Presentation

• Connecting Arkansas Program (CAP)
• I-30 Project
  • Background
  • Project Needs
  • Timeline
• PEL Process
  • Overview
  • Purpose and Need
  • Screening process
  • Recommended Alternative
• Next Steps
I-30 Planning & Environmental Linkages Study

Connecting Arkansas Program
AHTD CAP Overview

Size of State Highway Systems
AHTD CAP Overview

Highway Revenue per Mile

Arkansas Challenges

- 12th largest system in the country
- 44th in highway revenue per mile

Missouri Challenges

- 7th largest system in the country
- 40th in highway revenue per mile
AHTD CAP Overview

• Blue Ribbon Committee
• Move Arkansas Forward Group
• November 2012: 10-year, ½ cent sales tax approved by constitutional amendment (57% support)
• 30% of revenue to local governments
• AHTD - $1.8 billion program
• 35 projects along 19 corridors
Program Benefits

• Improves transportation connections to all four corners of Arkansas

• Increases capacity by widening highways to four lanes

• Improves traveler safety

• Eases congestion

• Supports job growth and improves Arkansas’ economy

• Accelerates highway improvement projects.
Central Arkansas

AHTD CAP Overview

Projects:
- CA0501 Turner Road - County Road 5 (Widening) (Hwy. 64) (S)
- CA0609 Hwy. 365 - I-430 (Widening) (I-40) (S)
- CA0605 Vandenberg Blvd. - Hwy. 5 (Widening) (Hwy. 67) (S)
- CA0604 Main Street - Vandenberg Blvd. (Widening) (Hwy. 67) (S)
- CA0602 I-530 - Hwy. 67 (Widening & Reconst.) (I-30 / I-40) (F)
- CA0608 Baptist Hospital - University Ave. (Widening) (I-630) (S)
- CA0607 Hwy. 227 - Ouachita River (Widening) (Hwy. 270) (S)
- CA0601 Hwy. 70 - Sevier Street (Widening) (I-30) (S)
I-30 Planning & Environmental Linkages Study

I-30 Project
I-30 Project Background

- Approximately 6.7 miles in length and extends through portions of Little Rock and North Little Rock
  - 80% Local O-Ds

- System to System Interchanges
  - I-30/I-530/I-440
  - I-30/I-630
  - I-30/I-40
  - I-40/US 67

- Major components
  - River bridge replacement
  - Interstate widening
  - Interchange improvements
  - Local Connections
I-30 Project Needs

- Traffic Congestion
- Structural and Functional Roadway and Bridge Deficiencies
- Roadway and Navigational Safety Issues
I-30 Project Needs

I-30 Project Needs

AM
West/South Bound

US 67 at McCain
I-40 at Hwy 67
I-30 at I-40 Merge
I-30 at River Bridge
I-30 at I-630
I-30 at South Interchange
I-30 at 65th Street

PM
East/North Bound

US 67 at McCain
I-40 at Hwy 67
I-30 at I-40 Merge
I-30 at River Bridge
I-30 at I-630
I-30 at South Interchange
I-30 at 65th Street

Approx. 1.5 hours of speeds <40 mph
Speeds drop as low as 10-20 mph

Existing (2013)  Peak Hour Congestion
Future No-Action (2040)  Peak Hour Congestion
Traffic Congestion

ADT = Average Daily Traffic
I-30 Project Needs

Safety

• For the safety analysis, the latest three years of crash data were reviewed (2010-2012)
• Crash rates from I-630 to I-40 were over 3 times the average in Arkansas
• More than 1 crash every day in the corridor over the 3 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Length (miles)</th>
<th>Weighted ADT</th>
<th># Crashes</th>
<th>Crash Rate</th>
<th>AR Avg Crash Rate</th>
<th>Type</th>
<th>Crash Rate Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2.35</td>
<td>115,740</td>
<td>471</td>
<td>4.74</td>
<td>1.53</td>
<td>Six-Lane Access Control</td>
<td>3.10</td>
</tr>
<tr>
<td>2011</td>
<td>2.35</td>
<td>113,336</td>
<td>371</td>
<td>3.81</td>
<td>1.22</td>
<td>Six-Lane Access Control</td>
<td>3.12</td>
</tr>
<tr>
<td>2012</td>
<td>2.35</td>
<td>109,817</td>
<td>406</td>
<td>4.31</td>
<td>0.95</td>
<td>Six-Lane Access Control</td>
<td>4.54</td>
</tr>
</tbody>
</table>
Navigational Safety Issues

I-30 Project Needs

- Clinton Bridge
- I-30 Bridge
- Junction Bridge
- Main Street Bridge

- Pier Obstruction in Navigation Channel
- 170-Foot Reduced Channel
- 300-Foot Navigation Channel
I-30 Project Needs

Structural Bridge Deficiencies

- I-30 Bridge downgraded to structurally deficient (October 2013 inspection)

- The fact that a bridge is classified as “structurally deficient” does not imply that it is unsafe.

- A structurally deficient bridge, when left open to traffic, typically requires [additional] maintenance and repair to remain in service and eventual rehabilitation or replacement to address deficiencies.

Source: Federal Highway Administration, Status of the Nation’s Highways, Bridges and Transit: Conditions and Performance Report to Congress, 2008
I-30 Project Needs

Functional Bridge Deficiencies

- Shoulders on bridge below current standards for new construction.

- Reduced bridge width/lack of adequate shoulders may lead to:
  - Driver discomfort
  - Decreased speed
  - Increased congestion
  - No storage for disabled vehicles
  - No easy passage of emergency response
I-30 Project Needs

Structural Roadway Deficiencies

- Cracking, patch deterioration, joint separation & raveling

Linear Cracking on I-40

Functional Roadway Deficiencies

- Horizontal Curves (8 locations)
- Inadequate Shoulders (9 segments)
- Curb and gutter immediately adjacent to travel lanes (2 segments)
- Ramps lacking sufficient merge distance (15 locations)
- Short Weaving Distance (12 locations)

Inadequate Shoulders, Curb, and Gutter Adjacent to I-30

Longitudinal and Traverse Cracking on I-30
# I-30 Project Timeline

**Project**

<table>
<thead>
<tr>
<th>CA0602</th>
<th>Interstate 30/40</th>
<th>Interstate 530 – Highway 67</th>
</tr>
</thead>
</table>

## Timeline

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E&amp; S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D-B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D&amp;C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PEL
- Planning and Environmental Linkages study

### Environmental and Schematic
- NEPA clearance
- 20% - 30% schematics

### Design-Build Procurement
- D-B guidelines and procedures update
- RFQ development, response, evaluation, and short list
- RFP development, response, evaluation, and selection

### Design and Construction
- Final design
- Construction
PEL Overview

- SAFETEA-LU (2005)
  - Linking the Transportation Planning and NEPA Process

- FHWA launched EDC in 2009 to speed up delivery of transportation projects

- PEL is one of ten initiatives in the toolkit

- Benefits
  - Relationship-building
  - Improved project delivery timeframes
  - Early planning-level decisions that can be carried into NEPA
  - On-the-ground outcome benefits
  - **Saves time, money and effort**
PEL Process

Planning and Environmental Linkages (PEL)

Shortening Project Delivery Toolkit

Federal Highway Administration
Planning and Environmental Linkages Questionnaire

This questionnaire is intended to act as a summary of the Planning process and ease the transition from planning to a National Environmental Policy Act (NEPA) process. Often, there is no overlap in personnel between the planning and NEPA phases of a project, so consequently much (or all) of the history of decisions made in the planning phase is lost. Different planning processes take projects through analysis at different levels of detail. NEPA project teams may not be aware of relevant planning information and may re-do work that has already been done.

This questionnaire is consistent with the 23 CFR 450 (Planning regulations) and other FHWA policy on Planning and Environmental Linkage (PEL) process.

The Planning and Environmental Linkages study (PEL Study) is used in this questionnaire as a generic term to mean any type of planning study conducted at the corridor or subarea level which is more focused than studies at the regional or system planning levels. Many states may use other terminology to define studies of this type and those are considered to have the same meaning as a PEL study.

At the inception of the PEL study, the study team should decide how the work may later be incorporated into subsequent NEPA efforts. A key consideration is whether the PEL study will meet standards established by NEPA regulations and guidance. One example is the use of terminology consistent with NEPA vocabulary (e.g., purpose and need, alternatives, affected environment, environmental consequences).

Instructions: These questions should be used as a guide throughout the planning process, not just answered near completion of the process. When a PEL study is started, this questionnaire will be given to the project team. Some of the basic questions to consider are: "What did you do?" and "What didn't you do?" and "Why?". When the team submits a PEL study to FHWA, for review, the completed questionnaire will be submitted with the study. FHWA will use this questionnaire to assist it in determining if the study meets the requirements of 23 CFR §§ 450.212 or 450.318. The questionnaire should be included in the planning document as an executive summary, chapter, or appendix.

1. Background:
   1. Who is the sponsor of the PEL study? (State DOT, Local Agency, Other)
   2. What is the name of the PEL study document and other identifying project information (e.g., sub-metric or non-metric, language plan, transportation improvement program year)?
   3. Who was involved in the study, e.g. name and title of agency representatives, consultants, etc.?
   4. Provide a description of the existing transportation facility within the corridor, including project limits, modes, functional classification, number of lanes, shoulder width, access control and type of surrounding environment (urban vs. rural, residential vs. commercial, etc.).
   5. Provide a summary of the planning activities (PEL study including the study) the studies were completed.
   6. Are there recent, current, or near future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?

2. Methodology used:
   1. What was the scope of the PEL study and the reason for completing it?
   2. Did you use NEPA-like language? Why or why not?
   3. What were the actual terms used and how did you define them? (Provide examples or list)
   4. How do you see these terms being used in NEPA documents?
   5. What were the key steps and coordination points in the PEL decision-making process? Who were the decision-makers and who else participated in these key steps? For example, for the corridor review, did the decision was made in state DOT and the local agency, with input from FHWA, the CACT, and ESFRS and other resource/regulatory agencies?
   6. How should the PEL information be presented in NEPA?

3. Agency coordination:
   1. Provide a synopsis of coordination with federal, tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how they were coordinated with them.
   2. What transportation agencies (e.g., for adjacent jurisdiction) did you coordinate with or were involved during the PEL study?
   3. What steps were needed to be taken with each agency during NEPA scoping?

4. Public coordination:
   1. Provide a synopsis of your coordination efforts with stakeholders.
PEL Process

Planning and Environmental Linkages (PEL)

1. Background
2. Methodology
3. Agency coordination
4. Public coordination
5. Purpose and Need for the PEL study
6. Range of alternatives
7. Planning assumptions and analytical methods
8. Environmental resources (wetlands, cultural, etc.) reviewed
9. List environmental resources you are aware of that were not reviewed in the PEL
10. Were cumulative impacts considered in the PEL study?
11. Describe any mitigation strategies discussed at the planning level
12. What needs to be done during NEPA to make information from the PEL study available?
13. Are there any other issues a future project team should be aware of?
### PURPOSE & NEED

<table>
<thead>
<tr>
<th>Needs (Problems)</th>
<th>Purpose (Solutions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Congestion</td>
<td>To improve mobility on I-30 and I-40 by providing comprehensive solutions that improve travel speed and travel time to downtown North Little Rock and Little Rock and accommodate the expected increase in traffic demand. I-30 provides essential access to other major statewide transportation corridors, serves local and regional travelers and connects residential, commercial and employment centers.</td>
</tr>
<tr>
<td>Roadway Safety</td>
<td>To improve travel safety within and across the I-30 corridor by eliminating and / or improving inadequate design features.</td>
</tr>
<tr>
<td>Structural and Functional Roadway Deficiencies</td>
<td>To improve I-30 roadway conditions and functional ratings.</td>
</tr>
<tr>
<td>Navigational Safety</td>
<td>To improve navigational safety on the Arkansas River Bridge by eliminating and / or improving inadequate design features.</td>
</tr>
<tr>
<td>Structural and Functional Bridge Deficiencies</td>
<td>To improve I-30 Arkansas River Bridge conditions and functional ratings.</td>
</tr>
</tbody>
</table>

Purpose & Need listed in no particular order. Purpose & Need developed in coordination with Project Partners (Cities of Little Rock and North Little Rock, Pulaski County, and Metroplan), the Technical Work Group, and the public.
## STUDY GOALS

<table>
<thead>
<tr>
<th>Improve opportunity for east-west connectivity</th>
<th>Enhance mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve local vehicle access to downtown Little Rock and North Little Rock</td>
<td>Connect bicycle/pedestrian friendly facilities</td>
</tr>
<tr>
<td>Accommodate existing transit and future transit</td>
<td>Minimize roadway disruptions during construction</td>
</tr>
<tr>
<td>Minimize river navigation disruptions during/after construction</td>
<td>Follow through on commitment to voters to improve I-30 as part of the Connecting Arkansas Program</td>
</tr>
<tr>
<td>Optimize opportunities for economic development</td>
<td>Avoid and/or minimize impacts to the human and natural environment, including historic and archaeological resources</td>
</tr>
<tr>
<td>Sustain public and agency input and support for the I-30 corridor improvements</td>
<td>Improve system reliability</td>
</tr>
<tr>
<td>Maximize I-30 cost efficiency</td>
<td>Improve safety</td>
</tr>
</tbody>
</table>

*Study Goals listed in no particular order. Study Goals developed in coordination with Project Partners (Cities of Little Rock and North Little Rock, Pulaski County, and Metroplan), the Technical Work Group, and the public.*

CA0602
Interstate 530 – Highway 67
**Public Meetings**

Four public meetings were held during the PEL to discuss and present information for the I-30 PEL study. They were open house meetings with no formal presentations:

- **August 2014**: PEL introduction, study area, alternative screening process, purpose and need, and study area constraints
- **November 2014**: Universe of Alternatives and Preliminary Alternatives
- **January 2015**: Level 2 screening and Reasonable Alternatives
- **April 2015**: Level 3 screening and PEL Recommendation(s)

**Technical Work Group (TWG)**

35+ agencies (local, state, federal) provided technical input and expertise. TWGs were held prior to the corresponding public meeting.
Project Partners
- Regular meetings held with the city mayors, county judge, FHWA, Metroplan, and AHTD.

Stakeholder Meetings
- Coordination meetings held with local groups with an interest or located within the study area.

Community Meetings
- Four community meetings held at minority churches to provide information in a more one-on-one atmosphere.

Stakeholder Advisory Group (SAG)
- Pulaski County, Little Rock, and North Little Rock each appointed four citizens to provide feedback on options being studied. Monthly meetings held.

Visioning Workshops
- Pulaski County, Little Rock, and North Little Rock each appointed citizens to the 30-member group. One workshop was held during the PEL.
Outreach

CAP and 30 Crossing Website
- ConnectingArkansasProgram.com
- 30Crossing.com

Phone and Email
- Contact us at (501) 255-1519
- or email at Info@ConnectingArkansasProgram.com
I-30 PEL Screening

MAP-21 and Imagine Central Arkansas MTP

Alternatives Development / Evaluation Screening

Study Goals

Study Area Needs

Level 1 - Universe
Level 2 - Preliminary
Level 3 - Recommended

Fatal Flaw Screening
Refinement Process
Detailed Evaluation

Recommended Alternative

Stakeholder / Public Input

MTP Update / PEL Report
PEL Universe of Alternatives

- Highway Build (14)
- I-30 Arkansas River Bridge (3)
- Other Modes (10)
- Congestion Management (10)
- Non-Recurring Congestion (5)
Level 1 screening eliminated 5 alternatives

- Dedicated Truck Lanes/Ramps
- Elevated Lanes (Highway)
- Elevated Lanes (Bridge)
- Heavy Rail
- High-Speed Rail

38 alternatives moved on to Level 2 screening
Level 2 screening eliminated 8 alternatives

- Bypass Route
- I-30 River Bridge Rehabilitation
- Commuter Rail
- Light Rail
- Managed Lanes
- Reversible Lanes
- Hard Shoulder Running
- Land Use Policy

30 alternatives moved on to further screening
Scenarios

**Scenario 1**
6 Lanes
No Additional Lanes (With Complementary Alternatives)
No Main Lane Widening

**Scenario 2**
8 Lanes
A. Main Lane Widening (With Complementary Alternatives)
   3 Main Lanes + 1 Main Lane Widening (each direction)
B. Collector/Distributor (C/D) Roads (With Complementary Alternatives)
   3 Main Lanes + 1 C/D Lane Widening (each direction)

**Scenario 3**
10 Lanes
A. Main Lane Widening (With Complementary Alternatives)
   3 Main Lanes + 2 Main Lane Widening (each direction)
B. Collector/Distributor (C/D) Roads (With Complementary Alternatives)
   3 Main Lanes + 2 C/D Lane Widening (each direction)

**Scenario 4**
12 Lanes
Main Lane Widening (With Complementary Alternatives)
3 Main Lanes + 3 Main Lane Widening (each direction)
I-30 PEL

No Action

**PRIMARY ALTERNATIVES**

**Scenario 2**

8 Lanes

- Collector/Distributor (C/D) Roads (With Complementary Alternatives)
  - 3 Main Lanes + 1 C/D Lane Widening (each direction)
  - Interchange Improvements
  - I-30 Arkansas River Bridge Replacement

**Scenario 3**

10 Lanes

- Main Lane Widening (With Complementary Alternatives)
  - 3 Main Lanes + 2 Main Lane Widening (each direction)
  - Interchange Improvements
  - I-30 Arkansas River Bridge Replacement

- Collector/Distributor (C/D) Roads (With Complementary Alternatives)
  - 3 Main Lanes + 2 C/D Lane Widening (each direction)
  - Interchange Improvements
  - I-30 Arkansas River Bridge Replacement

*All complementary alternatives were evaluated as a group within each scenario, with the exception of Main Lane Widening and C/D Roads. Main lane and C/D Roads were evaluated as either/or scenarios due to their substantial differences in ROW requirements and ability to affect mobility.*

**COMPLEMENTARY ALTERNATIVES**

- Highway Build
  - Main Lane Pavement Rehabilitation
  - Auxiliary Lanes
  - Frontage Road Improvements
  - Intersection Improvements
  - Ramp Consolidation / Elimination
  - Roadway Shoulder Improvements
  - Horizontal / Vertical Curve Improvements
  - Bottleneck Removal

- Congestion Management
  - Information Systems / Advanced Traveler Information
  - Ramp Metering
  - Travel Demand Management (TDM)
  - Transportation System Management (TSM)
  - Wayfinding / Signage
  - Arterial Improvements

- Other Modes
  - Arterial Bus Transit
  - I-30 Express Bus Transit
  - Bus on Shoulder
  - Arterial Bus Lanes
  - Arterial Bus Rapid Transit
  - Bicycle / Pedestrian

- Non-Recurring Congestion Management
  - Crash Investigation Sites
  - Roadsides / Motorist Assist Enhancements
  - Improvements to Detour Routes
  - Variable Speed Limits (Speed Harmonization)
  - Queue Warning

**Reasonable Alternatives**
Level 3 screening tested the three Reasonable Alternatives and No Action against project goals and objectives.
The study team proposed that the **10-Lane with Downtown C/D** be advanced to NEPA as the PEL Recommendation.

Corridor receives traffic from six major interstates/highways:

- I-30, I-530, I-440
- I-630, I-40, Hwy. 67

The PEL study is available to view or download at 30Crossing.com
Mr. Scott Bennett  
Director  
Arkansas State Highway and Transportation Department  
10324 Interstate 30  
Little Rock, AR 72203-2261

Dear Mr. Bennett:

This letter acknowledges the completion of the Planning and Environmental Linkages (PEL) study undertaken by the Arkansas State Highway and Transportation Department (AHTD) in relation to proposed highway improvements to Interstate 30 between Interstate 530 and U.S. Highway 67 in Pulaski County. The project is included for study and development in AHTD’s Connecting Arkansas Program.

We appreciate and commend the efforts the PEL teams have undertaken to conduct this study in a manner consistent with current Federal Highway Administration (FHWA) PEL guidance and authority. The benefits of this streamlining effort will undoubtedly be realized in terms of time and cost savings during the follow-on National Environmental Policy Act (NEPA) study that will be conducted in the coming months.

The completed PEL Questionnaire submitted to FHWA in May 2015 and revised in June 2015, along with other PEL products provides thorough documentation of the activities conducted during the PEL study, as well as a solid foundation for transition into the NEPA study. Some of the strengths exhibited throughout the PEL study include a meaningful and attentive engagement of the public, local public agencies, and resource agencies; development of a sound purpose and need statement and project goals; and the thorough evaluation of a reasonable range of alternatives. This effort will continue as the NEPA study for the project advances, providing a more detailed analysis of the impacts of the alternative recommended by the PEL study.

If you have any questions or would like to discuss, please contact me at 501-324-5625.

Sincerely,

[Signature]

Peter A. Jilek  
Acting Division Administrator
## I-30 Schedule Overview

**Project**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CA0602</td>
<td>Interstate 30/40 Interstate 530 – Highway 67</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PEL
- Planning and Environmental Linkages study

### Environmental & Schematic
- NEPA clearance
- 20% - 30% schematics

### Design-Build Procurement
- D-B guidelines and procedures update
- RFQ development, response, evaluation, and short list
- RFP development, response, evaluation, and selection

### Design and Construction
- Final design
- Construction
I-30 Planning & Environmental Linkages Study

Questions?