Executive Summary of the Route 54 Intersection Safety Improvements Study

The Route 54 Intersection Safety Improvements project for Cole and Miller Counties was a study commissioned by the Missouri Department of Transportation Central District.

The area examined extends thirty (30) miles from Route E (near Brazito) west to Wood River Road (near Lake Ozark). It is a rural, multi-lane divided corridor with numerous side roads and driveways that have direct access to the highway.

The study consisted of public engagement/comment, analysis of existing conditions, and data collection. The study brings together the interests of the year-round and seasonal commuters, residents, business owners, multiple municipalities, and other vital stakeholders in an effort to enhance safety along the subject corridor.

Included with this executive summary are the suggested intersection improvements, which reflect the recommendations of the study team and generally include the following solutions: intersection consolidation and/or closures; alignment and profile improvements; various median U-turn configurations; and, grade separation. The alternatives are conceptual in nature and are subject to change under the discretion of the Missouri Department of Transportation once the final design process is undertaken.
The following Route 54 at-grade intersections were included in the safety study:

- Route E
- Gray Road
- Old Bass Road / Brown Road
- Fall Hill Road
- Quail Road / Sandy Fork Road
- United Road
- Hickory Hill / Clark Fork Road
- Penny Hollow
- Route AA
- Hunter Road / Opie Road
- Atchinson Road
- County Road MM
- Frank Road / Haynes Ranch
- Kent Road
- Route FF
- Cave Drive
- Midway Road / Jamie Lane / Mt. Carmel
- County Road 54-60 / Tolwood
- Copperhead Road
- Allen Road
- Howser Road
- Walnut Grove
- Route V / Riley Mead Lane Road
- Lakeland Drive
- Private drives
- Isleworth Island Road
- (Osage) River Bridge Road / River Road
- Wood River Road

Figure 1 Location Map

![Location Map](image-url)
FALL HILL ROAD
OLD BASS/BROWN ROAD
GRAY ROAD
ALTERNATIVE 2.3
SHEET 1 OF 2
REALIGN, J-TURNS
BARRIER, USE CROSSOVER

ESTIMATED CONSTRUCTION COST $14,165,800
CONCEPTUAL PLANS SUBJECT TO CHANGE
NOT FOR CONSTRUCTION

EXIST. PROPERTY LINE
EXIST. R/W
DIRECTION OF TRAVEL
PROPOSED ALTERNATIVE
CROSSING REMOVAL

SCALE
0 200 400 600 800 1000

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT. THIS SHEET IS A CONCEPTUAL PLAN AND SUBJECT TO CHANGE.
HICKORY HILL/CLARK FORK PENNY HOLLOW
ALTERNATIVE 1 SHEET 1 OF 2
2 J-TURN ADDITIONS, REMOVE PENNY HOLLOW RD ACCESS

ESTIMATED CONSTRUCTION COST $2,496,400

CONCEPTUAL PLANS SUBJECT TO CHANGE
NOT FOR CONSTRUCTION

LEGEND

EXIST. PROPERTY LINE
EXIST. R/W
DIRECTION OF TRAVEL
PROPOSED ALTERNATIVE
CROSSING REMOVAL

SCALE

0 200 400 600 800 1000
1620’ ACCEL LANE (TYP.)
615’ DECEL LANE (TYP.)
DECEL TAPER 15:1 (TYP.)
1620’ ACCEL LANE (TYP.)

MATCH LINE EAST TO PENNY HOLLOW INTERSECTION

LEGEND
EXIST. PROPERTY LINE
EXIST. R/W
DIRECTION OF TRAVEL
PROPOSED ALTERNATIVE
CROSSING REMOVAL

SCALE
0 200 400 600 800 1000

HICKORY HILL/CLARK FORK
PENNY HOLLOW
ALTERNATIVE 1
SHEET 2 OF 2
2 J-TURN ADDITIONS, REMOVE PENNY HOLLOW RD ACCESS
ROUTE AA
ALTERNATIVE 2
LEFT IN LEFT OUT,
NO OLD HWY ACCESS

ESTIMATED
CONSTRUCTION COST
$917,700

CONCEPTUAL PLANS
SUBJECT TO CHANGE
NOT FOR CONSTRUCTION

LEGEND
- EXIST. PROPERTY LINE
- EXIST. R/W
- DIRECTION OF TRAVEL
- PROPOSED ALTERNATIVE
- CROSSING REMOVAL
HUNTER ROAD / OPIE ROAD

ALTERNATIVE 1A
TREE CLEARING
ALTERNATIVE 1B
AUXILIARY LANES

ESTIMATED CONSTRUCTION COST
$664,400

CONCEPTUAL PLANS
SUBJECT TO CHANGE

NOT FOR CONSTRUCTION
ATCHINSON ROAD
ALTERNATIVE 1
AUXILIARY LANES
& MEDIAN CLEARING

ESTIMATED CONSTRUCTION COST
$315,700

CONCEPTUAL PLANS
SUBJECT TO CHANGE
NOT FOR CONSTRUCTION

LEGEN
EXIST. PROPERTY LINE
EXIST R/W
DIRECTION OF TRAVEL
PROPOSED ALTERNATIVE
MEDIAN CLEARING

SYSTEMIC IMPROVEMENTS
- ADD LIGHTING
- ADVANCED WARNING SIGNAGE
- STOP BAR ON PAVED APPROACH
- DASHED EDGE LINES ACROSS MEDIAN OPENING
- RETROREFLECTIVE STRIPS ON SIGN POSTS
- SPLITTER ISLANDS

SCALE
0 100 200 300 400 500

NOT FOR CONSTRUCTION
COUNTY ROAD MM
ALTERNATIVE 3
MEDIAN U-TURN
SHEET 2 OF 2
COUNTY ROAD MM
ALTERNATIVE 5 CURVE IMPROVEMENTS

ESTIMATED CONSTRUCTION COST
$598,800

CONCEPTUAL PLANS SUBJECT TO CHANGE
NOT FOR CONSTRUCTION
FRANK ROAD/HAYNES RANCH
ALTERNATIVES 1 & 2
MEDIAN CLEARING & AUXILIARY LANES

ESTIMATED CONSTRUCTION COST
$707,700

CONCEPTUAL PLANS
SUBJECT TO CHANGE

NOT FOR CONSTRUCTION

LEGEND

- EXIST. PROPERTY LINE
- EXIST R/W
- DIRECTION OF TRAVEL
- ALTERNATIVE 1 TREE CLEARING
- PROPOSED ALTERNATIVE 2

SYSTEMIC IMPROVEMENTS
-ADVANCED WARNING SIGNAGE
-STOP BAR ON PAVED APPROACH
-DASHED EDGE LINES ACROSS MEDIAN OPENING
-RETROREFLECTIVE STRIPS ON SIGN POSTS
-SPLITTER ISLANDS

NOTE: MODIFY EXISTING STEEP PROFILE WITH IMPROVED GRADE

0 100 200 300 400 500

SCALE

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.
ESTIMATED CONSTRUCTION COST
$3,042,000

ROUTE FF
ALTERNATIVE 2
MODIFIED R-CUT
BUS 54 U-TURN

CONCEPTUAL PLANS
SUBJECT TO CHANGE
NOT FOR CONSTRUCTION
CAVE DRIVE
ALTERNATIVE 3
CLOSE CROSSING
AND ACCESS TO 54

ESTIMATED
CONSTRUCTION COST
$1,496,500

CONCEPTUAL PLANS
SUBJECT TO CHANGE

NOT FOR
CONSTRUCTION
MIDWAY ROAD/ JAMIE LANE (MT CARMEL)
ALTERNATIVE 3
J-TURNS W/ TOLWOOD ROAD R-CUT

ESTIMATED CONSTRUCTION COST
$1,585,400

CONCEPTUAL PLANS SUBJECT TO CHANGE
NOT FOR CONSTRUCTION

LEGEND
EXIST. PROPERTY LINE
EXIST R/W
DIRECTION OF TRAVEL
PROPOSED ALTERNATIVE
CROSSING REMOVAL

SCALE
0 200 400 600 800 1000
**LEGEND**

- **EXIST. PROPERTY LINE**
- **EXIST. R/W**
- **DIRECTION OF TRAVEL**
- **PROPOSED ALTERNATIVE**

---

**ROUTE V / RILEY MEAD ROAD**
**ALTERNATIVE 1**
**WIDEN EASTBOUND ACCELERATION**

**ESTIMATED CONSTRUCTION COST**
$75,000

**CONCEPTUAL PLANS SUBJECT TO CHANGE**

**NOTE:** WIDEN EXIST. 10' LANE TO 12' LANE W/ 4' SHOULDER

**SCALE**

0 100 200 300 400 500
LAKELAND ROAD
ALTERNATIVE 1
OFFSET RIGHT TURN

ESTIMATED CONSTRUCTION COST
$234,900

CONCEPTUAL PLANS SUBJECT TO CHANGE
NOT FOR CONSTRUCTION
ISLEWORTH AVE
ALTERNATIVE 3
REMOVE ENTRANCE

ESTIMATED
CONSTRUCTION COST
$80,000

CONCEPTUAL PLANS
SUBJECT TO CHANGE
NOT FOR
CONSTRUCTION

LEGEND
EXIST. PROPERTY LINE
EXIST. RW
REMOVAL

SCALE
0 50 100 200 300 400 500

DATE
1/9/2020

ROUTE STATE
5·4 MO

DISTRICT SHEET NO.
C

COUNTY
MILLER/COLE

JOB ND.
J5P3222

CONTRACT ID.
PROJECT ND.

BRIDGE ND.
RIVER BRIDGE RD
ALTERNATIVE 1
J-TURN / R-CUT

ESTIMATED CONSTRUCTION COST
$1,200,000

CONCEPTUAL PLANS SUBJECT TO CHANGE
NOT FOR CONSTRUCTION

LEGEND

EXIST PROPERTY LINE
EXIST ROW
DIRECTION OF TRAVEL
PROPOSED ALTERNATIVE
REMOVAL

SCALE
0 600 1200 1800 2400 3000 3600

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE
1/9/2020

PROJECT NO.
M7

BRIDGE NO.

ROUTE STATE
57

DISTRICT SHEET NO.
57

COUNTY MILLER/COLE

JOB ND.
5P3222

CONTRACT ID.

PROJECT ND.

DATE PREPARED
1/9/2020
WOOD RIVER RD
ALTERNATIVE 1
TUBULAR MARKERS OR RAISED MEDIAN

ESTIMATED CONSTRUCTION COST $125,000

CONCEPTUAL PLANS SUBJECT TO CHANGE
NOT FOR CONSTRUCTION

LEGEND
--- EXIST. PROPERTY LINE
--- EXIST. RW
□ DIRECTION OF TRAVEL

PROPOSED ALTERNATIVE