ARKANSAS DEPARTMENT OF TRANSPORTATION

SCOTT E. BENNETT, P.E. - DIRECTOR

PRELIMINARY DESIGN SCHEMATIC

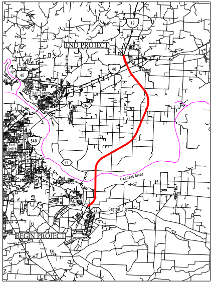
I-49 PROJECT
CRAWFORD AND SEBASTIAN COUNTIES

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


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

N

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

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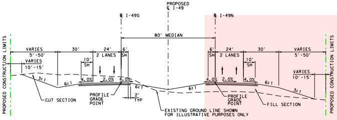
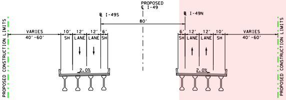
HNTB Corporation
The HNTB Companies
Engineers Architects Planners


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
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
4.0%
2.0%
4.0%
6:1
VARIES
10'-15'
3:1
PROFILE GRADE POINT
FILL SECTION
PROPOSED CONSTRUCTION LIMITS

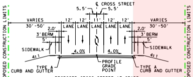
PROPOSED I-49

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.

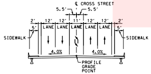

PROPOSED
℄ I-49
℄ I-49S
℄ I-49N
80'
PROPOSED CONSTRUCTION LIMITS
VARIES
40'-60'
10'
SH
12'
LANE
12'
LANE
6'
SH
2.0%
6'
SH
12'
LANE
12'
LANE
10'
SH
2.0%
VARIES
40'-60'
PROPOSED CONSTRUCTION LIMITS

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.


℄ CROSS STREET
5.5'
5.5'
PROPOSED CONSTRUCTION LIMITS
VARIES
30'-50'
2.0'
3' BERM
5'
SIDEWALK
4:1
12'
LANE
12'
LANE
11'
LANE
12'
LANE
12'
LANE
4.0%
4.0%
TYPE A
CURB AND GUTTER
PROFILE GRADE POINT
VARIES
30'-50'
2.0'
3' BERM
5'
SIDEWALK
4:1
TYPE A
CURB AND GUTTER
PROPOSED CONSTRUCTION LIMITS

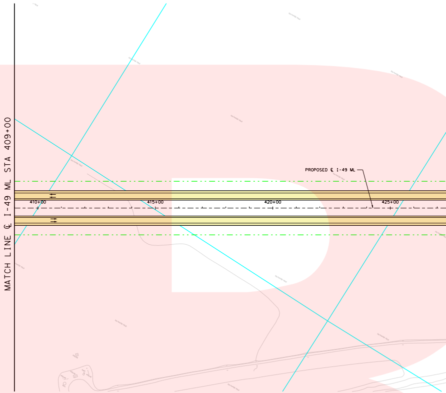
PROPOSED CROSS STREET AT GRADE

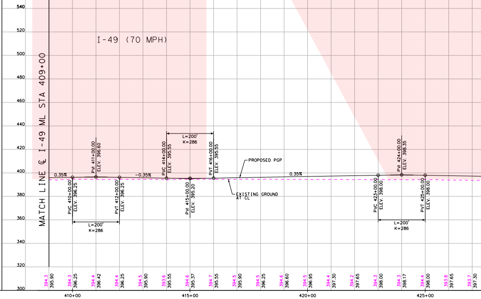

℄ CROSS STREET
5.5'
5.5'
2'
5'
SIDEWALK
12'
LANE
12'
LANE
11'
LANE
12'
LANE
12'
LANE
4.0%
4.0%
PROFILE GRADE POINT
2'
5'
SIDEWALK

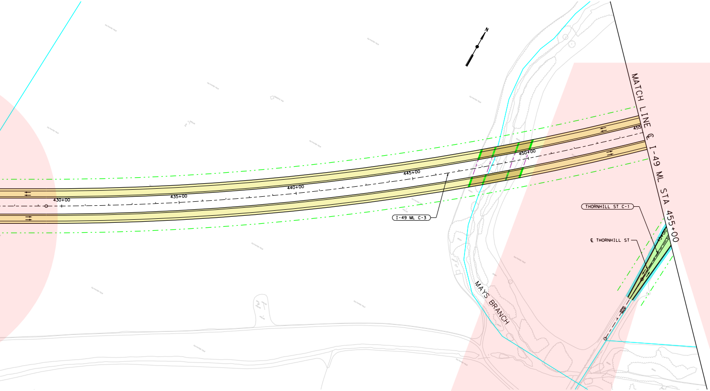
PROPOSED CROSS STREET BRIDGE

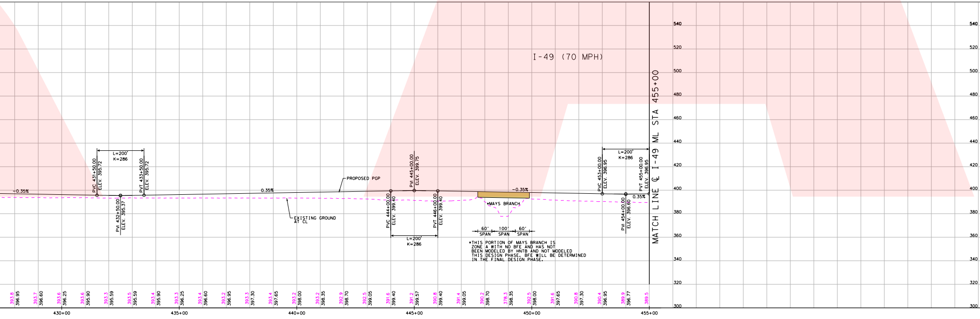
CURVE NO.	STATION	COORDINATE		BEARING / DELTA	LENGTH	TANGENT	RADIUS
		NORTHING	EASTING		(FT)	(FT)	(FT)
℄ I-49 ML (DESIGN SPEED: 70 MPH)							
I-49 ML C-3	P.C. 429+34.32	393229.5444	644672.7162	N 60°28′14.57″ E			
	P.I. 464+76.51	394975.376	647754.7864	37°22′59.44″ LT	6831.2512	3542.1864	10470
	P.T. 497+65.57	398233.8574	649143.8089	N 23°05′15.14″ E			

CURVE NO.	STATION	COORDINATE		BEARING / DELTA	LENGTH	TANGENT	RADIUS
		NORTHING	EASTING		(FT)	(FT)	(FT)
℄ THORNHILL ST (DESIGN SPEED: 40 MPH)							
THORNHILL ST C-1	P.C. 12+96.81	394208.417	647032.4055	N 2°12′57.75″ E			
	P.I. 14+48.08	394359.5772	647038.2549	0°52′00.18″ RT	302.5409	151.2733	20000
	P.T. 15+99.35	394510.6316	647046.3901	N 3°04′57.92″ E			

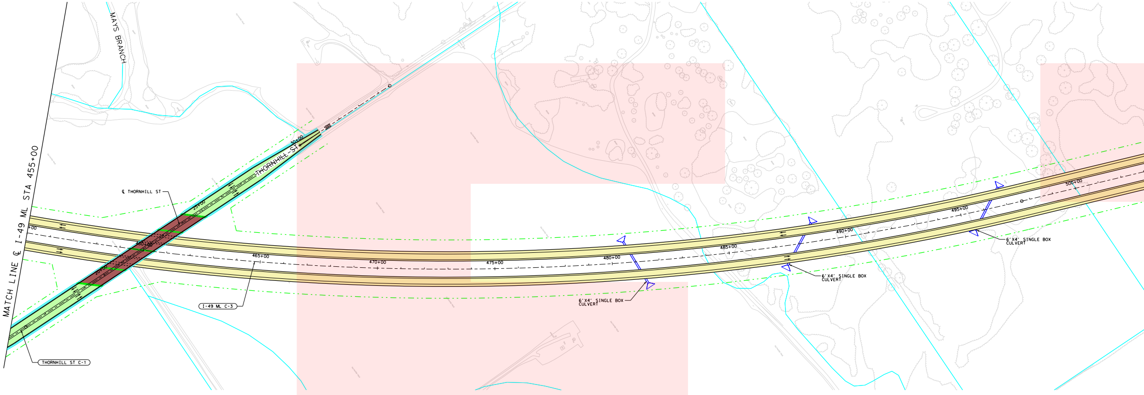

MATCH LINE ℄ I-49 ML STA 409+00
PROPOSED ℄ I-49 ML
410+00
415+00
420+00
425+00

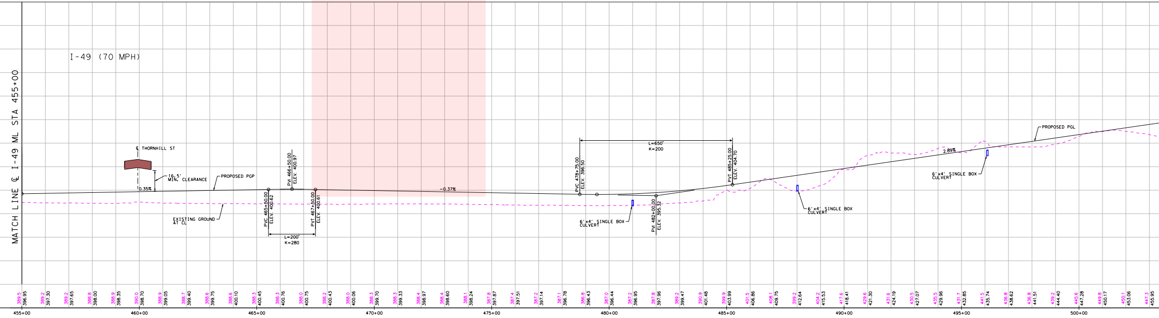


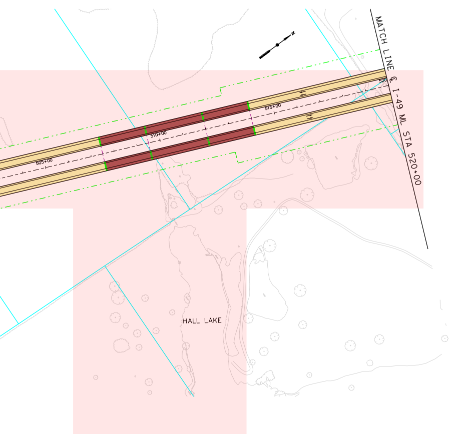

N
455
450+00
445+00
440+00
435+00
430+00
I-49 ML C-3
MAYS BRANCH
THORNHILL ST C-1
℄ THORNHILL ST
MATCH LINE ℄ I-49 ML STA 455+00



*THIS PORTION OF MAYS BRANCH IS ZONE A WITH NO BFE AND HAS NOT BEEN MODELED BY HNTB AND NOT MODELED THIS DESIGN PHASE. BFE WILL BE DETERMINED IN THE FINAL DESIGN PHASE.

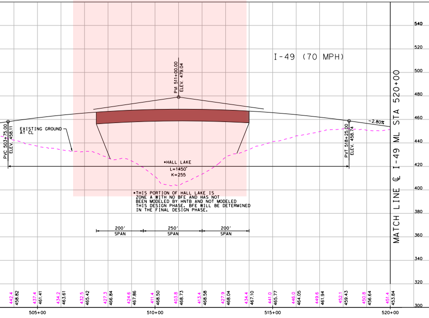

MATCH LINE ℄ I-49 ML STA 455+00
MAYS BRANCH
℄ THORNHILL ST
THORNHILL ST
I-49 ML C-3
THORNHILL ST C-1
465+00
470+00
475+00
480+00
485+00
490+00
495+00
500+00
6'X4' SINGLE BOX CULVERT
6'X4' SINGLE BOX CULVERT
6'X4' SINGLE BOX CULVERT


MATCH LINE ℄ I-49 ML STA 455+00
I-49 (70 MPH)
℄ THORNHILL ST
16.5' MIN. CLEARANCE
0.35%
PROPOSED PGP
EXISTING GROUND AT CL
PVC 465+50.00 ELEV. 400.62
PVI 466+50.00 ELEV. 400.97
PVT 467+50.00 ELEV. 400.61
L=200' K=280
-0.37%
PVC 478+75.00 ELEV. 396.50
L=650' K=200
PVI 482+00.00 ELEV. 395.32
PVT 485+25.00 ELEV. 404.70
6'x4' SINGLE BOX CULVERT
6'x4' SINGLE BOX CULVERT
6'x4' SINGLE BOX CULVERT
2.89%
PROPOSED PGL
389.5 396.95
389.2 397.30
389.2 397.65
388.8 398.00
388.9 398.35
390.0 398.70
388.9 399.05
388.7 399.40
388.6 399.75
388.6 400.10
388.3 400.45
388.3 400.76
388.0 400.75
388.2 400.43
388.0 400.06
388.3 399.70
388.3 399.33
388.4 398.97
388.4 398.60
388.1 398.24
387.8 397.87
387.4 397.51
387.2 397.14
387.1 396.78
386.8 396.43
387.0 396.44
387.2 396.95
387.8 397.96
389.2 399.47
390.9 401.48
399.9 403.99
401.5 406.86
408.1 409.75
399.2 412.64
404.2 415.53
417.6 418.41
429.6 421.30
431.6 424.19
430.5 427.07
435.5 429.96
431.7 432.85
441.5 435.74
436.8 438.62
436.8 441.51
439.2 444.40
445.6 447.28
449.8 450.17
450.1 453.06
447.3 455.95
455+00
460+00
465+00
470+00
475+00
480+00
485+00
490+00
495+00
500+00


MATCH LINE ℄ I-49 ML STA 520+00
505+00
510+00
515+00
520
N
HALL LAKE

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)
PVI 511+00.00
ELEV. 479.04
PVC 503+75.00
ELEV. 458.11
PVT 518+25.00
ELEV. 458.74
-2.80%
EXISTING GROUND AT CL
*HALL LAKE
L=1450'
K=255
*THIS PORTION OF HALL LAKE IS ZONE A WITH NO BFE AND HAS NOT BEEN MODELED BY HNTB AND NOT MODELED THIS DESIGN PHASE. BFE WILL BE DETERMINED IN THE FINAL DESIGN PHASE.
200' SPAN
250' SPAN
200' SPAN
MATCH LINE ℄ I-49 ML STA 520+00
540
520
500
480
460
440
420
400
380
360
340
320
300
442.4
458.82
437.4
461.41
434.2
463.61
432.5
465.42
427.3
466.84
424.6
467.86
411.4
468.50
403.8
468.73
413.4
468.58
427.9
468.04
434.4
467.10
441.0
465.77
446.0
464.05
449.6
461.94
452.1
459.43
450.8
456.64
451.4
453.84
505+00
510+00
515+00
520+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

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CRAWFORD AND SEBASTIAN COUNTIES

I-49
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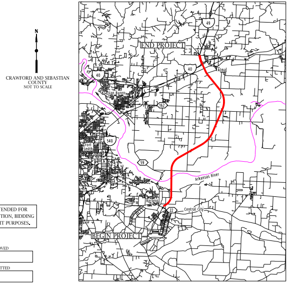
URBAN FREEWAY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