

2009 APPLICATION FORM

(required for each entry)

Complete this section for (check one): **Small Project** **Large Project**
 Post-Design Solution **Off System Project**

Job No. J7P0869 Route 60 County Barry *

Description (attach separate sheet if necessary) See attachment for project location and description.

* Lawrence, Christian, and Green

Complete this section for: **Process Improvement**

Process or Product _____

Description (attach separate sheet if necessary) _____

Project Leader Jerry Davis

Key Team Members (include key personnel irrespective of employer-nine individuals maximum)

Joe Aldridge

Linda Bokel

Mike Dunseith

Craig Switzer

Daryl Weinkein

Charles Pursley

Dawndy Baum

August Schaller

VE Team (see attached)

Project Budget:

Initial Cost / Estimate \$ \$23,581,000 Final Cost / Award \$ \$19,171,000

What would make this entry stand out from the rest of the entries when considering MoDOT's practical design philosophy? (In layman's terms - 200 words or fewer-attach separate sheet if necessary) _____

The use of narrower lanes and shoulders to build passing lanes as an interim solution is unique in this project because of the existing conditions of previously acquired right of way and the possibility that a four lane facility may become a reality in the future.

Send entries to: MoDOT Design Division, ATTN: Joe Jones
1320 Creek Trail Dr., Jefferson City, Missouri 65109

ALL ENTRIES MUST BE RECEIVED NO LATER THAN CLOSE OF BUSINESS ON DECEMBER 1, 2008



Project Summary and Historical Background

Historical Background:

Location of Project: From east of Farm Road 1100 near Monett to the city limits of Republic.

Length: 26.4 miles

This section of Route 60 consists of a two-lane roadway that passes through several communities. Route 60 bypassed Monett and Aurora in the early 1960's and in a majority of Lawrence County the right of way was acquired to build a four-lane highway with a full 60-foot depressed median. Route 60 still passes through Marionville and Billings.

Route 60 from Monett to Springfield has long been targeted for a continuous four-lane highway. Studies for this improvement have been started and stopped over the years, but other projects have always come out ahead in the competition for limited funding.

Purpose and Need:

"Benefits and Design / Location Criteria for Passing Lanes" (March 2004) identifies Rte. 60 between Monett and Republic as meeting the screening criteria for NHS roadway sections that appear generally suited to benefit from the addition of passing lanes.

The scope of this project was to develop an interim solution for capacity and safety concerns along the Rte. 60 corridor from Monett to Republic. While constructing a divided four-lane facility would be preferred, as an interim solution, this project will involve constructing alternating passing lanes and two-way left turn lanes at various locations throughout the project limits.

Scope Comparison:

The concept of passing lane would normally require 3 – 12 foot lanes, a 4-foot median, and 6-foot shoulders or more. The proposed typical section using practical design is now 2 – 11 foot lanes, 1- 12 lane, 2-foot flush median, and 4-foot shoulders. The proposed typical utilizes only existing roadbed. No widening of the roadbed is necessary. This saves earthwork, culverts extensions, and wholesale rebuilding of entrances. The only earthwork needed outside of the existing roadbed is for mailbox turnouts and turning lane improvements at select side roads.

New Techniques, method and non-traditional design:

The techniques used to find cost savings on this project are not ground breaking but are unique in that a portion of the Route already has land acquired for a four-lane highway. Knowing this corridor may some day be expanded to a four-lane highway made it even more important that we use practical design to fit this interim solution into the footprint of the future. The original design before the value engineering team evaluated the project also used practical design features including 11-foot lanes and 2-foot flush median.

Cost Savings

A Value Engineering Team took a look at this project in August of 2008. Here are the results that were accepted by District 7 and 8.

BASELINE :

J7P0824B (D7 resurfacing) = \$3,045,000

J7P0869 (D7) = \$10,966,000

J7P0869 (D8) = \$9,570,000

TOTAL = \$23,581,000

Cost of Proposed Typical (no widening of roadbed)

J7P0824B (D7 resurfacing) = \$3,045,000

J7P0869 (D7) = \$8,189,000

J7P0869 (D8) = \$7,937,000

TOTAL = \$19,171,000

The cost savings that resulted was \$4,410,000, a decrease of 18.7%.

Major savings resulted from eliminating earthwork, side road and driveway construction, side road and driveway culverts, crossroad culvert extensions, and erosion control.

Values Engineering Team

Tom Allen (CO-Design) Team Leader

Craig Switzer (D7-Design) Geometrics/Estimating

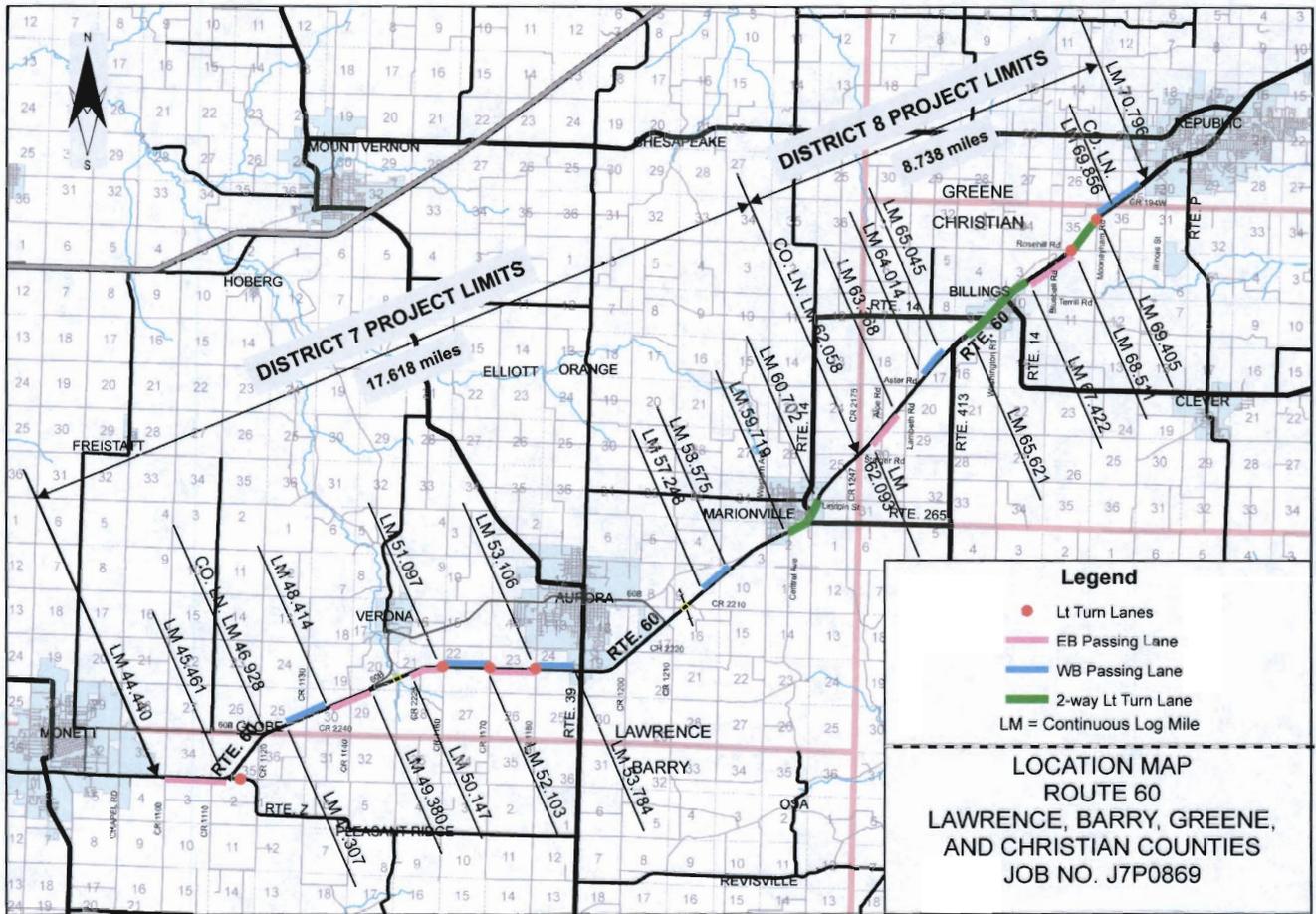
Danika Stovall-Taylor (CO-Design) Geometrics/Estimating

Derek Fichtel (D10-Traffic) Traffic Eng./Safety

Adam Humphrey (D8-Traffic) Traffic Eng/ Access Mngmt

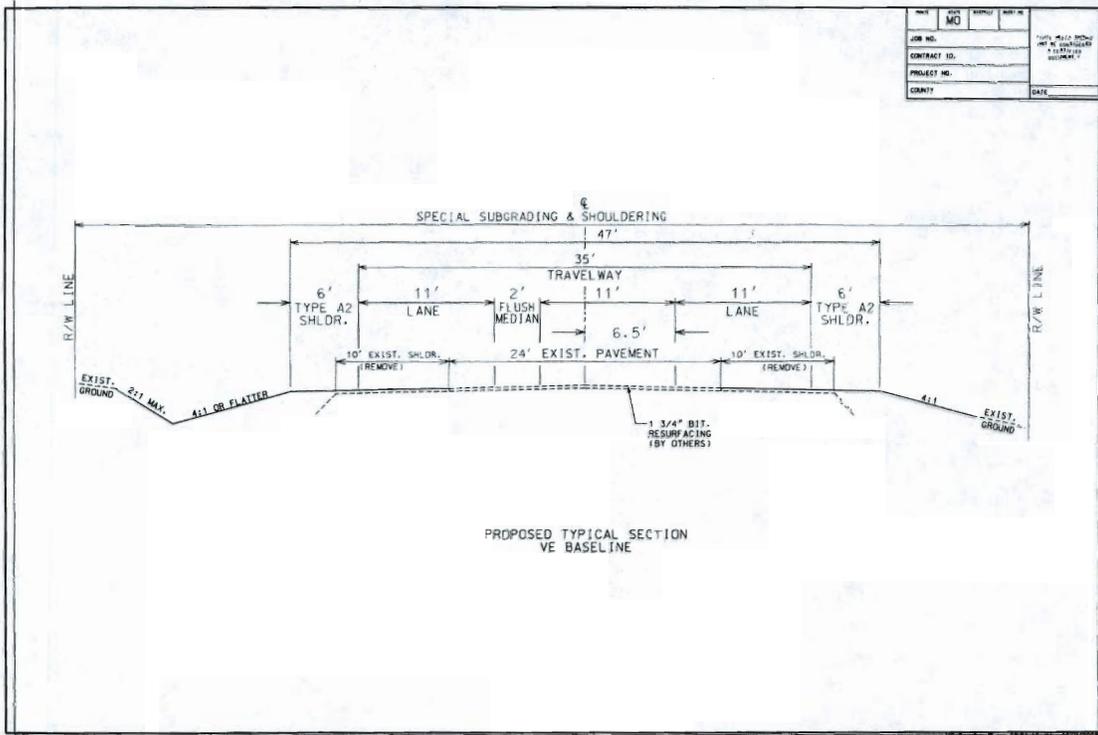
John Emmert (D7-CM) Traffic Management/Constructability

Tim Redmond (CO-Design) Design Liaison Engineer

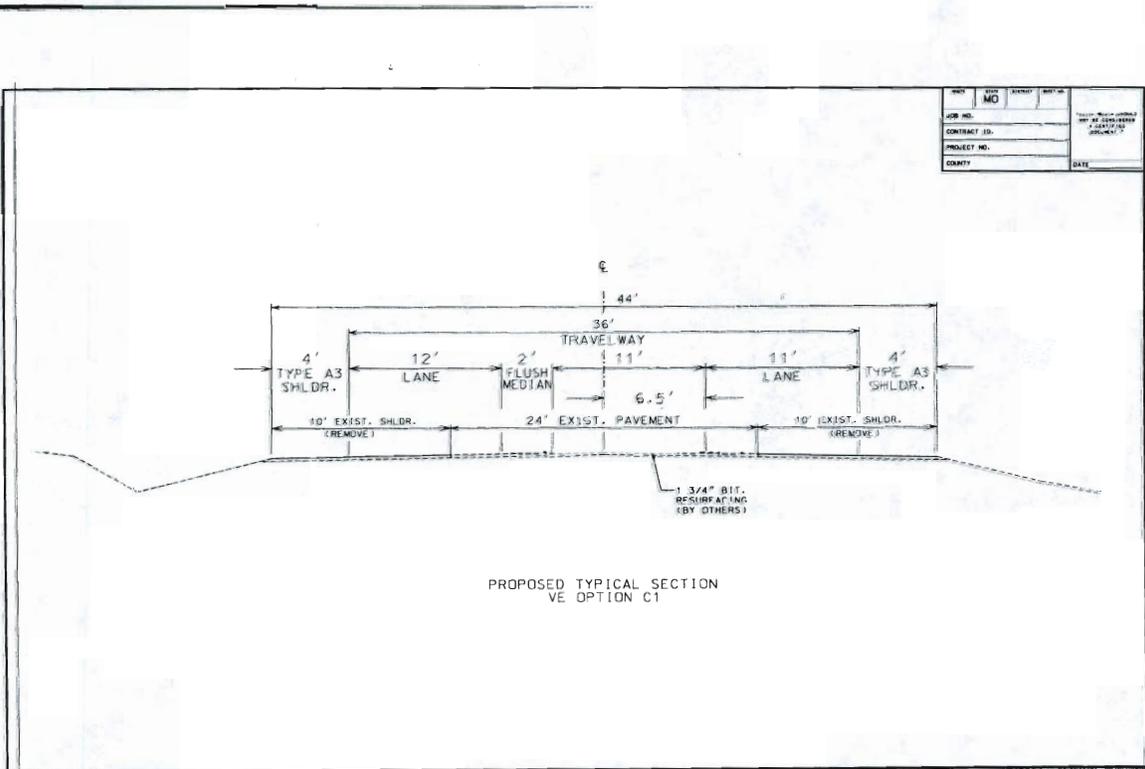


Location of Passing Lanes

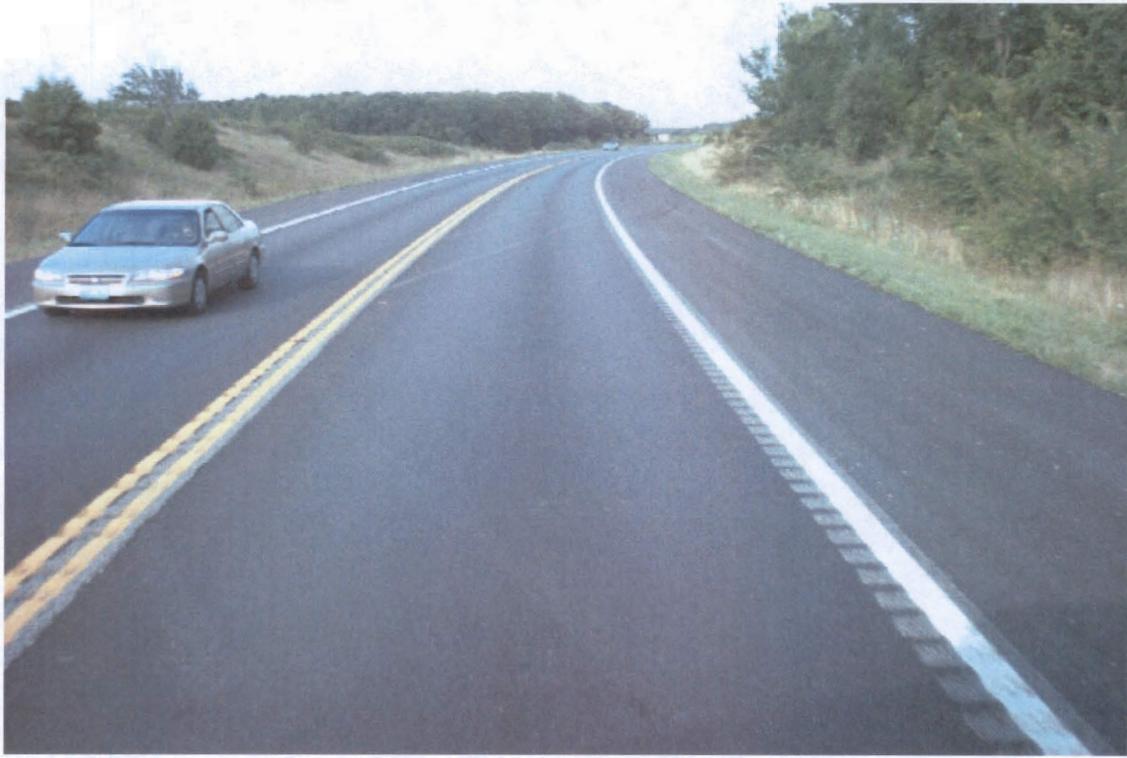
Diver Expectations: If drivers know a passing lane is ahead, they will have more patience for slower drivers.



Original Proposed Typical with widening on both sides (6 foot shoulders)



Proposed Typical utilizing existing roadbed (4 foot shoulders)



Existing Route 60



Example of similar passing lanes on Route 37 (2-foot flush median)