



# **Corridor Advisory Group and Task Force Meeting #6**

*September 23, 2010*



# Agenda

- Recap CAG/TF #5 *(9:00 – 10 minutes)*
- Purpose and Need Outline *(9:10 – 30 minutes)*
- Alternatives Development Process *(9:40 – 20 minutes)*
- Transportation Benefit Evaluation Measures *(10:00 – 30 minutes)*
- Environmental Evaluation Measures *(10:30 – 25 minutes)*
- Next Steps *(10:55 – 5 minutes)*
- Environmental Inventory Map *(11:00 – 30 minutes)*



# *CAG/TF #5 Recap*

# CAG /TF #5 Recap

- Safety/Operations
- Purpose & Need discussion
- Transportation Toolbox presentations
  - Safety
  - Managed Lanes
  - Transit



# *Purpose and Need*

# What is a Purpose & Need Statement?

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graph LR; A[Stakeholder Input] --> C[Purpose & Need]; B[Technical Analysis] --> C;
```

**Stakeholder  
Input**

**Technical  
Analysis**

***Purpose  
& Need***

- A summary of the transportation problems to be addressed – what are the needs, why should they be addressed
- Written broadly enough to consider a range of potential solutions
- Provides a basis for evaluating initial alternatives

# Comments on Needs Summary Points



## Needs Summary Points Comments Received From:

- Regional Transportation Authority (RTA)
- Chicago Transit Authority (CTA)
- Chicago Department of Transportation (CDOT)
- IL Department of Natural Resources (IDNR)
- DuPage County
- Citizens for Appropriate Transportation (CAT)

# Comments on Needs Summary Points

## Comment Categories:

- Non-Transportation Need
  - Solutions
  - Evaluation Criteria
- Joint Planning / Other Agency Jurisdiction (Existing Facilities & Services)
- Partially Addressed in Need Summary Points

# Comments on Needs Summary Points



## Improve Local and Regional Travel

Comment	Non-Transp.	Joint Planning	Partially Address
Address Transit Mode Share	X		
Increase Person Capacity	X		X
Reduce Travel Times in I-290 Corridor (EB-WB)	X		X
Improve Suburban to Suburban Commute for Transit	X	X	X
Employment Centers Not Served by Transit	X	X	X

## Improve Safety

Comment	Non-Transp.	Joint Planning	Partially Address
Improve Transit Convenience		X	X

# Comments on Needs Summary Points



## Modal Connections & Opportunities

Comment	Non-Transp.	Joint Planning	Partially Address
Most Reverse Commute Transit Require Transfer		X	X
Increase Transit for Low Income/Auto Ownership HHs	X		X
CTA Forest Park Station		X	X

## Improve Facility Condition/Design

Comment	Non-Transp.	Joint Planning	Partially Address
CTA Forest Park Branch Infrastructure		X	
Incorporate Green Infrastructure & Landscaping/Trees	X		
Incorporate Renewable Energy Utility Use	X		
Reduce Relocations, Environ. Impacts, Costs	X		

# Purpose & Need Outline

## Purpose Statement

- The purpose of this proposed action is to improve mobility, safety, modal opportunities and connections, and facility condition in the I-290 Eisenhower Expressway multi-modal corridor.

# Purpose & Need Outline

## Improve Local and Regional Travel

- Regional Travel
  - Substantial travel and congestion in the study area
  - I-290 mainline congestion 17 hours per day
    - 97% of mainline is LOS D or worse during peak hours
    - 100% of ramp junctions are LOS D or worse during peak hours

# Purpose & Need Outline

## Improve Local and Regional Travel (cont.)

### ■ Local Travel

- 7 of 10 I-290 interchanges have failing movements
- 92% of parallel arterials are congested or very congested
- Bus travel times & reliability impacted due to I-290 and arterial congestion

# Purpose & Need Outline

## Improve Local and Regional Travel (cont.)

### ■ Improve Access to Employment

- Capacity constraints and congestion limit ability to serve growth in traditional and reverse commute markets
- Traditional commute
  - W/NW Cook & DuPage Co. workers traveling to Chicago face heavy study area congestion via roadways
- Reverse **and other** commutes
  - Chicago workers traveling to W/NW suburbs face heavy study area congestion via roadways
  - More transit reverse **and other** commute options are needed
- Study area
  - All of the interstate segments & over half of the arterial street segments have congested vehicle miles of travel (CVMT)

# Purpose & Need Outline

## Improve Safety for All Users

- Pedestrian – vehicle conflicts on cross roads
- ADA ramp and sidewalk deficiencies
- Limited bicycle accommodations
- I-290 experienced higher crash rates than comparable facilities
- Predominant rear-end & side swipes crashes
  - *Contributing factors:* congestion, weaving & geometrics
    - EB high crash segments: W. of 25th, 25th to 1st and DesPlaines to Harlem
    - WB high crash segments: Laramie to Austin and East Ave. to CSX Overpass

# Purpose & Need Outline

## Improve Modal Connections & Opportunities

- Improve transit connections and convenience
  - CTA Blue Line station access
    - Poor pedestrian environment due to pedestrian/vehicle conflicts & narrow sidewalks
    - Bicycle access difficult due to lack of bicycle lanes, inadequate shoulders & **lack of bicycle parking**
    - Bus transfers block traffic & may require passengers to cross traffic
    - CTA intermediate stations are non-ADA compliant
  - Congested auto access and constrained capacity at CTA Forest Park park-and-ride facility
- Improve non-motorized connections
  - Limited access opportunities across I-290 corridor
  - Pedestrian and bicycle facilities substandard
  - Some sidewalks non-ADA compliant

# Purpose & Need Outline

## Improve Facility Condition/Design

- Original design & construction of I-290 over 50 years old
  - Pavement base requires reconstruction
  - Address Structure condition
  - Address Geometric Design
    - Mainline
    - Interchanges
    - Clearances
    - Drainage

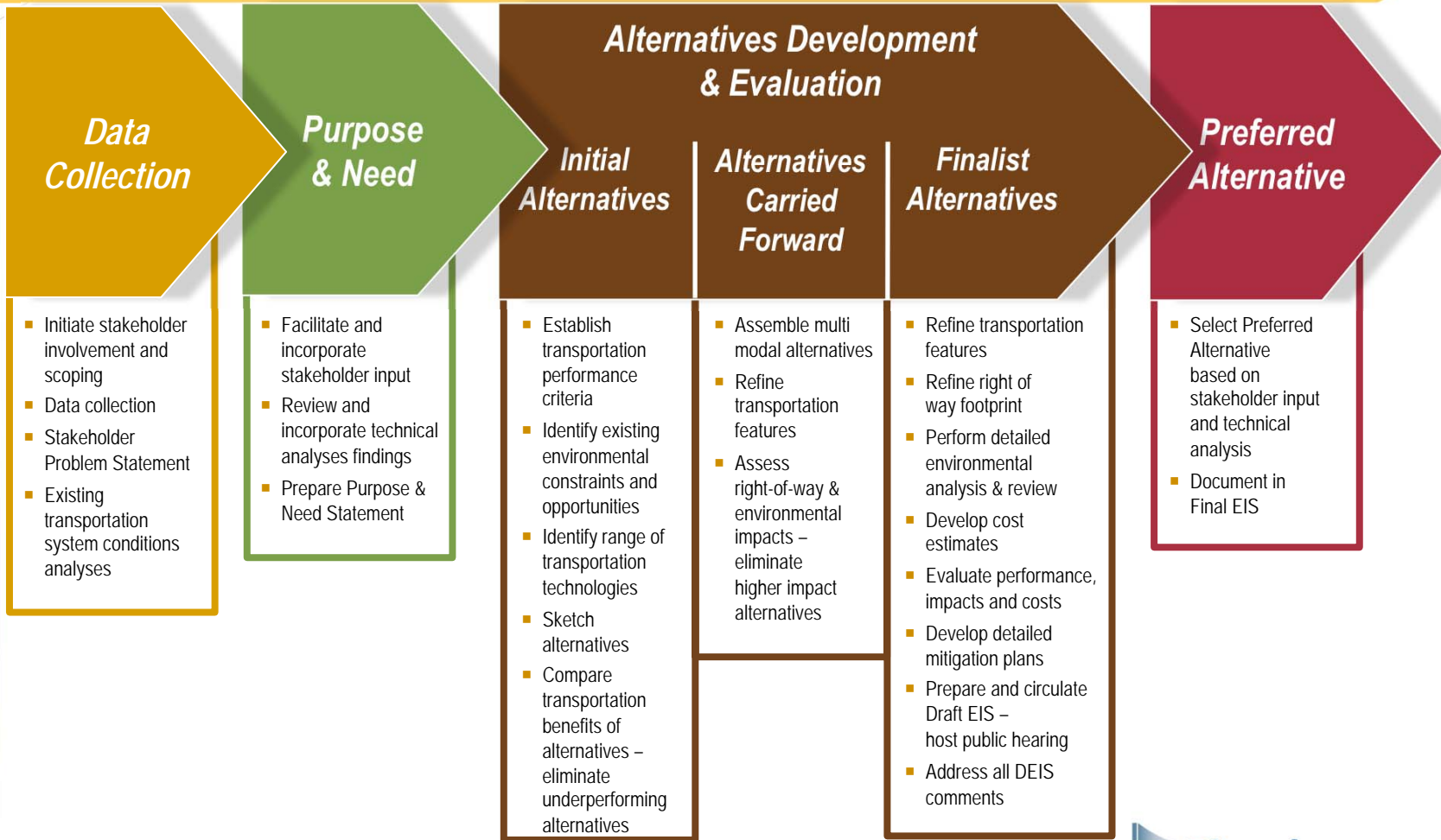


# *Alternatives Development Process*

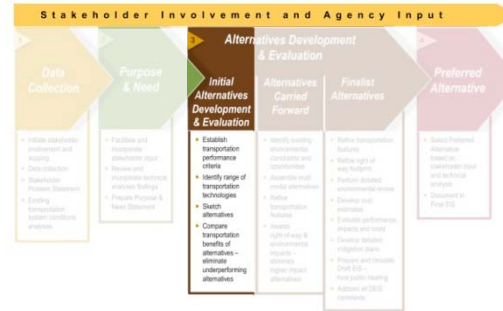
# Phase I Study Process: Recap



## Stakeholder Involvement and Agency Input



# Study Process: Alternatives Development and Evaluation



## Stakeholder Involvement and Agency Input

### Initial Alternatives

- Establish transportation performance criteria
- Identify existing environmental constraints and opportunities
- Identify range of transportation technologies
- Develop initial alternatives
- Compare transportation benefits of alternatives – eliminate underperforming alternatives

# Study Process: Alternatives Development and Evaluation

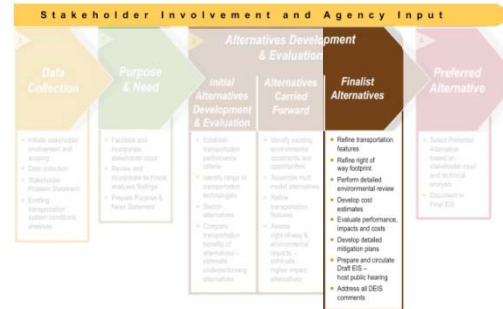


## Stakeholder Involvement and Agency Input

### 3 Alternatives Carried Forward

- Assemble multi modal alternatives
- Refine transportation features
- Assess right-of-way & environmental impacts – eliminate higher impact alternatives

# Study Process: Alternatives Development and Evaluation



## Stakeholder Involvement and Agency Input

### Finalist Alternatives

- Refine transportation features
- Refine right of way footprint
- Perform detailed environmental analysis & review
- Develop cost estimates
- Evaluate performance, impacts and costs
- Develop detailed mitigation plans
- Prepare and circulate Draft EIS – host public hearing
- Address all DEIS comments

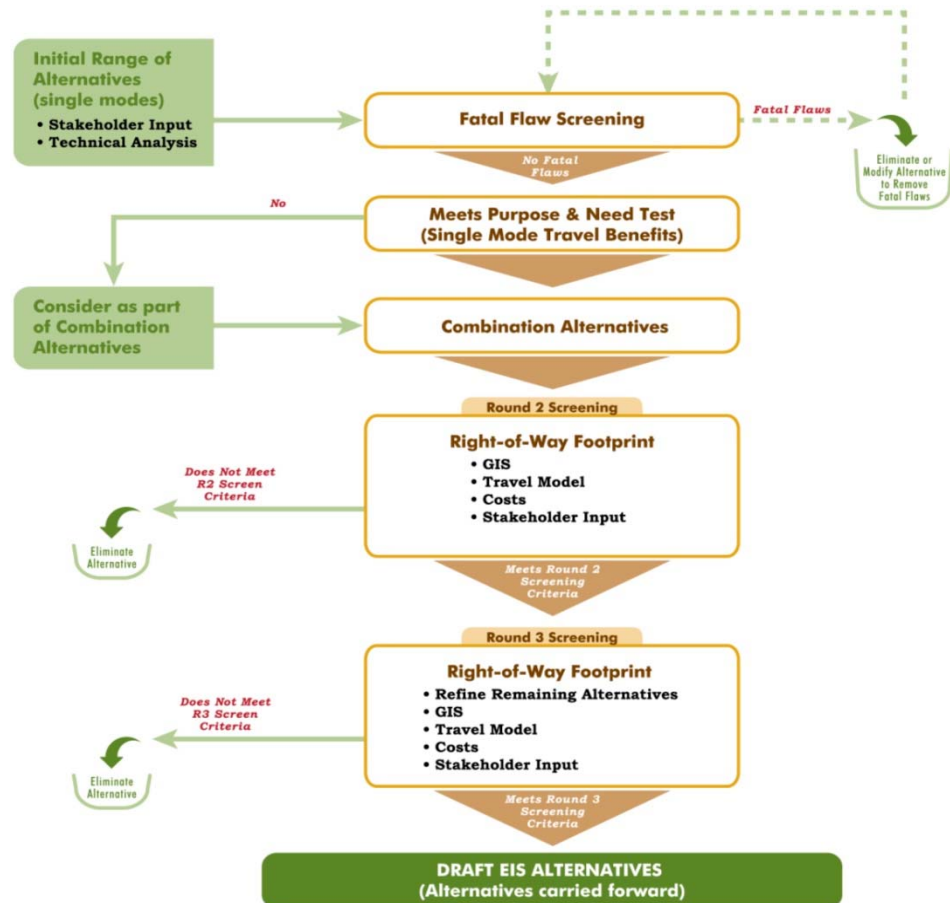
# Study Process: Alternatives Development and Evaluation



# Incorporation of Multi-Modes in the Evaluation Process

- Cooperative process between stakeholders and IDOT
- Transit agencies (CTA, Pace, Metra) play a key role
- Logical process to evaluate stand alone/single modes and combination of mode alternatives
- Mechanisms for modification or elimination of underperforming alternatives

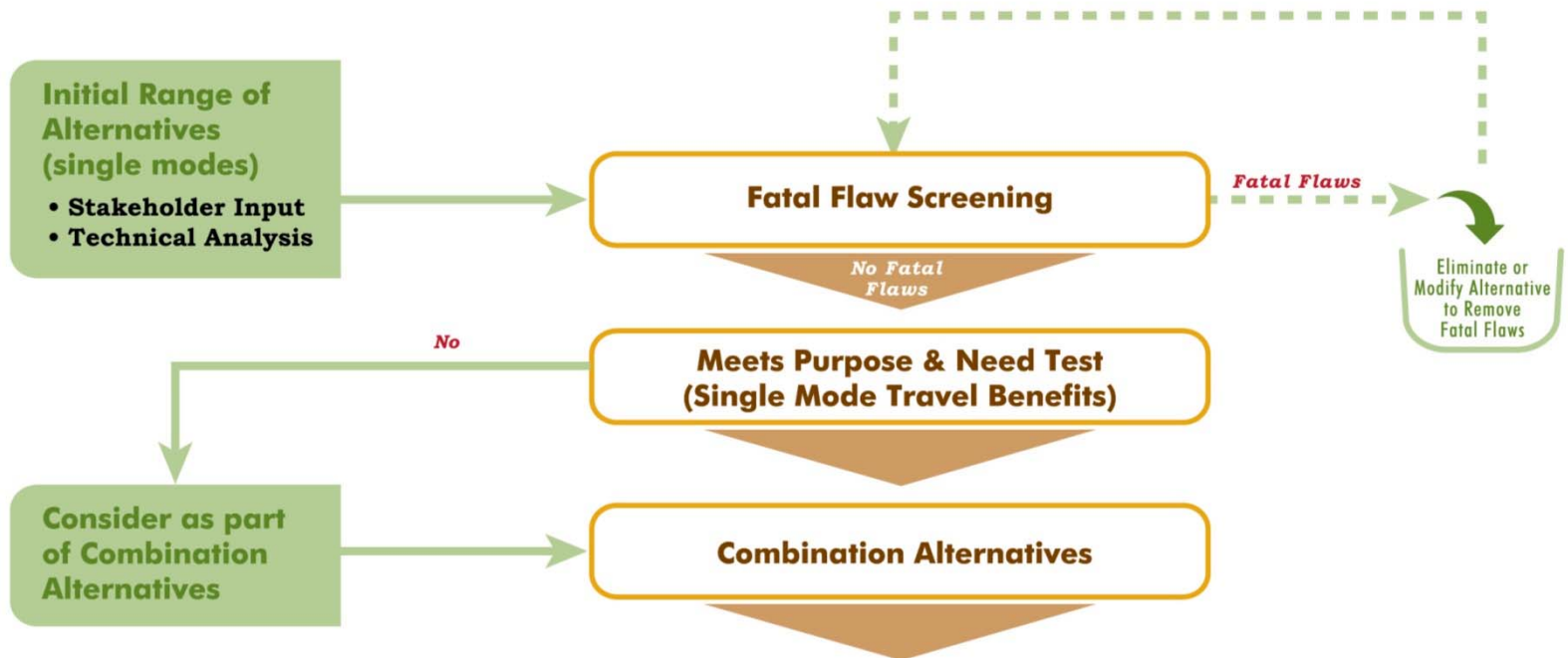
## Phase I Study Alternatives Development and Evaluation Process



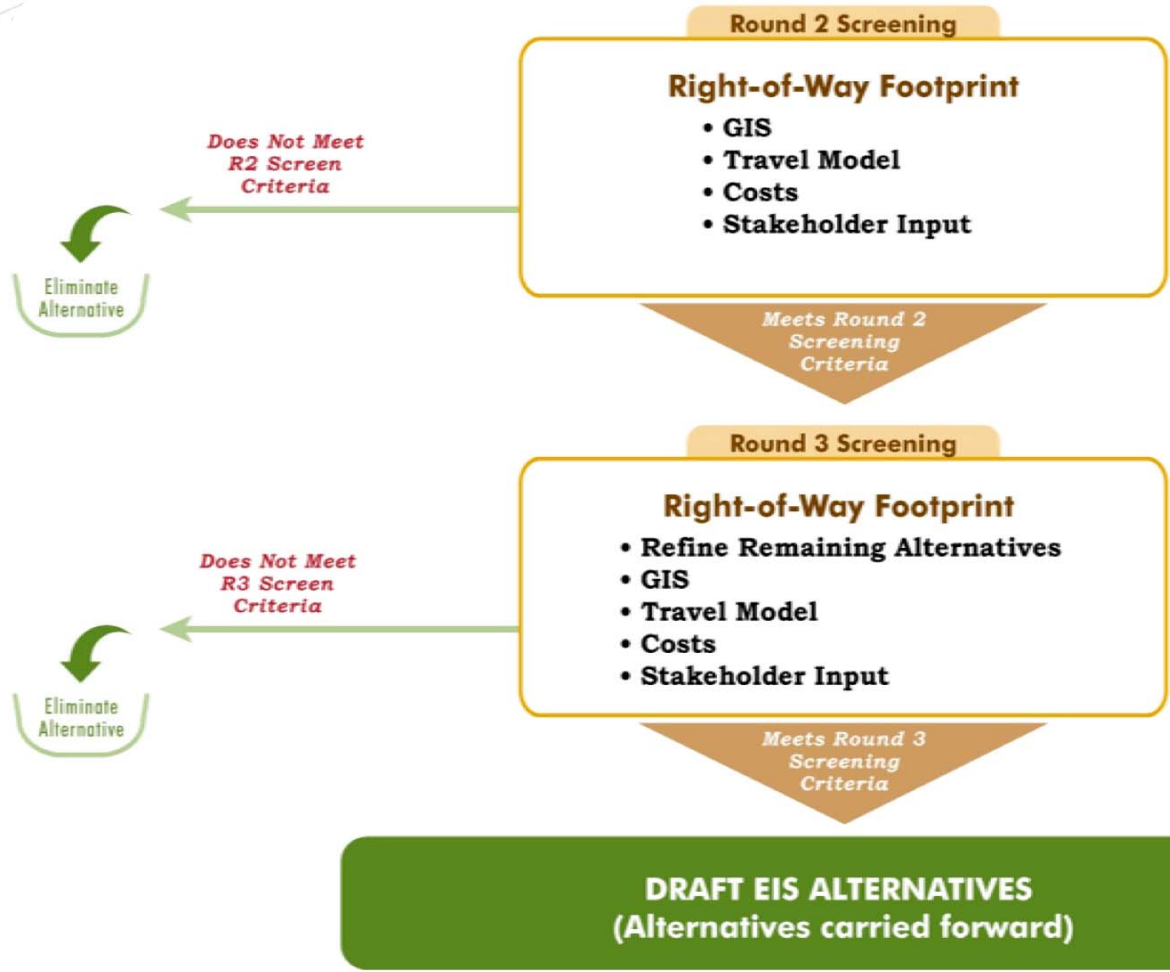
# Alternatives Development and Evaluation Process



## Phase I Study Alternatives Development and Evaluation Process



# Alternatives Development and Evaluation Process (continued)





## DRAFT EIS ALTERNATIVES *(alternatives carried forward)*

- Detailed Travel Studies
- Refine Geometrics, ROW Footprint
- Detailed Environmental Resource Studies
- Refine Cost Estimates
- Stakeholder Input



# *Transportation Benefit Measures*

# Transportation Benefit Measures

## Improve Local and Regional Travel:

- Use 2040 CMAP "baseline" (no improvements in I-290 corridor) as a starting point
- Evaluate alternatives' projected changes in travel patterns and conditions

### *Performance metrics include:*

- ❖ Travel time/speed for all traffic, for bus transit
- ❖ Accessibility to jobs within a time range
- ❖ Person throughput
- ❖ Time spent in vehicles
- ❖ Congested travel
- ❖ Level of Service (LOS) of roadway elements
- ❖ Volume/Capacity of arterial streets

# Transportation Benefit Measures



## Improve Safety for all Users:

- Use existing safety conditions, and projected “no action” conditions as a starting point
- Evaluate alternatives’ safety performance with safety standards, substantive safety improvements, crash projections

### *Performance metrics include:*

- ❖ Adherence to nominal safety standards
- ❖ Achievement of substantive safety improvements
- ❖ Projected change in crashes from 2040 baseline

# Transportation Benefit Measures

## Improve Modal Opportunities and Connections:

- Use 2040 CMAP “baseline” (no improvements in I-290 corridor) as a starting point where applicable
- Evaluate alternatives’ modal opportunity/connection performance

### *Performance metrics include:*

- ❖ Population and employment served by transit options
- ❖ Transit mode share
- ❖ Facility ADA compliancy
- ❖ Transit station access – for buses and pedestrians
- ❖ Accommodate transit expansion

# Transportation Benefit Measures

## Improve Facility Condition/Design:

- Use existing conditions as a starting point
- Evaluate alternatives' performance in addressing condition/design issues

### *Performance metrics include:*

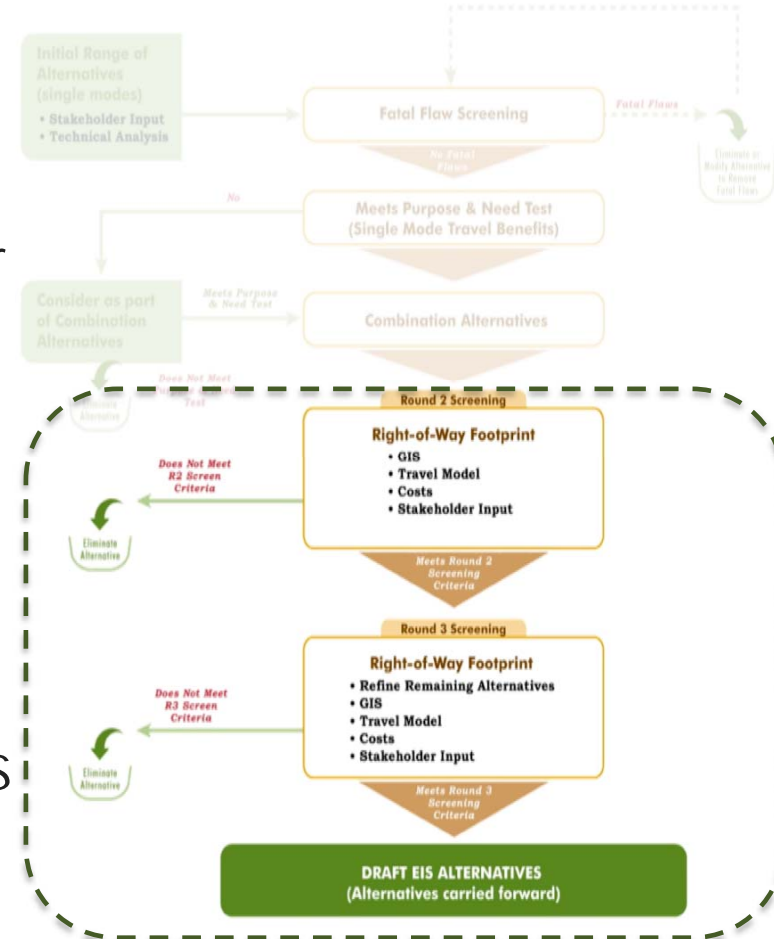
- ❖ Deficient bridges
- ❖ Design deficiencies
- ❖ Overall condition



# *Environmental Evaluation Measures*

# Environmental Evaluation Measures

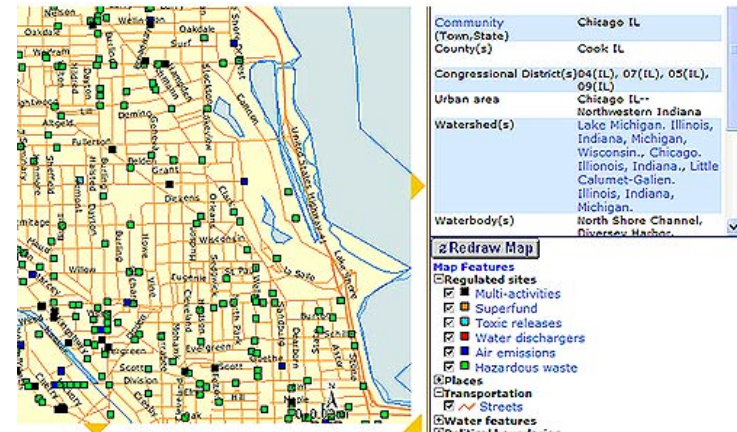
- Environmental evaluation follows NEPA process
- Environmental evaluation measures are consistent with other large transportation projects
  - Urban setting, transportation modes emphasize certain measures
- Measurable
  - Some more defined than others
  - Evaluated against existing conditions & no-build



# Environmental Evaluation Measures

## Environmental Screening (GIS):

- Overlays environmental impacts on a base map
- Identifies known environmental features from a variety of sources
- Used in early alternatives screening
- Helps eliminate less feasible alternatives before detailed and costly environmental study begins



# Environmental Evaluation Measures

## Detailed Environmental Study:

- Uses a variety of sources including field environmental studies, research, expert analysis
- Identifies environmental features and impacts in detail
- Used in Draft EIS Alternatives analysis



# Environmental Evaluation Measures

## General:

- Provides general information about alternatives

### *Impact metrics include:*

- ❖ Benefits
- ❖ Impacts
- ❖ Costs
- ❖ Stakeholder Input



# Environmental Evaluation Measures

## Socio-Economic:

- Provides socio-economic projections for alternatives, based on 2040 baseline comparison

### *Impact metrics include:*

- ❖ Population
- ❖ Households
- ❖ Employment (permanent and temporary)
- ❖ Displacements (residential, commercial, industrial)
- ❖ Employee displacements
- ❖ Tax revenue gain/loss

# Environmental Evaluation Measures

## Environmental Justice:

- A subset of socio-economics
- Provides information on any disproportionate impacts of alternatives to low income/minority populations

### *Impact metrics include:*

- ❖ Displacements
- ❖ Loss of access
- ❖ Effects on low income/minority populations

# Environmental Evaluation Measures

## Natural Resources:

- Provides information on impacts of alternatives to natural resources, including protected resources

### *Impact metrics include:*

- ❖ Wetland impacts
- ❖ Habitat loss
- ❖ Stream crossings
- ❖ Water quality
- ❖ Flood plain impacts
- ❖ Impervious area changes
- ❖ Threatened & Endangered species

# Environmental Evaluation Measures



## Agricultural Resources:

- Provides information on impacts of alternatives to agricultural resources and operations

*No Direct Impacts Anticipated*

# Environmental Evaluation Measures

## Noise and Vibration:

- Provides projections of changes in noise and vibration for the alternatives, based on 2040 baseline comparison
- Determination of eligibility for mitigation

### *Impact metrics include:*

- ❖ Noise sensitive residential receptors
- ❖ Noise sensitive non-residential receptors (churches, schools, parks, hospitals)
- ❖ Vibration receptors

# Environmental Evaluation Measures

## Air Quality:

- Provides projections of changes in air quality alternatives, based on 2040 baseline comparison
- Conformance with air quality standards

### *Impact metrics include:*

- ❖ Carbon monoxide
- ❖ Ozone
- ❖ Particulate matter
- ❖ Overall project conformance
- ❖ Greenhouse gas emissions

# Environmental Evaluation Measures

## Cultural Resources/Special Lands:

- Provides impacts of alternatives to protected cultural resources
- “Special lands” includes public parks, nature preserves, forest preserves
- Governed by federal 4(f), 6(f) and Section 106 policies

### *Impact metrics include:*

- ❖ Historic resource impacts (National Register-eligible)
- ❖ Archaeological resource impacts (National Register-eligible)
- ❖ Special lands impacts
- ❖ Non-Section 4(f) public lands impacts

# Environmental Evaluation Measures

## Hazardous/Special Waste:

- Provides impacts of alternatives to properties that contain or might contain regulated substances that are potentially hazardous to workers and the general public

### *Impact metrics include:*

- ❖ Sites on the federal CERCLIS database
- ❖ Non-CERCLIS sites

# Environmental Evaluation Measures

## Indirect and Cumulative Impacts:

- Indirect impacts - reasonably foreseeable impacts caused by the project outside its immediate area
- Cumulative impacts – reasonably foreseeable total of impacts caused by many actions, including the project

### *Impact metrics include:*

- ❖ Social & economic impacts
- ❖ Environmental resource impacts



# *Next Steps*

# Next Steps

- Draft Purpose & Need
- Expanded Evaluation Measures
- Initial Alternatives Workshop

# Upcoming Meeting



SAVE THE DATE...

## Corridor Advisory Group and Task Force Meeting #7

December 2, 2010

The Carleton Hotel of Oak Park





*Questions?*





# *Environmental Inventory Map*

*Identify constraints & opportunities  
after conclusion of presentation*