NEXUS GAS TRANSMISSION, LLC
5400 Westheimer Court
Houston, TX 77056

August 26, 2016

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: *NEXUS Gas Transmission, LLC*, Docket No. CP16-22-000
Responses to Draft Environmental Impact Statement for
the NEXUS Gas Transmission Project

Dear Ms. Bose:

On July 8, 2016, the staff of the Federal Energy Regulatory Commission ("FERC" or "Commission") issued a draft environmental impact statement ("DEIS")[1] for the NEXUS Gas Transmission Project (the "Project") and the Texas Eastern Appalachian Lease Project as proposed by NEXUS Gas Transmission, LLC ("NEXUS") and Texas Eastern Transmission, LP ("Texas Eastern"). NEXUS and Texas Eastern requested authorization to construct a new pipeline and expand an existing pipeline system from the Appalachian Basin to deliver 1.5 million dekatherms per day to consuming markets in Northern Ohio, Southeastern Michigan, and Ontario, Canada. The Commission requested comments within 45 days of the issuance of the Notice[2] in the Federal Register, making the comment due date on or before August 29, 2016.

NEXUS has addressed many environmental issues during the National Environmental Policy Act ("NEPA")[3] review of the Project in the pre-filing docket, PF15-10-000, and in the certificate proceeding docket, CP16-22-000. In the following response, NEXUS supplements prior submissions and addresses certain elements of the DEIS where additional information or perspective is helpful.

1. The DEIS Errs in Evaluating the Purpose and Need of the Project and in Assessing Alternatives that Achieve the Purpose and Need.

The DEIS properly recognizes that the Commission does not direct development of pipeline infrastructure but instead responds to the marketplace when an application is filed.[4] The DEIS further properly recognizes that the applicant determines the parameters of the project in

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1 NEXUS Gas Transmission, LLC, Draft Environmental Impact Statement re the NEXUS Gas Transmission Project and the Texas Eastern Appalachian Lease Project, Docket No. CP16-22-000 *et al.* (filed July 8, 2016).

2 Notice of Availability of Draft Environmental Impact Statement for the Proposed NEXUS Gas Transmission Project and the Texas Eastern Appalachian Lease Project, 81 Fed. Reg. 45471 (July 14, 2016).

3 42 U.S.C. §§4321 *et seq.*

4 DEIS at 1-4.

its application.[5] This is consistent with Commission precedent. In *Texas Eastern Transmission LP*, the Commission held that:

> We respond when an application is presented to us, and in each application the applicant determines the parameters of the project. The route presented represents the applicant's proposal to build transmission capacity to serve certain markets.[6]

NEXUS' proposed route set forth in its application includes five (5) pipeline taps to allow future interconnections on the route that are intended to facilitate service for projected market demand in northern Ohio between MP52 and MP88.[7] In discussing these pipeline market taps, the DEIS states that receipt and delivery points based on binding precedent agreements are essential to the Project's objective but that tap sites without binding commitments are not essential to the Project's purpose.[8] This conclusion misconstrues the Project's purpose and need and, as a result, the DEIS erroneously considers the COG Alternative to satisfy the Project's purpose and need.

The scope of the Commission's analysis of the Project must reflect the Project's comprehensive purpose and need. This is true under the Certificate Policy Statement and under NEPA. As stated in the certificate application and the supporting resource reports, the Project is not designed merely to serve customers at six receipt-and-delivery points but rather to serve the current and future demand in multiple consuming markets in Northern Ohio, Southeastern Michigan, and the Dawn Hub in Ontario, Canada, and to reach other markets in northern Illinois and the Midwest through interconnections with other pipelines.[9] The Project will meet this demand by transporting natural gas from burgeoning supplies in the Appalachian Basin.[10]

Under the Commission's Certificate Policy Statement, contracts and precedent agreements are not required to demonstrate market need for a project.[11] The Commission considers all relevant factors reflecting on the need for a project, including demand projections and market studies,[12] each of which support the proposed NEXUS pipeline taps, as reflected in the record.

Here, the pipeline market tap locations planned by NEXUS reflect the market's message to NEXUS of future demand for natural gas in the areas served by the taps. Given the Project's purpose to serve markets in these regions, it is commercially prudent to plan and install pipeline taps that can serve these markets (and taps off the COG Alternative are not equivalent because of the significant added cost for the market to access supply from the pipeline). Although not

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5 *Id*.

6 146 FERC ¶ 61,086 at ¶ 46 (2014).

7 *See* DEIS at 2-7, Table 2.1.1-3.

8 DEIS at 1-4.

9 *See* Certificate Application at 1; and RR1 at Section 1.2 (Purpose and Need).

10 *Id.*

11 *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227, at p. 61,747 (1999), *order on clarification*, 90 FERC ¶ 61,128, *order on clarification*, 92 FERC ¶ 61,094 (2000) ("Certificate Policy Statement").

12 *Id.*

supported by precedent agreements for transportation service at this time, the proposed taps are responsive to market signals, warranting consideration when assessing route alternatives. The importance of the pipeline market taps can be assessed based on the market evidence in the record.

Specifically, each of the pipeline market tap locations is relevant to the Project's purpose. Taps proposed at MP52.4, MP56.7, MP65.8, MP75.0 and MP88.0 all will serve the northern Ohio market targeted by the Project.[13] The basis for these taps is direct market input from Ohio gas utilities such as Dominion East Ohio and Columbia Gas of Ohio, potential electric generator and industrial end-use markets, and the market study commissioned by NEXUS, *Ohio Natural Gas Market Study*, undertaken by the Analysis Group and included as Appendix 1C4 to Resource Report 1 of the Certificate Application. Columbia Gas of Ohio specifically singled out the importance of the NEXUS pipeline market taps, stating in a letter filed at the Commission dated September 28, 2015, that:

> The strategic routing and design of the NEXUS Project will provide Columbia Gas access to affordable supplies of Appalachian natural gas that will operationally support the expansion of its existing distribution infrastructure to meet the growing demand of Columbia Gas's customers in Medina, Sandusky and other Ohio counties. The cities of Medina and Toledo in particular are uniquely positioned to utilize supplies from strategic interconnections with the NEXUS Project.

Dominion East Ohio ("DEO"), in an August 25, 2016 submission to the Commission, similarly stated: "As currently proposed, the NEXUS project provides the opportunity to connect with major DEO pipelines in Columbiana, Erie, Medina and Wayne Counties in Ohio. Additional interconnections in those areas would enhance supply diversity and reliability, provide an additional outlet for low-cost, Ohio-produced natural gas, expand opportunities for siting natural gas-fired generation, and support much-needed economic development in the region." On August 17, 2016, NRG Energy, Inc. reiterated in the record the company's support for the NEXUS pipeline route, describing it as "an optimal location" and a "reliable fuel source for the Avon Lake Facility in the event natural gas is added as a fuel at the Facility."

In short, the pipeline market taps are not speculative market connections but real opportunities brought to NEXUS by Ohio gas utilities with customers and with an understanding of the market for natural gas in their service territories. The market, as communicated to NEXUS by market participants and as confirmed by the market study that NEXUS commissioned and filed in the docket, has stated that it wants these pipeline market taps to meet future demand. This is record evidence of market needs that must be considered under the Certificate Policy Statement.

The significance of the proposed pipeline market taps is especially clear where, as here, they reflect market interest even before construction begins. Such early expressions of demand

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[13] DEIS at 2-7.

along the pipeline route allows the NEXUS project sponsors to ensure that the pipeline is well-sited to respond to and facilitate the maturation of these demand centers. Doing so is consistent with the manner in which pipelines and should be developed. That is, aside from connecting supply at one end and markets at another end that anchor a project, project developers evaluate route alternatives in light of intermediary markets that do or may add value for the project itself as well as for the anchor shippers and other potential shippers or markets. Such market maturation is common across many new pipeline projects that the Commission has certificated.

Recognizing the market growth projected for northern Ohio, NEXUS commissioned a market study and consulted with already committed shippers as well as northern Ohio gas utilities and consumers to route the Project to satisfy the projected growth on an economic basis, with due consideration for avoiding and mitigating environmental and other impacts. Committed shippers to the Project who have selected certain primary points as evidenced by firm capacity commitments also value the intermediary markets that can be accessed by the taps. Indeed, the Commission's flexible receipt and delivery point policy, capacity release, and segmentation policies are predicated on there being markets along the primary paths elected by shippers, such as the markets anticipated to develop through the identified taps.

It is also important to recognize that incremental market growth, depending upon the pace of that growth, may be materially impacted by cost at the margin. For example, a gas utility may be able to contract for incremental growth with a local pipeline tap whereas it may not be able to rationalize incremental growth if the cost of a long lateral negatively impacts the economics. Thus, a connection to the Project as proposed by NEXUS in Wayne, Lorain, or Medina County may facilitate growth of clean-burning natural gas markets, whereas the cost of a lateral to connect to the COG Alternative will make that incremental market less economic, undermining the NEXUS objective of serving northern Ohio markets. In short, the close proximity of the Project to the northern Ohio markets helps ensure that these growing markets will be served more economically and without the environmental impact that accrues from laterals that would be required to connect these markets to a pipeline further south.

The comprehensive purpose and need of the Project also defines the proper scope of alternatives to be considered under NEPA. The DEIS errs in concluding that it may reasonably consider alternatives, such as the COG Alternative, that could not meet demand for natural gas at NEXUS' proposed pipeline market taps.[14] The DEIS itself recognizes that consideration of future energy infrastructure is important. In discussing the economic analysis commissioned by the City of Green, the DEIS concludes that, in projecting future industrial development in the City of Green, "the analysis then fails to consider the additional energy or infrastructure that may be necessary to support this level of development."[15] Despite acknowledging that market pipeline taps "can have legitimate business purpose," the DEIS erroneously grants them no consideration in assessing route alternatives.[16] The DEIS should be revised to reflect the comprehensive purpose and need of the Project, not merely the six receipt-and-delivery points

[14] *Cf.* DEIS at 1-4.
[15] DEIS at 3-26.
[16] *Cf.* DEIS at 1-4.

currently identified, and it should restrict its analysis of alternatives to those that, unlike the COG Alternative, can meet this comprehensive purpose and need.

In summary, under the Certificate Policy Statement and under NEPA, it is the applicant who determines the parameters of its project. As the Commission has recognized, in considering a project and its alternatives, "Commission precedent does not support substitution of our judgment for [the applicant's]."[17] The applicant's proposed project should be tested on its merits, and alternatives to the project should be considered in relation to the comprehensive purpose and need of the project. Where the project as proposed or modified is found to be environmentally acceptable, the Commission "will approve it if other non-environmental considerations also support a finding that the proposed project is required by the public convenience and necessity."[18] That is the case here. Market support for the Project, including the pipeline market taps, is well established in the record, and the DEIS has correctly found the Project to be environmentally acceptable. Proper consideration of the comprehensive purpose and need of the Project will further support these conclusions. As such, the Commission has the basis upon which to make the necessary findings under the Certificate Policy Statement and to satisfy its obligations under NEPA.

2. The DEIS Properly Evaluates the Project's Potential Impacts to the Environment.

The DEIS reflects a careful and comprehensive "hard look" at the potential impacts of the Project on the human environment. The DEIS provides a detailed description and evaluation of direct, indirect, and cumulative impacts from the Project and connected actions in relation to a broad array of considerations, including geology, soils, water resources, wetlands, vegetation, wildlife, fisheries and other aquatic resources, protected species, land use, recreation, visual resources, socio-economics, cultural resources, air quality, noise, reliability and safety. The analysis in the DEIS extends to numerous major and minor route variations, as well as alternatives to the Project. The DEIS comprises over 450 pages of narrative, supplemented by a thousand pages of supporting information distilled from a voluminous record of facts and studies prepared over a multi-year period by FERC's staff, independent experts working on FERC's behalf, and NEXUS and its expert consultants. While work by FERC staff and by NEXUS is ongoing, the DEIS provides a strong foundation for completing the analyses required by the National Environmental Policy Act in support of the Commission's decision under the Natural Gas Act.

3. NEXUS Has Evaluated and Responded to Certain Staff Recommendations in the DEIS.

The DEIS identifies recommendations for which FERC staff requested responses within the comment period on the DEIS. Attached to this letter are NEXUS' responses to Staff Recommendations 13a, 13b, 15a, 15b, 16, 17, 29, 31, 33, 34, 37, 38, 40, 41 and 43, as well as Recommendation 44(b)(iii). A portion of the responsive information is confidential and privileged and is being filed as such. Previously, on July 26, NEXUS filed its Responses to Staff Recommendations 14a and 14b in relation to the Chippewa Lake C Route Variation and the

[17] *Texas Eastern*, at ¶ 45.
[18] *Id*. at ¶ 49.

Reserve Avenue Route Variation. On August 8, NEXUS filed its Responses to Staff Recommendations 23 and 25c concerning migratory birds and consultations with the U.S. Fish and Wildlife Service. On August 23, NEXUS filed Responses to FERC Staff Recommendations 22, 24, 25a, and 26. These August 23rd responses were filed as privileged and confidential given the protected nature of the information requested (relating to protected species and their habitat).

With this letter, NEXUS has filed responses to all FERC Staff Recommendations for which FERC staff requested responses within the comment period on the DEIS.

4. Certain Details in the DEIS Should Be Corrected.

The DEIS provides a wealth of accurate information about the Project and efforts to avoid, minimize and mitigate impacts to the environment from the Project. In reviewing the DEIS, NEXUS identified certain minor factual discrepancies that should be corrected in the final environmental impact statement. The attached table identifies these along with explanations and proposed corrections.

Corrections to the DEIS should also be made with respect to Vector Pipeline L.P. ("Vector"). The DEIS properly recognizes that Vector has applied to the Commission for approval to lease capacity on its pipeline system to NEXUS. However, Vector filed its application in Docket No. CP16-102-00 on March 11, 2016, not 2015. Conforming changes should be made at page ES-1 and in Section 1.0 at page 1-2.

The DEIS also correctly notes that any new or modified facilities associated with Vector's lease of capacity to NEXUS in the U.S. are proposed to be constructed under the existing Blanket Certificate issued to Vector by the Commission in Docket No. CP98-135-000. These modifications include activities in relation to the existing Milford Meter Station in Oakland County, Michigan, as well as the construction of a short pipeline to move gas to the suction side of Vector's existing Highland Compressor Station. Since these activities (but not activities in Canada) are jurisdictional to the Commission and are authorized under the Blanket Certificate, the DEIS should be modified accordingly in Section 4.14.5 at page 4-254.

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Included with this response are attachments that are being filed as privileged information. The privileged information included herein is marked "**CONTAINS PRIVILEGED INFORMATION—DO NOT RELEASE**".[19] Privileged information should be treated as confidential and is for use by Commission Staff only and not to be released to the public. Questions pertaining to confidential information may be submitted to:

Steven E. Hellman
NEXUS Gas Transmission, LLC
5400 Westheimer Court
Houston, TX 77056

[19] 18 C.F.R. §§ 380.12, 388.112 (2016).

Email: sehellman@spectraenergy.com
Tel. 713-627-5215

NEXUS appreciates the diligent efforts of FERC staff in preparing the DEIS, as well as the opportunity to provide comments and information to facilitate the timely completion of the final environmental impact statement.

NEXUS Gas Transmission, LLC
By: Spectra Energy NEXUS Management, LLC
in its capacity as operator

Leanne Sidorkewicz

/s/ Leanne Sidorkewicz
Leanne Sidorkewicz
Project Director, Rates and Certificates

Attachments

cc: J. Wacholder (FERC)
J. Muehlhausen (Merjent)

Certificate of Service

In accordance with the requirements of Section 385.2010 of the Commission's Rules of Practice and Procedures, I hereby certify that I have this day caused a copy of the foregoing document to be served upon each person designated on the official service list compiled by the Commission's Secretary in this proceeding.

/s/ Leanne Sidorkewicz
Leanne Sidorkewicz
Project Director, Rates and Certificates

ATTACHMENT 1

NEXUS Gas Transmission Project NEXUS Technical Corrections to FERC Draft Environmental Impact Statement					
DEIS Section	**Page No.**	**Paragraph/ Table/Figure No.**	**Text**	**Comment**	**Possible Resolution**
2.1	2-1	2.1.1.1	"….miles of new pipeline in Lenawee, Monroe, Washtenaw, and Wayne Counties, Michigan; and	Minor route variations incorporated into the pipeline route following submittal of the Certificate Application resulted in avoiding Wayne County Michigan as correctly shown in draft EIS table 2.1.1-1	Remove Wayne County from the list of Counties crossed in Michigan from Section 2.1.1.1
2.1.1.2	2-7	1st paragraph	The NGT Project would include construction and operation of 17 remote-controlled MLVs.	The NGT would include 16 MLVs as correctly identified in draft EIS Table 2.1.1-2	Change 17 to 16 in the first paragraph on page 2-7.
2.1.1.2	2-7	3rd paragraph	One tower would be installed at each of the compressor stations, and one tower would be installed at MLV 16.	Minor correction	Change MLV 16 to MLV 15
4.3.1.1	4-36	NGT- 2nd and 3rd paragraph and Table H-1	Table H-1	It appears that oil and gas wells were included in the total number of water wells located along the NGT project and indicated in table H-1	Reconfirm the number of water wells located within 150 feet of the Project and exclude non-water wells.
4.3.2.1	4-46	Table 4.3.2-3	Table 4.3.2-3	Sandusky River Crossing is designated as Navigable under Section 10 of the Rivers and Harbors Act administered by the U.S. Army Corps of Engineers.	Add Sandusky River to Table 4.3.2-3

ATTACHMENT 2

Responses to
FERC Staff Recommended Mitigation in the July 8, 2016 Draft Environmental Impact Statement for NEXUS Gas Transmission Project

VOLUME II-A – PUBLIC

August 26, 2016

NEXUS Gas Transmission, LLC
Docket Nos. CP16-22-000
FERC/DEIS 270D

Prepared for:

Federal Energy Regulatory Commission
Office of Energy Projects
888 First Street, N.E., Room 1A
Washington, DC 20426

LIST OF ATTACHMENTS

(Numbering of responses in this document corresponds to FERC Staff recommendations in Section 5.2 of the above-referenced draft Environmental Impact Statement)

Attachment 1 – Response 13a

Figure 13a-1 City of Green Route Compressor Station Site Options

Table 13a-1 Comparison of City of Green Alternative Compressor Station Sites

Attachment 2 – Response 13b

Figure 13b-1 City of Green Route Modifications for Impact Avoidance and Minimization

Table 13b-1 Descriptions of City of Green Route Modifications for Impact Avoidance and Minimization

Attachment 3 – Response 14a-1

Figure 14a-Rev 1 FERC Recommended Chippewa Lake Route C Route Variations Optimizations Index Map and Revised Adjustment Area 2

Attachment 4 – Response 14a-2

Response 14a-2 Updated NEXUS Gas Transmission Project Mapping

- 8.5" x 11" USGS Quadrangle Maps
- Public Lands Crossing Plans

BOUND SEPARATELY IN (VOLUME II- PUBLIC UPDATED MAPPING)

- NEXUS Project Alignment Sheets
- National Wetland Inventory Maps
- Full-sized USGS Quadrangle Maps

Attachment 5 – Response 14a-3

Response 14a-3 Updated NEXUS Gas Transmission Project Summary and Impact Tables

Attachment 6-1 – Response 16

Geotechnical Feasibility Study for HDD of Nimisila Reservoir

Attachment 6-2 – Response 16

Geotechnical Feasibility Study for HDD of Tuscarawas River

Attachment 6-3 – Response 16

Geotechnical Feasibility Study for HDD of West Branch of the Black

Attachment 6-4 – Response 16

Geotechnical Feasibility Study for HDD of U.S. Highway 12/RACER Site

LIST OF ATTACHMENTS

(Numbering of responses in this document corresponds to FERC Staff recommendations in Section 5.2 of the above-referenced draft Environmental Impact Statement)

Attachment 7 – Response 29

Table 29-Summary of Residential Crossing Plans removed from Project and Updated NEXUS Residential Crossing Plans

Attachment 8 – Response 31

NEXUS Organic Farm Protection Plan and Updated Site Specific Organic Farm Crossing Plans

Attachment 9a – Response 33

NEXUS Conversation Record with Farm Service Agency

Attachment 9b – Response 34

Table 8.4.2-Rev 2 - NEXUS Properties Crossed by Farm Service Agency Enrolled Lands

BOUND SEPARATELY IN (VOLUME III- FILED PRIVILEGED & CONFIDENTIAL)

Attachment 10 – Response 37

Updated NEXUS Site Specific Trail Crossing Plans

Attachment 11 – Response 40

Ohio Department of Natural Resources Coastal Zone Consistency Certification

Attachment 12 – Response 41

Updated Table 8.3-4-Rev 2 Environmental Sites within 0.25 mile of the NEXUS

Attachment 13 – Response 43

Visual Screening Plans for Hanoverton (*see* Maps 1 and 2), Wadsworth (*see* Maps 3 and 4), and Waterville (see Maps 5 and 6) Compressor Stations.

Attachment 14-1 – Response 44 b iii

Addendum 1 - Phase I Archaeological Survey of the Proposed NEXUS Pipeline Project, Columbiana, Stark, Summit, Wayne, Medina, Lorain, Huron, Erie, Sandusky, Wood, Lucas, Henry, and Fulton Counties, Ohio

LIST OF ATTACHMENTS

(Numbering of responses in this document corresponds to FERC Staff recommendations in Section 5.2 of the above-referenced draft Environmental Impact Statement)

Attachment 14-2 – Response 44 b iii

Addendum 2 - Phase I Archaeological Survey of the Proposed NEXUS Pipeline Project in Lenawee, Monroe, and Washtenaw Counties, Michigan

Attachment 14-3 – Response 44 b iii

Supplemental Revision to Procedures Guiding the Discovery of Unanticipated Cultural Resource and Human Remains dated August 25, 2016

Attachment 14-4 – Response 44 b iii

NEXUS Pipeline Project Proposed Phase II Testing Research Design for NRHP Eligibility Evaluations of Sites 33SU617, 33LN325, 33ER609, 33ER610, 33ER612, and 33ER613, Summit, Lorain, and Erie Counties, Ohio

Attachment 14-5 – Response 44 b iii

State, Federal, and Native American Groups Consultation Correspondence and Updated Cultural Resource summary tables
(***Attachments 14-1 through 14-5*** **- filed PRIVILEGED & CONFIDENTIAL)**

ENVIRONMENTAL INFORMATION RESPONSE

(Numbering of responses in this document corresponds to FERC Staff recommendations In Section 5.2 of the above-referenced draft Environmental Impact Statement)

13. Prior to the end of the draft EIS comment period, NEXUS should file with the Secretary:

a. a specific compressor station site on the City of Green Route Alternative between MPs 1.8 and MP 98.7. NEXUS should attempt to avoid or minimize impacts on environmental resources while adequately meeting the requirements of the proposed pipeline system. NEXUS should identify the range of engineering and hydraulic flexibility it has in moving the compressor station site on the route alternative; and

b. minor route adjustments and realignments to the City of Green Route Alternative in order to minimize impacts on residences, forests, and other environmental resources *(Section 3.3.3)*

Response 13 a.

In response to FERC Recommendation 13a, NEXUS Gas Transmission, LLC ("NEXUS") performed an analysis of the City of Green Route ("COG") Alternative to identify a specific potentially suitable site for a compressor station along that route. NEXUS conducted a hydraulic assessment using an adjusted and realigned COG Route Alternative (*see* Response 13b) along with the proposed location and length of the remaining NEXUS pipeline and three proposed compressor stations. The milepost range where a compressor station would be needed on the COG Route Alternative based on the hydraulic assessment and assumptions would be between mileposts ("MPs") 49.2 and 53.2.

Based on this milepost range, NEXUS identified four (4) sites depicted in Figure 13a-1 (*see* Attachment 1) for siting a compressor station along the COG Route Alternative. Site 1 is located at approximate MP 50; Site 2 is located at MP 49.5; Site 3 is located at MP 51.8; and Site 4 is located at MP 53.1. All four sites are located in Salt Creek Township in Wayne County, Ohio. Table 13a-1 (*see* Attachment 1) provides a comparative analysis of the four sites including property size, approximated wetlands, approximated linear feet of streams on site, existing land use, site distance from the COG Route Alternative, percent prime farmland soils, potential critical habitat for rare, threatened or endangered species, potential for protected cultural resources, approximate number of noise sensitive areas within half-mile of the property, nearest noise sensitive area to the property boundary, and preliminary visual assessment.

Based on an evaluation of the criteria presented in Table 13a-1, NEXUS identified Site 4 at MP 53.1 as the site with the least amount of constraints for a compressor station along the COG Route Alternative. Of the four sites identified, Site 4 is the largest and because of its size, the compressor station facilities could likely be designed to avoid and minimize direct impacts to resources and forest land. In addition, of the four sites, Site 4 has the fewest noise sensitive receptors within one half-mile of the property (*see* Attachment 1 – Table 13a-1).

Response 13 b.

In response to FERC Recommendation 13b, NEXUS evaluated the COG Route Alternative and made minor route adjustments described in Table 13b-1 (see Attachment 2) to minimize impacts on residences, forests, and other environmental resources and to improve constructability of that route. Figure 13b-1 included in Attachment 2 provides both an overview and detail maps showing the locations of the minor route adjustments described in Table 13b-1.

As a parallel effort to the evaluation of the COG Route Alternative, NEXUS re-evaluated the corresponding segment of the proposed NEXUS mainline route, and has made further adjustments to the route in response to landowner requests, to avoid and minimize impacts to residences, resources, and forest land (see Table 1.1-1-Rev1 – Attachment 5). Based on these adjustments, in addition to the incorporation of the FERC-recommended Chippewa Lake C Route Variation (see NEXUS Response to 14a. and Attachment 3), NEXUS is providing updated Project Alignment Sheets (see Attachment 4) and Project Summary and Impact Tables (see Attachment 5) for the proposed NEXUS mainline route.

14. Prior to the end of the draft EIS comment period, NEXUS shall incorporate into the NGT Project route:

a. the Chippewa Lake C Route Variation between MPs 66.1 and 72.5, as depicted in figure 3.4.10-4 of the draft EIS. NEXUS shall file with the Secretary revised alignment sheets and updated land use and resource tables. NEXUS should also provide documentation that newly affected landowners have been notified in accordance with 18 CFR 157.6(d). *(Section 3.4.10)*

b. the Reserve Road Route Variation between MPs 94.6 and 96.0, as depicted in figure 3.4.12-1 of the draft EIS. NEXUS shall file with the Secretary revised alignment sheets and updated land use and resource tables. NEXUS should also provide documentation that newly affected landowners have been notified in accordance with 18 CFR 157.6(d). *(Section 3.4.12)*

Response 14 a**.**

In response to FERC Recommendation 14a, NEXUS evaluated the Chippewa Lake C Route Variation depicted in draft Environmental Impact Statement ("EIS") figure 3.4.10-4 and determined the Chippewa Lake C Route Variation, with minor adjustments for constructability and impact avoidance and minimization, could be incorporated into the proposed NEXUS pipeline route. NEXUS filed this evaluation with the Commission on July 26, 2016, along with documentation that newly affected landowners were notified.

Since its filing on July 26, 2016, NEXUS continued its contact with affected landowners that would be crossed by the newly incorporated Chippewa Lake C Route. NEXUS was informed by the owner of the Medina Country Club that the proposed Chippewa Lake C Route Variation located north of the Medina Country Club would cross an area with planned residential development. In addition, the property located west of Lake Road and north of Wedgewood

Road has plans for a commercial development (see Attachment 3 – Figure 14 a). As a result, NEXUS has prepared minor adjustments to the Chippewa Lake C Route Variation, developed in consultation with these landowners, that do not conflict with these planned developments or result in an increase of environmental impacts and other constraints (*see* Attachment 3 – Figure 14 a).

In addition, as requested by FERC, NEXUS is submitting as Attachment 4 – Response 14a-2 (*see* Volume II-PUBLIC UPDATED MAPPING) revised Project alignment sheets reflecting the incorporation of the Chippewa Lake C Route Variation along with other minor route variations and workspace modifications incorporated to address stakeholder concerns, engineering constraints, and newly surveyed resources following the filing of alignment sheets with the NEXUS Response to FERC Environmental Information Request 1 ("NEXUS EIR 1 Response") in March 2016. Attachment 5 – Response 14a-2 provides the requested updated Project summary and impact tables.

Response 14 b.

In response to FERC Recommendation 14b, NEXUS performed a thorough evaluation of the Reserve Avenue Route Variation depicted in draft EIS figure 3.4.12-1 and determined there were significant constructability constraints. NEXUS filed this analysis with the Commission on July 26, 2016.

15. Prior to the end of the draft EIS comment period, NEXUS shall file with the Secretary an analysis indicating:

a. whether the proposed Hanoverton Compressor Station site at MP 1.4 could be developed without permanently filling or altering the waterbody on the site, and if not, the types of permanent waterbody impacts that would be required; and

b. whether Alternative Site A to the Hanoverton Compressor Station, as depicted on figure 3.5.1-1 of the draft EIS, could be purchased and developed without forest clearing, and what impacts would be associated with realigning the proposed pipeline to the site or building suction/discharge lines from the site to the proposed pipeline *(Section 3.5.1)*

Response 15 a**.**

The proposed Hanoverton Compressor Station at MP 1.4 on the proposed NEXUS route can be developed without permanently filling or altering wetlands, waterbodies, or forest land. Resource impact avoidance was accomplished by designing the proposed facilities and the proposed construction workspace to exclude resources and forested land on site as shown on the *Site Plan for the Hanoverton Compressor Station–RevD* dated February 2016, filed with the NEXUS EIR 1 Response in March 2016. Resources located on the proposed compressor station site that would be avoided include: wetlands A14-82, A14-83, A14-84, and A14-86; and streams A14-82-S1 and A14-82-S2. In addition, as indicated in Response 12 to FERC EIR 1 filed in March 2016, NEXUS will implement the measures detailed in the Project Erosion & Sedimentation Control Plan and the FERC's *Upland Erosion Control, Revegetation, and*

Maintenance Plan ("FERC Plan") dated May 2013, and will install sediment barriers as needed to prevent the flow of spoil or silt-laden water into wetlands and waterbodies located outside the proposed construction work limits. Finally, much of the identified work area is sited in agricultural lands, and vegetative buffers will be left in place where available, with particular focus on nearby waterbody or wetland resources identified on the station site plans. Spoil storage piles will also be located 50 feet or more from identified wetland and waterbody features.

Response 15 b.

As explained below, the lands required to use Alternative Site A for the Hanoverton Compressor Station may not be available for purchase and, if they were available, their development would require two (2) acres of forest clearing and would entail splitting the compressor station area to avoid existing pipeline easements and to increase separation from buildings. Suction and discharge lines would need to be routed from the separated valve site at the southwest corner of the property into the compressor station area to the northeast, crossing one of the two existing 30-inch Dominion East Ohio pipelines. The required reroute of the NEXUS pipeline would add approximately 400 feet of length and would also require the relocation of the proposed Dominion East Ohio Tap (DEO TPL 15 Tap).

Alternative Site A depicted in draft EIS figure 3.5.1-1 was identified and evaluated as Alternative Site 2 for Compressor Station 1 (Hanoverton Compressor Station) in the compressor station alternatives analysis submitted in Resource Report 10, Alternatives, with the NEXUS Pre-filing submittals in January and June 2015 and with the Certificate Application in November 2015. This site is located northeast of the NEXUS mainline route at approximate MP 3.5, is approximately 37.5 acres in size, and has approximately 11.86 acres of forested land, primarily in the northwest corner and along the eastern property boundary. Alternative Site A has no visual screening from Buffalo Road, has topographic conditions that would require approximately 20 feet of cut and fill, and lacks access to municipal water.

With respect to availability, the landowner of Alternative Site A has previously indicated his unwillingness to discuss placement of a compressor station on the property. On NEXUS follow-up request, the landowner's representative indicated that NEXUS could submit an offer for the property, but the landowner's willingness to sell remains unclear.

The relocation would involve substantial constraints and impacts. Three (3) foreign pipelines currently traverse Alternative Site A: two (2) 30-inch Dominion East Ohio Gas and one (1) Access Midstream Gas transmission pipeline. As a result, siting the compressor station facilities at this location would require approximately two (2) acres of forest clearing. The relocation would also require a reroute of the NEXUS mainline pipeline from approximate MP 3.0 to MP 3.5 and would require the relocation of the compressor station block valve to within the facility fence line. If the NEXUS mainline is not rerouted into the compressor station site, a new valve site would be required on the south side of Buffalo Road that currently has no planned aboveground facilities. Suction and discharge lines would need to be routed from the separated valve site at the southwest corner of the property into the compressor station area to the northeast, crossing one of the 30-inch Dominion East Ohio pipelines. The required reroute

of the NEXUS pipeline would add approximately 400 feet of length and would also require relocating the proposed Dominion East Ohio Tap (DEO TPL 15 Tap).

16. Prior to the end of draft EIS comment period, NEXUS shall file with the Secretary geotechnical feasibility studies for the Nimisila Reservoir (MP 41.1), Tuscarawas River (MP 48.1), West Branch of the Black River (MP 92.4), and the U.S. Highway 12/RACER site (MP 254.3). *(Section 4.3.2.2)*

Response 16

In response to FERC recommendation 16, NEXUS has included as Attachment 6 – Response 16a through Response 16d geotechnical feasibility studies for the proposed crossings of the Nimisila Reservoir (MP 41.1), Tuscarawas River (MP 48.1), West Branch of the Black River (MP 92.4), and the U.S. Highway 12/RACER site (MP 254.3).

17. Prior to the end of the draft EIS comment period, NEXUS shall file with the Secretary an assessment of why HDD is the preferred crossing method for the Sandusky River (MP 145.9), Maumee River (MP 181.2), and Huron River (MP 250.9), as opposed to an alternative crossing method, such as winter wet trench construction or direct pipe installation. *(Section 4.3.2.2)*

Response 17

NEXUS has identified horizontal direction drilling ("HDD") as the preferred crossing method for the Sandusky River at MP 146.3, the Maumee River at MP 181.2, and the Huron River at MP 250.7, because they have been designated as sensitive for fish, recreation and/or historic values as identified in Section 4.3.2.2 in the draft EIS. They are also classified as "major waterbody" crossings based on the FERC's *Wetland and Waterbody Construction and Mitigation Procedures* which defines major waterbodies as greater than 100 feet wide at the time of crossing. The bank to bank crossing distance for the Sandusky River at MP 146.3 is approximately 500 feet; the crossing width for the Maumee River at MP 181.2 is approximately 2,000 feet; and the Huron River at MP 250.7 is approximately 175 feet.

Because these proposed river crossings are both environmentally sensitive and wide bank to bank, NEXUS determined a "trenchless" waterbody crossing method (i.e., HDD) is preferred from a constructability standpoint and because it would allow for installation of the pipeline beneath the waterbody without directly impacting the water resource or temporarily impacting the river bed and banks.

In contrast, pipeline construction methods that involve in-water trenching to install the pipeline (i.e., winter wet trench method) across major waterbodies would result in the discharge of dredged or fill material into federal jurisdictional waters of the Unites States. Because of the sensitivity of the subject three rivers and the length of the required crossings, in addition to the Sandusky and Maumee being classified as navigable waters of the United States, compliance with Section 10 of the Rivers and Harbors Act of 1899, Sections 404 and 401 of the federal Clean Water Act and an Individual Water Quality Certification from Ohio Environmental Protection Agency under Ohio Revised Code 6111.03(O) and 6111.03(P) would be required. These regulations require that NEXUS demonstrate that the impacts have been avoided and

minimized to the extent practicable and that the proposed crossing method is the least environmentally damaging practicable alternative. In order to meet this regulatory test, NEXUS would first need to demonstrate that both the HDD and direct pipe crossing methods are not practicable at these locations.

In order to evaluate the feasibility of the HDD crossing method, NEXUS contracted J.D. Hair & Associates, Inc., a company specializing in HDD engineering design, and Fugro Consultants, Inc., a firm specializing in subsurface geotechnical investigations. Site specific engineering evaluations and HDD feasibility analyses were performed for each of the subject river crossings and were filed with the Certificate Application. As noted in the draft EIS, the HDD Design Report for the NEXUS Project indicated that the HDD crossing method is feasible at each of the three river crossings, notwithstanding certain geotechnical challenges associated with existing subsurface geotechnical conditions.

In response to FERC recommendation 17, NEXUS evaluated the feasibility of using the direct pipe crossing method. Direct pipe installations require shallow entry and exit angles, and to meet proper crossing depths for the rivers in question, the direct-pipe crossing sections would either require significant increases in overall length or would require installation from deep entry and exit pits. Since increasing the crossing segment lengths would not be feasible due to limitations of currently available equipment for this technology, the drilling apparatus would need to be sited within large entry and exit pits to start drills at a lower elevation in closer proximity to rivers being crossed. The pits in question would be in excess of 20 feet deep, thus increasing safety risks and increasing overall impacts from increased workspace requirements. Based on a presentation given by Dr. Gerhard Lang (Herrenknecht) at the North American Society for Trenchless Technology (NASTT) No-Dig Show in 2016, there have been approximately 23 direct pipe installations completed in North America. Therefore, the direct pipe installation technology is relatively new and has not been tested at a comparable level with the HDD technology. Conversely, the HDD crossing method has a long history of success in the United States. These include installations through a variety of challenging subsurface conditions, including extremely hard bedrock and coarse granular soils such as glacial till. In recent years, drilled pipeline lengths in excess of 12,000 feet have been completed successfully, such as the Houston Ship Channel Project in 2015 (Bueno, 2015[1]).

Although, the HDD Design Report for the NEXUS project identified potential risks associated with the proposed HDD crossings for these three rivers, these risks have been considered in NEXUS' decision to use the HDD crossing method. In addition, NEXUS prepared an *HDD Monitoring and Inadvertent Return Contingency Plan* (filed with the Commission with the Certificate Application in November 2015), so that plans are in place to appropriately address risks identified in the J.D. Hair Report.

[1] Bueno, Sharon. "Project of the Year - New Installation: HDD & the Houston Ship Channel" Trenchless Technology. Benjamin Media, Inc. 23 October 2015. Web. 12 August 2016. <http://trenchlessonline.com/project-year-new-installation/>.

Based on these analyses, NEXUS believes the HDD crossing method is technically feasible, has manageable risks, and is the least environmentally damaging practicable method for crossing the Maumee, Sandusky, and Huron Rivers.

29. Prior to the end of the draft EIS comment period, NEXUS shall provide revised RCPs that accurately show the distance and direction from the construction workspace and pipeline centerline of all structures on Drawings HANO-P-8004-1B (MP 6.3) and WADS-P-8033-1B (MP 113.2). (Section 4.9.4.1)

Response 29

In response to FERC recommendation 29, NEXUS has included as Attachment 7 – Response 29 the above-referenced revised NEXUS Residential Crossing Plans showing the distance and direction between existing structures and the proposed construction workspace and pipeline centerline. NEXUS is also providing a full set of updated RCPs reflecting minor route modifications, including the Chippewa Lake C Route Variation identified by FERC after NEXUS filed its response to FERC EIR 1 in March 2016. Also included in Attachment 6 is a list of the residential crossing plans that have been removed from the set as the result of NEXUS efforts to reduce impacts on residents, inclusion of the Chippewa Lake C Route Variation, and other minor route modifications since filing of the NEXUS response FERC EIR 1 in March 2016.

31. Prior to the end of the draft EIS comment period, NEXUS shall file with the Secretary site specific Organic Farm Protection Plans developed in coordination with organic farm landowners and applicable certifying agencies for each certified organic farm that would be crossed or immediately adjacent to the Project that has the potential to experience direct and indirect effects as a result of construction or operation (e.g., pesticide drift, water migration, weeds). The plans shall, at a minimum, identify:

a. prohibited substances (both during construction and operation);

b. soil handling procedures;

c. buffer zones;

d. noxious invasive species control;

e. erosion control;

f. off right-of-way water migration;

g. restoration methods, including seeding and preventing introduction of disease vectors; and

h. operation and maintenance practices, including avoidance of herbicides or other agency or landowner approved methods.

The plan shall also describe how properties would be monitored for compliance with the provisions of the plan (e.g., use of an agricultural monitor) during construction. (Section 4.9.5.1)

Response 31

In response to FERC Recommendation 31, NEXUS has included as Attachment 8 – Response 31, an Organic Farm Protection Plan that identifies restrictions that would be employed in the vicinity of certified organic farm operations during construction and operation of the Project. This plan was developed in consultation with the Ohio Ecological Food and Farm Association (OEFFA), the certifying agency for the two (2) certified organic farms crossed by the Project and the two (2) farms that are currently undergoing the certification process. Landowner input was also solicited and will continue to be considered as part of the site-specific Organic Farm Projection Plan development and implementation process. NEXUS Environmental Inspectors/Agricultural Inspectors will ensure the provisions of the site-specific Organic Farm Crossing Plans and the Organic Farm Protection Plan are implemented during construction, and NEXUS operations personnel will ensure the Organic Farm Protection Plan is implemented during operation of NEXUS facilities. Updated Site Specific crossing plans are included in Attachment 8 for the two (2) currently certified organic farms crossed and the two (2) farms currently undergoing the certification process.

33. Prior to the end of the draft EIS comment period, NEXUS shall file with the Secretary a discussion of how construction and operation of the NGT Project would affect landowners' continued participation in the *Conservation Reserve Program*. *(Section 4.9.5.3)*

Response 33

In response to FERC Recommendation 33, NEXUS updated Table 8.4.2 (*see* –Response 34) and identified properties crossed by the proposed NEXUS Project that have Conservation Reserve Program (CRP) and other easements administered by the Farm Service Agency (FSA). NEXUS has contacted the FSA and determined that pipeline construction activities would not preclude continued participation in the Conservation Reserve Program (*see* Attachment 9a – Response 33) when the right-of-way is restored to pre-construction conditions following construction and depending on the specifics of the landowner's agreement with the FSA. For parcels where CRP enrollment is dependent upon on maintaining tree plantings or forested land that would be crossed by the permanent easement, the continued level of participation in the program for that portion of the parcel may be altered. In these cases, NEXUS will provide suitable compensation for lost enrollment benefits that the affected landowner may encounter. NEXUS has reached out to landowners with enrolled land, encouraging them to coordinate with FSA officials (see Response 34) to discuss conditions of FSA agreements and continued eligibility in the subject programs. NEXUS will work with landowners and FSA representatives to identify requirements that support continued eligibility in the subject FSA programs.

34. Prior to the end of the draft EIS comment period, NEXUS shall file a revised FSA-enrolled lands table and ensure the table includes the mileposts, tract number, type of program, and acres affected. For any FSA-enrolled lands crossed, provide an update on NEXUS' consultations with landowners and local FSA and NRCS officials regarding the landowners' continued participation in the program, and any requested mitigation measures. (Section 4.9.5.3)

ENVIRONMENTAL INFORMATION RESPONSE

(Numbering of responses in this document corresponds to FERC Staff recommendations In Section 5.2 of the above-referenced draft Environmental Impact Statement)

Response 34

In response to FERC recommendation 34, NEXUS has included as Attachment 9b – Response 34 - Volume III – filed Privileged & Confidential) an updated version of Table 8.4-2 *NEXUS Properties Crossed by Conservation Reserve Program Enrolled Lands* including mileposts, tract numbers, type of program, and acres affected. Attachment 9a – Response 33 provides a conversation record with the FSA regarding continuing eligibility for properties crossed by natural gas pipeline projects. NEXUS has also communicated with affected landowners through a notification in its newsletter, reminding those with enrolled properties to contact their local FSA office and to discuss the proposed Project, conditions of individual agreements, and continued eligibility (*see* below excerpt from the NEXUS newsletter: *NEXUS Community Briefing | Issue 2: Project Update)*.



Farm Service Agency Programs: Keeping You Informed

We understand that the Project will cross properties that are currently enrolled in programs administered by the U.S. Department of Agriculture's (USDA) Farm Service Agency (FSA). We also understand that enrollment in FSA programs is based on confidential individual landowner agreements. Because of this confidentiality, we encourage landowners – with property that will be crossed by the proposed Project and currently enrolled in an FSA program – to contact their local FSA representatives to discuss the proposed Project, the conditions of their individual agreements, and continued eligibility. We will work with landowners and USDA officials to identify requirements that support landowners' continued participation in the subject programs. Contact information for USDA county FSA offices in Ohio and Michigan can be found at the following link by clicking on the state (Ohio or Michigan) and then the respective county icon: http://offices.sc.egov.usda.gov/locator/app. More information is available on the USDA's website: http://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/2016/farm_service_agency_programs.pdf.

Landowners or their FSA representatives may also call the NEXUS Landowner Hotline at 1.844.589.3655 if they, have questions.

37. Prior to the end of the draft EIS comment period, NEXUS shall file with the Secretary an evaluation of the feasibility of crossing the Chippewa Rail Trail, Chippewa Inlet Trail, North Coast Inland Trail, and Creek Bend Farm using the bore method. If the bore method is not feasible, NEXUS shall file a site-specific alternate crossing plans that identifies the location(s) of a detour, public notification, signage, and consideration of avoiding days of peak usage. *(Section 4.9.7.3)*

Response 37

In response to FERC recommendation 37, NEXUS is including as Attachment 10 – Response 37, updated Site Specific Trail Crossing Plans for the Chippewa Rail Trail, two (2) crossings of the North Coast Inland Trail ("NCIT"), and Creek Bend Farm. The Chippewa Inlet Trail is no longer crossed by the Project due to incorporation of the Chippewa Lake Route Variation identified in the DEIS.

NEXUS has determined that the bore crossing method would be feasible at the new crossing location for the Chippewa Rail Trail along the Chippewa Lake C Route Variation route and for both the MP 98.1 and MP 151.2R crossings of the NCIT. A bored crossing is not feasible at the MP 153.3 crossing of Creek Bend Farm because the approximately 2,300 foot distance required for the crossing is significantly greater than what would be feasible using the conventional bore technology. NEXUS has contacted the Sandusky County Park District ("Park District") and has met with Park District officials to address potential construction related concerns associated with the Creek Bend Farm crossing. The Park District noted that since the park is only used seasonally, there would not be an issue with temporarily closing the park during construction. NEXUS has agreed to provide notice one week in advance of starting construction activities on the property. NEXUS will continue to work with Park District representatives to coordinate the required signage, as necessary.

38. Prior to the end of the draft EIS comment period, NEXUS shall file with the Secretary an evaluation of the feasibility of extending the bore further west to avoid impacting forest/woodland on the west side of Highway 77. *(Section 4.9.7.3)*

Response 38

In response to FERC Recommendation 38, NEXUS performed a feasibility evaluation for extending the bored crossing of Highway 77, located at approximate MP 35.5, further to the west. At the proposed Highway 77 crossing, the pipeline corridor is located directly north and parallel to an existing electric transmission line, with an open field on the east side of the highway and a triangular shaped forested area on the west side of the highway. The current bore length for the crossing of Interstate 77 is approximately 430 feet. To avoid the forested area on the west side of the highway, the bore length would need to be extended approximately 635 additional feet, creating a total bore length of approximately 1,065 feet. Extending the bore to this length to avoid the forested area is not prudent based on current bore equipment capabilities. NEXUS consulted construction contractors to determine a feasible maximum bore length for such a crossing, and the feedback received indicates that with current available equipment a guided bore could successfully be completed up to 500-600

feet in length for a 36 inch diameter pipeline. The longest continuous track-type auger bored crossing installed to date is approximately 900 feet (Najafi, 2005[2]). Therefore, extending the bore further west to avoid impacting the forest area on the west side of Highway 77 was determined infeasible at this location.

40. Prior to construction of the NGT Project, NEXUS shall file with the Secretary documentation of concurrence from the ODNR that the NGT Project is consistent with the Coastal Zone Management Act. *(Section 4.9.8)*

Response 40

NEXUS coordinated with the Ohio Department of Natural Resources regarding the federal consistency certification requirements for crossing the Lake Erie Coastal Zone. Attachment 11 – Response 40 provides a copy of the Federal Consistency Certification received from Ohio Department of Natural Resources for the NEXUS Project.

41. Prior to the end of the draft EIS comment period, NEXUS shall file with the Secretary results of file reviews for the 11 other sites identified by NEXUS and site-specific plans to properly manage any contaminated soil or groundwater in compliance with applicable regulations, if necessary. (Section 4.9.9)

Response 41

In Response to FERC Recommendation 41, NEXUS conducted further evaluations of the eleven (11) sites of potential concern initially identified in Table 8.4-3 Rev 1. Nine (9) of the eleven sites have been eliminated from concern due to more accurate location information (e.g., the release site is actually further from the Project than initially estimated, the status of the spill, or rerouting of the Project in the vicinity). Table 8.4-3-Rev2 (*see* Attachment 12 – Response 41) has been updated to include further detail into the sites previously identified to be of potential concern as well as additional sites identified within 0.25 mile of the Chippewa Lake reroute. Two (2) of the eleven (11) sites have not been eliminated from concern. These include the following:

- Country View Apartment Complex, 5001 Massillon Road, Green, Ohio – MP 37.4.

This property was identified by EDR on the SPILLS database. The spill report maintained by Ohio EPA (dated January 24, 2014 by Reggie Brown) indicates that a release of crude oil and/or petroleum condensate occurred and was referred to the Division of Environmental Response and Revitalization (DERR). The files contained no indication that DERR conducted additional responses to the spill. The source of the release is suspected to be an oil well now or previously operating adjacent to the Project. Residual petroleum-contaminated soil, if present along this portion of the Project, will be managed during construction in accordance with the

[2] *Mohammad Najafi, Ph.D., P.E.: Trenchless Technology: Pipeline and Utility Design, Construction, and Renewal. HORIZONTAL AUGER BORING, Chapter (McGraw-Hill Professional, 2005), AccessEngineering*

NEXUS Spill Prevention, Control, and Countermeasures (SPCC) Plan and Erosion and Sedimentation Control Plan (E&SCP) that have been prepared for the Project as well as Ohio Administrative Code ("OAC") 3745-52 and OAC 3745-279, as appropriate.

- General Motors Willow Run Plant, Ecorse Road and Willow Run, Ypsilanti, Michigan – MP 254.1 R to 254.6 R.

This property was identified on LUST, Inventory, UST, 2020 Cor Action, CERC-NFRAP, PADS, RCRA-SQG, RCRA-TSDF, Corracts, and RCRA-CESQG databases by EDR. In addition to the existing site analytical data, NEXUS completed soil and groundwater investigations along the Project route adjacent to and across this site and concluded that contamination is minimal in both soil and groundwater. Minor concentrations of metals constituents are present in concentrations above Part 201 Residential Cleanup Criteria (v. December 2013) of the Michigan Natural Resources and Environmental Protection Act, P.A. 451 of 1994, as amended, but are below non-residential cleanup criteria so there are no significant environmental exposure risks for worker safety. The contamination is typical of historical long term urban locales and can be readily managed through environmental construction practices. Excess soil balances that cannot be returned to the pipeline excavations will be disposed in Type II landfills in accordance with Michigan environmental regulations.

43. Prior to the end of the draft EIS comment period, NEXUS shall file with the Secretary visual screening plans developed for the Hanoverton, Wadsworth, and Waterville Compressor Stations that would provide screening to nearby residences from the stations. *(Section 4.9.10.2)*

Response 43.

In Response to FERC Recommendation 43, NEXUS has included as Attachment 13 – Response 43 Visual Screening Plans for the Hanoverton, Wadsworth and Waterville Compressor Stations.

44. The applicants shall not begin implementation of any treatment plans/measures (including archaeological data recovery); construction of facilities; or use staging, storage or temporary work areas and new or to-be-improved access roads until:

b. NEXUS files with the Secretary:

iii. all outstanding survey reports, special studies, evaluation reports, and avoidance/treatment plans; and

Response 44.

In Response to FERC Recommendation 44, NEXUS is filing as Attachment 14-1 – Response 44 b iii through Attachment 14-5 – Response 44b iii the following items (see Attachments):

(1) a copy of the *Addendum 1 - Phase I Archaeological Survey of the Proposed NEXUS Pipeline Project, Columbiana, Stark, Summit, Wayne, Medina, Lorain, Huron, Erie, Sandusky, Wood, Lucas, Henry, and Fulton Counties, Ohio*;

(2) the *Addendum II - Phase I Archaeological Survey of the Proposed NEXUS Pipeline Project in Lenawee, Monroe, and Washtenaw Counties, Michigan submitted to the Michigan State Historic Preservation Office*;

(3) *Supplemental Revision to Procedures Guiding the Discovery of Unanticipated Cultural Resource and Human Remains* dated August 25, 2016 submitted to the Ohio Historic Preservation Office and the Michigan State Historic Preservation Office;

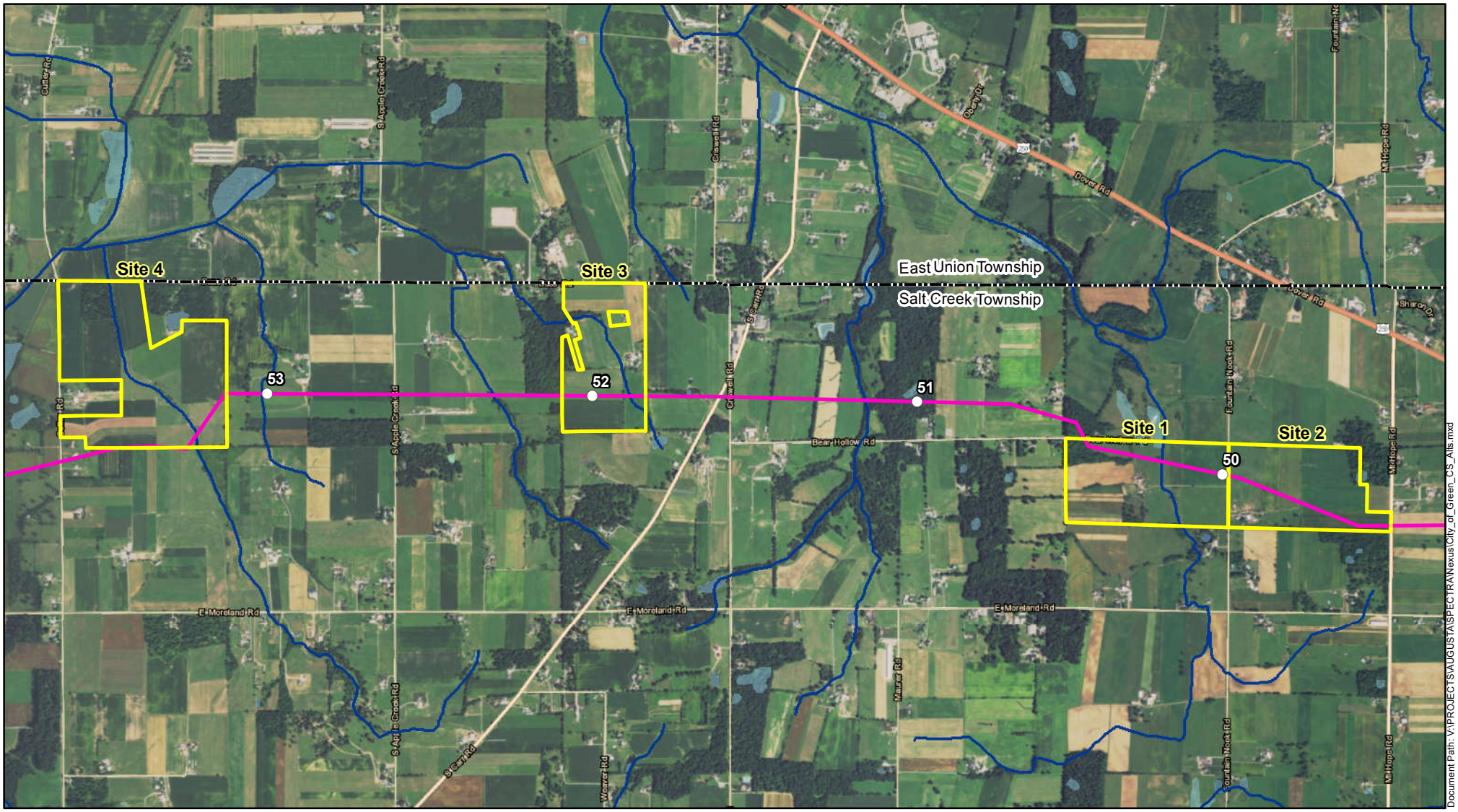
(4) the NEXUS Pipeline Project Proposed Phase II Testing Research Design for NRHP Eligibility Evaluations of Sites 33SU617, 33LN325, 33ER609, 33ER610, 33ER612, and 33ER613, Summit, Lorain, and Erie Counties, Ohio submitted to the Ohio Historic Preservation Office; and

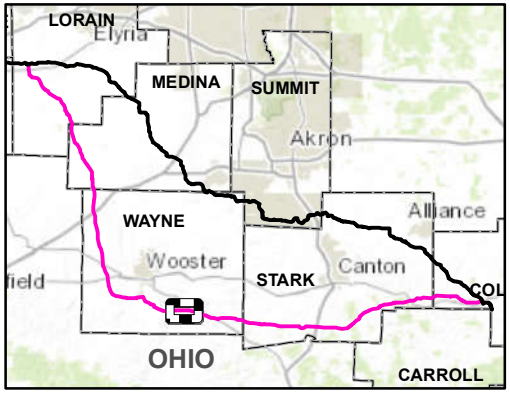
(5) updates on State, Federal, and Native American Groups Consultation Correspondence and updated tables 4.3-1–4.6-2 with revised information regarding consultation correspondence, survey completion status, and cultural resources identified within the project area that reflect the incorporation of route variations.

All updated cultural resource Attachments will be filed **PRIVILEGED & CONFIDENTIAL** in accordance with FERC requirements.

Attachment 1 – Response 13a

- Figure 13a-1 City of Green Route Compressor Station Site Options
- Table 13a-1 Comparison of City of Green Alternative Compressor Station Sites





- City of Green Route Mileposts
- City of Green Route
- City of Green Route Compressor Station Site Options
- NHD Flowline
- NWI Wetland
- Township Boundary
- Proposed NEXUS Mainline Pipeline

N

0 1,150 2,300

Feet

Sources: ESRI, SPECTRA, TRC, NWI, NHD

Projection: NAD83, UTM Zone 17N US Survey Feet, Grid North

Figure 13a-1

City of Green Route Compressor Station Site Options

Salt Creek Township, Wayne County, OH

NEXUS GAS TRANSMISSION

8/15/2016

Table 13a-1

Comparison of City of Green Route Alternative Compressor Station Sites

Property and Resources Evaluated	City of Green Route Compressor Station Sites			
	Site 1	**Site 2**	**Site 3**	**Site 4**
Approximate Milepost (enter property)	50	49.5	51.8	53.1
Property Size (approx. acres) a/	82.6	71.0	70.1	130.1
Wetlands (acres) b/	1.9 (estimate)	0.5 (estimate)	0.0 (estimate)	4.8 (estimate)
Streams (linear feet) c/	3,348 (estimate)	1,300 (estimate)	4,024 (estimate)	2,269 (estimate)
Predominant Land Use (approx. % of property)				
Agricultural	63%	67%	90%	68%
Forest/Wood-land	9%	3%	5%	8%
Open Land	26%	26%	-	24%
Residential	2%	4%	5%	-
Distance from Property to Pipeline (feet)	0 (intersects)	0 (intersects)	0 (intersects)	0 (intersects)
Prime Farmland Soils (approx. % of total property)				
Prime	44%	64%	47%	37%
Prime if drained	25%	1%	25%	43%
Prime if drained and protected from flooding	-	-	-	-
Prime if protected from flooding	-	-	-	-
Total Percent Actual or Potential Prime Farmland Soils	69%	65%	72%	80%
Critical Habitat, Federal T&E Species d/	potential habitat for NLEB; other T&E species TBD based on field review	potential habitat for NLEB; other T&E species TBD based on field review	potential habitat for NLEB; other T&E species TBD based on field review	potential habitat for NLEB; other T&E species TBD based on field review
Known Cultural Resources Onsite	No	Four cultural resources (3 archaeological sites and 1 cemetery)	No	No
Approx. Number of NSAs within e/ ½-mile of Property	44	54	77	31

Table 13a-1

Comparison of City of Green Route Alternative Compressor Station Sites

Property and Resources Evaluated	City of Green Route Compressor Station Sites			
	Site 1	**Site 2**	**Site 3**	**Site 4**
Nearest NSA To Property Boundary (approx. feet) e/	0 (farmhouse on property)	0 (farmhouse on property)	0 (farmhouse on property)	55
Preliminary Visual Impact Assessment	-Visible from Bear Hollow and Fountain Nook Roads - Potentially visible from E. Moreland Road/Route 77, Mt. Hope Road/Route 363, and State Route 250	- Visible from Bear Hollow Road, Fountain Nook Road, E. Moreland Road, Mt. Hope Road/Route 363, and State Route 250 - Potentially visible from S. Kansas Road	- Visible from Buss Road, S. Carr Road, and Criswell Road/Route 225 - Potentially visible from and S. Apple Creek Road	- Visible from Buss Road, Cutter Road, E. Moreland Road, and S. Apple Creek Road - Potentially visible from S. Honeytown Road

a/ Numbers represent size [in acres] of existing parcels that were identified as meeting the requirements for relocation of the Hanoverton Compressor Station. The estimate area required to operate the Hanover Compressor Station would be approximately 30 acres.
b/ The term "estimated" means resource areas were estimated based on aerial photo interpretation or Project GIS datasets. The acreage provided includes all wetland areas within the parcels of the proposed or alternative compressor station site and does not correlate with potential impacts.
c/ The term "estimated" means resource areas were estimated based on aerial photo interpretation or Project GIS datasets The linear footage provided includes all stream lengths within the parcels of the proposed or alternative compressor station site and does not correlate with potential impacts.
d/ T&E = Threatened & Endangered
TBD = To Be Determined
NLEB = Northern Long Eared Bat (*Myotis septentrionalis*)
IBat = Indiana Bat (*Myotis sodalis*)
e/ NSA = noise sensitive areas.

Attachment 2 – Response 13b

- Figure 13b-1 City of Green Route Modifications for Impact Avoidance and Minimization
- Table 13b-1 Descriptions of City of Green Route Modifications for Impact Avoidance and Minimization

NRG AVON, LAKE TAP

COLUMBIA GAS, OHIO N MEDINA TAP

COLUMBIA GAS, OHIO S MEDINA TAP

WADSWORTH COMPRESSOR STATION (CS-2)

BRICKYARD & RITTMAN, INDUSTRIAL TAP

DOMINION EAST OHIO TAP 13

COG COMPRESSOR STATION SITE 4

COG COMPRESSOR STATION SITE 3

COG COMPRESSOR STATION SITE 1

COG COMPRESSOR STATION SITE 2

DOMINION EAST OHIO TAP 15

MR03 (Texas Eastern)

MR02 (Kensington)

MR01 (TGP)

HANOVERTON COMPRESSOR STATION (CS-1)

LORAIN

MEDINA

SUMMIT

WAYNE

STARK

COLUMBIANA

HURON

OHIO

N

0 10 Miles

NEXUS GAS TRANSMISSION

Data Source: SPECTRA, TRC.

Figure 13b-1
City of Green Alternative Route Modifications for
Impact Avoidance and Minimization
Overview Map

LEGEND

- Meter Stations
- Delivery Tap Locations
- Proposed NEXUS Mainline
- NEXUS COG Adjusted Route
- Stakeholder Identified COG Route
- Milepost (Stakeholder COG Route)
- Proposed NEXUS Compressor Station Site
- City of Green Alternative Compressor Station Site
- County Boundary

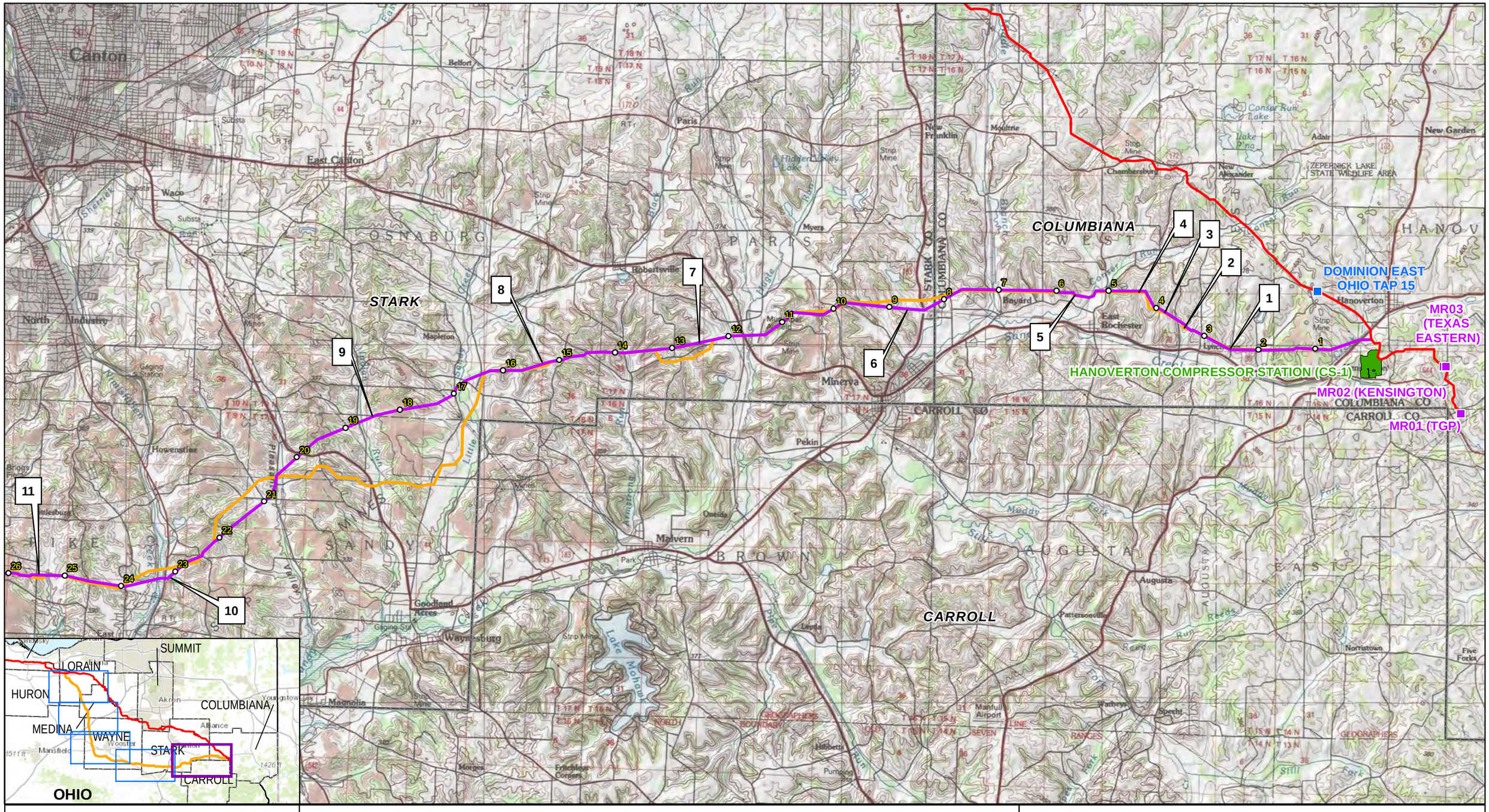


Figure 13b-1
City of Green Alternative Route Modifications for
Impact Avoidance and Minimization
Detail Map 1 of 5

LEGEND

- Meter Stations
- Delivery Tap Locations
- Proposed NEXUS Mainline
- NEXUS COG Adjusted Route
- Stakeholder Identified COG Route
- Milepost (Stakeholder COG Route)
- Proposed NEXUS Compressor Station Site
- City of Green Alternative Compressor Station Site
- County Boundary
- # NEXUS Route Adjustments- See Table 13b-1

COG COMPRESSOR STATION SITE 4

COG COMPRESSOR STATION SITE 3

COG COMPRESSOR STATION SITE 2

COG COMPRESSOR STATION SITE 1

WAYNE

STARK

SUGAR CREEK

SALT CREEK

PAINT

BETHLEHEM

PERRY

TUSCARAWAS CO

WAYNE CO

HOLMES CO

STARK CO

LAWRENCE

Kidron

Apple Creek

Maysville

Mt Eaton

West Lebanon

Snively

Kidron Station

Strip Mine

Stanwood

Pigeon Run

Canton Road

Richville

Massillon State Hospital

Westarado

Moffitt Heights

Gambrinus

Banker Heights

Elton

Crossroads

Brewster

Harmon

Justus

Wilmot

Beach City

Winesburg

Boliver

Sandyville

Zoar

Ames Airport

Calamoutier

Fredericksburg

STARKS WILDERNESS CENTER

ZOAR STATE WILDLIFE AREA

Lime Kiln Lake

Spring Valley Lake

Sugar Creek

Middle Fork

Nimishillen Creek

Pigeon Run

Wolf Run

Elm Run

Camp Creek

Beech Run

Crabapple Creek

Dover Reservoir

Sugar River

Quarry

Strip Mines

Gaging Sta

Gaging Stations

Water Tank

Trailer Park

Briggs Field

Industrial Waste

Sewage Disposal

Clay pit

CANAL

MILITARY

DISTRICT

GEODETIC MARKERS

TUSCARAWAS

PERRY

STARK

WAYNE

SUMMIT

LORAIN

HURON

MEDINA

COLUMBIANA

CARROLL

OHIO

Akron

Youngstown

Alliance

Wooster

Mansfield

Canton

1511 ft

1426 ft

51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25

21 20 19 18 17 16 15 14 13 12 11

N

0 2 Miles

NEXUS GAS TRANSMISSION

Data Source: SPECTRA, TRC.

Figure 13b-1
City of Green Alternative Route Modifications for
Impact Avoidance and Minimization
Detail Map 2 of 5

LEGEND

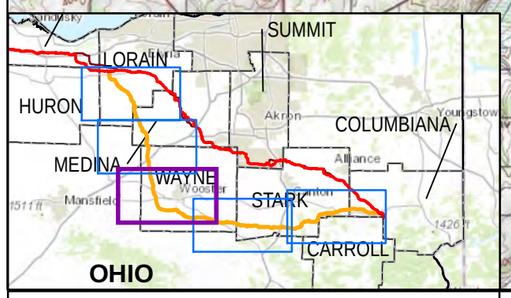
- Meter Stations
- Delivery Tap Locations
- Proposed NEXUS Mainline
- NEXUS COG Adjusted Route
- Stakeholder Identified COG Route
- Milepost (Stakeholder COG Route)
- Proposed NEXUS Compressor Station Site
- City of Green Alternative Compressor Station Site
- County Boundary
- # NEXUS Route Adjustments- See Table 13b-1

COG COMPRESSOR STATION SITE 4

COG COMPRESSOR STATION SITE 3

COG COMPRESSOR STATION SITE 2

COG COMPRESSOR STATION SITE 1



N

0 2 Miles

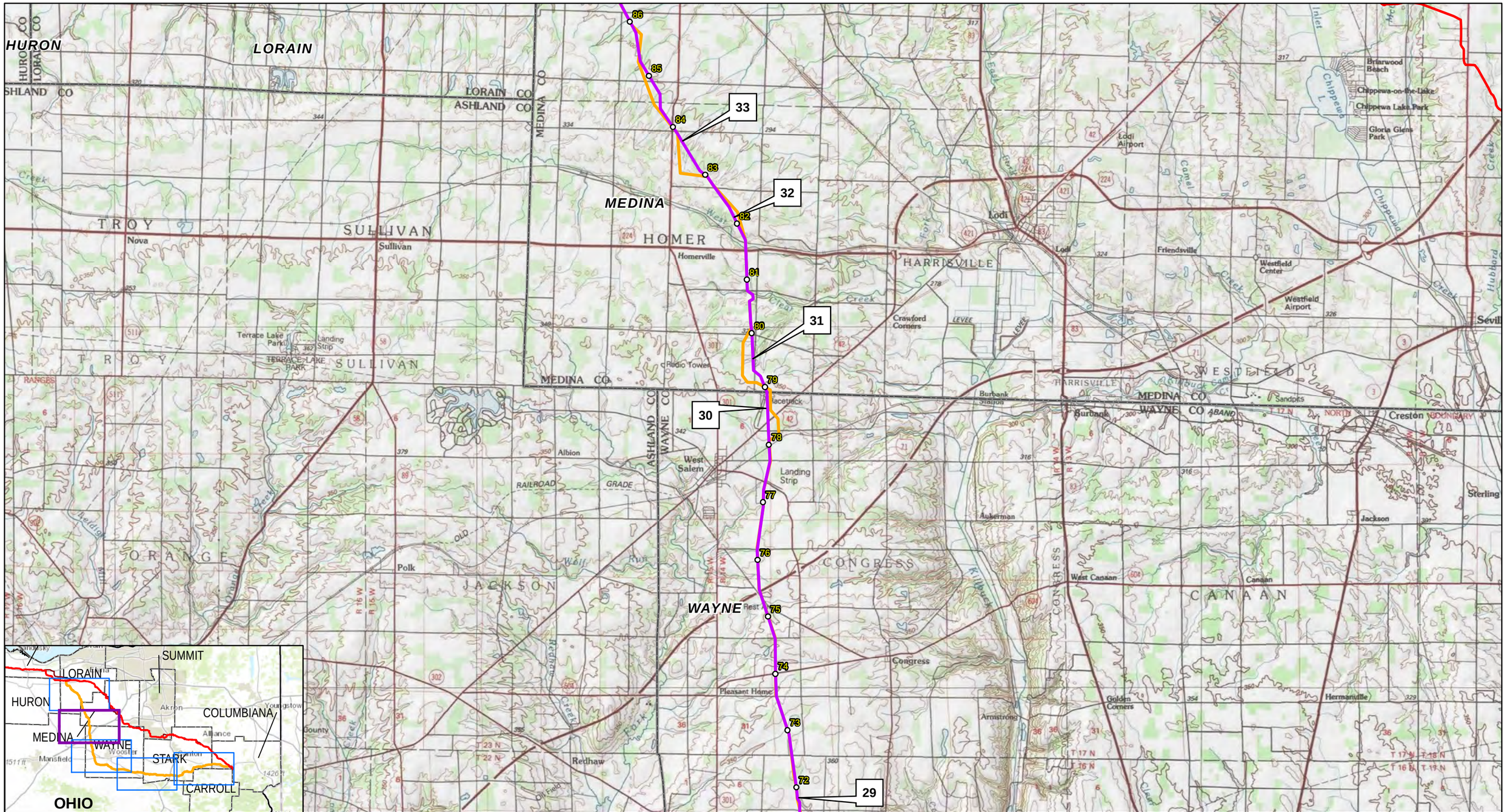
NEXUS GAS TRANSMISSION

Data Source: SPECTRA, TRC.

Figure 13b-1
City of Green Alternative Route Modifications for
Impact Avoidance and Minimization
Detail Map 3 of 5

LEGEND

- Meter Stations
- Delivery Tap Locations
- Proposed NEXUS Mainline
- NEXUS COG Adjusted Route
- Stakeholder Identified COG Route
- Milepost (Stakeholder COG Route)
- Proposed NEXUS Compressor Station Site
- City of Green Alternative Compressor Station Site
- County Boundary
- # NEXUS Route Adjustments- See Table 13b-1



N

0 2 Miles

NEXUS GAS TRANSMISSION

Data Source: SPECTRA, TRC.

Figure 13b-1
City of Green Alternative Route Modifications for
Impact Avoidance and Minimization
Detail Map 4 of 5

LEGEND

- Meter Stations
- Delivery Tap Locations
- Proposed NEXUS Mainline
- NEXUS COG Adjusted Route
- Stakeholder Identified COG Route
- Milepost (Stakeholder COG Route)
- Proposed NEXUS Compressor Station Site
- City of Green Alternative Compressor Station Site
- County Boundary
- # NEXUS Route Adjustments- See Table 13b-1

NRG AVON, LAKE TAP

COLUMBIA GAS, OHIO N-MEDINA TAP

37

36

35

34

102

101

100

99

98

97

96

95

94

93

92

91

90

89

88

87

ERIE

HURON CO

WAKEMAN

CAMDEN

PITTSFIELD

LAGRANGE

GRAFTON

LORAIN CO

MEDINA CO

HURON

LORAIN

CLARKSFIELD

BRIGHTON

WELLINGTON

PENFIELD

LITCHFIELD

MEDINA

ROCHESTER

HUNTINGTON

SPENCER

CHATHAM

Wakeman

Kipton

Pittsfield

Lagrange

Grafton

Belden

Valley City

Erhart

Clarksfield

Brighton

Wellington

Penfield

Litchfield

Rochester

Spencer

Chatham

Meadow Aire Airport

Landing Strip

Radio Towers

Sandpit

Quarry

Wellington Reservoirs

FINDLEY STATE PARK

SPENCER LAKE STATE WILDLIFE AREA

OIL FIELD

R Farm Lake

Berlin Res

Plum Creek

Salt Creek

Black River

Crow Creek

Beaver Creek

Charlemont Creek

Black Creek

East Branch

West Branch

LEVEE

OHIO

SUMMIT

LORAIN

HURON

MEDINA

WAYNE

STARK

CARROLL

COLUMBIANA

Akron

Alliance

Youngstown

Mansfield

Wooster

N

0 2 Miles

NEXUS GAS TRANSMISSION

Data Source: SPECTRA, TRC.

Figure 13b-1
City of Green Alternative Route Modifications for
Impact Avoidance and Minimization
Detail Map 5 of 5

LEGEND

- Meter Stations
- Delivery Tap Locations
- Proposed NEXUS Mainline
- NEXUS COG Adjusted Route
- Stakeholder Identified COG Route
- Milepost (Stakeholder COG Route)
- Proposed NEXUS Compressor Station Site
- City of Green Alternative Compressor Station Site
- County Boundary
- # NEXUS Route Adjustments- See Table 13b-1

Table 13b-1
Descriptions of City of Green ("COG") Minor Route Modifications
for Impact Avoidance and Minimization

Change ID Number a/	Start COG Alt MP	End COG Alt MP	Summary Description b/
1	2.1	3.0	Minor realignment of the COG Alt route to slightly shift the centerline approximately 65 feet north to follow a field edge and reduce clearing of a forested area west of Myers Road.
2	3.2	3.5	Route realigned to increase distance from an existing well and to avoid an existing powerline structure in an area with large elevation difference.
3	3.7	4.3	Route realigned west of Lippincott Road to reduce impacts to existing forest land by routing through existing open agricultural fields. Realignment results in slight increase in pipeline length.
4	4.3	5.3	Route realigned between MPs 4.3 and 5.3 where the COG route parallels an existing high voltage powerline in the vicinity of the Rochester Road to avoid overlap with existing transmission line towers and to better align and parallel the existing transmission line permanent easement to the north. The adjusted route also avoids a residence and driveway located in close proximity to the north of the transmission line and reduces the distance to a residence located on Rochester Road. This adjustment would require approximately 0.5 mile of additional forest land crossing.
5	5.5	5.7	Minor shift approximately 120 feet to the south to avoid impacting a small section of forested land.
6	6.0	10.8	Route adjusted between COG Alt. route MPs 6.0 and 7.6 by shifting the pipeline approximately 100 feet south to avoid conflicts with existing high voltage powerlines and associated towers and to more effectively align with the existing utility permanent easement in the vicinity of the Lowmiller Road and Baynard Road crossings. Between COG Alt. MPs 7.6 and 9.6 the route was relocated approximately 800 feet north in the vicinity of the Stump Road and Union Avenue Southeast crossings and east of Whitacre Avenue Southeast crossing. This adjustment avoids construction constrains associated with topographic changes at an existing railroad bed that the COG Alt route overlaps. Between MPs 9.6 and 10.8 the COG Alt route was shifted to the south and then to the north at Tunnel Hill Road to minimize the construction constraints associated with the crossing an abandoned railroad bed located within a topographic depression.
7	12.3	13.3	NEXUS adjusted the COG Alt route between MPs 12.3 and 13.3 by relocating the pipeline to the south to avoid impacting a residence located in the vicinity of COG Alt MP 12.6 and to avoid crossing an orchard located in the vicinity of COG Alt MP 13 west of Ridgeport Avenue. The minor route adjustment reduces the impact to forested land but requires an increase in length through residential properties.
8	15.1	15.7	The COG Alt route was shifted to the south approximately 200 feet through an open field to reduce impacts to forested land.
9	16.3	22.1	Minor COG Alt route realignment to the south between MPs 16.3 and 22.1 to avoid an existing abandoned underground mine located in the vicinity of COG Alt MP 18, an existing landfill located at approximate MP 18.4 and existing aboveground storage tanks in the vicinity of approximate MP 18.45. The adjusted route would also eliminate approximately 1,000 feet of construction along the edge of Willowdale Avenue between COG Alt MPs 20.5 and 20.6. Between COG Alt MPs 20.6 and 22.1, the route was realigned to the north of the COG Alt route west of Willowdale Avenue to avoid crossing a strip mine operation. The COG Alt route realignment requires over a mile of additional length to avoid construction constraints.
10	22.4	25.0	COG Alt route realignment to avoid some side slope construction at the site of a reclaimed strip mine. To the west of the reclaimed strip mine the COG Alt route was realigned to the north to avoid crossing Cleveland Avenue where there is a bisecting stream with culvert and to reduce the crossing length of the US Army Corps. of Engineer's Flowage Easement associated with Nimishillen Creek. From COG Alt MP 24.0 the route was also relocated to the south of, and parallel to, the existing powerlines to avoid the powerline towers at approximate COG Alt MPs 24.3, 24.5, and 25.7. These adjustments for constructability would require an increase in forest land crossing distance.
11	25.4	26.0	The COG Alt was realigned to the south to avoid an existing residential structure and driveway at approximate COG Alt MP 25.5. The route was also realigned at approximate COG Alt MPs 25.8 to 25.9 to avoid overlapping an existing utility and adjacent pond.
12	26.3	27.8	Route adjustment to avoid overlapping an approximately 400 feet of stream (Bear Run) and culvert at the crossing of Dueber Ave SW. The realignment also avoids direct impact to a miniature golf course, a campground, and existing dam structure. This route adjustment would increase pipeline length and crossing of forest land.
13	29.7	30.3	Route realigned slightly to the southeast to avoid a small building/structure and two small woodlots.
14	30.9	32.5	The COG Alt route was shifted to the south of an existing pipeline to avoid overlapping the existing pipeline, avoid two cross-overs of the existing pipeline and to create an alignment that might facilitate a horizontal directional drill ("HDD") that would likely be needed for the Tuscarawas River crossing. To the west of the river crossing the COG Alt route was adjusted to the south to create a perpendicular crossing of a railroad located at approximate COG Alt MP 32.2 and to avoid an industrialized lot, potentially a meter station, directly adjacent to the existing pipeline. The route adjustment does have some increase to forest impacts.
15	33.2	35.4	The COG Alt route was realigned to avoid multiple landowner structures (COG Alt MPs 33.3, 33.4, and 36.6) and underground mines located between COG Alt MPs 34.6 and 35.0. The realignment will require additional deviation from an existing utility corridor and will increase the route length and forested impacts.

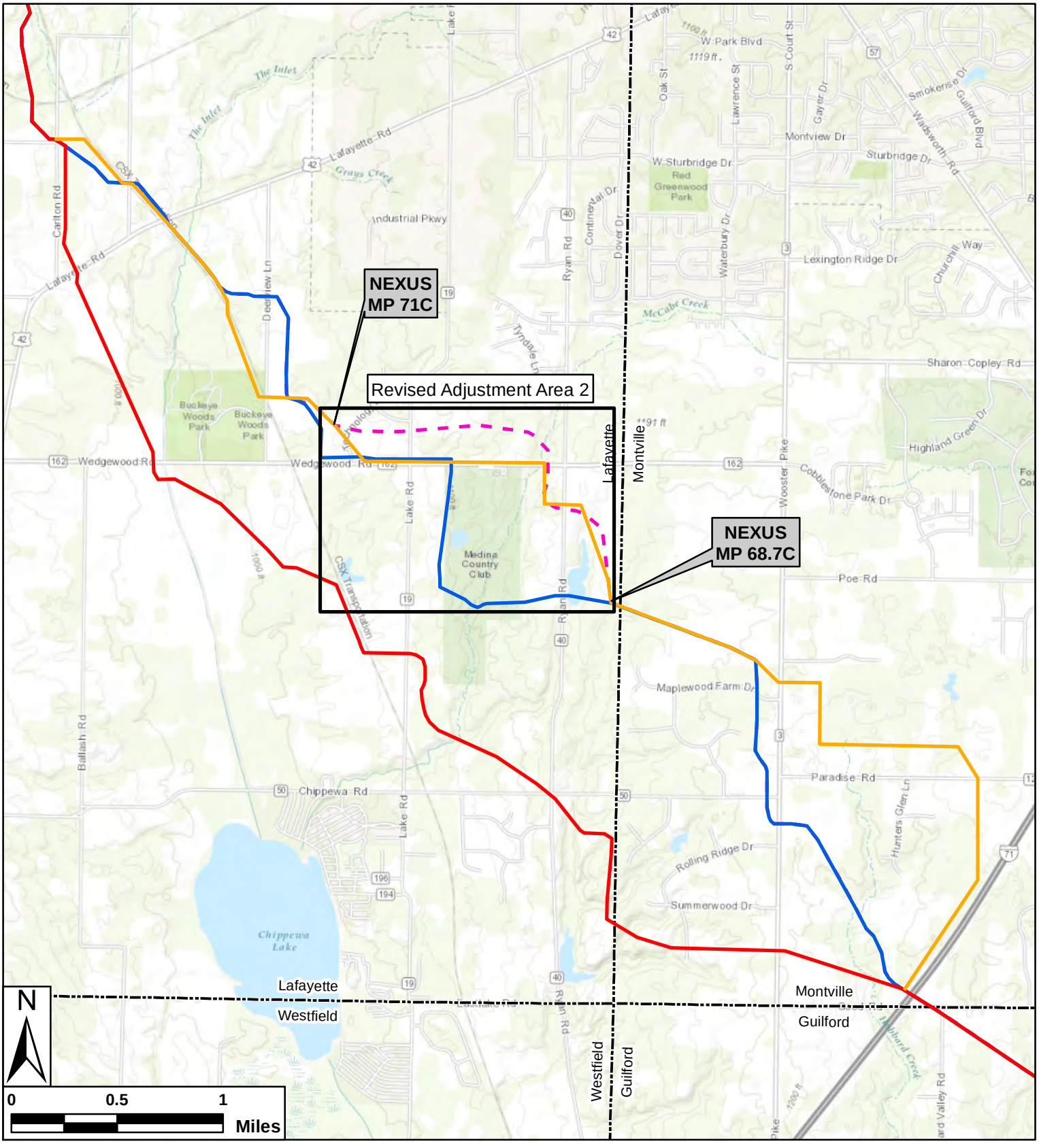
Table 13b-1
Descriptions of City of Green ("COG") Minor Route Modifications
for Impact Avoidance and Minimization

Change ID Number a/	Start COG Alt MP	End COG Alt MP	Summary Description b/
16	36.5	37.4	A minor adjustment to the COG Alt route was required to avoid crossing a pond and direct impacts to multiple residents near COG Alt MPs 37.0 to 37.2. The adjustment increases route length slightly in a residential area.
17	38.3	39.0	Minor realignment required to avoid impact to a residence at approximate COG Alt MP 38.6
18	41.0	42.1	The COG Alt route was shifted to the south approximately 200 feet through an open field to reduce impacts to forested land.
19	42.8	44.7	The COG Alt route was shifted to the south approximately 1,150 feet through existing agricultural fields to the east of Dover Road and by approximately 225 to the west of Dover Road to reduce impacts to forested land.
20	45.2	45.5	The COG Alt route was shifted to the south approximately 300 feet through existing agricultural fields to reduce impacts to forested land.
21	51.4	52.1	A minor realignment was made to avoid a newly constructed structure at approximate COG Alt MP 51.8.
22	52.7	53.6	A realignment of the COG Alt route was required to avoid recently constructed farm structures at approximate CG Alt MP 53.3. The realignment requires shifting the COG Alt to the north approximately 1,000 feet to the north and through forested land, thus resulting in an increase to forest impacts.
23	55.1	55.6	The COG Alt route was shifted to the south approximately 150 feet through existing agricultural field to reduce impacts to forested land and to create a perpendicular crossing of a stream.
24	56.4	57.2	NEXUS adjusted the COG Alt route to create a more perpendicular crossing of Prairie Lane and minimize direct impacts to multiple constructed earthen berms containing several ponded areas along Prairie Lane. However, the route adjustment does not avoid to ponds since the route is bound by Prairie Lane Lake Park directly to the south and west and an active mine to the north.
25	58.1	58.6	The COG Alt route was shifted to the north of Batdorf Road approximately 250 feet through a residential yard to avoid direct impacts to a residential structure to the south at the corner of West Tolbert Rd and Batdorf Road Routing to the south to avoid the residential structure was not possible due to the presence of an existing railroad, oil well and wetlands. The COG Alt was also adjusted south of Batdorf Road to avoid several structures.
26	65.2	66.7	The COG Alt route was shifted to the west to avoid a residential structure at approximate COG Alt MP 65.7 and a small forested section of land at approximate COG Alt MP 66.5.
27	67.1	68.6	The COG Alt route was shifted to the east approximately 450 feet through existing agricultural field to avoid direct impacts to a residence and associated structures.
28	70.2	70.8	The COG Alt route was shifted to the east approximately 200 feet through existing agricultural field to avoid direct impacts to a residence.
29	71.1	72.7	The COG Alt route was shifted slightly to reduce forested impacts along the edge of existing agricultural fields.
30	78.1	79.0	NEXUS realigned the COG Alt route to the east to avoid the expansion of a race track facility located adjacent to the north side of US Route 42. The COG Route was shifted approximately 900 feet to the east to also avoid a business. The realignment increase the route length and forested impacts.
31	79.0	80.1	The COG Alt route was shifted approximately 1,000 feet to the west to avoid direct impact to multiple farm structures and construction directly adjacent to approximately 1,300 feet of Rivers Corner Road. The minor realignment will have a small increase of forested impact and pipeline length.
32	81.7	82.9	The COG Alt route was shifted to the northeast approximately 450 feet through existing agricultural field to reduce forest clearing and impacts to a small farm pond.
33	83.0	85.9	The COG Alt route was shifted to the southwest and west in various locations through existing agricultural fields to reduce impacts to forested land.
34	86.5	87.1	The COG Alt route was shifted to the southwest approximately 1,150 feet through existing agricultural fields to reduce impacts to forested land.
35	96.9	97.5	Route shifted slightly to the west to avoid a parallel crossing of a tributary of the West Branch Black River.
36	97.9	98.3	Route shifted to the northeast approximately 400 feet to reduce forest clearing impacts.
37	101.4	102.8	Route shifted slightly to the west to reduce forest clearing impacts and direct impact to Camden Cemetery.

a/ Change ID numbers correspond to the change ID numbers shown on Figure 13b-1 (*see* Attachment 2 of the NEXUS Response to DEIS Recommendations dated August 26, 2016).
b/ COG Alternative route adjustments and realignments based on review of existing publicly available Geographic Information System data and aerial photography.

Attachment 3 – Response 14a-1

Figure 14a-Rev 1 FERC Recommended Chippewa Lake C Route Variation Adjustments Index Map and Revised Adjustment Area 2 Map





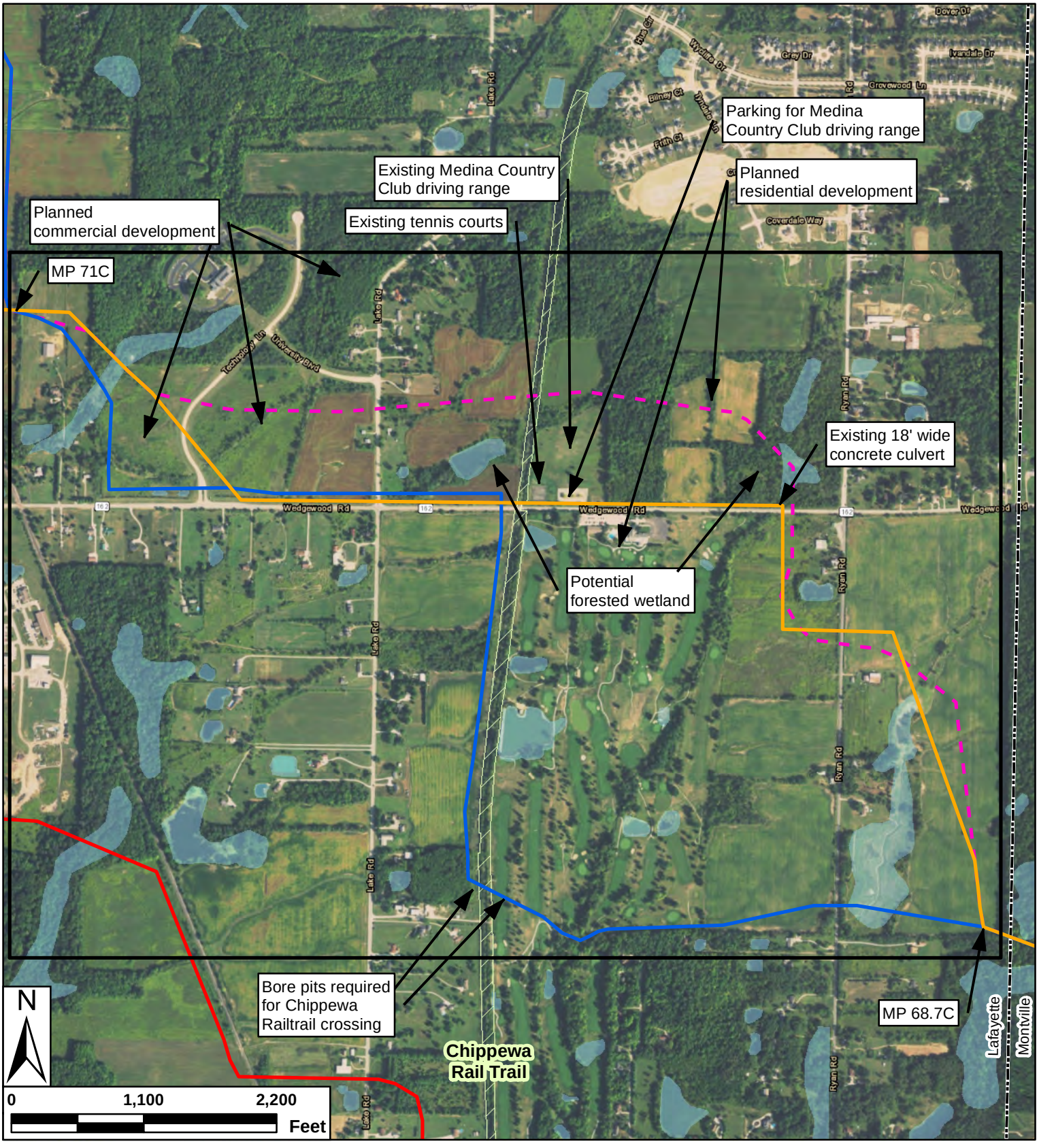
- Revised FERC Chippewa Lake Route C Variation
- FERC Recommended Chippewa Lake Route C Variation
- Previously Filed July 2016 Route Variation
- Proposed NEXUS Mainline Pipeline
- Index Tile
- Township Boundary

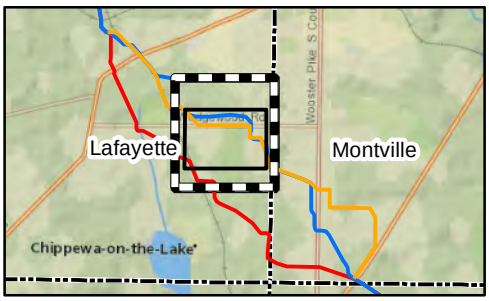
Data Sources: ESRI, SPECTRA, TRC

Figure 14a-1-Rev 1
FERC Recommended Chippewa Lake Route C Variation
Adjustment Area 2 Vicinity Map
Medina County, OH

NEXUS GAS TRANSMISSION

8/22/2016





- Revised FERC Chippewa Lake Route C Variation
- FERC Recommended Chippewa Lake Route C Variation
- Previously Filed July 2016 Route Variation
- Proposed NEXUS Mainline Pipeline
- Index Tile
- NWI Wetland
- Township Boundary

Data Sources: ESRI, SPECTRA, TRC, NWI.

Figure 14a-Rev 1

FERC Recommended Chippewa Lake C Route Variation
Revised Adjustment Area 2

Medina County, OH

NEXUS GAS TRANSMISSION

8/22/2016

Attachment 4 – Response 14a-2

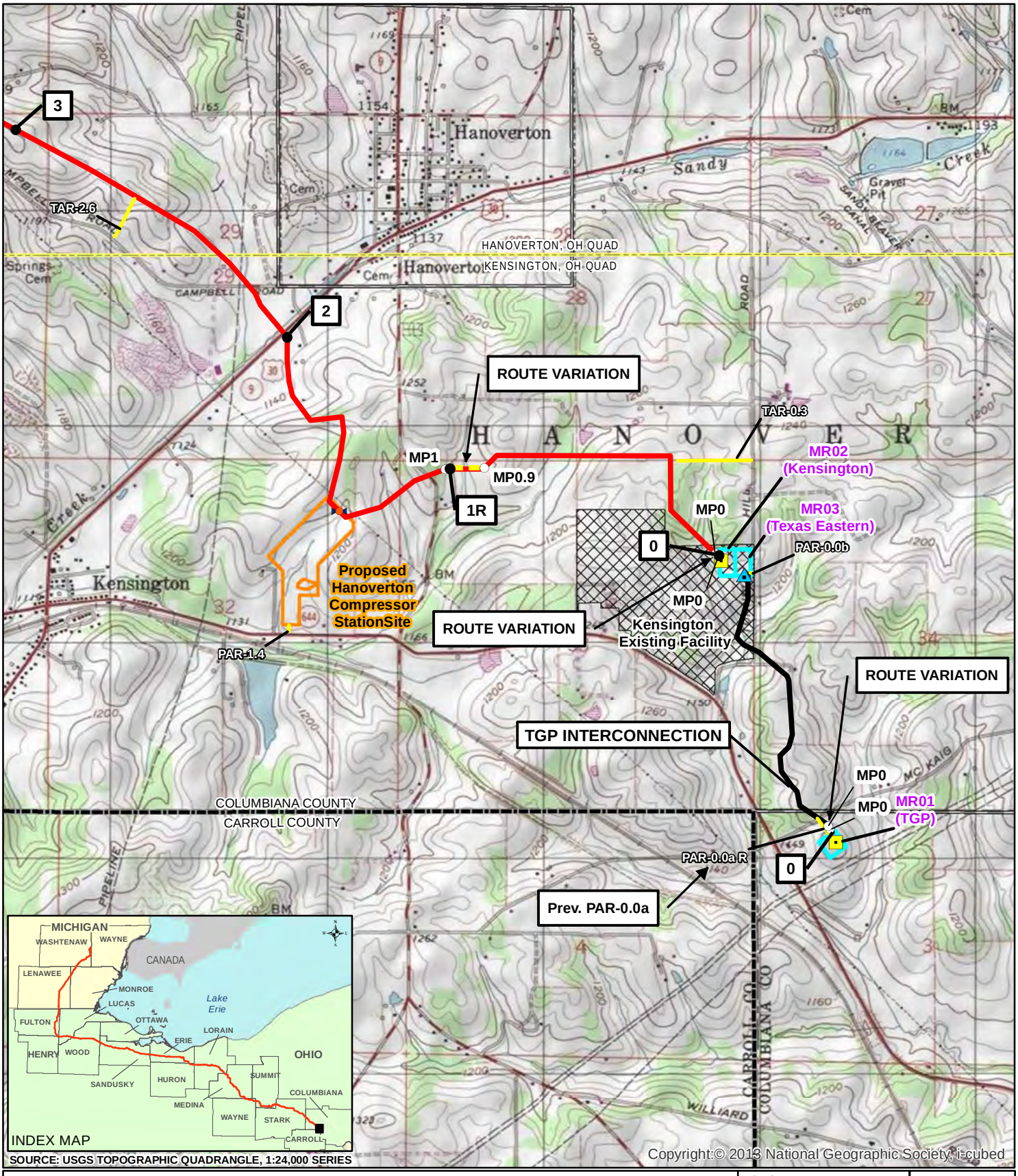
Response 14a-2 Updated NEXUS Gas Transmission Project Mapping

- 8.5" x 11" USGS Quadrangle Maps
- Public Lands Crossing Plans

BOUND SEPARATELY IN
(VOLUME II- PUBLIC UPDATED MAPPING)

- NEXUS Project Alignment Sheets
- National Wetland Inventory Maps
- Full-sized USGS Quadrangle Maps

NEXUS PROJECT USGS QUADRANGLE FIGURE (UPDATED FIGURES ONLY) INDEX
DRAWING NUMBER
FIGURE 1.1.1-1
FIGURE 1.1.1-3
FIGURE 1.1.1-12
FIGURE 1.1.1-13
FIGURE 1.1.1-14
FIGURE 1.1.1-15
FIGURE 1.1.1-18
FIGURE 1.1.1-21
FIGURE 1.1.1-22
FIGURE 1.1.1-23
FIGURE 1.1.1-24
FIGURE 1.1.1-25
FIGURE 1.1.1-27
FIGURE 1.1.1-31
FIGURE 1.1.1-37
FIGURE 1.1.1-49
FIGURE 1.1.1-56
FIGURE 1.1.1-57
FIGURE 1.1.1-58
FIGURE 1.1.1-59
FIGURE 1.1.1-60
FIGURE 1.1.1-62
FIGURE 1.1.1-63
FIGURE 1.1.1-74
FIGURE 1.1.1-80
FIGURE 1.1.1-81



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- 1 MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

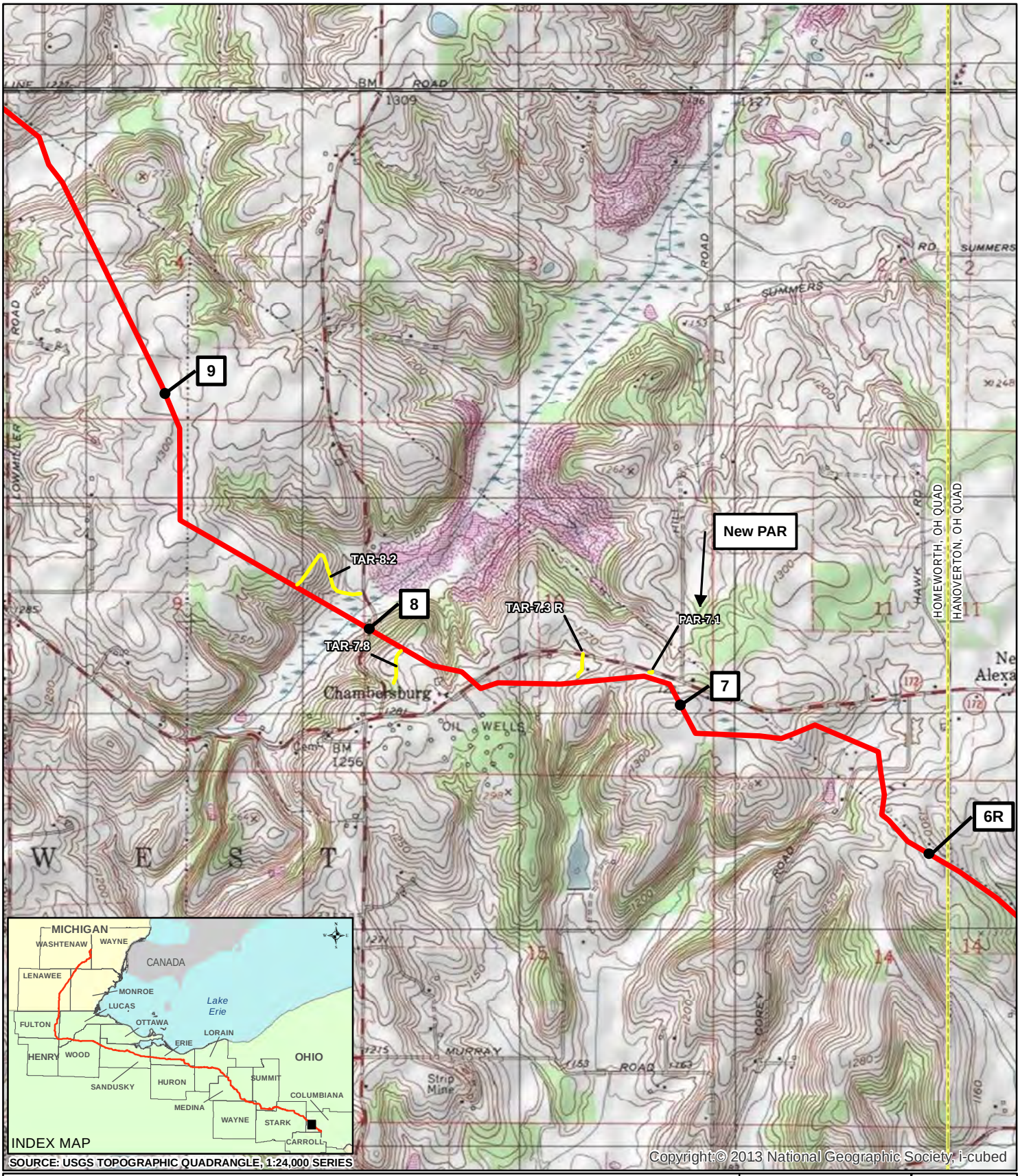
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: CARROLL COUNTY, OH; COLUMBIANA COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-1	MAP 1 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Copyright:© 2013 National Geographic Society, i-cubed

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
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- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
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- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

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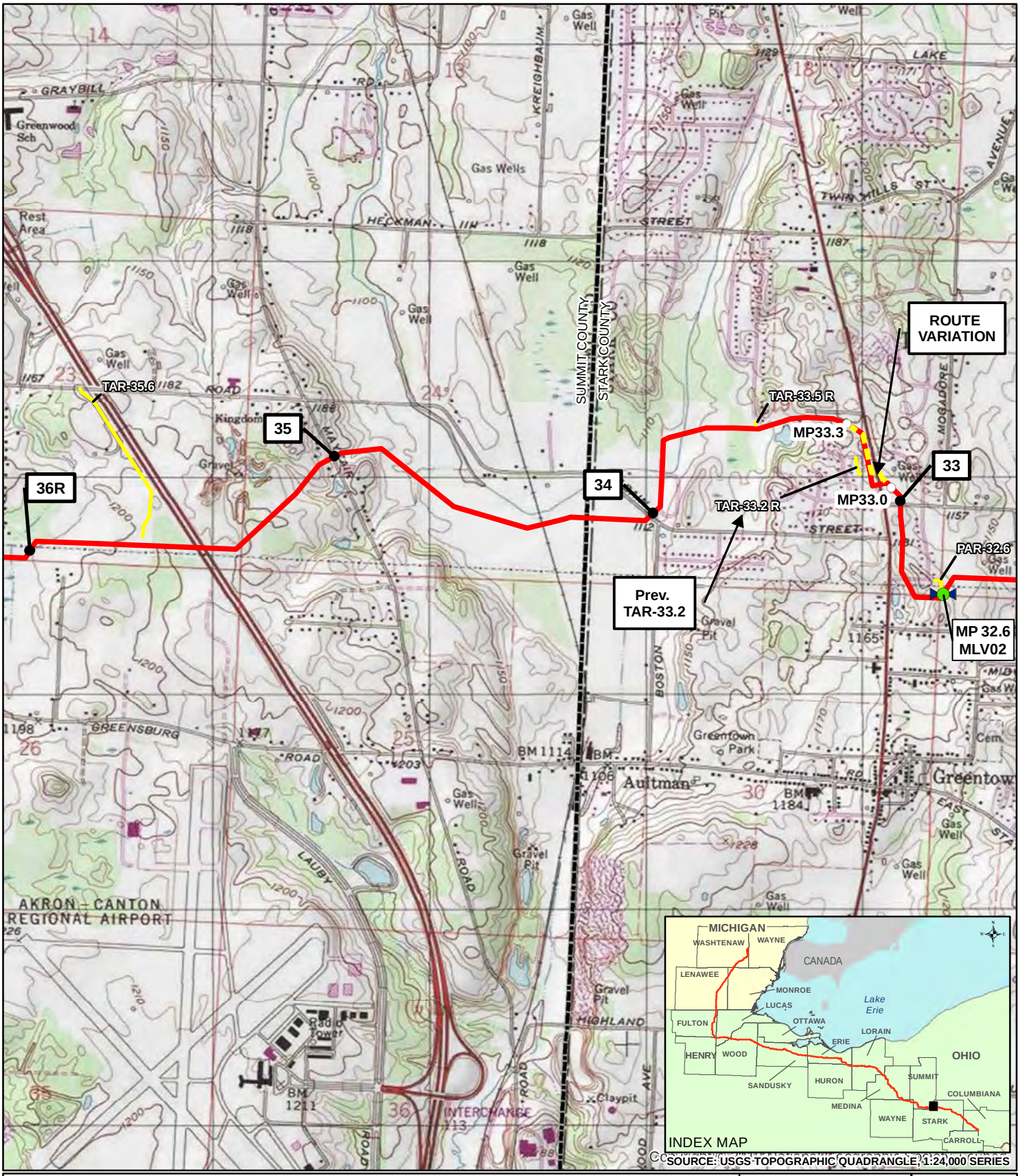
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: COLUMBIANA COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-3	MAP 3 of 81	REV. E

NEXUS GAS TRANSMISSION

I.G.



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

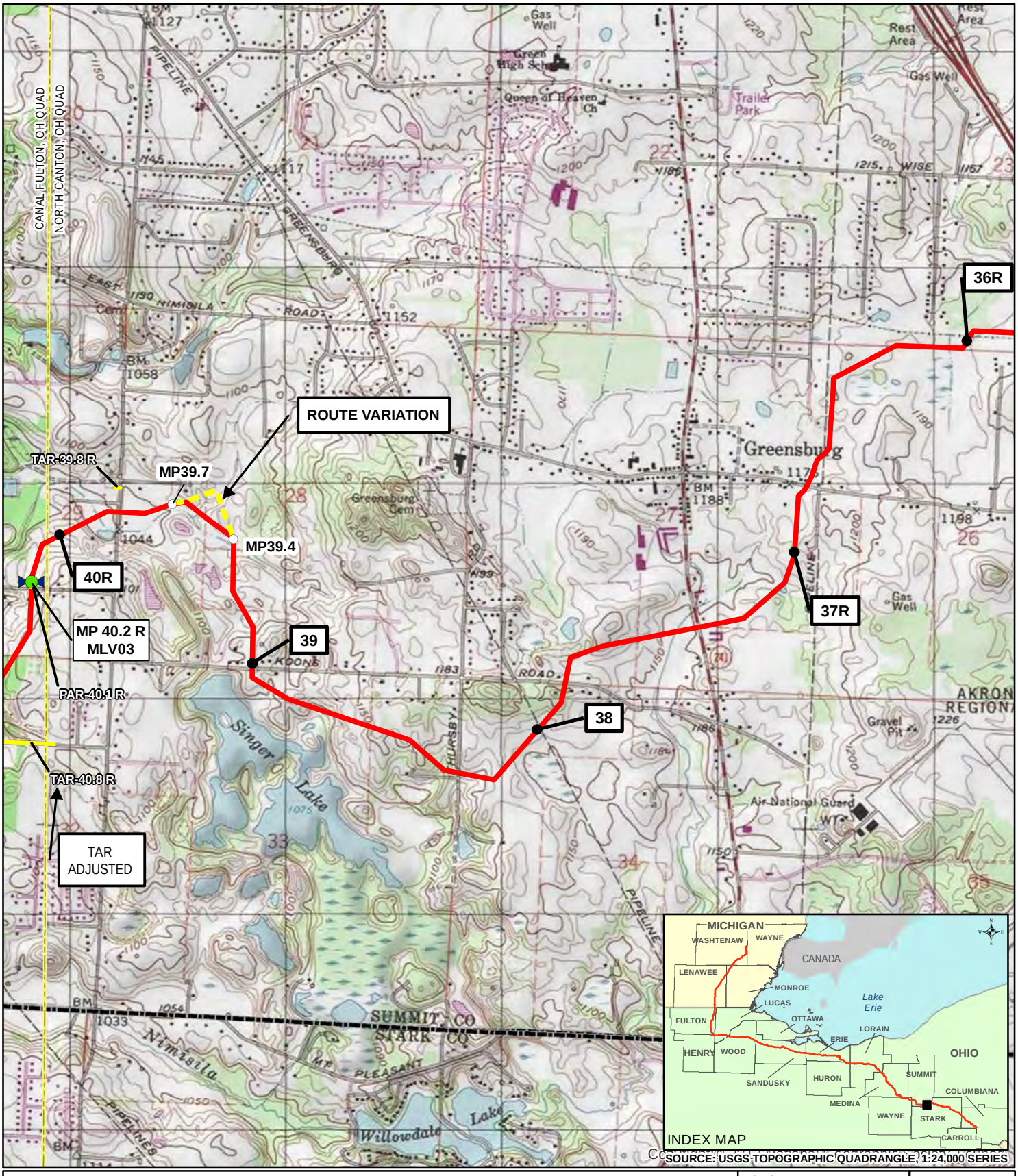
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: STARK COUNTY, OH; SUMMIT COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-12	MAP 12 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

1 MILEPOST
PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
PROPOSED MAINLINE VALVE
PROPOSED TAP
PROPOSED PIPELINE LAUNCHER
PROPOSED PIPELINE RECEIVER
PROPOSED ACCESS ROADS
PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
PROPOSED MAINLINE PIPELINE
PROPOSED INTERCONNECTING PIPELINE
PROPOSED METERING & REGULATION STATION (M&R)
PROPOSED COMPRESSOR STATION SITE
PROPOSED WARE YARD
EXISTING FACILITY
USGS QUADRANGLE BOUNDARY
COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

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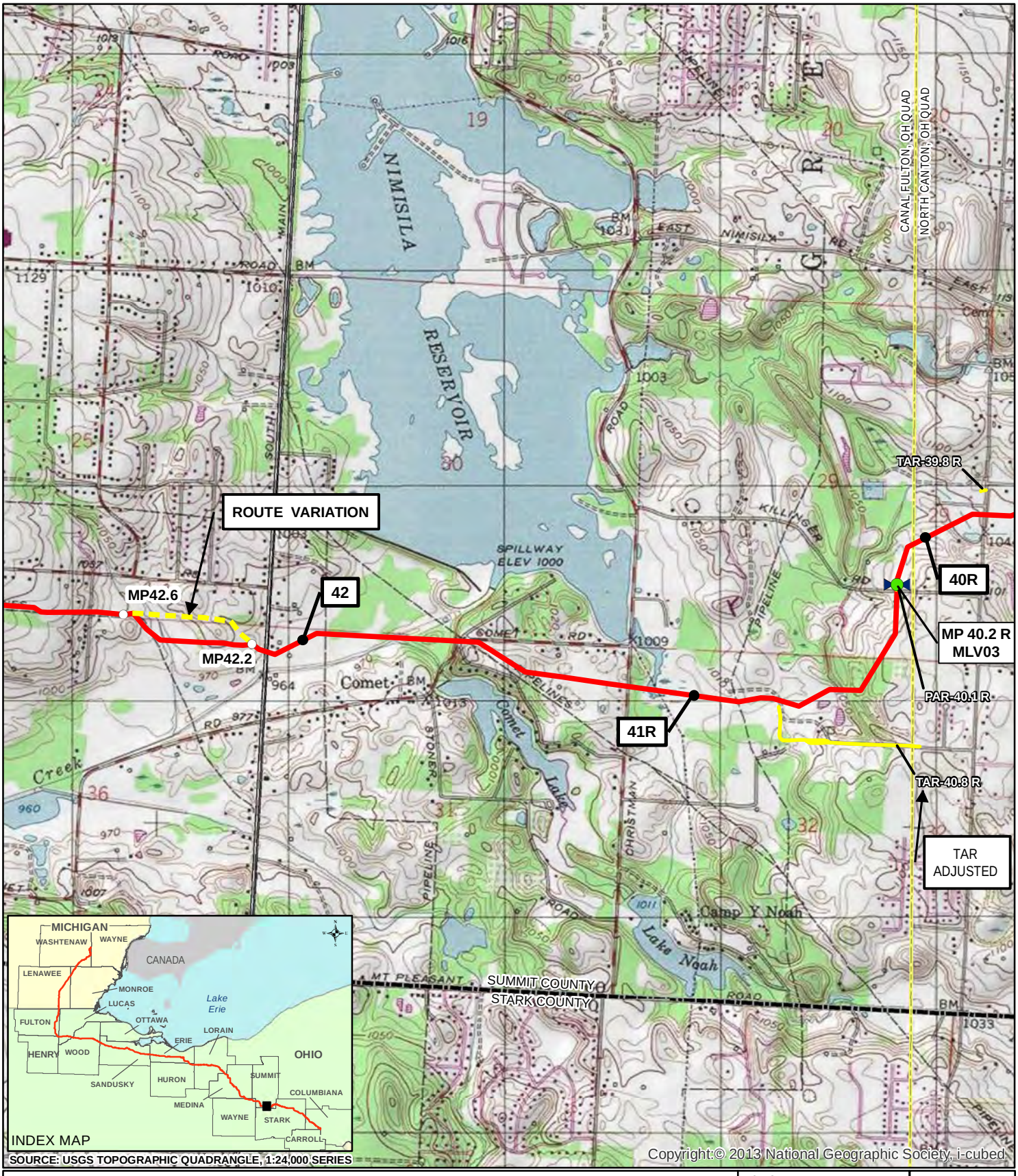
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: SUMMIT COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-13	MAP 13 of 81	REV. E

I.G.

NEXUS SM
GAS TRANSMISSION



Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

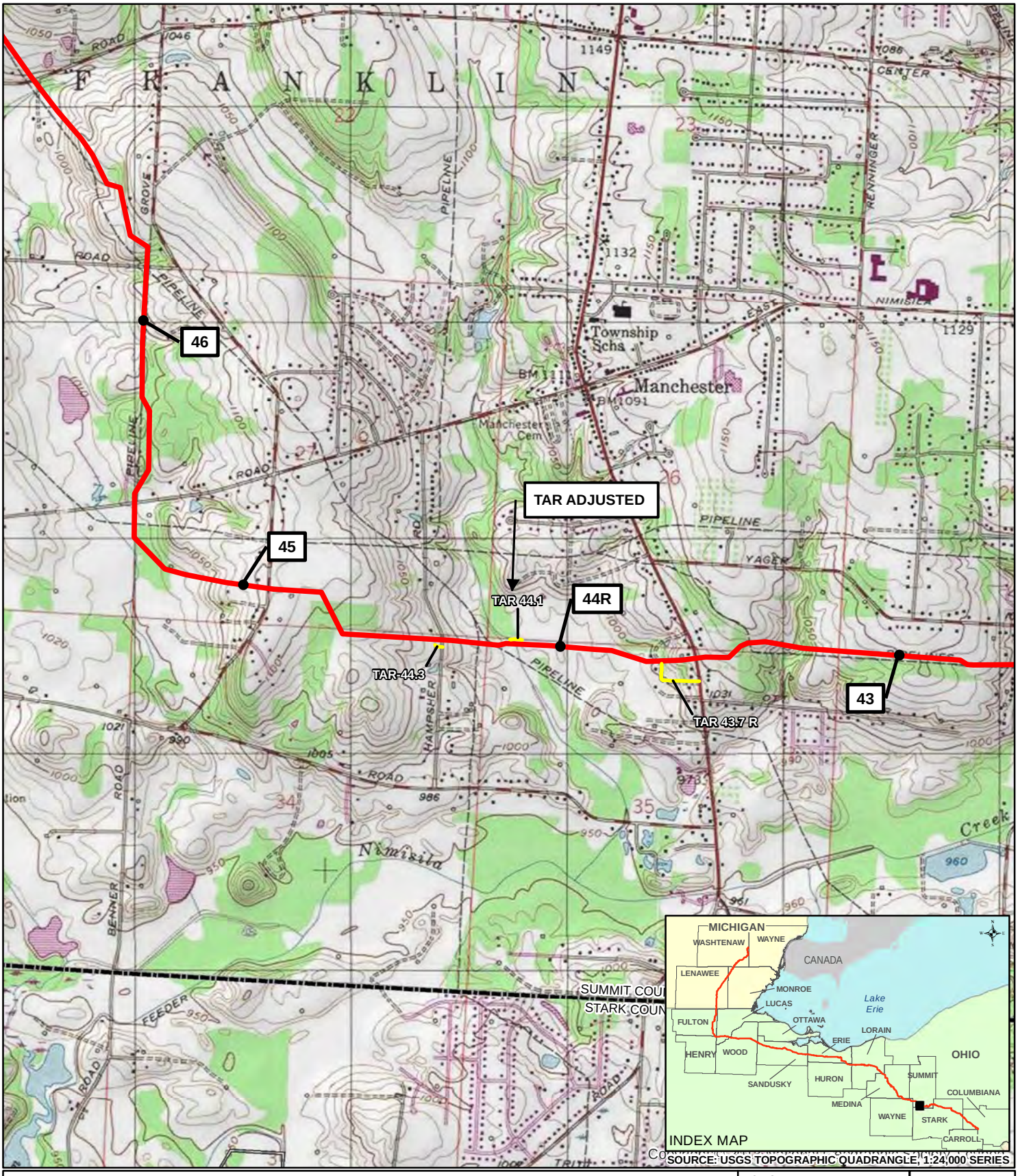
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: SUMMIT COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-14	MAP 14 of 81	REV. E

NEXUS GAS TRANSMISSION

I.G.



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: SUMMIT COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-15	MAP 15 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

1 MILEPOST
PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
PROPOSED MAINLINE VALVE
PROPOSED TAP
PROPOSED PIPELINE LAUNCHER
PROPOSED PIPELINE RECEIVER
PROPOSED ACCESS ROADS
PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
PROPOSED MAINLINE PIPELINE
PROPOSED INTERCONNECTING PIPELINE
PROPOSED METERING & REGULATION STATION (M&R)
PROPOSED COMPRESSOR STATION SITE
PROPOSED WARE YARD
EXISTING FACILITY
USGS QUADRANGLE BOUNDARY
COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: WAYNE COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-18	MAP 18 of 81	REV. E

I.G.

NEXUS SM GAS TRANSMISSION



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SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPRESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

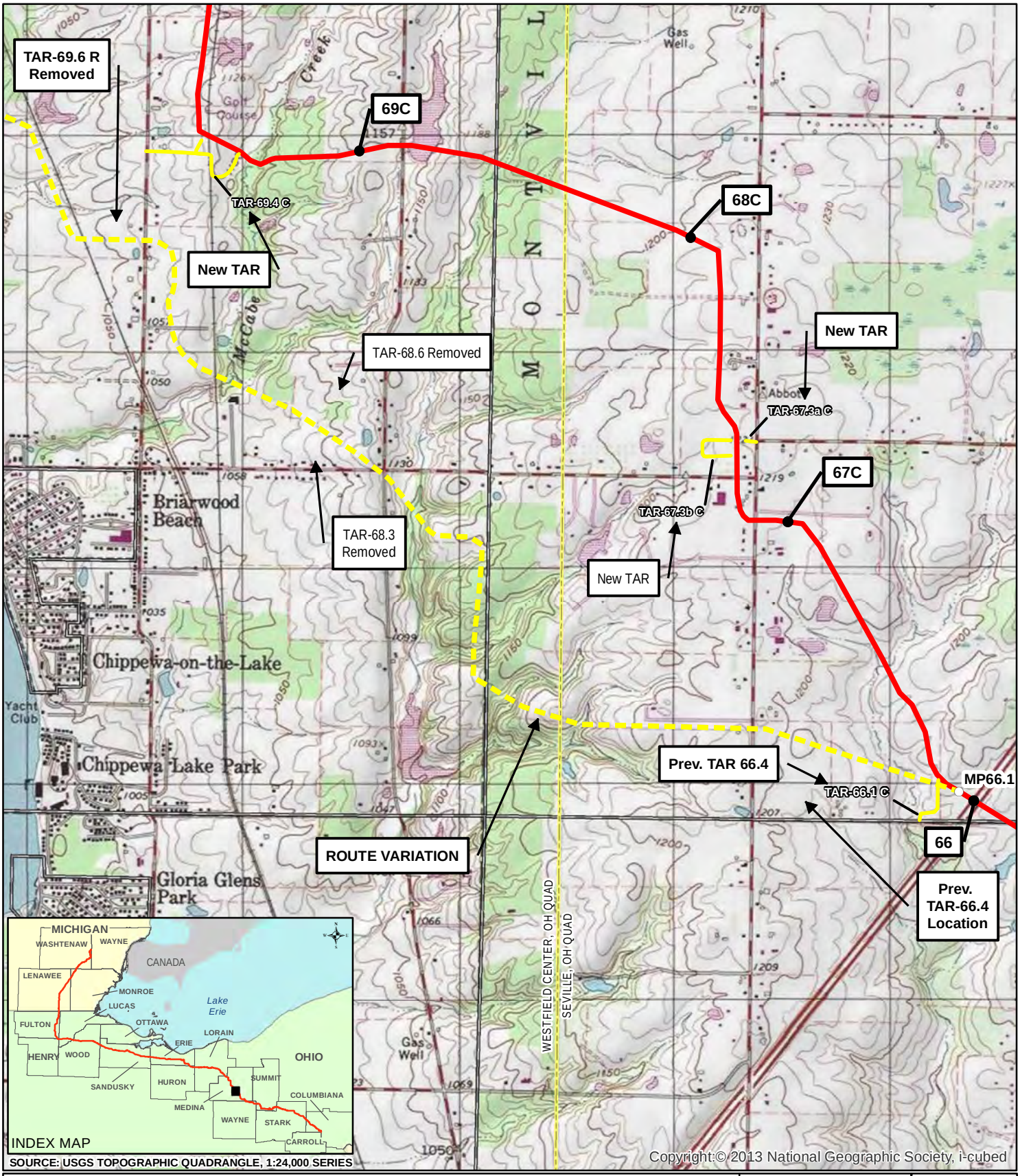
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: MEDINA COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-21	MAP 21 of 81	REV. E

I.G.

NEXUS SM GAS TRANSMISSION



MILEPOST
PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
PROPOSED MAINLINE VALVE
PROPOSED TAP
PROPOSED PIPELINE LAUNCHER
PROPOSED PIPELINE RECEIVER
PROPOSED ACCESS ROADS
PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
PROPOSED MAINLINE PIPELINE
PROPOSED INTERCONNECTING PIPELINE
PROPOSED METERING & REGULATION STATION (M&R)
PROPOSED COMPRESSOR STATION SITE
PROPOSED WARE YARD
EXISTING FACILITY
USGS QUADRANGLE BOUNDARY
COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

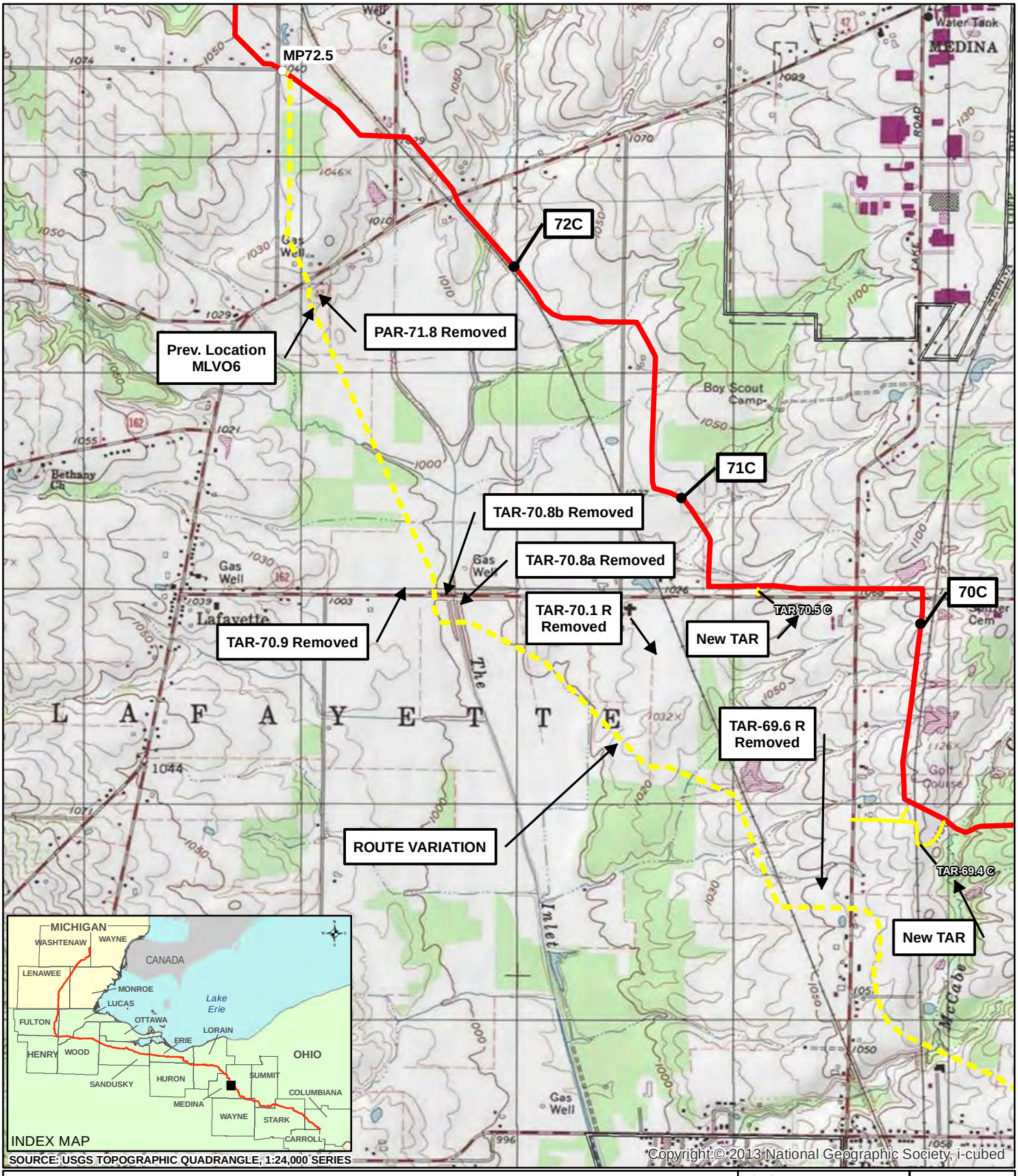
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: MEDINA COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-22	MAP 22 of 81	REV. E

NEXUS GAS TRANSMISSION

I.G.



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Copyright © 2013 National Geographic Society, i-cubed

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPRESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

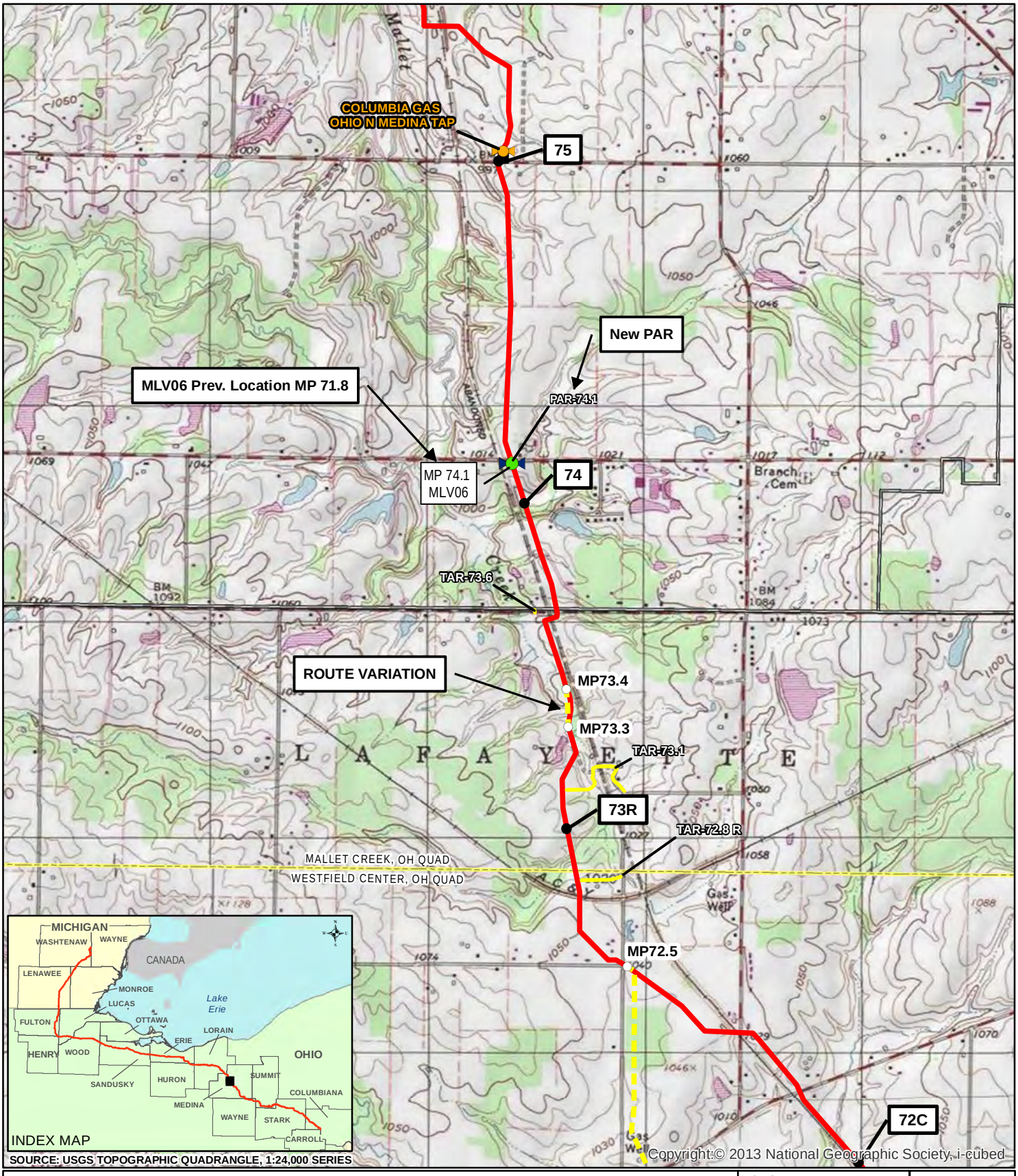
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: MEDINA COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-23	MAP 23 of 81	REV. E

NEXUS GAS TRANSMISSION

I.G.



Copyright:© 2013 National Geographic Society, i-cubed

SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPRESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

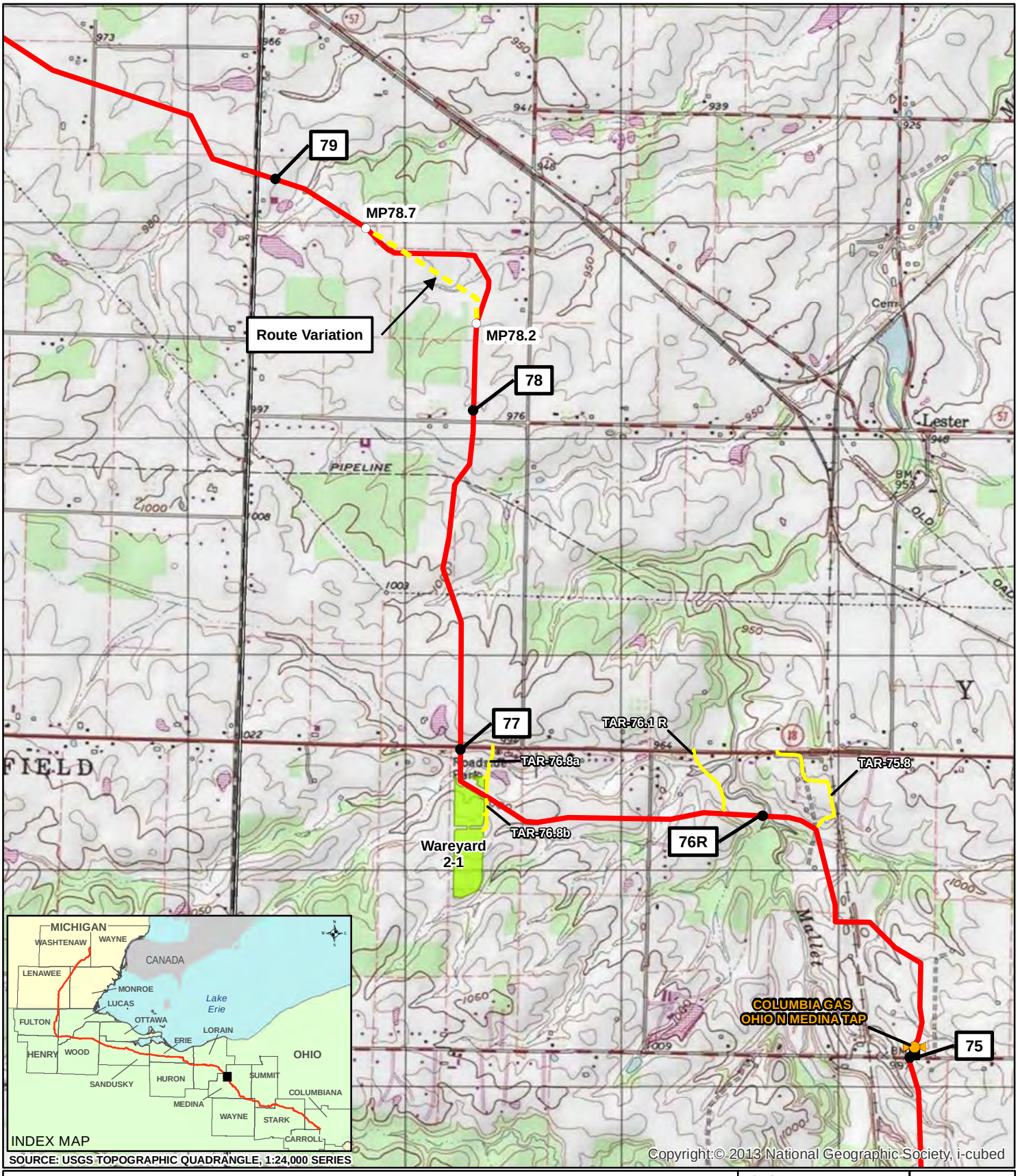
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: MEDINA COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-24	MAP 24 of 81	REV. E

NEXUS GAS TRANSMISSION

I.G.



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Copyright:© 2013 National Geographic Society, i-cubed

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPRESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

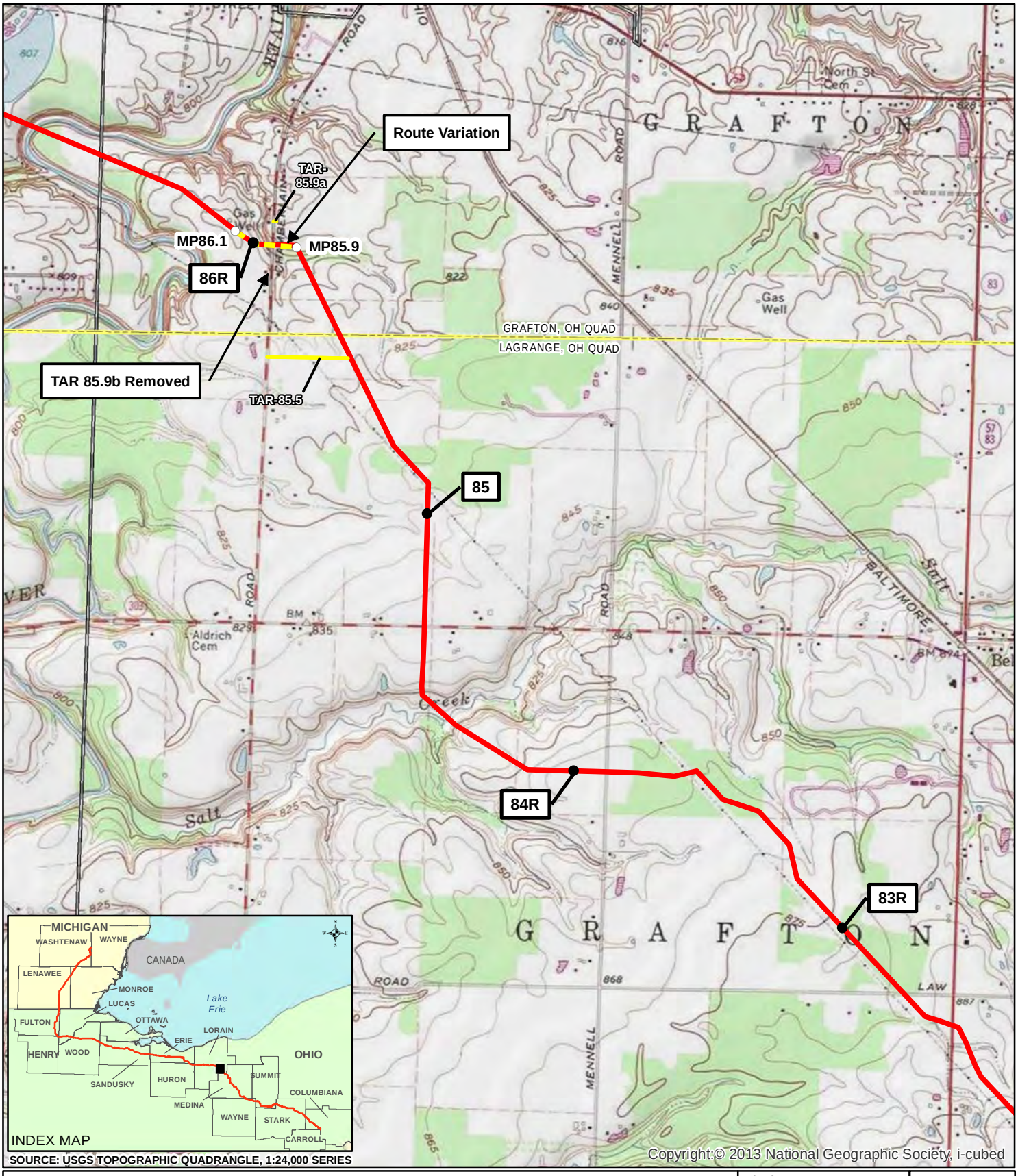
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: MEDINA COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-25	MAP 25 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Copyright:© 2013 National Geographic Society, i-cubed

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

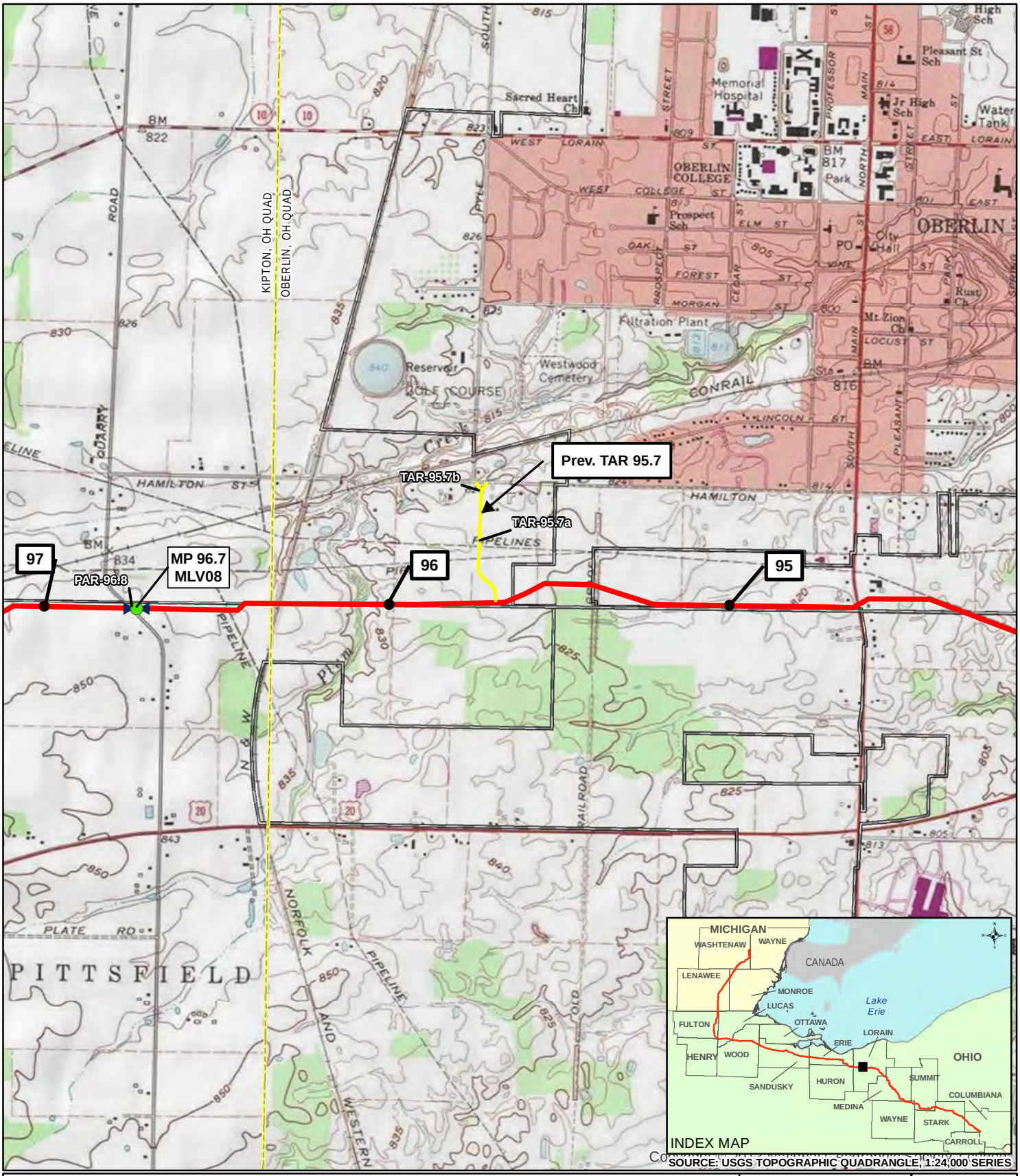
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: LORAIN COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-27	MAP 27 of 81	REV. E

I.G.

NEXUS SM GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

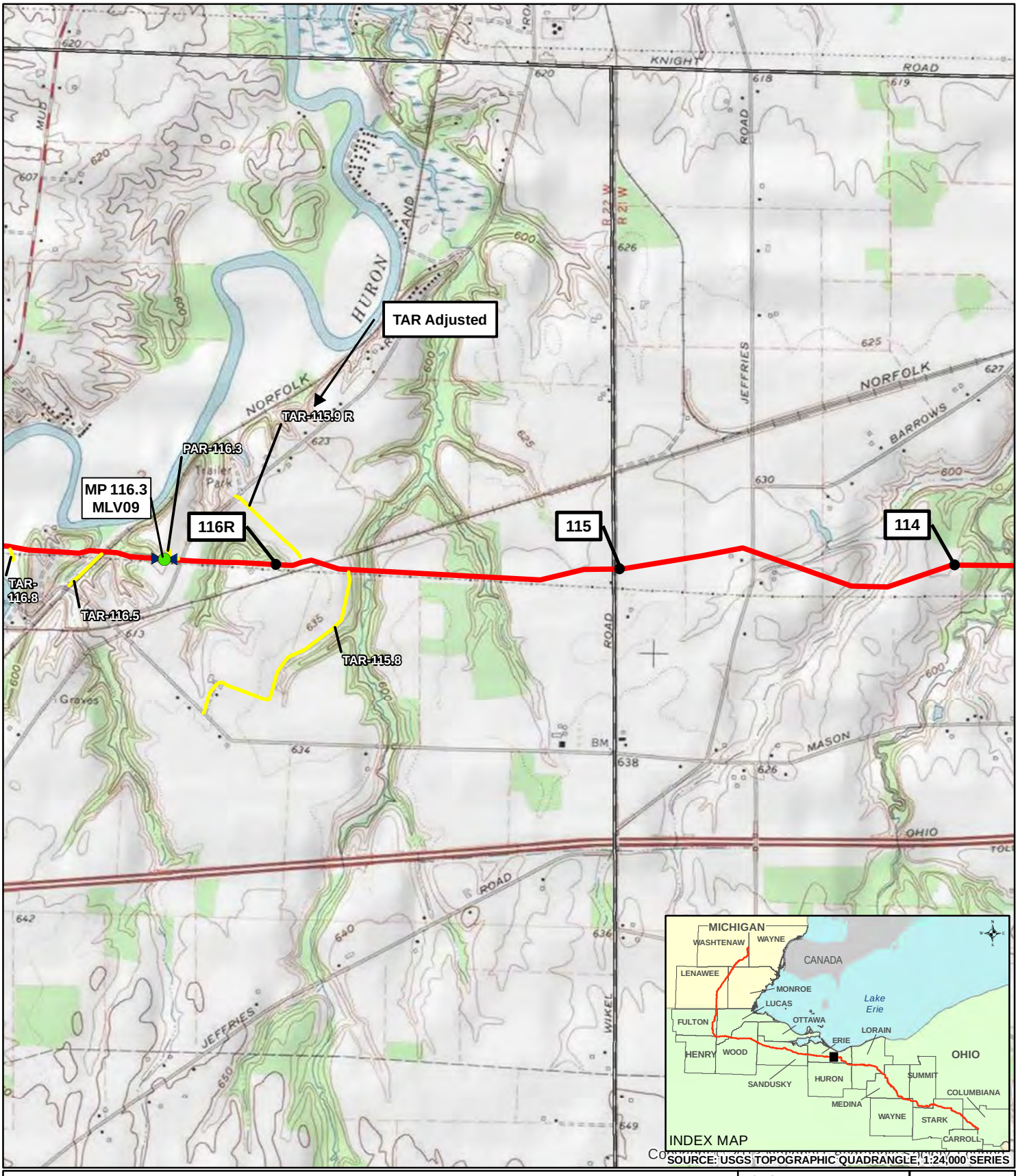
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: LORAIN COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-31	MAP 31 of 81	REV. E

I.G.

NEXUS SM GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

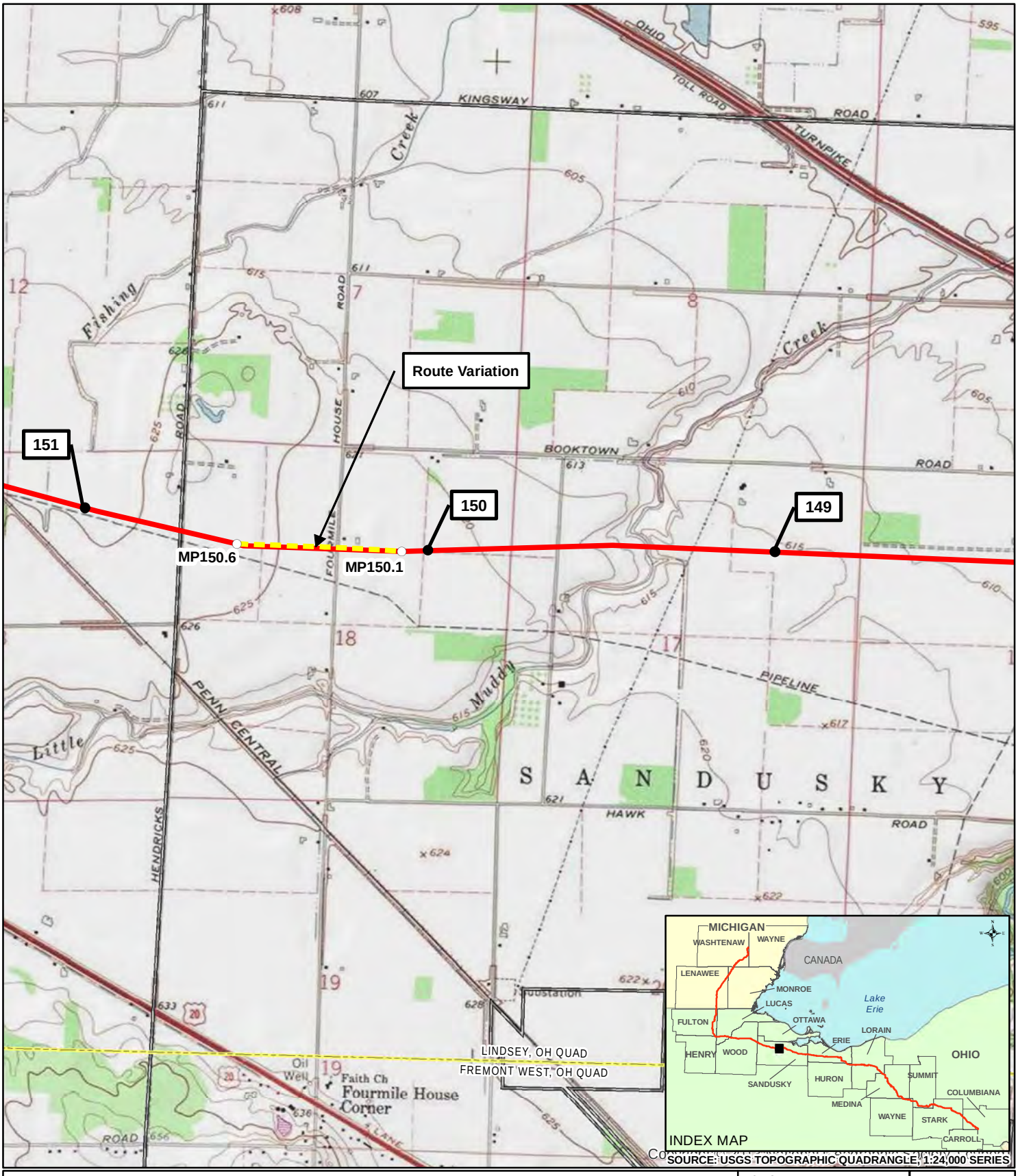
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: ERIE COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-37	MAP 37 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

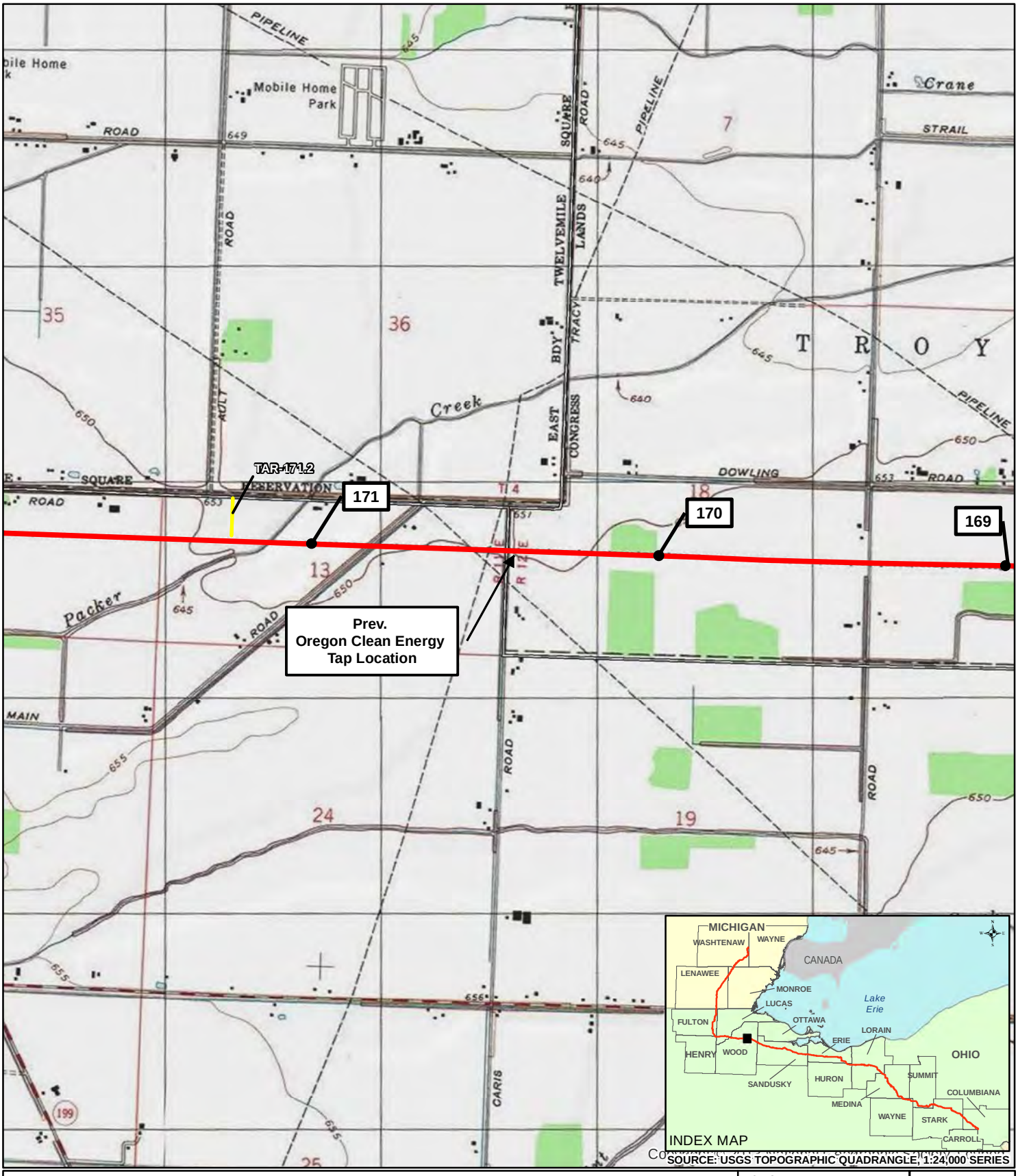
TITLE:
NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: SANDUSKY COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-49	MAP 49 of 81	REV. E

I.G.

NEXUS SM
GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

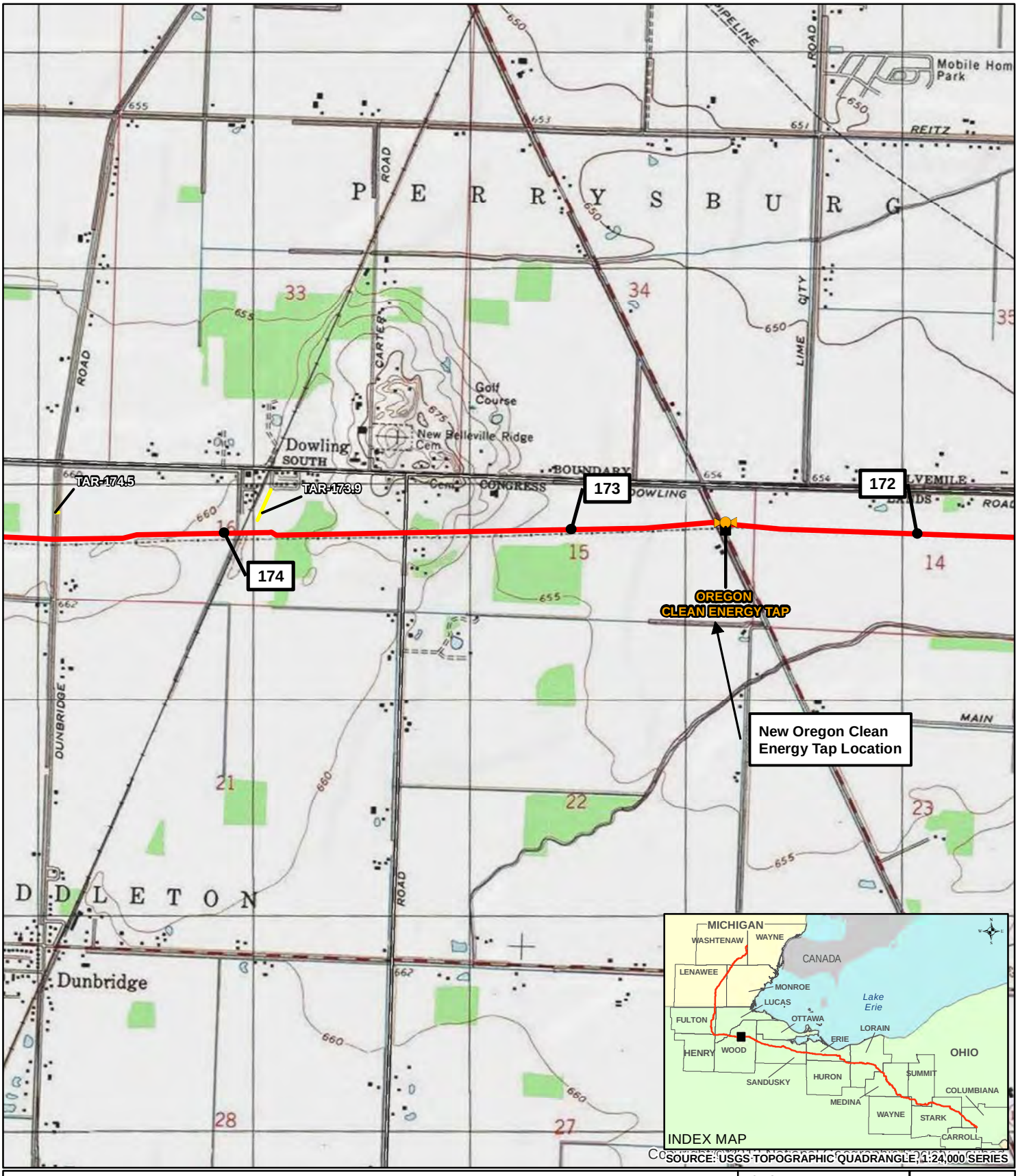
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: WOOD COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-56	MAP 56 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

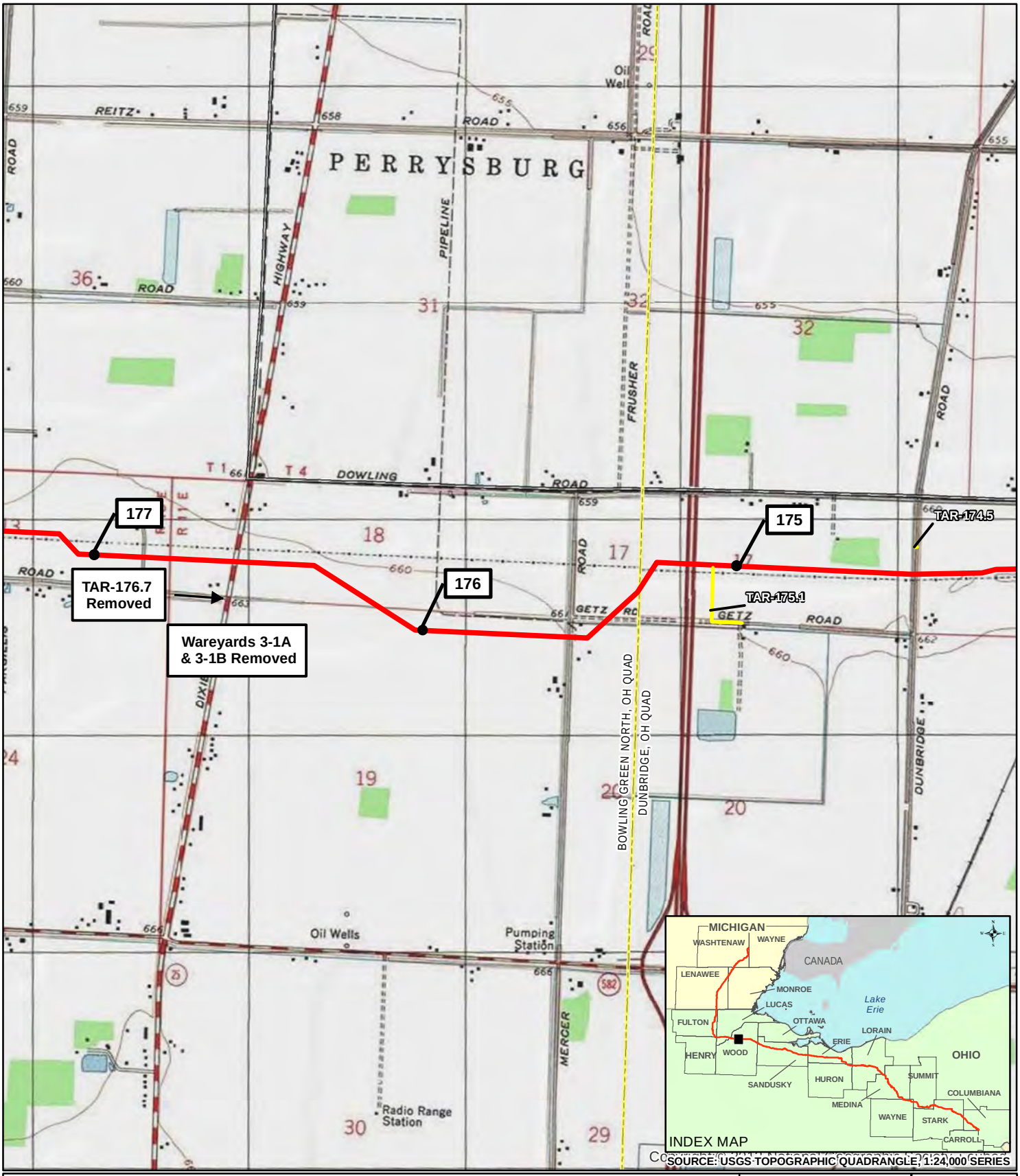
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: WOOD COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-57	MAP 57 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

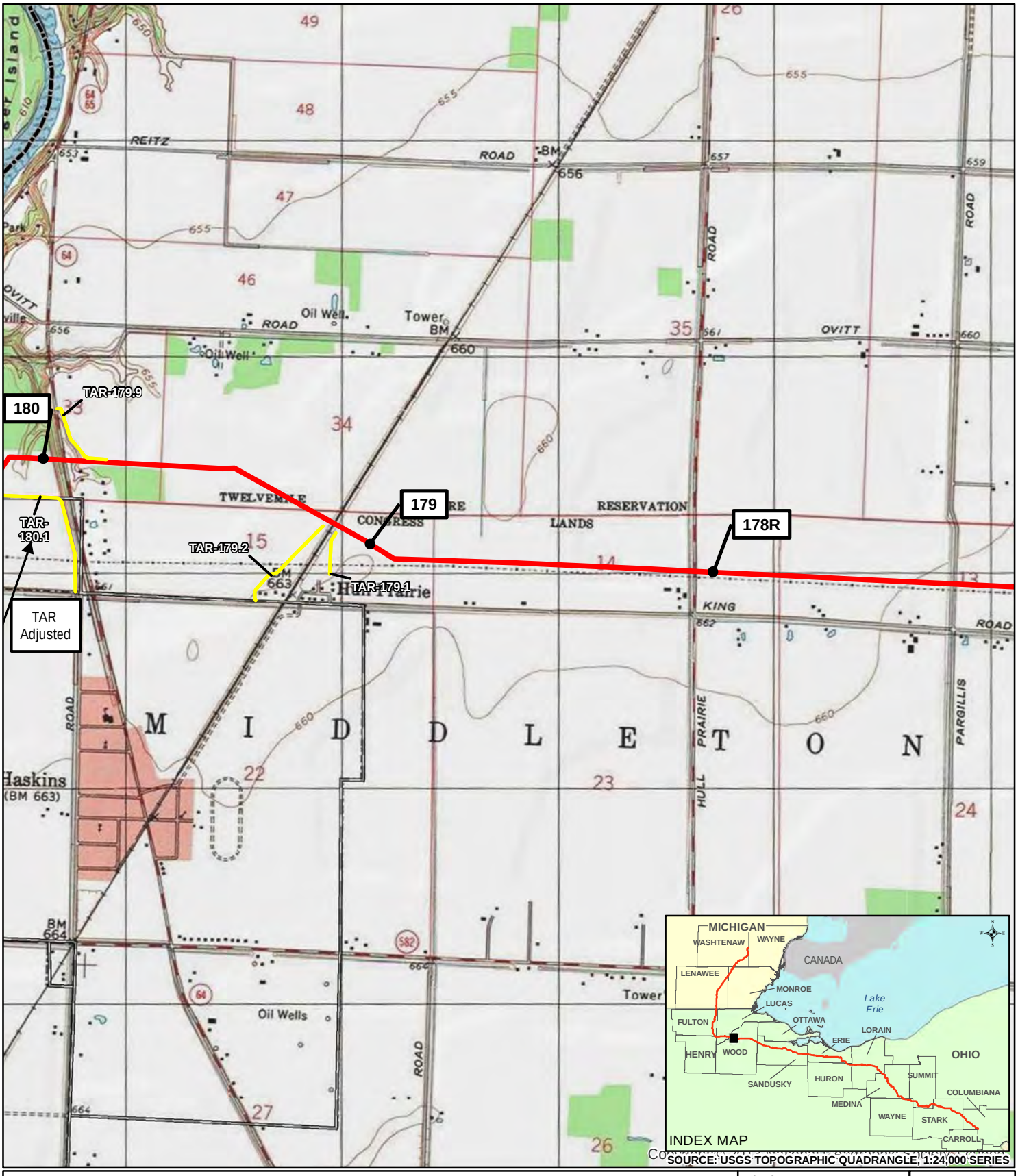
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: WOOD COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-58	MAP 58 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

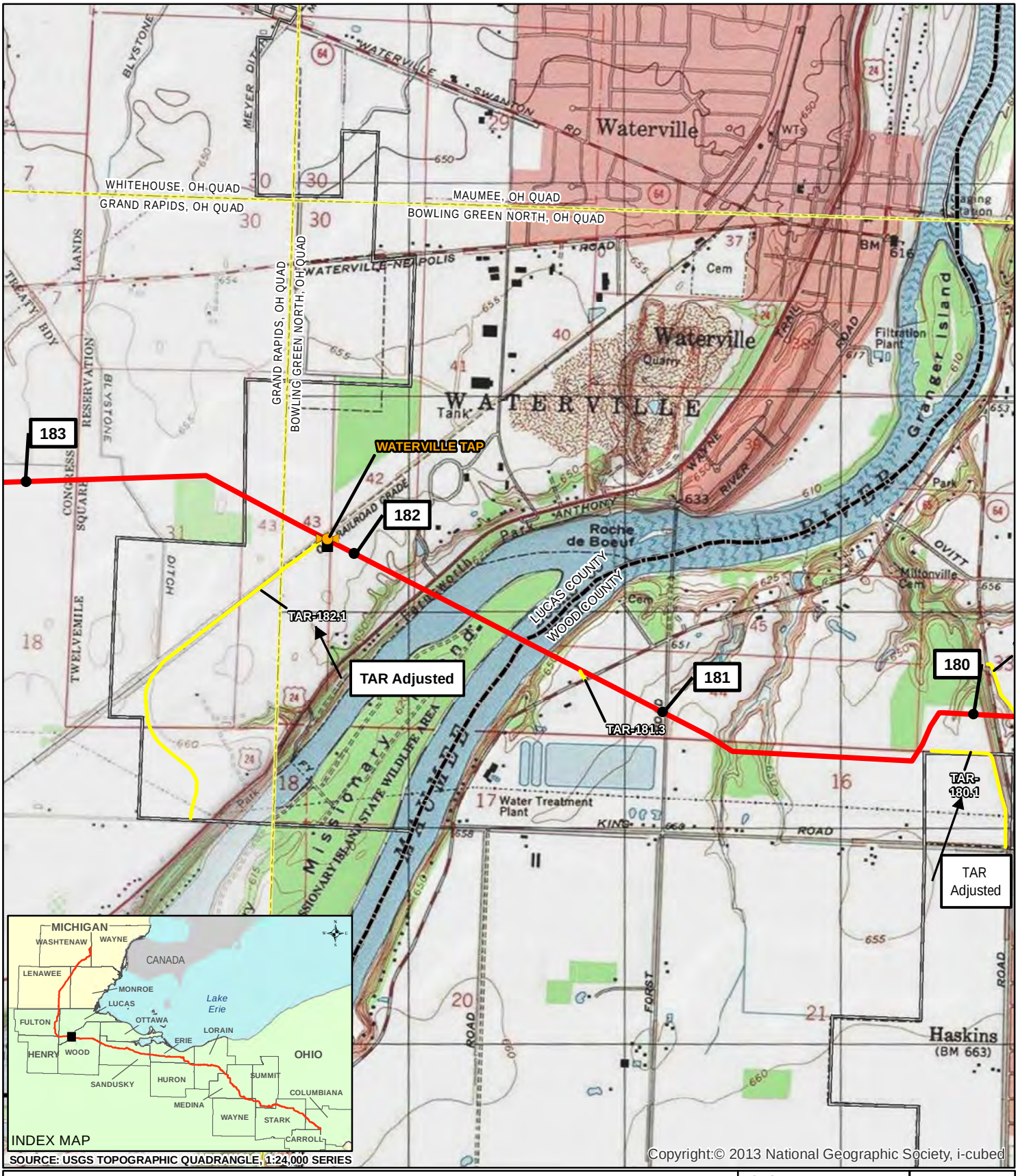
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: WOOD COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-59	MAP 59 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



Copyright:© 2013 National Geographic Society, i-cubed

SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPRESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

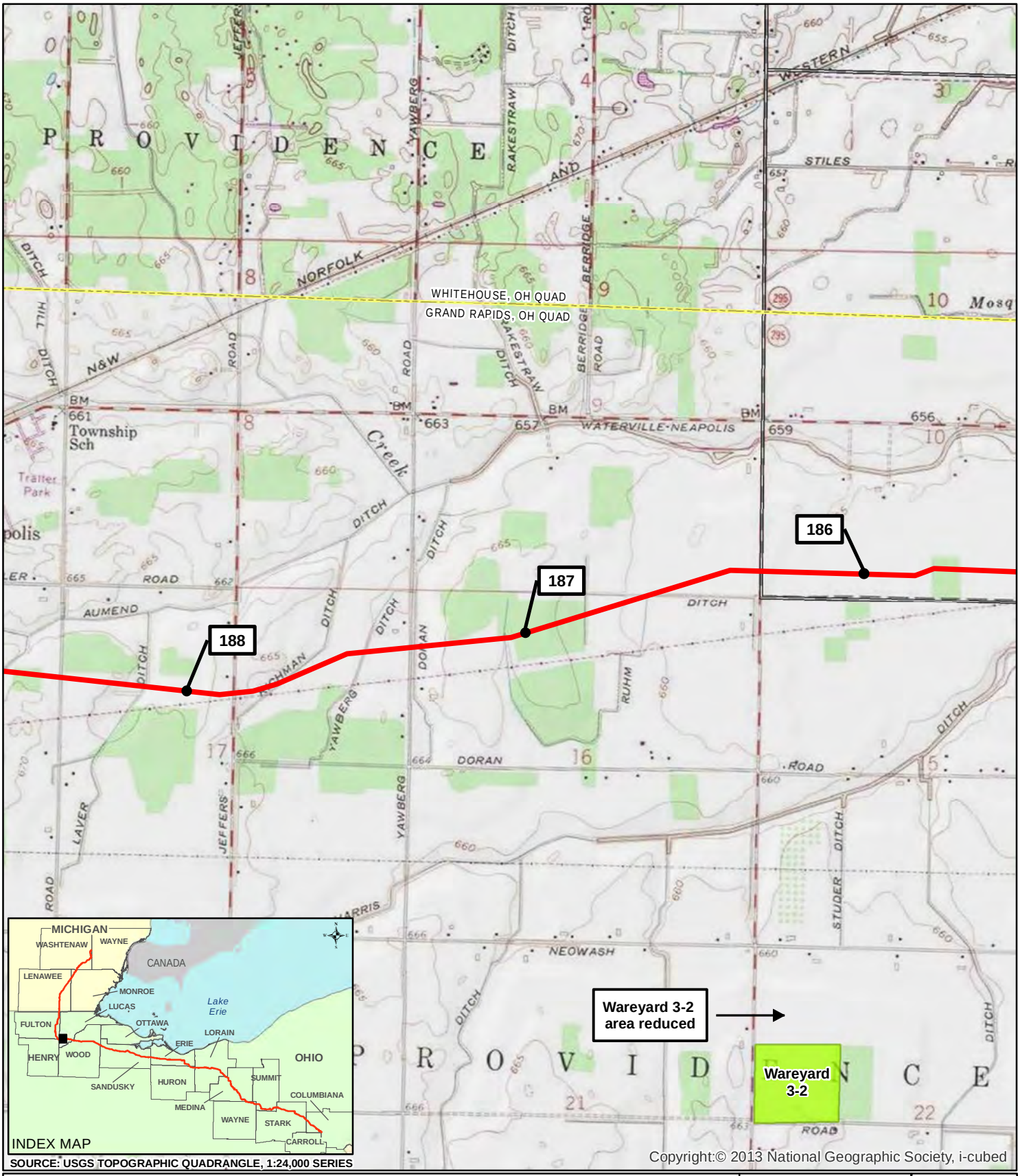
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: WOOD COUNTY, OH; LUCAS COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-60	MAP 60 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Copyright:© 2013 National Geographic Society, i-cubed

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

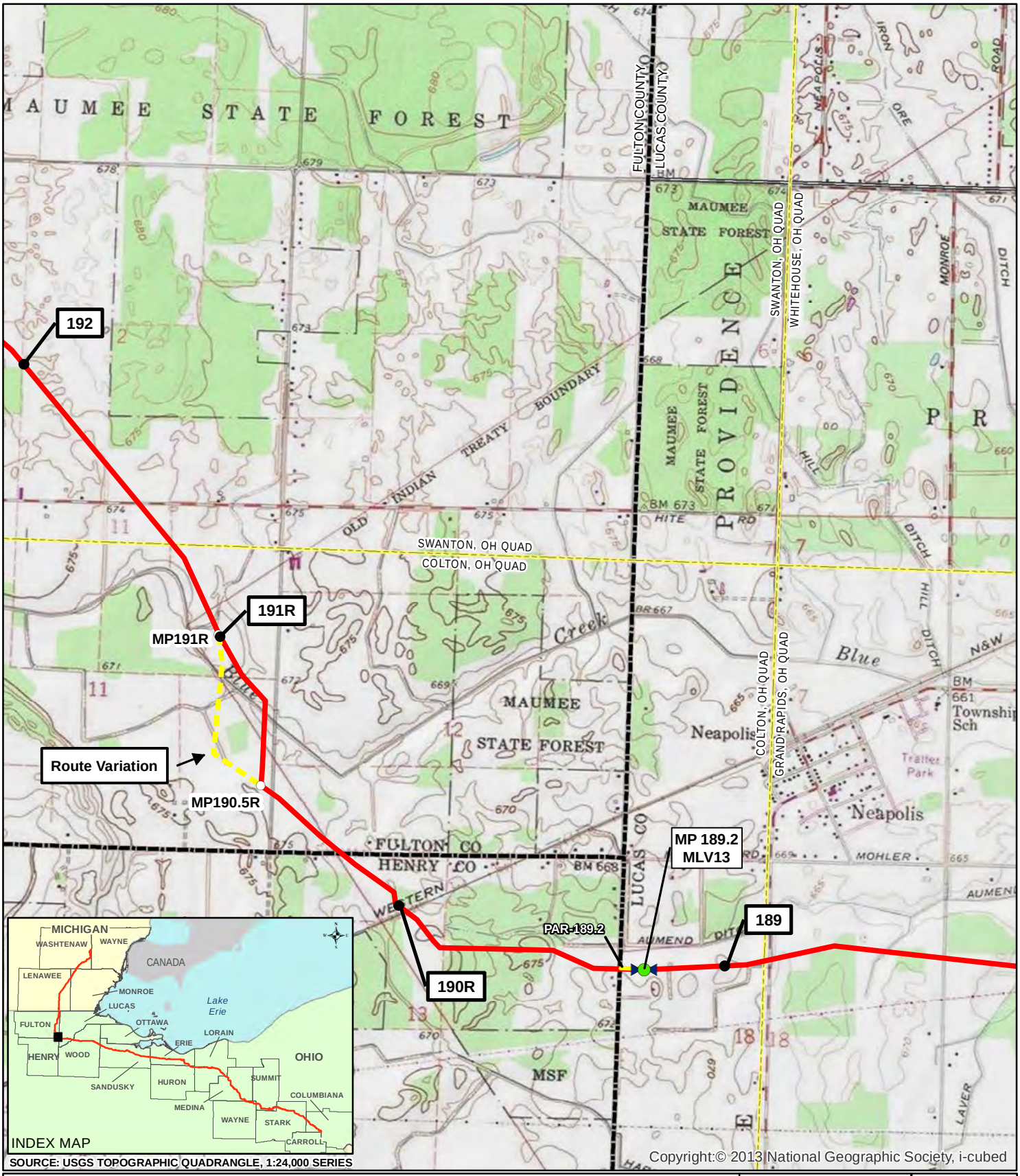
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: LUCAS COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-62	MAP 62 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Copyright:© 2013 National Geographic Society, i-cubed

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPRESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

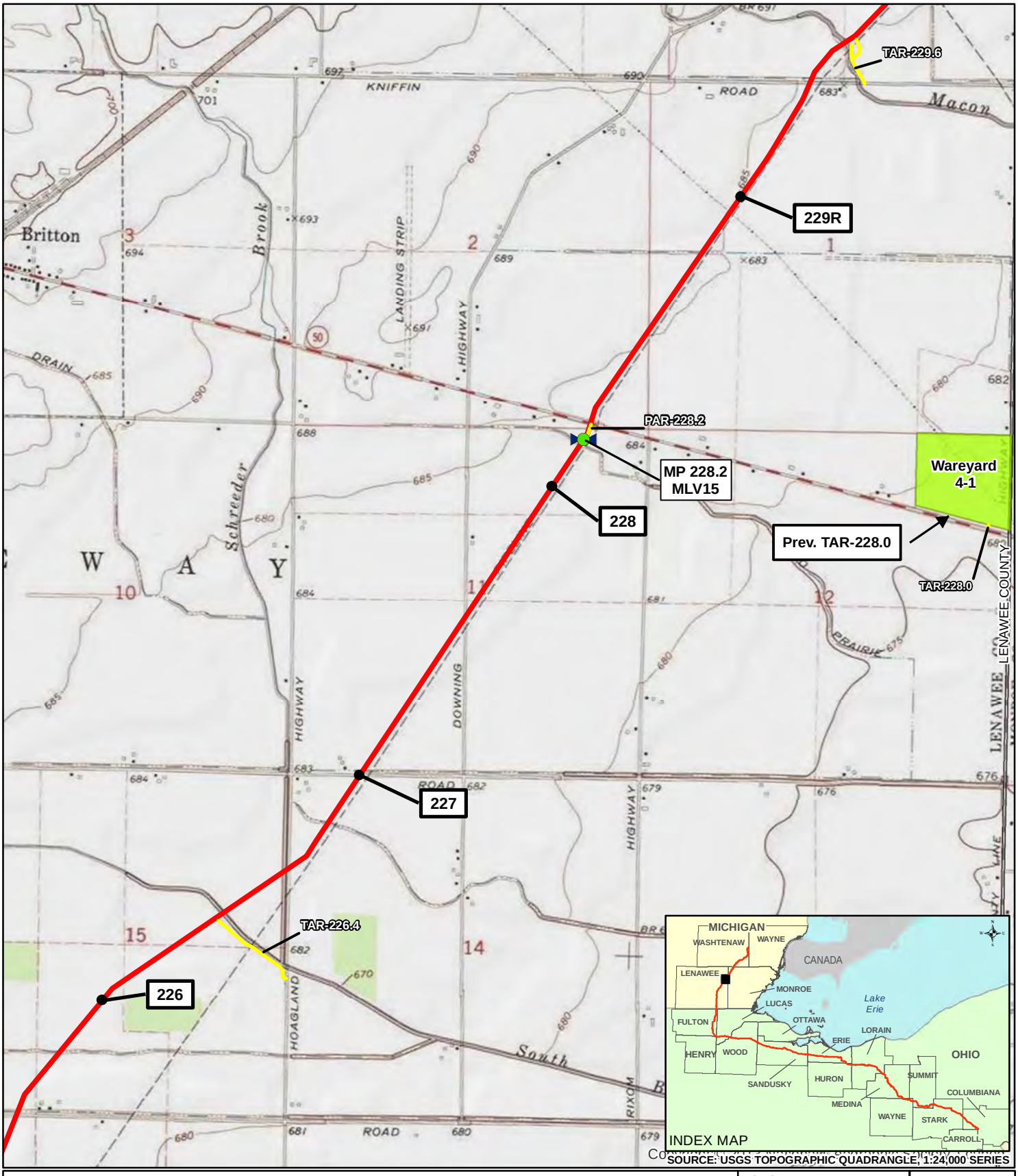
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: LUCAS COUNTY, OH; FULTON COUNTY, OH, HENRY COUNTY, OH

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-63	MAP 63 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

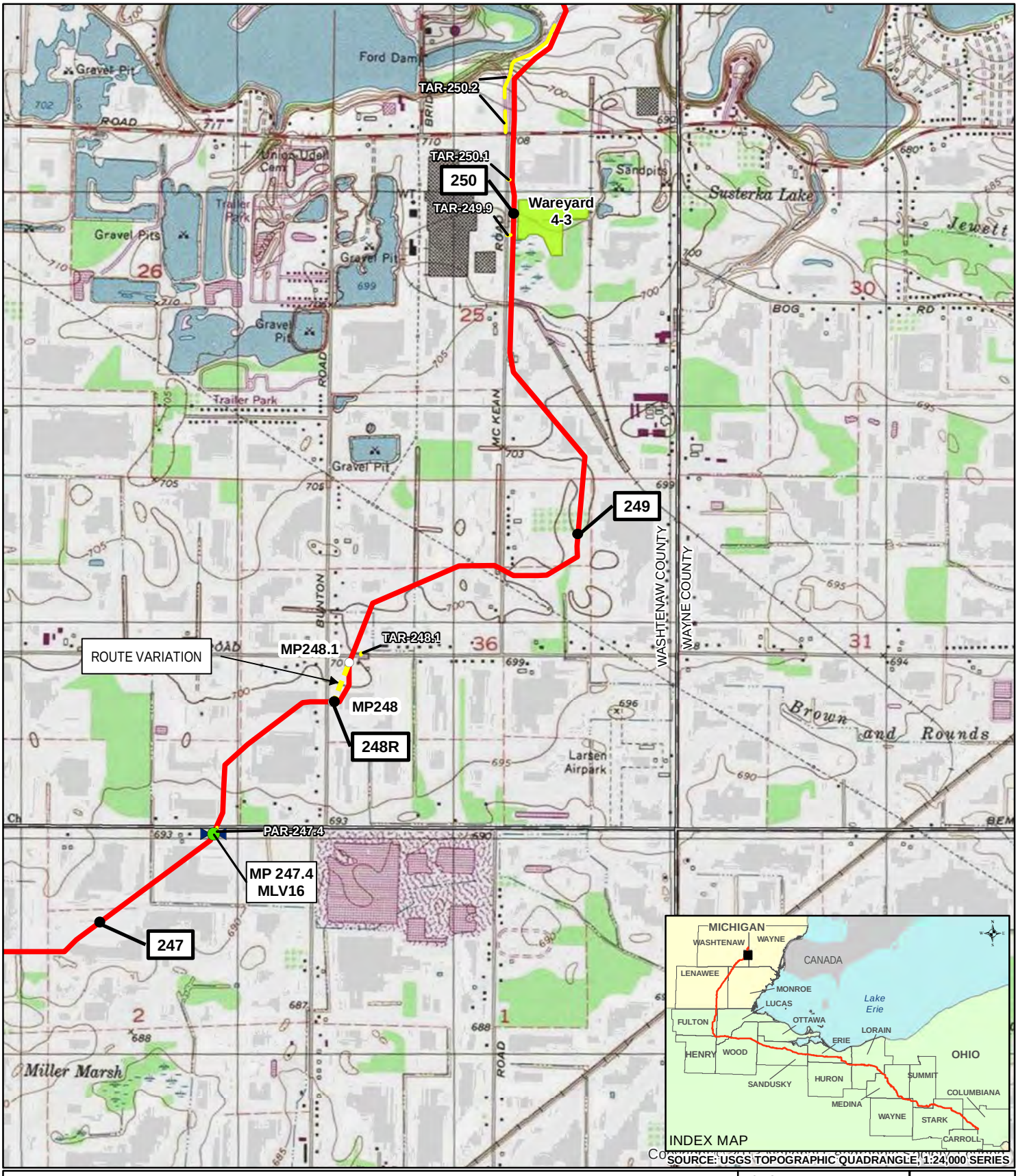
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: LENAWEE COUNTY, MI

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-74	MAP 74 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

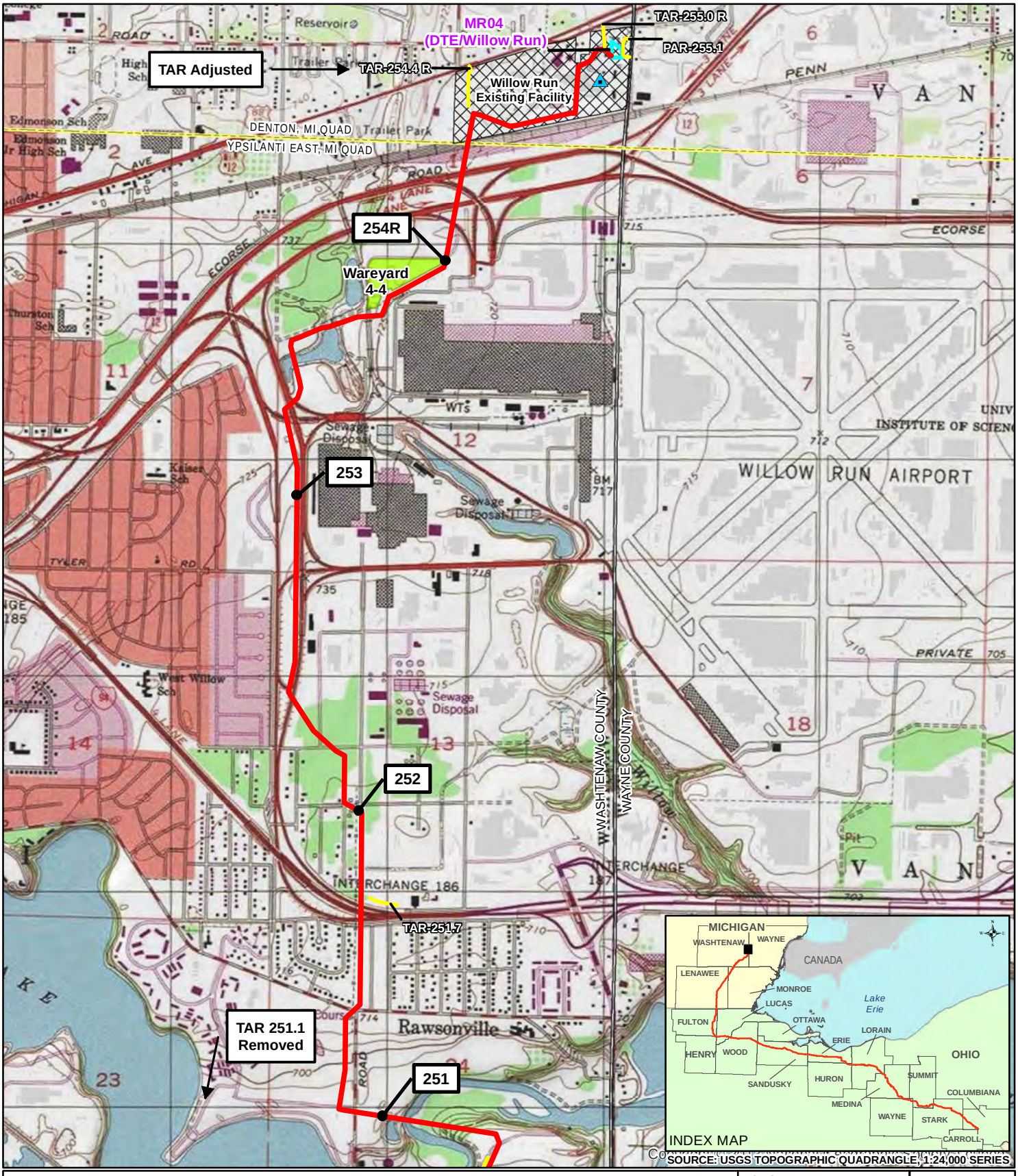
TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

LOC.: WASHTENAW COUNTY, MI

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-80	MAP 80 of 81	REV. E

I.G.

NEXUS SM
GAS TRANSMISSION



SOURCE: USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SERIES

Coordinate System: NAD 1983 UTM Zone 17N Foot US Foot US

- MILEPOST
- PROPOSED PIPELINE VALVE (WITHIN COMPESSOR STATION)
- PROPOSED MAINLINE VALVE
- PROPOSED TAP
- PROPOSED PIPELINE LAUNCHER
- PROPOSED PIPELINE RECEIVER
- PROPOSED ACCESS ROADS
- PROPOSED MAINLINE PIPELINE - MAR 2016 ROUTE
- PROPOSED MAINLINE PIPELINE
- PROPOSED INTERCONNECTING PIPELINE
- PROPOSED METERING & REGULATION STATION (M&R)
- PROPOSED COMPRESSOR STATION SITE
- PROPOSED WARE YARD
- EXISTING FACILITY
- USGS QUADRANGLE BOUNDARY
- COUNTY BOUNDARY

NOTES:
1. TEMPORARY ACCESS ROADS CONNECT TO TWS OR ATWS.
2. PERMANENT ACCESS ROADS CONNECT TO THE PERMANENT EASEMENT.

0 1,000 2,000 Feet

N W E S

TITLE: NEXUS GAS TRANSMISSION PROJECT
PROPOSED PIPELINE - USGS QUAD MAP

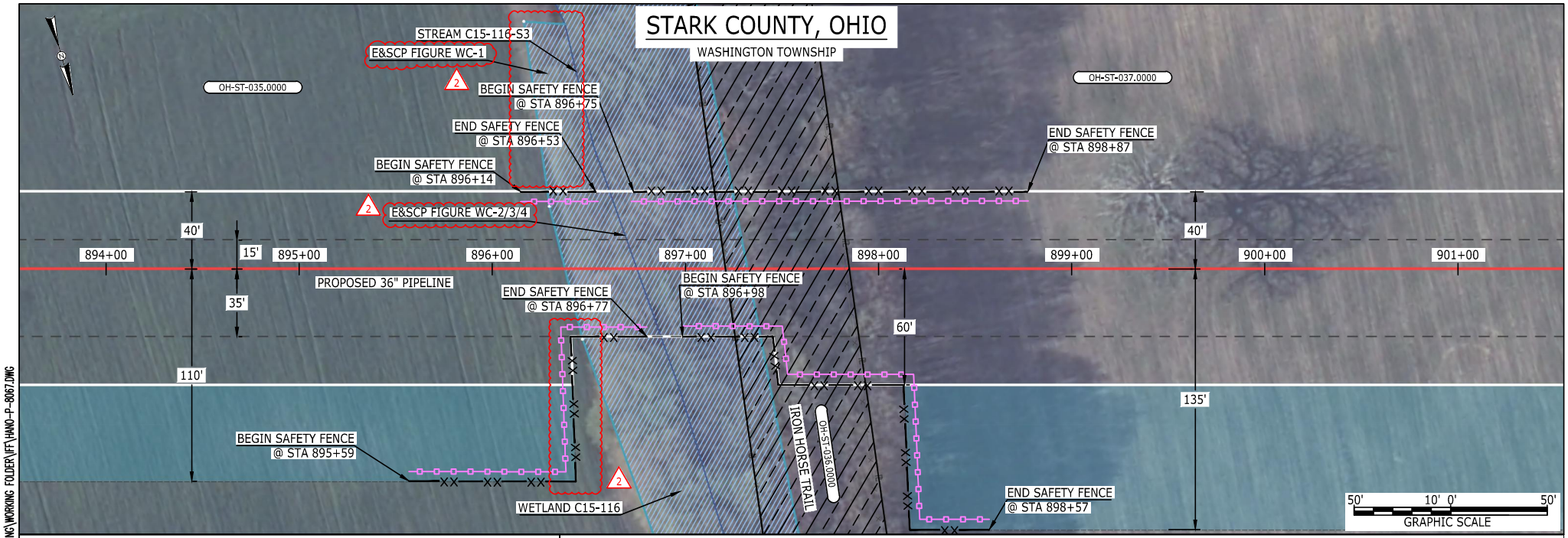
LOC.: WASHTENAW COUNTY, MI

CKD. BY: CPA	ENG.	DATE: 8/2016	W.O.	
DRN. BY: KM	SCALE: 1 " = 2,000 '	FIGURE 1.1.1-81	MAP 81 of 81	REV. E

I.G.

NEXUS GAS TRANSMISSION

NEXUS PROJECT PUBLIC LANDS, DESIGNATED RECREATION OR SCENIC AREAS, AND TRAILS CROSSING PLANS (UPDATED DRAWINGS ONLY) INDEX
DRAWING NUMBER
HANO-P-8067
HANO-P-8088
HANO-P-8094
HANO-P-8095
WADS-P-8051
WADS-P-8052
WADS-P-8066
CLYD-P-8014
CLYD-P-8016
WATE-P-8025
WATE-P-8029
WATE-P-8030
WATE-P-8031
WATE-P-8032



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD (PAR-0.0)
- TEMPORARY ACCESS ROAD (TAR-0.0)
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA (2)
- POWERLINES
- CONTOUR LINE (1200')
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILLING
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

FORMER RAILROAD RIGHT OF WAY, IRON HORSE TRAIL CROSSING IS WITHIN PARCEL TRACT NO. OH-ST-036.0000

OWNED BY STARK COUNTY PARK DISTRICT.

OPEN CUT CROSSING

REVISION 2:
ATWS/TWS AND RESOURCES UPDATED BASED ON WETLAND/WATERBODY FIELD SURVEYS.
UPDATED SILT AND SAFETY FENCES BASED ON ADJUSTED ATWS/TWS.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD'S) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE E&SCP AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR AS NEEDED. THE LOCATION OF ECD'S DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.

REV.#	DESCRIPTION	DATE
2	ISSUED FOR FERC	04AUG16
1A	ISSUED FOR FERC	15MAR16
1	ISSUED FOR FERC	23FEB16
0	ISSUED FOR FERC FILING	03NOV15

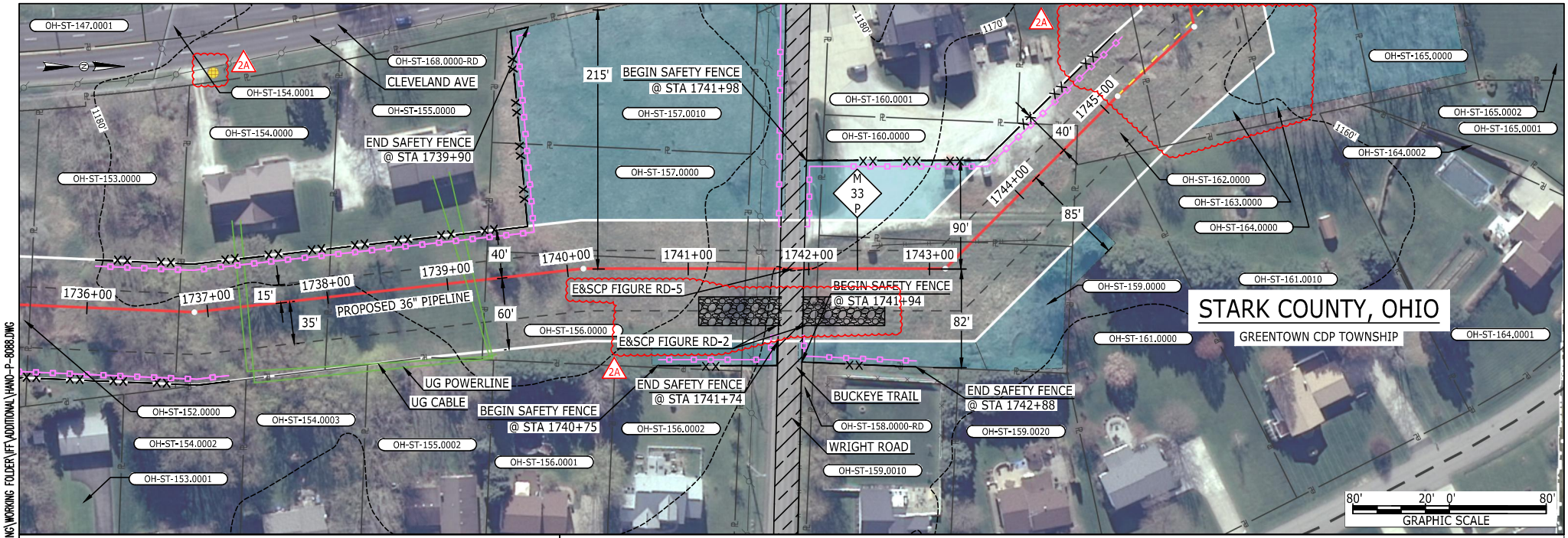
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN

TITLE:
NEXUS GAS TRANSMISSION PROJECT
IRON HORSE TRAIL CROSSING
MP 17R

LOC.: STARK COUNTY, OHIO | REV.: 2
YR.: 2017 | W.O. | DWG.NO. HANO-P-8067

NEXUS GAS TRANSMISSION

IG.# MES13858
August 23, 2016 5:07pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FT\HANO-P-8067.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - FEB 2016 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST (M 00 P)
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD (PAR-0.0)
- TEMPORARY ACCESS ROAD (TAR-0.0)
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE (1200')
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE
- FIRE HYDRANT
- MICROWAVE TOWER
- TOWER
- TANK

DESCRIPTION:

BUCKEYE TRAIL CROSSING WITHIN PARCEL TRACT NO. OH-ST-158.0000-RD.

LAND OWNERSHIP / LAND MANAGEMENT: PRIVATE LANDOWNERS.

OPEN CUT CROSSING

SPECIAL NOTES:

1. IF THE AGREEMENT WITH THE TRAIL MANAGING ENTITY REQUIRES THAT THE TRAIL BE MAINTAINED OPEN FOR TRAFFIC, NEXUS WILL WORK WITH TRAIL MANAGING ENTITY TO ENSURE A SAFE PASSAGE CORRIDOR IS ESTABLISHED DURING CONSTRUCTION IF NECESSARY.

REVISION 2A:

CENTERLINE REROUTED TO AVOID EXISTING UTILITIES. TWS/ATWS ADJUSTED ACCORDINGLY.
UPDATED SILT AND SAFETY FENCES BASED ON ADJUSTED TWS/ATWS.
ADDED WELL BASED ON UPDATED CIVIL SURVEY.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

IG.#	REV.#	DESCRIPTION	DATE
	2A	ISSUED FOR FERC	12AUG16
	2	ISSUED FOR FERC	25APR16

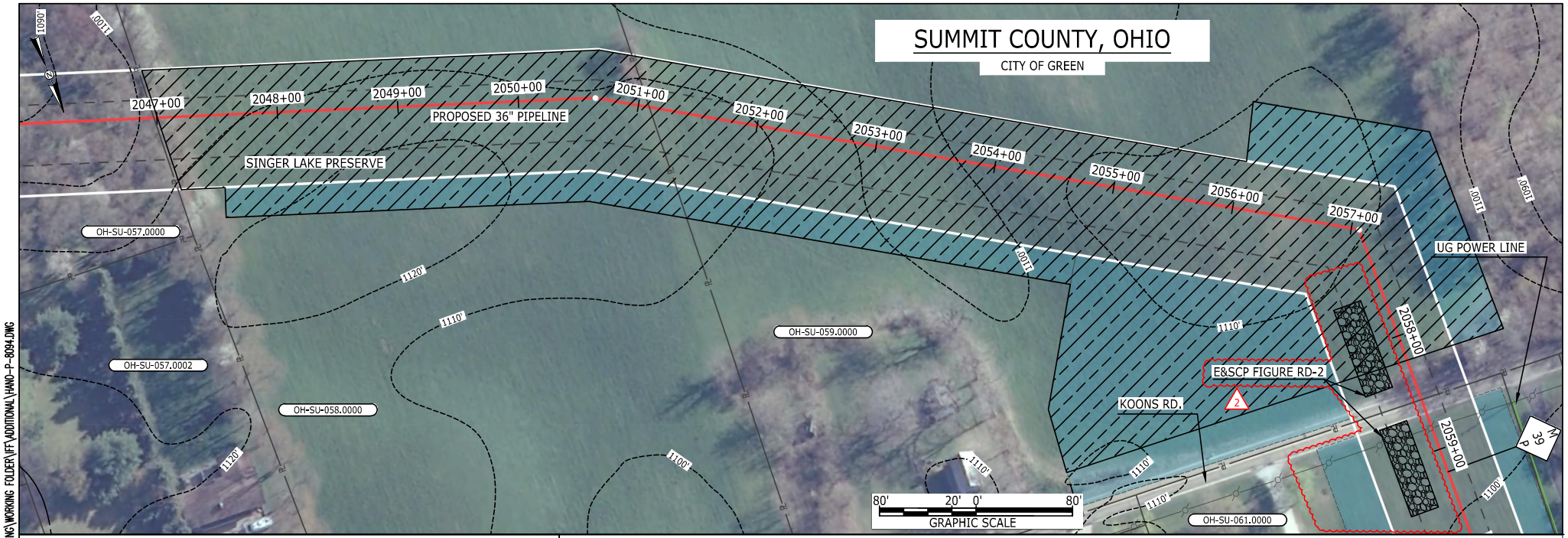
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: CMA
SCALE: AS SHOWN — DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
BUCKEYE TRAIL CROSSING
MP 32.98 TO MP 32.98

LOC.: STARK COUNTY, OHIO — REV.: 2A
YR.: 2017 — W.O. — DWG.NO. HANO-P-8088

NEXUS GAS TRANSMISSION

MES13858
August 18, 2016 1:25pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\HANO-P-8088.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

SINGER LAKE PRESERVE CROSSING WITHIN PARCEL TRACT NO.OH-SU-058.0000 & OH-SU-059.0000.

LAND OWNERSHIP / LAND MANAGEMENT: CLEVELAND MUSEUM OF NATURAL HISTORY.

STANDARD UPLAND CONSTRUCTION TECHNIQUES PER EROSION & SEDIMENT CONTROL PLAN.

REVISION 2A:
ATWS ADJUSTED TO REDUCE RESIDENTIAL IMPACTS.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

REV.#	DESCRIPTION	DATE
2A	ISSUED FOR FERC	04AUG16
2	ISSUED FOR FERC	25APR16

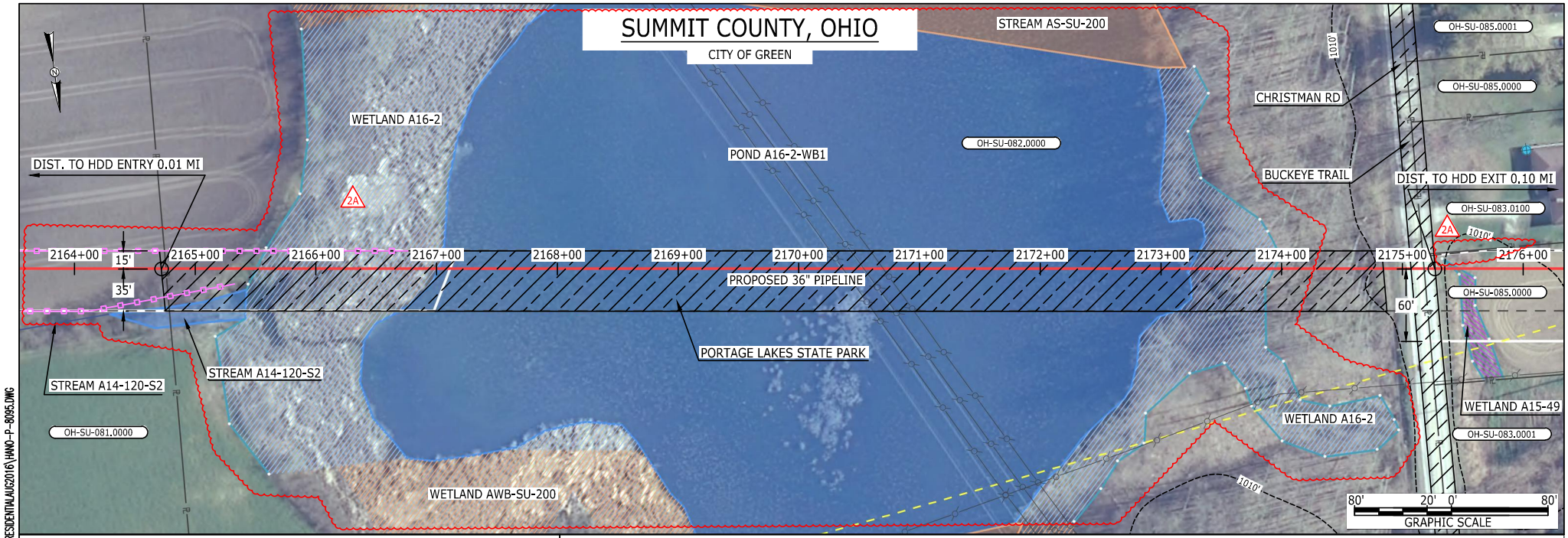
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN

TITLE:
NEXUS GAS TRANSMISSION PROJECT
SINGER LAKE PRESERVE CROSSING
MP 38.76 TO MP 38.97

LOC.: SUMMIT COUNTY, OHIO
REV.: 2A
YR.: 2017
W.O.
DWG.NO. HANO-P-8094

NEXUS GAS TRANSMISSION

IG.# MES13858
August 16, 2016 3:00pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\HANO-P-8094.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREAS
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

PORTAGE LAKES STATE PARK CROSSING WITHIN PARCEL TRACT NO. OH-SU-082.0000.

LAND OWNERSHIP / LAND MANAGEMENT: STATE OF OHIO.

METHOD OF CROSSING IS BY HORIZONTAL DIRECTIONAL DRILL (HDD).

WORKSPACE IN PORTAGE LAKES STATE PARK IS FOR ACCESS TO HYDROTEST WATER SOURCE ONLY.

REVISION 2A:
RESOURCES UPDATED BASED ON WETLAND/WATERBODY FIELD SURVEYS.
TWS ADJUSTED BASED ON UPDATED CIVIL FIELD SURVEY.
SILT FENCE UPDATED BASED ON WETLAND/WATERBODY SURVEYS.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

REV.#	DESCRIPTION	DATE
2A	ISSUED FOR FERC	04AUG16
2	ISSUED FOR FERC	25APR16

IG.#

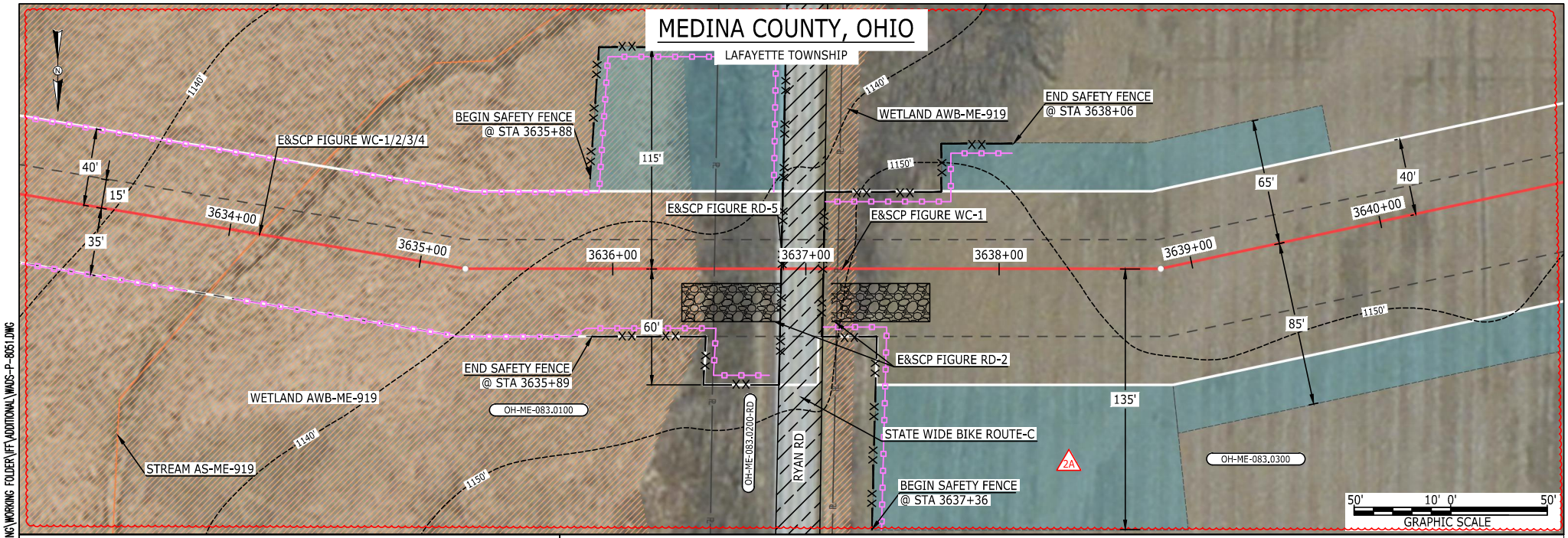
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
PORTAGE LAKES STATE PARK & BUCKEYE TRAIL CROSSING
MP 40.99R TO MP 41.20R

LOC.: SUMMIT COUNTY, OHIO REV.: 2A
YR.: 2017 W.O. DWG.NO. HANO-P-8095

NEXUS GAS TRANSMISSION

MES13858
August 22, 2016 12:30pm Filename: C:\USERS\MES13858\DESKTOP\ALLRESIDENTIALAUG2016\HANO-P-8095.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREAS
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

STATE WIDE BIKE ROUTE-C CROSSING WITH/WITHIN PARCEL TRACT NO. OH-ME-083.0200-RD. 2A

LAND OWNERSHIP / LAND MANAGEMENT: VARIOUS COUNTY, CITY OR TOWNSHIP OFFICES.

BORED CROSSING - PAVED ROAD

REVISION 2A:
CHIPPEWA LAKE C ROUTE VARIATION. TWS/ATWS, ACCESS ROADS, AND RESOURCES UPDATED.
UPDATED SILT AND SAFETY FENCE BASED ON UPDATED TWS/ATWS.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

REV.#	DESCRIPTION	DATE
2A	ISSUED FOR FERC	18AUG16
2	ISSUED FOR FERC	25APR16

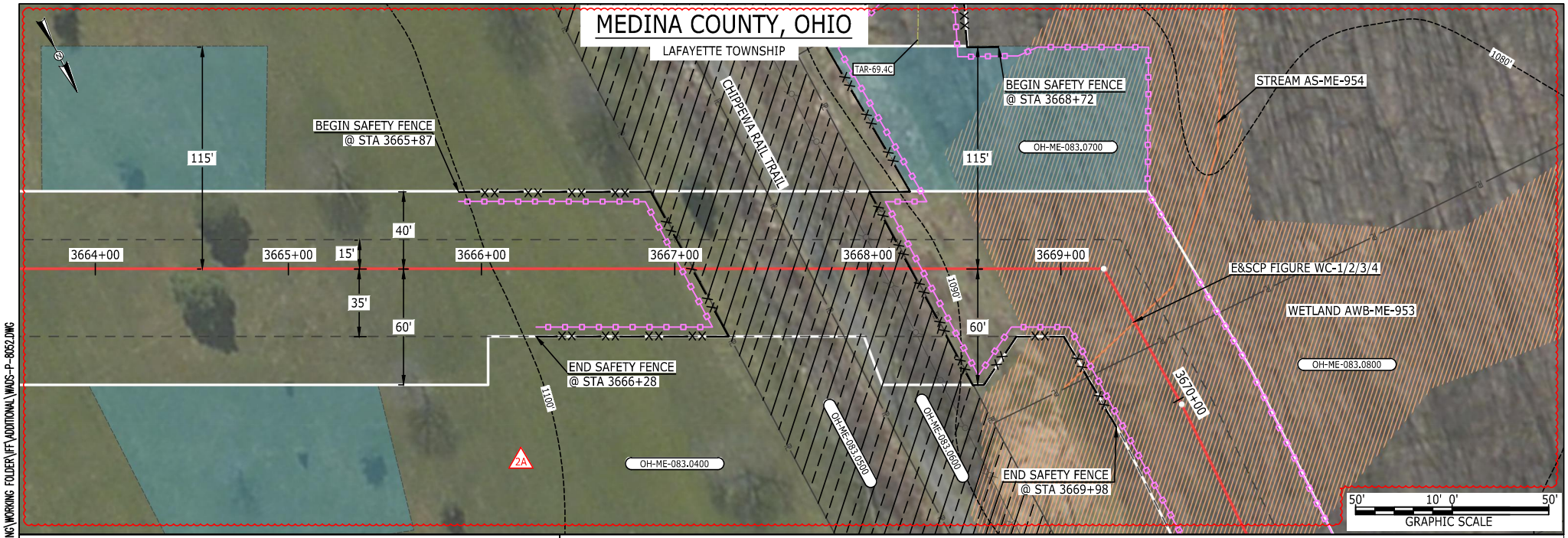
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN

TITLE:
NEXUS GAS TRANSMISSION PROJECT
STATE WIDE BIKE ROUTE-C CROSSING
MP 68.88C 2A

LOC.: MEDINA COUNTY, OHIO
REV.: 2A
YR.: 2017
W.O.
DWG.NO. WADS-P-8051

NEXUS GAS TRANSMISSION

IG.# MES13858
August 23, 2016 1:52pm
Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\WADS-P-8051.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST (M 00 P)
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK (PAR-0.0)
- DELINEATED WETLAND BOUNDARY (TAR-0.0)
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREAS
- POWERLINES
- CONTOUR LINE (1200')
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

CHIPPEWA RAIL TRAIL WITHIN PARCEL TRACT NO. OH-ME-083.0500 & OH-ME-083.0600. 2A

LAND OWNERSHIP / LAND MANAGEMENT: MEDINA COUNTY PARK DISTRICT.

BORE METHOD CROSSING. 2A

REVISION 2A:

CENTERLINE REROUTED DUE TO STAKEHOLDERS REQUEST. TWS/ATWS ADJUSTED ACCORDINGLY.
SILT FENCE AND SAFETY FENCE UPDATED BASED ON CONSTRUCTION METHODOLOGY.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

REV.#	DESCRIPTION	DATE
2A	ISSUED FOR FERC	18AUG16
2	ISSUED FOR FERC	25APR16

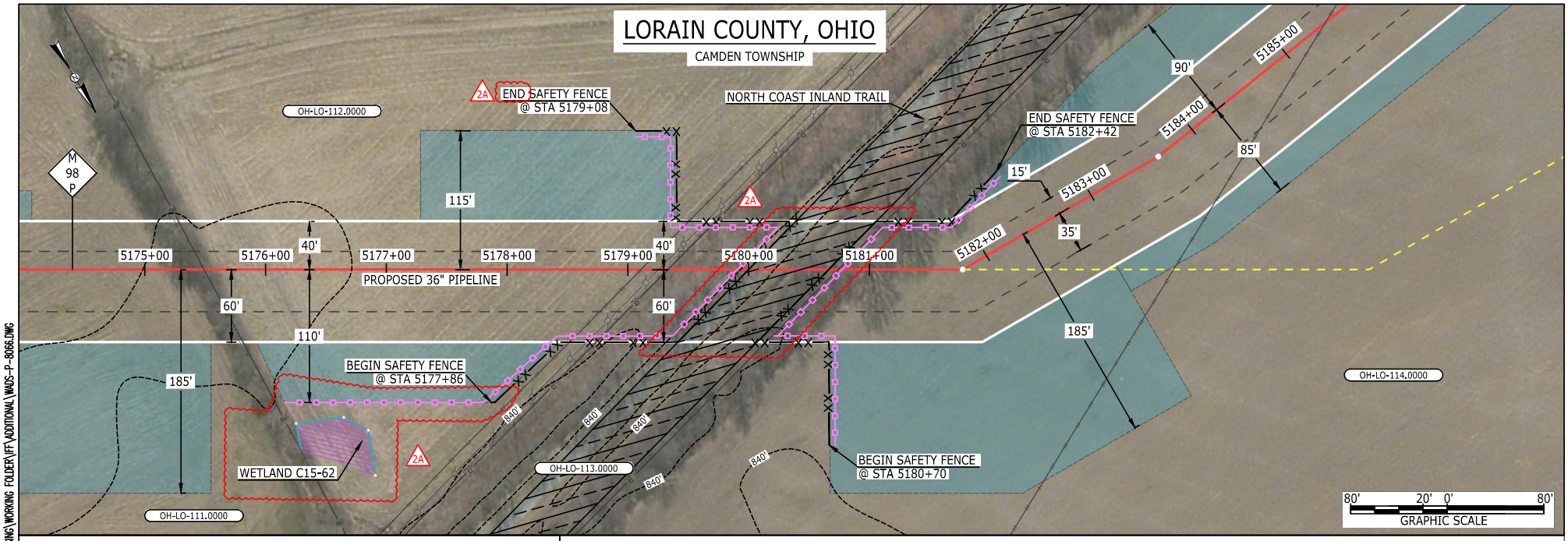
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
CHIPPEWA RAIL TRAIL CROSSING
MP 69.45C TO MP 69.47C 2A

LOC.: MEDINA COUNTY, OHIO REV.: 2A
YR.: 2017 W.O. DWG.NO. WADS-P-8052

NEXUS GAS TRANSMISSION

MES13858
August 23, 2016 1:54pm
Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\WADS-P-8052.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

NORTH COAST INLAND TRAIL WITHIN PARCEL TRACT NO. OH-LO-113.0000.

LAND OWNERSHIP / LAND MANAGEMENT: LORAIN COUNTY METRO PARK DISTRICT.

BORED METHOD CROSSING. 2A

REVISION 2A:
RESOURCES UPDATED BASED ON WETLAND FIELD SURVEY.
SILT AND SAFETY FENCE UPDATED BASED ON CONSTRUCTION METHODOLOGY.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

REV.#	DESCRIPTION	DATE
2A	ISSUED FOR FERC	04AUG16
2	ISSUED FOR FERC	25APR16

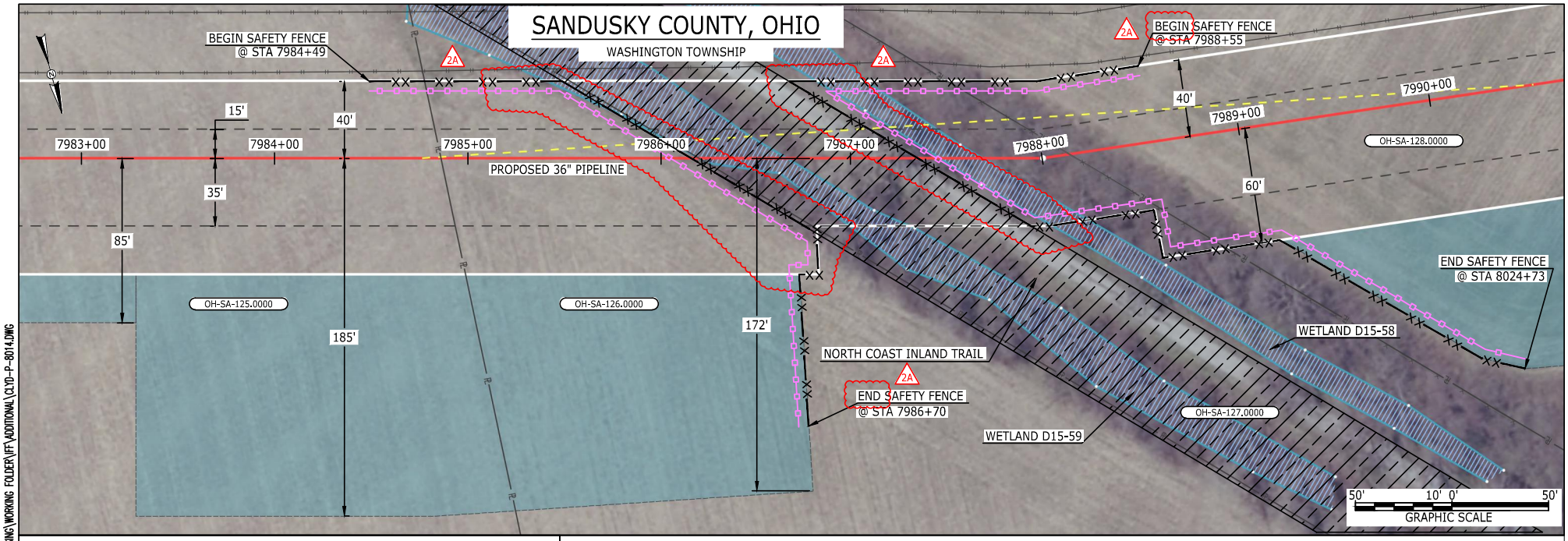
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: JVM
SCALE: AS SHOWN

TITLE:
NEXUS GAS TRANSMISSION PROJECT
NORTH COAST INLAND TRAIL CROSSING
MP 98.10 TO MP 98.11

LOC.: LORAIN COUNTY, OHIO
REV.: 2A
YR.: 2017
W.O.
DWG.NO. WADS-P-8066

NEXUS GAS TRANSMISSION

BEL24588 August 17, 2016 1:20pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF_ADDITIONAL\WADS-P-8066.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST (M 00 P)
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD (PAR-0.0)
- TEMPORARY ACCESS ROAD (TAR-0.0)
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE (1200')
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE (W)
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, OIL, WATER, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE
- FIRE HYDRANT
- MICROWAVE TOWER
- TOWER
- TANK

DESCRIPTION:

NORTH COAST INLAND TRAIL CROSSING WITHIN PARCEL TRACT NO. OH-SA-127.0000.

LAND OWNERSHIP / LAND MANAGEMENT: SANDUSKY COUNTY PARK DISTRICT.

BORED METHOD CROSSING. 2A

REVISION 2A:

UPDATED SAFETY FENCE AND SILT FENCE BASED ON UPDATED CONSTRUCTION METHODOLOGY.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

IG.#	REV.#	DESCRIPTION	DATE
	2A	ISSUED FOR FERC	16AUG16
	2	ISSUED FOR FERC	25APR16

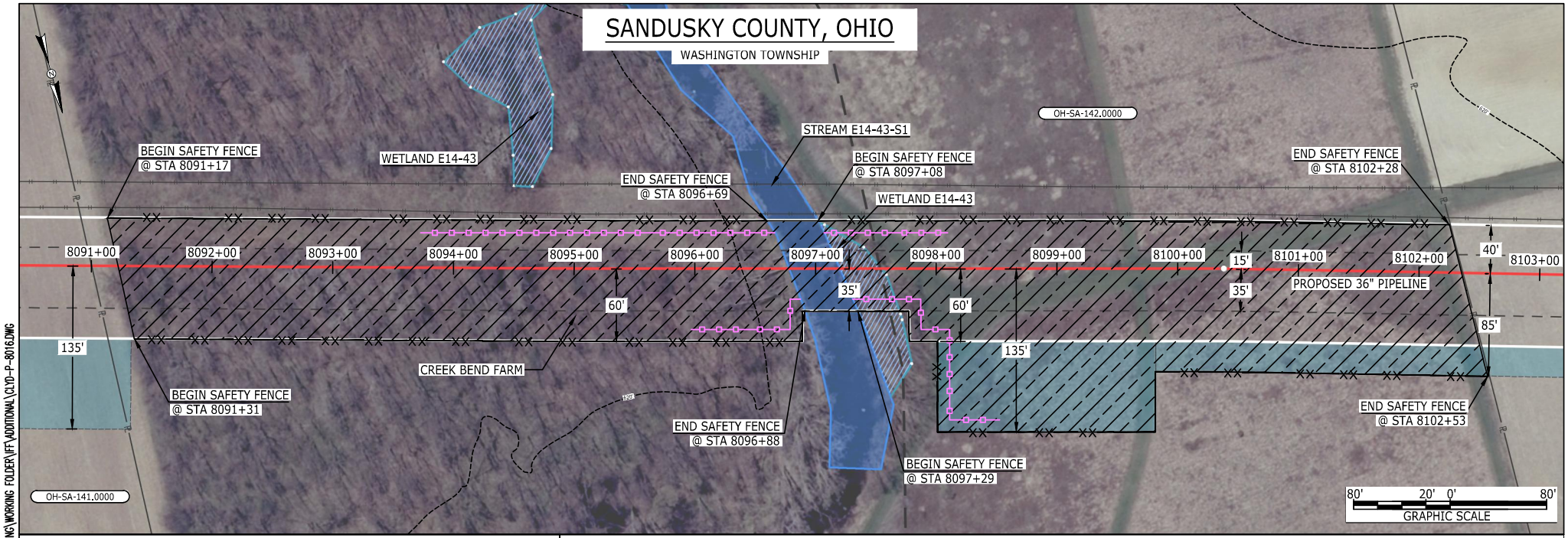
PROJ. ENG.	VP	
CHECKED BY:	DOB	
DRAWN BY:	JVM	
SCALE: AS SHOWN		DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
NORTH COAST INLAND TRAIL CROSSING
MP 151.24R TO MP 151.26R

LOC.: SANDUSKY COUNTY, OHIO | REV.: 2A
YR.: 2017 | W.O. | DWG.NO. CLYD-P-8014

NEXUS GAS TRANSMISSION

BEL24588
August 17, 2016 1:13pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\VF ADDITIONAL\CLYD-P-8014.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREAS
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

CREEK BEND FARM CROSSING WITHIN PARCEL TRACT NO. OH-SA-142.0000.

LAND OWNERSHIP / LAND MANAGEMENT: THE SANDUSKY COUNTY PARK DISTRICT.

STANDARD WATERBODY, WETLAND OR UPLAND CONSTRUCTION TECHNIQUES PER THE EROSION & SEDIMENT CONTROL PLAN.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

IG.#	REV.#	DESCRIPTION	DATE
2A	2A	ISSUED FOR FERC	17AUG16
2	2	ISSUED FOR FERC	25APR16

PROJ. ENG.	VP	
CHECKED BY:	DOB	
DRAWN BY:	RSM	
SCALE: AS SHOWN	DATE	

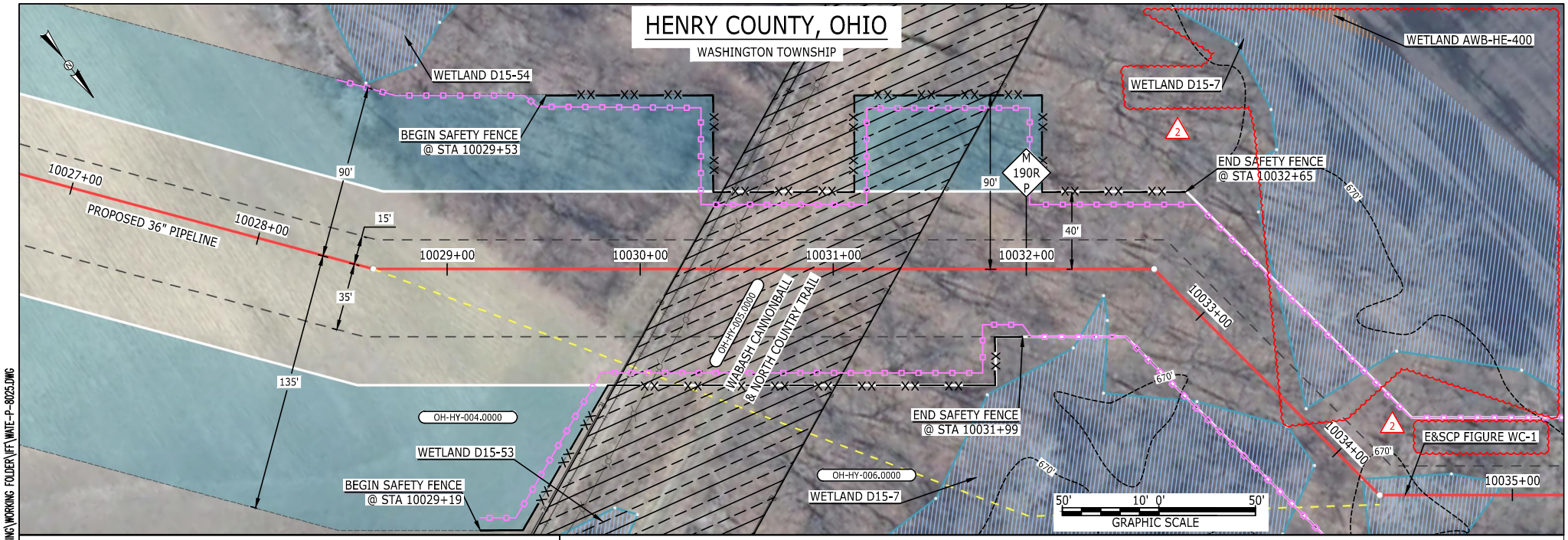
TITLE:
NEXUS GAS TRANSMISSION PROJECT
CREEK BEND FARM CROSSING
MP 153.23 TO MP 153.44

LOC.: SANDUSKY COUNTY, OHIO | REV.: 2A

YR.: 2017 | W.O. | DWG.NO. CLYD-P-8016

NEXUS GAS TRANSMISSION

BEL24588
August 19, 2016 11:16am Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\CLYD-P-8016.DWG



Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FT\WATE-P-8025.DWG
5:16pm August 23, 2016 MES13858

LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST (M 00 P)
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD (PAR-0.0)
- TEMPORARY ACCESS ROAD (TAR-0.0)
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA (2)
- POWERLINES
- CONTOUR LINE (1200')
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE (T)
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE (W)
- UTILITY LINE
- PROPERTY LINE (PL)
- SAFETY FENCE (XX)
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, OIL, WATER, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILLING
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

WABASH CANNONBALL & NORTH COUNTRY TRAIL CROSSING IS WITHIN PARCEL TRACT NO. OH-HY-005.0000

OWNED BY NORTH-WESTERN OHIO RAILS TO TRAILS ASSOCIATION, INC.

OPEN CUT CROSSING

REVISION 2:
RESOURCES UPDATED BASED ON WETLAND/WATERBODY FIELD SURVEYS.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD'S) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE E&SCP AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR AS NEEDED. THE LOCATION OF ECD'S DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.

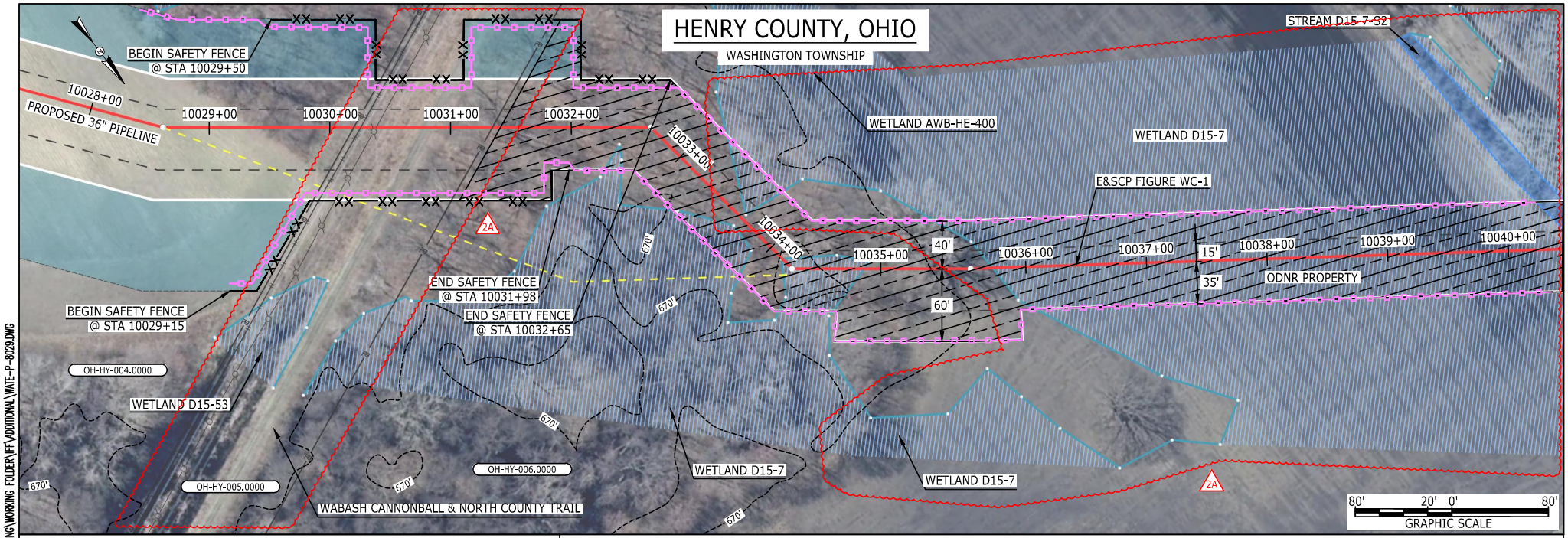
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	1A	ISSUED FOR FERC	15MAR16
	1	ISSUED FOR FERC	23FEB16
	0	ISSUED FOR FERC FILING	03NOV15

PROJ. ENG. VP	29OCT15	
CHECKED BY: DOB	29OCT15	
DRAWN BY: RSM	29OCT15	
SCALE: AS SHOWN	DATE	

TITLE:
NEXUS GAS TRANSMISSION PROJECT
WABASH CANNONBALL & NORTH COUNTRY TRAIL CROSSING
MP 189.96R TO MP 189.97R

LOC.: HENRY COUNTY, OHIO — REV.: 2
YR.: 2017 — W.O. — DWG.NO. WATE-P-8025

NEXUS GAS TRANSMISSION



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

ODNR PROPERTY CROSSING WITHIN PARCEL TRACT NO. OH-HY-006.0000

LAND OWNERSHIP / LAND MANAGEMENT: ODNR

STANDARD WETLAND OR UPLAND CONSTRUCTION TECHNIQUES PER EROSION & SEDIMENT CONTROL PLAN.

SPECIAL NOTES:

1. SEE DWG WATE-P-8030 AND WATE-P-8031 FOR THE CONTINUATION OF THE ODNR PROPERTY CROSSING AREA.

REVISION 2A:

RESOURCES UPDATED BASED ON WETLAND/WATERBODY FIELD SURVEYS.
REMOVAL OF DEMARKATION OF WABASH CANNONBALL & NORTH COUNTY TRAIL SINCE REPRESENTED ON SEPARATE DRAWING.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

IG.#	REV.#	DESCRIPTION	DATE
	2A	ISSUED FOR FERC	04AUG16
	2	ISSUED FOR FERC	25APR16

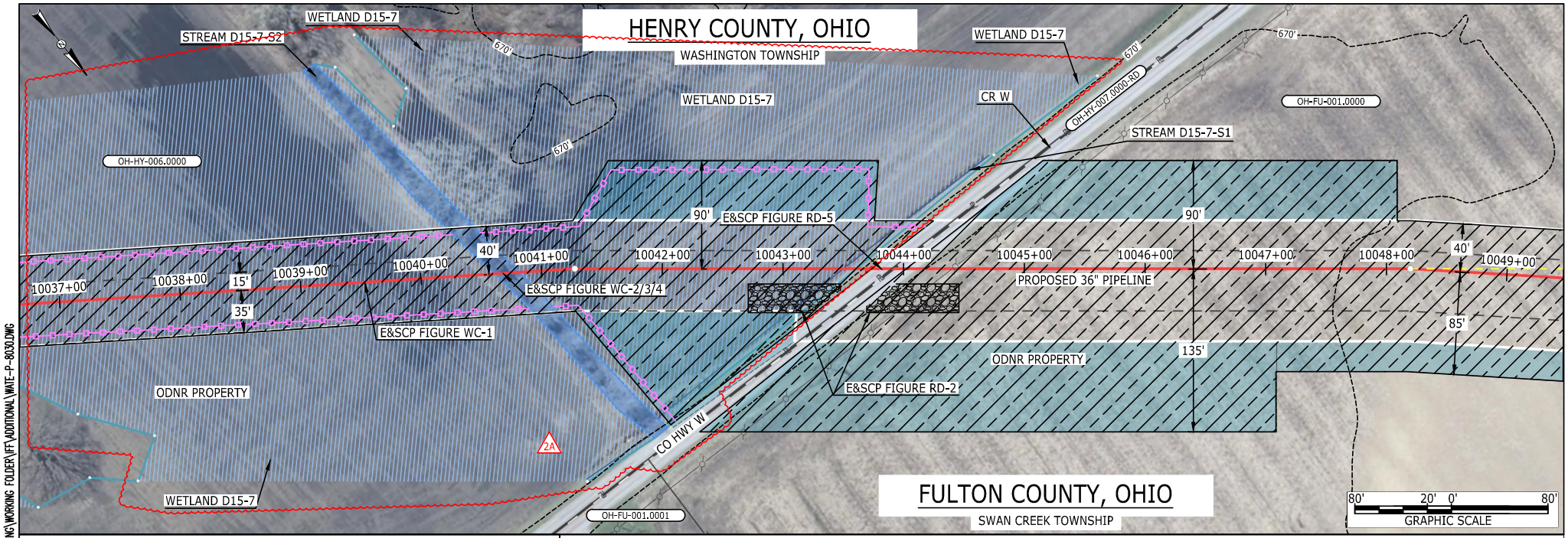
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CHECKED BY:	DOB	
DRAWN BY:	RSM	
SCALE: AS SHOWN		DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
ODNR PROPERTY CROSSING
MP 189.98R TO MP 190.22

LOC.: HENRY COUNTY, OHIO — REV.: 2A
YR.: 2017 — W.O. — DWG.NO. WATE-P-8029

NEXUS GAS TRANSMISSION

MES13858
August 18, 2016 3:28pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\WATE-P-8029.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

ODNR PROPERTY CROSSING WITHIN PARCEL TRACT NO. OH-HY-006.0000/OH-FU-001.0000

LAND OWNERSHIP / LAND MANAGEMENT: ODNR.

STANDARD WETLAND, UPLAND OR WATERBODY CONSTRUCTION TECHNIQUES PER EROSION & SEDIMENT CONTROL PLAN.

SPECIAL NOTES:
1. SEE DWG WATE-P-8029 AND WATE-P-8031 FOR THE CONTINUATION OF THE ODNR PROPERTY CROSSING AREA.

REVISION 2A:
ATWS/TWS ADJUSTED BASED ON UPDATED WETLAND SURVEY.
RESOURCES UPDATED BASED ON WETLAND/WATERBODY FIELD SURVEYS.
UPDATED SILT FENCE BASED ON ADJUSTED ATWS/TWS.

NOTES
1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

IG.#	REV.#	DESCRIPTION	DATE
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	2	ISSUED FOR FERC	25APR16

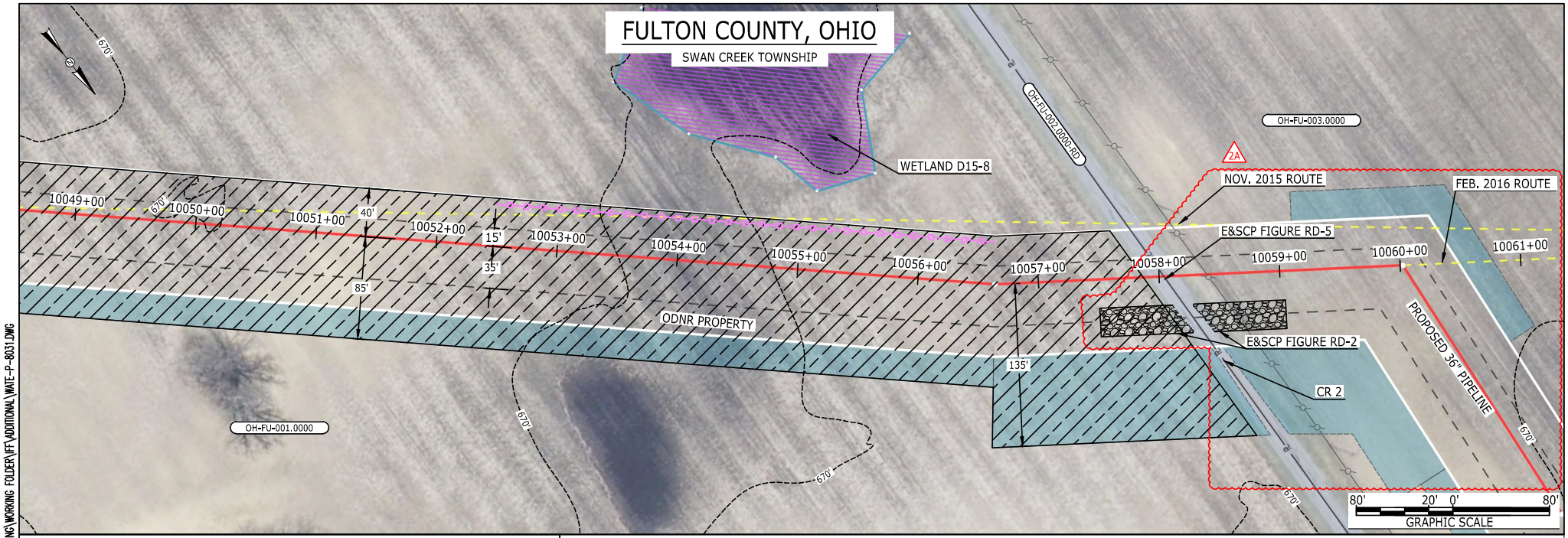
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN — DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
ODNR PROPERTY CROSSING
MP 190.08 TO MP 190.32R

LOC.: HENRY & FULTON COUNTY, OHIO — REV.: 2A
YR.: 2017 — W.O. — DWG.NO. WATE-P-8030

NEXUS GAS TRANSMISSION

MES13858
August 18, 2016 3:30pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\WATE-P-8030.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - PREVIOUS ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, OIL, WATER, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

ODNR PROPERTY CROSSING WITHIN PARCEL TRACT NO. OH-FU-001.0000

LAND OWNERSHIP / LAND MANAGEMENT: ODNR.

STANDARD WETLAND OR UPLAND CONSTRUCTION TECHNIQUES PER EROSION & SEDIMENT CONTROL PLAN.

SPECIAL NOTES:
1. SEE DWG WATE-P-8029 AND WATE-P-8030 FOR THE CONTINUATION OF THE ODNR PROPERTY CROSSING AREA.

REVISION 2A:
CENTERLINE REROUTED DUE TO LANDOWNER REQUEST. TWS/ATWS ADJUSTED ACCORDINGLY.

NOTES
1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

IG.#	REV.#	DESCRIPTION	DATE
	2A	ISSUED FOR FERC	04AUG16
	2	ISSUED FOR FERC	25APR16

PROJ. ENG. VP		
CHECKED BY: DOB		
DRAWN BY: RSM		
SCALE: AS SHOWN	DATE	

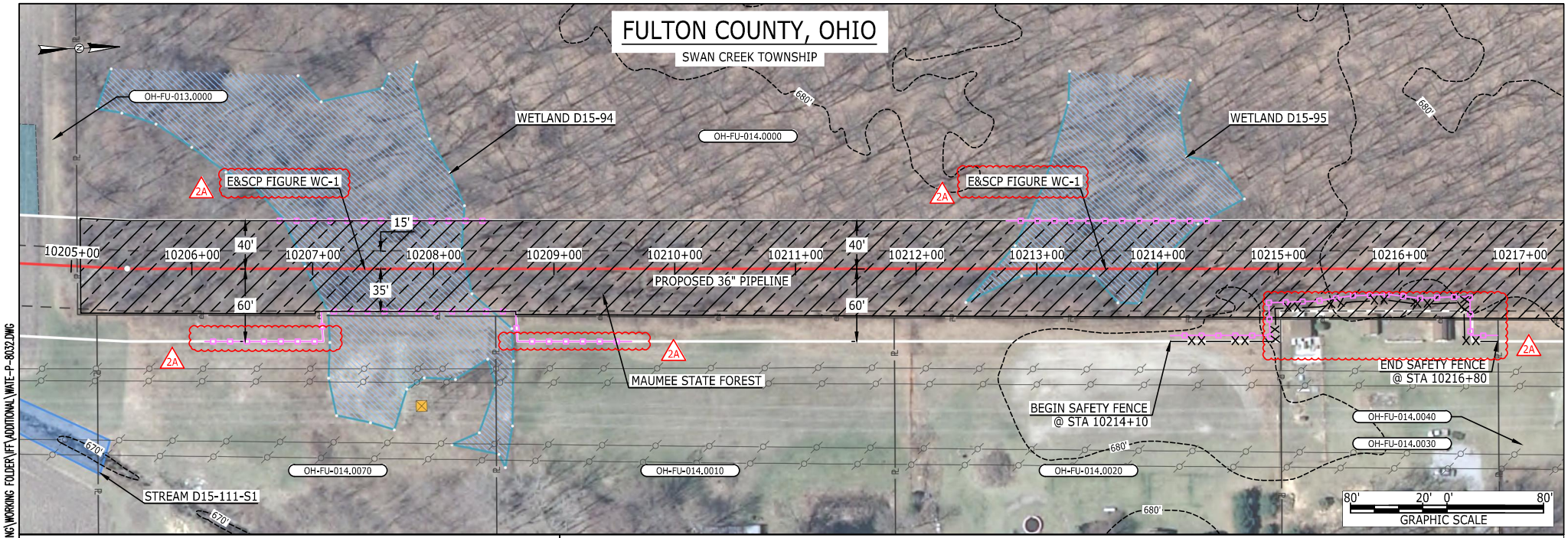
TITLE:
NEXUS GAS TRANSMISSION PROJECT
ODNR PROPERTY CROSSING
MP 190.32R TO MP 190.49R

LOC.: FULTON COUNTY, OHIO — REV.: 2A

YR.: 2017 — W.O. — DWG.NO. WATE-P-8031

NEXUS GAS TRANSMISSION

BEL24588
August 17, 2016 1:48pm
Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\WATE-P-8031.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
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- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

MAUMEE STATE FOREST CROSSING WITHIN PARCEL TRACT NO. OH-FU-014.0000.

LAND OWNERSHIP / LAND MANAGEMENT: ODNR.

STANDARD WETLAND OR UPLAND CONSTRUCTION TECHNIQUES PER THE EROSION & SEDIMENT CONTROL PLAN.

SPECIAL NOTES:

1. SEE DRAWING WATE-P-8033 FOR THE CONTINUATION OF THE MAUMEE STATE FOREST CROSSING AREA.

REVISION 2A:
TWS ADJUSTED BASED ON LANDOWNER REQUEST.
UPDATED SILT AND SAFETY FENCES BASED ON ADJUSTED TWS.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

IG.#	REV.#	DESCRIPTION	DATE
	2A	ISSUED FOR FERC	04AUG16
	2	ISSUED FOR FERC	25APR16

PROJ. ENG.	VP	
CHECKED BY:	DOB	
DRAWN BY:	JVM	
SCALE: AS SHOWN		DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
MAUMEE STATE FOREST CROSSING
MP 193.27 TO MP 193.50

LOC.: FULTON COUNTY, OHIO | REV.: 2A
YR.: 2017 | W.O. | DWG.NO. WATE-P-8032

NEXUS GAS TRANSMISSION

MES13858
August 16, 2016 3:38pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\WATE-P-8032.DWG

Attachment 5 – Response 14a-3

Response 14a-3 Updated NEXUS Gas Transmission Project Summary and Impact Tables

[*Notice the List of Tables on the following page is bookmarked and hyperlinked in PDF (Portable Document Format) so that when the link is clicked, tables can be accessed without scrolling through the document*]

Attachment 6-1 – Response 16-1

Geotechnical Feasibility Study for HDD Crossing of Nimisila Reservoir

Geotechnical Feasibility Study
Nimisila Reservoir HDD

Base Data

In performing this geotechnical feasibility study for the proposed Horizontal Directional Drill ("HDD") of the Nimisilla Reservoir, we have relied upon the following information:

- A combination of LiDAR, hydrographic, and traditional survey data covering the proposed crossing location
- Surficial geologic mapping of the Canton 30 x 60 Minute Quadrangles, Ohio Department of Natural Resources, Division of Geological Survey, 2002
- A reconnaissance of the proposed crossing location conducted in July of 2015 by a representative of J. D. Hair & Associates, Inc. (JDHA).

General Site Description

The 36-inch Nimisila Reservoir Crossing is located near the intersection of East Comet Road and Christman Road, just south of Akron, Ohio. The primary obstacles that will be crossed are Christman Road, an existing overhead powerline right of way, and the Nimisila Reservoir. The reservoir is approximately 700 feet wide, and based on hydrographic survey points, roughly 5 feet deep. The proposed HDD alignment crosses an existing overhead power corridor at an approximate 45-degree angle. Both ends of the crossing are within agricultural land. Residential homes exist directly to the north and southeast of the exit point with the nearest home being roughly 370 feet away. The topography in the area is gently rolling with a mixture of farm land and mature timber. Refer to Figure 1 for a general overview of the vicinity of the crossing.



Figure 1: Overview of the Nimisila Reservoir Crossing

Subsurface Conditions

Surficial geologic mapping indicates the subsurface at the site of the proposed Nimisila Reservoir crossing will consist of unconsolidated sediments in the form of poorly sorted sand with inclusions of gravel, silt, sand, and till. In addition, mapping indicates localized zones of organic deposits throughout the study area. The top of sedimentary bedrock (interbedded shale, sandstone, and siltstone) is in excess of 100 feet in depth.

Design Geometry & Layout

The proposed Nimisila Reservoir HDD design involves a horizontal length of 1,776 feet. It utilizes a 10-degree entry angle, an 8-degree exit angle, and a radius of curvature of 3,600 feet. The crossing design maintains 20 feet of cover beneath the slope on the west side of the reservoir, 53 feet of cover beneath Christman Road, 53 feet beneath the Reservoir, and 40 feet beneath the edge of wetland on the east side of the crossing.

The entry point is located on the east side of Christman Road in an open farm field. The exit point is located on the west side of the crossing, also within an open but slightly smaller farm field. An elevation difference of roughly 17 feet exists between the entry and exit points with the entry site existing at the lower elevation.

The proposed HDD design, as well as plan and profile drawings, were included in the *HDD Design Report NEXUS Pipeline Project, Revision 2* filed with the NEXUS Response to FERC Environmental Information Request 1 in March 2016.

Assessment of Feasibility

With a proposed length of 1,776 feet, and a diameter of 36-inches, the proposed HDD installation is well within the range of what has been successfully installed in years past through similar subsurface conditions. Therefore, based on available information, we see no reason to rule out installation by HDD at the proposed Nimisila crossing location. Although subsurface conditions exhibit coarse granular material such as gravel or cobbles, given the length of the crossing and the current state-of-the-art in the HDD industry, these subsurface conditions are unlikely to prevent a successful installation.

Attachment 6-2 – Response 16-2

Geotechnical Feasibility Study for HDD Crossing of Tuscarawas River

Geotechnical Feasibility Study
Tuscarawas River HDD

Base Data

In performing the following evaluation, we have relied upon the following information:

- A combination of LiDAR, hydrographic, and traditional survey data covering the proposed crossing location
- Geotechnical data gathered by Fugro Consultants, Inc. between May 12, 2015 and July 30, 2015
- A reconnaissance of the proposed crossing location conducted in July of 2015 by a representative of JDH&A

General Site Description

The 36-inch Tuscarawas River Crossing is located near pipeline Mile Post 48, south of Barberton, Ohio. It involves passing beneath the Tuscarawas River, a railroad, and Van Buren Road. The Tuscarawas River is approximately 80 feet from bank to bank at the crossing location, and less than 2 feet deep at the deepest point. The proposed HDD alignment runs parallel to an existing power line corridor. The topography on each side of the crossing slopes moderately steeply toward the river. The elevation change east of Van Buren Road is approximately 155 feet. The land on each side of the river consists of a mixture of wooded patches and agricultural land. An overview of the proposed crossing location is provided in Figure 1 and Photos 1 and 2.

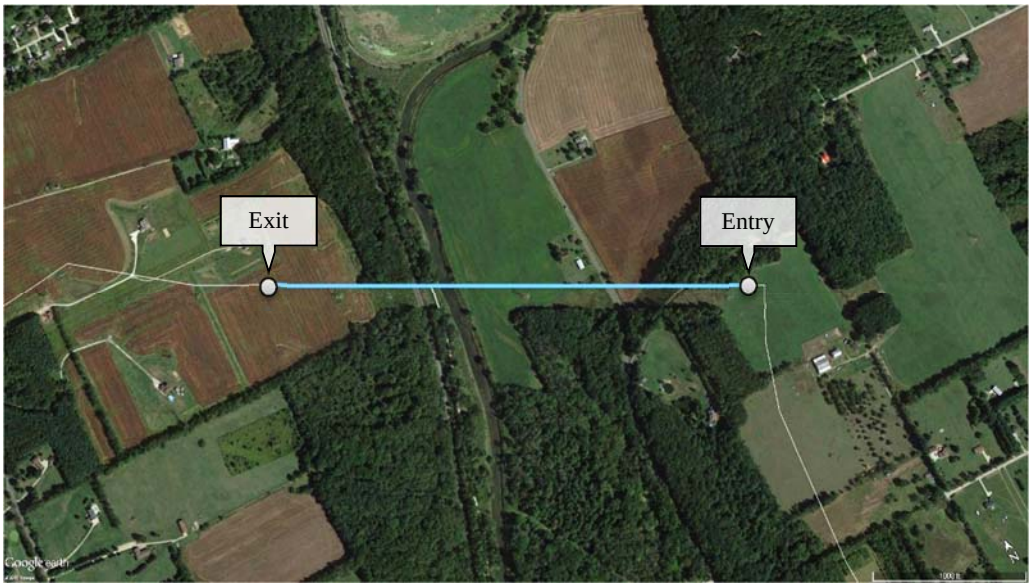


Figure 1: Overview of the Tuscarawas River Crossing



Photo 1: View west along proposed HDD alignment from Van Buren Road



Photo 2: View east from Van Buren Road. Topography extends upwards toward the proposed entry point

Subsurface Conditions

Three geotechnical borings were taken on the east side of the river as part of the geotechnical exploration program conducted by Fugro Consultants, Inc. Two of the borings, TUS-01 and TUS-02, were taken between Van Buren Road and the east edge of Tuscarawas River, and one of

the borings, TUS-06, was taken near the proposed HDD entry point approximately 1,000 feet east of Van Buren Road. TUS-01 encountered mixtures of sand with silt, lean clay, and sandy lean clay, sand, and occasional gravel to the termination depth of 76 feet below grade. The second boring, TUS-02, taken near the bank of the river, encountered relatively sandy lean clay, sand, and silt until 20 feet below ground surface, followed by sandstone and siltstone bedrock to the termination of 100 feet. Rock quality designation (RQD) index values indicate good to excellent quality bedrock overall. Results for unconfined compressive strength (UCS) average 8,189 psi. Boring TUS-06 encountered clayey sand to a depth of 14 feet, followed by residual shale to a depth of 34 feet, interbedded siltstone, sandstone, and shale to a depth of 52 feet, and sandstone to the boring termination depth of 101 feet. RQD index values ranged from 23 to 95, with an average of 65 indicating fair quality bedrock. UCS test values ranged from 1,150 psi to 7,990 psi.

Geophysical methods were used to further characterize the top of the bedrock surface between borings TUS-1 and TUS-2. Results of the seismic refraction study indicate the bedrock surface may dip to the east from boring TUS-2, falling from elevation 930 feet to 855 feet over a horizontal distance of 450 feet. From that point, the bedrock surface looks to be trending upwards toward boring TUS-1. The top of bedrock is estimated to fall somewhere in the range of elevation 860 feet and elevation 875 feet at the location of boring TUS-1.

Design Geometry & Layout

The proposed Tuscarawas River HDD design has a horizontal length of 3,263 feet. It utilizes a 16-degree entry angle, an 8-degree exit angle, and a design radius of curvature of 3,600 feet. The design maintains a minimum of 40 feet of cover at the west edge of the Tuscarawas River, 46 feet of cover beneath the railroad tracks, 66 feet beneath Van Buren Road, and approximately 42 feet of cover beneath the bottom of the hillside on the east side of the river. Due to a pipeline alignment point of intersection (P.I.) on the east side of the crossing, the entry point location was limited in how far east it could be located. Therefore, in order to maintain suitable cover along the hillside, a 16-degree entry angle was necessary.

Due to workspace considerations, the exit point is located on the west side of the crossing, which provides the better option for pull section fabrication across relatively open fields. The entry point on the east side is approximately 48 feet higher topographically.

The proposed HDD design, as well as plan and profile drawings, were included in the *HDD Design Report NEXUS Pipeline Project, Revision 2* filed with the NEXUS Response to FERC Environmental Information Request 1 in March 2016.

Assessment of Feasibility

The data we have reviewed suggests that the proposed crossing can be completed using HDD. The crossing is designed to pass through bedrock conducive to installation by HDD over the duration of the crossing. Due to the variable nature of the bedrock surface, however, there is risk that the HDD segment will pass out of bedrock and into overburden, and then back into bedrock. Although a scenario such as this would be unlikely to prevent a successful HDD installation, it could result in HDD operational problems and delays. The *NEXUS HDD Monitoring and Inadvertent Return Contingency Plan*, filed with the Certificate Application in November 2015, has been developed to address and mitigate these types of issues.

Attachment 6-3 – Response 16-3

Geotechnical Feasibility Study for HDD Crossing of West Branch of the Black River

Geotechnical Feasibility Study
West Branch Black River HDD

Base Data

In performing the geotechnical feasibility study, we have relied upon the following information:

- A combination of LiDAR and traditional survey data covering the proposed crossing location
- Surficial geologic mapping of the Lorain and Put-In-Bay 30x60 Minute Quadrangles, Ohio Department of Natural Resources, Division of Geological Survey, Draft 6, June 14, 2005
- Geotechnical data gathered by Fugro Consultants, Inc. between April 8, 2015 and August 11, 2015 at the site of the proposed East Branch Black River
- A reconnaissance of the proposed crossing location conducted in July of 2015 by a representative of JDH&A

General Site Description

The 36-inch West Branch Black River Crossing is located approximately 2.5 miles southeast of Oberlin, Ohio near the intersection of West Road and Kipton Nickle Plate Road. The crossing involves passing beneath the meandering channel of the West Branch Black River, as well as West Road. The topography in the vicinity of the crossing is essentially flat, but with a topographic rise of approximately 20 feet conforming to the east bank of the river. Both sides of the river are mixtures of wooded patches and open farmland.



Figure 1: Overview of the West Branch Black River Crossing

Subsurface Conditions

Based on surficial geological mapping, the subsurface at the proposed crossing site consists of unconsolidated sediments overlying sedimentary bedrock. More specifically, it is anticipated that the west side of the crossing will consist of approximately 40 feet of alluvium (silt, sand, clay, with some gravel and possible cobbles/boulders) resting above interbedded sandstone and shale. The east side of the crossing will likely consist of glacial till, which typically consists of unsorted silt, sand, clay, gravel, and possible random cobbles and boulders. Depth to bedrock on the east side is expected to be around 40 feet. The surficial mapping is generally consistent with site-specific borings taken at the East Branch of the Black River crossing, located approximately five miles east, where similar unconsolidated sediments and sedimentary bedrock were encountered. Depth to bedrock ranged from 40 to 50 feet. The sandstone and siltstone bedrock samples taken at the East Branch Black River had unconfined compressive strength (UCS) values that averaged approximately 4,280 psi, with the lowest value recorded being 30 psi and highest being 11,300 psi. Similar engineering properties are anticipated for the sandstone and shale beneath the West Branch Black River.

Design Geometry & Layout

The West Branch Black River HDD design involves a horizontal length of 1,676 feet. The design geometry involves a 10-degree entry angle, an 8-degree exit angle, and radius of curvature of 3,600 feet. The HDD design achieves 40 feet of cover at the edge of the easternmost channel of the West Branch Black River, 55 feet beneath the western channel, and 56 feet of cover beneath West Road. The exit point is located in a farm field on the east side of West Branch Black River. There is approximately 1,739 feet of false right-of-way east of the exit point available for pull section fabrication.

The proposed HDD design, as well as plan and profile drawings, were included in the *HDD Design Report NEXUS Pipeline Project, Revision 2* filed with the NEXUS Response to FERC Environmental Information Request 1 in March 2016.

Assessment of Feasibility

Given the length of the proposed 36-inch installation, it is easily within the range of what has been successfully installed using HDD. Likewise, the anticipated subsurface conditions are also conducive to the HDD process. Although there is risk of encountering random cobbles and boulders in the overburden soils, mitigation measures such as setting surface casing down to bedrock can be employed to bridge past these adverse materials and allow for a successful installation.

Attachment 6-4 – Response 16-4

Geotechnical Feasibility Study for HDD of the U.S. Highway 12/RACER Site

Geotechnical Feasibility Study
US-12 HDD

Base Data

In performing the geotechnical feasibility study for the proposed horizontal directional drill ("HDD") crossing of US-12, we have relied upon the following information:

- A combination of LiDAR and traditional topographic survey data covering the proposed crossing location
- Geotechnical data collected by Fugro Consultants, Inc. from March 17, 2016 to April 1, 2016

General Site Description

The 36-inch US-12 Crossing is located in East Ypsilanti, Michigan. It involves passing beneath a railway loop, the eastbound and westbound lanes of State Highway 12, as well as several access ramps to the highway. The north side of the crossing is wooded with adjacent commercial development. The south side consists of parking lots and abandoned sections of Willow Run Airport. The topography in the area is generally flat with the only exceptions being the raised subgrade for the highway and access roads.

An overview of the proposed crossing location is provided in Figure 1.



Figure 1 – Overview of the US-12 Crossing

Subsurface Conditions

Four geotechnical borings were taken as part of the site investigation conducted by Fugro Consultants, Inc. Two of the borings were taken south of U.S. Highway 12, one boring was taken in between the eastbound and westbound lanes of U.S. Highway 12, and the remaining boring was drilled north of U.S. Highway 12. Each boring was drilled to depths ranging from 60 feet to 100 feet below the ground surface.

All four borings encountered primarily lean clay with varying mixtures of silt, sand, and gravel. Approximately 25 percent of the samples contained gravel. Based on gradation tests of select samples, the gravel content was 10 percent or less. However, based on soil sample descriptions in intervals that were not tested, it would appear that there might be zones with up to 25 percent gravel.

Standard Penetration Test (SPT) values ranged from 0 to 30 blows along most of the designed HDD path. At a depth of approximately 75 feet below the ground surface, blow counts increase to about 40 blows per foot, before reaching very hard soils at about 85 feet with blow counts in excess of 50 blows for less than 6 inches.

Random cobbles and/or coarse gravel were suspected in three of the four borings. The potential cobble in Boring US-12-2 was encountered near the termination depth of the boring and below the designed path. Boring US-12-1 encountered a potential cobble at 54 feet and Boring US-12-4 encountered a cobble at 27.5 feet. During drilling of Boring US-12-3A, the logs indicate a possible artesian aquifer was encountered at a depth of roughly 30 to 35 feet. The water was under some pressure but did not flow uncontrollably.

Design Geometry & Layout

The proposed US-12 crossing has a horizontal length of 1,739 feet. It has been designed to achieve 40 feet of cover at the northern edge of the railroad loop and just over 30 feet beneath the exit ramp at the south end of the crossing. The design employs a 10-degree entry, an 8-degree exit angle, and a radius of curvature equal to 3,600 feet. The exit point is located on the south side of the highway where open derelict parking lots can be used for pull section fabrication. The entry point on the north side of the crossing was positioned to maintain a design depth of cover of 40 feet beneath the railroad loop.

The proposed HDD design, as well as plan and profile drawings, were included in the *HDD Design Report NEXUS Pipeline Project, Revision 2* filed with the NEXUS Response to FERC Environmental Information Request 1 in March 2016.

Assessment of Feasibility

Based on available data, we see no reason to rule out installation by HDD at the proposed U.S. 12 crossing site. The proposed length is easily within the range of what has been successfully installed for 36-inch pipelines. Likewise, subsurface conditions are generally conducive to the HDD process. Although random gravel and cobbles are present in the subsurface, they do not appear to be present in high enough percentages to prevent a successful installation.

Attachment 7 – Response 29

Updated NEXUS Residential Crossing Plans

Attachment 8 – Response 31

NEXUS Organic Farm Protection Plan and Updated Site Specific Organic Farm Crossing Plans

NEXUS GAS TRANSMISSION PROJECT

Organic Farm Protection Plan

August 2016

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1.0 INTRODUCTION

NEXUS Gas Transmission, LLC ("NEXUS") recognizes that Organic Agricultural Land is a unique feature of the landscape and will treat this land, and the Organic Crops and Animals being raised on it, with the same level of care as other sensitive environmental features crossed by the proposed NEXUS Gas Transmission Project ("Project" or "NEXUS Project") protected by state and federal laws and/or regulations.

This document identifies mitigation measures that apply specifically to farms that are Certified Organic or farms that are in active transition to become Certified Organic, and is intended to address the unique management and certification requirements of these organic farm operations. The provisions contained in this document will apply to Organic Agricultural Land and Animals for which the Landowner or Tenant has provided to NEXUS a true, correct and current version of the approved Organic System Plan either at the time of NEXUS easement acquisition or within 60 days following easement acquisition.

2.0 DEFINITIONS

The definitions provided for the following defined words and terms used herein, shall apply to singular and plural forms of the defined words and terms.

Apply: To intentionally or inadvertently spread or distribute any substance onto the exposed surface of the soil.

Certifying Agent: Entities accredited by the Secretary of Agriculture, or a representative to whom authority has been delegated to act in the Secretary's stead, as a certifying agent for the purpose of certifying a production or handling operation as a certified production or handling operation and as defined by the National Organic Program Standards, 7 Code of Federal Regulations (CFR) Parts 205.100, 205.101, and 205.202

Decertified or Decertification: Loss of Organic Certification.

Organic Agricultural Land: Farms of portions thereof described in 7 CFR Parts 205.100, 205.101, and 205.202.

Organic Animals: Certified organic livestock and poultry as described in 7 CFR Parts 205.236 through 205.240.

Organic Buffer Zone: An area located between a certified production operation or portion of a production operation and an adjacent land area that is not maintained under organic management. An organic buffer zone must be sufficient in size or other features (e.g., windbreaks or a diversion ditch) to prevent the possibility of unintended contact by prohibited substances applied to adjacent land areas with an area that is part of a certified operation.

Organic Certification or Certified Organic: A determination made by a certifying agent that an agricultural production or handling operation is in compliance with the National Organic Program Standards and the regulations in Part 205, which is documented by a certificate of organic operation and as defined by the National Organic Program Standards, 7 CFR Parts 205.100 and 205.101

Organic System Plan: A plan of management of an organic production or handling operation that has been agreed to by the producer or handler and the certifying agent and that includes written plans concerning all aspects of agricultural production or handling described in the National Organic Program Standards and the regulations in subpart C of Part 205.

Prohibited Substance: A substance the use of which is prohibited or not provided for in the National Organic Program Standards and as defined by the National Organic Program Standards, 7 CFR Part 205.600 through 7 CFR Part 205.606 using the criteria provided in 7 U.S.C. 6517 and 7 USC 6518. Example prohibited substances are provided in the following regulatory citations:

7 CFR § 205.602 Non-synthetic substances prohibited for use in organic crop production. The following non-synthetic substances may not be used in organic crop production: (a) Ash from manure burning. (b) Arsenic. (c) Calcium chloride, brine process is natural and prohibited for use except as a foliar spray to treat a

physiological disorder associated with calcium uptake. (d) Lead salts. (e) Potassium chloride—unless derived from a mined source and applied in a manner that minimizes chloride accumulation in the soil. (f) Sodium fluoaluminate (mined). (g) Sodium nitrate—unless use is restricted to no more than 20% of the crop's total nitrogen requirement; use in spirulina production is unrestricted until October 21, 2005. (h) Strychnine. (i) Tobacco dust (nicotine sulfate). (j)-(z) [Reserved] [68 FR 61992, Oct. 31, 2003

7 CFR § 205.604 Non-synthetic substances prohibited for use in organic livestock production. The following non-synthetic substances may not be used in organic livestock production: (a) Strychnine. (b)-(z) [Reserved].

3.0 ORGANIC SYSTEM PLANS

The State of Ohio and NEXUS recognize the importance of individualized Organic System Plans ("OSP") to the organic farm certification process. NEXUS will work with the Landowner or Tenant, the Landowner or Tenant's Certifying Agent, and/or a mutually acceptable third-party Organic consultant to identify site specific construction practices that will minimize the potential for Decertification of land or animals as a result of Project construction and operation activities. Possible practices may include, but are not limited to: equipment cleaning; use of drop cloths during welding and coating activities; removal and storage of topsoil; planting a deep-rooted cover crops in lieu of mechanical decompaction; applications of composted manure or rock phosphate; preventing the introduction of disease vectors from tobacco use; restoration and replacement of beneficial bird and insect habitat; maintenance of organic buffer zones; use of organic seeds for cover crops; scheduling construction activities around the constraints of the growing or grazing season; or similar measures. NEXUS recognizes that OSPs are proprietary in nature and will respect the Landowner's/Tenant's need for confidentiality.

4.0 PROHIBITED SUBSTANCES

NEXUS will avoid the application of prohibited substances onto Organic Agricultural Land or land used for raising Organic Animals. No herbicides, pesticides, fertilizers or seed will be applied unless requested and/or approved by the landowner. Likewise, no refueling, fuel or lubricant

storage or routine equipment maintenance will be allowed on Organic Agricultural Land. Equipment will be checked prior to entry to make sure that fuel, hydraulic and lubrication systems are in good working order before working on Organic Agricultural Land. If prohibited substances are used on land adjacent to Organic Agricultural Land, these substances will be used in such a way as to prevent them from entering Organic Agricultural Land.

5.0 SOIL HANDLING

Topsoil and subsoil layers that are excavated during construction within certified Organic Agricultural Land will be stored separately and replaced in the proper sequence following pipeline installation. Unless otherwise specified in the site specific plan for the subject organic farm crossing, NEXUS will not use soil from Organic Agricultural Land for other purposes (e.g., creating access ramps at road crossings). No topsoil or subsoil (other than incidental amounts) may be removed from Organic Agricultural Land. Likewise, Organic Agricultural Land will not be used for storage of soil from non-Organic Agricultural Land.

6.0 EROSION CONTROL

On Organic Agricultural Land, NEXUS will, to the extent feasible, implement erosion control methods consistent with the Landowner or Tenant's Organic System Plan. On land adjacent to Organic Agricultural Land, NEXUS' erosion control procedures will be designed, installed, and maintained so that sediment from adjacent non-Organic Agricultural Land will not impact Organic Agricultural Land. Potentially contaminating materials such as chemically treated lumber, non-approved metal fence posts, and non-organic hay will not be used for erosion controls on Organic Agricultural Land.

7.0 WATER IN TRENCHES

During construction, NEXUS will leave an earthen plug in the trench at the boundary of Organic Agricultural Land to prevent trench water from adjacent land from flowing into the trench on Organic Agricultural Land. Likewise, NEXUS will not allow trench water from adjacent land to be pumped onto Organic Agricultural Land.

8.0 WEED AND NOXIOUS INVASIVE SPECIES CONTROL

On Organic Agricultural Land, NEXUS will, to the extent feasible, implement weed and noxious invasive species control measures consistent with the Landowner/Tenant's Organic System Plan. Prohibited substances will not be used for weed and noxious invasive species control on Organic Agricultural Land. In addition, NEXUS will not use prohibited substances in weed and noxious invasive species control on land adjacent to Organic Agricultural Land in such a way as to allow these materials to drift onto Organic Agricultural Land.

9.0 MITIGATION OF NATURAL RESOURCE IMPACTS

NEXUS will not use Organic Agricultural Land for the purpose of compensatory mitigation for impacts to natural resources such as wetlands or woodlands unless approved by the Landowner.

10.0 MONITORING

NEXUS will employ an appropriately trained Agricultural Monitor or Environmental Inspector to monitor construction and restoration activities on Organic Agricultural Land to ensure compliance with the subject organic farm's OSP. The Monitor or Inspector will immediately bring issues of concern having potential to jeopardize compliance with the OSP, to the attention of the contractor and NEXUS. NEXUS will avoid and minimize activities with the potential to result in non-compliance with the OSP and will work with Organic Certifying professionals to mitigate consequences of unanticipated activities with the potential to result in non-compliance with the OSP.

Instances of non-compliance with the OSP will be documented and, in accordance with the Landowner's/Tenant's OSP, and will be made available, upon request, to the Ohio Department of Agriculture, the applicable Landowner/Tenant and to the Landowner's/Tenant's Certifying agent.

NEXUS Agricultural Monitors/Environmental Inspectors responsible for monitoring activities on Organic Agricultural Land, will be trained by the Independent Organic Inspectors Association or a comparable training program.

11.0 COMPENSATION FOR CONSTRUCTION DAMAGES

For crops (including pasture) and products from crops (such as livestock feed, maple syrup, or other value-added products), calculations for potential damages would be based on estimated reductions in crop yield and/or crop quality as the result of construction and operation of the Project and/or the need for restoration measures. Unless the Landowner/Tenant of the Organic Agricultural Land and NEXUS agree otherwise, at NEXUS' expense, crop yield determinations and crop quality determinations will be made. Because organic animals are required to eat organic feed and derive 30% dry matter intake from grazing during the grazing season, organic pastureland affected by construction may also qualify for damages. If Organic Producers are required to pasture animals on organic land owned by others or buy hay to supplement for impacted pasture land, they will be compensated accordingly. If the crop yield and/or crop quality determinations indicate the need for soil testing, the testing will be conducted by a commercial laboratory that is properly certified to conduct the necessary tests. Field testing of soils or collection of soil samples for the purpose of testing will be performed by an appropriately qualified professional. NEXUS will be responsible for the cost of sampling, testing and additional restoration activities, if needed.

For livestock products, such as milk, the settlement of damages will be based on product yield (quantity of milk) and/or quality (including considerations of Somatic Cell Count), and the need for additional restoration measures (such as the replacement of watering troughs, cow lanes, or shelter structures). Unless the Landowner/Tenant of Organic Agricultural Land and NEXUS agree otherwise, at NEXUS' expense, a mutually agreed upon livestock professional will make product yield determinations and determinations regarding animal health. If the yield or animal health determinations indicate the need for testing, the testing will be conducted by a commercial or university laboratory that is properly certified to conduct the necessary tests. Any contact with animals will be conducted by an agricultural professional or qualified animal scientist. NEXUS will be responsible for the cost of sampling, testing, and additional health restoration activities, if needed.

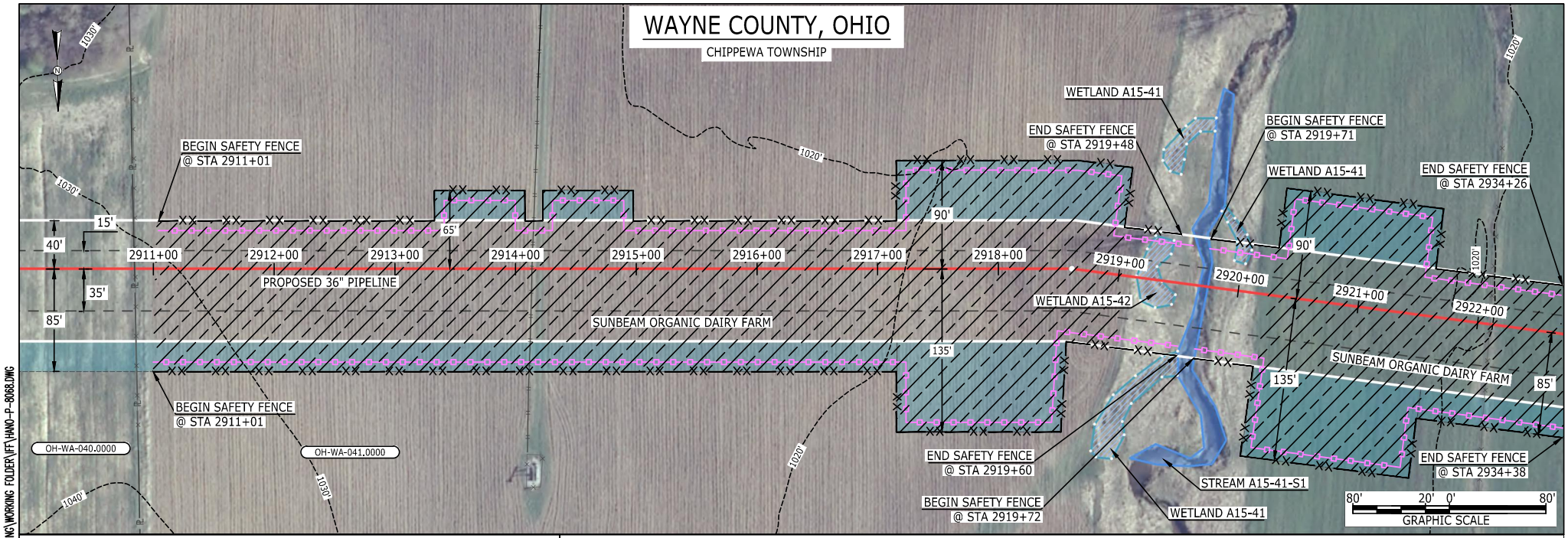
Landowner/Tenants may elect to settle damages with NEXUS based on a mutually agreeable assessment of damages.

12.0 COMPENSATION FOR DAMAGES DUE TO DECERTIFICATION

Should any portion of the Organic Agricultural Land or Animals be decertified as a result of construction activities, damages will be based on the difference between revenue generated from the land or animals affected before and after decertification for a period of time necessary to bring the land back into certification or replace decertified animals, so long as a good faith effort is made by the Landowner/Tenant to regain certification.

13.0 REFERENCES

United States Government Publishing Office. 2011. Part 205 – National Organic Program. Available online at: https://www.gpo.gov/fdsys/pkg/CFR-2011-title7-vol3/xml/CFR-2011-title7-vol3-part205.xml#seqnum205.600 Accessed on August 16, 2016.



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- TRAILS / ORGANIC FARMS

PAR-0.0 TAR-0.0

- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILLING
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:
SUNBEAM ORGANIC DAIRY FARM CROSSING IS WITHIN PARCEL TRACT NO. OH-WA-041.0000
OWNED BY JOSEPH D. STOLLER AND MARIAN S. STOLLER TRUSTS.
OPEN CUT CROSSING

SPECIAL NOTES:
1. SEE DWG HANO-P-8069 FOR THE CONTINUATION OF FARM CROSSING.
2. RESTORATION WILL BE IN ACCORDANCE WITH THE LANDOWNER'S ORGANIC SYSTEM PLAN. 2
3. STANDARD SOIL HANDLING TECHNIQUES TO BE UTILIZED.
4. NEXUS TO PROVIDE ENVIRONMENTAL MONITORS DURING ALL CONSTRUCTION ACTIVITIES WHILE WORK BEING PERFORMED ON ORGANIC FARMS.

REVISION 2:
SPECIAL NOTES AND NOTES UPDATED TO REFERENCE LAND OWNER'S ORGANIC SYSTEM PLAN AND ORGANIC FARM PROTECTION PLAN.

NOTES
1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD'S) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE E&SCP AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR AS NEEDED. THE LOCATION OF ECD'S DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. ORGANIC FARMS MITIGATION TECHNIQUES ARE LOCATED IN THE ORGANIC FARM PROTECTION PLAN. 2

IG.#	REV.#	DESCRIPTION	DATE
	2	ISSUED FOR FERC	19AUG16
	1B	ISSUED FOR FERC	15MAR16
	1A	ISSUED FOR FERC	26FEB16
	1	ISSUED FOR FERC	23FEB16

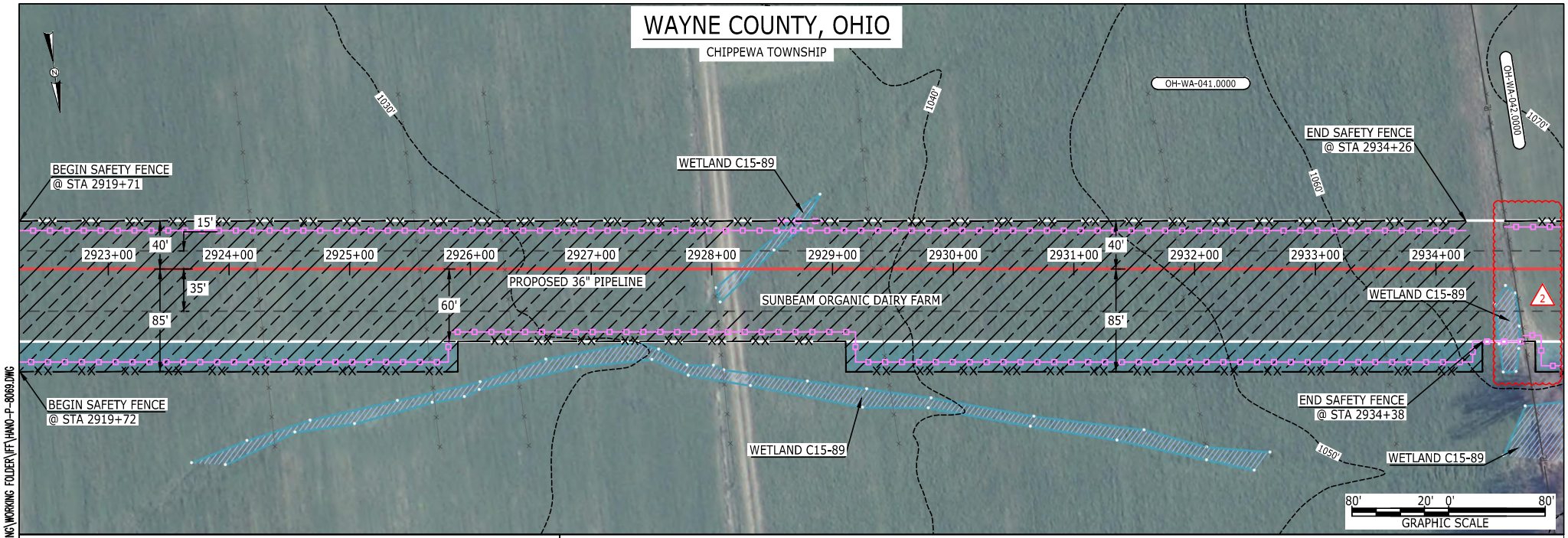
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CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
SUNBEAM ORGANIC DAIRY FARM CROSSING
MP 55.12 TO MP 55.58

LOC.: WAYNE COUNTY, OHIO REV.: 2
YR.: 2017 W.O. DWG.NO. HANO-P-8068

NEXUS GAS TRANSMISSION

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LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- TRAILS / ORGANIC FARMS
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILLING
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

SUNBEAM ORGANIC DAIRY FARM CROSSING, WITHIN PARCEL TRACT NO. OH-WA-041.0000
OWNED BY JOSEPH D. STOLLER AND MARIAN S. STOLLER TRUSTS.
OPEN CUT CROSSING

SPECIAL NOTES:
1. SEE DWG HANO-P-8068 FOR THE CONTINUATION OF FARM CROSSING.
2. RESTORATION WILL BE IN ACCORDANCE WITH LANDOWNER'S ORGANIC SYSTEM PLAN. 2
3. STANDARD SOIL HANDLING TECHNIQUES TO BE UTILIZED.
4. NEXUS TO PROVIDE ENVIRONMENTAL MONITORS DURING ALL CONSTRUCTION ACTIVITIES WHILE WORK BEING PERFORMED ON ORGANIC FARMS.
5. SEE DWG HANO-P-8900 FOR ADJACENT ORGANIC FARM CROSSING. 2

REVISION 2:
UPDATED TO REFERENCE ADJACENT ORGANIC FARM CROSSING.
SPECIAL NOTES AND NOTES UPDATED TO REFERENCE LAND OWNER'S ORGANIC SYSTEM PLAN AND ORGANIC FARM PROTECTION PLAN.

NOTES
1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD'S) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE E&SCP AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR AS NEEDED. THE LOCATION OF ECD'S DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. ORGANIC FARMS MITIGATION TECHNIQUES ARE LOCATED IN THE ORGANIC FARM PROTECTION PLAN. 2

IG.#	REV.#	DESCRIPTION	DATE
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	1B	ISSUED FOR FERC	15MAR16
	1A	ISSUED FOR FERC	26FEB16
	1	ISSUED FOR FERC	23FEB16

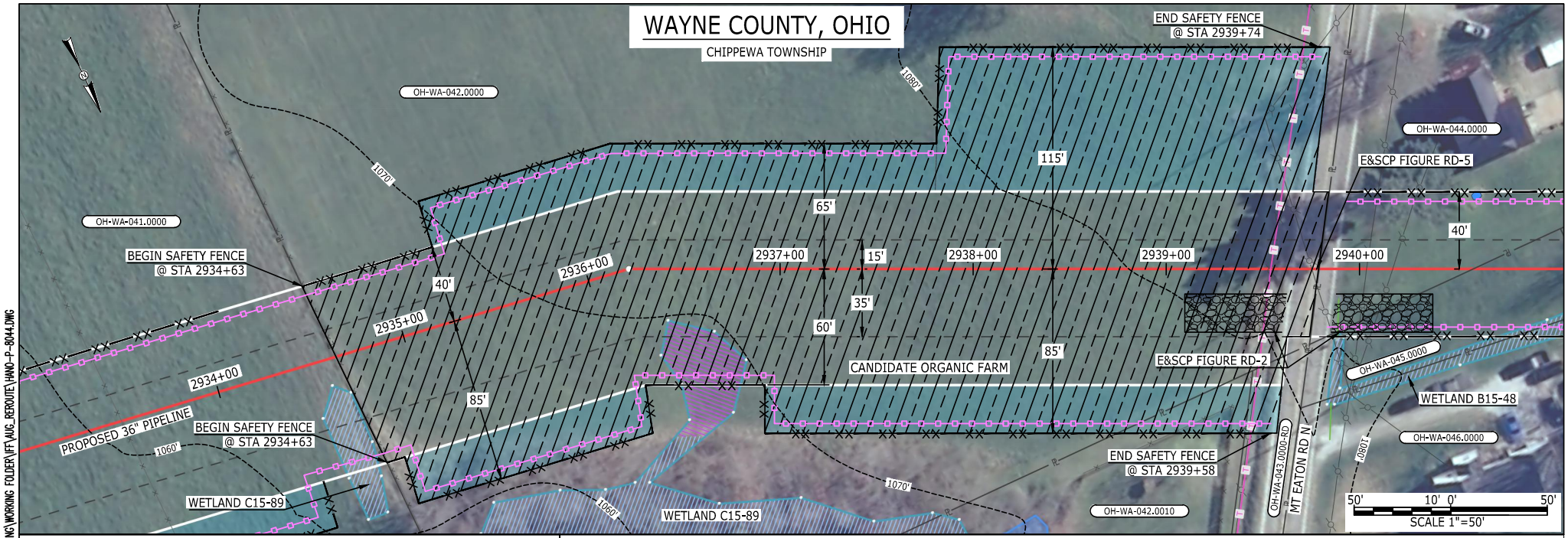
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CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
SUNBEAM ORGANIC DAIRY FARM CROSSING
MP 55.12 TO MP 55.58

LOC.: WAYNE COUNTY, OHIO REV.: 2
YR.: 2017 W.O. DWG.NO. HANO-P-8069

NEXUS GAS TRANSMISSION

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1:21pm
August 25, 2016
MES13858

LEGEND

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- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST (M 00 P)
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD (PAR-0.0)
- TEMPORARY ACCESS ROAD (TAR-0.0)
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- TRAILS / ORGANIC FARMS
- POWERLINES
- CONTOUR LINE (1200')
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE (T)
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE (W)
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILLING
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

CANDIDATE ORGANIC FARM CROSSING IS WITHIN PARCEL TRACT NO. OH-WA-042.0000

OWNED BY ISABEL KOGER.

OPEN CUT CROSSING

SPECIAL NOTES:

1. FOR ADJACENT ORGANIC FARM SEE DRAWING HANO-P-8069 & HANO-P-8068.
2. FOR ADJACENT RESIDENTIAL CROSSING PLAN SEE HANO-P-8062.
3. RESTORATION WILL BE IN ACCORDANCE WITH LANDOWNER'S ORGANIC SYSTEM PLAN.
4. STANDARD SOIL HANDLING TECHNIQUES TO BE UTILIZED.
5. NEXUS TO PROVIDE ENVIRONMENTAL MONITORS DURING ALL CONSTRUCTION ACTIVITIES WHILE WORK BEING PERFORMED ON ORGANIC FARMS.

REVISION 0:

FERC DEIS RECOMMENDATIONS REQUESTED SITE SPECIFIC CROSSING PLANS FOR CANDIDATE ORGANIC FARMS.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD'S) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE E&SCP AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR AS NEEDED. THE LOCATION OF ECD'S DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. ORGANIC FARMS MITIGATION TECHNIQUES ARE LOCATED IN THE ORGANIC FARM PROTECTION PLAN.

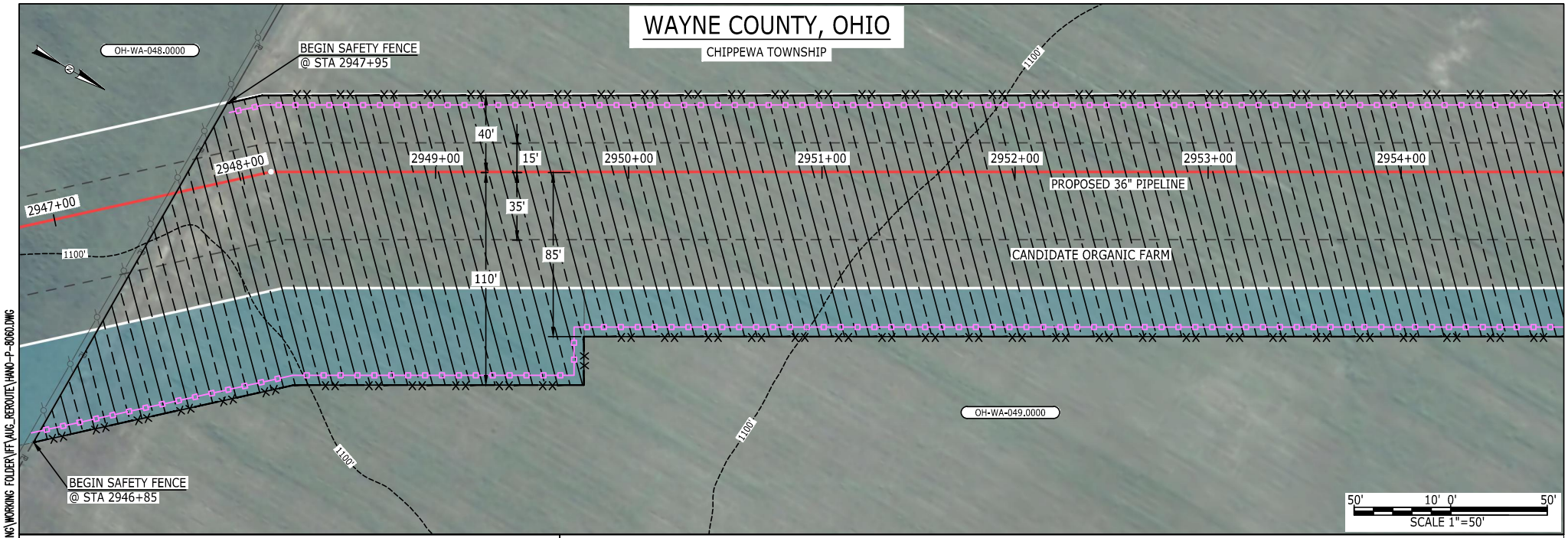
IG.#	REV.#	DESCRIPTION	DATE
	0	ISSUED FOR FERC	12AUG16

PROJ. ENG. VP
CHECKED BY: RMG
DRAWN BY: RSM
SCALE: AS SHOWN DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
CANDIDATE ORGANIC FARM CROSSING
MP 55.58 TO MP 55.68

LOC.: WAYNE COUNTY, OHIO REV.: 0
YR.: 2017 W.O. DWG.NO. HANO-P-8900

NEXUS GAS TRANSMISSION



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- TRAILS / ORGANIC FARMS
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, OIL, WATER, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILLING
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

CANDIDATE ORGANIC FARM CROSSING IS WITHIN PARCEL TRACT NO. OH-WA-049.0000

OWNED BY MARY SAUER, JAMES W. AND RUTH E. STAUFFER.

OPEN CUT CROSSING

SPECIAL NOTES:

1. SEE DWG HANO-P-8902 FOR CONTINUATION OF FARM AREA.
2. RESTORATION WILL BE IN ACCORDANCE WITH LANDOWNER'S ORGANIC SYSTEM PLAN.
3. STANDARD SOIL HANDLING TECHNIQUES TO BE UTILIZED.
4. NEXUS TO PROVIDE ENVIRONMENTAL MONITORS DURING ALL CONSTRUCTION ACTIVITIES WHILE WORK BEING PERFORMED ON ORGANIC FARMS.

REVISION 0:

FERC DEIS RECOMMENDATIONS REQUESTED SITE SPECIFIC CROSSING PLANS FOR CANDIDATE ORGANIC FARMS.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD'S) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE E&SCP AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR AS NEEDED. THE LOCATION OF ECD'S DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. ORGANIC FARMS MITIGATION TECHNIQUES ARE LOCATED IN THE ORGANIC FARM PROTECTION PLAN.

IG.#	REV.#	DESCRIPTION	DATE
	0	ISSUED FOR FERC	12AUG16

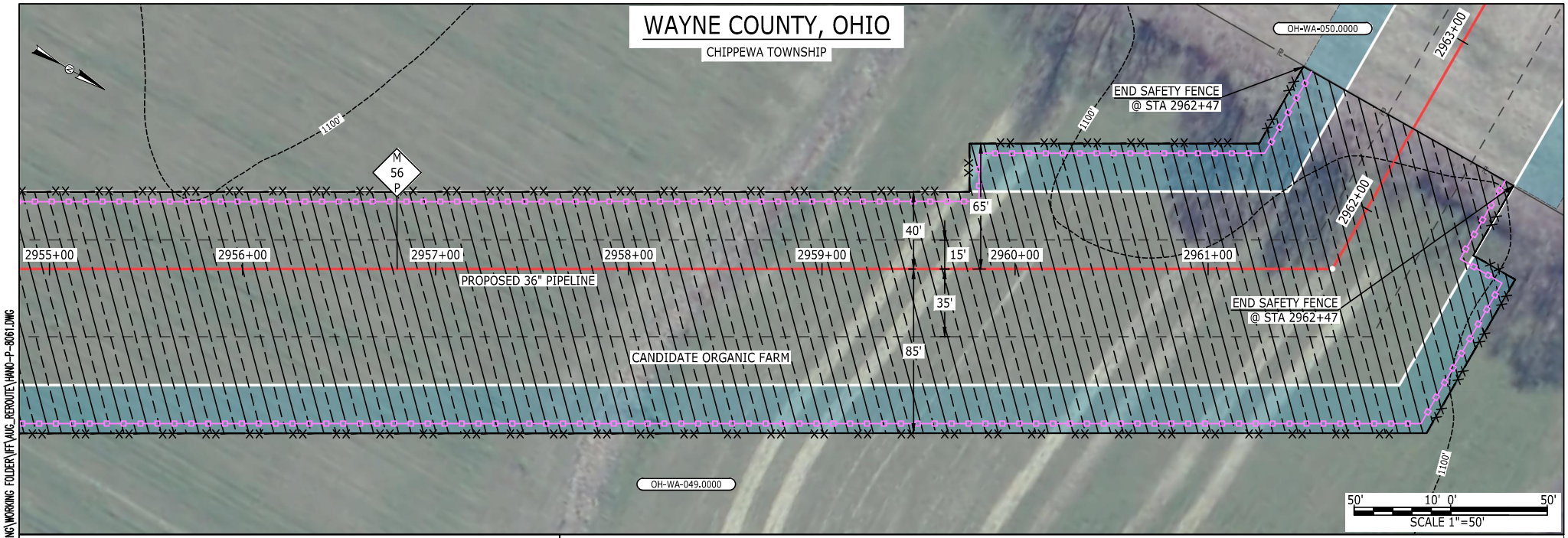
PROJ. ENG. VP
CHECKED BY: RMG
DRAWN BY: RSM
SCALE: AS SHOWN DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
CANDIDATE ORGANIC FARM CROSSING
MP 55.83 TO MP 56.11

LOC.: WAYNE COUNTY, OHIO REV.: 0
YR.: 2017 W.O. DWG.NO. HANO-P-8901

NEXUS GAS TRANSMISSION

MES13858
August 25, 2016 1:22pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\AUG_REROUTE\HANO-P-8060.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST (M 00 P)
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD (PAR-0.0)
- TEMPORARY ACCESS ROAD (TAR-0.0)
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- TRAILS / ORGANIC FARMS
- POWERLINES
- CONTOUR LINE (1200')
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE (T)
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE (W)
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, OIL, WATER, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILLING
- LIGHT POLE
- FIRE HYDRANT
- MICROWAVE TOWER
- TOWER
- TANK

DESCRIPTION:

CANDIDATE ORGANIC FARM CROSSING IS WITHIN PARCEL TRACT NO. OH-WA-049.0000

OWNED BY MARY SAUER, JAMES W. AND RUTH E. STAUFFER.

OPEN CUT CROSSING

SPECIAL NOTES:
1. SEE DWG HANO-P-8901 FOR CONTINUATION OF FARM AREA.
2. RESTORATION WILL BE IN ACCORDANCE WITH LANDOWNER'S ORGANIC SYSTEM PLAN.
3. STANDARD SOIL HANDLING TECHNIQUES TO BE UTILIZED.
4. NEXUS TO PROVIDE ENVIRONMENTAL MONITORS DURING ALL CONSTRUCTION ACTIVITIES WHILE WORK BEING PERFORMED ON ORGANIC FARMS.

REVISION 0:
FERC DEIS RECOMMENDATIONS REQUESTED SITE SPECIFIC CROSSING PLANS FOR CANDIDATE ORGANIC FARMS.

NOTES
1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD'S) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE E&SCP AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR AS NEEDED. THE LOCATION OF ECD'S DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. ORGANIC FARMS MITIGATION TECHNIQUES ARE LOCATED IN THE ORGANIC FARM PROTECTION PLAN.

IG.#	REV.#	DESCRIPTION	DATE
	0	ISSUED FOR FERC	12AUG16

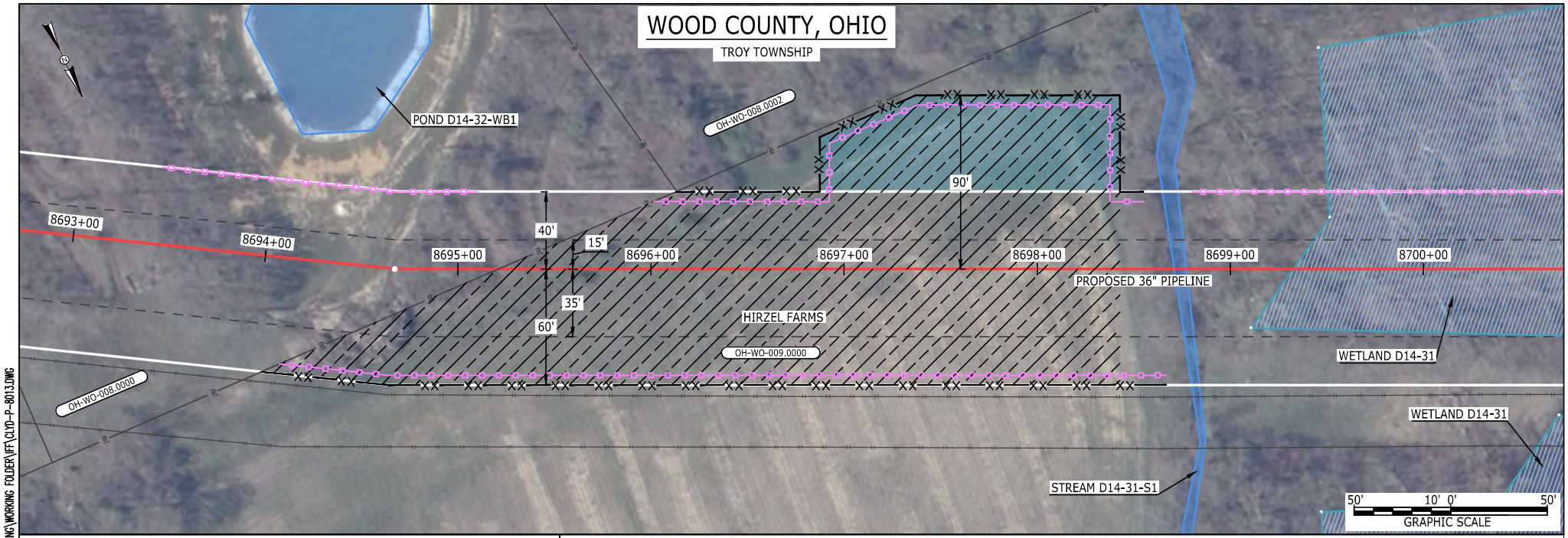
PROJ. ENG. VP		
CHECKED BY: RMG		
DRAWN BY: RSM		
SCALE: AS SHOWN	DATE	

TITLE:
NEXUS GAS TRANSMISSION PROJECT
CANDIDATE ORGANIC FARM CROSSING
MP 55.83 TO MP 56.11

LOC.: WAYNE COUNTY, OHIO		REV.: 0
YR.: 2017	W.O.	DWG.NO. HANO-P-8902

NEXUS GAS TRANSMISSION

MES13858
August 25, 2016 1:28pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\EFF\AUG_REROUTE\HANO-P-8061.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- TRAILS / ORGANIC FARMS
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILLING
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

HIRZEL FARMS CROSSING WITHIN PARCEL TRACT NO. OH-WO-009.0000 OWNED BY LIZABETH JO HIRZEL TRUST
NORTHWOOD REALTY CO., OH-WO-009.0001 ABUTS PROJECT TO THE NORTH AND IS ALSO PART OF THE FARM.
OPEN CUT CROSSING

SPECIAL NOTES:

1. RESTORATION WILL BE IN ACCORDANCE WITH THE LANDOWNER'S ORGANIC SYSTEM PLAN. 2
2. STANDARD SOIL HANDLING TECHNIQUES TO BE UTILIZED.
3. NEXUS TO PROVIDE ENVIRONMENTAL MONITORS DURING ALL CONSTRUCTION ACTIVITIES WHILE WORK BEING PERFORMED ON ORGANIC FARMS.

REVISION 2:

SPECIAL NOTES AND NOTES UPDATED TO REFERENCE LAND OWNER'S ORGANIC SYSTEM PLAN AND ORGANIC FARM PROTECTION PLAN.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD'S) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE E&SCP AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR AS NEEDED. THE LOCATION OF ECD'S DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. ORGANIC FARMS MITIGATION TECHNIQUES ARE LOCATED IN THE ORGANIC FARM PROTECTION PLAN. 2

IG.#	REV.#	DESCRIPTION	DATE
	2	ISSUED FOR FERC	17AUG16
	1A	ISSUED FOR FERC	15MAR16
	1	ISSUED FOR FERC	23FEB16
	0	ISSUED FOR FERC FILING	03NOV15

PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN
DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
HIRZEL FARMS CROSSING
MP 164.67 TO MP 164.94

LOC.: WOOD COUNTY, OHIO
REV.: 2
YR.: 2017
W.O.
DWG.NO. CLYD-P-8013

NEXUS GAS TRANSMISSION

MES13858
August 23, 2016 12:51pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\CLYD-P-8013.DWG

Attachment 9a – Response 33

NEXUS Conversation Record with Farm Service Agency

Telephone Conversation Log

NEXUS Gas Transmission, LLC
NEXUS Gas Transmission Project

DATE: July 20 and 21, 2016

THIS CONVERSATION TOOK PLACE BETWEEN:			
Agency/Organization/Individual Contacted		**TRC Representative**	
Name / Title:	Jill Ritchie, County Executive Director	Name / Title:	Stephenie Jordan, Environmental Permitting Specialist
Agency/ Organization:	Farm Service Agency, Columbiana-Mahoning County	Office Location:	Scarborough, Maine
Address:	1834 S. Lincoln Avenue Salem, OH 44460-4393	Subject of Call:	Pipeline Construction Across Lands Enrolled in Conservation Reserve Program
Phone:	330-424-5525	CC:	Matt Barczyk, Spectra Energy Kathleen Redmond-Miller, TRC

THE FOLLOWING WAS DISCUSSED:

July 20 – I called the Columbiana-Mahoning County office of the Farm Service Agency ("FSA") to discuss the impact of pipeline construction across lands enrolled in the FSA's Conservation Reserve Program ("CRP"). I spoke with Jill and discussed this topic in general terms. She said that pipeline construction is allowed on lands enrolled in the CRP. Generally, the work is not an issue due to the short term disturbance during pipeline construction and proper restoration of the land as long as it is returned to its intended use. Jill said that CRP participants typically let the FSA know of upcoming disturbances in advance so that the FSA can review details of the proposed work. The FSA will then work with the landowner to ensure the land cover is not disturbed for any length of time (>1-2 days), the land is restored properly after construction, and the restored area is meeting conservation purposes. If the proposed work results in a cut tile line, the FSA would contact the NRCS so they may visit the site to ensure the area is restored properly.

Depending on the type of practices that are currently in place on the property, the impact may violate landowner agreements with the FSA. For instance, if a landowner has a conservation plan in place that specifies certain practices such as tree planting for erosion control and encouraging wildlife habitat, then clearing those trees would be a violation of the contract with the FSA. The FSA would rectify the issue with the contract holder or landowner and determine an appropriate course of action (e.g., replant seedlings). In general, tree conservation practices are meant for erosion control and/or establishing wildlife habitat.

July 21 – I called the FSA Columbiana-Mahoning County office again with a few follow up questions. First, Ms. Ritchie explained that her office may not have the same procedures for reviewing pipeline construction across CRP lands and every office may handle these issues differently. When asked if a landowner is required to notify the FSA of a pipeline crossing on their CRP land, she said they usually do notify the FSA and often, the neighbors will if the landowner doesn't. After construction and restoration, she said employees at the FSA Columbiana-Mahoning County office always conduct a site visit. When asked if the permanent right-of-way results in a loss of land for tree conservation (if land has a tree planting stipulation in contract), Ms. Ritchie stated that the work would cause a breach of contract for the landowner. She said her office would work with the landowner to rectify the loss or the landowner may be required to refund money to the FSA.

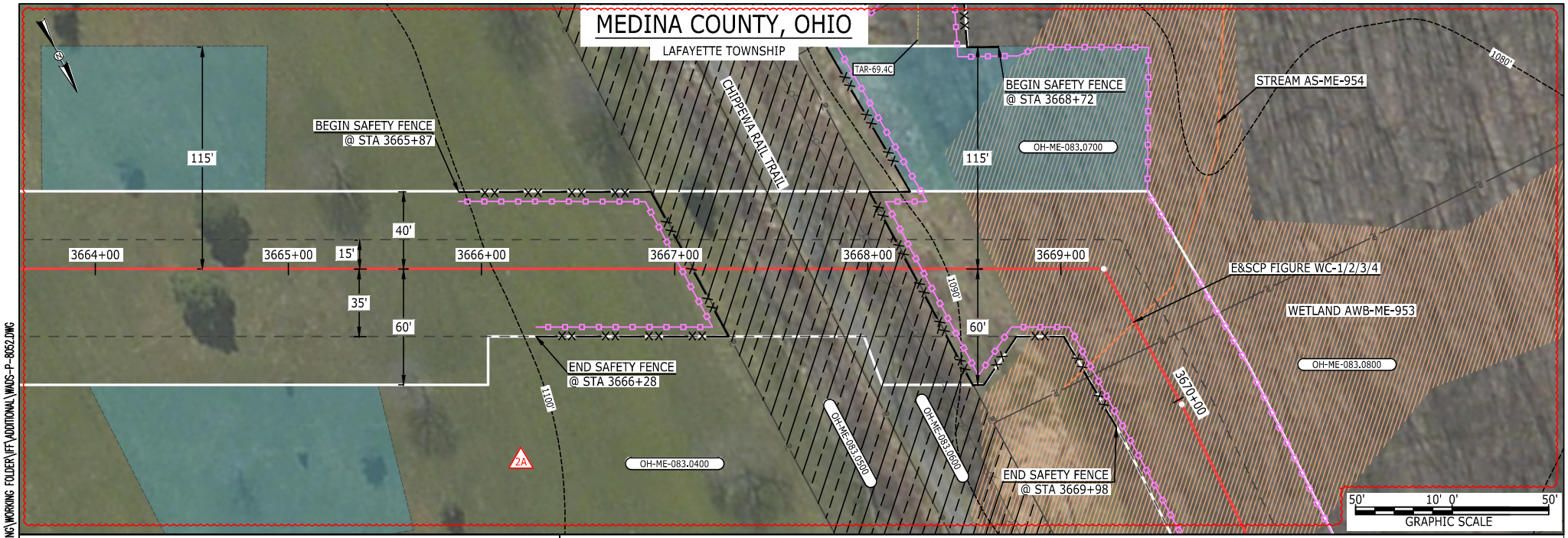
Attachment 9b – Response 34

Table 8.4.2-Rev 2 - NEXUS Properties Crossed by Farm Service Agency Enrolled Lands

BOUND SEPARATELY IN
(VOLUME III- FILED PRIVILEGED & CONFIDENTIAL)

Attachment 10 – Response 37

Updated NEXUS Site Specific Trail Crossing Plans



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST (M 00 P)
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK (PAR-0.0)
- DELINEATED WETLAND BOUNDARY (TAR-0.0)
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREAS
- POWERLINES
- CONTOUR LINE (1200')
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

CHIPPEWA RAIL TRAIL WITHIN PARCEL TRACT NO. OH-ME-083.0500 & OH-ME-083.0600. 2A

LAND OWNERSHIP / LAND MANAGEMENT: MEDINA COUNTY PARK DISTRICT.

BORE METHOD CROSSING. 2A

REVISION 2A:

CENTERLINE REROUTED DUE TO STAKEHOLDERS REQUEST. TWS/ATWS ADJUSTED ACCORDINGLY.
SILT FENCE AND SAFETY FENCE UPDATED BASED ON CONSTRUCTION METHODOLOGY.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

REV.#	DESCRIPTION	DATE
2A	ISSUED FOR FERC	18AUG16
2	ISSUED FOR FERC	25APR16

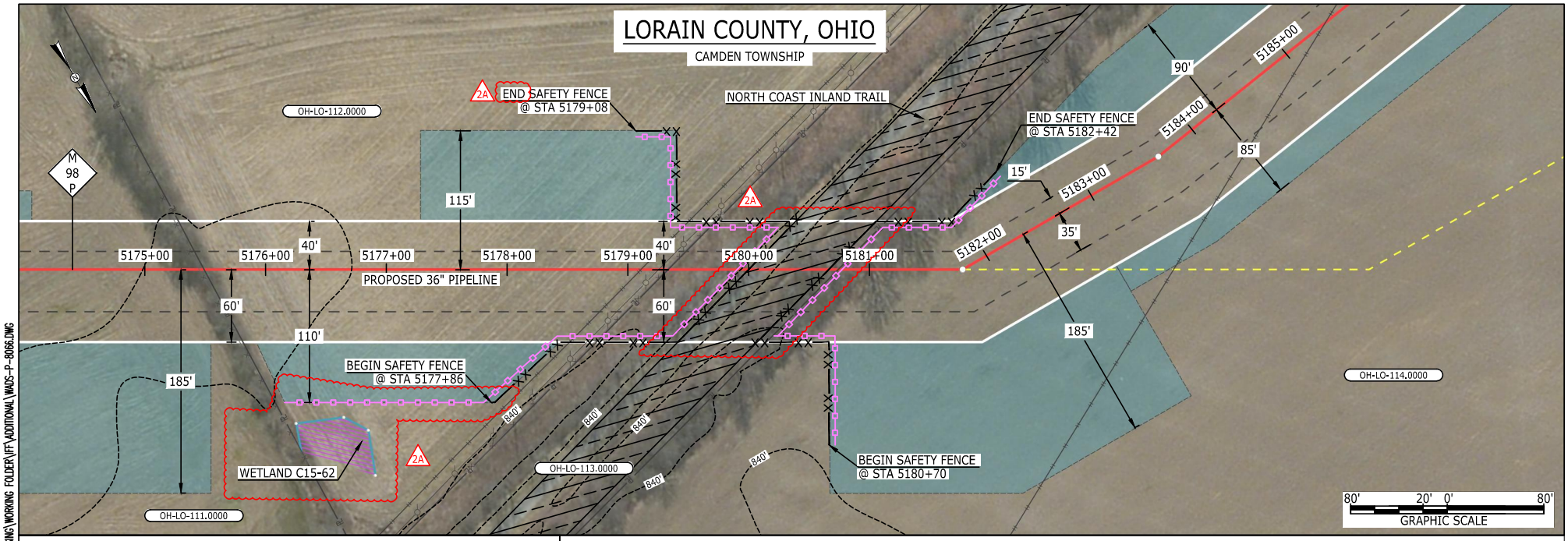
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: RSM
SCALE: AS SHOWN DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
CHIPPEWA RAIL TRAIL CROSSING
MP 69.45C TO MP 69.47C 2A

LOC.: MEDINA COUNTY, OHIO REV.: 2A
YR.: 2017 W.O. DWG.NO. WADS-P-8052

NEXUS GAS TRANSMISSION

MES13858
August 23, 2016 1:54pm
Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\WADS-P-8052.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

NORTH COAST INLAND TRAIL WITHIN PARCEL TRACT NO. OH-LO-113.0000.

LAND OWNERSHIP / LAND MANAGEMENT: LORAIN COUNTY METRO PARK DISTRICT.

BORED METHOD CROSSING. 2A

REVISION 2A:
RESOURCES UPDATED BASED ON WETLAND FIELD SURVEY.
SILT AND SAFETY FENCE UPDATED BASED ON CONSTRUCTION METHODOLOGY.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

REV.#	DESCRIPTION	DATE
2A	ISSUED FOR FERC	04AUG16
2	ISSUED FOR FERC	25APR16

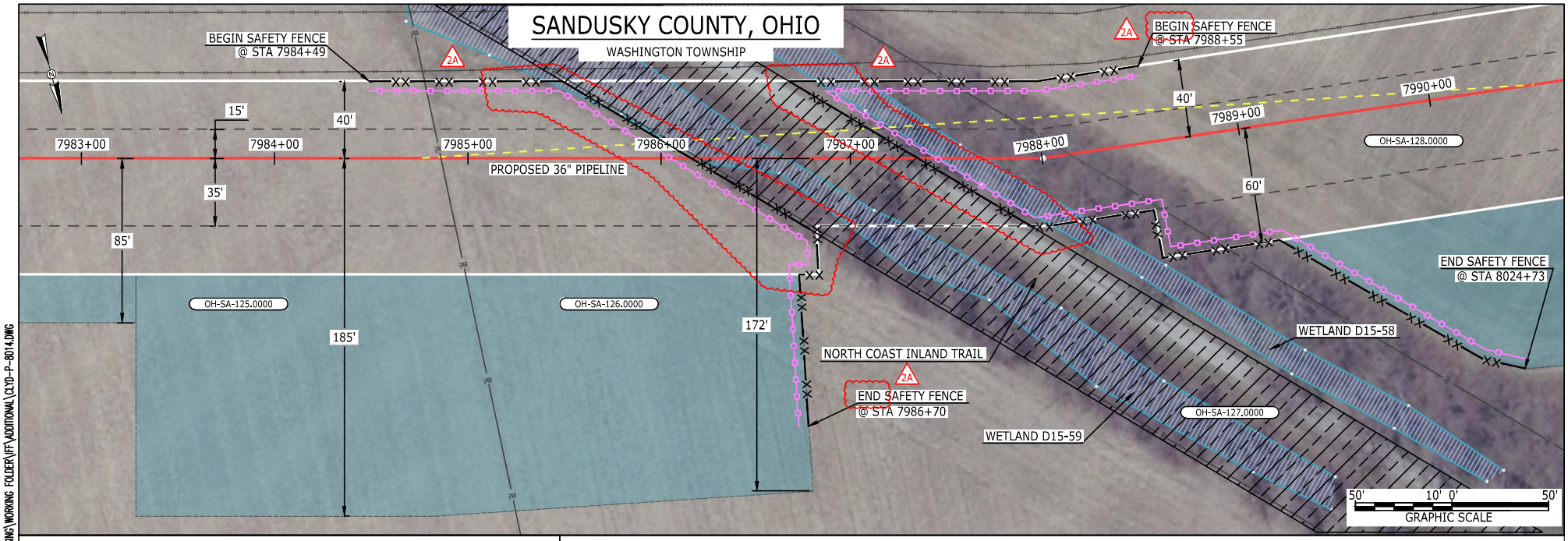
PROJ. ENG. VP
CHECKED BY: DOB
DRAWN BY: JVM
SCALE: AS SHOWN

TITLE:
NEXUS GAS TRANSMISSION PROJECT
NORTH COAST INLAND TRAIL CROSSING
MP 98.10 TO MP 98.11

LOC.: LORAIN COUNTY, OHIO
REV.: 2A
YR.: 2017
W.O.
DWG.NO. WADS-P-8066

NEXUS GAS TRANSMISSION

BEL24588 August 17, 2016 1:20pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF_ADDITIONAL\WADS-P-8066.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST (M 00 P)
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD (PAR-0.0)
- TEMPORARY ACCESS ROAD (TAR-0.0)
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREA
- POWERLINES
- CONTOUR LINE (1200')
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE (W)
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER (00-XX-000.0000)
- MUNICIPALITY LINE
- WELL: GAS, OIL, WATER, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE
- FIRE HYDRANT
- MICROWAVE TOWER
- TOWER
- TANK

DESCRIPTION:

NORTH COAST INLAND TRAIL CROSSING WITHIN PARCEL TRACT NO. OH-SA-127.0000.

LAND OWNERSHIP / LAND MANAGEMENT: SANDUSKY COUNTY PARK DISTRICT.

BORED METHOD CROSSING. 2A

REVISION 2A:

UPDATED SAFETY FENCE AND SILT FENCE BASED ON UPDATED CONSTRUCTION METHODOLOGY.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

IG.#	REV.#	DESCRIPTION	DATE
	2A	ISSUED FOR FERC	16AUG16
	2	ISSUED FOR FERC	25APR16

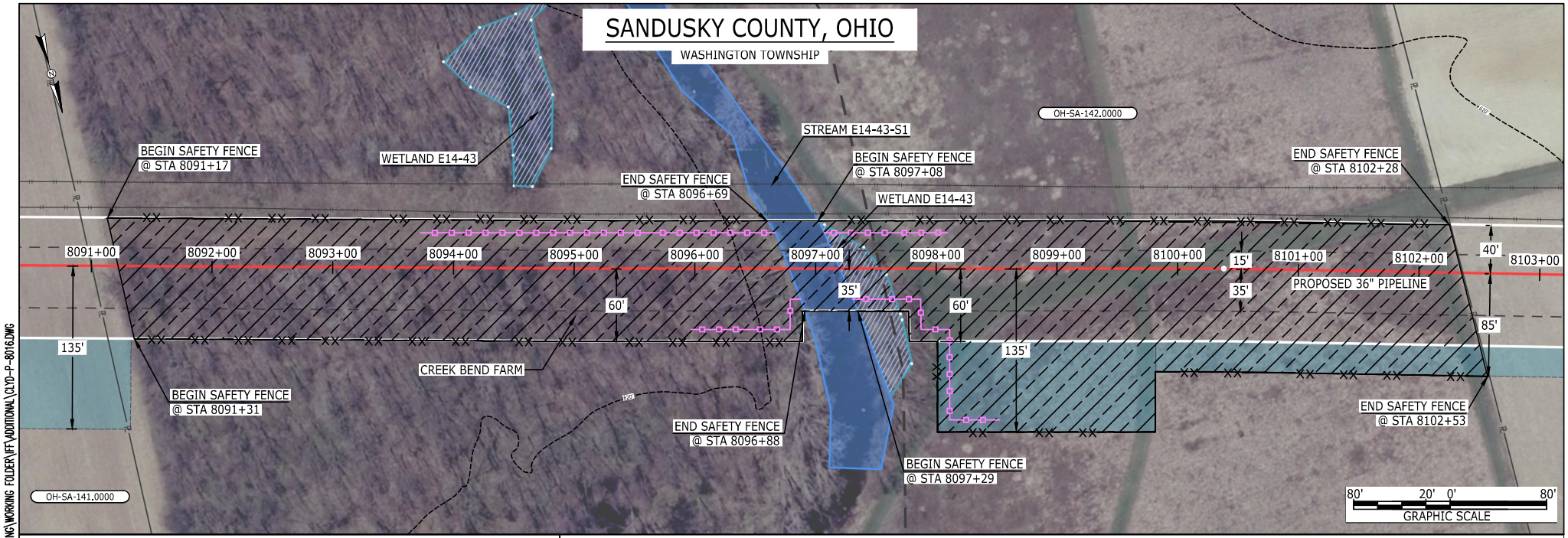
PROJ. ENG.	VP	
CHECKED BY:	DOB	
DRAWN BY:	JVM	
SCALE: AS SHOWN		DATE

TITLE:
NEXUS GAS TRANSMISSION PROJECT
NORTH COAST INLAND TRAIL CROSSING
MP 151.24R TO MP 151.26R

LOC.: SANDUSKY COUNTY, OHIO | REV.: 2A
YR.: 2017 | W.O. | DWG.NO. CLYD-P-8014

NEXUS GAS TRANSMISSION

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August 17, 2016 1:13pm Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\VF ADDITIONAL\CLYD-P-8014.DWG



LEGEND

- PROPOSED NEXUS PIPELINE
- PROPOSED NEXUS PIPELINE - NOV. 2015 ROUTE
- INTERCONNECTING PIPELINE
- PIPELINE MILEPOST
- CONSTRUCTION LIMIT
- PERMANENT ROW
- ADDITIONAL TEMPORARY WORKSPACE
- STAGING AREA
- WAREYARD
- ROCK ACCESS PAD
- PERMANENT ACCESS ROAD
- TEMPORARY ACCESS ROAD
- DELINEATED WATERBODY BANK
- DELINEATED WETLAND BOUNDARY
- AGRICULTURAL PEM WETLAND BOUNDARY
- DELINEATED WATERBODY CENTERLINE
- APPROXIMATE WATERBODY BANK
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE WATERBODY CENTERLINE
- PUBLIC LANDS / DESIGNATED RECREATION OR SCENIC AREAS
- POWERLINES
- CONTOUR LINE
- SILT FENCE
- STRAW BALE
- FOREIGN PIPELINES
- TELEPHONE
- FENCE
- RAILROAD TRACK
- ROAD CL
- WATER PIPELINE
- UTILITY LINE
- PROPERTY LINE
- SAFETY FENCE
- TRACT NUMBER
- MUNICIPALITY LINE
- WELL: GAS, WATER, OIL, UNKNOWN
- MAINLINE VALVE (MLV)
- BLOW OFF VALVE
- HORIZONTAL DIRECTIONAL DRILL
- LIGHT POLE, FIRE HYDRANT
- MICROWAVE TOWER, TOWER
- TANK

DESCRIPTION:

CREEK BEND FARM CROSSING WITHIN PARCEL TRACT NO. OH-SA-142.0000.

LAND OWNERSHIP / LAND MANAGEMENT: THE SANDUSKY COUNTY PARK DISTRICT.

STANDARD WATERBODY, WETLAND OR UPLAND CONSTRUCTION TECHNIQUES PER THE EROSION & SEDIMENT CONTROL PLAN.

NOTES

1. SAFETY FENCE WILL BE INSTALLED AS A DEMARCATION OF THE CONSTRUCTION BUFFER ZONE AT THE EDGE OF THE CONSTRUCTION WORKSPACE.
2. FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.
3. THE FINAL LOCATION OF EROSION CONTROL DEVICES (ECD's) WILL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN (E&SCP) AND PROJECT REQUIREMENTS, AND IN CONSULTATION WITH THE ENVIRONMENTAL INSPECTOR (EI) AS NEEDED. THE ECD's SHOWN ON THIS DRAWING ARE SITE SPECIFIC FOR THE FEATURE BEING CROSSED. THIS SITE SPECIFIC DRAWING DOES NOT INCLUDE ECDs FOR OTHER ENVIRONMENTAL FEATURES ON THIS DRAWING, THOSE ECD's WILL BE INSTALLED IN ACCORDANCE WITH THE E&SCP. THE LOCATION OF ECD's DEPICTED ON THIS PLAN ARE INTENDED FOR GUIDANCE PURPOSES ONLY.
4. SAFETY FENCING STATION IS APPROXIMATED.

IG.#	REV.#	DESCRIPTION	DATE
2A	2A	ISSUED FOR FERC	17AUG16
2	2	ISSUED FOR FERC	25APR16

PROJ. ENG.	VP	
CHECKED BY:	DOB	
DRAWN BY:	RSM	
SCALE: AS SHOWN	DATE	

TITLE:
NEXUS GAS TRANSMISSION PROJECT
CREEK BEND FARM CROSSING
MP 153.23 TO MP 153.44

LOC.: SANDUSKY COUNTY, OHIO | REV.: 2A

YR.: 2017 | W.O. | DWG.NO. CLYD-P-8016

NEXUS GAS TRANSMISSION

BEL24588
August 19, 2016 11:16am Filename: P:\CAD\295_PIPELINE\TRAIL CROSSING\WORKING FOLDER\FF\ADDITIONAL\CLYD-P-8016.DWG

Attachment 11 – Response 40

Ohio Department of Natural Resources Coastal Zone Consistency Certification

Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR — JAMES ZEHRINGER, DIRECTOR

April 8, 2016

Michael Lychwala, Senior Project Manager
TRC Solutions
6 Ashley Drive, 1st Floor
Scarborough, Maine 04074
mlychwala@trcsolutions.com

Sent via E-mail

Dear Mr. Lychwala:

This letter regards the Federal Consistency Certification submitted with FERC Certificate Project Number CP16-22-000, which proposes a pipeline crossing through a portion of the Ohio coastal zone. To obtain a federal permit for projects within the coastal zone, applicants are required to certify consistency with the Ohio Coastal Management Program, which is administered by the Ohio Department of Natural Resources (ODNR) Office of Coastal Management.

This letter is to inform you that ODNR concurs with your Federal Consistency Certification. No further coordination with this office regarding Federal Consistency is required.

A copy of this letter is being forwarded to Rebecca Winterringer with TRC Solutions. If you need additional information or have any questions regarding your Federal Consistency review, please feel free to contact me at (419) 609-4104.

Sincerely,

Steve Holland
Federal Consistency Administrator

ec: Rebecca Winterringer, TRC Solutions
Scudder D. Mackey, Ph.D., Chief, ODNR Office of Coastal Management
John Kessler, P.E., ODNR Office of Real Estate

Attachment 12 – Response 41

Updated Table 8.3-4-Rev 2 Environmental Sites within 0.25 mile of the NEXUS

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
Ohio									
104, 145	Columbiana	1.9	Dalonzos Italian Restaurant	29835 St Rt 30, Hanoverton	486	ARCHIVE UST, LUST, UST	Inactive	Release on an unknown date, unknown amount of unknown chemical	No further review at this time
98-100, 143	Columbiana	13.2	NR	16130 Bowman St NE, Homeworth	181	EDR US Hist Cleaners	NRR	Historic use of chlorinated solvents	No further review at this time
98-100, 143	Stark	13.2	Seth Dehoff	16133 Bowman St, Homeworth	39	NPDES	NRR	No impact based on status	No further review at this time
97, 140	Stark	18.3	Joshua Faverty	12130 Easton St NE, Alliance	48	NPDES	NRR	No impact based on status	No further review at this time
97, 141	Stark	18.6	Kountry Korner Market	12044 Easton St, Maximo	767	LUST	Inactive	Release on an unknown date, unknown amount of unknown chemical	No further review at this time
97, 142	Stark	18.7	Landmark Inc	7155 Millway NE, Maximo	1,175	LUST	Inactive	Release on an unknown date, unknown amount of unknown chemical	No further review at this time
90, 124	Stark/ Summit	32.7	Burrells Automotive / Greentown Auto Care	10177 Cleveland Ave, Uniontown	630	EDR US Hist Auto Stat, LUST, RCRA NonGen / NLR	Inactive	Historic use and storage of petroleum Release on an unknown date, unknown amount of unknown chemical	No further review at this time
90, 121	Stark	33.3 R	Pie Trucking	11015 Cleveland Ave, Canton	757	LUST	Inactive	Release on an unknown date, unknown amount of unknown chemical	No further review at this time
89, 125	NR	36.3 R	Contract Freighters INC	2575 Greensburg St, Green	1,183	SPILLS	NR	Release on 12/18/2002, unknown amount of diesel	Due to route change in area, this database listing is greater than 900 feet from the project and no longer a concern
89, 128	Summit	36.7	Goodyear Tire and Rubber CO	2575 Greensburg Rd, Canton	1,243	RCRA NonGen / NLR	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
89, 127	Summit	36.8 R	Advantage Tank Lines Inc / North Canton Transfer Co	2515 Greensburg Rd, North Canton	797	LUST, UST, ARCHIVE UST, NPDES	Inactive	Release on 2/12/2007, unknown amount of an unknown chemical	No further review at this time
89, 134	Summit	37.4	Country View Apartment Complex	5001 Massillon Rd, Green	50	SPILLS	NR	Release on 3/18/2005, unknown amount of crude oil. Spill report indicates site will be referred to DERR. There is no documentation of response actions by DERR. Source suspected to be current or former oil well.	The potential exists for residual petroleum-contaminated soil to be encountered adjacent to this spill. If so, those soils will be managed in accordance with the Project Spill Prevention Control and Countermeasure Plan and Erosion &Sedimentation Control Plan.
88, 137	Summit	41.8	Mathie Allen	190 E Comet Rd, Akron	940	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
88, 136	Summit	42.1	B-Sharp Property Maintenance	6161 S Main St, Clinton	420	SWF/LF	Active	Composting facility	No further review at this time
88, 139	Summit/ Akron	42.1	Ross J L	6223 S Main, Akron	1,079-1,118	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
88, 132	Summit	42.3 R	Dominion East Ohio - Shoop Station	5911 S Main St, Green Twp	947	RCRA-SQG	NRR	No impact based on status	No further review at this time
88, 131	Summit	42.7	BP Oil Co/ Manchester Trash	307 Yager Rd, Franklin Twp	634	ARCHIVE UST, LUST, UST	Inactive	Release on an unknown date, unknown amount of unknown chemical	No further review at this time
88, 133	Summit	43.6 R	NR	6612 Manchester Rd, Clinton	176	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
83, 117	Wayne	53.3	Doylestown Village of BPA	10 Hilltop Dr, Doylestown	1,034	AST	NRR	No impact based on status	No further review at this time
82, 114	Wayne	58.5	NR	2471 Wall Rd, Rittman	897	EDR US Hist Cleaners	NRR	Historic use of chlorinated solvents	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
79, 113	Medina	65.9	NR	4473 Good Rd, Seville	119	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
79, 111	Medina	66.7	NR	7100 Wooster Pk, Medina	1,156	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
79, 112	Medina	66.7	Medina Firearms Service	7222 Wooster Pk, Medina	395	ARCHIVE UST, LUST, UST, EDR US Hist Auto Stat	Inactive	Release on 10/08/1992, unknown amount of an unknown chemical Historic use and storage of petroleum	No further review at this time
24	Medina	69.5C	MEDINA COUNTY COMMISSIONERS CHIPPEWA WTP	7090 LAKE RD, LAFAYETTE	46	ECHO, FINDS	Active	Surface water discharge permit for a water treatment plant, no violations issued	No further review at this time
27	Medina	67.74C	PERFORMANCE COLLISION	6979 WOOSTER PIKE, MEDINA	517	EDR Hist Auto, FINDS, ECHO	Active	Autobody shop, no violations noted	No further review at this time
26	Medina	67.81C	DWELLING	6937 WOOSTER PIKE, MEDINA	530	NPDES	Active	Surface water discharge permit, no violations noted	No further review at this time
26	Medina	67.86C	RESIDENTIAL PROPERTY	6911 WOOSTER PIKE, MEDINA	599	NPDES	Active	Surface water discharge permit, no violations noted	No further review at this time
26	Medina	67.88C	MEDINA CHURCH OF THE NAZARENE	6901 WOOSTER PIKE RD, MEDINA	610	NPDES	Active	Surface water discharge permit, no violations noted	No further review at this time
26	Medina	67.91C	TIGER GENERAL	6867 WOOSTER PIKE, MEDINA	611	RCRA-CESQG, ECHO, FINDS, UIC	Active	Manufacturer of oil field trucks and support vehicles. Has Class V underground injection well. No violations noted.	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
25	Medina	68.87C		6835 RYAN ROAD,	1137	ERNS	Inactive	February 2000 spill of no. 2 fuel oil into a wetland. Booms were deployed in wetland.	No further review at this time
23	Medina	69.34C	WEDGEWOOD COUNTRY CLUB	5588 WEDGEWOOD RD, MEDINA	0	ECHO, FINDS, NPDES	Active	Surface water discharge permit, no violations noted	No further review at this time
13	Medina	70.53C	UNIVERSITY OF AKRON - MEDINA CAMPUS	6300 TECHNOLOGY LN, MEDINA	782	NPDES	Active	Surface water discharge permit, no violations noted	No further review at this time
19	Medina	70.72C	MEDINA COUNTY HIGHWAY GARAGE	6100 WEDGEWOOD RD, MEDINA	1079	RGA LUST, ARCHIVE UST, UST	Active	Tanks in use (1996 install): 10,000 gal fiberglass – diesel; 2,500 gal fiberglass – gasoline; 550 gal fiberglass – waste oil. LUST funds were spent on site in 2000 and 2001.	No further review at this time
19	Medina	70.72C	MEDINA CO TRANSIT FACILITY	6094 WEDGEWOOD RD LAFAYETTE TWP, MEDINA	1079	NPDES	Active	Surface water discharge permit, no violations noted	No further review at this time
19	Medina	70.72C	MEDINA CO HOME	6144 WEDGEWOOD RD, LAFAYETTE	1212	LUST	Inactive	No further action issued 6/20/2000.	No further review at this time
16	Medina	71.09C	MEDINA COUNTY ANIMAL SHELTER	6334 DEERVIEW LN, MEDINA	1186	AIRS (AFS), FINDS, ECHO	Active	Database findings pertain to air quality.	No further review at this time
14	Medina	71.09C		6364 DEERVIEW LANE, LAFAYETTE, NOT IN A CITY	704	FINDS, ECHO	Active	Database findings pertain to air quality.	No further review at this time
11	Medina	71.18C	GIBBENS	6181 DEERVIEW, MEDINA	382	SPILLS	NR	Spill of “lava lamp goo”	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
74, 108	Medina	79.0	Don Dobson	3157 Erhart Rd, Litchfield	404	ARCHIVE UST, UST	NRR	No impact based on status	No further review at this time
73, 107	Lorain	81.2	Steve Shanno	35068 Neff Rd, Grafton	40	ERNS, SPILLS	Unknown	Release on 5/20/2015, open burning	Spill No.: 1505-47-1074. Based on review of aerial photographs the likely area where burning took place is ~350' away from project. No further review needed.
72, 106	Lorain	82.8	Showroom Auto Body	17835 Re 83, Grafton	1,182	RCRA-CESQG, FINDS, NY MANIFEST	NRR	No impact based on status	No further review at this time
70, 104	Lorain	94.7	Gary's Body Shop	14301 Rt 58 S, Oberlin	1,208	FINDS, RCRA-SQG, NY MANIFEST	NRR	No impact based on status	No further review at this time
68, 103	Huron	102.4	Harold Dalton	5073 Butler Rd, Wakeman	218	ARCHIVE UST, LUST, UST	Inactive	Release on 6/1/1981 of an unknown amount of diesel during tank removal	No further review at this time
62, 100	Erie	108.9	Harris Brothers Stone Company	NR	550	US MINES	Abandoned	Mined crushed/broken sandstone until 8/15/1980	No further review at this time
61-62, 98	Erie	110.2	AT&T	8303 Main Rd, Berlin Heights	346	ARCHIVE UST, LUST, UST	Inactive	Two releases: 1) Release on 02/21/1991 of an unknown amount during removal of 2,000-gallon gasoline tank 2) Release on 03/25/1993 of an unknown amount of an unknown chemical	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
60, 95	Erie	116.7	Park Avery General Store Inc	104 Mason Rd, Milan	587	ARCHIVE UST, LUST, UST	Inactive	Release on an unknown date, unknown amount of unknown chemical	No further review at this time
60, 93	Erie	117.2	Ohio Edison	10503 Mud Brook Rd, Milan	18	SPILLS	Unknown	On 10/09/1990, release of an unknown amount of PCBs	Spill No.: 9010-22-4808. Based on additional review, citizen reported, possible transformer spill, located ~750' from pipeline. No further review required.
60, 94	Erie	119.2	Circle K #5259	11005 Huron Avery Rd, Milan Twp	444	ARCHIVE UST, UST	NRR	No impact based on status	No further review at this time
53-60, 92	Erie	119.2	Stoneco Inc Avery Asphalt Plt No 40	10801 Huron Avery Rd, Milan	813	RCRA-SQG, FINDS	NRR	No impact based on status	No further review at this time
59, 96	Erie	120.4	88th Regional Support Command SGT JH Cooney USARC	1119 W Mason Rd, Milan	1,114	RCRA-CESQG	NRR	No impact based on status	No further review at this time
51, 87	Erie	128.4	Elyria Concrete Inc/Se Johnson Stoneco Fac	8802 Portland Rd, Castalia	920	FINDS, RCRA-CESQG, LUST	NRR	Release on an unknown date, unknown amount of unknown chemical	No further review at this time
51, 89	Erie	128.5	Gerken Materials HMA Plant 10	9000 Portland Rd, Castalia	1,114	FINDS, RCRA-SQG	NRR	No impact based on status	No further review at this time
50, 85	Erie	130.8	Ohio Turnpike Commission Castalia Section	7201 SR 269, Bellevue	956	RCRA-CESQG	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
48, 82	Sandusky	138.9	Vickery Environmental Inc	3956 SR 412, Vickery	702	CERCLIS, CORRACTS, RCRA-TSDF, RCRA-LQG, CONSENT, ICIS, PADS, RAATS, PA MANIFEST, WI MANIFEST, NY MANIFEST, 202 COR ACTION, US FIN ASSUR, RCRA NonGen / NLR, FIONDS, US AIRS, DERR, UIC, SPILLS	Active	54 releases reported from 03/08/1990 to 07/26/2005 i.e. waste acids, nitric acid fume, chromic acid, diesel fuel, liquid hazardous waste, ammonia waste, etc. At least five hazardous injection wells on site	This facility has a history of underground injection of liquid wastes. Based on additional review of facility reports, the contamination on site is contained with a deep aquifer. 2015 annual report shows shallow ground water clean (no contaminants of concern). No further review is required.
48, 82	Sandusky	138.9	Ohio Liquid Disposal Aka Chem Waste	3956 SR 412, Vickery	702	HIST LF	Inactive	Sludge LF with 12 ponds	
43, 78	Sandusky	146.4 R	The Outpost	3702 N State Route 53, Fremont	1,118	ARCHIVE UST, LUST, UST, EDR US Hist Auto Stat	Inactive	Release on 5/22/1995 of an unknown amount of gasoline during tank removal Historic use and storage of petroleum	No further review at this time
42-46, 79	Sandusky	147.2	Fremont Shear Repair Service	2898 Fangboner Rd, Fremont	729	RCRA NonGen / NLR, FINDS	NRR	No impact based on status	No further review at this time
41-45, 80	Sandusky	154.1	R & K Body Shop	3234 State Route 20, Lindsey	765	UST	NRR	No impact based on status	No further review at this time
39, 76	Wood	164.8	Hirzel Farms	20795 Bradner Rd, Pemberville	1,274	LUST, UST	Inactive	Release on an unknown date, unknown amount of unknown chemical	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
39, 75	NR	164.9	Mr. Brent A Weaver	20767 Bradnor Rd, Lucky	45	SPILLS	Unknown	Release on 6/27/1999, release of an unknown amount of machine oil	No further review at this time
32, 72	Wood	172.8	Chemical Systems Corporation	10045 Dowling Rd, Dunbridge	687	FINDS, RCRA-SQG, CORRACTS	NRR	No impact based on status	No further review at this time
30, 71	Lucas	181.7	Farnsworth Metropark	8505 Rt 24, Waterville	627	ARCHIVE UST	NRR	No impact based on status	No further review at this time
28, 68	Henry	190.1	NR	1700 County Rd A, Liberty Center	326	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
28, 69	Henry	190.3 R	NR	1693 County Rd W, Liberty Center	526	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
22, 66	Fulton	204.9	NR	1615 US Highway 20, Swanton	307	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
Michigan									
15-17, 64	Lenawee	220.8	NR	9667 Forche Rd, Blissfield	434	EDR US Hist Cleaners	NRR	Historic use of chlorinated solvents	No further review at this time
12, 62	Monroe	232.4	Mastens General Store	20130 Cone Rd, Milan	931	LUST, UST	Closed	Release on 8/5/1991, unknown amount of an unknown chemical	No further review at this time
12, 61	Monroe	234.2 R	NR	12551 Dennison Rd, Milan	572	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
12, 60	Monroe	234.3 R	Milan Air Service	19265 Hickory Rd, Milan	946	UST	NRR	No impact based on status	No further review at this time
8, 57	Monroe	237.6	DTE/Michcon	610 Mooreville Rd, Milan	346	RCRA-CESQG	NRR	No impact based on status	No further review at this time
9, 56	Monroe	239.7	Terry Town (DBA) National	11900 Carpenter Rd, Milan	1,054	AST	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
7, 55	Washtenaw	245.2	Katherine Mckenzie	8006 Willis Rd, Ypsilanti	335	LUST, INVENTORY, UST	Open	Two releases: 1) Release on 8/27/1991 of an unknown amount of an unknown chemical 2) release on 11/27/1990 of an unknown amount of an unknown chemical	No further review at this time
7, 54	Washtenaw	245.3	NR	8227 Willis Rd, Ypsilanti	836	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
7, 55	Washtenaw	245.3	Ypsilanti Schools	7901 Willis Rd, Ypsilanti	78	LUST, WDS, INVENTORY, UST	Releases 1 and 2 - open Releases 3 and 4 - closed	Four releases: 1) Release on 12/6/2001 of an unknown amount of diesel/gasoline 2) Release on 11/20/2001 of an unknown amount of gasoline 3) Release on 8/11/1990 of an unknown amount of an unknown chemical 4) Release on 9/30/1991 of an unknown amount of an unknown chemical	Based on further review of aerial photographs, the EDR did not correctly locate this release. This database finding is greater than 650 feet from the project and not expected to impact the project.
7, 53	Washtenaw	245.4	Lincoln Bus Garage	8622 Whittaker Rd, Ypsilanti	853	UST	NRR	No impact based on status	No further review at this time
7, 52	Washtenaw	248.2	Raymond Schultz	10090 Martz Rd, Ypsilanti	116	UST	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
7, 46, 7, 48, and 7, 49	Washtenaw	248.7	McKean Rd GW Contamination	6969-7251 McKean Rd, Ypsilanti	274-1,020	BROWNFIELDS, RGA PART 201, INVENTORY, PART 201	Closed	MDEQ Report on Environmental Protection Bond Fund Cleanup and Redevelopment Fund as of September 30, 2012 lists this site as closed.	No further review at this time.
7, 51	Washtenaw	248.8	Glenn Rowe Farms	10570 Martz Rd, Ypsilanti	1,214	UST	Closed	Release on 1/11/2001 of an unknown amount of diesel during tank removal	No further review at this time
7, 45	Washtenaw	249.7	MIDept/ Natural Resources And Environment/ Thomas Solvents Rawsonville	6601 McKean Rd, Ypsilanti	52-94	CERC-NFRAP, RCRA NonGen / NLR, LUST, WDS, INVENTORY, PART 201, UST, BEA	Open	Release on 10/25/1997, unknown amount of a hazardous substance	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
3, 40	Washtenaw	250.2	Ford Motor Company - Rawsonville Plant	10300 Textile Rd, Ypsilanti	855	LUST, INVENTORY, UST, AST, PADS, RCRA-LQG, CERC-NFRAP	Closed	Five releases: 1) Release on 10/5/2011, unknown amount of diesel 2) Release on 2/8/1990, unknown amount of an unknown chemical 3) Release on 5/18/1999, unknown amount of an unknown chemical 4) Release on 12/1/1989, unknown amount of an unknown chemical 5) Release on 12/14/1990, unknown amount of an unknown chemical	Site has been operating since 1956. Database listed incidents are closed. MDEQ lawyers are reviewing whether they can release files for public review. Information is still pending response from MDEQ. Based on the regulatory status of database findings and their distance from the project, this facility is not anticipated to impact the Project (pending review of additional MDEQ files).
3, 39	Washtenaw	250.2	Bluelinx Corp	6101 Mckean Rd, Ypsilanti	80	UST, AST	NRR	No impact based on status	No further review at this time
3, 39	Washtenaw	250.2	NR	McKean and Textile Rds	44	ERNS	NRR	No impact based on status	No further review at this time
3, 34	Washtenaw	251.7	Kalitta Motorsports	2757 N I-94, N I-94 Service Dr, Ypsilanti	750	FINDS, RCRA NonGen / NLR	NRR	No impact based on status	No further review at this time
3, 34	Washtenaw	251.7	Kitty Hawk Charters	2765 N I-94, N I-94 Service Dr, Ypsilanti	781	RCRA NonGen / NLR	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
3, 34	Washtenaw	251.8	Eq Industrial Services, Inc/ S And C Transport Inc/ Kalitta Air	2701 N I-94 N I-94 Service Dr, Ypsilanti	907	SWF/LF, RCRA-SQG, PADS, RCRA NonGen / NLR, FINDS, AST, INVENTORY, PART 201, RCRA-CESQG, MANIFEST	NRR	Industrial cleaning and maintenance and waste transportation	No further review at this time
3, 34	Washtenaw	251.8	2669-2765 Noth I-94 SVC DR/EQ IN SVCS	2669-2765 North I-94 Service Drive, Ypsilanti	907	DERR, INVENTORY	NRR	No impact based on status	No further review at this time
3, 34	Out-Of-State	251.8	Out-Of-State EQ Industrial Services, INC	2701 N I-94 Service Dr, Ypsilanti	907	SWF/LF	NRR	No impact based on status	No further review at this time
3, 31	Washtenaw	252.0	A & K Auto Sales & Parts LLC	2600 Coolidge Ave, Ypsilanti	180	RCRA-CESQG	NRR	No impact based on status	No further review at this time
3, 31	Washtenaw	252.1	NR	2600 Coolidge Ave, Ypsilanti	180	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
3, 32	Washtenaw	252.1	NR	2535 Coolidge Ave, Ypsilanti	154	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
3, 33	Washtenaw	252.1	NR	1715 Beverly Ave, Ypsilanti	699	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
3, 33	Washtenaw	252.1	NR	1725 Beverly Ave, Ypsilanti	708	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
3, 28	Washtenaw	252.2	YCUA Wastewater Treatment Plant	2777 State St, Ypsilanti	1,138	LUST, INVENTORY, UST, AST, RCRA-CESQG, US AIRS	Closed	Two releases: 1) Release on 11/5/1997, unknown amount of diesel 2) Release on 12/19/1997, unknown amount of diesel	No further review at this time
3, 29	Washtenaw	252.2	A-1 Auto Salvage & Scrap LLC	2574 State St, Ypsilanti	142	RCRA NonGen / NLR	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
3, 30	Washtenaw	252.3	Schwan's Sales Enterprises, Inc	1559 Beverly Ave, Ypsilanti	542	AST	NRR	No impact based on status	No further review at this time
3, 24	Washtenaw	252.4	NR	1327 Nash Ave, Ypsilanti	1,092	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
3, 25	Washtenaw	252.4	NR	2379 Cedarcliff Dr, Ypsilanti	337	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
3, 24	Washtenaw	252.5	NR	1288 Woodglen Ave, Ypsilanti	844	EDR US Hist Auto Stat	NRR	Historic use and storage of petroleum	No further review at this time
3, 23	Washtenaw	252.6	Lidell Specialty Products Inc	1160 Watson St, Ypsilanti	401	RCRA-CESQG	NRR	No impact based on status	No further review at this time
3, 23	Washtenaw	252.6	Penske Truck Leasing Co Lp / US Trcuk Co Inc	1181 Watson St, Ypsilanti	412	UST, RCRA-CESQG	NRR	No impact based on status	No further review at this time
3, 16	Washtenaw	252.9	Kalitta Air LLC	818 Willow Run Airport, Ypsilanti	86	RCRA-CESQG, FINDS	NRR	No impact based on status	No further review at this time
3, 16	Washtenaw	253.0	General Dynamics Advanced Information Systems Inc	813 Willow Run Airport, Ypsilanti	190	RCRA NonGen / NLR	NRR	No impact based on status	No further review at this time
3, 16	Washtenaw	253.0	Rosenbalm Aviation Inc	834 Willow Run Airport, Ypsilanti	175	RCRA NonGen / NLR, FINDS	NRR	No impact based on status	No further review at this time
3, 16	Washtenaw	253.0	County of Wayne Airport Authority	801 Willow Run Airport Drive, Ypsilanti	189	RCRA-CESQG, FINDS	NRR	No impact based on status	No further review at this time
3, 16	Washtenaw	253.0	Eagle Aviation Center	839 Willow Run Airport, Ypsilanti	195	FINDS, RCRA-CESQG	NRR	No impact based on status	No further review at this time
3, 16	Washtenaw	253.0	Chrysler Pentastar Aviation Inc	824 Willow Run Airport, Ypsilanti	295	RCRA NonGen / NLR, FINDS	NRR	No impact based on status	No further review at this time
3, 17	Washtenaw	253.0	NR	840 Nash Ave, Ypsilanti	1,191	EDR US Hist Cleaners	NRR	Historic use of chlorinated solvents	No further review at this time
3, 15	Washtenaw	253.3 R	ITC Holdings	2455 Airport Rd, Ypsilanti	1,006	RCRA-CESQG	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
3, 15	Washtenaw	253.3 R	Crown Industrial Services, Inc	2480 Airport Dr, Ypsilanti	1,063	RCRA-CESQG, FINDS	NRR	No impact based on status	No further review at this time
3, 13	Washtensaw	253.5 R	NE Quadrant, Station 161 +16	US-12 BL & Wiard Rd, Ypsilanti	930	LUST, UST	NRR	No impact based on status	No further review at this time
3, 10 3, 8	Washtensaw	254.1 R – 254.6 R	General Motors Corporation / General Motors LLC / Willow Run Plant Industrial Land	Ecorse Rd and Willow Run, Ypsilanti	711-1045	LUST, INVENTORY, UST, 2020 COR ACTION, CERC-NFRAP, PADS, RCRA-SQG, RCRA-TSDF, CORRACTS, RCRA-CESQG	Open	4,807,500 SF facility; seven releases: five in 1991, one in 1990, one in 2012, all of unknown amount and unknown chemical	Subsurface investigation completed on behalf of NEXUS in August 2016. Results will be used to complete soil/groundwater management plan, as appropriate.
3, 6	Washtensaw	254.4 R	Taddie Construction INC	2820 E Michigan Ave, Ypsilanti	807	LUST, UST, WDS	NRR	No impact based on status	No further review at this time
3, 4	Washtensaw	254.5 R	HI FY Station Michigan Ave / Superamerica	3025 E Michigan Ave, Ypsilanti	1,026	RGA PART 201	NRR	No impact based on status	No further review at this time
3, 7	Wayne	254.7 R	Ypsilanti Pumping Station	361 Rawsonville Rd, Belleville	1,194	UST	NRR	No impact based on status	No further review at this time
3, 7	Wayne	254.7 R	Van Buren Development Corp. Landfill	Ecorse Road & US-12 Area, Belleville	1,194	DERR, INVENTORY	NRR	No impact based on status	No further review at this time
3, 5	Wayne	254.8 R	Advance Custom Paint LTD	175 Rawsonville, Belleville	775	RCRA-CESQG, FINDS	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
3, 5	Washtenaw	254.8 R	ANR Pipeline	176 Rawsonville, Ypsilanti	775	AST	NRR	No impact based on status	No further review at this time
3, 3	Washtenaw	254.9 R	DTE Energy/Michcon	3150 E Michigan Ave, Ypsilanti	551	RCRA-CESQG, FINDS	NRR	No impact based on status	No further review at this time
3, 3	Washtenaw	254.9 R	Sloan Petroleum & Transport	3105 East Michigan Ave, Ypsilanti	645	BROWNFIELDS, RGA PART 201, INVENTORY, RCRA NonGen / NLR, FINDS, US BROWNFIELDS, LUST, WDS, UST	Active	Liquid gases shipping and trucking company Release on 12/1/1997, unknown amount of an unknown chemical Currently being sued for spill incompliance	MDEQ has not provided information regarding the status of this release. Based on additional review of online files and location information provided therein, this release is approximately 900 feet from the Project and, based on its topographic setting, groundwater in the vicinity of the project likely flows east, toward Sines Drain. This site is not anticipated to impact the project.
3, 3	Washtenaw	254.9 R	Michigan Avenue CNG Fueling	3105 East Michigan Ave, Ypsilanti	529	AST	NRR	No impact based on status	No further review at this time
3, 3	Washtenaw	254.9 R	NR	3105 East Michigan Ave, Ypsilanti	641	BEA	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

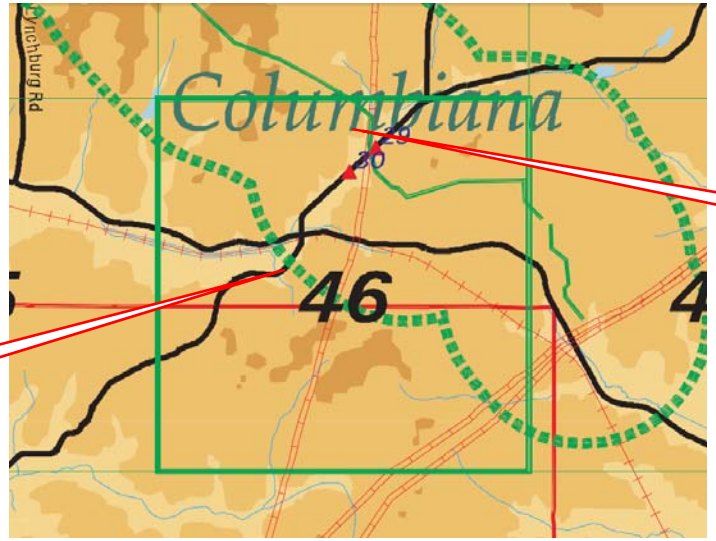
EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
3, 3	Washtenaw	254.9 R	Thomas A. Leach	3105 East Michigan Ave, Ypsilanti	645	BROWNFIELDS, INVENTORY, WDS, LUST, UST	Open	Release on 12/1/1997, unknown amount of an unknown chemical	MDEQ has not provided information regarding the status of this release. Based on additional review of online files and location information provided therein, this release is approximately 900 feet from the Project and, based on its topographic setting, groundwater in the vicinity of the project likely flows east, toward Sines Drain. This site is not anticipated to impact the project.
3, 3	Washtenaw	254.9 R	NR	3075 East Michigan Ave, Ypsilanti	647	BEA	NRR	No impact based on status	No further review at this time
3, 3	Washtenaw	254.9 R	3198-3244 E Michigan Ave / Arbor Green Realty	3198-3244 E Michigan Ave, Ypsilanti	478	DERR, INVENTORY, RGA PART 201	NRR	No impact based on status	No further review at this time
3, 1	Washtenaw	255.0 R	Dap Ypsilanti LLC	0 Michigan Ave, Ypsilanti	872	RCRA NonGen / NLR, FINDS	NRR	No impact based on status	No further review at this time
3, 5	Washtenaw	255.0 R	DTE Energy / Michcon / Willow Station	120 Rawsonville Road, Belleville	556	RCRA-CESQG, FINDS, AST	NRR	No impact based on status	No further review at this time
3, 5	Washtenaw	255.0 R	175 Rawsonville Road	175 Rawsonville Road, Belleville	812	INVENTORY	NRR	No impact based on status	No further review at this time

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/

a/



b/ Recommendations are identified based on the unknown depth and direction of groundwater in the release areas. If depth/direction of groundwater in the area of the pipeline can be identified, the release site may not need further evaluation.

Acronyms:

2020 COR ACTION – RCRA program that required a wide variety of sites to be or have been cleaned up;

ARCHIVE UST – Archived Underground Storage Tank Sites;

AST – Aboveground Storage Tank;

BEA – document that new or prospective property owners/operations disclose to the DEQ identifying the property, as a facility pursuant to Part 201 and Part 213;

BROWNFIELDS – Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant;

CERC-NFRAP – Archived sites are sites that have been removed and archived from the inventory of CERCLIS Sites;

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/
CERCLIS – The Comprehensive Environmental Response, Compensation and Liability Information System;									
CONSENT – Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites;									
CORRACTS – list of handlers with RCRA Corrective Action Activity;									
DERR – Division of Emergency & Remedial Response's Database;									
EDR – Environmental Data Resources, Inc.;									
EDR US Hist Cleaners – EDR exclusive historical dry cleaners;									
EDR US Historic Auto Stations – EDR exclusive historical gas stations;									
EPA WATCH LIST – EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters;									
ERNS – The Emergency Response Notification System records and stores information on releases of oil and hazardous substances;									
ESPC – Erosion and Sedimentation Control;									
FINDS – Facility Index System;									
HIST LF – Old Solid Waste Landfill;									
ICIS – Integrated Compliance Information System;									
INVENTORY – Inventory of Facilities;									
LUST – Leaking Underground Storage Tank;									
NPDES – National Pollutant Discharge Elimination System;									
NR – Not Reported;									
NRR – No Release Reported;									
PADS – Polychlorinated Biphenyls Activity Database Systems;									
PART 201 – location that has been evaluated and scored by the DEQ using the Part 201 scoring model;									
RAATS – RCRA Administrative Action Tracking System;									
RCRA – Resource Conservation and Recovery Act information system;									
RCRA NonGen/NLR – RCRA database of sites, non-generators do not presently generate hazardous waste;									
RCRA SQG – RCRA Small Quantity Generators (less than 100 kilograms of hazardous waste, or less than 1 kilogram of acutely hazardous waste per month);									
RCRA TSDF – RCRA database of sites which generate, transport, store, treat and/or dispose of hazardous waste;									
RCRA-CESQG – RCRA Conditionally Exempt Small Quantity Generators;									
RCRA-LQG – RCRA Large Quantity Generators (over 1,000 kilograms of hazardous waste, or over 1 kilogram of acutely hazardous waste per month);									
RGA PART 201 – Recovered Government Archive State Hazardous Waste Facilities List;									
SPCC – Spill Prevention, Control, and Countermeasure;									
SPILLS – Incidents reported to the Emergency Response Unit;									
SWF/LF – Licensed Solid Waste Facilities;									
UIC – Underground Injection Wells Listing;									
US AIRS – Aerometric Information Retrieval System Facility Subsystem;									

TABLE 8.4-3_Rev2

Environmental Sites within 0.25 Mile of the NEXUS Pipeline

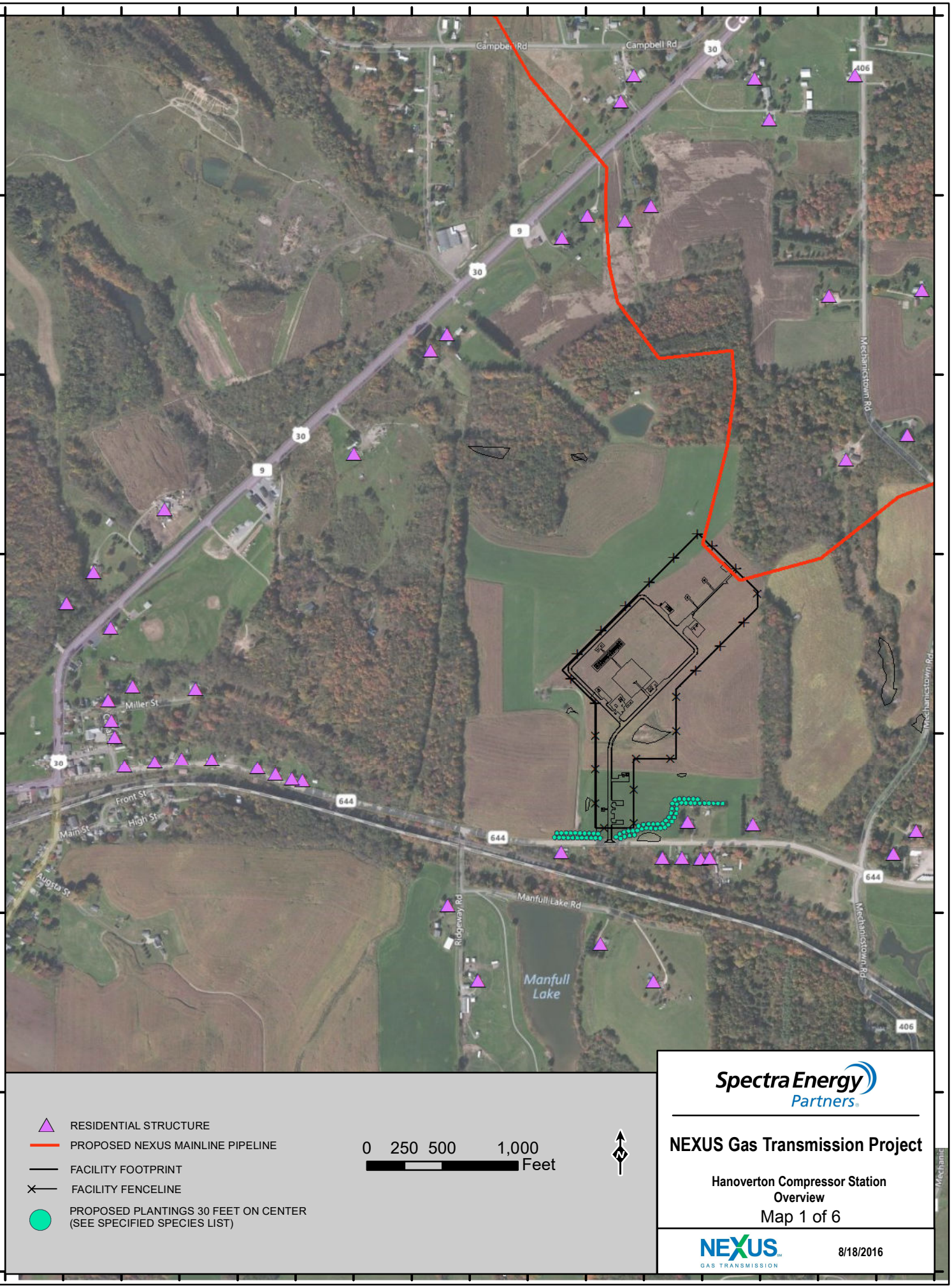
EDR Site Designation (Focus Map, Map [Site] ID) a/	County	MP	Site Name	Address	Distance from Project (feet)	Relevant Database(s)	Status and Contamination Issue(s)	Comment(s)	Recommendations b/

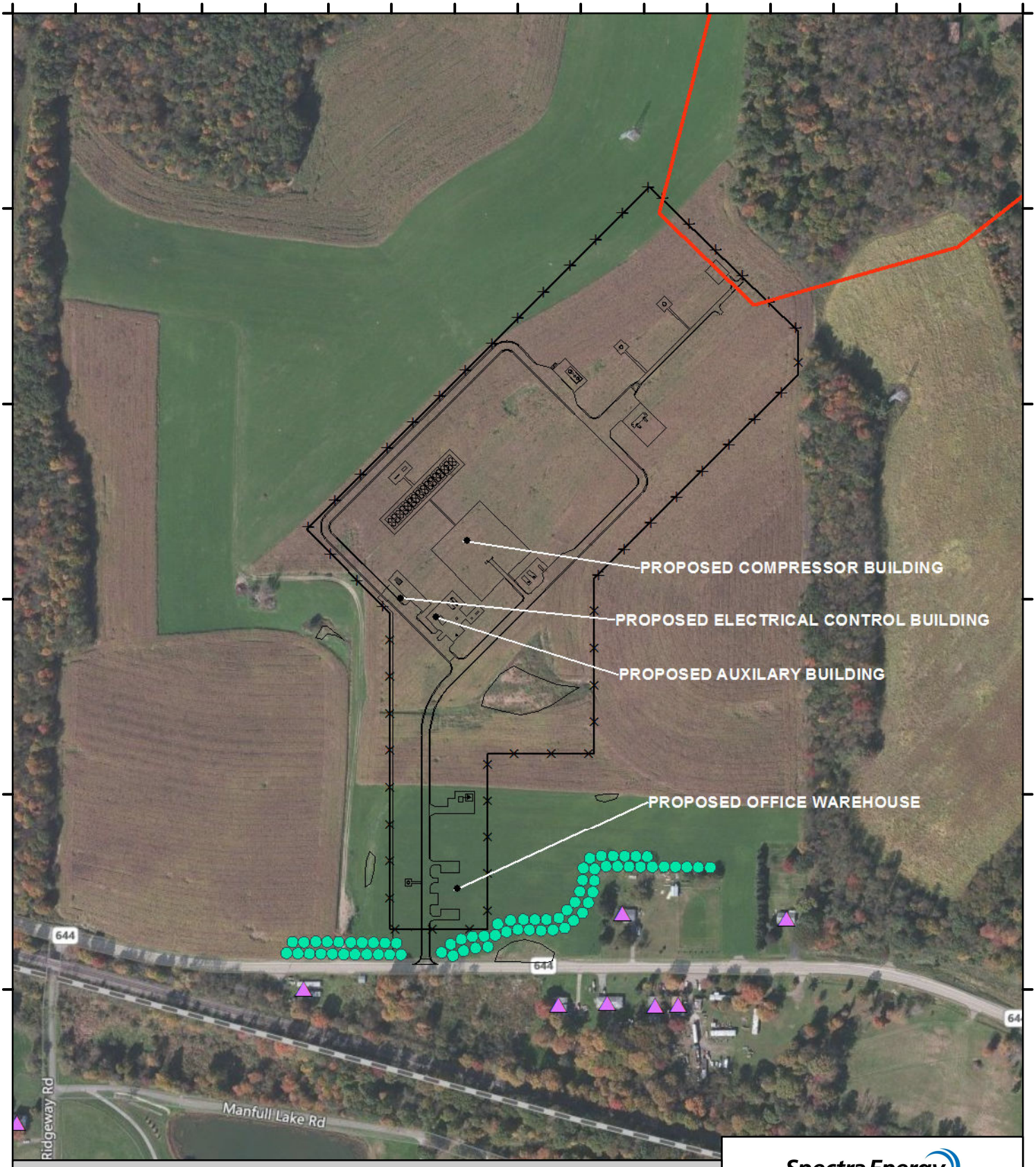
US FIN ASSUR – Financial Assurance Information of owners and operators of facilities that treat, store, or dispose of hazardous waste;
US MINES – Mines Master Index File of mines active or opened since 1971;
UST – Underground Storage Tank;
WDS – The Waste Data System tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Revised mileposts followed by an "R" indicate the revised milepost occurs along a change in the pipeline route since the November 2015 filing.

Attachment 13 – Response 43

Visual Screening Plans for Hanoverton, Wadsworth, and Waterville Compressor Stations


Campbell Rd
Campbell Rd
30
406
9
30
Mechanicstown Rd
30
9
Miller St
30
Front St
High St
Main St
644
644
644
Augusta St
Manfull Lake Rd
Ridgeway Rd
Manfull Lake
Mechanicstown Rd
406
RESIDENTIAL STRUCTURE
PROPOSED NEXUS MAINLINE PIPELINE
FACILITY FOOTPRINT
FACILITY FENCELINE
PROPOSED PLANTINGS 30 FEET ON CENTER
(SEE SPECIFIED SPECIES LIST)
0 250 500 1,000
Feet
N
Spectra Energy Partners
NEXUS Gas Transmission Project
Hanoverton Compressor Station
Overview
Map 1 of 6
NEXUS GAS TRANSMISSION
8/18/2016



RESIDENTIAL STRUCTURE

PROPOSED NEXUS MAINLINE PIPELINE

FACILITY FOOTPRINT

FACILITY FENCELINE

PROPOSED PLANTINGS 30 FEET ON CENTER (SEE SPECIFIED SPECIES LIST)

0 250 500 Feet

N

Spectra Energy Partners

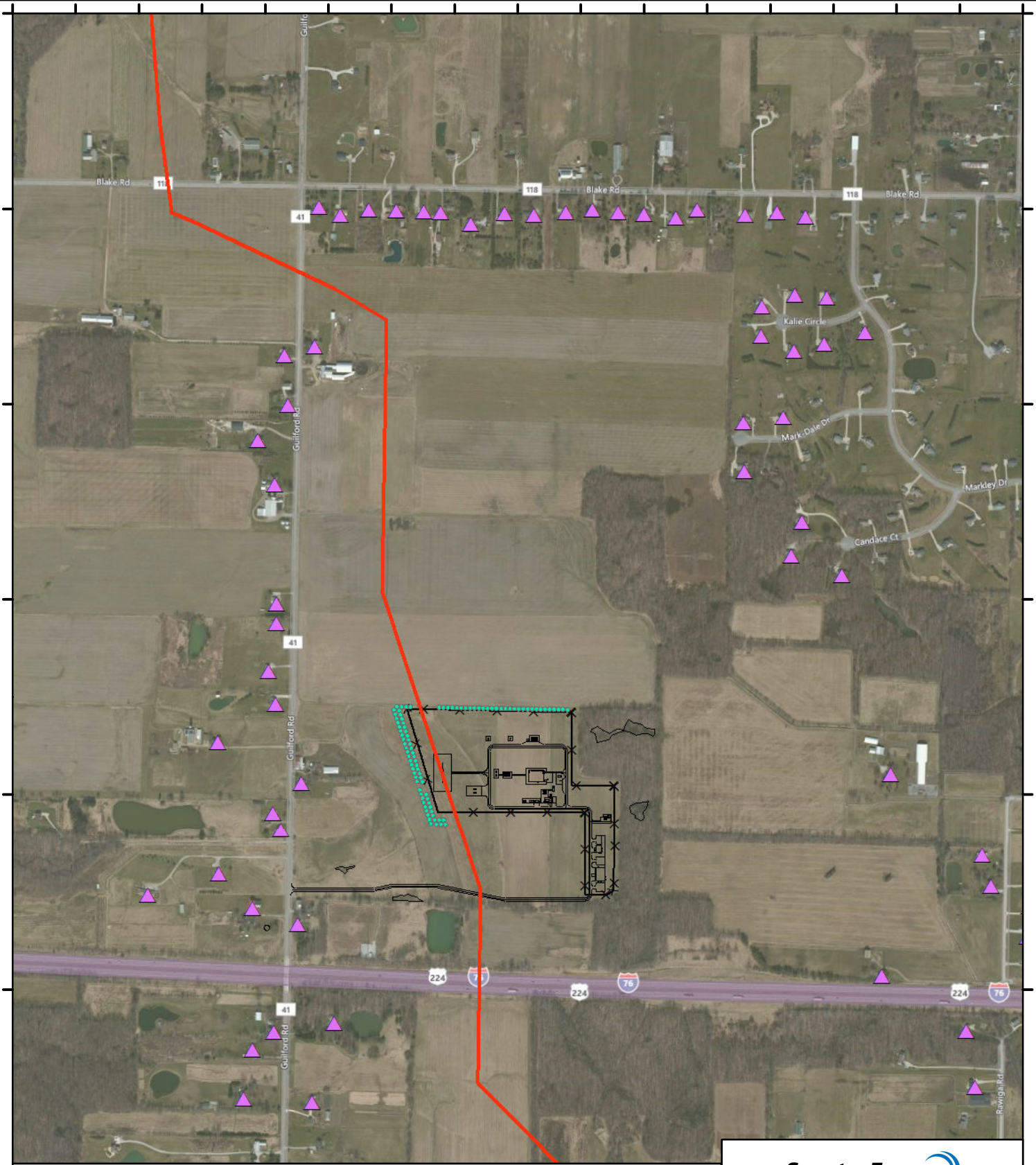
NEXUS Gas Transmission Project

Hanoverton Compressor Station
Landscaping Visual Screening Plan

Map 2 of 6

NEXUS GAS TRANSMISSION

8/18/2016



RESIDENTIAL STRUCTURE
PROPOSED NEXUS MAINLINE PIPELINE
FACILITY FOOTPRINT
FACILITY FENCELINE
PROPOSED PLANTINGS 30 FEET ON CENTER (SEE SPECIFIED SPECIES LIST)

0 250 500 1,000 Feet

Spectra Energy Partners

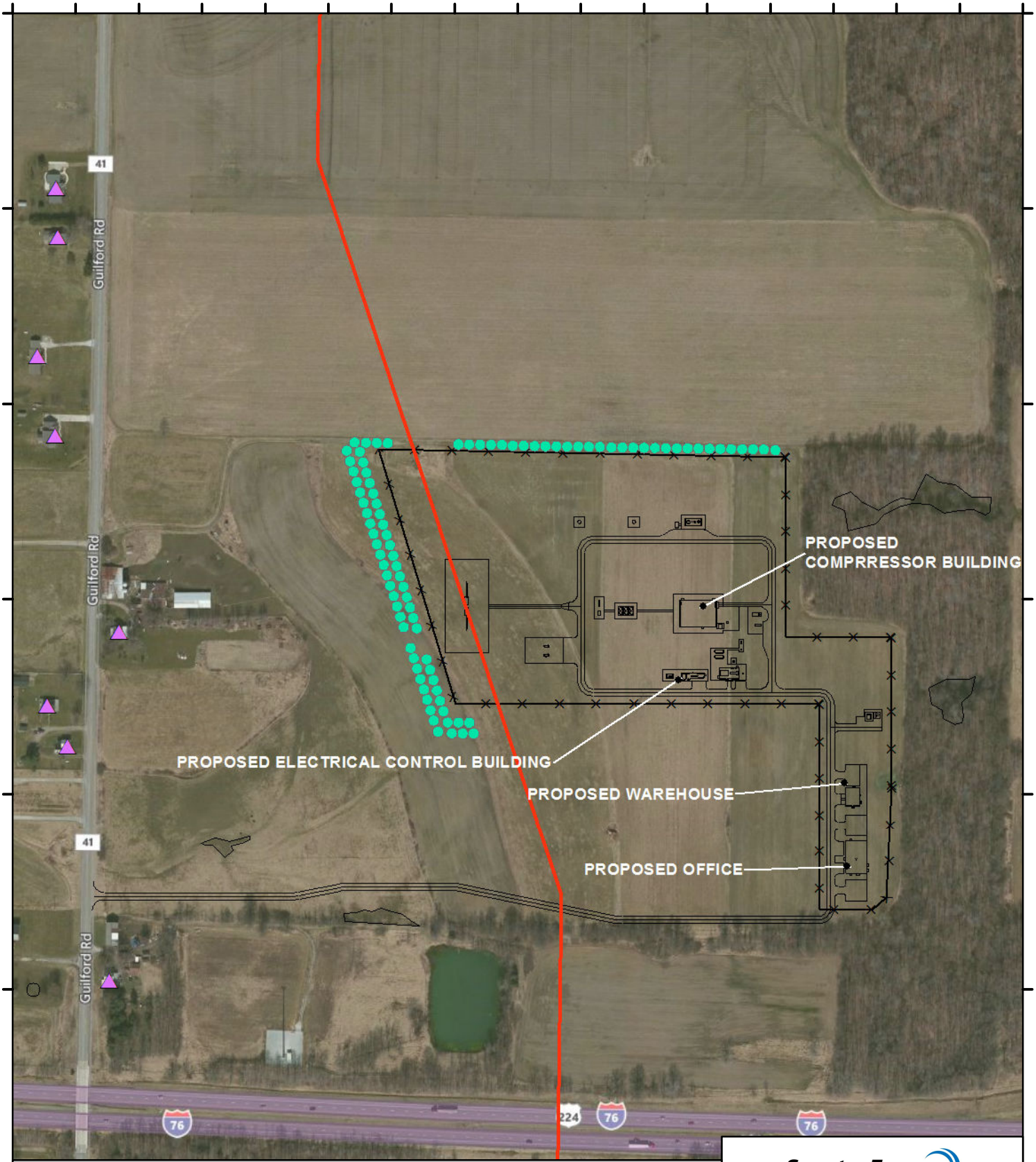
NEXUS Gas Transmission Project

Wadsworth Compressor Station Overview

Map 3 of 6

NEXUS GAS TRANSMISSION

8/18/2016



RESIDENTIAL STRUCTURE
PROPOSED NEXUS MAINLINE PIPELINE
FACILITY FOOTPRINT
FACILITY FENCELINE
PROPOSED PLANTINGS 30 FEET ON CENTER
(SEE SPECIFIED SPECIES LIST)

0 250 500 Feet

N

Spectra Energy Partners

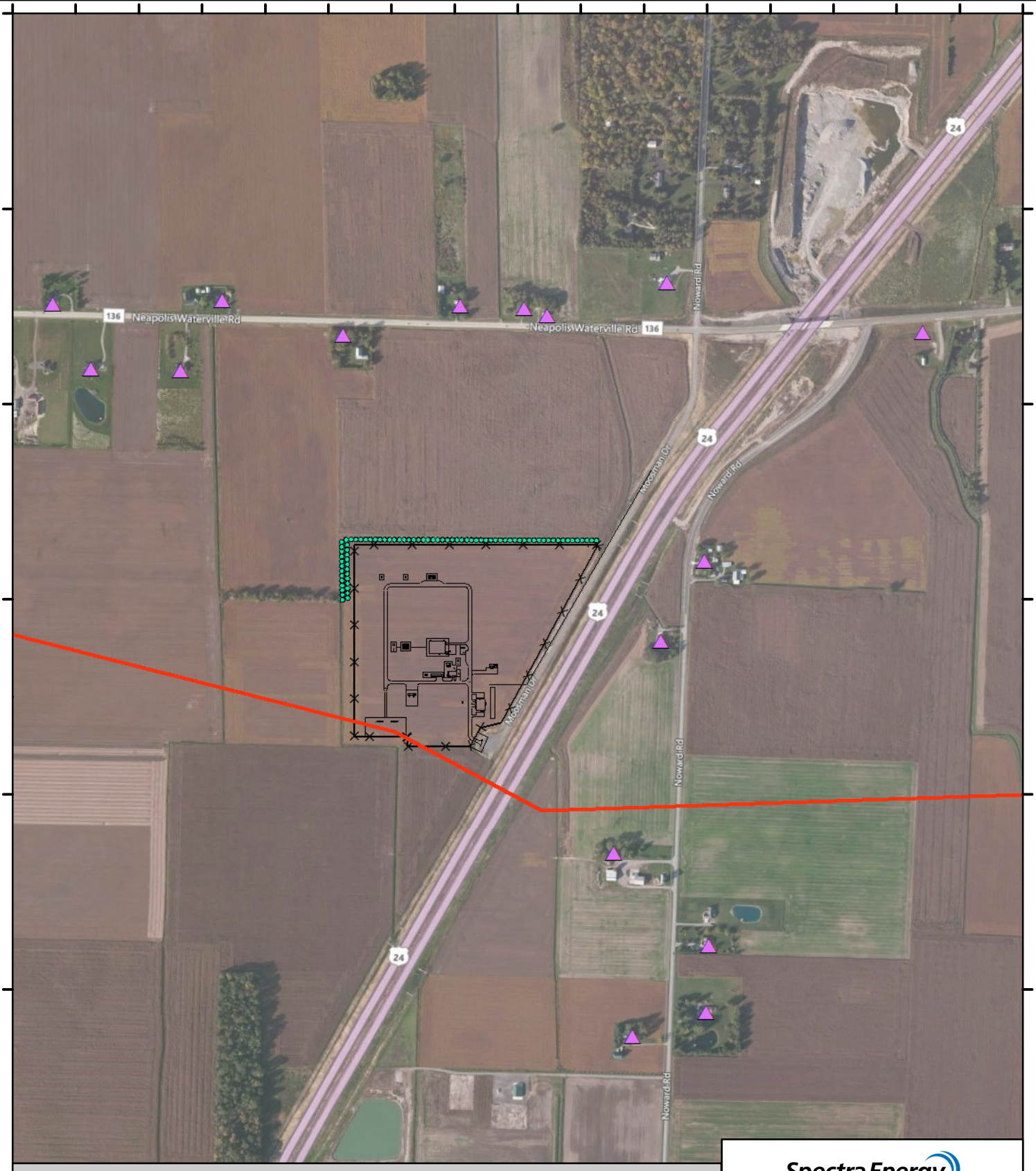
NEXUS Gas Transmission Project

Wadsworth Compressor Station
Landscaping Visual Screening Plan

Map 4 of 6

NEXUS GAS TRANSMISSION

8/18/2016



RESIDENTIAL STRUCTURE
PROPOSED NEXUS MAINLINE PIPELINE
FACILITY FOOTPRINT
FACILITY FENCELINE
PROPOSED PLANTINGS 30 FEET ON CENTER
(SEE SPECIFIED SPECIES LIST)

0 250 500 1,000
Feet

N

Spectra Energy Partners

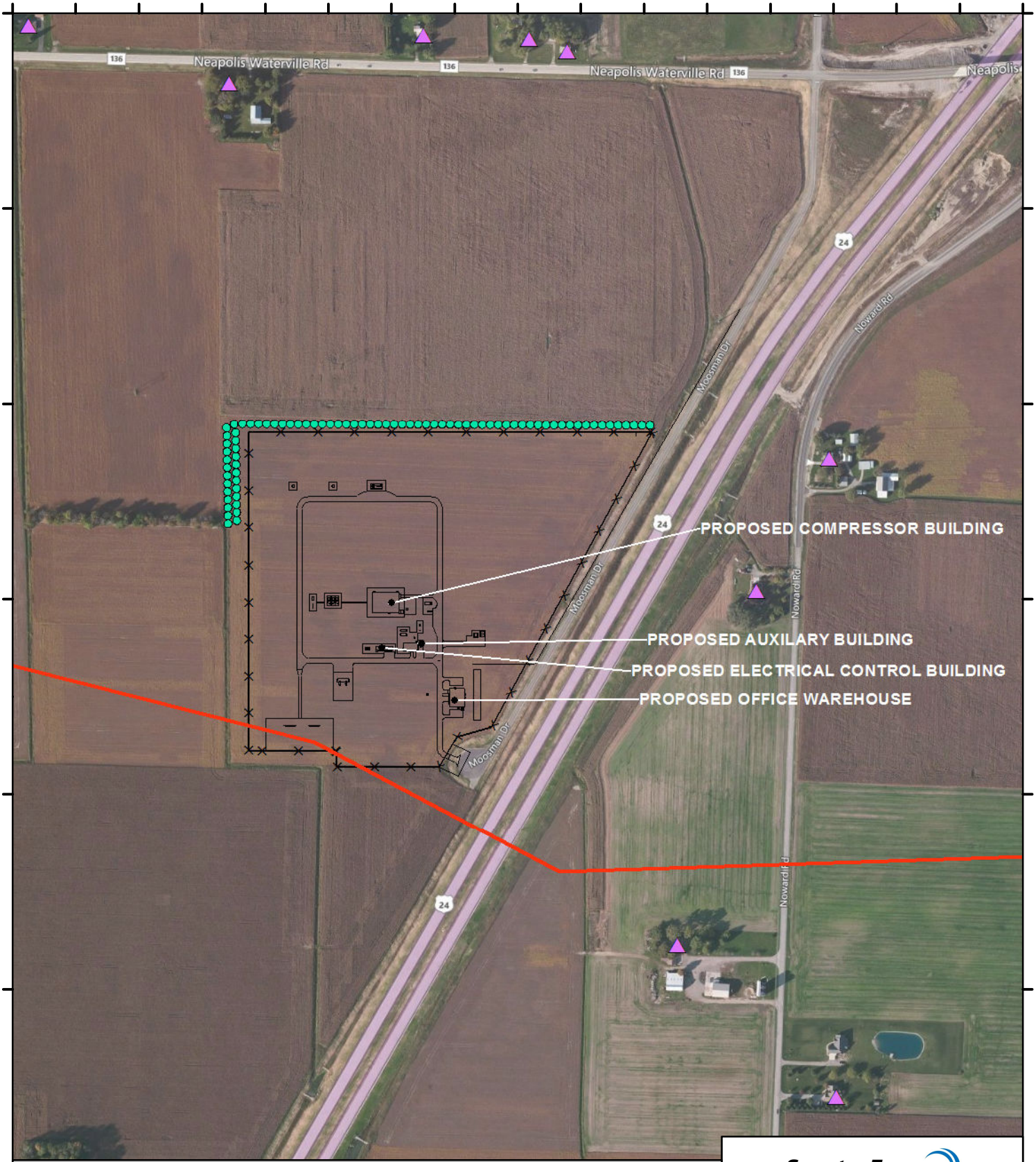
NEXUS Gas Transmission Project

Waterville Compressor Station
Overview

Map 5 of 6

NEXUS GAS TRANSMISSION

8/18/2016



RESIDENTIAL STRUCTURE
PROPOSED NEXUS MAINLINE PIPELINE
FACILITY FOOTPRINT
FACILITY FENCELINE
PROPOSED PLANTINGS 30 FEET ON CENTER (SEE SPECIFIED SPECIES LIST)

0 250 500 Feet

N

Spectra Energy Partners

NEXUS Gas Transmission Project

Waterville Compressor Station
Landscaping Visual Screening Plan

Map 6 of 6

NEXUS GAS TRANSMISSION

8/18/2016

Attachment 14-1 – Response 44 b iii

Addendum 1 - Phase I Archaeological Survey of the Proposed NEXUS Pipeline Project, Columbiana, Stark, Summit, Wayne, Medina, Lorain, Huron, Erie, Sandusky, Wood, Lucas, Henry, and Fulton Counties, Ohio

BOUND SEPARATELY IN
(VOLUME III- FILED PRIVILEGED & CONFIDENTIAL)

Attachment 14-2 – Response 44 b iii

Addendum 2 - Phase I Archaeological Survey of the Proposed NEXUS Pipeline Project in Lenawee, Monroe, and Washtenaw Counties, Michigan

BOUND SEPARATELY IN
(VOLUME III- FILED PRIVILEGED & CONFIDENTIAL)

Attachment 14-3 – Response 44 b iii

Supplemental Revision to Procedures Guiding the Discovery of Unanticipated Cultural Resource and Human Remains dated August 25, 2016

BOUND SEPARATELY IN
(VOLUME III- FILED PRIVILEGED & CONFIDENTIAL)

Attachment 14-4 – Response 44 b iii

NEXUS Pipeline Project Proposed Phase II Testing Research Design for NRHP Eligibility Evaluations of Sites 33SU617, 33LN325, 33ER609, 33ER610, 33ER612, and 33ER613, Summit, Lorain, and Erie Counties, Ohio

BOUND SEPARATELY IN
(VOLUME III- FILED PRIVILEGED & CONFIDENTIAL)

Attachment 14-5 – Response 44 b iii

State, Federal, and Native American Groups Consultation Correspondence and Updated Cultural Resource summary tables

BOUND SEPARATELY IN
(VOLUME III- FILED PRIVILEGED & CONFIDENTIAL)