



**Illinois Route 131 (Green Bay Road)
From Sunset Avenue to Russell Road
Lake County
Phase I Engineering
Alternatives Evaluation
March 23, 2011**

1. Estimated construction and right-of-way acquisition costs are preliminary and subject to change.
2. Based on land use and characteristics, the project has been divided into three sections for analysis:
 - Sunset Avenue to Wadsworth Road
 - Wadsworth Road to Illinois Route 173
 - Illinois Route 173 to Russell Road
3. Pedestrian and Bicycle Accommodations:
 - Illinois Complete Streets Law requires the full consideration of bicycle and pedestrian accommodations into state highway projects. In keeping with this law, IDOT recently revised its policies and made several changes to its selection guidelines for pedestrian and bicycle infrastructure. Under the new selection criteria, pedestrians and bicyclists are best accommodated by an off-road shared-use path on roadways sharing Illinois Route 131's classification, traffic volumes, and posted speed limits.
 - Preliminary Alternatives A1, A2, B1, and B2 did not propose adequate bicycle/pedestrian accommodations. Therefore they are not compliant with Complete Streets Law and cannot be carried forward in the study.
 - Alternatives E1 and E2 follow Complete Streets Law by proposing paths and/or sidewalks on both sides of the highway the entire length of the project.
4. Engineering and environmental data were collected, analyzed, and evaluated for each alternative and are shown on the following pages.
5. The **BLUE** scores are objective ratings by the Project Study Team. These scores were determined by comparing the alternative score for a particular category to the average score of all alternatives for that category. The scores range from 1 – 5 where:
 - 1 = negative, or less favorable
 - 3 = neutral
 - 5 = positive, or more favorable
6. The **RED** scores are subjective ratings based Corridor Planning and Technical Advisory Group member responses at the November 30, 2010 group meeting. The scores reflect how well the alternatives meet the project needs.

REFINED ALTERNATIVES EVALUATION - SCORES

SUNSET AVENUE to WADSWORTH ROAD				
Impacts	Alternative Description	Rating	Alternative E1	Alternative E2
			Both alternatives have two through lanes in each direction	
			13' Two-way Left-turn Flush Median, Paved Shoulder edge treatment	13' Two-way Left-turn Flush Median, Curb & Gutter edge treatment
Estimated Costs	Construction Cost	(1-5)	4	3
	Right-of-Way Acquisition	(1-5)	1	5
Required Right-of-Way	Residential Impact	(1-5)	1	5
	Commercial Impact	(1-5)	1	5
	Agricultural Impact	(1-5)	5	5
	Industrial Impact	(1-5)	5	5
Needs	Safety	(1-5)	4.75	3.00
	Capacity	(1-5)	4.00	4.00
	Operations/Mobility	(1-5)	4.00	3.30
	Pedestrian/Bicycle Accommodation	(1-5)	3.30	5.00
Affected Environment	Wetland Impact	(1-5)	1	4
	Archaeological Site Impact	(N/A)	TBD	TBD
	Floodplain Impact	(1-5)	5	5
	Special Waste Sites Impact	(1-5)	1	1
	Section 4(f) Land Impact	(1-5)	5	5
Total		70	45.05	58.30

Notes:

Construction cost does not include path/sidewalk construction or right-of-way acquisition costs.

Scores for each category range **1 to 5**: 1 = negative, or less favorable; 3 = neutral; 5 = positive, or more favorable.

Archaeological Site Impact will be determined based on preferred alternative survey.

Blue Scores = objective scores from Project Study Team based on the average values for each specific category.

Red Scores = subjective scores from CPG/TAG responses at November 30, 2010 meeting

REFINED ALTERNATIVES EVALUATION - SCORES

WADSWORTH ROAD to ILLINOIS ROUTE 173				
Alternatives Description		Rating	Alternative E1	Alternative E2
			Both alternatives have two through lanes in each direction	
Impacts			13' Two-way Left-turn Flush Median, Paved Shoulder edge treatment	22' Barrier Median, Curb & Gutter edge treatment
Estimated Costs	Construction Cost	(1-5)	2	3
	Right-of-Way Acquisition	(1-5)	1	4
Required Right-of-Way	Residential Impact	(1-5)	1	5
	Commercial Impact	(1-5)	2	2
	Agricultural Impact	(1-5)	1	3
	Industrial Impact	(1-5)	5	5
Needs	Safety	(1-5)	4.25	3.75
	Capacity	(1-5)	4.00	3.75
	Operations/Mobility	(1-5)	4.00	3.50
	Pedestrian/Bicycle Accommodation	(1-5)	4.25	5.00
Affected Environment	Wetland Impact	(1-5)	1	3
	Archaeological Site Impact	(N/A)	TBD	TBD
	Floodplain Impact	(1-5)	5	5
	Special Waste Sites Impact	(1-5)	4	4
	Section 4(f) Land Impact	(1-5)	5	5
Total		70	43.50	55.00

Notes:

Construction cost does not include path/sidewalk construction or right-of-way acquisition costs.

Scores for each category range **1 to 5**: 1 = negative, or less favorable; 3 = neutral; 5 = positive, or more favorable.

Archaeological Site Impact will be determined based on preferred alternative survey.

Blue Scores = objective scores from Project Study Team based on the average values for each specific category.

Red Scores = subjective scores from CPG/TAG responses at November 30, 2010 meeting

REFINED ALTERNATIVES EVALUATION - SCORES

ILLINOIS ROUTE 173 to RUSSELL ROAD				
Alternatives Description		Rating	Alternative E1	Alternative E2
			Both alternatives have two through lanes in each direction	
Impacts		Rating	22' Barrier Median, Paved Shoulder edge treatment	22' Barrier Median, Curb & Gutter edge treatment
Estimated Costs	Construction Cost	(1-5)	3	2
	Right-of-Way Acquisition	(1-5)	1	3
Required Right-of-Way	Residential Impact	(1-5)	1	2
	Commercial Impact	(1-5)	1	4
	Agricultural Impact	(1-5)	1	3
	Industrial Impact	(1-5)	1	3
Needs	Safety	(1-5)	4.75	3.50
	Capacity	(1-5)	4.00	3.75
	Operations/Mobility	(1-5)	3.75	3.50
	Pedestrian/Bicycle Accommodation	(1-5)	4.25	5.00
Affected Environment	Wetland Impact	(1-5)	1	2
	Archaeological Site Impact	(N/A)	TBD	TBD
	Floodplain Impact	(1-5)	5	5
	Special Waste Sites Impact	(1-5)	3	3
	Section 4(f) Land Impact	(1-5)	5	5
Total		70	38.75	47.75

Notes:

Construction cost does not include path/sidewalk construction or right-of-way acquisition costs.

Scores for each category range **1 to 5**: 1 = negative, or less favorable; 3 = neutral; 5 = positive, or more favorable.

Archaeological Site Impact will be determined based on preferred alternative survey.

Blue Scores = objective scores from Project Study Team based on the average values for each specific category.

Red Scores = subjective scores from CPG/TAG responses at November 30, 2010 meeting

REFINED ALTERNATIVES EVALUATION - SCORES

PROJECT TOTAL SUNSET AVENUE to RUSSELL ROAD					
Impacts		Alternative	Rating	Alternative E1	Alternative E2
Estimated Costs	Construction Cost		(1-5)	3.00	2.67
	Right-of-Way Acquisition		(1-5)	1.00	4.00
Required Right-of-Way	Residential Impact		(1-5)	1.00	4.00
	Commercial Impact		(1-5)	1.33	3.67
	Agricultural Impact		(1-5)	2.33	3.67
	Industrial Impact		(1-5)	3.67	4.33
Needs	Safety		(1-5)	4.58	3.42
	Capacity		(1-5)	4.00	3.83
	Operations/Mobility		(1-5)	3.92	3.43
	Pedestrian/Bicycle Accommodation		(1-5)	3.93	5.00
Affected Environment	Wetland Impact		(1-5)	1.00	3.00
	Archaeological Site Impact		(N/A)	TBD	TBD
	Floodplain Impact		(1-5)	5.00	5.00
	Special Waste Sites Impact		(1-5)	2.67	2.67
	Section 4(f) Land Impact		(1-5)	5.00	5.00
Total			70	42.43	53.68

Notes:

Construction cost does not include path/sidewalk construction or right-of-way acquisition costs.

Scores for each category range **1 to 5**: 1 = negative, or less favorable; 3 = neutral; 5 = positive, or more favorable.

Archaeological Site Impact will be determined based on preferred alternative survey.

Blue Scores = objective scores from Project Study Team based on the average values for each specific category.

Red Scores = subjective scores from CPG/TAG responses at November 30, 2010 meeting

REFINED ALTERNATIVES EVALUATION - DATA

SUNSET AVENUE to WADSWORTH ROAD					
Impacts		Alternative Description	Units	Alternative E1	Alternative E2
				Both alternatives have two through lanes in each direction	
				13' Two-way Left-turn Flush Median, Paved Shoulder edge treatment	13' Two-way Left-turn Flush Median, Curb & Gutter edge treatment
Estimated Costs	Estimated Construction Cost (not including path/sidewalk)		\$	\$19,023,000	\$19,879,000
	Estimated Construction Cost of Shared Use Path and Sidewalk		\$	\$1,181,000	\$1,283,000
	Estimated Construction Cost of Retaining Walls		\$	\$0	\$761,000
	Right-of-Way Acquisition Cost		\$	\$2,280,000	\$1,540,000
Required Right-of-Way (ROW)	Number of Parcels with Partial Acquisition		each	179	220
	Residential ROW Acquisition		ac	8.88	5.79
	Residential Relocations		each	28	0
	Commercial ROW Acquisition		ac	2.14	1.65
	Commercial Relocations		each	6	0
	Farmland ROW Acquisition		ac	0	0
	Farmland Parcels Impacted		each	0	0
	Industrial ROW Acquisition		ac	0	0
	Industrial Relocations		each	0	0
	Total Right-of-Way Acquisition		ac	11.02	7.44
Affected Environment	Impacted Wetlands		ac	0.79	0.68
	Impacted Archaeological Sites		ac	TBD	TBD
	Floodplain Encroachment		ac	0	0
	Special Waste Sites Impacted		each	12	12
	Impacts to Section 4(f) Lands		ac	0	0

Notes:

Preliminary cost estimate, subject to change.

Construction cost estimate includes construction engineering.

*Construction cost estimate **does not** include path/sidewalk construction or right-of-way acquisition costs.*

All impacts are potential: measures may exist to further minimize property acquisition, relocations, and other impacts

Section 4(f) Land examples: nature preserves, golf courses, and other designated natural areas.

REFINED ALTERNATIVES EVALUATION - DATA

WADSWORTH ROAD to ILLINOIS ROUTE 173				
Alternatives Description		Units	Alternative E1	Alternative E2
			Both alternatives have two through lanes in each direction	
Impacts			13' Two-way Left-turn Flush Median, Paved Shoulder edge treatment	22' Barrier Median, Curb & Gutter edge treatment
Estimated Costs	Estimated Construction Cost (not including path/sidewalk)	\$	\$19,632,000	\$19,186,000
	Estimated Construction Cost of Shared Use Path and Sidewalk	\$	\$1,305,000	\$1,589,000
	Estimated Construction Cost of Retaining Walls	\$	\$0	\$405,000
	Right-of-Way Acquisition Cost	\$	\$4,254,000	\$2,853,000
Required Right-of-Way (ROW)	Number of Parcels with Partial Acquisition	each	134	148
	Residential ROW Acquisition	ac	18.3	11.59
	Residential Relocations	each	18	4
	Commercial ROW Acquisition	ac	1.38	1.41
	Commercial Relocations	each	0	0
	Farmland ROW Acquisition	ac	0.88	0.79
	Farmland Parcels Impacted	each	2	2
	Industrial ROW Acquisition	ac	0	0
	Industrial Relocations	each	0	0
	Total Right-of-Way Acquisition	ac	20.56	13.79
Affected Environment	Impacted Wetlands	ac	1.29	1.14
	Impacted Archaeological Sites	ac	TBD	TBD
	Floodplain Encroachment	ac	0	0
	Special Waste Sites Impacted	each	8	8
	Impacts to Section 4(f) Lands	ac	0	0

Notes:

Preliminary cost estimate, subject to change.

Construction cost estimate includes construction engineering.

Construction cost estimate **does not** include path/sidewalk construction or right-of-way acquisition costs.

All impacts are potential: measures may exist to further minimize property acquisition, relocations, and other impacts

Section 4(f) Land examples: nature preserves, golf courses, and other designated natural areas.

REFINED ALTERNATIVES EVALUATION - DATA

ILLINOIS ROUTE 173 to RUSSELL ROAD				
Alternatives Description		Units	Alternative E1	Alternative E2
			Both alternatives have two through lanes in each direction	
Impacts			22' Barrier Median, Paved Shoulder edge treatment	22' Barrier Median, Curb & Gutter edge treatment
Estimated Costs	Estimated Construction Cost (not including path/sidewalk)	\$	\$14,747,000	\$16,902,000
	Estimated Construction Cost of Shared Use Path and Sidewalk	\$	\$1,041,000	\$1,373,000
	Estimated Construction Cost of Retaining Walls	\$	\$0	\$1,450,000
	Right-of-Way Acquisition Cost	\$	\$3,519,000	\$2,663,000
Required Right-of-Way (ROW)	Number of Parcels with Partial Acquisition	each	45	45
	Residential ROW Acquisition	ac	5.10	4.12
	Residential Relocations	each	0	0
	Commercial ROW Acquisition	ac	1.78	0.94
	Commercial Relocations	each	1	1
	Farmland ROW Acquisition	ac	4.38	3.12
	Farmland Parcels Impacted	each	7	7
	Industrial ROW Acquisition	ac	5.75	4.69
	Industrial Relocations	each	1	1
	Total Right-of-Way Acquisition	ac	17.01	12.87
Affected Environment	Impacted Wetlands	ac	0.59	0.53
	Impacted Archaeological Sites	ac	TBD	TBD
	Floodplain Encroachment	ac	0	0
	Special Waste Sites Impacted	each	7	7
	Impacts to Section 4(f) Lands	ac	0	0

Notes:

Preliminary cost estimate, subject to change.

Construction cost estimate includes construction engineering.

*Construction cost estimate **does not** include path/sidewalk construction or right-of-way acquisition costs.*

All impacts are potential: measures may exist to further minimize property acquisition, relocations, and other impacts

Section 4(f) Land examples: nature preserves, golf courses, and other designated natural areas.

REFINED ALTERNATIVES EVALUATION - DATA

PROJECT TOTAL SUNSET AVENUE to RUSSELL ROAD				
Alternative		Units	Alternative E1	Alternative E2
Impacts				
Estimated Costs	Estimated Construction Cost (not including path/sidewalk)	\$	\$53,402,000	\$55,967,000
	Estimated Construction Cost of Shared Use Path and Sidewalk	\$	\$3,527,000	\$4,245,000
	Estimated Construction Cost of Retaining Walls	\$	\$0	\$2,616,000
	Right-of-Way Acquisition Cost	\$	\$10,053,000	\$7,056,000
Required Right-of-Way (ROW)	Number of Parcels with Partial Acquisition	each	358	413
	Residential ROW Acquisition	ac	32.28	21.5
	Potential Residential Relocations	each	46	4
	Commercial ROW Acquisition	ac	5.30	4.00
	Potential Commercial Relocations	each	7	1
	Farmland ROW Acquisition	ac	5.26	3.91
	Farmland Parcels Impacted	each	9	9
	Industrial ROW Acquisition	ac	5.75	4.69
	Potential Industrial Relocations	each	1	1
	Total Potential Right-of-Way Acquisition	ac	48.59	34.1
Affected Environment	Impacted Wetlands	ac	2.67	2.35
	Impacted Archaeological Sites	ac	TBD	TBD
	Floodplain Encroachment	ac	0	0
	Special Waste Sites Impacted	each	27	7
	Impacts to Section 4(f) Lands	ac	0	0

Notes:

Preliminary cost estimate, subject to change.

Construction cost estimate includes construction engineering.

*Construction cost estimate **does not** include path/sidewalk construction or right-of-way acquisition costs.*

All impacts are potential: measures may exist to further minimize property acquisition, relocations, and other impacts

Section 4(f) Land examples: nature preserves, golf courses, and other designated natural areas.