

\$1.5 BILLION

\$275 MILLION

62 MONTHS

Design-Build and NEPA

July 17, 2017



Presentation Overview

- A little bit about...
 - MoDOT
 - Design-Build at MoDOT
- How do we do NEPA on Design-Build Projects?
 - First!
 - Flexibly!



MoDOT by the Numbers

7th

Largest
System

(33,873 miles)

47th

Revenue
per mile
(17¢ per gal)

\$808m

Construction
Budget (2016)

MoDOT's Design-Build Projects





MoDOT Design-Build Values

- Be Goal-Oriented
- Be Flexible
- Be Confidential
- Be an Empowered Team

Value Statements

Live MoDOT Values -

- Be Safe,
- Be Accountable,
- Be Respectful,
- Be Inclusive,
- Be Bold,
- Be Better, and
- Be One Team

So we can be a great organization.



Design-Build at MoDOT

- Most states:
 - Base design to 60%-90% plans
 - Alternate Technical Concepts (ATC)
- MoDOT:
 - Base design to 30% plans
 - High-level, performance criteria define project
 - NEPA commitments must still be considered

Value of Flexibility



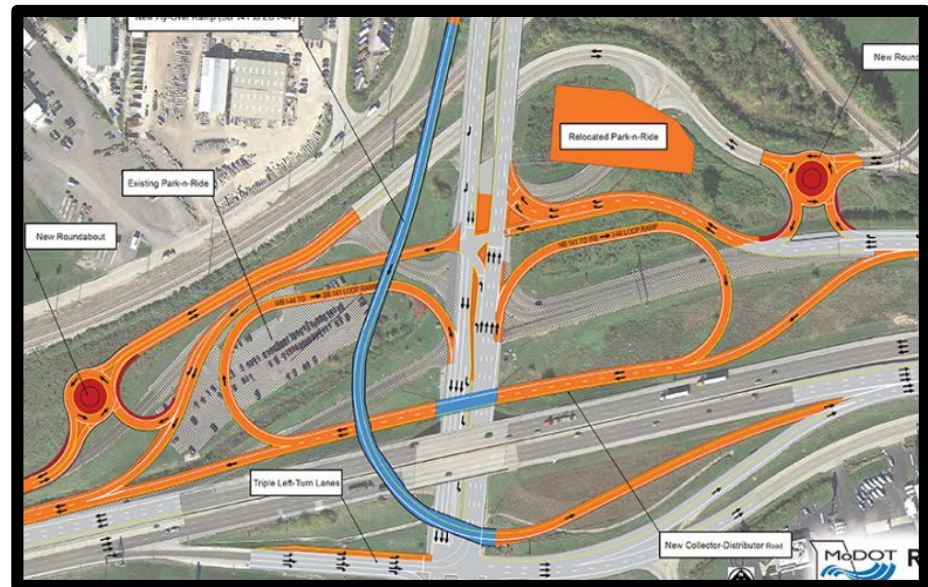
NEPA FIRST!

Why do NEPA first?

- Reduces uncertainty
- Minimizes impacts
- Identifies major risks
- Creates criteria for Request for Proposals (RFP)

Can we clear the risk?

- Section 106 Survey
 - No cultural resource concerns
 - State Historic Preservation Office Concurrence
 - Contractor to acquire clearance for outside cleared footprint



Can we mitigate the risk?

- Migratory Birds
 - No work on bridge: April 1 to July 31
 - Remove nests by mid-March



Allocate Remaining Risks

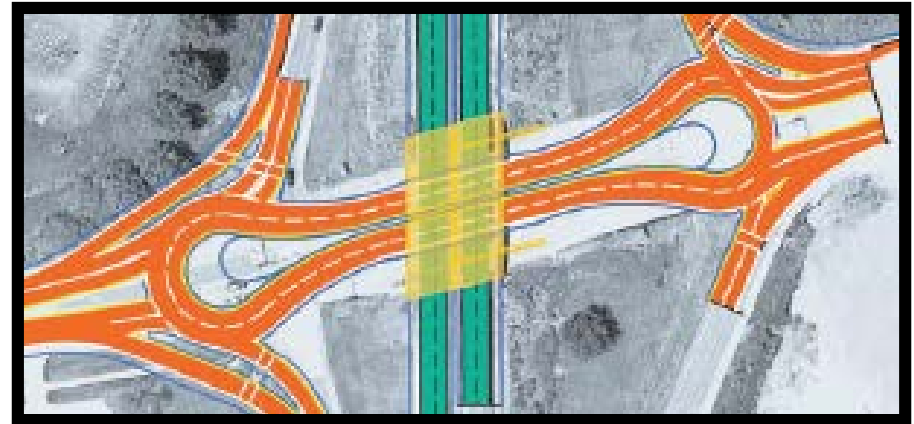
USACE Section 401 & 404

MoDOT acquires



MDNR Section 402

Contractor acquires



NEPA FLEXIBLY!

Flexibility and NEPA

Approved Environmental Document



Flexible Request for Proposals



Innovative Proposal



Re-evaluate Environmental Document

NEPA Re-Evaluations

- Impacts
- Uncertainty
- Burden of Proof
- FHWA

Route 364/Page Avenue Extension



Route 364/Page Avenue Extension

1992



1990 Population of
St. Charles County:

212,907



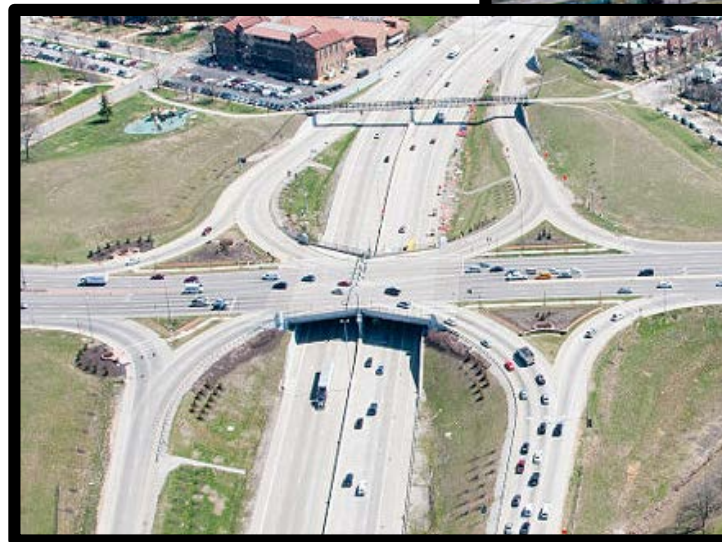
Route 364/Page Avenue Extension

2013



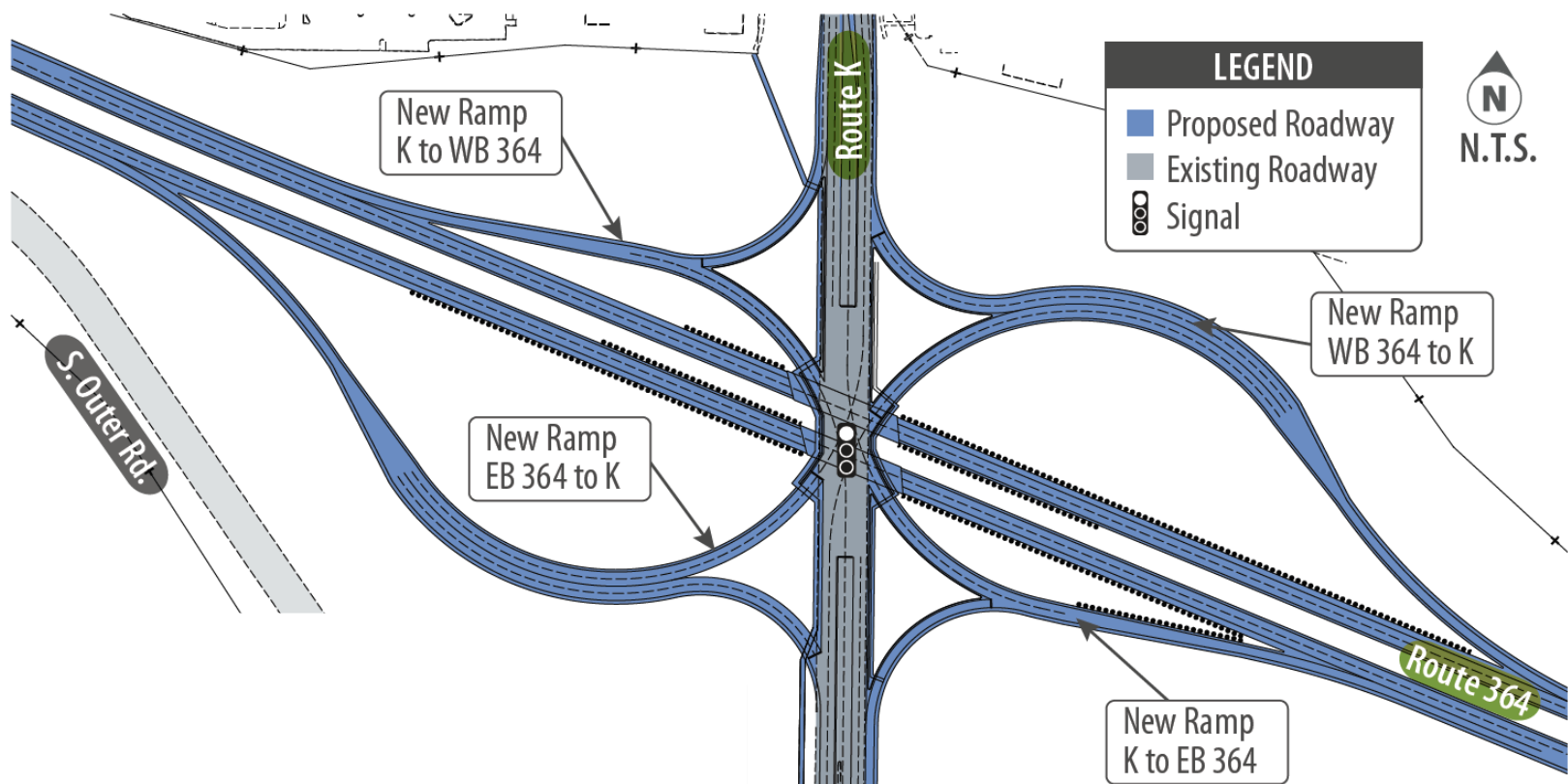
2010 Population of
St. Charles County:

360,485

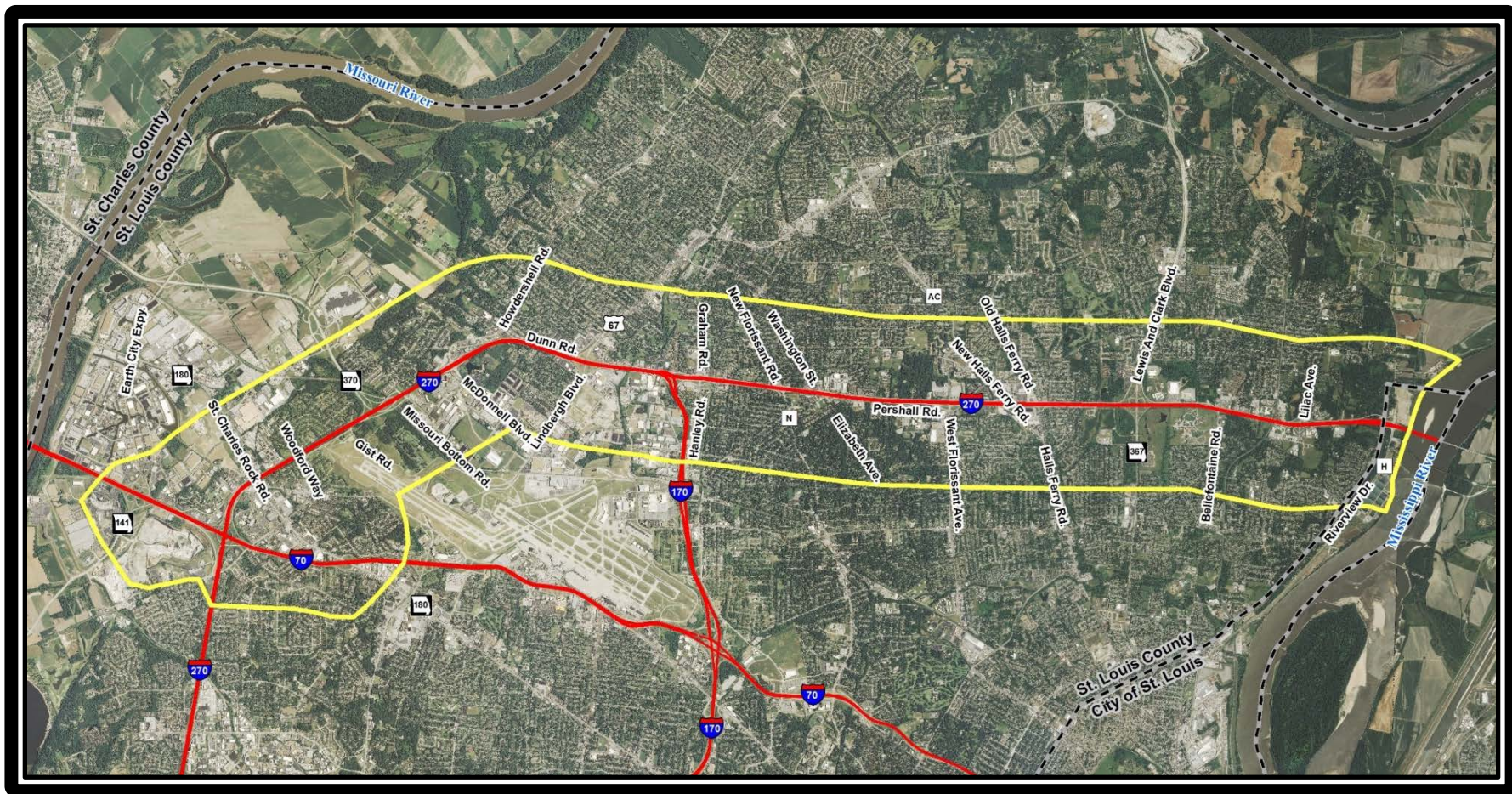


Route 364/Page Avenue Extension

1992 Environmental Impact Statement: **PARTIAL CLOVERLEAF INTERCHANGE**



I-270 North Corridor Study



Performance Measures

- Quantifiable indicators
- Examples:
 - Mobility
 - Accessibility
 - Public Safety
 - Infrastructure

Crafting Flexible NEPA Documents

Alternatives Development

A light blue downward-pointing arrow connects the "Alternatives Development" box to the "Impact Analysis" box.

Impact Analysis


A light blue downward-pointing arrow connects the "Impact Analysis" box to the "Alternative Selection" box.

Alternative Selection


A light blue downward-pointing arrow connects the "Alternative Selection" box to the "Final Documentation" box.

Final Documentation


Crafting Flexible NEPA Documents: Alternatives Development

- 
- A large green arrow graphic pointing downwards, composed of two chevron-like shapes, is positioned to the left of the list items.
- Flexible narrative and disclaimers
 - Performance measures

Crafting Flexible NEPA Documents: Impact Analysis

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- A large green arrow graphic pointing downwards, composed of two chevron shapes, is positioned to the left of the list items.
- Equal analysis of ALL Reasonable Alternatives
 - Detailed documentation of all analyses

Crafting Flexible NEPA Documents: Alternative Selection

- 
- A large green graphic consisting of two downward-pointing chevrons, one above the other, positioned to the left of the text boxes.
- Preferred Alternative is not final solution
 - Preferred Alternative is ONE feasible method



Crafting Flexible NEPA Documents: Final Documentation



High-Level Description



Footprint Focused



Performance Measures



Appendices



Flexible language!

Challenges

- Conceptual AJR and Signing Plan
- Modeling study area
- Engineering effort required to prove feasibility

Lessons Learned

- Challenge conventional thinking
- Coordinate with FHWA
- Take the time
- Select performance measures carefully
- Form partnerships!

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