

DETOUR NEED DETERMINATION REPORT

Date: July 28, 2026

In accordance with Standard Operations Procedure OPS-103 dated July 1, 1993, the detour need determination report on the following pages are being circulated for the consideration of the individual ODOT representatives listed below and for the determination by the District Deputy Director.

PROJECT:	DEL-315-0.86 PID #: 110446
LOCATION:	S.R. 315 and Jewett Road, Delaware County, Ohio
PROJECT DESCRIPTION:	Construct a mini roundabout at S.R. 315 and Jewett Road, including storm sewer trunk line work, drainage laterals, culvert extension work, grading, pavement, signing, and related work necessary to complete the intersection improvement.
RECOMMENDATION:	X Detour as indicated ☐ Run-around ☐ Construct under traffic ☐ Other

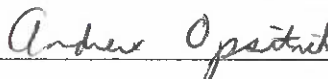
SIGNATURES:

Approved: Yes ☒ No ☐ Date: 7/29/2026

District Work Zone Traffic Manager: 

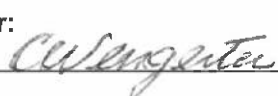
Remarks:

Approved: Yes ☒ No ☐ Date: 7/29/26

District Construction Engineer: 

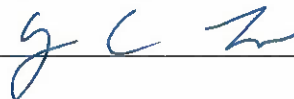
Remarks:

Approved: Yes ☒ No ☐ Date: 7/29/26

District Capital Programs Administrator: 

Remarks:

Approved: Yes ☒ No ☐ Date: 7/29/26

District Deputy Director: 

Remarks:

SUMMARY:

The following options were analyzed as part of this Detour Need Determination: X **Detour**, Run-around, Construct under traffic, Other.

Based on this analysis, a detour is recommended. The improvement requires reconstruction of the S.R. 315/Jewett Road intersection as a mini roundabout and includes storm sewer trunk line work, storm drainage laterals, grading outside the clear zone, pavement work, and other activities that are not practical to complete while maintaining the existing intersection movements. A single full closure period during the summer school break in Spring/Summer 2027 allows the work to be completed in one continuous sequence, reduces exposure for drivers and workers within the intersection, and avoids prolonged part-width construction through the Jewett Road intersection.

Traffic Data

Current traffic data used for this report:

ADT (two-way) = 21,800 (2023 current ADT, two-way)

Design year ADT = 26,620 (2043 design year ADT); Percentage B & C Trucks = 5% B/C trucks.

The traffic volume snip provided with the report also shows a 2043 design hourly volume of approximately 2,400 vehicles and a 55% directional distribution for S.R. 315.

Proposed Detour

A signed detour will be provided for each closed movement on S.R. 315 and Jewett Road. S.R. 315 traffic north of the closed intersection at Jewett Road will be detoured to S.R. 750/Powell Road, east to U.S. 23, and south to I-270. S.R. 315 traffic south of the closed intersection at Jewett Road will be detoured south to I-270, east to U.S. 23, north to S.R. 750/Powell Road, and west back to S.R. 315. Jewett Road traffic, being a local route, will be detoured by the local road detour shown on the MOT plans, with local road usage for signed detours coordinated with the local jurisdictions through the Project Engineer prior to placing signs and devices on local roads.

Construction Costs and Contract Time Controls

The MOT sheets provide an A+B bidding contract table for the complete construction of the roundabout, storm drainage, and signage. The closure period is listed as 35 calendar days minimum and 45 calendar days maximum, with an incentive/disincentive value of \$4,500 per day and a maximum incentive/disincentive of \$45,000 maximum. The detour signing is included as Item 614, Detour Signing, Lump Sum, and additional quantities are provided for designated local detour route maintenance and restoration.

Adjusted User Costs

Road user costs were evaluated using the ODOT Road User Cost Calculator methodology. For the Detour Need Determination comparison, the plan-specific A+B value shown on the MOT sheets is used as the recommended contract control amount because it is the value carried forward for the project's closure duration incentive/disincentive. The detailed user-cost calculation assumptions are summarized in Appendix B.

Designated Local Detour Route

In addition to the official, signed detour routes, local roads such as Liberty Road, Smoky Row Road, and Hard Road have been identified as potential secondary, unsigned designated local detour routes for S.R. 315 detouring traffic. During the detour period, the Contractor shall maintain the route in a condition that is smooth and free from holes, ruts, ridges, bumps, dust, and standing water. Once the detour is removed and traffic is returned to the normal pattern, the route shall be restored to a condition equivalent to that which existed prior to its use for this purpose.

Table 1 - Cost Comparison

Cost Element	Detour / Full Closure	Run-around	Construct Under Traffic
Construction Cost Impacts	Included in project MOT and construction bid items	Not recommended; would require additional temporary widening/temporary pavement and would prolong work, waterway impacts or archeological impacts on the adjacent properties.	Not recommended; not practical for roundabout/intersection reconstruction and storm sewer work
Adjusted User Costs	\$202,500 based on 45 days x \$4,500/day	\$202,500 carried for comparison; geometry and staging impacts not favorable	\$202,500 carried for comparison; safety and constructability impacts not favorable
Total DDR Comparison	Recommended option	Not recommended	Not recommended
Contract Control	\$4,500/day; \$45,000 maximum incentive/disincentive	N/A	N/A

Note: The comparison table is intended to document the detour determination and contract-time control basis. Detailed construction cost estimates should be retained with the project estimate file and Appendix B worksheets.

Appendix A - Official Signed Detour Exhibits

The following exhibits are based on the DEL-315-0.86 MOT detour sheets. Place final signed plan sheets in the project record at PDF scale for final submittal.

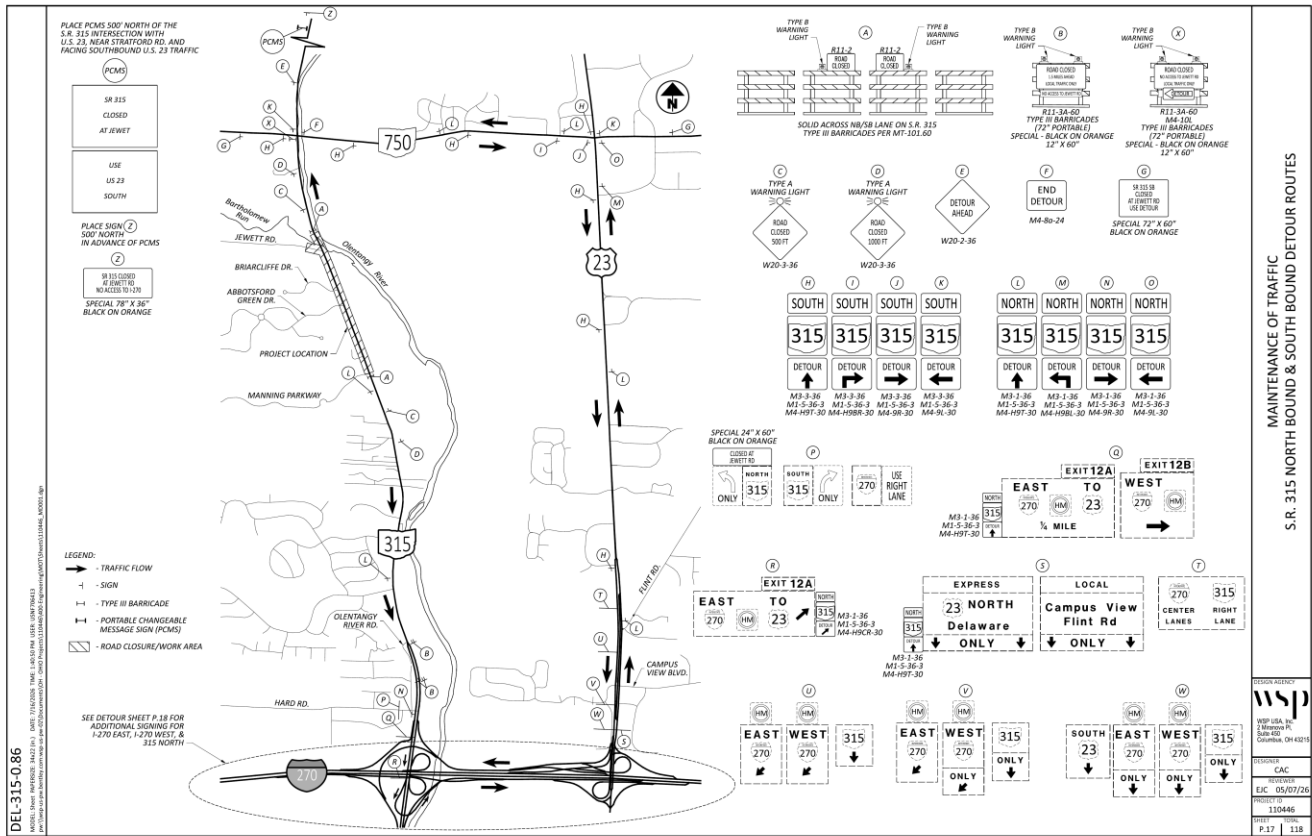


Figure A-1. S.R. 315 northbound and southbound detour routes

S.R. 315 SB Detour:

Place of Beginning: Jewett intersection with S.R. 315

Point of Ending: S.R. 315 intersection with I-270

Length of Detour: 6.0 miles

Added Length: 3.5 miles

S.R. 315 NB Detour:

Place of Beginning: S.R. 315 intersection with I-270

Place of Ending: S.R. 315 intersection with Bennett Pkwy or S.R. 750

Length of Detour: 6.0 miles

Added Length: 2.9 miles

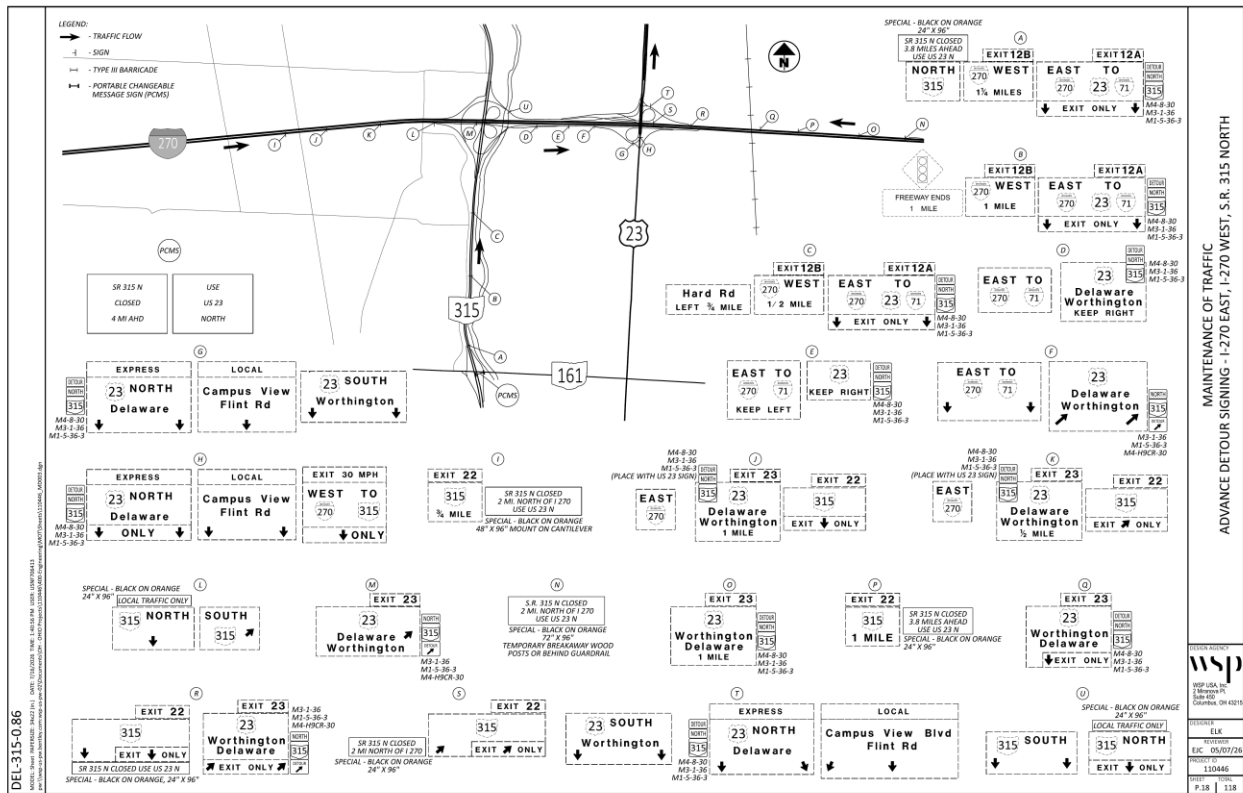


Figure A-2. Advance detour signing for I-270 east, I-270 west, and S.R. 315 north.

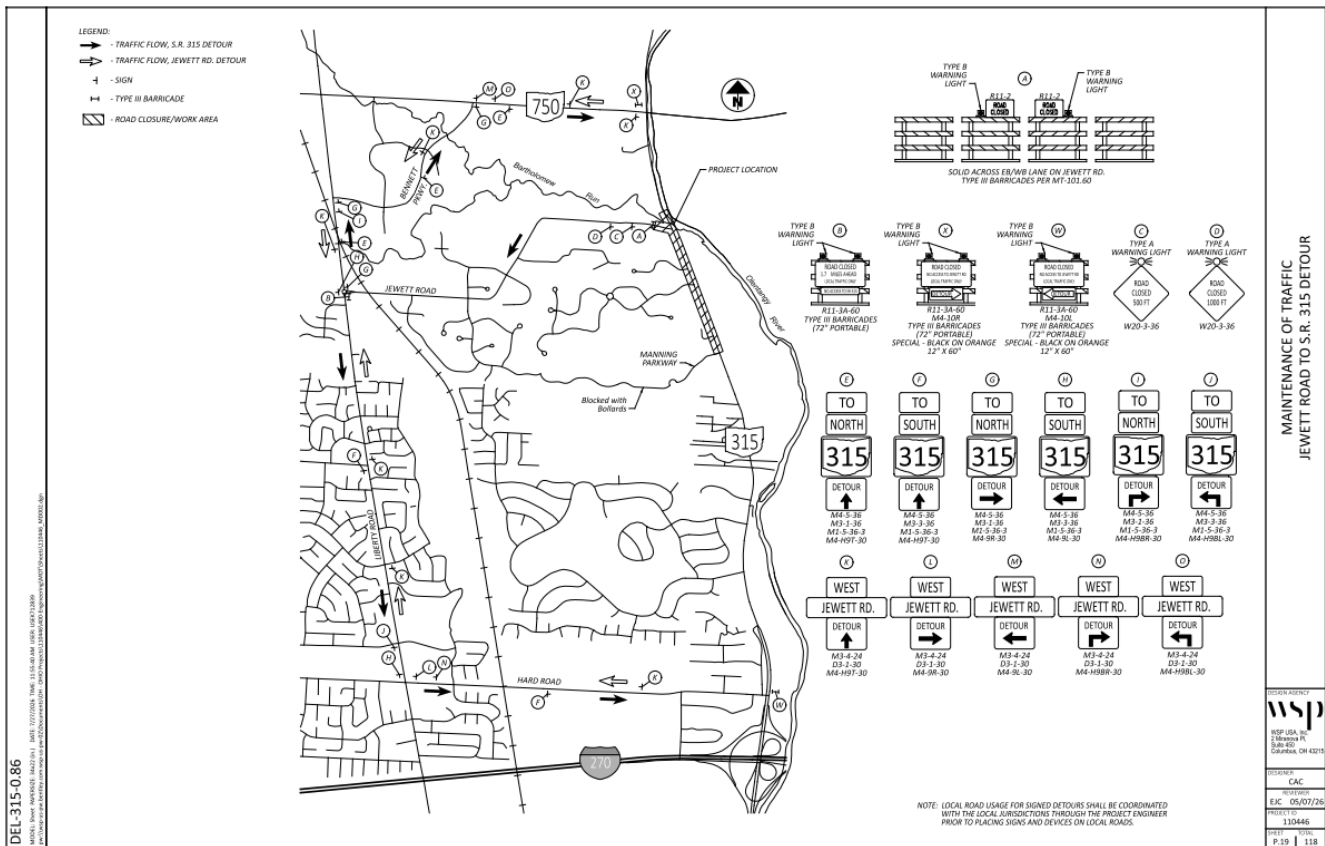


Figure A-3. Jewett Road to S.R. 315 detours

Jewett Rd to S.R. 315 NB Detour:

Place of Beginning: Jewett intersection with S.R. 315

Point of Ending: S.R. 750 intersection with S.R. 315

Length of Detour: 3.94 miles

Added Length: 3.38 miles

Jewett Rd to S.R. 315 SB Detour:

Place of Beginning: Jewett intersection with S.R. 315

Place of Ending: Hard Rd intersection with S.R. 315

Length of Detour: 5.30 miles

Added Length: 2.97 miles

Appendix B - Road User Cost and Contract Duration Summary

The following table documents the Road User Cost Calculator inputs and the plan value carried forward for the closure period. The raw user-cost calculation is shown for context; the contract value is based on the A+B bidding table shown on the MOT sheets.

		Car	B/C Truck
Project ID:	110446		
County-Route-Section:	DEL-315-0.86		
User Input:			
Construction Calendar Year:	2027		
ADT of Detoured Section:	21,800	20,710	1,090
Time to Drive Normal Route (Min):	11.0		
Time to Drive Detour Route (Min):	15.0		
Duration of Closure (Days):	45		
Calculated Values:			
User Cost per Vehicle per Hour:		\$29.90	\$80.71
Delay (Min):		4.0	4.0
Delay (Hours):		0.0667	0.0667
Delay Cost per Vehicle:		\$1.99	\$5.38
Delay		\$41,283	\$5,865
Delay Cost for Closure Duration:		\$1,857,736	\$263,923
Total Delay Cost for Closure Duration:			\$2,121,659
Average Delay Cost per Day:			\$47,148

Input / Output	Value	Basis
Project ID	110446	MOT sheets
County-Route-Section	DEL-315-0.86	MOT sheets
Construction Calendar Year	2027	MOT sequence notes
ADT of Detoured Section	21,800	Traffic volume snip
% B/C Trucks	5%	Traffic volume snip
Passenger Car User Cost per Hour	\$29.90	Road User Cost Calculator CPI table, 2027
B/C Truck User Cost per Hour	\$80.71	Road User Cost Calculator CPI table, 2027
Assumed Normal Route Time	11.0 minutes	Planning-level route assumption for DDR screening
Assumed Detour Route Time	15.0 minutes	Planning-level route assumption for DDR screening based on prior DEL-315 DDR format
Raw Estimated Delay Cost per Day	\$47,148	Calculator methodology
10% Adjusted User Cost per Day	\$4,715	DDR comparison convention
MOT A+B Value Used in Contract	\$4,500 per day / \$45,000 maximum maximum	MOT A+B bidding table

Table B-1. Road User Cost Calculator Summary

DESIGN DESIGNATION

	S.R. 315	JEWETT RD.
CURRENT ADT (2023)_____	21,800	4690
DESIGN YEAR ADT (2043)_____	26,620	6170
DESIGN HOURLY VOLUME (2043)_____	2,400	560
DIRECTIONAL DISTRIBUTION _____	59%	65%
TRUCKS (24 HOUR B&C) _____	5%	2%
DESIGN SPEED _____	45 MPH	45 MPH
LEGAL SPEED _____	45 MPH	45 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	04 MINOR ARTERIAL (URBAN)	05 MAJOR COLLECTOR (URBAN)
NHS PROJECT _____		NO

Figure B-1. Traffic volume/design designation snip used for DDR traffic data.

Appendix C - Designated Local Detour Route Maintenance

A separate Appendix C concurrence document is provided for signature. There is no designated local detour route for Jewett Road traffic, however, Hard Road, Smoky Row Rd, and Liberty Road may see increased traffic from S.R. 315. Local road usage for signed detours shall be coordinated with the local jurisdictions through the Project Engineer prior to placing signs and devices on local roads.

Designated Local Detour Route	Bennett Parkway connecting Liberty Road to S.R. 750
Period of Detour Use	35 to 45 calendar days, consistent with the A+B closure duration
Maintenance Requirement	Maintain route smooth and free from holes, ruts, ridges, bumps, dust, and standing water during detour use
Restoration Requirement	Restore route to a condition equivalent to that which existed prior to use as a designated local detour
Item 301, Asphalt Concrete Base, PG 64-22	60 CY
Item 304, Aggregate Base	60 CY
Item 442, Asphalt Concrete Surface Course, 12.5 mm, Type A (446), PG 76-22M	20 CY
Item 407, Tack Coat / Item 408, Prime Coat	22 GAL / 22 GAL
Item 614, Asphalt Concrete for Maintaining Traffic	8 CY
Item 642, Center Line	1 mile

The intent of these quantities is to maintain and subsequently restore the designated local detour route as determined by the Engineer; the MOT note states that the intent is not to rehabilitate the roadway and that some quantities may be non-performed.

APPENDIX C

DESIGNATED LOCAL DETOUR INFORMATION AND MAINTENANCE AGREEMENT

Designated Local Detour Information

In addition to the official, signed detour routes, local roads such as Libert Road, Smoky Row Road, and Hard Road have been identified as a potential secondary, unsigned detour route or "Designated Local Detour Route" for S.R. 315 detouring traffic.

Project	DEL-315-0.86, PID 110446
Route Description	Hard Road to Smoky Row Road to Liberty Road to Bennett Pkwy or S.R. 750
Period of Detour Use	35 to 45 calendar days
Purpose	Secondary, unsigned local detour route in support of the S.R. 315/Jewett Road closure
Responsible Restoration Standard	Equivalent to the condition that existed prior to use for detour purposes

Designated Local Detour Route Maintenance

During the time that traffic is detoured, the Contractor shall maintain this route in a condition that is reasonably smooth and free from holes, ruts, ridges, bumps, dust and standing water. Once the detour is removed and traffic is returned to its normal pattern, the designated local detour route shall be restored to a condition that is equivalent to that which existed prior to its use for this purpose. All such work shall be performed when and as determined by the Engineer.

Estimated Maintenance and Restoration Quantities

Item	Description	Quantity
301	Asphalt Concrete Base, PG 64-22	60 CY
304	Aggregate Base	60 CY
442	Asphalt Concrete Surface Course, 12.5 mm, Type A (446), PG 76-22M	20 CY
407	Tack Coat	22 GAL
408	Prime Coat	22 GAL
614	Asphalt Concrete for Maintaining Traffic	8 CY
616	Water	10 M. GAL.
617	Compacted Aggregate	20 CY
642	Center Line	1 mile

The intent is not to rehabilitate the roadway; some quantities may be non-performed as directed by the Engineer.

The corresponding MOT sheets should accompany this Appendix C agreement for map/reference purposes. The exhibit below is included for convenience and should be replaced with the final sealed plan sheet if required by the client or ODOT reviewer.



**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION**

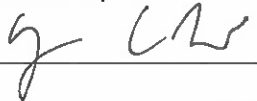
**AGREEMENT COVERING MAINTENANCE OF LOCAL ROADS FOR LOCAL
DETOUR PURPOSES**

Whereas, the State of Ohio contemplates the improvement of State Route 315, Section 0.86, in Liberty Township, Delaware County;

And whereas, the Director of Transportation has determined that it is necessary to detour traffic during construction of this improvement; and

Whereas, the Director of Transportation wishes to obtain concurrence of affected authorities prior to establishment of the detour;

Now therefore, the Director of Transportation agrees to maintain this local detour in passable condition and return it to as good condition as it was prior to its use as a local detour as indicated on the attached detour need determination report.

Signed  Date 7/29/26
District Six Deputy Director

I, the Delaware County Engineer, have inspected the road to be used as a local detour route and have reviewed the above agreement, detour report and map and concur in detour use and proposed work.

Signed  Date 8/3/2026
Delaware County Engineer

I, the Liberty Township Administrator or Trustee, have reviewed the above agreement, detour report and map and concur in detour use and proposed work.

Signed _____ Date _____
Liberty Township Trustee

I, the City of Columbus City Engineer, have reviewed the above agreement, detour report and map and concur in detour use and proposed work.

Signed  Date 8/3/2026
City of Columbus

I, the City of Powell City Engineer, have reviewed the above agreement, detour report and map and concur in detour use and proposed work.

Signed _____ Date _____
City of Powell