

PRELIMINARY ESTIMATED PROJECT COSTS CITY OF EAST LIVERPOOL DRESDEN AVENUE ROADWAY IMPROVEMENTS - PHASE 2 (6/11/21)

ITEM	ESTIMATED	UNIT	DESCRIPTION	UNIT PRICE	ESTIMATED COST
NUMBER	QUANTITIES				
			ROADWAY		
201	LUMP	SUM	Clearing and Grubbing	\$15,000.00	\$15,000.00
202	200	S.F.	Walk Removed	\$5.00	\$1,000.00
202	200	FOOT	Curb Removed	\$9.00	\$1,800.00
204	475	C.Y.	Excavation of Subgrade	\$16.00	\$7,600.00
204	475	C.Y.	Granular Embankment	\$66.00	\$31,350.00
204	2,000	S.Y.	Geotextile Fabric	\$2.00	\$4,000.00
209	40.0	STA.	Linear Grading, As Per Plan	\$1,200.00	\$48,000.00
209	100.0	STA.	Preparing Subgrade for Shoulder Paving	\$700.00	\$70,000.00
608	200	S.F.	4" Concrete Walk, As Per Plan	\$10.00	\$2,000.00
			SUBTOTAL ROADWAY		\$180,750.00
			EROSION CONTROL		
601	1,000	FOOT	Paved Gutter, As Per Plan	\$110.00	\$110,000.00
659	4,500	S.Y.	Seeding and Mulching	\$2.50	\$11,250.00
670	1,000	S.Y.	Ditch Erosion Protection	\$4.50	\$4,500.00
832	7,500	EACH	Erosion Control	\$1.00	\$7,500.00
					\$133,250.00
			DRAINAGE		
611	100	FOOT	15" Conduit, Type B, As Per Plan	\$62.00	\$6,200.00
611	100	FOOT	18" Conduit, Type B, As Per Plan	\$67.00	\$6,700.00
611	5	EACH	Catch Basin Reconstructed to Grade, As Per Plan	\$1,500.00	\$7,500.00
611	5	EACH	Manhole Reconstructed to Grade, As Per Plan	\$1,500.00	\$7,500.00
SPECIAL	1,000	POUND	Miscellaneous Metal	\$3.50	\$3,500.00
			SUBTOTAL DRAINAGE		\$31,400.00
			PAVEMENT		
254	14,000	S.Y.	Pavement Planing, Asphalt Concrete, A.P.P. (T=3"+/-)	\$3.50	\$49,000.00
255	1,400	S.Y.	Full Depth Pavement Removal and Rigid Replacement,	\$140.00	\$196,000.00
			Class QC MS, As Per Plan		
255	4,200	FOOT	Full Depth Pavement Sawing	\$3.00	\$12,600.00
304	120	C.Y.	Aggregate Base, As Per Plan	\$80.00	\$9,600.00
305	25	S.Y.	10" Concrete Base, Class QC MS	\$100.00	\$2,500.00
407	800	GAL.	Tack Coat	\$3.00	\$2,400.00
407	1,200	GAL.	Tack Coat, 702.13	\$3.00	\$3,600.00
408	900	GAL.	Prime Coat	\$11.00	\$9,900.00
441	500	C.Y.	Asphalt Concrete Surface Course, Type 1, (448),	\$255.00	\$127,500.00
			As Per Plan, (PG64-22)		
441	700	C.Y.	Asphalt Concrete Intermediate Course, Type 2, (448)	\$240.00	\$168,000.00
609	200	FOOT	Curb, Type 6	\$30.00	\$6,000.00
617	250	C.Y.	Compacted Aggregate, As Per Plan	\$60.00	\$15,000.00
SPECIAL	14,000	S.Y.	Hauling and Stockpiling of Pavement Planing	\$1.50	\$21,000.00
			Cuttings (T=3"+/-)		
]	SUBTOTAL PAVEMENT		\$623,100.00

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ITEM	ESTIMATED	UNIT	DESCRIPTION	UNIT PRICE	ESTIMATED COST
NUMBER	QUANTITIES				
			WATER WORK		
638	10	EACH	Valve Box Adjusted to Grade	\$200.00	\$2,000.00
			SUBTOTAL WATER		\$2,000.00
			TRAFFIC CONTROL		
644	2.30	MILE	Edge Line, 4"	\$4,000.00	\$9,200.00
644	1.15	MILE	Center Line	\$6,500.00	\$7,475.00
			SUBTOTAL TRAFFIC CONTROL		\$16,675.00
			MAINTENANCE OF TRAFFIC		
614	50	C.Y.	Maintaining Traffic Misc.: 304 Aggregate Base, As Per Plan	\$80.00	\$4,000.00
614	2.30	MILE	Work Zone Centerline, Class 1, 642 Paint	\$1,200.00	\$2,760.00
614	1.15	MILE	Work Zone Centerline, Class 1, 740.06, Type 1	\$6,400.00	\$7,360.00
616	7	M GAL.	Water	\$45.00	\$315.00
			SUBTOTAL MAINTENANCE OF TRAFFIC		\$14,435.00
			MISCELLANEOUS		
614	LUMP	SUM	Maintaining Traffic	\$50,000.00	\$50,000.00
619	4.0	MONTH	Field Office, Type A	\$1,200.00	\$4,800.00
623	LUMP	SUM	Construction Layout Stakes and Surveying	\$3,000.00	\$3,000.00
624	LUMP	SUM	Mobilization	\$30,000.00	\$30,000.00
	LUMP	SUM	Performance, Payment, and Warranty Bond	\$15,000.00	\$15,000.00
			SUBTOTAL MISCELLANEOUS		\$102,800.00
			TOTAL PRELIM. ESTIMATED CONSTRUCTION COST		
			TOTAL PRELIM. ESTIMATED CONSTRUCTION COST		\$1,104,410.00

The above Total Estimated Construction Cost is based upon item cost information available to the Engineer and the Engineer's experience and qualifications on past projects similar in nature as well as the Engineer's best judgment as a professional engineer. The Engineer has no control over the cost of materials, equipment, labor or other services provided by others due to fluctuating market conditions and/or competitive bidding; therefore, the Engineer cannot and does not guarantee that the actual total project costs will not exceed the "Total Estimated Construction Cost" shown above.

ESTIMATED ENGINEERING COSTS

\$110,000.00	ANTICIPATED COSTS FOR ENGINEERING DESIGN SERVICES
\$22,000.00	ANTICIPATED COSTS FOR ENVIRONMENTAL ENGINEERING SERVICES
\$110,000.00	ANTICIPATED COSTS FOR CONSTRUCTION MANAGEMENT SERVICES:
	(ESTIMATED @ 10% OF CONSTRUCTION COSTS)

PERMIT FEES AND ADVERTISING \$3,000.00

TOTAL ESTIMATED PROJECT COST

\$1,349,410.00

CITY OF EAST LIVERPOOL DRESDEN AVENUE ROADWAY IMPROVEMENTS – PHASE 2 PROJECTED COSTS AND PROJECTED FUNDING

PROJECTED COSTS:			
Estimated Construction Costs	= \$1	,104,4	10.00
Costs for Engineering Design Services	= \$	110,0	00.00
Costs for Environmental Engineering Services	= \$		00.00
Costs for Construction Inspection Services	=\$		00.00
Permit Fees and Advertising	=\$,	00.00
Subtotal Engineering Costs		245,0	
Projected Total Costs (Eng. And Const.)	= \$1	,349,4	10.00
PROJECTED FUNDING:			
Local Funds (100% Engineering Design Service	es)	= \$	110,000.00
Local Funds (100% Environmental Eng. Service		= \$	22,000.00
Local Funds (100% Permit Fees & Advertising) = \$ 3,000			
Local Funds (5% Roadway Construction)		= \$	55,220.50
Local Funds (5% Construction Engineering)		= \$	5,500.00
Total Local Funds		= \$	195,720.50
ODOT Small Cities Grant (95% Roadway Con	str)	- \$1	,049,189.50
ODOT Small Cities Grant (95% Const. Engine			<i>'</i>
Total ODOT Small Cities Grant	cinig		,153,689.50
Total Projected Funding= = = = = = = = = = =	===	=>5	1,349,410.00

ANTICIPATED PROJECT SCOPE, PROJECT EVALUATION INFORMATION, AND PAVEMENT CONDITION RATINGS (PCR's)

CITY OF EAST LIVERPOOL DRESDEN AVENUE ROADWAY IMPROVEMENTS – PHASE 2 SMALL CITY APPLICATION ANTICIPATED PROJECT SCOPE, PROJECT EVALUATION INFORMATION, AND PAVEMENT CONDITION RATINGS

Anticipated Project Scope:

The project will consist of roadway improvements within the City of East Liverpool along Dresden Avenue from the northern City Limits at the north end of the project to Grant Street at the South End of the project. The total project length is approximately 6,100 feet. Dresden Avenue is a Minor Arterial located on the Federal-aid Highway System. Note: This will be Phase 2 of the project. Phase 1 of the project includes improvements along Dresden Avenue, between Grant Street and Sixth Street; Phase 1 was approved for ODOT Small Cities funding in 2020 (ODOT PID #114058).

The project will consist of the following roadway improvements:

- 3" of asphalt pavement planing with 3" asphalt overlay, including any necessary pavement repair, along all of the entire project length including any necessary side street approaches.
- Adjustment to grade of all manholes & valve boxes, as necessary. Reconstruction to grade of catch basins and inlets, as necessary.
- Curb ramps are not anticipated to be necessary.
- Curb repairs will be performed, where necessary.
- Shoulder Preparation will be performed, where necessary.
- Linear Grading and/or paved gutter to improve the existing ditches and drainage will be performed, where necessary.
- Clearing & grubbing including any necessary tree trimming and/or removal.
- The necessary pavement markings (centerlines, edge lines, etc.) will be provided.
- Work on any necessary side streets will terminate at the end of the curb returns and/or pavement radii.
- All roadway work will be performed within the existing road right of way.

Project Evaluation Information and Pavement Condition Ratings:

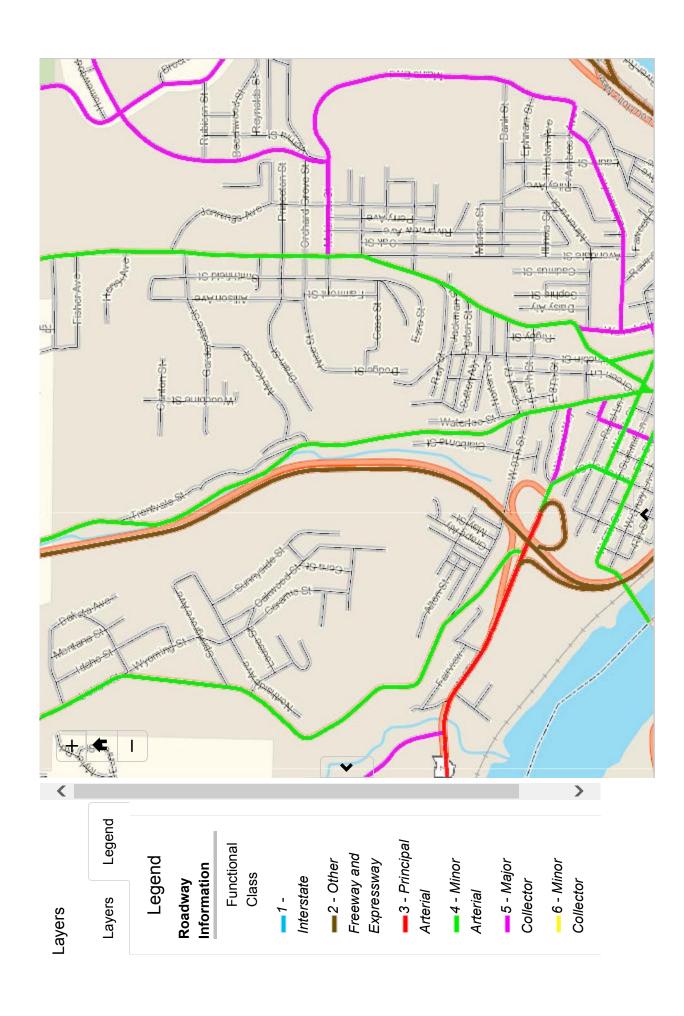
<u>Current Conditions, Roadway Issues, and Safety Issues:</u> The existing Dresden Avenue roadway consists of several layers of asphalt on top of an anticipated concrete base. The existing pavement width is approximately (20) feet wide from the northern City Limits and continuing south to Grant Street (approximately 6,100 feet) with primarily turf shoulders with some segments of straight curb and sidewalk.

As shown by the attached photographs, the existing pavement along the aforementioned roadway has numerous patches due to pothole repairs, numerous unrepaired potholes, and numerous repairs from utility work which present a definite safety concern. Numerous areas with alligator cracking and transverse & longitudinal cracking are also visible in the existing pavement.

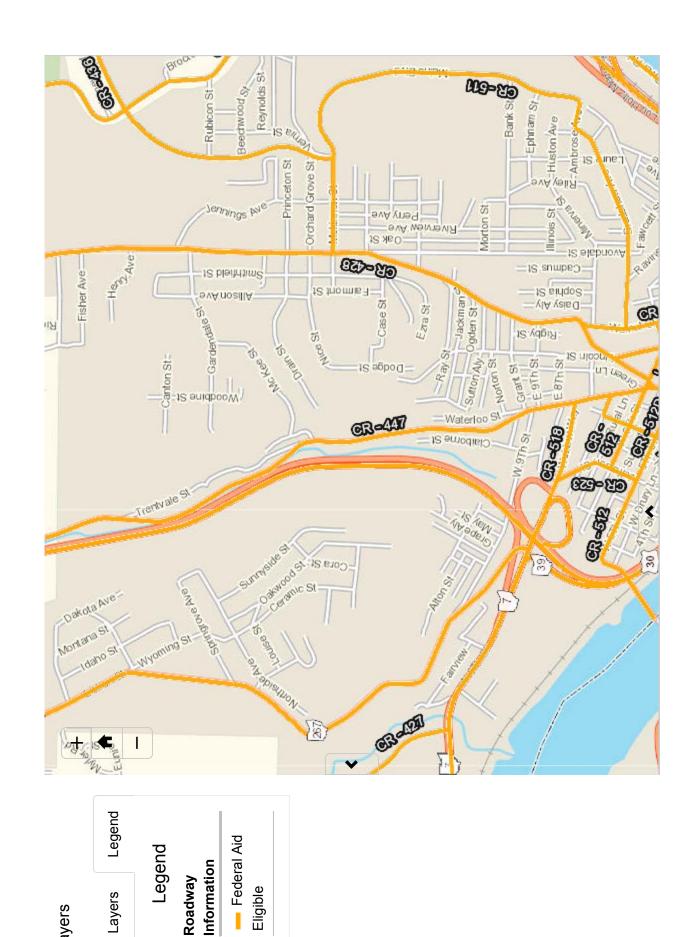
The Dresden Avenue roadway corridor currently serves the City's Downtown Business District, as access to the Kent State University East Liverpool Campus, as a major school bus route for the Westgate Middle School, and as access to numerous residential properties adjacent to the downtown area. Dresden Avenue also provides direct access to the S.R. 7/S.R. 11/S.R. 30/S.R. 39 freeway interchanges directly adjacent to the City's downtown area. Being a Minor Arterial roadway and as evidenced by the current ADT, the aforementioned roadway corridor serves as a major access route into, out of, and within the City of East Liverpool as well as serving as a major school bus route within the City.

The following represents the basis of evaluation for the need of resurfacing and repairing the Dresden Avenue roadway within the City of East Liverpool:

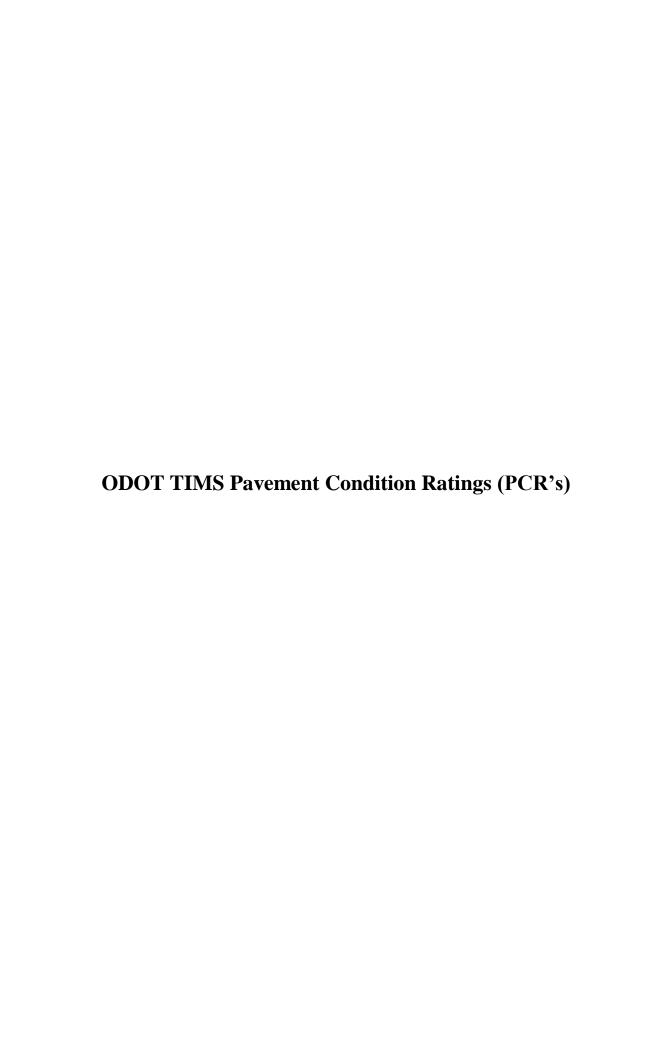
- City Officials reported that it has been (15) years since the aforementioned roadway has been properly repaired and resurfaced. The roadway is currently experiencing numerous visible potholes, pothole patching, alligator cracking, transverse & longitudinal pavement cracking, and utility trench repairs in numerous locations.
- Field observations and evaluation of the existing pavement condition for the
 aforementioned roadway was performed in 2019 and re-evaluated again in 2020
 & 2021 by City Officials and by Dallis Dawson & Associates (DDA); it was
 concluded that at a minimum of resurfacing and repairing of the roadway was
 necessary. In addition, relative to the ODOT Local PCR values listed in ODOT
 TIMS, conditions of the roadway have been deteriorating severely since the
 listing of the Local PCR values.
- Photographs taken by DDA during the field observations and a project cost estimate have been included with this application.
- See the aforementioned information provided under "Current Conditions, Roadway Issues, and Safety Issues".
- See attached ODOT TIMS PCR's for the aforementioned roadway.

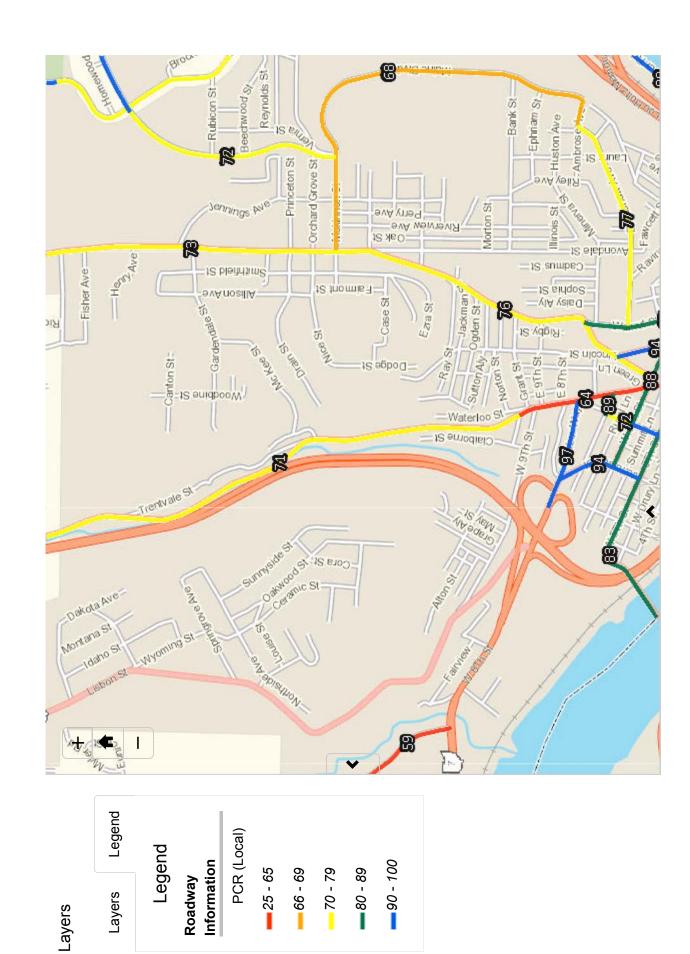


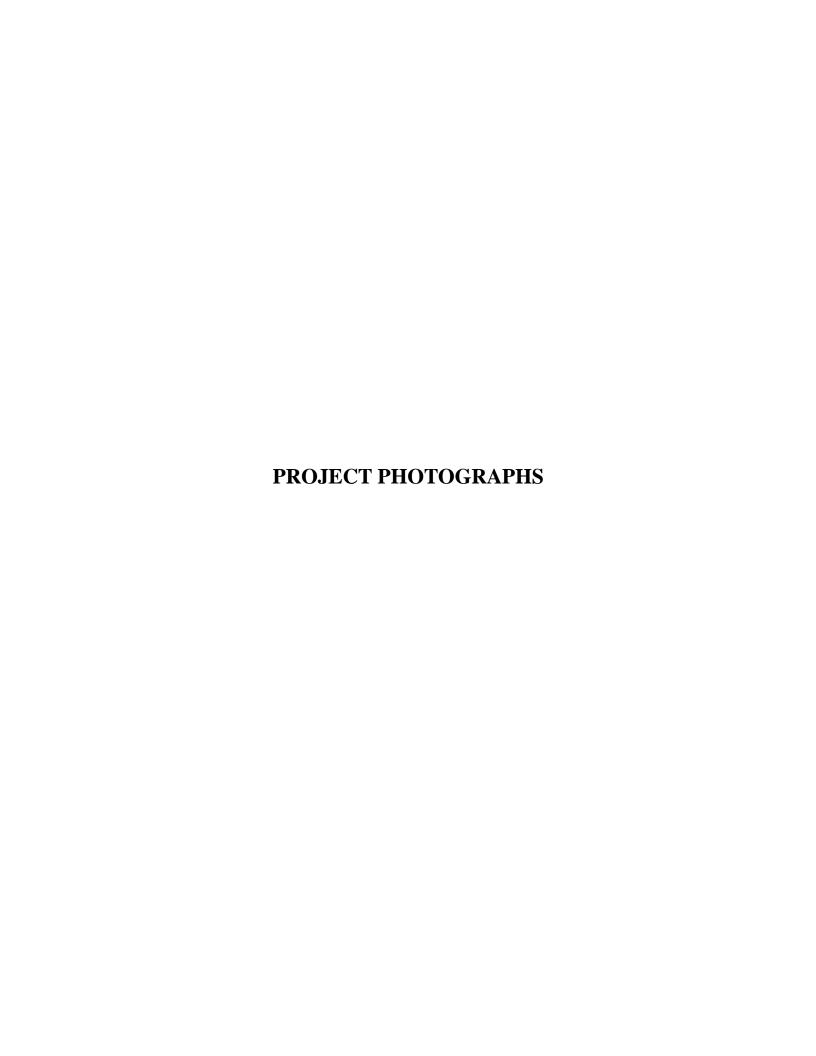
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Layers







CITY OF EAST LIVERPOOL DRESDEN AVENUE ROADWAY IMPROVEMENTS –PHASE 2 SMALL CITY APPLICATION - PROJECT SITE PHOTOGRAPHS

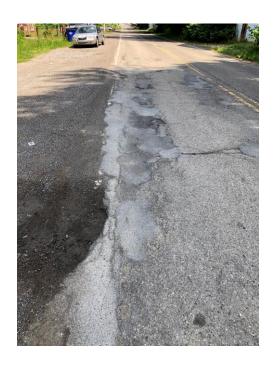




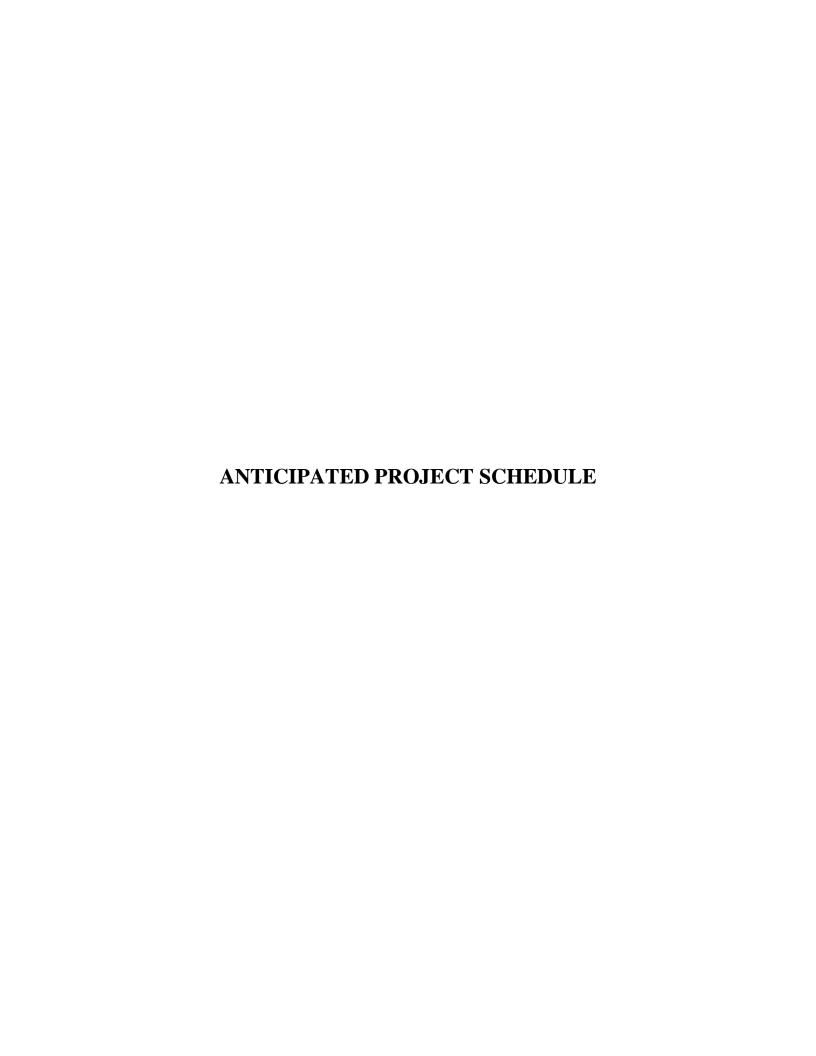


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CITY OF EAST LIVERPOOL DRESDEN AVENUE ROADWAY IMPROVEMENTS – PHASE 2 SMALL CITY APPLICATION - PROJECT SITE PHOTOGRAPHS (cont'd)







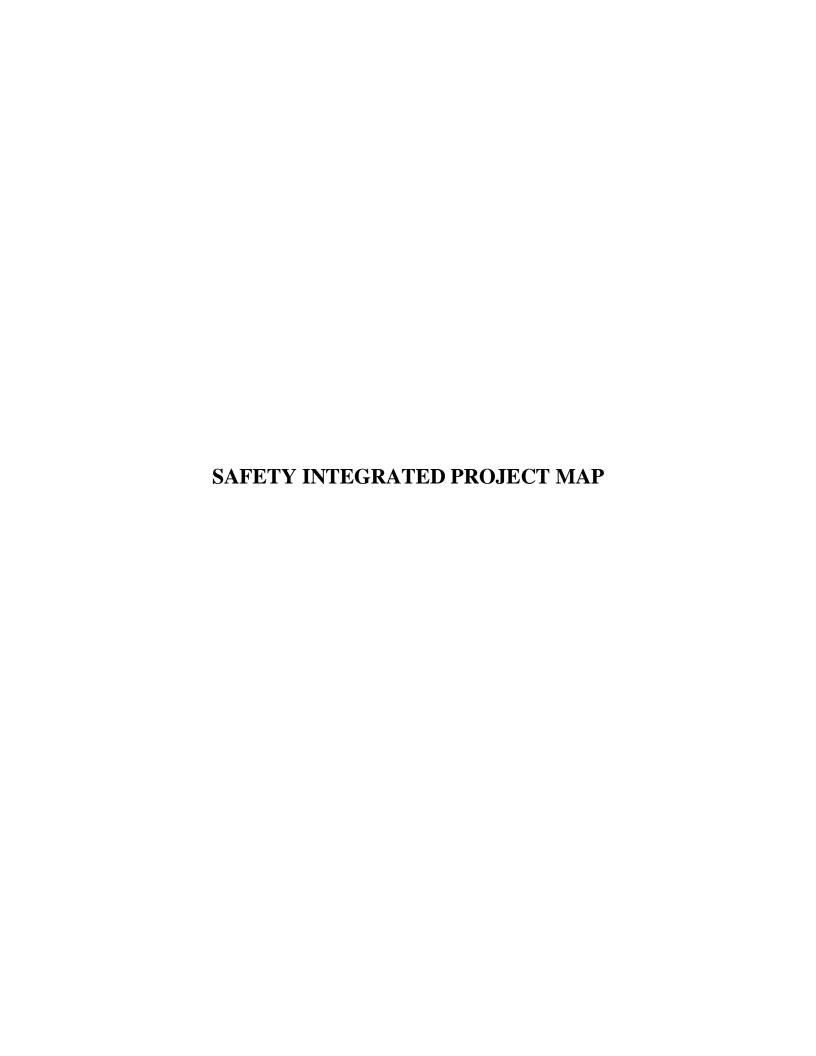
CITY OF EAST LIVERPOOL DRESDEN AVENUE ROADWAY IMPROVEMENTS – PHASE 2 SMALL CITY APPLICATION ANTICIPATED PROJECT SCOPE AND SCHEDULE

August 31, 2024

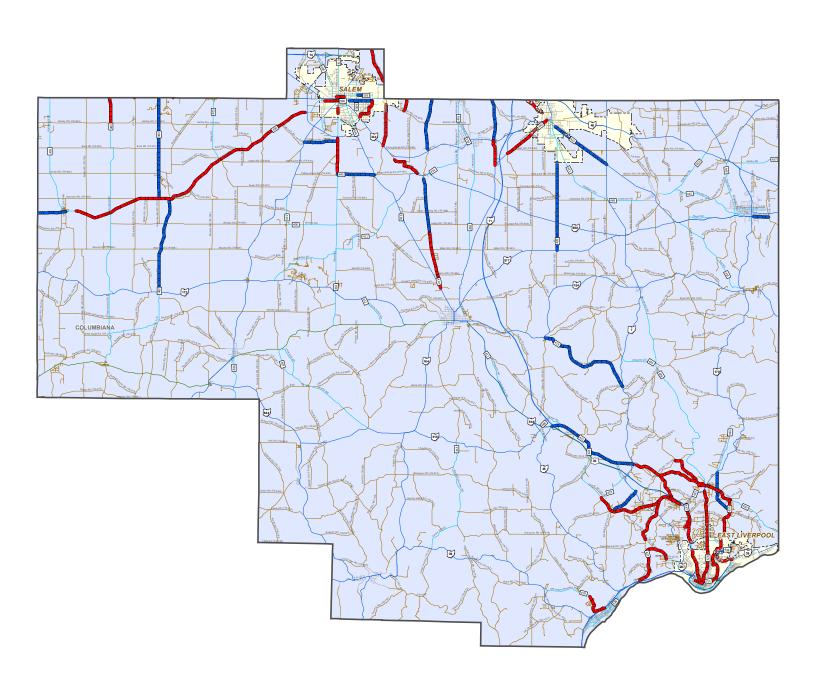
Anticipated Project Schedule:

Estimated End Construction

Authorized Design Consultant October 1, 2022 Stage 2 Plans Submitted July 1, 2023 **Environmental Document Approved** September 1, 2023 Stage 2 Plans Complete September 15, 2023 Tracings Complete October 15, 2023 Local Let PS&E Package to District October 15, 2023 District R/W Certification November 1, 2023 Plan Package Received in C.O. November 15, 2023 Sale Date January 8, 2024 Award Date March 1, 2024 **Estimated Begin Construction** May 1, 2024



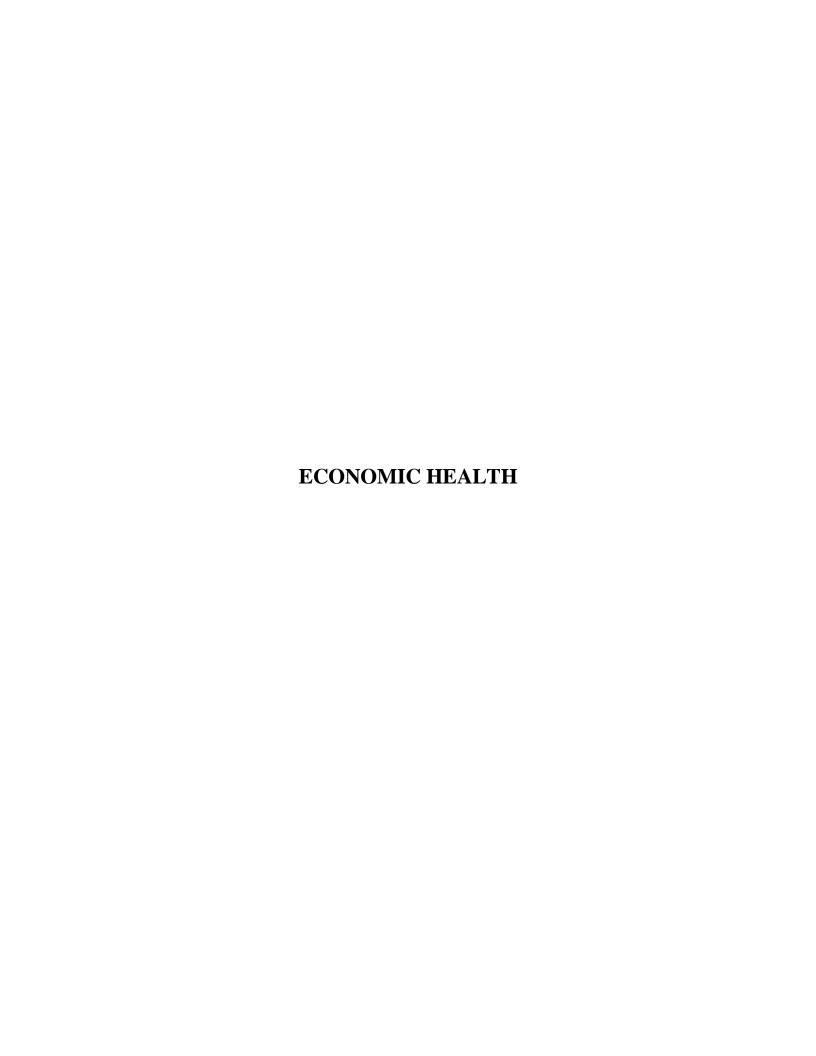
SFY2015 Safety Integrated Project Maps - Local System Columbiana County











Appendix C – County Unemployment Rates

This appendix is provided as a reference for C5 – Benefit to Low-Income in County. The December 2020 Unemployment Rate for each Ohio County (not seasonally adjusted) is provided in the table below.

The Ohio Unemployment Rate as of December 2020 was 5.2% percent.

County	Rate	County	Rate	County	Rate
Adams	6.6	Hamilton	5.0	Noble	7.7
Allen	5.2	Hancock	4.1	Ottawa	7.0
Ashland	4.7	Hardin	5.1	Paulding	4.4
Ashtabula	6.1	Harrison	6.6	Perry	5.8
Athens	5.0	Henry	5.6	Pickaway	4.5
Auglaize	3.7	Highland	5.7	Pike	6.5
Belmont	6.5	Hocking	5.1	Portage	4.9
Brown	5.5	Holmes	2.7	Preble	4.2
Butler	4.4	Huron	7.1	Putnam	3.4
Carroll	5.8	Jackson	6.2	Richland	5.6
Champaign	4.1	Jefferson	6.9	Ross	4.8
Clark	5.0	Knox	4.2	Sandusky	5.2
Clermont	4.3	Lake	5.5	Scioto	6.0
Clinton	5.4	Lawrence	5.0	Seneca	5.0
Columbiana	6.2	Licking	4.2	Shelby	4.3
Coshocton	6.0	Logan	4.3	Stark	5.2
Crawford	5.4	Lorain	6.1	Summit	5.5
Cuyahoga	6.8	Lucas	6.0	Trumbull	6.9
Darke	4.2	Madison	4.0	Tuscarawas	5.0
Defiance	4.9	Mahoning	6.6	Union	3.6
Delaware	3.6	Marion	5.0	Van Wert	4.0
Erie	7.4	Medina	4.6	Vinton	6.8
Fairfield	4.3	Meigs	6.6	Warren	4.0
Fayette	4.6	Mercer	3.0	Washington	5.9
Franklin	4.9	Miami	4.3	Wayne	3.8
Fulton	4.8	Monroe	7.3	Williams	4.7
Gallia	5.5	Montgomery	5.4	Wood	4.2
Geauga	4.5	Morgan	6.8	Wyandot	3.9
Greene	4.2	Morrow	4.8	Source: Ohio Department	
Guernsey	6.2	Muskingum	5.5	of Job and Family S	



AVERAGE DAILY TRAFFIC, POSTED SPEED LIMITS, CRASH FREQUENCY, AND EQUIVALENT PROPERTY DAMAGE ONLY INDEX

CITY OF EAST LIVERPOOL DRESDEN AVENUE ROADWAY IMPROVEMENTS – PHASE 2 SMALL CITY APPLICATION AVERAGE DAILY TRAFFIC, POSTED SPEED LIMITS, CRASH FREQUENCY, AND EQUIVALENT PROPERTY DAMAGE ONLY INDEX

ESTIMATED AVERAGE DAILY TRAFFIC (FROM ODOT TIMS):

Roadway	Average Daily	V/C Ratio	Roadway	Posted Speed
	Traffic	(Estimate)	Length	Limit
Dresden Avenue	2,781 vpd	1.00	6,100 feet	35 mph

CRASH FREQUENCY:

Roadway Crashes (3-year)
(2017-2019)

Dresden Avenue 1

Crash Frequency = 1

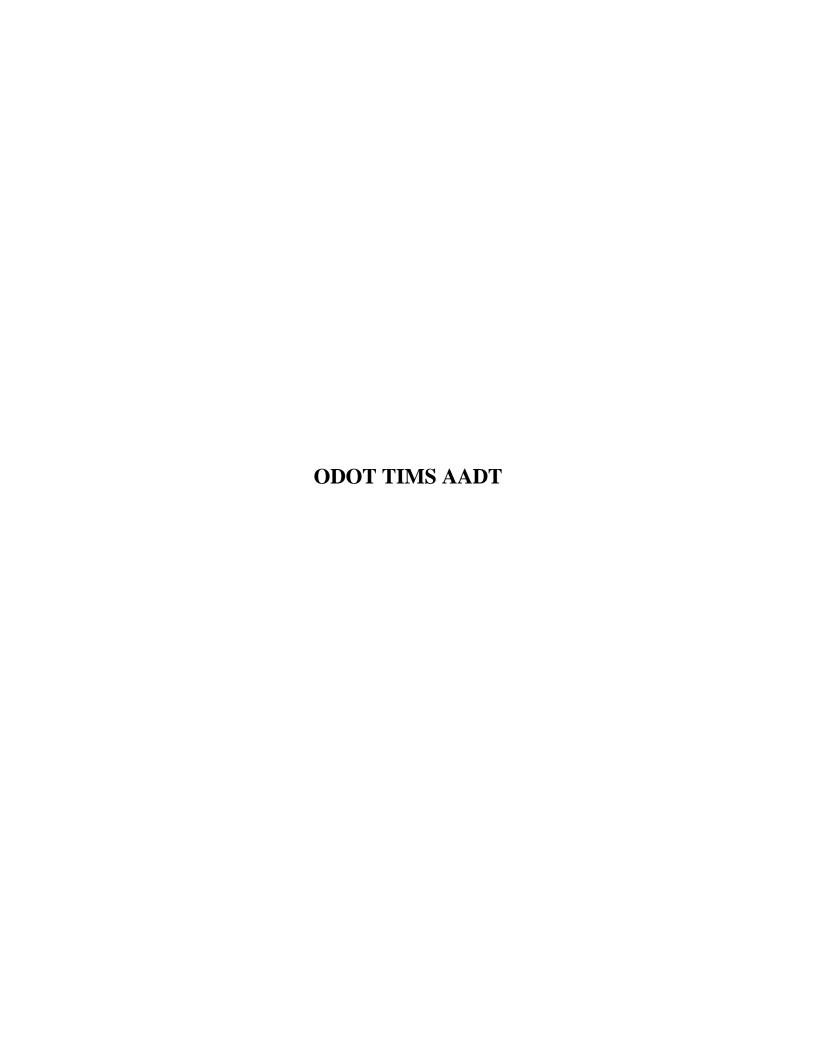
CITY OF EAST LIVERPOOL - EPDO INDEX DRESDEN AVENUE ROADWAY IMPROVEMENTS - PHASE 2

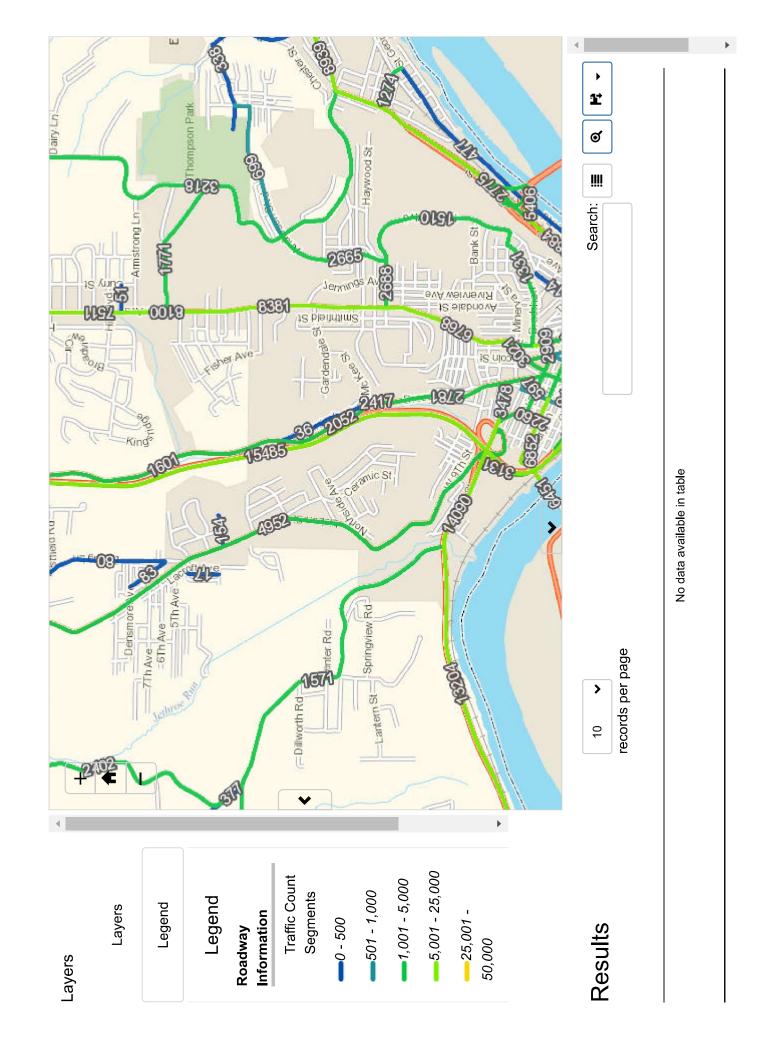
2017-2019 CRASHES

DRESDEN AVENUE					
CRASH	WEIGHTING				
LEVEL	FACTOR				
Vis. Injury	6.55				

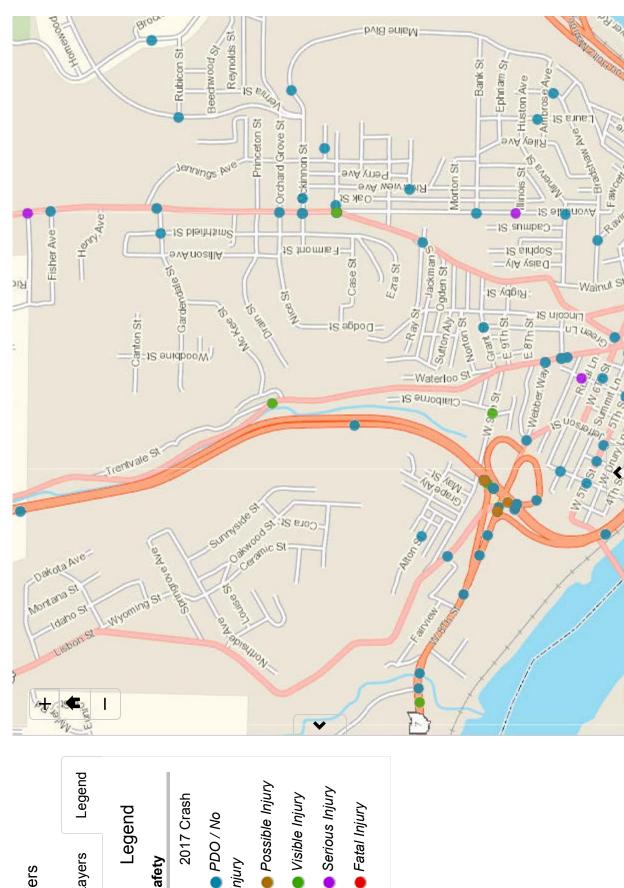
TOTAL CRASHES = 1 TOTAL WT. FACT.= 6.55

EPDO INDEX = 6.55





2017-2019 CRASH DATA (OBTAINED FROM ODOT TIMS)



Layers

Layers

Safety

Injury

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