



Public Works Commission

Application for Financial Assistance

IMPORTANT: Please consult "Instructions for Financial Assistance for Capital Infrastructure Projects" for guidance in completion of this form.

Applicant

Applicant: Montgomery County Subdivision Code: 113-00113

District Number: 4 County: Montgomery Date: 08/22/2022

Contact: Cameron Speare Phone: 937-225-4904
(The individual who will be available during business hours and who can best answer or coordinate the response to questions)

Email: spearec@mcoho.org FAX: _____

Project

Project Name: Wenger Road, CLT-20-2.06 SCIP Zip Code: 45322

Subdivision Type	Project Type	Funding Request Summary	
<small>County</small>	<small>(Select single largest component by \$)</small>	<small>(Automatically populates from page 2)</small>	
	1. Road	Total Project Cost:	<u>409,500</u> .00
	x 2. Bridge/Culvert	1. Grant:	<u>102,375</u> .00
	3. Water Supply	2. Loan:	<u>307,125</u> .00
	4. Wastewater	3. Loan Assistance/ Credit Enhancement:	<u>0</u> .00
	5. Solid Waste	Funding Requested:	<u>409,500</u> .00
	6. Stormwater		

District Recommendation (To be completed by the District Committee)

<u>Funding Type Requested</u> <small>(Select one)</small>	SCIP Loan - Rate: _____ % Term: _____ Yrs	Amount: _____ .00
<input type="checkbox"/> State Capital Improvement Program	RLP Loan - Rate: _____ % Term: _____ Yrs	Amount: _____ .00
<input type="checkbox"/> Local Transportation Improvement Program	Grant:	Amount: _____ .00
<input type="checkbox"/> Revolving Loan Program	LTIP:	Amount: _____ .00
<input type="checkbox"/> Small Government Program	Loan Assistance / Credit Enhancement:	Amount: _____ .00
District SG Priority: _____		

For OPWC Use Only

<u>STATUS</u>	Grant Amount: _____ .00	Loan Type: <input type="checkbox"/> SCIP <input type="checkbox"/> RLP
Project Number: _____	Loan Amount: _____ .00	Date Construction End: _____
	Total Funding: _____ .00	Date Maturity: _____
Release Date: _____	Local Participation: _____ %	Rate: _____ %
OPWC Approval: _____	OPWC Participation: _____ %	Term: _____ Yrs

1.0 Project Financial Information (All Costs Rounded to Nearest Dollar)

1.1 Project Estimated Costs

Engineering Services

Preliminary / Final Design:	<u>24,500</u>	.00	
Construction Administration:	<u>10,500</u>	.00	
Total Engineering Services:	a.) <u>35,000</u>	.00	<u>10</u> %
Right of Way:	b.) <u>7,000</u>	.00	
Construction:	c.) <u>350,000</u>	.00	
Permits, Advertising, Legal:	e.) <u>0</u>	.00	
Construction Contingencies:	f.) <u>17,500</u>	.00	
Total Estimated Costs:	g.) <u>409,500</u>	.00	

1.2 Project Financial Resources

Local Resources

Local In-Kind or Force Account:	a.) <u>0</u>	.00	
Local Revenues:	b.) <u>0</u>	.00	
Other Public Revenues:			
Local / ODOT - Let: _____	d.) <u>0</u>	.00	
ODOT PID: _____			
OEPA / OWDA:	e.) <u>0</u>	.00	
CDBG:	f.) _____	.00	
Other: _____	g.) <u>0</u>	.00	
Subtotal Local Resources:	i.) <u>0</u>	.00	<u>0</u> %

OPWC Funds (Check all requested and enter Amount)

Grant: <u>25</u> % of OPWC Funds	j.) <u>102,375</u>	.00	
Loan: <u>75</u> % of OPWC Funds	k.) <u>307,125</u>	.00	<u>10</u> yrs
Loan Assistance / Credit Enhancement:	l.) <u>0</u>	.00	
Subtotal OPWC Funds:	m.) <u>409,500</u>	.00	<u>100</u> %
Total Financial Resources:	n.) <u>409,500</u>	.00	<u>100</u> %

1.3 Availability of Local Funds

Attach a statement signed by the Chief Financial Officer listed in section 5.2 certifying all local resources required for the project will be available on or before the earliest date listed in the Project Schedule section. The OPWC Agreement will not be released until the local resources are certified. Failure to meet local share may result in termination of the project. Applicant needs to provide written confirmation for funds coming from other funding sources.

2.0 Repair / Replacement or New / Expansion

2.1 Total Portion of Project New / Expansion: _____⁰.00

3.0 Project Schedule

3.1 Engineering / Design / Right of Way	Begin Date: <u>04/22/2021</u>	End Date: <u>08/23/2023</u>
3.2 Bid Advertisement and Award	Begin Date: <u>03/06/2024</u>	End Date: <u>03/27/2024</u>
3.3 Construction	Begin Date: <u>05/01/2024</u>	End Date: <u>08/07/2024</u>

Construction cannot begin prior to release of executed Project Agreement and issuance of Notice to Proceed. Failure to meet project schedule may result in termination of agreement for approved projects. Modification of dates must be requested in writing by project official of record and approved by the Commission once the Project Agreement has been executed.

4.0 Project Information

If the project is multi-jurisdictional, information must be consolidated in this section.

4.1 Useful Life / Cost Estimate / Age of Infrastructure

Project Useful Life: 61 Years Age: 1988 (Year built or year of last major improvement)

Attach Registered Professional Engineer's statement, with seal or stamp and signature confirming the project's useful life indicated above and detailed cost estimate.

4.2 User Information

Road or Bridge: Current ADT 11433 Year 2016

Water / Wastewater: Based on monthly usage of 4,500 gallons per household; attach current ordinances.

Residential Water Rate Current \$ 0 Number of households served: _____

Residential Wastewater Rate Current \$ 0 Number of households served: _____

Stormwater: Number of households served: _____

4.3 Project Description

A: SPECIFIC LOCATION (Supply a written location description that includes the project termini; a map does not replace this requirement.) 2000 character limit.

The Wenger Road Bridge Reconstruction project is in Clayton, Ohio between Hoke Road, and Union Boulevard. The structure runs West to East spanning roughly 39 feet over Moss Creek. Project termini will begin 80 feet before and end 77 feet after the bridge limits to allow for the constructability of the guardrail and vertical curvature of the proposed roadway. In total, the project is estimated to be 200 feet in length.

B: IDENTIFY THE PROBLEM (Describe the issue to be addressed) 2000 character limit.

The condition of this bridge calls for a complete superstructure replacement. From the last bridge inspection report, this structure earned a general appraisal of 4-Poor Condition for both the deck and superstructure. Significant leakage through the wearing surface has been observed which has led to advanced deterioration of the beams, especially between beam joints. Several beams have large areas of delamination and spalling with exposed prestressing strands.

In addition to the condition of the superstructure, the deck drainage is in very poor condition as well. This structure utilizes an over the edge deck drainage system which has reached the end of its useful life. The steel drip strip is severely corroded and, in most locations, completely rusted through. The waterproofing membrane on the fascia beams has also deteriorated or completely fallen off in some locations.

C: PROJECT SCOPE (Describe the work to be completed) 2000 character limit.

Specific work to be completed for this project includes the removal and replacement of the bridge deck, concrete box beams, and elastomeric bearings. The proposed bridge is a composite prestressed concrete box beam superstructure with a 6-inch concrete deck including a 1-inch monolithic wearing surface. Additional work regarding the structure will include patching of the abutment and wing walls as well as rock channel protection as needed. Roadway work for this project includes the removal and replacement of the guardrail immediately before and after the bridge as well as full-depth pavement reconstruction to accommodate the proposed vertical alignment.

5.0 Project Officials

Changes in Project Officials must be submitted in writing from an officer of record.

5.1 Chief Executive Officer (Person authorized in legislation to sign project agreements)

Name: Michael B. Colbert
Title: County Administrator
Address: 451 West Third Street

City: Dayton State: OH Zip: 45422
Phone: 937-225-4582
FAX:
E-Mail: colbertm@mcoho.org

5.2 Chief Financial Officer (Can not also serve as CEO)

Name: Ronelle Kinney
Title: Fiscal Officer
Address: 451 West Third Street

City: Dayton State: OH Zip: 45422
Phone: 937-225-4904
FAX:
E-Mail: kinneyr@mcoho.org

5.3 Project Manager

Name: David Shields
Title: Bridge Engineer
Address: 451 West Third Street

City: Dayton State: OH Zip: 45422
Phone: 937-496-6545
FAX:
E-Mail: shieldsd@mcoho.org

6.0 Attachments / Completeness review

Confirm in the boxes below that each item listed is attached (Check each box)

- x A certified copy of the legislation by the governing body of the applicant authorizing a designated official to sign and submit this application and execute contracts. This individual should sign under 7.0, Applicant Certification, below.
- x A certification signed by the applicant's chief financial officer stating the amount of all local share funds required for the project will be available on or before the dates listed in the Project Schedule section. If the application involves a request for loan (RLP or SCIP), a certification signed by the CFO which identifies a specific revenue source for repaying the loan also must be attached. Both certifications can be accomplished in the same letter.
- x A registered professional engineer's detailed cost estimate and useful life statement, as required in 164-1-13, 164-1-14, and 164-1-16 of the Ohio Administrative Code. Estimates shall contain an engineer's seal or stamp and signature.

A cooperative agreement (if the project involves more than one subdivision or district) which identifies the fiscal and administrative responsibilities of each participant.

Farmland Preservation Review - The Governor's Executive Order 98-IV, "Ohio Farmland Protection Policy" requires the Commission to establish guidelines on how it will take protection of productive agricultural and grazing land into account in its funding decision making process. Please include a Farm Land Preservation statement for projects that have an impact on farmland.

Capital Improvements Report. CIR Required by O.R.C. Chapter 164.06 on standard form.

- x Supporting Documentation: Materials such as additional project description, photographs, economic impact (temporary and/or full time jobs likely to be created as a result of the project), accident reports, impact on school zones, and other information to assist your district committee in ranking your project. Be sure to include supplements which may be required by your local District Public Works Integrating Committee.

7.0 Applicant Certification

The undersigned certifies: (1) he/she is legally authorized to request and accept financial assistance from the Ohio Public Works Commission as identified in the attached legislation; (2) to the best of his/her knowledge and belief, all representations that are part of this application are true and correct; (3) all official documents and commitments of the applicant that are part of this application have been duly authorized by the governing body of the applicant; and, (4) should the requested financial assistance be provided, that in the execution of this project, the applicant will comply with all assurances required by Ohio Law, including those involving Buy Ohio and prevailing wages.

Applicant certifies that physical construction on the project as defined in the application has NOT begun, and will not begin until a Project Agreement for this project has been executed with the Ohio Public Works Commission. Action to the contrary will result in termination of the agreement and withdrawal of Ohio Public Works Commission funding from the project.

Certifying Representative (Printed form, Type or Print Name and Title)

Original Signature / Date Signed

RESOLUTION NO. 22-1243
AUGUST 16, 2022

RESOLUTION AUTHORIZING THE MONTGOMERY COUNTY ENGINEER'S OFFICE TO PREPARE AND SUBMIT APPLICATIONS TO PARTICIPATE IN THE OHIO PUBLIC WORKS COMMISSION (OPWC) STATE CAPITAL IMPROVEMENT PROGRAM (SCIP) OR THE LOCAL TRANSPORTATION IMPROVEMENT PROGRAM (LTIP), AND TO EXECUTE CONTRACTS AS REQUIRED FOR PROJECT APPLICATIONS TO BE SUBMITTED FOR ROUND 2022-2023 (FISCAL YEAR 2024) AS SHOWN IN ATTACHED EXHIBIT "A".

WHEREAS, the Montgomery County Engineer's Office has been notified that OPWC Program Funds will be available to jurisdictions within the area covered by the District 4 Public Works Integrating Committee for Round 2022-2023 (Fiscal Year 2024); and

WHEREAS, the OPWC's State Capital Improvement Program and the Local Transportation Improvement Program both provide financial assistance to political subdivisions for public infrastructure projects; and

WHEREAS, the Montgomery County Engineer's Office is planning to construct the capital improvements listed in Exhibit "A"; and

WHEREAS, the Montgomery County Engineer's Office commits to funding all local share project costs exceeding the total of the OPWC's grants and/or loans received; and

WHEREAS, the County Administrator is the County's authorized agent to sign the OPWC applications and subsequent contracts for project applications to be submitted for Round 2022-2023 (Fiscal Year 2024); and

WHEREAS, the Montgomery County Engineer's Office is authorized to provide additional information concerning the projects listed in Exhibit "A" and commits to meeting the reporting requirements for OPWC.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Montgomery County, Ohio, that the resolution authorizing the transmittal of the applications and entering into of any agreements necessary and appropriate for obtaining OPWC funds as described above for the projects listed in Exhibit "A", be and is hereby approved.

BE IT FURTHER RESOLVED that the Clerk shall certify a copy of this resolution to the County Engineer. The County Engineer shall forward a copy of the certified resolution to the OPWC's District 4 Public Works Integrating Committee. The resolution is also available on Montgomery County, Ohio's website at <http://www.mcoho.org>.

GES:th

**RESOLUTION NO: 22-1243
AUGUST 16, 2022**

CERTIFICATE

Ms. Dodge moved the adoption of the foregoing resolution. It was seconded by Mrs. Lieberman, and upon call of the roll the following vote resulted:

Ms. Dodge, aye; Mrs. Lieberman, aye; Mrs. Rice, aye: Carried.

I hereby certify that the foregoing is a true and correct copy of a resolution duly adopted by the Board of County Commissioners of Montgomery County, Ohio, on the 16th day of August, 2022.

THE BOARD OF COUNTY COMMISSIONERS HEREBY FINDS AND DETERMINES THAT ALL FORMAL ACTIONS RELATIVE TO THE ADOPTION OF THIS RESOLUTION WERE TAKEN IN AN OPEN MEETING OF THIS BOARD OF COUNTY COMMISSIONERS, AND THAT ALL DELIBERATIONS OF THIS BOARD OF COUNTY COMMISSIONERS, AND OF ITS COMMITTEES, IF ANY WHICH RESULTED IN FORMAL ACTION, WERE TAKEN IN MEETINGS OPEN TO THE PUBLIC, IN FULL COMPLIANCE WITH APPLICABLE LEGAL REQUIREMENTS, INCLUDING SECTION 121.22 OF THE REVISED CODE.

Emily Bradford

Emily Bradford, Clerk
Board of County Commissioners
Montgomery County, Ohio

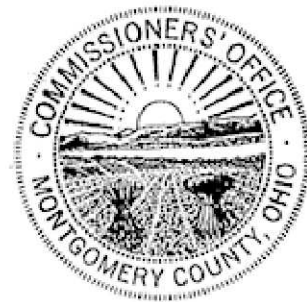


Exhibit A

Ohio Public Works Commission (OPWC) Round 2022-2023 State Capital Improvement Program (SCIP) and Local Transportation Improvement Project (LTIP) Applications

OPWC SCIP Project Application	Job Number	Program Manager	SCIP Project Total Costs	Total SCIP Request	SCIP Grant Request	SCIP Loan Request	MCEO Road A&G	Funds from Other Sources	SCIP Loan Term
Mad River Road Resurfacing (PID 116873)	2022-12	Joe Dura	\$ 874,500	\$ 200,000	\$ 50,000	\$ 150,000	\$ 166,284	\$ 508,216	5-years
Shoup Mill Road Reconstruction (PID 110332)	2018-20	Joe Dura	\$ 5,016,000	\$ 1,500,000	\$ 1,125,000	\$ 375,000	\$ 998,800	\$ 2,517,200	10-years
Taylorville Road	2021-18	Cedric McGhee	\$ 1,330,000	\$ 500,000	\$ 250,000	\$ 250,000	\$ 830,000	\$ -	5-years
Wagner Ford Road (HAR-218-1.00)	2021-09	Rick Splawinski	\$ 1,022,000	\$ 500,000	\$ 125,000	\$ 375,000	\$ 522,000	\$ -	10-years
Wenger Road (CLT-20B-2.06)	2021-17	David Shields	\$ 409,500	\$ 409,500	\$ 102,375	\$ 307,125	\$ -	\$ -	10-years

OPWC LTIP Project Application	Job Number	Program Manager	LTIP Project Total Costs	LTIP Grant Request		MCEO Road A&G	Funds from Other Sources	
Mad River Road Resurfacing (PID 116873)	2022-12	Joe Dura	\$ 874,500	\$ 200,000		\$ 166,284	\$ 508,216	
Shoup Mill Road Reconstruction (PID 110332)	2018-20	Joe Dura	\$ 5,016,000	\$ 1,100,000		\$ 1,398,800	\$ 2,517,200	
Taylorville Road	2021-18	Cedric McGhee	\$ 1,330,000	\$ 332,500		\$ 997,500	\$ -	
Wagner Ford Road (HAR-218-1.00)	2021-09	Rick Splawinski	\$ 1,022,000	\$ 200,000		\$ 822,000	\$ -	
Wenger Road (CLT-20B-2.06)	2021-17	David Shields	\$ 409,500	\$ 195,000		\$ 214,500	\$ -	

**MONTGOMERY COUNTY ENGINEER'S OFFICE
CHIEF FINANCIAL OFFICERS CERTIFICATION**

I, Ronelle Kinney, Comptroller of the Montgomery County Engineer's Office, hereby certify that the Montgomery County Engineer's Office will have the amount of \$307,125.00 available in the Road A&G Fund and that this amount will be used to repay the SCIP or RLP loan requested for the Wenger Road, MOT-CLT-20-2.06, Bridge Reconstruction Project over a 10-year term.

2022-2023

Project Name: Wenger Road, MOT-CLT-20-2.06, Bridge Reconstruction Project

Loan Amount: \$307,125.00

Grant Amount: \$102,375.00

These funds will be available for use July 1, 2023, immediately after formal project approval.



Ronelle Kinney, Comptroller
Montgomery County Engineer's Office

Date: 7/29/22

ENGINEER'S ESTIMATE

REF NO.	ITEM	ITEM EXT	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
ROADWAY							
1	201	11000	CLEARING AND GRUBBING	LS		\$ 7,000.00	\$ 7,000.00
2	202	23000	PAVEMENT REMOVED	SY	379	\$ 18.40	\$ 6,973.60
3	202	38000	GUARDRAIL REMOVED	FT	275	\$ 2.21	\$ 607.75
4	202	42000	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	4	\$ 280.26	\$ 1,121.04
5	203	10000	EXCAVATION	CY	53	\$ 30.72	\$ 1,628.16
6	203	20000	EMBANKMENT	CY	18	\$ 36.46	\$ 656.28
7	204	10000	SUBGRADE COMPACTION	SY	588	\$ 2.58	\$ 1,517.04
8	252	01500	FULL DEPTH PAVEMENT SAWING	FT	43	\$ 5.56	\$ 239.08
9	606	15051	GUARDRAIL, TYPE MGS	FT	63	\$ 25.82	\$ 1,613.75
10	606	15051	GUARDRAIL, TYPE MGS, AS PER PLAN	FT	13	\$ 25.82	\$ 322.75
11	606	26150	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2019	EACH	4	\$ 2,700.71	\$ 10,802.84
12	606	35002	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	EACH	3	\$ 2,439.15	\$ 7,317.45
13	606	35003	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1, AS PER PLAN	EACH	1	\$ 2,439.15	\$ 2,439.15
14	626	00110	GUARDRAIL BLOCKOUT REFLECTOR, TYPE A2	EACH	12	\$ 9.30	\$ 111.60
EROSION CONTROL							
15	659	00300	TOPSOIL	CY	19	\$ 85.58	\$ 1,626.02
16	659	00500	SEEDING AND MULCHING, CLASS 1	SY	175	\$ 1.53	\$ 267.75
17	659	20000	COMMERCIAL FERTILIZER	TON	0.02	\$ 690.91	\$ 13.82
18	659	35000	WATER	MGAL	0.90	\$ 2.42	\$ 2.18
19	832	30000	EROSION CONTROL	EACH	5000	\$ 1.00	\$ 5,000.00
DRAINAGE							
20	611	00400	4" CONDUIT, TYPE E	FT	20	\$ 12.01	\$ 240.20
21	611	01400	6" CONDUIT, TYPE E	FT	20	\$ 17.70	\$ 354.00
PAVEMENT							
22	301	56000	ASPHALT CONCRETE BASE, PG64-22, (449)	CY	95	\$ 275.76	\$ 26,197.20
23	304	20000	AGGREGATE BASE	CY	98	\$ 78.34	\$ 7,677.32
24	407	10000	TACK COAT	GAL	64	\$ 2.41	\$ 154.24
25	441	50000	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	CY	20	\$ 169.23	\$ 3,384.60
26	441	50300	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	CY	27	\$ 139.20	\$ 3,758.40
TRAFFIC CONTROL							
27	646	90000	PAVEMENT MARKING, MISC.: CENTERLINE	FT	250	\$ 0.13	\$ 32.50
28	646	90000	PAVEMENT MARKING, MISC.: EDGE LINE	FT	500	\$ 0.13	\$ 65.00
STRUCTURE OVER 20 FT SPAN							
29	202	11203	PORTIONS OF STRUCTURE REMOVED, OVER 20 FT SPAN, AS PER PLAN	LS		\$ 50,000.00	\$ 50,000.00
30	202	23500	WEARING COURSE REMOVED	SY	152	\$ 15.27	\$ 2,315.61
31	202	38500	BRIDGE RAILING REMOVED	FT	85	\$ 12.87	\$ 1,097.81
32	503	21300	UNCLASSIFIED EXCAVATION	LS		\$ 10,000.00	\$ 10,000.00
33	509	10000	EPOXY COATED REINFORCING STEEL	LB	3998	\$ 2.21	\$ 8,834.48
34	510	10000	DOWEL HOLES WITH NONSHRINK, NONMETALIC GROUT	EACH	144	\$ 21.90	\$ 3,153.60
35	511	34444	CLASS QC2 CONCRETE, BRIDGE DECK	CY	25	\$ 1,591.62	\$ 40,226.72
36	511	45710	CLASS QC1 CONCRETE, ABUTMENT	CY	1	\$ 802.80	\$ 1,104.60
37	512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SY	94	\$ 51.57	\$ 4,860.58
38	512	33000	TYPE 2 WATERPROOFING	SY	14	\$ 20.29	\$ 288.57
39	515	12030	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB17-48	EACH	8	\$ 9,352.29	\$ 74,818.32
40	516	13600	1" PREFORMED EXPANSION JOINT FILLER	SF	12	\$ 3.66	\$ 42.09
41	516	43100	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE)	EACH	32	\$ 138.35	\$ 4,427.20
42	518	21200	POROUS BACKFILL WITH GEOTEXTILE FABRIC	CY	19	\$ 76.13	\$ 1,443.65
43	517	70100	RAILING (THREE STEEL TUBE BRIDGE RAILING)	FT	85	\$ 129.86	\$ 11,077.06
44	601	32200	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	CY	10	\$ 217.76	\$ 2,177.60
45	844	10000	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION	SF	16	\$ 194.92	\$ 3,065.12
46	846	00110	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	CF	12	\$ 605.44	\$ 7,265.28
INCIDENTALS							
47	611	99654	MANHOLE ADJUSTED TO GRADE	EACH	1	\$ 945.36	\$ 945.36
48	614	11000	MAINTAINING TRAFFIC	LS		\$ 10,000.00	\$ 10,000.00
49	614	12420	DETOUR SIGNING	LS		\$ 10,000.00	\$ 10,000.00
50	623	10000	CONSTRUCTION LAYOUT STAKES AND SURVEYING	LS		\$ 5,000.00	\$ 5,000.00
51	624	10000	MOBILIZATION	LS		\$ 10,000.00	\$ 10,000.00

SUBTOTAL = \$ 350,000.00

Contingencies = 5.00% \$ 17,500.00

Right of Way = \$ 7,000.00

Grand Total = \$ 374,500.00

CERTIFICATION

I hereby certify the above estimate to be realistic based on the level of detail currently available for this project; in evidence whereof, I have set my signature and seal as of this date.

David D. Shields

David D. Shields
Ohio Engineer's License #76828

Date 7/28/2022



A weighted useful life statement stamped/sealed and signed by a licensed professional engineer must be included with the project application.

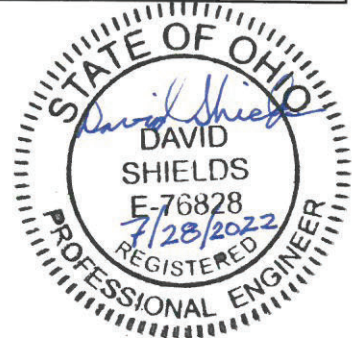
This spreadsheet has formulas to make a weighted useful life calculation and is populated with an example for illustrative purposes. Items can be added to column a.

Weighted Useful Life & Design Service Capacity Calculations

Major Component	Cost (\$1,000)	Portion Repair / Replacement (%)	Repair / Replace Product	Useful Life (Years)	Useful Life Product
Full-depth road construction w/ drainage	11.7	100	1170	25	292.5
Full-depth road construction w/o drainage	78.3	100	7830	25	1957.5
Partial-depth road construction w/ drainage				15	
Partial-depth road construction w/o drainage				15	
Storm Sewers				40	
Sanitary Sewers				40	
Water Lines				40	
Bridge	230	100	23000	75	17250
Pumps, Lift Stations				15	
Sidewalks				25	
Bike Facility				7	
Totals	320		32000		19500

Weighted Useful Life: 60.9 Years

Design Service Capacity (Project Application, Section 2.0):
 Portion Repair / Replace 100 %
 Portion New / Expansion %



OHIO PUBLIC WORKS COMMISSION DISTRICT 4

Round 2022-2023 Supplemental Questionnaire

Applicant: Montgomery County Engineer

Project Title: Wenger Road Bridge Reconstruction, MOT-CLT-20-2.06

Application Summary:

Briefly describe the project:

The Wenger Road Bridge Reconstruction project concerns the single span non-composite prestressed concrete box beam structure over Moss Creek between Hoke Road and Union Boulevard in Clayton, Ohio. Proposed work regarding this structure includes the complete removal and replacement of the deck and superstructure and patching of the abutment walls. Associated roadway work consists of the removal and replacement of the guardrail and full depth repair of the roadway immediately before and after the bridge. The proposed dimensions as well as the hydraulic opening of the structure will not differ from the existing conditions.

Priority:

Is this application your priority project? (Circle One)	
Yes <input type="radio"/>	No <input checked="" type="radio"/>

Generation of Revenue:

Will new user fees or assessments be assessed as part of this project? (Circle One)	
Yes <input type="radio"/>	No <input checked="" type="radio"/>
What will the new user fees or assessments be used for?	

Additional Funding:

Will OPWC match, in part, a committed grant or loan? (Circle One)	
Yes <input type="radio"/>	No <input checked="" type="radio"/>
If no, was the project submitted to an appropriate agency for funding, but denied due to lack of funding? (Circle One)	
Yes – Appropriate Documentation Attached <input type="radio"/>	No <input checked="" type="radio"/>

Readiness of Project:

Will this project be <u>substantially</u> underway on or before June 1, 2024? (Circle One)	
Yes <input checked="" type="radio"/>	No <input type="radio"/>

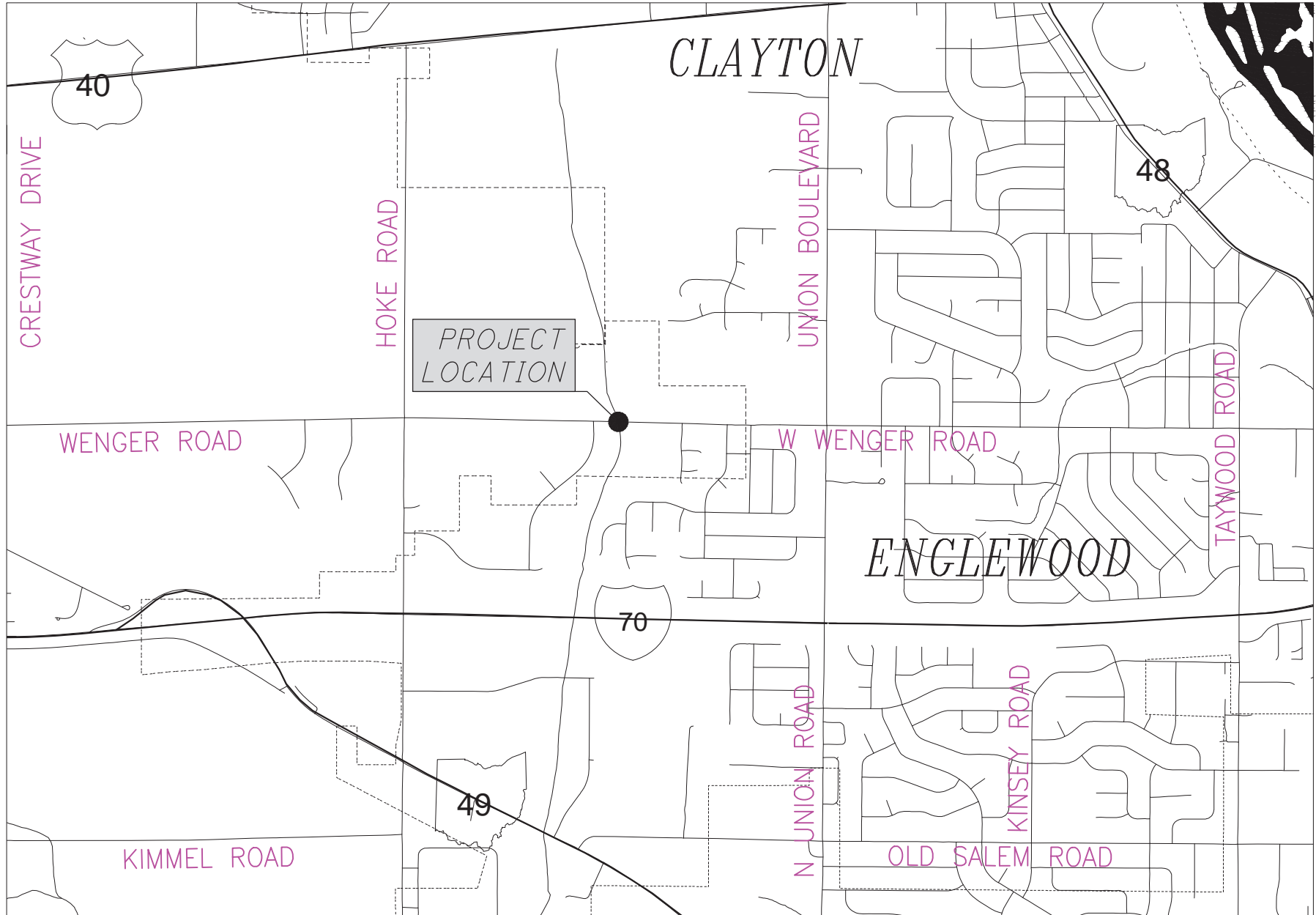
Health & Safety:

Describe the specific health or safety issue being addressed by this project. What deficiency or condition is causing the health or safety issue?
<p>Bridge inspections conducted on March 8th, 2021, show a general appraisal of 4 for both the deck and the superstructure resulting in a general appraisal of 4 – Poor Condition. Recent inspection reports document leakage through the wearing surface which has contributed to the advanced deterioration of the joints between each of the concrete box beams. The worst beam is beam #2 where over 16 square feet of the exposed surface is delaminated or spalled. Several beams, such as beams #6 and #7, have large areas of delamination as well as deep spalling which is beginning to expose prestressing strands. If left unaddressed, the observed deterioration will worsen eventually resulting in more exposed strands and a reduced live load capacity.</p> <p>In addition to the spalling and delamination, deck drainage has been observed to be significantly rusted and, in most locations, has complete section loss and loss of the waterproofing membrane. The poor condition of the deck drainage has likely accelerated the rate of deterioration of the fascia beams as seen in beam #8 which has an area of delamination running the full length of the span. The substructure is in decent condition overall, however, large patches of delamination have been detected. Patching of these areas is highly recommended to preserve the substructure for as long as possible.</p>

Other Factors

What other factors exist that make this project more important than other like projects?

WENGER ROAD, MOT-M020B-02.060 BRIDGE RECONSTRUCTION LOCATION MAP



WENGER ROAD, MOT-M020B-02.060
BRIDGE RECONSTRUCTION
CONDITION STATE OBSERVATIONS

OPWC FY23 DISTRICT 4
APPLICATION



Profile view of the bridge as seen from the North looking South

WENGER ROAD, MOT-M020B-02.060
BRIDGE RECONSTRUCTION

OPWC FY23 DISTRICT 4
APPLICATION



South Deck Drainage



North Deck Drainage

Significant deterioration of the over-the-side deck drainage along both the South and North edges has been observed. The drip edge is completely rusted and perforated along the whole length for both sides. Additionally, the waterproofing membrane can be seen falling off or completely missing along most of the Southern edge.



West/Rear Abutment

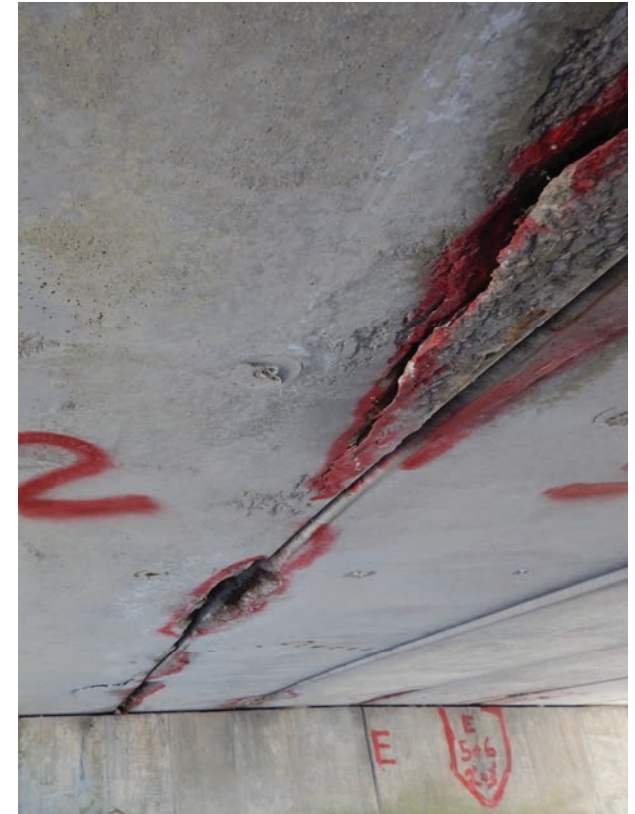


East/Forward Abutment

The faces of both abutments are seen to have minor vertical cracking as well as large areas of delamination. On the Rear abutment this area is approximately 18 sqft and on the Forward abutment the worst patch of delamination is about 6 sqft.

WENGER ROAD, MOT-M020B-02.060
BRIDGE RECONSTRUCTION

OPWC FY23 DISTRICT 4
APPLICATION



Out of all 8 beams, beam #2 seems to be in the worst condition with over 16 sqft of documented spalls and delaminations. Due to significant leakage through the wearing surface and deck, moisture has penetrated the superstructure and caused rapid deterioration of the joints between beams. Overall, both the deck and superstructure were rated a 4-Poor Condition due to this deficiency.



Beam 3 Looking East



Beam 3 Looking West

Directly adjacent to beam #2, beam #3 has been observed to have an upwards of 15 sqft in spalls in delaminations.



Beam 4 Looking West



Beam 5 Looking West

Joint damage has also been observed on beams #4 and #5 where spalling in beam #5 has begun exposing the first row of prestressing strands in the box beam.

WENGER ROAD, MOT-M020B-02.060
BRIDGE RECONSTRUCTION

OPWC FY23 DISTRICT 4
APPLICATION



Beam 6 Looking East



Beam 6 Looking West

Beam #6 was observed to have spalls up to 2" deep and areas of delamination up to 15 sqft in total.



Beam 7 Looking East



Beam 7 Looking West

Beam #7 has several 2" deep spalls which are beginning to expose the lower set of strands in the member.

WENGER ROAD, MOT-M020B-02.060
BRIDGE RECONSTRUCTION

OPWC FY23 DISTRICT 4
APPLICATION



Beam 8 Looking East



Beam 8 Looking West

Finally, spalling up to 3" wide and 1" deep was observed along the entire length of beam #8.

Ohio Bridge Inspection Summary Report

MOT-T020B-0206 (5769167)

2: District 07 15644 - CLAYTON (MOT county)
 21: Major Maint A/B 02 - County Highway Agency /
 225 Routine Main A/B 02 - County Highway Agency /
 221 Inspection A/B 02 - County Highway Agency /
 220: Inv. Location CLT

5A: Inventory Route 1 M020B
 7: Facility On Wenger Road M020B
 6: Feature Ints Moss Creek
 9: Location .5 MI. WEST OF UNION RD.

Condition

58: Deck **4 - Poor Condition**
 58.01 Wearing Surface 5 - Fair (10-15%, 2% asphalt patch)
 58.02 Joint N- Not Applicable
59: Superstructure **4 - Poor Condition**
 59.01 Paint & PCS N - Not Applicable
60: Substructure **7 - Good Condition**
61: Channel **7**
61.01 Scour **7 - Good**
62: Culverts **N - Not Applicable**
67.01 GA **4**

Structure Type

43: Bridge Type 5 - Prestressed concrete
 05 - Box Beam or Girders - Multiple
 N- Not Applicable
 45: Spans Main / Approach 1 / 0
 107: Deck Type 1 - Concrete Cast-in-Place
 408: Composite Deck N - Non-composite Construction
 414A Joint Type 1 N - None
 414B: Joint Type 2 N - None
 108A: Wearing Surface 6 - Bituminous
 N- Not Applicable

Appraisal

Sufficiency Rating 63.7 SD/FO 1 - SD
 36: Rail, Tr, Gd, Term Std 1 1 N 1
 72: Approach Alignment 8 - Equal to present desirable criteria
 113: Scour Critical 5 - Scour within limits of footing or piles
 71: Waterway Adequacy 7 - Slight Chance of Overtopping Bridge

422: WS Date 07/01/2020
 423: WS Thick (in) 4.0
 482: Protective Coating N - None or Not Applicable
 483: PCS Date
 453: Bearing Type 1 4 - Elastomeric (Plain)
 455: Bearing Type 2 N - None
 528: Foundn: Abut Fwd 4 - Spread Footing
 533: Foundn: Abut Rear 4 - Spread Footing
 536: Foundn: Pier 1 N - None (Such as most Culverts)
 539: Foundn: Pier 2 N - None (Such as most Culverts)

Geometric

48: Max Span Length (ft) 39.0
 49: Structure Length (ft) 43.0
 52: Deck Width, Out-To-Out (ft) 32.0
 424: Deck Area (sf) 1376
 32: Appr Roadway Width (ft) 19.0
 51: Road Width, Curb-Curb (ft) 32.0
 50A: Curb/SW Width: Left (ft) 0
 50A: Curb/SW Width: Right (ft) 0
 34: Skew (deg) 5
 33: Bridge Median 0 - No median
 54B: Min Vert Underclearance (ft) 0
 336A: Min Vert Clrnce IR Cardinal (ft) 99
 336B: Min V Clr IR Non-Cardinal (ft) 0
 578: Culvert Length (ft) 0

Age and Service

27: Year Built/ 106 Rehab 1988 / 0000
 42A: Service On 1 - Highway
 42B: Service Under 5 - Waterway
 28A: Lanes on 02
 28B: Lanes Under 00
 19: Bypass Length 3
 29: ADT 11575
 109: % Trucks (%) 3

Load Posting

41: Op/Post/Closed A - Open
 70: Posting 5 - Equal to or above legal loads
 70.01: Date
 70.02: Sign Type
 734: Percent Legal (%) 145
 704: Analysis Date 04/01/2021
 63: Analysis Method 8 - Load and Resistance Factor Rating (LRFR) rating report by rating factor (RF) method using HL-93 loadings.

Inspections

90: Routine Insp. *Months* 12 03/08/2021
 92A: FCM Insp. N 0
 92B: Dive Insp. N 0
 92C: Special Insp. N 0
 92D: UBIT Insp. N 0
 92E: Drone Insp. N 0
 Inspector Schaub,Mark

Inspector: Mark Schaub
Inspection Date: 03/08/2021

Structure Number: 5769167
Facility Carried: Wenger Road M020B

Bridge Inspection Report

Element Inspection

- No items available

ODOT District: 07

MOT-T020B-0206 _(5769167)

Major Maint: 02 - County Highway Agency

Facility Carried: Wenger Road M020B

Traffic On: 1 - Highway

Date Built: 07/01/1988

Routine Maint: 02 - County Highway Agency

Feature Inters: Moss Creek

Traffic Under: 5 - Waterway

Rehab Date:

FIPS Code: 15644 - CLAYTON (MOT county)

Location: CLT

.5 MI. WEST OF UNION RD.

Insp: 02 - County Highway

Resp A: Agency

Insp

Resp B:

Inspector

Schaub,Mark

Inspection Date

03/08/2021

Reviewer Shields,David

Inspector Comments - Deck and Approach

Deck

Floor/Slab (SF)

- See Superstructure comments

Bridge Wearing Surface (SF)

- New asphalt 2020, leakage through wearing surface onto and through deck.

Deck Drainage (EA)

- Water proofing falling off, drip edge rusting, perforated through.

Approach

Approach Wearing Surface (EA)

- New asphalt 2020.

Inspector Comments - General Appraisal

Superstructure

Beams/Girders (LF)

- #2 beam, delam., East 1/4 on South edge, 2'L x 6"W.
- #2 beam, delam, West end on the South edge, 3'L x 16"W, 33%.
- #2 beam, delam, mid span on the South edge, 12'L x 8"W.
- #2 beam, delam., West 1/4 on South edge, 3'L x 14"W, 29%.
- #3 beam, delam West end on the South edge, 7'L x 6"W.
- #3 beam, North edge spalled or delaminated 60% of length of beam x up to 6"W.
- #4 beam, delam, East end on South edge, 5'L x 6"W.
- #4 beam, delam, East end on North edge, 6'L x 8"W.
- #5 beam, delam, West 1/3 on North edge, 8'L x 3"W.
- #5 beam, delam., East 1/3 on South edge, 3'L x 4"W.
- #5 beam, spall, East end on South edge, 6'L x 6"W x 2"D, 1 exp strand.

- #6 beam, spall, West 1/4 on South edge, 8'L x 6"W x 2"D.
- #6 beam, delam., West 1/4 on North edge, 7'L x 4"W.
- #6 beam, delam., West 1/3 on North edge, 2'L x 4"W.
- #6 beam, delam., East 1/3 on South edge, 3'L x 6"W.
- #6 beam, delam., East 1/4 on South edge, 18"L x 4"W.
- #6 beam, delam., East end on North edge, 4'L x 18"W, 37%.
- #7 beam, spall, West 1/3 on North edge, 2'L X 2'W x 2"D, 1 exposed strand.
- #7 beam, delam., mid-span on North edge, 2'L x 6"W.
- #7 beam, delam., East 1/3 on North edge, 18"L x 4"W.
- #8 beam, spalling under drip edge 3"H x 1"D x full length.
- Leakage between all beams.

Substructure

Abutment Walls (LF)

- Minor vertical cracks on both Abutment Walls.

Abutment Caps (LF)

- Horizontal cracks with rust stains under beams 6 & 7, 10" below seat. with delam., 5'W x 1'H.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical

Montgomery County Engineer's Office Traffic Department

Location: : Wenger Road
 Cross Street: : 525' E of Union Road
 By: : KRL

Site: 16 745
 5/18/2016
 Wednesday

24 Hour Volume

Interval Start	Eastbound	Westbound	Combined	Interval Start	Eastbound	Westbound	Combined									
8:00 AM	84	326	67	292	151	618	8:00 PM	68	297	81	305	149	602	Volume Totals		
8:15 AM	84		63		147	8:15 PM	87		68		155	Eastbound	Westbound	Combined		
8:30 AM	65		65		130	8:30 PM	74		83		157	12:00 AM - 12:00 PM				
8:45 AM	93		97		190	8:45 PM	68		73		141	1894	1780	3674		
9:00 AM	79	315	101	315	180	630	9:00 PM	66	200	51	211	117	411	(51.6%)	(48.4%)	
9:15 AM	77		84		161	9:15 PM	46		65		111	12:00 PM - 12:00 AM				
9:30 AM	81		59		140	9:30 PM	52		54		106	3700	4059	7759		
9:45 AM	78		71		149	9:45 PM	36		41		77	(47.7%)	(52.3%)			
10:00 AM	74	289	62	294	136	583	10:00 PM	31	102	34	132	65	234	24 Hours		
10:15 AM	68		72		140	10:15 PM	24		39		63	5594	5839	11433		
10:30 AM	71		84		155	10:30 PM	21		31		52	(48.9%)	(51.1%)			
10:45 AM	76		76		152	10:45 PM	26		28		54	Peak Hours				
11:00 AM	81	319	77	348	158	667	11:00 PM	21	66	17	70	38	136	12:00 AM - 12:00 PM		
11:15 AM	74		96		170	11:15 PM	17		21		38	Eastbound	Westbound	Combined		
11:30 AM	79		87		166	11:30 PM	21		15		36	Started				
11:45 AM	85		88		173	11:45 PM	7		17		24	8:45 AM	11:00 AM	8:45 AM		
12:00 PM	95	363	91	369	186	732	5/19/2016 12:00 AM	9	26	17	45	26	71	Volume		
12:15 PM	93		96		189	12:15 AM	7		17		24	330	348	671		
12:30 PM	90		83		173	12:30 AM	6		5		11	Factor				
12:45 PM	85		99		184	12:45 AM	4		6		10	0.89	0.91	0.88		
1:00 PM	84	341	90	381	174	722	1:00 AM	1	16	10	22	11	38	12:00 PM - 12:00 AM		
1:15 PM	87		101		188	1:15 AM	5		3		8	Eastbound	Westbound	Combined		
1:30 PM	81		97		178	1:30 AM	5		4		9	Started				
1:45 PM	89		93		182	1:45 AM	5		5		10	3:15 PM	5:15 PM	5:00 PM		
2:00 PM	103	347	103	422	206	769	2:00 AM	5	11	6	18	11	29	Volume		
2:15 PM	69		101		170	2:15 AM	2		5		7	453	524	955		
2:30 PM	84		105		189	2:30 AM	1		6		7	Factor				
2:45 PM	91		113		204	2:45 AM	3		1		4	0.91	0.87	0.97		
3:00 PM	109	438	86	395	195	833	3:00 AM	1	11	6	19	7	30	12:00 PM - 12:00 AM		
3:15 PM	116		78		194	3:15 AM	5		2		7	Eastbound	Westbound	Combined		
3:30 PM	101		105		206	3:30 AM	3		7		10	Started				
3:45 PM	112		126		238	3:45 AM	2		4		6	3:15 PM	5:15 PM	5:00 PM		
4:00 PM	124	406	110	443	234	849	4:00 AM	5	29	2	20	7	49	Volume		
4:15 PM	97		101		198	4:15 AM	7		5		12	0.91	0.87	0.97		
4:30 PM	96		113		209	4:30 AM	11		3		14	12:00 PM - 12:00 AM				
4:45 PM	89		119		208	4:45 AM	6		10		16	Eastbound	Westbound	Combined		
5:00 PM	116	432	121	523	237	955	5:00 AM	10	77	8	54	18	131	Started		
5:15 PM	89		150		239	5:15 AM	21		8		29	3:15 PM	5:15 PM	5:00 PM		
5:30 PM	122		110		232	5:30 AM	21		17		38	Volume				
5:45 PM	105		142		247	5:45 AM	25		21		46	453	524	955		
6:00 PM	95	365	122	450	217	815	6:00 AM	27	172	22	134	49	306	Factor		
6:15 PM	100		119		219	6:15 AM	35		24		59	0.91	0.87	0.97		
6:30 PM	84		110		194	6:30 AM	55		41		96	12:00 PM - 12:00 AM				
6:45 PM	86		99		185	6:45 AM	55		47		102	Eastbound	Westbound	Combined		
7:00 PM	100	343	89	358	189	701	7:00 AM	74	303	29	219	103	522	Started		
7:15 PM	89		89		178	7:15 AM	64		75		139	3:15 PM	5:15 PM	5:00 PM		
7:30 PM	71		97		168	7:30 AM	81		56		137	Volume				
7:45 PM	83		83		166	7:45 AM	84		59		143	453	524	955		

Montgomery County Engineer's Office Traffic Department

Location: : Wenger Road
 Cross Street: : 525' E of Union Road
 By: : KRL

Site: 16 745
 5/18/2016
 Wednesday

24 Hour Classification

Eastbound

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
8:00 AM	326	1	229	73	5	14	0	0	4	0	0	0	0	0
9:00 AM	315	1	216	85	3	10	0	0	0	0	0	0	0	0
10:00 AM	289	1	226	52	4	4	0	0	2	0	0	0	0	0
11:00 AM	319	1	229	65	6	16	0	0	2	0	0	0	0	0
12:00 PM	363	4	257	80	10	10	0	0	2	0	0	0	0	0
1:00 PM	341	3	245	75	2	8	0	0	7	1	0	0	0	0
2:00 PM	347	3	253	75	4	10	0	0	2	0	0	0	0	0
3:00 PM	438	8	294	93	17	15	1	0	8	2	0	0	0	0
4:00 PM	406	9	272	98	12	8	1	0	5	0	0	1	0	0
5:00 PM	432	7	302	89	18	12	0	0	3	0	0	1	0	0
6:00 PM	365	2	263	84	7	5	0	0	2	2	0	0	0	0
7:00 PM	343	4	250	72	5	9	0	0	3	0	0	0	0	0
8:00 PM	297	3	234	55	1	4	0	0	0	0	0	0	0	0
9:00 PM	200	4	161	30	3	2	0	0	0	0	0	0	0	0
10:00 PM	102	0	77	24	0	0	0	0	0	1	0	0	0	0
11:00 PM	66	0	55	11	0	0	0	0	0	0	0	0	0	0
5/19/2016														
12:00 AM	26	0	21	4	0	1	0	0	0	0	0	0	0	0
1:00 AM	16	0	14	0	0	0	0	0	0	2	0	0	0	0
2:00 AM	11	0	7	2	0	1	0	0	1	0	0	0	0	0
3:00 AM	11	0	8	2	0	0	0	0	0	1	0	0	0	0
4:00 AM	29	0	25	3	0	1	0	0	0	0	0	0	0	0
5:00 AM	77	0	56	15	1	5	0	0	0	0	0	0	0	0
6:00 AM	172	2	132	31	2	4	0	0	1	0	0	0	0	0
7:00 AM	303	0	219	66	5	10	0	0	1	2	0	0	0	0
Total	5594	53	4045	1184	105	149	2	0	43	11	0	2	0	0
%		0.9	72.3	21.2	1.9	2.7	0.0	0.0	0.8	0.2	0.0	0.0	0.0	0.0

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8:00 AM	292	4	202	60	3	20	0	0	2	0	0	1	0	0
9:00 AM	315	2	203	84	4	18	0	0	3	0	0	1	0	0
10:00 AM	294	2	197	70	7	13	0	0	4	0	0	1	0	0
11:00 AM	348	2	256	69	3	15	0	0	1	0	0	2	0	0
12:00 PM	369	6	262	74	5	12	0	0	9	0	0	1	0	0
1:00 PM	381	1	289	67	4	18	1	0	0	0	0	1	0	0
2:00 PM	422	2	303	92	4	16	0	0	5	0	0	0	0	0
3:00 PM	395	2	276	79	10	22	1	0	4	0	0	1	0	0
4:00 PM	443	3	296	93	8	35	1	0	5	0	0	2	0	0
5:00 PM	523	6	383	97	12	22	0	0	2	0	0	1	0	0
6:00 PM	450	8	334	74	8	17	0	0	8	0	0	1	0	0
7:00 PM	358	2	262	72	5	13	0	0	1	0	0	3	0	0
8:00 PM	305	1	241	51	2	7	0	0	3	0	0	0	0	0
9:00 PM	211	3	161	36	2	5	0	0	3	0	0	1	0	0
10:00 PM	132	0	104	24	0	4	0	0	0	0	0	0	0	0
11:00 PM	70	0	60	8	0	2	0	0	0	0	0	0	0	0
5/19/2016														
12:00 AM	45	0	40	3	0	1	1	0	0	0	0	0	0	0
1:00 AM	22	0	19	2	0	0	0	0	1	0	0	0	0	0
2:00 AM	18	0	13	3	0	1	0	0	1	0	0	0	0	0
3:00 AM	19	0	12	3	0	2	0	0	2	0	0	0	0	0
4:00 AM	20	0	15	4	0	1	0	0	0	0	0	0	0	0
5:00 AM	54	0	40	6	2	5	0	0	1	0	0	0	0	0
6:00 AM	134	1	93	27	1	11	1	0	0	0	0	0	0	0
7:00 AM	219	2	152	34	7	16	2	0	6	0	0	0	0	0
Total	5839	47	4213	1132	87	276	7	0	61	0	0	16	0	0
%		0.8	72.2	19.4	1.5	4.7	0.1	0.0	1.0	0.0	0.0	0.3	0.0	0.0