

# Delaware County Engineer's Office (DCEO) Scope of Services

## C-R-S: DEL CR 106-1.27

### 1. General Information

County: Delaware  
PID#: 1802 (DCEO)

|                 | No. | Scope of Services Meeting Date | Approved Final Scope of Services |
|-----------------|-----|--------------------------------|----------------------------------|
| Prime Agreement | 1   | TBD                            | TBD                              |

#### C.R. 106 (Lewis Center Road)

|                                  |                                      |                | Unit | Measure                              |
|----------------------------------|--------------------------------------|----------------|------|--------------------------------------|
| Functional Classification        | Urban Minor Arterial                 | From:          |      | Home Road/Piatt Road                 |
| Design Functional Classification | Urban Minor Arterial                 | To:            |      | 1750 ft East of South Old State Road |
| Posted Speed (MPH)               | 45 west / 55 east of S. Old State Rd | Project Length | MI   | 1.0                                  |
| Design Speed (MPH)               | 45 west/ 55 east                     | Work Length    | MI   | 1.2                                  |
|                                  |                                      | Lateral Limits | FT   | 100                                  |

### 2. PDP Phases Included in this Agreement: Phase PE through Phase FE Agreement between Consultant and: Delaware County Board of Commissioners

This scope approval includes development through Stage 1 plan submittal. Modification 1 will include continued development through Phase FE Final Tracings.

### 3. Funding: Programming

PE, ROW and CON phases will be 100% locally funded.

#### 4. Project Location:

Lewis Center Road located in Orange Township, Delaware County.

#### 5. Project Description:

Widening to 5 lanes from Home/Piatt Road roundabout to 1/3 mile east of South Old State Road and new thru lanes on South Old State Road 1/3 mile north of Lewis Center Road with sidewalks and shared use paths with upgrades to existing traffic signal at Lewis Center and S. Old State intersection.

#### 6. Communication/Contacts:

The respective project managers (DCEO and Consultant) will be the primary points of communication. Rules for communication between project staff listed below will be discussed at the Scope of Services Meeting and further described herein. Technical issues may be discussed directly (between project staff) below the project manager level, but the respective project managers must be informed of such discussions and any decisions resulting there from. Contractual issues should always be communicated at the project manager level.

|                            | Name      | Phone        | Email                                                                |
|----------------------------|-----------|--------------|----------------------------------------------------------------------|
| DCEO Project Manager       | Ryan Mraz | 740-833-2400 | <a href="mailto:rmraz@co.delaware.oh.us">rmraz@co.delaware.oh.us</a> |
| Consultant                 | TBD       |              |                                                                      |
| Consultant Project Manager | TBD       |              |                                                                      |
| Consultant Staff           | TBD       |              |                                                                      |

#### 7. Schedule

|                            |                                  |
|----------------------------|----------------------------------|
| Completion Time for Phases | PE through PE Stage 1: 12 months |
|                            | All Phases: 28 months            |

The following commitment dates are to be used by the Consultant in developing the project schedule:

| <b>Milestone</b>             | <b>Current</b> |
|------------------------------|----------------|
| Consultant NTP               | 1/1/2027       |
| AER Design Complete          | 8/1/2027       |
| Stage 1 Submittal            | 1/1/2028       |
| Consultant NTP (Part 2)      | 2/1/2028       |
| Stage 2 Submittal            | 6/1/2028       |
| Preliminary R/W Submittal    | 6/1/2028       |
| Final R/W Submittal          | 8/1/2028       |
| R/W Acquisition Start        | 11/1/2028      |
| Stage 3 Submittal            | 11/1/2028      |
| R/W Acquisition End          | 2/1/2030       |
| Final Plan Package           | 5/1/2029       |
| Award                        | 2/1/2031       |
| Estimated Begin Construction | 6/1/2031       |
| Estimated End Construction   | 8/1/2032       |

The Consultant will prepare a detailed Master Schedule Gantt Chart (from initial authorization of the agreement thru completion (final plan package) utilizing Microsoft Project. This schedule is to be included with the price proposal. The Schedule will include beginning and ending dates as well as key milestones on the critical path for the project. Based on the type of Consultant Agreement, the Schedule shall also accommodate appropriate time frames for scoping, negotiation and authorization for the additional Phases. The overall schedule past those phases contracted for may be general in nature meeting the dates as established within this scope. The Consultant will be responsible for timelines of Phases as authorized within this agreement. The Consultant is responsible for updating the schedule as needed throughout the PDP (or as requested by DCEO) and providing these schedules monthly or as mutually agreed at the time of scope meeting (typically with Consultant Invoices). Monthly project updates are required to be submitted to the DCEOs Project Manager at a minimum indicating or identifying work completed this month, expected work next month and identifying any critical items needing action from both the Consultant and DCEO's personnel. These updates are typically provided with monthly invoicing and should be coordinated with the DCEO's Project Manager for an approved format and schedule.

## 8. Electronic Distribution of Design Information

The development of this project shall be performed in accordance with the ODOT and DCEO design manuals and documents. The consultant shall perform all work required by the design manuals unless a specific exception is included herein. Absence of a specific reference to required elements of the work either in this Scope of Services or the consultant's price proposal shall not relieve the consultant of responsibility to perform the work or justify additional compensation. The consultant's price proposal shall be based on the most current revision of each manual at the date of the Scope of Services Meeting.

The consultant shall also be responsible to revise the plans to conform to the most recent revision of the design manuals and documents. The Department maintains current documents and a summary of the latest revisions through the Design Reference Resource Center (DRRC) (<http://www.dot.state.oh.us/drrc/>) (the DRRC page of the Department's Website). This site will release all new and revised design information quarterly, on four specific dates. The most significant recent changes made to this page are reflected under the heading "Latest Revision/Revision History."

Minor changes should be routinely incorporated in the work. The consultant shall notify the DCEO in writing of any subsequent changes in design manuals or other documents that would substantially impact work already performed or change the overall impacts of the project including construction costs, right of way impacts or environmental impacts. The DCEO will respond in writing concerning the disposition of any such changes. The DCEO agrees that a substantial change in design policy or plan preparation requirements may constitute a valid request for additional compensation.

The correspondence transmitting final deliverables shall note the last revision date of the Design Reference Resource Center upon which the plans were based.

## **9. Variations from the Scope of Service**

This Scope of Services document is based on the DCEO's knowledge of project requirements at the time when the document was prepared, and serves as the basis for the price proposal and agreed fee. However, changes in the work may be required as the project develops and more complete information becomes available. Such changes also may be dictated by written procedures included in manuals or decisions made by the Department or DCEO. As the project develops, it is the Consultant's responsibility to advise the DCEO of significant changes in the work that may require modification of the agreement, and to maintain separate cost accounting for each specific issue. The DCEO's written comments and other technical decisions concerning development of the project shall not be construed as authorization for extra work for which additional compensation may be claimed. Modification of the agreement or written authorization to proceed is required prior to the performance of additional work. In short, at all times the Consultant remains responsible to advise the DCEO of work that exceeds the scope of services.

Requests for modification will be evaluated from the standpoint of the scope of services in its entirety and not in terms of a single issue. Additions to the scope of services may be offset by reductions in other areas of the work.

## **10. PDP Process**

The Ohio Department of Transportation (ODOT) has developed and implemented a Project Development Process (PDP) that includes regular communication among technical disciplines, results in quality plans and minimizes cost overruns during right-of-way acquisition and project construction. Depending on their size, complexity, and/or potential impact to the environment, ODOT transportation projects are categorized as one of five paths (Path 1– 5). The PDP consists of five phases that projects must advance through prior to construction. These phases include Planning, Preliminary Engineering, Environmental Engineering, Final Engineering and Construction. While all projects advance through these phases, project managers have the flexibility to adjust scope activities within the phases to better support decision-making.

The PDP is a project management and transportation decision-making procedure that outlines project development from concept through completion. Each PDP activity is timed to facilitate informed decision making based on an appropriate level of project development and risk management. The PDP encourages communication among disciplines, requires documentation of the reasoning behind project related decisions, eliminates duplicated effort among disciplines and provides for early identification of potential issues. Involvement of all disciplines during the early stages of project

development ensures that issues affecting project type, scope, development schedule and costs can be correctly evaluated and anticipated.

The manual and associated tools provide guidelines to identify activities required during each phase of project development. The project scope determines the amount of work performed within the phases. Although the manual and web-based tool identifies work tasks, deliverables and potential stakeholders for each phase in the process, the process requires coordination of people and tasks between phases to ensure continued review and study of the best possible options.

DCEO utilizes the framework of the ODOT PDP as the basis for developing projects; however, on locally funded projects, DCEO is not required to complete every step and may omit certain tasks when not required.

Communication and transition among disciplines are critical to a project's success. By establishing communication opportunities and responsibilities throughout the PDP, the project manager ensures that those involved in the project fulfill their project commitments. The project manager for each step is responsible for ensuring appropriate coordination and involvement of other disciplines throughout the process.

## **11. On-Going Consultant Involvement during the Construction Phase**

The Consultant shall provide construction phase services as requested by the DCEO, for the purpose of advising the DCEO concerning interpretations of the plans and specifications prepared by the consultant, advising the DCEO of any changed or unanticipated field conditions that will impact the work, and participating in a formal Partnering process if applicable. The consultant will not have any formal ongoing duties in administration of the construction contract or inspection and testing of the project. The Consultant's personnel assigned to this phase of the work shall be the same personnel that designed the project and prepared the plans (generally the personnel whose initials appear on the drawings).

The Consultant shall provide the following construction phase services as requested by the DCEO:

1. Attend meetings including the preconstruction meeting, job progress meetings, partnering meetings if applicable, and other meetings as requested.
2. In conjunction with job progress meetings or as requested, visit the job site at appropriate intervals to monitor critical areas of the work and advise the DCEO of any conditions that would affect the work.
3. If authorized, provide on-site geotechnical support for construction of geotechnical complex systems.
4. Respond to questions and visit the job site on an as needed basis.
5. Assist the DCEO in evaluation of change orders or claims.
6. If directed by the DCEO, replace right of way monumentation destroyed by the Contractor's construction operations. Centerline Adjustable Monument Assemblies shown on the Recorded Centerline Plat shall be set by the consultant at an appropriate stage of construction, as directed by the DCEO. After construction of the Centerline Adjustable Monument Assemblies by the contractor, the Consultant shall set the iron pin and cap in the Centerline Adjustable Monument Assembly Box. All centerline monuments, reference monuments and right of way monuments shall conform to Standard Construction Drawing RM-1.1 (pages 1 and 2)
7. Attend the post construction meeting and prepare minutes of the meeting including a discussion of preventable change orders.

## Compliance with Health and Safety Requirements

For Consultant personnel visiting the site, the Consultant shall be responsible for compliance with applicable health and safety requirements including OSHA requirements (CFR 29-1926), and medical testing required by OSHA and DCEO rules and regulations.

The Consultant shall provide, as a minimum, the same level of safety equipment as required for DCEO inspectors. Consultant personnel shall be subject to compliance inspections by DCEO personnel.

## Responsibilities of the DCEO

1. The DCEO Project Manager for the design agreement will remain as the point of contact for the consultant during the construction phase
2. DCEO construction personnel may contact the consultant directly regarding any plan questions or interpretations, but the DCEO Project Manager for the design agreement will be notified of all such communications.
3. The DCEO will advise the consultant in writing of any potential errors or omissions which must be corrected without undue delay and without additional costs to the County.
4. The DCEO will direct the consultant to set the iron pin and cap in the Adjustable Monument Assembly Boxes at an appropriate stage of construction.

## 12. Exceptions/Clarification from Manuals

Delaware County Supplement to the ODOT Location and Design Manual, Bridge Design Manual, CADD Standards Manual, and Traffic Engineering Manual incorporated by reference URL: <https://engineer.co.delaware.oh.us/drp/>

## 13. Existing Documents (Provided to Selected Consultant After Selection Only)

Evans Farm Traffic Impact Study (2015)

Road construction plans:

DEL-CR124-9.02 (Home Road Extension Ph. 4B)

DEL-CR10-2.91 (South Old State Road Phase 2)

DEL-CR106-1.77 (Lewis Center Road)

Evans Farm (Lewis Center Road Improvements) (2018)

Subdivision construction plans:

Meadows at Lewis Center

Evans Farm Section 1

Subdivision plats (available on Delaware County Auditor's GIS)

Survey plats (available on Delaware County Auditor's GIS)

## 14. Attachments (Attached to the Scope of Services)

Scope of Services Narrative

# C-R-S: DEL CR 106-1.27

## Scope Narrative

### General Information:

County: Delaware County

PID#: 1802

Description: Widening to 5 lanes from Home/Piatt Road roundabout to 1/3 mile east of South Old State Road and new thru lanes on South Old State Road 1/3 mile north of Lewis Center Road with sidewalks and shared use paths with upgrades to existing traffic signal at Lewis Center and S. Old State intersection.

### Traffic Analysis:

Certified traffic will not be required. Perform operational analysis including sensitivity analysis for 2052 design year using preferred lane configuration at the intersection of Lewis Center Road and South Old State Road and identify estimated design-life of improvements. DCEO will evaluate feasibility of adding additional left turn lanes as part of this project or will defer that work to a later construction project.

### Survey Parameters:

Due to the small linear distortion, this project may be designed on SPC Ohio North Zone using grid coordinates, or may use Delaware, Ohio County Coordinate System (OCCS).

### Cross Section:

|                        |                                 |
|------------------------|---------------------------------|
| Lane Width             | 12'                             |
| Treated Shoulder Width | 2' paved (full depth)           |
| Total Shoulder Width   | 8' (2' paved, 6' graded turf)   |
| Curb Type:             | Type 2 at roundabout approaches |
| Guardrail Type         | Do not use guardrail            |
| Foreslope              | 3:1 (4:1 preferred)             |
| Backslope              | 3:1 (4:1 preferred)             |

### Pavement:

This project is intended to use widen and overlay to salvage existing pavement. Pavement buildup for full depth widening sections shall be as follows:

- 1 1/4" Item 441, Asphalt Concrete Surface Course, Type 1 (449), PG64-22
- Item 407 Non-tracking Tack Coat @ 0.04 gal/sy
- 1 3/4" Item 441, Asphalt Concrete Intermediate Course, Type 2 (449)
- Item 407 Non-tracking Tack Coat @ 0.075 gal/sy
- 9" Item 301, Asphalt Concrete Base
- 6" Item 304, Aggregate Base

## Roadside:

Consultant shall give special consideration to right of way impacts of the roadside design – in particular, presence and depth of any ditches and the slope and appropriateness of a ditch.

Enclosed drainage using storm sewers and catch basins is expected in certain areas where roadside impacts and extended right of way may be costly. Do not exceed an open ditch depth of 3 feet measured vertically from the edge of pavement for ditches along residential frontage. Minimum ditch grade shall be 1.5% in these areas.

Existing leach fields are present on the south side of Lewis Center Road. Consultant shall research Delaware General Health District records and delineate leach fields located within 50 feet of the construction limits.

## Bicycle and Pedestrian:

Extend existing asphalt path on the north side of Lewis Center Road east to the South Old State Road intersection. Provide crosswalks and pedestrian signals at the intersection for future path extension to the south.

## Lighting:

Provide combination traffic signal mast arm supports with lighting at the Lewis Center and South Old State intersection. Design should conform to DCEO lighting standards. Photometric analysis is not required.

## Traffic Control:

Provide notes per the DCEO Design Resource Page and from sample plans provided by DCEO for sign sheet and sign support material types. Specify 5-inch pavement markings for centerlines and edge lines.

## Maintenance of Traffic:

Two-way traffic on Lewis Center Road and South Old State Road shall be maintained. Develop MOT as part of AER design.

## Hydraulics:

**Standards:** Hydrologic and hydraulic analysis should be performed in accordance with ODOT L&D Volume 2.

**BMPs:** Consultant shall analyze required post-construction stormwater quality flows and volume and verify adequacy of existing retention pond located east of Meadows at Lewis Center for water quality treatment. To the extent feasible, use vegetated filter strips and/or vegetated biofilters for treatment in open-ditch areas that are not tributary to this BMP.

**Conduit Material Type:** Culvert and storm sewer material preference should be as per the DCEO Supplement to the ODOT L&D Manual.

## Geotechnical:

**Soil Borings and Geotechnical Investigation:** Not required.

**SUE:** Provide if-authorized fee in proposal for SUE. Fee will be authorized during AER design when construction limits are established and conflicts are identified.

**Pavement Design:** The Consultant shall use the pavement design specified above.

### **Environmental:**

No jurisdictional wetland or stream impacts are anticipated.

### **Utilities:**

Ensure that overhead utilities (electric and telecom) have feasible locations within new or existing public right of way to relocate poles and that overhead utilities do not conflict with the proposed work. A preliminary layout of relocated utilities should be done during geometric layout of the roundabout. Detailed design of utilities is not required, but conceptual location of new and existing poles and above ground structures should be noted in the preliminary roundabout plan to ensure feasibility of the design.

### **Public Involvement:**

Consultant shall prepare electronic versions of project maps showing proposed work limits and shaded right of way limits in PDF or image format. DCEO anticipates direct mailing to affected property owners and a project information web page hosted on the DCEO website.

### **Right of Way Design:**

Specify WD right of way for parcels to be acquired in the name of the Delaware County Board of Commissioners where appropriate. TMP parcels for a duration of 24 months shall be used to minimize the extent of permanent ROW where tie-in grading is required and no significant change to the grading or elevation of existing ground.