155 East Broad Street
20th Floor
Columbus, Ohio, 43215

o: 614-222-1334
f: 614-222-1337

September 29, 2016

VIA ELECTRONIC FILING

Barcy McNeal
Ohio Power Siting Board Docketing Division
180 East Broad Street, 11th Floor
Columbus, OH 43215-3716

Re: Duke Energy Ohio C314V Central Corridor Pipeline Extension Project Case No. 16-253-GA-BTX

Dear Ms. McNeal:

Please find attached a letter from the United States Department of the Interior, U.S. Fish and Wildlife Service, stating that there are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. This letter, dated September 29, 2016, which had not been received at the time the Application was filed on September 13, 2016, was referenced in Section 4906-5-08(C)(1)(a) of the Application. For your convenience, we are also providing the request letter sent by Duke Energy Ohio, Inc.

Sincerely,

Jeanne W. Kingery
Jeanne W. Kingery
Associate General Counsel

Zink, Nathan/CIN

From: susan_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov>
Sent: Thursday, September 29, 2016 9:44 AM
To: Zink, Nathan/CIN
Subject: Duke Energy C314V Central Corridor Pipeline Extension, Hamilton Co. [EXTERNAL]

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994

TAILS# 03E15000-2016-TA-1706

Dear Mr. Zink,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. We recommend that proposed activities minimize water quality impacts, including fill in streams and wetlands. Best management practices should be utilized to minimize erosion and sedimentation.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to Indiana bats and northern long-eared bats, we do not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service (Service) should be initiated to assess any potential impacts.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing should occur on any portion of the project area until consultation under section 7 of the Endangered Species Act (ESA), between the Service and the federal action agency, is completed. We recommend that the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Dan Everson,
Field Office Supervisor

CH2M
400 E. Business Way
Suite 400
Cincinnati, OH 45241
Tel 513.530.5520

September 21, 2016

Mr. Dan Everson
U.S. Fish & Wildlife Service
Ohio Ecological Services
4625 Morse Road, Suite 104
Columbus, OH 43230

Subject: **Informal Consultation Request - Federally-Listed Threatened and Endangered Species**
Duke Energy C314V Central Corridor Pipeline Extension Project
Hamilton County, Ohio

Dear Mr. Everson:

On behalf of Duke Energy Ohio, Inc. (Duke), CH2M Engineers, Inc. (CH2M) submits this assessment of federally-listed threatened and endangered species Duke's proposed C314V Central Corridor Pipeline Extension Project (the Project) based on our desktop review of published data sources. By this letter, we request your informal consultation and information, including your opinion, on the potential for the Project to adversely impact any federally threatened or endangered species. We also request a digital file (shapefile or map) of any occurrence location records for federally-listed species. Accompanying this letter is a digital shapefile indicating the boundary of the Project area.

Depending upon the final route alternative that is selected, the Project involves the installation of approximately 13 miles of new 20-inch natural gas pipeline from Duke's WW Feed Station, near the intersection of Hamilton, Warren and Butler Counties, to a location along Duke's existing Line V pipeline in the Norwood or Fairfax area near Cincinnati in Hamilton County, Ohio. The Project area boundary is roughly defined by Interstate 275 (I-275) to the north (although the northern tie-in is 1 mile north of I-275), the Mill Creek Valley to the west, the Interstate 71 (I-71) corridor to the east, and the Duck Creek Valley (now partially occupied by the Norwood Lateral highway) to the south. The attached Project Overview Maps illustrate the two route alternatives, latitude and longitude for the center of the Project area, and other features as included on the U.S. Geological Survey topographic base map. The orange route is Duke's Preferred Route and the green route is the Alternate Route as submitted to the Ohio Power Siting Board within a certificate application (case number 16-0253-GA-BTX).

Background Information

CH2M reviewed the USFWS's Ohio Ecological Services Field Office website (USFWS, 2015) for information concerning which federally-listed species were known to occur, or to potentially occur, in Hamilton County. In addition, CH2M submitted an Ohio Database request to the Ohio Department of Natural Resource (ODNR) on May 10 and August 4, 2016, for information on known occurrences of federally-listed and state-listed species within a one-mile radius of the Project area. ODNR responded to the data request on May 11 and August 8, 2016 which is included as Attachment 3.

The following Table 1 outlines federally-listed species identified by the USFWS (2015) as occurring, or potentially occurring, in Hamilton County, Ohio. Assessments regarding state-listed species will occur under separate consultation with the ODNR. The ODNR response did indicate one federally listed (endangered) species in the Project area which was running buffalo clover (located in Ault Park over 2,000 feet from one of the Project route alternatives).

Table 1 - Federal-Listed Species Identified as Potentially Occurring within Hamilton County, Ohio

Common Name/Species Name[1]	Federal Status[1]	General Habitat Notes
Indiana bat / *Myotis sodalis*	Endangered	Hibernacula = Caves and mines; Maternity and foraging habitat = small stream corridors with well-developed riparian woods and upland forests[3]
Northern long-eared bat / *Myotis septentrionalis*	Threatened	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. During late spring and summer, roosts and forages in upland forests[4]
Bald eagle / *Haliaeetus leucocephalus*	Protected	Habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering.[6]
Fanshell / *Cyprogenia stegaria*	Endangered	Medium to large rivers. Found in areas with a moderate current that have sand and gravel.[2]
Pink mucket pearly mussel / *Lampsilis abrupta*	Endangered	Found in mud and sand in the shallow riffles of major rivers and their tributaries.[2]
Rayed Bean / *Villosa fabalis*	Endangered	Prefers small, headwater creeks, but can be found in large rivers. Found along aquatic vegetation roots where the substrate consists of gravel or sand.[2]
Sheepnose / *Plethobasus cyphyus*	Endangered	Found in shallow areas of large rivers or streams. Prefers swift to moderate current.[2]
Snuffbox / *Epioblasma triquetra*	Endangered	Small to medium-sized creeks and some large rivers. Found in areas with a swift current.[2]
Running buffalo clover / *Trifolium stoloniferum*	Endangered	Requires periodic disturbance and a somewhat open habitat to successfully flourish, but it cannot tolerate full-sun, full-shade, or severe disturbance. Found in partially shaded woodlots, mowed areas (lawns, parks, cemeteries), and along streams and trails.[5]

Notes:
[1]USFWS, 2015
[2]USFWS, 2015a
[3]USFWS, 2016a
[4]USFWS, 2016b
[5]USFWS, 2015c
[6]USFWS, 2015b

Site Observations

CH2M conducted field investigations from April 11 to July 11, 2016, to document existing habitats and hydrological conditions. A study corridor of 280-feet width was reviewed by field biologists centered on the proposed route alternatives. CH2M identified a total of 22 perennial streams, 42 intermittent streams, 39 ephemeral streams, and 11 ponds within the Project area. Forty-one wetlands were also identified

including 23 palustrine emergent wetlands (PEM), 2 palustrine scrub-shrub (PSS), 10 palustrine forested wetlands (PFO), 5 PEM/PSS wetlands, 1 PEM/PFO wetlands. Note that field surveys are approximately 90 percent complete at this time; the remainder of the routes are planned for completion in by the end of September.

Vegetative communities and land use types within the Project area include commercial, industrial, institutional, residential, and recreation lands, as well as along public road rights-of-way. Relatively small areas of wetlands, upland forest, riparian forests, and fallow areas also exist. Habitat descriptions are provided below. Representative photos of each habitat type can be found in Attachment 2.

Commercial-use, industrial-use, and institutional-use properties exist within the study corridors for the two route alternatives. Commercial/industrial/institutional areas include lands containing infrastructure (commercial buildings, parking lots, schools, etc.) and most other developed areas that are not residential. Vegetation identified within the commercial/industrial/institutional areas of the study corridors contain areas of grasses and herbaceous plants that are typically maintained through mowing. Some ornamental trees and shrubs are also present within these areas.

Several residential areas and recreation areas (parks, golf courses) exist within the study corridors for the two route alternatives. Vegetation identified within residential and recreational land include areas of grasses and other herbaceous species, such as tall fescue (*Festuca arundinacea*), common dandelion (*Taraxacum officinale*), white clover (*Trifolium repens*), red clover (*Trifolium pretense*), Kentucky bluegrass (*Poa pratensis*), ground ivy (*Glechoma hederacea*), purple dead nettle (*Lamium purpureum*), narrowleaf plantain (*Plantago lanceolate*) and wild onion (*Allium canadense*). Some ornamental trees and shrubs are also present within these areas.

Several wetlands were observed and delineated within the survey corridors for the two route alternatives. Dominant plant species within palustrine forested wetlands include American sycamore (*Platanus occidentalis*), ash-leaf maple (*Acer negundo*), creeping jenny (*Lysimachia nummularia*), common hackberry (*Celtis occidentalis*), Eastern cottonwood (*Populus deltoides*), green ash (*Fraxinus pennsylvanica*), pin oak (*Quercus palustris*), poison ivy (*Toxicodendron radicans*), red maple (*Acer rubrum*), and swamp white oak (*Quercus bicolor*). Dominant plant species within palustrine scrub-shrub wetlands include black willow (*Salix nigra*), southern arrow-wood (*Viburnum dentatum*), Eastern cottonwood, ash-leaf maple, jewelweed (*Impatiens capensis*), and pin oak. Dominant plant species observed within palustrine emergent wetlands include broadleaf cattail (*Typha latifolia*), yellow nutsedge (*Cyperus esculentus*), common spike-rush (*Eleocharis palustris*), creeping jenny, jewelweed, Kentucky bluegrass, narrowleaf cattail (*Typha angustifolia*), rice cut grass (*Leersia oryzoides*), reed canary grass (*Phalaris arundinacea*), and wingsteam (*Verbesina alternifolia*).

Upland early successional/second growth forest is present across most of the steep land slopes and along streams, in addition to other scattered patches of forest within the survey corridors to varying degrees. Dominant canopy species include the following: American beech (*Fagus grandifolia),* American sycamore, amur honeysuckle (*Lonicera maackii*), black cherry (*Prunus serotina*), common hackberry, pin oak, red maple, red oak, shagbark hickory (*Carya ovata*), sugar maple (*Acer saccharum*), and white ash (*Fraxinus Americana)*. The understory includes species found in the canopy, as well as dwarf larkspur (*Delphinium tricorne*), garlic mustard (*Alliaria petiolata),* mayapple (*Podophyllum peltatum*), spring beauty (*Claytonia virginica*), jack-in-the-pulpit (*Arisaema triphyllum*), ground ivy, poison ivy, lesser celandine (*Ficaria verna*), and woodland stonecrop (*Sedum ternatum*). The understory of the upland forest within the survey corridors ranges from open to dense.

A few riparian forest areas exist within the survey corridors for the two route alternatives. Common canopy species include cottonwood (*Populus deltoides*), American sycamore, black walnut (*Juglans nigra*), common hackberry, box elder (*Acer negundo*), red elm (*Ulmus rubra*), red maple, silver maple (*Acer saccharinum*), and green ash. The understory of the riparian forest within the survey corridors for the two route alternatives ranges from open to moderately dense. It includes canopy species, but is dominated by dense growth of Amur honeysuckle in some areas. Other shrub and ground layer vegetation includes gray dogwood (*Cornus racemosa*), trumpet creeper (*Campsis radicans*), Virginia creeper (*Parthenocissus quinquefolia*), garlic mustard, ground ivy, moneywort (*Lysimmachia nummularia)*, and poison ivy.

A few fallow areas exist within the survey corridors for the two route alternatives. Fallow areas include fencerows and areas on the side of public roads within rights-of-way. Vegetation identified within the fallow areas of the Routes contain areas of grasses and herbaceous plants such as Kentucky blue grass, fescue, Fuller's teasel (*Dipsacus fullonum*), Queen Anne's lace (*Daucus carota*), daisy fleabane (*Erigeron annuus*), and thistle (*Carduus arvensis)*.

Assessment of Listed Species

Species-specific surveys have not been conducted for state or federally–listed species within the Project area. A preliminary assessment of effects on listed species is presented below for the species outlined in Table 1 based on the habitats identified in the Project area and the construction approach that will minimize potential impacts.

Indiana Bat

The range of the Indiana bat includes most of the eastern half of the United States and suitable habitat includes caves and mines, and wooded areas (USFWS, 2016a). In addition to White-nose syndrome, a primary threat to the Indiana bat is human disturbance because they hibernate in large numbers in only a few caves. A single event during hibernation has the potential to affect a large population (USFWS, 2016a).

Assessments for potential Indiana bat habitat were conducted during wetland and waterbody surveys of the Project area. During these investigations, potential summer roosting and foraging habitat was observed. Surveyed woodlots included shagbark hickory (*Carya ovata*), all exhibiting exfoliating bark, which is characteristic of summer roost habitat. However, the amount of wooded habitat within the Project survey area is limited. Additionally, proposed tree clearing associated with the Project is estimated at approximately 6 to 8 acres depending on the route selected. This includes the proposed clearing of trees within the planned 30-foot wide, permanently maintained pipeline right-of-way (ROW). This permanent ROW width is considered preliminary and may vary (increase or decrease) as the Project moves into the easement acquisition process. Additional forest impacts are anticipated for relatively small work space areas for construction purposes however the extent has not yet been determined. Although an extensive field survey for caves and mines in the Project vicinity was not performed, none were observed during the wetland delineation field surveys. Further, mines are not expected in the general Project area based on historical information and the urban, developed setting.

Tree clearing is currently proposed to be completed between October 1 and March 31 to avoid the Indiana bat maternity roost period.

Northern Long-eared Bat

Suitable habitat for the northern long-eared bat includes caves and mines, and wooded areas. The range of the northern long-eared bat includes much of the eastern and north central United States (USFWS, 2016b). However, no known hibernacula or maternity roost trees are documented in Hamilton County (USFWS,

2016c). The primary threat to the northern long-eared bat is white-nose syndrome, which has resulted up to a 99 percent decline in the northeastern population of this species since the disease was first observed in 2006 (USFWS, 2016b). The same extent of planned tree clearing and timeframes discussed above for the Indiana bat applies to the northern long-eared bat.

Bald Eagle

Bald eagles nest near coastlines, rivers, and large lakes (USFWS, 2015b). No suitable roosting and foraging habitat of bald eagles was noted along the Project area, however, specific bald eagle nests surveys were not completed. Although the bald eagle was removed from the federal list of threatened and endangered species by the USFWS in August 2007, the bald eagle is protected under the Migratory Bird Treaty Act (MBTA); Bald and Golden Eagle Protection Act; and Lacey Act (USFWS, 2015b). If nests are observed during Project planning and construction, Duke will coordinate further with the USFWS.

Mussel Species

Five mussel species are identified by the USFWS as potentially occurring in Hamilton County, Ohio (USFWS, 2015). Suitable habitat for the fanshell, pink mucket pearly mussel, rayed bean, snuffbox, and sheepnose is described in Table 1, however the fanshell and pink mucket pearly mussel are typically found in medium to large rivers, which will not be impacted by the Project. The rayed bean and snuffbox prefer smaller streams which do exist within the Project area, however it is not known whether the water quality supports aquatic life such as mussels in these small urban streams. The sheepnose prefers large streams however the only large stream is Duck Creek. The Duck Creek valley and watershed has been extensively modified (Interstate 71 and interchange ramps) through development. It is unknown if this stream's water and habitat quality supports the sheepnose mussel. Duke will perform stream crossing construction for the pipeline using best management practices to minimize impacts to aquatic life such as limiting construction activities to periods of dry or low-flow conditions, using pump-around methods during trenching across the stream, installing a variety of sedimentation barriers as needed, or use of horizontal directional drilling techniques beneath selected streams.

Running Buffalo Clover

Suitable habitat for running buffalo clover includes partially shaded woodlots or areas between open forest and prairie. Running buffalo clover requires open areas and periodic disturbance to successfully flourish, but is intolerant of full sun, full shade, or severe disturbances (USFWS, 2015c). A species specific survey was not completed for running buffalo clover, but suitable habitat was observed along the Project in woodlots and residential areas. The closest known population of running buffalo clover is Ault Park, which is over 2,000 feet from the Project Area, and possibly Sharon Woods park as well.

Migratory Bird Treaty Act (MBTA) Compliance

The MBTA provides federal protection to migratory birds, including nests and eggs. Duke recognizes that the MBTA protects both migratory and non-migratory birds, and loss of an active bird nest site, incubating adults, eggs, or young as a result of construction activities would be in violation of the MBTA.

The primary concern for nesting birds is the cutting, clearing, and removal of existing vegetation. Duke has minimized impacts through the siting process by avoiding large tracts of forested land and paralleling existing road ROW where feasible. All clearing of forested land is proposed to occur between October 1 and March 31 thereby minimizing the impact to migratory birds during the primary nesting season (early March through mid-July).

Conclusion

Tree clearing associated with the Project's permanent ROW (preliminarily 30-feet wide) is estimated at 6 to 8 acres depending on the route alternative selected. The additional acreage of tree removal resulting from temporary construction activities and work space has not yet been determined. In order to reduce the potential for take of Indiana bats and northern long-eared bats, Duke proposes to conduct all tree removal, including potentially suitable roost trees, within the Project area between October 1 and March 31. Adhering to these tree clearing dates will also minimize impacts to bird species protected under the MBTA.

Wetland impacts within the Project area will be minimized to the extent practical. Based on wetland delineations performed by CH2M, temporary impacts to wetlands may occur during construction of the Project (ranging from a total of 1.1 acres to 1.6 acres dependent on the route alternative). All PEM wetlands will be allowed to revert to pre-construction conditions. Other wetlands (PFO and PSS) may undergo conversion impacts (to PEM wetlands) during construction of the pipeline and vegetation maintenance of the permanent ROW. Wetland impacts will be permitted through the U.S. Army Corps of Engineers and Ohio Environmental Protection Agency.

We request USFWS's informal determination regarding the potential impacts of the Project on federally-listed threatened and endangered species. Additionally, we also request a digital file (shapefile or map) of any occurrence location records for federally listed species. Information that would mitigate potential impacts to listed species and bird species protected under the Migratory Bird Treaty Act is also requested.

If you have any questions or require additional information, please contact Nathan Zink at 513-587-7105 or via email at nathan.zink@ch2m.com.

Sincerely,

Nathan Zink
Project Manager

cc: Mr. Stephen Lane, Duke Energy Ohio, Inc.

Attachments:
1 – Project Overview Maps
2 – Representative Habitat Photographs
3 – Ohio DNR T&E Occurrence Data

References

U.S. Fish and Wildlife Service (USFWS). 2015. Federally-Listed Species by Ohio Counties. Revised Oct. 2015. https://www.fws.gov/midwest/ohio/pdf/OhioTEListByCountyOct2015.pdf. Accessed May 20, 2016.

U.S. Fish and Wildlife Service (USFWS). 2015a. Freshwater mussels. http://www.fws.gov/midwest/endangered/clams. Accessed March 18, 2016.

U.S. Fish and Wildlife Service (USFWS). 2015b. Bald eagle. http://www.fws.gov/midwest/eagle/recovery/biologue.html. Accessed March 18, 2016.

U.S. Fish and Wildlife Service (USFWS). 2015c. Running Buffalo Clover. http://www.fws.gov/midwest/endangered/plants/rbcl/runningb.html. Accessed March 18, 2016

U.S. Fish and Wildlife Service (USFWS). 2016a. Indiana Bat *Myotis sodalis*. Revised December 2006. http://www.fws.gov/midwest/endangered/mammals/inba/pdf/inbafctsht.pdf. Accessed March 18, 2016.

U.S. Fish and Wildlife Service (USFWS). 2016b. Northern Long-Eared Bat *Myotis septentrionalis*. Revised April 2015. http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/NLEBFactSheet01April2015.pdf. Accessed March 18, 2016.

USFWS. 2016c. Kentucky Topographic Quadrangles Containing Northern Long-eared Bat Roost Trees and/or Hibernacula. http://www.fws.gov/frankfort/pdf/KY_NLEB_Quad_List.pdf. Accessed April 5, 2016.

\\CANOPUS\Groups\GIS\00_Proj\D\Duke\Duke_C143_extension\Maps\ODNR\Overview.mxd

PROJECT LOCATION

HAMILTON COUNTY, OHIO

WW Feed Station

Project Coordinates
Latitude: 39°13'24.579"N
Longitude: 84°24'14.85"W

Norwood Regulation Station (Alternate Route, Existing)

Fairfax Regulation Station (Preferred Route, Proposed)

LEGEND:

- Stations (Existing and Proposed)
- Preferred Route
- Alternate Route
- Existing Line V

BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangle
Cincinnati East 1982, Glendale 1982
Madeira 1983, Mason 1982

N

0 5,000 10,000
Scale In Feet

DUKE ENERGY.

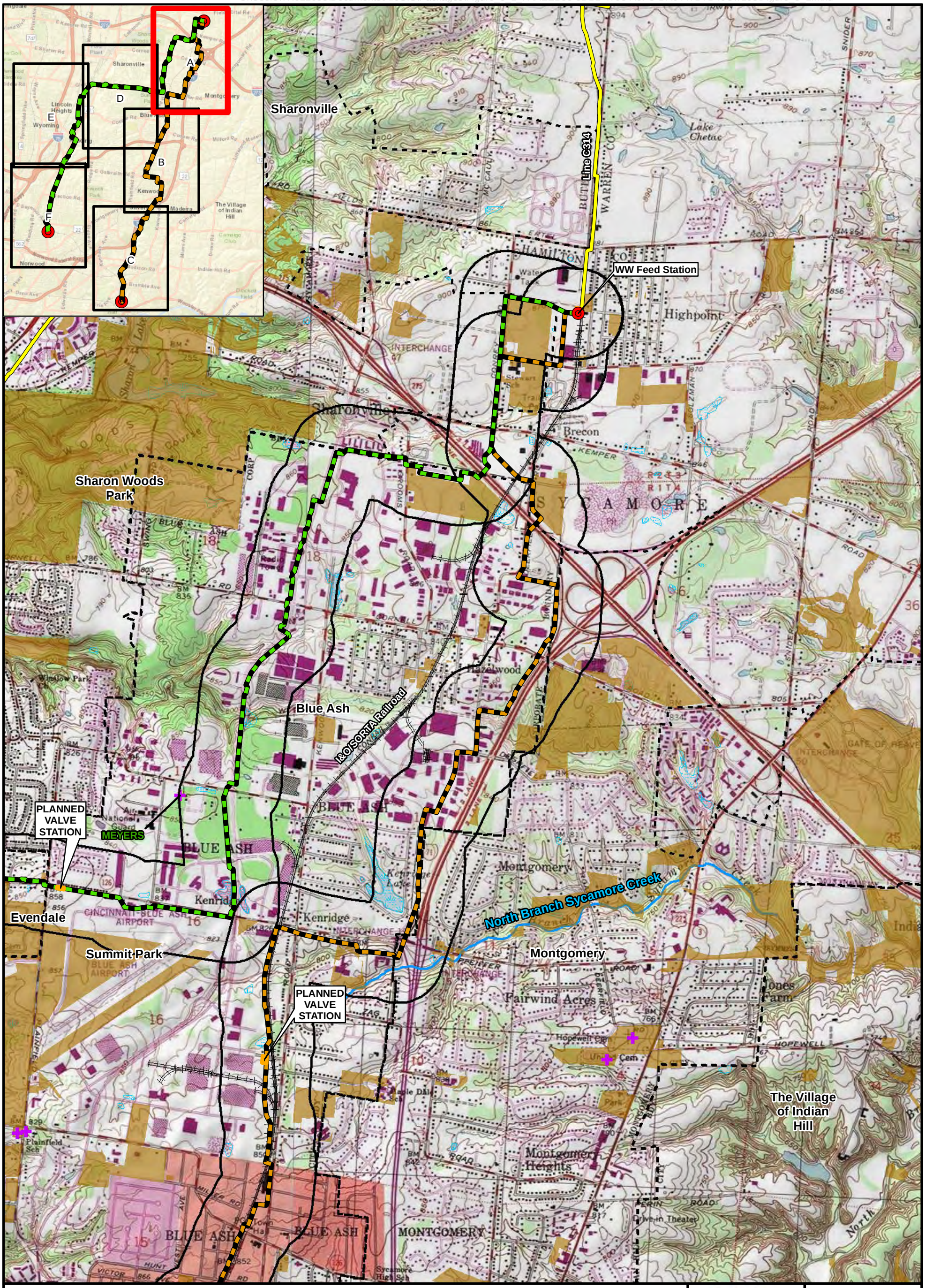
C314V Central Corridor Pipeline Extension Project

OVERVIEW FIGURE

PN: 672247
CREATED BY: TH
REVIEWED BY:JN

ch2m.

C:\Users\TH022638\Documents\ArcGIS\Packages\Figure_5_1_FAAEEB38-5DB1-4793-A6FC-DA0447D7D40C\v103\Figure_5_1.mxd



LEGEND:

- Preferred Route
- Alternate Route
- Proposed Station
- 1,000 Foot Buffer of Preferred and Alternate Route
- National Register Listed
- National Register Determination of Eligibility
- Cemetery
- NHD Stream
- Existing Pipeline
- Railroad
- NWI Wetland
- Park or Recreation Area
- Municipal Boundary
- Historic District

N

0 2,000 4,000

Scale In Feet

BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangle
Cincinnati East 1982,
Glendale 1982
Madeira 1983, Mason 1982

DUKE ENERGY.

C314V Central Corridor Pipeline Extension Project

PROJECT OVERVIEW MAP

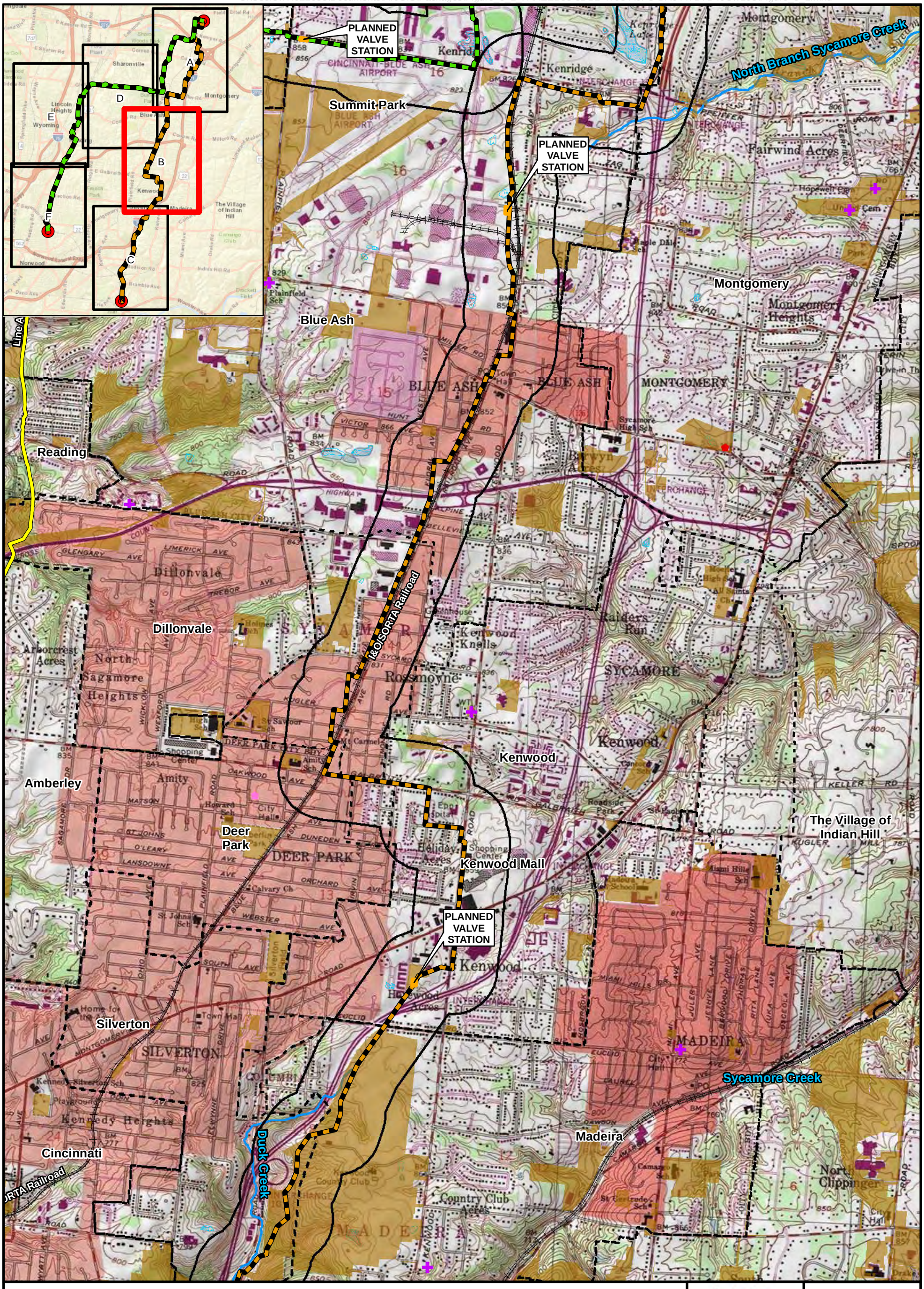
PN: 672247

CREATED BY: TH

REVIEWED BY:MF

ch2m.

C:\Users\TH022638\Documents\ArcGIS\Packages\Figure_5_1_FAAEEB38-5DB1-4793-A6FC-DA0447D7D40C\v103\Figure_5_1.mxd



LEGEND:

- Preferred Route
- Alternate Route
- Proposed Station
- 1,000 Foot Buffer of Preferred and Alternate Route
- National Register Listed
- National Register Determination of Eligibility
- Cemetery
- NHD Stream
- Existing Pipeline
- Railroad
- NWI Wetland
- Park or Recreation Area
- Municipal Boundary
- Historic District

N

0 2,000 4,000

Scale In Feet

BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangle
Cincinnati East 1982,
Glendale 1982
Madeira 1983, Mason 1982

DUKE ENERGY.

C314V Central Corridor Pipeline Extension Project

PROJECT OVERVIEW MAP

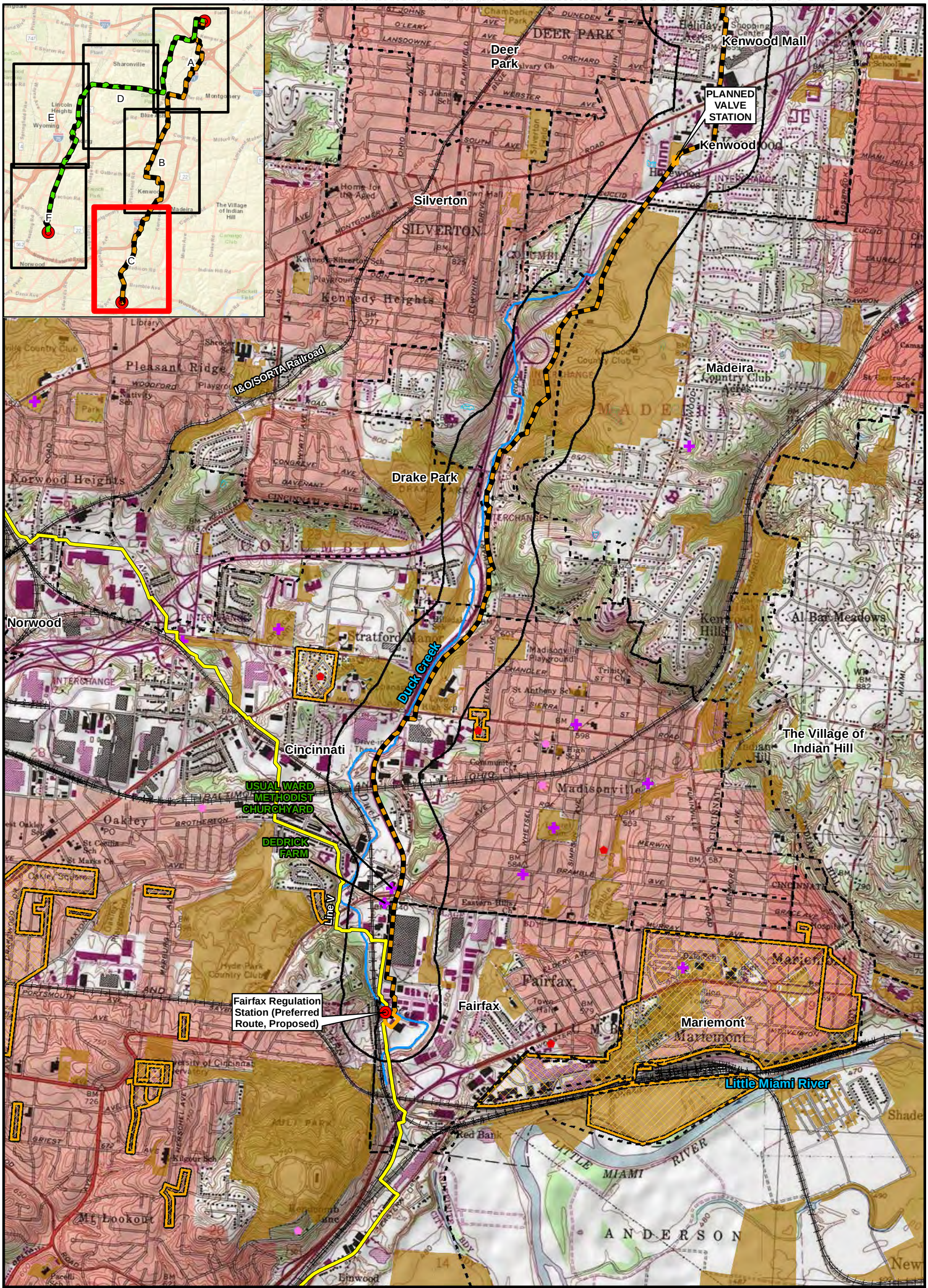
PN: 672247

CREATED BY: TH

REVIEWED BY:MF

ch2m.

C:\Users\TH022638\Documents\ArcGIS\Packages\Figure_5_1_FAAEEB38-5DB1-4793-A6FC-DA0447D7D40C\v103\Figure_5_1.mxd



LEGEND:

- Preferred Route
- Alternate Route
- Proposed Station
- 1,000 Foot Buffer of Preferred and Alternate Route
- National Register Listed
- National Register Determination of Eligibility
- Cemetery
- NHD Stream
- Existing Pipeline
- Railroad
- NWI Wetland
- Park or Recreation Area
- Municipal Boundary
- Historic District

N

0 2,000 4,000

Scale In Feet

BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangle
Cincinnati East 1982,
Glendale 1982
Madeira 1983, Mason 1982

DUKE ENERGY.

C314V Central Corridor Pipeline Extension Project

PROJECT OVERVIEW MAP

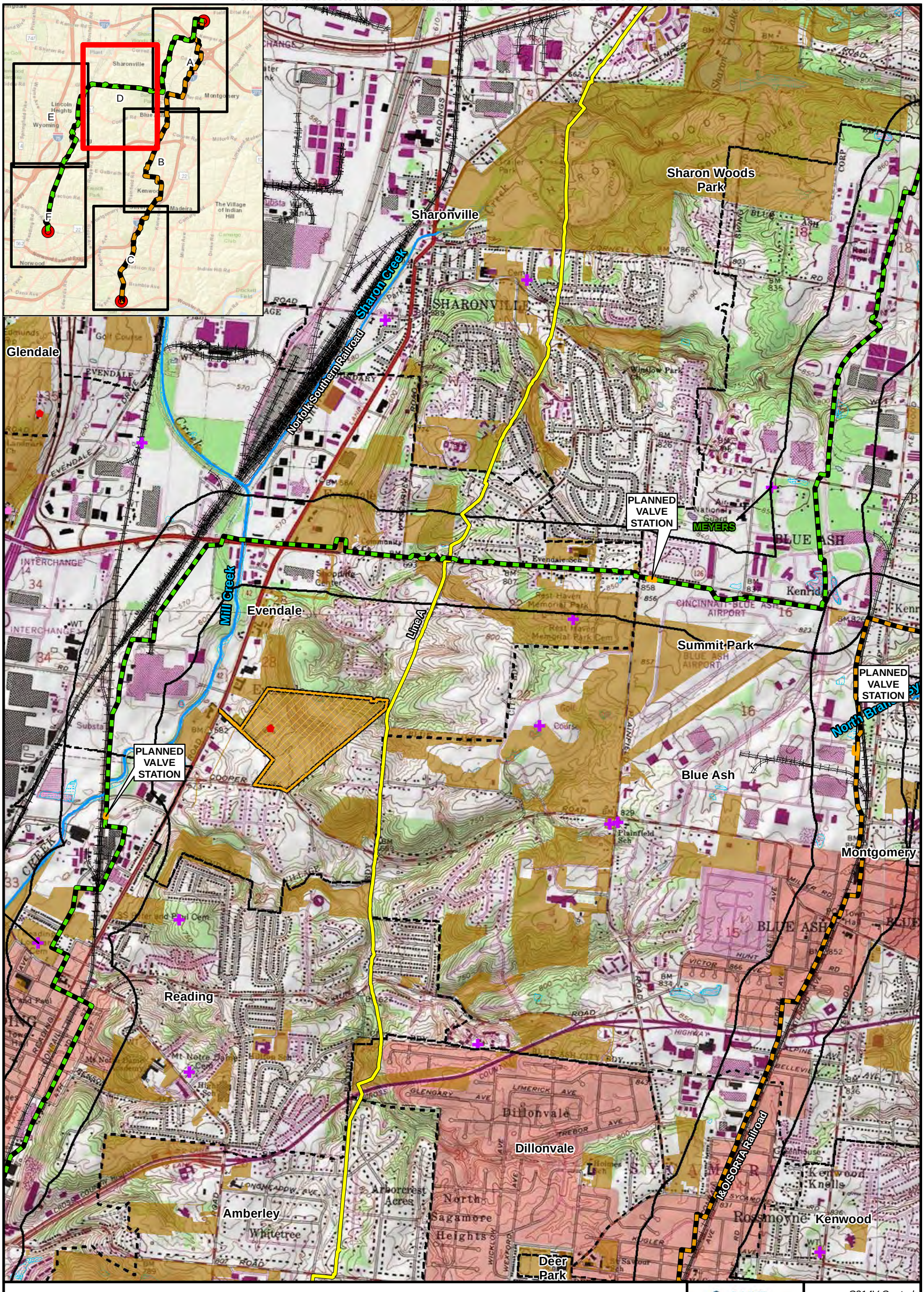
PN: 672247

CREATED BY: TH

REVIEWED BY:MF

ch2m.

C:\Users\TH022638\Documents\ArcGIS\Packages\Figure_5_1_FAAEEB38-5DB1-4793-A6FC-DA0447D7D40C\v103\Figure_5_1.mxd



LEGEND:

- Preferred Route
- Alternate Route
- Proposed Station
- 1,000 Foot Buffer of Preferred and Alternate Route
- National Register Listed
- National Register Determination of Eligibility
- Cemetery
- NHD Stream
- Existing Pipeline
- Railroad
- NWI Wetland
- Park or Recreation Area
- Municipal Boundary
- Historic District

N

BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangle
Cincinnati East 1982,
Glendale 1982
Madeira 1983, Mason 1982

0 2,000 4,000
Scale In Feet

DUKE ENERGY.

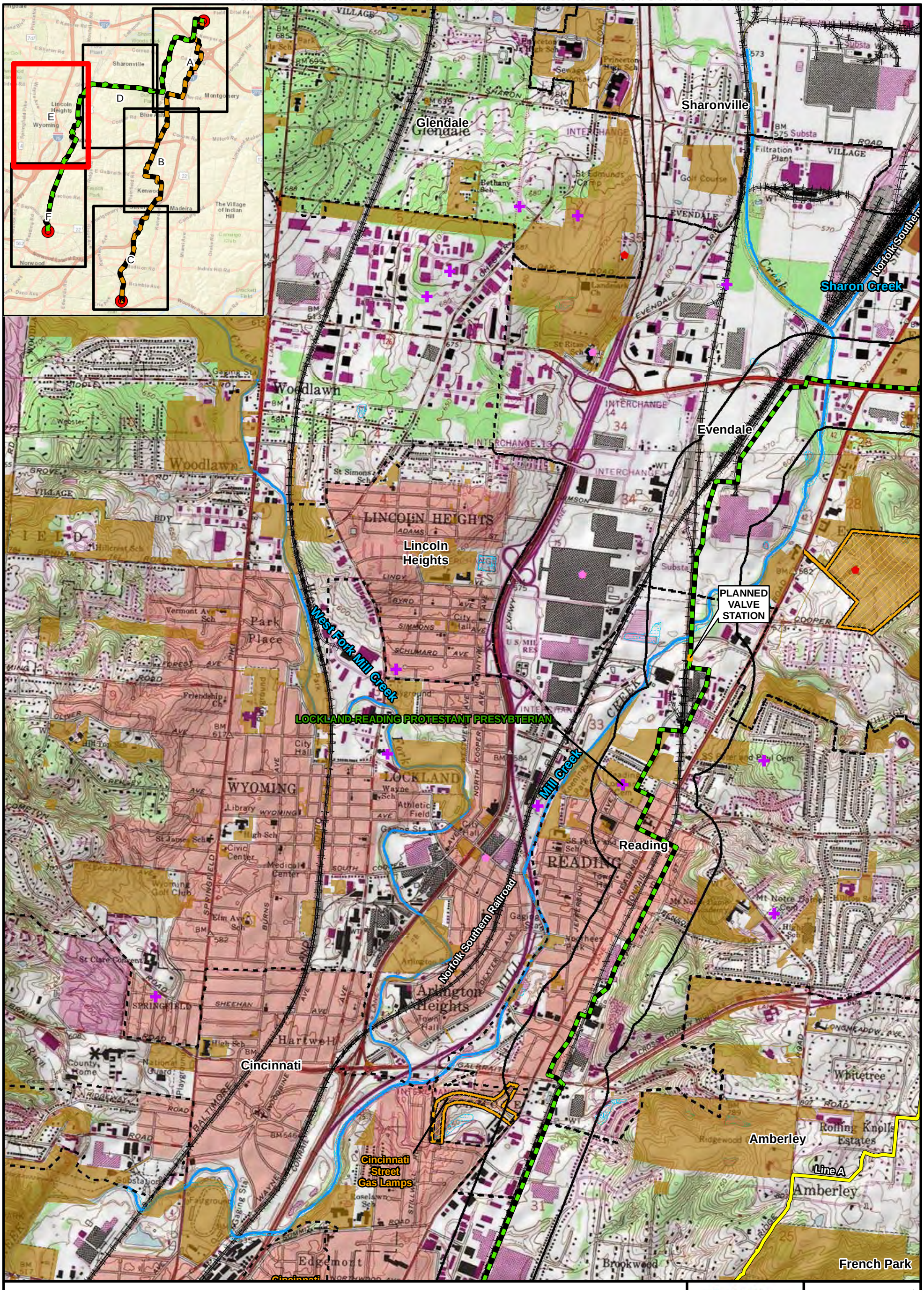
C314V Central Corridor Pipeline Extension Project

PROJECT OVERVIEW MAP

PN: 672247
CREATED BY: TH
REVIEWED BY:MF

ch2m.

C:\Users\TH022638\Documents\ArcGIS\Packages\Figure_5_1_FAAEEB38-5DB1-4793-A6FC-DA0447D7D40C\v103\Figure_5_1.mxd



LEGEND:

- Preferred Route
- Alternate Route
- Proposed Station
- 1,000 Foot Buffer of Preferred and Alternate Route
- National Register Listed
- National Register Determination of Eligibility
- Cemetery
- NHD Stream
- Existing Pipeline
- Railroad
- NWI Wetland
- Park or Recreation Area
- Municipal Boundary
- Historic District

N

BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangle
Cincinnati East 1982,
Glendale 1982
Madeira 1983, Mason 1982

0 2,000 4,000
Scale In Feet

DUKE ENERGY.

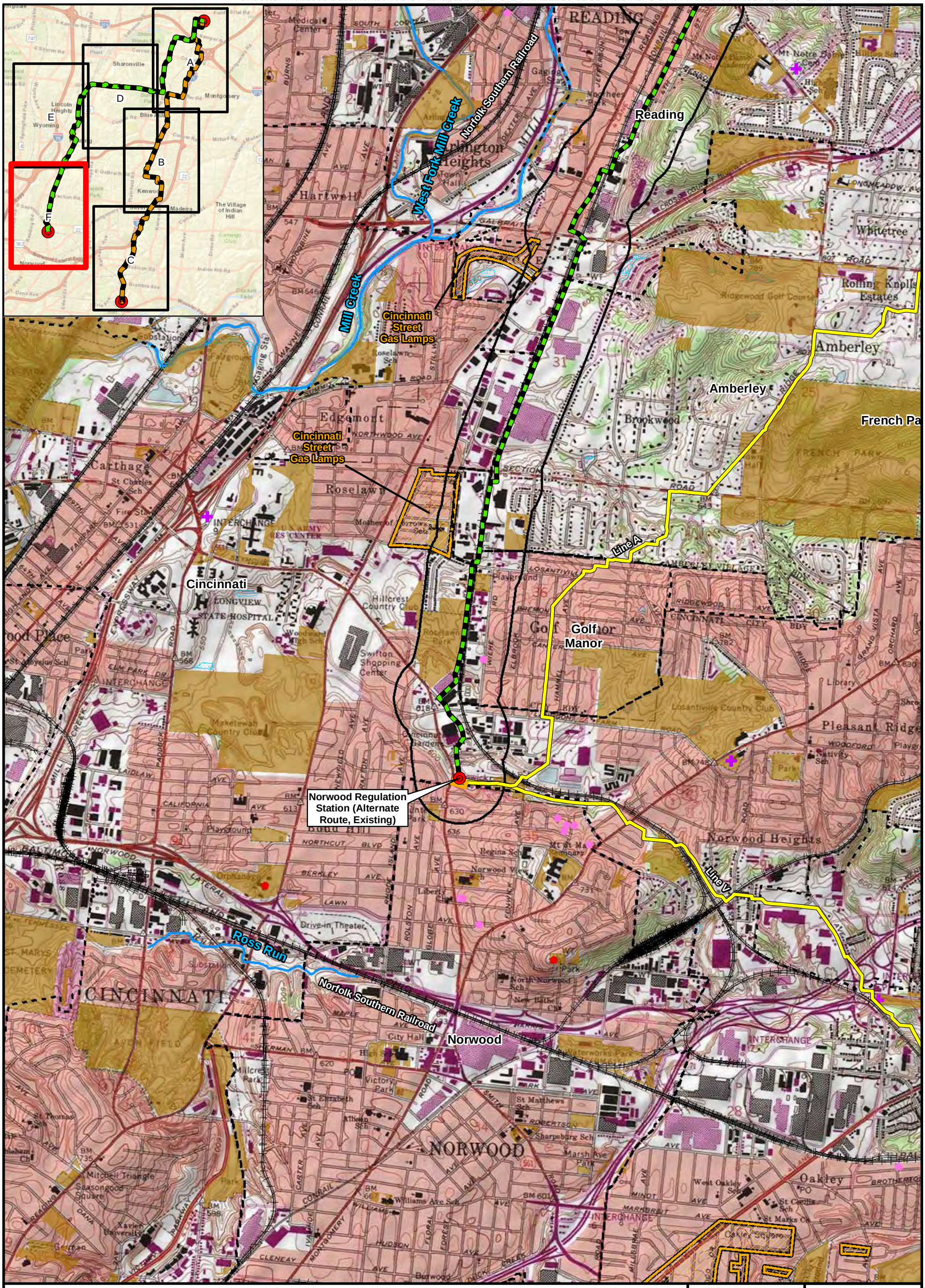
C314V Central Corridor Pipeline Extension Project

PROJECT OVERVIEW MAP

PN: 672247
CREATED BY: TH
REVIEWED BY:MF

ch2m.

C:\Users\TH022638\Documents\ArcGIS\Packages\Figure_5_1_FAAEEB38-5DB1-4793-A6FC-DA0447D7D40C\v103\Figure_5_1.mxd



LEGEND:

- Preferred Route
- Alternate Route
- Proposed Station
- 1,000 Foot Buffer of Preferred and Alternate Route
- National Register Listed
- National Register Determination of Eligibility
- Cemetery
- NHD Stream
- Existing Pipeline
- Railroad
- NWI Wetland
- Park or Recreation Area
- Municipal Boundary
- Historic District

N

BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangle
Cincinnati East 1982,
Glendale 1982
Madeira 1983, Mason 1982

0 2,000 4,000
Scale In Feet

DUKE ENERGY.

C314V Central Corridor Pipeline Extension Project

PROJECT OVERVIEW MAP

PN: 672247
CREATED BY: TH
REVIEWED BY:MF

ch2m.

Photograph 1: Representative view of a potential Indiana bat and northern long-eared bat habitat.

Photograph 2: Representative view recreational park land use.

Photograph 3: Representative view of upland forest habitat.

Photograph 4: Representative view of commercial land use.

Photograph 5: Representative view of a golf course in the study area.

Photograph 6: Representative view of upland forest habitat.

Photograph 7: Representative view of palustrine scrub-shrub (PSS) wetland habitat.

Photograph 8: Representative view of PSS wetland habitat.

Photograph 9: Representative view of palustrine forested (PFO) wetland habitat.

Photograph 10: Representative view of PFO wetland habitat.

Photograph 11: Representative view of palustrine emergent (PEM) wetland habitat.

Photograph 12: Representative view of PEM wetland habitat.

Photograph 13: Representative view of a perennial stream (Duck Creek).


Photograph 14: Representative view of a perennial stream.

Photograph 15: Representative view of an intermittent stream.

Photograph 16: Representative view of an ephemeral stream.

Photograph 17: Representative view of a detention pond within an industrial park.

Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR JAMES ZEHRINGER, DIRECTOR

Ohio Division of Wildlife
Raymond W. Petering, Chief
2045 Morse Rd., Bldg. G
Columbus, OH 43229-6693
Phone: (614) 265-6300

May 11, 2016

Thomas Hahn
CH2M
400 E. Business Way
Cincinnati, OH 45241

Dear Mr. Hahn,

Per your request, I have e-mailed you a set of shapefiles with our Natural Heritage Program data for the Central Corridor Pipeline Expansion Desktop Analysis project, including a one mile radius, in Sycamore and Columbia Townships, Hamilton County, Ohio. This data will not be published or distributed beyond the scope of the project description on the data request form.

Records included in the data layer may be for rare and endangered plants and animals, geologic features, high quality plant communities and animal assemblages. Fields included are scientific and common names, state and federal statuses, as well as managed area and date of the most recent observation. State and federal statuses are defined as: E = endangered, T = threatened, P = potentially threatened, SC = species of concern, SI = special interest, FE = federal endangered, FT = federal threatened and A = recently added to inventory, status not yet determined.

A layer showing state designated scenic rivers is also included. If this project is located within 1000 feet of a state designated scenic river, the approval of the ODNR Director may be required in accordance with Ohio Revised Code section 1547.82. Please contact Scenic Rivers Program Manager Bob Gable at 614-265-6814 for further information.

The managed areas layer includes state, federal and county lands, as well as areas owned by non-profits, museums and other entities. Managed areas are sites under formal protection for their natural resources. Please be aware that this layer may not be complete and we are continually updating it as new information becomes available to us.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S. C. 661 et seq.) and does not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Please contact me at 614-265-6818 if I can be of further assistance.

Sincerely,

Debbie Woischke

Debbie Woischke
Ohio Natural Heritage Program

Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR JAMES ZEHRINGER, DIRECTOR

Ohio Division of Wildlife
Raymond W. Petering, Chief
2045 Morse Rd., Bldg. G
Columbus, OH 43229-6693
Phone: (614) 265-6300

August 8, 2016

Thomas Hahn
CH2M
400 E. Business Way
Cincinnati, OH 45241

Dear Mr. Hahn,

Per your request, I have e-mailed you a set of shapefiles with our Natural Heritage Program data for the Central Corridor Pipeline Expansion project, including a one mile radius, in Sycamore and Columbia Townships, Hamilton County, Ohio. This data will not be published or distributed beyond the scope of the project description on the data request form.

Records included in the data layer may be for rare and endangered plants and animals, geologic features, high quality plant communities and animal assemblages. Fields included are scientific and common names, state and federal statuses, as well as managed area and date of the most recent observation. State and federal statuses are defined as: E = endangered, T = threatened, P = potentially threatened, SC = species of concern, SI = special interest, A = recently added to inventory with a state status not yet determined, X = presumed extirpated from Ohio, FE = federal endangered, FT = federal threatened, FC = federal candidate species, and FSC = federal species of concern.

The managed areas layer includes state, federal and county lands, as well as areas owned by non-profits, museums and other entities. Managed areas are sites under formal protection for their natural resources. Please be aware that this layer may not be complete and we are continually updating it as new information becomes available to us.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S. C. 661 et seq.) and does not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Please contact me at 614-265-6818 if I can be of further assistance.

Sincerely,

Debbie Woischke

Debbie Woischke
Ohio Natural Heritage Program