



2023 Formal Safety Application Update FAI-37 & Pleasantville Road (FAI-37-8.34) 2021 HSIP Priority List #35 Rural Intersection

Background

A formal safety study of the intersection of SR 37 and Pleasantville Road (CR 17) was completed in 2021. A formal safety application was submitted for long-term improvements involving SR 37 left turn lane widening and profile correction at the subject intersection. The application was rejected due to concerns regarding the district's preferred crash countermeasure alternative not appropriately addressing the primary crash pattern (angle crashes). Therefore, District 5 pursued further developing roundabout alternatives due to reservations with signaling the intersection.

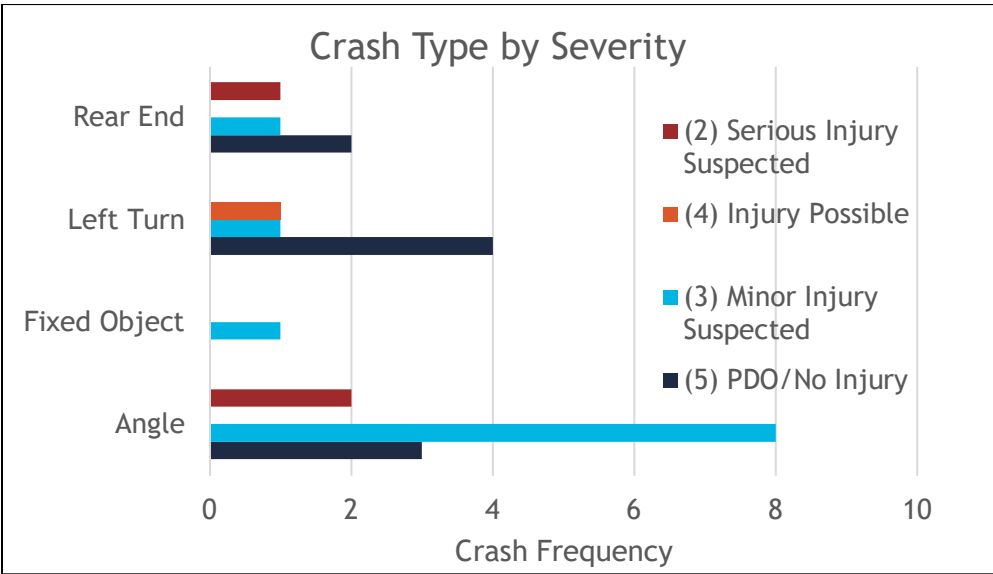
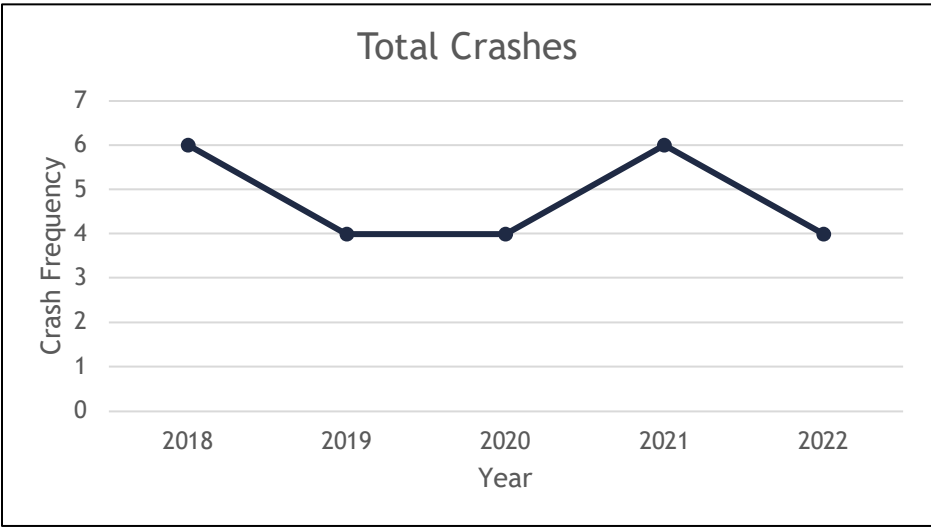
Crash Data

On previous HSIP safety priority rankings, the SR 37 & Pleasantville Road intersection ranked as follows:

- 2017 - #63 Rural Intersection
- 2018 - #121 Rural Intersection
- 2020 - #49 Rural Intersection
- 2021 - #35 Rural Intersection

From 2018 to 2022, 24 crashes occurred. To summarize the crash data:

- 62% of crashes resulted in injuries
- 21% of crashes resulted in serious injuries
- Since the 2021 safety application, the average annual crash frequency and crash severity have increased with two serious injury crashes occurring in both 2021 and 2022
- 10 of 13 angle crashes (77%) resulted in injuries
- 19 crashes were angle or left turn crashes (79% of total)



An existing condition safety analysis calculated the predicted average crash frequency to be 4.47 crashes per year and the expected average crash frequency to be 4.44 crashes per year.

Countermeasure Evaluation

Two roundabout alternatives were developed with the assistance of the Office of Roadway Engineering staff: a compact circular layout and a “peanut-shaped” layout. The primary constraint for the roundabout designs is right-of-way impacts to adjacent properties and homes in the northeast and southwest quadrants.

Preliminary engineering layouts focused on mitigating right-of-way impacts as much as possible while maintaining the intersection location generally in its existing footprint. Because right-of-way impacts to the adjacent homes is uncertain at this time, as a conservative measure, the right-of-way cost estimates assume both homes will require relocations. If approved, further design consideration in design will be given to relocating a roundabout into the one of the intersection quadrants to potentially reduce right-of-way impacts.

A roundabout conversion has a proposed expected crash frequency is 1.80 crashes per year with an expected reduction of 2.64 crashes per year. The net present value of safety benefits was calculated to be \$3,845,292. The cost estimates for each alternative are as follows:

Circular Roundabout Alternative (95' ICD)

Engineering Estimate = \$600,000

R/W & Utilities Estimate = \$1,350,000

Construction Estimate = \$2,950,000

Total = \$4,900,000

Benefit-Cost Ratio = 0.78



Peanut Roundabout Alternative

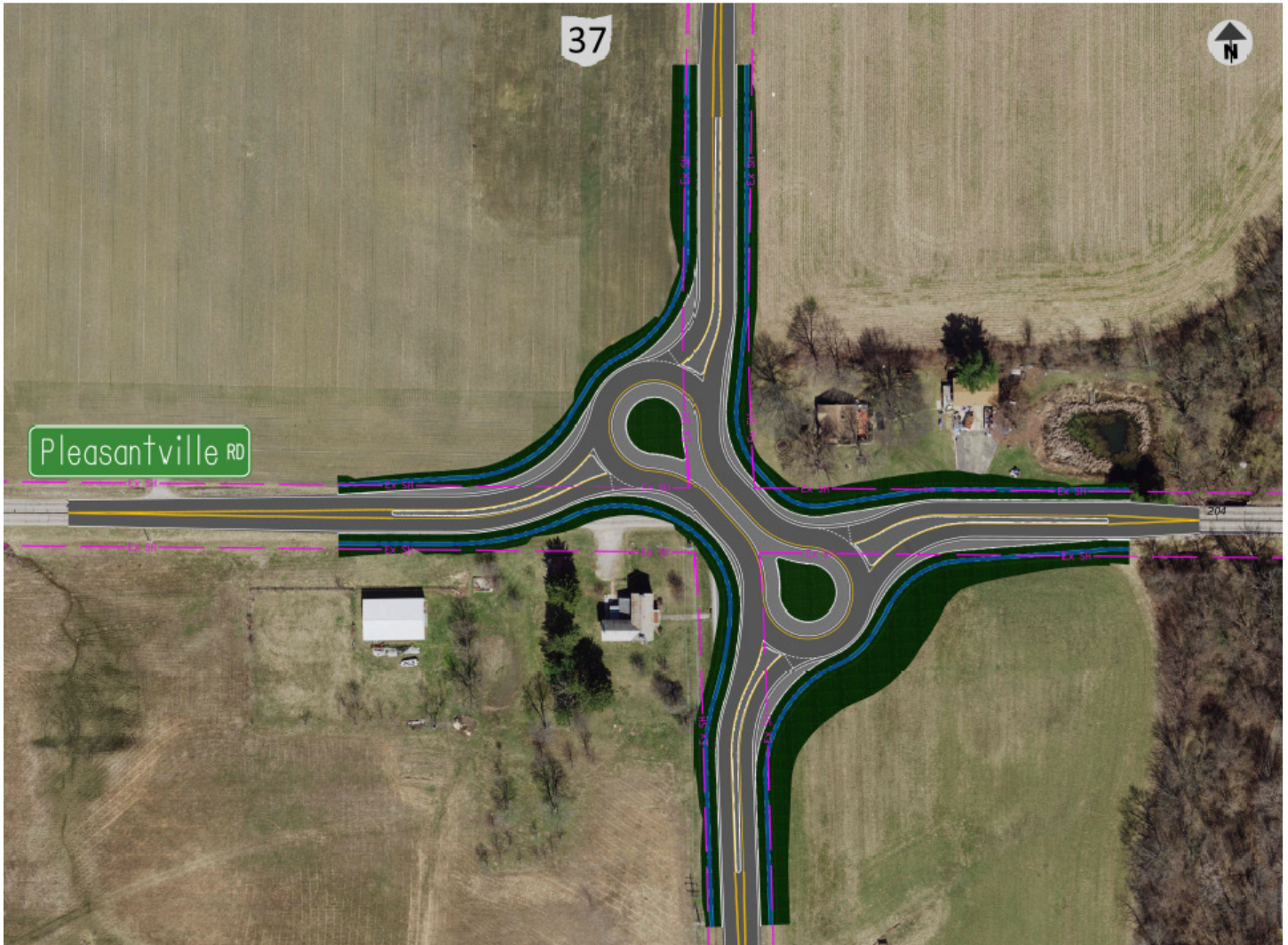
Engineering Estimate = \$600,000

R/W & Utilities Estimate = \$1,950,000

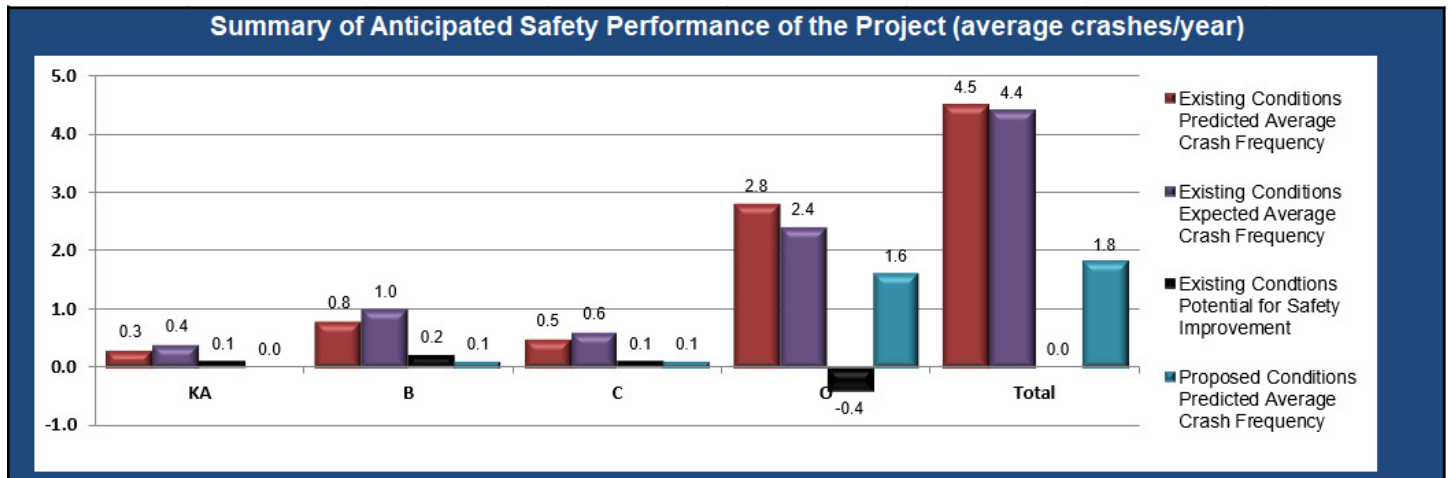
Construction Estimate = \$3,770,000

Total = \$6,320,000

Benefit-Cost Ratio = 0.61



ECAT Summary



Project Summary Results (Without Animal Crashes)					
	KA	B	C	O	Total
N_{predicted} - Existing Conditions	0.3262	0.7905	0.5268	2.8297	4.4732
N_{expected} - Existing Conditions	0.4023	0.9753	0.6496	2.4133	4.4405
N_{potential for improvement} - Existing Conditions	0.0761	0.1848	0.1228	-0.4164	-0.0327
N_{expected} - Proposed Conditions	0.0084	0.0697	0.0860	1.6368	1.8009

Conclusion

District 5 wishes to convert the intersection to a modern roundabout. District 5 has selected the circular roundabout alternative as the preferred alternative. The project will require consultant services, right-of-way acquisition with utility relocation with construction funds in FY2029.

A list of appendices will be included in the safety application folder:

- CAM Tool Data and Crash Diagram
- Cost Estimates
- Proposed Condition Diagrams
- ECAT Analysis
- 2021 Formal Safety Study Report

Appendix A: Crash Data & Crash Diagram

FAI-37 & Pleasantville Rd 2018-2022

Crash Summary Sheet

Fatalities	0
Serious Injuries	5
Other Injuries	26

Crash Severity	Crashes	%
(2) Serious Injury Suspected	3	12.50%
(3) Minor Injury Suspected	11	45.83%
(4) Injury Possible	1	4.17%
(5) PDO/No Injury	9	37.50%
Grand Total	24	100.00%

Day of Week	Crashes	%
(1) Sunday	5	20.83%
(2) Monday	4	16.67%
(3) Tuesday	4	16.67%
(4) Wednesday	4	16.67%
(5) Thursday	1	4.17%
(6) Friday	5	20.83%
(7) Saturday	1	4.17%
Grand Total	24	100.00%

Hour of Day	Crashes	%
4	1	4.17%
6	2	8.33%
7	1	4.17%
8	1	4.17%
10	1	4.17%
11	1	4.17%
12	1	4.17%
14	2	8.33%
15	5	20.83%
16	1	4.17%
17	2	8.33%
18	2	8.33%
19	1	4.17%
20	1	4.17%
21	1	4.17%
22	1	4.17%
Grand Total	24	100.00%

Crashes Per Year	4.80
Fatal and All Injury Crashes	15
Percent Injury	62.5%
Equivalent PDO Index Value	9.30

Year	Crashes	%
2018	6	25.00%
2019	4	16.67%
2020	4	16.67%
2021	6	25.00%
2022	4	16.67%
Grand Total	24	100.00%

Crash Type	Crashes	%
Angle	13	54.17%
Left Turn	6	25.00%
Rear End	4	16.67%
Fixed Object	1	4.17%
Grand Total	24	100.00%

Month	Crashes	%
1	3	12.50%
2	1	4.17%
3	1	4.17%
4	1	4.17%
5	3	12.50%
6	1	4.17%
7	1	4.17%
9	6	25.00%
10	5	20.83%
12	2	8.33%
Grand Total	24	100.00%

FAI-37 & Pleasantville Rd 2018-2022

Crash Summary Sheet

Weather Condition	Crashes	%
Clear	11	45.83%
Cloudy	8	33.33%
Rain	4	16.67%
Fog, Smog, Smoke	1	4.17%
Grand Total	24	100.00%

Road Condition	Crashes	%
Dry	17	70.83%
Wet	7	29.17%
Grand Total	24	100.00%

Light Condition	Crashes	%
Daylight	18	75.00%
Dark - Roadway Not Lighted	6	25.00%
Grand Total	24	100.00%

Number of Units	Crashes	%
2	23	95.83%
1	1	4.17%
Grand Total	24	100.00%

ODOT Location	Crashes	%
Four-Way Intersection	24	100.00%
Grand Total	24	100.00%

Work Zone Related	Crashes	%
No	24	100.00%
Grand Total	24	100.00%

Contour	Crashes	%
Straight Grade	15	62.50%
Straight Level	9	37.50%
Grand Total	24	100.00%

Alcohol Related	Crashes	%
No	21	87.50%
Yes	3	12.50%
Grand Total	24	100.00%

Drug Related (Inc. Marijuana)	Crashes	%
No	23	95.83%
Yes	1	4.17%
Grand Total	24	100.00%

Roadway Departure	Crashes	%
No	23	95.83%
Yes	1	4.17%
Grand Total	24	100.00%

Marijuana Related	Crashes	%
No	23	95.83%
Yes	1	4.17%
Grand Total	24	100.00%

Intersection Related	Crashes	%
Yes	21	87.50%
No	3	12.50%
Grand Total	24	100.00%

Older Driver (65+)	Crashes	%
No	19	79.17%
Yes	5	20.83%
Grand Total	24	100.00%

Speed Related	Crashes	%
No	22	91.67%
Yes	2	8.33%
Grand Total	24	100.00%

Young Driver (15-25)	Crashes	%
No	15	62.50%
Yes	9	37.50%
Grand Total	24	100.00%

Motorcycle Involved	Crashes	%
No	24	100.00%
Grand Total	24	100.00%

FAI-37 & Pleasantville Rd 2018-2022

Crash Summary Sheet

Unit 1 Summary

Unit 1 Pre-Crash Action	Crashes	%
Straight Ahead	16	66.67%
Making Left Turn	6	25.00%
Entering Traffic Lane	1	4.17%
Other / Unknown	1	4.17%
Grand Total	24	100.00%

Unit 1 Contributing Factor	Crashes	%
Failure to Yield	13	54.17%
Ran Stop Sign	4	16.67%
Following Too Closely/ACDA	3	12.50%
Other Improper Action	1	4.17%
Drove off Road	1	4.17%
None	1	4.17%
Not Discernible	1	4.17%
Grand Total	24	100.00%

Unit 1 Object Struck	Crashes	%
Nothing Struck	19	79.17%
Ditch	4	16.67%
Embankment	1	4.17%
Grand Total	24	100.00%

Unit 1 Traffic Control	Crashes	%
Stop Sign	16	66.67%
No Control	8	33.33%
Grand Total	24	100.00%

Unit 1 Posted Speed	Crashes	%
50	1	4.17%
55	23	95.83%
Grand Total	24	100.00%

Unit 1 Direction From	Crashes	%
East	9	37.50%
West	7	29.17%
North	5	20.83%
South	3	12.50%
Grand Total	24	100.00%

Unit 1 Direction To	Crashes	%
West	8	33.33%
East	8	33.33%
South	5	20.83%
North	3	12.50%
Grand Total	24	100.00%

FAI-37 & Pleasantville Rd 2018-2022

Crash Summary Sheet

Unit 1 Summary

Unit 1 Type	Crashes	%
Passenger Car	12	50.00%
Pick up	6	25.00%
Sport Utility Vehicle	4	16.67%
Passenger Van (minivan)	2	8.33%
Grand Total	24	100.00%

Unit 1 Special Function	Crashes	%
None	24	100.00%
Grand Total	24	100.00%

FAI-37 & Pleasantville Rd 2018-2022

Crash Summary Sheet

Unit 2 Summary

Unit 2 Pre-Crash Action	Crashes	%
Straight Ahead	20	83.33%
Slowing or Stopped In Traffic	2	8.33%
	1	4.17%
Making Left Turn	1	4.17%
Grand Total	24	100.00%

Unit 2 Contributing Factor	Crashes	%
None	22	91.67%
Other Improper Action	1	4.17%
	1	4.17%
Grand Total	24	100.00%

Unit 2 Direction From	Crashes	%
	1	4.17%
North	14	58.33%
South	8	33.33%
West	1	4.17%
Grand Total	24	100.00%

Unit 2 Direction To	Crashes	%
	1	4.17%
East	1	4.17%
North	7	29.17%
South	14	58.33%
West	1	4.17%
Grand Total	24	100.00%

Unit 2 Type	Crashes	%
Passenger Car	9	37.50%
Sport Utility Vehicle	7	29.17%
Pick up	3	12.50%
Semi-Tractor	1	4.17%
Cargo Van	1	4.17%
Unknown or Hit/Skip	1	4.17%
	1	4.17%
Passenger Van (minivan)	1	4.17%
Grand Total	24	100.00%

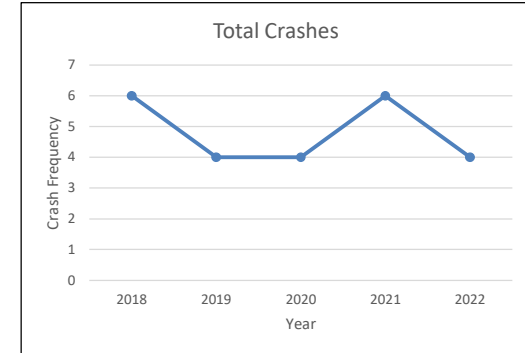
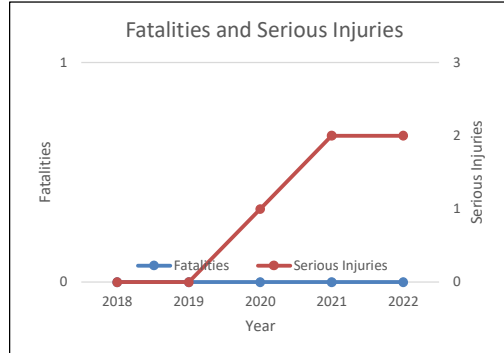
Unit 2 Special Function	Crashes	%
None	22	91.67%
Other / Unknown	1	4.17%
	1	4.17%
Grand Total	24	100.00%

FAI-37 & Pleasantville Rd 2018-2022

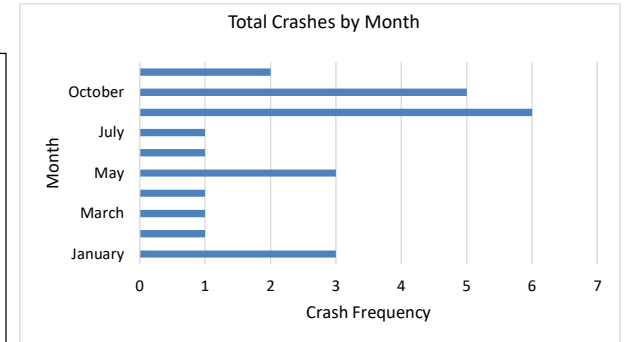
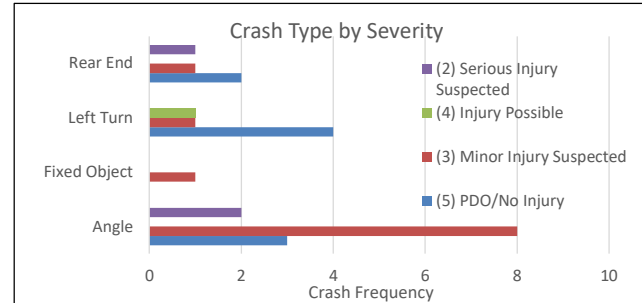
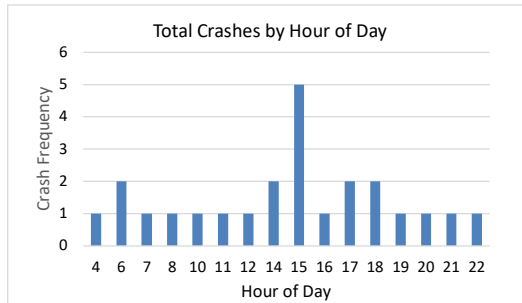
Crash Summary Sheet

Crashes Per Year 4.80 Percent Injury 62.5% EPDO 9.30

Year	Total Crashes	Fatalities	Serious Injuries
2018	6	0	0
2019	4	0	0
2020	4	0	1
2021	6	0	2
2022	4	0	2
Grand Total	24	0	5



Crash Type	Injury Level					Grand Total
	(2) Serious Inju	(3) Minor Injury	(4) Injury Possi	(5) PDO/No Inji		
Angle	2	8	0	3	13	
Left Turn	0	1	1	4	6	
Rear End	1	1	0	2	4	
Fixed Object	0	1	0	0	1	
Grand Total	3	11	1	9	24	



FAI-37 & Pleasantville Rd 2018-2022

Crash Summary Sheet

Crashes Per Year	4.80	Percent Injury	62.5%	EPDO	9.30
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	17	0	3
Wet	7	0	2
Grand Total	24	0	5

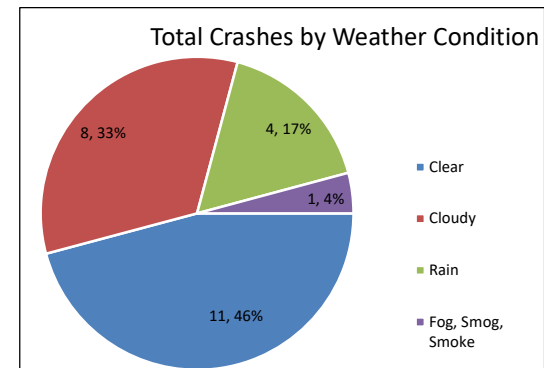
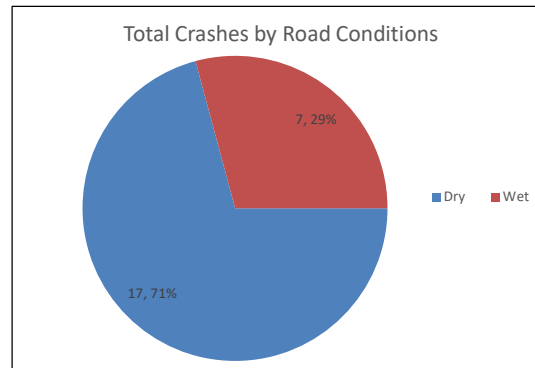
Hour of Day	Total Crashes
4	1
6	2
7	1
8	1
10	1
11	1
12	1
14	2
15	5
16	1
17	2
18	2
19	1
20	1
21	1
22	1
Grand Total	24

Month	Total Crashes
January	3
February	1
March	1
April	1
May	3
June	1
July	1
September	6
October	5
December	2
Grand Total	24

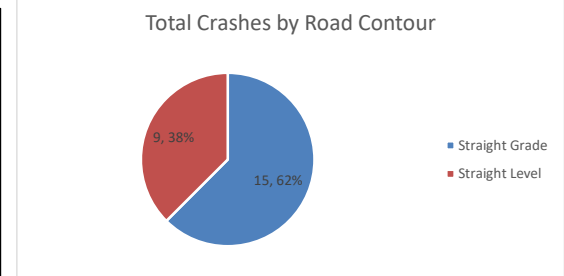
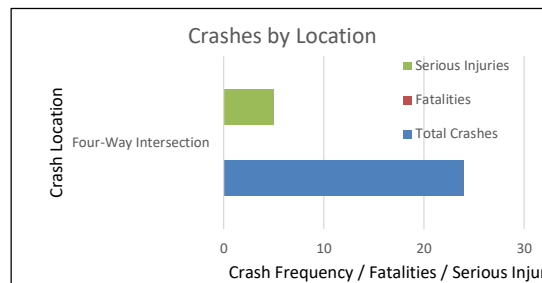
Weather	Total Crashes	Fatalities	Serious Injuries
Clear	11	0	1
Cloudy	8	0	2
Rain	4	0	2
Fog, Smog, Smoke	1	0	0
Grand Total	24	0	5

Day in Week	Total Crashes
(1) Sunday	5
(2) Monday	4
(3) Tuesday	4
(4) Wednesday	4
(5) Thursday	1
(6) Friday	5
(7) Saturday	1
Grand Total	24

Crash Location	Total Crashes	Fatalities	Serious Injuries
Four-Way Intersection	24	0	5
Grand Total	24	0	5



Roadway Contour	Total Crashes	Fatalities	Serious Injuries
Straight Grade	15	0	1
Straight Level	9	0	4
Grand Total	24	0	5

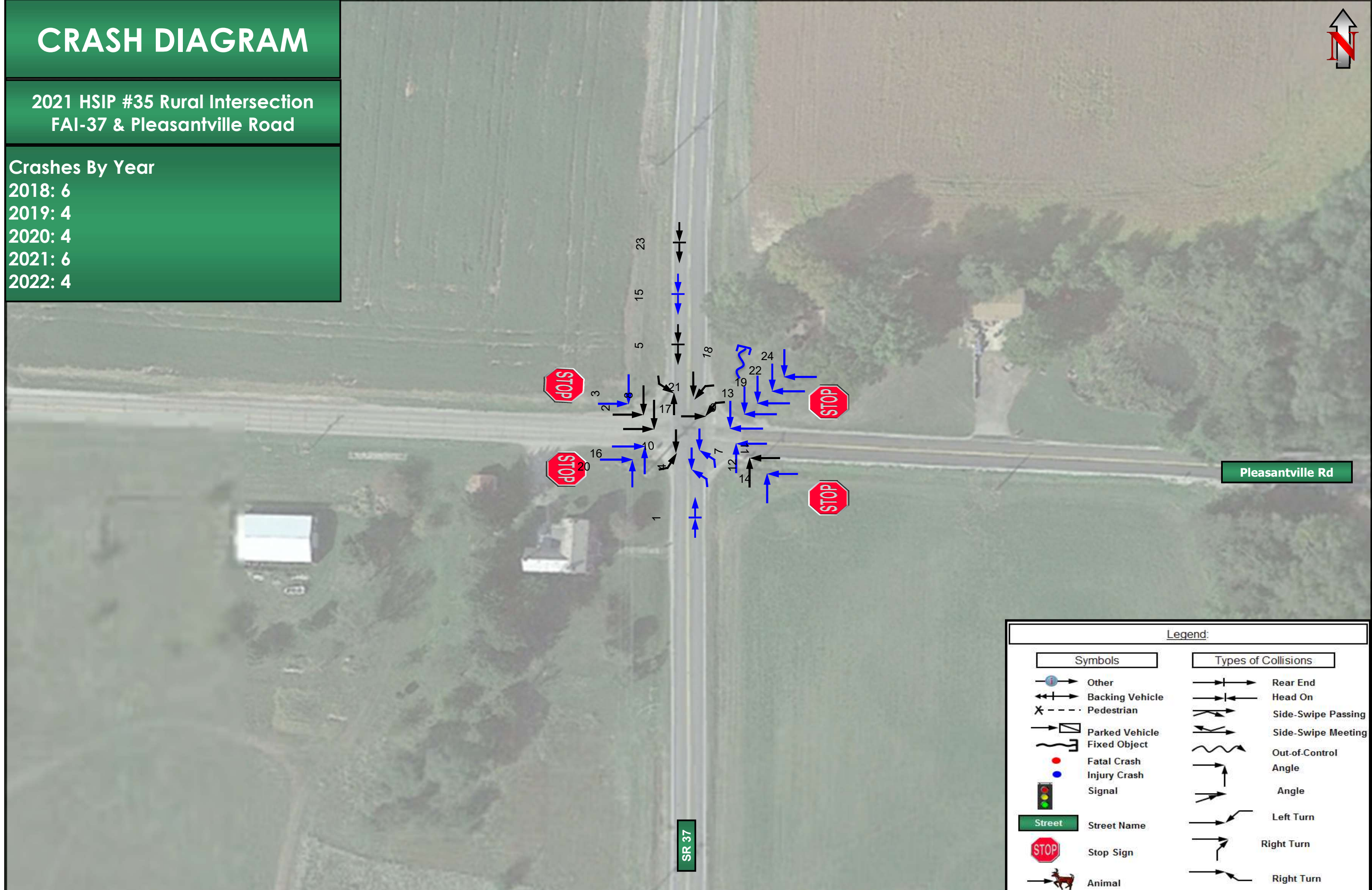


CRASH DIAGRAM

2021 HSIP #35 Rural Intersection
FAI-37 & Pleasantville Road

Crashes By Year

2018: 6
2019: 4
2020: 4
2021: 6
2022: 4



Pleasantville Rd

SR 37

Legend:	
Symbols	
	Other
	Backing Vehicle
	Pedestrian
	Parked Vehicle
	Fixed Object
	Fatal Crash
	Injury Crash
	Signal
	Street Name
	Stop Sign
	Animal
Types of Collisions	
	Rear End
	Head On
	Side-Swipe Passing
	Side-Swipe Meeting
	Out-of-Control
	Angle
	Angle
	Left Turn
	Right Turn
	Right Turn

Appendix B: Cost Estimate

Preliminary Construction Estimate

Fai-37-8.39 95' ICD Option

1		Asphalt Surface	Cu. Yds.	274	\$225.00	\$61,650
2		Asphalt Intermediate	Cu. Yds.	384	\$200.00	\$76,800
3	Roadway Pavement	Asphalt Base	Cu. Yds.	775	\$175.00	\$135,625
4		Aggregate Base	Cu. Yds.	988	\$100.00	\$98,800
5		Truck Apron Concrete	Sq. Yds.	626	\$110.00	\$68,860
6	Earthwork	Excavation	Cu. Yds.	1,140	\$25.00	\$28,500
7		Embankment	Cu. Yds.	2,720	\$25.00	\$68,000
8	Curb and Splitter Island	Curb Type 6	Ft.	3,925	\$30.00	\$117,750
9		Curb Type 9	Ft.	983	\$90.00	\$88,470
10		Splitter Island Concrete	Sq. Ft.	3,791	\$10.00	\$37,910
		SUBTOTAL				\$782,365
11	Erosion Control		Lump	1	\$150,000	\$150,000
12	Drainage		Lump	1	\$200,000	\$200,000
13	Traffic Control		Lump	1	\$20,000.00	\$20,000
14	Maintenance of Traffic		Lump	1	\$400,000	\$400,000
15	Incidentals		Lump	1	\$150,000	\$150,000
16	Lighting		Lump	1	\$75,000.00	\$75,000
17	Misc.	Geotech	Lump	1	\$75,000.00	\$75,000
		SUBTOTAL				\$1,070,000
TOTAL ROADWAY COSTS						\$1,852,365
14	Contingency		% of Items 1-17	25.0%		\$463,000
15	Inflation (Assuming 2 years)			6.0%		\$138,922
TOTAL CONSTRUCTION COST					\$2,454,287	

Date: June 02, 2023

Preliminary Construction Estimate

Fai-37-8.39 Peanut Layout Option

1		Asphalt Surface	Cu. Yds.	300	\$225.00	\$67,500
2		Asphalt Intermediate	Cu. Yds.	420	\$200.00	\$84,000
3	Roadway Pavement	Asphalt Base	Cu. Yds.	986	\$175.00	\$172,550
4		Aggregate Base	Cu. Yds.	1,299	\$100.00	\$129,900
5		Truck Apron Concrete	Sq. Yds.	1,245	\$110.00	\$136,950
6	Earthwork	Excavation	Cu. Yds.	497	\$25.00	\$12,425
7		Embankment	Cu. Yds.	6,622	\$25.00	\$165,550
8	Curb and Splitter Island	Curb Type 6	Ft.	5,383	\$30.00	\$161,490
9		Curb Type 9	Ft.	2,124	\$90.00	\$191,160
10		Splitter Island Concrete	Sq. Ft.	5,285	\$10.00	\$52,850
		SUBTOTAL				\$1,174,375
11	Erosion Control		Lump	1	\$175,000	\$175,000
12	Drainage		Lump	1	\$225,000	\$225,000
13	Traffic Control		Lump	1	\$20,000.00	\$20,000
14	Maintenance of Traffic		Lump	1	\$400,000	\$400,000
15	Incidentals		Lump	1	\$150,000	\$150,000
16	Lighting		Lump	1	\$100,000.00	\$100,000
17	Misc.	Geotech	Lump	1	\$125,000.00	\$125,000
		SUBTOTAL				\$1,195,000
TOTAL ROADWAY COSTS						\$2,369,375
14	Contingency		% of Items 1-17	25.0%		\$592,000
15	Inflation (Assuming 2 years)			6.0%		\$177,683
TOTAL CONSTRUCTION COST					\$3,139,058	

Date: June 02, 2023

CY 2023-2027 Business Plan Inflation Calculator:

[Not sure if you have the latest calculator? Click here.](#)

Last Modified: 1/26/2023

Today's Date:
August 22, 2023

Please Enter Values in the Yellow Areas Only:

Estimation Start Date:

Less than or Equal to Today's Date
(mm/dd/yyyy)

8/22/2023

Start Date:

Enter Construction Mid-Point Date:

(cannot exceed 08/22/2048)
(mm/dd/yyyy)

7/29/2029

Construction Mid-Point Date:

Present-Day Estimated Cost:

\$2,315,365.00

Estimated Dollar Amount:

Estimate Start Date to Construction Mid-Point Date:

71

Months

Inflation - Start to Mid-Point of Construction:

(compounded growth rate)

Inflated Dollar Amount:

Business Plan

27.2%

\$2,946,301.07

Estimator's Name:

County - Route - Section:

PID:

Estimator's Notes:

Otworth, Joshua

From: Wooldridge, John
Sent: Monday, June 26, 2023 11:28 AM
To: Schmelzer, Edward; Otworth, Joshua
Cc: Thompson, Tyrell; Morgan, Douglas; Deitrich, William
Subject: RE: Fai-37/Pleasantville Road Preliminary Engineering

Hi Josh,

Sorry for the delay. Here are the planning level cost estimates. Thanks!

95' ICD Option:

- \$750,000.00 R/W Acquisition
- \$100,000.00 R/W Services
- \$500,000.00 R/W Utilities

Total R/W: \$1,350,000.00 for R/W

Peanut Layout Option:

- \$850,000.00 R/W Acquisition
- \$100,000.00 R/W Services
- \$1,000,000.00 R/W Utilities

Total R/W: \$1,950,000.00 for R/W

FYI, both include a take from Eichhorn (other properties with same ownership have been expensive appropriations) and both have similar impact to the corner houses (can, but may not, take them). I am not sure if access can be provided to the homes for either option. I assumed worse case based on how the last few roundabouts have gone, including relocation and appropriation support costs (so the estimates could be high, and possibly reduced if less impactful).

Hope this helps. Thanks!

Respectfully,

John R. Wooldridge

Real Estate Administrator

ODOT District 5

9600 Jacksontown Road, Jacksontown, OH 43030

740.323.5427

transportation.ohio.gov



**OHIO DEPARTMENT OF
TRANSPORTATION**

From: Schmelzer, Edward <Ed.Schmelzer@dot.ohio.gov>

Sent: Wednesday, June 21, 2023 11:00 AM

To: Otworth, Joshua <Joshua.Otworth@dot.ohio.gov>

Cc: Thompson, Tyrell <Ty.Thompson@dot.ohio.gov>; Morgan, Douglas <Doug.Morgan@dot.ohio.gov>; Deitrich, William <William.Deitrich@dot.ohio.gov>; Wooldridge, John <John.Wooldridge@dot.ohio.gov>

Subject: FW: Fai-37/Pleasantville Road Preliminary Engineering

Josh,

Preliminary utility relocation reimbursement costs.

LTL Design = \$500,000

Peanut Design = \$1,000,000

South Central Power, Gas and Telephone could be in a reimbursable position.

South Central Power has transmission/distribution facilities along SR-37 and Pleasantville road with a cross buck pole in the southwest corner of the project that may require the same type of relocation as SR-158/Coonpath road intersection by using self-supporting mono pole or poles. Which could drive the cost up significantly. I believe it would affect both designs in the same manner if they need to relocate using this method.

Please me know if you would have any questions concerning these comments.

Thanks,

Ed Schmelzer

Utility Relocation Coordinator

ODOT District 5

9600 Jacksontown Road, Jacksontown, Ohio 43030

740-323-5126

740-503-0534

transportation.ohio.gov



**OHIO DEPARTMENT OF
TRANSPORTATION**

From: Otworth, Joshua <Joshua.Otworth@dot.ohio.gov>

Sent: Friday, June 16, 2023 11:05 AM

To: Wooldridge, John <John.Wooldridge@dot.ohio.gov>; Schmelzer, Edward <Ed.Schmelzer@dot.ohio.gov>; Deitrich, William <William.Deitrich@dot.ohio.gov>

Cc: Thompson, Tyrell <Ty.Thompson@dot.ohio.gov>; Morgan, Douglas <Doug.Morgan@dot.ohio.gov>

Subject: FW: Fai-37/Pleasantville Road Preliminary Engineering

JR, Ed, Bill,

I'm requesting planning level cost estimates for R/W acquisition and utility relocation for both roundabout alternatives attached below for FAI-37/Pleasantville Road.

Thank you,

Josh Otworth, PE

740.323.5274

From: Yount, Christopher <Chris.Yount@dot.ohio.gov>

Sent: Friday, June 2, 2023 7:37 AM

To: Thompson, Tyrell <Ty.Thompson@dot.ohio.gov>; Otworth, Joshua <Joshua.Otworth@dot.ohio.gov>
Cc: Koenig, Adam <Adam.Koenig@dot.ohio.gov>; Alford, Jennifer <Jennifer.Alford@dot.ohio.gov>; Morgan, Douglas <Doug.Morgan@dot.ohio.gov>
Subject: RE: Fai-37/Pleasantville Road Preliminary Engineering

Citrix Attachments	Expires July 2, 2023
Fai_37_0839_Estimate_Revised.pdf	84.2 KB
Fai_37_0839_Preliminary_Revised.pdf	27.5 MB

[Download Attachments](#)

Christopher Yount uses Citrix Files to share documents securely.

Ty, Doug, Josh

Attached are revised plan sheets and estimate. On the original documents the tapers where the legs meet the existing pavement were not correct. The revised sheets show the correct taper. The estimate changed because additional resurfacing will be needed.

Thanks,

Chris Yount, P.E.
Preliminary Engineering & Standards
Office of Roadway Engineering
1980 W. Broad Street, Mailstop 1230
Columbus, Ohio 43223
614.387.0726
transportation.ohio.gov



From: Thompson, Tyrell <Ty.Thompson@dot.ohio.gov>
Sent: Thursday, June 1, 2023 7:01 AM
To: Yount, Christopher <Chris.Yount@dot.ohio.gov>; Otworth, Joshua <Joshua.Otworth@dot.ohio.gov>
Cc: Koenig, Adam <Adam.Koenig@dot.ohio.gov>; Alford, Jennifer <Jennifer.Alford@dot.ohio.gov>; Morgan, Douglas <Doug.Morgan@dot.ohio.gov>
Subject: RE: Fai-37/Pleasantville Road Preliminary Engineering

Chris – thanks for the information and your efforts on this project. Josh is out of the office for a couple of weeks, but we’ll review it with him when he returns.

Thanks!

Ty Thompson, P.E.
(p) 740.323.5194
transportation.ohio.gov

From: Yount, Christopher <Chris.Yount@dot.ohio.gov>

Sent: Wednesday, May 31, 2023 2:31 PM

To: Otworth, Joshua <Joshua.Otworth@dot.ohio.gov>

Cc: Thompson, Tyrell <Ty.Thompson@dot.ohio.gov>; Koenig, Adam <Adam.Koenig@dot.ohio.gov>; Alford, Jennifer <Jennifer.Alford@dot.ohio.gov>; Morgan, Douglas <Doug.Morgan@dot.ohio.gov>

Subject: Fai-37/Pleasantville Road Preliminary Engineering

Citrix Attachments

Expires June 30, 2023

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Chris Yount, P.E.

Preliminary Engineering & Standards

Office of Roadway Engineering

1980 W. Broad Street, Mailstop 1230

Columbus, Ohio 43223

614.387.0726

transportation.ohio.gov



Otworth, Joshua

From: Schmelzer, Edward
Sent: Wednesday, June 21, 2023 11:23 AM
To: Otworth, Joshua
Cc: Thompson, Tyrell; Morgan, Douglas; Deitrich, William; Wooldridge, John
Subject: RE: Fai-37/Pleasantville Road Preliminary Engineering

Josh,

Correct! I'm using the Peanut and the ICD 95' design provided.

Ed Schmelzer

Utility Relocation Coordinator

ODOT District 5

9600 Jacksontown Road, Jacksontown, Ohio 43030

740-323-5126

740-503-0534

transportation.ohio.gov



OHIO DEPARTMENT OF
TRANSPORTATION

From: Otworth, Joshua <Joshua.Otworth@dot.ohio.gov>
Sent: Wednesday, June 21, 2023 11:06 AM
To: Schmelzer, Edward <Ed.Schmelzer@dot.ohio.gov>
Cc: Thompson, Tyrell <Ty.Thompson@dot.ohio.gov>; Morgan, Douglas <Doug.Morgan@dot.ohio.gov>; Deitrich, William <William.Deitrich@dot.ohio.gov>; Wooldridge, John <John.Wooldridge@dot.ohio.gov>
Subject: RE: Fai-37/Pleasantville Road Preliminary Engineering

Clarification: You meant "typical roundabout", not "LTL", right? Both alts are roundabouts. We switched it up on you from the usual.

Josh Otworth, PE

740.323.5274

From: Schmelzer, Edward <Ed.Schmelzer@dot.ohio.gov>
Sent: Wednesday, June 21, 2023 11:00 AM
To: Otworth, Joshua <Joshua.Otworth@dot.ohio.gov>
Cc: Thompson, Tyrell <Ty.Thompson@dot.ohio.gov>; Morgan, Douglas <Doug.Morgan@dot.ohio.gov>; Deitrich, William <William.Deitrich@dot.ohio.gov>; Wooldridge, John <John.Wooldridge@dot.ohio.gov>
Subject: FW: Fai-37/Pleasantville Road Preliminary Engineering

Josh,

Preliminary utility relocation reimbursement costs.

LTL Design = \$500,000

Peanut Design =\$1.000.000

South Central Power, Gas and Telephone could be in a reimbursable position.

South Central Power has transmission/distribution facilities along SR-37 and Pleasantville road with a cross buck pole in the southwest corner of the project that may require the same type of relocation as SR-158/Coonpath road intersection by using self-supporting mono pole or poles. Which could drive the cost up significantly. I believe it would affect both designs in the same manner if they need to relocate using this method.

Please me know if you would have any questions concerning these comments.

Thanks,

Ed Schmelzer

Utility Relocation Coordinator

ODOT District 5

9600 Jacksontown Road, Jacksontown, Ohio 43030

740-323-5126

740-503-0534

transportation.ohio.gov



From: Otworth, Joshua <Joshua.Otworth@dot.ohio.gov>

Sent: Friday, June 16, 2023 11:05 AM

To: Wooldridge, John <John.Wooldridge@dot.ohio.gov>; Schmelzer, Edward <Ed.Schmelzer@dot.ohio.gov>; Deitrich, William <William.Deitrich@dot.ohio.gov>

Cc: Thompson, Tyrell <Ty.Thompson@dot.ohio.gov>; Morgan, Douglas <Doug.Morgan@dot.ohio.gov>

Subject: FW: Fai-37/Pleasantville Road Preliminary Engineering

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Cc: Koenig, Adam <Adam.Koenig@dot.ohio.gov>; Alford, Jennifer <Jennifer.Alford@dot.ohio.gov>; Morgan, Douglas <Doug.Morgan@dot.ohio.gov>

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Appendix C: ECAT Analysis

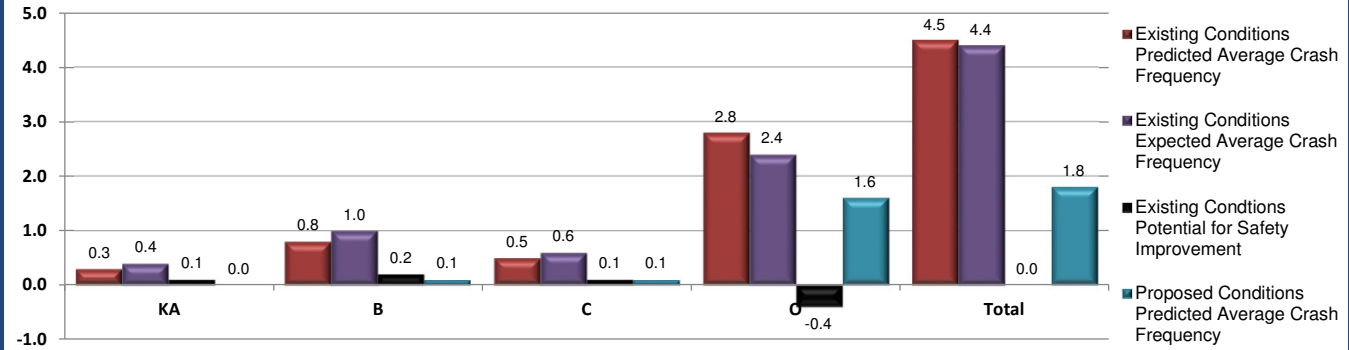


Project Safety Performance Report

General Information

Project Name	FAI-37 & Pleasantville Road	Contact Email	
Project Description	Roundabout	Contact Phone	
Reference Number		Date Performed	
Analyst	Josh Otworth	Analysis Year	2023
Agency/Company	ODOT D5		

Summary of Anticipated Safety Performance of the Project (average crashes/year)



Project Summary Results (Without Animal Crashes)

	KA	B	C	O	Total
N_{predicted} - Existing Conditions	0.3262	0.7905	0.5268	2.8297	4.4732
N_{expected} - Existing Conditions	0.4023	0.9753	0.6496	2.4133	4.4405
N_{potential for improvement} - Existing Conditions	0.0761	0.1848	0.1228	-0.4164	-0.0327
N_{expected} - Proposed Conditions	0.0084	0.0697	0.0860	1.6368	1.8009



Safety Benefit - Cost Analysis

General Information

Project Name	FAI-37 & Pleasantville Road	Contact Email	
Project Description	Roundabout	Contact Phone	
Reference Number		Date Performed	
Analyst	Josh Otworth	Analysis Year	2023
Agency/Company	ODOT D5		

Select Site Types to be used in Benefit-Cost Analysis:

All Sites

Comments:

Countermeasure Service Lives, Costs, and Safety Benefits

Countermeasures	Service Life (Years)	Initial Cost of Countermeasure	Annual Maintenance & Energy Costs	Salvage Value	Net Present Cost of Countermeasure	Total Cost of Countermeasures	Summary of Annual Crash Modifications	Net Present Value of Safety Benefits
Roundabout	20	\$4,900,000.00			\$4,900,000.00	\$4,900,000.00	-2.672	\$3,845,291
		\$0.00			\$0.00	\$0.00		
		\$0.00			\$0.00	\$0.00		
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
		\$0.00			\$0.00	\$0.00	0.000	\$0
Totals		\$4,900,000.00	\$0.00	\$0.00	\$4,900,000.00	\$4,900,000.00	-2.672	\$3,845,291



Safety Benefit - Cost Analysis

General Information

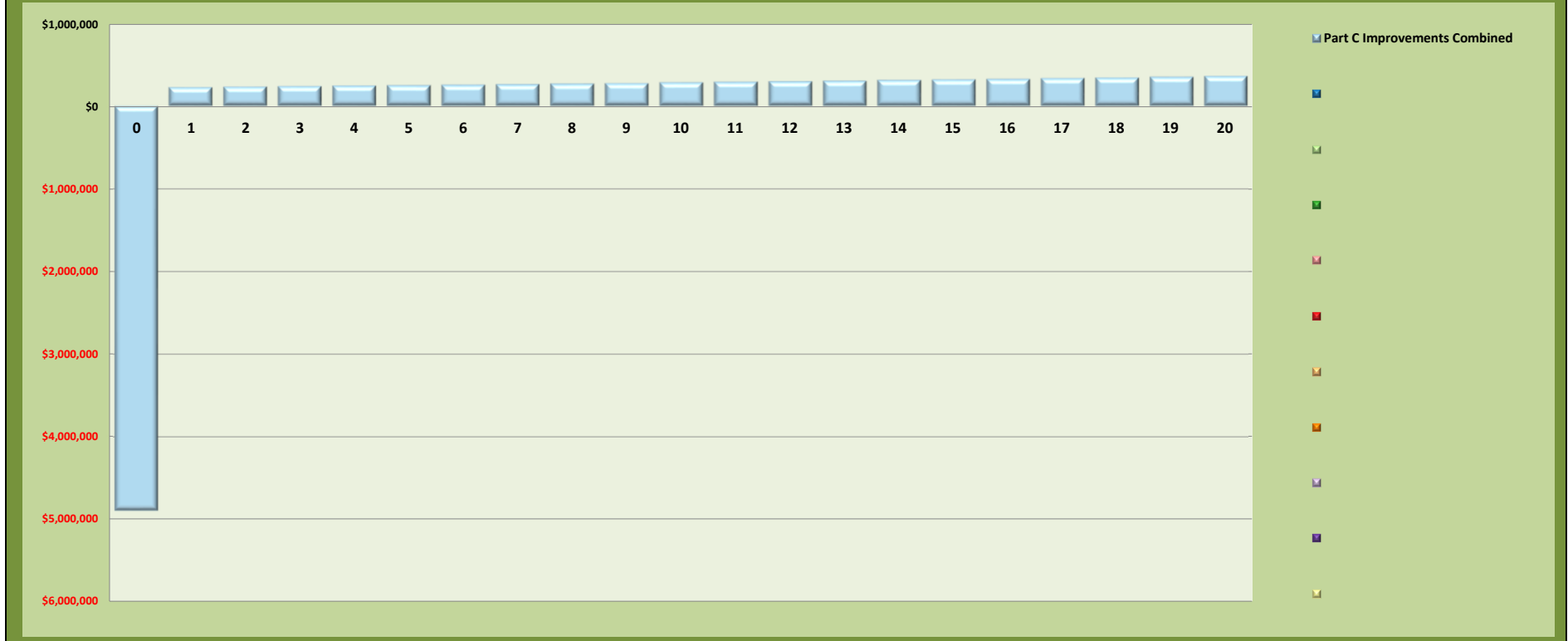
Project Name	FAI-37 & Pleasantville Road	Contact Email	
Project Description	Roundabout	Contact Phone	
Reference Number		Date Performed	
Analyst	Josh Otworth	Analysis Year	2023
Agency/Company	ODOT D5		

Benefit - Cost Calculator	
Net Present Value of Project	\$4,900,000.00
Net Present Value of Safety Benefits	\$3,845,291.26
Net Benefit	(\$1,054,708.74)
Benefit / Cost Ratio	0.78

Expected Annual Crash Adjustment	
Number of Fatal & Incapacitating Injury Crashes	-0.318
Number of Injury Crashes	-1.479
Number of Total Crashes	-2.672

Comments:

Safety Benefits and Project Costs Combined Cash Flows By Countermeasure Per Year



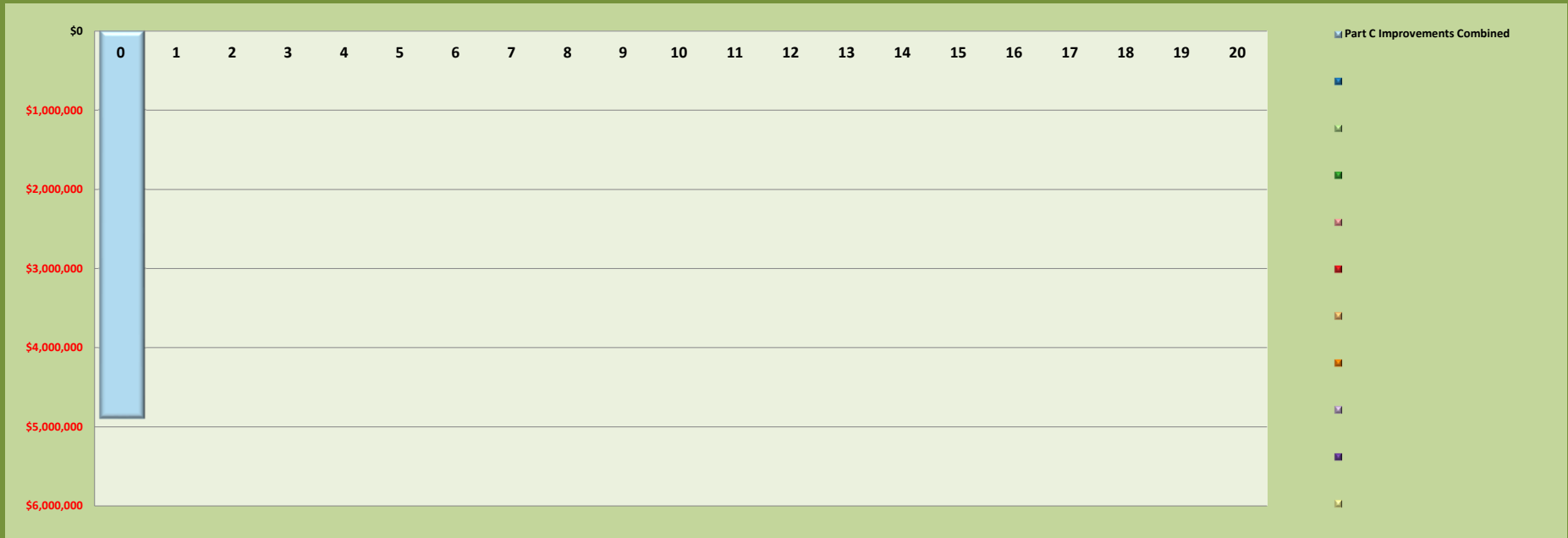


Safety Benefit - Cost Analysis

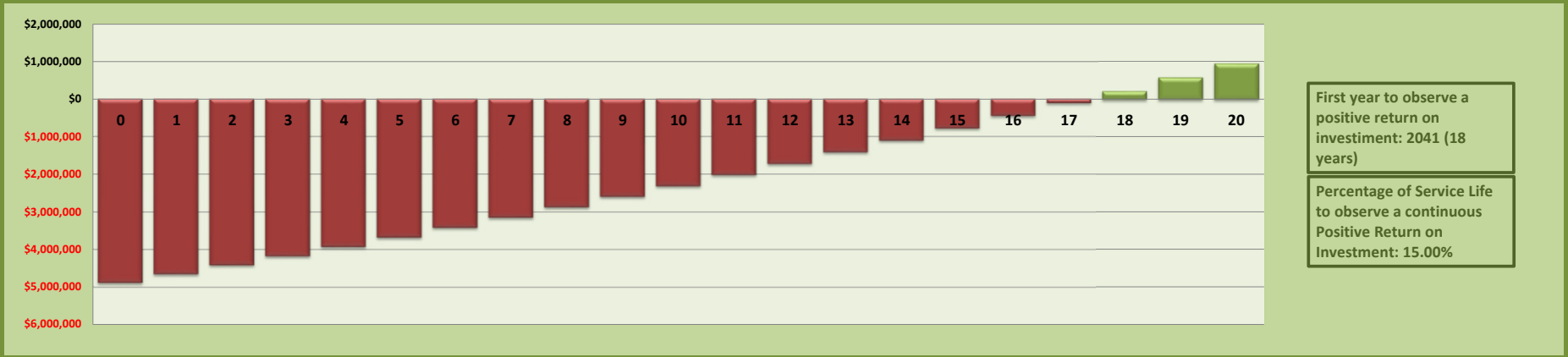
General Information

Project Name	FAI-37 & Pleasantville Road	Contact Email	
Project Description	Roundabout	Contact Phone	
Reference Number		Date Performed	
Analyst	Josh Otworth	Analysis Year	2023
Agency/Company	ODOT D5		

Project Costs Only Cash Flows By Countermeasure Per Year



Return on Investment (Safety Benefits and Project Investments)



Appendix D: Proposed Conditions Diagram

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

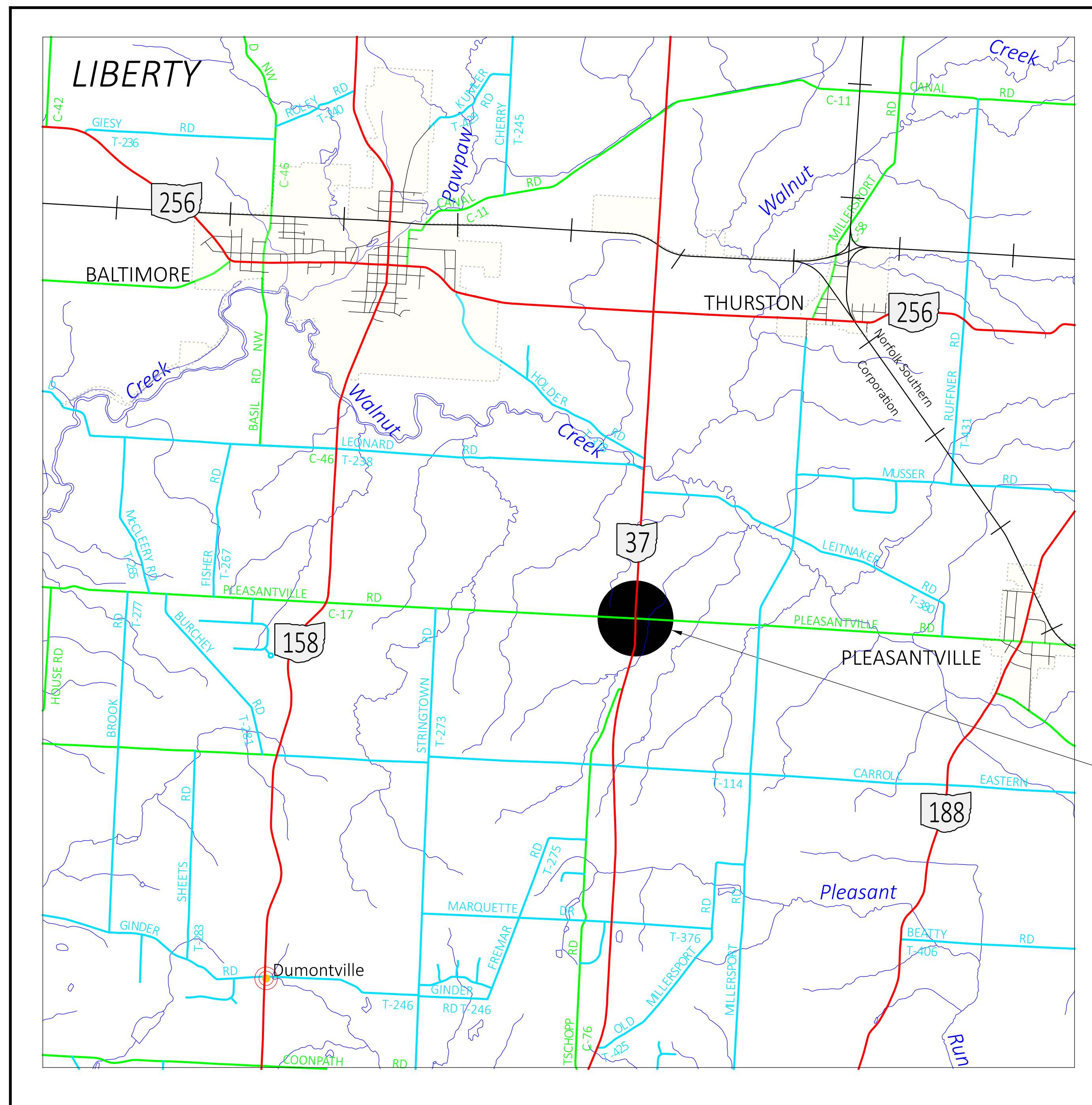
FAI-37-8.39

Roundabout at Pleasantville Road

INDEX OF SHEETS:

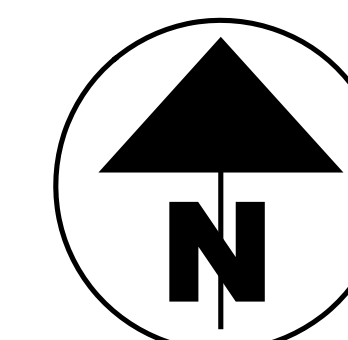
Title Sheet	1
Plan Sheet - 95' ICD	2
Plan Sheet - Peanut	3

**Preliminary Engineering
Office of Roadway Engineering**



Project Location

LOCATION MAP



TITLE SHEET

FAI-37-8.39

MODEL: Sheet_SurvFI PAPER SIZE: 34x42 (in.) DATE: 5/30/2023 TIME: 11:58:28 AM USER: cyount
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DESIGN AGENCY



DESIGNER

CMY

REVIEWER

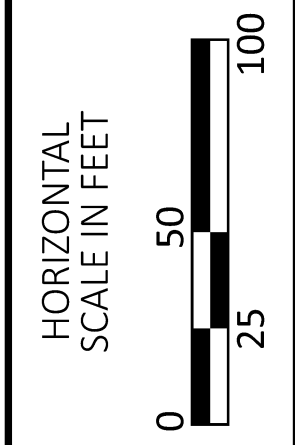
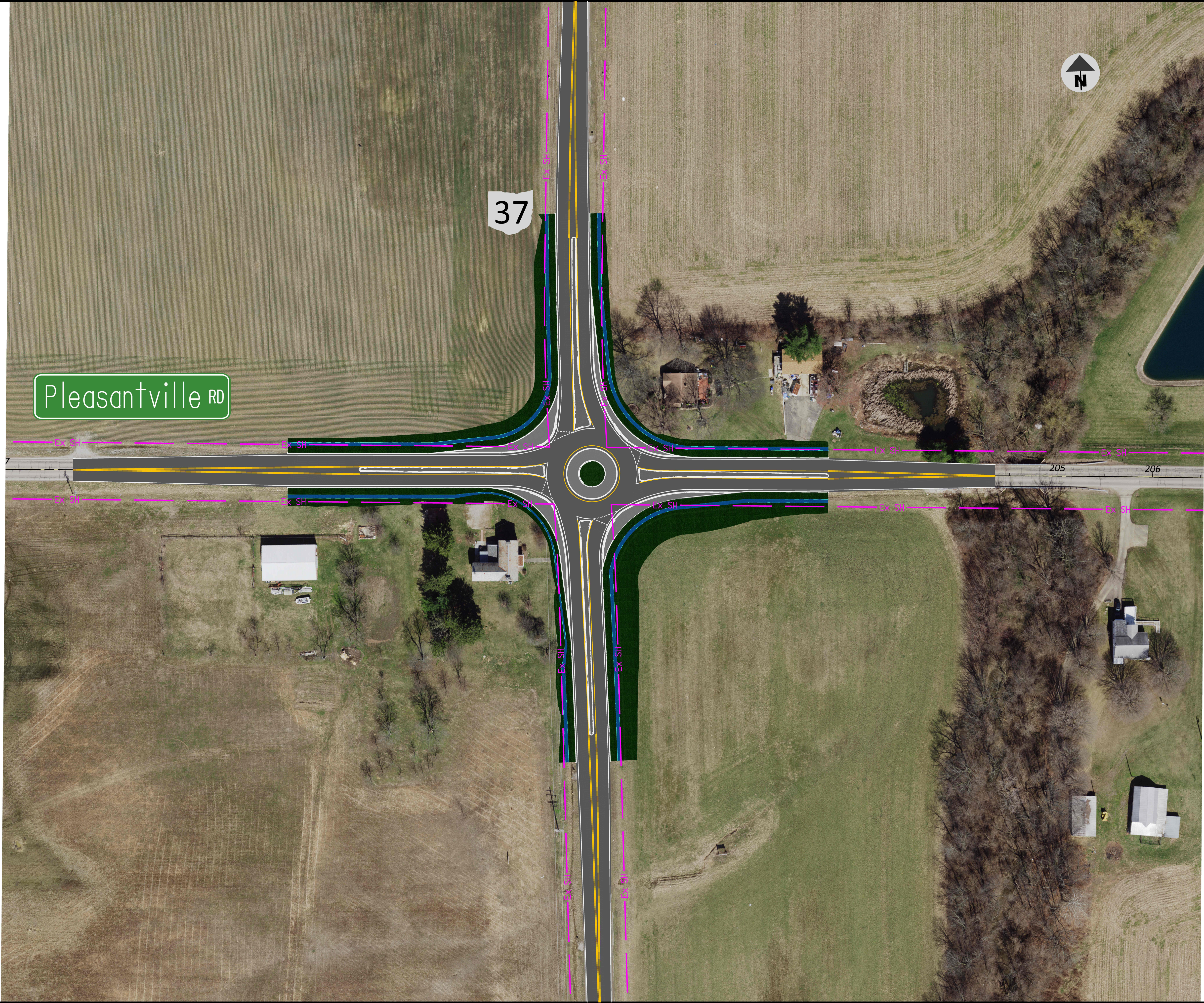
XXX MM-DD-YY

PROJECT ID

PRELIMINARY

SHEET TOTAL

P.1 | 3



95' ICD ROUNDABOUT
S.R. 37 AND PLEASANTVILLE ROAD

DESIGN AGENCY

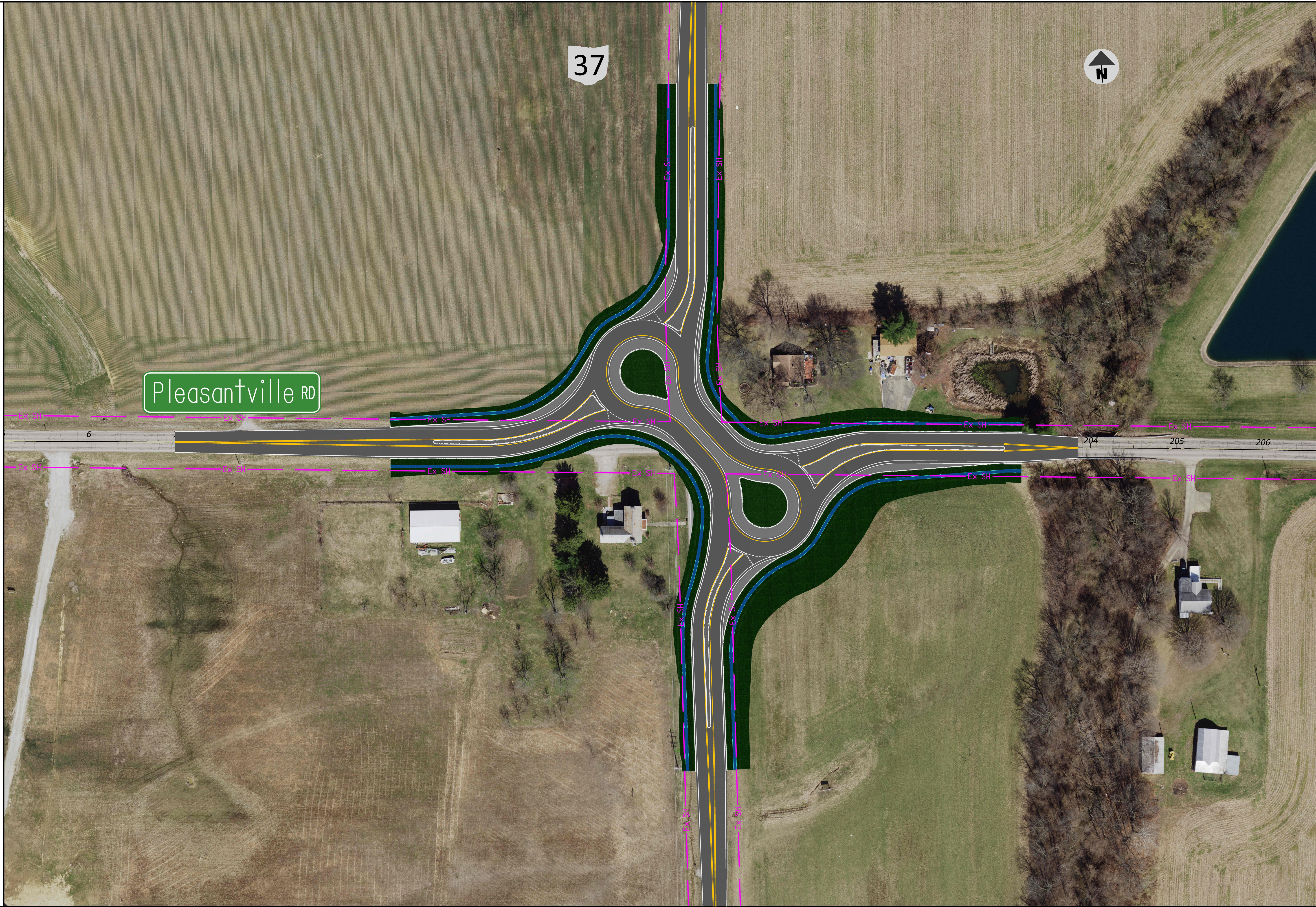


DESIGNER
CMY

REVIEWER
XXX MM-DD-YY

PROJECT ID
PRELIMINARY

SHEET	TOTAL
P.2	3



PEANUT ROUNDABOUT
S.R. 37 AND PLEASANTVILLE ROAD



DESIGN AGENCY	
DESIGNER	CMY
REVIEWER	XXX MM-DD-YY
PROJECT ID	PRELIMINARY
SHEET	TOTAL
P.3	3