



**Dominion  
Energy®**

Application, Appendix,  
DEQ Supplement, Direct  
Testimony and Exhibits of  
Virginia Electric and Power  
Company

Before the State Corporation  
Commission of Virginia

Dooms-Harrisonburg 230 kV  
Lines #260 and #272 Rebuild  
Project

Application No. 335

Case No. PUR-2024-00074

Filed: April 30, 2024

Volume 2 of 2

BEFORE THE  
STATE CORPORATION COMMISSION  
OF VIRGINIA

APPLICATION OF  
VIRGINIA ELECTRIC AND POWER COMPANY  
FOR APPROVAL OF ELECTRIC FACILITIES

Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild  
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**DEQ Supplement**

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Based upon consultations with the Virginia Department of Environmental Quality (“DEQ”), Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”) has developed this DEQ Supplement to facilitate review and analysis of the proposed Doods-Harrisonburg 230 kV Lines #260 and #272 Rebuild Project (“Rebuild Project”) by DEQ and other relevant agencies.

## 1. Project Description

In order to maintain the structural integrity and reliability of its transmission systems in compliance with the Company's mandatory electric transmission planning criteria ("Planning Criteria")<sup>1</sup> and consistent with sound engineering judgment, Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") proposes within the Counties of Augusta and Rockingham, and the Town of Grottoes, to:

- (i) Rebuild, entirely within existing right-of-way or on Company-owned property, approximately 10.6 miles of the existing 230 kV Line #260 single circuit wooden H-frame structures with weathering steel H-frame structures; and
- (ii) Rebuild, entirely within existing right-of-way or on Company-owned property, approximately 11.5 miles of the existing 230 kV Line #272 single circuit COR-TEN<sup>®2</sup> lattice towers with weathering steel monopole structures.

This project is collectively known as the Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild Project ("Rebuild Project").<sup>3</sup> The proposed Rebuild Project will replace aging infrastructure that is approaching the end of its service life in order to comply with the Company's mandatory Planning Criteria, thereby enabling the Company to maintain the overall long-term reliability of its transmission system.

The total length of the existing right-of-way easements and Company-owned property to be used for the Rebuild Project is approximately 22.1 miles. Because the existing right-of-way is adequate to construct the proposed Rebuild Project, no new rights-of-way are necessary. Given the availability of existing rights-of-way, the statutory preference to use existing rights-of-way, and the additional costs and environmental impacts that would be associated with the acquisition and construction of new rights-of-way, the Company did not consider any alternate routes requiring new rights-of-way for the Rebuild Project. The desired in-service target date for the Rebuild Project is December 31, 2027.

## 2. Environmental Analysis

The Company originally solicited comments from all relevant state and local agencies in March 2024. Copies of these letters are included as Attachment 2.1.

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<sup>1</sup> The Company's Transmission Planning Criteria (effective January 1, 2024) can be found in Attachment 1 of the Company's Facility Interconnection Requirements ("FIR") document, which is available online at <https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/virginia/parallel-generation/facility-connection-requirements.pdf>.

<sup>2</sup> Registered trademark of the United States Steel Corporation.

<sup>3</sup> The Company will also perform minor work associated with the Rebuild Project at the Grottoes, Harrisonburg, and Dooms Substations to support the new line ratings. This work, while not included as part of the Rebuild Project, is discussed in Section II.C of the Application Appendix.

The DEQ's Scoping Response Letter, if received prior to filing, will be included as Attachment 2.2.

As part of Dominion Energy Virginia's environmental compliance program, the Company has a comprehensive Environmental Management System Manual in place that ensures it is committed to complying with environmental laws and regulations, reducing risk, minimizing adverse environmental impacts, setting environmental goals, and achieving improvements in its environmental performance, consistent with the Company's core values.

#### **A. Air Quality**

For the Rebuild Project, the Company will control fugitive dust during construction in accordance with DEQ regulations. During construction, if the weather is dry for an extended period of time, there will be airborne particles from the use of vehicles and equipment within the transmission line corridor. However, minimal earth disturbance will take place and vehicle speed, which is often a factor in airborne pollution, will be kept to a minimum. Erosion and sediment control is addressed in Section 2.H, below. Equipment and vehicles that are powered by gasoline or diesel motors will also be used during the construction of the line so there will be exhaust from those motors.

The entire width of the existing transmission corridor is currently maintained for transmission line operations; however, the Rebuild Project may require some trimming of tree limbs along the existing transmission line corridor edges to support construction activities. The Company does not expect to burn cleared material but, if necessary, the Company will coordinate with the responsible locality to ensure all local ordinances are met. The Company's tree clearing methods are described in Section 2.L.

#### **B. Water Source (No water source is required for transmission lines so this discussion will focus on potential waterbodies to be crossed by the proposed transmission line rebuild.)**

The Rebuild Project is located within the South Fork Shenandoah (Hydrologic Unit Code 02070005) watershed. The U.S. Geological Survey ("USGS") topographic quadrangles for Waynesboro East, Harrisonburg, Grottoes, Crimora, and Bridgewater depict the study area as existing, cleared transmission line traversing through gently to steeply sloping terrain.

Any clearing required in the vicinity of streams will be performed by hand within 100 feet of both sides, and vegetation less than three inches in diameter will be left undisturbed.

The Company solicited comments from the Virginia Marine Resources Commission ("VMRC") regarding the proposed Rebuild Project in March 2024. The Company received a response from VMRC on April 19, 2024. According to

the VMRC, the proposed Rebuild Project may impact resources within the jurisdictional areas of the agency and may thus require a permit from the VMRC. The VMRC will review any jurisdictional impacts during a Joint Permit Application (“JPA”) process. A copy of the VMRC’s response is included as Attachment 2.B.1.

Section 28.2-1203 of the Code of Virginia was recently amended by the Virginia General Assembly through the passage of House Bill 2181 (“HB 2181”), which was signed into law by Governor Glenn Youngkin, effective July 1, 2023.<sup>4</sup> With the passage of HB 2181 and in accordance with the Memorandum of Agreement between the VMRC and DEQ, signed on June 23, 2023, activities conducted in non-tidal waters are not required to obtain a permit issued by the VMRC provided that a Virginia Water Protection Permit (“VWP”) is obtained and all requirements of the Virginia Water Resources and Wetlands Protection Program are complied with. However, when DEQ determines that a VWP individual or general permit is not required, VMRC shall continue to issue subaqueous land permits for projects that encroach under or over state-owned submerged lands in non-tidal waters in accordance with current regulations, guidance, and practices. The Company will actively monitor this regulatory change and pursue the required permits as needed for this Rebuild Project at the time of permitting. Based on the Company’s review of the Rebuild Project, there are five waterways under the jurisdiction of VMRC within the Rebuild Project area. These include Meadow Run and Paine Run in Augusta County and the South River, the North River, and an unnamed tributary to the North River in Rockingham County.

Based on the Company’s review, no navigable waters regulated by the U.S. Army Corps of Engineers (“Corps”) are present within the Rebuild Project area. If aerial crossings or impacts to waters are proposed, a JPA will be submitted for review by the VMRC, DEQ, and Corps for authorization under Sections 404/401 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Discussion of this coordination is included in the non-tidal wetlands section (Section D) below.

### **C. Discharge of Cooling Waters**

No discharge of cooling waters is associated with the Rebuild Project.

### **D. Tidal and Non-tidal Wetlands**

No tidal wetlands were identified within the proposed Rebuild Project area.

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<sup>4</sup> See Chapter 258 of the 2023 Session of the Virginia Acts of Assembly (effective July 1, 2023) available at <https://lis.virginia.gov/cgi-bin/legp604.exe?231+ful+CHAP0258>.

## Non-Tidal Wetlands Impact Consultation

Within the Rebuild Project corridor, the Company performed an off-site analysis of wetlands and other potential waters of the United States (“WOTUS”) using current and historic aerial imagery, topographic quadrangles, U.S. Fish and Wildlife Service (“USFWS”) National Wetland Inventory (“NWI”), and the Natural Resources Conservation Service (“NRCS”) Soil Survey. The study determined the approximate locations and extents of potential WOTUS. These areas were assigned a probability ranking ranging from high probability to low probability using criteria described below.

Low probability: Areas that demonstrate positive indicators for potential wetlands based on one of the above-mentioned off-site resources.

Medium probability: Areas that demonstrate positive indicators for potential wetlands based on two or three of the above-mentioned off-site resources.

High probability: Areas that demonstrate positive indicators for potential wetlands based on all four of the above-mentioned off-site resources.

Approximate wetlands and other surface waters within the proposed Rebuild Project corridor are provided in the table below and include the limits of those resources within the Rebuild Project corridor from the detailed delineations described above. See [Attachment 2.D.1](#).

**Table 1. Summary of Potential Jurisdictional Resources Within the Rebuild Project Right of Way**

<b>Desktop Analysis</b>	<b>Totals</b>
PEM/PSS Wetland - High Probability	0.69 Acres ±
PEM/PSS Wetland - Medium Probability	6.08 Acres ±
PEM/PSS Wetland - Low Probability	9.81 Acres ±
Open Waters	0.87 Acres ±
Stream Channels	1.29 Acres ± (7,370 L.F. ±)

Prior to construction, the Company will conduct a detailed delineation of wetlands and other WOTUS using the Routine Determination Method, as outlined in the *1987 Corps of Engineers Wetland Delineation Manual* and methods described in the *2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (Version 2.0). The Company will conduct the delineation using the latest guidance provided by the Corps and EPA, and coordinate with DEQ if needed.

As with waters, if impacts to wetlands are proposed, a JPA will be submitted for review by the VMRC, DEQ, and Corps for authorization under Sections 404/401 of the Clean Water Act.

The Company solicited comments from the DEQ Office of Wetlands and Stream Protection and the Corps in March 2024. Comments were received on April 25, 2024 and are included as Attachment 2.D.2. DEQ recommendations among others include that prior to commencing Rebuild Project work, all surface waters should be delineated by a qualified professional; wetland, stream, and open water impacts should be avoided and minimized to the maximum extent practicable; and temporary impacts to surface waters should be restored to pre-existing conditions. Based on DEQ's review, the Rebuild Project may require a VWP individual or general permit.

## **E. Floodplains**

As depicted on the Federal Emergency Management Agency's ("FEMA") online Flood Insurance Rate Maps 51165C0392D (effective date 2/6/2008), 51165C0394D (effective date 2/6/2008), 51165C0415D (effective date 2/6/2008), 51165C0555D (effective date 2/6/2008), 51165C0562D (effective date 2/6/2008), 51165C0570D (effective date 2/6/2008), 51165C0564D (effective date 2/6/2008), 51015C0215D (effective date 9/28/2007), 51015C0380D (effective date 9/28/2007), 51015C0390D (effective date 9/28/2007), and 51015C0551D (effective date 9/28/2007) the majority of the Rebuild Project area lies within Zone X, which is an area of minimal flood hazard, outside of the 100-year floodplain. The transmission corridor is crossed between Structures #260/14 and #260/15 by Pleasant Run, between Structures #260/57 and #260/59 by North River, between Structures #260/68 and #260/75 by South River, and between Structures #272/54 and #272/55 by Paine Run, all identified as Zone AE, which is within the 100-year floodplain. The transmission corridor is also crossed between Structures #272/76 and #272/68 by Still Run, identified as Zone A. The Company will coordinate with the local floodplain coordinators as required.

## **F. Solid and Hazardous Waste**

On behalf of the Company, Stantec Consulting Services Inc. ("Stantec") conducted database searches for solid and hazardous wastes and petroleum release sites within a 0.5-mile radius (the "search radius") of the proposed Rebuild Project to identify sites that may impact the proposed Rebuild Project. This report is included as Attachment 2.F.1.

Publicly available data from the U.S. Environmental Protection Agency's ("EPA") Facility Registry System was obtained, which provides information about facilities, sites, or places subject to environmental regulation or of environmental interest. Although this data set contains all sites subject to environmental regulation by the EPA or other regulatory authorities, including sites that fall under air emissions or wastewater programs, the results reported here only include those sites which fall under the EPA's hazardous waste, solid waste, remediation, and underground storage tank programs (i.e., Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), Resource Conservation and Recovery Act ("RCRA"), or brownfield sites).

In summary, a total of three RCRA sites, three solid waste sites, and 22 petroleum release sites are located within a 0.5-mile radius of the Rebuild Project site; however, none of the sites are located within the Rebuild Project transmission corridor or are expected to affect the Rebuild Project. No EPA registered Brownfield sites or CERCLA/Superfund sites are located within 0.5 miles of the Project area.

#### **G. Natural Heritage, Threatened and Endangered Species**

On behalf of the Company, Stantec conducted online database searches for threatened and endangered species in the vicinity of the Project, including the USFWS Information for Planning and Consultation (“IPaC”) system, the Virginia Department of Wildlife Resources’ (“DWR”) Virginia Fish and Wildlife Information Service (“VAFWIS”), the DWR Northern Long-eared Bat (“NLEB”) Regulatory Buffer Interactive Tool, the Virginia Department of Conservation and Recreation’s (“DCR”) Natural Heritage Data Explorer (“NHDE”), and the Center for Conservation Biology’s (“CCB”) Bald Eagle Nest Locator. The results of the database searches are included as Attachment 2.G.1 and are summarized in the table below.



**Table 2. Threatened and Endangered Species within the Rebuild Project Vicinity**

<b>Species</b>	<b>Status*</b>	<b>Database</b>	<b>Results</b>
Indiana bat ( <i>Myotis sodalists</i> )	FE SE	USFWS	Identified as potentially occurring within or near the Rebuild Project area.
Northern long-eared bat ( <i>Myotis septentrionalis</i> )	FE ST	USFWS, DWR, DCR	Confirmed within 2 miles of the Rebuild Project. No hibernacula or maternal roost trees identified within the vicinity of the Rebuild Project.
Virginia big-eared bat ( <i>Corynorhinus townsendii virginianus</i> )	FE SE	USFWS	Identified as potentially occurring within or near the Rebuild Project area.
Tricolored bat ( <i>Perimyotis subflavus</i> )	PFE SE	USFWS, DWR, DCR	Identified as potentially occurring within or near the Rebuild Project area.
Little brown bat ( <i>Myotis lucifugus</i> )	SE	DWR, DCR	Identified as potentially occurring within or near the Rebuild Project area.
Madison cave isopod ( <i>Antrolana lira</i> )	FT ST	USFWS, DWR, DCR	Identified as potentially occurring within or near the Rebuild Project area.
Northeastern bulrush ( <i>Scirpus ancistrochaetus</i> )	FE SE	USFWS	Identified as potentially occurring within or near the Rebuild Project area.
Virginia sneezeweed ( <i>Helenium virginicum</i> )	FT, SE	USFWS	Identified as potentially occurring within or near the Rebuild Project area.
Madison cave amphipod ( <i>Stygobromus stegerorum</i> )	ST	DWR, DCR	Identified as potentially occurring within or near the Rebuild Project area.
Loggerhead shrike ( <i>Lanius ludovicianus</i> )	ST	DWR	Identified as potentially occurring within or near the Rebuild Project area.
Monarch butterfly ( <i>Danaus plexippus</i> )	FC	USFWS	Identified as potentially occurring within or near the Rebuild Project area.
Bald Eagle ( <i>Haliaeetus leucocephalus</i> )	Protected	CCB Eagle Nest Locator	No bald eagle nests are located within 660 feet of the Project area. No bald eagle concentration areas are present within the Project vicinity. No disturbance to bald eagles is anticipated.

\*FT: federally threatened, FE: federally endangered, C: candidate species, ST: state threatened, SE: state endangered; PFE: proposed federally threatened; PFT: proposed federally endangered.

The Company submitted a Rebuild Project Review request to DCR in September 2023. On October 11, 2023, the Company received correspondence from DCR. State and federally listed species documented by DCR within the project vicinity are noted in Table 2. Comments from the DCR concerning other natural heritage

resources are discussed further below. Additionally, the Company requested comments from the USFWS, DWR, and DCR regarding the proposed Rebuild Project in March 2024. Agency comments, if received prior to filing, will be included as Attachment 2.G.2.

Because the Company will obtain all necessary permits prior to construction, such as authorization from the Corps, coordination with the USFWS, DWR, and DCR will take place through the respective permit processes to avoid and minimize impacts to listed species.

#### *Bats*

The majority of the work will take place within existing cleared and maintained transmission line rights-of-way where tree limbing and removal would be limited to danger trees and construction access. The Company intends to conduct any tree clearing activities outside of any required time-of-year restrictions to protect listed bat species or conduct surveys to document presence or absence of the species.

#### *Aquatic Species*

Construction access will avoid stream crossings where practical or use crane mats to span stream crossings with no in-stream work required. Erosion and sediment controls would be used as appropriate throughout the Rebuild Project. Under these conditions, impacts to listed aquatic species are not expected. Therefore, there should be no effect to the Atlantic pigtoe and green floater.

#### *Listed Plants*

Two plant species have been listed as potentially occurring within the Rebuild Project area: Northeastern bulrush and Virginia sneezeweed. Potential suitable habitat may be present within the Rebuild Project area where wetlands are located, including sinkhole ponds in the southern portion of the Rebuild Project. A karst habitat evaluation will be conducted to inform the location of potential habitat and karst features to be avoided within the Rebuild Project area. Erosion and sediment control measures will be implemented throughout the Rebuild Project.

#### *Bald Eagle*

There are no identified bald eagle nests located near the Rebuild Project area; therefore, the Rebuild Project is not expected to impact bald eagles.

#### *Natural Heritage Resources*

An initial project review of the DCR Natural Heritage Data Explorer identified natural heritage resources within the Rebuild Project area. The Company submitted the project to DCR for a more detailed review. The response from DCR was received on October 11, 2023.

DCR has identified one conservation site and a separate occurrence of a rare plant within the Rebuild Project Area. The Furnace Mountain—Turk Mountain—Harriston—Mt. Bethel Ponds Conservation Site has been assigned a biodiversity rank of B1, which represents a site of outstanding significance. The natural heritage resource associated with this site is sessile-leaf Tick-trefoil (*Desmodium sessilifolium*). This species has a state conservation ranking of S2, which is state imperiled.

DCR recommends avoiding tree removal and other ground disturbing work within the conservation site, with particular attention paid to the documented occurrence of the Sessile-leaf Tick-trefoil, which is within the existing right-of-way. DCR recommends a survey of the documented occurrence to confirm the location and determine the extent of the population. There is also potential for undocumented occurrences of the Sessile-leaf Tick-trefoil in other areas of the right-of-way. Therefore, DCR recommends an inventory for the Sessile-leaf Tick-trefoil in the study area.

DCR's comments in response to the Company's Rebuild Project Review request also recommend that the Company develop and implement an invasive species plan to be included as part of the maintenance practices for the entirety of the ROW for the Rebuild Project. Additionally, based on discussions between the Company and DCR DNH representatives, the Company reviewed its Integrated Vegetation Management Plan ("IVMP") for application to both woody and herbaceous species, based on the species list available on the DCR website. The Company continues to coordinate with DCR on an addendum to the IVMP to further explain how the Company's operations and maintenance forestry program addresses invasive species. In November 2023, the Company submitted the addendum draft to DCR for review and continued discussions. DCR provided an initial response to the addendum in January 2024. The Company will continue to meet with DCR to further discuss the documentation provided. Once the addendum is finalized, the Company will report on the results of its communications with DCR in future transmission certificate of public convenience and necessity filings.

Due to the presence of rare plants DCR has the following additional recommendations for the maintenance of the ROW:

1. Documenting and avoiding Natural Heritage Resources (Rare, Threatened and Endangered) within the right-of-way. The maintenance of the right-of-way as early successional habitats with open canopy provide suitable habitat for many rare resources.
2. Marking all rare plant sites with signs from the transmission towers just outside the rare plant populations so that the population(s) are contained entirely within the defined area.

3. Maintenance of vegetation using annual mowing in the non-growing season between October 15 and April 1 and minimal to no use of chemicals especially in sensitive areas with documented natural heritage resources.

4. When woody plant management is required, carefully treating the woody species with herbicide. This treatment is conducted under a different contract than used on non-rare plant lines. The rate set up for this contract helps insure precise herbicide application with less accidental overspray.

5. Monitoring a subset of the rare plant populations carefully to make sure that this management prescription is effective in maintaining the rare plant populations.

DCR has noted that the Rebuild Project has intersected the karst bedrock and Virginia Department of Energy (VDE) sinkhole screening layers and therefore recommends a survey for karst features along the right-of-way and avoiding any karst features that are identified.

DCR also recommends that right-of-way restoration and maintenance practices include appropriate vegetation using native species in a mix of grasses and forbs, robust monitoring and an adaptive management plan to provide guidance if initial revegetation efforts are unsuccessful or if invasive species outbreaks occur. The Company's restoration and maintenance practices are dictated by the requirements of the DEQ Construction General Permit for the discharge of stormwater associated with construction as well as the approved Annual Standards and Specifications (See Sections 2.H and 2.J). The seed mixes, which include native species, and inspection requirements are stipulated by DEQ through those approvals.

New and updated information is continually added to the DCR's Biotics database. Following the DCR-DNH SCC planning stage project review, the Company will re-submit project information with a completed information services order form and a map or submit the project on-line through the Natural Heritage Data Explorer. This review will occur during the final stage of engineering and upon any major modifications of the project during construction (i.e., deviations, permanent, or temporary, from the original study area and/or the relocation of a structure(s) into sensitive areas) for an update on natural heritage information and coordination of potential project modifications to avoid and minimize impacts to natural heritage resources.

## **H. Erosion and Sediment Control**

The DEQ approved the Company's *Annual Standards & Specifications for Erosion & Sediment Control and Stormwater Management for Construction of Linear Electric Transmission Facilities (TE VEP 8000)* in February 2024. These specifications are given to the Company's contractors and require erosion and sediment control measures to be in place before construction of the proposed

Rebuild Project begins and specify the requirements for rehabilitation of the transmission corridor. A copy of the current DEQ approval letter dated February 27, 2024, is provided as Attachment 2.H.1. According to the approval letter, coverage is effective through February 26, 2025.

**I. Archaeological, Historic, Scenic, Cultural or Architectural Resources**

The Company solicited comments from the Virginia Department of Historic Resources (“VDHR”) in March 2024. Comments from the VDHR received before filing will be included as Attachment 2.I.1. In anticipation of VDHR’s recommendation that the Company follow the *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* to minimize impacts to historic resources, Stantec was retained by the Company to conduct a Stage I Pre-Application Analysis, which is included as Attachment 2.I.2. As detailed by VDHR guidance, consideration was given to: National Historic Landmark (“NHL”) properties located within a 1.5-mile radius of the Project centerline; National Register of Historic Places (“NRHP”) listed properties, battlefields, and historic landscapes located within a 1.0-mile radius of the Project centerline; NRHP-eligible sites located within a 0.5-mile radius of the Project centerline; and archaeological sites located within the Project Corridor.

**Archaeological Resources**

No archaeological resources were identified within the transmission line right-of-way.

**Architectural Resources**

There are no listed NHL within the 1.5-mile buffer of the Rebuild Project. Two (2) battlefields are located within 1-mile of the Rebuild Project. Seven (7) resources eligible for listing on the NRHP are located within 0.5 miles of the Rebuild Project. The Stage I report recommends there will be minimal visual impacts to historic properties from the proposed Rebuild Project where proposed structures will be visible and no impacts to historic properties from the proposed Rebuild project when no proposed structures will be visible. The Stage I report was sent to VDHR in April 2024 for concurrence. These resources are provided in Table 3 below.

**Table 3. Architectural Resources Considered in the Stage I report**

<b>DHR #</b>	<b>Resource Name</b>	<b>DHR/NRHP Status</b>	<b>Distance to Closest Structure (Feet)</b>	<b>Impacts</b>
007-0944	John Nicholas Coiner House and Mill	DHR Eligible	3,540	None

<b>DHR #</b>	<b>Resource Name</b>	<b>DHR/NRHP Status</b>	<b>Distance to Closest Structure (Feet)</b>	<b>Impacts</b>
007-0964	Crimora Elementary School, Route 612	NRHP-Listed	5,175	None
082-0010	College Camp	DHR Eligible	2,835	None
082-0123	Port Republic Historic District	NRHP-Listed	704	Minimal
082-0368	Dr. Joseph B. Webb House, 3327 Cross Keys Road	NRHP-Eligible	1,217	Minimal
082-0369	William VanLear Farm/Kiblinger House, 3591 Cross Keys Road	NRHP-Eligible	312	Minimal
082-0376	Cross Keys Battlefield	NRHP-Eligible	0	Minimal
082-0401	William Saufley Farm, 7358 Shady Grove Road	NRHP-Eligible	0	Minimal
082-5075	Kyle's Mill House, 1764 Cross Keys Road	NRHP-Listed	4,096	None
082-5096	Peter Heil House/ Springdale Farm, 4090 Cross Keys Road	NRHP-Eligible	2,346	Minimal
082-5156	Dundore House, 1582 Ridgedale Road	NRHP-Eligible	171	Minimal
082-5204	German Reformed Church Parsonage, 4067 Cross Keys Road	NRHP-Eligible	1,252	Minimal
082-5430	Port Republic Battlefield	NRHP Potentially Eligible	0	Minimal
115-5055	Argubright Barn (demolished), 740 Stone Spring Road	NRHP-Eligible	N/A	N/A
228-0015	Grottoes Elementary School	DHR Eligible	3,838	None
228-5022	Steven Hainsberger House, Holly Avenue	NRHP-Listed	3,581	None

## **J. Chesapeake Bay Preservation Areas**

The proposed Rebuild Project is located in Augusta and Rockingham Counties as well as the Town of Grottoes and is not subject to the Chesapeake Bay Preservation Act.

## **K. Wildlife Resources**

Relevant agency databases were reviewed and requests for comments from the USFWS, DWR, DCR, and VDACS were submitted to determine if the proposed Rebuild Project has the potential to affect any threatened or endangered species, as described in Section 2.G. Agency comments received before filing will be included as Attachment 2.G.2. As discussed in Section 2.G and identified in Attachment 2.G.1, certain federal and state listed species were identified as potentially occurring in the Rebuild Project area. The majority of the Rebuild Project will be located within the existing, maintained transmission line corridor; however, limited removal of danger trees may be necessary for work within exiting transmission ROW. Accordingly, no loss of wildlife habitat is anticipated.

In addition, the Company is actively monitoring regulatory changes and requirements associated with the Northern long-eared bat (“NLEB”) and how it could potentially impact construction timing associated with time of year restrictions (“TOYRs”). The USFWS has previously indicated that it planned to issue final NLEB guidance to replace the interim guidance by April 1, 2024; however, the interim guidance has been extended by USFWS until late summer 2024. The Company actively is tracking updates from the USFWS with respect to the final guidance. Once issued, the Company plans to review and follow the final guidance to the extent it applies to the Company’s projects. Until the final guidance is issued, the Company will continue following the interim guidance. For projects that may require additional coordination, the Company will coordinate with the USFWS.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat (“TCB”). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered Species Act (“ESA”). USFWS recently extended its Final Rule issuance target from September 2023 to September 2024. The Company is actively tracking this ruling and evaluating the effects of potential outcomes on Company projects’ permitting, construction, and in-service dates, including electric transmission projects.

## **L. Recreation, Agricultural and Forest Resources**

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. There are 58.22 acres of land designated as prime farmland within the Rebuild Project Corridor. Land that does not meet the criteria for prime farmland can be considered to be “farmland of statewide importance.” The criteria for defining and delineating farmland of statewide importance are determined by the Virginia Department of Agriculture and Consumer Services. Generally, this land includes

areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. There are 103.54 acres designated as farmland of statewide importance within the Rebuild Project area. Other areas that are not identified as having national or statewide importance can be considered to be “farmland of local importance.” This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance. Augusta County, Rockingham County, and the Town of Grottoes have no designated farmlands of local importance.

Farming operations currently exist within the Rebuild Project’s right-of-way; however, the Company utilizes timber mats to access transmission structures within agricultural fields, and pads for structure erection. These will minimize the impact to the soil to result in only a temporary impact, thereby avoiding permanent impacts to farmlands from construction access. The Company will work with landowners on final structure placement to minimize the effect on farming operations. As such, prime farmland and agricultural and forestal districts should not be incrementally impacted by the construction of the Rebuild Project. Therefore, the Rebuild Project is not expected to affect agricultural land.

Under the Virginia Open-Space Land Act, any public body can acquire title or rights to real property to provide means of preservation of open-space land. Such conservation easements must be held for no less than five years in duration, and can be held in perpetuity. The existing ROW intersects a VDHR easement on the north side of the South River. In March 2024, the Company solicited Virginia Outdoors Foundation (“VOF”) and the Virginia Department of Forestry (“VDOF”) for comments on the proposed Rebuild Project. VOF responded that as of April 19, 2024, there are ten properties within 1.5 miles of the Rebuild Project with open-space easements. VOF correspondence is included as Attachment 2.L.1. Any VDOF comments received prior to the date of filing will be included as Attachment 2.L.2.

The Virginia Scenic Rivers Act seeks to identify, designate, and protect rivers and streams that possess outstanding scenic, recreational, historic, and natural characteristics of statewide significance for future generations. The Rebuild Project area contains no such identified rivers and streams nor do any exist within one mile of the Rebuild Project area.

There are no scenic byways within the Rebuild Project vicinity. Route 256 in the Town of Grottoes is a designated Scenic Road but ends approximately 0.2 miles from the Rebuild Project centerline.

The existing transmission ROW is currently cleared and maintained for 230 kV transmission line operations. The Rebuild Project will not require any new permanent ROW. Therefore, the Rebuild Project is not expected to impact forest resources.



## **M. Use of Pesticides and Herbicides**

Of the techniques available, selective foliar is the preferred method of herbicide application. The Company typically maintains transmission line rights-of-way and spaces for transmission line operation on Company property by means of selective, low volume applications of EPA approved, non-restricted use herbicides. The goal of this method is to exclude tall growing brush species from the right-of-way by establishing early successional plant communities of native grasses, forbs, and low growing woody vegetation. “Selective” application means the Company sprays only the undesirable plant species (as opposed to broadcast applications). “Low volume” application means the Company uses only the volume of herbicide necessary to remove the selected plant species. The mixture of herbicides used varies from one cycle to the next to avoid the development of resistance by the targeted plants. There are four means of dispersal available to the Company, including by-hand application, backpack, fixed nozzle-radiarc, and aerial. However, very little right-of-way maintenance incorporates aerial equipment. The Company uses licensed contractors to perform this work that are either certified applicators or registered technicians in the Commonwealth of Virginia.

DEQ has previously requested that only herbicides approved for aquatic use by the EPA or the USFWS be used in or around any surface water; the Company intends to comply with this request. See Section G for discussion of the Company’s IVMP.

## **N. Geology and Mineral Resources**

According to the Division of Geology and Mineral Resources Interactive Geologic Map, the Rebuild Project is underlain by unconsolidated sediments of the Atlantic Coastal Plain. The Rebuild Project sits atop the Beekmantown Group, Elbrook Formation, Conococheague Formation, Martinsburg and Oranda Formations, Edinburg Formation, and Waynesboro Formation whose compositions can be viewed below in Table 4.

**Table 4. Geological Formations and Compositions**

<b>Formation Name</b>	<b>Primary Rock Type</b>	<b>Secondary Rock Type</b>
Beekmantown Group	Dolostone	Limestone
Elbrook Formation	Dolostone	Limestone
Conococheague Formation	Limestone	Dolostone
Martinsburg and Oranda Formations	Shale	Sandstone
Edinburg Formation	Limestone	Black Shale
Waynesboro Formation	Dolostone	Shale

According to the USGS topographic maps and aerial imagery, there are no active mines or stone quarries within the proposed Rebuild Project area. A search of the Virginia Department of Energy online map confirms there are no active or abandoned mines within the transmission line corridor. There are seven (7)

abandoned mines within 1 mile of the corridor spanning distances of between 0.1 miles to 0.9 miles from the centerline. Therefore, it is not anticipated that the Rebuild Project will result in negative impacts on the geology or mineral resources.

## **O. Transportation Infrastructure**

The existing corridor for Line #260 crosses multiple Virginia Department of Transportation (“VDOT”) maintained, low traffic volume roadways in Rockingham County including Ridgedale Road, Autumn Lane, Osceola Springs Road, Spaders Church Road, Oak Ridge Road, Pleasant Valley Road, Cross Keys Road, Artillery Road, Williams Run Road, Mill Creek Church Road, Stoney Lick Road, Leroy Road, S River Road, Randall Road, and S East Side Highway.

The existing corridor for Line #272 crosses the VDOT maintained Black Rock Road in Rockingham County as well as Cary Street, which is owned and maintained by the Town of Grottoes. In Augusta County, the existing Line #272 crosses Stull Run Lane, Harriston Road, Paine Run Road, Trayfoot Road, Rock Mountain Lane, Thorofare Road, Forest Chapel Lane, Crimora Mine Road, Mine Branch Road, Venus Drive, Viburnum Drive, Northwood Drive, Woodside Drive, Turk Mountain Lane, and Purple Cow Road.

The Company plans to apply for land use permits from VDOT for any aerial crossings of VDOT maintained roads and any construction entrances from the VDOT right-of-way. All permits will be obtained prior to construction. In March 2024, the Company solicited comments from VDOT regarding the proposed Rebuild Project. VDOT comments received prior to filing will be included as Attachment 2.O.2.

The Shenandoah Valley Regional Airport (SHD) is located approximately 3.8 miles west of the Rebuild Project and Bridgewater Air Park (VBW) is approximately 4.5 miles from the Rebuild Project. The design of the proposed Rebuild Project must not prevent interference with pilots’ safe ingress and egress at either airport. Such hazard or impediments include interference with navigation and communication equipment and glare from materials and external lights. The Company solicited comments from the Virginia Department of Aviation (“DOAv”) regarding the proposed Rebuild Project. Comments were received on March 29, 2024, and are included as Attachment 2.O.1. Due to the proximity of the Rebuild Project to Shenandoah Valley Regional Airport and information contained within the FAA Notice Criteria Tool, the Company will submit a 7460 form to the FAA to initiate airspace study to evaluate whether the project will create a hazard to navigation.

The proposed Rebuild Project crosses a Norfolk Southern railroad corridor between mileposts 128 and 129 and between Structures #260/78 and #260/79 along the east side of the Town of Grottoes.

The Company will secure all necessary permits from VDOT, DOAv, FAA, and any railroads prior to construction in the respective rights-of-way.

#### **P. Drinking Water Wells**

In March 2024, the Company solicited comments on the proposed Rebuild Project from various DEQ entities. DEQ forwarded the Company's request to the Virginia Department of Health's Office of Drinking Water ("VDH-ODW"), which responded on April 17, 2024, regarding the proximity of the Rebuild Project to public drinking water sources (groundwater wells, springs and surface water intakes). VDH-ODW stated that Best Management Practices should be employed, including Erosion & Sedimentation Controls and Spill Prevention Controls & Countermeasures on the project site; well(s) within a 1,000-foot radius from project site should be field marked and protected from accidental damage during construction and materials should be managed while on site and during transport to prevent impacts to nearby surface water. A copy of that correspondence is included as Attachment 2.P.1.

As a general matter, water wells within 1,000 feet of the Rebuild Project may be outside of the ROW and located on private property. The Company does not have the ability or right to field mark the wells on private property. In August 2021, the Company contacted VDH-ODW to propose a method of well protection, including plotting and calling out the wells on the Rebuild Project's Erosion and Sediment Control Plan, to which VDH-ODW indicated that the Company's proposed method is reasonable. A copy of that correspondence is included as Attachment 2.P.2. The Company intends to follow this same approach in this proceeding, as it has in other cases, and will coordinate with VDH-ODW, as needed.

#### **Q. Pollution Prevention**

Generally, as to pollution prevention, as part of Dominion Energy Virginia's commitment to environmental compliance, the Company has a comprehensive Environmental Management System Manual in place that ensures it is complying with environmental laws and regulations, reducing risk, minimizing adverse environmental impacts, setting environmental goals, and achieving improvements in its environmental performance, consistent with the Company's core values. Accordingly, any recommendation by the DEQ to consider development of an effective environmental management system has already been satisfied.

## **Attachments**

Dominion Energy Services, Inc.  
120 Tredegar Street, Richmond, VA 23219  
DominionEnergy.com



March 28, 2024

**BY E-MAIL**

**SCC ELECTRIC TRANSMISSION PROJECT NOTIFICATION**

**RE: Dominion Energy Virginia's Proposed Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild**

To Whom it May Concern:

Dominion Energy Virginia (the "Company") is proposing to wreck and rebuild the existing transmission Lines #260 and #272, entirely within existing rights-of-way- or Company owned property. The project is approximately 22.1 miles in length and interconnects to the existing Dooms, Grottoes, and Harrisonburg Substations in Augusta and Rockingham Counties and the Town of Grottoes. The Company proposes to rebuild Line #260, which is currently operating on single circuit wooden H-frame structures, with weathering steel H-frame structures. Line #272, which is currently operating on single circuit COR-TEN<sup>®</sup> lattice towers, will be rebuilt with weathering steel monopole structures. Collectively this work is referred to as the "Rebuild Project."

The Rebuild Project, which will replace aging infrastructure at the end of its service life, is needed to maintain the structural integrity and reliability of the networked transmission system and comply with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the State Corporation Commission of Virginia (the "Commission"). In advance of filing an application for a CPCN from the Commission, the Company respectfully requests that you submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter.

Enclosed is a Project Overview Map depicting the proposed Rebuild Project, as well as its general location. All final materials, including maps, will be available in the Company's application filing to the Commission.

Finally, attached is a GIS shapefile of the Project Corridor for the Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild Project to assist in your review. Please do not hesitate to contact Ginny Gills (804) 201-3635 or [virginia.b.gills@dominionenergy.com](mailto:virginia.b.gills@dominionenergy.com) if you have any additional questions.

March 28, 2024  
Page 2 of 2

The Company appreciates your assistance with this project review and looks forward to any additional information you may have to offer.

Sincerely,

A handwritten signature in black ink, appearing to read 'E L Hester', with a stylized flourish at the end.

Elizabeth "Tibby" L. Hester  
Authorized Representative  
Manager, Environmental & Sustainability

Attachments: Project Overview Map  
GIS Shapefiles

**COMMONWEALTH of VIRGINIA***Marine Resources Commission**380 Fenwick Road**Bldg 96**Fort Monroe, VA 23651-1064**Travis A. Voyles  
Secretary of Natural and Historic  
Resources**Jamie L. Green  
Commissioner*

April 19, 2024

Dominion Energy Services, Inc.  
Attn: Ginny Gills  
120 Tredegar Street  
Richmond, VA, 23219

Re: Harrisonburg 230 kV Lines #260 and #272 Rebuild, SCC  
Project Notification

Dear Ms. Gills:

This will respond to the request for comments regarding the Harrisonburg 230 kV Lines #260 and #272 Rebuild Project, prepared by Dominion Energy. Specifically, Dominion Energy has proposed to wreck and rebuild approximately 22.1 miles of existing transmission lines that interconnect to the existing Doods, Grottoes, and Harrisonburg Substations in Augusta County and Rockingham County, Virginia.

We reviewed the provided project documents and found the proposed project may impact resources within the jurisdictional areas of the Virginia Marine Resources Commission (VMRC) and may require a permit from this agency. Please be advised that the VMRC, pursuant to §28.2-1200 et seq of the Code of Virginia, has jurisdiction over encroachments in, on, or over the beds of the bays, ocean, rivers, streams, or creeks which are the property of the Commonwealth. Accordingly, if any portion of the subject project involves any encroachments channelward of ordinary high water along non-tidal, natural rivers and streams with a drainage area greater than 5-square miles, a permit may be required from our agency or the Department of Environmental Quality. Any jurisdictional impacts will be reviewed by the VMRC during the JPA process.

Please contact me at (757) 951-3179 or by email at [kirsten.travis@mrc.virginia.gov](mailto:kirsten.travis@mrc.virginia.gov) if you have any questions. Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Travis", written over a horizontal line.

Kirsten Travis  
Environmental Engineer, Habitat Management

KT/dd  
HM

*An Agency of the Natural and Historic Resources Secretariat*

[www.mrc.virginia.gov](http://www.mrc.virginia.gov)

Telephone (757) 247-2200 Information and Emergency Hotline 1-800-541-4646



Stantec Consulting Services Inc.  
5209 Center Street, Williamsburg, Virginia 23188-2680

March 6, 2024  
File: 203401846

Ms. Virginia Gills  
Dominion Energy Environmental Services  
120 Tredegar Street  
Richmond, VA 23119

**Reference: Desktop Wetland Review**  
**Dooms – Harrisonburg 230 kV Lines #260 and #272 Rebuild Project, Augusta and Rockingham Counties, Virginia**

<b>Start:</b>	<b>Latitude: 38.410879°</b>	<b>Terminus: Latitude: 38.107179°</b>
	<b>Longitude: -78.882320°</b>	<b>Longitude: -78.848147°</b>

Dear Ms. Gills,

The following report presents the results of a desktop wetland review conducted by Stantec Consulting Services Inc. (Stantec) for the Dooms – Harrisonburg 230 kV Lines #260 and #272 Rebuild Project (Project) located in Augusta and Rockingham Counties, Virginia. The purpose of this study is to determine the approximate location and extent of areas that have the potential of containing jurisdictional wetlands and other surface waters using available off-site resources.

The Project area consists of an existing transmission line right-of-way (ROW) beginning at the Harrisonburg Substation located southeast of Interstate 81, east of Ramblewood Drive, southwest of Stone Spring Road (Route 280), and north of Ridgedale Road (Route 710). The transmission line generally runs southeast before turning south at the Grottoes Substation. The transmission line terminates at the Dooms Substation which is located east of Eastside Highway (Route 340), north of Dooms Crossing Road (Route 611), and southwest of Purple Cow Road (Route 619). The Project crosses, and can be accessed from the following roadways; Osceola Springs Road (Route 704), Spaders Church Road (Route 689), Oak Ridge Road (Route 680), Cross Keys Road (Route 276), Artillery Road (Route 671), Mill Creek Church Road (Route 672), Stoney Lick Road (Route 828), Leroy Road (Route 605), Dogwood Avenue (Route 825), South East Side Highway (Route 340), Browns Gap Road (Route 663), Black Rock Road (Route 661), Stull Run Lane (Route 856), Harriston Road (Route 778), Paine Run Road (Route 614), Trayfoot Road (Route 615), Rocky Mountain Lane (616), Thorofare Road (Route 628), Crimora Mine Road (Route 612), Mine Branch Road (Route 663), Turk Mountain Lane (Route 672), and Purple Cow Road.

Due to the preliminary nature of this study, the field methods outlined in the *1987 Corps of Engineers Delineation Manual* and the *2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)* were not applied to determine the limits of wetlands and other water features on-site. Rather, U.S. Geological Survey (USGS) Quadrangle Maps, current and historical web-based aerial imagery, wetland photo interpretation techniques, soil surveys, and the National Wetlands Inventory (NWI) were used to ascertain the approximate limits of wetlands and other surface waters. For an evaluation of this type, the dimensions of these features are difficult to determine using even the highest resolution and most recent off-site reference materials. Large floodplains containing



March 6, 2024  
Ms. Virginia Gills  
Page 2 of 4

**Reference:** Desktop Wetland Review Doods – Harrisonburg 230 kV Lines #260 and #272 Rebuild Project, Augusta and Rockingham Counties, Virginia

broad, flat topography can be assessed accurately using aerial photography. However, smaller secondary drainages containing lower order streams and headwater wetlands are more difficult to evaluate and could contain a high degree of deviation when compared to field conditions. Therefore, all site conditions predicted as a part of this analysis and in the mapping provided are considered preliminary, and without site reconnaissance should only be utilized for early-stage planning purposes.

Multiple off-site resources were reviewed to determine areas that have the potential to contain jurisdictional wetlands or other surface waters within the study area described above. These materials include the U.S. Geological Survey 7.5-minute Topographic Quadrangle Maps (Quads) for Harrisonburg, VA (2002), Grottoes, VA (1987), and Crimora, VA (1987); the National Wetlands Inventory Interactive Mapper (NWI), administered by the U.S. Fish and Wildlife Service (USFWS); the SSURGO Soils Survey, administered by the Natural Resources Conservation Service (NRCS); and web-based aerial images. In addition, ArcGIS was utilized to generate and evaluate digital elevation models (DEM) and stream flow accumulation models to predict the location and extent of potential stream channels.

### **USGS Quad Maps**

The USGS Quad Maps depicts an existing cleared ROW on moderately sloping terrain passing through a mixture of forested and cleared landscapes. Near the northern terminus of the Project, the terrain varies more greatly in topography and multiple drainages are depicted. Additionally, multiple unnamed stream systems and some named perennial streams transect the Project area. Notable named streams depicted in the Project area include Pleasant Run, South Fork Shenandoah River, South River, Miller Run, Stull Run, Paine Run, Meadow Run, Laurel Run, Mine Branch, Tunnel Branch, Sawmill Run, and Steele Run.

### **NWI Maps**

The NWI maps administered by USFWS are useful in the identification of potential wetland areas. The maps are compiled through photo interpretation techniques with limited field verification. Large floodplains and regularly inundated wetlands are easily illustrated and are often mapped reasonably accurately, while certain forested wetlands (e.g., seasonally saturated, groundwater driven, and evergreen dominated) and other drier-end wetlands tend to be either conservatively mapped or not shown at all.

The NWI maps depict multiple freshwater forested/shrub wetlands, freshwater emergent wetlands, riverine, and freshwater pond within the study area. The NWI identifies all wetlands within the proposed project area as palustrine, which includes all non-tidal wetlands and wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.05%. It should be noted that all wetlands within the study area are presumed to be scrub shrub or emergent due to regular maintenance of the ROW. Riverine systems within the Project area are generally mapped consistently with the Quad maps and include intermittent and perennial systems.

### **Digital Aerial Imagery**

Web-based aerial images of the Project area were reviewed to determine the approximate location and extent of areas that have the potential of containing jurisdictional wetlands and other surface waters. Historical and current aerial imagery can be compared across seasons and year-over-year to determine the potential occurrence of jurisdictional features. Seasonal variations in deciduous vegetation and the

March 6, 2024  
 Ms. Virginia Gills  
 Page 3 of 4

**Reference:** Desktop Wetland Review Doods – Harrisonburg 230 kV Lines #260 and #272 Rebuild Project, Augusta and Rockingham Counties, Virginia

presence of stream channels, as well as inundated or saturated areas were all evaluated for their resource potential.

Based on the review of current and historical digital aerial imagery, jurisdictional features are likely present at most Quad mapped stream crossings and NWI mapped wetland features. Additional drainageways and low-lying topographic areas were also identified for the potential to contain wetlands and/or stream channels within the Project area.

### Soil Survey

The Natural Resources Conservation Service (NRCS) Web Soil Survey shows numerous soil types within the Project study area. The location of hydric and partially hydric soils within the ROW are of particular interest, as areas mapped with these soils generally have a high potential to contain jurisdictional features. It should be noted that areas mapped with non-hydric soils could also contain jurisdictional features. A significant portion of the soils mapped within the study area are classified by the NRCS as non-hydric or predominately non-hydric. The hydric soils present include Aquic udifluvents, Purdy silt loam, and Atkins fine sandy loam.

### Stream Resources

Identifying stream networks is an important aspect of a desktop analysis and ArcGIS provides a range of tools to help with this task. The Flow Accumulation tool has been used to predict stream networks from a DEM. Once created, the stream network was reviewed by experienced Stantec staff and refined based upon indicators observed in aerial imagery. Stream origins and smaller tributaries can be difficult to map accurately. Therefore, for the purposes of a desktop analysis the limits of the predicted stream resources are mapped conservatively.

### Results

The following table presents the approximate dimensions of potential jurisdictional features based on the desktop wetland review for the Project. These features are shown on the attached Wetland and Surface Water Desktop Analysis Maps (Figure 1). As discussed above, all wetland features present within the study limits would likely be classified in the field as palustrine emergent (PEM) or scrub shrub (PSS) due to regular maintenance within the ROW. However, it should be noted that the distinction between emergent wetlands and scrub-shrub wetlands is often very difficult to ascertain using even the highest resolution aerial images and have been combined for this analysis.

<b>PEM/PSS (Acres)</b>	<b>Open Water (Acres)</b>	<b>Stream Channels Acres (LF)</b>
16.58	0.87	1.29 (7,370)

In addition, the probability of wetland occurrence was determined based upon the number of off-site resources giving a positive indication within a given area. The off-site resources considered for this probability analysis include current and historical aerial imagery, NWI mapping, hydric soil data, and Quad

March 6, 2024  
Ms. Virginia Gills  
Page 4 of 4

**Reference:** Desktop Wetland Review Doods – Harrisonburg 230 kV Lines #260 and #272 Rebuild Project, Augusta and Rockingham Counties, Virginia

mapping/topography. The probability was determined as follows and results are summarized in the table below:

- High probability: Areas that demonstrate positive indicators for potential wetlands on all four (USGS Quad Maps, NWI Maps, Digital Aerial Imagery, Soil Survey) of the above-mentioned off-site resources.
- Medium probability: Areas that demonstrate positive indicators for potential wetlands on two or three of the above-mentioned off-site resources.
- Low probability: Areas that demonstrate positive indicators for potential wetlands on one of the above-mentioned off-site resources.

High Probability (Acres)	Medium Probability (Acres)	Low Probability (Acres)
0.69	6.08	9.81

## Conclusion

Based on Stantec's interpretation of the above-mentioned off-site resources, the potential exists for jurisdictional features to occur in association with all major drainage features (including floodplains) and some secondary drainages within the project area as depicted in the attached Wetland and Surface Water Desktop Analysis Maps.

In order to verify the findings described in this report, Stantec recommends a detailed delineation of wetlands and other surface waters be performed within the final, approved project area followed by confirmation by the U.S. Army Corps of Engineers.

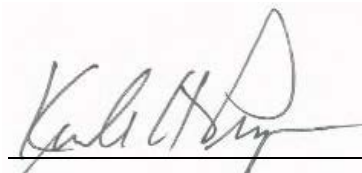
If you have any questions regarding the findings presented in this report, please feel free to contact me at your convenience.

Regards,



**Mitch Dannon**

Ecologist  
Phone: (757) 345-1329  
Mitch.dannon@stantec.com

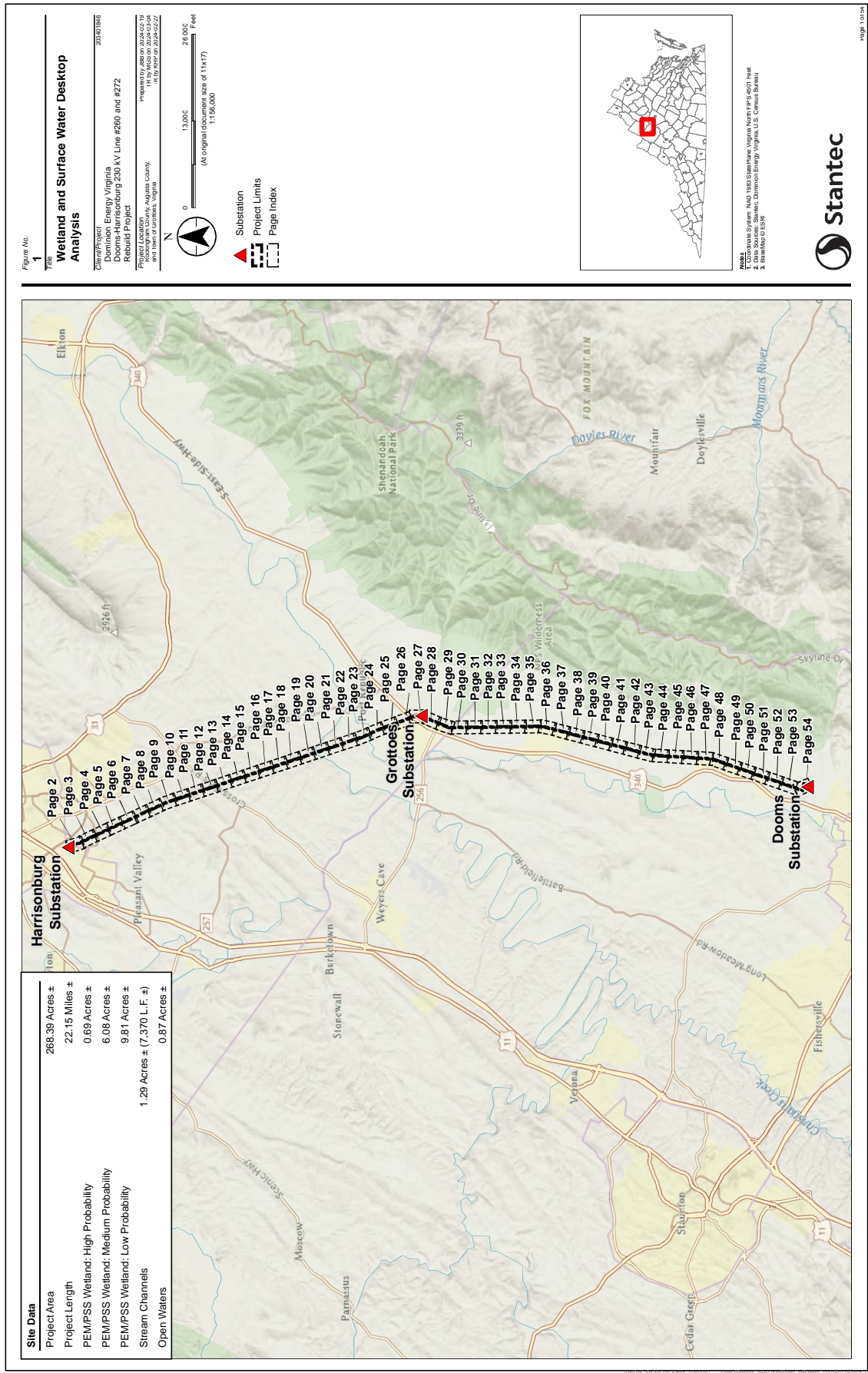


**Kenrick Presgraves** PWD, VSWD

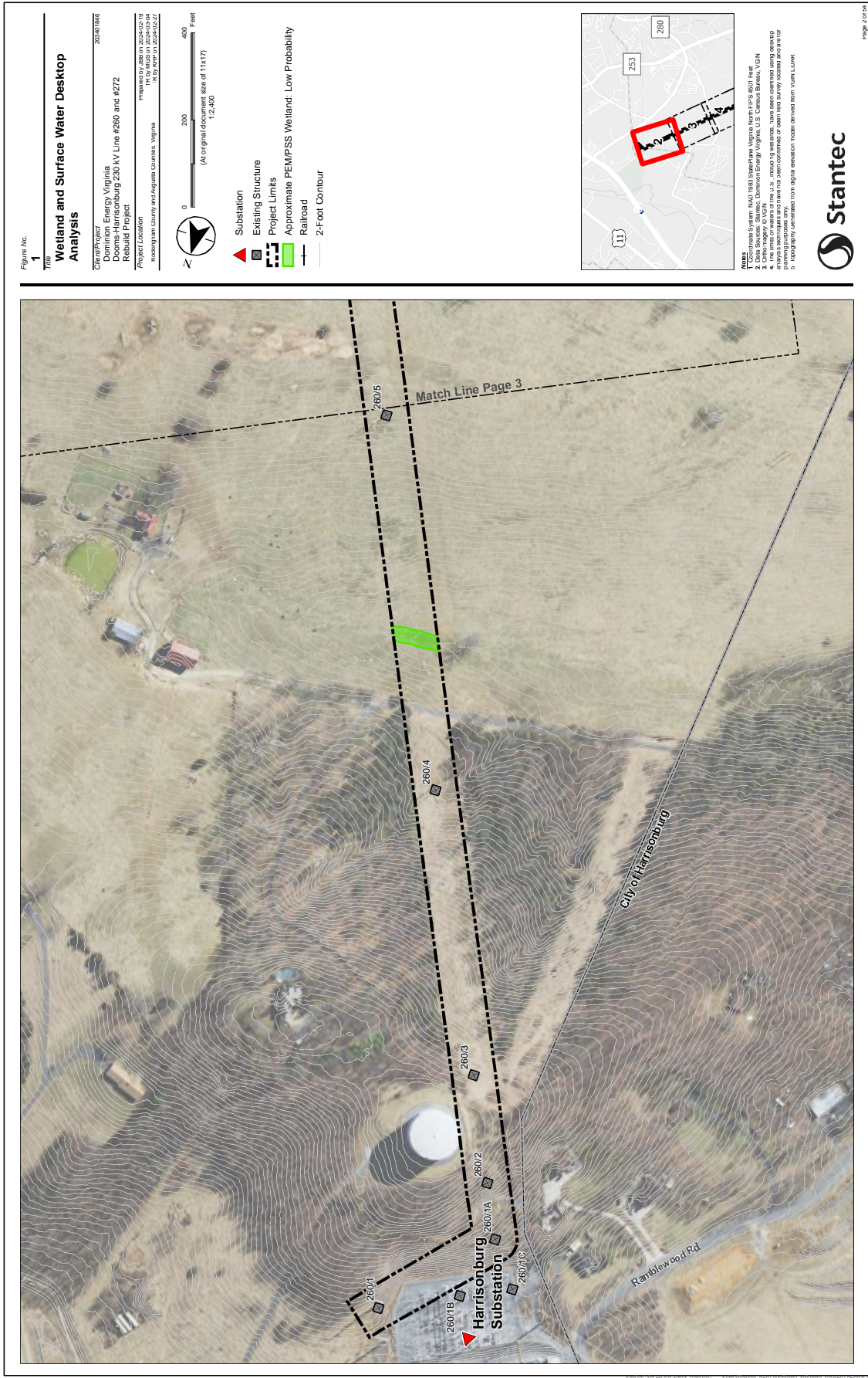
Senior Ecologist  
Phone: (757) 810-1464  
Kenny.presgraves@stantec.com

Attachment: Figure 1

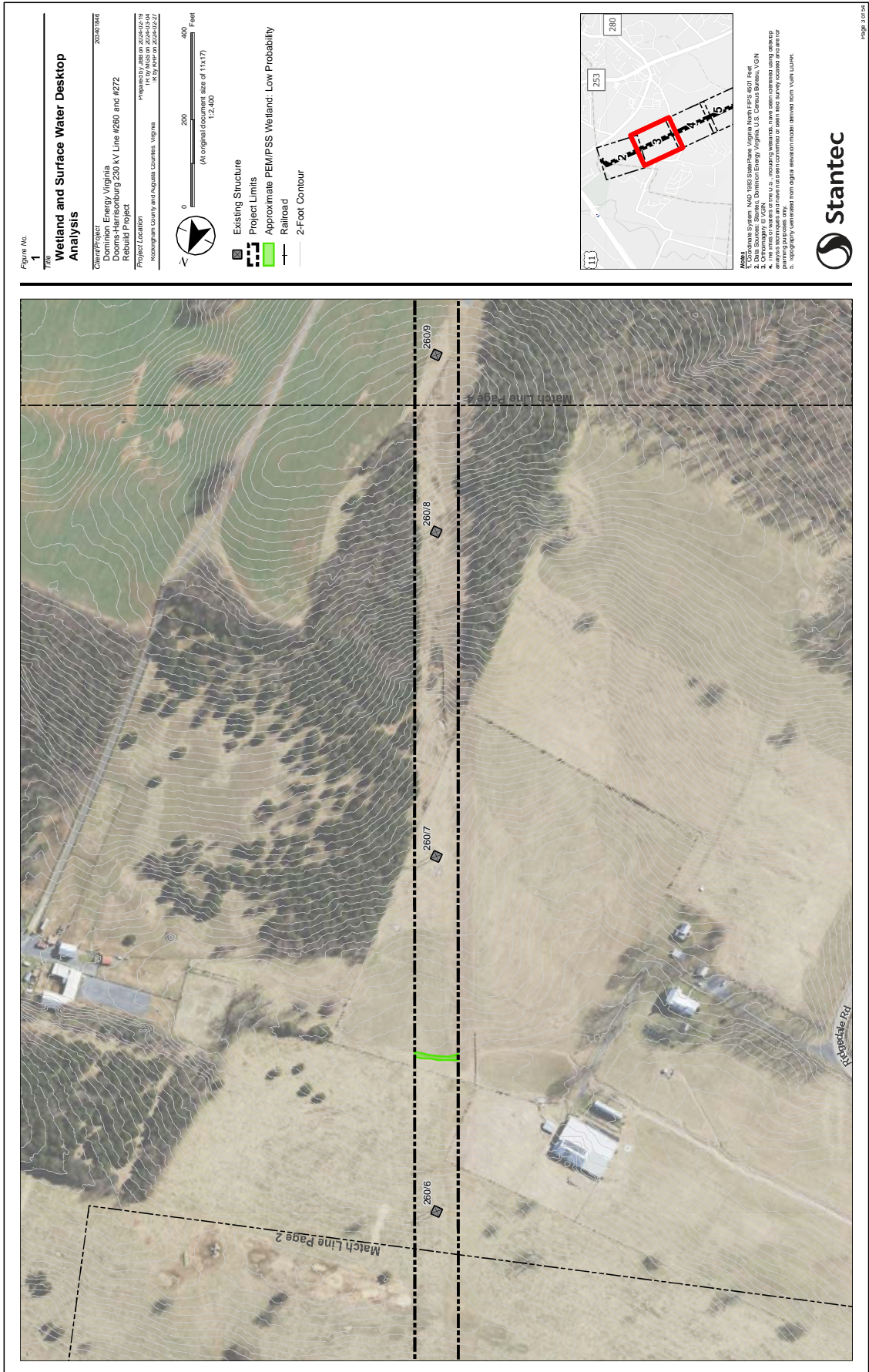
cc. Mr. Chuck Weil – Dominion Energy Virginia





















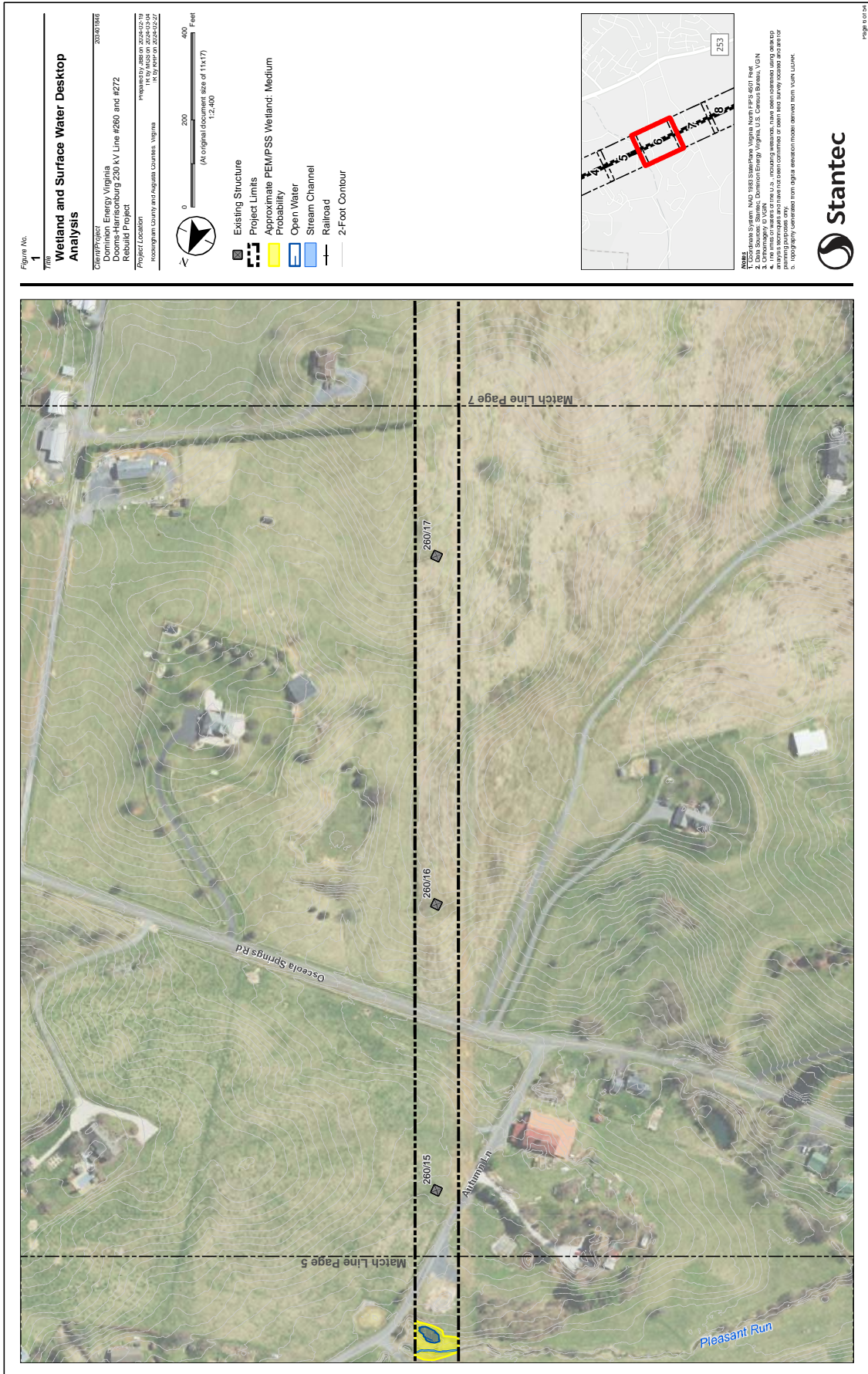




Figure No.  
1

# Wetland and Surface Water Desktop Analysis

Client/Project: Energy Virginia  
203-971866  
Doorns-Harrisburg 230 kV Line #260 and #272  
Rebuild Project  
Project Location: Hopewell, Virginia  
Prepared By: JAS on 2024-02-19  
18 by MGS on 2024-03-04  
18 by JAS on 2024-03-04



- Existing Structure
- Project Limits
- Railroad
- 2-Foot Contour



NOTES:  
1. Contours are based on the 2018 LIDAR data provided by the client.  
2. Data Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, USGS  
3. Contour Interval: 2 Feet  
4. Contouring was performed using the U.S. National Map Accuracy Standards (NMAS) for digital elevation models (DEM) derived from vector data.  
5. Topography was derived from digital elevation models (DEM) derived from vector data.









Figure No.  
1

# **Wetland and Surface Water Desktop Analysis**

Client/Project  
Doorn-Harrisburg 230 kV Line #260 and #272  
Rebuild Project  
Project Location  
Roanoke County and Augusta Counties, Virginia  
203-971856  
Prepared by: JMS on 2024-02-19  
18 by: JMS on 2024-02-19  
18 by: JMS on 2024-02-19



- Existing Structure
- Project Limits
- Railroad
- 2-Foot Contour



**NOTES**

1. Contour Source: USGS National Wetland Inventory (NWI) 1:250,000 scale.
2. Data Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, VGN.
3. Contour Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, VGN.
4. Contour Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, VGN.
5. Contour Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, VGN.

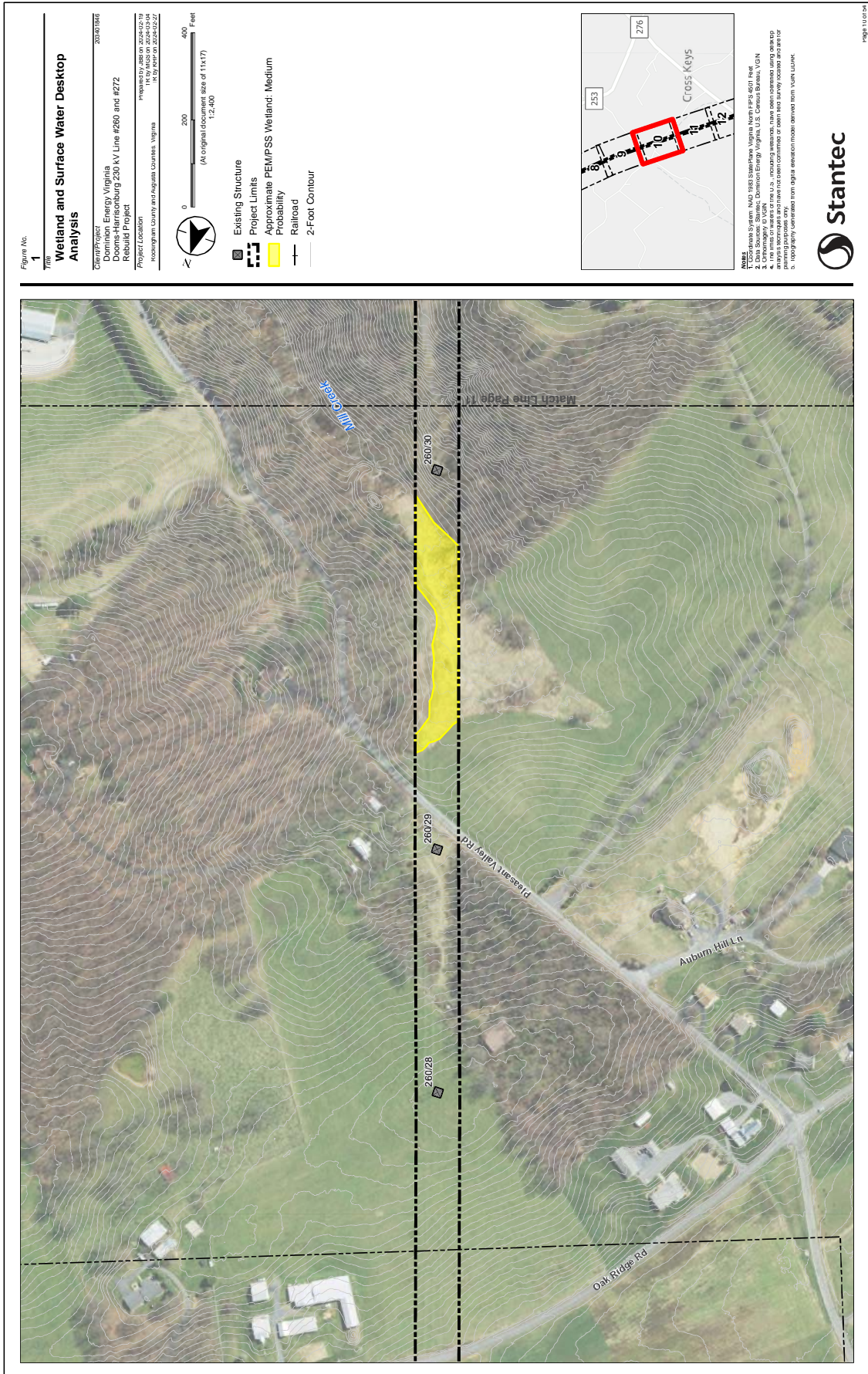


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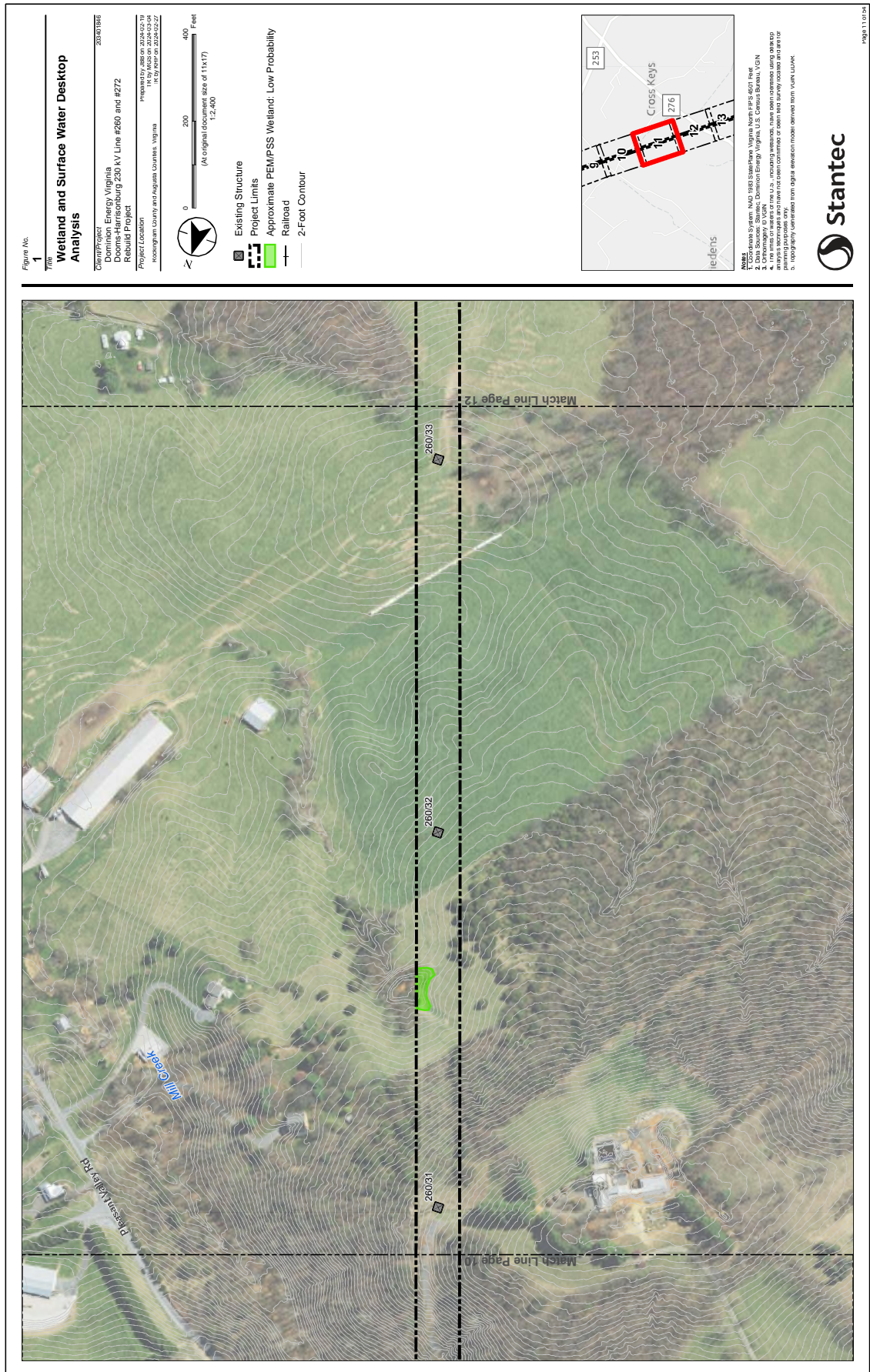


Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec disclaims any responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

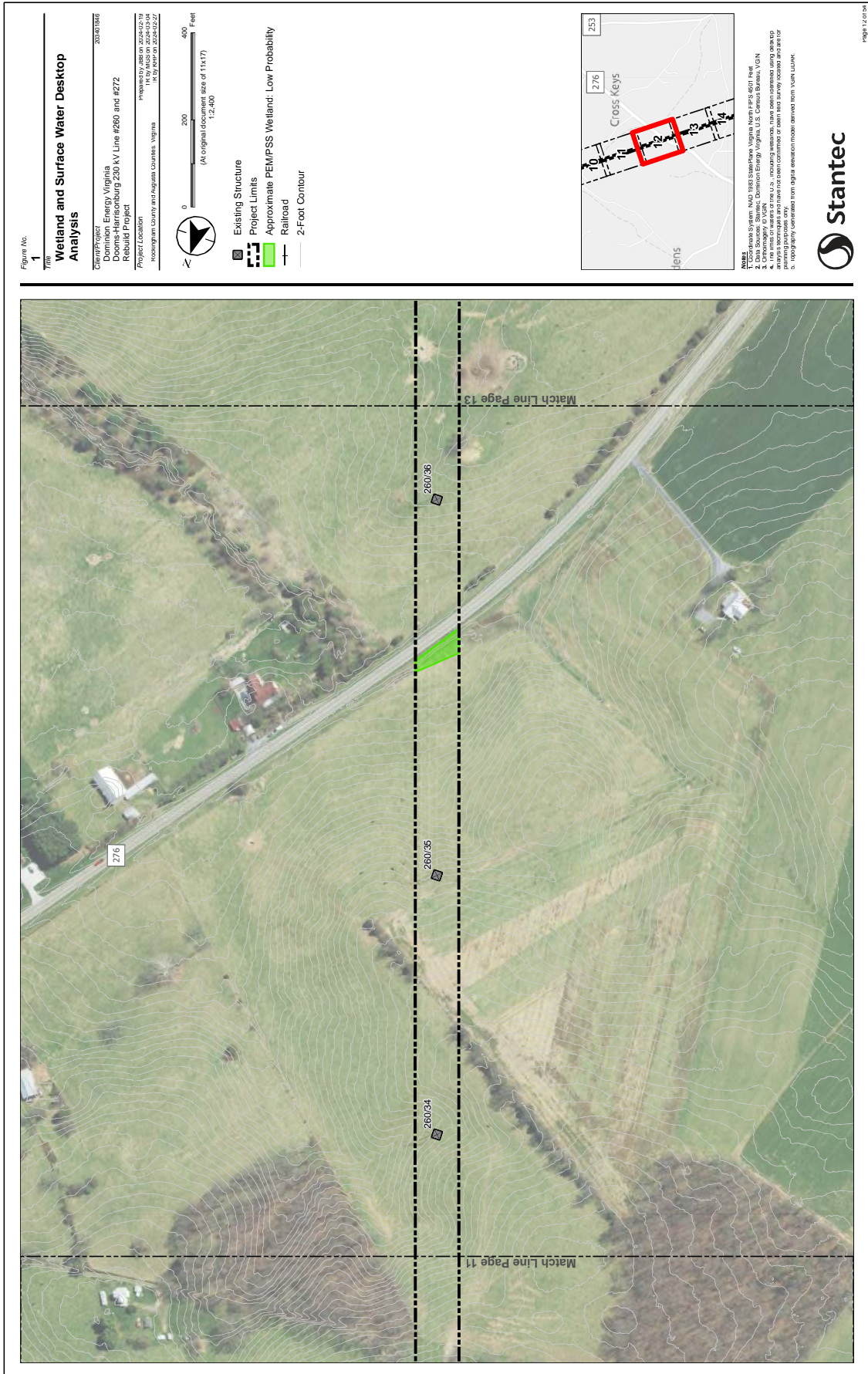




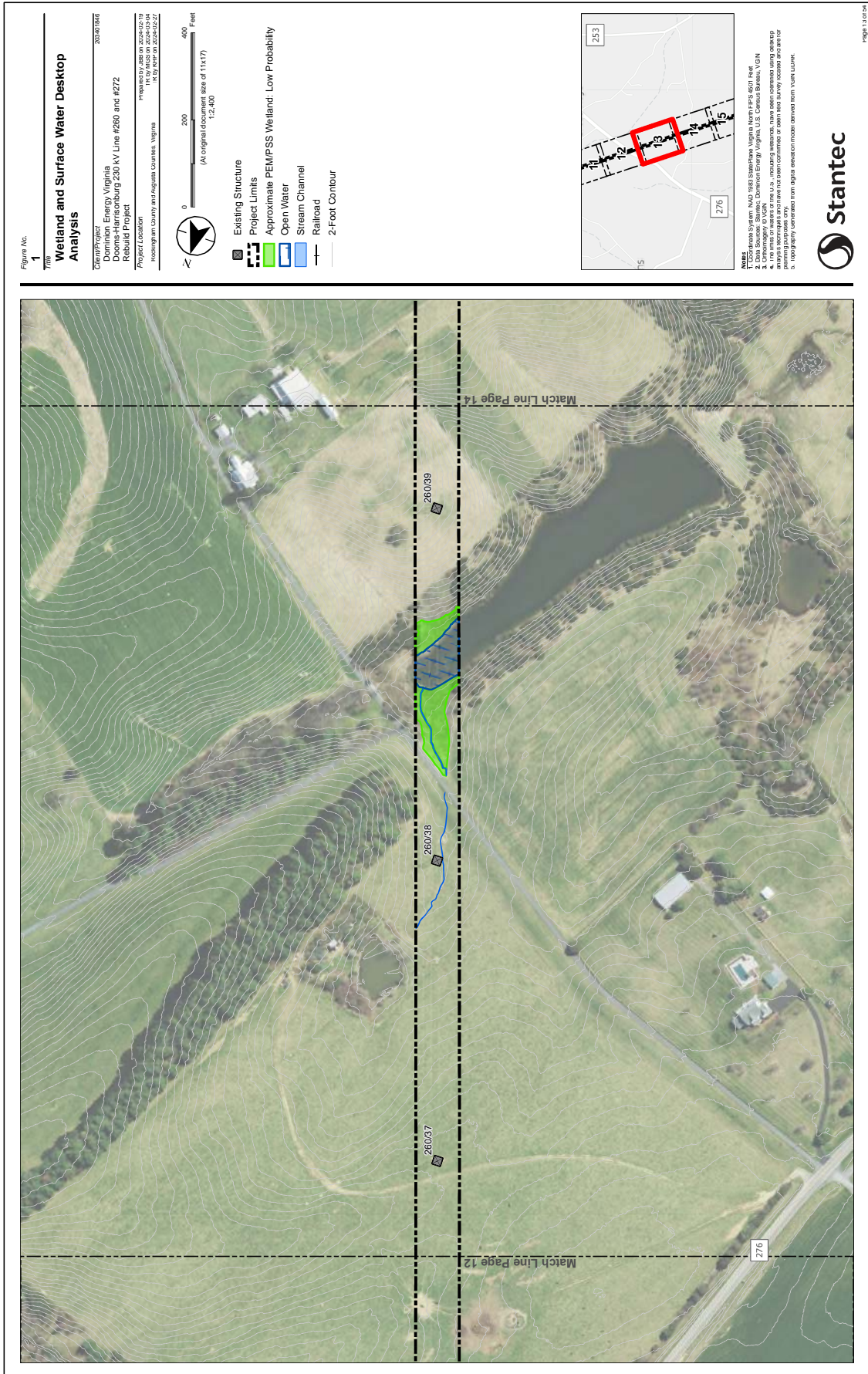




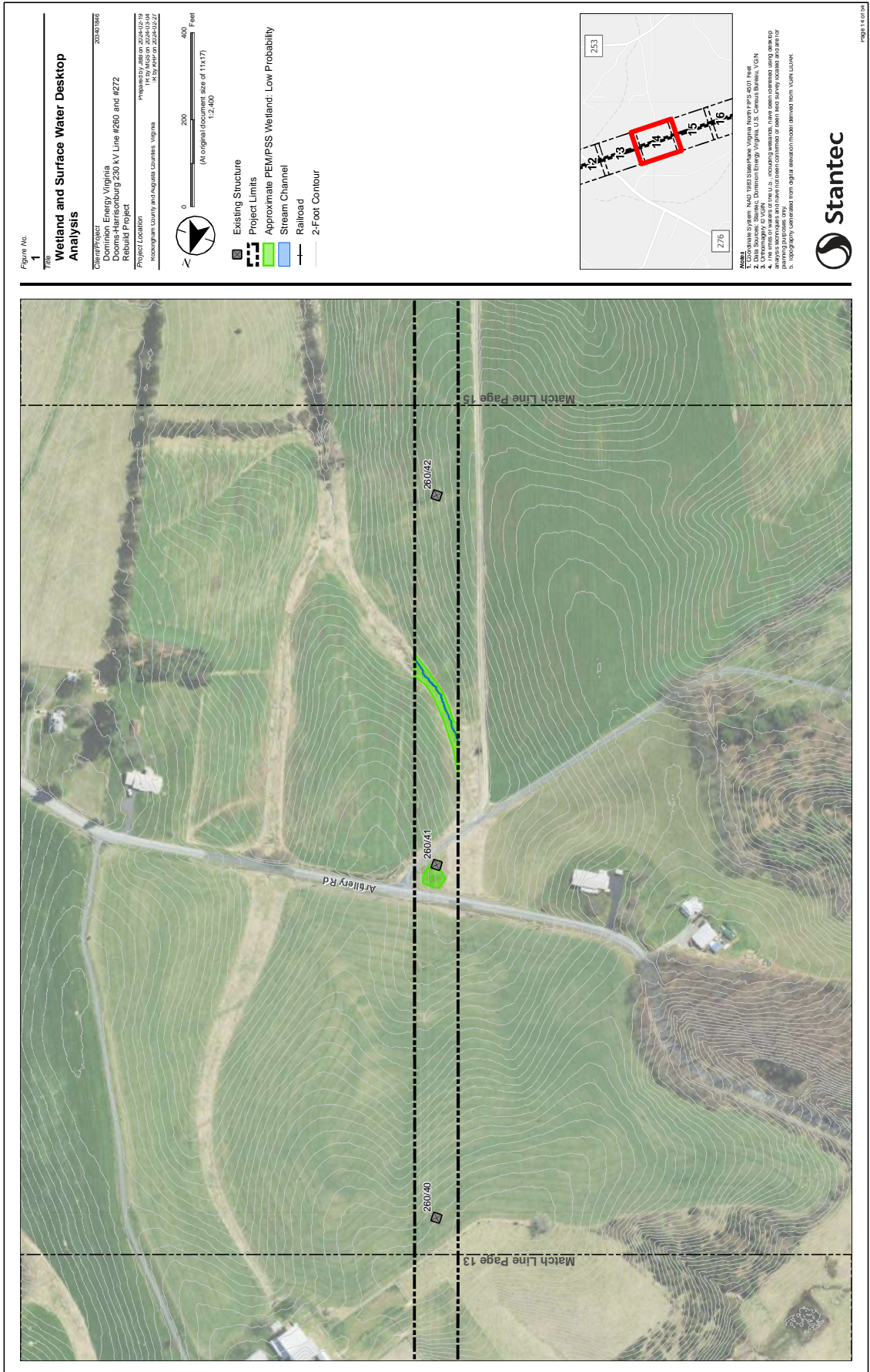




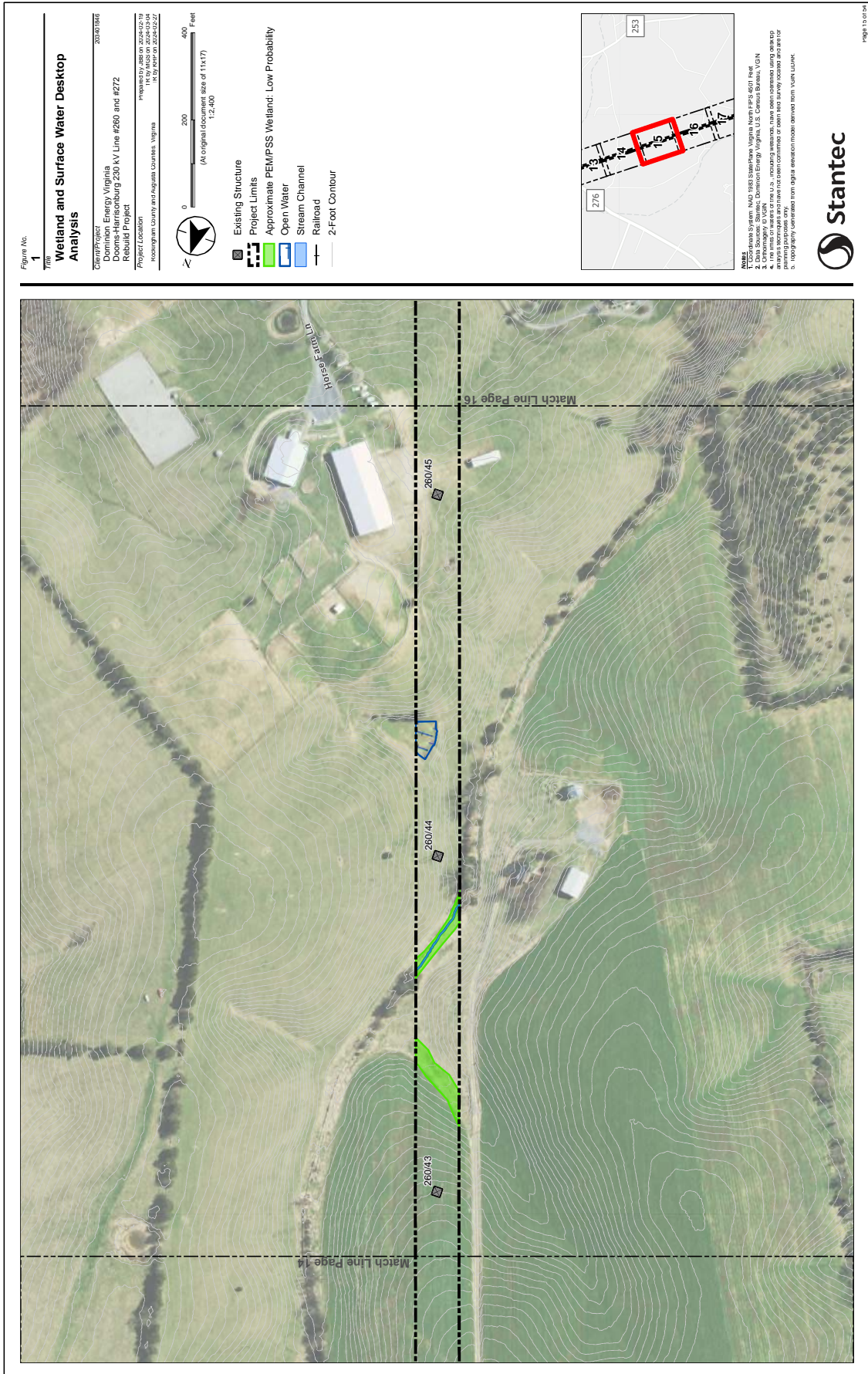




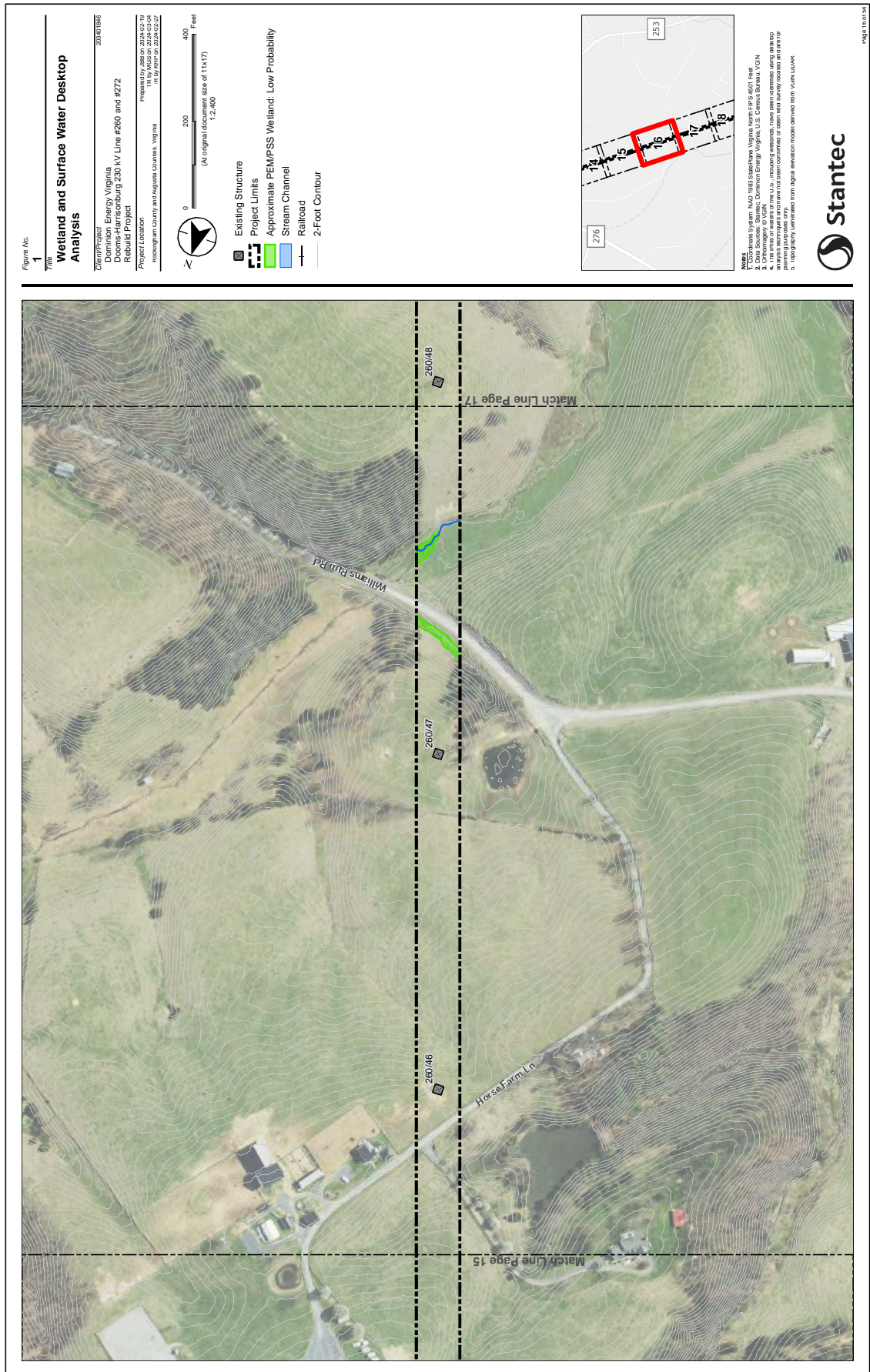




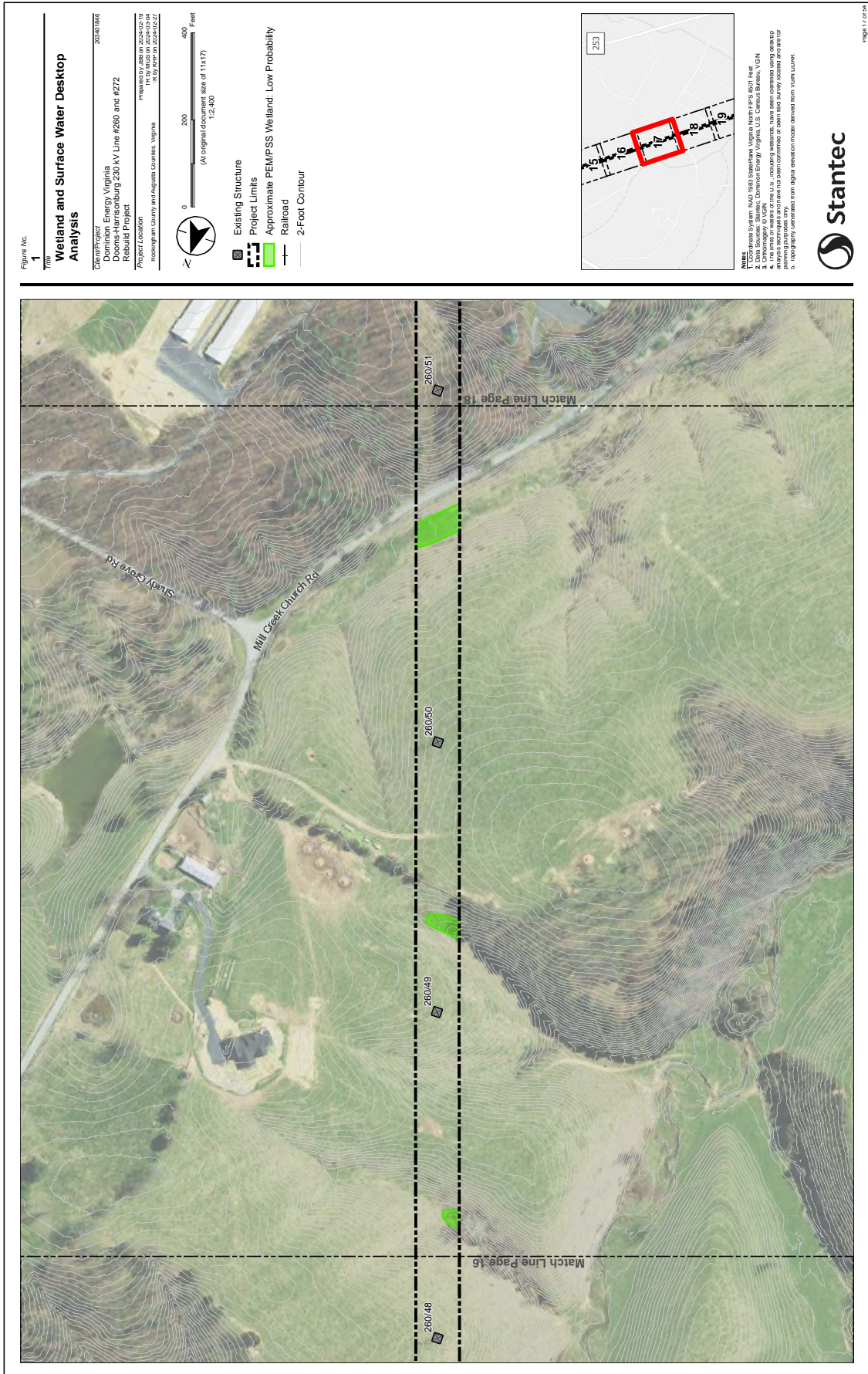












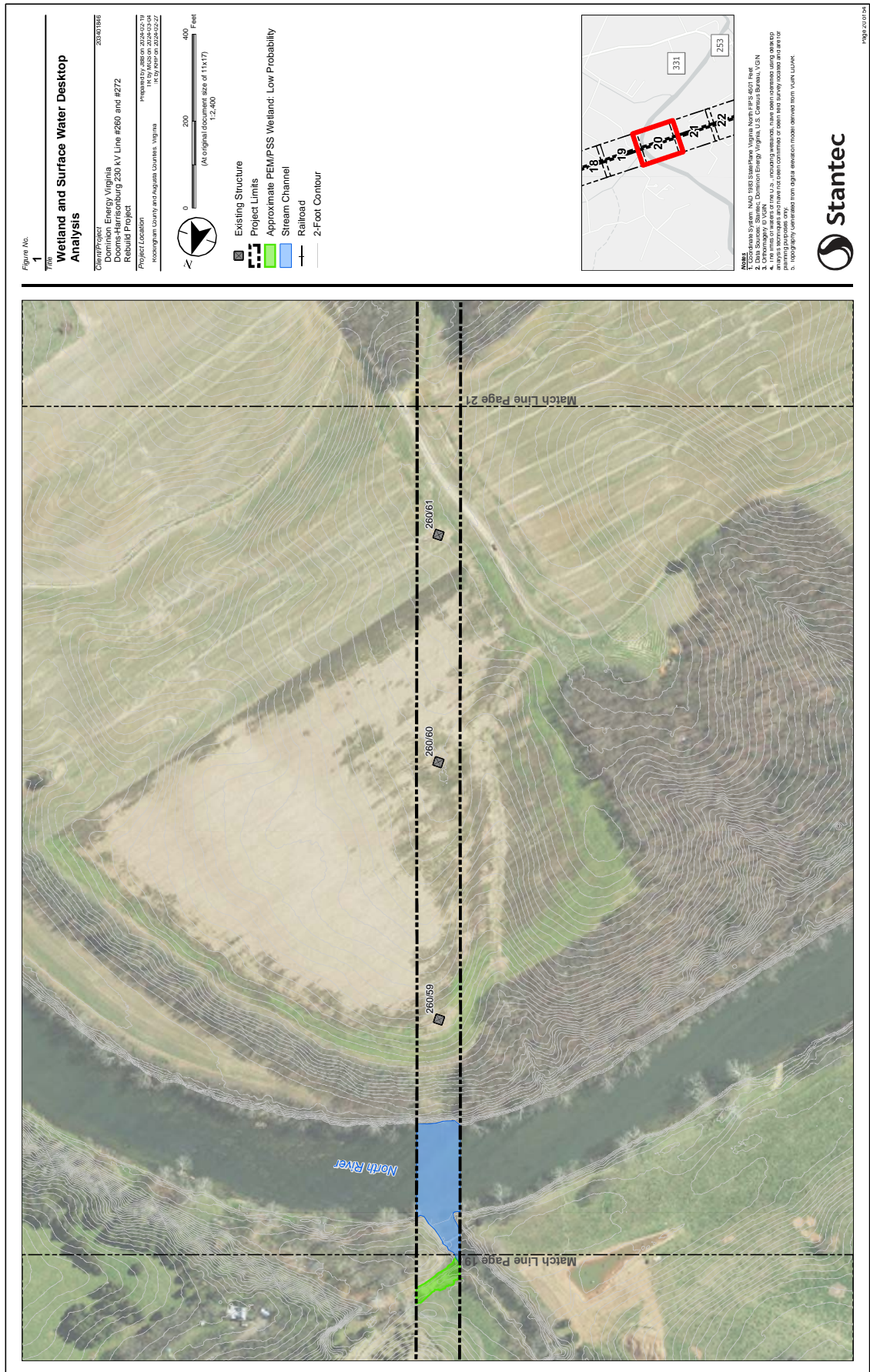




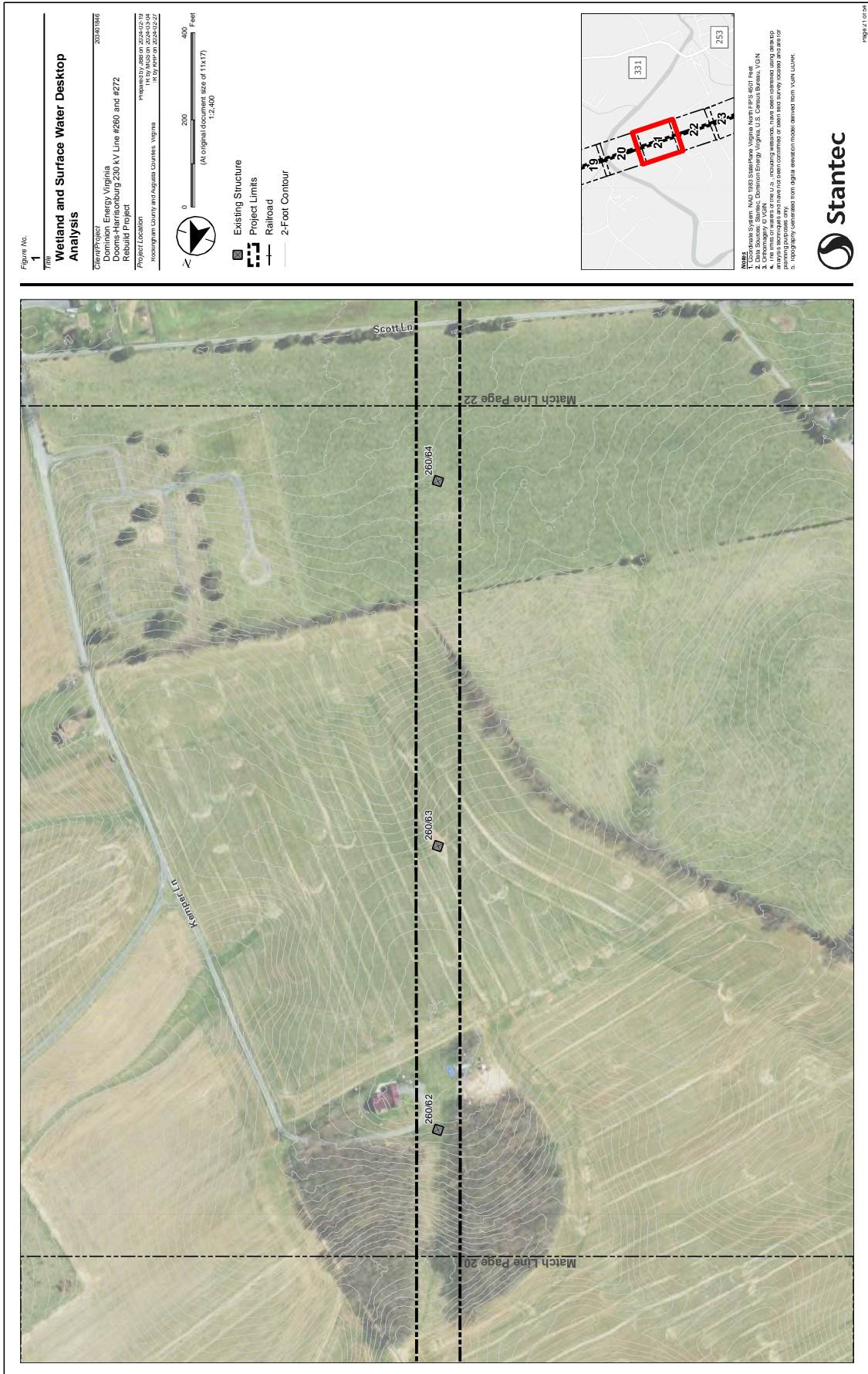






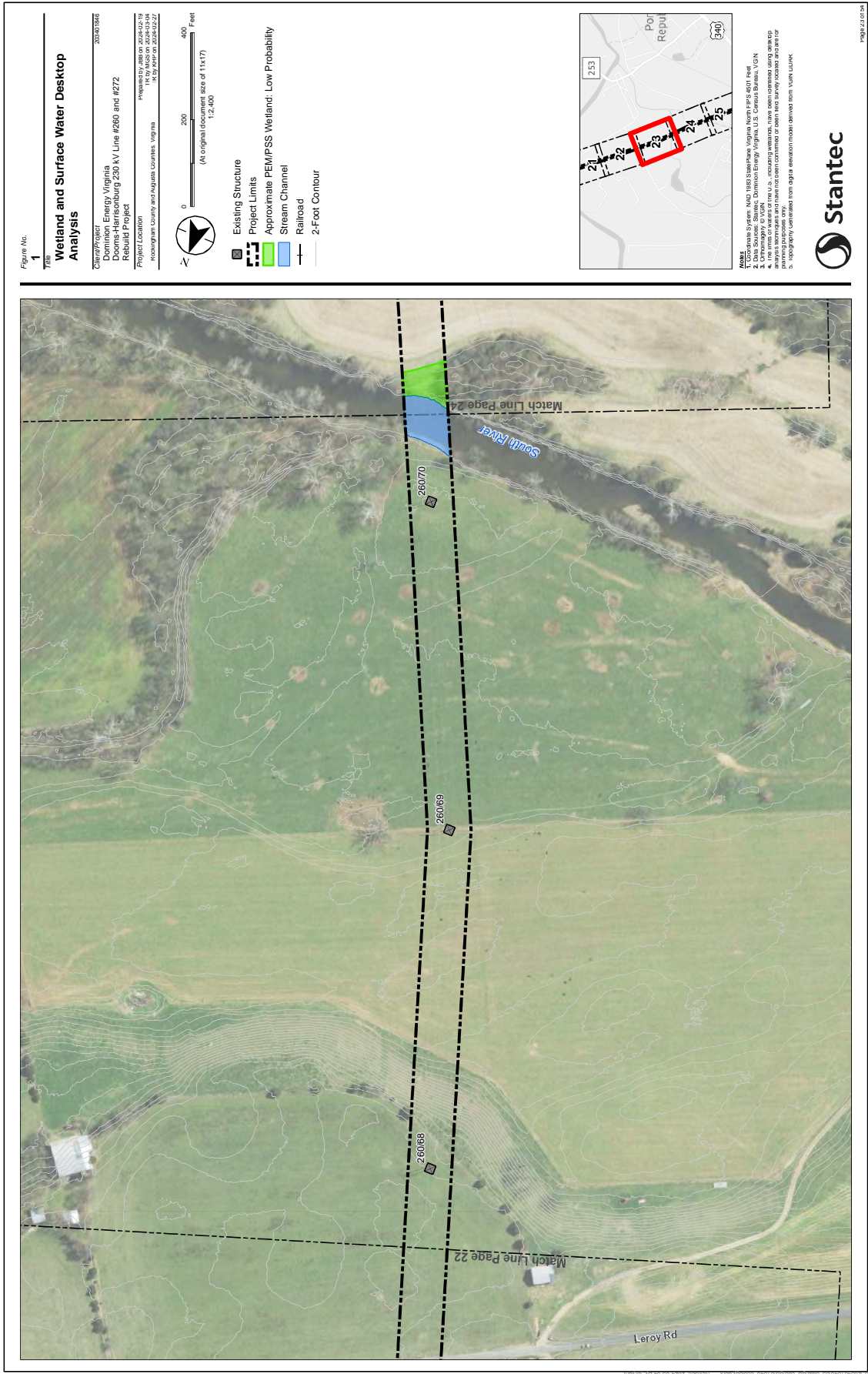




















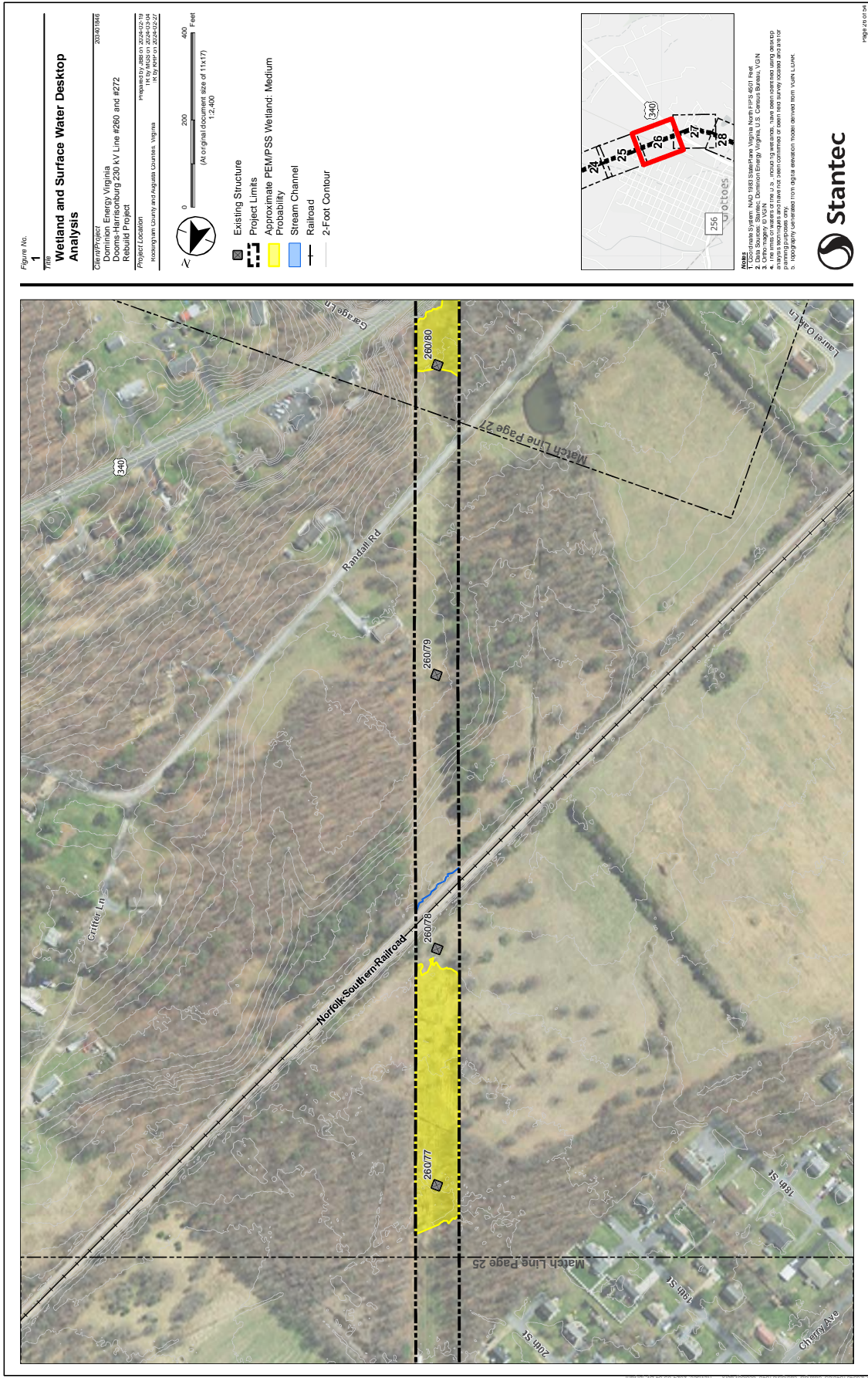






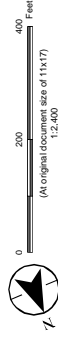


Figure No. 1

1

# Wetland and Surface Water Desktop Analysis

Client/Project  
Energy/Virginia  
Boons-Harrisburg 230 kV Line #260 and #272  
Rebuild Project  
Project Location  
Roanoke County and Augusta Counties, Virginia  
Prepared By: JAS on 2024-02-19  
18:59:46 on 2024-02-19  
13:59:46 on 2024-02-19



- Existing Structure
- Project Limits
- Approximate PEM/PSS Wetland: Low Probability
- Stream Channel
- Railroad
- 2-Foot Contour



NOTES:  
1. Contours derived from digital elevation model (DEM) data, not field data.  
2. Data Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, VGN  
3. Contour Interval: 10 feet  
4. Contour Accuracy: +/- 1 foot  
5. Contour Interpretation: Contours are shown as dashed lines. Contours are not shown where they are obscured by other features.  
6. Contour Interpretation: Contours are not shown where they are obscured by other features.



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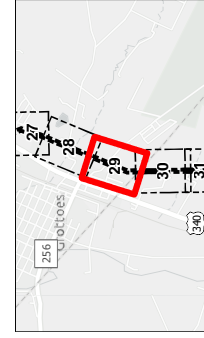
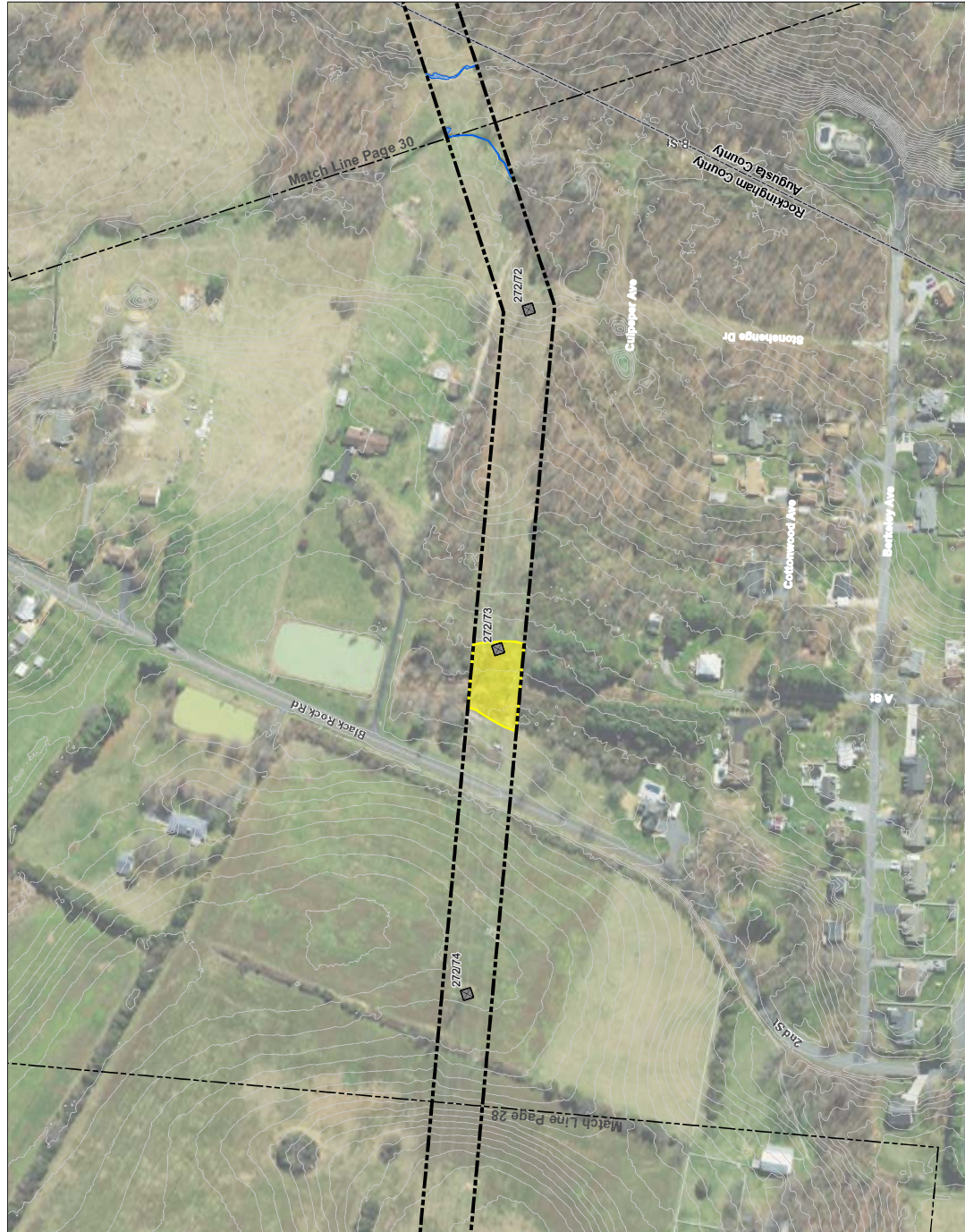
Figure No.  
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# **Wetland and Surface Water Desktop Analysis**

Client/Project  
Energy/Virginia  
Dooms-Harrisburg 230 kV Line #260 and #272  
Rebuild Project  
Project Location  
Rockingham County and Augusta Counties, Virginia  
203-971856  
Prepared by: JAB on 2024-02-19  
18 by: MGS on 2024-02-19  
13 by: JAB on 2024-02-19



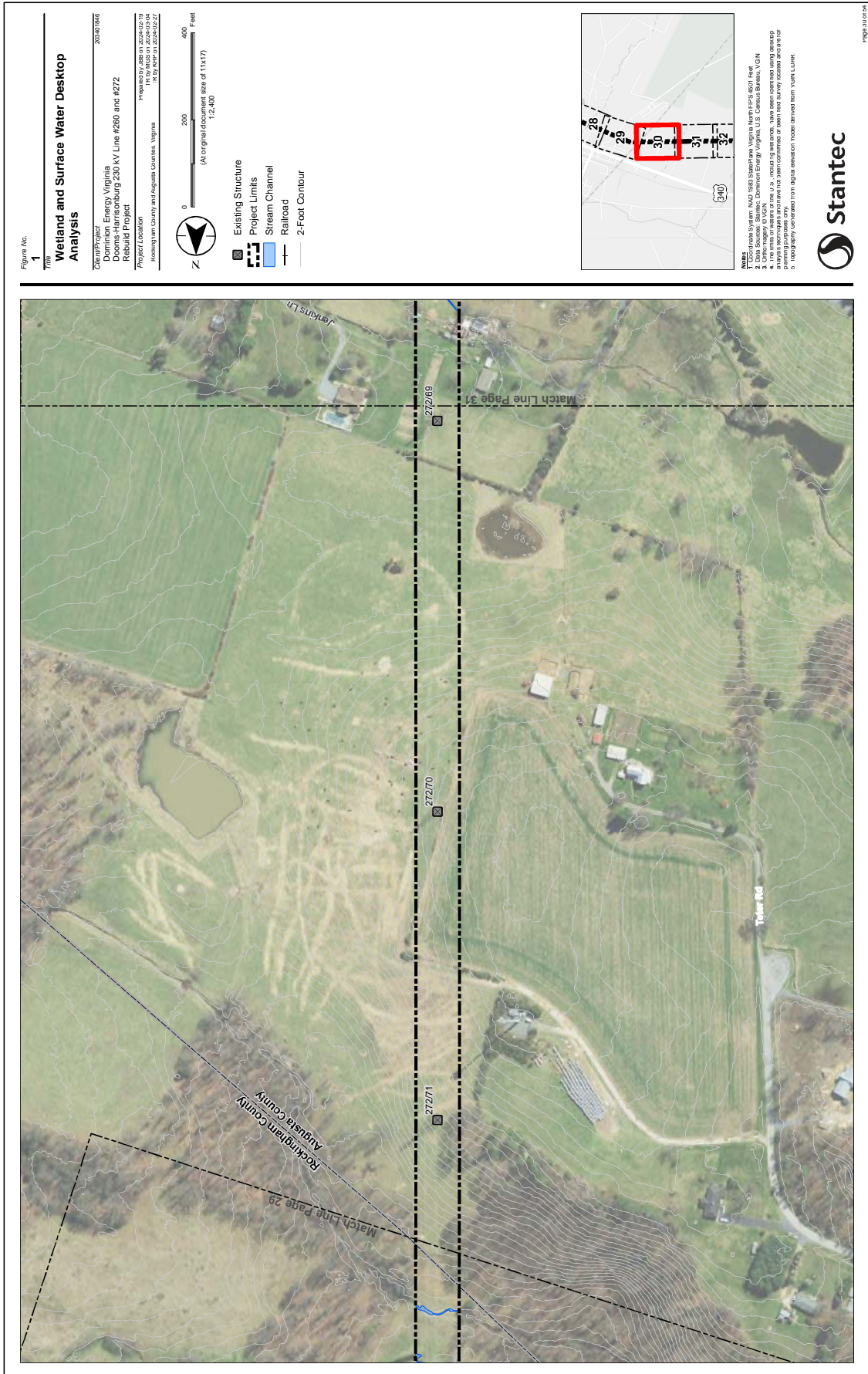
- Existing Structure
- Project Limits
- Approximate PEMPS Wetland: Medium Probability
- Stream Channel
- Railroad
- 2-Foot Contour



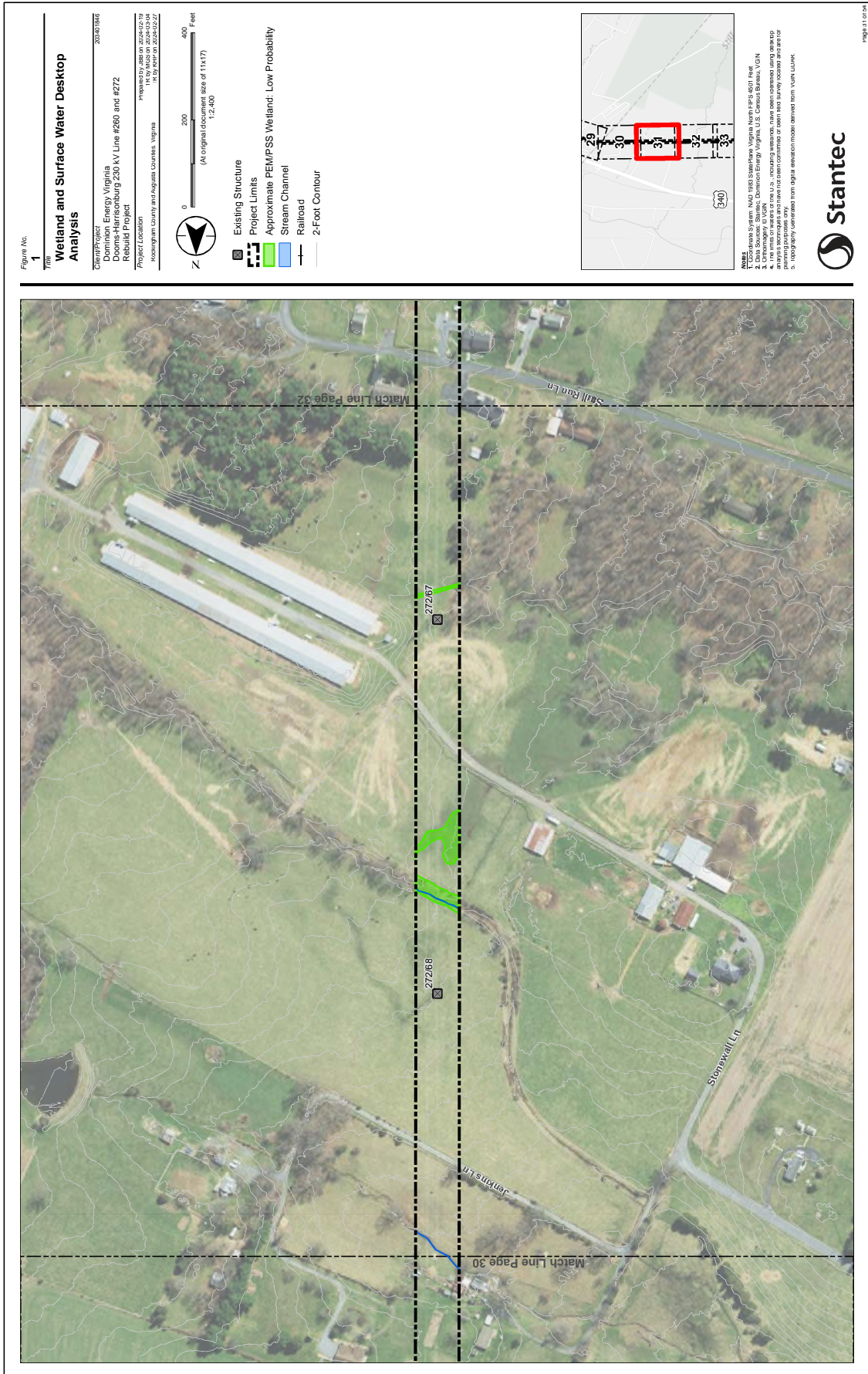
NOTES:  
1. Contour lines were derived from a digital elevation model (DEM) provided by the client.  
2. Data Source: Stantec, Contour Energy, Virginia U.S. Census Bureau, VGN  
3. Contour Energy U.S. Census Bureau, VGN  
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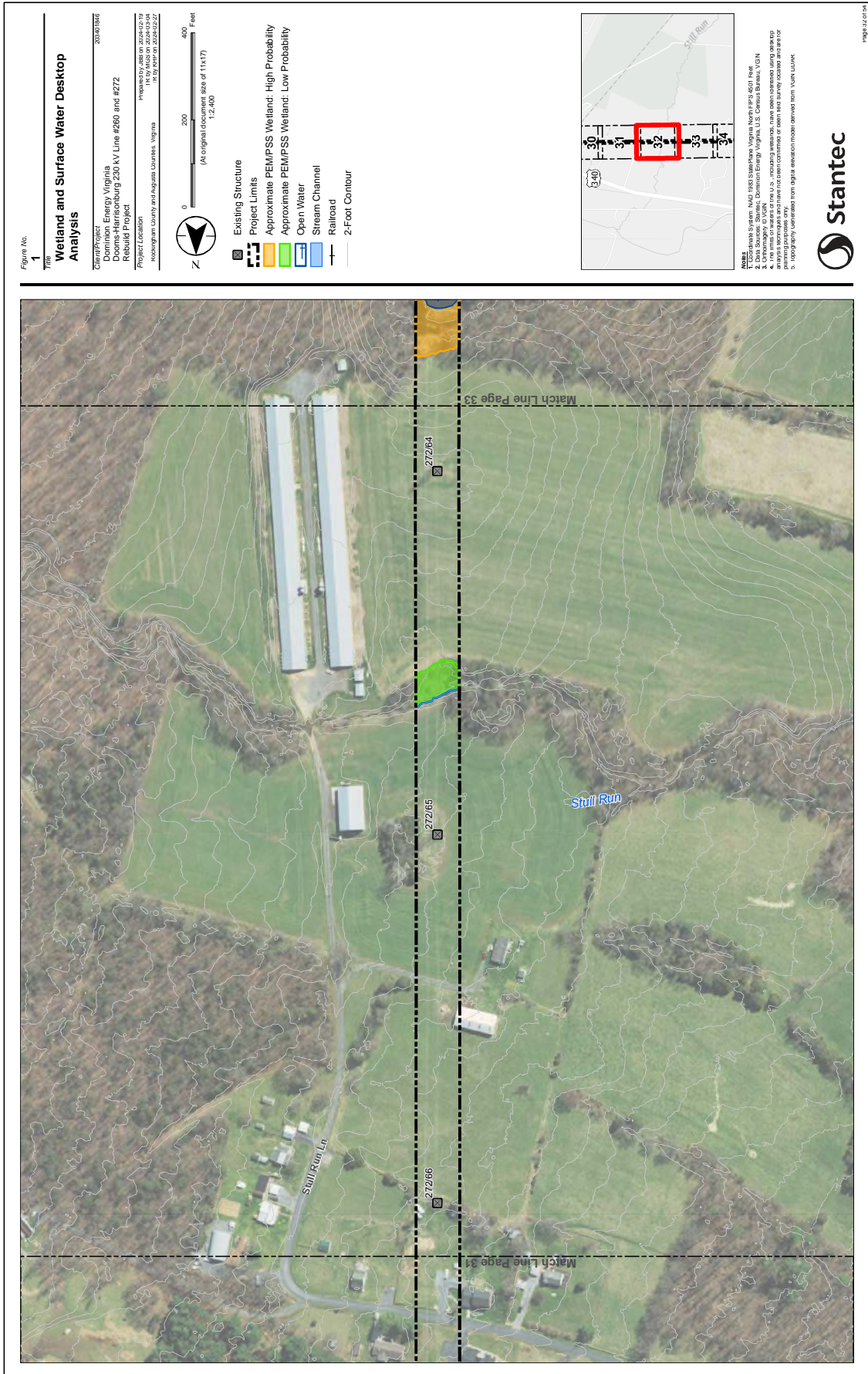




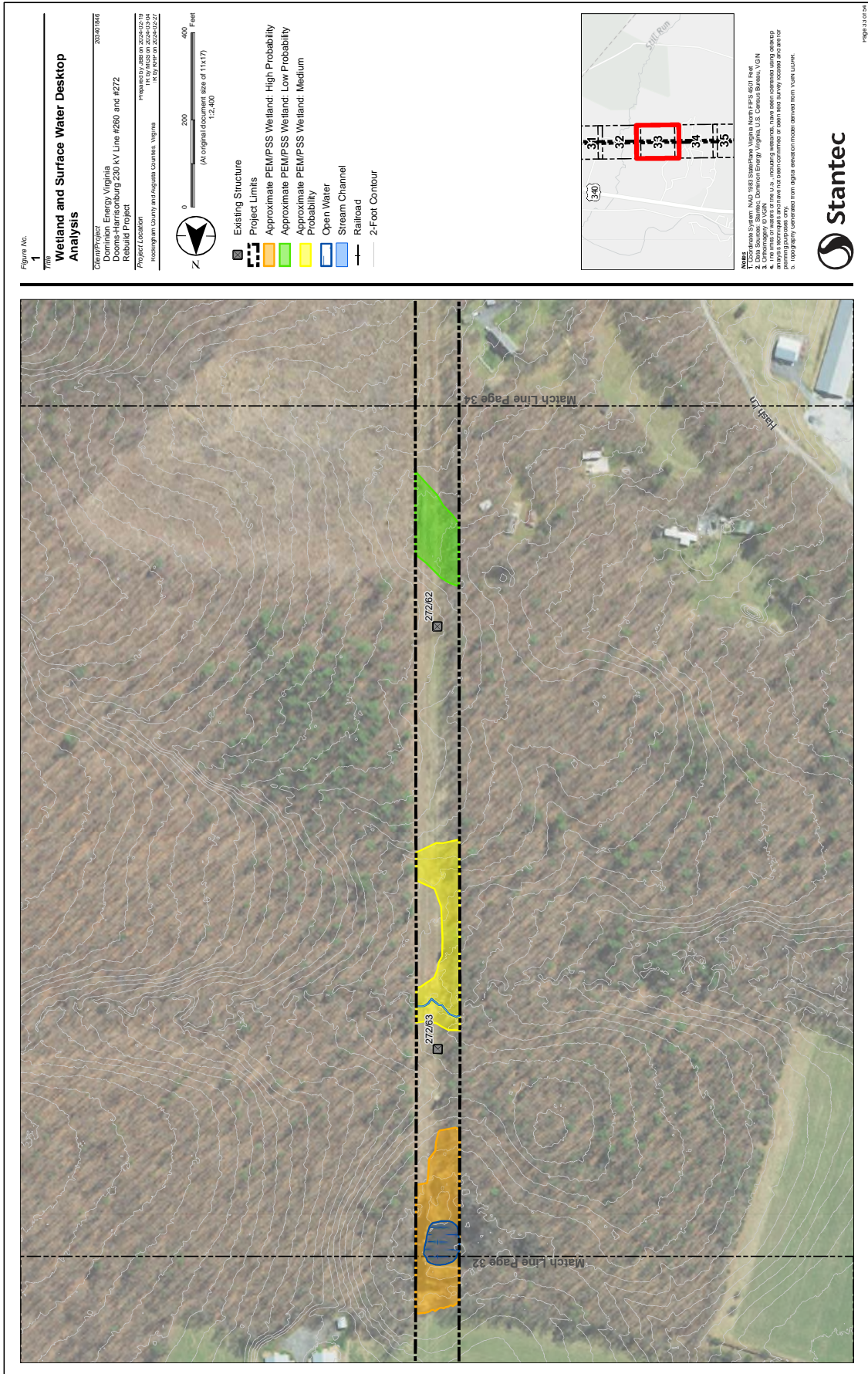














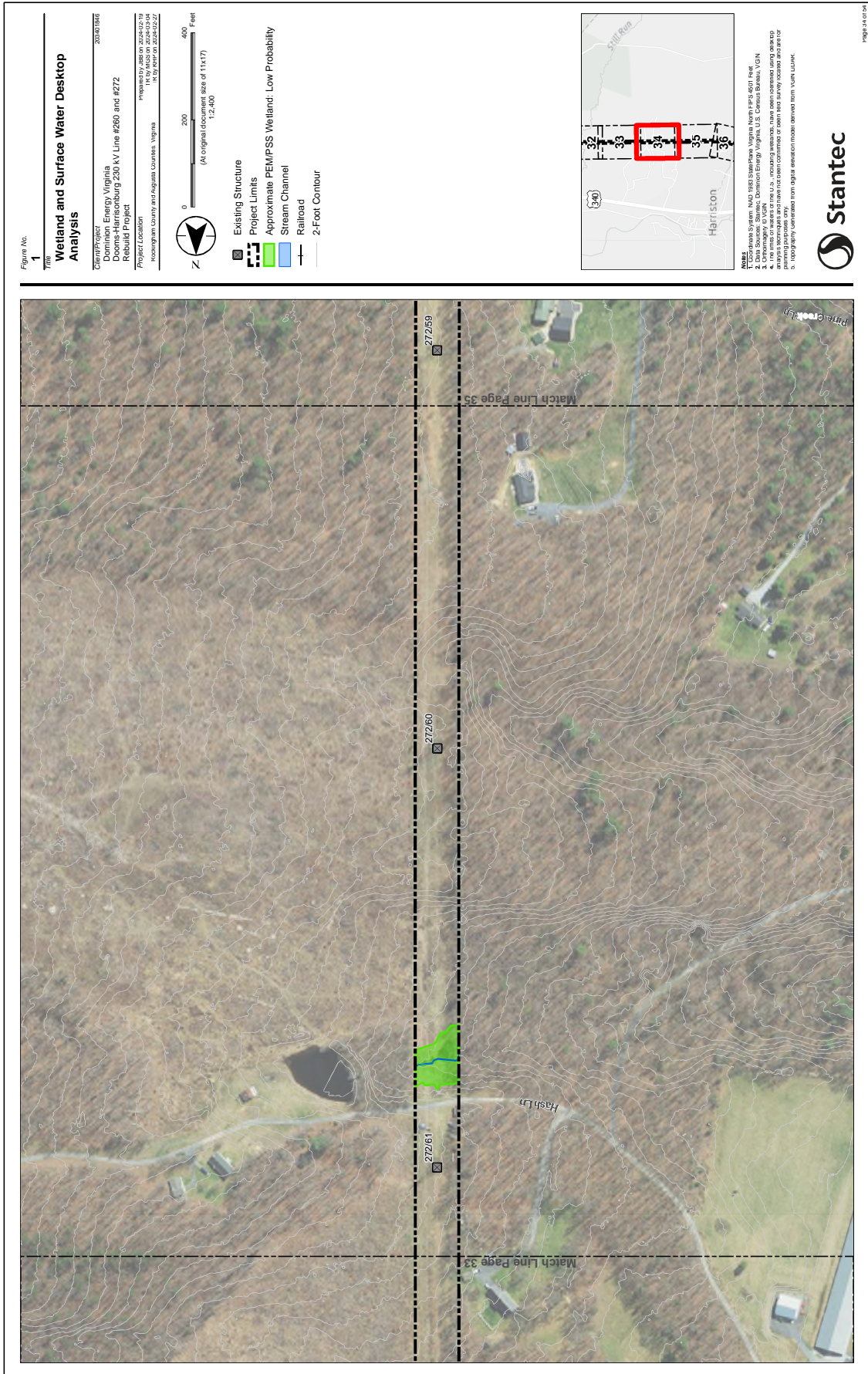




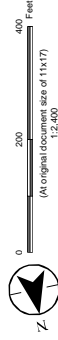




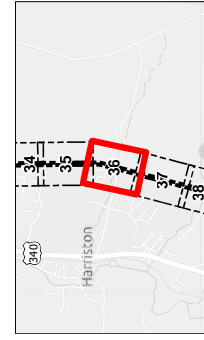
Figure No.  
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# Wetland and Surface Water Desktop Analysis

Client/Project  
Doorn-Harrisonburg 230 kV Line #260 and #272  
Rebuild Project  
Project Location  
Harrisonburg County and Augusta Counties, Virginia  
Prepared by: JAS on 2024-02-19  
18:59:46 on 2024-02-19  
18:59:46 on 2024-02-19



- Existing Structure
- Project Limits
- Approximate PEM/PSS Wetland: Low Probability
- Approximate PEM/PSS Wetland: Medium Probability
- Stream Channel
- Railroad
- 2-Foot Contour



NOTES

1. Contours are based on the 2013 aerial imagery and the 2013 digital elevation model (DEM) data.
2. Data Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, USGS, and the National Oceanic and Atmospheric Administration (NOAA).
3. Contour interval is 10 feet.
4. Contour lines are shown in blue. Contour lines are labeled with their elevation in feet.
5. Contour lines are shown in blue. Contour lines are labeled with their elevation in feet.



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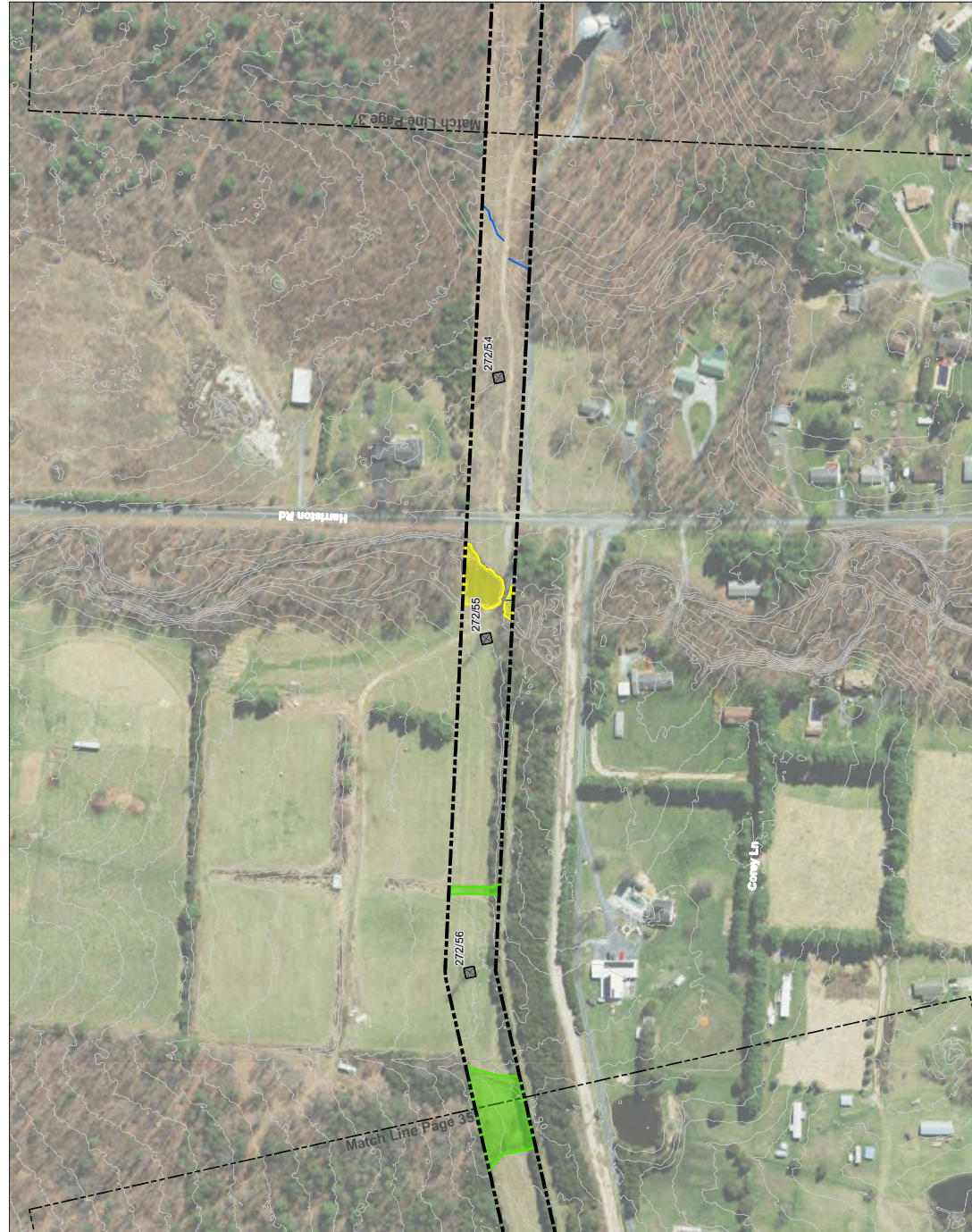




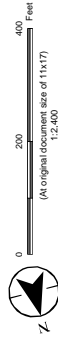




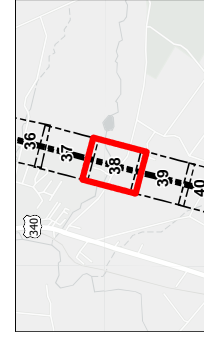
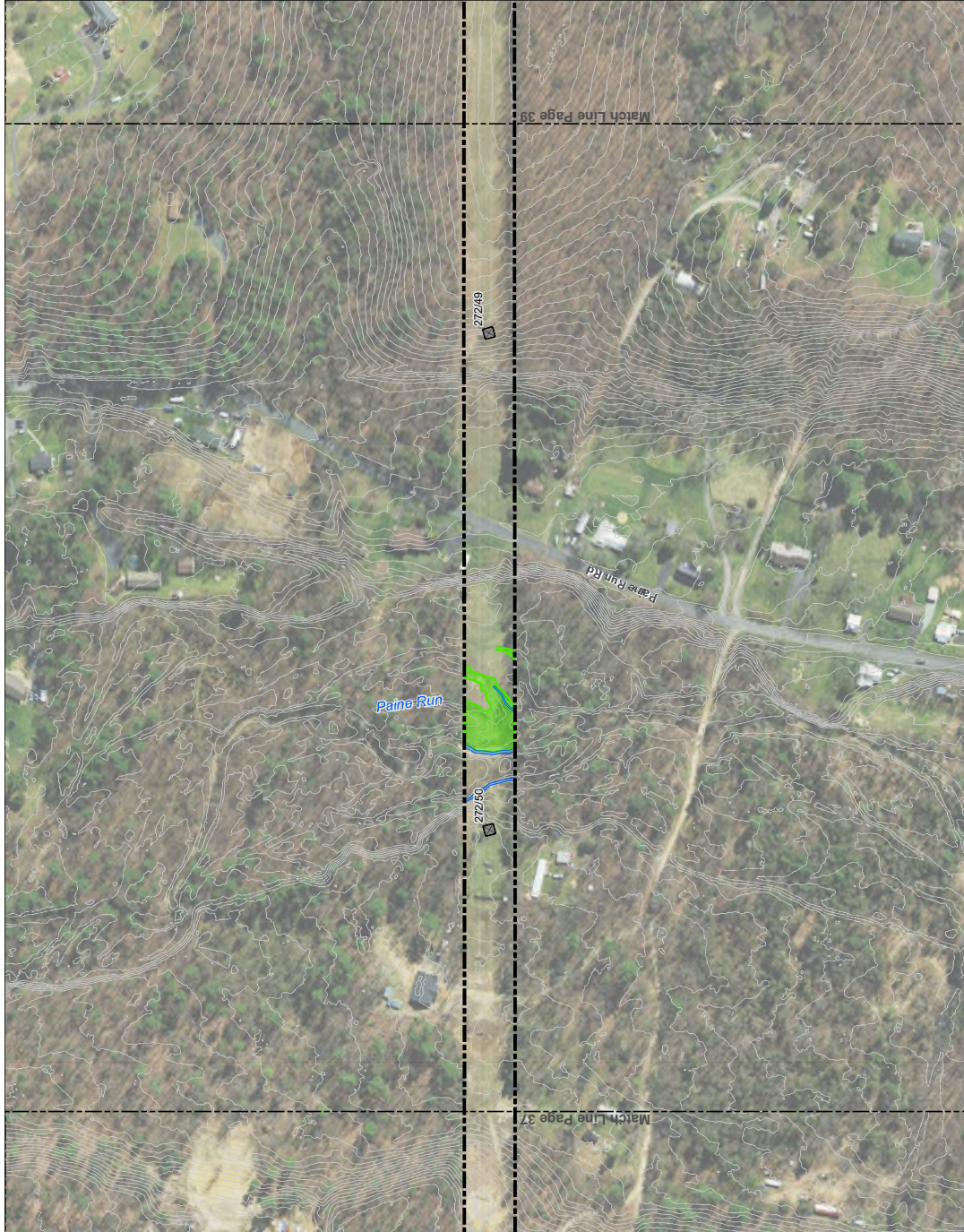
Figure No.  
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# Wetland and Surface Water Desktop Analysis

Client/Project  
Energy/Virginia  
Boons-Harrisburg 230 kV Line #260 and #272  
Rebuild Project  
Project Location  
Roanoke and Augusta Counties, Virginia  
Prepared by: JES on 2024-02-19  
18-04-MCS on 2024-03-04  
13-03-MCS on 2024-03-04



- Existing Structure
- Project Limits
- Approximate PEM/PSS Wetland: Low Probability
- Stream Channel
- Railroad
- 2-Foot Contour



NOTES  
1. Contours derived from digital elevation model (DEM) data, not field data.  
2. Data Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, USGS  
3. Contour interval: 10 feet  
4. Contour lines are not shown where they are not needed to show the general shape of the terrain.  
5. Topography is derived from digital elevation model (DEM) data, not field data.

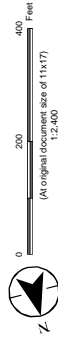




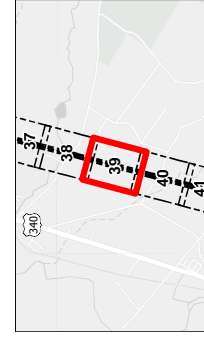
Figure No.  
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# Wetland and Surface Water Desktop Analysis

Client/Project  
Energy/Virginia  
Dooms-Harrisburg 230 kV Line #260 and #272  
Rebuild Project  
Project Location  
Roanoke and Augusta Counties, Virginia  
Prepared By: JMS on 2024-02-19  
18:59:46 on 2024-02-19  
13:59:46 on 2024-02-19



- Existing Structure
- Project Limits
- Approximate PEM/PSS Wetland: Low Probability
- Stream Channel
- Railroad
- 2-Foot Contour



NOTES

1. Contours derived from digital elevation model (DEM) data.
2. Data Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, USGS.
3. Contour interval: 10 feet.
4. Contour interval: 10 feet.
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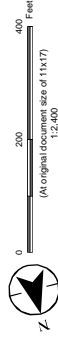




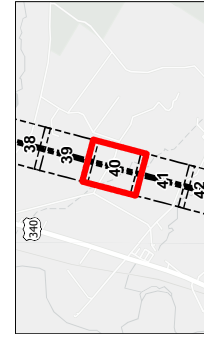
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# Wetland and Surface Water Desktop Analysis

Client/Project  
Energy Virginia  
Dooms-Harrisburg 230 kV Line #260 and #272  
Rebuild Project  
Project Location  
Roanoke County and Augusta Counties, Virginia  
Prepared by: JES on 2024-02-19  
18 by MGS on 2024-02-19  
18 by JES on 2024-02-19  
2024-02-19



- Existing Structure
- Project Limits
- Stream Channel
- Railroad
- 2-Foot Contour



NOTES  
1. Contours derived from digital elevation model (DEM) data provided by the client.  
2. Data Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, USGS  
3. Contour interval: 5 feet  
4. Contour lines are shown in blue. Contour lines are labeled with their elevation in feet.  
5. Contour lines are shown in blue. Contour lines are labeled with their elevation in feet.

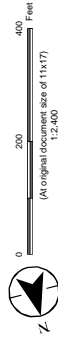




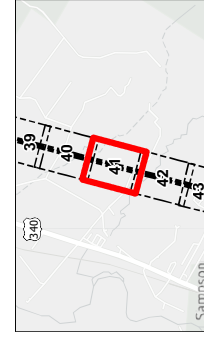
Figure No.  
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# Wetland and Surface Water Desktop Analysis

Client/Project  
Energy/Virginia  
Dooms-Harrisonburg 230 kV Line #260 and #272  
Rebuild Project  
Project Location  
Harrisonburg County and Augusta Counties, Virginia  
Prepared by: JES on 2024-02-19  
18:59:00 on 2024-02-19  
13:59:00 on 2024-02-19



- Existing Structure
- Project Limits
- Approximate PEMPS Wetland: Low Probability
- Approximate PEMPS Wetland: Medium Probability
- Railroad
- 2-Foot Contour

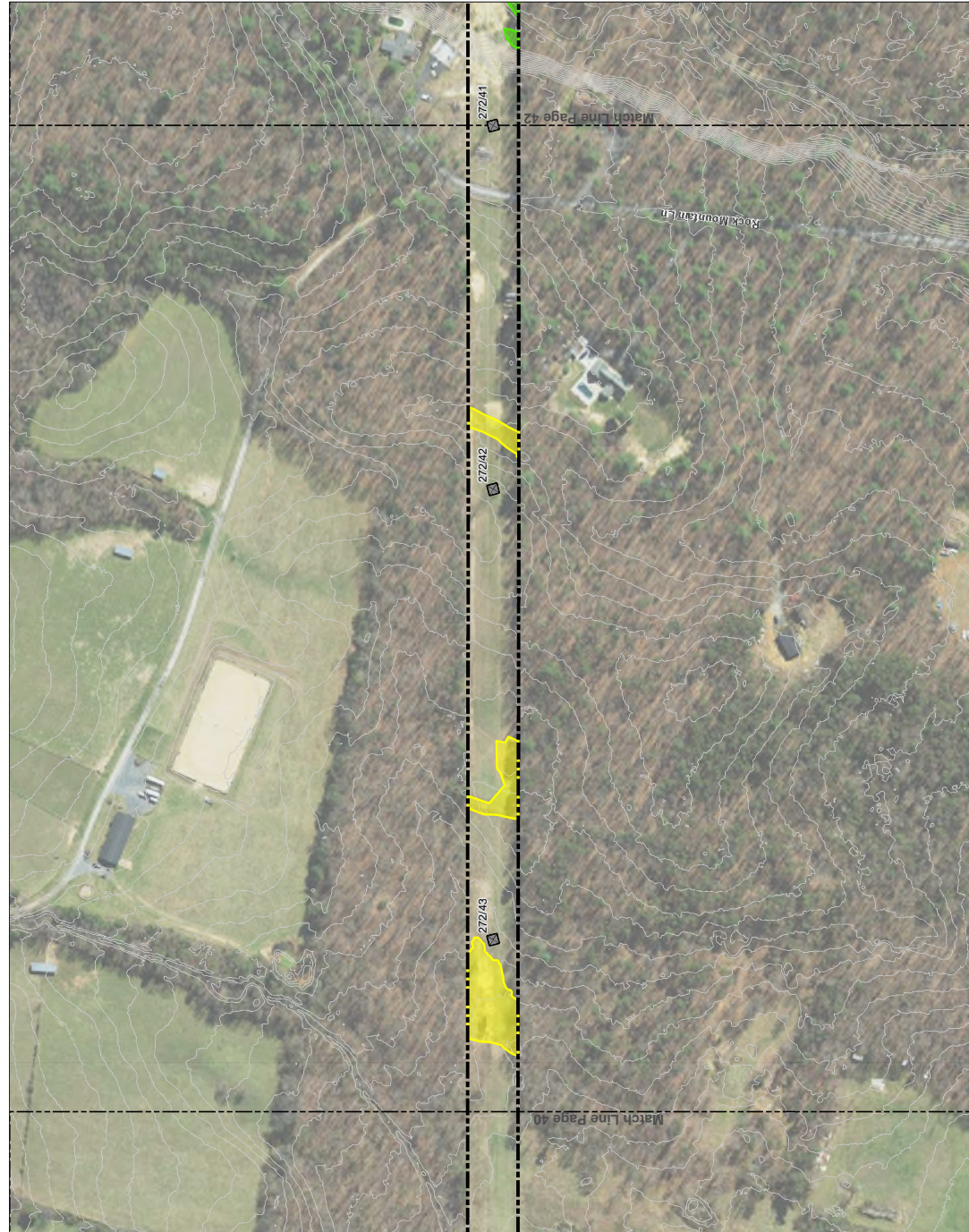


NOTES

1. Contour lines are derived from a digital elevation model (DEM) derived from a 30-meter resolution DEM.
2. Data Source: Stantec, Commonwealth of Virginia, U.S. Census Bureau, USGS, and other sources.
3. Contour lines are derived from a digital elevation model (DEM) derived from a 30-meter resolution DEM.
4. Contour lines are derived from a digital elevation model (DEM) derived from a 30-meter resolution DEM.
5. Contour lines are derived from a digital elevation model (DEM) derived from a 30-meter resolution DEM.



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