Texas Department of Transportation

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DALLAS DISTRICT

MOHAMED K. BUR, P.E.
DISTRICT ENGINEER

DESIGN SCHEMATIC SH 5

FROM: SOUTH OF FM 1378 TO: SOUTH OF CR 275

COLLIN COUNTY

FUNCTIONAL CLASSIFICATIONS	
URBAN PRINCIPAL ARTERIAL	SS 399 MAINLANE, SH 5 MAINLAINE, US 380 (W UNIVERSITY DR), RAMPS
URBAN MINOR ARTERIAL	FM 1378(COUNTRY CLUB RD), FM 546(HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD
URBAN COLLECTOR	FRISCO RD, STEWART RD, SS 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, E VIRGINIA ST, E LOUISIANA ST, TENNESSEE ST, N CHURCH ST, WILMETH RD
RURAL MAJOR COLLECTOR	SS 195 (WESTON RD)
URBAN/RURAL LOCAL	ALL OTHER STREETS

DESIGN SPEED	
60 MPH	SS 399 MAINLANE
40 MPH	SH 5 MAINLAINE, RAMPS, FM 1378 (COUNTRY CLUB RD), SPUR 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, FM 546 (HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD, US 380 (W UNIVERSITY DR), SS 195 (WESTON RD)
30 MPH	ALL OTHER STREETS

HORIZ. SCALE IN FEET
0 50 100 150 200
0 10 20 30 40
VERT. SCALE IN FEET

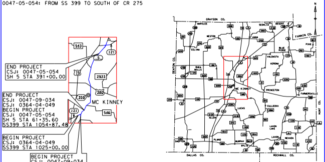
PROJECT LENGTH

7.21 MI

CSJ LIMITS

0047-09-034: FROM SOUTH OF FM 1378 TO SS 399
0364-04-049: SS 399 AT SH 5
0047-05-054: FROM SS 399 TO SOUTH OF CR 275

BASIS OF DESIGN: TxDOT ROADWAY DESIGN MANUAL 2018
EQUATIONS: NONE
RAILROADS: NONE
DESIGN EXCEPTIONS:
DESIGN SPEED AT TWO LOCATIONS


END PROJECT
CSJ: 0047-05-054
SH 5 STA 391+00.00
END PROJECT
CSJ: 0047-09-034
CSJ: 0364-04-049
BEGIN PROJECT
CSJ: 0047-05-054
SH 5 STA 61+35.60
SS399 STA 1054+87.48
BEGIN PROJECT
CSJ: 0364-04-049
SS399 STA 1025+00.00
BEGIN PROJECT
CSJ: 0047-09-034
SH 5 STA 10+28.73
MC KINNEY
543
121
5
75
2933
380
359
546
GRAYSON CO.
DENTON CO.
FANNIN CO.
HUNT CO.
DALLAS CO.
ROCKWALL CO.
N

LOCATION MAP: NTS

APRIL 3, 2020

PRELIMINARY
FOR INTERIM REVIEW ONLY.
NOT FOR PERMITTING, BIDDING,
OR CONSTRUCTION.
Prepared by or under the
Direct Supervision of
OSWALD F. GARCIA P.E. 109889
4/3/2020

INDEX OF ROLLS

- ROLL 1 OF 10 PLAN & PROFILE SH 5 STA 10+28.73 TO STA 45+00 & STA 70+33.69 TO STA 95+00
- ROLL 2 OF 10 PLAN & PROFILE SH 5 STA 45+00 TO STA 70+33.69
- ROLL 3 OF 10 PLAN & PROFILE SH 5 & SPUR 399 FRONTAGE ROADS
- ROLL 4 OF 10 PLAN & PROFILE SH 5 STA 95+00 TO STA 150+00
- ROLL 5 OF 10 PLAN & PROFILE SH 5 STA 150+00 TO STA 205+00
- ROLL 6 OF 10 PLAN & PROFILE SH 5 STA 205+00 TO STA 260+00
- ROLL 7 OF 10 PLAN & PROFILE SH 5 STA 260+00 TO STA 316+00
- ROLL 8 OF 10 PLAN & PROFILE SH 5 STA 316+00 TO STA 369+00
- ROLL 9 OF 10 PLAN & PROFILE SH 5 STA 369+00 TO STA END PROJ
- ROLL 10 OF 10 PROFILE CROSS STREETS

Moreno Cardenas Inc.
Leaders in Project Delivery & Performance
TBPE Firm Registration No. F-000554

Michael Baker INTERNATIONAL
1501 LBJ Freeway,
Suite 650,
Dallas, TX 75234
TBPE Registration No. F-2677

PLAN & PROFILE

SH 5

STA 45+00 TO STA 70+33.69

ROLL 2 OF 10 ROLLS

DESIGNED BY:	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		ROLL NO.
MCI	6	XX (XX) XXXX		S-002
DRAWN BY:	STATE	DIST.	COUNTY	
MCI	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
MCI	0047	05	054, etc.	SH 5

TIME: 1:08:50 PM
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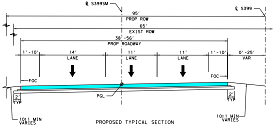
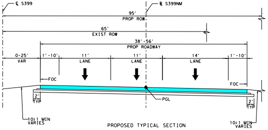
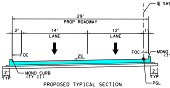
DATE: 4/3/2020
FILE: ...\d0684835\5RPP10*S102.dgn
ROLLPLOT - V8i*BAKER*WIN*CO*PDF.pltcfg


℄ S399SM
℄ S399
95'
PROP ROW
65'
EXIST ROW
38'-56'
PROP ROADWAY
1'-10'
14'
LANE
11'
LANE
11'
LANE
1'-10'
0'-25'
VAR
FOC
FOC
PGL
2'
TYP
2'
TYP
10:1 MIN
VARIES
10:1 MIN
VARIES

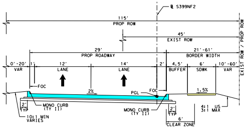
PROPOSED TYPICAL SECTION
S399 SM
STA 10+00 TO STA 42+74.61
NTS


℄ S399
℄ S399NM
95'
PROP ROW
65'
EXIST ROW
38'-56'
PROP ROADWAY
0-25'
VAR
1'-10'
11'
LANE
11'
LANE
14'
LANE
1'-10'
FOC
FOC
PGL
2'
TYP
2'
TYP
10:1 MIN
VARIES
10:1 MIN
VARIES

PROPOSED TYPICAL SECTION
S399 NM
STA 10+00 TO STA 42+92.81
NTS

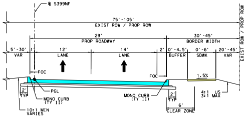

℄ SH5SB
29'
PROP ROADWAY
2'
14'
LANE
12'
LANE
1'
FOC
FOC
2%
MONO CURB
(TY II)
MONO CURB
(TY II)
2'
TYP
2'
TYP
PGL

PROPOSED TYPICAL SECTION
SH5 SB
STA 45+00 TO STA 52+50
STA 56+90 TO STA 66+99.03
NTS

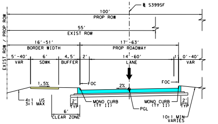

℄ S399NF2
115'
PROP ROW
45'
EXIST ROW
EXIST ROW / PROP ROW
29'
PROP ROADWAY
21'-61'
BORDER WIDTH
0'-20'
VAR
1'
12'
LANE
14'
LANE
2'
4.5'
BUFFER
6'
SDWK
10'-60'
VAR
FOC
2%
PGL
FOC
1.5%
MONO CURB
(TY II)
MONO CURB
(TY II)
2'
TYP
2'
TYP
10:1 MIN
VARIES
4:1 US
3:1 MAX
6'
CLEAR ZONE

PROPOSED TYPICAL SECTION
SH 5 NF2
STA 45+00 TO STA 81+32.95
NTS

1. SEE PLAN VIEW AND TURN LANE DETAIL TABLE FOR LOCATIONS OF TURN LANES
2. CROSS SLOPES SHOWN ARE USUAL. SEE CROSS SLOPE TRANSITION TABLE FOR MORE DETAIL

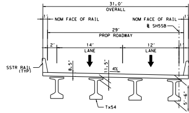

℄ S399NF
75'-105'
EXIST ROW / PROP ROW
EXIST ROW / PROP ROW
29'
PROP ROADWAY
30'-45'
BORDER WIDTH
5'-30'
VAR
12'
LANE
14'
LANE
2'
0'-4.5'
BUFFER
0'-6'
SDWK
20'-45'
VAR
FOC
FOC
1.5%
PGL
MONO CURB
(TY II)
MONO CURB
(TY II)
2'
TYP
2'
TYP
10:1 MIN
VARIES
4:1 US
3:1 MAX
6'
CLEAR ZONE

PROPOSED TYPICAL SECTION
S399 NF
STA 25+00 TO STA 43+34.31
NTS

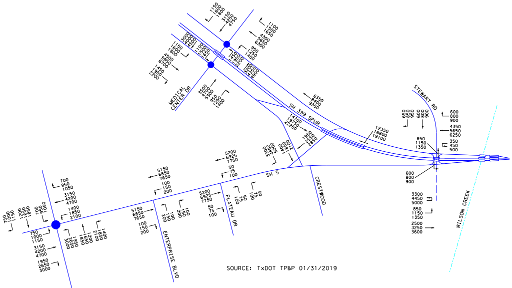

℄ S399SF
100'
PROP ROW
55'
EXIST ROW
EXIST ROW / PROP ROW
16'-51'
BORDER WIDTH
17'-63'
PROP ROADWAY
5'-40'
VAR
6'
SDWK
4.5'
BUFFER
2'
14'-60'
LANE
1'
0'-40'
VAR
1.5%
FOC
2%
FOC
4:1 US
3:1 MAX
MONO CURB
(TY II)
MONO CURB
(TY II)
PGL
2'
TYP
2'
TYP
6'
CLEAR ZONE
10:1 MIN
VARIES

PROPOSED TYPICAL SECTION
SH 5 SF
STA 25+00 TO STA 32+00
STA 39+00 TO STA 77+93.41
NTS

1. SEE PLAN VIEW AND TURN LANE DETAIL TABLE FOR LOCATIONS OF TURN LANES
2. CROSS SLOPES SHOWN ARE USUAL. SEE CROSS SLOPE TRANSITION TABLE FOR MORE DETAIL


31.0'
OVERALL
1'
NOM FACE OF RAIL
NOM FACE OF RAIL
℄ SH5SB
29'
PROP ROADWAY
2'
14'
LANE
12'
LANE
SSTR RAIL
(TYP)
8.5"
1.5"
4%
Tx54
5'-6"

PROPOSED BRIDGE TYPICAL SECTION
SH 5 SB
STA 56+00.00 TO STA 56+90.00
NTS


SH 399 SPUR
SH 5
STEWART RD
MEDICAL CENTER DR
CRESTWOOD
WILSON CREEK
PLATEAU DR
ENTERPRISE BLVD
COUNTRY CLUB RD (FM 1378)

SOURCE: TxDOT TP&P 01/31/2019

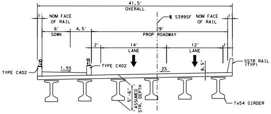
LEGEND:

- ● SIGNALIZED INTERSECTION
- XXX 2025 ADT
- XXX 2045 ADT
- XXX 2055 ADT

TRAFFIC DATA				
TRAFFIC DATA	ADT	DD (%)	% TRUCKS (DHV)	K FACTOR (%)
FM 1378 TO SS 399	14,000	59-41	5.7	10.2
SS 399 TO ELDORADO PKWY	47,950	59-41	3.4	10.2
ELDORADO PKWY TO US 380	31,100	59-41	4.0	10.2
US 380 TO SOUTH OF CR 275	20,000	59-41	4.8	10.2

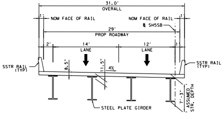
PROPERTY OWNERS

ID#	SITE ADDRESS	OWNER
1	888 STATE HWY 5 FAIRVIEW, TX 75069	APPLE'S CROSSING RESIDENTIAL ASSOCIATION
2		
3	910 STATE HWY 5 FAIRVIEW, TX 75069	APPLES CORNER LLC
4	891 S STATE HWY 5	RUTH MYRA KENNEDY
5	901 S STATE HWY 5	KENNETH SPURGIN
6	STATE HWY 5	PATSY REMBERT A NEVIL ETAL
7	FAIRVIEW, TX 75069	FRISCO ROAD LTD
8	650 FRISCO RD	FRISCO ROAD LTD
9	651 COUNTRY CLUB RD	EWBANK DEVELOPMENT LLC
10	960 S STATE HWY 5	EWBANK DEVELOPMENT LLC
11	970 S STATE HWY 5	COLLIN BAPTIST ASSN INC
12	990 S STATE HWY 5	JENCO LTD
13	1102 S STATE HWY 5	DFW 2005 INC
14	1100 S STATE HWY 5	DFW 2005 INC
15	STATE HWY 5	CAAG LAND COMPANY LLC
16	1010 S STATE HWY 5	LEONEL & LAZOS
17	1030 S STATE HWY 5	ZELMA ENLOE
18	1040 S STATE HWY 5	CAAG LAND COMPANY LLC
19	2400 S MCDONALD ST	MOLINAR RUBEN JR
20	2400 S MCDONALD ST	MOLINAR RUBEN JR
20A		MCKINNEY MED CENTER LP
21	201 MCKINNEY VILLAGE PKWY	MCKINNEY URBAN VILLAGE LP
22	MCKINNEY, TX 75069	MITCHELL KENNETH H
22A	MEDICAL CENTER DR	MCKINNEY MED CENTER LP
23	MCKINNEY, TX 75069	MITCHELL KENNETH H
24	2211 S STATE HWY 5	A & W PROPERTIES JV
25		A & W PROPERTIES JV
26	STATE HWY 5	A & W PROPERTIES JV
27	STATE HWY 5	STATE OF TEXAS
28	STATE HWY 5	HIGH POINT MHC LLC
29	3200 SARALA CT MCKINNEY, TX	WILBOW-MERIDIAN LLC
29A	3191 MEDICAL CENTER DR	FAIRWAYS WILSON CREEK APARTMENTS LLC
30	2015 S MCDONALD ST	SHMAISANI ISSAM AL
31	2110 S MCDONALD ST	KENNETH RAY- LE & STRICKLAND
32	1513 STEWART RD	DEAN WANDA J
32A	1515 STEWART RD	JEANES OSCAR L
33	STATE HWY 5 (S MCDONALD)	TXI OPERATIONS LP
34	STATE HWY 5 (S MCDONALD)	LHOIST NORTH AMERICA OF TEXAS LTD
35	STATE HWY 5	CITY OF MCKINNEY
36	MEDICAL CENTER DR MCKINNEY, TX 75069	CITY OF MCKINNEY
37	MCDONALD ST	CITY OF MCKINNEY


41.5'
OVERALL
1'
NOM FACE
OF RAIL
℄ S399SF
NOM FACE
OF RAIL
1'
6'
SDWK
4.5'
29'
PROP ROADWAY
2'
14'
LANE
12'
LANE
1'
TYPE C402
TYPE C402
1.5%
2%
8.5"
SSTR RAIL
(TYP)
5'-6"
ASSUMED
STR. DEPTH
Tx54 GIRDER

PROPOSED BRIDGE TYPICAL SECTION
S399 SF
STA 32+00 TO STA 39+00
NTS

SSTR RAIL
(TYP)
ASSUMED
STR. DEPTH


31.0'
OVERALL
1'
NOM FACE OF RAIL
NOM FACE OF RAIL
1'
℄ SH5SB
29'
PROP ROADWAY
2'
14'
LANE
12'
LANE
1'
8.5"
11.5"
4%
SSTR RAIL
(TYP)
SSTR RAIL
(TYP)
7'-3"
ASSUMED
STR. DEPTH
STEEL PLATE GIRDER

PROPOSED BRIDGE TYPICAL SECTION
SH 5 SB
STA 52+50.00 TO STA 56+00.00
NTS

SOURCE:
COLLIN COUNTY APPRAISAL DISTRICT
JULY 2019

	BUSINESS NAME
INC	
	OAKSTREET NURSERY
	OAKSTREET NURSERY
	OAKSTREET NURSERY
	OAKSTREET NURSERY
	MCKINNEY URBAN VILLAGE
	MCKINNEY URBAN VILLAGE
	HIGH POINT MHP
	COWTOWN REDIMIX
	MARTIN MARIETTA READY MIX

COLOR LEGEND

🟦	PROPOSED MAINLANES
🟧	PROPOSED BRIDGE
🟨	PROPOSED DRIVEWAY
🟪	PROPOSED CROSS STREET
🟫	PROPOSED RAMP
🟦	PROPOSED SIDEWALK AND PAVED MEDIAN
🟩	PROPOSED LANDSCAPED MEDIAN
🟧	FUTURE BY OTHERS
⬛	EXISTING BRIDGE TO REMAIN
☐	100 YEAR FLOOD PLAIN
🟪	EXISTING PAVEMENT (BY OTHERS)
▨	EXISTING PAVEMENT TO BE REMOVED
☒	POTENTIAL STRUCTURE DISPLACEMENT
— · —	CENTERLINE/BASELINE (CROSS STREETS)
— · —	CENTERLINE (MAINLANE)
— · · —	PROPOSED ROW
— · —	CITY LIMITS
— · · —	EXISTING ROW
——	PROPERTY LINES
—+—	CONTROL OF ACCESS
······	PROPOSED RETAINING WALL
——	PROPOSED SSCB
——	PROPOSED COMBINATION RAIL
⬅	PROPOSED TRAFFIC FLOW
⇦	EXISTING TRAFFIC FLOW
⬅	WATER FLOW
XXXXX-XX	HORIZONTAL CURVE NAME
XXX	PROPERTY ID NUMBER
▥	EXISTING DRAINAGE STRUCTURES
▥	PROPOSED DRAINAGE STRUCTURES
🚦	PROPOSED SIGNALIZED INTERSECTION

NOTES:

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF CURB, RAIL, UNLESS OTHERWISE NOTED.
2. MEDIAN OPENINGS WERE DETERMINED IN COORDINATION WITH LOCAL GOVERNMENT. FINAL LOCATION OF MEDIAN OPENINGS WILL BE DETERMINED IN THE PS&E DEVELOPMENT PHASE IN COORDINATION WITH THE LOCAL GOVERNMENT.
3. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL UNLESS OTHERWISE NOTED.
4. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE RATE MAP 48085C020J (REV JUNE 7, 2017) AND 48085C0290J (REV JUNE 2, 20009) FOR WILSON CREEK, 48085C0165J (REV JUNE 2, 2009) AND 48085C0280J (REV JUNE 2, 2009) FOR EAST FORK TRINITY RIVER.
5. OWNERSHIP INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM COLLIN COUNTY APPRAISAL DISTRICT OCTOBER 2017.
6. EXISTING CULVERT LOCATION, SIZE, AND ELEVATIONS OBTAINED FROM RECORD DOCUMENTS OR TOPOGRAPHIC SURVEY AND ARE SHOWN FOR INFORMATION PURPOSES ONLY.
7. ADA RAMPS ARE NOT DEPICTED IN THE PLAN.
8. FINAL DRIVEWAY LOCATIONS SHALL BE DETERMINED DURING DETAILED DESIGN IN COORDINATION WITH THE CITY OF McKINNEY.
9. ALL PRIVATE DRIVEWAYS HAVE CURB RADII OF 15FT, UNLESS OTHERWISE NOTED.
10. EXIST TOPO AND AERIAL PHOTOS PROVIDED BY TxDOT.
11. EXIST ROW SHOWN PROVIDED BY TxDOT.
12. PARCEL BOUNDARY LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE.
13. BUILDINGS ARE SHOWN AS POTENTIAL DISPLACEMENT IF THE PROPOSED ROW PHYSICALLY INTERSECTS THE EXISTING BUILDING STRUCTURE.
14. CURBS ON MAINLANES, FRONTAGE ROADS AND CROSS STREETS ARE TYPE II (MONO), UNLESS OTHERWISE SHOWN.
15. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
16. ALL HORIZONTAL COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202), NORTH AMERICAN DATUM OF 1983 (NAD 83), 2011 ADJUSTMENT, 2010.00 EPOCH. SURFACE DISTANCES AND COORDINATES MAY BE CONVERTED TO GRID BY DIVIDING BY A COMBINED ADJUSTMENT FACTOR OF 1.000152710.
17. ALL COORDINATES AND ELEVATIONS ARE IN U.S. SURVEY FEET.
18. VERTICAL VALUES WERE DETERMINED BY THE TxDOT REAL TIME GPS NETWORK (RTN) (NAD 83 (2011, MA11, PA11) EPOCH 2010.00) WITH THE GEOID12A APPLIED.
19. DRIVEWAYS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO REVIEW, ADJUSTMENT AND/OR CONSOLIDATION BASED ON CORRIDOR ACCESS MANAGEMENT.

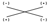
ALIGNMENT	STA	SB OUTSIDE LANE	SB INSIDE LANE	NB OUTSIDE LANE	NB INSIDE LANE
S399NM		SLOPE	SLOPE	SLOPE	SLOPE
BEG TRANSITION	14+50.00	N/A	N/A	-2.0%	-2.0%
END TRANSITION	18+50.00	N/A	N/A	-3.8%	-3.8%
BEG TRANSITION	33+50.00	N/A	N/A	-3.8%	-3.8%
END TRANSITION	35+50.00	N/A	N/A	-2.0%	-2.0%

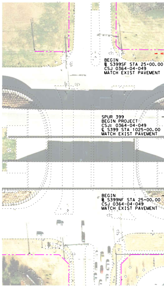
ALIGNMENT	STA	SB OUTSIDE LANE	SB INSIDE LANE	NB OUTSIDE LANE	NB INSIDE LANE
S399SM		SLOPE	SLOPE	SLOPE	SLOPE
BEG TRANSITION	15+50.00	2.0%	2.0%	N/A	N/A
END TRANSITION	19+50.00	4.4%	4.4%	N/A	N/A
BEG TRANSITION	34+50.00	4.4%	4.4%	N/A	N/A
END TRANSITION	36+50.00	2.0%	2.0%	N/A	N/A

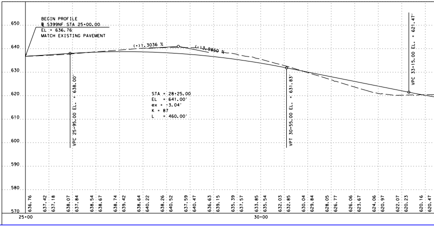
ALIGNMENT	STA	SB OUTSIDE LANE	SB INSIDE LANE	NB OUTSIDE LANE	NB INSIDE LANE
SH5SB		SLOPE	SLOPE	SLOPE	SLOPE
BEG TRANSITION	50+00.00	N/A	N/A	2.0%	2.0%
END TRANSITION	52+00.00	N/A	N/A	-6.0%	-6.0%
BEG TRANSITION	58+00.00	N/A	N/A	-6.0%	-6.0%
END TRANSITION	60+00.00	N/A	N/A	2.0%	2.0%

NOTES: SB OUTSIDE LANE ROTATES ABOUT SB GRADE BREAK POINT
NB OUTSIDE LANE ROTATES ABOUT NB GRADE BREAK POINT
SB INSIDE LANE AND NB INSIDE LANE ROTATE ABOUT PGL

CROSS SLOPE SIGN INDICATION

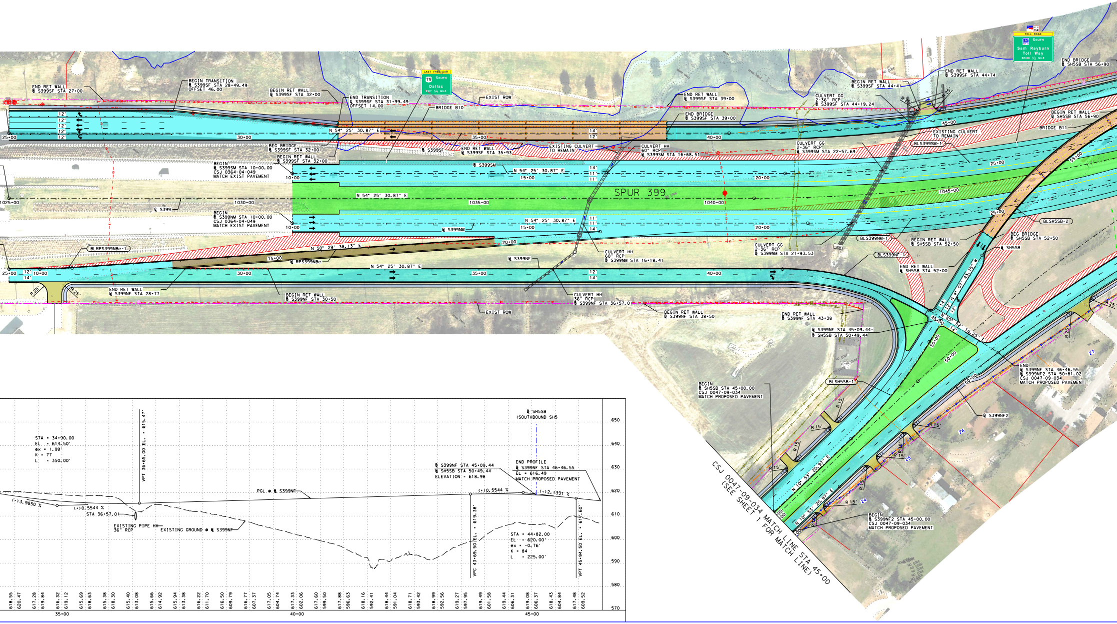


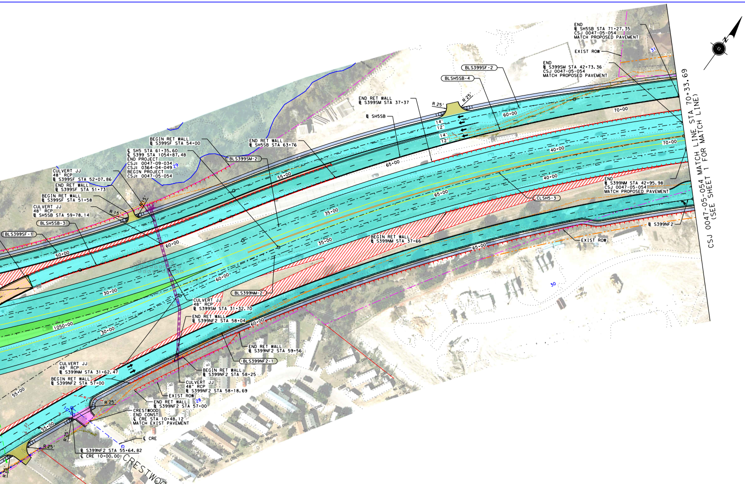

BEGIN
℄ S399SF STA 25+00.00
CSJ 0364-04-049
MATCH EXIST PAVEMENT
SPUR 399
BEGIN PROJECT
CSJ: 0364-04-049
℄ S399 STA 1025+00.00
MATCH EXIST PAVEMENT
BEGIN
℄ S399NF STA 25+00.00
CSJ 0364-04-049
MATCH EXIST PAVEMENT

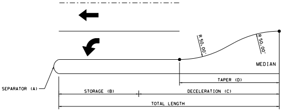


HORIZONTAL ALIGNMENT DATA

CHAIN NAME	CURVE NAME	P.I. STATION	P.I. EASTING	P.I. NORTHING	RADIUS	DELTA	LENGTH	TANGENT	P.C. STATION	P.T. STATION
℄ SH5SB	BLSH5SB-1	48+60.56	2,541,106.78	7,112,885.38	1,012′	15° 01′ 04.73″ LT	265.26′	133.40′	47+27.17	49+92.43
℄ SH5SB	BLSH5SB-2	55+16.78	2,541,059.43	7,113,541.42	800′	42° 13′ 14.01″ RT	589.51′	308.86′	52+07.92	57+97.43
℄ SH5SB	BLSH5SB-3	59+56.03	2,541,347.81	7,113,909.33	2,942.5′	6° 10′ 14.28″ LT	316.90′	158.60′	57+97.43	61+14.33
℄ SH5SB	BLSH5SB-4	66+23.62	2,541,700.96	7,114,476.22	3,958′	14° 39′ 51.74″ RT	1,013.02′	509.29′	61+14.33	71+27.35
℄ S399NF	BLS399NF-1	43+14.83	2,540,890.47	7,113,060.67	600′	31° 26′ 45.37″ RT	329.30′	168.91′	41+45.92	44+75.22
℄ S399NM	BLS399NM-1	26+42.25	2,541,183.65	7,113,390.32	2,500′	24° 36′ 22.67″ LT	1,073.65′	545.23′	20+97.02	31+70.67
℄ S399NM	BLS399NM-2	37+37.38	2,541,736.58	7,114,355.04	3,845.5′	16° 45′ 59.52″ RT	1,125.32′	566.71′	31+70.67	42+95.98
℄ S399SM	BLS399SM-1	26+83.46	2,541,155.64	7,113,500.33	3,250′	22° 06′ 07.90″ LT	1,253.71′	634.74′	20+48.72	33+02.42
℄ S399SM	BLS399SM-2	37+90.41	2,541,755.96	7,114,449.09	3,900.5′	14° 15′ 44.74″ RT	970.94′	487.99′	33+02.42	42+73.36
℄ S399SF	BLS399SF-1	47+19.25	2,541,051.25	7,113,531.05	3,500′	22° 12′ 00.16″ LT	1,356.12′	686.67′	40+32.58	53+88.70
℄ S399SF	BLS399SF-2	57+66.64	2,541,618.95	7,114,431.67	3,000′	14° 21′ 37.00″ RT	751.90′	377.93′	53+88.70	61+40.61
℄ S399NF2	BLS399NF2-1	58+42.60	2,541,348.27	7,113,838.98	3,737.5′	35° 41′ 46.74″ RT	2,328.53′	1,203.45′	46+39.16	69+67.69


END RET WALL ℄ S399SF STA 27+00
BEGIN TRANSITION ℄ S399SF STA 28+49.49 OFFSET 46.00
BEGIN RET WALL ℄ S399SF STA 32+00
END TRANSITION ℄ S399SF STA 31+99.49 OFFSET 14.00
BEG BRIDGE ℄ S399SF STA 32+00
BEGIN RET WALL ℄ S399SF STA 32+00
LAST FREE EXIT
75 SOUTH
Dallas
EXIT 1/4 MILE
EXIST ROW
BRIDGE B10
℄ S399SF
END RET WALL ℄ S399SF STA 35+93
EXISTING CULVERT TO REMAIN
CULVERT HH 60" RCP ℄ S399SM STA 16+68.51
END RET WALL ℄ S399SF STA 39+00
END BRIDGE ℄ S399SF STA 39+00
CULVERT GG 2-36" RCP ℄ S399SF STA 44+19.24
BEGIN RET WALL ℄ S399SF STA 44+41
END RET WALL ℄ S399SF STA 44+74
R 25′
TOLL ROAD
SRT SOUTH
Sam Rayburn Toll Way
BEGIN 1/2 MILE
END BRIDGE ℄ SH5SB STA 56+90
BEGIN RET WALL ℄ SH5SB STA 56+90
BRIDGE B11
EXISTING CULVERT TO REMAIN
BLS399SM-1
CULVERT GG 2-36" RCP ℄ S399SM STA 22+57.69
BEGIN ℄ S399SM STA 10+00.00 CSJ 0364-04-049 MATCH EXIST PAVEMENT
BEGIN ℄ S399NM STA 10+00.00 CSJ 0364-04-049 MATCH EXIST PAVEMENT
℄ S399SM
℄ S399NM
℄ S399
SPUR 399
N 54° 25′ 30.87″ E
N 50° 29′ 38.13″ E
℄ RPS399NBe
BLRPS399NBe-1
25+00
30+00
35+00
40+00
45+00
10+00
15+00
20+00
25+00
1025+00
1030+00
1035+00
1040+00
1045+00
55+00
12′
14′
11′
CULVERT HH 60" RCP ℄ S399NM STA 16+18.41
CULVERT GG 2-36" RCP ℄ S399NM STA 21+93.53
℄ S399NF
CULVERT HH 36" RCP ℄ S399NF STA 36+57.01
END RET WALL ℄ S399NF STA 28+77
BEGIN RET WALL ℄ S399NF STA 30+50
BEGIN RET WALL ℄ S399NF STA 38+50
END RET WALL ℄ S399NF STA 43+38
R 25′
BLS399NM-1
BLS399NF-1
BLSH5SB-2
BEGIN RET WALL ℄ SH5SB STA 52+50
BEG BRIDGE ℄ SH5SB STA 52+50
℄ SH5SB
END RET WALL ℄ SH5SB STA 52+00
N 4° 07′ 43.75″ W
N 85° 52′ 16.25″ E
℄ S399NF STA 45+09.44= ℄ SH5SB STA 50+49.44
50+00
BLSH5SB-1
BEGIN ℄ SH5SB STA 45+00.00 CSJ 0047-09-034 MATCH PROPOSED PAVEMENT
END ℄ S399NF STA 46+46.55 ℄ S399NF2 STA 50+81.02 CSJ 0047-09-034 MATCH PROPOSED PAVEMENT
℄ S399NF2
BEGIN ℄ S399NF2 STA 45+00.00 CSJ 0047-09-034 MATCH PROPOSED PAVEMENT
N 10° 53′ 20.97″ E
R 15′
24
25
26
27
CSJ 0047-09-034 MATCH LINE STA 45+00
(SEE SHEET 1 FOR MATCH LINE)
STA = 34+90.00
EL = 614.50′
ex = 1.99′
K = 77
L = 350.00′
VPT 36+65.00 EL. = 615.47′
(-)3.9850 %
(+)0.5544 %
STA 36+57.01
EXISTING PIPE HH 36" RCP
EXISTING GROUND @ ℄ S399NF
PGL @ ℄ S399NF
℄ S399NF STA 45+09.44
℄ SH5SB STA 50+49.44
ELEVATION = 618.98
℄ SH5SB (SOUTHBOUND SH5
END PROFILE ℄ S399NF STA 46+46.55 EL = 616.49 MATCH PROPOSED PAVEMENT
(+)0.5544 %
(-)2.1331 %
VPC 43+69.50 EL. = 619.38′
VPT 45+94.50 EL. = 617.60′
STA = 44+82.00
EL = 620.00′
ex = -0.76′
K = 84
L = 225.00′
650
640
630
620
610
600
590
580
570
618.55
620.47
617.28
619.84
616.32
619.12
615.69
618.63
615.38
618.30
615.40
613.08
615.66
614.92
615.94
613.38
616.22
611.70
616.50
609.79
616.77
607.37
617.05
604.74
617.33
602.06
617.60
599.50
617.88
596.63
618.16
592.41
618.44
591.04
618.71
593.42
618.99
592.56
619.27
597.95
619.49
601.58
619.44
606.31
619.08
606.37
618.43
604.84
617.48
609.52
35+00
40+00
45+00


END
BL SH5SB STA 71+27.35
CSJ 0047-05-054
MATCH PROPOSED PAVEMENT
EXIST ROW
END
BL S399SM STA 42+73.36
CSJ 0047-05-054
MATCH PROPOSED PAVEMENT
BLS399SF-2
BLSH5SB-4
END RET WALL
BL S399SM STA 37+37
BL SH5SB
R 25'
R 25'
14'
12'
14'
12'
60+00
70+00
70+00
40+00
40+00
65+00
65+00
BEGIN RET WALL
BL S399SF STA 54+00
END RET WALL
BL SH5SB STA 63+76
℄ SH5 STA 61+35.60
℄ S399 STA 1054+87.48
END PROJECT
CSJ: 0047-09-034
CSJ: 0364-04-049
BEGIN PROJECT
CSJ: 0047-05-054
29
BLS399SM-2
55+00
CULVERT JJ
48" RCP
BL S399SF STA 52+07.86
END RET WALL
BL S399SF STA 51+73
BEGIN RET WALL
BL S399SF STA 51+58
CULVERT JJ
48" RCP
BL SH5SB STA 59+78.14
R 15'
R 15'
BLSH5SB-3
BLS399SF-1
50+00
60+00
35+00
35+00
CLSH5-3
END
BL S399NM STA 42+95.98
CSJ 0047-05-054
MATCH PROPOSED PAVEMENT
BL S399NF2
EXIST ROW
BEGIN RET WALL
BL S399NM STA 37+66
65+00
30
30+00
60+00
BLS399NM-2
CULVERT JJ
48" RCP
BL S399SM STA 31+32.70
END RET WALL
BL S399NF2 STA 58+04
60+00
1050+00
30+00
END RET WALL
BL S399NF2 STA 59+56
BLS399NF2-1
CULVERT JJ
48" RCP
BL S399NM STA 31+62.47
BEGIN RET WALL
BL S399NF2 STA 58+25
BEGIN RET WALL
BL S399NF2 STA 57+00
CULVERT JJ
48" RCP
BL S399NF2 STA 58+18.69
EXIST ROW
55+00
END RET WALL
BL S399NF2 STA 57+00
28
R 25'
CRESTWOOD
END CONST
℄ CRE STA 10+48.12
MATCH EXIST PAVEMENT
10+00
55+00
℄ CRE
R 25'
R 25'
R 25'
BL S399NF2 STA 55+64.82
℄ CRE 10+00.00
CRESTWOOD
TEXAS DEPARTMENT
OF TRANSPORTATION
NO CODE
CSJ 0047-05-054 MATCH LINE STA 70+33.69
(SEE SHEET 1 FOR MATCH LINE)

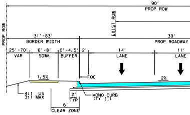

R 50.00'
R 50.00'
MEDIAN
TAPER (D)
SEPARATOR (A)
STORAGE (B)
DECELERATION (C)
TOTAL LENGTH

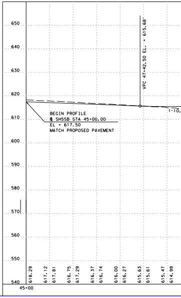
TURN LANE DETAIL

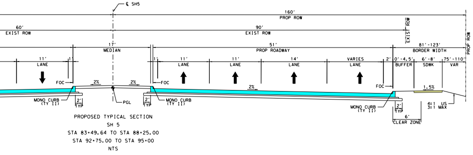
TURN LANE DETAIL TABLE

CROSS STREET	MEDIAN NOSE STA @ SH 5	MEDIAN NOSE RADIUS (FT)	STORAGE (FT)	DECELERATION (FT)	TAPER (FT)	TOTAL LENGTH (FT)	L/R	SB/NB
		(A)	(B)	(C)	(D)			
COUNTRY CLUB RD*	17+89.20	2	100	160	50	260	L	NB
COUNTRY CLUB RD*	19+05.84	14.5	100	160	50	260	L	SB
COUNTRY CLUB RD*	N/A	N/A	100	160	50	260	R	NB
COUNTRY CLUB RD*	N/A	N/A	100	160	N/A	260	R	SB
ENTERPRISE DR	36+22.20	14.5	100	160	50	260	L	NB
ENTERPRISE DR	37+09.20	14.5	100	160	50	260	L	SB
PLATEAU DR	42+72.49	14.5	100	160	50	260	L	SB
CRESTWOOD RD	N/A	N/A	100	160	50	260	R	NB
STEWART RD	N/A	N/A	100	160	50	260	R	NB
STEWART RD	N/A	N/A	100	160	50	260	R	SB
PRIVATE DRIVEWAY	N/A	N/A	100	160	50	260	R	NB
S399 NF	N/A	N/A	70	100	50	170	L	SB

* SIGNALIZED INTERSETION


90'
PROP ROW
EXIST ROW
PROP ROW
31'-83'
BORDER WIDTH
39'
PROP ROADWAY
25'-70'
VAR
6'-8'
SDWK
0'-4.5'
BUFFER
2'
14'
LANE
11'
LANE
1.5%
FOC
2%
4:1 US
3:1 MAX
2'
TYP
6'
CLEAR ZONE
MONO CURB
(TY II)




℄ SH5
160′
PROP ROW
60′
EXIST ROW
90′
EXIST ROW
EXIST ROW
PROP ROW
17′
MEDIAN
51′
PROP ROADWAY
81′-123′
BORDER WIDTH
11′
LANE
1′
11′
LANE
11′
LANE
14′
LANE
VARIES
LANE
2′
0′-4.5′
BUFFER
6′-8′
SDWK
75′-110′
VAR
FOC
2%
2%
FOC
2%
FOC
1.5%
MONO CURB (TY II)
2′ TYP
PGL
2′ TYP
MONO CURB (TY II)
MONO CURB (TY II)
2′ TYP
4:1 US
3:1 MAX
6′
CLEAR ZONE

PROPOSED TYPICAL SECTION
SH 5
STA 83+49.64 TO STA 88+25.00
STA 92+75.00 TO STA 95+00
NTS

COLOR LEGEND

- PROPOSED MAINLANES
- PROPOSED BRIDGE
- PROPOSED DRIVEWAY
- PROPOSED CROSS STREET
- PROPOSED RAMP
- PROPOSED SIDEWALK AND PAVED MEDIAN
- PROPOSED LANDSCAPED MEDIAN
- FUTURE BY OTHERS
- EXISTING BRIDGE TO REMAIN
- 100 YEAR FLOOD PLAIN
- EXISTING PAVEMENT (BY OTHERS)
- EXISTING PAVEMENT TO BE REMOVED
- POTENTIAL STRUCTURE DISPLACEMENT
- CENTERLINE/BASELINE (CROSS STREETS)
- CENTERLINE (MAINLANE)
- PROPOSED ROW
- CITY LIMITS
- EXISTING ROW
- PROPERTY LINES
- CONTROL OF ACCESS
- PROPOSED RETAINING WALL
- PROPOSED SSCB
- PROPOSED COMBINATION RAIL
- ← PROPOSED TRAFFIC FLOW
- ⇦ EXISTING TRAFFIC FLOW
- ← WATER FLOW
- XXXXX-XX HORIZONTAL CURVE NAME
- XXX PROPERTY ID NUMBER
- EXISTING DRAINAGE STRUCTURES
- PROPOSED DRAINAGE STRUCTURES
- 🚦 PROPOSED SIGNALIZED INTERSECTION

UTILITY LEGEND

WATER	CITY OF MCKINNEY WATER
WATER	CITY OF MCKINNEY WATER
WATER	CITY OF MCKINNEY WATER
WATER	NORTH TEXAS MUNICIPAL WATER DISTRICT
WATER	CITY OF IRVING WATER
WATER	NORTH COLLINS WATER SUPPLY
WATER	NORTH COLLINS WATER SUPPLY
WATER	NORTH COLLINS WATER SUPPLY
WASTE WATER	CITY OF MCKINNEY WASTE WATER
WASTE WATER	CITY OF MCKINNEY WASTE WATER
WASTE WATER	CITY OF MCKINNEY WASTER WATER
STORM DRAIN	CITY OF MCKINNEY STORM
STORM DRAIN	CITY OF MCKINNEY STORM
STORM DRAIN	CITY OF MCKINNEY STORM
ELECTRIC BURIED	ONCOR
OVERHEAD ELECTRIC	ONCOR
OVERHEAD ELECTRIC, TELEPHONE	ONCOR, AT&T
OVERHEAD ELECTRIC, COAX	ONCOR, TIME WARNER CABLE
OVERHEAD ELECTRIC, FIBER, COAX	ONCOR, AT&T, TIME WARNER CABLE
OH ELECTRIC, FIBER, TELEPHONE, COAX	ONCOR, AT&T, TIME WARNER CABLE
OVERHEAD ELECTRIC, FIBER	ONCOR, AT&T
OVERHEAD TELEPHONE, COAX	AT&T, TIME WARNER CABLE
ELECTRIC BURIED	TRAFFIC SIGNAL TXDOT
TELEPHONE	AT&T
TELEPHONE	AT&T
OVERHEAD TELEPHONE	AT&T
TELEPHONE DUCT	AT&T
SUPPORT STRAND	AT&T
GAS	ATMOS
GAS	ATMOS
GAS	ATMOS
FIBER	AT&T
FIBER	AT&T
FIBER DUCT	AT&T
FIBER	ZAYO
FIBER	CITY OF IRVING COMMUNICATIONS
CABLE	TIME WARNER CABLE

* LINE SIZES ARE FROM BEST AVAIABLE RECORDS

Texas Department of Transportation
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DALLAS DISTRICT

MOHAMED K. BUR, P.E.
DISTRICT ENGINEER

DESIGN SCHEMATIC SH 5

FROM: SOUTH OF FM 1378 TO: SOUTH OF CR 275

COLLIN COUNTY

FUNCTIONAL CLASSIFICATIONS	
URBAN PRINCIPAL ARTERIAL	SS 399 MAINLANE, SH 5 MAINLAINE, US 380 (W UNIVERSITY DR), RAMPS
URBAN MINOR ARTERIAL	FM 1378(COUNTRY CLUB RD), FM 546(HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD
URBAN COLLECTOR	FRISCO RD, STEWART RD, SS 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, E VIRGINIA ST, E LOUISIANA ST, TENNESSEE ST, N CHURCH ST, WILMETH RD
RURAL MAJOR COLLECTOR	SS 195 (WESTON RD)
URBAN/RURAL LOCAL	ALL OTHER STREETS

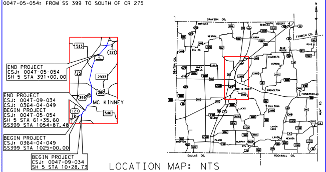
DESIGN SPEED	
60 MPH	SS 399 MAINLANE
40 MPH	SH 5 MAINLAINE, RAMPS, FM 1378 (COUNTRY CLUB RD), SPUR 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, FM 546 (HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD, US 380 (W UNIVERSITY DR), SS 195 (WESTON RD)
30 MPH	ALL OTHER STREETS

HORIZ. SCALE IN FEET: 1" = 100′
0 50 100 150 200
0 10 20 30 40
VERT. SCALE IN FEET: 1" = 20′

PROJECT LENGTH
7.21 MI

CSJ LIMITS
0047-09-034: FROM SOUTH OF FM 1378 TO SS 399
0364-04-049: SS 399 AT SH 5
0047-05-054: FROM SS 399 TO SOUTH OF CR 275

BASIS OF DESIGN: TxDOT ROADWAY DESIGN MANUAL 2018
EQUATIONS: NONE
RAILROADS: NONE
DESIGN EXCEPTIONS:
DESIGN SPEED AT TWO LOCATIONS


END PROJECT
CSJ: 0047-05-054
SH 5 STA 391+00.00
END PROJECT
CSJ: 0047-09-034
CSJ: 0364-04-049
BEGIN PROJECT
CSJ: 0047-05-054
SH 5 STA 61+35.60
SS399 STA 1054+87.48
BEGIN PROJECT
CSJ: 0364-04-049
SS399 STA 1025+00.00
BEGIN PROJECT
CSJ: 0047-09-034
SH 5 STA 10+28.73
543
121
5
75
2933
380
359
121
546
MC KINNEY
GRAYSON CO.
FANNIN CO.
DALLAS CO.
ROCKWALL CO.
WESTON
ANNA
PLANO
MURPHY
WYLIE
LAVON
NEVADA
N

LOCATION MAP: NTS

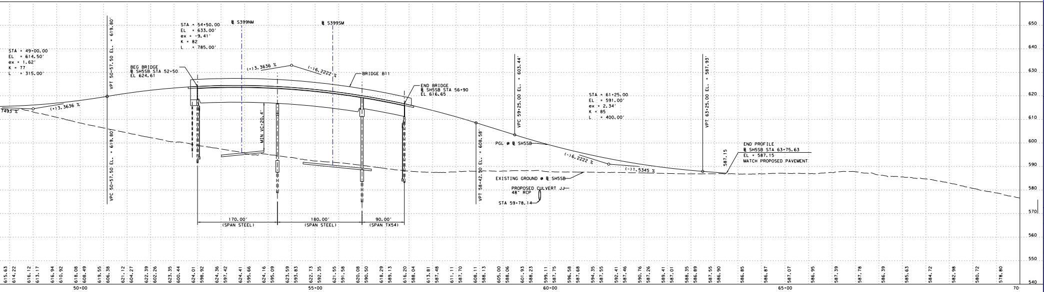
APRIL 3, 2020

PRELIMINARY
FOR INTERIM REVIEW ONLY.
NOT FOR PERMITTING, BIDDING,
OR CONSTRUCTION.
Prepared by or under the
Direct Supervision of
OSWALD F. GARCIA P.E. 109889
4/3/2020

INDEX OF ROLLS
ROLL 1 OF 10 PLAN & PROFILE SH 5 STA 10+28.73 TO STA 45+00 & STA 70+33.69 TO STA 95+00
ROLL 2 OF 10 PLAN & PROFILE SH 5 STA 45+00 TO STA 70+33.69
ROLL 3 OF 10 PLAN & PROFILE SH 5 & SPUR 399 FRONTAGE ROADS
ROLL 4 OF 10 PLAN & PROFILE SH 5 STA 95+00 TO STA 150+00
ROLL 5 OF 10 PLAN & PROFILE SH 5 STA 150+00 TO STA 205+00
ROLL 6 OF 10 PLAN & PROFILE SH 5 STA 205+00 TO STA 260+00
ROLL 7 OF 10 PLAN & PROFILE SH 5 STA 260+00 TO STA 316+00
ROLL 8 OF 10 PLAN & PROFILE SH 5 STA 316+00 TO STA 369+00
ROLL 9 OF 10 PLAN & PROFILE SH 5 STA 369+00 TO STA END PROJ
ROLL 10 OF 10 PROFILE CROSS STREETS

Moreno Cardenas Inc.
Leaders in Project Delivery & Performance
TBPE Firm Registration No. F-000554

Michael Baker INTERNATIONAL
1501 LBJ Freeway,
Suite 650,
Dallas, TX 75234
TBPE Registration No. F-2677


STA = 49+00.00
EL = 614.50′
ex = 1.62′
K = 77
L = 315.00′
.7493 %
(+)3.3636 %
VPT 50+57.50 EL. = 619.80′
VPC 50+57.50 EL. = 619.80′
BEG BRIDGE
℄ SH5SB STA 52+50
EL 624.61
STA = 54+50.00
EL = 633.00′
ex = -9.41′
K = 82
L = 785.00′
℄ S399NM
℄ S399SM
(+)3.3636 %
(-)6.2222 %
BRIDGE B11
MIN VC=20.4′
END BRIDGE
℄ SH5SB STA 56+90
EL 616.65
170.00′
(SPAN STEEL)
180.00′
(SPAN STEEL)
90.00′
(SPAN TX54)
VPT 58+42.50 EL. = 608.58′
VPC 59+25.00 EL. = 603.44′
PGL @ ℄ SH5SB
(-)6.2222 %
(-)1.5345 %
STA = 61+25.00
EL = 591.00′
ex = 2.34′
K = 85
L = 400.00′
VPT 63+25.00 EL. = 587.93′
587.15
END PROFILE
℄ SH5SB STA 63+75.63
EL = 587.15
MATCH PROPOSED PAVEMENT
EXISTING GROUND @ ℄ SH5SB
PROPOSED CULVERT JJ
48" RCP
STA 59+78.14
650
640
630
620
610
600
590
580
570
560
550
540
615.63
614.22
616.12
613.17
616.94
610.92
618.08
608.49
619.55
606.38
621.12
604.27
622.39
602.26
623.35
600.44
624.01
598.92
624.36
597.42
624.41
595.66
624.16
595.09
623.59
593.83
622.73
592.35
621.55
591.58
620.08
590.50
618.29
589.13
616.20
588.04
613.81
587.48
611.11
587.70
608.11
588.13
605.00
588.06
601.93
588.23
599.11
587.75
596.58
587.68
594.35
587.55
592.41
587.46
590.76
587.26
589.41
587.01
588.35
586.89
587.55
586.90
586.85
586.87
587.07
586.95
587.39
587.78
586.39
585.63
584.72
582.98
580.70
578.80
50+00
55+00
60+00
65+00
70+

PLAN & PROFILE

SH 5

STA 45+00 TO STA 70+33.69

ROLL 2 OF 10 ROLLS

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		ROLL NO.
MCI	6	XX (XX) XXXX		S-002
DRAWN BY:	STATE	DIST.	COUNTY	
MCI	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
MCI	0047	05	054, etc	SH 5

SH5*TxDOT*McKinney*Schematic.tbl

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