

C-R-S: DEL CR39 0.68

Rome Corners Road and Plumb Road Intersection

Scope Narrative

General:

County: Delaware County

PID#: 1315

Description: The Consultant's services include preparation of final construction and right of way plans for a new single-lane modern roundabout with minimal approach work.

Traffic Analysis:

No traffic analysis is required for this project. No roundabout operational analysis will be required.

Design Designation:

	Rome Corners Road	Plumb Road
Current ADT (2023)	2650	2500
Design Year ADT (2049)	4000	3800
DHV (2049)	400	380
Directional Distribution	52%	54%
Trucks (24 Hour B&C)	3%	3%
Design Speed:	50 mph	50 mph
Legal Speed	50 mph	50 mph
Current Functional Classification	Urban Minor Arterial	Urban Minor Collector
Design Functional Classification	Urban Minor Arterial	Urban Minor Collector

Design Exceptions:

None

Survey Parameters:

Survey and base mapping should use the Ohio County Coordinate System (OCCS) or, at the surveyor's option, the project may be base mapped and designed on state plane coordinates to simplify coordination with adjacent site plans which would be designed on grid coordinates. Based on NGS monuments located within 2 miles of the project limits, estimated difference in grid to ground measurements is less than 20 parts per million resulting in an absolute difference of less than 0.03 feet from extreme ends of project limits.

Plan Sheets:

The following plan sheets are anticipated.

Title Sheet (1) Schematic Plan (1) Roundabout Geometry (1) Typical Sections (3) General Notes (3) Maintenance of Traffic Notes (2) Detour Plan (1) General Summary (3) Estimated Quantities (3) Roadway Subsummary (2) Drainage Subsummary (1) Project Site Plan (1) Plan and Profile at 20 scale (5) Reference Line Profiles (4)	Roundabout Grading Plan (1) Cross Sections at 50' Plus Driveway Profiles (16) Intersection Detail (4) Splitter Island Details (2) Driveway Subsummary (1) Storm Sewer Profiles (1) Traffic Control (8) Lighting (5) Landscape Plan (1) Right of Way Legend Sheet (1) Property Map (1) Summary of Additional ROW (1) ROW Topo Sheets at 20 scale (5) ROW Boundary Sheets at 20 scale (5)
--	--

Total Estimated Plan Sheets: 83±
 Note: Centerline plat not required.

Cross Section Design:

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
Maximum Foreslope	4:1
Maximum Backslope	4:1

Pavement Design:

Consultant should consider widening and overlay of approaches in lieu of full depth reconstruction where no profile adjustment is needed, in order to reduce cost and simplify access to work zone residences. Planing/milling of existing asphalt is not desired due to lack of thickness of existing asphalt.

Pavement buildup for full depth sections:

- 1 ¼" Item 441, Asphalt Concrete Surface Course, Type 1 (449), PG64-22
- Item 407 Tack Coat @ 0.04 gal/sy
- 1 ¾" Item 441, Asphalt Concrete Intermediate Course, Type 2 (449), PG64-22
- Item 407 Tack Coat @ 0.075 gal/sy
- 7" Item 301, Asphalt Concrete Base
- 6" Item 304, Aggregate Base

Roadside Design:

Consultant shall consider use of enclosed ditches (storm sewer and catch basins) in the SW quadrant of the intersection to minimize the ROW limits and lessen the depth of roadside ditches. Do not exceed an open ditch depth of 3 feet measured vertically from the edge of pavement.

Existing leach fields are expected within the areas of proposed roadside work. Consultant shall research Delaware General Health District records and delineate leach fields.

Roundabout:

Proposed roundabout shall be a single lane. Geometric design of roundabout should generally conform to the conceptual plans provided by DCEO with preferred 140' inscribed circle diameter.

Lighting:

Provide lighting design in general conformance with sample plans provided by DCEO. Photometric analysis not required if the spacing of poles is less than 175 feet and poles are located in the typical configuration of the sample plans provided. Lighting shall be designed in accordance with DCEO's Design Resource Page.

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:

A full closure with detour plan is anticipated to be the preferred MOT method for roundabout construction.

Hydraulics Requirements:

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

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

BMP Type: Vegetated Filter Strips are anticipated to be the most feasible BMP for the project.

Geotechnical Engineering:

Soil Borings and Geotechnical Investigation: Not required

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

Environmental:

No jurisdictional wetland or stream impacts are anticipated. DCEO may direct the consultant to provide an encumbrance of funds in the fee proposal for if-authorized environmental studies.

Waterway Permitting:

No permitting is anticipated for this project.

Utilities:

Consultant shall 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 proposed light poles. A preliminary layout of relocated utilities should be done during geometric layout of the roundabout and take into account proposed light pole locations. 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. A public meeting is not anticipated; however, the Consultant shall provide a separate if-authorized fee for preparation and attendance.

Right of Way Design:

Consultant shall 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 of such areas results from the project.