AMENDMENT TO THE APPLICATION TO THE OHIO POWER SITING BOARD FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

OPSB CASE NO. 19-1741-EL-BTA

Glencoe-Speidel 138 kV Transmission Line Rebuild Project September 2019

American Electric Power Ohio Transmission Company, Inc.



BEFORE THE OHIO POWER SITING BOARD Certificate Application for Electric Transmission Facilities Table of Contents

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AMENDMENT CHANGE SUMMARY

AEP Ohio Transmission Company, Inc. ("AEP Ohio Transco") submitted a Certificate Application to the Ohio Power Siting Board ("OPSB") on June 13, 2018 for the Glencoe-Speidel 138 kV Transmission Line Project ("Project") in Case No. 18-0279-EL-BTX. On February 21, 2019, the OPSB issued its Certificate of Environmental Compatibility and Public Need (certificate) for the Preferred Route (also referred to as the "OPSB-Approved Route" herein).

The purpose of this amendment is to document the changes to the Preferred Route alignment since OPSB's approval and to seek OPSB approval of the revised alignment.

Detailed engineering resulted in seven engineering adjustments along the OPSB-Approved Route. These adjustments were necessary to provide greater construction clearances, improve line angles, eliminate proposed structures, reduce impacts to an existing pipeline, provide for future development, and reduce outage impacts to customers. Table 1 shows the distances of the proposed shifts.

	Table 1
Engineering Ac	djustment Structure Shifts
Structure Number	Distance from OPSB-Approved Centerline (feet)
2	5
3	5
29	8
53	20
79	8
99 (existing structure)	32
100 (existing structure)	32
101	25
120	11
121	22
122	29
123	44
124	51
137	8

Engineering Adjustment 1 is approximately 0.2 mile long and occurs between Structures 1 and 3. Structure 1 and 1A have already been installed as part of the West Bellaire-Glencoe (Case No. 16-1557-EL-BTX) and Glencoe Station (Case No. 17-1211-EL-BNR) Projects which reroute the 138 kV line into the new 69 kV Glencoe Bay. Based on the existing locations of Structures 1 and 1A, AEP Ohio Transco shifted Structures 2 and 3 approximately five feet to improve line angles, allow for greater construction clearances, and improve the ability to pull wire. There are no additional property owners affected by this shift, and there are no additional environmental impacts.



Engineering Adjustment 2 is approximately 0.2 mile long and occurs primarily at Structure 29. Detailed engineering resulted in an 8-foot shift of Structure 29 to improve temporary construction clearance to the existing line. There are no additional property owners affected by this shift, and there are no additional environmental impacts.



Engineering Adjustment 3 is approximately 0.2 mile long and occurs primarily at Structure 53. Structure 53 shifted approximately 20 feet north to accommodate construction clearances to the existing line. Structure 53 replaced two structures that were proposed in the OPSB Approved Route. By eliminating one structure, AEP Ohio Transco reduced impacts to the property owner and the adjacent distribution station. There are no additional property owners affected by this shift, and there are no additional environmental impacts.

Exhibit 3: Engineering Adjustment 3



Engineering Adjustment 4 is approximately 0.1 mile long and occurs primarily at Structure 79. Structure 79 shifted approximately 8 feet to improve the line angle, which minimizes impacts to a pipeline that crosses the Project between Structures 79 and 80. There are no additional property owners affected by this shift, and there are no additional environmental impacts.

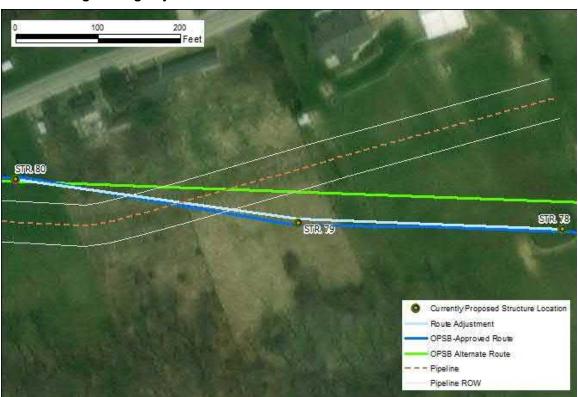


Exhibit 4: Engineering Adjustment 4

Engineering Adjustment 5 is approximately 0.1 mile long and occurs primarily at Structures 99, 100, and 101. This adjustment shifts the alignment back to the existing line in order to utilize existing structures 99 and 100 to connect into the substation. This allows for reconductoring instead of building three additional structures and accommodates potential future expansion at the substation. The shifts of Structures 99, 100, and 101 ranged from 25 to 32 feet. There are no additional property owners affected by this shift, and there are no additional environmental impacts.

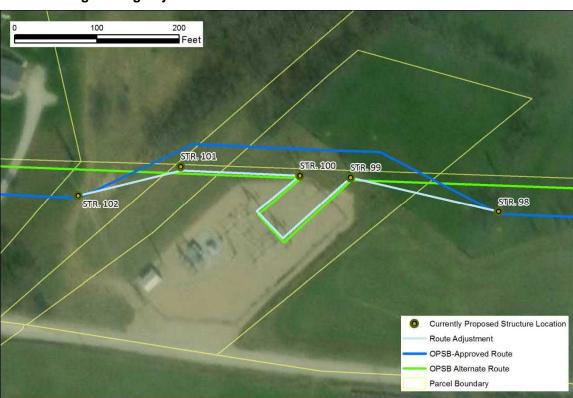


Exhibit 6: Engineering Adjustment 5

Engineering Adjustment 6 is approximately 0.3 mile long and occurs between Structures 119 and 125. Structures 120 to 124 shifted distances ranging from 11 to 51 feet to allow AEP Ohio Transco to move proposed Structure 124 out of a valley and accommodate construction access. This adjustment also accommodates future development to the south of Structure 121 and minimizes effects to residential structures. There are no additional property owners affected by this shift. Additional tree clearing of approximately 0.2 acres will be required due to this engineering adjustment.

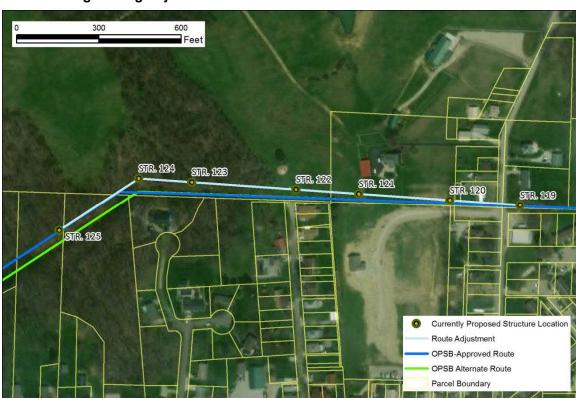


Exhibit 7: Engineering Adjustment 6

Engineering Adjustment 7 is approximately 0.1 mile long and occurs primarily at Structures 137. AEP Ohio Transco shifted Structure 137 approximately 8 feet to improve the line angle. There are no additional property owners affected by this shift, and there are no additional environmental impacts.



Exhibit 8: Engineering Adjustment 7

4906-5-02 PROJECT SUMMARY AND APPLICANT INFORMATION

(A) PROJECT SUMMARY AND FACILITY OVERVIEW

Text provided in the June 13, 2018 Application filing remains unchanged.

(1) General Purpose of the Facility

Text provided in the June 13, 2018 Application filing remains unchanged.

(2) General Location, Size, and Operating Characteristics

Text provided in the June 13, 2018 Application filing remains unchanged. A project overview is provided in **Revised Figure 02-1**.

(3) Suitability of the Preferred and Alternate Routes

Text provided in the June 13, 2018 Application filing remains unchanged.

(i) Amended Preferred Route

The <u>Amended</u> Preferred Route is approximately 12.7 miles long. It follows the existing Glencoe-Speidel line for its entire length from Glencoe Station to Speidel Station. The <u>Amended</u> Preferred Route is offset from the existing centerline by approximately 35 feet for its entire length except for five sections where it will be constructed on centerline to avoid structures within the right-of-way ("ROW") and meet engineering requirements. These areas include approximately 0.1 mile at the Glencoe Station exit, 0.1 mile at the Watertown Road crossing, <u>0.1 mile at the South Belmont Substation</u>, approximately 0.8 <u>0.6</u> miles through the Village of Bethesda, approximately 0.2 miles at the Old Ohio 147 crossing, and approximately 0.1 mile at the Speidel Station entry.

Overall, the <u>Amended</u> Preferred Route offers the best balance of meeting engineering requirements, impact minimization, and cost effectiveness. The <u>Amended</u> Preferred Route also avoids potential schedule and reliability difficulties associated with widespread outages that would be required for construction on the existing centerline.

(ii) Alternate Route

Text provided in the June 13, 2018 Application filing remains unchanged.

(4) Project Schedule Summary

AEP Ohio Transco plans to start construction of the transmission line in early <u>Fall</u> 2019, with an estimated in-service date in the spring of 2020 of <u>December 2021</u>. <u>Revised</u> Figure 03-1 provides additional details regarding the proposed Project schedule.

(B) APPLICANT INFORMATION

4906-5-03 REVIEW OF NEED AND SCHEDULE

(A) NEED FOR PROPOSED FACILITY

Text provided in the June 13, 2018 Application filing remains unchanged.

(B) REGIONAL EXPANSION PLANS

Text provided in the June 13, 2018 Application filing remains unchanged.

(C) SYSTEM ECONOMY AND RELIABILITY

Text provided in the June 13, 2018 Application filing remains unchanged.

(D) OPTIONS TO ELIMINATE THE NEED FOR THE PROPOSED PROJECT

Text provided in the June 13, 2018 Application filing remains unchanged.

(E) FACILITY SELECTION RATIONALE

Text provided in the June 13, 2018 Application filing remains unchanged.

(F) FACILITY SCHEDULE

(1) Schedule Gantt Chart

The major scheduled activities associated with the <u>Amended</u> Preferred and Alternate Routes are shown in bar chart form on <u>Revised</u> Figure 03-1.

(2) Impact of Critical Delays

4906-5-04 ROUTE ALTERNATIVES ANALYSIS

Text provided in the June 13, 2018 Application filing remains unchanged. **Revised Figures 04-1A through 04-E** provide constraints maps of the Amended Preferred Route.

4906-5-05 PROJECT DESCRIPTION

(A) DESCRIPTION OF PROJECT AREA

(1) Geography and Topography

Text provided in the June 13, 2018 Application filing remains unchanged. **Revised Figures 05-1A** through **05-1C** provide maps at 1:24,000 scaled showing the Amended Preferred Route, OPSB-Approved Route, and Alternate Route.

- (a) Proposed Transmission Line Alignments: The proposed alignments for the Amended Preferred, Approved, and Alternate Routes of the Glencoe-Speidel 138kV transmission line, including the proposed turning points, are shown on Revised Figures 05-1A through 05-1C. Detailed descriptions of the routes are provided in Section 4906-5-02(A)(3).
- **(b)** Proposed Substation Locations: Text provided in the June 13, 2018 Application filing remains unchanged.
- (c) Major Highway and Railroad Routes: Text provided in the June 13, 2018 Application filing remains unchanged.

No active railroads are crossed by either the Preferred or Alternate Routes.

- (d) Publicly identified and owned institutions, parks, and recreational areas: Text provided in the June 13, 2018 Application filing remains unchanged.
- **(e) Utility Corridors:** Text provided in the June 13, 2018 Application filing remains unchanged.
- (f) Lakes, Ponds, Reservoirs, Streams, Canals, Rivers, and Swamps: Text provided in the June 13, 2018 Application filing remains unchanged.
- **(g) Population Centers and Legal Boundaries:** Text provided in the June 13, 2018 Application filing remains unchanged.
- (2) Transmission Acreage, Length, and Properties Crossed

The <u>Amended</u> Preferred Route is approximately 12.7 miles in length and crosses approximately 128 121 parcels. The Alternate Route is approximately 12.7 miles in length and crosses approximately 129 parcels. Approximately six acres of supplemental ROW would need to be acquired for 100-foot ROW where necessary.

(B) LAYOUT AND CONSTRUCTION

(C) TRANSMISSION EQUIPMENT

4906-5-06 ECONOMIC IMPACT AND PUBLIC INTERACTION

4906-5-07 HEALTH AND SAFETY, LAND USE, AND REGIONAL DEVELOPMENT

(A) HEALTH AND SAFETY

Text provided in the June 13, 2018 Application filing remains unchanged.

(B) LAND USE

(1) Proposed Routing Alignments and Existing Land Uses

Maps at 1:12,000-scale, including the area 1,000 feet on either side of the <u>Amended</u> Preferred, <u>Approved</u>, and Alternate Routes are presented as <u>Revised</u> Figures 04-1A through 04-1E. These maps include proposed and existing substations, land uses, road names, structures, and incorporated areas and population centers. Identified land use features are described below. <u>Revised</u> Table 07-6 provides the existing land uses identified within 100 and 1,000-feet of the <u>Amended</u> Preferred, <u>Approved</u>, and Alternate Routes.

Residential: Residences were estimated based on review of aerial photography and county parcel data.

<u>Amended Preferred Route</u>: There are <u>278–277</u> residences identified within 1,000 feet of the Preferred Route, <u>257 255</u> of which are single family residences, and 22 of which are multifamily residences. <u>Twenty-four_Twenty-three</u> residences were identified within 100 feet of the Preferred Route.

Alternate Route: Text provided in the June 13, 2018 Application filing remains unchanged.

Commercial: Text provided in the June 13, 2018 Application filing remains unchanged.

Industrial: Text provided in the June 13, 2018 Application filing remains unchanged.

Cultural: Text provided in the June 13, 2018 Application filing remains unchanged.

Agricultural: Text provided in the June 13, 2018 Application filing remains unchanged.

Recreational: Text provided in the June 13, 2018 Application filing remains unchanged.

TABLE 07-6 SUMMARY OF LAND USE FACTORS OF THE PREFERRED AND ALTERNATE ROUTES

	Route Alternatives	
	Amended Preferred	Alternate
Length (miles)	12.7	12.7
% of Length in or Adjacent to Existing Roads Rights-of-way	7%	7%
% of Length in or Adjacent to Existing Transmission Line Rights-of-way	100%	100%
	Features within 100 fe	et of Route Alternatives
Threatened and Endangered Species	0	0
Previously Recorded Historic Structures (OHI)	1	1
Previously Recorded Archaeological Sites	0	0
National Register of Historic Places (NRHP) Sites	0	0
Residences	24 <u>23</u>	29
Other sensitive land uses*	1	1
	Features within 1,000 fe	eet of Route Alternatives
Threatened and Endangered Species	0	0
Historic Structures (OHI)	6	6
Archaeological Sites	2	2
NRHP Sites	0	0
Residences*	278 <u>277</u>	282
Other sensitive land uses*	4	4

^{*} Some residences are within 1,000 feet of both the Preferred and Alternate Routes. Addition of Preferred/Alternate Routes is not an accurate total of residences within 1,000 feet.

(2) Impact of Construction

^{**} Other sensitive land uses include airports, parks, State forests, golf courses, schools, hospitals or clinics, churches, and cemeteries.

(3) Structures

(a) Structures within 200 feet of Proposed ROW:

Amended Preferred Route: One hundred thirty-two-twenty-eight structures were identified within 200 feet of the proposed ROW of the Amended Preferred Route. These structures include a church, four commercial/industrial buildings, a water tower, four multi-family residences, 52–49 single-family residences and 70–69 outbuildings. One of the residences, A mobile home, and two outbuildings would be located within the ROW.

Alternate Route: Text provided in the June 13, 2018 Application filing remains unchanged.

- **(b)** Structures to be destroyed, acquired, or removed and owner compensation: Text provided in the June 13, 2018 Application filing remains unchanged.
- (c) Mitigation Procedures to minimize impact to structures near the facility:

Text provided in the June 13, 2018 Application filing remains unchanged.

(C) AGRICULTURAL LAND USE AND DISTRICTS

- (1) Agricultural Land and Districts Map
- (a) Agricultural Land Use: Agricultural land use along the Amended Preferred, Approved, and Alternate Routes consists of pasture and hay fields and row crops. Agricultural land is shown on Revised Figures 07-1A through 07-1E.
- (b) Agricultural District Land: AEP Ohio Transco's consultant received a list of parcels registered in as Agricultural District Land from the Belmont County auditor via email on April 23, 2018. Three Two agricultural district land parcels were identified within 1,000 feet of the Project, two one of which is crossed, as shown on Revised Figures 07-1A through 07-1E.

(2) Acreage and Impacts

(a) Acreage: The Preferred Route ROW and preliminary access roads include approximately 35 38 acres of agricultural land comprised of hay fields and pasture as well as some row crops. The Alternate Route ROW and preliminary access roads include approximately 40 acres of agricultural land comprised of hay fields and pasture as well as some row crops. It is not expected that all of this land would be impacted during construction as access roads and work pads will not require the entire ROW width. Once the transmission line is operational, only very small areas encompassed by the pole locations will be taken out of agricultural use. This area of impact is expected to be nearly identical to the area currently occupied by poles along the existing line.

- **(b) Evaluation of Construction, Operation, and Maintenance Impacts:** Text provided in the June 13, 2018 Application filing remains unchanged.
- (i) Field Operations: Text provided in the June 13, 2018 Application filing remains unchanged.
- (ii) Irrigation: Text provided in the June 13, 2018 Application filing remains unchanged.
- (iii) Field Drainage Systems: Text provided in the June 13, 2018 Application filing remains unchanged.
- **(iv) Structures Used for Agricultural Operations:** Text provided in the June 13, 2018 Application filing remains unchanged.
- **(v) Agricultural Land Viability for Agricultural Districts:** The <u>Amended</u> Preferred and Alternate Routes cross two <u>one</u> Agricultural District parcel. The parcel currently is crossed by the existing 69 kV transmission line. No impacts on the viability of agricultural land for Agricultural Districts are anticipated.
- **(c) Mitigation Procedures:** Text provided in the June 13, 2018 Application filing remains unchanged.

(D) REGIONAL LAND USE PLANS

Text provided in the June 13, 2018 Application filing remains unchanged.

(E) CULTURAL IMPACTS OF THE PROPOSED PROJECT

4906-5-08 ECOLOGICAL INFORMATION AND COMPLIANCE WITH PERMITTING REQUIREMENTS

(A) ECOLOGICAL MAP

A map at a scale of 1:24,000 illustrating areas within 1,000 feet of the Preferred and Alternate Routes is presented as <u>Revised</u> Figures 05-1A through 05-1C. The proposed route alignments, including proposed turning points, are also presented in <u>Revised</u> Figures 05-1A through 05-1C.

More detailed maps at 1:2,400-scale depicting delineated features, survey corridor, lakes, ponds, reservoirs, and proposed ROW, as applicable, are provided as **Appendix 08-1** for the Amended Preferred, Approved, and Alternate Routes.

(B) FIELD SURVEY REPORT FOR VEGETATION AND SURFACE WATERS

The ecological survey of the <u>Preferred Approved</u> and Alternate Routes, including the 200-foot Field Survey Area, was conducted in September of 2017 by AEP Ohio Transco's consultant. <u>Additional ecological surveys for route changes were conducted in October 2018 and August 2019. Maps of the findings are included in **Appendix 08-1**.</u>

(1) Vegetative Communities, Wetlands, and Streams in Study Area

Text provided in the June 13, 2018 Application filing remains unchanged.

(2) Delineation Result Mapping

Field delineated streams and wetlands within the survey corridor and proposed ROW are mapped on Figures 3A through 3AA of provided in Appendix 08-1, as discussed in Section 4906-5-08(B)(1).

(3) Probable Impact of Construction on Vegetation, Surface Waters, and Wetlands

Text provided in the June 13, 2018 Application filing remains unchanged.

(4) Probable Impact of Operation and Maintenance on Vegetation, Surface Waters, and Wetlands

Text provided in the June 13, 2018 Application filing remains unchanged.

(5) Mitigation Procedures

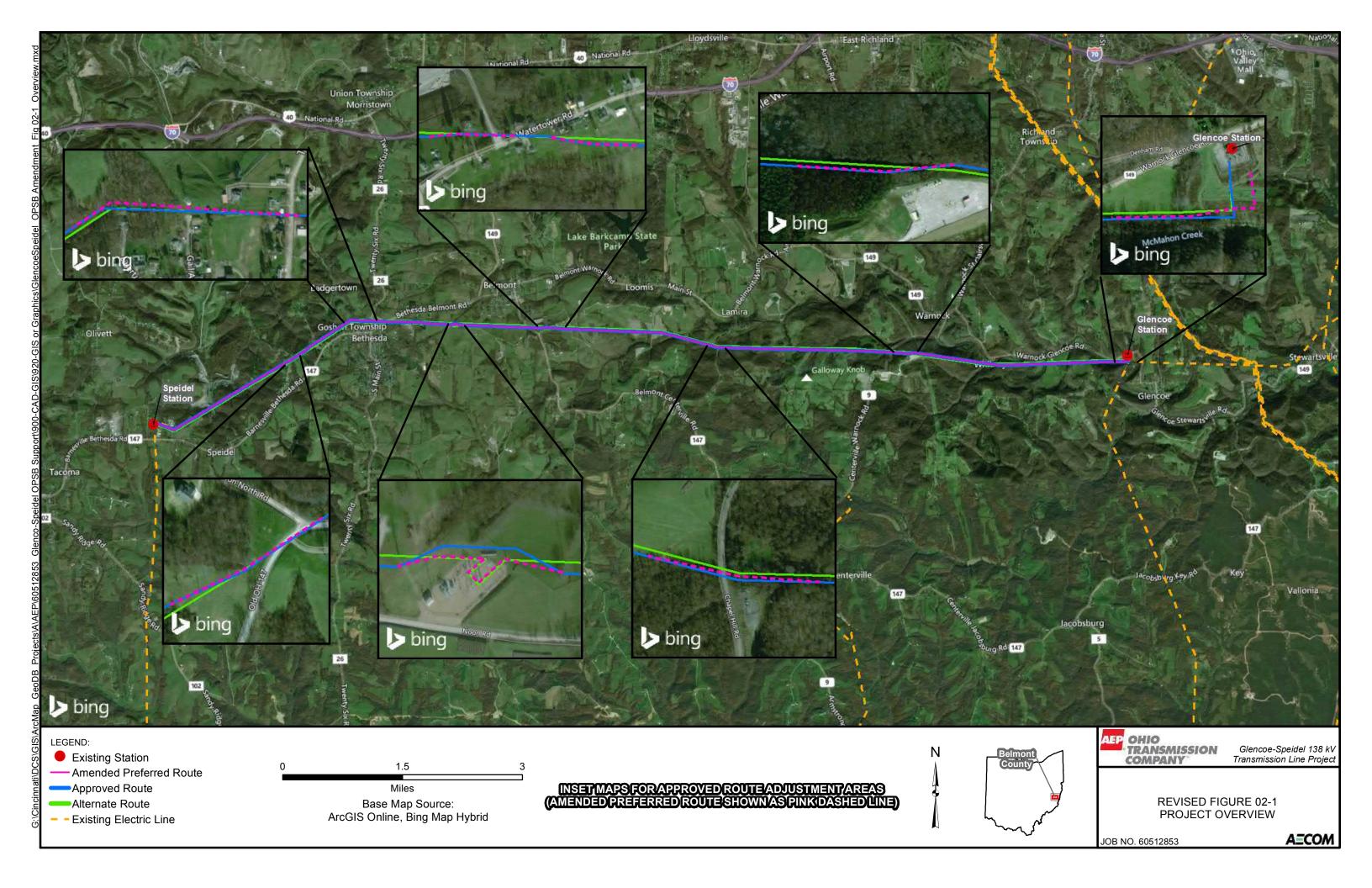
Text provided in the June 13, 2018 Application filing remains unchanged.

(C) LITERATURE SURVEY OF THE PLANT AND ANIMAL LIFE POTENTIALLY AFFECTED BY THE FACILITY

(D) SITE GEOLOGY

Text provided in the June 13, 2018 Application filing remains unchanged.

(E) ENVIRONMENTAL AND AVIATION COMPLIANCE INFORMATION



Revised Figure 03-1

Project Schedule

Glencoe-Speidel 138 kV Transmission Line Rebuild Project

Activity Description

Original Certificate

Prepare Amendment

Submit Amendment

Public Notice

OPSB Staff Review

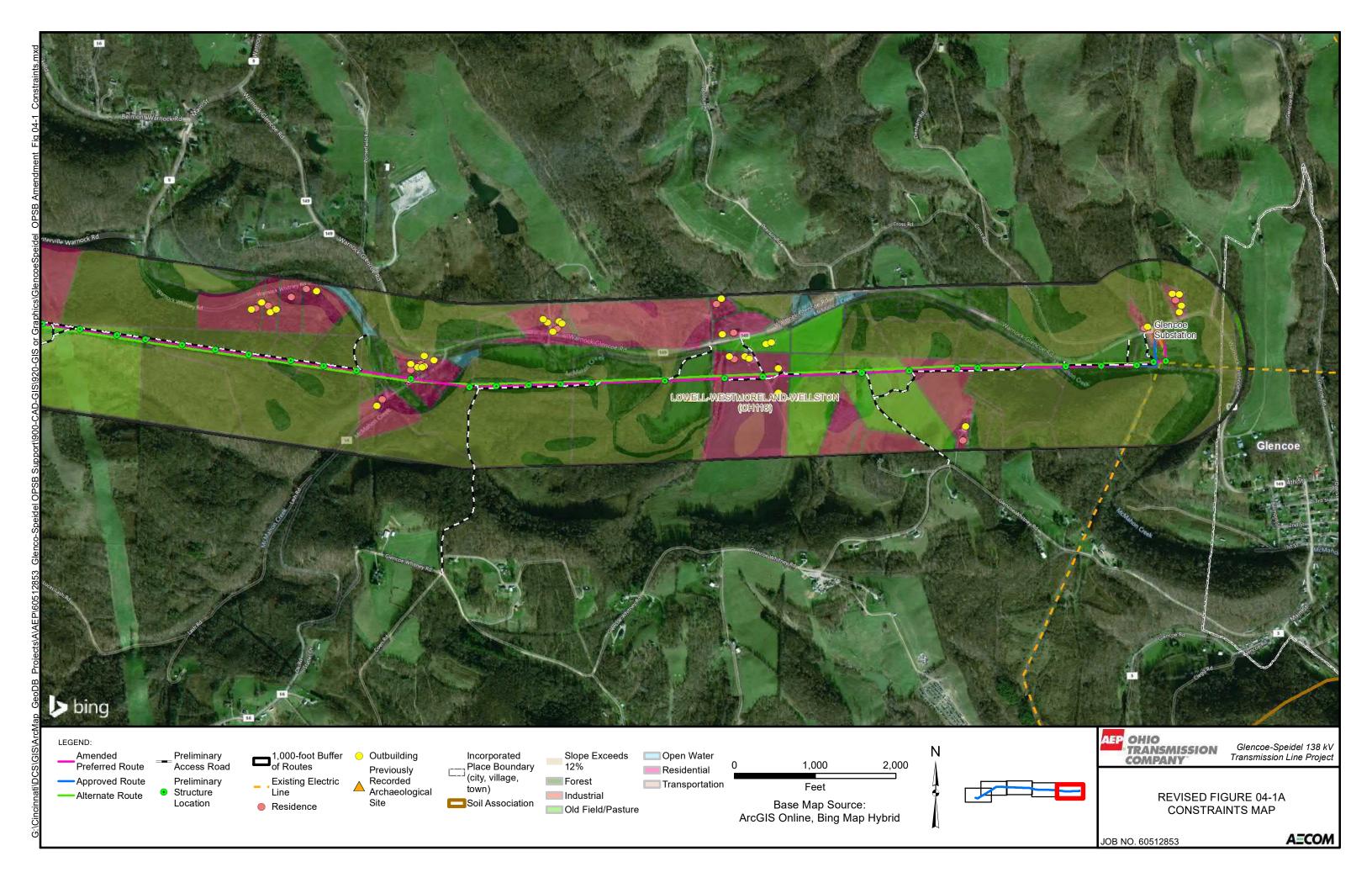
Issue Amended Certificate

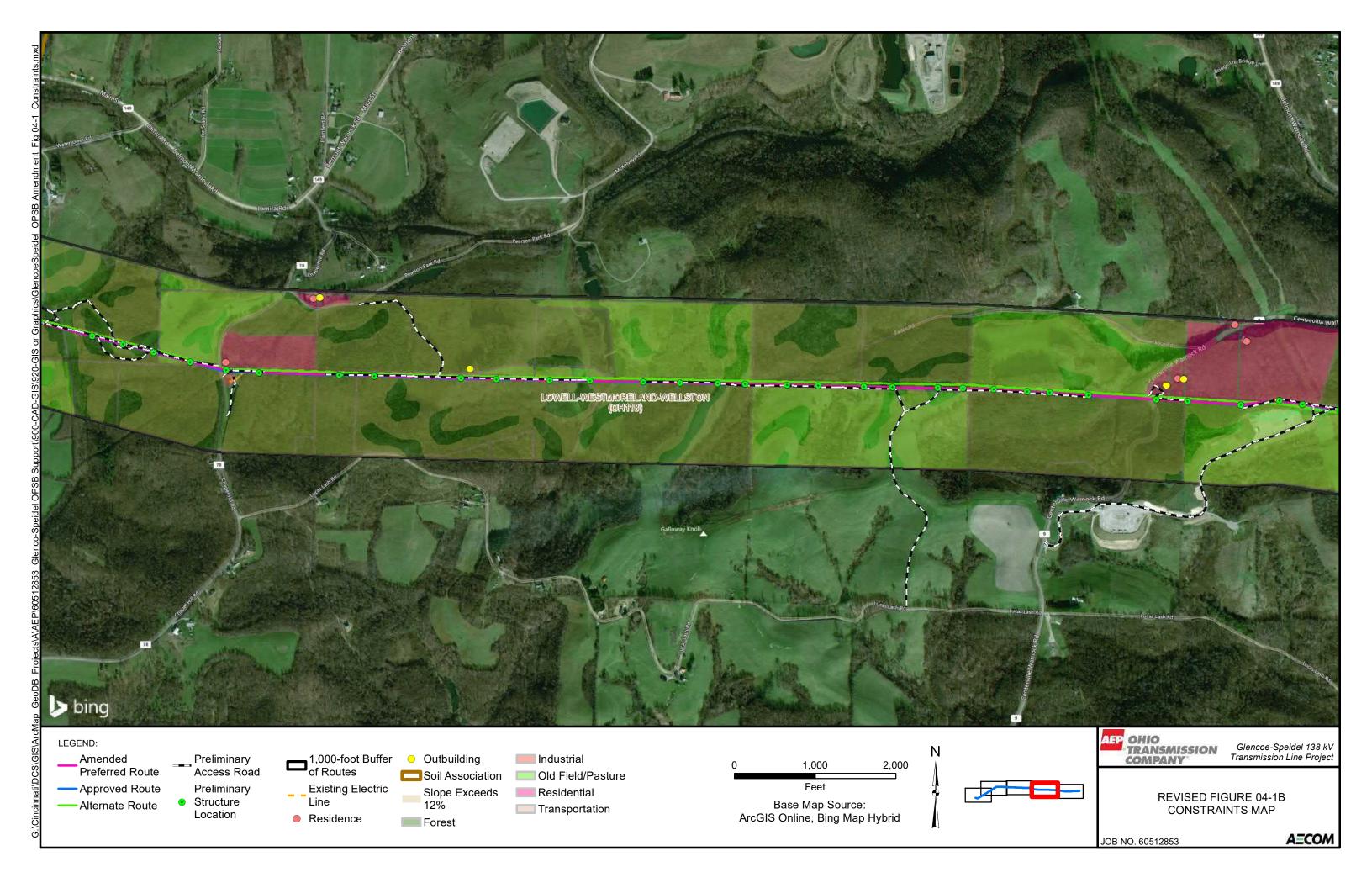
Engineering

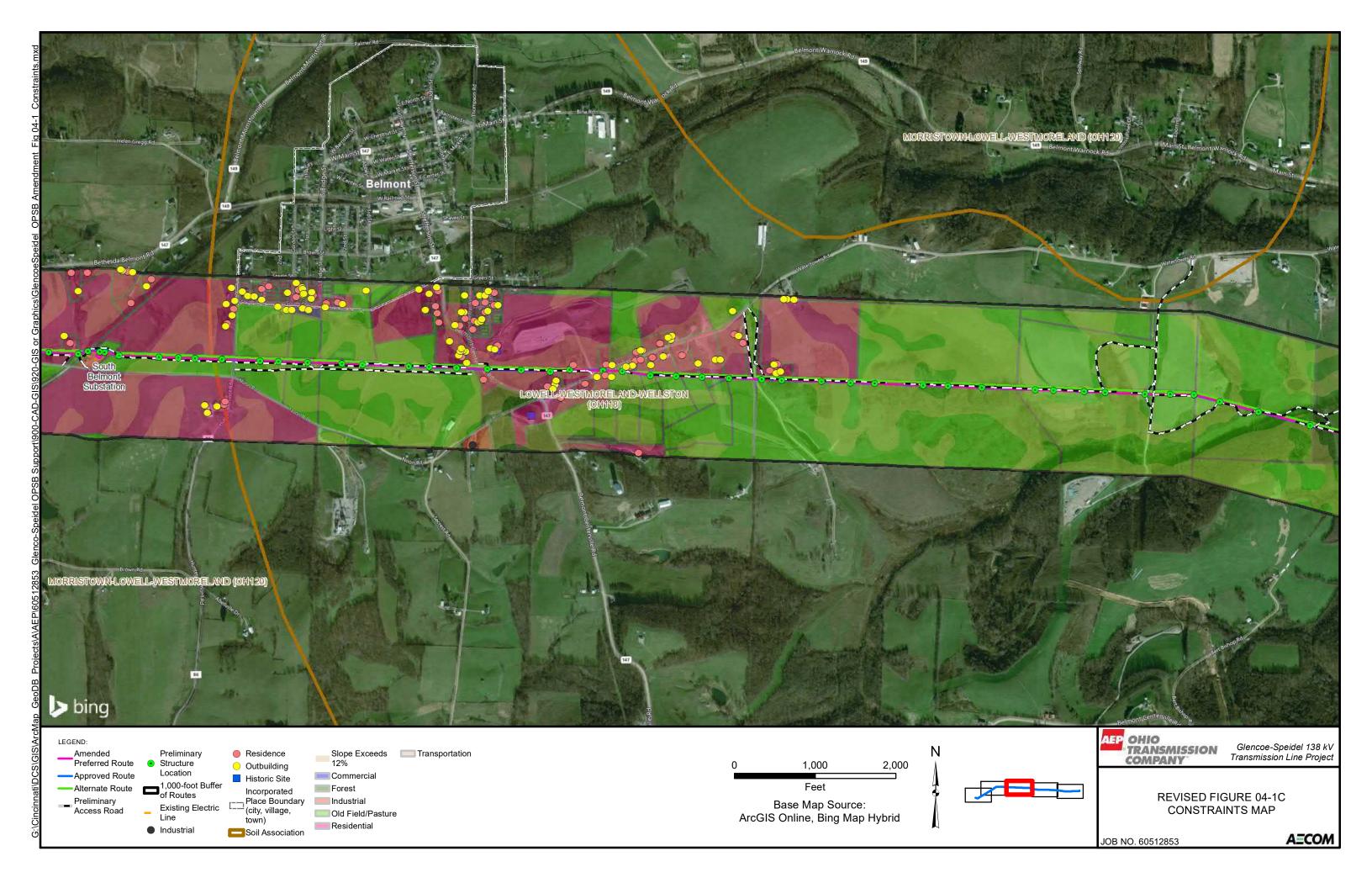
Acquistion of Rights-of-way

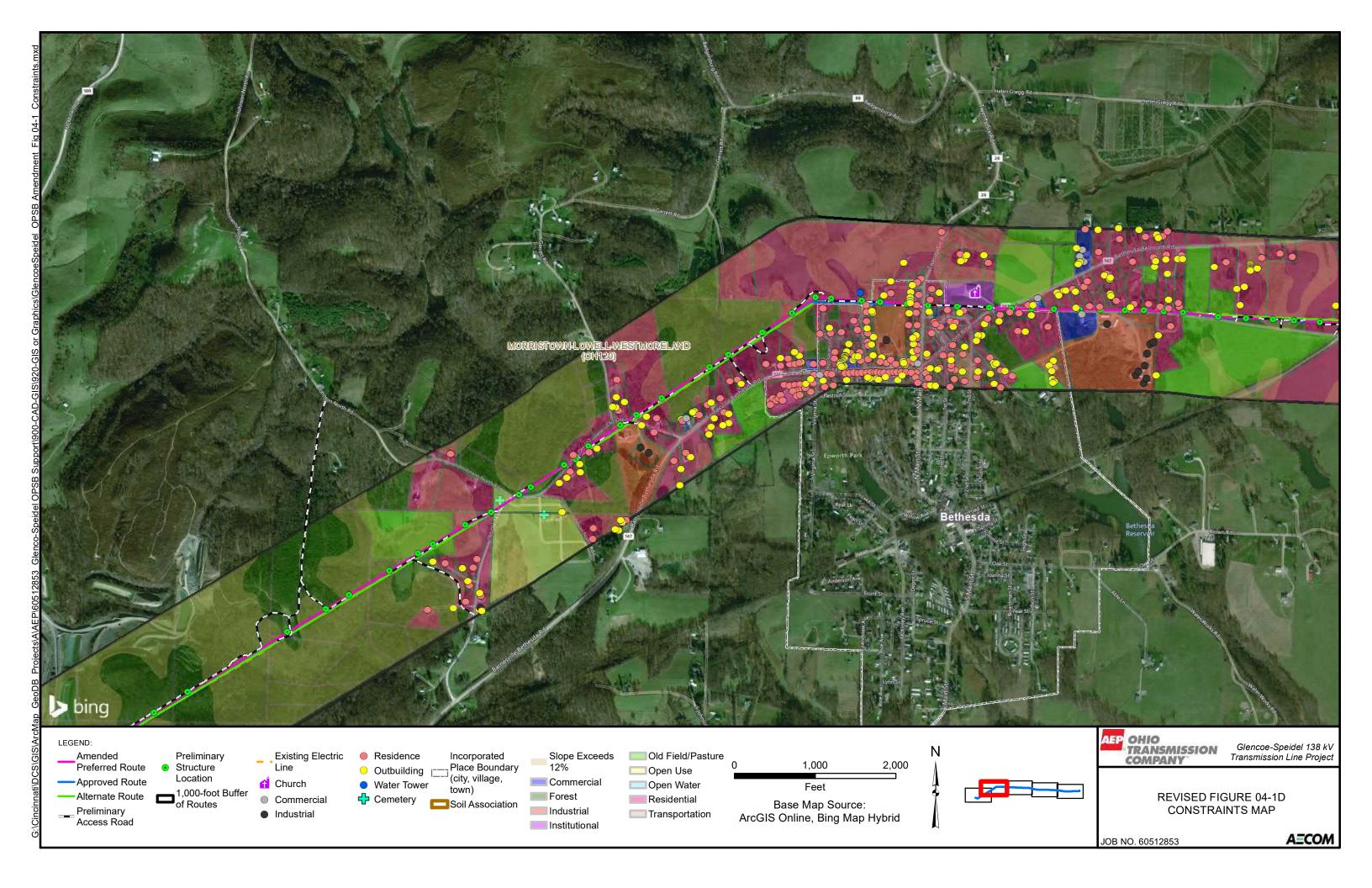
Construction

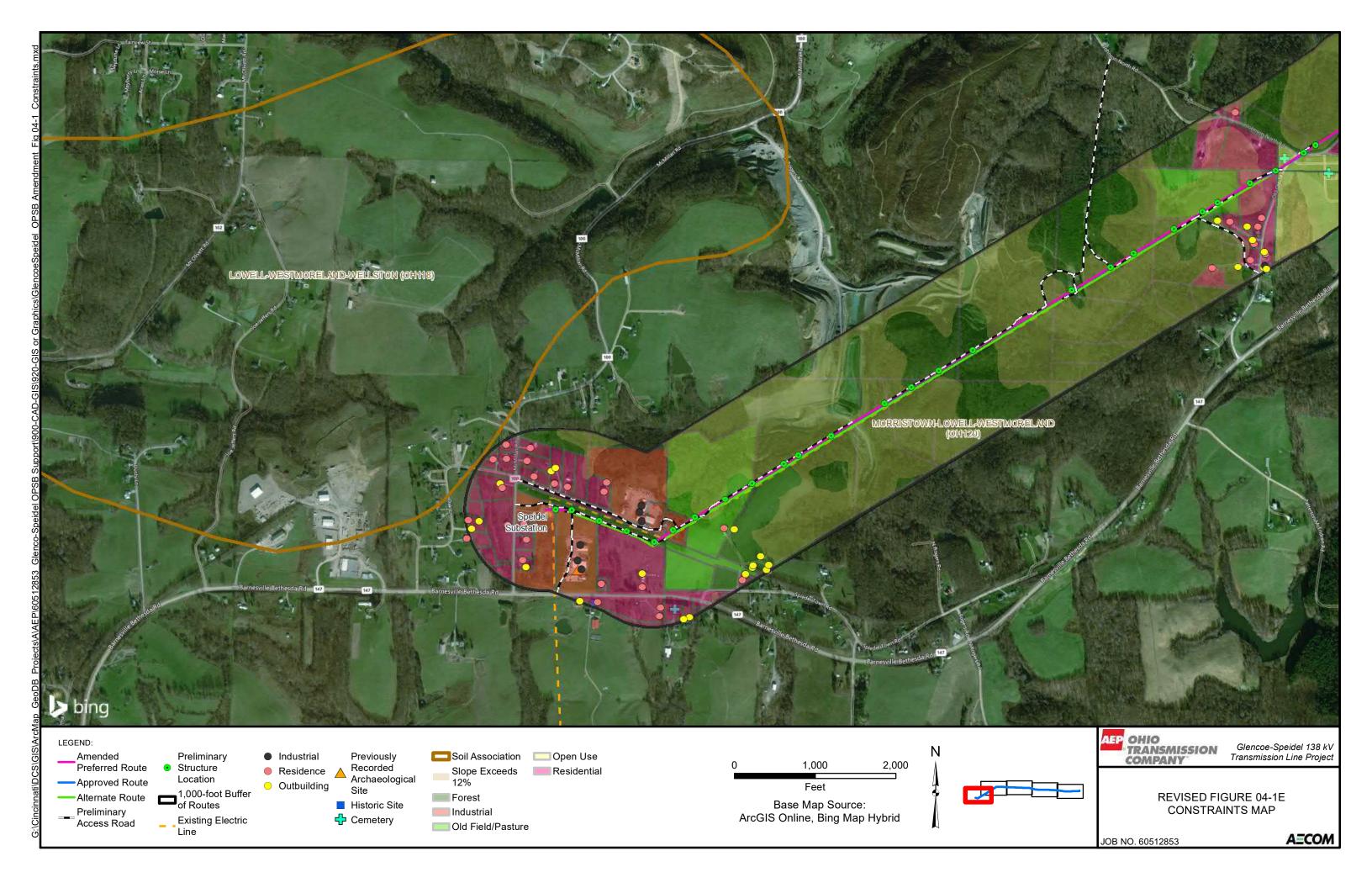
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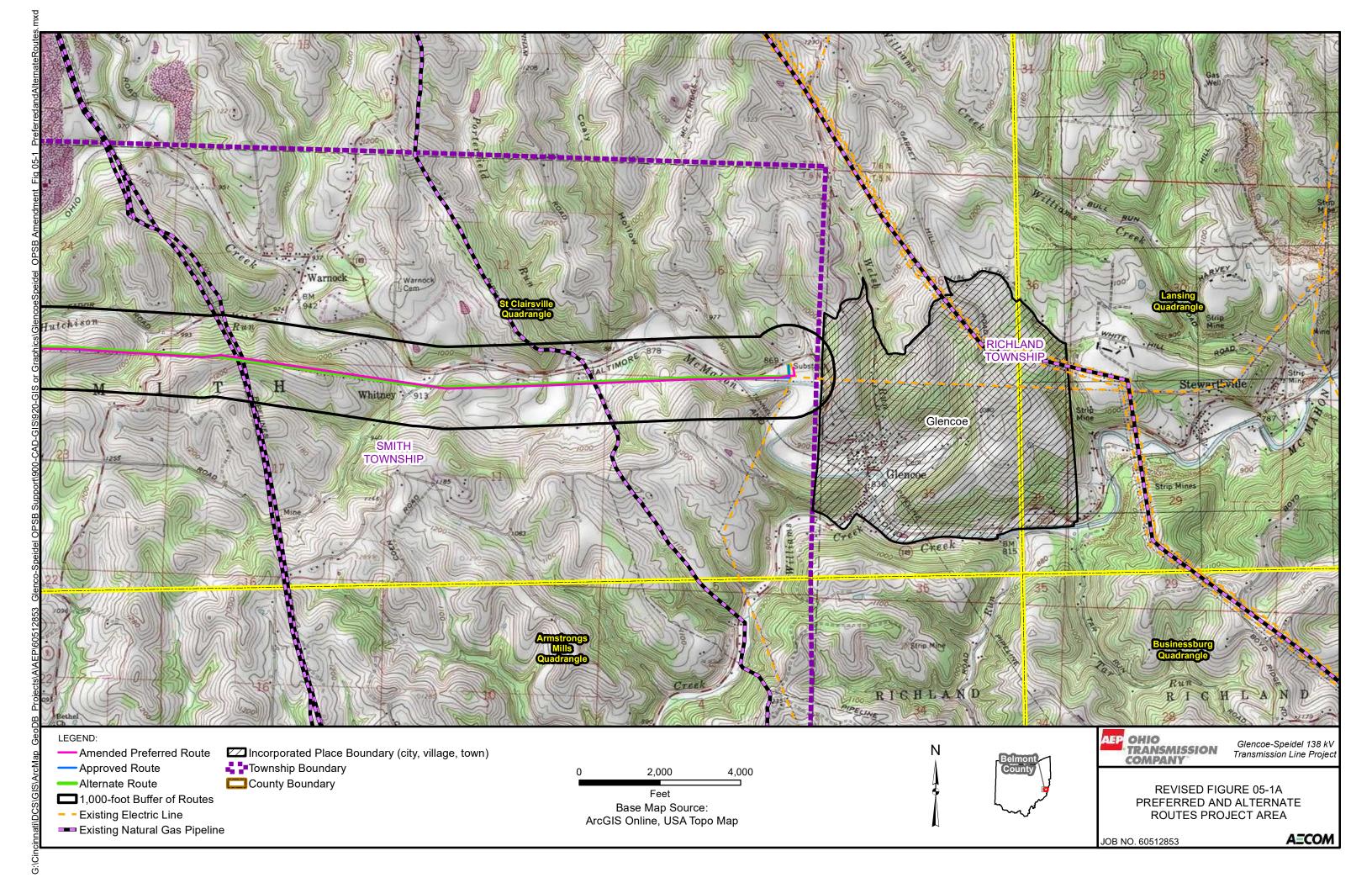


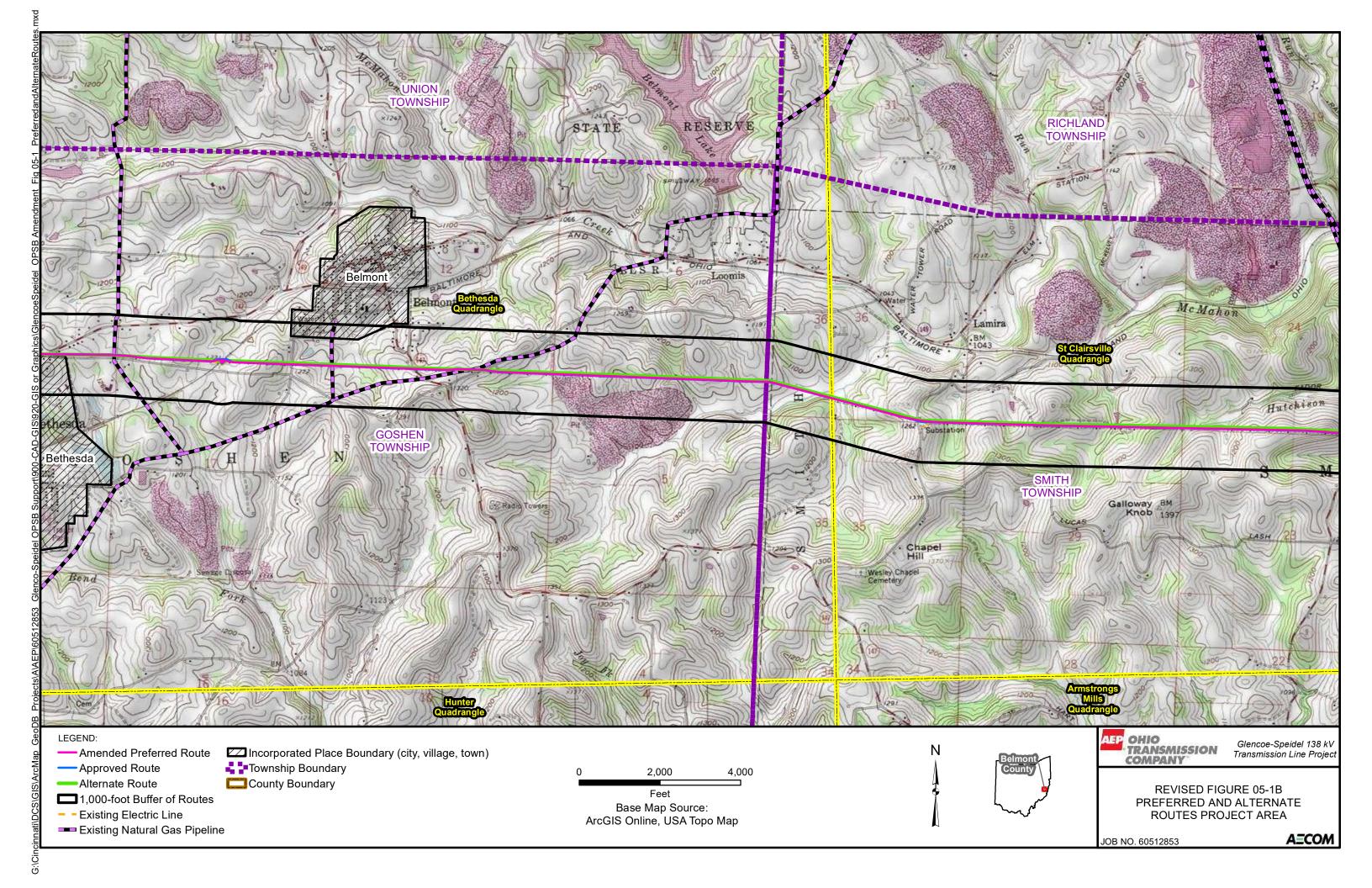


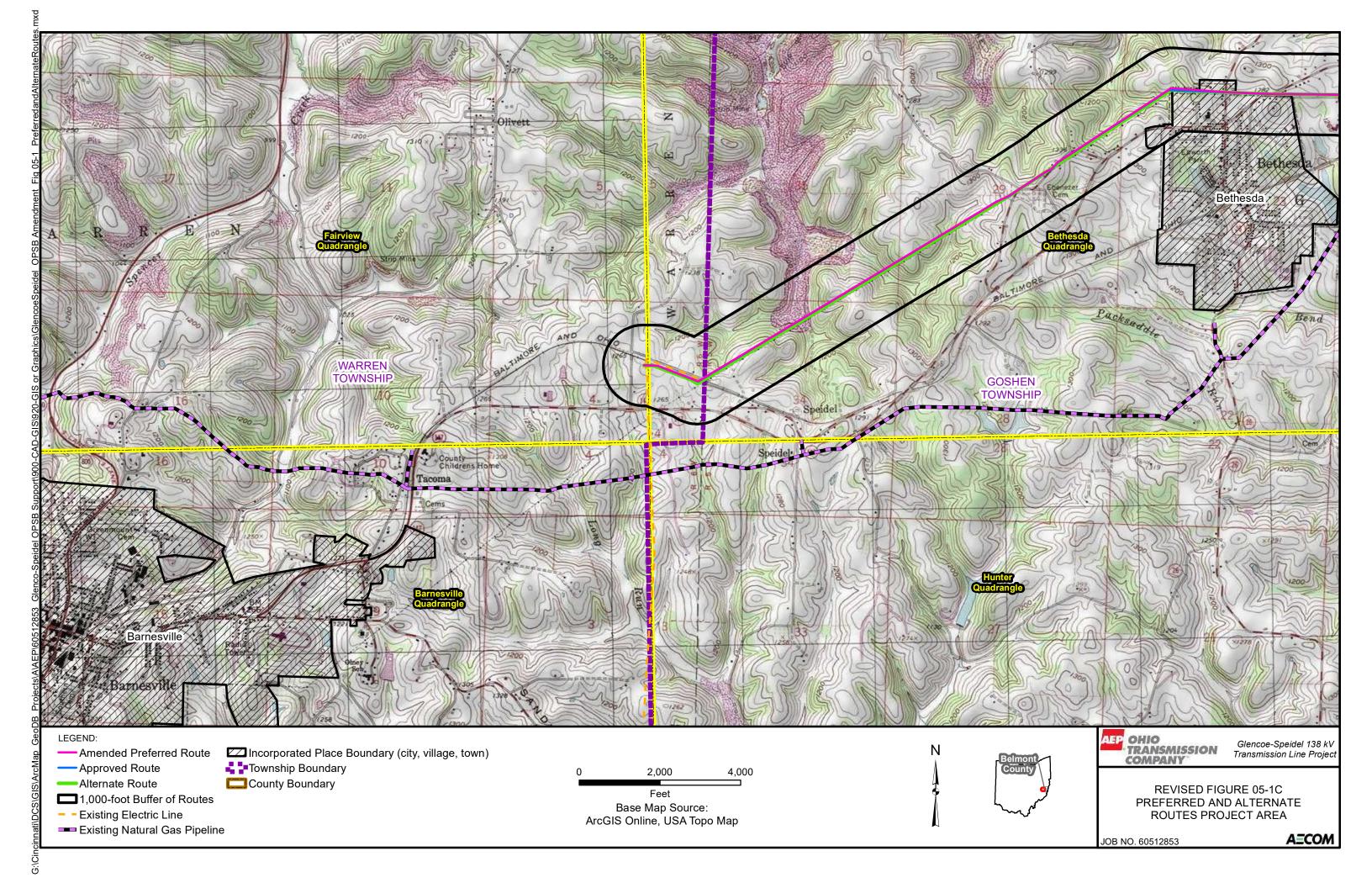


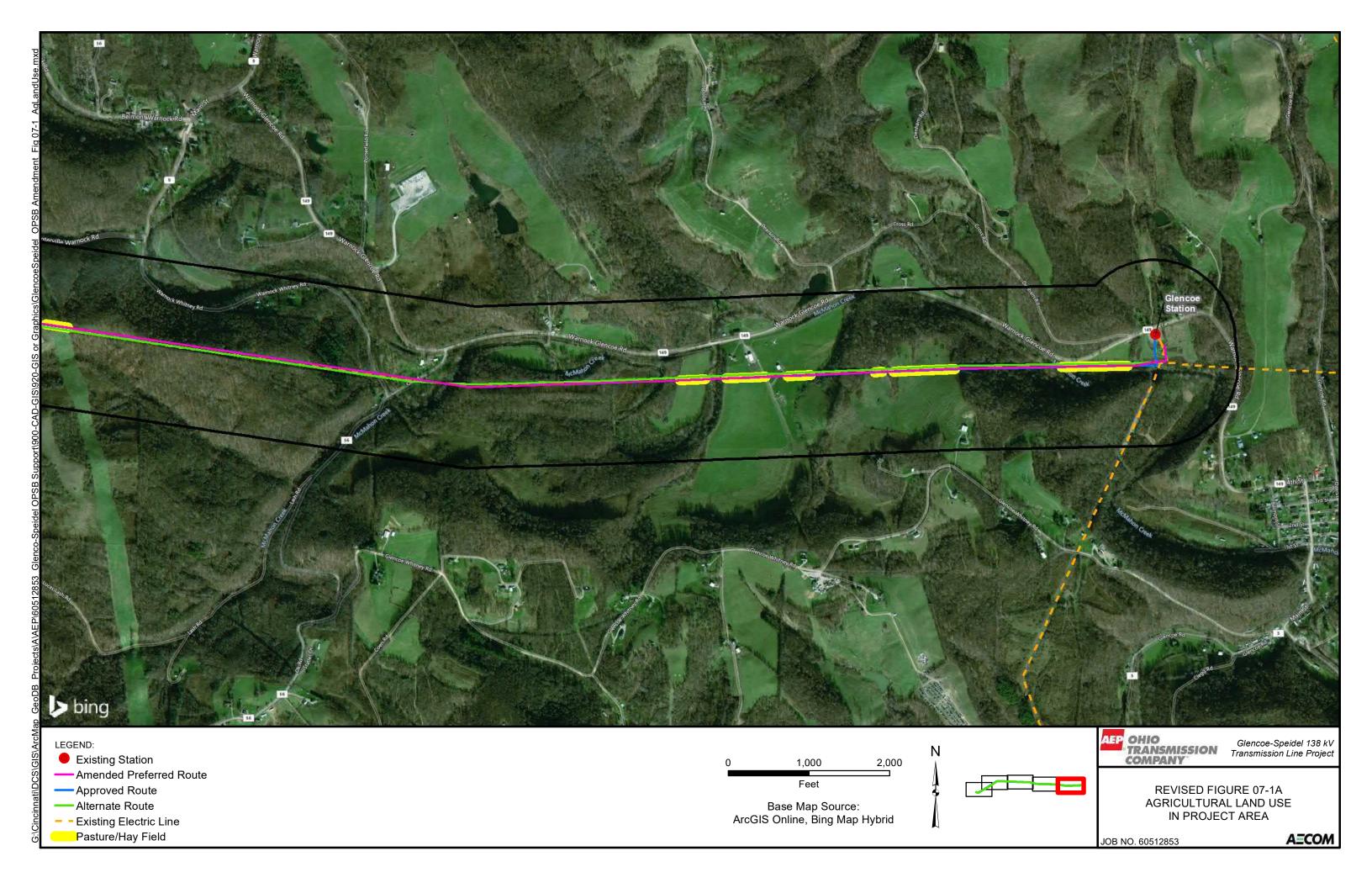




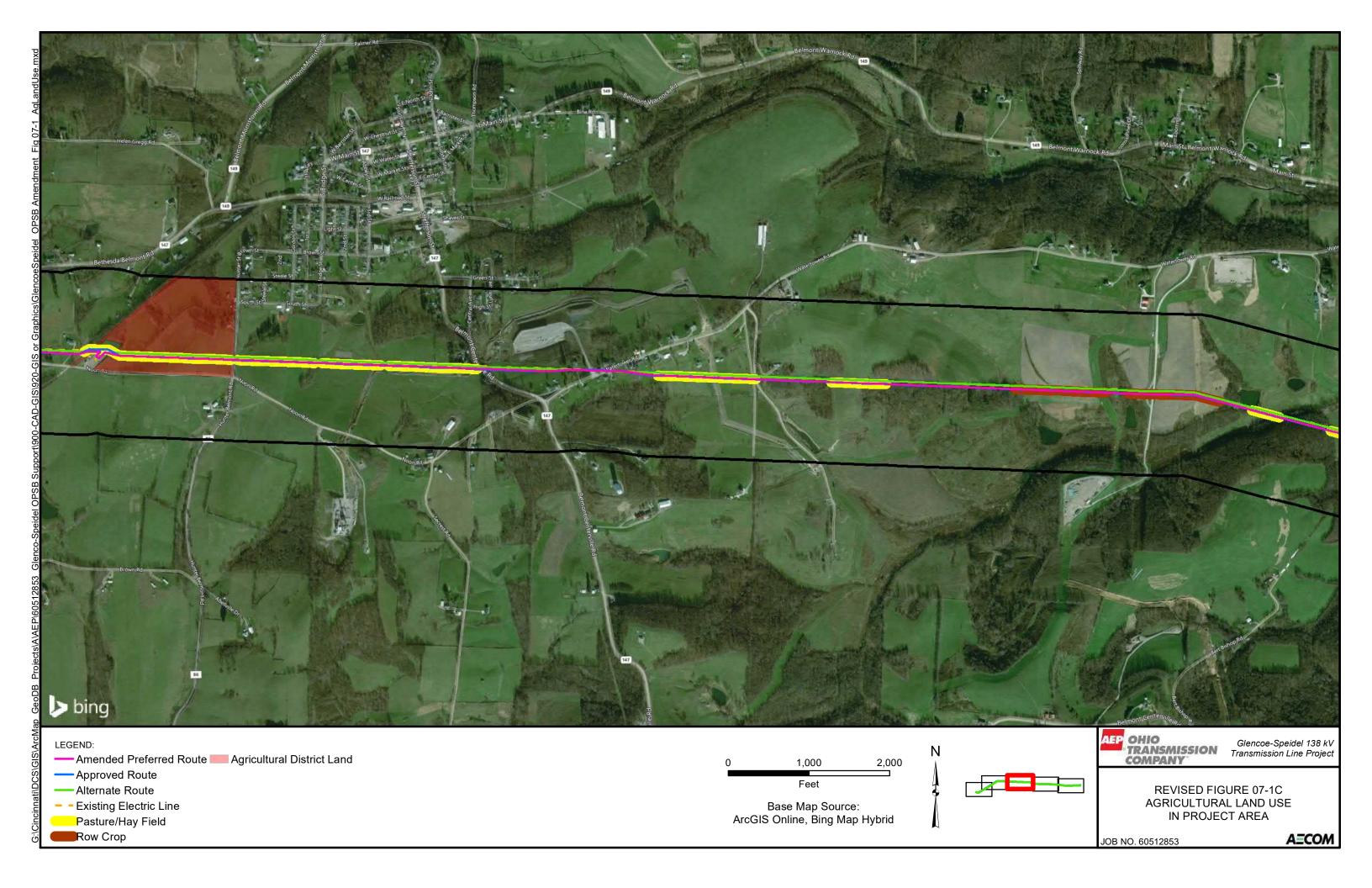


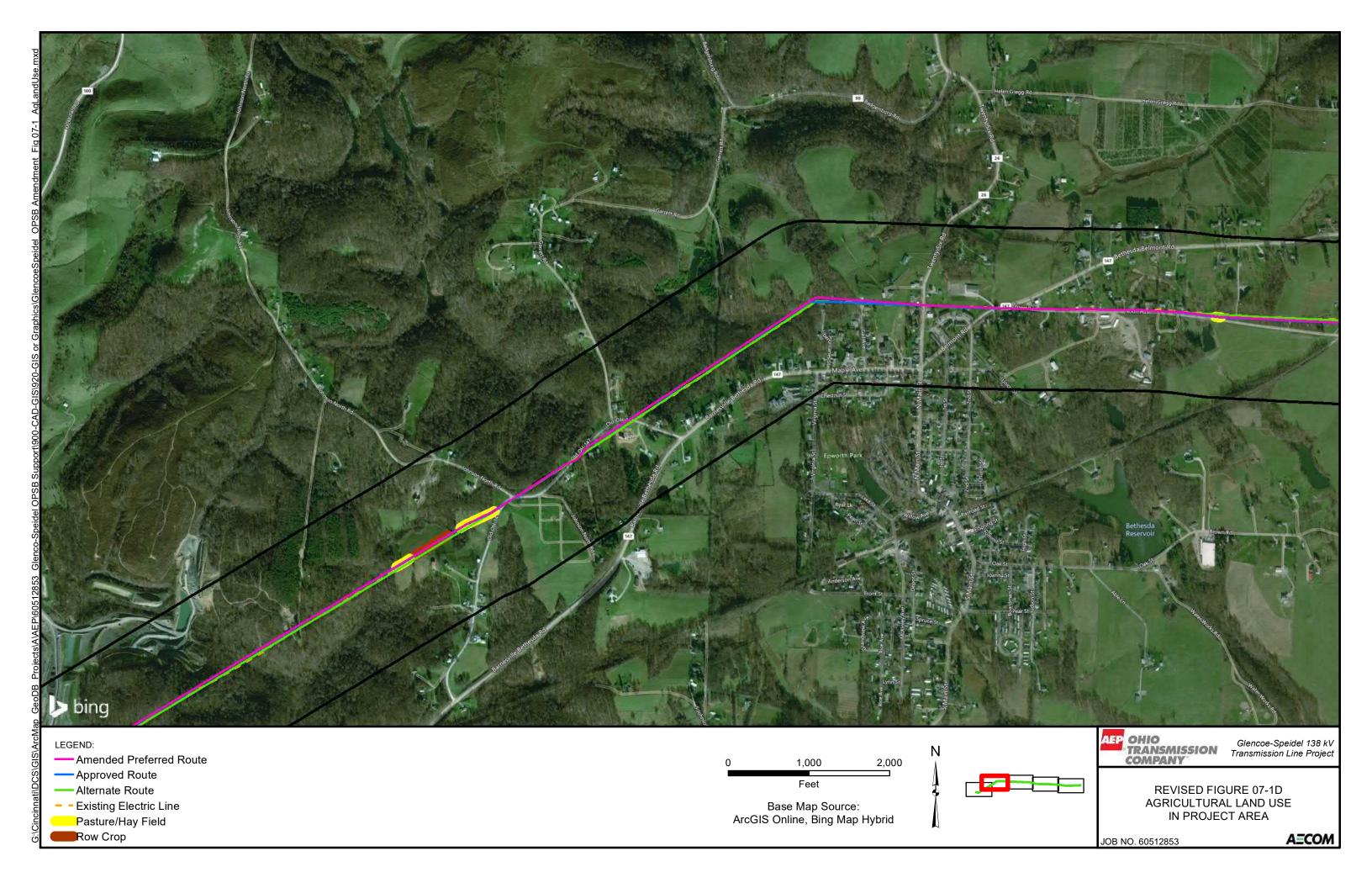


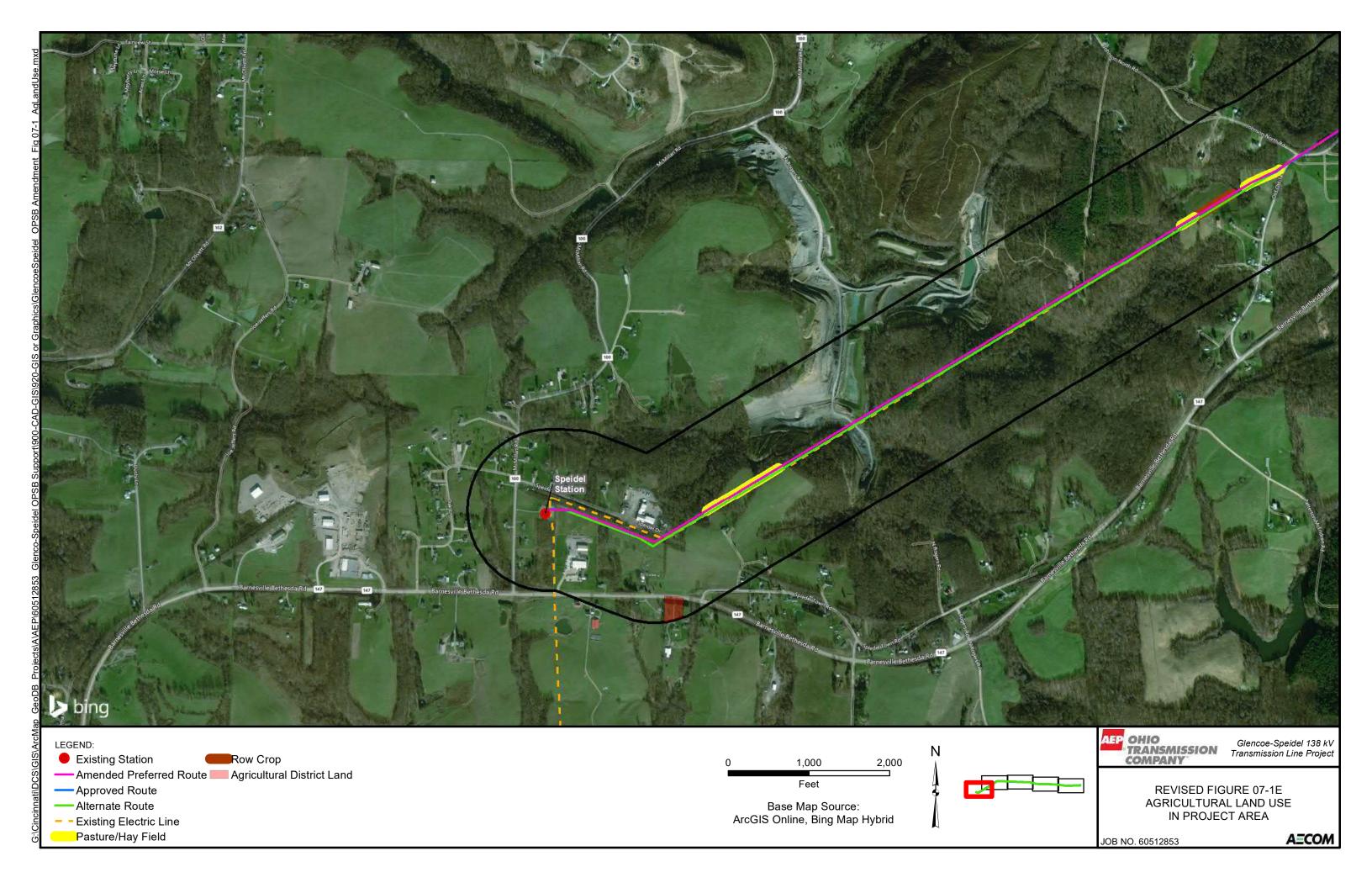






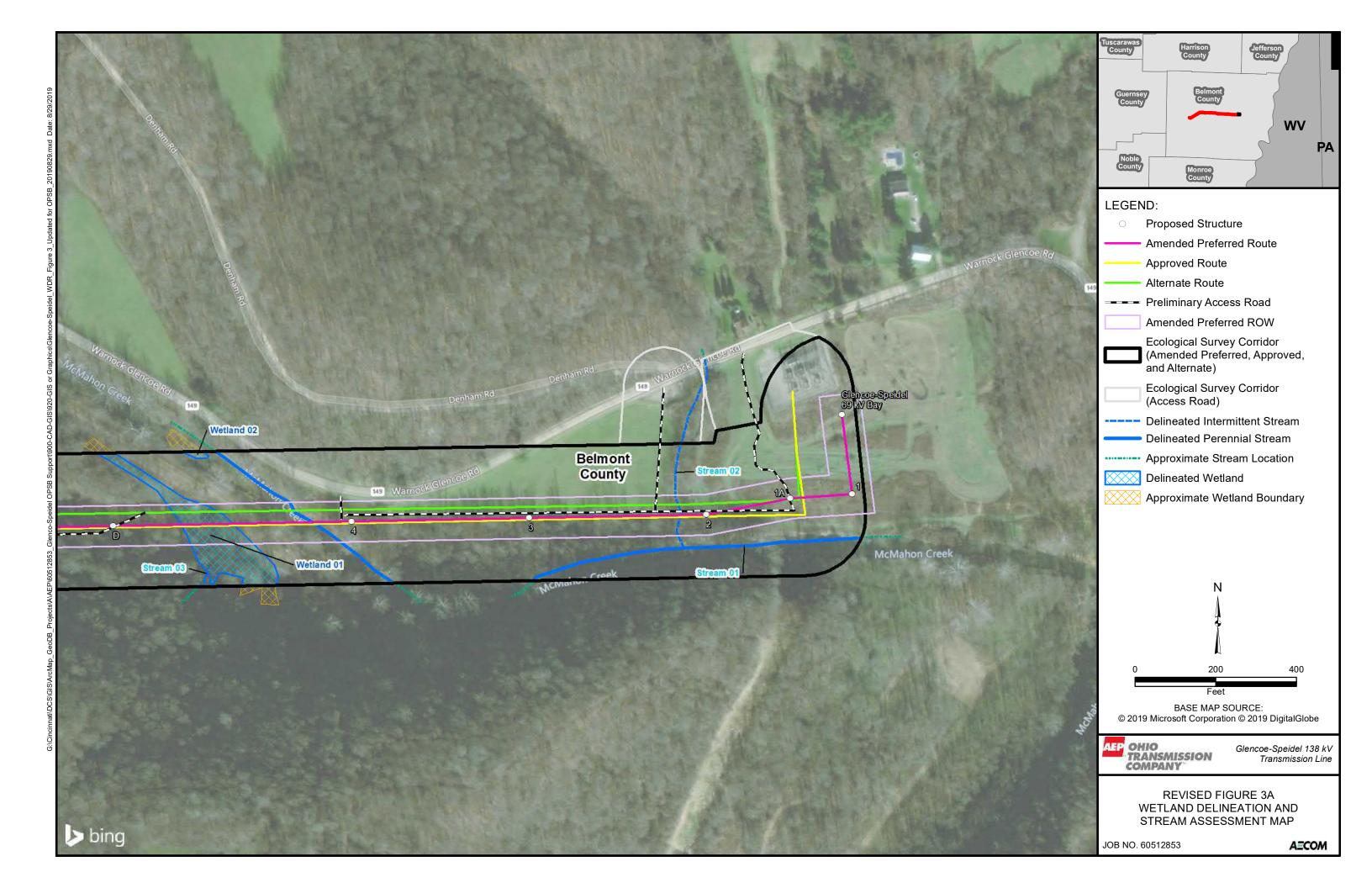


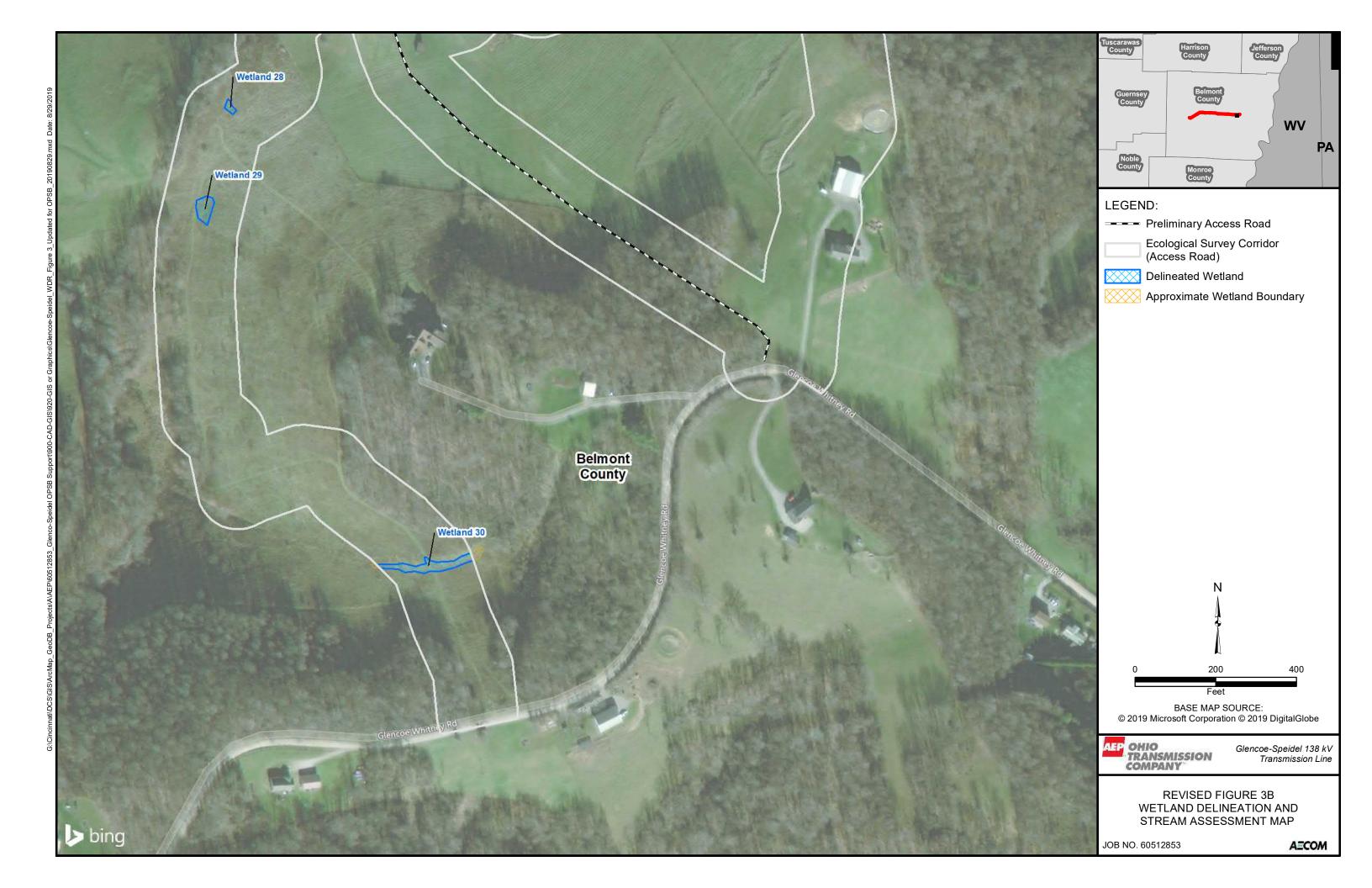


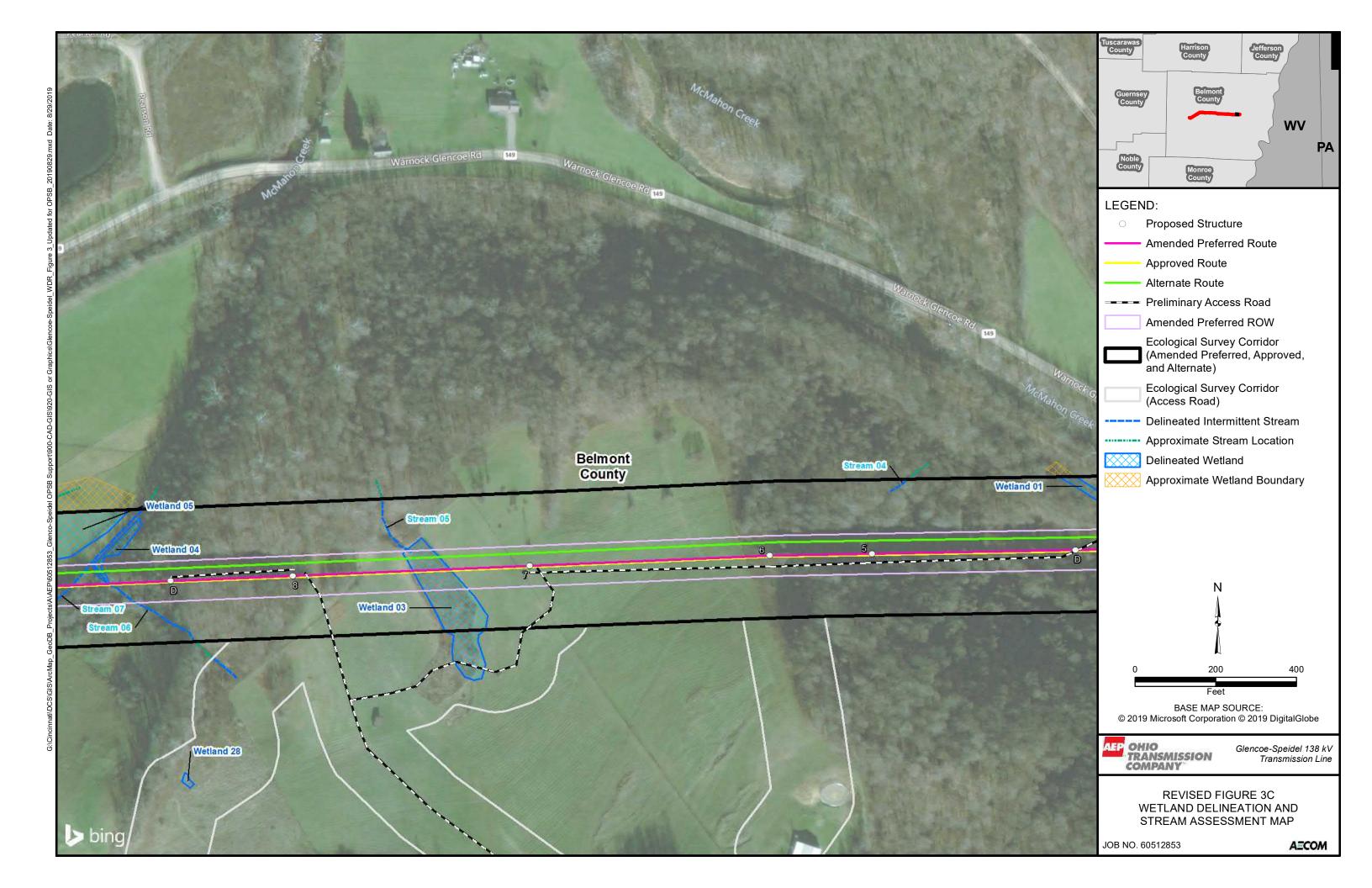


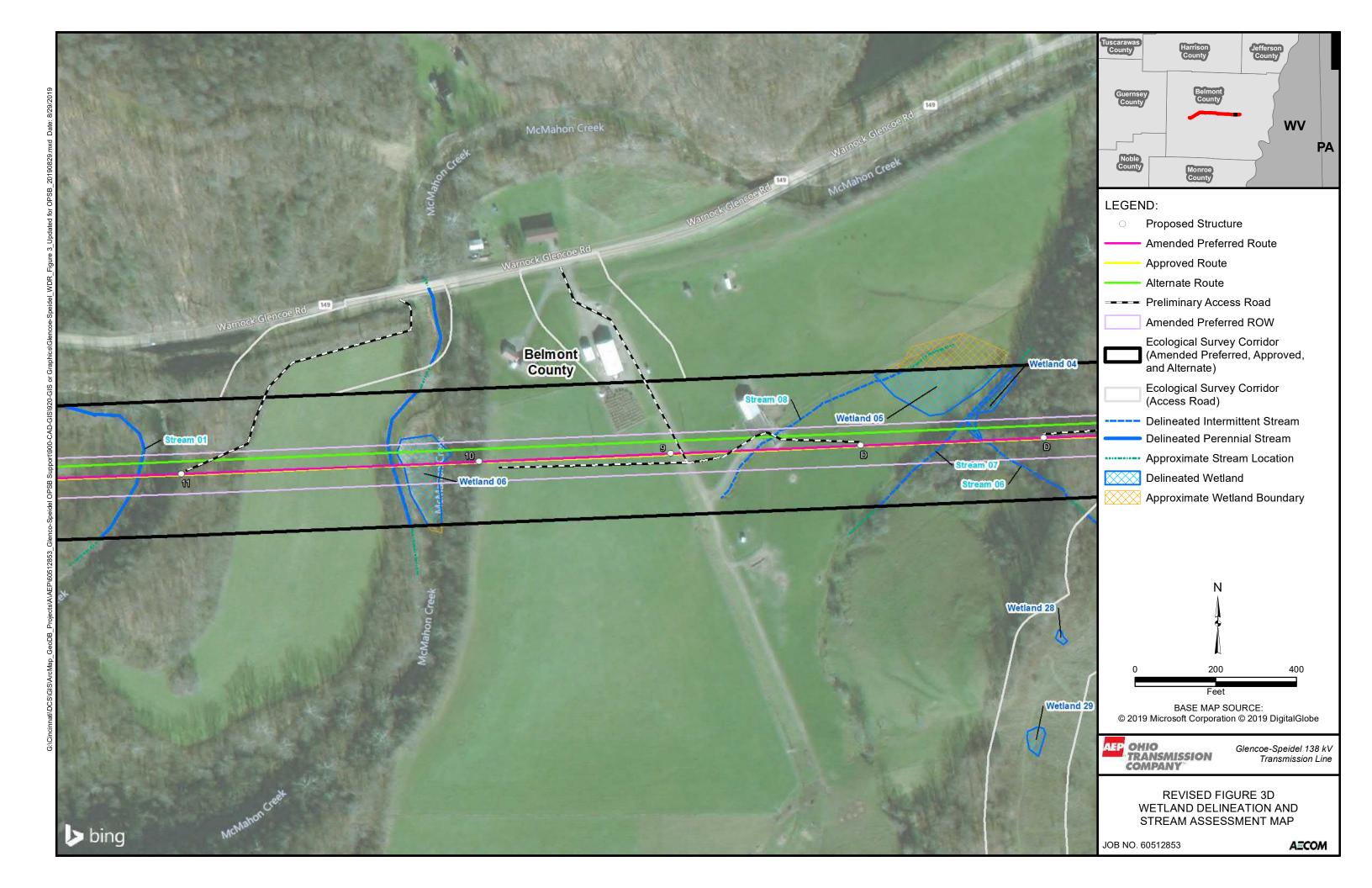
APPENDIX 08-1

WETLAND DELINEATION AND STREAM ASSESSMENT MAPS



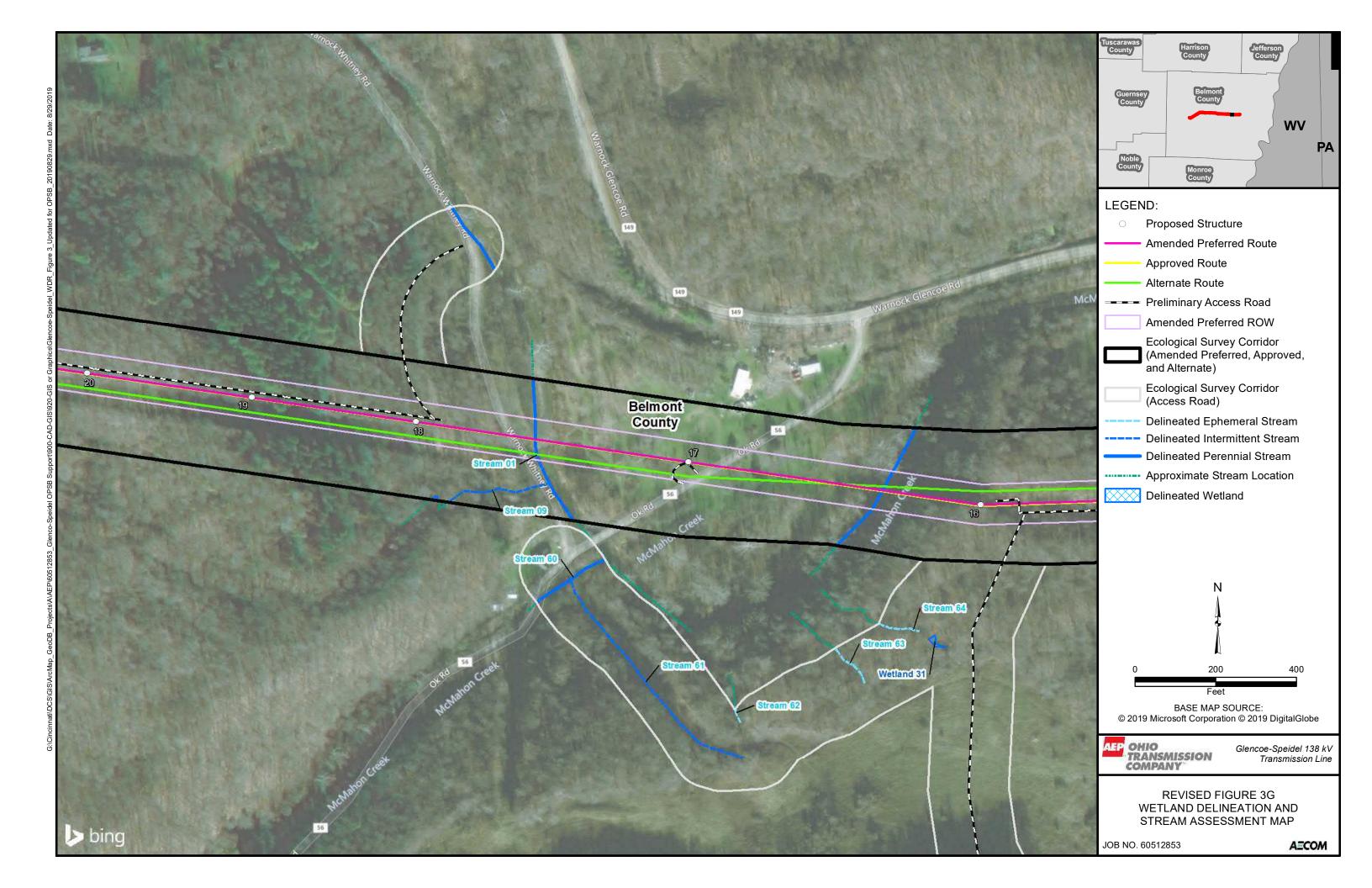


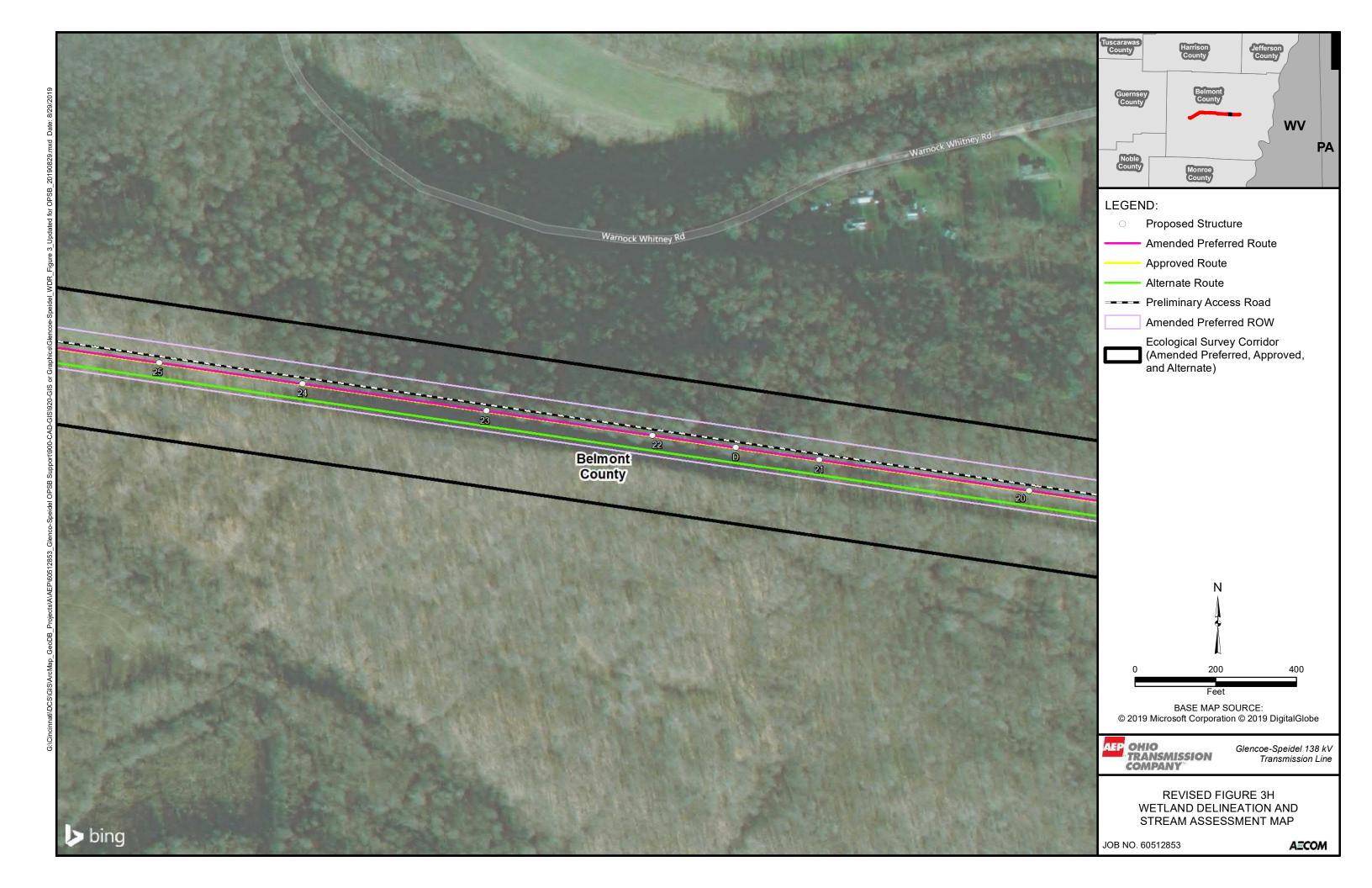


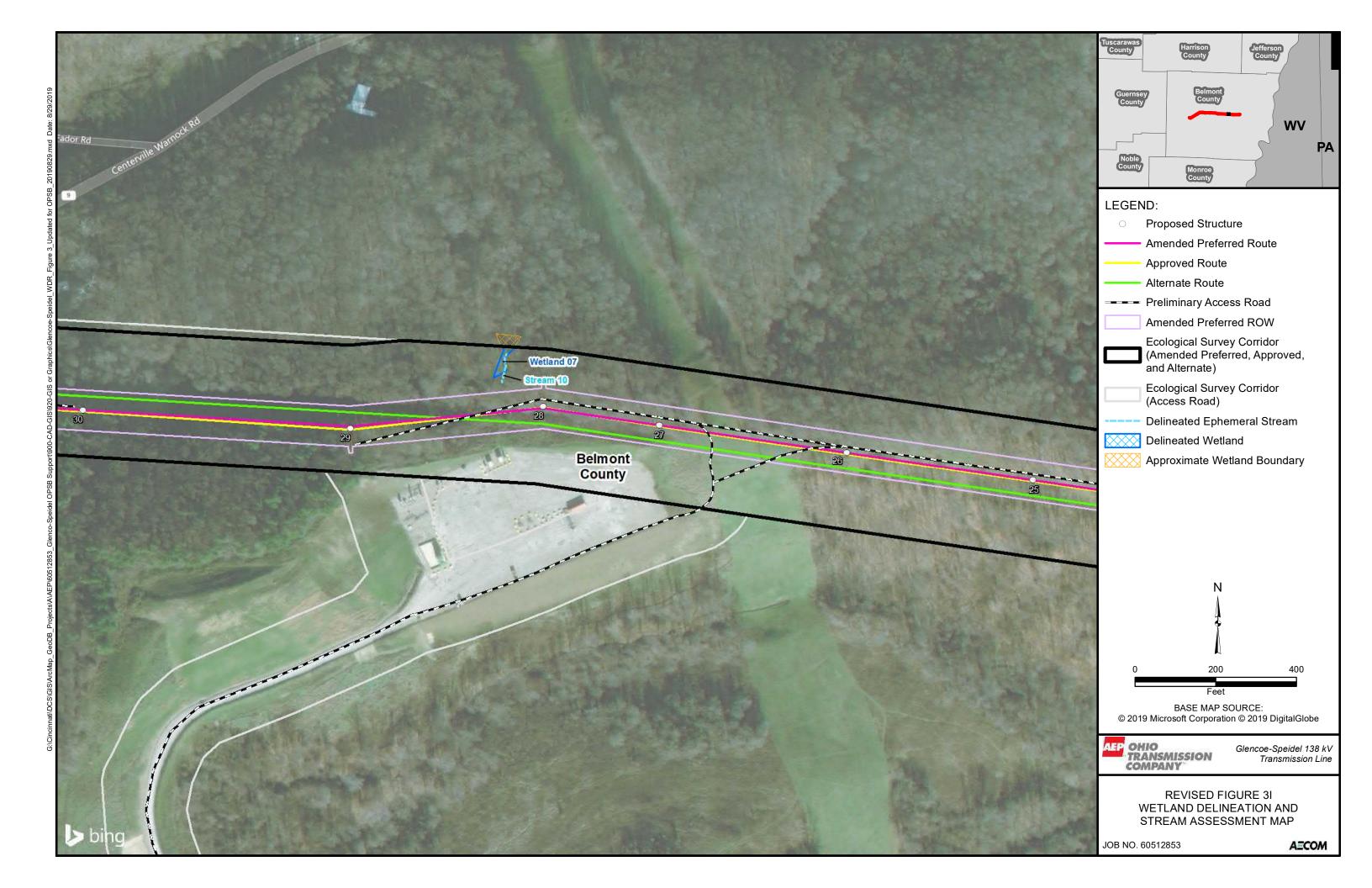


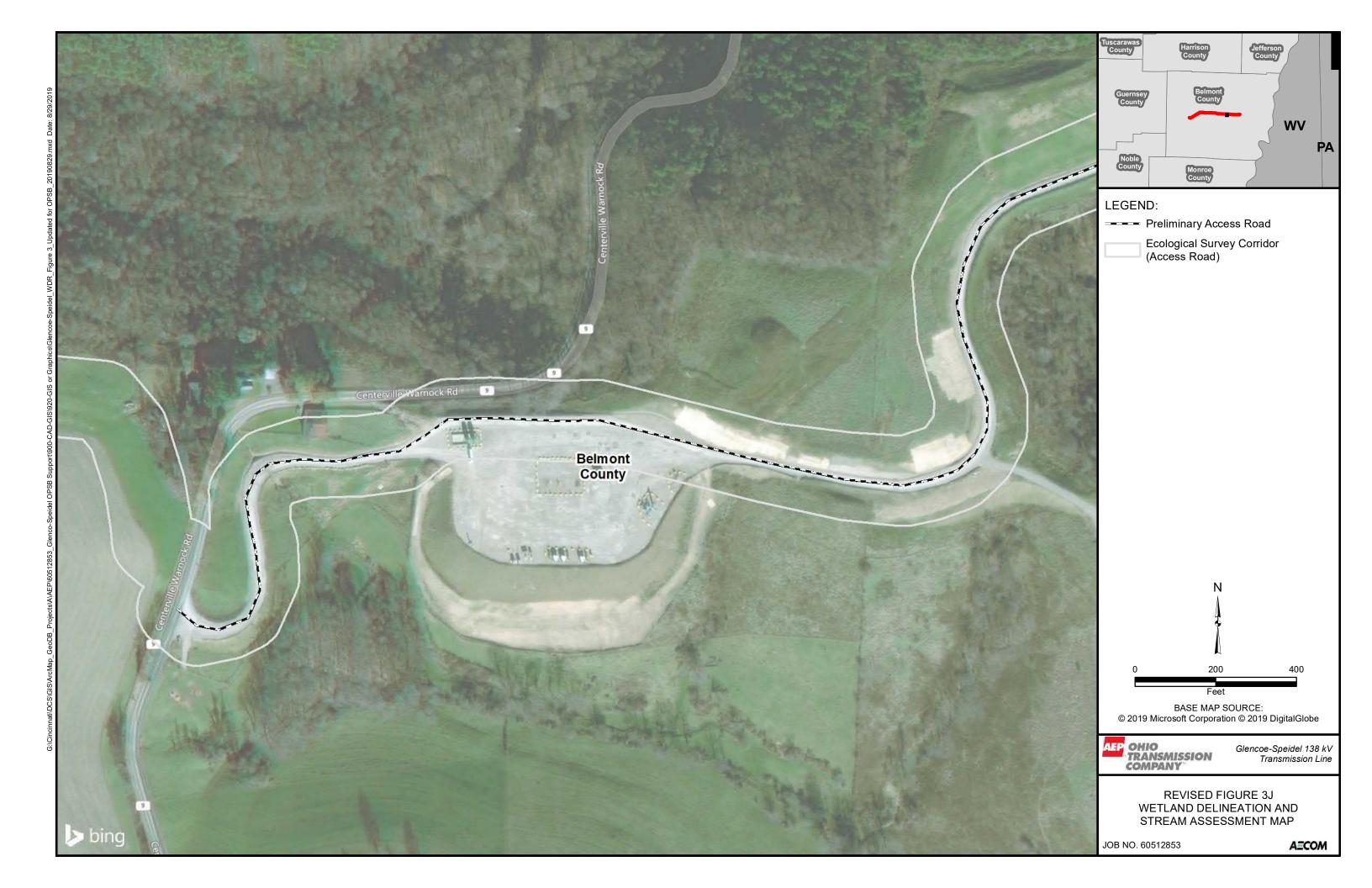


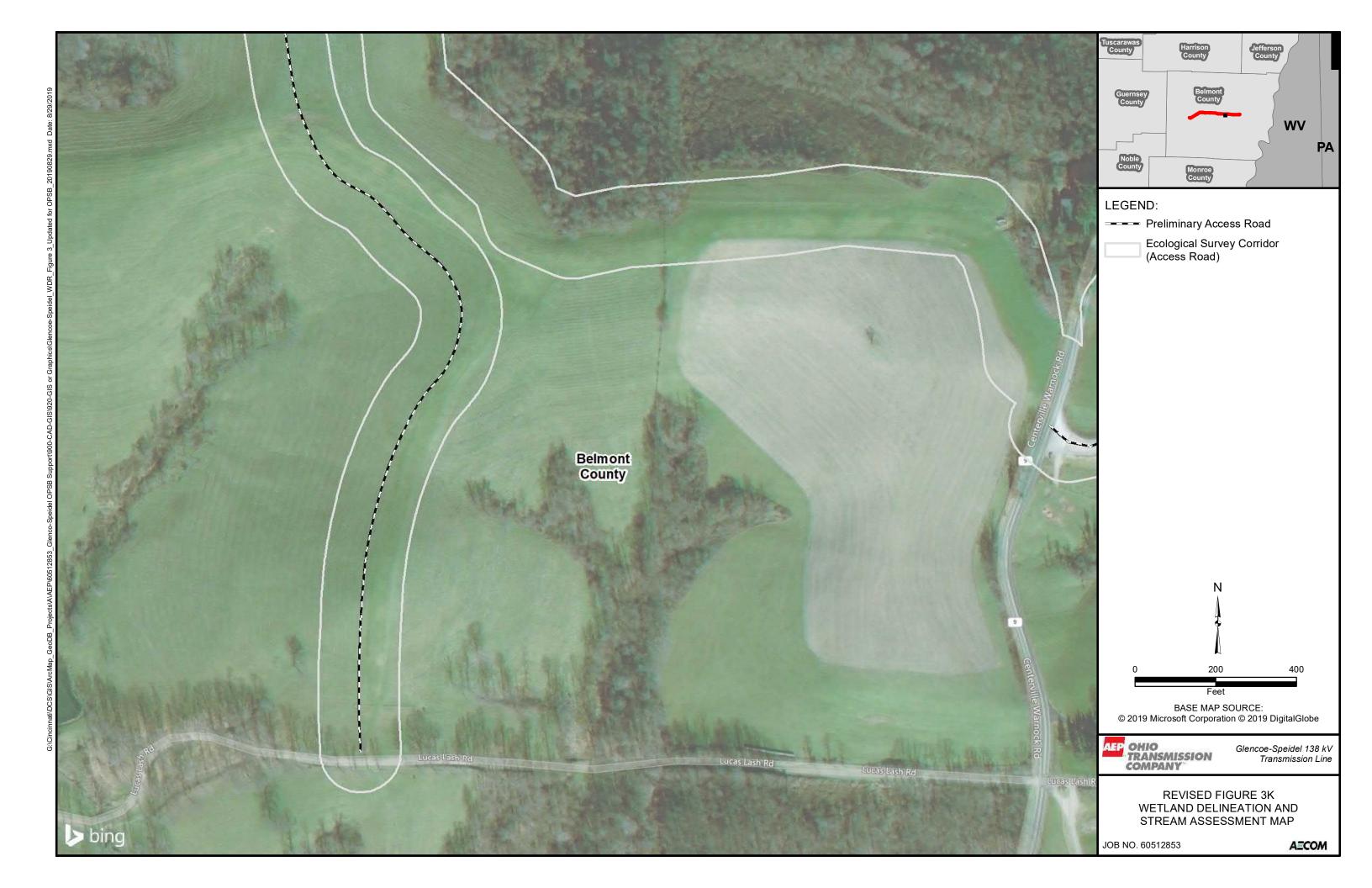


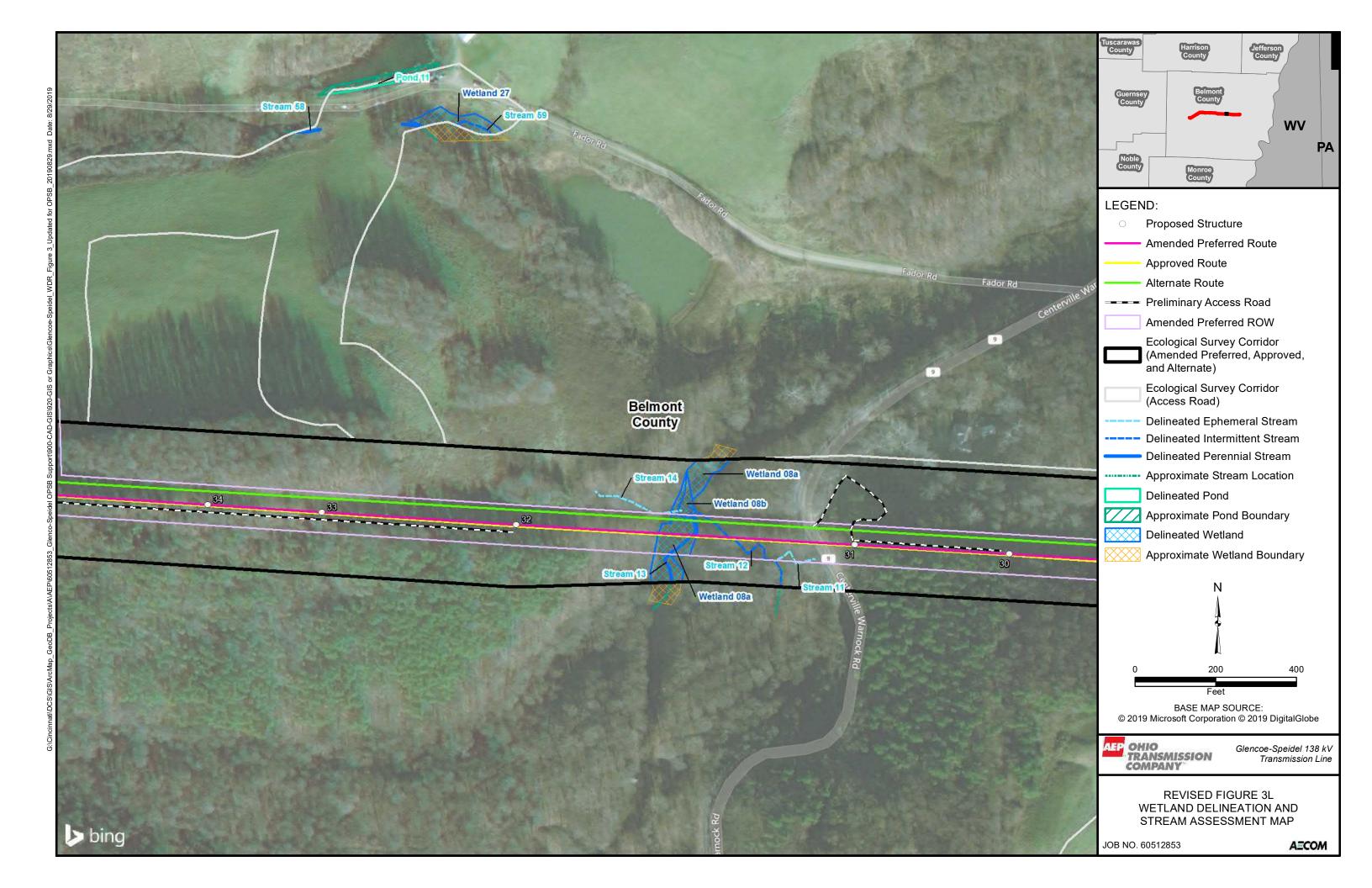


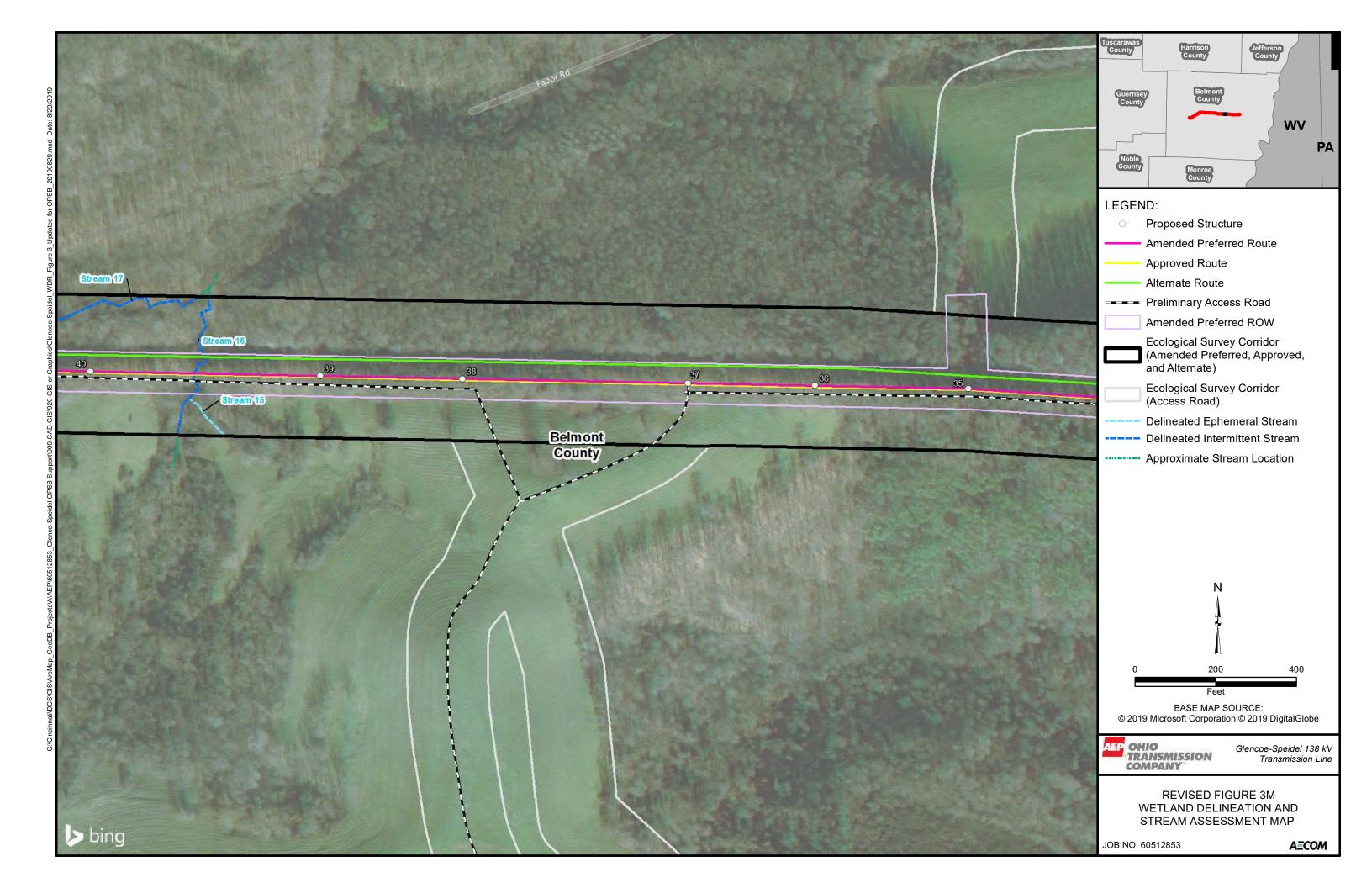


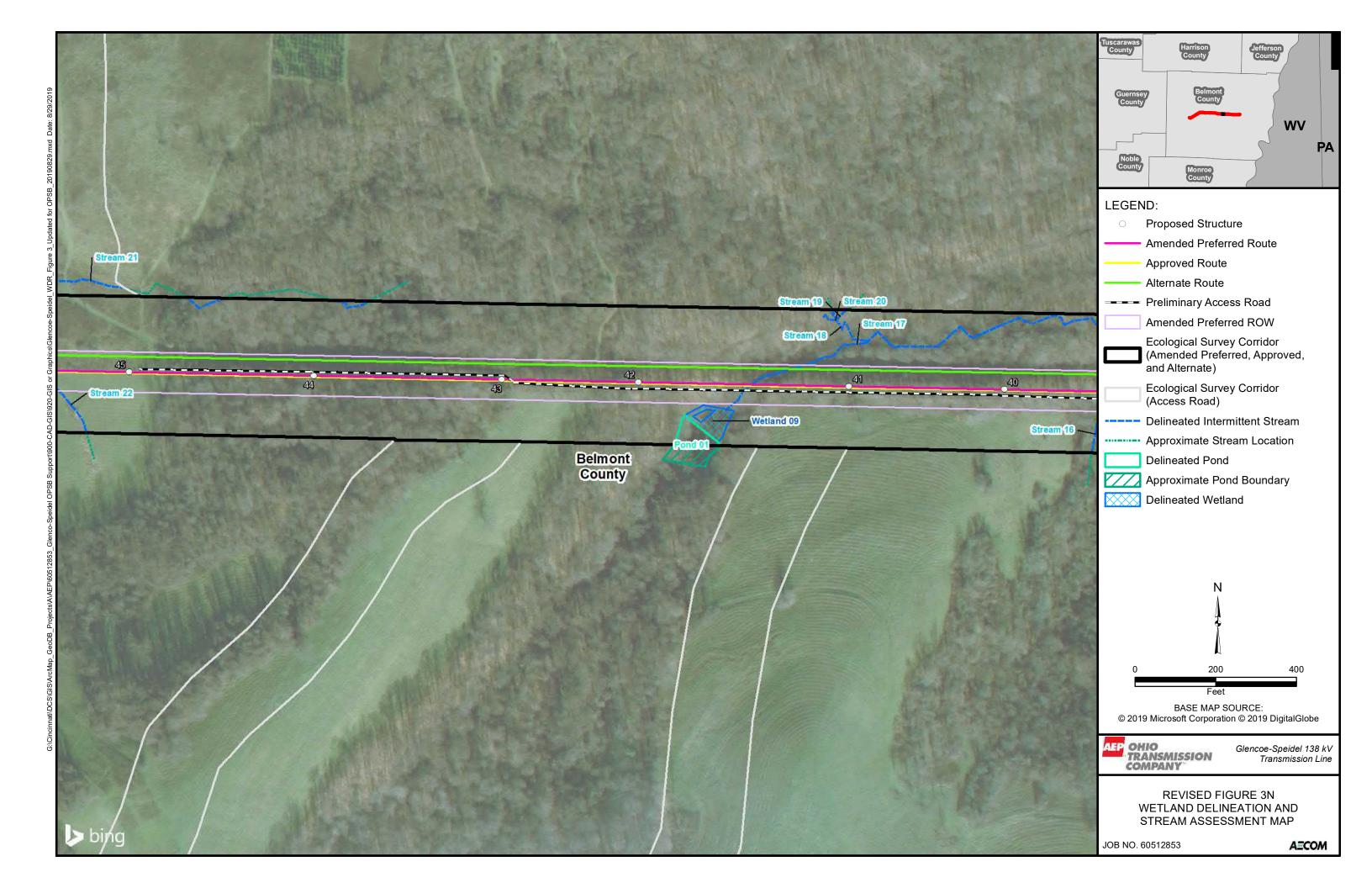




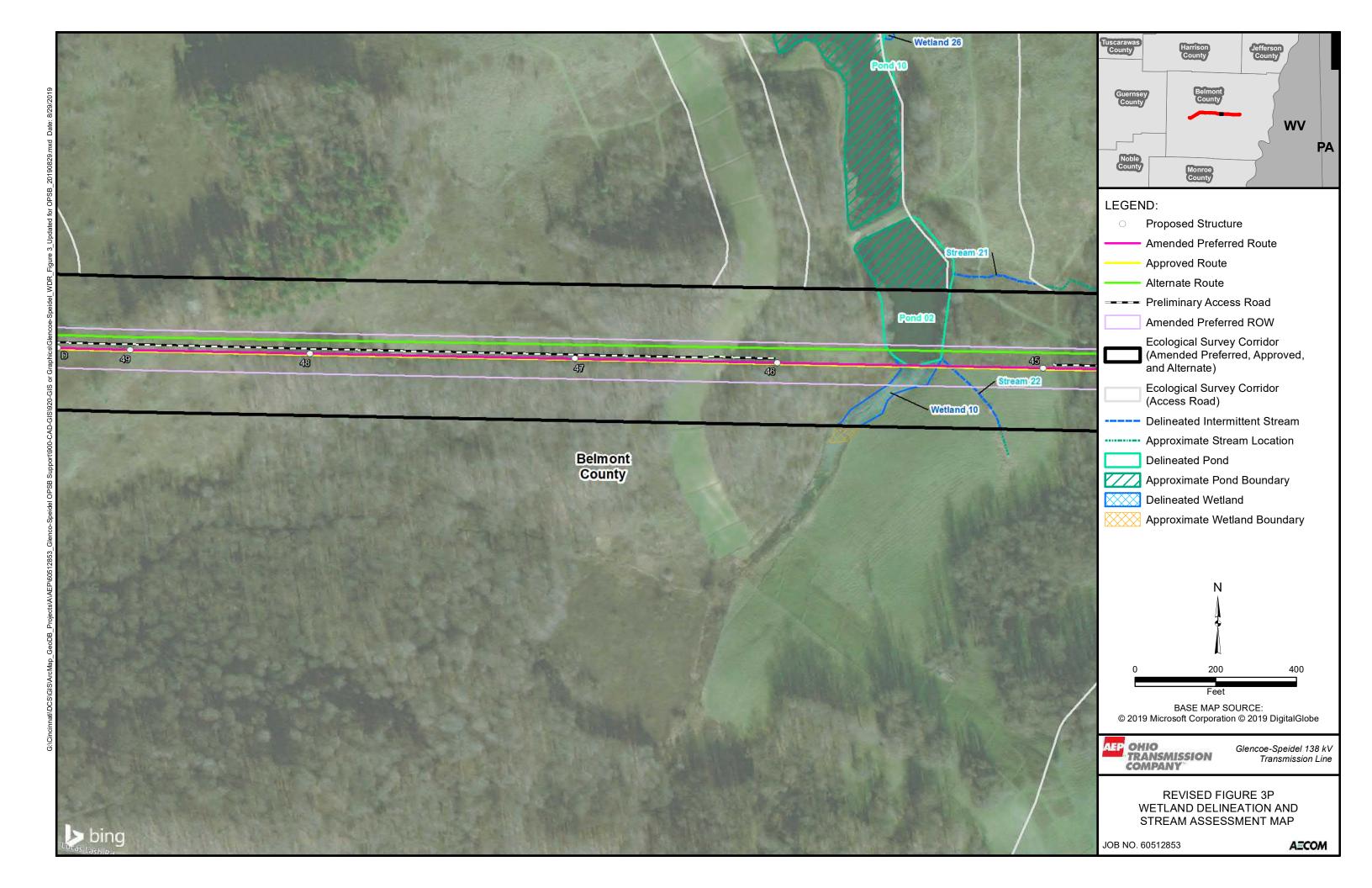




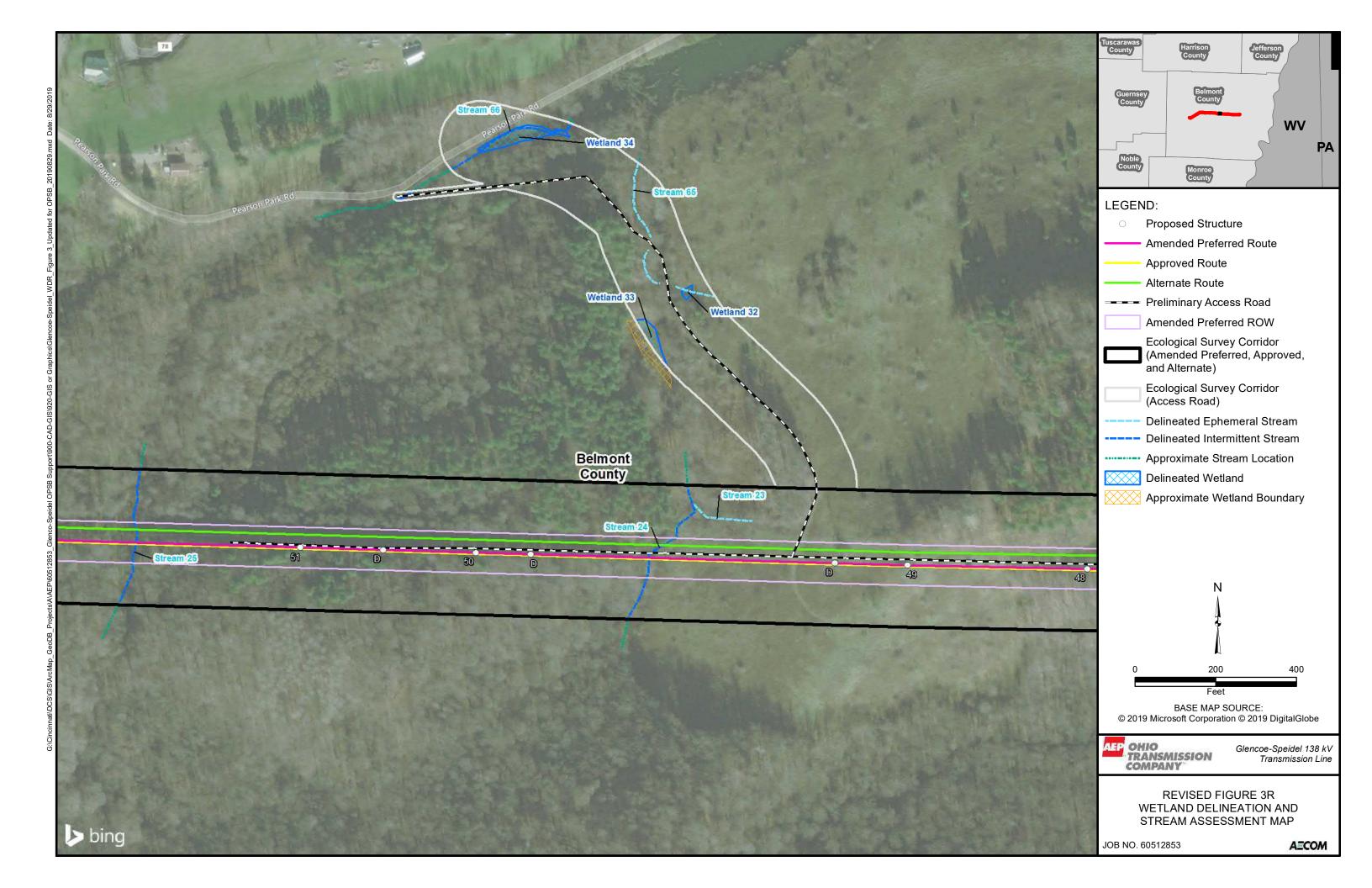


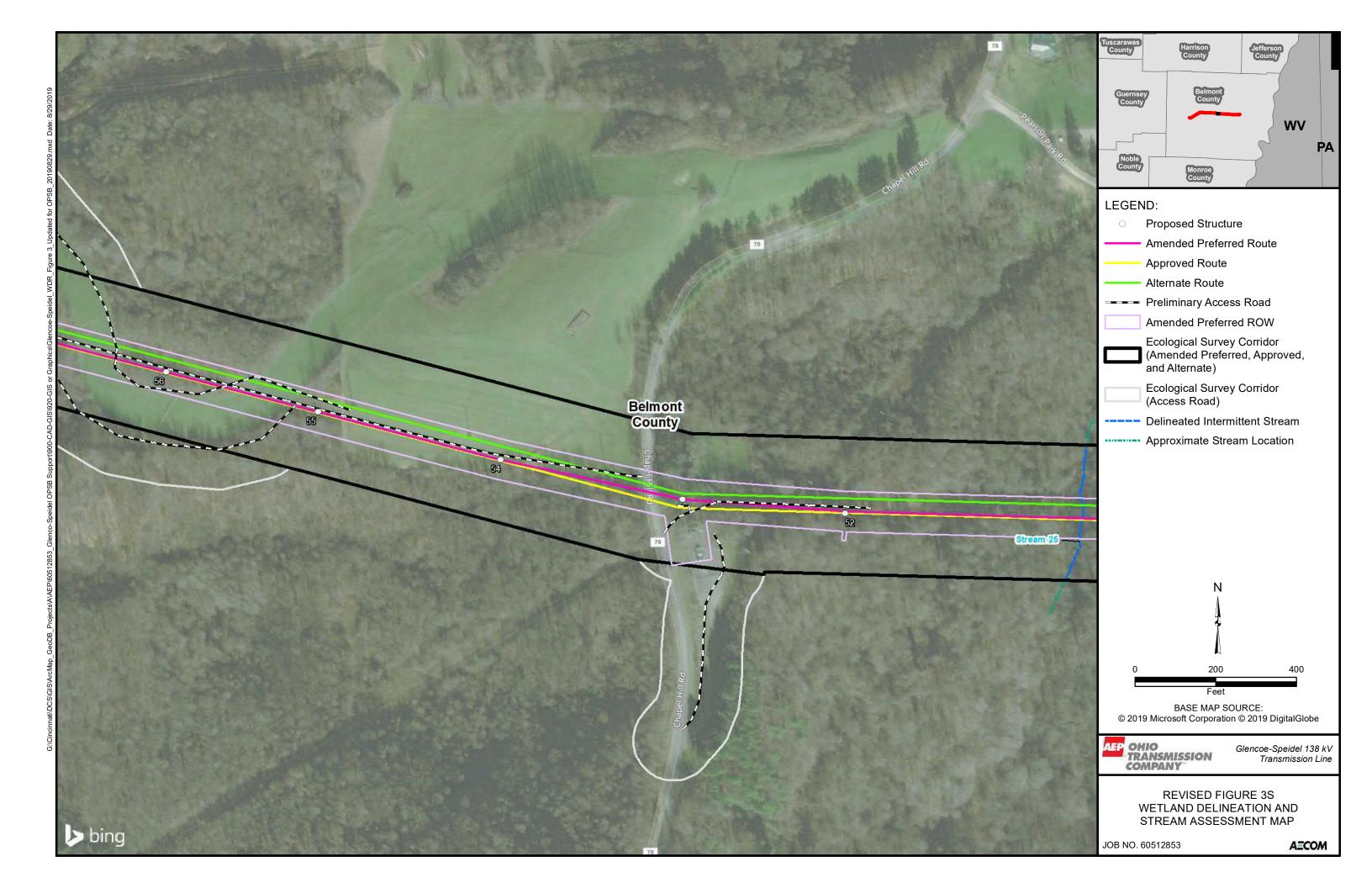


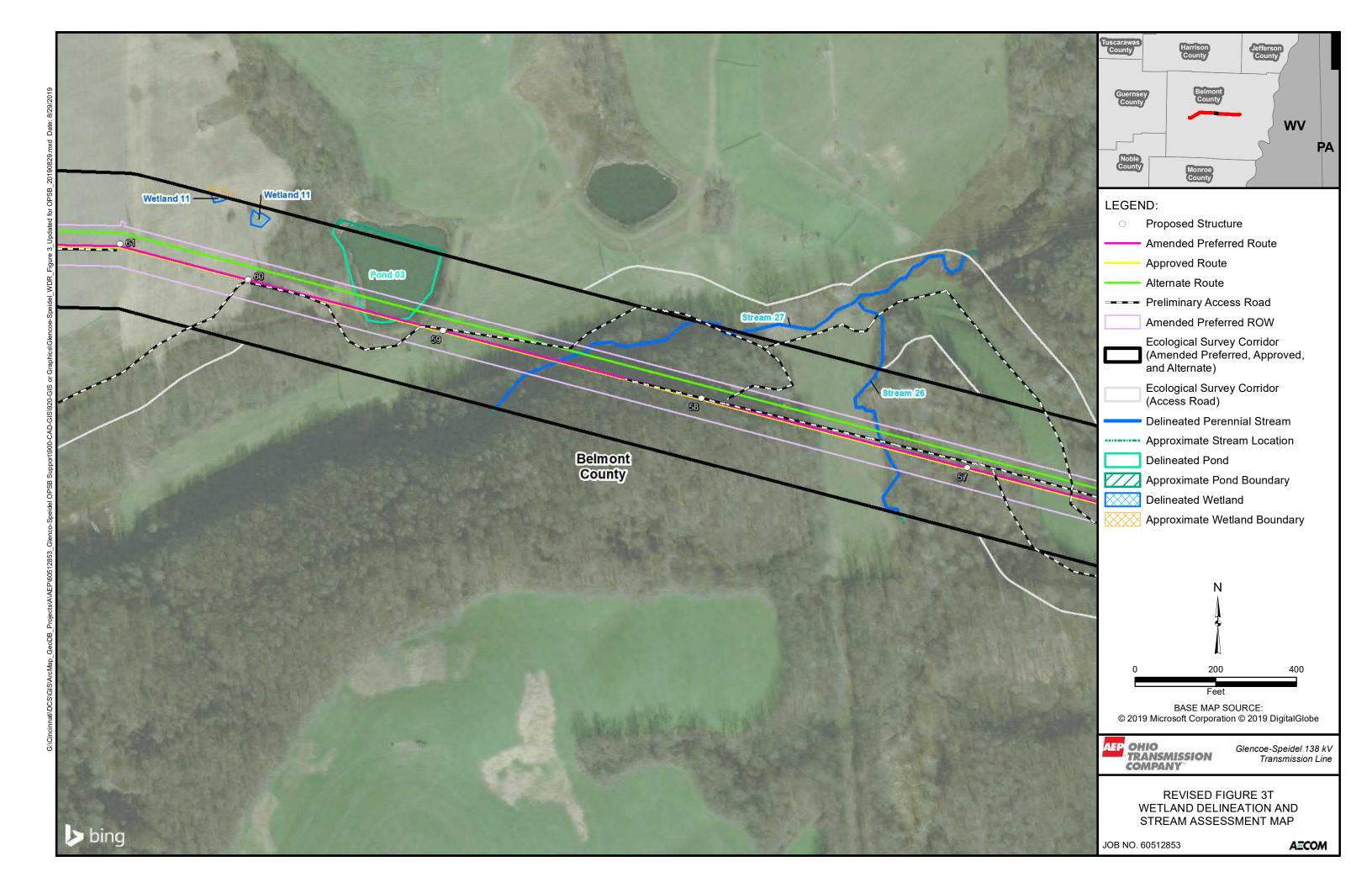


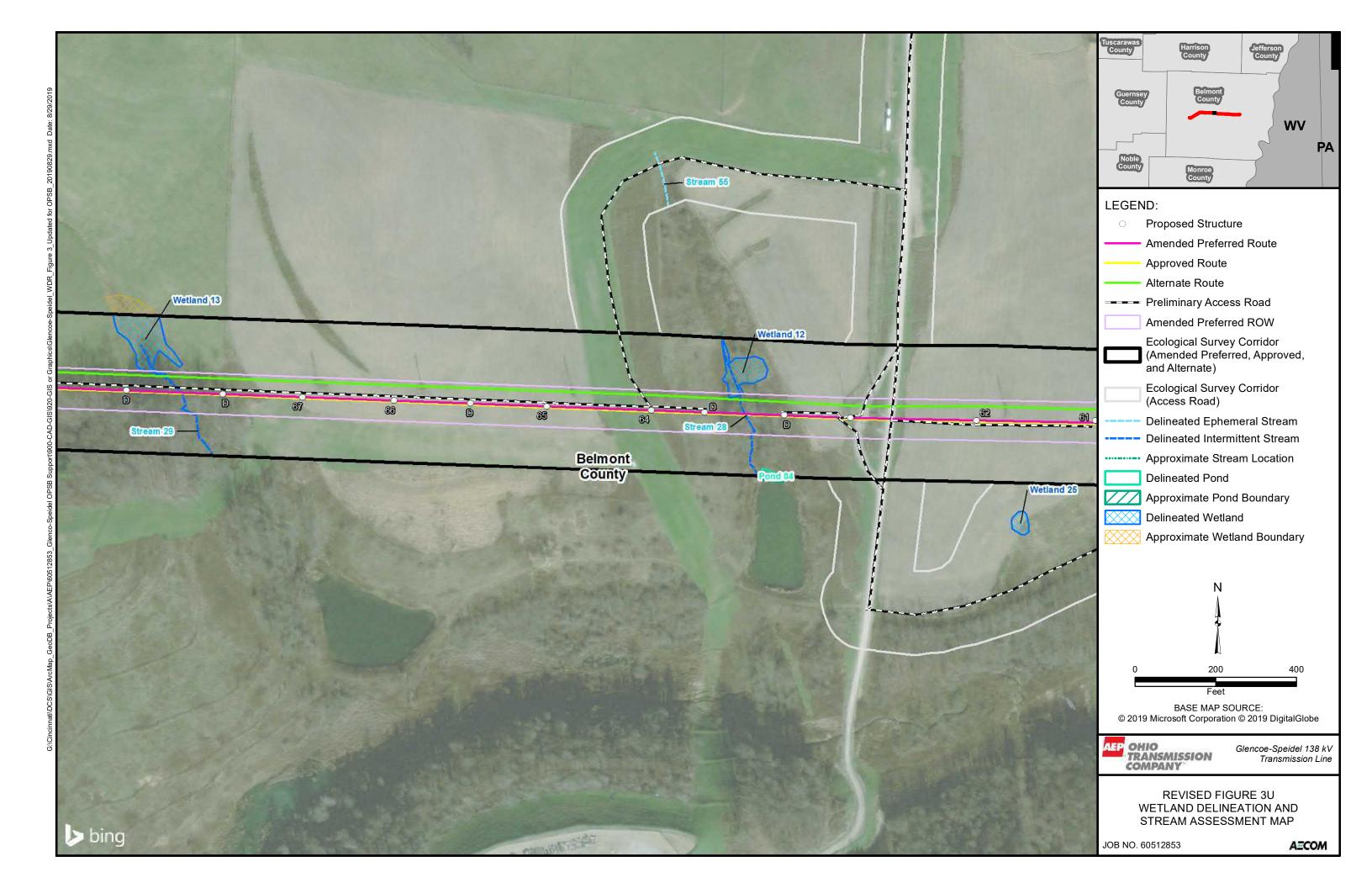


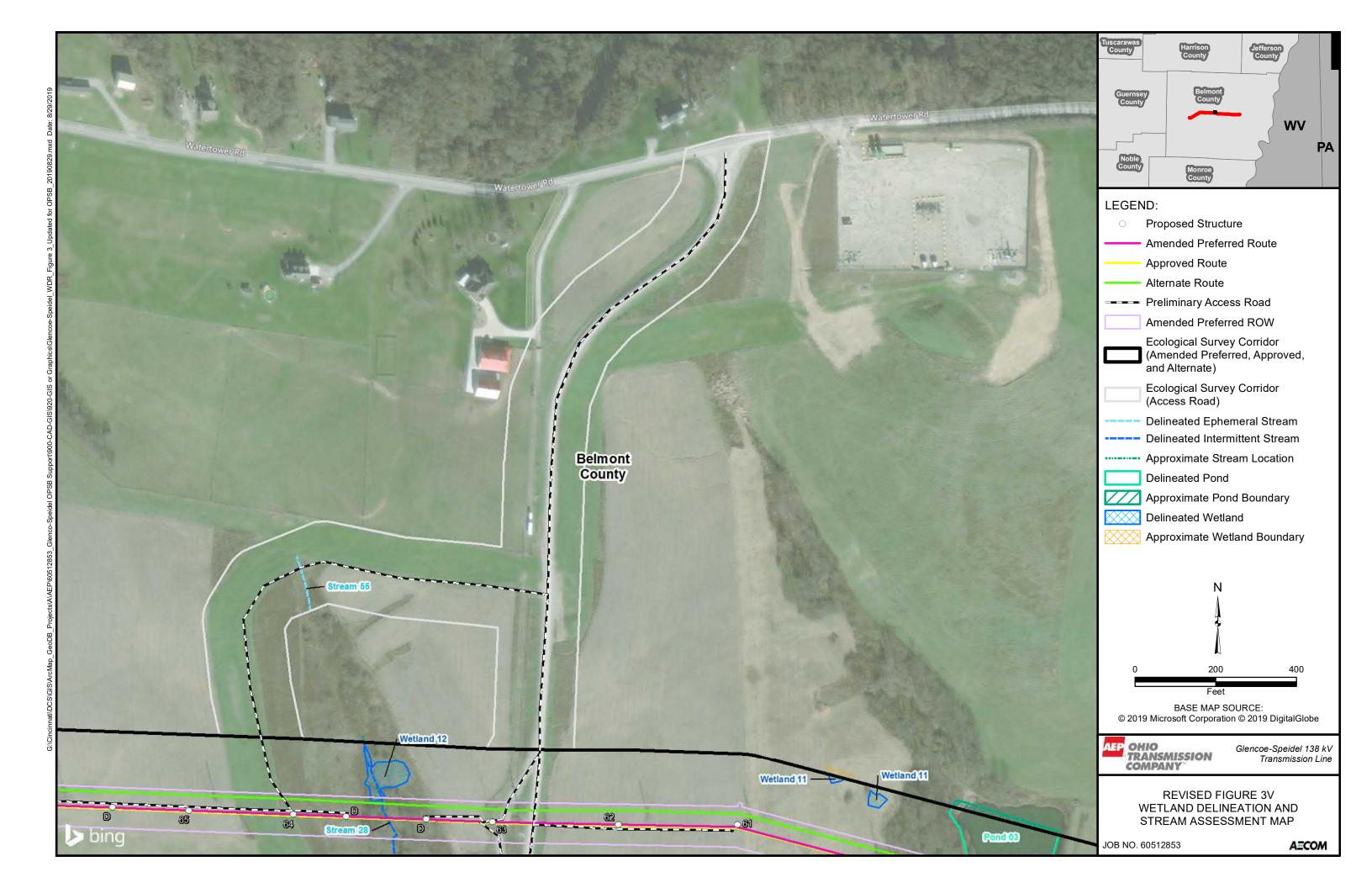


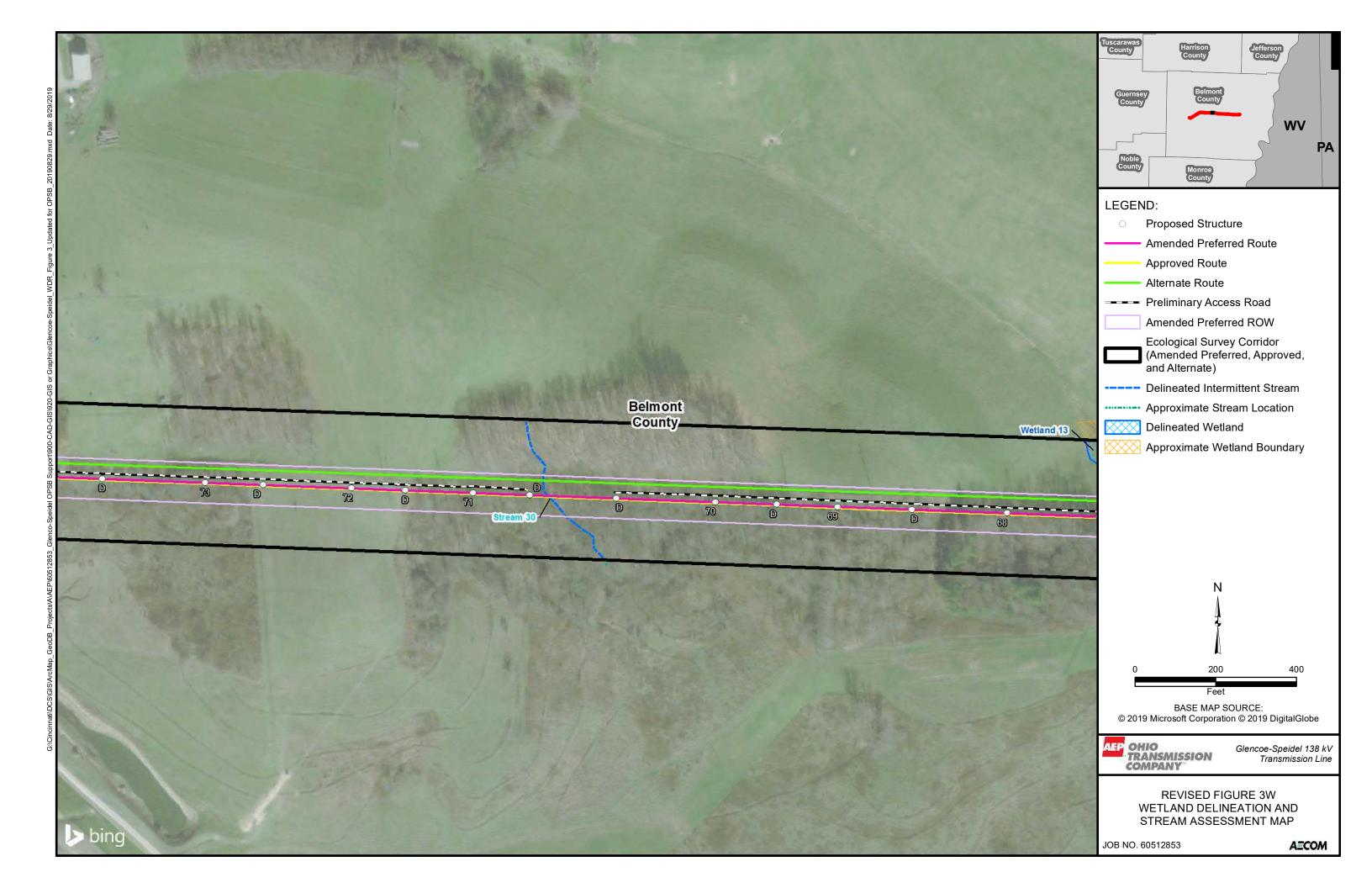


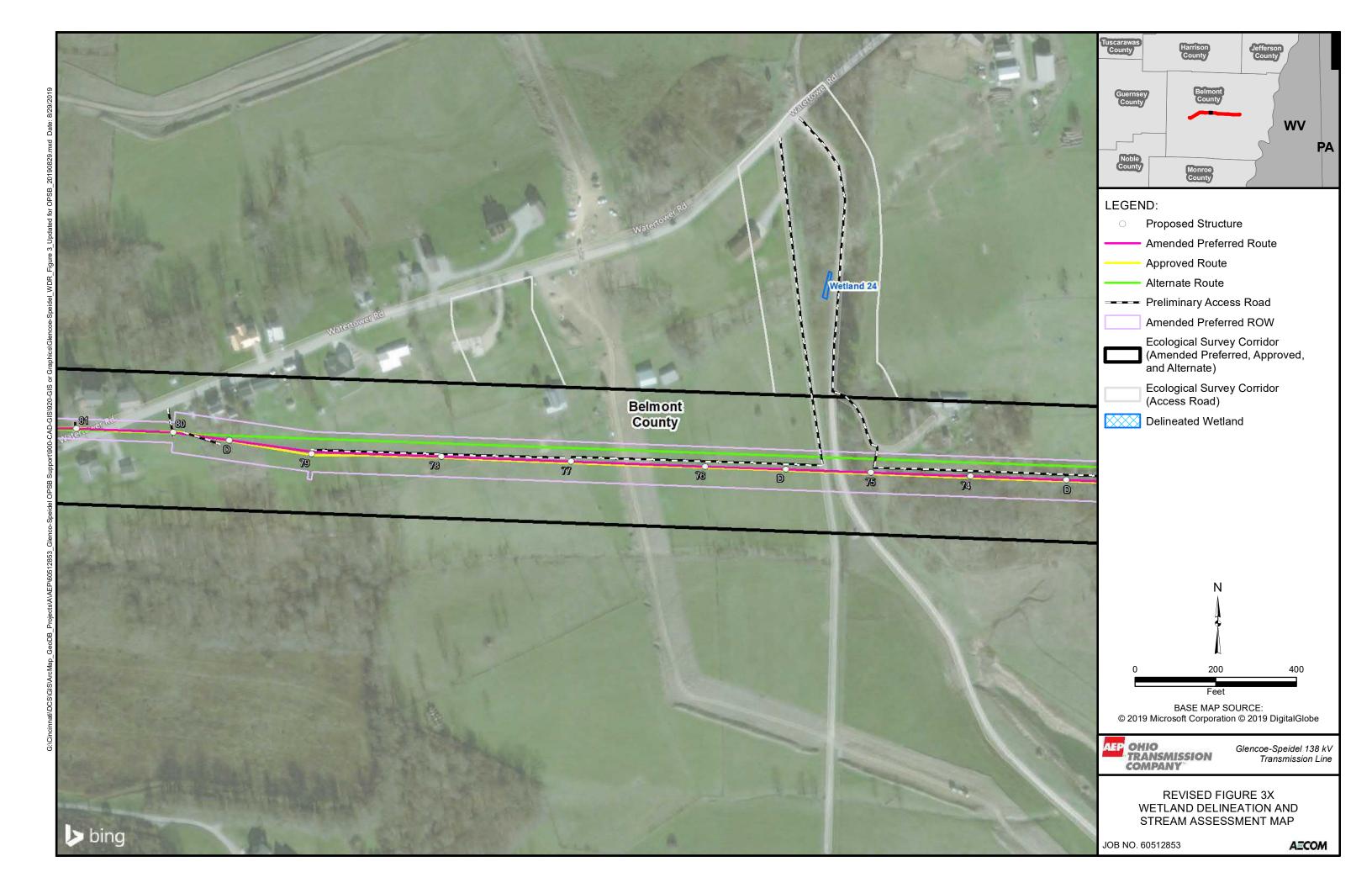


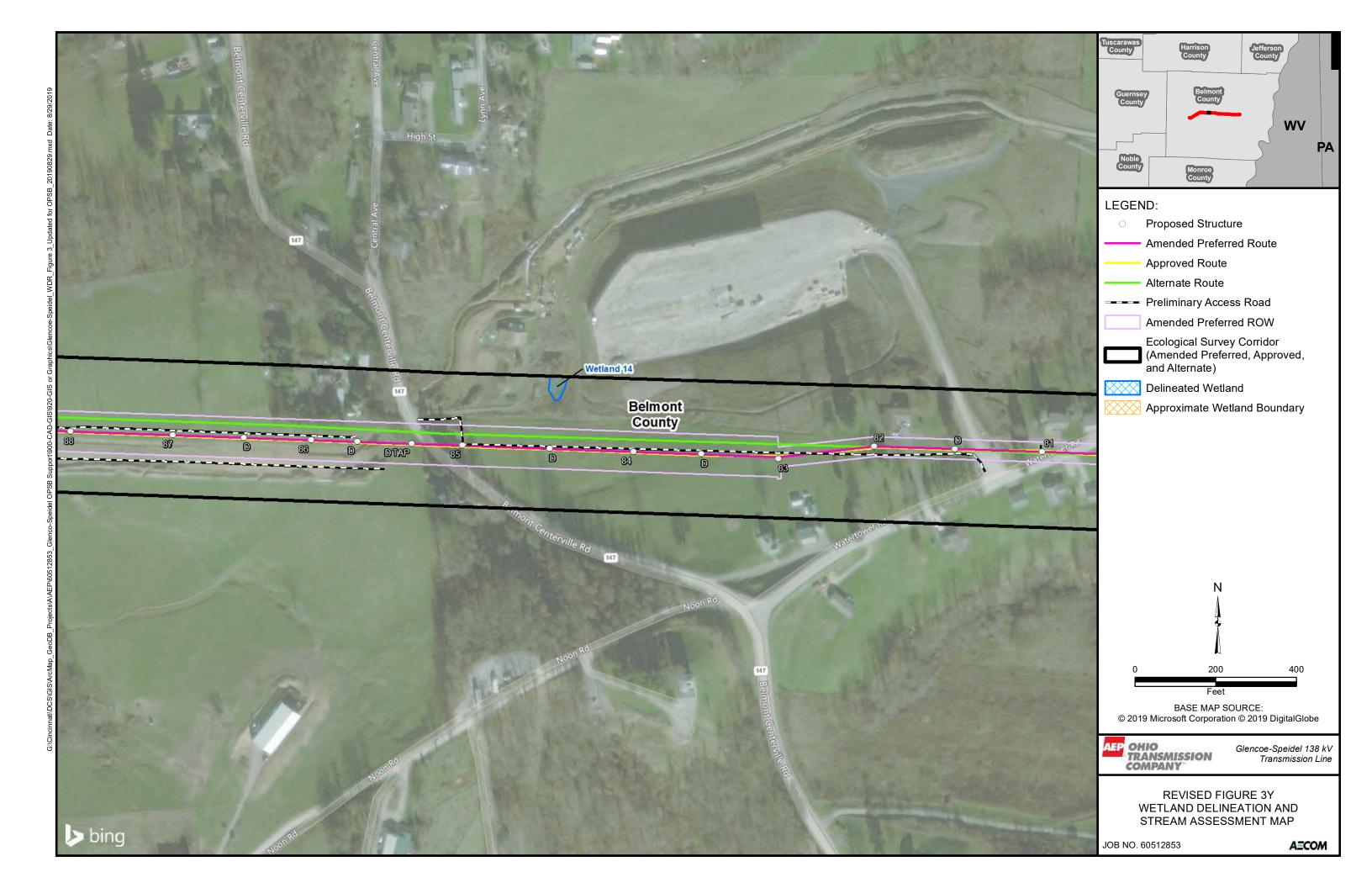


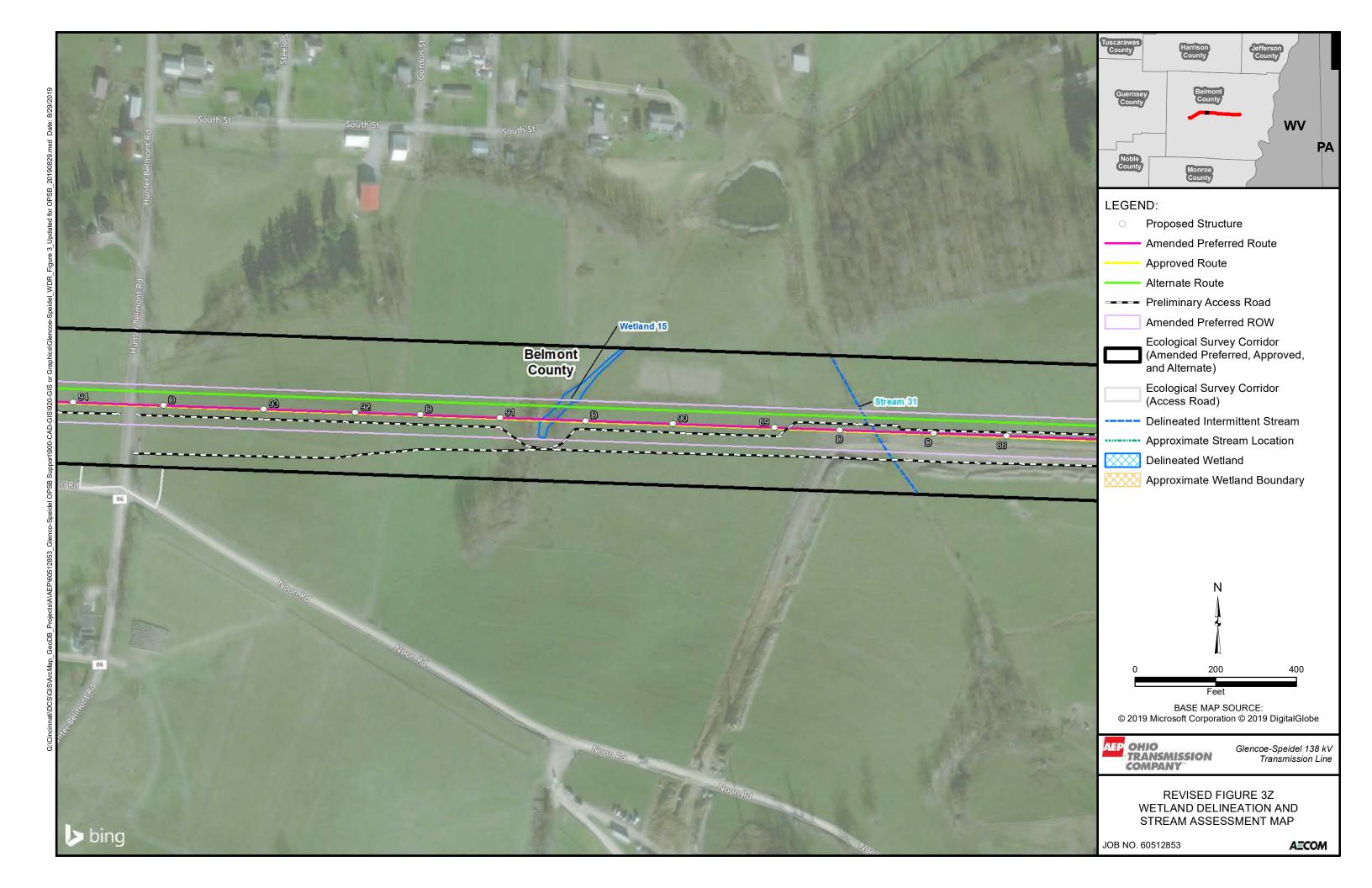


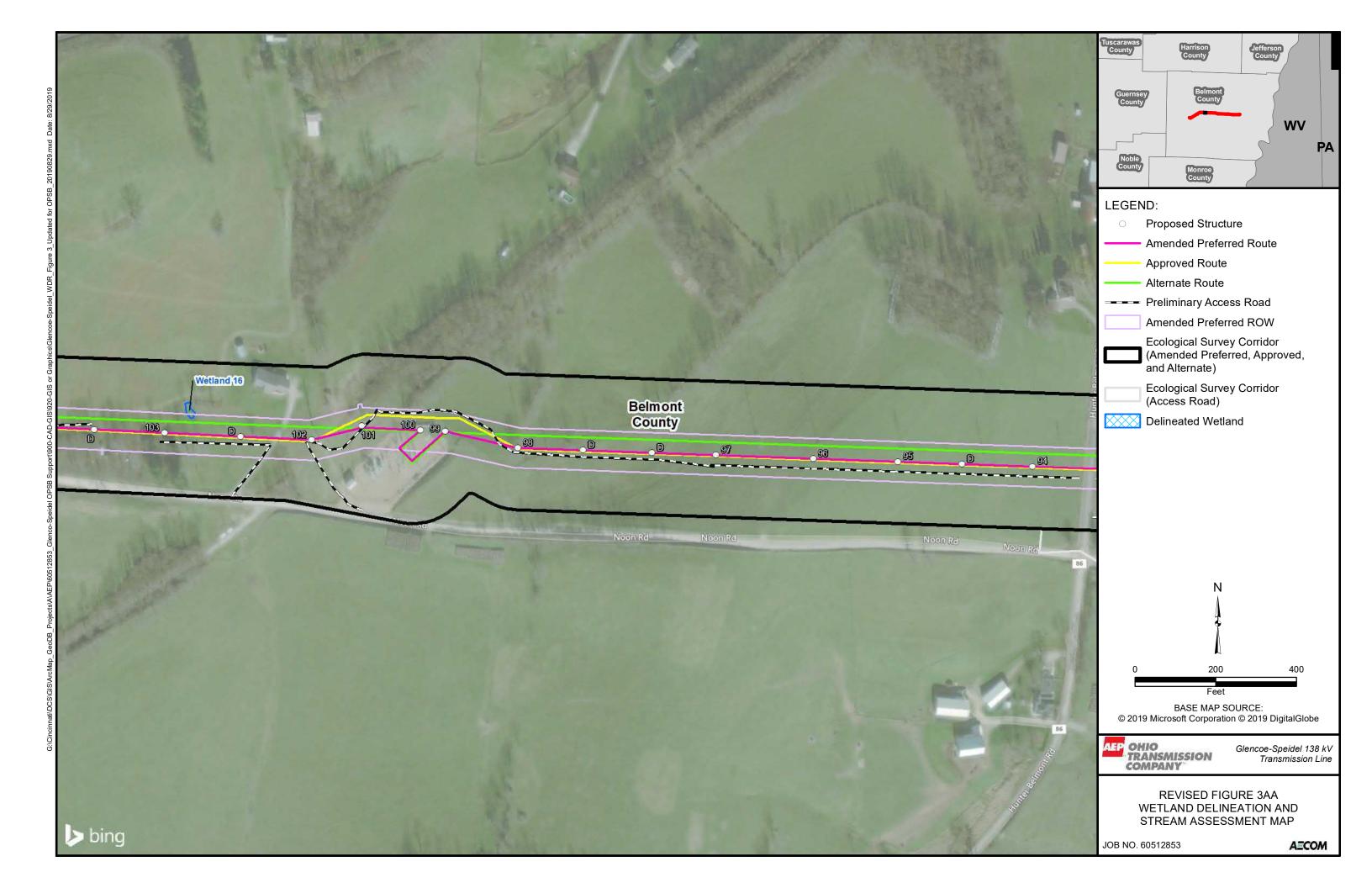


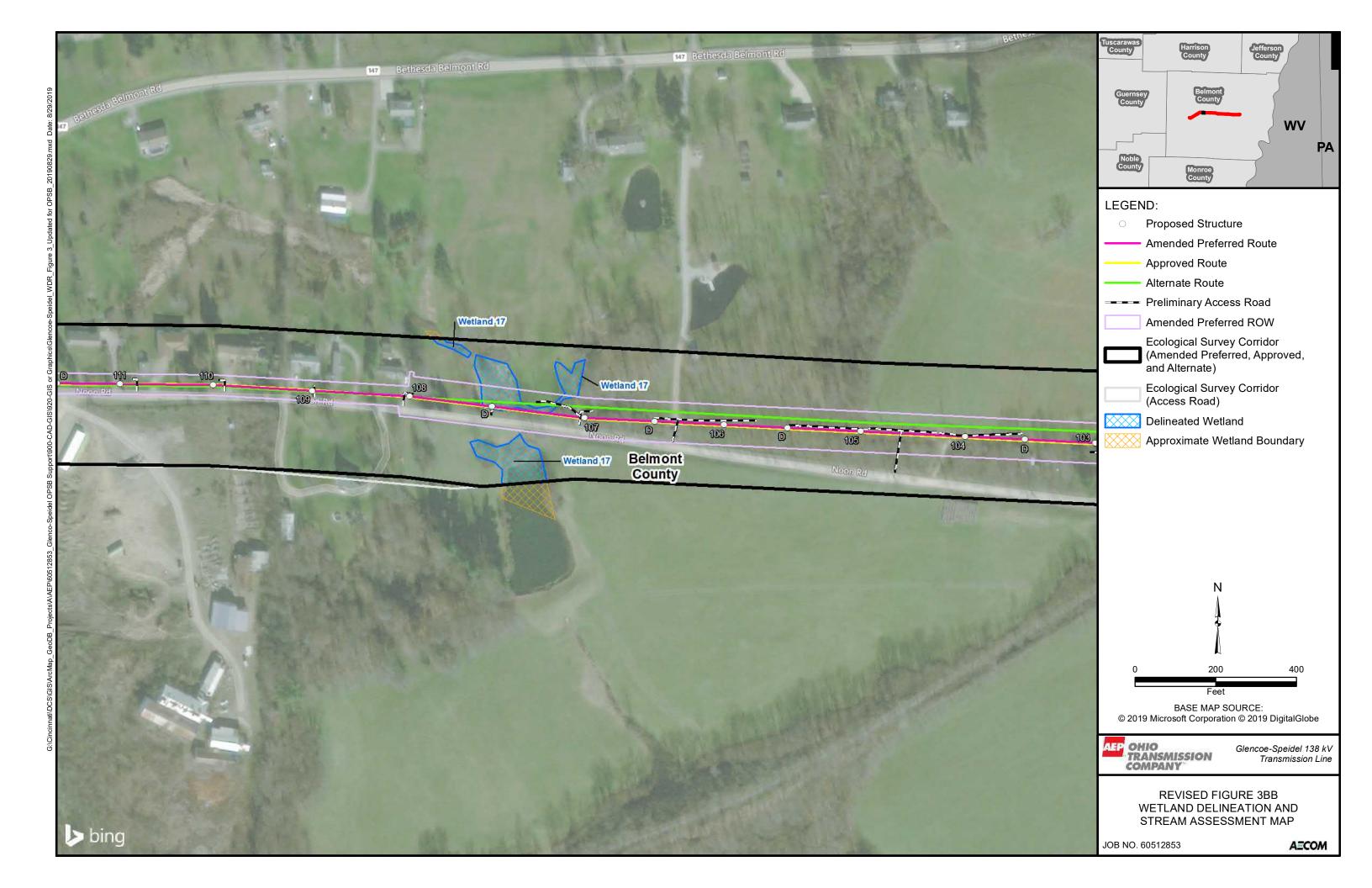


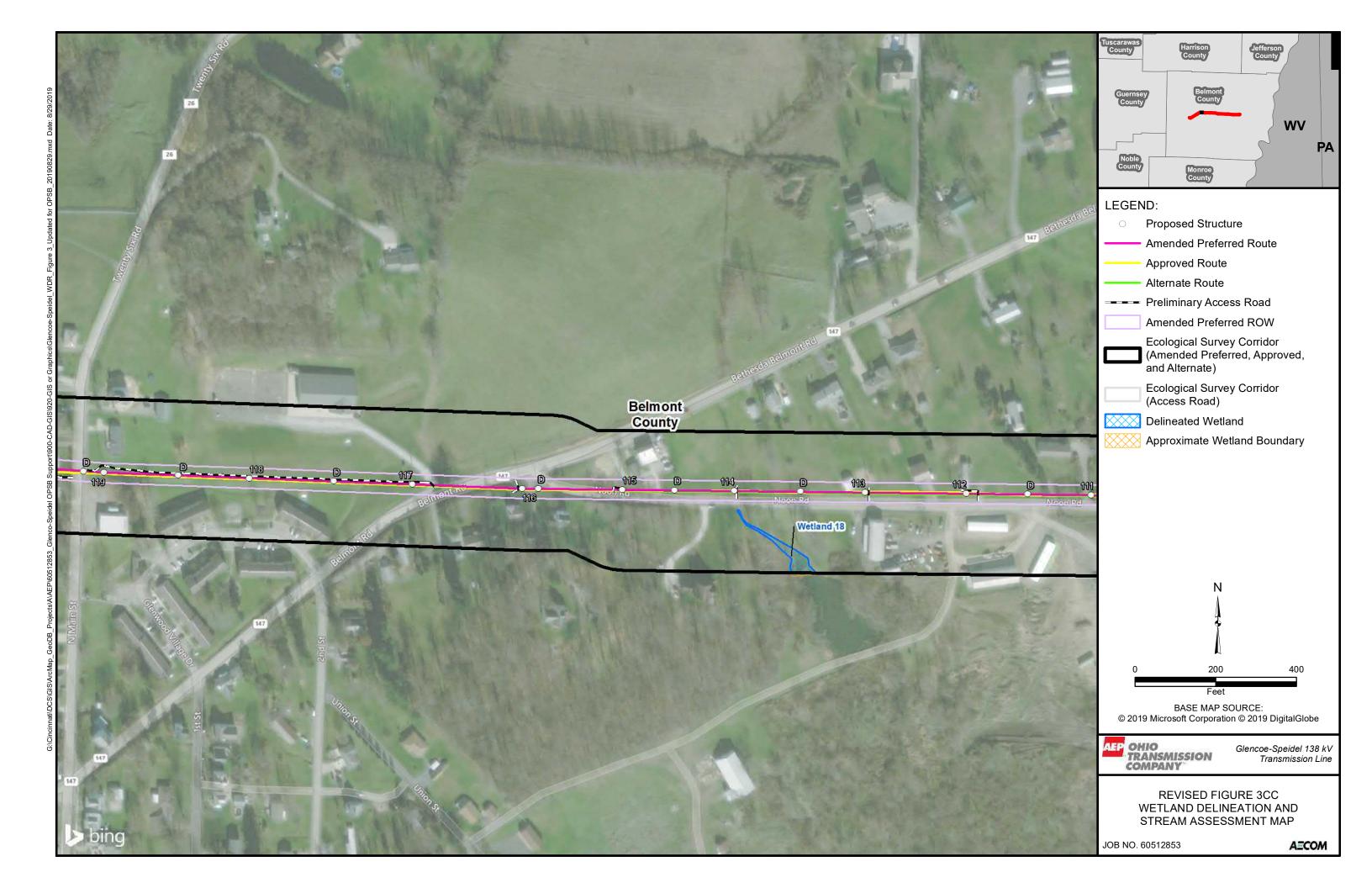


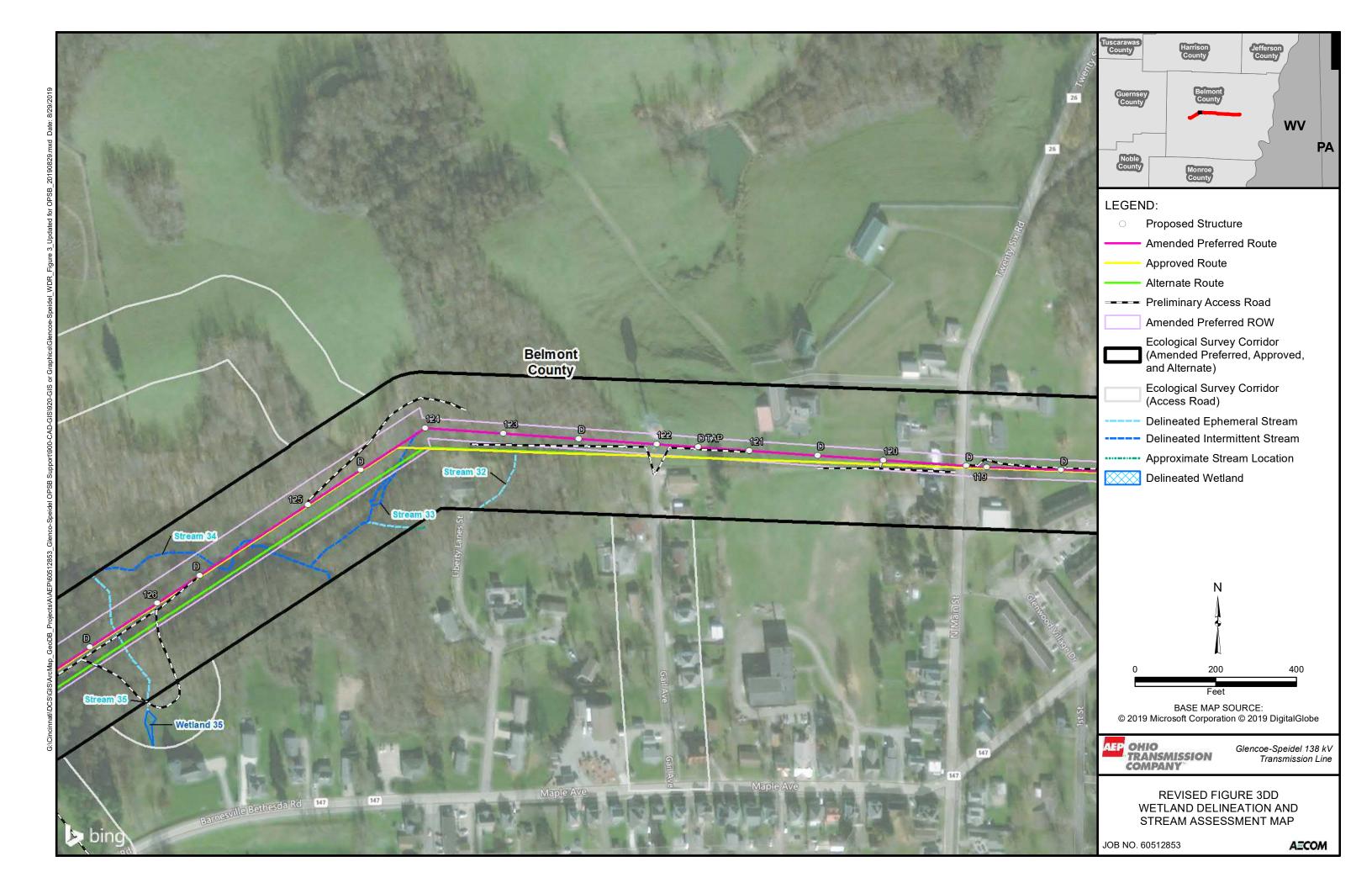


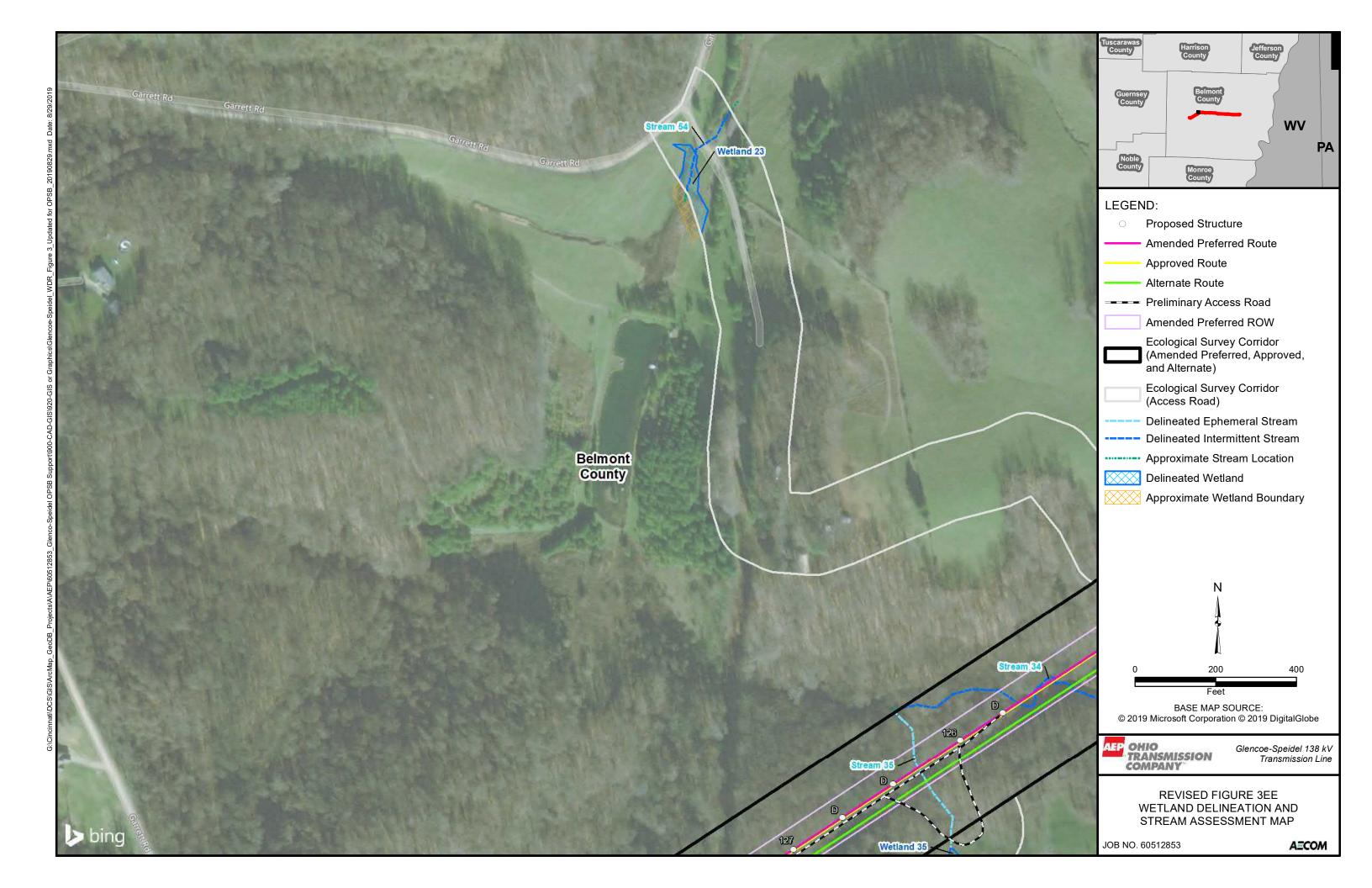


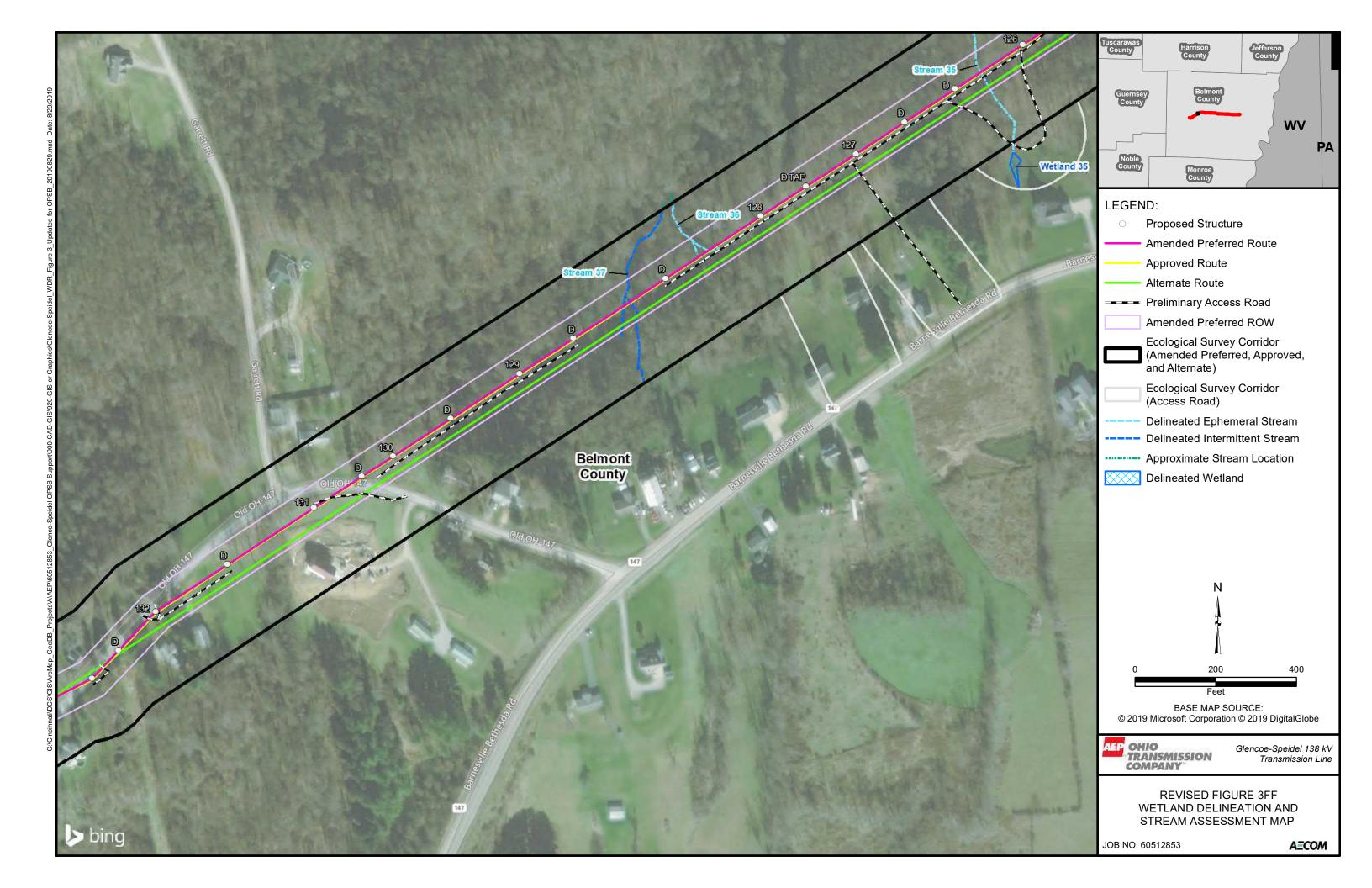


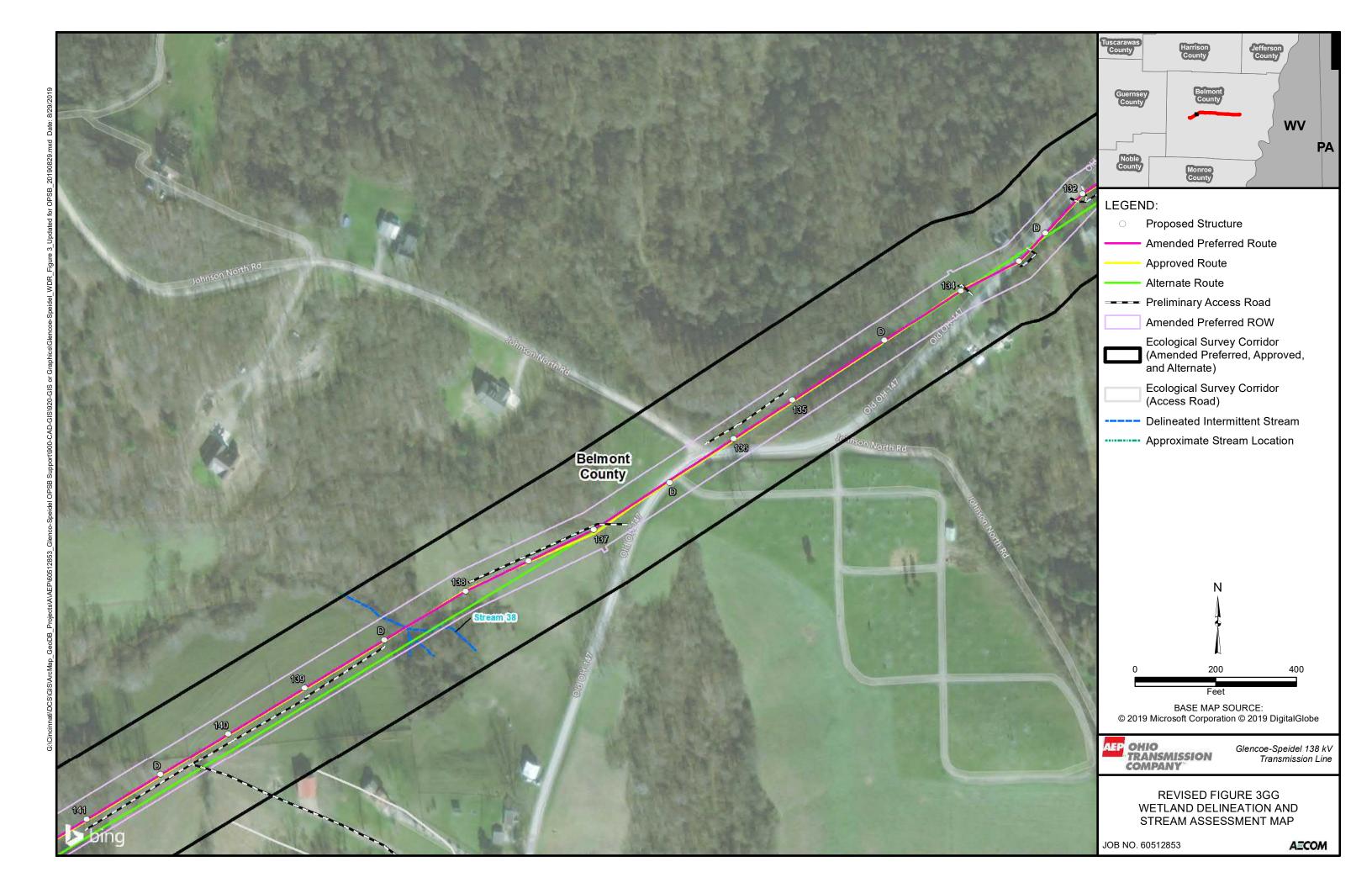


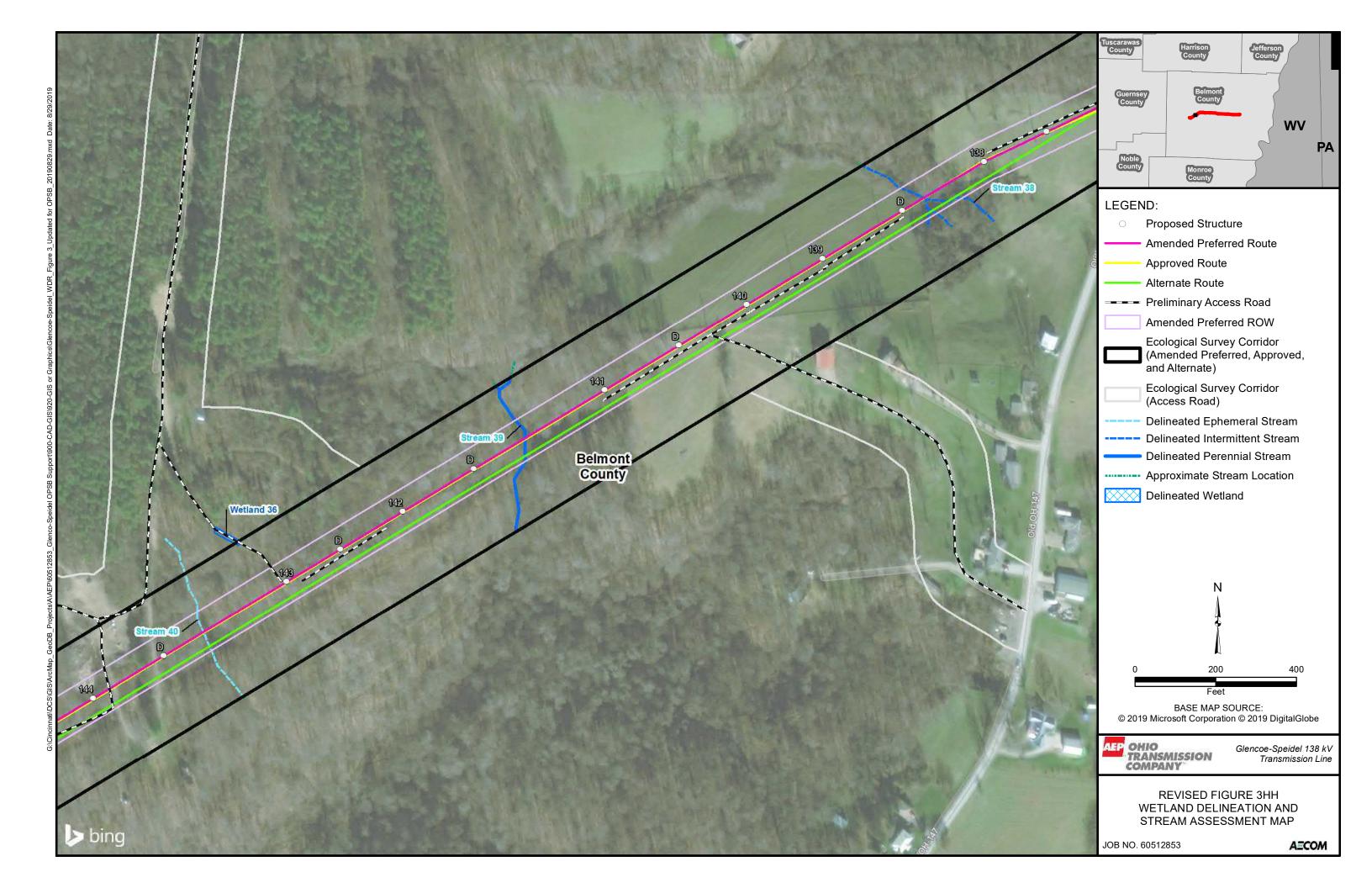


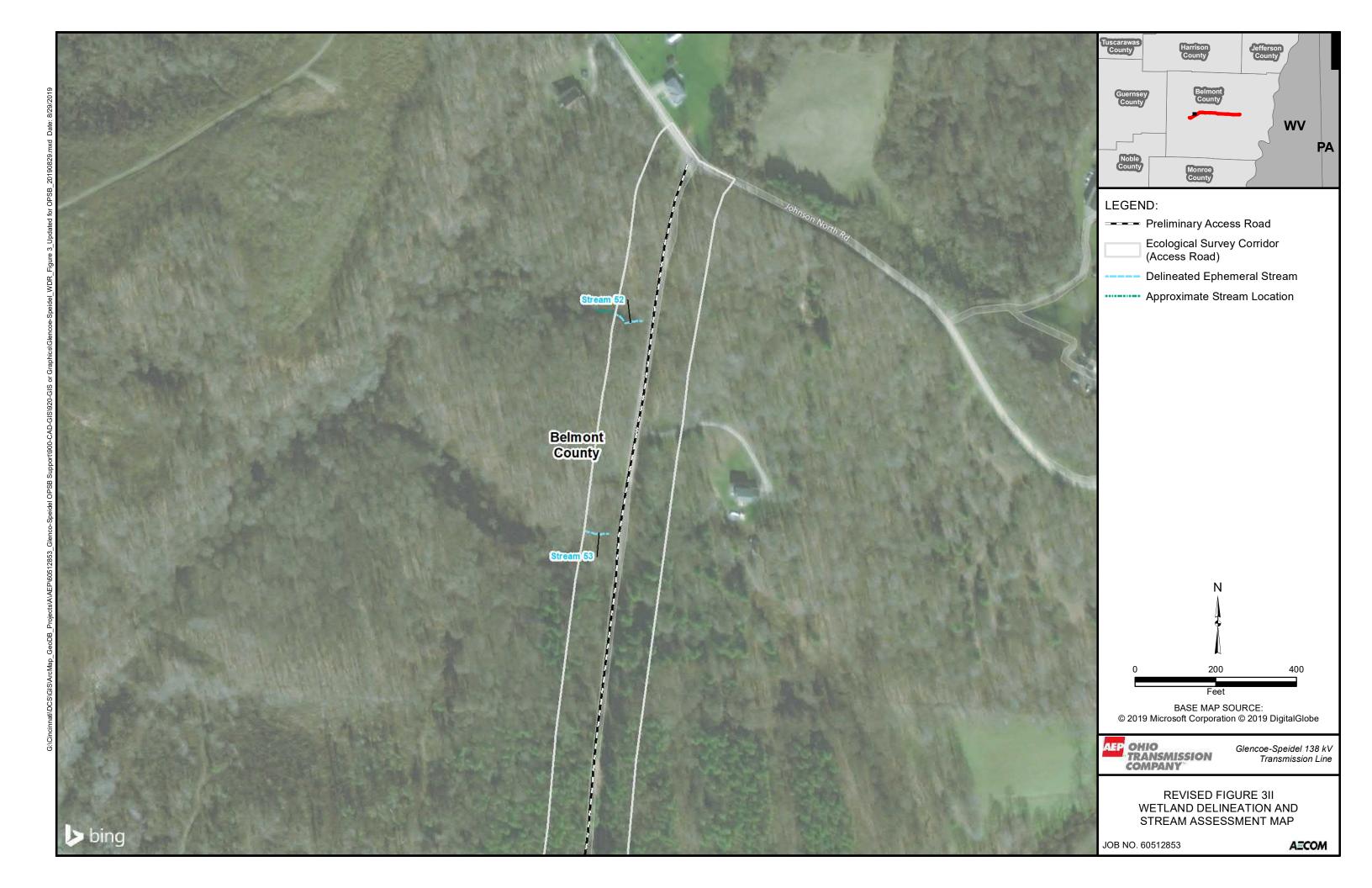


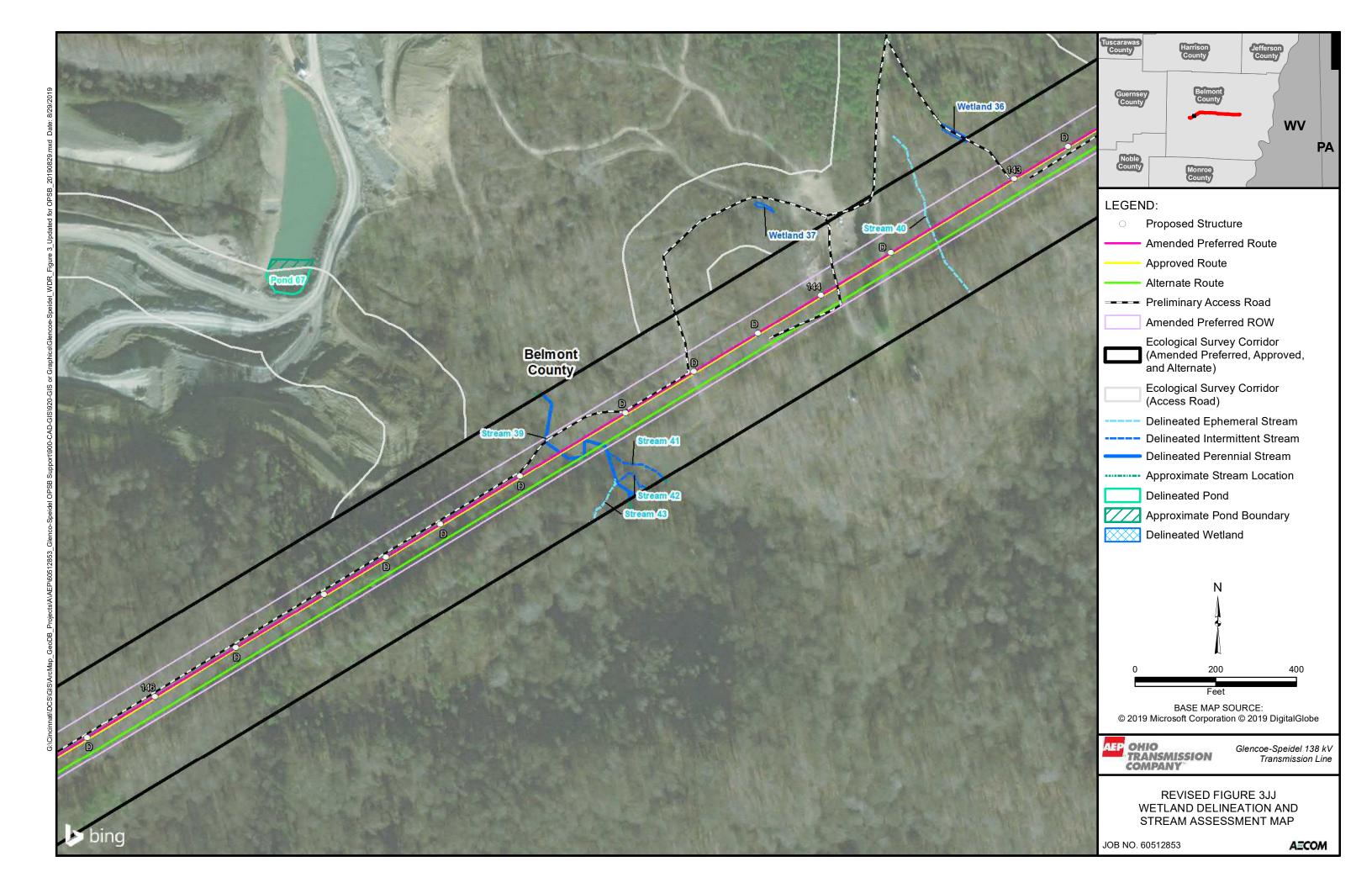


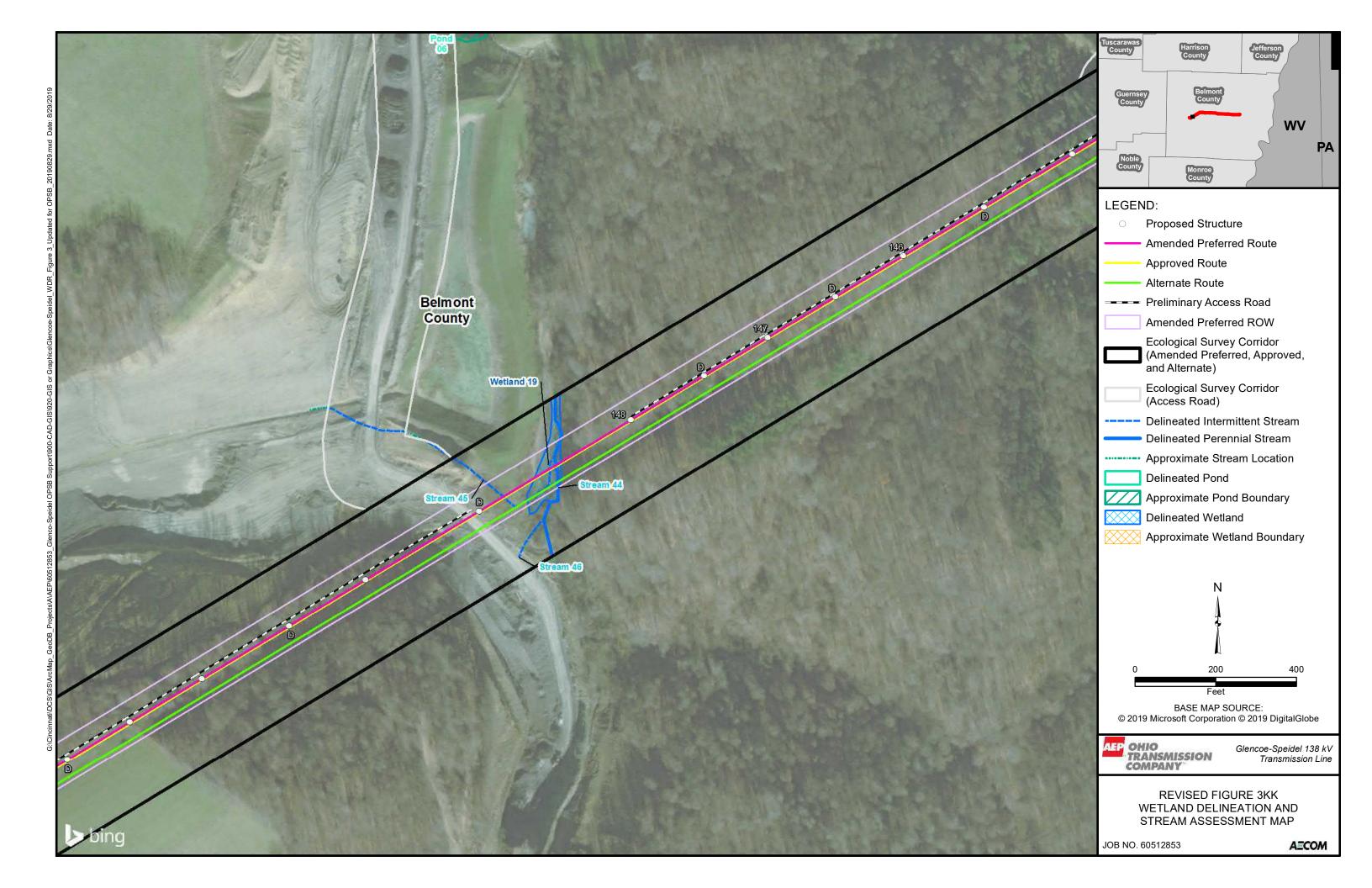


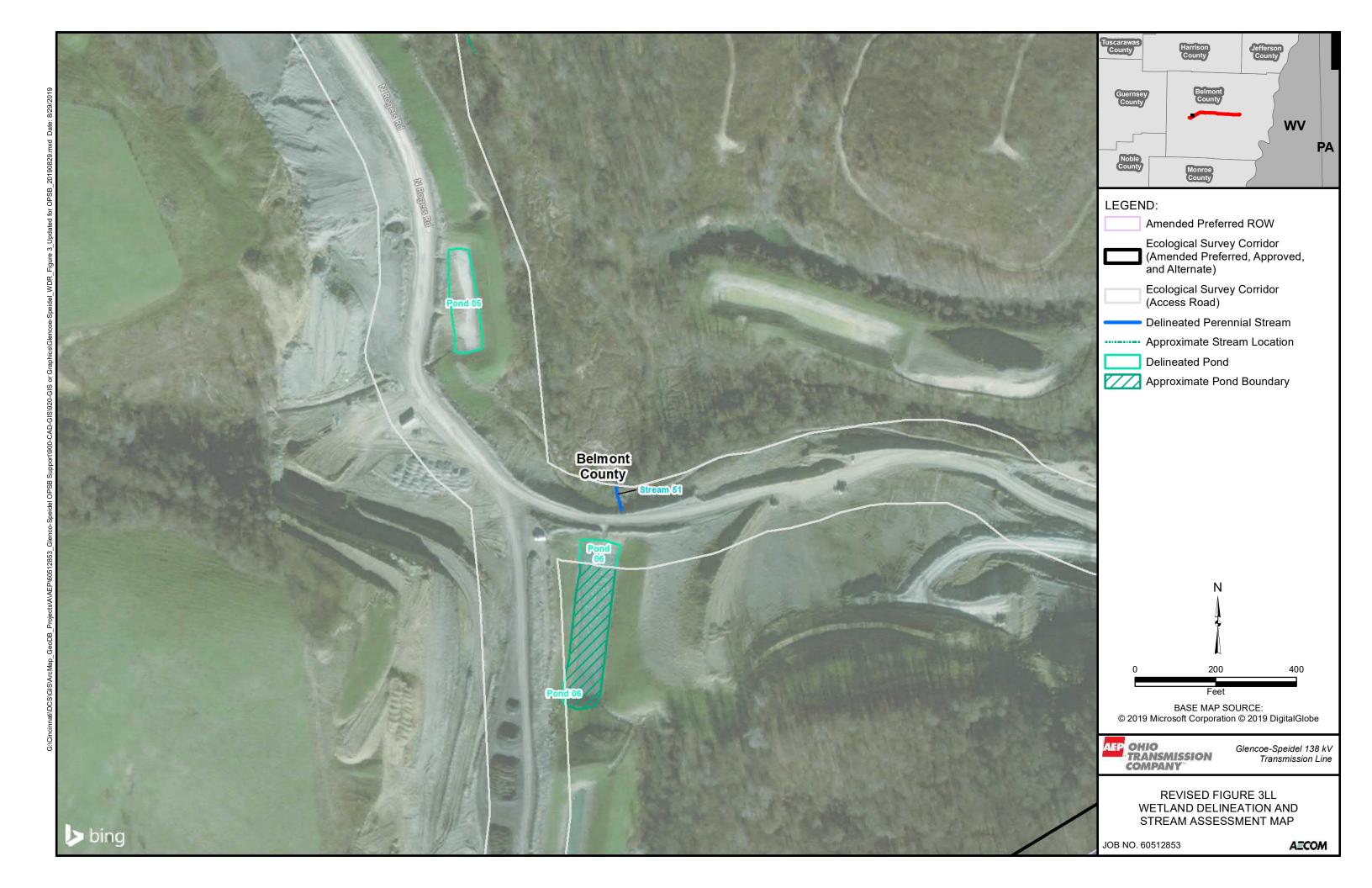




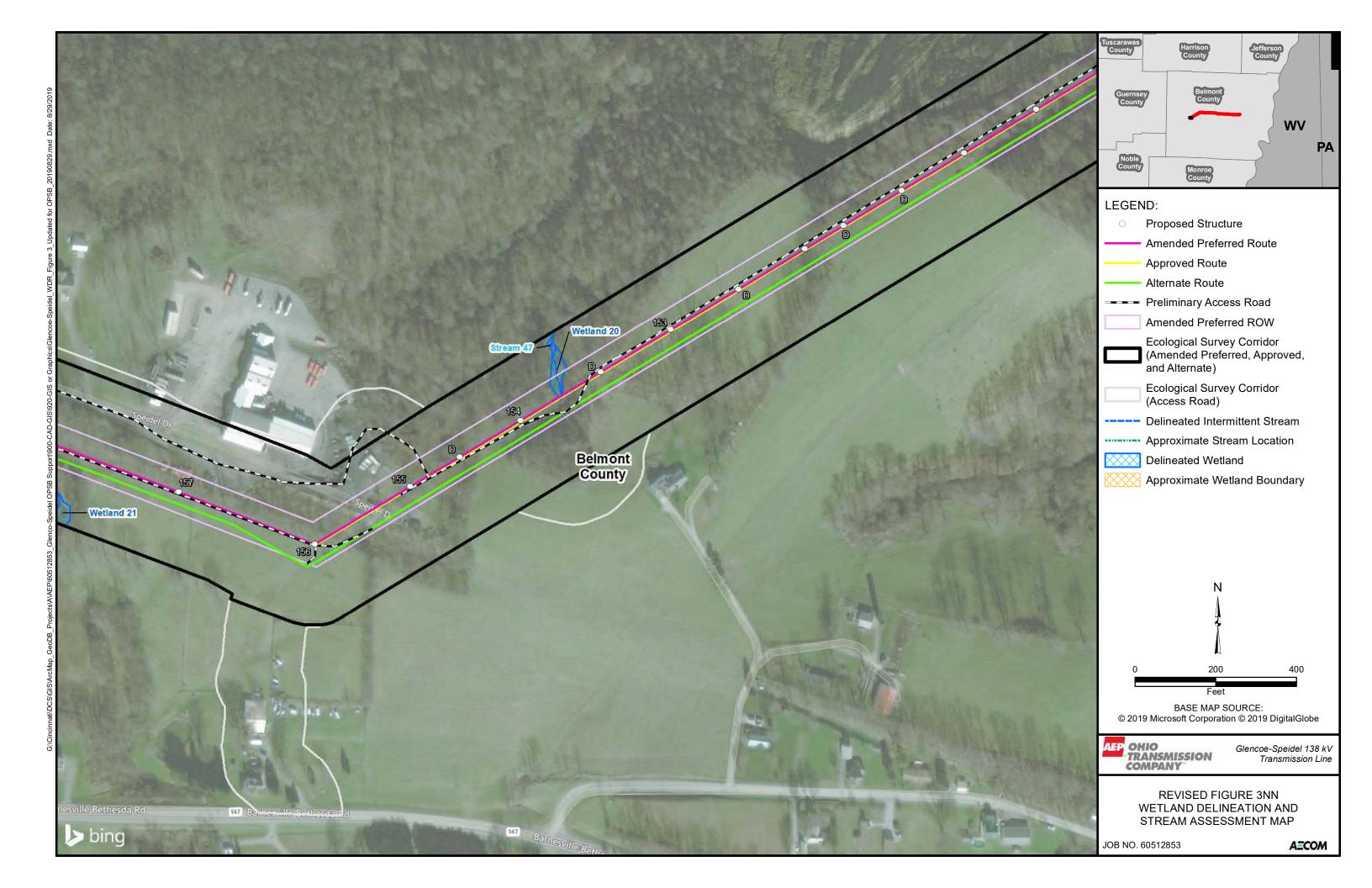


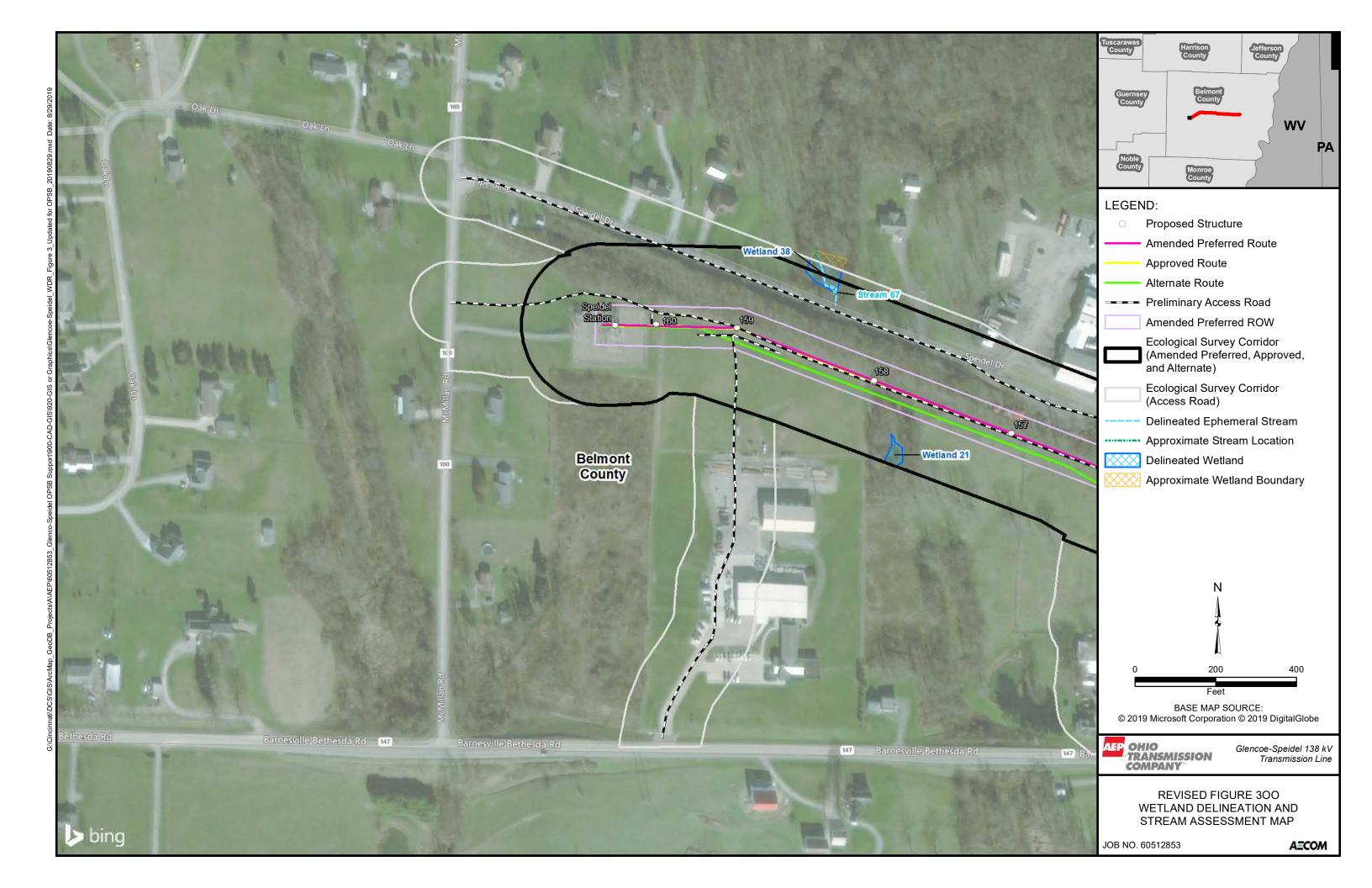












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Case No(s). 19-1741-EL-BTA

Summary: Amended Application Amendment Application for the Glenceo-Speidel 138 kV Transmission Line Project electronically filed by Tanner Wolffram on behalf of AEP Ohio Transmission Company, Inc.