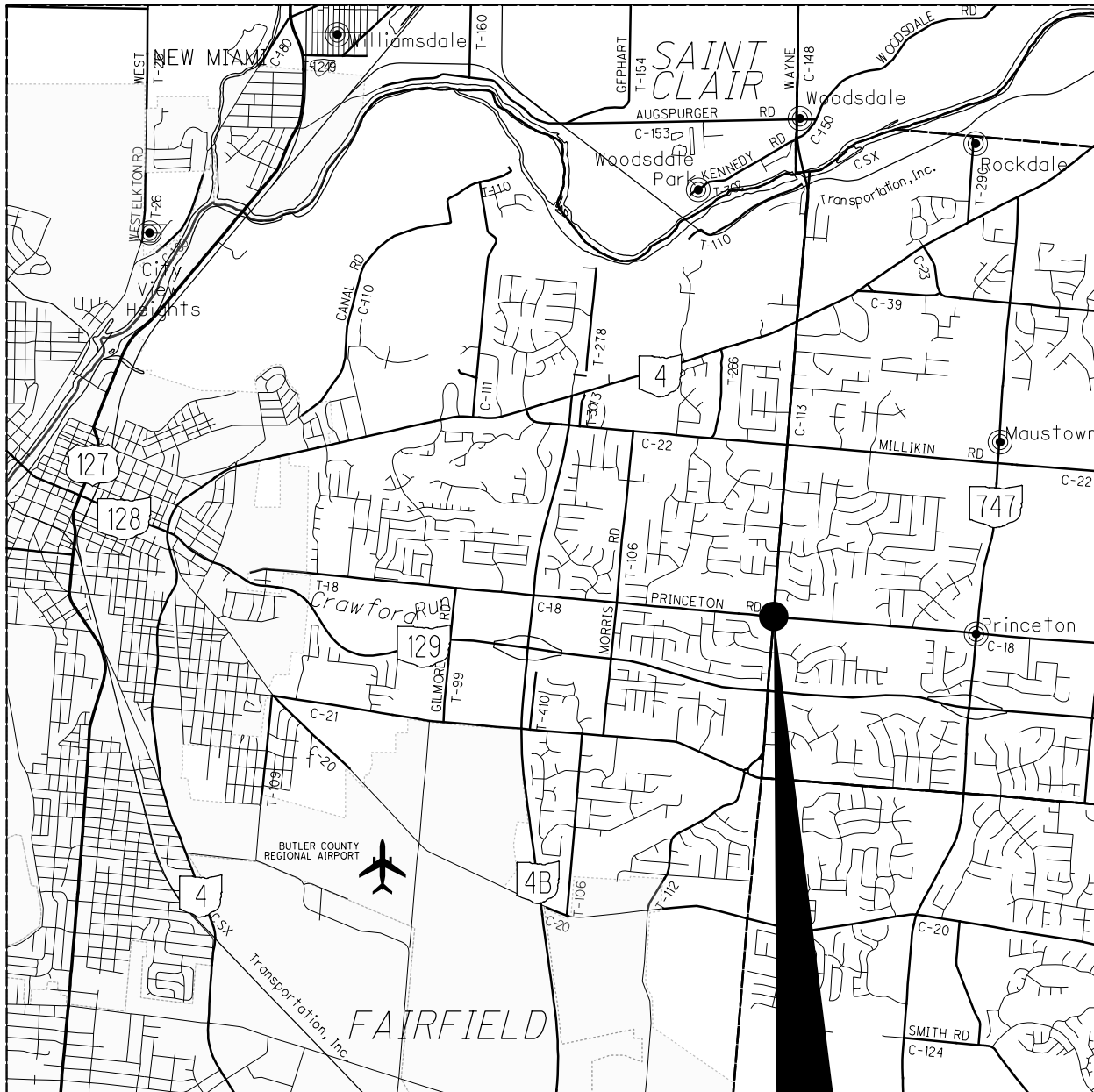


# PRINCETON ROAD AT LIBERTY FAIRFIELD ROAD ROUNDBOUT IMPROVEMENT



FAIRFIELD AND LIBERTY TOWNSHIP  
BUTLER COUNTY, OHIO



VICINITY MAP

PROJECT  
SITE

# HSIP FUNDING APPLICATION



## Butler County - Princeton Rd at Liberty Fairfield

Page 1

DATE 6/6/2025

### Project Information:

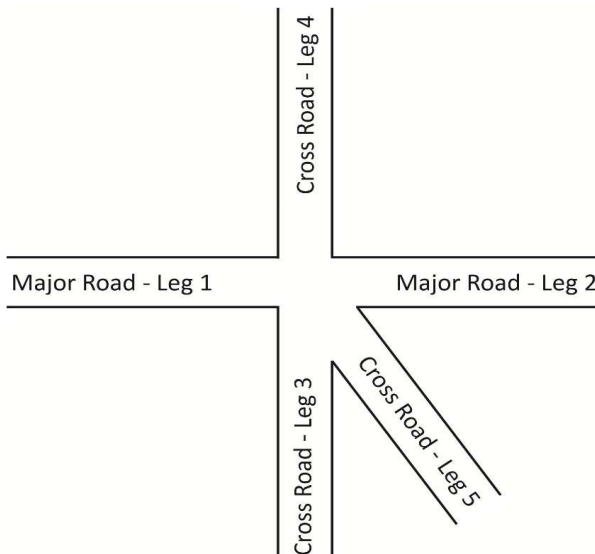
COUNTY Butler County

LOCATION TYPE Intersection

PROJECT SERVICE LIFE 20 years

### SEGMENT INFORMATION

ROUTE	
BEGIN SLM	
END SLM	
PRESENT YEAR ADT	
FUTURE YEAR ADT	



### INTERSECTION INFORMATION

	Major Road - Leg 1	Major Road - Leg 2	Cross Road - Leg 3	Cross Road - Leg 4	Cross Road - Leg 5
ROUTE NUMBER (or NAME)	Princeton Rd	Princeton Rd	Liberty Fairfield	Liberty Fairfield	
SLM	1.51	1.51	1.03	1.03	
PRESENT YEAR ADT	9,340	9,370	7,180	10,550	
FUTURE YEAR ADT	10,508	10,541	8,078	11,869	

\*When analyzing an intersection, an ADT must be provided for each Cross Street Leg.

### CRASH INFORMATION

Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Fatalities	Incapacitating Injuries
0	8	19	27	0	2

\*Blue cells will be filled out automatically if you use the CAMTool layout on the Crashes Worksheet

Ohio Strategic Highway Safety Plan	
Emphasis Area	Serious Crash Types
Emphasis Area Subcategory	Intersection

# HSIP FUNDING APPLICATION



## Butler County - Princeton Rd at Liberty Fairfield

Page 2

### Project Administration: (Select One)

LETTING TYPE Local Let

### Funding:\*

FISCAL YEAR REQUESTED	FY30
Design Cost	\$99,345.70
Right-of-Way Cost	\$20,000.00
Construction Cost	\$993,457.00
TOTAL COST ESTIMATE	\$1,112,802.70
HSIP COST ESTIMATE	\$794,765.60

\*1. Submit cost estimate in current year dollars and 10% CE funding for projects under \$1 millions or 7% CE funding for projects \$1 millions or more.

\*2. Requested year and Estimated Costs may differ from the actual approved by the CSTP/LBR Committee

\*3. HSIP funds are for construction phase only. Therefore, the HSIP Cost Estimate is base on 80% of the construction cost dollar amount

### Describe Existing Roadway Conditions and Existing Crash Problem(s) at Project Location

Princeton Road and Liberty Fairfield Road is a suburban, signalized intersection located on the border of Fairfield Township and Liberty Township in southeast Butler County. Princeton Road is a two-lane, major collector county road that runs east-west with a posted legal speed limit of 45 MPH. Princeton Road carries approximately 9,350 vpd. Liberty Fairfield Road is a two-lane, major collector road that runs north-south along the borders of Fairfield Township and Liberty Township. The legal, posted speed limit on Liberty Fairfield Road is 45 mph south of Princeton Road and 35 mph north of Princeton Road. Liberty Fairfield Road carries approximately 7,200 vpd south of Princeton Road and 10,500 vpd north of Princeton Road.

During the 5-year study period between 2019-2023, the dominant crash types are rear end and angle crashes at 48.15% and 29.63% respectively. The next highest crash type is left turn with 3 crashes or 11.11%. The main contributing factor involved vehicles following too closely due to congestion at the signalized intersection at 40.74% (11 of 27). A close second to the contributing factor of following too closely is running red light and failure to yield at 33.33% (9 of 27).

Injury crashes make up approximately 30% of the 27 crashes at the intersection. There was one crash resulting in two serious injuries. In 2024, there were five crashes consisting of three angle crashes, one left turn crash, and one sideswipe meeting crash resulting in two injuries.

### Describe Proposed Countermeasures to Address the Crash Pattern

The proposed countermeasure to reduce crash frequency and crash severity is to remove the existing traffic signal to construct a single-lane modern roundabout. In the previous six years (2019-2024), nine crashes have been the result of vehicles running a red light. Red light running is becoming more prevalent. This type of high impact crash is eliminated at a roundabout intersection. The BCEO has observed tremendous success at reducing overall crashes and eliminating injury-type crashes at intersections converted to single-lane roundabouts. Butler County has 43 total roundabouts and seven of those have replaced traffic signals. Before and after data at the signalized intersections converted to single lane roundabouts have resulted in 52% reduction in overall crashes, 69% reduction in injury crashes, and 100% reduction in serious injury crashes. Single-lane roundabouts reduce the frequency of angle crashes and drastically lessen the severity of all crashes due to speed calming characteristics and shallowing the angle of vehicle entry. Overall, BCEO's single-lane modern roundabouts have reduced crashes by 60%, reduced injury crashes by 80%, and eliminated severe injury crashes by 94%.

Countermeasure 1	Conversion of signalized intersection into single- or multi-lane roundabout - Urban
Countermeasure 2	
Countermeasure 3	
Countermeasure 4	

NAME OF PERSON COMPLETING APPLICATION

Matthew J. Loeffler, PE

County: Butler County Main Roadway: Princeton Rd Begin SLM: 1.505 End SLM: \_\_\_\_\_  
 Intersecting Roadway: Liberty Fairfield  
 Prepared by : Matthew J. Loeffler, PE Date: 6/6/2025 Crash Bdate: 1/1/2019 Crash Edate: 12/31/2023



HYPERLINK	ACCIDENTS_POINTS_NBR	LOCAL_REPORT_NB	NLF ID	3POINT_SLM_I	CRASH_DT	STREET1	STREET2_REFI
	20193033484	19-01-0028	CBUTCR00018**C	1.508	20190104	PRINCETON RC	LIBERTY FAIRF
	20194068094	2019020411	CBUTCR00018**C	1.526	20190219	PRINCETON RC	LIBERTY FAIRF
	20193038980	19-03-0156	CBUTCR000113**C	1	20190318	LIBERTY FAIRF	PRINCETON RC
	20193042954	19-03-0201	CBUTCR000113**C	1.035	20190325	LIBERTY FAIRF	PRINCETON RC
	20193219544	19-09-0096	CBUTCR00018**C	1.502	20190915	PRINCETON RC	LIBERTY FAIRF
	20203053415	20-02-0166	CBUTCR00018**C	1.506	20200223	PRINCETON RC	LIBERTY FAIRF
	20204051575	2020020524	CBUTCR00018**C	1.504	20200227	PRINCETON RC	LIBERTY FAIRF
	20203172125	20-09-0189	CBUTCR000113**C	1.011	20200925	LIBERTY FAIRF	PRINCETON RC
	20203241436	20-12-0047	CBUTCR00018**C	1.501	20201206	PRINCETON RC	LIBERTY FAIRF
	20216159371	2021080504	CBUTCR000113**C	1	20210827	PRINCETON RC	LIBERTY FAIRF
	20213230462	21-11-0110	CBUTCR000113**C	1	20211117	LIBERTY FAIRF	PRINCETON RC
	20223003938	22-01-0025	CBUTCR000113**C	1	20220106	PRINCETON RC	LIBERTY FAIRF
	20223011498	22-01-0057	CBUTCR000113**C	1	20220112	PRINCETON RC	LIBERTY FAIRF
	20223052719	22-03-0120	CBUTCR00018**C	1.507	20220317	PRINCETON RC	LIBERTY FAIRF
	20226127830	2022070142	CBUTCR00018**C	1.506	20220709	Princeton RD	Liberty Fairfield F
	20223134697	22-07-0151	CBUTCR00018**C	1.502	20220722	PRINCETON RC	LIBERTY FAIRF
	20226143418	2022080067	CBUTCR00018**C	1.506	20220804	PRINCETON RC	LIBERTY FAIRF
	20226150724	2022080210	CBUTCR000113**C	1	20220813	Liberty Fairfield I	Princeton RD
	20226168384	2022090130	CBUTCR00018**C	1.506	20220816	Princeton RD	Liberty Fairfield F
	20226158739	2022080362	CBUTCR000113**C	1	20220821	Liberty Fairfield I	Princeton RD
	20223214104	22-11-0036	CBUTCR00018**C	1.506	20221105	PRINCETON RC	LIBERTY FAIRF
	20236038114	2023031088	CBUTCR00018**C	1.506	20230311	Liberty Fairfield I	Princeton RD
	20233093720	23-06-0009	CBUTCR00018**C	1.506	20230601	PRINCETON RC	LIBERTY FAIRF
	20236115609	2023070021	CBUTCR000113**C	1.024	20230702	Liberty Fairfield I	Princeton RD
	20236119994	2023070119	CBUTCR00018**C	1.505	20230707	Princeton RD	Liberty Fairfield F
	20236158189	2023090162	CBUTCR00018**C	1.505	20230908	LIBERTY FAIRF	PRINCETON RC
	20233223940	202300311	CBUTCR000113**C	1.029	20231206	LIBERTY FAIRF	PRINCETON RC

## RATE OF RETURN - ECONOMIC ANALYSIS WORKSHEET

## Cells in Green Require User Review

County Butler County Main Roadway Princeton Rd Begin SLM 1.51 End SLM \_\_\_\_\_  
 Intersecting Roadway Liberty Fairfield  
 Prepared by Matthew J. Loeffler, PE Date 6/6/2025 Crash BDate 1/1/2019 Crash EDate 12/31/2023



Year	TIME OF DAY						ROADWAY CONDITION						CRASH TYPE																		TOTAL				
	DAY		DAWN/DUSK		DARK		DRY		WET		SNOW / ICE		REAR END		LEFT		RIGHT		ANGLE		HEAD ON		SS PASS		FIXED OBJ		RAN OFF RD		PEDESTRIAN				OTHER		
	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F	PDO	I/F			
2019	1	1	0	0	0	0	0	0	0	0	0	0	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2		
2020	3	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	1		
2021	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0		
2022	4	3	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0	0	1	2	0	0	1	0	0	0	0	0	0	0	1	0	6	4	
2023	4	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	5	1	
TOTAL	13	6	0	0	0	0	0	0	0	0	0	0	12	1	0	3	0	0	4	4	0	0	2	0	0	0	0	0	0	0	0	1	0	19	8
AVG.	2.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.2	0.0	0.6	0.0	0.0	0.8	0.8	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	3.8	1.6

--The "TOTAL" and "AVERAGE" row formulas are set to only use 2016-2020 crash data. If the crash data is not for these five years, the formulas must be modified by the user to calculate the associated year data.

RECOMMENDED IMPROVEMENTS		CRASH TYPE	PDO CRASHES							INJ. - FAT. CRASHES							
	Select Countermeasures		R1	R2	R3	R4	RT	AVG PDO	EST. RED.	R1	R2	R3	R4	RT	AVG INJ-FAT	EST. RED.	
R1	Conversion of signalized intersection into single- or multi-lane roundabout - Urban	LEFT	0.35	0	0	0	0.35	0.00	0.00	0.74	0	0	0	0.74	0.60	0.44	
R2		RIGHT	0.35	0	0	0	0.35	0.00	0.00	0.74	0	0	0	0.74	0.00	0.00	
R3		ANGLE	0.35	0	0	0	0.35	0.80	0.28	0.74	0	0	0	0.74	0.80	0.59	
R4		REAR END	0.35	0	0	0	0.35	2.40	0.84	0.74	0	0	0	0.74	0.20	0.15	
		HEAD ON	0.35	0	0	0	0.35	0.00	0.00	0.74	0	0	0	0.74	0.00	0.00	
		SS PASS	0.35	0	0	0	0.35	0.40	0.14	0.74	0	0	0	0.74	0.00	0.00	
		FIXED OBJ	0.35	0	0	0	0.35	0.00	0.00	0.74	0	0	0	0.74	0.00	0.00	
		RAN OFF RD	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	
		OTHER	0.35	0	0	0	0.35	0.20	0.07	0.74	0	0	0	0.74	0.00	0.00	
		NIGHT	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	
		WET	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	
		PEDESTRIAN	0.35	0	0	0	0.35	0.00	0.00	0.74	0	0	0	0.74	0.00	0.00	
		ESTIMATED PDO CRASH REDUCTION =							1.33	ESTIMATED INJ. - FAT. CRASH REDUCTION =							1.18

## ADT Factor

Project Service Life 20 years  
 Present ADT (PADT) 18,220 veh / day  
 Future ADT (FADT) 20,498 veh / day  
 Average ADT = (PADT + FADT)/2 = ( 18220 + 20497.5 ) = 19358.75  
 ADT Factor = Average ADT / PADT = 19358.75 / 18220 = 1.06

## Average Annual Benefits

Annual PDO Benefits = Estimated PDO Crash Reduction \* Avg PDO Cost  
 Annual INJ.-FAT. Benefits = Estimated INJ.-FAT. Crash Reduction \* Avg INJ.-FAT. Cost  
 Total Benefits  
 Average Annual Benefits = Total Benefits \* ADT Factor

Select Facility Type Below: = 1.33 \* \$ 12,878.00 = \$ 17,127.74  
 Counties and Unincorporated Villages = 1.18 \* \$ 267,174.74 = \$ 316,334.89  
 = \$ 333,462.63  
 = 1.06 \* \$ 333,462.63 = \$ 354,304.05

## Rate of Return

Total Safety Project Cost (Design, Right-of-Way, and Construction) \$ 1,112,803  
 Annual Maintenance and Energy Costs \$ -  
 Salvage Value \$ -  
 Design (PE) \$ 99,346  
 Right-of-Way \$ 20,000  
 Construction \$ 993,457

Rate of Return **31.71%**

See Text Box Below for Additional Details on Project Costs

# HSIP FUNDING APPLICATION

Page 4



County: Butler County Main Roadway: Princeton Rd Begin SLM: 1.505 End SLM: \_\_\_\_\_  
 Intersecting Roadway: Liberty Fairfield  
 Prepared by : Matthew J. Loeffler, PE Date: 6/6/2025 Crash Bdate: 1/1/2019 Crash Edate: 12/31/2023

RSI Value = **42,681**

**Cells in Green Require User Review**

Fill in the Number of Crashes by Crash Type				
Crash Type	Number of Crashes	Crash Type Severity Calc	Crash Type #	Rural Non-Freeway*
Not Stated	0	\$0	0	\$15,518
Head On	0	\$0	1	\$147,339
Rear End	13	\$432,159	2	\$33,243
Backing	1	\$15,258	3	\$15,258
Sideswipe - Meeting	0	\$0	4	\$464,598
Sideswipe - Passing	2	\$58,895	5	\$29,447
Angle	8	\$517,517	6	\$64,690
Parked Vehicle	0	\$0	7	\$22,728
Pedestrian	0	\$0	8	\$325,162
Animal	0	\$0	9	\$12,455
Train	0	\$0	10	\$193,468
Pedalcycles	0	\$0	11	\$197,370
Other Non-Vehicle	0	\$0	12	\$257,549
Fixed Object	0	\$0	13	\$45,998
Other Object	0	\$0	14	\$19,050
Falling From Or In Vehicle	0	\$0	15	\$1,818,576
Overturning	0	\$0	16	\$82,686
Other Non-Collision	0	\$0	17	\$23,113
Left Turn	3	\$128,551	18	\$42,850
Right Turn	0	\$0	18	\$24,351
<b>Totals</b>	<b>27</b>	<b>\$1,152,379</b>		

\*Costs based on  
2023 crash data

# HSIP FUNDING APPLICATION

Page 5



County: Butler County Main Roadway: Princeton Rd  
 Intersecting Roadway: Liberty Fairfield  
 Prepared by : Matthew J. Loeffler, PE Date: 6/6/2025

Begin SLM: 1.505 End SLM: \_\_\_\_\_  
 Crash Bdate: 1/1/2019 Crash Edate: 12/31/2023

	Intersection	Rural Non-Freeway				
Location	Location Type	Facility Type	Begin Log	End Log	Length	ADT Used for Calculations
Princeton Rd at Lib	Intersection	Rural Non-Freeway	1.505		1	18,220

Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Fatalities	Incapacitating Injuries	# of Years
0	8	19	27	0	2	5

Rate of Return: **31.71%**

## Safety Project Scoring

Crash Rate (20)		Rate of Return (20)		RSI (20)	
Value	Score	Value	Score	Value	Score
0.81	0	31.71%	20	42,681	10

EPDO Value (20)		Funding Request (20)	
Value	Score	Value	Score
71.24	4	\$794,765.60	15

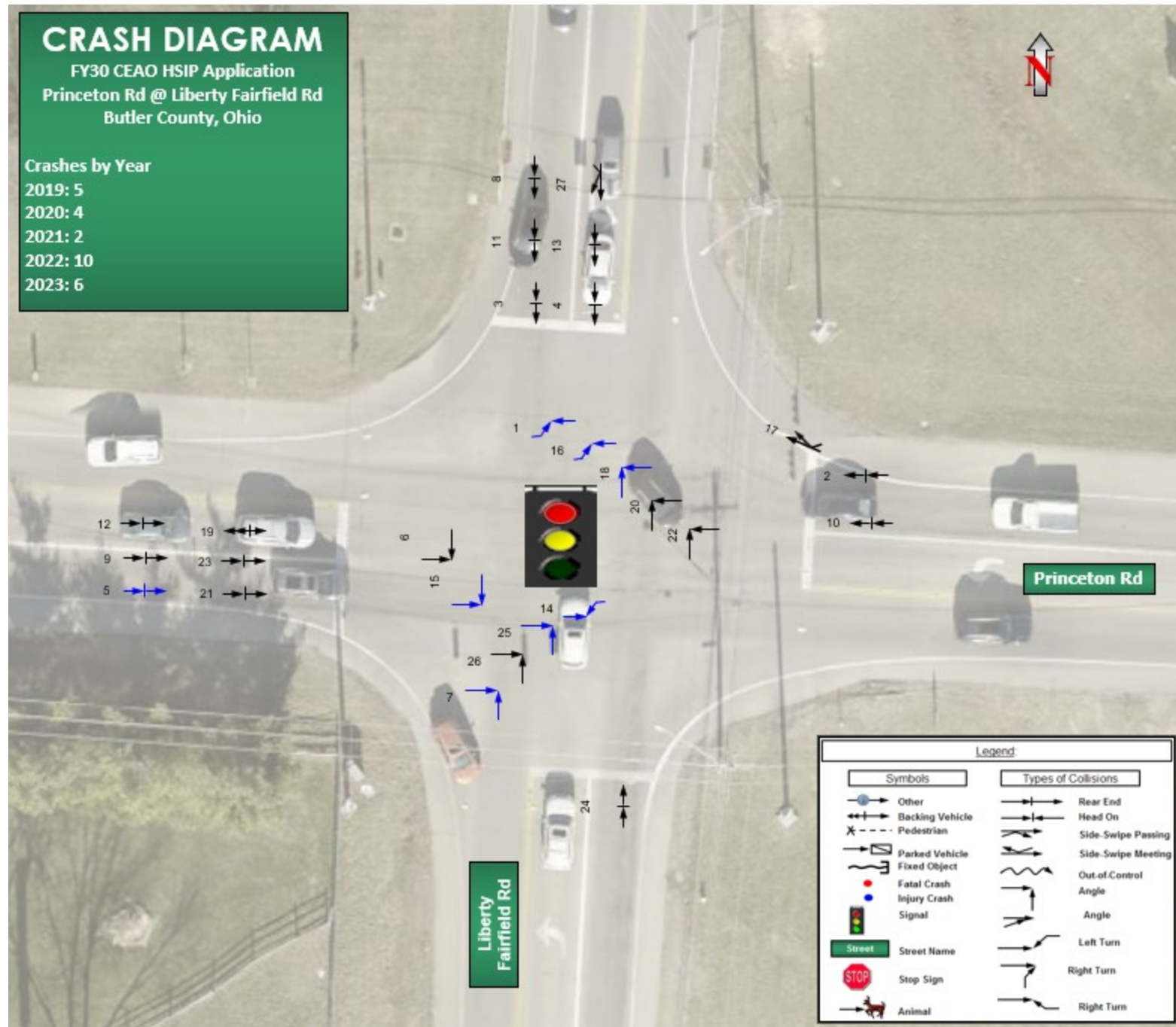
**Total Score 49**

# CRASH DIAGRAM

FY30 CEAO HSIP Application  
Princeton Rd @ Liberty Fairfield Rd  
Butler County, Ohio

## Crashes by Year

2019: 5  
2020: 4  
2021: 2  
2022: 10  
2023: 6





ROW ID	CRASH SEVERITY	TYPE OF CRASH	19000115	24	Other / Unknown					No					2			34	7	10	Unknown
			CRASH DT	HOUR	DAY	LIGHT CONDITION	ROAD CONDITION	CONTRIBUTING FACTOR1	ACTION1	DIRECTION FROM1	DIRECTION TO1	DRIVER ALCOHOL1	CONTRIBUTING FACTOR2	ACTION2	DIRECTION FROM2	DIRECTION TO2	ACCIDENT NBR	LOCAL REPORT NBR	NLFID	LOGPOINT	WEATHER CONDITION
1	Injury Crash	Left Turn	20190104	20	(6) Friday	Dark - Unknown	Wet	Failure to Yield	Making Left Turn	West	North	No	None	Straight Ahead	East	West	20190303484	19-01-0028	CBUTCRO0018***C	1.508	Rain
2	PDO	Rear End	20190219	20	(3) Tuesday	Dark - Roadway	Dry	Following Too Closely/ACI	Straight Ahead	East	West	No	None	Slowing or Stopped In	East	West	20194068094	2019020411	CBUTCRO0018***C	1.526	Clear
3	PDO	Rear End	20190318	17	(2) Monday	Daylight	Dry	Following Too Closely/ACI	Straight Ahead	North	South	No	None	Slowing or Stopped In	North	South	20193038980	19-03-0156	CBUTCRO0113***C	1	Clear
4	PDO	Rear End	20190325	7	(2) Monday	Dawn/Dusk	Wet	Following Too Closely/ACI	Straight Ahead	North	South	No	None	Slowing or Stopped In	North	South	20193042954	19-03-0201	CBUTCRO0113***C	1.035	Rain
5	Injury Crash	Rear End	20190915	15	(1) Sunday	Daylight	Dry	Following Too Closely/ACI	Straight Ahead	West	East	No	None	Slowing or Stopped In	West	East	20193219544	19-09-0096	CBUTCRO0018***C	1.502	Clear
6	PDO	Angle	20200223	15	(1) Sunday	Daylight	Dry	Ran Red Light	Straight Ahead	West	East	No	None	Straight Ahead	North	South	20203053415	20-02-0166	CBUTCRO0018***C	1.506	Clear
7	Injury Crash	Angle	20200227	12	(5) Thursday	Daylight	Dry	Ran Red Light	Straight Ahead	South	North	No	None	Straight Ahead	West	East	20204051575	2020020524	CBUTCRO0018***C	1.504	Clear
8	PDO	Rear End	20200925	13	(6) Friday	Daylight	Dry	Following Too Closely/ACI	Straight Ahead	North	South	No	None	Slowing or Stopped In	North	South	20203172125	20-09-0189	CBUTCRO0113***C	1.011	Clear
9	PDO	Rear End	20201206	12	(1) Sunday	Daylight	Dry	Following Too Closely/ACI	Straight Ahead	West	East	No	None	Slowing or Stopped In	West	East	20203241436	20-12-0047	CBUTCRO0018***C	1.501	Clear
10	PDO	Rear End	20210827	17	(6) Friday	Daylight	Wet	Following Too Closely/ACI	Straight Ahead	East	West	Yes	None	Slowing or Stopped In	East	West	20216159371	2021080504	CBUTCRO0113***C	1	Rain
11	PDO	Rear End	20211117	18	(4) Wednesday	Dark - Lighted F	Dry	Following Too Closely/ACI	Straight Ahead	North	South	No	None	Slowing or Stopped In	North	South	20213230462	21-11-0110	CBUTCRO0113***C	1	Cloudy
12	PDO	Rear End	20220106	16	(5) Thursday	Daylight	Snow	Following Too Closely/ACI	Straight Ahead	West	East	No	None	Slowing or Stopped In	West	East	20223003938	22-01-0025	CBUTCRO0113***C	1	Snow
13	PDO	Rear End	20220112	19	(4) Wednesday	Dark - Lighted F	Dry	Other Improper Action	Other / Unknown	North	South	No	None	Slowing or Stopped In	North	South	20223011498	22-01-0057	CBUTCRO0113***C	1	Clear
14	Injury Crash	Left Turn	20220317	21	(5) Thursday	Dark - Lighted F	Dry	Failure to Yield	Making Left Turn	West	Northwest	No	None	Straight Ahead	East	West	20223052719	22-03-0120	CBUTCRO0018***C	1.507	Clear
15	Injury Crash	Angle	20220709	19	(7) Saturday	Daylight	Dry	Ran Red Light	Straight Ahead	West	East	No	None	Straight Ahead	North	South	20226127830	2022070142	CBUTCRO0018***C	1.506	Clear
16	Injury Crash	Left Turn	20220722	15	(6) Friday	Daylight	Dry	Failure to Yield	Making Left Turn	West	North	No	None	Straight Ahead	East	West	20223134697	22-07-0151	CBUTCRO0018***C	1.502	Clear
17	PDO	Sideswipe - Pz	20220804	16	(5) Thursday	Daylight	Dry	Drove off Road	Making Right Turn	East	North	No	None	Making Right Turn	East	North	20226143418	2022080067	CBUTCRO0018***C	1.506	Cloudy
18	Injury Crash	Angle	20220813	15	(7) Saturday	Daylight	Dry	None	Straight Ahead	South	North	No	None	Straight Ahead	East	West	20226150724	2022080210	CBUTCRO0113***C	1	Clear
19	PDO	Backing	20220816	17	(3) Tuesday	Daylight	Dry	Improper Backing	Backing	West	East	No	None	Slowing or Stopped In	West	East	20226168384	2022090130	CBUTCRO0018***C	1.506	Clear
20	PDO	Angle	20220821	10	(1) Sunday	Daylight	Dry	Ran Red Light	Straight Ahead	East	West	No	None	Straight Ahead	South	North	20226158739	2022080362	CBUTCRO0113***C	1	Cloudy
21	PDO	Rear End	20221105	20	(7) Saturday	Dark - Lighted F	Wet	None	Straight Ahead	West	East	No	None	Slowing or Stopped In	West	East	20223214104	22-11-0036	CBUTCRO0018***C	1.506	Rain
22	PDO	Angle	20230311	19	(7) Saturday	Dark - Lighted F	Dry	Ran Red Light	Straight Ahead	East	West	Yes	None	Straight Ahead	South	North	20236038114	2023031088	CBUTCRO0018***C	1.506	Clear
23	PDO	Rear End	20230601	19	(5) Thursday	Daylight	Dry	Following Too Closely/ACI	Straight Ahead	West	East	No	None	Straight Ahead	West	East	20233093720	23-06-0009	CBUTCRO0018***C	1.506	Clear
24	PDO	Rear End	20230702	13	(1) Sunday	Daylight	Dry	Following Too Closely/ACI	Straight Ahead	South	North	No	None	Slowing or Stopped In	South	North	20236115609	2023070021	CBUTCRO0113***C	1.024	Cloudy
25	Injury Crash	Angle	20230707	17	(6) Friday	Daylight	Dry	Ran Red Light	Straight Ahead	West	East	No	None	Straight Ahead	South	North	20236119994	2023070119	CBUTCRO0018***C	1.505	Clear
26	PDO	Angle	20230908	10	(6) Friday	Daylight	Dry	Not Discernible	Making Left Turn	South	West	No	Not Discernible	Straight Ahead	West	East	20236158189	2023090162	CBUTCRO0018***C	1.505	Cloudy
27	PDO	Sideswipe - Pz	20231206	7	(4) Wednesday	Daylight	Dry	Improper Passing	Straight Ahead	North	South	No	None	Changing Lanes	North	South	20233223940	202300311	CBUTCRO0113***C	1.029	Cloudy



**CEAO HSIP FY30 SAFETY APPLICATION  
PRINCETON RD @ LIBERTY FAIRFIELD RD**





**PRELIMINARY ESTIMATE**  
**Princeton at Liberty Fairfield Roundabout**

Sheet 1 of 3  
Date: 6/6/2025

ITEM NO	ITEM DESCRIPTION	UNIT	TOTAL	UNIT PRICE	AMOUNT
201	CLEARING AND GRUBBING	LS	1	5,000.00	\$5,000
202	PAVEMENT REMOVED, ASPHALT	SY	1,300	20.00	\$26,000
202	CURB AND GUTTER REMOVED	FT	250	12.50	\$3,125
202	PIPE REMOVED, 24" AND UNDER	FT	200	25.00	\$5,000
202	CATCH BASIN REMOVED	EACH	5	350.00	\$1,750
203	EXCAVATION	CY	200	35.00	\$7,000
203	EMBANKMENT	CY	200	30.00	\$6,000
204	PROOF ROLLING	HOURL	4	100.00	\$400
204	SUBGRADE COMPACTION	SY	900	5.00	\$4,500
204	EXCAVATION OF SUBGRADE	CY	300	45.00	\$13,500
204	GEOTEXTILE FABRIC	SY	900	2.50	\$2,250
204	12" GRANULAR MATERIAL, TYPE C	CY	300	75.00	\$22,500
253	ROADWAY MISC.:PAVEMENT REPAIR, AS PER PLAN	SY	110	200.00	\$22,000
254	PAVEMENT PLANING (1.5")	SY	4,212	5.00	\$21,060
255	SAWCUT ASPHALT	LF	1,800	4.00	\$7,200
301	6" ASPHALT CONCRETE BASE	CY	70	275.00	\$19,250
304	6" AGGREGATE BASE	CY	190	95.00	\$18,050
407	NON-TRACKING TACK COAT	GAL	550	3.00	\$1,650
441	1.75" - 4" VARIABLE DEPTH INTERMEDIATE ASPHALT TYPE 2	CY	285	300.00	\$85,500
441	1.5" SURFACE ASPHALT TYPE 1	CY	195	300.00	\$58,500
451	9" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	SY	325	200.00	\$65,000
451	REINFORCED CONCRETE PAVEMENT, MISC.:SAMPLE (STAMPED), AS PER PLAN	SY	3	500.00	\$1,500
602	CONCRETE MASONRY	CY	2	3,000.00	\$6,000
605	6" BASE PIPE UNERDRAINS W/ GEOTEXTILE FABRIC	LF	1,310	14.00	\$18,340
608	CURB RAMP	SF	200	35.00	\$7,000
608	DETECTABLE WARNING	SF	160	40.00	\$6,400
609	COMBINATION CURB AND GUTTER, TYPE 2	LF	710	35.00	\$24,850
609	CURB, TYPE 6	LF	185	45.00	\$8,325
609	COMBINATION CURB AND GUTTER, TYPE 9	LF	280	35.00	\$9,800
609	9" CONCRETE TRAFFIC ISLAND	SY	550	130.00	\$71,500
611	18" CONDUIT, TYPE B	LF	300	150.00	\$45,000
611	4" CONDUIT, TYPE F	LF	100	8.00	\$800
611	6" CONDUIT, TYPE F	LF	100	10.00	\$1,000
611	CATCH BASIN, NO. 2-3	EACH	2	3,500.00	\$7,000
611	CATCH BASIN, NO. 3	EACH	2	5,000.00	\$10,000

**PRELIMINARY ESTIMATE**  
**Princeton at Liberty Fairfield Roundabout**

Sheet 2 of 3  
Date: 6/6/2025

614	MAINTAINING TRAFFIC	LS	1	10,000.00	\$10,000
619	FIELD OFFICE, TYPE B	MONTH	3	1,250.00	\$3,750
621	RAISED PAVEMENT MARKERS	EACH	50	100.00	\$5,000
623	CONSTRUCTION LAYOUT STAKES AND SURVEYING	LS	1	12,500.00	\$12,500
624	MOBILIZATION	LS	1	20,000.00	\$20,000
802	CONTINGENCIES	EACH	1	90,000.00	\$90,000
625	CONDUIT, 3"	LF	500	30.00	\$15,000
625	TRENCH	LF	500	25.00	\$12,500
625	PULL BOX, 18", INSTALL ONLY	EACH	4	2,000.00	\$8,000
625	PLASTIC CAUTION TAPE	LF	500	2.00	\$1,000
625	LIGHTING, MISC.: EACH	EACH	25,000	1.00	\$25,000
630	SIGNAGE (SIGNS & POSTS)	LS	1	12,500.00	\$12,500
632	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	LS	1	10,000.00	\$10,000
644	EDGE LINE, 4"	MI	0.25	6,000.00	\$1,500
644	CENTERLINE	MI	0.40	7,500.00	\$3,000
644	CHANNELIZING LINE, 8"	LF	130	4.00	\$520
644	CROSSWALK LINE	LF	224	15.00	\$3,360
644	YIELD LINE, SHARK TEETH	LF	70	30.00	\$2,100
644	TRANSVERSE/DIAGONAL LINE	LF	400	10.00	\$4,000
644	DOTTED LINE, 8"	LF	140	4.00	\$560
659	SEEDING AND MULCHING, AS PER PLAN	SY	1,500	3.00	\$4,500
659	REPAIR SEEDING AND MULCHING	SY	75	3.00	\$225
659	INTERSEEDING	SY	75	3.00	\$225
659	COMMERCIAL FERTILIZER	TON	0.20	750.00	\$150
659	WATER	MGAL	8	20.00	\$160
659	4" TOPSOIL	CY	167	50.00	\$8,350
659	LIME	ACRE	0.31	300.00	\$93
659	SOIL ANALYSIS TEST	EACH	2	250.00	\$500
671	EROSION CONTROL MAT, TYPE B (CENTER OF RAB)	SY	290	10.00	\$2,900
832	TEMPORARY EROSION CONTROL	LS	1	15,000.00	\$15,000
832	STORMWATER POLLUTION PREVENTION PLAN INSPECTIONS	LS	1	5,000.00	\$5,000
832	STORMWATER POLLUTION PREVENTION PLAN, INSPECTION, SOFTWARE	LS	1	5,000.00	\$5,000
878	INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	LS	1	8,000.00	\$8,000
<b>SUBTOTAL</b>					<b>\$903,143</b>
	<b>10% CE</b>	<b>LS</b>	<b>903,143</b>		<b>\$90,314</b>

**PRELIMINARY ESTIMATE**  
**Princeton at Liberty Fairfield Roundabout**

Sheet 3 of 3  
Date: 6/6/2025

<b>TOTAL COST</b>					<b>\$993,457</b>
PROJECT DESCRIPTION: INTERSECTION IMPROVEMENT (IMPLEMENTING A ROUNDABOUT)					
Approved by: MATT BRUBAKER, P.E. (BUTLER COUNTY DESIGN ENGINEER)					
	I HEREBY CERTIFY THAT THIS PROJECT WILL HAVE A USEFUL LIFE OF TWENTY YEARS.				
	NOTE: PREVAILING WAGES WILL BE PAID ON THIS PROJECT				

