

PUBLIC NOTICE

US Army Corps of Engineers New York District Jacob K. Javits Federal Building New York, N.Y. 10278-0090 ATTN: Regulatory Branch

In replying refer to:

Public Notice Number: NAN-2020-00619-WCA

Issue Date: July 16, 2020

Expiration Date: August 14, 2020

To Whom It May Concern:

The New York District, Corps of Engineers has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344).

APPLICANT: Public Service Electric and Gas Company

4000 Hadley Road

South Plainfield, New Jersey 07080

ACTIVITY: Discharge fill material into waters of the United States to facilitate the

relocation of an existing oil pump plant with associated circulation units and

heat exchangers, at the Bergen Switching Station.

WATERWAY: Bellman's Creek (Hackensack River Watershed)

LOCATION: Borough of Ridgefield, Bergen County, New Jersey.

A detailed description and plans of the applicant's activity are enclosed to assist in your review.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING AND MAILED TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity.

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Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. Comments provided will become part of the public record for this permit application. All written comments, including contact information, will be made a part of the administrative record, available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof, may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any person may request, in writing, before this public notice expires, that a public hearing be held to collect information necessary to consider this application. Requests for public hearings shall state, with particularity, the reasons why a public hearing should be held. It should be noted that information submitted by mail is considered just as carefully in the permit decision process and bears the same weight as that furnished at a public hearing.

Our preliminary determination is that the activity for which authorization is sought herein is not likely to affect any Federally endangered or threatened species or their critical habitat. However, pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the District Engineer is consulting with the appropriate Federal agency to determine the presence of and potential impacts to listed species in the project area or their critical habitat.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act (Public Law 104-267), requires all Federal agencies to consult with the National Oceanic and Atmospheric Administration Fisheries Service (NOAA/FS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed work, fully described in the attached work description, could cause the disruption of habitat for various life stages of some EFH-designated species as a result of the proposed activity. Further consultation with NOAA/FS regarding EFH impacts and conservation recommendations is being conducted and will be concluded prior to the final decision.

Based upon a review of the latest published version of the National Register of Historic Places, there are no known sites eligible for, or included in, the Register within the permit area. Presently unknown archeological, scientific, prehistorical, or historical data may be lost by work accomplished under the required permit.

Reviews of activities pursuant to Section 404 of the Clean Water Act will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 (b) of the Clean Water Act and the applicant will obtain a water quality certificate or waiver from the appropriate state agency in accordance with Section 401 of the Clean Water Act prior to a permit decision.

Pursuant to Section 307 (c) of the Coastal Zone Management Act of 1972 as amended [16 U.S.C. 1456 (c)], for activities under consideration that are located within the coastal zone of a state which has a federally approved coastal zone management program, the applicant has certified in the permit application that the activity complies with, and will be conducted in a manner that is consistent with, the approved state coastal zone management program. By this public notice, we are requesting the state's concurrence with, objection to, or waiver of the applicant's certification. No permit decision will be made until one of these actions occurs. For activities within the coastal zone of New Jersey State, the applicant's certification and accompanying information is available from the New Jersey Department of Environmental Protection, Coastal Management Program, P.O. Box 418, 401 E. State Street, Trenton, NJ, 08625, Telephone (609) 633-2201. Comments regarding the applicant's certification, and copies of any letters to this office commenting upon this proposal, should be so addressed.

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In addition to any required water quality certificate and coastal zone management program concurrence, the applicant has obtained or requested the following governmental authorization for the activity under consideration:

(New Jersey Department of Environmental Protection Waterfront Development Permit)

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact Jim Cannon at this office at (917) 790-8412, or at james.h.cannon@usace.army.mil.

In order for us to better serve you, please complete our Customer Service Survey located at http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx.

For more information on New York District Corps of Engineers programs, visit our website at http://www.nan.usace.army.mil.

for: Stephan A. Ryba

Chief, Regulatory Branch

Rosta Miranda

Enclosures

WORK DESCRIPTION

The applicant, the Public Service Electric and Gas Company (PSEG), has requested Department of the Army authorization to discharge fill into tidal waters of the United States to facilitate the relocation of an existing oil pump plant as part of the Bergen Switching Station Phase 3 Spare Transformer Installation and Oil Pump Plant Movement project. The proposed project would take place within the existing PSEG Bergen Switching Station, within Bellman's Creek, a tidal tributary of the Hackensack River, in the Borough of Ridgefield, Bergen County, New Jersey.

The regulated activities associated with the project proposal would include the discharge of approximately 3,500 cubic yards of fill material into approximately 0.49 acres of tidal emergent wetlands dominated by common reed, and approximately 0.10 acres of waters of the United States, to facilitate the construction and installation of two non-habitable pump house's, two circulating units, and two heat exchangers, that would be installed on pile-supported concrete slabs-on-grade. The two concrete slabs for the pump house would be approximately 63-foot long by 14-foot wide and 60-foot long by 14-foot wide, and the two slabs for the circulating units would be approximately 34-foot long by 18-foot wide and 24-foot long by 18-foot wide. There would be two sets of heat exchanger foundations each comprised of six (6) 1.6-foot long by 1.6-foot wide slabs-on-grade.

The applicant has stated that the circulating units circulate the cooling oil within the underground conduits; the pump house controls the flow of the cooling oil to the circulating units and heat exchangers, and the heat exchangers dissipate the heat from the cooling oil as it is circulated out from the underground electrical conduits. Approximately 0.10 acres of both wetlands and waters of the United States would be temporarily disturbed as part of the proposed activities. Upon completion of the project, all temporarily disturbed waters of the United States and wetlands would be restored to preconstruction conditions.

To compensate for the 0.59 acres of permanent impacts to waters of the United States associated with the project proposal, the applicant proposes to purchase 0.59 mitigation credits from a federally approved wetland mitigation bank known as the "Evergreen MRI3 Wetland Mitigation Bank", located in the Hackensack Meadowlands District. The applicant has stated that the mitigation credits have been secured from the bank sponsor upon issuance of all required permits.

The applicant has stated that the relocation of the existing oil pump plant is required based on the installation of a required new spare transformer and associated security wall (Department of the Army Permit No. NAN-2018-01147), which would be installed at the location of the existing oil pump plant. The installation of the spare transformer and associated security wall, which was required to be located adjacent to the existing main transformer, was mandated by Reliability Standards for Physical Security Measures, 146 FERC 61,166 (2014) to maintain system reliability, specifically to enhance security concerns. The applicant states that the purpose of an oil pump plant is to cool underground electric transmission cables, as the electric current running through underground transmission lines (wires between eight and ten inches in diameter) generates a significant amount of heat that must be cooled to eliminate system failure. The underground transmission lines are encased in a larger steel pipe that is filled with a non-PCB oil coolant, and continuously pumped through the pipe to re-circulate the coolant through the system at the same time cooling it by a heatexchanger. The applicant states that the optimal location of an oil pump house/heat exchanger is at the point where the above-ground transmission line(s) transition to underground (pot-head location). Due to existing on-site space constraints at the Bergen Switching Station, the existing oil pump plant has been proposed in an area located outside and along the south side of the substation where it will not interfere with existing Switch Station operations. The proposed new location of the oil pump plant complex also represents the most-optimal area, as it would be located at the point where the above-ground transmission line(s) transition to underground. The applicant further stated that, although not optimal, the existing oil pump plant was constructed in its current location for the

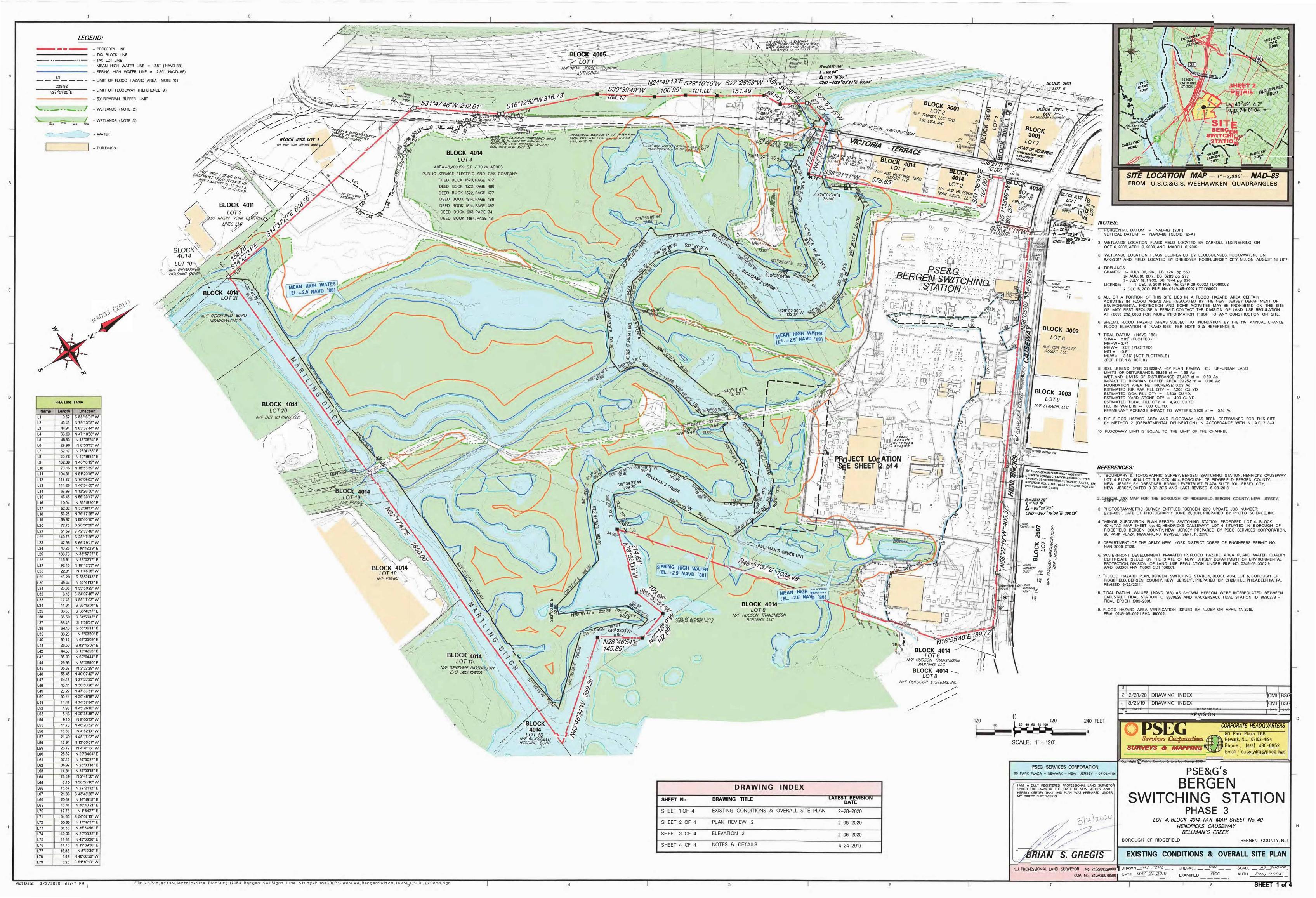
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purpose of avoiding impacts to wetlands as part of its original construction. Although it would have been better constructed where now proposed, it is only being proposed now, per the Federal mandate, referenced above.

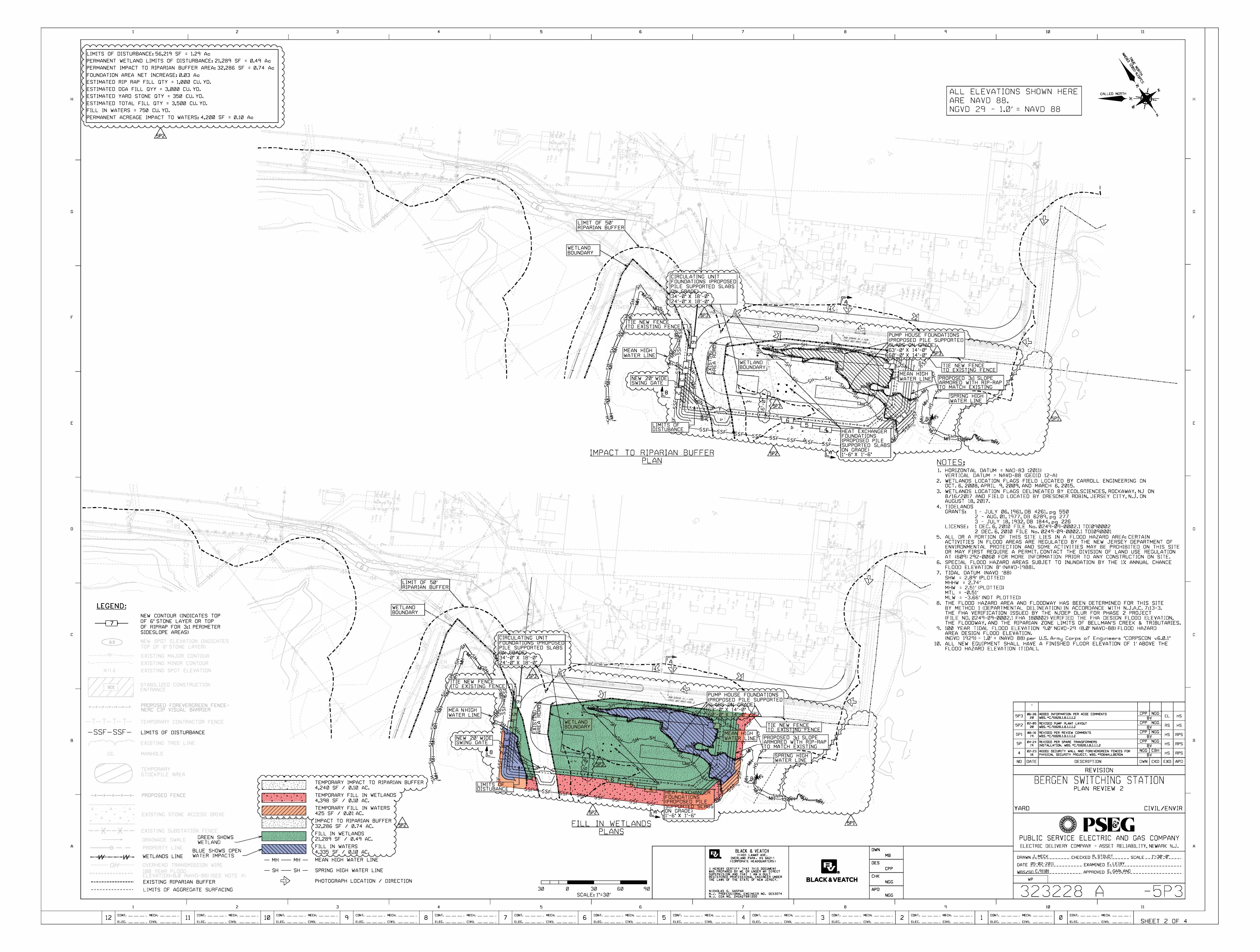
The two proposed new pump houses (identified as Pump House 3 and Pump House 4) and their associated circulating units and heat exchangers are proposed to replace existing Pump House 1 and Pump House 2 and their associated circulating units and heat exchangers, which would be decommissioned for purpose of constructing the required spare transformer and associated security wall.

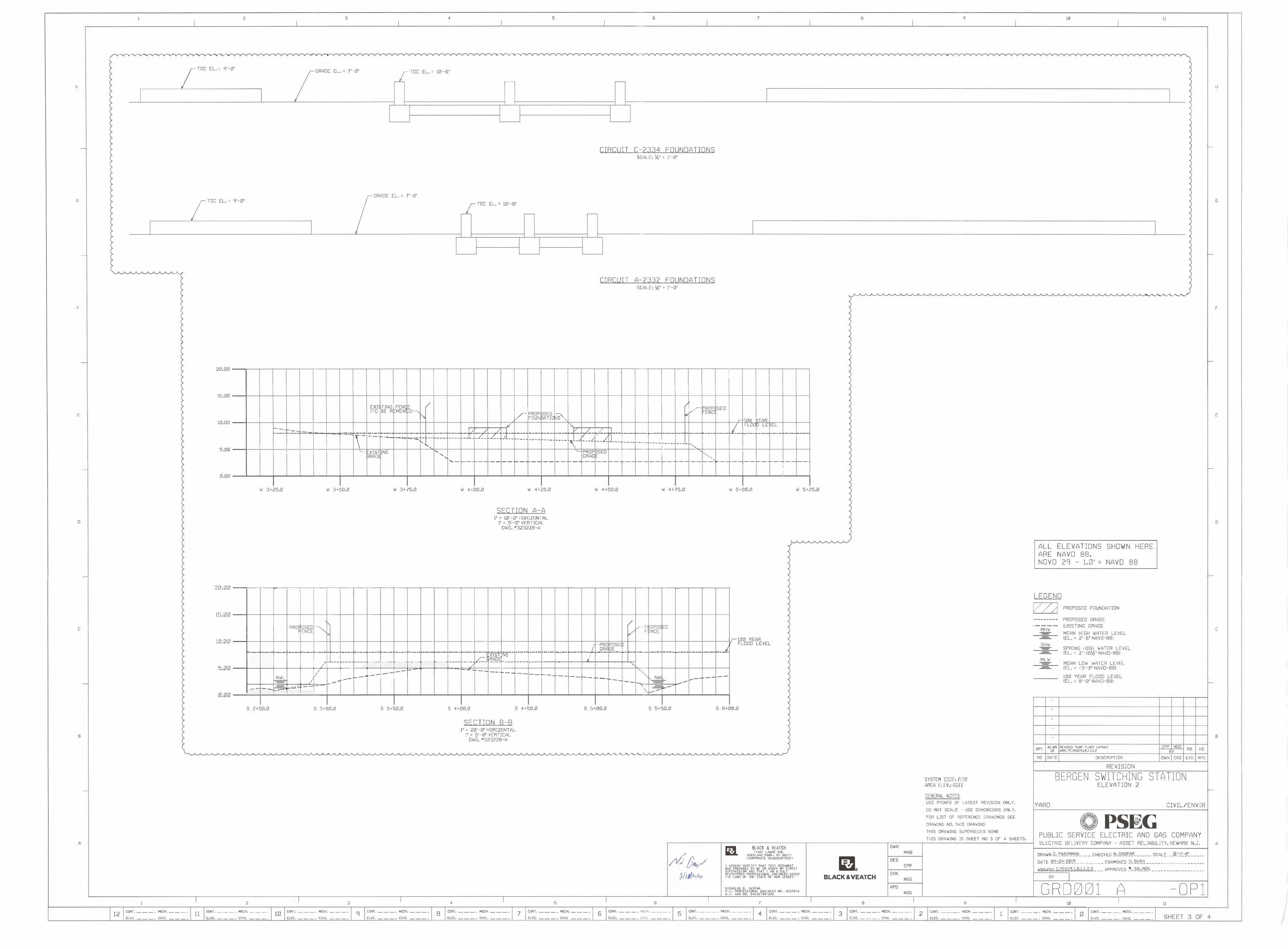
The applicant stated that the project was designed to reduce impacts to wetlands and waters to the extent possible. The area of expansion is the minimum necessary to accommodate the proposed pump house, heat exchanger, and circulating unit – the proposed area of fill is the least amount of space required to accommodate underground piping, specifically the pipe bends, overhead electrical clearances, and maintenance services.

The purpose of the project is to comply with the mandate by the Reliability Standards for Physical Security Measures, 146 Federal Energy Regulatory Commission (FERC) 61,166 (Order Directing Filing of Standards, issued March 7, 2014) requirements to maintain system reliability, and site security concerns.









BERGEN COUNTY SOIL CONSERVATION DISTRICT

EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY (NJ STANDARDS), AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT STABILIZATION IS ESTABLISHED.
- 2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY 30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND MULCHING. IF THE SEASON PROHIBITS SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH UNROTTED STRAW AT A RATE OF 2 TONS PER ACRE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NJ STANDARDS.
- STABILIZATION SPECIFICATIONS:
 - A. TEMPORARY SEEDING AND MULCHING: -LIME - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS. -FERTILIZER - 11 LBS./1,000 SF, 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4". -SEED - PERENNIAL RYEGRASS 100 LBS./ACRE (2.3 LB./1,000 SF) OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN
 - AUGUST 15 AND OCTOBER 1. -MULCH - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90 LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER). B. PERMANENT SEEDING AND MULCHING:
 - -TOPSOIL UNIFORM APPLICATION TO A DEPTH OF 5" (UNSETTLED) -LIME - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS. -FERTILIZER - 11 LBS./1,000 SF, 10-10-10 WITH 50% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4". -SEED - TURF TYPE TALL FESCUE (BLEND OF 3 CULTIVARS) 350 LBS./ACRE (8 LBS./1.000 SF) OR OTHER APPROVED SEEDS: PLANT BETWEEN MARCH 1 AND OCTOBER 1 (SUMMER SEEDINGS REQUIRE IRRIGATION). -MULCH - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90

LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH

SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH

- NETTING, OR LIQUID MULCH BINDER). 5. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- 6. SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS, INCLUDING AFTER EVERY STORM EVENT.
- 7. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50'OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHALL BE CONTAINED BY A HAYBALE SEDIMENT BARRIER OR SILT FENCE.
- 8. A CRUSHED STONE, VEHICLE WHEEL-CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. SAID BLANKET WILL BE COMPOSED OF 1" - $2\frac{1}{2}$ " NO. 3 PER NJDOT TABLE 901.03-1 CRUSHED STONE, 6" THICK, WILL BE AT LEAST 30' X 100' AND SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED.
- 9. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
- 10. DRIVEWAYS MUST BE STABILIZED WITH 1" 21/2" CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.
- 11. ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS, WILL BE REMOVED IMMEDIATELY. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- 12. CATCH BASIN INLETS WILL BE PROTECTED WITH AN INLET FILTER DESIGNED IN ACCORDANCE WITH SECTION 28-1 OF THE NJ STANDARDS.
- 13. STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
- 14. DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT CONTROL BAG OR OTHER APPROVED FILTER IN ACCORDANCE WITH SECTION 14-1 OF THE NJ STANDARDS.
- 15. DUST SHALL BE CONTROLLED VIA THE APPLICATION OF WATER, CALCIUM CHLORIDE OR OTHER APPROVED METHOD IN ACCORDANCE WITH SECTION 16-1 OF THE NJ STANDARDS.
- 16. TREES TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH A SUITABLE FENCE INSTALLED AT THE DRIP LINE OR BEYOND IN ACCORDANCE WITH SECTION 9-1 OF THE NJ STANDARDS.
- 17. THE PROJECT OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFF-SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
- 18. ANY REVISION TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION IN THE FIELD.
- 19. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE THROUGHOUT CONSTRUCTION.
- 20. THE BERGEN COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED, IN WRITING, AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE: BERGEN COUNTY SCD, 700 KINDERKAMACK ROAD, SUITE 106, ORADELL, NJ 07649.
- TEL: 201-261-4407; FAX 201-261-7573. 21. THE BERGEN COUNTY SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON OR OFF-SITE EROSION PROBLEMS DURING CONSTRUCTION.
- 22. THE OWNER MUST OBTAIN A DISTRICT ISSUED REPORT OF COMPLIANCE PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY. THE DISTRICT REQUIRES AT LEAST ONE WEEK'S NOTICE TO FACILITATE THE SCHEDULING OF ALL REPORT OF COMPLIANCE INSPECTIONS. ALL SITE WORK MUST BE COMPLETED, INCLUDING TEMPORARY/PERMANENT STABILIZATION OF ALL EXPOSED AREAS, PRIOR TO THE ISSUANCE OF A REPORT OF COMPLIANCE BY THE DISTRICT.

DEVELOPMENT SCHEDULE:

(GRADING - FILL-IN)

- 1. INSTALL SOIL EROSION AND SEDIMENT CONTROL DEVICES FOR FILL-IN AREA (SEE REF. DWG. #3). (3 DAYS)
- 2. CLEAR VEGETATION AND PREPARE NATIVE SOILS FOR FILL MATERIAL. (1 WEEK)
- 3. FILL AND GRADE AREA. (2 WEEK)
- 4. INSTALL ACCESS DRIVES. (3 DAYS)
- 5. GRADE SITE TO FINAL CONTOURS WHERE APPLICABLE AND SPREAD CRUSHED STONE. (1 WEEK)
- 6. INSTALL 345/230KV SPARE TRANSFORMER FOUNDATIONS AND ASSOCIATED EQUIPMENT.
- 7. PERMANENTLY STABALIZE AND SEED SITE, AND REMOVE SOIL EROSION AND SEDIMENT CONTROL DEVICES. (2 WEEKS)

WETLANDS GRADING NOTES:

- 1. SETTLEMENT OF ORGANIC SOIL IS EXPECTED TO BE AS MUCH AS 20 INCHES OVER A FEW MONTHS. POST-SETTLEMENT TOP ELEVATION OF FILTER FABRIC SHALL BE 7'-0",
- 2. ORGANIC SOIL SHALL BE STRIPPED OF WETLAND VEGETATION BEFORE PLACEMENT OF GEOTEXTILE FABRIC.
- 3. GEOTEXTILE FABRIC SHALL BE MIRAFI 600X OR ENGINEER APPROVED EQUIVALENT.
- 4. RIP RAP LAYER SHALL BE MINIMUM 3'-0" THICKNESS.

TOPSOIL SPECIFICATIONS

- 1. ACCEPTABLE TOPSOIL SHALL BE RESERVED AND SUBSEQUENTLY APPLIED TO
- ALL DISTURBED AREAS. 2. ACCEPTABLE TOPSOIL SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH OR OTHER MATERIALS LARGER THAN 11/2" DIAMETER. TOP SOIL SHALL BE FREE OF PLANTS AND PLANT PARTS.
- 3. TEMPORARY TOPSOIL STOCKPILE SHALL BE LOCATED ON SITE AND WITHIN THE LIMITS OF DISTURBANCE. A LINE OF SILT FENCE SHALL BE PLACED
- ALONG THE DOWNSTREAM SIDE OF THE STOCKPILE. 4. AFTER GRADING AND COMPACTION OF SUBGRADE SURFACES TO THE SPECIFIED ELEVATIONS AND LIMITS, TOPSOIL AND SOIL AMENDMENTS SHALL BE APPLIED.
- 5. FOR AREAS, TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 6".
- 6. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBGRADE IS FROZEN OR MUDDY.

SILT FENCE NOTES:

- 1. FENCE POSTS SHALL BE SPACED AT 8'-0" CENTER TO CENTER OR CLOSER. THE SHALL EXTEND AT LEAST 2'-0" INTO GROUND, THEY SHALL EXTEND AT LEAST 2'-0" ABOVE GROUND.
- 2. A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6" DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2'-0" ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS, ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

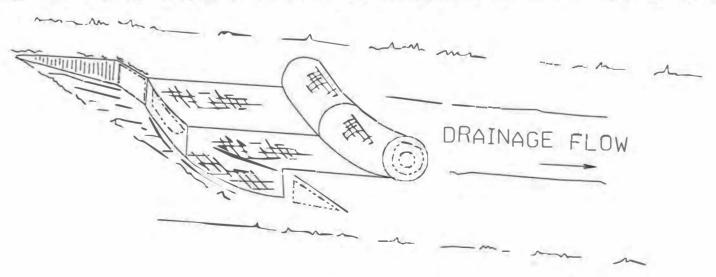
CLEARING NOTES:

- 1. VEGETATED AREAS SHALL BE CLEARED AND CUT A MINIMUM OF 6" BELOW GRADE. SPOILS SHALL BE DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- 2. AREAS CLEARED MORE THAN 6" BELOW PROPOSED GRADES SHALL BE FILLED WITH SOIL BASED AGGREGATE MEETING AN I-5 GRADATION.
- 3. AREAS EXPOSED LONGER THAN 30 DAYS SHALL BE SEEDED IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL NOTES ON THIS DRAWING.

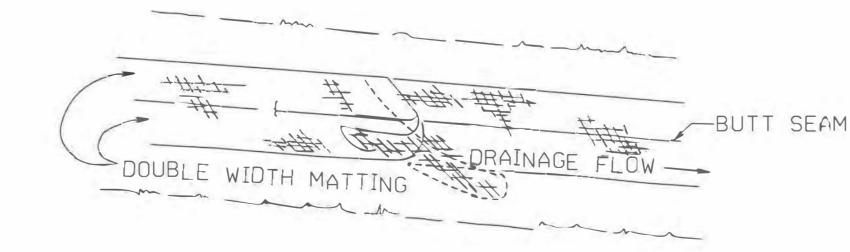
- 1. ALL GRADING ACTIVITIES AND SUBSEQUENT SOIL STABILIZATION METHODS SHALL PROGRESS IN THE MANNER SPECIFIED IN THE CONSTRUCTION SEQUENCE.
- 2. PRIOR TO PLACING FILL ON PREPARED GRADE. THE GROUND SURFACE SHALL BE COMPACTED SO THAT THE PERCENT (90%) OF MAXIMUM DENSITY AS DETERMINED IN THE LABORATORY BY THE STANDARD PROCTOR TEST (AASHTO T-99, ASTM D-698. IN-PLACE (FIELD) DENSITY SHALL BE DETERMINED IN ACCORDANCE WITH THE ASTM TEST METHOD D-1556-82E, D-2922-91 OR AASHTO T-191-86, T-238-86.
- 3. NO FILL SHALL BE PLACED ON FROZEN GROUND.
- 4. ALL FILLS SHALL BE PLACED IN APPROXIMATELY HORIZONTAL LAYERS, EACH LAYER HAVING A LOOSE THICKNESS OF NOT MORE THAN EIGHT (8) INCHES. EACH OF THESE LAYERS SHALL BE COMPACTED AT OPTIMUM MOISTURE CONTENT (PLUS OR MINUS PERCENT OF MAXIMUM DENSITY AS DETERMINED IN THE LABORATORY BY THE STANDARD PROCTOR TEST (ASSHTO T-99, ASTM D-698. IN-PLACE (FIELD) DENSITY SHALL BE DETERMINED IN ACCORDANCE WITH THE ASTM TEST METHOD D-1556-82E, D-2922-91 OR AASHTO T-191-86, T238-86.
- 5. THE TOP EIGHT (8) INCHES OF SOIL IN CUT AREAS SHALL BE COMPACTED TO AT LEAST NINETY (90) PERCENT OF MAXIMUM PROCTOR TEST (AASHTO T-99, ASTM D-698. IN-PLACE (FIELD) DENSITY SHALL BE DETERMINED IN ACCORDANCE WITH THE ASTM TEST METHOD D-1556-82E, D-2922-91 OR AASHTO T-191-86, T-238-86
- 6. NO FILL OR CUT SHALL BE MADE WHICH CREATES AN EXPOSED SURFACE STEEPER IN SLOPE THAN TWO (2) HORIZONTAL TO ONE (1) VERTICAL.
- 7. ALL SITE WORK SHALL BE IN ACCORDANCE WITH THE PSE&G GENERAL SPECIFICATION '16-CIVIL Ø4' "PAVING FOR SWITCHING AND SUBSTATIONS," AND '15-CIVIL 05' "EXCAVATION AND TRENCHING FOR SWITCHING AND SUBSTATIONS."
- 8. FOR WETLAND FILL-IN AREAS AND ALL OTHER AREAS REQUIRING SUBGRADE STABILIZATION DUE TO SOFT SOIL, RIP-RAP SHALL BE PLACED TO A DEPTH SATISFACTORY TO ACHIEVE A STABLE TERRAIN IN WHICH TO BUILD SUBSEQUENT FILL LAYERS. PLACEMENT OF RIP-RAP SHALL BE TO THE SATISFACTION OF THE PSE&G CONSTRUCTION MANAGER.

SWALE OR DITCH

DOUBLE WIDTH MATTING AND BLANKETS IN SWALE, USE 3'-6" OVERLAP WHERE TWO OR MORE STRIPS ARE REQUIRED, AND STAPLE ON 2'-0" CENTERS



BURY TOP END OF MATTING AND BLANKETS IN A 6" TRENCH TAMP TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES, 12" MAXIMUM SPACING 4" DOWN FROM TRENCH.



OVERLAP: BURY UPPER END OF LOWER STRIP AS PER ABOVE DETAIL. OVERLAP END OF TOP STRIP 6" AND STAPLE EITHER SIDE OF JOINT.

SEEDING SCHEDULE:

WARM SEASON MIXTURE #4:

- 1. TEMPORARY SEEDING SHALL CONSIST OF SPRING OATS APPLIED AT A RATE OF 2.0LBS PER 1000 S.F. OR GRAIN RYE APPLIED AT A RATE OF 2.4LBS PER S.F. TEMPORARY SEEDING TO BE MAINTAINED UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH A MULCH AS INDICATED IN NOTE 6 ABOVE.
- 2. PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURES FROM STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY (2014), OR APPROVED EQUAL.

COOL SEASON MIXTURE #7: OPTIMUM SEEDING DATES ARE FROM AUGUST 15 TO OCTOBER 15 (ACCEPTABLE FROM MARCH 1 TO APRIL 30 AND MAY 1 TO AUGUST 14). STRONG CREEPING RED FESCUE @ 3.0 LBS/1,000 S.F.

KENTUCKY BLUEGRASS @ 1.0 LBS/1,000 S.F. PERENNIAL RYEGRASS @ 0.5 LBS/1,000 S.F. PLUS WHITE CLOVER @ 0.1 LBS/1,000 S.F.

OPTIMUM SEEDING DATES ARE FROM MARCH 1 TO APRIL 30. SWITCHGRASS @ 0.25 LBS/1,000 S.F. BIG BLUESTEM @ 0.1 LBS/1,000 S.F. LITTLE BLUESTEM @ 0.1 LBS/1,000 S.F. @ 0.1 LBS/1,000 S.F. SAND LOVEGRASS COASTAL PANICGRASS @ Ø.25 LBS/1,000 S.F.

- 3. PERMANENT SEEDING TO BE APPLIED BY HYDROSEEDING AT A RATE OF 1,500 LBS PER ACRE. SLOPED AREAS TO BE COVER WITH MULCH AS INDICATED IN NOTE 5.
- 4. FERTILIZER FOR THE ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE 10-20-20 APPLIED AT A RATE OF 14 LBS PER 1,000 S.F. OR AS DETERMINED BY SOIL TEST. LIMESTONE FOR TEMPORARY SEEDING SHALL BE APPLIED AT A RATE OF 90 LBS PER 1,000 S.F LIMESTONE FOR PERMANENT SEEDING SHALL BE APPLIED AT A RATE OF 135 LBS PER 1,000 S.F.
- 5. ALL SEEDED AREAS SHALL BE MULCHED MULCH SHALL CONSIST OF SMALL GRAIN STRAW OR SALT HAY ANCHORED WITH A WOOD AND FIBER MULCH BINDER, LIQUID MULCH BINDER, OR AN APPROVED EQUAL AT A RATE OF 70-90 LBS PER 1,000 S.F.

DUST CONTROL METHODS

MULCHES - SEE SOIL EROSION AND SEDIMENT CONTROL NOTE 4, THIS DWG. <u>VEGETATIVE COVER</u> - SEE VEGETATIVE STANDARDS THIS SHEET. SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

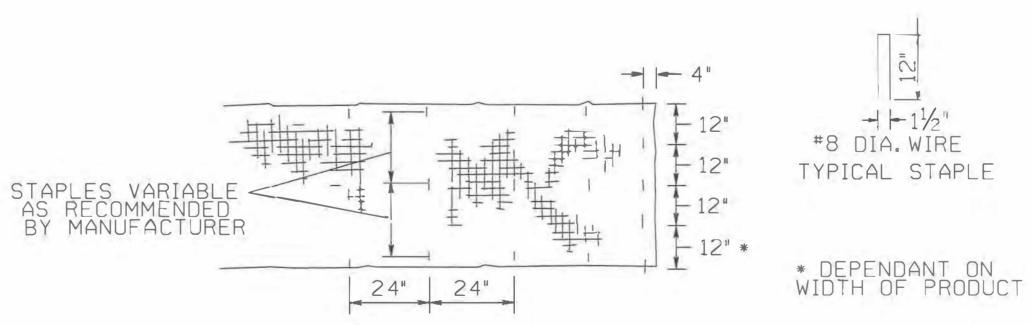
TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOW SPACED ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET. - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT THE RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PLANTS.

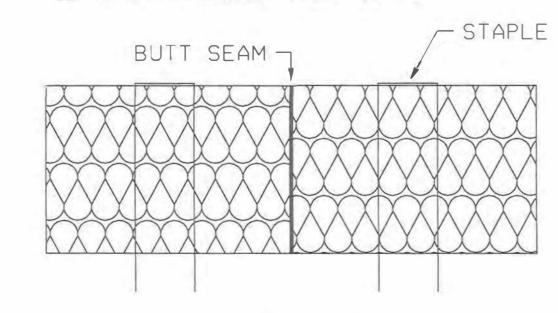
DUST CONTROL MATERIALS

005	I CUNTRUL MATE	RIALS	
MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) - SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS.		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200



STONE - COVER SURFACE WITH CRUSHED STONE OR GRAVEL.

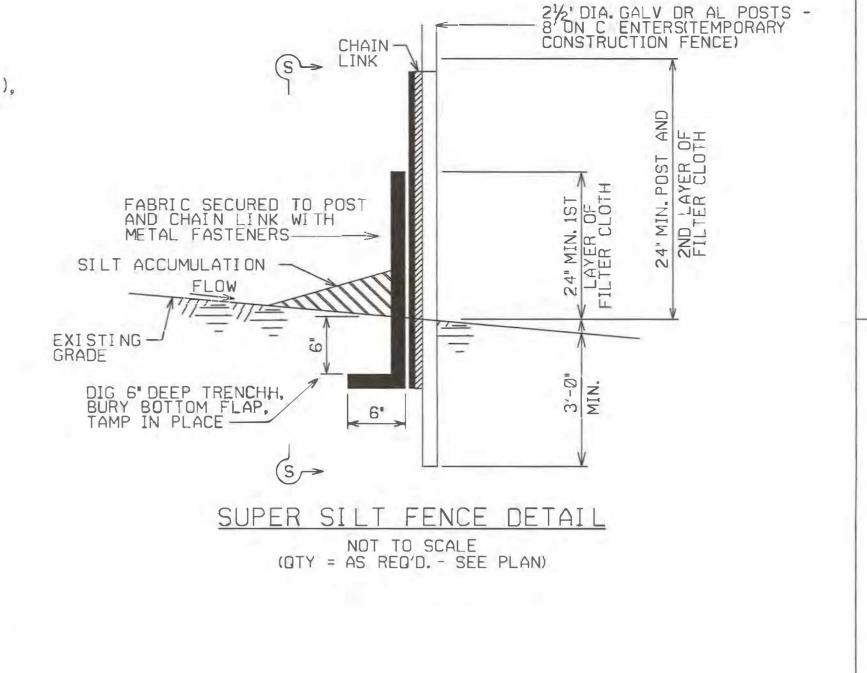
SECURE MATTING AND BLANKETS WITH STAPLES SPACED 24" APART ALONG THE SIDES AND DOWN THE CENTER. AT THE ENDS OF THE MATTING AND AT 50 FOOT INTERVALS STAPLES SHALL BE PLACED 12" APART ACROSS THE WIDTH.



EXCELSIOR BUTT SEAM EROSION CONTROL MULCH BLANKET OPSOIL STABILIZATION MATTING)

SYSTEM CODE: 2170 AREA ELEV.: 66ZZ GENERAL NOTES

USE PRINTS OF LATEST REVISION ONLY. DO NOT SCALE - USE DIMENSIONS ONLY. FOR LIST OF REFERENCE DRAWINGS SEE DRAWING NO THIS DRAWING THIS DRAWING SUPERSEDES NONE THIS DRAWING IS SHEET NO 4 OF 4 SHEETS



BLACK & VEATCH 11401 LAMAR AVE. OVERLAND PARK, KS 66211 (CORPORATE HEADQUARTERS) HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW JERSEY. NICHOLAS G. GASPAR N.J. PROFESSIONAL ENGINEER NO. GE53074 N.J. COA NO. 24GA27981200

MAB CPP **BLACK & VEATCH** NGG

NGG

4P 04-24 RESUBMITTED FOR 345/138KV SPARE TRANSFORMER. WBS. **C.91829.1.8.1.1.1.2 09-05 RESUBMITTED PER DEP COMMENTS. 18 WBS. #C.91828.1.B.1.1.1.2 05-16 UPDATEO FOR 345/230KV BERGEN SPARE TRANSFORMER
18 WBS. #9DNERCBERSPR 09-20 UPDATED FOR BERGEN SECURITY PROJECT UPGRADE. 17 WBS. #9DBWALLBERGN NGG BMJ MY RPS 08-07 REISSUED AND REVISED FOR FINAL GRADING. 15 WBS *C.91429.1.B.1.1.2.3 DESCRIPTION DWN CKD EXD APD REVISION

SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS

CIVIL/ENVIR

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

ELECTRIC DELIVERY COMPANY - ASSET RELIABILITY, NEWARK N.J. DRAWN N. GASPAR ___ CHECKED B. JOHNSON ___ SCALE _1/2"=1'-0" DATE 08/19/2014 EXAMINED R. SALMON WBS/SO C.91429.1.B.1.1.2.3 ___ APPROVED K. KIMMEL

CONT. ____ MECH. ____ GONT. ___ MECH. ___ GONT. ___ MECH. ____ GONT. ___ MECH. ___ GONT. ___ MECH. ___ GONT. ___ MECH. ___ GON ELEC. ____ CIVIL ____ | ELEC. ____ CIVIL ___ | ELEC. ____ CI ELEC. ____ CIVIL ____ ELEC. ___ CIVIL ____