

# Cost Estimate

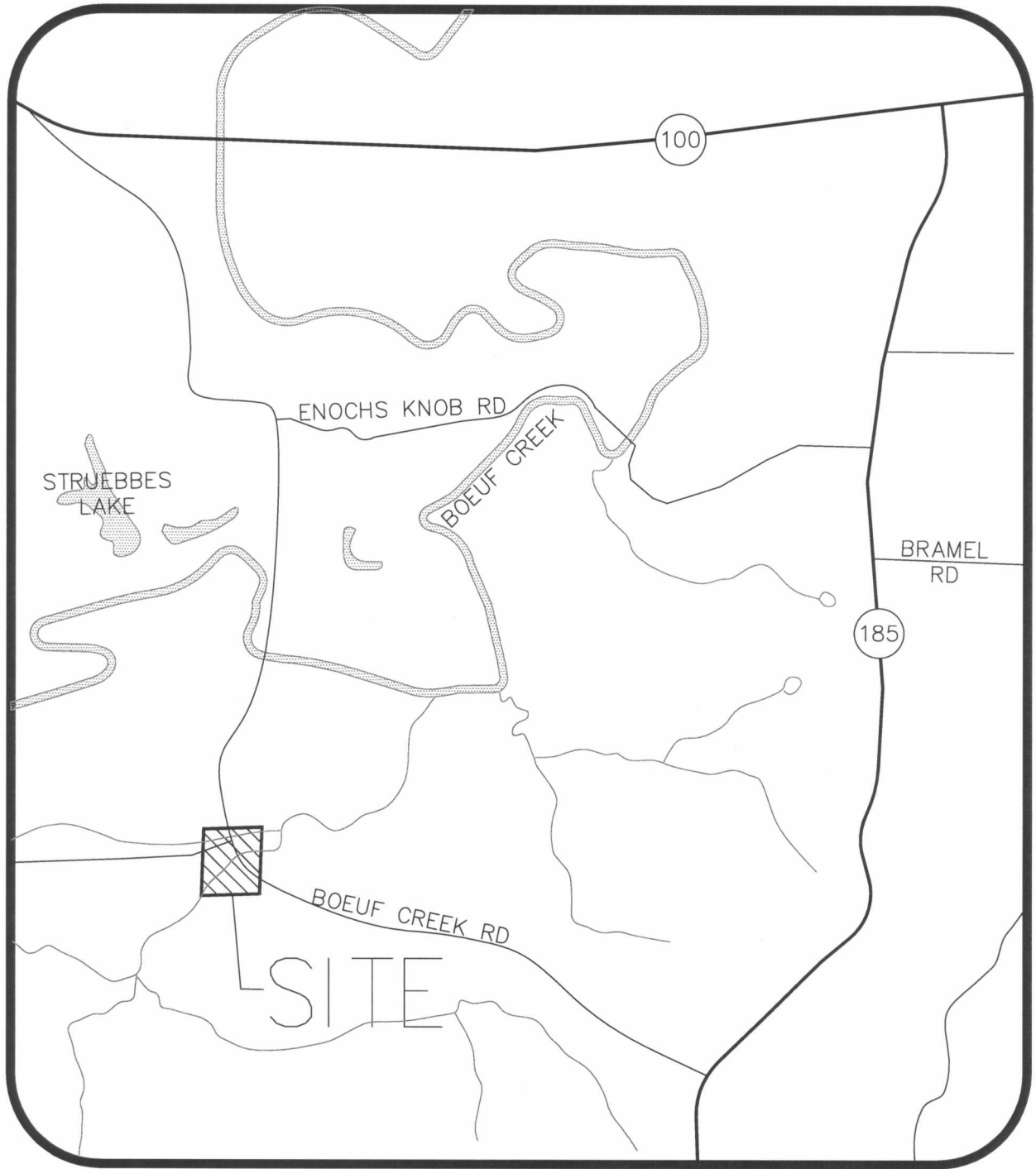
BOEUF CREEK ROAD BRIDGE REPLACEMENT  
 STP APPLICATION COST ESTIMATE

2/13/2017

DESCRIPTION	UNITS	QTY	UNIT EST	COST
<b>ROADWAY ITEMS</b>				
CLEARING & GRUBBING	AC	0.4	\$ 24,000.00	\$ 9,600.00
REMOVAL OF IMPROVEMENTS	LS	1	\$ 12,000.00	\$ 12,000.00
COMPACTING EMBANKMENTS	CY	100	\$ 18.00	\$ 1,800.00
TYPE 5 AGG BASE (4 IN. THICK)	SY	240	\$ 12.00	\$ 2,880.00
BP-1	TON	35	\$ 108.00	\$ 3,780.00
BP-BASE	TON	70	\$ 96.00	\$ 6,720.00
GUARD RAIL	LF	120	\$ 60.00	\$ 7,200.00
FURNISHING TYPE 2 ROCK BLANKET	CY	240	\$ 48.00	\$ 11,520.00
PLACING TYPE 2 ROCK BLANKET	CY	240	\$ 36.00	\$ 8,640.00
CONSTRUCTION SIGNS	SF	120	\$ 12.00	\$ 1,440.00
TYPE 3 BARRICADE	EA	4	\$ 420.00	\$ 1,680.00
MOBILIZATION	LS	1	\$ 42,000.00	\$ 42,000.00
CONTRACTOR FURNISHED SURVEYING	LS	1	\$ 12,000.00	\$ 12,000.00
SILT FENCE	LF	200	\$ 6.00	\$ 1,200.00
STRIPING	LF	640	\$ 2.40	\$ 1,536.00
SEEDING	AC	0.4	\$ 28,800.00	\$ 11,520.00
<b>BRIDGE ITEMS</b>				
CLASS 1 EXCAVATION	CY	60	\$ 72.00	\$ 4,320.00
CLASS 1 EXCAVATION IN ROCK	CY	60	\$ 360.00	\$ 21,600.00
REMOVAL OF BRIDGES	LS	1	\$ 18,000.00	\$ 18,000.00
BRIDGE APPROACH SLAB	SY	136	\$ 180.00	\$ 24,480.00
STEEL PILES	LF	600	\$ 120.00	\$ 72,000.00
PRE-BORE FOR PILING	LF	450	\$ 210.00	\$ 94,500.00
PILE POINT REINFORCEMENT	EA	10	\$ 150.00	\$ 1,500.00
CLASS B CONCRETE (SUBSTRUCTURE)	CY	100	\$ 720.00	\$ 72,000.00
SAFETY BARRIER CURB	LF	80	\$ 210.00	\$ 16,800.00
SLAB ON CONCRETE GIRDER	SY	166	\$ 480.00	\$ 79,680.00
CONCRETE GIRDERS	LF	120	\$ 360.00	\$ 43,200.00
VERTICAL DRAIN AT END BENT	EA	2	\$ 6,000.00	\$ 12,000.00
PLAIN NEOPRENE BEARING PAD	EA	6	\$ 600.00	\$ 3,600.00
				\$ 599,196.00
Contingency	15%			\$ 89,879.40
Engineering				\$ 90,000.00
Right of Way				\$ 20,000.00
Construction Engineering				\$ 40,000.00
Total Project Estimate				\$ 839,075.40

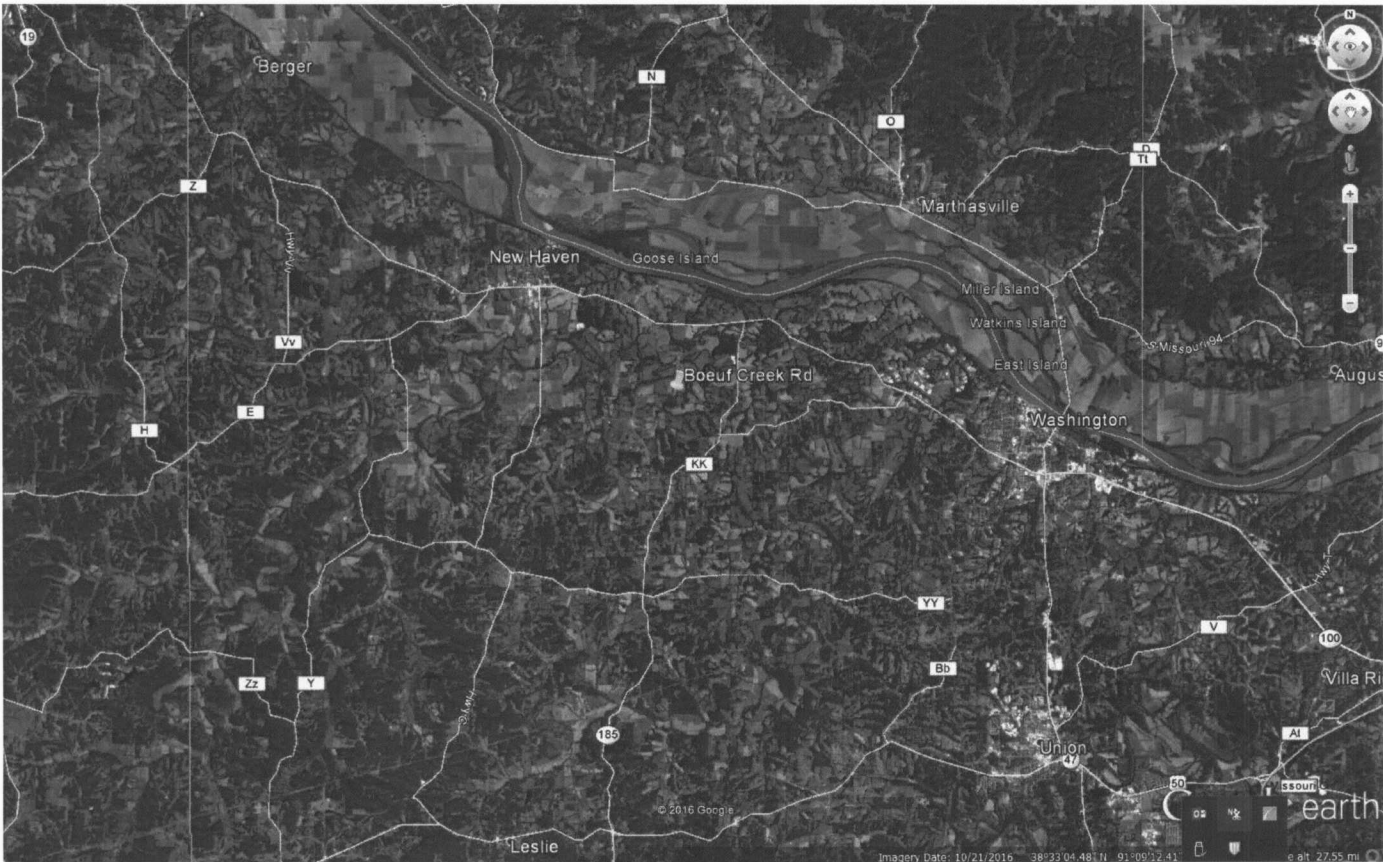
# Appendix A

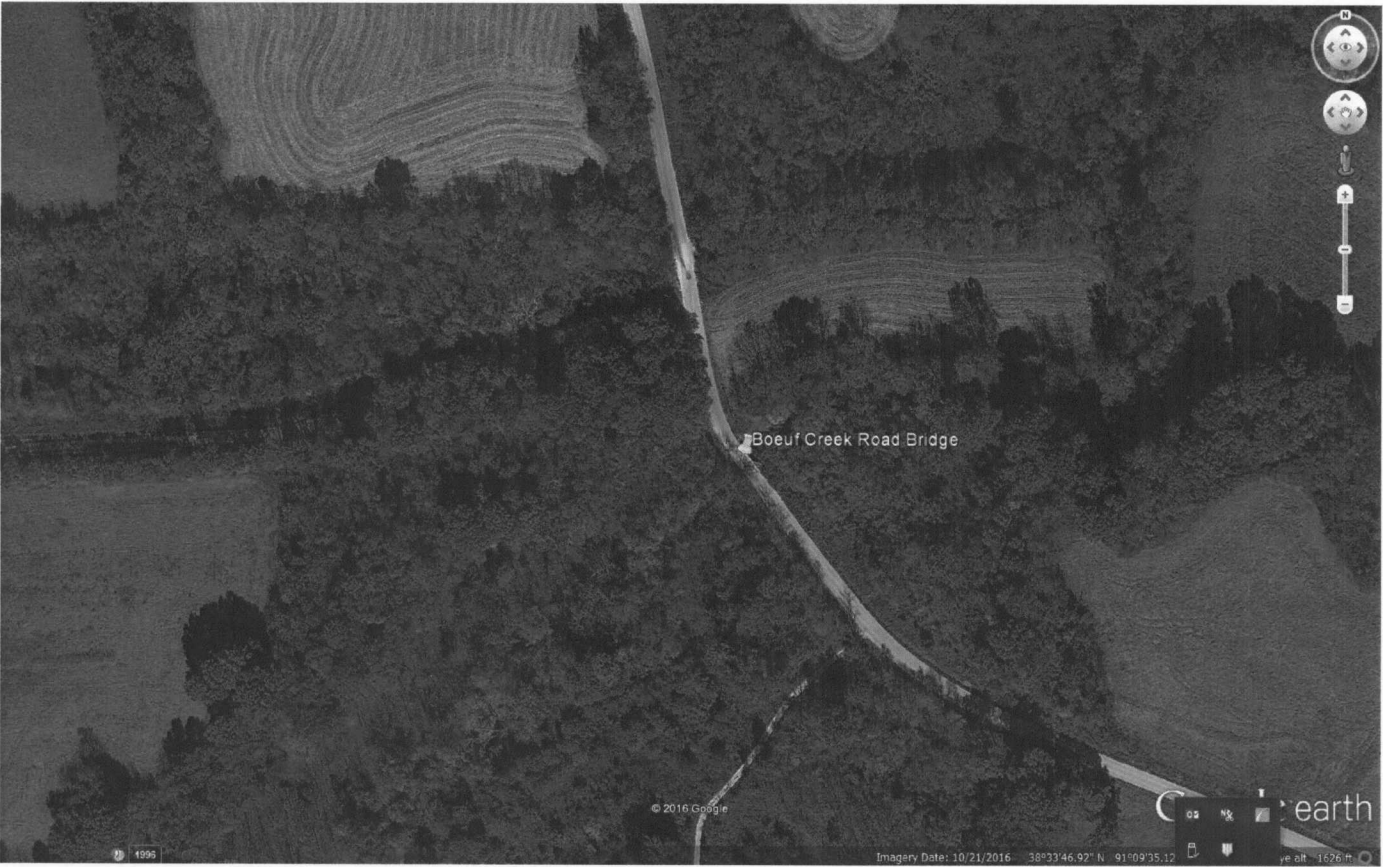
## Project Location Maps



# SITE LOCATION MAP

NOT TO SCALE





# Appendix B

Site Photos















# Appendix C

MoDOT Reports



Missouri Department of Transportation  
 Bridge Inventory and Inspection System  
 Non-State Structure Inspection Report

May 15, 2015  
 9:17:46am

County : FRANKLIN      Class : NONSTATBR      Design No. : 0470018 1      Federal ID : 13780

[5D] Route : 00034	[41] Structure Status : P-POSTLOAD
[4] Place Code : 06796 BOEUF	[9] Location : S 17 T 44 R 2 W
[6] Features Intersected : BR OF BOEUF CR	[22] Owner : COUNTY
[7] Facility Carried : BOEUF CR RD	[26] Functional Classification : RLOCAL
[16] Latitude : 38 33 52.05 (DMS)	[21] Maintenance Responsibility : COUNTY
[17] Longitude : 91 9 45.58 (DMS)	

**AGE AND SERVICE - GEOMETRIC DATA - MATERIAL**

[27] Year Built : 1982	[106] Year Reconstructed :
[49] Structure Length : 32 FT.	[51] Bridge Width : 19 FT. 0 IN.
[32] Approach Roadway Width : 16 FT. 0 IN.	[52] Deck Width : 19 FT. 2.5 IN.

COMPONENTS	# OF SPANS	MATERIAL	CONSTRUCTION
[43] Main series :	1	STEEL	WFGIR
[44] Approach Series :			
[107] Deck Type :		REINCONC	CIP-SIP
[108A] Wearing Surface :		PLAINCONC	MONOLITHIC
[108B] Membrane :		NOTAPPLIC	NONE
[108C] Deck Protection :		NOTAPPLIC	NONE

**AADT INFORMATION**

[29] ADT on Structure : 100	[30] Year : 2013	[109] AADT Truck : 5 %
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**STRUCTURE POSTING**

**FIELD POSTING**      Problem Code :      Problem Direction Code :

Category : S-13 CENTER LINE OF BRIDGE AND TRUCKS WEIGHT LIMIT 12 TONS (TWO-WAY TRAFFIC).

Ton 1 : 12      Ton 2 :      Ton 3 :

**APPROVED POSTING**

Category : S-3 WEIGHT LIMIT 12 TONS.

Ton 1 : 12      Ton 2 :      Ton 3 :

**STRUCTURE GENERAL INSPECTION**

Inspector	ID No.	Organizational Affiliation
CHUCK DOLEJSI (NON)	MODOT0618	MODOT
MATTHEW GEIGER (NON)	MODOT0624	MODOT
[90] Inspection Type	Inspection Date	[91] Frequency
GENERAL	3/9/2015	24

**STRUCTURE OTHER INSPECTION**

Type	Category	Date	Freq	PIN	NBI
UNDERWATER	DRY	3/9/2015	60		N
SPECIAL	CHANNEL SECTIONS	7/31/2013	99		N



Missouri Department of Transportation  
 Bridge Inventory and Inspection System  
 Non-State Structure Inspection Report

May 15, 2015  
 9:17:46am

County : FRANKLIN

Class : NONSTATBR

Design No. : 0470018 1

Federal ID : 13780

**STRUCTURE RATING**

[58] Deck :	5-FAIR CONDITION	3/19/2013
[59] Superstructure ** :	4-POOR CONDITION	4/28/2015
[60] Substructure ** :	5-FAIR CONDITION	3/9/2011
[61] Channel Protection :	6-WIDESPREAD MINOR DAMAGE	3/1/2002
[62] Culverts ** :	N-NOT APPLICABLE	3/1/2002
[36A] Bridge Railing :	DOESNT MEET CURRNT STND-0	3/1/2002
[36B] Transitions Railing :	NOT PROVIDED-0	3/9/2011
[36C] Approach Railing :	NOT PROVIDED-0	3/9/2011
[36D] Rail End Treatment :	NOT PROVIDED-0	3/9/2011
[71] Waterway Adequacy :	DECK/APPRCH OVERTOP SLIGT	3/1/2002
[72] Approach Roadway Alignment :	6-SATISFACTORY	3/1/2002
[113] Scour Assessment ** :	8-STABLE FOR CALCULATED	3/1/2002
Type of Scour Evaluation :	OBSERVED	
[67] Structure Evaluation :	2-BASICALLY INTOLRBLE REQ	3/1/2002
Sufficiency Rating :	37.80 %	3/1/2002
Deficiency :	STRUCTURAL	3/1/2002
[68] Deck Geometry :	4-MEETS MINIMUM TOLERABLE	3/1/2002
[69] Underclearance :	N-NOT APPLICABLE	3/1/2002

\*\* If RATING lowered to a 3, forward rating info and photos to Bridge Division

**COMMENTS**

<b>General Comments :</b>	ONE LANE BRIDGE WEST FRANKLIN COUNTY - SINGLE SPAN STEEL GDRS
<b>Deck Rating Comments :</b>	MANY POPOUTS IN DECK , GENERAL DETERIORATION HVY SCALING DRIV SURF MOD RUST AT SIP FORMS ON BOTTOM (20%)
<b>Superstructure Comments :</b>	UT MEASUREMENTS TAKEN 2015: N END OF E BEAM HAS OVER 25% SECTION LOSS IN WEB @ ABUT. ALSO, 5 OF THE OTHER 6 BEAMS HAVE 10-20% SECTION LOSS AT THE N END IN THE WEBS AND FLANGES NEAR THE ABUT MOD SURFACE RUST ON STEEL BEAMS AND MODERATE SECTION LOSSES AT BEARING SEATS
<b>Substructure Comments :</b>	VERTICAL CRACKS IN ABUT., HORIZ. CRACKING IN TOP OF CAP GENERAL DETER IN BOTH ABUTS, LARGE SPALLS @ N ABUT, S WALL END DETER NEAR BRG SEAT SOUTH ABUT NEAR WINGS FALLING APART, LOSING BEARING
<b>Channel Protection Comments :</b>	WINGS HAVE BEEN ADDED TO ABUTS MINOR MEANDER IN CHANNEL U.S., MINOR BANK EROSION D.S.
<b>Culvert Comments :</b>	
<b>Bridge Railing Comments :</b>	STEEL CHANNEL
<b>Transition Railing Comments :</b>	
<b>Approach Railing Comments :</b>	
<b>Rail End Treatment Comments :</b>	
<b>Water Adequacy Comments :</b>	E APPROACH WILL FLOOD
<b>Approach Roadway Comments :</b>	NORTH END HAS CURVE
<b>Scour Assessment Comments :</b>	
<b>Work Comments :</b>	FLUSH DECK SAND BLAST AND PAINT BEAMS SUBSTR REPAIR AT ABUT CORNERS SEAL COAT DRIVING SURFACE





**Missouri Department of Transportation**  
**Bridge Inventory and Inspection System**  
**Federal Bridge Funds Qualification Listing**  
**Non State System Structures - Non Federal Aid Routes**

September 23, 2016  
1:32:18pm  
\* Rev 2006

Submittal Year : 2015

Federal ID	Bridge No.	Rehab Tway No.	Feature Intersected	Year Built	Year Recon	Curb Width	Rating Condition			Struc Eval	Deck Geom	Water Adeq	Road Align	Sufficiency Rating	Deficiency Funding	Category	Approved			Deficiency	
							Deck	Super	Sub								Ton 1	Ton 2	Ton 3		Req
<b>District : SL County : FRANKLIN</b>																					
13776	0470011	BOEUF CR RD	BOEUF CR	1900	1993	100	15 Ft. 8 In.	7	5	5	N	5	3	7	6	61.2 %	FO	PART	S-3	30	E, H
13780	0470018	BOEUF CR RD	BR OF BOEUF CR	1982		100	19 Ft. 0 In.	5	4	5	N	2	4	7	6	37.8 %	SD	FULL	S-3	12	B, D, H
14963	0800022	FIDDLE CR RD	FIDDLE CR	1955		200	19 Ft. 4 In.	6	6	7	N	5	3	7	6	59.4 %	FO	PART	S-3	15	E, H
16412	1190005	PRAIRIE DELL RD	UP RR	1996		50	17 Ft. 0 In.	7	7	6	N	6	3	N	6	77.9 %	FO	PART	S-3	20	E, H
16582	1250027	COUNTRY CLUB RD	BR OF BUSCH CR	1988		250	0 Ft. 0 In.	N	N	N	4	4	N	6	8	42.8 %	SD	FULL	S-3	15	H, I
16905	1360009	JUDITH SPRING RD	FLAT CR	1960		300	24 Ft. 11 In.	4	3	5	N	2	5	6	5	28.1 %	SD	FULL	S-3	5	A, B, D, H
18805	2000008	RED OAK RD	CLATES CR	1955		100	22 Ft. 7 In.	5	7	4	N	4	5	7	6	49.4 %	SD	FULL	S-3	15	C
19010	2070011	EVERGREEN LOOP	CR TO BOURBEUSE RV	1994		100	20 Ft. 0 In.	N	N	N	4	4	5	6	8	41.9 %	SD	FULL	S-3	15	H, I
19693	2300009	BACHELOR CR RD	ROTH CR	1965		75	18 Ft. 8 In.	6	5	6	N	2	4	7	6	38.9 %	SD	FULL	S-3	6	D, H
20277	2540004	POSSUM HOLLOW RD	CR TO MERAMEC RVR	1930	1986	50	14 Ft. 1 In.	5	4	4	N	4	6	8	3	33.3 %	SD	FULL	S-3	30	B, C, G, H
20529	2640002	CIRCLE DR	BNSF RR	1945		100	20 Ft. 0 In.	4	4	4	N	2	5	N	6	32.0 %	SD	FULL	S-3	10	A, B, C, D, H
21507	3090012	LIT INDIAN CR RD	GIRARD BR OF INDIA	1960	1993	175	20 Ft. 7 In.	6	6	8	N	2	4	7	8	47.1 %	SD	FULL	S-3	15	D, H
22149	3420011	RIDGE RD	WINSEL CR BR - SPRIN	1955		100	22 Ft. 7 In.	3	6	6	N	2	5	7	6	41.9 %	SD	FULL	S-3	7	A, D, H
22171	3430009	BACON RIDGE RD	WINSEL CR BR - SPR	1955		225	22 Ft. 7 In.	4	6	7	N	4	4	7	5	54.7 %	SD	PART	S-3	15	A, H
22224	3460008	SPRING BLUFF RD	SPRING CR	1950		1800	22 Ft. 3 In.	6	7	7	N	4	3	8	6	48.2 %	FO	FULL	S-3	16	E, H
22357	3520005	ELMONT RD	LIT BOONE CR	1960		200	19 Ft. 0 In.	4	5	6	N	4	3	6	6	42.8 %	SD	FULL	S-3	15	A, E, H
22407	3540011	L BOONE CREEK RD	LIT BOONE CR	1960		100	22 Ft. 7 In.	4	5	6	N	4	5	7	5	49.2 %	SD	FULL	S-3	14	A, H
22648	3670002	SHAWNEE FORD RD	BOURBEUSE RVR	1920	1990	125	15 Ft. 1 In.	4	4	5	N	4	2	7	5	36.0 %	SD	FULL	S-3	19	A, B, E, H
22738	3720003	LOCKHART RD	LOGAN BR	1950		100	18 Ft. 0 In.	4	6	4	N	4	4	7	8	49.9 %	SD	FULL	S-3	21	A, C, H
23216	3960008	HUFF RD	PIERCE CR-S FK L M	1975		100	20 Ft. 7 In.	6	4	4	N	4	5	7	7	45.2 %	SD	FULL	S-3	15	B, H
23750	4300001	CHRISTINA ST	FLAT CR	1932		2878	33 Ft. 9 In.	5	5	6	N	2	4	8	5	46.9 %	SD	FULL	S-3	20	D, H

**Total Structures : 21**

Highlighted bridges in TIP or under construction

Submittal\_Year = 2015 and District = SL

# Appendix D

## Adopted Plans

(for sustainable development priority)

**Goal 1: Provide for an efficient County road and bridge infrastructure to facilitate the safe and efficient movement of people and goods.**

Objective 1: Examine current road conditions as well as current maintenance practices and upgrade or enhance wherever needed as established in RSMo 61.091.

- Strategy 1. Study all County roads to identify needed improvements as they relate to existing conditions and projected development activity; develop a priority listing of gravel roads which should be hard-surfaced, consistent with increase usage and projected demand; identify roads which, though already hard-surfaced, require safety improvements.
- Strategy 2. Continue to conduct bridge and culvert inventories, with the assistance of MoDOT, to ascertain which structures may need upgrading, maintenance, or replacement.
- Strategy 3. Continue maintaining and improving county roads based on maintenance and funding available.
- Strategy 4. Design selected arterial roads, as listed on the Franklin County Transportation Map, to include breakdown shoulders, which improve traffic safety flows, reduce maintenance costs and are useful for bicycles.
- Strategy 5. Collect and compile data regarding existing county roads. Create a database that can be shared throughout departments.

Objective 2: Continue to create mid-range and long-range plans that will improve safety and connectivity.

- Strategy 1. Continue to review the Franklin County Long Range Transportation Plan and amend as conditions warrant.
- Strategy 2. Develop a five-year capital improvement plan with cost estimates, which addresses anticipated needs. Create a budget for the five-year plan. Regularly update the five-year plan.
- Strategy 3. Work with the Franklin County Highway Department and other applicable agencies on upgrading function classification of county roads, as designated by the Franklin County Transportation Classification map, to assist with future planning and connectivity.

Objective 3: Ensure that new subdivision roads and pedestrian facilities are designed in such a way to provide long life and maximize safety and connectivity.

# Appendix E

Operations and Maintenance Form