



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

June 11, 2020

Re: Notice of Permit Decision
Nontidal Wetlands and Waterways Permit Application
Tracking Number 19-NT-0228/201961268

Dear Property Owner, Public Official, or Interested Person:

After examination and consideration of the documents received and evidence in the application file and record for CREG/ Westport I, LLC, Abingdon Business Park, the Water and Science Administration has determined that the application meets the statutory and regulatory criteria necessary for issuance of a Nontidal Wetlands and Waterway Permit. Copies of the permit and the Summary of the Basis for Decision are enclosed with this permit decision.

This is a final agency determination; there is no further opportunity for administrative review. Any person with standing, who is either the applicant or who participated in the public participation process through the submission or written or oral comments may petition for judicial review in the Circuit Court in the County where the permitted activity is to occur. The petition for judicial review must be filed within 30 days of the publication of the permit decision. Please see the attached Fact Sheet for additional information about the judicial review process.

If you have any questions or need any additional information, please do not hesitate to contact me at 410-537-3766.

Sincerely,

A handwritten signature in blue ink that reads "Amanda Sigillito".

Amanda Sigillito, Chief
Nontidal Wetlands Division

/as

Enclosures

FACT SHEET JUDICIAL REVIEW PROCESS

Permits can be challenged through a request for direct judicial review in the Circuit Court for the county where the activity authorized by the permit will occur. Applicants, and persons who meet standing requirements under federal law and who participated in a public comment process by submitting written or oral comments (where an opportunity for public comment was provided), may seek judicial review. Judicial review will be based on the administrative record for the permit compiled by the Department and limited to issues raised in the public comment process (unless no public comment process was provided, in which case the review will be limited to issues that are germane to the permit).

Who Has Standing?

Anyone who meets the threshold standing requirements under federal law and is either the applicant or someone who participated in the public participation process through the submission of written or oral comments, as provided in Environment Article § 5-204, Annotated Code of Maryland. The three traditional criteria for establishing standing under federal law are injury, causation, and redressability, although how each criterion is applied is highly fact-specific and varies from case to case. Further, an association has standing under federal law to bring suit on behalf of its members when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.

What is the Procedure for Seeking Judicial Review?

Petitions for judicial review of a final determination or permit decision subject to judicial review must be filed in accordance with § 1-605 of the Environment Article no later than 30 days following publication by the Department of a notice of final determination or final permit decision and must be filed in the circuit court of the county where the permit application states that the proposed activity will occur. Petitions for judicial review must conform to the applicable Maryland Rules of Civil Procedure.

STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT
WATER AND SCIENCE ADMINISTRATION
NOTICE OF DECISION

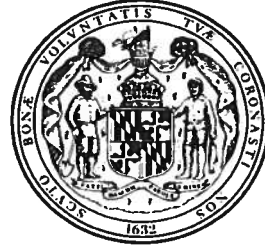
In the Matter of: CREG/ Westport I, LLC
Nontidal Wetlands and Waterways Permit
Application Number 19-NT-0228/201961268

Hearing Date: November 6, 2019

Hearing Location: Edgewood High School
Edgewood, Harford County, Maryland

Decision: Approval

Date: June 11, 2020



The review of the Nontidal Wetlands and Waterways Permit Application in the above-referenced matter has been governed by criteria set forth under Title 5, Subtitle 5, Environment Article, Annotated Code of Maryland, entitled Appropriation or Use of Waters, Reservoirs, and Dams; Subtitle 9, Environment Article, Annotated Code of Maryland, entitled Nontidal Wetlands; and Code of Maryland Regulations (COMAR) Title 26, Subtitle 17, Chapter 04, Construction on Nontidal Waters and Floodplains and Subtitle 23 Nontidal Wetlands. The Nontidal Wetlands and Waterways Permit Application has been reviewed for compliance with Maryland water quality standards under COMAR Title 26, Subtitle 08, Chapter 02 Water Quality.

After examination of all documents and evidence in the above-referenced matter, I have determined that:

1. The applicant has demonstrated a need for impacts to isolated nontidal wetlands, the nontidal wetland buffer, a perennial stream, an intermittent stream, and the 100-year nontidal floodplain;
2. The applicant has minimized impacts to isolated nontidal wetlands, the nontidal wetland buffer, a perennial stream, an intermittent stream, and the 100-year nontidal floodplain;
3. No rare, threatened or endangered species have been identified in the area of impact from the proposed project;
4. No historical or archeological sites have been identified in the area of impact for the proposed project;
5. The project is consistent with State water quality requirements;
6. Public notice and public informational hearing requirements have been satisfied; and,
7. The applicant has demonstrated that the project has independent utility from any potential future projects.

Nontidal Wetlands and Waterways Permit Application No. 19-NT-0228/201961268 meets the criteria set forth in statute and regulation governing impacts to wetlands and waterways. Nontidal Wetlands and Waterways Permit Number 19-NT-0228/201961268 may be issued by the Water and Science Administration to authorize CREG/ Westport I, LLC, to construct a mixed-use business park on 330 acres consisting of warehouse facilities, retail space, restaurants, and a hotel. The project will include parking lots, utilities, retail buildings and stormwater management facilities, temporary construction access and dewatering. The project permanently impacts 17,112 square feet of forested (isolated) nontidal wetlands, 32,782 square feet of a nontidal 25-foot wetland buffer, 570 linear feet (6,457 square feet) within an intermittent stream, and 4,618 square feet of a 100-year nontidal floodplain. The temporary impacts are to 120 linear feet (1,573 square feet) of a perennial stream and 230 linear feet (3,235 square feet) of an intermittent stream, and 17,764 square feet within the 100-year nontidal floodplain to the Haha Branch of Bush River.

A brief explanation of the rationale for this decision is contained in the attached Summary of Basis for Decision.

A handwritten signature in cursive script that reads "Heather L. Nelson".

Heather L. Nelson
Acting Program Manager
Wetlands and Waterways Program

SUMMARY OF THE BASIS FOR DECISION

CREG/ Westport I, LLC
Name of Applicant

19-NT-0228/201961268
Application Number

Louis Parnes/ Hanifah Parker-Morrison
Project Manager

June 11, 2020
Date of Decision

The Environment Article, Annotated Code of Maryland and the Code of Maryland Regulations (COMAR) establish criteria for the Maryland Department of the Environment (Department or MDE) to consider when evaluating projects that propose to change the course, current or cross section of a nontidal stream or other body of water or to impact a nontidal wetland. If the criteria are satisfied, the Department may issue a permit for the proposed activity. The Department may deny a permit for a waterway construction activity that it believes is inadequate, wasteful, dangerous, impracticable, or detrimental to the best public interest. The Department may not issue a nontidal wetland permit for a regulated activity unless it finds that the applicant has demonstrated that a regulated activity, which is not water-dependent, has no practicable alternative, will minimize alteration or impairment of the nontidal wetlands, and will not cause or contribute to a degradation of ground or surface waters.

In the case of the proposed project, the question for the Department to address is whether or not the impacts are acceptable under the regulations as they pertain to such construction activities. The proposed project consists of construction of a mixed-use business park (Abingdon Business Park) on 330-acres consisting of warehouse facilities, retail space, restaurants, and a hotel, which is to include parking lots, utilities, retail buildings and stormwater management facilities, temporary construction access, and dewatering.

PUBLIC NOTICE

Adjoining property owners, local government officials, and other interested persons must be notified of proposed impacts to nontidal wetlands and waterways. In this particular case, the impacts to isolated nontidal wetlands and the associated buffer qualified for a Letter of Authorization and, therefore, did not require public notice and mitigation (COMAR 26.23.03.01.A). The impacts to streams and the 100-year nontidal floodplain did, however, require public notice. The public notice on this application was published in *The Aegis*, on October 15, 2019. Public comments pertaining to impacts to nontidal wetlands and waterways, made at public informational hearings and in writing, are given consideration in the permit decision. In this particular case, a public informational hearing was requested and held on Wednesday, November 6, 2019 at Edgewood High School, located at 2415 Willoughby Beach Road, Edgewood, Maryland. Comments made at the hearing and in the comment period following the hearing, were in regards to: trees/forest deforestation, Tier II review, wetland removal/protection, stream crossings and stream quality of Haha Branch and Bush River, commercial vehicle traffic and noise, outdoor lighting, water pollution, flooding, property home values, quality of life issues for the

affected residents, loss of habitat for fauna and flora, loss of wildlife and biodiversity, protecting the Chesapeake Bay, stormwater treatment, increases to impervious surfaces, and under-utilization of the existing and available local vacant warehouses. Traffic and noise concerns, tree property values, quality of life issues, outdoor lighting, and the perceived loss of wildlife and fauna and flora diversity were not addressed through the nontidal wetlands and waterways review. Impacts to the Haha Branch and related flooding, nontidal wetlands and their associated 25-foot buffer, and floodplains are within the purview of the nontidal wetlands and waterways review, and are discussed in the appropriate sections below. Additionally, the Tier II review is discussed below.

PROJECT PURPOSE AND NEED

In order for the Department to authorize impacts to nontidal wetlands and their regulated buffers, regulated activities must be determined to be necessary and unavoidable to meet the basic project purpose. It is also important to note that the orderly development and use of land is regulated through planning and zoning controls implemented by the local government. In this particular instance, Harford County makes the decision about appropriate land use of the property. The project's purpose is to provide a location close to the Port of Baltimore that meets the requirements for regional distribution facilities and has relatively easy access to John F. Kennedy Memorial Highway (Interstate 95). The subject site is identified on Tax Map 61 as Parcels 158, 178, 529, and 574; and on Tax Map 62 as Parcel 63. The subject site is zoned as CI (Commercial Industrial) and encompasses 330 acres. The site is also located within one of the two "Enterprise Zones" located within Harford County. Enterprise Zones are priority funding areas designated throughout the State by the Maryland Department of Business and Economic Development to encourage new development and new jobs by revitalizing older industrial areas. These Enterprise Zones are also created to retain/expand existing resident businesses to encourage job creation and retention. Accordingly, the proposed uses for this property fits within the State's and Harford County's designated uses for Enterprise Zones and will serve as an economic engine for the region hotel (See *Joint Federal State Application for the Alteration of Any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland* (Application), Project Purpose, Page 2, 2d, June 8, 2019).

In addition, to support the growing e-commerce industry (electronic computer website shopping for goods and services), the Applicant proposes to construct a mixed-use retail and commercial development on 330 acres that will satisfy the needs of e-commerce and warehouse tenants. The project site will be anchored by a 1,000,000 square foot distribution warehouse, which will include three additional warehouses of 600,000, 340,000, and 140,000 square feet, and eight additional warehouses of 25,000 and 60,500 square feet. Mixed commercial development will take place on the west side of the property consisting of retail space, a gas station, restaurants, and a hotel (See *GTA Avoidance and Minimization Analysis, Abingdon Business Park, Project Purpose, July 8, 2019 and Revised December 5, 2019, and see GTA Tier II Antidegradation Review, Socio-Economic Justification, Abingdon Business Park, General Project Purpose, Page 1*).

ALTERNATIVES ANALYSIS

For projects that are not water-dependent, the applicant must conduct an alternatives analysis to demonstrate that the project has no practicable alternative. The factors to be considered are whether: the project purpose can be accomplished using one or more alternative sites in the general area; a reduction in the size, scope, configuration or density would result in less impact; the applicant made a good faith effort to accommodate the site constraints that caused the alternative sites to be rejected; and the regulated activity is necessary for the project to meet a demonstrated public need.

Prior to selecting and purchasing the industrial-zoned parcels in Abingdon, Maryland for the proposed Abingdon Business Park, the Applicant evaluated a total of eighteen vacant and available commercial warehouse sites in Harford County during 2018 - 2019. The Applicant had utilized and studied the real-estate data for those eighteen warehouses by viewing two electronic computer-based real-estate industry web pages: Loopnet Solutions (www.loopnet.com) and CoStar Group (costar.com). Both websites are updated monthly with the currently available warehouse data for any given property throughout the United States. The Loopnet site is a free, publicly available commercial real estate browsing webpage and CoStar is subscriber-based for real estate brokers and developers. The purpose of the two sites is to provide a comprehensive inventory of commercial warehouse properties throughout the United States with availabilities, sale and lease comps, tenant profiles, etc. Utilization of the two websites by the Applicant was performed prior to the public informational hearing and prior to submission of the Application for impacts to the environmental resources at the site (See GTA Email to MDE for Loopnet, March 10, 2020, See Loopnet Sample Research Page, March 10, 2020, and See Websites: Loopnet.com and CoStar.com).

At the public informational hearing, a member of the public provided the Department with several pages of printed text and warehouse website information, dated November 6, 2019. The pages also contained colored photos of available warehouses that were copied from the Loopnet website. Two weeks after the public informational hearing, the Applicant's consultant, Geo-Technology Consultants, Inc., provided the Department with additional documentation consisting of printed data (text with photos) of warehouse information, aerial site photos, etc. as attachments to their revised Alternative Site Analysis for Abingdon Business Park (See File: Ms. Moon Typed Comments Letter, November 6, 2019, and See GTA, Abingdon Business Park, Alternative Site Analysis, November 18, 2019 to December 5, 2019).

The sites were evaluated to determine their suitability to be modified to meet the current and future warehouse needs of potential clients. A total of seven criteria were used by the Applicant to evaluate the sites: availability, appropriate sizing, site access, development resources, appropriate zoning, resource impacts, and property cost (See Application, Alternative Site Analysis, Page 4, Line 6M, and See GTA Tier II Antidegradation Review, Socio-Economic Justification, Abingdon Business Park, Alternative Site Analysis, Page 2). The 18 sites, built from 1969 to 2020, were evaluated and rejected because they did not meet the above criteria. (See GTA Tier II Antidegradation Review, Socio-Economic Justification, Abingdon Business Park, Alternative Site Analysis, November 18, 2019, Page 2).

The Applicant investigated four additional warehouse sites located in Baltimore, Cecil, and Harford Counties (including the proposed Abingdon Business Park site), to determine which ones may or may not qualify for siting of the proposed mixed-use business park. The same criteria listed above was used. The Applicant determined that zoning issues in each county, undersized warehouse facilities, and inadequate road sizing for suitable commercial truck access were the primary factors that influenced the decision to select the Abingdon Business Park site over the additional locations that were reviewed. The property located at 8275 Trappe Road (Baltimore County) can only accommodate a 100,000 square foot warehouse, and a portion of the site is zoned as RC2 (resource conservation- agricultural), not commercial industrial. The Stoney Forest (Harford County) property is large enough to support a 1,000,000 square foot flagship warehouse, but it is zoned as General Business (B3) for local county-wide retail and service use and is not suitable for E-Commerce or large-scale distribution warehouses. The property located adjacent to Carsins Run Road and a two-lane county road would require significant widening/road improvements to accommodate truck traffic. Finally, the property located at 765 Mechanics Valley Road (Cecil County), can only accommodate a 900,000 square foot warehouse. Also, it does not have suitable site truck access, although it is zoned as Business General (See Application, Alternative Site Analysis, Page 4, Line 6M, and See GTA Tier II Antidegradation Review, Socio-Economic Justification, Abingdon Business Park, Alternative Site Analysis, Page 2).

AVOIDANCE AND MINIMIZATION

If the alternative site analysis is accepted, the applicant must demonstrate that adverse impacts to nontidal wetlands, their regulated buffers, and the 100-year frequency floodplain are necessary and unavoidable.

To meet the avoidance and minimization requirement, the Applicant reduced in size and reconfigured the warehouse buildings on the property. This resulted in a reduction in the number of new interior roads needed and reduced the number of stream crossings throughout the site. At locations where stream crossings could not be avoided, the crossings will be constructed at the narrowest portion of the stream in order to minimize impacts to the resource. The entire site consists of nine commercially-zoned lots (C-1 Zones) on 330 acres, and the dimensions of each developable lot vary in size, shape, and location of regulated resources.

The project will require a total of four road crossings and one sewer line crossing over streams on Edgewood Road, which are due to the configuration of buildings and associated infrastructure at the site. Two road crossings over Haha Branch at the west side of the site will involve construction of a 225-foot-long bridge and will provide improved access along the western boundary of the property. It will be designed to minimize impacts to this resource. The bridge will span a section of the same waterway, as opposed to a culvert, which would have required grading resulting in additional permanent impacts to Haha Branch and the 100-year nontidal floodplain. Two additional road crossings are proposed along Edgewood Road at the east side of the property. Dual culverts (72 inches wide and 60 inches in diameter), are to be installed on intermittent sections of Haha Branch in the central portion of the site. Installation of the culverts necessitates the addition of rip-rap to prevent scour at the inlets and outlets. Two concrete culverts with wingwalls will be installed along the right side of Edgewood Road and will reduce the need for grading, which will minimize resource impacts.

Further, minimization efforts were considered (e.g., a bridge or bottomless arch culvert) but due to channel sinuosity (1.31) and stream meander wavelength (75 feet), there were no other practical options. (See GTA Email Responses for ABP to MDE, March 9, 2020, and See MRA Preliminary Plan: Abingdon Business Park- Series Three, September 9, 2019).

Parking areas were reconfigured to abut the proposed buildings (as opposed to being widely dispersed around the buildings), which reduced the development envelope and minimized the need for additional interior roadways and associated resource crossings. Retaining walls will be constructed to reduce the amount of grading and cut and fill disturbances to regulated resources. These retaining walls will allow for the construction of level pads for warehouses, loading areas, parking areas, and stormwater management facilities within a more confined space on the property.

Impacts to the isolated wetlands were reduced and/or avoided in certain areas by the addition of retaining walls. A total of twelve retaining walls are to be constructed in various locations throughout the site to further minimize and/or completely avoid impacts to nontidal wetlands. In addition, the placement of stormwater management facilities were designed and reconfigured to avoid impacts to connected wetlands and streams; however, two isolated nontidal wetlands will be impacted for siting of a stormwater management facility and a third isolated wetland will be permanently impacted for a stormwater management facility associated with an adjacent parking lot.

The project design for Abingdon Business Park was constrained by the following factors: the location of the existing sanitary sewer tie-ins, site topography, and extent of streams and wetlands, which affected the impacts at the two proposed crossings at the site. The sewer system was designed to avoid additional impacts at the two stream crossings by 1) avoid having to cross Haha Branch by shifting the impacts to a nearby intermittent oxbow stream in order to connect to an existing sewer utility that parallels this waterway, and 2) cross only at the narrowest portion of the intermittent stream on the central portion of the subject site. Significant cut and fill volumes were required to maintain a level pad for the warehouse, loading areas, parking areas, and stormwater management facilities. Also, there is an existing sewer at the site that parallels Haha Branch and is located almost entirely within the 100-year nontidal floodplain. The Applicant's engineers adjusted the new sewer alignment to avoid impacts to the nontidal wetlands located within the same floodplain. (See File, Application: Reduction of Impacts, Page 3, Line 4 A-D, See MDE Written Post-Hearing Notes by Louis Parnes at Office Meeting with GTA/MRA staff and Applicant, December 3, 2019, See GTA Avoidance and Minimization Analysis, Abingdon Business Park, July 8, 2019, Revised December 5, 2019, See Harford Investors Response to GTA Email, January 10, 2020, and See DNR Website, Program Open Space 101 Information, Copy Downloaded/printed on February 5, 2020).

Comments were made at the public informational hearing and during the public comment period regarding the loss of trees on the property. While forest conservation is a County-delegated program and not within the jurisdiction of MDE, the following information is provided. While approximately 220 acres of trees will be removed from the site, 95 forested acres will be retained and placed into a protective easement in perpetuity by the Applicant. Additionally, the Applicant intends to reforest a total of 7.34 acres throughout the property upon completion of the project. (See File: MRA Forest Conservation Plan, Series Four, Forest Clearing Summary, Onsite Reforestation Summary Box, Forest Retention Summary Box, February 8, 2019, Revised September 19, 2019, Sheet 1-2).

At the November 6, 2019 public informational hearing, comments were received regarding the possibility of the Maryland Department of Natural Resources (DNR) acquiring the property for permanent protection through Program Open Space. The property was brought to the attention of DNR's Program Open Space by the Harford Land Trust; however, to initiate the process, DNR's Program Open Space must be contacted by the property owner. Following the public informational hearing, MDE contacted the Applicant's consultant to see if they were amenable to discussing Program Open Space acquiring the property. Harford Investors, the current property owner, stated they are under contract obligations to CREG/Westport 1, LLC, and cannot consider other offers. (See File: Harford Investors Response to GTA Email, January 10, 2020, and MDE Emails to DNR Dated November 12, and December 6, 2019).

WATER QUALITY

Erosion and sediment control measures and stormwater management practices are designed to prevent the degradation of ground and surface water quality. Sediment pollution is addressed under Maryland's Erosion and Sediment Control Act. The law mandates local Soil Conservation Districts to review and approve erosion and sediment control plans developed in accordance with State standards. The Department's programmatic responsibilities are limited to promulgating regulations, and developing standards, ordinances and other criteria necessary to administer an erosion and sediment control program, including program oversight and delegation of enforcement authority to local governments. As a result, the Harford County Soil Conservation District is responsible for the review and approval of an erosion and sediment control plan for the proposed project.

Stormwater discharges are addressed under Maryland's Stormwater Management Act. The law requires counties and municipalities to "adopt ordinances necessary to implement a stormwater management program." The Department's programmatic responsibilities are limited to promulgating regulations defining the minimum features of a stormwater ordinance and program oversight. The Department also reviews the stormwater management program of the counties and municipalities and their field implementation and requires corrective action where a program is found deficient. For most projects, compliance with the County-issued stormwater management approval ensures that the project will not degrade water quality, but for projects affecting Tier II waters, the Department will require a separate anti-degradation analysis. In this particular case, however, Harford County is responsible for the review and approval of the project's stormwater management plan.

During the application review process, the Department verifies that appropriate best management practices are incorporated into the sediment and erosion control plans and the stormwater management plans to protect the State's water resources. In order to insure that these practices are contained in the project's final design plans, the applicant will submit approved sediment and erosion control plans and stormwater management plans to the Department prior to the commencement of construction activities authorized by the Permit. (See MDE Nontidal Wetlands and Waterways Permit 19-NT-0228/201961268, Special Conditions, Submittal of Plans, Page 2, June 11, 2020).

Construction activities in waters of the State are guided by both statute and regulation. Title 5, Subtitle 5 of the Environment Article, Annotated Code of Maryland, establishes an administrative procedure that promotes public safety and welfare. This administrative procedure is further described in COMAR 26.17.04. These regulations govern the construction, reconstruction, repair, or alteration of a dam, reservoir, or waterway obstruction or any change of the course, current, or cross section of a stream or water body within the State including changes to the 100-year frequency floodplain of free flowing waters. (Note: Free-flowing waters do not include State or private wetlands or areas subject to tidal flooding.) The requirements of both statute and regulation are combined in the permit application review process. During the evaluation of an application, WSA may require an applicant to address issues relating to:

- Safety, operation and maintenance of the structure;
- Ability of all on-site construction to withstand the impacts of the 100-year flood event;
- Flooding on adjacent properties;
- Erosion of the construction site or stream bank; and
- Environmental effects, such as the project's impacts on existing in-stream fisheries, wildlife habitat, or rare, threatened or endangered species.

The issuance of a permit at the conclusion of the permit application review process indicates that the project adequately preserves the public safety, promotes the general public welfare, and protects in-stream resources.

The regulated impacts to nontidal streams from this project are the result of a proposed bridge crossing of the Haha Branch at Edgewood Road with a span of 220 feet. Additionally, there is a proposed stream crossing of an unnamed tributary (UT-1) with a twin concrete culvert, 5 feet and 7 feet in diameter. Lastly, there is a proposed stream crossing of an unnamed tributary (UT-2) with a concrete culvert, 5 feet in diameter. Review of the *Hydrology and Hydraulics Report: Haha Branch and Unnamed Tributaries Harford County, Maryland*, as prepared by Morris & Ritchie Associates, Inc., dated December 2018, confirms that the crossings meet all applicable requirements of COMAR 26.17.04. The project does not cause an increased risk of flooding during the modeled 100-year storm to any adjoining properties. A comment was received concerning potential clogging of these structures by debris which could cause risks of flooding. As with any permitted improvement on a stream, it is the responsibility of the bridge or culvert owner to keep the structure open and functioning as hydraulically designed.

ENDANGERED SPECIES

Once the application is received, it goes through a screening process. This screening process uses Geographical Information System (GIS) to determine the proposed site location and whether or not there are designated resources in the area such as rare, threatened, or endangered species. If there are resources identified, the Department sends copies of the proposed plan to the appropriate agencies to review and send comments. Per the MDE Application Screening Form, the project will not impact any rare, threatened, or endangered species. (See MDE Screening Form, July 19, 2019).

HISTORIC PRESERVATION

The application was also screened using GIS for historical and archeological resources. The Application was forwarded to the Maryland Historical Trust (MHT) for review since the project site consists of more than 15 acres of development.

In 2003, field research consisting of Phase I Archeological Surveys was performed on 142 acres of the proposed Abingdon Business Park site, formerly referred to as Abingdon Woods. At that time, two certified archaeology experts were hired on behalf of MHT (Elizabeth Anderson of Comer Archaeology and R. Christopher of Goodwin and Associates, Inc.) to investigate the presence of cultural resources associated with approximately five suspect earth mounds and prior inhabitants dating from the late 18th to late 19th centuries.

Many test pits were excavated (1,008 shovel tests pits) and no gravesites were uncovered. Highly dispersed prehistoric lithic scatter and domestic artifacts were unearthed, such as ceramic shards, brick fragments, and a piece of corroded metal. It was determined by the two researchers (Anderson and Christopher) that the site may have been a secondary household waste disposal area used by inhabitants of a former historic house. The highly dispersed prehistoric artifact scatters also represents short-term occupations by mobile hunting and gathering groups. MHT determined that none of the sites revealed any diagnostic artifacts, subsurface features, or intact cultural strata.”

Several earthen mounds were also excavated around their bases and charcoal flecks were discovered. The finding of the mounds led one of the two researchers to make the presumption that the mounds may in fact be Native American burial mounds associated with the Delmarva Adena Complex tribe. This was eventually proven false by further peer review studies done by Mr. Christopher, which involved additional archeological testing of the site in December of 2003. Historically, many transient populations throughout Maryland had used forges and furnaces to generate charcoal for profit and sell their goods at local businesses. In addition, a total of six furnaces were also discovered during the excavations along with the discovery of charcoal hearths. Harford County was known to have had six furnaces and forges from 1858 and 1878. MHT concluded in 2003 that based on the documentation presented in the Phase I Report and in the technical addendum “no further archeological investigations of this particular project area are warranted for Section 106 purposes.”

Based on the 2003 field studies, MHT determined that the proposed project would have no adverse effect on archeological resources. (See MHT Response to the Army Corps of Engineers, Phase I Archeological Survey, Abingdon Woods, Harford County, August 3, 2004, See MHT Email Response to MDE for Abingdon Business Park, December 19, 2019, and See MHT Memorandum, date stamped August 9, 2019).

MITIGATION AND TIER II ANALYSIS

Mitigation is only a consideration in a permit decision after steps have been taken to avoid and minimize impacts to nontidal wetlands and their regulated buffers, and nontidal waterways, including the 100-year floodplain. Nontidal wetland mitigation was not required for this project

because the permanent impacts are to isolated nontidal wetlands under one acre and are associated with a Use I waterway (COMAR 26.23.03.01, B1). The Abingdon Business Park project proposes to permanently impact 17,112 square feet of isolated forested nontidal wetlands associated with Haha Branch, which is less than one acre of permanent impacts to nontidal wetlands.

The Applicant is required to incorporate enhanced and redundant controls for stormwater management during construction, and manage stormwater with environmental site design practices. The Applicant also limited forest clearing to 5.6 acres, rather than the full 6.8 forested acres located within the Tier II catchment. Plan development is still underway, and the Tier II BMP checklist is still pending completion. Additionally, Special Condition No. 3, requires the Permittee to update the checklist when plans are approved, and this must be provided to MDE prior to the start of construction. The Permittee is to update the checklist, as necessary, if plans are modified.

The Applicant adequately completed the requirements of the Tier II review for the Abingdon Business Park project in January 2020, with the submission of the Tier II Antidegradation Review Socio-Economic Justification. This report includes a no-discharge alternative analysis of existing site options, as well as sites open for new development, located outside of the affected Tier II watershed of Otter Point Creek 1. The results of this analysis determined that only the preferred site met critical selection criteria. The resource impacts associated with the preferred site, primarily net forest loss and some watershed grading, were minimized through limiting forest clearing to the extent possible, incorporating enhanced and/or redundant erosion and sediment controls, and environmental site design to manage stormwater discharges.

As part of the Tier II Antidegradation Review, the Applicant will mitigate for the unavoidable forest clearing of 5.6 acres within the Otter Point Creek I watershed (Atkisson Reservoir). This mitigation is to be satisfied by off-site tree plantings on 2.26 acres within the same watershed. The proposed reforestation area is located at Solomon's Choice Farm, which is on Grafton Shop Road, Bel Air, Harford County, Maryland. The mitigation sections of the farm site are located on the upper northern reaches of the property containing a cleared riparian habitat, which when restored, will be reconnected to an existing forest located west of the stream. The reforestation areas are located north of Grafton Shop Road and east of Carrs Mill Road, in Bel Air, Maryland. Additionally, Special Condition No. 3, requires the Permittee to document that the mitigation requirement has been met by providing the Department with declarations of restrictive covenant, conservation easements, or similar official documentation to demonstrate that the mitigation property is protected in perpetuity.

As Otter Point Creek 1 has no remaining assimilative capacity, the Applicant provided information to justify unavoidable impacts on a socio-economic basis, by, among other things, citing the project's contribution to Harford County's commercial economic growth plan focused within the State designated Enterprise Zone and County-designated 'Development Envelope,' and new job creation. Such areas also support the State's policy of limiting sprawl to preserve rural and natural resources.

More specifically:

- State Designated Enterprise Zone: Areas in which the State and local governments offer tax credits, assistance, and other incentives to encourage business development, expansion, and

investment. The State Enterprise Zones are managed to remain aligned with County zoning and planning decisions.

- Harford County Development Envelope: Most of the Otter Point Creek 1 catchment is located within the Harford County Development Envelope, making impacts unavoidable. The envelope is intended to help to channel growth and development, and limit fragmentation of rural areas. Abingdon Business Park is planned in an area that is zoned for industrial business, and are in accordance with the planned County use for the site.
- The project will, at full operational build-out, create over 1,300 jobs that will benefit the financially declining area of Edgewood.

When considering the alternatives analysis, mitigation, and justification provided, the applicant has adequately addressed the requirements of the Tier II review. Upon completion and submission of the BMP checklist and information related to mitigation, the Tier II review is satisfied. (See GTA Tier II Antidegradation Review, Line #4. Proposed Mitigation, Page 5, See Maryland Code of Regulations, Title 26: Department of the Environment, Subtitle 23: Nontidal Wetlands, Chapter 01 General, .01 Definitions, B. Terms Defined, 16- COMAR, 39- Forested Nontidal Wetland, 52- Isolated Nontidal Wetland, Pages 1-6, and See File: MDE Environmental Assessments and Standards Division Email by Angel Valdez, March 4, 2020).

STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT
WATER AND SCIENCE ADMINISTRATION
NONTIDAL WETLANDS AND WATERWAYS PERMIT

PERMIT NUMBER: 19-NT-0228/201961268

EFFECTIVE DATE: June 11, 2020

EXPIRATION DATE: June 11, 2025



PERMITTEE: CREG/ Westport I, LLC
1343 Ashton Road, Suite B
Hanover, Maryland 21076
Attn: Jim Lighthizer

IN ACCORDANCE WITH ENVIRONMENT ARTICLE §5-503(a) AND §5-906(b), ANNOTATED CODE OF MARYLAND (2007 REPLACEMENT VOLUME), COMAR 26.17.04 AND 26.23.01, AND 26.08.02 AND THE ATTACHED CONDITIONS, CREG/ Westport I, LLC ("PERMITTEE"), IS HEREBY AUTHORIZED BY THE WATER AND SCIENCE ADMINISTRATION ("ADMINISTRATION") TO CONDUCT A REGULATED ACTIVITY IN A NONTIDAL WETLAND, BUFFER, OR EXPANDED BUFFER, AND/OR TO CHANGE THE COURSE, CURRENT OR CROSS-SECTION OF WATERS OF THE STATE, IN ACCORDANCE WITH THE FINAL PLAN ("APPROVED PLAN") [SEE SPECIAL CONDITION NO. 1] AND THE ATTACHED IMPACT PLATES, APPROVED BY THE ADMINISTRATION ON June 10, 2020 AND PREPARED BY Morris and Ritchie Associates, Inc. AND INCORPORATED HEREIN, AS DESCRIBED BELOW:

Regulated activities associated with construction of a mixed-use business park on 330 acres consisting of warehouse facilities, retail space, restaurants, and a hotel. The project will include parking lots, utilities, retail buildings and stormwater management facilities, temporary construction access and dewatering. The project permanently impacts 17,112 square feet of forested (isolated) nontidal wetlands, 32,782 square feet to the nontidal 25-foot wetland buffer, 570 linear feet (6,457 square feet) within an intermittent stream, and 4,618 square feet to the 100-year nontidal floodplain. The temporary impacts are to 120 linear feet (1,573 square feet) to a perennial stream, 230 linear feet (3,235 square feet) of an intermittent stream, and 17,764 square feet within the 100-year nontidal floodplain of a Use I waterway (Haha Branch). The site is located on Edgewood Road east at intersection with Van Bibber Road, west of Abingdon Road, north of Philadelphia Road (MD Route 7), and east of Interstate 95 north (John Kennedy Memorial Highway), Abingdon, Harford County, Maryland.

MD Grid Coordinates N199193; E460824

A handwritten signature in cursive script that reads "Heather L. Nelson".

Heather L. Nelson
Acting Program Manager
Wetlands and Waterways Program

Attachments: Conditions of Permit
BMP's, vicinity map, impact sheets

cc: Matt Jennette/ Geo-Technology Associates, Inc.
MDE WMA Compliance Program w/file

Special Conditions

1. **Submittal of Plans:** Permittee shall, prior to commencement of activities authorized by this Permit, submit to the Administration for review and approval two complete sets of final, approved Erosion and Sediment Control Plans and Stormwater Management Plans. The plans shall include the limits of any nontidal wetlands, nontidal wetland buffers, and waters of the State (including the 100-year floodplain), limits of disturbance, "Best Management Practices", sequence of construction, and approved erosion and sediment control plans and stormwater management plans. The plans, after having been approved by the Administration, shall be forwarded to the Permittee to be incorporated as an attachment to this Permit before construction activities begin.
2. **Covenants or Conservation Easement:** The permittee shall complete a Declaration of Restrictive Covenants or Conservation Easement to demonstrate that the undisturbed nontidal wetlands and associated buffers on the property will be preserved in perpetuity on the record plat. The permittee shall complete and execute one of these documents and return it to the Maryland Department of the Environment, Nontidal Wetlands and waterways division, 1800 Washington Boulevard, Suite 430, Baltimore, Maryland, 21230-1708, within 180 days from the date of this authorization.
3. **Checklist Submittal:** Permittee shall finalize the Antidegradation Review Checklist for Enhanced Best Management Practices for Tier II Waters (Checklist) for submittal to the Department prior to the start of construction. Once approved by the Department, the Permittee, its employees, agents and contractors shall conduct authorized activities in a manner consistent with the agreed upon selection of Enhanced Best Management Practices for Tier II Waters.
The Permittee shall update the Checklist with the Department as necessary if plan modifications are required in the future. Major modifications may result in additional Tier II review.
The Permittee must present the final Checklist along with approved plans during all inspections to ensure compliance and consistency with future updates and modifications.
4. **Tier II Mitigation:** Permittee shall mitigate for the permanent impact from deforestation to 5.58 acres of Tier II watershed resources, in accordance with an approved proposed mitigation plan. A Planting Plan shall be submitted to the Department no later than 60 days after the issuance of this Permit, unless an extension has been granted in writing by the Department. This mitigation is to be satisfied by off-site tree plantings on 2.26 acres within the same watershed. The proposed reforestation area is located at Solomon's Choice Farm, which is on Grafton Shop Road, Bel Air, Harford County, Maryland. The permittee is required to notify the Department upon the start of grading and the completion of planting of the mitigation project. The permittee shall submit monitoring reports in year one, two, and three for the mitigation project to the Department. If the permittee as stated in the Permit, changes, the permittee must notify the Department. If the mitigation obligation is to be transferred to another party, the permittee must notify the Department.
The Permittee shall provide documentation in the form of declaration of restrictive covenants, conservation easements, or similar documentation to ensure that the mitigation property is protected in perpetuity, and to demonstrate the Tier II mitigation has been fulfilled. These documents shall be provided to the Maryland Department of the Environment, Nontidal Wetlands and Waterways Division, 1800 Washington Blvd., Suite 430, Baltimore, Maryland, 21230-1708 within 180 days from the date of this authorization.

General Conditions:

1. **Validity:** Permit is valid only for use by Permittee. Permit may be transferred only with prior written approval of the Administration. In the event of transfer, transferee agrees to comply with all terms and conditions of Permit.
2. **Initiation of Work, Modifications and Extension of Term:** Permittee shall initiate authorized activities with two (2) years of the Effective Date of this Permit or the Permit shall expire. Permittee may submit written requests to the Administration for (a) extension of the period for initiation of work, (b) modification of Permit, including the Approved Plan, or, (c) not later than 45 days prior to Expiration Date, an extension of the term. Requests for modification shall be in accordance with applicable regulations and shall state reasons for changes, and shall indicate the impacts on nontidal wetlands, streams, and the floodplain, as applicable. The Administration may grant a request at its sole discretion.
3. **Responsibility and Compliance:** Permittee is fully responsible for all work performed and activities authorized by this Permit shall be performed in compliance with this Permit and Approved Plan. Permittee agrees that a copy of the Permit and Approved Plan shall be kept at the construction site and provided to its employees, agents and contractors. A person (including Permittee, its employees, agents or contractors) who violates or fails to comply with the terms and conditions of this Permit, Approved Plan or an administrative order may be subject to penalties in accordance with §5-514 and §5-911, Department of the Environment Article, Annotated Code of Maryland (2007 Replacement Volume).
4. **Failure to Comply:** If Permittee, its employees, agents or contractors fail to comply with this Permit or Approved Plan, the Administration may, in its discretion, issue an administrative order requiring Permittee, its employees, agents and contractors to cease and desist any activities which violate this Permit, or the Administration may take any other enforcement action available to it by law, including filing civil or criminal charges.
5. **Suspension or Revocation:** Permit may be suspended or revoked by the Administration, after notice of opportunity for a hearing, if Permittee: (a) submits false or inaccurate information in Permit application or subsequently required submittals; (b) deviates

- from the Approved Plan, specifications, terms and conditions; (c) violates, or is about to violate terms and conditions of this Permit; (d) violates, or is about to violate, any regulation promulgated pursuant to Title 5, Department of the Environment Article, Annotated Code of Maryland as amended; (e) fails to allow authorized representatives of the Administration to enter the site of authorized activities at any reasonable time to conduct inspections and evaluations; (f) fails to comply with the requirements of an administrative action or order issued by the Administration; or (g) does not have vested rights under this Permit and new information, changes in site conditions, or amended regulatory requirements necessitate revocation or suspension.
6. **Other Approvals:** Permit does not authorize any injury to private property, any invasion of rights, or any infringement of federal, State or local laws or regulations, nor does it obviate the need to obtain required authorizations or approvals from other State, federal or local agencies as required by law.
 7. **Site Access:** Permittee shall allow authorized representatives of the Administration access to the site of authorized activities during normal business hours to conduct inspections and evaluations necessary to assure compliance with this Authorization. Permittee shall provide necessary assistance to effectively and safely conduct such inspections and evaluations.
 8. **Inspection Notification:** Permittee shall notify the Administration's Compliance Program at least five (5) days before starting authorized activities and five (5) days after completion. For Allegany, Garrett, and Washington Counties, Permittee shall call 301-689-1480. For Carroll, Frederick, Howard, Montgomery and Prince George's Counties, Permittee shall call 301-665-2850. For Baltimore City, Anne Arundel, Baltimore, Calvert, Charles, and St. Mary's Counties, Permittee shall call 410-537-3510. For Caroline, Cecil, Dorchester, Harford, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester Counties, Permittee shall call 410-901-4020. If Permit is for a project that is part of a mining site, please contact the Land and Materials Administration's Mining Program at 410-537-3557 at least five (5) days before starting authorized activities and five (5) days after completion.
 9. **Sediment Control:** Permittee shall obtain approval from the Harford Soil Conservation District for a grading and sediment control plan specifying soil erosion control measures. The approved grading and sediment control plan shall be included in the Approved Plan, and shall be available at the construction site.
 10. **Best Management Practices During Construction:** Permittee, its employees, agents and contractors shall conduct authorized activities in a manner consistent with the Best Management Practices specified by the Administration.
 11. **Disposal of Excess:** Unless otherwise shown on the Approved Plan, all excess fill, spoil material, debris, and construction material shall be disposed of outside of nontidal wetlands, nontidal wetlands buffers, and the 100-year floodplain, and in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands.
 12. **Temporary Staging Areas:** Temporary construction trailers or structures, staging areas and stockpiles shall not be located within nontidal wetlands, nontidal wetlands buffers, or the 100-year floodplain unless specifically included on the Approved Plan.
 13. **Temporary Stream Access Crossings:** Temporary stream access crossings shall not be constructed or utilized unless shown on the Approved Plan. If temporary stream access crossings are determined necessary prior to initiation of work or at any time during construction, Permittee, its employees, agents or contractors shall submit a written request to the Administration and secure the necessary permits or approvals for such crossings before installation of the crossings. Temporary stream access crossings shall be removed and the disturbance stabilized prior to completion of authorized activity or within one (1) year of installation.
 14. **Discharge:** Runoff or accumulated water containing sediment or other suspended materials shall not be discharged into waters of the State unless treated by an approved sediment control device or structure.
 15. **Instream Construction Prohibition:** To protect important aquatic species, motor driven construction equipment shall not be allowed within stream channels unless on authorized ford crossings. Activities within stream channels are prohibited as determined by the classification of the stream (COMAR 26.08.02.08): Haha Branch is a Use I waterway; in-stream work may not be conducted from March 1 through June 15, inclusive, of any year.
 16. **Instream Blasting:** Permittee shall obtain prior written approval from the Administration before blasting or using explosives in the stream channel.
 17. **Minimum Disturbance:** Any disturbance of stream banks, channel bottom, wetlands, and wetlands buffer authorized by Permit or Approved Plan shall be the minimum necessary to conduct permitted activities. All disturbed areas shall be stabilized vegetatively no later than seven (7) days after construction is completed or in accordance with the approved grading or sediment and erosion control plan.
 18. **Restoration of Construction Site:** Permittee shall restore the construction site upon completion of authorized activities. Undercutting, meandering or degradation of the stream banks or channel bottom, any deposition of sediment or other materials, and any alteration of wetland vegetation, soils, or hydrology, resulting directly or indirectly from construction or authorized activities, shall be corrected by Permittee as directed by the Administration.

FEDERALLY MANDATED STATE AUTHORIZATIONS

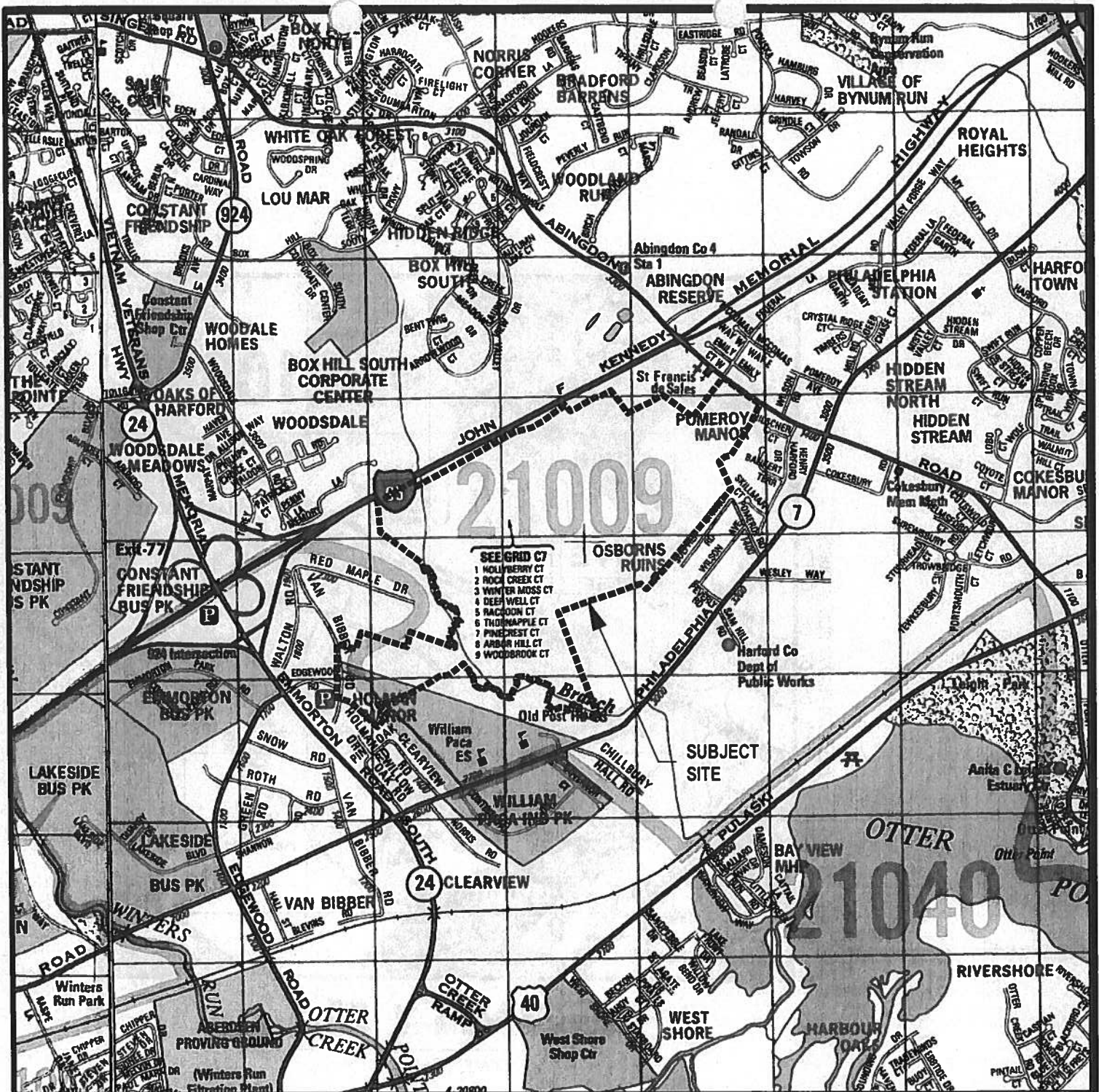
The State of Maryland issued a Water Quality Certification to the U.S. Army Corps of Engineers for projects receiving federal authorization under the Maryland State Programmatic General Permit, Regional General Permit for Chesapeake Bay Total Maximum Daily Load (TMDL) Activities and non-suspended Nationwide Permits. In addition, as applicable, this Permit constitutes the State's concurrence with the Applicant's certification that the activities authorized herein are consistent with the Maryland Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. Activities in the following counties are not subject to the Maryland Coastal Zone Management requirement: Allegany, Carroll, Frederick, Garrett, Howard, Montgomery, and Washington.

U.S. ARMY CORPS OF ENGINEERS AUTHORIZATION

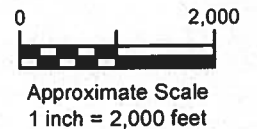
The U.S. Army Corps of Engineers has determined that the proposed project qualifies for authorization under the Maryland State Programmatic General Permit (MDSPGP-5), Category B. The U.S. Army Corps of Engineers issued the federal authorization on December 18, 2019.

**BEST MANAGEMENT PRACTICES FOR WORKING IN
NONTIDAL WETLANDS, WETLAND BUFFERS,
WATERWAYS, AND 100-YEAR FLOODPLAINS**

- 1) No excess fill, construction material, or debris shall be stockpiled or stored in nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- 2) Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- 3) Do not use the excavated material as backfill if it contains waste metal products, unsightly debris, toxic material, or any other deleterious substance. If additional backfill is required, use clean material free of waste metal products, unsightly debris, toxic material, or any other deleterious substance.
- 4) Place heavy equipment on mats or suitably operate the equipment to prevent damage to nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- 5) Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands, nontidal wetland buffers, or waterways, or permanent modification of the 100-year floodplain in excess of that lost under the originally authorized structure or fill.
- 6) Rectify any nontidal wetlands, wetland buffers, waterways, or 100-year floodplain temporarily impacted by any construction.
- 7) All stabilization in the nontidal wetland and nontidal wetland buffer shall consist of the following species: Annual Ryegrass (*Lolium multiflorum*), Millet (*Setaria italica*), Barley (*Hordeum* sp.), Oats (*Uniola* sp.), and/or Rye (*Secale cereale*). These species will allow for the stabilization of the site while also allowing for the voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Nontidal Wetlands and Waterways Division. **Kentucky 31 fescue shall not be utilized in wetland or buffer areas.** The area should be seeded and mulched to reduce erosion after construction activities have been completed.
- 8) After installation has been completed, make post-construction grades and elevations the same as the original grades and elevations in temporarily impacted areas.
- 9) To protect aquatic species, in-stream work is prohibited as determined by the classification of the stream:
 - Use I waters: In-stream work shall not be conducted during the period March 1 through June 15, inclusive, during any year.
 - Use III waters: In-stream work shall not be conducted during the period October 1 through April 30, inclusive, during any year.
 - Use IV waters: In-stream work shall not be conducted during the period March 1 through May 31, inclusive, during any year.
- 10) Stormwater runoff from impervious surfaces shall be controlled to prevent the washing of debris into the waterway.
- 11) Culverts shall be constructed and any riprap placed so as not to obstruct the movement of aquatic species, unless the purpose of the activity is to impound water.



SOURCE: ADC, THE MAP PEOPLE. PERMITTED USE NUMBER 20116238.



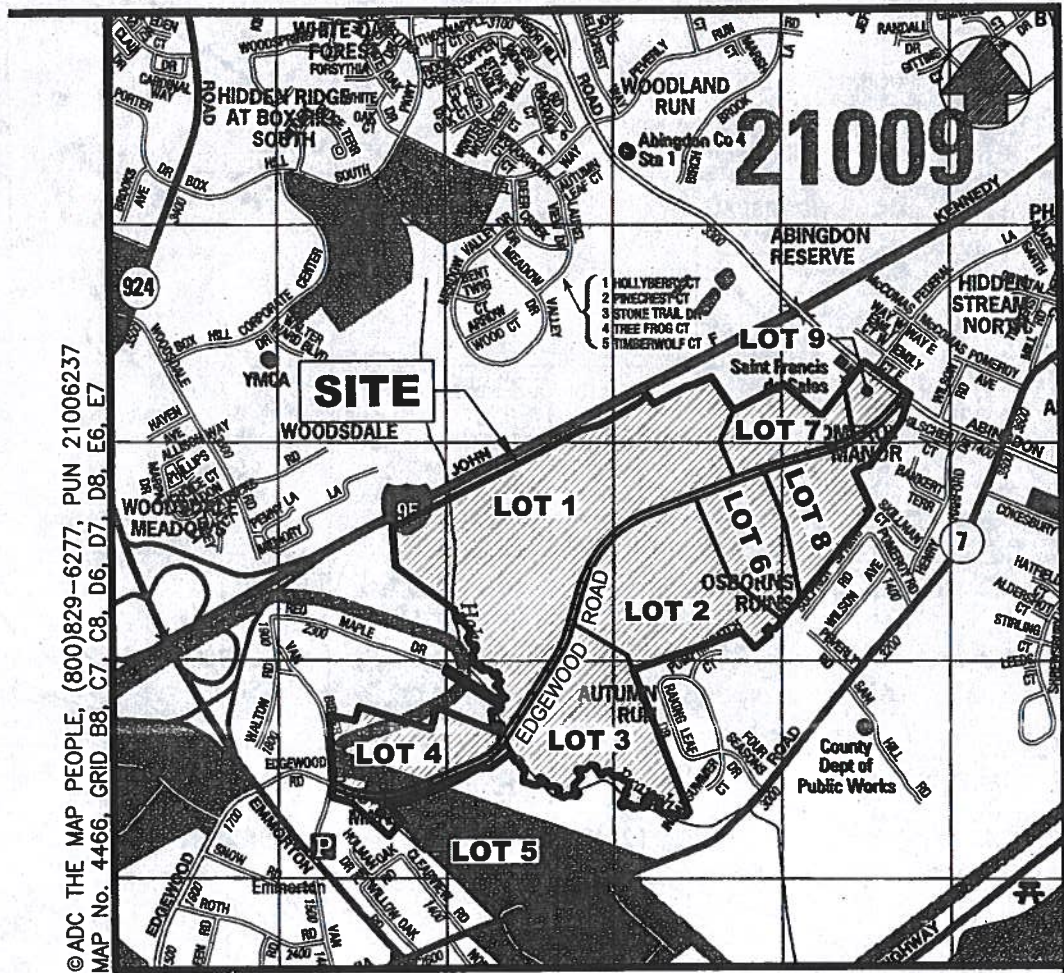
GEO-TECHNOLOGY ASSOCIATES, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 3445-A BOX HILL CORPORATE CENTER DRIVE
 ABINGDON, MARYLAND 21009
 410-515-9446
 FAX: 410-515-4895
 WWW.GTAENG.COM
 © GEO-TECHNOLOGY ASSOCIATES, INC.

**SITE LOCATION MAP
 ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

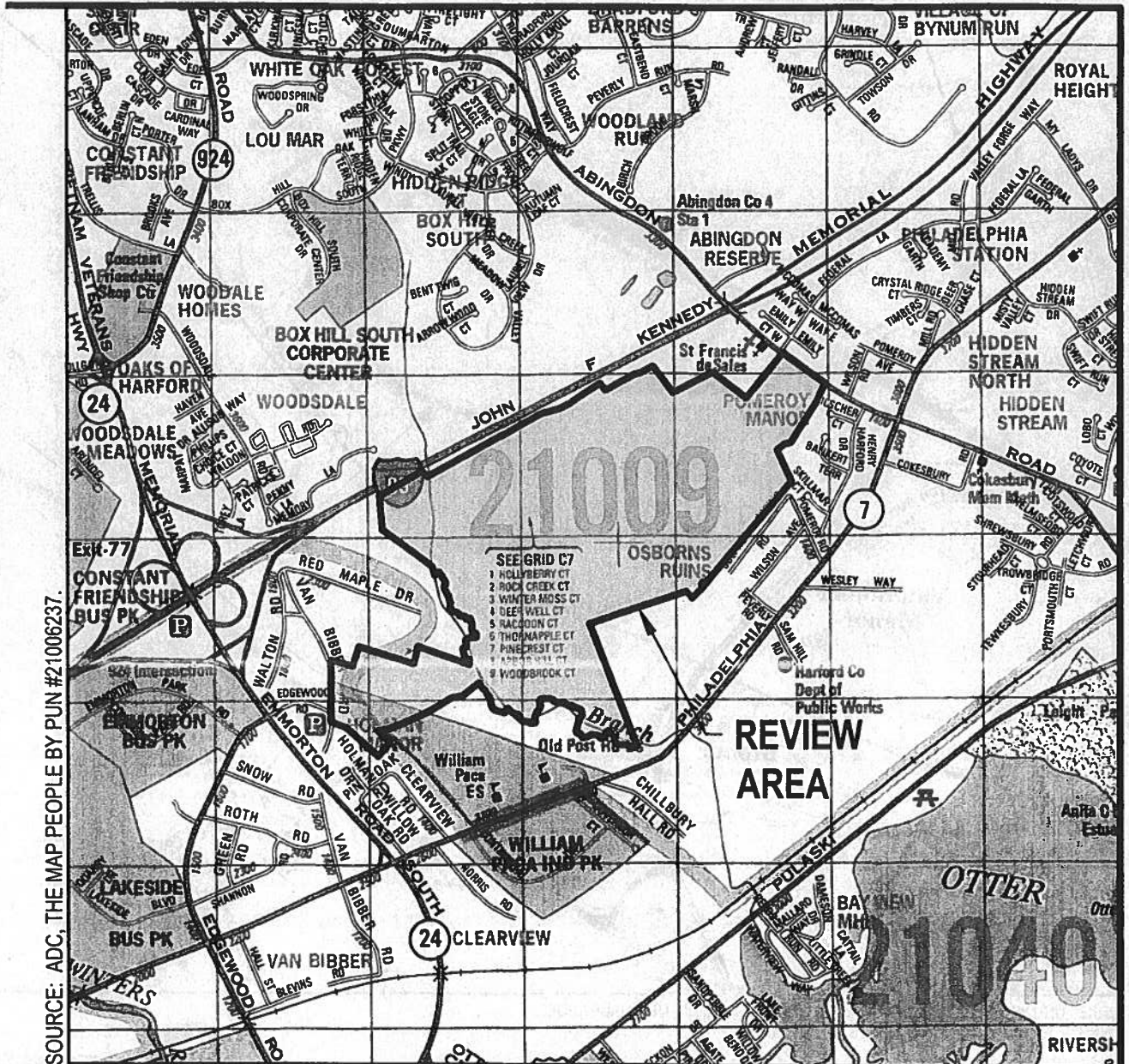
JOB NO.	31171877X1	SCALE:	1" = 2000'	DATE:	JULY 17, 2018	DRAWN BY:	MDP	REVIEW BY:	TAS	FIGURE:	1
---------	------------	--------	------------	-------	---------------	-----------	-----	------------	-----	---------	---

© ADC THE MAP PEOPLE, (800) 829-6277, PUN 21006237
MAP No. 4466, GRID B8, C7, C8, D6, D7, D8, E6, E7



VICINITY MAP

SCALE: 1"=2,000'

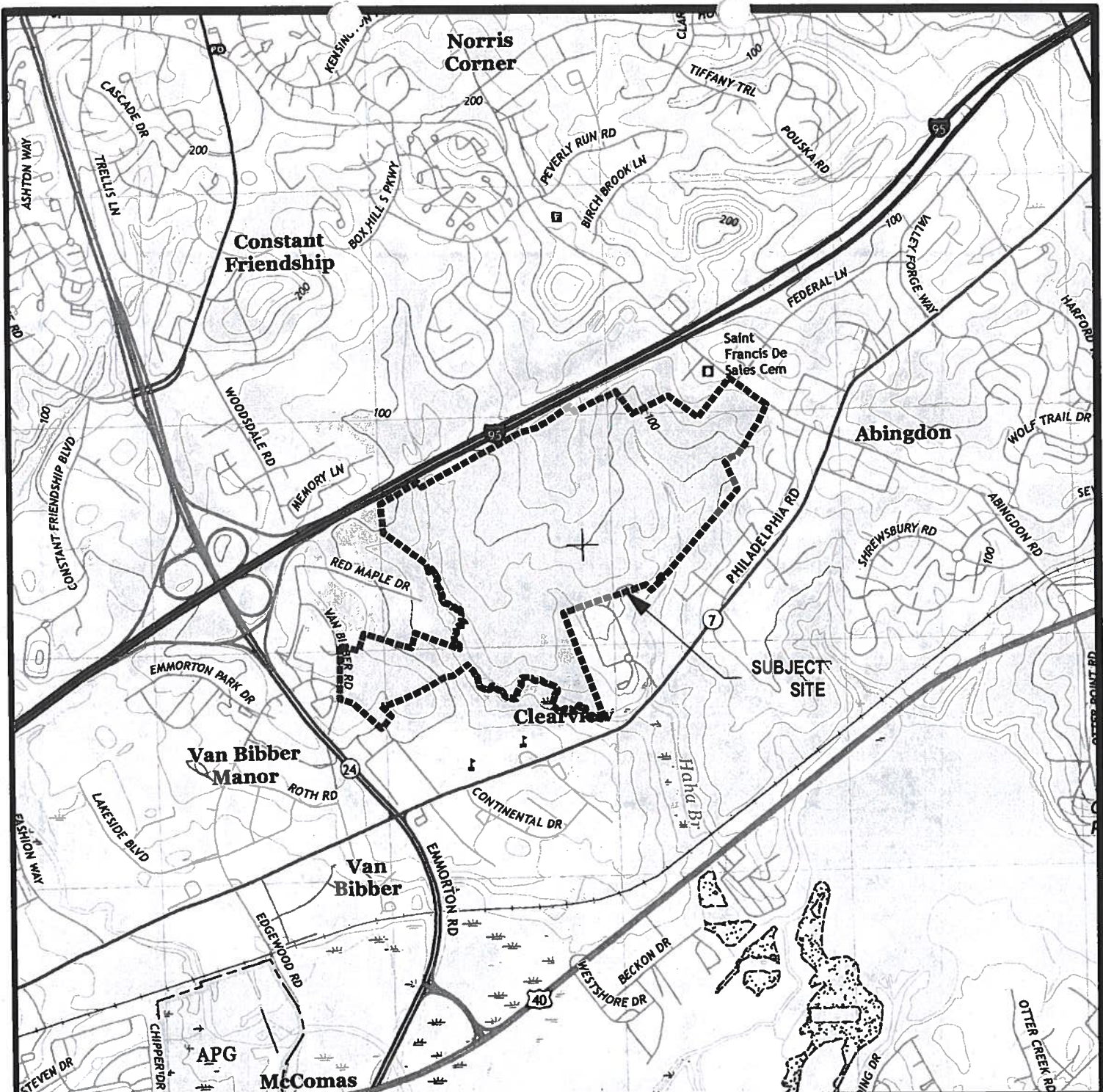


SOURCE: ADC, THE MAP PEOPLE BY PUN #21006237.

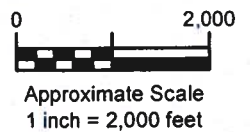
VICINITY MAP

SCALE: 1"=2000'





SOURCE: UNITED STATES GEOLOGICAL SURVEY, EDGEWOOD, MD QUADRANGLE, 7.5 MINUTE TOPOGRAPHIC MAP SERIES. DATED 2016.



GEO-TECHNOLOGY ASSOCIATES, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
 ABINGDON, MARYLAND 21009
 410-515-9446
 FAX: 410-515-4895
 WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

TOPOGRAPHIC MAP
ABINGDON BUSINESS PARK

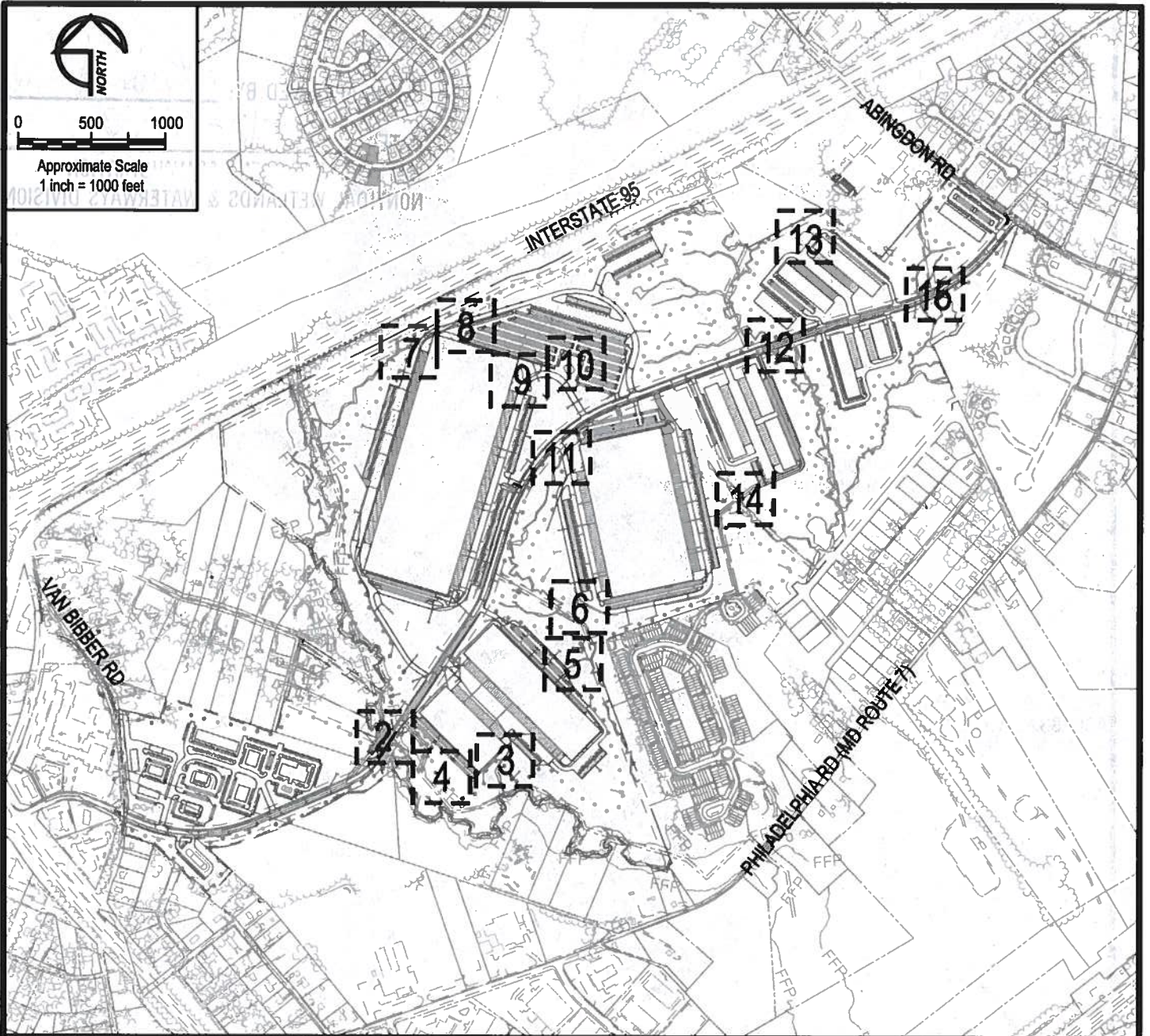
HARFORD COUNTY, MARYLAND

JOB NO. 31171877X1	SCALE: 1" = 2000'	DATE: JULY 17, 2018	DRAWN BY: MDP	REVIEW BY: TAS	FIGURE: 2
--------------------	-------------------	---------------------	---------------	----------------	-----------



0 500 1000

Approximate Scale
1 inch = 1000 feet



PLANS APPROVED BY: Louis Palmes
DATE: 6-10-2020
WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

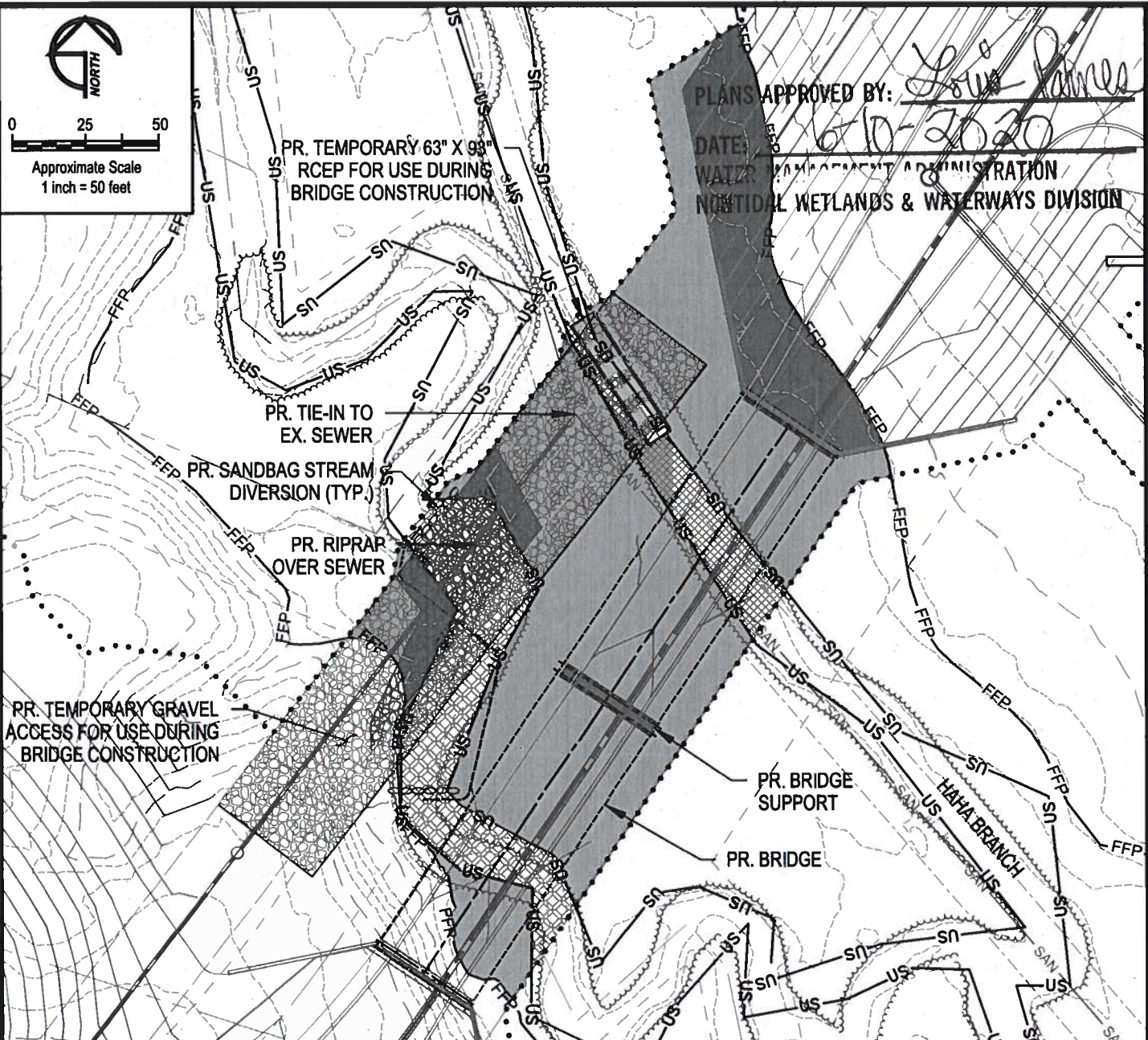
WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE 1"=1,000' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 1 OF 16



0 25 50
 Approximate Scale
 1 inch = 50 feet



PLANS APPROVED BY: *Joseph James*
 DATE: 6-10-2020
 WATER POLLUTION CONTROL ADMINISTRATION
 NONTIDAL WETLANDS & WATERWAYS DIVISION

LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP EX. 100-YEAR FLOODPLAIN
- US EX. STREAM CHANNEL
- NW EX. NONTIDAL WETLAND
- NW
- WB EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

- TEMPORARY PERENNIAL STREAM IMPACTS
1,573 SF (0.04 AC), 120 LF
- PERMANENT INTERMITTENT STREAM IMPACTS
997 SF (0.02 AC), 30 LF
- TEMPORARY INTERMITTENT STREAM IMPACTS
2,675 SF (0.06 AC), 153 LF
- PERMANENT 100-YR FLOODPLAIN IMPACTS
4,618 SF (0.11 AC)
- TEMPORARY 100-YR FLOODPLAIN IMPACTS
15,908 SF (0.37 AC)



GEO-TECHNOLOGY ASSOCIATES, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
 ABINGDON, MARYLAND 21009
 410-515-9446
 FAX: 410-515-4895
 WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
 ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 2 OF 16



0 25 50

Approximate Scale
1 inch = 50 feet

PLANS APPROVED BY: Louis Parnes

DATE: 6-10-2020

WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION

PR. BUILDING

PR. SWM

PR. RETAINING WALL

LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP
- US
- NW
- NW
- WB
- EX. 100-YEAR FLOODPLAIN
- EX. STREAM CHANNEL
- EX. NONTIDAL WETLAND
- EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

-  PERMANENT EPHEMERAL CHANNEL IMPACTS
603 SF (0.01 AC), 171 LF



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

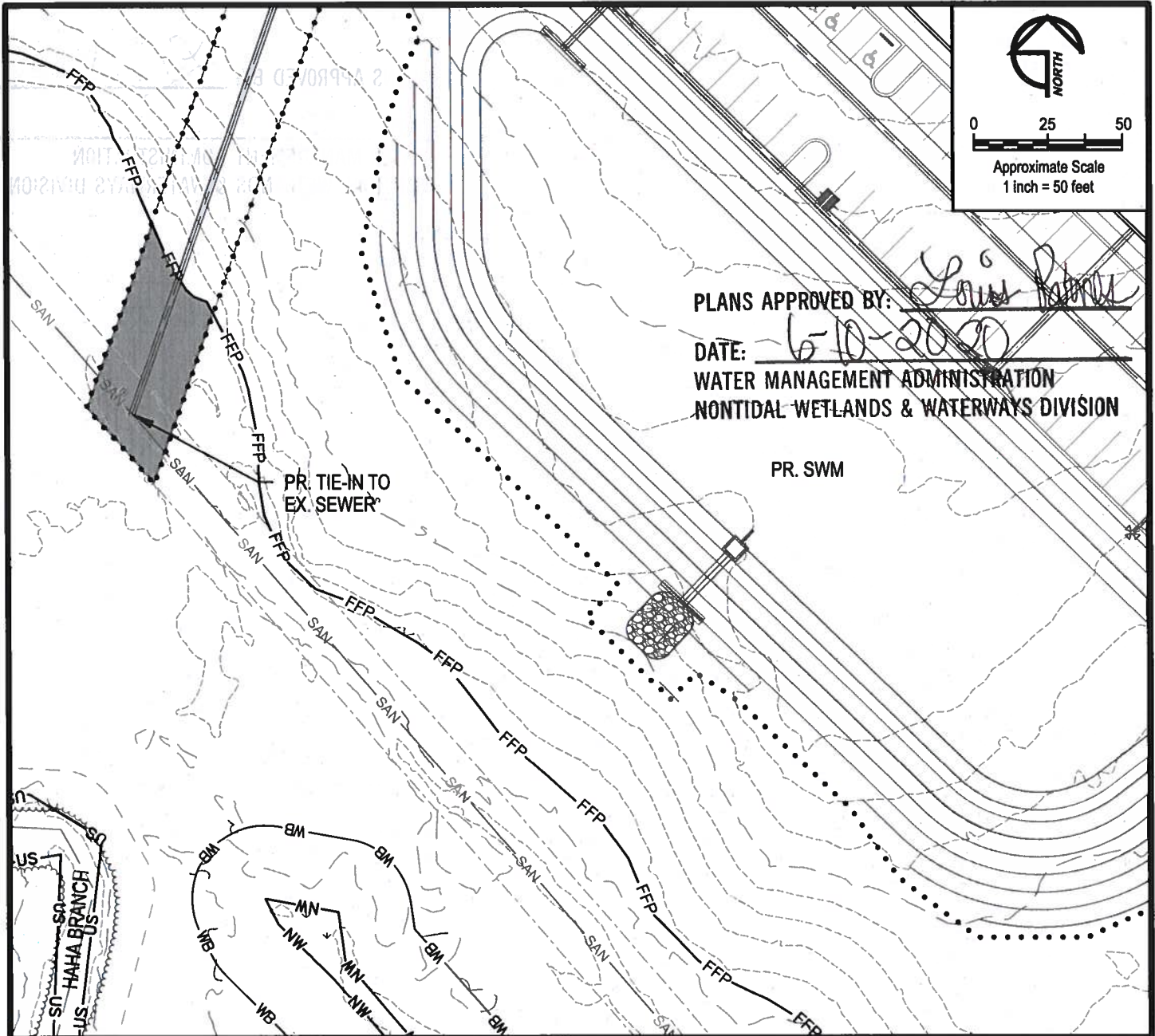
3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9448
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 3 OF 16



PLANS APPROVED BY: Louis Robert
 DATE: 6-10-2020
 WATER MANAGEMENT ADMINISTRATION
 NONTIDAL WETLANDS & WATERWAYS DIVISION

LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP 100-YEAR FLOODPLAIN
- US EX. STREAM CHANNEL
- ▾ NW EX. NONTIDAL WETLAND
- ▾ NW EX. NONTIDAL WETLAND
- WB EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

■ TEMPORARY 100-YR FLOODPLAIN IMPACTS
 1,856 SF (0.04 AC)



GEO-TECHNOLOGY ASSOCIATES, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 3445-A BOX HILL CORPORATE CENTER DRIVE
 ABINGDON, MARYLAND 21009
 410-515-9446
 FAX: 410-515-4895
 WWW.GTAENG.COM
 © GEO-TECHNOLOGY ASSOCIATES, INC.

WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK
 HARFORD COUNTY, MARYLAND

\\PSMC-DATA\gta\Shared\Project Files\2017\31171877x1 - Abingdon Woods\WET\CAD\Plot\31171877x1 Impact Plates 7-2-2019.dwg



0 25 50

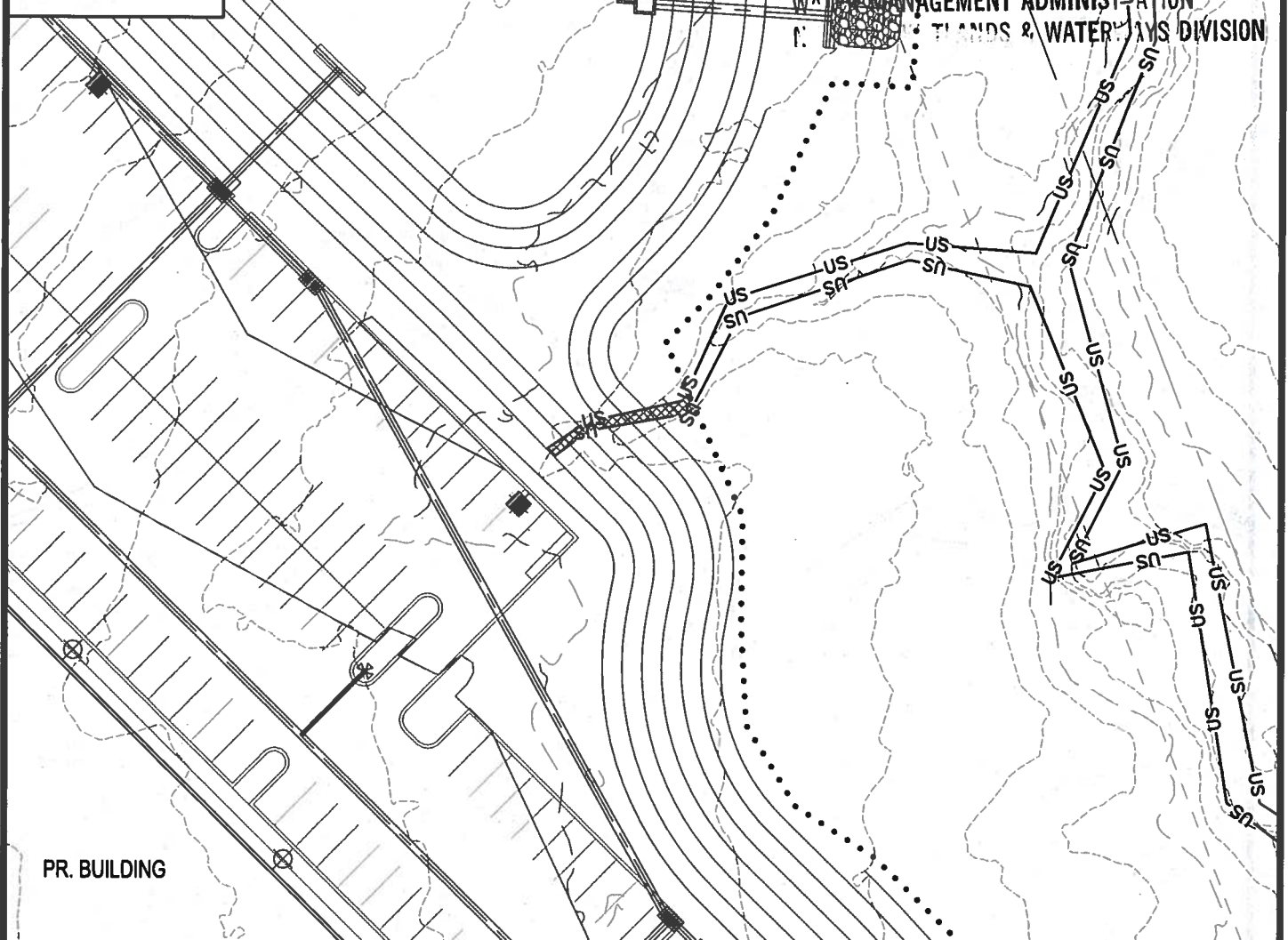
Approximate Scale
1 inch = 50 feet

PLANS APPROVED BY:
DATE:
PR. SWM

PLANS APPROVED BY: *[Signature]*

DATE: 6-10-2020

WATER MANAGEMENT ADMINISTRATION
LANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP
- US
- NW
- NW
- WB
- EX. NONTIDAL WETLAND
- EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

- PERMANENT EPHEMERAL CHANNEL IMPACTS
155 SF (0.004 AC), 46 LF



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 5 OF 16



0 25 50

Approximate Scale
1 inch = 50 feet

PLANS APPROVED BY: *Louie Pabres*

DATE: *6-10-2020*


WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION

PR. RETAINING WALL

LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP ——— 100-YEAR FLOODPLAIN
- US ——— EX. STREAM CHANNEL
- NW ——— EX. NONTIDAL WETLAND
- WB ——— EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

-  PERMANENT EPHEMERAL CHANNEL IMPACTS
204 SF (0.005 AC), 40 LF



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9448
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

WETLAND/WATERWAY IMPACT PLATES ABINGDON BUSINESS PARK

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 6 OF 16

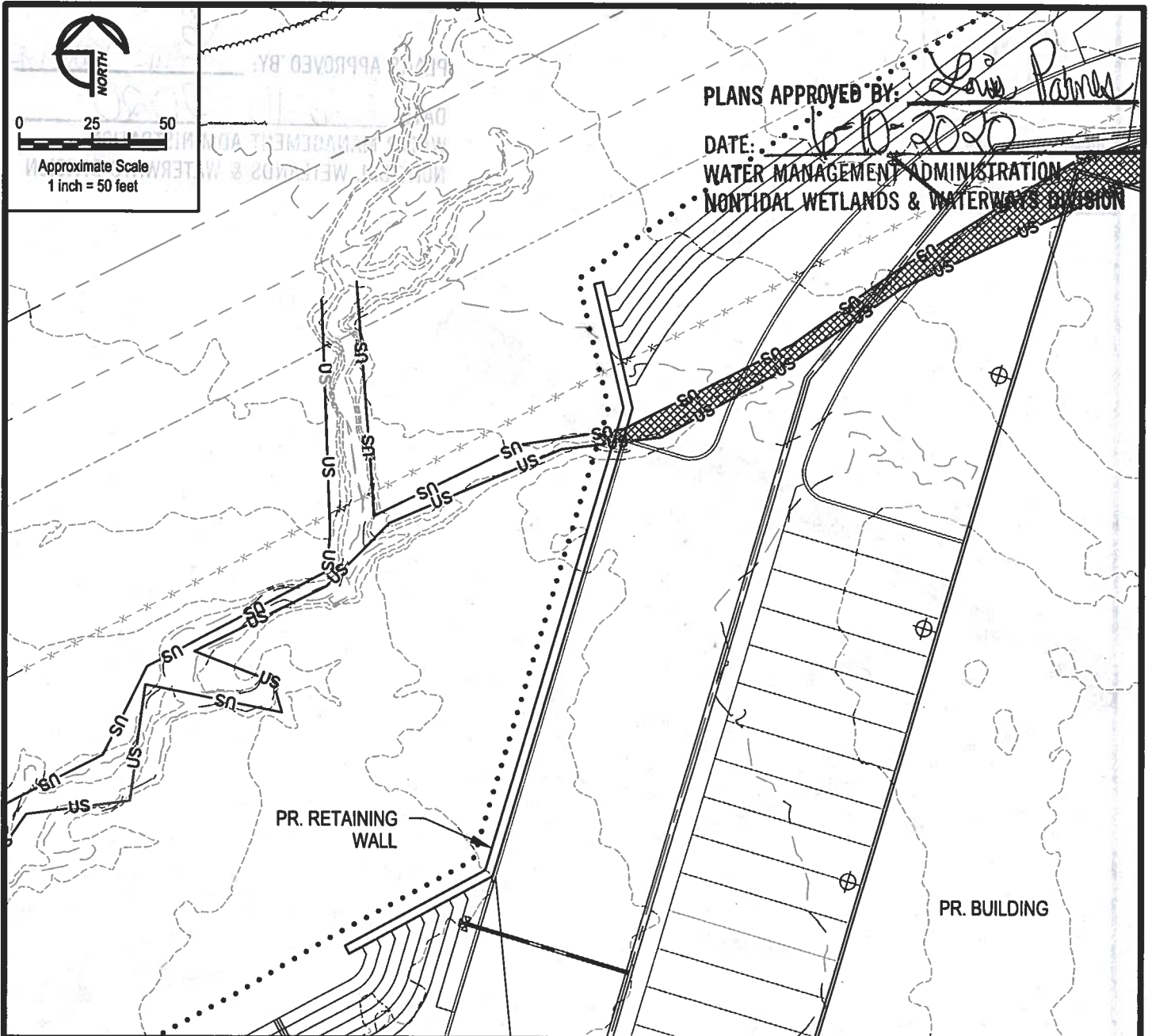


0 25 50
 Approximate Scale
 1 inch = 50 feet

PLANS APPROVED BY: *John Palmer*

DATE: 10-10-2020

WATER MANAGEMENT ADMINISTRATION
 NONTIDAL WETLANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP EX. 100-YEAR FLOODPLAIN
- US EX. STREAM CHANNEL
- ▼ NW EX. NONTIDAL WETLAND
- WB EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

- PERMANENT EPHEMERAL CHANNEL IMPACTS
 1,752 SF (0.04 AC), 209 LF



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
 ABINGDON, MARYLAND 21009
 410-515-9446
 FAX: 410-515-4895
 WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
 ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

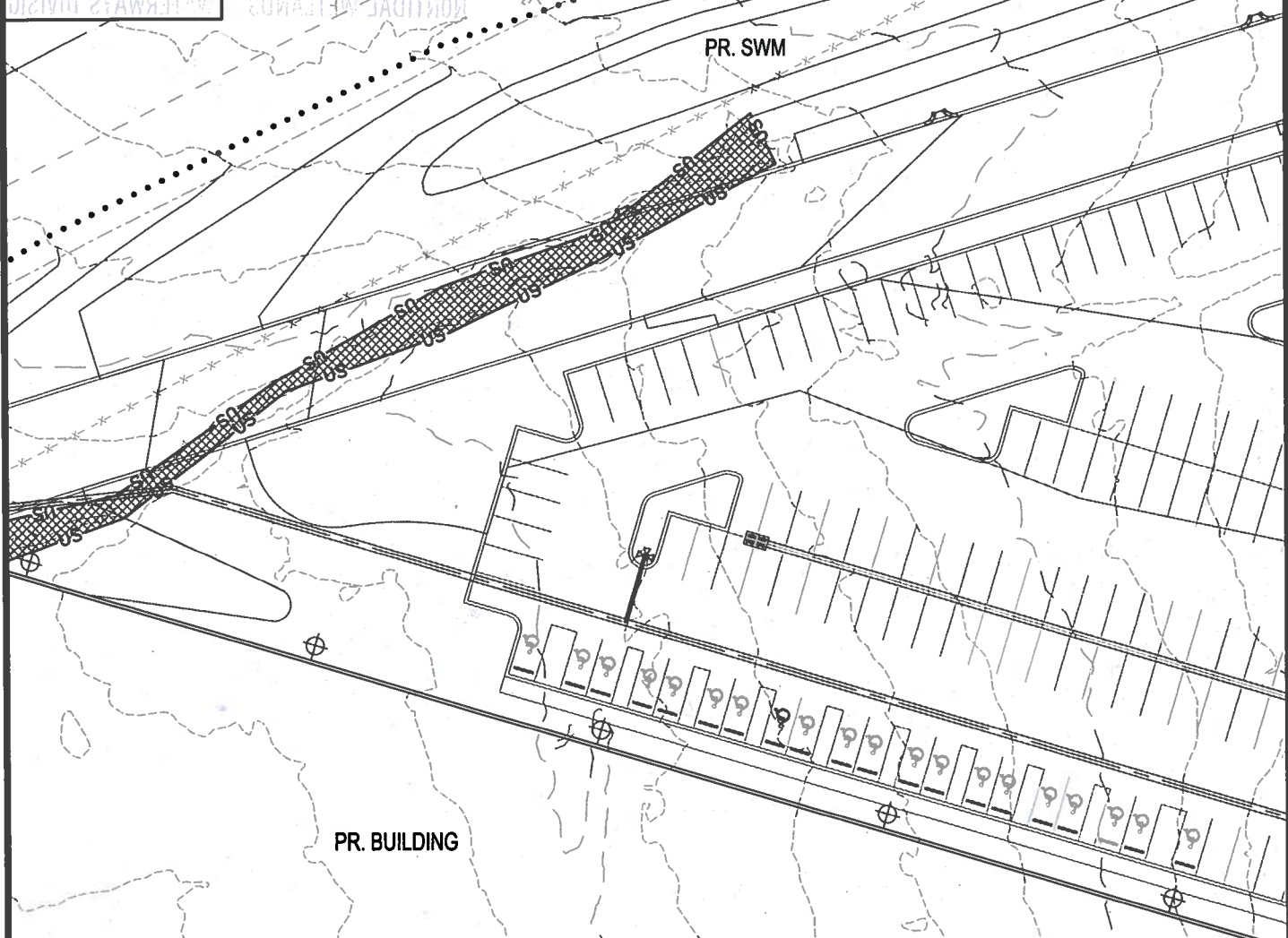
JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 7 OF 16



0 25 50

Approximate Scale
1 inch = 50 feet

PLANS APPROVED BY: *John P. [Signature]*
DATE: *6-10-2020*
WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP ——— EX. 100-YEAR FLOODPLAIN
- US ——— EX. STREAM CHANNEL
- ⊕ ⊕ ⊕ ⊕ ⊕ EX. NONTIDAL WETLAND
- ⊕ ⊕ ⊕ ⊕ ⊕ EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

 PERMANENT EPHEMERAL CHANNEL IMPACTS
2,439 SF (0.06 AC), 262 LF



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 8 OF 16

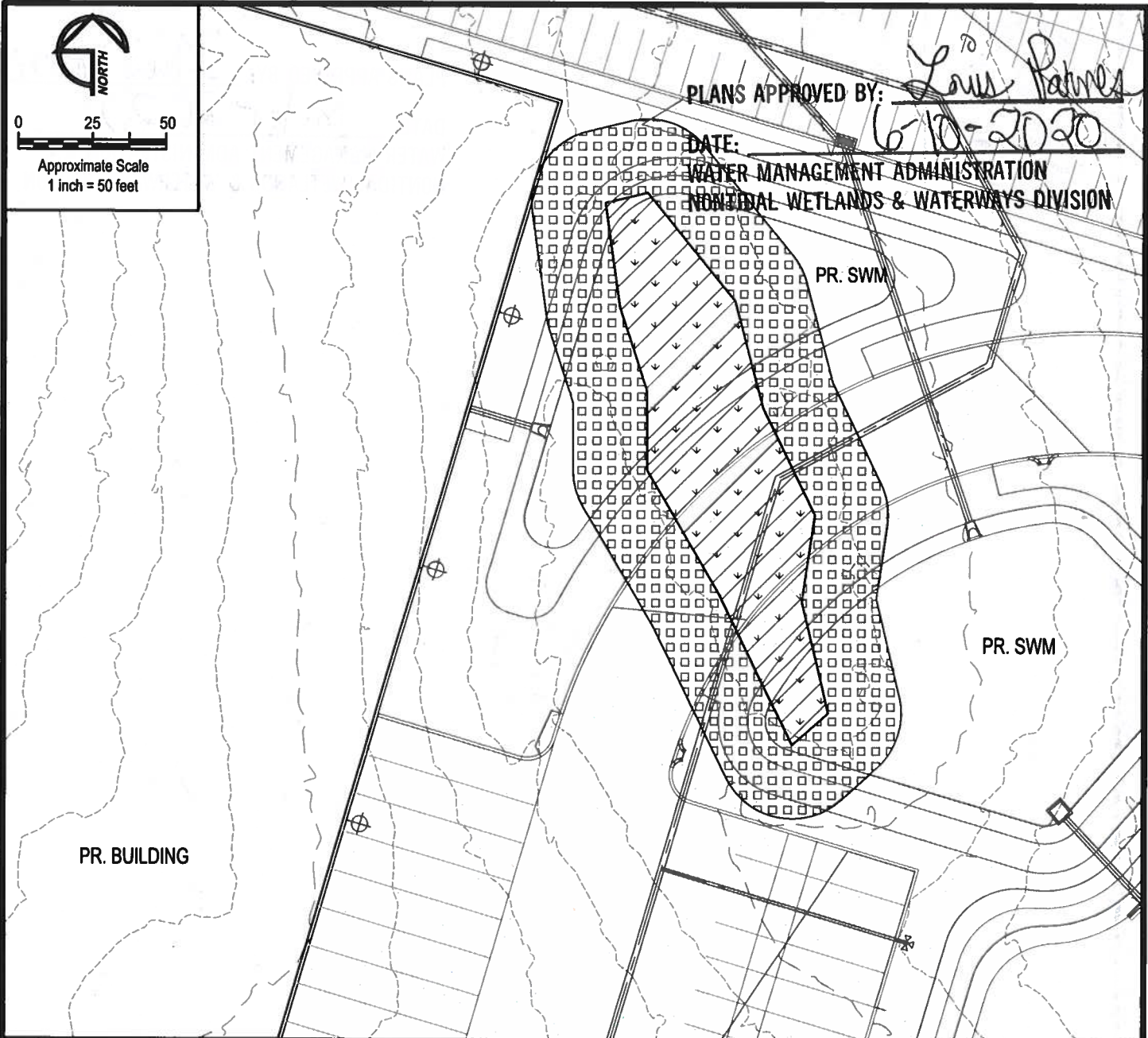


0 25 50

Approximate Scale
1 inch = 50 feet

PLANS APPROVED BY: *Lowell Palmer*
DATE: *6-10-2020*



WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP ——— EX. 100-YEAR FLOODPLAIN
- US ——— EX. STREAM CHANNEL
- ↓ ↓ ↓ ↓ EX. NONTIDAL WETLAND
- WB ——— EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

-  PERMANENT ISOLATED PFO WETLAND IMPACTS
6,203 SF (0.14 AC)
-  PERMANENT 25' WETLAND BUFFER IMPACTS
12,530 SF (0.29 AC)



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 9 OF 16



0 25 50

Approximate Scale
1 inch = 50 feet

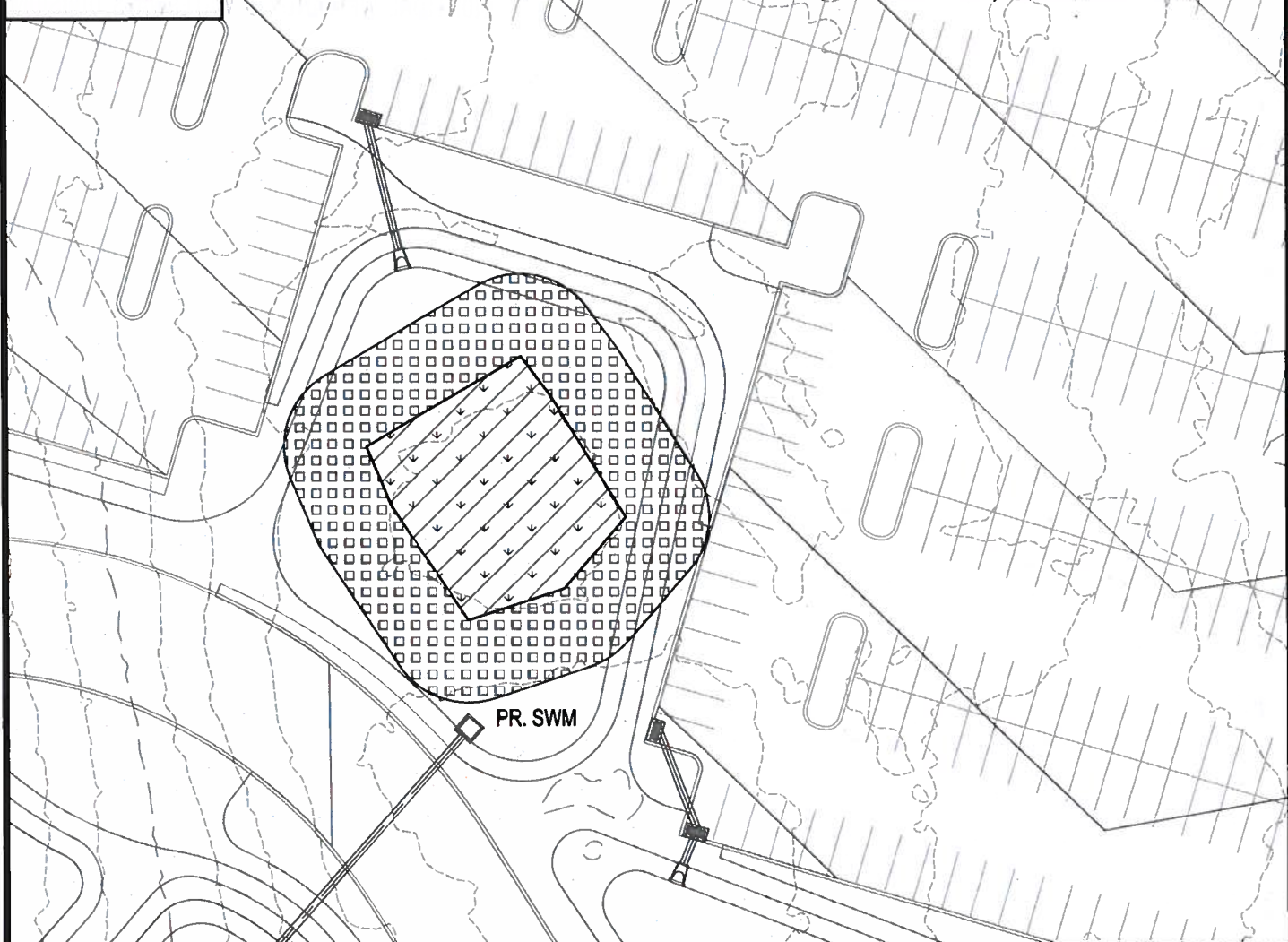
PLANS APPROVED BY:

Louis Parnes

DATE:

6-10-2020



WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP ——— EX. 100-YEAR FLOODPLAIN
- US ——— EX. STREAM CHANNEL
- NW ——— EX. NONTIDAL WETLAND
- NW ——— EX. NONTIDAL WETLAND
- WB ——— EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

-  PERMANENT ISOLATED PFO WETLAND IMPACTS
3,632 SF (0.08 AC)
-  PERMANENT 25' WETLAND BUFFER IMPACTS
7,775 SF (0.18 AC)



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 10 OF 16



0 25 50

Approximate Scale
1 inch = 50 feet

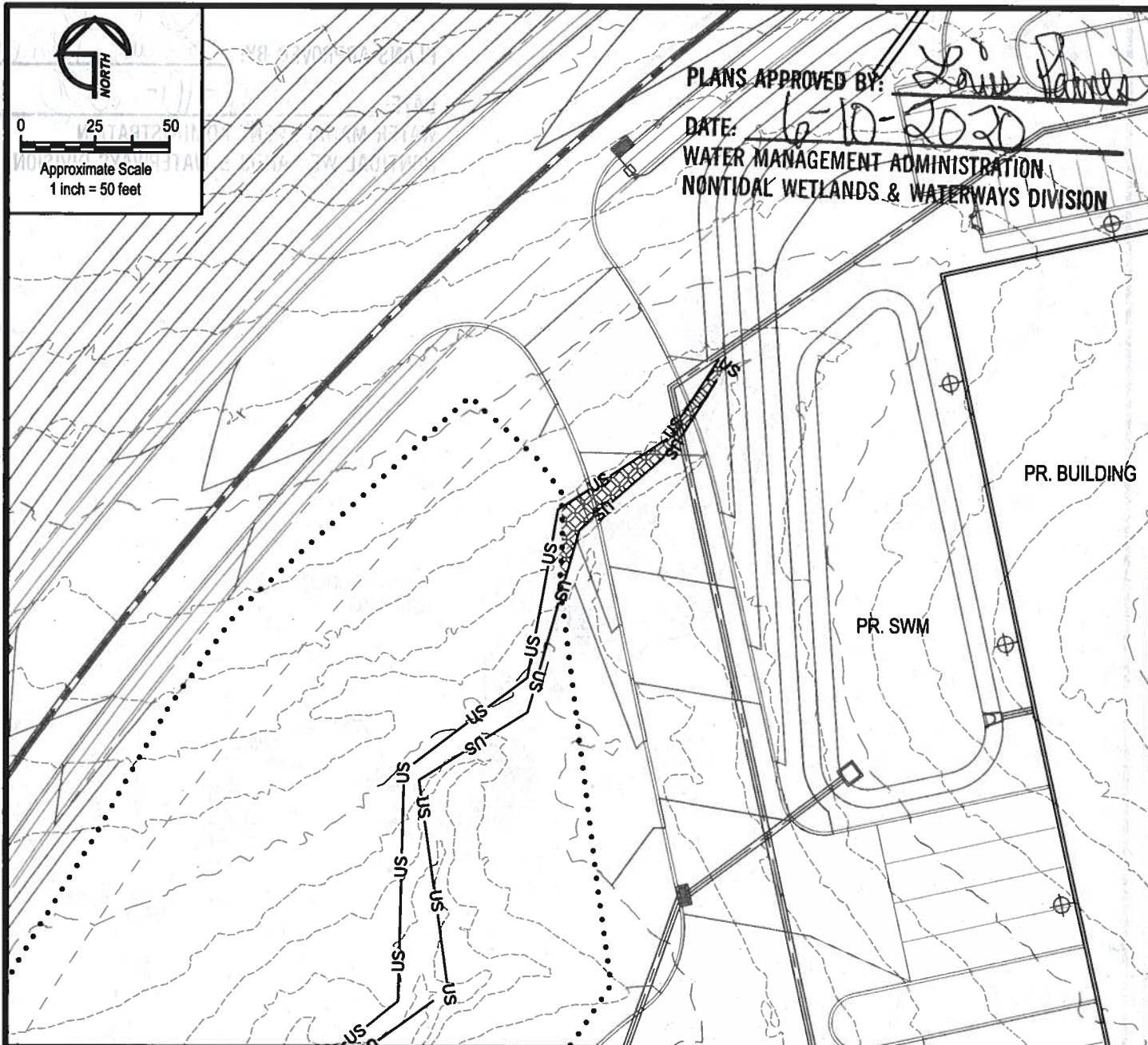
PLANS APPROVED BY:

Low James

DATE:

6-10-2020

WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP ——— EX. 100-YEAR FLOODPLAIN
- US ——— EX. STREAM CHANNEL
- ▼ NW ▼ EX. NONTIDAL WETLAND
- WB ——— EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

-  PERMANENT INTERMITTENT STREAM IMPACTS
489 SF (0.01 AC), 85 LF



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9448
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 11 OF 16



0 25 50

Approximate Scale
1 inch = 50 feet

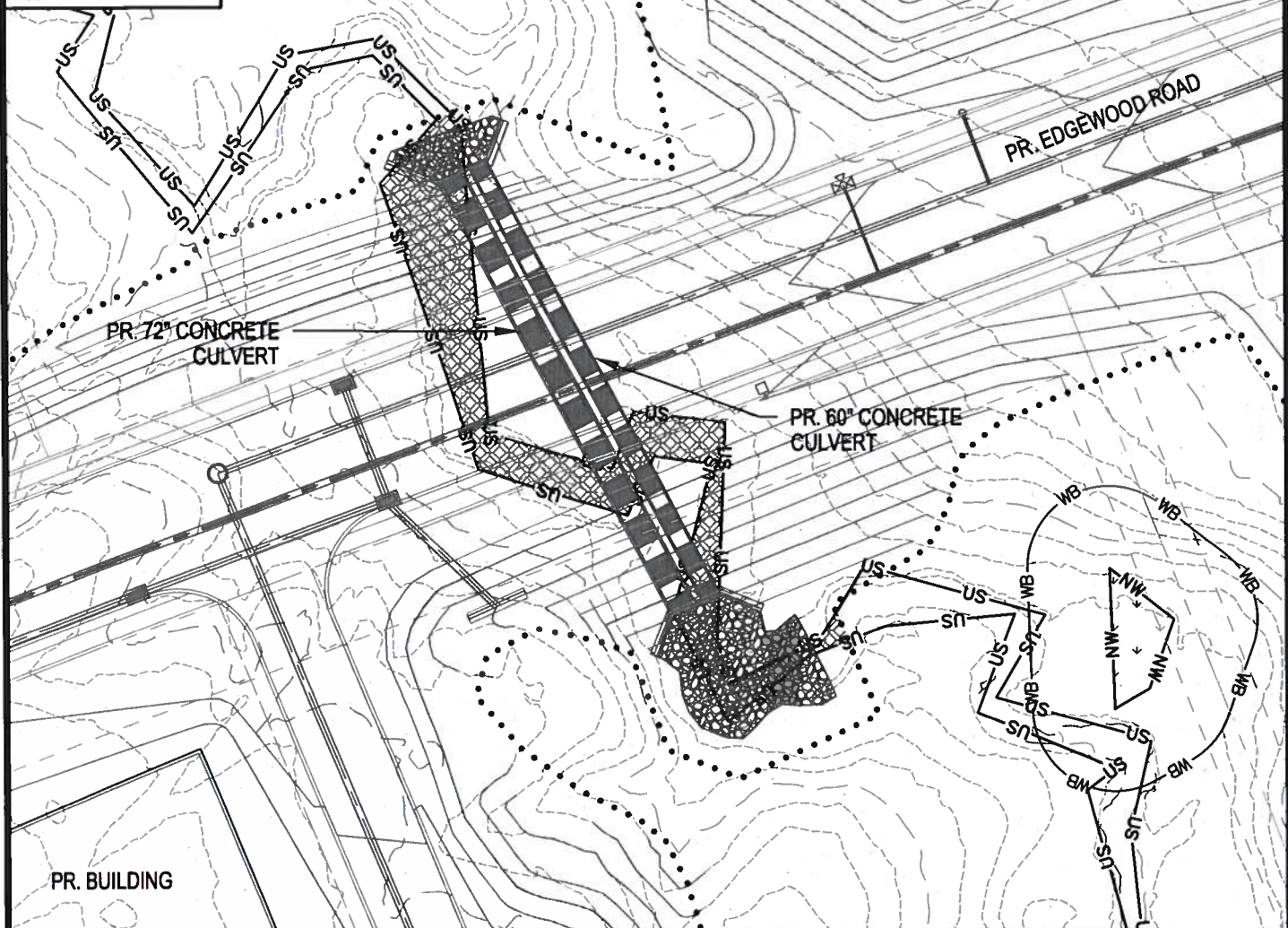
PLANS APPROVED BY: *Louis Palmer*

PR. BUILDING

DATE: *6-10-2020*

WATER MANAGEMENT ADMINISTRATION

NONTIDAL WETLANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP ——— EX. 100-YEAR FLOODPLAIN
- US ——— EX. STREAM CHANNEL
- NW ——— EX. NONTIDAL WETLAND
- WB ——— EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

-  PERMANENT INTERMITTENT STREAM IMPACTS
3,522 SF (0.08 AC), 311 LF



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009

410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO.	31171877x1	SCALE:	1"=50'	DATE:	JULY 2, 2019	DRAWN BY:	MAJ	REVIEW BY:	TAS	FIGURE:	12 OF 16
---------	------------	--------	--------	-------	--------------	-----------	-----	------------	-----	---------	----------



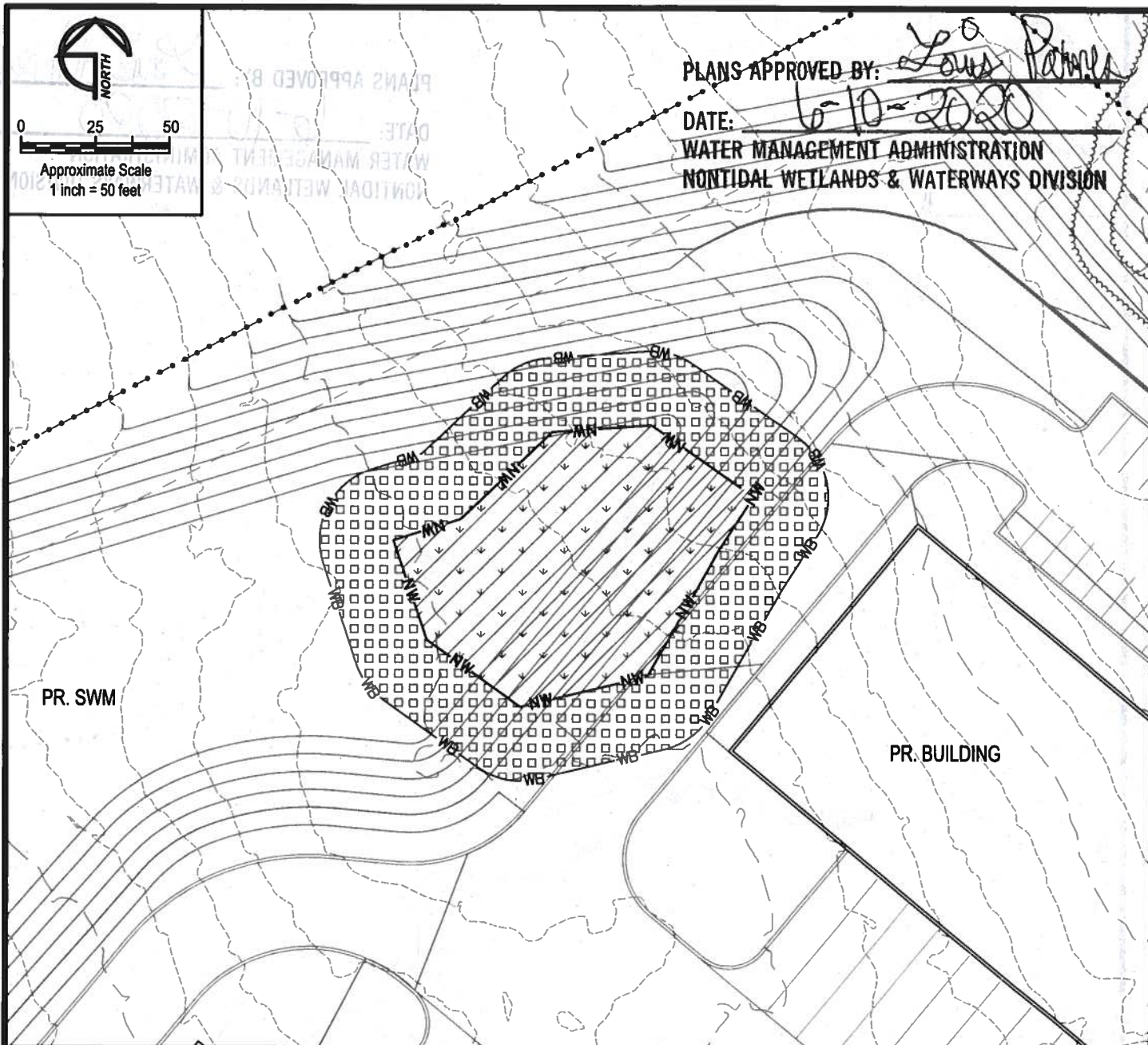
0 25 50

Approximate Scale
1 inch = 50 feet

PLANS APPROVED BY: *Louie Palmer*

DATE: *6-10-2020*



WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP ——— EX. 100-YEAR FLOODPLAIN
- US ——— EX. STREAM CHANNEL
- ↓ ↓ ↓ ↓ EX. NONTIDAL WETLAND
- WB ——— EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

-  PERMANENT ISOLATED PFO WETLAND IMPACTS
7,277 SF (0.17 AC)
-  PERMANENT 25' WETLAND BUFFER IMPACTS
10,242 SF (0.24 AC)



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 13 OF 16



0 25 50

Approximate Scale
1 inch = 50 feet

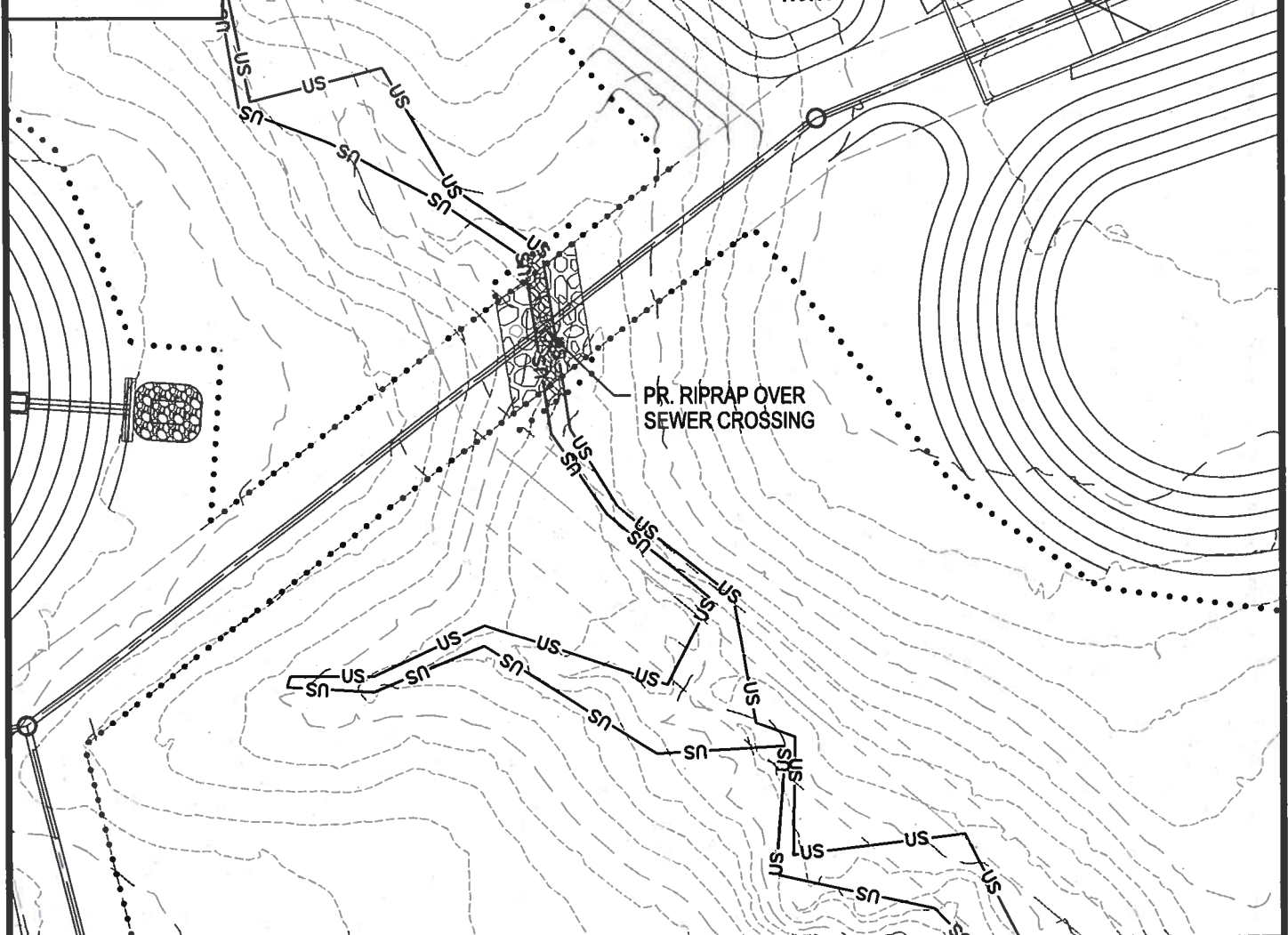
PLANS APPROVED BY:

Louis Pannell

DATE:

5-10-2020



WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP —— EX. 100-YEAR FLOODPLAIN
- US —— EX. STREAM CHANNEL
- ▾ ▾ NW ▾ ▾ EX. NONTIDAL WETLAND
- WB —— EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

-  PERMANENT INTERMITTENT STREAM IMPACTS
201 SF (0.005 AC), 35 LF
-  TEMPORARY INTERMITTENT STREAM IMPACTS
69 SF (0.002 AC), 10 LF



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 14 OF 16



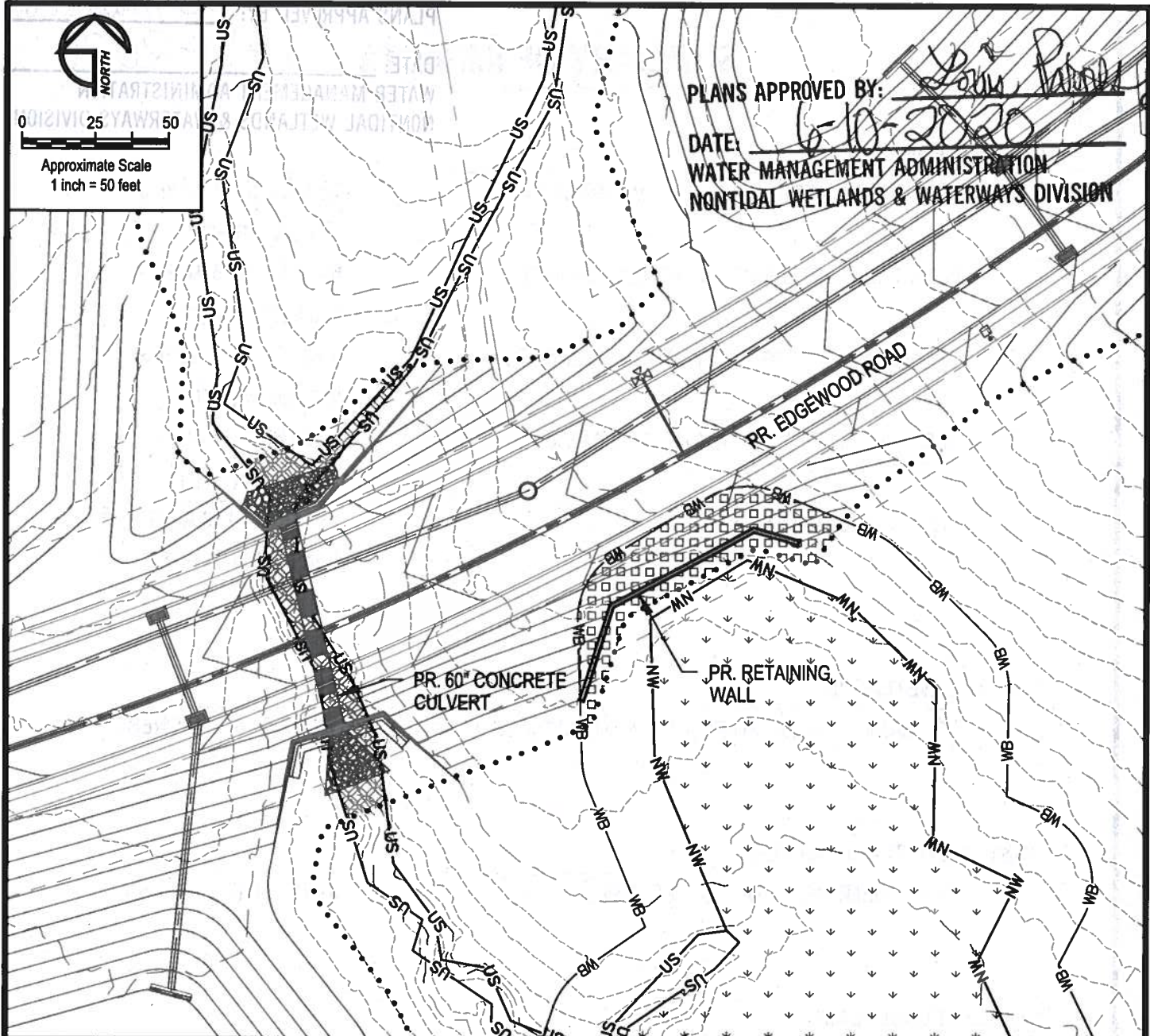
0 25 50

Approximate Scale
1 inch = 50 feet

PLANS APPROVED BY: [Signature]

DATE: 6-10-2020




WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION



LEGEND

- PR. LIMIT OF DISTURBANCE
- PR. 2' CONTOURS
- PR. 10' CONTOURS
- PR. EDGE OF PAVEMENT
- FFP ——— EX. 100-YEAR FLOODPLAIN
- US ——— EX. STREAM CHANNEL
- ▼ ▼ ▼ EX. NONTIDAL WETLAND
- WB ——— EX. 25' WETLAND BUFFER

PROPOSED IMPACTS

-  PERMANENT INTERMITTENT STREAM IMPACTS
1,248 SF (0.03 AC), 109 LF
-  TEMPORARY INTERMITTENT STREAM IMPACTS
491 SF (0.01 AC), 67 LF
-  PERMANENT 25' WETLAND BUFFER IMPACTS
2,235 SF (0.05 AC)



GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© GEO-TECHNOLOGY ASSOCIATES, INC.

**WETLAND/WATERWAY IMPACT PLATES
ABINGDON BUSINESS PARK**

HARFORD COUNTY, MARYLAND

JOB NO. 31171877x1 SCALE: 1"=50' DATE: JULY 2, 2019 DRAWN BY: MAJ REVIEW BY: TAS FIGURE: 15 OF 16

PLANS APPROVED BY: *John P. Pardo*

SUMMARY OF IMPACTS

6-10-2020

WATER MANAGEMENT ADMINISTRATION
NONTIDAL WETLANDS & WATERWAYS DIVISION

STREAM CHANNELS

TEMPORARY PERENNIAL STREAM IMPACTS =	1,573 SF (0.04 ACRES) 120 LINEAR FEET
PERMANENT INTERMITTENT STREAM IMPACTS =	6,457 SF (0.15 ACRES) 570 LINEAR FEET
TEMPORARY INTERMITTENT STREAM IMPACTS =	3,235 SF (0.07 ACRES) 230 LINEAR FEET
PERMANENT EPHEMERAL CHANNEL IMPACTS =	5,153 SF (0.12 ACRES) 728 LINEAR FEET
TOTAL STREAM IMPACTS =	16,418 SF (0.38 ACRES) 1,648 LINEAR FEET

NONTIDAL WETLANDS

PERMANENT ISOLATED PFO WETLAND IMPACTS =	17,112 SF (0.39 ACRES)
--	------------------------

NONTIDAL WETLAND BUFFERS

PERMANENT WETLAND BUFFER IMPACTS =	32,782 SF (0.75 ACRES)
------------------------------------	------------------------

100-YEAR FLOODPLAIN

PERMANENT 100-YEAR FLOODPLAIN IMPACTS =	4,618 SF (0.11 ACRES)
TEMPORARY 100-YEAR FLOODPLAIN IMPACTS =	17,764 SF (0.41 ACRES)



GEO-TECHNOLOGY ASSOCIATES, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 3445-A BOX HILL CORPORATE CENTER DRIVE
 ABINGDON, MARYLAND 21009
 410-515-9446
 FAX: 410-515-4895
 WWW.GTAENG.COM
 © GEO-TECHNOLOGY ASSOCIATES, INC.

WETLAND/WATERWAY IMPACT PLATES ABINGDON BUSINESS PARK

HARFORD COUNTY, MARYLAND

\\PSMC-DATA\gta\Shared\Project Files\2017\31171877x1 - Abingdon Woods\WETCAD\Plot\31171877x1 Impact Plates 7-2-2019.dwg

