ARKANSAS DEPARTMENT OF TRANSPORTATION

SCOTT E. BENNETT, P.E. - DIRECTOR

PRELIMINARY DESIGN SCHEMATIC

I-49 PROJECT
CRAWFORD AND SEBASTIAN COUNTIES

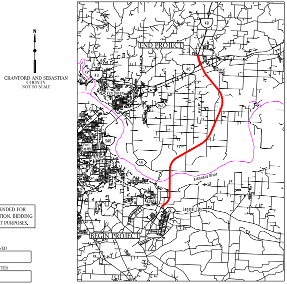
I-49
FROM HIGHWAY 22 TO INTERSTATE 40

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


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

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

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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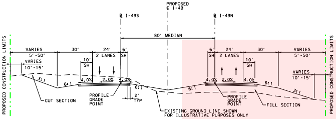
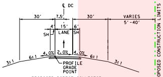
SHEET 8 OF 9

HNTB Corporation
The HNTB Companies
Engineers Architects Planners

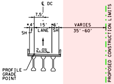

PROPOSED
℄ I-49
℄ I-49S
℄ I-49N
80′ MEDIAN
PROPOSED CONSTRUCTION LIMITS
VARIES
5′-50′
VARIES
10′-15′
30′
24′
2 LANES
6′
SH
10′
SH
3:1
6:1
4.0%
2.0%
4.0%
6:1
2′
TYP
CUT SECTION
PROFILE
GRADE
POINT
EXISTING GROUND LINE SHOWN
FOR ILLUSTRATIVE PURPOSES ONLY
6′
SH
24′
2 LANES
30′
VARIES
5′-50′
10′
SH
VARIES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

PROPOSED I-49

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

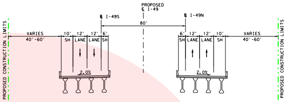

℄ DC
30′
7.5′
30′
VARIES
5′-40′
4′
15′
6′
SH
LANE
SH
4.0%
2.0%
4.0%
3:1
6:1
6:1
3:1
PROFILE
GRADE
POINT
PROPOSED CONSTRUCTION LIMITS

PROPOSED DIRECT CONNECTOR
SHOWN IN DIRECTION OF TRAFFIC


℄ DC
7.5′
*4′
15′
*6′
SH
LANE
SH
VARIES
35′-60′
2.0%
PROFILE
GRADE
POINT
PROPOSED CONSTRUCTION LIMITS

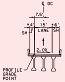
PROPOSED DIRECT CONNECTOR AT BRIDGE
SHOWN IN DIRECTION OF TRAFFIC

* SHOULDERS ALTERNATE
TO OBTAIN SSD


PROPOSED
℄ I-49
℄ I-49S
℄ I-49N
80′
VARIES
40′-60′
10′
12′
12′
6′
SH
LANE
LANE
SH
6′
12′
12′
10′
SH
LANE
LANE
SH
VARIES
40′-60′
2.0%
2.0%
PROPOSED CONSTRUCTION LIMITS
PROPOSED CONSTRUCTION LIMITS

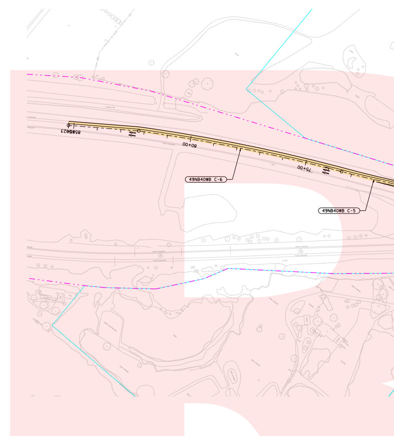
PROPOSED I-49 BRIDGE AT CROSS STREETS AND CREEKS

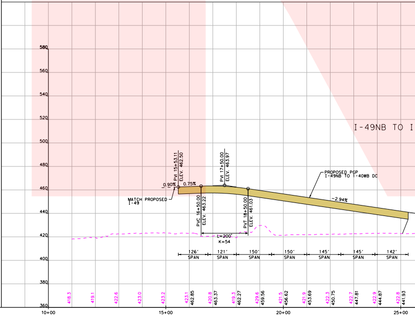
THIS TYPICAL SECTION DOES NOT REFLECT RAMPS, AUXILIARY LANES OR LANE CONFIGURATION AT INTERSECTIONS. SECTION IS SHOWN TO ILLUSTRATE TYPICAL LANE CONFIGURATION FOR BRIDGE LIMITS OF THIS PROJECT.

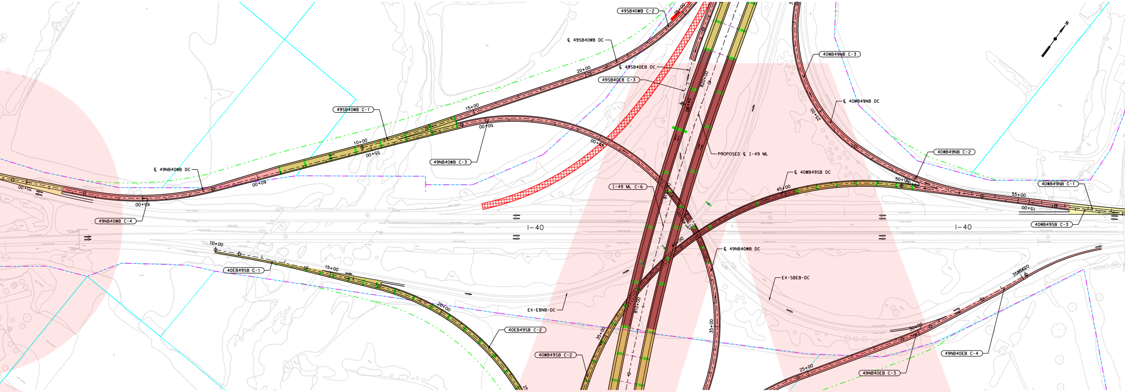

℄ DC
7.5′
*4′
15′
*6′
SH
LANE
SH
2.0%
PROFILE GRADE POINT

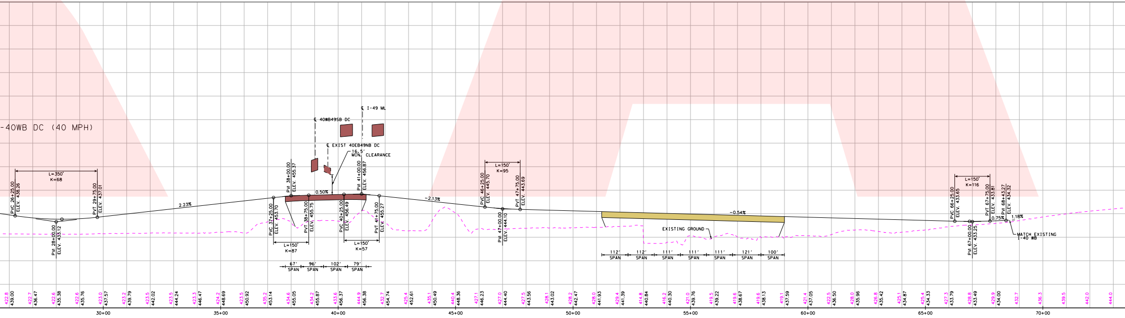
PROPOSED DIRECT CONNECTOR AT BRIDGE
SHOWN IN DIRECTION OF TRAFFIC

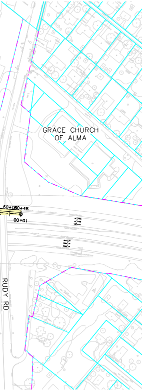
* SHOULDERS ALTERNATE
TO OBTAIN SSD

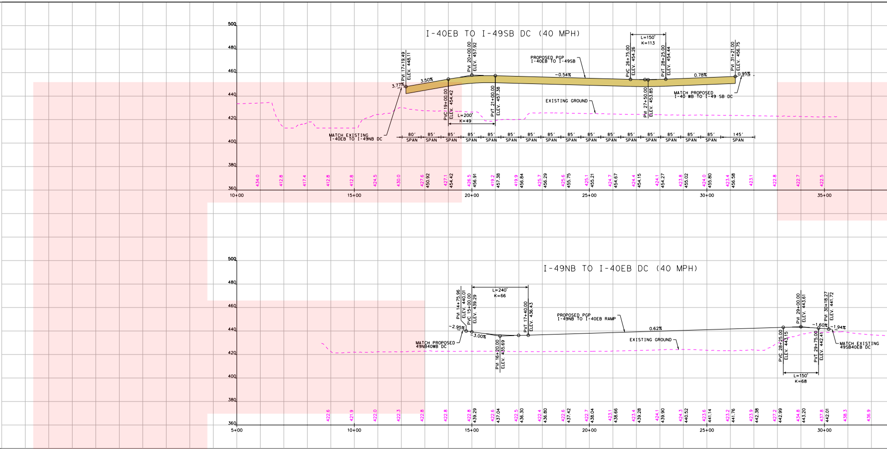

80+00
75+00
49NB40WB C-6
49NB40WB C-5

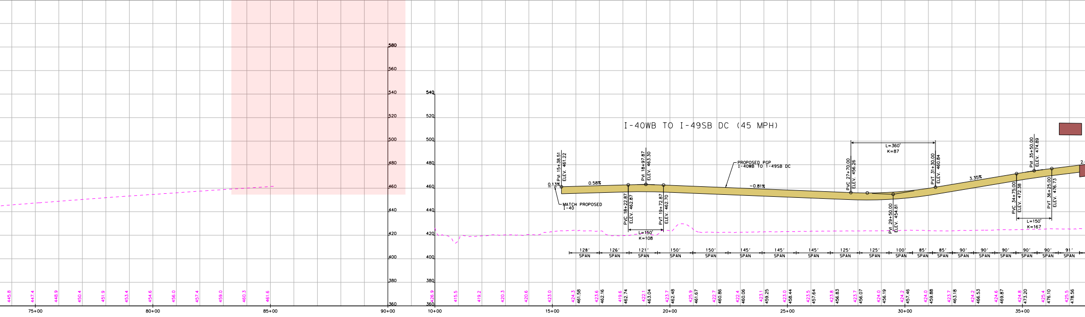


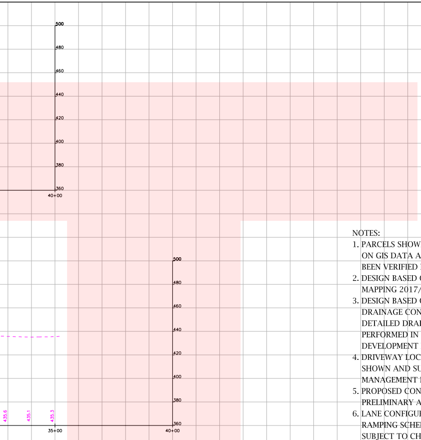

49SB40WB C-2
℄ 49SB40WB DC
℄ 49SB40EB DC
49SB40EB C-3
40WB49NB C-3
℄ 40WB49NB DC
49SB40WB C-1
PROPOSED ℄ I-49 ML
49NB40WB C-3
40WB49NB C-2
℄ 40WB49SB DC
℄ 49NB40WB DC
I-49 ML C-6
40WB49NB C-1
49NB40WB C-4
40WB49SB C-3
I-40
I-40
℄ 49NB40WB DC
40EB49SB C-1
EX-SBEB-DC
EX-EBNB-DC
40EB49SB C-2
40WB49SB C-2
49NB40EB C-4
49NB40EB C-3
10+00
15+00
20+00
25+00
35+00
45+00
50+00
55+00
810+00
820+00


-40WB DC (40 MPH)
℄ I-49 ML
℄ 40WB49SB DC
℄ EXIST 40EB49NB DC
16.5' MIN. CLEARANCE
L=350' K=68
PVC 26+25.00 ELEV. 438.26
PVI 28+00.00 ELEV. 433.12
PVT 29+75.00 ELEV. 437.01
2.23%
PVC 37+25.00 ELEV. 453.70
PVI 38+00.00 ELEV. 455.37
PVT 38+75.00 ELEV. 455.75
L=150' K=87
0.50%
PVC 40+25.00 ELEV. 456.49
PVI 41+00.00 ELEV. 456.87
PVT 41+75.00 ELEV. 455.27
L=150' K=57
67' SPAN
96' SPAN
102' SPAN
79' SPAN
-2.13%
L=150' K=95
PVC 46+25.00 ELEV. 445.70
PVI 47+00.00 ELEV. 444.10
PVT 47+75.00 ELEV. 443.69
-0.54%
EXISTING GROUND
112' SPAN
112' SPAN
111' SPAN
111' SPAN
111' SPAN
121' SPAN
100' SPAN
L=150' K=116
PVC 66+25.00 ELEV. 433.65
PVI 67+00.00 ELEV. 433.25
PVT 67+75.00 ELEV. 433.81
PVI 68+43.27 ELEV. 434.32
0.75%
1.18%
MATCH EXISTING I-40 WB
422.8 439.00
422.7 436.47
422.6 435.38
422.6 435.76
423.0 437.57
423.2 439.79
423.5 442.02
423.5 444.24
423.3 446.47
424.2 448.69
423.5 450.92
435.2 453.14
434.6 455.05
434.2 455.87
433.6 456.37
444.9 456.38
432.7 454.74
425.4 452.61
435.1 450.49
440.4 448.36
427.1 446.23
427.0 444.40
427.5 443.56
428.1 443.02
428.2 442.47
428.0 441.93
429.4 441.39
414.8 440.84
416.2 440.30
421.0 439.76
419.5 439.22
419.6 438.67
419.6 438.13
419.1 437.59
421.4 437.05
422.5 436.50
428.0 435.96
426.8 435.42
425.1 434.87
425.4 434.33
427.3 433.79
428.8 433.49
429.9 434.00
432.7
436.3
439.5
442.0
444.0
30+00
35+00
40+00
45+00
50+00
55+00
60+00
65+00
70+00


GRACE CHURCH OF ALMA
RUDY RD
60+00
60+48
00+01


I-40EB TO I-49SB DC (40 MPH)
PVI 17+19.49 ELEV. 448.11
PVC 19+00.00 ELEV. 454.42
PVI 20+00.00 ELEV. 457.92
PVT 21+00.00 ELEV. 457.38
L=200' K=49
PROPOSED PGP I-40EB TO I-49SB
-0.54%
3.50%
3.77%
PVC 26+75.00 ELEV. 454.26
PVI 27+50.00 ELEV. 453.85
PVT 28+25.00 ELEV. 454.44
L=150' K=113
0.78%
PVI 31+21.00 ELEV. 456.75
0.95%
MATCH PROPOSED I-40 WB TO I-49 SB DC
EXISTING GROUND
MATCH EXISTING I-40EB TO I-49NB DC
80' SPAN
85' SPAN
145' SPAN
10+00
15+00
20+00
25+00
30+00
35+00
I-49NB TO I-40EB DC (40 MPH)
PVI 14+75.96 ELEV. 440.01
PVC 15+00.00 ELEV. 439.29
L=240' K=66
PVI 16+20.00 ELEV. 435.69
PVT 17+40.00 ELEV. 436.43
-2.95%
-3.00%
MATCH PROPOSED 49NB40WB DC
PROPOSED PGP I-49NB TO I-40EB RAMP
0.62%
EXISTING GROUND
PVC 28+25.00 ELEV. 443.15
PVI 29+00.00 ELEV. 443.61
PVT 29+75.00 ELEV. 442.41
PVI 30+18.27 ELEV. 441.72
L=150' K=68
-1.60%
-1.94%
MATCH EXISTING 49SB40EB DC
5+00
10+00
15+00
20+00
25+00
30+00


I-40WB TO I-49SB DC (45 MPH)
PVI 15+38.51 ELEV. 461.22
0.13%
0.58%
MATCH PROPOSED I-40
PVC 18+22.87 ELEV. 462.87
PVI 18+97.87 ELEV. 463.30
PVT 19+72.87 ELEV. 462.70
L=150' K=108
PROPOSED PGP I-40WB TO I-49SB DC
-0.81%
PVC 27+70.00 ELEV. 456.26
PVI 29+50.00 ELEV. 454.81
PVT 31+30.00 ELEV. 460.84
L=360' K=87
3.35%
PVC 34+75.00 ELEV. 472.38
PVI 35+50.00 ELEV. 474.89
PVT 36+25.00 ELEV. 476.73
L=150' K=167
128' SPAN
126' SPAN
121' SPAN
150' SPAN
145' SPAN
125' SPAN
100' SPAN
85' SPAN
90' SPAN
91' SPAN
75+00
80+00
85+00
90+00
10+00
15+00
20+00
25+00
30+00
35+00

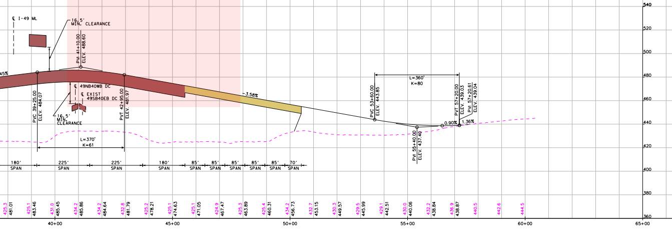

500
480
460
440
420
400
380
360
40+00
435.6
435.1
435.3
35+00

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.

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 ML
16.5'
MIN. CLEARANCE
PVI 41+10.00
ELEV. 488.60
45%
PVC 39+25.00
ELEV. 484.07
℄ 49NB40WB DC
℄ EXIST
49SB40EB DC
16.5'
MIN.
CLEARANCE
PVT 42+95.00
ELEV. 481.97
-3.58%
L=370'
K=61
180'
SPAN
225'
SPAN
225'
SPAN
180'
SPAN
85'
SPAN
85'
SPAN
85'
SPAN
85'
SPAN
85'
SPAN
70'
SPAN
L=360'
K=80
PVC 53+60.00
ELEV. 443.85
PVI 55+40.00
ELEV. 437.40
0.90%
PVT 57+20.00
ELEV. 439.03
PVI 57+20.61
ELEV. 439.04
1.36%
540
520
500
480
460
440
420
400
380
360
425.3
481.01
425.1
483.46
431.0
485.45
434.2
485.86
434.2
484.64
432.8
481.79
425.2
478.21
425.1
474.63
425.1
471.05
424.9
467.47
425.3
463.89
425.4
460.31
434.2
456.73
432.7
453.15
430.3
449.57
429.5
445.99
429.1
442.51
430.0
440.06
432.2
438.84
436.9
438.87
440.5
442.6
444.5
40+00
45+00
50+00
55+00
60+00
65+00

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SCOTT E. BENNETT, P.E. - DIRECTOR

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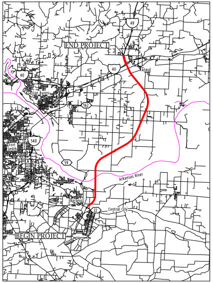
URBAN FREEWAY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ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION