COMMONWEALTH OF KENTUCKY
BEFORE THE KENTUCKY STATE BOARD ON
ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

THE ELECTRONIC APPLICATION OF DUKE ENERGY OHIO, INC. FOR A CERTIFICATE OF CONSTRUCTION FOR TWO NEW 138 KILOVOLT NONREGULATED ELECTRIC TRANSMISSION LINES APPROXIMATELY 1.2 AND 1.3 MILES IN LENGTH, IN BOONE COUNTY, KENTUCKY	)))))))	CASE NO. 2025-00228

APPLICATION FOR CERTIFICATE TO CONSTRUCT
NON-REGULATED ELECTRIC TRANSMISSION LINE

September 16, 2025

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KRS 278.714	Description	Filing
2(a)	The name, address, and telephone number of the person proposing construction of the nonregulated transmission line or the carbon dioxide transmission pipeline. **Sponsoring Witness:** Fred Trammel, Director of Power Grid Operations (PGO) Project Management	Page 1
(2)(b)	A full description of the proposed route of the transmission line or the carbon dioxide transmission pipeline and its appurtenances. The description shall include a map or maps showing: 1. The location of the proposed line and all proposed structures that will support it. 2. The proposed right-of-way limits. 3. Existing property lines and the names of persons who own the property over which the line will cross; and 4. The distance of the proposed line from residential neighborhoods, schools, and public and private parks within one (1) mile of the proposed facilities. **Sponsoring Witness**: Betsy Ewoldt, Lead PGO Siting Manager	Page 1 Exhibits 2, 3, 4, 5, 6
(2)(c)	A full description of the proposed line and appurtenances, including the following: 1. Initial and design voltages and capacities. 2. Length of line. 3. Terminal points; and 4. Substation connections. **Sponsoring Witness**: John Rogers, Manager PGO Engineering	Page 7 Exhibit 7
(2)(d)	A statement that the proposed transmission line and Appurtenances will be constructed and maintained in accordance with accepted engineering practices and the National Electric Safety Code. **Sponsoring Witness:** John Rogers, Manager PGO Engineering	Page 9

(2)(e)	With respect to both electric transmission lines and carbon dioxide transmission pipelines, evidence that public notice has been given by publication in a newspaper of general circulation in the general area concerned. Public notice shall include the location of the proposed line, state that the proposed line is subject to approval by the Board and shall provide the telephone number and address of the Public Service Commission. **Sponsoring Witness:** John Hurd, Director Stakeholder Infrastructure Engagement	Page 9 Exhibits 8, 9, 10
(2)(f)	Proof of service of a copy of the application upon the chief executive officer of each county and municipal corporation in which the proposed line is to be located, and upon the chief officer of each public agency charged with the duty of planning land use in the general area in which the line is proposed to be located. **Sponsoring Witness:** Ken Muth, Government & Community Relations Manager	Page 11 Exhibit 11

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Exhibit 1: Certificate of Authorization

Exhibit 2: Turfway Reliability Project Route Selection Study

Exhibit 3: Preferred Routes Map

Exhibit 4: Western Route BG ROW Limits and Property Ownership Map

Exhibit 5: Eastern Route EK ROW Limits and Property Ownership Map

Exhibit 6: One-Mile Project Vicinity Map

Exhibit 7: CONFIDENTIAL Duke Energy Ohio 138 kV Transmission Line Standards

Exhibit 8: Proof of Newspaper Notice

Exhibit 9: Public Engagement Materials

Exhibit 10: Stakeholder Engagement Schedule

Exhibit 11: Municipal, County, and Planning Commission Application Proof of Service

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, Fred Trammel, Director PGO Project Management, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing application and that it is true and correct to the best of his knowledge, information and belief.

Fred Trammel Affiant

Subscribed and sworn to before me by Fred Trammel on this 2nd day of September 2025.

NOTARY PUBLIC

My Commission Expires: July 8, 2027

EMILIE SUNDERMAN
Notary Public
State of Ohio
My Comm. Expires
July 8, 2027

VERIFICATION

STATE OF OHIO)
)
COUNTY OF HAMILTON)

SS:

The undersigned, Betsy Ewoldt, Lead PGO Siting Manager, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing application and that the information contained therein is true and correct to the best of her knowledge, information, and belief.

Betsy Ewoldt, Affiant

Subscribed and sworn to before me by Betsy Ewoldt on this 8th day of September, 2025.

NOTARY PUBLIC

My Commission Expires: July 8, 2027

EMILIE SUNDERMAN
Notary Public
State of Ohio
My Comm. Expires
July 8, 2027

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, John Rogers, Manager PGO Engineering, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing application and that it is true and correct to the best of his knowledge, information and belief.

John Rogers Affiant

Subscribed and sworn to before me by John Rogers on this 2 day of September, 2025.

NOTARY PUBLIC

My Commission Expires: 1/5/2029

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, John Hurd, Director of Stakeholder Infrastructure Engagement, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing application and that it is true and correct to the best of his knowledge, information and belief.

John Hurd Affiant

Subscribed and sworn to before me by John Hurd on this 27th day of August, 2025.

NOTARY PUBLIC

My Commission Expires: July 8, 2027

EMILIE SUNDERMAN
Notary Public
State of Ohio
My Comm. Expires
July 8, 2027

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, Ken Muth, Government and Community Relations Manager II, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing application and that the information contained therein is true and correct to the best of his knowledge, information, and belief.

Ken Muth, Affiant

Subscribed and sworn to before me by Ken Muth on this 16th day of September, 2025.

NOTARY PUBLIC

My Commission Expires: July 8, 2027

EMILIE SUNDERMAN
Notary Public
State of Ohio
My Comm. Expires
July 8, 2027

KRS 278.714 (2)(a): The name, address, and telephone number of the person proposing construction of the nonregulated transmission line.

Duke Energy Ohio, Inc.
139 East Fourth Street
Cincinnati, OH 45202
Tel: 513-287-4320

KRS 278.714 (2)(b)(1): A full description of the proposed route of the electric transmission line and its appurtenances. The description shall include a map or maps showing: The location of the proposed line and all proposed structures that will support it.

Pursuant to KRS 278.714 (2)(b)(1), the Company proposes to construct two new 138 kV transmission lines to connect the future Turfway Substation on Turfway Road to Duke Energy Ohio's existing Circuit 23984 in Florence, Kentucky. Duke Energy Ohio has identified the need for a new substation and electric transmission lines in the Florence area to help meet the region's growing demand for electricity. Two transmission lines with independent route alignments will connect the future Turfway Substation to the existing Circuit 23984, supporting the project need for service reliability by creating a looped circuit in and out of future Turfway Substation. Prior to selecting the preferred routes for the Project, the Company analyzed several alternative routes. This study is further described in Exhibit 2 – Turfway Reliability Project Route Selection Study.

An approximately 2.3-square-mile study area was defined around the future Turfway Substation and Duke Energy Ohio's Circuit 23984 Transmission Line in Florence, Kentucky to evaluate reasonable alternatives for the Project. Based on characteristics of the study area, 60 alternative routes were identified and evaluated. To minimize impacts to existing study area development and viewshed, paralleling roadways and parcel boundaries

was maximized. Evaluation criteria were grouped into three categories: ecological and cultural, land use, and engineering. The criteria were used to compare the alternative routes quantitatively. In addition to the quantitative evaluation, qualitative factors were considered, including public comments, proximity to the Cincinnati/Northern Kentucky International (CVG) Airport airspace, road widening and reconfiguration plans, planned development parcels, and double circuit options for the evaluated alternative routes.

Based on a comprehensive evaluation, a western transmission line route (Western Route BG) and an eastern transmission line route (Eastern Route EK) were selected as the preferred routes for the Project. Exhibit 3 – Preferred Routes Map depicts the proposed transmission line routes and preliminary structure locations. The structure types are proposed to be steel-supported single structures, described in more detail in Section KRS 278.714 (2)(c) below. After the Notice of Intent to File was submitted to the Board on June 30, 2025, a landowner reached out to request an adjustment on their property to avoid conflicts with building expansion plans. This route update is reflected in Exhibits 3-6 in this Application. The adjusted route does not directly impact any additional landowners.

Western Route BG is 1.24 miles long between the southern tap location along the existing Circuit 23984 Transmission Line (39°00'31.6"N 84°38'18.8"W) between Meijer Drive and Interstate 71/75 and the future Turfway Substation (39°01'19.5"N 84°38'19.3"W) off Turfway Road in Florence, Kentucky. From the southern tap location along the existing Circuit 23984 Transmission Line, Western Route BG proceeds northwest crossing a parking lot and turns north to cross Meijer Drive. Western Route BG proceeds northeast following Meijer Drive. At the intersection of Meijer Drive and Houston Road, Western Route BG turns northeast and parallels the southern side of Houston Road. West

of Thoroughbred Boulevard, Western Route BG turns northwest, crossing Houston Road, and parallels Thoroughbred Boulevard. Western Route BG crosses Spiral Drive, turns west, and then parallels the northern side of Spiral Drive. Western Route BG travels northeast paralleling parcel boundaries and crosses Turfway Road before reaching the future Turfway Substation.

Eastern Route EK is 1.34 miles long between the northern tap location along the existing Circuit 23984 Transmission Line south of Interstate 71/75 (39°01'07.7"N 84°37'13.2"W) and the future Turfway Substation (39°01'19.5"N 84°38'19.3"W) off Turfway Road in Florence, Kentucky. From the northern tap location at the existing Circuit 23984 Transmission Line, Eastern Route EK proceeds northwest crossing the I-71/75 corridor, undeveloped and forested parcels, and Houston Road. Eastern Route EK turns southwest, paralleling Houston Road, before turning northwest. Eastern Route EK turns southwest through forested land and continues through paved areas south of Turfway Park Racing & Gaming. Eastern Route EK turns northwest to enter the future Turfway Substation.

KRS 278.714 (2)(b)(2): The proposed right-of-way limits.

Pursuant to KRS 278.714(2)(b)(2), The Project will require that new right-of-way (ROW) be acquired for construction and operation; Duke Energy Ohio's transmission line ROW guidelines for a new 138 kV transmission line specify a 70-foot easement width parallel and adjacent to existing road ROW and a 100-foot easement width non-roadside.

The proposed new ROW is typically 100 feet in width but can be reduced to 70 feet wide when the proposed ROW is parallel and adjacent to an existing road ROW. The adjacent road ROW provides two main benefits which allow a narrower ROW. First, the

road ROW provides some protection for the new transmission line because new above ground development, such as buildings, is limited or prohibited within road ROW. Second, the road ROW provides the ability to access the transmission line ROW for construction, operations, and maintenance activities which reduces the ROW width required were an access road necessary. Exhibit 4 – Western Route BG ROW Limits and Property Ownership Map and Exhibit 5 – Eastern Route EK ROW Limits and Property Ownership Map depict the proposed ROW limits for the Turfway Reliability Project.

ROW limits will be finalized after easement acquisition and final engineering design is complete. Discussions with property owners during the easement acquisition process could result in the adjustment of the centerline and ROW. Furthermore, the presence of underground utilities could require minor centerline shifts during final engineering and construction.

Duke Energy Ohio seeks authority to place the centerline and associated ROW in the 150-foot filing corridor as required based on field conditions encountered. The 150-foot filing corridor would allow for the proposed centerline and associated ROW to move slightly on either side of the proposed centerline and ROW to account for adjustments required during finalized negotiations with landowners and access needs. The final easement width required will not be greater than 100 feet. Duke Energy Ohio will work with property owners to minimize impacts and accommodate preferences to the extent practical.

KRS 278.714 (2)(b)(3): Existing property lines and the names of persons who own the property over which the line will cross.

Pursuant to KRS 278.714(2)(b)(3), landowners crossed by the proposed Project are depicted in Exhibit 4 – Western Route BG ROW Limits and Property Ownership Map and Exhibit 5 – Eastern Route EK ROW Limits and Property Ownership Map.

KRS 278.714 (2)(b)(4): The distance of the proposed electric transmission line from residential neighborhoods, schools, and public and private parks within one (1) mile of the proposed facilities.

Pursuant to KRS 278.714(2)(b)(4), Exhibit 6 – One-Mile Project Vicinity Map depicts residential parcels and residential neighborhoods within a one-mile radius of the proposed transmission lines. "Residential neighborhood" is defined by KRS 278.700(6) as "a populated area of five (5) or more acres containing at least one (1) residential structure per acre." There are 10 residential neighborhoods within one mile of the proposed routes, as shown in Table 1 and on Exhibit 6. The two nearest residential neighborhoods are located south of Interstate 71/75, approximately 0.06 miles south of Western Route BG and approximately 0.10 miles south of Eastern Route EK.

Table 1. Residential Neighborhoods Within One Mile of Proposed Transmission Lines

Exhibit 6 Neighborhood Identifier	Distance from Western Route BG	Distance from Eastern Route EK
Neighborhood 1 (N-1)	0.55 miles	0.77 miles
Neighborhood 2 (N-2)	--	0.55 miles
Neighborhood 3 (N-3)	0.06 miles	0.83 miles
Neighborhood 4 (N-4)	0.92 miles	--
Neighborhood 5 (N-5)	0.59 miles	--
Neighborhood 6 (N-6)	0.40 miles	0.69 miles
Neighborhood 7 (N-7)	0.94 miles	--
Neighborhood 8 (N-8)	0.48 miles	0.10 miles
Neighborhood 9 (N-9)	--	0.83 miles
Neighborhood 10 (N-10)	--	0.69 miles

Sixteen schools are within one mile of the proposed routes, as shown in Table 2 and Exhibit 6 – One-Mile Project Vicinity Map. The school nearest both Western Route BG and Eastern Route EK is Beckfield College-Florence.

Table 2. Schools within One Mile of Proposed Transmission Line

Exhibit 6 Identifier	Schools	Distance from Western Route BG	Distance from Eastern Route EK
S-1	Bartlett Educational Center	--	0.72 miles
S-2	Beckfield College-Florence (College)	0.04 miles	0.32 miles
S-3	Boone County High School	0.43 miles	0.96 miles
S-4	Early Learning Center	--	0.65 miles
S-5	Empire Beauty School-Florence (College)	0.43 miles	0.77 miles
S-6	Florence Elementary School	0.71 miles	--
S-7	Heritage Academy (Private)	0.89 miles	--
S-8	Lindeman Elementary School	--	0.94 miles
S-9	Lloyd High School	--	0.64 miles
S-10	Mary, Queen of Heaven School (Private)	--	0.88 miles
S-11	Miles Elementary School	--	0.65 miles
S-12	Rise Academy	0.71 miles	--
S-13	Ross Medical Education Center-Erlanger (College)	--	0.65 miles
S-14	St Henry District High School (Private)	--	0.75 miles
S-15	St Henry School (Private)	--	0.94 miles
S-16	Tichenor Middle School	--	0.68 miles

There are nine public and private parks within one mile of the proposed routes, as shown in Table 3 and Exhibit 6 – One-Mile Project Vicinity Map. The nearest park to Eastern Route EK is Erlanger Lion's Park, where Eastern Route EK connects to Circuit 23984. The nearest park to Western Route BG is World of Golf, 0.26 miles to the west of the route.

Table 3. Parks within One Mile of Proposed Transmission Line

Exhibit 6 Identifier	Parks	Distance from Western Route BG	Distance from Eastern Route EK
P-1	Bell Park	0.79 miles	--
P-2	Boone-Florence Skate Park	0.57 miles	--
P-3	Center Street Park	--	0.97 miles
P-4	Erlanger Lion's Park	0.79 miles	0.00 miles
P-5	Florence Family Aquatic Center	0.86 miles	--
P-6	Kentaboo Park	0.90 miles	0.41 miles
P-7	Niblack Memorial Park	0.98 miles	--
P-8	Stringtown Park	0.43 miles	--
P-9	World Of Golf	0.26 miles	0.78 miles

KRS 278.714 (2)(c): With respect to electric transmission lines, a full description of the proposed line and appurtenances, including the following:

1. Initial and design voltages and capacities;

2. Length of line;

3. Terminal points; and

4. Substation connections;

Pursuant to KRS 278.714(2)(c), a full description of the proposed lines and appurtenances is provided. The overall project consists of two new, approximately 2.6 miles total, 138 kV single-circuit transmission lines that will provide additional transmission capacity between Duke Energy Ohio's future Turfway Substation and Duke Energy Ohio's existing Circuit 23984 in Florence, Kentucky.

The design voltage of the new transmission lines will be 138 kilovolts (kV). The design capacity is 2011 Amperes, 480 MVA Summer; 2179 Amperes, 520 MVA Winter. The proposed structures will have one 138 kV transmission circuit supporting a total of three phase conductors and one overhead ground/shield wire. The phase conductors will utilize 954 kcmil aluminum conductor steel-supported (ACSS) conductor. Structure types

and numbers will be determined during final engineering, which includes ground survey and geotechnical studies, and will depend upon terrain crossed, spans, turning angles, ROW acquisition, and other engineering considerations.

The transmission line structure heights will vary depending on placement, terrain, clearance requirements, and Federal Aviation Administration restrictions. An Airspace Analysis was completed for the project and the report is included as Appendix A in the Route Selection Study Report (Exhibit 2). The transmission engineering design anticipates a transmission pole height above ground between 50 and 105 feet, pending final design. Based upon preliminary engineering, the Company anticipates Western Route BG will require 16 foundation-based galvanized steel poles and 7 direct embedded galvanized steel poles. Preliminary design anticipates that Eastern Route EK will require 12 foundation-based galvanized steel poles and 12 direct embedded galvanized steel poles. It is anticipated that angle and dead-end structures will utilize either guy wires and anchors or foundations. The design materials selected for this project are Duke Energy Ohio's standard transmission poles and equipment for a 138 kV transmission line, which are similar to industry standards for transmission lines and provided in Confidential Exhibit 7 - Duke Energy Ohio Midwest 138 kV Transmission Line Standards. Engineering and design work are ongoing and will be finalized once surveying and property rights are obtained.

KRS 278.714 (2)(d): A statement that the proposed electric transmission line and appurtenances will be constructed and maintained in accordance with accepted engineering practices and the National Electric Safety Code.

Pursuant to KRS 278.714(2)(d), the Company hereby states that the proposed transmission line will be constructed and maintained in accordance with accepted engineering practices and the National Electric Safety Code.

KRS 278.714 (2)(e): With respect to electric transmission lines, evidence that public notice has been given by publication in a newspaper of general circulation in the general area concerned. Public notice shall include the location of the proposed electric transmission line, shall state that the proposed line is subject to approval by the board, and shall provide the telephone number and address of the Public Service Commission.

Pursuant to KRS 278.714(2)(e), Exhibit 8 – Proof of Newspaper Notice includes a copy of the notice of the intent to construct the proposed transmission line that has been published in a newspaper of general circulation in the area in which the construction is proposed. Table 4 provides a list of newspapers that have displayed notice for Duke Energy Ohio Case No. 2025-00228 and the date of publication.

Table 4. List of Newspapers and Date of Publication

Newspapers	Date of Publication
Gallatin County News	July 9, 2025
Grant County News	July 10, 2025
Falmouth Outlook	July 8, 2025
Kentucky Enquirer	July 8, 2025
Link nky	July 18, 2025*

*Link nky did not publish an edition the week of July 7th – 11th

Duke Energy Ohio held an in-person public open house on August 28, 2024, at Boone County High School in Florence, Kentucky. Property owners within 500 feet of the

alternative routes were notified of the in-person open house by mail. Additionally, a virtual open house was available online beginning July 29, 2024, with a public comment period from August 28 through September 28, 2024. Both open house formats presented project information and solicited comments that were incorporated into the routing process. Project information, an interactive map, and a link to the virtual open house were available on the Project website (https://www.duke-energy.com/our-company/about-us/electric-transmission-projects/turfway). The virtual public open house (https://www.dukeenergy-turfwayvoh.com/) provided another format to gather public feedback. Duke Energy Ohio received six comments during the 30-day public comment period. Exhibit 9 – Public Engagement Materials includes a copy of the invitation to the open house (Ex. 9(a)) and the letters mailed out to property owners announcing the preferred route selection (Ex. 9(b)).

Duke Energy Ohio also coordinated additional stakeholder outreach with local elected officials and other stakeholders to introduce the Project and gather feedback related to upcoming development plans in the study area. Duke Energy Ohio reviewed all comments and input from elected officials and local stakeholders and comprehensively considered the concerns and recommendations during route selection. A summary of the meeting dates and attendees are provided in Exhibit 10 – Stakeholder Engagement Schedule.

KRS 278.714 (2)(f): Proof of service of a copy of the application upon the chief executive officer of each county and municipal corporation in which the proposed electric transmission line is to be located, and upon the chief officer of each public agency charged with the duty of planning land use in the general area in which the line is proposed to be located.

Pursuant to KRS 278.714(2)(f), Exhibit 11 – Municipal, County, and Planning Commission Application Proof of Service, includes proof of service of a copy of the application provided to the chief executive officer of the county (Boone County) and municipal corporation (City of Florence) in which the proposed line is to be located, and the chief officer of each public agency charged with the duty of planning land use (Boone County Planning Commission) in the general area in which the line is proposed to be located.

807 KAR 5:100§ 2: Application Fee to be Filed with an Application to Construct a Nonregulated Transmission Line. A person seeking board approval of construction of a nonregulated transmission line or the carbon dioxide transmission pipeline shall file with an application submitted in accordance with 807 KAR 5:110 to the board a fee of fifty (50) dollars per kilovolt of rated capacity per mile of length, except that the initial application fee shall be in an amount not less than $10,000 and not more than $200,000.

Pursuant to 807 KAR 5:100§ 2, an application fee of $18,078 was previously submitted to the Board, in advance of this Application. This total reflects the fee required for construction of 2.62 miles of 138 kV transmission line. This length was calculated based

on a draft route developed during landowner discussions leading up to the Application filing and varies from the total proposed route length (2.57 miles) by 0.05 miles.

Commonwealth of Kentucky
Michael G. Adams, Secretary of State

Michael G. Adams
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
http://www.sos.ky.gov

Certificate of Authorization

Authentication number: 344058
Visit https://web.sos.ky.gov/ftshow/certvalidate.aspx to authenticate this certificate.

I, Michael G. Adams, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

DUKE ENERGY OHIO, INC.

, a corporation organized under the laws of the state of Ohio, is authorized to transact business in the Commonwealth of Kentucky, and received the authority to transact business in Kentucky on October 11, 1973.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that an application for certificate of withdrawal has not been filed; and that the most recent annual report required by KRS 14A.6-010 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 11th day of September, 2025, in the 234th year of the Commonwealth.

Michael G. Adams
Secretary of State
Commonwealth of Kentucky
344058/0060050

Route Selection Study

Turfway Reliability Project

Boone County, Kentucky

Prepared for:

Duke Energy Ohio, Inc.

Prepared by:

Jacobs Engineering Group Inc.

July 2025

Executive Summary

Duke Energy Ohio, Inc. (Duke Energy) proposes to construct two new 138 kilovolt (kV) transmission lines to connect the future Turfway Substation on Turfway Road to Duke Energy's existing Circuit 23984 in Florence, Kentucky. Duke Energy has identified the need for a new substation and electric transmission lines in the Florence area to help meet the region's growing demand for electricity. The Turfway Reliability Project (Project) will be filed with the Kentucky Electric Generation and Transmission Siting Board as a nonregulated electric transmission line.

An approximately 2.3-square-mile study area was defined around the future Turfway Substation and Duke Energy's Circuit 23984 Transmission Line in Florence, Kentucky to evaluate reasonable alternatives for the Project. Based on characteristics of the study area, 60 alternative routes were identified and evaluated. To minimize impacts to existing study area development, paralleling roadways and parcel boundaries was maximized.

Evaluation criteria were grouped into three categories: ecological and cultural, land use, and engineering. The criteria were used to compare the alternative routes quantitatively. In addition to the quantitative evaluation, qualitative factors were considered, including public comments, proximity to the Cincinnati/Northern Kentucky International (CVG) Airport airspace, road widening and reconfiguration plans, planned development parcels, and double circuit options for the evaluated alternative routes.

Based on a comprehensive evaluation, Alternative Route BG and Alternative Route EK were selected as the preferred routes for the Project. Preferred Route BG is approximately 1.2 miles long and travels west from the future Turfway Substation to the western tap location along existing Circuit 23984. Preferred Route EK is approximately 1.3 miles long and travels east from the future Turfway Substation to the eastern tap location along existing Circuit 23984.

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Appendix A. Preliminary Airspace Analysis

Appendix B. Quantitative Evaluation Results

Acronyms and Abbreviations

CVG	Cincinnati/Northern Kentucky International Airport
Duke Energy	Duke Energy Ohio, Inc.
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
I-	Interstate
Jacobs	Jacobs Engineering Group, Inc.
kV	kilovolt(s)
KYTC	Kentucky Transportation Cabinet
NHD	National Hydrography Dataset
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OSA	Office of State Archaeology
Project	Turfway Reliability Project
ROW	right-of-way
SHPO	State Historic Preservation Office
Turfway Park	Turfway Park Racing & Gaming facility

1. Introduction

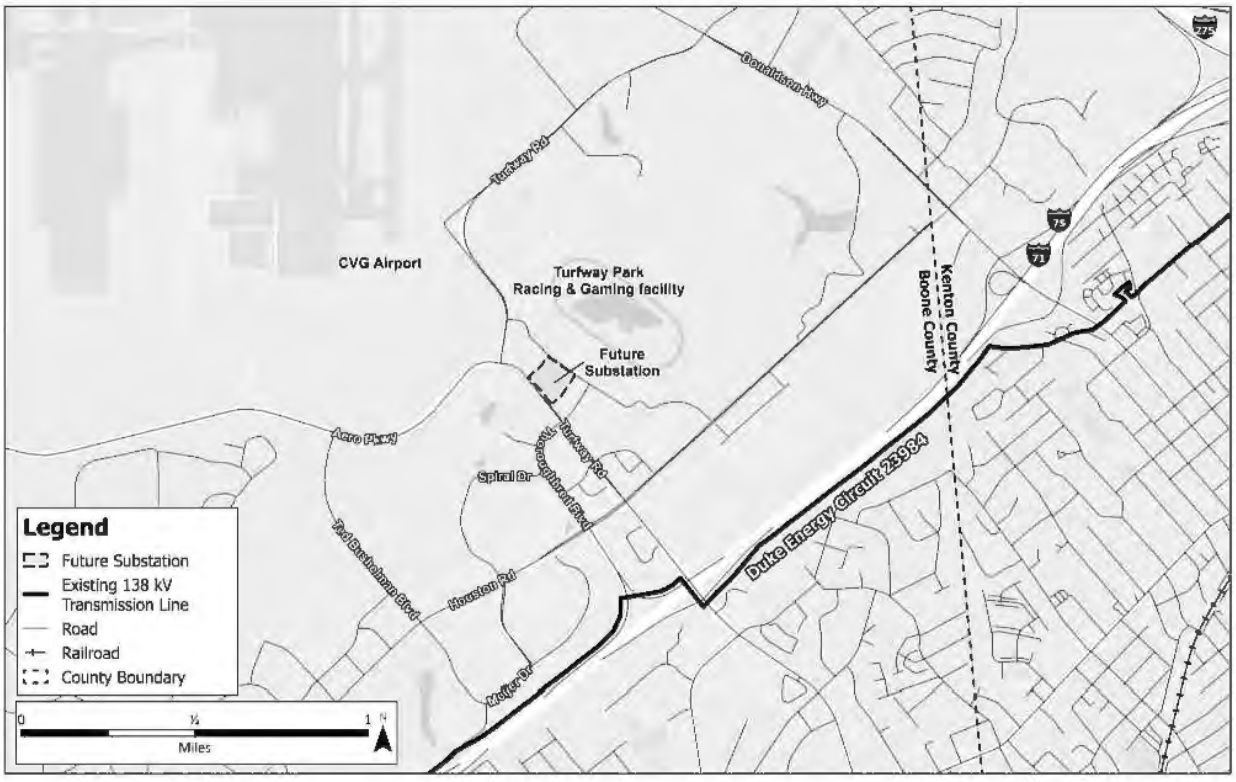
On behalf of Duke Energy Ohio, Inc. (Duke Energy), Jacobs Engineering Group, Inc. (Jacobs) conducted a route selection study for Duke Energy's proposed Turfway Reliability Project (Project) in Boone and Kenton Counties, Kentucky.

1.1 Purpose and Need

Duke Energy identified the need to install two new 138 kilovolt (kV) transmission lines to connect the future Turfway Substation on Turfway Road to Duke Energy's existing Circuit 23984 in Florence, Kentucky. Boone County is among the top three fastest-growing counties in Kentucky with a 72 percent population increase over the past 24 years (United States Census Bureau 2024). The Florence area is developing with commercial and industrial businesses. The area is growing with recently built and planned commercial distribution centers proposed in the vicinity of the future Turfway Substation.

The Turfway Substation is needed to help ensure the continued reliability and capacity of the local energy system and must be connected by new 138 kV transmission lines to Duke Energy's existing transmission network along Circuit 23984. This Project will help improve Duke Energy's ability to reroute power during planned and unplanned outages, and to restore power following extreme weather events. Figure 1 provides an overview of the Project area in Boone and Kenton Counties, Kentucky.

Figure 1. Project Area Overview



1.2 Project Description and Requirements

The Project will require the construction of two new 138 kV transmission lines between Duke Energy's Circuit 23984 and the future Turfway Substation in Florence. The substation requires a 138 kV transmission line to provide power from existing Circuit 23984 into the substation and a separate 138 kV transmission line to connect the future Turfway Substation back to the existing Circuit 23984 Transmission Line. A unique transmission tap location is required for each of the two proposed transmission lines along the existing Circuit 23984 to enhance network reliability and reduce the chance of concurrent transmission lines outages due to severe weather or other unanticipated outage events. The location of each tap point will be selected in this study and will act as the project endpoints that connect the Project to the existing transmission line. The existing Circuit 23984 Transmission Line will be retired between the two new endpoints. The future Turfway Substation is the other common endpoint for both new transmission lines.

Structure heights are expected to be between 50 and 105 feet tall with span lengths up to 300 feet, following transmission line engineering standards. The Project will require that a new right-of-way (ROW) be acquired; Duke Energy transmission line ROW guidelines for a new 138 kV transmission line specify a 70-foot easement width adjacent to roadways and a 100-foot easement width not along public roadways.

1.3 Project Timeline and Regulatory Approvals

After selecting the preferred route for the Project, Duke Energy will announce the preferred route to the public. Following the announcement, preconstruction activities will begin, including land and environmental surveys, geotechnical surveys, pole location staking, and easement acquisition. The Project may be subject to local and state regulations and authorizations, including floodplain permits, environmental permits, building permits, fire department approvals, and stormwater permits.

This Project will be filed with the Kentucky Electric Generation and Transmission Siting Board as a nonregulated electric transmission line. Duke Energy will construct the Project after all permits and approvals have been received.

1.4 Goal of Route Selection Study

The primary goals for the route selection study were to identify a route for the Project that (1) minimizes potential impacts on the surrounding area, specifically on the environment and land uses; (2) minimizes deviations from Duke Energy's standard designs, thereby avoiding unreasonable costs; and (3) can be constructed and operated safely for its service life while meeting the purpose and need of the Project.

2. Route Selection Methodology

The route selection process follows a common siting methodology that is routinely used to route electric transmission lines in Kentucky and other states. A routing team was convened to implement the route selection process. The routing team consists of multidisciplinary staff from Duke Energy and Jacobs with experience in transmission line routing, substation and line engineering, environmental permitting, public engagement, land services, construction and maintenance, vegetation management, project management, planning, and operations.

The route selection process is a multi-step method for the routing team to determine the preferred route for the Project. The process used for the Project consisted of the following primary tasks:

1) **Delineating a study area**: The first step in the routing process was to delineate a project-specific study area that included a large enough area to investigate reasonable routing alternatives for the Project, based on project requirements.
2) **Mapping constraint and opportunity data**: Once the study area was delineated, desktop data were collected, including ecological and cultural, land use, and engineering data to identify constraints and opportunities within the study area. Data were collected based on their relevance to the Project and the availability and quality of the dataset. Once collected, the study area data were mapped to produce an overall constraint and opportunity map.
3) **Developing study corridors**: Using information derived from the overall constraint and opportunity map, study corridors and tap locations were developed and refined through desktop reviews and field reconnaissance where study corridors were publicly accessible. Study corridors were used to present the Project to the public and gather feedback on alternative route locations.
4) **Public engagement**: Study corridors were presented to the public on a virtual open house website, at an in-person public open house, and during direct stakeholder meetings. These public engagement opportunities were used to present Project information to elected officials, landowners, and residents near the study corridors. Duke Energy also solicited public feedback, which was considered during the routing process.
5) **Developing and evaluating alternative routes**: Following the open house and public comment period, alternative routes were developed from the study corridors. Next, a comprehensive quantitative and qualitative evaluation was conducted. Evaluation criteria were established based on opportunities and constraints identified within the study area. The alternative routes were scored and ranked based on the evaluation criteria.
6) **Selecting preferred routes**: Based on a comprehensive evaluation, two preferred routes were selected for the Project.

2.1 Route Selection Considerations

Throughout the route selection process, Duke Energy's primary objective is the safe, reliable delivery of electric power to its customers. Safety is paramount when selecting a route, a construction technique, or a structure type. Potential impacts on the natural environment and cultural resources were considered when identifying and evaluating alternative routes and avoided to the greatest extent. Potential impacts on existing and future land uses and engineering constraints and opportunities were also considered to support the selection of preferred routes for the Project. Unreasonable costs to the Project related to greater route length and sharp turn angles were avoided when practical during preferred route selection. Potential impact considerations are described in greater detail in Section 3.

3. Route Selection Study

Sections 3.1 through 3.8 describe the route selection process completed for the Project.

3.1 Study Area Delineation

The Project study area was delineated based on the Project endpoints, between Duke Energy's Circuit 23984 and the future Turfway Substation, and was defined to include a reasonable area where potential routes could be identified (Figure 2). The study area's southern boundary was defined by Duke Energy's Circuit 23984 and follows along the southern side of the Interstate (I-) 71/75 corridor between Woodspoint Drive in Boone County at the southern end and the cloverleaf interchange at Donaldson Highway and I-71/75 in Kenton County at the northern end. The Cincinnati/Northern Kentucky International (CVG) Airport, north of Aero Parkway and northwest of Turfway Road, is a land use constraint for routing; therefore, the study area's northwestern boundary was delineated along these roadways to avoid the airport property and limit impacts to airport operations. The study area's northeastern boundary was defined by Donaldson Highway to avoid the residential areas to the east. The study area's southwestern boundary travels west of Ted Bushelman Boulevard between Aero Parkway and the I-71/75 corridor.

The study area encompasses approximately 2.3 square miles in the city of Florence in northeastern Boone County, southwest of Cincinnati, Ohio. A small portion (0.07 square mile) of the southeastern corner of the study area is in Kenton County, Kentucky. The study area includes high-density commercial and industrial land uses along with a large, undeveloped, forested parcel in the eastern portion of the study area, which is undergoing mixed-use redevelopment referred to as the Marydale Property. The Turfway Park Racing & Gaming facility (Turfway Park) is centrally located in the study area.

3.2 Constraints and Opportunities

Desktop data of the study area were collected to characterize the study area and identify constraints and opportunities that could affect transmission line routing. Figures 3, 4, and 5 (figures included at the end of the report) depict the ecological and cultural, land use, and engineering resources within the study area.

3.2.1 Ecological and Cultural Resources

Within the study area, ecological and cultural resources were reviewed using federal, state, and local publicly available data so that alternative routes could be developed to avoid or minimize potential impacts on these resources (Figure 3).

Several National Hydrography Dataset (NHD) waterbodies are present throughout the study area and are most concentrated in the undeveloped areas to the north. A Federal Emergency Management Agency (FEMA) floodplain and National Wetland Inventory (NWI) wetlands associated with a large NHD waterbody on the Marydale Property are in the northern portion of the study area. Another open waterbody is present in the middle of Turfway Park racetrack. Several unnamed NHD streams run throughout the study area, some of which may no longer exist or were rerouted to underground culverts to allow for commercial development.

There are several forested areas, predominantly in the eastern and northern portions of the study area. Many of these forested areas are on parcels proposed for development at the Marydale Property, although detailed development plans have not been shared for all parcels. Other forested areas contain streams, wetlands, or floodplains, which could limit future commercial development.

Cultural resources are tangible remains of past human activity and may include, but are not limited to, prehistoric sites and historic or prehistoric objects, buildings, and structures. A cultural resources review of

the study area was completed using data compiled from Kentucky Heritage Council (State Historic Preservation Office [SHPO]) and the Office of State Archaeology (OSA) in March 2024. According to the results of the records search, there are 28 historic resources (3 eligible for National Register of Historic Places [NRHP] listing, 23 unevaluated for NRHP listing, and 2 demolished resources). Archaeological sites were reviewed in the study area but are not included on Figure 3 as this information is sensitive and sharing is restricted. Sixteen previously reported cultural resource investigations have been recorded within the study area. No NRHP-listed historic properties or districts are in the study area. Two cemeteries are mapped within the Marydale Property and associated with the former Archdiocese property ownership. One unmapped cemetery was also noted on the Passionist Nuns property south of the intersection of Turfway Road and Donaldson Highway.

3.2.2 Land Use

Land use and future land use plans in the study area were reviewed to identify areas of constraints and opportunities for Project development (Figure 4). Land use constraints include residential, commercial, recreational, and institutional uses (such as schools, places of worship, and hospitals).

Based on a desktop review of publicly available data, existing land use within the study area consists primarily of densely developed commercial and industrial developments. A few undeveloped or wooded parcels in the southwestern portion of the study area are interspersed throughout the commercial and industrial development. These parcels could align with ecological resources, which reduce their ability to be developed. Scattered low-density residential areas are mostly in the northern portion of the study area along Turfway Road. The St. Elizabeth Florence Hospital campus is southeast of Houston Road in the study area. Beckfield College is south of Spiral Drive in the southwestern portion of the study area. Turfway Park is central to the study area. The future Turfway Substation will be built along Turfway Road near Turfway Park.

Overall, the area is experiencing an uptick in proposed developments and future growth is expected to continue. The Marydale Property, a 272-acre tract of land between Donaldson Highway and Turfway Park, is planned for mixed-use development of office buildings, apartments, restaurants, medical facilities, and educational institutions (City of Florence 2023). Additional planned developments in the study area along Houston Road include an apartment complex southeast of Turfway Park and proposed development surrounding the Citi Bank Corporate building. Planned developments along Meijer Drive include two hotels and a Freddy's restaurant.

The Kentucky Transportation Cabinet (KYTC) is proposing the I-75/275 Interchange Project to improve and modify traffic patterns along Turfway Road, Thoroughbred Boulevard, I-75/71 and the I-275 interchange. KYTC also has plans to expand Turfway Road along the northern border of the study area. Figure 4 shows the approximate extent of the I-75/275 Interchange Project; the area is assumed to be a Project constraint due to the unknown limits of final construction plans.

3.2.3 Engineering Resources

Engineering data such as existing linear utility and transportation infrastructure were reviewed within the study area (Figure 5). These resources were evaluated for compatibility with the Project.

The primary roads in the study area, which run southwest-northeast, are I-71/75 and Houston Road. Turfway Road runs southwest-northeast along the northwestern boundary of the study area, and northwest-southeast through the center of the study area. Additional primary roads in the study area that run northwest-southeast are Donaldson Highway, Thoroughbred Boulevard, and Ted Bushelman Boulevard. Secondary roads, such as Spiral Drive, Woodspoint Drive, and Meijer Drive, serve the commercial businesses, primarily in the southern portion of the study area. Opportunities for the Project include paralleling the

existing roadway network throughout the study area, which will minimize land use impacts and viewshed impacts to residential properties.

Two air transportation facilities are in or adjacent to the study area and introduce constraints related to transmission pole structure height and placement. To evaluate the Federal Aviation Administration (FAA) airspace considerations associated with CVG Airport and the helipad on the St. Elizabeth Florence Hospital property, preliminary airspace evaluations were conducted for the Project (Appendix A).

Duke Energy's existing electric transmission infrastructure in the area includes the Circuit 23984 138 kV Transmission Line along the southern boundary of the study area that runs parallel to and crosses the I-71/75 corridor. Overhead distribution lines are present throughout the study area, including along Houston Road, Donaldson Highway, Turfway Road, and underbuilt on or paralleling Circuit 23984.

Several underground utilities in the study area were seen as a constraint. Duke Energy has existing underground electric distribution lines throughout the study area, including along Aero Parkway, Donaldson Highway, and throughout the commercial, industrial, and institutional areas from Ted Bushelman Boulevard to Turfway Park. Duke Energy also has an existing natural gas pipeline main along the northern side of Turfway Road. An existing Union Light, Heat & Power natural gas pipeline routes through the southeastern corner of the study area and provides an opportunity to co-locate the new lines along an existing utility corridor. Underground water and sewer infrastructure is present along Turfway Road, Houston Road, and Donaldson Road as well as throughout the study area south of Turfway Park.

3.3 Study Corridor Development

After the study area was delineated and constraint and opportunity data were mapped, study corridors and tap locations along the existing Circuit 23984 were developed for the Project (Figure 6). Preferred routing options were along existing road ROW when there was sufficient space available in private easement for the required 70-foot easement width, and, where feasible, along parcel boundaries with a proposed easement width of 100-feet.

Structure height and structure placement impacts on the Project area airspace were considered through a preliminary airspace analysis (Appendix A). The preliminary airspace analysis indicated the potential for restrictions on the location and height of transmission structures in the airspace near CVG Airport and St. Elizabeth Hospital Helipad. Consequently, the study corridors avoid Aero Parkway. Options were limited along Ted Bushelman Boulevard because of the known flight paths and associated airspace restrictions for CVG Airport. As a result of the preliminary airspace analysis, study corridors along Houston Road adjacent to St. Elizabeth Hospital were also avoided due to structure height and safety concerns near helicopter flight paths.

Six tap locations were developed for the Project and referred to as Tap A, Tap B, Tap C, Tap D, Tap E, and Tap F. Taps A, B, and C are west of Turfway Road and the I-71/75 interchange and do not require a new I-71/75 crossing to connect to Circuit 23984 since the existing line is north of the interstate. Tap D, E, and F in the eastern study area require a new I-71/75 crossing in coordination with KYTC; however, the existing transmission line crossing over the interstate would be removed after the new line is built if Taps D, E, or F are utilized.

A field review of the study area, potential tap locations, and study corridors was completed in April 2024. The purpose of the field review was to identify additional constraints and opportunities that should be considered in the routing process and used to evaluate the study area, tap locations, and study corridors. Due to the rapid development of new construction in the area, several structures were noted in the field that were not visible on aerial imagery, including a new gas station at the Donaldson Highway and Turfway Road intersection, completed construction of the apartment complex on Houston Road south of Turfway Park,

and a new Hilton Garden Inn and Freddy's Restaurant along Meijer Drive. Additionally, road widening was underway on Donaldson Highway and construction was occurring on the Marydale Property.

After the field review, study corridors were added or modified to reflect feasible routing options. A study corridor along Woodspoint Drive and Ted Bushelman Boulevard was added to provide an option that crosses less commercially developed areas.

Prior to the public open house, study corridors were removed from consideration where existing constraints, such as buildings, limited the space available to construct a transmission line. Study corridor options north of Turfway Road were removed because there was insufficient space for a 70-foot easement between Duke Energy's recently constructed underground gas pipeline and habitable buildings. The new gas station at the northeastern corner of Turfway Road and Donaldson Highway reduced space available for a new transmission line north of Turfway Road. To avoid this gas station and the intersection at Turfway Road and Donaldson Road, the study corridor was adjusted to travel south of the Passionist Nuns property away from the intersection. A road widening project is underway along Donaldson Highway that could require additional coordination with the Marydale Property owner.

3.4 Public and Stakeholder Engagement

Duke Energy held an in-person public open house and a virtual open house to present the Project and study corridors, and to solicit comments from the public to incorporate into the routing process. Project information, an interactive map, and a link to the virtual open house were available on the Project website (https://www.duke-energy.com/our-company/about-us/electric-transmission-projects/turfway). The virtual public open house (https://www.dukeenergy-turfwayvoh.com/) was designed to mimic the experience of an in-person open house and provide another way to gather public feedback by email, online comment form, and directly through an interactive map. Property owners within 500 feet of the study corridors were notified of the open house by mail. The intent of the public information meeting was to provide potentially affected property owners with an opportunity to better understand the Project and for the routing team to gather public feedback.

The virtual open house room was available online beginning July 29, 2024, with comment forms available from August 28 through September 28, 2024. Duke Energy encouraged visitors to provide comments and feedback by email, online comment form, and directly through the interactive map. The in-person open house was held on August 28, 2024, at Boone County High School in Florence. Duke Energy received six comments during the 30-day public comment period. Of these comments, one was received via the website and five were received from the open house survey. Comments were geographically focused on locations near Turfway Road. The feedback collected throughout this process identified concerns about specific study corridors, impacts on commercial operations and residences, and property value.

The Duke Energy public engagement and Routing Team also coordinated with local elected officials to introduce the Project and gather feedback related to upcoming development plans in the area. A beautification effort is underway along Turfway Road from the I-71/75 interchange and feedback indicated that a transmission line in this area would be counter to beautification efforts. Additionally, the I-71/75 corridor along the southern study area boundary is part of the larger I-71/275 Interchange Improvements Project (KYTC 2024). This improvement project includes removing an existing ramp off of I-71/75, adding new ramps and flyover bridges to access Turfway Road and Thoroughbred Boulevard and changing Turfway Road and Thoroughbred Boulevard to one-way-only traffic patterns.

The Routing Team reviewed each comment and input from elected officials and local stakeholders, and comprehensively considered the concerns and recommendations.

3.5 Alternative Route Development

Following the public comment period, study segments were developed in the study corridors (Figure 7). Public comments, development plans, and new information gathered on the location of underground utilities were considered in developing alternative routes.

A total of 60 alternative routes were developed for the Project by combining 44 study segments into complete routes between endpoints. An overview of all segments used to create the alternative routes is provided on Figure 7. The 60 alternative routes were grouped and labeled based on their tap location origination point along Duke Energy's existing Circuit 23984 Transmission Line. The alternative routes are presented by tap groupings, Tap A, B, C, D, E, and F (from west to east), and are shown on Figures 8A to 8F.

Alternative routes originating from Taps A (Figure 8A) and B (Figure 8B) make up the majority of the western routes in the study area. Eleven alternative routes originate from Tap A, the western-most tap point along Duke Energy's existing Circuit 23984, just east of Woodspoint Drive. Eleven alternative routes originate from Tap B, which is east of Tap A along Duke Energy's existing Circuit 23984, crossing a parking lot of a commercial building. Alternative Routes originating from Taps A and B traverse commercial development, some ecological features, and underground utilities associated with the commercial corridors. Many Tap A and Tap B alternative routes are the same alignment with the only difference being the tap origination point.

Alternative routes originating from Tap C (Figure 8C) are part of the central and western routes in the study area. Six alternative routes originate from Tap C. Tap C connects Duke Energy's existing Circuit 23984 just southwest of Turfway Road crossing a paved lot and a parking lot for a hotel. Alternative routes originating from Tap C along Turfway Road are the shortest routes and traverse dense commercial development and commercial corridors.

Alternative routes originating from Taps D (Figure 8D) and E (Figure 8E) are part of the central and eastern routes in the study area. Ten alternative routes originate from Tap D and 12 alternative routes originate from Tap E. Taps D and E connect along Duke Energy's existing Circuit 23984 on the southern side of the I-71/75 corridor and require a new transmission line crossing over the interstate corridor. Tap D is 200 feet southwest of Tap E. Alternative routes originating from Taps D and E cross commercial development and undeveloped forested land. Alternative routes originating from Taps D and E parallel the southern boundary of the Marydale Property and approach the future Turfway Substation from the west by routing around Turfway Park to the north or south.

Alternative routes originating from Tap F (Figure 8F) include the eastern-most routes in the study area. Ten alternative routes originate from Tap F. Tap F requires crossing the I-71/75 corridor. Alternative routes originating from Tap F proceed around the Marydale Property or cut through the northern portion of the Marydale parcel near an existing property access road and proceed north or south around Turfway Park. Alternative Routes originating from Tap F are some of the longest routes considered in this routing study.

3.6 Alternative Route Evaluation

After the alternative routes were established (Figures 8A to 8F), a comprehensive evaluation was conducted to select preferred routes that minimize overall impacts in the area. The evaluation consisted of quantitative and qualitative considerations. For the quantitative evaluation, criteria were established to compare and rank the alternative routes.

3.6.1 Quantitative Evaluation Criteria

Based on the publicly available data assembled to identify opportunities and constraints in the study area, plus additional opportunities and constraints observed during the field review and gathered during the public information meeting, quantitative evaluation criteria were developed to compare the alternative

routes. The quantitative evaluation criteria were grouped into three categories: ecological and cultural, land use, and engineering.

The next step in this process was to apply weights to the three established categories. Weighting recognizes that under certain circumstances, one evaluation category is more important or relevant than another in determining an outcome. The category weighting values were determined based on the specific project area setting as well as professional experience routing projects in a similar setting. The quantitative evaluation criteria are provided in Table 1.

Across the three categories, the land use category and the engineering category were weighted the highest (40 percent each), followed by the ecological and cultural category (20 percent). The land use category was given a high weight because the Project is in a commercialized area that is mostly developed or being developed in the future (City of Florence 2023). The engineering category was given an equally high weight because of the risk associated with designing and constructing a transmission line in a developed area with numerous engineering constraints. The ecological and cultural category was weighted the lowest as there are few ecological and cultural resources in the study area that could potentially be impacted and/or require additional permitting efforts.

Table 1. Evaluation Criteria with Data Sources

Category	Evaluation Criteria	Data Source and Access Date
Ecological and Cultural	NHD stream crossings (count)	NHD (USGS 2024)
	NWI wetlands crossed (acres)	NWI (USFWS 2024)
	FEMA floodplain zone crossed by ROW (acres)	FEMA (2024)
	Forested lands crossed by ROW (acres)	Boone County (2024)
	Historic resources (eligible for NRHP listing) within 500 feet of ROW (count)	Kentucky Heritage Council (SHPO 2024), OSA (2024)
	Known archaeological sites within 500 feet of ROW (acres)	Kentucky Heritage Council (SHPO 2024), OSA (2024)
Land Use	Single-family residences within 50 feet of ROW (count)	Boone County (2024), Kenton County (2024)
	Single-family residences 50 to 200 feet from ROW (count)	Boone County (2024), Kenton County (2024)
	Single-family residences 200 to 500 feet from ROW (count)	Boone County (2024), Kenton County (2024)
	Multi-family residences within 50 feet of ROW (count)	Boone County (2024), Kenton County (2024)
	Multi-family residences 50 to 200 feet from ROW (count)	Boone County (2024), Kenton County (2024)
	Multi-family residences 200 to 500 feet from ROW (count)	Boone County (2024), Kenton County (2024)
	Commercial and Office zoning designation crossed by ROW (acres)	Boone County (2024), Kenton County (2024)
	Recreation, Public Facilities, Industrial, and Airport zoning designation crossed by ROW (acres)	Boone County (2024), Kenton County (2024)
	Planned development crossed by ROW (acres)	Boone County (2024), City of Florence (2024)
	Unique landowners crossed by ROW (count)	Boone County (2024), Kenton County (2024)
	New ROW easement required (acres)	Duke Energy (2024)
Engineering	Route length (linear feet)	Duke Energy (2024)
	I-71/75 crossings (count)	Kentucky DOT (2024)
	Highway or road crossings, not including I-71/75 (count)	Kentucky DOT (2024)
	Turn angles between 3 and 30 degrees (count)	Duke Energy (2024)
	Turn angles greater than 30 degrees (count)	Duke Energy (2024)
	Underground utility (sewer & water) 20-foot buffer within ROW (acres)	Kentucky Infrastructure Authority (2024)
	Underground utility (sewer & water) 20-foot buffer within 20 feet of ROW (acres)	Kentucky Infrastructure Authority (2024)
	Percent of route less than the standard ROW width available (percent)	Duke Energy (2024)

3.6.2 Quantitative Evaluation

A quantitative evaluation of the 60 alternative routes was completed as provided in Appendix B. To evaluate and compare the alternative routes, raw data for each evaluation criterion were collected, quantified, and normalized. Normalizing the data into a score allows dissimilar constraints to be compared according to the same scale. The normalized score was then multiplied by the criteria weight to get a weighted score. The sum of the weighted scores in each category was then multiplied by the category weight to get a weighted category score. For both criteria scores and category scores, lower scores indicate more favorable conditions; higher scores indicate less favorable conditions.

Tables 2 and 3 show the relative total scores as well as the category-specific scores for each alternative route. Appendix B provides the data sources used in the evaluation and results of the quantitative evaluation, including the raw values, normalized score, and weighted score for each quantitative evaluation criteria within the three categories. Each route is color-coded based on the tap location grouping of the route.

Table 2. Alternative Route Quantitative Evaluation Scores – Top 33 Alternative Routes

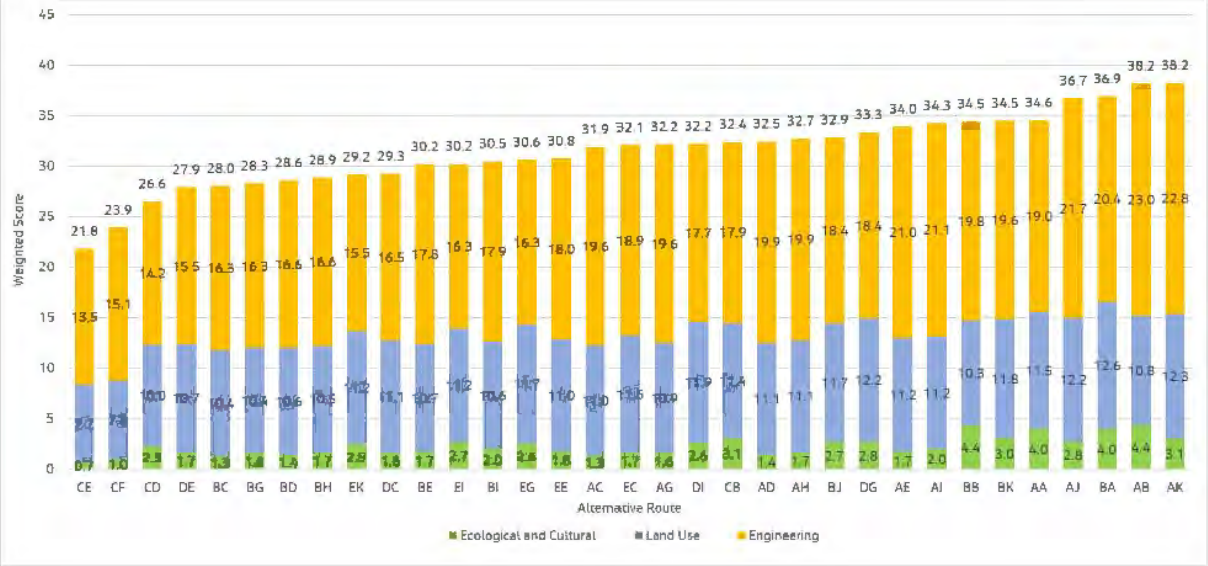
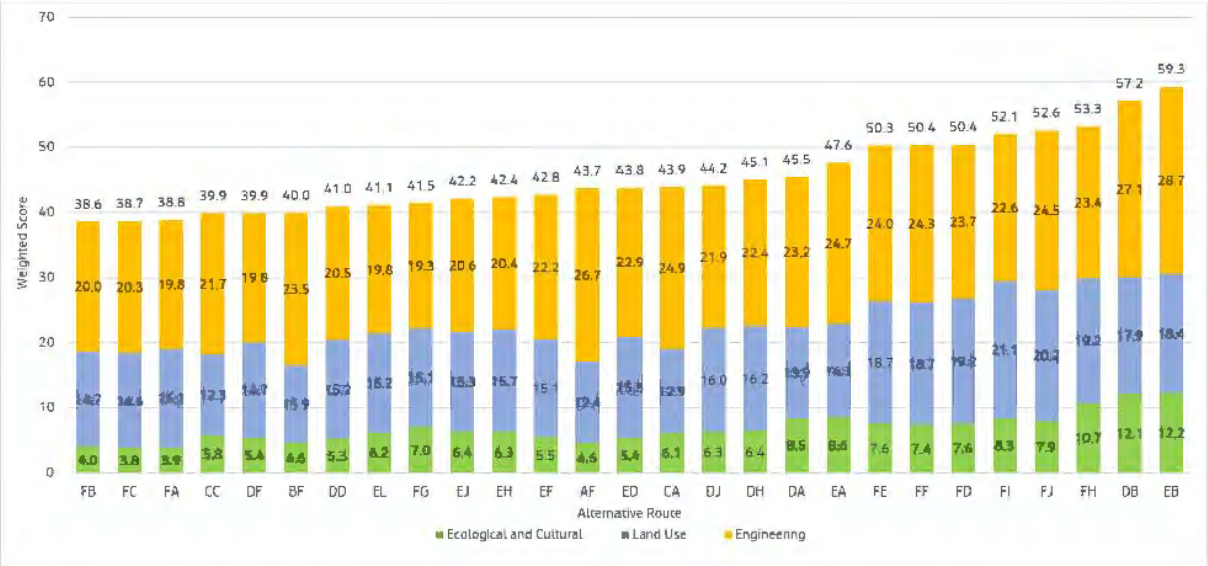


Table 3. Alternative Route Quantitative Evaluation Scores – Bottom 27 Alternative Routes



The scoring ranged from 21.83 to 59.29. There was generally a smooth curve from the highest to lowest ranked routes and no distinct break in the data between alternative routes. Overall there was typically a point or less between consecutively ranked routes, except for the top two scoring routes and the bottom two scoring routes. Alternative Routes CE and CF were the two top ranked routes because they scored lower (more favorable) than the remaining routes. Alternative routes DB and EB were at the bottom of the ranked routes because they scored higher (less favorable) than the other routes.

Alternative routes originating from Taps A and F did not appear in the top 15 routes during quantitative scoring. Generally, the top scoring alternative routes originated from Taps B and C. Alternative routes originating from Taps B and C are the shortest routes and cross the least acreage of forested land. Alternative routes originating from Tap F were the bottom scoring routes. Alternative routes originating from Tap F are the longest routes and have greater impacts on commercial and office zoned land crossed. They scored less favorably because they are longer and have greater impacts on ecological resources and land use, including FEMA floodplain, forested lands, and streams crossed by the ROW.

In the ecological and cultural category, the scoring was primarily driven by acres of forested lands, NWI wetlands, and FEMA floodplain crossed by the ROW. The most favorable routes for the ecological and cultural category were Alternative Routes CE, CF, and BC because they require little tree clearing in forested lands and do not cross NWI wetlands or FEMA floodplain. The least favorable routes in the ecological and cultural category were Alternative Routes FH, DB, and EB because of tree clearing due to more forested lands crossed and stream, NWI wetland, and FEMA floodplain crossings.

In the land use category, the scoring was primarily driven by single-family residences within 50 feet of the ROW, the number of unique landowners crossed by the ROW, and new ROW easement required. Another criteria within the land use category is planned developments crossed by the ROW. The Marydale Property is a 272-acre tract of land in the northeastern portion of the study area that is planned for mixed-use development of office buildings, apartments, restaurants, medical facilities, and education institutions. Tap Location F contains the only routes that pass through the Marydale Property (Figure 7, Segment 29), which may impact future development plans. Some eastern routes originating from Tap E cross land proposed for development surrounding the Citi Bank Corporate building.

The most favorable routes for the land use category were Alternative Routes CE, CF, and CD because there are no residences within 500 feet of the ROW and they require less acreage of ROW easement. The least favorable routes in the land use category were Alternative Routes FH, FD, FJ, and FI because of a higher number of residences between 50 and 500 feet of the ROW, more commercial and office zoning designated land crossed by the ROW, and crossing land planned for development.

In the engineering category, the scoring was primarily driven by the number of I-71/75 crossings, number of turn angles greater than 30 degrees, and underground utilities within the ROW. A buffer of 10 feet on each side of underground water and sewer lines was included in quantitative evaluations to account for the typical unknowns and required buffer offsets required for construction near underground utilities. The most favorable routes for the engineering category were Alternative Routes CE, CD, CF, EK, and DE because they are some of the shorter routes, have fewer turn angles between 3 and 30 degrees and greater than 30 degrees, and have fewer underground utilities within and adjacent to the ROW. The least favorable routes in the engineering category were Alternative Routes AF, DB, and EB because they are among the longer routes, have a greater amount of turn angles between 3 and 30 degrees and greater than 30 degrees, and have more underground utilities within and adjacent to the ROW.

All alternative routes originating from Tap Location F were removed from further consideration and the qualitative evaluation as a result of poor scores due to length, engineering, ecological, and land use impacts. Additionally, alternative routes from other tap locations that scored less favorably than the best scoring Tap F alternative routes were removed from consideration and the qualitative evaluation. After removing alternative routes originating from Tap F and the 16 alternative routes that scored poorer than the best-ranked Tap F route, 33 alternative routes from five tap locations remained and were carried forward to

qualitative evaluation (Table 2). Twenty-seven alternative routes were removed from consideration (Table 3).

3.6.3 Qualitative Considerations

In addition to the quantitative evaluation, which measure variables in terms of observable quantities such as distance, quantity and percentages, qualitative factors were considered that were not reflected in the quantitative evaluation. Qualitative considerations incorporate professional experience and expertise for routing variables that may not be measurable. Qualitative factors included public comments, the preliminary airspace analysis, double circuit options, and road widening and reconfiguration plans.

Impacts to the airspace associated with CVG Airport and the St. Elizabeth Hospital Helipad were considered in relation to structure height and placement through an airspace analysis (Appendix A) and were considered through study corridor development. The airspace analysis identified areas where pole heights may require FAA notification or coordination. Generally, alternative routes in the central and eastern portions of the study area are farther from the FAA areas with the most restrictive height limitations than alternative routes in the western portion. Alternative routes originating from Taps A, B, and C that travel near CVG could require shorter spans between structures and the need for more structures due to FAA height restrictions. Further coordination with the FAA and CVG will occur after the preferred route is selected and preliminary engineering design is completed.

The Project requires the construction of two new 138 kV transmission lines that originate from two distinct tap locations along the Duke Energy Circuit 23984 Transmission Line. Based on the need for the Project, there is a preference to avoid double circuiting the transmission lines along the same route for reliability and resiliency. A unique transmission tap location is required for each of the two proposed transmission lines along the existing Circuit 23984 to enhance network reliability and reduce the chance of concurrent transmission lines outages due to severe weather events. Therefore, selecting two routes originating from the same tap location was not preferred.

Through the public engagement process, Duke Energy received comments expressing concerns about specific route corridors and impacts to commercial operations and residences. There was an overall preference to avoid the central business corridors along Turfway Road and Thoroughbred Boulevard. Alternative Routes originating from Tap C were of major concern because they impacted the central business corridors in the study area.

KYTC developed the I-75/I-275 Interchange Project which includes improvements and new traffic patterns along Turfway Road, Thoroughbred Boulevard, I-75/71 and the I-275 interchange. Turfway Road and Thoroughbred Blvd are proposed to become one-way roads and a new I-75/71 flyover on-ramp is proposed. Turfway Road widening and ramp reconfiguration plans may conflict with all routes associated with Tap C. Alternative routes originating from Tap C potentially require poles to be relocated in the future for any road widening, reconfiguration, or flyover on-ramp construction.

Due to the risks involved with the I-75/275 Interchange Project, stakeholder feedback which prefers the avoidance of the central business corridors, and existing development constraints in the corridors, all alternative routes originating from Tap C were removed from further consideration. After removing alternative routes originating from Tap C, 30 alternative routes remained due to quantitative and qualitative considerations.

After the quantitative evaluation, stakeholder engagement identified two mixed-use development plans along Houston Road in the eastern portion of the study area, CitiBank and Athena Houston Development. The outline of the parcels proposed for development are shown in Figure 9. Specific building footprints cannot be shared due to confidentiality but were reviewed by the routing team to support route evaluations. These developments, which include office, hotel, and commercial buildings, overlap several alternative

routes originating from Tap Locations D and E. As a result, Alternative Routes DE, DC, EI, EG, and EE were removed from consideration due to conflicts with planned building locations.

Following the removal of routes from Tap Location C and those impacted by mixed-use developments along Houston Road, Routes BC, BG, BD, and BH from Tap Location B emerged as top alternatives (Table 2). A detailed comparison of the top two remaining routes, Alternative Routes BC and BG, was conducted to evaluate engineering feasibility, particularly in relation to underground utilities in this developed area. Further engineering review and field surveys identified significant constraints along Route BC, especially near Houston Road. In contrast, Route BG is preferred due to fewer aboveground development conflicts and reduced underground utility impacts.

As discussed in the qualitative considerations section, a second unique tap point is necessary to ensure project resiliency and meet the overall project need. The next best-scoring route that does not originate from Tap Location B is Alternative Route EK. This route follows a similar alignment to Alternative Route DE but avoids the planned development along Houston Road.

3.7 Preferred Routes Selection

Based on a comprehensive quantitative and qualitative evaluation, Alternative Routes EK and BG were selected as the preferred routes for connecting Duke Energy's existing Circuit 23984 to the future Turfway Substation (Figure 9). Minor adjustments were made to the original alignments of both routes to reduce the potential for collocation with underground utilities (Route BG) and proposed development (Route EK). Route EK was shifted west so the ROW abuts the property boundary between the two proposed Houston Road development parcels. These final alignments for the western Route BG and eastern Route EK are illustrated in Figure 9.

The selection of Alternative Routes EK and BG as the preferred routes was predicated on the following:

- Scored in the top 10 routes based on quantitative evaluation.
- Avoid potential impacts on the I-75/275 Interchange Project.
- Avoid the Turfway Road central business corridor.
- Reduce impacts to the planned development on the Marydale Property.
- Minimize impacts on the planned developments identified during ongoing stakeholder engagement along Houston Road.
- Minimize identified conflicts with existing underground utilities.
- Limit impacts to the study area airspace.
- Avoid double circuiting transmission lines.
- Cause minimal ecological impacts and are not expected to require an extensive environmental permitting effort. They minimize vegetative clearing and do not cross floodplains or wetlands.
- Use the standard easement width for a majority of the routes. Limit presence of buildings or road ROW within the easement width.

3.8 Description of Preferred Routes

The western Preferred Route BG is 1.23 miles long. From the western tap location along the existing Circuit 23984, Preferred Route BG proceeds northwest crossing a parking lot and angles north to cross Meijer Drive. Preferred Route BG proceeds northeast following Meijer Drive. Preferred Route BG crosses Meijer Drive and proceeds to follow the north and west side of Meijer Drive before crossing to the north side of the Meijer Drive before reaching Houston Road. Preferred Route BG proceeds to Houston Road and parallels the southern side of Houston Road. West of Thoroughbred Boulevard, Preferred Route BG turns northwest, crossing Houston Road, and parallels the west side of Thoroughbred Boulevard. Preferred Route BG crosses

Spiral Drive, turns west, and then parallels the northern side of Spiral Drive. Preferred Route BG turns north through grass areas between buildings and travels northeast to cross Turfway Road before reaching the future Turfway Substation.

The eastern Preferred Route EK is 1.34 miles long. From the eastern tap location along the existing Circuit 23984, Preferred Route EK proceeds northwest crossing I-71/75, forested land, an proceeds along the parcel boundary between two parcels proposed for future development before crossing north over Houston Road. Preferred Route EK parallels Houston Road southwest, before turning northwest along parcel boundaries. Preferred Route EK turns southwest through forested land and continues through paved areas associated with commercial businesses and a hotel south of Turfway Park. Preferred Route EK then turns northwest before reaching the future Turfway Substation.

4. Conclusion

A route selection study was completed for the Project in Boone County, Kentucky. The primary goal of the route selection study was to identify preferred routes that minimize potential impacts on the surrounding area and the natural environment, avoid unreasonable costs, and allow for safe construction and operation throughout its service life, while meeting the purpose and need of the Project.

The Project is needed to energize the future Turfway Substation and to expand the local energy system to help ensure the continued reliability and capacity of the local energy system. The future Turfway Substation must be connected by new 138 kV transmission lines to Duke Energy's existing transmission network along Circuit 23984. The Project will help improve Duke Energy's ability to reroute power during planned and unplanned outages, and to restore power following extreme weather events.

Following the route selection study (which included data gathering, alternative route development, public engagement, and a comprehensive evaluation), Alternative Route BG and Alternative Route EK were selected as the preferred routes. The preferred routes cross commercial and developed land uses, which will have minimal ecological and residential impacts. The preferred routes avoid constraints within the study area, such as the future I-75/275 Interchange Project, the Turfway Road central business corridor, planned developments along Houston Road, the Marydale Property, and limits impacts to CVG Airport airspace.

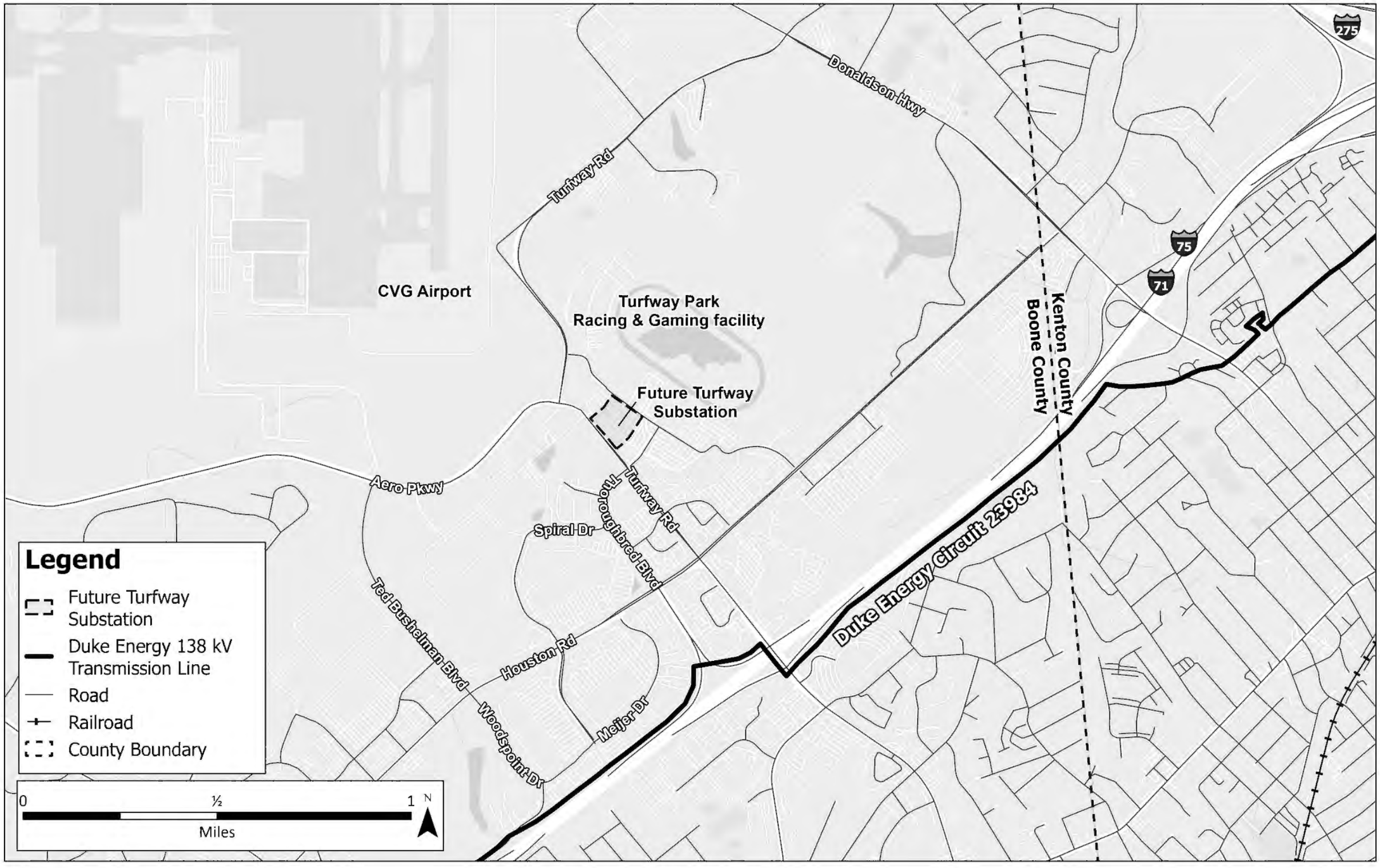
5. References

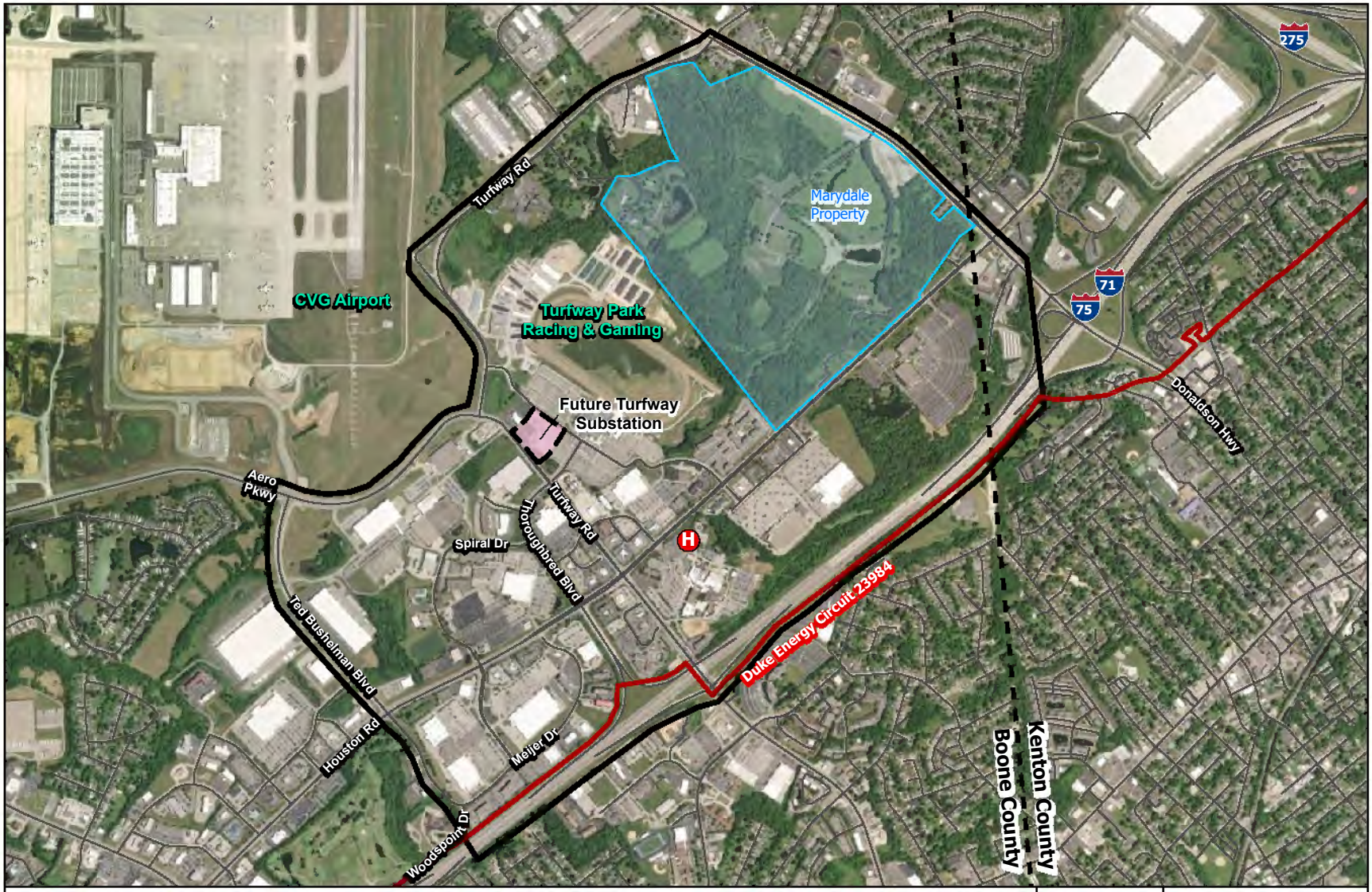
City of Florence. 2023. Economic Development Annual Report. Accessed February 2024. https://florence-ky.gov/wp-content/uploads/2024/02/2023-COF-Economic-Development-Annual-Report.pdf.

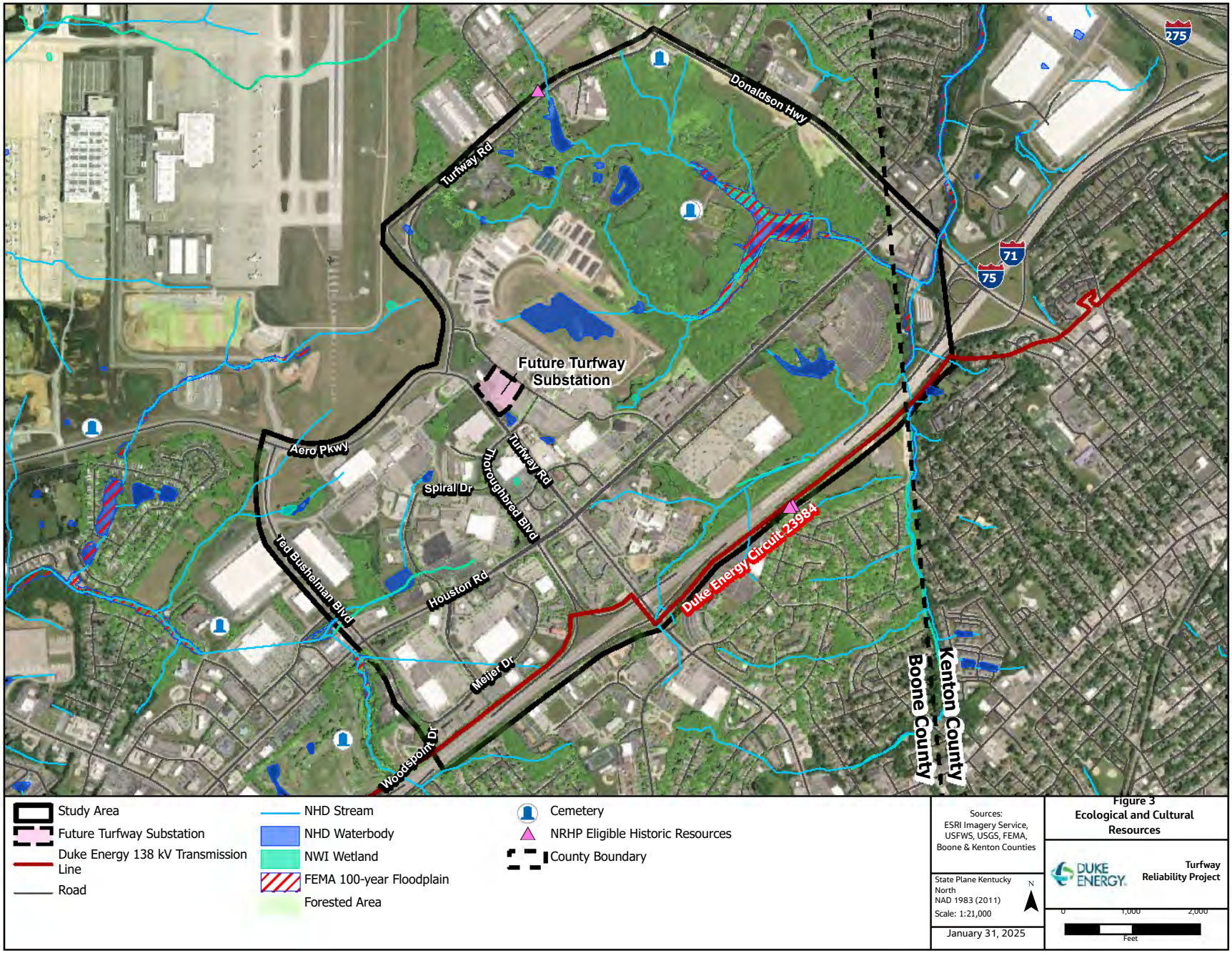
Kentucky Transportation Cabinet (KYTC). 2024. 75275Interchange Virtual Open House: 75/275 Interchange Improvements Project. Accessed November 2024. https://publicinput.com/75275interchange.

United States Census Bureau. 2024. Boone County, Kentucky Populations and People. Accessed November 2024. https://data.census.gov/profile/Boone_County,_Kentucky?g=050XX00US21015.

Figures


CVG Airport
Turfway Park
Racing & Gaming facility
Future Turfway
Substation
Donaldson Hwy
Turfway Rd
Aero Pkwy
Spiral Dr
Thoroughbred Blvd
Turfway Rd
Ted Bushelman Blvd
Houston Rd
Meijer Dr
Woodspoint Dr
Duke Energy Circuit 23984
Kenton County
Boone County
275
75
71
Legend
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road
Railroad
County Boundary
0
½
1
Miles
N


Turfway Rd
Marydale Property
CVG Airport
Turfway Park Racing & Gaming
Future Turfway Substation
275
71
75
Donaldson Hwy
Aero Pkwy
Turfway Rd
Thoroughbred Blvd
Spiral Dr
Duke Energy Circuit 23984
Ted Bushelman Blvd
Houston Rd
Meijer Dr
Woodspoint Dr
Boone County
Kenton County
Duke Energy 138 kV Transmission Line
Study Area
Future Turfway Substation
Road
Helipad
Marydale Property
County Boundary
Sources: ESRI Imagery Service, USFWS, USGS, FEMA, Boone & Kenton Counties
State Plane Kentucky North NAD 1983 (2011)
Scale: 1:21,000
January 31, 2025
N
0
1,000
2,000
Feet
Figure 2
Study Area
DUKE ENERGY
Turfway Reliability Project


Donaldson Hwy
Turfway Rd
Future Turfway Substation
Aero Pkwy
Turfway Rd
Thoroughbred Blvd
Spiral Dr
Ted Bushelman Blvd
Houston Rd
Meijer Dr
Woodspoint Dr
Duke Energy Circuit 23984
Kenton County
Boone County
275
71
75
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road
NHD Stream
NHD Waterbody
NWI Wetland
FEMA 100-year Floodplain
Forested Area
Cemetery
NRHP Eligible Historic Resources
County Boundary
Sources:
ESRI Imagery Service, USFWS, USGS, FEMA, Boone & Kenton Counties
State Plane Kentucky North
NAD 1983 (2011)
Scale: 1:21,000
January 31, 2025
N
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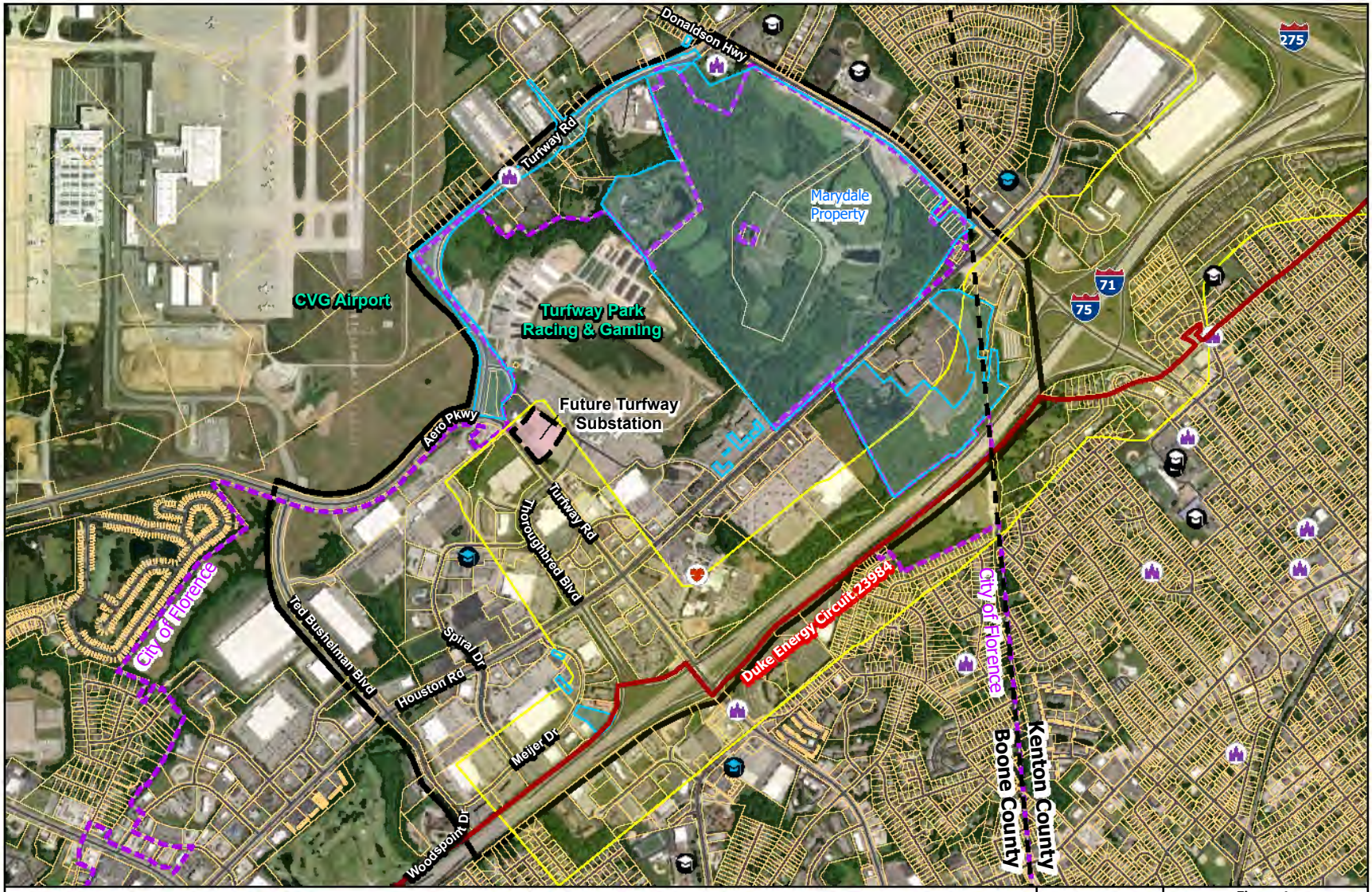
2,000
Feet
Figure 3
Ecological and Cultural Resources
DUKE ENERGY
Turfway Reliability Project


Donaldson Hwy
Turfway Rd
Marydale Property
CVG Airport
Turfway Park Racing & Gaming
Future Turfway Substation
Aero Pkwy
Turfway Rd
Thoroughbred Blvd
Ted Bushelman Blvd
Spiral Dr
Houston Rd
Meijer Dr
Woodspoint Dr
City of Florence
Duke Energy Circuit 23984
City of Florence
Boone County
Kenton County
275
71
75
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road
St. Elizabeth Florence Hospital
School
College/University
Place of Worship
Planned Developments
I-75/I-275 Interchange Development
Parcel
City of Florence
County Boundary
Sources: ESRI Imagery Service, Boone & Kenton Counties, HIFLD
State Plane Kentucky North NAD 1983 (2011)
Scale: 1:21,000
January 31, 2025
N
0
1,000
2,000
Feet
Figure 4
Land Use Resources
DUKE ENERGY
Turfway Reliability Project


CVG Airport
Turfway Park
Racing & Gaming
Future Turfway
Substation
Turfway Rd
Donaldson Hwy
Aero Pkwy
Spiral Dr
Thoroughbred Blvd
Turfway Rd
Ted Bushelman Blvd
Houston Rd
Duke Energy Circuit 23984
Meijer Dr
Woodspoint Dr
Boone County
Kenton County
275
71
75
H
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road
Airport
St. Elizabeth Florence Hospital Helipad
Overhead Electric Distribution Lines
Underground Electric Distribution Lines
Gas Pipeline
Water Lines
Sewer Lines
County Boundary
Sources:
ESRI Imagery Service,
Boone & Kenton Counties,
HIFLD
State Plane Kentucky
North
NAD 1983 (2011)
Scale: 1:21,000
N
January 31, 2025
Figure 5
Engineering Resources
DUKE ENERGY
Turfway
Reliability Project
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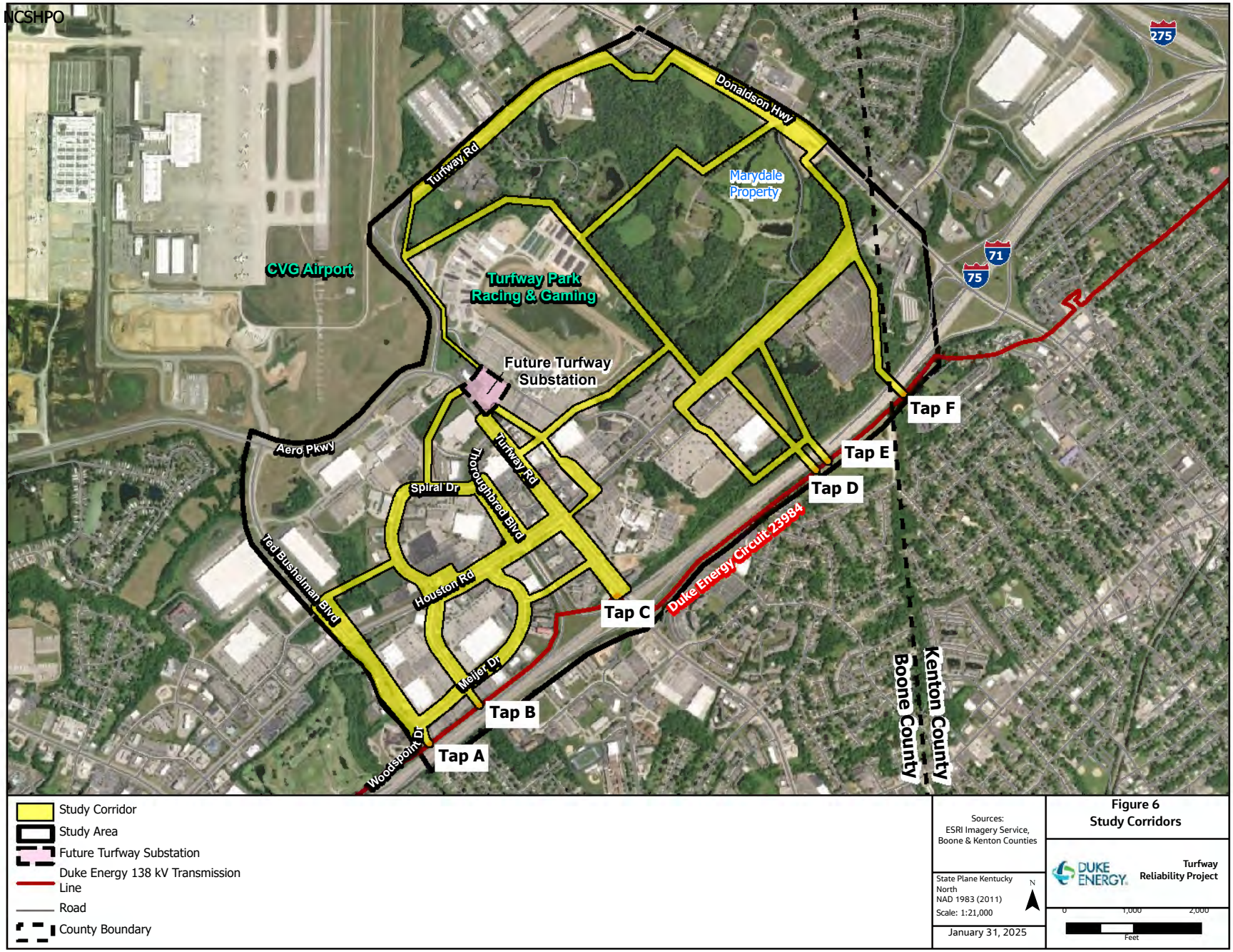
Feet


NCSHPO
Donaldson Hwy
Turfway Rd
Marydale Property
CVG Airport
Turfway Park Racing & Gaming
Future Turfway Substation
Tap F
Tap E
Tap D
Aero Pkwy
Turfway Rd
Thoroughbred Blvd
Spiral Dr
Duke Energy Circuit 23984
Houston Rd
Ted Bushelman Blvd
Tap C
Meijer Dr
Tap B
Woodspoint Dr
Tap A
Boone County
Kenton County
275
71
75
Study Corridor
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road
County Boundary
Sources:
ESRI Imagery Service,
Boone & Kenton Counties
State Plane Kentucky North
NAD 1983 (2011)
Scale: 1:21,000
January 31, 2025
N
0
1,000
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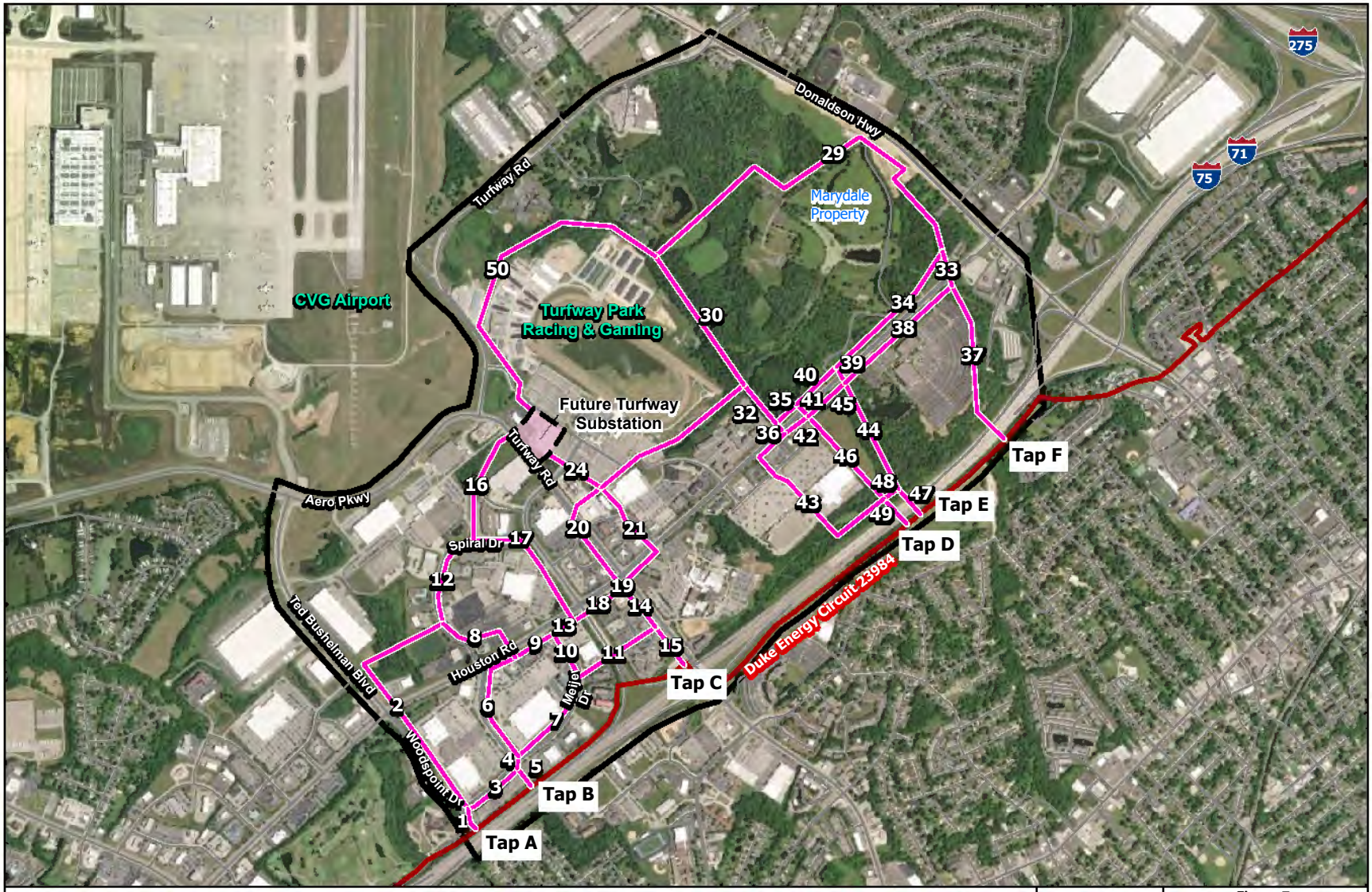
Feet
Figure 6
Study Corridors
DUKE ENERGY
Turfway Reliability Project


Donaldson Hwy
Turfway Rd
Marydale Property
CVG Airport
Turfway Park Racing & Gaming
Future Turfway Substation
Turfway Rd
Aero Pkwy
Spiral Dr
Houston Rd
Ted Bushelman Blvd
Woodspoint Dr
Meijer Dr
Duke Energy Circuit 23984
Tap A
Tap B
Tap C
Tap D
Tap E
Tap F
275
71
75
Study Segments
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road
Sources: ESRI Imagery Service, Boone & Kenton Counties
State Plane Kentucky North NAD 1983 (2011)
Scale: 1:21,000
January 31, 2025
N
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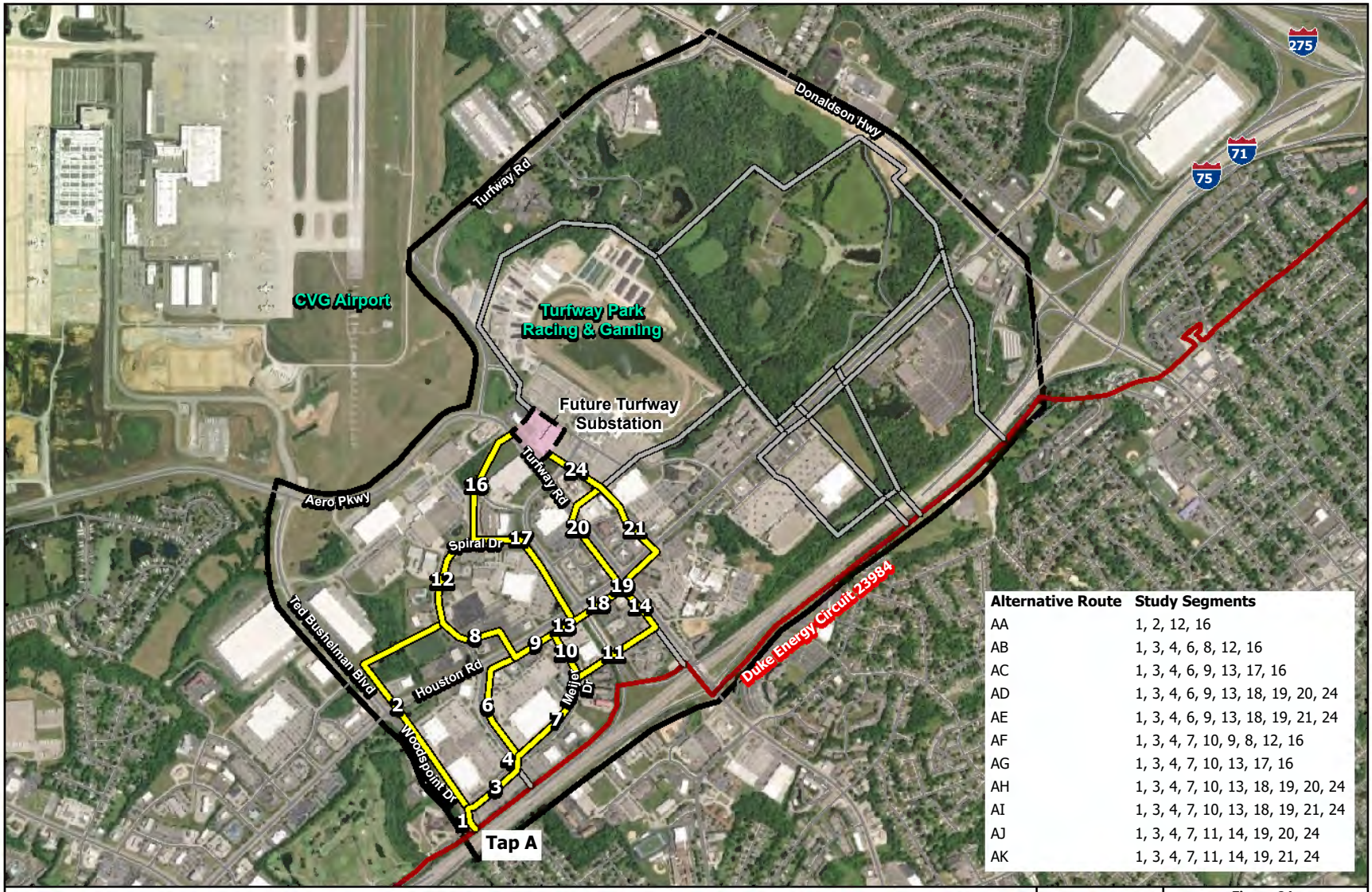
Feet
Figure 7
Alternative Routes Overview
DUKE ENERGY
Turfway Reliability Project



Alternative Route	Study Segments
AA	1, 2, 12, 16
AB	1, 3, 4, 6, 8, 12, 16
AC	1, 3, 4, 6, 9, 13, 17, 16
AD	1, 3, 4, 6, 9, 13, 18, 19, 20, 24
AE	1, 3, 4, 6, 9, 13, 18, 19, 21, 24
AF	1, 3, 4, 7, 10, 9, 8, 12, 16
AG	1, 3, 4, 7, 10, 13, 17, 16
AH	1, 3, 4, 7, 10, 13, 18, 19, 20, 24
AI	1, 3, 4, 7, 10, 13, 18, 19, 21, 24
AJ	1, 3, 4, 7, 11, 14, 19, 20, 24
AK	1, 3, 4, 7, 11, 14, 19, 21, 24

Tap A Study Segments
Study Segments
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road

Sources:
ESRI Imagery Service,
Boone & Kenton Counties

State Plane Kentucky North
NAD 1983 (2011)
Scale: 1:21,000

January 31, 2025

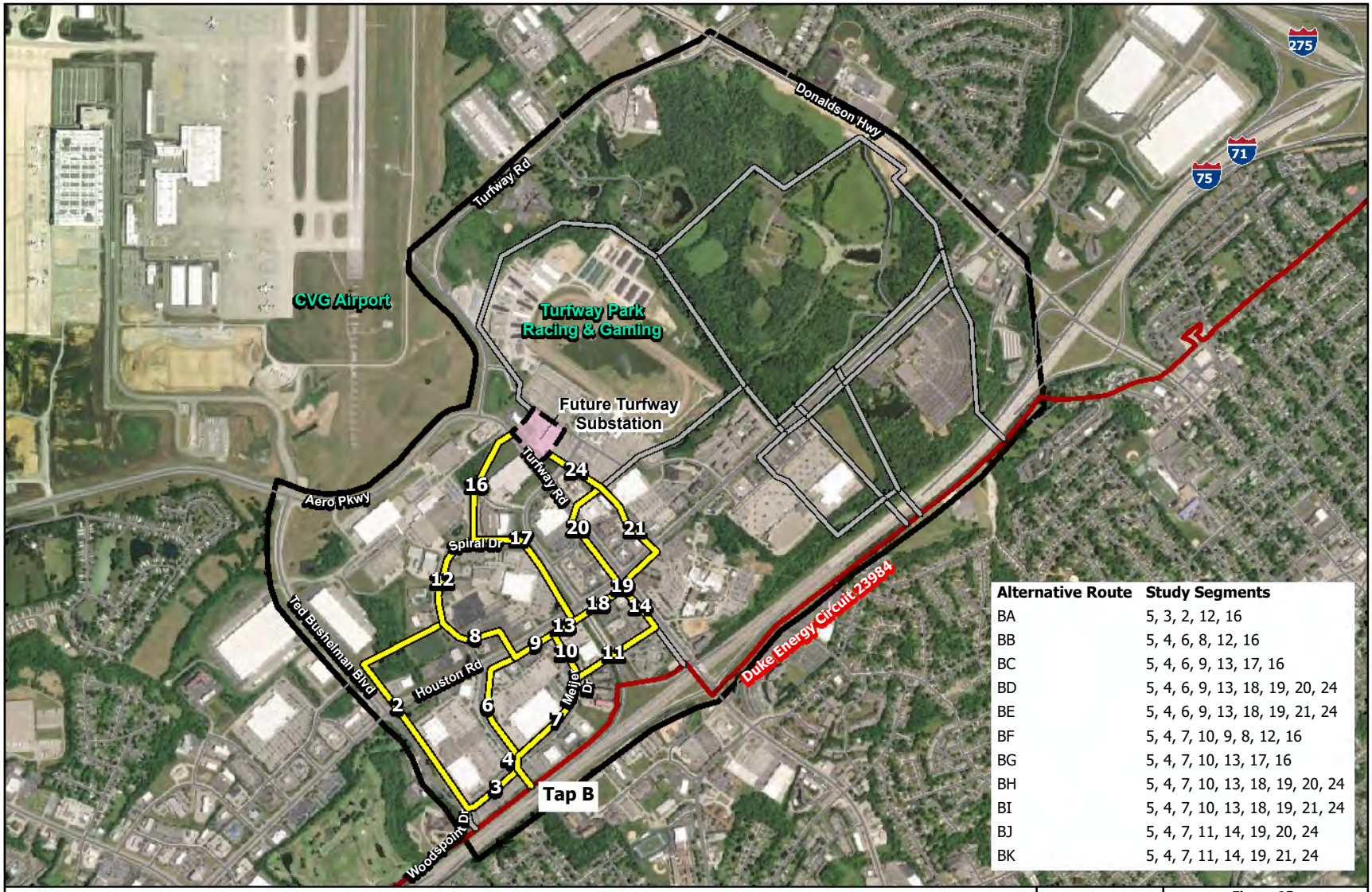
N

0 1,000 2,000
Feet

Figure 8A
Alternative Routes – A Tap

DUKE ENERGY

Turfway Reliability Project



Alternative Route	Study Segments
BA	5, 3, 2, 12, 16
BB	5, 4, 6, 8, 12, 16
BC	5, 4, 6, 9, 13, 17, 16
BD	5, 4, 6, 9, 13, 18, 19, 20, 24
BE	5, 4, 6, 9, 13, 18, 19, 21, 24
BF	5, 4, 7, 10, 9, 8, 12, 16
BG	5, 4, 7, 10, 13, 17, 16
BH	5, 4, 7, 10, 13, 18, 19, 20, 24
BI	5, 4, 7, 10, 13, 18, 19, 21, 24
BJ	5, 4, 7, 11, 14, 19, 20, 24
BK	5, 4, 7, 11, 14, 19, 21, 24

Tap B Study Segments
Study Segments
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road

Sources:
ESRI Imagery Service,
Boone & Kenton Counties

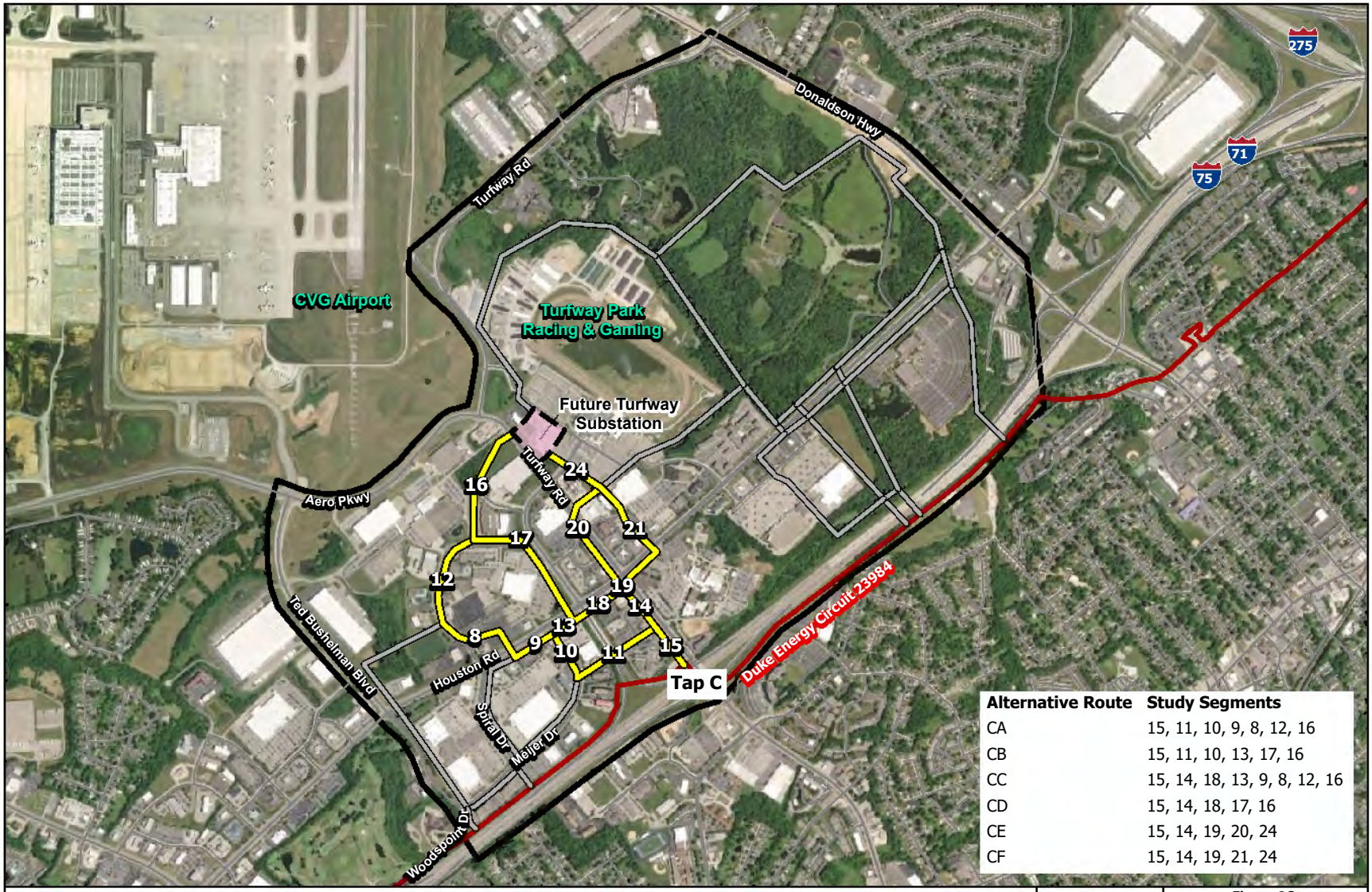
State Plane Kentucky North
NAD 1983 (2011)
Scale: 1:21,000

January 31, 2025

Figure 8B
Alternative Routes – B Tap

DUKE ENERGY
Turfway Reliability Project

0 1,000 2,000
Feet


Donaldson Hwy
Turfway Rd
CVG Airport
Turfway Park
Racing & Gaming
Future Turfway
Substation
Turfway Rd
Aero Pkwy
Ted Bushelman Blvd
Houston Rd
Spiral Dr
Meijer Dr
Woodspoint Dr
Tap C
Duke Energy Circuit 23984
275
71
75
16
24
17
20
21
12
19
18
14
13
8
9
10
11
15
Alternative Route | Study Segments
CA | 15, 11, 10, 9, 8, 12, 16
CB | 15, 11, 10, 13, 17, 16
CC | 15, 14, 18, 13, 9, 8, 12, 16
CD | 15, 14, 18, 17, 16
CE | 15, 14, 19, 20, 24
CF | 15, 14, 19, 21, 24
Tap C Study Segments
Study Segments
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road
Sources:
ESRI Imagery Service,
Boone & Kenton Counties
State Plane Kentucky North
NAD 1983 (2011)
Scale: 1:21,000
January 31, 2025
N
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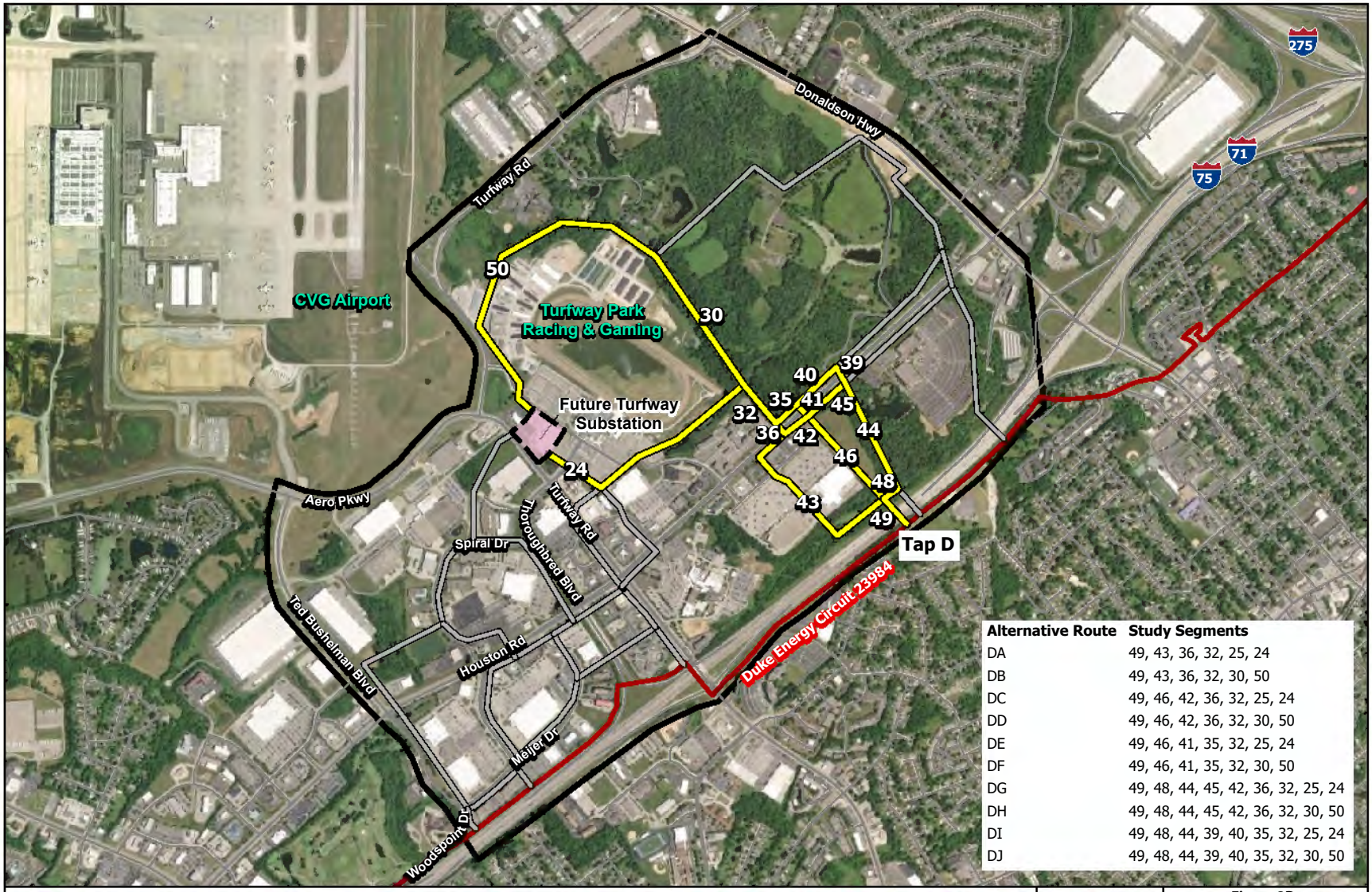
Feet
Figure 8C
Alternative Routes – C Tap
DUKE ENERGY
Turfway
Reliability Project

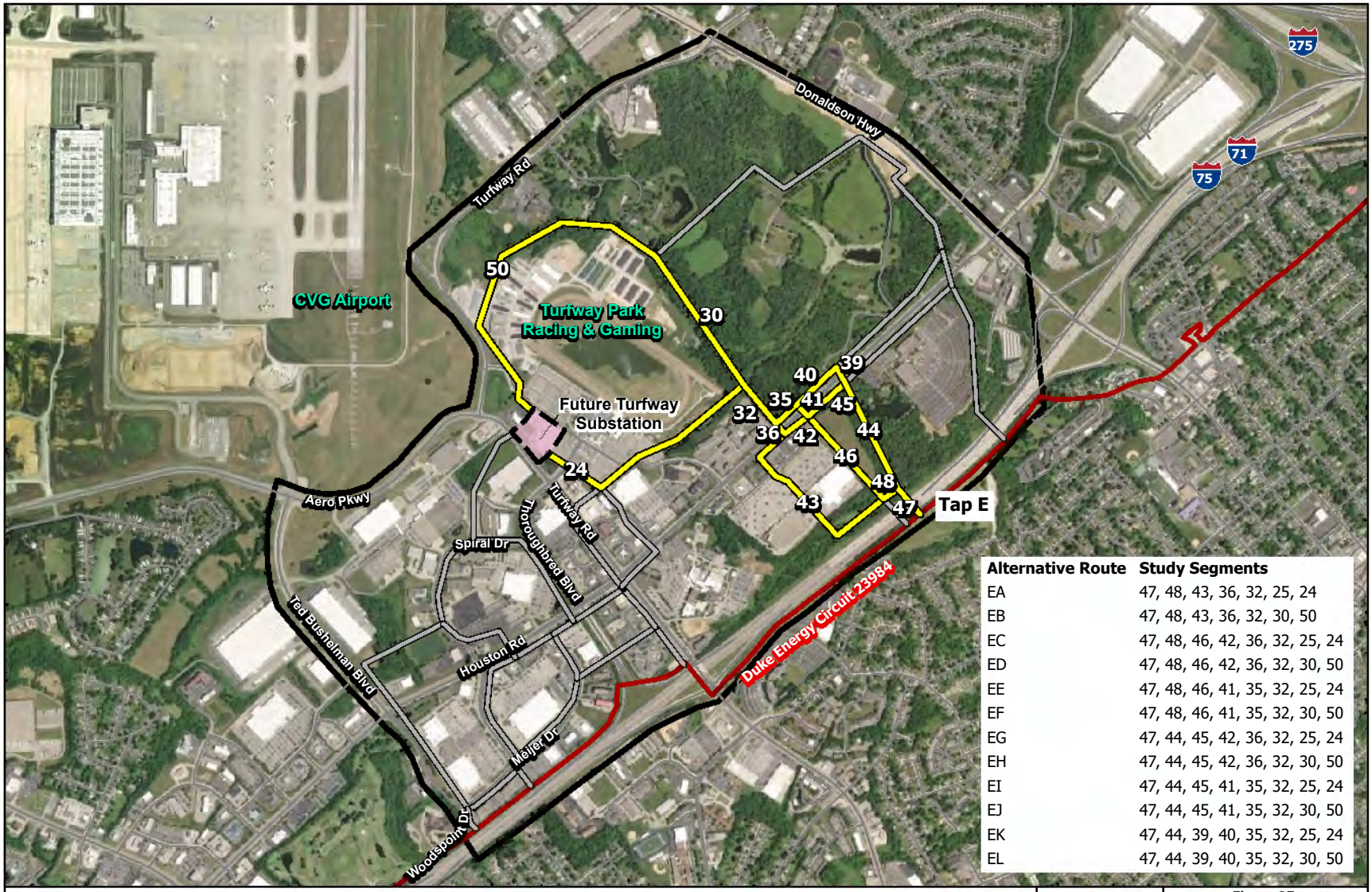


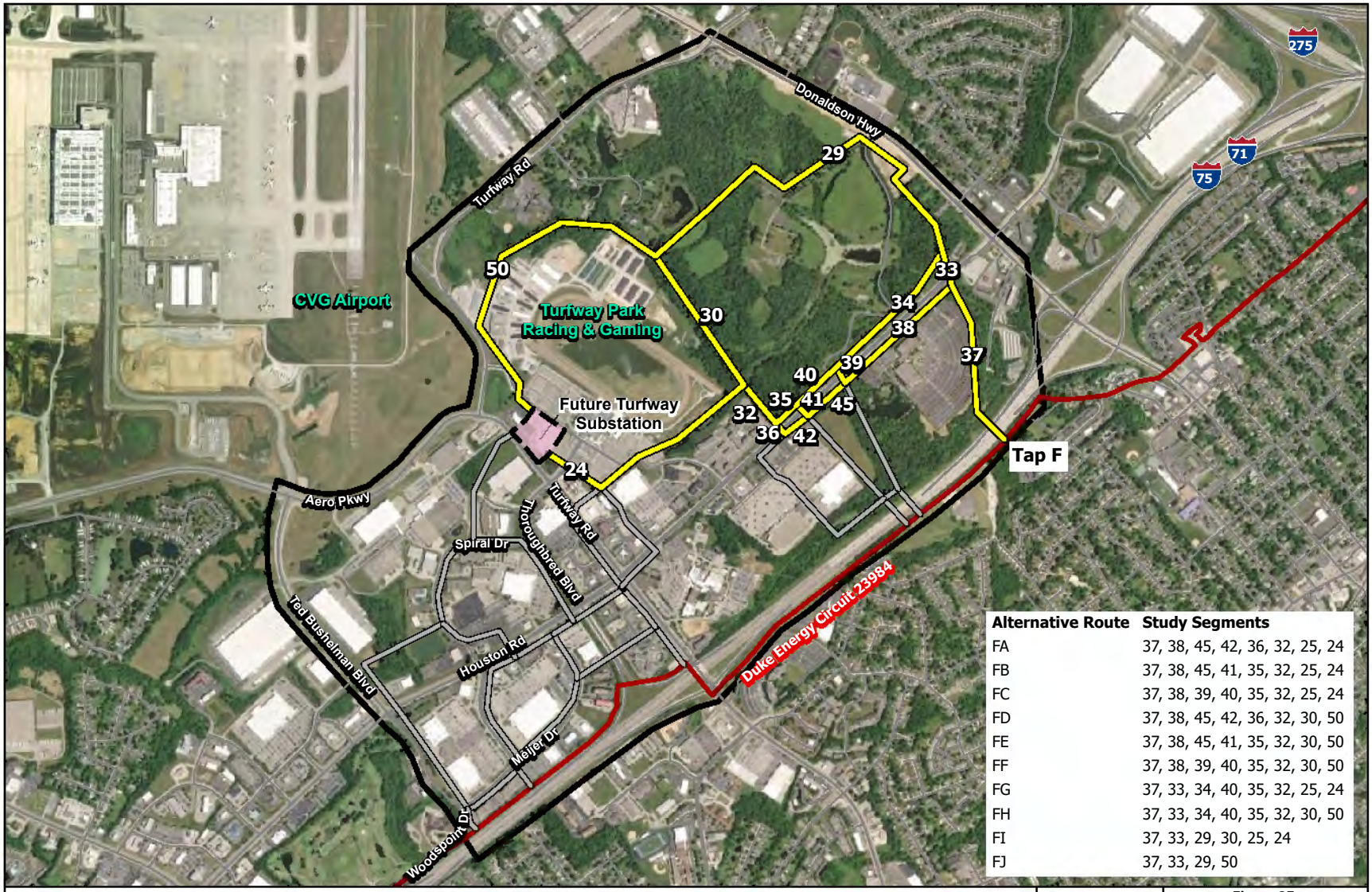
Alternative Route	Study Segments
DA	49, 43, 36, 32, 25, 24
DB	49, 43, 36, 32, 30, 50
DC	49, 46, 42, 36, 32, 25, 24
DD	49, 46, 42, 36, 32, 30, 50
DE	49, 46, 41, 35, 32, 25, 24
DF	49, 46, 41, 35, 32, 30, 50
DG	49, 48, 44, 45, 42, 36, 32, 25, 24
DH	49, 48, 44, 45, 42, 36, 32, 30, 50
DI	49, 48, 44, 39, 40, 35, 32, 25, 24
DJ	49, 48, 44, 39, 40, 35, 32, 30, 50

Figure 8D
Alternative Routes – D Tap

DUKE ENERGY

Turfway Reliability Project


Donaldson Hwy
Turfway Rd
CVG Airport
Turfway Park
Racing & Gaming
Future Turfway
Substation
Aero Pkwy
Spiral Dr
Thoroughbred Blvd
Turfway Rd
Ted Bushelman Blvd
Houston Rd
Meijer Dr
Woodspoint Dr
Duke Energy Circuit 23984
Tap E
50
30
40
39
35
41
45
32
36
42
44
46
48
24
43
47
275
71
75
Alternative Route | Study Segments
EA | 47, 48, 43, 36, 32, 25, 24
EB | 47, 48, 43, 36, 32, 30, 50
EC | 47, 48, 46, 42, 36, 32, 25, 24
ED | 47, 48, 46, 42, 36, 32, 30, 50
EE | 47, 48, 46, 41, 35, 32, 25, 24
EF | 47, 48, 46, 41, 35, 32, 30, 50
EG | 47, 44, 45, 42, 36, 32, 25, 24
EH | 47, 44, 45, 42, 36, 32, 30, 50
EI | 47, 44, 45, 41, 35, 32, 25, 24
EJ | 47, 44, 45, 41, 35, 32, 30, 50
EK | 47, 44, 39, 40, 35, 32, 25, 24
EL | 47, 44, 39, 40, 35, 32, 30, 50
Tap E Study Segments
Study Segments
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road
Sources: ESRI Imagery Service, Boone & Kenton Counties
State Plane Kentucky North NAD 1983 (2011)
Scale: 1:21,000
January 31, 2025
N
0
1,000
2,000
Feet
Figure 8E
Alternative Routes – E Tap
DUKE ENERGY
Turfway Reliability Project



Alternative Route	Study Segments
FA	37, 38, 45, 42, 36, 32, 25, 24
FB	37, 38, 45, 41, 35, 32, 25, 24
FC	37, 38, 39, 40, 35, 32, 25, 24
FD	37, 38, 45, 42, 36, 32, 30, 50
FE	37, 38, 45, 41, 35, 32, 30, 50
FF	37, 38, 39, 40, 35, 32, 30, 50
FG	37, 33, 34, 40, 35, 32, 25, 24
FH	37, 33, 34, 40, 35, 32, 30, 50
FI	37, 33, 29, 30, 25, 24
FJ	37, 33, 29, 50

Tap F Study Segments
Study Segments
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road

Sources:
ESRI Imagery Service,
Boone & Kenton Counties

State Plane Kentucky North
NAD 1983 (2011)
Scale: 1:21,000

January 31, 2025

Figure 8F
Alternative Routes – F Tap

DUKE ENERGY
Turfway Reliability Project

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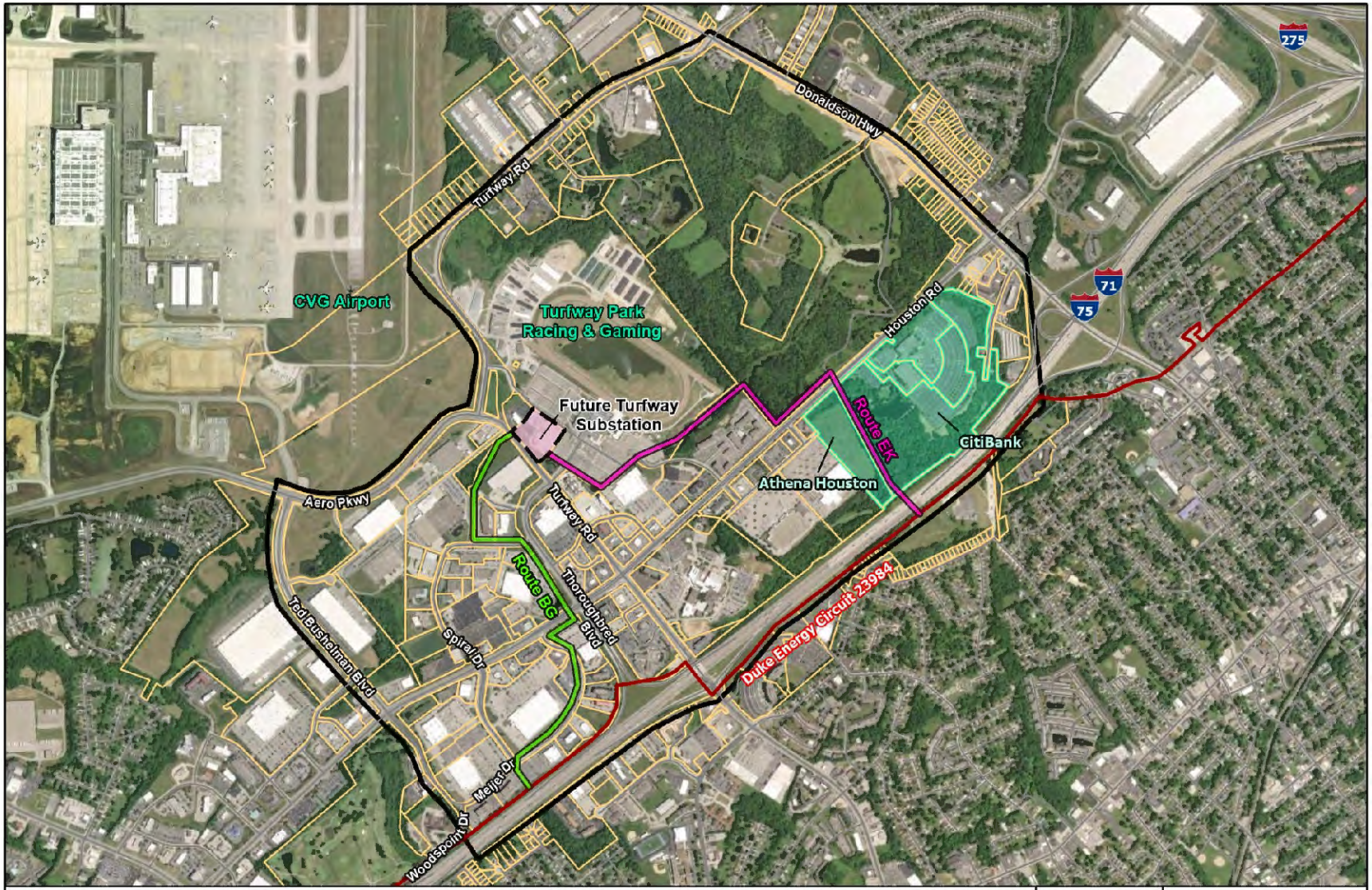
Feet


CVG Airport
Turfway Park
Racing & Gaming
Future Turfway
Substation
Donaldson Hwy
Turfway Rd
Houston Rd
Route EK
CitiBank
Athena Houston
Aero Pkwy
Turfway Rd
Route BG
Thoroughbred Blvd
Ted Bushelman Blvd
Spiral Dr
Duke Energy Circuit 23984
Melpet Dr
Woodspoint Dr
275
71
75
Preferred Route BG
Preferred Route EK
Study Area
Future Turfway Substation
Duke Energy 138 kV Transmission Line
Road
Parcel
Planned Development
Sources:
ESRI Imagery Service,
Boone & Kenton Counties
State Plane Kentucky North
NAD 1983 (2011)
Scale: 1:21,000
July 15, 2025
N
Figure 9
Preferred Routes
DUKE ENERGY.
Turfway
Reliability Project
0
1,000
2,000
Feet

Appendix A. Preliminary Airspace Analysis

Airspace Analysis

Date: September 4, 2024
Project name: Duke Energy Turfway Reliability Project
Project no: D3793800
Client: Jacobs
Prepared by: AP
Reviewed by: LS

Jacobs Engineering Group Inc.
1550 Coraopolis Heights Road
Suite 400
Moon Township, PA 15108
T +1.412.249.6495
www.jacobs.com

Duke Energy is planning the Turfway Reliability Project in the vicinity of Cincinnati/Northern Kentucky International Airport (CVG), approximately 8 miles southwest of Cincinnati, Ohio. The project includes the construction of two new transmission lines. Due to the proximity of this proposed infrastructure to the airport, Jacobs performed a preliminary airspace analysis for the area. During the study, an unlisted heliport was identified at the nearby St. Elizabeth Florence Hospital and was included in the airspace analysis. This study will provide guidance for locating the transmission line infrastructure to minimize or avoid any impacts to the FAA Part 77 navigable airspace. The purpose of this technical memorandum is to document and discuss the methods and assumptions used in the airspace analysis given the information available for CVG and the St. Elizabeth Florence Hospital heliport.

Background & Assumptions

Cincinnati/Northern Kentucky International Airport is an international airport serving Airplane Design Group VI (ADG VI) aircraft. Runway dimensions, end point coordinates, and the established airport elevation were based on information that can be obtained at Airnav.com, a comprehensive database of aeronautical information. The heliport at St. Elizabeth Florence Hospital was unlisted by the FAA and no information was available on Airnav.com. The field elevation of the heliport was estimated using topographical information available for the area. The coordinate system was set to the Kentucky North State Plane, North American Datum 1983 (NAD83). Elevation data was derived from 1/3 arcsecond digital elevation models (DEMs) obtained from the United States Geological Survey (USGS) National Map.

CVG is a public international airport consisting of four precision instrument runways. The Turfway Reliability Project is located southeast of CVG in proximity of the Runway 18L-36R airspace and is unlikely to impact the airspace of the other three runways at CVG. Runway 18L-36R is a paved concrete runway with precision instrument approaches. The documented airport Field Elevation of 896.1′ is located at the Runway 36R threshold.

Table 1: Cincinnati/Northern Kentucky International Airport Runway Coordinates and Elevations

Cincinnati/Northern Kentucky International Airport (CVG) – Field Elev. 896.1′			
Runway	Northing	Easting	Elevation
18L	566,850.0′	1,527,768.3′	886.3′
36R	556,850.4′	1,527,689.6′	896.1′

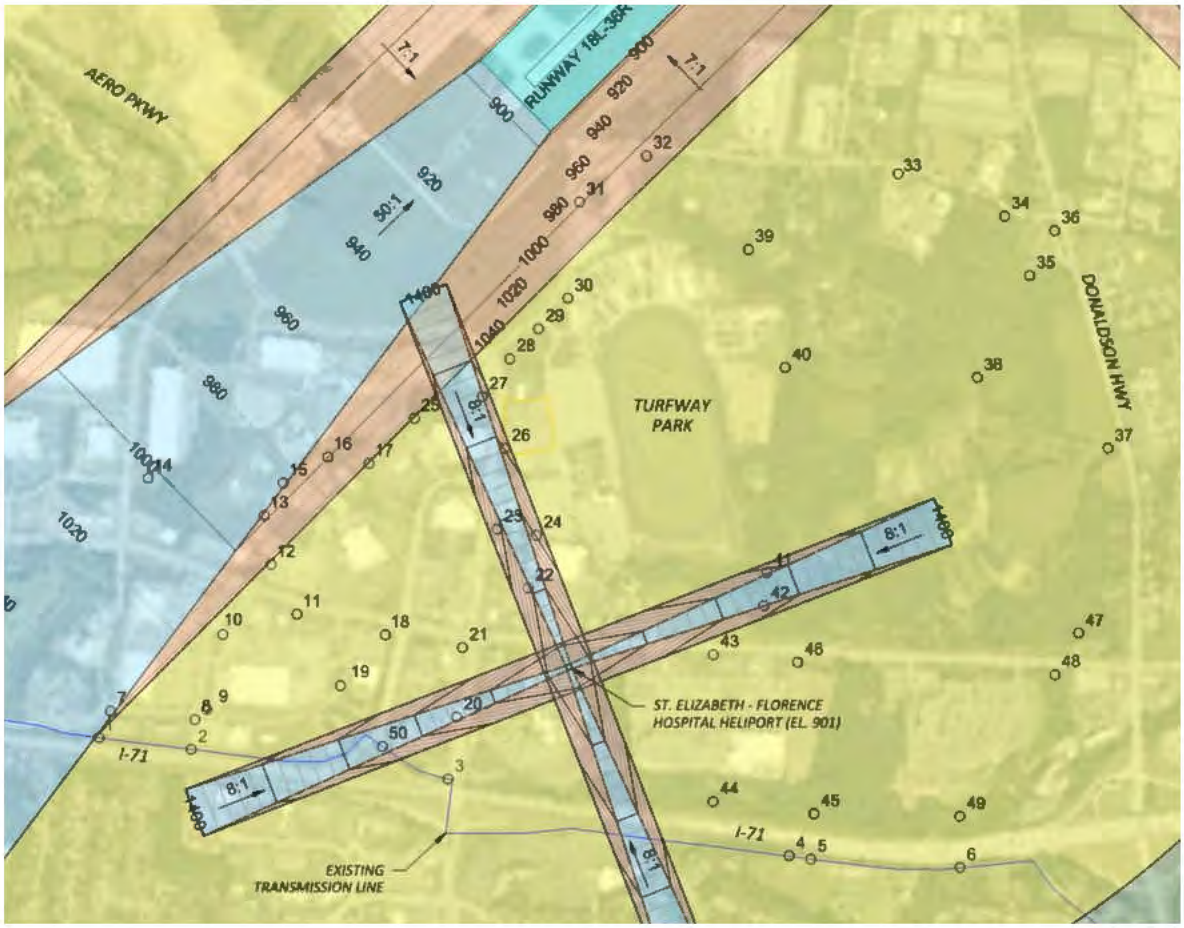
The heliport identified at St. Elizabeth Florence Hospital is unlisted by the FAA at the time of this study. The heliport consists of a single concrete pad measuring roughly 50′ x 50′. Communication with the hospital verified that the heliport is currently active and averages three weekly helicopter operations.

St. Elizabeth Florence Hospital Heliport – Field Elev. 901.0′			
Heliport	Northing	Easting	Elevation
-	552,978.9′	1,532.112.3′	901.0′

Airspace Analysis Findings

Figure 1 depicts the FAA Part 77 airspace for CVG and St. Elizabeth-Florence and 50 points-of-interest in the project area. The locations of the points-of-interest were identified using preliminary transmission line routes. The figures at the end of this memorandum provide the locations, topographical elevations, Part 77 elevations, and minimum clearance heights available at each point-of-interest.

Figure 1: CVG and St. Elizabeth-Florence Airspace, and Transmission Line Points-of-Interest



Of the fifty points-of-interest identified in Figure 1 and analyzed across the potential transmission line routes, only four were identified as possible points-of-concern; two points were indicated as having less than 100 vertical feet of clearance, and two points were indicated as having approximately 100 feet of clearance. The four points-of-concern are listed in Table 2, along with their coordinates, the topographical elevation, FAA Part 77 surface of interest, surface elevation, and clearance.

Table 2: Turfway Reliability Project Transmission Line Airspace Minimum and Maximum Clearance

Approximate Part 77 Clearances						
Point ID	Northing	Easting	Critical Part 77 Surface	Topographical Elevation (ft)	Part 77 Surface Elevation (ft)	Clearance Available (ft)
15	552,260	1,528,784	Approach	879.2	983.7	104.5
16	552,760	1,528,916	Transitional	892.4	998.9	106.5
31	556,351	1,528,895	Transitional	922.0	997.0	75.0
32	557,153	1,529,040	Transitional	917.9	1016.9	99.1

The clearances provided are for transmission line route selection guidance only and should not serve as a basis for structure design. If the intended height of any proposed structure/transmission line tower places the top elevation of that structure within 25 vertical feet of the airspace Part 77 surfaces identified within this study, it is recommended that a licensed surveyor survey the topographical elevations at the locations of interest and at the runway end points at this airport.

Next Steps

Any new construction meeting FAA obstruction evaluation criteria may be subject to review by the FAA. Existing or proposed structures can be quickly evaluated using the Notice Criteria Tool on the FAA Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) website. Data for the structure, including coordinates, ground elevation, structure type and height are input into the Notice Criteria Tool, which evaluates the data against criteria for notifying the FAA of the structure.

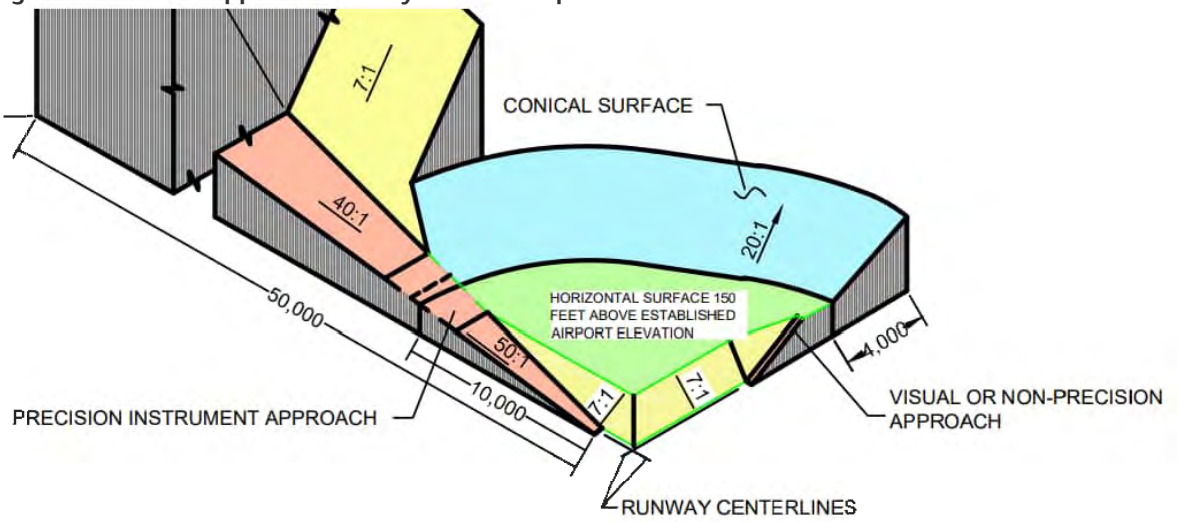
If notification is required, a Form 7460-1 *Notice of Proposed Construction or Alteration* must be completed for each structure meeting/exceeding the notification criteria. The FAA will evaluate each submitted 7460-1 and provide one of the following determinations, as defined by the FAA:

1. *Determination of No Hazard* – structure/alteration does not exceed obstruction standards and marking/lighting is not required.
2. *Determination of No Hazard with Conditions* – structure/alterations are acceptable, contingent upon implementation of mitigating measures, such as marking/lighting of the structure.
3. *Determination of Hazard* – structure/alteration exceeds obstruction standards and will be a hazard to air navigation.

14 CFR Part 77 Overview

The airspace analysis was performed according the *14 CFR Part 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace*. A generic diagram of Part 77 surfaces featuring a precision approach primary runway and a visual approach secondary runway is provided in Figure 2.

Figure 2: Precision Approach Runway Part 77 Airspace



Source: Arizona Department of Transportation (AZDOT), Cochise College Airport Layout Plan (2014)

The definition and dimensions of each surface is described below:

- Horizontal Surface – This surface is a horizontal plane 150′ above established airport field elevation. For visual and utility runways, the perimeter is defined by 5,000′ arcs radiating from the center of each end of the primary surfaces. This surface applies to the entire airfield and not a specific runway.

- Conical Surface – This surface is a 20:1 slope extending outward and upward from the horizontal surface. This surface applies to the entire airfield and not a specific runway.

- Primary Surface – Each runway has its own primary surface. For utility runways with visual approaches, a 250′ wide rectangular surface centered on the runway at the runway centerline elevation, running the length of the runway. Paved runways increase the length of the primary surface by 200′ on either end.

- Approach Surface – Each runway end has its own approach surface. For utility runways with visual approaches, a trapezoidal surface extending from each end of the primary surface, as wide as the primary surface, for a length of 5,000′ at a 20:1 slope, expanding uniformly to a width of 1,250′.

- Transitional Surface– Each runway has its own transitional surfaces, which extend outward and upward from either side of the primary surface at 7:1, meeting the approach surfaces on either end of the runway and up to the horizontal surface between the runway ends.

Refer to the attached figure for a depiction of the airspace at Cincinnati/Northern Kentucky International Airport.

AirNav CVG Airport: https://www.airnav.com/airport/KCVG

FAA OE/AAA: https://oeaaa.faa.gov/oeaaa/external/portal.jsp

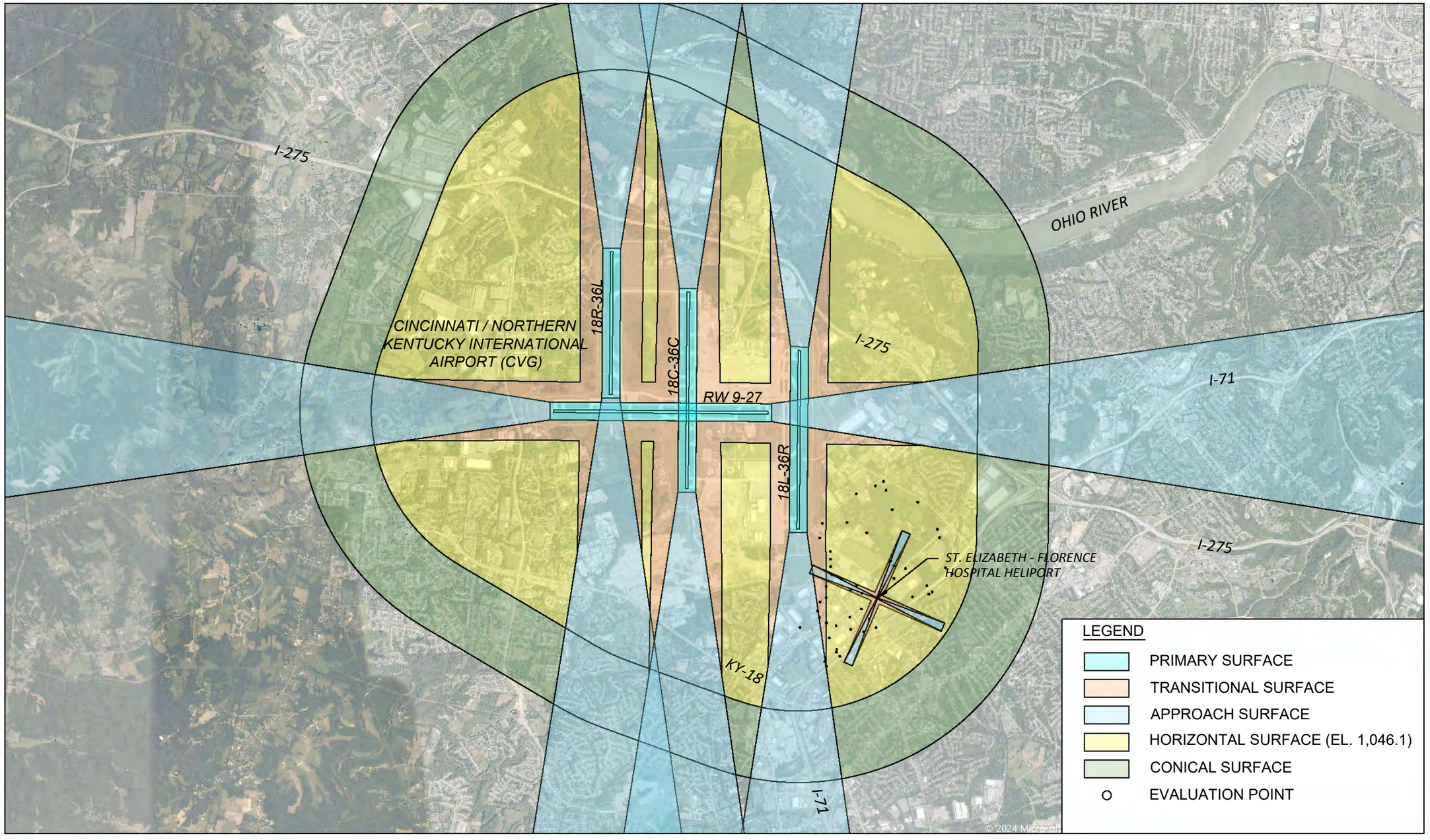
FAA Form 7460-1:
https://www.faa.gov/forms/index.cfm/go/document.information/documentid/186273

References

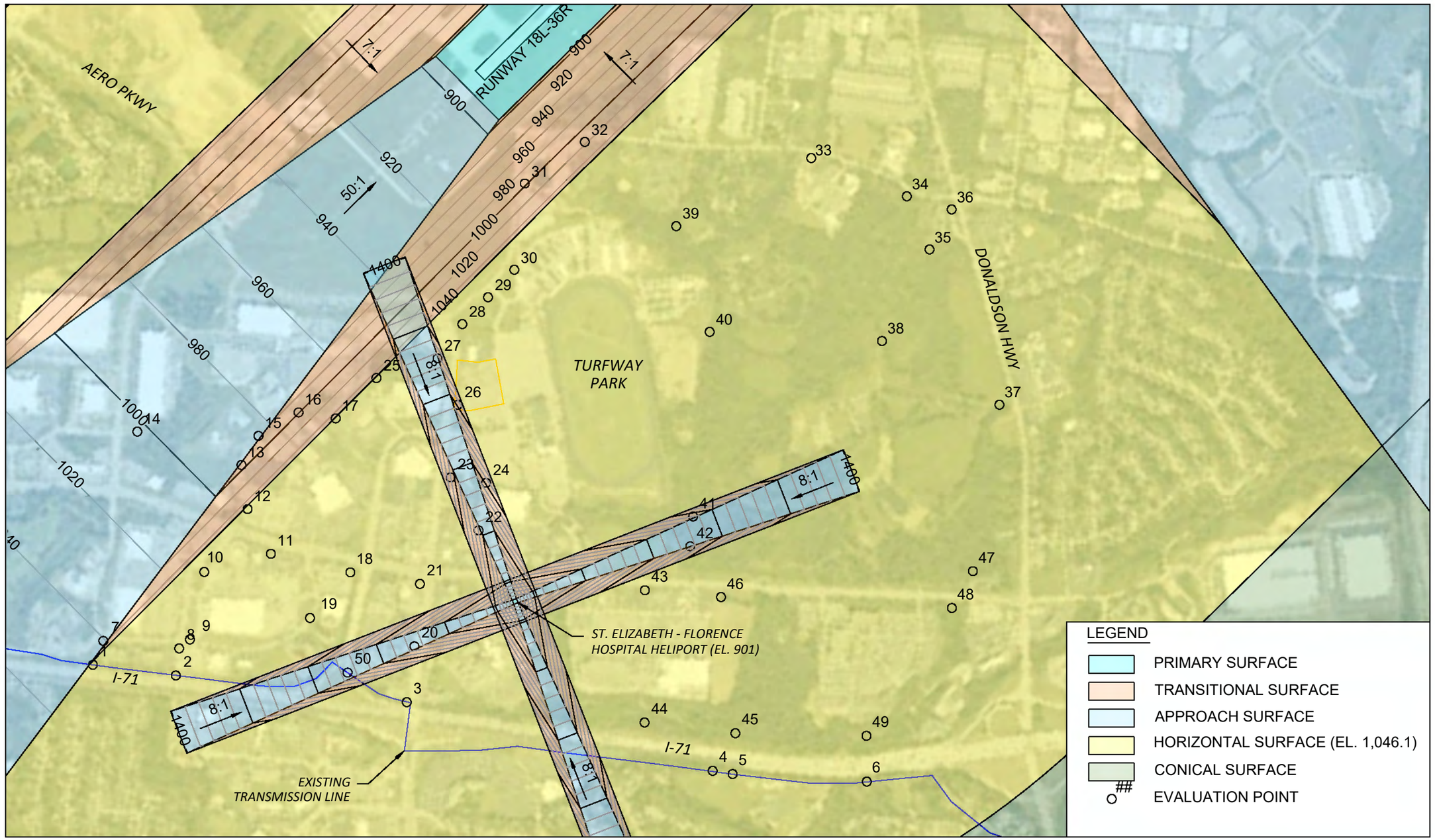
Document	Date
14 CFR Part 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace	July 21, 2010
FAA AC 150/5300-13B *Airport Design*	March 31, 2022

Attachments

Title	Description
Turfway Reliability Project: FAA Part 77 Airspace	CVG/St. Elizabeth Florence Hospital Heliport Airspace/Location Figure
Turfway Reliability Project: CVG FAA Part 77 Airspace Site Comparison	CVG/St. Elizabeth Florence Hospital Heliport airspace clearances at various point along alternative transmission line routes
Turfway Reliability Project: FAA Part 77 Airspace Clearance Table	Tables listing locations, elevations, and clearances for each point-of-interest shown in "FAA Part 77 Airspace Site Comparison" figure
Airnav.com – KCVG Cincinnati/Northern Kentucky International Airport	Airnav.com airport summary sheet for Cincinnati/Northern Kentucky International Airport



Jacobs	NORTH	MAY 2024	TURFWAY RELIABILITY PROJECT FAA PART 77 AIRSPACE	SCALE: 1"=5000'



Jacobs	NORTH	MAY 2024	TURFWAY RELIABILITY PROJECT FAA PART 77 AIRSPACE SITE COMPARISON	SCALE: 1"=1000'

TURFWAY RELIABILITY PROJECT - FAA PART 77 ELEVATIONS / CLEARANCE						
Point ID	Northing	Easting	Part 77 Surface	Topographical Elevations	Part 77 Surface Elevation	Part 77 Surface Clearance
1	549150	1529284	HORIZONTAL	896.0	1046.1	150.1
2	549721	1530020	HORIZONTAL	918.0	1046.1	128.1
3	551330	1532052	HORIZONTAL	891.8	1046.1	154.3
4	553201	1535010	HORIZONTAL	879.1	1046.1	167.0
5	553332	1535189	HORIZONTAL	872.0	1046.1	174.1
6	554330	1536306	HORIZONTAL	836.3	1046.1	209.8
7	549420	1529178	APPROACH	894.3	1040.5	146.1
8	549958	1529835	HORIZONTAL	903.8	1046.1	142.3
9	550115	1529851	HORIZONTAL	902.5	1046.1	143.6
10	550758	1529432	HORIZONTAL	893.9	1046.1	152.2
11	551429	1529813	HORIZONTAL	892.6	1046.1	153.5
12	551597	1529276	HORIZONTAL	876.0	1046.1	170.1
13	551896	1528880	TRANSITIONAL	876.7	993.5	116.8
14	551338	1527793	APPROACH	865.2	1002.3	137.2
15	552260	1528784	APPROACH	879.2	983.7	104.5
16	552760	1528916	TRANSITIONAL	892.4	998.9	106.5
17	553008	1529255	HORIZONTAL	900.4	1046.1	145.7
18	551908	1530585	HORIZONTAL	904.9	1046.1	141.2
19	551229	1530626	HORIZONTAL	902.1	1046.1	144.0
20	551830	1531673	HORIZONTAL	908.6	1046.1	137.5
21	552366	1531222	HORIZONTAL	903.8	1046.1	142.3
22	553251	1531264	TRANSITIONAL	904.0	1018.6	114.6
23	553449	1530628	HORIZONTAL	914.2	1046.1	131.9
24	553685	1530951	HORIZONTAL	898.1	1046.1	148.0
25	553647	1529259	HORIZONTAL	900.0	1046.1	146.1

TURFWAY RELIABILITY PROJECT - FAA PART 77 ELEVATIONS / CLEARANCE						
Point ID	Northing	Easting	Part 77 Surface	Topographical Elevations	Part 77 Surface Elevation	Part 77 Surface Clearance
26	554076	1530111	HORIZONTAL	917.7	1046.1	128.4
27	554285	1529584	HORIZONTAL	916.7	1046.1	129.4
28	554747	1529510	HORIZONTAL	917.5	1046.1	128.6
29	555163	1529502	HORIZONTAL	900.0	1046.1	146.1
30	555586	1529494	HORIZONTAL	905.9	1046.1	140.2
31	556351	1528895	TRANSITIONAL	922.0	997.0	75.0
32	557153	1529040	TRANSITIONAL	917.9	1016.9	99.1
33	558810	1530951	HORIZONTAL	893.7	1046.1	152.4
34	559262	1532006	HORIZONTAL	886.6	1046.1	159.5
35	559019	1532605	HORIZONTAL	892.3	1046.1	153.8
36	559514	1532463	HORIZONTAL	910.6	1046.1	135.5
37	558347	1534384	HORIZONTAL	892.1	1046.1	154.0
38	557925	1532954	HORIZONTAL	859.4	1046.1	186.7
39	557211	1530425	HORIZONTAL	893.3	1046.1	152.8
40	556636	1531524	HORIZONTAL	899.9	1046.1	146.2
41	555052	1532846	HORIZONTAL	855.1	1046.1	191.0
42	554795	1533061	HORIZONTAL	894.6	1046.1	151.5
43	554090	1533048	HORIZONTAL	902.8	1046.1	143.3
44	553047	1534090	HORIZONTAL	856.5	1046.1	189.6
45	553676	1534891	HORIZONTAL	842.1	1046.1	204.0
46	554634	1533701	HORIZONTAL	902.0	1046.1	144.1
47	556827	1535486	HORIZONTAL	841.8	1046.1	204.3
48	556370	1535609	HORIZONTAL	822.9	1046.1	223.2
49	554690	1535943	HORIZONTAL	829.1	1046.1	217.0
50	551096	1531353	HORIZONTAL	912.8	1046.1	133.3

Jacobs		MAY 2024	TURFWAY RELIABILITY PROJECT FAA PART 77 AIRSPACE CLEARANCE TABLE	SCALE: N/A

KCVG Cincinnati/Northern Kentucky International Airport

Covington, Kentucky, USA

FAA INFORMATION EFFECTIVE 21 MARCH 2024

Location

FAA Identifier: CVG
Lat/Long: 39-02-55.8150N 084-40-04.1550W
39-02.930250N 084-40.069250W
39.0488375,-84.6678208
(estimated)
Elevation: 896.1 ft. / 273.1 m (surveyed)
Variation: 06W (2025)
From city: 8 miles SW of COVINGTON, KY
Time zone: UTC -4 (UTC -5 during Standard Time)
Zip code: 41018

Airport Operations

Airport use: Open to the public
Activation date: 12/1944
Control tower: yes
ARTCC: INDIANAPOLIS CENTER
FSS: LOUISVILLE FLIGHT SERVICE STATION
NOTAMs facility: CVG (NOTAM-D service available)
Attendance: CONTINUOUS
Wind indicator: lighted
Segmented circle: no
Beacon: white-green (lighted land airport)
Operates sunset to sunrise.
Fire and rescue: ARFF index C
Airline operations: ARFF INDEX D/E AVBL UPON REQ.
International operations: customs landing rights airport

Airport Communications

UNICOM: 122.95
WX ASOS: 134.375 (859-767-8210)
CINCINNATI GROUND: 121.7

Loc | Ops | Rwys | IFR | FBO | Links
Com | Nav | Svcs | Stats | Notes

Road maps at: MapQuest Bing Google

Aerial photo

WARNING: Photo may not be current or correct

Photo taken 25-May-2018
looking south.

Do you have a better or more recent aerial photo of Cincinnati/Northern Kentucky International Airport that you would like to share? If so, please **send us your photo**.

Sectional chart

CINCINNATI TOWER: 118.3 ;RWY 09/27, 18C/36C 118.975 ;RWY 18L/36R 133.325 ;RWY 18R/36L 360.85 ;RWY 18L/36R
CINCINNATI APPROACH: 119.7 ;090-269 123.875 ;270-089 363.15
CINCINNATI DEPARTURE: 126.65 ;001-180 128.7 ;181-360 254.25
CLEARANCE DELIVERY: 127.175
CINCE STAR: 123.875 254.25
CLASS B: 121.0 ;001-180 128.7 ;181-360 254.25
D-ATIS: 134.375 ;ARR 135.3 ;DEP
EMERG: 121.5 243.0
HARDU STAR: 119.7 ;090-269 123.875 ;270-089 363.15
JAKIE STAR: 119.7 254.25
SHELBYVILLE STAR: 119.7 ;090-269 123.875 ;270-089 363.15
WX ASOS at LUK (12 nm E): PHONE 513-321-6291
WX AWOS-3PT at I67 (14 nm N): 118.15 (513-569-4964)

Nearby radio navigation aids

VOR radial/distance	VOR name	Freq	Var
CVGr044/2.6	CINCINNATI VORTAC	117.30	04W
FLMr329/29.2	FALMOUTH VOR/DME	117.00	04W

NDB name	Hdg/Dist	Freq	Var	ID
SPORTYS	269/21.1	245	04W	PWF .--. .-- ..-.
BATESVILLE	128/32.8	254	05W	HLB .... .-.. -...

Airport Services

Fuel available: 100LL JET-A
Parking: hangars and tiedowns
Airframe service: MAJOR
Powerplant service: MAJOR

Runway Information

Runway 9/27

Dimensions: 12001 x 150 ft. / 3658 x 46 m
Surface: asphalt/concrete/grooved, in good condition
Weight bearing capacity: PCN 101/R/B/W/T
Single wheel: 120.0
Double wheel: 250.0
Double tandem: 550.0
Dual double tandem: 875.0
Runway edge lights: high intensity
Operational restrictions: W 4200 FT & E 750 FT CONC; REMAINDER ASPH OVERLAY.

	RUNWAY 9	RUNWAY 27
Latitude:	39-02.781748N	39-02.775683N
Longitude:	084-41.705890W	084-39.170732W
Elevation:	883.3 ft.	875.0 ft.
Traffic pattern:	left	left
Runway heading:	096 magnetic, 090 true	276 magnetic, 270 true

Airport diagram

CAUTION: Diagram may not be current

Download PDF
of official airport diagram from the FAA

Airport distance calculator

Flying to Cincinnati/Northern Kentucky International Airport? Find the distance to fly.

From to KCVG

CALCULATE DISTANCE

Sunrise and sunset

Times for 16-Apr-2024

	Local (UTC-4)	Zulu (UTC)
Morning civil twilight	06:32	10:32
Sunrise	07:00	11:00
Sunset	20:16	00:16
Evening civil twilight	20:44	00:44

Current date and time

Zulu (UTC) 16-Apr-2024 15:41:12
Local (UTC-4) 16-Apr-2024 11:41:12

METAR

Declared distances:	TORA:12000 TODA:12000 ASDA:11640 LDA:11640	TORA:12000 TODA:12000 ASDA:12000 LDA:12000
Markings:	precision, in good condition	precision, in good condition
Visual slope indicator:	4-light PAPI on left (3.00 degrees glide path)	4-light PAPI on left (3.00 degrees glide path)
RVR equipment:	touchdown, rollout	touchdown, rollout
Approach lights:	MALSR: 1,400 foot medium intensity approach lighting system with runway alignment indicator lights	MALSR: 1,400 foot medium intensity approach lighting system with runway alignment indicator lights
Centerline lights:	yes	yes
Touchdown point:	yes, lighted	yes, no lights
Instrument approach:	ILS/DME	ILS

Runway 18C/36C

Dimensions:	11000 x 150 ft. / 3353 x 46 m	
Surface:	asphalt/concrete/grooved, in good condition	
Weight bearing capacity:	PCN 112/F/C/W/T	
	Single wheel: 120.0	
	Double wheel: 250.0	
	Double tandem: 550.0	
	Dual double tandem: 875.0	
Runway edge lights:	high intensity	
	RUNWAY 18C	**RUNWAY 36C**
Latitude:	39-03.884557N	39-02.072587N
Longitude:	084-40.117055W	084-40.124515W
Elevation:	874.6 ft.	840.7 ft.
Traffic pattern:	left	left
Runway heading:	186 magnetic, 180 true	006 magnetic, 000 true
Markings:	precision, in good condition	precision, in good condition
Visual slope indicator:	4-light PAPI on right (3.00 degrees glide path)	4-light PAPI on left (3.00 degrees glide path)
RVR equipment:	touchdown, midfield, rollout	touchdown, midfield, rollout
Approach lights:	MALSR: 1,400 foot medium intensity approach lighting system with runway alignment indicator lights	ALSF2: standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers (category II or III)
Centerline lights:	yes	yes
Touchdown point:	yes, lighted	yes, lighted
Instrument approach:	ILS/DME	ILS/DME

Runway 18L/36R

Dimensions:	10000 x 150 ft. / 3048 x 46 m
Surface:	concrete/grooved, in good condition

KCVG 161452Z 15007KT 10SM FEW160 BKN220 BKN300 22/15 A3005 RMK AO2 SLP168 T02220150 53002 VISNO 36R $

KLUK 12nm E 161453Z 16004KT 10SM SCT055 22/14 A3005 RMK AO2 SLP174 T02220139 58001

KI67 14nm N 161515Z AUTO 17004KT 10SM CLR 22/13 A3004 RMK AO1

TAF

KCVG 161127Z 1612/1718 07008KT P6SM BKN250 FM161300 13007KT P6SM VCSH BKN120 FM161700 16009KT P6SM SCT050 BKN120 FM162300 15009KT P6SM BKN120 FM170500 18010KT 5SM -SHRA BR SCT050 OVC100 WS020/21040KT TEMPO 1707/1711 3SM -TSRA BR BKN030CB

KLUK 12nm E 161127Z 1612/1712 07005KT P6SM BKN250 FM161300 13006KT P6SM VCSH BKN120 FM161700 16009KT P6SM SCT050 BKN120 FM162300 15007KT P6SM BKN120

NOTAMs

Click for the latest **NOTAMs**

NOTAMs are issued by the DoD/FAA and will open in a separate window not controlled by AirNav.

Weight bearing capacity:	PCN 127/R/B/W/T	
	Single wheel:	120.0
	Double wheel:	250.0
	Double tandem:	550.0
	Dual double tandem:	875.0
Runway edge lights:	high intensity	
	RUNWAY 18L	**RUNWAY 36R**
Latitude:	39-03.351302N	39-01.704010N
Longitude:	084-38.800080W	084-38.807603W
Elevation:	886.3 ft.	896.1 ft.
Traffic pattern:	left	left
Runway heading:	186 magnetic, 180 true	006 magnetic, 000 true
Markings:	precision, in good condition	precision, in good condition
Visual slope indicator:	4-light PAPI on left (3.00 degrees glide path)	4-light PAPI on right (3.00 degrees glide path)
RVR equipment:	touchdown, midfield, rollout	touchdown, midfield, rollout
Approach lights:	MALSR: 1,400 foot medium intensity approach lighting system with runway alignment indicator lights	ALSF2: standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers (category II or III)
Centerline lights:	yes	yes
Touchdown point:	yes, lighted	yes, lighted
Instrument approach:	ILS/DME	ILS/DME

Runway 18R/36L

Dimensions:	8000 x 150 ft. / 2438 x 46 m	
Surface:	concrete/grooved, in good condition	
Weight bearing capacity:	PCN 170/R/B/W/T	
	Single wheel:	120.0
	Double wheel:	250.0
	Double tandem:	550.0
	Dual double tandem:	875.0
Runway edge lights:	high intensity	
	RUNWAY 18R	**RUNWAY 36L**
Latitude:	39-04.252893N	39-02.935062N
Longitude:	084-41.024253W	084-41.029347W
Elevation:	864.7 ft.	872.6 ft.
Traffic pattern:	left	left
Runway heading:	186 magnetic, 180 true	006 magnetic, 000 true
Markings:	precision, in good condition	precision, in good condition
RVR equipment:	touchdown, midfield, rollout	touchdown, midfield, rollout
Approach lights:	ALSF2: standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers (category II or III)	ALSF2: standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers (category II or III)

Centerline lights: yes	yes
Touchdown point: yes, lighted	yes, lighted
Instrument approach: ILS/DME	ILS/DME

Airport Ownership and Management from official FAA records

Ownership: Publicly-owned
Owner: KENTON COUNTY ARPT BOARD
PO BOX 752000
CINCINNATI, OH 45275-2000
Phone 859-767-3151
Manager: CANDACE MCGRAW
PO BOX 752000
CINCINNATI, OH 45275-2000
Phone 859-767-3151

Airport Operational Statistics

Aircraft based on the field: 11
Multi engine airplanes: 3
Jet airplanes: 8

Aircraft operations: avg 394/day *
90% commercial
5% air taxi
3% transient general aviation
2% local general aviation
<1% military
* for 12-month period ending 31 July 2022

Additional Remarks

- SUCCESSIVE OR SIMUL DEP FM RWY 18L, 18C, 36L, 36C & 36R APVD WITH COURSE DVRG BGN NO FURTHER THAN 2 MI FM EOR DUE TO NOISE ABATEMENT.
- TWYS RSTRD TO 15 MPH OR LESS WITH WINGSPAN 214 FT OR MORE.
- BIRDS ON & INVOF THE ARPT.
- RAMP CTL: RAMP 1N / 1S TXL & RAMP 2N / 2S TXL - 130.90, RAMP 3 TXL & N TXL - 130.375; DHL RAMP CTL: 129.475; AMZ RAMP CTL: 130.5.
- OPR PARROT WITH ALT RPRTG MODE & ADS-B ENABLED ON ARPT SFCS.
- RWY 18R/36L CLSD TO AIR CARRIER ACFT WINGSPAN MORE THAN 140FT
- NOISE SENS AREA N & S OF ARPT; RWY ASGN 2200-0700 BASED ON NOISE ABATEMENT.

Instrument Procedures

NOTE: All procedures below are presented as PDF files. If you need a reader for these files, you should download the free Adobe Reader.

NOT FOR NAVIGATION. Please procure official charts for flight.
FAA instrument procedures published for use from 21 March 2024 at 0901Z to 18 April 2024 at 0900z.

STARs - Standard Terminal Arrivals

CEGRM SIX (RNAV) **NEW**	2 pages: [1] [2] (426KB)
GAVNN SEVEN (RNAV) **NEW**	2 pages: [1] [2] (402KB)
HARDU FIVE **CHANGED**	2 pages: [1] [2] (288KB)
JAKIE SIX (RNAV) **NEW**	2 pages: [1] [2] (442KB)
SARGO FOUR (RNAV) **NEW**	2 pages: [1] [2] (389KB)

SHELBYVILLE SIX **CHANGED**	2 pages: [1] [2] (353KB)
TIGRR FOUR (RNAV) **NEW**	download (313KB)

IAPs - Instrument Approach Procedures

ILS OR LOC RWY 09 **CHANGED**	download (311KB)
ILS OR LOC RWY 18C **CHANGED**	download (332KB)
ILS OR LOC RWY 18L **CHANGED**	download (340KB)
ILS OR LOC RWY 18R **CHANGED**	download (320KB)
ILS OR LOC RWY 27 **CHANGED**	download (313KB)
ILS OR LOC RWY 36C **CHANGED**	download (375KB)
ILS OR LOC RWY 36L **CHANGED**	download (348KB)
ILS OR LOC RWY 36R **CHANGED**	download (341KB)
ILS RWY 18C (SA CAT I - II) **CHANGED**	download (344KB)
ILS RWY 27 (SA CAT I - II) **CHANGED**	download (297KB)
ILS RWY 18R (CAT II) **CHANGED**	download (295KB)
ILS RWY 36L (CAT II) **CHANGED**	download (307KB)
ILS RWY 36C (CAT II - III) **CHANGED**	download (338KB)
ILS RWY 36R (CAT II - III) **CHANGED**	download (331KB)
RNAV (RNP) Z RWY 09 **CHANGED**	download (259KB)
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Other nearby airports with instrument procedures:

KLUK - Cincinnati Municipal Airport/Lunken Field (12 nm E)
I67 - Cincinnati West Airport (14 nm N)

KHAO - Butler County Regional Airport/Hogan Field (20 nm N)
I69 - Clermont County Airport (21 nm E)
K62 - Gene Snyder Airport (24 nm SE)

FBO, Fuel Providers, and Aircraft Ground Support

Business Name	Contact	Services / Description	Fuel Prices	Comments
		The ideal location for easy travel into Cincinnati and surrounding areas. Great fuel volume discounts, contract fuel, friendly staff, excellent service, and a 24 hour maintenance facility with highly qualified personnel.		
WHEELS UP	**UNICOM 122.95** 859-534-4301 [web site] [email]	**Hangar space available** More info and **photos** of Wheels Up SAFETY1 ARATA US Government AIR Card U.S. Customs CREW CAR COURTESY VAN PART 145 REPAIR STATION WiFi NBAA	Independent 100LL Jet A FS $6.58 $5.98 GUARANTEED	not yet rated write
Alternatives at nearby airports IMPORTANT: Note that the FBOs below are NOT at KCVG but at other nearby airports. Do not expect services from these FBOs to be available at KCVG.				
Located at KLUK WAYPOINT aviation	**ASRI 129.825** toll-free 800-769-4765 [web site] [email]	At **KLUK** (Cincinnati Municipal Airport/Lunken Field), 12 miles ENE On April 1, 2024 Waypoint Aviation will have a new location on KLUK Field, we will be off of Taxiway A. Initially, our ramp space will be very limited, our ramp extension will be poured this spring, early summer. Please be sure to give us a reservation call before your arrival. We appreciate and respect our relationship we have with all of you and understand whatever decisions you need to make during this transition. We appreciate your patience and hope to see all of you at our new facility. More info and **photos** of Waypoint Aviation (KLUK)	Located at KLUK TITAN Aviation Fuels 100LL Jet A FS $8.00 $6.10 GUARANTEED MEMBERS ONLY Discounts Login Join	not yet rated 5 read write

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Appendix B. Quantitative Evaluation Results

Appendix B. Quantitative Evaluation
Category and Criteria Weighting
Turfway Reliability Project

Category	Criteria		Unit	Criteria Weight	Category Weight	Influence
Ecological and Cultural	Number of Stream Crossings (NHD)		Count	15%	20%	3.0%
	NWI Wetlands Crossed by ROW		Acres	17.5%		3.5%
	FEMA Floodplain Zone, Crossed by ROW		Acres	17.5%		3.5%
	Forested Lands Crossed by ROW		Acres	20%		4.0%
	Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		Count	15%		3.0%
	Known Archaeological Sites within 500 feet of ROW		Acres	15%		3.0%
Land Use	Single-Family Residences, 25% total criteria weight	Single-Family Residences within 50 ft of ROW (weighted 60%)	Count	15%	40%	6.0%
		Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	7.5%		3.0%
		Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2.5%		1.0%
	Multi-Family Residences, 20% total criteria weight	Multi-Family Residences within 50 ft of ROW (weighted 60%)	Count	12%		4.8%
		Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	6%		2.4%
		Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2%		0.8%
	Commercial and Office Zoning designation crossed by ROW		Acres	10%		4.0%
	Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		Acres	5%		2.0%
	Planned Development crossed by ROW		Acres	10%		4.0%
	Number of Unique Landowners crossed by ROW		Count	15%		6.0%
	New ROW easement required		Acres	15%		6.0%
Engineering	Route Length		Linear Feet	15%	40%	6.0%
	Highway or Road Crossings, 25% total criteria weight	Number of I-71/75 crossings (weighted 66%)	Count	16.5%		6.6%
		Number of Highway or Road Crossings, not including I-71/75 (weighted 34%)	Count	8.5%		3.4%
	Number of Turn Angles, 25% total criteria weight	Between 3 and 30 degrees (weighted 34%)	Count	8.5%		3.4%
		Greater than 30 degrees (weighted 66%)	Count	16.5%		6.6%
	Underground Utilities (sewer, water), 25% total criteria weight	Underground Utility 20 foot buffer within ROW (weighted 66%)	Acres	16.5%		6.6%
		Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	Acres	8.5%		3.4%
	Percent of route less than the standard ROW width available		Percent	10%		4.0%

Appendix B. Quantitative Evaluation
Raw Data Results - A and B Tap Alternative Routes
Turfway Reliability Project

				Alternative Route Raw Data																				
Ecological and Cultural		**Unit**	**Weight**	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK
Number of Streams Crossed by ROW (NHD)		Count	15%	3	1	1	1	2	1	1	1	2	1	2	3	1	1	1	2	1	1	1	2	1	2
NWI Wetland Crossed by ROW		Acres	17.5%	0.03	0.18	0	0	0	0.18	0	0	0	0	0	0.03	0.18	0	0	0	0.18	0	0	0	0	0
FEMA Floodplain Zone, Crossed by ROW		Acres	17.5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forested Lands Crossed by ROW		Acres	20%	1.31	0.25	0.25	0.11	0.11	0.25	0.25	0.11	0.11	0.21	0.21	1.26	0.20	0.20	0.06	0.06	0.20	0.20	0.06	0.06	0.16	0.16
Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		Count	15%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Known Archaeological Sites within 500 feet of ROW		Acres	15%	3.19	0.76	1.43	1.64	1.64	1.15	1.82	2.02	2.02	3.53	3.53	3.19	0.76	1.43	1.64	1.64	1.15	1.82	2.02	2.02	3.53	3.53
	Category Weighted Score		**20%**																						
Land Use																									
Single-Family Residences, 25% total criteria weight	Single-Family Residences within 50 ft of ROW (weighted 60%)	Count	15%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	7.5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2.5%	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Multi-Family Residences, 20% total criteria weight	Multi-Family Residences within 50 ft of ROW (weighted 60%)	Count	12%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	6%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial and Office Zoning designation crossed by ROW		Acres	10%	5.8	7.3	8.5	10.7	9.8	8.9	8.1	10.3	9.5	11.4	10.6	7.2	5.9	7.1	9.3	8.5	7.5	6.8	8.9	8.1	10.0	9.2
Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		Acres	5%	7.3	5.6	4.8	1.9	2.9	5.6	4.8	1.9	2.9	1.9	2.9	7.3	5.6	4.8	1.9	2.9	5.6	4.8	1.9	2.9	1.9	2.9
Planned Development crossed by ROW		Acres	10%	3.4	5.3	8.8	8.6	8.6	8.0	11.2	11.0	11.1	12.1	12.2	5.1	5.1	8.6	8.4	8.5	7.8	11.1	10.8	10.9	11.9	12.0
Number of Unique Landowners crossed by ROW		Count	15%	20	17	15	17	17	19	14	16	16	18	18	21	17	15	17	17	19	14	16	16	18	18
New ROW easement required		Acres	15%	13.2	12.9	13.3	12.6	12.7	14.5	13.0	12.2	12.4	13.3	13.5	14.5	11.6	12.0	11.2	11.4	13.1	11.6	10.8	11.0	11.9	12.1
	Category Weighted Score		**40%**																						
Engineering																									
Route Length, Linear Feet		Linear Feet	15%	6,768	7,145	7,405	7,251	7,337	8,111	7,177	7,023	7,108	7,158	7,244	7,637	6,279	6,539	6,385	6,471	7,245	6,311	6,157	6,242	6,292	6,378
Highway or Road Crossings, 25% total criteria weight	Number of I-71/75 crossings (weighted 66%)	Count	16.5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Number of Highway or Road Crossings, not including I-71/75	Count	8.5%	5	4	5	7	7	6	5	7	7	9	9	5	4	5	7	7	6	5	7	7	9	9
Number of Turn Angles, 25% total criteria weight	Between 3 and 30 degrees (weighted 34%)	Count	8.5%	6	10	8	5	9	14	11	8	12	7	11	7	8	6	3	7	12	9	6	10	5	9
	Greater than 30 degrees (weighted 66%)	Count	16.5%	5	11	9	9	8	11	9	9	8	9	8	7	9	7	7	6	9	7	7	6	7	6
Underground Utilities (sewer, water), 25% total criteria	Underground Utility 20 foot buffer within ROW (weighted 66%)	Acres	16.5%	2.18	2.25	1.78	1.82	1.85	2.70	1.65	1.70	1.72	2.00	2.02	2.24	2.09	1.62	1.66	1.69	2.54	1.49	1.54	1.56	1.84	1.86
	Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	Acres	8.5%	3.88	4.25	4.01	4.21	3.99	5.15	3.53	3.72	3.50	4.26	4.05	4.22	3.64	3.41	3.60	3.38	4.54	2.92	3.11	2.89	3.65	3.44
Percent of route less than the standard ROW width available (not including Road crossings)		Percent	10%	15%	11%	4%	5%	10%	10%	4%	5%	11%	6%	11%	9%	8%	0%	1%	7%	7%	0%	1%	7%	2%	8%
	Category Weighted Score		**40%**																						

Appendix B. Quantitative Evaluation
Raw Data Results - C and D Tap Alternative Routes
Turfway Reliability Project

				Alternative Route Raw Data															
Ecological and Cultural		**Unit**	**Weight**	CA	CB	CC	CD	CE	CF	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ
Number of Streams Crossed by ROW (NHD)		Count	15%	0	0	0	0	0	1	3	6	2	5	2	5	3	6	2	5
NWI Wetland Crossed by ROW		Acres	17.5%	0.18	0	0.18	0	0	0	0.17	0.17	0	0	0	0	0	0	0	0
FEMA Floodplain Zone, Crossed by ROW		Acres	17.5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forested Lands Crossed by ROW		Acres	20%	0.39	0.39	0.28	0.28	0.03	0.03	5.20	12.54	4.33	11.67	4.67	12.02	7.85	15.20	8.64	15.99
Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		Count	15%	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
Known Archaeological Sites within 500 feet of ROW		Acres	15%	3.72	4.39	3.31	3.25	0.98	0.98	0	1.52	0	1.52	0	1.52	0	1.52	0	1.52
	Category Weighted Score		**20%**																
Land Use																			
Single-Family Residences, 25% total criteria weight	Single-Family Residences within 50 ft of ROW (weighted 60%)	Count	15%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	7.5%	0	0	0	0	0	0	0	2	0	2	0	2	0	2	0	2
	Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2.5%	0	0	0	0	0	0	7	8	3	4	3	4	3	4	3	4
Multi-Family Residences, 20% total criteria weight	Multi-Family Residences within 50 ft of ROW (weighted 60%)	Count	12%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	6%	0	0	0	0	0	0	248	188	176	116	176	116	176	116	176	116
	Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2%	0	0	0	0	0	0	62	62	72	72	72	72	72	72	72	72
Commercial and Office Zoning designation crossed by ROW		Acres	10%	8.6	7.9	7.6	5.9	5.5	4.7	9.0	13.4	7.2	11.5	7.2	11.5	8.9	13.3	9.1	13.4
Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		Acres	5%	5.6	4.8	5.6	4.8	1.9	2.9	5.2	9.2	5.2	9.2	5.2	9.2	5.2	9.2	5.2	9.2
Planned Development crossed by ROW		Acres	10%	9.0	12.2	7.9	10.2	7.4	7.5	8.4	12.4	6.5	10.5	7.1	11.0	7.1	11.0	8.9	12.8
Number of Unique Landowners crossed by ROW		Count	15%	21	16	21	15	13	13	13	11	10	8	8	6	11	9	9	7
New ROW easement required		Acres	15%	14.3	12.8	13.2	10.7	7.4	7.6	16.3	23.4	14.4	21.5	14.4	21.6	16.2	23.3	16.3	23.5
	Category Weighted Score		**40%**																
Engineering																			
Route Length, Linear Feet		Linear Feet	15%	7,321	6,387	7,159	5,598	3,872	3,958	7,219	10,764	6,360	9,905	6,385	9,930	7,346	10,891	7,453	10,998
Highway or Road Crossings, 25% total criteria weight	Number of I-71/75 crossings (weighted 66%)	Count	16.5%	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	Number of Highway or Road Crossings, not including I-71/75	Count	8.5%	8	7	6	5	7	7	4	3	4	3	3	2	4	3	4	3
Number of Turn Angles, 25% total criteria weight	Between 3 and 30 degrees (weighted 34%)	Count	8.5%	9	6	8	5	2	6	4	5	2	3	2	3	3	4	2	3
	Greater than 30 degrees (weighted 66%)	Count	16.5%	9	7	7	5	3	2	6	9	4	7	4	7	6	9	6	9
Underground Utilities (sewer, water), 25% total criteria	Underground Utility 20 foot buffer within ROW (weighted 66%)	Acres	16.5%	2.60	1.56	2.17	1.08	1.11	1.13	2.04	2.22	0.62	0.80	0.64	0.82	0.67	0.85	0.68	0.86
	Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	Acres	8.5%	4.60	2.97	4.30	2.33	2.36	2.15	2.59	2.90	0.96	1.27	1.13	1.43	1.07	1.37	1.15	1.46
Percent of route less than the standard ROW width available (not including Road crossings)		Percent	10%	15%	10%	17%	13%	19%	29%	6%	8%	5%	8%	0%	4%	5%	7%	0%	4%
	Category Weighted Score		**40%**																

Appendix B. Quantitative Evaluation
Raw Data Results - E and F Tap Alternative Routes
Turfway Reliability Project

				Alternative Route Raw Data																				
Ecological and Cultural		**Unit**	**Weight**	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ
Number of Streams Crossed by ROW (NHD)		Count	15%	3	6	2	5	2	5	3	6	3	6	2	5	4	4	3	7	7	6	5	8	10	7
NWI Wetland Crossed by ROW		Acres	17.5%	0.17	0.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMA Floodplain Zone, Crossed by ROW		Acres	17.5%	0	0	0	0	0	0	0	0	0	0	0	0	0.05	0.05	0.05	0.05	0.05	0.05	0.14	0.14	0.05	0.05
Forested Lands Crossed by ROW		Acres	20%	5.58	12.93	4.69	12.04	5.04	12.38	7.19	14.53	7.53	14.88	7.98	15.33	5.79	6.14	6.57	13.14	13.49	13.92	8.66	16.00	16.93	14.74
Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		Count	15%	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Known Archaeological Sites within 500 feet of ROW		Acres	15%	0	1.52	0	1.52	0	1.52	0	1.52	0	1.52	0	1.52	0	0	0	1.52	1.52	1.52	0	1.52	0	1.52
	Category Weighted Score		**20%**																						
Land Use																									
Single-Family Residences, 25% total criteria weight	Single-Family Residences within 50 ft of ROW (weighted 60%)	Count	15%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	7.5%	0	2	0	2	0	2	0	2	0	2	0	2	1	1	1	3	3	3	1	3	1	4
	Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2.5%	5	6	0	1	0	1	0	1	0	1	0	1	0	0	0	1	1	1	0	1	17	16
Multi-Family Residences, 20% total criteria weight	Multi-Family Residences within 50 ft of ROW (weighted 60%)	Count	12%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	6%	248	188	176	116	176	116	176	116	176	116	176	116	176	176	176	116	116	116	176	116	60	0
	Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2%	62	62	72	72	72	72	72	72	72	72	72	72	142	142	142	142	142	142	142	142	258	70
Commercial and Office Zoning designation crossed by ROW		Acres	10%	9.6	13.9	7.6	12.0	7.7	12.0	8.4	12.7	8.4	12.8	8.5	12.9	11.7	11.7	11.9	16.1	16.1	16.2	12.6	16.9	23.5	18.3
Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		Acres	5%	5.2	9.2	5.2	9.2	5.2	9.2	5.2	9.2	5.2	9.2	5.2	9.2	5.4	5.4	5.4	9.5	9.5	9.5	5.4	9.5	5.4	9.5
Planned Development crossed by ROW		Acres	10%	9.0	12.9	7.0	11.0	7.6	11.5	6.6	10.5	7.1	11.1	8.3	12.3	8.4	9.0	10.2	12.4	13.0	14.1	13.6	17.5	24.5	18.9
Number of Unique Landowners crossed by ROW		Count	15%	14	12	11	9	9	7	11	9	9	7	8	6	14	12	11	12	10	9	10	8	10	8
New ROW easement required		Acres	15%	16.8	23.9	14.9	22.0	14.9	22.1	15.6	22.8	15.6	22.8	15.8	22.9	19.2	19.2	19.4	26.4	26.4	26.5	20.1	27.2	31.0	28.6
	Category Weighted Score		**40%**																						
Engineering																									
Route Length, Linear Feet		Linear Feet	15%	7,445	10,990	6,585	10,130	6,610	10,155	7,103	10,648	7,128	10,673	7,210	10,755	9,255	9,280	9,362	12,800	12,825	12,907	9,778	13,323	13,575	12,966
Highway or Road Crossings, 25% total criteria weight	Number of I-71/75 crossings (weighted 66%)	Count	16.5%	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Number of Highway or Road Crossings, not including I-71/75	Count	8.5%	4	3	4	3	3	2	4	3	3	2	4	3	4	3	4	3	2	3	5	4	4	3
Number of Turn Angles, 25% total criteria weight	Between 3 and 30 degrees (weighted 34%)	Count	8.5%	5	6	2	3	2	3	4	5	3	4	3	4	4	3	3	5	4	4	5	6	5	4
	Greater than 30 degrees (weighted 66%)	Count	16.5%	6	9	6	9	6	9	4	7	6	9	4	7	5	7	7	8	10	10	5	8	9	12
Underground Utilities (sewer, water), 25% total criteria	Underground Utility 20 foot buffer within ROW (weighted 66%)	Acres	16.5%	2.44	2.62	1.00	1.18	1.02	1.20	0.31	0.49	0.33	0.52	0.32	0.50	0.74	0.76	0.74	0.92	0.94	0.92	0.62	0.80	0.65	0.83
	Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	Acres	8.5%	3.02	3.33	1.38	1.69	1.55	1.86	0.65	0.96	0.82	1.13	0.73	1.04	1.70	1.87	1.78	2.01	2.18	2.09	1.21	1.52	0.97	1.28
Percent of route less than the standard ROW width available (not including Road crossings)		Percent	10%	6%	8%	5%	7%	0%	4%	5%	7%	0%	4%	0%	4%	7%	3%	3%	8%	6%	6%	1%	4%	1%	4%
	Category Weighted Score		**40%**																						

Appendix B. Quantitative Evaluation

Normalized Data Results - A and B Tap Alternative Routes

Turfway Reliability Project

			Alternative Route Normalized Score																					
Ecological and Cultural		**Weight**	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK
Number of Streams Crossed by ROW (NHD)		15%	0.30	0.10	0.10	0.10	0.20	0.10	0.10	0.10	0.20	0.10	0.20	0.30	0.10	0.10	0.10	0.20	0.10	0.10	0.10	0.20	0.10	0.20
NWI Wetland Crossed by ROW		17.5%	0.17	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.18	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
FEMA Floodplain Zone, Crossed by ROW		17.5%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forested Lands Crossed by ROW		20%	0.08	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.07	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01
Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		15%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Known Archaeological Sites within 500 feet of ROW		15%	0.73	0.17	0.33	0.37	0.37	0.26	0.41	0.46	0.46	0.80	0.80	0.73	0.17	0.33	0.37	0.37	0.26	0.41	0.46	0.46	0.80	0.80
Land Use																								
Single-Family Residences, 25% total criteria weight	Single-Family Residences within 50 ft of ROW (weighted 60%)	15%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	7.5%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	2.5%	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Multi-Family Residences, 20% total criteria weight	Multi-Family Residences within 50 ft of ROW (weighted 60%)	12%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	6%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	2%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial and Office Zoning designation crossed by ROW		10%	0.25	0.31	0.36	0.46	0.42	0.38	0.35	0.44	0.40	0.49	0.45	0.31	0.25	0.30	0.40	0.36	0.32	0.29	0.38	0.35	0.43	0.39
Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		5%	0.77	0.59	0.51	0.20	0.30	0.59	0.51	0.20	0.30	0.20	0.30	0.77	0.59	0.51	0.20	0.30	0.59	0.51	0.20	0.30	0.20	0.30
Planned Development crossed by ROW		10%	0.14	0.21	0.36	0.35	0.35	0.33	0.46	0.45	0.45	0.49	0.50	0.21	0.21	0.35	0.34	0.35	0.32	0.45	0.44	0.44	0.49	0.49
Number of Unique Landowners crossed by ROW		15%	0.95	0.81	0.71	0.81	0.81	0.90	0.67	0.76	0.76	0.86	0.86	1.00	0.81	0.71	0.81	0.81	0.90	0.67	0.76	0.76	0.86	0.86
New ROW easement required		15%	0.42	0.42	0.43	0.41	0.41	0.47	0.42	0.39	0.40	0.43	0.43	0.47	0.37	0.39	0.36	0.37	0.42	0.37	0.35	0.35	0.39	0.39
Engineering																								
Route Length, Linear Feet		15%	0.50	0.53	0.55	0.53	0.54	0.60	0.53	0.52	0.52	0.53	0.53	0.56	0.46	0.48	0.47	0.48	0.53	0.46	0.45	0.46	0.46	0.47
Highway or Road Crossings, 25% total criteria weight	Number of I-71/75 crossings (weighted 66%)	16.5%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Number of Highway or Road Crossings, not including I-71/75	8.5%	0.56	0.44	0.56	0.78	0.78	0.67	0.56	0.78	0.78	1.00	1.00	0.56	0.44	0.56	0.78	0.78	0.67	0.56	0.78	0.78	1.00	1.00
Number of Turn Angles, 25% total criteria weight	Between 3 and 30 degrees (weighted 34%)	8.5%	0.43	0.71	0.57	0.36	0.64	1.00	0.79	0.57	0.86	0.50	0.79	0.50	0.57	0.43	0.21	0.50	0.86	0.64	0.43	0.71	0.36	0.64
	Greater than 30 degrees (weighted 66%)	16.5%	0.42	0.92	0.75	0.75	0.67	0.92	0.75	0.75	0.67	0.75	0.67	0.58	0.75	0.58	0.58	0.50	0.75	0.58	0.58	0.50	0.58	0.50
Underground Utilities (sewer, water), 25% total criteria	Underground Utility 20 foot buffer within ROW (weighted 66%)	16.5%	0.81	0.84	0.66	0.68	0.68	1.00	0.61	0.63	0.64	0.74	0.75	0.83	0.78	0.60	0.62	0.63	0.94	0.55	0.57	0.58	0.68	0.69
	Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	8.5%	0.75	0.82	0.78	0.82	0.77	1.00	0.68	0.72	0.68	0.83	0.79	0.82	0.71	0.66	0.70	0.66	0.88	0.57	0.60	0.56	0.71	0.67
Percent of route less than the standard ROW width available (not including Road crossings)		10%	0.51	0.38	0.14	0.17	0.35	0.34	0.14	0.17	0.36	0.20	0.39	0.32	0.27	0.00	0.03	0.24	0.24	0.00	0.03	0.25	0.07	0.28

Appendix B. Quantitative Evaluation

Normalized Data Results - C and D Tap Alternative Routes

Turfway Reliability Project

			Alternative Route Normalized Score															
Ecological and Cultural		**Weight**	CA	CB	CC	CD	CE	CF	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ
Number of Streams Crossed by ROW (NHD)		15%	0.00	0.00	0.00	0.00	0.00	0.10	0.30	0.60	0.20	0.50	0.20	0.50	0.30	0.60	0.20	0.50
NWI Wetland Crossed by ROW		17.5%	1.00	0.00	1.00	0.00	0.00	0.00	0.96	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEMA Floodplain Zone, Crossed by ROW		17.5%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forested Lands Crossed by ROW		20%	0.02	0.02	0.02	0.02	0.00	0.00	0.31	0.74	0.26	0.69	0.28	0.71	0.46	0.90	0.51	0.94
Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		15%	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Known Archaeological Sites within 500 feet of ROW		15%	0.85	1.00	0.75	0.74	0.22	0.22	0.00	0.35	0.00	0.35	0.00	0.35	0.00	0.35	0.00	0.35
Land Use																		
Single-Family Residences, 25% total criteria weight	Single-Family Residences within 50 ft of ROW (weighted 60%)	15%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	7.5%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50
	Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	2.5%	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.47	0.18	0.24	0.18	0.24	0.18	0.24	0.18	0.24
Multi-Family Residences, 20% total criteria weight	Multi-Family Residences within 50 ft of ROW (weighted 60%)	12%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	6%	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.76	0.71	0.47	0.71	0.47	0.71	0.47	0.71	0.47
	Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	2%	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Commercial and Office Zoning designation crossed by ROW		10%	0.37	0.34	0.32	0.25	0.24	0.20	0.39	0.57	0.31	0.49	0.31	0.49	0.38	0.57	0.39	0.57
Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		5%	0.59	0.51	0.59	0.51	0.20	0.30	0.55	0.98	0.55	0.98	0.55	0.98	0.55	0.98	0.55	0.98
Planned Development crossed by ROW		10%	0.37	0.50	0.32	0.41	0.30	0.30	0.34	0.50	0.27	0.43	0.29	0.45	0.29	0.45	0.36	0.52
Number of Unique Landowners crossed by ROW		15%	1.00	0.76	1.00	0.71	0.62	0.62	0.62	0.52	0.48	0.38	0.38	0.29	0.52	0.43	0.43	0.33
New ROW easement required		15%	0.46	0.41	0.43	0.35	0.24	0.24	0.53	0.76	0.46	0.70	0.47	0.70	0.52	0.75	0.53	0.76
Engineering																		
Route Length, Linear Feet		15%	0.54	0.47	0.53	0.41	0.29	0.29	0.53	0.79	0.47	0.73	0.47	0.73	0.54	0.80	0.55	0.81
Highway or Road Crossings, 25% total criteria weight	Number of I-71/75 crossings (weighted 66%)	16.5%	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Number of Highway or Road Crossings, not including I-71/75	8.5%	0.89	0.78	0.67	0.56	0.78	0.78	0.44	0.33	0.44	0.33	0.33	0.22	0.44	0.33	0.44	0.33
Number of Turn Angles, 25% total criteria weight	Between 3 and 30 degrees (weighted 34%)	8.5%	0.64	0.43	0.57	0.36	0.14	0.43	0.29	0.36	0.14	0.21	0.14	0.21	0.21	0.29	0.14	0.21
	Greater than 30 degrees (weighted 66%)	16.5%	0.75	0.58	0.58	0.42	0.25	0.17	0.50	0.75	0.33	0.58	0.33	0.58	0.50	0.75	0.50	0.75
Underground Utilities (sewer, water), 25% total criteria	Underground Utility 20 foot buffer within ROW (weighted 66%)	16.5%	0.96	0.58	0.81	0.40	0.41	0.42	0.76	0.82	0.23	0.30	0.24	0.30	0.25	0.32	0.25	0.32
	Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	8.5%	0.89	0.58	0.83	0.45	0.46	0.42	0.50	0.56	0.19	0.25	0.22	0.28	0.21	0.27	0.22	0.28
Percent of route less than the standard ROW width available (not including Road crossings)		10%	0.53	0.34	0.58	0.43	0.67	1.00	0.22	0.28	0.18	0.26	0.00	0.14	0.17	0.25	0.01	0.14

Appendix B. Quantitative Evaluation

Normalized Data Results - E and F Tap Alternative Routes

Turfway Reliability Project

			Alternative Route Normalized Score																					
Ecological and Cultural		**Weight**	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	FA	FB	FC	FD	FE	FF	FG	FH	FI	F
Number of Streams Crossed by ROW (NHD)		15%	0.30	0.60	0.20	0.50	0.20	0.50	0.30	0.60	0.30	0.60	0.20	0.50	0.40	0.40	0.30	0.70	0.70	0.60	0.50	0.80	1.00	0.70
NWI Wetland Crossed by ROW		17.5%	0.96	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEMA Floodplain Zone, Crossed by ROW		17.5%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.38	0.38	0.38	0.38	0.38	1.00	1.00	0.38	0.38
Forested Lands Crossed by ROW		20%	0.33	0.76	0.28	0.71	0.30	0.73	0.42	0.86	0.44	0.88	0.47	0.91	0.34	0.36	0.39	0.78	0.80	0.82	0.51	0.95	1.00	0.87
Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		15%	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Known Archaeological Sites within 500 feet of ROW		15%	0.00	0.35	0.00	0.35	0.00	0.35	0.00	0.35	0.00	0.35	0.00	0.35	0.00	0.00	0.00	0.35	0.35	0.35	0.00	0.35	0.00	0.35
Land Use																								
Single-Family Residences, 25% total criteria weight	Single-Family Residences within 50 ft of ROW (weighted 60%)	15%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	7.5%	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50	0.25	0.25	0.25	0.75	0.75	0.75	0.25	0.75	0.25	1.00
	Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	2.5%	0.29	0.35	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.06	0.06	0.06	0.00	0.06	1.00	0.94
Multi-Family Residences, 20% total criteria weight	Multi-Family Residences within 50 ft of ROW (weighted 60%)	12%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	6%	1.00	0.76	0.71	0.47	0.71	0.47	0.71	0.47	0.71	0.47	0.71	0.47	0.71	0.71	0.71	0.47	0.47	0.47	0.71	0.47	0.24	0.00
	Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	2%	0.24	0.24	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	1.00	0.27
Commercial and Office Zoning designation crossed by ROW		10%	0.41	0.59	0.33	0.51	0.33	0.51	0.36	0.54	0.36	0.54	0.36	0.55	0.50	0.50	0.51	0.69	0.69	0.69	0.53	0.72	1.00	0.78
Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		5%	0.55	0.98	0.55	0.98	0.55	0.98	0.55	0.98	0.55	0.98	0.55	0.98	0.57	0.57	0.57	1.00	1.00	1.00	0.57	1.00	0.57	1.00
Planned Development crossed by ROW		10%	0.37	0.53	0.29	0.45	0.31	0.47	0.27	0.43	0.29	0.45	0.34	0.50	0.34	0.37	0.42	0.50	0.53	0.58	0.55	0.71	1.00	0.77
Number of Unique Landowners crossed by ROW		15%	0.67	0.57	0.52	0.43	0.43	0.33	0.52	0.43	0.43	0.33	0.38	0.29	0.67	0.57	0.52	0.57	0.48	0.43	0.48	0.38	0.48	0.38
New ROW easement required		15%	0.54	0.77	0.48	0.71	0.48	0.71	0.50	0.74	0.51	0.74	0.51	0.74	0.62	0.62	0.63	0.85	0.85	0.86	0.65	0.88	1.00	0.92
Engineering																								
Route Length, Linear Feet		15%	0.55	0.81	0.49	0.75	0.49	0.75	0.52	0.78	0.53	0.79	0.53	0.79	0.68	0.68	0.69	0.94	0.94	0.95	0.72	0.98	1.00	0.96
Highway or Road Crossings, 25% total criteria weight	Number of I-71/75 crossings (weighted 66%)	16.5%	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Number of Highway or Road Crossings, not including I-71/75	8.5%	0.44	0.33	0.44	0.33	0.33	0.22	0.44	0.33	0.33	0.22	0.44	0.33	0.44	0.33	0.44	0.33	0.22	0.33	0.56	0.44	0.44	0.33
Number of Turn Angles, 25% total criteria weight	Between 3 and 30 degrees (weighted 34%)	8.5%	0.36	0.43	0.14	0.21	0.14	0.21	0.29	0.36	0.21	0.29	0.21	0.29	0.29	0.21	0.21	0.36	0.29	0.29	0.36	0.43	0.36	0.29
	Greater than 30 degrees (weighted 66%)	16.5%	0.50	0.75	0.50	0.75	0.50	0.75	0.33	0.58	0.50	0.75	0.33	0.58	0.42	0.58	0.58	0.67	0.83	0.83	0.42	0.67	0.75	1.00
Underground Utilities (sewer, water), 25% total criteria	Underground Utility 20 foot buffer within ROW (weighted 66%)	16.5%	0.90	0.97	0.37	0.44	0.38	0.44	0.12	0.18	0.12	0.19	0.12	0.18	0.27	0.28	0.28	0.34	0.35	0.34	0.23	0.30	0.24	0.31
	Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	8.5%	0.59	0.65	0.27	0.33	0.30	0.36	0.13	0.19	0.16	0.22	0.14	0.20	0.33	0.36	0.35	0.39	0.42	0.41	0.23	0.29	0.19	0.25
Percent of route less than the standard ROW width available (not including Road crossings)		10%	0.21	0.27	0.18	0.25	0.00	0.14	0.18	0.25	0.01	0.14	0.01	0.14	0.24	0.11	0.11	0.28	0.19	0.19	0.05	0.14	0.03	0.14

Appendix B. Quantitative Evaluation
Weighted Score Results - A and B Tap Alternative Routes
Turfway Reliability Project

				Alternative Route Weighted Score Results																				
Ecological and Cultural		**Unit**	**Weight**	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK
Number of Streams Crossed by ROW (NHD)		Count	15%	4.5	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	3.0	4.5	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	3.0
NWI Wetland Crossed by ROW		Acres	17.5%	2.9	17.5	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	3.1	17.5	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0
FEMA Floodplain Zone, Crossed by ROW		Acres	17.5%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Forested Lands Crossed by ROW		Acres	20%	1.5	0.3	0.3	0.1	0.1	0.3	0.3	0.1	0.1	0.3	0.3	1.5	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2
Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		Count	15%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Known Archaeological Sites within 500 feet of ROW		Acres	15%	10.9	2.6	4.9	5.6	5.6	3.9	6.2	6.9	6.9	12.1	12.0	10.9	2.6	4.9	5.6	5.6	3.9	6.2	6.9	6.9	12.1	12.0
		Ecological and Cultural Cumulative Score		19.9	21.9	6.7	7.2	8.7	23.2	8.0	8.5	10.0	13.8	15.3	20.0	21.8	6.6	7.2	8.7	23.1	7.9	8.5	10.0	13.7	15.2
		Ecological and Cultural Category Weighted Score		4.0	4.4	1.3	1.4	1.7	4.6	1.6	1.7	2.0	2.8	3.1	4.0	4.4	1.3	1.4	1.7	4.6	1.6	1.7	2.0	2.7	3.0
Land Use																									
	Single-Family Residences within 50 ft of ROW (weighted 60%)	Count	15%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Family Residences,	Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	7.5%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25% total criteria weight	Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2.5%	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	Multi-Family Residences within 50 ft of ROW (weighted 60%)	Count	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Multi-Family Residences, 20%	Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	6%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total criteria weight	Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial and Office Zoning designation crossed by ROW		Acres	10%	2.5	3.1	3.6	4.6	4.2	3.8	3.5	4.4	4.0	4.9	4.5	3.1	2.5	3.0	4.0	3.6	3.2	2.9	3.8	3.5	4.3	3.9
Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		Acres	5%	3.9	3.0	2.6	1.0	1.5	3.0	2.6	1.0	1.5	1.0	1.5	3.9	3.0	2.6	1.0	1.5	3.0	2.6	1.0	1.5	1.0	1.5
Planned Development crossed by ROW		Acres	10%	1.4	2.1	3.6	3.5	3.5	3.3	4.6	4.5	4.5	4.9	5.0	2.1	2.1	3.5	3.4	3.5	3.2	4.5	4.4	4.4	4.9	4.9
Number of Unique Landowners crossed by ROW		Count	15%	14.3	12.1	10.7	12.1	12.1	13.6	10.0	11.4	11.4	12.9	12.9	15.0	12.1	10.7	12.1	12.1	13.6	10.0	11.4	11.4	12.9	12.9
New ROW easement required		Acres	15%	6.4	6.3	6.5	6.1	6.2	7.0	6.3	5.9	6.0	6.4	6.5	7.0	5.6	5.8	5.4	5.5	6.3	5.6	5.2	5.3	5.8	5.9
		Land Use Cumulative Score		28.8	27.1	27.4	27.7	28.0	31.0	27.3	27.7	27.9	30.6	30.8	31.5	25.8	26.1	26.4	26.7	29.7	26.0	26.4	26.6	29.2	29.5
		Land Use Category Weighted Score		11.5	10.8	11.0	11.1	11.2	12.4	10.9	11.1	11.2	12.2	12.3	12.6	10.3	10.4	10.6	10.7	11.9	10.4	10.5	10.6	11.7	11.8
Engineering																									
Route Length, Linear Feet		Linear Feet	15%	7.5	7.9	8.2	8.0	8.1	9.0	7.9	7.8	7.9	7.9	8.0	8.4	6.9	7.2	7.1	7.2	8.0	7.0	6.8	6.9	7.0	7.0
Highway or Road Crossings,	Number of I-71/75 crossings (weighted 66%)	Count	16.5%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25% total criteria weight	Number of Highway or Road Crossings, not including I-71/75	Count	8.5%	4.7	3.8	4.7	6.6	6.6	5.7	4.7	6.6	6.6	8.5	8.5	4.7	3.8	4.7	6.6	6.6	5.7	4.7	6.6	6.6	8.5	8.5
Number of Turn Angles, 25%	Between 3 and 30 degrees (weighted 34%)	Count	8.5%	3.6	6.1	4.9	3.0	5.5	8.5	6.7	4.9	7.3	4.3	6.7	4.3	4.9	3.6	1.8	4.3	7.3	5.5	3.6	6.1	3.0	5.5
total criteria weight	Greater than 30 degrees (weighted 66%)	Count	16.5%	6.9	15.1	12.4	12.4	11.0	15.1	12.4	12.4	11.0	12.4	11.0	9.6	12.4	9.6	9.6	8.3	12.4	9.6	9.6	8.3	9.6	8.3
Underground Utilities (sewer,	Underground Utility 20 foot buffer within ROW (weighted 66%)	Acres	16.5%	13.4	13.8	10.9	11.2	11.3	16.5	10.1	10.4	10.6	12.2	12.3	13.7	12.8	9.9	10.2	10.3	15.5	9.1	9.4	9.6	11.2	11.4
water), 25% total criteria	Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	Acres	8.5%	6.4	7.0	6.6	6.9	6.6	8.5	5.8	6.1	5.8	7.0	6.7	7.0	6.0	5.6	5.9	5.6	7.5	4.8	5.1	4.8	6.0	5.7
Percent of route less than the standard ROW width available (not including Road crossings)		Percent	10%	5.1	3.8	1.4	1.7	3.5	3.4	1.4	1.7	3.6	2.0	3.9	3.2	2.7	0.0	0.3	2.4	2.4	0.0	0.3	2.5	0.7	2.8
		Engineering Total Score		47.6	57.5	49.0	49.8	52.6	66.6	49.1	49.9	52.7	54.3	57.1	50.9	49.5	40.7	41.5	44.5	58.7	40.7	41.5	44.6	46.1	49.1
		Engineering Category Weighted Score		19.0	23.0	19.6	19.9	21.0	26.7	19.6	19.9	21.1	21.7	22.8	20.4	19.8	16.3	16.6	17.8	23.5	16.3	16.6	17.9	18.4	19.6

Total Quantitative Score by Route

	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK
Total Score	34.55	38.22	31.90	32.46	33.97	43.71	32.16	32.73	34.26	36.71	38.23	36.95	34.47	28.04	28.60	30.21	40.00	28.29	28.85	30.49	32.87	34.49
Rank	29	32	16	21	25	46	18	22	26	30	33	31	27	5	7	11	39	6	8	13	23	28

Appendix B. Quantitative Evaluation
Weighted Score Results - C and D Tap Alternative Routes
Turfway Reliability Project

				Alternative Route Weighted Score															
Ecological and Cultural		**Unit**	**Weight**	CA	CB	CC	CD	CE	CF	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ
Number of Streams Crossed by ROW (NHD)		Count	15%	0.0	0.0	0.0	0.0	0.0	1.5	4.5	9.0	3.0	7.5	3.0	7.5	4.5	9.0	3.0	7.5
NWI Wetland Crossed by ROW		Acres	17.5%	17.5	0.0	17.5	0.0	0.0	0.0	16.7	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FEMA Floodplain Zone, Crossed by ROW		Acres	17.5%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Forested Lands Crossed by ROW		Acres	20%	0.5	0.5	0.3	0.3	0.0	0.0	6.1	14.8	5.1	13.8	5.5	14.2	9.3	18.0	10.2	18.9
Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		Count	15%	0.0	0.0	0.0	0.0	0.0	0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Known Archaeological Sites within 500 feet of ROW		Acres	15%	12.7	15.0	11.3	11.1	3.3	3.3	0.0	5.2	0.0	5.2	0.0	5.2	0.0	5.2	0.0	5.2
			Ecological and Cultural Cumulative Score	30.7	15.5	29.2	11.4	3.4	4.9	42.4	60.7	8.1	26.5	8.5	26.9	13.8	32.1	13.2	31.6
			Ecological and Cultural Category Weighted Score	6.1	3.1	5.8	2.3	0.7	1.0	8.5	12.1	1.6	5.3	1.7	5.4	2.8	6.4	2.6	6.3
Land Use																			
	Single-Family Residences within 50 ft of ROW (weighted 60%)	Count	15%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Family Residences,	Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	7.5%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8
25% total criteria weight	Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2.5%	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.2	0.4	0.6	0.4	0.6	0.4	0.6	0.4	0.6
	Multi-Family Residences within 50 ft of ROW (weighted 60%)	Count	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Multi-Family Residences, 20%	Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	6%	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.5	4.3	2.8	4.3	2.8	4.3	2.8	4.3	2.8
total criteria weight	Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2%	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Commercial and Office Zoning designation crossed by ROW		Acres	10%	3.7	3.4	3.2	2.5	2.4	2.0	3.9	5.7	3.1	4.9	3.1	4.9	3.8	5.7	3.9	5.7
Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		Acres	5%	3.0	2.6	3.0	2.6	1.0	1.5	2.7	4.9	2.7	4.9	2.7	4.9	2.7	4.9	2.7	4.9
Planned Development crossed by ROW		Acres	10%	3.7	5.0	3.2	4.1	3.0	3.0	3.4	5.0	2.7	4.3	2.9	4.5	2.9	4.5	3.6	5.2
Number of Unique Landowners crossed by ROW		Count	15%	15.0	11.4	15.0	10.7	9.3	9.3	9.3	7.9	7.1	5.7	5.7	4.3	7.9	6.4	6.4	5.0
New ROW easement required		Acres	15%	6.9	6.2	6.4	5.2	3.6	3.7	7.9	11.3	7.0	10.4	7.0	10.4	7.8	11.3	7.9	11.4
			Land Use Cumulative Score	32.2	28.5	30.8	25.1	19.3	19.5	34.7	44.8	27.8	37.9	26.7	36.7	30.4	40.5	29.8	39.9
			Land Use Category Weighted Score	12.9	11.4	12.3	10.0	7.7	7.8	13.9	17.9	11.1	15.2	10.7	14.7	12.2	16.2	11.9	16.0
Engineering																			
Route Length, Linear Feet		Linear Feet	15%	8.1	7.1	7.9	6.2	4.3	4.4	8.0	11.9	7.0	10.9	7.1	11.0	8.1	12.0	8.2	12.2
Highway or Road Crossings,	Number of I-71/75 crossings (weighted 66%)	Count	16.5%	0.0	0.0	0.0	0.0	0.0	0.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
25% total criteria weight	Number of Highway or Road Crossings, not including I-71/75	Count	8.5%	7.6	6.6	5.7	4.7	6.6	6.6	3.8	2.8	3.8	2.8	2.8	1.9	3.8	2.8	3.8	2.8
Number of Turn Angles, 25%	Between 3 and 30 degrees (weighted 34%)	Count	8.5%	5.5	3.6	4.9	3.0	1.2	3.6	2.4	3.0	1.2	1.8	1.2	1.8	1.8	2.4	1.2	1.8
total criteria weight	Greater than 30 degrees (weighted 66%)	Count	16.5%	12.4	9.6	9.6	6.9	4.1	2.8	8.3	12.4	5.5	9.6	5.5	9.6	8.3	12.4	8.3	12.4
Underground Utilities (sewer,	Underground Utility 20 foot buffer within ROW (weighted 66%)	Acres	16.5%	15.9	9.5	13.3	6.6	6.8	6.9	12.5	13.6	3.8	4.9	3.9	5.0	4.1	5.2	4.1	5.2
water), 25% total criteria	Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	Acres	8.5%	7.6	4.9	7.1	3.8	3.9	3.5	4.3	4.8	1.6	2.1	1.9	2.4	1.8	2.3	1.9	2.4
Percent of route less than the standard ROW width available (not including Road crossings)		Percent	10%	5.3	3.4	5.8	4.3	6.7	10.0	2.2	2.8	1.8	2.6	0.0	1.4	1.7	2.5	0.1	1.4
			Engineering Total Score	62.3	44.7	54.2	35.6	33.6	37.9	57.9	67.8	41.3	51.3	38.9	49.6	46.1	56.1	44.2	54.7
			Engineering Category Weighted Score	24.9	17.9	21.7	14.2	13.5	15.1	23.2	27.1	16.5	20.5	15.5	19.8	18.4	22.4	17.7	21.9

Total Quantitative Score by Route

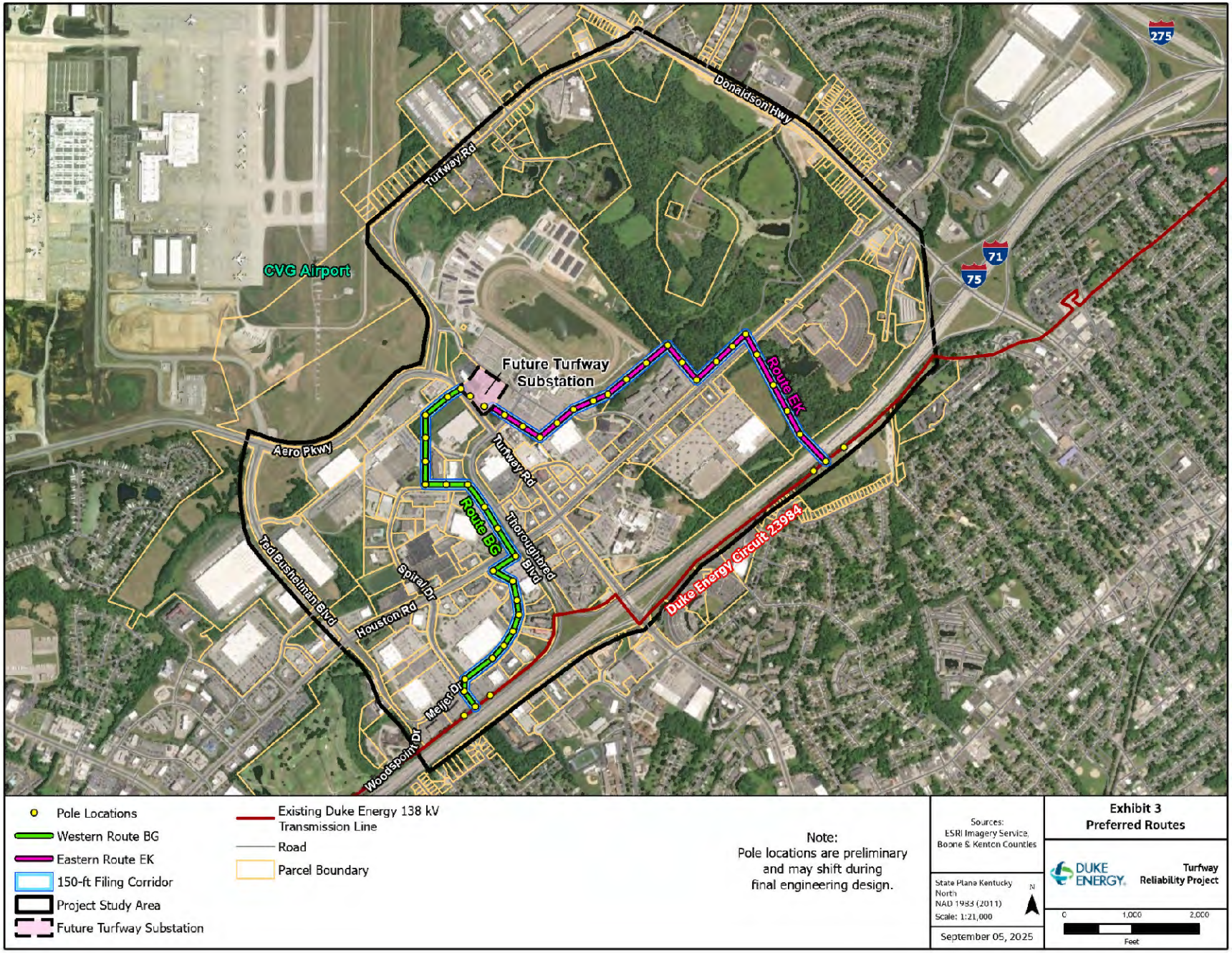
	CA	CB	CC	CD	CE	CF	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ
Total Score	43.92	32.39	39.86	26.56	21.83	23.92	45.53	57.19	29.25	40.98	27.91	39.91	33.35	45.06	32.23	44.15
Rank	48	20	37	3	1	2	51	59	10	40	4	38	24	50	19	49

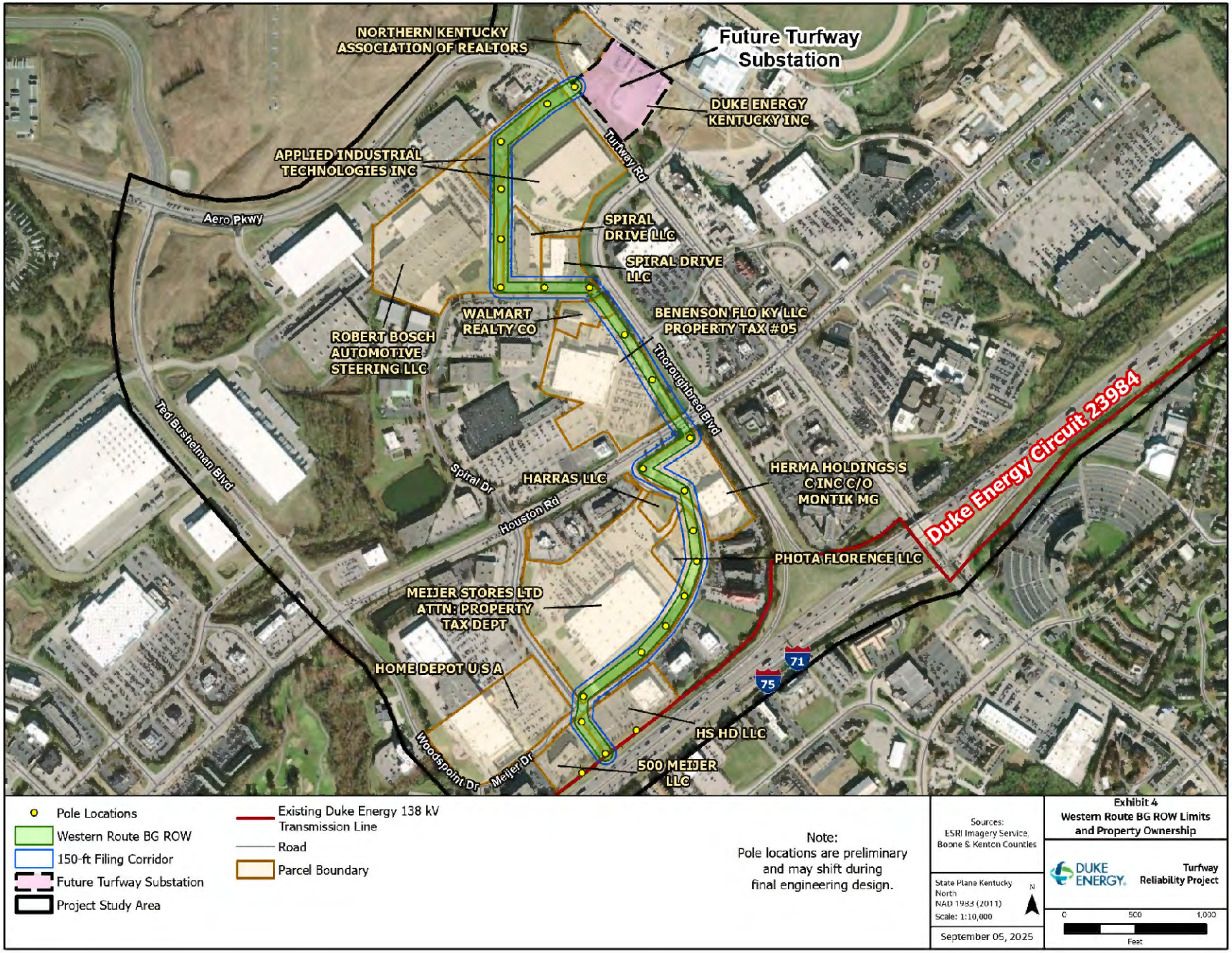
Appendix B. Quantitative Evaluation
Weighted Score Results - E and F Tap Alternative Routes
Turfway Reliability Project

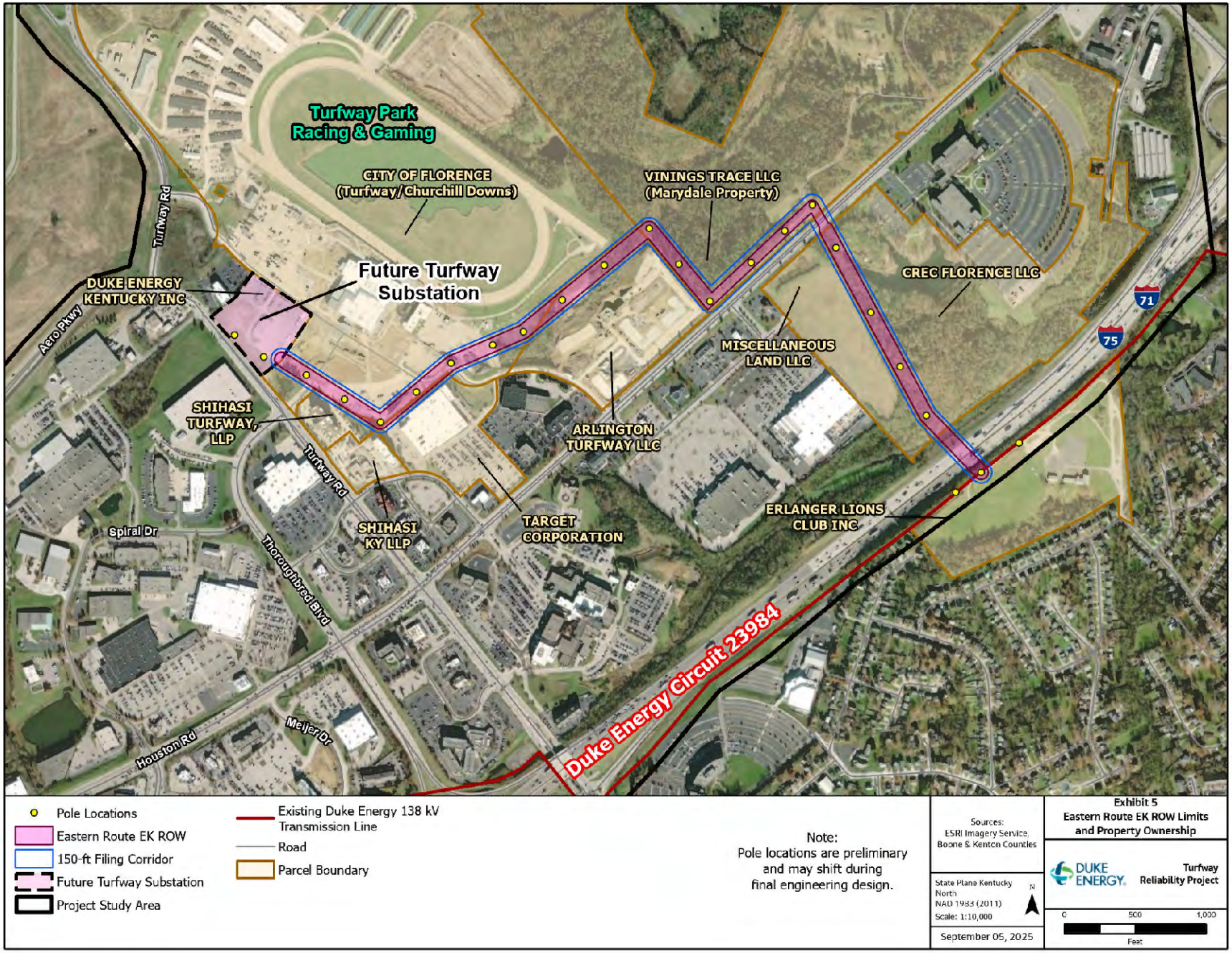
				Alternative Route Weighted Score																				
Ecological and Cultural		**Unit**	**Weight**	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ
Number of Streams Crossed by ROW (NHD)		Count	15%	4.5	9.0	3.0	7.5	3.0	7.5	4.5	9.0	4.5	9.0	3.0	7.5	6.0	6.0	4.5	10.5	10.5	9.0	7.5	12.0	15.0	10.5
NWI Wetland Crossed by ROW		Acres	17.5%	16.7	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FEMA Floodplain Zone, Crossed by ROW		Acres	17.5%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	6.6	6.6	6.6	6.6	6.6	17.5	17.5	6.6	6.6
Forested Lands Crossed by ROW		Acres	20%	6.6	15.3	5.5	14.2	6.0	14.6	8.5	17.2	8.9	17.6	9.4	18.1	6.8	7.3	7.8	15.5	15.9	16.4	10.2	18.9	20.0	17.4
Historic Resources (eligible for NRHP-listing) within 500 feet of ROW		Count	15%	15.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Known Archaeological Sites within 500 feet of ROW		Acres	15%	0.0	5.2	0.0	5.2	0.0	5.2	0.0	5.2	0.0	5.2	0.0	5.2	0.0	0.0	0.0	5.2	5.2	5.2	0.0	5.2	0.0	5.2
			Ecological and Cultural Cumulative Score	42.8	61.2	8.5	26.9	9.0	27.3	13.0	31.4	13.4	31.8	12.4	30.8	19.4	19.8	18.8	37.8	38.2	37.2	35.2	53.6	41.6	39.7
			Ecological and Cultural Category Weighted Score	8.6	12.2	1.7	5.4	1.8	5.5	2.6	6.3	2.7	6.4	2.5	6.2	3.9	4.0	3.8	7.6	7.6	7.4	7.0	10.7	8.3	7.9
Land Use																									
	Single-Family Residences within 50 ft of ROW (weighted 60%)	Count	15%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Family Residences,	Single-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	7.5%	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	1.9	1.9	1.9	5.6	5.6	5.6	1.9	5.6	1.9	7.5
25% total criteria weight	Single-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2.5%	0.7	0.9	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	2.5	2.4
	Multi-Family Residences within 50 ft of ROW (weighted 60%)	Count	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Multi-Family Residences, 20%	Multi-Family Residences 50 to 200 ft away from ROW (weighted 30%)	Count	6%	6.0	4.5	4.3	2.8	4.3	2.8	4.3	2.8	4.3	2.8	4.3	2.8	4.3	4.3	4.3	2.8	2.8	2.8	4.3	2.8	1.5	0.0
total criteria weight	Multi-Family Residences 200 to 500 ft away from ROW (weighted 10%)	Count	2%	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.0	0.5
Commercial and Office Zoning designation crossed by ROW		Acres	10%	4.1	5.9	3.3	5.1	3.3	5.1	3.6	5.4	3.6	5.4	3.6	5.5	5.0	5.0	5.1	6.9	6.9	6.9	5.3	7.2	10.0	7.8
Recreation, Public Facilities, Industrial, and Airport Zoning designation crossed by ROW		Acres	5%	2.8	4.9	2.8	4.9	2.8	4.9	2.8	4.9	2.8	4.9	2.8	4.9	2.9	2.9	2.9	5.0	5.0	5.0	2.9	5.0	2.9	5.0
Planned Development crossed by ROW		Acres	10%	3.7	5.3	2.9	4.5	3.1	4.7	2.7	4.3	2.9	4.5	3.4	5.0	3.4	3.7	4.2	5.0	5.3	5.8	5.5	7.1	10.0	7.7
Number of Unique Landowners crossed by ROW		Count	15%	10.0	8.6	7.9	6.4	6.4	5.0	7.9	6.4	6.4	5.0	5.7	4.3	10.0	8.6	7.9	8.6	7.1	6.4	7.1	5.7	7.1	5.7
New ROW easement required		Acres	15%	8.1	11.6	7.2	10.7	7.2	10.7	7.6	11.0	7.6	11.0	7.6	11.1	9.3	9.3	9.4	12.8	12.8	12.8	9.7	13.2	15.0	13.8
			Land Use Cumulative Score	35.8	45.9	28.8	38.8	27.6	37.7	29.3	39.3	28.1	38.2	28.0	38.0	37.9	36.7	36.6	47.9	46.8	46.6	37.8	47.9	52.8	50.5
			Land Use Category Weighted Score	14.3	18.4	11.5	15.5	11.0	15.1	11.7	15.7	11.2	15.3	11.2	15.2	15.1	14.7	14.6	19.2	18.7	18.7	15.1	19.2	21.1	20.2
Engineering																									
Route Length, Linear Feet		Linear Feet	15%	8.2	12.1	7.3	11.2	7.3	11.2	7.8	11.8	7.9	11.8	8.0	11.9	10.2	10.3	10.3	14.1	14.2	14.3	10.8	14.7	15.0	14.3
Highway or Road Crossings,	Number of I-71/75 crossings (weighted 66%)	Count	16.5%	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
25% total criteria weight	Number of Highway or Road Crossings, not including I-71/75	Count	8.5%	3.8	2.8	3.8	2.8	2.8	1.9	3.8	2.8	2.8	1.9	3.8	2.8	3.8	2.8	3.8	2.8	1.9	2.8	4.7	3.8	3.8	2.8
Number of Turn Angles, 25%	Between 3 and 30 degrees (weighted 34%)	Count	8.5%	3.0	3.6	1.2	1.8	1.2	1.8	2.4	3.0	1.8	2.4	1.8	2.4	2.4	1.8	1.8	3.0	2.4	2.4	3.0	3.6	3.0	2.4
total criteria weight	Greater than 30 degrees (weighted 66%)	Count	16.5%	8.3	12.4	8.3	12.4	8.3	12.4	5.5	9.6	8.3	12.4	5.5	9.6	6.9	9.6	9.6	11.0	13.8	13.8	6.9	11.0	12.4	16.5
Underground Utilities (sewer,	Underground Utility 20 foot buffer within ROW (weighted 66%)	Acres	16.5%	14.9	16.0	6.1	7.2	6.2	7.3	1.9	3.0	2.0	3.2	1.9	3.0	4.5	4.7	4.6	5.6	5.8	5.7	3.8	4.9	4.0	5.1
water), 25% total criteria	Underground Utility 20 foot buffer within 20 feet of ROW (weighted 34%)	Acres	8.5%	5.0	5.5	2.3	2.8	2.6	3.1	1.1	1.6	1.4	1.9	1.2	1.7	2.8	3.1	2.9	3.3	3.6	3.4	2.0	2.5	1.6	2.1
Percent of route less than the standard ROW width available (not including Road crossings)		Percent	10%	2.1	2.7	1.8	2.5	0.0	1.4	1.8	2.5	0.1	1.4	0.1	1.4	2.4	1.1	1.1	2.8	1.9	1.9	0.5	1.4	0.3	1.4
			Engineering Total Score	61.8	71.7	47.2	57.3	44.9	55.6	40.8	50.9	40.8	51.4	38.9	49.4	49.6	49.9	50.7	59.3	60.0	60.8	48.2	58.5	56.6	61.2
			Engineering Category Weighted Score	24.7	28.7	18.9	22.9	18.0	22.2	16.3	20.4	16.3	20.6	15.5	19.8	19.8	20.0	20.3	23.7	24.0	24.3	19.3	23.4	22.6	24.5

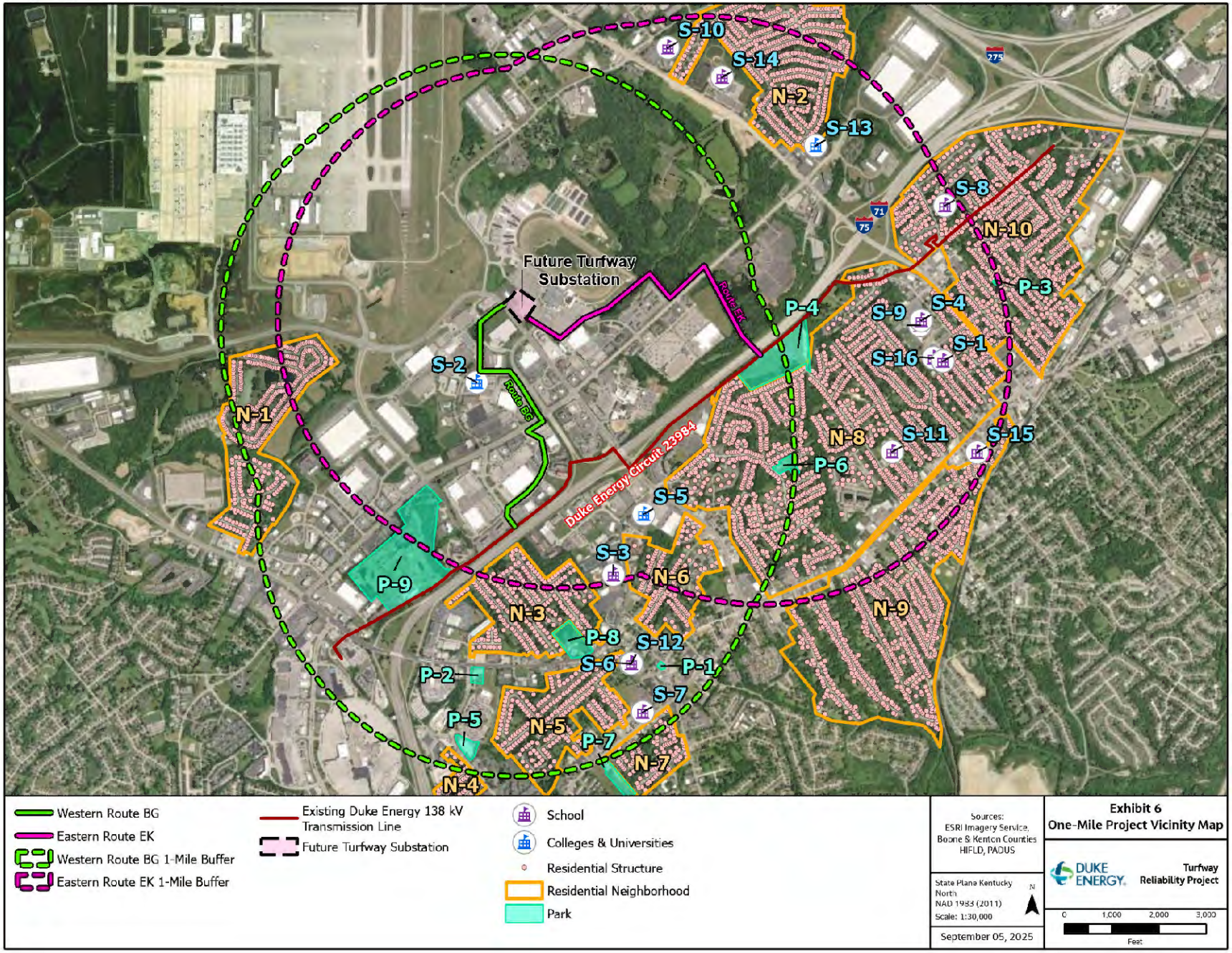
Total Quantitative Score by Route

	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ
Total Score	47.63	59.29	32.09	43.82	30.78	42.76	30.64	42.35	30.24	42.17	29.22	41.15	38.85	38.60	38.66	50.45	50.34	50.40	41.47	53.27	52.09	52.61
Rank	52	60	17	47	15	45	14	44	12	43	9	41	36	34	35	55	53	54	42	58	56	57


CVG Airport
Future Turfway Substation
Route EK
Route BG
Turfway Rd
Donaldson Hwy
Aero Pkwy
Ted Bushelman Blvd
Houston Rd
Spiral Dr
Thoroughbred Blvd
Melpet Dr
Woodspoint Dr
Duke Energy Circuit 23984
275
71
75
Pole Locations
Western Route BG
Eastern Route EK
150-ft Filing Corridor
Project Study Area
Future Turfway Substation
Existing Duke Energy 138 kV Transmission Line
Road
Parcel Boundary
Note:
Pole locations are preliminary and may shift during final engineering design.
Sources:
ESRI Imagery Service,
Boone & Kenton Counties
State Plane Kentucky North
NAD 1983 (2011)
Scale: 1:21,000
September 05, 2025
Exhibit 3
Preferred Routes
DUKE ENERGY
Turfway Reliability Project
0
1,000
2,000
Feet


NORTHERN KENTUCKY ASSOCIATION OF REALTORS
Future Turfway Substation
DUKE ENERGY KENTUCKY INC
Turfway Rd
APPLIED INDUSTRIAL TECHNOLOGIES INC
Aero Pkwy
SPIRAL DRIVE LLC
SPIRAL DRIVE LLC
WALMART REALTY CO
BENENSON FLO KY LLC PROPERTY TAX #05
ROBERT BOSCH AUTOMOTIVE STEERING LLC
Thoroughbred Blvd
Ted Bushelman Blvd
Spiral Dr
HARRAS LLC
HERMA HOLDINGS S C INC C/O MONTIK MG
Houston Rd
Duke Energy Circuit 23984
PHOTA FLORENCE LLC
MEIJER STORES LTD ATTN: PROPERTY TAX DEPT
71
75
HOME DEPOT U S A
HS HD LLC
Woodspoint Dr
Meijer Dr
500 MEIJER LLC
Pole Locations
Western Route BG ROW
150-ft Filing Corridor
Future Turfway Substation
Project Study Area
Existing Duke Energy 138 kV Transmission Line
Road
Parcel Boundary
Note:
Pole locations are preliminary and may shift during final engineering design.
Sources:
ESRI Imagery Service,
Boone & Kenton Counties
State Plane Kentucky North
NAD 1983 (2011)
Scale: 1:10,000
N
September 05, 2025
Exhibit 4
Western Route BG ROW Limits and Property Ownership
DUKE ENERGY
Turfway Reliability Project
0
500
1,000
Feet


Turfway Park
Racing & Gaming
CITY OF FLORENCE
(Turfway/Churchill Downs)
VININGS TRACE LLC
(Marydale Property)
Future Turfway
Substation
DUKE ENERGY
KENTUCKY INC
CREC FLORENCE LLC
MISCELLANEOUS
LAND LLC
SHIHASI
TURFWAY,
LLP
ARLINGTON
TURFWAY LLC
SHIHASI
KY LLP
TARGET
CORPORATION
ERLANGER LIONS
CLUB INC
Turfway Rd
Aero Pkwy
Spiral Dr
Thoroughbred Blvd
Houston Rd
Meijer Dr
71
75
Duke Energy Circuit 23984
Pole Locations
Eastern Route EK ROW
150-ft Filing Corridor
Future Turfway Substation
Project Study Area
Existing Duke Energy 138 kV
Transmission Line
Road
Parcel Boundary
Note:
Pole locations are preliminary
and may shift during
final engineering design.
Sources:
ESRI Imagery Service,
Boone & Kenton Counties
State Plane Kentucky
North
NAD 1983 (2011)
Scale: 1:10,000
N
September 05, 2025
Exhibit 5
Eastern Route EK ROW Limits
and Property Ownership
DUKE ENERGY
Turfway
Reliability Project
0
500
1,000
Feet


S-10
S-14
N-2
S-13
S-8
N-10
P-3
S-4
S-9
S-1
S-16
P-4
Future Turfway Substation
Route EK
Route BG
S-2
N-1
Duke Energy Circuit 23984
N-8
S-11
S-15
P-6
S-5
S-3
N-6
N-9
P-9
N-3
P-8
S-12
S-6
P-1
P-2
S-7
P-5
N-5
P-7
N-7
N-4
Western Route BG
Eastern Route EK
Western Route BG 1-Mile Buffer
Eastern Route EK 1-Mile Buffer
Existing Duke Energy 138 kV Transmission Line
Future Turfway Substation
School
Colleges & Universities
Residential Structure
Residential Neighborhood
Park
Sources: ESRI Imagery Service, Boone & Kenton Counties HIFLD, PADUS
State Plane Kentucky North NAD 1983 (2011)
Scale: 1:30,000
September 05, 2025
Exhibit 6
One-Mile Project Vicinity Map
DUKE ENERGY
Turfway Reliability Project
0 1,000 2,000 3,000
Feet

CONFIDENTIAL PROPRIETARY TRADE SECRET

CONFIDENTIAL EXHIBIT 7

FILED UNDER SEAL

NOTARIZED PROOF OF PUBLICATION

STATE OF KENTUCKY

COUNTY OF FRANKLIN

Before me, a Notary Public, in and for said County and State, this 22nd day of

Holly, 2025, came Holly Willard personally known to me, who being

duly sworn, states as follows: that she is the Bookkeeping Assistant of the

Kentucky Press Service Inc. and that she has personal knowledge of the contents of this

affidavit; and that the publications included on the attached list published the Legal Notice for

Duke Energy.

Signed Holly Willard

Notary Public Bonnie F. Howard

My commission expires 9-18-2028

KYNP # 14119

KENTUCKY PRESS SERVICE

101 Consumer Lane - Frankfort, KY 40601
(502) 223-8821 FAX (502) 226-3867
Holly Willard
Bookkeeping Assistant
hwillard@kypress.com
www.kypress.com

List of newspapers running the notice for Duke Energy
Attached tearsheets provide proof of publication:

Covington KY Enquirer—7/8
Falmouth Outlook—7/8
LINK nky—7/18
Warsaw Gallatin Co. News—7/9
Williamstown Grant County News—7/10

New law

Continued from Page 1

cate with students, even outside of school.

"It interferes with how I can protect my own children. With this law, I can't legally text my nephew, who I took out of town with my family this week or answer a call from my daughter's best friend, when they're together and her phone dies. There are countless other examples of how this overreaches its intended purpose. It also affects students who need to reach out to their trusted adult for any number of reasons. Many school volunteers are affected and don't even know it."

There's a petition circulating that hopes to draw attention to problems with Senate Bill 181.

The bill was sponsored by Senator Lindsey Tichenor, R-Smithfield,

"SB 181 establishes clear guidelines for electronic communication between school district employees, volunteers, and students, ensuring parental oversight and preventing unauthorized communication that could pose risks to student safety," Tichenor said in a March news release. "This legislation is about putting our children first and ensuring they are protected from inappropriate or unauthorized communication."

There have been several cases in Kentucky where teachers have had illegal sexual contact with students.

Several of those cases began when teachers communicated with students privately, via text or phone calls.

One instance involved a Central Kentucky teacher who was accused of sexually inappropriate behavior toward students in Paris Independent School District and Jessamine County schools. The teacher texted or called a female student 1,753 times over a year, Education Professional Standards Board records show.

In a recent question and answer bulletin about the new communication restrictions, the Kentucky School Boards Association said: "The spirit of the bill is one we can all agree on: protecting students, encouraging more parental involvement and safeguarding school communications. "

Certified employees who are found to have violated the new law must be reported to the Education Professional Standards Board, which is separately required to "promptly investigate" the allegations and take appropriate disciplinary action, the KSBA said.

Volunteers, who are found to have violated the new law, will be prohibited from future school volunteer opportunities.

There is no exception for accidental or innocuous communication.

Public Service Announcement

Dealing with Extreme Heat

Gallatin County Emergency Management Office
Brandon Terrell, Director

Heat kills by pushing the human body beyond its limits. In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature.

Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children, and those who are sick or overweight are more likely to succumb to extreme heat.

Conditions that can induce heat-related illnesses include stagnant atmospheric conditions and poor air quality. Consequently, people living in urban areas may be at greater risk from the effects of a prolonged heat wave than those living in rural areas. Also, asphalt and concrete store heat longer and gradually release heat at night, which can produce higher nighttime temperatures known as the "urban heat island effect."

Before Extreme Heat

To prepare for extreme heat, you should:

Install window air conditioners snugly; insulate if necessary.

Check air-conditioning ducts for proper insulation.

Install temporary window reflectors (for use between windows and drapes), such as aluminum foil-covered cardboard, to reflect heat back outside.

Weather-strip doors and sills to keep cool air in.

Cover windows that receive morning or afternoon sun with drapes, shades, awnings, or louvers. (Outdoor awnings or louvers can reduce the heat that enters a home by up to 80 percent.)

Keep storm windows up all year.

During a Heat Emergency

What you should do if the weather is extremely hot:

Stay indoors as much as possible and limit exposure to the sun.

Stay on the lowest floor out of the sunshine if air conditioning is not available.

Consider spending the warmest part of the day in public buildings such as libraries, schools, movie theaters, shopping malls, and other community facilities.

Circulating air can cool the body by increasing the perspiration rate of evaporation.

Eat well-balanced, light, and regular meals. Avoid using salt tablets unless directed to do so by a physician.

Drink plenty of water. Persons who have epilepsy or heart, kidney, or liver disease; are on fluid-restricted diets; or have a problem with fluid retention should consult a doctor before increasing liquid intake.

Limit intake of alcoholic beverages.

Dress in loose-fitting, lightweight, and light-colored clothes that cover as much skin as possible.

Protect face and head by wearing a wide-brimmed hat.

Check on family, friends, and neighbors who do not have air conditioning and who spend much of their time alone.

Never leave children or pets alone in closed vehicles.

Avoid strenuous work during the warmest part of the day. Use a buddy system when working in extreme heat, and take frequent breaks.

Prolonged drought, poor water supply management, or contamination of a surface water supply source or aquifer can cause an emergency water shortage. Drought can affect vast territorial regions and large population numbers.

Drought also creates environmental conditions that increase the risk of other hazards such as fire, flash flood, and possible landslides and debris flow. Conserving water means more water available for critical needs for everyone.

First Aid for Heat-Induced Illnesses

Extreme heat brings with it the possibility of heat-induced illnesses. The following table lists these illnesses, their symptoms, and the first aid treatment.

Sunburn Skin redness and pain, possible swelling, blisters, fever, Headaches

Take a shower using soap to remove oils that may block pores, preventing the body from cooling naturally. Apply dry, sterile dressings to any blisters, and get medical attention.

Heat Cramps Painful spasms, usually in leg and abdominal muscles; heavy sweating, Get the victim to a cooler location.

Lightly stretch and gently massage affected muscles to relieve spasms. Give sips of up to a half glass of cool water every 15 minutes. (Do not give liquids with caffeine or alcohol.) Discontinue liquids, if victim is nauseated.

Heat Exhaustion Heavy sweating but skin may be cool, pale, or flushed. Weak pulse. Normal body temperature is possible, but temperature will likely rise. Fainting or dizziness, nausea, vomiting, exhaustion, and headaches are possible.

Get victim to lie down in a cool place. Loosen or remove clothing. Apply cool, wet clothes. Fan or move victim to air-conditioned place. Give sips of water if victim is conscious. Be sure water is consumed slowly. Give half glass of cool water every 15 minutes. Discontinue water if victim is nauseated. Seek immediate medical attention if vomiting occurs.

Heat Stroke (a severe medical emergency)-High body temperature (105+); hot, red, dry skin; rapid, weak pulse; and rapid shallow breathing. Victim will probably not sweat unless victim was sweating from recent strenuous activity. Possible unconsciousness.

Call 9-1-1 or emergency medical services, or get the victim to a hospital immediately. Delay can be fatal. Move victim to a cooler environment. Removing clothing Try a cool bath, sponging, or wet sheet to reduce body temperature. Watch for breathing problems. Use extreme caution. Use fans and air conditioners.

NOTICE OF PROPOSED ELECTRIC TRANSMISSION LINE CONSTRUCTION PROJECT

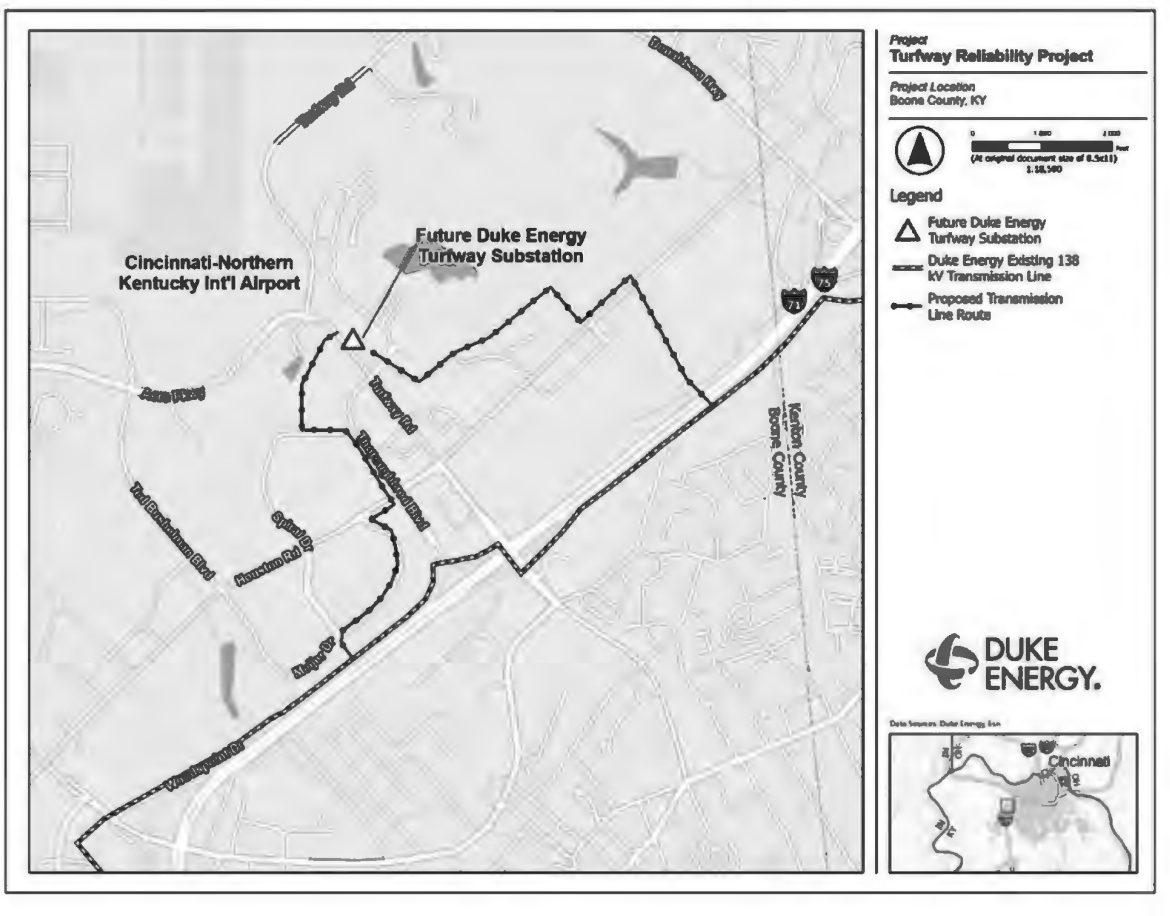
Duke Energy Ohio, Inc. (Duke Energy Ohio) proposes to construct the Turfway Reliability Project in Boone County, Kentucky. The Turfway Reliability Project involves construction of two new 138 kilovolt (kV) transmission lines which will connect the future Turfway Substation on Turfway Road to the existing Duke Energy Circuit 23984 Transmission Line along Interstate 71.

The western transmission line is 1.2 miles long and starts at the Circuit 23984 Transmission Line north of Interstate 71 near the intersection of Spiral Drive and Meijer Drive. It then proceeds north along Meijer Drive and Thoroughbred Blvd, turns west along Spiral Drive, and continues north to the future Turfway Substation. The eastern transmission line is 1.3 miles long, beginning at the Circuit 23984 Transmission Line south of Interstate 71 at Erlanger Lions Club. It then crosses north over Interstate 71 and Houston Road and crosses behind Tapestry Turfway and Turfway Park Racing and Gaming before reaching the future Turfway Substation. The new transmission lines will be constructed within a new right-of-way varying in width up to 100 feet.

The proposed construction of the nonregulated electric transmission lines is subject to approval by the Kentucky State Board on Electric Generation and Transmission Siting, which may be contacted through the Kentucky Public Service Commission at 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602-0615 or by phone at (502) 564-3940.

Duke Energy Ohio is required to file an application with the Kentucky Electric Generation and Transmission Siting Board seeking a certificate of construction authorizing the Turfway Reliability Project. The application and other filings in connection with Duke Energy Ohio's application may be accessed at http://psc.ky.gov under Case No. 2025-00228 once filed. Project updates and further information may also be found on the Company's website: www.duke-energy.com/Turfway

A map of the proposed electrical transmission lines is shown below.



REPORT

FROM PAGE A5

Nanney/Cummings Land Division for $145,000
• 6/27 — Ricky Prather to Sixgen, LLC, Lot 6 Nanney/Cummings Land Division for $145,000
• 6/27 — Utha T. Simpson and Utha Tebelman Simpson to Carol J. Simpson-Spaw Trustee, Tina F. Simpson-Poole Trustee and Simpson Family Irrevocable Trust, Cynthiana Road and Coppertown Creek for Fee Simple
• 6/28 — Christian Conley and Hannah Conley to Sherry G. Conley, 11.5781 Acres Heekin Clarks Creek for love and affection between the parties
• 6/28 — Katherine A. Schneider and Kelsey A. Schneider to William Edward Freeman, Jr. and Laura Selene Morado, Lot 212 Section 6 of Harvesters Subdivision for $270,000
• 6/30 — Nancy E. Rice Trustee and Stamper Family Trust to James R. Perry, Lot 11 Ridgeview Acres Subdivision for $55,000
• 6/30 — James R. Perry to Joseph Tyler Workman, Lot 11 Ridgeview Acres Subdivision for $215,000
• 6/30 — David C. Thomas and Darlene Thomas to A & J Homes, LLC, Lot 97Maple Ridge Section 2 for $50,000
• 6/30 — Traci Lynn Swanson, Traci Lynn Albert and Christopher Swanson to Ashley McKee, Lot 70 Section 1 Ashley Estates for $245,000
• 6/30 — Davis Pointe, LLC to James Sebree, Lot 32 Davis Point Subdivision for $350,000
• 6/30 — Terry Edwin Clifton and Sherry Clifton to Sagarkumar Patel, Lots 25-26-27-28-29 Section 1 Noble Hills for $105,000
• 7/1 — Timothy A. Yazell and Emily D. Yazell to James Montgomery, Lot 111 Eagle Creek Subdivision Section 3 for $275,000
• 7/1 — Marshall A. Blackburn to Timothy Yazell and Emily Yazell, Lot Elliston Mt. Zion Road for $325,000
• 7/1 — Braden I. Phipps to Steven David Preston and Holly L. Preston, 1 Acre Thomas Lane for $176,000
• 7/1 — Donald Raymond McDaniel Estate and Donald McDaniel Estate to Timothy James Gunning, Lot 7 Claiborne Estates Section 1 for $234,000
• 7/2 — Vanessa Rose to Open Door Baptist Church, 0.5334 Acres Warsaw Road for $18,000
• 7/2 — Terry Jackson, James Alvie Jackson, POA (Power of Attorney) to Deloris Mulberry, 0.395 Acre Cynthiana Street for $60,000
• 7/2 — Varni, Inc. to HBD, LLC, 2 Parcels Owenton Road for $890,896.91

Grant County Marriages

• 6/26 — Kylie Sage Michelle Troy to Shane Mitchell Schultz
• 6/27 — Madison Leigh Heinrich to Like Todd Herrington
• 7/1 — Kayala May Barnes to Scott Edward Regensburger

NOTICE OF PROPOSED ELECTRIC TRANSMISSION LINE CONSTRUCTION PROJECT

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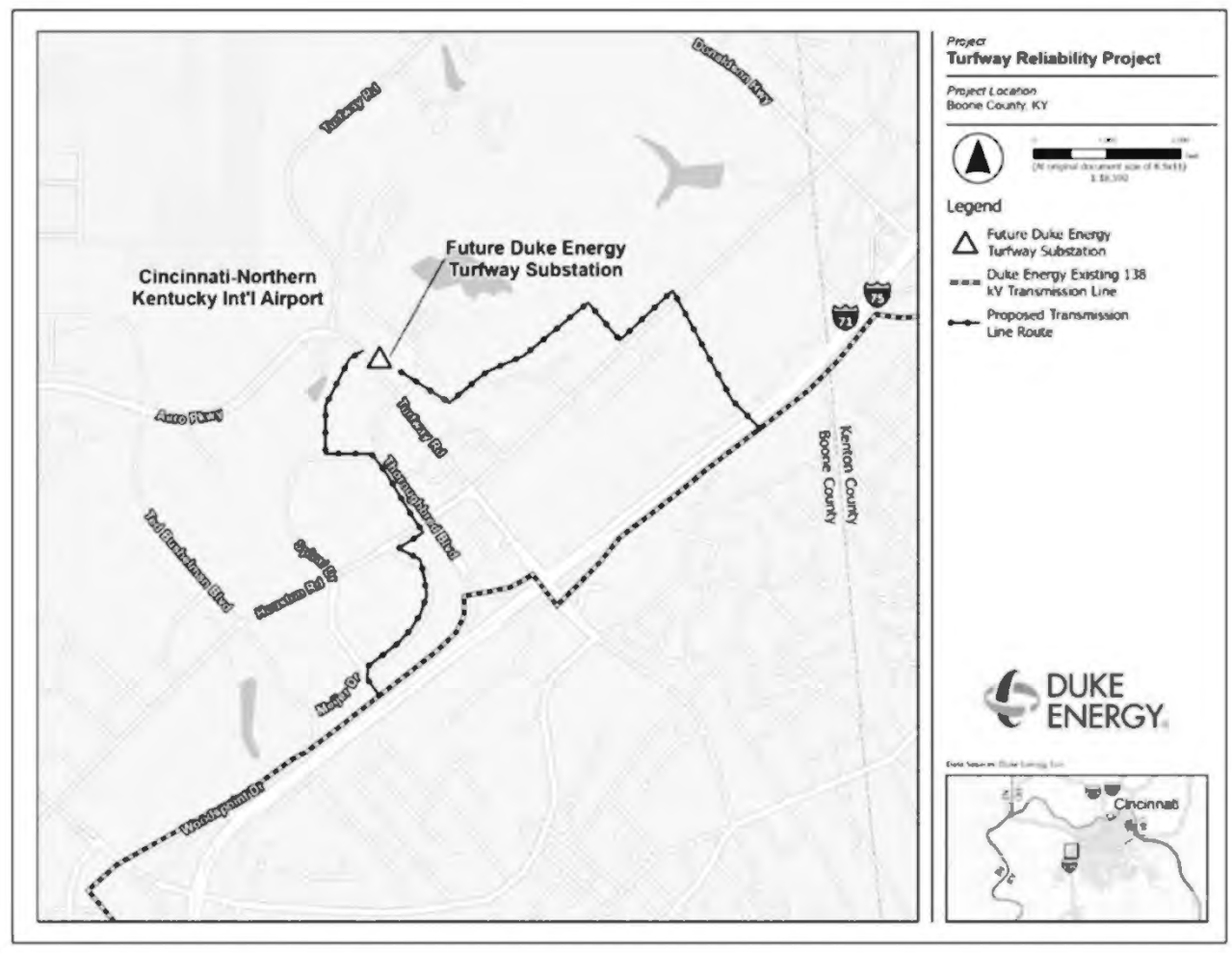
The proposed construction of the nonregulated electric transmission lines is subject to approval by the Kentucky State Board on Electric Generation and Transmission Siting, which may be contacted through the Kentucky Public Service Commission at 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602-0615 or by phone at (502) 564-3940.

Duke Energy Ohio is required to file an application with the Kentucky Electric Generation and Transmission Siting Board seeking a certificate of construction authorizing the Turfway Reliability Project. The application and other filings in connection with Duke Energy Ohio's application may be accessed at http://psc.ky.gov under Case No. 2025-00228 once filed. Project updates and further information may also be found on the Company's website: www.duke-energy.com/Turfway

A map of the proposed electrical transmission lines is shown below.



NOTICE

Duke Energy Kentucky, Inc. (Duke Energy Kentucky or Company) hereby gives notice that, in an application to be filed no later than July 1, 2025, Duke Energy Kentucky will be seeking approval by the Public Service Commission, Frankfort, Kentucky, of an adjustment of its Pipeline Modernization Mechanism (Rider PMM) rates and charges proposed to become effective on and after January 1, 2026. The Commission has docketed this proceeding as Case No. 2025-00229.

DUKE ENERGY KENTUCKY PRESENT AND PROPOSED RATES

The present and proposed rates charged in all territories served by Duke Energy Kentucky are as follows:

Residential Service – Rate RS

Present Rates	
Rate RS, Residential Service	$0.12/ccf
Proposed Rates	
Rate RS, Residential Service	$0.24/ccf

General Service – Rate GS

Present Rates	
Rate GS, General Service	$0.03/ccf
Proposed Rates	
Rate GS, General Service	$0.06/ccf

Firm Transportation Service – Large Rate FT-L

Present Rates	
Rate FT-L, Firm Transportation Service – Large	$0.00102/ccf
Proposed Rates	
Rate FT-L, Firm Transportation Service – Large	$0.00190/ccf

Interruptible Transportation – Rate IT

Present Rates	
Rate IT, Interruptible Transportation	$0.00115/ccf
Proposed Rates	
Rate IT, Interruptible Transportation	$0.00224/ccf

IMPACT OF PROPOSED RATES

These rates reflect an increase in gas revenues of approximately $16,755,374 for 2026 to Duke Energy Kentucky. The allocation of this estimated increase among rate classes is as follows:

Rate RS – Residential Service	$14,565,782	86.9%
Rate GS – General Service	$ 2,095,427	12.5%
Rate FT-L – Firm Transportation Service (Includes DGS)	$ 57,136	0.4%
Rate IT – Interruptible Transportation Service	$ 37,029	0.2%

The average monthly bill for each customer class to which the proposed rates will apply will increase(decrease) approximately as follows:

Rate RS – Residential Service	$ 6.00	6.32%
Rate GS – General Service	$ 11.70	2.07%
Rate FT-L – Firm Transportation Service (Includes DGS)	$ 14.52	0.31%
Rate IT – Interruptible Transportation Service	$ 98.74	0.92%

The rates contained in this notice are the rates proposed by Duke Energy Kentucky; however, the Commission may order rates to be charged that differ from the proposed rates contained in this notice. Such action may result in a rate for consumers other than the rates in this notice.

Any corporation, association, body politic or person with a substantial interest in the matter may, by written request within thirty (30) days after publication of this notice of the proposed rate changes, request leave to intervene; intervention may be granted beyond the 30-day period for good cause shown. Such motion shall be submitted to the Kentucky Public Service Commission, P.O. Box 615, 211 Sower Boulevard, Frankfort, Kentucky 40602-0615, and shall set forth the grounds for the request including the status and interest of the party. If the Commission does not receive a written request for intervention within thirty (30) days of the initial publication, the Commission may take final action on the application.

Intervenors may obtain copies of the application and other filings made by the Company by requesting same through email at DEKInquiries@duke-energy.com or by telephone at (513) 287-4366. A copy of the application and other filings made by the Company are available for public inspection through the Commission's website at http://psc.ky.gov, at the Commission's office at 211 Sower Boulevard, Frankfort, Kentucky, Monday through Friday, 8:00 am. to 4:30 p.m., and at the following Company office: Erlanger Ops Center, 1262 Cox Road, Erlanger, Kentucky 41018. Comments regarding the application may be submitted to the Public Service Commission through its website, or by mail at the following Commission address.

For further information contact:

PUBLIC SERVICE COMMISSION
COMMONWEALTH OF KENTUCKY
P.O. BOX 615
211 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40602-0615
(502) 564-3940

DUKE ENERGY KENTUCKY
1262 COX ROAD
ERLANGER, KENTUCKY 41018
(513) 287-4366

Task force looks to spur housing

Capitol Update

FRANKFORT — Legislators on the Kentucky Housing Task Force 2025 held their first meeting last week, discussing and learning ways to spur housing development opportunities in the commonwealth.

"We're hoping this interim to talk about some real-world things we can do in the state of Kentucky, be less ideological and more practical on what we can do," said Senate Majority Caucus Chair Robby Mills, R-Henderson, who is co-chair of the task force.

Wendy Smith, deputy executive director of housing programs at Kentucky Housing Corp., testified that homeownership can be an extremely challenging goal.

"We have folks who could get approved for a loan at… $170,000 to buy a home," she said. "There used to be homes in Kentucky to buy at that amount, and there just aren't now."

Last year, KHC commissioned a county-by-county supply gap analysis, and every county needs more housing, Smith said. It pointed to a gap of 206,000 units for 2024, split nearly equally between a demand for rentals and homes.

"For rentals, there is a greater need for our moderate and low-income households to have rental options that are affordable. For homeownership, it is almost evenly spread across all the income bands," Smith said.

Smith said it's most important for the task force to set its sights on flexible resources that "move the needle" and accelerate housing production. She highlighted revolving loan funds, economic development tools for housing and employer-assisted housing.

"I'm here advocating for the building industry and the building marketplace in Kentucky. Flexible resources can move the market by incentivizing public-private partnerships that accelerate housing production everywhere in the state," she said.

The flexibility of state-level funds over federal dollars can't be overemphasized, Smith said.

She pointed to the Indiana Residential Infrastructure Fund as an ambitious housing goal worthy of replication. The fund provides $75 million for low interest, 20-year loans that support infrastructure projects related to rental or homeownership development. Local governments apply for the funding, which can be used for installation, replacement, upgrades and land purchases.

Sen. Jared Carpenter, R-Berea, said affordable housing is different for every person, and he asks clients what price range they seek when shopping for real estate.

"I'm doing a lot right now that are what we call affordable housing. I live in Berea, a really fast-growing community," he said.

When Carpenter started building houses in a development in 2019, they were $189,000. However, on the Friday before the meeting, one of the houses sold for $289,000.

Carpenter said he made the same profit on both houses even though one cost more money. He said the costs of materials to build houses have increased substantially, along with the price of lots and infrastructure such as roads.

Task Force Co-Chair Rep. Susan Witten, R-Louisville, said there's collective acceptance of the housing challenges, and the problems are not going away.

"The good news is that so many of the potential solutions that you all talked about, we've already talked about. These are in motion. We've been looking at other states. Our goal for this task force is to really tee up some of these pieces of legislation, vet them so that when session starts they can go right to committee and we can really get a lot done," she said.

Mills and others sponsored legislation last year to address infrastructure costs for developers, but it didn't gain full approval by the end of the 2025 legislative session. "You'll probably see that coming back around," he said.

M. Nolan Gray, a Bluegrass Institute scholar who testified on behalf of the Bluegrass Institute for Public Policy, said he lives in California now and doesn't want to see Kentuckians face a similar housing crisis. He urged the task force to be open to successful initiatives that exist in other states.

"I'm coming to you from the future," Gray said. "Decades of strict rules and costly mandates gets you to a place where California is today, where hundreds of thousands of people are leaving the state, where folks who remain have no path to home ownership, they're doubling or tripling up in apartments. Folks are living in tents and cars."

Rep. Joshua Watkins, D-Louisville, said he has a local government housing background and he's a real estate agent. He noted that the supply gap isn't just an urban problem; it's widespread across the state.

"It's a 120-county wide problem. I think it's the biggest existential threat that the state is facing," he said.

Kentucky taps the brakes on speeding

Team Kentucky

FRANKFORT — As travel increases this summer, Kentuckians are encouraged to slow down, obey posted speed limits and help keep everyone on the road safe.

Speed limits are not merely suggestions; they are in place to protect everyone on the road.

Driving over the speed limit greatly reduces a driver's ability to react to unexpected situations, such as stopped traffic, road debris or encountering vulnerable road users such as highway workers, pedestrians, bicyclists and motorcyclists.

Speeding and aggressive driving are major contributors to roadway fatalities. In fact, approximately one-third of all traffic fatalities in Kentucky involve a speeding or aggressive driver.

In response, the Kentucky Transportation Cabinet's Office of Highway Safety is partnering with law enforcement agencies statewide to implement the "Not So Fast, Kentucky" speed awareness campaign through July 31.

"We want families to have a great time exploring all the beautiful things Kentucky has to offer this summer," said Gov. Andy Beshear.

"But to keep everyone safe on the road, I'm asking all Kentuckians to slow down, stay focused and be patient with each other on the road. Together, we can prevent crashes and make sure everyone gets home safely."

Funds for the campaign are provided by the National Highway Traffic Safety Administration and distributed by KOHS to law enforcement agencies that applied and were approved for full-year grants.

"With the summer construction season underway, we're asking drivers to be especially vigilant in work zones," Transportation Cabinet Secretary Jim Gray said.

Legislation passed last year – Senate Bill 107 – increased fines for speeding and aggressive driving in work zones.

In addition to fines of $500 or more, drivers may even have their license revoked, depending on the violation. These tougher consequences are in place for a reason.

Work zones are active job sites where workers are often feet from traffic. Reduced speeds and attentive driving help prevent crashes and protect everyone on the road.

Crime rates decrease in the commonwealth

Team Kentucky

FRANKFORT — Overall serious crime rates in 2024 dropped by nearly 8% compared to the prior year, Gov Andy Beshear announced last Tuesday.

The governor said this builds on the administration's recent announcements of Kentucky securing another record-low recidivism rate and the third consecutive decrease in overdose deaths.

"As we build Our New Kentucky Home, we're ensuring not only that our communities are safer, but that our people feel safer too," Beshear said.

"Today's announcement is a testament to our law enforcement officers' commitment to serve and protect the commonwealth as we make our communities stronger, our streets safer."

The 2024 Crime in Kentucky report shows that from 2023 to 2024, of the 23 categories, 17 saw a decrease in crimes reported, indicating an overall decrease of 7.66% in reports of serious, Category A crime.

Some of the notable data indicates an 11.55% decrease in drug/narcotic offenses, a 12.7% decrease in homicide offenses and a 13.78% decrease in sex offenses.

"While the Kentucky State Police is charged with compiling this report each year, we could not fulfill our mission without the support of local, state and federal agencies," Kentucky State Police Commissioner Philip Burnett Jr. said.

"It is because of this intense collaboration that Kentucky and its communities are safer, and we are grateful for their partnership in this effort."

In February, it was announced that nearly 70% of those released from state custody have not returned.

Following this announcement, the governor established the Team Kentucky Office of Reentry Services, which works to coordinate reentry services across state government to ensure everyone leaving prison has access to quality second chance resources.

The administration also continues to work with employers to provide good-paying jobs to inmates upon their release, further reducing the chances of re-offending.

For three straight years, overdose deaths have decreased in Kentucky. In 2024, the commonwealth saw 30.2% fewer overdose deaths than the year before thanks to the increased availability of naloxone and recovery services across the state.

To continue this work, four more counties were certified as Recovery Ready Communities in May for their ability to provide addiction and recovery treatment, job services and transportation to these services, bringing the number of certified counties up to 25.

In April, the governor opened the Jody Cash Multipurpose Training Facility, a 42,794-square-foot facility with a 50-yard, 30-lane firing range designed for officers to learn intensive and specialized training that will support training all of Kentucky's law enforcement agencies.

On Feb. 28, the Beshear-Coleman administration welcomed the first basic training academy class to Western Kentucky. For the first time since basic training became mandatory in 1998, Kentucky is simultaneously offering training in two locations.

The administration has also awarded more than $12 million in grant funding to assist state and local law enforcement agencies with enhancing public and officer safety, curbing the sale of illegal drugs and fighting addiction.

The administration has awarded more than $149 million in grant funding to victim service agencies across the commonwealth.

The governor has also signed legislation to make sexual extortion a felony and strengthened statutory language to include other forms of abuse and sexual exploitation of minors.

NOTICE OF PROPOSED ELECTRIC TRANSMISSION LINE CONSTRUCTION PROJECT

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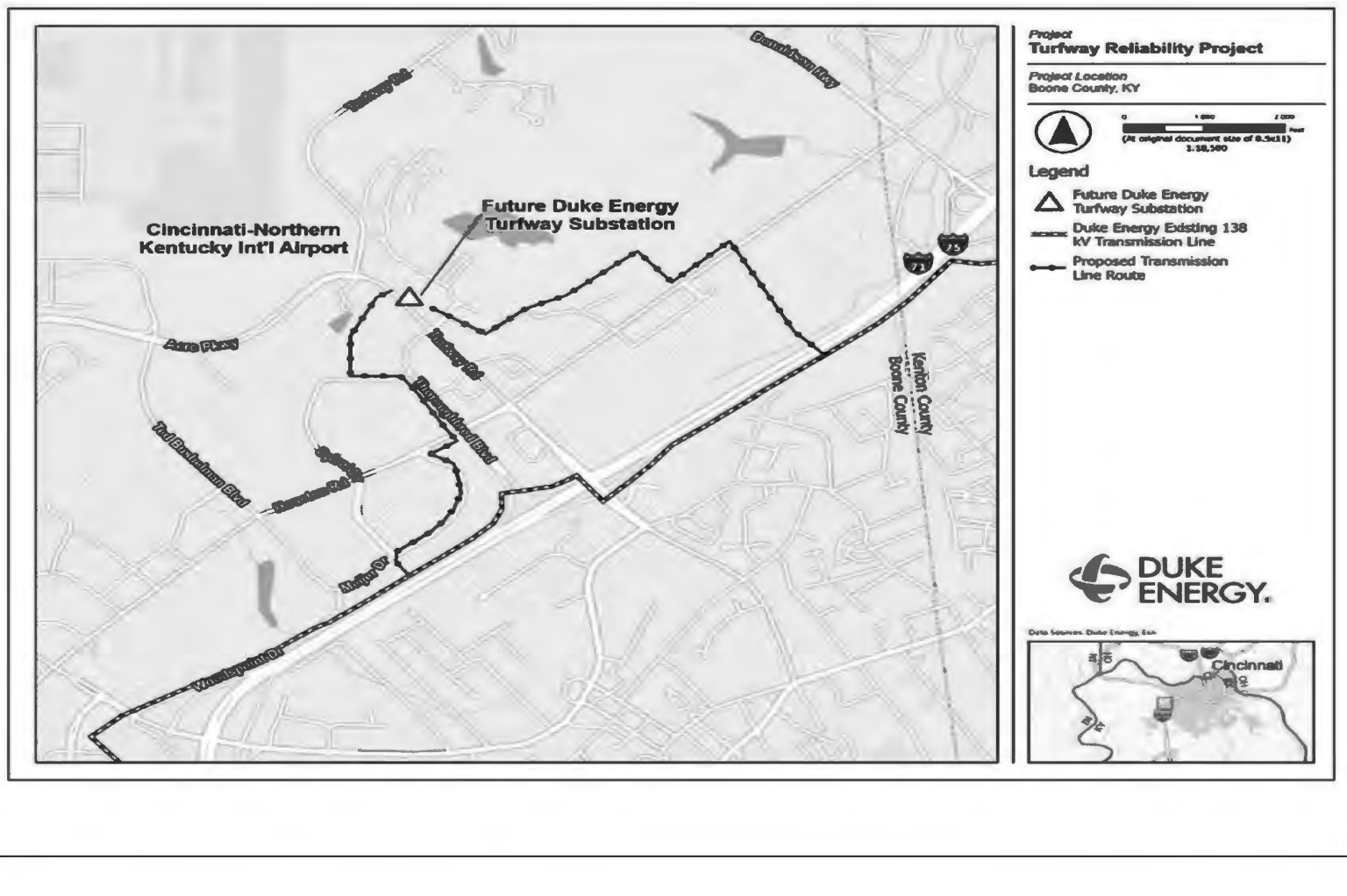

Pump prices decrease

GasBuddy

Average gasoline prices in Kentucky have fallen 9.3 cents per gallon in the last week, averaging $2.81 a gallon on Monday, according to GasBuddy's survey of 2,623 stations in Kentucky.

Prices in Kentucky are 2.1 cents per gallon higher than a month ago and stand 51.7 cents per gallon lower than a year ago.

The national average price of diesel has decreased 3.2 cents in the last week and stands at $3.644 per gallon.

According to GasBuddy price reports, the cheapest station in Kentucky was priced at $2.47 a gallon on Sunday, while the most expensive was $3.29 a gallon.

The national average price of gasoline has fallen 5.3 cents per gallon in the last week, averaging $3.09.

The national average is down 1.1 cents per gallon from a month ago and stands 37.4 cents per gallon lower than a year ago, according to GasBuddy data.

"Nearly every state saw average gas prices decline for the second straight week, even as the nation celebrated July 4 with the lowest national average for Independence Day since 2020," said Patrick De Haan, head of petroleum analysis at GasBuddy.

Israel strikes targets in Yemen

Houthis retaliate with missile, drone attacks

REUTERS

People inspect the damage after a reported Israeli strike on a clinic-turned-shelter on July 7 in the Al-Rimal neighborhood of Gaza City, Gaza Strip.
OMAR AL-QATTAA/AFP VIA GETTY IMAGES

CAIRO - Israel struck Houthi targets at three Yemeni ports and a power plant, the military said early July 7, in its first attack on Yemen in nearly a month.

The strikes hit the ports of Hodeidah, Ras Isa and Salif, as well as the Ras Qantib power plant on the coast, in response to repeated Houthi attacks on Israel, the military said.

Hours later, Israel said two missiles were launched from Yemen. Attempts were made to intercept them, though the results were still under review. The Iran-aligned Houthi forces said they had fired missiles and drones at multiple targets in Israel in retaliation for the strikes on Yemen.

The Israeli ambulance service said it had not received any calls regarding missile impacts or casualties following the launches from Yemen.

Since the start of the war in Gaza in October 2023, the Houthis have fired at Israel and at shipping in the Red Sea, disrupting global trade, in what the group says are acts of solidarity with the Palestinians.

Most of the dozens of missiles and drones fired toward Israel have been intercepted or fallen short. Israel has carried out a series of retaliatory strikes.

Israel said its attacks on July 7 also targeted a ship, the Galaxy Leader, which was seized by the Houthis in late 2023 and held in Ras Isa port.

"The Houthi terrorist regime's forces installed a radar system on the ship, and are using it to track vessels in international maritime space in order to promote the Houthi terrorist regime's activities," the military said.

The Houthi military spokesperson said the group's air defenses had responded to the Israeli attack with "a large number of domestically produced surface-to-air missiles."

Israel's military told residents to evacuate the three ports before it launched its attacks. Residents of Hodeidah told Reuters that the strikes on the power station had knocked out electricity. There was no immediate information on casualties.

The Israeli assault comes hours after a ship was attacked off of Hodeidah and the ship's crew abandoned it as it took on water. No one immediately claimed responsibility for the attack, but security firm Ambrey said the vessel fit the typical profile of a Houthi target.

The Houthis, who control northern Yemen including the capital Sanaa, are one of the last pro-Iran armed groups still standing in the Middle East after Israel severely hurt other allies of Tehran: Lebanon's Hezbollah, the Palestinian militant group Hamas, and Iran itself in a 12-day air war last month.

Under the direction of leader Abdul Malik al-Houthi, the group has grown into an army of tens of thousands of fighters and acquired armed drones and ballistic missiles. Saudi Arabia and the West say the arms come from Iran, though Tehran denies this.

2 crew injured, 2 missing on vessel

Two crew were injured and two others missing on a Liberia-flagged bulk carrier that was attacked with skiffs and drones 49 nautical miles southwest of Yemen's Red Sea port of Hodeidah, British maritime security firm Ambrey said July 7.

Ambrey said the vessel's engines had been disabled and it had started to drift. It did not identify the ship.

A maritime security source had told Reuters a vessel near Hodeidah was under drone attack and had issued a mayday call.

Earlier in the day, Yemen's Iran-aligned Houthis said that the Magic Seas, a cargo ship they attacked with gunfire, rockets and explosive-laden remote-controlled boats, had sunk in the Red Sea, after their first known attack on the high seas this year.

All crew were rescued by a passing merchant vessel and were expected to arrive in Djibouti later July 7, the ship's operator Stem Shipping told Reuters.

The Magic Seas was taking on water after the attack and remained at risk of sinking, the company's representative, Michael Bodouroglou, said. The ship had been carrying iron and fertilizer from China to Turkey.

The attack ended half a year of calm in the Red Sea, one of the world's busiest shipping routes, where Houthi attacks from the end of 2023 through late 2024 had disrupted shipping between Europe and Asia through the Suez Canal.

The Houthis launched more than 100 attacks on ships in the Red Sea, the Gulf of Aden and the Bab al-Mandab Strait that links them, in what they described as solidarity with the Palestinians after war erupted in Gaza in 2023. But those attacks had halted this year, with the last known to have taken place in December.

Houthi military spokesperson Yahya Saree said in a televised statement that the vessel was targeted on July 6 after naval forces issued warnings and calls that were ignored by the ship's crew. He said it was struck using two unmanned boats, five missiles and three drones.

According to advisories from the United Kingdom Maritime Trade Operations and Ambrey, which both monitor security incidents in the area, the vessel was first approached by eight small boats that opened fire and launched self-propelled grenades. Armed guards returned fire.

It was later struck by four remote-controlled boats, or Unmanned Surface Vehicles, and targeted with missiles, Ambrey said.

"Two of the USVs impacted the port side of the vessel, damaging the vessel's cargo," it said. UKMTO said the strikes triggered a fire onboard.

Plans for phased hostage release

The U.S.-backed proposal for a 60-day ceasefire between Israel and Hamas envisages a phased release of hostages, Israeli troop withdrawals from parts of Gaza and discussions on ending the conflict, an official familiar with the negotiations has said.

The plan is subject to approval by both parties involved in the conflict. U.S., Qatari and Egyptian mediators have been working to secure agreement.

Ten hostages will be returned along with the bodies of 18 others held hostage, according to the official, who spoke on condition of anonymity.

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A map of the proposed electrical transmission lines is shown below.

Covington mayor talks IRS job cuts, lost revenue for city

Covington Mayor Ron Washington said the city is looking to encourage job creation. Provided | WCPO

Amid a budget crunch after hundreds of federal jobs were eliminated in Covington, LINK's media partner, WCPO, sat down with Mayor Ron Washington to see where his priorities lie for the city's spending.

LINK nky previously reported (see story, page 7) that the city's budget took a hit with the late-June revelation that its second-largest employer, the Internal Revenue Service, had cut 750 employees. The job cuts are projected to cut the city's payroll tax revenues by $1.5 million.

Before addressing the impact on the city, Washington acknowledged the impact on the IRS workers who no longer worked inside the Gateway Center. "When you lose your job and your ability to provide for your family, it's going to hurt," he said. "My heart goes out to them."

The $1.5 million lost with the IRS jobs comes on top of approximately $4 million in payroll taxes the city already is losing out on from work-from-home policies. "Work from home has hurt the city of Covington like many states in the state of Kentucky, the way our taxes are structured," Washington said.

WCPO asked if the city was trying to do anything to entice workers to come back and work in person. "Well, we've met with some employers, and we've encouraged them and explained to them how this hurts the city," Washington said.

In addition to encouraging existing businesses to bring workers back in person, Washington said the city's economic development team is working to creating additional jobs to replace lost payroll tax revenue. "We're putting them on steroids and sending them out and shaking every tree possible," he said.

An internal email from the city shared with WCPO indicates the city may have to use its remaining federal American Rescue Plan dollars to fill shortfalls in the 2026 budget year. That money will not be available in 2027.

WCPO asked what would be prioritized if cuts to public services were necessary.

"Well, always public safety," Washington said. "That's what cities are here for, is to make sure [of] public safety."

The mayor said he didn't expect service cuts at this point, but "belt tightening" would be necessary.

County recommends Erlanger zoning change for cannabis cultivator

The building currently on the land where the cultivator hopes to set up shop. Provided | Henke Industrial LLC.

The Kenton County Planning Commission recommended approving a zoning change for a medical cannabis cultivation facility off Dixie Highway in Erlanger, sending final zoning approval to the city.

The vote came July 8 during a special meeting of the planning commission. The meeting had been rescheduled due to the Independence Day holiday.

The property in question covers about 1.26 acres off Dixie Highway. Access is via a private road called Burley Drive just south of the railroad; the building itself is behind a Speedway.

The property is owned by Jerome Henke, founder and president of Henke Industrial. The building is still listed as Henke Industrial's rigging and dispatch center on the company's website, although documents presented during the meeting indicate this is no longer its primary use.

The building occupies just over 19,000 square feet and contains two loading docks and a mezzanine on a single floor. Site plans submitted to county planners prior to the meeting indicate plans for 34 off-street parking spaces and a new fence, likely to remain in compliance with Kentucky law, which restricts access to cultivation facilities to workers employed there.

The cultivator is listed as Flower Power 5390 LLC. The business got its license after another medical cannabis business, Bluegrass LLC, transferred its license to Flower Power in May, according to the Kentucky Office of Medical Cannabis. The building's size puts it in the state's Tier 1 cultivator category, the smallest category.

Daniel Woodward, representing the cultivator, told the planning commission the company had not started doing business

Transmission-Public Engagement
EX552 | 315 Main Street
Cincinnati, OH 45202
duke-energy.com

<Month Date, Year>

<Name>
<Mail Address>
<Mail City>, <Mail State> <Mail Zip>

Re: Public comment invited for a project to improve electric service in your area.

Dear Neighbor,

Meeting our customers' energy needs with a reliable, resilient and secure energy grid is a responsibility that we take seriously – today and into the future. We're committed to being responsive to customers' needs, providing accurate information, and communicating frequently and transparently with the community.

We have identified a need to upgrade the electric system in Boone County to help improve the reliability of your electric service. This Turfway Reliability Project involves the installation of a new substation on Duke Energy property at 7650 Turfway Road in Florence, Ky. The new substation will be served from two new 138-kilovolt (kV) transmission lines to be built in and out of the new substation, and six lower-voltage distribution lines that will serve homes, schools, hospitals and businesses.

The preferred routing of the transmission lines will undergo easement acquisition, and public comment is invited as part of this study to determine the locations of the transmission lines and related equipment. Our goal is to minimize impacts to personal property, homes, businesses, the environment and cultural resources.

You are receiving this letter because you are listed as a property owner within 500 feet of the centerline of one of the potential routes under consideration for the Turfway Reliability Project. We invite you to learn more about this project at a drop-in, public open house:

Turfway Reliability Project In-Person Open House
Wednesday, Aug. 28
6-8 p.m.
Boone County High School Cafeteria
Commons Area Entrance
7056 Burlington Pike, Florence, KY 41042

You're invited to stop by the open house around your personal or work schedule. Instead of a presentation, you'll be able to visit various workstations and speak with subject matter experts to ask questions, as well as provide your input to the project. The open house will:

- Provide information about how a routing study is conducted
- Provide a review and discussion about the potential routes under consideration
- Allow your input to become part of the official data collection record

Comments can be submitted for this study from Aug. 28-Sept. 28, 2024. The public input process provides vital feedback for us to use as part of the comprehensive study to identify the future route for these new transmission lines. Your input will be considered during the selection of the preferred route for the transmission lines.

You may want to review the interactive map and visit the virtual open house on our website prior to the in-person event at Boone County High School. If you are not able to attend the in-person open house, the website will also have materials and the comment form available to landowners in the study area.

Website: **duke-energy.com/Turfway**
Email: **MWOhioTransmission@duke-energy.com**
Call: **888.827.5116**

We are committed to communicating with you throughout this process. We appreciate your patience and cooperation as we complete this important project to meet the growing energy needs of your community.

Sincerely,

Jeff Clayton
Duke Energy Project Manager

Enclosures

State Parcel ID:

000.00-00-000.00,	000.00-00-000.00,	000.00-00-000.00,	000.00-00-000.00,
000.00-00-000.00,	000.00-00-000.00,	000.00-00-000.00,	000.00-00-000.00,
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Transmission – Public Engagement
EX552 | 315 Main Street
Cincinnati, OH 45202
duke-energy.com

June 23, 2025

Turfway Reliability Project

Dear Neighbor:

We previously shared Duke Energy's need to upgrade the electric transmission system in Boone County, as part of our commitment to meet the energy requirements of the present and projected future growth of the area. Boone County is one of the fastest-growing counties in the Commonwealth of Kentucky.

During our public open house on Aug. 28, 2024, we invited public input on potential route options for two new 138-kilovolt (kV) transmission lines to be built in and out of a new substation to be constructed at 7650 Turfway Road in Florence, Ky.

You are receiving this letter because you're a resident and/or property owner within 75 feet of the center line of one of the preferred routes – identified as Route EK to the east and Route BG to the west of the substation footprint (see enclosed map). The map key shows route BG in green, and Route EK in purple. The preferred routes were identified during a comprehensive evaluation that followed a 30-day public comment period after the public information meeting. Additional background on this planning can be viewed on our website at duke-energy.com/Turfway.

Public feedback was among many factors invited and carefully considered in selecting the preferred routes for the new transmission lines, as well as overall impacts to property owners, the environment and the community. The Turfway Reliability Project will provide additional capacity to deliver reliable electric service, will help improve reliability and resiliency to help avoid power outages and speed restoration, and will strengthen the energy grid to support economic growth in your community.

After careful study of the potential routes, we believe these proposed corridors will have the least overall impact on property owners, businesses, historic areas and the environment. The precise location of the transmission lines and pole structures within the easement will be determined following a detailed route survey, additional field study and completion of the engineering design of the route.

Next Steps

The Turfway Reliability Project will undergo a regulatory filing with the Kentucky Electric Generation and Transmission Siting Board, as required by state law. We expect this filing to occur this summer.

To begin layout and design of the transmission line, Duke Energy representatives will need to access the line corridor. KRS § 416.560(4) (see below) provides guidance on the timing and activity allowed on your property during this phase. As we move through each step of this project, we want to work closely with our project neighbors and will contact you prior to accessing your property for the activities listed below.

This letter is being sent to you in compliance with KRS § 416.560(4), to give notice that Duke Energy or one of our selected vendors may be entering your property to conduct studies, surveys, tests, sounding and appraisals (examinations). Please be advised that Duke Energy plans to enter your property or other properties along the proposed route corridor to begin the examinations no sooner than 10 days from the date of this letter. The examinations could likely take several months to complete. Before entering your property, Duke Energy or one of our selected vendors will attempt to contact you via phone and/or by knocking on your door. We will do our best to leave your property in the same condition as before, however, Duke Energy will be responsible for any damage to the property that is caused while conducting the examinations.

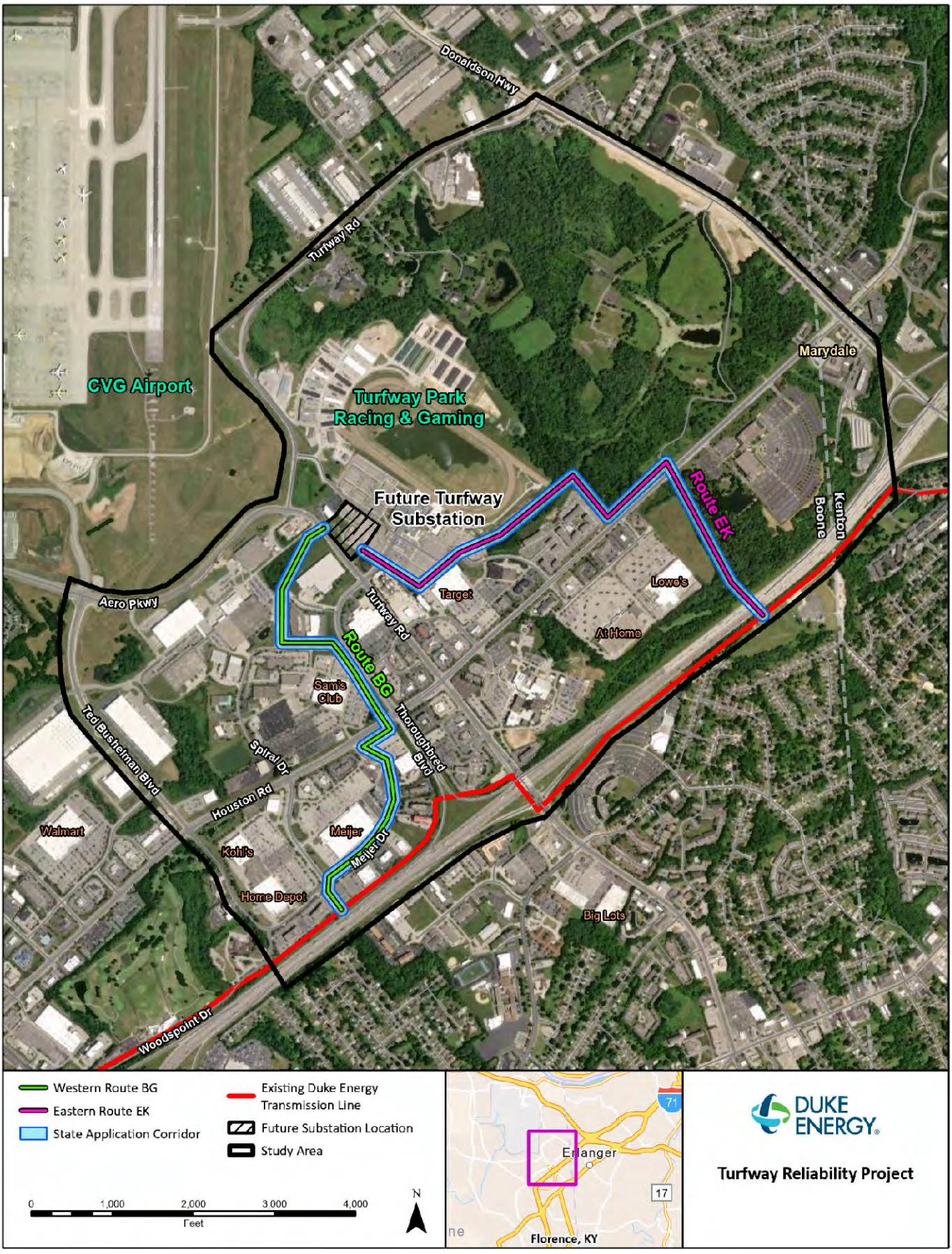
Construction is expected to begin in 2028 and be completed by December 2028.

We are committed to communicating with you throughout this process. If you have questions about the project, please contact us at 888.827.5116 or email MWOhioTransmission@duke-energy.com. We appreciate your patience and cooperation as we address your community's growing energy needs.

Sincerely,

Jeff Clayton
Project Manager

Enclosure


Donaldson Hwy
Turfway Rd
CVG Airport
Turfway Park
Racing & Gaming
Marydale
Future Turfway
Substation
Route EK
Boone
Kenton
Aero Pkwy
Target
Lowe's
At Home
Turfway Rd
Route BG
Sam's
Club
Thoroughbred
Blvd
Ted Bushelman Blvd
Spiral Dr
Houston Rd
Walmart
Meijer
Kohl's
Meijer Dr
Home Depot
Big Lots
Woodspoint Dr
Western Route BG
Eastern Route EK
State Application Corridor
Existing Duke Energy
Transmission Line
Future Substation Location
Study Area
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2,000
3,000
4,000
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N
71
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17
Florence, KY
DUKE
ENERGY.
Turfway Reliability Project

Transmission Engagement Plan

DUKE ENERGY

Stakeholder Engagement Schedule

Date	Activity
June 28, 2024	Duke Energy (DE) Meeting with City of Florence and Boone County
July 1, 2024	DE Meeting with Kentucky Transportation Cabinet (KYTC)
July 2, 2024	DE Meeting with Northern KY (NKY) Chamber and BeNKY
July 3, 2024	DE meeting with State Senator John Schickel, chair of NKY Legislative Caucus
July 3, 2024	DE email to Amazon
July 3, 2024	DE email to Cincinnati-Northern Kentucky Airport (CVG)
July 3, 2024	DE email to DHL
July 3, 2024	DE outreach to St. Elizabeth Hospital
July 12, 2024	DE meeting with Turfway Park / Churchill Downs
July 15, 2024	DE meeting with NKY Realtors Association
July 16, 2024	DE Meeting with Mary Queen of Heaven, Passionist Nuns and St Henry
July 19, 2024	DE Meeting with NKY Area Development District
July 25, 2024	DE meeting with City of Florence
July 26, 2024	DE outreach to State Senator-elect Steve Rawlings
July 28, 2024	Letters announcing project and invitation to public open house mailed
Aug 5, 2024	DE meeting with Marydale property owner (Vinings Trace LLC)
Aug. 14, 2024	Postcard reminders for public open house mailed
Aug. 28, 2024	In-person public open house at Boone County High School. 30-day comment period opens.
Sept. 6, 2024	DE meeting with CVG
Sept. 28, 2024	End of public comment period
Jan. 14, 2025	DE follow up meeting with Marydale property owner (Vinings Trace LLC)
Jan. 17, 2025	DE follow up meeting with Boone County
Jan. 17, 2025	DE follow up meeting with City of Florence
Jan. 23, 2025	DE follow up email to Mary Queen of Heaven, Passionist Nuns and St. Henry
Jan. 24, 2025	DE follow up meeting with Turfway Park / Churchill Downs
Feb. 11, 2025	DE follow up meeting with NKY Chamber of Commerce and BeNKY
Feb. 13, 2025	DE follow up meeting with NKY Assoc of Realtors
Feb. 14, 2025	DE follow up meeting with City of Florence
Feb. 24, 2025	Property notification letter for surveying mailed to select property owners
May 15, 2025	DE meeting with property developer for Misc Land LLC
June 2, 2025	DE follow up meeting with City of Florence
June 3, 2025	DE follow up meeting with Marydale property owner (Vinings Trace LLC)
June 24, 2025	DE emailed a copy of route notification letters to Boone County
June 24, 2025	DE emailed a copy of route notification letter to City of Florence
June 23, 2025	Preferred route public announcement letters mailed
July 17, 2025	DE meeting with Applied Industrial Technologies, Inc. (AIT)
August 13, 2025	DE follow up meeting with AIT
August 18, 2025	DE follow up meeting with property developer for Misc Land LLC

Muth, Ken

From: Muth, Ken
Sent: Tuesday, September 16, 2025 10:31 AM
To: Judge Moore; Matthew Webster
Subject: Turfway Reliability Project
Attachments: DEO_APP_091625.zip

Judge Moore and Matthew, we will be filing our PSC application for the Turfway Reliability Project this afternoon.

Pursuant to KRS 278.714(2)(f), proof of service of a copy of the application upon the chief executive office of each county and municipality corporation in which the proposed electric transmission line is to be located, and upon the chief officer of each public agency charged with the duty of planning land use in the general area in which the line is to be located.

Duke Energy Ohio has identified you as one of the parties listed above and therefore is providing you with a copy of the application for the Turfway Reliability Project.

Thank you.

Ken Muth
Government & Community Relations Manager
Duke Energy Kentucky
139 East Fourth Street, 1414, Cincinnati, OH 45202
c: 859.760.0292

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Building Trust, Shaping Tomorrow, and Powering Growth

Muth, Ken

From: Muth, Ken
Sent: Tuesday, September 16, 2025 10:33 AM
To: Dr. Julie Aubuchon; Joshua Hunt
Subject: Turfway Reliability Project
Attachments: DEO_APP_091625.zip

Mayor Aubuchon and Josh, we will be filing our PSC application for the Turfway Reliability Project this afternoon.

Pursuant to KRS 278.714(2)(f), proof of service of a copy of the application upon the chief executive office of each county and municipality corporation in which the proposed electric transmission line is to be located, and upon the chief officer of each public agency charged with the duty of planning land use in the general area in which the line is to be located.

Duke Energy Ohio has identified you as one of the parties listed above and therefore is providing you with a copy of the application for the Turfway Reliability Project.

Thank you.

Ken Muth
Government & Community Relations Manager
Duke Energy Kentucky
139 East Fourth Street, 1414, Cincinnati, OH 45202
c: 859.760.0292

DUKE ENERGY.

Building Trust, Shaping Tomorrow, and Powering Growth

Muth, Ken

From: Muth, Ken
Sent: Tuesday, September 16, 2025 10:35 AM
To: Kevin Costello
Subject: Turfway Reliability Project
Attachments: DEO_APP_091625.zip

Kevin, we will be filing our PSC application for the Turfway Reliability Project this afternoon.

Pursuant to KRS 278.714(2)(f), proof of service of a copy of the application upon the chief executive office of each county and municipality corporation in which the proposed electric transmission line is to be located, and upon the chief officer of each public agency charged with the duty of planning land use in the general area in which the line is to be located.

Duke Energy Ohio has identified you as one of the parties listed above and therefore is providing you with a copy of the application for the Turfway Reliability Project.

Thank you.

Ken Muth
Government & Community Relations Manager
Duke Energy Kentucky
139 East Fourth Street, 1414, Cincinnati, OH 45202
c: 859.760.0292

DUKE ENERGY.

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