OHIO PUBLIC WORKS FOR YOU

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: 08/10/2023

Contact: Henry Brierton Phone: 9374967734
(The individual who will be available during business hours and who can best answer or coordinate the response to questions)

Email: briertonh@mcohio.org FAX:

Project

Project Name: Wilmington Pike Bridge Rehabilitation, KET-85-1.59 Zip Code: 45440

Subdivision Type	Project Type	Funding Request Summary
County	(Select single largest component by $)	(Automatically populates from page 2)
SFN	1. Road	Total Project Cost: 1,084,000 .00
	X 2. Bridge/Culvert	1. Grant: 125,000 .00
	3. Water Supply	2. Loan: 375,000 .00
	4. Wastewater	3. Loan Assistance/ Credit Enhancement: 0 .00
	5. Solid Waste	
	6. Stormwater	Funding Requested: 500,000 .00

District Recommendation (To be completed by the District Committee)

Funding Type Requested (Select one)

- ☐ State Capital Improvement Program
- ☐ Local Transportation Improvement Program
- ☐ Revolving Loan Program
- ☐ Small Government Program

District SG Priority: _____

SCIP Loan - Rate: ____ % Term: ____ Yrs Amount: _____ .00

RLP Loan - Rate: ____ % Term: ____ Yrs Amount: _____ .00

Grant: Amount: _____ .00

LTIP: Amount: _____ .00

Loan Assistance / Credit Enhancement: Amount: _____ .00

For OPWC Use Only

STATUS

Project Number: _____

_____

Release Date: _____

OPWC Approval: _____

Grant Amount: _____ .00

Loan Amount: _____ .00

Total Funding: _____ .00

Local Participation: _____ %

OPWC Participation: _____ %

Loan Type: ☐ SCIP ☐ RLP

Date Construction End: _____

Date Maturity: _____

Rate: _____ %

Term: _____ Yrs

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

SCIP Financials

1.1 Project Estimated Costs

Engineering Services

Preliminary / Final Design:	87,000 .00			
Construction Administration:	0 .00			
Total Engineering Services:		a.)	87,000 .00	10 %
Right of Way:		b.)	30,000 .00	
Construction:		c.)	870,000 .00	
Permits, Advertising, Legal:		e.)	10,000 .00	
Construction Contingencies:		f.)	87,000 .00	
Total Estimated Costs:		g.)	1,084,000 .00	

1.2 Project Financial Resources

Local Resources

Local In-Kind or Force Account:	a.)	0 .00	
Local Revenues:	b.)	584,000 .00	
Other Public Revenues:			
Local / ODOT - Let:	d.)	0 .00	
ODOT PID:			
OEPA / OWDA:	e.)	0 .00	
CDBG:	f.)	.00	
Other:	g.)	0 .00	
Subtotal Local Resources:	i.)	584,000 .00	53.9 %

OPWC Funds (Check all requested and enter Amount)

Grant:	25 % of OPWC Funds	j.)	125,000 .00	
Loan:	75 % of OPWC Funds	k.)	375,000 .00	10 yrs
Loan Assistance / Credit Enhancement:		l.)	0 .00	
Subtotal OPWC Funds:		m.)	500,000 .00	46.1 %
Total Financial Resources:		n.)	1,084,000 .00	100 %

OPWC Project Financial Information

Subdivision: Montgomery County

LTIP Financials

Project Name: Wilmington Pike Bridge Rehabilitation, KET-85-1.59

Project Estimated Costs

(All Costs Rounded to Nearest Dollar)

Engineering Services

Estimated Engineering:	87,000 .00		
Construction Administration:	.00		
Total Engineering Services:		87,000 .00	10.0 %
Right of Way:		30,000 .00	
Construction:		870,000 .00	
Permits, Advertising, Legal:		10,000 .00	
Construction Contingencies:		87,000 .00	10.0 %
Total Estimated Costs:		1,084,000 .00	

Project Financial Resources

Local Resources

Local In-Kind or Force Account:		.00	
Local Revenues:		684,000 .00	
Other Public Revenues:			
ODOT / FHWA PID:		.00	
OEPA / OWDA:		.00	
Other:		.00	
Subtotal Local Resources:		684,000 .00	63.1 %

OPWC Funds

Grant:	100 % of OPWC Funds	400,000 .00	
Loan:	0 % of OPWC Funds	.00	
Loan Assistance / Credit Enhancement:		0 .00	
Subtotal OPWC Funds:		400,000 .00	36.9 %
Total Financial Resources:		1,084,000 .00	100.0 %

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:	06/01/2023	End Date:	12/31/2024
3.2 Bid Advertisement and Award	Begin Date:	01/01/2025	End Date:	02/28/2025
3.3 Construction	Begin Date:	04/01/2025	End Date:	09/01/2025

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: 38 Years Age: 1968 (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 16056 Year 2023

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 Wilmington Pike Bridge is located in Kettering, Ohio, 500 feet north of the intersection Woodman Drive. The bridge carries five lanes of northwest/southeast traffic on Wilmington Pike, which spans 20 feet over Little Beaver Creek.

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

The most recent bridge inspection in May 2022 reported a General Appraisal of 5 – Fair, due to the condition of the existing reinforced concrete slab. The primary focus of the project is to replace the deteriorated slab and restore portions of the deteriorated abutments. The underside of the slab shows large spalls and cracks in several locations as well as heavy efflorescence and rust staining covering 50% of the slab. Moisture is actively penetrating the slab and the slab can be observed leaking during rainfall events. Due to an asphalt overlay, the top of the slab cannot be observed.

The existing abutment walls are mostly sound with isolated areas of delamination, spalling, heavy efflorescence and rust stains near the interface with the slab. These upper areas of the abutment wall need to be repaired/reconstructed to accommodate a new superstructure.

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

The intent of the project is to rehabilitate the existing Wilmington Pike Bridge over Little Beaver Creek in Kettering, OH. The rehabilitation of the bridge will consist of superstructure replacement with modifications to the existing abutments. All feasible superstructure options including a concrete slab and composite prestressed concrete box beams, adjacent or spread, shall be considered for the replacement superstructure. Any superstructure selection resulting in a smaller hydraulic opening must be accompanied by hydraulic analysis confirming there is no increase in the base floodplain elevation. The proposed improvements will maintain the same vehicular capacity (five 11’ lanes) with curb and sidewalks on both sides. Existing horizontal and vertical alignments shall be maintained. New approach slabs and approach roadway transition shall be provided as part of the project.

D. How do you intend to promote this project? 1000 character limit.

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E: Additional Notes From Applicant - 1000 character limit.

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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@mcohio.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@mcohio.org

5.3 Project Manager

Name: Henry Brierton

Title:

Address: 451 West Third Street

City: Dayton State: OH Zip: 45422

Phone: 9374967734

FAX:

E-Mail: briertonh@mcohio.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-IIV, "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. 23-1027
AUGUST 08, 2023

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 FISCAL YEAR 2025, 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 Fiscal Year 2025; 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 Fiscal Year 2025; 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.mcohio.org.

GES:th

RESOLUTION NO: 23-1027
AUGUST 08, 2023

CERTIFICATE

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

Ms. Dodge, aye; Mrs. Rice, aye; Mrs. Lieberman, 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 8th day of August, 2023.

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

COMMISSIONERS' OFFICE · MONTGOMERY COUNTY, OHIO ·

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 $959,000 available in the Road A&G Fund and that this amount will be used to repay the SCIP or RLP loan requested for the Wilmington Pike Bridge Rehabilitation, KET-85-1.59, Bridge Rehabilitation Project over a 10-year term.

Fiscal Year: FY25

Project Name: Wilmington Pike, KET-85-1.59, Bridge Rehabilitation Project

Loan Amount:	$375,000.00
Grant Amount:	$125,000.00
Road A&G:	$584,000.00

These funds will be available for use July 1, 2024, immediately after formal project approval.

Ronelle Kinney, Comptroller
Montgomery County Engineer's Office

Date: 8/2/23

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 $684,000 available in the Road A&G Fund. This amount will be added to the LTIP grant amount of $400,000 requested for the Wilmington Pike, KET-85-1.59, Bridge Rehabilitation Project.

Fiscal Year: FY25

Project Name: Wilmington Pike, KET-85-1.59, Bridge Rehabilitation Project

Grant Amount: $400,000.00
Road A&G: $684,000.00

These funds will be available for use July 1, 2024, immediately after formal project approval.

Ronelle Kinney, Comptroller
Montgomery County Engineer's Office

Date: 8/2/23

Exhibit A

Ohio Public Works Commission (OPWC) Round 2023-2024
State Capital Improvement Program (SCIP) and
Local Transportation Improvement Project (LTIP) Applications

OPWC SCIP Project Application	Job Number	Program Manager	SCIP Total Project Costs	Total SCIP Request	SCIP Grant Request	SCIP Loan Request	MCEO Road A&G	Funds for Others Sources	SCIP Loan Term
Dayton-Cincinnati Retaining Wall	2020-07	Rick Splawinski	$ 1,300,000	$ 500,000	$ 325,000	$ 175,000	$ 800,000	$ -	10-years
Shank (MOR-44-4.80; PID 113925)	2020-23	Cedric McGhee	$ 1,613,000	$ 200,000	$ 100,000	$ 100,000	$ 373,000	$ 1,040,000	5-years
Wilmington Pike (KET-85-1.59)	2023-10	Henry Brierton	$ 1,084,000	$ 500,000	$ 125,000	$ 375,000	$ 584,000	$ -	10-years
Lutheran Church Road (JEF-19-3.83)	2022-27	David Shields	$ 237,300	$ 200,000	$ 50,000	$ 150,000	$ 37,300	$ -	5-years
Wellbaum Road (CLY-T0223-02.05)	2023-08	Brierton	$ 430,000	$ 200,000	$ 100,000	$ 100,000	$ 230,000	$ -	5-years
Amity Road (PER-T0056-2.00)	2023-05	Shields	$ 483,500	$ 200,000	$ 100,000	$ 100,000	$ 283,500	$ -	5-years
Social Row Road Widening, Phases 1 & 2 (PID 113360)	2020-17	Joe Dura	$ 7,700,000	$ 2,000,000	$ 1,500,000	$ 500,000	$ 1,125,812	$ 4,574,188	10-years

OPWC LTIP Project Application	Job Number	Program Manager	LTIP Total Project Costs	LTIP Grant Request	[redacted]	MCEO Road A&G	Funds for Others Sources	[redacted]
Dayton-Cincinnati Retaining Wall	2020-07	Rick Splawinski	$ 1,300,000	$ 400,000		$ 900,000	$ -	
Shank (MOR-44-4.80; PID 113925)	2020-23	Cedric McGhee	$ 1,613,000	$ 400,000		$ 173,000	$ 1,040,000	
Wilmington Pike (KET-85-1.59)	2023-10	Henry Brierton	$ 1,084,000	$ 400,000		$ 684,000	$ -	
Lutheran Church Road (JEF-19-3.83)	2022-27	David Shields	$ 237,300	$ 118,650		$ 118,650	$ -	
Wellbaum Road (CLY-T0223-02.05)	2023-08	Henry Brierton	$ 430,000	$ 107,500		$ 322,500	$ -	
Amity Road (PER-T0056-2.00)	2023-05	David Shields	$ 483,500	$ 120,875		$ 362,625	$ -	
Social Row Road Widening, Phases 1 & 2 (PID 113360)	2019-10	Joe Dura	$ 7,700,000	$ 1,100,000		$ 2,025,812	$ 4,574,188	

Wilmington Pike Bridge Rehabilitation: KET-85-1.59

ENGINEER'S ESTIMATE

Group	Ref No.	Item	Unit	Item Description	Supplemental Description	Quantity	Unit Price	Total
ROADWAY	1	201E11000	LS	CLEARING AND GRUBBING		1	$27,768.50	$27,768.50
ROADWAY	2	202E22900	SY	APPROACH SLAB REMOVED		364	$44.00	$16,016.00
ROADWAY	3	202E23000	SY	PAVEMENT REMOVED		240	$19.80	$4,752.00
ROADWAY	4	202E23500	SY	WEARING COURSE REMOVED		360	$16.50	$5,940.00
ROADWAY	5	202E32000	FT	CURB REMOVED		80	$18.70	$1,496.00
ROADWAY	6	204E10000	SY	SUBGRADE COMPACTION		240	$4.40	$1,056.00
ROADWAY	7	625E60010	EACH	LIGHT POLE REMOVED FOR REERECTION		1	$5,500.00	$5,500.00
EROSION CONTROL	8	659E00300	CY	TOPSOIL		187	$55.00	$10,285.00
EROSION CONTROL	9	659E00510	SY	SEEDING AND MULCHING, CLASS 2		1680	$1.10	$1,848.00
EROSION CONTROL	10	659E20000	TON	COMMERCIAL FERTILIZER		1	$1,100.00	$1,100.00
EROSION CONTROL	11	659E35000	MGAL	WATER		10	$2.20	$22.00
EROSION CONTROL	12	832E30000	EACH	EROSION CONTROL		5000	$1.10	$5,500.00
PAVEMENT	13	301E56000	CY	ASPHALT CONCRETE BASE, PG64-22, (449)		27	$385.00	$10,395.00
PAVEMENT	14	304E20000	CY	AGGREGATE BASE		80	$93.50	$7,480.00
PAVEMENT	15	407E10000	GAL	TACK COAT		10	$3.30	$33.00
PAVEMENT	16	441E70000	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22		10	$220.00	$2,200.00
PAVEMENT	17	441E70300	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)		17	$412.50	$7,012.50
PAVEMENT	18	609E16000	FT	CURB, TYPE 2-B		80	$13.20	$1,056.00
							$0.00	
TRAFFIC CONTROL	19	621E00100	EACH	RPM		175	$55.00	$9,625.00
TRAFFIC CONTROL	20	642E50020	FT	PAVEMENT MARKING, MISC.:		500	$5.50	$2,750.00
STRUCTURE	21	202E11201	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN		1	$110,000.00	$110,000.00
STRUCTURE	22	503E21100	CY	UNCLASSIFIED EXCAVATION		152	$71.50	$10,868.00
STRUCTURE	23	509E10000	LB	EPOXY COATED STEEL REINFORCEMENT		56,000.00	$2.20	$123,200.00
STRUCTURE	24	511E31610	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE		77	$880.00	$67,760.00
STRUCTURE	25	511E45710	CY	CLASS QC1 CONCRETE, ABUTMENT		61	$902.00	$55,022.00
STRUCTURE	26	512E10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		73	$44.00	$3,212.00
STRUCTURE	27	512E44400	SY	TYPE B WATERPROOFING		55	$44.00	$2,420.00
STRUCTURE	28	516E13600	SF	1" PREFORMED EXPANSION JOINT FILLER		200	$11.00	$2,200.00
STRUCTURE	29	516E14014	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL		200	$33.00	$6,600.00
STRUCTURE	30	517E75120	FT	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING)		120	$220.00	$26,400.00
STRUCTURE	31	518E21200	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC		152	$99.00	$15,048.00
STRUCTURE	32	518E40000	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		200	$11.00	$2,200.00
STRUCTURE	33	526E15010	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13")		364	$495.00	$180,180.00
STRUCTURE	34	846E00110	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM		69	$495.00	$34,155.00
MOT	35	614E12384	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)		4	$2,475.00	$9,900.00
MOT	36	626E00110	EACH	BARRIER REFLECTOR, TYPE 2		100	$11.00	$1,100.00
MOT	37	622E41100	FT	PORTABLE BARRIER, UNANCHORED		300	$33.00	$9,900.00
INCIDENTALS	36	614E11000	LS	MAINTAINING TRAFFIC		1	$55,000.00	$55,000.00
INCIDENTALS	38	623E10000	LS	CONSTRUCTION LAYOUT STAKES AND SURVEYING		1	$16,500.00	$16,500.00
INCIDENTALS	39	624E10000	LS	MOBILIZATION		1	$16,500.00	$16,500.00

CERTIFICATION

Total = $870,000.00

Henry Brierton
Ohio Engneer's License #86618

08/01/2023
Date

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	288	100	28800	25	7200
Full-depth road construction w/o drainage				25	
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*	582	100	58200	45	26190
Pumps, Lift Stations				15	
Sidewalks				25	
Bike Facility				7	
Totals	870		87000		33390

Weighted Useful Life: 38.4 Years

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

*Bridge life span is limited by the existing substructures to remain. Substructures have an estimated life of 100 years and are currently 55 years old. Therefore, 45 years remain.

USEFUL LIFE CERTIFICATION

I hereby certify that this project has an expected useful life of normal usage in this specific situation; in evidence, whereof, I have set my signature and seal as of this date.

Henry Brierton, P.E.
Ohio Engineer's License #86618

08/01/2023
Date

OHIO PUBLIC WORKS COMMISSION
DISTRICT 4
FY25 Supplemental Questionnaire

Applicant: Montgomery County Engineer

Project Title: Wilmington Pike Bridge Rehabilitation, KET-85-1.59

Application Summary:

Briefly describe the project:

The Wilmington Pike Bridge is located in Kettering, Ohio, 500 feet north of the intersection Woodman Drive. The bridge carries five lanes of northwest/southeast traffic on Wilmington Pike, which spans 20 feet over Little Beaver Creek. The most recent bridge inspection in May 2022 reported a General Appraisal of 5 – Fair, due to the condition of the existing reinforced concrete slab.

The intent of the project is to rehabilitate the existing Wilmington Pike Bridge over Little Beaver Creek in Kettering, OH. The rehabilitation of the bridge will consist of superstructure replacement with modifications to the existing abutments. All feasible superstructure options including a concrete slab and composite prestressed concrete box beams, adjacent or spread, shall be considered for the replacement superstructure. Any superstructure selection resulting in a smaller hydraulic opening must be accompanied by hydraulic analysis confirming there is no increase in the base floodplain elevation. The proposed improvements will maintain the same vehicular capacity (five 11' lanes) with curb and sidewalks on both sides. Existing horizontal and vertical alignments shall be maintained. New approach slabs and approach roadway transition shall be provided as part of the project.

Priority:

Is this application your priority project? (Circle One)	
Yes ○	No ◉

Generation of Revenue:

Will new user fees or assessments be assessed as part of this project? (Circle One)	
Yes ○	No ◉
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 ○	No ◉
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 ○	No ◉

Readiness of Project:

Will this project be <u>substantially</u> underway on or before June 1, 2025? (Circle One)	
Yes ◉	No ○

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?
he most recent bridge inspection in May 2022 reported a General Appraisal of 5 – Fair, due to the condition of the existing reinforced concrete slab. The primary focus of the project is to replace the deteriorated slab and restore portions of the deteriorated abutments. The underside of the slab shows large spalls and cracks in several locations as well as heavy efflorescence and rust staining covering 50% of the slab. Moisture is actively penetrating the slab and the slab can be observed leaking during rainfall events. Due to an asphalt overlay, the top of the slab cannot be observed. The existing abutment walls are mostly sound with isolated areas of delamination, spalling, heavy efflorescence and rust stains near the interface with the slab. These upper areas of the of the abutment wall need to be repaired/reconstructed to accommodate a new superstructure.

Addresses District Infrastructure Needs:

Is this project located in more than one community? (Circle One)	
Yes ○	No ◉

What percentage of the community will be served by this project? (Circle One)		
Less than 25% ◉	25% to 40% ○	More than 40% ○

Economic Development

How many jobs are being created as a result of this project?	N/A
How many jobs will be retained as a result of this project?	N/A

Why is it necessary to fund this improvement to secure this development?

What type of industry is proposed in this development?

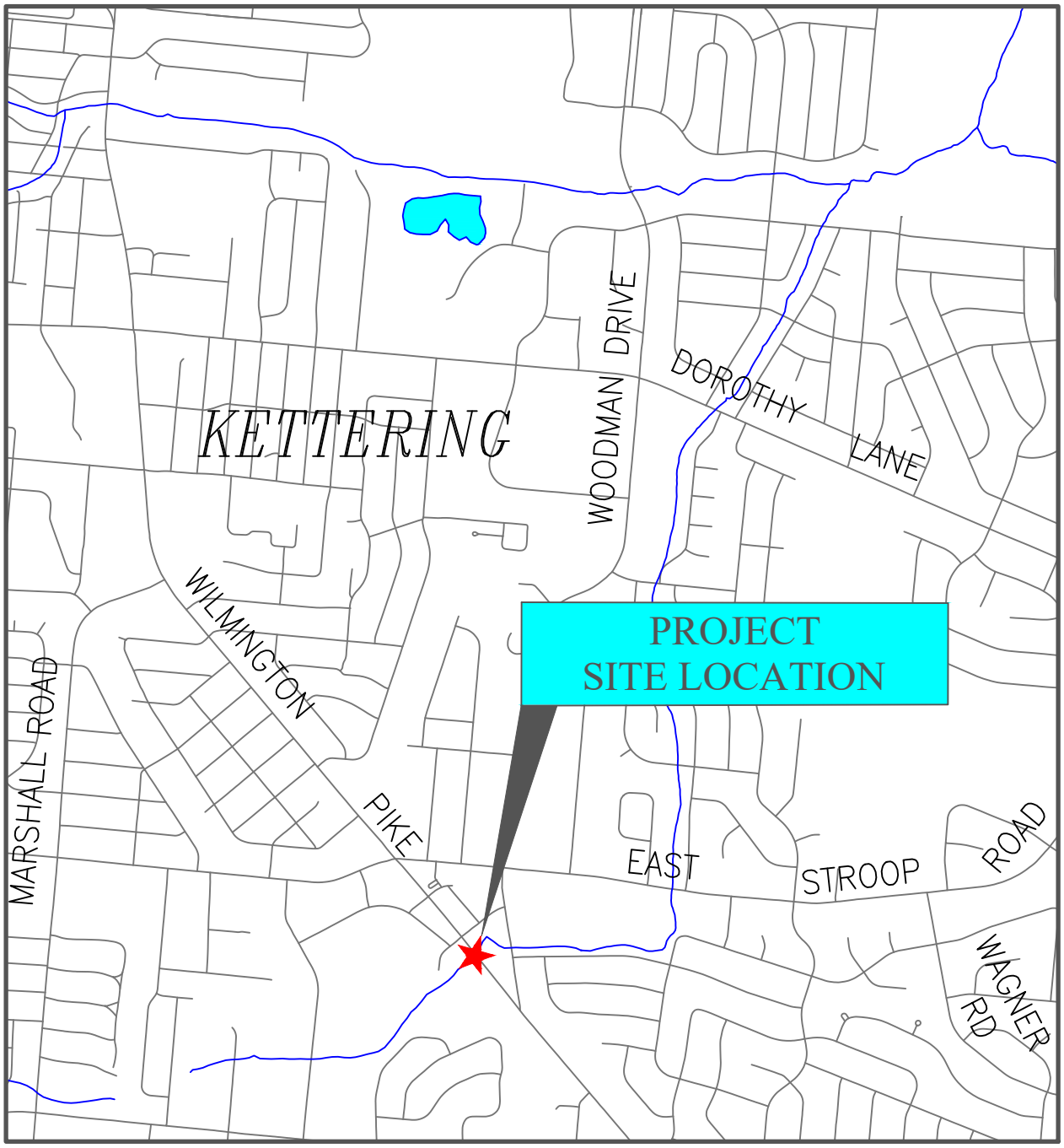
Relieve Existing Traffic Congestion:

What is the level of service?	N/A

Other Factors

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

WILMINGTON PIKE BRIDGE
#KET-M0085-1.59
REHABILITATION PROJECT, JOB 2023-10
CITY OF KETTERING, MONTGOMERY COUNTY



AREA LOCATION MAP

WILIMINGTON PIKE, KET-85-1.59
BRIDGE REHABILITATION
CONDITION STATE OBSERVATIONS

Downstream Profile View of the Wilmington Pike Bridge
as seen from the East Looking West

View of the Downstream Channel
as seen from the Top of the Bridge Looking East

WILIMINGTON PIKE, KET-85-1.59
BRIDGE REHABILITATION
CONDITION STATE OBSERVATIONS

Upstream Profile View of the Wilmington Pike Bridge
as seen from the West Looking East

View of the Upstream Channel
as seen from the Top of the Bridge Looking West

WILIMINGTON PIKE, KET-85-1.59
BRIDGE REHABILITATION
CONDITION STATE OBSERVATIONS

View of the Top of Wilmington Pike Bridge
as seen from the Southeast Looking Northwest

View of the Top of Wilmington Pike Bridge
as seen from the Northwest Looking Southeast

WILIMINGTON PIKE, KET-85-1.59
BRIDGE REHABILITATION
CONDITION STATE OBSERVATIONS

Deterioration of West Exterior Beam
at Northwest Corner Looking East

Deterioration of East Exterior Beam
at Northeast Corner Looking Northwest

WILIMINGTON PIKE, KET-85-1.59
BRIDGE REHABILITATION
CONDITION STATE OBSERVATIONS

East Half of South Abutment
Looking Southeast

West Half of South Abutment
Looking Southwest

WILIMINGTON PIKE, KET-85-1.59
BRIDGE REHABILITATION
CONDITION STATE OBSERVATIONS

West Half of North Abutment
Looking West

North Abutment
Looking West

WILIMINGTON PIKE, KET-85-1.59
BRIDGE REHABILITATION
CONDITION STATE OBSERVATIONS

113” Span by 72” Rise” Elliptical Concrete
Pipe Intersecting North Abutment
Looking North

Vertical Crack in East Half of North Abutment
Looking Northwest

Vertical Crack at Northeast Corner of North Abutment
Looking Northeast

Ohio Bridge Inspection Summary Report

MOT-C0085-0159 (5763363)

2: District	District 07	40040 - KETTERING (MOT county)	
5A: Inventory Route	1	M0085	
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	KET		
7: Facility On	WILMINGTON PK		
6: Feature Ints	S BRANCH LT BEAVER CREEK		
9: Location	.2 MILE S OF STROOP ROAD		
Lat, Lon	39.686153	,-84.128994	

Condition

58: Deck	**5 - Fair Condition**
58.01 Wearing Surface	6 - Satisfactory (1-10% distress)
58.02 Joint	N- Not Applicable
59: Superstructure	**5 - Fair Condition**
59.01 Paint & PCS	N - Not Applicable
60: Substructure	**6 - Satisfactory Condition**
61: Channel	**7**
61.01 Scour	**7 - Good**
62: Culverts	**N - Not Applicable**
67.01 GA	**5**

Appraisal

Sufficiency Rating	77.6	SD/FO	0 - ND	
36: Rail, Tr, Gd, Term Std	1	N	N	N
72: Approach Alignment	8 - Equal to present desirable criteria			
113: Scour Critical	8 - Stable for scour conditions			
71: Waterway Adequacy	8 - Bridge Above Approaches			

Geometric

48: Max Span Length (ft)	19.0
49: Structure Length (ft)	20.0
52: Deck Width, Out-To-Out (ft)	81.8
424: Deck Area (sf)	1636
32: Appr Roadway Width (ft)	55.0
51: Road Width, Curb-Curb (ft)	73.0
50A: Curb/SW Width: Left (ft)	4.5
50A: Curb/SW Width: Right (ft)	4.5
34: Skew (deg)	0
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

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 (%)	115
704: Analysis Date	07/01/1975
63: Analysis Method	5 - No rating analysis or evaluation performed

Structure Type

43: Bridge Type	1 - Concrete
	01 - Slab
	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
422: WS Date	07/01/2010
423: WS Thick (in)	3.0
482: Protective Coating	N - None or Not Applicable
483: PCS Date	
453: Bearing Type 1	N - None
455: Bearing Type 2	N - None
528: Foundn: Abut Fwd	4 - Spread Footing (on soil)
533: Foundn: Abut Rear	4 - Spread Footing (on Soil)
536: Foundn: Pier 1	N - None (Such as most Culverts)
539: Foundn: Pier 2	N - None (Such as most Culverts)

Age and Service

27: Year Built/ 106 Rehab	1968 / 0000
42A: Service On	5 - Highway-pedestrian
42B: Service Under	5 - Waterway
28A: Lanes on	05
28B: Lanes Under	00
19: Bypass Length	2
29: ADT	17696
109: % Trucks (%)	1

Inspections

		Months	
90: Routine Insp.		12	05/10/2022
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 **Structure Number:** 5763363

Inspection Date: 05/10/2022 **Facility Carried:** WILMINGTON PK

Bridge Inspection Report

Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
38 - Reinforced Concrete Slab	3 - Mod.	1636	sq. ft.	389	347	900	0
	CS2: - Spall at West end inlet full length of span just under the fascia (20sq') - 20% of slab has honeycomb concrete. (a construction defect) (327sq'). CS3: - 50% of slab heavy efflorescence saturation with rust stains and stalactites (818sq') - Longitudinal cracks (2 total) under both traveled lanes that run full span of structure. Heavy efflorescence with up to 12" stalactites from each crack with rust stains, wet and dripping moisture (40sq'). - Spall 15' from the East end mid span, 24"L x 6"W x 1.5"D, 1 rebar exposed (2sq'). - Spall near outlet next to North abutment the East end 12"W x 4"L x 1.5"D (1sq'). - Spall at outlet in middle of slab underside just below the fascia 4'W x 6"L x 1"D (1sq').						
510 - Wearing Surfaces		1460	sq. ft.	1460	0	0	0
	CS2: New asphalt wearing surface 2021.						
215 - Reinforced Concrete Abutment	3 - Mod.	164	ft.	118	16	30	0
	CS2: Both abutment walls covered 15% with efflorescence and rust stains, both abutments have vertical cracks full height of abutment with efflorescence and rust stains (16'). CS3: - Horizontal crack with efflorescence and rust stains on South abutment 6" below seat under SB lanes (12') - Both abutments have vertical cracks full height of abutment with efflorescence and rust stains (10').						
330 - Metal Bridge Railing	3 - Mod.	40	ft.	40	0	0	0
331 - Reinforced Concrete Bridge Railing	3 - Mod.	40	ft.	40	0	0	0
815 - Drainage	3 - Mod.	2	each	2	0	0	0

ODOT District: District 07

MOT-C0085-0159 _(5763363)

Date Built: 07/01/1968

Major Maint: 02 - County Highway Agency | Facility Carried: WILMINGTON PK | Traffic On: 5 - Highway-pedestrian | Rehab Date:

Routine Maint: 02 - County Highway Agency | Feature Inters: S BRANCH LT BEAVER CREEK | Traffic Under: 5 - Waterway | Insp. Resp A: 02 - County Highway Agency

FIPS Code: 40040 - KETTERING (MOT county) | Location: KET .2 MILE S OF STROOP ROAD | Insp Resp B:

Inspector Schaub,Mark | Inspection Date 05/10/2022 | Reviewer Shields,David

Inspector Comments - Deck and Approach

Deck

Bridge Wearing Surface (SF)

- New asphalt wearing surface 2021.

- Minor transverse cracks over abutments in right lane of NB.

Curbs/Sidewalk (LF)

- Curbs repaired 2021.

Approach

Approach Wearing Surface (EA)

- New asphalt 2021.

Inspector Comments - General Appraisal

Superstructure

Slab (SF)

- 50% of slab saturated with efflorescence, rust stains, and stalactites.

- West end (inlet) spall on bottom slab just under the fascia full length of span.

- Longitudinal cracks under both traveled lanes that run full span of structure. Heavy efflorescence with up to 12" stalactites from each crack with rust stains, wet and dripping moisture. Delam areas throughout saturated area.

- Spall 15' from the East end mid span, 24"L x 6"W x 1.5"D, 1 rebar exposed.

- Spall near outlet next to North abutment the East end 12"W x 4"L x 1.5"D.

- Spall at outlet in middle of slab underside just below the fascia 4'W x 6"L x 1"D.

- 20% of slab has honeycomb concrete. (a construction defect).

Substructure

Abutment Walls (LF)

- Both abutment walls covered 15% with efflorescence and rust stains, both abutments have vertical cracks full height of abutment with efflorescence and rust stains

- Both abutments wet from leakage at cold joint.

- Horizontal crack with efflorescence and rust stains on South abutment 6" below seat under SB lanes

Wingwalls (EA)

- All 4 wing walls have minor vertical cracks, spalling on East wingwall near top

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel photos are on file for viewing upon request.

Channel

Channel Protection (LF)

- Concrete worn, exposed, and loose aggregates.

Scour Critical

Montgomery County Engineer's Office
Traffic Department

Location : Wilmington Pike
Cross Street : at KET.85-1.59
By : KRL

Site: 23 340
3/21/2023
Tuesday

24 Hour Volume, per Channel

Interval Start			Northbound Interval Start		
1:00 PM	130	528	1:00 AM	7	23
1:15 PM	143		1:15 AM	7	
1:30 PM	125		1:30 AM	5	
1:45 PM	130		1:45 AM	4	
2:00 PM	146	580	2:00 AM	10	24
2:15 PM	136		2:15 AM	4	
2:30 PM	147		2:30 AM	6	
2:45 PM	151		2:45 AM	4	
3:00 PM	132	591	3:00 AM	2	19
3:15 PM	138		3:15 AM	9	
3:30 PM	174		3:30 AM	3	
3:45 PM	147		3:45 AM	5	
4:00 PM	148	637	4:00 AM	5	23
4:15 PM	160		4:15 AM	5	
4:30 PM	153		4:30 AM	5	
4:45 PM	176		4:45 AM	8	
5:00 PM	176	703	5:00 AM	6	65
5:15 PM	191		5:15 AM	10	
5:30 PM	156		5:30 AM	25	
5:45 PM	180		5:45 AM	24	
6:00 PM	145	539	6:00 AM	35	201
6:15 PM	142		6:15 AM	50	
6:30 PM	142		6:30 AM	50	
6:45 PM	110		6:45 AM	66	
7:00 PM	122	437	7:00 AM	82	470
7:15 PM	106		7:15 AM	144	
7:30 PM	110		7:30 AM	123	
7:45 PM	99		7:45 AM	121	
8:00 PM	97	333	8:00 AM	129	452
8:15 PM	85		8:15 AM	111	
8:30 PM	90		8:30 AM	125	
8:45 PM	61		8:45 AM	87	
9:00 PM	76	233	9:00 AM	85	383
9:15 PM	72		9:15 AM	101	
9:30 PM	45		9:30 AM	93	
9:45 PM	40		9:45 AM	104	
10:00 PM	44	132	10:00 AM	86	414
10:15 PM	38		10:15 AM	100	
10:30 PM	30		10:30 AM	110	
10:45 PM	20		10:45 AM	118	
11:00 PM	30	87	11:00 AM	124	476
11:15 PM	30		11:15 AM	118	
11:30 PM	16		11:30 AM	109	
11:45 PM	11		11:45 AM	125	
3/22/2023 12:00 AM	5	23	12:00 PM	143	542
12:15 AM	4		12:15 PM	134	
12:30 AM	9		12:30 PM	130	
12:45 AM	5		12:45 PM	135	

24 Hour Total
7915

12:00 AM - 12:00 PM

12 Hour Count	2573
Peak Hour	7:15 AM
Peak Volume	517
Factor	0.90

12:00 PM - 12:00 AM

12 Hour Count	5342
Peak Hour	5:00 PM
Peak Volume	703
Factor	0.92

Montgomery County Engineer's Office
Traffic Department

Location : Wilmington Road
Cross Street : 525' N of Woodman Drive SB
By : KRL

Site: 23 340
3/21/2023
Tuesday

24 Hour Volume, per Channel

Interval Start			Southbound Interval Start		
1:00 PM	135	551	1:00 AM	5	21
1:15 PM	133		1:15 AM	6	
1:30 PM	135		1:30 AM	7	
1:45 PM	148		1:45 AM	3	
2:00 PM	164	592	2:00 AM	6	20
2:15 PM	157		2:15 AM	8	
2:30 PM	130		2:30 AM	4	
2:45 PM	141		2:45 AM	2	
3:00 PM	169	718	3:00 AM	3	27
3:15 PM	173		3:15 AM	7	
3:30 PM	187		3:30 AM	14	
3:45 PM	189		3:45 AM	3	
4:00 PM	192	700	4:00 AM	4	34
4:15 PM	183		4:15 AM	8	
4:30 PM	167		4:30 AM	13	
4:45 PM	158		4:45 AM	9	
5:00 PM	215	739	5:00 AM	16	102
5:15 PM	198		5:15 AM	28	
5:30 PM	180		5:30 AM	38	
5:45 PM	146		5:45 AM	20	
6:00 PM	153	573	6:00 AM	43	213
6:15 PM	146		6:15 AM	52	
6:30 PM	134		6:30 AM	72	
6:45 PM	140		6:45 AM	46	
7:00 PM	119	424	7:00 AM	79	411
7:15 PM	119		7:15 AM	118	
7:30 PM	98		7:30 AM	103	
7:45 PM	88		7:45 AM	111	
8:00 PM	79	307	8:00 AM	108	402
8:15 PM	72		8:15 AM	95	
8:30 PM	78		8:30 AM	101	
8:45 PM	78		8:45 AM	98	
9:00 PM	58	185	9:00 AM	84	366
9:15 PM	44		9:15 AM	88	
9:30 PM	47		9:30 AM	101	
9:45 PM	36		9:45 AM	93	
10:00 PM	29	97	10:00 AM	119	448
10:15 PM	25		10:15 AM	110	
10:30 PM	21		10:30 AM	117	
10:45 PM	22		10:45 AM	102	
11:00 PM	25	82	11:00 AM	128	570
11:15 PM	25		11:15 AM	134	
11:30 PM	19		11:30 AM	169	
11:45 PM	13		11:45 AM	139	
3/22/2023 12:00 AM	13	29	12:00 PM	139	530
12:15 AM	6		12:15 PM	140	
12:30 AM	7		12:30 PM	157	
12:45 AM	3		12:45 PM	94	

24 Hour Total
8141

12:00 AM - 12:00 PM

12 Hour Count	2643
Peak Hour	11:00 AM
Peak Volume	570
Factor	0.84

12:00 PM - 12:00 AM

12 Hour Count	5498
Peak Hour	3:30 PM
Peak Volume	751
Factor	0.98

Montgomery County Engineer's Office
Traffic Department

Location : Wilmington Pike
Cross Street : at KET.85-1.59
By : KRL

Site: 23 340
3/21/2023
Tuesday

24 Hour Classification

Northbound

Interval Start	Total	Motor Bikes	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
1:00 PM	528	3	368	92	13	35	0	0	9	0	0	8	0	0
2:00 PM	580	5	421	106	6	28	1	0	11	0	0	2	0	0
3:00 PM	591	1	434	97	15	30	1	0	9	0	0	3	0	1
4:00 PM	637	3	465	102	9	39	0	0	15	0	0	4	0	0
5:00 PM	703	8	534	109	2	36	1	0	11	1	0	1	0	0
6:00 PM	539	4	401	89	5	29	0	0	8	0	0	3	0	0
7:00 PM	437	5	310	77	6	23	0	0	14	0	0	2	0	0
8:00 PM	333	1	265	41	0	20	0	0	5	0	0	1	0	0
9:00 PM	233	0	199	30	1	3	0	0	0	0	0	0	0	0
10:00 PM	132	0	104	24	1	1	0	0	1	1	0	0	0	0
11:00 PM	87	0	75	7	1	4	0	0	0	0	0	0	0	0
3/22/2023 12:00 AM	23	0	18	3	1	1	0	0	0	0	0	0	0	0
1:00 AM	23	0	19	1	0	2	0	0	0	1	0	0	0	0
2:00 AM	24	0	21	1	0	1	0	0	0	1	0	0	0	0
3:00 AM	19	0	11	5	0	2	1	0	0	0	0	0	0	0
4:00 AM	23	0	15	5	0	3	0	0	0	0	0	0	0	0
5:00 AM	65	0	43	9	0	11	0	0	2	0	0	0	0	0
6:00 AM	201	0	139	38	3	15	1	0	3	1	0	1	0	0
7:00 AM	470	5	330	88	10	26	0	0	8	1	0	2	0	0
8:00 AM	452	2	299	82	9	38	0	0	16	1	0	5	0	0
9:00 AM	383	1	269	83	3	21	1	0	4	0	0	1	0	0
10:00 AM	414	3	273	92	3	29	1	0	9	1	0	3	0	0
11:00 AM	476	1	329	85	7	34	2	0	12	0	0	6	0	0
12:00 PM	542	0	386	97	7	37	1	0	11	1	0	2	0	0
Total	7915	42	5728	1363	102	468	10	0	148	9	0	44	0	1
%		0.5	72.4	17.2	1.3	5.9	0.1	0.0	1.9	0.1	0.0	0.6	0.0	0.0

Montgomery County Engineer's Office
Traffic Department

Location : Wilmington Road
Cross Street : 525' N of Woodman Drive SB
By : KRL

Site: 23 340
3/21/2023
Tuesday

24 Hour Classification

Southbound

Interval Start	Total	Motor Bikes	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
1:00 PM	551	4	394	96	11	34	0	0	10	0	0	2	0	0
2:00 PM	592	1	400	127	13	28	1	0	17	0	0	5	0	0
3:00 PM	718	3	534	121	11	37	0	0	10	0	0	2	0	0
4:00 PM	700	1	498	132	4	49	1	0	12	0	0	3	0	0
5:00 PM	739	2	561	125	3	26	2	0	17	0	0	3	0	0
6:00 PM	573	1	447	90	5	21	0	0	8	0	0	1	0	0
7:00 PM	424	4	313	69	4	23	0	0	8	0	0	3	0	0
8:00 PM	307	4	220	58	2	16	1	0	6	0	0	0	0	0
9:00 PM	185	1	143	32	1	7	0	0	1	0	0	0	0	0
10:00 PM	97	0	75	15	2	5	0	0	0	0	0	0	0	0
11:00 PM	82	0	65	8	1	6	0	0	1	1	0	0	0	0
3/22/2023 12:00 AM	29	0	28	1	0	0	0	0	0	0	0	0	0	0
1:00 AM	21	0	17	4	0	0	0	0	0	0	0	0	0	0
2:00 AM	20	0	15	0	1	3	0	0	0	1	0	0	0	0
3:00 AM	27	0	20	2	0	2	0	0	0	3	0	0	0	0
4:00 AM	34	0	30	2	0	1	0	0	0	1	0	0	0	0
5:00 AM	102	0	67	22	1	11	0	0	1	0	0	0	0	0
6:00 AM	213	0	162	36	5	7	0	0	3	0	0	0	0	0
7:00 AM	411	1	281	89	4	21	1	0	10	1	0	3	0	0
8:00 AM	402	0	264	90	11	25	0	0	9	1	0	2	0	0
9:00 AM	366	0	263	62	4	27	1	0	7	1	0	1	0	0
10:00 AM	448	3	317	86	6	27	0	0	8	0	0	1	0	0
11:00 AM	570	2	398	110	7	42	0	1	7	0	0	3	0	0
12:00 PM	530	1	371	105	6	31	2	0	10	1	0	3	0	0
Total	8141	28	5883	1482	102	449	9	1	145	10	0	32	0	0
%		0.3	72.3	18.2	1.3	5.5	0.1	0.0	1.8	0.1	0.0	0.4	0.0	0.0

Montgomery County Engineer's Office
Traffic Department

Location : Wilmington Pike
Cross Street : at KET.85-1.59
By : KRL

Site: 23 340
3/21/2023
Tuesday

24 Hour Speed

Northbound

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	Avg.
1:00 PM	528	4	11	3	5	87	221	146	43	4	2	2	0	0	38.3
2:00 PM	580	1	3	2	11	146	242	127	41	4	1	1	1	0	37.9
3:00 PM	591	4	4	8	16	128	199	179	38	9	5	0	0	1	38.3
4:00 PM	637	0	9	4	5	68	231	221	87	8	1	1	0	2	40.1
5:00 PM	703	6	11	9	5	78	247	252	87	5	3	0	0	0	39.3
6:00 PM	539	3	5	6	15	51	189	205	49	11	3	1	1	0	39.5
7:00 PM	437	6	4	6	13	84	151	129	37	6	1	0	0	0	38.2
8:00 PM	333	2	5	3	8	53	137	102	23	0	0	0	0	0	38.2
9:00 PM	233	1	0	2	4	37	98	72	16	2	1	0	0	0	38.7
10:00 PM	132	0	0	1	2	20	61	38	10	0	0	0	0	0	38.8
11:00 PM	87	0	0	0	3	15	33	31	3	2	0	0	0	0	38.8
3/22/2023 12:00 AM	23	0	0	0	1	3	10	9	0	0	0	0	0	0	38.4
1:00 AM	23	0	0	0	0	4	12	6	1	0	0	0	0	0	38.2
2:00 AM	24	0	0	0	0	7	7	8	2	0	0	0	0	0	38.6
3:00 AM	19	0	0	0	1	4	10	4	0	0	0	0	0	0	37.1
4:00 AM	23	0	0	0	1	4	8	10	0	0	0	0	0	0	38.3
5:00 AM	65	0	0	1	0	7	30	18	7	2	0	0	0	0	39.4
6:00 AM	201	1	0	0	1	16	73	78	26	5	0	0	0	1	40.7
7:00 AM	470	6	4	2	10	84	187	134	36	7	0	0	0	0	38.3
8:00 AM	452	3	3	0	17	98	155	134	35	5	2	0	0	0	38.2
9:00 AM	383	1	0	1	11	54	163	107	40	6	0	0	0	0	39.1
10:00 AM	414	0	5	6	12	84	170	97	35	5	0	0	0	0	38.0
11:00 AM	476	5	8	5	18	112	168	110	46	4	0	0	0	0	37.4
12:00 PM	542	6	7	5	25	108	208	144	34	4	0	1	0	0	37.5
Total	7915	49	79	64	184	1352	3010	2361	696	89	19	6	2	4	38.6
%		0.6	1.0	0.8	2.3	17.1	38.0	29.8	8.8	1.1	0.2	0.1	0.0	0.1	

Average (Mean) 38.6 mph **Minimum** 10.1 mph **Maximum** 83.7 mph **Pace Range** 33.7 - 43.7 mph 5490 vehicles (69.4%)

Percentile Speeds	10%	15%	50%	85%	90%
(mph)	32.4	33.7	38.8	43.9	45.1

Speeds Exceeded	25 mph	35 mph	45 mph	55 mph	65 mph	75 mph
	97.6% (7723)	78.2% (6187)	10.3% (816)	0.4% (31)	0.1% (6)	0.0% (2)

Montgomery County Engineer's Office
Traffic Department

Location : Wilmington Road
Cross Street : 525' N of Woodman Drive SB
By : KRL

Site: 23 340
3/21/2023
Tuesday

24 Hour Speed

Southbound

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	Avg.
1:00 PM	551	1	10	13	46	161	207	91	18	3	0	1	0	0	35.6
2:00 PM	592	1	11	18	79	184	193	91	12	3	0	0	0	0	34.7
3:00 PM	718	6	8	23	50	126	261	186	51	5	2	0	0	0	37.3
4:00 PM	700	1	7	5	30	85	198	264	97	13	0	0	0	0	39.6
5:00 PM	739	0	9	14	25	100	212	293	78	8	0	0	0	0	39.1
6:00 PM	573	2	13	11	35	87	159	192	68	6	0	0	0	0	38.2
7:00 PM	424	2	8	9	43	120	149	74	18	1	0	0	0	0	35.7
8:00 PM	307	0	3	8	36	75	103	63	18	1	0	0	0	0	36.2
9:00 PM	185	0	2	1	15	44	66	41	14	2	0	0	0	0	37.3
10:00 PM	97	0	2	0	7	23	32	28	3	2	0	0	0	0	37.2
11:00 PM	82	0	1	1	3	19	33	20	5	0	0	0	0	0	37.1
3/22/2023 12:00 AM	29	0	0	0	2	9	11	5	1	1	0	0	0	0	37.0
1:00 AM	21	0	0	0	1	6	9	3	2	0	0	0	0	0	37.5
2:00 AM	20	0	0	0	6	4	8	1	1	0	0	0	0	0	34.5
3:00 AM	27	0	0	0	2	9	9	5	2	0	0	0	0	0	36.5
4:00 AM	34	0	0	0	4	4	12	8	3	2	0	0	1	0	39.4
5:00 AM	102	0	0	1	4	19	40	27	7	4	0	0	0	0	38.5
6:00 AM	213	0	0	3	4	24	46	91	40	3	0	2	0	0	40.9
7:00 AM	411	0	3	2	11	40	132	148	67	7	0	0	0	1	40.2
8:00 AM	402	3	8	4	27	54	137	137	29	3	0	0	0	0	38.0
9:00 AM	366	1	6	9	42	110	125	57	13	2	0	0	0	1	35.5
10:00 AM	448	2	3	4	36	124	168	91	19	0	0	1	0	0	36.5
11:00 AM	570	2	5	13	50	169	202	114	15	0	0	0	0	0	35.8
12:00 PM	530	2	7	22	66	143	170	102	17	1	0	0	0	0	35.2
Total	8141	23	106	161	624	1739	2682	2132	598	67	2	4	1	2	37.2
%		0.3	1.3	2.0	7.7	21.4	32.9	26.2	7.3	0.8	0.0	0.0	0.0	0.0	

Average (Mean) 37.2 mph **Minimum** 10.1 mph **Maximum** 79.4 mph **Pace Range** 33.1 - 43.1 mph 5034 vehicles (61.8%)

Percentile Speeds	10%	15%	50%	85%	90%
(mph)	29.5	31.2	37.7	43.2	44.4

Speeds Exceeded	25 mph	35 mph	45 mph	55 mph	65 mph	75 mph
	96.4% (7851)	67.4% (5488)	8.3% (674)	0.1% (9)	0.0% (3)	0.0% (2)