PURPOSE AND NEED

Purpose and Need Statement

Develop a continuous arterial route from I-40 to US 67; with a possible improved connection from I-40 to Dave Ward Drive in Conway.

Study Goals

Improve Safety

The proposed alternatives will straighten curves and offer wider lanes and shoulders, which will lead to fewer crashes.

Improve Corridor Travel Time

The continuous path and improved geometry are expected to increase the average travel speed from approximately 45 mph to 55 mph for the two-lane alternatives, and 60 to 65 mph for the four-lane alternatives.

Provide an Alternative for Freight Movements

The proposed improvements will better accommodate heavy vehicles.

Support the Air Force Base Mission

The proposed routes will improve travel time for those accessing the LRAFB while avoiding areas that would be problematic to the ongoing mission of the base.

Maintain Air Force Base Flying Operations

The proposed routes have been modified at the request of the LRAFB in order to avoid conflicts with its flying operations.

Minimize Right-of Way Acquisition

The alternatives, except for two relatively short segments, are proposed to be widened on existing location, which will reduce the requirement for new right-of-way.

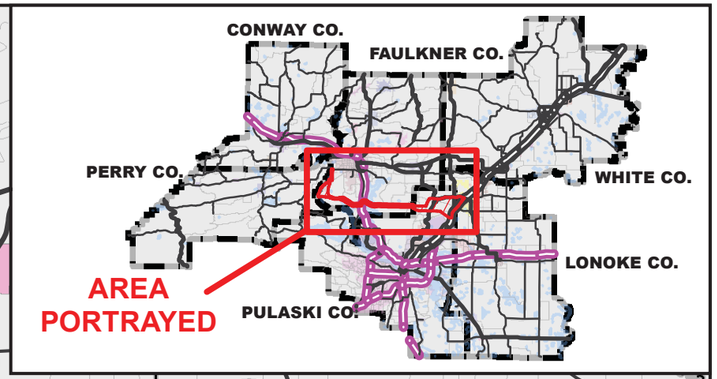
Minimize Environmental Impacts

A high-level environmental screening identified only minor environmental impacts from the implementation of the proposed alternatives. Further environmental analysis will be conducted in any future NEPA analyses.

Allow for Bicycle/Pedestrian Facilities

Bicycle/pedestrian facilities can be added to any of the proposed alternatives in accordance with ArDOT, Metroplan and local bike/ped policies.

GARVER



Perry County

Conway

Vilonia

Faulkner County

Pulaski County

Lonoke County

Lollie Rd.

Clinton Rd.

Otto Rd.

Sayles Rd.

Republican Rd.

Mayflower

Lake Conway

Grassy Lake

Arkansas River

Lake Maumelle

Maumelle

Austin

Cabot

Sherwood

Jacksonville

South Bend

60 64 40 365 107 5 67 89 367 321

Highway 89 Corridor

Potential Hwy. 89 New Location

Study Area

Proposed Highway 89 Corridor

Faulkner, Pulaski, and Lonoke Counties

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

METROPLAN SMART PLANNING MAKES SMART PLACES.

N

0 1.5 3

Miles

GARVER

LM 13.669

Perry County

Conway

Vilonia

Faulkner County

Pulaski County

Lonoke County

Lollie Rd.

Clinton Rd.

Otto Rd.

Sayles Rd.

Republican Rd.

Lake Conway

Grassy Lake

Arkansas River

Mayflower

Maumelle

Austin

Cabot

Sherwood

Jacksonville

South Bend

LM 18.506

LM 13.585

60 64 40 365 107 89 5 67 367 321

CONWAY CO.
FAULKNER CO.
PERRY CO.
WHITE CO.
LONOKE CO.
PULASKI CO.
AREA PORTRAYED

Total Crashes 2012-2016

0	Crashes (per 1.0 Mile)
1-10	Crashes (per 1.0 Mile)
11-20	Crashes (per 1.0 Mile)
21-30	Crashes (per 1.0 Mile)
>30	Crashes (per 1.0 Mile)

Total Crashes

Proposed Highway 89 Corridor

Faulkner, Pulaski, and Lonoke Counties

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N

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64 40 60 365 107 5 67 89 321 367

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

METROPLAN SMART PLANNING MAKES SMART PLACES.

CONWAY CO.
FAULKNER CO.
PERRY CO.
WHITE CO.
LONOKE CO.
PULASKI CO.
AREA PORTRAYED

Total Crashes 2012-2016

0	Crashes (per 1.0 Mile)
1	Crashes (per 1.0 Mile)
2	Crashes (per 1.0 Mile)
3	Crashes (per 1.0 Mile)
4+	Crashes (per 1.0 Mile)

Serious Injury and Fatal Crashes

Proposed Highway 89 Corridor

Faulkner, Pulaski, and Lonoke Counties

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

METROPLAN SMART PLANNING MAKES SMART PLACES.

N

0 1.5 3

Miles

HIGHWAY 89 CORRIDOR STUDY ANALYSIS MATRIX

Alternatives		Construction Cost (millions)	Total Cost (millions)	VHT Reduction (Thousand Hours / Year)	2040 Urban Traffic Operations (LOS)	2040 Rural Traffic Operations (LOS)	Safety and Security	Natural and Social Environmental Impacts	Minimize ROW Acquisition	Addition of Bicycle/ Pedestrian Facilities	Score
No Build		$0	$0	0	E	D	No Change	None	None	Difficult	18.0
West 2	2-Lane	$60.5	$72.6	101.0	D	B	Good	Minimal	High	Moderate	17.4
East 1	2-Lane	$102.2	$122.6	286.0	E	D	Good	Moderate	High	Moderate	14.8
	4-Lane	$174.5	$209.4	594.0	B	A	Good	Moderate	High	Moderate	18.5
East 2	2-Lane	$104.7	$125.6	256.0	E	D	Good	Minimal	Minimal	Moderate	17.5
	4-Lane	$178.8	$214.6	568.0	B	A	Good	Minimal	Moderate	Moderate	20.2
East 3	2-Lane	$69.7	$83.6	127.0	E	B	Good	Minimal	Minimal	Moderate	18.3
East 3 with East 1	2-Lane	$122.7	$147.2	314.2	E	C	Good	Moderate	High	Moderate	15.5
	4-Lane	$209.5	251.4	635.8	B	A	Good	High	High	Moderate	17.0

Evaluation Matrix

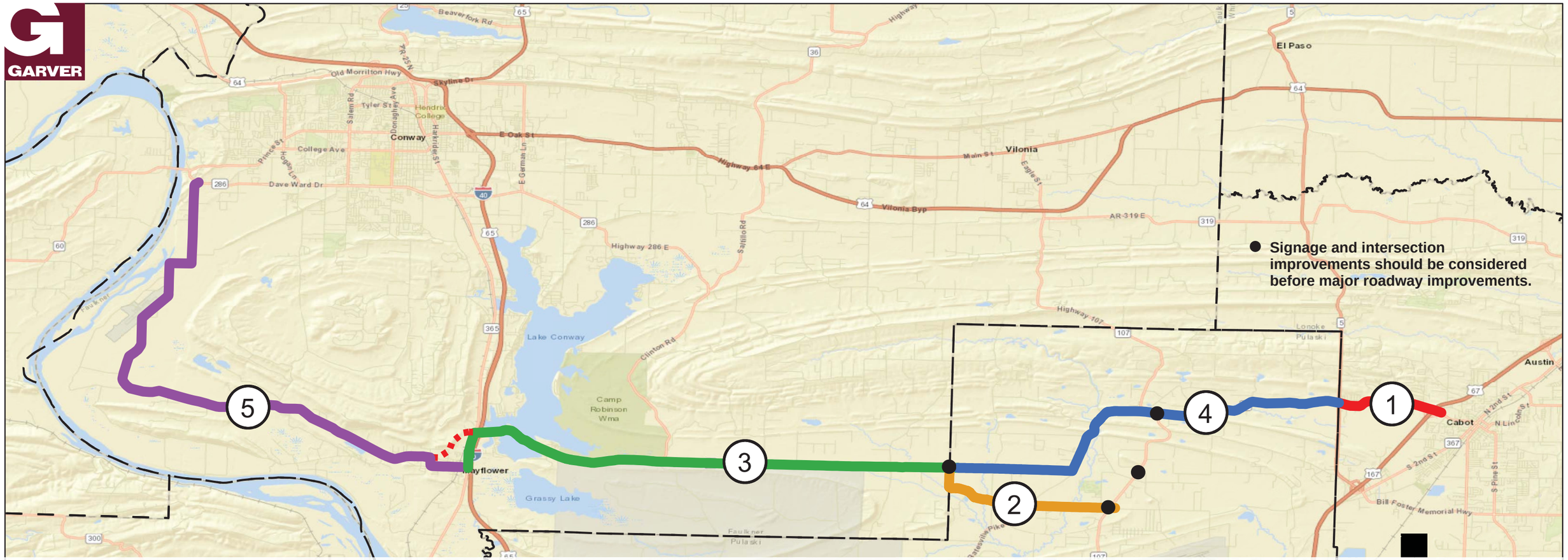
ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

METROPLAN SMART PLANNING MAKES SMART PLACES.

GARVER

Level of Service Legend

Level of Service	Description	Class II Two-Lane Highway PTSF (%)
A	Free Flow	0 TO 40
B	Slight Restriction of Free Flow	> 40 TO 55
C	Restrictions to Free Flow	> 55 to 70
D	Noticeable Restriction, Declining Speeds	> 70 to 85
E	No Gaps in Traffic, Volatile Speeds	> 85
F	Breakdown, large Queues, Recurring Congestion	Demand > Capacity



1 Highway 89

2.3 Miles

Highway 5 to Highway 67 (4-Lane)
$21,100,000

This section experienced the worst LOS and also the worst crash rates. The Highway 67-Highway 89 interchange is scheduled for improvements in 2020, and it would be reasonable to expand that project to include this section if possible.

2 Republican Road

4.4 Miles

Faulkner-Pulaski County Line to Highway 107 (2-Lane)
$24,600,000

This route is acceptable from a capacity standpoint, but improvements in connectivity are needed for the many people that travel from the western end of the study area to the LRAFB. Improving this route to a two-lane arterial would improve safety and provide a clearer route to the LRAFB. It is possible that improved signage from the county line to the LRAFB would be sufficient until funding is available for construction.

3 Highway 89

10.9 Miles

I-40 to Clinton Road (3-Lane)
$43,300,000

Clinton Road to the Faulkner-Pulaski County Line (2-Lane)
$37,600,000

This section would provide greater connectivity to the LRAFB and also complete a major portion of the route from I-40 to Highway 67. The western section between I-40 and Clinton Road has the most immediate need. Right-of-way could be purchased for 4-lanes for the entire segment, with the section from I-40 to Clinton Road (4.31 miles) being initially constructed as a three lane, and the remainder (6.61 miles) being constructed as a two-lane. Additional lanes could then be added when warranted by traffic volume.

4 Sayles Road, Batesville Pike, Tates Mill Road and Highway 89

10.1 Miles

Faulkner-Pulaski County Line to Highway 5 (2-Lane)
$54,200,000

This would be the final segment to complete the continuous arterial from I-40 to Highway 67. As with the previous segment, right-of-way could be purchased for four lanes, with only two lanes being constructed until traffic warrants four lanes.

5 Highway 89, Lollie Road, and New Location

14.1 Miles

Dave Ward Drive to the new Mayflower Railroad Overpass (2-Lane)
$72,600,000

This segment is not currently showing a need from a traffic standpoint, but could be constructed if volumes increase significantly after the Mayflower Railroad Overpass is in place.

Highway 89 Corridor Study
Priority Map

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

METROPLAN SMART PLANNING MAKES SMART PLACES.

0 1 2 4 Miles