

PROJECT NARRATIVE

FY2023 Community Project Funding Grant

Project: Dayton International Airport – Northeast Logistics Access Roadway Improvement Project

Grantee: City of Vandalia, Ohio

Amount: \$1,330,000

Grant Number: B-23-CP-OH-1209

I. Project Overview

Growth of Regional Logistics Industry

The logistics and distribution industry has become increasingly important to the regional economy in southwest Ohio, and the Dayton International Airport (DIA) is the epicenter of logistics industry growth in Montgomery County. According to State of Ohio economic statistics, the DIA contributes more than \$1 billion in economic impact to the region annually. Dayton's logistics and distribution advantages include proximity to a large percentage of the US population, convenient access to interstate highway and freight rail networks, significant air freight capacity, extensive developable property, and a readily available workforce.

Growth of the logistics industry in Montgomery County has been the outcome of work by multiple jurisdictions and partners, with the goal of attracting logistics business and jobs to the region. As a result, over four million square feet of logistics space has been developed around the DIA through 2020, bringing more than 3,500 jobs to the region. This logistics industry growth reflects a coordinated regional strategy formalized in 2012 under an Intergovernmental Agreement to stimulate logistics development around the DIA. Local public agencies cooperating to promote the logistics industry growth include Montgomery and Miami Counties, Dayton, Tipp City, Union, Vandalia, Butler Township, and the Montgomery County Transportation Improvement District.

Project Background

Logistics development is burgeoning around the DIA, with many large-scale warehouse and distribution facilities in full operation and additional capacity planned or under construction. The DIA Northeast Logistics Access Project is viewed as critically important to the City of Vandalia, Montgomery County, and other communities surrounding the Dayton International Airport. Few improvements to the roadway network on the north and east sides of the airport have been made since the logistics development began to explode in this area over 10 years ago. Roadway improvements are needed to increase safety and restore travel reliability on the northeast airport perimeter routes. The proposed improvements are expected to benefit residents, employees, truck drivers, and businesses owners alike.

II. Project Objective

The purpose of the project is to improve the roadway corridors within the project limits (see Section IV) for all users by safely accommodating existing known and modeled future travel demands, particularly the heavy vehicle traffic modes generated by the area's large industrial parks and logistics facilities, while addressing the needs of other vehicular, transit, bicycle, and pedestrian users.

III. Project Need

Transportation System Needs

The existing transportation infrastructure in the project corridor is unable to support the growing travel demands. Several conditions contribute to the inability of the corridor to operate safely and efficiently. To meet the purpose of the project, it is necessary to:

- *Reduce roadway congestion associated with turning vehicles.* The high percentages of rear-end crashes and left turn crashes provide evidence that turning movements are contributing to congestion within the corridor.
- *Improve the Level of Service at the North Dixie Drive-Northwoods Boulevard intersection.* The existing intersection at North Dixie Drive and Northwoods Boulevard is currently operating at an acceptable level of service (LOS), but is expected to experience increasing delays and degraded LOS with continued development in the region.
- *Improve the Level of Service at the North Dixie Drive-Lightner Road intersection.* The existing intersection at North Dixie Drive and Lightner Road is experiencing increasing delays on the eastbound approach. The roundabout proposed at this location is expected to operate at LOS A (the highest level of operation) in the opening year.
- *Restore or improve pavement conditions to support the expected vehicle mix.* Predicted future heavy truck percentages are higher than current vehicle distributions due to the increasing logistics development. Localized full-depth pavement reconstruction and roadway widenings are necessary along the project corridors to carry the larger predicted proportion of heavy vehicles.
- *Accommodate transit, bicycle, and pedestrian users.* Currently, the project corridor lacks dedicated pedestrian and bicycle facilities with connections to the many employers along the route. As development continues, demand for multi-modal transportation options is expected to increase.

IV. Project Scope

Corridor Termini

To satisfy the specific transportation needs identified above, roadway improvements between the following termini are proposed.

North Dixie Drive: from Inverness Avenue on the south to approximately 0.1 miles north of Lightner Road on the north

Northwoods Blvd: from North Dixie Drive on the west to the existing Flying J Travel Center western drive approach on the east

Lightner Road: from the existing Chewy Fulfillment Center eastern drive approach on the west to North Dixie Drive on the east

These project termini encompass the portions of North Dixie Drive, Northwoods Boulevard, and Lightner Road, and the major intersections within these segments, which are experiencing increasing congestion, insufficient levels of service, and incompatibility with current land use and future economic development plans. The proposed improvements will connect to the existing roadway network at each termini and will not depend on additional transportation improvements to fulfil the purpose and needs of this project.

Roadway Segments

Existing conditions and the need for improvements vary along the project alignments. Consequently, each roadway has been subdivided into sections to focus solutions on the specific needs of each location. The various roadway sections and intersection locations are listed below and shown in the following figure.

Intersection Location 1: North Dixie Drive-Northwoods Boulevard Intersection

Intersection Location 2: North Dixie Drive-Lightner Road Intersection

Roadway Section I: North Dixie Drive, City of Vandalia

Roadway Section II: North Dixie Drive, Existing Two-Lane Section, Butler Twp.

Roadway Section III: North Dixie Drive, Existing Three-Lane Section, Butler Twp.

Roadway Section IV: Northwoods Boulevard, City of Vandalia

Roadway Section V: Lightner Road, DIA Frontage, Butler Twp.

Roadway Section VI: Lightner Road, East of DIA Frontage, Butler Twp.

Proposed Improvements

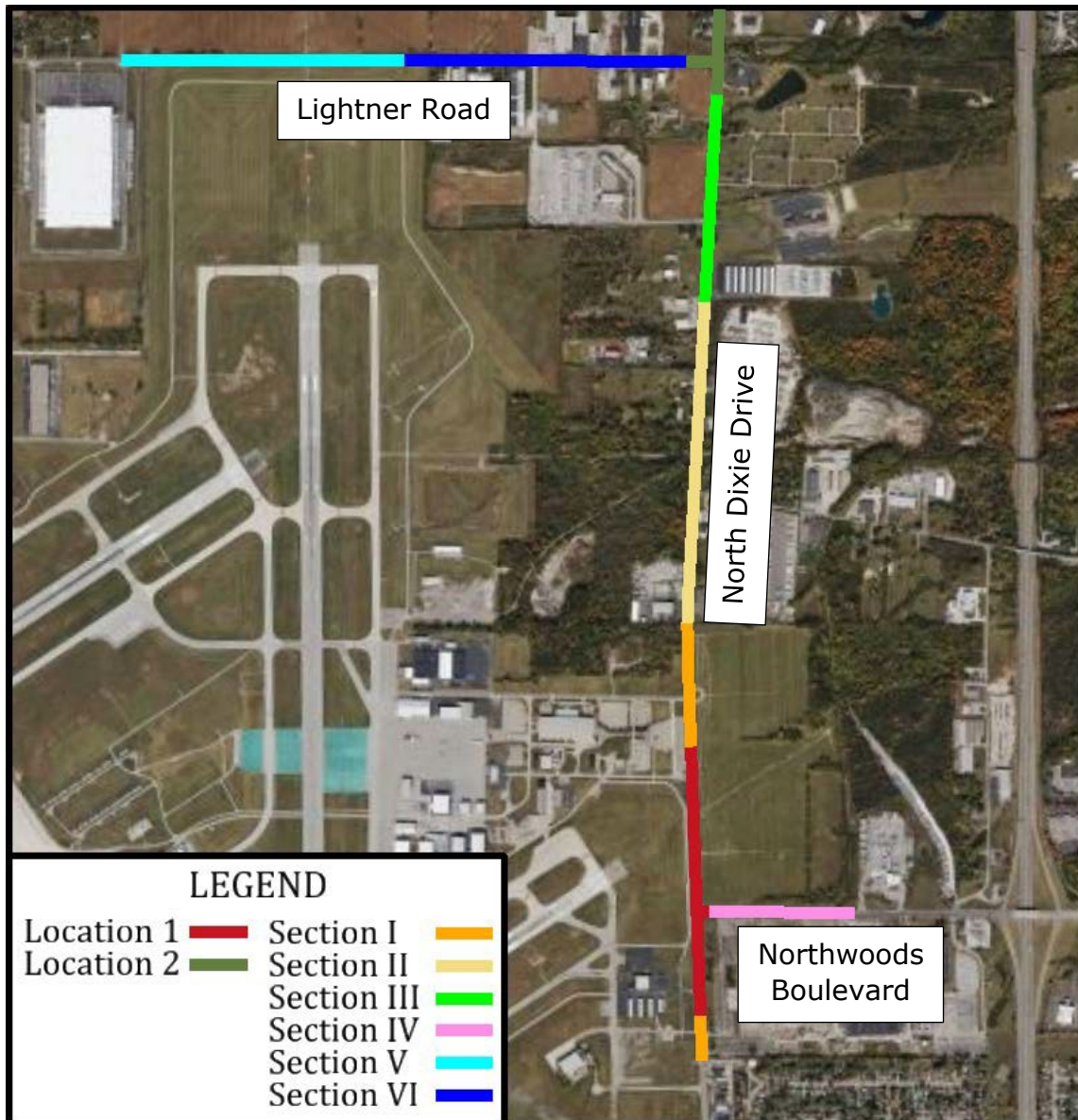
The proposed transportation improvements included in the project for each intersection location and roadway section are described below.

Location 1: North Dixie Drive-Northwoods Boulevard Intersection

The proposed work consists of widening North Dixie Drive to the east to provide a five-lane roadway through the intersection. The south leg of the 'T' intersection will comprise two southbound (SB) lanes, a striped median, a northbound (NB) through lane, and a NB right-turn-only lane. The north leg will encompass a SB lane, capacity for dual left turn lanes, and two NB lanes. The east leg will remain a four-lane section as currently configured.

Location 2: North Dixie Drive-Lightner Road Intersection

The proposed work consists of reconfiguring the existing stop-controlled 'T' intersection into a single-lane roundabout with traffic calming lanes approaching the traffic circle in each direction.



Section I: North Dixie Drive, City of Vandalia

The proposed work consists of resurfacing the existing pavement, adding an 11-foot shared-use path on the east side, constructing curb and storm drains on both sides, and converting one of the four lanes to a two-way left-turn lane.

Section II: North Dixie Drive, Existing Two-Lane Section, Butler Township

The proposed work consists of widening the existing two-lane section to a three-lane roadway with two-way left turn lane, adding an 11-foot shared-use path on the east side, and constructing curb and storm drains on both sides.

Section III: North Dixie Drive, Existing Three-Lane Section, Butler Township

The proposed work consists of resurfacing the existing three-lane roadway, adding an 11-foot shared-use path, and constructing curb and storm drains on both sides.

Section IV: Northwoods Boulevard, City of Vandalia

The proposed work consists of replacing the existing pavement, curb and gutter, and closed drainage system over the full length of the existing four-lane section.

Section V: Lightner Road, DIA Frontage, Butler Township

The proposed work consists of resurfacing the existing two-lane roadway, adding an 11-foot shared-use path with curb and storm drains on the south side, and providing a 4-foot paved shoulder on the north side.

Section VI: Lightner Road, East of DIA Frontage, Butler Township

The proposed work consists of widening the existing two-lane section to a three-lane roadway with two-way left turn lane, adding an 11-foot shared-use path on the south side, and constructing curb and storm drains on both sides.

Project Development

To deliver these roadway improvements, the overall project will be developed in four general phases:

Preconstruction Engineering (PE): This phase includes preliminary design, environmental studies and documentation, and final design. Products and outcomes of the PE phase include identification of a Preferred Alternative; environmental documentation and approval satisfying National Environmental Policy Act (NEPA) requirements; preparation of final construction plans, specifications, and estimates; and advertisement, bidding, and award of a construction contract.

Right of Way (RW): This phase includes acquisition of all temporary and permanent property rights needed to construct the project. The RW phase also includes the relocation of private utilities in conflict with the proposed improvements. Reimbursement of private utility relocation costs will be made as applicable, in cases where the relocated utility facilities were protected by prior property rights.

Construction (CON) and Construction Engineering (CE): These phases include construction of the project improvements and monitoring, approval and payment of the contractor's activities by the sponsoring public agency.

V. Project Timeline

The major phases of project development are expected to occur over the following timeframes, with target dates for major milestones listed under the phase as appropriate.

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|-----------------------|---------------|----|----------------|
| Engineering: | April 2022 | to | June 2026 |
| <i>NEPA Clearance</i> | March 2024 | | |
| <i>Advertise</i> | October 2026 | | |
| <i>Bid</i> | November 2026 | | |
| <i>Award</i> | December 2026 | | |
| Right of Way: | March 2024 | to | August 2026 |
| Construction: | March 2027 | to | September 2028 |

VI. Project Funding

Preconstruction Engineering (PE): In 2021, the Montgomery County Engineers Office (MCEO), in conjunction with the City of Vandalia, submitted an application to the Transportation Review Advisory Council (TRAC) of the Ohio Department of Transportation (ODOT) for federal funding to execute the engineering and environmental phase of the DIA Northeast Logistics Access Project. TRAC was created by ODOT in 1997 to prioritize and allocate federal funding for major new transportation projects across Ohio. A grant of up to \$1.60 million at 80% federal participation for the design phase was awarded by TRAC for the DIA Northeast Logistics Access Project in 2021. The remaining 20% of the design phase funding will be provided by the project's local partners, the City of Vandalia and MCEO.

Right of Way (RW): In 2023, the City of Vandalia received an Economic Development Initiative/Community Project Funding grant in the amount of \$1.33 million through HUD for the DIA Northeast Logistics Access Project. Funds from this HUD grant are expected to be primarily used for Right of Way phase activities, including right of way acquisition consultant costs, reimbursable private utility relocation costs, and temporary and permanent property acquisition costs. At the completion of the Right of Way phase, any surplus funds from the HUD grant are expected to be applied to eligible Construction Engineering costs.

Construction (CON) and Construction Engineering (CE): In accordance with TRAC policy, funding applications for successive phases of the project will be submitted to ODOT as the funded phases are completed. Funding support for the DIA Northeast Logistics Access Project at an 80% federal participation rate is expected to be maintained by TRAC throughout project completion.

VII. Project Participants

City of Vandalia: Approximately 30% of the project corridor is located within the City of Vandalia municipal corporation limits, and the City of Vandalia will maintain maintenance responsibility for the city roadway infrastructure upon project completion. The City of Vandalia and MCEO will equitably divide the local share cost of all project phases in accordance with the Cost-Sharing Agreement executed between the parties. In general, all external funding including FHWA and HUD federal grants and Ohio Public Works Commission and Economic Development Government Equity state grants will be applied to the project before allocating the remaining local share cost.

For administration of the funds from this HUD grant, COV is expected to be identified as a grant Pass-Through Entity, with MCEO identified as a grant Subrecipient.

Montgomery County Engineers Office: Approximately 70% of the project corridor is located along county-maintained roadways in unincorporated Butler Township; MCEO will maintain maintenance responsibility for the county roadway infrastructure upon project completion.

With MCEO identified as the lead agency for overall delivery of the project, Montgomery County has or will contract for all necessary engineering, environmental, and right of way acquisition services; advertise, award, and administer the construction contract; and provide the construction engineering services with county personnel and/or consultant construction administration staff for the entire project.

Ohio Department of Transportation: ODOT will produce the NEPA environmental documentation and serve as lead agency for coordination of the environmental review. In its stewardship role for FHWA expenditures in Ohio, ODOT will review the development and approve the completion of all project phases, including PE, RW, CON, and CE.

US Department of Housing and Urban Development: HUD will administer the funds from this HUD grant, and act as a coordinating agency during the environmental review. Support of the DIA Northeast Logistics Access Project is aligned with HUD's commitment to "create places throughout the nation that effectively connect people to jobs, transportation, quality public schools, and other amenities, producing 'geographies of opportunity' " for all.

Dayton International Airport (City of Dayton Department of Aviation); Butler Township: while these local public agencies fully support the project and its goals, neither agency currently has any ownership, maintenance responsibility, or financial commitments related to the DIA Northeast Logistics Access Project.

Proposed Subrecipient

As indicated above, 100% of the subject CPF Grant is expected to be allocated to the Montgomery County engineers Office for the purposes outlined in this Project Narrative and accompanying Line Item Budget.