ARKANSAS DEPARTMENT OF TRANSPORTATION

SCOTT E. BENNETT, P.E. - DIRECTOR

PRELIMINARY DESIGN SCHEMATIC

I-49 PROJECT
CRAWFORD AND SEBASTIAN COUNTIES

I-49
FROM HIGHWAY 22 TO INTERSTATE 40

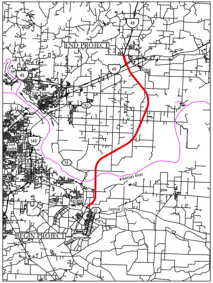
PROJECT LENGTH - 14.3 MILES

ROADWAY TYPE	DESIGN SPEED
MAIN LANES	70 MPH
DIRECT CONNECTORS	40 MPH - 50 MPH
DIAGONAL/DIRECTIONAL RAMPS	40 MPH - 50 MPH
LOOP RAMPS	30 MPH - 35 MPH
CROSS STREETS	40 MPH

I-49 PROJECT
HIGHWAY CLASSIFICATION

URBAN FREEWAY

CRAWFORD AND SEBASTIAN
COUNTY
NOT TO SCALE


END PROJECT
49
40
Alma
40
Van Buren
162
540
Fort Smith
59
Arkansas River
Barling
22
Central City
BEGIN PROJECT

PRELIMINARY SUBJECT
TO CHANGE BASED ON
FURTHER DEVELOPMENTS
RESULTING FROM PUBLIC
INPUT AND TECHNICAL
REVIEW.

NOT INTENDED FOR
CONSTRUCTION, BIDDING
OR PERMIT PURPOSES.

DATE APPROVED

DATE SUBMITTED

DATE REVISED

0 100 200
HORIZONTAL
0 20 40
VERTICAL

DATE: APRIL 26, 2018
PREPARED BY HNTB
UNDER THE SUPERVISION OF:
RUSSELL K. OZMER, P.E.

LICENSE NO. 17220

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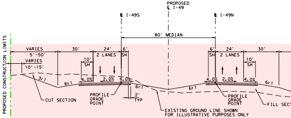
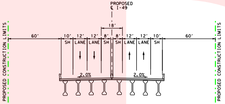
HNTB Corporation
The HNTB Companies
Engineers Architects Planners

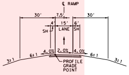

PROPOSED
℄ I-49
℄ I-49S
℄ I-49N
80' MEDIAN
PROPOSED CONSTRUCTION LIMITS
VARIES
5'-50'
VARIES
10'-15'
30'
24'
2 LANES
6'
SH
10'
SH
3:1
6:1
4.0%
2.0%
4.0%
6:1
2'
TYP
CUT SECTION
PROFILE
GRADE
POINT
EXISTING GROUND LINE SHOWN
FOR ILLUSTRATIVE PURPOSES ONLY
6'
SH
24'
2 LANES
30'
10'
SH
4.0%
2.0%
4.0%
6:1
PROFILE
GRADE
POINT
FILL SECT

PROPOSED I-49

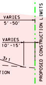
THIS TYPICAL SECTION DOES NOT REFLECT RAMPS, AUXILIARY LANES OR LANE CONFIGURATION AT INTERSEC
SECTION IS SHOWN TO ILLUSTRATE TYPICAL LANE CONFIGURATION FOR THE LENGTH OF THIS PROJECT
SECTION SHOWN ALSO DOES NOT REFLECT CROSS SLOPE CHANGES.


PROPOSED
℄ I-49
18'
PROPOSED CONSTRUCTION LIMITS
60'
10'
SH
12'
LANE
12'
LANE
8'
SH
8'
SH
12'
LANE
12'
LANE
10'
SH
60'
2.0%
2.0%
PROPOSED CONSTRUCTION LIMITS

PROPOSED BRIDGE OVER ARKANSAS RIVER


℄ RAMP
30'
7.5'
30'
4'
SH
15'
LANE
6'
SH
3:1
6:1
4.0%
2.0%
4.0%
6:1
3:1
PROFILE
GRADE
POINT

PROPOSED NORTHBOUND & SOUTHBOUND RAMPS
SHOWN IN DIRECTION OF TRAFFIC


VARIES
5'-50'
VARIES
10'-15'
3:1
TION
PROPOSED CONSTRUCTION LIMITS

CTIONS.

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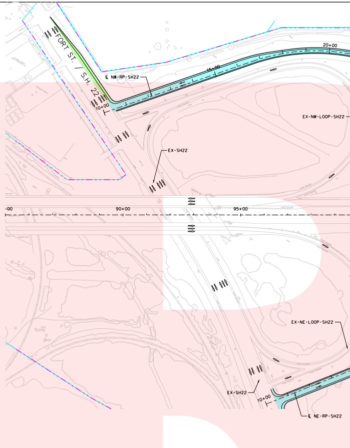
CURVE NO.	STATION	COORDINATE		BEARING / DELTA	LENGTH	TANGENT	RADIUS
		NORTHING	EASTING		(FT)	(FT)	(FT)
℄ I-49 ML (DESIGN SPEED: 70 MPH)							
I-49 ML C-1	P.C. 111+22.69	368742.604	630053.6425	N 58°50′10.34" E			
	P.I. 136+82.71	370067.3802	632244.2309	58°15′59.63" LT	4670.9939	2560.0214	4593.17
	P.T. 157+93.68	372627.2752	632269.6825	N 0°34′10.71" E			

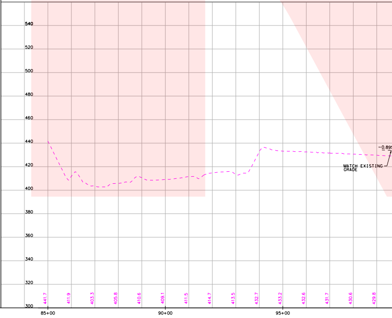
CURVE NO.	STATION	COORDINATE		BEARING / DELTA	LENGTH	TANGENT	RADIUS
		NORTHING	EASTING		(FT)	(FT)	(FT)
℄ NE RAMP AT SH22 (DESIGN SPEED: 50 MPH)							
NE RP AT SH22 C-1	P.C. 15+19.79	367685.2313	629488.7015	N 37°11′39.69" E			
	P.I. 16+25.57	367769.4958	629552.6486	4°02′19.99" LT	211.4756	105.7816	3000
	P.T. 17+31.26	367858.055	629610.5019	N 33°09′19.70" E			
NE RP AT SH22 C-2	P.C. 23+00.60	368334.6991	629921.8803	N 33°09′19.70" E			
	P.I. 25+64.27	368555.4412	630066.085	15°01′14.09" RT	524.3172	263.6705	2000
	P.T. 28+24.92	368731.2683	630262.5715	N 48°10′33.79" E			

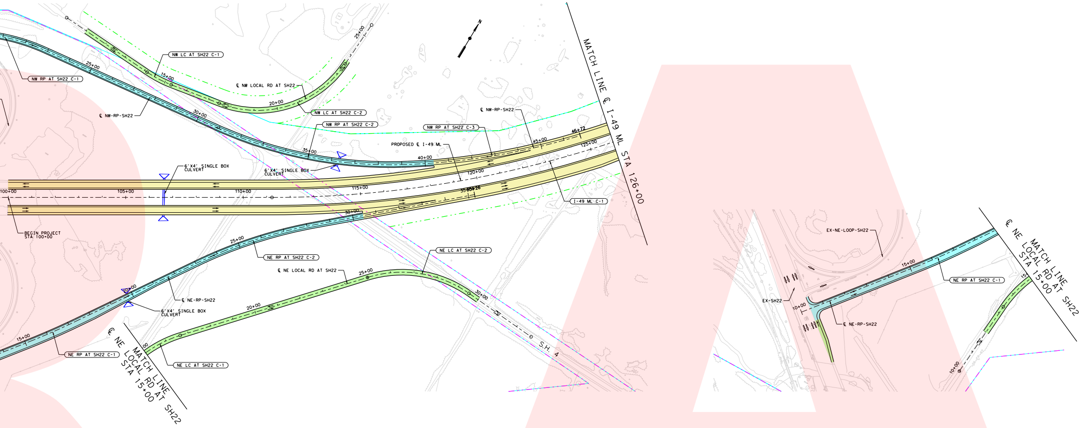
CURVE NO.	STATION	COORDINATE		BEARING / DELTA	LENGTH	TANGENT	RADIUS
		NORTHING	EASTING		(FT)	(FT)	(FT)
℄ NW RAMP AT SH22 (DESIGN SPEED: 50 MPH)							
NW RP AT SH22 C-1	P.C. 16+66.52	368487.5864	628369.888	N 39°44′29.01" E			
	P.I. 19+92.27	368738.0661	628578.1461	43°19′52.38" RT	620.1434	325.7476	820
	P.T. 22+86.67	368777.355	628901.5157	N 83°04′21.39" E			
NW RP AT SH22 C-2	P.C. 30+87.12	368873.8986	629696.1237	N 83°04′21.39" E			
	P.I. 34+99.21	368923.601	630105.2025	25°47′23.42" LT	810.2117	412.0871	1800
	P.C.C. 38+97.33	369146.3313	630451.9112	N 57°16′57.97" E			
NW RP AT SH22 C-3	P.C.C. 38+97.33	369146.3313	630451.9112	N 57°16′57.97" E			
	P.I. 42+86.92	369356.8995	630779.688	15°18′09.29" LT	774.5332	389.5852	2900
	P.T. 46+71.86	369646.5078	631040.2712	N 41°58′48.68" E			

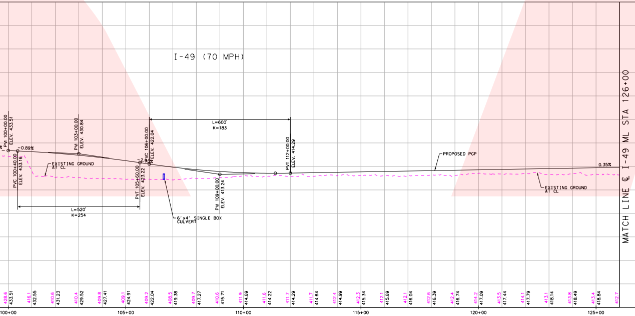
CURVE NO.	STATION	COORDINATE		BEARING / DELTA	LENGTH	TANGENT	RADIUS
		NORTHING	EASTING		(FT)	(FT)	(FT)
℄ NE LOCAL RD AT SH22 (DESIGN SPEED: 40 MPH)							
NE LC AT 22 C-1	P.C. 13+31.40	367735.3134	629897.9775	N 3°12′01.67" E			
	P.I. 15+05.07	367908.705	629907.673	38°26′57.63" RT	334.1917	173.6624	498
	P.T. 16+65.60	368038.4692	630023.0849	N 41°38′59.30" E			
NE LC AT 22 C-2	P.C. 24+99.64	368661.6853	630577.3716	N 41°38′59.30" E			
	P.I. 27+43.25	368843.718	630739.271	52°08′03.06" RT	453.1368	243.6131	498
	P.T. 29+52.78	368827.6407	630982.353	S 86°12′57.64" E			

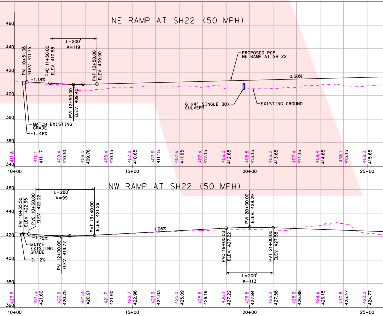
CURVE NO.	STATION	COORDINATE		BEARING / DELTA	LENGTH	TANGENT	RADIUS
		NORTHING	EASTING		(FT)	(FT)	(FT)
℄ NW LOCAL RD AT SH22 (DESIGN SPEED: 40 MPH)							
NW LC AT 22 C-1	P.C. 14+13.23	368923.3309	629323.3309	s 87°04′41.12" E			
	P.I. 14+71.48	368920.362	629381.1719	12°58′46.49" LT	115.9866	58.2426	512
	P.T. 15+29.22	368930.5335	629438.5195	N 79°56′32.39" E			
NW LC AT 22 C-2	P.C. 17+48.16	368968.7688	629654.0936	N 79°56′32.39" E			
	P.I. 21+07.12	369031.4579	630007.5405	76°54′39.13" LT	606.7412	358.9634	452
	P.T. 23+54.90	369389.9189	630026.5241	N 3°01′53.26" E			

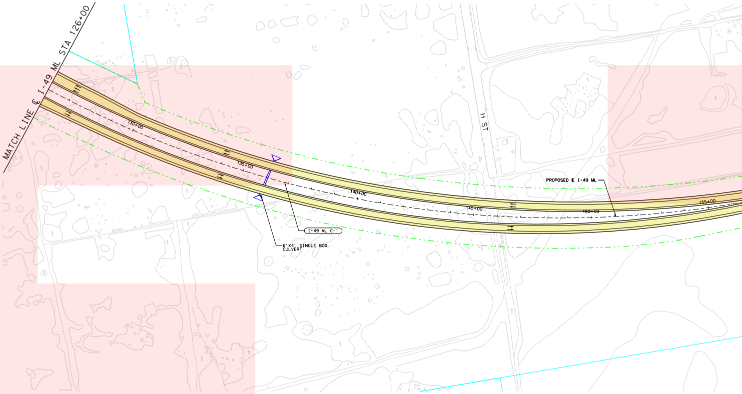

FORT ST. / S.H. 22
℄ NW-RP-SH22
15+00
20+00
10+00
EX-NW-LOOP-SH22
EX-SH22
-00
90+00
95+00
EX-NE-LOOP-SH22
EX-SH22
10+00
℄ NE-RP-SH22

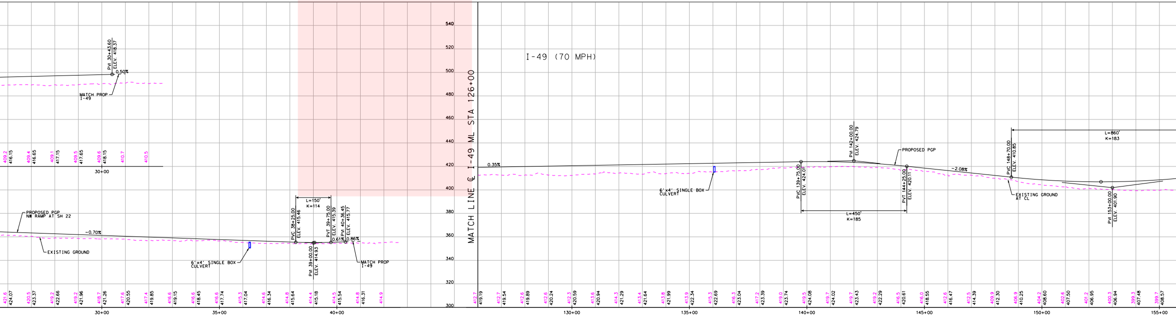


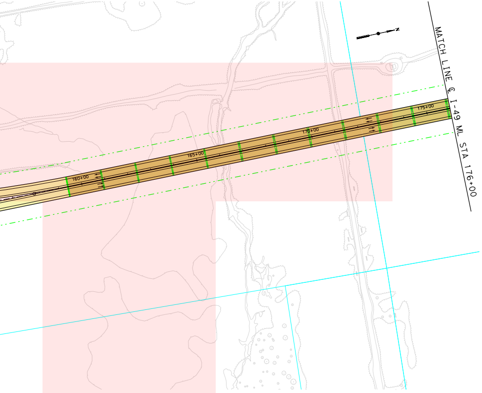

N
NW LC AT SH22 C-1
NW RP AT SH22 C-1
℄ NW LOCAL RD AT SH22
℄ NW-RP-SH22
NW LC AT SH22 C-2
NW RP AT SH22 C-2
NW RP AT SH22 C-3
℄ NW-RP-SH22
PROPOSED ℄ I-49 ML
6'X4' SINGLE BOX CULVERT
6'X4' SINGLE BOX CULVERT
BEGIN PROJECT STA 100+00
MATCH LINE ℄ I-49 ML STA 126+00
I-49 ML C-1
NE RP AT SH22 C-2
℄ NE LOCAL RD AT SH22
NE LC AT SH22 C-2
℄ NE-RP-SH22
6'X4' SINGLE BOX CULVERT
NE RP AT SH22 C-1
℄ NE LOCAL RD AT SH22
MATCH LINE STA 15+00
NE LC AT SH22 C-1
S.H. 4
EX-NE-LOOP-SH22
EX-SH22
℄ NE-RP-SH22
NE RP AT SH22 C-1
℄ NE LOCAL RD AT SH22
MATCH LINE STA 15+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00
46+72
100+00
105+00
110+00
115+00
120+00
125+00
10+00





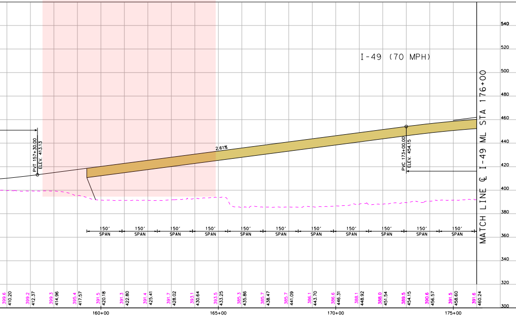

MATCH LINE ℄ I-49 ML STA 126+00
130+00
135+00
140+00
145+00
150+00
155+00
H ST
PROPOSED ℄ I-49 ML
I-49 ML C-1
6'X4' SINGLE BOX CULVERT


I-49 (70 MPH)
MATCH LINE ℄ I-49 ML STA 126+00
540
520
500
480
460
440
420
400
380
360
340
320
300
PVI 30+43.60 ELEV. 418.37
0.50%
MATCH PROP I-49
409.2 416.15
409.4 416.65
409.1 417.15
409.5 417.65
409.6 418.15
410.7
410.5
30+00
PROPOSED PGP NW RAMP AT SH 22
-0.70%
EXISTING GROUND
6'x4' SINGLE BOX CULVERT
L=150' K=114
PVC 38+25.00 ELEV. 415.46
PVI 39+00.00 ELEV. 414.93
PVT 39+75.00 ELEV. 415.39
PVI 40+36.45 ELEV. 415.77
0.61%
0.86%
MATCH PROP I-49
421.6 424.07
420.5 423.37
419.2 422.66
419.2 421.96
418.7 421.26
417.6 420.55
417.4 419.85
416.6 419.15
416.6 418.45
416.6 417.74
415.3 417.04
414.6 416.34
414.8 415.64
414.4 415.18
414.5 415.54
414.8 416.31
414.9
30+00
35+00
40+00
0.35%
6'x4' SINGLE BOX CULVERT
PVC 139+75.00 ELEV. 424.01
PVI 142+00.00 ELEV. 424.79
PVT 144+25.00 ELEV. 420.11
L=450' K=185
PROPOSED PGP
-2.08%
PVC 148+70.00 ELEV. 410.85
EXISTING GROUND AT CL
L=860' K=183
PVI 153+00.00 ELEV. 401.90
412.7 419.19
412.7 419.54
412.6 419.89
412.6 420.24
412.3 420.59
413.6 420.94
414.3 421.29
413.4 421.64
413.8 421.99
413.9 422.34
415.3 422.69
416.3 423.04
417.2 423.39
419.0 423.74
419.5 424.08
419.7 424.02
419.7 423.43
419.2 422.29
416.5 420.61
416.0 418.55
412.6 416.47
412.5 414.39
409.9 412.30
406.9 410.25
404.2 408.60
402.6 407.50
401.2 406.95
400.3 406.94
399.3 407.48
399.7 408.57
130+00
135+00
140+00
145+00
150+00
155+00


MATCH LINE ℄ I-49 ML STA 176+00
160+00
165+00
170+00
175+00
N

LEGEND

🟨	Main Lanes
🟥	Direct Connector
🟩	Cross-Streets
🟦	Ramps (Diagonal/Directional/Loop)
🟫	Concrete Bridge Structure
🟫	Steel Bridge Structure
- · -	Bridge Substructure
- - - -	Existing Storm Drain
═	Proposed Storm Drain
⬜	Bicycle / Pedestrian
⬛	Driveway / Cul-De-Sac
🟪	Potential Impacts
🟦	Zone A / AE Floodplain
⬜	Zone X Floodplain
▨	Zone AE Floodway
🟪	Cemetery
- · -	Existing STATE ROW
- · -	Proposed Construction Limits
— · —	Proposed Centerline / Baseline
▬	Proposed Retaining Wall
🟩	Project By Others
▨	Drainage Easement
—	Property Line
▨	Removal


I-49 (70 MPH)
MATCH LINE ℄ I-49 ML STA 176+00
PVT 157+30.00
ELEV. 413.13
PVC 173+00.00
ELEV. 454.15
2.61%
150' SPAN
150' SPAN
150' SPAN
150' SPAN
150' SPAN
150' SPAN
150' SPAN
150' SPAN
150' SPAN
150' SPAN
150' SPAN
540
520
500
480
460
440
420
400
380
360
340
320
300
399.6 410.20
399.2 412.37
399.3 414.96
395.4 417.57
391.5 420.18
391.3 422.80
391.4 425.41
391.7 428.02
393.1 430.64
393.5 433.25
385.3 435.86
385.7 438.47
385.7 441.09
386.1 443.70
386.6 446.31
388.1 448.92
388.0 451.54
389.5 454.15
390.6 456.57
391.5 458.60
391.6 460.24
160+00
165+00
170+00
175+00

NOTES:
1. PARCELS SHOWN ARE BASED ON GIS DATA AND HAVE NOT BEEN VERIFIED BY FIELD SURVEY.
2. DESIGN BASED ON LiDAR MAPPING 2017/2018.
3. DESIGN BASED ON AVAILABLE DRAINAGE CONSTRAINT INFORMATION. DETAILED DRAINAGE ANALYSIS TO BE PERFORMED IN SUBSEQUENT PROJECT DEVELOPMENT PHASES.
4. DRIVEWAY LOCATIONS ARE NOT SHOWN AND SUBJECT TO ACCESS MANAGEMENT POLICIES.
5. PROPOSED CONSTRUCTION LIMITS ARE PRELIMINARY AND SUBJECT TO CHANGE.
6. LANE CONFIGURATION LAYOUT AND RAMPING SCHEME IS PRELIMINARY AND SUBJECT TO CHANGE.

ARKANSAS DEPARTMENT OF TRANSPORTATION

SCOTT E. BENNETT, P.E. - DIRECTOR
PRELIMINARY DESIGN SCHEMATIC

I-49 PROJECT
CRAWFORD AND SEBASTIAN COUNTIES

I-49
FROM HIGHWAY 22 TO INTERSTATE 40

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LOOP RAMPS	30 MPH - 35 MPH
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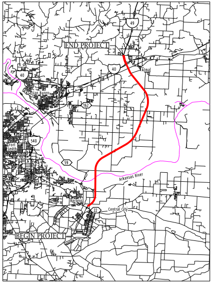
I-49 PROJECT
HIGHWAY CLASSIFICATION

URBAN FREEWAY


END PROJECT
BEGIN PROJECT
49
40
40
162
540
59
22
Alma
Van Buren
Fort Smith
Arkansas River
Barling
Central City
N

CRAWFORD AND SEBASTIAN COUNTY
NOT TO SCALE

PRELIMINARY SUBJECT TO CHANGE BASED ON FURTHER DEVELOPMENTS RESULTING FROM PUBLIC INPUT AND TECHNICAL REVIEW.

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DATE APPROVED ☐
DATE SUBMITTED ☐
DATE REVISED ☐

DATE: APRIL 26, 2018
PREPARED BY HNTB
UNDER THE SUPERVISION OF:
RUSSELL K. OZMER, P.E.

LICENSE NO. 17220

0 100 200
HORIZONTAL
0 20 40
VERTICAL

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HNTB

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ARDOT
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