CRISIS COALITION

Regional Projects Analysis

February 2, 2015

STUDY BACKGROUND

- Team of CRISIS Representatives, Parish Presidents and/or their Representatives, Legislators, and MPO Staff shortlisted 19 regional projects for analysis
- Consideration was given to all regional projects in the State Long Range Plan
- 1 project was subsequently eliminated
 - Project D (LA1 LA 30 Connector EB) LADOTD deemed unfeasible

DATA-DRIVEN METHODOLOGY

- 18 Major transportation projects analyzed
- Regional transportation model used for comparative analysis (2037)
- Key Metric Daily reduction in regional Vehicle Hours of Travel (VHT)
- "Best Available" Cost estimates done in conjunction with DOTD
- Ratios of costs and benefits derived for comparison

ABOUT THE TRANSPORTATION MODEL

- TransCAD Software, used throughout the U.S. to model urban transportation networks
- BR Regional Model built and maintained by our MPO (CRPC) under the direction of LADOTD
- Model calibrated and validated to ensure it matches existing traffic conditions
- Population, employment and other socio-economic data variables drive the model
- Growth rates developed and applied to grow these data variables to design year -2037

















<u>Project J – I12 Widening in LIV parish</u>

- 1 Additional Lane in Each Direction from Satsuma to Albany
- Approximate Length 12 Miles

LA-42

Livingston Florida Blvd

Beaver

190

- Estimated Construction Cost = \$180 Millions
- Regional Congestion Reduction = 132,444 Hours

Big Branch

42

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong)* Esri (Thailand). Magmulodia and OpenStreetMap contributors, and the GIS User Community

Cat Branch

Albany

190 Florida Blvd

42























Total Hours Saved Annually

MS River Crossings

Other Regional (Large)

Other Regional (Small)



Annual Hours Saved Per Million Dollars Spent





Other Regional (Large)



Other Regional (Small)

Annual Hours Saved Per Million Dollars Spent



TOLLING ANALYSIS

- 8 Projects identified for potential use of tolls to help finance
- Tolling has 2 affects on our data
 - Public dollars needed for the project is reduced
 - Some amount of traffic is diverted due to additional cost to the driver
- Tolls seldom pay for 100% of the project cost most feasible toll roads require 40% to 60% of the untolled cost

Untolled Vs Tolled Costs (Millions)



MS River Crossings

Other Regional (Large)

Untolled Vs Tolled - Annual Hours Saved



MS River Crossings

Other Regional (Large)



Untolled Vs Tolled - Annual Hours Saved Per Million Dollars Spent

MS River Crossings

Other Regional (Large)

GENERAL FINDINGS

- Multiple projects are needed for regional congestion relief
- Highest benefit projects involve crossing the Mississippi River (New bridge and increased use of old bridge)
- Best benefit/cost projects involve improving commute to Ascension Parish and one additional lane in both directions of I-10 through Baton Rouge
- Tolling can be a part of broader funding strategy with project tolling revenue projections ranging from 25% to 60% of project cost

REGIONAL SOLUTION

- I-10 Widening Through Baton Rouge
- Cost Range 350 M
- Ascension Commuter Route (I-10 or Airline)
- Cost Range: 125 M 180 M
- New River Crossing South of I-10 Bridge (With LA 30 Widening)
- Untolled Cost Range: 1,100 M 1,600 M
- Tolled Cost Range: 830 M 1,330 M
- Increase Use of US 190 Bridge (BUMP or North Bypass)
- Untolled Cost Range: 775 M 780 M
- Tolled Cost Range: 300 M 305 M