



WELCOME!

Community Advisory Group (CAG)

Meeting #4

January 12, 2016

Round Lake Beach Cultural & Civic Center

www.idot.illinois.gov/projects/i183-137-study



VOLKERT



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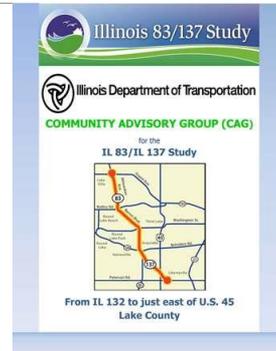


Binder *



- Presentation
- Agenda
- Meeting Minutes – CAG #3

**Please bring to each meeting*



www.idot.illinois.gov/projects/il83-137-study



Meeting Agenda



- Project overview
- CAG Meeting #3 summary
- Project progress
- Alternatives screening
- Environmental and design considerations
- Range of alternatives
- Discussion and feedback



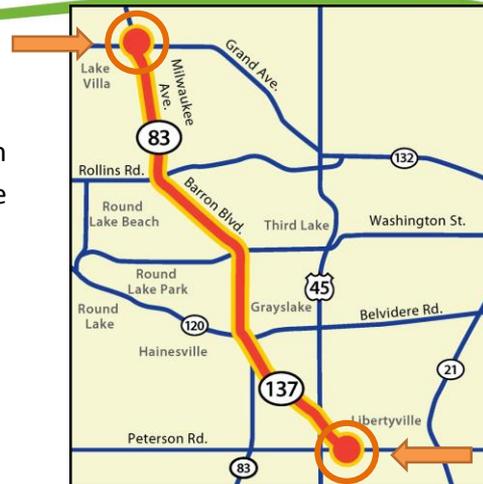
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Project Overview



Along Illinois Route 83/IL 137 in
Lake County from Illinois Route
132 to just
east of U.S. 45



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Project Overview



- Identify transportation needs along the corridor
- Collect information about a variety of resources
- Develop a broad range of transportation solutions
- Study and document potential effects
- Recommend transportation improvements that benefit residents, businesses and the traveling public



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Project Overview



- This project is being developed in accordance with the **National Environmental Policy Act (NEPA)**
- The purpose of the NEPA is to ensure that environmental factors are weighted equally when compared to other factors in the decision making process.
- Not only is IDOT responsible for adhering to NEPA, but also to environmental specific regulations, such as, the Clean Water Act, Endangered Species Act, etc.

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CAG Meeting # 3 Summary



CAG Meeting #3

- Reviewed Problem Statement and Purpose and Need
- Project team provided an engineering toolbox
- Project team provided roadway alternatives
- CAG helped develop the initial alternatives

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CAG Meeting # 3 Summary

Purpose and Need



Developed from technical analysis and stakeholder input, the proposed project is needed to:

- Improve safety
- Improve mobility
- Improve multimodal opportunities



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CAG Meeting # 3 Summary

Alternatives Development Workshop



Bicycle & Pedestrian Accommodations

Roadway Section Types

- Option A: 2-lane with raised median
- Option B: 3-lane (2-lane with center turn lane)
- Option C: 4-lane with raised median
- Option D: 5-lane (4-lane with center turn lanes)

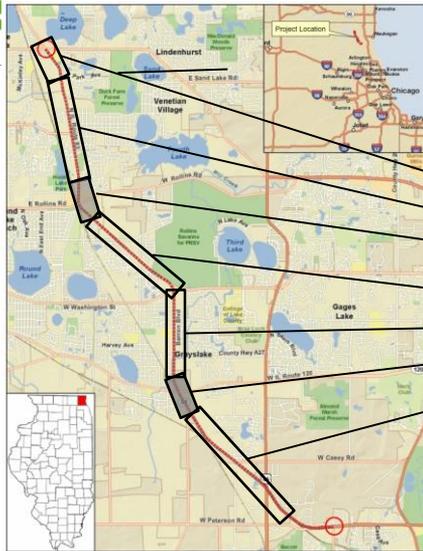


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Initial Alternatives



Consolidated Sections

Section Location	Alt A Two-Lane with Raised Curb Median	Alt B Three-Lane, Two-Lane w/ Center TWLTL	Alt C Four-Lane with Raised Curb Median	Alt D Five-Lane, four-lane w/ Center TWLTL
IL 132 to Park Ave		X	X	X
Park Ave to North of Hook				X
North of Hook to South of Rollins	**Omission**			
South of Rollins to Washington			X	X
Washington to North of IL 120		X	X	
North of IL 120 to South of Atkinson/IL 83	**Omission**			
South of Atkinson/IL 83 to East of US 45				X

X - Denotes CAG Recommended Typical Sections

Project Omission : Recent or future improvement by others

Project Progress



Since our Last CAG Meeting:

- NEPA Purpose & Need approval
- Engineering and environmental data collected
- Extensive Alternative Evaluation & Screening
- Determining Impacts of alternatives



Project Purpose and Need

NEPA Concurrence



U.S. Department of Transportation
Federal Highway Administration

Illinois Department
of Transportation



NEPA regulatory agencies approved the project's Purpose and Need in June 2013

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Engineering & Environmental Data collected



- Roadway and drainage surveys completed
- Hydraulic Analysis and Existing Drainage Studies
- Traffic Signal/Highway Capacity Studies
- Environmental survey information collected



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Environmental Considerations



Environmental Features:

- Wetlands
- Protected species and habitat
- Floodplains
- 4(f) Resources
 - Historic Sites
 - Parks, recreation areas and refuges
- 6(f) Land and Water Conservation Fund Act(LWCFA) Resources (Outdoor Recreational Resources)
- Environmental Justice Communities
- Relocation Impacts (could include railroads, residential, business and non-profit organizations)



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Environmental Considerations



Some Avoidance features found on this project (alternatives should try to avoid):

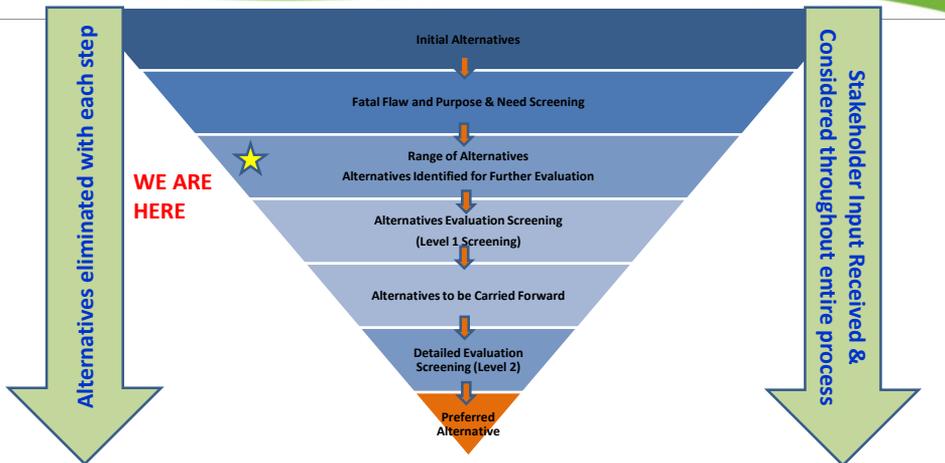
- Angolian Cemetery
- Avon Centre Cemetery
- Yogi Bear Park
- Rollins Savanna Forest Preserve
- Railroad along west side of IL 137



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Alternative Development Process



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Fatal Flaw and Purpose & Need Screening



Fatal flaw screening of alternatives

Screen the alternatives against the Purpose & Need

- Improve safety
- Improve mobility
- Improve multimodal opportunities

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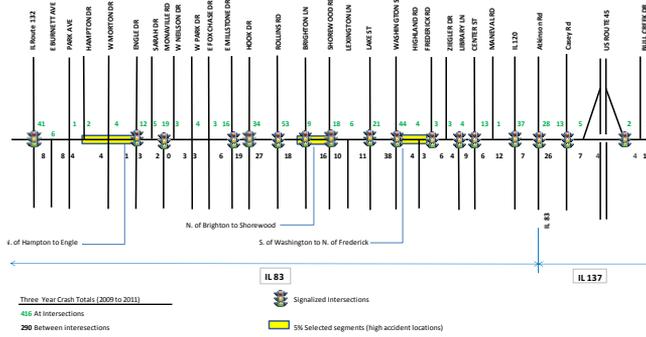
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Purpose and Need Screening

Crash Analysis



Crash Locations



Crash Type	Total
Angle	36
Animal	19
Fixed Object	46
Head On	5
Other (Non Collision)	7
Other Object	3
Overturned	6
Parked Vehicle	4
Pedal Cyclist	2
Pedestrian	3
Rear End	397
Sideswipe (Opp. Dir.)	7
Sideswipe (Same Dir.)	29
Turning	142
Unknown	0
TOTAL	706

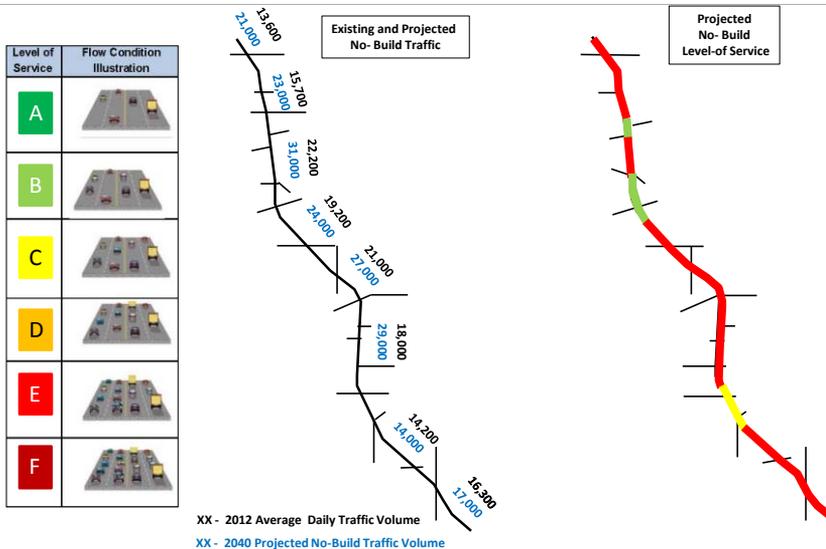
Conclusion:

"The majority of crashes along IL 83/IL 137 in the project limits were rear-end collisions. These rear-end collisions are most likely a result of heavy traffic conditions. Given the anticipated growth along the corridor, IL 83/IL 137 within the study limits will likely experience more crashes as a result of increasing traffic. Therefore, in order to reduce the potential for crashes along IL 83/IL 137, the traffic capacity of the roadway must be improved."

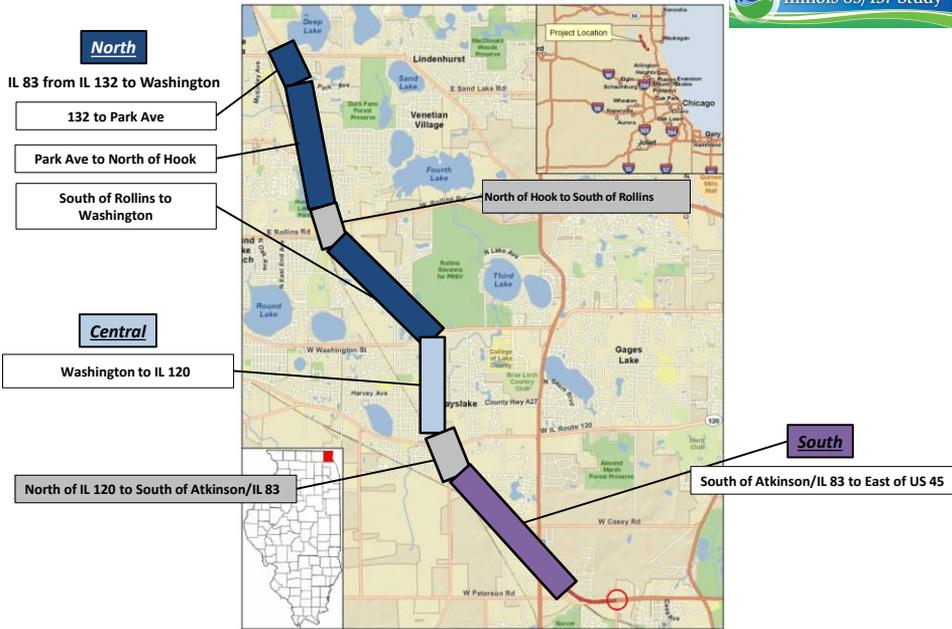


Purpose and Need Screening

Capacity of No-Build Alternative



Corridor divided into 3 Sections for Evaluation



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Project Omission : Recent or future improvement by others

Purpose and Need Screening First Considered 3-Lane Alts



	Section Location	Alt A Two-Lane with Raised Curb Median	Alt B Three-Lane, Two-Lane w/ Center TWLTL	Alt C Four-Lane with Raised Curb Median	Alt D Five-Lane, four-lane w/ Center TWLTL
North	IL 132 to Park Ave		X	X	X
	Park Ave to North of Hook				X
	North of Hook to South of Rollins	**Omission**			
	South of Rollins to Washington			X	X
Central	Washington to North of IL 120		X	X	
	North of IL 120 to South of Atkinson/IL 83	**Omission**			
South	South of Atkinson/IL 83 to East of US 45				X

X - Denotes CAG Recommended Typical Sections Project Omission : Recent or future improvement by others

Alternatives focusing on in this screening



Purpose and Need Screening

Capacity with 3 Lane Alternative



Level of Service	Flow Condition Illustration
A	
B	
C	
D	
E	
F	



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Purpose and Need Screening

Traffic Analysis for Corridor



PM 5 Lane with 3 Lane Section.PC.wmv

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Purpose and Need Screening 4 Lane Alternative with Raised Median



	Section Location	Alt A Two-Lane with Raised Curb Median	Alt B Three-Lane, Two-Lane w/ Center TWLTL	Alt C Four-Lane with Raised Curb Median	Alt D Five-Lane, four-lane w/ Center TWLTL
North	IL 132 to Park Ave		X	X	X
	Park Ave to North of Hook				X
	North of Hook to South of Rollins	**Omission**			
	South of Rollins to Washington			X	X
Central	Washington to North of IL 120		X	X	
	North of IL 120 to South of Atkinson/IL 83	**Omission**			
South	South of Atkinson/IL 83 to East of US 45				X

Project Omission : Recent or future improvement by others

Alternatives focusing on in this screening

Alternatives dismissed

X - Denotes CAG Recommended Typical Sections



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Purpose and Need Screening Capacity with 4 Lane Alternative



Level of Service	Flow Condition Illustration
A	
B	
C	
D	
E	
F	



Purpose and Need Screening 5 Lane Alternatives



	Section Location	Alt A Two-Lane with Raised Curb Median	Alt B Three-Lane, Two-Lane w/ Center TWLTL	Alt C Four-Lane with Raised Curb Median	Alt D Five-Lane, four-lane w/ Center TWLTL
North	IL 132 to Park Ave		X	X	X
	Park Ave to North of Hook				X
	North of Hook to South of Rollins	**Omission**			
	South of Rollins to Washington			X	X
Central	Washington to North of IL 120		X	X	
	North of IL 120 to South of Atkinson/IL 83	**Omission**			
South	South of Atkinson/IL 83 to East of US 45				X

Project Omission : Recent or future improvement by others

Alternatives focusing on in this screening

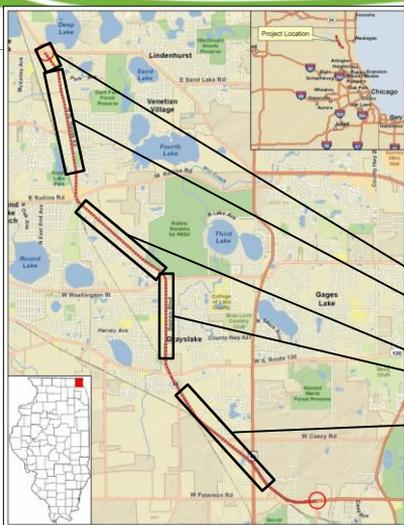
Alternatives dismissed

X - Denotes CAG Recommended Typical Sections



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Purpose and Need Screening 5 Lane Alternatives



From IDOT Design Manual:

Two Way Left Turn Lanes (TWLTL) are generally only provided in:

- Areas with a high number of existing driveways per mile (e.g. 20 -55 driveways total per mile on both sides of street);
- Areas of existing high-density commercial development;
- Areas with substantial mid-block left turns; and/or
- Areas where space is not available for raised-curb median widths and a need for left-turn lanes exists.

Segment	# of Existing thru lanes	length of Segment (mi.)	# of exist access points	Access points/mi.
IL 83 -IL 132 to Park Ave.	2	0.5	28	56
IL 83 - Park Ave. to Hook	2	3.9	68	17
IL 83 - N. of Hook to S. of Rollins	**Omission**			
IL 83 - S. of Rollins to Washington	2	20	30	15
IL 83 - Washington St. to N. of IL 120.	2	1.6	69	43
IL 83 - IL 120 to IL 137/Atkinson Rd.	**Omission**			
IL 137 - IL 83/Atkinson Rd. to East of US 45	2	2.4	13	5

Project Omission : Recent or future improvement by others



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Initial Alternatives

Summary of Initial Alts following Screening



	Section Location	Exist	Alt A Two-Lane with Raised Curb Median	Alt B Three-Lane, Two- Lane w/ TWLTL	Alt C Four-Lane with Raised Curb Median	Alt D Five-Lane, Four- Lane w/ TWLTL
North	IL 132 to Park Ave	Existing 2 lane		X	X	X
	Park Ave to North of Hook	Primarily 2 lane				X
	North of Hook to South of Rollins	Existing 5 lane (4 lane with center turn lane)	**Omission**			
	South of Rollins to Washington	Existing 2 lane			X	X
Central	Washington to North of IL 120	Existing 2 lane		X	X	
	North of IL 120 to South of Atkinson/IL 83	Existing 5 lane (4 lane with center turn lane)	**Omission**			
South	South of Atkinson/IL 83 to East of US 45	Existing 2 lane transitions to 3 lane (2 lane with center turn lane)				X

X - Denotes CAG Recommended Typical Sections

Project Omission : Recent or future improvement by others

Alternatives eliminated due to screening

Alternatives remaining following screening

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Design Considerations

Intersection Considerations



Signal Warrants

- no additional signals warranted.

Geometric Improvements

- Detailed intersection design studies help to determine best ways to address the future traffic demands (Design Year 2040)
- A unique improvement design is made at each of the intersections based on:
 - roadway design criteria
 - right-of-way impacts
 - previous safety concerns
 - existing geometrics and other unique location information.



Alternative Design Concepts

- Roundabouts

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Design Considerations

Roundabouts



Roundabouts provide opportunities to improve safety and operational efficiency due to:

- Fewer conflict points for vehicles
- Lower crash severity
- Low-speed (approx. 20 mph)



Design Considerations

Roundabouts



Characteristic Pros and Cons

PROS:

- Fewer conflict points
- Fewer crashes
- Less severe crashes
- May reduce delay
- Environmental benefits

CONS:

- Driver familiarity
- No signal to stop traffic for pedestrians
- Lighting is required

Design Considerations

Roundabouts



IL 83/ IL 137 – Preliminary roundabout analysis findings:

- Locations that met signal warrants were reviewed
- A roundabout would not work in many locations because of the traffic volumes and/or the traffic patterns
- Traffic volumes require multi-lane roundabouts
- Many locations eliminated due to unsuitability of location from geometric standpoint or other site conditions would require unacceptable impacts to construct
- 2 final locations are included in our range of alternatives

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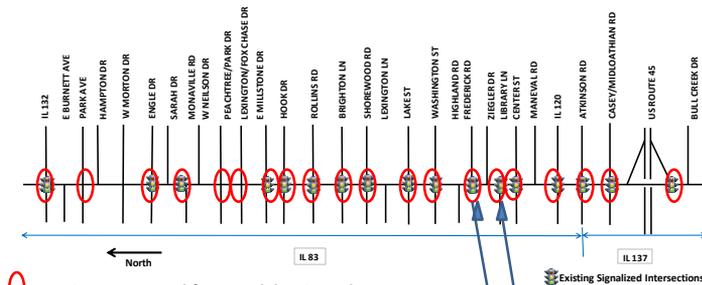


Design Considerations

Preliminary Roundabout Analysis



IL 83 & IL 137 Intersections



Locations reviewed for roundabout needs

- Locations eliminated if they did not meet signal warrants
- locations eliminated because of the traffic volumes and/or the traffic patterns
- locations eliminated due to unacceptable impacts to construct
leaving 3 locations further analyzed (Frederick, Library & US 45 NB Connector)

2 final locations are included in our range of alternatives

- IL 83 at Frederick
- IL 83 at Library



Design Considerations

Rural Section Typical



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Range of Alternatives

Alternatives following Screening with additions



	Section Location	Existing Configuration	Four-Lane with 22' Raised Curb Median	Five-Lane, four-lane w/ Center TWLTL	Four-Lane with 8' Raised Curb Median, comb w/ roundabouts	Rural Four-Lane with 50' Median Ditch	Rural Four-Lane with 30' Median Ditch
North	IL 132 to Park Ave	Existing 2 lane	X	X			
	Park Ave to Rollins Rd. Improvement	Existing 2 lane					
	Rollins Road Improvement Project	Existing 5 lane (4 lane with center turn lane)			**Omission**		
	South of Rollins Improvement to Washington	Existing 2 lane	X				
Central	Washington to IL 120 Improvement	Existing 2 lane	X				
	IL 120 and Atkinson Rd Improvement	Proposed 5 lane (4 lane with center turn lane)			**Omission**		
South	South of Atkinson/IL 83 to East of US 45	Existing 2 lane transitions to 3 lane (2 lane with center turn lane)					

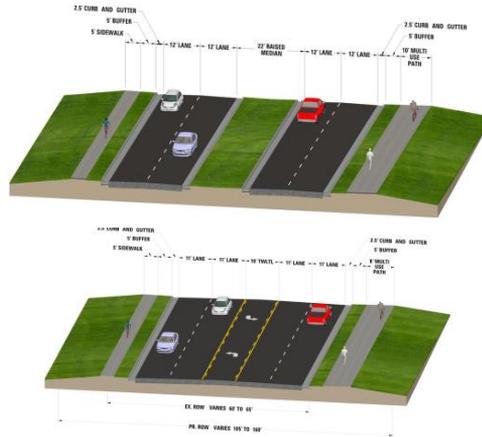
X - Denotes CAG Recommended Typical Sections (in part or all of the section)

- Project Omission : Recent or future improvement by others
- Alternatives remaining following screening
- Additional Alternatives

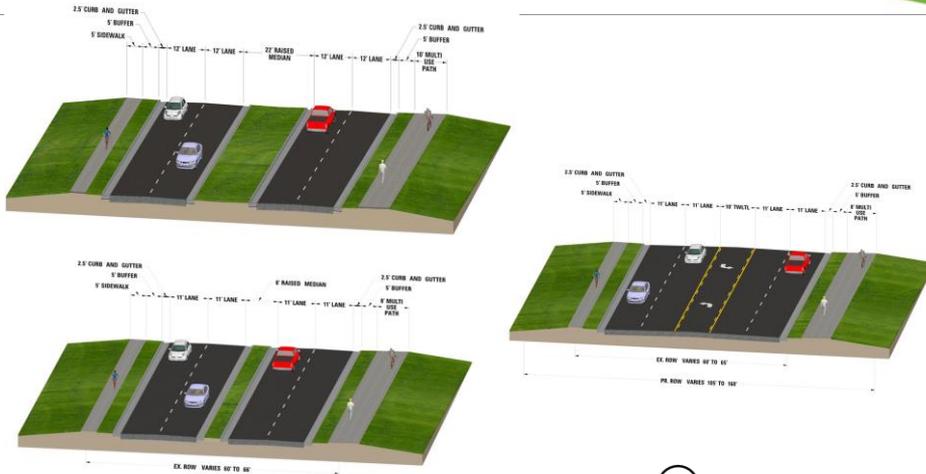
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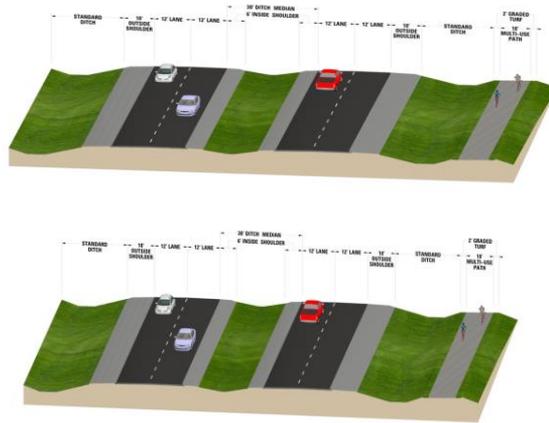
Range of Alternatives North Section



Range of Alternatives Central Section

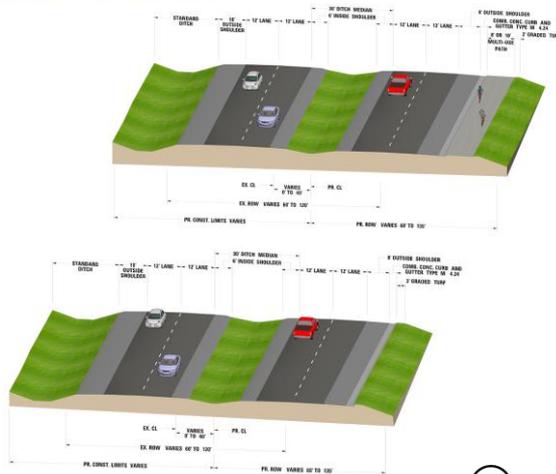


Range of Alternatives South Section



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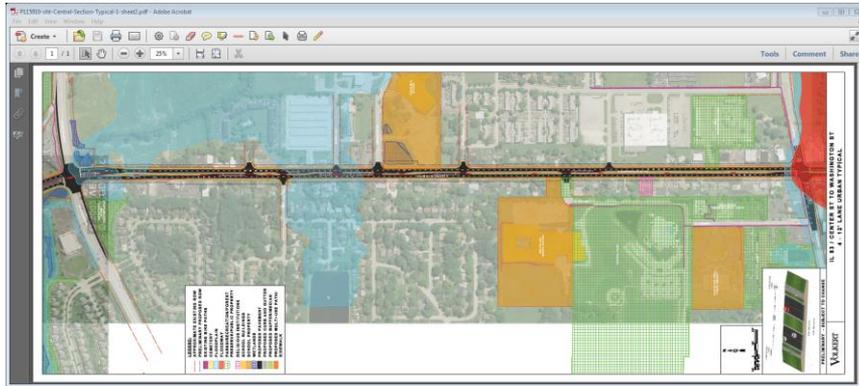
Range of Alternatives South Section



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Range of Alternatives

Preliminary Impacts Quantified



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Range of Alternatives Discussion



What will be accomplished during this exercise?

- Identify key concerns
- Provide suggestions on improvements that adhere to our project P&N



What will the Project Team do with this information?

- Further develop improvements to reasonable alternatives that will then be compared for impacts



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Range of Alternatives Discussion



- 30 minutes: Start in first section
- Provide Comments/Suggestions on Sheets provided
- Rotate to the other two sections for 10 minutes each
- Return to core group and report out top recommendations and/or concerns



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Range of Alternatives Discussion

Remember.....



Remember to ask yourself if the improvements you recommend are addressing the needs of the project.

*Improve the safety of the roadway

*Address traffic congestion

*Increase multimodal opportunities

Remember there is a No-Build Alternative

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Range of Alternatives Discussion

Report Out



- Discuss recommendations and/or concerns



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Next Steps



Public Meeting – Anticipated Spring 2016

- Review preliminary alternatives screening
- Review range of alternatives for detailed study
- Review evaluation criteria
- Review updated existing conditions

CAG Meeting#5 – Anticipated Late Summer 2016

- Data collection
- Study Alternatives
- Preliminary Impacts
- Design Options and Enhancements

Public Meeting – Anticipated Winter 2016

- Comment on detailed alternatives and impacts

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Thank You!



Contact: Michael Walton, 618-381-7086 or IL83andIL137@volkert.com

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