

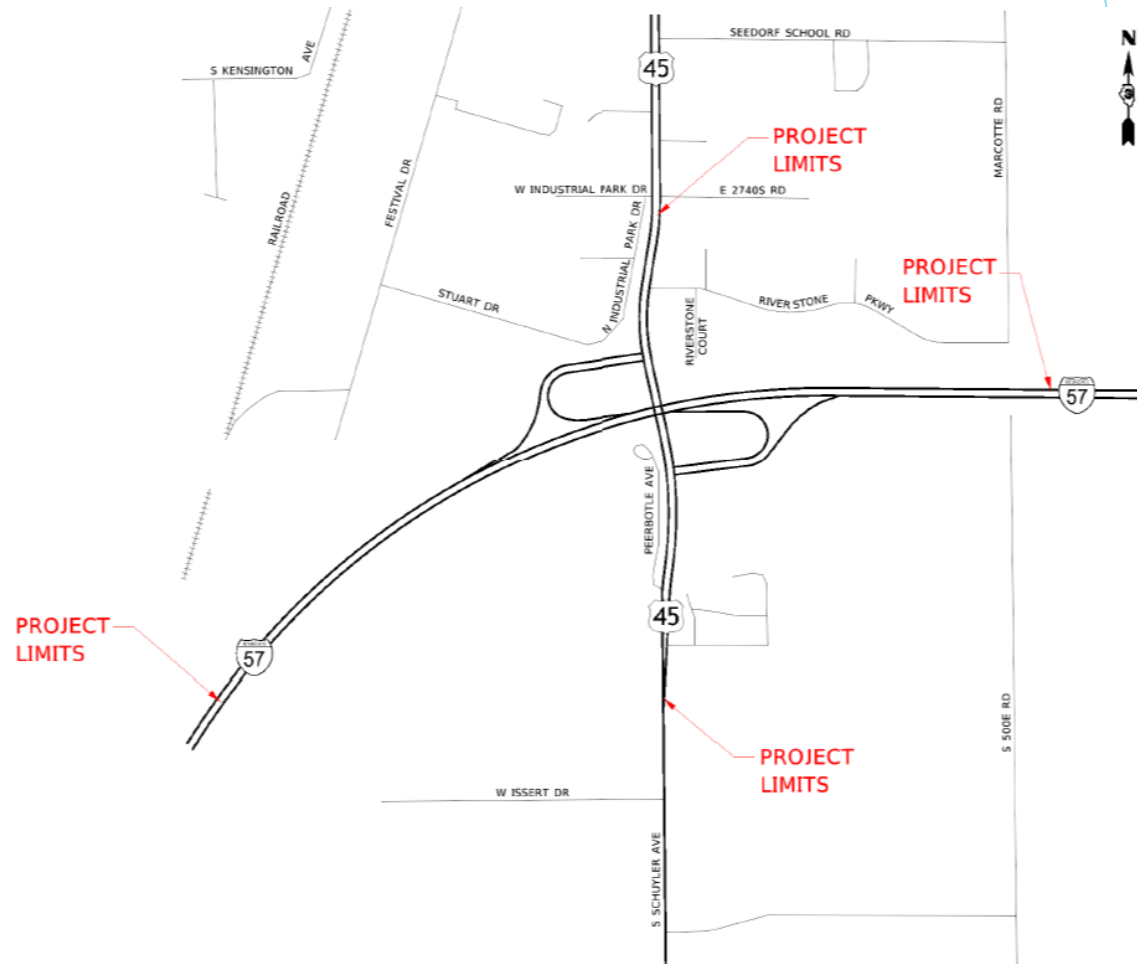
# I-57 AND US ROUTE 45/52 INTERCHANGE

PUBLIC INVOLVEMENT

March 1-31, 2022

# I-57 Interchange at US Route 45/52 Project

KANKAKEE, ILLINOIS



# Reconstruction of I-57 at US 45/52

## Purpose and Need

### Purpose of the Public Involvement

- Present the alternatives developed as part of the Interchange Type Study
- Answer questions about the project
- Receive public comments

### Project Need

- Existing Interchange ramp geometry does not meet current design policies
- Address the existing structural deficiencies on the overpass structure, originally constructed in 1962.
- Accommodate the planned future expansion of I-57 from a 4-lane facility to a 6-lane facility, to satisfy the safety and mobility needs of the I-57 corridor.

# Reconstruction of I-57 at US 45/52

## Proposed Schedule

### Preliminary Engineering Study

- Will be completed in 2022.
- Following the public involvement, IDOT will consider comments received until the phase I preliminary engineering study is completed.
- Development of the Design Plans for the overall project is programmed for improvement in the Department's Current Proposed Highway Improvement Program.
- Land acquisition and construction of the interchange are tentatively funded in the Department's Fiscal Year 2022-2027 Proposed Highway Improvement Program.

# Project Schedule



# Current Conditions



US ROUTE 45/52 OVER I-57



# Current Conditions



I-57 Northbound On/Off Ramps

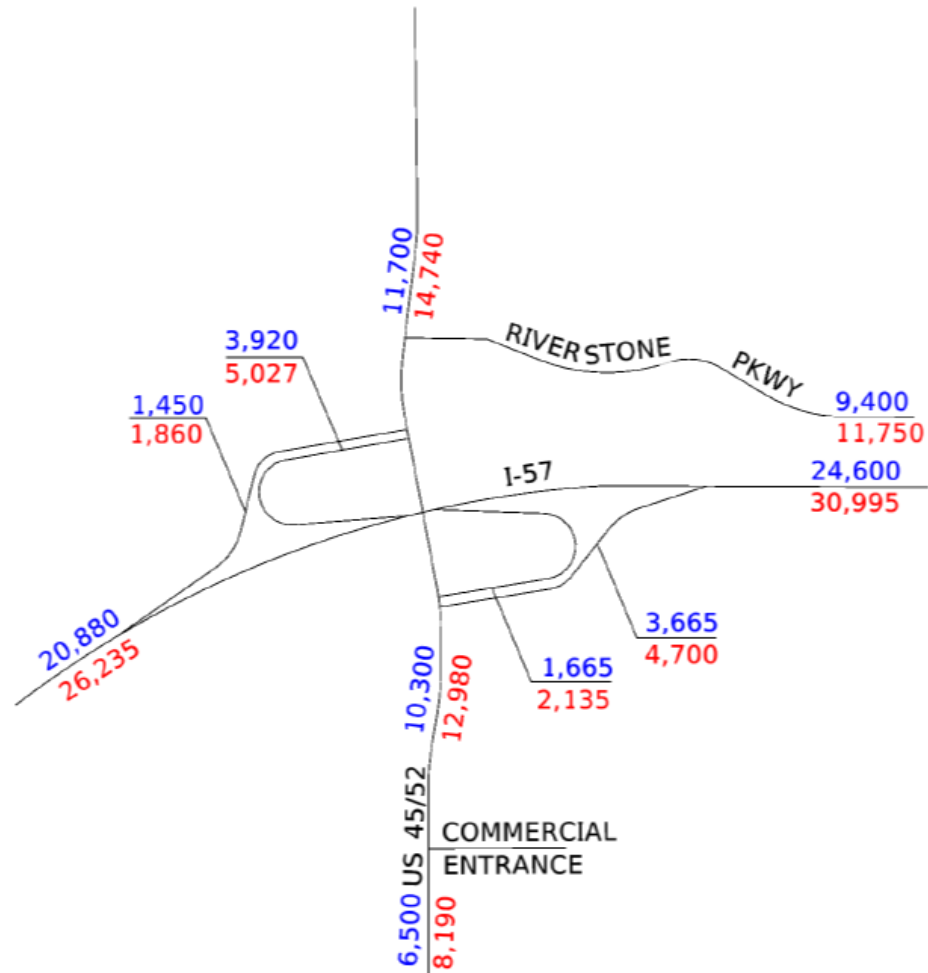


I-57 Southbound On/Off Ramps

# Interstate 57 Average Daily Traffic Map

TRAFFIC COUNTS:  
2020  
TRAFFIC PROJECTIONS:  
2045

AVERAGE DAILY TRAFFIC IS THE TOTAL NUMBER OF VEHICLES TRAVELING IN BOTH DIRECTIONS AT A GIVEN LOCATION ON AN AVERAGE DAY.



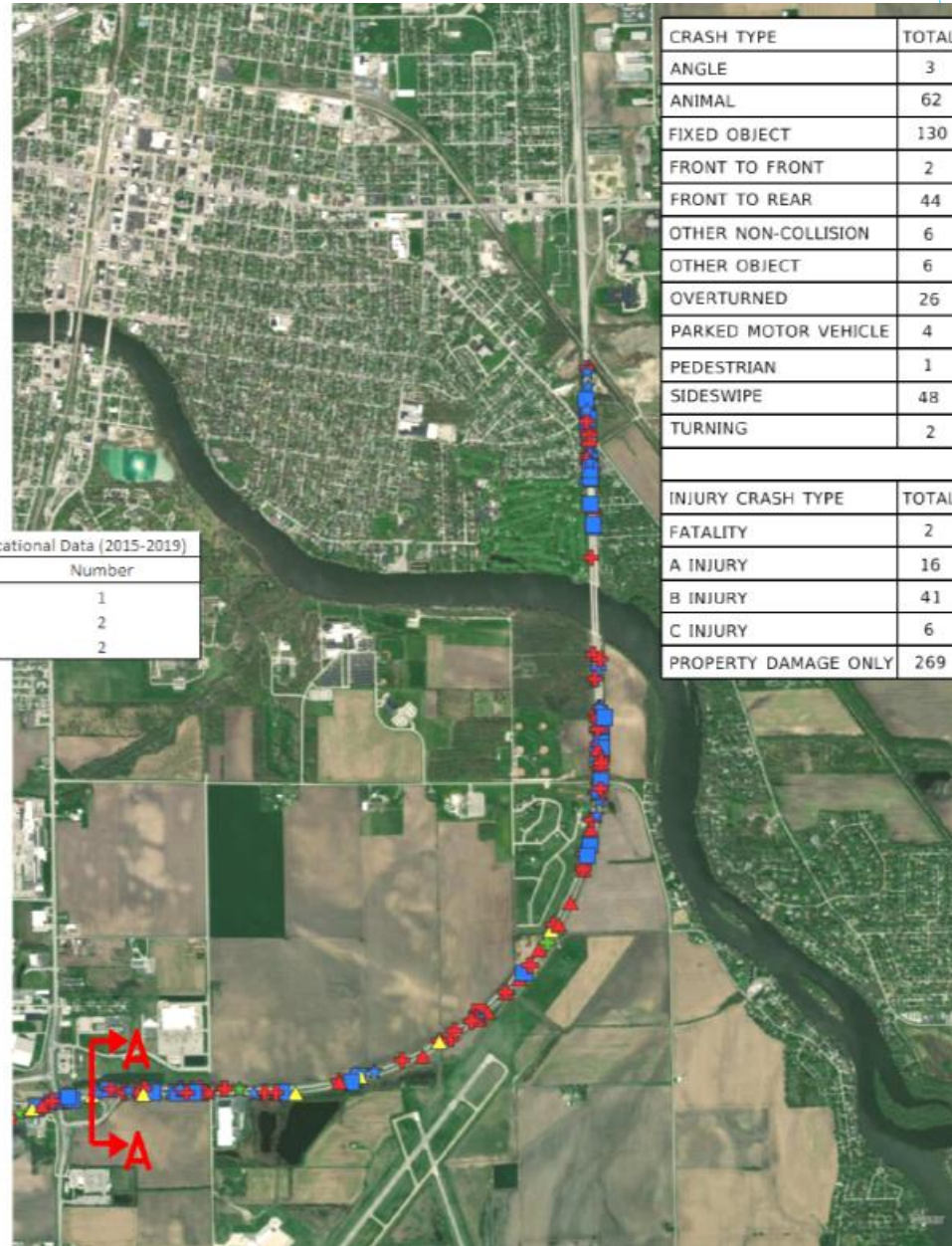


# Crash Location Map I-57 (2015-2019)



I-57 Crashes without Locational Data (2015-2019)

Collision Type	Number
Fixed Object	1
Front to Rear	2
Sideswipe	2



CRASH TYPE	TOTAL
ANGLE	3
ANIMAL	62
FIXED OBJECT	130
FRONT TO FRONT	2
FRONT TO REAR	44
OTHER NON-COLLISION	6
OTHER OBJECT	6
OVERTURNED	26
PARKED MOTOR VEHICLE	4
PEDESTRIAN	1
SIDESWIPE	48
TURNING	2
INJURY CRASH TYPE	TOTAL
FATALITY	2
A INJURY	16
B INJURY	41
C INJURY	6
PROPERTY DAMAGE ONLY	269



# Crash Location Map I-57 at US 45/52 Interchange Ramps (2015-2019)



CRASH TYPE	TOTAL
ANIMAL	1
FIXED OBJECT	6
FRONT TO REAR	2
OTHER NON-COLLISION	2
OVERTURNED	5
PARKED MOTOR VEHICLE	1
SIDESWIPE	2
INJURY CRASH TYPE	TOTAL
FATALITY	0
A INJURY	2
B INJURY	2
C INJURY	0
PROPERTY DAMAGE ONLY	15

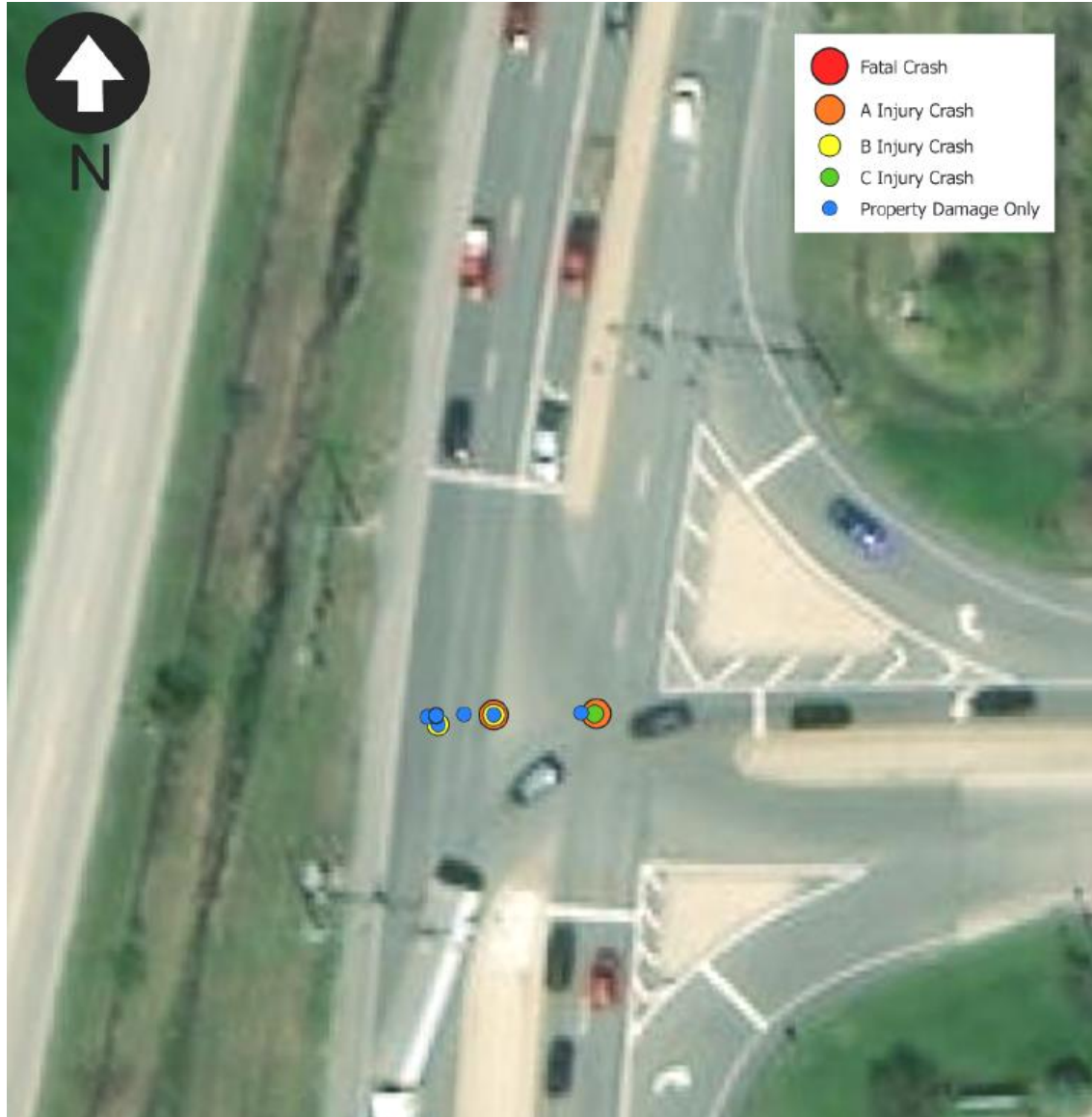
# Crash Location Map US 45/52 (2015-2019)



CRASH TYPE	TOTAL
ANGLE	3
FIXED OBJECT	5
FRONT TO FRONT	1
FRONT TO REAR	33
OTHER NON-COLLISION	1
OTHER OBJECT	1
OVERTURNED	1
PARKED MOTOR VEHICLE	6
SIDESWIPE	6
TURNING	36
INJURY CRASH TYPE	TOTAL
FATALITY	2
A INJURY	8
B INJURY	7
C INJURY	8
PROPERTY DAMAGE ONLY	68

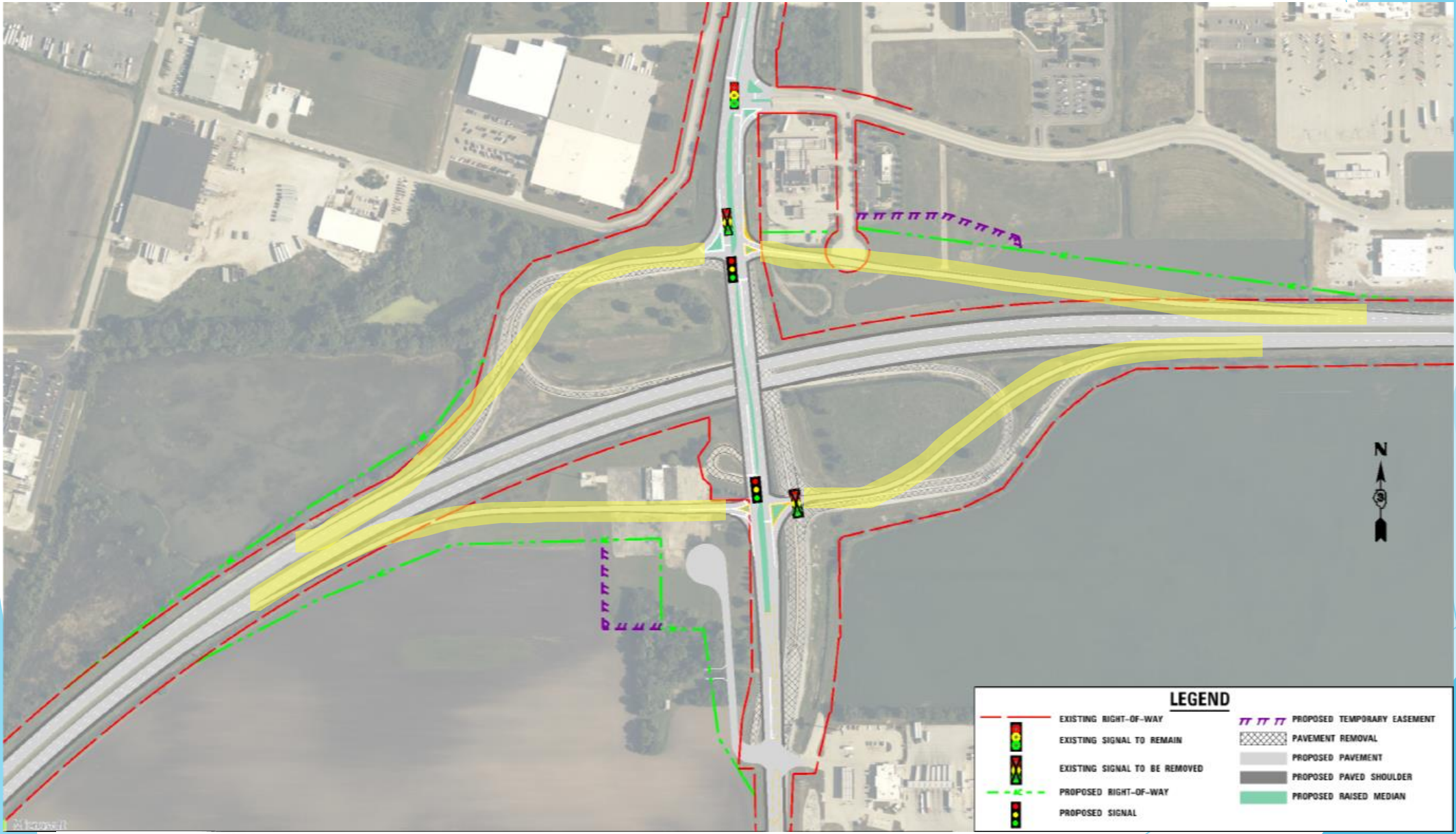


# Crash Location Map Riverstone Parkway (2015-2019)



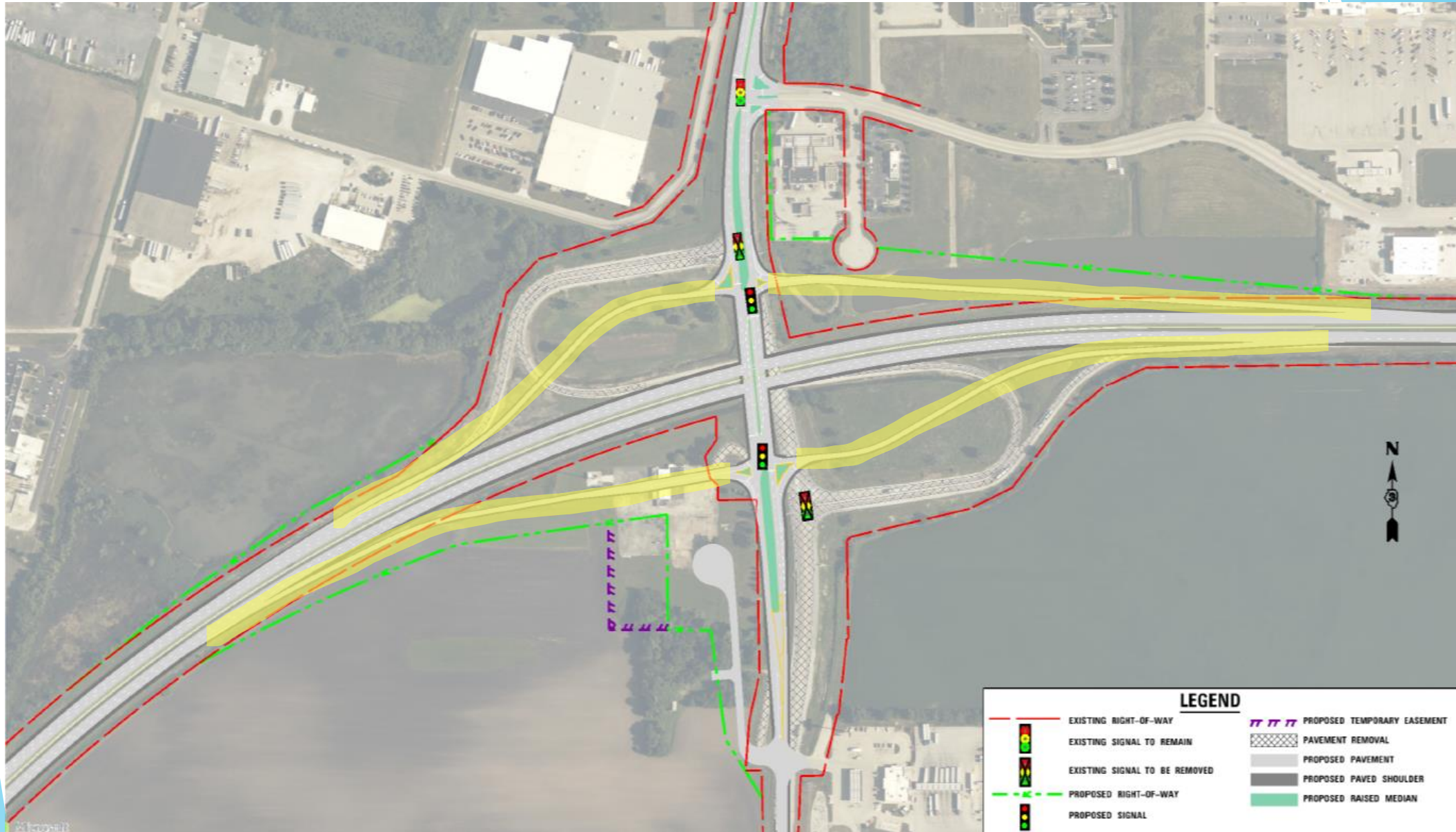
CRASH TYPE	TOTAL
FRONT TO REAR	19
OTHER NON-COLLISION	1
OTHER OBJECT	1
SIDESWIPE	3
TURNING	20
INJURY CRASH TYPE	TOTAL
FATALITY	0
A INJURY	5
B INJURY	5
C INJURY	4
PROPERTY DAMAGE ONLY	30

# Alternative 1 - Conventional Diamond



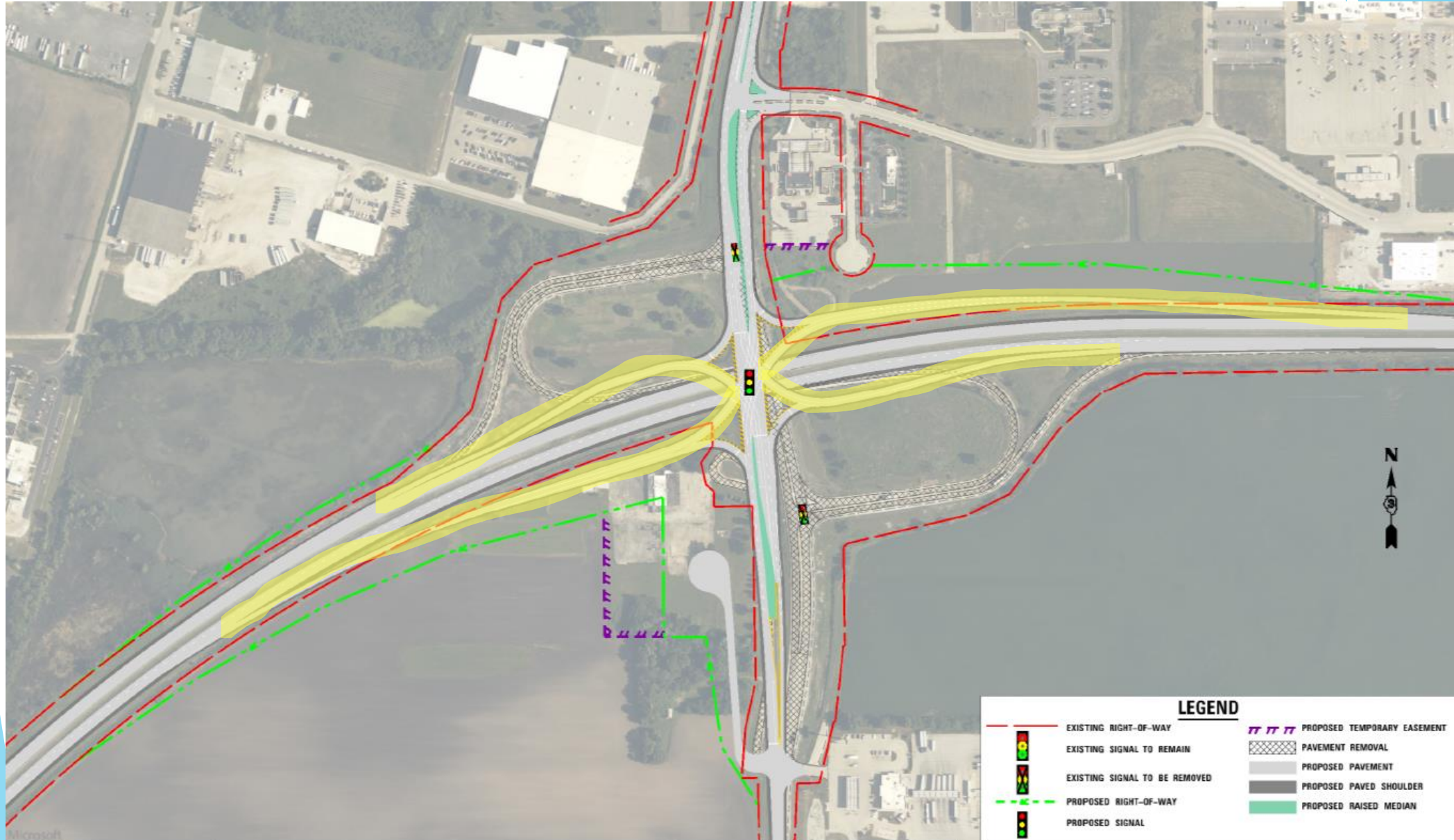


# Alternative 2 - Compressed Diamond





# Alternative 3 - Single Point Urban Interchange



# Reconstruction of I-57 at US Route 45/52 Proposed Improvements

- ▶ Proposed Improvements
  - ▶ Reconstruct the existing interchange to be compatible with future expansion of I-57 to six lanes
  - ▶ Reconstruct US45/52 on new alignment
  - ▶ Maintain or upgrade existing traffic signals at US Route 45/52 and the ramps and Riverstone Parkway
  - ▶ Make intersection, drainage, and safety improvements as needed
  - ▶ Replace bridge carrying US Route 45/52 over I-57
  - ▶ Temporary closure of some local streets and entrances may be necessary to accommodate the new interchange and maintain traffic flow

# Comparison Matrix

	Comparison Features		No-Build	Alternative 1 <i>Conventional Diamond</i>	Alternative 2 <i>Compressed Diamond</i>	Alternative 3 <i>Single Point</i>
Accessibility	Number of Mainline Access Points		4 (2NB,2SB)	4 (2NB,2SB)	4 (2NB,2SB)	4 (2NB,2SB)
	Access – Local Roadways (Adj Areas)		Full Access	Full Access	Full Access	Full Access
	Fully Directional		Yes	Yes	Yes	Yes
	Driver Expectancy		Good	Best	Best	Better
	<b>Ranking</b>		<b>3</b>	<b>1</b>	<b>1</b>	<b>2</b>
Geometrics	Number of Structures		1	1	1	1
	Size of Structure (SF)		14,400	21,600	23,520	18,360
	Accommodates I-57 Future 6 Lanes		No	Yes	Yes	Yes
	Number of Signalized Intersections		2	2	2	1
	Accommodate WB-67		No	Yes	Yes	Yes
	Number of Design Exceptions		Multiple	1	1	1
<b>Ranking</b>		<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	
Multi Use	Accommodation for Bicycles		No	Yes	Yes	Yes
	Accommodation for Pedestrians		Poor	Yes	Yes	Marginal
	<b>Ranking</b>		<b>3</b>	<b>1</b>	<b>1</b>	<b>2</b>
Traffic	Capacity – LOS - I-57 SB (AM/PM)		A/A	A/A	A/A	A/A
	Capacity – LOS - I-57 NB (AM/PM)		A/A	A/A	A/A	A/A
	Capacity – LOS: US 45/52 N. Ramp Int. (AM/PM)		A/A	B/A	A/A	C/C
	Capacity – LOS: US 45/52 S. Ramp Int. (AM/PM)		A/A	A/A	A/A	
	<b>Ranking</b>		<b>1</b>	<b>2</b>	<b>1</b>	<b>3</b>
Network Traffic Operations	AM	Average Delay (Sec/Veh)	16.7	16.7	16.7	17.5
	Peak	<i>AM Ranking</i>	3	2	1	4
	PM	Average Delay (Sec/Veh)	19.3	21.2	19.5	21.3
	Peak	<i>PM Ranking</i>	1	3	2	4
	<b>Ranking</b>		<b>2</b>	<b>3</b>	<b>1</b>	<b>4</b>
Safety	2020	Predicted Total Crashes	16.8	14.9	14.9	10.4
		Predicted KAB Crashes	1.9	1.3	1.3	unknown
	2038	Predicted Total Crashes	19.7	17.9	18.0	12.2
		Predicted KAB Crashes	2.2	1.5	1.5	unknown
	<b>Ranking</b>		<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>

# Comparison Matrix

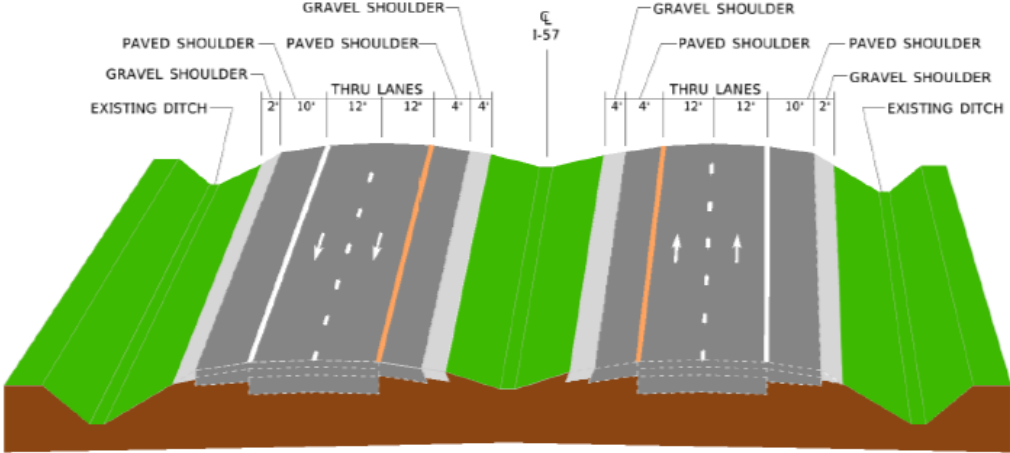
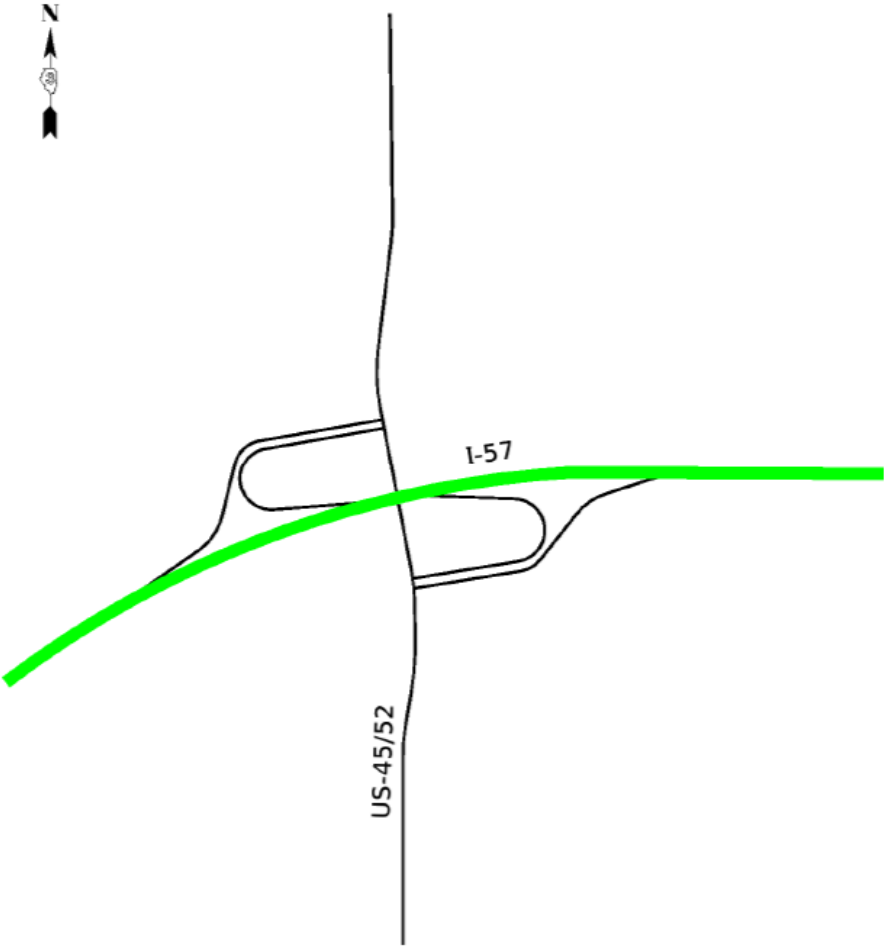
Category	Comparison Features	No-Build	Alternative 1	Alternative 2	Alternative 3
			<i>Conventional Diamond</i>	<i>Compressed Diamond</i>	<i>Single Point</i>
Environmental	Detention Ponds – Number (acres)	0	3.17	2.36	3.09
	Wetlands (acres)	0	5.50	5.09	5.09
	Displacements (Commercial or Residential)	0	0	0	0
	Commercial Property Takes (Full)*	0	9	7	8
	Commercial Property Takes (Partial)	0	7	8	6
	Anticipated NEPA Processing	N/A	CE	CE	CE
	<b>Ranking</b>	<b>N/A</b>	<b>3</b>	<b>2</b>	<b>1</b>
ROW	Anticipated Right of Way (SF)	N/A	901,692	827,640	792,792
	Number of Parcels Impacted*	N/A	16	15	14
	<b>Ranking</b>	<b>N/A</b>	<b>3</b>	<b>2</b>	<b>1</b>
Cost Evaluation	Construction Cost	-	\$66.9 M	\$66.1M	\$80.6M
	Right of Way Acquisition Cost	-	\$8.8M	\$7.3M	\$8.2M
	Utility Relocation Cost	-	\$450K	\$450K	\$450K
	Preliminary Engineering (5%)	-	\$3.3M	\$3.3M	\$4.0M
	Construction Engineering (3%)	-	\$2.0M	\$2.0M	\$2.4M
	Total Cost	-	\$81.5M	\$79.2M	\$95.6M
	<b>Ranking</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>4</b>
<b>OVERALL CUMULATIVE SCORE</b>		<b>16</b>	<b>20</b>	<b>13</b>	<b>19</b>
<b>OVERALL ALTERNATIVE RANKINGS</b>		<b>2</b>	<b>4</b>	<b>1</b>	<b>3</b>



# Recommended Alternative - Compressed Diamond



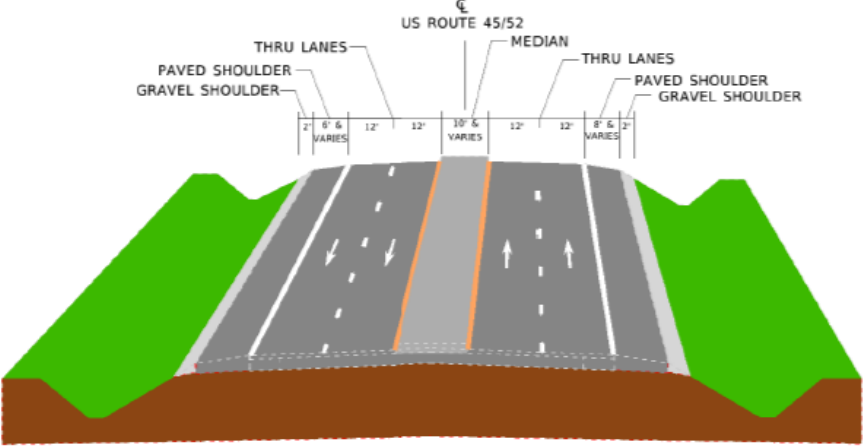
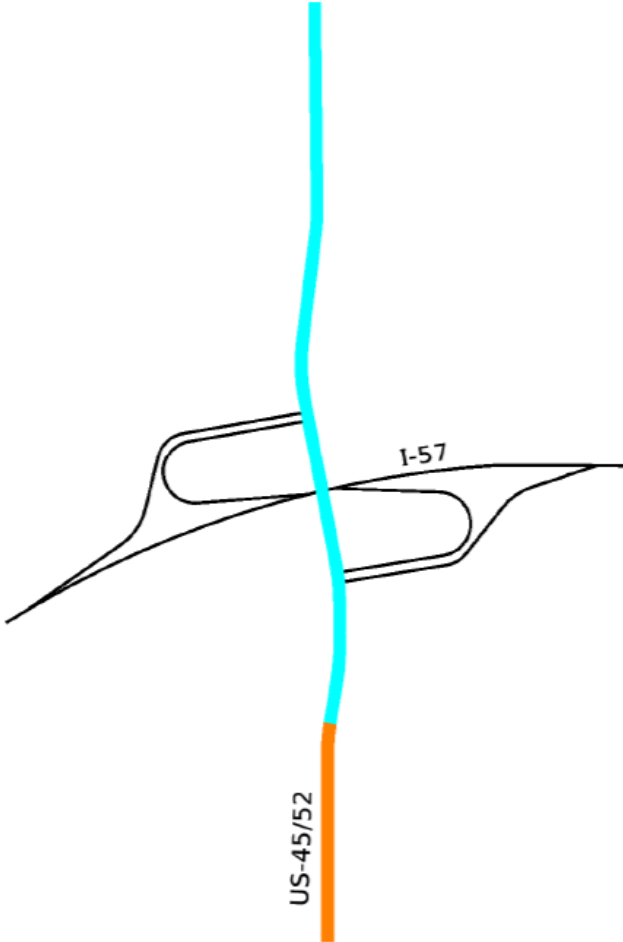
# Existing I-57 Typical Sections



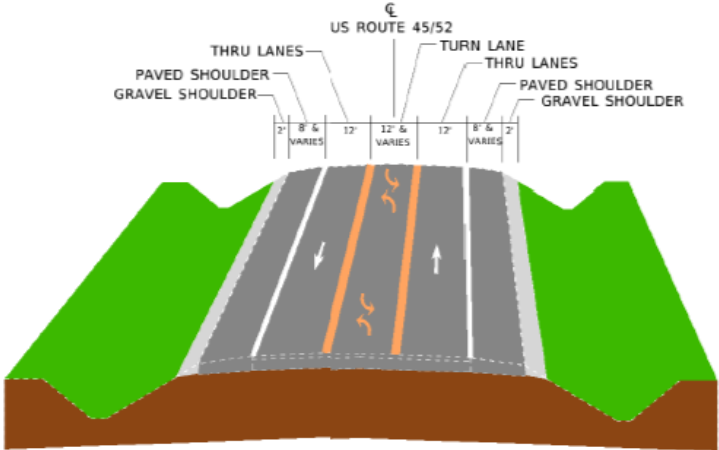
I-57  
APPROXIMATE SECTION LENGTH 9000'



# Existing US Route 45/52 Typical Sections



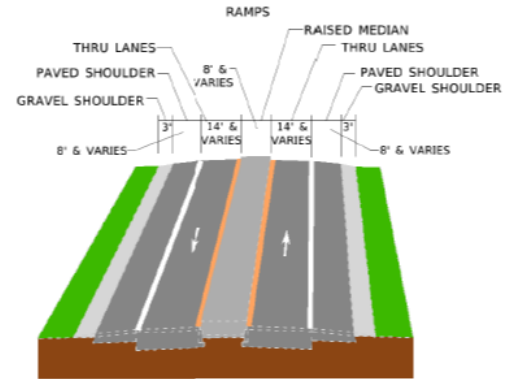
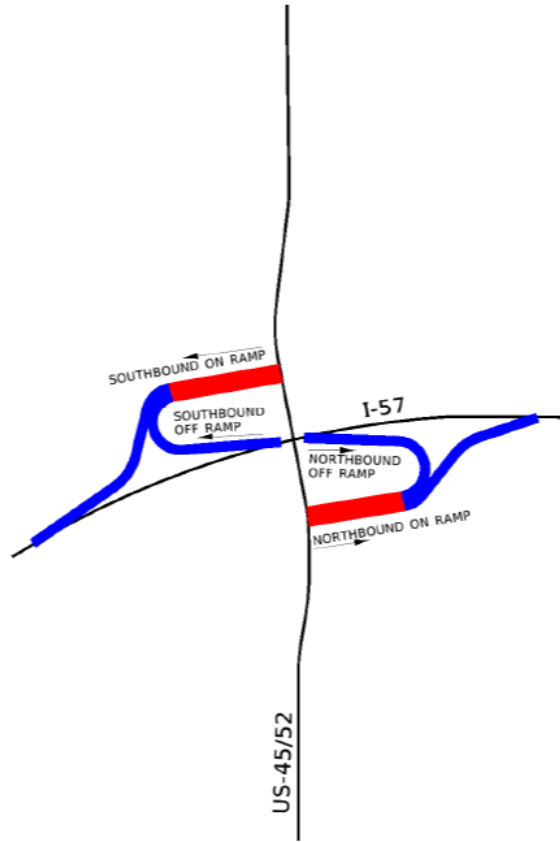
US ROUTE 45/52  
APPROXIMATE SEGMENT LENGTH 2500'



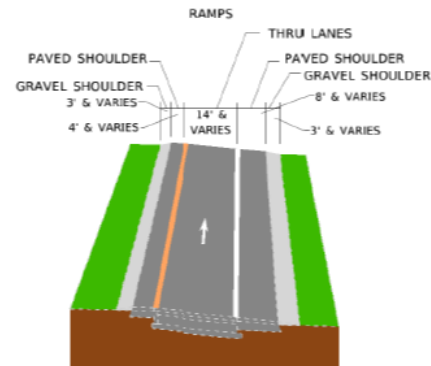
US ROUTE 45/52  
APPROXIMATE SEGMENT LENGTH 500'

# Existing I-57 At US Route 45/52 Interchange

## Ramp Typical Sections

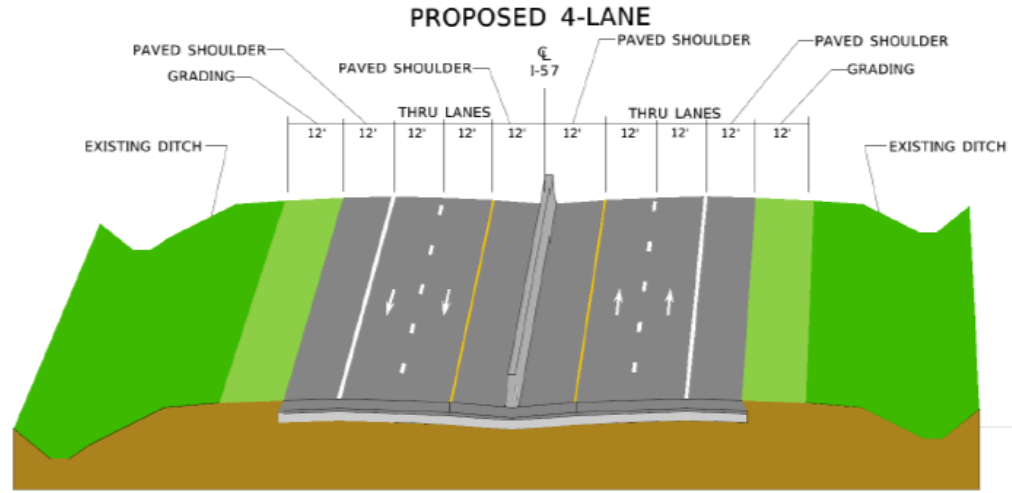
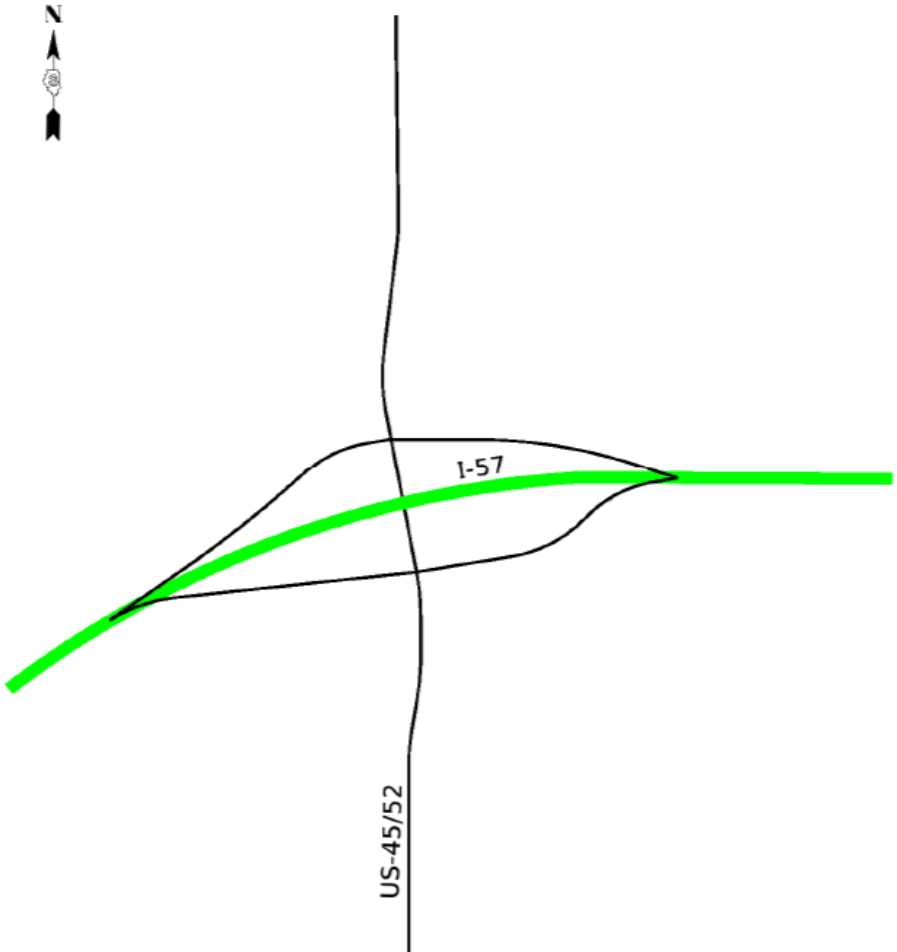


	<b>RAMPS</b>	NORTHBOUND ON/OFF RAMP	550'
		SOUTHBOUND ON/OFF RAMP	575'

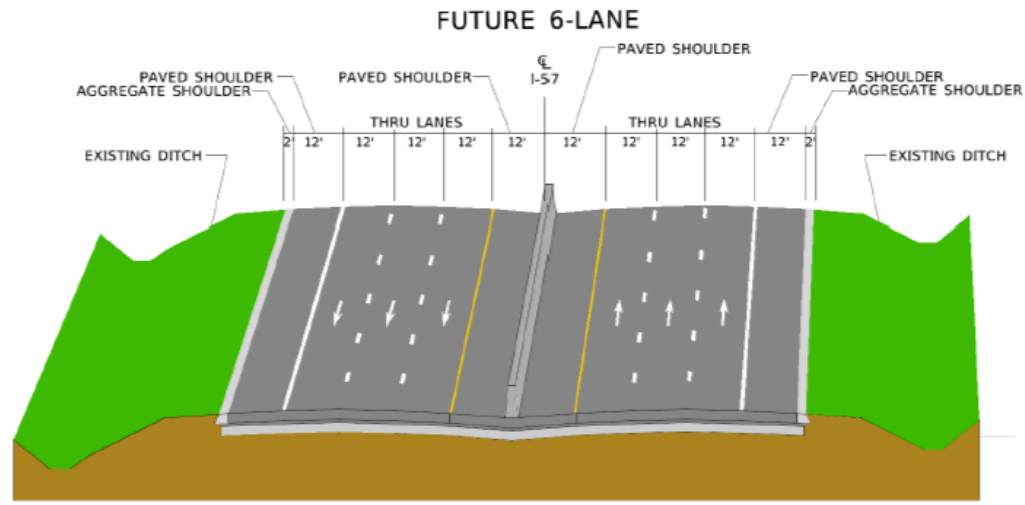


	<b>RAMPS</b>	NORTHBOUND OFF RAMP	1100'
		NORTHBOUND ON RAMP	1200'
		SOUTHBOUND OFF RAMP	1200'
		SOUTHBOUND ON RAMP	1200'

# Proposed I-57 Typical Sections

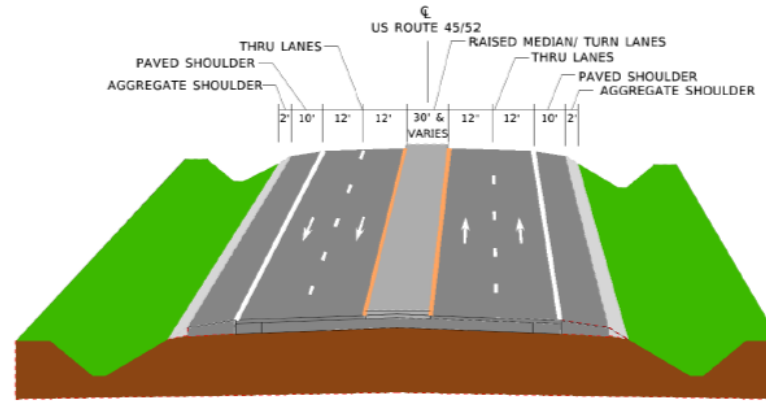
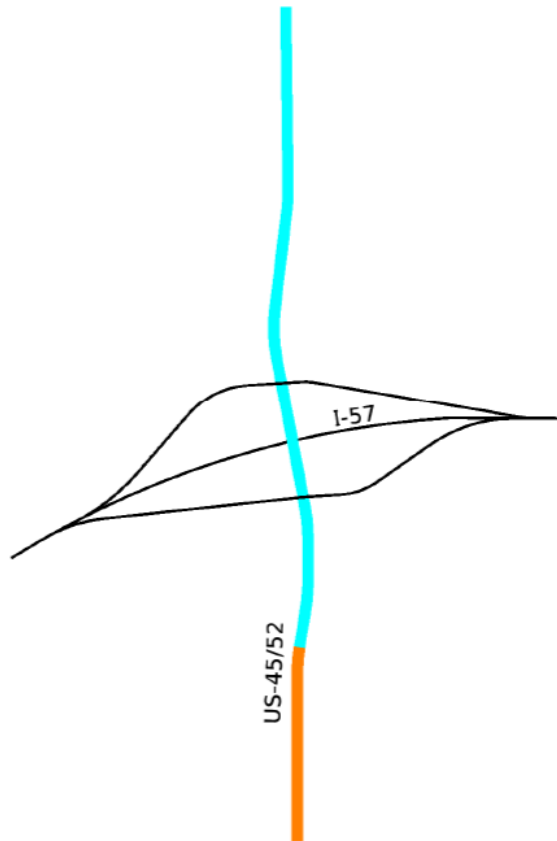


I-57  
APPROXIMATE SECTION LENGTH 6000'

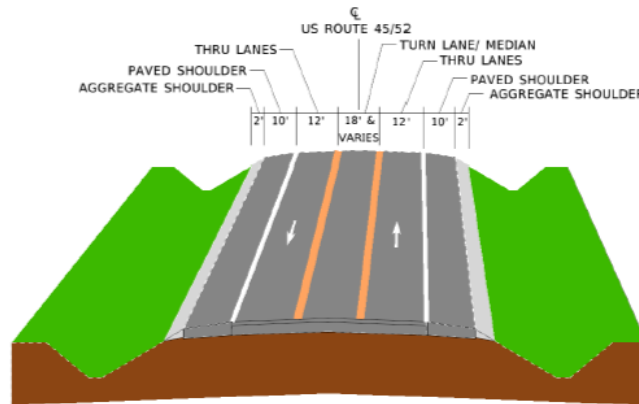


I-57  
APPROXIMATE SECTION LENGTH 6000'

# Proposed US Route 45/52 Typical Sections

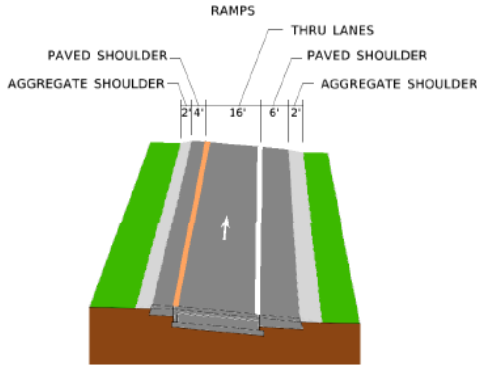
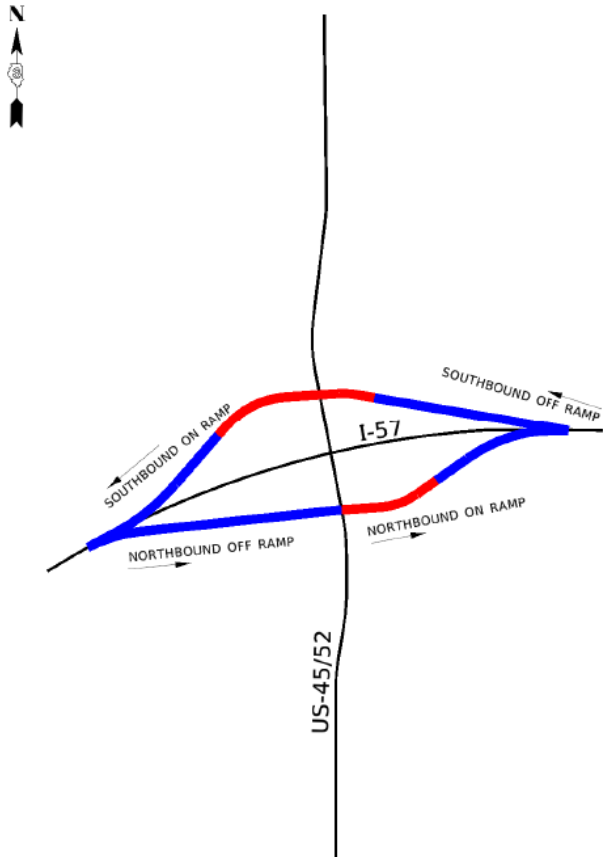


US ROUTE 45/52  
APPROXIMATE SECTION LENGTH 2200'

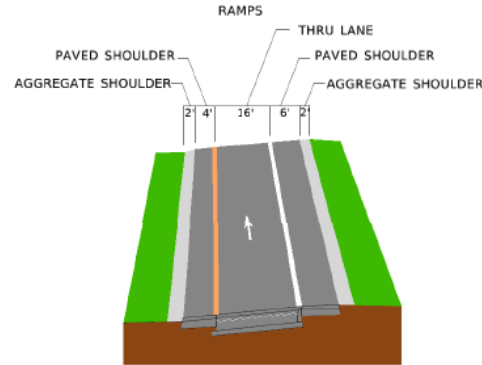


US ROUTE 45/52  
APPROXIMATE SECTION LENGTH 950'

# Proposed I-57 at US Route 45/52 Interchange Ramp Typical Sections



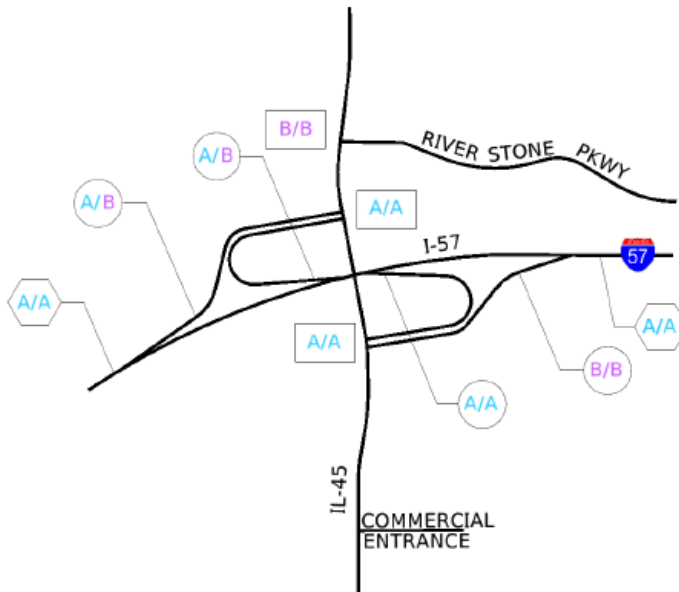
	RAMPS
SOUTHBOUND OFF RAMP	1300'
SOUTHBOUND ON RAMP	400'
NORTHBOUND OFF RAMP	1400'
NORTHBOUND ON RAMP	900'



	RAMPS
SOUTHBOUND OFF RAMP	400'
SOUTHBOUND ON RAMP	600'
NORTHBOUND ON RAMP	500'

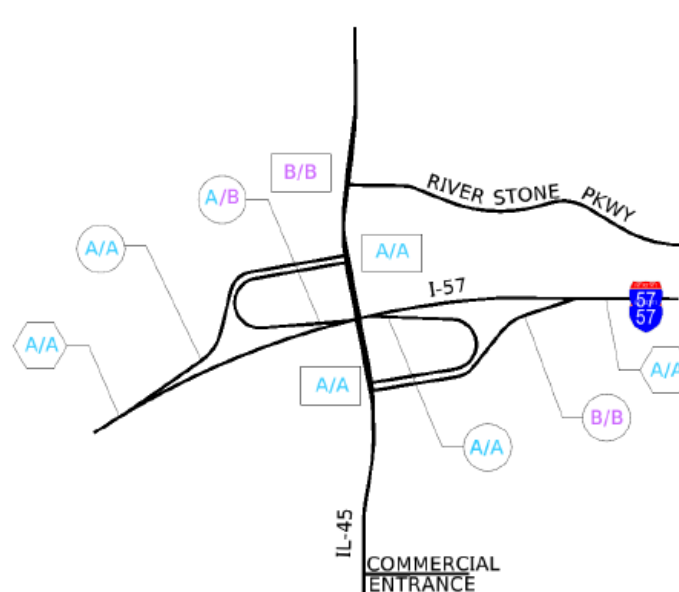
# Level of Service Map

## YEAR 2020 NO BUILD CONDITIONS



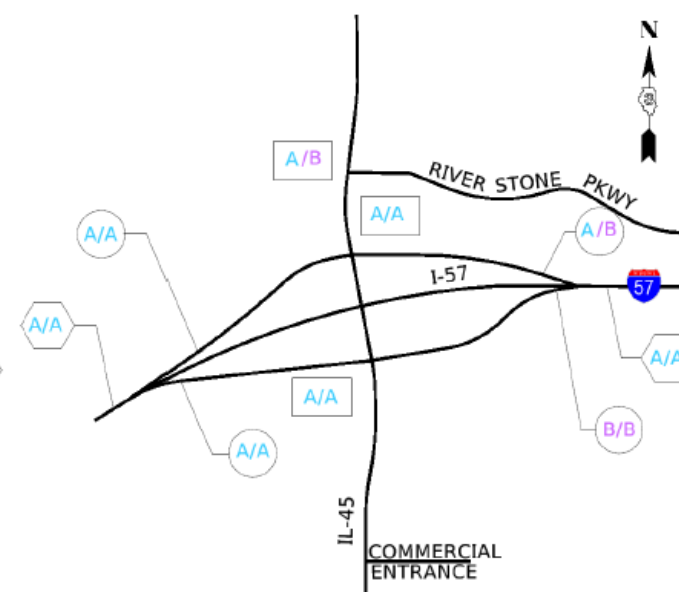
THIS IS THE LEVEL OF SERVICE VALUES FOR THE YEAR TRAFFIC.

## YEAR 2045 NO BUILD CONDITIONS



THIS IS THE LEVEL OF SERVICE VALUES FOR THE PROJECTED 2045 YEAR TRAFFIC WITHOUT IMPROVEMENTS OR CHANGES TO THE LAYOUT OF THE INTERCHANGE.

## YEAR 2045 PROPOSED CONDITIONS






THIS IS THE LEVEL OF SERVICE VALUES FOR THE PROJECTED 2045 YEAR TRAFFIC WITH THE PROPOSED IMPROVEMENTS IN PLACE.

LEVEL OF SERVICE IS A MEASURE OF THE PERFORMANCE OF THE ROADWAY WITH RESPECT TO TRAFFIC VOLUMES AND DELAY.

### LOS CRITERIA

LEVEL OF SERVICE (LOS)	DESCRIPTION
A	LOS A AND B ARE DESIRABLE
B	LOS C IS RESPECTABLE
C	LOS D IS ACCEPTABLE
D	LOS E AND F ARE TYPICALLY UNACCEPTABLE
E	
F	

### LEGEND

-  FREEWAY ANALYSIS
-  RAMP MERGE / DIVERGE ANALYSIS
-  SIGNAL ANALYSIS
- X / X AM / PM PEAK HOUR LEVEL OF SERVICE



# More Information

- ▶ <https://idot.illinois.gov/projects/i-57-at-us-45-52-interchange.html>

# Questions And Comments

- ▶ Should you have any additional questions or comments, you may contact Mr. Jacob Oyier of IDOT at 815-434-8575 or by email at [Jacob.Oyier@illinois.gov](mailto:Jacob.Oyier@illinois.gov).
- ▶ There is also a comment form if you choose to use it, or comments may be written and sent by mail to:
  - ▶ District 3 Program Development Engineer  
Attn: Project Study Team  
IDOT District 3  
700 East Norris Drive  
Ottawa, Illinois 61350
- ▶ Please submit all comments to the Project Study Team by March 31, 2022.
  - ▶ Please include your full name and address so a response can be sent to you.
- ▶ Thank you.