IL ROUTE 53/120

Blue Ribbon Advisory Council

Design & Land Use Working Group
March 12, 2012

Lake County Department of Transportation, Libertyville

Illinois Tollway

DESIGN & LAND USE AGENDA

- Meeting Goals
- Discuss Design Decisions & Recommendations
  - Confirm goals of design decisions
  - Outstanding design elements
  - Right of way and interchange locations
  - Working recommendations for design
- Discuss Land Use Decisions & Recommendations
  - Future Land Use Change Analysis
  - Corridor-wide transportation land use plan
  - Working group recommendations for land use

DESIGN DECISIONS

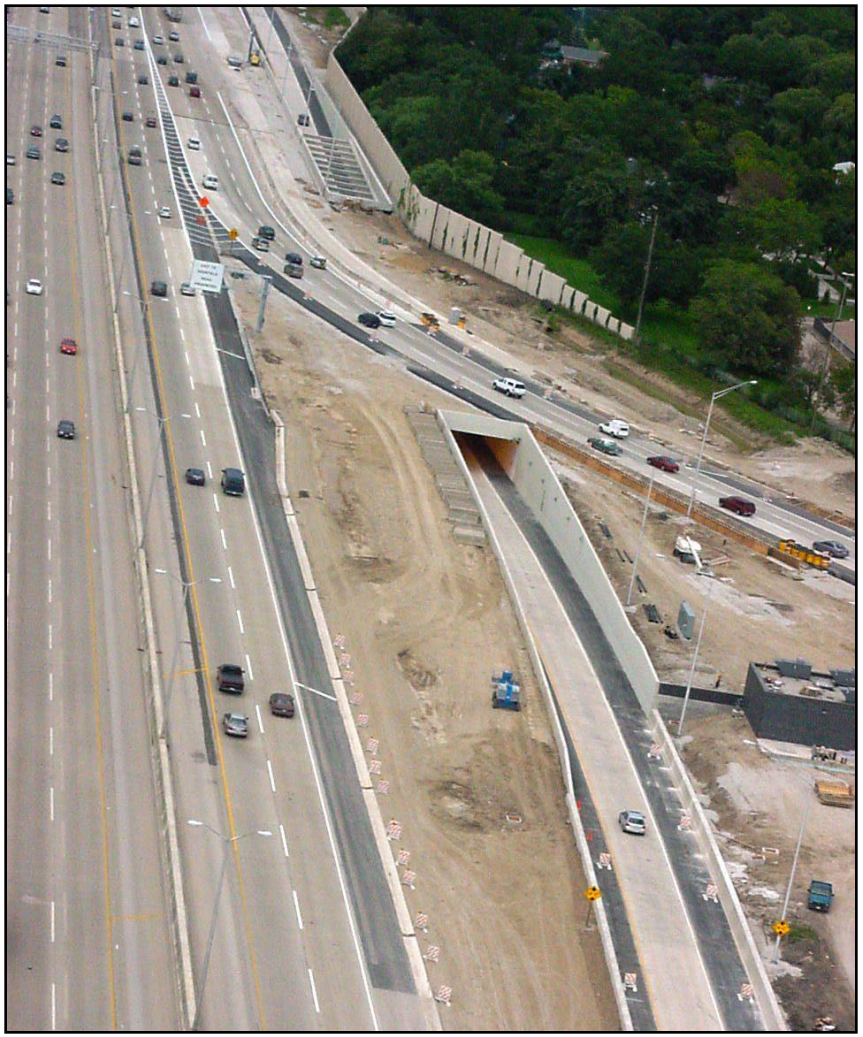
- Confirm goals
- Three remaining scenarios
- All are 4-lane, 45mph
  - **Scenario B** (Table 1)
    Short Grayslake bypass connecting to existing 120
  - **Scenario C** (Table 2)
    Full 120 bypass
  - **Hybrid Scenario** (Table 3)
    Longer Grayslake bypass

BASELINE FEATURES

- Depressed roadway/tunnel at 83/137/Metra
- Depressed roadway at many locations
- Various interchange designs
  - Depressed
  - Tight footprint
- Environmental enhancements more than double I-355

DEPRESSED ROADWAY

- Cost for depressed roadway/tunnel at 83/137/Metra (rather than bridge) = +$115 to $168M
- Additional M&O costs above the beyond typical interchange maintenance should be expected
- Example shown: Deerfield Underpass (construction cost $21.75M for 585')



INTERCHANGES

- Typical single point urban interchange (SPUI) included in baseline estimate (except where mainline is depressed)
- Example shows mainline under the elevated crossroad
- Two options for depressing road: crossroad under mainline, or mainline under crossroad
- Can be “tight” footprint or wider to allow for green
- About $80M each

BASELINE COST ESTIMATE

	Scenario B	Hybrid Scenario	Scenario C
Baseline Cost Estimate (includes construction and engineering costs. ROW and maintenance yard not included)	$1,925 M to $2,068 M	$2,246 M to $2,414 M	$2,322 M to $2,496 M

- Costs estimated at mid-point of construction (2020)
- Environmental costs are estimated at 4% of construction cost, and include construction contingencies
- Baseline cost includes a total of approximately $325M for depressed roadway sections. This includes roadway under IL 83/IL 137/Metra, extending to east of US 45, through residential areas in Mundelein, and at select interchange locations along the corridor
- Baseline cost assumes single-point urban interchanges (SPUI)

Illinois Tollway

OUTSTANDING DESIGN ELEMENTS

- Utilization of the full 300 feet of right of way
  - How to configure the four lanes, median and shoulders
  - Lane width
  - Transit on shoulders
- Environmental design features

SMALLEST FOOTPRINT – 90’

- 10’ (minimum) landscaped or grass median
- Small inside shoulder
- Full outside shoulder

SMALL FOOTPRINT – 120’

- Wider landscaped or grass median
- Small inside shoulder
- Full outside shoulder

SMALL FOOTPRINT – 130’

- Landscape or grass median
- Full inside shoulder – can accommodate transit or other vehicles during peak periods
- Full outside shoulder

ROW AND INTERCHANGE LOCATIONS

- Review map to discuss interchange locations

INTERCHANGES

- Typical single point urban interchange (SPUI) included in baseline estimate (except where mainline is depressed)
- Example shows mainline under the elevated crossroad
- Two options for depressing road: crossroad under mainline, or mainline under crossroad
- Can be “tight” footprint or wider to allow for green
- About $80M each

OPTION – SMALLER FOOTPRINT

- "Tight" single point urban interchange
- $8M additional at each location

Cost estimate includes 5000' of mainline

Additional M&O costs above and beyond typical interchange maintenance should be expected.

OPTION – BELOW GRADE

- Mainline below grade
- $21M additional at each location

Cost estimate includes 5000’ of mainline

Additional M&O costs above and beyond typical interchange maintenance should be expected.

OPTION – SMALL FOOTPRINT & BELOW GRADE

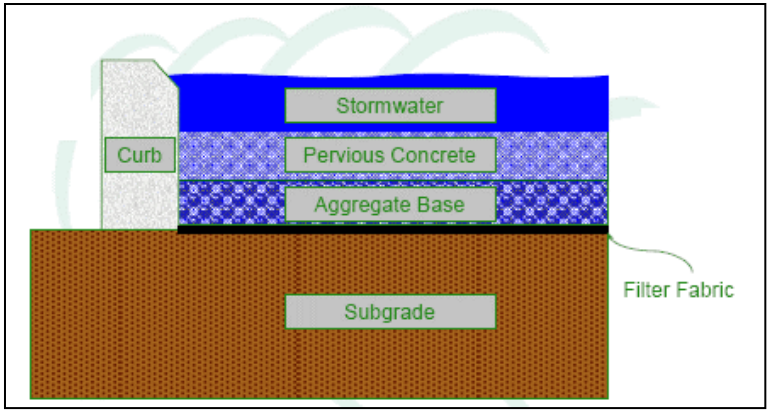
- Tight single point with mainline below grade
- $22M additional at each location

Cost estimate includes 5000’ of mainline

Additional M&O costs above and beyond typical interchange maintenance should be expected.

ENVIRONMENTAL DESIGN FEATURES

- Permeable pavement for shoulders
- Example shows demonstration site at the USEPA Edison Environmental Center – 9/2009

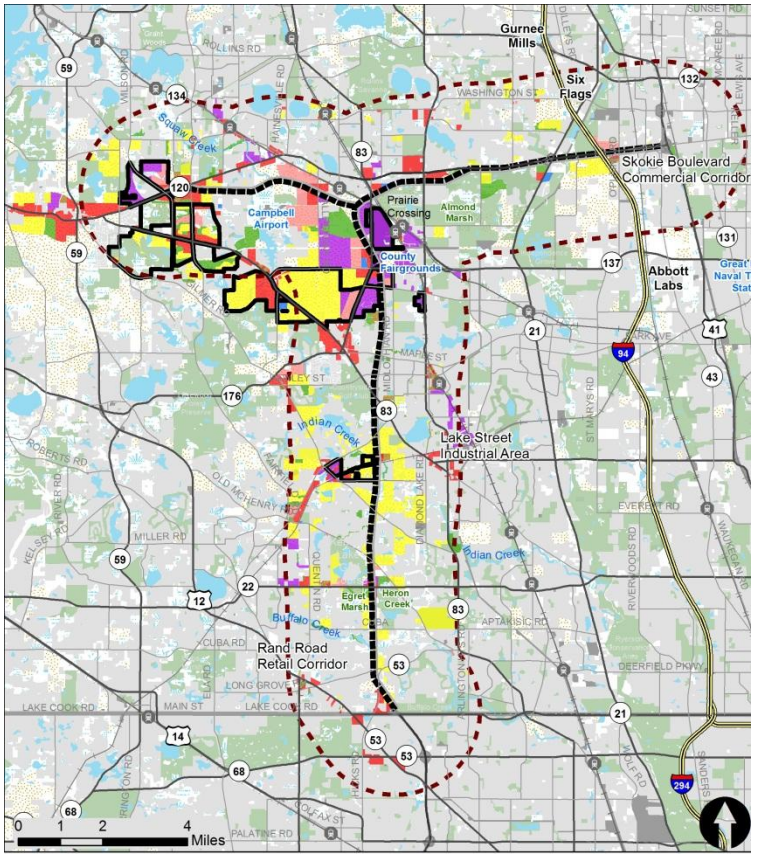


RECOMMENDATIONS - DESIGN

- Discuss working recommendations for design

PROPOSED FUTURE LAND USE ANALYSIS

- Compilation of Comprehensive and Strategic Plans
- Presents a “maximum” scenario in which all land within the corridor designated for future development is built out
- **Goal:** Understand the potential impact of all planned future land use on the design of the road and the goals of the council



Illinois Tollway

POTENTIAL FOR MAJOR LAND USE CHANGE

Land Use	Estimated New Development within 2 Miles of the 53/120 Corridor, per Comp Plans	Increase Compared to Existing Development		
		Countywide	I-94 Corridor	53/120 Corridor
Office	12.9 to 26.3 M SF	40% to 75%	60% to 120%	500% to 1000%
Industrial/Flex	18.7 to 21.8 M SF	~25%	65% to 80%	250% to 300%
Retail	31.8 to 39.7 M SF	100% to 120%	290% to 360%	1100% to 1300%
Housing Units	9,410 to 13,640 HU	~5%		20% to 25%
Population	29,100 to 41,200 People	~5%		20% to 30%

Planning is on par with or exceeds the levels of development seen in the I-94 Corridor.

Illinois Tollway

IMPACTS OF PROPOSED FUTURE LAND USES

- Individual community plans have a major impact when viewed as a combined whole
- The totality of planned land uses is out of scale with the preferred design of the road
- The volume of planned change proposes a considerable shift in community character
- Continuation of current land use patterns will exacerbate congestion and does not support transit
- **Suggested next step:** Cooperative Corridor Land Use, Transportation and Open Space Plan

Illinois Tollway

CORRIDOR PLAN OUTCOMES & PRODUCTS

- Platform for coordinated intergovernmental planning
- Cooperative plan document
- Preferred scenario or strategies
- Concept map / final report / strategic plan
- Modifications to existing local plans
- Funding program for local government implementation
- Monitoring program

PROPOSED STEPS

- Create a framework for the corridor planning process
- Develop guiding principles and select evaluation criteria
- Set up for scenario planning: evaluation tools, data, and development types
- Develop and evaluate current base conditions and a reference scenario
- Develop and evaluate alternative scenarios
- Select the preferred alternative scenario
- Implementation

Illinois Tollway

RECOMMENDATIONS – LAND USE

- Discuss working recommendations for land use

IL ROUTE 53/120

Blue Ribbon Advisory Council

THANK YOU

Illinois Tollway