITH RELATIVELY IMPERMEABLE SOIL. COMPACT SOIL IN 6" LFTS WITH A POWER TAMBER OR RAMMER. TWO COMPLETE COVERAGES SHOULD BE USED ON EACH LIFT.
- BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.
- WHEN SINKHOLE IS UNDER A PROPOSED UTILITY, CONCRETE IS TO BE SET 6" BELOW THE UTILITY TO ALLOW FOR A STONE BEDDING.

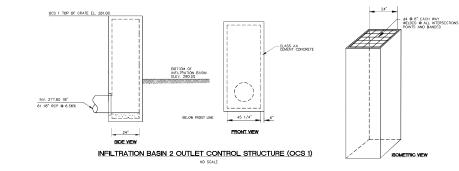
CASE 2 SMALL SINKHOLE IN ROCK

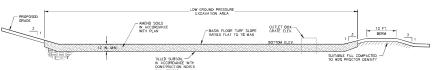
- EXCAVATE DOWN TO ROCK TO SINKHOLE THROAT OR TO A DEPTH OF 15 FEET BELOW GRADE, WHICHEVER OCCURS FIRST.
- IF ROCK IS ENCOUNTERED, CLEAN SURFACE AND PLACE HIGH-SUMP CEMENT GROUT INTO OPEN VOIDS AND CREMESS UNTIL VOIDS ARE FILLED. IF SEVERAL CUBIC YARDS OF GROUT DO NOT FILL VOIDS, USE A STIFFER, LEAN CONCRETE MIX.
- AFTER CONCRETE HAS SET OVERNIGHT, BACKFILL HOLE WITH RELATIVELY IMPERMEABLE SOIL. COMPACT SOIL IN 8' LIFTS WITH A POWER TAMPER OR RAMMER. TWO COMPLETE COVERAGES SHOULD BE USED ON EACH LIFTS.
- BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.
- WHEN SINKHOLE IS UNDER A PROPOSED UTILITY, CONCRETE IS TO BE SET 6" BELOW THE UTILITY TO ALLOW FOR A STONE BEDDING.



(2)

INVERTED ROCK FILTER SINKHOLE REPAIR DETAIL





INFILTRATION BASIN SECTION

0.400	воттом	GRATE	ORIFICE	STORAGE	BERW	SPILLWAY	
DASIN	ELEV.	ELEV.	ELEV.	DEPTH	ELEV.	ELEV.	MDTH
	(F1)	0.0	(+1)	(1-1)	(1-1)	(FT)	(FT)
1	280.00	281.00	N/A	1.00	286.00	284.50	40.00

- NOTES: 1. EARTH MOVING ACTIVITY SHALL MINIMALLY DISTURB BASIN AREA. EXCAVATE INFILTRATION BASINS WITH LOW GROUND PRESSURE EQUIPMENT
- 2. WHERE SUBSOIL HAS BECOME COMPACTED BY EQUIPMENT OPERATION, THE AREA SHALL BE TILLED TO A MAXIMUM DEPTH OF 20 INCHES

PLAN VIEW

- 501 AMERICATINTES

 1. SOIL AMENDMENT MEDIA USUALLY CONSISTS OF COMPOST, BUT CAN HANGLE MULCH, MANURES, SAND, AND MANUFACTURED MICROBIAL SOLUTIONS. PRINCE, BUILDY, MANURES, SAID, AND MANURATURED MICRORY.

 COUNTY OF THE CONTROL ON THE CONTROL OF THE CONTROL OF



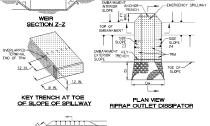


RIPRAP APRON TABLE

	OUTLET						APRON			
OUTLET NO.	PIPE DIA Pd (IN)	TAILWATER CONDITION (Max or Min)	Q (CFS)	V (FPS)	SIZE (R)	THICK. Rt (IN)	LENGTH AI (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)	
ES-1	15	MIN.	0.37	1.39	3	9	8	3.75	11.75	
ES-A1	18	MIN.	1.74	2.41	3	9	8	4.50	12.50	
ES-B1	15	MIN.	10.53	8.48	3	9	8	4.50	12.50	

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

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



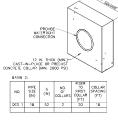
RIPRAP OUTLET DISSIPATOR

EMBANKMENT SECTION ALONG EMERGENCY SPILLWAY SECTION X-X

	WEIR					LINING		CHANNEL		DISSIPATOR			
SPILL NO.	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WDTH Ww (FT)	TRM TYPE	STAPLE PATTERN	25 (FT)	DEPTH Cd (FT)	LENGTH DI (FT)	MDTH Dw (FT)	RIPRAP SIZE (R)	RIPRAP THICK. DRI (IN)
2	3	3	286.00	284.50	40	P300	E	6	1.50	N/A	N/A	N/A	N/A

HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING. DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY. RIPRAP AT TOE OF EMBANKMENT SHALL BE EXTENDED A SUFFICIENT LENGTH IN BOTH DIRECTIONS TO PREVENT SCOUR. THE USE OF BAFFLES THAT REQUIRE SUPPORT POSTS ARE RESTRICTED FROM USE IN BASINS REQUIRING IMPERVIOUS INJERS.

STANDARD CONSTRUCTION DETAIL #7-13 INFILTRATION BASIN EMERGENCY SPILLWAY WITH TRM LINING

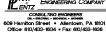


NOTES: ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

STANDARD CONSTRUCTION DETAIL #7-16 CONCRETE ANTI-SEEP COLLAR FOR PERMANENT BASINS OR TRAPS

> PRELIMINARY/FINAL EROSION AND SEDIMENT POLLUTION CONTROL DETAILS

> > PANY ENGINEERING COMPANY



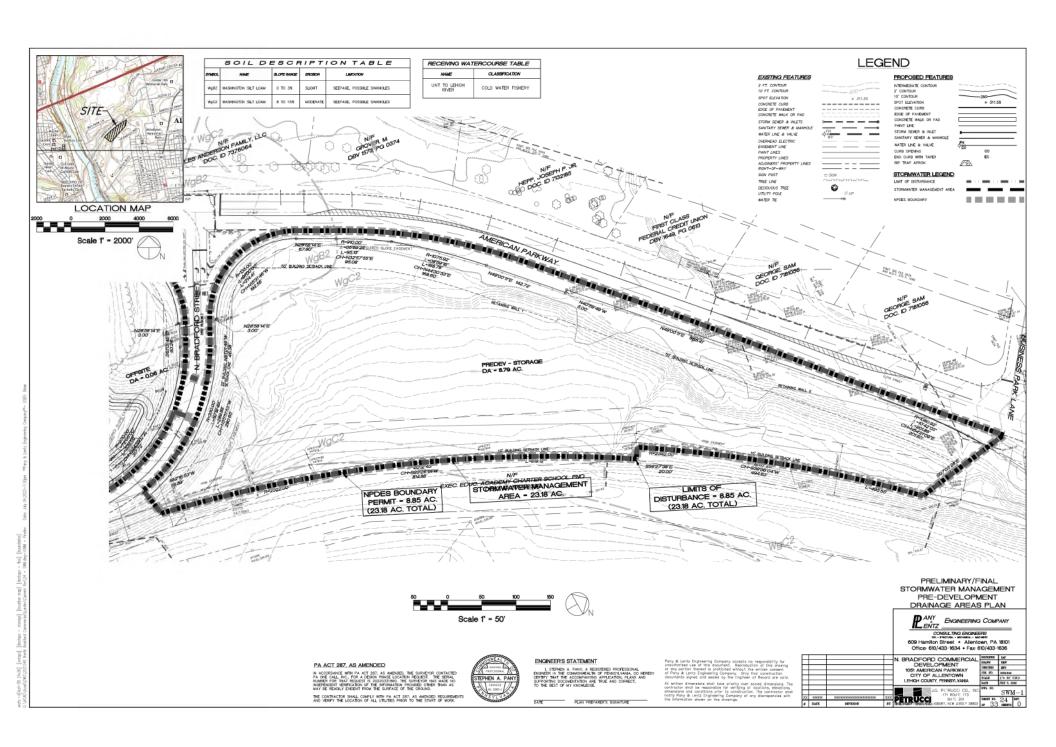


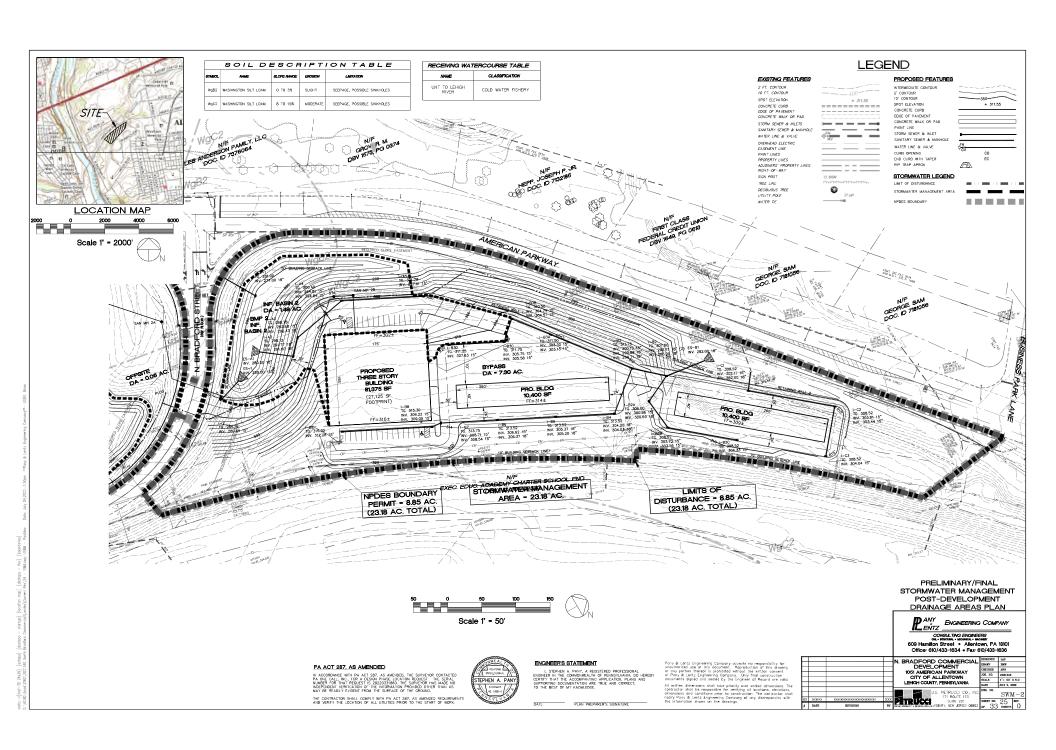
ENGINEER'S STATEMENT

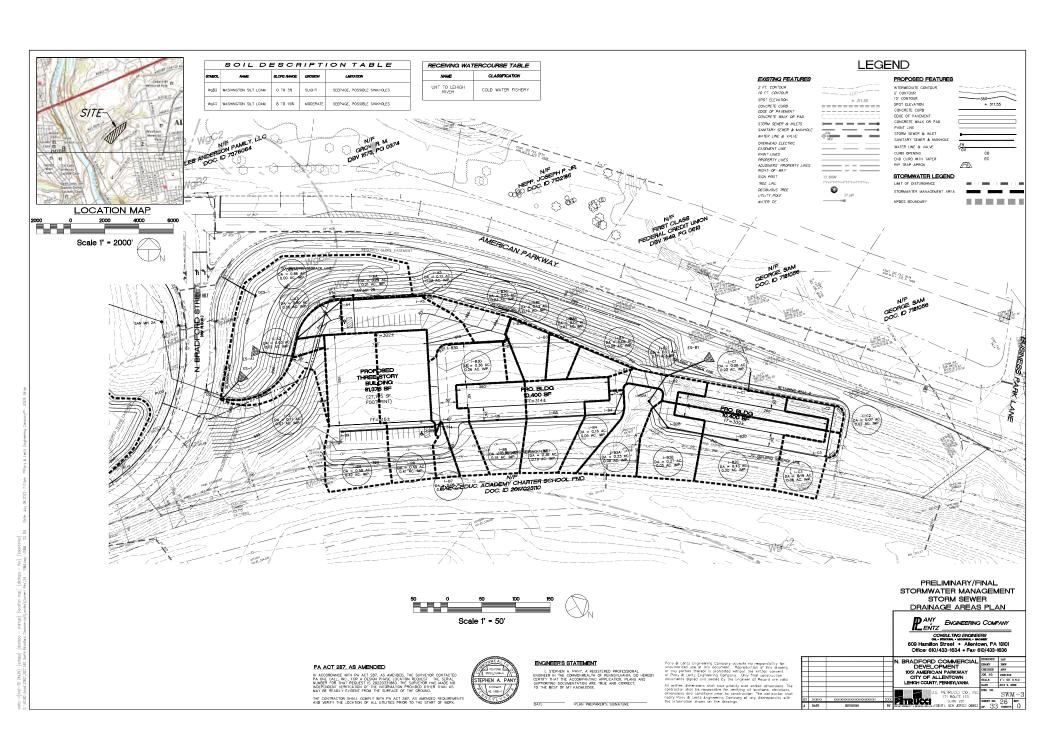
I, STEPHEN A. PANY, A REDISTERED PROFESSIONAL HERR IN THE COMMONWEAUTH OF PENNSYLVANIA, DO HEREBY FY THAT THE ACCOMPANYING APPLICATION, PLANS AND BRING DOCUMENTATION ARE TRUE AND CORRECT, IE BEST OF MY KNOWLEDGE.

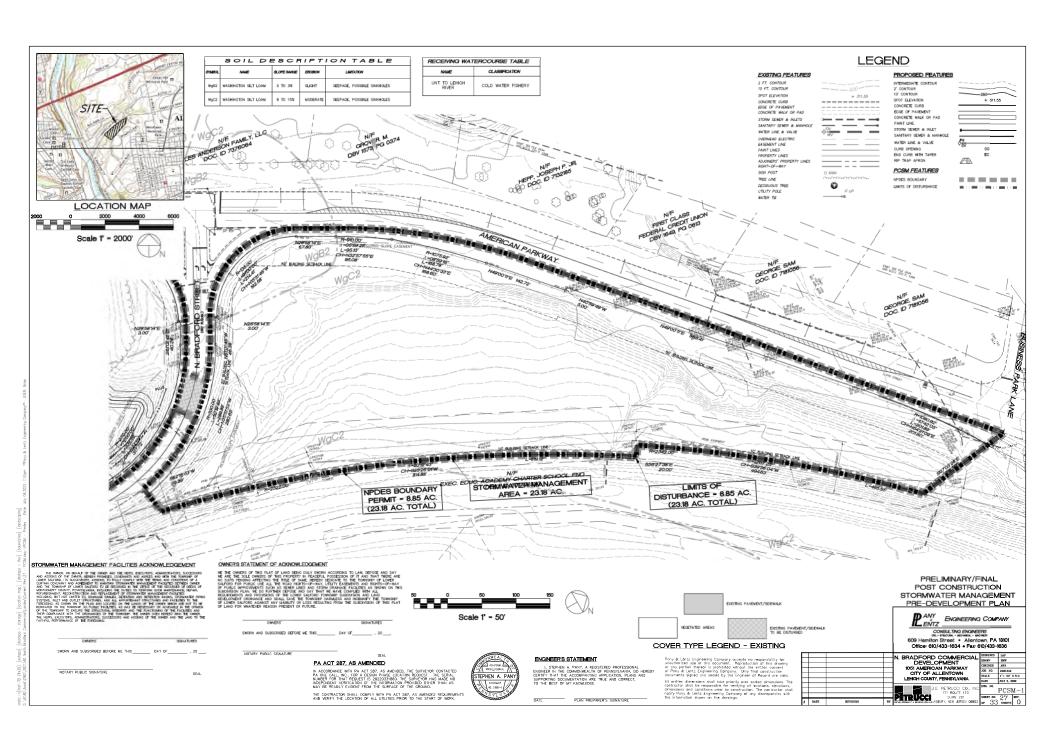
PLAN PREPARER'S SIGNATURE

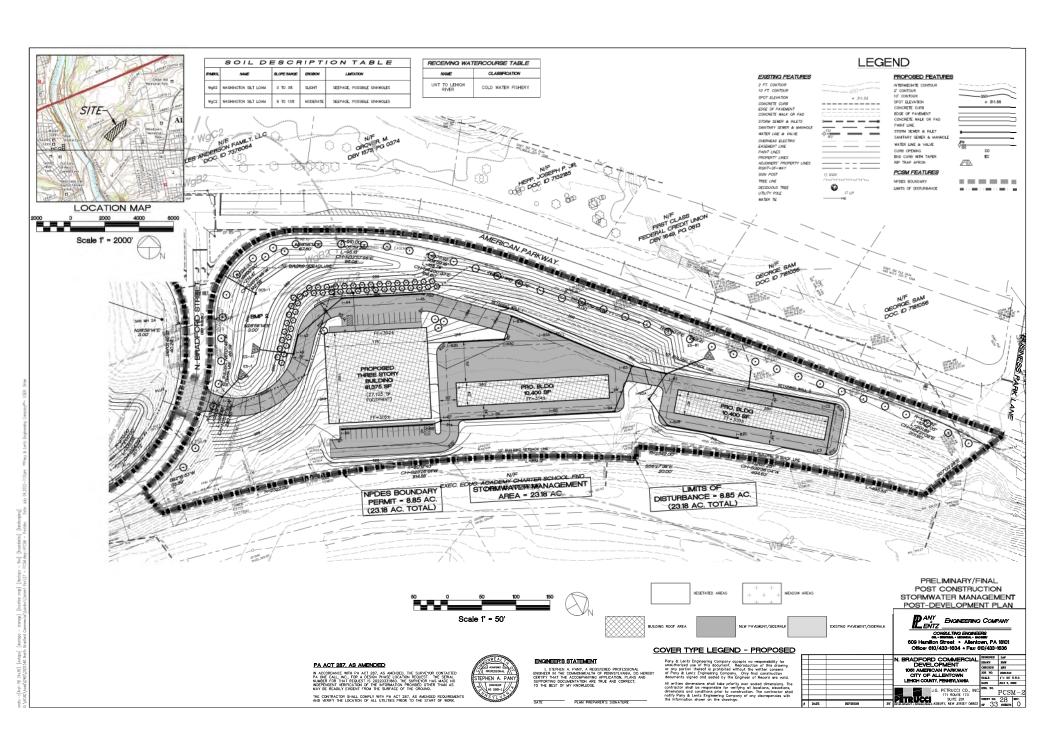
Pany & Lentz Engineering Company accepts no responsibility for unauthorized use of this aboursent. Reproduction of this drawing or any parties thereof is prohibited without the written consent of the control of the control of the control of the control of documents signed and seeked by the Engineer of Record are valid. All eritten dimensions shall take priority over socied dimensions. The contractor shall be responsible for verifying all loaditions, elevations, dimensions and conditions prior to construction. The contractor shall notify Pany & Lentz (Ingineering Company of any discrepancies with the information shall on the drawings. N. BRADFORD COMMERCIAL DEVELOPMENT 1051 AMERICAN PARKWAY CITY OF ALLENTOWN LEHIGH COUNTY, PENNSYLVANIA LD-29

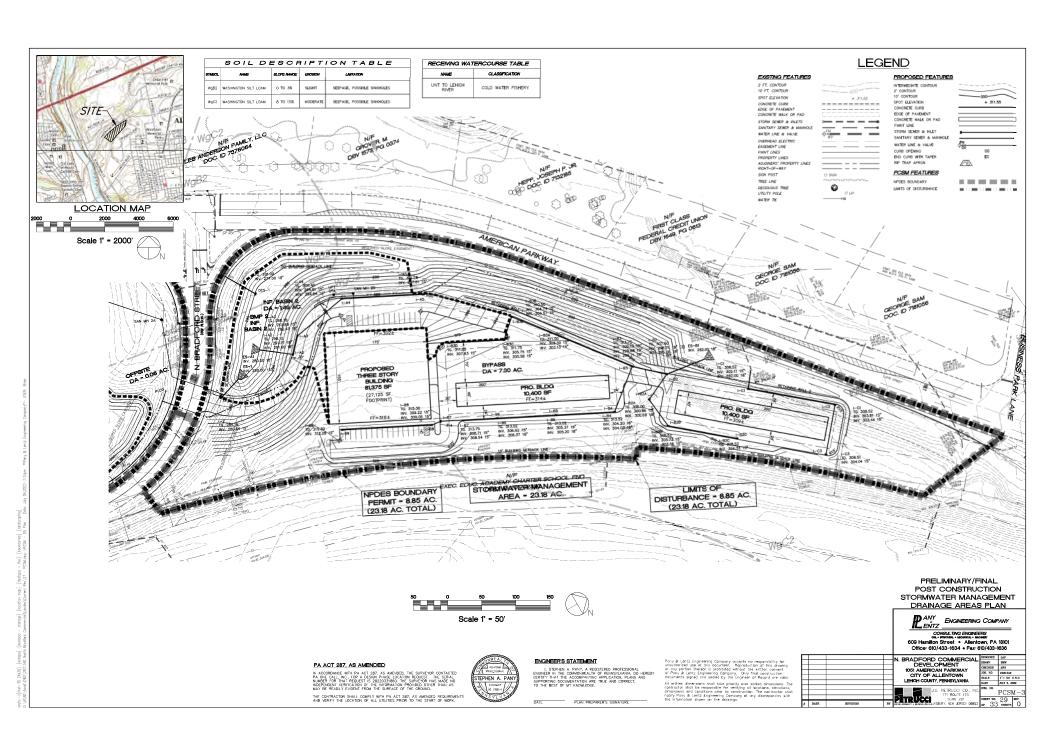












OUTLET PROTECTION CONSTRUCTION SEQUENCE:

OUT ET PROTECTION MAINTENANCE ROUEDURE

TASK	FREQUENCY
 INSPECT FOR DEBRIS, (LEAVES AND TRASH), EROSION, AND RIPRAP DISPLACEMENT 	EARLY SPRING, FALL, AND AFTER MAJOR STORM EVENTS
2. CLEAR DEBRIS/REPAIR EROSION /REPLACE RIPRAP	AS NEEDED
3. INSPECT FOR SEDIMENT ACCUMULATION	ANNUALLY
4. REMOVE ACCUMULATED SEDIMENT	EVERY 5 -10 YEARS
 CONDUCT EMERGENCY INSPECTIONS BY PROFESSIONAL ENGINEER 	AS NEEDED
7, MAINTAIN RECORDS ON ALL ACTIVITY	ANNUALLY

OUTLET PROTECTION INSPECTION AND MAINTENANCE NOTES

- COLLECTION DEVICES OF THE RESPECTION AND MANIENAME. ROLLES

 OUR CONTINUE DEVICES OF THE RESPECTION AT SEVER SHOWS TO DESIRE MAT

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DEFINITION OF CLEAN FILL

CLEAR ILLAY SCENE AS, INCOMMANDATIO NON-WITE SQUARE, INVE-SCORPORADE, CLEAR ILLA SERVER AS, INCOMMANDATIO NON-WITE SQUARE, INVE-SCORPORADE, ACCORDINATE NO CONSTRUCTION AND DEMANDA ACTIVITY AND RROCK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMANDA ACTIVITY IN THE SERVER AND ACTIVITY AND DEMANDA ACTIVITY IN THE SERVER AND ACTIVITY AND DEMANDATION ACTIVITY IN THE SERVER AND ACTIVITY AND DEMANDATION ACTIVITY OF THE SERVER AND ACTIVITY AND DEMANDATION ACTIVITY AND DEMANDATION A

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REQULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REQULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROMODED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCONTRATIONS OF REQULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS. THATES THE TABLE SPILL AND FF-16 FOUND IN THE CEPROMENTS POLICY MANAGEMENT OF FILL.

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN NOTES:

- POST CONSTRUCTION STORMWATER MANAGEMENT IT AN NOTES:

 1. HER RICHARD SCARED ON GALDONI TO THE AREA OF PROPEDED WITHOUT STORMWATER MANAGEMENT AND THE MEAN THE RESIDENCE OF THE MEAN THE PROPERTY OF THE MEAN T

- SIT.

 SEMBIT PENONED FROM BARY SHALL BE DISPOSED OF IN LANGSCAPED AREAS OUTSIDE OF
 SEMBIT PENONED FROM BARY SHALL BARY SHALLS AND MEDICALLY STANDED,
 OR PLACED IN TOPSOL STOOMHELS FOR DIRECTORY OF LIMITED TO LANGSCAPE
 A WITCHPATED CHRONIEUTORN MASTES INCLUDE BUT HAR OT LIMITED TO LANGSCAPE
 A WITCHPATED CHRONIEUTORN MASTES INCLUDE BUT HAR OT LIMITED TO LANGSCAPE
 BE SPOSSED OF AS NOTED AROUND TOPS ON DETAIL SHEETS.

PCSM STRUCTURAL BMP INSTALLATION SEQUENCE:

THE FOLLOWING OUTLINES AN OVERALL SEQUENCE FOR ORDER OF STRUCTURAL BMP INSTALLATION, REFER TO INDIVIDUAL BMP CONSTRUCTION NOTES AND SEQUENCES ON DETAIL SHEET FOR SPECIFIC INFORMATION ON EACH BMP.

THE LIMITS OF DISTURBANCE SHALL BE MARKED PRIOR TO START OF CONSTRUCTION TO PROTECT INFILTRATION AREAS FROM COMPACTION THROUGHOUT CONSTRUCTION.

THE INFILTRATION BASIN IS TO BE CONSTRUCTED TOWARDS THE START OF THE PROJECT SO THAT DISTURBED AREAS IN THE BASIN ARE STABILIZED PRIOR TO USE.

PA ACT 287, AS AMENDED

CRITICAL STAGES OF IMPLEMENTATION FOR WHICH A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ON SITE TO PERFORM REQUIRED OBSERVATIONS INCLUDE:

- MARKING OF LIMITS OF DISTURBANCE FOR INFILTRATION AREAS AND OVERALL LIMITS, ESTABLISHMENT OF SUBGRADE IN INFILTRATION BASIN.
 INSTALLATION OF INFILTRATION BASIN OUTLET CONTROL STRUCTURE, FINAL CRADING IN INFILTRATION BASIN.

NFLTRATION BASIN CONSTRUCTION NOTE:

REAL RESIDENCE ON MILITARION SHALL SE POTICITED FROM SEAVE CRESTRICTOR. THE DESIGN SHALL S

NFLTRATION BASIN CONSTRUCTION SEQUENCES

- INSTALL PHASE 1 TEMPORARY SERMENT CONTROL BMP's AS SHOWN ON THE PLANS.
 EDICANATE INTERNATION BASIN TO PROPOSED INVEST LEPTH AND SCARRY THE EXISTING SOIL SURFACES.
 DO NOT COMPACT IN-STU SOILS.
 BACOPILL INFLITATION BASIN WITH AMENDED SOIL AS SHOWN ON PLANS AND SPECIFICATION.
 OFFICIAL IN RECOMMENDED TO ACCOUNT FOR SETTLDUMIN. LUGHT HAND TAMPHOL IS ACCEPTABLE IF

NOTE: PROTECT INFLITRATION BASINS FROM SEDIMENT AT ALL TIMES QUINNER CONSTRUCTION, COMPOST FILTR SOOKS, DIVERSION REFURS, AND/OR OTHER APPROPRIATE MEASURES SHALL BE USED AT THE TOE OR SCIPES THAT ARE ADMICHED TO HEIGHT BATHER DAYS OF PRECENT SEDIMENT FROM MISSING HOT THESE AREAS QUENCY SITE DEVILOPMENT, CONSTRIBUTING INJETS MAY HAVE A SEDIMENT TRAP OR WATER QUALITY INSERT.

MFILTRATION BASIN INSPECTION AND MAINTENANCE NOTES

- MALE SECTIONS OF SINCE STRAIGUES, PRIMARY AND RESPONDENCE OF SECRETARY AND ASSOCIATION OF STRAIGHT AND ASSOCIATION

NEILTRATION BASIN MAINTENANCE SCHEDULE

TASK	FREQUENCY
1. INSPECT FOR SEDIMENT ACCUMULATION	ANNUALLY
2. REMOVE ACCUMULATED SEDIMENT	EVERY 5 -10 YEARS
3. INSPECT FOR DEBRIS (DEAD VEGETATION AND TRASH)	EARLY SPRING, FALL, AND AFTER MAJOR STORM EVENTS
4. INSPECT FOR BANK EROSION	EARLY SPRING, FALL, AND AFTER MAJOR STORM EVENTS
5. INSPECT FOR DRAWDOWN WITHIN 72 HOURS	AFTER MAJOR STORM EVENTS
6. CLEAR DEBRIS/REPAIR EROSION AREAS	AS NEEDED
7. RAKE OUT DEAD VEGETATION	ANNUALLY, EARLY SPRING
B, INSPECT AND REMOVE INVASIVE PLANTS	ANNUALLY - JULY
9, MOW TO A HEIGHT OF 6"	ANNUALLY - LATE FALL
10. INSPECT DURING WET WEATHER AND COMPARE TO AS-BUILT PLANS (BY P.E.)	ANNUALLY
11. ADJUST/CORRECT AS DETERMINED BY WET COMPARE TO AS-BUILT PLANS (BY P.E.)	AS NEEDED
12, MAINTAIN RECORDS ON ALL ACTIVITIES	ANNUALLY
13, CONDUCT EMERGENCY INSPECTIONS BY P.E.	AS NEEDED

BASIN SEED MIXTURES

	BOTANICAL NAME	ROOT	NOTES
	UNIFORM COVER (MECHAN	ICAL BROADCAST)
	carex tribuloides	seed	1#/1000 SF
	carex vulpinoidea	seed	1#/1000 SF
	eleocharis	seed	0,25#/1000 SF
MIX 1	Junuous effusus	seed	0.25#/1000 SF
INFILTRATION	elymus virginicus	seed	0.5#/1000 SF
THE ILL THOU	typha latifolia	seed	0,25#/1000 SF
[-1-1-1-1-1-1-1-1-1-1-1	alopecurus pratensis	seed	0.25#/1000 SF
[-1-1-1-1-1-1-1-1-1-1	scirpus atrovirens	seed	0.25#/1000 SF
	lollum multiflorum	seed	0.5#/1000 SF
	SWATH/GROUP COVER (Ha	ND SPREAD)	
	ris pseudocorus	seed	0.25#/1000 SF
	lobella cardinalis	seed	0.25#/1000 SF
	chelone alabra	seed	0.25#/1000 SF

REVEGETATE AND REFOREST CONSTRUCTION NOTES:

APPROPRIATE NATIVE TREE SPECIES WITH ASSOCIATED GROUND COVER THAT HAS QUICK ESTABLISHMENT SHALL BE SELECTED. SELECTIONS SHALL MMIC SURROUNDING NATIVE VECETATION.

DECIDUOUS TREES SHALL BE 2" CALIPER MINIMUM, EVERGREEN SHALL BE 6' HEIGHT MINIMUM.

TREES AND SUBJECT SUBJECT OF STANTED ON ADDROVMATELY BLEDGE CENTERS REVEGETATE AND REFOREST CONSTRUCTION SEQUENCE

- TEXTELE IALLE AND PREPOREST CONSTRUCTION SECURICES.

 1 NOTICE INFORMER SEMINIT CONTENT, MOPY & SOOK IN THE EDG PAINS.

 2 PRIVED ALL COMER LABIN MOMER ACTIVITIES TO THE GRACEST LETTOR FORSILE.

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 3 PRIVED SHOULD BE INSTALLED AT THE OF YEAR WICH SUCCESSFUL STRAIGHMENT OF THE SHOULD BE INSTALLED AT THE OF YEAR WICH SUCCESSFUL STRAIGHMENT OF THE PRIVED ACTIVITY AND INFORMATION. THE MOMER MEMORY THE WORLD SHOULD AND THE AND OR ROUGH, TO THAT WORLD AND THE AND OR ROUGH AND THE MORE AND THE AND OR ROUGH PRIVING DELETE AND THE MORE AND THE AND OR ROUGH AND THE MORE AND TH

- PROTECTION.

 5. CONCURRENT WITH M. STABILIZE REVECETATE/REFOREST AREA WITH APPROPRIATE PERMANENT SOIL STABILIZATION METHODS, NCLUDING QUICK ESTABLISHING GROUND COVER. UTILIZE REOSION CONTROL MATTING OR BLANKETS PER PLAN IF NECESSARY 6, BEGIN MANTENANCE OF NEW PLANTINGS.

REVEGETATE AND REFOREST INSPECTION AND MAINTENANCE NOTES:

- LA MONTON FOR BROWNED DAMAGE BY REER, NAVIGUE BY EDONG SPECIES AND OTHER

 WATER AN RECEID FOR PROPER PLANT ESTABLISHMENT.

 WATER AN RECEID FOR PROPER PLANT ESTABLISHMENT.

 SPACE MONTON FRANCIA.

 CONTINUE STRONG.

 CONTINUE STRONG

REVEGETATE AND REFOREST MAINTENANCE SCHEDULE

THE MOST ORITICAL PERIOD DURNG REVECETATE/REFOREST AREA ESTABLISHMENT IS MANTENANCE OF THE REMLY PLANTED TRETS DURING COMOPY CLOSURE, THYRICALLY THE FIRST 3 TO 5 YEARS, GONGNO MAINTENANCE AND TO 5 YEARS, GONGNO MAINTENANCE PRACTICES ARE RECESSARY, MAINTENANCE AND MONTONON PLANS SHOULD BE PREPARED FOR THE SHECKES STE NO CAMETAGERS NEED TO BE ADVISED OF REQUIRED DUTIES DURN'THE REGULAR MAINTENANCE PERIOD.

PLANTINGS NEED DEEP REGULAR WATERING DURING THE FIRST GROWING SEASON, EITHER NATURAL WATERING MA RAINFALL, OR PLANNED WATERING, MA CARETAKER, PLANTING IN THE FALL INCREASES THE LIKELIHOOD OF SUFFICIENT RAIN DURING PLANTING FSTABLISHINGTY.

MULCHING

MULCH WILL ASSIST IN MOISTURE RETENTION IN THE ROOT ZONE OF PLANTINGS, MODERATE SOIL TEMPERATURE, PROVIDE SOME MEED SUPPRESSOR, AS DETAIND EXAMPLIANT OF MAINING PROPERTY OF THE SOUR TO DECOMPOSE IN ORDER MAININEZ REPEAT APPLY 2-4 INCH LAYER, LEAVING AIR SPACE AROUND TREE TRINK TO PREVENT FUNGUS GROWTH.

USE COMBINATION OF WOODCHIPS, LEAVES, AND TWIGS THAT ARE STOCKPILED FOR SIX.

WEED CONTROL

WEED COMPETITION LIMITS BUFFER GROWTH AND SURVIVAL, THEREFORE WEEDS SHOULD BE CONTROLLED BY EITHER HERBICIDES, MOWING, OR WEED MATS:

THIS IS A SHORT-TERM MANIENANCE TECHNIQUE (2-3 YEARS) THAT IS GENERALLY CONSIDERED LESS EXPENSIVE AND MORE FLORIES THAN MOWNO, AND WILL RESULT IN A OUICIDER ESTRAULISHENT OF THE GUFFER. HERBICIDE USE IS RECULATED BY THE PA DEPARTMENT OF ADRICULTURE. PROPER CAME SHOULD BE TAKEN TO ENSURE THAT PROMINITY TO MATER FEATURES IS CONSIDERED.

MOWING

MONNY CONTROLS THE HIGHT OF THE LIBSTING GRASSES, YET NOGEASES INTERPRETATIONS OF THE HIGH THE HIGH THE HIGH THE HIGH TO A GRO FORMAT OLDSHER SHADES OF LICKER LAYER, A PLANTING LAYOUT SHILLAR TO A GRO FORMAT RELIGIOUS OF THE HIGH THE HIG

WEED MATS

WEED MATS ARE GEO-TEXTILE FABRICS THAT ARE USED TO SUPPRESS WEED GROWTH ACCURO NEWLY PLANTIED VECETAINED BY PROVIDING SHADE AND PREVIDINGS STORED HAVE STORED ONCE THE TREES HAVE DEVELOPED A CAMOPY THAT WILL NATURALLY SHADE OUT WEED'S.

R DAMAGE.

DEER WILL BROWSE ALL VEGETATION WITHIN REACH, GENERALLY BETWEEN 5-6 FEET ABOVE. THE GROUND.

PROJUNES TO MINIMIZE DAMAGE INCLUDE:

1) SELECTING PLANTS THAT DEER DO NOT PREFER (EX. PAPER BIRCH, BEECH, ASH, COMMON ET DEPERPER) 2) HOMEMADE DEER REPELLANTS 3) TREE SHELTERS

TREE SHELTERS
REPAIR BROKEN STAKES
TIGHTEN STAKE LINES
STRAIGHTEN LEANING TUBES
CLEAN DEBRIS FROM TUBE
REMOVE NETTING AS TREE GROWS
REMOVE WHEN TREE IS APPROXIMATELY 2 INCHES WIDE

NVASIVE PLANTS

MONITOR RESTORATION SIGHT REGULARLY FOR ANY SIGNS OF INVASIVE PLANTS,
APPENDIX B CONTAINS COMMON INVASIVE PLANTS FOUND IN PENNSTLYANIA,
CHOICE OF CONTROL METHOD IS BASED ON A VARIETY OF CONSIDERATIONS, BUT FALLS
INTO THERE GENERAL CATEGORIES.

MECHANICAL MECHANICAL WITH APPLICATION OF HERBICIDE HERBICIDE

POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) STANDARD NOTES

TRANSPORT SECTION OF THE EAST DETIGNANCE ACTIVITY INSERT SECTION OF THE EAST DETIGNANCE ACTIVITY INSERT SECTION OF THE EAST DETIGNANCE ACTIVITY INSERT SECTION OF THE PROPARED ACTIVITY OF THE PROPARED TO CONTINUE REQUIREMENTS. AND POSSES AND LOCATION MUST SELECTE (1) THE PROPARED TO CONTINUE ACTIVITY OF THE PROPARED TO CONTINUE ACTIVITY OF THE PROPARED ACTIVITY OF THE PROPARED ACTIVITY OF THE PROPARED ACTIVITY OF THE PROPAGE ACTI

PCM RECUPENDED.
PCSM REPORTING AND RECORD KEEPING, THE PCSM PLAN, INSPECTION REPORTS AND
MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE
DEPARTMENT OR THE CONSERVATION DISTRICT.

LEMBO PROPRIESONAL OF ADDRESS OF SAILL BE PRESENT ONSTE AND BE PROSPERED FOR STREAM OF A DESCRIPTION OF A DE

PRINCENSING BY THE EXPONENTION THE CONSTRUCTION BRIDGE.

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PROJECTION OF THE RECORD DRAWNGS AS A PART (2)THE FEMILITE SHALL RETAIN A COPY OF THE RECORD DRAWNGS AS A PART (2)THE FEMILITE SHALL PROVIDE A COPY OF THE RECORD DRAWNGS AS A PART OF THE APPROVIDE DOSM PARK TO THE APPROVIDE DOSM PARK TO THE PRESON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM POCKA MIRKS, OF THE APPROVIMENT OF THE PROPERTY OF T

POIN LORG TERM OPERATIONS AND IMPRESSIVE REQUIREMENTS

THE PERMITTEE OR CO-PERMITTEE SHALL BE REPSONSBLE FOR LONG-TERM OPERATION AND MANTENANCE OF PCSM BUPS UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION MAINTENANCE OF PCSM BUPS.

OPERATION MANIFEMENT OF POSS BAPS.

TO RAY PROPERTY CONTAINED A PICK BAP. THE FEMALITE OF CO-PENATTIES OF CO-PENATURE OF CO-PE

THE PERSON REPSONSBLE FOR PERFORMING LONG-TERM OFFRATION AND MAINTENANCE MAY BYTER RITO AN AGREEMENT WITH ANOTHER PERSON INCLIDING / MAINTENANCE MAY BYTER RITO AN AGREEMENT WITH ANOTHER PERSON ROLLDING / PROVIDE CORPORATION OF OTHER PERSON, TO TRANSPET THE RESPONSBUTY FOR PENSUE CORPORATION OF OTHER PERSON, TO TRANSPET THE RESPONSBUTY FOR PENSUE MORTE CHECKY TO THE OPERATION AND MAINTENANCE AND PROVIDE MORTE THE PERSON TO THE OPERATION.

A PRINITIEE OR CO-PERNITTE THAT FALS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE POSM BUP OR OTHERMISE FAILS TO COMPLY WITH THIS REQUIREMENT SAIL REMAN SOURTY VAN SEVERALLY RESPONSIBLE WITH THE LANDOWER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE POSM BMPS LOCATED ON THE PROPERTY.

PCSM RESPONSIBLE PARTIES

DURING CONSTRUCTION: LOT OWNER AT THE TIME OF CONSTRUCTION

POST CONSTRUCTION: LOT OWNER

PCSM NONSTRUCTURAL BMPs

RE-VEGETATE AND REFOREST DISTURBED AREAS USING NATIVE SPECIES (BMP 5.6.3)—SEE CHECKLIST

POSM STRUCTURAL BMPs

PRELIMINARY/FINAL POST CONSTRUCTION STORMWATER MANAGEMENT NOTES

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IN ACCORDANCE WITH PA ACT 287, AS AMENDED, THE SURVEYOR CONTACTED PA ONE CALL, INC., FOR A DESIGN PHASE LOCATION REQUEST. THE SERIAL NUMBER FOR THAT REQUEST IS 20220331860, THE SURVEYOR HAS MADE NO NOBEPROIDN'S VERRICATION OF THE ROMANTION PROVIDED OTHER THAN AS MAY BE READLY EVIDENT FOR THE SURVEYOR OF THE GROUND FOR THE SURVEYOR OF THE GROUND STATES. THE CONTRACTOR SHALL COMPLY WITH PA ACT 287, AS AMENDED REQUIREMENTS AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK.

STEPHEN A. PAN' ENONEER NO. 2005-E

ENGINEER'S STATEMENT

I, STEPHEN A. PANY, A REGISTERED PROFESSIONAL IER IN THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY Y THAT THE ACCOMPANYING APPLICATION, PLANS AND

Pany & Lentz Engineering Company accepts no responsibility for unauthorized use of this document. Reproduction of this arraing or any portion thereof is prohibited without the written consent of Pany & Lentz Engineering Company. Only find construction documents signed and seeled by the Engineer of Record are valid.

PLAN PREPARER'S SIGNATURE

All written dimensions shall take priority over socied dimensions. The contractor shall be responsible for verifying all locations, elevations, dimensions and conditions prior to construction. The contractor shall notify Pany & Lentz Engineering Company of any discrepancies with the information shown on the drawings.

Criteria and Credits for BMP 5.6.3 Re-Vegetate and Re-Forest Disturbed Areas, Using

 ▼ Trees must be native species (see Appendix), minimum 2" caliper. Minimum tree height is 6 feat. (SEE NOTE BELOW)
 ▼ Trees shall be adequately protected during construction. Trees credited for stormwater management shall be clearly labeled on the construction drawings and recorded on Record Plan for project.

Trees shall be maintained and protected for the life of the project (50 years) or until

No more than 25% of the runoff volume can be mitigated through the use of trees. Escrow shall be provided for the replacement of any protected trees used for stormwater credit that die within 5 years of construction. Dead trees shall be replaced within 6

Shall be located on the development project.

May be applied for trees required under Street Tree or Landscaping requirements.
 May be applied for trees planted as part of Riparian Buffer improvement.

Non-native species are not applicable.

TREE SPECIES NOTE: TREE SPECIES OTHER THAN THE ONES SPECIFIED ON THE PLAN MAY BE SUBSTITUTED AS LONG AS TREES MEET REQUIREMENTS OF BMP 5.6.3. COORDINATE WITH NCCD ON ANY PROPOSED SUBSTITUTIONS TO CONFIRM SPECIES IS ACCEPTABLE.

STANDARD EAS WORKSHEET # 21 Temporary and Permanent Vegetative Stabilization Specifications

PROJECT NAME: N. BRAGFORD COMMERCIAL DEVELOPMENT
LOCATION: CITY OF ALLERTOWN, LEHICH COUNTY
PREPARED BY: SHW
DATE: 982792
DATE: 982792 CHECKED BY. WE DATE: BUSINESS.

SPECIFICATIONS: The Department recommends the use of the Penn State publication, Torsion Certified and Conservation Plantings on Hierarchicals the sus of the Penn State publication, Torsion Certified and Conservation Plantings on Hierarchicals is the state-state to use for the salection of species, sent specifications, michaeus, limiting set instituted one wheat business and prescribed the Specifications for have limiting used us resistent of more Penn DOT's Publication of 408, Section 804 or by contacting the supriscable scorily conservation district. Upon salection of a refinement, but reference should be used to previous all appetitions for surface, marking, and said amendments. The following specification mill be used for this proport.

(PERMANEN	 TOPSOIL PLACEMENT DEPTH:	6-6 PERENNAL RYEGRASSIFINE PESC	IN.
	% PURE LIVE SEED:	B1/7504	St.
	APPLICATION RATE	19/39/25	LB./ACRE
	FERTILIZER TYPE:	16.26.26	(X-X-X)
	FERTILIZER APPL. HATE:	1000	LB /ACRE
	LMING RATE:	0	T /ACRE
	MULCH TYPE:	STRAW	- 17-001-160
	MULCHING RATE:	3	T./ACRE
	ANCHOR MATERIAL:		
	ANCHORING METHOD:	CRIMPING BY TRACTOR SUPLEMENT	r
P	ATE OF ANCHOR MATERIAL APPL.	area most most an artist	LB /ACRE
	SEEDING SEASON DATES:	MARCH 1 TO AUGUST 15	
	TOPSOIL PLACEMENT DEPTH: *SPECIES: % PURE LIVE SEED:		IN
	APPLICATION RATE:		LB /ACRE
	FERTILIZER TYPE:		(X-X-X)
	FERTILIZER APPL RATE:		LB /ACRE
	LMING RATE: MULCH TYPE:		T./ACRE
	MULCHING RATE: ANCHOR MATERIAL:		T./ACRE
	ANCHORING METHOD:		
R	ATE OF ANCHOR MATERIAL APPL:		LB /ACRE
*If more than	one species is used, indicate applicatio	o rate for each species	
	orksheet should be added to the plan		

363,2134,00	6 / March 31	2012	Page	30

TABLE 4.2 Compost Standards						
Organic Matter Content	80% - 100% (dry weight basis)					
Organic Portion	Fibrous and elongated					
pH	5.5 - 8.0					
Moisture Content	35% - 55%					
Particle Size	98% pass through 1" screen					
Soluble Salt Concentration	5.0 dS/m (mmhos/gm) Maximum					

NOTES:

NULLS.

COMPOST 910ULD S. A. MELL ECOMPOSS, WED-HETE SWANCE MITTER STROTT (FROM A SPECILIZEE, FOOD, STAMP COMPOST 910ULD STAMP COMPOST SHOULD PROSESS NO SACROTINABLE CORDS AND SHOULD BE RESPONDED. FREE (FIGHT SPECILIZED STAMP COMPOST SHOULD PROSESS NO SACROTINABLE CORDS AND SHOULD BE RESPONDED. FREE (FIGHT SPECILIZED STAMP COMPOST STAMP COMPOST STAMP COMPOST SHOULD STAMP COMPOST SHOULD STAMP COMPOST SHOULD STAMP COMPOST SHOULD SHOULD SHOULD STAMP COMPOST SHOULD STAMP COMPOST SHOULD SHOUL

COMPOST SPECIFICATIONS

SEEDING NOTES:

- PURE LIVE SEED (P.L.S.) IS THE PRODUCT OF THE PERCENTAGE OF PURE LIVE SEED TIMES PERCENTAGE GERMINATION DIVIDED BY 100. TO CALCULATE THE AMOUNT OF SEED REQUIRED TO PLANT ONE (1) AGRE, DIVIDE THE SEEDING RATE IN THE LBS. P.L.S./AGRE BY THE P.L.S. CONTENT OF THE SEEDLOT TO BE USED.
- WHERE IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE AN AREA IMMEDIATELY AFTER FINAL EARTHMOVING HAS BEEN COMPLETED, OR WHERE THE ACTIVITY CEASES, INTERM STABILIZATION MEASURES SHALL BE IMMEDIATELY IMPLEMENTED (TEMPORALITY SEEDED AND/OR MULCHED).
- 3. SOW SEEDS UNIFORMLY ON THE PREPARED AREAS BY HYDRAUUC APPLICATION, BROADCASTING, OR HANDSEEDIN, METHODS. INSPECT SEEDING EQUIPMENT AND ADJUST THE EQUIPMENT IF REQUIRED TO ASSURE THE SPECIFIED APPLICATION RATES. PERIODICALLY OFFICE ON THE RATE AND UNFORMITY OF APPLICATION.
- DIVERSIONS, CHANNELS, SEDIMENTATION BASINS, SEDIMENT TRAPS, AND STOCKPILES MUST BE SEEDED AND MULCHED IMMEDIATELY.

- SEEDE AND MALOPED IMMEDIATELY.

 SIM YOU STRANG AND MAST BE APPLIED AT RAITS OF AT LEAST 3.0 TONS PUR AGRE, IN LONG STRANGS, BY AGRESS AND ASSESSED AS A STRANGS.

 TO ENGRAPHY STEDIOS:

 A) APPLY 0-5-5 TERRIZES AT 1,000 POLODO PUR AGRE.

 A) APPLY 0-5-5 TERRIZES AT 1,000 POLODO PUR AGRE.

 A) APPLY 0-6-5 TERRIZES AT 1,000 POLODO PUR AGRE.

 A) APPLY 0-6-5 TERRIZES AT 1,000 POLODO PUR AGRE.

 A) APPLY 0-6-5 TERRIZES AT 1,000 POLODO PUR AGRE.
- C) AFTER SOMMO TEMPORARY SIZDING, APPLY THESE (2) TONS HAV ON STRAM MULCH PER ADS PERMANENT SETSON TO EXTERNANT ROUGHS AMADIANTS OF PERFORM SOL. 1651 OF THE PERFORMENT AMADIANTS OF DEPTH STATE OF THE PERFORMENT AMADIANTS OF SOLISE PER ACRE. 0. MICH WITH HAV (MIK. 3 TONS/ACRE) TO PROTECT THE SIZE PROU DEPTHS AND EROSON. ALL AREAS THAT FALL OR COMMANTE WIST OF RESIZED.

HYDRO-SEEDING REQUIREMENTS

- IN THE CONTROL OF A WITHOUT OF SEEDING IN WEST AND ASSESSMENT OF THE CONTROL OF T
- H1DRU-SEEDING DATES: MAY 1 TO NOVEMBER 15.
 6. APPLY HAY OR STRAW MULCH BINDER FOR ALL HYDRO-SEED STABILIZED AREAS.

PA ACT 287, AS AMENDED

IN ACCORDANCE WITH PA ACT 287, AS AMENDED, THE SURVEYOR CONTACTED PA ONE CALL, INC., FOR A DESIGN PHASE LOCATION REQUEST. THE SERIAL, NUMBER FOR THAT REQUEST IS 20220331860. THE SURVEYOR HAS MADE NO INDEPRINCENT VERTICATION OF THE NORMATION PROVIDED OTHER THAN AS MAY BE READILY EVIDENT FROM THE SURFACE OF THE GROUND.

THE CONTRACTOR SHALL COMPLY WITH PA ACT 287, AS AMENDED REQUIREMENTS AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK.



PLANT SCHEDULE

QUANTI	Y ALIAS	SCIENTIFIC NAME	COMMON NAME	PLANTING SIZE (MIN.)	COMMENTS
DECIDUO	OUS TREES				
7	AR	ACER RUBRUM	RED MAPLE	2" CAL	B & B, SINGLE LEADER
10	QR.	QUERCUS RUBRA	RED OAK	2" CAL	B & B, SINGLE LEADER
32	PA	PLATANUS ACERIFOLIA	LONDON PLANE	2" CAL	B & B, SINGLE LEADER
49 TOT.	AL		DECIDUOUS TREES SHAL	L HAVE CLEAR BRACHING HE	IGHT TO 6' ABOVE GRADE

D

NOTE: ANY EXISTING STREET TREES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH ANY EQUIVALENT TREE

"USE BROAD, SMOOTH TREE TIES BETWEEN STAKE AND TRUNK. REMOVE TREE STAKES AFTER ONE YEAR. 2x2 HARDWOOD STAKES 2 PER TREE REMOVE TRUNK GUARD ROOT COLLAR AT OR 1 ABOVE FINISHED GRADE KEEP MULCH 1" AWAY FROM ROOT COLLAR. REMOVE EXCESS SOIL FROM TOP OF ROOT BALL. - SINK STAKES MIN. 18" INTO UNDISTURBED SOIL, ADJACENT TO, NOT THROUGH ROOT BALL 3-5x DIAMETER OF ROOT BALL

OFF-STREET TREE PLANTING DETAIL WITH OPTIONAL STAKING

3 x DIAMETER OF ROOT BALL

SHRUB PLANTING DETAIL NO SCALE

GENERAL PLANTING NOTES:

- The contractor must verify location of all underground utilities prior to digging, per Act 187, CALL 1-800-242-1776.
 Any existing street free damaged during construction shall be replaced Broken or scorred trees shall be replaced with the same species and
- Briden or formed free statil for replaced with the same species and the control of the state of

- The control of the control of the disease without written opposed at the bowler, and shippidigity and LIP.

 8. If should not unphase oreas disturbed saving construction shall be bowler, and shippidigity and LIP.

 9. Plant slades and only writer, all used high previous During other parts of the control of

- ur sees openications of the period of the period of the period of period of the period
- component (32% by mass). Alery last or se v 2.5 ib per 1000 at 5 garand seed help last oil or seed of 100 lb, per ours e v 2.5 ib per 1000 at 5 garand seed per seed of the seed of 100 lb, per our seed of 100 lb, per our seed from 100 lb, per our seed of 100 lb, per our seed of 100 lb, per our seed which lbs for foliage from 100 lb, per our seed of 100 lb, per our seed which lbs foliage from 100 lb, per our seed of 100 lb, per our seed which lbs foliage from 100 lb, per our seed of 100 lb, per our seed seed of 100 lb, per our seed of 100 lb, per our seed for 100 lb, per our seed of 100 lb, per our seed for 100 lb, per our seed



CASE 1 SMALL SINKHOLE IN SOIL

EXCAVATE DOWN TO ROCK TO SINKHOLE THROAT OR TO A DEPTH OF 15 FEET BELOW GRADE, WHICHEVER OCCURS FIRST.

- WHOLEVER OCCURS FAST.

 FIND SOCK IS ENDOUTHERD, PLUG SOLL HISBOAT
 WHIT GROUT OR CONCRETE. IF A CLEARY DETRING THROAT
 IS NOT INCOLLINED AFTER IN FERT, TOP EDICAMENTA
 CONSTRUCT, A ZONE OF SOFT, N-FILL MATERIAL MIL
 BE FOUND WHICH CONCRES MOST OF THE BOTTOM OF
 THE EXCLANION. COVER HIS AREA WITH 4 FEET OF
 ONNICHEE TENTIONE AT LEAST FOOT INTO FROM
 OF CONCRETE EXTRIDUOR AT LEAST FOOT INTO FROM
 STEEL SHOULD BE INCLUDED WITHIN 15 CHOOSETE CAP.
- 3. AFTER CONCRETE HAS SET OVERNIGHT, BACKFILL HOLE WITH RELATIVELY IMPERMEABLE SOIL. COMPACT SOIL IN 6" LIFTS WITH A POWER TAMPER OR RAMMER. TWO COMPLETE COVERAGES SHOULD BE USED ON EACH LIFT.
- BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.
- WHEN SINKHOLE IS UNDER A PROPOSED UTILITY, CONCRETE IS TO BE SET 6" BELOW THE UTILITY TO ALLOW FOR A STONE BEDDING.

CASE 2 SMALL SINKHOLE IN ROCK



- IF ROCK IS ENCOUNTERED, CLEAN SURFACE AND PLACE HIGH-SUMP CEMENT GROUT INTO OPEN VODS AND CREMCES UNTIL VOIDS ARE FILLED. IF SEVERAL CUBIC YARDS OF GROUT DO NOT FILL VOIDS, USE A STIFFER, LEAN CONCRETE MIX.
- AFTER CONCRETE HAS SET OVERNIGHT, BACKFILL HOLE WITH RELATIVELY IMPERMEABLE SOIL. COMPACT SOIL IN 6" LIFTS WITH A POWER TAMPER OR RAMMER. TWO COMPLETE COVERAGES SHOULD BE USED ON EACH LIFT.
- BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.
- . WHEN SINKHOLE IS UNDER A PROPOSED UTILITY, CONCRETE IS TO BE SET 6" BELOW THE UTILITY TO ALLOW FOR A STONE BEDDING.

12 IN, THICK (MIN.) CAST-IN-PLACE OR PRECAST CONCRETE COLLAR (MIN. 2000 PSI) BASIN 2 PIPE SIZE (IN) OCS 1 18 52

APPLY 3" SHREDDED HARDWOOD MULCH.

ROOTBALL ON UNDISTURBED SOIL

ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT

COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

STANDARD CONSTRUCTION DETAIL #7-16 CONCRETE ANTI-SEEP COLLAR FOR PERMANENT BASINS OR TRAPS

PRELIMINARY/FINAL POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

PANY ENGINEERING COMPANY

-ROOT COLLAR AT OR 1" ABOVE FINISH GRADE.

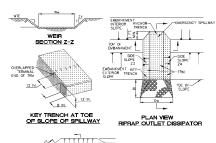
CONSULTING ENGINE ca street - screen - size 609 Hamilton Street - Allento Office: 610/433-1634 - Fax: 6	wn, PA	
N. BRADFORD COMMERCIAL	DESIGNED	SAP
DEVELOPMENT	DRAWN	1004
1051 AMERICAN PARKWAY	CHECKED	MP8
CITY OF ALLENTOWN	208. NO.	2001349
LEHIGH COUNTY, PENNSYLVANIA	SCALE	1"= 50" U.N.O
LEMUM COUNTY, PENNSTLVANIA	DATE	JULY 5, 8088
	DWG NO	

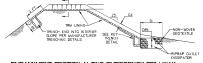
ENGINEER'S STATEMENT

PLAN PREPARER'S SIGNATURE

I, STEPHEN A. PANY, A REGISTERED PROFESSIONAL HEER IN THE COMMONMEALTH OF PENNSYLVANIA, DO HEREBY FIY THAT THE ACCOMMANNIA PAPILLATION, PLANS AND OCKTING DOCUMENTATION ARE TRUE AND CORRECT, HE BEST OF MY KNOWLEDGE.

Pany & Lentz Engineering Company accepts no responsibility for unauthorized use of this document. Reproduction of this drawing or any portion thereof is prohibited without the written consent of Pany & Lentz Engineering Company. Only find construction documents signed and seelided by the Engineer of Record are valid. All written dimensions shall take priority over scaled dimensions. The contractor shall be responsible for verifying all locations, elevations, dimensions and conditions prior to construction. The contractor shall notify Pany & Lentz Engineering Company of any discrepancies with the information shown on the drawings. # DATE





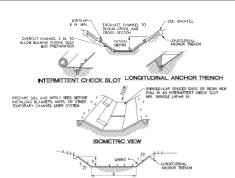
EMBANKMENT SECTION ALONG EMERGENCY SPILLWAY SECTION X-X

			WEIR			LINING		CHANNEL		DISSIPATOR			
SPILL NO.	Z3 (FT)	Z4 (FT)	ELEV WTE (FT)	CREST ELEV WCE (FT)	WDTH Ww (FT)	TRM TYPE	STAPLE PATTERN	Z5 (FT)	DEPTH Cd (FT)	LENGTH DI (FT)	WDTH Dw (FT)	RIPRAP SIZE (R)	RIPRAP THICK, DR1 (IN)
2	3	3	286.00	284.50	40	P300	E	6	1.50	N/A	N/A	N/A	N/A

NOTES:

HEAVY EQUIPMENT SHALL NOT CROSS OVER SPLLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY. RIPRAP AT TOE OF EMBANKMENT SHALL BE EXTENDED A SUFFICIENT LENGTH IN BOTH DIRECTIONS TO PREVENT SCOUR. THE USE OF BAFFLES THAT REQUIRE SUPPORT POSTS ARE RESTRICTED FROM USE IN BASINS REQUIRING IMPERVIOUS LINERS.

STANDARD CONSTRUCTION DETAIL #7-13 INFILTRATION BASIN EMERGENCY SPILLWAY WITH TRM LINING



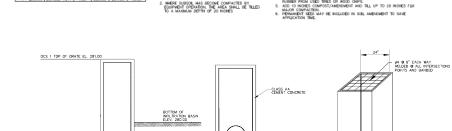
SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
SPILL 1	FULL LENGTH	40	1.50	49	3	3	P300

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME WANNER AS LONGITUDINAL ANCHOR TRENCHES.

STANDARD CONSTRUCTION DETAIL #6-1 VEGETATED CHANNEL

NOT TO SCALE



FRONT VIEW

SIDE VIEW INFILTRATION BASIN 2 OUTLET CONTROL STRUCTURE (OCS 1) NO SCALE

24"

LOW GROUND PRESSURE

INFILTRATION BASIN SECTION

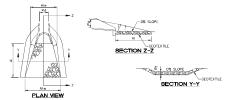
BASIN FLOOR TURF SLOPE VARIES PLAT TO 1% MAX

SUITABLE FILL COMPACTED TO SOM PROCEED DENSITY

R. AMENDMENT NOTES

SDI, AMENDMENT MEMA USUALLY CONSISTS OF COMPOST, BUT CAN
MANDLE MACH, MANURES, SAND, AND MANUFACTURED MICROBRAL
SOLUTIONS.

NS.
T SHOULD BE ADDED AT A RATE OF 2:1 (SOLLCOMPOST). IF A
TARRY PRODUCT IS USED, THE MANUFACTURES INSTRUCTIONS
BE FOLLOWED IN TERMS OF MAINED AND APPLICATION RATE.
SOLS WITH AN ORGANIC CONTENT OF AT LEAST 5 PERCENT
PROPERLY STOCKPHED (TO MAINTAIN ORGANIC CONTENT) AND



RIPRAP APRON TABLE

		HIM	HAP	APHON					
OUTLET NO.	PIPE DIA Pd (IN)	TAILWATER CONDITION (Max or Min)	Q (CFS)	V (FPS)	SIZE (R)	THICK. Rt (IN)	LENGTH AI (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
ES-1	15	MIN.	0.37	1.39	3	9	8	3.75	11.75
ES-A1	18	MIN.	1.74	2.41	3	9	8	4.50	12.50
ES-B1	15	MIN.	10.53	6.46	3	9	8	4.50	12.50

<u>NOTES.</u>
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN, TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

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

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

PA ACT 287, AS AMENDED

IN ACCORDANCE WITH PA ACT 287, AS AMENDED, THE SURVEYOR CONTACTED PA ONE CALL, INC., FOR A DESIGN PHASE LOCATION REQUEST. THE SERIAL NUMBER FOR THAT REQUEST IS 20220331880. THE SURVEYOR HAS MADE NO INDEPENDENT MERICACION OF THE NOMATION PROVIDED OTHER THAN AS MAY BE REACHLY EMDET FROM

THE CONTRACTOR SHALL COMPLY WITH PA ACT 287, AS AMENDED REQUIREMENTS AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK.



ENGINEER'S STATEMENT

INV. 277.00 18"

PLAN PREPARER'S SIGNATURE

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POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS PANY ENGINEERING COMPANY CONSULTING ENGINEERS
OIL - STROTUBL - MICHOEN
609 Hamilton Street • Allentown, PA 18101
Office: 610/433-1634 • Fax: 610/433-1636

г					N. BRADFORD COMMERCIAL	DESIGNED
Г					DEVELOPMENT 1051 AMERICAN PARKWAY CITY OF ALLENTOWN LENGH COUNTY, PENISTLYANA J.G. PETRUCCI CO., INC. 171 PRUTE 173 LUTE 201	DRAWN
Е						CHECKED
Е						JOB. 310.
Е						SCALE
Е						DATE
H	_			_		DWG. NO.
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Ę	,	DATE	REVISION	BY	SEVELO-MONT - SESSICIONES ASSURY, NEW JERSEY 08802	or 3

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PRELIMINARY/FINAL

