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

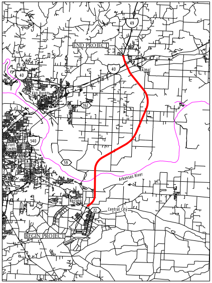
ROADWAY TYPE	DESIGN SPEED
MAIN LANES	70 MPH
DIRECT CONNECTORS	40 MPH - 50 MPH
DIAGONAL/DIRECTIONAL RAMPS	40 MPH - 50 MPH
LOOP RAMPS	30 MPH - 35 MPH
CROSS STREETS	40 MPH

I-49 PROJECT
HIGHWAY CLASSIFICATION

URBAN FREEWAY

N

CRAWFORD AND SEBASTIAN COUNTY
NOT TO SCALE


49
END PROJECT
40
Alma
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 02, 2018
PREPARED BY HNTB
UNDER THE SUPERVISION OF:
RUSSELL K. OZMER, P.E.

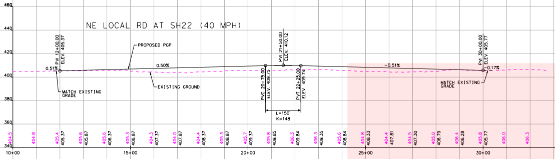
LICENSE NO. 17220

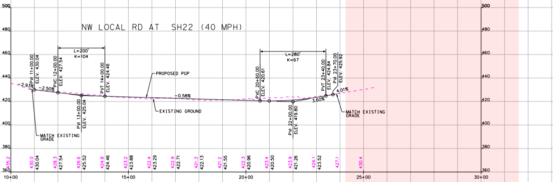
TABLE OF CONTENTS:

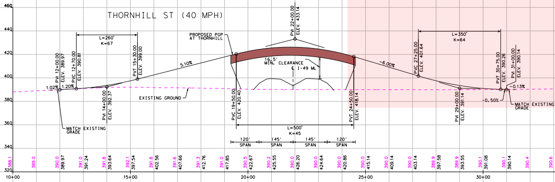
	ROLL
PLAN/PROFILE	1-8
PROFILES	9

SHEET 9 OF 9

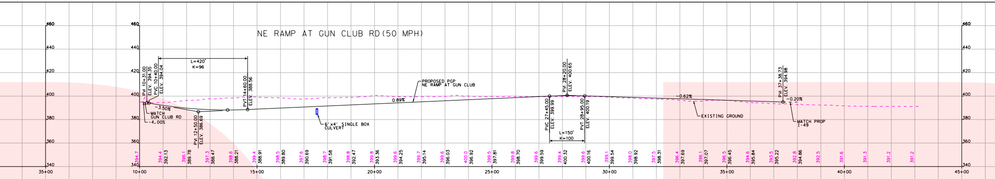
HNTB Corporation
The HNTB Companies
Engineers Architects Planners


NE LOCAL RD AT SH22 (40 MPH)
460
440
420
400
380
360
340
PVI 12+00.00 ELEV. 405.37
0.51%
PROPOSED PGP
0.50%
MATCH EXISTING GRADE
EXISTING GROUND
PVC 20+75.00 ELEV. 409.75
PVI 21+50.00 ELEV. 410.12
PVT 22+25.00 ELEV. 409.74
L=150' K=148
-0.51%
PVI 30+00.00 ELEV. 405.77
-0.17%
MATCH EXISTING GRADE
404.5
404.8
405.4 405.37
405.6 405.87
405.6 406.37
405.3 406.87
404.3 407.37
404.0 407.87
404.4 408.37
405.3 408.87
405.7 409.37
405.8 409.85
406.3 409.84
406.3 409.35
405.6 408.84
404.8 408.33
404.4 407.81
404.5 407.30
405.0 406.79
406.4 406.28
405.8 405.77
406.0
406.3
10+00
15+00
20+00
25+00
30+00


NW LOCAL RD AT SH22 (40 MPH)
500
480
460
440
420
400
380
360
-2.93%
PVI 11+00.00 ELEV. 430.04
-2.50%
PVC 12+00.00 ELEV. 427.54
L=200' K=104
PVI 13+00.00 ELEV. 425.04
PVT 14+00.00 ELEV. 424.46
PROPOSED PGP
-0.58%
EXISTING GROUND
MATCH EXISTING GRADE
PVC 20+60.00 ELEV. 420.61
L=280' K=67
PVI 22+00.00 ELEV. 419.80
3.60%
PVT 23+40.00 ELEV. 424.84
PVI 23+70.00 ELEV. 425.92
4.01%
MATCH EXISTING GRADE
435.2
430.0 430.04
428.3 427.54
426.6 425.52
424.8 424.46
423.2 423.88
422.4 423.29
422.9 422.71
421.3 422.13
421.2 421.55
422.3 420.96
423.4 420.50
423.9 421.26
424.1 423.52
427.1
430.4
10+00
15+00
20+00
25+00
30+00

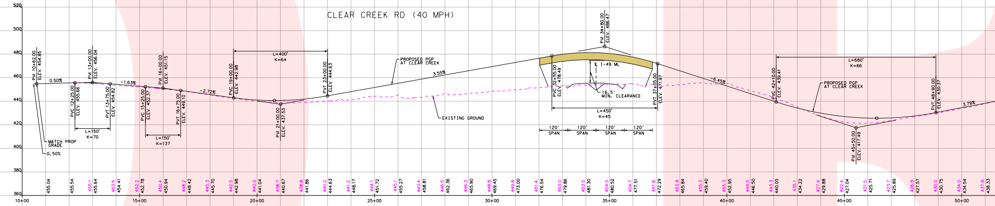

THORNHILL ST (40 MPH)
460
440
420
400
380
360
340
320
1.02%
PVI 12+00.00 ELEV. 389.97
1.20%
PVC 12+70.00 ELEV. 390.81
L=260' K=67
PVI 14+00.00 ELEV. 392.37
PVT 15+30.00 ELEV. 399.00
MATCH EXISTING GRADE
5.10%
EXISTING GROUND
PROPOSED PGP AT THORNHILL
PVC 19+50.00 ELEV. 420.40
PVI 22+00.00 ELEV. 433.14
16.5' MIN. CLEARANCE
℄ I-49 ML
PVT 24+50.00 ELEV. 418.14
L=500' K=45
120' SPAN
145' SPAN
145' SPAN
120' SPAN
-6.00%
PVC 27+25.00 ELEV. 401.64
L=350' K=64
PVI 29+00.00 ELEV. 391.14
PVT 30+75.00 ELEV. 390.26
PVI 31+00.00 ELEV. 390.14
-0.13%
-0.50%
MATCH EXISTING GRADE
388.1
389.0
390.0 389.97
391.0 391.24
391.8 393.64
392.1 397.54
391.8 402.56
391.6 407.66
391.3 412.76
391.0 417.85
390.5 422.67
390.2 425.55
390.0 426.20
390.0 424.64
390.0 420.86
390.0 415.14
390.0 409.14
390.0 403.14
389.9 397.58
389.9 393.55
390.1 391.08
390.1 390.14
390.4
390.6
10+00
15+00
20+00
25+00
30+00

NE RAMP AT GUN CLUB RD(50 MPH)



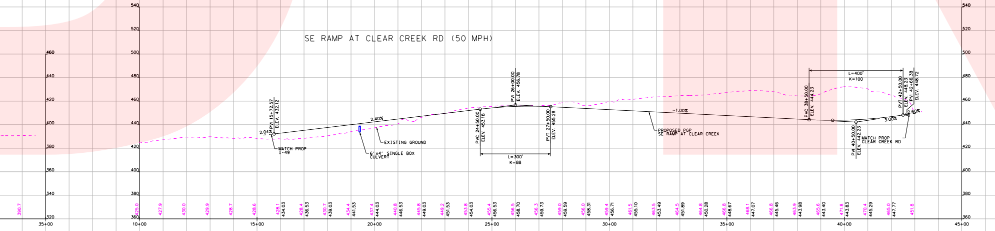
PVI 10+31.00 ELEV. 394.35
PVC 10+40.00 ELEV. 394.04
L=420' K=96
PVT 14+60.00 ELEV. 388.56
-3.50%
MATCH GUN CLUB RD
-4.00%
PVI 12+50.00 ELEV. 386.69
6'x4' SINGLE BOX CULVERT
PROPOSED PGP NE RAMP AT GUN CLUB
0.89%
PVC 27+45.00 ELEV. 399.99
PVI 28+20.00 ELEV. 400.65
PVT 28+95.00 ELEV. 400.19
L=150' K=100
-0.62%
EXISTING GROUND
PVI 37+38.73 ELEV. 394.98
-0.20%
MATCH PROP I-49
460
440
420
400
380
360
340
394.7
394.4 392.13
396.1 389.78
397.3 388.47
398.6 388.21
399.4 388.91
398.5 389.80
397.6 390.69
398.7 391.58
398.8 392.47
399.8 393.36
399.6 394.25
399.7 395.14
399.6 396.03
400.0 396.92
399.5 397.81
399.8 398.70
399.6 399.59
399.4 400.32
399.6 400.16
399.1 399.54
398.0 398.92
397.5 398.31
396.4 397.69
396.1 397.07
396.5 396.45
394.6 395.84
393.5 395.22
392.8 394.86
392.5
391.6
391.3
391.2
391.2
35+00
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00

CLEAR CREEK RD (40 MPH)



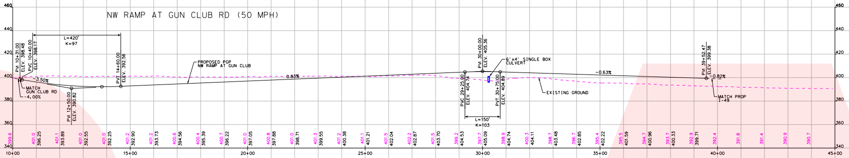
PVI 10+62.00 ELEV. 454.85
0.50%
PVC 12+25.00 ELEV. 455.66
PVI 13+00.00 ELEV. 456.04
PVT 13+75.00 ELEV. 454.82
L=150' K=70
MATCH PROP GRADE
0.50%
-1.63%
PVC 15+25.00 ELEV. 452.37
PVI 16+00.00 ELEV. 451.15
PVT 16+75.00 ELEV. 449.10
L=150' K=137
-2.72%
PVC 19+00.00 ELEV. 442.98
L=400' K=64
PVI 21+00.00 ELEV. 437.53
PVT 23+00.00 ELEV. 444.63
PROPOSED PGP AT CLEAR CREEK
3.55%
EXISTING GROUND
PVI 34+80.00 ELEV. 486.47
PVC 32+55.00 ELEV. 478.49
℄ I-49 ML
16.5' MIN. CLEARANCE
PVT 37+05.00 ELEV. 471.97
L=450' K=45
120' SPAN
120' SPAN
120' SPAN
120' SPAN
-6.45%
PVC 42+10.00 ELEV. 439.41
L=680' K=66
PROPOSED PGP AT CLEAR CREEK
PVI 45+50.00 ELEV. 417.49
PVT 48+90.00 ELEV. 430.37
3.79%
520
500
480
460
440
420
400
380
360
455.04
455.54
455.1 455.64
453.5 454.41
452.2 452.78
450.4 450.94
448.2 448.42
445.3 445.70
442.5 442.98
440.0 441.04
438.7 440.67
438.8 441.86
440.2 444.63
441.2 448.17
444.1 451.72
445.1 455.27
443.4 458.81
446.5 462.36
446.3 465.90
448.8 469.45
449.8 473.00
451.4 476.54
453.0 479.86
453.5 481.30
454.5 480.52
454.7 477.51
451.8 472.29
453.9 465.84
455.3 459.40
455.3 452.95
449.0 446.50
443.3 440.05
435.1 434.22
427.4 429.88
422.4 427.04
421.5 425.71
423.7 425.89
426.8 427.57
430.0 430.75
434.0 434.54
437.9 438.33
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00
50+00

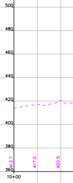
SE RAMP AT CLEAR CREEK RD (50 MPH)

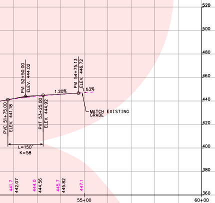


2.04%
PVI 15+72.57 ELEV. 432.12
MATCH PROP I-49
2.40%
6'x4' SINGLE BOX CULVERT
EXISTING GROUND
PVC 24+50.00 ELEV. 453.18
PVI 26+00.00 ELEV. 456.78
PVT 27+50.00 ELEV. 455.28
L=300' K=88
-1.00%
PROPOSED PGP SE RAMP AT CLEAR CREEK
PVC 38+50.00 ELEV. 444.23
L=400' K=100
PVI 40+50.00 ELEV. 442.23
3.00%
PVT 42+50.00 ELEV. 448.23
PVI 42+66.38 ELEV. 448.72
2.60%
MATCH PROP CLEAR CREEK RD
460
440
420
400
380
360
340
320
540
520
500
480
460
440
420
400
380
360
390.7
425.0
427.9
430.0
429.9
428.7
428.6
428.1 434.03
428.4 436.53
430.7 439.03
434.4 441.53
437.4 444.03
440.8 446.53
445.8 449.03
449.2 451.53
453.8 454.03
455.4 456.53
456.5 458.70
456.3 459.73
459.0 459.59
456.0 458.31
459.4 456.71
461.5 455.10
463.5 453.49
464.5 451.89
464.8 450.28
466.8 448.67
468.1 447.07
466.8 445.46
463.9 443.98
465.6 443.40
471.8 443.83
470.4 445.29
465.0 447.77
451.8
35+00
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00

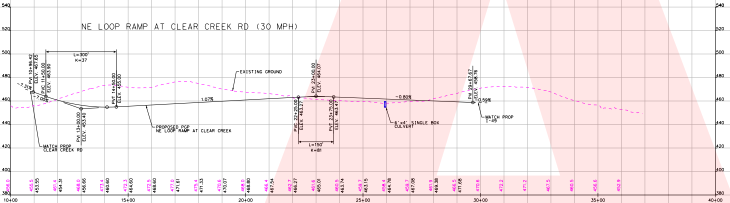
NW RAMP AT GUN CLUB RD (50 MPH)


460
440
420
400
380
360
340
L=420'
K=97
PVI 10+31.00
ELEV. 398.48
PVC 10+40.00
ELEV. 398.17
-3.50%
MATCH
GUN CLUB RD
-4.00%
PVI 12+50.00
ELEV. 390.82
PVT 14+60.00
ELEV. 392.56
PROPOSED PGP
NW RAMP AT GUN CLUB
0.83%
PVC 29+25.00
ELEV. 404.74
PVI 30+00.00
ELEV. 405.36
PVT 30+75.00
ELEV. 404.89
6'x4' SINGLE BOX
CULVERT
L=150'
K=103
-0.63%
EXISTING GROUND
PVI 39+52.47
ELEV. 399.38
-0.82%
MATCH PROP
I-49
399.6
401.0
396.25
401.1
393.89
401.0
392.55
401.0
392.25
401.2
392.90
401.2
393.73
400.6
394.56
400.4
395.39
400.7
396.22
401.0
397.05
400.8
397.88
401.0
398.71
401.3
399.55
401.2
400.38
401.1
401.21
401.5
402.04
402.2
402.87
401.5
403.70
399.2
404.53
397.7
405.09
398.9
404.74
400.3
404.11
398.7
403.48
396.7
402.85
395.4
402.22
395.5
401.59
394.7
400.96
393.7
400.33
392.9
399.71
392.4
391.8
391.4
390.9
390.7
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00

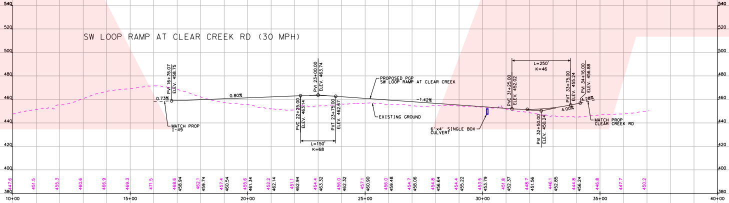

500
480
460
440
420
400
380
360
413.7
417.0
420.5
10+00

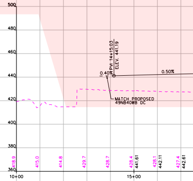

520
500
480
460
440
420
400
380
360
PVC 51+75.00
ELEV. 441.18
PVI 52+50.00
ELEV. 444.02
PVT 53+25.00
ELEV. 444.92
1.20%
PVI 54+75.13
ELEV. 446.72
1.53%
MATCH EXISTING
GRADE
L=150'
K=58
441.7
442.07
444.0
444.56
445.7
445.82
447.1
55+00
60+00

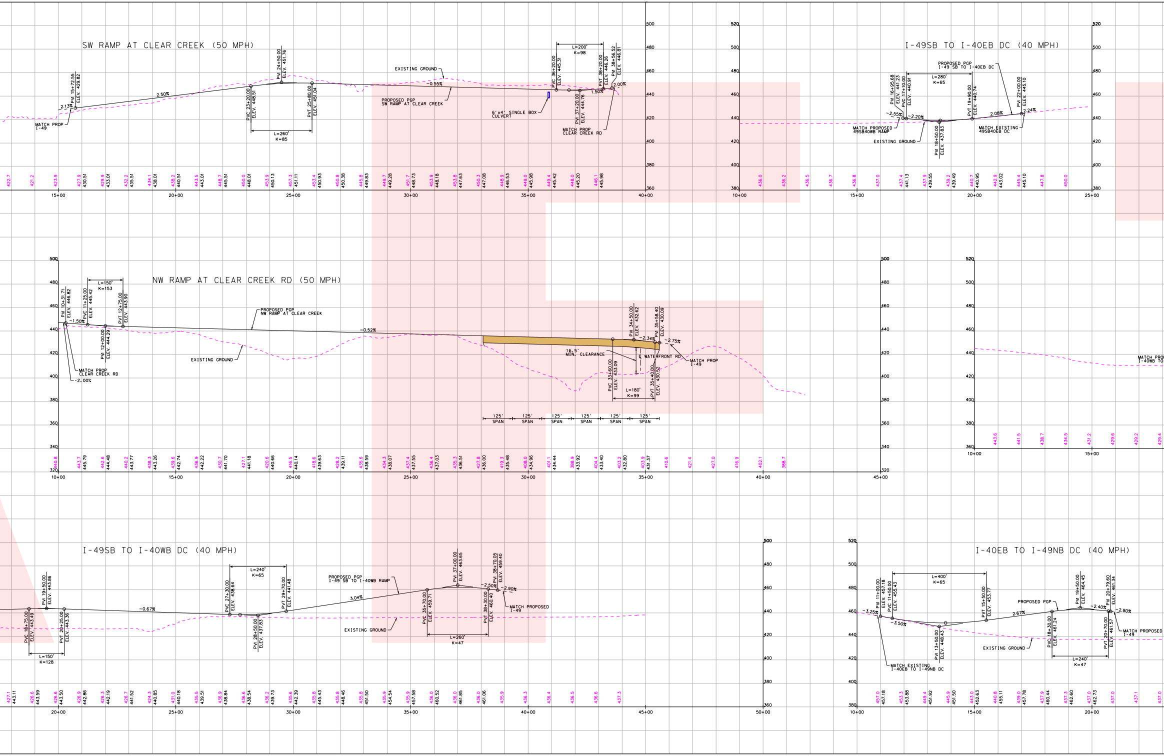
NE LOOP RAMP AT CLEAR CREEK RD (30 MPH)

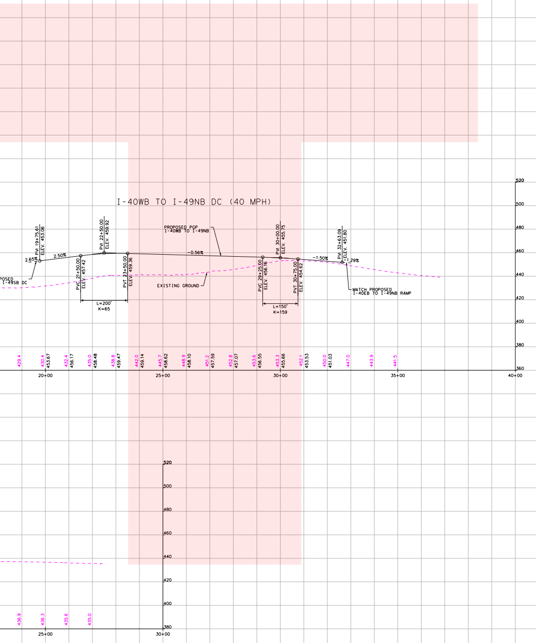

540
520
500
480
460
440
420
400
380
L=300'
K=37
PVI 10+96.42
ELEV. 467.65
PVC 11+50.00
ELEV. 463.90
-7.31%
-7.00%
PVI 13+00.00
ELEV. 453.40
PVT 14+50.00
ELEV. 455.00
MATCH PROP
CLEAR CREEK RD
EXISTING GROUND
1.07%
PROPOSED PGP
NE LOOP RAMP AT CLEAR CREEK
PVC 22+25.00
ELEV. 463.27
PVI 23+00.00
ELEV. 464.07
PVT 23+75.00
ELEV. 463.47
L=150'
K=81
-0.80%
6'x4' SINGLE BOX
CULVERT
PVI 29+67.67
ELEV. 458.76
0.59%
MATCH PROP
I-49
456.0
455.5
453.55
461.4
454.31
468.0
456.66
473.4
460.60
472.3
464.60
472.5
468.60
477.0
471.61
475.4
471.33
470.6
470.07
468.0
468.80
466.4
467.54
462.7
466.27
461.6
465.01
460.5
463.74
459.7
463.15
458.4
464.78
459.7
467.08
461.9
469.38
466.5
471.68
470.6
472.2
471.2
467.5
460.5
456.6
452.9
10+00
15+00
20+00
25+00
30+00
35+00
40+00

SW LOOP RAMP AT CLEAR CREEK RD (30 MPH)


540
520
500
480
460
440
420
400
380
0.73%
PVI 16+76.07
ELEV. 458.75
MATCH PROP
I-49
0.80%
PVC 22+25.00
ELEV. 463.14
PVI 23+00.00
ELEV. 463.74
PVT 23+75.00
ELEV. 462.67
L=150'
K=68
PROPOSED PGP
SW LOOP RAMP AT CLEAR CREEK
-1.42%
EXISTING GROUND
6'x4' SINGLE BOX
CULVERT
L=250'
K=46
PVC 31+25.00
ELEV. 452.02
PVI 32+50.00
ELEV. 450.24
PVT 33+75.00
ELEV. 455.24
4.00%
PVI 34+16.00
ELEV. 456.88
4.28%
MATCH PROP
CLEAR CREEK RD
447.6
451.5
455.3
460.6
466.9
469.3
471.5
468.6
458.94
462.1
459.74
457.4
460.54
455.6
461.34
452.2
462.14
451.1
462.94
454.4
463.32
456.0
462.32
457.1
460.90
456.0
459.48
454.7
458.06
454.8
456.64
454.4
455.22
453.5
453.79
451.8
452.37
448.7
451.56
446.1
452.85
444.8
456.24
446.8
447.7
450.2
10+00
15+00
20+00
25+00
30+00
35+00
40+00


500
480
460
440
420
400
380
360
0.40%
PVI 14+15.03
ELEV. 441.19
0.50%
MATCH PROPOSED
49NB40WB DC
418.9
415.0
414.8
429.7
428.7
428.4
441.61
428.1
442.11
427.4
442.61
10+00
15+00


SW RAMP AT CLEAR CREEK (50 MPH)
MATCH PROP I-49
2.13%
PVI 15+72.55 ELEV. 429.82
2.50%
PVC 23+20.00 ELEV. 448.51
PVI 24+50.00 ELEV. 451.76
PVT 25+80.00 ELEV. 451.04
L=260' K=85
EXISTING GROUND
-0.55%
PROPOSED PGP SW RAMP AT CLEAR CREEK
6'x4' SINGLE BOX CULVERT
PVC 36+20.00 ELEV. 445.31
L=200' K=98
PVI 37+20.00 ELEV. 444.76
PVT 38+20.00 ELEV. 446.26
PVI 38+56.52 ELEV. 446.81
1.50%
2.00%
MATCH PROP CLEAR CREEK RD
I-49SB TO I-40EB DC (40 MPH)
PROPOSED PGP I-49 SB TO I-40EB DC
PVI 16+95.68 ELEV. 441.23
PVC 17+10.00 ELEV. 440.91
L=280' K=65
-2.55%
-2.20%
MATCH PROPOSED 49SB40WB RAMP
EXISTING GROUND
PVI 18+50.00 ELEV. 437.83
PVT 19+90.00 ELEV. 440.74
2.08%
PVI 22+00.00 ELEV. 445.10
2.24%
MATCH EXISTING 49SB40EB DC
NW RAMP AT CLEAR CREEK RD (50 MPH)
PVI 10+31.71 ELEV. 446.82
PVC 11+25.00 ELEV. 445.42
L=150' K=153
PVT 12+75.00 ELEV. 443.90
PVI 12+00.00 ELEV. 444.29
-1.50%
MATCH PROP CLEAR CREEK RD
-2.00%
PROPOSED PGP NW RAMP AT CLEAR CREEK
EXISTING GROUND
-0.52%
16.5' MIN. CLEARANCE
PVI 34+50.00 ELEV. 432.62
PVI 35+58.40 ELEV. 430.09
-2.34%
-2.75%
℄ WATERFRONT RD
MATCH PROP I-49
PVC 33+60.00 ELEV. 433.09
PVT 35+40.00 ELEV. 430.52
L=180' K=99
125' SPAN
125' SPAN
125' SPAN
125' SPAN
125' SPAN
125' SPAN
MATCH PROP I-40WB TO
I-49SB TO I-40WB DC (40 MPH)
PVC 18+75.00 ELEV. 443.49
PVI 19+50.00 ELEV. 443.86
PVT 20+25.00 ELEV. 443.50
L=150' K=128
-0.67%
PVC 27+30.00 ELEV. 438.64
L=240' K=65
PVI 28+50.00 ELEV. 437.83
PVT 29+70.00 ELEV. 441.48
PROPOSED PGP I-49 SB TO I-40WB RAMP
3.04%
EXISTING GROUND
PVC 35+70.00 ELEV. 459.71
PVI 37+00.00 ELEV. 463.65
L=260' K=47
-2.50%
PVT 38+30.00 ELEV. 460.40
PVI 38+70.05 ELEV. 459.40
-2.90%
MATCH PROPOSED I-49
I-40EB TO I-49NB DC (40 MPH)
-3.25%
PVI 11+00.00 ELEV. 457.18
PVC 11+50.00 ELEV. 455.43
L=400' K=65
-3.50%
PVI 13+50.00 ELEV. 448.43
PVT 15+50.00 ELEV. 453.77
MATCH EXISTING I-40EB TO I-49NB DC
2.67%
PROPOSED PGP
EXISTING GROUND
PVC 18+30.00 ELEV. 461.24
PVI 19+50.00 ELEV. 464.45
L=240' K=47
-2.40%
PVT 20+70.00 ELEV. 461.57
PVI 20+79.60 ELEV. 461.34
-2.80%
MATCH PROPOSED I-49
15+00
20+00
25+00
30+00
35+00
40+00
45+00
50+00
10+00


I-40WB TO I-49NB DC (40 MPH)
PVI 19+75.61
ELEV. 453.06
2.65%
2.50%
PVI 22+50.00
ELEV. 459.92
PVC 21+50.00
ELEV. 457.42
PVT 23+50.00
ELEV. 459.36
L=200'
K=65
POSED
I-49SB DC
PROPOSED PGP
I-40WB TO I-49NB
-0.56%
EXISTING GROUND
PVC 29+25.00
ELEV. 456.16
PVI 30+00.00
ELEV. 455.75
PVT 30+75.00
ELEV. 454.62
L=150'
K=159
-1.50%
PVI 32+63.09
ELEV. 451.80
1.29%
MATCH PROPOSED
I-40EB TO I-49NB RAMP
520
500
480
460
440
420
400
380
360
429.4
430.4
453.67
432.4
456.17
435.0
458.48
438.8
459.47
442.0
459.14
445.7
458.62
448.9
458.10
451.2
457.59
452.8
457.07
453.6
456.55
453.3
455.66
452.1
453.53
450.0
451.03
447.0
443.9
441.5
20+00
25+00
30+00
35+00
40+00
520
500
480
460
440
420
400
380
436.9
436.3
435.6
435.0
25+00
30+00

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

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

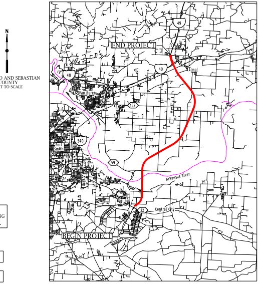
I-49
FROM HIGHWAY 22 TO INTERSTATE 40

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

CRAWFORD AND SEBASTIAN
COUNTY
NOT TO SCALE

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

TABLE OF CONTENTS:

	ROLL
PLAN/PROFILE	1-8
PROFILES	9

SHEET 9 OF 9

HNTB Corporation
The HNTB Companies
Engineers Architects Planners