Project Location Map
THE CSS APPROACH
Context Sensitive Solutions (CSS) is an approach that involves stakeholders early and often in development of a consensus solution. CSS is an approach that focuses on developing and building projects that reflect the surroundings or “context” and the outcome (design) and the process. This approach considers various disciplines from the beginning of the project through construction. The purpose of CSS is to gather and duly consider input on the project from all stakeholders, in order to produce the best solutions to any problems identified by the process.

THE ROLE OF THE STAKEHOLDERS
A stakeholder is a person or business who uses the infrastructure or lives within or near the project area. This includes residents, landowners, minority communities affected by a project, businesses, advocates for policy, elected officials in whose jurisdiction the project is located, governmental regulatory agencies, and travelers who use the facility. The role of the stakeholders is to advise the Illinois Department of Transportation on issues related to the design throughout the entire study process and to help identify elements of the project purpose and need. All input from all participants in the process is valued and will be considered.

THE DEFINITION OF CONTEXT
Context is all elements related to the people and place where a project is located. This includes both visible elements such as environmental or historic resources and invisible elements such as community values, traditions, and expectations.

THE DEFINITION OF CONSENSUS
Consensus is defined as a majority of the stakeholders in agreement, with the minority agreeing that their input was duly considered. IDOT will try to achieve stakeholder consensus on project choices. However, IDOT is responsible for the final project decisions.
Existing Conditions

- Strategic Regional Arterial (SRA)
- One lane in each direction
- Turn lanes at some intersections
- Rural roadway section
- 82.5-ft ROW (typical)
- Posted speed limit:
  - 45 mph from Sunset Avenue to IL Rte. 173
  - 55 mph from IL Rte. 173 to Russell Road

Existing Public Land Uses:
- Waukegan Savanna Forest Preserve
- Waukegan Regional Airport
- ThunderHawk Golf Course
- Shepherd’s Crook Golf Course

www.lcfpd.org
# Crash Summary Along IL RTE 131

## From Russell Road to Sunset Avenue

### Crash Types

<table>
<thead>
<tr>
<th>Crash Type</th>
<th>YEAR</th>
<th>TOTAL</th>
<th>% of Total Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
<td>2005</td>
<td>2006</td>
</tr>
<tr>
<td>OVERTURNED</td>
<td>4</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>PEDESTRIAN</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>PEDESTRIAN/CYCLIST</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ANIMAL</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>FIXED OBJECT</td>
<td>15</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>OTHER OBJECT</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OTHER NON-COLLISION</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>PARKED VEHICLE</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>REAR END</td>
<td>87</td>
<td>79</td>
<td>82</td>
</tr>
<tr>
<td>HEAD ON</td>
<td>3</td>
<td>2</td>
<td>3</td>
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<tr>
<td>SIDESWIPE-SAME DIRECTION</td>
<td>8</td>
<td>9</td>
<td>10</td>
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<tr>
<td>SIDESWIPE-OPPOSITE DIRECTION</td>
<td>6</td>
<td>5</td>
<td>3</td>
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<tr>
<td>ANGLE</td>
<td>30</td>
<td>22</td>
<td>17</td>
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<tr>
<td>TURNING</td>
<td>46</td>
<td>43</td>
<td>44</td>
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<tr>
<td>OTHER</td>
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<td>0</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>203</td>
<td>190</td>
<td>189</td>
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</table>

### Crashes on Wet Pavement (Rain / Ice / Snow / Slush)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL</th>
<th>% of Total Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>53</td>
<td>30.6%</td>
</tr>
<tr>
<td>2005</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>51</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Lake County, IL Traffic Crash Location System (TCLS)
### CRASH SEVERITY AT INTERSECTIONS ALONG IL RTE 131

<table>
<thead>
<tr>
<th>CRASH INJURY</th>
<th>YEAR</th>
<th>TOTAL</th>
<th>% OF TOTAL INJURIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
<td>2005</td>
<td>2006</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>K</td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>32</td>
<td>30</td>
<td>41</td>
</tr>
</tbody>
</table>

**Crash Types:**
- **A** Incapacitating Injury
- **B** Non-Incapacitating Injury
- **C** Reported, injury not evident
- **K** Fatal

Source: Lake County, IL Traffic Crash Location System (TCLS)

[Diagram of crash locations along IL RTE 131]

**5% Location:** Within top 5% of roadway mileage in Illinois that exhibits the most severe crashes and high-risk driving behavior.
Corridor Deficiencies

Safety

Within Project Area From 2004 – 2009:
1176 Crashes 309 Injuries 4 Fatalities

( LCDOT data )

December 2010: Fatality near Kenosha Road

Other Safety Deficiencies:
• 5% Location North of 9th Street (0.25 miles)
  (This means that this segment of roadway is within 5% of roadway mileage in Illinois that exhibits the most severe crashes and high-risk driving behavior)
• Deficient pedestrian / bicycle accommodations

Crash Types, 2004-2009
IL Route 131 from Russell Road to Sunset Avenue

- REAR END 40%
- TURNING 24%
- ANGLE 11%
- OTHER 25%

( LCDOT data )
Corridor Deficiencies

Roadway Capacity

Two-Lane Roadway Capacity of 14,000 to 18,000 vehicles per day exceeded:
- Yorkhouse Road to Sunset Avenue
  - 23,100 (2007)
  - 25,000 (2030)
  - 37,000 (2040)
- Kenosha Road to Wadsworth Road
  - 16,400 (2007)
  - 21,000 (2030)
  - 38,000 (2040)

Intersection Capacity

Intersection capacity is measured using Level of Service (LOS):
Rating of Vehicle Delay, ranging from A (little or zero delay) to F (very long delay or gridlocked conditions)
- Highlighted intersections = LOS F in design year 2030
Corridor Deficiencies

Operations / Mobility

- Skewed angle of Kenosha Road intersection
- Truck traffic
- Lack of signalization and signal coordination
- Deteriorating pavement & shoulders
AVERAGE DAILY TRAFFIC VOLUMES (ADT)
EXISTING AND DESIGN

LEGEND

EXISTING ADT - YEAR 2007
(XXXX) DESIGN ADT - YEAR 2030
(XXXX) DESIGN ADT - YEAR 2040
EXISTING SIGNAL

www.IIL131Project.com
Evaluation Criteria

- **Environmental Impacts**
  - Drainage
  - Wetlands
  - Parks
  - Forest Preserves
  - Cemeteries

- **Accessibility**
  - Traffic Control
  - Vehicles
  - Bicycles
  - Pedestrians

- **Waukegan Airport Coordination**

- **Identified Needs**
  - Safety
  - Capacity
  - Operations/Mobility

- **Property Impacts**
  - Residential
  - Commercial
  - Industrial
  - Agricultural
  - Zoning & Land Use Plans

- **Cost**
  - Construction
  - Maintenance
Purpose and Need

Project Purpose:
The purpose of the Illinois Route 131 engineering study is to improve safety and functionality along Illinois Route 131 from Russell Road to Sunset Avenue. Improvements to this route are necessary to address issues of roadway and intersection capacity and efficiency; enhance vehicular, pedestrian, and bicycle accommodation and safety; and bring the roadway into compliance with current IDOT standards.

Project Needs:

- Improve Safety
- Improve Capacity
- Improve Operations and Mobility
## Project Elements

### Preliminary Alternatives

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Four Lanes – Divided</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Wide Grass Median</strong></td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td><strong>Paved Shoulder</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Shared-Use Path</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

✔️ = Element is used in this alternative
❌ = The wide depressed grass median was not used due to right-of-way constraints
## Alternatives Evaluation

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sunset Avenue to Wadsworth Road</strong></td>
<td>Less ROW available</td>
</tr>
<tr>
<td></td>
<td>Primarily Residential, Established Commercial</td>
</tr>
<tr>
<td></td>
<td>Many intersecting streets/driveways</td>
</tr>
<tr>
<td><strong>Wadsworth Road to Illinois Route 173</strong></td>
<td>Relatively more ROW</td>
</tr>
<tr>
<td></td>
<td>Primarily Residential, Proposed TIF* Redevelopment</td>
</tr>
<tr>
<td></td>
<td>Fewer intersecting streets/driveways</td>
</tr>
<tr>
<td><strong>Illinois Route 173 to Russell Road</strong></td>
<td>More available ROW</td>
</tr>
<tr>
<td></td>
<td>Industrial and agricultural</td>
</tr>
<tr>
<td></td>
<td>Proposed TIF* Redevelopment</td>
</tr>
<tr>
<td></td>
<td>Few intersecting streets/driveways</td>
</tr>
</tbody>
</table>

*The Preliminary Alternatives have been applied to the three sections of the project to determine the best fit for each area. This combination of alternatives has become the Refined Alternatives.*

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*Tax-Increment Financing (TIF): A local economic development tool that uses increased property taxes generated by a new real estate development to finance costs of the development.*
Illinois Complete Streets

The 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 of Illinois Route 131’s classification, traffic volumes, and posted speed limits.

IDOT shares the construction cost of the pedestrian and bicycle facility with the local agency. The local agency is solely responsible for maintenance of the facility.
ILLINOIS ROUTE 131 ALTERNATIVES
TYPICAL SECTION ILLUSTRATIVES

ALTERNATIVE E1
4-LANE WITH FLUSH MEDIAN, SHOULDER, SIDEWALK, AND SHARED USE PATH
TYPICAL SECTION

SUNSET AVENUE TO IL ROUTE 173

10' SHOULDER
12' LANE
12' LANE
13' FLUSH MEDIAN
12' LANE
12' LANE
10' SHOULDER

5' SIDEWALK

41.25' 65'-70'

65'-85'
ALTERNATIVE E2
4-LANE WITH BARRIER MEDIAN, CURB AND GUTTER, AND
SIDEWALK AND SHARED USE PATH
TYPICAL SECTION

WADSWORTH ROAD TO RUSSELL ROAD

ILLINOIS ROUTE 131 ALTERNATIVES
TYPICAL SECTION ILLUSTRATIVES
www.IL131Project.com
Refined Alternative E1

Sunset Avenue to Illinois Route 173

Illinois Route 173 to Russell Road

Waukegan Savanna Forest Preserve
Waukegan Sports Park
Waukegan Regional Airport
Bonnie Brook Municipal Golf Course
Shepherd’s Crook Golf Course
Ninth St.
Shepherd’s Crook Golf Course
Russell Rd.
Wadsworth Rd.
Sunset Ave.
Wadsworth Rd.
Kenosha Rd.
Green Bay Road (IL Rte. 131)
29th St.
33rd St.
NORTH
131
29th St.
21st St.
Wadsworth Rd.
21st St.
33rd St.
Wadsworth Rd.
Sunset Ave.
Rusell Rd.

Alternative

Alternative
## Refined Alternatives Evaluation - Data

### Project Total

**Sunset Avenue to Russell Road**

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Alternative</th>
<th>Units</th>
<th>Alternative E1</th>
<th>Alternative E2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated Construction Cost (not including path/sidewalk)</td>
<td>$</td>
<td></td>
<td>$53,402,000</td>
<td>$55,967,000</td>
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<tr>
<td>Estimated Construction Cost of Shared Use Path and Sidewalk</td>
<td>$</td>
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<td>$3,527,000</td>
<td>$4,245,000</td>
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<tr>
<td>Estimated Construction Cost of Retaining Walls</td>
<td>$</td>
<td></td>
<td>$0</td>
<td>$2,616,000</td>
</tr>
<tr>
<td>Right-of-Way Acquisition Cost</td>
<td>$</td>
<td></td>
<td>$10,053,000</td>
<td>$7,056,000</td>
</tr>
<tr>
<td>Number of Parcels with Partial Acquisition</td>
<td>each</td>
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<td>358</td>
<td>413</td>
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<tr>
<td>Residential ROW Acquisition</td>
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<td></td>
<td>32.28</td>
<td>21.5</td>
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<tr>
<td>Potential Residential Relocations</td>
<td>each</td>
<td></td>
<td>46</td>
<td>4</td>
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<td>Commercial ROW Acquisition</td>
<td>ac</td>
<td></td>
<td>5.30</td>
<td>4.00</td>
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<td>Potential Commercial Relocations</td>
<td>each</td>
<td></td>
<td>7</td>
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<td>Farmland ROW Acquisition</td>
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<td></td>
<td>5.26</td>
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<td>Total Potential Right-of-Way Acquisition</td>
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<td>Impacted Archaeological Sites</td>
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<td>Floodplain Encroachment</td>
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<td>0</td>
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<td>Special Waste Sites Impacted</td>
<td>each</td>
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<td>27</td>
<td>7</td>
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<tr>
<td>Impacts to Section 4(f) Lands</td>
<td>ac</td>
<td></td>
<td>0</td>
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**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 - Scores

## Project Total

**Sunset Avenue to Russell Road**

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Alternative</th>
<th>Rating</th>
<th>Alternative E1</th>
<th>Alternative E2</th>
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</thead>
<tbody>
<tr>
<td><strong>Estimated Costs</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Construction Cost</td>
<td>(1-5)</td>
<td>3.00</td>
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<tr>
<td>Right-of-Way Acquisition</td>
<td>(1-5)</td>
<td>1.00</td>
<td>4.00</td>
<td></td>
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<tr>
<td><strong>Required Right-of-Way</strong></td>
<td></td>
<td></td>
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<tr>
<td>Residential Impact</td>
<td>(1-5)</td>
<td>1.00</td>
<td>4.00</td>
<td></td>
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<tr>
<td>Commercial Impact</td>
<td>(1-5)</td>
<td>1.33</td>
<td>3.67</td>
<td></td>
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<tr>
<td>Agricultural Impact</td>
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<td>Industrial Impact</td>
<td>(1-5)</td>
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<td>4.33</td>
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<tr>
<td><strong>Needs</strong></td>
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<td>Safety</td>
<td>(1-5)</td>
<td>4.58</td>
<td>3.42</td>
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<td>Capacity</td>
<td>(1-5)</td>
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<td>Operations/Mobility</td>
<td>(1-5)</td>
<td>3.92</td>
<td>3.43</td>
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<td>Pedestrian/Bicycle Accommodation</td>
<td>(1-5)</td>
<td>3.93</td>
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<td><strong>Affected Environment</strong></td>
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<tr>
<td>Wetland Impact</td>
<td>(1-5)</td>
<td>1.00</td>
<td>3.00</td>
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<tr>
<td>Archaeological Site Impact</td>
<td>(N/A)</td>
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<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Floodplain Impact</td>
<td>(1-5)</td>
<td>5.00</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Special Waste Sites Impact</td>
<td>(1-5)</td>
<td>2.67</td>
<td>2.67</td>
<td></td>
</tr>
<tr>
<td>Section 4(f) Land Impact</td>
<td>(1-5)</td>
<td>5.00</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>70</td>
<td>42.43</td>
<td>53.68</td>
<td></td>
</tr>
</tbody>
</table>

**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.
SAFETY BENEFITS OF U-TURNS
UNPROTECTED VS. PROTECTED LEFT-TURN MANEUVER

SIGNALIZED INTERSECTION

UNPROTECTED LEFT-TURN MANEUVER

U-TURN MANEUVER
PROTECTED BY LEFT-TURN ARROWS ON TRAFFIC SIGNALS FURTHER REDUCING CONFLICT POINTS

UNIGNALIZED DRIVEWAY

UNPROTECTED LEFT-TURN MANEUVER

MIDBLOCK U-TURN MANEUVER

ILLINOIS ROUTE 131 ALTERNATIVES
TYPICAL SECTION ILLUSTRATIVES
www.IL131Project.com
The Waukegan Regional Airport is conducting an independent planning study to provide efficient and improved aviation facilities.

While the study is not affiliated with the IL Rte. 131 Phase I Study, the project teams are coordinating as each project interfaces with the other.

Through public involvement and input from the Waukegan Port Authority, IDOT Division of Aeronautics, and the Federal Aviation Administration, two feasible alternatives were developed in the airport study:

- **Airport Alternative 1b**: Existing runway and taxiway extend across IL Rte. 131.
- **Airport Alternative 3b**: New runway constructed north of existing runway, existing runway converts to a taxi-way, both extend across IL Rte. 131.

If the IL Rte. 131 project is constructed before the airport expansion, an interim design is proposed. This interim design, shown on the large aerials here today, is under FAA review.
Land Acquisition Types

**Fee Simple**
- Acquisition of all rights and interest

**Permanent Easement**
- Ownership is retained by property owner
- IDOT allowed use of property to construct and maintain facilities

**Temporary Easement**
- Ownership is retained by property owner
- Used to construct minor improvements
Land Acquisition Procedures

Determine Ownership
  • Prepare property description

Independent Appraisal

Negotiation

Condemnation

Relocation Assistance when Building Acquired
  • Advisory/referral services
  • Replacement housing payments
  • Reimburse moving expenses
Next Steps

CPG/TAG Meeting #5
- Evaluate Preferred Alternative
- Review Environmental Documentation

Public Hearing
- Present Preferred Alternative and reports

PROJECT SCHEDULE

Performance Studies  Identify Deficiencies  Develop Purpose and Need  Identify Possible Alternatives  Evaluate and Screen Alternatives  Detailed Env. and Technical Studies  Finalized Preferred Alternative  Environmental Assessment (EA)  Finalized Documents  Future Phase

Public Meeting/Hearing

2008  2009  2010  2011

WE ARE HERE

www.IL131Project.com
Website

www.IL131Project.com

Website Features:

• Provides project description and planning process overview
• “Get Involved” section contains information on Public Meetings and links to contact the project team
• Updated frequently with project progress